FINAL

Initial Study Checklist/Mitigated Negative Declaration

Sharp Rees-Stealy Otay Ranch Expansion

October 2022

Prepared for:

City of Chula Vista
Planning and Building Department
276 Fourth Avenue
Chula Vista, California 91910
Contact: Oscar Romero
(619) 691-5098

Prepared by:

ICF
525 B Street, Suite 1700
San Diego, CA, 92101
Contact: Lance Unverzagt, AICP CEP
(858) 444-3922

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Acronyms and Abbreviations

Acronym	Definition
$\mu g/m^3$	micrograms per cubic meter
ADA	Americans with Disabilities Act
ADT	average daily trips
AERMET	AERMOD Meteorological Preprocessor
BMP	best management practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CEQA	California Environmental Quality Act
CGS	California Geological Survey
City	City of Chula Vista
CVMC	City of Chula Vista Municipal Code
CVPD	Chula Vista Police Department
dBA	A-weighted decibels
DPM	Diesel Particulate Matter
EPA	U.S. Environmental Protection Agency
GHG	greenhouse gas
GSF	gross square feet
HARP2	Hot Spots Analysis & Reporting Program
hp	horsepower
LOS	Level of Service
MOB	medical office building
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer System
MSCP	Multiple Species Conservation Program
$MTCO_2e$	metric tons of carbon dioxide equivalent
NAAQS	National Ambient Air Quality Standards
O_3	ozone
OPR	Office of Planning and Research
PM_{10}	respirable particulate matter
$PM_{2.5}$	fine particulate matter
RAQS	Regional Air Quality Strategy
RAST	Risk Assessment Standalone Tool
RWQCB	Regional Water Quality Control Board

Acronym	Definition
SANDAG	San Diego Association of Governments
SCAQMD	South Coast Air Quality Management District
SCVMC	Sharp Chula Vista Medical Center
SDAB	San Diego Air Basin
SDAPCD	San Diego County Air Pollution Control District
SDG&E	San Diego Gas & Electric Company
SIP	State Implementation Plan
ST	short-term
SWPPP	Stormwater Pollution Prevention Plan
SWQMP	Stormwater Quality Management Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
UWMP	Urban Water Management Plan
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	Vehicle Miles Traveled
VOCs	volatile organic compounds

Section 1 RESPONSE TO COMMENTS

Table 1-1. List of Commenters

Letter Number	Commenter	Agency/Organization	Date
Agencies			
A1	Roberto Rapista, Program Coordinator	County of San Diego – Hazardous Materials Division	September 9, 2022
A2	Daniel Valdez, Registered Environmental Health Specialist	County of San Diego Department of Environmental Health and Quality – Vector Control Program	August 16, 2022
Organizations			
O1	Mitchell M. Tsai, Attorney at Law	On Behalf of the Southwest Regional Council of Carpenters	September 8, 2022

COMMENTS: NOI to Adopt Proposed MND IS21-0005 -Medical Building/Parking Garage

Thank you for the opportunity to comment on the referenced project. The County of San Diego Hazardous Materials Division (HMD) is responsible for the protection of public health and the environment by ensuring hazardous materials, hazardous waste, medical waste, aboveground tanks and underground storage tanks are properly managed. The HMD has completed their review and has the following comments regarding the project.

The proposed project description as stated in the Notice:
The applicant proposes to develop a 58,788-square-foot Medical Office Building (MOD), and 43,793 square-foot parking structure to accommodate 649 parking spaces within the existing parking area. The project will have two entitlements to include a Design Review (DR21-0029) and Conditional Use Permit (CUP21-0019), in addition to the Mitigated Negative Declaration subject to review and approval by the Planning Commission of the City of Chula Vista.

COMMENTS:

A1-1

1. Please be advised that any and all construction/improvement-related hazardous wastes to be generated (i.e. used oil, paint waste, lead paint debris, waste materials containing asbestos) must be classified, labeled, and handled in a manner as to prevent release to the environment. Contractor(s) must ensure that hazardous wastes are properly disposed of by a California registered hazardous waste hauler and maintain documentation of proper disposal dating back 3 years. More information on hazardous wastes can be found here: https://www.sandiegocounty.gov/content/sdc/deh/hazmat/hazwaste.html

A1-2

2. Depending on the nature of construction, a Hazardous Materials Plan Check review may be necessary in order for buildings to be cleared for occupancy. Similarly, if the project will create new facilities that become subject to regulation by the HMD, permits must be established for those facilities. For your reference, information regarding the Hazardous Materials Plan Check requirement can be reviewed here: https://www.sandiegocounty.gov/content/sdc/deh/hazmat/hazmat/hmd_plan_check.html

A1-3

3. The MOB described in the application will likely be subject to permitting under the Medical Waste, Hazardous Waste, and Hazardous Materials Business Plan programs regulated by the Certified Unified Program Agency (CUPA). If the facility will have underground storage tanks and/or store petroleum aboveground in capacities exceeding 1,320 gallons, then requirements under additional CUPA Programs will come into effect. HMD would like to draw attention to the potential for Hazardous Waste requirements being applied to pharmaceutical wastes that are identified as hazardous wastes through the Resource Conservation and Recovery Act ("RCRA" pharmaceuticals), and to the potential for Hazardous Materials Business Plan requirements being applied to liquid helium stored in magnetic resonance imaging (MRI) machines. More information on the Hazardous Materials Business Plan program can be found here: https://www.sandiegocounty.gov/content/sdc/deh/hazmat/hazmat.html

The HMD appreciates the opportunity to participate in the environmental review process for this project. If you have any questions regarding these comments, please contact me at (858) 245-2567 or by email at Darren.Thai@sdcounty.ca.gov

Robert Rapista
PROGRAM COORDINATOR
County of San Diego – Hazardous Materials Division
Main Office: 5500 Overland Avenue, San Diego 92123
Mailing Address: P.O. Box 129261, San Diego, CA 92112-9261
TEL: 619-454-9674 | www.sandiegocounty.gov/content/sdc/deh/hazmat.html

Response to Comment Letter A1 County of San Diego – Hazardous Materials Division

A1-1 The comment advises that any and all construction/improvement-related hazardous wastes to be generated must be classified, labeled, and handled in a manner as to prevent release to the environment. Contractor(s) must ensure that hazardous wastes are properly disposed of by a California registered hazardous waste hauler and maintain documentation of proper disposal dating back 3 years.

The comment is noted; discussion of proper disposal of hazardous wastes in compliance with County of San Diego regulations is mentioned in the IS/MND, under Hazards and Hazardous Materials, Threshold a. (Page 51) which states the project must adhere and register the hazardous materials through HMD's Hazardous Materials Business Plan Program.

A1-2 The comment advises a Hazardous Materials Plan Check review may be necessary for buildings to be cleared for occupancy depending on the nature of construction.

The comment is noted; as mentioned in response A1-1, under Hazards and Hazardous Materials, Threshold a. in the IS/MND (Page 51), the project would be required to adhere to all applicable federal, state, and local regulations for qualifying hazardous materials, including requirements of San Diego County Environmental Health and Quality's Hazardous Materials Division (HMD) prior to construction activities.

A1-3 The comment states that the Medical Office Building (MOB) will likely be subject to permitting under the Medical Waste, Hazardous Waste, and Hazardous Materials Business Plan programs regulated by the Certified Unified Program Agency (CUPA). If the facility will have underground storage tanks and/or store petroleum aboveground in capacities exceeding 1,320 gallons, then requirements under additional CUPA Programs will come into effect. HMD would like to draw attention to the potential for Hazardous Waste requirements being applied to pharmaceutical wastes that are identified as hazardous wastes through the Resource Conservation and Recovery Act ("RCRA" pharmaceuticals), and to the potential for Hazardous Materials Business Plan requirements being applied to liquid helium stored in magnetic resonance imaging (MRI) machines.

The comment is noted; as mentioned in response A1-1, under Hazards and Hazardous Materials, Threshold a. in the IS/MND (Page 51), the project would be required to adhere to all applicable federal, state, and local regulations for qualifying hazardous materials, including requirements of San Diego County Environmental Health and Quality's Hazardous Materials Division (HMD) prior to construction activities. In addition, the project would not involve underground storage tanks and/or store petroleum aboveground in capacities exceeding 1,320 gallons. The project would not need to comply with additional CUPA Programs.

County of San Diego

AMY HARBERT
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH AND QUALITY
VECTOR CONTROL PROGRAM
5570 OVERLAND AVENUE, SUITE 102, SAN DIEGO, CA 92123
Phone: (858) 694-2888 Fax: (858) 505-6786
www.SDVector.com

HEATHER BUONOMO, REHS
DIRECTOR OF ENVIRONMENTAL HEALTH

August 16, 2022

City of Chula Vista
Attn: Oscar Romero
Development Services Department
276 Fourth Avenue
Chula Vista, CA 91910

Via e-mail: oromero@chulavistaca.gov

COMMENTS ON THE MITIGATED NEGATIVE DECLARATION IS21-0005

Dear Mr. Romero:

Thank you for the opportunity to comment on the Mitigated Negative Declaration for the above referenced project. The County of San Diego Vector Control Program (VCP) is responsible for the protection of public health through the surveillance and control of mosquitoes that are vectors for human disease including West Nile virus (WNV). The VCP has completed their review and has the following comments regarding the proposed project.

A2-1

1. The VCP respectfully requests that the project design features address potential impacts from possible mosquito breeding sources created by the project and that the project is constructed in a manner to minimize those impacts. Specifically, ensure construction-related depressions created by grading activities and vehicle tires do not result in depressions that will hold standing water. In addition, ensure that drainage areas and other structures do not create a potential mosquito breeding source. Any area that is capable of accumulating and holding at least ½ inch of water for more than 96 hours can support mosquito breeding and development.

A2-2

2. Please note, the VCP has the authority pursuant to state law and County Code to order the abatement of any mosquito breeding that does occur either during construction or after the project is completed that is determined to be a vector breeding public nuisance. The VCP will exert that authority as necessary to protect public health if the project is not designed and constructed to prevent such breeding.

A2-3

3. For your information, the County of San Diego Guidelines for Determining Significance for Vectors can be accessed at http://www.sandiegocounty.gov/content/dam/sdc/pds/docs/vector_guidelines.pdf and the

A2-3 cont.

California Department of Public Health Best Management Practices for Mosquito Control in California is available at https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/MosquitoesandMosquitoBorneDiseases.aspx#

The VCP appreciates the opportunity to participate in the environmental review process for this project. If you have any questions regarding these comments, please contact Daniel Valdez at 858-688-3722 or by e-mail at Daniel.Valdez@sdcounty.ca.gov.

Sincerely,

DANIEL VALDEZ, Registered Environmental Health Specialist
Vector Control Program

Response to Comment Letter A2 County of San Diego Department of Environmental Health and Quality – Vector Control Program

A2-1 The comment requests that the project design features address potential impacts from possible mosquito breeding sources during construction activities to minimize impacts. Specifically, to ensure construction-related depressions created by grading activities and vehicle tires do not result in depressions that will hold standing water and to ensure that drainage areas and other structures do not create a potential mosquito breeding source. Any area that is capable of accumulating and holding at least ½ inch of water for more than 96 hours can support mosquito breeding and development.

The comment is noted; however, mosquito abatement is not a CEQA issue. CEQA focuses on environmental impacts resulting in physical effects of the project to the environment. This comment is related to construction-related Best Management Practices (BMPs) during the construction phase of the project and will be relayed to the City of Chula Vista Development Services Department.

A2-2 The comment states that the Vector Control Program (VCP) has the authority pursuant to state law and County Code to order the abatement of any mosquito breeding that does occur, either during construction or after the project is completed, that is determined to be a vector-breeding public nuisance. The VCP will exert that authority as necessary to protect public health if the project is not designed and constructed to prevent such breeding.

The comment is noted; however, mosquito abatement is not a CEQA issue. CEQA focuses on environmental impacts resulting in physical effects of the project to the environment. This comment is related to construction-related Best Management Practices (BMPs) during the construction phase of the project and will be relayed to the City of Chula Vista Development Services Department.

A2-3 The commenter provides information on the County of San Diego Guidelines for Determining Significance for Vectors and the California Department of Public Health Best Management Practices for Mosquito Control in California and a link to the websites.

The comment is noted.

P: (626) 381-9248
F: (626) 389-5414
E: info@mitchtsailaw.com

Mitchell M. Tsai
Attorney At Law

139 South Hudson Avenue
Suite 200
Pasadena, California 91101

September 8, 2022

VIA E-MAIL

Oscar Romero, Project Manager
City of Chula Vista Development Services Department
276 Fourth Ave., Building B
Chula Vista, CA 91910
Em: oromero@chulavista.gov

RE: Southwest Carpenters Comments on the City of Chula Vista, Sharp Rees-Stealy Otay Ranch Expansion's Initial Study/Mitigated Negative Declaration

Dear Mr. Romero,

On behalf of the Southwest Regional Council of Carpenters ("**Southwest Carpenter**" or "**SWRCC**"), my Office is submitting these comments regarding the City of Chula Vista's ("**City**") Initial Study/Mitigated Negative Declaration ("**IS/MND**") for the Sharp Rees-Stealy Otay Ranch Expansion Project ("**Project**").

O1-1 SWRCC is a labor union representing 50,000 union carpenters in six states, including California, and has a strong interest in well ordered land use planning and addressing the environmental impacts of development projects. Individual members of the Southwest Carpenters live, work and recreate in the City and surrounding communities and would be directly affected by the Project's environmental impacts.

SWRCC expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearings and proceedings related to this Project. Cal. Gov. Code § 65009(b); Cal. Pub. Res. Code § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

O1-2 SWRCC incorporates by reference all comments raising issues regarding the IS/MND submitted prior to approval of the IS/MND for the Project. *Citizens for Clean Energy v City of Woodland* (2014) 225 Cal. App. 4th 173, 191 (finding that any party who has

objected to the Project's environmental documentation may assert any issue timely raised by other parties).

O1-2 cont.

SWRCC also requests that the City provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act ("**CEQA**"), Cal Public Resources Code ("**PRC**") § 21000 *et seq*, and the California Planning and Zoning Law ("**Planning and Zoning Law**"), Cal. Gov't Code §§ 65000–65010. California Public Resources Code Sections 21092.2, and 21167(f) and Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL SKILLED AND TRAINED WORKFORCE TO BENEFIT THE COMMUNITY'S ECONOMIC DEVELOPMENT AND ENVIRONMENT

The City should require the use of workers who have graduated from a Joint Labor Management apprenticeship training program approved by the State of California, or have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a state approved apprenticeship training program or who are registered apprentices in an apprenticeship training program approved by the State of California.

O1-3

Community benefits such as local hire and skilled and trained workforce requirements can be helpful to reduce environmental impacts and improve the positive economic impact of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project Site can reduce the length of vendor trips, reduce greenhouse gas emissions and providing localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Skilled and trained workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce

Development Board and the UC Berkeley Center for Labor Research and Education concluded:

> . . . labor should be considered an investment rather than a cost – and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Local skilled and trained workforce requirements and policies have significant environmental benefits since they improve an area's jobs-housing balance, decreasing the amount of and length of job commutes and their associated greenhouse gas emissions. Recently, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program or a skilled and trained workforce with a local hire component" can result in air pollutant reductions.[2]

O1-3 cont.

Cities are increasingly adopting local skilled and trained workforce policies and requirements into general plans and municipal codes. For example, the County of Hayward 2040 General Plan requires the County to "promote local hiring . . . to help achieve a more positive jobs-housing balance, and reduce regional commuting, gas consumption, and greenhouse gas emissions."[3]

In fact, the City of Hayward has gone as far as to adopt a Skilled Labor Force policy into its Downtown Specific Plan and municipal code, requiring developments in its Downtown area to requiring that the City "[c]ontribute to the stabilization of regional construction markets by spurring applicants of housing and nonresidential developments to require contractors to utilize apprentices from state-approved, joint

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[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan for 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10

[3] City of Hayward (2014) Hayward 2040 General Plan Policy Document at p. 3-99, *available at* https://www.hayward-ca.gov/sites/default/files/documents/General_Plan_FINAL.pdf.

labor-management training programs, . . .”[4] In addition, the City of Hayward requires all projects 30,000 square feet or larger to “utilize apprentices from state-approved, joint labor-management training programs.”[5]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[6]

In addition, local hire mandates as well as skill training are critical facets of a strategy to reduce vehicle miles traveled. As planning experts Robert Cervero and Michael Duncan noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions since the skill requirements of available local jobs must be matched to those held by local residents.[7] Some municipalities have tied local hire and skilled and trained workforce policies to local development permits to address transportation issues. As Cervero and Duncan note:

O1-3 cont.

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing.” The city’s First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about

[4] City of Hayward (2019) Hayward Downtown Specific Plan at p. 5-24, *available at* https://www.hayward-ca.gov/sites/default/files/Hayward%20Downtown%20Specific%20Plan.pdf.

[5] City of Hayward Municipal Code, Chapter 10, § 28.5.3.020(C).

[6] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[7] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

negotiating corporate participation in First Source as a condition of approval for development permits.

O1-3 cont.

The City should consider utilizing skilled and trained workforce policies and requirements to benefit the local area economically and mitigate greenhouse gas, air quality and transportation impacts.

II. THE CITY SHOULD PREPARE AN ENVIRONMENTAL IMPACT REPORT FOR THE PROJECT

CEQA is a California statute designed to inform decision makers and the public about the potential, significant environmental effects of a project. 14 California Code of Regulations ("**CEQA Guidelines**" or "**Guidelines**") § 15002(a)(1).[8] At its core, "[i]ts purpose is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 564.

To achieve this purpose, CEQA mandates preparation of an Environmental Impact Report ("**EIR**") for projects so that the foreseeable impacts of pursuing the project can be understood and weighed. *Communities for a Better Environment v. Richmond* (2010) 184 Cal. App. 4th 70, 80. The EIR requirement "is the heart of CEQA." CEQA Guidelines, § 15003(a).

O1-4

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "fair argument" standard, under which an agency must prepare an EIR whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal. App. 4th 1597, 1602; *Friends of "B" St.* v. *City of Hayward* (1980) 106 Cal. 3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." PRC § 21151; *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal. App. 3d 68, 75*; Jensen v. City of Santa Rosa*

[8] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 *et seq*, are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. (Cal. Pub. Res. Code § 21083.) The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 62 Cal. 4th 204, 217.

(2018) 23 Cal. App. 5th 877, 884. Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. PRC §§ 21100(a), 21151; CEQA Guidelines § 15064(a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal. App. 4th 768, 785. In such a situation, the agency must adopt a negative declaration. PRC § 21080(c)(1); CEQA Guidelines §§ 15063(b)(2), 15064(f)(3).

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." PRC § 21068; CEQA Guidelines § 15382. A project "may" have a significant effect on the environment if there is a "reasonable probability" that it will result in a significant impact. *No Oil, Inc. v. City of Los Angeles*, 13 Cal. 3d at 83 fn. 16; *Sundstrom v. County of Mendocino* (1988) 202 Cal. App. 3d 296, 309. If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines § 15063(b)(1). See *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal. App. 4th 1544, 1580.

O1-4 cont.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrig. Dist. v. City of Selma* (2012) 204 Cal. App. 4th 187, 207; *Nelson v. County of Kern* (2010) 190 Cal. App. 4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal. App. 4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal. App. 4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal. App. 3d 748, 754; *Sundstrom v. County of Mendocino* (1988) 202 Cal. App. 3d 296, 310. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen v. City of Santa Rosa* (2018) 23 Cal. App. 5th 877, 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal. App. 5th 161, 183; *Stanislaus Audubon Soc'y, Inc. v. County of Stanislaus* (1995) 33 Cal. App. 4th 144, 150; *Brentwood Ass'n for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal. App. 3d 491; *Friends of "B" St. v. City of Hayward* (1980) 106 Cal. App. 3d 988; CEQA Guidelines § 15064(f)(1).

As explained below, the IS/MND fails to make certain essential findings. Further, for a number of findings which the IS/MND does make, it fails to support the findings with sufficient analysis and substantial evidence or incorporate adequate mitigation

O1-4 cont.

measures. Therefore, there is a fair argument that the Project will have a significant effect on the environment, triggering the "low threshold" standard for preparation of an EIR.

III. THE CITY MUST, AT THE VERY LEAST, REVISE AND RECIRCULATE THE IS/MND

A. The IS/MND Requires Substantial Revisions and Revisions of Conflicts in Evidence

Section 15073.5 of the CEQA Guidelines provides that a negative declaration must be recirculated whenever the document must be substantially revised. A substantial revision includes the identification of new, avoidable significant effects requiring mitigation measures or project revisions to be added to reduce the effect to less than significant levels or upon the agency determining that a proposed mitigation measure or project change would not reduce a potential impact to insignificance. *Id.*

O1-5

Additionally, when new information is brought to light showing that an impact previously discussed in an IS/MND and found to be insignificant with or without mitigation in the IS/MND's analysis has the potential for a significant environmental impact supported by substantial evidence, the IS/MND must consider and resolve the conflict in the evidence. See *Visalia Retail, L.P. v. City of Visalia* (2018) 20 Cal. App. 5th 1, 13, 17; see also *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal. App. 4th 1099, 1109.

In light of the IS/MND's failure to substantiate all of its findings, provide adequate mitigation measures, and fully assess all relevant factors, the Project requires significant revisions and resolution of conflicts in evidence. Therefore, at a minimum, the City must revise and recirculate the IS/MND if it does not prepare an EIR for the Project.

1. Due to the COVID-19 Crisis, the County Must Adopt a Mandatory Finding of Significance that the Project May Cause a Substantial Adverse Effect on Human Beings and Mitigate COVID-19 Impacts

O1-6

CEQA requires that an agency make a finding of significance when a Project may cause a significant adverse effect on human beings. PRC § 21083(b)(3); CEQA Guidelines § 15065(a)(4).

Public health risks related to construction work requires a mandatory finding of significance under CEQA. Construction work has been defined as a Lower to High-

risk activity for COVID-19 spread by the Occupations Safety and Health Administration. In fact, several construction sites have been identified as sources of community spread of COVID-19.[9]

Accordingly, the City must adopt additional CEQA mitigation measures to mitigate public health risks from the Project's construction activities. SWRCC requests that the City require safe on-site construction work practices as well as training and certification for any construction workers on the Project Site.

In particular, based upon SWRCC's experience with safe construction site work practices, SWRCC recommends that the City require that while construction activities are being conducted at the Project Site:

Construction Site Design:

- The Project Site will be limited to two controlled entry points.
- Entry points will have temperature screening technicians taking temperature readings when the entry point is open.
- The Temperature Screening Site Plan shows details regarding access to the Project Site and Project Site logistics for conducting temperature screening.
- A 48-hour advance notice will be provided to all trades prior to the first day of temperature screening.
- A perimeter fence directly adjacent to the entry points will be clearly marked indicating the appropriate 6-foot social distancing position for when you approach the screening area.
- There will be clear signage posted at the Project site directing you through temperature screening.

O1-6 cont.

[9] Santa Clara County Public Health (June 12, 2020) COVID-19 CASES AT CONSTRUCTION SITES HIGHLIGHT NEED FOR CONTINUED VIGILANCE IN SECTORS THAT HAVE REOPENED, *available at* https://www.sccgov.org/sites/covid19/Pages/press-release-06-12-2020-cases-at-construction-sites.aspx.

- Provide hand washing stations throughout the construction site.

Testing Procedures:

- The temperature screening being used are non-contact devices.
- Temperature readings will not be recorded.
- Personnel will be screened upon entering the testing center and should only take 1-2 seconds per individual.
- Hard hats, head coverings, sweat, dirt, sunscreen or any other cosmetics must be removed on the forehead before temperature screening.
- Anyone who refuses to submit to a temperature screening or does not answer the health screening questions will be refused access to the Project Site.
- Screening will be performed at entrances from 5:30 am to 7:30 am.
- After 7:30 a.m., only the main gate entrance [ZONE 1] will continue to be used for temperature testing for anybody gaining entry to the project site such as returning personnel, deliveries, and visitors.
- If the digital thermometer displays a temperature reading above 100.0 degrees Fahrenheit, a second reading will be taken to verify an accurate reading.
- If the second reading confirms an elevated temperature, the individual will be instructed that he/she will not be allowed to enter the Project Site. The individual will also be instructed to promptly notify his/her supervisor and his/her human resources (HR) representative.

O1-6 cont.

Planning

- Require the development of an Infectious Disease Preparedness and Response Plan that will include basic

O1-6 cont.

> infection prevention measures (requiring the use of personal protection equipment), policies and procedures for prompt identification and isolation of sick individuals, social distancing (prohibiting gatherings of no more than 10 people including all-hands meetings and all-hands lunches), and training and workplace controls that meet standards that may be promulgated by the Center for Disease Control, Occupational Safety and Health Administration, Cal/OSHA, California Department of Public Health, or applicable local public health agencies.[10]

The United Brotherhood of Carpenters and Carpenters International Training Fund has developed COVID-19 Training and Certification to ensure that Carpenter union members and apprentices conduct safe work practices. Likewise, the City should require that all construction workers undergo COVID-19 Training and Certification before being allowed to conduct construction activities at the Project Site.

2. The IS/MND Fails to Support its Noise Findings with Substantial Evidence

If a project has a significant effect on the environment, an agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns". CEQA Guidelines § 15092(b)(2)(A–B).

O1-7

Here, the IS/MND fails to comply with this mandate. As noted in the IS/MND, due to the Project's installation of an emergency generator, "noise levels are expected to exceed the City's nighttime noise standards at the first-, second-, and third-floor elevations of the multifamily residences to the west. This would be a significant impact." IS/MND at 64. Accordingly, the IS/MND implements mitigation measure MM-NOI-1 to "mitigate the significant noise impact associated with operation of the

[10] *See also* The Center for Construction Research and Training, North America's Building Trades Unions (April 27 2020) NABTU and CPWR COVIC-19 Standards for U.S Constructions Sites, *available at* https://www.cpwr.com/wp-content/uploads/publications/NABTU_CPWR_Standards_COVID-19.pdf; Los Angeles County Department of Public Works (2020) Guidelines for Construction Sites During COVID-19 Pandemic, *available at* https://dpw.lacounty.gov/building-and-safety/docs/pw_guidelines-construction-sites.pdf.

emergency generator". *Id.* at 66. However, the IS/MND fails to explain how such mitigation measure will in fact reduce noise levels to be insignificant and instead defers formulation of the mitigation performance standards, contrary to CEQA Guidelines § 15126.4(a)(B).

Specifically, the mitigation measure provides that "[d]uring the architectural and engineering design phase, prior to the issuance of any permits for the generator and rooftop mechanical equipment, the project proponent will retain an acoustical consultant to evaluate the proposed generator and rooftop mechanical equipment installation and provide recommendations, as necessary, to ensure that the combined noise levels will comply with the City of Chula Vista Noise Ordinance at the surrounding homes and daycare. The analysis will be based on the best available acoustical data for the actual generator and equipment proposed at the project site." IS/MND at 66. This demonstrates that an acoustical consultant has not been retained yet nor has any analysis been conducted into how the noise impacts will be mitigated, rendering the IS/MND's findings speculative.

O1-7 cont.

The IS/MND must be revised to analyze and explain how and what mitigation will be implemented to reduce the Project's noise impacts to less than significant.

3. The IS/MND Defers It Transportation Mitigation Measure

In addition to prohibiting deferral of mitigation measure performance standards, CEQA Guidelines § 15126.4 also requires mitigation measures to be fully enforceable. Similar to its noise mitigation measure, the IS/MND also fully defers formulating the performance standards and enforceability for its transportation mitigation measure, MM-TRA-1. Such measure is necessary given that the IS/MND finds significant transportation impacts due to the addition of Project traffic rendering the operation at the Palomar Street/Santa Rita/Monarche Drive intersection at LOS E standards during the AM peak hour. IS/MND at 71.

O1-8

MM-TRA-1 states "[m]odify the intersection cycle length at the Palomar Street/Santa Rita/Monarche Drive intersection to improve the operations at this intersection to LOS D or better prior to project completion." *Id.* at 73. Such statement fails to provide any information as to what modifications will occur, how they will be carried out, who will be monitoring the modifications, and who is responsible for ensuring that the mitigation measure is enforced. Accordingly, the measure constitutes deferred mitigation and must be revised to provide such specifications.

4. The IS/MND Fails to Adequately Assess Land Use Consistency

Each California city must adopt a comprehensive, long-term general plan governing development. *Napa Citizens for Honest Gov. v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 352, *citing* Gov. Code §§ 65030, 65300. The general plan sits at the top of the land use planning hierarchy, and serves as a "constitution" or "charter" for all future development. *DeVita v. County of Napa* (1995) 9 Cal.4th 763, 773; *Lesher Communications, Inc. v. City of Walnut Creek* (1990) 52 Cal.3d 531, 540.

General plan consistency is "the linchpin of California's land use and development laws; it is the principle which infused the concept of planned growth with the force of law." *Debottari v. Norco City Council* (1985) 171 Cal.App.3d 1204, 1213. It is well established that development projects may not be approved if they interfere with, or frustrate, the general plan's policies and objectives. *See Napa Citizens*, 91 Cal.App.4th at 378-79; *see also Lesher*, 52 Cal.3d at 544.

O1-9

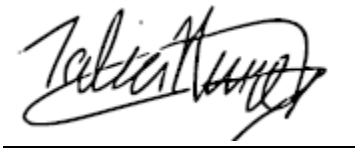
Here, the IS/MND is barren of information and analysis on land use consistency as it does not provide any substantive analysis of consistency with the goals and policies identified in the City's General Plan. In fact, the IS/MND does not even reference the City's General Plan in its land use and planning analysis. IS/MND at 60. Rather, the IS/MND merely makes a conclusory statement that "the proposed parking structure and MOB do not conflict with the building height limits outlined in the Otay Ranch General Development Plan as they will both be shorter than the existing three-story MOB". *Id.* This is not sufficient analysis as it does not actually address any goals or policies identified in the City's General Plan nor ones identified in the Otay Ranch General Development Plan. Without conducting this analysis, the IS/MND's less than significant finding is unsupported.

IV. CONCLUSION

O1-10

SWRCC requests that the City require a skilled and trained workforce for the Project and that the City prepare an EIR for the Project or revise and recirculate the IS/MND to address the aforementioned concerns. If the City has any questions, feel free to contact my Office.

Sincerely,



Talia Nimmer
Attorneys for Southwest Regional
Council of Carpenters

Attached:

March 8, 2021 SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

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Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

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Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

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Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

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Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

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Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

1640 5th St.., Suite 204 Santa
Santa Monica, California 90401
Tel: (949) 887-9013
Email: mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

Response to Comment Letter O1 Mitchell M. Tsai on behalf of Southwest Regional Council of Carpenters

O1-1 The comment is an introductory statement that identifies the commenter and their interest in the project. The City of Chula Vista (City) acknowledges the ability for the commenter to supplement comments prior to final hearings on the project.

O1-2 Comment is noted. Southwest Carpenters will receive future notices on the project at the address noted on the comment letterhead (c/o Mitchell M. Tsai, 155 South El Molino Avenue, Suite 104, Pasadena, CA 91101).

O1-3 The comment requests that the City require the use of a local and skilled workforce to benefit the community's economic development and environment, specifically to include a provision that requests a certain percentage of workers reside within 10 miles or less of the project site, which would reduce the length of vendor trips, reduce greenhouse gas emissions and provide localized economic benefits. Construction workforce is outside of the purview of the California Environmental Quality Act (CEQA). Specifically, CEQA Guidelines 15382 provides that an economic or social change shall not be considered a significant effect on the environment. However, it is considered that in an urbanized setting, the construction workforce would be employed from available workers in the surrounding area, and it is unlikely that workers would be traveling long distances. As identified in Appendix C, Greenhouse Gas Emissions Technical Report of the Initial Study/Mitigated Negative Declaration (IS/MND), the project's temporary construction emissions were estimated using CalEEMod. CalEEMod considers workforce trips in the construction emissions modeling, and the default home-to-work Vehicle Miles Traveled (VMT) is 10.8 miles, based on information gathered by South Coast Air Quality Management District (SCAQMD). Further, the City does not have any skilled labor force mandates or policies, and such mandates as applied to private projects have been found to violate the Privileges and Immunities Clause of the U.S. Constitution and are therefore legally infeasible. (See, e.g., *Tiburon Open Space Committee v. County of Marin* (2022) 78 Cal.App.5th 700.) As this comment does not raise any environmental issues with respect to the adequacy of the IS/MND, no further response is required. Moreover, the IS/MND discloses that the project's GHG impacts are already below a level of significance under the applicable GHG threshold, so no further mitigation is legally required to comply with CEQA even if commenter's proposal were feasible and legal. CEQA Guidelines 15126.4(a)(3).

O1-4 The comment makes a general statement that the Draft IS/MND fails to make certain essential findings and does not provide sufficient analysis/substantial evidence nor incorporates adequate mitigation measures. For these reasons, the commenter asserts the proposed project may result in significant environmental impacts requiring preparation of an Environmental Impact Report (EIR) for the project; however, no facts or other evidence constituting substantial evidence within the meaning of CEQA Guideline 15384 is provided to support this assertion. Accordingly, the comment fails to make a fair argument to support its claim that an EIR is required. The conclusions and supporting analysis contained in the Draft IS/MND that the proposed project would not result in significant environmental effects are supported by substantial evidence contained in the record. Project impacts are adequately analyzed and assessed based on established CEQA significance thresholds. Where potentially significant

impacts are identified, feasible mitigation measures are identified that would avoid or reduce impacts to below a level of significance. Thus, preparation of an EIR is not required for the project. The CEQA Guidelines policy charges those responsible with implementation of CEQA to do so in the most efficient manner to avoid diverting resources away from mitigation. In this case, substantial evidence supports the Draft IS/MND conclusions, and it is the most efficient means of implementing CEQA.

O1-5 The comment states that even if the City decides not to prepare an EIR for the project, at the very least, it must revise and recirculate the IS/MND because of the reasons asserted in comment O1-4 and elsewhere.

As discussed, the IS/MND provides conclusions and supporting analysis that the proposed project would not result in significant environmental effects~~,~~ and these conclusions are supported by substantial evidence contained in the record. Furthermore, consistent with the criteria for no recirculation of a MND in CEQA Guidelines 15073.5, where potentially significant impacts are identified in the Draft IS/MND, feasible mitigation measures are identified that would avoid or reduce impacts to below a level of significance and no new mitigation measures or project revisions are required or added unless permitted by CEQA Guidelines 15074.5(c). As discussed herein, consistent with the criteria for no recirculation of a Draft IS/MND in CEQA Guidelines 15073.5, the comments identify no new, avoidable significant effect, so no mitigation measures or project revisions are needed to reduce a new significant effect to below a level of significance. New information added to the IS/MND merely clarifies, amplifies, or makes insignificant modifications to the IS/MND. Therefore, the City respectfully disagrees with this comment and will not be recirculating the IS/MND.

O1-6 The comment states that CEQA requires that an agency make a finding of significance when a project may cause a significant adverse effect on human beings and cites specific CEQA statute and CEQA Guidelines sections (Public resources Code [PRC] Section 21083(b)(3); CEQA Guidelines Section15065(a)(4)). This is a misstatement that does not reflect the actual language contained in the cited CEQA references. CEQA Guidelines Section 15065(a)(4) states the following (with PRC Section 21083 (b)(3) containing similar language):

> (a) A lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project where there is substantial evidence, in light of the whole record, that any of the following conditions may occur:… (4) The environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly.

COVID-19 is not a CEQA issue; it is not an impact of the project on the environment. CEQA does not generally require an agency to consider the effects of existing environmental conditions on a project's future users or residents (*California Building Industry Assn. v. Bay Area Air Quality Management Dist*. (2015) 62 Cal. 4th 369.), nor would the project exacerbate existing conditions. Because so much of the population has established a level of immunity from the worst impacts of COVID-19, either by becoming vaccinated or already having contracted COVID-19, it has reached endemic status and is no longer in the pandemic phase. However, even if COVID-19 were a significant impact, it is an impact of the

environment on the project, not an impact of the project on the environment. CEQA focuses on environmental impacts resulting in physical effects and addresses effects on human beings only when those physical environmental impacts result in related impacts on human beings caused by the project. None of the environmental effects of the project evaluated in the IS/MND would result in substantial adverse effects on human beings related to COVID-19 spread. The project does not identify any significant unmitigable impacts that would require an EIR and therefore the preparation of the mandatory findings of significance that are required for EIRs when impacts cannot be mitigated to a level of less than significant (see CEQA Section 15091).

While it is acknowledged that COVID-19 is present in San Diego County, the Occupational Safety and Health Administration (OSHA) has identified on their website (https://www.osha.gov/SLTC/covid-19/construction.html):

> *The Occupational Safety and Health Act requires employers to comply with safety and health standards and regulations promulgated by OSHA or by a state with an OSHA approved state plan. In addition, the Act's General Duty Clause, Section 5(a)(1), requires employers to provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm.*

The OSHA website includes COVID-19 control and prevention information. COVID-19 – Control and Prevention | Occupational Safety and Health Administration (https://www.osha.gov/coronavirus/control-prevention).

The comment also contains specific recommendations for health safety related to COVID-19. Consistent with standard practice, construction activities associated with the project would occur in compliance with federal, state, and local laws and regulations. Any COVID-19-related restrictions that are relevant during the period of project construction would be implemented by construction contractors, as required by federal, state, and local laws and regulations. CEQA does not require a public agency to presume that a project will be constructed or operated in violation of laws and regulations.

Moreover, the comment cites old data and fails to account for updated Centers for Disease Control and Prevention guidance. In August 2022, the Centers for Disease Control and Prevention released new pandemic guidelines that significantly relax some of its recommendations for preventing the spread of COVID-19.[1] Among the most significant changes are an end to the recommendation that anyone exposed to someone with COVID-19 be isolated for several days. It adds, "[q]uarantine is no longer recommended for people who are exposed to COVID-19 except in certain high-risk congregate settings such as correctional facilities, homeless shelters, and nursing homes." Construction sites are not a high-risk congregate setting. The new guidance also ends the agency's emphasis on physical distancing as a mitigation strategy, a core element of the nation's pandemic response for more than two years.

[1] Summary of Guidance for Minimizing the Impact of COVID-19 on Individual Persons, Communities, and Health Care Systems — United States, August 2022 | MMWR (cdc.gov)

The Guidance document explains that COVID-19 risks exist but are no longer significant because "*high levels of vaccine- and infection-induced immunity and the availability of effective treatments and prevention tools have substantially reduced the risk for medically significant COVID-19 illness* (severe acute illness and post–COVID-19 conditions) and associated hospitalization and death."[2]

In a news conference explaining the new rules, Massetti said the changes reflect the reality that "COVID-19 is here to stay," but noted that "*widespread immunity from vaccines and previous infections* means the country is in a different place" than it was earlier in the pandemic (emphasis added.).

As noted above, this is not a CEQA issue, and the comment does not relate to environmental analysis as required under CEQA, nor does it constitute a fair argument that the project may have a significant environmental effect. Indeed, its comments and proposed measures are outdated and no longer reflect the current status of COVID-19-related risks. No changes to the IS/MND regarding this issue are required.

O1-7 The comment states that the IS/MND fails to comply with the CEQA mandate that an agency may approve a project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns." CEQA Guidelines Section 15092(b)(2)(A–B). The comment stems from a concern that the City is improperly deferring mitigation of noise impacts to a future acoustical study with a discussion of how the noise impacts will be reduced to below a level of significance.

Noise mitigation measures must often be deferred due to the difficulty in crafting engineering-level mitigation measures based on discretionary permitting-level information.

There is no requirement for an applicant to select a specific backup generator at the discretionary permitting stage of a project approval. Accordingly, at the CEQA review stage of the project, the acoustic analyst is unable to know the exact measures that will be used to achieve the performance standard, which is compliance with noise level requirements of the municipal code. Because the CEQA process cannot wait until the 100 percent design and procurement phase of a project, the lead agency must utilize the best available information available and follow CEQA requirements for proper deferred mitigation.

The City respectfully disagrees that the noise mitigation measure does not follow properly deferred mitigation procedures. CEQA recognizes that deferral is proper where a mitigation measure: (1) conceptually defines the mitigation, (2) adopts realistic performance standards that will actually mitigate a significant effect, and (3) adopts one or several measures to be further developed in the future that are capable of effectively achieving the performance standard. (See, e.g., *National Parks & Conservation Assn. v. County of Riverside* (1999) 71 Cal. App. 4th 1341.) Here, MM-NOI-1: (1) conceptually defines mitigation as selection and installation of equipment compliant with the City's Noise Ordinance; (2) requires the equipment to comply with recommendations of an acoustical consultant to ensure noise levels will comply with the City's Noise Ordinance; and (3) identifies specific noise reduction methods

[2] Summary of Guidance for Minimizing the Impact of COVID-19 on Individual Persons, Communities, and Health Care Systems — United States, August 2022 | MMWR (cdc.gov)

including but not limited to selecting quieter equipment, selecting a higher-performing sound enclosure, upgrading the equipment silencer, changing equipment locations, incorporating additional screen walls or noise barriers or adding acoustic absorption materials, all of which are required to be evaluated by an acoustical consultant for compliance with the applicable performance standard (compliance with the City's Nose Ordinance) and approved prior to installation.

The mitigation measure, as set forth in the IS/MND is specific and binding and commits specific parties to take specific steps at specific points in time to achieve the performance standard of compliance with the municipal code noise standards. Moreover, contrary to the assertion in the comment letter that the IS/MND fails to identify mitigation measures capable of achieving the noise threshold performance standard, the facts show mitigation measure MM-NOI-1 includes a list of multiple methods that can be utilized to achieve the required noise control. Please see below for the full text of the mitigation measure (emphasis added for purposes of this response).

> MM-NOI-1: Select, Design, and Install the Emergency Generator and Rooftop Mechanical Equipment to Comply with the Applicable City of Chula Vista Noise Ordinance. During the architectural and engineering design phase, *prior to the issuance of any permits* for the generator and rooftop mechanical equipment, the project proponent shall retain an acoustical consultant to evaluate the proposed generator and rooftop mechanical equipment installation and provide recommendations, as necessary, *to ensure that the combined noise levels will comply with the City of Chula Vista Noise Ordinance at the surrounding homes and day care*. The analysis shall be based on the best available acoustical data for the actual generator and equipment proposed at the project site. Noise reduction methods may include, but are not limited to, *selecting quieter equipment, selecting a higher-performing sound enclosure for the generator, upgrading the generator silencer (muffler), changing equipment locations, incorporating additional screen walls or noise barriers, or adding acoustic absorption materials*. The project proponent shall submit a copy of the acoustical consultant's report to the City of Chula Vista *for review and approval prior to generator installation*.

O1-8 The comment states that the traffic mitigation measure MM-TRA-1 lacks enforceability, lacks a performance standard and improperly defers mitigation in violation of CEQA Guidelines 15126.4.

The City respectfully disagrees. Please refer to response to comment O1-7 for discussion of proper deferral under CEQA. MM-TRA-1 complies with all components of properly deferred mitigation. Compliance with MM-TRA-1 is not optional and contains a performance standard. The MMRP already provides that the following mitigation measures "*are required to be implemented* as part of the proposed project":

> Mitigation Measure TRA-1: Modify the intersection cycle length at the Palomar Street/Santa Rita. Monarche Drive intersection to improve the operations at this intersection t*o LOS D or better prior to project completion* (emphasis added).

The performance standard is that the improvements to the intersection cycle length must be performed in a manner that achieves a level of service D for the intersection's operation. It is not permitted to operate at

a level of service lower than D, which is the performance standard. Moreover, the improvements to the intersection cycle length are required to be implemented as part of the proposed project and completed prior to completion of the project. To further clarify what that means, the proposed project cannot obtain a certificate of occupancy to operate until the intersection cycle length work is completed and achieves, at minimum, the level of service D. To further clarify the intersection cycle length method, it means just what it says – modifying the cycle length by maximizing green time splits among the intersection approaches, revising red and yellow clearance times, and improving the coordination with adjacent signals. These are standard feasible techniques for improving the level of service at an intersection.

To address these clarifications, MM-TRA-1 is modified to read: Modify the intersection cycle length at the Palomar Street/Santa Rita/Monarche Drive intersection, by maximizing green time splits among the intersection approaches, revising red and yellow clearance times, and improving coordination with adjacent signals consistent with the City's Traffic Signal Communications Master Plan, to improve the operations at this intersection to LOS D or better prior to project completion.

Moreover, the IS/MND complies with the requirement in 15126.4(a)(1)(B) to discuss several mitigation measures capable of effectively achieving the performance standard, and the basis for selecting the intersection cycle length measure is identified. The IS/MND specifically states that a mitigation measure to solve the level of service E deficiency at this intersection by adding an exclusive northbound right-turn lane was considered, but it was rejected in favor of the intersection cycle length adjustment method because there was not sufficient right-of-way to provide the widening of the road needed for the northbound right-turn lane.

Finally, although the IS/MND identifies a potentially significant transportation impact based on the City's General Plan Land Use and Transportation Element target level of services, CEQA Section 21099(b)(2) and Guideline 150764.3(a) state that a project's effect on automobile delay shall not constitute a significant environmental impact. (See *Citizens for Positive Growth & Preservation v. City of Sacramento* (2019) 43 Cal. App. 5th 609.)

O1-9 The comment states that the IS/MND fails to adequately assess land use consistency, specifically as it relates to the City of Chula Vista's General Plan. The comment also states the IS/MND does not reference the City's General Plan in the land use and planning analysis.

The overall land use analysis in the IS/MND is adequate even if the analysis is not in the location or format preferred by the commenter. Pursuant to state law, any land use inconsistency is not itself an environmental impact; a project may have a significant land use impact only where it will cause a significant environmental impact due to a conflict with a land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental impact. There is no evidence of a project inconsistency with any such applicable land use policy that creates a significant environmental impact.

Moreover, CEQA does not require a lead agency to follow a particular format when disclosing information about a project's potential impacts, and here the City as the lead agency chose to disclose the project's consistency with the General Plan and Zoning in several places rather than only in the land use section. This does not render the overall land use analysis inadequate. In Section 3.1, the IS/MND

discloses that the General Plan designation is "Mixed Use Residential," and the Zoning is "Planned Community." Section 4.1 identifies how the project complies with zoning regulations and general plan policies related to aesthetics. Section 3.4.2 contains an analysis of whether the project complies with zoning for agricultural uses within the City. Section 3.4.3 contains an analysis of how the project's CUP amendment is consistent with the General Plan and zoning intensity limitations. Section 3.4.4 contains an analysis of the project's consistency with General Plan goals related to preservation of biological resources through the Multiple Species Conservation Plan Subarea. It also discloses the project's compliance with the zoning ordinance's provisions regarding preservation of trees. Section 3.4.6 discloses that the project does not conflict with applicable General Plan policies related to renewable energy and energy efficiency. Section 3.4.8 discloses the project's consistency with General Plan growth projections and the applicable Climate Action Plan strategies that implement the General Plan. Section 3.4.12 discloses the project's consistency with General Plan land use maps identifying Mineral Resource Zones. Section 3.4.13 discloses the project's consistency with the zoning ordinance's noise standards. Section 3.4.17 discloses the project's consistency with the General Plan's Land Use and Transportation Element policies on level of service, as well as its consistency with the General Plan's evacuation route plan. Section 3.4.19 discloses the project's consistency with the General Plan and zoning with regard to adequate water supply planned for in the City's Urban Water Management Plan and Integrated Waste Management Plan, as well as the project's consistency with the zoning ordinance as it pertains to recycling construction debris. Finally, Section 5 provides a reference and link to the entire General Plan.

The Land Use Plan and Planning section informs the reader that much of the Land Use Plan and policy analysis was already disclosed elsewhere in the IS/MND by stating, "*As already discussed above*, the proposed project would occur within the parking lot of the existing campus property and therefore would not conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect (emphasis added)." Given the extensive General Plan and zoning consistency disclosures and analysis throughout the IS/MND chapters, the City does not agree with the commenter's view that all land use analysis information is required to be formatted in the Land Use and Planning Section of the IS/MND. For the sake of convenience and clarity, the City Land Use and Planning Section in the final IS/MND reformats its already adequate land use analysis via a land use policy and project consistency table, including the consistency of the project to the current and surrounding land uses in the vicinity of the project site.

In addition to its failure to acknowledge the extensive discussion of compliance with the City's land use policies in the IS/MND as described above, the comment identifies no conflicts with a land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental impact and therefore fails to make a fair argument that the project may have a potentially significant environmental impact due to such inconsistency.

O1-10 This is a concluding statement which summarizes comment-made throughout this comment letter.

This concluding statement is acknowledged.

Initial Study and Mitigated Negative Declaration

Project Name:	Sharp Rees-Stealy Otay Ranch Expansion Project
Project Location:	Sharp HealthCare owns the project site at 1400 East Palomar Street in the City of Chula Vista. The proposed project would occur within the current 4.67-acre site boundary.
APNs:	642-560-01-00
Project Applicant:	Sharp Rees-Stealy
Case Number:	IS21-0005; DR21-0029; CUP21-0029
Lead Agency:	City of Chula Vista Development Services Department Oscar Romero, Senior Planner Phone: (619) 691-5098 Email: oromero@chulavistaca.gov
Public Review Period:	August 10, 2022—September 10, 2022

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Section 2 Introduction

2.1. Identification of Environmental Effects

An Initial Study (IS) conducted by the City of Chula Vista determined that the proposed Sharp Rees-Stealy Otay Ranch Expansion Project (project) may have potentially significant environmental impacts; however, mitigation measures (MMs) have been incorporated into the project to reduce these impacts to a less-than-significant level. This Mitigated Negative Declaration (MND) has been prepared in accordance with Section 15070 of the California Environmental Quality Act (CEQA) Guidelines.

2.2. Mitigation Necessary to Avoid Significant Impacts

- **MM-AQ-1, MM-NOI-1, MM-TRA-1,** and **MM-TRA-2** will be implemented to avoid the proposed project's potentially significant impacts on air quality, noise-sensitive receptors, and transportation, respectively:
- **MM-AQ-1:** Use clean diesel-powered equipment during construction to control construction-related emissions.
- **MM-NOI-1:** Select, design, and install the emergency generator and rooftop mechanical equipment to comply with the applicable City of Chula Vista Noise Ordinance.
- **MM-TRA-1:** Modify the intersection cycle length at the Palomar Street/Santa Rita/Monarche Drive intersection, by maximizing green time splits among the intersection approaches, revising red and yellow clearance times, and improving coordination with adjacent signals consistent with the City's Traffic Signal Communications Master Plan, to improve the operations at the intersection to LOS D or better prior to project completion.
- **MM-TRA-2**: During project construction, lease 50 spaces from a new parking lot currently under construction at St Paul's Plaza Senior Living across Santa Andrea on the east side. In addition, provide a shuttle service between the SCVMC parking lot and the project site. The spaces at SCVMC will be cordoned off and reserved for the use of visitors to the project site.

2.3. Agreement to Implement Mitigation Measures

By signing the line(s) provided below, the Applicant and Operator stipulate that they have each read and understood and have their respective company's or jurisdiction's authority to and do agree to the MMs contained herein and will implement same to the satisfaction of the Environmental Review Coordinator. Failure to sign the line(s) provided below prior to posting of this MND with the County Clerk shall indicate the Applicant's and Operator's desire that the project be held in abeyance without approval and that the Applicant and Operator shall apply for an Environmental Impact Report (EIR).

2.3.1. Consultation

City of Chula Vista

Oscar Romero, Senior Planner

2.4. Initial Study

This environmental determination is based on the City of Chula Vista's IS. The IS reflects the independent judgment of the City of Chula Vista. Further information regarding the environmental review of the project is available from the Development Services Department, 276 Fourth Avenue, Chula Vista, California 91910.

_____ _____

Oscar Romero, Senior Planner, City of Chula Vista Date

Section 3 Environmental Setting and Project Description

3.1. Project Overview

The City of Chula Vista is one of the fastest-growing cities in San Diego County, California. Part of this rapid growth can be attributed to the development of the Otay Ranch planning area in the eastern part of the city. Sharp Rees-Stealy Medical Group, a subsidiary of Sharp HealthCare, has been providing health care to the community at its Otay Ranch facility at 1400 East Palomar Street since 2001. The Otay Ranch facility requires the proposed expansion of medical services to meet the community's need for an urgent care facility. Currently, the closest such facility is on the west side of the city at 3rd Avenue and H Street and is undersized for the volume of patients it supports. The proposed project would construct 58,788 square feet of new clinic space and a 43,793-square-foot parking structure to accommodate 649 parking spaces on the site. The proposed project would add new specialty services and expand existing primary care access, reducing the need for patients to travel outside the city to receive care.

Sharp HealthCare currently owns the entire project site and has met with the City to determine the developmental requirements necessary to add a new two-story, 58,788-square-foot clinical space to the site. The lower level of the addition would be home to a new urgent care, advanced radiology services, lab, and conference space for clinics and classes. The second level would house specialty clinics including oncology; dermatology; ear, nose, and throat; histology; audiology; and physical therapy for adults and children. As noted, a new parking structure totaling 43,793 square feet is also proposed. These new structures would complement the site's existing 68,000-square-foot medical office building (MOB).

3.2. Existing Environmental Setting

3.2.1. Project Location

Sharp HealthCare owns the project site at 1400 East Palomar Street in the City of Chula Vista (Figures 1 and 2). The proposed project would occur within the current 4.67-acre site boundary.

Sharp Rees-Stealy Otay Ranch consists of a 68,535-square-foot primary and specialty care medical facility that has been in operation since 2001. The facility offers physical therapy/rehabilitation, radiology, speech pathology, pharmacy, family medicine, general surgery, pediatrics, podiatry, pulmonary, dermatology, internal medicine, obstetrics and gynecology, and urology services. A surface parking lot servicing the MOB currently occupies the remainder of the project site.

3.2.2. Surrounding Land Uses

According to the *Chula Vista Vision 2020*, the City of Chula Vista General Plan (City of Chula Vista 2021), the general vicinity of the project site is zoned as Multi-family and Community Purpose Facilities, with a Parks and Recreation designation for Heritage Park and a Public Space designation for Heritage Elementary School. Outside of the residential area, the surrounding area is zoned primarily as Low-Medium Density (City of Chula Vista 2021). More specifically, the project site is bounded downslope and

to the south by single-family residences; to the west by multifamily residences with some commercial buildings fronting East Palomar Street; to the east by St. Paul's Plaza, senior services and a residential facility that includes a walking trail stretching to the south; and to the north by East Palomar Street, a multilane divided street with Heritage Park to the north. Heritage Park is a 10.1-acre park with various amenities including an amphitheater, a duck pond, a community center, picnic areas, a skateboard park, and soccer fields. All adjacent lots are contiguous, with no intervening gaps.

Figure 3-1. Project Vicinity

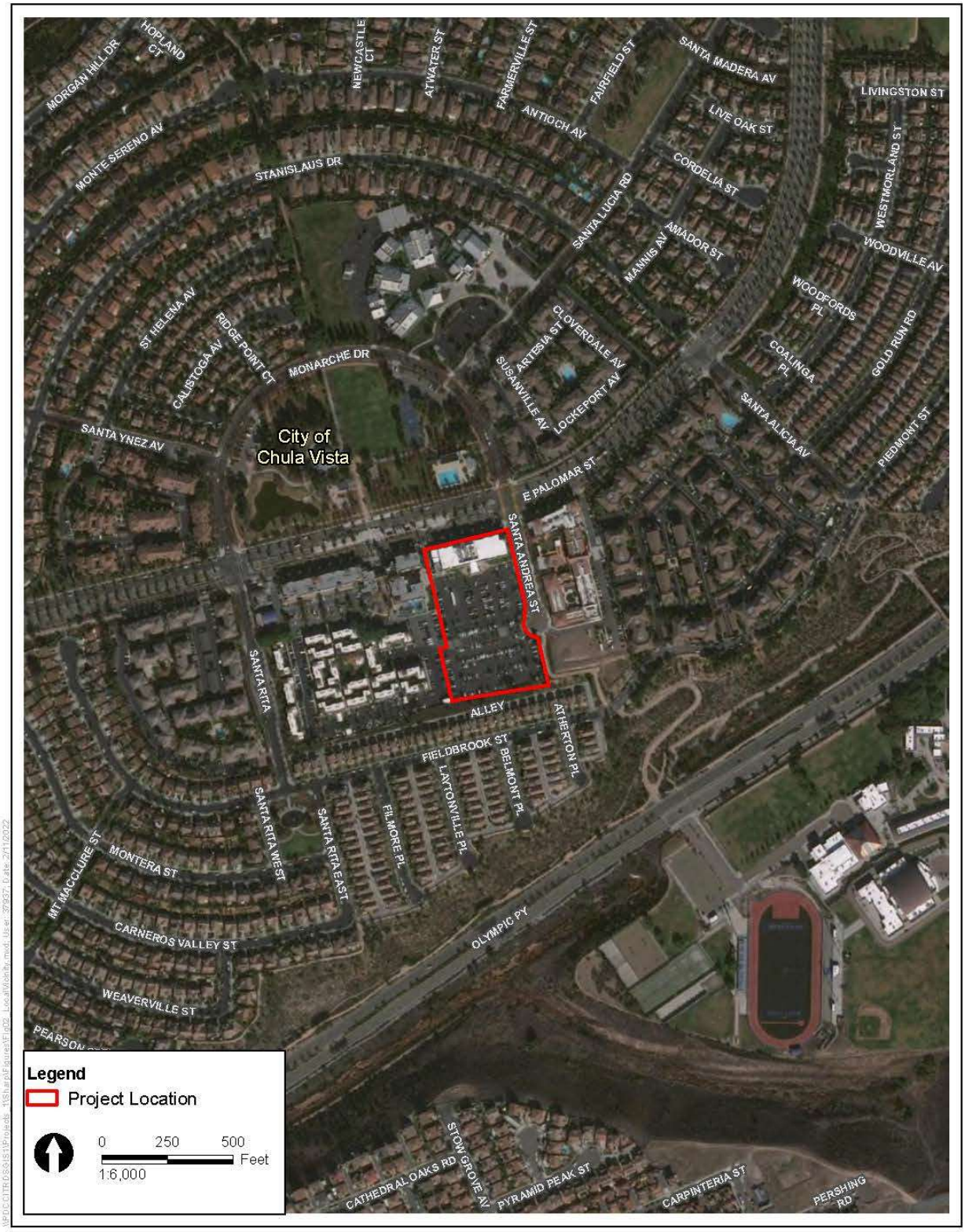


Figure 3-2. Project Location

3.3. Project Description

The applicant proposes to develop a 58,788-square-foot Medical Office Building (MOB), and 43,793 square-foot parking structure to accommodate 649 parking spaces within the existing parking area. The project will have two entitlements to include a Design Review and Conditional Use Permit, in addition to the Mitigated Negative Declaration subject to review and approval by the Planning Commission of the City of Chula Vista.

The project will have two Phases, Phase I will develop the 43,793 square-foot parking structure in the southern section of the project site and Phase II will attach the new 58,788 square-foot building to the south side of the existing MOB (Figure 3-3). The new MOB will include a daylight-filled lobby centrally located between the existing MOB and the new expansion, linking the two buildings together. The first floor of the new MOB will include an urgent care, advanced radiology services, a new lab, and a small conference center for training and clinics. An atrium would connect the first- and second-floor lobbies.

The project site will have ingress and egress via Santa Andrea Street where a new entry plaza with decorative paving will lead to the main campus entry. Enhancements on-site will include a landscape area of 32,296 square feet. In addition, the parking structure will provide 570 spaces (including 80 EV spaces and 6 ADA spaces) as well as 79 surface parking spots including 16 ADA spaces for ease of access to building entrances, for a total of 649 parking spots. Construction phasing is detailed in Section 2.3.2 below.

3.3.1. Campus Improvements

The net effects of the project for the community would include the following:

1. Expanded medical services, including a new urgent care facility and additional imaging services, as well as dermatology, oncology, and other specialties.
2. Shorter wait times for urgent care services and additional appointment availability for other services.
3. Additional well-paying job opportunities (approximately 125 new employees).
4. Additional parking for the site and shared parking for compatible uses.

3.3.2. Construction Activities

Construction of the project would occur in two phases over the course of 24 months:

1. Parking Structure Phase (9 months)
2. New Medical Office Building Phase (17 months)

Phase one includes demolition of the existing staff surface parking lot, regrading, and construction of the new four-story parking structure. This phase is anticipated to take approximately nine months to complete. Displaced staff parking will be accommodated via a combination of parking stalls Sharp intends to lease from the adjacent property owner St. Paul's and available unused stalls at Sharp Chula

Vista Medical Center located approximately 2 miles away. Completion of phase one will lead immediately to commencement of phase two, which involves demolition of the existing patient surface parking lot, regrading, and construction of the two-story addition. Total duration for this phase is approximately 15 months. Patient and staff parking would take place within the newly constructed garage throughout the duration of this phase.

Construction would also be conducted to minimize disruptions to the operation of the existing MOB. The fire lane that bisects the existing parking lot would be maintained; a safe path of travel for employees and patients would be provided from the existing MOB to the parking garage while the new MOB is under construction; and construction impacts on residences to the south, east, and west sides of the project site would be limited.

3.3.3. Construction Best Management Practices

Project construction would incorporate best management practices (BMPs) to minimize potential stormwater runoff, in compliance with the State Water Resources Control Board (SWRCB) Construction General Permit. Stormwater BMPs limit erosion and sedimentation and control the quality of the stormwater runoff originating from the site during construction activities. The Construction General Permit requires a Stormwater Pollution Prevention Plan (SWPPP) to be developed prior to construction, describing both the sources of sediment or pollution and the specific BMPs that would be implemented to control sediment and stormwater on the project site.

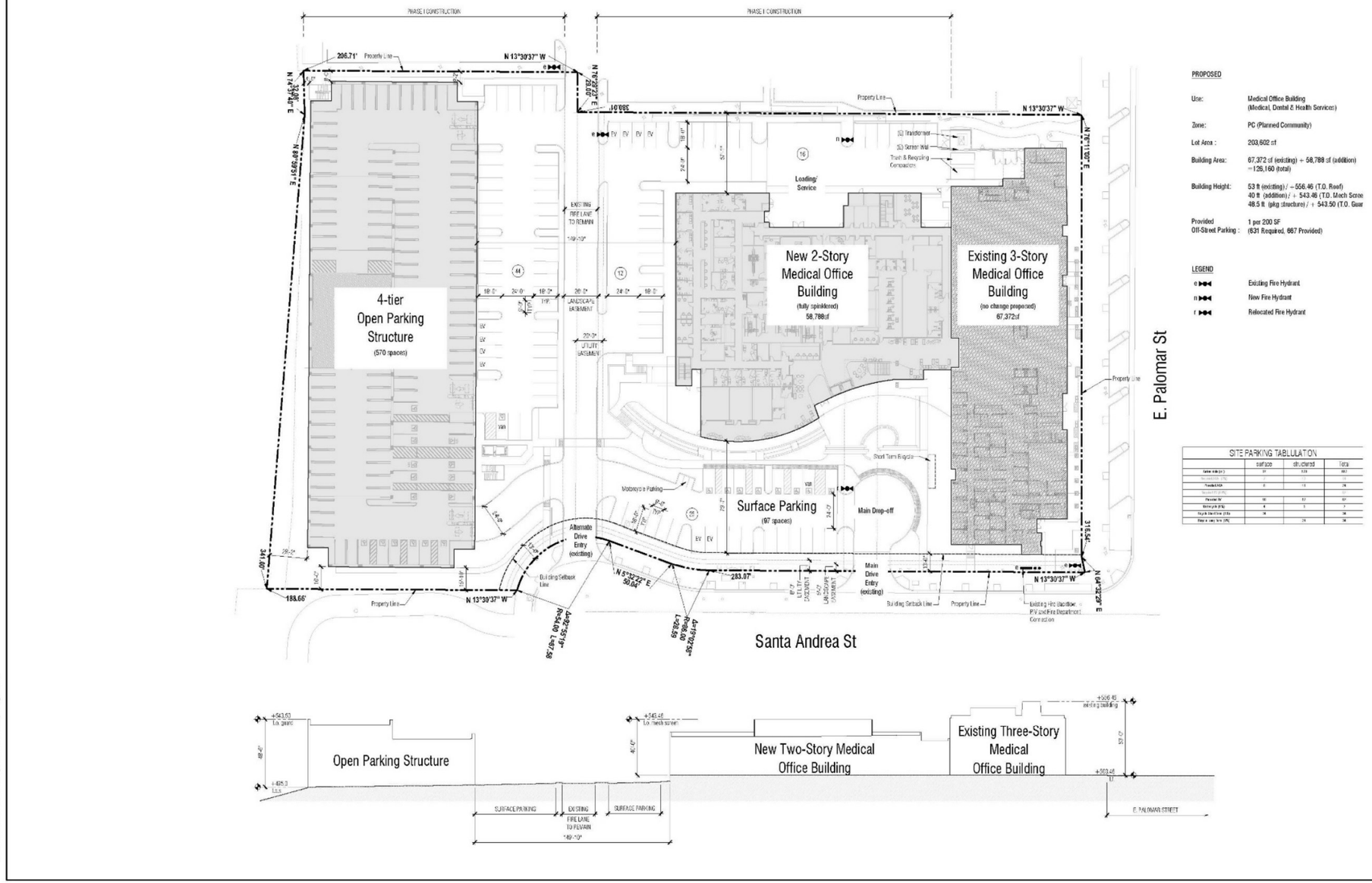
Coordination with San Diego Gas & Electric Company (SDG&E) would start immediately after the schematic design is complete. A meter section and simple service disruption can take months to plan. Therefore, it is important that the existing system capacity be verified and that—if an additional meter is required—this work be complete well in advance of the start of construction.

3.4. Additional Approvals Required for Construction

Besides review under CEQA, the project would require additional approvals and/or permits from the City of Chula Vista. City of Chula Vista Approval of the Design Review, Conditional Use Permit, and Grading Construction Permits requires meeting certain conditions of approval, including MMs listed throughout this document.

3.5. Tribal Consultation

Assembly Bill 52 (AB 52: California Environmental Quality Act) and CEQA (California Public Resources Code, Section 21080.3.1[b] and [d]) require a lead agency to consult with any California Native American Tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. As of the date of this IS, no Native American tribes have requested consultation.



PROPOSED

Use:	Medical Office Building (Medical, Dental & Health Services)
Zone:	PC (Planned Community)
Lot Area :	203,602 sf
Building Area:	67,372 sf (existing) + 58,788 sf (addition) = 126,160 (total)
Building Height:	53 ft (existing) / ~ 556.46 (T.O. Roof) 40 ft (addition) / ~ 543.46 (T.O. Mech Screen 48.5 ft (pkg structure) / ~ 543.50 (T.O. Guar
Provided Off-Street Parking :	1 per 200 SF (631 Required, 667 Provided)

LEGEND

e	Existing Fire Hydrant
n	New Fire Hydrant
r	Relocated Fire Hydrant

SITE PARKING TABULATION

	surface	structured	Total
Parker ratio (1/)	37	1.53	1.67
Required (176)	97	534	631
Provided (667)	97	570	667
Motorcycle (5%)	4	3	7
Bicycle Short Term (10%)	34		34
Bicycle Long Term (10%)		29	29

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Figure 3-3. Site Plan

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Section 4 Initial Study Environmental Checklist

4.1. Project Information

1.	**Project Title:**	Sharp Rees-Stealy Otay Ranch Expansion Project
2.	**Lead Agency Name and Address:**	City of Chula Vista Planning and Building Department 276 Fourth Avenue Chula Vista, CA 91910
3.	**Contact Person and Phone Number:**	Oscar Romero (619) 691-5098
4.	**Project Location:**	1400 East Palomar Street Chula Vista, CA 91913
5.	**Project Sponsor's Name and Address:**	Sharp Rees-Stealy Medical Group 8520 Tech Way San Diego, CA 92123-1499
6.	**General Plan Designation:**	Mixed-Use Residential
7.	**Zoning:**	Planned Community

8. Description of Project:

The applicant proposes to construct a new 58,788-square-foot MOB and parking structure of= 43,793 square-feet to accommodate a total of 649 parking spaces within the existing parking area.= The parking structure would be built in the southern section of the project site, and the new MOB= would be located just to the south and attached to the existing MOB, but north of the proposed= parking structure (Figure 3-3).

Main access to the expanded facility would be via Santa Andrea Street where patrons and patients= would arrive at the new entry plaza and main building entry upon arrival to the campus. In addition= to the parking structure, the project would include 79 surface parking spots including 16 with= Americans with Disabilities Act (ADA) accessibility for ease of access to building entrances, for a= total of 649 parking spots with 22 designated for ADA accessibility.

The project would include various functional outdoor spaces that could be used as an extension of= the MOB. There would be an enhanced arrival court and entry plaza to greet patrons. An entry= plaza would provide direct connection to the conference center, urgent care facility, and lobby. This= space would be partially covered and could be used for outdoor functions. The parking structure= would also have an entry court that would be generously landscaped.

The new MOB would include a daylight-filled lobby and be centrally located between the existing MOB and the new expansion, linking the two buildings together. The first floor of the new MOB would include an urgent care, advanced radiology services, a new lab, and a small conference center for training and clinics. An atrium would connect the first- and second-floor lobbies.

Construction of the project would occur in two phases over the course of 24 months. Phase one includes demolition of the existing staff surface parking lot, regrading, and construction of the new four-story parking structure. This phase is anticipated to take approximately nine months to complete. Displaced staff parking will be accommodated via a combination of parking stalls Sharp intends to lease from the adjacent property owner St. Paul's and available unused stalls at Sharp Chula Vista Medical Center located approximately 2 miles away. Completion of phase one will lead immediately to commencement of phase two, which involves demolition of the existing patient surface parking lot, regrading, and construction of the two-story addition. Total duration for this phase is approximately 15 months. Patient and staff parking would take place within the newly constructed garage throughout the duration of this phase.

9. Surrounding Land Uses and Setting:

The project site is currently used as surface parking and a MOB. The project is in a developed area bounded to the south by single-family residential uses, to the west by multifamily residential and commercial development, to the east by commercial property, and to the north by East Palomar Street.

10. Other Public Agencies Whose Approval is Required:

City of Chula Vista

11. Agencies Reviewing the Project:

SDG&E
Otay Water District

12. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Pursuant to AB 52 (Gatto 2014), California Native American tribes traditionally and culturally affiliated with the project area can request notification of projects in their traditional cultural territory. No tribes have requested notification from the City of Chula Vista. Therefore, AB 52 Tribal Consultation was not held on this project.

4.2. Environmental Factors Potentially Affected

The environmental factors checked below would potentially be affected by this project (i.e., the project would involve at least one impact that is a "Potentially Significant Impact"), as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agricultural and Forestry Resources	☒ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils/ Paleontological Resources	☐ Greenhouse Gas Emissions	☐ Hazards and Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☒ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☒ Transportation	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

4.3. Lead Agency Determination

Based on this initial evaluation:

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent (state), including implementation of the mitigation measures identified herein. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An EIR is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature Date

The signature below signifies that the Applicant has read and accepts the mitigation measures detailed in the final Mitigated Negative Declaration.

Oscar Romero, Senior Planner

Printed Name Date

4.4. Evaluation of Environmental Impacts

This section documents the screening process used to identify and focus on environmental impacts that could result from the project. The checklist portion of the IS begins below and includes explanations of each CEQA issue topic. CEQA requires that an explanation of all answers be provided along with this checklist, including a discussion of ways to mitigate any significant effects identified. The following terminology is used to describe the potential level of significance of impacts:

- **No Impact.** The analysis concludes that the project would not affect the resource in any way.
- **Less than Significant.** The analysis concludes that the project would not cause substantial adverse change to the environment without the incorporation of mitigation.
- **Less than Significant with Mitigation Incorporated.** The analysis concludes that it would not cause substantial adverse change to the environment with the inclusion of mitigation agreed upon by the Applicant.
- **Potentially Significant.** The analysis concludes that the project could result in a substantial adverse effect or significant effect on the environment, even if mitigation is incorporated. If there are one or more "potentially significant impact" entries when the determination is made, an EIR is required.

4.4.1. Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?	☐	☐	☐	☒
c.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	☒	☐

Impact Analysis

The proposed project would introduce a new two-story MOB, built off and behind the existing three-story MOB, and a five-tier parking structure at 1400 East Palomar Street in the City of Chula Vista. The proposed project would be in an urbanized area, bordered by Heritage Park and multifamily residential land uses to the north, St. Paul's Plaza senior living center to the east, single-family residential land uses to the south, and multifamily residential and commercial land uses to the west. A bike trail also passes by the project site near the southernmost parking lot, connecting the Santa Andrea Street cul-de-sac and Olympic Parkway. The existing MOB is visually consistent with nearby development in coloring and architectural styling (Mission Revival) and accents. In addition, landscaping surrounding the existing MOB and within the existing parking lot are visually consistent with the landscaping associated with buildings surrounding the project site and within adjacent parking lots.

Public views toward the project site are generally available from local roadways, sidewalks, and land uses immediately surrounding the project site; however, the existing parking lot is not visible behind the existing MOB, which blocks views of the parking lot from East Palomar Street, Heritage Park, and residential land uses to the north. Views of the project site are partially available from the ground floor of the residences on the north side of Fieldbrook Street, which immediately borders the south end of the site. The areas surrounding the new MOB and proposed parking structure would be landscaped with accent, screen, street, and parking lot shade trees; succulent plantings; and shrub and grass plantings to provide an attractive landscape that blends well with surrounding development. Views of the project site from the residences on the south side of Fieldbrook Street are blocked by the residences on the north side and the fencing immediately bordering the site. A combination of architectural screening in nature hues and decorative *Pyrostegia venusta* vine planting will be used to screen the parking structure façade on the

southwestern edge. Additionally, screening trees would be provided along the majority of the south edge of the parking structure, where slope grade allows.

Views of the areas behind the existing MOB are most directly available from the land uses to the east and west. Views from the existing parking lot associated with the project site include private views out and over the landscape toward the Ocean View Hills and Otay Mountains, in addition to views of the surrounding development and parking lots. However, views toward the Ocean View Hills and Otay Mountains are partially obscured by mature trees and dominated by development in the immediate foreground to the background. Therefore, while the views toward the Ocean View Hills and Otay Mountains are high quality, they are not considered to be scenic vista views that are available to the public because the views are partially obscured and on private lands. Sensitive viewer groups in the project vicinity generally include roadway travelers, residents, recreationists, and workers and patrons associated with nearby commercial areas and medical facilities. *Chula Vista Vision 2020* includes the following policies pertaining to aesthetic resources that are pertinent to the proposed project (City of Chula Vista 2021):

LUT 4.3. Require that new development, or redevelopment, through consideration of site and building design, and appropriate transition and edge treatments does not negatively affect the nature and character of nearby established neighborhoods or development.

LUT 4.4. Ensure that proposals for new construction, remodels and additions within existing stable, neighborhoods are appropriately sized and designed to be compatible with the neighborhood's character, and to minimize impacts on adjacent parcels.

LUT 6.1. Ensure, through adherence to design guidelines and zoning standards, that the design review process guarantees excellence in design and that new construction and alterations to existing buildings are compatible with the best character elements of the area.

LUT 6.2. Require that proposed development plans and projects consider and minimize project impacts upon surrounding neighborhoods.

LUT 6.5. Require, through sensitive and attractive design, that neighborhood retail centers and commercial service buildings are compatible with the surrounding neighborhood.

LUT 6.6. Establish design guidelines and development standards for commercial and mixed-use development that respect and complement the character of surrounding neighborhoods and uses.

LUT 7.3. Require that commercial and industrial development adjacent to residential or educational uses be adequately screened and buffered to minimize noise, light, glare, and any other adverse impacts upon these uses.

LUT 7.4. Require landscape and/or open space buffers to maintain a naturalized or softer edge for proposed private development directly adjacent to natural and public open space areas.

LUT 8.3. Ensure that buildings are appropriate to their context and designed to be compatible with surrounding uses and enhance the desired character of their District.

LUT 10.4. Prior to the approval of projects that include walls that back onto roadways, the City shall require that the design achieves a uniform appearance from the street. The walls shall be uniform in height, use of materials, and color, but also incorporate elements, such as pilasters, that add visual interest.

LUT 11.2. Promote and place a high priority on quality architecture, landscape, and site design to enhance the image of Chula Vista, and create a vital and attractive environment for businesses, residents, and visitors.

LUT 11.3. The City shall, through the development of regulations and guidelines, ensure that good project landscape and site design creates places that are well-planned; attractive; efficient; safe; and pedestrian-friendly.

LUT 11.4. Actively promote architectural and design excellence in buildings, open space, and urban design.

LUT 11.5. Require a design review process for all public and private discretionary projects (which includes architectural, site plan, landscape and signage design) to review and evaluate projects prior to issuance of building permits to determine their compliance with the objectives and specific requirements of the City's Design Manual, General Plan, and appropriate zone or Area Development Plans.

LUT 13.1. Identify and protect important public viewpoints and viewsheds throughout the Planning Area, including features within and outside the planning area, such as: mountain; native habitat areas; San Diego Bay; and historic resources.

LUT 33.2. Establish design guidelines for the siting and creation of parking structures, including the requirement that parking structures adjacent to street frontage have ground floor commercial uses along the frontage and that their facades incorporate design features that enhance the street frontage.

LUT 75.2. Design villages to have well defined edges where they interface with natural or naturalized features, such as the Chula Vista Greenbelt open spaces, or wildlife corridor.

In addition to the general plan, the City of Chula Vista Municipal Code (CVMC) Chapters 17.28 and 19.62.120 require that lighting associated with commercial operations and parking lots be shielded and directed away from adjacent residential properties.

a. Have a substantial adverse effect on a scenic vista?

No Impact. Although partial, expansive, and high-quality views are available from the existing parking lot toward the Ocean View Hills and Otay Mountains, the views are not considered to be a scenic vista view to be protected because the views are partially obscured and on private lands and not available to the public. Furthermore, the parking structure would not interfere with the expansive views available to adjacent buildings on private lands to the east and west of the project site. Therefore, there would be no impact on publicly available scenic vista views.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?

No Impact. There are no State Scenic Highways associated with the proposed project (Caltrans 2019). Olympic Parkway, La Media Road, and Heritage Road are City-designated scenic roadways (City of Chula Vista 2021). Olympic Parkway is just over 0.10 mile to the south of the project, separated from the project site by residential development and slopes along the parkway. Olympic Parkway does not have views of the site because the roadway is at a lower elevation than the land immediately to the north and slopes along the roadway, vegetation on the slopes, and intervening residential development prevent views of the site. La Media Road and Heritage Road are approximately 0.5 mile to the east and west, respectively, of the project site. Neither of these roadways have views of the site because the curvature of East Palomar Street, residential development, streetscaping and residential landscaping, fencing and perimeter walls, and terrain prevent views of the project site. Therefore, there would be no impact on scenic roadways.

c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less-than-Significant Impact. The proposed project site is in an urbanized area with transportation, residential, recreational, commercial, and medical land uses. Therefore, the proposed project should comply with local regulations governing scenic quality. Impacts associated with compliance with regulations pertaining to light and glare are discussed under Threshold (d) below. The City's General Plan has policies that require that new development/redevelopment be attractive and well designed, be compatible with the character of adjacent development, utilize attractive landscaping, and minimize project impacts upon surrounding neighborhoods (Policies LUT 4.3, 4.4, 6.1, 6.2, 6.5, 6.6, 7.4, 8.3, 10.4, 11.2, 11.3, 11.4, and 11.5). The new MOB and parking structure would be built on the existing parking lot for the existing MOB. The new MOB and parking structure would not be readily visible behind the existing, taller MOB to viewers along East Palomar Street, within Heritage Park, and from residential land uses to the north except near the intersection of East Palomar Street and Santa Andrea Street, where Santa Andrea Street provides a view corridor toward the area that would be redeveloped. The proposed parking structure would be partially visible from the ground floors of residences north of Fieldbrook Street that border the site to the south. The new MOB and proposed parking structure would feature high-quality architectural design treatments and coloring that would be aesthetically pleasing and compatible with surrounding development. Additionally, the areas surrounding the new MOB and proposed parking structure would be landscaped with accent, screen, street, and parking lot shade trees; succulent plantings; and shrub and grass plantings to provide an attractive landscape that blends well with surrounding development. Therefore, the proposed project would comply with the policies listed above. Furthermore, the front of the existing MOB would not be modified so that the interface and defined edge between Heritage Park and the medical center would be retained, ensuring compliance with Policy LUT 75.2. The parking garage would be well designed and have landscaping and design features that enhance the street frontage as seen from Santa Andrea Street, ensuring compliance with Policy LUT 33.2.

The general plan also seeks to protect important public viewpoints and viewsheds throughout the planning area, including features within and outside the planning area, such as nearby mountains and hillsides (Policy LUT 13.1). As described above, partial, expansive, and high-quality views toward the Ocean View Hills and Otay Mountains are available from the existing parking lot at the project site. The views are on private lands and not available to the public. However, the parking structure would not obscure views toward the Ocean View Hills and Otay Mountains from the project site but would offer greater access to these views because the multi-level structure would provide elevated vantages out toward these views. Furthermore, the parking structure would not interfere with the expansive views available to adjacent buildings on private lands to the east and west of the project site. Therefore, the proposed project would comply with this policy. Overall, the proposed project would comply with City policies governing scenic quality. Impacts would be less than significant.

d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Less-than-Significant Impact. The City's General Plan Policy LUT 7.3 requires that commercial development adjacent to residential or educational uses be adequately screened and buffered to minimize light and glare impacts on these uses. Nighttime glare from headlights in the parking lots and along access

routes associated with new MOB are expected to be less than significant as seen from nearby residential areas because landscaping associated with the parking lots and structures would introduce trees and shrubs that would filter most light coming from vehicle headlights. In addition, intervening features (e.g., other buildings and landscaping not associated with the project site) would obscure views of headlights coming from the parking lots and proposed parking structure. Interior light emanating from the new multistory MOB and proposed parking structure has the potential to result in significant impacts by increasing the amount of lighting that would radiate out from the site onto adjacent areas and also contribute to sky glow. However, City design review has indicated that all light sources must be shielded in such a manner that the light is directed away from streets or adjoining properties and that the project must provide a photometric study showing that there is no light spilling onto adjacent properties. Site landscaping, design measures to reduce light and glare impacts, and the photometric study would ensure compliance with general plan Policy LUT 7.3 and CVMC Chapters 17.28 and 19.62.120, and that light and glare impacts are less than significant.

Mitigation

No mitigation measures are required.

4.4.2. Agricultural and Forestry Resources

In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts on forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project, and forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b.	Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	☐	☐	☐	☒
c.	Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d.	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e.	Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Impact Analysis

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. As indicated on the California Department of Conservation's Farmland Mapping and Monitoring Program, the project site and immediate vicinity are identified as "Urban and Built-Up Land" (California Department of Conservation 2018). As such, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, and no impact would occur.

b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?

No Impact. The project site is not on Williamson Act contract land (SANDAG 2021). Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and no impact would occur.

c. Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. The project site is zoned as Mixed-Use Residential. The project site is not currently designated or used for forestry resources. Therefore, the proposed project would not conflict with existing zoning for forest land or timberland, and no impact would occur.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The project site is zoned as Mixed-Use Residential. The project site is not currently designated or used for forestry resources. Therefore, the proposed project would not result in the loss of forest land or conversion of forest land to non-forest use.

e. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The project site is zoned as Mixed-Use Residential. The proposed project would not result in the conversion of agricultural or forest land. None of the surrounding lands in the vicinity of the project site are used for agriculture or are forest lands. Therefore, the proposed project would not result in the direct or indirect conversion of agricultural uses or forest land, and no impact would occur.

Mitigation

No mitigation measures are required.

4.4.3. Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b.	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Impact Analysis

The analysis in this section is based on the *Air Quality, Greenhouse Gas, and Energy Impact Analysis* technical report prepared for the project (Appendix A) and on the *Local Mobility Analysis* prepared specifically for this IS/MND (Appendix D).

a. Conflict with or obstruct implementation of the applicable air quality plan?

Less-than-Significant Impact. The proposed project is located in the San Diego Air Basin (SDAB), which covers the entirety of San Diego County. The San Diego County Air Pollution Control District (SDAPCD) is the local agency responsible for the administration and enforcement of air quality regulations in San Diego County.

The SDAPCD is responsible for overseeing stationary-source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, and reviewing air quality–related sections of environmental documents required by CEQA. SDAPCD is also responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws and ensuring that the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are met. SDAPCD has adopted air quality plans to improve air quality, protect public health, and protect the climate. The San Diego Regional Air Quality Strategy (RAQS) outlines SDAPCD's plans and control measures designed to attain and maintain the state standards, while San Diego's portions of the State Implementation Plan (SIP) are designed to attain and maintain federal standards. The SDAPCD is required, pursuant to the federal and state Clean Air Acts (CAAs), to reduce emissions of criteria pollutants for which the County is in nonattainment (i.e., ozone [O_3], respirable particulate matter [PM_{10}], and fine particulate matter [$PM_{2.5}$]). The most recent SDAPCD air quality attainment plans are the 2016 RAQS, the 2020 SIP, and the 2016 SIP.

The City of Chula Vista General Plan is the governing land use document for physical development within the city. Projects that propose development consistent with growth anticipated by the General Plan

are considered consistent with the air quality attainment plans. If a project would propose development that is less dense or intense than anticipated within the current General Plan, the project would likewise be consistent with the attainment plans because emissions would be less than estimated within the current general plan. If a project proposes development that is greater than that anticipated in the general plan and the San Diego Association of Governments' (SANDAG's) growth projections, the project could be in conflict with the attainment plans and might have a potentially significant impact on air quality because emissions could exceed those estimated for the existing land use plan (i.e., general plan).

The project site is within an existing Sharp HealthCare property in a built-out, urbanized community. Construction of the proposed project would result in the generation of temporary construction jobs; however, the additional jobs are temporary and are expected to be filled by the existing local labor force in the San Diego region. The proposed project would not directly or indirectly induce population growth, as it does not propose new homes or include the extension of roadways or other infrastructure and would operate as a population-serving facility.

Furthermore, the proposed project would not include any amendments to the existing Zoning Ordinance or substantially increase motor vehicle trips in the project area. The original Conditional Use Permit would be amended to include the enhanced Urgent Care Center and additional services that are part of the project. As such, the proposed project would not conflict with the existing land use designation as delineated in the City's General Plan. While the proposed project would result in an increase of 2,891 average daily trips (ADT), these trips and subsequent mobiles emissions would not exceed the SDAPCD daily operational thresholds. Additionally, the project is in a vehicle miles traveled (VMT) efficient area and is 71.3 percent of the regional VMT. The project meets the Project Location Screening criteria for Employment and therefore is screened out from requiring a VMT analysis. In total, the project's unmitigated construction and operational emission would be below the established South Coast Air Quality Management District (SCAQMD) thresholds; refer to Tables 3.4.3-1 and 3.4.3-2 in Threshold (b) below. A project that has construction and operational emissions below the adopted SCAQMD thresholds is not expected to cause an exceedance of the NAAQS and thus would be consistent with the goals of the 2016 RAQS, 2020 SIP, and 2016 SIP.

Therefore, because the proposed project includes development that is consistent with the uses allowed by the general plan, would be screened out of a VMT analysis, and would not exceed the adopted threshold levels for construction and operational emissions, it would not conflict with or obstruct implementation of the air quality plans. Impacts related to implementation of the RAQS or the SIP would be less than significant, and no mitigation measures are required.

b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard?

Less-than-Significant Impact. Construction of the proposed project would result in the temporary addition of pollutants to the local airshed caused by onsite sources (i.e., off-road construction equipment, soil disturbance, and volatile organic compounds [VOCs] off-gassing) and offsite sources (worker vehicle

trips). Construction emissions can vary substantially day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions.

The SCAQMD has established air quality significance thresholds that are applicable to both construction and operational emissions generated by CEQA projects. These regional pollutant emission thresholds are shown in Table 4.4.3-1.

Table 3.4.3-1. SCAQMD Regional Air Quality Significance Thresholds

Daily Threshold (pounds per day)	VOC[1]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Construction	75	100	550	150	150	55
Operations	55	55	550	150	150	55

Source: SCAQMD 2019.

[1] The terms VOC and ROG are used interchangeably. SCAQMD uses VOC, and CalEEMod uses ROG.
NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides.

Table 4.4.3-2 summarizes the modeled peak daily emissions of criteria pollutants associated with construction of the project. Construction of the proposed project is expected to be staggered over the course of the approximately 2-year construction period. However, for purposes of presenting a conservative analysis, it was assumed that the maximum day from each construction phase would overlap on a single day. As shown, the maximum level of daily construction emissions generated by the project would not exceed construction thresholds for any criteria pollutants on this peak concurrent day. As such, these construction emissions levels would not be expected to contribute a significant level of air pollution such that regional air quality within the SDAB would be degraded. Therefore, impacts related to construction-phase emissions would be less than significant, and no mitigation measures are required.

Table 4.4.3-2. Summary of Construction Criteria Pollutant Emission Estimates (pounds per day)

Construction Phase	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Demolition	<1	<1	<1	<1	<1	<1
Grading, Underground Utilities, and Site Improvements	2	24	17	<1	8	4
Parking Structure	2	21	16	<1	1	1
New MOB Building Cold Shell	2	15	16	<1	2	1
Tenant Improvement	5	15	16	<1	2	1
Parking Lot	1	10	15	<1	1	<1
Maximum Daily Emissions	12	85	81	<1	15	8
Construction Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

Source: Appendix A.
Totals may not sum perfectly due to rounding.

Table 4.4.3-3 summarizes the modeled daily emissions of criteria pollutants associated with operation of the project. As shown, the daily operational emissions generated by the project would not exceed the operational thresholds for any criteria pollutants. As such, these operational emissions levels would not be expected to contribute a significant level of air pollution such that regional air quality within the SDAB

would be degraded. Therefore, impacts related to operations-phase emissions would be less than significant, and no mitigation measures are required.

Table 4.4.3-3. Summary of Operational Criteria Pollutant Emission Estimates (pounds per day)

Operational Element	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Mobile	7	6	55	<1	12	3
Natural Gas	<1	<1	<1	<1	<1	<1
Area	2	<1	<1	<1	<1	<1
Generator Testing	<1	1	1	<1	<1	<1
Daily Operational Emissions	9	8	57	<1	12	3
Operational Threshold	55	55	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

Source: Modeling outputs provided in Appendix A.
Totals may not sum perfectly due to rounding.

c. Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant with Mitigation Incorporated. Diesel Particulate Matter (DPM), which is classified as a carcinogenic toxic air contaminant (TAC) by the California Air Resources Board (CARB), is the primary exhaust pollutant of concern with regard to health risks to sensitive receptors. Diesel-powered vehicles, equipment, and vessels that operate throughout the proposed project area would emit DPM that could expose nearby sensitive receptors to pollutant concentrations. Prolonged exposure to DPM can increase the risk of cardiovascular, cardiopulmonary, and respiratory disease, and lung cancer.

Health Risk Assessment

Health risks related to DPM are assessed quantitatively based on anticipated project emissions and proximity to sensitive receptors. Nearby sensitive receptors include medical office users throughout the project area on site, along with various sensitive receptor locations off site, including single- and multifamily residential uses to the south and west, assisted living uses to the east, and park uses to the north. The closest sensitive receptors are as close as 50 feet to the east of the project site boundary. However, construction would occur across the entire project site and would not be concentrated near the project site boundary. Thus, a screening distance of 50 meters was adopted.[3]

Construction of the project is expected to last approximately 1.92 years. DPM emissions emitted by construction sources can remain airborne for several days but dissipate as a function of distance from the emissions source. The nearest monitoring site with AERMOD Meteorological Preprocessor (AERMET) data available is the Chula Vista Station located at the Chula Vista Elementary School District, approximately 3.7 miles to the northeast of the project site. According to this AERMET station and data, the wind in Chula Vista and at the proposed project site blows predominantly from the west to the east.

[3] The majority of the major project components: the new two-story medical office building and five tier open parking structure would be located at a distance greater than 50 meters from the downwind sensitive receptors.

During construction, receptors at residences and parks would have limited exposure to DPM, with exposure limited to visitation that coincides with weekday construction activities. In addition, onsite receptors would have limited exposure to diesel exhaust, with exposure limited to outdoor activities that coincide with weekday construction activities. Moreover, pollutant concentrations inside the existing medical offices would be greatly decreased from outdoor concentrations.

Unmitigated Construction Health Risk

Based on the unmitigated CalEEMod calculations for project construction, the project would result in maximum unmitigated annual emissions of 0.20 ton of PM_{10} exhaust (Appendix A). This maximum annual emissions rate was modeled over the entire 23-month construction period. Based on AERSCREEN modeling results, the maximum 1-hour ground-level DPM concentration from construction activities would be 0.56 micrograms per cubic meter ($\mu g/m^3$). This was converted to an annual average concentration of 0.056 $\mu g/m^3$ using an annual conversion factor of 0.10 (EPA 2021). The resulting annual concentrations were inputted into the CARB Hot Spots Analysis & Reporting Program (HARP2) Risk Assessment Standalone Tool (RAST), which uses the equations discussed in Appendix A.

As shown in Table 4.4.3-4, using the CARB HARP2 RAST tool, it was calculated that the unmitigated excess cancer risk would be 15.01 in a million. The non-cancer chronic risk is 0.0112, which is below the threshold of 1. Thus, unmitigated DPM emissions generated by the project's construction would exceed the adopted threshold of 10 in 1 million and would cause a significant health impact. To reduce the DPM emissions, **MM-AQ-1** will be incorporated; the measure requires that all construction diesel equipment greater than 50 horsepower (hp) are U.S. Environmental Protection Agency (EPA) Tier 4 Final or Electric. Incorporation of **MM-AQ-1** would greatly reduce the DPM concentrations at the nearby sensitive receptors. (Refer to the AERSCREEN and cancer risk calculations provided in Appendix A.)

Table 4.4.3-4. Estimated Unmitigated Project-Level Health Risk Results from Construction

Offsite Receptor Type	Cancer Risk (cases per million)[1]	Non-Cancer Chronic Risk[2]
Resident	15.01	0.0112
SCAQMD Significance Threshold	10.0	1.0
Exceeds Threshold?	Yes	No

Source: Appendix A.
[1] The evaluation of cancer risk set forth in the Health Risk Assessment was based on an exposure duration of 1.92 years at a distance of 50 meters with the EPA AERSCREEN model.
[2] The City has adopted SCAQMD CEQA thresholds.

Mitigated Construction Health Risk

Based on the mitigated CalEEMod calculations for project construction, the project would result in maximum annual emissions of 0.01 ton of PM_{10} exhaust with the implementation of **MM-AQ-1**. This maximum annual emissions rate was modeled over the entire 23-month construction period.

Based on AERSCREEN modeling results, the maximum 1-hour ground-level DPM concentration from construction activities would be 0.04 $\mu g/m^3$. This was converted to an annual average concentration of

0.0038 µg/m^3 using a conversion factor of 0.10 (EPA 2021). The resulting annual concentration was inputted into the CARB HARP2 RAST tool, which uses the equations discussed in Appendix A.

As shown in Table 4.4.3-5, using the CARB HARP2 RAST tool, the mitigated excess cancer risk was calculated to be 1.02 in a million, which is below the 10 in 1 million threshold. The non-cancer chronic risk is 0.00076, which is below the threshold of 1. Thus, with incorporation of **MM-AQ-1,** the proposed project would not cause a significant health risk impact at the nearby sensitive receptors, and the impacts would be less than significant.

Table 4.4.3-5. Estimated Mitigated Project-Level Health Risk Results from Construction

Offsite Receptor Type	Cancer Risk (cases per million)[1]	Non-Cancer Chronic Risk[2]
Resident	1.02	0.00076
SCAQMD Significance Threshold[2]	10.0	1.0
Exceeds Threshold?	No	No

Source: Appendix A.
[1] The evaluation of cancer risk set forth in the Health Risk Assessment was based on an exposure duration of 1.92 years at a distance of 50 meters with the EPA AERSCREEN model.
[2] The City has adopted SCAQMD CEQA thresholds.

Emergency Generator

SDAPCD Rule 1200 establishes acceptable risk levels and emission control requirements for new and modified facilities that may emit operational TACs, including DPM.[4] Under Rule 1200, permits to operate may not be issued when emissions of TACs result in an incremental cancer risk greater than 10 in 1 million with application of best available control technology, or a health hazard index (chronic and acute) greater than 1. Use of the proposed backup generator would not represent a significant source of operational DPM because the generator would be equipped with a diesel particulate filter, and generator testing would be minimal. Further, use of the diesel particulate filter would mean that the proposed generator would meet best available control technology requirements. It was assumed that the backup generator would be tested periodically for 1 hour at a time and for 52 hours per year, consistent with the requirements within SDAPCD Rule 69.4.

In order to calculate a potential worst-case scenario, a screening level Health Risk Assessment with AERSCREEN was completed for the proposed emergency generator. The emergency generator would be located to the west of the existing medical office, approximately 125 meters away from the nearest sensitive receptors that are downwind. Based on the CalEEMod calculations for the emergency generator emissions, the project's Tier 3 emergency generator would result in maximum annual emissions of 0.00168 ton of PM_{10} exhaust per year. It should be noted that the CalEEMod run did not include the reductions from a diesel particulate filter, which would be required. Thus, these calculations are considered conservative. It was assumed that this emergency generator would operate for 30 years.

[4] Specifically, Rule 1200 applies to any new, relocated, or modified emission unit that may increase emissions of one or more TAC and for which an Authority to Construct or Permit to Operate is required pursuant to Rule 10, or for which a Notice of Intention or Application for Certification has been accepted by the California Energy Commission.

Based on AERSCREEN modeling results, the maximum 1-hour ground-level DPM concentration from the emergency generator at a distance of 125 meters would be 0.0045 µg/m^3. This was converted to an annual average concentration of 0.0004 µg/m^3 using a conversion factor of 0.10 (EPA 2021). The resulting annual concentration was inputted into the CARB Hot Spots Analysis HARP2 RAST tool, which uses the equations discussed in Appendix A.

As shown in Table 4.4.3-6, using the CARB HARP2 RAST tool, it was calculated that the emergency generator risk would be 0.27 in a million, which is below the 10 in 1 million best available control technology threshold. The non-cancer chronic risk is 0.00008, which is below the threshold of 1. Thus, the operation of the emergency generator would cause a significant health impact, and impacts would be less than significant, and no mitigation measures are required.

Table 4.4.3-6. Estimated Mitigated Project-Level Health Risk Results from the Emergency Generator

Offsite Receptor Type	Cancer Risk (cases per million)[1]	Non-Cancer Chronic Risk[2]
Resident	0.27	0.0008
SDAPCD Significance Threshold	10.0	1.0
Exceeds Threshold?	No	No

Source: Appendix A.

[1] Assumed a 30-year operational exposure duration.
[2] The emergency generator would have to be permitted by SDAPCD and thus would comply with SDAPCD thresholds.

Criteria Pollutants

All criteria pollutants that would be generated by the proposed project are associated with some form of health risk (e.g., asthma, lower respiratory problems). However, the construction and operational thresholds presented in Table 4.4.3-1 consider existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. Projects that generate criteria pollutant and ozone precursor emissions below thresholds are minor in nature and would not adversely affect air quality such that the health-protective NAAQS or CAAQS would be exceeded. As shown in Table 4.4.3-2, construction of the proposed project would not exceed significance thresholds for any criteria pollutant. As shown in Table 4.4.3-3, operation of the proposed project would not exceed significance thresholds for any criteria pollutant. As such, impacts related to sensitive receptor exposure to regional criteria pollutants during construction and operation would be less than significant.

d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less-than-Significant Impact. During construction of the proposed project, exhaust from equipment and activities associated with the application of architectural coatings may produce discernible odors typical of most construction sites. Such odors would be a temporary source of nuisance to adjacent uses but would not affect a substantial number of people.

Potential odor emitters during operations would include exhaust from vehicles visiting the project site. However, odor impacts would be limited to the circulation routes, parking areas, and areas immediately adjacent to the project site, and would not exceed existing odor conditions. Although such brief exhaust odors may be considered unpleasant, they would not affect a substantial number of people, and any odor-related impacts would be less than significant.

Mitigation

The following mitigation measure is required to be implemented as part of the proposed project:

> **MM-AQ-1**: Use clean diesel-powered equipment during construction to control construction-related emissions.
>
> The Project Sponsor shall ensure that all off-road diesel-powered equipment greater than 50 hp used during construction is equipped with EPA-approved Tier 4 Final engines or are electric to reduce PM_{10} (DPM) emissions. The construction contractor shall submit evidence of the use of EPA-approved Tier 4 Final engines, or cleaner, to the City of Chula Vista prior to the commencement of project construction activities.

4.4.4. Biological Resources

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c.	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d.	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f.	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐

Impact Analysis

The Multiple Species Conservation Program (MSCP) is a comprehensive, long-term habitat conservation plan developed to address the needs of multiple species and the preservation of natural vegetation communities in southwestern San Diego County. The MSCP addresses the potential impacts of urban growth, loss of natural habitat, and species endangerment and creates a plan to mitigate for the potential loss of Covered Species and their habitat due to the direct, indirect, and cumulative impacts of future development of both public and private lands within the MSCP area. The City of Chula Vista MSCP Subarea Plan, approved on May 13, 2003, is a policy document through which the MSCP Subregional Plan is implemented within the City's jurisdiction. The City of Chula Vista prepared the Subarea Plan with the intent to meet the following goals (City of Chula Vista 2003):

1. To conserve Covered Species and their habitats through the conservation of interconnected significant habitat cores and linkages.
2. To delineate and assemble a Preserve using a variety of techniques including public acquisition, on- and off-site mitigation, and land use regulations.

3. To provide a Preserve management program that, together with Federal and State management activities, will be carried out over the long-term, further ensuring the conservation of Covered Species.
4. To provide necessary funding for a Preserve management program and biological monitoring of the Preserve.
5. To reduce or eliminate redundant Federal, State and local natural resource regulatory and environmental review of individual projects by obtaining Federal and State Take Authorizations for 86 species.

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less-than-Significant Impact. As stated above, the MSCP Subarea Plan provides guidance on biological resource preservation within the city. The project site area does not contain any vegetation communities given the area is covered by urban/developed land uses.

Due to the extent of vegetative disturbance and lack of suitable substrate, special-status plant species are not expected to occur. Potential is also low for special-status species to occur in the study area due to the disturbed nature of the site and the location being surrounded by urban development. However, all raptor species are considered special status and may use the site for foraging. Although raptor species have the potential to occur in the study area, lands within the impact footprint are primarily disturbed and do not provide suitable nesting habitat that would substantially deter any species from continuing to exist within the area. Therefore, impacts on special-status plants or wildlife species would be less than significant.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. As outlined above, impacts would be less than significant on any vegetation communities or wildlife species; therefore, there would be no impacts on any riparian habitat or other sensitive natural community stated within the MSCP Subarea Plan (City of Chula Vista 2003).

c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. Based on the desktop analysis using U.S. Geological Survey National Hydrography Dataset and U.S. Fish and Wildlife Service National Wetlands Inventory mapping data, no jurisdictional resources were identified within the project study area; therefore, no direct or indirect impacts on waters of the United States, including wetlands, would occur (USFWS 2022).

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less-than-Significant Impact. Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the immigration and emigration of animals. Given the urbanized residential and existing development surrounding the project site, there are no wildlife movement corridors or linkages on or adjacent to the project site, including missing linkages, essential habitat connectivity areas, or essential fish habitat. Therefore, implementation of the proposed project would not adversely affect the regional movements of fish or other wildlife, and impacts on wildlife corridors would be less than significant.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less-than-Significant Impact. The project site is within the Development Areas of Covered Projects as described in the MSCP Subarea Plan and is therefore not governed by habitat loss and incidental take ordinances or any other additional mitigation or habitat preservation requirements. There would also be no habitat loss due to the proposed project; as such, mitigation of habitat loss per the habitat loss and incidental take ratios or protection of biological resources would not be required. As the proposed project would meet the goals of the MSCP Subarea Plan, the proposed project would be consistent with the goals of *Chula Vista Vision 2020*.

Additionally, the City's Tree Preservation Ordinance (Policy Number 576-05) only establishes policies for the preservation of city street trees. Implementation of the proposed project would not affect the removal of any trees considered street trees within the city and, therefore, would not conflict with a tree preservation policy or ordinance. Implementation of the proposed project would not conflict with any local policies or ordinances protecting biological resources, and impacts would be less than significant.

f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

Less-than-Significant Impact. As described above, the project site is within the Development Areas of Covered Projects as described in the MSCP Subarea Plan. The Development Areas of Covered Projects would not be subject to the habitat loss and incidental take ordinance or any other additional mitigation or habitat preservation requirements beyond those incorporated into individual project approvals and Section 7.0 of the MSCP Subarea Plan. The proposed project design is consistent with the MSCP Subarea Plan through specific adherence to the requirements defined in the MSCP Subarea Plan.

The project site has not been identified as a strategic preserve area within the City, nor is it within a designated conservation area; therefore, the proposed project would not affect the goals and objectives of the MSCP Subarea Plan.

Mitigation

No mitigation measures are required.

4.4.5. Cultural Resources

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☐	☒
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒

Impact Analysis

a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

No Impact. The proposed project would not cause a substantial adverse change to the significance of a historical resource. The proposed project area is completely developed with a surface parking lot, which serves the existing MOB. There are no buildings or structures within or adjacent to the proposed project area that have reached the age of consideration for inclusion on the California Register of Historical Resources. Implementation of the proposed project is expected to have no impact on historical resources.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

No Impact. The proposed project would not cause a substantial adverse change in the significance of an archaeological resource. The proposed project area is completely developed with a surface parking lot, which serves the existing MOB. Because the entire project area has been affected by modern development, ground-disturbing activities are unlikely to encounter any buried archaeological resources. Implementation of the proposed project is expected to have no impact on archaeological resources.

c. Disturb any human remains, including those interred outside of dedicated cemeteries?

No Impact. The proposed project with not affect any formal cemeteries or known interments outside of formal cemeteries. The proposed project area is completely developed with a surface parking lot, which serves the existing MOB. Implementation of the proposed project would have no impact on human remains.

Mitigation

No mitigation measures are required.

4.4.6. Energy

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Impact Analysis

The analysis in this section is based on the *Air Quality, Greenhouse Gas, and Energy Impact Analysis* technical report prepared for this project (Appendix A).

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less-than-Significant Impact. Construction activities would include the construction of the MOB expansion and parking garage, establishment of various open spaces, and installation of infrastructure. Construction-related energy usage would include gasoline and diesel fuel used for transportation of workers and materials to and from the construction site, the operation of off-road equipment, and electricity needed to power electric construction tools. Construction-related energy usage and consumption would vary throughout the course of the project and would depend on the level of activity, the length of the construction period, the specific construction operations, the types of equipment, and the number of workers. The estimated construction-related energy consumption for the proposed project is provided in Table 4.4.6-1. As shown, project construction would consume approximately 41,692 million British thermal units (BTUs) over the 2-year construction period, which includes 89,223 gallons of gasoline and 220,180 gallons of diesel. Comparatively, gasoline and diesel consumption in San Diego County in year 2020 amounted to 1,055,000,000 gallons of gasoline and 195,833,333 gallons of diesel (CEC 2020). As such, the project's gasoline and diesel usage during the 2-year construction period would require an annual demand of 0.00846 percent and 0.1124 percent, respectively, of the total annual gasoline and diesel consumption in San Diego County.

The proposed project would add new specialty services and expand existing primary care access, reducing the need for patients to travel outside of Chula Vista to receive care. The proposed project would include material export and equipment use necessary for construction. As fuel use for these activities is necessary for supporting building construction, it is not considered to be wasteful, inefficient, or unnecessary.

There are no known conditions in the project area that would require nonstandard equipment or unusual construction practices that would increase onsite heavy-duty construction equipment use. Therefore, project construction would not result in the use of excessive amounts of fuel or other forms of energy.

Construction of the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, and this impact would be less than significant.

Table 4.4.6-1. Project Energy Consumption

Source	Usage	Usage (Million BTU)
Construction		
Trucks	51,644 gallons (diesel)	7,163
Workers	89,223 gallons (gasoline)	11,153
Equipment	168,535 gallons (diesel)	23,376
Total Construction		41,692
Operations (per year)		
Transportation	473,186 gallons (gasoline)	59,148
Electricity	1,619,509 kilowatt hours	5,526
Natural Gas	1,177,320 kBTU	1,177
Total Operations – Transportation		59,148
Total Operations – Non-Transportation		6,703

kBTU = thousand British thermal units; million BTU = million British thermal units

Project-related transportation energy use would result from employee, patient, and visitor motor vehicle trips to the project site. For purposes of analysis, it was assumed that employees, patients, and visitors would travel in passenger vehicles, and that all passenger vehicles are gasoline-powered. Estimated transportation-related energy consumption for the proposed project is estimated to be 61,383 million BTUs, which includes 491,061 gallons of gasoline. Compared to the 1,055 million gallons of gasoline consumed in San Diego County in 2020 (CEC 2020), the operational gasoline demand of the project of 473,186 gallons of gasoline would represent approximately 0.0449 percent of the total annual gasoline consumption in San Diego County. Note that the energy consumption estimate is based on fuel efficiency standards as of 2024. Fuel consumption is expected to decline over time as a result of continued implementation of federal and state vehicle efficiency standards. There is no component of the project that would result in unusually high vehicle fuel use during operation. Moreover, as noted in Section 3.4.3 above, the project is consistent with the growth projections anticipated in the City's General Plan and in the regional air quality attainment plans. Thus, operation of the project would not create a land use pattern that would result in wasteful, inefficient, or unnecessary use of energy.

Non-transportation energy use would be associated with electricity and natural gas consumption at the MOB. Estimated non-transportation-related energy consumption for the proposed project is estimated to be 6,703 million BTUs, which includes 1,619,509 kilowatt hours (kWh) of electricity and 1,177 million BTU of natural gas. The annual non-residential electricity usage in San Diego County in 2020 was 11,657,679,451 kWh (CEC 2022); thus, the project's electricity consumption of 1,619,509 kWh would represent 0.014 percent of San Diego County's total non-residential electricity consumption. Similarly, the annual non-residential natural gas usage in San Diego County in 2020 was 20,236,660 million BTUs

(CEC 2022); thus, the project's natural gas consumption of 1,177 million BTUs would represent 0.0058 percent of San Diego County's total non-residential natural gas consumption.

Electricity and natural gas service to the project site is provided by SDG&E. Operations would result in electricity and natural gas consumption to power lights; space and water heaters; heating, ventilation, and air conditioning (HVAC); and other devices. The installation of photovoltaic (PV) solar and compliance with increasingly stringent Title 24 Building Energy Efficiency and Green Building standards will reduce energy consumption. According to the National Renewable Energy Laboratory's PVWatts Calculator, the 278-kilowatt (kW) solar array at the project site will generate an estimated 475,123 kWh of electricity per year, which is approximately 29 percent of the modeled operational electricity demand of 1,619,509 kWh. Therefore, project operations would not result in the use of excessive amounts of fuel or other forms of energy during operations.

If the maximum potential electricity usage from electric vehicle charging is included in the project energy consumption estimate, the project would use an additional 255,500 kWh per year of electricity. Such electricity usage would increase non-transportation-related electricity demand by 16 percent to 1,875,009 kWh. This assumes the maximum electric vehicle charging rate of 7 vehicles per charger per day, according to charging rates from the California Air Pollution Control Officers Association Greenhouse Gas Reduction Measure T-14 (CAPCOA 2021).

Based on the above analysis, operation of the proposed project's transportation- and non-transportation–related energy uses would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. This impact would be less than significant

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less-than-Significant Impact. The project is required to comply with mandatory energy requirements of CalGreen and the California Energy Code. Installation of PV and energy efficiency measures would reduce energy demand and ensure consistency with statewide energy efficiency and renewable energy plans. The proposed project would not conflict with or obstruct a state plan for renewable energy or energy efficiency.

The applicable local plans that address renewable energy and energy efficiency are the City's Energy Strategy and Action Plan, Energy Roadmap Program, Climate Action Plan (CAP), and applicable sections of the General Plan. The policies in these plans direct City actions to clean municipal operations and provide support for the community. The project does not include a municipal component; therefore, policies from these plans do not apply to the project. The project would not conflict with or obstruct implementation of the City's Energy Strategy and Action Plan, Energy Roadmap Program, CAP, and applicable sections of the General Plan.

Additionally, the Community Choice Aggregation launched in 2021, which will provide energy procurement services for Chula Vista along with Encinitas, Imperial Beach, La Mesa, and San Diego. Residents have the opportunity to opt-in to the service beginning in 2022. The project would not conflict with or obstruct implementation of the Community Choice Aggregation.

In summary, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Mitigation

No mitigation measures are required.

4.4.7. Geology, Soils, and Paleontological Resources

	Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
	Strong seismic ground shaking?	☐	☐	☒	☐
	Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
	Landslides?	☐	☐	☒	☐
b.	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c.	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e.	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

The analysis in this section is supported by Leighton's *Updated Geotechnical Investigation Sharp Otay Ranch Medical Office Building and Parking Structure Project 1400 East Palomar Street Chula Vista, California* report (Appendix B; August 2021). The intent of the updated geotechnical investigation was to provide specific geotechnical recommendations and conclusions for the proposed project.

Discussion

a.1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. Alquist-Priolo earthquake fault zones are regulatory zones surrounding the surface traces of active faults in California. Wherever an active fault exists, if it has the potential for surface rupture, structures for human occupancy cannot be placed within 50 feet (typically) of these features. According to

the California Geological Survey's (CGS) *Earthquake Zones of Required Investigation* (CGS 2022), there are no fault zones within the project's footprint. According to CGS, the closest fault zone is the Newport-Inglewood-Rose Canyon Fault Zone, approximately 9.2 miles to the northwest of the project site (at its closest point). Additionally, the 2021 Leighton updated geotechnical investigation confirms that there are no known pre-Holocene or Holocene-active[5] faults transecting the site (Appendix B). As such, the project would not directly or indirectly cause potential substantial adverse effects involving fault rupture. No impact would occur.

a.2 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking?

Less-than-Significant Impact. The project site is in Southern California, an area known for seismic activity. Specifically, the project area lies in San Diego County, approximately 9.2 miles from the Newport-Inglewood-Rose Canyon Fault Zone (CGS 2022). As such, potential hazards exist due to seismic activity associated with this and other Southern California faults (the Rose Canyon Fault Zone is just beyond the Newport-Inglewood-Rose Canyon Fault Zone, approximately 1 mile to the north). The proposed new MOB would include an urgent care, radiology services, and labs, and would conduct outpatient medical services; therefore, no structures intended for permanent human occupation would be built as part of the proposed project, reducing the potential impacts of seismic shaking on MOB personnel. Additionally, construction of the proposed project would be done in accordance with the current (2019) California Building Code (CBC) and would implement recommendations found in the project-specific Leighton updated geotechnical investigation (Appendix B). Impacts would be less than significant.

a.3 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Seismic-related ground failure, including liquefaction?

Less-than-Significant Impact. Liquefaction occurs when saturated, low-density, loose materials (e.g., sand or silty sand) are weakened and transformed from a solid to a near-liquid state as a result of increased pore water pressure. The increase in pressure is caused by strong ground motion from an earthquake. Liquefaction most often occurs in areas underlain by silts and fine sands and where shallow groundwater exists. According to Figure 9-7, *Geologic Hazards Map*, of the Environmental Element of *Chula Vista Vision 2020* (City of Chula Vista 2021), the project site is not in an area susceptible to liquefaction. According to the Leighton updated geotechnical investigation (Appendix B), the site is underlain at depth by Otay Formation with upper portions of soils consisting of artificial fill. However, all potentially compressible and weathered upper portions of the undocumented artificial fill materials are being recommended for removal. As such, the underlying (dense) character of the Otay Formation and the lack of a shallow groundwater table make the potential for liquefaction and seismic-related settlement unlikely. Furthermore, implementation of the proposed project would be done in accordance with current

[5] CGS defines a Holocene-active fault as a fault that has "had surface displacement within Holocene time (about the last 11,700 years)."

CBC requirements and would incorporate recommendations found in the project-specific updated geotechnical investigation. Impacts would be less than significant.

a.4 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: Landslides?

Less-than-Significant Impact. According to the 2021 updated geotechnical investigation, the site was previously mass graded, and no indications of deep-seated landsliding were identified during the field exploration or review of available geologic literature, topographic maps, and stereoscopic aerial photographs. According to Figure 9-7, *Geologic Hazards Map*, of the Environmental Element of *Chula Vista Vision 2020*, the southern portion of the project site is in a steep slope area.[6] However, as noted in the updated geotechnical investigation, mass grading has occurred on site, mitigating the potential for significant landslides or large-scale slope instability. To further reduce the potential for seismic hazards, including potential landslides, implementation of the proposed project would be done in accordance with CBC requirements and would incorporate recommendations found in the project-specific updated geotechnical investigation. Impacts would be less than significant.

b. Result in substantial soil erosion or the loss of topsoil?

Less-than-Significant Impact. Construction as part of the project would result in pavement and soil disturbance and exposure, thereby potentially accelerating soil erosion conditions. However, BMPs would be employed during construction (such as sediment and erosion control measures) to prevent pollutants from leaving the site, as required by a project-specific SWPPP to be prepared under a Construction General Permit (Order 2009-0009-DWQ) required for the project. Once construction is complete, the project would consist of a fully developed MOB with paved parking and limited areas of exposed soil; therefore, none of the activities associated with long-term project implementation are expected to contribute to or accelerate erosional processes. Impacts would be less than significant.

c. Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less-than-Significant Impact. Liquefaction and landslide potential in the project area are described above under Thresholds (a.3) and (a.4). Land subsidence is a gradual settling or sudden sinking of the Earth's surface due to subsurface movement of earth materials, including groundwater, gas, or petroleum. The main cause of subsidence in California is groundwater pumping. According to the U.S. Geological Survey's *Areas of Land Subsidence in California* (USGS 2022), the project site is not in an area of recorded (historical or current) subsidence. Additionally, the susceptibility to earthquake-induced lateral spread is expected to be low for the site because of the lack of liquefaction potential and a lack of open descending slope faces in the site vicinity (Appendix B). Conversely, the upper 2 to 5 feet of onsite undocumented artificial fill is considered compressible. However, remedial grading of these materials is included as part of the updated geotechnical investigation recommendations. To further reduce potential

[6] Areas with slopes 25 degrees or steeper.

geologic or soils risk, implementation of the proposed project would be done in accordance with CBC requirements and with incorporation of recommendations found in the project-specific updated geotechnical investigation. Impacts would be less than significant.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less-than-Significant Impact. Expansive soils are fine-grained soils (generally high-plasticity clays) that can undergo a substantial increase in volume with an increase in water content as well as a substantial decrease in volume with a decrease in water content. Changes in the water content of highly expansive soils can result in severe distress for structures constructed on or against the soils. According to the Natural Resources Conservation Service's *Web Soil Survey* (NRCS 2019), subsurface soils in the project area consist of Diablo clay and Linne clay loam, both with some potential for expansion. However, expansion index testing conducted during the updated geotechnical investigation on one representative soil sample indicated that the onsite soils generally have a very low expansion potential, but the investigation also concluded that higher expansive soils may be encountered during grading of the site and during foundation excavation. As such, implementation of the proposed project would be done in accordance with CBC requirements and with incorporation of recommendations found in the project-specific updated geotechnical investigation. Impacts would be less than significant.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?

No Impact. The project proposes to construct a new 58,788-square-foot MOB with associated parking. Septic tanks or alternative wastewater disposal systems are not a project feature; therefore, no impact would occur.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact. The proposed project would not directly or indirectly destroy a unique paleontological resource or geologic feature. The proposed project area is completely developed with a surface parking lot, which serves the existing MOB. Because the entire project area has been affected by modern development, ground-disturbing activities are unlikely to encounter any buried unique paleontological resources. Implementation of the proposed project is expected to have no impact on paleontological resources.

Mitigation

No mitigation measures are required.

4.4.8. Greenhouse Gas Emissions

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Impact Analysis

The analysis in this section is based on the *Air Quality, Greenhouse Gas, and Energy Impact Analysis* technical report prepared for this project (Appendix A).

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-than-Significant Impact. Table 4.4.8-1 summarizes greenhouse gas (GHG) emission estimates by construction phase and in total. As shown, total emissions were estimated to be 1,303 total metric tons of carbon dioxide equivalent ($MTCO_2e$) gases, which equates to 43 $MTCO_2e$ per year over a 30-year project life. While these emissions are relatively low, additional analysis is required to determine significance, including evaluation of the project's consistency with plans, policies, and regulatory programs adopted for the purpose of reducing the emissions of GHGs, which is included below.

Table 4.4.8-1. Summary of Construction Greenhouse Gas Emission Estimates (metric tons per year)

Construction Phase	CO_2e
Demolition	<1
Grading, Underground Utilities, and Site Improvements	114
Parking Structure	241
New MOB Building Cold Shell	496
Tenant Improvement	415
Parking Lot	21
Electricity Consumption	16
Total Construction Emissions	1,303
Amortized Construction (averaged over a 30-year period)	43

Source: Modeling outputs provided in Attachment 1.
Totals may not sum perfectly due to rounding.

Table 4.4.8-2 summarizes GHG emission estimates by operational element and in total. As shown, annual emissions were estimated to be 2,701 $MTCO_2e$ in opening year 2024. The majority of emissions would be due to motor vehicles, followed by energy consumption and solid waste generation. As noted above, project emissions are compared to the 3,000 $MTCO_2e$ threshold level recommended by SCAQMD and

used by the City. As project emissions would be less than 3,000 $MTCO_2e$, GHG emissions impacts would be less than significant. Overall, GHG emissions from construction and operation of the proposed project would be less than significant.

Table 4.4.8-2. Summary of Operational Greenhouse Gas Emission Estimates (metric tons per year)

Operational Element	CO_2e
Mobile	1,884
Electricity	350
Natural Gas	63
Area	<1
Water	35
Solid Waste	319
Generator Testing	5
Amortized Construction	43
Total Operational Emissions	2,701

Source: Modeling outputs provided in Appendix A; Attachment 1.
Totals may not sum perfectly due to rounding.

b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-than-Significant Impact. As discussed above, the proposed project consists of an MOB expansion and a parking structure. Construction would involve demolition, grading, structure construction, paving, and application of architectural coatings. GHG emissions during construction would result from use of off-road equipment, employee and haul truck vehicle exhaust, and land clearing and material movement. Operation would result in an increase in visitation and associated emissions to power and support the new building square footage as well as periodic backup generator testing. In addition, the project is not expected to result in population, employment, or development growth that is currently unplanned.

The most relevant plan, policy, and regulatory program adopted for the purpose of reducing the emissions of GHGs is the City's CAP. While the CAP is not qualified for tiering per CEQA Guidelines Section 15183.5, consistency of the project with the CAP is evaluated in context of ensuring the project is consistent with broad regional and state goals. In general, if a project implements all applicable measures of the CAP, then the project would be found to have a less than cumulatively considerable contribution to climate change impacts.

The proposed project's consistency with relevant CAP strategies is provided in Table 4.4.8-3. As shown, the project would be consistent with all of the applicable CAP strategies designed to reduce GHG emissions within the City, including measures to reduce GHG emission from energy, transportation, water use, and solid waste generation during construction. Therefore, because the proposed project is consistent with the City's General Plan growth projects and land use designations and would implement all applicable measures of the City's CAP such as incorporating a solar photovoltaic system, installing

electric vehicle charging equipment, and planting shade trees, impacts related to GHG emissions would have a less than cumulatively considerable contribution to climate change.

Table 4.4.8-3. Project Consistency with Applicable CAP Strategies

Action	Objective	Reduction Strategy	Consistency Discussion
Water Conservation and Reuse	Water Education and Enforcement	Expand education and enforcement (through fines) targeting landscape water waste.	**Not applicable**. The project would not impede efforts to expand education or enforcement targeting landscaping water waste. Moreover, local pollinator and native plants would be used throughout the landscape design, which reduces irrigation water requirements.
	Water Efficiency Upgrades	Update the City's Landscape Water Conservation Ordinance to promote more water-wise landscaping designs.	**Not applicable**. The project would not impede efforts to update the City's Landscape Water Conservation Ordinance. Moreover, local pollinator and native plants would be used throughout the landscape design, which reduces irrigation water requirements.
		Require water-savings retrofits in existing buildings at a specific point in time (not point of sale).	**Not applicable**. The project would not impede efforts to require water-saving retrofits in existing buildings.
	Water Reuse Plan & System Installations	Develop a Water Reuse Master Plan to maximize the use of stormwater, recycled water, and onsite water reclamation.	**Not applicable**. The project would not impede efforts to develop a Water Reuse Master Plan. Moreover, the project would include native vegetation to reduce water needs.
		Streamline complex graywater systems permit review.	**Not applicable**. The project would not impede efforts to streamline graywater permits.
Waste Reduction	Zero Waste Plan	Develop a Zero Waste Plan to supplement statewide green waste, recycling, and plastic bag ban efforts.	**Not applicable**. The project would not impede efforts to develop a zero waste plan. Moreover, the proposed project would be required to recycle/reuse 100% of inert materials and 65% of all other materials. Additionally, the proposed project includes a trash and recycling enclosure for operational waste disposal.
Renewable and Efficient Energy	Energy Education and Enforcement	Expand education targeting key community segments (i.e., do-it-yourself and Millennials) and facilitating energy performance disclosure (i.e., Green Leases and Home Energy Ratings).	**Not applicable**. The project would not impede efforts to expand energy education and performance disclosure. Additionally, the proposed project includes a 278-kW solar PV, which will reduce electricity demand by 23%.
		Leverage the building inspection process to distribute energy-related information and to deter unpermitted, low performing energy improvements.	**Not applicable**. The project would not impede efforts to distribute energy-related information.
	Clean Energy Sources	Incorporate solar photovoltaic into all new residential and commercial buildings (on a project-level basis).	**Consistent**. The project is a new commercial building that includes a 278-kW solar PV system.

Action	Objective	Reduction Strategy	Consistency Discussion
		Provide more grid-delivered clean energy (up to 100%) through Community Choice Aggregation or other mechanism.	**Not applicable.** The project would not impede efforts to provide energy through Community Choice Aggregation (CCA) or a similar mechanism. In 2019, City Council found that a CCA is economically feasible and viable. In 2021, San Diego Community Power (SDCP) launched, which will provide energy procurement services for Chula Vista along with Encinitas, Imperial Beach, La Mesa, and San Diego. Residents have the opportunity to opt-in to the service beginning in 2022.
	Energy Efficiency Upgrades	Expand the City's "cool roof" standards to include re-roofs and western areas.	**Not applicable**. The project would not impede efforts to revise the City's "cool roof" standards.
		Facilitate more energy upgrades in the community through tax breaks, rebates, and more local energy efficiency programming.	**Not applicable**. The project would not impede efforts to facilitate energy upgrades in the community.
		Require energy-savings retrofits in existing buildings at a specific point in time (not at point of sale).	**Not applicable**. The project would not impede efforts to require energy-savings retrofits in existing buildings.
	Robust Urban Forests	Plant more shade trees to save energy, address heat island issues, and improve air quality.	**Consistent**. The areas surrounding the new MOB and proposed parking structure would be landscaped with accent, screen, street, and parking lot shade trees; succulent plantings; and shrub and grass plantings to provide an attractive landscape that blends well with surrounding development.
Smart Growth and Transportation	Complete Streets and Neighborhoods	Incorporate "Complete Streets" principles into the Bicycle and Pedestrian Master Plans and Capital Improvement Program.	**Not applicable**. The project would not impede "Complete Streets" efforts.
		Encourage higher density and mixed-use development in Smart Growth areas, especially around trolley stations and other transit nodes.	**Not applicable**. The project would not impede efforts to construct additional high density and mixed-use development in Smart Growth areas.
	Transportation Demand Management	Utilize bike facilities, transit access/passes, and other Transportation Demand Management and congestion management offerings.	**Not applicable**. The project would not impede efforts to utilize bike, transit, and other Transportation Demand Management measures.
		Expand bike-sharing, car-sharing, and other "last mile" transportation options.	**Not applicable**. The project would not impede efforts to expand bike-sharing, car-sharing, and other Transportation Demand Management options.
	Alternative Fuel Vehicle Readiness	Support the installation of more local alternative fueling stations and designate preferred parking for alternative fuel vehicles.	**Not applicable**. The project would not impede efforts to install more local alternative fueling stations.

Action	Objective	Reduction Strategy	Consistency Discussion
		Designate preferred parking for alternative fuel vehicles.	**Not applicable**. The project would not impede efforts to designate preferred parking for alternative fuel vehicles.
		Design all new residential and commercial buildings to be "Electric Vehicle Ready."	**Consistent**. The project would comply with CalGreen requirements for provision of electric vehicle charging equipment.

Source: Appendix A.

Mitigation

No mitigation measures are required.

4.4.9. Hazards and Hazardous Materials

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b.	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c.	Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d.	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e.	Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☐	☒

Impact Analysis

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-than-Significant Impact. Project construction would involve routine transport, use, and disposal of hazardous materials such as solvents, paints, oils, grease, and fuels. Such transport, use, and disposal must comply with applicable regulations, including regulations from the Resource Conservation and Recovery Act, Occupational Safety and Health Administration, U.S. Department of Transportation, and others. Although solvents, paints, oils, grease, and fuels would be transported, used, and disposed of during the construction phase, these materials are typically used in construction projects and would not represent the transport, use, and disposal of acutely hazardous materials. In addition, BMPs would be employed during construction to prevent spills of hazardous materials into the surrounding environment, as required by the project-specific SWPPP to be prepared under the Construction General Permit (Order No. 2012-0006-DWQ). Therefore, potential construction impacts associated with the routine transport, use, or disposal of hazardous materials would be less than significant.

The project proposes to construct a new 58,788-square-foot MOB and a parking structure accommodating 570 parking spaces. The MOB would include an Urgent Care Center, radiology services, laboratories, and a small conference center. Due to the nature of the aforementioned uses, the possibility exists for hazards related to the handling of hazardous materials, including biomedical materials and waste, to occur. The handling of hazardous materials would be required to adhere to all applicable federal, state, and local regulations for qualifying hazardous materials, including requirements of San Diego County Environmental Health and Quality's Hazardous Materials Division (HMD), and apply for applicable permits for any regulated substance that may pose a threat to public health and safety or the environment. The project would comply with the safety procedures mandated by applicable federal, state, and local laws and regulations (e.g., Resource Conservation and Recovery Act, California Hazardous Waste Control Law) to ensure that risks resulting from the routine use of hazardous materials and disposal of hazardous wastes remain less than significant. In addition, registration of the hazardous materials through HMD's Hazardous Materials Business Plan Program (San Diego County Environmental Health and Quality 2022) would be required to ensure safe and responsible handling of those qualifying materials. Impacts would be less than significant.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less-than-Significant Impact. As mentioned under Threshold (a), hazardous materials would be used during construction of the proposed project, including fuel, solvents, paints, oils, and grease. It is possible that any of these substances could be released during construction activities. However, compliance with federal, state, and local regulations, in combination with construction BMPs (as required by a project-specific SWPPP), would ensure that all hazardous materials would be used, stored, and disposed of properly, minimizing potential impacts related to a hazardous materials release during the construction phase of the project. Hazardous materials use and waste produced during project operations would be regulated by all entities described under Threshold (a). Impacts would be less than significant.

An environmental database search was conducted via the SWRCB's GeoTracker (SWRCB 2022) and the Department of Toxic Substances Control's (DTSC) EnviroStor (DTSC 2022) online databases. The information provided in these databases could be an indicator that historical activities conducted within (or immediately adjacent to) the project site have the potential to negatively affect implementation of the project. The database search was conducted for the project site along with a 0.5-mile radius. Hazardous material sites within a 0.5-mile radius were reviewed as they have the highest likelihood of producing a deleterious condition to project implementation. Table 4.4.9-1 contains the sites identified, their addresses, the database they were identified in, and a summary of the sites' environmental status.

Table 4.4.9-1. Results of GeoTracker and EnviroStor Database Searches

Site (and ID)	Address and Distance from Project	Databases	Site Status Summary
Otay Ranch Village II (T06019704768)	1250 Olympic Parkway, Chula Vista; approximately 0.19 mile to the south, southeast of the project site	SWRCB LUST Program	The site is listed as a Leaking Underground Storage Tank (LUST) site with a *Completed – Case Closed as of 5/30/2006* status. The site was listed with gasoline impacts on onsite soil. The case was opened in January of 2004. The site was granted closure by the County of San Diego Department of Environmental Health.
Otay Ranch Village II (T0607313258)	No address provided, Chula Vista; mapped approximately 0.27 mile south of the project site	San Diego County Cleanup Program Site	The site is listed as a Cleanup Program Site with a *Completed – Case Closed as of 12/18/2002* status. The site was listed with gasoline impacts on onsite soil. The case was opened in November of 2002. The site was granted closure by the County of San Diego Department of Environmental Health.

Both sites identified during the environmental database search are listed as having been granted closure. Closed sites have been remediated to the satisfaction of the oversight agency and are therefore not considered a significant risk to the project. Impacts would be less than significant.

c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less-than-Significant Impact. There are three schools within 0.25 mile of the project site:

- Sweetwater Secondary School, 1392 East Palomar Street, Chula Vista, approximately 0.04 mile to the west of the project.
- Heritage Elementary School, 1450 Santa Lucia Road, Chula Vista, approximately 0.13 mile north of the project.
- Otay Ranch High School, 1250 Olympic Parkway, Chula Vista, approximately 0.16 mile to the southeast of the project.

Implementation of the proposed project could result in the handling or release of hazardous materials or hazardous waste near one of these schools. However, as described under Threshold (a), compliance with federal, state, and local regulations, in combination with construction BMPs (as required by a SWPPP), would reduce potential impacts associated with the handling of hazardous materials during construction to less-than-significant levels. Therefore, potential impacts associated with hazardous emissions or the handling of hazardous materials or waste within 0.25 mile of a school would be less than significant.

Operational activities associated with the project could involve the handling of hazardous materials, including biomedical materials and waste. As mentioned under Threshold (a), the handling of these hazardous materials would be required to adhere to all applicable federal, state, and local regulations for qualifying hazardous materials, including requirements of HMD, which regulates these types of materials and enforces the proper handling, storage, and disposal of hazardous materials through its Hazardous Materials Business Plan program. Therefore, potential long-term impacts associated with hazardous

emissions or the handling of hazardous materials or waste within 0.25 mile of a school would be less than significant.

d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The provisions in Government Code Section 65962.5 are commonly referred to as the Cortese List. The list—specifically, a site's presence on the list—has bearing on compliance with CEQA. The following data sources provide information on sites that meet Cortese List requirements (CalEPA 2022):

- Sites listed in the Leaking Underground Storage Tank Sites database, part of SWRCB's GeoTracker site.
- List of hazardous waste and substance sites from the DTSC EnviroStor database.
- List of solid waste disposal sites identified by the Regional Water Quality Control Board (RWQCB) with waste constituents above hazardous waste levels.
- List of active cease-and-desist orders and cleanup-and-abatement orders from the RWQCB.
- List of hazardous waste facilities identified by DTSC subject to corrective action, pursuant to Health and Safety Code Section 25187.5.

A review of the sources listed above did not identify any Cortese List sites within the project footprint. Therefore, no impacts would occur.

e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The project site is not within an airport land use plan or within 2 miles of any airport. The nearest airport is the Brown Field Municipal Airport approximately 3.5 miles to the south of the project site. John Nichol's Field is approximately 6 miles to the east, and San Diego International Airport is approximately 13 miles to the northwest. No impact would occur.

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less-than-Significant Impact. Construction associated with the project would not include any characteristics (e.g., permanent road closures, long-term blocking of road access) that would physically impair or otherwise interfere with emergency response or evacuation in the project's vicinity. If lane closures are required, they would be on a temporary basis. All large construction vehicles entering and exiting the site would be guided by the use of personnel using signs and flags to direct traffic. In addition, construction activities would comply with any applicable general plan, the San Diego County Multi-Jurisdictional Hazard Mitigation Plan (San Diego County 2009), and fire department or police department emergency response requirements by providing adequate emergency access, minimizing temporary

impacts on local evacuation routes, and not permanently affecting major arterials surrounding the project. Compliance with such existing standard industry practices such as traffic control and signage and adherence to county and local agency criteria (as necessary) would provide adequate emergency access during construction of the project. Impacts would be less than significant.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

No Impact. The project site, which is in a highly urbanized setting (in San Diego County) with no wildlands in the immediate vicinity, does not lie within a Very High Fire Hazard Severity Zone (VHFHSZ) according to the California Department of Forestry and Fire Protection's VHFHSZs in Local Responsibility Areas, Chula Vista (CAL FIRE 2009). Therefore, wildfire is highly unlikely to occur within the project site. No impact would occur.

Mitigation

No mitigation measures are required.

4.4.10. Hydrology and Water Quality

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c.	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				
	Result in substantial erosion or siltation on or off site;	☐	☐	☒	☐
	Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site;	☐	☐	☒	☐
	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
	Impede or redirect flood flows?	☐	☐	☒	☐
d.	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Impact Analysis

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less-than-Significant Impact. Construction activities for the proposed project include ground-disturbing activities such as clearing and grading the existing parking lot. Ground-disturbing activities and runoff from work areas could cause soil erosion, sedimentation, and mobilization of sediment-bound pollutants into drain structures, adversely affecting water quality. Additionally, hazardous materials (e.g., gasoline, oils, grease, lubricants) from construction equipment could be accidentally released during construction. Accidental discharge of hazardous materials to surface waters during construction could temporarily adversely affect water quality or result in a violation of water quality standards. Because the project would involve the disturbance of 1 or more acres of soil, coverage under the SWRCB Construction General Permit is required. The Construction General Permit requires a SWPPP to be developed prior to construction. The SWPPP would describe the sources of sediment or pollution, erosion and sediment control BMPs, and the housekeeping measures for control of contaminants other than sediment. The

SWPPP would contain a site map that depicts the location of stockpiles, staging areas, and the type and location of BMPs such as silt fencing, sandbag berms, and methods intended to prevent the offsite discharge of soil or construction materials in stormwater.

The project would be constructed in two phases. During the Parking Structure Phase, stormwater would be captured in temporary basins. In the event that the basins are filled, stormwater would be pumped and treated off site. During the New Medical Office Building Phase, the permanent stormwater treatment facilities would have already been completed and would be utilized to capture and treat any stormwater generated during construction. Once the project is complete, stormwater would be treated on site using modular wetlands and underground storage vaults. Within the project site, there are numerous drainage channels that collect on- and offsite runoff for impervious areas. New impervious surface area would total 132,200 square feet. The proposed impervious areas include sidewalks, buildings, courtyard walkways, and surface parking. The parking structure would include an entry court that would be generously landscaped. Landscape areas would function as biofiltration for stormwater runoff and would allow for water infiltration and associated water quality treatment. Local pollinator and native plants would be used throughout the landscape design.

Additionally, a Stormwater Quality Management Plan (SWQMP) will be prepared to ensure consistency with the Priority Development Project requirements of the City's BMP Design Manual (City of Chula Vista 2021), which is based on the requirements of San Diego RWQCB Order No. R9-2013-0001 (Municipal Separate Storm Sewer System [MS4] Permit).

Overall, with implementation of the SWQMP and SWPPP, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality during construction, and impacts would be less than significant.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less-than-Significant Impact. Due to the underlying geology, the project site is not within a recognized California Department of Water Resources groundwater basin. Groundwater dewatering is not anticipated during construction. In the event that groundwater is encountered during construction, dewatering would be conducted on a one-time or temporary basis during the construction phase and would not result in a loss of water that would substantially deplete groundwater supplies. Neither the development nor operational phase of the proposed project would require the direct use of groundwater supplies or involve pumping of groundwater. Landscape areas would allow for water infiltration and would not interfere substantially with groundwater recharge. Impacts would be less than significant.

c.1 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Result in substantial erosion or siltation on or off site?

Less-than-Significant Impact. During construction, stormwater drainage patterns could be temporarily altered. However, the project would implement BMPs, as required in the project SWPPP, to minimize the potential for erosion or siltation in nearby storm drains and temporary changes in drainage patterns during

construction. Construction BMPs would capture and infiltrate small amounts of sheetflow into the ground so that offsite runoff from the construction site would not increase, thereby ensuring that drainage patterns would not be significantly altered. The project site does not include any existing streams or watercourses that could be altered or diverted.

Once the project is constructed, onsite peak flows would be collected through the onsite storm drain system and discharged into the City's existing drain infrastructure. Drainage would be controlled during operations of the project consistent with the SWQMP. Therefore, through implementation of the proposed onsite stormwater system and compliance with the SWQMP and SWPPP, the proposed project would not result in substantial erosion or siltation on or off site. Impacts would be less than significant.

c.2 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?

Less-than-Significant Impact. Construction BMPs would capture and infiltrate small amounts of sheetflow into the ground so that offsite runoff from the construction site would not increase, ensuring that drainage patterns would not be substantially altered. Measures required by the Construction General Permit would also limit site runoff during construction. BMPs would be implemented, as required in the project SWPPP, to control construction site runoff, ensure proper stormwater control, and minimize the potential for flooding on or off site and temporary changes in drainage patterns during construction.

Flow patterns of the project site would primarily stay the same. Runoff from the project site would surface flow from the northwest corner of the property to the southeast for both the MOB and garage parcels. Each site would have its own inlets for collection to modular wetland systems and direction to a storage vault at the proposed parking lot adjacent to the proposed garage. In addition, the onsite storm drain systems would discharge surface runoff into the City's existing drain infrastructure. As such, the proposed project would not substantially alter the existing drainage patterns such that it would increase flooding on or off site. Impacts would be less than significant.

c.3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less-than-Significant Impact. Measures required by the Construction General Permit and the SWPPP would limit site runoff during construction; such measures would not alter stormwater drainage patterns. BMPs identified in the SWPPP would be implemented to control construction site runoff, ensure proper stormwater control and treatment, and reduce the discharge of pollution to the storm drain system. During the Parking Structure Phase, stormwater would be captured in temporary basins. In the event that the basins are filled, stormwater would be pumped and treated off site. During the New Medical Office Building Phase, permanent stormwater treatment facilities would be utilized to capture and treat any stormwater generated during construction. The MOB and garage parcels would have inlets for collection

of runoff to modular wetland systems, which would be directed to a storage vault at the proposed parking lot adjacent to the proposed garage. A SWQMP would be prepared for the proposed project, which specifies stormwater BMPs and defines the control and handling of stormwater runoff from the project site that would be implemented during both construction and operation to minimize impacts on water quality. Once the project is complete, stormwater would be treated on site using modular wetlands and underground storage vaults. The stormwater design for the proposed project would connect to existing storm drain infrastructure and would not create runoff water that would exceed existing stormwater drainage systems. Impacts would be less than significant.

c.4 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: Impede or redirect flood flows?

Less-than-Significant Impact. According to the Federal Emergency Management Agency's Flood Map, the project site is not within "Special Flood Hazard Areas" or "Other Areas of Flood Hazard" (FEMA 2012). Therefore, there would be no flood flows that would be impeded or redirected. Runoff from the project site would flow from the northwest to the southeast corner of the property. The MOB and garage parcels would have their own inlets for collection of runoff to modular wetland systems, which would be directed to a storage vault at the proposed parking lot adjacent to the proposed garage. Project impacts would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would impede or redirect flood flows, and impacts would be less than significant.

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. As stated above, the project site is outside of flood zone hazards because it is not within "Special Flood Hazard Areas" or "Other Areas of Flood Hazard" (FEMA 2012). In addition, the project site is not near a designated tsunami inundation zone or a body of water, such as a lake, that could be subject to seiche. Furthermore, stormwater BMPs would be implemented, as required by federal, county, and local policies, to minimize degradation of water quality associated with stormwater runoff or construction-related pollutants. Construction activities would comply with local stormwater ordinances, stormwater requirements established by the Regional MS4 Permit, and regional waste discharge requirements. No impacts would occur.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-than-Significant Impact. Commonly practiced BMPs would be implemented to control construction site runoff and reduce the discharge of pollutants to storm drain systems from stormwater and other nonpoint-source runoff. As part of compliance with permit requirements during ground-disturbing or other construction activities, water quality control measures and BMPs, such as silt fences, fiber rolls, and sediment traps, would be implemented to ensure that water quality standards would be achieved, including the water quality objectives that protect designated beneficial uses of surface and groundwater, as defined in the Water Quality Control Plan for the San Diego Basin. Releases of

construction runoff would comply with the appropriate water quality objectives for the region. The Construction General Permit requires stormwater discharges to be free of pollutants that cause, or contribute to, an exceedance of applicable water quality objectives or water quality standards, including designated beneficial uses. Furthermore, a SWQMP would be prepared for the proposed project consistent with the requirements of the City's BMP Design Manual, consistent with the requirements of San Diego RWQCB Order No. R9-2013-0001 (Regional MS4 Permit). Implementation of the requirements contained within the SWQMP prepared for the proposed project, including the water quality, drainage, and runoff management improvements contained therein (per the requirements of the Regional MS4 Permit), would ensure that the proposed project would not conflict with or obstruct implementation of a water quality control plan.

As described in Threshold (b), the project site is not within a recognized California Department of Water Resources groundwater basin. Therefore, no sustainable groundwater management plan applies to the project area. Neither the development nor operational phase of the proposed project would interfere with groundwater recharge or supply, and therefore would not conflict with sustainable groundwater management. As such, impacts would be less than significant.

Mitigation

No mitigation measures are required.

4.4.11. Land Use and Planning

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Physically divide an established community?	☐	☐	☐	☒
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

Impact Analysis

a. Physically divide an established community?

No Impact. The proposed project would involve the construction of a new MOB and parking structure on the existing campus property. No right-of-way would be acquired for the proposed project and it would not physically divide an established community given the site already serves the existing MOB and does not provide a connection through the community. No impact would occur.

b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less-than-Significant Impact. As discussed in the project description, the proposed project has a General Plan designation of Mixed-Use Residential, and a zoning designation of Planned Community. The project site is a part of the Otay Ranch General Development Plan, which was a large master planned development approved in 1993. The Planned Community zoning designation was intended to "Provide for the orderly preplanning and long-term development of large tracts of land which may contain a variety of land uses, but are under unified ownership or development control, so that the entire tract will provide an environment of stable and desirable character;". This zoning designation allows institutional uses with a conditional use permit. Additionally, the proposed urgent care use would require a conditional use permit. Therefore, upon approval of the proposed conditional use permit by the planning commission, the project would be consistent with the zoning designation.

The Mixed-Use Residential designation "allows a mix of multi-family residential; retail shops; financial; business and personal services; restaurants; entertainment; and office opportunities in a pedestrian-friendly environment." The land use designation and zoning, which originates from the Otay Ranch General Development Plan mean that this location was intended create an area with a variety of compatible land uses and activities which are integrated to create a dynamic urban environment that serves as the activity center for the surrounding area. Chula Vista has historically been underserved with respect to hospital facilities. The proposed project, an expansion to an existing MOB, is intended to allow Sharp the ability to provide a wider variety of medical services; thus allowing nearby residents the opportunity to obtain health care without travelling to more distant facilities.

Additionally, the proposed parking structure and MOB do not conflict with the building height limits outlined in the Otay Ranch General Development Plan as they will both be shorter than the existing three-

story MOB (City of Chula Vista 1993). As such, the project is consistent with both the existing land use and zoning (upon approval of the proposed conditional use permit and therefore would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be less than significant.

Mitigation

No mitigation measures are required.

4.4.12. Mineral Resources

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b.	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

Impact Analysis

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. Mineral resources in Chula Vista are described in the Environmental Element of the City's General Plan. Mineral Resource Zones (MRZs) are delineated on General Plan Figure 9-4, *MRZ-2 Area Map* (City of Chula Vista 2021). The project site is not within an MRZ or on or within any areas containing mineral resources as indicated in the City's General Plan. Additionally, the project site is not currently being used for mineral resource extraction. Given these factors, the proposed project would not result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the state. No impact would result.

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. As discussed above, the proposed project site is not within a designated mineral resource area and would not result in the loss of availability of a locally important mineral resource recovery site delineated in the general plan, a specific plan, or other land use plan.

Mitigation

No mitigation measures are required.

4.4.13. Noise

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?	☐	☒	☐	☐
b.	Generate excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c.	Be located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Impact Analysis

The analysis in this section is based on the *Noise and Vibration Impact Analysis* technical report prepared for this project (Appendix C).

a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?

Less-than-Significant with Mitigation Incorporated. Two types of short-term (ST) noise impacts could occur during project construction. First, construction vehicles would incrementally increase noise levels on access roads. This would include construction workers' vehicles as well as haul trucks traveling to and from the project site. Although there would be a relatively high single-event noise level, which could cause an intermittent noise nuisance (e.g., passing trucks at 50 feet would generate up to 77 A-weighted decibels [dBA]), the effect on longer-term ambient noise levels would be small. Therefore, there would be no impacts related to the short-term noise associated with commuting construction workers and transporting equipment and materials to the project site.

The second category of construction noise would be noise generated during onsite project construction. The City exempts construction noise from the requirements of the City Municipal Code and does not limit the time when construction can occur; therefore, the typical daytime hours of 7:00 a.m. to 10:00 p.m. have been incorporated as the time when construction would occur. As summarized in Table 4.4.13-1, the predicted noise levels are higher than the existing noise levels measured in the project vicinity, indicating construction would be audible at nearby offsite receptors. However, construction noise would be temporary and would cease entirely once the project is complete. Furthermore, no noise would be generated during the most sensitive nighttime hours (10:00 p.m. through 7:00 a.m.) when residents are trying to sleep. Construction would comply with the applicable noise regulations (hours of operation) of the City Municipal Code, and the impact would be less than significant.

Table 4.4.13-1. Construction Noise Levels from Anticipated Construction Phases

Construction Phase	Noise Level at 50 Feet dBA L_{eq}[1]	L_{eq} at Apartments to the West, dBA L_{eq}[1]	L_{eq} at Daycare to the West, dBA L_{eq}[1]	L_{eq} at Homes to the South, dBA L_{eq}[1,2]
Grading, Underground Utilities, and Site Improvements[3]	85	73	77	72
Parking Structure[4]	85	73	77	67
New MOB Building, Cold Shell[4]	82	70	73	64
Tenant Improvement	82	70	73	64

Source: Appendix C.

[1] The analysis assumes all construction running concurrently.

[2] It should be noted that the elevation of the homes is approximately 20 to 25 feet below the elevation of the MOB. Therefore, the estimate of construction noise is conservative for all of the homes, with the exception of any second-floor windows or balconies.

[3] Calculated from the acoustical average distance of the entire site.

[4] Calculated from the acoustical average distance for the specific phase of construction.
L_{eq} = equivalent sound level.

Table 4.4.13-2 summarizes the predicted noise levels from the roadway segments considered both with and without the project. The table also provides the assessment of impacts for each roadway segment at a distance of 50 feet as well as the rationale for each finding. All impacts were determined to be less than significant.

Table 4.4.13-2. Estimated Traffic Noise Levels

Roadway Segment	Estimated Traffic Noise Levels at 50 Feet from Roadway Centerline/at the Closest Noise-Sensitive Receptor (dB CNEL)			Impact Assessment and Rationale[1]
	Existing	Existing + Project	Change vs. Existing	
E Palomar Street				
East of Santa Andrea Street	65.7/62.0	66.3/62.6	0.6/0.6	Less than Significant. Noise levels at the closest noise-sensitive receptor would not exceed the 65 dBA CNEL criterion outlined in the City's General Plan. In addition, any increase would be well under the threshold of perception.
West of Santa Andrea Street	65.8/62.1	66.4/62.7	0.6/0.6	Less than Significant. Noise levels at the closest noise-sensitive receptor would not exceed the 65 dBA CNEL criterion outlined in the City's General Plan. In addition, any increase would be well under the threshold of perception.
Santa Andrea Street				
South of East Palomar Street	59.7	61.9	2.2	Less than Significant. Noise levels at the closest noise-sensitive receptor would not exceed the 65 dBA CNEL criterion outlined in the City's General Plan. In addition, any increase would be well under the threshold of perception.

Source: Appendix C.

[1] Per City's Noise Element, residential land uses are compatible with noise levels of 65 decibels (dB) or less, while community parks are compatible with noise levels of 70 dB or less.
CNEL = Community Noise Equivalent Level

For typical operations (i.e., mechanical equipment operations and parking activity during the day, mechanical equipment operations during the night), the estimated worst-case daytime and nighttime noise levels (i.e., without the emergency generator) are summarized in Tables 4.4.13-3 and Table 4.4.13-4. The stated noise levels are at outdoor areas of human use (e.g., yards, playgrounds, patios) or buildings façades, whichever has the highest noise level. The results indicate that noise levels would be in compliance with applicable City standards. The predicted noise levels are also within the range of existing ambient noise levels measured in the study area. As a result, the noise impact from typical operations would be less than significant.

Table 4.4.13-3. Daytime Operational Noise Levels

Receiver	Floor	Exterior Noise Level, dBA	Daytime Noise Standard, dBA	Significant Impact?
Multifamily Housing to the East	1st	50	60	No
	2nd	49	60	No
	3rd	51	60	No
Single-Family Housing to the South	1st	46	55	No
	2nd	49	55	No
Multifamily Housing to the West	1st	51	60	No
	2nd	52	60	No
	3rd	53	60	No
School Playground	1st	52	65	No

Source: Appendix C.

Table 4.4.13-4. Nighttime Operational Noise Levels

Receiver	Floor	Exterior Noise Level, dBA[1]	Nighttime Noise Standard, dBA	Significant Impact?
Multifamily Housing to the East	1st	48	50	No
	2nd	47	50	No
	3rd	50	50	No
Single-Family Housing to the South	1st	37	45	No
	2nd	42	45	No
Multifamily Housing to the West	1st	47	50	No
	2nd	49	50	No
	3rd	50	50	No
School Playground	1st	48	60	No

Source: Appendix C.

[1.] Conservatively assumes 1 dB of noise reduction from the proposed 8.5-foot-high screen for the rooftop mechanical equipment. This assumes a non-solid barrier (such as louvers). Actual noise reduction would be higher if a solid screen is installed.

The emergency generator was modeled separately as well as in combination with typical daytime and nighttime operations. The results for emergency generator operation are summarized in Tables 3.4.13-5 and 3.4.13-6. As shown in the tables, noise levels are expected to exceed the City's nighttime noise standards at the first-, second-, and third-floor elevations of the multifamily residences to the west. This would be a significant impact. Mitigation would be required (**MM-NOI-1**).

Table 4.4.13-5. Emergency Generator Noise Levels

Receiver	Floor	Exterior Noise Level, dBA	Daytime Noise Standard, dBA	Significant Daytime Impact?	Nighttime Noise Standard, dBA	Significant Nighttime Impact?
Multifamily Housing to the East	1st	32	60	No	50	No
	2nd	30	60	No	50	No
	3rd	31	60	No	50	No
Single-Family Housing to the South	1st	41	55	No	45	No
	2nd	43	55	No	45	No
Multifamily Housing to the West	1st	49	60	No	50	No
	2nd	50	60	No	50	No
	3rd	51	60	No	50	Yes
School Playground	1st	64	65	No	N/A[1]	No

Source: Appendix C.
1. Nighttime noise standard is not applicable because the playground would not be in use during nighttime hours.

Table 4.4.13-6. Emergency Generator + Operational Noise Levels

		Daytime			Nighttime		
Receiver	Floor	Noise Level, dBA	Noise Standard, dBA	Significant Impact?	Noise Level, dBA	Noise Standard, dBA	Significant Impact?
Multifamily Housing to the East	1st	50	60	No	48	50	No
	2nd	49	60	No	47	50	No
	3rd	51	60	No	50	50	No
Single-Family Housing to the South	1st	47	55	No	42	45	No
	2nd	49	55	No	44	45	No
Multifamily Housing to the West	1st	53	60	No	51	50	Yes
	2nd	54	60	No	53	50	Yes
	3rd	55	60	No	53	50	Yes
School Playground	1st	64	65	No	64	N/A[1]	No

Source: Appendix C.
1. Nighttime noise standard is not applicable because the playground would not be in use during nighttime hours.

b. Generate excessive groundborne vibration or groundborne noise levels?

Less-than-Significant Impact. Heavy construction equipment would generate groundborne vibration that could affect nearby structures or residents. The closest offsite buildings are the daycare and apartments to the west, approximately 85 to 100 feet from the closest edge of construction, which would have a corresponding vibration damage threshold peak particle velocity of 0.5 inch per second. These buildings are well outside the potential impact distance of 12 feet. Therefore, project construction would not generate any impacts related to potential building damage.

Vibration from construction equipment would attenuate to below the potential human annoyance threshold of 0.04 inch per second peak particle velocity at a distance of 52 feet. Therefore, while vibration

level may be perceptible at times, impacts related to potential human annoyance would be less than significant.

There are no operational elements of the project that would generate noticeable levels of groundborne vibration. Therefore, there would be no vibration impacts as a result of project operation.

c. Be located within the vicinity of a private airstrip or an airport land use plan, or, where such a plan has not been adopted, within two miles of a public airport or public use airport and expose people residing or working in the project area to excessive noise levels?

No Impact. There are no airports or private airstrips within the vicinity (i.e., within 2 miles) of the project site. The closest airport is Brown Field Municipal Airfield, which is more than 3.7 miles to the south. At that distance, the project site would not be exposed to substantial noise levels from aircraft operations. In addition, the project would not change operations at any airport or airstrip and would not alter aircraft noise exposure at any existing sensitive land uses. As such, project implementation would not expose people residing or working in the project area to excessive aircraft noise levels. Therefore, there would be no impact.

Mitigation

The following measure is recommended to mitigate the significant noise impact associated with operation of the emergency generator:

> **MM-NOI-1:** Select, design, and install the emergency generator and rooftop mechanical equipment to comply with the applicable City of Chula Vista Noise Ordinance.
>
> During the architectural and engineering design phase, prior to the issuance of any permits for the generator and rooftop mechanical equipment, the project proponent will retain an acoustical consultant to evaluate the proposed generator and rooftop mechanical equipment installation and provide recommendations, as necessary, to ensure that the combined noise levels will comply with the City of Chula Vista Noise Ordinance at the surrounding homes and daycare. The analysis will be based on the best available acoustical data for the actual generator and equipment proposed at the project site. Noise reduction methods may include, but are not limited to, selecting a quieter equipment, selecting a higher-performing sound enclosure for the generator, upgrading the generator silencer (muffler), changing equipment locations, incorporating additional screen walls or noise barriers, or adding acoustic absorption materials. The project proponent will submit a copy of the acoustical consultant's report to the City of Chula Vista for review and approval prior to generator installation.

4.4.14. Population and Housing

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	☒
b.	Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Impact Analysis

a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?

No Impact. The project site is within an existing Sharp HealthCare property in a built-out, urbanized community. Construction of the proposed project would result in the generation of temporary construction jobs; however, the additional jobs would be temporary and are expected to be filled by the existing local labor force in the San Diego region. The proposed project would not directly or indirectly induce population growth, as it does not propose new homes or include the extension of roadways or other infrastructure and would operate as a population-serving facility. Therefore, the proposed project would not directly or indirectly induce substantial population growth through the creation of new homes or businesses in the San Diego region. No impacts would occur.

b. Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project site is within an existing Sharp HealthCare property, in a built-out, urbanized community. The proposed project does not propose any housing or any significant extension of roads or infrastructure. As such, because no existing housing units or people would be removed or displaced, the proposed project would not require the construction of replacement housing elsewhere. Therefore, no impacts would occur.

Mitigation

No mitigation measures are required.

4.4.15. Public Services

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
	Fire protection?	☐	☐	☒	☐
	Police protection?	☐	☐	☒	☐
	Schools?	☐	☐	☐	☒
	Parks?	☐	☐	☒	☐
	Other public facilities?	☐	☐	☐	☒

Impact Analysis

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:

Fire protection?

Less-than-Significant Impact. The proposed project would be served by the Chula Vista Fire Department, which has nine fire stations (City of Chula Vista 2021.). The project site is within the primary service area of Fire Station 7 at 1640 Santa Venetia Street, approximately 0.6 mile directly east. However, it is worth noting that Fire Station 7 is approximately 1.8 miles away given street configurations. The proposed project would not include new homes or businesses that would require additional services or lead to extended response times for fire protection services. Therefore, the project would not substantially alter the existing fire service demands once construction is completed, and the Chula Vista Fire Department would not be required to expand an existing facility or build new stations to serve the proposed project area. Impacts associated with fire protection would be less than significant.

Police protection?

Less-than-Significant Impact. The project site would be served by the Chula Vista Police Department (CVPD). The CVPD station is at 201 Fourth Avenue, approximately 1.5 miles directly east of the project site; however, it is worth noting the actual distance is approximately 2.9 miles given street configurations. The proposed project does not include new housing or businesses in the area that would adversely affect existing levels or require any additional police protection services. Therefore, CVPD would not be

required to expand an existing facility or construct new police stations to serve the proposed project area. Impacts associated with police protection would be less than significant.

Schools?

No Impact. As a primary and specialty care medical facility, the proposed project would not introduce a new student population within the service boundaries of the school districts that serve the City. Therefore, the proposed project would not adversely affect existing levels of school services or create a significant new demand and would not require the construction of a new or expansion of an existing facility. Therefore, no impact would occur.

Parks?

Less-than-Significant Impact. The nearest existing park is Heritage Park, located north of and across the street from the project site. Heritage Park is a 10.1-acre park with various amenities including an amphitheater, a duck pond, a community center, picnic areas, a skateboard park, and soccer fields. In addition, the project would include various outdoor spaces and functions. Therefore, the patients and employees of the primary and specialty care medical facility would be unlikely to increase any demand beyond the current use. Overall, the proposed project would not introduce new population to the area and would not result in an increase in the demand for parks. Impacts associated with park facilities would be less than significant.

Other public facilities?

No Impact. There are no libraries or post offices within 1 mile of the proposed project site. In addition, as discussed above, the proposed project would not increase the population adjacent to the project boundary and there would be no increased need for new or physically altered public facilities. There would be no impacts.

Mitigation

No mitigation measures are required.

4.4.16. Recreation

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b.	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Impact Analysis

a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. Heritage Park is directly across East Palomar Street from the project site. The proposed project would not introduce new populations to the area and would not increase the demand for parks. Patients and employees of the new MOB are unlikely to increase any usage at public parks, as constituents would be limited to the facility. As such, the project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, and no impacts would occur.

b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No Impact. The project would construct a new MOB and parking structure and would not include recreational facilities or expansion of recreational facilities. No impact would occur.

Mitigation

No mitigation measures are required.

4.4.17. Transportation

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☒	☐	☐
b.	Conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐
c.	Substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d.	Result in inadequate emergency access?	☐	☐	☒	☐

Impact Analysis

The analysis in this section is based on the *Local Mobility Analysis* prepared for this IS/MND (Appendix D).

a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less-than-Significant Impact with Mitigation Incorporated. The City of Chula Vista's General Plan Land Use and Transportation Element sets forth goals and policies regarding the street network. Pursuant to these policies, an analysis of local traffic impacts and impacts on the regional transportation system is provided below to determine whether the proposed project would conflict with the target level of service (LOS) identified in the City's General Plan Land Use and Transportation Element. The criteria for determining whether the project results in project-specific traffic effects on intersections in the City of Chula Vista is presented in Table 3-1 of the Local Mobility Analysis prepared for this project (Appendix D).

According to the Local Mobility Analysis, based on a site-specific trip generation analysis completed for the project, the proposed project would generate approximately 2,891 daily trips, with 173 AM peak-hour trips (138 inbound and 35 outbound), and 318 PM peak-hour trips (95 inbound and 223 outbound). With the addition of project traffic, the study area intersections are calculated to continue to operate acceptably at LOS D or better during the AM and PM peak hours except the following:

- Palomar Street/Santa Rita/Monarche Drive – LOS E during the AM peak hour

The proposed project would have a substantial effect at the Palomar Street/Santa Rita/Monarche Drive intersection because it is calculated to operate at LOS E prior to the addition of project traffic and the project would contribute more traffic to this intersection. The most effective improvement would be to provide an exclusive northbound right-turn lane. However, there is not sufficient right-of-way to provide the widening; the width of existing sidewalk would reduce from 14 feet to 8 feet. Therefore, **MM-TRA-1**

will be implemented, which will modify the cycle length to improve the operations at this intersection to LOS D or better. As such, impacts on the roadway circulation system would be less than significant with mitigation incorporated.

Transit, Bicycle, Pedestrian Facilities

The proposed project and associated construction activities are not anticipated to impact any existing or planned transit, bicycle, or pedestrian facilities.

Parking

According to the City of Chula Vista, the required parking rate for the site is 1 space per 200 square feet. Currently, the parking required for the existing 67,372-square-foot MOB is 337 spaces. There are currently 369 spaces in the surface parking lot. The total required parking at the rate of 1 space per 200 square feet for the total MOB area—125,192 square feet (67,372 + 57,820)—is 631 spaces. The project plans to provide a total of 649 spaces between the new parking structure and redesigned surface lot. Thus, the planned parking meets and exceeds the required parking.

During construction, parking at the site would be restricted to 191 spaces at the project site due to construction activities. However, **MM-TRA-2** requires Sharp to lease 50 spaces from a new parking lot currently under construction at St Paul's Plaza Senior Living across Santa Andrea on the east side. Another 100 parking spaces at the Sharp Chula Vista Medical Center (SCVMC) located at 752 Medical Center Court, Chula Vista, 3 miles from the project site will also be available. A shuttle service will be provided between the SCVMC parking lot and the project site. The spaces at SCVMC will be cordoned off and reserved for the use of visitors to the project site, thus ensuring availability of a total of 341 spaces during construction between the three parking options. As such, impacts would be less than significant with mitigation incorporated.

b. Conflict or be inconsistent with State CEQA Guidelines Section 15064.3, subdivision (b)?

Less-than-Significant Impact. As required by CEQA Section 15064.3, on July 1, 2020, CEQA analyses prepared for proposed projects must include an analysis of VMT, which is defined "as the amount and distance of automobile travel attributable to a project."

An assessment was conducted utilizing methodologies presented by the Governor's Office of Planning and Research (OPR) Technical Advisory and the City of Chula Vista *Transportation Study Guidelines* (June 10, 2020). The requirements to prepare a detailed transportation VMT analysis apply to all discretionary land development projects, except those that meet at least one of the following screening criteria. A project that meets at least one screening criteria is presumed to have a less-than-significant VMT impact due to project characteristics and/or location. The project is located in a VMT-efficient area and is 71.3 percent of the regional VMT (see VMT map in Appendix B of the *Local Mobility Analysis* prepared for this project [Appendix D]). The project meets the Project Location Screening criteria for *Employment*. *Employment* projects located within a VMT-efficient area may be presumed to have a less-than-significant impact absent substantial evidence to the contrary. A VMT-efficient area for employment

projects (excluding industrial employment projects) is any area with an average VMT/Employee 15 percent below the baseline regional average for the census tract it is located within.

Therefore, the proposed project is screened out from requiring a VMT analysis and the project's VMT transportation impact is presumed to be less than significant.

c. Substantially increase hazards because of a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The proposed project would not substantially increase hazards because of a geometric design feature or introduce any incompatible uses.

d. Result in inadequate emergency access?

Less-than-Significant Impact. During construction activities, construction equipment staging areas would be restricted to onsite locations. Construction would not take place on public roadways and would not impede access or movement of emergency vehicles. As indicated in the City's General Plan, the nearest evacuation routes are East Palomar Street and Heritage Road, adjacent to and west of the project site, respectively (City of Chula Vista 2021). The proposed project is anticipated to generate a total of 2,891 daily trips, including 173 AM peak-hour trips and 318 PM peak-hour trips. As such, traffic generated by the proposed project would not be substantial and would not affect emergency access in the area.

Mitigation

The following mitigation measures are required to be implemented as part of the proposed project:

> **MM-TRA-1:** Modify the intersection cycle length at the Palomar Street/Santa Rita/Monarche= Drive intersection, by maximizing green time splits among the intersection approaches, revising= red and yellow clearance times, and improving coordination with adjacent signals consistent with= the City's Traffic Signal Communications Master Plan, to improve the operations at this= intersection to LOS D or better prior to project completion.
>
> **MM-TRA-2:** During project construction, lease 50 spaces from a new parking lot currently under= construction at St Paul's Plaza Senior Living across Santa Andrea on the east side. In addition,= provide a shuttle service between the SCVMC parking lot and the project site. The spaces at= SCVMC will be cordoned off and reserved for the use of visitors to the project site.

4.4.18. Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
b.	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

No Impact. Californian Native American tribes have not identified any tribal cultural resources within the proposed project area. The proposed project would not cause a substantial adverse change of the significance of a tribal cultural resource listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources. The proposed project area is completely developed with a surface parking lot, which serves the existing MOB. Because the entire project area has been affected by modern development, ground-disturbing activities are unlikely to encounter any buried archaeological resources. Implementation of the proposed project is expected to have no impact on tribal cultural resources listed or eligible for listing on the California Register of Historical Resources.

b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

No Impact. Californian Native American tribes have not identified any tribal cultural resources within the proposed project area. The City of Chula Vista has not determined there are any tribal cultural resources within the proposed project area. The proposed project area is completely developed with a surface parking lot, which serves the existing MOB. Because the entire project area has been affected by modern development, ground-disturbing activities are unlikely to encounter any tribal cultural resources. Implementation of the proposed project is expected to have no impact on tribal cultural resources.

Mitigation

No mitigation measures are required.

4.4.19. Utilities and Service Systems

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c.	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d.	Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e.	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Impact Analysis

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less-than-Significant Impact. The City operates and maintains its own sanitary collection system that connects to the Metro sewerage system for treatment and disposal. Wastewater generated in the Otay Water District service area is sent to the Point Loma Wastewater Treatment Plant or the South Bay Water Reclamation Facility, where it is treated to secondary levels and discharged to the Pacific Ocean or treated to tertiary levels at the South Bay Water Reclamation Facility and used as recycled water (Sweetwater Authority 2016).

The proposed project consists of expanding an existing primary and specialty care medical facility; therefore, it is not anticipated to introduce a new population base that would require new or expanded water or wastewater treatment facilities, as the primary and specialty care medical facility would serve the existing population base. The proposed facilities would connect to the existing water service system within Santa Andrea Street and East Palomar Street and would not require the construction or expansion of water service facilities beyond those proposed to serve the project site or already planned by the City. The proposed project would not directly require any additional utility infrastructure, drainage systems, or expansions beyond those proposed for the project site and new MOB.

The proposed project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities that would cause significant environmental effects. Therefore, wastewater generated from the new MOB and during construction would be less than significant.

Additionally, as an existing facility, the project site already has electricity, natural gas, and telecommunications infrastructure installed and capable of serving the expansion. No significant impacts relative to the construction or relocation of these utilities is anticipated. Impacts would be less than significant.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Less-than-Significant Impact. Water service to the proposed project would be from the buildings' existing infrastructure connecting to the public water line. The existing public water system provides the necessary flow and pressure for the proposed new MOB. The City receives its water from the Sweetwater Authority and Otay Water District. These water agencies receive their water supply from local groundwater, a groundwater desalination facility, surface waters, and through purchase from the San Diego County Water Authority. The San Diego County Water Authority's water system contains approximately 36,850 service connections, with no current plans for expansion of the service area.

Water supply planning for Sweetwater Authority and Otay Water District is completed via their respective 2015 Urban Water Management Plans (UWMP) (Sweetwater Authority 2016; Otay Water District 2015). A 2020 Draft UWMP has also been submitted in coordinated development with the San Diego County Water Authority to include additional reporting requirements from the 2015 UWMP, including formally preparing and adopting a Water Shortage Contingency Plan; evaluating water reliability over a period of 5 consecutive dry years; preparing a Drought Response Plan; addressing seismic risks; and reporting energy intensity (Sweetwater Authority 2021; Otay Water District 2021).

UWMPs assess local supply needs based on the local jurisdictions' general plan land use designations and zoning codes, which are used in SANDAG's regional and local population forecasts. The proposed project would be in compliance with the City's General Plan and zoning code, and the water supply demand to serve the site has been planned for and assessed within the respective UWMPs. Overall, water supply impacts would be less than significant considering the proposed project's consistency with local and regional water supply planning efforts.

c. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less-than-Significant Impact. As stated above in Threshold (a), the proposed project would not result in the construction of new wastewater treatment facilities and would be in compliance with the general plan and zoning code. Wastewater demand of the proposed project has been already planned for in the City's wastewater system plans, which are based on the buildout of the City of Chula Vista. The proposed project would not result in the need for additional capacity and would have a less-than-significant impact.

d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-than-Significant Impact. The waste generated during construction of the proposed project would consist of general debris from construction activities. The City has an exclusive agreement with Pacific Waste Services for the removal and disposal of non-recyclable waste through the year 2031. The proposed project is anticipated to be served by the Otay Landfill, which has a remaining capacity of approximately 24.5 million cubic yards and, based on current waste generation rates, has a cease operation date of 2028 (CalRecycle n.d.[a]). Should the Otay Landfill not accept waste at the time of construction, the Sycamore Landfill would serve the proposed project. The Sycamore Landfill has a remaining capacity of approximately 42.2 million cubic yards (CalRecycle n.d.[b]).

Once the project is operational, solid waste generated by the proposed project would be limited to the waste generated by the primary and specialty care medical facility. Because there is sufficient capacity to accommodate projected population at buildout of the General Plan and the proposed project would not introduce a new population base, there would be no significant impact on integrated waste management services (City of Chula Vista 2021). As such, the Otay Landfill would have adequate permitted capacity to accommodate the proposed project's solid waste disposal needs. Impacts would be less than significant.

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less-than-Significant Impact. The project would comply with all federal, state, and local statutes and regulations related to solid waste. The proposed project would not result in the generation of large amounts of solid waste other than minimal amounts of generated debris during grading or site clearing and the initial construction of the new MOB. Diversion rates are used to report waste disposal within Chula Vista to address Assembly Bill 939 recycling goals, which required that all California jurisdictions achieve a landfill diversion rate of 50 percent by the year 2000; and to reduce, reuse, recycle, and compost all discarded materials to the maximum extent feasible prior to sending materials to landfills or using other destructive disposal methods (City of Chula Vista 2005).

The City requires mandatory recycling of construction and demolition debris per the CVMC Mandatory Construction and Demolition Debris Recycling Ordinance (CVMC Section 8.25.095). Per the CVMC, construction and demolition projects must divert their waste from landfill disposal. The Mandatory Construction and Demolition Debris Recycling Ordinance requires that 100 percent of inert materials and a minimum of 65 percent of all other materials be recycled and/or reused. Regarding construction waste, the proposed project would be required to recycle/reuse 100 percent of the following materials: asphalt/concrete, brick/masonry/tile, dirt/rock, mixed inerts, and landscape and brush clearing debris. The proposed project would also be required to recycle/reuse 65 percent of the following materials: cabinets, doors, fixtures, windows; cardboard; carpet; carpet (padding/foam only); ceiling tile (acoustic); drywall (used); drywall (new, unpainted, or scrap); mixed debris (consists of a mix of any materials in this list); roofing materials; scrap metal; stucco; and unpainted wood and pallets. With implementation of these requirements per the CVMC, the proposed project would be in compliance with state policies like the California Solid Waste Reuse and Recycling Access Act of 1991 and Assembly Bill 341 (Solid Waste

Diversion). Additionally, the proposed project would include a trash and recycling enclosure for operational waste disposal. Therefore, the proposed project would be consistent with regulations related to solid waste, and impacts would be less than significant.

Mitigation

No mitigation measures are required.

4.4.20. Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b.	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c.	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?	☐	☐	☒	☐
d.	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Impact Analysis

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less-than-Significant Impact. As discussed previously, the proposed project would not conflict with the regional or city emergency response plans, and the site would have adequate emergency access. The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan and, therefore, would have a less-than-significant impact.

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less-than-Significant Impact. The project site is not within a state responsibility area or lands classified as VHFHSZs (CAL FIRE 2022). The project site is approximately 2.0 miles north from a VHFHSZ. The project site is in a highly urbanized and developed area and is not within or adjacent to a fire hazard severity zone. The proposed project would be constructed in compliance with the City of Chula Vista Fire Code, and development would be adjacent to other existing developments. In addition, adequate emergency ingress/egress would be provided. The proposed project would not exacerbate wildfire risks, exposing occupants to pollutants, and, therefore, would have a less-than-significant impact.

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment?

Less-than-Significant Impact. The proposed expansion would be constructed on a project site where an existing facility already has requisite infrastructure installed (see Section 3.4.19, *Utilities and Service*

Systems); therefore, expansion or connection of these utilities would not exacerbate fire risks because the project site is not within or adjacent to a VHFHSZ, and these improvements would be constructed within either an existing roadway or within the existing facility. The proposed project would not require the installation or maintenance of infrastructure that would exacerbate fire risk and, therefore, would have a less-than-significant impact.

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less-than-Significant Impact. The project site is in a highly urbanized and developed area and is not within or adjacent to a fire hazard severity zone. Due to the site location and the surrounding developed environment, the proposed project would not be subject to downhill flooding or landslides resulting from a fire. Additionally, the project site does not contain steep slopes that would be prone to landslide or erosion. The proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, impacts would be less than significant.

Mitigation

No mitigation measures are required.

4.4.21. City of Chula Vista Thresholds

	Would the proposal adversely impact the City's threshold standards:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Library The City shall construct 60,000 gross square feet (GSF) of additional library space, over the June 30, 2000 GSF total, in the area east of Interstate 805 by buildout. The construction of said facilities shall be phased such that the City will not fall below the city-wide ratio of 500 GSF per 1,000 population. Library facilities are to be adequately equipped and staffed.	☐	☐	☐	☒
b.	Police Emergency Response: Properly equipped and staffed police units shall respond to 81 percent of "Priority One" emergency calls within seven (7) minutes and maintain an average response time to all "Priority One" emergency calls of 5.5 minutes or less. Respond to 57 percent of "Priority Two" urgent calls within seven (7) minutes and maintain an average response time to all "Priority Two" calls of 7.5 minutes or less.	☐	☐	☒	☐
c.	Fire and Emergency Medical Emergency response: Properly equipped and staffed fire and medical units shall respond to calls throughout the City within 7 minutes in 80% of the cases (measured annually).	☐	☐	☒	☐
d.	Traffic The Threshold Standards require that all intersections must operate at a Level of Service (LOS) "C" or better, with the exception that Level of Service (LOS) "D" may occur during the peak two hours of the day at signalized intersections. Signalized intersections west of I-805 are not to operate at a LOS below their 1991 LOS. No intersection may reach LOS "E" or "F" during the average weekday peak hour. Intersections of arterials with freeway ramps are exempted from this Standard.	☐	☐	☒	☐
e.	Park and Recreation Areas The Threshold Standard for Parks and Recreation is 3 acres of neighborhood and community parkland with appropriate facilities /1,000 population east of I-805.	☐	☐	☐	☒
f.	Drainage The Threshold Standards require that storm water flows and volumes not exceed City Engineering Standards. Individual projects will provide necessary improvements consistent with the Drainage Master Plan(s) and City Engineering Standards.	☐	☐	☒	☐

Would the proposal adversely impact the City's threshold standards:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
g.	Sewer The Threshold Standards require that sewage flows and volumes not exceed City Engineering Standards. Individual projects will provide necessary improvements consistent with Sewer Master Plan(s) and City Engineering Standards.	☐	☐	☒	☐
h.	Water The Threshold Standards require that adequate storage, treatment, and transmission facilities are constructed concurrently with planned growth and that water quality standards are not jeopardized during growth and construction. Applicants may also be required to participate in whatever water conservation or fee off-set program the City of Chula Vista has in effect at the time of building permit issuance.	☐	☐	☒	☐

Impact Analysis

a. Library

The City shall construct 60,000 gross square feet (GSF) of additional library space, over the June 30, 2000 GSF total, in the area east of Interstate 805 by buildout. The construction of said facilities shall be phased such that the City will not fall below the city-wide ratio of 500 GSF per 1,000 population. Library facilities are to be adequately equipped and staffed.

No Impact. There are no libraries within 1 mile of the proposed project site. In addition, as discussed above, the proposed project would not increase the population adjacent to the project boundary, and an increased need for new or physically altered public facilities would not occur. There would be no impacts, and further discussion is not warranted.

b. Police

Emergency Response: Properly equipped and staffed police units shall respond to 81 percent of "Priority One" emergency calls within seven (7) minutes and maintain an average response time to all "Priority One" emergency calls of 5.5 minutes or less.

Respond to 57 percent of "Priority Two" urgent calls within seven (7) minutes and maintain an average response time to all "Priority Two" calls of 7.5 minutes or less.

Less-than-Significant Impact. The project site would be served by CVPD. The CVPD station is at 201 Fourth Avenue, approximately 1.5 miles directly east of the project site; however, it is worth noting the actual distance is approximately 2.9 miles given street configurations. The proposed project does not include new housing or businesses in the area that would adversely affect existing levels or require any additional police protection services. Therefore, CVPD would not be required to expand an existing

facility or construct new police stations to serve the proposed project area. Impacts associated with police protection would be less than significant, and further discussion is not warranted.

c. **Fire and Emergency Medical**

Emergency response: Properly equipped and staffed fire and medical units shall respond to calls throughout the City within 7 minutes in 80% of the cases (measured annually).

Less-than-Significant Impact. The proposed project would not include new homes or businesses that would require additional services or extended response times for fire protection services. Therefore, the project would not substantially alter the existing fire service demands once construction is completed and the Chula Vista Fire Department would not be required to expand an existing facility or build new stations to serve the proposed project area. The majority of construction associated with the project would occur within the project footprint and would not include any characteristics (e.g., permanent road closures, long-term blocking of road access) that would physically impair or otherwise interfere with emergency response or evacuation in the project's vicinity. In addition, the existing MOB would remain operational and emergency vehicles would be able to access the building during the course of construction.

d. Traffic

The Threshold Standards require that all intersections must operate at a Level of Service (LOS) "C" or better, with the exception that LOS "D" may occur during the peak 2 hours of the day at signalized intersections. Signalized intersections west of Interstate 805 are not to operate at a LOS below their 1991 LOS. No intersection may reach LOS "E" or "F" during the average weekday peak hour. Intersections of arterials with freeway ramps are exempted from this Standard.

Less-than-Significant Impact. As discussed in Section 3.4.17, *Transportation*, the proposed project is estimated to generate a total of 3,000 additional daily trips with 180 AM peak-hour trips (144 inbound and 36 outbound) and 330 PM peak-hour trips (99 inbound and 231 outbound). Two full-access driveways currently exist on Santa Andrea Street along the eastern boundary of the site and would remain following implementation of the proposed project. All project traffic would access the site using these two driveways. The two project access driveways are calculated to operate at an acceptable LOS C or better. As such, impacts would be less than significant.

e. Park and Recreation Areas

The Threshold Standard for Parks and Recreation is 3 acres of neighborhood and community parkland with appropriate facilities /1,000 population east of Interstate 805.

No Impact. Heritage Park is directly across East Palomar Street from the project site. The proposed project would not introduce new populations to the area and would not increase the demand for parks. Patients and employees of the new MOB are unlikely to increase any usage at public parks, as constituents would be limited to the facility. As such, the project would not increase the use of existing

neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, and no impacts would occur.

f. Drainage

The Threshold Standards require that storm water flows and volumes not exceed City Engineering Standards. Individual projects will provide necessary improvements consistent with the Drainage Master Plan(s) and City Engineering Standards.

Less-than-Significant Impact. Refer to Section 3.4.10, *Hydrology and Water Quality*. Impacts would be less than significant.

g. Sewer

The Threshold Standards require that sewage flows and volumes not exceed City Engineering Standards. Individual projects will provide necessary improvements consistent with Sewer Master Plan(s) and City Engineering Standards.

Less-than-Significant Impact. Refer to Section 3.4.19, *Utilities and Service Systems*. Impacts would be less than significant.

h. Water

The Threshold Standards require that adequate storage, treatment, and transmission facilities are constructed concurrently with planned growth and that water quality standards are not jeopardized during growth and construction.

Applicants may also be required to participate in whatever water conservation or fee off-set program the City of Chula Vista has in effect at the time of building permit issuance.

Less-than-Significant Impact. Refer to Section 3.4.19, *Utilities and Service Systems*. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

4.4.22. Mandatory Findings of Significance

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a.	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
b.	Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐
c.	Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Impact Analysis

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

Less-than-Significant Impact. As discussed in Section 3.4.4, *Biological Resources,* the potential is low for special-status species to occur in the study area due to the disturbed nature of the site and the location being surrounded by urban development, and there is no riparian habitat or other sensitive natural community. As such, the project is not expected to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. In addition, as discussed in Sections 3.4.5, *Cultural Resources,* and 3.4.18, *Tribal Cultural Resources,* the proposed project area is completely developed with a surface parking lot, which serves the existing MOB; therefore, the proposed project is not expected to eliminate important examples of the major periods of California history or prehistory.

b. Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less-than-Significant Impact. The proposed project would incrementally contribute to cumulative impacts for projects occurring within the City. With mitigation, however, implementation of the proposed project would not result in any residually significant impacts that could contribute to a cumulative impact. In the absence of residually significant impacts, the incremental accumulation of effects would not be cumulatively considerable and would be less than significant.

c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

No Impact. Based on the analysis above, it has been determined that there would be no significant direct or indirect effect on human beings with the incorporation of mitigation.

Section 5 List of Preparers

5.1. Lead Agency

City of Chula Vista
Development Services
276 Fourth Avenue, Building B
Chula Vista, California 91910

Oscar Romero, Senior Planner

5.2. Consultants

ICF
525 B Street, Suite 1700
San Diego, CA 92101

Lance Unverzagt, Senior Manager, Project Manager
Jonathan Higginson, Senior Manager, Noise
Peter Hardie, Senior Noise Analyst
Ryan Hallman, Air Quality Specialist
Pierre Glaize, Senior Environmental Specialist, Air Quality
Andrew Belcourt, Senior Environmental Planner
Ken Cherry, Editor
Jenelle Mountain-Castro, Publications Specialist

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6.2. Section 2, Project Description

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6.3.15. Public Services

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6.3.22. Mandatory Findings of Significance

None cited.

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Appendix A Air Quality, Greenhouse Gas, and Energy Impact Analysis Technical Report

Appendix B Updated Geotechnical Investigation Sharp Otay Ranch Medical Office Building and Parking Structure Project 1400 East Palomar Street Chula Vista, California

Appendix C Noise and Vibration Impact Analysis

Appendix D Local Mobility Analysis

Appendix A Air Quality, Greenhouse Gas, and Energy Impact Analysis Technical Report

Memorandum

To:	Oscar Romero, City of Chula Vista Planning and Building Department
From:	Keith Lay, Managing Director, Air Quality and Climate Change, ICF
Date:	June 27, 2022
Re:	**Sharp Reese-Stealy Otay Ranch Expansion Air Quality, Greenhouse Gas, and Energy Impact Analysis**

1. Introduction

The purpose of this memorandum is to support Sharp Reese-Stealy Otay Ranch in the environmental review process and provide information regarding potential air quality, greenhouse gas (GHG), and energy effects associated with the proposed expansion project. The analysis provided in this memorandum evaluates the potential for short- and long-term air quality, GHG, and energy impacts associated with construction and operation of the project. The analysis includes a description of the environmental setting for the project, including existing air quality, GHG, and energy conditions, as well as applicable laws and regulations. It also documents the assumptions, methodologies, and findings used to evaluate the impacts associated with the project. Modeling output sheets are provided in Attachment 1. Screening health risk calculation and output sheets are provided in Attachment 2.

2. Project Description

The project site would be located at 1400 East Palomar Street in the City of Chula Vista (City). The proposed project would occur within the current 4.67-acre site boundary. Figure 1 shows the project vicinity. Figure 2 shows the project location in the context of the surrounding area.

The project proposes to construct a new 58,788-square-foot medical office building (MOB) and a parking structure accommodating 611 parking spaces within the existing parking area. The parking structure would be built in the southern section of the project site, and the new MOB would be located just to the south and attached to the existing MOB, but north of the proposed parking structure. Figure 3 shows the project site plan.

Figure 1. Project Vicinity

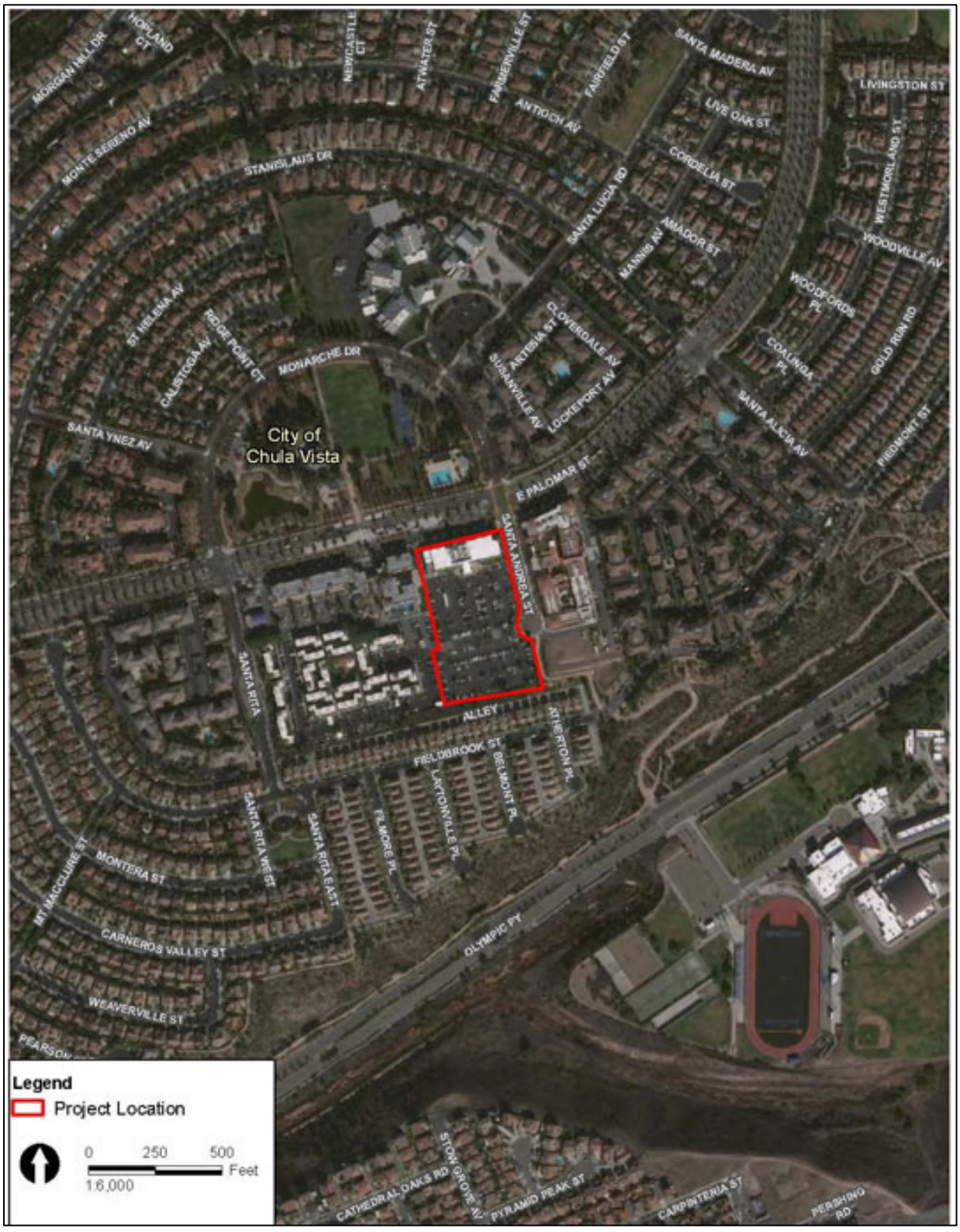

Figure 2. Project Location

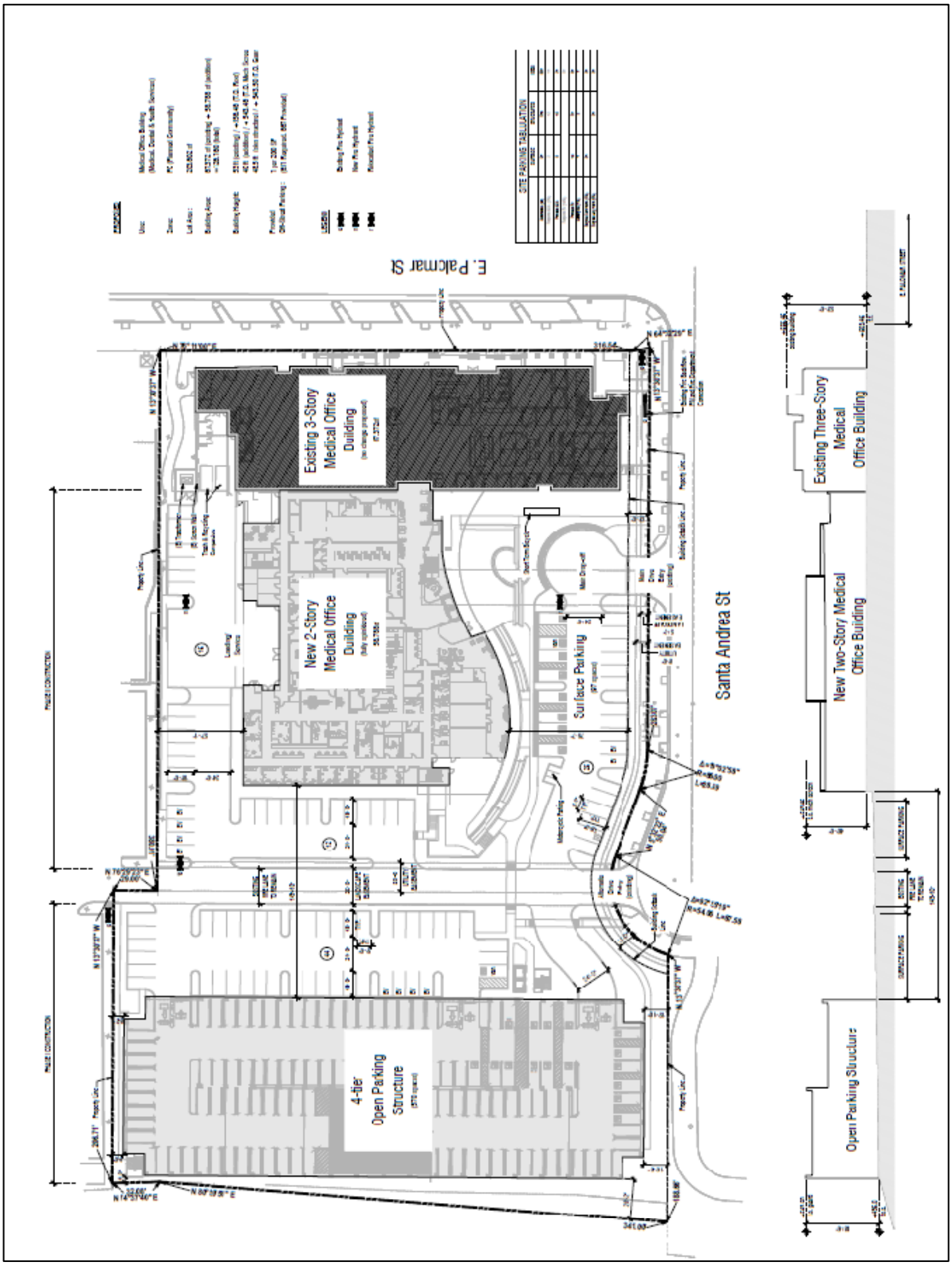

Figure 3. Project Site Plan

Main access to the expanded facility would be via Santa Andrea Street, where patrons and patients would arrive at the new entry plaza and main building entry. In addition to the parking structure, the project would include 56 surface parking spots with Americans with Disabilities Act (ADA) accessibility for ease of access to building entrances.

The project would include various functional outdoor spaces that could be used as an extension of the MOB. There would be an enhanced arrival court and entry plaza to greet patrons. An entry plaza would provide direct connection to the conference center, urgent care facility, and lobby. This space would be partially covered and could be used for outdoor functions. The parking structure would also have an entry court that would be generously landscaped. The project would include one backup emergency generator.

The new MOB would include a daylight-filled lobby and would be centrally located between the existing MOB and the new expansion, linking the two buildings together. The first floor of the new MOB would include urgent care, advanced radiology services, a new lab, and a small conference center for training and clinics. An atrium would connect the first and second floor lobbies.

Sustainability Measures

Air quality best practices during construction would include dust control during all grading activities, no idling equipment on site, maximized use of electric construction equipment, and use of high efficiency particulate air (HEPA) point filtering for grinding activities.

Additionally, a 278-kilowatt (kW) solar photovoltaic (PV) system would be installed on the roof of the new and existing buildings. The addition of this system would reduce the facility's energy use so that it would be over 30 percent less than currently required by California Title 24.

3. Pollutants of Concern

The analysis focuses on the following pollutants that are of greatest concern for the proposed project:

- **Criteria pollutants**—Pollutants for which the federal and state governments have set ambient air quality standards or that are chemical precursors to compounds for which ambient standards have been set. The criteria pollutants associated with the project are ozone (O_3) and the precursors thereof (volatile organic compounds [VOC] and nitrogen oxides [NO_X]), particulate matter (PM) (PM_{10} is PM smaller than or equal to 10 microns in diameter and $PM_{2.5}$ is PM smaller than or equal than 2.5 microns in diameter), carbon monoxide (CO), and sulfur dioxide (SO_2).
- **Toxic Air Contaminants**—The U.S. Environmental Protection Agency (EPA) has identified nine air toxic contaminants (TACs) associated with mobile sources as the considerable contributors to background air quality concerns. The primary TAC of concern associated with construction and operation of the proposed project is diesel particulate matter (DPM).
- **Greenhouse Gases**—According to California Environmental Quality Act (CEQA) Guidelines (§ 15364.5), GHGs include the following gases: carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), perfluorinated carbons, sulfur hexafluoride, and hydrofluorocarbons. Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and

fluctuations far outweigh its anthropogenic (human-made) sources. The primary GHGs of concern associated with the project include CO_2, CH_4, and N_2O, given that the others listed above are primarily generated by industrial and manufacturing processes, which are not anticipated as part of the proposed project. GHGs are defined using the high global warming potential (GWP) on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO_2e), which compares the gas in question to that of the same mass of CO_2 (which has a GWP of 1 by definition). GHGs are presented in metric tons of CO_2e ($MTCO_2e$).

4. Existing Air Quality, GHG, and Energy Environment

The proposed project is located in the San Diego Air Basin (SDAB), which covers the entirety of San Diego County. The San Diego County Air Pollution Control District (SDAPCD) is the local agency responsible for the administration and enforcement of air quality regulations in San Diego County.

The following discussion describes relevant characteristics of the SDAB, summarizes existing ambient pollutant concentrations, and identifies sensitive receptors. This section also provides a discussion of GHG emissions as they relate to the GHG study area, which is much broader than the study area for the air quality analysis to include potential regional and global GHG effects of the project.

Topography and Climate

Regional

The climate of San Diego is classified as Mediterranean but is incredibly diverse because of the topography. The climate is dominated by the Pacific high-pressure system that results in mild, dry summers and mild, wet winters. San Diego experiences an average of 201 days above 70 degrees Fahrenheit (°F) and 9–13 inches of rainfall annually (mostly, November–March). El Niño and La Niña patterns have large effects on the annual rainfall received in San Diego (SDAPCD 2016a).

An El Niño is a warming of the surface waters of the eastern Pacific Ocean. It is a climate pattern that occurs across the tropical Pacific Ocean that is associated with drastic weather occurrences, including enhanced rainfall in Southern California. La Niña is a term for cooler than normal sea surface temperatures across the Eastern Pacific Ocean. San Diego receives less than normal rainfall during La Niña years (SDAPCD 2016a).

The Pacific High drives the prevailing winds in the SDAB. The winds tend to blow onshore in the daytime and offshore at night. In the summer, an inversion layer is created over the coastal areas and increases the O_3 levels. In the winter, San Diego often experiences a shallow inversion layer that tends to increase carbon monoxide (CO) and particulate matter (PM) less than or equal to 2.5 microns in diameter (PM2.5) concentration levels due to the increased use of residential wood burning (SDAPCD 2016a).

In the fall months, the SDAB often experiences Santa Ana winds, which result from a high-pressure system over the Nevada-Utah region that overcomes the westerly wind pattern and forces hot, dry winds from the east to the Pacific Ocean. These winds are powerful and incessant. They blow the air basin's pollutants out to sea. However, a weak Santa Ana can transport air pollution from the SCAB

and greatly increase the San Diego O_3 concentrations. A strong Santa Ana wind also primes the region's vegetation for firestorm conditions (SDAPCD 2016a).

Local

The project site is in the vicinity of the climate monitoring station in Chula Vista (Station 041758). According to climate data recorded from 1918 to 2012, the average annual maximum temperature in the area is 68.5°F, average annual minimum temperature is 53.5°F, and mean annual temperate is 61.0°F. The average precipitation in the area is approximately 9.73 inches annually (Western Regional Climate Center 2012a, Western Regional Climate Center 2012b). The project site is in the vicinity of the wind monitoring station in Mission Trails Regional Park, which is approximately 2 miles northeast of the project site. Wind patterns at the Mission Trails station indicate a prominence of westerly winds that average 5 miles per hour (Windfinder 2022).

Existing Air Quality Conditions

Air Pollutant Concentrations

The federal and state governments have established air quality standards for six criteria pollutants: O_3, lead, CO, nitrogen dioxide (NO_2), SO_2, and particulate matter (PM_{10} and $PM_{2.5}$). O_3 and NO_2 are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as CO, SO_2, and lead are considered local pollutants that tend to accumulate in the air locally. PM_{10} and $PM_{2.5}$ are both regional and local pollutants. The primary pollutants of concern in the project study area are O_3 (including NO_X and VOC), CO, and PM.

The California Air Resources Board (CARB) collects ambient air quality data from a network of air monitoring stations throughout the state. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and determine whether the ambient air quality meets the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The NAAQS and CAAQS are discussed in further detail below.

Attainment Status

Local monitoring data regarding criteria pollutants are used to designate areas as nonattainment, maintenance, attainment, or unclassified areas for the NAAQS and CAAQS. The four designations are defined as:

- Nonattainment—assigned to areas where monitored pollutant concentrations consistently violate the standard in question.
- Maintenance—assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.
- Attainment—assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.
- Unclassified—assigned to areas where data are inadequate with respect to determining whether a pollutant is violating the standard in question.

Table 1 summarizes the attainment status for San Diego County with respect to the NAAQS and CAAQS. As shown, the region's status is classified as nonattainment for O_3 under the NAAQS as well as O_3, PM_{10}, and $PM_{2.5}$ under the CAAQS.

Table 1. Federal and State Attainment Status for San Diego County

Criteria Pollutant	Federal Designation	State Designation
O_3	Severe Nonattainment	Nonattainment
CO	Attainment	Attainment
PM_{10}	Unclassifiable/Attainment	Nonattainment
$PM_{2.5}$	Attainment	Nonattainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Unclassified
Visibility	(No federal standard)	Unclassified

Sources: SDAPCD 2022, EPA 2022.
Note: At the time of designation, if the available data do not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

Sensitive Receptors

Sensitive receptors are defined as locations where pollutant-sensitive members of the population may reside or where the presence of air pollutant emissions could adversely affect use of the land. Sensitive members of the population include those who may be more negatively affected by poor air quality than other members of the population, such as children, the elderly, or the infirm. In general, residential areas, hospitals, daycare facilities, elder-care facilities, elementary schools, and parks typically contain a high concentration of these sensitive population groups (CARB 2005).

The project is located entirely within the existing Sharp Rees-Stealy Otay Ranch facility. The project site is bounded downslope and to the south by single-family residences; to the west by mixed-use and multifamily residences; to the east by St. Paul's Plaza, senior services and residential facility (assisted living) that includes a walking trail stretching to the south; and to the north by East Palomar Street, a multilane divided street with Heritage Park across the street. The closest sensitive receptors are immediately adjacent the project area, as close as 50 feet from the project site.

Existing Greenhouse Gas Conditions

GHGs trap some of the long-wave infrared radiation emitted from the Earth's surface that would otherwise escape to space. The phenomenon known as the *greenhouse effect* keeps the atmosphere near the Earth's surface warm enough for the successful habitation of humans and other life forms. Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution, leading to warming of the Earth's lower atmosphere and noticeable beginning stage changes in the Earth's climate.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method to compare GHG emissions is the GWP methodology defined in the Intergovernmental Panel on Climate Change (IPCC) reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO_2e, which compares the gas in question to that of the same mass of CO_2 (which has a GWP of 1 by definition). The GWP values used in this report are based on the IPCC Fourth Assessment Report (AR4) and United Nations Framework Convention on Climate Change reporting guidelines (IPCC 2014). The AR4 GWP values are used in CARB's California GHG inventory and CARB's 2017 Scoping Plan Update.

The City has been implementing its Climate Action Plan (CAP) since 2000 to address the threat of climate change impacts on the local community. The most recent plan is the 2017 CAP, which was adopted by City Council on September 26, 2017. The CAP includes ambitious new goals and policies to strengthen the City's climate action efforts. The City regularly conducts GHG emission inventories to help guide execution of the CAP as well as to monitor and evaluate the progress. The most recent GHG emissions inventory was released in 2021 based on 2018 activities. A summary of the most recent inventories is provided in Table 2. As shown, emissions are trending down, resulting in a 13 percent reduction since 2005 at the community scale and 49 percent reduction since 2005 at the municipal scale.

Table 2. City of Chula Vista Greenhouse Gas Emissions Inventory (metric tons of CO_2e per year)

Sector	2005	2016	2018
Community			
Transportation	717,000	681,000	668,000
Natural Gas	182,000	192,000	188,000
Electricity	290,000	224,000	223,000
Waste	61,000	41,000	52,000
Water	50,000	11,000	12,000
Wastewater	15,000	3,000	3,000
Community Total	**1,315,000**	**1,152,000**	**1,146,000**
Municipal			
Vehicle Fleet	9,282	3,176	1,761
Building Energy	5,856	2,734	4,234
Lighting	2,896	1,077	605
Sewage	19	14	16
Waste	1,830	2,055	2,797
Water	NA	684	795
Municipal Total	**19,883**	**9,740**	**10,207**

Sources: City of Chula Vista 2020, 2021a, 2021b.

Existing Energy Conditions

SDG&E provides energy service to over 3.7 million customers (i.e., 1.4 million accounts) in San Diego County and portions of southern Orange County. The utility has a diverse power production portfolio, composed of a variety of renewable and non-renewable sources. Energy production

typically varies by season and by year. Regional electricity loads also tend to be higher in the summer because higher summer temperatures drive increased demand for air-conditioning. In contrast, natural gas loads are higher in the winter because colder temperatures drive increased demand for natural gas heating.

In 2020,[1] 31 percent of the electricity SDG&E supplied was from renewable sources, compared to less than 10 percent nationwide (CEC 2022a, SDG&E 2022). Table 3 outlines the SDG&E electricity power mix in 2020 compared to the power mix for the state. Table 4 summarizes electricity and natural gas usage by sector in the SDG&E service area. Residential and commercial uses account for 88 percent of electricity use and 94 percent of natural gas use within the SDG&E service area (CEC 2022b).

Table 3. Electricity Power Mix for SDG&E and the State of California in 2020

Energy Resources	SDG&E Power Mix	California-Wide Power Mix
Eligible Renewables	31.0	33.1
Biomass and Waste	2.1	2.5
Geothermal	0	4.9
Small Hydroelectric	0	1.4
Solar	17.9	13.2
Wind	11.0	11.1
Coal	0.0	2.7
Large Hydroelectric	1.7	12.2
Natural Gas	26.2	37.1
Nuclear	0.2	9.3
Other	0	0.2
Unspecified Sources of Power[1]	40.9	5.4
Total	**100**	**100**

Source: CEC 2022a.
[1] Electricity from transactions that are not traceable to specific generation sources.

Table 4. Electricity and Natural Consumption in the SDG&E Service Area in 2020

Energy Resources	Electricity (GWh)	Natural Gas (million therms)
Agriculture and Water Pump	349	5
Commercial	8,954	172
Industry	1,351	22
Mining and Construction	360	4
Residential	6,350	303
Streetlight	81	-
Total	17,445	505

Source: CEC 2022b.
GWh = gigawatt hours

[1] 2020 is the most recent year for which California Renewables Portfolio Standard data is available.

5. Regulatory Setting

The agencies of direct importance to the project for air quality are the EPA, CARB, and SDAPCD. The EPA has established federal air quality standards for which CARB and SDAPCD have primary implementation responsibility. CARB and SDAPCD are also responsible for ensuring that state air quality standards are met, as well as for developing policies and plans to reduce state and local GHG emissions.

Air Quality

Responsibility for attaining and maintaining air quality in California is divided between CARB and regional air quality districts. Areas of control for the regional districts are set by CARB, which divides the state into air basins.

Federal

The federal Clean Air Act (CAA), as amended, is the primary federal law that governs air quality nationwide. The FCAA was first enacted in 1963 and has been amended numerous times in subsequent years (1967, 1970, 1977, and 1990). The FCAA establishes the NAAQS and specifies future dates for achieving compliance. The CAA also mandates that each state submit and implement a State Implementation Plan (SIP) for local areas not meeting those standards. The plans must include pollution control measures that demonstrate how the standards will be met. Because the project site is within the SDAB, it is in an area designated as nonattainment for certain pollutants that are regulated under the CAA. Table 5 shows the NAAQS currently in effect for each criteria pollutant.

State

The California Clean Air Act (CCAA) established a statewide air pollution control program. The CCAA requires all air districts in the state to endeavor to meet the CAAQS by the earliest practical date. Unlike the federal CAA, the CCAA does not set precise attainment deadlines. Instead, the CCAA establishes increasingly stringent requirements for areas that will require more time to achieve the standards. CAAQS are generally more stringent than the NAAQS and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. CARB has adopted a series of rules, regulations, and standards to regulate the reduction of emissions from various sources. Table 5 shows the CAAQS currently in effect for each criteria pollutant.

Local

The SDAPCD is responsible for overseeing stationary-source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, and reviewing air quality–related sections of environmental documents required by CEQA. SDAPCD is also responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws and ensuring that the NAAQS and CAAQS are met. Table 5 shows the NAAQS and CAAQS.

Table 5. National and State Ambient Air Quality Standards

Criteria Pollutant	Average Time	California Standards	National Standards[a]	
			Primary	Secondary
Ozone	1 hour	0.09 ppm	None[b]	None[b]
	8 hours	0.070 ppm	0.070 ppm	0.070 ppm
Particulate Matter (PM_{10})	24 hours	50 μg/m³	150 μg/m³	150 μg/m³
	Annual mean	20 μg/m³	None	None
Fine Particulate Matter ($PM_{2.5}$)	24 hours	None	35 μg/m³	35 μg/m³
	Annual mean	12 μg/m³	12.0 μg/m³	15.0 μg/m³
Carbon Monoxide	8 hours	9.0 ppm	9 ppm	None
	1 hour	20 ppm	35 ppm	None
Nitrogen Dioxide	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1 hour	0.18 ppm	0.100 ppm	None
Sulfur Dioxide[c]	Annual mean	None	0.030 ppm	None
	24 hours	0.04 ppm	0.14 ppm	None
	3 hours	None	None	0.5 ppm
	1 hour	0.25 ppm	0.075 ppm	None
Lead	30-day average	1.5 μg/m³	None	None
	Calendar quarter	None	1.5 μg/m³	1.5 μg/m³
	3-month average	None	0.15 μg/m³	0.15 μg/m³
Sulfates	24 hours	25 μg/m³	None	None
Visibility-Reducing Particles	8 hours	—[d]	None	None
Hydrogen Sulfide	1 hour	0.03 ppm	None	None
Vinyl Chloride	24 hours	0.01 ppm	None	None

Source: California Air Resources Board 2016.
Notes:
μg/m³ = micrograms per cubic meter; ppm = parts per million
[a] National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.
[b] The national 1-hour standard of 12 parts per hundred million was in effect from 1979 through June 15, 2005. The revoked standard is referenced because it was employed for such a long period and considered a benchmark for state implementation plans.
[c] The annual and 24-hour NAAQS for sulfur dioxide apply only for 1 year after designation of the new 1-hour standard in those areas that were previously nonattainment areas for the 24-hour and annual NAAQS.
[d] The CAAQS for visibility-reducing particles is defined by an extinction coefficient of 0.23 per kilometer (visibility of 10 miles or more due to particles when relative humidity is less than 70 percent).

SDAPCD has adopted air quality plans to improve air quality, protect public health, and protect the climate. The San Diego Regional Air Quality Strategy (RAQS) outlines SDAPCD's plans and control measures designed to attain and maintain the state standards, while San Diego's portions of the SIP are designed to attain and maintain federal standards. The RAQS was initially adopted in 1991 and is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, 2004, 2009, and most recently in December 2016 (SDAPCD 2016a). The RAQS does not currently address the state air quality standards for PM_{10} or $PM_{2.5}$. SDAPCD has also developed the air basin's input to the SIP, which is required under the federal CAA for areas that are out of attainment of air quality standards.

Both the RAQS and SIP demonstrate the effectiveness of CARB measures (mainly for mobile sources) and SDAPCD's plans and control measures (mainly for stationary and area-wide sources) for attaining the ozone NAAQS.

The most recent federal plan (2020 SIP) is the 2020 Plan for Attaining the National Ozone Standards (SDAPCD 2020a), while the previous plan (2016 SIP) was the 2016 Plan for Attaining the National Ozone Standards (SDAPCD 2016b). Both the RAQS and SIPs demonstrate the effectiveness of CARB measures (mainly for mobile sources) and SDAPCD's plans and control measures (mainly for stationary and area-wide sources) for attaining the O_3 NAAQS (SDAPCD 2020b). For the 8-hour O_3 standard, the 2016 SIP outlines SDAPCD's portion of the SIP, and also outlines plans and control measures designed to attain and maintain the 8-hour O_3 NAAQS (2008 standard). The 2020 SIP outlines plans and control measures designed to attain and maintain the 8-hour O_3 NAAQS (2008 and 2015 standards). As of March 2022, the 2020 SIP is awaiting EPA approval and remains in draft form.

The project may be subject to the following district rules. This list may not be all-encompassing as additional SDAPCD rules may apply to the project as specific components are identified.

- **Regulation 2, Rule 20.2—New Source Review Non-Major Stationary Sources:** establishes Air Quality Impact Analysis (AQIA) Trigger Levels, which set emission limits for non-major new or modified stationary sources.
- **Rule 50—Visible Emissions:** establishes limits to the opacity of emissions within the SDAPCD. The proposed facility is subject to Rule 50(d)(1) and (6) and should not exceed the visible emission limitation.
- **Rule 51—Nuisance:** prohibits emissions that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health, or safety of any such persons or the public; or which cause injury or damage to business or property.
- **Rule 52—Particulate Matter:** establishes limits to the discharge of any particulate matter from non-stationary sources.
- **Rule 54—Dust and Fumes:** establishes limits to the amount of dust or fume discharged into the atmosphere in any 1 hour.
- **Rule 55—Fugitive Dust Control:** sets restrictions on visible fugitive dust from construction and demolition projects.

SDAPCD has not developed advisory emission thresholds or guidance to assist lead agencies in determining the level of significance of a project's emissions in CEQA documents.

Greenhouse Gases

Federal

There is currently no federal overarching law specifically related to climate change or reductions in GHG emissions. Under the Obama administration, the EPA had been developing regulations under the CAA. There have also been settlement agreements between EPA, several states, and nongovernmental organizations to address GHG emissions from electric generating plants and refineries. In addition,

EPA issued an Endangerment Finding and a Cause or Contribute Finding. EPA also adopted a Mandatory Reporting Rule and Clean Power Plan. Under the Clean Power Plan, EPA issued regulations to control CO_2 emissions from new and existing coal-fired power plants. However, on February 9, 2016, the Supreme Court issued a stay regarding these regulations pending litigation. In addition, former EPA Administrator Scott Pruitt signed a measure to repeal the Clean Power Plan.

The National Highway Traffic Safety Administration's (NHTSA's) Corporate Average Fuel Economy (CAFE) standards require substantial improvements in fuel economy and reductions in GHG emissions generated by passenger cars and light-duty trucks sold in the United States.

In 2018, NHTSA and EPA proposed amendments to roll back the previous fuel efficiency standards for passenger cars and light-duty trucks under the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule. On December 21, 2021, NHTSA published its CAFE Preemption Rule, which repealed 2019's SAFE Vehicles Rule, Part One: One National Program. That rule had codified preemption of state and local laws related to fuel economy standards. NHTSA's 2021 rule thus reopens pathways for state and local fuel economy laws.

State

California has adopted statewide legislation addressing various aspects of climate change and GHG mitigation. Much of this establishes a broad framework for the state's long-term GHG reduction and climate change adaptation program. The former and current governors of California have also issued several executive orders (EOs) related to the state's evolving climate change policy. Brief summaries of key policies, EOs, regulations, and legislation at the state level that are relevant to the project are listed below:

1. **Executive Order S-3-05 (2005)** was designed to reduce California's GHG emissions to (1) 2000 levels by 2010, (2) 1990 levels by 2020, and (3) 80 percent below 1990 levels by 2050.
2. **Assembly Bill 1493—Pavley Rules (2002, Amendments 2009, 2012 Rule-Making)** requires CARB to adopt vehicle standards that will lower GHG emissions from new light duty autos to the maximum extent feasible.
3. **Assembly Bill 32—California Global Warming Solutions Act (2006)** codified the state's GHG emissions target by requiring that the state's global warming emissions be reduced to 1990 levels by 2020. The AB 32 Scoping Plan describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020.
4. **Executive Order S-01-07—Low Carbon Fuel Standard (2007)** mandated (1) that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020, and (2) that a low carbon fuel standard (LCFS) for transportation fuels be established in California.
5. **Senate Bill 375—Sustainable Communities Strategy (2008)** provides a new planning process that coordinates land use planning, regional transportation plans, and funding priorities in order to help California meet the GHG reduction goals established in AB 32. SB 375 requires regional transportation plans (RTPs) developed by metropolitan planning organizations to incorporate a "sustainable communities strategy" (SCS). The goal of the SCS is to reduce regional VMT through land use planning and the consequent transportation patterns.

6. **California Green Building Standards Code and Title 24 (2010)** apply to the planning, design, operation, construction, use, and occupancy of newly constructed buildings and requires the installation of energy- and water-efficient indoor infrastructure for all new projects. The standards went into effect January 1, 2011, and are updated every 3 years. The most recent standards (2019), which took effect on January 1, 2020, take the final step toward achieving zero net energy for newly constructed residential buildings throughout California. For non-residential buildings, the California Energy Commission (CEC) estimates that the current 2019 standards will result in approximately 30 percent less energy than those designed in compliance with the 2016 standards (CEC 2019). The 2022 standards go into effect January 1, 2023, and build off the 2019 standards by encouraging efficient electric heat pumps, establishing electric-ready requirements for new homes, expanding solar PV and battery storage standards, strengthening ventilation standards, and more (CEC 2021).
7. **Senate Bills X 1-2 and 350, Renewable Portfolio Standard (2011, 2015)** require all California electricity providers to obtain at least 33 percent of their energy from renewable resources by 2020, and 50 percent renewable sourced energy by 2030.
8. **Senate Bill 32—California Global Warming Solutions Act (2016)** codified the state's GHG emissions target by requiring that the state's global warming emissions be reduced to 40 percent below 1990 levels by 2030. The updated Scoping Plan describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 40 percent below 1990 levels by 2030.
9. **Senate Bill 100 (2018)—**increases the Renewables Portfolio Standard (RPS) in 2030 from 50 to 60 percent and establishes a goal of 100 percent net-zero carbon by 2045.

Local

The Chula Vista City Council adopted the City's CAP on September 26, 2017. The CAP includes ambitious new goals and policies to strengthen the City's climate action efforts. Implementing the CAP facilitates achieving numerous community co-benefits such as utility savings, better air quality, reduced traffic congestion, local economic development, and improved quality of life. The CAP brings together past City of Chula Vista climate plan efforts, including the original Carbon Dioxide Reduction Plan (2000), the mitigation plan (2008) and the adaptation plan (2011). The City regularly conducts GHG emission inventories to help guide the execution of the CAP as well as to monitor and evaluate the progress.

The CAP is not qualified for tiering, as the CAP is not consistent with CEQA Guidelines Section 15183.5.

Recently, staff recommended adopting the per capita emissions reduction targets for future CAP updates. Staff will bring these potential reduction goals back to City Council for adoption with the Climate Change Working Group proposed recommendation that include setting a goal to be carbon neutral by 2045 at a future date.

A summary of Emission Reduction Actions in the CAP is provided below.

- Water Conservation and Reuse
    1) Water Education and Enforcement

A. Expand education and enforcement (through fines) targeting landscape water waste.

2) Water Efficiency Upgrades

A. Update the City's Landscape Water Conservation Ordinance to promote more water-wise landscaping designs.

B. Require water-savings retrofits in existing buildings at a specific point in time (not point of sale).

3) Water Reuse Plan and System Installations

A. Develop a Water Reuse Master Plan to maximize the use of stormwater, recycled water, and on-site water reclamation.

B. Facilitate simple graywater systems for laundry-to-landscape applications.

C. Streamline complex graywater systems permit review.

- Waste Reduction

1) Zero Waste Plan

A. Develop a Zero Waste Plan to supplement statewide green waste, recycling, and plastic bag ban efforts.

- Renewable and Efficient Energy

1) Energy Education and Enforcement

A. Expand education targeting key community segments (i.e., do-it-yourself and Millennials) and facilitating energy performance disclosure (i.e., Green Leases and Home Energy Ratings).

B. Leverage the building inspection process to distribute energy-related information and to deter unpermitted, low performing energy improvements.

2) Clean Energy Sources

A. Incorporate solar PV into all new residential and commercial buildings (on a project-level basis).

B. Provide more grid-delivered clean energy (up to 100 percent) through Community Choice Aggregation or other mechanism.

3) Energy Efficiency Upgrades

A. Expand the City's "cool roof" standards to include re-roofs and western areas.

B. Facilitate more energy upgrades in the community through tax breaks, rebates, and more local energy efficiency programming.

C. Require energy-savings retrofits in existing buildings at a specific point in time (not at point of sale).

4) Robust Urban Forests

A. Plant more shade trees to save energy, address heat island issues, and improve air quality.

- Smart Growth and Transportation
  1) Complete Streets and Neighborhoods
     A. Incorporate "Complete Streets" principles into the Bicycle and Pedestrian Master Plans and Capital Improvement Program.
     B. Encourage higher density and mixed-use development in Smart Growth areas, especially around trolley stations and other transit nodes.
  2) Transportation Demand Management
     A. Utilize bike facilities, transit access/passes, and other Transportation Demand Management and congestion management offerings.
     B. Expand bike-sharing, car-sharing, and other "last mile" transportation options.
  3) Alternative Fuel Vehicle Readiness
     A. Support the installation of more local alternative fueling stations and designate preferred parking for alternative fuel vehicles.
     B. Designate preferred parking for alternative fuel vehicles.
     C. Design all new residential and commercial buildings to be "Electric Vehicle Ready."

Energy

Federal

There are no federal rules and regulations that directly affect energy analyses in CEQA documents. However, the federal CAFE standards discussed above aim to improve average fuel economy and reduce GHG emissions generated by cars and light-duty trucks, which will reduce fuel consumption.

State

California has adopted statewide legislation addressing various aspects of energy conservation. Along with the summary above for GHGs, the following are relevant to the proposed project.

The CEC is tasked with conducting assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The CEC uses these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety (PRC Section 25301(a)).

The State Energy Plan obligates the CEC to prepare the State Energy Plan (SEP), which identifies emerging trends related to energy supply, demand, and conservation; public health and safety; and the maintenance of a healthy economy. The SEP calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the fewest environmental and energy costs. To further this policy, the SEP identifies a number of strategies, including providing assistance to public agencies and fleet operators.

As California's primary energy policy and planning agency, the CEC collaborates with state and federal agencies, utilities, and other stakeholders to develop and implement state energy policies. Since 1975, the CEC has been responsible for reducing the state's electricity and natural gas demand, primarily by adopting new Building and Appliance Energy Efficiency Standards that have contributed to keeping California's per capita electricity consumption relatively low. The CEC is also responsible for the certification and environmental review of thermal power plants 50 megawatts and larger, including all project-related facilities in California. The California Public Utilities Commission (CPUC) regulates investor-owned electric and natural gas utilities operating in California. The energy work responsibilities of the CPUC are derived from the California State Constitution, specifically Article XII, Section 3 and other sections more generally, numerous state legislative enactments, and various federal statutory and administrative requirements. The CPUC regulates natural gas utility service for approximately 3.4 million customers that receive natural gas from SDG&E and other natural gas utilities across California.

Local

The City has a variety of energy-related policies and plans that emphasize energy efficiency and renewable energy. In May 2001, the City adopted its Energy Strategy and Action Plan (Energy Plan). The Energy Plan included implementation measures to support eight overarching strategies.

1. Monitor the energy market and legal restrictions and be prepared to enter into an Electrical Services Contract with an Energy Services Provider (ESP) or power generator as allowed by law.
2. Pursue Distributed Generation and "district" generation opportunities for specific facilities and technologies.
3. Partner with a third-party to build and operate power generation facilities.
4. Develop an emissions offsets program based on mobile sources.
5. Take initial steps to more specifically assess the costs and benefits of forming and operating as a Municipal Utility to own/operate all or portions of the local distribution system.
6. Become a municipal "aggregator" and acquire electricity at negotiated rates for City facilities and participating residents/business customers.
7. Continue/expand energy conservation projects for City facilities and promote energy efficient and renewable energy programs for businesses and residents.
8. Develop and implement a legislative strategy that facilitates the City's overall Energy plan.

In November 2012, the City adopted its Energy Roadmap Program. The Energy Roadmap Program included implementation measures to support several strategies, including greening the City vehicle fleet, promoting commuter benefits to City employees, leveraging planning and development authority, and marketing programs and rebates to residents, schools, and local businesses.

6. Methodology

Air quality and GHG impacts associated with construction of the proposed project were assessed and quantified using industry standard and accepted software tools, techniques, and emission factors.

The project would include construction changes to the existing rehabilitation center. Once constructed, the project is expected to have an increase in visitors due to the increase in medical office space and parking. Air quality and GHG effects from construction and operation of the project were evaluated quantitatively. A summary of the methodology is provided below.

Construction

Construction of the proposed project would result in the short-term generation of criteria pollutant and GHG emissions and energy consumption from mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust, land clearing and material movement, paving, and the application of architectural coatings. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring simultaneously over a given time period.

Emissions from construction equipment were estimated based on the California Emissions Estimator Model (CalEEMod), version 2020.4.0, assuming construction of a 60,000-square-foot medical office building and a 611-space parking structure. Modeling is based on a combination of project-specific information provided by the project applicant, where available, and modeling defaults. Construction is anticipated to begin August 2022 and be completed by April 2024, lasting approximately 2 years. Modeling inputs used to estimate emissions are described below.

- **Off-Road Equipment**: Off-road equipment would include typical heavy-duty equipment (e.g., loaders, cranes, forklifts) to demolish existing structures, grade and prepare the site, and construct new building areas. Emissions associated with construction equipment were estimated based on an equipment list provided by the project applicant by construction phase using default emission and load factors for diesel-powered off-road construction equipment from CalEEMod (version 2020.4.0) (BREEZE Software 2021).
- **Grading and Material Import:** Per the applicant, 8,700 cubic yards of earth material would be imported to balance the site. Truck trips required for import of this material were estimated assuming the CalEEMod default of 16-cubic-yard-capacity trucks and a 20-mile haul trip length. A total of 544 truckloads and 1,088 one-way truck trips would be required for earthwork activities.
- **Demolition:** Based on information provided by the project applicant, it was assumed that 2,000 square feet would require demolition. Truck trips required for removal of demolished materials were estimated using the CalEEMod default of 20-ton capacity trucks and a 20-mile haul trip length. A total of nine one-way hauling truck trips would be required for removal of demolished material according to CalEEMod default parameters; however, the number of one-way hauling truck trips was increased to ten to account for five two-way hauling truck trips. CalEEMod emissions modeling from worker trips and off-road equipment usage in the demolition phase were included in the Grading, UG Utilities and Site Improvement phase.
- **Paving:** Based on information provided by the project applicant and the project site plans, the project would have approximately 1.45 acres of paving with 93 surface level parking spots. CalEEMod default equipment were assumed for the paving phase.
- **On-road Vehicles**: In addition to the trucks required for demolition and material movement, on-road vehicles (e.g., pickup trucks, flatbed trucks, passenger vehicles) would be required for employee commuting and vendor (material and concrete delivery) trips. Emissions associated

with these trips were estimated using CalEEMod default trip lengths for vendor trips and worker trips based on the assumed project square footage and concrete deliveries provided by the applicant. Worker trips assume two trips per worker per day.

Criteria pollutant emissions are summed at the daily time scale and compared to relevant thresholds shown in Table 6. For purposes of presenting a conservative analysis, it was assumed that all construction activities would overlap and occur concurrently on a given day. Construction GHG emissions are summed and amortized over the expected life of the project (assumed to be 30 years), consistent with industry standards and the life of the project. A summary of land use inputs for CalEEMod and modeling outputs is presented in Attachment 1.

Operation

The proposed project would construct a new 60,000-square-foot MOB and a 611-space parking structure, which would result in an increase in visits to the project site. Operation of the proposed project would result in the long-term generation of criteria pollutant and GHG emissions and energy consumption from mobile sources, area sources, natural gas consumption, electricity consumption, water consumption, wastewater generation, solid waste generation, and backup generator testing. For purposes of analysis, the proposed project is anticipated to be operational by 2024.

CalEEMod Version 2020.4.0 was used to estimate potential project-generated operational GHG emissions from area sources (landscape maintenance), energy sources (natural gas and electricity), mobile sources, solid waste, water supply and wastewater treatment, and stationary sources. Modeling is based on a combination of project-specific information provided by the project applicant, where available, and modeling defaults. Modeling inputs used to estimate emissions are described below.

- **Vehicle Trips**: Emissions and energy consumption from motor vehicles accessing the project site are based on trip generation information from the Local Mobility Analysis by Linscott Law & Greenspan, Engineers (LMA 2022) and CalEEMod default trip lengths. According to the LMA prepared, based on a site-specific trip generation analysis completed for the project, the proposed project would generate approximately 2,891 average daily trips (ADT).
- **Utility Consumption**: Operational area, energy, water, solid waste, and wastewater emissions and energy consumption were estimated using CalEEMod, version 2020.4.0. Energy sources include the combustion of natural gas as well as the use and generation of electricity. Water consumption results in indirect GHG emissions from the conveyance and treatment of water. Solid waste and wastewater generation results in fugitive CH_4 and N_2O emissions from the decomposition of organic matter.

  The electricity emissions were estimated based on projected SDG&E's energy intensity factors from SANDAG's regional inventory (SANDAG 2021), which account for RPS targets of 60 percent RPS by 2030 and 100 percent carbon-free electricity by 2045 under SB 100. The emission factor for 2024 is based on interpolating between the 2016 and 2025 emission rates in the SANDAG regional inventory.

  Emissions from natural gas, water, wastewater, and solid waste generation were estimated based on default consumption data for the various land uses within CalEEMod (i.e., therms, gallons, tons) and default emission estimation from the project proponent and CalEEMod's

default method for estimating natural gas, water, wastewater, and solid waste emissions in San Diego County.

- **Backup Generator**: Emissions and energy consumption from periodic testing of the backup generator were estimated based on information from the project applicant. The generator is a 200 kW (268 horsepower) Tier 3 generator. The emission factors used for the backup generator in the operational emissions modeling does not assume that the generator will be equipped with a diesel particulate filter; however, the generator will be equipped with a diesel particulate filter (DPF). Thus, the operational emissions modeling is conservative. It was assumed that the backup generator would be tested periodically for one hour at a time and for 52 hours per year, consistent with the requirements within SDAPCD Rule 69.4.

Criteria pollutant emissions are summed at the daily time scale and compared to relevant thresholds shown in Table 6.

Energy consumption is based on utility consumption and fuel estimated from CalEEMod. Fuel consumption for mobile sources was estimated using the CO_2 emission outputs by converting CO_2 emissions estimated using the rate of CO_2 emissions per gallon of combusted gasoline (8.78 kilograms/gallon) and diesel (10.21 kilograms/gallon) (EPA 2022). The estimated fuel consumption was converted to British Thermal Units (BTUs), assuming an energy intensity of 125,000 BTUs per gallon of gasoline and 138,700 per gallon of diesel, and electricity was converted to BTUs assuming an energy intensity of 3,412 BTUs per kilowatt hour (kWh) (BTS 2021). Energy consumption for natural gas was pulled directly from CalEEMod. A full list of assumptions and emission and energy calculations for construction can be found in Attachment 1.

Additionally, a 278-kilowatt (kW) solar photovoltaic (PV) system would be installed on the roof of the new and existing buildings. According to the project applicant, the addition of this system would reduce the facility's energy use so that it would be over 30 percent less than currently required by California Title 24. CalEEMod and energy modeling outputs are presented in Attachment 1.

7. Thresholds of Significance

Air Quality

The City relies on the South Coast Air Quality Management District's (SCAQMD's) *CEQA Air Quality Handbook* when acting as lead agency for CEQA purposes. Appendix G, Section III, of the CEQA Guidelines states that, where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make determinations regarding air quality impacts. The significance thresholds and analysis methodologies established by SCAQMD are relied upon by the City in the context of the questions from Appendix G of the CEQA Guidelines to make determinations regarding air quality impacts. The SCAQMD significance thresholds and analysis methodologies are relied on here with respect to this analysis of the project's potential air quality impacts.

The SCAQMD has established air quality significance thresholds that are applicable to both construction and operational emissions generated by CEQA projects. These regional pollutant emission thresholds are shown in Table 6.

Table 6. SCAQMD Regional Air Quality Significance Thresholds

Daily Threshold (pounds per day)	VOC[a]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Construction	75	100	550	150	150	55
Operations	55	55	550	150	150	55

Source: SCAQMD 2019.
docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf. Accessed: March 2022.
[a] The terms VOC and ROG are used interchangeably. SCAQMD uses VOC, and CalEEMod uses ROG.

Greenhouse Gases

The State CEQA Guidelines do not indicate what amount of GHG emissions would constitute a significant impact on the environment. Instead, they authorize the lead agency to consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence (State CEQA Guidelines Sections 15064.4(a) and 15064.7(c)). The State CEQA Guidelines provide the lead agency discretion whether to quantify GHG emissions resulting from a project and/or rely on a qualitative analysis or performance-based standards, focusing specifically on the following factors (State CEQA Guidelines Sections 15064.4(b):

- The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
- Whether the project GHG emissions exceed a threshold of significance that the lead agency determines applies to the project.
- The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The lead agency must include substantial evidence linking statewide goals, strategies, and plans to the project's findings.

Several agencies throughout the state, including multiple air districts, have drafted and/or adopted varying threshold approaches and guidelines for analyzing GHG emissions and climate change in CEQA documents. Although these threshold approaches and guidelines are binding only within the jurisdiction of the adopting agencies, they may be considered for application by other agencies pursuant to State CEQA Guidelines Section 15064.7(c).

There are multiple potential thresholds and methodologies for evaluating project-level GHG emissions consistent with CEQA, depending on the circumstances of a given project. Although efforts at framing GHG significance issues have not yet coalesced into any widely accepted set of numerical significance thresholds across the state and within the region, a range of possible approaches do exist. Common threshold approaches include (1) compliance with a qualified GHG reduction strategy, (2) performance-based reductions, (3) numeric "bright-line" thresholds, (4) efficiency-based thresholds, and (5) compliance with regulatory programs.

To date, neither the SDAPCD nor the City have developed specific thresholds of significance with regard to addressing the GHG emissions in CEQA documents. However, as noted above, the City relies on SCAQMD's *CEQA Air Quality Handbook* when acting as lead agency for CEQA purposes.

SCAQMD released draft interim GHG guidance in December 2008, which includes threshold options for land use development projects (SCAQMD 2008). The draft GHG guidance identified a tiered approach for determining the significance of GHG emissions, one of which included the use of numerical screening thresholds. With respect to numerical GHG significance thresholds, the SCAQMD proposed two different approaches to be taken by lead agencies when analyzing GHG emissions. As part of both options, SCAQMD includes using separate numerical thresholds for residential projects (3,500 $MTCO_2e$/year), commercial projects (1,400 $MTCO_2e$/year), and mixed-use projects (3,000 $MTCO_2e$/year), as well as a single numerical threshold for all non-industrial projects of 3,000 $MTCO_2e$/year. In September 2010, SCAQMD recommended use of its single numerical threshold for all non-industrial projects. Per SCAQMD, projects below this bright-line significance criteria have a minimal contribution to cumulative global emissions and are considered to have less-than-significant impacts (SCAQMD 2010).

As noted above, the City relies on the SCAQMD *CEQA Air Quality Handbook* when acting as lead agency for CEQA purposes. Therefore, this analysis relies on the numerical threshold of 3,000 $MTCO_2e$ per year recommended by SCAQMD to determine the project's potential to generate GHG emissions that would have a significant impact on the environment.

Energy

The determination of whether an energy use impact would be significant is based on the professional judgment of the City as lead agency, supported by the evidence in the administrative record.

Impacts are considered significant if the project would:

- Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

8. Impact Analysis

Consistency with Air Quality Plans

The SDAPCD is required, pursuant to the federal and state CAAs, to reduce emissions of criteria pollutants for which the County is in nonattainment (i.e., O_3, PM_{10}, and $PM_{2.5}$). The most recent SDAPCD air quality attainment plans are the 2016 RAQS, the 2020 SIP, and the 2016 SIP (see Section 5. *Regulatory Setting*, above). The simplest test to assess project consistency is to determine if the project proposes development that is consistent with the growth anticipated by the relevant land use plans that were used in the formulation of the air quality attainment plans; if so, then the project would be consistent with the attainment plans.

The City of Chula Vista General Plan is the governing land use document for physical development within the city. Projects that propose development consistent with growth anticipated by the General Plan are considered consistent with the air quality attainment plans. If a project would propose development that is less dense or intense than anticipated within the current General Plan, the project would likewise be consistent with the attainment plans because emissions would be less

than estimated within the current General Plan. If a project proposes development that is greater than that anticipated in the General Plan and SANDAG's growth projections, the project could be in conflict with the attainment plans and might have a potentially significant impact on air quality because emissions could exceed those estimated for the existing land use plan (i.e., General Plan).

The project site is within an existing Sharp HealthCare property in a built-out, urbanized community. Construction of the proposed project would result in the generation of temporary construction jobs; however, the additional jobs are temporary and are expected to be filled by the existing local labor force in the San Diego region. The proposed project would not directly or indirectly induce population growth, as it does not propose new homes or include the extension of roadways or other infrastructure and would operate as a population-serving facility.

Furthermore, the proposed project would not include any amendments to the existing Zoning Ordinance or substantially increase motor vehicle trips in the project area. The original conditional use permit will be amended to include the enhanced Urgent Care Center and additional services included as a part of the project. As such, the proposed project would not conflict with the existing land use designation as delineated in the City's General Plan. While the proposed project would result in an increase of 2,891 average daily trips (ADT), these trips and subsequent mobiles emissions would not exceed the SDAPCD daily operational thresholds. Additionally, the project is in a VMT efficient area and is 71.3 percent of the regional VMT. The project meets the Project Location Screening criteria for Employment and therefore is screened out from a requiring a VMT analysis (LMA 2022). In total, the projects unmitigated construction and operational emission would be below the established SCAQMD thresholds; refer to Table7 and 8. A project that has construction and operational emissions below the adopted SCAQMD thresholds is not expected to cause an exceedance of the NAAQS and thus would be consistent with the goals of the 2016 RAQS, 2020 SIP, 2016 SIP.

Therefore, because the proposed project includes development that is consistent with the uses allowed by the General Plan, would be screened out of a VMT analysis, and would not exceed the adopted threshold levels for construction and operational emissions, the proposed would not conflict or obstruct implementation of the air quality plans. Impacts related to implementation of the RAQS or the SIP would be less than significant, and no mitigation measures are required.

Air Quality Mass Emissions

Construction Emissions

Table 7 summarizes the modeled peak daily emissions of criteria pollutants associated with construction of the project. Construction of the proposed project is expected to be staggered over the course of a 1.92-year construction period. However, for purposes of presenting a conservative analysis, it was assumed that the maximum day from each construction phase would overlap on a single day. As shown, the maximum level of daily construction emissions generated by the project would not exceed construction thresholds for any criteria pollutants on this peak concurrent day. As such, these construction emissions levels would not be expected to contribute a significant level of air pollution such that regional air quality within the SDAB would be degraded. Therefore, impacts related to construction-phase emissions would be less than significant, and no mitigation measures are required.

However, while not required to reduce the project's regional criteria pollutant construction emissions, the proposed project would incorporate Mitigation Measure AQ-1 in order to reduce construction diesel particulate matter (DPM) concentrations at the nearest sensitive receptors. Mitigation Measure AQ-1 requires that all construction equipment greater than 50 horsepower (hp) are EPA approved Tier 4 Final or Electric. The mass emissions tabulated above do not account for Mitigation Measure AQ-1, which will reduce mass emissions. As such, the mass emissions tabulated in Table 7 are conservative.

Table 7. Summary of Construction Criteria Pollutant Emission Estimates (pounds per day)

Construction Phase	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Demolition	<1	<1	<1	<1	<1	<1
Grading, UG Utilities, & Site Improvements	2	24	17	<1	8	4
Parking Structure	2	21	16	<1	1	1
New MOB Building Cold Shell	2	15	16	<1	2	1
Tenant Improvement	5	15	16	<1	2	1
Parking Lot	1	10	15	<1	1	<1
Maximum Daily Emissions	**12**	**85**	**81**	<1	**15**	**8**
Construction Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

Source: Modeling outputs provided in Attachment 1.
Totals may not sum perfectly due to rounding.

Operational Emissions

Table 8 summarizes the modeled daily emissions of criteria pollutants associated with operation of the project. As shown, the daily operational emissions generated by the project would not exceed the operational thresholds for any criteria pollutants. As such, these operational emissions levels would not be expected to contribute a significant level of air pollution such that regional air quality within the SDAB would be degraded. Therefore, impacts related to operations-phase emissions would be less than significant, and no mitigation measures are required.

Table 8. Summary of Operational Criteria Pollutant Emission Estimates (pounds per day)

Operational Element	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Mobile	7	6	55	<1	12	3
Natural Gas	<1	<1	<1	<1	<1	<1
Area	2	<1	<1	<1	<1	<1
Generator Testing	<1	1	1	<1	<1	<1
Daily Operational Emissions	**9**	**8**	**57**	**<1**	**12**	**3**
Operational Threshold	55	55	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

Source: Modeling outputs provided in Attachment 1.
Totals may not sum perfectly due to rounding.

Substantial Pollutant Concentrations

The discussion of pollutant concentrations associated with DPM, CO hotspots, and criteria pollutants, during both the construction and operation of the proposed project is provided below.

Diesel Particulate Matter

DPM, which is classified as a carcinogenic TAC by CARB, is the primary exhaust pollutant of concern with regard to health risks to sensitive receptors. Diesel-powered vehicles, equipment, and vessels that operate throughout the proposed project area would emit DPM that could expose nearby sensitive receptors to pollutant concentrations. Prolonged exposure to DPM can increase the risk of cardiovascular, cardiopulmonary, and respiratory disease, and lung cancer.

Health Risk Assessment

Health risks related to DPM are assessed quantitatively based on anticipated project emissions and proximity to sensitive receptors. Nearby sensitive receptors include medical office users throughout the project area on site, along with various sensitive receptor locations off site, including single- and multi-family residential uses to the south and west, assisted living uses to the east, and park uses to the north. The closest sensitive receptors are as close as 50 feet to the east of the project site boundary. However, construction would occur across the entire project site and would not be concentrated near the project site boundary. Thus, a screening distance of 50 meters was adopted[2].

Construction of the project is expected to last approximately 1.92 years. DPM emissions emitted by construction sources can remain airborne for several days but dissipate as a function of distance from the emissions source. The nearest monitoring site with AERMOD Meteorological Preprocessor (AERMET) data available is the Chula Vista Station located at the Chula Vista Elementary School District, approximately 3.7 miles to the northeast of the project site. According to this AERMET station and data, the wind in Chula Vista and at the proposed project site blows predominantly from the west to the east.

[2] The majority of the major project components: the new 2-story medical office building and 4-tier open parking structure would be located at a distance greater than 50 meters from the downwind sensitive receptors.

As construction of the proposed project is expected to last 1.92 years, receptors at residences and parks would have limited exposure to DPM with exposure limited to visitation that coincides with weekday construction activities. In addition, on-site receptors would have limited exposure to diesel exhaust, with exposure limited to outdoor activities that coincide with weekday construction activities. Moreover, pollutant concentrations inside the existing medical offices would be greatly decreased from outdoor concentrations.

In order to analyze a worst-case construction related HRA impact, the project's on-site construction equipment exhaust PM_{10} emissions from CalEEMod (DPM) were summed and divided over the total sensitive receptor exposure time, approximately 1.92 years, to develop an average daily emission rate and a grams per second (g/s) emission rate. A unitized 1 g/s emission rate was used in the EPA AERSCREEN Model to calculate a maximum annual DPM concentration ($\mu g/m^3$) at a sensitive receptor (USEPA 2021)[3]. Once the DPM concentrations at the nearby sensitive receptors are calculated in AERSCREEN, they are multiplied by the actual project emission rate to get the ground level concentration (GLC) of DPM which the receptor is exposed to.

Once the DPM GLC concentrations at the nearby sensitive receptors are calculated, they are then used to evaluate estimated exposure to people. Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. The equation for dose through inhalation (Dose-air) is as follows:

$Dose\text{-}air = (C_{air} \times DBR \times A \times EF \times 10^{-6})$; Where:

Dose-air	Chronic daily intake, mg/kg body weight per day
Cair	Ground-level concentration of TAC to which the receptor is exposed, micrograms/cubic meter
DBR	Daily breathing rate, normalized to body weight (liters per kilogram body weight per day (Office of Environmental Health Hazard Assessment [OEHHA] 2015)
A	Inhalation absorption factor (OEHHA recommended factor of 1)
EF	Exposure frequency, days/year (OEHHA recommended factor of 0.96 for resident and 0.68 for workers)

Cancer risk is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home and the exposure duration divided by averaging time, to yield the excess cancer risk. The excess cancer risk is calculated separately for each age grouping and then summed to yield cancer risk for any given location. The worst-case cancer risk is calculated as follows:

[3] AERSCREEN is the recommended screening model based on AERMOD. The model will produce estimates of "worst-case" 1-hour concentrations for a single source, without the need for hourly meteorological data, and also includes conversion factors to estimate "worst-case" 3-hour, 8-hour, 24-hour, and annual concentrations. AERSCREEN is intended to produce concentration estimates that are equal to or greater than the estimates produced by AERMOD with a fully developed set of meteorological and terrain data, but the degree of conservatism will vary depending on the application (USEPA 2021).

Excess Cancer Risk = Dose-air × CPF × ASF × ED/AT × FAH; Where:

Dose-air	=	Chronic daily intake, mg/kg body weight per day
CPF	=	Cancer potency factor (mg/kg/d)
ASF	=	Age sensitivity factor
ED	=	Exposure duration (years)
AT	=	Averaging time for lifetime cancer risk (years)
FAH	=	Fraction of time at home

Non-cancer risks or risks defined as chronic or acute. With respect to DPM only chronic risks are calculated and are determined by the hazard index. To calculate chronic hazard index, DPM concentration is divided by its chronic Reference Exposure Levels (REL). Where the total equals or exceeds one, a health hazard is presumed to exist.

In this analysis, non-carcinogenic impacts are evaluated for chronic exposure inhalation exposure. Estimates of health impacts from non-carcinogenic concentrations are expressed as a hazard quotient (HQ) for individual substances, such as DPM. An HQ of one or less indicates that adverse health effects are not expected to result from exposure to emissions of that substance. RELs are defined as the concentration at which no adverse health effects are anticipated. Generally, the inhalation pathway is the largest contributor to the total dose. The HQ is calculated with the flowing equation:

HQ = Ground-Level Concentration ($\mu g/m^3$)/Reference Exposure Level ($\mu g/m^3$)

Unmitigated Construction Health Risk

Based on the unmitigated CalEEMod calculations for project construction, the project would result in maximum unmitigated annual emissions of 0.20219 tons of PM_{10} exhaust; refer to Attachment 1 & 2. This maximum annual emissions rate was modeled over the entire 23-month construction period. Based on AERSCREEN modeling results, the maximum 1-hour ground-level DPM concentration from construction activities would be 0.560 $\mu g/m^3$. This was converted to an annual average concentration of 0.056 $\mu g/m^3$ using an annual conversion factor of 0.10 (U.S. EPA 2021). The resulting annual concentrations were inputted into the CARB Hot Spots Analysis & Reporting Program (HARP2) Risk Assessment Standalone Tool (RAST), which uses the equations discussed in detail in above.

As shown in Table 9, using the CARB HARP2 RAST tool, it was calculated that the unmitigated excess cancer risk would be 15.01 in a million. The non-cancer chronic risk is 0.0112 which is below the threshold of 1. Thus, unmitigated DPM emissions generated by the project's construction would exceed the adopted threshold of 10 in 1 million and would cause a significant health impact. To reduce the DPM emissions, Mitigation Measure AQ-1 will be incorporated. Mitigation Measure AQ-1 requires that all construction diesel equipment greater than 50hp are EPA Tier 4 Final or Electric. Incorporation of Mitigation Measure AQ-1 would greatly reduce the DPM concentrations at the nearby sensitive receptors. Refer to the AERSCREEN and cancer risk calculations provided in Attachment 2.

Table 9. Estimated Unmitigated Project-Level Health Risk Results from Construction

Offsite Receptor Type	Cancer Risk (cases per million)[a]	Non-Cancer Chronic Risk[b]
Resident	15.01	0.0112
SCAQMD Significance Threshold	10.0	1.0
Exceeds Threshold?	**Yes**	**No**

Source: See Attachment 2.
Notes:
µg/m^3 = micrograms per cubic meter; $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 or less
[a]. The evaluation of cancer risk set forth in the HRA was based on an exposure duration of 1.92 years at a distance of 50 meters with the EPA AERSCREEN model.
[b]. The City has adopted SCAQMD CEQA thresholds.

Mitigated Construction Health Risk

Based on the mitigated CalEEMod calculations for project construction, the project would result in maximum annual emissions of 0.01387 tons of PM_{10} exhaust with the implementation of Mitigation Measure AQ-1. This maximum annual emissions rate was modeled over the entire 23-month construction period.

Table 10. Estimated mitigated Project-Level Health Risk Results from Construction

Offsite Receptor Type	Cancer Risk (cases per million)[a]	Non-Cancer Chronic Risk[b]
Resident	1.02	0.00076
SCAQMD Significance Thresholdb	10.0	1.0
Exceeds Threshold?	**No**	**No**

Source: See Attachment 2.
Notes:
µg/m^3 = micrograms per cubic meter; $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 or less
[a]. The evaluation of cancer risk set forth in the HRA was based on an exposure duration of 1.92 years at a distance of 50 meters with the EPA AERSCREEN model.
[b]. The City has adopted SCAQMD CEQA thresholds.

Based on AERSCREEN modeling results, the maximum 1-hour ground-level DPM concentration from construction activities would be 0.0384 µg/m^3. This was converted to an annual average concentration of 0.0038 µg/m^3 using a conversion factor of 0.10 (U.S. EPA 2021). The resulting annual concentration was inputted into the CARB HARP2 RAST tool, which uses the equations discussed in detail in above.

As shown in Table 10, using the CARB HARP2 RAST tool, it was calculated that the mitigated excess cancer risk would be 1.02 in a million, which is below the 10 in one million thresholds. The non-cancer chronic risk is 0.00076 which is below the threshold of 1. Thus, with incorporation of

Mitigation Measure AQ-1, the proposed project would not cause a significant health risk impact at the nearby sensitive receptors and the impacts would be less than significant.

MM-AQ-1: Use Clean Diesel-powered Equipment during Construction to Control Construction-related Emissions:

The Project Sponsor shall ensure that all off-road diesel-powered equipment greater than 50 horsepower used during construction is equipped with EPA-approved Tier 4 Final engines or are electric to reduce PM_{10} ("Diesel Particulate Matter" or "DPM") emissions. The construction contractor shall submit evidence of the use of EPA-approved Tier 4 Final engines, or cleaner, to the City of Chula Vista prior to the commencement of Project construction activities.

Operations

As discussed previously, once operational, the project is expected to result in 2,891 new daily vehicle trips to the project site. The proposed project is not a land-use that would include haul trucks or haul truck idling at docks. Thus, similar to existing conditions, vehicle emissions are mostly generated by gasoline-powered passenger vehicles and pickups, which do not emit DPM. Therefore, mobile trips tied to the operation of the project would not result in an increase in DPM emissions.

Emergency Generator

SDAPCD Rule 1200 establishes acceptable risk levels and emission control requirements for new and modified facilities that may emit operational TACs, including DPM.[4] Under Rule 1200, permits to operate may not be issued when emissions of TACs result in an incremental cancer risk greater than 10 in 1 million with application of best available control technology, or a health hazard index (chronic and acute) greater than one. Use of the proposed backup generator would not represent a significant source of operational DPM because the generator will be equipped with a DPF and generator testing would be minimal. Further, use of the DPF will cause the proposed generator to meet best available control technology requirements. It was assumed that the backup generator would be tested periodically for one hour at a time and for 52 hours per year, consistent with the requirements within SDAPCD Rule 69.4.

In order to calculate a potential worst-case scenario, a screening level HRA with AERSCREEN was completed for the proposed emergency generator. The emergency generator would be located to the west of the existing medical office, approximately 125 meters away from the nearest sensitive receptors that are downwind. Based on the CalEEMod calculations for the emergency generator emissions, the project's Tier 3 emergency generator would result in maximum annual emissions of 0.00168 tons of PM_{10} exhaust per year. It should be noted that the CalEEMod run did not include the reductions from a DPF, which the emergency generator would be required to install. Thus, these calculations are considered conservative. It was assumed that this emergency generator would operate for 30 years.

Based on AERSCREEN modeling results, the maximum 1-hour ground-level DPM concentration from the emergency generator at a distance of 125 meters would be 0.0045 $\mu g/m^3$. This was converted to an annual average concentration of 0.0004 $\mu g/m^3$ using a conversion factor of 0.10

[4] Specifically, Rule 1200 applies to any new, relocated, or modified emission unit that may increase emissions of one or more TAC and for which an Authority to Construct or Permit to Operate is required pursuant to Rule 10, or for which a Notice of Intention or Application for Certification has been accepted by the CEC.

(U.S. EPA 2021). The resulting annual concentration was inputted into the CARB Hot Spots Analysis HARP2 RAST tool, which uses the equations discussed in detail in above.

As shown in Table 11, using the CARB HARP2 RAST tool, it was calculated that the emergency generator risk would be 0.27 in a million, which is below the 10 in one million BACT threshold. The non-cancer chronic risk is 0.00008 which is below the threshold of 1. Thus, the operation of the emergency generator would cause a significant health impact and impacts would be less than significant, and no mitigation measures are required.

Table 11. Estimated mitigated Project-Level Health Risk Results from the Emergency Generator

Offsite Receptor Type	Cancer Risk (cases per million)[a]	Non-Cancer Chronic Risk[b]
Resident	0.27	0.0008
SDAPCD Significance Threshold	10.0	1.0
Exceeds Threshold?	**No**	**No**

Source: See Attachment 2.
Notes:
µg/m^3 = micrograms per cubic meter; $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 or less
a. Assumed a 30-year operational exposure duration.
b. The emergency generator would have to be permitted by SDAPCD and thus would comply with SDAPCD thresholds.

Carbon Monoxide Hot Spots

A CO hot spot is a localized concentration of CO that is above the state or national 1-hour or 8-hour ambient air standards for the pollutant. Projects that do not generate CO concentrations in excess of the health-based CAAQS would not contribute a significant level of CO such that localized air quality and human health would be substantially degraded. The potential for the project to result in localized CO impacts at intersections resulting from addition of its traffic volumes is assessed based on the County of San Diego's suggested criteria, which indicate that a hotspot analysis for CO must be conducted for any project that would result in either of the following:

- Place receptors within 500 feet of a signalized intersection with peak-hour trips exceeding 3,000 trips and operating at or below level of service (LOS) E (County of San Diego 2007).
- Cause roadway segments with peak-hour trips exceeding 3,000 trips to operate at or below LOS E.

According to the Traffic Impact Assessment prepared for the proposed project, implementation of the project would not place receptors within 500 feet of a signalized intersection with more than 3,000 peak-hour trips that operates at or below LOS E (Linscott Law & Greenspan 2021). Likewise, the project would not cause intersections with more than 3,000 intersection peak-hour trips to operate at or below a LOS E. The project therefore satisfies the County of San Diego's CO hotspot screening criteria, and the impact related to sensitive receptor exposure to substantial CO concentrations is considered less than significant.

Regional Criteria Pollutants

All criteria pollutants that would be generated by the proposed project are associated with some form of health risk (e.g., asthma, lower respiratory problems). However, the construction and operational thresholds presented in Table 6 consider existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. Projects that generate criteria pollutant and ozone precursor emissions below thresholds are minor in nature and would not adversely affect air quality such that the health-protective NAAQS or CAAQS would be exceeded. As shown in Table 7, construction of the proposed project would not exceed significance thresholds for any criteria pollutant. As shown in Table 8, operation of the proposed project would not exceed significance thresholds for any criteria pollutant. As such, impacts related to sensitive receptor exposure to regional criteria pollutants during construction and operation would be less than significant.

Substantial Other Emissions and Odors

During construction of the proposed project, exhaust from equipment and activities associated with the application of architectural coatings may produce discernible odors typical of most construction sites. Such odors would be a temporary source of nuisance to adjacent uses but would not affect a substantial number of people.

Potential odor emitters during operations would include exhaust from vehicles visiting the project site. However, odor impacts would be limited to the circulation routes, parking areas, and areas immediately adjacent to the project site, and would not exceed existing odor conditions. Although such brief exhaust odors may be considered unpleasant, they would not affect a substantial number of people, and any odor-related impacts would be less than significant.

Greenhouse Gas Emissions

Construction Emissions

Table 12 summarizes GHG emission estimates by construction phase and in total. As shown, total emissions were estimated to be 1,303 total $MTCO_2e$, which equates to 43 $MTCO_2e$ per year over a 30-year project life. While these emissions are relatively low, additional analysis is required to determine significance, including evaluation of the project's consistency with plans, policies, and regulatory programs adopted for the purpose of reducing the emissions of GHGs, which is included below.

Table 12. Summary of Construction Greenhouse Gas Emission Estimates (metric tons per year)

Construction Phase	CO_2e
Demolition	<1
Grading, UG Utilities, & Site Improvements	114
Parking Structure	241
New MOB Building Cold Shell	496
Tenant Improvement	415
Parking Lot	21
Electricity Consumption	16
Total Construction Emissions	**1,303**
Amortized Construction (averaged over a 30-year period)	43

Source: Modeling outputs provided in Attachment 1.
Totals may not sum perfectly due to rounding.

Operational Emissions

Table 13 summarizes GHG emission estimates by operational element and in total. As shown, annual emissions were estimated to be 2,701 $MTCO_2e$ in opening year 2024. The majority of emissions would be due to motor vehicles, followed by energy consumption and solid waste generation.

As noted above, project emissions are compared to the 3,000 $MTCO_2e$ threshold level recommended by SCAQMD and used by the City. As project emissions would be less than 3,000 $MTCO_2e$, GHG emissions impacts would be less than significant.

An additional calculation to include electricity usage from electric vehicle charging estimates that an additional 44 $MTCO_2e$ per year could be produced during the operational phase of the project from energy consumption. This assumes the maximum electric vehicle charging rate of 7 vehicles per day, according to charging rates from the California Air Pollution Control Officers Association (CAPCOA) GHG Reduction Measure T-14 (CAPCOA, 2021). However, an additional 44 $MTCO_2e$ per year would only increase the estimated operational GHG emissions to 2,745 $MTCO_2e$ per year, which is still below the 3,000 $MTCO_2e$ threshold level. Additionally, the use of electric vehicles causes a net reduction of GHG emissions compared to gasoline powered vehicles, which would reduce total GHG emissions.

Overall, GHG emissions from construction and operation of the proposed project would be less than significant.

Table 13. Summary of Operational Greenhouse Gas Emission Estimates (metric tons per year)

Operational Element	CO_2e
Mobile	1,884
Electricity	350
Natural Gas	63
Area	<1

Water	35
Solid Waste	319
Generator Testing	5
Amortized Construction	43
Total Operational Emissions	**2,701**

Source: Modeling outputs provided in Attachment 1.
Totals may not sum perfectly due to rounding.

Consistency with Relevant GHG Reduction Plans

As discussed above, the proposed project consists of an MOB and a parking structure. Construction would involve demolition, grading, structure construction, paving, and application of architectural coatings. GHG emissions during construction would result from use of off-road equipment use, employee and haul truck vehicle exhaust, and land clearing and material movement. Operation would result in an increase in visitation and associated emissions to power and support the new building square footage as well as periodic backup generator testing. In addition, the project is not expected to result in population, employment, or development growth that is currently unplanned.

The most relevant plan, policy, and regulatory program adopted for the purpose of reducing the emissions of GHGs is the City's CAP. While the CAP is not qualified for tiering per CEQA Guidelines Section 15183.5, consistency of the project with the CAP is evaluated in context of ensuring the project is consistent with broad regional and state goals. In general, if a project implements all applicable measures of the CAP, then the project would be found to have a less than cumulatively considerable contribution to climate change impacts.

The proposed project's consistency with relevant CAP strategies is provided in Table 14. As shown, the project would be consistent with all of the applicable CAP strategies designed to reduce GHG emissions within the City, including measures to reduce GHG emission from energy, transportation, water use, and solid waste generation during construction. Therefore, because the proposed project is consistent with the City's General Plan growth projects and land use designations and would implement all applicable measures of the City's CAP, impacts related to GHG emissions would have a less than cumulatively considerable contribution to climate change.

Table 14. Project Consistency with Applicable CAP Strategies

Table 14. Project Consistency with Applicable CAP Strategies

Action	Objective	Reduction Strategy	Consistency Discussion
Water Conservation and Reuse	Water Education and Enforcement	Expand education and enforcement (through fines) targeting landscape water waste.	**Not applicable**. The project would not impede efforts to expand education or enforcement targeting landscaping water waste. Moreover, local pollinator and native plants would be used throughout the landscape design, which reduces irrigation water requirements.
	Water Efficiency Upgrades	Update the City's Landscape Water Conservation Ordinance to promote more water-wise landscaping designs.	**Not applicable**. The project would not impede efforts to update the City's Landscape Water Conservation Ordinance. Moreover, local pollinator and native plants would be used throughout the landscape design, which reduces irrigation water requirements.
		Require water-savings retrofits in existing buildings at a specific point in time (not point of sale).	**Not applicable**. The project would not impede efforts to require water-saving retrofits in existing buildings.
	Water Reuse Plan & System Installations	Develop a Water Reuse Master Plan to maximize the use of stormwater, recycled water, and on-site water reclamation.	**Not applicable**. The project would not impede efforts to develop a Water Reuse Master Plan. Moreover, the project would include native vegetation to reduce water needs.
		Streamline complex graywater systems permit review.	**Not applicable**. The project would not impede efforts to streamline graywater permits.
Waste Reduction	Zero Waste Plan	Develop a Zero Waste Plan to supplement statewide green waste, recycling, and plastic bag ban efforts.	**Not applicable**. The project would not impede efforts to develop a zero waste plan. Moreover, the proposed project would be required to recycle/reuse 100% of inert materials and 65% of all other materials. Additionally, the proposed project includes a trash and recycling enclosure for operational waste disposal.

Renewable and Efficient Energy	Energy Education and Enforcement	Expand education targeting key community segments (i.e., do-it-yourself and Millennials) and facilitating energy performance disclosure (i.e., Green Leases and Home Energy Ratings).	**Not applicable**. The project would not impede efforts to expand energy education and performance disclosure. Additionally, the proposed project includes a 278-kW solar PV which will reduce electricity demand by 23 percent.
		Leverage the building inspection process to distribute energy-related information and to deter unpermitted, low performing energy improvements.	**Not applicable**. The project would not impede efforts to distribute energy-related information.
	Clean Energy Sources	Incorporate solar photovoltaic into all new residential and commercial buildings (on a project level basis).	**Consistent**. The project is a new commercial building that includes a 278-kW solar PV system.
		Provide more grid-delivered clean energy (up to 100%) through Community Choice Aggregation or other mechanism.	**Not applicable**. The project would not impede efforts to provide energy through Community Choice Aggregation (CCA) or a similar mechanism. distribute energy-related information. In 2019, City Council found that a CCA is economically feasible and viable. In 2021, San Diego Community Power (SDCP) launched, which will provide energy procurement services for Chula Vista along with Encinitas, Imperial Beach, La Mesa, and San Diego. Residents having the opportunity to opt-in to the service beginning in 2022.
	Energy Efficiency Upgrades	Expand the City's "cool roof" standards to include re-roofs and western areas.	**Not applicable**. The project would not impede efforts to revise the City's "cool roof" standards.
		Facilitate more energy upgrades in the community through tax breaks, rebates, and more local energy efficiency programming.	**Not applicable**. The project would not impede efforts to facilitate energy upgrades in the community.
		Require energy-savings retrofits in existing buildings at a specific point in time (not at point of sale).	**Not applicable**. The project would not impede efforts to require energy-savings retrofits in existing buildings.

	Robust Urban Forests	Plant more shade trees to save energy, address heat island issues, and improve air quality.	**Consistent**. The areas surrounding the new MOB and proposed parking structure would be landscaped with accent, screen, street, and parking lot shade trees; succulent plantings; and shrub and grass plantings to provide an attractive landscape that blends well with surrounding development.
Smart Growth and Transportation	Complete Streets and Neighborhoods	Incorporate "Complete Streets" principles into the Bicycle and Pedestrian Master Plans and Capital Improvement Program.	**Not applicable**. The project would not impede "Complete Streets" efforts.
		Encourage higher density and mixed-use development in Smart Growth areas, especially around trolley stations and other transit nodes.	**Not applicable**. The project would not impede efforts to construct additional high density and mixed-use development in Smart Growth areas.
	Transportation Demand Management	Utilize bike facilities, transit access/passes, and other Transportation Demand Management and congestion management offerings.	**Not applicable**. The project would not impede efforts to utilize bike, transit, and other Transportation Demand Management measures.
		Expand bike-sharing, car-sharing, and other "last mile" transportation options.	**Not applicable**. The project would not impede efforts to expand bike-sharing, car-sharing, and other Transportation Demand Management options.
	Alternative Fuel Vehicle Readiness	Support the installation of more local alternative fueling stations and designate preferred parking for alternative fuel vehicles.	**Not applicable**. The project would not impede efforts to install more local alternative fueling stations.
		Designate preferred parking for alternative fuel vehicles.	**Not applicable**. The project would not impede efforts to designate preferred parking for alternative fuel vehicles.
		Design all new residential and commercial buildings to be "Electric Vehicle Ready."	**Consistent**. The project would comply with CalGreen requirements for provision of electric vehicle charging equipment.

Source: City of Chula Vista 2017.

Energy

Energy Consumption

Construction

Construction activities would include the construction of the MOB and parking garage, establishment of various open spaces, asphalt paving, and the installation of infrastructure. Construction-related energy usage would include gasoline fuel used for transportation of workers to and from the construction site, and diesel fuel used for the transportation of materials to and from the construction site, the operation of off-road equipment, and electricity needed to power electric construction. Construction-related energy usage and consumption would vary throughout the course of the project and would depend on the level of activity, the length of the construction period, the specific construction operations, the types of equipment, and the number of workers. The estimated construction-related energy consumption for the proposed project is provided in Table 15. As shown, project construction would consume approximately 41,692 million BTUs over the 2-year construction period, which includes 89,223 gallons of gasoline and 220,180 gallons of diesel. Comparatively, gasoline and diesel consumption in San Diego County in year 2020 amounted to 1,055,000,000 gallons of gasoline and 195,833,333 gallons of diesel (CEC 2020). As such, the project's gasoline and diesel usage during the two-year construction period would require an annual demand of 0.00846 percent and 0.1124 percent, respectively, of the total annual gasoline and diesel consumption in San Diego County.

The proposed project will add new specialty services and expand existing primary care access, reducing the need for patients to travel outside of Chula Vista to receive care. The proposed project would include material export, material export, and equipment use necessary to construction uses. As this fuel use is necessary to support building construction, it is not considered to be wasteful, inefficient, or unnecessary Further, construction equipment would be required to follow CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation, which requires that off-road diesel vehicles of 25 horsepower or greater limit unnecessary idling to 5 minutes.

There are no known conditions in the project area that would require nonstandard equipment or unusual construction practices that would increase on-site heavy-duty construction equipment use. Therefore, project construction would not result in the use of excessive amounts of fuel or other forms of energy. Construction of the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, and this impact would be less than significant. During the construction phase, it is assumed that energy uses from worker trips were gasoline-powered, and energy uses from truck trips and construction equipment were diesel-powered.

Table 15. Project Energy Consumption

Source	Usage	Usage (Million BTU)
Construction		
Trucks	51,644 gallons (d)	7,163
Workers	89,223 gallons (gas)	11,153
Equipment	168,535 gallons (d)	23,376
Total Construction		**41,692**

Operations (per year)		
Transportation	473,186 gallons (gas)	59,148
Electricity	1,619,509 kWh	5,526
Natural Gas	1,177,320 kBTU	1,177
Total Operations - Transportation		**59,148**
Total Operations - Non-Transportation		**6,703**

kBTU = thousand British thermal units; million BTU = million British thermal units
(gas) = gasoline
(d) = diesel

Operations

The proposed project will result in energy use during operations associated with transportation-related fuel use and building-related energy use (electricity and natural gas).

Transportation-Related Energy Use

Project-related transportation energy use would result from employee, patient, and visitor motor vehicle trips to the project site. For purposes of analysis, it was assumed that employees, patients, and visitors would travel in passenger vehicles, and that all passenger vehicles are gasoline-powered. Estimated transportation-related energy consumption for the proposed project is provided in Table 15 and is estimated to be 61,383 million BTUs, which includes 491,061 gallons of gasoline. Compared to the 1,055 million gallons of gasoline consumed in San Diego County in 2020 (CEC 2020), the operational gasoline demand of the project of 473,186 gallons of gasoline would represent approximately 0.0449 percent of the total annual gasoline consumption in San Diego County. Note that the energy consumption estimate is based on fuel efficiency standards as of 2024. Fuel consumption is expected to decline over time as a result of continued implementation of federal and state vehicle efficiency standards. There is no component of the project that would result in unusually high vehicle fuel use during operation. Moreover, as noted above, the project is consistent with the growth projections anticipated in the General Plan and in the regional air quality attainment plans. Thus, operation of the project would not create a land use pattern that would result in wasteful, inefficient, or unnecessary use of energy.

Non-Transportation-Related Energy Use

Non-transportation energy use would be associated with electricity and natural gas consumption at the MOB. Estimated non-transportation-related energy consumption for the proposed project is provided in Table 15 and is estimated to be 6,703 million BTUs, which includes 1,619,509 kWh of electricity and 1,177,320 kBTU (i.e., 1,177.3 million BTUs) of natural gas. The annual non-residential electricity usage in San Diego County in 2020 was 11,657,679,451 kWh (CEC 2022b); thus, the project's electricity consumption of 1,619,509 kWh would represent 0.014 percent of San Diego County's total non-residential electricity consumption. Similarly, the annual non-residential natural gas usage in San Diego County in 2020 was 20,236,660 million BTUs (CEC 2022b); thus, the project's natural gas consumption of 1,177 million BTUs would represent 0.0058 percent of San Diego County's total non-residential natural gas consumption.

The project would be constructed in accordance with the California Energy Code and CalGreen standards. Project operations would also be required to meet the mandatory energy requirements

of CalGreen and the California Energy Code (Title 24, Part 6 of the California Code of Regulations) and would benefit from the efficiencies associated with these regulations as they relate to building heating, ventilating, and air conditioning mechanical systems, water-heating systems, and lighting. At the time of analysis, the 2019 Energy Code and CalGreen standards are the applicable standards. The 2022 standards go into effect January 1, 2023. Similar to the compliance reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CalGreen operational water reduction requirements must be demonstrated through completion of water use reporting forms for non-residential buildings. The water use compliance form must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CalGreen or a reduced per-plumbing-fixture water use rate

Electricity and natural gas service to the project site is provided by SDG&E. Operations would result in electricity and natural gas consumption to power lights, space and water heaters, HVAC, ventilation, and other devices. The installation of PV solar and compliance with increasingly stringent Title 24 Building Energy Efficiency and Green Building standards will reduce energy consumption. According to the National Renewable Energy Laboratory's PVWatts Calculator, the 278-kW solar array at the project site will generate an estimated 475,123 kWh of electricity per year, which is approximately 29 percent of the modeled operational electricity demand of 1,619,509 kWh. Therefore, project operations would not result in the use of excessive amounts of fuel or other forms of energy during operations.

If the maximum potential electricity usage from electric vehicle charging is included in the project energy consumption estimate, the project would use an additional 255,500 kWh per year of electricity. Such electricity usage would increase non-transportation-related electricity demand by 16% to 1,875,009 kWh. This assumes the maximum electric vehicle charging rate of 7 vehicles per charger per day, according to charging rates from the CAPCOA GHG Reduction Measure T-14.

Based on the above analysis, operation of the proposed project's transportation and non-transportation related energy uses would not result in the wasteful, inefficient, or unnecessary consumption of energy resources. This impact would be less than significant.

Consistency with Energy Plans

State Plans

State renewable energy and energy efficiency plans applicable to the proposed project are discussed above under Section 5, *Regulatory Setting.* State plans include the AB 1493 Pavley Rules, California Title 24 energy efficiency standards, EO B-16-12, SB 350, and SB 100. Each contains required standards related to energy efficiency and renewable energy development. Local plans that address energy efficiency to achieve the state's RPS mandates and the City's CAP. The City's General Plan also includes goals, policies, and requirements related to energy use and energy reductions.

As discussed above for energy consumption, the project is required to comply with mandatory energy requirements of CalGreen and the California Energy Code. Installation of PV and energy efficiency measures will reduce energy demand and ensure consistent with statewide energy efficiency and renewable energy plans. The proposed project would not conflict with or obstruct a state plan for renewable energy or energy efficiency.

Local Plans

Local renewable energy and energy efficiency plans applicable to the proposed project are discussed above under Section 5, *Regulatory Setting.* The applicable local plans that address renewable energy and energy efficiency are the City's Energy Strategy and Action Plan, Energy Roadmap Program, the CAP, and applicable sections of the General Plan. The policies in these plans direct City actions to clean municipal operations and provide support for the community. The project does not include a municipal component; therefore, policies from these plans do not apply to the project. The project would not conflict with or obstruct implementation of the City's Energy Strategy and Action Plan, Energy Roadmap Program, and applicable sections of the General Plan.

Additionally, the CCA launched in 2021, which will provide energy procurement services for Chula Vista along with Encinitas, Imperial Beach, La Mesa, and San Diego. Residents have the opportunity to opt-in to the service beginning in 2022. The project would not conflict with or obstruct implementation of the CCA.

In summary, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

9. Summary and Conclusions

Air quality, GHG, and energy analyses were conducted for the Sharp Reese-Stealy Otay Ranch Medical Office Building Project. The analyses address potential affects from both project construction and operation. All evaluated effects were determined to be less than significant with Mitigation Measure AQ-1 incorporated.

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Attachment 1

CalEEMod Output Sheets

Table X. Summary of Construction Criteria Pollutant Emission Estimates (pounds per day)

Construction Phase	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Demoliton	0	0	0	0	0	0
Grading, UG Utilities, & Site Improvements	2	24	17	0	8	4
Parking Structure	2	21	16	0	1	1
New MOB Building Cold Shell	2	15	16	0	2	1
Tenant Improvement	7	15	16	0	2	1
Max Daily	13	75	66	0.2	14	7
City of CV Construction Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

Table X. Summary of Operational Criteria Pollutant Emission Estimates (pounds per day)

Operational Element	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Mobile	7	7	57	0	12	3
Electricity	0	0	0	0	0	0
Natural gas	0	0	0	0	0	0
Area	2	0	0	0	0	0
Water	0	0	0	0	0	0
Solid Waste	0	0	0	0	0	0
Generator Testing	0	1	1	0	0	0
Daily	10	8	59	0	13	3
City of CV Operational Threshold	55	55	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

Table X. Summary of Construction Greenhouse Gas Emission Estimates (metric tons per year)

Construction Phase	$MTCO_2e$
Demoliton	0
Grading, UG Utilities, & Site Improvements	114
Parking Structure	241
New MOB Building Cold Shell	496
Tenant Improvement	415
Electricity	16
Total	1282
Amortized Construction (averaged over a 30-year period)	43

Electricity		
	72,000	kwh total
	497	EF (lbs/mwh)
	35768	CO2e lbs
	16.22	CO2e MT

Table X. Summary of Operational Greenhouse Gas Emission Estimates (metric tons per year)

Construction Phase	$MTCO_2e$
Mobile	1,956
Electricity	369
Natural gas	65
Area	0
Water	36
Solid Waste	326
Generator Testing	5
Construction	43
Total	2,799
Exceed SCAQMD's 3,000 MT bright-line?	No

111 MTCO2e PV saves

Table X. Energy Consumption (BTU per Year)

		MTCO2e	kwh/hr	kbtu/yr	BTU/yr	MMBTU/yr
Construction	Trucks	239			7,162,074,559	7,162
	Workers	354			11,123,752,374	11,124
	Equipment	760			22,771,232,303	22,771
Operations	Mobile	1,956			61,382,597,686	61,383
	Electricity		1,702,809		5,809,984,308	5,810
	Natural Gas			1,201,800	1,201,800,000	1,202
Construction Total	-	1,354	0	0	41,057,059,236	41,057
Operations Transporation	-	1,956	0	0	61,382,597,686	61,383
Operations Non-Transporation	-	0	1,702,809	1,201,800	7,011,784,308	7,012

		Gallons
100% diesel		*51,637*
100% gasoline		*88,990*
100% diesel		*164,176*
100% gasoline		*491,061*

Conversions		**Source**
BTU_kWh	3,412	BTS 2021
BTU/1 gallon gasoline	125,000	BTS 2021
BTU/1 gallon diesel	138,700	BTS 2021
kg CO2 per gal diesel	10.21	EPA 2021 EF Hub
kg CO2 per gal gasoline	8.78	EPA 2021 EF Hub
kgs per MT, btu per kbtu	1000	Standard
BTU per MMBTU	1,000,000	Standard
mt/lbs	0.000453592	Standard

https://www.bts.gov/content/energy-consumption-mode-transportation#:~:text=Jet%20fuel%20%3D%20135%2C000%20Btu%2Fgallon.
https://www.epa.gov/sites/default/files/2021-04/documents/emission-factors_apr2021.pdf

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Sharp Otay Ranch Medical Office and Parking Garage

San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	60.00	1000sqft	4.50	60,000.00	0
Enclosed Parking with Elevator	611.00	Space	0.00	244,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2024
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	497	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Linear interpolation of 497 lb/MWh for 2024 based on 2016 and 2025 Efs in Appendix X of the SANDAG Regional Plan

Land Use - 60,000 sf for MO building and 611 space parking garage. Acreage based on Google Earth estimate.

Construction Phase - From Applicant

Off-road Equipment - Just demolished material - 2,000 sf

Off-road Equipment - From Applicant

Off-road Equipment - From Applicant

Off-road Equipment - From Applicant

Off-road Equipment - From Applicant

Grading - 8,700 CY of soil import

Demolition - 2,000 sf of demolished material to be exported

Trips and VMT - From Applicant; Caleemod defaults for hauling trips

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Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Architectural Coating - Per SDAPCD Rule 67.0, 150 g/L arch coatings VOC content

Vehicle Trips - 50 trips/day per tsf per LLG

Stationary Sources - Emergency Generators and Fire Pumps - From specs provided by Applicant; hp converted based on a 200 kw generator

Energy Mitigation - kwh calculated from NREL PV Watts calculator based on a 278 kw solar PV array at project site location

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblConstructionPhase	NumDays	230.00	245.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	230.00	147.00
tblConstructionPhase	NumDays	18.00	206.00
tblConstructionPhase	NumDays	8.00	51.00
tblConstructionPhase	PhaseEndDate	8/2/2023	4/10/2024
tblConstructionPhase	PhaseEndDate	8/26/2022	8/5/2022
tblConstructionPhase	PhaseEndDate	9/14/2022	5/3/2023
tblConstructionPhase	PhaseEndDate	8/28/2023	7/1/2024
tblConstructionPhase	PhaseEndDate	9/2/2022	10/10/2022
tblConstructionPhase	PhaseStartDate	9/15/2022	5/4/2023
tblConstructionPhase	PhaseStartDate	9/3/2022	10/11/2022
tblConstructionPhase	PhaseStartDate	8/3/2023	9/17/2023
tblConstructionPhase	PhaseStartDate	8/27/2022	8/1/2022
tblGrading	AcresOfGrading	51.00	7.50
tblGrading	MaterialImported	0.00	8,700.00
tblLandUse	LotAcreage	1.38	4.50
tblLandUse	LotAcreage	5.50	0.00
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.40	0.40

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	539.98	497
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	268.20
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	52.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	50.00	40.00
tblTripsAndVMT	VendorTripNumber	50.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	40.00
tblTripsAndVMT	WorkerTripNumber	122.00	160.00
tblTripsAndVMT	WorkerTripNumber	122.00	60.00
tblTripsAndVMT	WorkerTripNumber	24.00	160.00
tblTripsAndVMT	WorkerTripNumber	13.00	60.00
tblVehicleTrips	ST_TR	8.57	50.00
tblVehicleTrips	SU_TR	1.42	50.00
tblVehicleTrips	WD_TR	34.80	50.00

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.1977	24.1558	17.0574	0.0494	7.4982	0.9170	8.4152	3.6327	0.8575	4.4902	0.0000	4,979.5080	4,979.5080	0.8669	0.2657	5,080.3461
2023	8.3267	30.3158	32.8746	0.0896	3.1705	1.1206	4.2912	0.8532	1.0533	1.9066	0.0000	8,932.0141	8,932.0141	1.3288	0.3146	9,058.9764
2024	8.1340	28.4506	32.0886	0.0886	3.1705	1.0156	4.1862	0.8532	0.9539	1.8072	0.0000	8,823.7282	8,823.7282	1.3220	0.3063	8,948.0442
Maximum	**8.3267**	**30.3158**	**32.8746**	**0.0896**	**7.4982**	**1.1206**	**8.4152**	**3.6327**	**1.0533**	**4.4902**	**0.0000**	**8,932.0141**	**8,932.0141**	**1.3288**	**0.3146**	**9,058.9764**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	2.1977	24.1558	17.0574	0.0494	7.4982	0.9170	8.4152	3.6327	0.8575	4.4902	0.0000	4,979.5080	4,979.5080	0.8669	0.2657	5,080.3461
2023	8.3267	30.3158	32.8746	0.0896	3.1705	1.1206	4.2912	0.8532	1.0533	1.9066	0.0000	8,932.0141	8,932.0141	1.3288	0.3146	9,058.9764
2024	8.1340	28.4506	32.0886	0.0886	3.1705	1.0156	4.1862	0.8532	0.9539	1.8072	0.0000	8,823.7282	8,823.7282	1.3220	0.3063	8,948.0442

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Maximum	**8.3267**	**30.3158**	**32.8746**	**0.0896**	**7.4982**	**1.1206**	**8.4152**	**3.6327**	**1.0533**	**4.4902**	**0.0000**	**8,932.0141**	**8,932.0141**	**1.3288**	**0.3146**	**9,058.9764**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.8044	6.2000e-004	0.0684	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1469	0.1469	3.8000e-004		0.1564
Energy	0.0355	0.3228	0.2712	1.9400e-003		0.0245	0.0245		0.0245	0.0245		387.3650	387.3650	7.4200e-003	7.1000e-003	389.6669
Mobile	7.3137	6.5565	57.3785	0.1188	12.3607	0.0919	12.4526	3.2927	0.0857	3.3783		12,102.5224	12,102.5224	0.8952	0.5543	12,290.0891
Stationary	0.4398	1.2292	1.1214	2.1100e-003		0.0647	0.0647		0.0647	0.0647		224.9898	224.9898	0.0315		225.7784
Total	**9.5933**	**8.1091**	**58.8394**	**0.1229**	**12.3607**	**0.1814**	**12.5420**	**3.2927**	**0.1751**	**3.4678**		**12,715.0240**	**12,715.0240**	**0.9346**	**0.5614**	**12,905.6908**

Mitigated Operational

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.8044	6.2000e-004	0.0684	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1469	0.1469	3.8000e-004		0.1564
Energy	0.0355	0.3228	0.2712	1.9400e-003		0.0245	0.0245		0.0245	0.0245		387.3650	387.3650	7.4200e-003	7.1000e-003	389.6669
Mobile	7.3137	6.5565	57.3785	0.1188	12.3607	0.0919	12.4526	3.2927	0.0857	3.3783		12,102.5224	12,102.5224	0.8952	0.5543	12,290.0891
Stationary	0.4398	1.2292	1.1214	2.1100e-003		0.0647	0.0647		0.0647	0.0647		224.9898	224.9898	0.0315		225.7784
Total	**9.5933**	**8.1091**	**58.8394**	**0.1229**	**12.3607**	**0.1814**	**12.5420**	**3.2927**	**0.1751**	**3.4678**		**12,715.0240**	**12,715.0240**	**0.9346**	**0.5614**	**12,905.6908**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2022	8/5/2022	5	5	
2	Grading, UG Utilities, & Site Improvements	Grading	8/1/2022	10/10/2022	5	51	
3	Parking Structure	Building Construction	10/11/2022	5/3/2023	5	147	
4	New MOB Building Cold Shell	Building Construction	5/4/2023	4/10/2024	5	245	
5	Tenant Improvement	Architectural Coating	9/17/2023	7/1/2024	5	206	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.5

Acres of Paving: 0

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Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 90,000; Non-Residential Outdoor: 30,000; Striped Parking Area: 14,664

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Tenant Improvement	Air Compressors	0	0.00	78	0.48
Tenant Improvement	Cement and Mortar Mixers	0	0.00	9	0.56
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
New MOB Building Cold Shell	Cranes	2	8.00	231	0.29
Demolition	Excavators	0	0.00	158	0.38
Parking Structure	Excavators	1	8.00	158	0.38
New MOB Building Cold Shell	Forklifts	0	0.00	89	0.20
New MOB Building Cold Shell	Generator Sets	0	0.00	84	0.74
Parking Structure	Graders	1	8.00	187	0.41
Tenant Improvement	Pavers	0	0.00	130	0.42
Tenant Improvement	Paving Equipment	0	0.00	132	0.36
Tenant Improvement	Rollers	0	0.00	80	0.38
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Parking Structure	Rubber Tired Dozers	1	8.00	247	0.40
Grading, UG Utilities, & Site Improvements	Rubber Tired Dozers	1	8.00	247	0.40
New MOB Building Cold Shell	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Parking Structure	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Tenant Improvement	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading, UG Utilities, & Site Improvements	Tractors/Loaders/Backhoes	0	0.00	97	0.37
New MOB Building Cold Shell	Welders	0	0.00	46	0.45
Parking Structure	Cranes	0	0.00	231	0.29
Grading, UG Utilities, & Site Improvements	Excavators	1	8.00	158	0.38
Parking Structure	Forklifts	0	0.00	89	0.20
Parking Structure	Generator Sets	0	0.00	84	0.74
Grading, UG Utilities, & Site Improvements	Graders	1	8.00	187	0.41

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Parking Structure	Welders	0	0.00	46	0.45
Grading, UG Utilities, & Site Improvements	Pumps	1	8.00	84	0.74
Grading, UG Utilities, & Site Improvements	Rough Terrain Forklifts	1	8.00	100	0.40
Parking Structure	Pumps	1	8.00	84	0.74
Parking Structure	Rough Terrain Forklifts	1	8.00	100	0.40
New MOB Building Cold Shell	Pumps	1	8.00	84	0.74
New MOB Building Cold Shell	Rough Terrain Forklifts	2	8.00	100	0.40
Tenant Improvement	Pumps	1	8.00	84	0.74
Tenant Improvement	Cranes	2	8.00	231	0.29
Tenant Improvement	Rough Terrain Forklifts	2	8.00	100	0.40

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
New MOB Building Cold Shell	5	160.00	40.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	0	0.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Parking Structure	5	60.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Tenant Improvement	5	160.00	40.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading, UG Utilities, & Site Improvements	5	60.00	0.00	1,088.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	lb/day										lb/day					
Fugitive Dust					0.3987	0.0000	0.3987	0.0604	0.0000	0.0604			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.3987**	**0.0000**	**0.3987**	**0.0604**	**0.0000**	**0.0604**		**0.0000**	**0.0000**	**0.0000**		**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0700e-003	0.2923	0.0711	1.1300e-003	0.0315	2.8200e-003	0.0343	8.6300e-003	2.6900e-003	0.0113		124.3475	124.3475	5.9800e-003	0.0198	130.3834
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.0700e-003**	**0.2923**	**0.0711**	**1.1300e-003**	**0.0315**	**2.8200e-003**	**0.0343**	**8.6300e-003**	**2.6900e-003**	**0.0113**		**124.3475**	**124.3475**	**5.9800e-003**	**0.0198**	**130.3834**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	lb/day										lb/day					
Fugitive Dust					0.3987	0.0000	0.3987	0.0604	0.0000	0.0604			0.0000			0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.3987**	**0.0000**	**0.3987**	**0.0604**	**0.0000**	**0.0604**	**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.0700e-003	0.2923	0.0711	1.1300e-003	0.0315	2.8200e-003	0.0343	8.6300e-003	2.6900e-003	0.0113		124.3475	124.3475	5.9800e-003	0.0198	130.3834
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.0700e-003**	**0.2923**	**0.0711**	**1.1300e-003**	**0.0315**	**2.8200e-003**	**0.0343**	**8.6300e-003**	**2.6900e-003**	**0.0113**		**124.3475**	**124.3475**	**5.9800e-003**	**0.0198**	**130.3834**

3.3 Grading, UG Utilities, & Site Improvements - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	lb/day										lb/day					
Fugitive Dust					6.2020	0.0000	6.2020	3.3307	0.0000	3.3307			0.0000			0.0000
Off-Road	1.9189	20.2848	14.5906	0.0304		0.8781	0.8781		0.8203	0.8203		2,926.7874	2,926.7874	0.7769		2,946.2092
Total	**1.9189**	**20.2848**	**14.5906**	**0.0304**	**6.2020**	**0.8781**	**7.0801**	**3.3307**	**0.8203**	**4.1510**		**2,926.7874**	**2,926.7874**	**0.7769**		**2,946.2092**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0956	3.4648	0.8422	0.0134	0.3731	0.0334	0.4065	0.1023	0.0319	0.1342		1,473.7484	1,473.7484	0.0709	0.2341	1,545.2850
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1751	0.1140	1.5536	4.5000e-003	0.4929	2.7900e-003	0.4957	0.1307	2.5700e-003	0.1333		454.6247	454.6247	0.0131	0.0118	458.4684
Total	**0.2707**	**3.5788**	**2.3958**	**0.0179**	**0.8660**	**0.0362**	**0.9022**	**0.2330**	**0.0345**	**0.2675**		**1,928.3731**	**1,928.3731**	**0.0840**	**0.2459**	**2,003.7534**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	lb/day										lb/day					
Fugitive Dust					6.2020	0.0000	6.2020	3.3307	0.0000	3.3307			0.0000			0.0000
Off-Road	1.9189	20.2848	14.5906	0.0304		0.8781	0.8781		0.8203	0.8203	0.0000	2,926.7874	2,926.7874	0.7769		2,946.2092
Total	**1.9189**	**20.2848**	**14.5906**	**0.0304**	**6.2020**	**0.8781**	**7.0801**	**3.3307**	**0.8203**	**4.1510**	**0.0000**	**2,926.7874**	**2,926.7874**	**0.7769**		**2,946.2092**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0956	3.4648	0.8422	0.0134	0.3731	0.0334	0.4065	0.1023	0.0319	0.1342		1,473.7484	1,473.7484	0.0709	0.2341	1,545.2850
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1751	0.1140	1.5536	4.5000e-003	0.4929	2.7900e-003	0.4957	0.1307	2.5700e-003	0.1333		454.6247	454.6247	0.0131	0.0118	458.4684
Total	**0.2707**	**3.5788**	**2.3958**	**0.0179**	**0.8660**	**0.0362**	**0.9022**	**0.2330**	**0.0345**	**0.2675**		**1,928.3731**	**1,928.3731**	**0.0840**	**0.2459**	**2,003.7534**

3.4 Parking Structure - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	lb/day										lb/day					
Off-Road	1.9189	20.2848	14.5906	0.0304		0.8781	0.8781		0.8203	0.8203		2,926.7874	2,926.7874	0.7769		2,946.2092
Total	**1.9189**	**20.2848**	**14.5906**	**0.0304**		**0.8781**	**0.8781**		**0.8203**	**0.8203**		**2,926.7874**	**2,926.7874**	**0.7769**		**2,946.2092**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0223	0.5318	0.1779	2.1300e-003	0.0677	5.7800e-003	0.0735	0.0195	5.5300e-003	0.0250		229.8256	229.8256	6.9900e-003	0.0334	239.9414
Worker	0.1751	0.1140	1.5536	4.5000e-003	0.4929	2.7900e-003	0.4957	0.1307	2.5700e-003	0.1333		454.6247	454.6247	0.0131	0.0118	458.4684
Total	**0.1974**	**0.6458**	**1.7315**	**6.6300e-003**	**0.5606**	**8.5700e-003**	**0.5692**	**0.1502**	**8.1000e-003**	**0.1583**		**684.4503**	**684.4503**	**0.0201**	**0.0452**	**698.4098**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Off-Road	1.9189	20.2848	14.5906	0.0304		0.8781	0.8781		0.8203	0.8203	0.0000	2,926.7874	2,926.7874	0.7769		2,946.2092
Total	**1.9189**	**20.2848**	**14.5906**	**0.0304**		**0.8781**	**0.8781**		**0.8203**	**0.8203**	**0.0000**	**2,926.7874**	**2,926.7874**	**0.7769**		**2,946.2092**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0223	0.5318	0.1779	2.1300e-003	0.0677	5.7800e-003	0.0735	0.0195	5.5300e-003	0.0250		229.8256	229.8256	6.9900e-003	0.0334	239.9414
Worker	0.1751	0.1140	1.5536	4.5000e-003	0.4929	2.7900e-003	0.4957	0.1307	2.5700e-003	0.1333		454.6247	454.6247	0.0131	0.0118	458.4684
Total	**0.1974**	**0.6458**	**1.7315**	**6.6300e-003**	**0.5606**	**8.5700e-003**	**0.5692**	**0.1502**	**8.1000e-003**	**0.1583**		**684.4503**	**684.4503**	**0.0201**	**0.0452**	**698.4098**

3.4 Parking Structure - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6909	17.4880	14.0807	0.0304		0.7275	0.7275		0.6801	0.6801		2,926.4685	2,926.4685	0.7735		2,945.8056

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	**1.6909**	**17.4880**	**14.0807**	**0.0304**		**0.7275**	**0.7275**		**0.6801**	**0.6801**		**2,926.4685**	**2,926.4685**	**0.7735**		**2,945.8056**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0119	0.4287	0.1545	2.0500e-003	0.0677	2.6100e-003	0.0703	0.0195	2.5000e-003	0.0220		221.0470	221.0470	6.7000e-003	0.0320	230.7522
Worker	0.1640	0.1018	1.4399	4.3500e-003	0.4929	2.6400e-003	0.4955	0.1307	2.4300e-003	0.1332		440.1984	440.1984	0.0119	0.0110	443.7668
Total	**0.1759**	**0.5305**	**1.5944**	**6.4000e-003**	**0.5606**	**5.2500e-003**	**0.5659**	**0.1502**	**4.9300e-003**	**0.1552**		**661.2454**	**661.2454**	**0.0186**	**0.0430**	**674.5190**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6909	17.4880	14.0807	0.0304		0.7275	0.7275		0.6801	0.6801	0.0000	2,926.4685	2,926.4685	0.7735		2,945.8056
Total	**1.6909**	**17.4880**	**14.0807**	**0.0304**		**0.7275**	**0.7275**		**0.6801**	**0.6801**	**0.0000**	**2,926.4685**	**2,926.4685**	**0.7735**		**2,945.8056**

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Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0119	0.4287	0.1545	2.0500e-003	0.0677	2.6100e-003	0.0703	0.0195	2.5000e-003	0.0220		221.0470	221.0470	6.7000e-003	0.0320	230.7522
Worker	0.1640	0.1018	1.4399	4.3500e-003	0.4929	2.6400e-003	0.4955	0.1307	2.4300e-003	0.1332		440.1984	440.1984	0.0119	0.0110	443.7668
Total	**0.1759**	**0.5305**	**1.5944**	**6.4000e-003**	**0.5606**	**5.2500e-003**	**0.5659**	**0.1502**	**4.9300e-003**	**0.1552**		**661.2454**	**661.2454**	**0.0186**	**0.0430**	**674.5190**

3.5 New MOB Building Cold Shell - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2432	13.1967	11.9916	0.0251		0.5439	0.5439		0.5112	0.5112		2,411.6180	2,411.6180	0.6070		2,426.7922
Total	**1.2432**	**13.1967**	**11.9916**	**0.0251**		**0.5439**	**0.5439**		**0.5112**	**0.5112**		**2,411.6180**	**2,411.6180**	**0.6070**		**2,426.7922**

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0478	1.7147	0.6179	8.1900e-003	0.2709	0.0105	0.2814	0.0780	9.9900e-003	0.0880		884.1878	884.1878	0.0268	0.1280	923.0088
Worker	0.4373	0.2715	3.8398	0.0116	1.3144	7.0500e-003	1.3214	0.3486	6.4900e-003	0.3551		1,173.8625	1,173.8625	0.0318	0.0293	1,183.3780
Total	**0.4850**	**1.9862**	**4.4578**	**0.0198**	**1.5853**	**0.0175**	**1.6028**	**0.4266**	**0.0165**	**0.4431**		**2,058.0503**	**2,058.0503**	**0.0586**	**0.1573**	**2,106.3868**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.2432	13.1967	11.9916	0.0251		0.5439	0.5439		0.5112	0.5112	0.0000	2,411.6180	2,411.6180	0.6070		2,426.7922
Total	**1.2432**	**13.1967**	**11.9916**	**0.0251**		**0.5439**	**0.5439**		**0.5112**	**0.5112**	**0.0000**	**2,411.6180**	**2,411.6180**	**0.6070**		**2,426.7922**

Mitigated Construction Off-Site

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0478	1.7147	0.6179	8.1900e-003	0.2709	0.0105	0.2814	0.0780	9.9900e-003	0.0880		884.1878	884.1878	0.0268	0.1280	923.0088
Worker	0.4373	0.2715	3.8398	0.0116	1.3144	7.0500e-003	1.3214	0.3486	6.4900e-003	0.3551		1,173.8625	1,173.8625	0.0318	0.0293	1,183.3780
Total	**0.4850**	**1.9862**	**4.4578**	**0.0198**	**1.5853**	**0.0175**	**1.6028**	**0.4266**	**0.0165**	**0.4431**		**2,058.0503**	**2,058.0503**	**0.0586**	**0.1573**	**2,106.3868**

3.5 New MOB Building Cold Shell - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1752	12.3011	11.8702	0.0251		0.4916	0.4916		0.4616	0.4616		2,411.4590	2,411.4590	0.6058		2,426.6046
Total	**1.1752**	**12.3011**	**11.8702**	**0.0251**		**0.4916**	**0.4916**		**0.4616**	**0.4616**		**2,411.4590**	**2,411.4590**	**0.6058**		**2,426.6046**

Unmitigated Construction Off-Site

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0460	1.7030	0.6035	8.0400e-003	0.2709	0.0105	0.2814	0.0780	0.0100	0.0880		868.7723	868.7723	0.0274	0.1258	906.9412
Worker	0.4106	0.2441	3.5822	0.0112	1.3144	6.7100e-003	1.3211	0.3486	6.1700e-003	0.3548		1,135.2939	1,135.2939	0.0290	0.0274	1,144.1671
Total	**0.4566**	**1.9472**	**4.1857**	**0.0193**	**1.5853**	**0.0172**	**1.6025**	**0.4266**	**0.0162**	**0.4428**		**2,004.0662**	**2,004.0662**	**0.0564**	**0.1531**	**2,051.1083**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1752	12.3011	11.8702	0.0251		0.4916	0.4916		0.4616	0.4616	0.0000	2,411.4590	2,411.4590	0.6058		2,426.6046
Total	**1.1752**	**12.3011**	**11.8702**	**0.0251**		**0.4916**	**0.4916**		**0.4616**	**0.4616**	**0.0000**	**2,411.4590**	**2,411.4590**	**0.6058**		**2,426.6046**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0460	1.7030	0.6035	8.0400e-003	0.2709	0.0105	0.2814	0.0780	0.0100	0.0880		868.7723	868.7723	0.0274	0.1258	906.9412
Worker	0.4106	0.2441	3.5822	0.0112	1.3144	6.7100e-003	1.3211	0.3486	6.1700e-003	0.3548		1,135.2939	1,135.2939	0.0290	0.0274	1,144.1671
Total	**0.4566**	**1.9472**	**4.1857**	**0.0193**	**1.5853**	**0.0172**	**1.6025**	**0.4266**	**0.0162**	**0.4428**		**2,004.0662**	**2,004.0662**	**0.0564**	**0.1531**	**2,051.1083**

3.6 Tenant Improvement - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.8749					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.2386	13.1467	11.9675	0.0250		0.5418	0.5418		0.5092	0.5092		2,404.2955	2,404.2955	0.6046		2,419.4105
Total	**6.1135**	**13.1467**	**11.9675**	**0.0250**		**0.5418**	**0.5418**		**0.5092**	**0.5092**		**2,404.2955**	**2,404.2955**	**0.6046**		**2,419.4105**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0478	1.7147	0.6179	8.1900e-003	0.2709	0.0105	0.2814	0.0780	9.9900e-003	0.0880		884.1878	884.1878	0.0268	0.1280	923.0088
Worker	0.4373	0.2715	3.8398	0.0116	1.3144	7.0500e-003	1.3214	0.3486	6.4900e-003	0.3551		1,173.8625	1,173.8625	0.0318	0.0293	1,183.3780
Total	**0.4850**	**1.9862**	**4.4578**	**0.0198**	**1.5853**	**0.0175**	**1.6028**	**0.4266**	**0.0165**	**0.4431**		**2,058.0503**	**2,058.0503**	**0.0586**	**0.1573**	**2,106.3868**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.8749					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.2386	13.1467	11.9675	0.0250		0.5418	0.5418		0.5092	0.5092	0.0000	2,404.2955	2,404.2955	0.6046		2,419.4105
Total	**6.1135**	**13.1467**	**11.9675**	**0.0250**		**0.5418**	**0.5418**		**0.5092**	**0.5092**	**0.0000**	**2,404.2955**	**2,404.2955**	**0.6046**		**2,419.4105**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0478	1.7147	0.6179	8.1900e-003	0.2709	0.0105	0.2814	0.0780	9.9900e-003	0.0880		884.1878	884.1878	0.0268	0.1280	923.0088
Worker	0.4373	0.2715	3.8398	0.0116	1.3144	7.0500e-003	1.3214	0.3486	6.4900e-003	0.3551		1,173.8625	1,173.8625	0.0318	0.0293	1,183.3780
Total	**0.4850**	**1.9862**	**4.4578**	**0.0198**	**1.5853**	**0.0175**	**1.6028**	**0.4266**	**0.0165**	**0.4431**		**2,058.0503**	**2,058.0503**	**0.0586**	**0.1573**	**2,106.3868**

3.6 Tenant Improvement - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.8749					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.1708	12.2552	11.8470	0.0250		0.4897	0.4897		0.4599	0.4599		2,404.1367	2,404.1367	0.6035		2,419.2231
Total	**6.0457**	**12.2552**	**11.8470**	**0.0250**		**0.4897**	**0.4897**		**0.4599**	**0.4599**		**2,404.1367**	**2,404.1367**	**0.6035**		**2,419.2231**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

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Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0460	1.7030	0.6035	8.0400e-003	0.2709	0.0105	0.2814	0.0780	0.0100	0.0880		868.7723	868.7723	0.0274	0.1258	906.9412
Worker	0.4106	0.2441	3.5822	0.0112	1.3144	6.7100e-003	1.3211	0.3486	6.1700e-003	0.3548		1,135.2939	1,135.2939	0.0290	0.0274	1,144.1671
Total	**0.4566**	**1.9472**	**4.1857**	**0.0193**	**1.5853**	**0.0172**	**1.6025**	**0.4266**	**0.0162**	**0.4428**		**2,004.0662**	**2,004.0662**	**0.0564**	**0.1531**	**2,051.1083**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	4.8749					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	1.1708	12.2552	11.8470	0.0250		0.4897	0.4897		0.4599	0.4599	0.0000	2,404.1367	2,404.1367	0.6035		2,419.2230
Total	**6.0457**	**12.2552**	**11.8470**	**0.0250**		**0.4897**	**0.4897**		**0.4599**	**0.4599**	**0.0000**	**2,404.1367**	**2,404.1367**	**0.6035**		**2,419.2230**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0460	1.7030	0.6035	8.0400e-003	0.2709	0.0105	0.2814	0.0780	0.0100	0.0880		868.7723	868.7723	0.0274	0.1258	906.9412
Worker	0.4106	0.2441	3.5822	0.0112	1.3144	6.7100e-003	1.3211	0.3486	6.1700e-003	0.3548		1,135.2939	1,135.2939	0.0290	0.0274	1,144.1671
Total	**0.4566**	**1.9472**	**4.1857**	**0.0193**	**1.5853**	**0.0172**	**1.6025**	**0.4266**	**0.0162**	**0.4428**		**2,004.0662**	**2,004.0662**	**0.0564**	**0.1531**	**2,051.1083**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.3137	6.5565	57.3785	0.1188	12.3607	0.0919	12.4526	3.2927	0.0857	3.3783		12,102.5224	12,102.522	0.8952	0.5543	12,290.089
Unmitigated	7.3137	6.5565	57.3785	0.1188	12.3607	0.0919	12.4526	3.2927	0.0857	3.3783		12,102.5224	12,102.522	0.8952	0.5543	12,290.089

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Medical Office Building	3,000.00	3,000.00	3000.00	5,871,750	5,871,750
Total	3,000.00	3,000.00	3,000.00	5,871,750	5,871,750

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.0049
Medical Office Building	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.0049

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0355	0.3228	0.2712	1.9400e-003		0.0245	0.0245		0.0245	0.0245		387.3650	387.3650	7.4200e-003	7.1000e-003	389.6669
NaturalGas Unmitigated	0.0355	0.3228	0.2712	1.9400e-003		0.0245	0.0245		0.0245	0.0245		387.3650	387.3650	7.4200e-003	7.1000e-003	389.6669

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Medical Office Building	3292.6	0.0355	0.3228	0.2712	1.9400e-003		0.0245	0.0245		0.0245	0.0245		387.3650	387.3650	7.4200e-003	7.1000e-003	389.6669
Total		**0.0355**	**0.3228**	**0.2712**	**1.9400e-003**		**0.0245**	**0.0245**		**0.0245**	**0.0245**		**387.3650**	**387.3650**	**7.4200e-003**	**7.1000e-003**	**389.6669**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Medical Office Building	3.2926	0.0355	0.3228	0.2712	1.9400e-003		0.0245	0.0245		0.0245	0.0245		387.3650	387.3650	7.4200e-003	7.1000e-003	389.6669
Total		**0.0355**	**0.3228**	**0.2712**	**1.9400e-003**		**0.0245**	**0.0245**		**0.0245**	**0.0245**		**387.3650**	**387.3650**	**7.4200e-003**	**7.1000e-003**	**389.6669**

6.0 Area Detail

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.8044	6.2000e-004	0.0684	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1469	0.1469	3.8000e-004		0.1564
Unmitigated	1.8044	6.2000e-004	0.0684	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1469	0.1469	3.8000e-004		0.1564

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4275					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3706					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.3100e-003	6.2000e-004	0.0684	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1469	0.1469	3.8000e-004		0.1564
Total	**1.8044**	**6.2000e-004**	**0.0684**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1469**	**0.1469**	**3.8000e-004**		**0.1564**

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.4275					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.3706					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.3100e-003	6.2000e-004	0.0684	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004		0.1469	0.1469	3.8000e-004		0.1564
Total	**1.8044**	**6.2000e-004**	**0.0684**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**		**0.1469**	**0.1469**	**3.8000e-004**		**0.1564**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	1	52	268.204	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel	0.4398	1.2292	1.1214	2.1100e-003		0.0647	0.0647		0.0647	0.0647		224.9898	224.9898	0.0315		225.7784
Total	**0.4398**	**1.2292**	**1.1214**	**2.1100e-003**		**0.0647**	**0.0647**		**0.0647**	**0.0647**		**224.9898**	**224.9898**	**0.0315**		**225.7784**

11.0 Vegetation

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Sharp Otay Ranch Medical Office and Parking Garage

San Diego County, Annual

1.0 Project

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Medical Office Building	60.00	1000sqft	4.50	60,000.00	0
Enclosed Parking with Elevator	611.00	Space	0.00	244,400.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	40
Climate Zone	13			**Operational Year**	2024
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	497	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default

Project Characteristics - Linear interpolation of 497 lb/MWh for 2024 based on 2016 and 2025 Efs in Appendix X of the SANDAG Regional Plan

Land Use - 60,000 sf for MO building and 611 space parking garage. Acreage based on Google Earth estimate.

Construction Phase - From Applicant

Off-road Equipment - Just demolished material - 2,000 sf

Off-road Equipment - From Applicant

Off-road Equipment - From Applicant

Off-road Equipment - From Applicant

Off-road Equipment - From Applicant

Grading - 8,700 CY of soil import

Demolition - 2,000 sf of demolished material to be exported

Trips and VMT - From Applicant; Caleemod defaults for hauling trips

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Architectural Coating - Per SDAPCD Rule 67.0, 150 g/L arch coatings VOC content

Vehicle Trips - 50 trips/day per tsf per LLG

Stationary Sources - Emergency Generators and Fire Pumps - From specs provided by Applicant; hp converted based on a 200 kw generator

Energy Mitigation - kwh calculated from NREL PV Watts calculator based on a 278 kw solar PV array at project site location

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	250.00	150.00
tblArchitecturalCoating	EF_Nonresidential_Interior	250.00	150.00
tblConstructionPhase	NumDays	230.00	245.00
tblConstructionPhase	NumDays	20.00	5.00
tblConstructionPhase	NumDays	230.00	147.00
tblConstructionPhase	NumDays	18.00	206.00
tblConstructionPhase	NumDays	8.00	51.00
tblConstructionPhase	PhaseEndDate	8/2/2023	4/10/2024
tblConstructionPhase	PhaseEndDate	8/26/2022	8/5/2022
tblConstructionPhase	PhaseEndDate	9/14/2022	5/3/2023
tblConstructionPhase	PhaseEndDate	8/28/2023	7/1/2024
tblConstructionPhase	PhaseEndDate	9/2/2022	10/10/2022
tblConstructionPhase	PhaseStartDate	9/15/2022	5/4/2023
tblConstructionPhase	PhaseStartDate	9/3/2022	10/11/2022
tblConstructionPhase	PhaseStartDate	8/3/2023	9/17/2023
tblConstructionPhase	PhaseStartDate	8/27/2022	8/1/2022
tblGrading	AcresOfGrading	51.00	7.50
tblGrading	MaterialImported	0.00	8,700.00
tblLandUse	LotAcreage	1.38	4.50
tblLandUse	LotAcreage	5.50	0.00
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.40	0.40

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	LoadFactor	0.29	0.29
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	8.00

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tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	7.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	539.98	497
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	268.20
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	52.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	50.00	40.00
tblTripsAndVMT	VendorTripNumber	50.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	40.00
tblTripsAndVMT	WorkerTripNumber	122.00	160.00
tblTripsAndVMT	WorkerTripNumber	122.00	60.00
tblTripsAndVMT	WorkerTripNumber	24.00	160.00
tblTripsAndVMT	WorkerTripNumber	13.00	60.00
tblVehicleTrips	ST_TR	8.57	50.00
tblVehicleTrips	SU_TR	1.42	50.00
tblVehicleTrips	WD_TR	34.80	50.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1181	1.3	0.9106	2.3100e-003	0.1970	0.0495	0.2464	0.0953	0.0462	0.1415	0.0000	208.1889	208.1889	0.0413	6.9800e-003	211.3020
2023	0.4775	2.6	2.6943	7.0800e-003	0.2154	0.1015	0.3169	0.0581	0.0952	0.1533	0.0000	636.8465	636.8465	0.1063	0.0196	645.3464
2024	0.4850	1.6	1.6191	4.4600e-003	0.1580	0.0518	0.2097	0.0426	0.0486	0.0912	0.0000	403.3122	403.3122	0.0613	0.0144	409.1208
Maximum	**0.4850**	**2.6**	**2.6943**	**7.0800e-003**	**0.2154**	**0.1015**	**0.3169**	**0.0953**	**0.0952**	**0.1533**	**0.0000**	**636.8465**	**636.8465**	**0.1063**	**0.0196**	**645.3464**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1181	1.3	0.9106	2.3100e-003	0.1970	0.0495	0.2464	0.0953	0.0462	0.1415	0.0000	208.1887	208.1887	0.0413	6.9800e-003	211.3019
2023	0.4775	2.6	2.6943	7.0800e-003	0.2154	0.1015	0.3169	0.0581	0.0952	0.1533	0.0000	636.8460	636.8460	0.1063	0.0196	645.3459
2024	0.4850	1.6	1.6191	4.4600e-003	0.1580	0.0518	0.2097	0.0426	0.0486	0.0912	0.0000	403.3119	403.3119	0.0613	0.0144	409.1205

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Maximum	0.4850	2.6	2.6943	7.0800e-003	0.2154	0.1015	0.3169	0.0953	0.0952	0.1533	0.0000	636.8460	636.8460	0.1063	0.0196	645.3459

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	8-1-2022	10-31-2022	0.8349	0.8349
2	11-1-2022	1-31-2023	0.7238	0.7238
3	2-1-2023	4-30-2023	0.6330	0.6330
4	5-1-2023	7-31-2023	0.5588	0.5588
5	8-1-2023	10-31-2023	0.9080	0.9080
6	11-1-2023	1-31-2024	1.2561	1.2561
7	2-1-2024	4-30-2024	1.0684	1.0684
8	5-1-2024	7-31-2024	0.4585	0.4585
		Highest	1.2561	1.2561

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3287	6.0	6.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0120	0.0120	3.0000e-005	0.0000	0.0128
Energy	6.4800e-003	0.0	0.0495	3.5000e-004		4.4800e-003	4.4800e-003		4.4800e-003	4.4800e-003	0.0000	538.8852	538.8852	0.0328	5.0000e-003	541.1930

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Mobile	1.2632	10.6322	0.0208	2.1965	0.0167	2.2132	0.5862	0.0156	0.6018	0.0000	1,923.3063	1,923.3063	0.1549	0.0956	1,955.6697
Stationary	0.0114	0.0292	5.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	5.3068	5.3068	7.4000e-004	0.0000	5.3254
Waste					0.0000	0.0000		0.0000	0.0000	131.5381	0.0000	131.5381	7.7737	0.0000	325.8802
Water					0.0000	0.0000		0.0000	0.0000	2.3886	25.6918	28.0804	0.2470	6.0000e-003	36.0441
Total	**1.6099**	**10.7170**	**0.0212**	**2.1965**	**0.0229**	**2.2194**	**0.5862**	**0.0218**	**0.6080**	**133.9267**	**2,493.2021**	**2,627.1288**	**8.2092**	**0.1066**	**2,864.1251**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3287	6.1600e-003	0.0000			2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0120	0.0120	3.0000e-005	0.0000	0.0128
Energy	6.4800e-003	0.0495	3.5000e-004			4.4800e-003	4.4800e-003		4.4800e-003	4.4800e-003	0.0000	431.7756	431.7756	0.0256	4.1300e-003	433.6488
Mobile	1.2632	10.6322	0.0208	2.1965	0.0167	2.2132	0.5862	0.0156	0.6018	0.0000	1,923.3063	1,923.3063	0.1549	0.0956	1,955.6697	
Stationary	0.0114	0.0292	5.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	5.3068	5.3068	7.4000e-004	0.0000	5.3254	
Waste					0.0000	0.0000		0.0000	0.0000	131.5381	0.0000	131.5381	7.7737	0.0000	325.8802	
Water					0.0000	0.0000		0.0000	0.0000	2.3886	25.6918	28.0804	0.2470	6.0000e-003	36.0441	
Total	**1.6099**	**10.7170**	**0.0212**	**2.1965**	**0.0229**	**2.2194**	**0.5862**	**0.0218**	**0.6080**	**133.9267**	**2,386.0926**	**2,520.0193**	**8.2021**	**0.1057**	**2,756.5808**	

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e

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Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.30**	**4.08**	**0.09**	**0.82**	**3.75**

3.0 Construction

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	8/1/2022	8/5/2022	5	5	
2	Grading, UG Utilities, & Site Improvements	Grading	8/1/2022	10/10/2022	5	51	
3	Parking Structure	Building Construction	10/11/2022	5/3/2023	5	147	
4	New MOB Building Cold Shell	Building Construction	5/4/2023	4/10/2024	5	245	
5	Tenant Improvement	Architectural Coating	9/17/2023	7/1/2024	5	206	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 7.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 90,000; Non-Residential Outdoor: 30,000; Striped Parking Area: 14,664

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Tenant Improvement	Air Compressors	0	0.00	78	0.48
Tenant Improvement	Cement and Mortar Mixers	0	0.00	9	0.56
Demolition	Concrete/Industrial Saws	0	0.00	81	0.73
New MOB Building Cold Shell	Cranes	2	8.00	231	0.29
Demolition	Excavators	0	0.00	158	0.38
Parking Structure	Excavators	1	8.00	158	0.38
New MOB Building Cold Shell	Forklifts	0	0.00	89	0.20
New MOB Building Cold Shell	Generator Sets	0	0.00	84	0.74
Parking Structure	Graders	1	8.00	187	0.41

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Tenant Improvement	Pavers	0	0.00	130	0.42
Tenant Improvement	Paving Equipment	0	0.00	132	0.36
Tenant Improvement	Rollers	0	0.00	80	0.38
Demolition	Rubber Tired Dozers	0	0.00	247	0.40
Parking Structure	Rubber Tired Dozers	1	8.00	247	0.40
Grading, UG Utilities, & Site Improvements	Rubber Tired Dozers	1	8.00	247	0.40
New MOB Building Cold Shell	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Parking Structure	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Tenant Improvement	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading, UG Utilities, & Site Improvements	Tractors/Loaders/Backhoes	0	0.00	97	0.37
New MOB Building Cold Shell	Welders	0	0.00	46	0.45
Parking Structure	Cranes	0	0.00	231	0.29
Grading, UG Utilities, & Site Improvements	Excavators	1	8.00	158	0.38
Parking Structure	Forklifts	0	0.00	89	0.20
Parking Structure	Generator Sets	0	0.00	84	0.74
Grading, UG Utilities, & Site Improvements	Graders	1	8.00	187	0.41
Parking Structure	Welders	0	0.00	46	0.45
Grading, UG Utilities, & Site Improvements	Pumps	1	8.00	84	0.74
Grading, UG Utilities, & Site Improvements	Rough Terrain Forklifts	1	8.00	100	0.40
Parking Structure	Pumps	1	8.00	84	0.74
Parking Structure	Rough Terrain Forklifts	1	8.00	100	0.40
New MOB Building Cold Shell	Pumps	1	8.00	84	0.74
New MOB Building Cold Shell	Rough Terrain Forklifts	2	8.00	100	0.40
Tenant Improvement	Pumps	1	8.00	84	0.74
Tenant Improvement	Cranes	2	8.00	231	0.29
Tenant Improvement	Rough Terrain Forklifts	2	8.00	100	0.40

Trips and VMT

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
New MOB Building Cold Shell	5	160.00	40.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	0	0.00	0.00	9.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Parking Structure	5	60.00	10.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Tenant Improvement	5	160.00	40.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading, UG Utilities, & Site Improvements	5	60.00	0.00	1,088.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-003	0.0000	1.0000e-003	1.5000e-004	0.0000	1.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**1.0000e-003**	**0.0000**	**1.0000e-003**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

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Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.6	1.8000e-004	0.0000	8.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2821	0.2821	1.0000e-005	4.0000e-005	0.2958
Vendor	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.0000e-005**	**7.6**	**1.8000e-004**	**0.0000**	**8.0000e-005**	**1.0000e-005**	**8.0000e-005**	**2.0000e-005**	**1.0000e-005**	**3.0000e-005**	**0.0000**	**0.2821**	**0.2821**	**1.0000e-005**	**4.0000e-005**	**0.2958**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0000e-003	0.0000	1.0000e-003	1.5000e-004	0.0000	1.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0000	0.0	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**	**0.0**	**0.0000**	**0.0000**	**1.0000e-003**	**0.0000**	**1.0000e-003**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	tons/yr										MT/yr					
Hauling	2.0000e-005	7.6	1.8000e-004	0.0000	8.0000e-005	1.0000e-005	8.0000e-005	2.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.2821	0.2821	1.0000e-005	4.0000e-005	0.2958
Vendor	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.0000e-005**	**7.6**	**1.8000e-004**	**0.0000**	**8.0000e-005**	**1.0000e-005**	**8.0000e-005**	**2.0000e-005**	**1.0000e-005**	**3.0000e-005**	**0.0000**	**0.2821**	**0.2821**	**1.0000e-005**	**4.0000e-005**	**0.2958**

3.3 Grading, UG Utilities, & Site Improvements - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1582	0.0000	0.1582	0.0849	0.0000	0.0849	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0489	0.5	0.3721	7.7000e-004		0.0224	0.0224		0.0209	0.0209	0.0000	67.7060	67.7060	0.0180	0.0000	68.1553
Total	**0.0489**	**0.5**	**0.3721**	**7.7000e-004**	**0.1582**	**0.0224**	**0.1805**	**0.0849**	**0.0209**	**0.1059**	**0.0000**	**67.7060**	**67.7060**	**0.0180**	**0.0000**	**68.1553**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	tons/yr										MT/yr					
Hauling	2.4100e-003	0.0216	3.4000e-004	9.3200e-003	8.5000e-004	0.0102	2.5600e-003	8.1000e-004	3.3700e-003	0.0000	34.0986	34.0986	1.6400e-003	5.4200e-003	35.7538
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4100e-003	0.0376	1.1000e-004	0.0123	7.0000e-005	0.0123	3.2600e-003	7.0000e-005	3.3300e-003	0.0000	10.0256	10.0256	3.2000e-004	2.9000e-004	10.1203
Total	**6.8200e-003**	**0.0592**	**4.5000e-004**	**0.0216**	**9.2000e-004**	**0.0225**	**5.8200e-003**	**8.8000e-004**	**6.7000e-003**	**0.0000**	**44.1242**	**44.1242**	**1.9600e-003**	**5.7100e-003**	**45.8741**

Mitigated Construction On-Site

	ROG	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr									MT/yr					
Fugitive Dust				0.1582	0.0000	0.1582	0.0849	0.0000	0.0849	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0489	0.3721	7.7000e-004		0.0224	0.0224		0.0209	0.0209	0.0000	67.7059	67.7059	0.0180	0.0000	68.1552
Total	**0.0489**	**0.3721**	**7.7000e-004**	**0.1582**	**0.0224**	**0.1805**	**0.0849**	**0.0209**	**0.1059**	**0.0000**	**67.7059**	**67.7059**	**0.0180**	**0.0000**	**68.1552**

Mitigated Construction Off-Site

	ROG	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Category	tons/yr										MT/yr					
Hauling	2.4100e-003	0.0000	0.0216	3.4000e-004	9.3200e-003	8.5000e-004	0.0102	2.5600e-003	8.1000e-004	3.3700e-003	0.0000	34.0986	34.0986	1.6400e-003	5.4200e-003	35.7538
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4100e-003	3.0000	0.0376	1.1000e-004	0.0123	7.0000e-005	0.0123	3.2600e-003	7.0000e-005	3.3300e-003	0.0000	10.0256	10.0256	3.2000e-004	2.9000e-004	10.1203
Total	**6.8200e-003**	**0.0000**	**0.0592**	**4.5000e-004**	**0.0216**	**9.2000e-004**	**0.0225**	**5.8200e-003**	**8.8000e-004**	**6.7000e-003**	**0.0000**	**44.1242**	**44.1242**	**1.9600e-003**	**5.7100e-003**	**45.8741**

3.4 Parking Structure - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0566	0.5000	0.4304	9.0000e-004		0.0259	0.0259		0.0242	0.0242	0.0000	78.3265	78.3265	0.0208	0.0000	78.8463
Total	**0.0566**	**0.5000**	**0.4304**	**9.0000e-004**		**0.0259**	**0.0259**		**0.0242**	**0.0242**	**0.0000**	**78.3265**	**78.3265**	**0.0208**	**0.0000**	**78.8463**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Hauling	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.5000e-004	0.0	5.3200e-003	6.0000e-005	1.9600e-003	1.7000e-004	2.1300e-003	5.7000e-004	1.6000e-004	7.3000e-004	0.0000	6.1519	6.1519	1.9000e-004	8.9000e-004	6.4229
Worker	5.1100e-003	3.0	0.0435	1.3000e-004	0.0142	8.0000e-005	0.0143	3.7700e-003	8.0000e-005	3.8500e-003	0.0000	11.5982	11.5982	3.7000e-004	3.4000e-004	11.7078
Total	**5.7600e-003**	**0.0**	**0.0488**	**1.9000e-004**	**0.0162**	**2.5000e-004**	**0.0164**	**4.3400e-003**	**2.4000e-004**	**4.5800e-003**	**0.0000**	**17.7501**	**17.7501**	**5.6000e-004**	**1.2300e-003**	**18.1307**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0566	0.5	0.4304	9.0000e-004		0.0259	0.0259		0.0242	0.0242	0.0000	78.3264	78.3264	0.0208	0.0000	78.8462
Total	**0.0566**	**0.5**	**0.4304**	**9.0000e-004**		**0.0259**	**0.0259**		**0.0242**	**0.0242**	**0.0000**	**78.3264**	**78.3264**	**0.0208**	**0.0000**	**78.8462**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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Vendor	6.5000e-004	0.0	5.3200e-003	6.0000e-005	1.9600e-003	1.7000e-004	2.1300e-003	5.7000e-004	1.6000e-004	7.3000e-004	0.0000	6.1519	6.1519	1.9000e-004	8.9000e-004	6.4229
Worker	5.1100e-003	3.0	0.0435	1.3000e-004	0.0142	8.0000e-005	0.0143	3.7700e-003	8.0000e-005	3.8500e-003	0.0000	11.5982	11.5982	3.7000e-004	3.4000e-004	11.7078
Total	**5.7600e-003**	**0.0**	**0.0488**	**1.9000e-004**	**0.0162**	**2.5000e-004**	**0.0164**	**4.3400e-003**	**2.4000e-004**	**4.5800e-003**	**0.0000**	**17.7501**	**17.7501**	**5.6000e-004**	**1.2300e-003**	**18.1307**

3.4 Parking Structure - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0744	0.7	0.6196	1.3400e-003		0.0320	0.0320		0.0299	0.0299	0.0000	116.8133	116.8133	0.0309	0.0000	117.5852
Total	**0.0744**	**0.7**	**0.6196**	**1.3400e-003**		**0.0320**	**0.0320**		**0.0299**	**0.0299**	**0.0000**	**116.8133**	**116.8133**	**0.0309**	**0.0000**	**117.5852**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2000e-004	0.0	6.8900e-003	9.0000e-005	2.9200e-003	1.2000e-004	3.0400e-003	8.4000e-004	1.1000e-004	9.5000e-004	0.0000	8.8286	8.8286	2.7000e-004	1.2800e-003	9.2165

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Worker	7.1400e-003	4.0	0.0602	1.8000e-004	0.0212	1.2000e-004	0.0213	5.6300e-003	1.1000e-004	5.7300e-003	0.0000	16.7524	16.7524	5.0000e-004	4.7000e-004	16.9041
Total	**7.6600e-003**	**0.0**	**0.0671**	**2.7000e-004**	**0.0241**	**2.4000e-004**	**0.0243**	**6.4700e-003**	**2.2000e-004**	**6.6800e-003**	**0.0000**	**25.5810**	**25.5810**	**7.7000e-004**	**1.7500e-003**	**26.1206**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0744	0.7	0.6196	1.3400e-003		0.0320	0.0320		0.0299	0.0299	0.0000	116.8132	116.8132	0.0309	0.0000	117.5850
Total	**0.0744**	**0.7**	**0.6196**	**1.3400e-003**		**0.0320**	**0.0320**		**0.0299**	**0.0299**	**0.0000**	**116.8132**	**116.8132**	**0.0309**	**0.0000**	**117.5850**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2000e-004	0.0	6.8900e-003	9.0000e-005	2.9200e-003	1.2000e-004	3.0400e-003	8.4000e-004	1.1000e-004	9.5000e-004	0.0000	8.8286	8.8286	2.7000e-004	1.2800e-003	9.2165
Worker	7.1400e-003	4.0	0.0602	1.8000e-004	0.0212	1.2000e-004	0.0213	5.6300e-003	1.1000e-004	5.7300e-003	0.0000	16.7524	16.7524	5.0000e-004	4.7000e-004	16.9041

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	**7.6600e-003**	**0.0**	**0.0671**	**2.7000e-004**	**0.0241**	**2.4000e-004**	**0.0243**	**6.4700e-003**	**2.2000e-004**	**6.6800e-003**	**0.0000**	**25.5810**	**25.5810**	**7.7000e-004**	**1.7500e-003**	**26.1206**

3.5 New MOB Building Cold Shell - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1069	1.1	1.0313	2.1500e-003		0.0468	0.0468		0.0440	0.0440	0.0000	188.1493	188.1493	0.0474	0.0000	189.3332
Total	**0.1069**	**1.1**	**1.0313**	**2.1500e-003**		**0.0468**	**0.0468**		**0.0440**	**0.0440**	**0.0000**	**188.1493**	**188.1493**	**0.0474**	**0.0000**	**189.3332**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0400e-003	0.0	0.0539	7.0000e-004	0.0228	9.0000e-004	0.0237	6.6000e-003	8.6000e-004	7.4600e-003	0.0000	69.0237	69.0237	2.0900e-003	0.0100	72.0563
Worker	0.0372	0.0	0.3136	9.5000e-004	0.1103	6.1000e-004	0.1110	0.0293	5.6000e-004	0.0299	0.0000	87.3153	87.3153	2.5900e-003	2.4400e-003	88.1060
Total	**0.0413**	**0.1**	**0.3674**	**1.6500e-003**	**0.1332**	**1.5100e-003**	**0.1347**	**0.0359**	**1.4200e-003**	**0.0373**	**0.0000**	**156.3390**	**156.3390**	**4.6800e-003**	**0.0124**	**160.1623**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1069	1.1	1.0313	2.1500e-003		0.0468	0.0468		0.0440	0.0440	0.0000	188.1491	188.1491	0.0474	0.0000	189.3330
Total	**0.1069**	**1.1**	**1.0313**	**2.1500e-003**		**0.0468**	**0.0468**		**0.0440**	**0.0440**	**0.0000**	**188.1491**	**188.1491**	**0.0474**	**0.0000**	**189.3330**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0400e-003	0.0539	0.0539	7.0000e-004	0.0228	9.0000e-004	0.0237	6.6000e-003	8.6000e-004	7.4600e-003	0.0000	69.0237	69.0237	2.0900e-003	0.0100	72.0563
Worker	0.0372	0.3136	0.3136	9.5000e-004	0.1103	6.1000e-004	0.1110	0.0293	5.6000e-004	0.0299	0.0000	87.3153	87.3153	2.5900e-003	2.4400e-003	88.1060
Total	**0.0413**	**0.3674**	**0.3674**	**1.6500e-003**	**0.1332**	**1.5100e-003**	**0.1347**	**0.0359**	**1.4200e-003**	**0.0373**	**0.0000**	**156.3390**	**156.3390**	**4.6800e-003**	**0.0124**	**160.1623**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.5 New MOB Building Cold Shell - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0429	0.4333	0.4333	9.1000e-004		0.0179	0.0179		0.0169	0.0169	0.0000	79.8488	79.8488	0.0201	0.0000	80.3503
Total	**0.0429**	**0.4333**	**0.4333**	**9.1000e-004**		**0.0179**	**0.0179**		**0.0169**	**0.0169**	**0.0000**	**79.8488**	**79.8488**	**0.0201**	**0.0000**	**80.3503**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6500e-003	0.0223	0.0223	2.9000e-004	9.7000e-003	3.8000e-004	0.0101	2.8000e-003	3.7000e-004	3.1700e-003	0.0000	28.7847	28.7847	9.1000e-004	4.1700e-003	30.0501
Worker	0.0148	0.1243	0.1243	3.9000e-004	0.0468	2.4000e-004	0.0471	0.0124	2.3000e-004	0.0127	0.0000	35.8447	35.8447	1.0000e-003	9.7000e-004	36.1576
Total	**0.0165**	**0.1467**	**0.1467**	**6.8000e-004**	**0.0565**	**6.2000e-004**	**0.0572**	**0.0152**	**6.0000e-004**	**0.0158**	**0.0000**	**64.6294**	**64.6294**	**1.9100e-003**	**5.1400e-003**	**66.2077**

Mitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0429	0.4333	9.1000e-004		0.0179	0.0179		0.0169	0.0169	0.0000	79.8487	79.8487	0.0201	0.0000	80.3502	
Total	**0.0429**	**0.4333**	**9.1000e-004**		**0.0179**	**0.0179**		**0.0169**	**0.0169**	**0.0000**	**79.8487**	**79.8487**	**0.0201**	**0.0000**	**80.3502**	

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.6500e-003	0.0223	2.9000e-004	9.7000e-003	3.8000e-004	0.0101	2.8000e-003	3.7000e-004	3.1700e-003	0.0000	28.7847	28.7847	9.1000e-004	4.1700e-003	30.0501	
Worker	0.0148	0.1243	3.9000e-004	0.0468	2.4000e-004	0.0471	0.0124	2.3000e-004	0.0127	0.0000	35.8447	35.8447	1.0000e-003	9.7000e-004	36.1576	
Total	**0.0165**	**0.1467**	**6.8000e-004**	**0.0565**	**6.2000e-004**	**0.0572**	**0.0152**	**6.0000e-004**	**0.0158**	**0.0000**	**64.6294**	**64.6294**	**1.9100e-003**	**5.1400e-003**	**66.2077**	

3.6 Tenant Improvement - 2023

Unmitigated Construction On-Site

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1828					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0465	0.4	0.4488	9.4000e-004		0.0203	0.0203		0.0191	0.0191	0.0000	81.7928	81.7928	0.0206	0.0000	82.3070
Total	**0.2293**	**0.4**	**0.4488**	**9.4000e-004**		**0.0203**	**0.0203**		**0.0191**	**0.0191**	**0.0000**	**81.7928**	**81.7928**	**0.0206**	**0.0000**	**82.3070**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7600e-003	0.0235	3.1000e-004	9.9600e-003	3.9000e-004	0.0104	2.8800e-003	3.8000e-004	3.2500e-003	0.0000	30.0976	30.0976	9.1000e-004	4.3600e-003	31.4199	
Worker	0.0162	0.1367	4.2000e-004	0.0481	2.6000e-004	0.0484	0.0128	2.4000e-004	0.0130	0.0000	38.0735	38.0735	1.1300e-003	1.0600e-003	38.4183	
Total	**0.0180**	**0.1602**	**7.3000e-004**	**0.0581**	**6.5000e-004**	**0.0587**	**0.0157**	**6.2000e-004**	**0.0163**	**0.0000**	**68.1711**	**68.1711**	**2.0400e-003**	**5.4200e-003**	**69.8382**	

Mitigated Construction On-Site

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1828					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0465	0.4	0.4488	9.4000e-004		0.0203	0.0203		0.0191	0.0191	0.0000	81.7927	81.7927	0.0206	0.0000	82.3069
Total	**0.2293**	**0.4**	**0.4488**	**9.4000e-004**		**0.0203**	**0.0203**		**0.0191**	**0.0191**	**0.0000**	**81.7927**	**81.7927**	**0.0206**	**0.0000**	**82.3069**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.7600e-003	0.0235	3.1000e-004	9.9600e-003	3.9000e-004	0.0104	2.8800e-003	3.8000e-004	3.2500e-003	0.0000	30.0976	30.0976	9.1000e-004	4.3600e-003	31.4199	
Worker	0.0162	0.1367	4.2000e-004	0.0481	2.6000e-004	0.0484	0.0128	2.4000e-004	0.0130	0.0000	38.0735	38.0735	1.1300e-003	1.0600e-003	38.4183	
Total	**0.0180**	**0.1602**	**7.3000e-004**	**0.0581**	**6.5000e-004**	**0.0587**	**0.0157**	**6.2000e-004**	**0.0163**	**0.0000**	**68.1711**	**68.1711**	**2.0400e-003**	**5.4200e-003**	**69.8382**	

3.6 Tenant Improvement - 2024

Unmitigated Construction On-Site

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3193					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0767	0.8	0.7760	1.6400e-003		0.0321	0.0321		0.0301	0.0301	0.0000	142.8553	142.8553	0.0359	0.0000	143.7517
Total	**0.3960**	**0.8**	**0.7760**	**1.6400e-003**		**0.0321**	**0.0321**		**0.0301**	**0.0301**	**0.0000**	**142.8553**	**142.8553**	**0.0359**	**0.0000**	**143.7517**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.9600e-003	0.1	0.0401	5.3000e-004	0.0174	6.9000e-004	0.0181	5.0200e-003	6.6000e-004	5.6800e-003	0.0000	51.6547	51.6547	1.6300e-003	7.4800e-003	53.9256
Worker	0.0266	0.1	0.2231	7.0000e-004	0.0840	4.4000e-004	0.0845	0.0223	4.0000e-004	0.0227	0.0000	64.3240	64.3240	1.8000e-003	1.7300e-003	64.8855
Total	**0.0296**	**0.1**	**0.2632**	**1.2300e-003**	**0.1014**	**1.1300e-003**	**0.1026**	**0.0274**	**1.0600e-003**	**0.0284**	**0.0000**	**115.9787**	**115.9787**	**3.4300e-003**	**9.2100e-003**	**118.8111**

Mitigated Construction On-Site

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.3193					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0767	0.8	0.7760	1.6400e-003		0.0321	0.0321		0.0301	0.0301	0.0000	142.8551	142.8551	0.0359	0.0000	143.7515
Total	**0.3960**	**0.8**	**0.7760**	**1.6400e-003**		**0.0321**	**0.0321**		**0.0301**	**0.0301**	**0.0000**	**142.8551**	**142.8551**	**0.0359**	**0.0000**	**143.7515**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.9600e-003	0.0401	5.3000e-004	0.0174	6.9000e-004	0.0181	5.0200e-003	6.6000e-004	5.6800e-003	0.0000	51.6547	51.6547	1.6300e-003	7.4800e-003	53.9256	
Worker	0.0266	0.2231	7.0000e-004	0.0840	4.4000e-004	0.0845	0.0223	4.0000e-004	0.0227	0.0000	64.3240	64.3240	1.8000e-003	1.7300e-003	64.8855	
Total	**0.0296**	**0.1**	**0.2632**	**1.2300e-003**	**0.1014**	**1.1300e-003**	**0.1026**	**0.0274**	**1.0600e-003**	**0.0284**	**0.0000**	**115.9787**	**115.9787**	**3.4300e-003**	**9.2100e-003**	**118.8111**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2632	1.27	10.6322	0.0208	2.1965	0.0167	2.2132	0.5862	0.0156	0.6018	0.0000	1,923.3063	1,923.3063	0.1549	0.0956	1,955.6697
Unmitigated	1.2632	1.27	10.6322	0.0208	2.1965	0.0167	2.2132	0.5862	0.0156	0.6018	0.0000	1,923.3063	1,923.3063	0.1549	0.0956	1,955.6697

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
Medical Office Building	3,000.00	3,000.00	3000.00	5,871,750	5,871,750
Total	3,000.00	3,000.00	3,000.00	5,871,750	5,871,750

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Medical Office Building	9.50	7.30	7.30	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949
Medical Office Building	0.557888	0.062607	0.178921	0.119061	0.024112	0.006269	0.008734	0.006266	0.000708	0.000566	0.028949	0.000971	0.004949

5.0 Energy Detail

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	367.6430	367.6430	0.0244	2.9600e-003	369.1350
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	474.7525	474.7525	0.0315	3.8200e-003	476.6793
NaturalGas Mitigated	6.4800e-003	0.0495	3.5000e-004		4.4800e-003	4.4800e-003		4.4800e-003	4.4800e-003	0.0000	64.1326	64.1326	1.2300e-003	1.1800e-003	64.5137	
NaturalGas Unmitigated	6.4800e-003	0.0495	3.5000e-004		4.4800e-003	4.4800e-003		4.4800e-003	4.4800e-003	0.0000	64.1326	64.1326	1.2300e-003	1.1800e-003	64.5137	

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Medical Office Building	1.2018e+006	6.48	0.0589	0.0495	3.5000e-004		4.4800e-003	4.4800e-003		4.4800e-003	4.4800e-003	0.0000	64.1326	64.1326	1.2300e-003	1.1800e-003	64.5137
Total		**6.48**	**0.0589**	**0.0495**	**3.5000e-004**		**4.4800e-003**	**4.4800e-003**		**4.4800e-003**	**4.4800e-003**	**0.0000**	**64.1326**	**64.1326**	**1.2300e-003**	**1.1800e-003**	**64.5137**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Medical Office Building	1.2018e+006	6.48	0.0589	0.0495	3.5000e-004		4.4800e-003	4.4800e-003		4.4800e-003	4.4800e-003	0.0000	64.1326	64.1326	1.2300e-003	1.1800e-003	64.5137
Total		**6.48**	**0.0589**	**0.0495**	**3.5000e-004**		**4.4800e-003**	**4.4800e-003**		**4.4800e-003**	**4.4800e-003**	**0.0000**	**64.1326**	**64.1326**	**1.2300e-003**	**1.1800e-003**	**64.5137**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.32954e+006	290	0.0199	2.4100e-003	300.9409
Medical Office Building	776400	175	0.0116	1.4100e-003	175.7384

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total		**474.**	**0.0315**	**3.8200e-003**	**476.6793**

Mitigated

	Electricity Use	Total	CH4	N2O	CO2e
Land Use	kWh/yr		MT/yr		
Enclosed Parking with Elevator	1.09197e+006	246.	0.0164	1.9800e-003	247.1688
Medical Office Building	538839	121.	8.0700e-003	9.8000e-004	121.9663
Total		**367.**	**0.0244**	**2.9600e-003**	**369.1350**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3287	6.0	6.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0120	0.0120	3.0000e-005	0.0000	0.0128

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	0.3287	6.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0120	0.0120	3.0000e-005	0.0000	0.0128

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0780					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2501					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.7000e-004	6.1600e-003	0.0000			2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0120	0.0120	3.0000e-005	0.0000	0.0128
Total	**0.3287**	**6.1600e-003**	**0.0000**			**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0120**	**0.0120**	**3.0000e-005**	**0.0000**	**0.0128**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0780					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.2501					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Landscaping	5.7000e-004	6.0	6.1600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	0.0120	0.0120	3.0000e-005	0.0000	0.0128
Total	**0.3287**	**6.0**	**6.1600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**0.0120**	**0.0120**	**3.0000e-005**	**0.0000**	**0.0128**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	28.0804	0.0	6.0000e-003	36.0441
Unmitigated	28.0804	0.0	6.0000e-003	36.0441

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.00	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Medical Office Building	7.52883 / 1.43406	28.0	0.2470	6.0000e-003	36.0441
Total		**28.0**	**0.2470**	**6.0000e-003**	**36.0441**

Mitigated

	Indoor/Outdoor Use	Total	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0	0.0000	0.0000	0.0000
Medical Office Building	7.52883 / 1.43406	28.0	0.2470	6.0000e-003	36.0441
Total		**28.0**	**0.2470**	**6.0000e-003**	**36.0441**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated	131.5381	7.7737	0.0000	325.8802
Unmitigated	131.5381	7.7737	0.0000	325.8802

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CH4	N2O	CO2e
Land Use	tons	MT/yr		
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000
Medical Office Building	648	131.5381	7.7737	0.0000	325.8802
Total		**131.5381**	**7.7737**	**0.0000**	**325.8802**

Mitigated

	Waste Disposed	Total CH4	N2O	CO2e
Land Use	tons	MT/yr		
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000
Medical Office Building	648	131.5381	7.7737	0.0000	325.8802

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total		**131.53** **7.7737**	**0.0000**	**325.8802**

9.0 Operational

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	1	52	268.204	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	0.0114	0.03	0.0292	5.0000e-005		1.6800e-003	1.6800e-003		1.6800e-003	1.6800e-003	0.0000	5.3068	5.3068	7.4000e-004	0.0000	5.3254
Total	**0.0114**	**0.0320**	**0.0292**	**5.0000e-005**		**1.6800e-003**	**1.6800e-003**		**1.6800e-003**	**1.6800e-003**	**0.0000**	**5.3068**	**5.3068**	**7.4000e-004**	**0.0000**	**5.3254**

Sharp Otay Ranch Medical Office and Parking Garage - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

Attachment 2

AERSCREEN Screening HRA

AERSCREEN 21112 / AERMOD 21112 6/7/2022
15:48:13

TITLE: Construction Point

********** STACK PARAMETERS **********

SOURCE EMISSION RATE: 1 g/s 7.937 lb/hr
STACK HEIGHT: 3 meters 9.84 feet
STACK INNER DIAMETER: 0.127 meters 5 inches
PLUME EXIT TEMPERATURE: 673 K 751.7 Deg F
PLUME EXIT VELOCITY: 51.8 m/s 169.95 ft/s
STACK AIR FLOW RATE: 1390 ACFM
RURAL OR URBAN: URBAN
POPULATION: 150000

INITIAL PROBE DISTANCE = 5000 meters 16404 feet

********** BUILDING DOWNWASH PARAMETERS **********

NO BUILDING DOWNWASH HAS BEEN REQUESTED FOR THIS ANALYSIS

********** PROBE ANALYSIS **********
25 meter receptor spacing: 1 meters - 5000 meters

Zo SECTOR	ROUGHNESS LENGTH	1-HR (ug/m3)	CONC (m)	DIST PERIOD	TEMPORAL
1*	1	318.6	25	WIN	
*	=	worst	case	flow	sector

********** MAKEMET METEOROLOGY PARAMETERS **********

MIN/MAX TEMPERATURE: 250 / 310 (K)

MINIMUM WIND SPEED: 0.5 m/s

ANEMOMETER HEIGHT: 10 meters

SURFACE CHARACTERISTICS INPUT: AERMET SEASONAL TABLES

DOMINANT SURFACE PROFILE: Urban
DOMINANT CLIMATE TYPE: Average Moisture
DOMINANT SEASON: Winter

ALBEDO: 0.35
BOWEN RATIO: 1.5
ROUGHNESS LENGTH: 1 (meters)

SURFACE FRICTION VELOCITY (U*) NOT ADUSTED

METEOROLOGY CONDITIONS USED TO PREDICT OVERALL MAXIMUM IMPACT

YR	MO	DY	JDY	HR
--	--	--	---	--
10	4	25	25	1

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-64	1.206	-9	0.02	-999	3046	2609.5	1	1.5	0.35	7			

HT	REF	TA	HT
-	-	-	-
10	310	2	

WIND SPEED AT STACK HEIGHT (non-downwash): 2.5 m/s
STACK-TIP DOWNWASH ADJUSTED STACK HEIGHT: 3 meters
ESTIMATED FINAL PLUME RISE (non-downwash) 0.9 meters
ESTIMATED FINAL PLUME HEIGHT (non-downwash) 3.9 meters

METEOROLOGY CONDITIONS USED TO PREDICT AMBIENT BOUNDARY IMPACT

YR	MO	DY	JDY	HR
10	2	11	25	12

H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS
297.1	0.196	1.8	0.02	603	200	-2	1	1	0.14	0.5		

HT	REF	TA	HT
10	250	2	

WIND SPEED AT STACK HEIGHT (non-downwash): 0.2 m/s
STACK-TIP DOWNWASH ADJUSTED STACK HEIGHT: 3 meters
ESTIMATED FINAL PLUME RISE (non-downwash) 136.8 meters
ESTIMATED FINAL PLUME HEIGHT (non-downwash) 139.8 meters

********** AERSCREEN AUTOMATED DISTANCES **********
OVERALL MAXIMUM CONCENTRATIONS BY DISTANCE

MAXIMUM DIST (m)	MAXIMUM 1-HR (ug/m3)	CONC (m)	DIST (ug/m3)	1-HR	CONC
1	4.257	2525	9.137		
25	318.6	2550	9.027		
50	184.9	2575	8.92		
75	147.6	2600	8.814		
100	110.5	2625	8.711		
125	92.61	2650	8.61		
150	77.49	2675	8.511		
175	65.34	2700	8.413		
200	57.11	2725	8.318		
225	53.58	2750	8.224		
250	49.94	2775	8.132		
275	46.43	2800	8.042		
300	47.85	2825	7.954		
325	48.48	2850	7.867		
350	47.99	2875	7.781		
375	47.23	2900	7.698		
400	46.29	2925	7.616		
425	45.23	2950	7.535		
450	44.09	2975	7.456		
475	42.91	3000	7.378		
500	41.71	3025	7.301		
525	40.51	3050	7.226		
550	39.53	3075	7.152		
575	38.61	3100	7.08		
600	37.69	3125	7.008		
625	36.77	3150	6.938		
650	35.87	3175	6.869		
675	34.97	3200	6.801		
700	34.1	3225	6.735		
725	33.24	3250	6.669		
750	32.41	3275	6.605		
775	31.6	3300	6.541		
800	30.81	3325	6.479		
825	30.05	3350	6.418		
850	29.32	3375	6.357		
875	28.6	3400	6.298		
900	27.91	3425	6.239		
925	27.25	3450	6.181		
950	26.6	3475	6.125		
975	25.98	3500	6.069		
1000	25.38	3525	6.014		
1025	24.8	3550	5.96		
1050	24.23	3575	5.907		
1075	23.69	3600	5.854		
1100	23.17	3625	5.802		
1125	22.66	3650	5.751		
1150	22.17	3675	5.701		
1175	21.7	3700	5.652		
1200	21.24	3725	5.603		
1225	20.8	3750	5.555		
1250	20.37	3775	5.508		
1275	19.96	3800	5.461		

1300	19.56	3825	5.415
1325	19.17	3850	5.37
1350	18.8	3875	5.325
1375	18.43	3900	5.281
1400	18.08	3925	5.237
1425	17.74	3950	5.195
1450	17.41	3975	5.152
1475	17.09	4000	5.111
1500	16.78	4025	5.07
1525	16.48	4050	5.029
1550	16.18	4075	4.989
1575	15.9	4100	4.95
1600	15.62	4125	4.911
1625	15.35	4150	4.872
1650	15.09	4175	4.834
1675	14.84	4200	4.797
1700	14.59	4225	4.76
1725	14.35	4250	4.724
1750	14.12	4275	4.688
1775	13.89	4300	4.652
1800	13.67	4325	4.617
1825	13.45	4350	4.583
1850	13.24	4375	4.548
1875	13.04	4400	4.515
1900	12.84	4425	4.481
1925	12.65	4450	4.448
1950	12.46	4475	4.416
1975	12.27	4500	4.384
2000	12.09	4525	4.352
2025	11.92	4550	4.321
2050	11.74	4575	4.29
2075	11.58	4600	4.26
2100	11.41	4625	4.229
2125	11.25	4650	4.2
2150	11.1	4675	4.17
2175	10.95	4700	4.141
2200	10.8	4725	4.112
2225	10.65	4750	4.084
2250	10.51	4775	4.056
2275	10.37	4800	4.028
2300	10.24	4825	4.001
2325	10.1	4850	3.974
2350	9.973	4875	3.947
2375	9.846	4900	3.92
2400	9.721	4925	3.894
2425	9.599	4950	3.868
2450	9.48	4975	3.843
2475	9.363	5000	3.817
2500	9.249		

********** AERSCREEN MAXIMUM IMPACT SUMMARY **********

MAXIMUM 1-HOUR CALCULATION PROCEDURE	SCALED 3-HOUR CONC (ug/m3)	SCALED 8-HOUR CONC (ug/m3)	SCALED 24-HOUR CONC (ug/m3)	SCALED ANNUAL CONC (ug/m3)	CONC (ug/m3)
FLAT	TERRAIN	1101	1101	990.8	660.6	110.1

DISTANCE FROM SOURCE 7 meters

IMPACT AMBIENT	AT BOUNDARY	THE				
		4.257	4.257	3.831	2.554	0.4257

DISTANCE FROM SOURCE 1 meters

Construction AERSCREEN Health Risk Assessment - Sharp Otay MOB

Duration (years) 1.92 23.04

Unmitigated Emissions

Project	PM10 Emissions (tons)	g/s	Annual Concentration µg/m^3 at 50 m
Otay Ranch	0.20219	0.003029388	0.056

Mitigated Emissions

Project	PM10 Emissions (tons)	g/s	Annual Concentration µg/m^3 at 50 m
Otay Ranch	0.01387	0.000207813	0.0038

Unmitigated Risk

*HARP - HRACalc v22118 6/9/2022 17:29:13 - Cancer Risk - Input File: C:\Users\54139\Desktop\Sharp Otay\0-2 cancer_Unmit_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK
1			9901	DieselExhPM	0.056	1.50E-05	1.92YrCancerHighEnd_Inh_FAH3to70	*	1.50E-05

Total Unmitigated Risk: 15.01 in a Million

Mitigated Risk

*HARP - HRACalc v22118 6/9/2022 16:47:26 - Cancer Risk - Input File: C:\Users\54139\Desktop\Sharp Otay\0-2 cancer_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK
1			9901	DieselExhPM	0.0038	1.02E-06	1.92YrCancerHighEnd_Inh_FAH3to70	*	1.02E-06

Total Mitigated Risk: 1.02 in a Million

Operational AERSCREEN Health Risk Assessment - Sharp Otay MOB

* Generator would be located 125 meters from nearest sensitive receptor

Project	PM10 Emissions (tons per year)	g/s	Annual Concentration µg/m^3 at 125 m
Otay Ranch	0.00168	4.83288E-05	0.0004

*HARP - HRACalc v22118 6/9/2022 17:57:05 - Cancer Risk - Input File: C:\Users\54139\Desktop\Sharp Otay\Emgen Cancer_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBREV	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK
1			9901	DieselExhPM	0.0004	2.7274E-07	30YrCancerHighEnd_Inh_FAH3to70	*	2.73E-07

30-year Risk: 0.27 in a Million

Construction AERSCREEN Health Risk Assessment (Chronic Risk) - Sharp Otay MOB

Duration (years) 1.92

Unmitigated Emissions

			Annual Concentration µg/m^3
Project	**PM10 Emissions (tons)**	**g/s**	**at 50 m**
Otay Ranch	0.20219	0.003029388	0.056

Mitigated Emissions

			Annual Concentration µg/m^3
Project	**PM10 Emissions (tons)**	**g/s**	**at 50 m**
Otay Ranch	0.01387	0.000207813	0.0038

Unmitigated Chronic Risk

*HARP - HRACalc v22118 6/10/2022 09:20:20 - Chronic Risk - Input File: C:\Users\54139\Desktop\Sharp Otay\Construction\unmitigated ChronicHRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	RESP
1			9901	DieselExhP	0.056	NonCancerChronicDerived_Inh	0	0	0	0	0	0	0.0112

Maximum Unmitigated Chronic Risk: 0.0112

Mitigated Chronic Risk

*HARP - HRACalc v22118 6/10/2022 09:21:12 - Chronic Risk - Input File: C:\Users\54139\Desktop\Sharp Otay\Construction\mitigated ChronicHRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	RESP
1			9901	DieselExhP	0.0038	NonCancerChronicDerived_Inh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.60E-04

Maximum Mitigated Chronic Risk: 0.00076

Operational AERSCREEN Health Risk Assessment (Chronic Risk) - Sharp Otay MOB

* Generator would be located 125 meters from nearest sensitive receptor

			Annual Concentration µg/m^3
Project	**PM10 Emissions (tons pe**	**g/s**	**at 125 m**
Otay Ranch	0.00168	4.83288E-05	0.0004

*HARP - HRACalc v22118 6/9/2022 18:03:28 - Chronic Risk - Input File: C:\Users\54139\Desktop\Sharp Otay\Emgen Chronic_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBRE	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	RESP
1			9901	DieselExhP	0.0004	NonCancerChronicHighEnd_Inh	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.00E-05

Maximum unmitigated Chronic Risk: 0.00008

Appendix B Updated Geotechnical Investigation Sharp Otay Ranch Medical Office Building and Parking Structure Project 1400 East Palomar Street Chula Vista, California

UPDATED GEOTECHNICAL INVESTIGATION
SHARP OTAY RANCH MEDICAL OFFICE BUILDING AND PARKING STRUCTURE PROJECT
1400 EAST PALOMAR STREET
CHULA VISTA, CALIFORNIA

Prepared for:

Sharp Healthcare
8695 Spectrum Center Boulevard
San Diego, California 92123

Project No. 13229.001

August 23, 2021

Leighton Consulting, Inc.
A Leighton Group Company

August 23, 2021

Project No. 13229.001

Sharp Healthcare
8695 Spectrum Center Boulevard
San Diego, California 92123

Attention: Mr. Matthew Teichner

Subject: Geotechnical Investigation
Sharp Otay Ranch Medical Office Building and Parking Structure Project
1400 East Palomar Street
Chula Vista, California

In accordance with your request and authorization, we have conducted a geotechnical investigation of the subject property for the design and construction of a proposed new Medical Office Building (MOB) and a Parking Structure located at 1400 East Palomar Street in Chula Vista, California.

Based on the results of our study, it is our professional opinion that the proposed development of the site is feasible provided the recommendations provided herein are incorporated into the design and construction of the proposed improvements. The accompanying geotechnical report presents a summary of our current investigation and provides geotechnical conclusions and recommendations relative to the proposed site development.

If you have any questions regarding our report, please do not hesitate to contact this office. We appreciate this opportunity to be of service.

Respectfully submitted,

LEIGHTON CONSULTING, INC.

Robert C. Stroh, CEG 2099
Associate Engineering Geologist
Extension: 4090, rstroh@leightongroup.com

Nicholas Tracy, GE 3058
Associate Engineer
Extension: 8499, ntracy@leightongroup.com

Distribution: (1) Addressee via email

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Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a civil engineer may not fulfill the needs of a constructor — a construction contractor — or even another civil engineer. Because each geotechnical- engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. No one except you should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you* — should apply this report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical-engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

Geotechnical Engineers Base Each Report on a Unique Set of Project-Specific Factors

Geotechnical engineers consider many unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk-management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical-engineering report that was:

- not prepared for you;
- not prepared for your project;
- not prepared for the specific site explored; or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical-engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical-engineering report is based on conditions that existed at the time the geotechnical engineer performed the study. *Do not rely on a geotechnical-engineering report whose adequacy may have been affected by*: the passage of time; man-made events, such as construction on or adjacent to the site; or natural events, such as floods, droughts, earthquakes, or groundwater fluctuations. *Contact the geotechnical engineer before applying this report to determine if it is still reliable.* A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ — sometimes significantly — from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide geotechnical-construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are Not Final

Do not overrely on the confirmation-dependent recommendations included in your report. *Confirmation-dependent recommendations are not final,* because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's confirmation-dependent recommendations if that engineer does not perform the geotechnical-construction observation required to confirm the recommendations' applicability.*

A Geotechnical-Engineering Report Is Subject to Misinterpretation

Other design-team members' misinterpretation of geotechnical-engineering reports has resulted in costly

problems. Confront that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Constructors can also misinterpret a geotechnical-engineering report. Confront that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing geotechnical construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical-engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make constructors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give constructors the complete geotechnical-engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise constructors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure constructors have sufficient time* to perform additional study. Only then might you be in a position to give constructors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and constructors fail to recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Environmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold-prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold- prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical- engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

Rely, on Your GBC-Member Geotechnical Engineer for Additional Assistance

Membership in the Geotechnical Business Council of the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project. Confer with you GBC-Member geotechnical engineer for more information.

GEOTECHNICAL BUSINESS COUNCIL
of the Geoprofessional Business Association

8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@geoprofessional.org www.geoprofessional.org

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1.0 INTRODUCTION

We recommend that all individuals utilizing this report read the preceding information sheet prepared by the Geoprofessional Business Association (GBA) and the Limitations, Section 7.0, located at the end of this report.

1.1 Purpose and Scope

This report presents the results of our geotechnical investigation for the proposed new Medical Office Building (MOB) and a Parking Structure located at 1400 East Palomar Street in Chula Vista, California (Figure 1). Our investigation included additional geotechnical exploration of the site and laboratory testing of selected soil samples. The intent of this report is to provide specific geotechnical recommendations and conclusions for the currently proposed project.

1.2 Site Location and Description

The site currently consists of two large paved parking lots and an existing 3 story MOB facility. Specifically, the existing building (MOB) is located in the north portion of the site and paved parking is located to the south of the building. A grass area is located between the existing building and the paved parking lot. Access to the site is provided by entry driveways to the east along Santa Andrea Street. In general, the site is bounded by Palomar street to the north, a descending, 20-foot high, 2:1 (horizontal:vertical) fill slope and single family residential properties to the south, multifamily residential properties to the west, and Santa Andrea Street to the east. Site topography within the limits of the proposed project is generally flat lying and ranges from approximately 502 feet above mean sea level (msl) at the northern portion of the site to 492 msl to the southern portion of the site with a gentle descending topographic gradient toward the south.

The latitude and longitude coordinates for the project are:
Latitude: 32.6228º N
Longitude: 116.9958º W

1.3 Proposed Development

Based on our discussions with you, review of the Conceptual Design package (Dask Land Surveying, 2021), we understand that the project would consist of a new 2 to 3-story addition to the existing MOB building, and the construction of a new parking structure.

Specifically, the project would consist of demolition of portions of the existing paved parking lot located south of the existing Sharp Rees-Stealy Medical Office Building (MOB) and construction of a new 60,000SF MOB structure consisting of either 2 to 3 stories, with Urgent Care on lower level having an imaging component, and a 300 space parking garage located farther to the south. The structures will be slab-on-grade with typical lightly loaded conventional foundations. We anticipate minor grading of the site will be needed to complete construction of the project.

2.0 SUBSURFACE EXPLORATION AND LABORATORY TESTING

2.1 Site Investigation

Our subsurface exploration consisted of the excavation of five (5) 8-inch diameter geotechnical borings (B-1 through B-5) on July 26, 2021. The borings were drilled to depths that ranged from approximately 16.5 to 51.5 feet below the existing ground surface (bgs). All geotechnical borings were drilled using a heavy-duty truck mounted hollow-stem auger drill rig. The purpose of our subsurface exploration was to evaluate the underlying stratigraphy, physical characteristics, and specific engineering properties of the soils within the area of the proposed improvements.

During the exploration operations, a geologist from our firm prepared geologic logs and collected bulk and relatively undisturbed samples for laboratory testing and evaluation. Disturbed standard penetration test (SPT) and relatively undisturbed split-barrel soil sampling using a 140-pound automatic-trip hammer free falling 30-inches was performed in accordance with ASTM International standards ASTM D 1586 and ASTM D 3550, respectively. After logging and field testing, the boring holes were backfilled with soil cuttings and/or bentonite grout, in accordance with DEH requirements, and capped with Portland cement concrete. The boring logs are provided in Appendix B, laboratory test results are included in Appendix C, and the approximate geotechnical boring locations are depicted on Figure 2 (Geotechnical Map). The approximate vertical distribution of geologic units underlying the site are shown on the geologic cross-sections provided in Cross-Sections A-A' (Figure 3).

2.2 Laboratory Testing

Laboratory testing performed on representative soil samples obtained during our subsurface exploration included the following: direct shear, sieve analysis, expansion index, geochemical analysis for corrosion, moisture, and density. A discussion of the laboratory tests performed and a summary of the laboratory test results are presented in Appendix C. In-situ moisture and density test results are provided on the boring logs (Appendix B).

3.0 SUMMARY OF GEOTECHNICAL CONDITIONS

3.1 Geologic Setting

The project area is situated in the Peninsular Ranges Geomorphic Province. This geomorphic province encompasses an area that extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin south to the southern tip of Baja California, and varies in width from approximately 30 to 100 miles (Norris and Webb, 1990). The province is characterized by mountainous terrain on the east composed mostly of Mesozoic igneous and metamorphic rocks, and relatively low-lying coastal terraces to the west underlain by late Cretaceous-age, Tertiary-age, and Quaternary-age sedimentary units. Most of the coastal region of the County of San Diego, including the site, occur within this coastal region and are underlain by sedimentary units. Specifically, the site is located within the coastal plain section of the Peninsular Range Geomorphic Province of California, which generally consists of subdued landforms underlain by sedimentary bedrock.

3.2 Site-Specific Geology

Based on our subsurface exploration, and review of pertinent geologic literature and maps (Appendix A), the geologic units underlying the site consist of undocumented artificial fill materials overlying Otay Formation (Figure 2). A brief description of the geologic units encountered on the site is presented below. The approximate aerial distributions of those units are shown on the Geologic Map (Figure 2 and Figure 4).

3.2.1 Artificial Fill (Afu)

Based on our subsurface exploration, artificial fill soils were encountered in all geotechnical borings (B-1 through B-5) with thickness varying between 6.5 feet to 40 feet. As encountered during our subsurface exploration, the fill soils generally consisted of medium dense to dense, light reddish brown to brown and reddish brown to gray, moist, silty to clayey sands with few gravel. The asphalt concrete pavement of the existing parking lots was encountered at the start of all the borings. It should be noted that the pavement section of the borings consisted of 4 to 5 inches of asphalt concrete with 4 to 6 inches of aggregate base.

3.2.2 Otay Formation (To)

Underlying the existing undocumented artificial fill soils, the Otay Formation was encountered in all of our geotechnical borings. During our drilling exploration, this material generally consisted of medium dense to dense, light gray and yellowish brown to dark olive gray, moist, clayey sandstone and medium dense to dense, dark gray to grayish brown, moist, medium grained clayey sandstone with localized moderate cementation/induration.

3.3 Surface and Groundwater

No indication of surface water or evidence of surface ponding was encountered during our geotechnical investigation performed at the site. However, surface water may drain as sheet flow across the site during rainy periods.

Groundwater was not encountered during our subsurface exploration at the site. It should be noted that groundwater levels may fluctuate with seasonal variations and irrigation and local perched groundwater conditions may exist at the contact between the undocumented artificial fill and the Otay Formation. Nevertheless, based on the above information, we do not anticipate groundwater will be a constraint to the development of the subject site.

3.4 Engineering Characteristics of On-site Soils

Based on the results of our laboratory testing of representative on-site soils, and our professional experience on similar sites with similar soils conditions, the engineering characteristics of the on-site soils are discussed below.

3.4.1 Compressible Soils

The site is underlain by undocumented artificial fill materials. No records for compaction testing were available at the time of our exploration. Therefore, generally, the upper 2 to 5 feet of undocumented artificial fill is considered compressible in their current state. Recommendations for remedial grading of these soils are provided in the following sections of this report.

3.4.2 Expansion Potential

Expansion index testing on one representative soil sample indicated that the onsite soils generally have a very low potential (EI < 20) for expansion (Appendix C). However, higher expansive soils may be encountered during the grading of the site and during foundation excavation. Expansive soils are not anticipated to significantly impact the proposed site improvements.

3.4.3 Soil Corrosivity

A preliminary screening of the on-site soils was performed to evaluate their potential corrosive effect on concrete and ferrous metals. In summary, laboratory testing on three representative soil samples obtained during our subsurface exploration evaluated pH, minimum electrical resistivity, and chloride and soluble sulfate content. The samples tested had measured pH values of 8.52, and measured minimum electrical resistivities of 1,500 ohm-cm. Test results also indicated that the samples had chloride contents of 130 parts per million (ppm), and soluble sulfate contents of less than 150 ppm.

3.4.4 Excavation Characteristics

It is anticipated the onsite soils can be excavated with conventional heavy-duty construction equipment. If oversize material (larger than 8 inches in maximum dimensions) is generated, it should be placed in non-structural areas or hauled off site. Also, difficult excavation conditions may be encountered with deeper excavations (basement, utilities, etc.) founded in concretionary and cemented layers within the Otay Formation and may require heavy ripping or breaking with specialized equipment during grading.

4.0 SEISMICITY

4.1 Regional Tectonic Setting

The site is located within the Peninsular Ranges Geomorphic Province, which is traversed by several major active faults. The Whittier-Elsinore, San Jacinto, and the San Andreas faults are major active fault systems located east of the site, and the Rose Canyon, Newport-Inglewood (offshore), and Coronado Bank are active faults located west to southwest of the site (Jennings, 2010), see Figure 5. The primary seismic risk to the site area is the Rose Canyon fault zone located 9.2 miles west of the site (USGS, 2014).

The Rose Canyon fault zone consists predominantly of right-lateral strike-slip faults that extend south-southeast bisecting the San Diego metropolitan area. Various fault strands display strike-slip, normal, oblique, or reverse components of displacement. The Rose Canyon fault zone extends offshore at La Jolla and continues north-northwest subparallel to the coastline. The offshore segments are poorly constrained regarding location and character. South of downtown, the fault zone splits into several splays that underlie San Diego Bay, Coronado, and the ocean floor south of Coronado (Treiman, 1993 and 2000; Kennedy and Clarke, 1999). Portions of the fault zone in the Mount Soledad, Rose Canyon, and downtown San Diego areas have been designated by the State of California (CGS, 2003) as being Earthquake Fault Zones.

4.2 Local Faulting

The California Geologic Survey (CGS, 2018) define a Holocene-active fault as a fault which has “had surface displacement within Holocene time (about the last 11,700 years).” Our review of available geologic literature (Appendix A) indicates that there are no known pre-Holocene or Holocene-active faults transecting the site. The subject site is also not located within any State mapped Earthquake Fault Zones or City of San Diego mapped fault zones. The nearest active fault is the Rose Canyon fault zone located approximately 9.2 miles west of the site (USGS, 2014).

4.3 Seismicity

The site is considered to lie within a seismically active region, as is all of Southern California. As previously mentioned above, the Rose Canyon fault zone located approximately 9.2 miles west of the site is considered the 'active' fault having the most significant effect at the site from a design standpoint.

4.4 Seismic Hazards

Severe ground shaking is most likely to occur during an earthquake on one of the regional active faults in Southern California. The effect of seismic shaking may be mitigated by adhering to the California Building Code or state-of-the-art seismic design parameters of the Structural Engineers Association of California.

4.4.1 Shallow Ground Rupture

No pre-Holocene or Holocene-active faults are mapped transecting or projecting toward the site. Due to the absence of faults at the site, surface rupture from faulting is considered low. In addition, due to the lack of nearby slopes, ground cracking due to shaking from a seismic event is also considered low.

4.4.2 Mapped Fault Zones

The site is not located within a State mapped Earthquake Fault Zone (EFZ), nor is it located within a City or County fault zone. As previously discussed, the subject site is not underlain by known faults.

4.4.3 Site Class

Utilizing 2019 California Building Code (CBC) procedures, we have characterized the site soil profile to be a Site Class D based on our subsurface explorations using SPT blow counts and experience with similar sites in the project area.

4.4.4 Building Code Mapped Spectral Acceleration Parameters

The effect of seismic shaking may be mitigated by adhering to the California Building Code and state-of-the-art seismic design practices of the Structural

Engineers Association of California. Provided below in Table 1 are the spectral acceleration parameters for the project determined in accordance with the 2019 CBC (CBSC, 2019) and the SEA/OSHPD Web Application.

Table 1
2019 CBC Mapped Spectral Acceleration Parameters

Site Class	D		
Site Coefficients	F_a	=	1.2
	F_v	=	null
Mapped MCE Spectral Accelerations	S_S	=	0.789g
	S_1	=	0.284g
Site Modified MCE Spectral Accelerations	S_{MS}	=	0.947g
	S_{M1}	=	null
Design Spectral Accelerations	S_{DS}	=	0.631g
	S_{D1}	=	null
Transitional Period	F_v	=	2.032g
	S_{M1*}	=	0.577g
	S_{D1*}	=	0.385g
	$T_s = S_{D1}/S_{DS}$	=	0.610s

*Site-specific ground motion hazard analysis is required for determination of S_{M1} and S_{D1} for use in seismic design. The S_{D1} value is only presented for the purposes of calculating T_S as per Supplement 1 to ASCE 7-16 (ASCE, 2018).

Utilizing ASCE Standard 7-16, in accordance with Section 11.8, the following additional parameters for the peak horizontal ground acceleration are associated with the Geometric Mean Maximum Considered Earthquake (MCE_G). The mapped MCE_G peak ground acceleration (PGA) is 0.343g for the site. For a Site Class D, the F_{PGA} is 1.257 and the mapped peak ground acceleration adjusted for Site Class effects (PGA_M) is 0.431g for the site.

Since the mapped spectral response at 1-second period is less than 0.75g, then all structures subject to the criteria in Section 1613.2.5 of the 2019 CBC are assigned Seismic Design Category D.

4.5 Secondary Seismic Hazards

In general, secondary seismic hazards can include soil liquefaction, seismically-induced settlement, lateral displacement, surface manifestations of liquefaction, landsliding, seiches, and tsunamis. The potential for secondary seismic hazards at the subject site is discussed below.

4.5.1 Liquefaction and Dynamic Settlement

Liquefaction and dynamic settlement of soils can be caused by strong vibratory motion due to earthquakes. Granular soils tend to densify when subjected to shear strains induced by ground shaking during earthquakes. Research and historical data indicate that loose granular soils underlain by a near surface groundwater table are most susceptible to liquefaction, while the most clayey materials are not susceptible to liquefaction. Liquefaction is characterized by a loss of shear strength in the affected soil layer, thereby causing the soil to behave as a viscous liquid. This effect may be manifested at the ground surface by settlement and, possibly, sand boils where insufficient confining overburden is present over liquefied layers. Where sloping ground conditions are present, liquefaction-induced instability can result.

The site is underlain at depth by Otay Formation. Since the potentially compressible and weathered upper portions of the undocumented artificial fill materials are recommended for removal, the underlying dense character of both the fill and the Otay Formation, and the lack of a shallow ground water table, it is our opinion that the potential for liquefaction and seismic related settlement across the site is nil.

4.5.2 Lateral Spread

Empirical relationships have been derived (Youd et al., 1999) to estimate the magnitude of lateral spread due to liquefaction. These relationships include parameters such as earthquake magnitude, distance of the earthquake from the site, slope height and angle, the thickness of liquefiable soil, and gradation characteristics of the soil.

The susceptibility to earthquake-induced lateral spread is considered to be low for the site because of the lack of susceptibility to liquefaction and a lack of open descending slope faces in the site vicinity.

4.5.3 Tsunamis and Seiches

Based upon the California Emergency Management Agency Tsunami Inundation Map (CalEMA, 2009), the site is not located within a tsunami inundation area. In addition, based on the generally strike-slip character of off-shore faulting and proposed elevation of the site with respect to sea level, the possibility of seiches and/or tsunamis is considered to be nil.

4.6 Landslides

Several formations within the San Diego region are particularly prone to landsliding. These formations generally have high clay content and mobilize when they become saturated with water. Other factors, such as steeply dipping bedding that project out of the face of the slope and/or the presence of fracture planes, will also increase the potential for landsliding.

The site was previously mass graded. Therefore, no landslides or indications of deep-seated landsliding were indicated at the site during our field exploration or our review of available geologic literature, topographic maps, and stereoscopic aerial photographs. Furthermore, our field reconnaissance and the local geologic maps indicate the site is generally underlain by fill and geologic structure with dips of approximately 5 to 6 degrees westerly to southwesterly, consisting of massively bedded sandstone. It should be noted that a landslide mapped south of the project was mitigated during mass grading of the general project area. Therefore, the potential for significant landslides or large-scale slope instability at the site is considered low.

4.7 Flood Hazard

According to a Federal Emergency Management Agency (FEMA) flood insurance rate map (FEMA, 2012); the site is not located within a floodplain. Based on our review of topographic maps, the site is not located downstream of a dam or within a dam inundation area. Based on this review and our site reconnaissance, the potential for flooding of the site is considered low.

5.0 CONCLUSIONS

Based on the results of our geotechnical investigation of the site, it is our opinion that the proposed project is feasible from a geotechnical standpoint, provided the following conclusions and recommendations are incorporated into the project plans and specifications.

- As the site is located in the seismically active southern California area, all structures should be designed to tolerate the dynamic loading resulting from seismic ground motions;
- The site is not transected by pre-Holocene or Holocene-active faults;
- The upper 2 feet of undocumented artificial fill materials are considered potentially compressible and generally unsuitable in their present state to support additional fill or structural loads. Accordingly, these soils are recommended to be removed and recompacted;
- Based on laboratory testing, the documented artificial fill materials possess a very low expansion potential;
- The existing onsite soils are generally suitable for use as engineered fill, provided they are free of organic material, debris, and rock fragments larger than 8 inches in maximum dimension;
- If import soils are planned, the soils should be granular in nature, and have an expansion index less than 50 (per ASTM Test Method D 4829) and have a low corrosion impact to the proposed improvements;
- Based on the results of our subsurface exploration, we anticipate that the on-site materials should be generally excavatable with conventional heavy-duty earthwork equipment. However, deeper excavations (basement, utilities, etc.) may encounter concretionary and cemented layers within the Otay Formation that may require heavy ripping or breaking with specialized equipment during grading;
- Groundwater was not encountered during our investigation, nor is groundwater anticipated to be encountered during site excavation and construction except as possible seepage during/after episodes of precipitation or in areas of irrigation;
- Based on the results of our geotechnical evaluation, it is our opinion that the proposed slab-on-graded structures can be supported with typical conventional foundations;

- Although Leighton does not practice corrosion engineering, laboratory test results indicate the soils present on the site have a low potential for sulfate attack on normal concrete. However, the onsite soils are considered to have a corrosive potential for corrosion to buried uncoated ferrous metal. A corrosion consultant may be consulted to provide additional recommendations.

6.0 RECOMMENDATIONS

6.1 Earthwork

We anticipate that earthwork at the site will consist of site preparation and remedial grading. We recommend that earthwork on the site be performed in accordance with the following recommendations and the General Earthwork and Grading Specifications for Rough Grading included in Appendix D. In case of conflict, the following recommendations supersede those in Appendix D.

6.1.1 Site Preparation

Prior to grading, all areas to receive structural fill or engineered structures should be cleared of surface and subsurface obstructions, including any existing debris and undocumented or loose fill soils, and stripped of vegetation. Removed vegetation and debris should be properly disposed off-site. All areas to receive fill and/or other surface improvements should be scarified to a minimum depth of 6 inches, brought to above-optimum moisture conditions, and recompacted to at least 90 percent relative compaction (based on ASTM Test Method D 1557).

6.1.2 Excavations and Oversize Material

Excavations of the onsite materials may generally be accomplished with conventional heavy-duty earthwork equipment. However, concretionary and cemented layers within the Otay Formation may require heavy ripping or breaking with specialized equipment during grading if encountered. Excavation for utilities may also be difficult in some areas. Also, artificial fill soils present on site may cave during trenching operations. In accordance with OSHA requirements, excavations deeper than 5 feet should be shored or be laid back in accordance with Section 6.8 if workers are to enter such excavations.

6.2 Removal of Compressible Soils

The weathered upper portions of the artificial fill soils at the site may settle as a result of wetting or settle under the surcharge of engineered fill and/or structural loads supported on conventional foundations. Therefore, we recommend that the upper 2 feet of existing soil materials from existing grades located below the

proposed structures or other improvements be removed and reprocessed in accordance with Section 6.3 below. In addition, minimum removal depths should extend to 2 feet below the bottom of foundation footings of settlement sensitive structures such as the MOB and parking structure. The lateral limits of the removal bottom should extend a length equal to the removal depth where possible. The bottom of all removals should be evaluated by a Certified Engineering Geologist to confirm conditions are as anticipated.

In non-building areas, such as, the paved parking areas, concrete hardscape, and trash/recycling enclosure areas we recommended that the upper 2 feet of soil materials below proposed subgrade elevations be removed and reprocessed in accordance with Section 6.3 below. Note that traffic areas should be reprocessed in accordance with Section 6.11 below. Horizontally, the limits of the removal bottoms should extend at least 2 feet laterally beyond the limits of the proposed improvements.

Prior to placement of fill soil and in areas of planned improvements, the upper 6 inches of ground surface should be scarified, moisture conditioned as necessary, and properly recompacted.

In general, the soil that is removed may be reused and placed as engineered fill provided the material is moisture conditioned to at least 2 percent above optimum moisture content, and then recompacted prior to additional fill placement or construction. Soil with an expansion index greater than 50 should not be used within 5 feet of finish grade. The actual depth and extent of the required removals should be confirmed during grading operations by the geotechnical consultant.

6.3 Engineered Fill

The onsite soils are generally suitable for use as compacted fill provided they are free of organic material, debris, and rock fragments larger than 8 inches in maximum dimension. The onsite soils generally have moisture contents below optimum and may require moisture conditioning prior to use as compacted fill. All fill soils should be brought to at least 2 percent above-optimum moisture conditions and compacted in uniform lifts to at least 90 percent relative compaction based on laboratory standard ASTM Test Method D 1557. The optimum lift thickness required to produce a uniformly compacted fill will depend on the type and size of

compaction equipment used. In general, fill should be placed in lifts not exceeding 8 inches in thickness.

6.4 Cut/Fill Transition Mitigation

Although grading plans were not available at the time of this report, the proposed structures may be situated where a cut/fill transition beneath the structure occurs. In this case, the lateral limits of the bottom of the remedial removals should extend to outside the structure footprint a minimum distance of 5 feet.

To mitigate the impact of the underlying cut/fill transition condition beneath a structure, the shallow formational materials should be over-excavated to at least 5 feet below finish grade, or 3 feet below the bottoms of proposed foundations, whichever is deeper. Alternatively, all footings for the proposed structures can be extended through the engineered fill and a minimum of 6 inches into competent formational material. The additional depth can be filled with concrete or controlled low-strength material (CLSM) prior to placement of foundation reinforcing steel and concrete.

6.5 Expansive Soils and Selective Grading

Based on our laboratory testing and observations, we anticipate the onsite soil materials possess a very low expansion potential (Appendix C). In addition, to accommodate conventional foundation design, the upper 5 feet of materials within the building pad and 5 feet outside the limits of the building foundation should have a very low to low expansion potential (EI<50).

6.6 Import Soils

If import soils are used, the soil should be granular in nature, and have an expansion index less than 50 (per ASTM Test Method D 4829), and have a low corrosion impact to the proposed improvements. Beneath pavements, subgrade materials should possess an R-Value of 20, or greater. Import soils and/or the borrow site location should be evaluated by the geotechnical consultant prior to import.

6.7 Temporary Excavations

Sloping excavations may be utilized when adequate space allows. Based on the results of our evaluation, we provide the following recommendations for sloped excavations in fill soils or Otay Formation without seepage conditions.

Table 2
Maximum Slope Ratios

Excavation Depth (feet)	Maximum Slope Ratio Fill Soils	Maximum Slope Ratio In Otay Formation
0 to 5	1:1 (Horizontal to Vertical)	Vertical
5 to 20	1.5:1 (Horizontal to Vertical)	1:1 (Horizontal to Vertical)

The above values are based on the assumption that no surcharge loading or equipment is present within 10 feet of the top of slope. Care should be taken during design of excavations adjacent to the existing structures so that foundation support is preserved. A “competent person” should observe the slope on a daily basis for signs of instability. All excavations should comply with current OSHA requirements.

6.8 Foundation and Slab Considerations

At the time of drafting this report, loads for the proposed structures were not known. However, based on our understanding of the project, conventional foundations are considered suitable for support of the proposed structures. Foundations and slabs should be designed in accordance with structural considerations and the following recommendations. These recommendations assume that the soils encountered within 5 feet of pad grade have a very low to low potential for expansion (EI<50). If more expansive materials are encountered and selective grading cannot be accomplished, revised foundation recommendations may be necessary. The foundation recommendations below assume that all building and structure foundations will be underlain by properly compacted fill.

6.8.1 Foundation and Slab Design

The proposed structures may be supported by conventional, continuous or isolated spread footings, foundations founded in properly compacted engineered fill. Footings should extend a minimum of 24 inches beneath the lowest adjacent finish subgrade. At these depths, footings may be designed for a maximum allowable (FS>3) bearing pressure of 3,000 pounds per square foot (psf) when founded in properly compacted fill. The allowable bearing pressures may be increased by one-third when considering loads of short duration such as wind or seismic forces. The minimum recommended width of footings is 18 inches for continuous footings and 24 inches for square or round footings. The allowable bearing pressures may be increased by 1,000 psf for each additional foot of width or depth, to a maximum value of 5,000 psf. Footings should be designed in accordance with the structural engineer's requirements and have a minimum reinforcement of four No. 5 reinforcing bars (two top and two bottom). Reinforcement of individual column footings should be per the structural requirements.

6.8.2 Foundation Setback

We recommend a minimum horizontal setback distance from the face of slopes and retaining walls for all structural foundations, footings, and other settlement-sensitive structures as indicated on the Table 3 below. This distance is measured from the outside bottom edge of the footing, horizontally to the slope face, and is based on the slope height. However, the foundation setback distance may be revised by the geotechnical consultant on a case-by-case basis if the geotechnical conditions are different than anticipated.

Table 3 Minimum Foundation Setback from Slope Faces	
Slope Height	Setback
less than 5 feet	5 feet
5 to 15 feet	7 feet
15 to 30 feet	10 feet

Please note that the soils within the structural setback area possess poor lateral stability, and improvements (such as retaining walls, sidewalks, fences, pavements, etc.) constructed within this setback area may be subject to lateral movement and/or differential settlement. Potential distress to such improvements may be mitigated by providing a deepened footing or a grade beam foundation system to support the improvement. Depending on their proximity to the top of slopes, these structures may require retaining walls and/or deepened foundations.

In addition, open or backfilled utility trenches that parallel or nearly parallel structure footings should not encroach within an imaginary 1:1 (horizontal to vertical) downward sloping line starting 9 inches above the bottom edge of the footing and should also not be located closer than 18 inches from the face of the footing. Deepened footings should meet the setbacks as described above. Also, over-excavation should be accomplished such that deepening of footings to accomplish the setback will not introduce a cut/fill transition bearing condition.

Where pipes may cross under footings, the footings should be specially designed. Pipe sleeves should be provided where pipes cross through footings or footing walls and sleeve clearances should provide for possible footing settlement, but not less than 1 inch around the pipe.

6.8.3 Floor Slabs

Slab-on-grade should be at least 5 inches thick and be reinforced with No. 4 rebars 18 inches on center each way (minimum) placed at mid-height in the slab. We recommend control joints be provided across the slab at

appropriate intervals as designed by the project architect. Where moisture-sensitive finishes are planned, underslab moisture protection should be designed by the project architect in accordance with Section 4.505 of the 2019 California Green Building Standards Code (CBSC, 2019b).

The potential for slab cracking may be reduced by careful control of water/cement ratios. The contractor should take appropriate curing precautions during the pouring of concrete in hot weather to minimize cracking of the slabs. We recommend that a slipsheet (or equivalent) be utilized if grouted tile, marble tile, or other crack-sensitive floor covering is planned directly on concrete slabs. All slabs should be designed in accordance with structural considerations. If heavy vehicle or equipment loading is proposed for the slabs, greater thickness and increased reinforcing may be required. The additional measures should be designed by the structural engineer using a modulus of subgrade reaction of 150 pounds per cubic inch. Additional moisture/waterproofing measures that may be needed to accomplish desired serviceability of the building finishes and should be designed by the project architect

6.8.4 Settlement

For conventional footings, the recommended allowable-bearing capacity is based on a maximum total and differential static settlement of 1 inch and 3/4 inch, respectively. Since settlements are a function of footing size and contact bearing pressures, some differential settlement can be expected where a large differential loading condition exists. However, for most cases, differential settlements are considered unlikely to exceed 1/2 inch.

6.8.5 Lateral Earth Pressures and Retaining Wall Design

Should retaining walls be added to the project, Table 4 presents the lateral earth pressure values for level or sloping backfill for walls backfilled with and bearing against fully drained soils of very low to low expansion potential (less than 50 per ASTM D 4829).

Table 4 Static Equivalent Fluid Weight (pcf)		
Conditions	Level	2:1 Slope
Active	35	55
At-Rest	55	65
Passive	350 (Maximum of 3 ksf)	150 (Sloping Down)

Walls up to 10 feet in height should be designed for the applicable equivalent fluid unit weight values provided above. If conditions other than those covered herein are anticipated, the equivalent fluid unit weight values should be provided on an individual case-by-case basis by the geotechnical engineer. A surcharge load for a restrained or unrestrained wall resulting from automobile traffic may be assumed to be equivalent to a uniform lateral pressure of 75 psf which is in addition to the equivalent fluid pressure given above. For other uniform surcharge loads, a uniform pressure equal to 0.35q should be applied to the wall. The wall pressures assume walls are backfilled with free draining materials and water is not allowed to accumulate behind walls. A typical drainage design is contained in Appendix D. Wall backfill should be compacted by mechanical methods to at least 90 percent relative compaction (based on ASTM D 1557). If foundations are planned over the backfill, the backfill should be compacted to 95 percent. Wall footings should be designed in accordance with the foundation design recommendations and reinforced in accordance with structural considerations. For all retaining walls, we recommend a minimum horizontal distance from the outside base of the footing to daylight as outlined in Section 6.8.2.

Lateral soil resistance developed against lateral structural movement can be obtained from the passive pressure value provided above. Further, for sliding resistance, the friction coefficient of 0.35 may be used at the concrete and soil interface. These values may be increased by one-third when considering loads of short duration including wind or seismic loads. The total resistance may be taken as the sum of the frictional and passive resistance provided that the passive portion does not exceed two-thirds of the total resistance.

To account for potential redistribution of forces during a seismic event, retaining walls providing lateral support where exterior grades on opposites sides differ by more than 6 feet fall under the requirements of 2019 CBC Section 1803.5.12 and/or ASCE 7-16 Section 15.6.1 and should also be analyzed for seismic loading. For that analysis, an additional uniform lateral seismic force of 7H should be considered for the design of the retaining walls with level backfill, where H is the height of the wall. This value should be increased by 150% for restrained walls.

6.9 Control of Surface Waters

Regarding Best Management Practices (BMP) and Low Impact Development (LID) measures, we are of the opinion that infiltration basins, and other on-site storm water retention and infiltration systems can potentially create adverse perched groundwater conditions, both on-site and off-site, when not installed using proper design recommendations (such as the use of liners) and infiltration design parameters. Due to the thickness of fill underlying the site, the presence of a fill slope and the dense nature of the Otay Formation and existing site constraints and conditions, we do not recommend infiltration of surface storm water into the existing site soils. The site is considered a no infiltration site. However, Low Impact Development (LID) BMPs that contain and filter surface waters (flow-through planters and bioretention areas) are acceptable provided that they are completely lined with an impermeable liner and have subdrain systems that tie into an approved existing or proposed storm drain system.

Surface storm water should be transported off the site in approved drainage devices or unobstructed swales. We recommend a minimum flow gradient for unpaved drainage within 5 feet of structures of 2 percent sloping away. All area drain inlets should be maintained and kept clear of debris in order to function properly. In addition, landscaping should not cause any obstruction to site drainage. Rerouting of drainage patterns and/or installation of area drains should be performed, if necessary, by a qualified civil engineer or a landscape architect.

6.10 Concrete Flatwork

Concrete sidewalks and other flatwork (including construction joints) should be designed by the project civil engineer and should have a minimum thickness of 4 inches with No. 4 bars at 24 inches on center or No. 3 bars at 18 inches on center.

For all concrete flatwork, the upper 12 inches of subgrade soils should be moisture conditioned to at least 2 percent above optimum moisture content depending on the soil type and compacted to at least 90 percent relative compaction based on ASTM Test Method D1557 prior to the concrete placement. Moisture testing should be confirmed 24 hours prior to concrete placement.

6.11 Preliminary Pavement Design

The onsite pavement section design below is based on an assumed Traffic Index (TI), our visual classification of the subject site soils, and our limited laboratory testing (we have assumed an R-value of 15). For the purposes of developing a traffic index for the project, we have utilized the City of Chula Vista, Subdivision Manual, Section 3, General Design Criteria, dated March 13, 2012. Actual pavement recommendations should be based on R-value tests performed on bulk samples of the soils that are exposed at the finished subgrade elevations across the site at the completion of the mass grading operations. Flexible pavement sections have been evaluated in general accordance with the Caltrans method for flexible pavement design. The recommended flexible pavement section for this condition is given in Table 5 below.

Table 5
Preliminary Pavement Sections

Assumed Traffic Index (TI)	Asphalt Concrete (inches)	Aggregate Base (inches)
5.0 - Auto Parking	3.0	8.0
6.0 - Auto Driveway	4.0	10.0
9.0 - Fire Lane/Industrial	5.0	18.0

Flexible pavements should be constructed in accordance with current Caltrans Standard Specifications. Aggregate base should comply with the Caltrans Standard Specifications of Section 26. Aggregate base should be compacted to a minimum of 95 percent relative compaction based on ASTM Method D 1557.

For areas subject to regular truck loading (i.e., trash truck apron), we recommend a full depth of Portland Cement Concrete (P.C.C.) section of 7 inches with appropriate steel reinforcement and crack-control joints as designed by the project structural

engineer. We recommend that sections be as nearly square as possible. A 3,500-psi mix that produces a 550-psi modulus of rupture should be utilized.

All pavement section materials conform to and be placed in accordance with the latest revision of the California Department of Transportation Standard Specifications (Caltrans) and American Concrete Institute (ACI) codes. The upper 12 inches of subgrade soil and all aggregate base should be compacted to a relative compaction of at least 95 percent (based on ASTM Test Method D 1557).

If pavement areas are adjacent to heavily watered landscape areas, we recommend some measure of moisture control be taken to prevent the subgrade soils from becoming saturated. It is recommended that the concrete curing separating the landscaping area from the pavement extend below the aggregate base to help seal the ends of the sections where heavy landscape watering may have access to the aggregate base. Concrete swales should be designed in roadway or parking areas subject to concentrated surface runoff.

6.12 Geochemical Considerations

Concrete in direct contact with soil or water that contains a high concentration of soluble sulfates can be subject to chemical deterioration commonly known as “sulfate attack.” Soluble sulfate test results (Appendix C) indicate an exposure class of S0. We recommend that concrete in contact with earth materials be designed in accordance with Section 4 of ACI 318-14 (ACI, 2014).

Based on the results of preliminary screening laboratory testing, the site soils have a corrosive potential to buried uncoated metal conduits (Caltrans, 2018). We recommend measures to mitigate corrosion be implemented during design and construction. Leighton does not practice corrosion engineering. Therefore, a corrosion engineer may be contacted for additional recommendations.

6.13 Construction Observation and Plan Reviews

The recommendations provided in this report are based on preliminary design information and subsurface conditions disclosed by widely spaced borings. The interpolated subsurface conditions should be checked in the field during construction. Construction observation of all onsite excavations and field density testing of all compacted fill should be performed by a representative of this office so that construction is in accordance with the recommendations of this report. We

recommend that where possible, excavation exposures be geologically mapped by the geotechnical consultant during grading for the presence of potentially adverse geologic conditions.

Final project grading and foundation plans should be reviewed by Leighton as part of the design development process to ensure that recommendations provided in this report are incorporated in the project plans.

7.0 LIMITATIONS

The conclusions and recommendations presented in this report are based in part upon data that were obtained from a limited number of observations, site visits, excavations, samples, and tests. Such information is by necessity incomplete. The nature of many sites is such that differing geotechnical or geological conditions can occur within small distances and under varying climatic conditions. Changes in subsurface conditions can and do occur over time. Therefore, the findings, conclusions, and recommendations presented in this report can be relied upon only if Leighton has the opportunity to observe the subsurface conditions during grading and construction of the project, in order to confirm that our preliminary findings are representative for the site.

Figures

Project: 13229.001	Eng/Geol: NJT/RCS
Scale: 1 " = 2,000 '	Date: August 2021
Base Map: ESRI ArcGIS Online 2021 Author: Leighton Geomatics (mmurphy)	

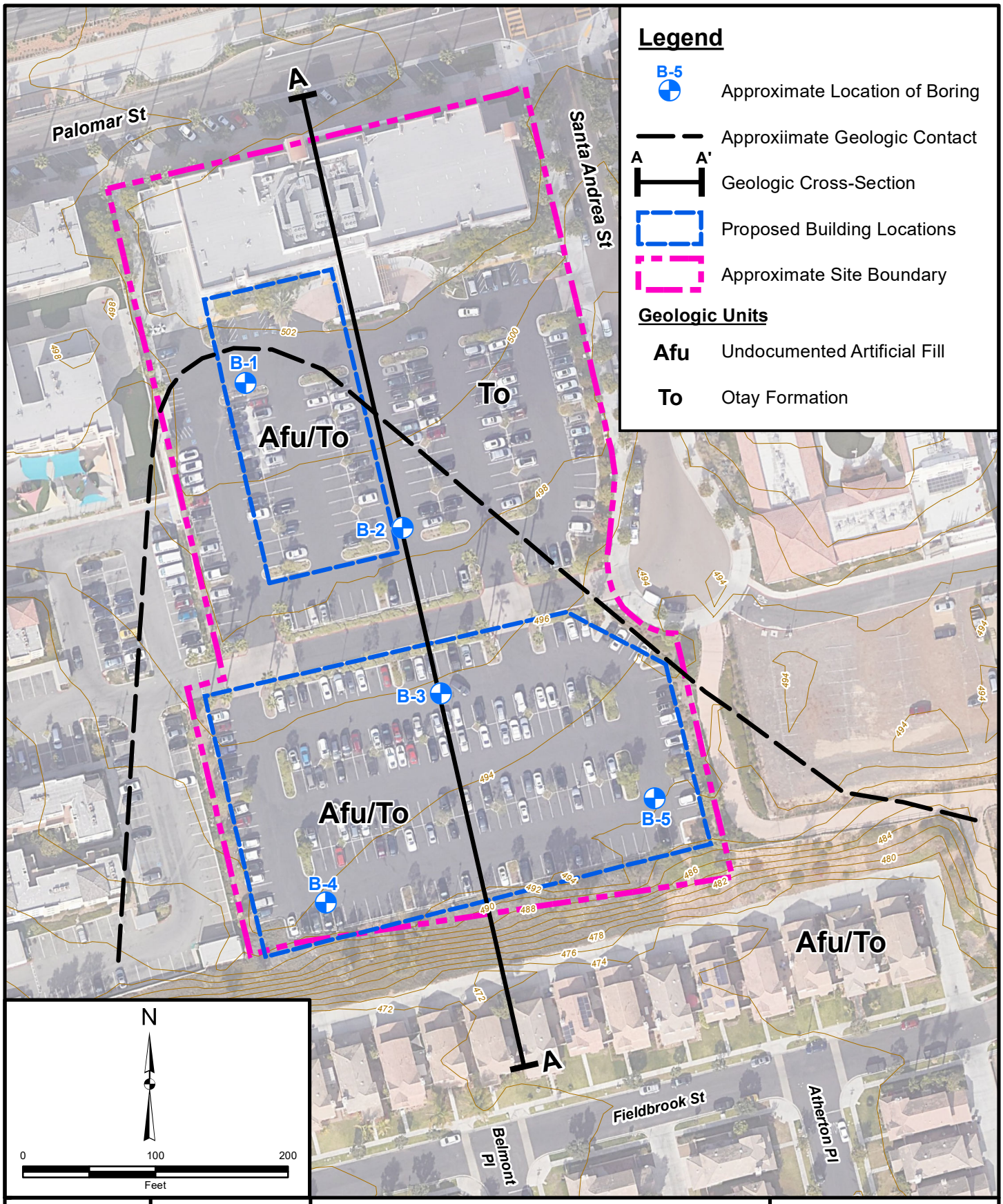
SITE LOCATION MAP

Sharp Otay Ranch MOB and Parking Structure
1400 East Palomar Street
Chula Vista, California

FIGURE 1

Leighton

Map Saved as V:\Drafting\13229\001\Maps\13229-001_F01_SLM_2021-08-12.mxd on 8/23/2021 10:22:01 AM



Project: 13229.001	Eng/Geol: NJT/RCS
Scale: 1 " = 100 '	Date: August 2021
Base Map: Google Earth, 2021.	
Author: Leighton Geomatics (mmurphy)	

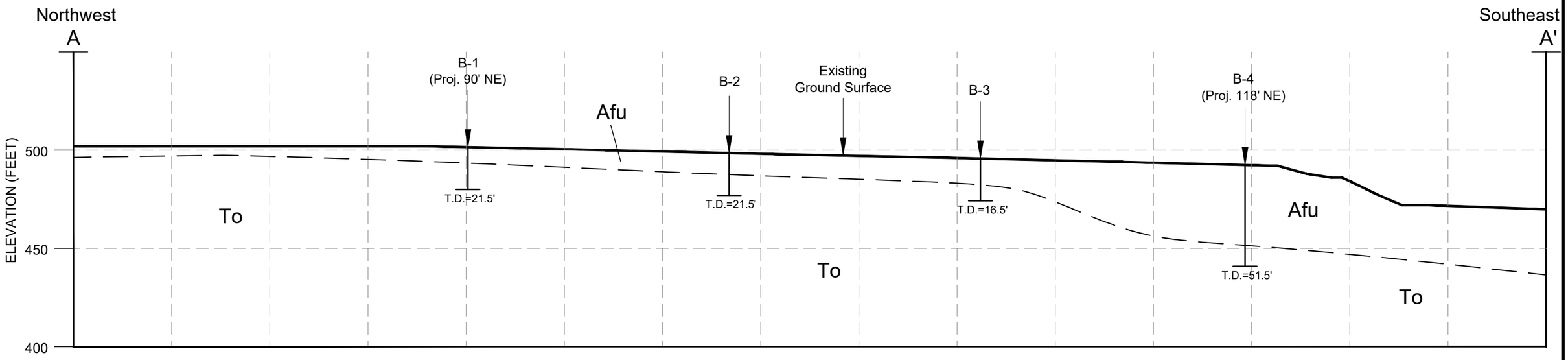
GEOTECHNICAL MAP

Sharp Otay Ranch MOB and Parking Structure
1400 East Palomar Street
Chula Vista, California

FIGURE 2

Leighton

Map Saved as P:\Drafting\13229\001\Maps\13229-001_F02_GM_2021-08-12.mxd on 8/23/2021 2:36:51 PM



Legend

B-4
T.D.=51.5' — Approximate Location of Boring showing Total Depth

— — — Approximate Geologic Contact

Geologic Units

Afu — Undocumented Artificial Fill

To — Otay Formation

0 50 100
SCALE FEET

Proj: 13229.001	Eng/Geol: NJT/RCS
Scale: 1"=50'	Date: August 2021
Base Map:	

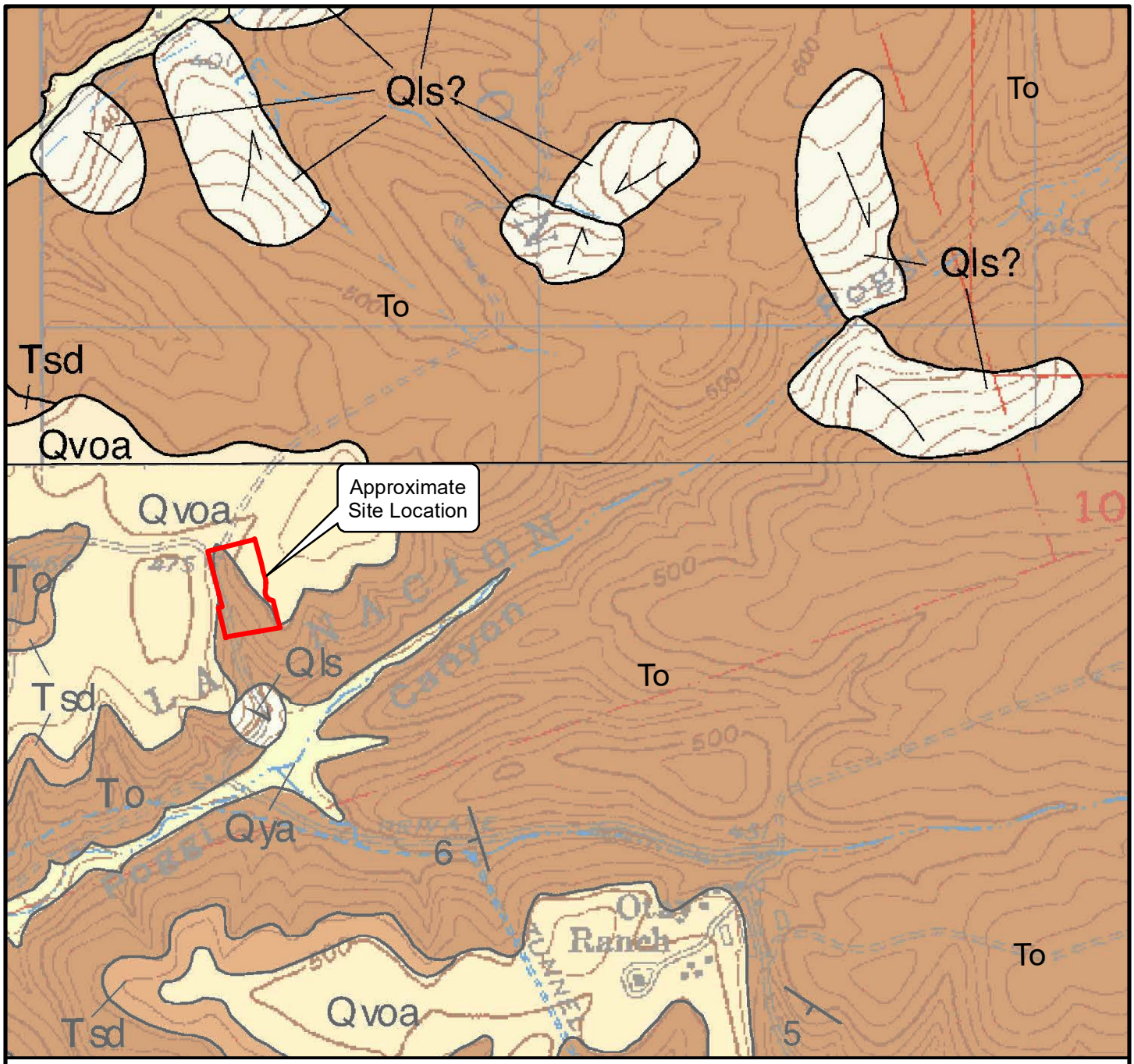
GEOLOGIC CROSS-SECTION A-A'

Sharp Otay Ranch MOB and Parking Structure
1400 East Palomar Street
Chula Vista, California

FIGURE 3

Leighton

P:\DRAFTING\13229\001\CAD\13229-001_F04_CSAA_2021-08-19.DWG (08-23-21 2:48:25PM) Plotted by: mmurphy



Legend

Qls	Landslide deposits (Holocene and Late Pleistocene); landslide slump and rock fall deposits. On map, the deposit is depicted by landslide arrows
Qvoa	Alluvial deposits (middle to early Pleistocene); well consolidated, poorly sorted flood plain deposits consisting of gravel, sand, silt and clay.
Tsd	San Diego Formation (Pliocene); poorly indurated, fine- to medium-grained sandstone, typically yellowish light brown.
To	Otay Formation (Oligocene to Miocene); poorly indurated massive light colored sandstone, siltstone and claystone, interbedded with bentonite lenses.

N

0 1,000 2,000

Feet

Project: 13229.001	Eng/Geol: NJT/RCS
Scale: 1 " = 1,000 '	Date: August 2021

Base Map: Geologic Maps of the Otay Mesa and Jamul Mountains 7.5' Quadrangles, San Diego County, California by Siang S. Tan, 2002.

Author: Leighton Geomatics (mmurphy)

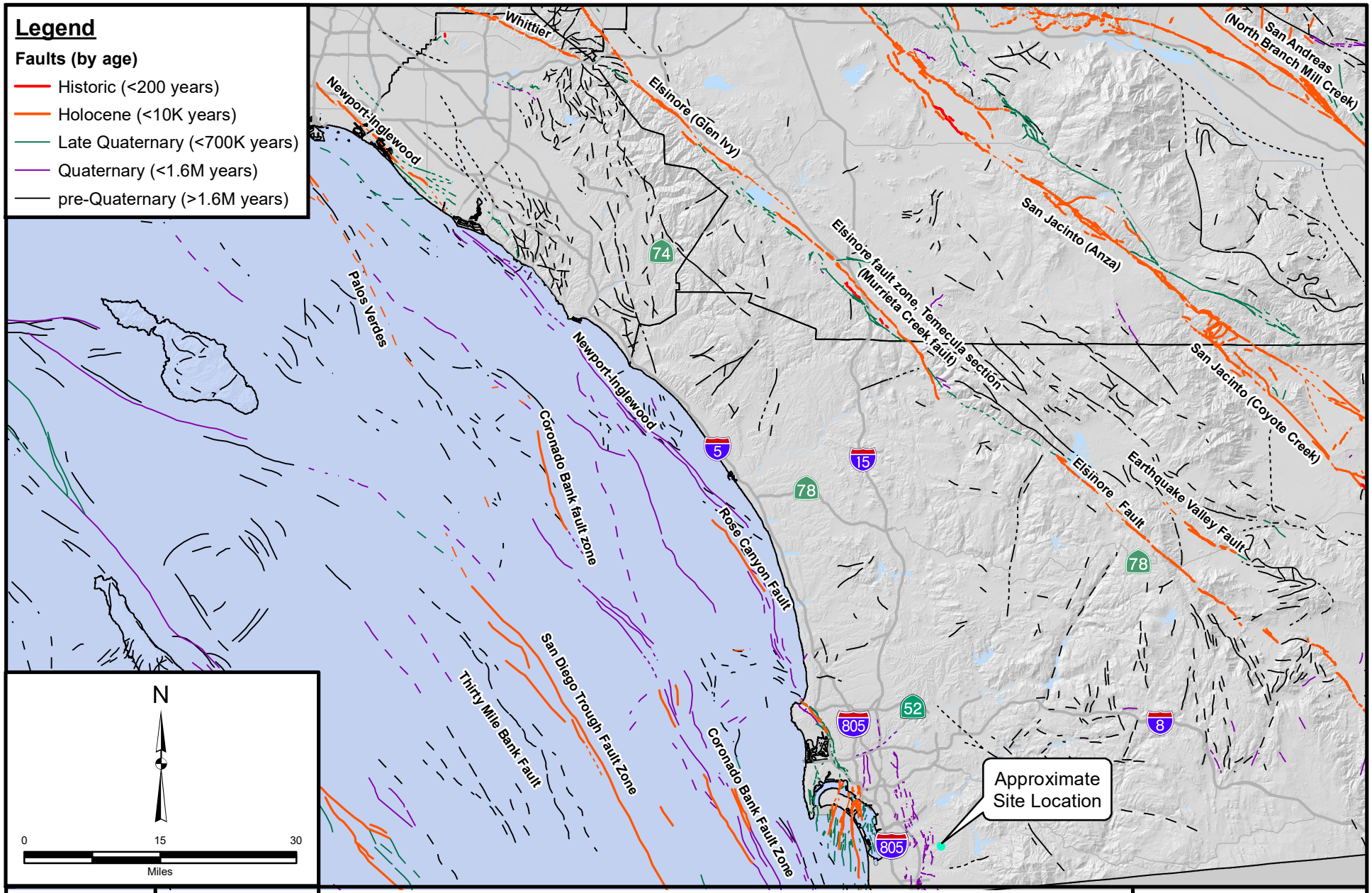
GEOLOGIC MAP

Sharp Otay Ranch MOB and Parking Structure
1400 East Palomar Street
Chula Vista, California

FIGURE 4

Leighton

Map Saved as V:\Drafting\13229\001\Maps\13229-001_F03_GM_2021-08-20.mxd on 8/23/2021 3:03:09 PM



Project: 13209.001	Eng/Geol: NJT/RCS
Scale: 1 " = 15 miles	Date: August 2021
Base Map: ESRI ArcGIS Online 2021	
Author: Leighton Geomatics (mmurphy)	

REGIONAL FAULT MAP

Sharp Otay Ranch MOB and Parking Structure
1400 East Palomar Street
Chula Vista, California

FIGURE 5

Leighton

Map Saved as V:\Drafting\13229\001\Maps\13229-001_F04_RFM_2021-08-20.mxd on 8/23/2021 10:22:54 AM

Appendix A
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APPENDIX A
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APPENDIX A
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Appendix B
Boring Logs

GEOTECHNICAL BORING LOG KEY

Date _____ **Sheet** 1 **of** 1

Project KEY TO BORING LOG GRAPHICS **Project No.** _____

Drilling Co. _____ **Type of Rig** _____

Hole Diameter _____ **Drive Weight** _____ **Drop** "

Elevation Top of Elevation ' **Location** _____

Logged By _____

Sampled By _____

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Blows Per Foot	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	DESCRIPTION	Type of Tests
	0								Asphaltic concrete.	
									Portland cement concrete.	
								CL	Inorganic clay of low to medium plasticity; gravelly clay; sandy clay; silty clay; lean clay.	
								CH	Inorganic clay; high plasticity, fat clays.	
								OL	Organic clay; medium to plasticity, organic silts.	
	5							ML	Inorganic silt; clayey silt with low plasticity.	
								MH	Inorganic silt; diatomaceous fine sandy or silty soils; elastic silt.	
								ML-CL	Clayey silt to silty clay.	
								GW	Well-graded gravel; gravel-sand mixture, little or no fines.	
								GP	Poorly graded gravel; gravel-sand mixture, little or no fines.	
	10							GM	Silty gravel; gravel-sand-silt mixtures.	
								GC	Clayey gravel; gravel-sand-clay mixtures.	
								SW	Well-graded sand; gravelly sand, little or no fines.	
								SP	Poorly graded sand; gravelly sand, little or no fines.	
								SM	Silty sand; poorly graded sand-silt mixtures.	
	15							SC	Clayey sand; sand-clay mixtures.	
									Bedrock.	
									Ground water encountered at time of drilling.	
				B-1					Bulk Sample 1.	
	20			B-1					Bulk Sample 2.	
				C-1					Core Sample.	
				G-1					Grab Sample.	
				R-1					Modified California Sampler (3" O.D., 2.5 I.D.).	
				SH-1					Shelby Tube Sampler (3" O.D.).	
	25			S-1					Standard Penetration Test SPT (Sampler (2" O.D., 1.4" I.D.).	
				PUSH					Sampler Penetrates without Hammer Blow.	
									Bulk Sample 2.	
	30									

SAMPLE TYPES:

- S SPLIT SPOON
- R RING SAMPLE
- B BULK SAMPLE
- T TUBE SAMPLE
- G GRAB SAMPLE
- SH SHELBY TUBE

TYPE OF TESTS:

- DS DIRECT SHEAR
- MD MAXIMUM DENSITY
- CN CONSOLIDATION
- CR CORROSION
- SA SIEVE ANALYSIS
- AT ATTERBURG LIMITS
- EI EXPANSION INDEX
- RV R-VALUE

LEIGHTON

GEOTECHNICAL BORING LOG B-1

Project No.	13229.001	**Date Drilled**	7-26-21
Project	Sharp Olay Ranch MOB and PS Geotech	**Logged By**	Ocean
Drilling Co.	Baja Exploration	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	501"
Location	See Figure 2	**Sampled By**	CA

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0								5" ASPHALT CONCRETE over 6" AGGREGATE BASE	
				B-1 (13"-5')				SM	ARTIFICIAL FILL (Afu) @ 1.08': Silty SAND, medium dense to dense, brown, too moist, medium-grained, trace gravel/cobble @ 3': Becomes dense @3.5': Becomes red, very dense, gravel/cobble found	
	5			R-1	33 25 27				@ 5': No recovery	
								SC	OTAY FORMATION @ 7.5': Clayey SANDSTONE, medium dense, dark olive gray, moist, medium-grained	
	10			R-2	19 24 32				@ 10': Continues at depth, disturbed sample	
	15			R-3	15 24 24				@ 15': Clayey SANDSTONE, medium dense, olive gray, moist, fine to medium-grained, carbonate found in sample, gravel in shoe	DS
	20			R-4	9 15 20	98	24		@ 20': Clayey SANDSTONE, medium dense, olive gray to light gray, moist, medium-grained	
	25								**Total Depth = 21.5 Feet (bgs)** **No Groundwater Encountered** **Backfilled with soil cuttings on 07/26/2021**	
	30									

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG B-2

Project No.	13229.001	**Date Drilled**	7-26-21
Project	Sharp Olay Ranch MOB and PS Geotech	**Logged By**	Ocean
Drilling Co.	Baja Exploration	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	498'
Location	See Figure 2	**Sampled By**	O

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0			B-1 (8"-5')				SM	4" ASPHALT CONCRETE over 4" AGGREGATE BASE ARTIFICIAL FILL (Afu) @ 8": Silty SAND, medium dense, brown, moist, fine-grained	
	5			S-1	15 24 20				@ 5': Silty SAND, medium dense, reddish brown, moist, fine to medium-grained, trace gravel in sample and shoe, carbonate found @6': color changes to grayish brown	SA
	10			S-2	20 7 11			SC	@ 10': Continues at depth OTAY FORMATION @ 11': Clayey SANDSTONE, medium dense, gray, moist, medium-grained	
	15			S-3	5 12 18				@ 15': color changes to olive gray	
	20			S-4	7 11 20				@ 20': Clayey SANDSTONE, loose to medium dense, dark olive gray, moist, medium-grained	
	25								**Total Depth = 21.5 Feet (bgs)** **No Groundwater Encountered** **Backfilled with soil cuttings on 07/26/2021**	
	30									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG B-3

Project No.	13229.001	**Date Drilled**	7-26-21
Project	Sharp Olay Ranch MOB and PS Geotech	**Logged By**	Ocean
Drilling Co.	Baja Exploration	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	496'
Location	See Figure 2	**Sampled By**	O

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0			B-1 (8"-5')				SM	4" ASPHALT CONCRETE over 4" AGGREGATE BASE ARTIFICIAL FILL (Afu) @ 8": Silty SAND, medium dense, reddish golden to brown, moist, medium-grained	
	5			S-1	15 25 28				@ 5': Silty SAND, medium dense, brown, moist, medium-grained	
	10			S-2	10 21 47				@ 10': Silty SAND, medium dense to dense, grayish brown, moist, medium-grained	
								SC	OTAY FORMATION @ 12': Clayey SANDSTONE, medium dense, gray, moist, medium-grained	
	15			S-3	7 11 16				@ 15': color changes to dark gray	
									Total Depth = 16.5 Feet (bgs) **No Groundwater Encountered** **Backfilled with soil cuttings on 07/26/2021**	
	20									
	25									
	30									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG B-4

Project No.	13229.001	**Date Drilled**	7-26-21
Project	Sharp Olay Ranch MOB and PS Geotech	**Logged By**	Ocean
Drilling Co.	Baja Exploration	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	494'
Location	See Figure 2	**Sampled By**	O

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0			~~B-1~~ (8"-5')				~~SM~~	4" ASPHALT CONCRETE over 4" AGGREGATE BASE	EI, CR
									ARTIFICIAL FILL (Afu) @ 8": Silty SAND, medium dense, light reddish brown, moist, fine-grained	
	5			R-1	18 36 50/6"	116	12		@ 5': Silty SAND, medium dense to dense, light redddish brown to yellowish brown, moist, fine-grained	
								SC	@7': Clayey SAND, medium dense, redddish brown, moist, fine-grained	
	10			R-2	25 25 27	116	13	SM	@ 10': Silty SAND, medium dense, reddish brown to light gray, moist, fine to medium-grained @ 11.5': Becomes very hard @ 13': color changes to dark gray	
	15			R-3	16 40 40	122	12		@ 15': Silty SAND, dense, gray to reddish brown, moist, medium-grained	
	20			R-4	10 18 24				@ 20': Silty SAND, loose to medium dense, grayish brown, moist, fine to medium-grained	
	25			R-5	8 12 18				@ 25': color changes to light greenish brown to light brown, loose dense	
								SC	@ 27': Clayey SAND, dense, dark gray, moist, medium-grained	
	30									

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG B-4

Project No.	13229.001	**Date Drilled**	7-26-21
Project	Sharp Olay Ranch MOB and PS Geotech	**Logged By**	Ocean
Drilling Co.	Baja Exploration	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	494'
Location	See Figure 2	**Sampled By**	O

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30			R-6	14 23 27				@ 30': Clayey SAND, medium dense, light gray to greenish gray, moist, medium-grained	
	35			R-7	11 21 31			SM	@ 35': Silty SAND, medium dense, dark gray, dry to moist, fine-grained	
	40			R-8	21 28 40			SC	OTAY FORMATION @ 40': Clayey SANDSTONE, medium dense to dense, dark gray to grayish brown, moist, medium-grained	
	45			R-9	22 38 45				@ 45': Clayey SANDSTONE, dense, light gray, moist, medium-grained	
	50			R-10	18 26 32				@ 50': Clayey SANDSTONE, medium dense to dense, dark gray, moist, medium-grained, strong cementation	
	55								**Total Depth = 51.5 Feet (bgs)** **No Groundwater Encountered** **Backfilled with soil cuttings on 07/26/2021**	
	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
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- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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GEOTECHNICAL BORING LOG B-5

Project No.	13229.001	**Date Drilled**	7-26-21
Project	Sharp Olay Ranch MOB and PS Geotech	**Logged By**	Ocean
Drilling Co.	Baja Exploration	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	494'
Location	See Figure 2	**Sampled By**	O

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S							*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0			B-1 (8"-5')				SM	4" ASPHALT CONCRETE over 4" AGGREGATE BASE	EI
									ARTIFICIAL FILL (Afu)	
									@ 8": Silty SAND, medium dense, reddish brown, moist, fine to medium-grained, easy to hand auger	
	5			R-1	10 34 42				@ 5': Silty SAND, medium dense, reddish brown, moist, fine-grained	
								SC	@ 7.5': Clayey SAND, medium dense to dense, dark gray, moist, medium-grained, greenish color found in sample, bad odor	
	10			R-2	17 45 55				@ 10': Conitunes at depth	DS
									@ 13': Color changes to light gray	
	15			R-3	12 12 32	104	18	SM	@ 15': Silty SAND, medium dense, light brownish gray,dry, fine-grained, carbonate found	
									@ 17': Becomes harder	
	20			R-4	40 50/3"	112	11		@ 20': Continues at depth	
								SC	@ 23': Clayey SAND, medium dense to dense, light gray, moist, medium-grained	
	25			R-5	16 24 50/6"	102	7	SM	@ 25': Silty SAND, dense, light gray with light reddish brown,dry to moist, very fine-grained	
	30									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
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GEOTECHNICAL BORING LOG B-5

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Drilling Co.	Baja Exploration	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	494'
Location	See Figure 2	**Sampled By**	O

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30			R-6	24 42 50/5"	108	1		@ 30': Silty SAND, dense to very dense, light whiteish yellow, dry, fine-grained, minerals in sample	
	35			R-7	28 50/6"				@ 35': Continues at depth	
	40			R-8	28 35 50/2"			SC	OTAY FORMATION @ 40': Clayey SANDSTONE, dense to very dense, yellowish brown, moist, medium-grained, magnese	
	45			R-9	43 50/3"			SM	@ 45': Silty SANDSTONE, dense, yellowish brown to light gray, moist to wet, fine-grained	
	50			R-10	50/2"				@ 50': Silty SANDSTONE, very dense, light gray, moist, fine-grained	
									Total Depth = 51.5 Feet (bgs) **No Groundwater Encountered** **Backfilled with soil cuttings on 07/26/2021**	
	55									
	60									

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
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- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

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Appendix C
Laboratory Testing Procedures and Test Results

APPENDIX C

Laboratory Testing Procedures and Test Results

Direct Shear Strength Test: Direct shear testing, in accordance with ASTM D3080, was performed on four samples which were soaked for a minimum of 24 hours under a surcharge equal to the applied normal force during testing. After transfer of the samples to the shear box, and reloading the samples, pore pressures set up in the samples due to the transfer were allowed to dissipate for a period of approximately 1 hour prior to application of shearing force. The samples were tested under various normal loads, using a motor-driven, strain-controlled, direct-shear testing apparatus. The test results are presented in the accompanying plots.

Moisture and Density Determination Tests: Moisture content (ASTM Test Method D2937) and dry density determinations were performed on relatively undisturbed ring samples obtained from the test borings. The results of these tests are presented in the geotechnical boring logs (Appendix B).

Expansion Index Test: The expansion potential of selected material was evaluated by the Expansion Index Text, ASTM Test Method 4829. The specimen was molded under a given compactive energy to approximately 50 percent saturation. The prepared 1-inch thick by 4-inch diameter specimen was loaded to an equivalent 144 psf surcharge and was inundated with water until volumetric equilibrium was reached. The results of the test is presented in the table below:

Sample Location	Sample Description	Expansion Index	Expansion Potential
B-4 @ 0 to 5 feet	Reddish Brown Silty SAND	1	Very Low
B-5 @ 0 to 5 feet	Reddish Brown Silty SAND	3	Very Low

APPENDIX C (Continued)

Minimum Resistivity and pH Tests: Minimum resistivity and pH tests were performed in general accordance with Caltrans Test Method CT643 for Steel or CT532 for concrete and standard geochemical methods. The results are presented in the table below:

Sample Location	Sample Description	pH	Minimum Resistivity (ohms-cm)
B-4 @ 0 to 5 feet	Silty SAND	8.52	1,500

Chloride Content: Chloride content was tested in accordance with Caltrans Test Method CT422. The results are presented below:

Sample Location	Sample Description	Chloride Content, ppm
B-4 @ 0 to 5 feet	Silty SAND	130

Soluble Sulfates: The soluble sulfate contents of selected samples were determined by standard geochemical methods (Caltrans Test Method CT417). The test results are presented in the table below:

Sample Location	Sample Description	Sulfate Content, ppm	Exposure Class*
B-4 @ 0 to 5 feet	Silty SAND	<150	S0

*Based on the 2014 edition of American Concrete Institute (ACI) Committee 318R, Table No. 19.3.1.1

Appendix D
General Earthwork and Grading Specifications for Rough Grading

1.0 General

1.1 Intent

These General Earthwork and Grading Specifications are for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the specific recommendations in the geotechnical report shall supersede these more general Specifications. Observations of the earthwork by the project Geotechnical Consultant during the course of grading may result in new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

1.2 The Geotechnical Consultant of Record

Prior to commencement of work, the owner shall employ the Geotechnical Consultant of Record (Geotechnical Consultant). The Geotechnical Consultants shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading.

Prior to commencement of grading, the Geotechnical Consultant shall review the "work plan" prepared by the Earthwork Contractor (Contractor) and schedule sufficient personnel to perform the appropriate level of observation, mapping, and compaction testing.

During the grading and earthwork operations, the Geotechnical Consultant shall observe, map, and document the subsurface exposures to verify the geotechnical design assumptions. If the observed conditions are found to be significantly different than the interpreted assumptions during the design phase, the Geotechnical Consultant shall inform the owner, recommend appropriate changes in design to accommodate the observed conditions, and notify the review agency where required. Subsurface areas to be geotechnically observed, mapped, elevations recorded, and/or tested include natural ground after it has been cleared for receiving fill but before fill is placed, bottoms of all "remedial removal" areas, all key bottoms, and benches made on sloping ground to receive fill.

The Geotechnical Consultant shall observe the moisture-conditioning and processing of the subgrade and fill materials and perform relative compaction testing of fill to determine the attained level of compaction. The Geotechnical Consultant shall provide the test results to the owner and the Contractor on a routine and frequent basis.

1.3 The Earthwork Contractor

The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept the plans, geotechnical report(s), and these Specifications prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the plans and specifications.

The Contractor shall prepare and submit to the owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of "spreads" of work and the estimated quantities of daily earthwork contemplated for the site prior to commencement of grading. The Contractor shall inform the owner and the Geotechnical Consultant of changes in work schedules and updates to the work plan at least 24 hours in advance of such changes so that appropriate observations and tests can be planned and accomplished. The Contractor shall not assume that the Geotechnical Consultant is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish the earthwork in accordance with the applicable grading codes and agency ordinances, these Specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of the Geotechnical Consultant, unsatisfactory conditions, such as unsuitable soil, improper moisture condition, inadequate compaction, insufficient buttress key size, adverse weather, etc., are resulting in a quality of work less than required in these specifications, the Geotechnical Consultant shall reject the work and may recommend to the owner that construction be stopped until the conditions are rectified.

2.0 Preparation of Areas to be Filled

2.1 Clearing and Grubbing

Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies, and the Geotechnical Consultant.

The Geotechnical Consultant shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 1 percent of organic materials (by volume). No fill lift shall contain more than 5 percent of organic matter. Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed immediately for proper evaluation and handling of these materials prior to continuing to work in that area.

As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminate dumping or spillage of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed.

2.2 Processing

Existing ground that has been declared satisfactory for support of fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Existing ground that is not satisfactory shall be overexcavated as specified in the following section. Scarification shall continue until soils are broken down and free of large clay lumps or clods and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction.

2.3 Overexcavation

In addition to removals and overexcavations recommended in the approved geotechnical report(s) and the grading plan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be overexcavated to competent ground as evaluated by the Geotechnical Consultant during grading.

2.4 Benching

Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal to vertical units), the ground shall be stepped or benched. Please see the Standard Details for a graphic illustration. The lowest bench or key shall be a minimum of 15 feet wide and at least 2 feet deep, into competent material as evaluated by the Geotechnical Consultant. Other benches shall be excavated a minimum height of 4 feet into competent material or as otherwise recommended by the Geotechnical Consultant. Fill placed on ground sloping flatter than 5:1 shall also be benched or otherwise overexcavated to provide a flat subgrade for the fill.

2.5 Evaluation/Acceptance of Fill Areas

All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observed, mapped, elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant

prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys, and benches.

3.0 Fill Material

3.1 General

Material to be used as fill shall be essentially free of organic matter and other deleterious substances evaluated and accepted by the Geotechnical Consultant prior to placement. Soils of poor quality, such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to the Geotechnical Consultant or mixed with other soils to achieve satisfactory fill material.

3.2 Oversize

Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 8 inches, shall not be buried or placed in fill unless location, materials, and placement methods are specifically accepted by the Geotechnical Consultant. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

3.3 Import

If importing of fill material is required for grading, proposed import material shall meet the requirements of Section 3.1. The potential import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing begins so that its suitability can be determined and appropriate tests performed.

4.0 Fill Placement and Compaction

4.1 Fill Layers

Approved fill material shall be placed in areas prepared to receive fill (per Section 3.0) in near-horizontal layers not exceeding 8 inches in loose thickness. The Geotechnical Consultant may accept thicker layers if testing indicates the grading procedures can adequately compact the thicker layers. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

4.2 Fill Moisture Conditioning

Fill soils shall be watered, dried back, blended, and/or mixed, as necessary to attain a relatively uniform moisture content at or slightly over optimum. Maximum density and optimum soil moisture content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM Test Method D1557).

4.3 Compaction of Fill

After each layer has been moisture-conditioned, mixed, and evenly spread, it shall be uniformly compacted to not less than 90 percent of maximum dry density (ASTM Test Method D1557). Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity.

4.4 Compaction of Fill Slopes

In addition to normal compaction procedures specified above, compaction of slopes shall be accomplished by backrolling of slopes with sheepsfoot rollers at increments of 3 to 4 feet in fill elevation, or by other methods producing satisfactory results acceptable to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 90 percent of maximum density per ASTM Test Method D1557.

4.5 Compaction Testing

Field-tests for moisture content and relative compaction of the fill soils shall be performed by the Geotechnical Consultant. Location and frequency of tests shall be at the Consultant's discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

4.6 Frequency of Compaction Testing

Tests shall be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of compacted fill soils embankment. In addition, as a guideline, at least one test shall be taken on slope faces for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope. The Contractor shall assure that fill construction is such that the testing schedule can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork construction if these minimum standards are not met.

4.7 Compaction Test Locations

The Geotechnical Consultant shall document the approximate elevation and horizontal coordinates of each test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that the Geotechnical Consultant can determine the test locations with sufficient accuracy. At a minimum, two grade stakes within a horizontal distance of 100 feet and vertically less than 5 feet apart from potential test locations shall be provided.

5.0 Subdrain Installation

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the grading plan, and the Standard Details. The Geotechnical Consultant may recommend additional subdrains and/or changes in subdrain extent, location, grade, or material depending on conditions encountered during grading. All subdrains shall be surveyed by a land surveyor/civil engineer for line and grade after installation and prior to burial. Sufficient time should be allowed by the Contractor for these surveys.

6.0 Excavation

Excavations, as well as over-excavation for remedial purposes, shall be evaluated by the Geotechnical Consultant during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, evaluated, and accepted by the Geotechnical Consultant prior to placement of materials for construction of the fill portion of the slope, unless otherwise recommended by the Geotechnical Consultant.

7.0 Trench Backfills

7.1 Safety

The Contractor shall follow all OSHA and Cal/OSHA requirements for safety of trench excavations.

7.2 Bedding and Backfill

All bedding and backfill of utility trenches shall be performed in accordance with the applicable provisions of Standard Specifications of Public Works Construction. Bedding material shall have a Sand Equivalent greater than 30 (SE>30). The bedding shall be placed to 1 foot over the top of the conduit and densified. Backfill shall be placed and densified to a minimum of 90 percent of relative compaction from 1 foot above the top of the conduit to the surface.

The Geotechnical Consultant shall test the trench backfill for relative compaction. At least one test should be made for every 300 feet of trench and 2 feet of fill.

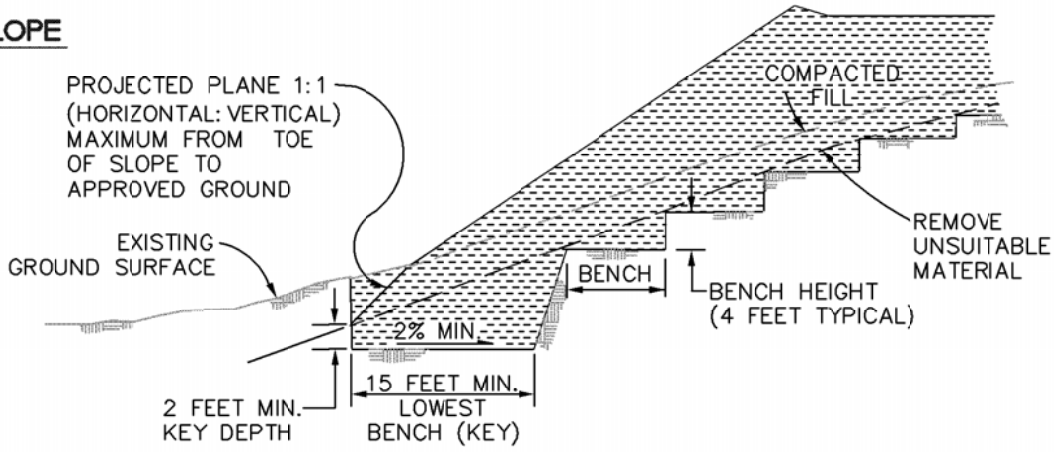
7.3 Lift Thickness

Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method.

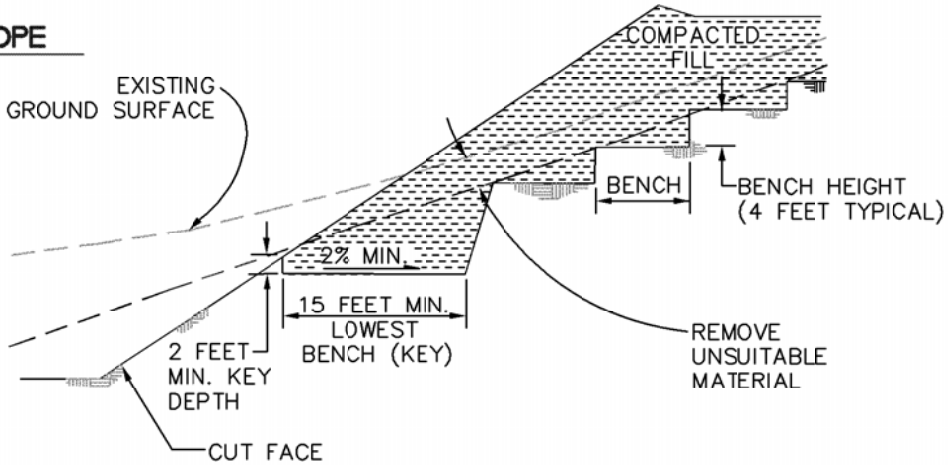
7.4 Observation and Testing

The densification of the bedding around the conduits shall be observed by the Geotechnical Consultant.

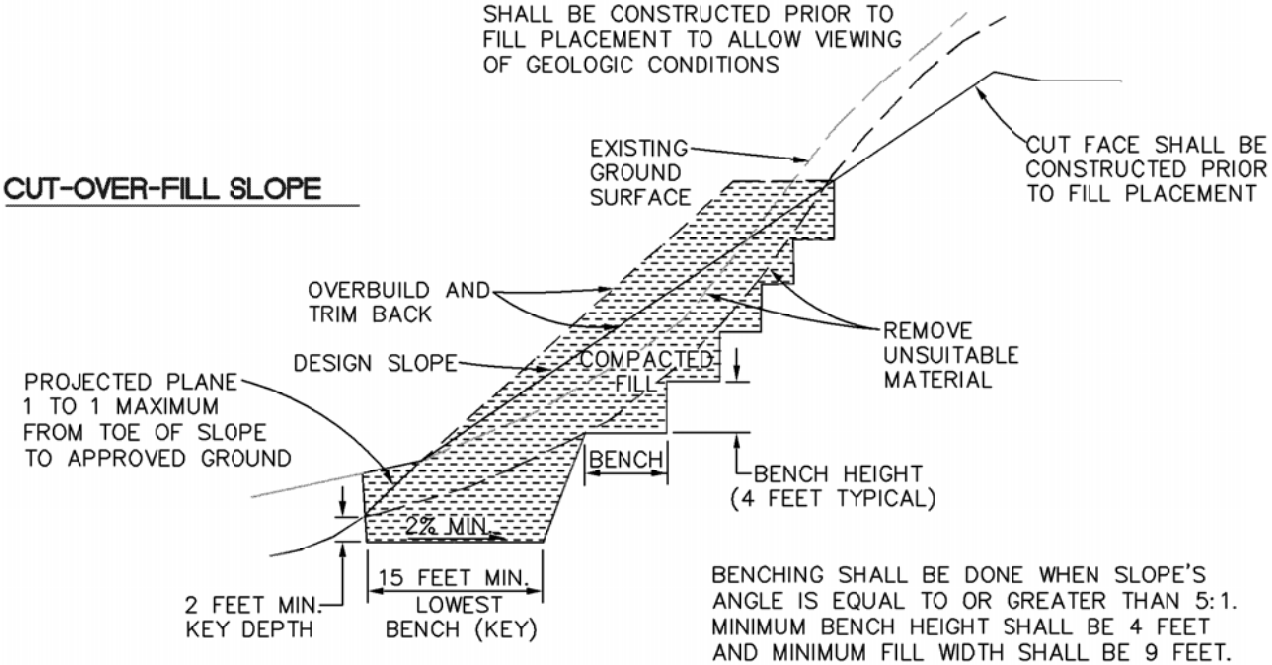
FILL SLOPE



FILL-OVER-CUT SLOPE



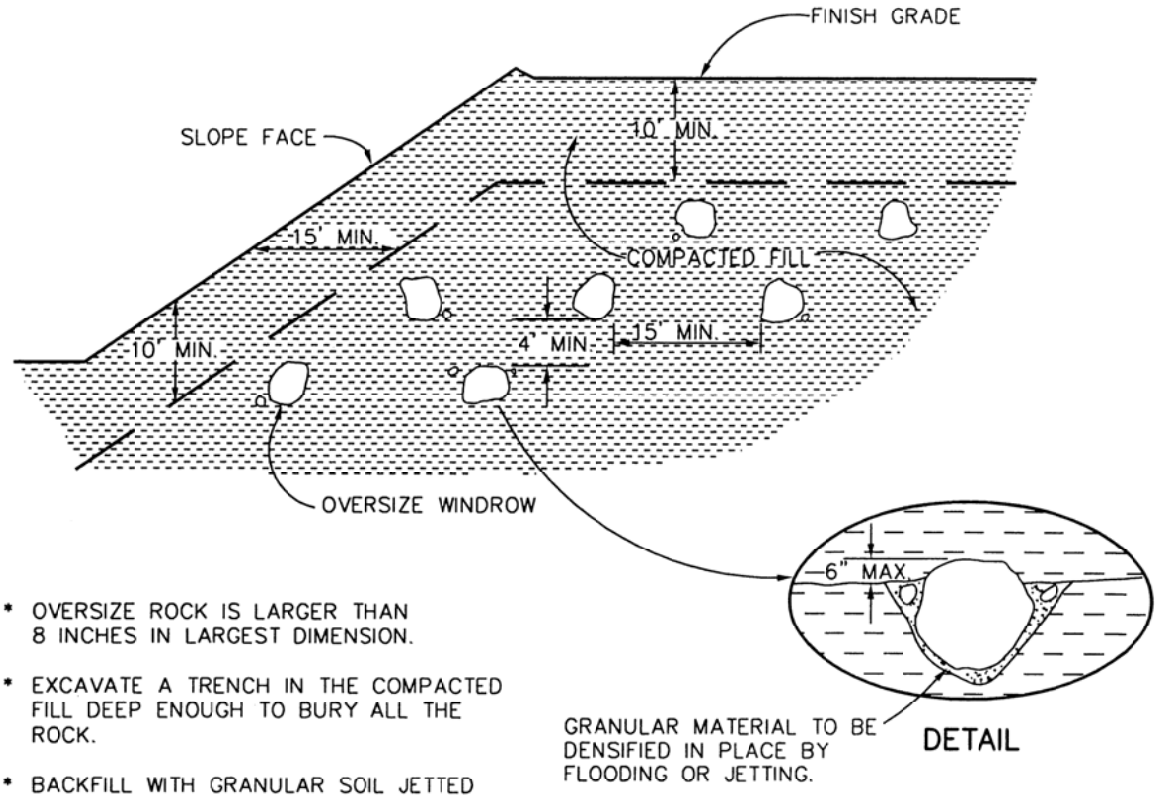
CUT-OVER-FILL SLOPE



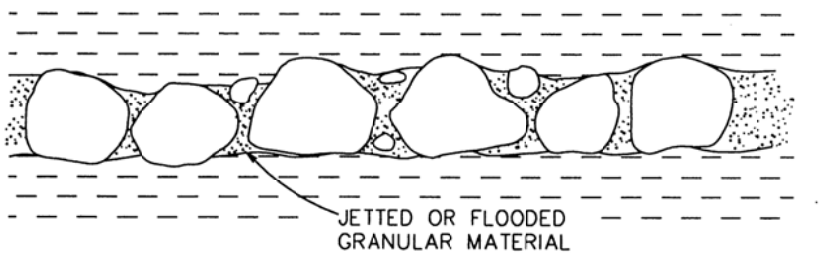
BENCHING SHALL BE DONE WHEN SLOPE'S ANGLE IS EQUAL TO OR GREATER THAN 5:1. MINIMUM BENCH HEIGHT SHALL BE 4 FEET AND MINIMUM FILL WIDTH SHALL BE 9 FEET.

KEYING AND BENCHING

GENERAL EARTHWORK AND
GRADING SPECIFICATIONS
STANDARD DETAIL A



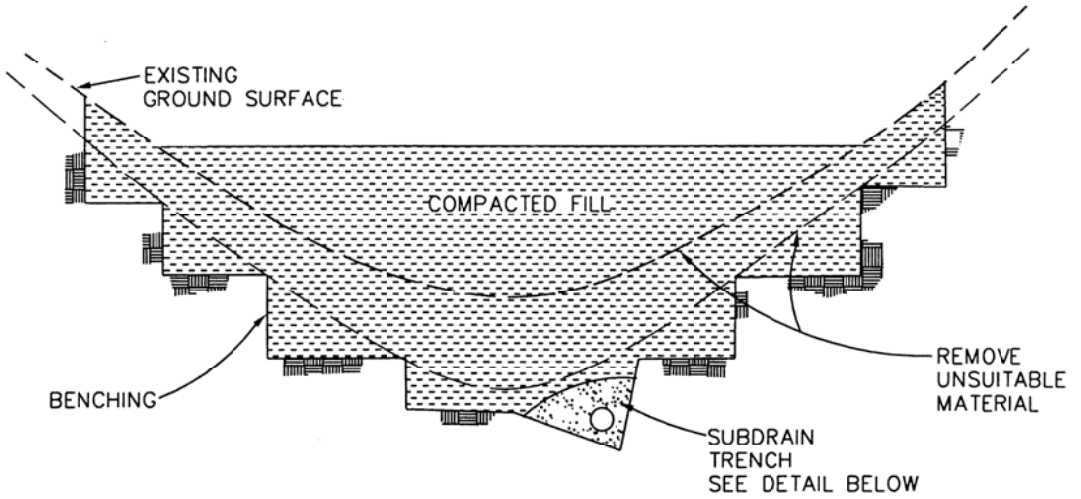
* OVERSIZE ROCK IS LARGER THAN 8 INCHES IN LARGEST DIMENSION.
* EXCAVATE A TRENCH IN THE COMPACTED FILL DEEP ENOUGH TO BURY ALL THE ROCK.
* BACKFILL WITH GRANULAR SOIL JETTED OR FLOODED IN PLACE TO FILL ALL THE VOIDS.
* DO NOT BURY ROCK WITHIN 10 FEET OF FINISH GRADE.
* WINDROW OF BURIED ROCK SHALL BE PARALLEL TO THE FINISHED SLOPE.

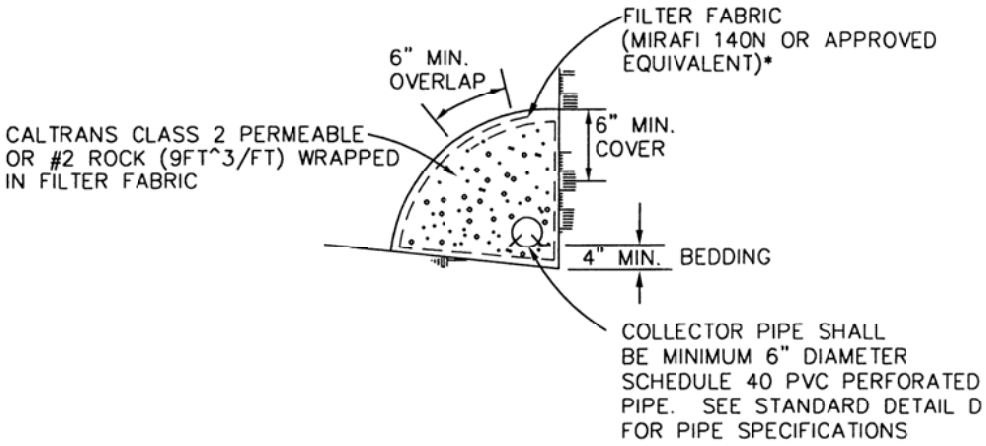


TYPICAL PROFILE ALONG WINDROW

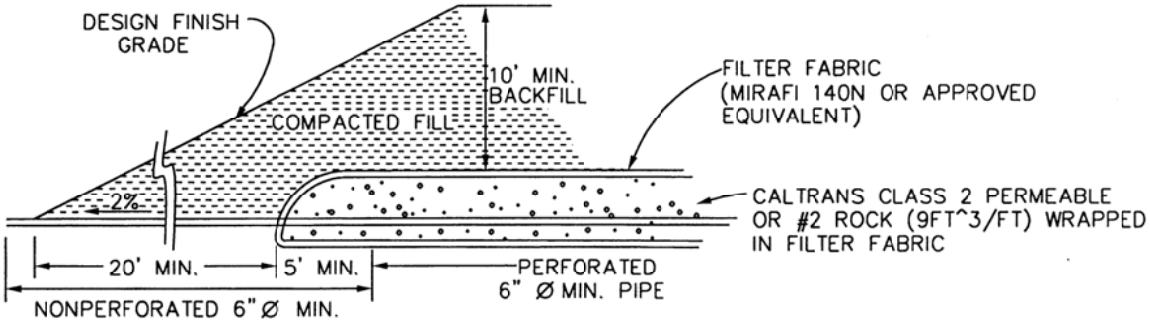
OVERSIZE ROCK DISPOSAL

GENERAL EARTHWORK AND GRADING SPECIFICATIONS
STANDARD DETAIL B





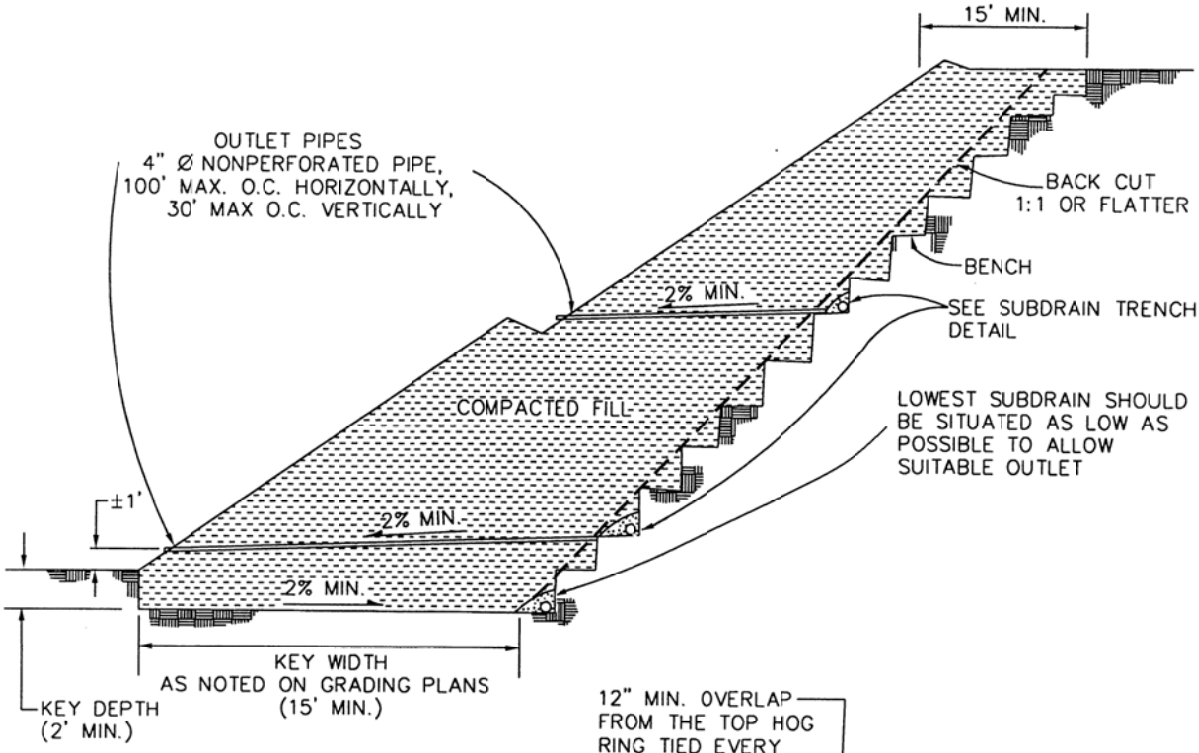
SUBDRAIN DETAIL

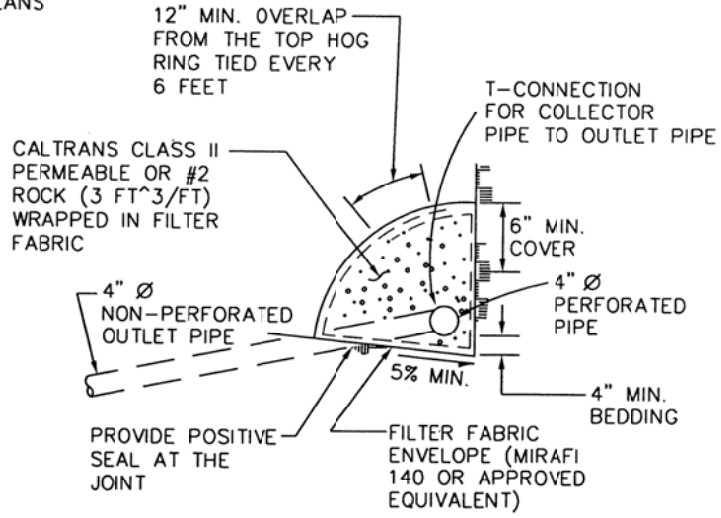


DETAIL OF CANYON SUBDRAIN OUTLET

CANYON SUBDRAINS

GENERAL EARTHWORK AND
GRADING SPECIFICATIONS
STANDARD DETAIL C





SUBDRAIN TRENCH DETAIL

SUBDRAIN INSTALLATION – subdrain collector pipe shall be installed with perforation down or, unless otherwise designated by the geotechnical consultant. Outlet pipes shall be non-perforated pipe. The subdrain pipe shall have at least 8 perforations uniformly spaced per foot. Perforation shall be 1/4" to 1/2" if drill holes are used. All subdrain pipes shall have a gradient of at least 2% towards the outlet.

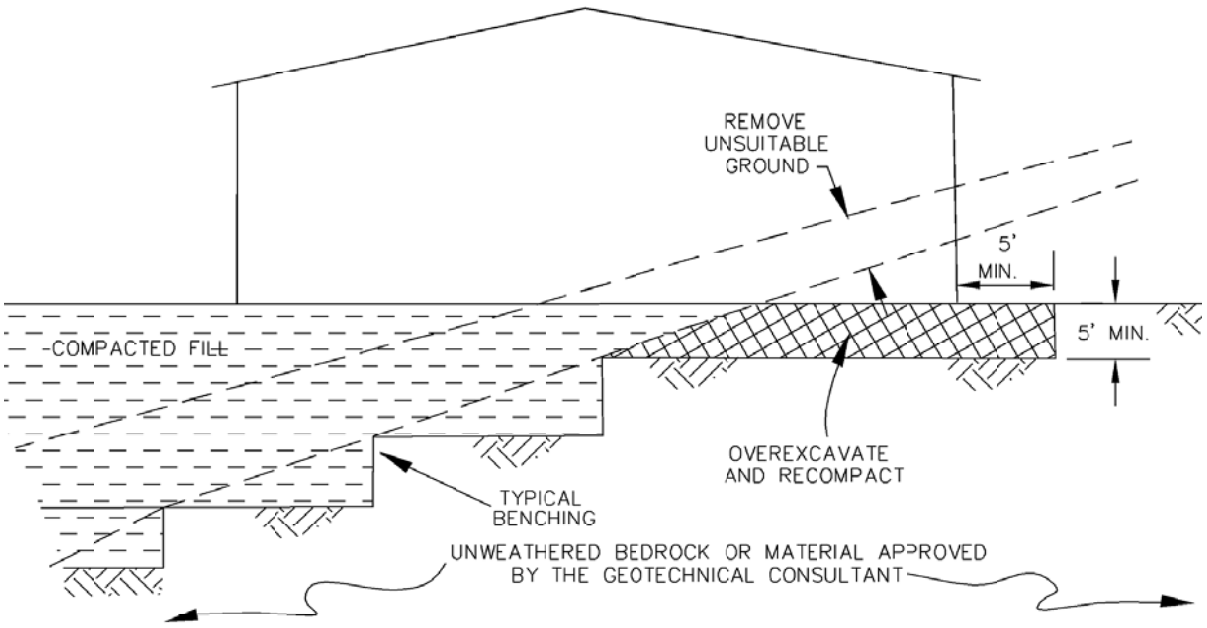
SUBDRAIN PIPE – Subdrain pipe shall be ASTM D2751, SDR 23.5 or ASTM D1527, Schedule 40, or ASTM D3034, SDR 23.5, Schedule 40 Polyvinyl Chloride Plastic (PVC) pipe.

All outlet pipe shall be placed in a trench no wider than twice the subdrain pipe.

BUTTRESS OR REPLACEMENT FILL SUBDRAINS

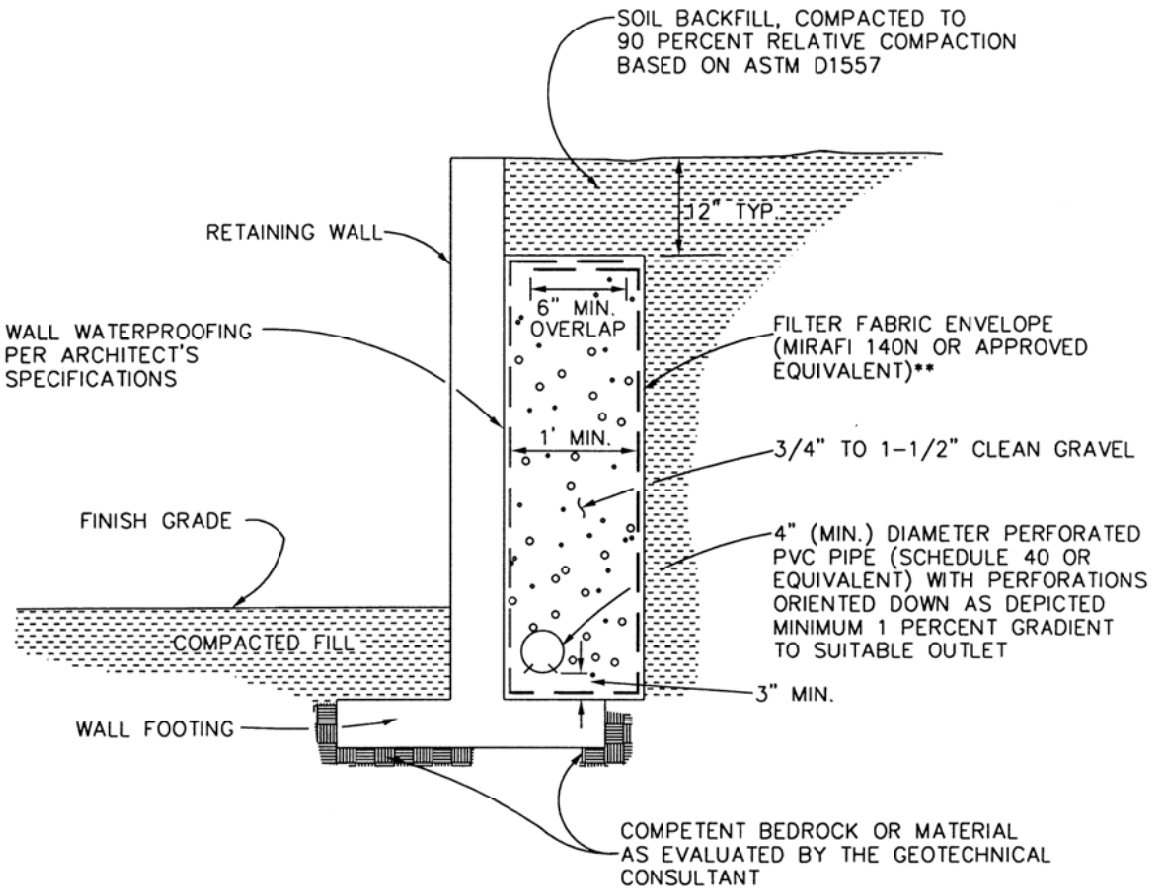
GENERAL EARTHWORK AND GRADING SPECIFICATIONS
STANDARD DETAIL D

CUT–FILL TRANSITION LOT OVEREXCAVATION



TRANSITION LOT FILLS

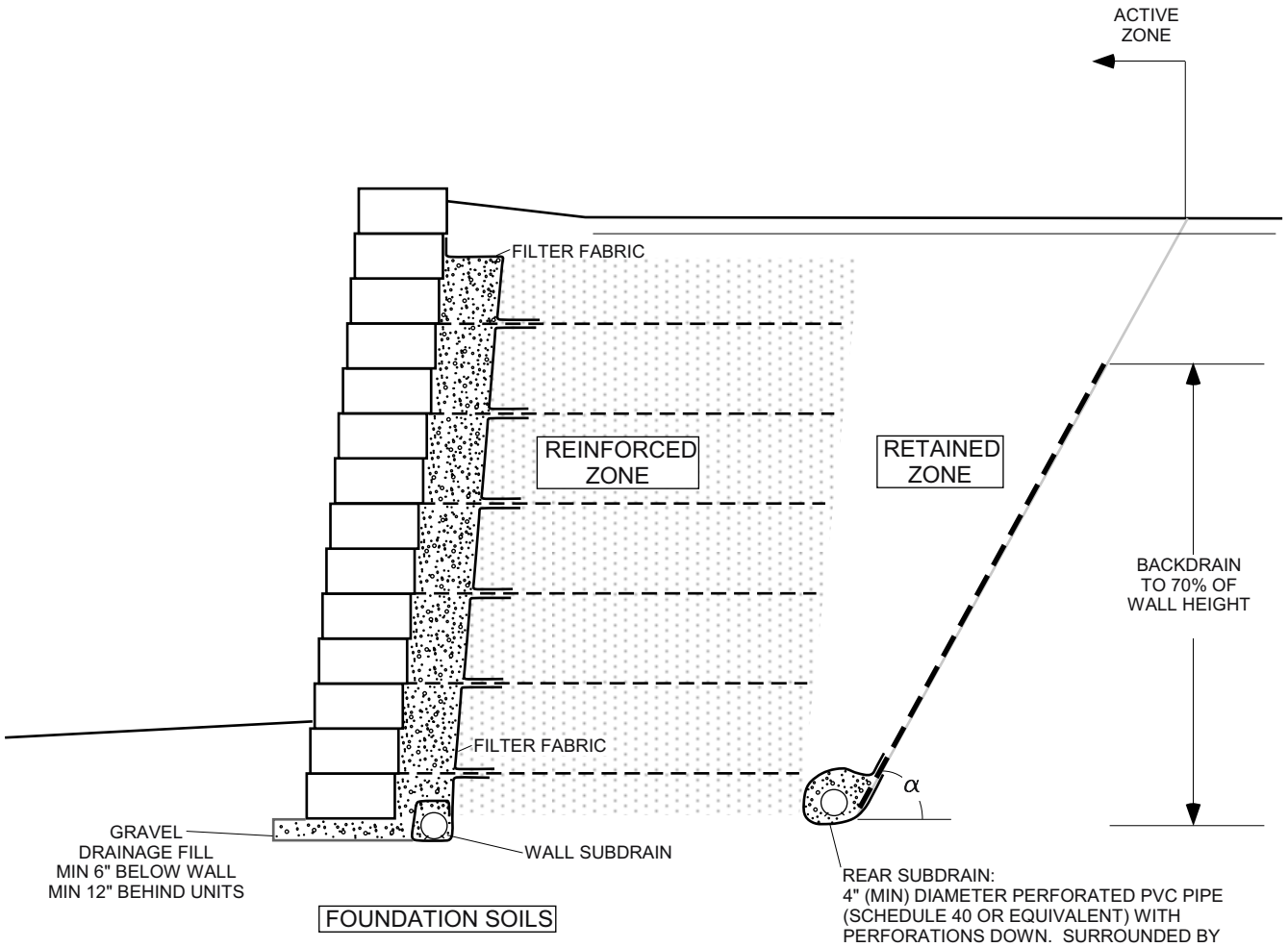
GENERAL EARTHWORK AND
GRADING SPECIFICATIONS
STANDARD DETAIL E



NOTE: UPON REVIEW BY THE GEOTECHNICAL CONSULTANT, COMPOSITE DRAINAGE PRODUCTS SUCH AS MIRADRAIN OR J-DRAIN MAY BE USED AS AN ALTERNATIVE TO GRAVEL OR CLASS 2 PERMEABLE MATERIAL. INSTALLATION SHOULD BE PERFORMED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

RETAINING WALL DRAINAGE

GENERAL EARTHWORK AND GRADING SPECIFICATIONS
STANDARD DETAIL F



NOTES:

1) MATERIAL GRADATION AND PLASTICITY

REINFORCED ZONE:

SIEVE SIZE	% PASSING
1 INCH	100
NO. 4	20-100
NO. 40	0-60
NO. 200	0-35

GRAVEL DRAINAGE FILL:

SIEVE SIZE	% PASSING
1 INCH	100
3/4 INCH	75-100
NO. 4	0-60
NO. 40	0-50
NO. 200	0-5

FOR WALL HEIGHT < 10 FEET, PLASTICITY INDEX < 20
FOR WALL HEIGHT 10 TO 20 FEET, PLASTICITY INDEX < 10
FOR TIERED WALLS, USE COMBINED WALL HEIGHTS
WALL DESIGNER TO REQUEST SITE-SPECIFIC CRITERIA FOR WALL HEIGHT > 20 FEET

2) CONTRACTOR TO USE SOILS WITHIN THE RETAINED AND REINFORCED ZONES THAT MEET THE STRENGTH REQUIREMENTS OF WALL DESIGN.

3) GEOGRID REINFORCEMENT TO BE DESIGNED BY WALL DESIGNER CONSIDERING INTERNAL, EXTERNAL, AND COMPOUND STABILITY.

3) GEOGRID TO BE PRETENSIONED DURING INSTALLATION.

4) IMPROVEMENTS WITHIN THE ACTIVE ZONE ARE SUSCEPTIBLE TO POST-CONSTRUCTION SETTLEMENT. ANGLE $\alpha = 45+\phi/2$, WHERE ϕ IS THE FRICTION ANGLE OF THE MATERIAL IN THE RETAINED ZONE.

5) BACKDRAIN SHOULD CONSIST OF J-DRAIN 302 (OR EQUIVALENT) OR 6-INCH THICK DRAINAGE FILL WRAPPED IN FILTER FABRIC. PERCENT COVERAGE OF BACKDRAIN TO BE PER GEOTECHNICAL REVIEW.

SEGMENTAL RETAINING WALLS

GENERAL EARTHWORK AND GRADING SPECIFICATIONS
STANDARD DETAIL G

Appendix C Noise and Vibration Impact Analysis

Technical Memorandum

To:	Oscar Romero, City of Chula Vista Planning and Building Department
From:	Peter Hardie, INCE Senior Manager, Noise
Date:	July 21, 2022
Re:	**Otay Ranch Medical Office Building Noise and Vibration Impact Analysis**

1. Introduction

The purpose of this memorandum is to support Sharp HealthCare in the environmental review process and provide information regarding potential noise and vibration effects associated with a proposed medical office building (MOB) and associated parking structure. The analysis provided in this memorandum evaluates the potential for short-term (ST) and long-term (LT) noise and vibration impacts associated with construction and operation of the project. The analysis also includes a description of the environmental setting for the project, including existing noise conditions, as well as applicable laws and regulations. It also documents the assumptions, methodologies, and findings used to evaluate the impacts.

2. Project Description

A three-story, 68,535-square-foot (sf) MOB currently occupies the northern section of the site. A parking lot occupies the remaining portion of the site. A new 60,000 sf MOB and parking structure with 550 to 600 parking spaces would be built within the existing parking lot. A parking structure would be built in the southern section of the site. The new MOB would be located in the western section of the site, between the existing MOB and the proposed parking structure.

3. Noise Fundamentals

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is often defined as sound that is objectionable because it is unwanted, disturbing, or annoying.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and the obstructions or atmospheric factors, which affect the propagation path to the receptor, determine the sound level and the characteristics of the noise perceived by the receptor.

The following sections provide an explanation of key concepts and acoustical terms used in the analysis of environmental and community noise.

Frequency, Amplitude, and Decibels

Continuous sound can be described by *frequency* (pitch) and *amplitude* (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz, or thousands of Hz. The audible frequency range for humans is generally between 20 and 20,000 Hz.

The amplitude of pressure waves generated by a sound source determines the loudness of that source. The amplitude of a sound is typically described in terms of the *sound pressure level*, which refers to the root-mean-square pressure of a sound wave and can be measured in units called micropascals (μPa). One μPa is approximately one hundred-billionth (0.00000000001) of normal atmospheric pressure. Sound pressure levels for different kinds of noise environments can range from less than 100 to more than 100,000,000 μPa. Because of this large range of values, sound is rarely expressed in terms of μPa. Instead, a logarithmic scale is used to describe the sound pressure level (also referred to simply as the sound level) in terms of decibels, abbreviated dB. Specifically, the decibel describes the ratio of the actual sound pressure to a reference pressure and is calculated as follows:

$$SPL = 20 \times \log_{10}\left(\frac{X}{20\mu Pa}\right)$$

where X is the actual sound pressure and 20 μPa is the standard reference pressure level for acoustical measurements in air. The threshold of hearing for young people is about 0 dB, which corresponds to 20 μPa.

Decibel Addition

Because decibels are logarithmic, sound pressure levels cannot be added or subtracted through ordinary arithmetic. On the dB scale, a doubling of sound energy corresponds to a 3 dB increase. In other words, when two identical sources are each producing sound of the same loudness, their combined sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one excavator produces a sound pressure level of 80 dB, two excavators would not produce 160 dB. Rather, they would combine to produce 83 dB. The cumulative sound level of any number of sources can be determined using decibel addition. The same decibel addition is used for A-weighted decibels, described below.

Perception of Noise and A-Weighting

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the sound pressure level in that range. In general, people are most sensitive to the frequency range of 1,000 to 8,000 Hz and perceive sounds within that range better than sounds of the same amplitude at higher or lower frequencies. To approximate the response of the human ear, sound levels in various frequency bands are adjusted (or "weighted"), depending on human sensitivity to those frequencies. The resulting sound pressure level is expressed in A-weighted decibels, abbreviated dBA. When people make judgments regarding the relative loudness or annoyance of a sound, their judgments correlate well with the A-weighted sound levels of those sounds. Table 3-1 describes typical A-weighted sound levels for various noise sources.

Human Response to Noise

Noise-sensitive receptors (also called "receivers") are locations where people reside or where the presence of unwanted sound may adversely affect use of the land. The effects of noise on people can be listed in three general categories:

- Subjective effects of annoyance, nuisance, or dissatisfaction;
- Interference with activities such as speech, sleep, learning, or working; and
- Physiological effects such as startling and hearing loss.

In most cases, effects from sounds typically found in the natural environment (compared to an industrial or an occupational setting) would be limited to the first two categories, creating annoyance or interfering with activities. (Further discussion of health-related effects is provided below.) No completely satisfactory method exists to measure the subjective effects of sound or the corresponding reactions of annoyance and dissatisfaction. This lack of a common standard arises primarily from the wide variation in individual thresholds of annoyance and habituation to sound. Therefore, an important way of determining a person's subjective reaction to a new sound is by comparing it to the existing baseline or "ambient" environment to which that person has adapted. In general, the more the level or tonal (frequency) variations of a sound exceed the previously existing ambient sound level or tonal quality, the less acceptable the new sound will be, as judged by the exposed individual.

Studies have shown that, under controlled conditions in an acoustics laboratory, a healthy human ear is able to discern changes in sound levels of 1 dBA. In the normal environment, the healthy human ear can detect changes of about 2 dBA; however, it is widely accepted that a doubling of sound energy, which results in a change of 3 dBA in the normal environment, is considered just noticeable to most people. A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as being twice as loud. Accordingly, a doubling of sound energy (e.g., doubling the volume of traffic on a highway), resulting in a 3 dBA increase in sound, would generally be barely detectable.

Table 3-1. Typical Noise Levels in the Environment

Common Outdoor Noise Source	Sound Level (dBA)	Common Indoor Noise Source
	— 110 —	Rock band
Jet flying at 1,000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher in next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: California Department of Transportation 2013.

Noise Descriptors

Because sound levels can vary markedly over a short period of time, various descriptors or noise "metrics" have been developed to quantify environmental and community noise. These metrics generally describe either the average character of the noise or the statistical behavior of the variations in the noise level. The metrics used in this study are described below.

Equivalent Sound Level (L_{eq}) is the most common metric used to describe short-term average noise levels. Many noise sources produce levels that fluctuate over time; examples include mechanical equipment that cycles on and off or construction work, which can vary sporadically. The L_{eq} describes the average acoustical energy content of noise for an identified period of time, commonly 1 hour. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustical energy over the duration of the exposure. For many noise sources, the L_{eq} will vary, depending on the time of day. A prime example is traffic noise, which rises and falls, depending on the amount of traffic on a given street or freeway.

Maximum Sound Level (L_{max}) and **Minimum Sound Level (L_{min})** refer to the maximum and minimum sound levels, respectively, that occur during the noise measurement period. More specifically, they describe the root-mean-square sound levels that correspond to the loudest and quietest 1-second intervals that occur during the measurement.

Percentile-Exceeded Sound Level (L_{xx}) describes the sound level exceeded for a given percentage of a specified period (e.g., L_{10} is the sound level exceeded 10 percent of the time, and L_{90} is the sound level exceeded 90 percent of the time).

Community Noise Equivalent Level (CNEL) is a measure of the cumulative 24-hour noise level that considers not only the variation of the A-weighted noise level but also the duration and the time of day of the disturbance. The CNEL is derived from the twenty-four 1-hour A-weighted L_{eq} periods that occur in a day, with "penalties" applied to levels occurring during the evening hours (7:00 p.m. to 10:00 p.m.) and nighttime hours (10:00 p.m. to 7:00 a.m.) to account for increased noise sensitivity during these hours. Specifically, the CNEL is calculated by adding 5 dBA to the evening L_{eq}, adding 10 dBA to the nighttime L_{eq}, and then taking the average value for all 24 hours.

Sound Propagation

When sound propagates over a distance, it changes in both level and frequency content. The manner in which noise is reduced with distance depends on the following important factors:

- **Geometric Spreading**. Sound from a single source (i.e., a *point source*) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates (or drops off) at a rate of 6 dBA for each doubling of distance. Highway noise is not a single stationary point source of sound. The movement of vehicles on a highway makes the source of the sound appear to emanate from a line (i.e., a *line source*) rather than from a point. This results in cylindrical spreading rather than the spherical spreading resulting from a point source. The change in sound level (i.e., attenuation) from a line source is 3 dBA per doubling of distance.
- **Ground Absorption**. Usually the noise path between the source and the observer is very close to the ground. The excess noise attenuation from ground absorption is due to acoustic energy losses from sound wave reflection. For acoustically absorptive or "soft" sites (i.e., sites with an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dBA per doubling of distance is normally assumed. When added to the geometric spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dBA per doubling of distance for a line source and 7.5 dBA per doubling of distance for a point source.
- **Atmospheric Effects**. Research by the California Department of Transportation (Caltrans) and others has shown that atmospheric conditions can have a major effect on noise levels (Caltrans 2013). Factors include wind, air temperature (including vertical temperature gradients), humidity, and turbulence. Receptors downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas receptors upwind can have lower noise levels. Increased sound levels can also occur over relatively large distances because of temperature inversion conditions (i.e., increasing air temperature with elevation).

- **Shielding by Natural or Human-Made Features**. A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by this shielding depends on the size of the object, proximity to the noise source and receptor, surface weight, solidity, and the frequency content of the noise source. Natural terrain features (such as hills and dense woods) and human-made features (such as buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receptor with the specific purpose of reducing noise. In addition to noise that diffracts over the top of a barrier, noise will also diffract around the ends of a barrier, leading to "flanking" noise that can reduce the overall efficacy of the barrier. Assuming it is long enough to minimize the effects of flanking noise, a barrier that breaks the line of sight between a source and a receptor will typically result in at least 5 dB of noise reduction. A taller barrier may provide as much as 20 dB of noise reduction.

4. Environmental Vibration Fundamentals

Ground-borne vibration is an oscillatory motion of the soil with respect to the equilibrium position and can be quantified in terms of *velocity* or *acceleration*. The velocity describes the instantaneous speed of the motion, and acceleration is the instantaneous rate of change of the speed. Each of these measures can be further described in terms of *frequency* and *amplitude*.

In contrast to airborne sound, ground-borne vibration is not a phenomenon that most people experience every day. The background vibration velocity level in residential areas is usually much lower than the threshold of human perception. Most perceptible indoor vibration is caused by sources within buildings, such as mechanical equipment while in operation, people moving, or doors slamming. Typical outdoor sources of perceptible ground-borne vibration are heavy construction equipment (such as that used for blasting and pile driving), railroad operations, and heavy trucks on rough roads. If a roadway is smooth, the ground-borne vibration from traffic is rarely perceptible. Ground-borne vibration can be a serious concern for neighbors because it can cause buildings to shake and rumbling sounds to be heard. If a person is engaged in any type of physical activity, vibration tolerance increases considerably. Vibration can result in effects that range from annoyance to structural damage. Variations in geology and distance result in different vibration levels with different frequencies and amplitudes.

Vibration Descriptors

Various descriptors, or "metrics," can be used to quantify ground-borne vibration. The metrics used in the assessment of environmental impacts are generally focused on the short-term maximum vibration levels. The metric considered in this study is described below.

Peak particle velocity (PPV) is defined as the maximum instantaneous positive or negative peak amplitude of the vibration velocity. The unit of measurement for PPV is inches per second (in/s).

5. Existing Noise Environment

The land uses surrounding the project site consist of multi- and single-family residences to the west and south, respectively. Additional land uses to the west are a day-care facility and a few commercial establishments. North of the project site, across Palomar Street, is Heritage Park. Land uses to the east, across Santa Andrea Street, are commercial, with multi-family residential located beyond the commercial land uses. The closest noise-sensitive land uses are the apartments and the day care to the west and the single-family homes to the south.

The primary source of noise in the area is traffic on Palomar Street. Other noise sources include traffic on other local roadways, aircraft overflights, general neighborhood noise, and playground noise from the nearby day care. The existing noise environment in the project vicinity varies with proximity to the local noise sources. To document existing noise levels in the study area, one ST measurement and two LT measurements were obtained. The ST measurement was conducted over a period of 20 minutes. The LT measurements were conducted over a period of approximately 48 hours.

The instrumentation used to obtain the noise measurements consisted of a Larson Davis (Model 831) integrating sound level meter (SLM) for the ST measurement, a Piccolo II SLM for the LT measurements, and a Larson Davis (Model CAL200) acoustical calibrator to field calibrate the SLM before and after each measurement for accuracy. The instruments are maintained to manufacturer specifications to ensure accuracy, in accordance with American National Standards Institute (ANSI) standard S1.4 2006.

Measured daytime ambient hourly noise levels ranged from 47 to 55 dBA L_{eq} at LT-1 and 49 to 60 dBA L_{eq} at LT-2. Measured evening ambient hourly noise levels ranged from 45 to 53 dBA L_{eq} at LT-1 and 47 to 57 dBA L_{eq} at LT-2. Measured nighttime ambient hourly noise levels ranged from 36 to 53 dBA L_{eq} at LT-1 and 39 to 55 dBA L_{eq} at LT-2. Additional details and a summary of the measurement results are provided in Table 5-1. Field noise survey sheets are provided in Appendix A to this memorandum. Figure 1 shows the location of the short- and long-term locations.

Table 5-1. Measured Existing Noise Levels in Study Area

	Hourly L_{eq}, dBA		
Location Number, Description (date, time)	**Daytime**	**Evening**	**Nighttime**
ST-1	49	—	—
LT-1	47–55	45–53	36–53
LT-2	49–60	47–57	39–55

Notes: daytime = 7:00 a.m. to 7:00 p.m.; evening = 7:00 p.m. to 10:00 p.m.; nighttime = 10:00 p.m. to 7:00 a.m.; ST = short-term; LT = long-term; dBA = A-weighted sound level, L_{eq} = equivalent sound level, the average of the sound energy occurring over the measurement period; — = no measurement was obtained for the corresponding location and timeframe.

6. Regulatory Setting

Federal

There are no federal noise or vibration regulations that apply directly to the proposed project.

State

There are no state noise or vibration regulations that apply directly to the proposed project. However, Caltrans provides widely referenced vibration guidelines in its *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020). The City of Chula Vista (City) prohibits vibration that is "above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property or at 150 feet from the source."

Building damage potential and annoyance potential are summarized in Tables 6-1 and 6-2. Ground-borne vibration annoyance criteria are typically assessed only at occupied sensitive buildings rather than exterior areas such as yards, parks, or playgrounds because people are typically much less sensitive to ground-borne vibration when they are using exterior areas than when they are inside buildings.

Table 6-1. Caltrans Criteria for Potential Vibration Damage

	Maximum PPV (in/s)[a]	
Structure and Condition	**Transient Sources**	**Continuous/Frequent Intermittent Sources**
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

[a.] Transient sources create a single isolated vibration event, such as blasting or the use of drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Table 6-2. Caltrans Criteria for Potential Vibration Annoyance

	Maximum PPV (in/s)[a]	
Human Response	**Transient Sources**	**Continuous/Frequent Intermittent Sources**
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.90	0.10
Severe	2.00	0.40

[a.] Transient sources create a single isolated vibration event, such as blasting or the use of drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Chula Vista Municipal Code

City Municipal Code Section 19.68 addresses performance standards and noise control and provides regulations for both construction noise and operational noise, as described in the sections that follow.

Construction Noise

Section 17.24.040, Part C.8, of the City Municipal Code deems noise associated with construction as disturbing, excessive, if it occurs between the hours of 10:00 p.m. and 7:00 a.m., Monday through Friday, and between the hours of 10:00 p.m. and 8:00 a.m., Saturday and Sunday, except when the work is necessary for emergency repairs required for the health and safety of any member of the community.

Section 19.68.060, Part C, of the City Municipal Code exempts construction from the requirements of the noise standard (City of Chula Vista 2022). The code states:

> Exemptions from Exterior Noise Standards. The provisions of CVMC 19.68.030 shall not apply to activities covered by the following sections:
>
> 2. Construction/demolition.

Although the City Municipal Code does exempt construction from the limits outlined in the code, no time limit is outlined. Therefore, it is assumed that the time limit of 7:00 a.m. to 10:00 p.m. Monday through Friday or 8:00 a.m. to 10:00 p.m. is still applicable and that no construction will be conducted outside these hours.

Operational Noise

Sections 19.68.030 and 19.68.040 of the City Municipal Code establish standards for exterior and interior noise levels. Noise limits vary, depending on the zoning of the receiving land use, as summarized in Table 6-3.

Table 6-3. Chula Vista Municipal Code Exterior Noise Limits

	Noise Level (dBA)[a,b]	
	10:00 p.m. to 7:00 a.m. (weekdays)	**7:00 a.m. to 10:00 p.m. (weekdays)**
Zone	**10:00 p.m. to 8:00 a.m. (weekends)**	**8:00 a.m. to 10:00 p.m. (weekends)**
All residential (except multiple dwelling)	45	55
Multiple-dwelling residential	50	60
Commercial	60	65
Light Industrial – I-R and I-L zone	70	70
Heavy industry – I zone	80	80

[a.] Limits are assumed to be 1-hour average noise levels (1-hour L_{eq}).
[b.] If the measured ambient level exceeds the permissible level in Table III of the code, the allowable noise exposure standard shall be the ambient noise level. The ambient level shall be measured when the alleged noise violation source is not operating.
Notes: dBA = A-weighted sound level

Appendix A, Section 19.68.090, to the code defines *environmental noise* versus *nuisance noise.* It also defines air-conditioners, compressors, etc., provided they are maintained and permitted, as environmental noise. Therefore, it is assumed that these types of equipment will be subject to the requirements of the exterior noise standards referenced in Table 6-3.

Vibration

Sections 19.66.080 and 19.68.050, Part C, of the City Municipal Code address vibration:

> Section 19.66.080 – Vibration. No vibration, other than from transportation facilities or temporary construction work, shall be permitted that is discernible without instruments at the points of measurement specified in CVMC 19.66.060(A).
>
> Section 19.68.050 C. – Vibration. Operating or permitting the operation of any device that creates a vibration that is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property or 150 feet from the source if on a public space or public right-of-way.
>
> Section 19.68.020 BB. – *Vibration perception threshold* means the minimum ground-borne or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such direct means as, but not limited to, sensation by touch or visual observation of moving objects. The perception threshold shall be presumed to be a motion velocity of 0.01 in/s over the range of 1 to 100 Hertz.

While the City's Municipal Code identifies a threshold of 0.01 in/s, it is unclear whether this is PPV or an equivalent RMS value. Therefore, a threshold of 0.04 PPV (based on the Caltrans Criteria for Potential Vibration Annoyance [Table 6-2]) will be considered the impact threshold.

City of Chula Vista General Plan

The Environmental Element of the City General Plan (City of Chula Vista 2021) identifies existing and potential noise sources and provides goals, objectives, and policies to keep noise from reducing the quality of life in La Mesa. The Noise Element establishes guidelines to evaluate the compatibility of land uses and noise exposure. Table 6-4 summarizes the City's exterior land use noise compatibility guidelines. These guidelines reflect the levels of noise exposure that are generally considered to be compatible with various types of land uses.

Table 6-4. City of Chula Vista Noise/Land Use Compatibility Guidelines

	dB CNEL					
Land Use Category	**50**	**55**	**60**	**65**	**70**	**75**
Residential						
Schools, libraries, day-care facilities, convalescent homes, outdoor use areas, and other similar uses considered noise sensitive						
Neighborhood parks, playgrounds						
Community parks, athletic fields						
Offices and professional uses						
Places of worship, (excluding outdoor use areas)						
Golf courses						
Retail and wholesale commercial establishments, restaurants, movie theaters						
Industrial, manufacturing						

These levels are not specific standards but rather guidelines to guide the location and design of future development. Nonetheless, the guidelines are also useful in assessing impacts, particularly from transportation-related noise sources (roads, railways, and aircraft), which are not regulated in the City Municipal Code.

7. Methodology

General Assumptions for Noise and Vibration Calculations

This section describes the general assumptions and methodology used throughout the quantitative analyses in this study. As described previously, three of the most important variables that affect the noise level experienced at a noise-sensitive receptor are (1) the distance between the noise source and the receptor, (2) the ground conditions between the two, and (3) the presence or absence of acoustical shielding between the two. Each of these is discussed below.

Source-to-Receiver Distances

Depending on the source in question and the noise or vibration metric to be assessed, one of two definitions can be used to describe the source-to-receiver distance, as summarized below.

Closest Distance. The closest source-to-receptor distance is very straightforward and describes the shortest distance between the noise-sensitive receptor and the closest part of the noise source, such as an individual piece of equipment or the closest edge of an active construction site.

Acoustical Average Distance. The acoustical average distance is used to represent noise sources that are mobile or distributed over an area (such as a construction site or parking lot, equestrian arena, or parking lot); it is calculated by multiplying the shortest distance between the receiver and the noise source area by the farthest distance and then taking the square root of the product:

$$Acoustical\ average\ distance = \sqrt{Distance_A \times Distance_B}$$

where $Distance_A$ is the shortest distance between the receiver and the noise source area (i.e., the active construction site), and $Distance_B$ is the longest distance between the receiver and the noise source area.

For a small, stationary noise source, such as an individual piece of mechanical equipment, there is usually negligible difference between the closest distance and the acoustical average distance. However, the acoustical average distance is generally a more accurate description for larger, more distributed noise sources; in such cases, the acoustical average distance is always larger than the closest distance.

Ground Conditions

Noise levels were assumed to decrease at a rate of 6 dB per doubling of distance. This corresponds to acoustically hard ground surfaces such as concrete or pavement. In reality, this assumption may be slightly conservative because some surrounding properties include areas of acoustically "soft" vegetated ground cover.

Acoustical Shielding

Barrier effects (acoustical shielding) were neglected in the calculations for the impact analysis of traffic. This assumption is most likely conservative in locations with topography or intervening structures that could interrupt noise propagation.

Construction Noise and Vibration

Noise

Construction-related noise was analyzed using data and modeling methodologies from the Federal Highway Administration's (FHWA's) Roadway Construction Noise Model (FHWA 2008), which predicts noise levels at nearby receptors by analyzing the type of equipment, the distance from

source to receptor, usage factor, and the presence or absence of intervening shielding between source and receptor. Although the proposed project is not specifically a roadway construction project, the model is broad enough to be applicable, providing noise data for all the equipment types typically required during conventional construction.

To facilitate a quantitative construction noise analysis, it was necessary to make assumptions about the type of construction activity that might reasonably occur under each project category. The estimated construction equipment lists used in the construction noise analysis were generated as part of the project's air quality and greenhouse gas technical analysis. The analysis considered six anticipated construction phases. The distance used in the calculations was the acoustical average distance between the project site and the receiver.

Vibration

Construction-related vibration was analyzed using data and modeling methodologies provided by the Caltrans guidance manual (Caltrans 2020). Although the proposed project is not a highway project, the manual provides vibration data for all equipment types typically required during conventional construction as well as methods for estimating the propagation of ground-borne vibration over distance. Therefore, it is considered appropriate for use in analyzing the proposed project.

Table 7-1 provides a reference PPV from the guidance manual for the various types of construction equipment expected to be used over the course of project construction. The levels are provided for a reference distance of 25 feet.

Table 7-1. Construction Equipment Reference Vibration Levels

Equipment Item	Reference PPV at 25 feet, in/s	Approximate L_V at 25 feet, dBV
Vibratory roller	0.210	94
Large bulldozer[a]	0.089	87
Small bulldozer[b]	0.003	58

Source: Caltrans 2020.
[a.] Considered representative of other types of heavy earthmoving equipment, such as excavators, graders, backhoes, etc.
[b.] Considered representative of other types of smaller earthmoving equipment, such as a Bobcat®, skid steer, etc.

The following equation from the guidance manual was used to estimate the change in PPV levels over distance:

$$PPV_{rec} = PPV_{ref} \times (25/D)^n$$

where PPV_{rec} is the PPV at a receptor; PPV_{ref} is the reference PPV at 25 feet from the equipment; D is the distance from the equipment to the receiver, in feet; and n is a value related to the vibration attenuation rate through ground (the default recommended value for n is 1.1).

Operational Noise

Traffic Noise

The analysis of traffic noise in the study area was based on data from the *Transportation Circulation Assessment Letter Report* for the proposed project (Linscott, Law & Greenspan 2021). The analysis was conducted using a proprietary traffic noise model; calculations were based on data from the FHWA Traffic Noise Model, version 2.5, Look-Up Tables (FHWA 2004). The inputs used in the traffic noise modeling included average daily traffic (ADT) volumes, assumed traffic mix and daily distribution (the percentage of automobiles versus medium and heavy trucks during each hour of the day), and traffic speeds, based on the posted speed limits. To quantify the effects of the proposed project, traffic noise was analyzed at a reference distance of 50 feet from the roadway for existing and existing-plus-project scenarios.

On-site Operations

On-site operation of the parking structure, rooftop mechanical equipment, and emergency generator was analyzed using SoundPLAN acoustical modeling software. The model considers many important variables, including the sound power of the noise source, the heights of the noise sources and receptors, the distance to noise-sensitive receptors, and the local ground conditions, site topography, and barrier effects from buildings, walls, and terrain. The geometry for the model was based on publicly available aerial photography and terrain data as well as the proposed project's site plans.

8. Impacts Analysis

Construction

Noise

Two types of short-term noise impacts could occur during project construction. First, construction vehicles would incrementally increase noise levels on access roads. This would include construction workers' vehicles as well as haul trucks traveling to and from the project site. Although there would be a relatively high single-event noise level, which could cause an intermittent noise nuisance (e.g., passing trucks at 50 feet would generate up to 77 dBA), the effect on longer-term ambient noise levels would be small. Therefore, there would be no impacts related to the short-term noise associated with commuting construction workers and transporting equipment and materials to the project site.

The second category of construction noise would be noise generated during on-site project construction. The City exempts construction noise from the requirements of the City Municipal Code and does not limit the time when construction can occur; therefore, the typical daytime hours of 7:00 a.m. to 10:00 p.m. have been incorporated as the time when construction would occur. Using the methodology described in Section 7, noise levels at the nearest noise-sensitive receptors

(apartments and a day care to the west and a home to the south) were estimated. The analyses are provided in Appendix B, and the results are summarized in Table 8-1. The predicted noise levels are higher than the existing noise levels measured in the project vicinity, indicating construction would be audible at nearby off-site receptors. However, construction noise would be temporary and would cease entirely once the project is complete. Furthermore, no noise would be generated during the most sensitive nighttime hours (10:00 p.m. through 7:00 a.m.) when residents are trying to sleep. Construction would comply with the applicable noise regulations (hours of operation) of the City Municipal Code, and the impact would be less than significant.

Table 8-1. Construction Noise Levels from Anticipated Construction Phases

Construction Phase	Noise Level at 50 Feet dBA L_{eq}[a]	L_{eq} at Apartments to the West, dBA L_{eq}[a]	L_{eq} at Day Care to the West, dBA L_{eq}[a]	L_{eq} at Homes to the South, dBA L_{eq}[a,b]
Grading, Underground Utilities, and Site Improvements [c]	85	73	77	72
Parking Structure [d]	85	73	77	67
New MOB Building, Cold Shell [d]	85	73	76	67
Tenant Improvement	82	70	73	64

Source: Appendix B.

a. The analysis assumes all construction running concurrently.

b. It should be noted that the elevation of the homes is approximately 20 to 25 feet below the elevation of the MOB. Therefore, the estimate of construction noise is conservative for all of the homes, with the exception of any second-floor windows or balconies.

c. Calculated from the acoustical average distance of the entire site.

d. Calculated from the acoustical average distance for the specific phase of construction.

Vibration

Heavy construction equipment would generate ground-borne vibration that could affect nearby structures or residents. Each of the potential types of construction impact (e.g., building damage and human annoyance) is discussed in her detail below.

Potential Building Damage

Using the source vibration levels and methodology described in Section 7, the distances for potential vibration damage impacts at various receiver building categories were calculated for the range of anticipated construction equipment. The calculations prepared for the vibration analysis used information referenced in Section 7. The results of those calculations are summarized in Table 8-2. Because the assessment of the potential for building damage is based on the instantaneous PPV, the identified distances are the closest distances between the construction equipment and the potentially affected structure (not the average distance). The closest off-site buildings are the day care and apartments to the west, approximately 80 to 90 feet from the closest edge of construction, which would have a corresponding vibration damage threshold PPV of 0.5 in/s. These buildings are

well outside the potential impact distance of 12 feet shown in Table 8-2. Therefore, project construction would not generate any impacts related to potential building damage.

Table 8-2. Impact Distances for Potential Vibration Damage from Project Construction

	Building Category[a]	Extremely Fragile Historic Buildings, Ruins, Ancient Monuments	Fragile Buildings	Historic and Some Old Buildings	Older Residential Structures	New Residential Structures	Modern Industrial/ Commercial Buildings
Equipment Item	**Vibration Damage Impact Criteria, PPV, in/s[b]**	0.08	0.1	0.25	0.3	0.5	0.5
Large bulldozer[c]	Distance to Impact Criteria (feet)	28	23	10	9	6	6
Small bulldozer[d]		2	2	1	1	1	1

[a.] All building types shown for reference. Not all building types are present in the project vicinity.
[b] All criteria are based on the values for continuous/frequent intermittent sources (all of the anticipated sources fall into this category).
[c] Considered representative of other heavy types of earthmoving equipment, such as excavators, graders, backhoes, etc.
[d] Considered representative of other smaller types of earthmoving equipment, such as a Bobcat® or skid steer.

Potential Human Annoyance

Using the methodology described in Section 7, the distances at which various levels of human vibration perception are expected were calculated for the range of anticipated construction equipment. The calculations prepared for the vibration analysis used information referenced in Section 7. The results of those calculations are summarized in Table 8-3. As discussed in section 6, the City's vibration criterion of 0.01 in/s (per 19.68.050.C) could be interpreted as being an RMS value, which when converted to a PPV value would be consistent with the suggested impact threshold of 0.04 in/s PPV per the "distinct perceptibility" Caltrans-based criterion for "continuous" vibration sources as appearing in Table 6-2 and used herein as an impact threshold for human annoyance. Because the assessment of the potential for annoyance is based on the instantaneous PPV, the indicated impact distances are the closest distances between the construction equipment and the sensitive structure (not the average distance). The closest off-site occupied buildings that would be considered vibration sensitive are the day care and apartments to the west, approximately 80 to 90 feet from the closest edge of construction. Vibration from construction equipment would attenuate to below a PPV of 0.04 in/s at a distance of 52 feet. Therefore, vibration from construction would be below the 0.04 PPV threshold incorporated as the impact threshold for the project. While vibration level may be perceptible at times, impacts would be less than significant.

Table 8-3. Impact Distances for Potential Human Annoyance from Project Construction

	Human Perceptibility[a]	**Distinctly Perceptible (PPV of 0.04 in/s)**
Equipment Item	**Vibration Damage Impact Criteria, PPV, in/s[b]**	0.04
Large bulldozer[c]	Distance to Impact Criteria (feet)	52
Small bulldozer[4]		3

[a.] Various perceptibility levels are shown for reference. "Distinctly Perceptible" is used as the threshold for assessing impacts.
[b.] All criteria are based on the values for continuous/frequent intermittent sources (all of the anticipated sources fall into this category).
[c.] Considered representative of other heavy types of earthmoving equipment, such as excavators, graders, backhoes, etc.
[d.] Considered representative of other smaller types of earthmoving equipment, such as a Bobcat® or skid steer.

Project Operation

Traffic Noise

Based on the *Transportation Circulation Assessment Letter Report*, the existing land use generates 3,427 daily trips. The proposed project would generate 3,000 additional trips, or a total of 6,427 daily trips. Existing ADT at Santa Andrea Street, which would be the access point for the new MOB and parking structure, is 4,500. At the time of this report, the trip distribution was not finalized; therefore, it is assumed that traffic would access the site equally from the east and west. Table 8-4 summarizes the predicted noise levels from the roadway segments considered in the *Transportation Circulation Assessment Letter Report* (2021),both with and without the project (refer to Appendix C for the noise modeling). The table also provides the assessment of impacts for each roadway segment at a distance of 50 feet as well as the rationale for each finding. It should be noted that the closest exterior land uses that would be considered noise sensitive are the balconies at the multi-family residential land uses located along the south side East Palomar Street. These balconies are approximately 115 feet from the centerline of the roadway. The closest noise-sensitive receptor along Santa Andrea Street is an exterior play area approximately 50 feet from the centerline. All impacts were determined to be less than significant.

Operational Noise

The three primary noise sources with the proposed project would be parking activities (in the proposed structure and the remaining surface parking areas), new rooftop mechanical equipment, and an emergency generator. These were modeled using SoundPLAN software, as described in Section 7.

Noise modeling was conducted for typical daytime and nighttime activities as well as the generator. Peak parking lot activity would occur the daytime hours; parking lot activity would be minimal at night; therefore, noise from parking lot activity was included in the daytime model but not the nighttime model. The *Transportation Circulation Assessment Letter Report* (Linscott, Law & Greenspan 2021) indicates that there would be up to 707 vehicle movements (212 inbound and 495 outbound) at the parking structure during the busiest hour of the day. These trip numbers were incorporated into the noise modeling, with the total number of trips distributed proportionally between the parking structure and surface parking lots, based on the number of parking spaces at each. It was assumed that rooftop mechanical equipment could run day or night; therefore, it was included in was included in both the daytime and nighttime models. Using acoustical data provided by the project proponent, mechanical equipment noise levels were modeled by assuming that there would be four rooftop air-handler units and nine ductless split-system compressors.

The emergency generator was modeled separately because it would not be a regular noise source. It would operate only for maintenance/testing or to provide power during emergency situations. Estimates of noise levels were based on preliminary acoustical data from the manufacturer's specification sheets. It was assumed that the generator would be installed in the available manufacturer's sound enclosure and with an integrated silencer (muffler). Without the sound enclosure, generator noise levels would be approximately 14 dB higher than those reported below.

Table 8-4. Estimated Traffic Noise Levels

Roadway Segment	Estimated Traffic Noise Levels at 50 Feet from Roadway Centerline/at the Closest Noise-Sensitive Receptor (dB CNEL)			Impact Assessment and Rationale[a]
	Existing	Existing + Project	Change vs. Existing	
E Palomar Street				
East of Santa Andrea Street	65.7/62.0	66.3/62.6	0.6/0.6	Less than Significant. Noise levels at the closest noise-sensitive receptor would not exceed the 65 dBA CNEL criterion outlined in the City General Plan. In addition, any increase would be well under the threshold of perception.
West of Santa Andrea Street	65.8/62.1	66.4/62.7	0.6/0.6	Less than Significant. Noise levels at the closest noise-sensitive receptor would not exceed the 65 dBA CNEL criterion outlined in the City General Plan. In addition, any increase would be well under the threshold of perception.
Santa Andrea Street				
South of East Palomar Street	59.7	61.9	2.2	Less than Significant. Noise levels at the closest noise-sensitive receptor would not exceed the 65 dBA CNEL criterion outlined in the City General Plan. In addition, any increase would be well under the threshold of perception.

Source: Appendix C.
[a] Per City's Noise Element, residential land uses are compatible with noise levels of 65 dB or less, while community parks are compatible with noise levels of 70 dB or less.

Typical Operations

The results for typical operations (i.e., mechanical equipment operations and parking activity during the day, mechanical equipment operations during the night) are presented in Appendix D as noise contour maps. The estimated worst-case daytime and nighttime noise levels (i.e., without the emergency generator) are summarized in Tables 8-5 and 8-6. The stated noise levels are at outdoor areas of human use (e.g., yards, playgrounds, patios, etc.) or buildings façades, whichever has the highest noise level. The results indicate that noise levels would be in compliance with applicable City standards. The predicted noise levels are also within the range of existing ambient noise levels measured in the study area. As a result, the noise impact from typical operations would be less than significant.

Table 8-5. Daytime Operational Noise Levels

Receiver	Floor	Exterior Noise Level, dBA	Daytime Noise Standard, dBA	Significant Impact?
Multi-Family Housing to the East	1st	50	60	No
	2nd	49	60	No
	3rd	51	60	No
Single-Family Housing to the South	1st	46	55	No
	2nd	49	55	No
Multi-Family Housing to the West	1st	51	60	No
	2nd	52	60	No
	3rd	53	60	No
School Playground	1st	52	65	No

Source: Appendix D.

Table 8-6. Nighttime Operational Noise Levels

Receiver	Floor	Exterior Noise Level, dBA[a]	Nighttime Noise Standard, dBA	Significant Impact?
Multi-Family Housing to the East	1st	48	50	No
	2nd	47	50	No
	3rd	50	50	No
Single-Family Housing to the South	1st	37	45	No
	2nd	42	45	No
Multi-Family Housing to the West	1st	47	50	No
	2nd	49	50	No
	3rd	50	50	No
School Playground	1st	48	60	No

Source: Appendix D.
[a.] Conservatively assumes 1 dB of noise reduction from the proposed 8.5-foot-high screen for the rooftop mechanical equipment. This assumes a non-solid barrier (such as louvers). Actual noise reduction would be higher if a solid screen is installed.

Emergency Generator

The results for emergency generator operation are presented in Appendix D as noise contour maps and summarized in Table 8-7. Generator noise levels would be the same for either daytime or nighttime generator operations. To assess total project noise levels during generator operation, modeling was also conducted of the generator noise levels combined with the typical daytime and nighttime operations. These results are also presented in Appendix D as noise contour maps and are summarized in Table 8-8. As shown in the table, noise levels are expected to exceed the City's nighttime noise standards at the first-, second-, and third-floor elevations of the multi-family

residences to the west. This would be a significant impact. Mitigation would be required, as recommended in mitigation measure **MM-NOI-1** (see Section 9, *Recommended Mitigation Measures*).

Table 8-7. Emergency Generator Noise Levels

Receiver	Floor	Exterior Noise Level, dBA	Daytime Noise Standard, dBA	Significant Daytime Impact?	Nighttime Noise Standard, dBA	Significant Nighttime Impact?
Multi-Family Housing to the East	1st	32	60	No	50	No
	2nd	30	60	No	50	No
	3rd	31	60	No	50	No
Single-Family Housing to the South	1st	41	55	No	45	No
	2nd	43	55	No	45	No
Multi-Family Housing to the West	1st	49	60	No	50	No
	2nd	50	60	No	50	No
	3rd	51	60	No	50	***Yes***
School Playground	1st	64	65	No	N/A[a]	No

Source: Appendix D.
[a.] Nighttime noise standard is not applicable because the playground would not be in use during nighttime hours.

Table 8-8. Emergency Generator + Operational Noise Levels

		Daytime			Nighttime		
Receiver	Floor	Noise Level, dBA	Noise Standard, dBA	Significant Impact?	Noise Level, dBA	Noise Standard, dBA	Significant Impact?
Multi-Family Housing to the East	1st	50	60	No	48	50	No
	2nd	49	60	No	47	50	No
	3rd	51	60	No	50	50	No
Single-Family Housing to the South	1st	47	55	No	42	45	No
	2nd	49	55	No	44	45	No
Multi-Family Housing to the West	1st	53	60	No	51	50	***Yes***
	2nd	54	60	No	53	50	***Yes***
	3rd	55	60	No	53	50	***Yes***
School Playground	1st	64	65	No	64	N/A[a]	No

Source: Appendix D.
[a.] Nighttime noise standard is not applicable because the playground would not be in use during nighttime hours.

Operational Vibration

There are no operational elements of the project that would generate noticeable levels of ground-borne vibration. Therefore, there would be no vibration impacts as a result of project operation.

Aircraft Noise

There are no airports or private airstrips within the vicinity (i.e., within 2 miles) of the project site. The closest airport is Brown Field Municipal Airfield, which is more than 3.7 miles to the south. At that distance, the project site would not be exposed to substantial noise levels from aircraft operations. In addition, the project would not change operations at any airport or airstrip and would not alter aircraft noise exposure at any existing sensitive land uses. As such, project implementation would not expose people residing or working in the project area to excessive aircraft noise levels. Therefore, there would be no impact.

9. Mitigation Measures

The following measure is recommended to mitigate the significant noise impact associated with nighttime project operations while the emergency generator is in use. It is noted that the predicted impacts are due to the combined noise from both the generator and the rooftop equipment. Therefore, adequately reducing the combined noise levels will require either a modest noise reduction (approximately 3 dB or more) for both the rooftop equipment and the generator or a substantial noise reduction (approximately 10 dB or more) for either one of those sources individually.

MM-NOI-1: Select, Design, and Install the Emergency Generator and Rooftop Mechanical Equipment to Comply with the Applicable City of Chula Vista Noise Ordinance. During the architectural and engineering design phase, prior to the issuance of any permits for the generator and rooftop mechanical equipment, the project proponent shall retain an acoustical consultant to evaluate the proposed generator and rooftop mechanical equipment installation and provide recommendations, as necessary, to ensure that the combined noise levels will comply with the City of Chula Vista Noise Ordinance at the surrounding homes and day care. The analysis shall be based on the best available acoustical data for the actual generator and equipment proposed at the project site. Noise reduction methods may include, but are not limited to, selecting quieter equipment, selecting a higher-performing sound enclosure for the generator, upgrading the generator silencer (muffler), changing equipment locations, incorporating additional screen walls or noise barriers, or adding acoustic absorption materials. The project proponent shall submit a copy of the acoustical consultant's report to the City of Chula Vista for review and approval prior to generator installation.

10. Summary and Conclusions

Noise and vibration analyses were conducted for the Otay Ranch MOB and parking structure. The analyses address potential affects from both project construction and operation. All evaluated

effects were determined to have either no impact or a less-than-significant impact with the proposed mitigation measures.

11. References

California Department of Transportation. 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. Final. CT-HWANP-RT-13-069.25.2. Sacramento, CA. Prepared by: California Department of Transportation, Division of Environmental Analysis, Environmental Engineering, Hazardous Waste, Air, Noise, and Paleontology Office, Sacramento, CA.

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City of Chula Vista. 2021. *Chula Vista General Plan, Environment Element.* Final. Chula Vista, CA. Prepared for: City of Chula Vista Planning and Building Department.

———. 2022. *Chula Vista Municipal Code*. Last revised: January 25, 2022. Available: https://chulavista.municipal.codes/CVMC. Accessed: March 24, 2022.

Federal Highway Administration. 2004. *FHWA Traffic Noise Model.* Version 2.5. Look-Up Tables. User's Guide. Final. FHWA-HEP-05-008/DOT-VNTSC-FHWA-0406. December. Washington, D.C. Prepared by: U.S. Department of Transportation, Research and Special Programs Administration, John A. Volpe National Transportation Systems Center Acoustics Facility. Cambridge, MA.

———. 2008. *FHWA Roadway Construction Noise Model*. Version 1.1. December 8. Prepared by: U.S. Department of Transportation, Research and Innovative Technology Administration, John A. Volpe National Transportation Systems Center, Environmental Measurement and Modeling Division.

Linscott, Law & Greenspan 2021. *Transportation Circulation Assessment Letter Report.* Otay Ranch Medical Office Building. July 27.

12. Attachments

Appendix A. Field Noise Survey Sheets for Ambient Noise Measurements

Appendix B. Construction Noise Analysis

Appendix C. Traffic Noise Analysis

Appendix D. Operational Noise Analysis

Appendix A

Field Noise Survey Sheets for Ambient Noise Measurements

FIELD NOISE MEASUREMENT DATA

PROJECT: Sharp Otay Medical office Buildg PROJ. #

SITE IDENTIFICATION: LT1 OBSERVER(S): JCK

ADDRESS: parking lot near 1400 E Palomar st, chula vista

START DATE / TIME: 3/14/22 - 4:52 AM END DATE / TIME: 3/16/22 - 1120 AM

METEROLOGICAL CONDITIONS:

TEMP: ____ °F HUMIDITY: ____ %R.H. WIND: CALM LIGHT MODERATE VARIABLE

WINDSPEED: ____ MPH DIR: N NE E SE S SW W NW STEADY GUSTY

SKY: SUNNY CLEAR OVRCST PRTLY CLOUDY FOG RAIN OTHER:

ACOUSTIC MEASUREMENTS:

INSTRUMENT: PCH TYPE: 1 (2) SERIAL #: 30403

CALIBRATOR: CAL 200 SERIAL #: 2916

CALIBRATION CHECK, BEFORE: 94.0 AFTER 94.3 WINDSCREEN X

SETTINGS: (A-WEIGHTED) (SLOW) FAST FRONTAL (RANDOM) (ANSI) OTHER: ____

FILE / MEAS #	START TIME	END TIME	L_{eq}	max	1.67	8.33	25	L 50	90	99	min

COMMENTS: started @ 9:52, leaved at 10:30 Am
Arrived @ 11:08 Am / stopped at 11:20 Am

NOISE SOURCE INFO:

PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL AMBIENT OTHER: ____

ROADWAY TYPE: ____

OTHER SOURCES: DIST. AIRCRAFT / RUSTLING LEAVES / DIST. BARKING DOGS / BIRDS / DIST. INDUSTRIAL
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER:

DESCRIPTION / SKETCH:

TERRAIN: HARD SOFT (MIXED) FLAT OTHER: ____

PHOTOS: ____

OTHER COMMENTS / SKETCH:

FIELD NOISE MEASUREMENT DATA

PROJECT: Sharp Otay Medical Office Building PROJ. #

SITE IDENTIFICATION: LT 2 OBSERVER(S): JCR

ADDRESS: Sunrose Apts - 1325 Santa Rita E, Chula Vista, CA

START DATE / TIME: 3/14/22 - 9:58 AM END DATE / TIME: 3/16/22 - 11:10 AM

METEROLOGICAL CONDITIONS:

TEMP: ____ °F HUMIDITY: ____ %R.H. WIND: CALM LIGHT MODERATE VARIABLE

WINDSPEED: ____ MPH DIR: N NE E SE S SW W NW STEADY GUSTY

SKY: SUNNY CLEAR OVRCST PRTLY CLOUDY FOG RAIN OTHER:

ACOUSTIC MEASUREMENTS:

INSTRUMENT: Pic F TYPE: 1 (2) SERIAL #: 30901

CALIBRATOR: CAL 200 SERIAL #: 2916

CALIBRATION CHECK, BEFORE: 94.0 AFTER 93.7 WINDSCREEN ____

SETTINGS: A-WEIGHTED (SLOW) FAST FRONTAL (RANDOM) (ANSI) OTHER: ____

FILE / MEAS #	START TIME	END TIME	L_{eq}	max	1.67	8.33	25	L 50	90	99	min

COMMENTS: Started at 9:58 AM, cleared at 11:10 AM
arrived at 11:15 AM, stopped at 11:26 AM

NOISE SOURCE INFO:

PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL AMBIENT OTHER: ____

ROADWAY TYPE: ____

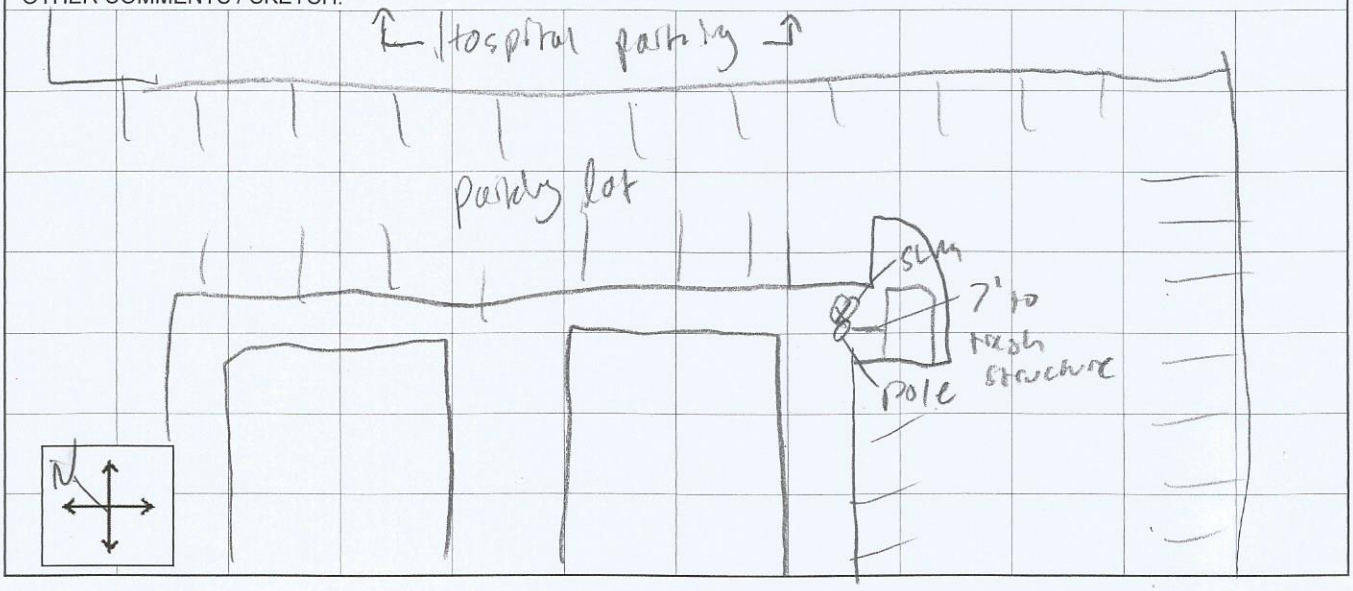
OTHER SOURCES: DIST. AIRCRAFT / RUSTLING LEAVES / DIST. BARKING DOGS / BIRDS / DIST. INDUSTRIAL
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER:

DESCRIPTION / SKETCH:

TERRAIN: HARD SOFT MIXED FLAT OTHER: ____

PHOTOS: ____

OTHER COMMENTS / SKETCH:



FIELD NOISE MEASUREMENT DATA

PROJECT: Sharp Otay Medical office Building PROJ. #

SITE IDENTIFICATION: ST 1 OBSERVER(S): JCK
ADDRESS: 1420 E Palomar St. Chula Vista, CA 91913
START DATE / TIME: 3/14/22 - 11:20 AM END DATE / TIME: 3/14/22 - 11:40 AM

METEROLOGICAL CONDITIONS:

TEMP: 66 °F HUMIDITY: 57 %R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED: 3 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: SUNNY CLEAR OVRCST PRTLY CLOUDY FOG RAIN OTHER:

ACOUSTIC MEASUREMENTS:

INSTRUMENT: LD 831 TYPE: 1 2 SERIAL #: 3786
CALIBRATOR: CAL 200 SERIAL #: 2916
CALIBRATION CHECK, BEFORE: 114.0 AFTER 114.1 WINDSCREEN X

SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER:

FILE / MEAS #	START TIME	END TIME	L_{eq}	L max	1.67	8.33	25	50	90	99	min
1422	11:20am	11:40am	49.4	60.6	56.7	53.6	49.5	46.3	43.9	42.7	42.1

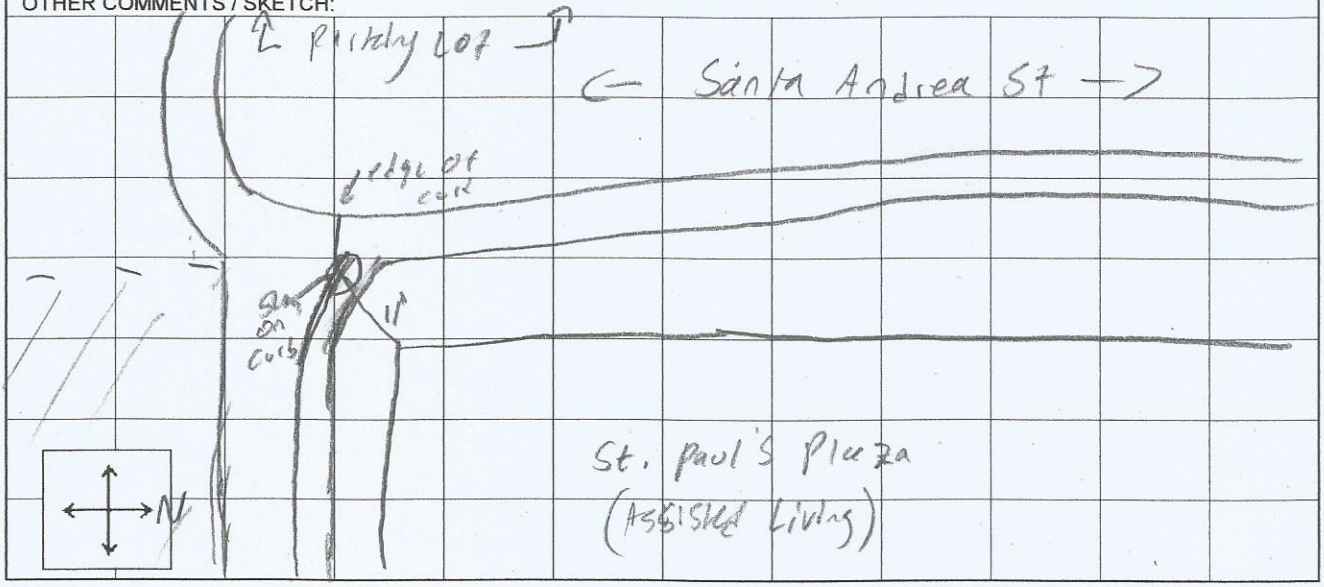
COMMENTS: Paused dat garbage truck

NOISE SOURCE INFO:

PRIMARY NOISE SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL AMBIENT OTHER:
ROADWAY TYPE:
OTHER SOURCES: DIST. AIRCRAFT / RUSTLING LEAVES / DIST. BARKING DOGS / BIRDS / DIST. INDUSTRIAL
DIST. CHILDREN PLAYING / DIST. TRAFFIC / DIST. LANDSCAPING ACTIVITIES / OTHER:

DESCRIPTION / SKETCH:

TERRAIN: HARD SOFT MIXED FLAT OTHER:
PHOTOS:
OTHER COMMENTS / SKETCH:



Appendix B

Construction Noise Analysis

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/24/2022
Case Description: Grading

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Apartments	Residential	55	55	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		194	0
Dozer	No	40		81.7	194	0
Excavator	No	40		80.7	194	0
Concrete Mixer Truck	No	40		78.8	194	0
Concrete Pump Truck	No	20		81.4	194	0
Front End Loader	No	40		79.1	194	0

Results

		Calculated (dBA)		Noise Limits (dBA) Day		Evening		Night		Noise Limit Exceedance (dBA) Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		73.2	69.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		69.9	65.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		68.9	65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck		67	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck		69.6	62.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader		67.3	63.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	73.2	73.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Daycare	Commercial	55	55	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		135	0
Dozer	No	40		81.7	135	0
Excavator	No	40		80.7	135	0
Concrete Mixer Truck	No	40		78.8	135	0
Concrete Pump Truck	No	20		81.4	135	0
Front End Loader	No	40		79.1	135	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	76.4	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	73	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	70.2	66.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck	72.8	65.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	70.5	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	76.4	76.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Homes	Residential	55	55	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		217	0
Dozer	No	40		81.7	217	0
Excavator	No	40		80.7	217	0
Concrete Mixer Truck	No	40		78.8	217	0
Concrete Pump Truck	No	20		81.4	217	0
Front End Loader	No	40		79.1	217	0

Results

		Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
				Day		Evening		Night		Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		72.3	68.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		68.9	64.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		68	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck		66.1	62.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck		68.7	61.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader		66.4	62.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	72.3	72.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
50'	Residential	55	55	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		50	0
Dozer	No	40		81.7	50	0
Excavator	No	40		80.7	50	0
Concrete Mixer Truck	No	40		78.8	50	0
Concrete Pump Truck	No	20		81.4	50	0
Front End Loader	No	40		79.1	50	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	85	81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	78.8	74.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck	81.4	74.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	85	85.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/24/2022
Case Description: Parking Structure

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Apartments	Residential	55	55	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		194	0
Dozer	No	40		81.7	194	0
Excavator	No	40		80.7	194	0
Concrete Mixer Truck	No	40		78.8	194	0
Concrete Pump Truck	No	20		81.4	194	0
Front End Loader	No	40		79.1	194	0

Results

Equipment	Calculated (dBA) *Lmax	Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
			Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
Grader	73.2	69.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	69.9	65.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	68.9	65	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	67	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck	69.6	62.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	67.3	63.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	73.2	73.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Daycare	Commercial	55	55	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		135	0
Dozer	No	40		81.7	135	0
Excavator	No	40		80.7	135	0
Concrete Mixer Truck	No	40		78.8	135	0
Concrete Pump Truck	No	20		81.4	135	0
Front End Loader	No	40		79.1	135	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	76.4	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	73	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	70.2	66.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck	72.8	65.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	70.5	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	76.4	76.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Homes	Residential	55	55	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		405	0
Dozer	No	40		81.7	405	0
Excavator	No	40		80.7	405	0
Concrete Mixer Truck	No	40		78.8	405	0
Concrete Pump Truck	No	20		81.4	405	0
Front End Loader	No	40		79.1	405	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	66.8	62.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	63.5	59.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	62.5	58.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	60.6	56.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck	63.2	56.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	60.9	57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	66.8	66.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
50'	Residential	55	55	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		50	0
Dozer	No	40		81.7	50	0
Excavator	No	40		80.7	50	0
Concrete Mixer Truck	No	40		78.8	50	0
Concrete Pump Truck	No	20		81.4	50	0
Front End Loader	No	40		79.1	50	0

Results

		Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
				Day		Evening		Night		Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		85	81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator		80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck		78.8	74.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck		81.4	74.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader		79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	85	85.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/24/2022
Case Description: MOB

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Apartments	Residential	55	55	55

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		194	0
Dozer	No	40		81.7	194	0
Crane	No	16		80.6	194	0
Concrete Mixer Truck	No	40		78.8	194	0
Concrete Pump Truck	No	20		81.4	194	0
Front End Loader	No	40		79.1	194	0

Results

		Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
				Day		Evening		Night		Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		73.2	69.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		69.9	65.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane		68.8	60.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck		67	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck		69.6	62.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader		67.3	63.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	73.2	72.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Daycare	Commercial	55	55	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		135	0
Dozer	No	40		81.7	135	0
Crane	No	16		80.6	135	0
Concrete Mixer Truck	No	40		78.8	135	0
Concrete Pump Truck	No	20		81.4	135	0
Front End Loader	No	40		79.1	135	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	76.4	72.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	73	69.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	71.9	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	70.2	66.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck	72.8	65.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	70.5	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	76.4	76.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

		Baselines (dBA)		
Description	Land Use	Daytime	Evening	Night
Homes	Residential	55	55	55

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Grader	No	40	85		405	0
Dozer	No	40		81.7	405	0
Crane	No	16		80.6	405	0
Concrete Mixer Truck	No	40		78.8	405	0
Concrete Pump Truck	No	20		81.4	405	0
Front End Loader	No	40		79.1	405	0

		Results													
		Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
				Day		Evening		Night		Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader		66.8	62.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer		63.5	59.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane		62.4	54.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck		60.6	56.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck		63.2	56.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader		60.9	57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	66.8	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
50'	Residential	55	55	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		50	0
Dozer	No	40		81.7	50	0
Crane	No	16		80.6	50	0
Concrete Mixer Truck	No	40		78.8	50	0
Concrete Pump Truck	No	20		81.4	50	0
Front End Loader	No	40		79.1	50	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	85	81	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	80.6	72.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	78.8	74.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck	81.4	74.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	85	84.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 3/24/2022
Case Description: Tenant Improvments

---- Receptor #1 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Apartments	Residential	55	55	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	194	0
Crane	No	16		80.6	194	0
Concrete Mixer Truck	No	40		78.8	194	0
Concrete Pump Truck	No	20		81.4	194	0
Front End Loader	No	40		79.1	194	0
Front End Loader	No	40		79.1	194	0

Results

		Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
				Day		Evening		Night		Day		Evening		Night	
Equipment		*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane		68.8	60.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane		68.8	60.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck		67	63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck		69.6	62.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader		67.3	63.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader		67.3	63.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total	69.6	70.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Daycare	Commercial	55	55	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	135	0
Crane	No	16		80.6	135	0
Concrete Mixer Truck	No	40		78.8	135	0
Concrete Pump Truck	No	20		81.4	135	0
Front End Loader	No	40		79.1	135	0
Front End Loader	No	40		79.1	135	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	71.9	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	71.9	64	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	70.2	66.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck	72.8	65.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	70.5	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	70.5	66.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	72.8	73.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #3 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Homes	Residential	55	55	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	405	0
Crane	No	16		80.6	405	0
Concrete Mixer Truck	No	40		78.8	405	0
Concrete Pump Truck	No	20		81.4	405	0
Front End Loader	No	40		79.1	405	0
Front End Loader	No	40		79.1	405	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	62.4	54.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	62.4	54.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	60.6	56.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck	63.2	56.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	60.9	57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	60.9	57	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	63.2	63.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #4 ----

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
50'	Residential	55	55	55

Equipment

Description	Impact Device	Usage(%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	50	0
Crane	No	16		80.6	50	0
Concrete Mixer Truck	No	40		78.8	50	0
Concrete Pump Truck	No	20		81.4	50	0
Front End Loader	No	40		79.1	50	0
Front End Loader	No	40		79.1	50	0

Results

	Calculated (dBA)		Noise Limits (dBA)						Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	80.6	72.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Crane	80.6	72.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Mixer Truck	78.8	74.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Concrete Pump Truck	81.4	74.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	79.1	75.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	81.4	82	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Appendix C

Traffic Noise Analysis

This spreadsheet calculates traffic noise levels based on TNM Version 2.5 Lookup Tables.

**** Type in yellow cells only.**

Traffic Data:

☑ Enter ADT Traffic

☐ Enter Loudest-hour Traffic

Units:

☐ Metric

☑ English

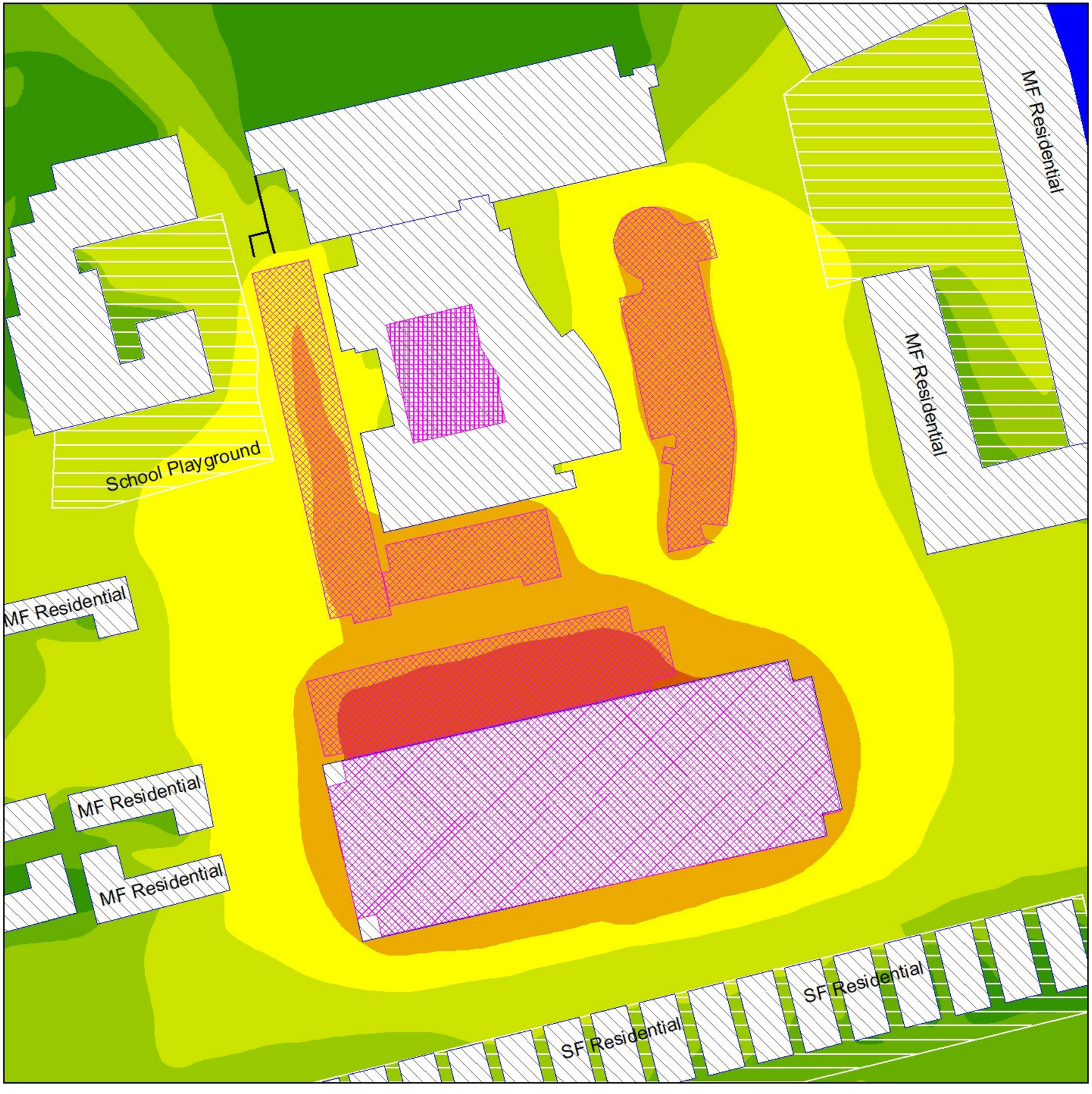
Calculate

Link	Roadway	Segment Location	Hard or Soft Ground (H or S)	BARRIER			Total Daily Traffic Volumes (ADT)	Traffic Mix		Peak-hour Traffic Volumes			Vehicle Speed	Sound Levels at Receiver Locations				Distance to Ldn Noise Contour (feet)				Distance to CNEL Noise Contour (feet)			
				Present 1=yes	Height min. 7 ft. max. 32 ft.	Distance 35 ft. or 100 ft.		Number #	Description	Autos	Medium Tr.	Heavy Tr.	mph max. 80	Distance feet, min. 33 max. 1000	dB Ldn	dB CNEL	dBA Leq1h (loudest hour)	75 dB	70 dB	65 dB	60 dB	75 dB	70 dB	65 dB	60 dB
1	E Palomar	West of Santa Andreas	H				10,000	2	Generic - Transportation Corridors	9,490	300	210	35	50	65.0	65.8	63.6			50	155			59	185
2	E Palomar	East of Santa Andreas	H				9,700	2	Generic - Transportation Corridors	9,205	291	204	35	50	64.9	65.7	63.4			48	150			57	180
3	Santa Andreas	south of E Palomar	H				4,500	2	Generic - Transportation Corridors	4,270	135	95	25	50	58.9	59.7	57.4				38				47
4	E Palomar	West of Santa Andreas	H				11,500	2	Generic - Transportation Corridors	10,913	345	242	35	50	65.6	66.4	64.2			57	177			65	210
5	E Palomar	East of Santa Andreas	H				11,300	2	Generic - Transportation Corridors	10,724	339	237	35	50	65.5	66.3	64.1			56	174			65	207
6	Santa Andreas	south of E Palomar	H				7,500	2	Generic - Transportation Corridors	7,117	225	158	25	50	61.1	61.9	59.6				62				75
7	E Palomar	West of Santa Andreas	H				10,000	2	Generic - Transportation Corridors	9,490	300	210	35	115	61.3	62.1	59.9			50	155			59	185
8	E Palomar	East of Santa Andreas	H				9,700	2	Generic - Transportation Corridors	9,205	291	204	35	115	61.2	62.0	59.7			48	150			57	180
9	Santa Andreas	south of E Palomar	H				4,500	2	Generic - Transportation Corridors	4,270	135	95	25	50	58.9	59.7	57.4				38				47
10	E Palomar	West of Santa Andreas	H				11,500	2	Generic - Transportation Corridors	10,913	345	242	35	115	61.9	62.7	60.5			57	177			65	210
11	E Palomar	East of Santa Andreas	H				11,300	2	Generic - Transportation Corridors	10,724	339	237	35	115	61.8	62.6	60.4			56	174			65	207
12	Santa Andreas	south of E Palomar	H				7,500	2	Generic - Transportation Corridors	7,117	225	158	25	50	61.1	61.9	59.6				62				75

Appendix D

Operational Noise Analysis

Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Parking Lot + Rooftop Mechanical Equipment, 1st Floor



Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
30.0 -	35.0
<=	30.0

Signs and symbols

- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

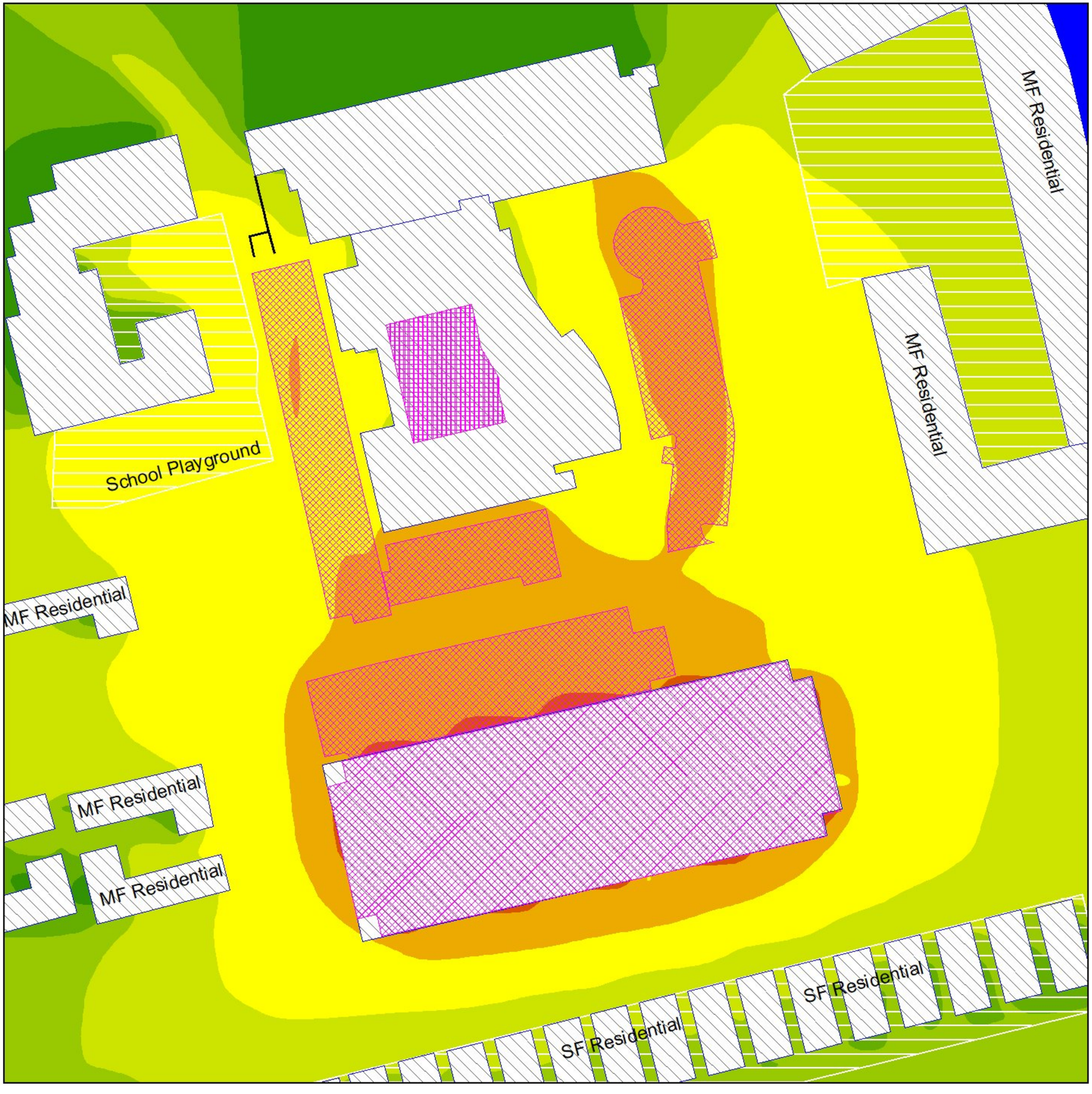
N

0 50 100 150 200 feet

Calculation Date: May 10, 2022

ICF

Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Parking Lot + Rooftop Mechanical Equipment, 2nd Floor



Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
30.0 -	35.0
<=	30.0

Signs and symbols

- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

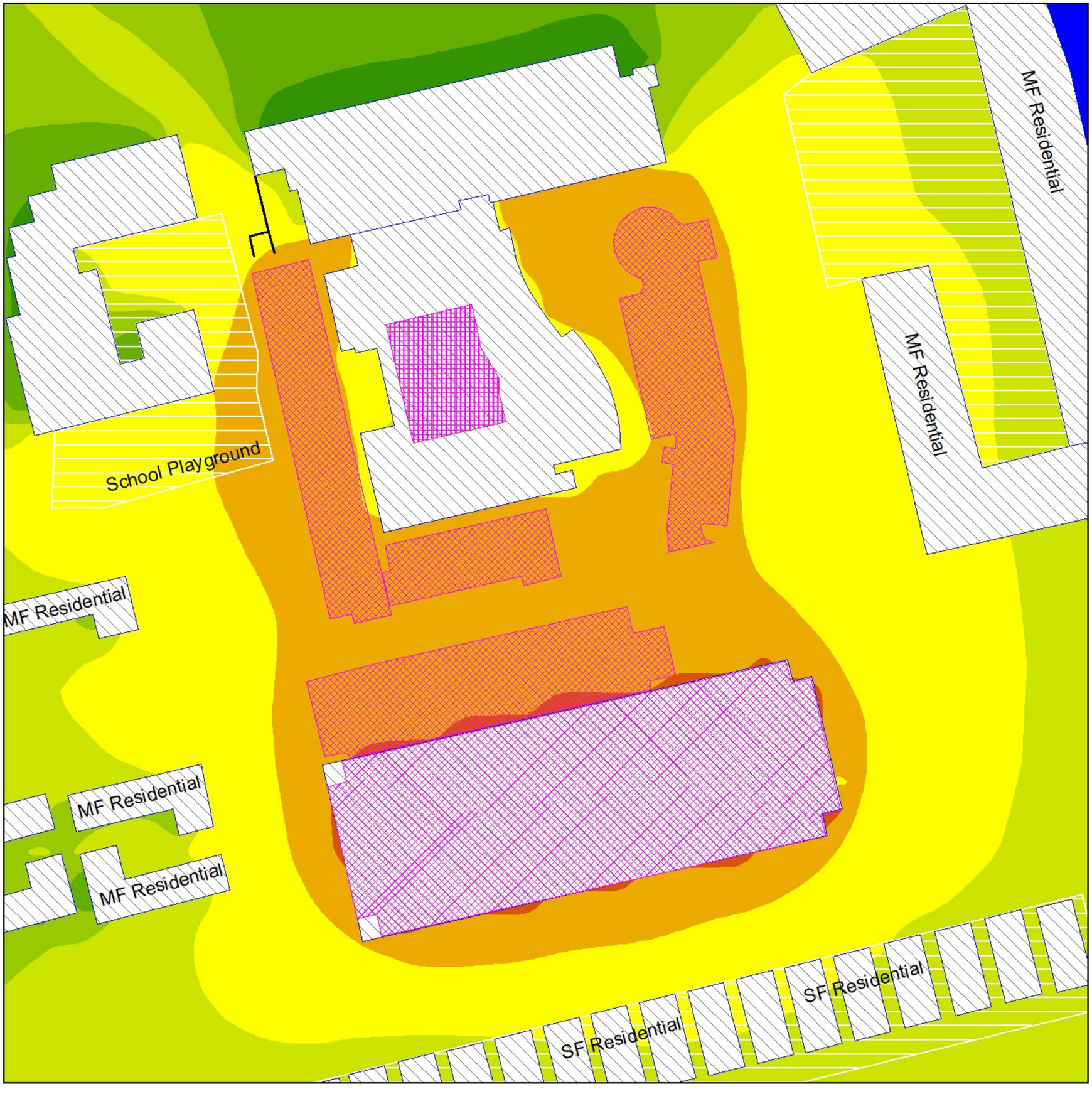
N

0 50 100 150 200 feet

Calculation Date: May 10, 2022

ICF

Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Parking Lot + Rooftop Mechanical Equipment, 3rd Floor



Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
30.0 -	35.0
<=	30.0

Signs and symbols

- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

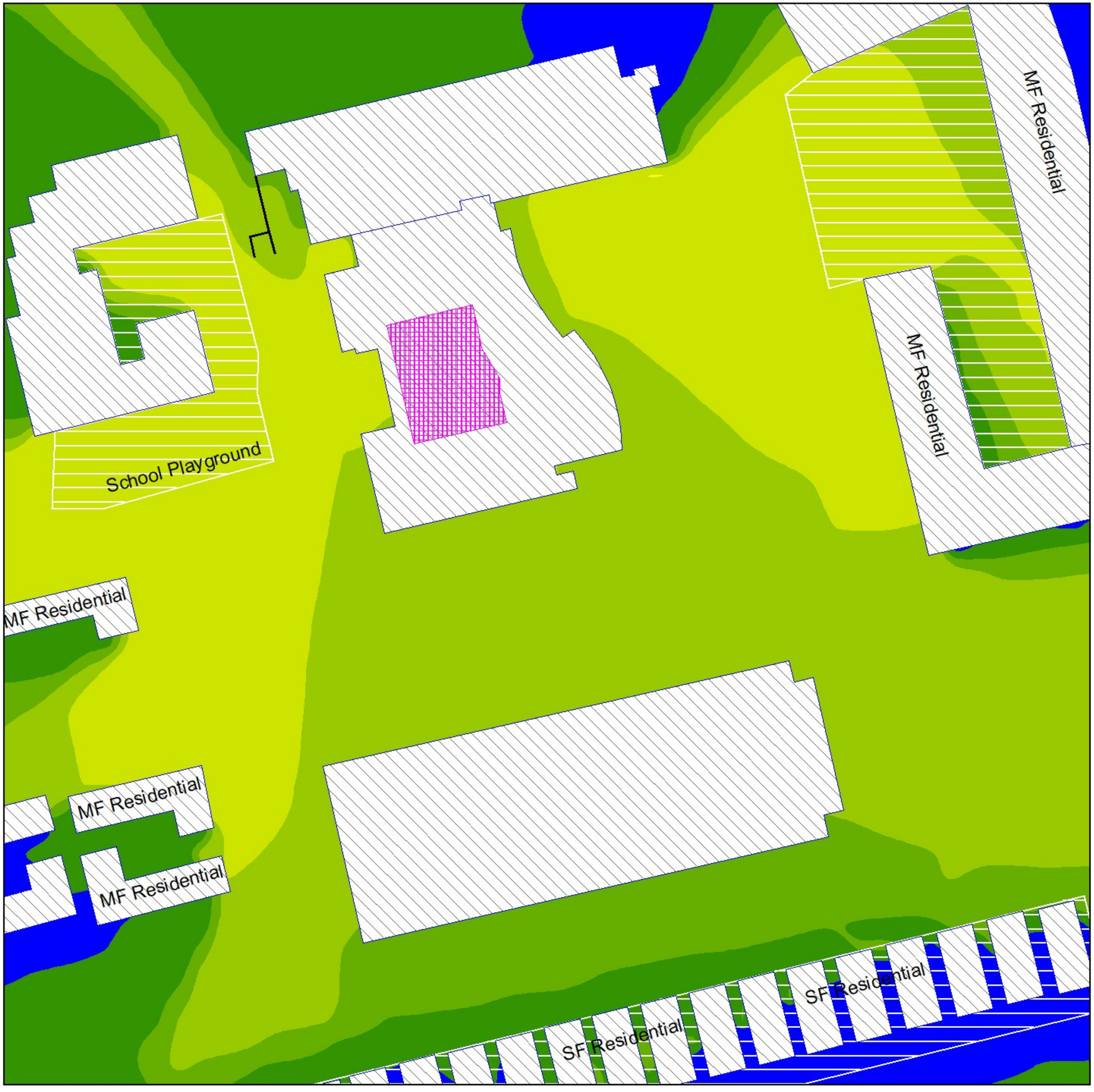
N

0 50 100 150 200 feet

Calculation Date: May 10, 2022

ICF

Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Rooftop Mechanical Equipment, 1st Floor



Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
30.0 -	35.0
<=	30.0

Signs and symbols

- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

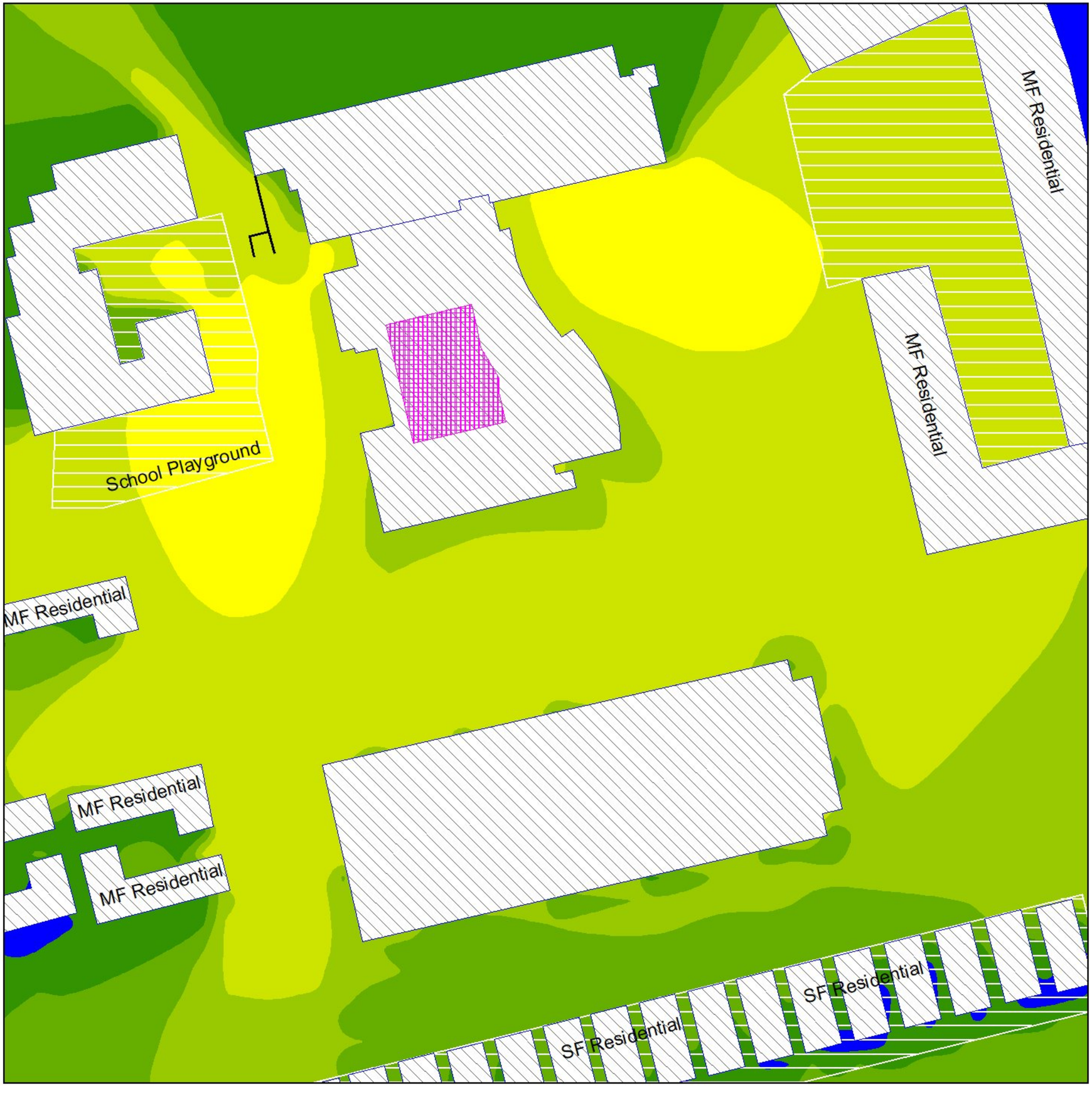
N

0 50 100 150 200 feet

Calculation Date: May 10, 2022

ICF

Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Rooftop Mechanical Equipment, 2nd Floor



Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
30.0 -	35.0
<=	30.0

Signs and symbols

- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

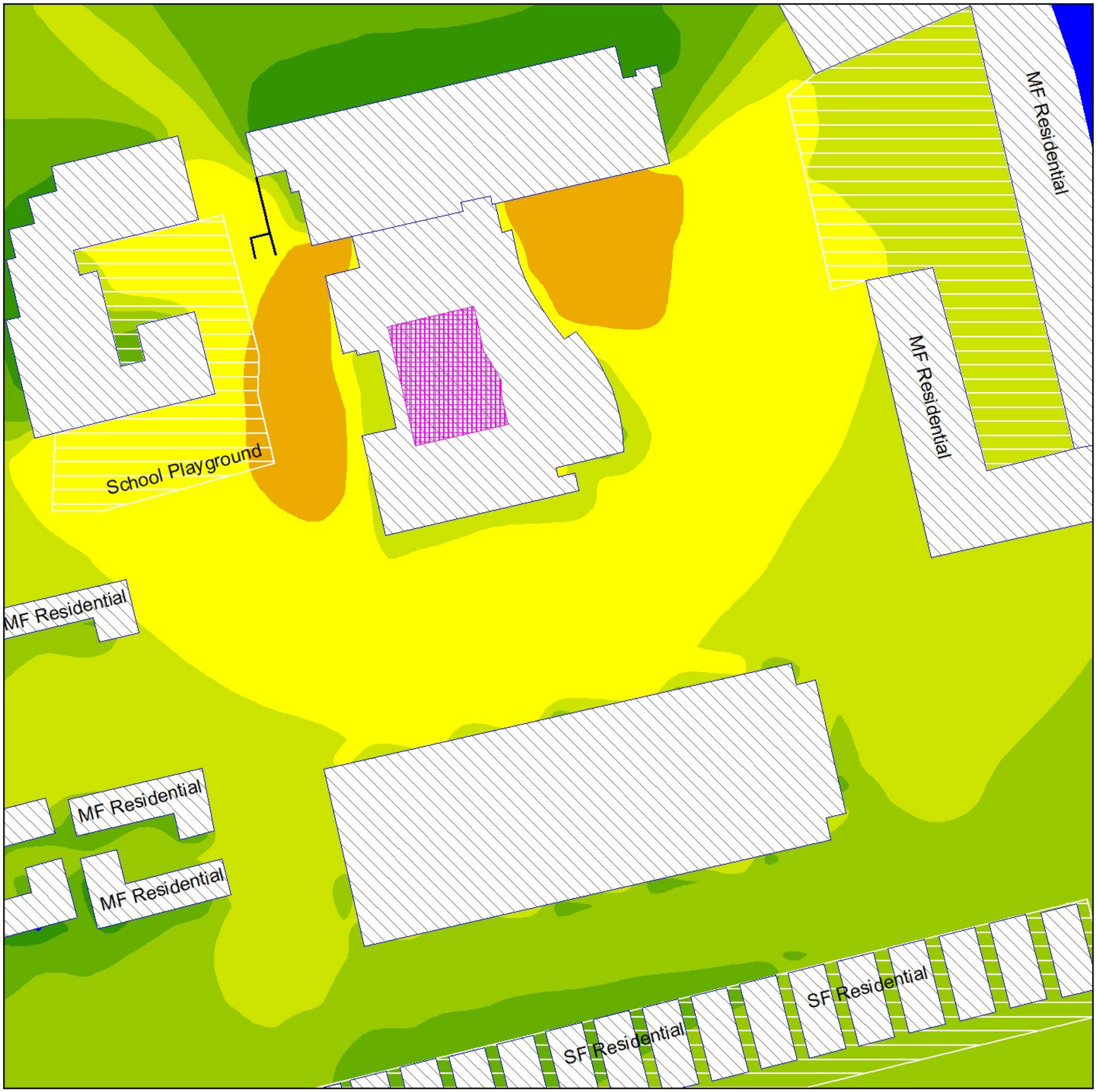
N

0 50 100 150 200 feet

Calculation Date: May 10, 2022

ICF

Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Rooftop Mechanical Equipment, 3rd Floor



Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
30.0 -	35.0
<=	30.0

Signs and symbols

- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

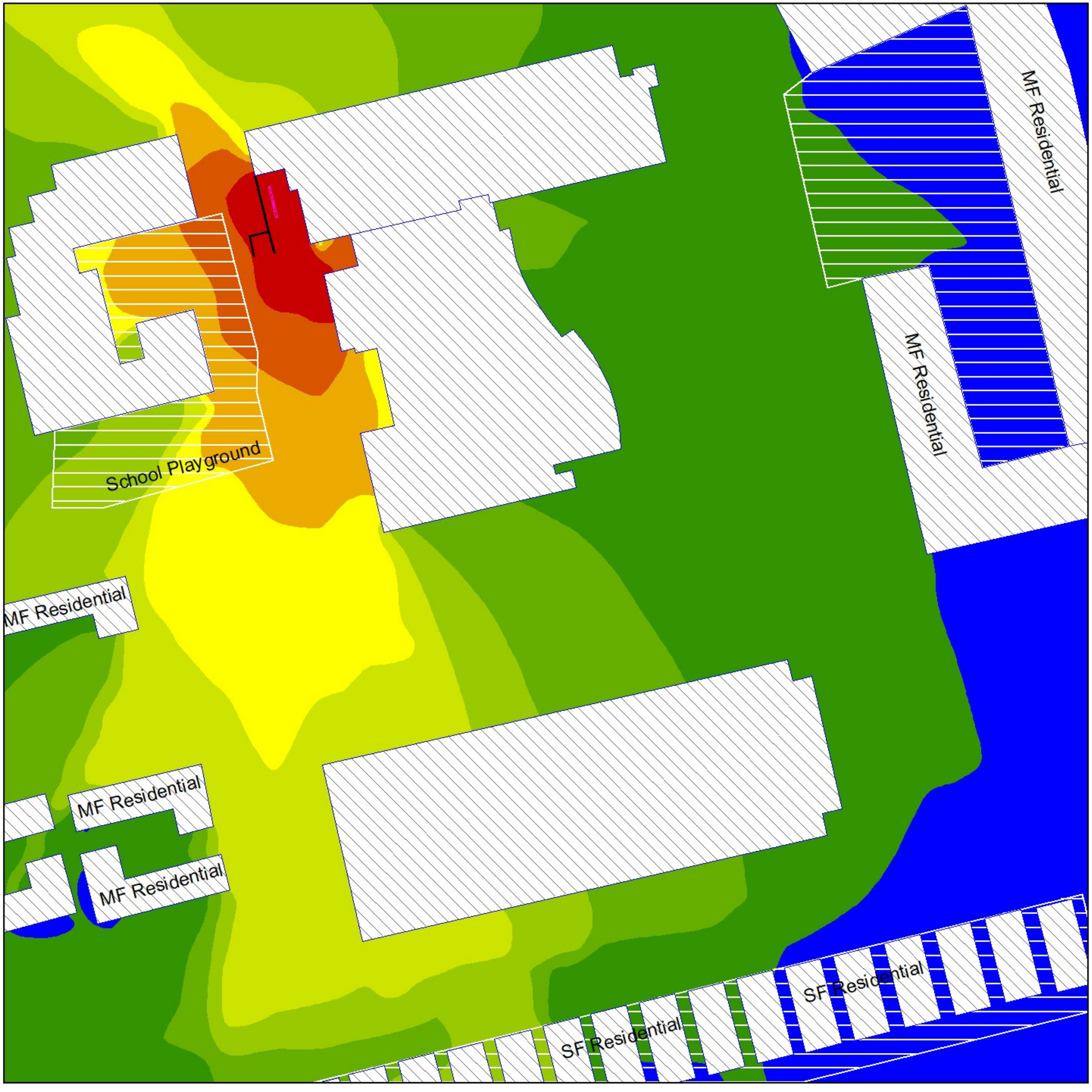
N

0 50 100 150 200 feet

Calculation Date: May 10, 2022

ICF

Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Emergency Generator, 1st Floor



Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
30.0 -	35.0
<=	30.0

Signs and symbols

- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

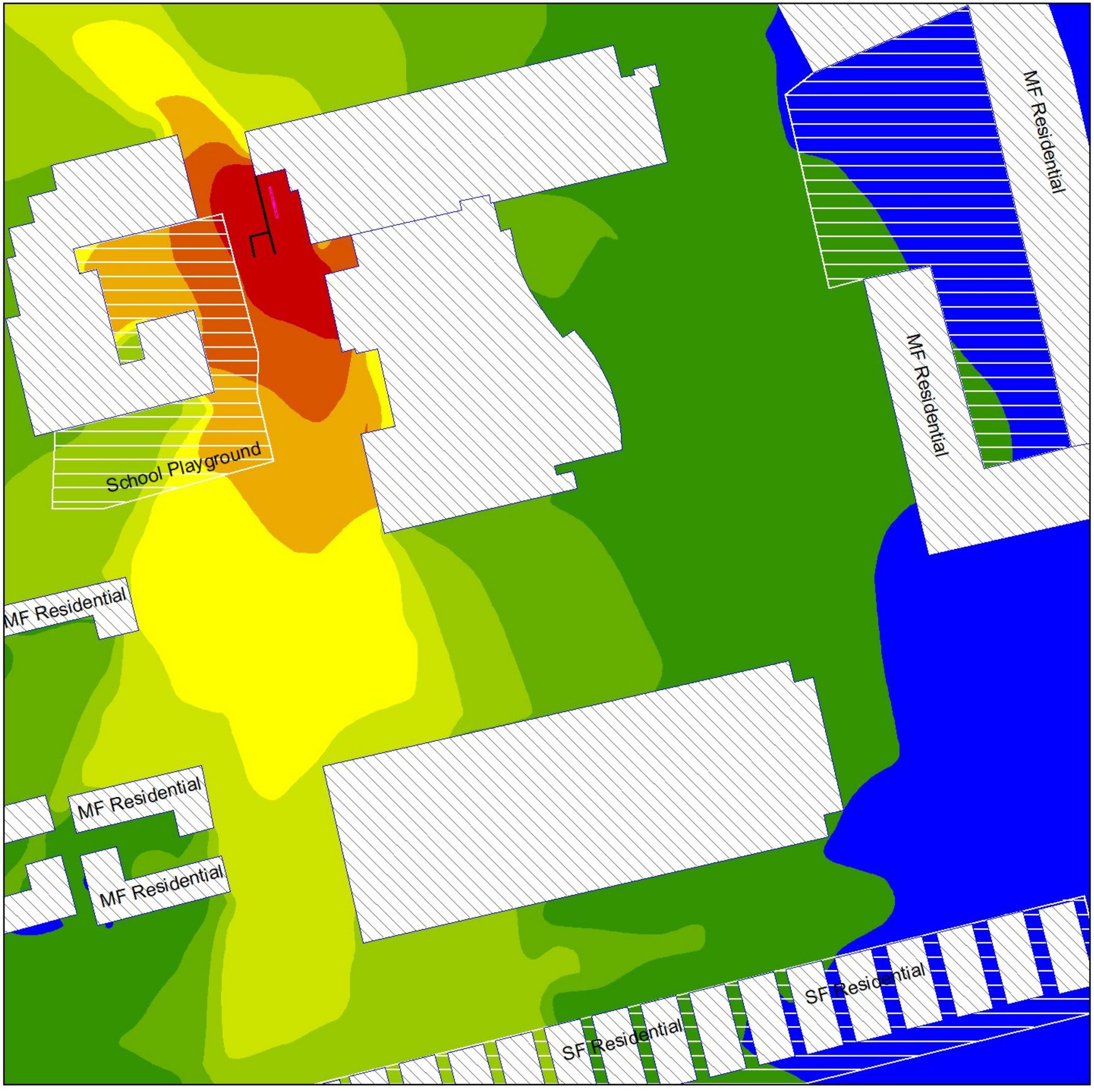
N

0 50 100 150 200 feet

Calculation Date: March 22, 2022

ICF

Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Emergency Generator, 2nd Floor



Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
30.0 -	35.0
<=	30.0

Signs and symbols

- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

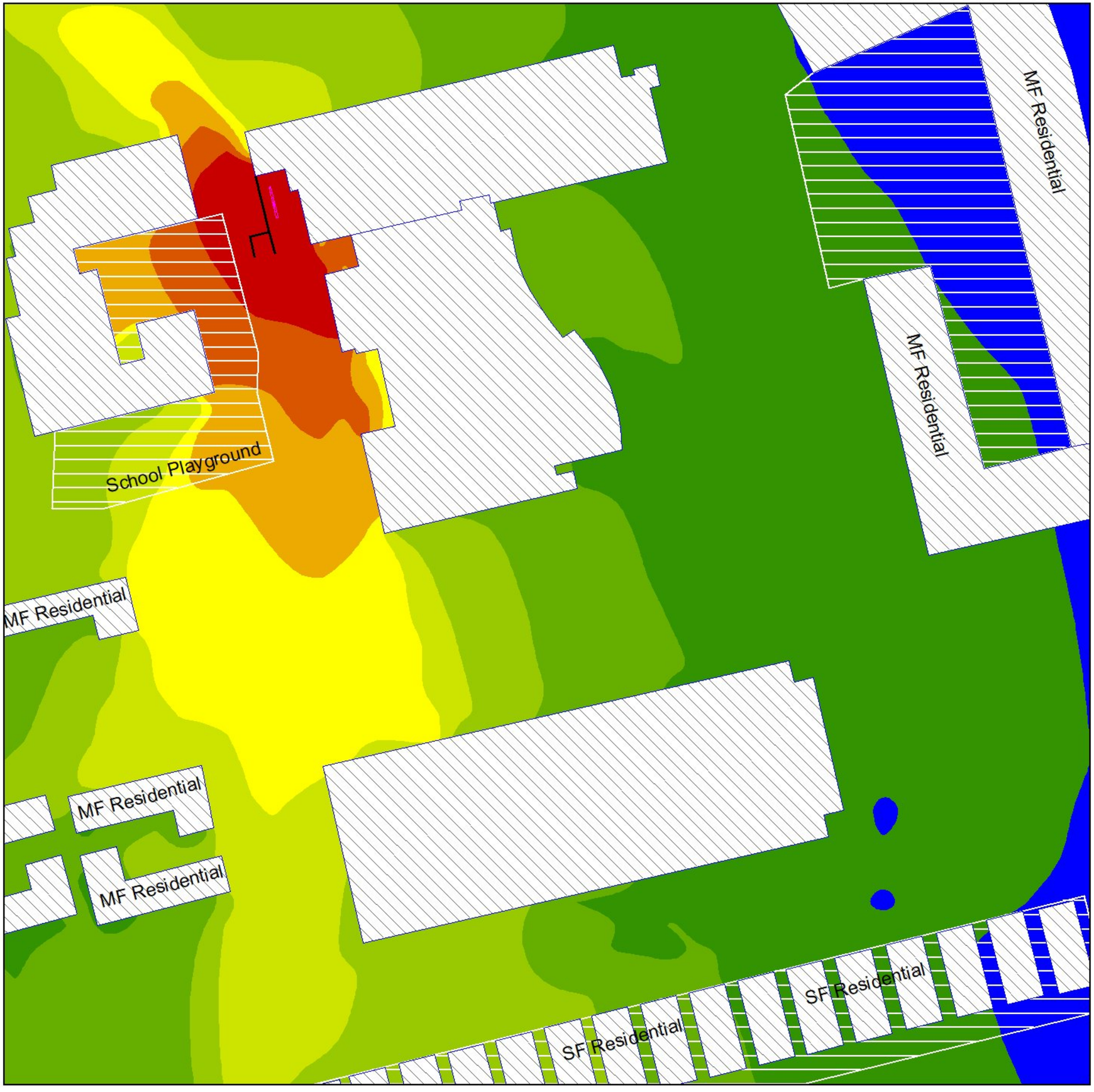
N

0 50 100 150 200 feet

Calculation Date: March 22, 2022

ICF

Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Emergency Generator, 3rd Floor



Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
30.0 -	35.0
<=	30.0

Signs and symbols

- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

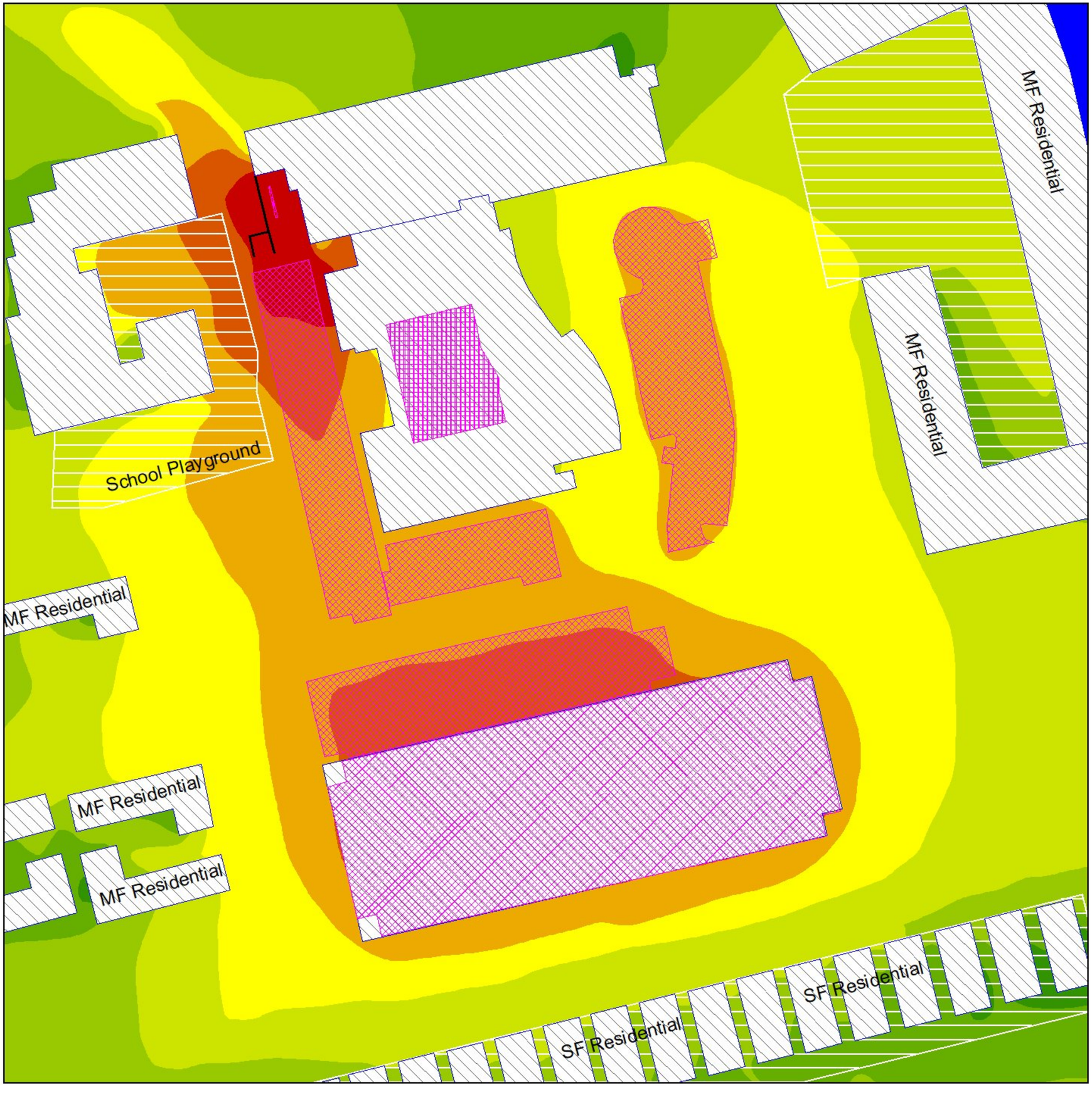
N

0 50 100 150 200 feet

Calculation Date: March 22, 2022

ICF

Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Parking Lot + Rooftop Mechanical Equipment + Generator, 1st Floor



Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
<=	30.0

Signs and symbols

- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

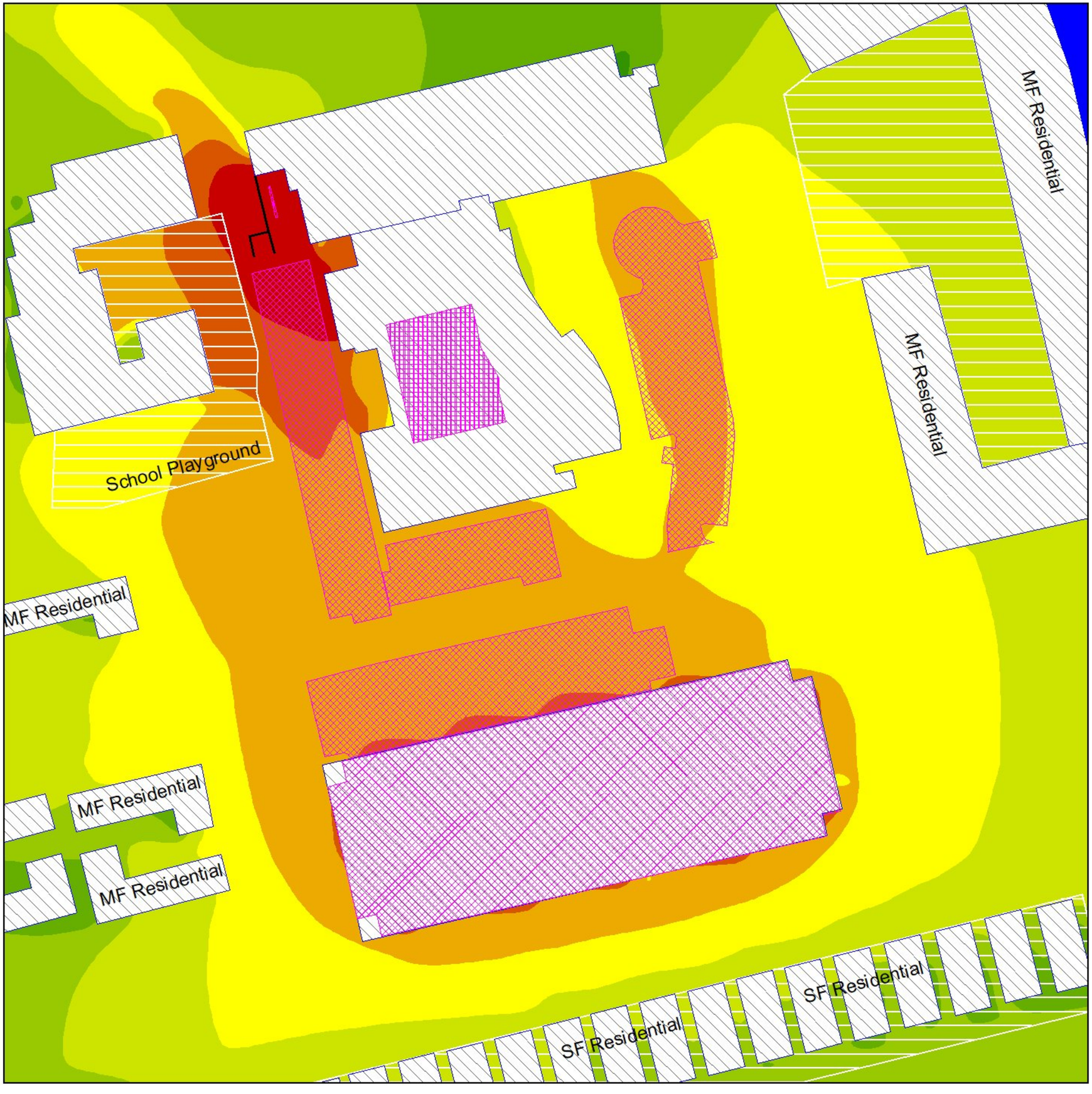
N

0 50 100 150 200 feet

Calculation Date: May 10, 2022

ICF

Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Parking Lot + Rooftop Mechanical Equipment + Generator, 2nd Floor



Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
30.0 -	35.0
<=	30.0

Signs and symbols

- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

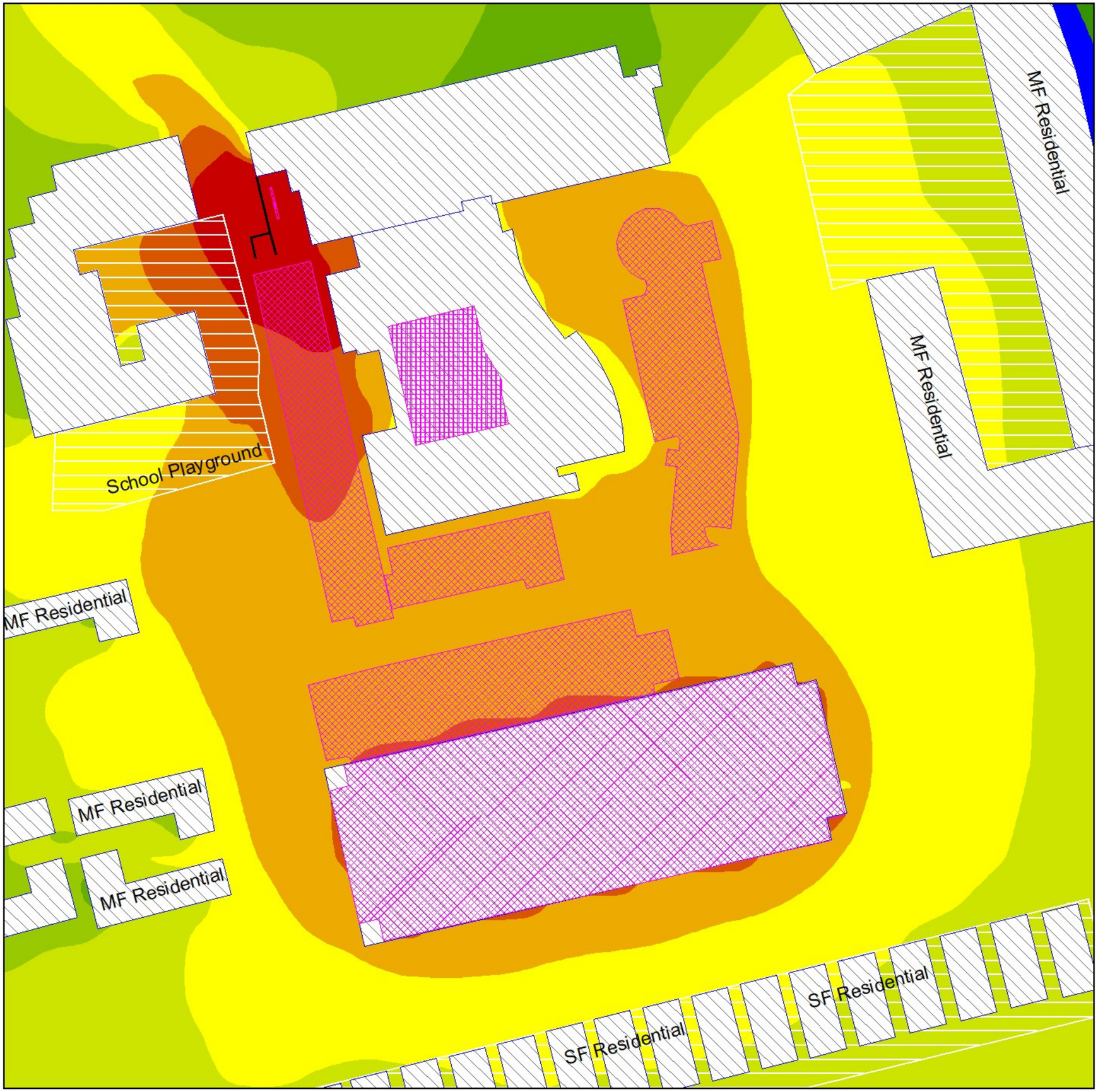
N

0 50 100 150 200 feet

Calculation Date: May 10, 2022

ICF

Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Parking Lot + Rooftop Mechanical Equipment + Generator, 3rd Floor



Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
30.0 -	35.0
<=	30.0

Signs and symbols

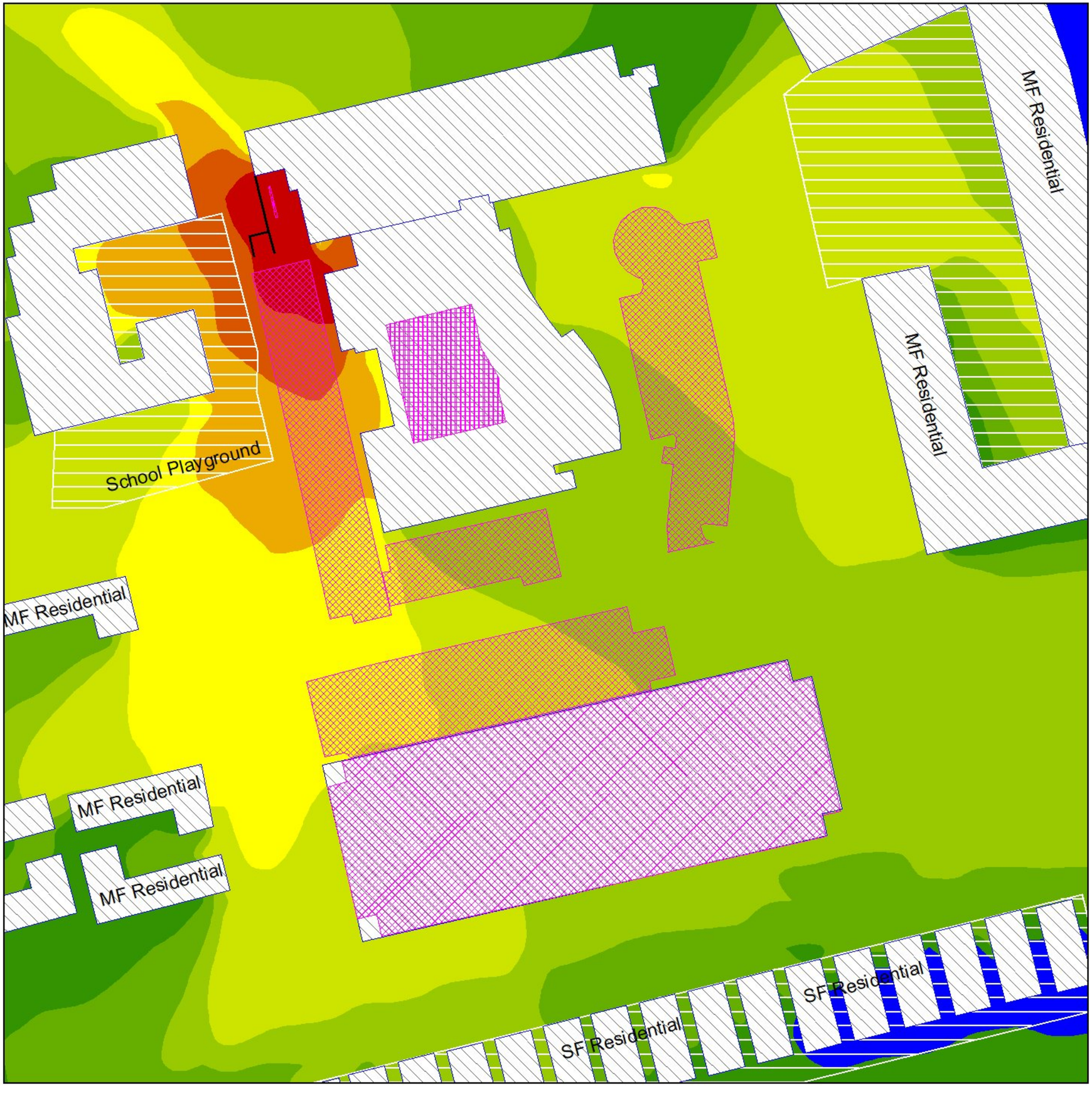
- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

N

0 50 100 150 200 feet

Calculation Date: May 10, 2022

ICF



Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Rooftop Mechanical Equipment + Generator, 1st Floor

Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
30.0 -	35.0
<=	30.0

Signs and symbols

- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

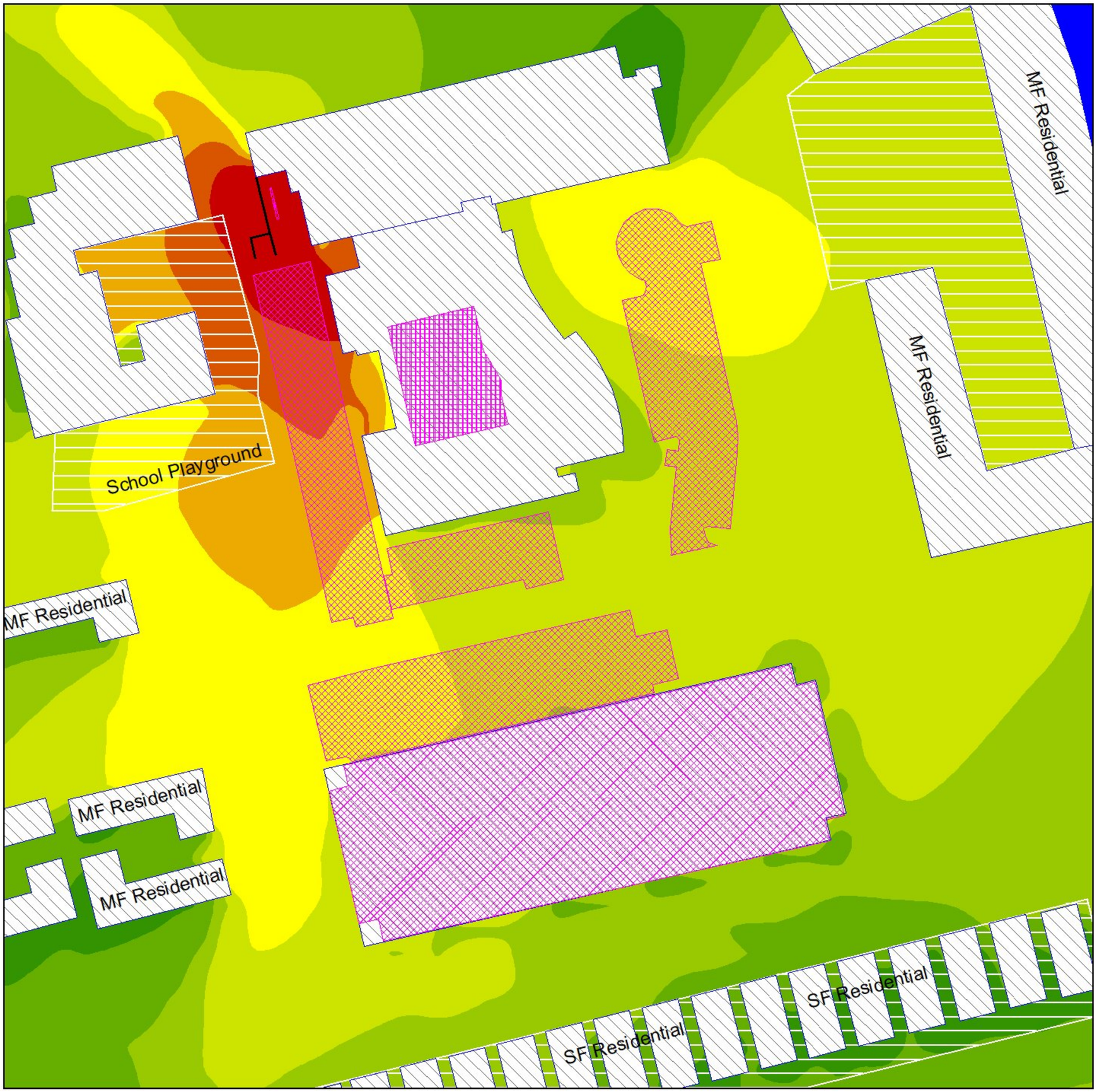
N

0 50 100 150 200 feet

Calculation Date: May 10, 2022

ICF

Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Rooftop Mechanical Equipment + Generator, 2nd Floor



Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
30.0 -	35.0
<=	30.0

Signs and symbols

- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

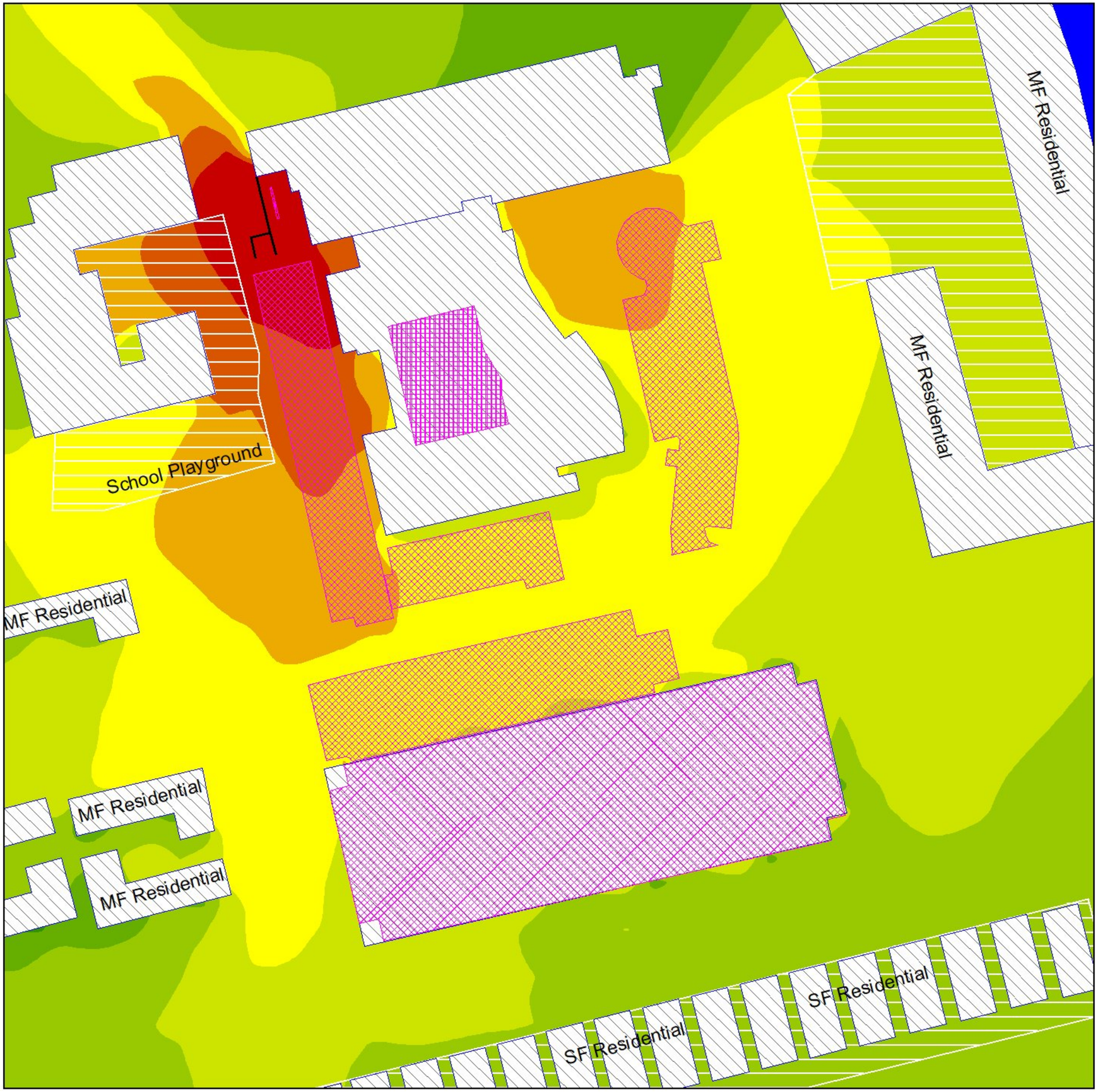
N

0 50 100 150 200 feet

Calculation Date: May 10, 2022

ICF

Estimated Noise Levels (1-Hour L_{eq}) from Proposed Otay Mesa MOB Rooftop Mechanical Equipment + Generator, 3rd Floor



Estimated L_{eq}, dBA

>	65.0
60.0 -	65.0
55.0 -	60.0
50.0 -	55.0
45.0 -	50.0
40.0 -	45.0
35.0 -	40.0
30.0 -	35.0
<=	30.0

Signs and symbols

- Mechanical Equipment
- Building
- Outdoor Use Area (white hatching)
- Parking lot
- Wall/Screen

N

0 50 100 150 200 feet

Calculation Date: May 10, 2022

ICF

Appendix D Local Mobility Analysis

LINSCOTT LAW & GREENSPAN engineers

LOCAL MOBILITY ANALYSIS

SHARP OTAY RANCH MEDICAL OFFICE BUILDING

Chula Vista, California
June 28, 2022

LLG Ref. 3-21-3414

Prepared by:
Narasimha Prasad
Senior Transportation Engineer

Under the Supervision of:
John Boarman, P. E.
Principal

Linscott, Law & Greenspan, Engineers
4542 Ruffner Street
Suite 100
San Diego, CA 92111
858.300.8800 T
858.300.8810 F
www.llgengineers.com

EXECUTIVE SUMMARY

This Transportation Study assess the impacts of the development of a Medical Office Building (MOB) at the Sharp Campus at 1400 Palomar Street campus in Chula Vista. Currently, there is a 67,372 SF MOB on the southwest quadrant of the E. Palomar Street / Santa Andrea Street intersection. It is proposed to add a new 57,820 SF MOB and a 3-Story Parking structure with 667 parking spaces.

Project Screening Results

The Project is located in a VMT efficient area and is 71.3% of the regional VMT as described in Section 3.0 CEQA VMT Analysis. This is below the significance threshold of 85% of the regional mean per the VMT per employee screening map. The Project meets the Project Location Screening criteria for *Employment*. Therefore, the Project is screened out from requiring a VMT analysis.

The Project's CEQA impacts are presumed to be less than significant and hence no CEQA related mitigation measures are recommended.

Required Improvements from LMA

The LMA identified substantial effects at the Palomar Street / Santa Rita / Monarche Drive and Palomar Street / La Media Road intersections. The following improvements are recommended:

Palomar Street / Santa Rita / Monarche Drive intersection

The Project's percentage of total traffic at this intersection is 5% during the AM peak hour and 10% during the PM peak hour. It is recommended that the Project should provide signal retiming at this intersection. The Project is responsible for 100% of all signal retiming costs. The Project should also provide a fair share towards signal upgrade/Intelligent Transportation System (ITS) improvements which should be consistent with the City of Chula Vista Traffic Signal Communications Master plan and recommendations from City staff. The applicant should coordinate with City staff to identify feasible signal upgrade/ITS improvements.

Palomar Street / La Media Road intersection

The Project's percentage of total traffic at this intersection is 1% during the AM peak hour and 2% during the PM peak hour. It is recommended that the Project should provide signal retiming at this intersection. The Project is responsible for 100% of all signal retiming costs.

During construction, parking at the site will be restricted to 191 spaces at the Project site due to construction activities. Sharp will lease 50 spaces from a new parking lot currently under construction at St Paul's Plaza Senior Living across Santa Andrea on the east side. Another 100 parking spaces at the Sharp Chula Vista Medical Center (SCVMC) located at 752 Medical Center Court, Chula Vista, 3 miles from the Project site will be available. A shuttle service will be provided between the SCVMC parking lot and the Project site. The spaces at SCVMC will be cordoned off and reserved for the use of visitors to the Project site, thus ensuring availability. Therefore, a total of 341 spaces will be available during construction.

Palomar Street / Santa Andrea Street Intersection – Left-Turn Extension

The Project should extend the Westbound left-turn storage at the Palomar Street / Santa Andrea Street intersection by removing a portion of the existing raised median and extend the westbound left storage length by 60 feet resulting in a total storage length of 200 feet. *It may be noted that this is subject to further review and analysis by the City.*

Parking

During construction, Sharp Rees-Stealy (SRS) will lease 50 stalls for dedicated employee use at an existing surface lot at 1420 E Palomar Street. This lot is located within walking distance of the clinic (located directly across Santa Andrea Street) and is owned by St. Paul's Plaza. SRS employees will be issued placards or stickers indicating approved use to place in their vehicles. These stalls will be available for use 24/7.

SRS will lease an additional 100 stalls from Sharp Chula Vista Medical Center and shuttle employees to the site (approximately 2 miles total travel distance). Employees will be issued stickers or placards same as above. Specific stalls located west and north of the shared parking lot at 752 Medical Center Court will be designated for this use. Shuttles will operate 20 min round trips, approximately 20 trips per day (10 trips in the morning between 6am-8:40 am and 10 trips during the afternoon between 3 pm-5:40 pm). A three-day parking occupancy survey at the Sharp Chula Vista Medical Center (SCVMC), 752 Medical Center Court, determined that more than 100 spaces are available for lease during the Project construction activities.

Parking conditions should be monitored on a weekly basis for the duration of construction to ensure sufficient off-street spaces are provided. It should be ensured that temporary parking facilities are accessible to the users (i.e., provided on level terrain, adequate ADA path of travel, etc.) through the duration of construction. Upon notification from the City regarding parking spillover or other parking deficiencies, operator shall meet and confer with City staff and implement necessary measures to rectify the identified parking deficiencies.

Transit

A potential improvement at the E Palomar & Santa Andrea Street Stop (ID: 39056) would be to provide a bench and trash can at the E Palomar & Santa Andrea Street bus stop (ID: 39056).

Preparer Qualifications for CEQA / or LMA

John Boarman, P.E., T.E., Principal, Linscott, Law and Greenspan, Engineers, 31 years of experience in Transportation Studies.

Narasimha Prasad, Senior Transportation Engineer, Linscott, Law and Greenspan, Engineers, 27 years of experience in Transportation Studies.

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LOCAL MOBILITY ANALYSIS

SHARP OTAY RANCH MOB

City of Chula Vista, California
June 28, 2022

1.0 INTRODUCTION

Linscott, Law & Greenspan Engineers (LLG) has prepared this Transportation Study to assess the potential transportation effects associated with the proposed Sharp Otay Ranch Medical Office Building (MOB) Project (Project) in the City of Chula Vista.

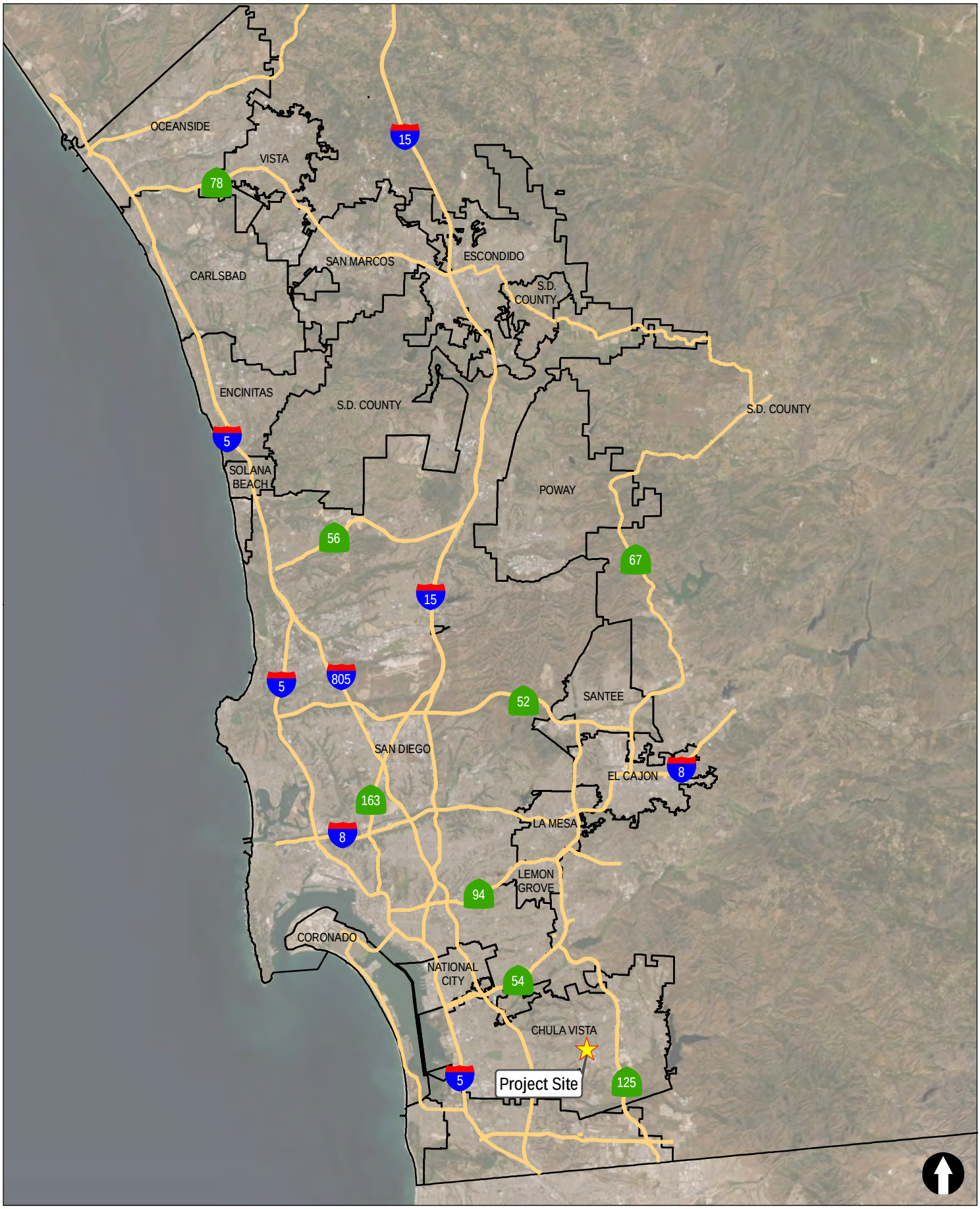
1.1 Purpose of Traffic Study

This report addresses the potential transportation effects from the proposed Project in the immediate vicinity of the Project site.

The following sections are included in this report:

- Project Description
- CEQA Vehicle Miles Traveled Assessment
- Local Mobility Analysis (LMA) Approach & Methodology and Access Assessment
- Existing Conditions Description
- Analysis of Existing Conditions
- Project Trip Generation, Distribution and Assignment
- Opening Day Analysis
- Parking Assessment
- Conclusions

The approved Project Information Form (PIF) and the Transportation Study Required Content Form are included in ***Appendix A***. ***Figure 1–1*** depicts the Vicinity Map, ***Figure 1–2*** depicts a more detailed Project Area Map. ***Figure 1–3*** is the Project's site plan.



LINSCOTT LAW & GREENSPAN engineers

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Figure 1-1

Vicinity Map

Sharp Otay Ranch MOB

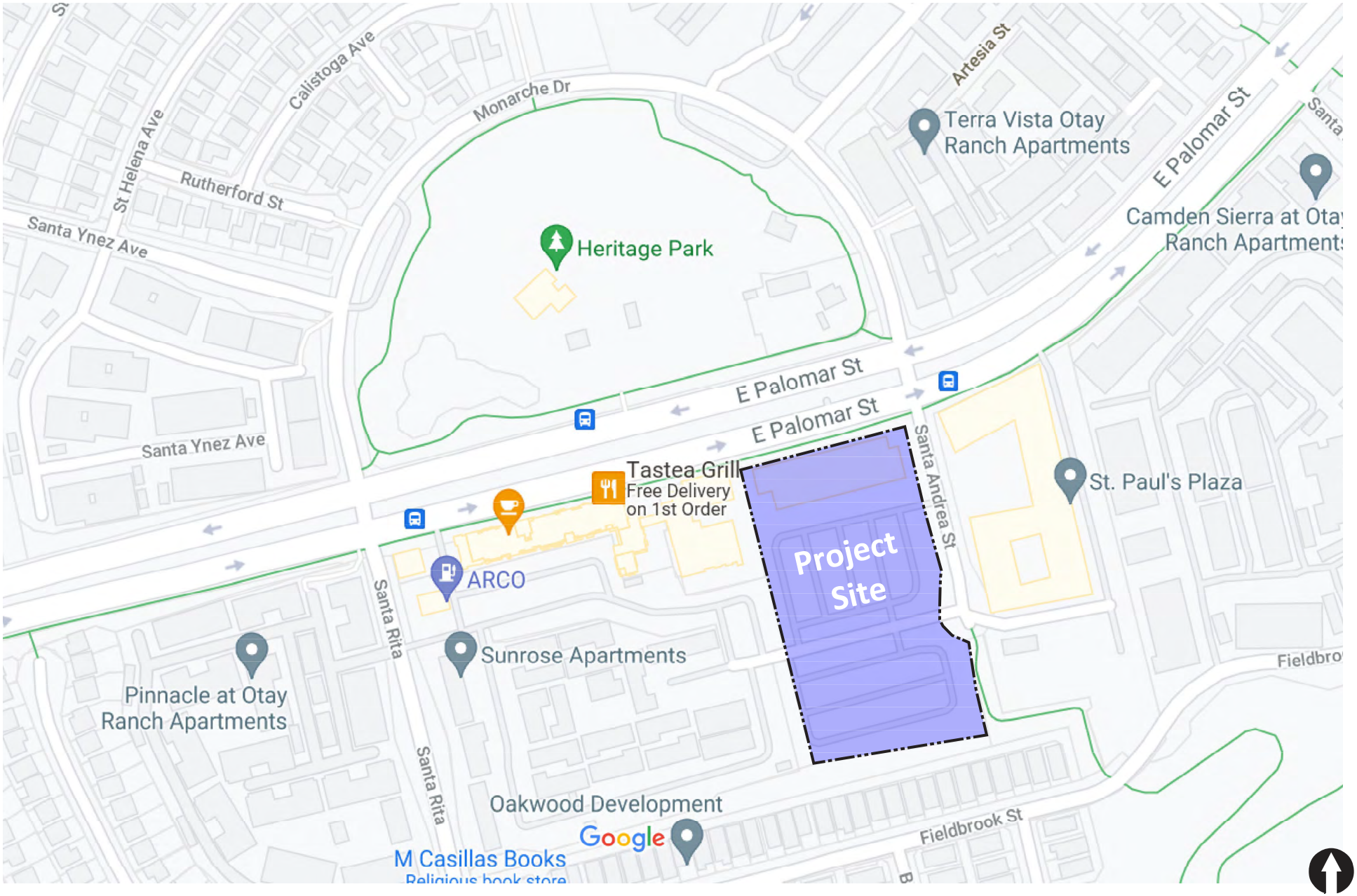

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Figure 1-2

Project Area Map

Sharp Otay Ranch MOB

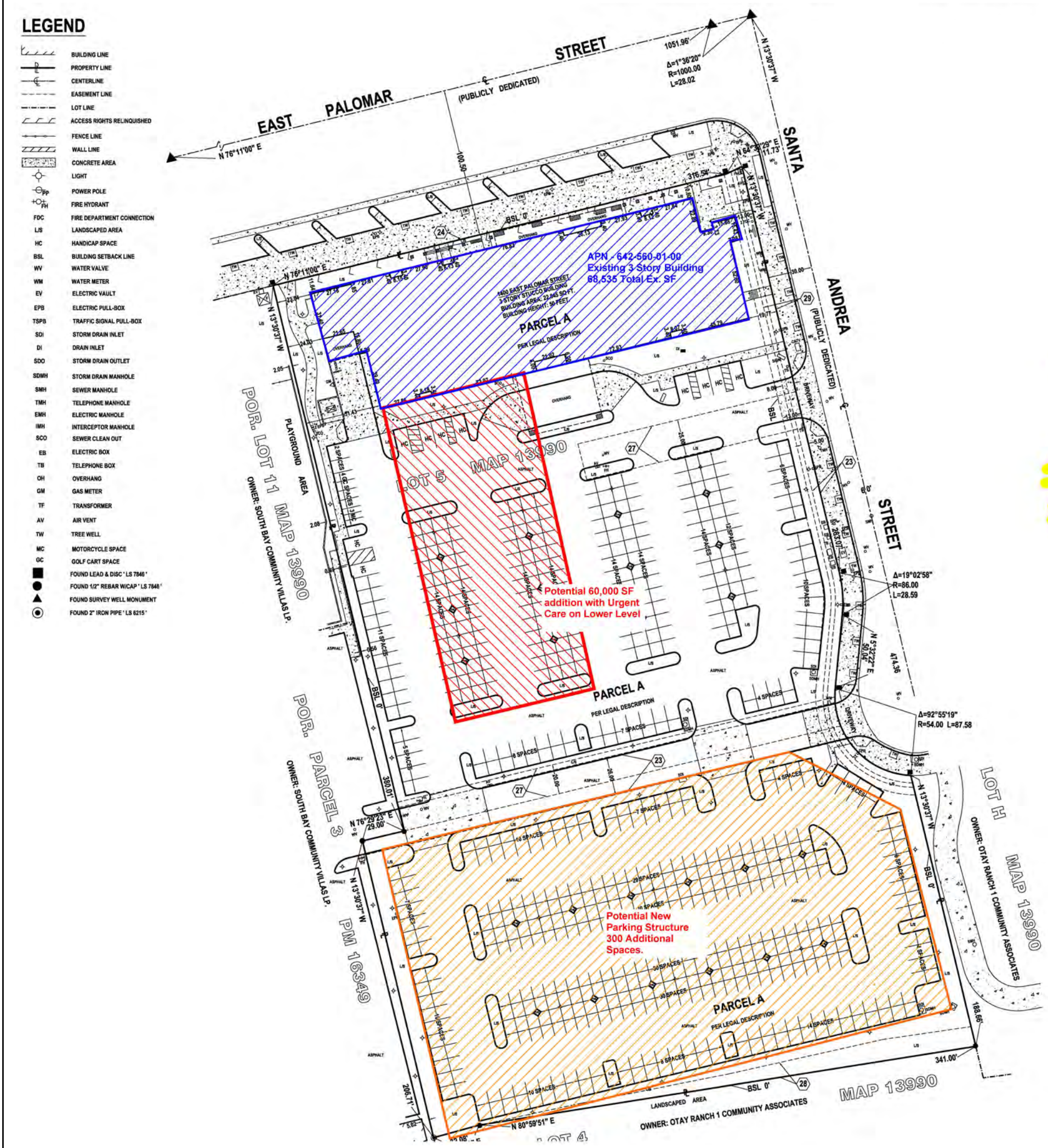

Figure 1-3

Conceptual Site Plan

Sharp Otay Ranch MOB

LINSCOTT LAW & GREENSPAN engineers

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2.0 GENERAL PROJECT DESCRIPTION AND BACKGROUND INFORMATION

2.1 Proposed Project Description

Currently, there is a 67,372 SF Medical Office Building (MOB) on the southwest quadrant of the E. Palomar Street / Santa Andrea Street intersection. It is proposed to add a new 57,820 SF MOB and a 3-Story Parking structure with 667 parking spaces.

Two full access driveways are provided on Santa Andrea Street, south of E. Palomar Street. A third access is provided along the western boundary of the site to the neighboring property.

- The first full access driveway on Santa Andrea Street is located in the northern section of the site.
- The second full access driveway on Santa Andrea Street is located in the southern section of the site.
- The third full access driveway is located along the western boundary of the site and provides access between the site and the neighboring property.

No change to the Project access is planned.

2.2 Projected Opening Year

The Project's planned opening year is 2024.

2.3 Project Trip Generation

As described in Section 7 Project Trip Generation / Distribution and Assignment, the Project is estimated to generate a total of 2,891 daily trips, with 173 trips during the AM peak hour and 318 trips during the PM peak hour.

2.4 Existing and Proposed Zoning Land Use Designation

Current Zoning for the Property is Planned Community (PC) with multiple land use district designations having been applied to this property: RM/C/CPF. However, the Master Precise Plan for Otay Ranch Village One further refines the zoning and designates the subject site as C (Commercial) and as being within the Main Street District. The project is physically located within the Village Core of Otay Ranch Village One and contains a General Plan Designation of MUR (Mixed Use Residential).

The most applicable land use categories on the Use Matrix would be for Medical, Dental & Health Service (for the medical offices) and/or Unclassified Uses (for the Urgent Care center), both of which would require a Conditional Use Permit for the proposed uses. There do not appear to be any prohibitions of these uses within the Otay Ranch Design Guidelines or Master Precise Plan.

2.5 Consistency with General Plan Land Use Map

The Project is consistent with the City General Plan.

2.6 Parking Requirement and Proposed Parking Provided

The parking required per code is 1 space per 200 SF or 626 spaces. The Project plans to provide 667 spaces. The proposed and existing parking is described in detail in Section 9 Parking.

3.0 CEQA VMT ANALYSIS

An assessment was conducted to determine the impacts on Vehicle Miles Traveled (VMT) for the Project. This assessment utilizes methodologies presented within the Governor's Office of Planning and Research (OPR) Technical Advisory developed to assist with implementation of Senate Bill 743 (SB 743), which resulted in a shift in the measure of effectiveness for determining transportation impacts from Level of Service (LOS) and vehicular delay to VMT. VMT analyses are required in all California Environmental Quality Act (CEQA) documents as of July 1, 2020.

The City of Chula Vista *Transportation Study Guidelines* (June 10, 2020), updated in January 2022, provides guidance on the preparation of VMT studies including the City's significance thresholds, screening criteria, and analysis methodology for a variety of land uses.

3.1 Screening Criteria for CEQA VMT Analysis

The requirements to prepare a detailed transportation VMT analysis apply to all discretionary land development projects, except those that meet at least one of the following screening criteria. A project that meets at least one of the screening criteria below is presumed to have a less than significant VMT impact due to project characteristics and/or location. Note, however, that the City staff may, in its discretion, require project applicants to provide evidence that the presumption is in fact applicable in a given case, and may ultimately determine the presumption is not applicable. Thus, screening will be determined at the City's discretion on a case-by-case basis.

1. Small Residential and Employment Projects

Projects generating 200 or less daily vehicle trips may be presumed to have a less than significant impact absent substantial evidence to the contrary. Trips are based on the number of vehicle trips calculated using SANDAG (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region with any alternative modes/location-based adjustments applied.

2. Projects Located in a Transit-Accessible Area

Projects located in a transit priority area (TPA) or half-mile walkshed of an existing stop along a high-quality transit corridor may be presumed to have a less than significant impact, absent substantial evidence to the contrary. This presumption is only appropriate if the project meets the following conditions:

a. Has a Floor Area Ratio (FAR) of more than 0.75;

b. Includes no more than the minimum parking for use by residents, customers, or employees of the project as required by the City of Chula Vista;

c. Is consistent with the City of Chula Vista General Plan; and

d. Does not include a smaller number of units that previously on the project site

e. Does not replace affordable residential units with moderate- or high-income residential units.

Projects must be entirely within a TPA or have a half-mile walkshed from all points within the project site to qualify for this screening. Screening will be determined at the City's discretion.

A transit priority area is the area within ½ mile of a major transit stop, that is, an existing or planned Pub. Resources Code § 21099(a)(7). A "major transit stop" means a site containing any of the following: (a) an existing rail or bus rapid transit station, (b)a ferry terminal served by either a bus or rail transit service, or (c) the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. Pub. Resources Code § 21064.3. A high-quality transit corridor is defined as a corridor with fixed-route bus service having service intervals no longer than 15 minutes during peak commute hours. Pub. Resources Code § 21155(b).

The ***VMT/Capita*** and ***VMT/Employee*** screening maps are created using information from the current version of the SANDAG model. As SANDAG updates the model to reflect development and planning throughout the region, the screening maps will be updated and may change resulting in development that may have at one time been screened to no longer be screened and vice versa. As the model is updated, earlier versions of the model will also cease to be supported by SANDAG, meaning that model runs can no longer be completed with the previous versions of the model. If a project begins the transportation study process using one version of the model that becomes unsupported during the process, the project can utilize model outputs from the older model version, as long as no additional modeling work will be done. Projects cannot complete their transportation analysis using multiple model versions.

3. Projects Located in a VMT-Efficient Area

A VMT-efficient area is any area within the city with an average VMT/Capita or VMT/Employee below the thresholds as compared to the baseline regional average for the census tract it is located within.

Residential projects located within a VMT-efficient area may be presumed to have a less than significant impact absent substantial evidence to the contrary. A VMT-efficient area for residential projects is any area with an average VMT/Capita 15% below the baseline regional average for the census tract it is located within.

Employment projects located within a VMT-efficient area may be presumed to have a less than significant impact absent substantial evidence to the contrary. A VMT-efficient area for employment projects (excluding industrial employment projects) is any area with an average VMT/Employee 15% below the baseline regional average for the census tract it is located within.

Industrial Employment projects located within a VMT-efficient area may be presumed to have a less than significant impact absent substantial evidence to the contrary. A VMT-efficient area for industrial employment projects is any area with an average VMT/Employee at or below the baseline regional average for the census tract it is located within.

Mixed-Use projects located within a VMT-efficient area for each of its land uses may be presumed to have a less than significant impact absent substantial evidence to the contrary. Refer to the appropriate section for each land use included as a part of the mixed-use project in order to determine the definition of a VMT-efficient area for each land use.

4. Locally Serving Retail Projects

Local serving retail projects less than 125,000 square feet and that would serve the local community may be presumed to have a less than significant impact absent substantial evidence to the contrary. The City may request a market capture study that identifies local market capture to the City's satisfaction. Local serving retail generally improves the convenience of shopping close to home and has the effect of reducing vehicle travel.

5. Local Serving Public Facilities and Community Purpose Facilities

Public facilities that serve the surrounding community or public facilities that are passive uses may be presumed to have a less than significant impact absent substantial evidence to the contrary. The following are examples of locally serving facilities:

- Transit centers
- Public schools
- Libraries
- Post offices
- Park-and-ride lots
- Police and fire facilities
- Parks and trailheads
- Government offices
- Passive public uses, including communication and utility buildings, water sanitation, and waste management
- Church (or Synagogue)
- Other public uses as determined by City staff

Community Purpose Facility is a land use designation in a planned community intended for non-profit and certain for-profit land uses as listed in the Chula Vista Municipal Code Section 19.48.025(C).

6. Redevelopment Projects with Greater VMT Efficiency

A redevelopment project may be presumed to have a less than significant impact absent substantial evidence to the contrary if the proposed project's total project VMT is less than the existing land use's total VMT.

7. Affordable Housing

Any portion of a project that is composed of deed-restricted affordable housing units may be presumed to have a less than significant impact absent substantial evidence to the contrary. This presumption is only appropriate if the project meets the following conditions:

- Is an infill project;
- Is close to a transit stop or station; and
- Project-provided parking does not exceed parking required by the Chula Vista Municipal Code.

If an infill project includes both deed-restricted affordable housing units and market-rate housing units, the deed-restricted affordable housing units would be screened from further VMT analysis under this screening criteria. If applicable, the remaining market-rate housing units would be considered for screening using other applicable screening criteria. If the market-rate housing units were not screened out, the applicant is required to conduct a complete VMT analysis for VMT associated with the project's market-rate housing units only.

3.2 VMT Assessment

The Project is located in a VMT efficient area and is 71.3% of the regional VMT (see VMT map in ***Appendix B***). The Project meets the Project Location Screening criteria for *Employment*. Therefore, the Project is screened out from requiring a VMT analysis and the Project's VMT transportation impact is presumed to be less than significant.

4.0 APPROACH & METHODOLOGY AND ACCESS ASSESSMENT

4.1 Analysis Approach and Methodology

In addition to the VMT assessment presented above, an access assessment was also prepared that focuses on automobile delay and Level of Service (LOS). The LOS analysis was conducted to identify Project effects on the roadway operations in the Project study area and recommend Project improvements to address noted deficiencies. It may be noted that LOS is not a CEQA significance threshold.

4.1.1 *Level of Service*

Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. Level of service provides an index to the operational qualities of a roadway segment or an intersection. Level of service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level of service designation is reported differently for signalized and unsignalized intersections

4.1.2 *Intersections*

Signalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 19 of the *Highway Capacity Manual 6th Edition (HCM 6),* with the assistance of the *Synchro* (version 10) computer software. The delay values (represented in seconds) were qualified with a corresponding intersection LOS. City of Chula Vista location-specific signal timing information such as minimum greens, cycle lengths, splits for the freeway interchanges and real-time peak hour field observations were included in the analysis, where appropriate.

Intersection analysis parameters specified in the Transportation Study Guidelines Appendix G were incorporated into the analysis. Peak hour factors by approach obtained from the traffic counts were used in the analysis. Signal Timing Plans are included in ***Appendix C***.

Unsignalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay and LOS was determined based upon the procedures found in Chapters 20 and 21 of the *HCM 6* with the assistance of the *Synchro* (version 10) computer software.

4.2 Study Area

The following study area was developed to assess the effects of the Project on the intersections located within the immediate vicinity of the Project site, particularly the access to the site. The Project trip distribution was developed based the zip code information of the patients at the existing MOB on site. This will be described in greater detail in Section 7 Project Trip Generation/Distribution/Assignment. Based on this project trip distribution, all intersections to which the Project adds 50 peak hour trips were included in the study area listed on the next page.

INTERSECTIONS

1. Palomar Street / Heritage Road (Signalized)
2. Palomar Street / Santa Rita / Monarch Drive (Signalized)
3. Palomar Street / Santa Andrea Street (Signalized)
4. Palomar Street / Santa Alicia Avenue (Signalized)
5. Palomar Street / Santa Flora Road (Signalized)
6. Palomar Street / Santa Delphina Avenue (Signalized)
7. Palomar Street / La Media Road (Signalized)
8. Telegraph Canyon Road / La Media Road (Signalized)
9. Project Driveway N. / Santa Andrea Street (Unsignalized)
10. Project Driveway S. / Santa Andrea Street (Unsignalized)
11. Olympic Parkway / Heritage Road (Signalized)
12. Olympic Parkway / Palomar Street (Signalized)

4.3 Analysis Scenarios

Per footnote 8 of Table 1: Local Mobility Analysis – Projects Consistent with the General Plan, *City of Chula Vista Transportation Study Guidelines, June 10, 2020*, if the proposed project's opening year is within 2 years of the project's application, the Existing + Project scenario is considered to be the same as the project's Opening Year + Project scenario. Thus, this report includes the analysis of the following two Scenarios.

- Existing
- Opening Year without Project
- Opening Year + Project

4.4 Substantial Effect Criteria

Project specific traffic effects are those effects for which the addition of project trips result in an identifiable degradation in LOS on intersections, triggering the need for specific project-related improvement strategies.

The criteria for determining whether the Project results in project specific traffic effects on intersections in the City of Chula Vista are summarized in ***Table 4-1***.

The LMA also evaluates the effects on Transit and non -motorized transportation facilities, and potential measures to alleviate effects that are listed in Table 5 of the Transportation Study Guidelines.

TABLE 4–1
THRESHOLDS FOR DETERMINING A PROJECT'S SUBSTANTIAL TRAFFIC EFFECT

Facility	Threshold
Signalized Intersection	▪ Proposed project contributes to an intersection that currently operates or is projected to operate at LOS E or below. ▪ Proposed project causes an intersection's operations to degrade to LOS E or below.
Side-Street Stop Control	▪ Proposed project contributes to a critical movement of an intersection that currently operates, or is projected to operate, at LOS E or below. ▪ Proposed project causes the intersections critical movement to degrade to LOS E or below.

***Source**: Table 3* of Chula Vista's *Transportation Study Guidelines* (June 10, 2020)

5.0 EXISTING CONDITIONS DESCRIPTION

Effective evaluation of the traffic effects associated with the proposed Project requires an understanding of the existing transportation system within the project area. ***Figure 5–1*** depicts the existing conditions diagram, including intersection control and lane configurations.

5.1 Existing Roadway Conditions

The following is a description of the major roadways located within the immediate vicinity of the Project site at the time of the existing counts.

Palomar Street

Palomar Street is an east-west facility and is classified as a 4-Lane Major Road in the City of Chula Vista General Plan Land Use and Transportation Element. It is currently constructed as a four-lane divided roadway, providing two travel lanes in each direction. A two-lane bus pathway is provided in between the two travel lanes. Sidewalks are provided on both sides of the roadway. Curbside parking is provided intermittently along the roadway. Class II bike lanes are provided on both sides of the roadway west of Heritage Road. A class I Multi-Use Bicycle Path is provided east of Heritage Road. The posted speed limit is 35 mph.

Santa Andrea Street

Santa Andrea Street is an unclassified north-south roadway in the City of Chula Vista General Plan Land Use and Transportation Element. It is currently constructed as a two-lane undivided roadway, providing one travel lane in each direction. Sidewalks are provided on both sides of the roadway. Curbside parking is permitted on both sides of the roadway. Bike lanes are not provided. There is no posted speed limit.

5.2 Existing Intersection Traffic Volumes

Weekday AM and PM peak hour intersection turning movement volume counts were conducted in January and March 2022. Counts conducted at the Olympic Parkway / Heritage Road on January 16, 2020 were also used. The intersection counts were conducted between the hours of 7:00-9:00 AM and 4:00-6:00 PM to capture peak commuter, pedestrian and bicycle activities. Area schools were in session during the time of the counts. Signal timing plans for the signalized intersections were obtained from the City of Chula Vista and used in the intersection analyses.

Figure 5–2 depicts the existing traffic volumes. ***Appendix D*** contains the count sheets and signal timing sheets.

5.3 Bicycle Conditions

Currently, there is a Class I Multi-Use Bicycle Path along Palomar Street and a Class II Bicycle Lane along La Media Road. There are no other bicycle facilities provided within the study area.

Based on the City of Chula Vista *Active Transportation Plan*, a Class IV Cycle Track is proposed along La Media Road within the project vicinity. There are no other proposed bicycle facilities within the study area.

5.4 Pedestrian Conditions

Continuous sidewalks are provided along both sides of Palomar Street, and Santa Andrea Street. There are no sidewalks obstructions.

Curb ramps and/or detectible warning strips are provided at the following study intersections:

- Palomar Street / Heritage Road (4 curb ramps / 8 detectible warning strips)
- Palomar Street / Santa Rita / Monarch Drive (4 curb ramps / 4 detectible warning strips)
- Palomar Street / Santa Andrea Street (4 curb ramps / 4 detectible warning strips)
- Palomar Street / Santa Alicia Avenue (4 curb ramps / 4 detectible warning strips)
- Palomar Street / Santa Flora Road (3 curb ramps / 3 detectible warning strips)
- Palomar Street / Santa Delphina Avenue (3 curb ramps / 2 detectible warning strips)
- Palomar Street / La Media Road (4 curb ramps)
- Telegraph Canyon Road / La Media Road (4 curb ramps / 1 detectible warning strip)
- Project Driveway N. / Santa Andrea Street (2 curb ramps)
- Project Driveway S. / Santa Andrea Street (2 curb ramps)
- Olympic Parkway / Heritage Road (4 curb ramps / 2 detectible warning strips)
- Olympic Parkway / Palomar Street (4 curb ramps / 2 detectible warning strips)

Based on the City of Chula Vista *Active Transportation Plan*, no future sidewalk improvements are planned within ½ mile of the project site.

5.5 Transit Conditions

The San Diego Metropolitan Transit System (MTS) operates within the study area. A description of the transit services within the Project Vicinity are as follows:

Route 225 (Rapid)

Route 225 (Rapid) runs between Otay Mesa Transit Center and Downtown San Diego via Palomar Street. There are 11 stops along this route. It operates on the weekdays from approximately 4:30 AM to 11 PM. Weekend services operates at approximately 5 AM to 10 PM. Services are at 20 to 30-minute frequencies. This route runs in its own right-of-way along the center of Palomar Street.

Within Chula Vista, stations along the above route are located along Palomar Street, west of Santa Andrea Street. The nearest bus stop at the project site is on Palomar Street, west of Santa Andrea Street. Amenities at this station include a pole with signage and route information, trash receptacles, a bus bench and a shelter.

Route 712

Route 712 begins at Palomar Street Transit Center and ends at Southwestern College. There are 27 stops along this route. It operates on the weekdays from approximately 5:45 AM to 10 PM. Saturday service operates at approximately 6:30 AM to 9 PM. Sunday service operates at approximately at 8 AM to 7:30 PM. Services are at 15 to 60-minute frequencies.

Stops at the above route are located along Palomar Street and La Media Road. The nearest bus stop at the project site is on Palomar Street, east of Santa Andrea Street. Amenities at this bus stop include a pole with signage and route information and a shelter.

Another bus stop is provided on Palomar Street, just east of Santa Rita. Amenities at this bus stop include a pole with signage and route information, trash receptacles, a bus bench and a shelter.

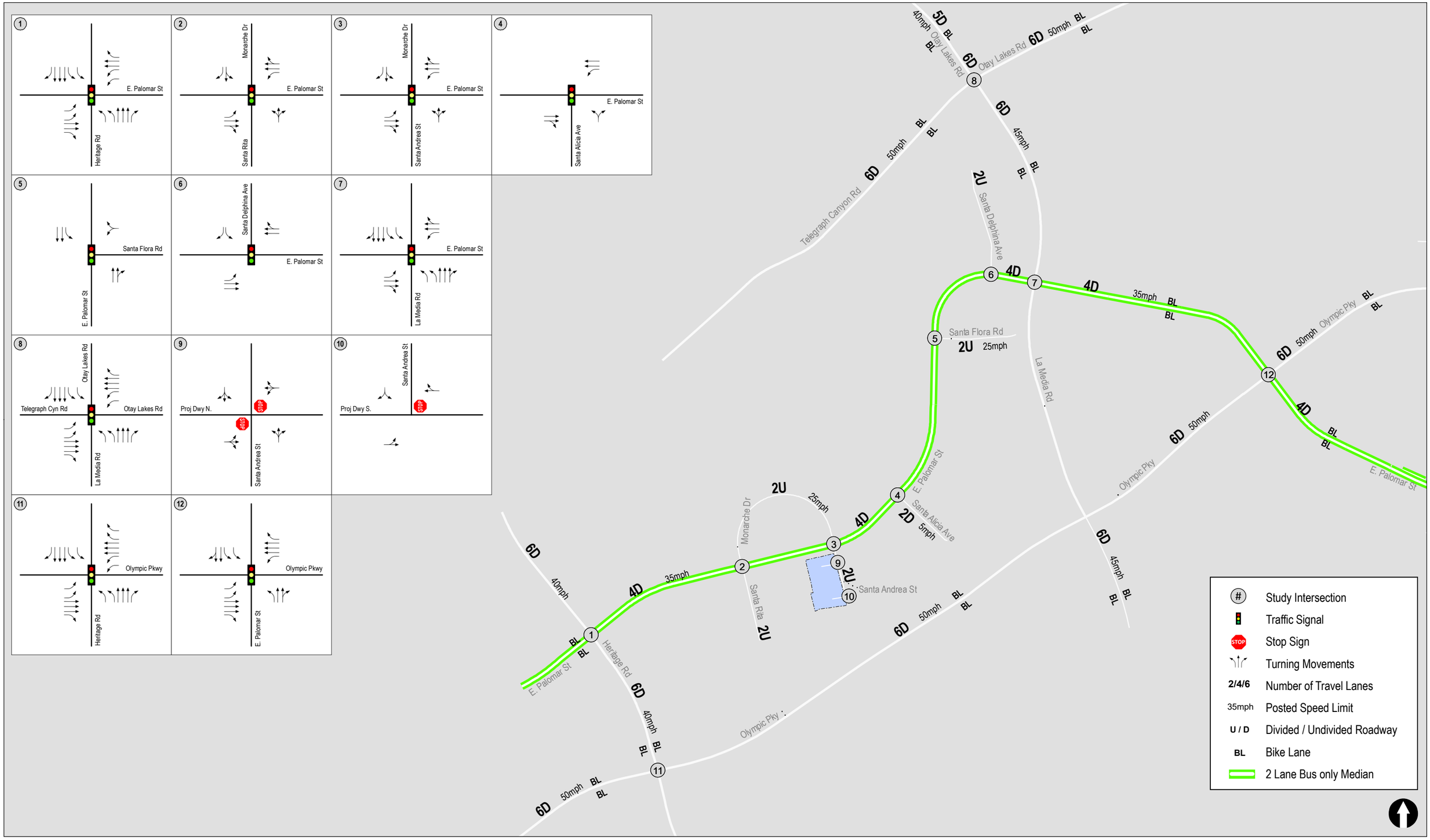

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Figure 5-1
Existing Conditions Diagram

Sharp Otay Ranch MOB

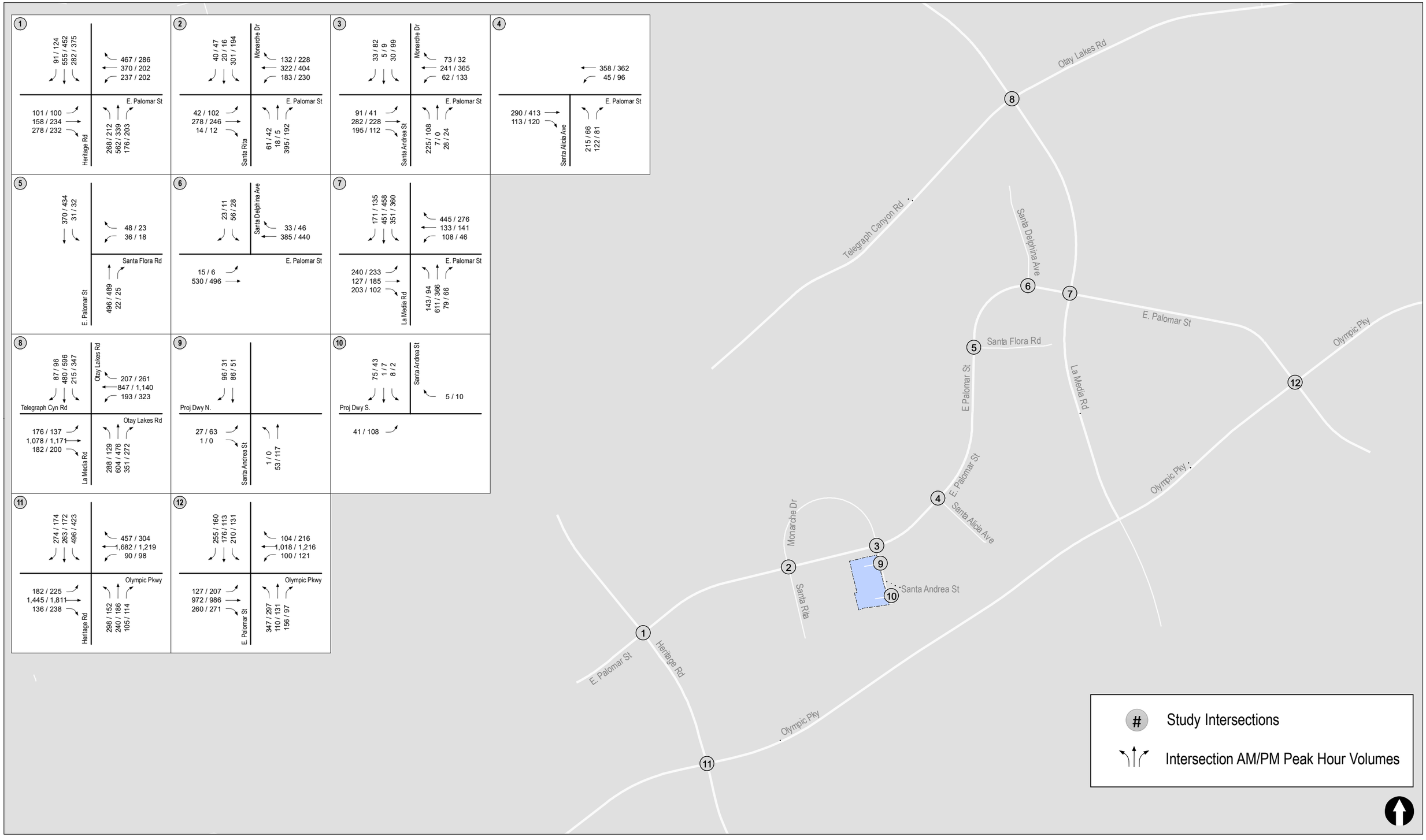

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Figure 5-2

Existing Traffic Volumes

Sharp Otay Ranch MOB

6.0 ANALYSIS OF EXISTING CONDITIONS

Table 6–1 summarizes the peak hour intersection operations under Existing conditions. As shown, all study area intersections are calculated to currently operate acceptably at LOS D or better during the AM and PM peak hours except the following:

- Palomar Street / Santa Rita / Monarche Drive – LOS E during the AM peak hour
- Palomar Street / La Media Road - LOS E during the AM peak hour

Appendix D contains the Existing intersection analysis worksheets.

TABLE 6–1
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Delay [a]	LOS [b]
1. Palomar St / Heritage Rd	Signal	AM	51.1	D
		PM	29.6	C
2. Palomar St / Santa Rita / Monarche Dr	Signal	AM	**58.4**	**E**
		PM	30.4	C
3. Palomar St / Santa Andrea St	Signal	AM	30.1	C
		PM	21.8	C
4. Palomar St / Santa Alicia Ave	Signal	AM	15.0	B
		PM	9.6	A
5. Palomar St / Santa Flora Rd	Signal	AM	7.1	A
		PM	6.0	A
6. Palomar St / Santa Delphina Ave	Signal	AM	5.7	A
		PM	5.0	A
7. Palomar St / La Media Rd	Signal	AM	**56.8**	**E**
		PM	33.7	C
8. Telegraph Canyon Rd / La Media Rd	Signal	AM	41.5	D
		PM	42.5	D
9. Santa Andrea St / Project Dwy N.	MSSC [c]	AM	10.3	B
		PM	11.2	B
10. Santa Andrea St / Project Dwy S.	MSSC [c]	AM	0.0	A
		PM	0.0	A

Continued on the Next Page

TABLE 6–1
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Delay [a]	LOS [b]
Continued from the Previous Page				
11. Olympic Pkwy / Heritage Rd	Signal	AM	50.3	D
		PM	52.6	D
12. Olympic Pkwy /Palomar St	Signal	AM	32.3	C
		PM	33.6	C

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. MSSC= Minor-Street Stop Controlled. Worst-case delay reported.

General Note:

Bold indicates LOS E or worse operations.

SIGNALIZED		UNSIGNALIZED	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

7.0 PROJECT TRIP GENERATION/DISTRIBUTION/ASSIGNMENT

7.1 Project Trip Generation

Trip Generation rates for Medical Office Building were obtained from the *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002.

Table 7–1 summarizes the trip generation for the Project. As seen in *Table 7-1*, the proposed Project is estimated to generate a total of 2,891 daily trips, with 173 AM peak hour trips (138 inbound/ 35 outbound) and 318 PM peak hour trips (95 inbound/ 223 outbound trips).

7.2 Trip Distribution and Assignment

There is currently a MOB at this site and Zip Code information is available for the patients visiting this facility. This zip code data is considered to be the best source of trip distribution percentages. Therefore, zip code information for a period of one year (Year 2021) was obtained from Sharp. Using this information, the trip distribution was developed as follows:

- The 2021 data included 415 zip codes, with most zip codes yielding less than 365 data points each (or less than 1 per day). These were eliminated since they are negligible.
- The final zip codes selected added up to 162,786 data points (or 446 data points per day).
- Using this information, the locations of the zip codes and the roadway network, the distribution was developed.
- The distribution was determined based on the ultimate origin of each trip (zip code) and the best available routes.

Appendix E contains the raw zip code information from Sharp and the actual zip codes that were used in developing the distribution.

The Project Opening Year is 2024. Therefore, the Opening Year without Project traffic is the same as Existing traffic and the Opening Year with Project traffic is the same as Existing + Project Traffic.

Figure 7–1 depicts the Project trip distribution and ***Figure 7–2*** depicts the Project Traffic Assignment and ***Figure 7-3*** depicts the Opening Year + Project Traffic Volumes.

TABLE 7-1
TRIP GENERATION TABLE

Land Use	Size	Trip Rate [a]	ADT	AM Peak Hour					PM Peak Hour				
				Trip Rate	In:Out Split	Volume			Trip Rate	In:Out Split	Volume		
						In	Out	Total			In	Out	Total
Medical Office Building	57.820 KSF	50 KSF	2,891	6%	8:2	138	35	173	11%	3:7	95	223	318

Footnotes:

a. Trip rates obtained from the *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, SANDAG, April 2002.

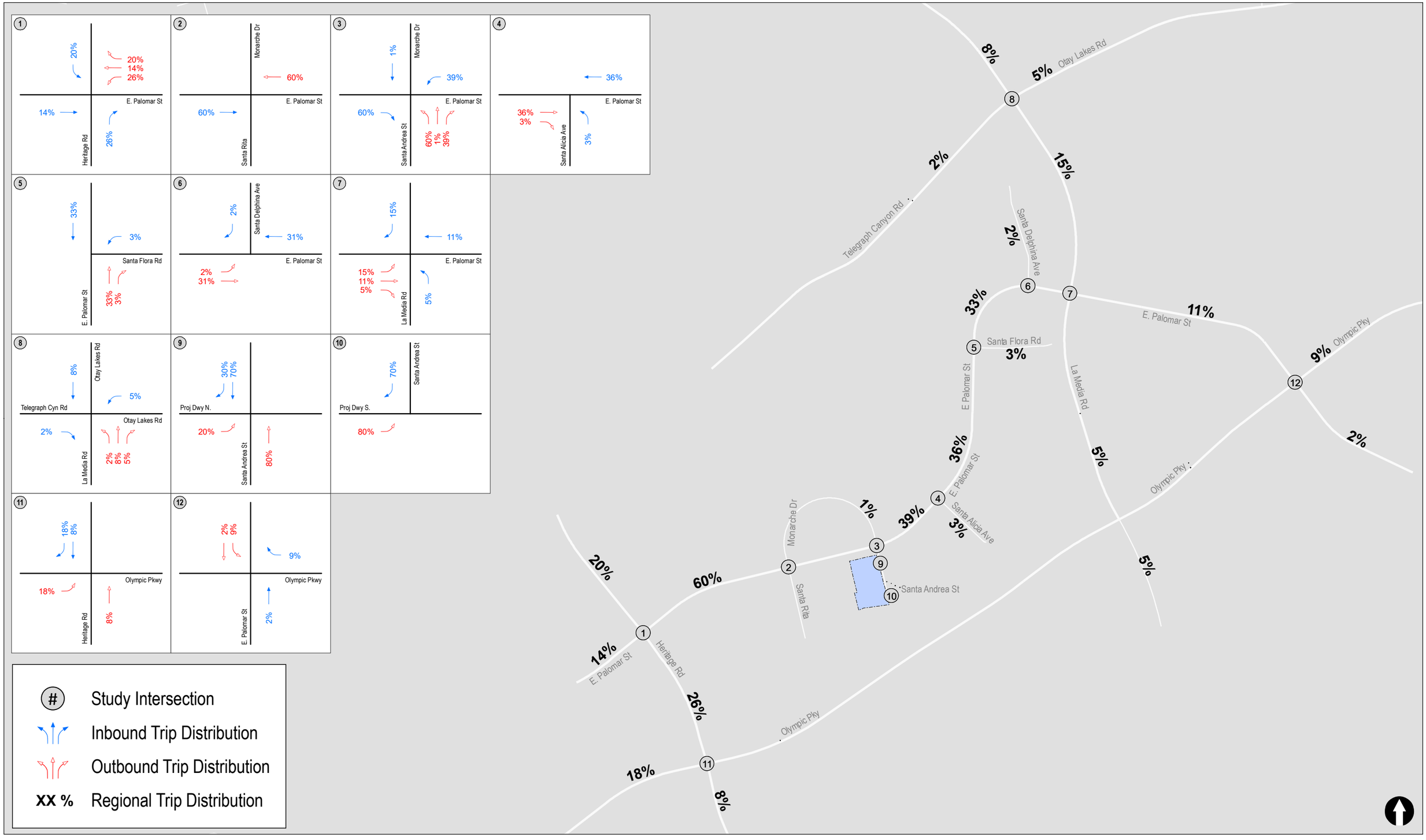

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Figure 7-1

Project Traffic Distribution

Sharp Otay Ranch MOB

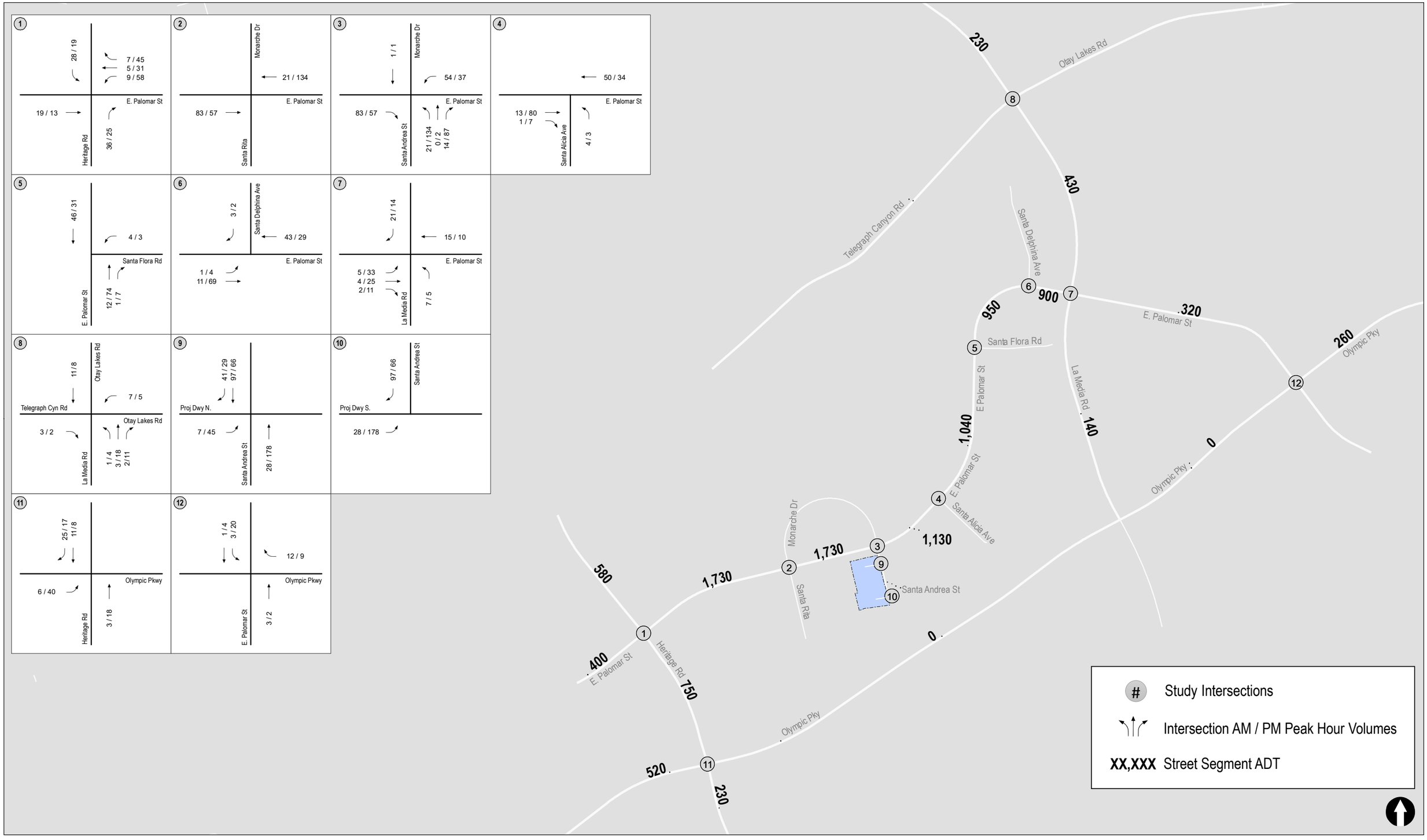

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Figure 7-2

Project Traffic Volumes

Sharp Otay Ranch MOB

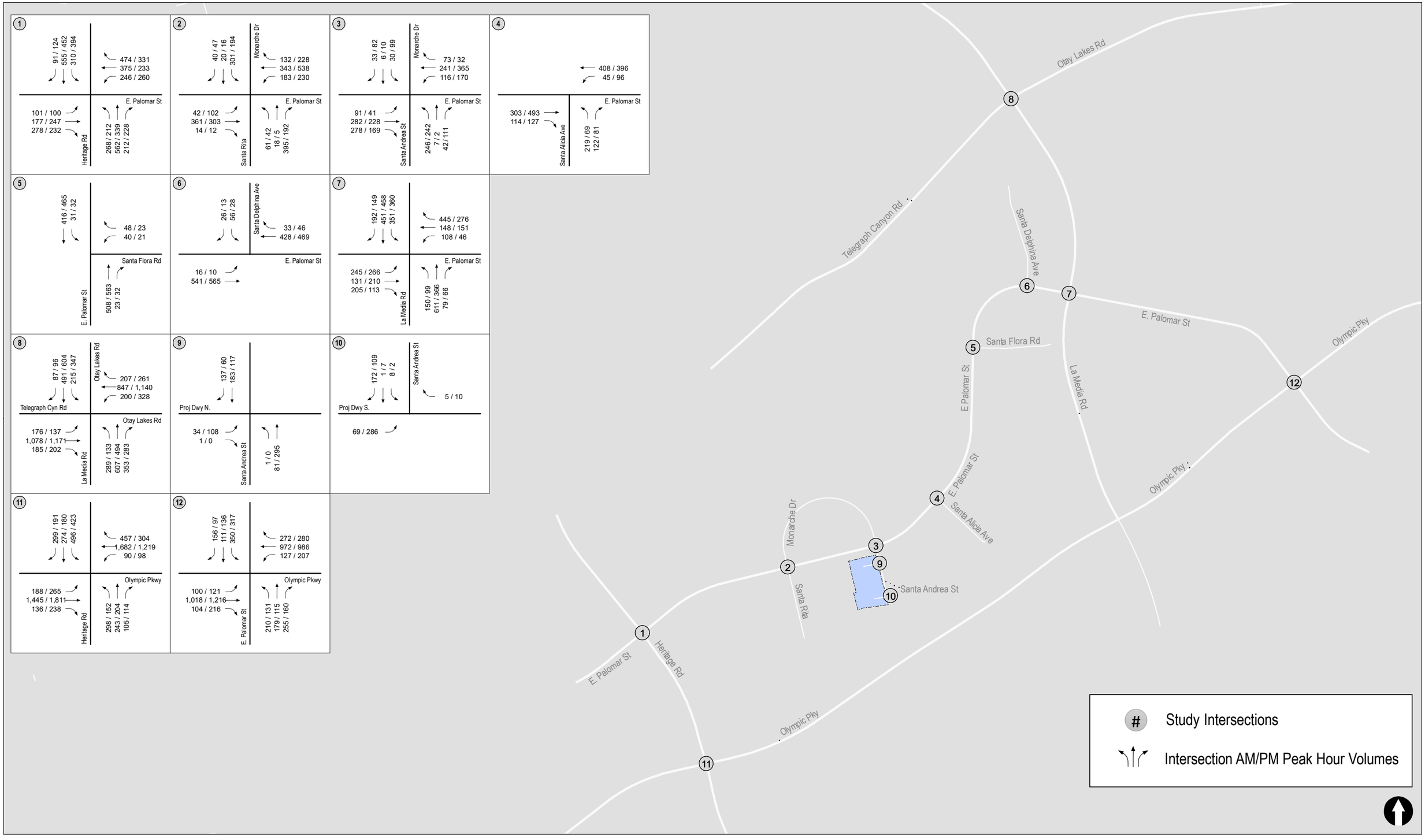

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Figure 7-3

Opening Year + Project Traffic Volumes

Sharp Otay Ranch MOB

8.0 OPENING YEAR ANALYSIS

8.1 Opening Year Without Project

Per footnote 8 of Table 1: Local Mobility Analysis – Projects Consistent with the General Plan, *City of Chula Vista Transportation Study Guidelines, June 10, 2020*, the proposed project's Opening year is within 2 years of the project's application, hence the Opening Year without Project scenario is considered to be the same as the Existing scenario.

8.2 Opening Year With Project

Table 8–1 summarizes the peak hour intersection operations under Opening Year with Project conditions in the study area. As seen in *Table 8-1*, with the addition of Project traffic, the study area intersections are calculated to continue to operate acceptably at LOS D or better during the AM and PM peak hours except the following:

- Palomar Street / Santa Rita / Monarche Drive – LOS E during the AM peak hour
- Palomar Street / La Media Road – LOS E during the AM peak hour

Appendix F contains the Opening Year with Project intersection analysis worksheets.

Palomar Street / Santa Rita / Monarche Drive Intersection

The Project has a substantial effect at the Palomar Street / Santa Rita / Monarche Drive intersection since this intersection is calculated to operate at LOS E prior to the addition of Project traffic and the Project contributes traffic to this intersection. The Project's percentage of total traffic at this intersection is 5% during the AM peak hour and 10% during the PM peak hour. Based on the recommendations in *Table 4: Local Mobility Analysis – Potential Improvements to Accommodate a Project's Vehicular Traffic, Chula Vista Transportation Study Guidelines, June 10, 2020 (rev. January 2022),* the Project should provide signal retiming at this intersection. The Project would be responsible for 100% of all signal retiming costs. The Project should also provide a fair share towards signal upgrade/Intelligent Transportation System (ITS) improvements which should be consistent with the City of Chula Vista Traffic Signal Communications Master plan and recommendations from City staff. Project's applicant should coordinate with City staff to identify feasible signal upgrade/ITS improvements.

Palomar Street / La Media Road Intersection

The Project has a substantial effect at the Palomar Street / La Media Road intersection since this intersection is calculated to operate at LOS E prior to the addition of Project traffic and the Project contributes traffic to this intersection. The Project's percentage of total traffic at this intersection is 1% during the AM peak hour and 2% during the PM peak hour. Based on the recommendations in *Table 4: Local Mobility Analysis – Potential Improvements to Accommodate a Project's Vehicular Traffic, Chula Vista Transportation Study Guidelines, June 10, 2020 (rev. January 2022),* the Project should provide signal retiming at this intersection. The Project would be responsible for 100% of all signal retiming costs.

Palomar Street/Santa Andrea Street Intersection

The project traffic more than doubles the afternoon peak hour delay at the E. Palomar Street/Santa Andrea Street intersection. Although this intersection is calculated to operate at LOS D, since the increase in delay is 23.9 seconds, it is recommended that the Project should provide signal retiming at this intersection. The Project is responsible for 100% of all signal retiming costs.

The retiming of the above signals does not affect operations of the remaining intersections along Palomar Street since these signals part of a coordinated system. ***Table 8-2*** summarizes the intersection analysis results with optimized cycle lengths at the above-mentioned intersections where signal retiming is recommended. As can be seen in *Table 8-2*, there is only a marginal decrease in the delay at the Palomar Street / Santa Rita / Monarche Drive and the Palomar Street / La Media Road Intersections due to optimizing the cycle lengths. However, LLG recommends complete signal retiming which would include retiming to every aspect of the signal phasing and timing, not just the cycle length.

TABLE 8–1
OPENING YEAR 2024 INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Opening Year (2024) Without Project		Opening Year (2024) + Project		Δ Delay	Substantial Effect?
			Delay [a]	LOS [b]	Delay	LOS		
1. Palomar St / Heritage Rd	Signal	AM	51.1	D	54.4	D	3.3	No
		PM	29.6	C	33.0	C	3.4	No
2. Palomar St / Santa Rita / Monarch Dr	Signal	AM	**58.4**	**E**	**64.0**	**E**	**5.6**	**Yes**
		PM	30.4	C	36.2	D	5.8	No
3. Palomar St / Santa Andrea St	Signal	AM	30.1	C	45.6	D	15.5	No
		PM	21.8	C	45.7	D	23.9	No
4. Palomar St / Santa Alicia Ave	Signal	AM	15.0	B	15.1	B	0.1	No
		PM	9.6	A	9.7	A	0.1	No
5. Palomar St / Santa Flora Rd	Signal	AM	7.1	A	7.1	A	0.0	No
		PM	6.0	A	6.0	A	0.0	No
6. Palomar St / Santa Delphina Ave	Signal	AM	5.7	A	5.8	A	0.1	No
		PM	5.0	A	5.0	A	0.0	No
7. Palomar St / La Media Rd	Signal	AM	**56.8**	**E**	**57.1**	**E**	**0.3**	**Yes**
		PM	33.7	C	35.9	D	2.2	No
8. Telegraph Canyon Rd / La Media Rd	Signal	AM	41.5	D	42.3	D	0.8	No
		PM	42.5	D	43.1	D	0.6	No

Continued on the Next Page

TABLE 8–1 (CONTINUED)
OPENING YEAR 2024 INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Opening Year (2024) Without Project		Opening Year (2024) + Project		Δ Delay	Substantial Effect?
			Delay [a]	LOS [b]	Delay	LOS		
Continued from the Previous Page								
9. Santa Andrea St / Project Dwy N.	MSSC [c]	AM	10.3	B	12.1	B	1.8	No
		PM	11.2	B	18.0	C	6.8	No
10. Santa Andrea St / Project Dwy S.	MSSC [c]	AM	0.0	A	0.0	A	0.0	No
		PM	0.0	A	0.0	A	0.0	No
11. Olympic Pkwy / Heritage Rd	Signal	AM	50.3	D	50.8	D	0.5	No
		PM	52.6	D	53.1	D	0.5	No
12. Olympic Pkwy / Palomar St	Signal	AM	32.3	C	32.7	C	0.4	No
		PM	33.6	C	34.2	C	0.6	No

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. MSSC= Minor-Street Stop Controlled. Worst-case delay reported.

General Note:

Existing year delay and LOS are the same as the Opening Year (2024) Without Project.

SIGNALIZED		UNSIGNALIZED	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 8–2
OPENING YEAR 2024 + PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Opening Year (2024) + Project		Opening Year (2024) + Project (Optimized Cycle Length)	
			Delay	Delay	Delay	LOS
2. Palomar St / Santa Rita / Monarch Dr	Signal	AM	64.0	E	63.8	E
3. Palomar St / Santa Andrea St	Signal	AM	45.6	D	38.7	D
		PM	45.7	D	42.3	D
7. Palomar St / La Media Rd	Signal	AM	57.1	E	56.8	E

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. MSSC= Minor-Street Stop Controlled. Worst-case delay reported.

SIGNALIZED		UNSIGNALIZED	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

8.3 Palomar Street / Santa Andrea Street Queuing

A queuing analysis was conducted at the Palomar Street / Santa Andrea Street intersection. As seen in ***Table 8-3***, the queues exceed the available queue storage for the following movements and scenarios:

- Westbound Left turn (Existing and Opening Day + Project)
- Eastbound Left turn (Existing and Opening Day + Project)

Westbound Left turn

The available storage in this movement is 150 feet. The existing calculated queue in this movement from SimTraffic was obtained compared to the observed queues in the field. The field observations were made over a period of three days and the highest observed queue of the three days are shown in ***Table 8-4***. As seen in Table *8-4*, the calculated existing Synchro queue exceeds the available storage during both, the AM and PM peak hours, whereas the calculated SimTraffic queue exceeds the available storage only during the PM peak hour. Also, it may be noted that the calculated SimTraffic queue is similar to the observed queues and appears to be a more reliable forecast of the queues.

TABLE 8–3
CALCULATED 95TH PERCENTILE QUEUES IN FEET AT PALOMAR STREET / SANTA ANDREA STREET INTERSECTION

Peak Hour	Southbound				Westbound				Northbound				Eastbound			
	Right		Left		Right		Left		Right		Left		Right		Left	
	Storage	Queue	Storage	Queue	Storage	Queue	Storage	Queue	Storage	Queue	Storage	Queue	Storage	Queue	Storage	Queue
Existing																
AM	80	0	>500[a]	47	>500[b]	184	150	**153**	>400[c]	270	>400[c]	270	>500[b]	266	145	**200**
PM	80	38	>500[a]	119	>500[b]	242	150	**294**	>400[c]	78	>400[c]	78	>500[b]	183	145	95
Opening Day + Project																
AM	80	0	>500[a]	47	>500[b]	184	150	**271**	>400[c]	310	>400[c]	310	>500[b]	306	145	**200**
PM	80	38	>500[a]	120	>500[b]	257	150	**383**	>400[c]	374	>400[c]	374	>500[b]	183	145	77
Opening Day + Project (Optimized Cycle Lengths)																
AM	80	0	>500[a]	52	>500[b]	193	150	**241**	>400[c]	345	>400[c]	345	>500[b]	292	145	145
PM	80	38	>500[a]	120	>500[b]	247	150	**376**	>400[c]	374	>400[c]	374	>500[b]	185	145	87

Footnotes

a. Shared left/through lane
b. Shared right/through lane
c. Shared left/through/right lane

TABLE 8-4
WESTBOUND LEFT-TURN QUEUES IN FEET AT THE PALOMAR STREET / SANTA ANDREA STREET INTERSECTION

Peak Hour	Storage	Existing			Opening Day + Project	
		Observed (max)	Synchro	SimTraffic	Synchro	SimTraffic
AM	140	125	153	117	271	160
PM	140	100	294	156	383	191

The Existing + Project 160 feet in the AM peak hour and 191 feet in the PM peak hour using SimTraffic. It is recommended that the storage in the westbound left-turn lane be increased by 60 feet to a total of 200 feet in order to accommodate the calculated SimTraffic maximum queue of 191 feet in the Opening Day + Project condition

The existing storage is 140 feet. A portion of the existing raised median will need to be removed and the westbound left storage length will need to be extended by 60 feet to obtain a total storage of 200 feet. This increase in storage can be provided within the existing raised median and no additional right-of-way is required.

This is subject to further review and analysis by the City.

It should be noted that the recommendation to extend the westbound left lane storage does not change with the use of optimized cycle lengths. *Table 8-3* summarizes the results of the queues with the use of optimized cycle lengths. There is a marginal to no decrease in the calculated queue length due to the signal optimization. The eastbound left-turn queue decreases by 55 feet and is within the storage length provided.

Eastbound Left turn

The existing calculated queue exceeds the available storage in this movement. The Project does not add any traffic in this movement and the addition of project traffic does not increase this queue.

The eastbound left storage length cannot be extended or modified to be longer as the MTS Rapid Transit Station is located approximately 200 feet west of the Palomar Street / Santa Andrea Street intersection and the maximum possible storage length has currently been provided.

Northbound Approach

In the northbound approach, it is important to note that the distance between the northbound stop bar and the northern project driveway is approximately 175 feet and between the northbound stop bar and the southern project driveway is 415 feet. The northbound queue at the Palomar Street / Santa Andrea Street intersection extends a distance (270 feet in the Existing scenario and 374 feet in the Opening

Day + Project scenario) that extends past the northern project driveway. This queue length will likely encourage the use of the southern project driveway due to the length of the queue not reaching the southern project driveway and allowing for easier access onto Santa Andrea Street.

8.4 Pedestrian, Bicycle and Transit facilities

Within ¼ mile of the project site, a Class I Multi-Use Bicycle Path is provided on East Palomar Street. Curb ramps and detectible warning strips are provided at all signalized study intersections and there are no sidewalk gaps or sidewalk obstructions. All transit stops within a ¼ mile provide "High-quality transit amenities", except for the E Palomar & Santa Andrea Street Stop (ID: 39056) which does not provide a bench or trash can.

A potential improvement to accommodate the Project's Active Transportation Needs is to provide a bench and trash can at the E Palomar & Santa Andrea Street bus stop (ID: 39056). No pedestrian or bicycle facility improvements are needed.

9.0 PARKING

9.1 Parking During Construction

Currently, 369 spaces are provided in the existing surface lot where the new MOB and a parking structure will be built. During construction, the existing surface parking lot will be restricted to only 191 spaces.

The Project proposes a two-part plan to compensate for the loss of approximately 150 employee stalls during the construction of the parking structure:

Sharp Rees-Stealy (SRS) will lease 50 stalls for dedicated employee use at an existing surface lot at 1420 E Palomar Street. This lot is located within walking distance of the clinic (located directly across Santa Andrea Street) and is owned by St. Paul's Plaza. SRS employees will be issued placards or stickers indicating approved use to place in their vehicles. These stalls will be available for use 24/7.

SRS will lease an additional 100 stalls from Sharp Chula Vista Medical Center and shuttle employees to the site (approximately 2 miles total travel distance). Employees will be issued stickers or placards same as above. Specific stalls located west and north of the shared parking lot at 752 Medical Center Court will be designated for this use. Shuttles will operate 20min round trips, approximately 20 trips per day (10 trips in the morning between 6am-8:40 am and 10 trips during the afternoon between 3pm-5:40pm.)

SRS will communicate with their property management teams at each of the 3 medical office buildings at the Sharp Chula Vista Medical Center who share this lot and specify these certain stalls are for SRS employees only. Their on-site security team(s) will be utilized for enforcement. As described above, a total of 341 spaces will be available during construction between the three locations. This is more than the required 337 spaces as described in Section 9.2 below.

LLG conducted a parking occupancy study at the Sharp Chula Vista Medical Center (SCVMC), 752 Medical Center Court to determine the availability of 100 parking spaces during construction. Only the parking spaces in the area marked in the attached aerial map were counted. It is planned to reserve 100 spaces in this marked area for the proposed Project at 1400 Palomar Street. This area was divided into three areas for convenience.

Following is the methodology for these counts:

- The study was conducted between 10:00 AM and 10:30 AM and again between 3:00 and 3:30 PM.
- Counts were conducted at 15-minute intervals during these periods.
- The counts were conducted on Thursday, May 12, Tuesday May 17, and Wednesday May 18, 2022.
- There are 3 accessible spaces, 157 spaces for patients /staff and 114 general parking spaces, for a total of 274 spaces

- Based on the observations, there were 182 unoccupied spaces on May 12, 162 spaces on May 17 and 164 unoccupied spaces on May 18.
- Therefore, it is concluded that 100 spaces are available to be reserved for the Project as is proposed.

The location of the St. Paul's Parking lot and the SCVMC Parking lot and the route to the Project site from the SCVMC Parking lot and a summary of the parking occupancy counts are included in ***Appendix G***.

Parking conditions should be monitored on a weekly basis for the duration of construction to ensure sufficient off-street spaces are provided. It should be ensured that temporary parking facilities are accessible to the users (i.e., provided on level terrain, adequate ADA path of travel, etc.) through the duration of construction. Upon notification from the City regarding parking spillover or other parking deficiencies, operator shall meet and confer with City staff and implement necessary measures to rectify the identified parking deficiencies.

9.2 Project Parking

9.2.1 *Existing Parking*

The required parking rate for the site is 1 space per 200 SF. Currently, the parking required for the existing 67,372 SF MOB is 67,372/200, or 337 spaces. Currently, 369 spaces are provided in the surface parking lot. Therefore, the existing parking meets and exceeds the required parking.

9.2.2 *Proposed Parking*

The total required parking required at the rate of 1 space per 200 SF for the total MOB area of 125,192 SF (67,372 + 57,820) is 125,192/200, or 626 spaces. The Project plans to provide a total of 667 spaces in the surface lot and the parking structure. Thus, the planned parking meets and exceeds the required parking.

Also, as observed in the field and described above, the current surface parking more than adequately meets the existing parking demand and the Proposed parking will adequately serve the parking needs of the Project.

10.0 CONCLUSIONS

The Project is located in a VMT efficient area and therefore a VMT analysis is not required. Hence no CEQA related mitigation measures are recommended.

10.1 Improvements

The LMA identified substantial effects at the Palomar Street / Santa Rita / Monarche Drive and Palomar Street / La Media Road intersections. The following improvements are recommended:

1. **Palomar Street / Santa Rita / Monarche Drive Intersection**

   The Project's percentage of the total traffic at this intersection is 5% during the AM peak hour and 10% during the PM peak hour. It is recommended that the Project should provide signal retiming at this intersection. The Project is responsible for 100% of all signal retiming costs. The Project should also provide a fair share towards signal upgrade/Intelligent Transportation System (ITS) improvements which should be consistent with the City of Chula Vista Traffic Signal Communications Master plan and recommendations from City staff. The applicant should coordinate with City staff to identify feasible signal upgrade/ITS improvements.

2. **Palomar Street / La Media Road Intersection**

   The Project's percentage of the total traffic at this intersection is 1% during the AM peak hour and 2% during the PM peak hour. It is recommended that the Project should provide signal retiming at this intersection. The Project is responsible for 100% of all signal retiming costs.

3. **Palomar Street / Santa Andrea Street Intersection**

   The project traffic more than doubles the afternoon peak hour delay at the E. Palomar Street/Santa Andrea Street intersection. Although this intersection is calculated to operate at LOS D, since the increase in delay is 23.9 seconds, it is recommended that the Project should provide signal retiming at this intersection. The Project is responsible for 100% of all signal retiming costs.

In addition, the following improvement is recommended:

4. **Palomar Street / Santa Andrea Street Intersection – Left-Turn Extension**

The Project should extend the Westbound left-turn storage at the Palomar Street / Santa Andrea Street intersection by removing a portion of the existing raised median and extend the westbound left storage length by 60 feet resulting in a total storage length of 200 feet. *It may be noted that this is subject to further review and analysis by the City.*

Parking

During construction, Sharp Rees-Stealy (SRS) will lease 50 stalls for dedicated employee use at an existing surface lot at 1420 E Palomar Street. This lot is located within walking distance of the clinic (located directly across Santa Andrea Street) and is owned by St. Paul's Plaza. SRS employees will

be issued placards or stickers indicating approved use to place in their vehicles. These stalls will be available for use 24/7.

SRS will lease an additional 100 stalls from Sharp Chula Vista Medical Center and shuttle employees to the site (approximately 2 miles total travel distance). Employees will be issued stickers or placards same as above. Specific stalls located west and north of the shared parking lot at 752 Medical Center Court will be designated for this use. Shuttles will operate 20min round trips, approximately 20 trips per day (10 trips in the morning between 6am-8:40 am and 10 trips during the afternoon between 3pm-5:40pm.)

Parking conditions should be monitored on a weekly basis for the duration of construction to ensure sufficient off-street spaces are provided. It should be ensured that temporary parking facilities are accessible to the users (i.e., provided on level terrain, adequate ADA path of travel, etc.) through the duration of construction. Upon notification from the City regarding parking spillover or other parking deficiencies, operator shall meet and confer with City staff and implement necessary measures to rectify the identified parking deficiencies.

5. Transit

A potential improvement at the E Palomar & Santa Andrea Street Stop (ID: 39056) is to provide a bench and trash can at the E Palomar & Santa Andrea Street bus stop (ID: 39056).

TECHNICAL APPENDICES

SHARP OTAY RANCH MEDICAL OFFICE BUILDING

Chula Vista, California
June 28, 2022

LLG Ref. 3-21-3414

Linscott, Law & Greenspan, Engineers
4542 Ruffner Street
Suite 100
San Diego, CA 92111
858.300.8800 T
858.300.8810 F
www.llgengineers.com

APPENDICES

APPENDIX

A. Project Information Form

B. SB 743 VMT Map

C. Intersection Counts & Signal Timing Plans

D. Peak Hour Intersection Analysis Worksheets – Existing

E. Zip Code Information

F. Peak Hour Intersection Analysis Worksheets – Opening Year + Project

G. Parking Data

APPENDIX A

PROJECT INFORMATION FORM

CITY OF CHULA VISTA

APPENDIX A

A

Project Information Form for Transportation Studies

The first page of the Project Information Form (PIF) is to be completed by the applicant. If the project meets the exemption criteria shown below (subject to verification by City staff), then no further analysis is required and the PIF may be submitted with only the first page completed. If none of the boxes are checked, the remaining sections of the PIF (pages 2-4) must be completed by a consultant meeting professional qualifications described in Section 1.5 of the TSG (see "Consultant" section below). The PIF is subject to change as new project information arises.

General Project Information and Description

Owner/Applicant Information

Name:	Sharp Rees-Stealy Medical Group
Address:	8520 Tech Way, San Diego, CA 92123-1489
Phone Number:	858-334-8126
Email:	matthew.teichner@sharp.com

Project Information

Project Name:	Sharp Rees-Stealy Otay Ranch Expansion
Project Address:	1400 East Palomar Street
APN:	642-560-01-09
Land Use Designation:	Zoning Designation: Commercial

Project Description

Land Uses and Intensities *(units, square feet, etc.)*:	Additional 57,820 SF of MOB and a three story parking structure		
Gross and Developable Acreage:	4.674 Acres		
Vehicle Parking Required *(per relevant City planning document (e.g., CVMC, SPA Plan, etc.)*:	550-600	Vehicle Parking Spaces Proposed:	667
Accessible Spaces:	24	Bicycle Storage Capacity *(racks and secure storage)*:	34 short term & 34 long term
Motorcycle Spaces:	7	EV Parking Spaces:	67

Exemptions

City comments dated March 24, 2022 regarding Temporary Parking provisions will be addressed in the Transportation Study

Check the box that applies to your project:

☐	Intensification of residential development on a residential parcel with a net increase of no more than 20 multi-family units (does not apply if non-residential uses are proposed).	☐	Review or approval of a project that is strictly consistent with the land uses evaluated in the recently certified CEQA document within 5 years (attach documentation).
☐	Conditional use permit for alcohol and temporary sales offices.	☐	Zoning variance for deviations from zoning standards only.
☐	Facilities for the exclusive use of an existing residential development that are located within or immediately adjacent to that project, such as a clubhouse, a pool, or multi-purpose room.	☐	Historic designation or Certificate of Appropriateness, provided there is no change in land use.
☐	Cell phone sites or towers.	☐	Minor restaurant expansion, provided there is no increase in seating or drive-through lanes.

Consultant (CA Licensed Traffic Engineer or CA Licensed Civil Engineer with Traffic Engineering Expertise)

Name of Firm:	Linscott, Law & Greenspan, Engineers		
Project Manager:	John Boarman	License(s):	P. E.
Email Address:	442 Ruffner Street, Suite 100, San Diego, 92111		
Telephone:	858-300-8800x236		

Trip Generation (Attach Traffic Generation Table with Rates and Daily and Peak Hour Volumes)

[Use the SANDAG (Not So) Brief Guide of Vehicular Trip Generation]

Total Daily Trips:	2,891	Pass-by Trips:	0
Internal Capture:	0	Previous Use Credits: *(Driveway count or published SANDAG/ITE rate at City's discretion)*:	
Alternative Mode Reduction:		Net Daily Trips:	2,891

Site Plan

Attach 11x17 copies of the project location/vicinity map and site plan containing the following: See Figures A, B & C

- Driveway locations and access type
- Pedestrian access, bicycle access, and on-site pedestrian circulation
- Location and distance to closest existing transit stop (measure as walking distance to project entrance or middle of parcel)
- Location of any planned sidewalks or bikeways identified in the City of Chula Vista Active Transportation Plan within ½ mile of the project

CEQA Transportation Analysis Screening

To determine if your project is screened from VMT analysis, review the Project Type Screening and the Project Location Screening tables below. If "No" is checked for any project type or land use applicable to your project, the project is not screened out and must complete VMT analysis in accordance with the analysis requirements outline in the City of Chula Vista *Transportation Study Guidelines (TSG)* Chapter 3.

Project Type Screening

	Screened Out? (Mark Yes or No)	
1. Select the Land Uses that apply to your project 2. Answer the questions for each Land Use that applies to your project *(if "Yes" is indicated in any land use category below, then that land use (or a portion of the land use) is screened from CEQA Transportation Analysis)* *Note: All responses must be documented and supported by substantial evidence.*	Yes	No
☐ 1. **Locally Serving Retail Project** a. Is the project less than 125,000 square feet and serving the local community? The City may request a market capture study that identifies local market capture to the City's satisfaction.	☐	☐
☐ 2. **Locally Serving Public Facility or Community Purpose Facility** a. Is the project a public facility or Community Purpose Facility that serves the local community? (see TSG Section 3.3)	☐	☐

☐	**3. Small Residential and/or Employment Project** a. Does the project generate less than 200 net daily trips?	☐	☐
☐	**4. Infill Affordable Housing** a. Is the project composed of deed-restricted affordable housing units, and has the following characteristics: i. Is an infill project; ii. Is close to a transit stop or station; and iii. Project-provided parking does not exceed parking required by the Chula Vista Municipal Code?	☐	☐
☐	**5. Redevelopment Project** a. Does the project result in a net decrease in total Project VMT than the existing use?	☐	☐

Project Location Screening

1. Select the Land Uses that apply to your project
2. Answer the questions for each Land Use that applies to your project
(if "Yes" is indicated in any land use category below, then that land use (or a portion of the land use) is screened from CEQA Transportation Analysis)

		Screened Out? (Mark Yes or No) Yes	No
☐	**1. Residential** a. Is the project located in a VMT-efficient area (15% or more below the regional average) using the Chula Vista screening maps for VMT/Capita? View VMT/Capita map here: https://cvgis.maps.arcgis.com/apps/webappviewer/index.html?id=f0d05a4a014841d588bb66891500b34d	☐	☐
☑	**2. Employment** *(not including Industrial Employment)* a. Is the project located in a VMT-efficient area (15% or more below the regional average) using the City of Chula Vista screening maps for VMT/Employee? VMT Map Attached View VMT/Employee map here: https://cvgis.maps.arcgis.com/apps/webappviewer/index.html?id=d80a3cddc1964f8c88dafef234147e98	☑	☐
☐	**3. Industrial Employment** a. Is the project located in a VMT-efficient area (at or below the regional average) using the City of Chula Vista screening maps for VMT/Employee?	☐	☐
☐	**4. Within a transit buffer** a. Is the project in a transit priority area or within ½ mile of a stop along a high quality transit corridor, and has the following project characteristics? i. Has a Floor Area Ratio (FAR) of more than 0.75 ii. Includes no more than the minimum parking for use by residents, customers, or employees of the project than required by the jurisdiction iii. Is consistent with the City of Chula Vista General Plan iv. Does not include a smaller number of units that previously on the project site v. Does not replace affordable residential units with moderate- or high-income residential units.	☐	☑

Local Mobility Analysis Screening

Does this project generate less than 200 daily trips (after adjustments)?	☐ Yes	☑ No

If yes, the project does not need to complete an LMA. If no, continue to next question to determine study extents.

Is this project consistent with Relevant City Planning Documents (e.g., General Plan, SPA Plan, Specific Plan)?	☑ Yes	☐ No

Refer to the City of Chula Vista Transportation Study Guidelines (TSG), Chapter 4, to determine study extents based on the project's trip generation and consistency with the General Plan.

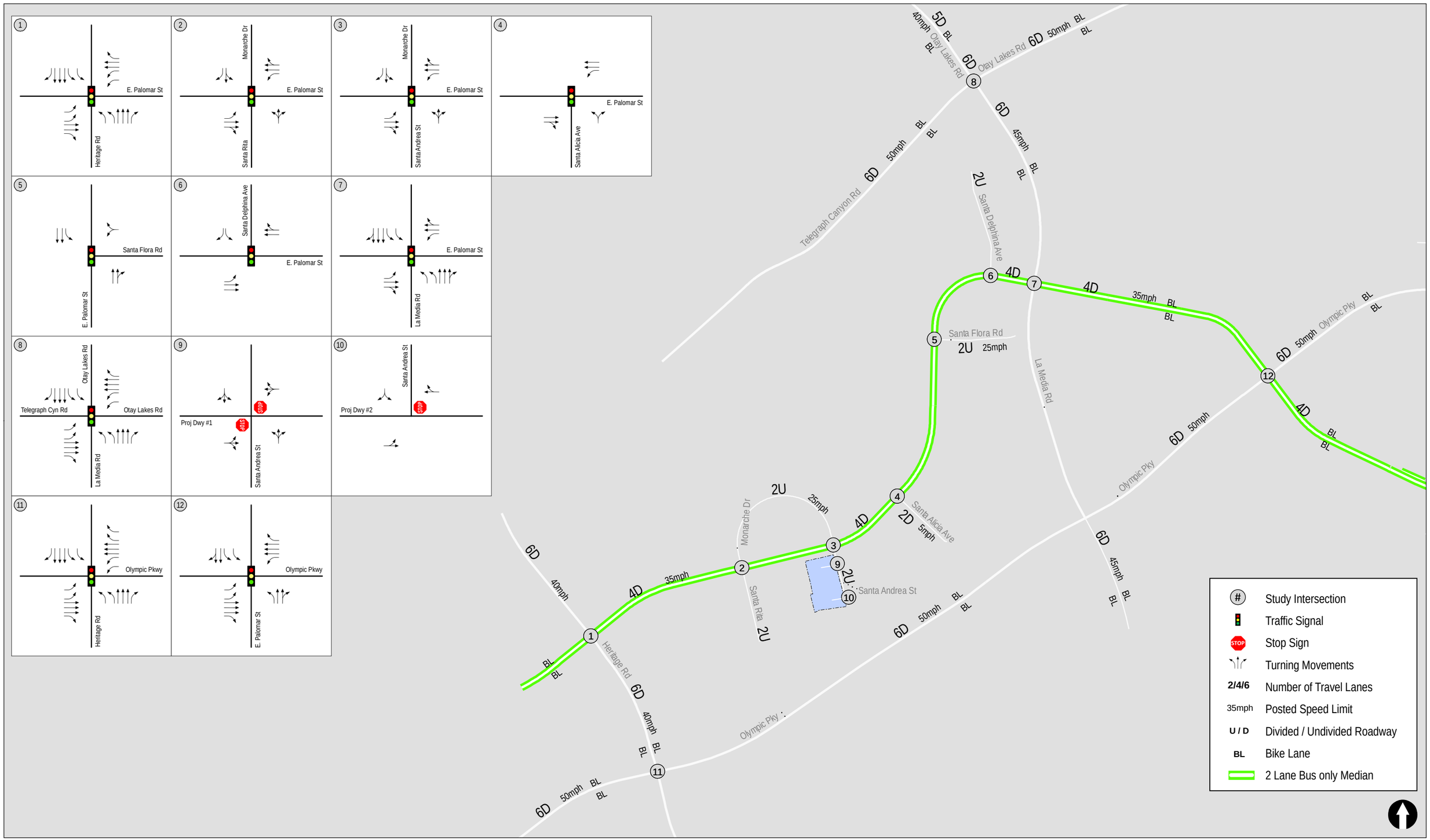
Provide attach a list or map of proposed study intersections in accordance with the requirements outlined in the TSG, Chapter 4. See Figure A

Otay Ranch MOB
Trip Generation Summary

Project	Size	Daily Trip Ends (ADTs)		AM Peak Hour					PM Peak Hour				
				% of ADT	In:Out Split	Volume			% of ADT	In:Out Split	Volume		
		Rate [a]	Volume			In	Out	Total			In	Out	Total
Medical Office Building	57.820 KSF	50 KSF	2,891	6%	8:2	138	35	173	11%	3:7	95	223	318

Footnotes:

a. Trip rates obtained from (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, SANDAG, April 2002.



LINSCOTT LAW & GREENSPAN engineers

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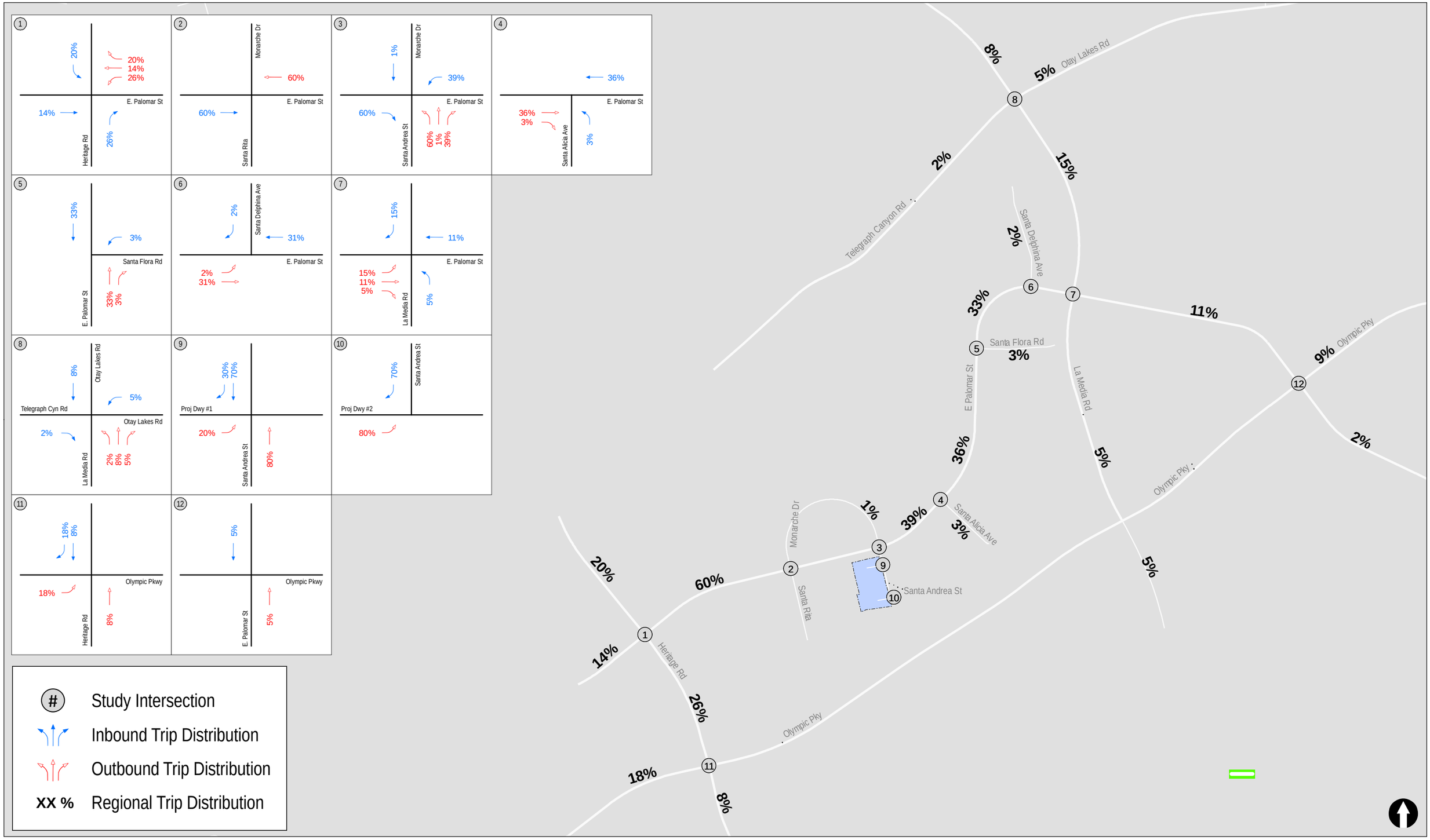
Date: 3/23/2022
Time: 11:04 AM

Figure A

Project Area Map

Sharp Otay Ranch Medical Office Building



LINSCOTT LAW & GREENSPAN engineers

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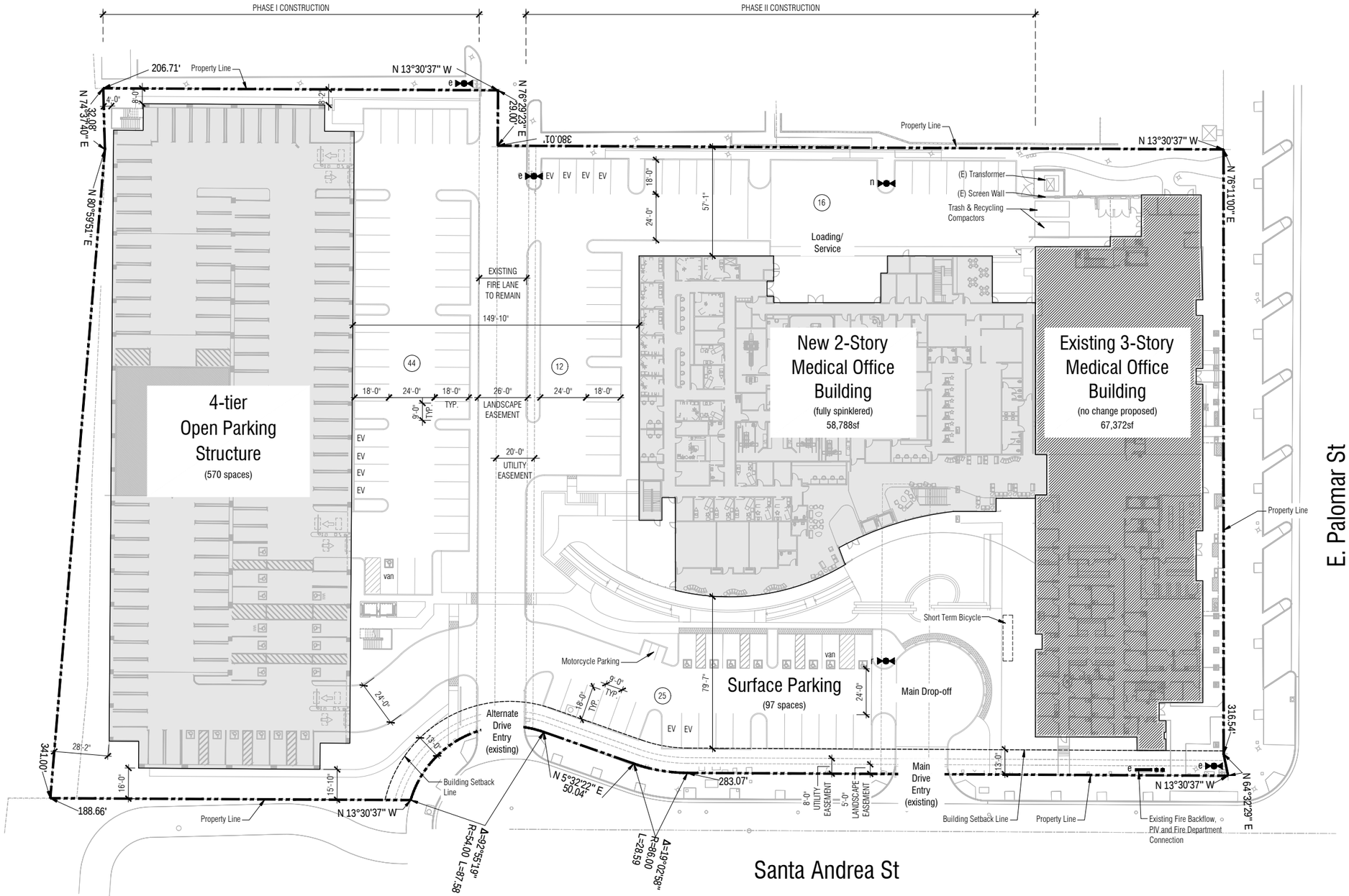
Date: 3/23/2022
Time: 10:12 AM

Figure B

Project Traffic Distribution

Sharp Otay Ranch Medical Office Building



LINSCOTT LAW & GREENSPAN engineers

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Date: 02/16/22

Figure C

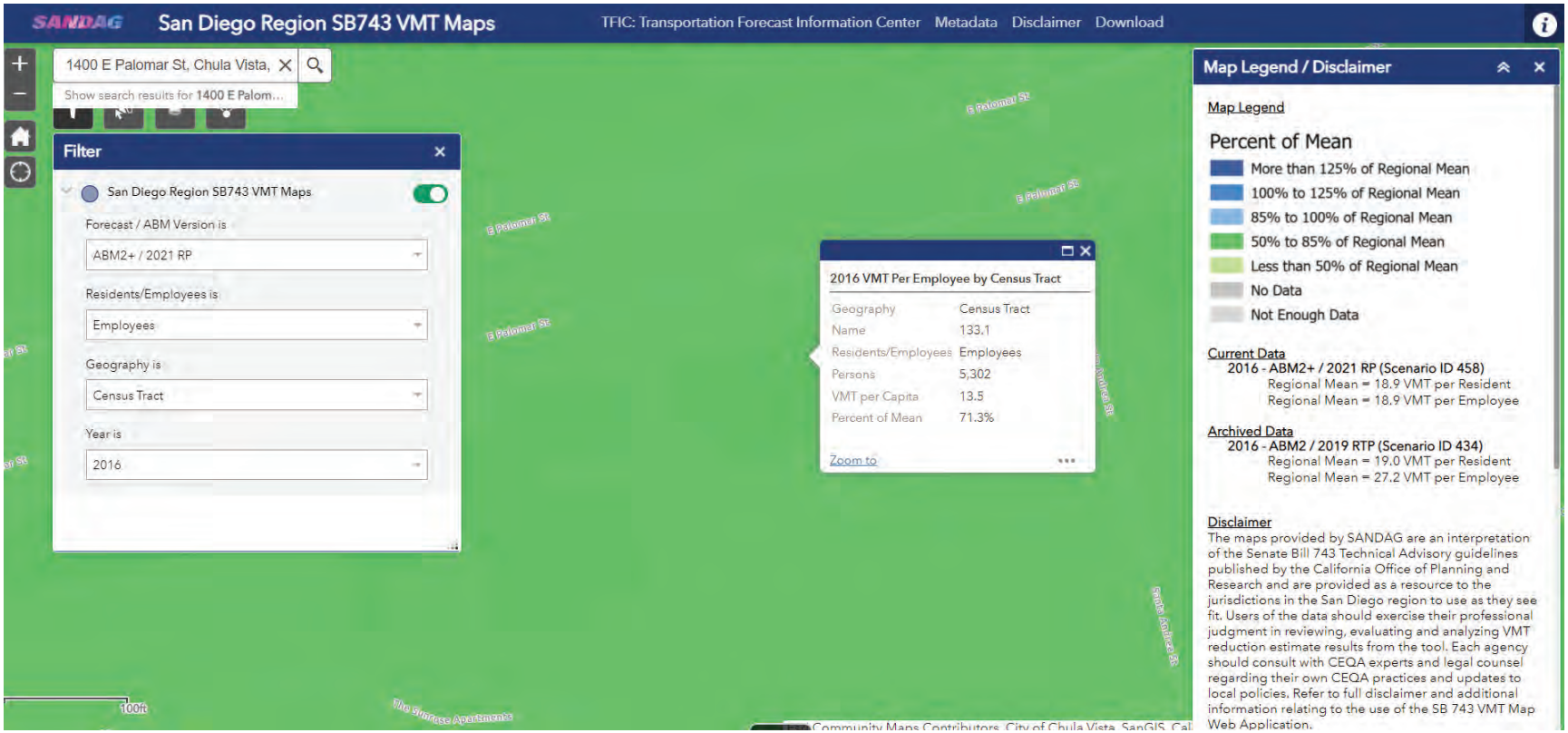
Site Plan

Otay Ranch Medical Office Building

APPENDIX B

SB 743 VMT MAP

1400 E. Palomar Street, Chula Vista: VMT per Resident = 13.5, 71.3% of Mean



APPENDIX C

SIGNAL TIMING PLANS

Chula Vista
161 East Palomar/Heritage > Unit Configuration > Unit Configuration

B.3 System Information

System Id	161
Name	161 E Palomar & Heritage
Location	E Palomar St & Heritage Rd

1.2 Unit Setup

Auto Ped Clear	Disabled
Red Revert	3.0
Min Yellow Time	3.0
Texas Dmd Mode	Disabled
Texas Dmd Type	4-Phase

1.3 Startup

Flash	0
All Red	5
Start Veh Call	1,2,3,4,5,6,7,8
Start Ped Call	2,4,6,8

1.4 Channel Setup (1-16)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Type	V	V	P	V	V	P	V	V	P	V	V	P	V	V	O	O
Source	1	2	2	3	4	4	5	6	6	7	8	8	9	0	3	4
Alt 1/2 Hz																
Flash Red	X	X		X	X		X	X		X	X		X	X	X	X
Flash Yel																

1.4 Channel Setup (17-32)

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Type	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

Start Next Phases	

Program Type	McCain Omni eX
Firmware	1.11
Street 1	E Palomar St
Street 2	Heritage Rd
Last Modified	8/27/2020 1:23 PM

5.1 Coordination Constants

Correction Mode	Shortway
Max Cycles Trans	3
Coord Max Mode	Max Inhibit
Coord Force Mode	Fixed
Perm Strategy	Maximum
Omit Strategy	Minimum
Sync Point	End Green
No Early Return	Disable
Sync Ref Time	0
Operational Mode	0

2.5 Phase Concurrency

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase 1					X	X										
Phase 2					X	X			X	X						
Phase 3							X	X								
Phase 4							X	X								
Phase 5	X	X														
Phase 6	X	X							X	X						
Phase 7			X	X												
Phase 8			X	X												
Phase 9		X				X				X						
Phase 10		X				X			X							
Phase 11																
Phase 12																
Phase 13																
Phase 14																
Phase 15																
Phase 16																

2.4 Phase Enable and Rings

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Startup	2	2	2	4	2	2	2	4	2	2	2	2	2	2	2	2
Enabled	X	X	X	X	X	X	X	X	X	X						
Ring1	X	X	X	X												
Ring2					X	X	X	X								
Ring3									X							
Ring4										X						

2.3 Phase Sequence 1

Ring 1	1,2,3,4
Ring 2	5,6,7,8
Ring 3	9
Ring 4	10

2.3 Phase Sequence 2

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 3

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 4

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 5

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 6

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 7

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 8

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 9

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 10

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 11

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 12

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 13

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 14

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 15

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 16

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.1 Phase Parameters Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	4	7	4	10	4	7	4	10	7	7	0	0	0	0	0	0
Passage	2.0	3.6	2.0	6.9	2.0	3.6	2.0	6.9	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
Max 1	30	40	30	50	30	40	30	50	30	30	0	0	0	0	0	0
Max 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Change	3.2	4.0	3.2	4.3	3.2	4.0	3.2	4.7	4.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	1.0	1.2	1.0	1.0	1.0	1.2	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Ped Clear	0	31	0	32	0	33	0	32	0	0	0	0	0	0	0	0
Added Initial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduction	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0
Cars Before Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
Cond. Service Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alternate Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Ped Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Advanced Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Delay Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Green Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2.2 Phase Options Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Omit																
Ped Omit																
Min Veh Recall				X				X								
Max Veh Recall																
Soft Veh Recall																
Ped Recall																
Ped Recycle																
Cond. Service																
Lock Detector Memory																
Dual Entry																
Simultaneous Gap	X	X	X	X	X	X	X	X	X	X						
Guaranteed Passage																
Added Initial Calculation																
Rest In Walk																
Red Rest									X	X						
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
No Backup																
Max Walk																
Max Extension																
Sequential Timing																
No Min Yellow																
FDW Ped Recycle																

3.1 Vehicle Overlap Set 1	1	2	3	4
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.1 Vehicle Overlap Set 1	5	6	7	8
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.2 Pedestrian Overlap Set 1	1
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	2
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	3
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	4
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	5
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	6
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	7
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	8
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

4.1 Vehicle Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Queue																																
Add Init	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Passage	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Red Lock																																
Yellow Lock																																
Volume																																
Occupancy																																
Call Phase	1	2	2	2	2	2	3	4	4	4	4	9	9	0	5	6	6	6	6	6	7	8	8	8	8	10	10	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOS Length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Passage																																
Alt Min Green																																
Adaptive																																
Detector Status																																
Extra Call Phases																																
Call Overlaps																																

4.3 Vehicle Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4.2 Ped Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase	2	4	6	8	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Walk																
Extra Call Phases																
Call Overlaps																

4.4 Ped Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.2 Speed Trap

Speed Trap	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Detector 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Detector 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.3 Speed Trap Bin Ranges

Bin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Range	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.2 Patterns	1	2	3	4	5	6	7	8
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	1	2	3	4	5	6	7	8
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.2 Patterns	9	10	11	12	13	14	15	16
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	9	10	11	12	13	14	15	16
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.3 Split Table 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 8

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 9

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 10

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 11

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 12

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 13

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 14

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 15

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.4 Schedules

	Month												Days Of Week							Date																															Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1
2																																																			0
3																																																			0
4																																																			0
5																																																			0
6																																																			0
7																																																			0
8																																																			0

	Month												Days Of Week							Date																															Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
9																																																			0
10																																																			0
11																																																			0
12																																																			0
13																																																			0
14																																																			0
15																																																			0
16																																																			0

6.5 Day Plan 1

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 1

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.6 Action Parameters	1	2	3	4	5	6	7	8
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	9	10	11	12	13	14	15	16
Pattern	0	0	0	0	0	254	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	17	18	19	20	21	22	23	24
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	25	26	27	28	29	30	31	32
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

7 Preempts	Preempt 1	Preempt 2	Preempt 3	Preempt 4	Preempt 5	Preempt 6	Preempt 7	Preempt 8
Track Phases								
Track Overlaps								
Track Ped								
Track Ped Overlap								
Dwell Phases			2	4,7	6	3,8		
Dwell Overlaps								
Dwell Peds								
Dwell Ped Overlap								
Cycling Phases								
Cycling Overlaps								
Cycling Ped								
Cycling Ped Overlap								
Exit Phase								
Locking	X	X					X	X
Override Flash	X	X					X	X
Override +1	X	X					X	X
Flash Dwell								
Enter All Red								
Ignore No Backup								
Max Presence Flash								
Track Green	0	0	0	0	0	0	0	0
Delay	0	0	0	0	0	0	0	0
Maximum Presence	0	0	120	120	120	120	0	0
Minimum Duration	0	0	0	0	0	0	0	0
Minimum Dwell	0	0	0	0	0	0	0	0
Linked Preempt	0	0	0	0	0	0	0	0
Enter Min Green	255	255	0	0	0	0	255	255
Enter Min Walk	255	255	0	0	0	0	255	255
Enter Min Ped Clear	255	255	0	0	0	0	255	255
Enter Min Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Enter Min Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Min Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Min Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Exit Ped Clear	0	0	0	0	0	0	0	0
Exit Yellow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit Red Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Track Green	0	0	0	0	0	0	0	0
Gate Down Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gate Down Flash								
Extend	0	0	0	0	0	0	0	0

Chula Vista
161 East Palomar/Heritage > Transit Priority > TSP Global Strategy

Transparity®

8.1 TSP Global Options

Enable	
1	X
2	X
3	X
4	X
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
Headway	0
Lockout	0
Node	1
Name	

8.2 TSP Strategy Options	Strategy 1	Set 1
Enable	X	
Override + 1		
Service Phases	2, 6	
Call Phases		
Omit Phases	1, 3, 4, 5, 7, 8	
Omit Peds	4, 8	
Queue Jump Ph		
ETA	18	
Input Function	Priority	
Input Index	1	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	20	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 2	Set 1
Enable	X	
Override + 1	X	
Service Phases	2, 6	
Call Phases		
Omit Phases	1, 3, 4, 5, 7, 8	
Omit Peds	4, 8	
Queue Jump Ph		
ETA	39	
Input Function	Priority	
Input Index	2	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	20	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 3	Set 1
Enable	X	
Override + 1		
Service Phases	2, 6	
Call Phases		
Omit Phases	1, 3, 4, 5, 7, 8	
Omit Peds	4, 8	
Queue Jump Ph		
ETA	49	
Input Function	Priority	
Input Index	3	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	20	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 4	Set 1
Enable	X	
Override + 1	X	
Service Phases	2, 6	
Call Phases		
Omit Phases	1, 3, 4, 5, 7, 8	
Omit Peds	4, 8	
Queue Jump Ph		
ETA	49	
Input Function	Priority	
Input Index	4	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	20	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.5	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 5	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 6	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 7	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		

8.2 TSP Strategy Options	Strategy 8	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		

8.2 TSP Strategy Options	Strategy 9	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 10	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 11	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 12	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 13	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	

8.2 TSP Strategy Options	Strategy 14	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	

8.2 TSP Strategy Options	Strategy 15	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 16	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.3 TSP Phase Adjustment Times — Strategy 1 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0
Extend	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0
QJump	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 2 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	20	10	20	20	10	20	0	0	0	0	0	0	0	0
Extend	10	35	20	10	20	35	10	20	0	0	0	0	0	0	0	0
QJump	10	35	20	10	20	35	10	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 3 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0
Extend	10	45	10	20	10	45	10	20	0	0	0	0	0	0	0	0
QJump	10	45	10	20	10	45	10	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 4 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	20	10	20	20	10	20	0	0	0	0	0	0	0	0
Extend	10	50	20	10	20	50	10	20	0	0	0	0	0	0	0	0
QJump	10	50	20	10	20	50	10	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 5 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 6 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 7 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 8 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 9 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 10 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 11 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 12 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 13 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 14 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 15 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 16 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1.6 Logic Gate 1

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	13		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 2

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	13		0	0
IN2	Logic Output	4		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 3

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	14		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 4

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	14		0	0
IN2	Logic Output	2		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 5

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	13		0	0
IN2	Vehicle Detector	13		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	5		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 6

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	14		0	0
IN2	Vehicle Detector	27		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	6		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 7

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	13		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	7		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 8

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	14		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	8		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 9

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	13		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 10

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	13		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 11

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	14		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 12

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	14		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 13

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 14

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 15

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 16

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 17

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 18

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 19

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 20

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 21

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 22

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 23

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 24

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 25

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 26

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 27

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 28

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 29

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 30

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 31

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 32

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.5.3.1 2070 FIO Input Mapping

Pins	Function	IDX
C1-39	Vehicle Detector	2
C1-40	Vehicle Detector	16
C1-41	Vehicle Detector	8
C1-42	Vehicle Detector	22
C1-43	Vehicle Detector	3
C1-44	Vehicle Detector	17
C1-45	Vehicle Detector	9
C1-46	Vehicle Detector	23
C1-47	Vehicle Detector	6
C1-48	Vehicle Detector	20
C1-49	Vehicle Detector	12
C1-50	Vehicle Detector	26
C1-51	Preempt Detector	1
C1-52	Preempt Detector	2
C1-53	Man Control Enable	1
C1-54	Unused Input	1
C1-55	Vehicle Detector	15
C1-56	Vehicle Detector	1
C1-57	Vehicle Detector	21
C1-58	Vehicle Detector	7
C1-59	Vehicle Detector	27
C1-60	Vehicle Detector	13
C1-61	Vehicle Detector	28
C1-62	Vehicle Detector	14
C11-10	Unused Input	1
C11-11	Unused Input	1
C11-12	Unused Input	1
C11-13	Unused Input	1
C1-63	Vehicle Detector	4
C1-64	Vehicle Detector	18
C1-65	Vehicle Detector	10
C1-66	Vehicle Detector	24

Pins	Function	IDX
C1-67	Pedestrian Detector	1
C1-68	Pedestrian Detector	3
C1-69	Pedestrian Detector	2
C1-70	Pedestrian Detector	4
C1-71	Preempt Detector	3
C1-72	Preempt Detector	4
C1-73	Preempt Detector	5
C1-74	Preempt Detector	6
C1-75	Unused Input	1
C1-76	Vehicle Detector	5
C1-77	Vehicle Detector	19
C1-78	Vehicle Detector	11
C1-79	Vehicle Detector	25
C1-80	Interval Advance	1
C1-81	MMU Flash	1
C1-82	Stop Time All Rings	1
C11-15	Unused Input	1
C11-16	Unused Input	1
C11-17	Unused Input	1
C11-18	Unused Input	1
C11-19	Unused Input	1
C11-20	Unused Input	1
C11-21	Unused Input	1
C11-22	Unused Input	1
C11-23	Unused Input	1
C11-24	Unused Input	1
C11-25	Unused Input	1
C11-26	Unused Input	1
C11-27	Unused Input	1
C11-28	Unused Input	1
C11-29	Unused Input	1
C11-30	Unused Input	1

1.5.3.2 2070 FIO Output Mapping

Pins	Function	IDX
C1-02	Channel Red	6
C1-03	Channel Green	6
C1-04	Channel Red	5
C1-05	Channel Yellow	5
C1-06	Channel Green	5
C1-07	Channel Red	4
C1-08	Channel Yellow	4
C1-09	Channel Green	4
C1-10	Channel Red	3
C1-11	Channel Green	3
C1-12	Channel Red	2
C1-13	Channel Yellow	2
C1-15	Channel Green	2
C1-16	Channel Red	1
C1-17	Channel Yellow	1
C1-18	Channel Green	1
C1-19	Channel Red	12
C1-20	Channel Green	12
C1-21	Channel Red	11
C1-22	Channel Yellow	11
C1-23	Channel Green	11
C1-24	Channel Red	10
C1-25	Channel Yellow	10
C1-26	Channel Green	10
C1-27	Channel Red	9
C1-28	Channel Green	9
C1-29	Channel Red	8
C1-30	Channel Yellow	8
C1-31	Channel Green	8
C1-32	Channel Red	7
C1-33	Channel Yellow	7
C1-34	Channel Green	7

Pins	Function	IDX
C1-35	Logic Output	7
C1-36	Logic Output	8
C1-37	Unused Output	1
C1-38	Unused Output	1
C1-100	Unused Output	1
C1-101	Auto Flash Status	1
C1-102	Detector Reset	1
C1-103	Wdt Reset	1
C1-83	Unused Output	1
C1-84	Unused Output	1
C1-85	Channel Red	16
C1-86	Channel Yellow	16
C1-87	Channel Green	16
C1-88	Channel Red	15
C1-89	Channel Yellow	15
C1-90	Channel Green	15
C1-91	Unused Output	1
C1-93	Unused Output	1
C1-94	Channel Red	14
C1-95	Channel Yellow	14
C1-96	Logic Output	1
C1-97	Channel Red	13
C1-98	Channel Yellow	13
C1-99	Logic Output	3
C11-1	Unused Output	1
C11-2	Unused Output	1
C11-3	Unused Output	1
C11-4	Unused Output	1
C11-5	Unused Output	1
C11-6	Unused Output	1
C11-7	Unused Output	1
C11-8	Unused Output	1

9.3-4 Log Configuration

Volume Occupancy Period	60
VOS Log Combined Periods	0
Speed Trap Log Period	0
Display Metric	
Speed Trap Log Mode	Disabled
VOS Log Mode	Disabled
Cycle MOE Log Mode	Disabled
High Res Log Mode	Enabled
Power On/Off	X
Low Battery	X
Cycle Fault	X
Coord Fault	X
Coord Fail	X
Cycle Fail	X
MMU Flash	X
Local Flash	X
Local Free	X
Preempt Status Change	X
Response Fault	X
Alarm Status Change	X
Door Status Change	X
Pattern Change	X
Detector Status Change	X
Comm Status Change	X
Command Change	X
Data Change Keyboard	X
Controller Download	X
Access Code	X
Priority	X
Manual Control Enable	
Stop Time	

6.2 Time Zone

Global DST	Enable DST
Standard Time Zone (+/- hr)	0

A.3 Unit Comms

Unit Backup Time	0

1.5.5 Aux Switch

Function	Stop Time All Rings
Index	1

A.5-6 Time Sync

NTP Server Address	0.0.0.0
NTP Start Hour	0
NTP Start Minute	0
NTP Interval Hour	0
NTP Interval Minute	0
GPS Start Hour	0
GPS Start Minute	0
GPS Interval Hour	0
GPS Interval Minute	0
Enable NTP Svr	

1.7 Port 1

BIU 1 (T&F BIU 1)	Disabled
BIU 2 (T&F BIU 2)	Disabled
BIU 3 (T&F BIU 3)	Disabled
BIU 4 (T&F BIU 4)	Disabled
BIU 9 (Detector BIU 1)	Disabled
BIU 10 (Detector BIU 2)	Disabled
BIU 11 (Detector BIU 3)	Disabled
BIU 12 (Detector BIU 4)	Disabled
MMU	Disabled
Comm Port	SP3

9.3-4 Hi Res Log Setup

Phase Events	
Ped Events	
Barrier/Ring Events	
Phase Control Events	
Overlap Events	
Detector Events	
Preemption Events	
Coordination Events	
Cabinet/System Events	

B.1.1 Menu Security Options

Enable:		Allow Read-Only:		Timeout (min):	60

B.1.2 Menu Security Users

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

A.1 Serial Comms

Port	1	2	3	4	5	8
Protocol	None	None	None	None	None	None
Speed	9600	9600	9600	115200	9600	9600
Parity	None	None	None	None	None	None
Flow Control	None	None	None	None	None	None
Address	0	0	0	0	0	0
Group Address	0	0	0	0	0	0
Data Bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits
Stop Bits	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit
CTS Delay	0	0	0	0	0	0
RTS Extend	0	0	0	0	0	0

A.2 Ethernet Comms

Port	1	2
IP Address	10.242.20.84	0.0.0.0
Net Mask	255.255.255.0	0.0.0.0
Gateway	10.242.20.253	0.0.0.0
NTCIP Port	8015	161
NTCIP Mode	UDP	UDP
AB3418 Port	8001	8001
AB3418 Mode	UDP	UDP
AB3418 Address	1	1
AB3418 Group Address	0	0
Peer to Peer Port	49255	49255

A.8 SPaT

Unicast Enable	
Dest IP Address	0.0.0.0
Dest Port	0

Chula Vista
152 East Palomar/La Media > Unit Configuration > Unit Configuration

B.3 System Information

System Id	152
Name	152 E Palomar/La Media
Location	East Palomar St & La Media Rd

1.2 Unit Setup

Auto Ped Clear	Disabled
Red Revert	3.0
Min Yellow Time	3.0
Texas Dmd Mode	Disabled
Texas Dmd Type	4-Phase

1.3 Startup

Flash	0
All Red	5
Start Veh Call	1,2,3,4,5,6,7,8
Start Ped Call	2,4,6,8

1.4 Channel Setup (1-16)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Type	V	V	P	V	V	P	V	V	P	V	V	P	V	V	O	O
Source	1	2	2	3	4	4	5	6	6	7	8	8	9	0	3	4
Alt 1/2 Hz																
Flash Red	X	X		X	X		X	X		X	X		X	X	X	X
Flash Yel																

1.4 Channel Setup (17-32)

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Type	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

Start Next Phases	

Program Type	McCain Omni eX
Firmware	1.11
Street 1	E Palomar St
Street 2	La Media Rd
Last Modified	9/14/2020 2:56 PM

5.1 Coordination Constants

Correction Mode	Shortway
Max Cycles Trans	3
Coord Max Mode	Max Inhibit
Coord Force Mode	Fixed
Perm Strategy	Maximum
Omit Strategy	Minimum
Sync Point	End Green
No Early Return	Disable
Sync Ref Time	0
Operational Mode	0

2.5 Phase Concurrency

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase 1					X	X										
Phase 2					X	X			X	X						
Phase 3							X	X								
Phase 4							X	X								
Phase 5	X	X														
Phase 6	X	X							X	X						
Phase 7			X	X												
Phase 8			X	X												
Phase 9		X				X				X						
Phase 10		X				X			X							
Phase 11																
Phase 12																
Phase 13																
Phase 14																
Phase 15																
Phase 16																

2.4 Phase Enable and Rings

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Startup	2	2	2	4	2	2	2	4	2	2	2	2	2	2	2	2
Enabled	X	X	X	X	X	X	X	X	X	X						
Ring1	X	X	X	X												
Ring2					X	X	X	X								
Ring3									X							
Ring4										X						

2.3 Phase Sequence 1

Ring 1	1,2,3,4
Ring 2	5,6,7,8
Ring 3	9
Ring 4	10

2.3 Phase Sequence 2

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 3

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 4

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 5

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 6

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 7

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 8

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 9

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 10

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 11

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 12

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 13

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 14

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 15

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 16

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.1 Phase Parameters Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	4	7	4	10	4	7	4	10	4	10	4	15	4	15	4	15
Passage	2.0	3.4	2.0	6.0	2.0	4.0	2.0	6.0	2.0	2.0	2.0	5.0	2.0	5.0	2.0	5.0
Max 1	30	40	30	50	30	40	30	50	20	30	15	45	15	45	15	45
Max 2	0	0	0	0	0	0	0	0	15	45	15	45	15	45	15	45
Yellow Change	3.2	3.9	3.2	4.7	3.2	4.3	3.2	4.7	4.5	4.5	3.0	4.0	3.0	4.0	3.0	4.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.0	2.0	1.0	2.0
Walk	0	7	0	7	0	7	0	7	0	0	0	7	0	7	0	7
Ped Clear	0	33	0	32	0	32	0	31	0	0	0	15	0	15	0	15
Added Initial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduction	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0
Cars Before Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Cond. Service Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alternate Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Ped Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Advanced Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Delay Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Green Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2.2 Phase Options Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Omit																
Ped Omit																
Min Veh Recall				X				X								
Max Veh Recall																
Soft Veh Recall																
Ped Recall																
Ped Recycle																
Cond. Service																
Lock Detector Memory										X	X	X	X	X	X	X
Dual Entry																
Simultaneous Gap	X	X	X	X	X	X	X	X								
Guaranteed Passage																
Added Initial Calculation																
Rest In Walk																
Red Rest									X	X						
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
No Backup																
Max Walk																
Max Extension																
Sequential Timing																
No Min Yellow																
FDW Ped Recycle																

3.1 Vehicle Overlap Set 1	1	2	3	4
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.1 Vehicle Overlap Set 1	5	6	7	8
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.2 Pedestrian Overlap Set 1	1
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	2
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	3
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	4
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	5
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	6
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	7
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	8
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

4.1 Vehicle Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Queue																																
Add Init	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Passage	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Red Lock																				X												
Yellow Lock																																
Volume																																
Occupancy																																
Call Phase	1	2	2	2	2	9	3	4	4	4	4	4	9	0	5	6	6	6	6	10	7	8	8	8	8	8	10	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay	0.0	5.0	5.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	0.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOS Length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Passage																																
Alt Min Green																																
Adaptive																																
Detector Status																																
Extra Call Phases						2, 6														2, 6												
Call Overlaps																																

4.3 Vehicle Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4.2 Ped Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase	2	4	6	8	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Walk																
Extra Call Phases																
Call Overlaps																

4.4 Ped Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.2 Speed Trap

Speed Trap	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Detector 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Detector 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.3 Speed Trap Bin Ranges

Bin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Range	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.2 Patterns	1	2	3	4	5	6	7	8
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	1	2	3	4	5	6	7	8
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.2 Patterns	9	10	11	12	13	14	15	16
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	9	10	11	12	13	14	15	16
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.3 Split Table 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 8

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 9

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 10

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 11

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 12

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 13

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 14

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 15

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.4 Schedules

	Month												Days Of Week							Date																															Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1
2																																																			0
3																																																			0
4																																																			0
5																																																			0
6																																																			0
7																																																			0
8																																																			0

	Month												Days Of Week							Date																															Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
9																																																			0
10																																																			0
11																																																			0
12																																																			0
13																																																			0
14																																																			0
15																																																			0
16																																																			0

6.5 Day Plan 1

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 1

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.6 Action Parameters	1	2	3	4	5	6	7	8
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	9	10	11	12	13	14	15	16
Pattern	0	0	0	0	0	254	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	17	18	19	20	21	22	23	24
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	25	26	27	28	29	30	31	32
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

7 Preempts	Preempt 1	Preempt 2	Preempt 3	Preempt 4	Preempt 5	Preempt 6	Preempt 7	Preempt 8
Track Phases								
Track Overlaps								
Track Ped								
Track Ped Overlap								
Dwell Phases			2	4,7	6	3,8		
Dwell Overlaps								
Dwell Peds								
Dwell Ped Overlap								
Cycling Phases								
Cycling Overlaps								
Cycling Ped								
Cycling Ped Overlap								
Exit Phase								
Locking								
Override Flash								
Override +1								
Flash Dwell								
Enter All Red								
Ignore No Backup								
Max Presence Flash								
Track Green	0	0	0	0	0	0	0	0
Delay	0	0	0	0	0	0	0	0
Maximum Presence	0	0	120	120	120	120	0	0
Minimum Duration	0	0	0	0	0	0	0	0
Minimum Dwell	0	0	0	0	0	0	0	0
Linked Preempt	0	0	0	0	0	0	0	0
Enter Min Green	255	255	0	0	0	0	255	255
Enter Min Walk	255	255	0	0	0	0	255	255
Enter Min Ped Clear	255	255	0	0	0	0	255	255
Enter Min Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Enter Min Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Min Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Min Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Exit Ped Clear	0	0	0	0	0	0	0	0
Exit Yellow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit Red Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Track Green	0	0	0	0	0	0	0	0
Gate Down Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gate Down Flash								
Extend	0	0	0	0	0	0	0	0

Chula Vista
152 East Palomar/La Media > Transit Priority > TSP Global Strategy

Transparity®

8.1 TSP Global Options

Enable	
1	X
2	X
3	X
4	X
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
Headway	0
Lockout	0
Node	1
Name	

8.2 TSP Strategy Options	Strategy 1	Set 1
Enable	X	
Override + 1		
Service Phases	2, 6	
Call Phases		
Omit Phases	1, 3, 4, 5, 7, 8	
Omit Peds	4, 8	
Queue Jump Ph		
ETA	8	
Input Function	Priority	
Input Index	1	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	20	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 2	Set 1
Enable	X	
Override + 1	X	
Service Phases	2, 6	
Call Phases		
Omit Phases	1, 3, 4, 5, 7, 8	
Omit Peds	4, 8	
Queue Jump Ph		
ETA	21	
Input Function	Priority	
Input Index	2	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	20	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 3	Set 1
Enable	X	
Override + 1		
Service Phases	2, 6	
Call Phases		
Omit Phases	1, 3, 4, 5, 7, 8	
Omit Peds	4, 8	
Queue Jump Ph		
ETA	34	
Input Function	Priority	
Input Index	3	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	20	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 4	Set 1
Enable	X	
Override + 1	X	
Service Phases	2, 6	
Call Phases		
Omit Phases	1, 3, 4, 5, 7, 8	
Omit Peds	4, 8	
Queue Jump Ph		
ETA	29	
Input Function	Priority	
Input Index	4	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	30	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 5	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 6	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 7	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		

8.2 TSP Strategy Options	Strategy 8	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		

8.2 TSP Strategy Options	Strategy 9	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 10	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 11	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 12	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 13	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	

8.2 TSP Strategy Options	Strategy 14	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	

8.2 TSP Strategy Options	Strategy 15	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 16	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.3 TSP Phase Adjustment Times — Strategy 1 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0
Extend	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0
QJump	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 2 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0
Extend	10	25	10	20	10	25	10	20	0	0	0	0	0	0	0	0
QJump	10	25	10	20	10	25	10	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 3 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0
Extend	10	40	10	20	10	40	10	20	0	0	0	0	0	0	0	0
QJump	10	40	10	20	10	40	10	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 4 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0
Extend	10	30	10	20	10	30	10	20	0	0	0	0	0	0	0	0
QJump	10	30	10	20	10	30	10	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 5 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 6 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 7 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 8 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 9 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 10 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 11 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 12 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 13 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 14 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 15 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 16 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1.6 Logic Gate 1

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	13		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 2

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	13		0	0
IN2	Logic Output	4		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 3

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	14		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 4

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	14		0	0
IN2	Logic Output	2		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 5

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	13		0	0
IN2	Vehicle Detector	13		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	5		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 6

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	14		0	0
IN2	Vehicle Detector	27		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	6		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 7

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	13		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	7		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 8

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	14		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	8		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 9

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	13		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 10

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	13		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 11

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	14		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 12

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	14		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 13

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 14

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 15

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 16

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 17

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 18

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 19

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 20

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 21

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 22

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 23

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 24

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 25

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 26

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 27

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 28

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 29

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 30

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 31

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 32

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.5.3.1 2070 FIO Input Mapping

Pins	Function	IDX
C1-39	Vehicle Detector	2
C1-40	Vehicle Detector	16
C1-41	Vehicle Detector	8
C1-42	Vehicle Detector	22
C1-43	Vehicle Detector	3
C1-44	Vehicle Detector	17
C1-45	Vehicle Detector	9
C1-46	Vehicle Detector	23
C1-47	Vehicle Detector	6
C1-48	Vehicle Detector	20
C1-49	Vehicle Detector	12
C1-50	Vehicle Detector	26
C1-51	Preempt Detector	1
C1-52	Preempt Detector	2
C1-53	Man Control Enable	1
C1-54	Unused Input	1
C1-55	Vehicle Detector	15
C1-56	Vehicle Detector	1
C1-57	Vehicle Detector	21
C1-58	Vehicle Detector	7
C1-59	Vehicle Detector	27
C1-60	Vehicle Detector	13
C1-61	Vehicle Detector	28
C1-62	Vehicle Detector	14
C11-10	Unused Input	1
C11-11	Unused Input	1
C11-12	Unused Input	1
C11-13	Unused Input	1
C1-63	Vehicle Detector	4
C1-64	Vehicle Detector	18
C1-65	Vehicle Detector	10
C1-66	Vehicle Detector	24

Pins	Function	IDX
C1-67	Pedestrian Detector	1
C1-68	Pedestrian Detector	3
C1-69	Pedestrian Detector	2
C1-70	Pedestrian Detector	4
C1-71	Preempt Detector	3
C1-72	Preempt Detector	4
C1-73	Preempt Detector	5
C1-74	Preempt Detector	6
C1-75	Unused Input	1
C1-76	Vehicle Detector	5
C1-77	Vehicle Detector	19
C1-78	Vehicle Detector	11
C1-79	Vehicle Detector	25
C1-80	Interval Advance	1
C1-81	MMU Flash	1
C1-82	Stop Time All Rings	1
C11-15	Unused Input	1
C11-16	Unused Input	1
C11-17	Unused Input	1
C11-18	Unused Input	1
C11-19	Unused Input	1
C11-20	Unused Input	1
C11-21	Unused Input	1
C11-22	Unused Input	1
C11-23	Unused Input	1
C11-24	Unused Input	1
C11-25	Unused Input	1
C11-26	Unused Input	1
C11-27	Unused Input	1
C11-28	Unused Input	1
C11-29	Unused Input	1
C11-30	Unused Input	1

1.5.3.2 2070 FIO Output Mapping

Pins	Function	IDX
C1-02	Channel Red	6
C1-03	Channel Green	6
C1-04	Channel Red	5
C1-05	Channel Yellow	5
C1-06	Channel Green	5
C1-07	Channel Red	4
C1-08	Channel Yellow	4
C1-09	Channel Green	4
C1-10	Channel Red	3
C1-11	Channel Green	3
C1-12	Channel Red	2
C1-13	Channel Yellow	2
C1-15	Channel Green	2
C1-16	Channel Red	1
C1-17	Channel Yellow	1
C1-18	Channel Green	1
C1-19	Channel Red	12
C1-20	Channel Green	12
C1-21	Channel Red	11
C1-22	Channel Yellow	11
C1-23	Channel Green	11
C1-24	Channel Red	10
C1-25	Channel Yellow	10
C1-26	Channel Green	10
C1-27	Channel Red	9
C1-28	Channel Green	9
C1-29	Channel Red	8
C1-30	Channel Yellow	8
C1-31	Channel Green	8
C1-32	Channel Red	7
C1-33	Channel Yellow	7
C1-34	Channel Green	7

Pins	Function	IDX
C1-35	Logic Output	7
C1-36	Logic Output	8
C1-37	Unused Output	1
C1-38	Unused Output	1
C1-100	Unused Output	1
C1-101	Auto Flash Status	1
C1-102	Detector Reset	1
C1-103	Wdt Reset	1
C1-83	Unused Output	1
C1-84	Unused Output	1
C1-85	Channel Red	16
C1-86	Channel Yellow	16
C1-87	Channel Green	16
C1-88	Channel Red	15
C1-89	Channel Yellow	15
C1-90	Channel Green	15
C1-91	Unused Output	1
C1-93	Unused Output	1
C1-94	Channel Red	14
C1-95	Channel Yellow	14
C1-96	Logic Output	1
C1-97	Channel Red	13
C1-98	Channel Yellow	13
C1-99	Logic Output	3
C11-1	Unused Output	1
C11-2	Unused Output	1
C11-3	Unused Output	1
C11-4	Unused Output	1
C11-5	Unused Output	1
C11-6	Unused Output	1
C11-7	Unused Output	1
C11-8	Unused Output	1

9.3-4 Log Configuration

Volume Occupancy Period	60
VOS Log Combined Periods	0
Speed Trap Log Period	0
Display Metric	
Speed Trap Log Mode	Disabled
VOS Log Mode	Disabled
Cycle MOE Log Mode	Enabled
High Res Log Mode	Enabled
Power On/Off	X
Low Battery	X
Cycle Fault	X
Coord Fault	X
Coord Fail	X
Cycle Fail	X
MMU Flash	X
Local Flash	X
Local Free	X
Preempt Status Change	X
Response Fault	X
Alarm Status Change	X
Door Status Change	X
Pattern Change	X
Detector Status Change	X
Comm Status Change	X
Command Change	X
Data Change Keyboard	X
Controller Download	X
Access Code	X
Priority	X
Manual Control Enable	X
Stop Time	X

6.2 Time Zone

Global DST	Enable DST
Standard Time Zone (+/- hr)	0

A.3 Unit Comms

Unit Backup Time	0

1.5.5 Aux Switch

Function	Stop Time All Rings
Index	1

A.5-6 Time Sync

NTP Server Address	0.0.0.0
NTP Start Hour	0
NTP Start Minute	0
NTP Interval Hour	0
NTP Interval Minute	0
GPS Start Hour	0
GPS Start Minute	0
GPS Interval Hour	0
GPS Interval Minute	0
Enable NTP Svr	

1.7 Port 1

BIU 1 (T&F BIU 1)	Disabled
BIU 2 (T&F BIU 2)	Disabled
BIU 3 (T&F BIU 3)	Disabled
BIU 4 (T&F BIU 4)	Disabled
BIU 9 (Detector BIU 1)	Disabled
BIU 10 (Detector BIU 2)	Disabled
BIU 11 (Detector BIU 3)	Disabled
BIU 12 (Detector BIU 4)	Disabled
MMU	Disabled
Comm Port	SP3

9.3-4 Hi Res Log Setup

Phase Events	
Ped Events	
Barrier/Ring Events	
Phase Control Events	
Overlap Events	
Detector Events	
Preemption Events	
Coordination Events	
Cabinet/System Events	

B.1.1 Menu Security Options

Enable:		Allow Read-Only:		Timeout (min):	60

B.1.2 Menu Security Users

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

A.1 Serial Comms

Port	1	2	3	4	5	8
Protocol	None	None	None	None	None	None
Speed	9600	9600	9600	115200	9600	9600
Parity	None	None	None	None	None	None
Flow Control	None	None	None	None	None	None
Address	0	0	0	0	0	0
Group Address	0	0	0	0	0	0
Data Bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits
Stop Bits	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit
CTS Delay	0	0	0	0	0	0
RTS Extend	0	0	0	0	0	0

A.2 Ethernet Comms

Port	1	2
IP Address	10.242.20.91	0.0.0.0
Net Mask	255.255.255.0	0.0.0.0
Gateway	10.242.20.254	0.0.0.0
NTCIP Port	8015	161
NTCIP Mode	UDP	UDP
AB3418 Port	8001	8001
AB3418 Mode	UDP	UDP
AB3418 Address	1	1
AB3418 Group Address	0	0
Peer to Peer Port	0	0

A.8 SPaT

Unicast Enable	
Dest IP Address	0.0.0.0
Dest Port	0

1.9.1 Peer Device	1	2	3	4	5	6	7	8
System Id	291	178	290	180	0	0	0	0
IP Address	10.242.20.101	10.242.20.93	10.242.20.100	10.242.20.107	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Port	49255	49255	49255	49255	49255	49255	49255	49255
Message Timeout	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Max Retries	3	3	3	3	3	3	3	3
Heartbeat Time	30	30	30	30	30	30	30	30

1.9.2 Peer Function	1	2	3	4	5	6	7	8
Peer Device Num	1	2	3	4	1	2	0	0
Remote Function	Vehicle Detector	Vehicle Detector	Vehicle Detector	Vehicle Detector	Logic Output	Logic Output	Unused	Unused
Remote Function Idx	14	28	14	28	5	6	1	1
Local Function	Priority Request	Priority Request	Priority Request	Priority Request	Priority Checkout	Priority Checkout	Unused	Unused
Local Function Idx	1	2	3	4	3	4	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	9	10	11	12	13	14	15	16
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	17	18	19	20	21	22	23	24
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	25	26	27	28	29	30	31	32
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Chula Vista
176 East Palomar/Olympic > Unit Configuration > Unit Configuration

B.3 System Information

System Id	176
Name	176 East Palomar & Olympic
Location	Olympic Pkwy & E Palomar St

1.2 Unit Setup

Auto Ped Clear	Disabled
Red Revert	3.0
Min Yellow Time	3.0
Texas Dmd Mode	Disabled
Texas Dmd Type	4-Phase

1.3 Startup

Flash	0
All Red	5
Start Veh Call	1,2,3,4,5,6,7,8
Start Ped Call	2,4,6,8

1.4 Channel Setup (1-16)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Type	V	V	P	V	V	P	V	V	P	V	V	P	V	V	O	O
Source	1	2	2	3	4	4	5	6	6	7	8	8	9	0	3	4
Alt 1/2 Hz																
Flash Red	X	X		X	X		X	X		X	X		X	X	X	X
Flash Yel																

1.4 Channel Setup (17-32)

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Type	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

Start Next Phases	

Program Type	McCain Omni eX
Firmware	1.11
Street 1	E Palomar St
Street 2	Olympic Pkwy
Last Modified	8/27/2020 1:30 PM

5.1 Coordination Constants

Correction Mode	Shortway
Max Cycles Trans	3
Coord Max Mode	Max Inhibit
Coord Force Mode	Fixed
Perm Strategy	Maximum
Omit Strategy	Minimum
Sync Point	End Green
No Early Return	Disable
Sync Ref Time	0
Operational Mode	0

2.5 Phase Concurrency

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase 1					X	X										
Phase 2					X	X										
Phase 3							X	X								
Phase 4							X	X	X	X						
Phase 5	X	X														
Phase 6	X	X														
Phase 7			X	X												
Phase 8			X	X					X	X						
Phase 9				X				X		X						
Phase 10				X				X	X							
Phase 11																
Phase 12																
Phase 13																
Phase 14																
Phase 15																
Phase 16																

2.4 Phase Enable and Rings

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Startup	2	4	2	2	2	4	2	2	2	2	2	2	2	2	2	2
Enabled	X	X	X	X	X	X	X	X	X	X						
Ring1	X	X	X	X												
Ring2					X	X	X	X								
Ring3									X							
Ring4										X						

2.3 Phase Sequence 1

Ring 1	1,2,3,4
Ring 2	5,6,7,8
Ring 3	9
Ring 4	10

2.3 Phase Sequence 2

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 3

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 4

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 5

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 6

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 7

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 8

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 9

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 10

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 11

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 12

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 13

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 14

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 15

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 16

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.1 Phase Parameters Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	4	20	4	7	4	20	4	7	10	10	0	0	0	0	0	0
Passage	2.0	6.4	2.0	4.2	2.0	5.4	2.0	5.0	7.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
Max 1	30	60	30	40	30	60	30	40	30	30	0	0	0	0	0	0
Max 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Yellow Change	3.2	5.0	3.2	4.2	3.2	5.0	3.2	4.2	4.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Ped Clear	0	30	0	34	0	30	0	35	0	0	0	0	0	0	0	0
Added Initial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduction	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0
Cars Before Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0
Cond. Service Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alternate Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Ped Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Advanced Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Delay Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Green Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2.2 Phase Options Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Omit																
Ped Omit																
Min Veh Recall		X				X										
Max Veh Recall																
Soft Veh Recall																
Ped Recall																
Ped Recycle																
Cond. Service																
Lock Detector Memory																
Dual Entry																
Simultaneous Gap	X	X	X	X	X	X	X	X	X	X						X
Guaranteed Passage																
Added Initial Calculation																
Rest In Walk																
Red Rest									X	X						
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
No Backup																
Max Walk																
Max Extension																
Sequential Timing																
No Min Yellow																
FDW Ped Recycle																

3.1 Vehicle Overlap Set 1	1	2	3	4
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.1 Vehicle Overlap Set 1	5	6	7	8
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.2 Pedestrian Overlap Set 1	1
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	2
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	3
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	4
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	5
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	6
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	7
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	8
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

4.1 Vehicle Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Queue																																
Add Init	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X					
Passage	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X					
Red Lock																																
Yellow Lock																																
Volume																																
Occupancy																																
Call Phase	1	2	2	2	2	2	3	4	4	4	4	9	9	9	5	6	6	6	6	6	7	8	8	8	8	10	10	10	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOS Length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Passage																																
Alt Min Green																																
Adaptive																																
Detector Status																																
Extra Call Phases																																
Call Overlaps																																

4.3 Vehicle Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4.2 Ped Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase	2	4	6	8	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Walk																
Extra Call Phases																
Call Overlaps																

4.4 Ped Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.2 Speed Trap

Speed Trap	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Detector 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Detector 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.3 Speed Trap Bin Ranges

Bin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Range	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.2 Patterns	1	2	3	4	5	6	7	8
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	1	2	3	4	5	6	7	8
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.2 Patterns	9	10	11	12	13	14	15	16
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	9	10	11	12	13	14	15	16
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.3 Split Table 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 8

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 9

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 10

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 11

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 12

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 13

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 14

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 15

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.4 Schedules

	Month												Days Of Week							Date																																			Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1
2																																																				0
3																																																				0
4																																																				0
5																																																				0
6																																																				0
7																																																				0
8																																																				0

	Month												Days Of Week							Date																																					Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
9																																																				0
10																																																				0
11																																																				0
12																																																				0
13																																																				0
14																																																				0
15																																																				0
16																																																				0

6.5 Day Plan 1

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 1

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.6 Action Parameters	1	2	3	4	5	6	7	8
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	9	10	11	12	13	14	15	16
Pattern	0	0	0	0	0	254	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	17	18	19	20	21	22	23	24
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	25	26	27	28	29	30	31	32
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

7 Preempts	Preempt 1	Preempt 2	Preempt 3	Preempt 4	Preempt 5	Preempt 6	Preempt 7	Preempt 8
Track Phases								
Track Overlaps								
Track Ped								
Track Ped Overlap								
Dwell Phases			2,5	4	1,6	8		
Dwell Overlaps								
Dwell Peds								
Dwell Ped Overlap								
Cycling Phases								
Cycling Overlaps								
Cycling Ped								
Cycling Ped Overlap								
Exit Phase								
Locking	X	X					X	X
Override Flash	X	X					X	X
Override +1	X	X					X	X
Flash Dwell								
Enter All Red								
Ignore No Backup								
Max Presence Flash								
Track Green	0	0	0	0	0	0	0	0
Delay	0	0	0	0	0	0	0	0
Maximum Presence	0	0	120	120	120	120	0	0
Minimum Duration	0	0	0	0	0	0	0	0
Minimum Dwell	0	0	0	0	0	0	0	0
Linked Preempt	0	0	0	0	0	0	0	0
Enter Min Green	255	255	0	0	0	0	255	255
Enter Min Walk	255	255	0	0	0	0	255	255
Enter Min Ped Clear	255	255	0	0	0	0	255	255
Enter Min Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Enter Min Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Min Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Min Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Exit Ped Clear	0	0	0	0	0	0	0	0
Exit Yellow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit Red Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Track Green	0	0	0	0	0	0	0	0
Gate Down Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gate Down Flash								
Extend	0	0	0	0	0	0	0	0

Chula Vista
176 East Palomar/Olympic > Transit Priority > TSP Global Strategy

8.1 TSP Global Options

Enable	
1	X
2	X
3	X
4	X
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
Headway	0
Lockout	0
Node	1
Name	Default

8.2 TSP Strategy Options	Strategy 1 Set 1
Enable	X
Override + 1	
Service Phases	4, 8, 9
Call Phases	
Omit Phases	1, 2, 3, 5, 6, 7
Omit Peds	2, 6
Queue Jump Ph	
ETA	15
Input Function	Priority
Input Index	1
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 2 Set 1
Enable	X
Override + 1	X
Service Phases	4, 8, 10
Call Phases	
Omit Phases	1, 2, 3, 5, 6, 7
Omit Peds	2, 6
Queue Jump Ph	
ETA	30
Input Function	Priority
Input Index	2
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 3 Set 1
Enable	X
Override + 1	
Service Phases	4, 8
Call Phases	
Omit Phases	1, 2, 3, 5, 6, 7
Omit Peds	2, 6
Queue Jump Ph	
ETA	9
Input Function	Priority
Input Index	3
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 4 Set 1
Enable	
Override + 1	
Service Phases	4, 8
Call Phases	
Omit Phases	1, 2, 3, 5, 6, 7
Omit Peds	2, 6
Queue Jump Ph	
ETA	30
Input Function	Priority
Input Index	4
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 5 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 6 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 7 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	

8.2 TSP Strategy Options	Strategy 8 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	

8.2 TSP Strategy Options	Strategy 9 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 10 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 11 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 12 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 13 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

8.2 TSP Strategy Options	Strategy 14 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

8.2 TSP Strategy Options	Strategy 15 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 16	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.3 TSP Phase Adjustment Times — Strategy 1 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0
Extend	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0
QJump	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 2 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0
Extend	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0
QJump	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 3 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0
Extend	10	20	10	40	10	20	10	40	0	0	0	0	0	0	0	0
QJump	10	20	10	40	10	20	10	40	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 4 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	10	20	10	20	10	20	0	0	0	0	0	0	0	0
Extend	10	20	10	40	10	20	10	40	0	0	0	0	0	0	0	0
QJump	10	20	10	40	10	20	10	40	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 5 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 6 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 7 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 8 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 9 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 10 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 11 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 12 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 13 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 14 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 15 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 16 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1.6 Logic Gate 1

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	13		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 2

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	13		0	0
IN2	Logic Output	4		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 3

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	14		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 4

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	14		0	0
IN2	Logic Output	2		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 5

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	13		0	0
IN2	Vehicle Detector	13		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	5		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 6

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	14		0	0
IN2	Vehicle Detector	27		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	6		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 7

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	13		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	7		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 8

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	14		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	8		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 9

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	13		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 10

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	13		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 11

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	14		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 12

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	14		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 13

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 14

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 15

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 16

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 17

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 18

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 19

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 20

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 21

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 22

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 23

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 24

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 25

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 26

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 27

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 28

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 29

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 30

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 31

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 32

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.5.3.1 2070 FIO Input Mapping

Pins	Function	IDX
C1-39	Vehicle Detector	2
C1-40	Vehicle Detector	16
C1-41	Vehicle Detector	8
C1-42	Vehicle Detector	22
C1-43	Vehicle Detector	3
C1-44	Vehicle Detector	17
C1-45	Vehicle Detector	9
C1-46	Vehicle Detector	23
C1-47	Vehicle Detector	6
C1-48	Vehicle Detector	20
C1-49	Vehicle Detector	12
C1-50	Vehicle Detector	26
C1-51	Preempt Detector	1
C1-52	Preempt Detector	2
C1-53	Man Control Enable	1
C1-54	Unused Input	1
C1-55	Vehicle Detector	15
C1-56	Vehicle Detector	1
C1-57	Vehicle Detector	21
C1-58	Vehicle Detector	7
C1-59	Vehicle Detector	27
C1-60	Vehicle Detector	13
C1-61	Vehicle Detector	28
C1-62	Vehicle Detector	14
C11-10	Unused Input	1
C11-11	Unused Input	1
C11-12	Unused Input	1
C11-13	Unused Input	1
C1-63	Vehicle Detector	4
C1-64	Vehicle Detector	18
C1-65	Vehicle Detector	10
C1-66	Vehicle Detector	24

Pins	Function	IDX
C1-67	Pedestrian Detector	1
C1-68	Pedestrian Detector	3
C1-69	Pedestrian Detector	2
C1-70	Pedestrian Detector	4
C1-71	Preempt Detector	3
C1-72	Preempt Detector	4
C1-73	Preempt Detector	5
C1-74	Preempt Detector	6
C1-75	Unused Input	1
C1-76	Vehicle Detector	5
C1-77	Vehicle Detector	19
C1-78	Vehicle Detector	11
C1-79	Vehicle Detector	25
C1-80	Interval Advance	1
C1-81	MMU Flash	1
C1-82	Stop Time All Rings	1
C11-15	Unused Input	1
C11-16	Unused Input	1
C11-17	Unused Input	1
C11-18	Unused Input	1
C11-19	Unused Input	1
C11-20	Unused Input	1
C11-21	Unused Input	1
C11-22	Unused Input	1
C11-23	Unused Input	1
C11-24	Unused Input	1
C11-25	Unused Input	1
C11-26	Unused Input	1
C11-27	Unused Input	1
C11-28	Unused Input	1
C11-29	Unused Input	1
C11-30	Unused Input	1

1.5.3.2 2070 FIO Output Mapping

Pins	Function	IDX
C1-02	Channel Red	6
C1-03	Channel Green	6
C1-04	Channel Red	5
C1-05	Channel Yellow	5
C1-06	Channel Green	5
C1-07	Channel Red	4
C1-08	Channel Yellow	4
C1-09	Channel Green	4
C1-10	Channel Red	3
C1-11	Channel Green	3
C1-12	Channel Red	2
C1-13	Channel Yellow	2
C1-15	Channel Green	2
C1-16	Channel Red	1
C1-17	Channel Yellow	1
C1-18	Channel Green	1
C1-19	Channel Red	12
C1-20	Channel Green	12
C1-21	Channel Red	11
C1-22	Channel Yellow	11
C1-23	Channel Green	11
C1-24	Channel Red	10
C1-25	Channel Yellow	10
C1-26	Channel Green	10
C1-27	Channel Red	9
C1-28	Channel Green	9
C1-29	Channel Red	8
C1-30	Channel Yellow	8
C1-31	Channel Green	8
C1-32	Channel Red	7
C1-33	Channel Yellow	7
C1-34	Channel Green	7

Pins	Function	IDX
C1-35	Unused Output	1
C1-36	Unused Output	1
C1-37	Logic Output	7
C1-38	Logic Output	8
C1-100	Unused Output	1
C1-101	Auto Flash Status	1
C1-102	Detector Reset	1
C1-103	Wdt Reset	1
C1-83	Unused Output	1
C1-84	Unused Output	1
C1-85	Channel Red	16
C1-86	Channel Yellow	16
C1-87	Channel Green	16
C1-88	Channel Red	15
C1-89	Channel Yellow	15
C1-90	Channel Green	15
C1-91	Unused Output	1
C1-93	Unused Output	1
C1-94	Channel Red	14
C1-95	Channel Yellow	14
C1-96	Logic Output	1
C1-97	Channel Red	13
C1-98	Channel Yellow	13
C1-99	Logic Output	3
C11-1	Unused Output	1
C11-2	Unused Output	1
C11-3	Unused Output	1
C11-4	Unused Output	1
C11-5	Unused Output	1
C11-6	Unused Output	1
C11-7	Unused Output	1
C11-8	Unused Output	1

9.3-4 Log Configuration

Volume Occupancy Period	60
VOS Log Combined Periods	0
Speed Trap Log Period	0
Display Metric	
Speed Trap Log Mode	Disabled
VOS Log Mode	Disabled
Cycle MOE Log Mode	Disabled
High Res Log Mode	Disabled
Power On/Off	X
Low Battery	X
Cycle Fault	X
Coord Fault	X
Coord Fail	X
Cycle Fail	X
MMU Flash	X
Local Flash	X
Local Free	X
Preempt Status Change	X
Response Fault	X
Alarm Status Change	X
Door Status Change	X
Pattern Change	X
Detector Status Change	X
Comm Status Change	X
Command Change	X
Data Change Keyboard	X
Controller Download	X
Access Code	X
Priority	X
Manual Control Enable	X
Stop Time	X

6.2 Time Zone

Global DST	Enable DST
Standard Time Zone (+/- hr)	0

A.3 Unit Comms

Unit Backup Time	0

1.5.5 Aux Switch

Function	Stop Time All Rings
Index	1

A.5-6 Time Sync

NTP Server Address	0.0.0.0
NTP Start Hour	0
NTP Start Minute	0
NTP Interval Hour	0
NTP Interval Minute	0
GPS Start Hour	0
GPS Start Minute	0
GPS Interval Hour	0
GPS Interval Minute	0
Enable NTP Svr	

1.7 Port 1

BIU 1 (T&F BIU 1)	Disabled
BIU 2 (T&F BIU 2)	Disabled
BIU 3 (T&F BIU 3)	Disabled
BIU 4 (T&F BIU 4)	Disabled
BIU 9 (Detector BIU 1)	Disabled
BIU 10 (Detector BIU 2)	Disabled
BIU 11 (Detector BIU 3)	Disabled
BIU 12 (Detector BIU 4)	Disabled
MMU	Disabled
Comm Port	SP3

9.3-4 Hi Res Log Setup

Phase Events	
Ped Events	
Barrier/Ring Events	
Phase Control Events	
Overlap Events	
Detector Events	
Preemption Events	
Coordination Events	
Cabinet/System Events	

B.1.1 Menu Security Options

Enable:		Allow Read-Only:		Timeout (min):	60

B.1.2 Menu Security Users

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

A.1 Serial Comms

Port	1	2	3	4	5	8
Protocol	None	None	None	None	None	None
Speed	9600	9600	9600	115200	9600	9600
Parity	None	None	None	None	None	None
Flow Control	None	None	None	None	None	None
Address	0	0	0	0	0	0
Group Address	0	0	0	0	0	0
Data Bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits
Stop Bits	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit
CTS Delay	0	0	0	0	0	0
RTS Extend	0	0	0	0	0	0

A.2 Ethernet Comms

Port	1	2
IP Address	10.242.20.92	0.0.0.0
Net Mask	255.255.255.0	0.0.0.0
Gateway	10.242.20.254	0.0.0.0
NTCIP Port	8015	161
NTCIP Mode	UDP	UDP
AB3418 Port	8001	8001
AB3418 Mode	UDP	UDP
AB3418 Address	1	1
AB3418 Group Address	0	0
Peer to Peer Port	49255	49255

A.8 SPaT

Unicast Enable	
Dest IP Address	0.0.0.0
Dest Port	0

1.9.1 Peer Device	1	2	3	4	5	6	7	8
System Id	179	212	292	273	0	0	0	0
IP Address	10.242.20.94	10.242.20.105	10.242.20.102	10.242.20.90	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Port	49255	49255	49255	49255	49255	49255	49255	49255
Message Timeout	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Max Retries	3	3	3	3	3	3	3	3
Heartbeat Time	30	30	30	30	30	30	30	30

1.9.2 Peer Function	1	2	3	4	5	6	7	8
Peer Device Num	1	2	3	4	1	2	0	0
Remote Function	Vehicle Detector	Vehicle Detector	Vehicle Detector	Vehicle Detector	Logic Output	Logic Output	Unused	Unused
Remote Function Idx	14	28	14	28	5	6	1	1
Local Function	Priority Request	Priority Request	Priority Request	Priority Request	Priority Checkout	Priority Checkout	Unused	Unused
Local Function Idx	1	2	3	4	3	4	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	9	10	11	12	13	14	15	16
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	17	18	19	20	21	22	23	24
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	25	26	27	28	29	30	31	32
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Chula Vista
289 East Palomar/Santa Alicia > Unit Configuration > Unit Configuration

B.3 System Information

System Id	289
Name	289 E Palomar/Santa Alicia
Location	East Palomar St & Santa Alicia Ave

1.2 Unit Setup

Auto Ped Clear	Disabled
Red Revert	3.0
Min Yellow Time	3.0
Texas Dmd Mode	Disabled
Texas Dmd Type	4-Phase

1.3 Startup

Flash	0
All Red	5
Start Veh Call	1,2,6,8,16
Start Ped Call	2,8

1.4 Channel Setup (1-16)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Type	V	V	P	V	V	P	V	V	P	V	V	P	O	O	O	O
Source	1	2	2	9	0	4	5	6	6	7	8	8	1	2	3	4
Alt 1/2 Hz																
Flash Red	X	X		X	X		X	X		X	X		X	X	X	X
Flash Yel																

1.4 Channel Setup (17-32)

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Type	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

Start Next Phases	

Program Type	McCain Omni eX
Firmware	1.10
Street 1	East Palomar St
Street 2	Santa Alicia Ave
Last Modified	9/17/2020 5:21 PM

5.1 Coordination Constants

Correction Mode	Shortway
Max Cycles Trans	3
Coord Max Mode	Max Inhibit
Coord Force Mode	Fixed
Perm Strategy	Maximum
Omit Strategy	Minimum
Sync Point	Begin Green
No Early Return	Disable
Sync Ref Time	0
Operational Mode	0

2.5 Phase Concurrency

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase 1						X										
Phase 2						X			X	X						
Phase 3																
Phase 4																
Phase 5																
Phase 6	X	X							X	X						
Phase 7																
Phase 8																
Phase 9		X				X				X						
Phase 10		X				X			X							
Phase 11																
Phase 12																
Phase 13																
Phase 14																
Phase 15																
Phase 16																

2.4 Phase Enable and Rings

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Startup	2	4	2	2	2	4	2	2	2	2	2	2	2	2	2	2
Enabled	X	X				X		X	X	X						
Ring1	X	X														
Ring2						X		X								
Ring3									X							
Ring4										X						

2.3 Phase Sequence 1

Ring 1	1,2
Ring 2	6,8
Ring 3	9
Ring 4	10

2.3 Phase Sequence 2

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 3

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 4

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 5

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 6

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 7

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 8

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 9

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 10

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 11

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 12

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 13

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 14

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 15

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 16

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.1 Phase Parameters Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	4	10	0	0	0	10	0	4	4	4	4	15	4	15	4	15
Passage	2.0	3.6	0.0	0.0	0.0	3.6	0.0	3.5	2.0	2.0	2.0	5.0	2.0	5.0	2.0	5.0
Max 1	30	40	0	0	0	40	0	40	30	30	15	45	15	45	15	45
Max 2	0	0	0	0	0	0	0	0	15	45	15	45	15	45	15	45
Yellow Change	3.2	4.0	0.0	0.0	0.0	4.0	0.0	3.6	4.5	4.5	3.0	4.0	3.0	4.0	3.0	4.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.0	2.0	1.0	2.0
Walk	0	7	0	7	0	7	0	7	0	0	0	7	0	7	0	7
Ped Clear	0	16	0	15	0	15	0	28	0	0	0	15	0	15	0	15
Added Initial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Before Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Cond. Service Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alternate Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Ped Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Advanced Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Delay Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Green Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2.2 Phase Options Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Omit																
Ped Omit																
Min Veh Recall		X				X										
Max Veh Recall																
Soft Veh Recall																
Ped Recall																
Ped Recycle																
Cond. Service																
Lock Detector Memory											X	X	X	X	X	X
Dual Entry																
Simultaneous Gap	X	X	X	X	X	X	X	X								
Guaranteed Passage																
Added Initial Calculation																
Rest In Walk																
Red Rest									X	X						
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
No Backup																
Max Walk																
Max Extension																
Sequential Timing																
No Min Yellow																
FDW Ped Recycle																

3.1 Vehicle Overlap Set 1	1	2	3	4
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.1 Vehicle Overlap Set 1	5	6	7	8
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.2 Pedestrian Overlap Set 1	1
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	2
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	3
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	4
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	5
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	6
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	7
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	8
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

4.1 Vehicle Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Queue																																
Add Init	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X				
Passage	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Red Lock																																
Yellow Lock																																
Volume																																
Occupancy																																
Call Phase	1	2	2	2	2	2	3	4	4	4	4	9	9	0	5	6	6	6	6	6	7	8	8	8	8	10	10	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOS Length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Passage																																
Alt Min Green																																
Adaptive																																
Detector Status																																
Extra Call Phases																																
Call Overlaps																																

4.3 Vehicle Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4.2 Ped Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase	2	4	6	8	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Walk																
Extra Call Phases																
Call Overlaps																

4.4 Ped Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.2 Speed Trap

Speed Trap	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Detector 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Detector 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.3 Speed Trap Bin Ranges

Bin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Range	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.2 Patterns	1	2	3	4	5	6	7	8
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	1	1	1	1	1	1	1	1
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.2 Patterns	9	10	11	12	13	14	15	16
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	1	1	1	1	1	1	1	1
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.3 Split Table 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 8

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 9

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 10

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 11

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 12

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 13

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 14

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 15

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.4 Schedules

	Month												Days Of Week							Date																															Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	0
2																																																			0
3																																																			0
4																																																			0
5																																																			0
6																																																			0
7																																																			0
8																																																			0
9																																																			0
10																																																			0
11																																																			0
12																																																			0
13																																																			0
14																																																			0
15																																																			0
16																																																			0

6.5 Day Plan 1

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 1

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.6 Action Parameters	1	2	3	4	5	6	7	8
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	9	10	11	12	13	14	15	16
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	17	18	19	20	21	22	23	24
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	25	26	27	28	29	30	31	32
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

7 Preempts	Preempt 1	Preempt 2	Preempt 3	Preempt 4	Preempt 5	Preempt 6	Preempt 7	Preempt 8
Track Phases								
Track Overlaps								
Track Ped								
Track Ped Overlap								
Dwell Phases			2		6	8		
Dwell Overlaps								
Dwell Peds								
Dwell Ped Overlap								
Cycling Phases								
Cycling Overlaps								
Cycling Ped								
Cycling Ped Overlap								
Exit Phase								
Locking							X	X
Override Flash							X	X
Override +1							X	X
Flash Dwell								
Enter All Red								
Ignore No Backup								
Max Presence Flash								
Track Green	0	0	0	0	0	0	0	0
Delay	0	0	0	0	0	0	0	0
Maximum Presence	0	0	120	120	120	120	0	0
Minimum Duration	0	0	0	0	0	0	0	0
Minimum Dwell	10	10	0	0	0	0	10	10
Linked Preempt	0	0	0	0	0	0	0	0
Enter Min Green	255	255	0	0	0	0	255	255
Enter Min Walk	255	255	0	0	0	0	255	255
Enter Min Ped Clear	255	255	0	0	0	0	255	255
Enter Min Yellow	25.5	25.5	25.5	25.5	25.5	0.0	25.5	25.5
Enter Min Red Clear	25.5	25.5	25.5	25.5	25.5	0.0	25.5	25.5
Track Min Yellow	25.5	25.5	25.5	25.5	25.5	0.0	25.5	25.5
Track Min Red Clear	25.5	25.5	25.5	25.5	25.5	0.0	25.5	25.5
Exit Ped Clear	0	0	0	0	0	0	0	0
Exit Yellow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit Red Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Transparity®

8.1 TSP Global Options

Enable	
1	X
2	X
3	X
4	X
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
Headway	0
Lockout	0
Node	1
Name	Default

8.2 TSP Strategy Options	Strategy 1	Set 1
Enable	X	
Override + 1		
Service Phases	2, 6, 9	
Call Phases		
Omit Phases	1, 8	
Omit Peds	8	
Queue Jump Ph		
ETA	18	
Input Function	Priority	
Input Index	1	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	20	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 2	Set 1
Enable	X	
Override + 1	X	
Service Phases	2, 6, 10	
Call Phases		
Omit Phases	1, 8	
Omit Peds	8	
Queue Jump Ph		
ETA	44	
Input Function	Priority	
Input Index	2	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	20	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 3	Set 1
Enable	X	
Override + 1		
Service Phases	2, 6	
Call Phases		
Omit Phases	1, 8	
Omit Peds	8	
Queue Jump Ph		
ETA	32	
Input Function	Priority	
Input Index	3	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	20	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 4	Set 1
Enable	X	
Override + 1	X	
Service Phases	2, 6	
Call Phases		
Omit Phases	1, 8	
Omit Peds	8	
Queue Jump Ph		
ETA	45	
Input Function	Priority	
Input Index	4	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	20	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	2.5	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 5	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 6	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 7	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		

8.2 TSP Strategy Options	Strategy 8	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		

8.2 TSP Strategy Options	Strategy 9	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 10 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 11 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 12 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 13 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

8.2 TSP Strategy Options	Strategy 14 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

8.2 TSP Strategy Options	Strategy 15 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 16	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.3 TSP Phase Adjustment Times — Strategy 1 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	0	0	0	20	0	20	0	0	0	0	0	0	0	0
Extend	10	20	0	0	0	20	0	20	0	0	0	0	0	0	0	0
QJump	10	20	0	0	0	20	0	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 2 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	0	0	0	20	0	20	0	0	0	0	0	0	0	0
Extend	10	50	0	0	0	50	0	20	0	0	0	0	0	0	0	0
QJump	10	50	0	0	0	50	0	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 3 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	0	0	0	20	0	20	0	0	0	0	0	0	0	0
Extend	10	35	0	0	0	35	0	20	0	0	0	0	0	0	0	0
QJump	10	35	0	0	0	35	0	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 4 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	0	0	0	20	0	20	0	0	0	0	0	0	0	0
Extend	10	70	0	0	0	70	0	20	0	0	0	0	0	0	0	0
QJump	10	70	0	0	0	70	0	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 5 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 6 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 7 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 8 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 9 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 10 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 11 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 12 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 13 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 14 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 15 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 16 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1.6 Logic Gate 1

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	4		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 2

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	4		0	0
IN2	Logic Output	4		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 3

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	5		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 4

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	5		0	0
IN2	Logic Output	2		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 5

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	4		0	0
IN2	Vehicle Detector	13		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	5		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 6

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	5		0	0
IN2	Vehicle Detector	27		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	6		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 7

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	4		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	7		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 8

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	5		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	8		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 9

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	4		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 10

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	4		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 11

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	5		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 12

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	5		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 13

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 14

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 15

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 16

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 17

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 18

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 19

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 20

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 21

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 22

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 23

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 24

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 25

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 26

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 27

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 28

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 29

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 30

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 31

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 32

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.5.3.1 2070 FIO Input Mapping

Pins	Function	IDX
C1-39	Vehicle Detector	2
C1-40	Vehicle Detector	16
C1-41	Vehicle Detector	8
C1-42	Vehicle Detector	22
C1-43	Vehicle Detector	3
C1-44	Vehicle Detector	17
C1-45	Vehicle Detector	9
C1-46	Vehicle Detector	23
C1-47	Vehicle Detector	6
C1-48	Vehicle Detector	20
C1-49	Vehicle Detector	12
C1-50	Vehicle Detector	26
C1-51	Preempt Detector	1
C1-52	Preempt Detector	2
C1-53	Man Control Enable	1
C1-54	Unused Input	1
C1-55	Vehicle Detector	15
C1-56	Vehicle Detector	1
C1-57	Vehicle Detector	21
C1-58	Vehicle Detector	7
C1-59	Vehicle Detector	27
C1-60	Vehicle Detector	13
C1-61	Vehicle Detector	28
C1-62	Vehicle Detector	14
C11-10	Unused Input	1
C11-11	Unused Input	1
C11-12	Unused Input	1
C11-13	Unused Input	1
C1-63	Vehicle Detector	4
C1-64	Vehicle Detector	18
C1-65	Vehicle Detector	10
C1-66	Vehicle Detector	24

Pins	Function	IDX
C1-67	Pedestrian Detector	1
C1-68	Pedestrian Detector	3
C1-69	Pedestrian Detector	2
C1-70	Pedestrian Detector	4
C1-71	Preempt Detector	3
C1-72	Unused Input	1
C1-73	Preempt Detector	5
C1-74	Preempt Detector	6
C1-75	Unused Input	1
C1-76	Vehicle Detector	5
C1-77	Vehicle Detector	19
C1-78	Vehicle Detector	11
C1-79	Vehicle Detector	25
C1-80	Interval Advance	1
C1-81	MMU Flash	1
C1-82	Stop Time All Rings	1
C11-15	Unused Input	1
C11-16	Unused Input	1
C11-17	Unused Input	1
C11-18	Unused Input	1
C11-19	Unused Input	1
C11-20	Unused Input	1
C11-21	Unused Input	1
C11-22	Unused Input	1
C11-23	Unused Input	1
C11-24	Unused Input	1
C11-25	Unused Input	1
C11-26	Unused Input	1
C11-27	Unused Input	1
C11-28	Unused Input	1
C11-29	Unused Input	1
C11-30	Unused Input	1

1.5.3.2 2070 FIO Output Mapping

Pins	Function	IDX
C1-02	Channel Red	6
C1-03	Channel Green	6
C1-04	Channel Red	5
C1-05	Channel Yellow	5
C1-06	Logic Output	1
C1-07	Channel Red	4
C1-08	Channel Yellow	4
C1-09	Logic Output	3
C1-10	Channel Red	3
C1-11	Channel Green	3
C1-12	Channel Red	2
C1-13	Channel Yellow	2
C1-15	Channel Green	2
C1-16	Channel Red	1
C1-17	Channel Yellow	1
C1-18	Channel Green	1
C1-19	Channel Red	12
C1-20	Channel Green	12
C1-21	Channel Red	11
C1-22	Channel Yellow	11
C1-23	Channel Green	11
C1-24	Channel Red	10
C1-25	Channel Yellow	10
C1-26	Channel Green	10
C1-27	Channel Red	9
C1-28	Channel Green	9
C1-29	Channel Red	8
C1-30	Channel Yellow	8
C1-31	Channel Green	8
C1-32	Channel Red	7
C1-33	Channel Yellow	7
C1-34	Channel Green	7

Pins	Function	IDX
C1-35	Logic Output	7
C1-36	Logic Output	8
C1-37	Unused Output	1
C1-38	Unused Output	1
C1-100	Unused Output	1
C1-101	Auto Flash Status	1
C1-102	Detector Reset	1
C1-103	Wdt Reset	1
C1-83	Unused Output	1
C1-84	Unused Output	1
C1-85	Channel Red	16
C1-86	Channel Yellow	16
C1-87	Channel Green	16
C1-88	Channel Red	15
C1-89	Channel Yellow	15
C1-90	Channel Green	15
C1-91	Unused Output	1
C1-93	Unused Output	1
C1-94	Channel Red	14
C1-95	Channel Yellow	14
C1-96	Channel Green	14
C1-97	Channel Red	13
C1-98	Channel Yellow	13
C1-99	Channel Green	13
C11-1	Unused Output	1
C11-2	Unused Output	1
C11-3	Unused Output	1
C11-4	Unused Output	1
C11-5	Unused Output	1
C11-6	Unused Output	1
C11-7	Unused Output	1
C11-8	Unused Output	1

9.3-4 Log Configuration

Volume Occupancy Period	60
VOS Log Combined Periods	0
Speed Trap Log Period	0
Display Metric	
Speed Trap Log Mode	Disabled
VOS Log Mode	Disabled
Cycle MOE Log Mode	Enabled
High Res Log Mode	Enabled
Power On/Off	X
Low Battery	X
Cycle Fault	X
Coord Fault	X
Coord Fail	X
Cycle Fail	X
MMU Flash	X
Local Flash	X
Local Free	X
Preempt Status Change	X
Response Fault	X
Alarm Status Change	X
Door Status Change	X
Pattern Change	X
Detector Status Change	X
Comm Status Change	X
Command Change	X
Data Change Keyboard	X
Controller Download	X
Access Code	X
Priority	X
Manual Control Enable	X
Stop Time	X

6.2 Time Zone

Global DST	Enable DST
Standard Time Zone (+/- hr)	0

A.3 Unit Comms

Unit Backup Time	0

1.5.5 Aux Switch

Function	Stop Time All Rings
Index	1

A.5-6 Time Sync

NTP Server Address	0.0.0.0
NTP Start Hour	0
NTP Start Minute	0
NTP Interval Hour	0
NTP Interval Minute	0
GPS Start Hour	0
GPS Start Minute	0
GPS Interval Hour	0
GPS Interval Minute	0
Enable NTP Svr	

1.7 Port 1

BIU 1 (T&F BIU 1)	Disabled
BIU 2 (T&F BIU 2)	Disabled
BIU 3 (T&F BIU 3)	Disabled
BIU 4 (T&F BIU 4)	Disabled
BIU 9 (Detector BIU 1)	Disabled
BIU 10 (Detector BIU 2)	Disabled
BIU 11 (Detector BIU 3)	Disabled
BIU 12 (Detector BIU 4)	Disabled
MMU	Disabled
Comm Port	SP3

9.3-4 Hi Res Log Setup

Phase Events	
Ped Events	
Barrier/Ring Events	
Phase Control Events	
Overlap Events	
Detector Events	
Preemption Events	
Coordination Events	
Cabinet/System Events	

B.1.1 Menu Security Options

Enable:		Allow Read-Only:		Timeout (min):	60

B.1.2 Menu Security Users

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

A.1 Serial Comms

Port	1	2	3	4	5	8
Protocol	None	None	None	None	None	None
Speed	9600	9600	9600	115200	9600	9600
Parity	None	None	None	None	None	None
Flow Control	None	None	None	None	None	None
Address	0	0	0	0	0	0
Group Address	0	0	0	0	0	0
Data Bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits
Stop Bits	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit
CTS Delay	0	0	0	0	0	0
RTS Extend	0	0	0	0	0	0

A.2 Ethernet Comms

Port	1	2
IP Address	10.242.20.99	0.0.0.0
Net Mask	255.255.255.0	0.0.0.0
Gateway	10.242.20.254	0.0.0.0
NTCIP Port	8015	161
NTCIP Mode	UDP	UDP
AB3418 Port	8001	8001
AB3418 Mode	UDP	UDP
AB3418 Address	1	1
AB3418 Group Address	0	0
Peer to Peer Port	0	0

A.8 SPaT

Unicast Enable	
Dest IP Address	0.0.0.0
Dest Port	0

1.9.1 Peer Device	1	2	3	4	5	6	7	8
System Id	183	290	172	291	0	0	0	0
IP Address	10.242.20.86	10.242.20.100	10.242.20.87	10.242.20.101	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Port	0	0	0	0	0	0	0	0
Message Timeout	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Max Retries	3	3	3	3	3	3	3	3
Heartbeat Time	30	30	30	30	30	30	30	30

1.9.2 Peer Function	1	2	3	4	5	6	7	8
Peer Device Num	1	2	3	4	1	2	0	0
Remote Function	Vehicle Detector	Vehicle Detector	Vehicle Detector	Vehicle Detector	Logic Output	Logic Output	Unused	Unused
Remote Function Idx	14	28	14	28	5	6	1	1
Local Function	Priority Request	Priority Request	Priority Request	Priority Request	Priority Checkout	Priority Checkout	Unused	Unused
Local Function Idx	1	2	3	4	3	4	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	9	10	11	12	13	14	15	16
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	17	18	19	20	21	22	23	24
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	25	26	27	28	29	30	31	32
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Chula Vista
183 East Palomar/Santa Andrea > Unit Configuration > Unit Configuration

B.3 System Information

System Id	183
Name	183 E Palomar & Santa Andrea
Location	East Palomar St & Santa Andrea St

1.2 Unit Setup

Auto Ped Clear	Disabled
Red Revert	3.0
Min Yellow Time	3.0
Texas Dmd Mode	Disabled
Texas Dmd Type	4-Phase

1.3 Startup

Flash	0
All Red	5
Start Veh Call	1,2,3,4,5,6
Start Ped Call	2,4,6

1.4 Channel Setup (1-16)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Type	V	V	P	V	V	P	V	V	P	V	V	P	O	O	O	O
Source	1	2	2	3	4	4	5	6	6	9	0	3	1	2	3	4
Alt 1/2 Hz																
Flash Red	X	X		X	X		X	X		X	X		X	X	X	X
Flash Yel																

1.4 Channel Setup (17-32)

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Type	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

Start Next Phases	

Program Type	McCain Omni eX
Firmware	1.11
Street 1	E Palomar St
Street 2	Santa Andrea St
Last Modified	9/14/2020 11:49 AM

5.1 Coordination Constants

Correction Mode	Shortway
Max Cycles Trans	3
Coord Max Mode	Max Inhibit
Coord Force Mode	Fixed
Perm Strategy	Maximum
Omit Strategy	Minimum
Sync Point	End Green
No Early Return	Disable
Sync Ref Time	0
Operational Mode	0

2.5 Phase Concurrency

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase 1					X	X										
Phase 2					X	X			X	X						
Phase 3																
Phase 4																
Phase 5	X	X														
Phase 6	X	X							X	X						
Phase 7																
Phase 8																
Phase 9		X				X				X						
Phase 10		X				X			X							
Phase 11																
Phase 12																
Phase 13																
Phase 14																
Phase 15																
Phase 16																

2.4 Phase Enable and Rings

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Startup	2	4	2	2	2	4	2	2	2	2	2	2	2	2	2	2
Enabled	X	X	X	X	X	X			X	X						
Ring1	X	X	X	X												
Ring2					X	X										
Ring3									X							
Ring4										X						

2.3 Phase Sequence 1

Ring 1	1,2,3,4
Ring 2	5,6
Ring 3	9
Ring 4	10

2.3 Phase Sequence 2

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 3

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 4

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 5

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 6

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 7

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 8

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 9

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 10

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 11

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 12

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 13

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 14

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 15

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 16

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.1 Phase Parameters Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	4	10	4	4	4	10	0	0	4	4	4	15	4	15	4	15
Passage	2.0	5.0	3.5	3.5	2.0	5.0	0.0	0.0	2.0	2.0	2.0	5.0	2.0	5.0	2.0	5.0
Max 1	30	50	30	40	30	50	0	0	30	30	15	45	15	45	15	45
Max 2	0	0	0	0	0	0	0	0	15	45	15	45	15	45	15	45
Yellow Change	3.2	3.6	3.6	3.6	3.2	3.6	0.0	0.0	4.5	4.5	3.0	4.0	3.0	4.0	3.0	4.0
Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	0.0	0.0	1.0	1.0	1.0	2.0	1.0	2.0	1.0	2.0
Walk	0	7	7	7	0	7	0	0	0	0	0	7	0	7	0	7
Ped Clear	0	10	34	34	0	10	0	0	0	0	0	15	0	15	0	15
Added Initial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduction	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Cars Before Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	2.0	2.0	3.5	3.5	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	3.0	3.0	3.0	3.0	3.0	3.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Cond. Service Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alternate Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Ped Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Advanced Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Delay Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Green Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2.2 Phase Options Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Omit																
Ped Omit																
Min Veh Recall		X				X										
Max Veh Recall																
Soft Veh Recall																
Ped Recall																
Ped Recycle																
Cond. Service																
Lock Detector Memory																
Dual Entry																
Simultaneous Gap	X	X	X	X	X	X										
Guaranteed Passage																
Added Initial Calculation																
Rest In Walk																
Red Rest									X	X						
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
No Backup																
Max Walk																
Max Extension																
Sequential Timing																
No Min Yellow																
FDW Ped Recycle																

3.1 Vehicle Overlap Set 1	1	2	3	4
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.1 Vehicle Overlap Set 1	5	6	7	8
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.2 Pedestrian Overlap Set 1	1
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	2
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	3
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	4
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	5
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	6
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	7
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	8
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

4.1 Vehicle Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Queue																																
Add Init	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Passage	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Red Lock																																
Yellow Lock																																
Volume																																
Occupancy																																
Call Phase	1	2	2	2	2	2	3	4	4	4	4	9	9	0	5	6	6	6	6	6	7	3	3	8	8	10	10	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOS Length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Passage																																
Alt Min Green																																
Adaptive																																
Detector Status																																
Extra Call Phases																																
Call Overlaps																																

4.3 Vehicle Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4.2 Ped Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase	2	4	6	3	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Walk																
Extra Call Phases																
Call Overlaps																

4.4 Ped Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.2 Speed Trap

Speed Trap	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Detector 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Detector 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.3 Speed Trap Bin Ranges

Bin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Range	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.2 Patterns	1	2	3	4	5	6	7	8
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	1	1	1	1	1	1	1	1
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.2 Patterns	9	10	11	12	13	14	15	16
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	1	1	1	1	1	1	1	1
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.3 Split Table 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 8

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 9

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 10

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 11

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 12

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 13

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 14

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 15

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.4 Schedules

	Month												Days Of Week							Date																															Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1
2																																																			0
3																																																			0
4																																																			0
5																																																			0
6																																																			0
7																																																			0
8																																																			0

	Month												Days Of Week							Date																															Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
9																																																			0
10																																																			0
11																																																			0
12																																																			0
13																																																			0
14																																																			0
15																																																			0
16																																																			0

6.5 Day Plan 1

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 1

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.6 Action Parameters	1	2	3	4	5	6	7	8
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	9	10	11	12	13	14	15	16
Pattern	0	0	0	0	0	254	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	17	18	19	20	21	22	23	24
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	25	26	27	28	29	30	31	32
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

7 Preempts	Preempt 1	Preempt 2	Preempt 3	Preempt 4	Preempt 5	Preempt 6	Preempt 7	Preempt 8
Track Phases								
Track Overlaps								
Track Ped								
Track Ped Overlap								
Dwell Phases			2	4	6	3		
Dwell Overlaps								
Dwell Peds								
Dwell Ped Overlap								
Cycling Phases								
Cycling Overlaps								
Cycling Ped								
Cycling Ped Overlap								
Exit Phase								
Locking								
Override Flash								
Override +1								
Flash Dwell								
Enter All Red								
Ignore No Backup								
Max Presence Flash								
Track Green	0	0	0	0	0	0	0	0
Delay	0	0	0	0	0	0	0	0
Maximum Presence	0	0	120	120	120	120	0	0
Minimum Duration	0	0	0	0	0	0	0	0
Minimum Dwell	10	10	0	0	0	0	10	10
Linked Preempt	0	0	0	0	0	0	0	0
Enter Min Green	255	255	0	0	0	0	255	255
Enter Min Walk	255	255	0	0	0	0	255	255
Enter Min Ped Clear	255	255	0	0	0	0	255	255
Enter Min Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Enter Min Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Min Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Min Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Exit Ped Clear	0	0	0	0	0	0	0	0
Exit Yellow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit Red Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Track Green	0	0	0	0	0	0	0	0
Gate Down Ext	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gate Down Flash								
Extend	0	0	0	0	0	0	0	0

Chula Vista
183 East Palomar/Santa Andrea > Transit Priority > TSP Global Strategy

8.1 TSP Global Options

Enable	
1	X
2	X
3	X
4	X
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
Headway	0
Lockout	0
Node	1
Name	Default

8.2 TSP Strategy Options	Strategy 1 Set 1
Enable	X
Override + 1	
Service Phases	2, 6, 9
Call Phases	
Omit Phases	1, 3, 4, 5
Omit Peds	3, 4
Queue Jump Ph	
ETA	10
Input Function	Priority
Input Index	1
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	30
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 2 Set 1
Enable	X
Override + 1	X
Service Phases	2, 6, 10
Call Phases	
Omit Phases	1, 3, 4, 5
Omit Peds	3, 4
Queue Jump Ph	
ETA	22
Input Function	Priority
Input Index	2
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 3 Set 1
Enable	X
Override + 1	
Service Phases	2, 6
Call Phases	
Omit Phases	1, 3, 4, 5
Omit Peds	3, 4
Queue Jump Ph	
ETA	21
Input Function	Priority
Input Index	3
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 4 Set 1
Enable	X
Override + 1	X
Service Phases	2, 6
Call Phases	
Omit Phases	1, 3, 4, 5
Omit Peds	3, 4
Queue Jump Ph	
ETA	51
Input Function	Priority
Input Index	4
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	1.4
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 5 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 6 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 7 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	

8.2 TSP Strategy Options	Strategy 8 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	

8.2 TSP Strategy Options	Strategy 9 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 10 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 11 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 12 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 13 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

8.2 TSP Strategy Options	Strategy 14 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

8.2 TSP Strategy Options	Strategy 15 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 16	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.3 TSP Phase Adjustment Times — Strategy 1 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	15	20	20	10	15	0	0	0	0	0	0	0	0	0	0
Extend	10	15	20	20	10	15	0	0	0	0	0	0	0	0	0	0
QJump	10	15	20	20	10	15	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 2 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	20	20	10	20	0	0	0	0	0	0	0	0	0	0
Extend	10	25	20	20	20	25	0	0	0	0	0	0	0	0	0	0
QJump	10	25	20	20	20	25	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 3 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	20	20	10	20	0	0	0	0	0	0	0	0	0	0
Extend	10	25	20	20	10	25	0	0	0	0	0	0	0	0	0	0
QJump	10	25	20	20	10	25	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 4 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	20	20	10	20	0	0	0	0	0	0	0	0	0	0
Extend	10	70	20	20	10	70	0	0	0	0	0	0	0	0	0	0
QJump	10	70	20	20	10	70	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 5 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 6 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 7 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 8 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 9 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 10 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 11 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 12 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 13 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 14 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 15 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 16 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1.6 Logic Gate 1

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	10		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 2

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	10		0	0
IN2	Logic Output	4		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 3

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	11		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 4

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	11		0	0
IN2	Logic Output	2		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 5

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	10		0	0
IN2	Vehicle Detector	13		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	5		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 6

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	11		0	0
IN2	Vehicle Detector	13		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	6		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 7

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	10		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	7		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 8

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	11		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	8		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 9

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	10		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 10

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	10		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 11

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	11		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 12

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	11		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 13

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 14

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 15

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 16

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 17

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 18

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 19

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 20

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 21

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 22

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 23

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 24

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 25

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 26

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 27

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 28

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 29

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 30

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 31

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 32

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.5.3.1 2070 FIO Input Mapping

Pins	Function	IDX
C1-39	Vehicle Detector	2
C1-40	Vehicle Detector	16
C1-41	Vehicle Detector	8
C1-42	Vehicle Detector	22
C1-43	Vehicle Detector	3
C1-44	Vehicle Detector	17
C1-45	Vehicle Detector	9
C1-46	Vehicle Detector	23
C1-47	Vehicle Detector	6
C1-48	Vehicle Detector	20
C1-49	Vehicle Detector	12
C1-50	Vehicle Detector	26
C1-51	Preempt Detector	1
C1-52	Preempt Detector	2
C1-53	Man Control Enable	1
C1-54	Unused Input	1
C1-55	Vehicle Detector	15
C1-56	Vehicle Detector	1
C1-57	Vehicle Detector	21
C1-58	Vehicle Detector	7
C1-59	Vehicle Detector	27
C1-60	Vehicle Detector	13
C1-61	Vehicle Detector	28
C1-62	Vehicle Detector	14
C11-10	Unused Input	1
C11-11	Unused Input	1
C11-12	Unused Input	1
C11-13	Unused Input	1
C1-63	Vehicle Detector	4
C1-64	Vehicle Detector	18
C1-65	Vehicle Detector	10
C1-66	Vehicle Detector	24

Pins	Function	IDX
C1-67	Pedestrian Detector	1
C1-68	Pedestrian Detector	3
C1-69	Pedestrian Detector	2
C1-70	Pedestrian Detector	4
C1-71	Preempt Detector	3
C1-72	Preempt Detector	4
C1-73	Preempt Detector	5
C1-74	Preempt Detector	6
C1-75	Unused Input	1
C1-76	Vehicle Detector	5
C1-77	Vehicle Detector	19
C1-78	Vehicle Detector	11
C1-79	Vehicle Detector	25
C1-80	Interval Advance	1
C1-81	MMU Flash	1
C1-82	Stop Time All Rings	1
C11-15	Unused Input	1
C11-16	Unused Input	1
C11-17	Unused Input	1
C11-18	Unused Input	1
C11-19	Unused Input	1
C11-20	Unused Input	1
C11-21	Unused Input	1
C11-22	Unused Input	1
C11-23	Unused Input	1
C11-24	Unused Input	1
C11-25	Unused Input	1
C11-26	Unused Input	1
C11-27	Unused Input	1
C11-28	Unused Input	1
C11-29	Unused Input	1
C11-30	Unused Input	1

1.5.3.2 2070 FIO Output Mapping

Pins	Function	IDX
C1-02	Channel Red	6
C1-03	Channel Green	6
C1-04	Channel Red	5
C1-05	Channel Yellow	5
C1-06	Channel Green	5
C1-07	Channel Red	4
C1-08	Channel Yellow	4
C1-09	Channel Green	4
C1-10	Channel Red	3
C1-11	Channel Green	3
C1-12	Channel Red	2
C1-13	Channel Yellow	2
C1-15	Channel Green	2
C1-16	Channel Red	1
C1-17	Channel Yellow	1
C1-18	Channel Green	1
C1-19	Channel Red	12
C1-20	Channel Green	12
C1-21	Channel Red	11
C1-22	Channel Yellow	11
C1-23	Logic Output	1
C1-24	Channel Red	10
C1-25	Channel Yellow	10
C1-26	Logic Output	3
C1-27	Channel Red	9
C1-28	Channel Green	9
C1-29	Channel Red	8
C1-30	Channel Yellow	8
C1-31	Channel Green	8
C1-32	Channel Red	7
C1-33	Channel Yellow	7
C1-34	Channel Green	7

Pins	Function	IDX
C1-35	Logic Output	7
C1-36	Logic Output	8
C1-37	Unused Output	1
C1-38	Unused Output	1
C1-100	Unused Output	1
C1-101	Auto Flash Status	1
C1-102	Detector Reset	1
C1-103	Wdt Reset	1
C1-83	Unused Output	1
C1-84	Unused Output	1
C1-85	Channel Red	16
C1-86	Channel Yellow	16
C1-87	Channel Green	16
C1-88	Channel Red	15
C1-89	Channel Yellow	15
C1-90	Channel Green	15
C1-91	Unused Output	1
C1-93	Unused Output	1
C1-94	Channel Red	14
C1-95	Channel Yellow	14
C1-96	Channel Green	14
C1-97	Channel Red	13
C1-98	Channel Yellow	13
C1-99	Channel Green	13
C11-1	Unused Output	1
C11-2	Unused Output	1
C11-3	Unused Output	1
C11-4	Unused Output	1
C11-5	Unused Output	1
C11-6	Unused Output	1
C11-7	Unused Output	1
C11-8	Unused Output	1

9.3-4 Log Configuration

Volume Occupancy Period	60
VOS Log Combined Periods	0
Speed Trap Log Period	0
Display Metric	
Speed Trap Log Mode	Disabled
VOS Log Mode	Disabled
Cycle MOE Log Mode	Enabled
High Res Log Mode	Enabled
Power On/Off	X
Low Battery	X
Cycle Fault	X
Coord Fault	X
Coord Fail	X
Cycle Fail	X
MMU Flash	X
Local Flash	X
Local Free	X
Preempt Status Change	X
Response Fault	X
Alarm Status Change	X
Door Status Change	X
Pattern Change	X
Detector Status Change	X
Comm Status Change	X
Command Change	X
Data Change Keyboard	X
Controller Download	X
Access Code	X
Priority	X
Manual Control Enable	X
Stop Time	X

6.2 Time Zone

Global DST	Enable DST
Standard Time Zone (+/- hr)	0

A.3 Unit Comms

Unit Backup Time	0

1.5.5 Aux Switch

Function	Stop Time All Rings
Index	1

A.5-6 Time Sync

NTP Server Address	0.0.0.0
NTP Start Hour	0
NTP Start Minute	0
NTP Interval Hour	0
NTP Interval Minute	0
GPS Start Hour	0
GPS Start Minute	0
GPS Interval Hour	0
GPS Interval Minute	0
Enable NTP Svr	

1.7 Port 1

BIU 1 (T&F BIU 1)	Disabled
BIU 2 (T&F BIU 2)	Disabled
BIU 3 (T&F BIU 3)	Disabled
BIU 4 (T&F BIU 4)	Disabled
BIU 9 (Detector BIU 1)	Disabled
BIU 10 (Detector BIU 2)	Disabled
BIU 11 (Detector BIU 3)	Disabled
BIU 12 (Detector BIU 4)	Disabled
MMU	Disabled
Comm Port	SP3

9.3-4 Hi Res Log Setup

Phase Events	
Ped Events	
Barrier/Ring Events	
Phase Control Events	
Overlap Events	
Detector Events	
Preemption Events	
Coordination Events	
Cabinet/System Events	

B.1.1 Menu Security Options

Enable:		Allow Read-Only:		Timeout (min):	60

B.1.2 Menu Security Users

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

A.1 Serial Comms

Port	1	2	3	4	5	8
Protocol	None	None	None	None	None	None
Speed	9600	9600	9600	115200	9600	9600
Parity	None	None	None	None	None	None
Flow Control	None	None	None	None	None	None
Address	0	0	0	0	0	0
Group Address	0	0	0	0	0	0
Data Bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits
Stop Bits	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit
CTS Delay	0	0	0	0	0	0
RTS Extend	0	0	0	0	0	0

A.2 Ethernet Comms

Port	1	2
IP Address	10.242.20.86	0.0.0.0
Net Mask	255.255.255.0	0.0.0.0
Gateway	10.242.20.254	0.0.0.0
NTCIP Port	8015	161
NTCIP Mode	UDP	UDP
AB3418 Port	8001	8001
AB3418 Mode	UDP	UDP
AB3418 Address	1	1
AB3418 Group Address	0	0
Peer to Peer Port	0	0

A.8 SPaT

Unicast Enable	
Dest IP Address	0.0.0.0
Dest Port	0

1.9.1 Peer Device	1	2	3	4	5	6	7	8
System Id	172	289	182	290	0	0	0	0
IP Address	10.242.20.87	10.242.20.99	10.242.20.85	10.242.20.100	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Port	0	0	0	0	0	0	0	0
Message Timeout	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Max Retries	3	3	3	3	3	3	3	3
Heartbeat Time	30	30	30	30	30	30	30	30

1.9.2 Peer Function	1	2	3	4	5	6	7	8
Peer Device Num	1	2	3	4	1	2	0	0
Remote Function	Vehicle Detector	Vehicle Detector	Vehicle Detector	Vehicle Detector	Logic Output	Logic Output	Unused	Unused
Remote Function Idx	14	28	14	28	5	6	1	1
Local Function	Priority Request	Priority Request	Priority Request	Priority Request	Priority Checkout	Priority Checkout	Unused	Unused
Local Function Idx	1	2	3	4	3	4	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	9	10	11	12	13	14	15	16
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	17	18	19	20	21	22	23	24
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	25	26	27	28	29	30	31	32
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Chula Vista
291 East Palomar/Santa Delphina > Unit Configuration > Unit Configuration

B.3 System Information

System Id	291
Name	291 E Palomar/Santa Delphina
Location	East Palomar St & Santa Delphina Ave

1.2 Unit Setup

Auto Ped Clear	Disabled
Red Revert	3.0
Min Yellow Time	3.0
Texas Dmd Mode	Disabled
Texas Dmd Type	4-Phase

1.3 Startup

Flash	0
All Red	5
Start Veh Call	2,4,5,6
Start Ped Call	4,6

1.4 Channel Setup (1-16)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Type	V	V	P	V	V	P	V	V	P	V	V	P	O	O	O	O
Source	1	2	2	3	4	4	5	6	6	9	0	8	1	2	3	4
Alt 1/2 Hz																
Flash Red	X	X		X	X		X	X		X	X		X	X	X	X
Flash Yel																

1.4 Channel Setup (17-32)

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Type	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

Start Next Phases	

Program Type	McCain Omni eX
Firmware	1.10
Street 1	East Palomar St
Street 2	Santa Delphina Ave
Last Modified	9/14/2020 2:51 PM

5.1 Coordination Constants

Correction Mode	Shortway
Max Cycles Trans	3
Coord Max Mode	Max Inhibit
Coord Force Mode	Fixed
Perm Strategy	Maximum
Omit Strategy	Minimum
Sync Point	End Green
No Early Return	Disable
Sync Ref Time	0
Operational Mode	0

2.5 Phase Concurrency

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase 1																
Phase 2					X	X			X	X						
Phase 3																
Phase 4																
Phase 5		X														
Phase 6		X							X	X						
Phase 7																
Phase 8																
Phase 9		X				X				X						
Phase 10		X				X			X							
Phase 11																
Phase 12																
Phase 13																
Phase 14																
Phase 15																
Phase 16																

2.4 Phase Enable and Rings

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Startup	2	4	2	2	2	4	2	2	2	2	2	2	2	2	2	2
Enabled		X		X	X	X			X	X						
Ring1	X	X	X	X												
Ring2					X	X	X	X								
Ring3									X							
Ring4										X						

2.3 Phase Sequence 1

Ring 1	2,4
Ring 2	5,6
Ring 3	9
Ring 4	10

2.3 Phase Sequence 2

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 3

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 4

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 5

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 6

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 7

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 8

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 9

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 10

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 11

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 12

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 13

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 14

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 15

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 16

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.1 Phase Parameters Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	0	10	0	4	4	10	0	0	4	4	4	15	4	15	4	15
Passage	0.0	3.6	0.0	2.5	2.0	3.6	0.0	0.0	2.0	2.0	2.0	5.0	2.0	5.0	2.0	5.0
Max 1	0	50	0	40	30	50	0	0	30	30	15	45	15	45	15	45
Max 2	0	0	0	0	0	0	0	0	15	45	15	45	15	45	15	45
Yellow Change	0.0	3.9	0.0	3.6	3.2	4.1	0.0	0.0	4.5	4.5	3.0	4.0	3.0	4.0	3.0	4.0
Red Clear	0.0	1.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	1.0	1.0	2.0	1.0	2.0	1.0	2.0
Walk	0	0	0	7	0	7	0	0	0	0	0	7	0	7	0	7
Ped Clear	0	0	0	27	0	11	0	0	0	0	0	15	0	15	0	15
Added Initial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduction	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Cars Before Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	0.0	2.0	0.0	2.5	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	0.0	3.0	0.0	3.0	3.0	3.0	0.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Cond. Service Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alternate Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Ped Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Advanced Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Delay Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Green Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2.2 Phase Options Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Omit																
Ped Omit																
Min Veh Recall		X				X										
Max Veh Recall																
Soft Veh Recall																
Ped Recall																
Ped Recycle																
Cond. Service																
Lock Detector Memory																
Dual Entry																
Simultaneous Gap	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Guaranteed Passage																
Added Initial Calculation																
Rest In Walk																
Red Rest									X	X						
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
No Backup																
Max Walk																
Max Extension																
Sequential Timing																
No Min Yellow																
FDW Ped Recycle																

3.1 Vehicle Overlap Set 1	1	2	3	4
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.1 Vehicle Overlap Set 1	5	6	7	8
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.2 Pedestrian Overlap Set 1	1
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	2
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	3
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	4
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	5
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	6
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	7
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	8
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

4.1 Vehicle Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Queue																																
Add Init	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Passage	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Red Lock																																
Yellow Lock																																
Volume																																
Occupancy																																
Call Phase	1	2	2	2	2	2	3	4	4	4	4	9	9	0	5	6	6	6	6	6	7	8	8	8	8	10	10	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOS Length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Passage																																
Alt Min Green																																
Adaptive																																
Detector Status																																
Extra Call Phases																																
Call Overlaps																																

4.3 Vehicle Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4.2 Ped Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase	2	4	6	8	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Walk																
Extra Call Phases																
Call Overlaps																

4.4 Ped Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.2 Speed Trap

Speed Trap	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Detector 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Detector 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.3 Speed Trap Bin Ranges

Bin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Range	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.2 Patterns	1	2	3	4	5	6	7	8
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	1	2	3	4	5	6	7	8
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.2 Patterns	9	10	11	12	13	14	15	16
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	9	10	11	12	13	14	15	16
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.3 Split Table 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 8

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 9

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 10

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 11

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 12

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 13

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 14

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 15

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.4 Schedules

	Month												Days Of Week							Date																															Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1
2																																																			0
3																																																			0
4																																																			0
5																																																			0
6																																																			0
7																																																			0
8																																																			0

	Month												Days Of Week							Date																															Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
9																																																			0
10																																																			0
11																																																			0
12																																																			0
13																																																			0
14																																																			0
15																																																			0
16																																																			0

6.5 Day Plan 1

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 1

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.6 Action Parameters	1	2	3	4	5	6	7	8
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	9	10	11	12	13	14	15	16
Pattern	0	0	0	0	0	254	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	17	18	19	20	21	22	23	24
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	25	26	27	28	29	30	31	32
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

7 Preempts	Preempt 1	Preempt 2	Preempt 3	Preempt 4	Preempt 5	Preempt 6	Preempt 7	Preempt 8
Track Phases								
Track Overlaps								
Track Ped								
Track Ped Overlap								
Dwell Phases			2	4	6			
Dwell Overlaps								
Dwell Peds								
Dwell Ped Overlap								
Cycling Phases								
Cycling Overlaps								
Cycling Ped								
Cycling Ped Overlap								
Exit Phase								
Locking								
Override Flash								
Override +1								
Flash Dwell								
Enter All Red								
Ignore No Backup								
Max Presence Flash								
Track Green	0	0	0	0	0	0	0	0
Delay	0	0	0	0	0	0	0	0
Maximum Presence	0	0	120	120	120	120	0	0
Minimum Duration	0	0	0	0	0	0	0	0
Minimum Dwell	0	0	0	0	0	0	0	0
Linked Preempt	0	0	0	0	0	0	0	0
Enter Min Green	255	255	0	0	0	0	255	255
Enter Min Walk	255	255	0	0	0	0	255	255
Enter Min Ped Clear	255	255	0	0	0	0	255	255
Enter Min Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Enter Min Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Min Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Min Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Exit Ped Clear	0	0	0	0	0	0	0	0
Exit Yellow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit Red Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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8.1 TSP Global Options

Enable	
1	X
2	X
3	X
4	X
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
Headway	0
Lockout	0
Node	1
Name	

8.2 TSP Strategy Options	Strategy 1 Set 1
Enable	X
Override + 1	
Service Phases	2, 6, 9
Call Phases	
Omit Phases	4, 5
Omit Peds	4
Queue Jump Ph	
ETA	23
Input Function	Priority
Input Index	1
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 2 Set 1
Enable	X
Override + 1	X
Service Phases	2, 6, 10
Call Phases	
Omit Phases	4, 5
Omit Peds	4
Queue Jump Ph	
ETA	14
Input Function	Priority
Input Index	2
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 3 Set 1
Enable	X
Override + 1	
Service Phases	2, 6
Call Phases	
Omit Phases	4, 5
Omit Peds	4
Queue Jump Ph	
ETA	44
Input Function	Priority
Input Index	3
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	2.2
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 4 Set 1
Enable	X
Override + 1	X
Service Phases	2, 6
Call Phases	
Omit Phases	4, 5
Omit Peds	4
Queue Jump Ph	
ETA	33
Input Function	Priority
Input Index	4
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 5 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 6 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 7 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	

8.2 TSP Strategy Options	Strategy 8 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	

8.2 TSP Strategy Options	Strategy 9 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 10 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 11 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 12 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 13 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

8.2 TSP Strategy Options	Strategy 14 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

8.2 TSP Strategy Options	Strategy 15 | Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 16	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.3 TSP Phase Adjustment Times — Strategy 1 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	20	0	20	10	20	0	0	0	0	0	0	0	0	0	0
Extend	0	25	0	20	10	25	0	0	0	0	0	0	0	0	0	0
QJump	0	25	0	20	10	25	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 2 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	20	0	20	10	20	0	0	0	0	0	0	0	0	0	0
Extend	0	20	0	20	10	20	0	0	0	0	0	0	0	0	0	0
QJump	0	20	0	20	10	20	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 3 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	20	0	20	10	20	0	0	0	0	0	0	0	0	0	0
Extend	0	70	0	20	10	70	0	0	0	0	0	0	0	0	0	0
QJump	0	70	0	20	10	70	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 4 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	20	0	20	10	20	0	0	0	0	0	0	0	0	0	0
Extend	0	35	0	20	10	35	0	0	0	0	0	0	0	0	0	0
QJump	0	35	0	20	10	35	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 5 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 6 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 7 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 8 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 9 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 10 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 11 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 12 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 13 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 14 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 15 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 16 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1.6 Logic Gate 1

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	10		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 2

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	10		0	0
IN2	Logic Output	4		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 3

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	11		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 4

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	11		0	0
IN2	Logic Output	2		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 5

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	10		0	0
IN2	Vehicle Detector	13		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	5		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 6

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	11		0	0
IN2	Vehicle Detector	27		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	6		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 7

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	10		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	7		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 8

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	11		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	8		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 9

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	10		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 10

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	10		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 11

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	11		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 12

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	11		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	4		0	0
Delay/Extend Units	Seconds				

1.6 Logic Gate 13

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 14

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 15

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 16

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 17

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 18

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 19

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 20

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 21

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 22

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 23

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 24

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 25

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 26

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 27

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Seconds				

1.6 Logic Gate 28

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 29

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 30

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 31

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 32

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.5.3.1 2070 FIO Input Mapping

Pins	Function	IDX
C1-39	Vehicle Detector	2
C1-40	Vehicle Detector	16
C1-41	Vehicle Detector	8
C1-42	Vehicle Detector	22
C1-43	Vehicle Detector	3
C1-44	Vehicle Detector	17
C1-45	Vehicle Detector	9
C1-46	Vehicle Detector	23
C1-47	Vehicle Detector	6
C1-48	Vehicle Detector	20
C1-49	Vehicle Detector	12
C1-50	Vehicle Detector	26
C1-51	Preempt Detector	1
C1-52	Preempt Detector	2
C1-53	Man Control Enable	1
C1-54	Unused Input	1
C1-55	Vehicle Detector	15
C1-56	Vehicle Detector	1
C1-57	Vehicle Detector	21
C1-58	Vehicle Detector	7
C1-59	Vehicle Detector	27
C1-60	Vehicle Detector	13
C1-61	Vehicle Detector	28
C1-62	Vehicle Detector	14
C11-10	Unused Input	1
C11-11	Unused Input	1
C11-12	Unused Input	1
C11-13	Unused Input	1
C1-63	Vehicle Detector	4
C1-64	Vehicle Detector	18
C1-65	Vehicle Detector	10
C1-66	Vehicle Detector	24

Pins	Function	IDX
C1-67	Pedestrian Detector	1
C1-68	Pedestrian Detector	3
C1-69	Pedestrian Detector	2
C1-70	Pedestrian Detector	4
C1-71	Preempt Detector	3
C1-72	Preempt Detector	4
C1-73	Preempt Detector	5
C1-74	Unused Input	1
C1-75	Unused Input	1
C1-76	Vehicle Detector	5
C1-77	Vehicle Detector	19
C1-78	Vehicle Detector	11
C1-79	Vehicle Detector	25
C1-80	Interval Advance	1
C1-81	MMU Flash	1
C1-82	Stop Time All Rings	1
C11-15	Unused Input	1
C11-16	Unused Input	1
C11-17	Unused Input	1
C11-18	Unused Input	1
C11-19	Unused Input	1
C11-20	Unused Input	1
C11-21	Unused Input	1
C11-22	Unused Input	1
C11-23	Unused Input	1
C11-24	Unused Input	1
C11-25	Unused Input	1
C11-26	Unused Input	1
C11-27	Unused Input	1
C11-28	Unused Input	1
C11-29	Unused Input	1
C11-30	Unused Input	1

1.5.3.2 2070 FIO Output Mapping

Pins	Function	IDX
C1-02	Channel Red	6
C1-03	Channel Green	6
C1-04	Channel Red	5
C1-05	Channel Yellow	5
C1-06	Channel Green	5
C1-07	Channel Red	4
C1-08	Channel Yellow	4
C1-09	Channel Green	4
C1-10	Channel Red	3
C1-11	Channel Green	3
C1-12	Channel Red	2
C1-13	Channel Yellow	2
C1-15	Channel Green	2
C1-16	Channel Red	1
C1-17	Channel Yellow	1
C1-18	Channel Green	1
C1-19	Channel Red	12
C1-20	Channel Green	12
C1-21	Channel Red	11
C1-22	Channel Yellow	11
C1-23	Logic Output	1
C1-24	Channel Red	10
C1-25	Channel Yellow	10
C1-26	Logic Output	3
C1-27	Channel Red	9
C1-28	Channel Green	9
C1-29	Channel Red	8
C1-30	Channel Yellow	8
C1-31	Channel Green	8
C1-32	Channel Red	7
C1-33	Channel Yellow	7
C1-34	Channel Green	7

Pins	Function	IDX
C1-35	Logic Output	7
C1-36	Logic Output	8
C1-37	Unused Output	1
C1-38	Unused Output	1
C1-100	Unused Output	1
C1-101	Auto Flash Status	1
C1-102	Detector Reset	1
C1-103	Wdt Reset	1
C1-83	Unused Output	1
C1-84	Unused Output	1
C1-85	Channel Red	16
C1-86	Channel Yellow	16
C1-87	Channel Green	16
C1-88	Channel Red	15
C1-89	Channel Yellow	15
C1-90	Channel Green	15
C1-91	Unused Output	1
C1-93	Unused Output	1
C1-94	Channel Red	14
C1-95	Channel Yellow	14
C1-96	Channel Green	14
C1-97	Channel Red	13
C1-98	Channel Yellow	13
C1-99	Channel Green	13
C11-1	Unused Output	1
C11-2	Unused Output	1
C11-3	Unused Output	1
C11-4	Unused Output	1
C11-5	Unused Output	1
C11-6	Unused Output	1
C11-7	Unused Output	1
C11-8	Unused Output	1

9.3-4 Log Configuration

Volume Occupancy Period	60
VOS Log Combined Periods	0
Speed Trap Log Period	0
Display Metric	
Speed Trap Log Mode	Disabled
VOS Log Mode	Disabled
Cycle MOE Log Mode	Enabled
High Res Log Mode	Enabled
Power On/Off	X
Low Battery	X
Cycle Fault	X
Coord Fault	X
Coord Fail	X
Cycle Fail	X
MMU Flash	X
Local Flash	X
Local Free	X
Preempt Status Change	X
Response Fault	X
Alarm Status Change	X
Door Status Change	X
Pattern Change	X
Detector Status Change	X
Comm Status Change	X
Command Change	X
Data Change Keyboard	X
Controller Download	X
Access Code	X
Priority	X
Manual Control Enable	X
Stop Time	X

6.2 Time Zone

Global DST	Enable DST
Standard Time Zone (+/- hr)	0

A.3 Unit Comms

Unit Backup Time	0

1.5.5 Aux Switch

Function	Stop Time All Rings
Index	1

A.5-6 Time Sync

NTP Server Address	0.0.0.0
NTP Start Hour	0
NTP Start Minute	0
NTP Interval Hour	0
NTP Interval Minute	0
GPS Start Hour	0
GPS Start Minute	0
GPS Interval Hour	0
GPS Interval Minute	0
Enable NTP Svr	

1.7 Port 1

BIU 1 (T&F BIU 1)	Disabled
BIU 2 (T&F BIU 2)	Disabled
BIU 3 (T&F BIU 3)	Disabled
BIU 4 (T&F BIU 4)	Disabled
BIU 9 (Detector BIU 1)	Disabled
BIU 10 (Detector BIU 2)	Disabled
BIU 11 (Detector BIU 3)	Disabled
BIU 12 (Detector BIU 4)	Disabled
MMU	Disabled
Comm Port	SP3

9.3-4 Hi Res Log Setup

Phase Events	
Ped Events	
Barrier/Ring Events	
Phase Control Events	
Overlap Events	
Detector Events	
Preemption Events	
Coordination Events	
Cabinet/System Events	

B.1.1 Menu Security Options

Enable:		Allow Read-Only:		Timeout (min):	60

B.1.2 Menu Security Users

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

A.1 Serial Comms

Port	1	2	3	4	5	8
Protocol	None	None	None	None	None	None
Speed	9600	9600	9600	115200	9600	9600
Parity	None	None	None	None	None	None
Flow Control	None	None	None	None	None	None
Address	0	0	0	0	0	0
Group Address	0	0	0	0	0	0
Data Bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits
Stop Bits	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit
CTS Delay	0	0	0	0	0	0
RTS Extend	0	0	0	0	0	0

A.2 Ethernet Comms

Port	1	2
IP Address	10.242.20.101	0.0.0.0
Net Mask	255.255.255.0	0.0.0.0
Gateway	10.242.20.254	0.0.0.0
NTCIP Port	8015	161
NTCIP Mode	UDP	UDP
AB3418 Port	8001	8001
AB3418 Mode	UDP	UDP
AB3418 Address	1	1
AB3418 Group Address	0	0
Peer to Peer Port	0	0

A.8 SPaT

Unicast Enable	
Dest IP Address	0.0.0.0
Dest Port	0

1.9.1 Peer Device	1	2	3	4	5	6	7	8
System Id	290	152	289	178	0	0	0	0
IP Address	10.242.20.100	10.242.20.91	10.242.20.99	10.242.20.93	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Port	49255	49255	49255	49255	49255	49255	49255	49255
Message Timeout	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Max Retries	3	3	3	3	3	3	3	3
Heartbeat Time	30	30	30	30	30	30	30	30

1.9.2 Peer Function	1	2	3	4	5	6	7	8
Peer Device Num	1	2	3	4	1	2	0	0
Remote Function	Vehicle Detector	Vehicle Detector	Vehicle Detector	Vehicle Detector	Logic Output	Logic Output	Unused	Unused
Remote Function Idx	14	28	14	28	5	6	1	1
Local Function	Priority Request	Priority Request	Priority Request	Priority Request	Priority Checkout	Priority Checkout	Unused	Unused
Local Function Idx	1	2	3	4	3	4	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	9	10	11	12	13	14	15	16
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	17	18	19	20	21	22	23	24
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	25	26	27	28	29	30	31	32
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

Chula Vista
290 East Palomar/Santa Flora > Unit Configuration > Unit Configuration

B.3 System Information

System Id	290
Name	290 E Palomar/Santa Flora
Location	East Palomar St & Santa Flora Rd

1.2 Unit Setup

Auto Ped Clear	Disabled
Red Revert	3.0
Min Yellow Time	3.0
Texas Dmd Mode	Disabled
Texas Dmd Type	4-Phase

1.3 Startup

Flash	0
All Red	5
Start Veh Call	1,2,6,8
Start Ped Call	2,8

1.4 Channel Setup (1-16)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Type	V	V	P	V	V	P	V	V	P	V	V	P	O	O	O	O
Source	1	2	2	9	0	4	5	6	6	7	8	8	1	2	3	4
Alt 1/2 Hz																
Flash Red	X	X		X	X		X	X		X	X		X	X	X	X
Flash Yel																

1.4 Channel Setup (17-32)

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Type	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

Start Next Phases	

Program Type	McCain Omni eX
Firmware	1.10
Street 1	Santa Flora Rd
Street 2	East Palomar St
Last Modified	9/14/2020 2:29 PM

5.1 Coordination Constants

Correction Mode	Shortway
Max Cycles Trans	3
Coord Max Mode	Max Inhibit
Coord Force Mode	Fixed
Perm Strategy	Maximum
Omit Strategy	Minimum
Sync Point	End Green
No Early Return	Disable
Sync Ref Time	0
Operational Mode	0

2.5 Phase Concurrency

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase 1						X										
Phase 2						X			X	X						
Phase 3																
Phase 4																
Phase 5																
Phase 6	X	X							X	X						
Phase 7																
Phase 8																
Phase 9		X				X				X						
Phase 10		X				X			X							
Phase 11																
Phase 12																
Phase 13																
Phase 14																
Phase 15																
Phase 16																

2.4 Phase Enable and Rings

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Startup	2	4	2	2	2	4	2	2	2	2	2	2	2	2	2	2
Enabled	X	X				X		X	X	X						
Ring1	X	X														
Ring2						X		X								
Ring3									X							
Ring4										X						

2.3 Phase Sequence 1

Ring 1	1,2
Ring 2	6,8
Ring 3	9
Ring 4	10

2.3 Phase Sequence 2

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 3

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 4

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 5

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 6

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 7

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 8

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 9

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 10

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 11

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 12

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 13

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 14

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 15

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 16

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.1 Phase Parameters Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	4	10	0	0	0	10	0	4	4	4	4	15	4	15	4	15
Passage	2.0	3.6	0.0	0.0	0.0	3.6	0.0	3.5	2.0	2.0	2.0	5.0	2.0	5.0	2.0	5.0
Max 1	30	40	0	0	0	40	0	40	30	30	15	45	15	45	15	45
Max 2	0	0	0	0	0	0	0	0	15	45	15	45	15	45	15	45
Yellow Change	3.2	3.9	0.0	0.0	0.0	3.9	0.0	3.6	4.5	4.5	3.0	4.0	3.0	4.0	3.0	4.0
Red Clear	1.0	1.0	0.0	0.0	0.0	1.0	0.0	1.0	1.0	1.0	1.0	2.0	1.0	2.0	1.0	2.0
Walk	0	7	0	0	0	0	0	7	0	0	0	7	0	7	0	7
Ped Clear	0	8	0	0	0	0	0	28	0	0	0	15	0	15	0	15
Added Initial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduction	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Cars Before Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	2.0	2.0	0.0	0.0	0.0	2.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	3.0	3.0	0.0	0.0	0.0	3.0	0.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Cond. Service Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alternate Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Ped Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Advanced Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Delay Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Green Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2.2 Phase Options Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Omit																
Ped Omit																
Min Veh Recall		X				X										
Max Veh Recall																
Soft Veh Recall																
Ped Recall																
Ped Recycle																
Cond. Service																
Lock Detector Memory																
Dual Entry																
Simultaneous Gap	X	X				X		X								
Guaranteed Passage																
Added Initial Calculation																
Rest In Walk																
Red Rest									X	X						
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
No Backup																
Max Walk																
Max Extension																
Sequential Timing																
No Min Yellow																
FDW Ped Recycle																

3.1 Vehicle Overlap Set 1	1	2	3	4
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.1 Vehicle Overlap Set 1	5	6	7	8
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.2 Pedestrian Overlap Set 1	1
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	2
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	3
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	4
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	5
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	6
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	7
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	8
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

4.1 Vehicle Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Queue																																
Add Init	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Passage	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Red Lock																																
Yellow Lock																																
Volume																																
Occupancy																																
Call Phase	1	2	2	2	2	2	3	4	4	4	4	9	9	0	5	6	6	6	6	6	7	8	8	8	8	10	10	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOS Length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Passage																																
Alt Min Green																																
Adaptive																																
Detector Status																																
Extra Call Phases																																
Call Overlaps																																

4.3 Vehicle Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4.2 Ped Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase	2	4	6	8	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Walk																
Extra Call Phases																
Call Overlaps																

4.4 Ped Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.2 Speed Trap

Speed Trap	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Detector 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Detector 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.3 Speed Trap Bin Ranges

Bin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Range	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.2 Patterns	1	2	3	4	5	6	7	8
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	1	1	1	1	1	1	1	1
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.2 Patterns	9	10	11	12	13	14	15	16
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	1	1	1	1	1	1	1	1
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.3 Split Table 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 8

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 9

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 10

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 11

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 12

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 13

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 14

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 15

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.4 Schedules

	Month												Days Of Week							Date																															Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1
2																																																			0
3																																																			0
4																																																			0
5																																																			0
6																																																			0
7																																																			0
8																																																			0

	Month												Days Of Week							Date																															Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
9																																																			0
10																																																			0
11																																																			0
12																																																			0
13																																																			0
14																																																			0
15																																																			0
16																																																			0

6.5 Day Plan 1

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 1

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.6 Action Parameters	1	2	3	4	5	6	7	8
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	9	10	11	12	13	14	15	16
Pattern	0	0	0	0	0	254	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	17	18	19	20	21	22	23	24
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	25	26	27	28	29	30	31	32
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

7 Preempts	Preempt 1	Preempt 2	Preempt 3	Preempt 4	Preempt 5	Preempt 6	Preempt 7	Preempt 8
Track Phases								
Track Overlaps								
Track Ped								
Track Ped Overlap								
Dwell Phases			2		6	8		
Dwell Overlaps								
Dwell Peds								
Dwell Ped Overlap								
Cycling Phases								
Cycling Overlaps								
Cycling Ped								
Cycling Ped Overlap								
Exit Phase								
Locking								
Override Flash								
Override +1								
Flash Dwell								
Enter All Red								
Ignore No Backup								
Max Presence Flash								
Track Green	0	0	0	0	0	0	0	0
Delay	0	0	0	0	0	0	0	0
Maximum Presence	0	0	120	120	120	120	0	0
Minimum Duration	0	0	0	0	0	0	0	0
Minimum Dwell	10	10	0	0	0	0	10	10
Linked Preempt	0	0	0	0	0	0	0	0
Enter Min Green	255	255	0	0	0	0	255	255
Enter Min Walk	255	255	0	0	0	0	255	255
Enter Min Ped Clear	255	255	0	0	0	255	255	255
Enter Min Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Enter Min Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Min Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Min Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Exit Ped Clear	0	0	0	0	0	0	0	0
Exit Yellow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit Red Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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Transparity®

8.1 TSP Global Options

Enable	
1	X
2	X
3	X
4	X
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
Headway	0
Lockout	0
Node	1
Name	

8.2 TSP Strategy Options	Strategy 1 Set 1
Enable	X
Override + 1	
Service Phases	2, 6
Call Phases	
Omit Phases	1, 8
Omit Peds	8
Queue Jump Ph	
ETA	41
Input Function	Priority
Input Index	1
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 2 Set 1
Enable	X
Override + 1	X
Service Phases	2, 6, 10
Call Phases	
Omit Phases	1, 8
Omit Peds	8
Queue Jump Ph	
ETA	27
Input Function	Priority
Input Index	2
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 3 Set 1
Enable	X
Override + 1	
Service Phases	2, 6
Call Phases	
Omit Phases	1, 8
Omit Peds	8
Queue Jump Ph	
ETA	45
Input Function	Priority
Input Index	3
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	1.7
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 4 Set 1
Enable	X
Override + 1	X
Service Phases	2, 6
Call Phases	
Omit Phases	1, 8
Omit Peds	8
Queue Jump Ph	
ETA	39
Input Function	Priority
Input Index	4
Input Type	Steady
Request Mode	Checkin (Leading Edge)
Checkout Mode	Checkout (Leading Edge)
Checkout Time	20
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 5 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 6 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 7 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	

8.2 TSP Strategy Options	Strategy 8 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	

8.2 TSP Strategy Options	Strategy 9 Set 1
Enable	
Override + 1	
Service Phases	
Call Phases	

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 10	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 11	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 12	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 13	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	

8.2 TSP Strategy Options	Strategy 14	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	

8.2 TSP Strategy Options	Strategy 15	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 16	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.3 TSP Phase Adjustment Times — Strategy 1 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	0	0	0	20	0	20	0	0	0	0	0	0	0	0
Extend	10	45	0	0	0	45	0	20	0	0	0	0	0	0	0	0
QJump	10	45	0	0	0	45	0	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 2 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	0	0	0	20	0	20	0	0	0	0	0	0	0	0
Extend	10	30	0	0	0	30	0	20	0	0	0	0	0	0	0	0
QJump	10	30	0	0	0	30	0	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 3 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	0	0	0	20	0	20	0	0	0	0	0	0	0	0
Extend	10	65	0	0	0	65	0	20	0	0	0	0	0	0	0	0
QJump	10	65	0	0	0	65	0	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 4 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	0	0	0	20	0	20	0	0	0	0	0	0	0	0
Extend	10	40	0	0	0	40	0	20	0	0	0	0	0	0	0	0
QJump	10	40	0	0	0	40	0	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 5 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 6 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 7 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 8 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 9 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 10 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 11 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 12 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 13 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 14 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 15 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 16 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1.6 Logic Gate 1

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	4		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 2

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	4		0	0
IN2	Logic Output	4		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 3

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	5		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 4

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	5		0	0
IN2	Logic Output	2		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 5

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	4		0	0
IN2	Vehicle Detector	13		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	5		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 6

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	5		0	0
IN2	Vehicle Detector	27		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	6		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 7

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	4		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	7		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 8

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	5		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	8		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 9

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	4		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 10

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	4		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 11

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	5		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 12

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	5		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 13

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 14

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 15

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 16

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 17

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 18

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 19

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 20

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 21

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 22

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 23

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 24

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 25

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 26

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 27

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 28

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 29

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 30

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 31

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 32

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.5.3.1 2070 FIO Input Mapping

Pins	Function	IDX
C1-39	Vehicle Detector	2
C1-40	Vehicle Detector	16
C1-41	Vehicle Detector	8
C1-42	Vehicle Detector	22
C1-43	Vehicle Detector	3
C1-44	Vehicle Detector	17
C1-45	Vehicle Detector	9
C1-46	Vehicle Detector	23
C1-47	Vehicle Detector	6
C1-48	Vehicle Detector	20
C1-49	Vehicle Detector	12
C1-50	Vehicle Detector	26
C1-51	Preempt Detector	1
C1-52	Preempt Detector	2
C1-53	Man Control Enable	1
C1-54	Unused Input	1
C1-55	Vehicle Detector	15
C1-56	Vehicle Detector	1
C1-57	Vehicle Detector	21
C1-58	Vehicle Detector	7
C1-59	Vehicle Detector	27
C1-60	Vehicle Detector	13
C1-61	Vehicle Detector	28
C1-62	Vehicle Detector	14
C11-10	Unused Input	1
C11-11	Unused Input	1
C11-12	Unused Input	1
C11-13	Unused Input	1
C1-63	Vehicle Detector	4
C1-64	Vehicle Detector	18
C1-65	Vehicle Detector	10
C1-66	Vehicle Detector	24

Pins	Function	IDX
C1-67	Pedestrian Detector	1
C1-68	Pedestrian Detector	3
C1-69	Pedestrian Detector	2
C1-70	Pedestrian Detector	4
C1-71	Preempt Detector	3
C1-72	Unused Input	1
C1-73	Preempt Detector	5
C1-74	Preempt Detector	6
C1-75	Unused Input	1
C1-76	Vehicle Detector	5
C1-77	Vehicle Detector	19
C1-78	Vehicle Detector	11
C1-79	Vehicle Detector	25
C1-80	Interval Advance	1
C1-81	MMU Flash	1
C1-82	Stop Time All Rings	1
C11-15	Unused Input	1
C11-16	Unused Input	1
C11-17	Unused Input	1
C11-18	Unused Input	1
C11-19	Unused Input	1
C11-20	Unused Input	1
C11-21	Unused Input	1
C11-22	Unused Input	1
C11-23	Unused Input	1
C11-24	Unused Input	1
C11-25	Unused Input	1
C11-26	Unused Input	1
C11-27	Unused Input	1
C11-28	Unused Input	1
C11-29	Unused Input	1
C11-30	Unused Input	1

1.5.3.2 2070 FIO Output Mapping

Pins	Function	IDX
C1-02	Channel Red	6
C1-03	Channel Green	6
C1-04	Channel Red	5
C1-05	Channel Yellow	5
C1-06	Logic Output	1
C1-07	Channel Red	4
C1-08	Channel Yellow	4
C1-09	Logic Output	3
C1-10	Channel Red	3
C1-11	Channel Green	3
C1-12	Channel Red	2
C1-13	Channel Yellow	2
C1-15	Channel Green	2
C1-16	Channel Red	1
C1-17	Channel Yellow	1
C1-18	Channel Green	1
C1-19	Channel Red	12
C1-20	Channel Green	12
C1-21	Channel Red	11
C1-22	Channel Yellow	11
C1-23	Channel Green	11
C1-24	Channel Red	10
C1-25	Channel Yellow	10
C1-26	Channel Green	10
C1-27	Channel Red	9
C1-28	Channel Green	9
C1-29	Channel Red	8
C1-30	Channel Yellow	8
C1-31	Channel Green	8
C1-32	Channel Red	7
C1-33	Channel Yellow	7
C1-34	Channel Green	7

Pins	Function	IDX
C1-35	Logic Output	7
C1-36	Logic Output	8
C1-37	Unused Output	1
C1-38	Unused Output	1
C1-100	Unused Output	1
C1-101	Auto Flash Status	1
C1-102	Detector Reset	1
C1-103	Wdt Reset	1
C1-83	Unused Output	1
C1-84	Unused Output	1
C1-85	Channel Red	16
C1-86	Channel Yellow	16
C1-87	Channel Green	16
C1-88	Channel Red	15
C1-89	Channel Yellow	15
C1-90	Channel Green	15
C1-91	Unused Output	1
C1-93	Unused Output	1
C1-94	Channel Red	14
C1-95	Channel Yellow	14
C1-96	Channel Green	14
C1-97	Channel Red	13
C1-98	Channel Yellow	13
C1-99	Channel Green	13
C11-1	Unused Output	1
C11-2	Unused Output	1
C11-3	Unused Output	1
C11-4	Unused Output	1
C11-5	Unused Output	1
C11-6	Unused Output	1
C11-7	Unused Output	1
C11-8	Unused Output	1

9.3-4 Log Configuration

Volume Occupancy Period	60
VOS Log Combined Periods	0
Speed Trap Log Period	0
Display Metric	
Speed Trap Log Mode	Disabled
VOS Log Mode	Disabled
Cycle MOE Log Mode	Enabled
High Res Log Mode	Enabled
Power On/Off	X
Low Battery	X
Cycle Fault	X
Coord Fault	X
Coord Fail	X
Cycle Fail	X
MMU Flash	X
Local Flash	X
Local Free	X
Preempt Status Change	X
Response Fault	X
Alarm Status Change	X
Door Status Change	X
Pattern Change	X
Detector Status Change	X
Comm Status Change	X
Command Change	X
Data Change Keyboard	X
Controller Download	X
Access Code	X
Priority	X
Manual Control Enable	X
Stop Time	X

6.2 Time Zone

Global DST	Enable DST
Standard Time Zone (+/- hr)	0

A.3 Unit Comms

Unit Backup Time	0

1.5.5 Aux Switch

Function	Stop Time All Rings
Index	1

A.5-6 Time Sync

NTP Server Address	0.0.0.0
NTP Start Hour	0
NTP Start Minute	0
NTP Interval Hour	0
NTP Interval Minute	0
GPS Start Hour	0
GPS Start Minute	0
GPS Interval Hour	0
GPS Interval Minute	0
Enable NTP Svr	

1.7 Port 1

BIU 1 (T&F BIU 1)	Disabled
BIU 2 (T&F BIU 2)	Disabled
BIU 3 (T&F BIU 3)	Disabled
BIU 4 (T&F BIU 4)	Disabled
BIU 9 (Detector BIU 1)	Disabled
BIU 10 (Detector BIU 2)	Disabled
BIU 11 (Detector BIU 3)	Disabled
BIU 12 (Detector BIU 4)	Disabled
MMU	Disabled
Comm Port	SP3

9.3-4 Hi Res Log Setup

Phase Events	
Ped Events	
Barrier/Ring Events	
Phase Control Events	
Overlap Events	
Detector Events	
Preemption Events	
Coordination Events	
Cabinet/System Events	

B.1.1 Menu Security Options

Enable:		Allow Read-Only:		Timeout (min):	60

B.1.2 Menu Security Users

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

A.1 Serial Comms

Port	1	2	3	4	5	8
Protocol	None	None	None	None	None	None
Speed	9600	9600	9600	115200	9600	9600
Parity	None	None	None	None	None	None
Flow Control	None	None	None	None	None	None
Address	0	0	0	0	0	0
Group Address	0	0	0	0	0	0
Data Bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits
Stop Bits	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit
CTS Delay	0	0	0	0	0	0
RTS Extend	0	0	0	0	0	0

A.2 Ethernet Comms

Port	1	2
IP Address	10.242.20.100	0.0.0.0
Net Mask	255.255.255.0	0.0.0.0
Gateway	10.242.20.254	0.0.0.0
NTCIP Port	8015	161
NTCIP Mode	UDP	UDP
AB3418 Port	8001	8001
AB3418 Mode	UDP	UDP
AB3418 Address	1	1
AB3418 Group Address	0	0
Peer to Peer Port	0	0

A.8 SPaT

Unicast Enable	
Dest IP Address	0.0.0.0
Dest Port	0

1.9.1 Peer Device	1	2	3	4	5	6	7	8
System Id	289	291	183	152	0	0	0	0
IP Address	10.242.20.99	10.242.20.101	10.242.20.86	10.242.20.91	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Port	0	0	0	0	0	0	0	0
Message Timeout	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Max Retries	3	3	3	3	3	3	3	3
Heartbeat Time	30	30	30	30	30	30	30	30

1.9.2 Peer Function	1	2	3	4	5	6	7	8
Peer Device Num	1	2	3	4	1	2	0	0
Remote Function	Vehicle Detector	Vehicle Detector	Vehicle Detector	Vehicle Detector	Logic Output	Logic Output	Unused	Unused
Remote Function Idx	14	28	14	28	5	6	1	1
Local Function	Priority Request	Priority Request	Priority Request	Priority Request	Priority Checkout	Priority Checkout	Unused	Unused
Local Function Idx	1	2	3	4	3	4	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	9	10	11	12	13	14	15	16
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	17	18	19	20	21	22	23	24
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	25	26	27	28	29	30	31	32
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

B.3 System Information

System Id	182
Name	182 East Palomar & Santa Rita
Location	East Palomar & Santa Rita

1.2 Unit Setup

Auto Ped Clear	Disabled
Red Revert	3.0
Min Yellow Time	3.0
Texas Dmd Mode	Disabled
Texas Dmd Type	4-Phase

1.3 Startup

Flash	0
All Red	5
Start Veh Call	1,2,5,6,7,8
Start Ped Call	2,6,8

1.4 Channel Setup (1-16)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Type	V	V	P	V	V	P	V	V	P	V	V	P	O	O	O	O
Source	1	2	2	9	0	4	5	6	6	7	8	8	1	2	3	4
Alt 1/2 Hz																
Flash Red	X	X		X	X		X	X		X	X		X	X	X	X
Flash Yel																

1.4 Channel Setup (17-32)

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Type	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V	V
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

Start Next Phases	

Program Type	McCain Omni eX
Firmware	1.10
Street 1	E Palomar St
Street 2	Santa Rita
Last Modified	9/14/2020 11:41 AM

5.1 Coordination Constants

Correction Mode	Shortway
Max Cycles Trans	3
Coord Max Mode	Max Inhibit
Coord Force Mode	Fixed
Perm Strategy	Maximum
Omit Strategy	Minimum
Sync Point	End Green
No Early Return	Disable
Sync Ref Time	0
Operational Mode	0

2.5 Phase Concurrency

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase 1					X	X										
Phase 2					X	X			X	X						
Phase 3																
Phase 4																
Phase 5	X	X														
Phase 6	X	X							X	X						
Phase 7																
Phase 8																
Phase 9		X				X				X						
Phase 10		X				X			X							
Phase 11																
Phase 12																
Phase 13																
Phase 14																
Phase 15																
Phase 16																

2.4 Phase Enable and Rings

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Startup	2	4	2	2	2	4	2	2	2	2	2	2	2	2	2	2
Enabled	X	X			X	X	X	X	X	X						
Ring1	X	X														
Ring2					X	X	X	X								
Ring3									X							
Ring4										X						

2.3 Phase Sequence 1

Ring 1	1,2
Ring 2	5,6,7,8
Ring 3	9
Ring 4	10

2.3 Phase Sequence 2

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 3

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 4

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 5

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 6

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 7

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 8

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 9

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 10

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 11

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 12

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 13

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 14

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 15

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 16

Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.1 Phase Parameters Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Min Green	4	10	0	0	4	10	4	4	4	4	4	15	4	15	4	15
Passage	2.0	5.0	0.0	0.0	2.0	5.0	3.5	3.5	2.0	2.0	2.0	5.0	2.0	5.0	2.0	5.0
Max 1	30	40	0	0	30	40	30	30	15	45	15	45	15	45	15	45
Max 2	0	0	0	0	0	0	0	0	15	45	15	45	15	45	15	45
Yellow Change	3.2	3.6	0.0	0.0	3.2	3.6	3.6	3.6	4.5	4.5	3.0	4.0	3.0	4.0	3.0	4.0
Red Clear	1.0	1.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	1.0	2.0	1.0	2.0
Walk	0	7	0	0	0	7	0	7	0	0	0	7	0	7	0	7
Ped Clear	0	10	0	0	0	10	0	34	0	0	0	15	0	15	0	15
Added Initial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduction	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Cars Before Reduction	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reduce By	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	2.0	2.0	0.0	0.0	2.0	2.0	3.5	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	3.0	3.0	0.0	0.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Cond. Service Min	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Passage	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Alternate Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Ped Clear	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Advanced Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Start Delay Time	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Green Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2.2 Phase Options Set 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase Omit																
Ped Omit																
Min Veh Recall		X				X										
Max Veh Recall																
Soft Veh Recall																
Ped Recall																
Ped Recycle																
Cond. Service																
Lock Detector Memory											X	X	X	X	X	X
Dual Entry																
Simultaneous Gap	X	X			X	X	X	X								
Guaranteed Passage																
Added Initial Calculation																
Rest In Walk																
Red Rest									X	X						
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
No Backup																
Max Walk																
Max Extension																
Sequential Timing																
No Min Yellow																
FDW Ped Recycle																

3.1 Vehicle Overlap Set 1	1	2	3	4
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.1 Vehicle Overlap Set 1	5	6	7	8
Type	Normal	Normal	Normal	Normal
Included Phases				
Modifier Phases				
Excluded Phases				
Excluded Peds				
Excluded Walks				
Trail Green	0	0	0	0
Traili Yellow	0.0	0.0	0.0	0.0
Trail Red	0.0	0.0	0.0	0.0
Start Delay	0.0	0.0	0.0	0.0
No Trail Grn Phs				
Call Phases				
Actuated Only	False	False	False	False
Detector Lock	False	False	False	False
No Min Yellow	False	False	False	False

3.2 Pedestrian Overlap Set 1	1
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	2
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	3
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	4
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	5
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	6
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	7
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

3.2 Pedestrian Overlap Set 1	8
Included Phases	
Excluded Phases	
Intervals	None
Call Phases	
Actuated Only	False

4.1 Vehicle Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Call	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Queue																																
Add Init	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Passage	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Red Lock																																
Yellow Lock																																
Volume																																
Occupancy																																
Call Phase	1	2	2	2	2	2	3	4	4	4	4	9	9	0	5	6	6	6	6	6	7	8	8	8	8	10	10	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOS Length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alt Passage																																
Alt Min Green																																
Adaptive																																
Detector Status																																
Extra Call Phases																																
Call Overlaps																																

4.3 Vehicle Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

4.2 Ped Detector Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase	2	4	6	8	0	0	0	0	0	0	0	0	0	0	0	0
Alternate Walk																
Extra Call Phases																
Call Overlaps																

4.4 Ped Detector Diag Set 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.2 Speed Trap

Speed Trap	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Detector 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Detector 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

9.3.3.3 Speed Trap Bin Ranges

Bin	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Range	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.2 Patterns	1	2	3	4	5	6	7	8
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	1	1	1	1	1	1	1	1
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.2 Patterns	9	10	11	12	13	14	15	16
Cycle Time	0	0	0	0	0	0	0	0
Offset Time	0	0	0	0	0	0	0	0
Split	1	1	1	1	1	1	1	1
Sequence	1	1	1	1	1	1	1	1
Correction Mode								
Maximum Mode								
Force Mode								
Perm Strategy								
Omit Strategy								
Early Return	Default	Default	Default	Default	Default	Default	Default	Default
Texas Diamond								
Max2 Phases								
Phase Timing Set	1	1	1	1	1	1	1	1
Phase Option Set	1	1	1	1	1	1	1	1
Overlap Set	1	1	1	1	1	1	1	1
Veh. Det. Set	1	1	1	1	1	1	1	1
Ped. Det. Set	1	1	1	1	1	1	1	1
Veh. Det. Diag Set	1	1	1	1	1	1	1	1
Ped. Det. Diag Set	1	1	1	1	1	1	1	1
Priority Set	1	1	1	1	1	1	1	1
Ped Ovlp Set	1	1	1	1	1	1	1	1
Det. Reset								

5.3 Split Table 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 2

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 3

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 4

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 5

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 6

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 7

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 8

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 9

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 10

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 11

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 12

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 13

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 14

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 15

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

5.3 Split Table 16

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time (sec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE
Coord. Phase																
Manual Permit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manual Omit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Split	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.4 Schedules

	Month												Days Of Week							Date																															Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1
2																																																			0
3																																																			0
4																																																			0
5																																																			0
6																																																			0
7																																																			0
8																																																			0

	Month												Days Of Week							Date																															Day
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan
9																																																			0
10																																																			0
11																																																			0
12																																																			0
13																																																			0
14																																																			0
15																																																			0
16																																																			0

6.5 Day Plan 1

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 1

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 2

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 3

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 4

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 5

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 6

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 7

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 8

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 9

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 10

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 11

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 12

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 13

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 14

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 15

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.5 Day Plan 16

Event#	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minute	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Action	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

6.6 Action Parameters	1	2	3	4	5	6	7	8
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	9	10	11	12	13	14	15	16
Pattern	0	0	0	0	0	254	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	17	18	19	20	21	22	23	24
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

6.6 Action Parameters	25	26	27	28	29	30	31	32
Pattern	0	0	0	0	0	0	0	0
Auxiliary Function								
Special Functions 1-8								
Special Functions 9-16								
Detector Reset								
Detector VOS Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Speed Trap Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
Cycle MOE Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action
High Res Log	No Action	No Action	No Action	No Action	No Action	No Action	No Action	No Action

7 Preempts	Preempt 1	Preempt 2	Preempt 3	Preempt 4	Preempt 5	Preempt 6	Preempt 7	Preempt 8
Track Phases								
Track Overlaps								
Track Ped								
Track Ped Overlap								
Dwell Phases			2	7	6	8		
Dwell Overlaps								
Dwell Peds								
Dwell Ped Overlap								
Cycling Phases								
Cycling Overlaps								
Cycling Ped								
Cycling Ped Overlap								
Exit Phase								
Locking								
Override Flash								
Override +1								
Flash Dwell								
Enter All Red								
Ignore No Backup								
Max Presence Flash								
Track Green	0	0	0	0	0	0	0	0
Delay	0	0	0	0	0	0	0	0
Maximum Presence	0	0	120	120	120	120	0	0
Minimum Duration	0	0	0	0	0	0	0	0
Minimum Dwell	10	10	0	0	0	0	10	10
Linked Preempt	0	0	0	0	0	0	0	0
Enter Min Green	255	255	0	0	0	0	255	255
Enter Min Walk	255	255	0	0	0	0	255	255
Enter Min Ped Clear	255	255	0	0	0	0	255	255
Enter Min Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Enter Min Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Min Yellow	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Track Min Red Clear	25.5	25.5	25.5	25.5	25.5	25.5	25.5	25.5
Exit Ped Clear	0	0	0	0	0	0	0	0
Exit Yellow Change	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exit Red Clear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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8.1 TSP Global Options

Enable	
1	X
2	X
3	X
4	X
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
Headway	0
Lockout	0
Node	1
Name	Default

8.2 TSP Strategy Options	Strategy 1	Set 1
Enable	X	
Override + 1		
Service Phases	2, 6	
Call Phases		
Omit Phases	1, 5, 7, 8	
Omit Peds	8	
Queue Jump Ph		
ETA	40	
Input Function	Priority	
Input Index	1	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	20	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 2	Set 1
Enable	X	
Override + 1	X	
Service Phases	2, 6	
Call Phases		
Omit Phases	1, 5, 7, 8	
Omit Peds	8	
Queue Jump Ph		
ETA	12	
Input Function	Priority	
Input Index	2	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	30	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 3	Set 1
Enable	X	
Override + 1		
Service Phases	2, 6	
Call Phases		
Omit Phases	1, 5, 7, 8	
Omit Peds	8	
Queue Jump Ph		
ETA	46	
Input Function	Priority	
Input Index	3	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	20	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	1.7	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 4	Set 1
Enable	X	
Override + 1	X	
Service Phases	2, 6	
Call Phases		
Omit Phases	1, 5, 7, 8	
Omit Peds	8	
Queue Jump Ph		
ETA	26	
Input Function	Priority	
Input Index	4	
Input Type	Steady	
Request Mode	Checkin (Leading Edge)	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	20	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 5	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 6	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.2 TSP Strategy Options	Strategy 7	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		

8.2 TSP Strategy Options	Strategy 8	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		

8.2 TSP Strategy Options	Strategy 9	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options | Strategy 10 | Set 1

Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options | Strategy 11 | Set 1

Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options | Strategy 12 | Set 1

Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None
Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options | Strategy 13 | Set 1

Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

8.2 TSP Strategy Options | Strategy 14 | Set 1

Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

8.2 TSP Strategy Options | Strategy 15 | Set 1

Enable	
Override + 1	
Service Phases	
Call Phases	
Omit Phases	
Omit Peds	
Queue Jump Ph	
ETA	0
Input Function	None

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

Input Index	0
Input Type	Steady
Request Mode	Presence
Checkout Mode	Checkout (Leading Edge)
Checkout Time	180
Max Presence	180
Max Presence Clr	0
Min ON Time	0.0
Min OFF Time	0.0
Delay Time	0.0
Extend Time	0.0
Headway Time	0
Preempt Lockout	0
Arrival Window	0

8.2 TSP Strategy Options	Strategy 16	Set 1
Enable		
Override + 1		
Service Phases		
Call Phases		
Omit Phases		
Omit Peds		
Queue Jump Ph		
ETA	0	
Input Function	None	
Input Index	0	
Input Type	Steady	
Request Mode	Presence	
Checkout Mode	Checkout (Leading Edge)	
Checkout Time	180	
Max Presence	180	
Max Presence Clr	0	
Min ON Time	0.0	
Min OFF Time	0.0	
Delay Time	0.0	
Extend Time	0.0	
Headway Time	0	
Preempt Lockout	0	
Arrival Window	0	

8.3 TSP Phase Adjustment Times — Strategy 1 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 2 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	0	0	10	20	20	20	0	0	0	0	0	0	0	0
Extend	10	20	0	0	10	20	20	20	0	0	0	0	0	0	0	0
QJump	10	20	0	0	10	20	20	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 3 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times — Strategy 4 — Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	10	20	0	0	10	20	20	20	0	0	0	0	0	0	0	0
Extend	10	20	0	0	10	20	20	20	0	0	0	0	0	0	0	0
QJump	10	20	0	0	10	20	20	20	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 5 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 6 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 7 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 8 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 9 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 10 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 11 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 12 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 13 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 14 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 15 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

8.3 TSP Phase Adjustment Times Strategy 16 | Set 1

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QJump	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

1.6 Logic Gate 1

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	4		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 2

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	4		0	0
IN2	Logic Output	4		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 3

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 100				
IN1	Channel Yellow	5		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 4

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	5		0	0
IN2	Logic Output	2		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 5

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	4		0	0
IN2	Vehicle Detector	13		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	5		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 6

	Functions	IDX	!	DLY	EXT
Type	And				
Out Mode	Normal				
IN1	Channel Red	5		0	0
IN2	Vehicle Detector	27		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	6		50	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 7

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	4		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	7		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 8

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Flash 60				
IN1	Channel Green	5		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Logic Output	8		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 9

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	4		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 10

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	4		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	3		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 11

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	5		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 12

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Channel Green	5		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Checkout	4		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 13

	Functions	IDX	!	DLY	EXT
Type	Or				
Out Mode	Normal				
IN1	Vehicle Detector	26		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Priority Request	2		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 14

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 15

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 16

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 17

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 18

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 19

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 20

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 21

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 22

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 23

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 24

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 25

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 26

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 27

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 28

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 29

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 30

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 31

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.6 Logic Gate 32

	Functions	IDX	!	DLY	EXT
Type	Unused				
Out Mode	Normal				
IN1	Unused	1		0	0
IN2	Unused	1		0	0
IN3	Unused	1		0	0
IN4	Unused	1		0	0
OUT	Unused	1		0	0
Delay/Extend Units	Tenths				

1.5.3.1 2070 FIO Input Mapping

Pins	Function	IDX
C1-39	Vehicle Detector	2
C1-40	Vehicle Detector	16
C1-41	Vehicle Detector	8
C1-42	Vehicle Detector	22
C1-43	Vehicle Detector	3
C1-44	Vehicle Detector	17
C1-45	Vehicle Detector	9
C1-46	Vehicle Detector	23
C1-47	Vehicle Detector	6
C1-48	Vehicle Detector	20
C1-49	Vehicle Detector	12
C1-50	Vehicle Detector	26
C1-51	Preempt Detector	1
C1-52	Preempt Detector	2
C1-53	Man Control Enable	1
C1-54	Unused Input	1
C1-55	Vehicle Detector	15
C1-56	Vehicle Detector	1
C1-57	Vehicle Detector	21
C1-58	Vehicle Detector	7
C1-59	Vehicle Detector	27
C1-60	Vehicle Detector	13
C1-61	Vehicle Detector	28
C1-62	Vehicle Detector	14
C11-10	Unused Input	1
C11-11	Unused Input	1
C11-12	Unused Input	1
C11-13	Unused Input	1
C1-63	Vehicle Detector	4
C1-64	Vehicle Detector	18
C1-65	Vehicle Detector	10
C1-66	Vehicle Detector	24

Pins	Function	IDX
C1-67	Pedestrian Detector	1
C1-68	Pedestrian Detector	3
C1-69	Pedestrian Detector	2
C1-70	Pedestrian Detector	4
C1-71	Preempt Detector	3
C1-72	Preempt Detector	4
C1-73	Preempt Detector	5
C1-74	Preempt Detector	6
C1-75	Unused Input	1
C1-76	Vehicle Detector	5
C1-77	Vehicle Detector	19
C1-78	Vehicle Detector	11
C1-79	Vehicle Detector	25
C1-80	Interval Advance	1
C1-81	MMU Flash	1
C1-82	Stop Time All Rings	1
C11-15	Unused Input	1
C11-16	Unused Input	1
C11-17	Unused Input	1
C11-18	Unused Input	1
C11-19	Unused Input	1
C11-20	Unused Input	1
C11-21	Unused Input	1
C11-22	Unused Input	1
C11-23	Unused Input	1
C11-24	Unused Input	1
C11-25	Unused Input	1
C11-26	Unused Input	1
C11-27	Unused Input	1
C11-28	Unused Input	1
C11-29	Unused Input	1
C11-30	Unused Input	1

1.5.3.2 2070 FIO Output Mapping

Pins	Function	IDX
C1-02	Channel Red	6
C1-03	Channel Green	6
C1-04	Channel Red	5
C1-05	Channel Yellow	5
C1-06	Logic Output	1
C1-07	Channel Red	4
C1-08	Channel Yellow	4
C1-09	Logic Output	3
C1-10	Channel Red	3
C1-11	Channel Green	3
C1-12	Channel Red	2
C1-13	Channel Yellow	2
C1-15	Channel Green	2
C1-16	Channel Red	1
C1-17	Channel Yellow	1
C1-18	Channel Green	1
C1-19	Channel Red	12
C1-20	Channel Green	12
C1-21	Channel Red	11
C1-22	Channel Yellow	11
C1-23	Channel Green	11
C1-24	Channel Red	10
C1-25	Channel Yellow	10
C1-26	Channel Green	10
C1-27	Channel Red	9
C1-28	Channel Green	9
C1-29	Channel Red	8
C1-30	Channel Yellow	8
C1-31	Channel Green	8
C1-32	Channel Red	7
C1-33	Channel Yellow	7
C1-34	Channel Green	7

Pins	Function	IDX
C1-35	Logic Output	7
C1-36	Logic Output	8
C1-37	Unused Output	1
C1-38	Unused Output	1
C1-100	Unused Output	1
C1-101	Auto Flash Status	1
C1-102	Detector Reset	1
C1-103	Wdt Reset	1
C1-83	Unused Output	1
C1-84	Unused Output	1
C1-85	Channel Red	16
C1-86	Channel Yellow	16
C1-87	Channel Green	16
C1-88	Channel Red	15
C1-89	Channel Yellow	15
C1-90	Channel Green	15
C1-91	Unused Output	1
C1-93	Unused Output	1
C1-94	Channel Red	14
C1-95	Channel Yellow	14
C1-96	Channel Green	14
C1-97	Channel Red	13
C1-98	Channel Yellow	13
C1-99	Channel Green	13
C11-1	Unused Output	1
C11-2	Unused Output	1
C11-3	Unused Output	1
C11-4	Unused Output	1
C11-5	Unused Output	1
C11-6	Unused Output	1
C11-7	Unused Output	1
C11-8	Unused Output	1

9.3-4 Log Configuration

Volume Occupancy Period	60
VOS Log Combined Periods	0
Speed Trap Log Period	0
Display Metric	
Speed Trap Log Mode	Disabled
VOS Log Mode	Disabled
Cycle MOE Log Mode	Enabled
High Res Log Mode	Enabled
Power On/Off	X
Low Battery	X
Cycle Fault	X
Coord Fault	X
Coord Fail	X
Cycle Fail	X
MMU Flash	X
Local Flash	X
Local Free	X
Preempt Status Change	X
Response Fault	X
Alarm Status Change	X
Door Status Change	X
Pattern Change	X
Detector Status Change	X
Comm Status Change	X
Command Change	X
Data Change Keyboard	X
Controller Download	X
Access Code	X
Priority	X
Manual Control Enable	X
Stop Time	X

6.2 Time Zone

Global DST	Enable DST
Standard Time Zone (+/- hr)	0

A.3 Unit Comms

Unit Backup Time	0

1.5.5 Aux Switch

Function	Stop Time All Rings
Index	1

A.5-6 Time Sync

NTP Server Address	0.0.0.0
NTP Start Hour	0
NTP Start Minute	0
NTP Interval Hour	0
NTP Interval Minute	0
GPS Start Hour	0
GPS Start Minute	0
GPS Interval Hour	0
GPS Interval Minute	0
Enable NTP Svr	

1.7 Port 1

BIU 1 (T&F BIU 1)	Disabled
BIU 2 (T&F BIU 2)	Disabled
BIU 3 (T&F BIU 3)	Disabled
BIU 4 (T&F BIU 4)	Disabled
BIU 9 (Detector BIU 1)	Disabled
BIU 10 (Detector BIU 2)	Disabled
BIU 11 (Detector BIU 3)	Disabled
BIU 12 (Detector BIU 4)	Disabled
MMU	Disabled
Comm Port	SP3

9.3-4 Hi Res Log Setup

Phase Events	
Ped Events	
Barrier/Ring Events	
Phase Control Events	
Overlap Events	
Detector Events	
Preemption Events	
Coordination Events	
Cabinet/System Events	

B.1.1 Menu Security Options

Enable:		Allow Read-Only:		Timeout (min):	60

B.1.2 Menu Security Users

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
User Id	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operation																
Unit																
I/O Map																
Phase																
Overlap																
Detector																
Coord																
Time Base																
Preempt																
Transit																
Logs																
Comm																
Security																
Database																
SW Update																

A.1 Serial Comms

Port	1	2	3	4	5	8
Protocol	None	None	None	None	None	None
Speed	9600	9600	9600	115200	9600	9600
Parity	None	None	None	None	None	None
Flow Control	None	None	None	None	None	None
Address	0	0	0	0	0	0
Group Address	0	0	0	0	0	0
Data Bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits	8 data bits
Stop Bits	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit	1 stop bit
CTS Delay	0	0	0	0	0	0
RTS Extend	0	0	0	0	0	0

A.2 Ethernet Comms

Port	1	2
IP Address	10.242.20.85	0.0.0.0
Net Mask	255.255.255.0	0.0.0.0
Gateway	10.242.20.254	0.0.0.0
NTCIP Port	8015	161
NTCIP Mode	UDP	UDP
AB3418 Port	8001	8001
AB3418 Mode	UDP	UDP
AB3418 Address	1	1
AB3418 Group Address	0	0
Peer to Peer Port	0	0

A.8 SPaT

Unicast Enable	
Dest IP Address	0.0.0.0
Dest Port	0

1.9.1 Peer Device	1	2	3	4	5	6	7	8
System Id	161	172	0	183	0	0	0	0
IP Address	10.242.20.84	10.242.20.87	0.0.0.0	10.242.20.86	0.0.0.0	0.0.0.0	0.0.0.0	0.0.0.0
Port	0	0	0	0	0	0	0	0
Message Timeout	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Max Retries	3	3	3	3	3	3	3	3
Heartbeat Time	30	30	30	30	30	30	30	30

1.9.2 Peer Function	1	2	3	4	5	6	7	8
Peer Device Num	1	2	0	4	0	2	0	0
Remote Function	Vehicle Detector	Vehicle Detector	Vehicle Detector	Vehicle Detector	Logic Output	Logic Output	Unused	Unused
Remote Function Idx	14	28	14	28	5	6	1	1
Local Function	Priority Request	Priority Request	Priority Request	Priority Request	Priority Checkout	Priority Checkout	Unused	Unused
Local Function Idx	1	2	3	4	3	4	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	9	10	11	12	13	14	15	16
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	17	18	19	20	21	22	23	24
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

1.9.2 Peer Function	25	26	27	28	29	30	31	32
Peer Device Num	0	0	0	0	0	0	0	0
Remote Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Remote Function Idx	1	1	1	1	1	1	1	1
Local Function	Unused	Unused	Unused	Unused	Unused	Unused	Unused	Unused
Local Function Idx	1	1	1	1	1	1	1	1
Default State	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

TRAFFIC SIGNAL TIMING SHEET -- CITY OF CHULA VISTA

HERITAGE / OLYMPIC

SCN: 171 ADDRESS: 18

Program:233; SET CLOCK: SET DATE:81=ddyym ; SET TIME:80=hhmms [day]; 8F=mmss.s ; E KEY ENABLE: F-9-E = 9 ;SET MODE:{C-0-C=0} C-A-1=0 ; F-C-0=5.0 ; F-O-F=3.0 ;
ESTABLISH COMM: C-0-0=ADDRESS ; C-0-1=1 ; C-0-2=1 ; C-0-3=SCN ; SET PED PHASES: {C-0-E=125} E-F-5=[2] ; E-F-6=[6] ; E-F-7=[4] ; E-F-8=[8] ;
SET OPTICOM: {C-0-E=125} E-E-A=[2,5] ; E-E-B=[4,7] ; E-E-C=[1,6] ; E-E-D=[3,8] ; E-F-F=[3] ; F-0-8=F-0-9=2 ;

PHASE FLAGS {C-0-F = 1} (F-F-X)

	PHASE	0	1	2	3	4	6	7	8	9	A	B	C	D	E	F
	1	X														
→	2	X			X											X
	3	X														
↓	4	X														
	5	X														
←	6	X			X											X
	7	X														
↑	8	X														

PHASE TIMING BANK 1 {C-0-F = 1} (F-PHASE-X)

PHASE	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
1			4			2.0	2.0	2.0	30						3.2	1.0
2	7	29	10			5.2	4.5	2.0	60					1.2	5.0	1.0
3			4			2.0	2.0	2.0	30						3.2	1.0
4	7	29	7			3.5	3.5	3.5	40					0.6	4.7	1.0
5			4			2.0	2.0	2.0	30						3.2	1.0
6	7	29	10			5.2	4.5	2.0	60					1.2	5.0	1.0
7			4			2.0	2.0	2.0	30						3.2	1.0
8	7	32	7			3.5	3.5	3.5	40						4.4	1.0

LOCAL SCHEDULER{C-0-9 = 0.1}(PAGE 1)

9-EVENT	TIME	PLAN/OS		DAY
0 =	0000	E	A	[1,2,3,4,5,6,7]
1 =	0630	2	A	[2,3,4,5,6]
2 =	0800	3	A	[2,3,4,5,6]
3 =	1400	4	A	[2,3,4,5,6]
4 =	1530	5	A	[2,3,4,5,6]
5 =	1830	E	A	[2,3,4,5,6]
6 =	1100	6	A	[7]
7 =	1730	E	A	[7]
8 =			A	
9 =			A	
A =			A	
B =			A	
C =			A	
D =			A	
E =			A	
F =			A	

NOTE:Plan E=Free ; Plan F=Flash

OTHER INPUTS: {C-0-E = 126} E-1-8 = E-1-9 = E-1-A = E-1-B = [4,5,7]
{C-0-C = 1} C-F-0 = [2,4,6,8] ;

DETECTOR PARAM: {C-0-D = 0} D-1-0 = 2.0 ; D-3-0 = 1.5 ; D-2-0 = 2.0 ; D-4-0 = 1.5 ; D-1-6 = 2.0 ; D-2-E = 10.0; D-2-6 = 2.0 ; D-4-6 = ; D-3-3 = ;
[C-0-D = 0} D-2-F = 10.0

COORDINATION TIMING PLAN {C-0-C = 1} (C-PLAN-X)

PLAN	CYCLE	FORCE-OFF 0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	[SYNC ϕ s] C-E-PLAN	[LAG ϕ s] C-F-PLAN
1																			
2	150	80	0	35	66	91	0	47	66	0	76	0	0	40	255	0		[2,6]	[2,4,6,8]
3	115	57	0	20	39	57	0	20	39	0	109	0	0	23	255	0		[2,6]	[2,4,6,8]
4	130	70	0	26	45	70	0	26	45	0	11	0	0	29	255	0		[2,6]	[2,4,6,8]
5	144	79	0	27	50	79	0	31	50	0	95	0	0	34	255	0		[2,6]	[2,4,6,8]
6	120	66	0	16	43	66	0	24	43	0	109	0	0	27	255	0		[2,6]	[2,4,6,8]
7																			
8																			
9																			

TIMING PLAN FUNCTIONS {C-0-C = 2} (C-PLAN-X)

PLAN	PED-ADJ	RSRV-TIME[RESERVED ϕs][PRETIMED ϕs][MAX RECALL ϕs] 0	5	6	8	9
1						
2						18
3						18
4						18
5						18
6						18
7						
8						
9						

NOTE: VIEW CURRENT BANK: {C-0-F = 0} F-C-E = (Current Bank) ; BATT. CHECK: {C-0-E = 112} E-0-A = (85 is OK) = (84 is BAD) ; DATE : April 11, 2019 VERSION: 2.4

Chula Vista

Intersection Timing Sheet

Station ID [6.1]

Intersection : 128 - Telegraph Cyn Rd & Otay Lakes Rd (Standard File)

Unit Parameters [6.5]	I/O Mode [1.8.6]	Print Date	Date Implemented
Phase Mode:		3/4/2022 9:42:42 AM	

Communication [6.5]

IP Address	Subnet Mask	Gateway	Port
10.242.20.77	255.255.255.0	10.242.20.254	5012

Phase Timings [1.1.1]

	ϕ1 (WL)	ϕ2 (ER)	ϕ3 (NL)	ϕ4 (SR)	ϕ5 (EL)	ϕ6 (WR)	ϕ7 (SL)	ϕ8 (NR)	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Walk	0	7	0	7	0	7	0	7	0	0	0	0	0	0	0	0
Ped Clearance	0	35	0	36	0	32	0	34	0	0	0	0	0	0	0	0
Min Green	4	25	4	10	4	25	4	10	0	0	0	0	0	0	0	0
Gap Ext	2.5	5.5	2.5	4.8	2.5	5.4	2.5	6.3	0	0	0	0	0	0	0	0
Max1	30	60	30	50	30	60	30	50	0	0	0	0	0	0	0	0
Max2	50	50	50	50	50	50	50	50	0	0	0	0	0	0	0	0
Yellow Clr	3.2	5	3.2	5.1	3.2	5	3.2	4.7	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	1	1.5	1	1.5	1	1.5	1	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Red Revert	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Added Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Initial	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time Before Reduce	0	5	0	5	0	6	0	2	0	0	0	0	0	0	0	0
Cars Before Reduce	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time To Reduce	0	21	0	13	0	14	0	5	0	0	0	0	0	0	0	0
Reduce By	0	0.1	0	0.1	0	0.1	0	0	0	0	0	0	0	0	0	0
Min Gap	0	2	0	2	0	2	0	2	0	0	0	0	0	0	0	0
Dynamic Max Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dynamic Max Step	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Auto Flash Entry																
Auto Flash Exit																
Non-Actuated 1																
Non-Actuated 2																
Lock Calls									ON	ON	ON	ON	ON	ON	ON	ON
Guarantd Passage																
Added Init Calc																

Phase Options [1.1.2]

	ϕ1 (WL)	ϕ2 (ER)	ϕ3 (NL)	ϕ4 (SR)	ϕ5 (EL)	ϕ6 (WR)	ϕ7 (SL)	ϕ8 (NR)	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Enable	ON	ON	ON	ON	ON	ON	ON	ON								
Min Recall		ON				ON										
Max Recall																
Ped Recall																
Soft Recall																
Dual Entry																
Sim Gap Enable	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Rest In Walk																
Cond Service																

Phase Options Plus [1.1.3]

	ϕ1	ϕ2	ϕ3	ϕ4	ϕ5	ϕ6	ϕ7	ϕ8	ϕ9	ϕ10	ϕ11	ϕ12	ϕ13	ϕ14	ϕ15	ϕ16
Reservice																
Ped Clr Thru Yellow																
Skip Red-NoCall																
Red Rest																
Max 2																
Max Inhibit																
Ped Delay																
Red Rest On Gap																
Conflicting P																
Green Ped Delay Time																
Omit Yel																
Ped Out																

Start Yel																
Redirect P Calls From 1																
Redirect P Calls To 1																
Redirect P Calls From 2																
Redirect P Calls To 2																
Redirect P Calls From 3																
Redirect P Calls To 3																
Redirect P Calls From 4																
Redirect P Calls To 4																

Channel Assignment [1.8.1]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
PH/OLP #	1	2	3	4	5	6	7	8	1	2	3	4	2	4	6	8	1	3	5	7				
Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OLP	OLP	OLP	OLP	PED	PED	PED	PED	PED	PED	PED	PED	VEH	VEH	VEH	VEH
Flash	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								
Dimming Green																								
Dimming Yellow																								
Dimming Red																								
Dim Cyc	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

I/O Channel Plus [1.8.4]

Channel	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	10	21	22	23	24
Flash Red																								
Flash Yellow																								
Flash Green																								
Inh Red Flash in Preempt																								
Color Flash Rate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Override Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Olap Ovrd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Overlap Program Parameters [1.5.2.1]

Overlap	Included Phases								Modifer Phases								Type	Green	Yellow	Red
Overlap 1																	NORMAL		3.5	1.5
Overlap 2																	NORMAL		3.5	1.5
Overlap 3																	NORMAL		3.5	1.5
Overlap 4																	NORMAL		3.5	1.5
Overlap 5																	NORMAL		3.5	1.5
Overlap 6																	NORMAL		3.5	1.5
Overlap 7																	NORMAL		3.5	1.5
Overlap 8																	NORMAL		3.5	1.5
Overlap 9																	NORMAL		3.5	1.5
Overlap 10																	NORMAL		3.5	1.5
Overlap 11																	NORMAL		3.5	1.5
Overlap 12																	NORMAL		3.5	1.5
Overlap 13																	NORMAL		3.5	1.5
Overlap 14																	NORMAL		3.5	1.5
Overlap 15																	NORMAL		3.5	1.5
Overlap 16																	NORMAL		3.5	1.5

Overlap Conflict Parameters+ [1.5.2.2]

Overlap	Conflicting Phases								Conflicting Overlaps								Conflicting Peds							
Overlap 1																								
Overlap 2																								
Overlap 3																								
Overlap 4																								
Overlap 5																								
Overlap 6																								
Overlap 7																								
Overlap 8																								
Overlap 9																								
Overlap 10																								
Overlap 11																								
Overlap 12																								
Overlap 13																								
Overlap 14																								
Overlap 15																								
Overlap 16																								

Ring Sequence [1.2.4]

Ring	P1	P2	P3	P4	P5	P6	P7	P8
Ring 1	1	2	3	4				
Ring 2	5	6	7	8				
Ring 3								
Ring 4								

Phase Startup, Concur [1.1.4]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Startup	RED	WALK	RED	RED	RED	WALK	RED	RED	RED	RED	RED	RED	RED	RED	RED	RED
Ring	1	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0
Concur 1	5	5	7	7	1	1	3	3	0	0	0	0	0	0	0	0
Concur 2	6	6	8	8	2	2	4	4	0	0	0	0	0	0	0	0
Concur 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Concur 8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preemption Times[3.1]/Phases[3.2]/Options[3.3]

Channel	1	2	3	4	5	6
Lock Input	ON	ON	ON	ON	ON	ON
Override Auto Flash	ON	ON	ON	ON	ON	ON
Override Higher Preempt	ON	ON	ON	ON	ON	ON
Flash in Dwell						
Link to Preempt	0	0	0	0	0	0
Delay	0	0	0	0	0	0
Min Duration	0	0	0	0	0	0
Min Green	0	0	0	0	0	0
Min Walk	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Track Green	0	0	0	0	0	0
Min Dwell	0	0	10	10	10	10
Max Presence	0	0	120	120	120	120
Track Veh1	0	0	0	0	0	0
Track Veh2	0	0	0	0	0	0
Track Veh3	0	0	0	0	0	0
Track Veh4	0	0	0	0	0	0
Dwell Cyc Veh1	0	0	2	4	1	3
Dwell Cyc Veh2	0	0	5	7	6	8
Dwell Cyc Veh3	0	0	0	0	0	0
Dwell Cyc Veh4	0	0	0	0	0	0
Dwell Cyc Veh5	0	0	0	0	0	0
Dwell Cyc Veh6	0	0	0	0	0	0
Dwell Cyc Veh7	0	0	0	0	0	0
Dwell Cyc Veh8	0	0	0	0	0	0
Dwell Cyc Veh9	0	0	0	0	0	0
Dwell Cyc Veh10	0	0	0	0	0	0
Dwell Cyc Veh11	0	0	0	0	0	0
Dwell Cyc Veh12	0	0	0	0	0	0
Dwell Cyc Ped1	0	0	0	0	0	0
Dwell Cyc Ped2	0	0	0	0	0	0
Dwell Cyc Ped3	0	0	0	0	0	0
Dwell Cyc Ped4	0	0	0	0	0	0
Dwell Cyc Ped5	0	0	0	0	0	0
Dwell Cyc Ped6	0	0	0	0	0	0
Dwell Cyc Ped7	0	0	0	0	0	0
Dwell Cyc Ped8	0	0	0	0	0	0
Exit 1	0	0	0	0	0	0
Exit 2	0	0	0	0	0	0
Exit 3	0	0	0	0	0	0
Exit 4	0	0	0	0	0	0

Preemption Times+[3.4]/Overlaps+[3.5]/Options+[3.6]

Preempt	1	2	3	4	5	6
Enable			ON	ON	ON	ON
Type	EMERG	EMERG	EMERG	EMERG	EMERG	EMERG
Skip Track						
Volt Mon Flash						
Coord in Preempt						
Return Max/Min	MAX	MAX	MAX	MAX	MAX	MAX
Extend Dwell	0	0	0	0	0	0
Pattern	0	0	0	0	0	0
Output Mode	TS2	TS2	TS2	TS2	TS2	TS2
Track Over 1	0	0	0	0	0	0
Track Over 2	0	0	0	0	0	0
Track Over 3	0	0	0	0	0	0
Track Over 4	0	0	0	0	0	0
Track Over 5	0	0	0	0	0	0
Track Over 6	0	0	0	0	0	0
Track Over 7	0	0	0	0	0	0
Track Over 8	0	0	0	0	0	0
Track Over 9	0	0	0	0	0	0
Track Over 10	0	0	0	0	0	0
Track Over 11	0	0	0	0	0	0
Track Over 12	0	0	0	0	0	0
DwellCyc Over 1	0	0	0	0	0	0
DwellCyc Over 2	0	0	0	0	0	0
DwellCyc Over 3	0	0	0	0	0	0
DwellCyc Over 4	0	0	0	0	0	0
DwellCyc Over 5	0	0	0	0	0	0
DwellCyc Over 6	0	0	0	0	0	0
DwellCyc Over 7	0	0	0	0	0	0
DwellCyc Over 8	0	0	0	0	0	0
DwellCyc Over 9	0	0	0	0	0	0
DwellCyc Over 10	0	0	0	0	0	0
DwellCyc Over 11	0	0	0	0	0	0
DwellCyc Over 12	0	0	0	0	0	0
Ped Clear	0	0	0	0	0	0
Yellow	0	0	0	0	0	0
Red	0	0	0	0	0	0
Return Max	0	0	0	0	0	0

Detector, Vehicle Parameters [5.1][5.2]

1-16

Detector #	1 (WL1)	2	3 (ET1)	4 (ET2)	5 (ET3)	6 (ER1)	7 (NL1)	8	9 (ST1)	10 (ST2)	11 (ST3)	12 (SR1)	13 (WL2)	14 (NL2)	15 (EL1)	16
Volume	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Occupancy	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Yellow Lock																
Red Lock																
Extend	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Added Initial	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Queue																
Call	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Call Phase	1	2	2	2	2	2	3	4	4	4	4	4	1	3	5	6
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	4	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2

17-32

Detector #	17 (WT1)	18 (WT2)	19 (WT3)	20 (WR1)	21 (SL1)	22	23 (NT1)	24 (NT2)	25 (NT3)	26 (NR1)	27 (EL2)	28 (SL2)	29	30	31	32
Volume	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Occupancy	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
Yellow Lock																
Red Lock																
Extend	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON				
Added Initial	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON				
Queue																
Call	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON				
Call Phase	6	6	6	6	7	8	8	8	8	8	5	7	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0

33-48

Detector #	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

49-64

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Counts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Vehicle Parameters+ [5.3]

1-16

	1 (WL1)	2	3 (ET1)	4 (ET2)	5 (ET3)	6 (ER1)	7 (NL1)	8	9 (ST1)	10 (ST2)	11 (ST3)	12 (SR1)	13 (WL2)	14 (NL2)	15 (EL1)	16
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

17-32

	17 (WT1)	18 (WT2)	19 (WT3)	20 (WR1)	21 (SL1)	22	23 (NT1)	24 (NT2)	25 (NT3)	26 (NR1)	27 (EL2)	28 (SL2)	29	30	31	32
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

33-48

	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

49-64

	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
External Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector, Ped Detectors 1-16 [5.4]

Detector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Call Phase	0	2	0	4	0	6	0	8								
No Activity	0	0	0	0	0	0	0	0								
Max Presence	0	0	0	0	0	0	0	0								
Erratic Cnt	0	0	0	0	0	0	0	0								

Detector Alternate Program 1, Vehicle Parameters [5.5.1]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Cnt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
Ext Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Det Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detector Alternate Program 2, Vehicle Parameters [5.5.2]

Detector #	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Volume																
Occupancy																
Yellow Lock																
Red Lock																
Extend																
Added Initial																
Queue																
Call																
Call Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Switch	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extend Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Queue Limit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
No Activity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Max Presence	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erratic Cnt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fail Time	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Green Occupancy																
Yellow Occupancy																
Red Occupancy																
Ext Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Delay Phase 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Phase 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Source	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Det Number	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 1, Interval Times [1.1.6.1]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	3.5	1.5	0	
2	0	0	0	0	0	0	3.5	1.5	0	
3	0	0	0	0	0	0	3.5	1.5	0	
4	0	0	0	0	0	0	3.5	1.5	0	
5	0	0	0	0	0	0	3.5	1.5	0	
6	0	0	0	0	0	0	3.5	1.5	0	
7	0	0	0	0	0	0	3.5	1.5	0	
8	0	0	0	0	0	0	3.5	1.5	0	

Alternate Phase Program 2, Interval Times [1.1.6.2]

Phase	Walk	Ped Clear	Min Green	Passage	Max1	Max2	Yellow	Red Clear	Assign Ph	Bike Clear
1	0	0	0	0	0	0	3.5	1.5	0	
2	0	0	0	0	0	0	3.5	1.5	0	
3	0	0	0	0	0	0	3.5	1.5	0	
4	0	0	0	0	0	0	3.5	1.5	0	
5	0	0	0	0	0	0	3.5	1.5	0	
6	0	0	0	0	0	0	3.5	1.5	0	
7	0	0	0	0	0	0	3.5	1.5	0	
8	0	0	0	0	0	0	3.5	1.5	0	

Alternate Phase Program 1, Phase Options [1.1.6.2.1]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON			ON									0	0
2		ON			ON									0	0
3		ON			ON									0	0
4		ON			ON									0	0
5		ON			ON									0	0
6		ON			ON									0	0
7		ON			ON									0	0
8		ON			ON									0	0

Alternate Phase Program 2, Phase Options [1.1.6.2.2]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON			ON									0	0
2		ON			ON									0	0
3		ON			ON									0	0
4		ON			ON									0	0
5		ON			ON									0	0
6		ON			ON									0	0
7		ON			ON									0	0
8		ON			ON									0	0

Alternate Phase Program 3, Phase Options [1.1.6.2.3]

Column	Non Act1	Lock Call	Soft Recall	Dual Entry	Sim Gap Enb	Guar Pass	RIW	Cond Service	Reservice	Red Rest	Max 2	Ped Delay	Conf Phs1	Conf Phs1	Assign Phase
1		ON			ON									0	0
2		ON			ON									0	0
3		ON			ON									0	0
4		ON			ON									0	0
5		ON			ON									0	0
6		ON			ON									0	0
7		ON			ON									0	0
8		ON			ON									0	0

Alternate Phase Program 1, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Alternate Phase Program 2, Calls and Redirection [1.1.6.3]

Entry	Call Phases				From	To	From	To	From	To	From	To	Assigned Ph
1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0	0

Coordination, Splits [2.7.1]

Split Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 22	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 23	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 25	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 26	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 27	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 28	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 29	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time	25	40	20	35	25	40	20	35								
Mode	NON	MIN	NON	MIN	NON	MIN	NON	MIN	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase				ON												

Split Table 31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Split Table 32	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Time																
Mode	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON	NON
Coord Phase																

Coordination, Pattern 1-16 [2.4]

Pattern	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Cycle Time																
Offset Time																
Split Number																
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Coordination, Pattern 17-32 [2.4]

Pattern	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Cycle Time														120		
Offset Time																
Split Number														30		
Seq Number	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Coordination, Pattern+ 1-8 [2.5]

Pattern	1	2	3	4	5	6	7	8
Short								
Long	17	17	17	17	17	17	17	17
Dwell								
No Short P 1								
No Short P 2								
No Short P 3								
No Short P 4								
Early Yield								
Offset	BEGGRN	BEGGRN	BEGGRN	BEGGRN	BEGGRN	BEGGRN	BEGGRN	BEGGRN
CNA								
Max 2								
Float								
Min Veh Perm								
Min Ped Perm								
Percentage								
MI								
Ret Hold								
ASC								
Ph Opt Table								
Ph Time Table								
Det Grp								
Call Inh								
OlpOff 1								
OlpOff 2								
OlpOff 3								
OlpOff 4								
OlpOff 5								
OlpOff 6								
OlpOff 7								
OlpOff 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Coordination, Pattern+ 9-16 [2.5]

Pattern	9	10	11	12	13	14	15	16
Short								
Long	17	17	17	17	17	17	17	17
Dwell								
No Short P 1								
No Short P 2								
No Short P 3								
No Short P 4								
Early Yield								
Offset	BEGGRN	BEGGRN	BEGGRN	BEGGRN	BEGGRN	BEGGRN	BEGGRN	BEGGRN
CNA								
Max 2								
Float								
Min Veh Perm								
Min Ped Perm								
Percentage								
MI								
Ret Hold								
ASC								
Ph Opt Table								
Ph Time Table								
Det Grp								
Call Inh								
OlpOff 1								
OlpOff 2								
OlpOff 3								
OlpOff 4								
OlpOff 5								
OlpOff 6								
OlpOff 7								
OlpOff 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

Coordination, Pattern+ 17 - 24 [2.5]

Pattern	17	18	19	20	21	22	23	24
Short								
Long	17	17	17	17	17	17	17	17
Dwell								
No Short P 1								
No Short P 2								
No Short P 3								
No Short P 4								
Early Yield								
Offset	BEGGRN	BEGGRN	BEGGRN	BEGGRN	BEGGRN	BEGGRN	BEGGRN	BEGGRN
CNA								
Max 2								
Float								
Min Veh Perm								
Min Ped Perm								
Percentage								
MI								
Ret Hold								
ASC								
Ph Opt Table								
Ph Time Table								
Det Grp								
Call Inh								
OlpOff 1								
OlpOff 2								
OlpOff 3								
OlpOff 4								
OlpOff 5								
OlpOff 6								
OlpOff 7								
OlpOff 8								
Dia Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT
Force Mode	DFT	DFT	DFT	DFT	DFT	DFT	DFT	DFT

TB Coor, Day Plan [4.4]

Day Plan Table 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 5	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 6	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 7	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 9	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 10	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 12	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 13	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 14	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 17	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 18	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 19	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

Day Plan Table 20	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hour																
Minute																
Action																

TB Coor, Advanced Scheduler [4.3]

	Month												Day of Week							Day of Month									1									2									3		
Plan	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	Day Plan
1	1	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2	1	1	1	1	1	1	1	1	1	1	1	1		1						1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
3	1	1	1	1	1	1	1	1	1	1	1	1			1					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
4	1	1	1	1	1	1	1	1	1	1	1	1				1				1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4
5	1	1	1	1	1	1	1	1	1	1	1	1					1			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
6	1	1	1	1	1	1	1	1	1	1	1	1						1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
7	1	1	1	1	1	1	1	1	1	1	1	1							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7
8	1												1	1	1	1	1	1	1	1																														8
9					1									1																														1	1	1	1	1	1	1	9
10							1						1	1	1	1	1	1	1				1																											10
11								1						1						1	1	1	1	1	1	1																								11
12											1						1																											1	1	1	1	1	1	1	12
13												1	1	1	1	1	1	1	1																									1							13
14	1													1																				1	1	1	1	1	1	1									14
15		1												1																				1	1	1	1	1	1	1									15
16											1							1																											1	1	1	1	1	1	1	16
17																																																		1
18																																																		1
19																																																		1
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APPENDIX D

INTERSECTION COUNTS

Intersection Turning Movement - Peak Hour Vehicle Count

LINSCOTT LAW & GREENSPAN engineers

Location:	#01	File Name:	ITM-22-004-01
Intersection:	Telegraph Canyon Road & La Media Road (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	La Media Road Southbound			Telegraph Canyon Road Westbound			La Media Road Northbound			Telegraph Canyon Road Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00	23	82	4	42	162	35	136	114	65	23	155	71	912
7:15	30	79	8	47	211	44	128	111	68	23	240	79	1068
7:30	43	174	15	52	226	41	103	163	90	50	215	70	1242
7:45	60	100	17	62	186	49	71	168	110	56	334	48	1261
8:00	39	96	35	32	215	56	52	139	73	40	296	36	1109
8:15	73	110	20	47	220	61	62	134	78	30	233	28	1096
8:30	42	75	17	47	259	63	41	101	66	36	291	26	1064
8:45	69	80	21	43	212	56	43	105	71	60	183	15	958
Total	379	796	137	372	1691	405	636	1035	621	318	1947	373	8710
Approach%	28.9	60.7	10.4	15.1	68.5	16.4	27.7	45.2	27.1	12.1	73.8	14.1	
Total%	4.4	9.1	1.6	4.3	19.4	4.6	7.3	11.9	7.1	3.7	22.4	4.3	

AM Intersection Peak Hour: **07:30 to 08:30**

Volume	215	480	87	193	847	207	288	604	351	176	1,078	182	4,708
Approach%	27.5	61.4	11.1	15.5	67.9	16.6	23.2	48.6	28.2	12.3	75.1	12.7	
Total%	4.6	10.2	1.8	4.1	18.0	4.4	6.1	12.8	7.5	3.7	22.9	3.9	
PHF			0.84			0.95			0.87			0.82	0.93

PM	La Media Road Southbound			Telegraph Canyon Road Westbound			La Media Road Northbound			Telegraph Canyon Road Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
16:00	90	177	34	66	275	59	47	118	82	37	276	47	1308
16:15	96	180	22	74	266	54	49	115	76	32	282	54	1300
16:30	91	147	16	62	288	75	34	98	72	23	282	46	1234
16:45	89	138	25	81	274	57	25	121	70	45	335	43	1303
17:00	76	145	30	92	298	69	39	132	60	33	258	52	1284
17:15	91	166	25	88	280	60	31	125	70	36	296	59	1327
17:30	84	174	28	73	238	52	27	118	68	33	230	67	1192
17:45	65	151	26	79	238	61	30	90	77	18	270	57	1162
Total	682	1278	206	615	2157	487	282	917	575	257	2229	425	10110
Approach%	31.5	59.0	9.5	18.9	66.2	14.9	15.9	51.7	32.4	8.8	76.6	14.6	
Total%	6.7	12.6	2.0	6.1	21.3	4.8	2.8	9.1	5.7	2.5	22.0	4.2	

PM Intersection Peak Hour: **16:30 to 17:30**

Volume	347	596	96	323	1,140	261	129	476	272	137	1,171	200	5,148
Approach%	33.4	57.4	9.2	18.7	66.1	15.1	14.7	54.3	31.0	9.1	77.7	13.3	
Total%	6.7	11.6	1.9	6.3	22.1	5.1	2.5	9.2	5.3	2.7	22.7	3.9	
PHF			0.92			0.94			0.95			0.89	0.97

Intersection Turning Movement - Bicycle & Pedestrian Count

LINSCOTT LAW & GREENSPAN engineers

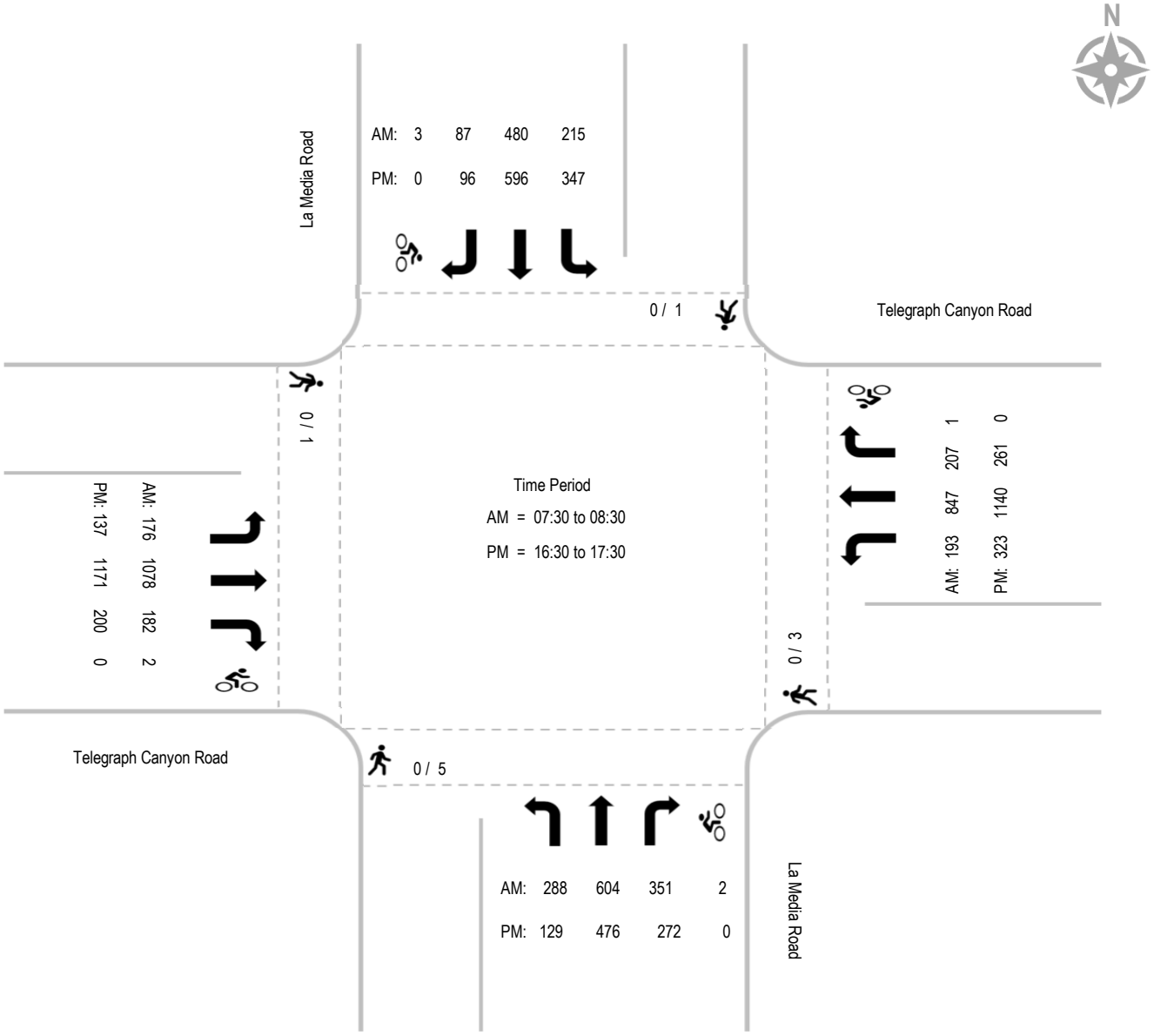
Location:	#01	File Name:	ITM-22-004-01
Intersection:	Telegraph Canyon Road & La Media Road (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	La Media Road Southbound				Telegraph Canyon Road Westbound				La Media Road Northbound				Telegraph Canyon Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0				0				0				0	
Bike Total		0	3	0		0	1	0		0	2	0		0	2	0		8

PM	La Media Road Southbound				Telegraph Canyon Road Westbound				La Media Road Northbound				Telegraph Canyon Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	3	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
17:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
17:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
17:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Ped Total	1				3				5				1				10	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	0		0

Intersection Turning Movement - Peak Hour Summary

LINSCOTT LAW & GREENSPAN engineers	Location:	#01	File Name: ITM-22-004-01
	Intersection:	Telegraph Canyon Road & La Media Road (Signalized)	Project: LLG Ref. 3-21-3414
	Date of Count:	Thursday, January 27, 2021	Otay Ranch Medical



Intersection Turning Movement - Peak Hour Vehicle Count

LINSCOTT LAW & GREENSPAN engineers

Location:	#02	File Name:	ITM-22-004-02
Intersection:	Palomar Street & Heritage Road (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	Heritage Road Southbound			Palomar Street Westbound			Heritage Road Northbound			Palomar Street Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00	57	128	17	72	159	159	51	206	25	28	45	106	1053
7:15	80	155	24	44	72	144	95	176	71	29	28	70	988
7:30	98	159	25	61	66	70	54	95	52	22	39	54	795
7:45	47	113	25	60	73	94	68	85	28	22	46	48	709
8:00	61	64	26	35	46	87	36	75	27	17	39	56	569
8:15	50	71	32	27	51	79	42	70	35	29	44	40	570
8:30	52	62	24	27	65	69	38	98	22	31	48	36	572
8:45	53	53	19	36	32	77	32	74	36	26	48	23	509
Total	498	805	192	362	564	779	416	879	296	204	337	433	5765
Approach%	33.3	53.8	12.8	21.2	33.1	45.7	26.1	55.2	18.6	20.9	34.6	44.5	
Total%	8.6	14.0	3.3	6.3	9.8	13.5	7.2	15.2	5.1	3.5	5.8	7.5	
AM Intersection Peak Hour:	**07:00 to 08:00**												
Volume	282	555	91	237	370	467	268	562	176	101	158	278	3,545
Approach%	30.4	59.8	9.8	22.1	34.5	43.5	26.6	55.9	17.5	18.8	29.4	51.8	
Total%	8.0	15.7	2.6	6.7	10.4	13.2	7.6	15.9	5.0	2.8	4.5	7.8	
PHF			0.82			0.69			0.74			0.75	0.84

PM	Heritage Road Southbound			Palomar Street Westbound			Heritage Road Northbound			Palomar Street Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
16:00	94	95	23	36	37	79	40	93	52	27	57	54	687
16:15	100	106	39	52	52	59	40	77	48	31	73	56	733
16:30	94	96	32	49	49	84	35	94	48	43	46	46	716
16:45	77	80	30	44	44	63	59	61	66	28	48	54	654
17:00	92	93	54	55	55	90	65	90	50	21	65	70	800
17:15	102	134	32	48	48	76	42	97	54	22	50	57	762
17:30	94	114	21	57	57	68	48	68	52	32	59	52	722
17:45	87	111	17	42	42	52	57	84	47	25	60	53	677
Total	740	829	248	383	384	571	386	664	417	229	458	442	5751
Approach%	40.7	45.6	13.6	28.6	28.7	42.7	26.3	45.3	28.4	20.3	40.6	39.1	
Total%	12.9	14.4	4.3	6.7	6.7	9.9	6.7	11.5	7.3	4.0	8.0	7.7	
PM Intersection Peak Hour:	**17:00 to 18:00**												
Volume	375	452	124	202	202	286	212	339	203	100	234	232	2,961
Approach%	39.4	47.5	13.0	29.3	29.3	41.4	28.1	45.0	26.9	17.7	41.3	41.0	
Total%	12.7	15.3	4.2	6.8	6.8	9.7	7.2	11.4	6.9	3.4	7.9	7.8	
PHF			0.89			0.86			0.92			0.91	0.93

Intersection Turning Movement - Bicycle & Pedestrian Count

LINSCOTT LAW & GREENSPAN engineers

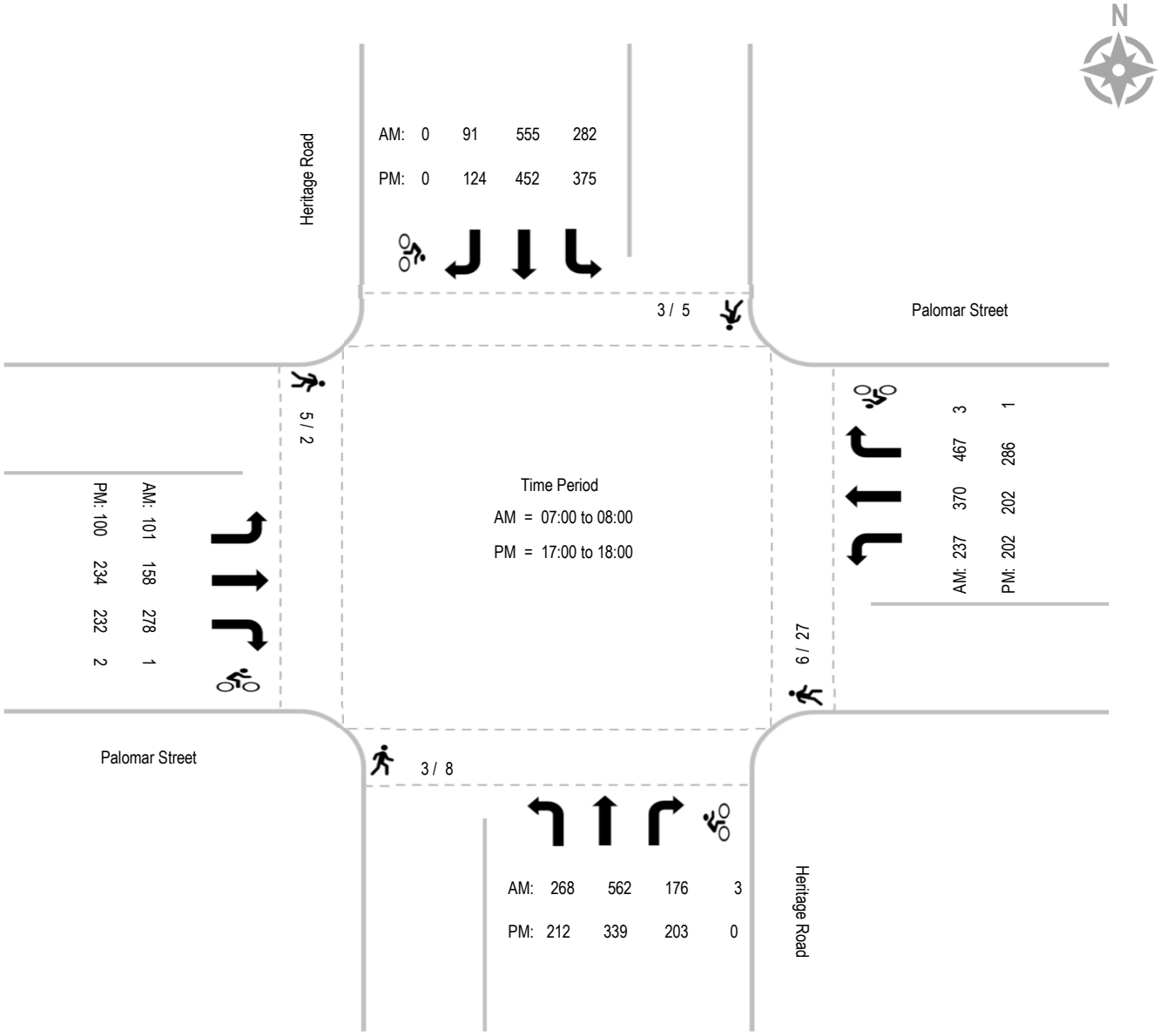
Location:	#02	File Name:	ITM-22-004-02
Intersection:	Palomar Street & Heritage Road (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	Heritage Road Southbound				Palomar Street Westbound				Heritage Road Northbound				Palomar Street Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	1	0	0	0	1	0	3	0	0	0	2	0	1	0	0	0	3	5
7:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
7:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
7:45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:00	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0
8:15	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
8:30	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	2
8:45	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
Ped Total	3				6				3				5				17	
Bike Total		0	0	0		0	3	0		1	2	0		0	1	0		7

PM	Heritage Road Southbound				Palomar Street Westbound				Heritage Road Northbound				Palomar Street Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	3
16:15	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	3	0
16:30	1	0	0	0	7	0	0	0	1	0	0	0	0	0	0	0	9	0
16:45	0	0	0	0	4	0	0	0	2	0	0	0	1	0	0	0	7	0
17:00	4	0	0	0	3	0	0	0	2	0	0	0	0	0	0	0	9	0
17:15	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5	0
17:30	0	0	0	0	6	0	0	0	2	0	0	0	0	0	0	0	8	0
17:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Ped Total	5				27				8				2				42	
Bike Total		0	0	0		0	1	0		0	0	0		0	2	0		3

Intersection Turning Movement - Peak Hour Summary

LINSCOTT LAW & GREENSPAN engineers	Location:	#02	File Name: ITM-22-004-02
	Intersection:	Palomar Street & Heritage Road (Signalized)	Project: LLG Ref. 3-21-3414
	Date of Count:	Thursday, January 27, 2021	Otay Ranch Medical



Intersection Turning Movement - Peak Hour Vehicle Count

LINSCOTT LAW & GREENSPAN engineers

Location:	#03	File Name:	ITM-22-004-03
Intersection:	Palomar Street & Santa Rita & Monarch Drive (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	Monarch Drive Southbound			Palomar Street Westbound			Santa Rita Northbound			Palomar Street Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00	87	2	14	25	58	33	7	4	98	8	76	3	415
7:15	88	7	9	59	98	31	18	7	96	11	76	2	502
7:30	66	9	5	70	90	34	16	4	98	9	63	6	470
7:45	60	2	12	29	76	34	20	3	103	14	63	3	419
8:00	65	1	9	29	81	28	8	3	61	14	49	0	348
8:15	66	1	7	29	64	33	9	0	65	16	48	1	339
8:30	63	0	6	28	64	35	5	2	50	8	38	1	300
8:45	45	4	6	39	66	38	5	1	44	19	51	4	322
Total	540	26	68	308	597	266	88	24	615	99	464	20	3115
Approach%	85.2	4.1	10.7	26.3	51.0	22.7	12.1	3.3	84.6	17.0	79.6	3.4	
Total%	17.3	0.8	2.2	9.9	19.2	8.5	2.8	0.8	19.7	3.2	14.9	0.6	

AM Intersection Peak Hour: **07:00 to 08:00**

Volume	301	20	40	183	322	132	61	18	395	42	278	14	1,806
Approach%	83.4	5.5	11.1	28.7	50.5	20.7	12.9	3.8	83.3	12.6	83.2	4.2	
Total%	16.7	1.1	2.2	10.1	17.8	7.3	3.4	1.0	21.9	2.3	15.4	0.8	
PHF			0.87			0.82			0.94			0.94	0.90

PM	Monarch Drive Southbound			Palomar Street Westbound			Santa Rita Northbound			Palomar Street Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
16:00	43	5	10	57	97	69	10	1	47	20	74	6	439
16:15	44	2	10	59	117	63	8	2	33	21	78	4	441
16:30	54	6	9	50	107	49	8	1	49	17	73	1	424
16:45	37	5	10	49	98	48	6	3	42	27	59	2	386
17:00	57	4	13	53	99	57	12	0	52	16	85	4	452
17:15	46	4	13	58	113	56	8	0	57	21	63	6	445
17:30	43	4	10	59	105	58	15	3	48	30	50	2	427
17:45	48	4	11	60	87	57	7	2	35	35	48	0	394
Total	372	34	86	445	823	457	74	12	363	187	530	25	3408
Approach%	75.6	6.9	17.5	25.8	47.7	26.5	16.5	2.7	80.8	25.2	71.4	3.4	
Total%	10.9	1.0	2.5	13.1	24.1	13.4	2.2	0.4	10.7	5.5	15.6	0.7	

PM Intersection Peak Hour: **17:00 to 18:00**

Volume	194	16	47	230	404	228	42	5	192	102	246	12	1,718
Approach%	75.5	6.2	18.3	26.7	46.9	26.5	17.6	2.1	80.3	28.3	68.3	3.3	
Total%	11.3	0.9	2.7	13.4	23.5	13.3	2.4	0.3	11.2	5.9	14.3	0.7	
PHF			0.87			0.95			0.91			0.86	0.95

Intersection Turning Movement - Bicycle & Pedestrian Count

LINSCOTT LAW & GREENSPAN engineers

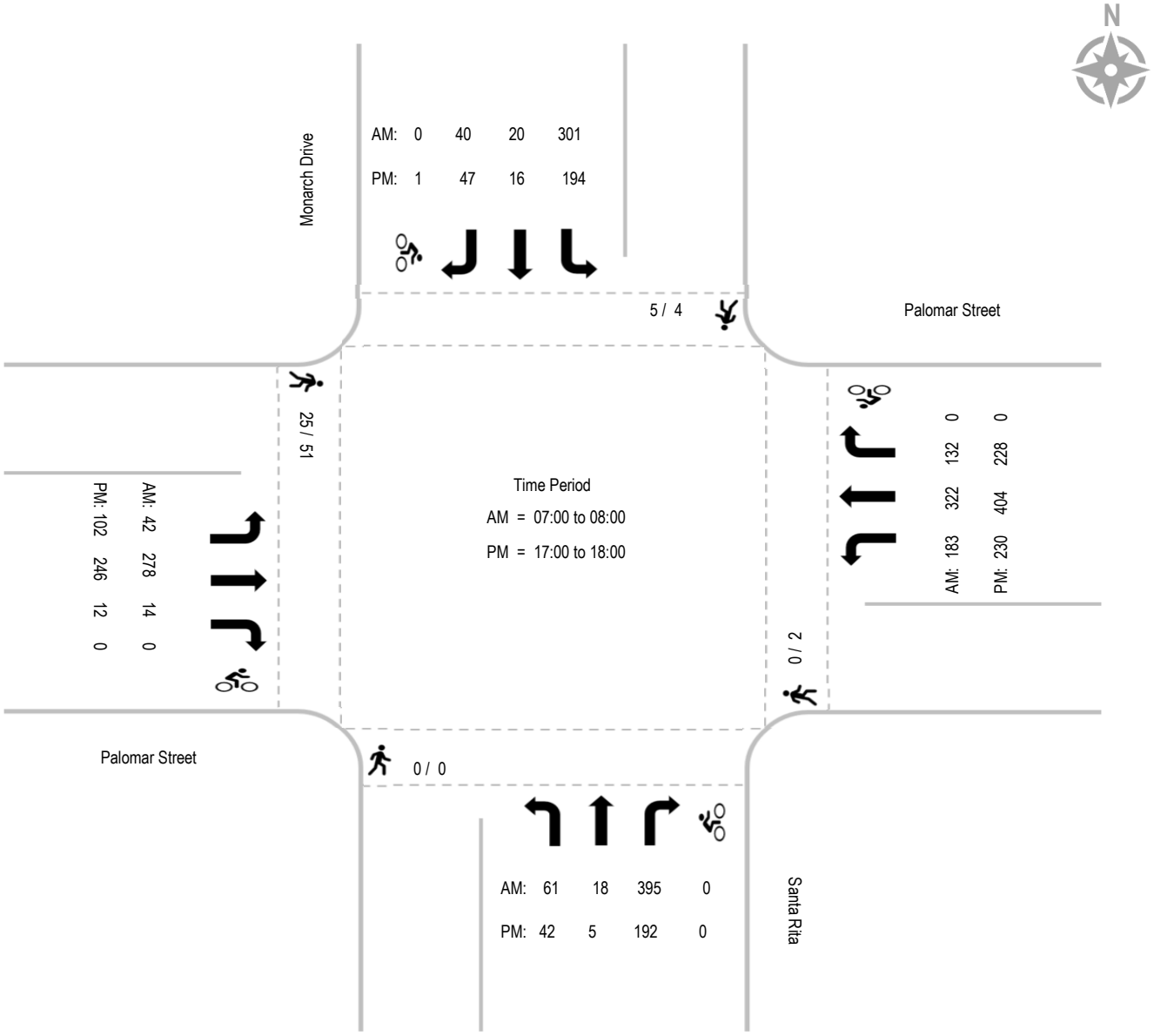
Location:	#03	File Name:	ITM-22-004-03
Intersection:	Palomar Street & Santa Rita & Monarch Drive (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	Monarch Drive Southbound				Palomar Street Westbound				Santa Rita Northbound				Palomar Street Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	4	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	10	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
8:45	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0
Ped Total	5				0				0				25				30	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	0		0

PM	Monarch Drive Southbound				Palomar Street Westbound				Santa Rita Northbound				Palomar Street Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	1	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	12	0
16:15	0	0	0	0	2	0	0	0	0	0	0	0	7	0	0	0	9	0
16:30	0	0	1	0	0	0	0	0	0	0	0	0	10	0	0	0	10	1
16:45	2	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	7	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8	0
17:30	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
Ped Total	4				2				0				51				57	
Bike Total		0	1	0		0	0	0		0	0	0		0	0	0		1

Intersection Turning Movement - Peak Hour Summary

LINSCOTT LAW & GREENSPAN engineers	Location:	#03	File Name: ITM-22-004-03
	Intersection:	Palomar Street & Santa Rita & Monarch Drive (Signalized)	Project: LLG Ref. 3-21-3414
	Date of Count:	Thursday, January 27, 2021	Otay Ranch Medical



Intersection Turning Movement - Peak Hour Vehicle Count

LINSCOTT LAW & GREENSPAN engineers

Location:	#04	File Name:	ITM-22-004-04
Intersection:	Palomar Street / Santa Andrea Street (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2022		Otay Mesa Medical

AM	Santa Andrea Street Southbound			Palomar Street Westbound			Santa Andrea Street Northbound			Palomar Street Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00	10	2	6	12	51	18	38	1	6	12	73	32	261
7:15	6	1	8	23	59	19	52	1	4	21	74	50	318
7:30	6	1	7	16	65	22	73	1	5	25	76	82	379
7:45	8	1	12	11	66	14	62	4	13	33	59	31	314
8:00	11	0	12	27	63	23	27	0	1	17	48	12	241
8:15	9	1	9	14	47	15	25	1	3	29	46	12	211
8:30	14	1	8	10	39	19	12	2	0	13	39	16	173
8:45	20	1	14	22	38	22	10	0	0	12	54	11	204
Total	84	8	76	135	428	152	299	10	32	162	469	246	2101
Approach%	50.0	4.8	45.2	18.9	59.9	21.3	87.7	2.9	9.4	18.5	53.5	28.1	
Total%	4.0	0.4	3.6	6.4	20.4	7.2	14.2	0.5	1.5	7.7	22.3	11.7	

AM Intersection Peak Hour: **07:00 to 08:00**

Volume	30	5	33	62	241	73	225	7	28	91	282	195	1,272
Approach%	44.1	7.4	48.5	16.5	64.1	19.4	86.5	2.7	10.8	16.0	49.6	34.3	
Total%	2.4	0.4	2.6	4.9	18.9	5.7	17.7	0.6	2.2	7.2	22.2	15.3	
PHF			0.81			0.91			0.82			0.78	0.84

PM	Santa Andrea Street Southbound			Palomar Street Westbound			Santa Andrea Street Northbound			Palomar Street Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
16:00	22	0	11	31	84	5	25	1	4	19	60	21	283
16:15	28	1	21	35	96	7	23	0	7	4	61	28	311
16:30	29	3	15	33	71	9	24	0	4	11	56	22	277
16:45	13	2	25	30	100	8	32	0	10	11	55	31	317
17:00	29	3	21	35	98	8	29	0	3	15	56	31	328
17:15	15	2	12	26	83	9	30	0	7	7	65	44	300
17:30	17	7	13	19	77	7	20	0	2	15	51	14	242
17:45	6	3	12	31	101	4	23	0	0	5	58	37	280
Total	159	21	130	240	710	57	206	1	37	87	462	228	2338
Approach%	51.3	6.8	41.9	23.8	70.5	5.7	84.4	0.4	15.2	11.2	59.5	29.3	
Total%	6.8	0.9	5.6	10.3	30.4	2.4	8.8	0.0	1.6	3.7	19.8	9.8	

PM Intersection Peak Hour: **16:15 to 17:15**

Volume	99	9	82	133	365	32	108	-	24	41	228	112	1,233
Approach%	52.1	4.7	43.2	25.1	68.9	6.0	81.8	-	18.2	10.8	59.8	29.4	
Total%	8.0	0.7	6.7	10.8	29.6	2.6	8.8	-	1.9	3.3	18.5	9.1	
PHF			0.90			0.94			0.79			0.93	0.94

Intersection Turning Movement - Bicycle & Pedestrian Count

LINSCOTT LAW & GREENSPAN engineers

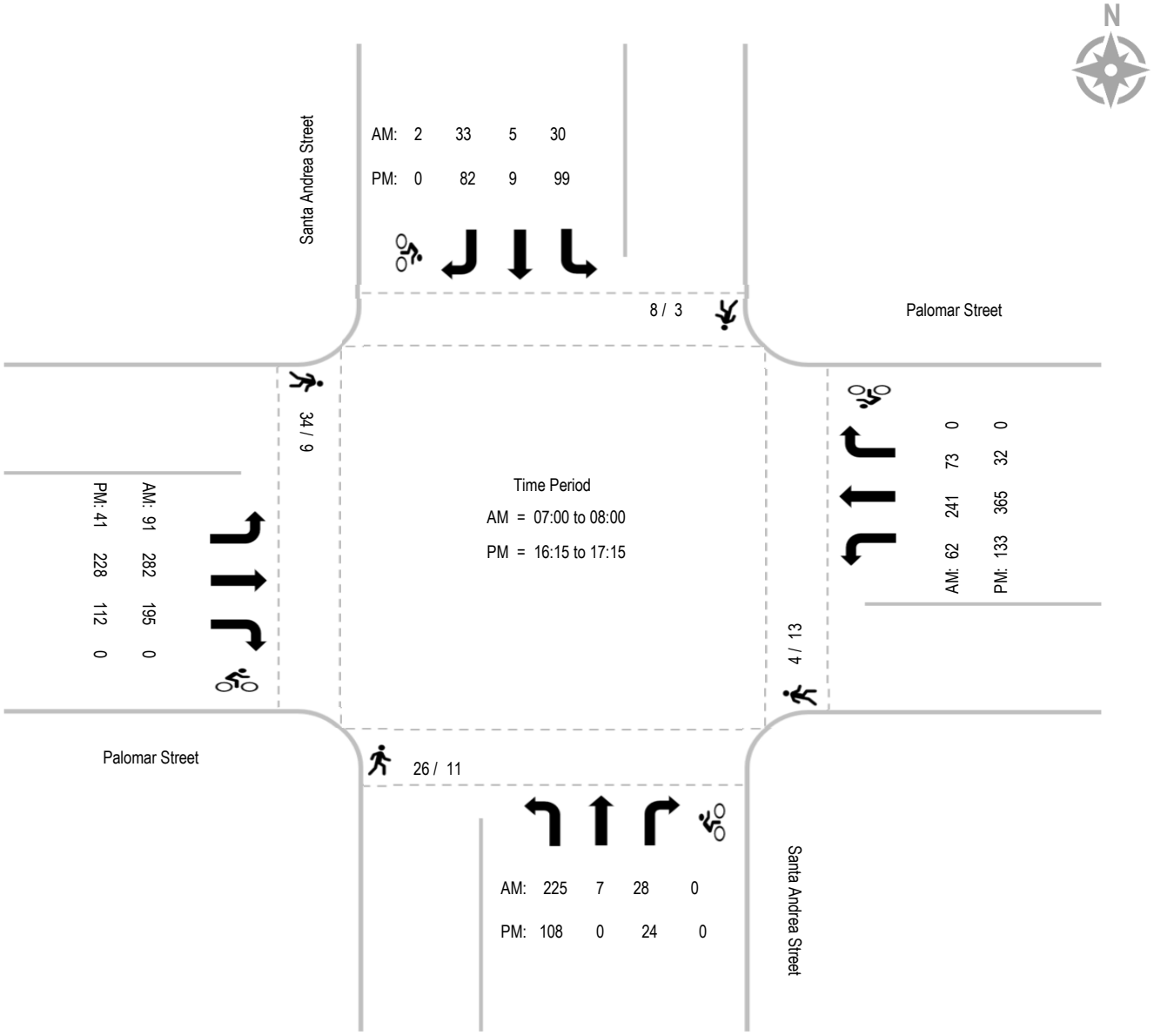
Location:	#04	File Name:	ITM-22-004-04
Intersection:	Palomar Street & Santa Alicia Avenue (Signalized)/Palomar Street /	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2022		Otay Mesa Medical

AM	Santa Andrea Street Southbound				Palomar Street Westbound				Santa Andrea Street Northbound				Palomar Street Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	1	0	0	0	0	0	0	0	3	0	0	0	8	0	0	0	12	0
7:15	0	0	2	0	0	0	0	0	2	0	0	0	6	0	0	0	8	2
7:30	0	0	0	0	0	0	0	0	2	0	0	0	14	0	0	0	16	0
7:45	1	0	0	0	3	0	0	0	3	0	0	0	4	0	0	0	11	0
8:00	1	0	0	0	0	0	0	0	14	0	0	0	1	0	0	0	16	0
8:15	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	3	0
8:30	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0
8:45	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
Ped Total	8				4				26				34				72	
Bike Total		0	2	0		0	0	0		0	0	0		0	0	0		2

PM	Santa Andrea Street Southbound				Palomar Street Westbound				Santa Andrea Street Northbound				Palomar Street Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	3	0
16:15	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	5	0
16:30	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0
16:45	1	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	5	0
17:00	0	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0	5	0
17:15	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	8	0
17:30	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0	4	0
17:45	0	0	0	0	1	0	0	0	0	0	0	0	3	0	0	0	4	0
Ped Total	3				13				11				9				36	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	0		0

Intersection Turning Movement - Peak Hour Summary

LINSCOTT LAW & GREENSPAN engineers	Location:	#04	File Name: ITM-22-004-04
	Intersection:	Palomar Street & Santa Alicia Avenue (Signalized)/Palomar Street /	Project: LLG Ref. 3-21-3414
	Date of Count:	Thursday, January 27, 2022	Otay Mesa Medical



Intersection Turning Movement - Peak Hour Vehicle Count

LINSCOTT LAW & GREENSPAN engineers

Location:	#05	File Name:	ITM-22-004-05
Intersection:	Palomar Street & Santa Alicia Avenue (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	- Southbound			Palomar Street Westbound			Santa Alicia Avenue Northbound			Palomar Street Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00	0	0	0	8	56	0	66	0	29	0	62	31	252
7:15	0	0	0	14	78	0	67	0	40	0	101	25	325
7:30	0	0	0	10	121	0	56	0	29	0	10	22	248
7:45	0	0	0	13	103	0	26	0	24	0	117	35	318
8:00	0	0	0	13	61	0	23	0	15	0	77	25	214
8:15	0	0	0	6	68	0	16	0	18	0	77	14	199
8:30	0	0	0	14	61	0	15	0	11	0	50	10	161
8:45	0	0	0	14	62	0	17	0	18	0	52	2	165
Total	0	0	0	92	610	0	286	0	184	0	546	164	1882
Approach%	-	-	-	13.1	86.9	-	60.9	-	39.1	-	76.9	23.1	
Total%	-	-	-	4.9	32.4	-	15.2	-	9.8	-	29.0	8.7	

AM Intersection Peak Hour: **07:00 to 08:00**

Volume	-	-	-	45	358	-	215	-	122	-	290	113	1,143
Approach%	-	-	-	11.2	88.8	-	63.8	-	36.2	-	72.0	28.0	
Total%	-	-	-	3.9	31.3	-	18.8	-	10.7	-	25.4	9.9	
PHF			#DIV/0!			0.77			0.79			0.66	0.88

PM	- Southbound			Palomar Street Westbound			Santa Alicia Avenue Northbound			Palomar Street Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
16:00	0	0	0	21	89	0	20	0	16	0	102	24	272
16:15	0	0	0	22	75	0	16	0	17	0	105	35	270
16:30	0	0	0	23	71	0	23	0	19	0	88	28	252
16:45	0	0	0	24	81	0	12	0	27	0	115	33	292
17:00	0	0	0	22	93	0	17	0	19	0	119	34	304
17:15	0	0	0	30	101	0	21	0	14	0	94	26	286
17:30	0	0	0	20	87	0	16	0	21	0	85	27	256
17:45	0	0	0	19	72	0	20	0	10	0	105	25	251
Total	0	0	0	181	669	0	145	0	143	0	813	232	2183
Approach%	-	-	-	21.3	78.7	-	50.3	-	49.7	-	77.8	22.2	
Total%	-	-	-	8.3	30.6	-	6.6	-	6.6	-	37.2	10.6	

PM Intersection Peak Hour: **16:45 to 17:45**

Volume	-	-	-	96	362	-	66	-	81	-	413	120	1,138
Approach%	-	-	-	21.0	79.0	-	44.9	-	55.1	-	77.5	22.5	
Total%	-	-	-	8.4	31.8	-	5.8	-	7.1	-	36.3	10.5	
PHF			#DIV/0!			0.87			0.94			0.87	0.94

Intersection Turning Movement - Bicycle & Pedestrian Count

LINSCOTT LAW & GREENSPAN engineers

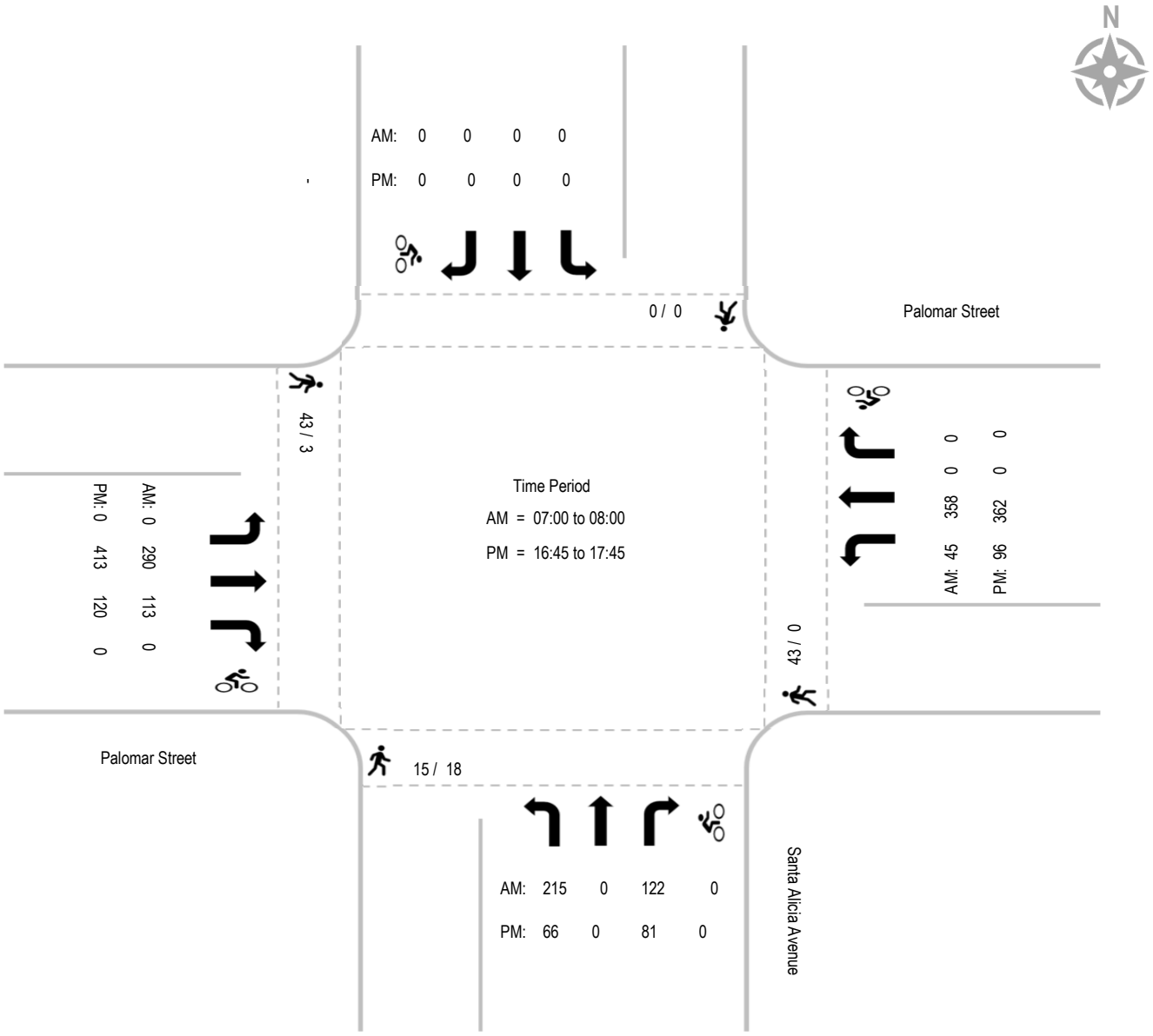
Location:	#05	File Name:	ITM-22-004-05
Intersection:	Palomar Street & Santa Alicia Avenue (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	- Southbound				Palomar Street Westbound				Santa Alicia Avenue Northbound				Palomar Street Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	9	0	0	0	2	0	0	0	1	0	0	0	12	0
7:15	0	0	0	0	6	0	0	0	2	0	0	0	3	0	0	0	11	0
7:30	0	0	0	0	25	0	0	0	0	0	0	0	17	0	0	0	42	0
7:45	0	0	0	0	2	0	0	0	1	0	0	0	8	0	0	0	11	0
8:00	0	0	0	0	1	0	0	0	3	0	0	0	12	0	0	0	16	0
8:15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0
8:30	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0
8:45	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0	4	0
Ped Total	0				43				15				43				101	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	0		0

PM	- Southbound				Palomar Street Westbound				Santa Alicia Avenue Northbound				Palomar Street Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	0
16:15	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	0
17:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0
Ped Total	0				0				18				3				21	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	0		0

Intersection Turning Movement - Peak Hour Summary

LINSCOTT LAW & GREENSPAN engineers	Location: #05	File Name:	ITM-22-004-05
	Intersection: Palomar Street & Santa Alicia Avenue (Signalized)	Project:	LLG Ref. 3-21-3414
	Date of Count: Thursday, January 27, 2021		Otay Ranch Medical



Intersection Turning Movement - Peak Hour Vehicle Count

LINSCOTT LAW & GREENSPAN engineers

Location:	#06	File Name:	ITM-22-004-06
Intersection:	Palomar Street / Santa Flora Road (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	Palomar Street Southbound			Santa Flora Road Westbound			Palomar Street Northbound			- Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00	8	56	0	6	0	19	0	96	2	0	0	0	187
7:15	11	90	0	10	0	10	0	136	4	0	0	0	261
7:30	8	124	0	11	0	11	0	137	7	0	0	0	298
7:45	4	100	0	9	0	8	0	127	9	0	0	0	257
8:00	3	69	0	6	0	6	0	92	6	0	0	0	182
8:15	2	73	0	5	0	5	0	85	4	0	0	0	174
8:30	5	67	0	2	0	3	0	63	1	0	0	0	141
8:45	2	77	0	1	0	6	0	67	2	0	0	0	155
Total	43	656	0	50	0	68	0	803	35	0	0	0	1655
Approach%	6.2	93.8	-	42.4	-	57.6	-	95.8	4.2	-	-	-	
Total%	2.6	39.6	-	3.0	-	4.1	-	48.5	2.1	-	-	-	

AM Intersection Peak Hour: **07:00 to 08:00**

Volume	31	370	-	36	-	48	-	496	22	-	-	-	1,003
Approach%	7.7	92.3	-	42.9	-	57.1	-	95.8	4.2	-	-	-	
Total%	3.1	36.9	-	3.6	-	4.8	-	49.5	2.2	-	-	-	
PHF			0.76			0.84			0.90			#DIV/0!	0.84

PM	Palomar Street Southbound			Santa Flora Road Westbound			Palomar Street Northbound			- Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
16:00	10	113	0	6	0	6	0	116	6	0	0	0	257
16:15	15	86	0	1	0	9	0	96	4	0	0	0	211
16:30	8	89	0	7	0	5	0	110	9	0	0	0	228
16:45	13	116	0	2	0	5	0	135	3	0	0	0	274
17:00	5	116	0	7	0	6	0	131	6	0	0	0	271
17:15	6	113	0	2	0	7	0	113	7	0	0	0	248
17:30	8	86	0	6	0	4	0	102	7	0	0	0	213
17:45	7	105	0	4	0	6	0	111	3	0	0	0	236
Total	72	824	0	35	0	48	0	914	45	0	0	0	1938
Approach%	8.0	92.0	-	42.2	-	57.8	-	95.3	4.7	-	-	-	
Total%	3.7	42.5	-	1.8	-	2.5	-	47.2	2.3	-	-	-	

PM Intersection Peak Hour: **16:30 to 17:30**

Volume	32	434	-	18	-	23	-	489	25	-	-	-	1,021
Approach%	6.9	93.1	-	43.9	-	56.1	-	95.1	4.9	-	-	-	
Total%	3.1	42.5	-	1.8	-	2.3	-	47.9	2.4	-	-	-	
PHF			0.90			0.79			0.93			#DIV/0!	0.93

Intersection Turning Movement - Bicycle & Pedestrian Count

LINSCOTT LAW & GREENSPAN engineers

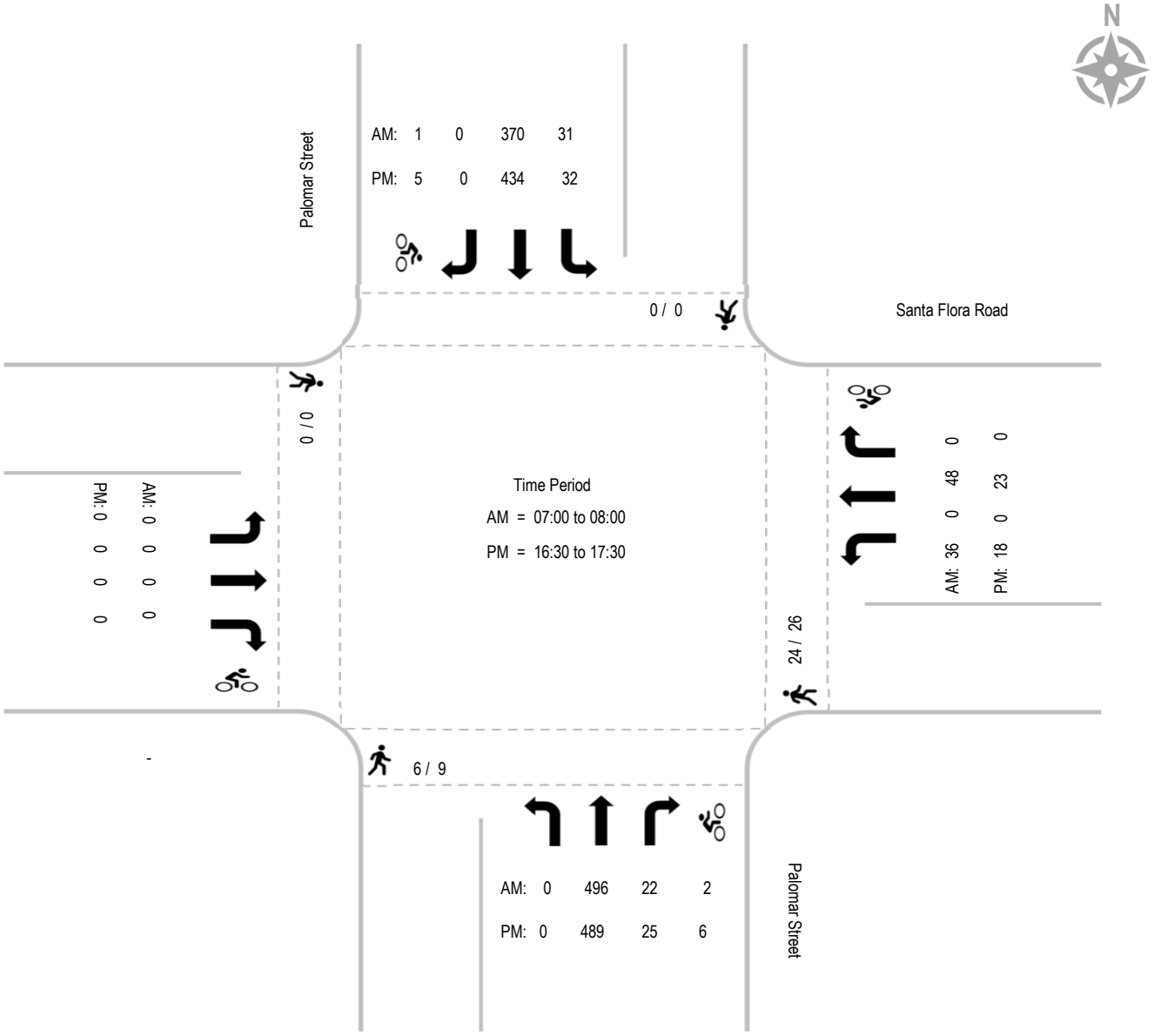
Location:	#06	File Name:	ITM-22-004-06
Intersection:	Palomar Street / Santa Flora Road (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	Palomar Street Southbound				Santa Flora Road Westbound				Palomar Street Northbound				- Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	4	1
7:15	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	3	0
7:30	0	0	0	0	3	0	0	0	2	0	0	0	0	0	0	0	5	0
7:45	0	0	0	0	4	0	0	0	1	0	0	0	0	0	0	0	5	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
8:30	0	0	0	0	5	0	0	0	0	0	1	0	0	0	0	0	5	1
8:45	0	0	0	0	3	0	0	0	1	0	1	0	0	0	0	0	4	1
Ped Total	0				24				6				0				30	
Bike Total		0	1	0		0	0	0		0	2	0		0	0	0		3

PM	Palomar Street Southbound				Santa Flora Road Westbound				Palomar Street Northbound				- Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
16:15	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0
16:30	0	0	0	0	6	0	0	0	1	0	0	0	0	0	0	0	7	0
16:45	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	5	0
17:00	0	0	1	0	4	0	0	0	3	0	2	0	0	0	0	0	7	3
17:15	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	8	0
17:30	0	0	4	0	4	0	0	0	0	0	4	0	0	0	0	0	4	8
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				26				9				0				35	
Bike Total		0	5	0		0	0	0		0	6	0		0	0	0		11

Intersection Turning Movement - Peak Hour Summary

LINSCOTT LAW & GREENSPAN engineers	Location:	#06	File Name:	ITM-22-004-06
	Intersection:	Palomar Street / Santa Flora Road (Signalized)	Project:	LLG Ref. 3-21-3414
	Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical



Intersection Turning Movement - Peak Hour Vehicle Count

LINSCOTT LAW & GREENSPAN engineers

Location:	#07	File Name:	ITM-22-004-07
Intersection:	Palomar Street & Santa Delphina Avenue (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	Delphina Avenue Southbound			Palomar Street Westbound			- Northbound			Palomar Street Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00	19	0	3	0	67	3	0	0	0	0	113	0	205
7:15	12	0	4	0	95	10	0	0	0	2	149	0	272
7:30	12	0	11	0	121	12	0	0	0	9	139	0	304
7:45	13	0	5	0	102	8	0	0	0	4	129	0	261
8:00	10	0	1	0	71	9	0	0	0	1	97	0	189
8:15	7	0	1	0	79	11	0	0	0	1	92	0	191
8:30	11	0	1	0	78	10	0	0	0	3	62	0	165
8:45	8	0	3	0	72	5	0	0	0	1	73	0	162
Total	92	0	29	0	685	68	0	0	0	21	854	0	1749
Approach%	76.0	-	24.0	-	91.0	9.0	-	-	-	2.4	97.6	-	
Total%	5.3	-	1.7	-	39.2	3.9	-	-	-	1.2	48.8	-	

AM Intersection Peak Hour: **07:00 to 08:00**

Volume	56	-	23	-	385	33	-	-	-	15	530	-	1,042
Approach%	70.9	-	29.1	-	92.1	7.9	-	-	-	2.8	97.2	-	
Total%	5.4	-	2.2	-	36.9	3.2	-	-	-	1.4	50.9	-	
PHF			0.86			0.79			#DIV/0!			0.90	0.86

PM	Delphina Avenue Southbound			Palomar Street Westbound			- Northbound			Palomar Street Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
16:00	3	0	1	0	119	9	0	0	0	2	112	0	246
16:15	3	0	1	0	115	14	0	0	0	0	117	0	250
16:30	9	0	2	0	93	11	0	0	0	2	112	0	229
16:45	8	0	3	0	117	9	0	0	0	2	135	0	274
17:00	8	0	5	0	115	12	0	0	0	2	132	0	274
17:15	8	0	2	0	113	9	0	0	0	5	111	0	248
17:30	3	0	3	0	107	9	0	0	0	3	106	0	231
17:45	5	0	2	0	99	12	0	0	0	2	116	0	236
Total	47	0	19	0	878	85	0	0	0	18	941	0	1988
Approach%	71.2	-	28.8	-	91.2	8.8	-	-	-	1.9	98.1	-	
Total%	2.4	-	1.0	-	44.2	4.3	-	-	-	0.9	47.3	-	

PM Intersection Peak Hour: **16:15 to 17:15**

Volume	28	-	11	-	440	46	-	-	-	6	496	-	1,027
Approach%	71.8	-	28.2	-	90.5	9.5	-	-	-	1.2	98.8	-	
Total%	2.7	-	1.1	-	42.8	4.5	-	-	-	0.6	48.3	-	
PHF			0.75			0.94			#DIV/0!			0.92	0.94

Intersection Turning Movement - Bicycle & Pedestrian Count

LINSCOTT LAW & GREENSPAN engineers

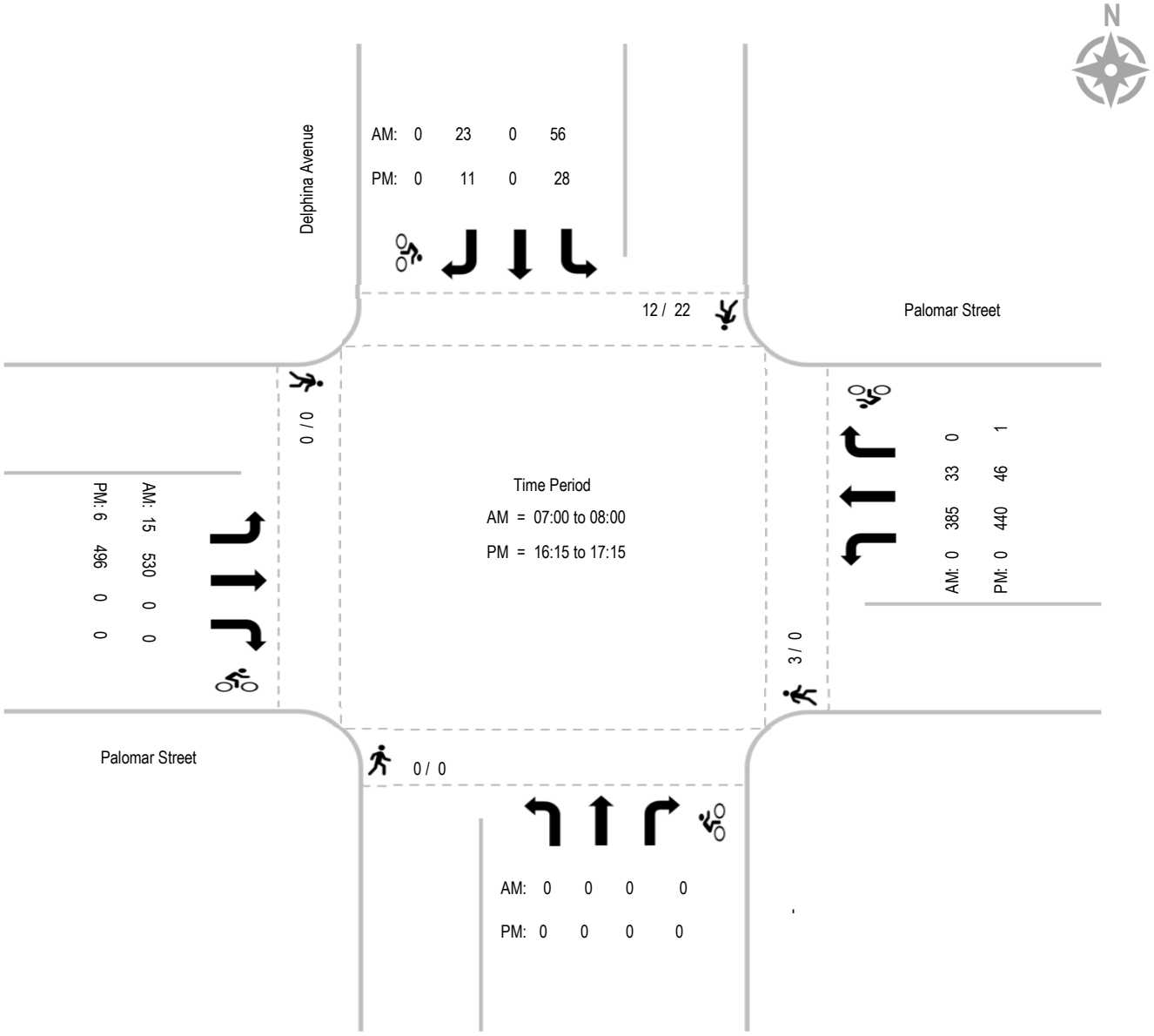
Location:	#07	File Name:	ITM-22-004-07
Intersection:	Palomar Street & Santa Delphina Avenue (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	Delphina Avenue Southbound				Palomar Street Westbound				- Northbound				Palomar Street Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
7:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
8:15	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
8:30	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	0
8:45	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
Ped Total	12				3				0				0				15	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	0		0

PM	Delphina Avenue Southbound				Palomar Street Westbound				- Northbound				Palomar Street Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
16:15	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
16:30	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
17:15	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
17:30	5	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5	1
17:45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Ped Total	22				0				0				0				22	
Bike Total		0	0	0		0	0	1		0	0	0		0	0	0		1

Intersection Turning Movement - Peak Hour Summary

LINSCOTT LAW & GREENSPAN engineers	Location:	#07	File Name: ITM-22-004-07
	Intersection:	Palomar Street & Santa Delphina Avenue (Signalized)	Project: LLG Ref. 3-21-3414
	Date of Count:	Thursday, January 27, 2021	Otay Ranch Medical



Intersection Turning Movement - Peak Hour Vehicle Count

LINSCOTT LAW & GREENSPAN engineers

Location:	#08	File Name:	ITM-22-004-08
Intersection:	Palomar Street & La Media Road (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	La Media Road Southbound			Palomar Street Westbound			La Media Road Northbound			Palomar Street Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00	93	138	39	38	21	116	23	143	7	47	10	65	740
7:15	101	100	46	16	25	93	45	161	18	62	32	59	758
7:30	83	112	43	21	38	114	47	166	32	61	40	42	799
7:45	74	101	43	33	49	122	28	141	22	70	45	37	765
8:00	91	130	21	24	22	85	21	152	10	49	28	31	664
8:15	94	102	25	24	28	94	19	158	11	53	19	32	659
8:30	101	125	46	14	26	68	13	106	8	36	24	14	581
8:45	94	115	44	12	23	55	18	89	8	46	22	16	542
Total	731	923	307	182	232	747	214	1116	116	424	220	296	5508
Approach%	37.3	47.1	15.7	15.7	20.0	64.3	14.8	77.2	8.0	45.1	23.4	31.5	
Total%	13.3	16.8	5.6	3.3	4.2	13.6	3.9	20.3	2.1	7.7	4.0	5.4	

AM Intersection Peak Hour: **07:00 to 08:00**

Volume	351	451	171	108	133	445	143	611	79	240	127	203	3,062
Approach%	36.1	46.4	17.6	15.7	19.4	64.9	17.2	73.3	9.5	42.1	22.3	35.6	
Total%	11.5	14.7	5.6	3.5	4.3	14.5	4.7	20.0	2.6	7.8	4.1	6.6	
PHF			0.90			0.84			0.85			0.93	0.96

PM	La Media Road Southbound			Palomar Street Westbound			La Media Road Northbound			Palomar Street Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
16:00	93	138	39	7	37	88	18	87	18	60	48	22	655
16:15	101	100	46	6	31	71	18	87	13	58	42	16	589
16:30	83	112	43	7	23	56	35	92	16	45	30	36	578
16:45	74	101	43	15	28	70	30	85	21	61	66	30	624
17:00	91	130	21	13	38	78	26	100	17	66	47	30	657
17:15	94	102	25	14	39	56	21	93	14	51	42	21	572
17:30	101	125	46	4	36	72	17	88	14	55	30	21	609
17:45	94	115	44	7	16	68	32	86	10	51	45	29	597
Total	731	923	307	73	248	559	197	718	123	447	350	205	4881
Approach%	37.3	47.1	15.7	8.3	28.2	63.5	19.0	69.2	11.8	44.6	34.9	20.5	
Total%	15.0	18.9	6.3	1.5	5.1	11.5	4.0	14.7	2.5	9.2	7.2	4.2	

PM Intersection Peak Hour: **16:45 to 17:45**

Volume	360	458	135	46	141	276	94	366	66	233	185	102	2,462
Approach%	37.8	48.1	14.2	9.9	30.5	59.6	17.9	69.6	12.5	44.8	35.6	19.6	
Total%	14.6	18.6	5.5	1.9	5.7	11.2	3.8	14.9	2.7	9.5	7.5	4.1	
PHF			0.88			0.90			0.92			0.83	0.94

Intersection Turning Movement - Bicycle & Pedestrian Count

LINSCOTT LAW & GREENSPAN engineers

Location:	#08	File Name:	ITM-22-004-08
Intersection:	Palomar Street & La Media Road (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

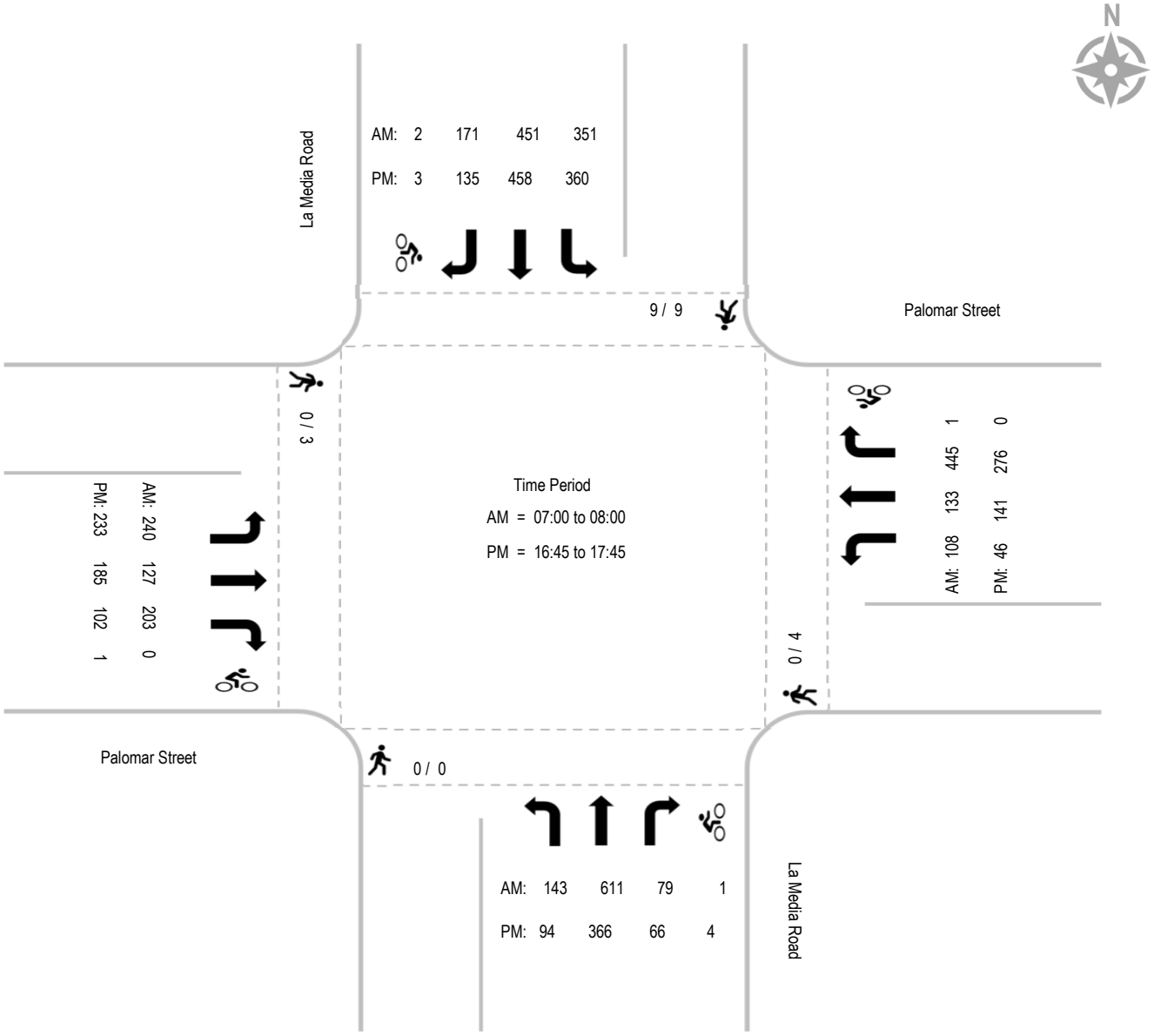
AM	La Media Road Southbound				Palomar Street Westbound				La Media Road Northbound				Palomar Street Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
8:15	5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2
8:30	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
8:45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Ped Total	9				0				0				0				9	
Bike Total		0	2	0		0	0	1		0	1	0		0	0	0		4

PM	La Media Road Southbound				Palomar Street Westbound				La Media Road Northbound				Palomar Street Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0
16:30	1	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	1	3
16:45	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	4	0
17:00	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	1	1
17:15	5	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	1
17:30	1	1	2	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3
17:45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Ped Total	9				4				0				3				16	
Bike Total		1	2	0		0	0	0		0	4	0		1	0	0		8

Intersection Turning Movement - Peak Hour Summary

LINSCOTT LAW & GREENSPAN engineers

Location:	#08	File Name:	ITM-22-004-08
Intersection:	Palomar Street & La Media Road (Signalized)	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical



Intersection Turning Movement - Peak Hour Vehicle Count

LINSCOTT LAW & GREENSPAN engineers

Location:	#09	File Name:	ITM-22-004-09
Intersection:	Santa Andrea Street & Project Driveway #01	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	Santa Andrea Street Southbound			Business Driveway Westbound			Santa Andrea Street Northbound			Project Driveway #01 Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00	0	20	8	0	0	0	0	18	0	0	0	0	46
7:15	0	20	19	0	0	0	0	12	0	3	0	0	54
7:30	0	27	24	0	0	0	0	11	0	6	0	0	68
7:45	0	24	24	0	0	0	1	14	0	5	0	1	69
8:00	0	17	21	0	0	0	0	15	0	7	0	0	60
8:15	0	18	27	0	0	0	0	13	0	9	0	0	67
8:30	0	10	22	0	0	0	0	13	0	11	0	0	56
8:45	0	5	31	0	0	0	0	12	0	17	0	0	65
Total	0	141	176	0	0	0	1	108	0	58	0	1	485
Approach%	-	44.5	55.5	-	-	-	0.9	99.1	-	98.3	-	1.7	
Total%	-	29.1	36.3	-	-	-	0.2	22.3	-	12.0	-	0.2	

AM Intersection Peak Hour: **07:30 to 08:30**

Volume	-	86	96	-	-	-	1	53	-	27	-	1	264
Approach%	-	47.3	52.7	-	-	-	1.9	98.1	-	96.4	-	3.6	
Total%	-	32.6	36.4	-	-	-	0.4	20.1	-	10.2	-	0.4	
PHF			0.89			#DIV/0!			0.90			0.78	0.96

PM	Santa Andrea Street Southbound			Business Driveway Westbound			Santa Andrea Street Northbound			Project Driveway #01 Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
16:00	0	12	11	0	0	1	0	20	0	12	0	0	56
16:15	0	8	4	0	0	0	0	30	0	19	0	0	61
16:30	0	15	16	0	0	0	0	26	0	19	0	0	76
16:45	0	9	8	0	0	0	0	33	0	14	0	0	64
17:00	0	19	3	0	0	0	0	28	0	11	0	0	61
17:15	0	13	2	0	0	0	0	25	0	5	0	0	45
17:30	0	8	3	0	0	0	0	19	0	11	0	0	41
17:45	0	9	2	0	0	0	0	15	0	6	0	0	32
Total	0	93	49	0	0	1	0	196	0	97	0	0	436
Approach%	-	65.5	34.5	-	-	100.0	-	100.0	-	100.0	-	-	
Total%	-	21.3	11.2	-	-	0.2	-	45.0	-	22.2	-	-	

PM Intersection Peak Hour: **16:15 to 17:15**

Volume	-	51	31	-	-	-	-	117	-	63	-	-	262
Approach%	-	62.2	37.8	-	-	-	-	100.0	-	100.0	-	-	
Total%	-	19.5	11.8	-	-	-	-	44.7	-	24.0	-	-	
PHF			0.66			#DIV/0!			0.89			0.83	0.86

Intersection Turning Movement - Bicycle & Pedestrian Count

LINSCOTT LAW & GREENSPAN engineers

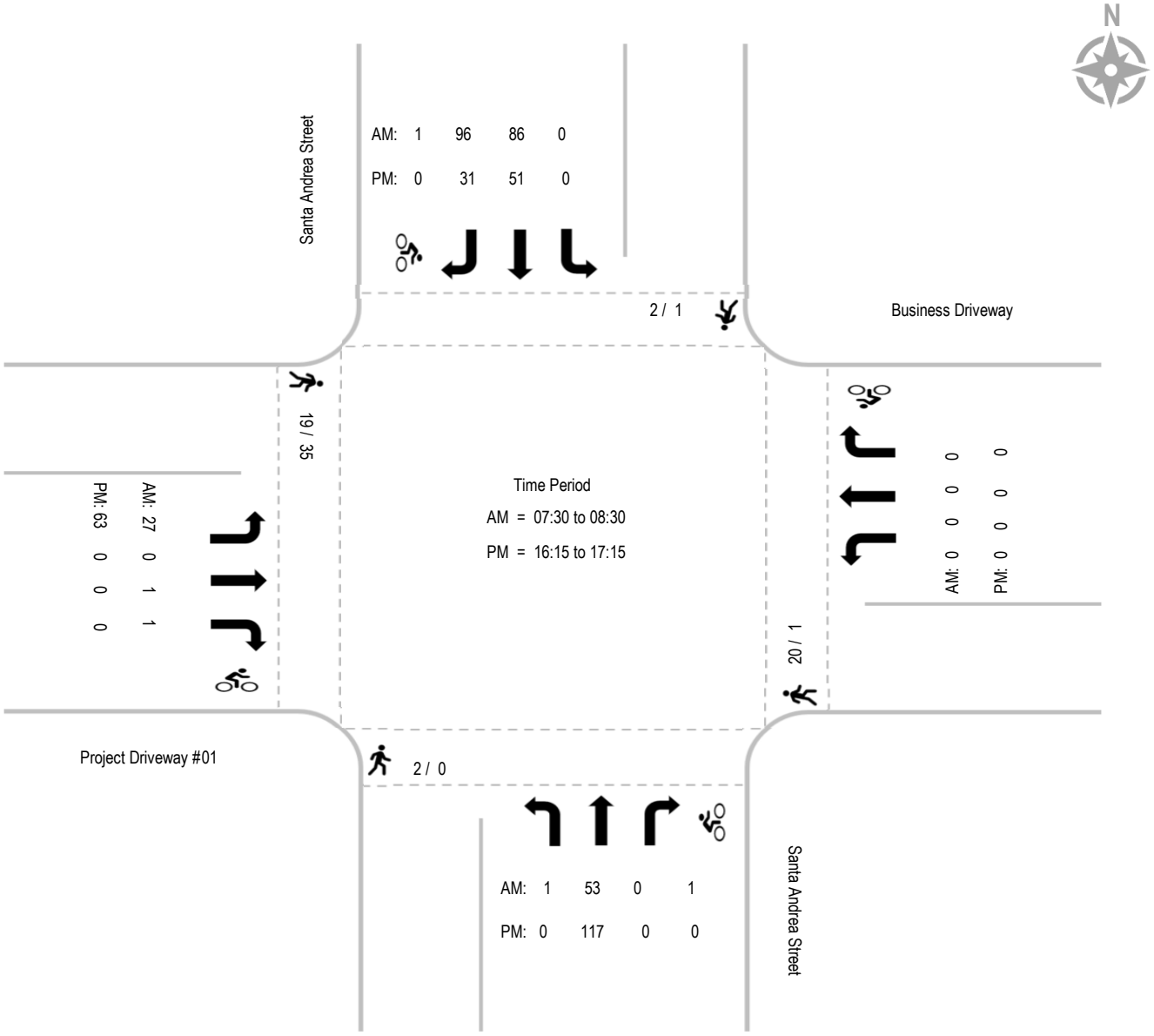
Location:	#09	File Name:	ITM-22-004-09
Intersection:	Santa Andrea Street & Project Driveway #01	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	Santa Andrea Street Southbound				Business Driveway Westbound				Santa Andrea Street Northbound				Project Driveway #01 Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	10	0	0	0	1	0	0	0	4	0	0	0	15	0
7:15	0	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	4	0
7:30	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0	0	6	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	0	3	1
8:15	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0
8:30	0	0	1	0	1	0	0	0	1	0	1	0	2	0	0	0	4	2
8:45	1	0	0	0	2	0	0	0	0	0	0	0	3	0	0	0	6	0
Ped Total	2				20				2				19				43	
Bike Total		0	1	0		0	0	0		0	1	0		0	1	0		3

PM	Santa Andrea Street Southbound				Business Driveway Westbound				Santa Andrea Street Northbound				Project Driveway #01 Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
17:00	0	0	0	0	1	0	0	0	0	0	0	0	7	0	0	0	8	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7	0
Ped Total	1				1				0				35				37	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	0		0

Intersection Turning Movement - Peak Hour Summary

LINSCOTT LAW & GREENSPAN engineers	Location:	#09	File Name:	ITM-22-004-09
	Intersection:	Santa Andrea Street & Project Driveway #01	Project:	LLG Ref. 3-21-3414
	Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical



Intersection Turning Movement - Peak Hour Vehicle Count

LINSCOTT LAW & GREENSPAN engineers

Location:	#10	File Name:	ITM-22-004-010
Intersection:	Santa Andrea Street & Project Dwy #02	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	Andrea Street Southbound			Business Driveway Westbound			- Northbound			Project Driveway #02 Eastbound			
	Left	U-Turn	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00	0	8	8	0	0	0	0	0	0	10	0	0	26
7:15	1	3	13	0	0	1	0	0	0	8	0	0	26
7:30	3	0	24	0	0	1	0	0	0	9	0	0	37
7:45	2	1	20	0	0	0	0	0	0	10	0	0	33
8:00	2	0	16	0	0	2	0	0	0	12	0	0	32
8:15	1	0	15	0	0	2	0	0	0	10	0	0	28
8:30	1	0	5	0	0	2	0	0	0	12	0	0	20
8:45	0	0	13	0	0	1	0	0	0	14	0	0	28
Total	10	12	114	0	0	9	0	0	0	85	0	0	230
Approach%	7.4	8.8	83.8	-	-	100.0	-	-	-	100.0	-	-	
Total%	4.3	5.2	49.6	-	-	3.9	-	-	-	37.0	-	-	

AM Intersection Peak Hour: **07:30 to 08:30**

Volume	8	1	75	-	-	5	-	-	-	41	-	-	130
Approach%	9.5	1.2	89.3	-	-	100.0	-	-	-	100.0	-	-	
Total%	6.2	0.8	57.7	-	-	3.8	-	-	-	31.5	-	-	
PHF			0.78			0.63			#DIV/0!			0.85	0.88

PM	Andrea Street Southbound			Business Driveway Westbound			- Northbound			Project Driveway #02 Eastbound			
	Left	U-Turn	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
16:00	1	3	10	0	0	2	0	0	0	16	0	0	32
16:15	1	2	6	0	0	3	0	0	0	25	0	0	37
16:30	0	2	12	0	0	1	0	0	0	26	0	0	41
16:45	0	2	8	0	0	0	0	0	0	32	0	0	42
17:00	1	1	17	0	0	6	0	0	0	25	0	0	50
17:15	1	1	11	0	0	1	0	0	0	22	0	0	36
17:30	0	1	6	0	0	0	0	0	0	20	0	0	27
17:45	0	0	7	0	1	2	0	0	0	13	0	0	23
Total	4	12	77	0	1	15	0	0	0	179	0	0	288
Approach%	4.3	12.9	82.8	-	6.3	93.8	-	-	-	100.0	-	-	
Total%	1.4	4.2	26.7	-	0.3	5.2	-	-	-	62.2	-	-	

PM Intersection Peak Hour: **16:15 to 17:15**

Volume	2	7	43	-	-	10	-	-	-	108	-	-	170
Approach%	3.8	13.5	82.7	-	-	100.0	-	-	-	100.0	-	-	
Total%	1.2	4.1	25.3	-	-	5.9	-	-	-	63.5	-	-	
PHF			0.68			0.42			#DIV/0!			0.84	0.85

Intersection Turning Movement - Bicycle & Pedestrian Count

LINSCOTT LAW & GREENSPAN engineers

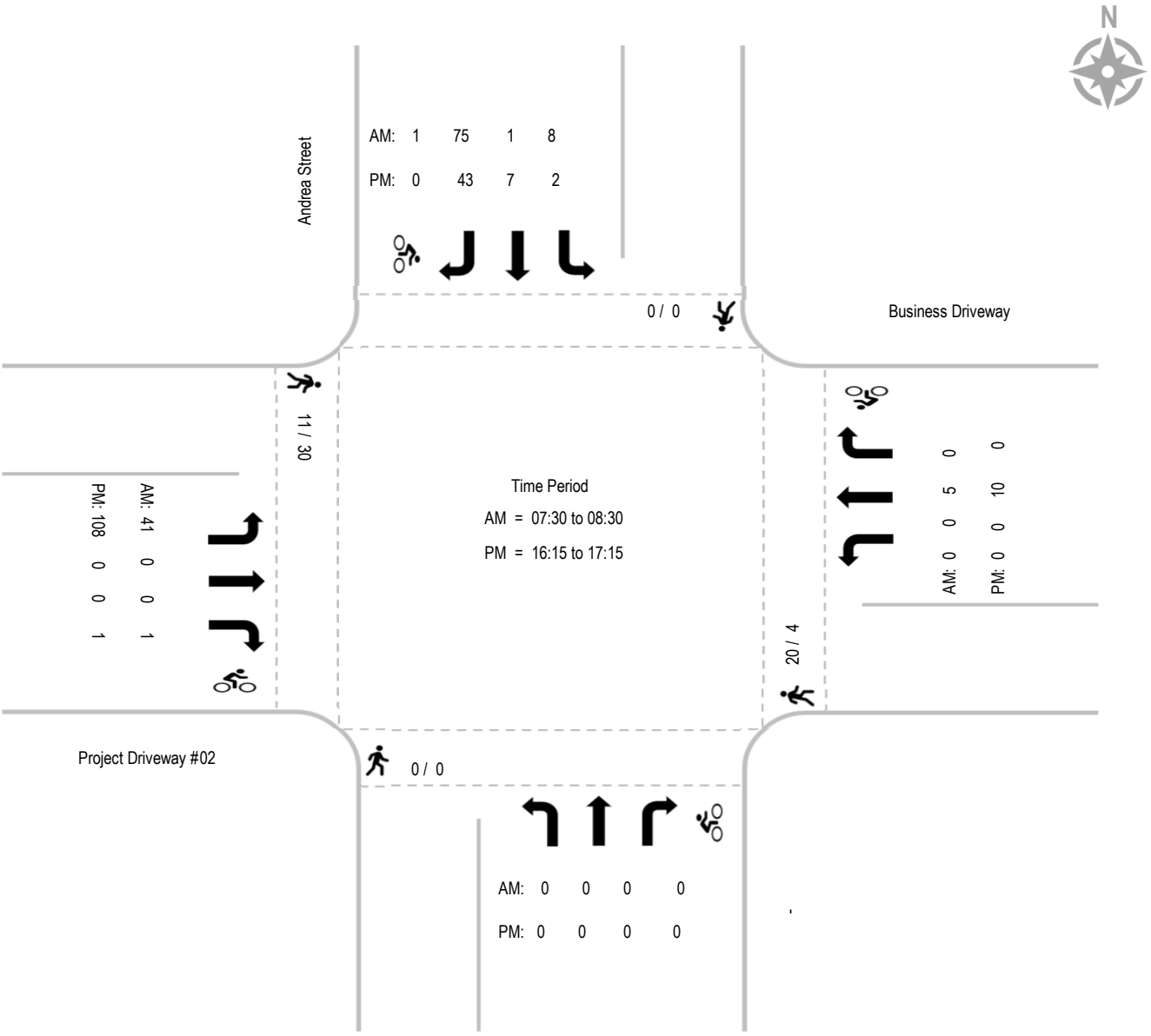
Location:	#10	File Name:	ITM-22-004-010
Intersection:	Santa Andrea Street & Project Dwy #02	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, January 27, 2021		Otay Ranch Medical

AM	Andrea Street Southbound				Business Driveway Westbound				- Northbound				Project Driveway #02 Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	9	0	0	0	0	0	0	0	4	0	0	1	13	1
7:15	0	0	0	0	3	0	0	0	0	0	0	0	1	0	0	0	4	0
7:30	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
8:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
8:30	0	0	1	0	2	0	0	0	0	0	0	0	1	0	0	0	3	1
8:45	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	3	0
Ped Total	0				20				0				11				31	
Bike Total		0	1	0		0	0	0		0	0	0		0	0	1		2

PM	Andrea Street Southbound				Business Driveway Westbound				- Northbound				Project Driveway #02 Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	3	0	0	0	0	0	0	0	6	0	0	0	9	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
17:00	0	0	0	0	1	0	0	0	0	0	0	0	7	0	0	1	8	1
17:15	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0
Ped Total	0				4				0				30				34	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	1		1

Intersection Turning Movement - Peak Hour Summary

LINSCOTT LAW & GREENSPAN engineers	Location:	#10	File Name: ITM-22-004-010
	Intersection:	Santa Andrea Street & Project Dwy #02	Project: LLG Ref. 3-21-3414
	Date of Count:	Thursday, January 27, 2021	Otay Ranch Medical



Intersection Turning Movement - Peak Hour Vehicle Count

LINSCOTT LAW & GREENSPAN engineers

Location:	#01	File Name:	ITM-22-013-01
Intersection:	Olympic Parkway & Palomar Street	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, March 03, 2022		Sharp Otay Ranch

AM	Olympic Parkway Southbound			Palomar Street Westbound			Olympic Parkway Northbound			Palomar Street Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00	24	210	36	75	36	67	27	144	13	52	56	66	806
7:15	17	249	40	53	57	59	22	226	20	59	29	48	879
7:30	37	222	93	63	46	47	33	253	35	91	44	30	994
7:45	25	252	71	61	56	81	23	257	18	96	22	48	1010
8:00	34	236	63	53	41	69	27	238	24	74	21	46	926
8:15	31	262	33	33	33	58	17	270	27	86	23	32	905
8:30	23	248	43	31	25	54	13	166	13	51	20	33	720
8:45	19	217	45	33	27	31	15	205	24	49	14	26	705
Total	210	1896	424	402	321	466	177	1759	174	558	229	329	6945
Approach%	8.3	74.9	16.8	33.8	27.0	39.2	8.4	83.4	8.2	50.0	20.5	29.5	
Total%	3.0	27.3	6.1	5.8	4.6	6.7	2.5	25.3	2.5	8.0	3.3	4.7	

AM Intersection Peak Hour: **07:30 to 08:30**

Volume	127	972	260	210	176	255	100	1,018	104	347	110	156	3,835
Approach%	9.3	71.5	19.1	32.8	27.5	39.8	8.2	83.3	8.5	56.6	17.9	25.4	
Total%	3.3	25.3	6.8	5.5	4.6	6.6	2.6	26.5	2.7	9.0	2.9	4.1	
PHF			0.97			0.81			0.95			0.92	0.78

PM	Olympic Parkway Southbound			Palomar Street Westbound			Olympic Parkway Northbound			Palomar Street Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
16:00	54	263	93	29	32	37	26	261	50	60	27	26	958
16:15	45	264	50	62	37	36	26	238	32	70	24	26	910
16:30	62	213	65	23	26	34	36	305	48	67	34	27	940
16:45	50	285	77	36	29	31	20	326	37	56	39	17	1003
17:00	57	246	71	23	25	41	32	267	46	81	39	35	963
17:15	52	265	72	29	21	29	28	348	47	69	25	15	1000
17:30	50	228	50	41	33	52	37	301	62	65	30	27	976
17:45	48	247	78	38	34	38	24	300	61	82	37	20	1007
Total	418	2011	556	281	237	298	229	2346	383	550	255	193	7757
Approach%	14.0	67.4	18.6	34.4	29.0	36.5	7.7	79.3	12.9	55.1	25.6	19.3	
Total%	5.4	25.9	7.2	3.6	3.1	3.8	3.0	30.2	4.9	7.1	3.3	2.5	

PM Intersection Peak Hour: **17:00 to 18:00**

Volume	207	986	271	131	113	160	121	1,216	216	297	131	97	3,946
Approach%	14.1	67.3	18.5	32.4	28.0	39.6	7.8	78.3	13.9	56.6	25.0	18.5	
Total%	5.2	25.0	6.9	3.3	2.9	4.1	3.1	30.8	5.5	7.5	3.3	2.5	
PHF			0.94			0.80			0.92			0.85	0.89

Intersection Turning Movement - Bicycle & Pedestrian Count

LINSCOTT LAW & GREENSPAN engineers

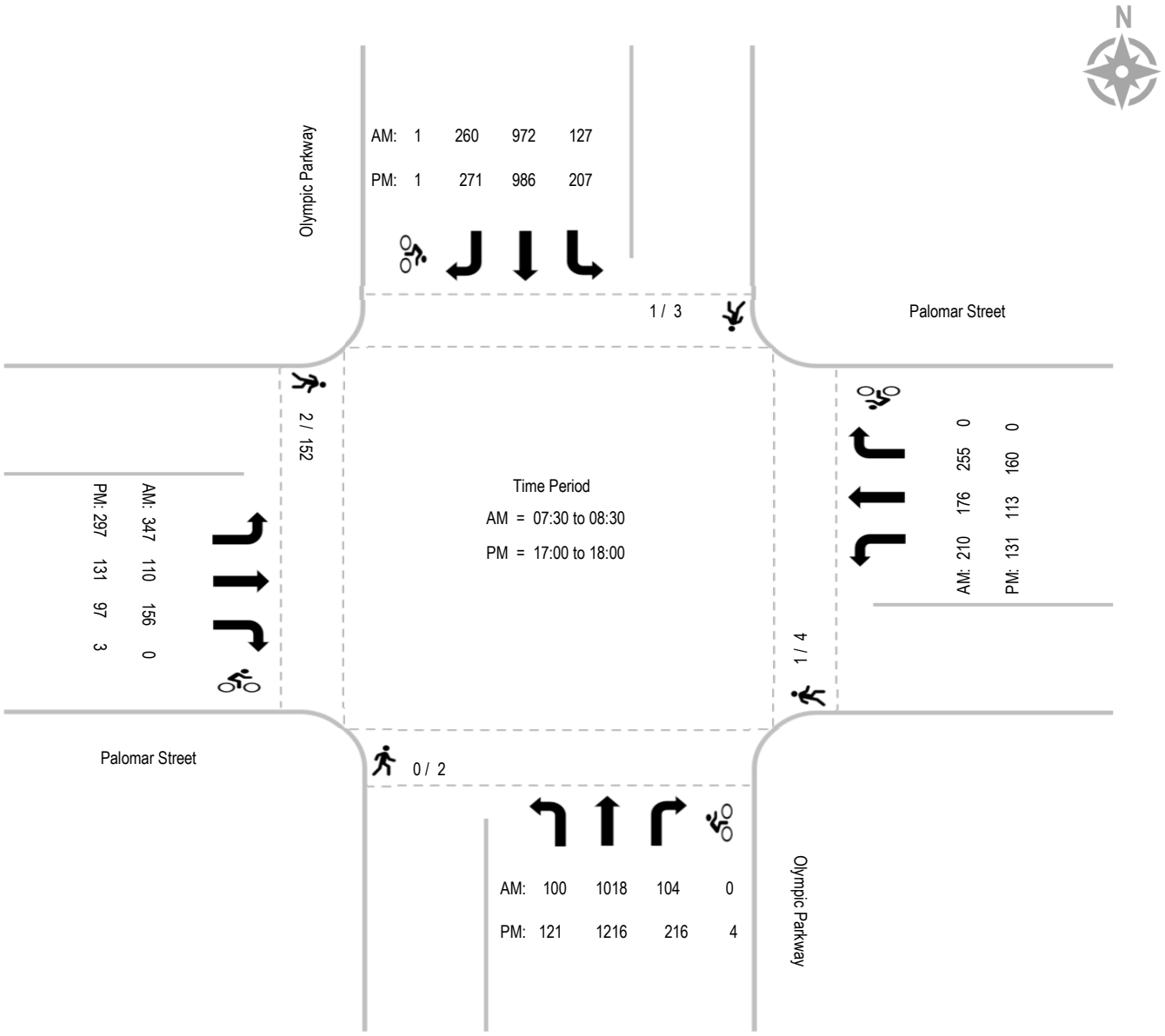
Location:	#01	File Name:	ITM-22-013-01
Intersection:	Olympic Parkway & Palomar Street	Project:	LLG Ref. 3-21-3414
Date of Count:	Thursday, March 03, 2022		Sharp Otay Ranch

AM	Olympic Parkway Southbound				Palomar Street Westbound				Olympic Parkway Northbound				Palomar Street Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	1				1				0				2				4	
Bike Total		0	1	0		0	0	0		0	0	0		0	0	0		1

PM	Olympic Parkway Southbound				Palomar Street Westbound				Olympic Parkway Northbound				Palomar Street Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	37	0	0	0	37	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	51	0	0	0	51	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	0	53	0
16:45	0	0	0	0	0	0	0	0	1	2	0	0	10	0	0	1	11	3
17:00	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	0
17:15	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	3	0
17:30	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	3	1
17:45	1	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	1	4
Ped Total	3				4				2				152				161	
Bike Total		0	1	0		0	0	0		4	0	0		0	2	1		8

Intersection Turning Movement - Peak Hour Summary

LINSCOTT LAW & GREENSPAN engineers	Location: #01	File Name:	ITM-22-013-01
	Intersection: Olympic Parkway & Palomar Street	Project:	LLG Ref. 3-21-3414
	Date of Count: Thursday, March 03, 2022		Sharp Otay Ranch



Intersection Turning Movement - Peak Hour Vehicle Count

LINSCOTT LAW & GREENSPAN engineers

Location:	#05	File Name:	ITM-20-004-05
Intersection:	Olympic Parkway & Heritage Road	Project:	LLG Ref. 3-19-3181
Date of Count:	Thursday, January 16, 2020		Chula Vista

AM	Heritage Road Southbound			Olympic Parkway Westbound			Heritage Road Northbound			Olympic Parkway Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
7:00	164	69	53	20	334	124	73	70	29	46	380	38	1400
7:15	148	76	75	23	450	165	91	86	29	39	387	29	1598
7:30	113	69	81	15	466	106	71	47	24	41	310	29	1372
7:45	71	49	65	32	432	62	63	37	23	56	368	40	1298
8:00	62	50	43	30	324	46	72	50	22	38	305	60	1102
8:15	53	37	54	19	386	70	59	47	20	31	319	22	1117
8:30	27	29	59	17	389	54	37	27	14	33	240	28	954
8:45	29	39	46	18	308	32	37	35	21	33	245	12	855
Total	667	418	476	174	3089	659	503	399	182	317	2554	258	9696
Approach%	42.7	26.8	30.5	4.4	78.8	16.8	46.4	36.8	16.8	10.1	81.6	8.2	
Total%	6.9	4.3	4.9	1.8	31.9	6.8	5.2	4.1	1.9	3.3	26.3	2.7	

AM Intersection Peak Hour: **07:00 to 08:00**

Volume	496	263	274	90	1,682	457	298	240	105	182	1,445	136	5,668
Approach%	48.0	25.5	26.5	4.0	75.5	20.5	46.3	37.3	16.3	10.3	82.0	7.7	
Total%	8.8	4.6	4.8	1.6	29.7	8.1	5.3	4.2	1.9	3.2	25.5	2.4	
PHF			0.86			0.87			0.78			0.95	0.87

PM	Heritage Road Southbound			Olympic Parkway Westbound			Heritage Road Northbound			Olympic Parkway Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Total
16:00	77	38	50	26	287	83	46	40	26	58	436	63	1230
16:15	75	37	36	22	294	79	33	50	30	74	508	54	1292
16:30	122	40	48	27	269	62	47	51	25	50	429	59	1229
16:45	92	41	39	28	263	79	29	45	28	60	496	54	1254
17:00	107	43	44	25	343	90	38	39	40	58	450	61	1338
17:15	102	48	43	18	344	73	38	51	21	57	436	64	1295
17:30	82	55	56	17	266	54	40	47	25	51	410	47	1150
17:45	59	44	47	20	242	61	39	30	26	55	400	60	1083
Total	716	346	363	183	2308	581	310	353	221	463	3565	462	9871
Approach%	50.2	24.3	25.5	6.0	75.1	18.9	35.1	39.9	25.0	10.3	79.4	10.3	
Total%	7.3	3.5	3.7	1.9	23.4	5.9	3.1	3.6	2.2	4.7	36.1	4.7	

PM Intersection Peak Hour: **16:30 to 17:30**

Volume	423	172	174	98	1,219	304	152	186	114	225	1,811	238	5,116
Approach%	55.0	22.4	22.6	6.0	75.2	18.8	33.6	41.2	25.2	9.9	79.6	10.5	
Total%	8.3	3.4	3.4	1.9	23.8	5.9	3.0	3.6	2.2	4.4	35.4	4.7	
PHF			0.92			0.88			0.92			0.93	0.96

Intersection Turning Movement - Bicycle & Pedestrian Count

LINSCOTT LAW & GREENSPAN engineers

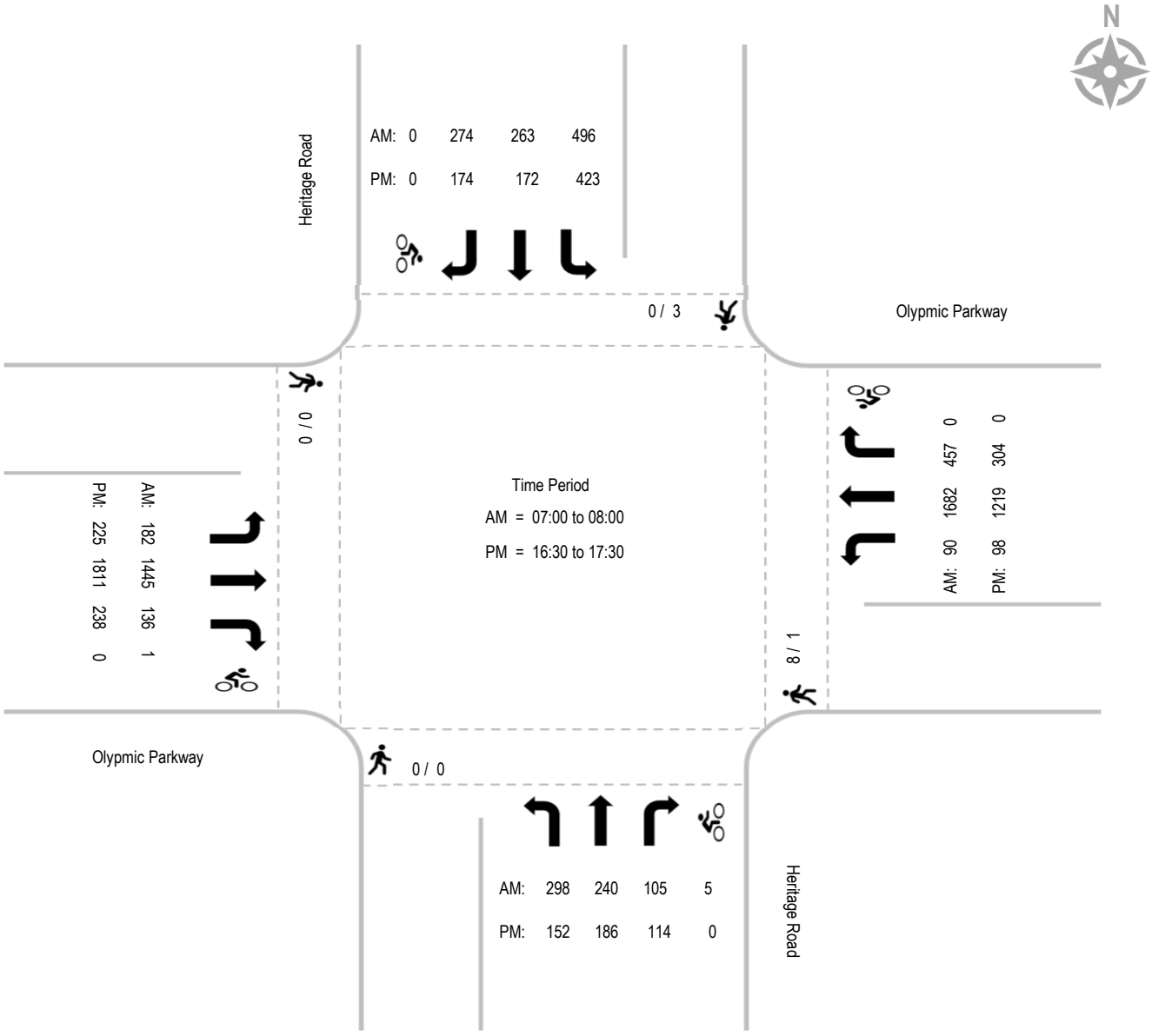
Location:	#05	File Name:	ITM-20-004-05
Intersection:	Olympic Parkway & Heritage Road	Project:	LLG Ref. 3-19-3181
Date of Count:	Thursday, January 16, 2020		Chula Vista

AM	Heritage Road Southbound				Olympic Parkway Westbound				Heritage Road Northbound				Olympic Parkway Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	4	0	0	0	0	0	5	0	0	0	1	0	4	6
7:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
8:30	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				8				0				0				8	
Bike Total		0	0	0		0	0	0		0	5	0		0	1	0		6

PM	Heritage Road Southbound				Olympic Parkway Westbound				Heritage Road Northbound				Olympic Parkway Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Ped Total	3				1				0				0				4	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	0		0

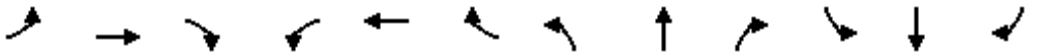
Intersection Turning Movement - Peak Hour Summary

LINSCOTT LAW & GREENSPAN engineers	Location:	#05	File Name:	ITM-20-004-05
	Intersection:	Olympic Parkway & Heritage Road	Project:	LLG Ref. 3-19-3181
	Date of Count:	Thursday, January 16, 2020		Chula Vista



APPENDIX E

PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS – EXISTING



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	158	278	237	370	467	268	562	176	282	555	91
Future Volume (veh/h)	101	158	278	237	370	467	268	562	176	282	555	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	135	211	371	343	536	677	362	759	238	344	677	111
Peak Hour Factor	0.75	0.75	0.75	0.69	0.69	0.69	0.74	0.74	0.74	0.82	0.82	0.82
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	183	1350	593	404	1579	694	418	1079	330	399	1051	326
Arrive On Green	0.06	0.39	0.39	0.12	0.46	0.46	0.13	0.22	0.22	0.12	0.21	0.21
Sat Flow, veh/h	3315	3433	1508	3315	3433	1508	3315	4898	1496	3315	4898	1520
Grp Volume(v), veh/h	135	211	371	343	536	677	362	759	238	344	677	111
Grp Sat Flow(s),veh/h/ln	1657	1716	1508	1657	1716	1508	1657	1633	1496	1657	1633	1520
Q Serve(g_s), s	5.4	5.3	26.5	13.6	13.4	59.0	14.4	19.2	19.8	13.6	16.9	8.3
Cycle Q Clear(g_c), s	5.4	5.3	26.5	13.6	13.4	59.0	14.4	19.2	19.8	13.6	16.9	8.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	183	1350	593	404	1579	694	418	1079	330	399	1051	326
V/C Ratio(X)	0.74	0.16	0.63	0.85	0.34	0.98	0.87	0.70	0.72	0.86	0.64	0.34
Avail Cap(c_a), veh/h	223	1350	593	574	1589	698	520	1459	446	490	1430	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	62.3	26.3	32.7	57.6	23.1	35.4	57.4	48.2	48.4	57.8	48.0	44.6
Incr Delay (d2), s/veh	9.9	0.1	2.1	8.3	0.1	28.0	12.1	1.0	3.7	12.5	0.7	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	2.2	9.8	6.1	5.4	26.0	6.6	7.8	7.6	6.3	6.8	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.2	26.3	34.8	65.9	23.3	63.5	69.5	49.1	52.1	70.4	48.6	45.2
LnGrp LOS	E	C	C	E	C	E	E	D	D	E	D	D
Approach Vol, veh/h		717			1556			1359			1132	
Approach Delay, s/veh		39.3			50.1			55.1			54.9	
Approach LOS		D			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.5	57.9	21.1	34.4	11.6	66.8	20.3	35.2
Change Period (Y+Rc), s	* 4.2	* 5.2	* 4.2	* 5.7	* 4.2	* 5.2	* 4.2	5.7
Max Green Setting (Gmax), s	* 23	* 48	* 21	* 39	* 9	* 62	* 20	39.9
Max Q Clear Time (g_c+I1), s	15.6	28.5	16.4	18.9	7.4	61.0	15.6	21.8
Green Ext Time (p_c), s	0.7	2.5	0.6	4.7	0.1	0.7	0.5	5.6

Intersection Summary	
HCM 6th Ctrl Delay	51.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	278	14	183	322	132	61	18	395	301	20	40
Future Volume (veh/h)	42	278	14	183	322	132	61	18	395	301	20	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	45	296	15	223	393	161	65	19	420	346	23	46
Peak Hour Factor	0.94	0.94	0.94	0.82	0.82	0.82	0.94	0.94	0.94	0.87	0.87	0.87
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	56	391	20	237	531	215	70	20	452	358	24	329
Arrive On Green	0.03	0.12	0.12	0.14	0.22	0.22	0.35	0.35	0.35	0.22	0.22	0.22
Sat Flow, veh/h	1709	3325	168	1709	2377	960	200	58	1293	1607	107	1480
Grp Volume(v), veh/h	45	152	159	223	282	272	504	0	0	369	0	46
Grp Sat Flow(s),veh/h/ln	1709	1716	1777	1709	1716	1621	1551	0	0	1714	0	1480
Q Serve(g_s), s	2.7	9.0	9.1	13.6	16.1	16.4	32.9	0.0	0.0	22.4	0.0	2.6
Cycle Q Clear(g_c), s	2.7	9.0	9.1	13.6	16.1	16.4	32.9	0.0	0.0	22.4	0.0	2.6
Prop In Lane	1.00		0.09	1.00		0.59	0.13		0.83	0.94		1.00
Lane Grp Cap(c), veh/h	56	202	209	237	384	362	542	0	0	381	0	329
V/C Ratio(X)	0.80	0.75	0.76	0.94	0.74	0.75	0.93	0.00	0.00	0.97	0.00	0.14
Avail Cap(c_a), veh/h	88	294	304	237	444	419	605	0	0	381	0	329
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	50.5	44.9	44.9	44.8	37.9	38.1	32.9	0.0	0.0	40.5	0.0	32.8
Incr Delay (d2), s/veh	23.5	6.3	6.4	42.1	5.4	6.3	19.8	0.0	0.0	37.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.1	4.3	8.4	7.2	7.0	15.2	0.0	0.0	13.4	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.9	51.2	51.4	86.9	43.3	44.4	52.7	0.0	0.0	77.9	0.0	33.0
LnGrp LOS	E	D	D	F	D	D	D	A	A	E	A	C
Approach Vol, veh/h		356			777			504			415	
Approach Delay, s/veh		54.2			56.2			52.7			72.9	
Approach LOS		D			E			D			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	18.8	17.0		28.0	7.7	28.1		41.4
Change Period (Y+Rc), s	* 4.2	4.6		4.6	* 4.2	4.6		4.6
Max Green Setting (Gmax), s	* 15	18.0		23.4	* 5.4	27.2		41.0
Max Q Clear Time (g_c+I1), s	15.6	11.1		24.4	4.7	18.4		34.9
Green Ext Time (p_c), s	0.0	0.9		0.0	0.0	2.2		1.9

Intersection Summary	
HCM 6th Ctrl Delay	58.4
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	282	195	62	241	73	225	7	28	30	5	33
Future Volume (veh/h)	91	282	195	62	241	73	225	7	28	30	5	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.98	1.00		1.00	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	117	362	210	68	265	80	274	9	34	37	6	41
Peak Hour Factor	0.78	0.78	0.93	0.91	0.91	0.91	0.82	0.82	0.82	0.81	0.81	0.81
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	147	482	273	85	513	151	363	12	45	299	49	290
Arrive On Green	0.09	0.23	0.23	0.05	0.20	0.20	0.25	0.25	0.25	0.20	0.20	0.20
Sat Flow, veh/h	1709	2062	1169	1709	2600	766	1459	48	181	1480	240	1434
Grp Volume(v), veh/h	117	300	272	68	173	172	317	0	0	43	0	41
Grp Sat Flow(s),veh/h/ln	1709	1716	1515	1709	1716	1650	1687	0	0	1720	0	1434
Q Serve(g_s), s	4.6	11.0	11.4	2.7	6.1	6.3	11.8	0.0	0.0	1.4	0.0	1.6
Cycle Q Clear(g_c), s	4.6	11.0	11.4	2.7	6.1	6.3	11.8	0.0	0.0	1.4	0.0	1.6
Prop In Lane	1.00		0.77	1.00		0.46	0.86		0.11	0.86		1.00
Lane Grp Cap(c), veh/h	147	401	354	85	338	325	420	0	0	348	0	290
V/C Ratio(X)	0.80	0.75	0.77	0.80	0.51	0.53	0.76	0.00	0.00	0.12	0.00	0.14
Avail Cap(c_a), veh/h	171	499	440	134	461	443	1021	0	0	1041	0	868
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.4	24.1	24.3	31.9	24.3	24.4	23.5	0.0	0.0	22.1	0.0	22.2
Incr Delay (d2), s/veh	19.7	4.8	6.4	16.4	1.2	1.3	2.8	0.0	0.0	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	4.8	4.5	1.4	2.4	2.4	4.8	0.0	0.0	0.6	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	28.9	30.7	48.2	25.5	25.7	26.3	0.0	0.0	22.3	0.0	22.4
LnGrp LOS	D	C	C	D	C	C	C	A	A	C	A	C
Approach Vol, veh/h		689			413			317			84	
Approach Delay, s/veh		33.2			29.3			26.3			22.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	7.6	20.4		18.3	10.0	18.0		21.5
Change Period (Y+Rc), s	* 4.2	4.6		4.6	* 4.2	4.6		4.6
Max Green Setting (Gmax), s	* 5.3	19.7		41.0	* 6.8	18.2		41.0
Max Q Clear Time (g_c+I1), s	4.7	13.4		3.6	6.6	8.3		13.8
Green Ext Time (p_c), s	0.0	2.0		0.4	0.0	1.3		2.2

Intersection Summary	
HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	290	113	45	358	215	122
Future Volume (veh/h)	290	113	45	358	215	122
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1807	1807	1794	1807	1794	1807
Adj Flow Rate, veh/h	439	171	58	465	272	154
Peak Hour Factor	0.66	0.66	0.77	0.77	0.79	0.79
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	712	274	75	1447	403	228
Arrive On Green	0.30	0.30	0.04	0.42	0.39	0.39
Sat Flow, veh/h	2493	926	1709	3523	1028	582
Grp Volume(v), veh/h	312	298	58	465	427	0
Grp Sat Flow(s),veh/h/ln	1716	1612	1709	1716	1614	0
Q Serve(g_s), s	8.1	8.2	1.7	4.7	11.3	0.0
Cycle Q Clear(g_c), s	8.1	8.2	1.7	4.7	11.3	0.0
Prop In Lane		0.57	1.00		0.64	0.36
Lane Grp Cap(c), veh/h	508	477	75	1447	632	0
V/C Ratio(X)	0.61	0.62	0.77	0.32	0.68	0.00
Avail Cap(c_a), veh/h	801	752	226	2336	1111	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.6	15.6	24.3	10.0	12.9	0.0
Incr Delay (d2), s/veh	1.2	1.3	15.5	0.1	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	2.7	1.0	1.4	3.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.8	17.0	39.8	10.1	14.2	0.0
LnGrp LOS	B	B	D	B	B	A
Approach Vol, veh/h	610			523	427	
Approach Delay, s/veh	16.9			13.4	14.2	
Approach LOS	B			B	B	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.5	20.2			26.7	24.8
Change Period (Y+Rc), s *	4.2	5.0			5.0	4.6
Max Green Setting (Gmax), s	6.8	24.0			35.0	35.4
Max Q Clear Time (g_c+I1), s	13.7	10.2			6.7	13.3
Green Ext Time (p_c), s	0.0	3.1			3.2	1.5

Intersection Summary		
HCM 6th Ctrl Delay	15.0	
HCM 6th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	36	48	496	22	31	370
Future Volume (veh/h)	36	48	496	22	31	370
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.95	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1794	1807	1807	1807	1794	1807
Adj Flow Rate, veh/h	43	57	551	24	41	487
Peak Hour Factor	0.84	0.84	0.90	0.90	0.76	0.76
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	53	71	1276	55	67	1972
Arrive On Green	0.08	0.08	0.38	0.38	0.04	0.57
Sat Flow, veh/h	680	902	3432	145	1709	3523
Grp Volume(v), veh/h	101	0	283	292	41	487
Grp Sat Flow(s),veh/h/ln	1598	0	1716	1771	1709	1716
Q Serve(g_s), s	1.7	0.0	3.3	3.3	0.6	1.9
Cycle Q Clear(g_c), s	1.7	0.0	3.3	3.3	0.6	1.9
Prop In Lane	0.43	0.56		0.08	1.00	
Lane Grp Cap(c), veh/h	125	0	655	676	67	1972
V/C Ratio(X)	0.81	0.00	0.43	0.43	0.61	0.25
Avail Cap(c_a), veh/h	2044	0	1261	1301	387	3827
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.4	0.0	6.3	6.3	12.9	2.9
Incr Delay (d2), s/veh	11.5	0.0	0.4	0.4	8.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.6	0.6	0.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.9	0.0	6.7	6.7	21.7	3.0
LnGrp LOS	C	A	A	A	C	A
Approach Vol, veh/h	101		575			528
Approach Delay, s/veh	23.9		6.7			4.4
Approach LOS	C		A			A

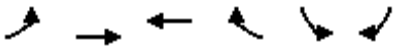
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.3	15.3			20.6	6.7
Change Period (Y+Rc), s	* 4.2	4.9			4.9	4.6
Max Green Setting (Gmax), s	* 6.3	20.1			30.5	35.0
Max Q Clear Time (g_c+I1), s	2.6	5.3			3.9	3.7
Green Ext Time (p_c), s	0.0	2.9			3.3	0.3

Intersection Summary	
HCM 6th Ctrl Delay	7.1
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	15	530	385	33	56	23
Future Volume (veh/h)	15	530	385	33	56	23
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1807	1794	1807
Adj Flow Rate, veh/h	17	589	487	42	65	27
Peak Hour Factor	0.90	0.90	0.79	0.79	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	30	1932	1238	106	127	113
Arrive On Green	0.02	0.56	0.39	0.39	0.07	0.07
Sat Flow, veh/h	1709	3523	3284	275	1709	1531
Grp Volume(v), veh/h	17	589	261	268	65	27
Grp Sat Flow(s),veh/h/ln	1709	1716	1716	1752	1709	1531
Q Serve(g_s), s	0.3	2.4	2.9	3.0	1.0	0.4
Cycle Q Clear(g_c), s	0.3	2.4	2.9	3.0	1.0	0.4
Prop In Lane	1.00			0.16	1.00	1.00
Lane Grp Cap(c), veh/h	30	1932	665	679	127	113
V/C Ratio(X)	0.56	0.30	0.39	0.39	0.51	0.24
Avail Cap(c_a), veh/h	371	4049	1369	1397	2175	1949
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	3.1	5.9	5.9	11.9	11.7
Incr Delay (d2), s/veh	15.2	0.1	0.4	0.4	3.2	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.5	0.5	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.2	3.2	6.3	6.3	15.1	12.7
LnGrp LOS	C	A	A	A	B	B
Approach Vol, veh/h		606	529		92	
Approach Delay, s/veh		3.9	6.3		14.4	
Approach LOS		A	A		B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		20.1		6.6	4.7	15.5
Change Period (Y+Rc), s		* 5.1		4.6	* 4.2	5.1
Max Green Setting (Gmax), s		* 32		34.0	* 5.8	21.3
Max Q Clear Time (g_c+I1), s		4.4		3.0	2.3	5.0
Green Ext Time (p_c), s		4.1		0.2	0.0	2.8

Intersection Summary	
HCM 6th Ctrl Delay	5.7
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	240	127	203	108	133	445	143	611	79	351	451	171
Future Volume (veh/h)	240	127	203	108	133	445	143	611	79	351	451	171
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	258	137	218	129	158	530	168	719	93	390	501	190
Peak Hour Factor	0.93	0.93	0.93	0.84	0.84	0.84	0.85	0.85	0.85	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	271	688	614	156	572	500	226	946	121	404	949	347
Arrive On Green	0.16	0.40	0.40	0.09	0.33	0.33	0.07	0.22	0.22	0.12	0.27	0.27
Sat Flow, veh/h	1709	1716	1531	1709	1716	1500	3315	4387	562	3315	3520	1287
Grp Volume(v), veh/h	258	137	218	129	158	530	168	533	279	390	463	228
Grp Sat Flow(s),veh/h/ln	1709	1716	1531	1709	1716	1500	1657	1633	1684	1657	1633	1541
Q Serve(g_s), s	17.1	5.9	11.3	8.5	7.7	38.0	5.7	17.5	17.7	13.3	13.8	14.4
Cycle Q Clear(g_c), s	17.1	5.9	11.3	8.5	7.7	38.0	5.7	17.5	17.7	13.3	13.8	14.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		0.83
Lane Grp Cap(c), veh/h	271	688	614	156	572	500	226	704	363	404	880	415
V/C Ratio(X)	0.95	0.20	0.36	0.83	0.28	1.06	0.74	0.76	0.77	0.96	0.53	0.55
Avail Cap(c_a), veh/h	271	688	614	244	572	500	308	1174	606	404	1258	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.5	22.2	23.9	50.9	27.9	38.0	52.1	41.9	42.0	49.8	35.4	35.7
Incr Delay (d2), s/veh	41.3	0.1	0.3	12.3	0.3	57.1	6.3	1.7	3.4	35.6	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.3	2.4	4.1	4.1	3.2	21.4	2.5	6.9	7.4	7.4	5.3	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	88.8	22.4	24.2	63.2	28.2	95.1	58.4	43.6	45.4	85.4	35.9	36.8
LnGrp LOS	F	C	C	E	C	F	E	D	D	F	D	D
Approach Vol, veh/h		613			817			980			1081	
Approach Delay, s/veh		51.0			77.1			46.7			53.9	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	29.9	14.6	51.4	12.0	36.0	22.3	43.7
Change Period (Y+Rc), s	* 4.2	* 5.3	* 4.2	5.7	* 4.2	5.3	* 4.2	5.7
Max Green Setting (Gmax), s	* 14	* 41	* 16	39.8	* 11	43.9	* 18	38.0
Max Q Clear Time (g_c+I1), s	15.3	19.7	10.5	13.3	7.7	16.4	19.1	40.0
Green Ext Time (p_c), s	0.0	4.9	0.1	2.2	0.1	4.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	56.8
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	1078	182	193	847	207	288	604	351	215	480	87
Future Volume (veh/h)	176	1078	182	193	847	207	288	604	351	215	480	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807
Adj Flow Rate, veh/h	215	1315	222	203	892	218	331	694	403	256	571	104
Peak Hour Factor	0.82	0.82	0.82	0.95	0.95	0.95	0.87	0.87	0.87	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	249	1686	516	190	1598	490	223	1500	546	288	1597	603
Arrive On Green	0.07	0.34	0.34	0.06	0.32	0.32	0.07	0.30	0.30	0.09	0.32	0.32
Sat Flow, veh/h	3338	4932	1511	3338	4932	1512	3338	4932	1510	3338	4932	1510
Grp Volume(v), veh/h	215	1315	222	203	892	218	331	694	403	256	571	104
Grp Sat Flow(s),veh/h/ln	1669	1644	1511	1669	1644	1512	1669	1644	1510	1669	1644	1510
Q Serve(g_s), s	6.5	24.4	11.6	5.8	15.2	11.6	6.8	11.6	23.7	7.7	9.0	4.5
Cycle Q Clear(g_c), s	6.5	24.4	11.6	5.8	15.2	11.6	6.8	11.6	23.7	7.7	9.0	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	249	1686	516	190	1598	490	223	1500	546	288	1597	603
V/C Ratio(X)	0.86	0.78	0.43	1.07	0.56	0.44	1.49	0.46	0.74	0.89	0.36	0.17
Avail Cap(c_a), veh/h	249	2076	636	190	1989	610	223	2003	701	288	2081	751
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.6	30.1	25.9	48.1	28.4	27.2	47.6	28.7	28.4	46.1	26.4	19.8
Incr Delay (d2), s/veh	25.5	1.6	0.6	84.7	0.3	0.6	241.2	0.2	3.0	26.7	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	9.1	4.0	4.5	5.6	4.1	10.2	4.4	8.4	4.2	3.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.1	31.7	26.5	132.8	28.7	27.8	288.8	28.9	31.4	72.8	26.5	20.0
LnGrp LOS	E	C	C	F	C	C	F	C	C	E	C	B
Approach Vol, veh/h		1752			1313			1428			931	
Approach Delay, s/veh		36.0			44.7			89.9			38.5	
Approach LOS		D			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	41.3	11.0	39.6	11.8	39.5	13.0	37.6
Change Period (Y+Rc), s	* 4.2	6.5	* 4.2	6.6	* 4.2	6.5	* 4.2	* 6.6
Max Green Setting (Gmax), s	* 5.8	42.9	* 6.8	43.0	* 7.6	41.1	* 8.8	* 41
Max Q Clear Time (g_c+I1), s	7.8	26.4	8.8	11.0	8.5	17.2	9.7	25.7
Green Ext Time (p_c), s	0.0	8.4	0.0	4.2	0.0	6.7	0.0	5.3

Intersection Summary	
HCM 6th Ctrl Delay	52.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	27	0	1	0	0	0	1	53	0	0	86	96
Future Vol, veh/h	27	0	1	0	0	0	1	53	0	0	86	96
Conflicting Peds, #/hr	2	0	2	2	0	2	19	0	20	20	0	19
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	96	96	96	90	90	90	89	89	89
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	35	0	1	0	0	0	1	59	0	0	97	108

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	233	251	172	235	305	81	224	0	0	79	0	0
Stage 1	170	170	-	81	81	-	-	-	-	-	-	-
Stage 2	63	81	-	154	224	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	720	650	869	717	607	976	1339	-	-	1513	-	-
Stage 1	830	756	-	925	826	-	-	-	-	-	-	-
Stage 2	945	826	-	846	716	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	705	625	852	701	584	956	1315	-	-	1484	-	-
Mov Cap-2 Maneuver	705	625	-	701	584	-	-	-	-	-	-	-
Stage 1	814	742	-	907	809	-	-	-	-	-	-	-
Stage 2	942	809	-	843	703	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	0	0.1	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1315	-	-	709	-	1484	-	-
HCM Lane V/C Ratio	0.001	-	-	0.051	-	-	-	-
HCM Control Delay (s)	7.7	0	-	10.3	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	-	0	-	-

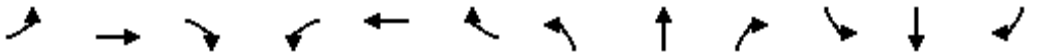
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	41	0	0	5	8	75
Future Vol, veh/h	41	0	0	5	8	75
Conflicting Peds, #/hr	0	0	0	0	20	11
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	63	63	78	78
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	48	0	0	8	10	96

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	96	0
Stage 1	-	-	0	-
Stage 2	-	-	96	-
Critical Hdwy	4.13	-	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.53	-
Follow-up Hdwy	2.227	-	4.027	3.327
Pot Cap-1 Maneuver	-	-	792	-
Stage 1	-	-	-	-
Stage 2	-	-	814	-
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	0	-
Mov Cap-2 Maneuver	-	-	0	-
Stage 1	-	-	0	-
Stage 2	-	-	0	-

Approach	EB	WB
HCM Control Delay, s		
HCM LOS		-

Minor Lane/Major Mvmt	EBL	EBTWBLn1
Capacity (veh/h)	-	- -
HCM Lane V/C Ratio	-	- -
HCM Control Delay (s)	-	- -
HCM Lane LOS	-	- -
HCM 95th %tile Q(veh)	-	- -



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	1445	136	90	1682	457	298	240	105	496	263	274
Future Volume (veh/h)	182	1445	136	90	1682	457	298	240	105	496	263	274
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807
Adj Flow Rate, veh/h	192	1521	143	103	1933	525	382	308	135	577	306	319
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.78	0.78	0.78	0.86	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	218	2295	704	144	2186	1194	426	1282	388	552	1469	456
Arrive On Green	0.07	0.47	0.47	0.04	0.44	0.44	0.13	0.26	0.26	0.17	0.30	0.30
Sat Flow, veh/h	3338	4932	1512	3338	4932	2695	3338	4932	1492	3338	4932	1531
Grp Volume(v), veh/h	192	1521	143	103	1933	525	382	308	135	577	306	319
Grp Sat Flow(s),veh/h/ln	1669	1644	1512	1669	1644	1347	1669	1644	1492	1669	1644	1531
Q Serve(g_s), s	8.6	35.8	8.4	4.6	53.8	20.2	16.9	7.4	11.0	24.8	7.0	27.7
Cycle Q Clear(g_c), s	8.6	35.8	8.4	4.6	53.8	20.2	16.9	7.4	11.0	24.8	7.0	27.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	2295	704	144	2186	1194	426	1282	388	552	1469	456
V/C Ratio(X)	0.88	0.66	0.20	0.71	0.88	0.44	0.90	0.24	0.35	1.05	0.21	0.70
Avail Cap(c_a), veh/h	218	2295	704	147	2186	1194	476	1282	388	552	1469	456
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75
Uniform Delay (d), s/veh	69.5	31.0	23.7	70.8	38.2	28.9	64.5	43.8	45.2	62.6	39.4	46.7
Incr Delay (d2), s/veh	30.3	1.5	0.7	12.8	5.7	1.2	17.1	0.4	2.5	45.7	0.2	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	13.9	3.1	2.2	21.7	6.7	8.1	3.1	4.3	13.9	2.9	11.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	99.8	32.5	24.3	83.6	43.9	30.1	81.6	44.2	47.6	108.3	39.7	53.3
LnGrp LOS	F	C	C	F	D	C	F	D	D	F	D	D
Approach Vol, veh/h		1856			2561			825			1202	
Approach Delay, s/veh		38.9			42.7			62.1			76.2	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	76.1	23.3	50.4	14.0	72.8	29.0	44.7
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.7	* 4.2	6.0	* 4.2	* 5.7
Max Green Setting (Gmax), s	* 6.6	59.8	* 21	42.1	* 9.8	56.6	* 25	* 39
Max Q Clear Time (g_c+I1), s	6.6	37.8	18.9	29.7	10.6	55.8	26.8	13.0
Green Ext Time (p_c), s	0.0	17.5	0.2	2.9	0.0	0.8	0.0	2.9

Intersection Summary	
HCM 6th Ctrl Delay	50.3
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

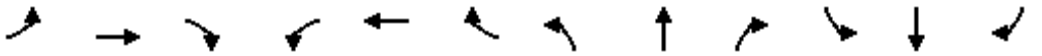
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	1018	104	127	972	260	210	176	255	347	110	156
Future Volume (veh/h)	100	1018	104	127	972	260	210	176	255	347	110	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1794	1807	1794	1794	1807	1794	1807	1807	1794	1807	1807
Adj Flow Rate, veh/h	105	1072	109	131	1002	268	259	217	315	377	120	170
Peak Hour Factor	0.95	0.95	0.95	0.97	0.97	0.97	0.81	0.81	0.81	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	166	1449	453	162	1669	514	299	437	389	474	382	341
Arrive On Green	0.05	0.30	0.30	0.09	0.34	0.34	0.17	0.25	0.25	0.14	0.22	0.22
Sat Flow, veh/h	3315	4898	1530	1709	4898	1509	1709	1716	1529	3315	1716	1531
Grp Volume(v), veh/h	105	1072	109	131	1002	268	259	217	315	377	120	170
Grp Sat Flow(s),veh/h/ln	1657	1633	1530	1709	1633	1509	1709	1716	1529	1657	1716	1531
Q Serve(g_s), s	2.9	18.2	5.0	7.0	15.7	13.2	13.6	10.0	17.9	10.2	5.4	9.0
Cycle Q Clear(g_c), s	2.9	18.2	5.0	7.0	15.7	13.2	13.6	10.0	17.9	10.2	5.4	9.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	166	1449	453	162	1669	514	299	437	389	474	382	341
V/C Ratio(X)	0.63	0.74	0.24	0.81	0.60	0.52	0.87	0.50	0.81	0.80	0.31	0.50
Avail Cap(c_a), veh/h	323	2002	625	273	2309	711	495	815	726	857	761	679
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.1	29.4	24.7	41.0	25.3	24.4	37.1	29.4	32.4	38.3	30.1	31.4
Incr Delay (d2), s/veh	4.0	1.0	0.3	9.2	0.3	0.8	8.7	0.9	4.1	3.1	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	6.7	1.8	3.2	5.6	4.6	6.2	4.1	6.8	4.2	2.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.1	30.3	25.0	50.2	25.6	25.3	45.8	30.3	36.4	41.4	30.5	32.6
LnGrp LOS	D	C	C	D	C	C	D	C	D	D	C	C
Approach Vol, veh/h		1286			1401			791			667	
Approach Delay, s/veh		31.2			27.8			37.8			37.2	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	33.4	20.4	25.8	8.8	37.5	17.4	28.7
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.2	* 4.2	6.0	* 4.2	5.2
Max Green Setting (Gmax), s	* 15	37.8	* 27	41.0	* 9	43.6	* 24	43.9
Max Q Clear Time (g_c+I1), s	9.0	20.2	15.6	11.0	4.9	17.7	12.2	19.9
Green Ext Time (p_c), s	0.1	6.7	0.6	1.8	0.1	8.0	1.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	234	232	202	202	286	212	339	203	375	452	124
Future Volume (veh/h)	100	234	232	202	202	286	212	339	203	375	452	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	110	257	255	235	235	333	230	368	221	421	508	139
Peak Hour Factor	0.91	0.91	0.91	0.86	0.86	0.86	0.92	0.92	0.92	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	176	839	365	324	993	435	318	1317	399	532	1633	510
Arrive On Green	0.05	0.24	0.24	0.10	0.29	0.29	0.10	0.27	0.27	0.16	0.33	0.33
Sat Flow, veh/h	3315	3433	1495	3315	3433	1504	3315	4898	1485	3315	4898	1528
Grp Volume(v), veh/h	110	257	255	235	235	333	230	368	221	421	508	139
Grp Sat Flow(s),veh/h/ln	1657	1716	1495	1657	1716	1504	1657	1633	1485	1657	1633	1528
Q Serve(g_s), s	2.7	5.2	13.1	5.8	4.4	17.1	5.7	5.0	10.8	10.3	6.5	5.6
Cycle Q Clear(g_c), s	2.7	5.2	13.1	5.8	4.4	17.1	5.7	5.0	10.8	10.3	6.5	5.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	176	839	365	324	993	435	318	1317	399	532	1633	510
V/C Ratio(X)	0.63	0.31	0.70	0.72	0.24	0.77	0.72	0.28	0.55	0.79	0.31	0.27
Avail Cap(c_a), veh/h	361	1592	693	635	1876	822	627	2277	690	1020	2880	899
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.2	26.1	29.1	37.0	22.9	27.4	37.1	24.4	26.5	34.1	21.0	20.7
Incr Delay (d2), s/veh	3.6	0.2	2.4	3.1	0.1	2.8	3.1	0.1	1.2	2.7	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.1	4.7	2.4	1.7	6.1	2.3	1.8	3.7	4.1	2.3	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.8	26.3	31.5	40.1	23.0	30.3	40.2	24.5	27.7	36.8	21.1	20.9
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		622			803			819			1068	
Approach Delay, s/veh		31.4			31.0			29.8			27.2	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.5	25.9	12.3	33.9	8.7	29.6	17.8	28.4
Change Period (Y+Rc), s	* 4.2	* 5.2	* 4.2	* 5.7	* 4.2	* 5.2	* 4.2	5.7
Max Green Setting (Gmax), s	* 16	* 39	* 16	* 50	* 9.2	* 46	* 26	39.3
Max Q Clear Time (g_c+I1), s	7.8	15.1	7.7	8.5	4.7	19.1	12.3	12.8
Green Ext Time (p_c), s	0.5	2.5	0.5	4.1	0.1	2.7	1.3	3.2

Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	246	12	230	404	228	42	5	192	194	16	47
Future Volume (veh/h)	102	246	12	230	404	228	42	5	192	194	16	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	119	286	14	242	425	240	46	5	211	223	18	54
Peak Hour Factor	0.86	0.86	0.86	0.95	0.95	0.95	0.91	0.91	0.91	0.87	0.87	0.87
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	151	605	29	289	556	311	60	6	274	278	22	242
Arrive On Green	0.09	0.18	0.18	0.17	0.26	0.26	0.22	0.22	0.22	0.18	0.18	0.18
Sat Flow, veh/h	1709	3331	162	1709	2116	1183	272	30	1249	1587	128	1380
Grp Volume(v), veh/h	119	147	153	242	344	321	262	0	0	241	0	54
Grp Sat Flow(s),veh/h/ln	1709	1716	1777	1709	1716	1583	1551	0	0	1715	0	1380
Q Serve(g_s), s	4.8	5.4	5.5	9.7	13.1	13.3	11.2	0.0	0.0	9.5	0.0	2.4
Cycle Q Clear(g_c), s	4.8	5.4	5.5	9.7	13.1	13.3	11.2	0.0	0.0	9.5	0.0	2.4
Prop In Lane	1.00		0.09	1.00		0.75	0.18		0.81	0.93		1.00
Lane Grp Cap(c), veh/h	151	312	323	289	451	416	340	0	0	301	0	242
V/C Ratio(X)	0.79	0.47	0.47	0.84	0.76	0.77	0.77	0.00	0.00	0.80	0.00	0.22
Avail Cap(c_a), veh/h	237	456	472	454	675	622	899	0	0	446	0	359
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.6	25.9	25.9	28.4	24.0	24.1	25.9	0.0	0.0	28.0	0.0	25.0
Incr Delay (d2), s/veh	9.1	1.1	1.1	7.7	2.9	3.4	3.7	0.0	0.0	6.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	2.2	2.3	4.3	5.3	5.0	4.3	0.0	0.0	4.3	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.7	27.0	27.0	36.1	26.9	27.5	29.6	0.0	0.0	34.3	0.0	25.5
LnGrp LOS	D	C	C	D	C	C	C	A	A	C	A	C
Approach Vol, veh/h		419			907			262			295	
Approach Delay, s/veh		30.9			29.6			29.6			32.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.2	17.4		17.0	10.4	23.2		20.1
Change Period (Y+Rc), s	* 4.2	4.6		4.6	* 4.2	4.6		4.6
Max Green Setting (Gmax), s	* 13	18.8		18.4	* 9.8	27.8		41.0
Max Q Clear Time (g_c+I1), s	11.7	7.5		11.5	6.8	15.3		13.2
Green Ext Time (p_c), s	0.4	1.2		0.9	0.1	3.3		1.9

Intersection Summary	
HCM 6th Ctrl Delay	30.4
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	228	112	133	365	32	108	0	24	99	9	82
Future Volume (veh/h)	41	228	112	133	365	32	108	0	24	99	9	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	44	245	120	141	388	34	137	0	30	110	10	91
Peak Hour Factor	0.93	0.93	0.93	0.94	0.94	0.94	0.79	0.79	0.79	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	62	453	214	177	862	75	266	0	58	250	23	239
Arrive On Green	0.04	0.20	0.20	0.10	0.27	0.27	0.19	0.00	0.19	0.16	0.16	0.16
Sat Flow, veh/h	1709	2241	1057	1709	3193	278	1366	0	299	1572	143	1505
Grp Volume(v), veh/h	44	185	180	141	208	214	167	0	0	120	0	91
Grp Sat Flow(s),veh/h/ln	1709	1716	1582	1709	1716	1755	1665	0	0	1715	0	1505
Q Serve(g_s), s	1.3	5.1	5.4	4.3	5.3	5.4	4.7	0.0	0.0	3.3	0.0	2.9
Cycle Q Clear(g_c), s	1.3	5.1	5.4	4.3	5.3	5.4	4.7	0.0	0.0	3.3	0.0	2.9
Prop In Lane	1.00		0.67	1.00		0.16	0.82		0.18	0.92		1.00
Lane Grp Cap(c), veh/h	62	347	320	177	463	474	324	0	0	273	0	239
V/C Ratio(X)	0.72	0.53	0.56	0.80	0.45	0.45	0.51	0.00	0.00	0.44	0.00	0.38
Avail Cap(c_a), veh/h	174	590	544	220	636	650	1290	0	0	1329	0	1166
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.2	18.9	19.0	23.2	16.0	16.1	19.1	0.0	0.0	20.1	0.0	19.9
Incr Delay (d2), s/veh	14.3	1.3	1.5	14.9	0.7	0.7	1.3	0.0	0.0	1.1	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	2.0	2.0	2.3	1.9	2.0	1.8	0.0	0.0	1.3	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.5	20.2	20.5	38.0	16.7	16.7	20.3	0.0	0.0	21.2	0.0	20.9
LnGrp LOS	D	C	C	D	B	B	C	A	A	C	A	C
Approach Vol, veh/h		409			563			167			211	
Approach Delay, s/veh		22.4			22.1			20.3			21.1	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.7	15.3		13.0	6.1	18.9		14.9
Change Period (Y+Rc), s	* 4.2	4.6		4.6	* 4.2	4.6		4.6
Max Green Setting (Gmax), s	* 6.8	18.2		41.0	* 5.4	19.6		41.0
Max Q Clear Time (g_c+I1), s	6.3	7.4		5.3	3.3	7.4		6.7
Green Ext Time (p_c), s	0.0	1.7		1.1	0.0	1.9		1.1

Intersection Summary	
HCM 6th Ctrl Delay	21.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	413	120	96	362	66	81
Future Volume (veh/h)	413	120	96	362	66	81
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1807	1807	1794	1807	1794	1807
Adj Flow Rate, veh/h	475	138	110	416	70	86
Peak Hour Factor	0.87	0.87	0.87	0.87	0.94	0.94
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	954	275	136	1959	101	124
Arrive On Green	0.37	0.37	0.08	0.57	0.14	0.14
Sat Flow, veh/h	2703	753	1709	3523	711	874
Grp Volume(v), veh/h	311	302	110	416	157	0
Grp Sat Flow(s),veh/h/ln	1716	1649	1709	1716	1595	0
Q Serve(g_s), s	4.7	4.8	2.1	2.0	3.1	0.0
Cycle Q Clear(g_c), s	4.7	4.8	2.1	2.0	3.1	0.0
Prop In Lane		0.46	1.00		0.45	0.55
Lane Grp Cap(c), veh/h	627	602	136	1959	226	0
V/C Ratio(X)	0.50	0.50	0.81	0.21	0.69	0.00
Avail Cap(c_a), veh/h	1233	1184	348	3595	1689	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.2	8.2	15.1	3.5	13.6	0.0
Incr Delay (d2), s/veh	0.6	0.6	10.6	0.1	3.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.1	1.0	0.2	1.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.8	8.9	25.7	3.6	17.4	0.0
LnGrp LOS	A	A	C	A	B	A
Approach Vol, veh/h	613			526	157	
Approach Delay, s/veh	8.9			8.2	17.4	
Approach LOS	A			A	B	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.9	17.2			24.1	9.3
Change Period (Y+Rc), s	* 4.2	5.0			5.0	4.6
Max Green Setting (Gmax), s	* 6.8	24.0			35.0	35.4
Max Q Clear Time (g_c+I1), s	4.1	6.8			4.0	5.1
Green Ext Time (p_c), s	0.1	3.4			2.8	0.5

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	18	23	489	25	32	434
Future Volume (veh/h)	18	23	489	25	32	434
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	0.98		0.94	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1794	1807	1807	1807	1794	1807
Adj Flow Rate, veh/h	23	29	526	27	36	482
Peak Hour Factor	0.79	0.79	0.93	0.93	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	62	78	1255	64	60	1943
Arrive On Green	0.09	0.09	0.38	0.38	0.03	0.57
Sat Flow, veh/h	687	867	3401	170	1709	3523
Grp Volume(v), veh/h	53	0	272	281	36	482
Grp Sat Flow(s),veh/h/ln	1584	0	1716	1764	1709	1716
Q Serve(g_s), s	0.9	0.0	3.2	3.3	0.6	2.0
Cycle Q Clear(g_c), s	0.9	0.0	3.2	3.3	0.6	2.0
Prop In Lane	0.43	0.55		0.10	1.00	
Lane Grp Cap(c), veh/h	143	0	651	669	60	1943
V/C Ratio(X)	0.37	0.00	0.42	0.42	0.60	0.25
Avail Cap(c_a), veh/h	2005	0	1260	1295	371	3786
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	0.0	6.3	6.3	13.2	3.0
Incr Delay (d2), s/veh	1.6	0.0	0.4	0.4	9.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.6	0.6	0.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.4	0.0	6.8	6.8	22.6	3.1
LnGrp LOS	B	A	A	A	C	A
Approach Vol, veh/h	53		553			518
Approach Delay, s/veh	13.4		6.8			4.4
Approach LOS	B		A			A

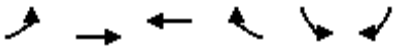
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.2	15.4			20.6	7.1
Change Period (Y+Rc), s	* 4.2	4.9			4.9	4.6
Max Green Setting (Gmax), s	* 6	20.3			30.5	35.0
Max Q Clear Time (g_c+I1), s	2.6	5.3			4.0	2.9
Green Ext Time (p_c), s	0.0	2.8			3.2	0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.0
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	6	496	440	46	28	11
Future Volume (veh/h)	6	496	440	46	28	11
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.95	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1807	1794	1807
Adj Flow Rate, veh/h	7	539	468	49	37	15
Peak Hour Factor	0.92	0.92	0.94	0.94	0.75	0.75
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	13	1985	1276	133	82	74
Arrive On Green	0.01	0.58	0.41	0.41	0.05	0.05
Sat Flow, veh/h	1709	3523	3211	325	1709	1531
Grp Volume(v), veh/h	7	539	256	261	37	15
Grp Sat Flow(s),veh/h/ln	1709	1716	1716	1729	1709	1531
Q Serve(g_s), s	0.1	2.0	2.7	2.7	0.5	0.2
Cycle Q Clear(g_c), s	0.1	2.0	2.7	2.7	0.5	0.2
Prop In Lane	1.00			0.19	1.00	1.00
Lane Grp Cap(c), veh/h	13	1985	702	707	82	74
V/C Ratio(X)	0.54	0.27	0.37	0.37	0.45	0.20
Avail Cap(c_a), veh/h	382	4164	1408	1418	2237	2005
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	2.7	5.3	5.3	12.0	11.9
Incr Delay (d2), s/veh	30.7	0.1	0.3	0.3	3.8	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.4	0.4	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	43.5	2.8	5.6	5.7	15.8	13.2
LnGrp LOS	D	A	A	A	B	B
Approach Vol, veh/h		546	517		52	
Approach Delay, s/veh		3.3	5.7		15.1	
Approach LOS		A	A		B	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	20.1		5.9	4.4	15.7
Change Period (Y+Rc), s	* 5.1		4.6	* 4.2	5.1
Max Green Setting (Gmax), s	* 32		34.0	* 5.8	21.3
Max Q Clear Time (g_c+I1), s	4.0		2.5	2.1	4.7
Green Ext Time (p_c), s	3.7		0.1	0.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay	5.0
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	233	185	102	46	141	276	94	366	66	360	458	135
Future Volume (veh/h)	233	185	102	46	141	276	94	366	66	360	458	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	281	223	123	51	157	307	102	398	72	409	520	153
Peak Hour Factor	0.83	0.83	0.83	0.90	0.90	0.90	0.92	0.92	0.92	0.88	0.88	0.88
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	318	891	472	64	454	401	166	724	127	487	1019	291
Arrive On Green	0.19	0.41	0.41	0.04	0.26	0.26	0.05	0.17	0.17	0.15	0.27	0.27
Sat Flow, veh/h	1709	2158	1142	1709	1716	1515	3315	4174	732	3315	3768	1075
Grp Volume(v), veh/h	281	175	171	51	157	307	102	309	161	409	448	225
Grp Sat Flow(s),veh/h/ln	1709	1716	1584	1709	1716	1515	1657	1633	1641	1657	1633	1578
Q Serve(g_s), s	13.6	5.7	6.0	2.5	6.3	15.8	2.6	7.3	7.6	10.2	9.8	10.3
Cycle Q Clear(g_c), s	13.6	5.7	6.0	2.5	6.3	15.8	2.6	7.3	7.6	10.2	9.8	10.3
Prop In Lane	1.00		0.72	1.00		1.00	1.00		0.45	1.00		0.68
Lane Grp Cap(c), veh/h	318	709	654	64	454	401	166	567	285	487	883	427
V/C Ratio(X)	0.88	0.25	0.26	0.79	0.35	0.77	0.61	0.54	0.57	0.84	0.51	0.53
Avail Cap(c_a), veh/h	365	806	744	329	769	679	414	1579	794	543	1691	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.6	16.3	16.4	40.5	25.2	28.8	39.5	32.0	32.1	35.2	26.2	26.3
Incr Delay (d2), s/veh	19.9	0.2	0.2	19.1	0.5	3.1	3.6	0.8	1.8	10.3	0.5	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	2.1	2.1	1.4	2.5	5.8	1.1	2.8	3.0	4.6	3.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.5	16.5	16.6	59.6	25.7	31.8	43.1	32.8	33.9	45.5	26.6	27.3
LnGrp LOS	D	B	B	E	C	C	D	C	C	D	C	C
Approach Vol, veh/h		627			515			572			1082	
Approach Delay, s/veh		33.1			32.7			34.9			33.9	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	20.0	7.4	40.7	8.4	28.2	20.0	28.1
Change Period (Y+Rc), s	* 4.2	* 5.3	* 4.2	5.7	* 4.2	5.3	* 4.2	5.7
Max Green Setting (Gmax), s	* 14	* 41	* 16	39.8	* 11	43.9	* 18	38.0
Max Q Clear Time (g_c+I1), s	12.3	9.6	4.5	8.0	4.6	12.3	15.6	17.8
Green Ext Time (p_c), s	0.3	2.9	0.1	2.1	0.1	4.4	0.2	2.8

Intersection Summary	
HCM 6th Ctrl Delay	33.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	1171	200	323	1140	261	129	476	272	347	596	96
Future Volume (veh/h)	137	1171	200	323	1140	261	129	476	272	347	596	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807
Adj Flow Rate, veh/h	154	1316	225	344	1213	278	136	501	286	377	648	104
Peak Hour Factor	0.89	0.89	0.89	0.94	0.94	0.94	0.95	0.95	0.95	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	222	1795	555	213	1781	552	201	1183	463	322	1362	524
Arrive On Green	0.07	0.36	0.36	0.06	0.36	0.36	0.06	0.24	0.24	0.10	0.28	0.28
Sat Flow, veh/h	3338	4932	1525	3338	4932	1530	3338	4932	1525	3338	4932	1529
Grp Volume(v), veh/h	154	1316	225	344	1213	278	136	501	286	377	648	104
Grp Sat Flow(s),veh/h/ln	1669	1644	1525	1669	1644	1530	1669	1644	1525	1669	1644	1529
Q Serve(g_s), s	4.1	21.1	10.0	5.8	19.0	12.9	3.6	7.8	14.6	8.8	10.0	4.4
Cycle Q Clear(g_c), s	4.1	21.1	10.0	5.8	19.0	12.9	3.6	7.8	14.6	8.8	10.0	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	222	1795	555	213	1781	552	201	1183	463	322	1362	524
V/C Ratio(X)	0.69	0.73	0.41	1.62	0.68	0.50	0.68	0.42	0.62	1.17	0.48	0.20
Avail Cap(c_a), veh/h	279	2323	718	213	2225	690	249	2242	791	322	2328	824
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	25.1	21.6	42.6	24.7	22.7	41.9	29.3	27.2	41.1	27.5	21.1
Incr Delay (d2), s/veh	5.3	0.9	0.5	298.9	0.6	0.7	5.2	0.2	1.3	104.2	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	7.5	3.4	11.1	6.7	4.4	1.6	2.9	5.1	8.1	3.7	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.9	26.0	22.1	341.6	25.3	23.4	47.1	29.5	28.5	145.4	27.7	21.3
LnGrp LOS	D	C	C	F	C	C	D	C	C	F	C	C
Approach Vol, veh/h		1695			1835			923			1129	
Approach Delay, s/veh		27.4			84.3			31.8			66.4	
Approach LOS		C			F			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	39.6	9.7	31.8	10.2	39.4	13.0	28.4
Change Period (Y+Rc), s	* 4.2	6.5	* 4.2	6.6	* 4.2	6.5	* 4.2	* 6.6
Max Green Setting (Gmax), s	* 5.8	42.9	* 6.8	43.0	* 7.6	41.1	* 8.8	* 41
Max Q Clear Time (g_c+I1), s	7.8	23.1	5.6	12.0	6.1	21.0	10.8	16.6
Green Ext Time (p_c), s	0.0	9.3	0.0	4.8	0.1	8.9	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	54.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	63	0	0	0	0	0	0	117	0	0	51	31
Future Vol, veh/h	63	0	0	0	0	0	0	117	0	0	51	31
Conflicting Peds, #/hr	1	0	0	0	0	1	35	0	1	1	0	35
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	86	86	86	89	89	89	66	66	66
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	76	0	0	0	0	0	0	131	0	0	77	47

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	268	268	136	233	291	133	159	0	0	132	0	0
Stage 1	136	136	-	132	132	-	-	-	-	-	-	-
Stage 2	132	132	-	101	159	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	683	636	910	720	618	913	1414	-	-	1447	-	-
Stage 1	865	782	-	869	785	-	-	-	-	-	-	-
Stage 2	869	785	-	903	764	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	660	614	880	719	597	911	1367	-	-	1446	-	-
Mov Cap-2 Maneuver	660	614	-	719	597	-	-	-	-	-	-	-
Stage 1	836	756	-	868	784	-	-	-	-	-	-	-
Stage 2	868	784	-	903	739	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	0	0	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1367	-	-	660	-	1446	-	-
HCM Lane V/C Ratio	-	-	-	0.115	-	-	-	-
HCM Control Delay (s)	0	-	-	11.2	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	-	0	-	-

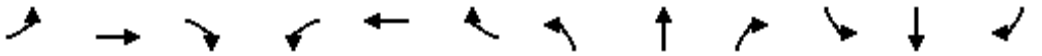
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	108	0	0	10	2	43
Future Vol, veh/h	108	0	0	10	2	43
Conflicting Peds, #/hr	0	0	0	0	4	30
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	42	42	68	68
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	129	0	0	24	3	63

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	258	0
Stage 1	-	-	0	-
Stage 2	-	-	258	-
Critical Hdwy	4.13	-	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.53	-
Follow-up Hdwy	2.227	-	4.027	3.327
Pot Cap-1 Maneuver	-	-	645	-
Stage 1	-	-	-	-
Stage 2	-	-	692	-
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	0	-
Mov Cap-2 Maneuver	-	-	0	-
Stage 1	-	-	0	-
Stage 2	-	-	0	-

Approach	EB	WB
HCM Control Delay, s		
HCM LOS		-

Minor Lane/Major Mvmt	EBL	EBTWBLn1
Capacity (veh/h)	-	- -
HCM Lane V/C Ratio	-	- -
HCM Control Delay (s)	-	- -
HCM Lane LOS	-	- -
HCM 95th %tile Q(veh)	-	- -



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	225	1811	238	98	1219	304	152	186	114	423	172	174
Future Volume (veh/h)	225	1811	238	98	1219	304	152	186	114	423	172	174
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807
Adj Flow Rate, veh/h	242	1947	256	111	1385	345	165	202	124	460	187	189
Peak Hour Factor	0.93	0.93	0.93	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	285	2054	638	134	1830	998	209	1282	398	499	1712	531
Arrive On Green	0.09	0.42	0.42	0.04	0.37	0.37	0.06	0.26	0.26	0.15	0.35	0.35
Sat Flow, veh/h	3338	4932	1531	3338	4932	2688	3338	4932	1529	3338	4932	1531
Grp Volume(v), veh/h	242	1947	256	111	1385	345	165	202	124	460	187	189
Grp Sat Flow(s),veh/h/ln	1669	1644	1531	1669	1644	1344	1669	1644	1529	1669	1644	1531
Q Serve(g_s), s	10.7	57.1	17.6	5.0	36.8	13.9	7.3	4.7	9.8	20.4	3.9	13.8
Cycle Q Clear(g_c), s	10.7	57.1	17.6	5.0	36.8	13.9	7.3	4.7	9.8	20.4	3.9	13.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	285	2054	638	134	1830	998	209	1282	398	499	1712	531
V/C Ratio(X)	0.85	0.95	0.40	0.83	0.76	0.35	0.79	0.16	0.31	0.92	0.11	0.36
Avail Cap(c_a), veh/h	314	2054	638	134	1830	998	289	1282	398	507	1712	531
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.89	0.89	0.89
Uniform Delay (d), s/veh	67.7	42.2	30.7	71.5	41.2	34.0	69.3	42.8	44.7	62.9	33.2	36.5
Incr Delay (d2), s/veh	16.7	10.9	1.9	32.2	3.0	1.0	6.3	0.3	2.0	19.9	0.1	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	24.1	6.8	2.7	14.9	4.7	3.3	2.0	3.9	9.9	1.6	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	84.3	53.1	32.6	103.7	44.2	35.0	75.7	43.1	46.7	82.8	33.4	38.1
LnGrp LOS	F	D	C	F	D	C	E	D	D	F	C	D
Approach Vol, veh/h		2445			1841			491			836	
Approach Delay, s/veh		54.0			46.1			55.0			61.6	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	68.5	13.6	57.7	17.0	61.7	26.6	44.7
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.7	* 4.2	6.0	* 4.2	* 5.7
Max Green Setting (Gmax), s	* 6	62.4	* 13	48.5	* 14	54.3	* 23	* 39
Max Q Clear Time (g_c+I1), s	7.0	59.1	9.3	15.8	12.7	38.8	22.4	11.8
Green Ext Time (p_c), s	0.0	3.2	0.1	2.3	0.1	13.0	0.1	2.0

Intersection Summary	
HCM 6th Ctrl Delay	52.6
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	1216	216	207	986	271	131	113	160	297	131	97
Future Volume (veh/h)	121	1216	216	207	986	271	131	113	160	297	131	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.89	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1794	1807	1794	1794	1807	1794	1807	1807	1794	1807	1807
Adj Flow Rate, veh/h	132	1322	235	220	1049	288	164	141	200	349	154	114
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.80	0.80	0.80	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	193	1740	534	252	2178	604	195	310	275	421	372	256
Arrive On Green	0.06	0.36	0.36	0.15	0.44	0.44	0.11	0.18	0.18	0.13	0.19	0.19
Sat Flow, veh/h	3315	4898	1504	1709	4898	1358	1709	1716	1523	3315	1927	1327
Grp Volume(v), veh/h	132	1322	235	220	1049	288	164	141	200	349	136	132
Grp Sat Flow(s),veh/h/ln	1657	1633	1504	1709	1633	1358	1709	1716	1523	1657	1716	1538
Q Serve(g_s), s	4.0	24.7	12.3	13.0	15.7	15.5	9.7	7.6	12.8	10.6	7.2	7.8
Cycle Q Clear(g_c), s	4.0	24.7	12.3	13.0	15.7	15.5	9.7	7.6	12.8	10.6	7.2	7.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.86
Lane Grp Cap(c), veh/h	193	1740	534	252	2178	604	195	310	275	421	332	297
V/C Ratio(X)	0.68	0.76	0.44	0.87	0.48	0.48	0.84	0.45	0.73	0.83	0.41	0.44
Avail Cap(c_a), veh/h	337	1932	593	344	2420	671	291	697	619	538	684	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	29.4	25.5	43.1	20.3	20.2	44.9	37.8	40.0	44.1	36.6	36.8
Incr Delay (d2), s/veh	4.2	1.6	0.6	16.4	0.2	0.6	13.0	1.0	3.7	8.4	0.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	9.1	4.4	6.4	5.4	4.8	4.8	3.2	5.0	4.8	3.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	31.1	26.0	59.5	20.5	20.8	57.9	38.9	43.6	52.5	37.4	37.9
LnGrp LOS	D	C	C	E	C	C	E	D	D	D	D	D
Approach Vol, veh/h		1689			1557			505			617	
Approach Delay, s/veh		32.0			26.0			46.9			46.0	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	42.7	16.0	25.2	10.2	52.0	17.3	23.9
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.2	* 4.2	6.0	* 4.2	5.2
Max Green Setting (Gmax), s	* 5.3	40.8	* 18	41.2	* 11	51.1	* 17	42.0
Max Q Clear Time (g_c+I1), s	15.0	26.7	11.7	9.8	6.0	17.7	12.6	14.8
Green Ext Time (p_c), s	0.3	7.8	0.2	1.6	0.1	9.3	0.5	2.1

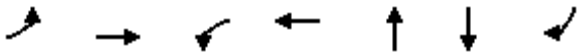
Intersection Summary	
HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX E

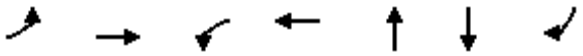
PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS – EXISTING (SYNCHRO 10 QUEUE)



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	117	572	68	345	317	43	41
v/c Ratio	0.70	0.61	0.52	0.39	0.71	0.17	0.14
Control Delay	62.4	27.9	56.2	28.3	35.4	30.3	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.4	27.9	56.2	28.3	35.4	30.3	0.9
Queue Length 50th (ft)	48	91	28	56	118	17	0
Queue Length 95th (ft)	#200	#266	#153	184	270	47	0
Internal Link Dist (ft)		999		959	181	336	
Turn Bay Length (ft)	145		135				80
Base Capacity (vph)	167	940	130	879	1004	1017	906
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.61	0.52	0.39	0.32	0.04	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	44	365	141	422	167	120	91
v/c Ratio	0.28	0.54	0.72	0.42	0.44	0.35	0.24
Control Delay	43.1	27.5	56.3	26.8	16.5	27.1	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	27.5	56.3	26.8	16.5	27.1	8.0
Queue Length 50th (ft)	13	45	44	61	22	34	0
Queue Length 95th (ft)	#95	183	#294	#242	78	119	38
Internal Link Dist (ft)		999		959	181	336	
Turn Bay Length (ft)	145		135				80
Base Capacity (vph)	155	1021	195	1161	1187	1186	1068
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.36	0.72	0.36	0.14	0.10	0.09

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX E

PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS – EXISTING (SIMTRAFFIC QUEUE)

Intersection: 3: Santa Andreas St/Monarche Dr & E Palomar St

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LT	R
Maximum Queue (ft)	165	250	316	153	176	212	176	61	67
Average Queue (ft)	71	93	160	58	75	101	113	23	20
95th Queue (ft)	138	190	275	117	141	180	159	54	50
Link Distance (ft)		1010	1010		973	973	186	369	
Upstream Blk Time (%)							0		
Queuing Penalty (veh)							0		
Storage Bay Dist (ft)	145			135					80
Storage Blk Time (%)	2	2		1	2			0	0
Queuing Penalty (veh)	2	2		1	1			0	0

Intersection: 4: Santa Alicia Ave & E Palomar St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	T	LR
Maximum Queue (ft)	156	159	78	127	129	202
Average Queue (ft)	65	77	33	59	65	101
95th Queue (ft)	126	142	68	114	122	177
Link Distance (ft)	973	973		1890	1890	464
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			180			
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 5: E Palomar St & Santa Flora Rd

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T
Maximum Queue (ft)	68	186	153	56	102	126
Average Queue (ft)	35	59	52	22	28	34
95th Queue (ft)	62	137	127	52	78	87
Link Distance (ft)	477	1890	1890		1082	1082
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				190		
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 3: Santa Andreas St/Monarche Dr & E Palomar St

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LT	R
Maximum Queue (ft)	94	155	200	159	288	237	175	137	103
Average Queue (ft)	30	62	95	86	96	101	66	63	44
95th Queue (ft)	69	124	174	156	202	190	127	113	93
Link Distance (ft)		1010	1010		973	973	186	369	
Upstream Blk Time (%)							0		
Queuing Penalty (veh)							0		
Storage Bay Dist (ft)	145			135					80
Storage Blk Time (%)	0	0		8	2			6	0
Queuing Penalty (veh)	0	0		15	3			5	0

Intersection: 4: Santa Alicia Ave & E Palomar St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	T	LR
Maximum Queue (ft)	169	161	134	126	124	126
Average Queue (ft)	68	69	52	39	35	53
95th Queue (ft)	127	136	99	93	89	91
Link Distance (ft)	973	973		1890	1890	464
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			180			
Storage Blk Time (%)				0		
Queuing Penalty (veh)				0		

Intersection: 5: E Palomar St & Santa Flora Rd

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T
Maximum Queue (ft)	57	179	156	60	127	114
Average Queue (ft)	25	50	42	22	31	26
95th Queue (ft)	53	123	111	53	91	78
Link Distance (ft)	477	1890	1890		1082	1082
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				190		
Storage Blk Time (%)						
Queuing Penalty (veh)						

APPENDIX F

ZIP CODE INFOMATION

Summary of Patient Visits

Zip code	Number of Visits	%
91902	7148	4%
91910	24448	15%
91911	25896	16%
91913	33878	21%
91915	16526	10%
91932	3421	2%
91935	699	0%
91950	6798	4%
91977	3554	2%
92019	825	1%
92113	2173	1%
92114	5497	3%
92139	6470	4%
92154	20198	12%
92173	5255	3%
Total	**162786**	**100%**

East	64,077	39%
West	98,709	61%
Total	162,786	100%

	West to South		West to North		East to South		East to North	
	Number	**%**	**Number**	**%**	**Number**	**%**	**Number**	**%**
91902	0	0%	0	0%	0	0%	7,148	4%
91910	0	0%	8,149	5%	0	0%	8,149	5%
91911	12,948	8%	12,948	8%	0	0%	0	0%
91913	5,646	3%	5,646	3%	8,470	5%	8,470	5%
91915	0	0%	0	0%	0	0%	0	0%
91932	3,421	2%	0	0%	0	0%	0	0%
91935	0	0%	0	0%	0	0%	0	0%
91950	0	0%	6,798	4%		0%		0%
91977	0	0%	0	0%	0	0%	0	0%
92019	0	0%	0	0%	0	0%	0	0%
92113	0	0%	2,173	1%	0	0%	0	0%
92114	0	0%	5,497	3%	0	0%	0	0%
92139	0	0%	6,470	4%	0	0%	0	0%
92154	10,099	6%	0	0%	0	0%	0	0%
92173	5,255	3%	0	0%	0	0%	0	0%
Total		**23%**		**29%**		**5%**		**15%**

OR Patient Visits 2021					
Zip code	Number of Visits	Zip code	Number of Visits	Zip code	Number of Visits
0	88	34972	4	78520	1
4061	1	35749	1	78728	3
6089	2	37075	3	78751	5
7029	1	38107	3	79907	1
9834	6	39043	1	80249	1
10451	1	39047	1	80402	2
11378	4	45036	1	80482	6
11412	1	46368	4	83644	1
11756	3	46733	2	83669	1
19124	2	48042	4	83835	3
20037	1	52577	4	83864	1
21234	3	54814	1	84118	3
22460	1	57104	2	85018	1
22680	3	57719	1	85043	1
28027	2	60110	2	85045	2
28681	1	60169	2	85142	3
29928	8	60618	1	85356	6
30525	4	61571	1	85364	20
32043	3	65761	1	85365	8
32068	1	66050	1	85367	10
32225	4	73034	3	85383	2
32250	1	73104	1	85387	3
32819	3	75226	1	85392	1
33020	2	76006	2	85628	4
33909	1	76164	1	85648	2
34011	1	76177	2	85710	3
34035	5	77399	2	85747	3
34224	1	78249	2	85756	1
34683	9	78261	3	86326	1

OR Patient Visits 2021					
Zip code	Number of Visits	Zip code	Number of Visits	Zip code	Number of Visits
86404	1	90706	1	91902	7,148
87114	1	90716	2	91903	10
87801	1	90755	1	91904	1
89012	2	90802	2	91905	11
89029	2	90808	2	91906	61
89106	1	90813	1	91908	215
89113	1	91016	3	91909	214
89120	5	91050	3	91910	24,448
89134	3	91101	2	91911	25,896
89142	2	91102	2	91912	561
89148	1	91301	1	91913	33,878
89166	2	91316	8	91914	9,145
89423	3	91342	20	91915	16,526
89523	12	91355	4	91916	13
90019	1	91381	1	91917	114
90028	3	91601	1	91921	449
90033	2	91604	1	91931	2
90049	2	91605	1	91932	3,421
90057	2	91702	2	91933	162
90201	1	91708	1	91934	5
90240	1	91710	1	91935	699
90241	5	91711	5	91941	485
90250	2	91722	7	91942	825
90260	2	91763	5	91943	1
90503	2	91765	2	91944	28
90505	1	91786	6	91945	1,078
90631	3	91792	4	91946	15
90640	10	91865	1	91948	2
90703	5	91901	285	91950	6,798

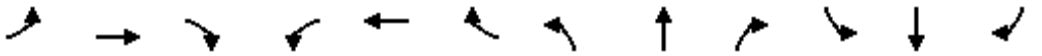
OR Patient Visits 2021					
Zip code	Number of Visits	Zip code	Number of Visits	Zip code	Number of Visits
91951	133	92037	119	92104	759
91962	21	92038	3	92105	944
91963	51	92040	506	92106	137
91976	5	92046	4	92107	212
91977	3,554	92054	13	92108	360
91978	329	92056	51	92109	182
91979	14	92057	26	92110	227
91980	152	92058	9	92111	342
92003	5	92061	4	92112	31
92004	11	92064	216	92113	2,173
92007	21	92065	188	92114	5,497
92008	18	92067	29	92115	633
92009	23	92069	29	92116	383
92010	7	92070	1	92117	361
92011	19	92071	637	92118	210
92014	27	92072	9	92119	394
92019	825	92073	1	92120	372
92020	660	92074	7	92121	43
92021	765	92075	9	92122	228
92022	4	92078	63	92123	291
92023	1	92079	2	92124	201
92024	90	92081	28	92126	498
92025	168	92082	22	92127	186
92026	108	92083	11	92128	218
92027	100	92084	27	92129	212
92028	30	92091	4	92130	252
92029	84	92101	552	92131	250
92030	2	92102	972	92135	2
92036	11	92103	305	92137	3

OR Patient Visits 2021					
Zip code	Number of Visits	Zip code	Number of Visits	Zip code	Number of Visits
92138	35	92193	9	92506	2
92139	6,470	92194	1	92507	22
92142	6	92195	21	92509	1
92143	400	92196	8	92529	4
92145	2	92198	4	92530	7
92149	16	92203	2	92532	9
92150	7	92211	2	92539	2
92152	1	92223	16	92543	10
92153	272	92227	5	92544	19
92154	20,198	92231	46	92545	15
92159	21	92232	6	92555	4
92160	3	92243	15	92562	72
92163	18	92249	10	92563	80
92165	6	92250	6	92570	13
92166	12	92251	106	92571	25
92167	8	92253	4	92582	9
92168	15	92264	4	92583	2
92169	2	92273	2	92584	79
92170	45	92277	3	92585	25
92171	7	92335	5	92586	15
92172	7	92336	1	92587	5
92173	5,255	92345	11	92589	2
92174	25	92374	1	92591	31
92175	1	92382	4	92592	105
92176	9	92391	1	92595	10
92177	5	92393	1	92596	38
92178	45	92399	5	92602	11
92179	1	92502	3	92604	1
92191	5	92505	5	92606	1

OR Patient Visits 2021					
Zip code	Number of Visits	Zip code	Number of Visits	Zip code	Number of Visits
92610	1	93313	6	97222	1
92612	2	93455	2	97230	1
92620	2	93535	9	97702	2
92627	1	93556	3	98101	2
92630	3	93560	2	98117	1
92637	1	93619	1	98144	2
92647	2	93656	1	98332	1
92656	2	93705	1	98391	4
92660	1	93720	1	98686	2
92683	1	94061	1	**Grand Total**	**193,648**
92694	10	94080	3		
92782	1	94559	1		
92801	1	94566	1		
92802	3	94568	1		
92806	3	94703	4		
92835	1	94704	1		
92840	1	95064	1		
92878	2	95131	2		
92881	3	95240	2		
92882	15	95361	1		
92883	1	95403	2		
92913	2	95688	1		
93010	1	95747	1		
93021	1	95757	1		
93063	2	95812	9		
93280	2	95938	3		
93291	1	96349	3		
93308	1	96763	1		
93311	3	97045	4		

APPENDIX G

PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS – OPENING YEAR + PROJECT



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	101	177	278	246	375	474	268	562	212	310	555	91
Future Volume (veh/h)	101	177	278	246	375	474	268	562	212	310	555	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	135	236	371	357	543	687	362	759	286	378	677	111
Peak Hour Factor	0.75	0.75	0.75	0.69	0.69	0.69	0.74	0.74	0.74	0.82	0.82	0.82
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	185	1160	510	428	1413	620	424	1209	370	449	1246	387
Arrive On Green	0.06	0.34	0.34	0.13	0.41	0.41	0.13	0.25	0.25	0.14	0.25	0.25
Sat Flow, veh/h	3315	3433	1508	3315	3433	1507	3315	4898	1498	3315	4898	1522
Grp Volume(v), veh/h	135	236	371	357	543	687	362	759	286	378	677	111
Grp Sat Flow(s),veh/h/ln	1657	1716	1508	1657	1716	1507	1657	1633	1498	1657	1633	1522
Q Serve(g_s), s	5.1	6.3	27.7	13.5	14.2	52.8	13.7	17.7	22.8	14.3	15.3	7.5
Cycle Q Clear(g_c), s	5.1	6.3	27.7	13.5	14.2	52.8	13.7	17.7	22.8	14.3	15.3	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	185	1160	510	428	1413	620	424	1209	370	449	1246	387
V/C Ratio(X)	0.73	0.20	0.73	0.83	0.38	1.11	0.85	0.63	0.77	0.84	0.54	0.29
Avail Cap(c_a), veh/h	227	1160	510	796	1413	620	563	1512	462	762	1821	566
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	59.6	30.2	37.3	54.5	26.4	37.7	54.8	43.0	45.0	54.1	41.4	38.5
Incr Delay (d2), s/veh	9.0	0.1	5.2	4.3	0.2	69.3	9.6	0.5	6.3	4.4	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	2.6	10.7	5.8	5.8	30.5	6.2	7.1	8.9	6.1	6.1	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.6	30.3	42.5	58.8	26.6	107.0	64.4	43.6	51.3	58.5	41.7	38.9
LnGrp LOS	E	C	D	E	C	F	E	D	D	E	D	D
Approach Vol, veh/h		742			1587			1407			1166	
Approach Delay, s/veh		43.3			68.6			50.5			46.9	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	48.6	20.6	38.3	11.3	58.0	21.6	37.4
Change Period (Y+Rc), s	* 4.2	* 5.2	* 4.2	* 5.7	* 4.2	* 5.2	* 4.2	5.7
Max Green Setting (Gmax), s	* 31	* 31	* 22	* 48	* 8.8	* 53	* 30	39.6
Max Q Clear Time (g_c+I1), s	15.5	29.7	15.7	17.3	7.1	54.8	16.3	24.8
Green Ext Time (p_c), s	1.1	0.4	0.7	5.2	0.1	0.0	1.1	5.3

Intersection Summary	
HCM 6th Ctrl Delay	54.4
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	361	14	183	343	132	61	18	395	301	20	40
Future Volume (veh/h)	42	361	14	183	343	132	61	18	395	301	20	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	45	384	15	223	418	161	65	19	420	346	23	46
Peak Hour Factor	0.94	0.94	0.94	0.82	0.82	0.82	0.94	0.94	0.94	0.87	0.87	0.87
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	57	468	18	221	570	217	69	20	449	350	23	322
Arrive On Green	0.03	0.14	0.14	0.13	0.24	0.24	0.35	0.35	0.35	0.22	0.22	0.22
Sat Flow, veh/h	1709	3368	131	1709	2423	923	200	58	1293	1607	107	1478
Grp Volume(v), veh/h	45	195	204	223	295	284	504	0	0	369	0	46
Grp Sat Flow(s),veh/h/ln	1709	1716	1783	1709	1716	1629	1551	0	0	1714	0	1478
Q Serve(g_s), s	2.8	12.0	12.0	14.0	17.2	17.5	34.0	0.0	0.0	23.2	0.0	2.7
Cycle Q Clear(g_c), s	2.8	12.0	12.0	14.0	17.2	17.5	34.0	0.0	0.0	23.2	0.0	2.7
Prop In Lane	1.00		0.07	1.00		0.57	0.13		0.83	0.94		1.00
Lane Grp Cap(c), veh/h	57	239	248	221	404	383	539	0	0	374	0	322
V/C Ratio(X)	0.79	0.82	0.82	1.01	0.73	0.74	0.94	0.00	0.00	0.99	0.00	0.14
Avail Cap(c_a), veh/h	95	292	303	221	419	397	588	0	0	374	0	322
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.0	45.3	45.3	47.1	38.2	38.3	34.2	0.0	0.0	42.2	0.0	34.2
Incr Delay (d2), s/veh	21.6	13.9	13.9	62.9	6.1	7.0	21.6	0.0	0.0	43.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.9	6.2	9.7	7.8	7.6	15.9	0.0	0.0	14.3	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	73.5	59.2	59.1	110.1	44.4	45.4	55.7	0.0	0.0	85.3	0.0	34.4
LnGrp LOS	E	E	E	F	D	D	E	A	A	F	A	C
Approach Vol, veh/h		444			802			504			415	
Approach Delay, s/veh		60.6			63.0			55.7			79.7	
Approach LOS		E			E			E			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.2	19.7		28.2	7.8	30.1		42.2
Change Period (Y+Rc), s	* 4.2	4.6		4.6	* 4.2	4.6		4.6
Max Green Setting (Gmax), s	* 4	18.4		23.6	* 6	26.4		41.0
Max Q Clear Time (g_c+I1), s	16.0	14.0		25.2	4.8	19.5		36.0
Green Ext Time (p_c), s	0.0	0.9		0.0	0.0	2.0		1.6

Intersection Summary	
HCM 6th Ctrl Delay	64.0
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	282	278	116	241	73	246	7	42	30	6	33
Future Volume (veh/h)	91	282	278	116	241	73	246	7	42	30	6	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.98	1.00		1.00	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	117	362	299	127	265	80	300	9	51	37	7	41
Peak Hour Factor	0.78	0.78	0.93	0.91	0.91	0.91	0.82	0.82	0.82	0.81	0.81	0.81
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	146	408	331	133	587	173	374	11	64	282	53	279
Arrive On Green	0.09	0.23	0.23	0.08	0.23	0.23	0.27	0.27	0.27	0.20	0.20	0.20
Sat Flow, veh/h	1709	1751	1418	1709	2602	767	1400	42	238	1448	274	1431
Grp Volume(v), veh/h	117	355	306	127	173	172	360	0	0	44	0	41
Grp Sat Flow(s),veh/h/ln	1709	1716	1453	1709	1716	1652	1680	0	0	1722	0	1431
Q Serve(g_s), s	5.3	15.9	16.3	5.9	6.9	7.2	15.9	0.0	0.0	1.7	0.0	1.9
Cycle Q Clear(g_c), s	5.3	15.9	16.3	5.9	6.9	7.2	15.9	0.0	0.0	1.7	0.0	1.9
Prop In Lane	1.00		0.98	1.00		0.46	0.83		0.14	0.84		1.00
Lane Grp Cap(c), veh/h	146	400	339	133	388	373	449	0	0	336	0	279
V/C Ratio(X)	0.80	0.89	0.90	0.95	0.45	0.46	0.80	0.00	0.00	0.13	0.00	0.15
Avail Cap(c_a), veh/h	146	406	344	133	393	379	867	0	0	888	0	739
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.7	29.4	29.6	36.5	26.5	26.6	27.2	0.0	0.0	26.4	0.0	26.5
Incr Delay (d2), s/veh	26.4	20.1	26.0	63.3	0.8	0.9	3.4	0.0	0.0	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	8.6	8.0	4.7	2.8	2.8	6.6	0.0	0.0	0.7	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.1	49.6	55.6	99.7	27.3	27.5	30.5	0.0	0.0	26.6	0.0	26.7
LnGrp LOS	E	D	E	F	C	C	C	A	A	C	A	C
Approach Vol, veh/h		778			472			360			85	
Approach Delay, s/veh		53.8			46.8			30.5			26.7	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.4	23.1		20.1	11.0	22.5		25.8				
Change Period (Y+Rc), s	* 4.2	4.6		4.6	* 4.2	4.6		4.6				
Max Green Setting (Gmax), s	* 6.2	18.8		41.0	* 6.8	18.2		41.0				
Max Q Clear Time (g_c+I1), s	7.9	18.3		3.9	7.3	9.2		17.9				
Green Ext Time (p_c), s	0.0	0.2		0.4	0.0	1.3		2.4				

Intersection Summary		
HCM 6th Ctrl Delay	45.6	
HCM 6th LOS	D	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	303	114	45	408	219	122
Future Volume (veh/h)	303	114	45	408	219	122
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1807	1807	1794	1807	1794	1807
Adj Flow Rate, veh/h	459	173	58	530	277	154
Peak Hour Factor	0.66	0.66	0.77	0.77	0.79	0.79
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	728	272	74	1455	406	226
Arrive On Green	0.30	0.30	0.04	0.42	0.39	0.39
Sat Flow, veh/h	2517	906	1709	3523	1036	576
Grp Volume(v), veh/h	323	309	58	530	432	0
Grp Sat Flow(s),veh/h/ln	1716	1616	1709	1716	1615	0
Q Serve(g_s), s	8.5	8.6	1.8	5.5	11.6	0.0
Cycle Q Clear(g_c), s	8.5	8.6	1.8	5.5	11.6	0.0
Prop In Lane		0.56	1.00		0.64	0.36
Lane Grp Cap(c), veh/h	515	485	74	1455	634	0
V/C Ratio(X)	0.63	0.64	0.78	0.36	0.68	0.00
Avail Cap(c_a), veh/h	789	743	222	2301	1095	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.8	15.8	24.7	10.2	13.2	0.0
Incr Delay (d2), s/veh	1.3	1.4	15.9	0.2	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	2.9	1.0	1.7	3.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.0	17.2	40.6	10.4	14.5	0.0
LnGrp LOS	B	B	D	B	B	A
Approach Vol, veh/h	632			588	432	
Approach Delay, s/veh	17.1			13.4	14.5	
Approach LOS	B			B	B	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.5	20.7			27.1	25.1
Change Period (Y+Rc), s	* 4.2	5.0			5.0	4.6
Max Green Setting (Gmax), s	* 2.3	24.0			35.0	35.4
Max Q Clear Time (g_c+I1), s	13.8	10.6			7.5	13.6
Green Ext Time (p_c), s	0.0	3.2			3.7	1.5

Intersection Summary	
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

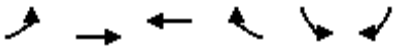
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	40	48	508	23	31	416
Future Volume (veh/h)	40	48	508	23	31	416
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.95	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1794	1807	1807	1807	1794	1807
Adj Flow Rate, veh/h	48	57	564	26	41	547
Peak Hour Factor	0.84	0.84	0.90	0.90	0.76	0.76
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	60	71	1254	58	67	1955
Arrive On Green	0.08	0.08	0.38	0.38	0.04	0.57
Sat Flow, veh/h	726	862	3422	153	1709	3523
Grp Volume(v), veh/h	106	0	290	300	41	547
Grp Sat Flow(s),veh/h/ln	1603	0	1716	1769	1709	1716
Q Serve(g_s), s	1.8	0.0	3.5	3.5	0.6	2.2
Cycle Q Clear(g_c), s	1.8	0.0	3.5	3.5	0.6	2.2
Prop In Lane	0.45	0.54		0.09	1.00	
Lane Grp Cap(c), veh/h	132	0	646	666	67	1955
V/C Ratio(X)	0.80	0.00	0.45	0.45	0.61	0.28
Avail Cap(c_a), veh/h	2078	0	824	849	1114	4414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.3	0.0	6.4	6.4	12.9	3.0
Incr Delay (d2), s/veh	10.6	0.0	0.5	0.5	8.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.7	0.7	0.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.9	0.0	6.9	6.9	21.7	3.1
LnGrp LOS	C	A	A	A	C	A
Approach Vol, veh/h	106		590			588
Approach Delay, s/veh	22.9		6.9			4.4
Approach LOS	C		A			A

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.3	15.2			20.4	6.9
Change Period (Y+Rc), s	* 4.2	4.9			4.9	4.6
Max Green Setting (Gmax), s	* 18	13.1			35.1	35.4
Max Q Clear Time (g_c+I1), s	2.6	5.5			4.2	3.8
Green Ext Time (p_c), s	0.1	2.1			3.9	0.3

Intersection Summary	
HCM 6th Ctrl Delay	7.1
HCM 6th LOS	A

Notes

User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	16	541	428	33	56	26
Future Volume (veh/h)	16	541	428	33	56	26
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.98	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1807	1794	1807
Adj Flow Rate, veh/h	18	601	542	42	65	30
Peak Hour Factor	0.90	0.90	0.79	0.79	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3
Cap, veh/h	32	1930	1247	96	129	116
Arrive On Green	0.02	0.56	0.39	0.39	0.08	0.08
Sat Flow, veh/h	1709	3523	3315	249	1709	1531
Grp Volume(v), veh/h	18	601	288	296	65	30
Grp Sat Flow(s),veh/h/ln	1709	1716	1716	1757	1709	1531
Q Serve(g_s), s	0.3	2.5	3.3	3.3	1.0	0.5
Cycle Q Clear(g_c), s	0.3	2.5	3.3	3.3	1.0	0.5
Prop In Lane	1.00			0.14	1.00	1.00
Lane Grp Cap(c), veh/h	32	1930	664	679	129	116
V/C Ratio(X)	0.56	0.31	0.43	0.44	0.50	0.26
Avail Cap(c_a), veh/h	370	4037	1365	1397	2169	1944
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	3.1	6.1	6.1	11.9	11.7
Incr Delay (d2), s/veh	14.6	0.1	0.4	0.4	3.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.6	0.6	0.4	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.6	3.2	6.5	6.5	14.9	12.8
LnGrp LOS	C	A	A	A	B	B
Approach Vol, veh/h		619	584		95	
Approach Delay, s/veh		3.9	6.5		14.2	
Approach LOS		A	A		B	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	20.2		6.6	4.7	15.5
Change Period (Y+Rc), s	* 5.1		4.6	* 4.2	5.1
Max Green Setting (Gmax), s	* 32		34.0	* 5.8	21.3
Max Q Clear Time (g_c+I1), s	4.5		3.0	2.3	5.3
Green Ext Time (p_c), s	4.2		0.3	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	5.8
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	131	205	108	148	445	150	611	79	351	451	192
Future Volume (veh/h)	245	131	205	108	148	445	150	611	79	351	451	192
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	263	141	220	129	176	530	176	719	93	390	501	213
Peak Hour Factor	0.93	0.93	0.93	0.84	0.84	0.84	0.85	0.85	0.85	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	271	688	614	156	572	500	234	946	121	404	907	371
Arrive On Green	0.16	0.40	0.40	0.09	0.33	0.33	0.07	0.22	0.22	0.12	0.27	0.27
Sat Flow, veh/h	1709	1716	1531	1709	1716	1500	3315	4387	562	3315	3397	1389
Grp Volume(v), veh/h	263	141	220	129	176	530	176	533	279	390	481	233
Grp Sat Flow(s),veh/h/ln	1709	1716	1531	1709	1716	1500	1657	1633	1684	1657	1633	1521
Q Serve(g_s), s	17.4	6.1	11.5	8.5	8.7	38.0	5.9	17.5	17.7	13.3	14.4	15.1
Cycle Q Clear(g_c), s	17.4	6.1	11.5	8.5	8.7	38.0	5.9	17.5	17.7	13.3	14.4	15.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		0.91
Lane Grp Cap(c), veh/h	271	688	614	156	572	500	234	704	363	404	872	406
V/C Ratio(X)	0.97	0.20	0.36	0.83	0.31	1.06	0.75	0.76	0.77	0.96	0.55	0.57
Avail Cap(c_a), veh/h	271	688	614	244	572	500	308	1174	606	404	1258	586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	22.3	23.9	50.9	28.2	38.0	52.0	41.9	42.0	49.8	35.9	36.2
Incr Delay (d2), s/veh	46.1	0.1	0.4	12.3	0.3	57.1	7.2	1.7	3.4	35.6	0.5	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.8	2.5	4.1	4.1	3.6	21.4	2.6	7.0	7.4	7.4	5.6	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	93.7	22.4	24.3	63.2	28.5	95.1	59.2	43.6	45.4	85.4	36.4	37.4
LnGrp LOS	F	C	C	E	C	F	E	D	D	F	D	D
Approach Vol, veh/h		624			835			988			1104	
Approach Delay, s/veh		53.1			76.2			46.9			53.9	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.1	29.9	14.6	51.4	12.2	35.7	22.3	43.7
Change Period (Y+Rc), s	* 4.2	* 5.3	* 4.2	5.7	* 4.2	5.3	* 4.2	5.7
Max Green Setting (Gmax), s	* 14	* 41	* 16	39.8	* 11	43.9	* 18	38.0
Max Q Clear Time (g_c+I1), s	15.3	19.7	10.5	13.5	7.9	17.1	19.4	40.0
Green Ext Time (p_c), s	0.0	4.9	0.1	2.2	0.1	4.6	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	57.1
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	176	1078	185	200	847	207	289	607	353	215	491	87
Future Volume (veh/h)	176	1078	185	200	847	207	289	607	353	215	491	87
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807
Adj Flow Rate, veh/h	215	1315	226	211	892	218	332	698	406	256	585	104
Peak Hour Factor	0.82	0.82	0.82	0.95	0.95	0.95	0.87	0.87	0.87	0.84	0.84	0.84
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	248	1684	516	189	1597	489	222	1507	549	287	1604	605
Arrive On Green	0.07	0.34	0.34	0.06	0.32	0.32	0.07	0.31	0.31	0.09	0.33	0.33
Sat Flow, veh/h	3338	4932	1511	3338	4932	1512	3338	4932	1511	3338	4932	1510
Grp Volume(v), veh/h	215	1315	226	211	892	218	332	698	406	256	585	104
Grp Sat Flow(s),veh/h/ln	1669	1644	1511	1669	1644	1512	1669	1644	1511	1669	1644	1510
Q Serve(g_s), s	6.5	24.5	11.8	5.8	15.3	11.7	6.8	11.7	24.0	7.8	9.3	4.5
Cycle Q Clear(g_c), s	6.5	24.5	11.8	5.8	15.3	11.7	6.8	11.7	24.0	7.8	9.3	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	248	1684	516	189	1597	489	222	1507	549	287	1604	605
V/C Ratio(X)	0.87	0.78	0.44	1.11	0.56	0.45	1.50	0.46	0.74	0.89	0.36	0.17
Avail Cap(c_a), veh/h	248	2069	634	189	1982	608	222	1997	698	287	2074	748
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.8	30.2	26.1	48.2	28.5	27.3	47.7	28.7	28.4	46.3	26.4	19.8
Incr Delay (d2), s/veh	26.0	1.6	0.6	99.5	0.3	0.6	245.4	0.2	3.1	27.3	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.5	9.2	4.1	4.9	5.6	4.1	10.3	4.4	8.6	4.2	3.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	72.9	31.9	26.7	147.7	28.9	28.0	293.1	28.9	31.6	73.6	26.6	19.9
LnGrp LOS	E	C	C	F	C	C	F	C	C	E	C	B
Approach Vol, veh/h		1756			1321			1436			945	
Approach Delay, s/veh		36.2			47.7			90.8			38.6	
Approach LOS		D			D			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	41.4	11.0	39.9	11.8	39.6	13.0	37.9
Change Period (Y+Rc), s	* 4.2	6.5	* 4.2	6.6	* 4.2	6.5	* 4.2	* 6.6
Max Green Setting (Gmax), s	* 5.8	42.9	* 6.8	43.0	* 7.6	41.1	* 8.8	* 41
Max Q Clear Time (g_c+I1), s	7.8	26.5	8.8	11.3	8.5	17.3	9.8	26.0
Green Ext Time (p_c), s	0.0	8.4	0.0	4.3	0.0	6.6	0.0	5.3

Intersection Summary	
HCM 6th Ctrl Delay	53.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	34	0	1	0	0	0	1	81	0	0	183	137
Future Vol, veh/h	34	0	1	0	0	0	1	81	0	0	183	137
Conflicting Peds, #/hr	0	0	2	2	0	2	19	0	20	20	0	19
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	96	96	96	90	90	90	89	89	89
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	44	0	1	0	0	0	1	90	0	0	206	154

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	396	414	304	398	491	112	379	0	0	110	0	0
Stage 1	302	302	-	112	112	-	-	-	-	-	-	-
Stage 2	94	112	-	286	379	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	562	527	733	560	477	938	1174	-	-	1474	-	-
Stage 1	705	662	-	891	801	-	-	-	-	-	-	-
Stage 2	910	801	-	719	613	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	550	507	718	547	459	918	1153	-	-	1446	-	-
Mov Cap-2 Maneuver	550	507	-	547	459	-	-	-	-	-	-	-
Stage 1	692	650	-	873	785	-	-	-	-	-	-	-
Stage 2	907	785	-	716	602	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	0	0.1	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1153	-	-	554	-	1446	-	-
HCM Lane V/C Ratio	0.001	-	-	0.081	-	-	-	-
HCM Control Delay (s)	8.1	0	-	12.1	0	0	-	-
HCM Lane LOS	A	A	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	-	0	-	-

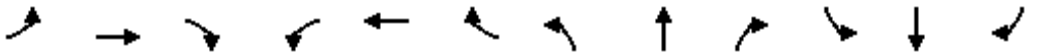
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	69	0	0	5	8	172
Future Vol, veh/h	69	0	0	5	8	172
Conflicting Peds, #/hr	0	0	0	0	20	11
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	63	63	78	78
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	81	0	0	8	10	221

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	162	0
Stage 1	-	-	0	-
Stage 2	-	-	162	-
Critical Hdwy	4.13	-	6.53	6.23
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.53	-
Follow-up Hdwy	2.227	-	4.027	3.327
Pot Cap-1 Maneuver	-	-	729	-
Stage 1	-	-	-	-
Stage 2	-	-	762	-
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	0	-
Mov Cap-2 Maneuver	-	-	0	-
Stage 1	-	-	0	-
Stage 2	-	-	0	-

Approach	EB	WB
HCM Control Delay, s		
HCM LOS		-

Minor Lane/Major Mvmt	EBL	EBTWBLn1
Capacity (veh/h)	-	- -
HCM Lane V/C Ratio	-	- -
HCM Control Delay (s)	-	- -
HCM Lane LOS	-	- -
HCM 95th %tile Q(veh)	-	- -



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	1445	136	90	1682	457	298	243	105	496	274	299
Future Volume (veh/h)	188	1445	136	90	1682	457	298	243	105	496	274	299
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807	1807
Adj Flow Rate, veh/h	198	1521	143	103	1933	525	382	312	135	577	319	348
Peak Hour Factor	0.95	0.95	0.95	0.87	0.87	0.87	0.78	0.78	0.78	0.86	0.86	0.86
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	218	2295	704	144	2186	1194	432	1282	388	552	1460	453
Arrive On Green	0.07	0.47	0.47	0.04	0.44	0.44	0.13	0.26	0.26	0.17	0.30	0.30
Sat Flow, veh/h	3338	4932	1512	3338	4932	2695	3338	4932	1492	3338	4932	1531
Grp Volume(v), veh/h	198	1521	143	103	1933	525	382	312	135	577	319	348
Grp Sat Flow(s),veh/h/ln	1669	1644	1512	1669	1644	1347	1669	1644	1492	1669	1644	1531
Q Serve(g_s), s	8.8	35.8	8.4	4.6	53.8	20.2	16.9	7.5	11.0	24.8	7.3	31.1
Cycle Q Clear(g_c), s	8.8	35.8	8.4	4.6	53.8	20.2	16.9	7.5	11.0	24.8	7.3	31.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	2295	704	144	2186	1194	432	1282	388	552	1460	453
V/C Ratio(X)	0.91	0.66	0.20	0.71	0.88	0.44	0.89	0.24	0.35	1.05	0.22	0.77
Avail Cap(c_a), veh/h	218	2295	704	147	2186	1194	476	1282	388	552	1460	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.78	0.78
Uniform Delay (d), s/veh	69.7	31.0	23.7	70.8	38.2	28.9	64.2	43.8	45.2	62.6	39.7	48.1
Incr Delay (d2), s/veh	36.1	1.5	0.7	12.8	5.7	1.2	17.4	0.5	2.5	46.3	0.3	9.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	13.9	3.1	2.2	21.7	6.7	8.2	3.1	4.3	13.9	3.0	12.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	105.8	32.5	24.3	83.6	43.9	30.1	81.7	44.3	47.6	108.9	40.0	57.5
LnGrp LOS	F	C	C	F	D	C	F	D	D	F	D	E
Approach Vol, veh/h		1862			2561			829			1244	
Approach Delay, s/veh		39.7			42.7			62.0			76.9	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.7	76.1	23.6	50.1	14.0	72.8	29.0	44.7
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.7	* 4.2	6.0	* 4.2	* 5.7
Max Green Setting (Gmax), s	* 6.6	59.8	* 21	42.1	* 9.8	56.6	* 25	* 39
Max Q Clear Time (g_c+I1), s	6.6	37.8	18.9	33.1	10.8	55.8	26.8	13.0
Green Ext Time (p_c), s	0.0	17.5	0.5	2.6	0.0	0.8	0.0	3.0

Intersection Summary	
HCM 6th Ctrl Delay	50.8
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

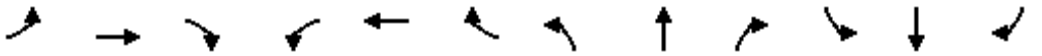
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	1018	104	127	972	272	210	179	255	350	111	156
Future Volume (veh/h)	100	1018	104	127	972	272	210	179	255	350	111	156
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1794	1807	1794	1794	1807	1794	1807	1807	1794	1807	1807
Adj Flow Rate, veh/h	105	1072	109	131	1002	280	259	221	315	380	121	170
Peak Hour Factor	0.95	0.95	0.95	0.97	0.97	0.97	0.81	0.81	0.81	0.92	0.92	0.92
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	165	1464	457	162	1685	519	297	435	388	474	382	341
Arrive On Green	0.05	0.30	0.30	0.09	0.34	0.34	0.17	0.25	0.25	0.14	0.22	0.22
Sat Flow, veh/h	3315	4898	1530	1709	4898	1509	1709	1716	1529	3315	1716	1531
Grp Volume(v), veh/h	105	1072	109	131	1002	280	259	221	315	380	121	170
Grp Sat Flow(s),veh/h/ln	1657	1633	1530	1709	1633	1509	1709	1716	1529	1657	1716	1531
Q Serve(g_s), s	2.9	18.3	5.0	7.0	15.8	14.0	13.8	10.3	18.1	10.4	5.5	9.1
Cycle Q Clear(g_c), s	2.9	18.3	5.0	7.0	15.8	14.0	13.8	10.3	18.1	10.4	5.5	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	165	1464	457	162	1685	519	297	435	388	474	382	341
V/C Ratio(X)	0.64	0.73	0.24	0.81	0.59	0.54	0.87	0.51	0.81	0.80	0.32	0.50
Avail Cap(c_a), veh/h	277	2140	668	271	2507	772	435	779	694	795	753	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.6	29.4	24.7	41.4	25.3	24.7	37.6	29.9	32.8	38.7	30.4	31.7
Incr Delay (d2), s/veh	4.1	0.7	0.3	9.2	0.3	0.9	12.4	0.9	4.1	3.2	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	6.7	1.8	3.2	5.6	4.9	6.6	4.2	6.9	4.3	2.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.6	30.1	25.0	50.7	25.6	25.6	50.0	30.8	36.9	42.0	30.8	32.9
LnGrp LOS	D	C	C	D	C	C	D	C	D	D	C	C
Approach Vol, veh/h		1286			1413			795			671	
Approach Delay, s/veh		31.1			27.9			39.5			37.6	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	33.9	20.4	26.0	8.8	38.1	17.5	28.9
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.2	* 4.2	6.0	* 4.2	5.2
Max Green Setting (Gmax), s	* 15	40.8	* 24	41.0	* 7.8	47.8	* 22	42.4
Max Q Clear Time (g_c+I1), s	9.0	20.3	15.8	11.1	4.9	17.8	12.4	20.1
Green Ext Time (p_c), s	0.1	7.2	0.5	1.8	0.1	8.4	1.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	247	232	260	233	331	212	339	228	394	452	124
Future Volume (veh/h)	100	247	232	260	233	331	212	339	228	394	452	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.97	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1808	1821	1821	1808	1821	1821	1808	1808	1821	1808	1808	1821
Adj Flow Rate, veh/h	110	271	255	302	271	385	230	368	248	443	508	139
Peak Hour Factor	0.91	0.91	0.91	0.86	0.86	0.86	0.92	0.92	0.92	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	172	852	371	392	1080	473	306	1334	404	532	1668	520
Arrive On Green	0.05	0.25	0.25	0.12	0.31	0.31	0.09	0.27	0.27	0.16	0.34	0.34
Sat Flow, veh/h	3341	3460	1507	3341	3460	1516	3341	4937	1497	3341	4937	1541
Grp Volume(v), veh/h	110	271	255	302	271	385	230	368	248	443	508	139
Grp Sat Flow(s),veh/h/ln	1671	1730	1507	1671	1730	1516	1671	1646	1497	1671	1646	1541
Q Serve(g_s), s	3.0	6.0	14.3	8.2	5.4	21.8	6.3	5.5	13.5	12.0	7.1	6.1
Cycle Q Clear(g_c), s	3.0	6.0	14.3	8.2	5.4	21.8	6.3	5.5	13.5	12.0	7.1	6.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	172	852	371	392	1080	473	306	1334	404	532	1668	520
V/C Ratio(X)	0.64	0.32	0.69	0.77	0.25	0.81	0.75	0.28	0.61	0.83	0.30	0.27
Avail Cap(c_a), veh/h	290	1477	644	746	1949	854	459	2124	644	717	2526	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	28.7	31.9	39.9	23.9	29.6	41.3	26.8	29.8	38.0	22.8	22.5
Incr Delay (d2), s/veh	3.9	0.2	2.3	3.2	0.1	3.4	3.8	0.1	1.5	6.2	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.4	5.2	3.5	2.2	7.9	2.6	2.1	4.8	5.2	2.6	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.3	28.9	34.1	43.2	24.0	33.0	45.1	26.9	31.3	44.2	22.9	22.7
LnGrp LOS	D	C	C	D	C	C	D	C	C	D	C	C
Approach Vol, veh/h		636			958			846			1090	
Approach Delay, s/veh		34.2			33.7			33.1			31.5	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.1	28.2	12.7	37.2	9.0	34.3	19.0	30.9
Change Period (Y+Rc), s	* 4.2	* 5.2	* 4.2	* 5.7	* 4.2	* 5.2	* 4.2	5.7
Max Green Setting (Gmax), s	* 21	* 40	* 13	* 48	* 8.1	* 53	* 20	40.1
Max Q Clear Time (g_c+I1), s	10.2	16.3	8.3	9.1	5.0	23.8	14.0	15.5
Green Ext Time (p_c), s	0.8	2.6	0.3	4.0	0.1	3.2	0.9	3.2

Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	303	12	230	538	228	42	5	192	194	16	47
Future Volume (veh/h)	102	303	12	230	538	228	42	5	192	194	16	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1808	1821	1821	1808	1821	1821	1808	1808	1821	1808	1808	1821
Adj Flow Rate, veh/h	119	352	14	242	566	240	46	5	211	223	18	54
Peak Hour Factor	0.86	0.86	0.86	0.95	0.95	0.95	0.91	0.91	0.91	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	698	28	282	686	290	59	6	271	282	23	245
Arrive On Green	0.08	0.21	0.21	0.16	0.29	0.29	0.22	0.22	0.22	0.18	0.18	0.18
Sat Flow, veh/h	1722	3392	135	1722	2363	1000	275	30	1259	1599	129	1392
Grp Volume(v), veh/h	119	179	187	242	414	392	262	0	0	241	0	54
Grp Sat Flow(s),veh/h/ln	1722	1730	1797	1722	1730	1633	1564	0	0	1728	0	1392
Q Serve(g_s), s	5.2	6.9	7.0	10.3	16.8	16.9	11.9	0.0	0.0	10.1	0.0	2.5
Cycle Q Clear(g_c), s	5.2	6.9	7.0	10.3	16.8	16.9	11.9	0.0	0.0	10.1	0.0	2.5
Prop In Lane	1.00		0.07	1.00		0.61	0.18		0.81	0.93		1.00
Lane Grp Cap(c), veh/h	137	356	370	282	502	474	337	0	0	305	0	245
V/C Ratio(X)	0.87	0.50	0.51	0.86	0.82	0.83	0.78	0.00	0.00	0.79	0.00	0.22
Avail Cap(c_a), veh/h	137	422	439	320	606	572	850	0	0	541	0	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.3	26.5	26.5	30.7	25.0	25.0	27.9	0.0	0.0	29.7	0.0	26.6
Incr Delay (d2), s/veh	40.7	1.1	1.1	18.5	7.7	8.3	3.9	0.0	0.0	4.6	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	2.8	2.9	5.5	7.5	7.2	4.7	0.0	0.0	4.5	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.0	27.6	27.6	49.1	32.7	33.3	31.8	0.0	0.0	34.3	0.0	27.1
LnGrp LOS	E	C	C	D	C	C	C	A	A	C	A	C
Approach Vol, veh/h		485			1048			262			295	
Approach Delay, s/veh		39.2			36.7			31.8			33.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	16.5	20.1		17.9	10.2	26.5		20.8
Change Period (Y+Rc), s	* 4.2	4.6		4.6	* 4.2	4.6		4.6
Max Green Setting (Gmax), s	* 14	18.4		23.6	* 6	26.4		41.0
Max Q Clear Time (g_c+I1), s	12.3	9.0		12.1	7.2	18.9		13.9
Green Ext Time (p_c), s	0.1	1.4		1.3	0.0	3.0		1.8

Intersection Summary	
HCM 6th Ctrl Delay	36.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	228	169	170	365	32	242	2	111	99	10	82
Future Volume (veh/h)	41	228	169	170	365	32	242	2	111	99	10	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1808	1821	1821	1808	1821	1821	1808	1808	1821	1808	1808	1821
Adj Flow Rate, veh/h	44	245	182	181	388	34	306	3	141	110	11	91
Peak Hour Factor	0.93	0.93	0.93	0.94	0.94	0.94	0.79	0.79	0.79	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	349	247	144	755	66	388	4	179	228	23	219
Arrive On Green	0.03	0.18	0.18	0.08	0.23	0.23	0.35	0.35	0.35	0.14	0.14	0.14
Sat Flow, veh/h	1722	1907	1352	1722	3218	281	1123	11	518	1572	157	1515
Grp Volume(v), veh/h	44	221	206	181	208	214	450	0	0	121	0	91
Grp Sat Flow(s),veh/h/ln	1722	1730	1528	1722	1730	1769	1652	0	0	1730	0	1515
Q Serve(g_s), s	1.9	8.9	9.4	6.2	7.7	7.8	18.2	0.0	0.0	4.8	0.0	4.0
Cycle Q Clear(g_c), s	1.9	8.9	9.4	6.2	7.7	7.8	18.2	0.0	0.0	4.8	0.0	4.0
Prop In Lane	1.00		0.88	1.00		0.16	0.68		0.31	0.91		1.00
Lane Grp Cap(c), veh/h	55	317	280	144	406	415	570	0	0	251	0	219
V/C Ratio(X)	0.79	0.70	0.74	1.26	0.51	0.52	0.79	0.00	0.00	0.48	0.00	0.41
Avail Cap(c_a), veh/h	158	439	388	144	425	435	915	0	0	958	0	839
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.6	28.3	28.6	33.9	24.6	24.7	21.8	0.0	0.0	29.1	0.0	28.8
Incr Delay (d2), s/veh	21.9	2.9	4.5	159.2	1.0	1.0	2.5	0.0	0.0	1.4	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.8	3.7	8.9	3.1	3.2	7.1	0.0	0.0	2.0	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.5	31.2	33.1	193.1	25.6	25.7	24.3	0.0	0.0	30.5	0.0	30.1
LnGrp LOS	E	C	C	F	C	C	C	A	A	C	A	C
Approach Vol, veh/h		471			603			450			212	
Approach Delay, s/veh		34.5			75.9			24.3			30.3	
Approach LOS		C			E			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.4	18.2		15.3	6.6	22.0		30.2
Change Period (Y+Rc), s	* 4.2	4.6		4.6	* 4.2	4.6		4.6
Max Green Setting (Gmax), s	* 6.2	18.8		41.0	* 6.8	18.2		41.0
Max Q Clear Time (g_c+I1), s	10.2	11.4		6.8	3.9	9.8		20.2
Green Ext Time (p_c), s	0.0	1.6		1.1	0.0	1.5		3.2

Intersection Summary	
HCM 6th Ctrl Delay	45.7
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	493	127	96	396	69	81
Future Volume (veh/h)	493	127	96	396	69	81
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1821	1821	1808	1821	1808	1821
Adj Flow Rate, veh/h	567	146	110	455	73	86
Peak Hour Factor	0.87	0.87	0.87	0.87	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1045	268	137	2022	105	124
Arrive On Green	0.39	0.39	0.08	0.58	0.14	0.14
Sat Flow, veh/h	2802	696	1722	3551	734	865
Grp Volume(v), veh/h	361	352	110	455	160	0
Grp Sat Flow(s),veh/h/ln	1730	1676	1722	1730	1609	0
Q Serve(g_s), s	5.7	5.8	2.2	2.2	3.3	0.0
Cycle Q Clear(g_c), s	5.7	5.8	2.2	2.2	3.3	0.0
Prop In Lane		0.41	1.00		0.46	0.54
Lane Grp Cap(c), veh/h	667	646	137	2022	231	0
V/C Ratio(X)	0.54	0.54	0.80	0.23	0.69	0.00
Avail Cap(c_a), veh/h	1177	1140	332	3432	1614	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.4	8.4	16.0	3.5	14.4	0.0
Incr Delay (d2), s/veh	0.7	0.7	10.2	0.1	3.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.4	1.1	0.3	1.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.1	9.2	26.1	3.6	18.1	0.0
LnGrp LOS	A	A	C	A	B	A
Approach Vol, veh/h	713			565	160	
Approach Delay, s/veh	9.1			8.0	18.1	
Approach LOS	A			A	B	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	7.0	18.6			25.6	9.7
Change Period (Y+Rc), s	* 4.2	5.0			5.0	4.6
Max Green Setting (Gmax), s	* 3.8	24.0			35.0	35.4
Max Q Clear Time (g_c+I1), s	4.2	7.8			4.2	5.3
Green Ext Time (p_c), s	0.1	4.0			3.1	0.5

Intersection Summary	
HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	21	23	563	32	32	465
Future Volume (veh/h)	21	23	563	32	32	465
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.94	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1808	1821	1821	1821	1808	1821
Adj Flow Rate, veh/h	27	29	605	34	36	517
Peak Hour Factor	0.79	0.79	0.93	0.93	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	40	43	1312	74	61	2039
Arrive On Green	0.05	0.05	0.40	0.40	0.04	0.59
Sat Flow, veh/h	768	825	3409	186	1722	3551
Grp Volume(v), veh/h	57	0	315	324	36	517
Grp Sat Flow(s),veh/h/ln	1621	0	1730	1774	1722	1730
Q Serve(g_s), s	0.9	0.0	3.6	3.6	0.5	1.9
Cycle Q Clear(g_c), s	0.9	0.0	3.6	3.6	0.5	1.9
Prop In Lane	0.47	0.51		0.10	1.00	
Lane Grp Cap(c), veh/h	84	0	684	702	61	2039
V/C Ratio(X)	0.68	0.00	0.46	0.46	0.59	0.25
Avail Cap(c_a), veh/h	2144	0	1327	1361	390	3988
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.3	0.0	5.9	5.9	12.6	2.6
Incr Delay (d2), s/veh	9.2	0.0	0.5	0.5	9.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.6	0.6	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.6	0.0	6.4	6.4	21.6	2.7
LnGrp LOS	C	A	A	A	C	A
Approach Vol, veh/h	57		639			553
Approach Delay, s/veh	21.6		6.4			3.9
Approach LOS	C		A			A

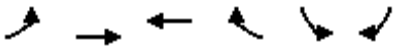
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.1	15.4			20.5	6.0
Change Period (Y+Rc), s	* 4.2	4.9			4.9	4.6
Max Green Setting (Gmax), s	* 6	20.3			30.5	35.0
Max Q Clear Time (g_c+I1), s	2.5	5.6			3.9	2.9
Green Ext Time (p_c), s	0.0	3.3			3.5	0.1

Intersection Summary	
HCM 6th Ctrl Delay	6.0
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	10	565	469	46	28	13
Future Volume (veh/h)	10	565	469	46	28	13
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			0.95	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1808	1821	1821	1821	1808	1821
Adj Flow Rate, veh/h	11	614	499	49	37	17
Peak Hour Factor	0.92	0.92	0.94	0.94	0.75	0.75
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	20	2004	1288	126	85	77
Arrive On Green	0.01	0.58	0.41	0.41	0.05	0.05
Sat Flow, veh/h	1722	3551	3259	310	1722	1543
Grp Volume(v), veh/h	11	614	272	276	37	17
Grp Sat Flow(s),veh/h/ln	1722	1730	1730	1747	1722	1543
Q Serve(g_s), s	0.2	2.4	2.9	2.9	0.5	0.3
Cycle Q Clear(g_c), s	0.2	2.4	2.9	2.9	0.5	0.3
Prop In Lane	1.00			0.18	1.00	1.00
Lane Grp Cap(c), veh/h	20	2004	704	711	85	77
V/C Ratio(X)	0.54	0.31	0.39	0.39	0.43	0.22
Avail Cap(c_a), veh/h	382	4171	1410	1424	2241	2008
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.8	2.8	5.5	5.5	12.1	11.9
Incr Delay (d2), s/veh	20.8	0.1	0.3	0.3	3.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.5	0.5	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.6	2.9	5.8	5.8	15.5	13.4
LnGrp LOS	C	A	A	A	B	B
Approach Vol, veh/h		625	548		54	
Approach Delay, s/veh		3.4	5.8		14.8	
Approach LOS		A	A		B	

Timer - Assigned Phs	2		4	5	6
Phs Duration (G+Y+Rc), s	20.2		5.9	4.5	15.7
Change Period (Y+Rc), s	* 5.1		4.6	* 4.2	5.1
Max Green Setting (Gmax), s	* 32		34.0	* 5.8	21.3
Max Q Clear Time (g_c+I1), s	4.4		2.5	2.2	4.9
Green Ext Time (p_c), s	4.3		0.1	0.0	2.9

Intersection Summary	
HCM 6th Ctrl Delay	5.0
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	210	113	46	151	276	99	366	66	360	458	149
Future Volume (veh/h)	266	210	113	46	151	276	99	366	66	360	458	149
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1808	1821	1821	1808	1821	1821	1808	1808	1821	1808	1808	1821
Adj Flow Rate, veh/h	320	253	136	51	168	307	108	398	72	409	520	169
Peak Hour Factor	0.83	0.83	0.83	0.90	0.90	0.90	0.92	0.92	0.92	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	352	937	486	65	452	399	173	717	126	483	974	306
Arrive On Green	0.20	0.43	0.43	0.04	0.26	0.26	0.05	0.17	0.17	0.14	0.26	0.26
Sat Flow, veh/h	1722	2192	1137	1722	1730	1527	3341	4207	738	3341	3701	1164
Grp Volume(v), veh/h	320	198	191	51	168	307	108	309	161	409	461	228
Grp Sat Flow(s),veh/h/ln	1722	1730	1599	1722	1730	1527	1671	1646	1654	1671	1646	1574
Q Serve(g_s), s	16.0	6.5	6.9	2.6	7.0	16.4	2.8	7.6	7.9	10.5	10.6	11.0
Cycle Q Clear(g_c), s	16.0	6.5	6.9	2.6	7.0	16.4	2.8	7.6	7.9	10.5	10.6	11.0
Prop In Lane	1.00		0.71	1.00		1.00	1.00		0.45	1.00		0.74
Lane Grp Cap(c), veh/h	352	740	684	65	452	399	173	561	282	483	866	414
V/C Ratio(X)	0.91	0.27	0.28	0.79	0.37	0.77	0.62	0.55	0.57	0.85	0.53	0.55
Avail Cap(c_a), veh/h	353	780	721	318	745	657	401	1528	768	526	1637	783
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.3	16.3	16.4	42.1	26.7	30.2	41.0	33.5	33.7	36.8	27.9	28.0
Incr Delay (d2), s/veh	26.6	0.2	0.2	18.6	0.5	3.2	3.7	0.8	1.8	11.5	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.0	2.5	2.4	1.4	2.9	6.1	1.2	2.9	3.1	4.8	3.9	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.9	16.5	16.6	60.8	27.2	33.3	44.7	34.4	35.5	48.3	28.4	29.2
LnGrp LOS	E	B	B	E	C	C	D	C	D	D	C	C
Approach Vol, veh/h		709			526			578			1098	
Approach Delay, s/veh		36.6			34.0			36.6			36.0	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.0	20.3	7.5	43.5	8.8	28.5	22.2	28.7
Change Period (Y+Rc), s	* 4.2	* 5.3	* 4.2	5.7	* 4.2	5.3	* 4.2	5.7
Max Green Setting (Gmax), s	* 14	* 41	* 16	39.8	* 11	43.9	* 18	38.0
Max Q Clear Time (g_c+I1), s	12.5	9.9	4.6	8.9	4.8	13.0	18.0	18.4
Green Ext Time (p_c), s	0.2	2.8	0.1	2.4	0.1	4.5	0.0	2.8

Intersection Summary	
HCM 6th Ctrl Delay	35.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	137	1171	202	328	1140	261	133	494	283	347	604	96
Future Volume (veh/h)	137	1171	202	328	1140	261	133	494	283	347	604	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821
Adj Flow Rate, veh/h	154	1316	227	349	1213	278	140	520	298	377	657	104
Peak Hour Factor	0.89	0.89	0.89	0.94	0.94	0.94	0.95	0.95	0.95	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	222	1795	555	212	1782	553	206	1223	476	322	1395	534
Arrive On Green	0.07	0.36	0.36	0.06	0.36	0.36	0.06	0.25	0.25	0.10	0.28	0.28
Sat Flow, veh/h	3365	4972	1537	3365	4972	1542	3365	4972	1538	3365	4972	1542
Grp Volume(v), veh/h	154	1316	227	349	1213	278	140	520	298	377	657	104
Grp Sat Flow(s),veh/h/ln	1682	1657	1537	1682	1657	1542	1682	1657	1538	1682	1657	1542
Q Serve(g_s), s	4.1	21.1	10.2	5.8	19.0	13.0	3.7	8.1	15.3	8.8	10.1	4.3
Cycle Q Clear(g_c), s	4.1	21.1	10.2	5.8	19.0	13.0	3.7	8.1	15.3	8.8	10.1	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	222	1795	555	212	1782	553	206	1223	476	322	1395	534
V/C Ratio(X)	0.69	0.73	0.41	1.64	0.68	0.50	0.68	0.43	0.63	1.17	0.47	0.19
Avail Cap(c_a), veh/h	278	2322	718	212	2224	690	249	2240	790	322	2327	823
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	25.5	22.0	43.0	25.0	23.1	42.2	29.2	27.2	41.5	27.4	21.0
Incr Delay (d2), s/veh	5.3	0.9	0.5	309.5	0.6	0.7	5.6	0.2	1.4	104.5	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	7.6	3.5	11.4	6.8	4.5	1.6	3.1	5.4	8.2	3.8	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.3	26.4	22.5	352.6	25.6	23.8	47.9	29.4	28.6	146.0	27.6	21.2
LnGrp LOS	D	C	C	F	C	C	D	C	C	F	C	C
Approach Vol, veh/h		1697			1840			958			1138	
Approach Delay, s/veh		27.8			87.4			31.8			66.3	
Approach LOS		C			F			C			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	39.7	9.8	32.4	10.3	39.4	13.0	29.2
Change Period (Y+Rc), s	* 4.2	6.5	* 4.2	6.6	* 4.2	6.5	* 4.2	* 6.6
Max Green Setting (Gmax), s	* 5.8	42.9	* 6.8	43.0	* 7.6	41.1	* 8.8	* 41
Max Q Clear Time (g_c+I1), s	7.8	23.1	5.7	12.1	6.1	21.0	10.8	17.3
Green Ext Time (p_c), s	0.0	9.3	0.0	4.8	0.1	8.8	0.0	4.3

Intersection Summary	
HCM 6th Ctrl Delay	55.7
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	108	0	0	0	0	0	0	295	0	0	117	60
Future Vol, veh/h	108	0	0	0	0	0	0	295	0	0	117	60
Conflicting Peds, #/hr	1	0	0	0	0	1	35	0	1	1	0	35
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	86	86	86	89	89	89	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	130	0	0	0	0	0	0	331	0	0	177	91

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	590	590	258	555	635	333	303	0	0	332	0	0
Stage 1	258	258	-	332	332	-	-	-	-	-	-	-
Stage 2	332	332	-	223	303	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	419	420	781	442	396	709	1258	-	-	1227	-	-
Stage 1	747	694	-	681	644	-	-	-	-	-	-	-
Stage 2	681	644	-	780	664	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	405	406	755	442	383	708	1216	-	-	1226	-	-
Mov Cap-2 Maneuver	405	406	-	442	383	-	-	-	-	-	-	-
Stage 1	722	671	-	680	643	-	-	-	-	-	-	-
Stage 2	680	643	-	780	642	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18	0	0	0
HCM LOS	C	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1216	-	-	405	-	1226	-	-
HCM Lane V/C Ratio	-	-	-	0.321	-	-	-	-
HCM Control Delay (s)	0	-	-	18	0	0	-	-
HCM Lane LOS	A	-	-	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.4	-	0	-	-

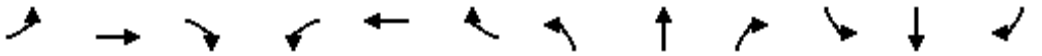
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	286	0	0	10	2	109
Future Vol, veh/h	286	0	0	10	2	109
Conflicting Peds, #/hr	0	0	0	0	4	30
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	84	84	42	42	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	340	0	0	24	3	160

Major/Minor	Major1		Minor2	
Conflicting Flow All	0	0	680	0
Stage 1	-	-	0	-
Stage 2	-	-	680	-
Critical Hdwy	4.12	-	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	5.52	-
Follow-up Hdwy	2.218	-	4.018	3.318
Pot Cap-1 Maneuver	-	-	373	-
Stage 1	-	-	-	-
Stage 2	-	-	451	-
Platoon blocked, %		-		
Mov Cap-1 Maneuver	-	-	0	-
Mov Cap-2 Maneuver	-	-	0	-
Stage 1	-	-	0	-
Stage 2	-	-	0	-

Approach	EB	WB
HCM Control Delay, s		
HCM LOS		-

Minor Lane/Major Mvmt	EBL	EBTWBLn1
Capacity (veh/h)	-	- -
HCM Lane V/C Ratio	-	- -
HCM Control Delay (s)	-	- -
HCM Lane LOS	-	- -
HCM 95th %tile Q(veh)	-	- -



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	265	1811	238	98	1219	304	152	204	114	423	180	191
Future Volume (veh/h)	265	1811	238	98	1219	304	152	204	114	423	180	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821	1821
Adj Flow Rate, veh/h	285	1947	256	111	1385	345	165	222	124	460	196	208
Peak Hour Factor	0.93	0.93	0.93	0.88	0.88	0.88	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	319	2082	646	130	1803	983	212	1293	401	500	1718	533
Arrive On Green	0.09	0.42	0.42	0.04	0.36	0.36	0.06	0.26	0.26	0.15	0.35	0.35
Sat Flow, veh/h	3365	4972	1543	3365	4972	2710	3365	4972	1542	3365	4972	1543
Grp Volume(v), veh/h	285	1947	256	111	1385	345	165	222	124	460	196	208
Grp Sat Flow(s),veh/h/ln	1682	1657	1543	1682	1657	1355	1682	1657	1542	1682	1657	1543
Q Serve(g_s), s	12.6	56.1	17.3	4.9	36.9	13.9	7.2	5.2	9.7	20.2	4.0	15.3
Cycle Q Clear(g_c), s	12.6	56.1	17.3	4.9	36.9	13.9	7.2	5.2	9.7	20.2	4.0	15.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	319	2082	646	130	1803	983	212	1293	401	500	1718	533
V/C Ratio(X)	0.89	0.94	0.40	0.85	0.77	0.35	0.78	0.17	0.31	0.92	0.11	0.39
Avail Cap(c_a), veh/h	319	2082	646	130	1803	983	283	1293	401	511	1718	533
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	67.2	41.7	30.4	71.7	42.2	34.9	69.2	43.0	44.7	63.0	33.4	37.1
Incr Delay (d2), s/veh	25.3	9.4	1.8	37.4	3.2	1.0	11.3	0.3	2.0	19.3	0.1	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	23.6	6.7	2.8	15.1	4.7	3.4	2.2	3.9	9.9	1.6	6.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	92.4	51.1	32.2	109.1	45.4	35.9	80.6	43.3	46.7	82.2	33.6	39.0
LnGrp LOS	F	D	C	F	D	D	F	D	D	F	C	D
Approach Vol, veh/h		2488			1841			511			864	
Approach Delay, s/veh		53.9			47.5			56.1			60.8	
Approach LOS		D			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	68.8	13.7	57.5	18.4	60.4	26.5	44.7
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.7	* 4.2	6.0	* 4.2	* 5.7
Max Green Setting (Gmax), s	* 5.8	62.6	* 13	48.9	* 14	54.2	* 23	* 39
Max Q Clear Time (g_c+I1), s	6.9	58.1	9.2	17.3	14.6	38.9	22.2	11.7
Green Ext Time (p_c), s	0.0	4.3	0.2	2.4	0.0	12.8	0.1	2.2

Intersection Summary	
HCM 6th Ctrl Delay	53.1
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	121	1216	216	207	986	280	131	115	160	317	135	97
Future Volume (veh/h)	121	1216	216	207	986	280	131	115	160	317	135	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.89	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1808	1808	1821	1808	1808	1821	1808	1821	1821	1808	1821	1821
Adj Flow Rate, veh/h	132	1322	235	220	1049	298	164	144	200	373	159	114
Peak Hour Factor	0.92	0.92	0.92	0.94	0.94	0.94	0.80	0.80	0.80	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	191	1743	537	245	2163	599	197	311	276	456	397	266
Arrive On Green	0.06	0.35	0.35	0.14	0.44	0.44	0.11	0.18	0.18	0.14	0.20	0.20
Sat Flow, veh/h	3341	4937	1520	1722	4937	1367	1722	1730	1536	3341	1968	1317
Grp Volume(v), veh/h	132	1322	235	220	1049	298	164	144	200	373	138	135
Grp Sat Flow(s),veh/h/ln	1671	1646	1520	1722	1646	1367	1722	1730	1536	1671	1730	1555
Q Serve(g_s), s	4.0	24.6	12.3	13.1	15.8	16.3	9.7	7.7	12.8	11.3	7.2	7.9
Cycle Q Clear(g_c), s	4.0	24.6	12.3	13.1	15.8	16.3	9.7	7.7	12.8	11.3	7.2	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.85
Lane Grp Cap(c), veh/h	191	1743	537	245	2163	599	197	311	276	456	349	314
V/C Ratio(X)	0.69	0.76	0.44	0.90	0.48	0.50	0.83	0.46	0.73	0.82	0.40	0.43
Avail Cap(c_a), veh/h	251	1937	596	245	2269	628	394	705	626	720	682	613
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.1	29.7	25.7	43.9	20.8	21.0	45.1	38.2	40.2	43.6	36.0	36.3
Incr Delay (d2), s/veh	5.2	1.6	0.6	31.9	0.2	0.6	8.7	1.1	3.6	4.1	0.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	9.2	4.4	7.5	5.6	5.1	4.6	3.3	5.0	4.8	3.1	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.3	31.3	26.3	75.8	21.0	21.6	53.8	39.3	43.9	47.8	36.8	37.2
LnGrp LOS	D	C	C	E	C	C	D	D	D	D	D	D
Approach Vol, veh/h		1689			1567			508			646	
Approach Delay, s/veh		32.3			28.8			45.8			43.2	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	42.7	16.1	26.2	10.2	51.6	18.4	23.9
Change Period (Y+Rc), s	* 4.2	6.0	* 4.2	5.2	* 4.2	6.0	* 4.2	5.2
Max Green Setting (Gmax), s	* 5	40.8	* 24	41.0	* 7.8	47.8	* 22	42.4
Max Q Clear Time (g_c+I1), s	5.1	26.6	11.7	9.9	6.0	18.3	13.3	14.8
Green Ext Time (p_c), s	0.0	7.8	0.3	1.6	0.1	9.1	0.9	2.1

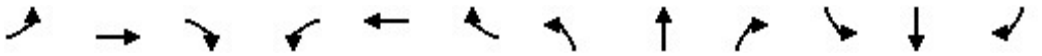
Intersection Summary	
HCM 6th Ctrl Delay	34.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX G

PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS – OPENING YEAR + PROJECT (OPTIMIZED CYCLE LENGTH)



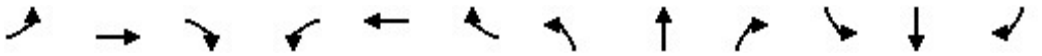
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	361	14	183	343	132	61	18	395	301	20	40
Future Volume (veh/h)	42	361	14	183	343	132	61	18	395	301	20	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	45	384	15	223	418	161	65	19	420	346	23	46
Peak Hour Factor	0.94	0.94	0.94	0.82	0.82	0.82	0.94	0.94	0.94	0.87	0.87	0.87
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	57	466	18	229	580	221	69	20	448	346	23	318
Arrive On Green	0.03	0.14	0.14	0.13	0.24	0.24	0.35	0.35	0.35	0.22	0.22	0.22
Sat Flow, veh/h	1709	3368	131	1709	2423	923	200	58	1293	1607	107	1478
Grp Volume(v), veh/h	45	195	204	223	295	284	504	0	0	369	0	46
Grp Sat Flow(s),veh/h/ln	1709	1716	1783	1709	1716	1629	1551	0	0	1714	0	1478
Q Serve(g_s), s	2.8	12.0	12.1	14.1	17.2	17.5	34.2	0.0	0.0	23.4	0.0	2.7
Cycle Q Clear(g_c), s	2.8	12.0	12.1	14.1	17.2	17.5	34.2	0.0	0.0	23.4	0.0	2.7
Prop In Lane	1.00		0.07	1.00		0.57	0.13		0.83	0.94		1.00
Lane Grp Cap(c), veh/h	57	237	247	229	411	390	538	0	0	369	0	318
V/C Ratio(X)	0.80	0.82	0.83	0.97	0.72	0.73	0.94	0.00	0.00	1.00	0.00	0.14
Avail Cap(c_a), veh/h	85	284	295	229	429	407	585	0	0	369	0	318
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.2	45.6	45.6	46.9	38.0	38.1	34.4	0.0	0.0	42.7	0.0	34.6
Incr Delay (d2), s/veh	25.5	15.0	15.0	51.5	5.4	6.2	21.9	0.0	0.0	47.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.0	6.3	9.2	7.7	7.5	16.0	0.0	0.0	14.7	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.7	60.6	60.6	98.4	43.4	44.3	56.3	0.0	0.0	89.8	0.0	34.8
LnGrp LOS	E	E	E	F	D	D	E	A	A	F	A	C
Approach Vol, veh/h		444			802			504			415	
Approach Delay, s/veh		62.3			59.0			56.3			83.7	
Approach LOS		E			E			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.8	19.7		28.0	7.8	30.6		42.3				
Change Period (Y+Rc), s	* 4.2	4.6		4.6	* 4.2	4.6		4.6				
Max Green Setting (Gmax), s	* 15	18.0		23.4	* 5.4	27.2		41.0				
Max Q Clear Time (g_c+I1), s	16.1	14.1		25.4	4.8	19.5		36.2				
Green Ext Time (p_c), s	0.0	0.8		0.0	0.0	2.1		1.5				

Intersection Summary			
HCM 6th Ctrl Delay		63.8	
HCM 6th LOS		E	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



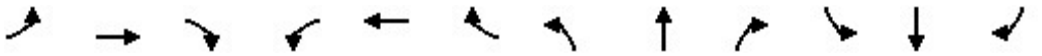
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	282	278	116	241	73	246	7	42	30	6	33
Future Volume (veh/h)	91	282	278	116	241	73	246	7	42	30	6	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.98	1.00		1.00	1.00		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	117	362	299	127	265	80	300	9	51	37	7	41
Peak Hour Factor	0.78	0.78	0.93	0.91	0.91	0.91	0.82	0.82	0.82	0.81	0.81	0.81
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	147	431	349	158	656	193	367	11	62	277	52	273
Arrive On Green	0.09	0.25	0.25	0.09	0.25	0.25	0.26	0.26	0.26	0.19	0.19	0.19
Sat Flow, veh/h	1709	1754	1420	1709	2603	768	1400	42	238	1448	274	1429
Grp Volume(v), veh/h	117	354	307	127	173	172	360	0	0	44	0	41
Grp Sat Flow(s),veh/h/ln	1709	1716	1458	1709	1716	1654	1680	0	0	1722	0	1429
Q Serve(g_s), s	5.8	16.9	17.4	6.3	7.2	7.5	17.4	0.0	0.0	1.8	0.0	2.1
Cycle Q Clear(g_c), s	5.8	16.9	17.4	6.3	7.2	7.5	17.4	0.0	0.0	1.8	0.0	2.1
Prop In Lane	1.00		0.97	1.00		0.46	0.83		0.14	0.84		1.00
Lane Grp Cap(c), veh/h	147	422	358	158	433	417	441	0	0	329	0	273
V/C Ratio(X)	0.80	0.84	0.86	0.81	0.40	0.41	0.82	0.00	0.00	0.13	0.00	0.15
Avail Cap(c_a), veh/h	257	479	406	216	437	421	797	0	0	817	0	678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.7	31.0	31.1	38.5	26.9	27.0	29.9	0.0	0.0	29.0	0.0	29.1
Incr Delay (d2), s/veh	9.3	11.4	14.9	14.5	0.6	0.7	3.8	0.0	0.0	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	8.2	7.5	3.2	2.9	2.9	7.3	0.0	0.0	0.8	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.1	42.3	46.1	52.9	27.5	27.6	33.7	0.0	0.0	29.2	0.0	29.4
LnGrp LOS	D	D	D	D	C	C	C	A	A	C	A	C
Approach Vol, veh/h		778			472			360			85	
Approach Delay, s/veh		44.7			34.4			33.7			29.3	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	25.8		21.1	11.6	26.4		27.3				
Change Period (Y+Rc), s	* 4.2	4.6		4.6	* 4.2	4.6		4.6				
Max Green Setting (Gmax), s	* 11	24.1		41.0	* 13	22.0		41.0				
Max Q Clear Time (g_c+I1), s	8.3	19.4		4.1	7.8	9.5		19.4				
Green Ext Time (p_c), s	0.1	1.9		0.4	0.1	1.5		2.4				

Intersection Summary			
HCM 6th Ctrl Delay		38.7	
HCM 6th LOS		D	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



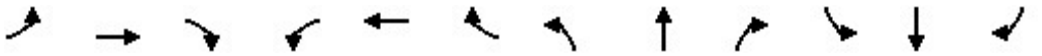
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	245	131	205	108	148	445	150	611	79	351	451	192
Future Volume (veh/h)	245	131	205	108	148	445	150	611	79	351	451	192
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1794	1807	1807	1794	1807	1807	1794	1794	1807	1794	1794	1807
Adj Flow Rate, veh/h	263	141	220	129	176	530	176	719	93	390	501	213
Peak Hour Factor	0.93	0.93	0.93	0.84	0.84	0.84	0.85	0.85	0.85	0.90	0.90	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	268	687	613	156	574	502	236	948	122	403	906	370
Arrive On Green	0.16	0.40	0.40	0.09	0.33	0.33	0.07	0.22	0.22	0.12	0.27	0.27
Sat Flow, veh/h	1709	1716	1531	1709	1716	1500	3315	4387	562	3315	3397	1389
Grp Volume(v), veh/h	263	141	220	129	176	530	176	533	279	390	481	233
Grp Sat Flow(s),veh/h/ln	1709	1716	1531	1709	1716	1500	1657	1633	1684	1657	1633	1521
Q Serve(g_s), s	17.4	6.1	11.4	8.4	8.6	38.0	5.9	17.4	17.6	13.3	14.4	15.1
Cycle Q Clear(g_c), s	17.4	6.1	11.4	8.4	8.6	38.0	5.9	17.4	17.6	13.3	14.4	15.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		0.91
Lane Grp Cap(c), veh/h	268	687	613	156	574	502	236	706	364	403	870	406
V/C Ratio(X)	0.98	0.21	0.36	0.83	0.31	1.06	0.75	0.76	0.77	0.97	0.55	0.58
Avail Cap(c_a), veh/h	268	687	613	206	574	502	356	1191	614	403	1225	571
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.7	22.2	23.8	50.7	28.0	37.8	51.7	41.7	41.8	49.7	35.8	36.1
Incr Delay (d2), s/veh	49.8	0.1	0.4	18.7	0.3	55.8	4.7	1.7	3.4	36.4	0.5	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.0	2.5	4.1	4.4	3.6	21.3	2.5	6.9	7.4	7.4	5.6	5.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	97.5	22.4	24.2	69.4	28.3	93.5	56.4	43.4	45.2	86.1	36.4	37.4
LnGrp LOS	F	C	C	E	C	F	E	D	D	F	D	D
Approach Vol, veh/h		624			835			988			1104	
Approach Delay, s/veh		54.7			76.1			46.2			54.1	
Approach LOS		D			E			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	29.8	14.5	51.2	12.3	35.6	22.0	43.7
Change Period (Y+Rc), s	* 4.2	* 5.3	* 4.2	5.7	* 4.2	5.3	* 4.2	5.7
Max Green Setting (Gmax), s	* 14	* 41	* 14	42.1	* 12	42.6	* 18	38.0
Max Q Clear Time (g_c+I1), s	15.3	19.6	10.4	13.4	7.9	17.1	19.4	40.0
Green Ext Time (p_c), s	0.0	4.9	0.1	2.3	0.2	4.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	57.2
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



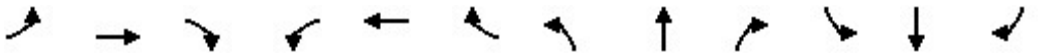
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	303	12	230	538	228	42	5	192	194	16	47
Future Volume (veh/h)	102	303	12	230	538	228	42	5	192	194	16	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00	1.00		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1808	1821	1821	1808	1821	1821	1808	1808	1821	1808	1808	1821
Adj Flow Rate, veh/h	119	352	14	242	566	240	46	5	211	223	18	54
Peak Hour Factor	0.86	0.86	0.86	0.95	0.95	0.95	0.91	0.91	0.91	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	762	30	234	662	280	60	6	273	277	22	240
Arrive On Green	0.08	0.22	0.22	0.14	0.28	0.28	0.22	0.22	0.22	0.17	0.17	0.17
Sat Flow, veh/h	1722	3392	135	1722	2363	1000	275	30	1259	1599	129	1389
Grp Volume(v), veh/h	119	179	187	242	414	392	262	0	0	241	0	54
Grp Sat Flow(s),veh/h/ln	1722	1730	1797	1722	1730	1633	1564	0	0	1728	0	1389
Q Serve(g_s), s	4.9	6.5	6.5	9.8	16.3	16.4	11.4	0.0	0.0	9.7	0.0	2.4
Cycle Q Clear(g_c), s	4.9	6.5	6.5	9.8	16.3	16.4	11.4	0.0	0.0	9.7	0.0	2.4
Prop In Lane	1.00		0.07	1.00		0.61	0.18		0.81	0.93		1.00
Lane Grp Cap(c), veh/h	138	388	403	234	484	457	340	0	0	299	0	240
V/C Ratio(X)	0.86	0.46	0.46	1.03	0.85	0.86	0.77	0.00	0.00	0.81	0.00	0.22
Avail Cap(c_a), veh/h	138	439	456	234	535	505	889	0	0	429	0	345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.8	24.2	24.2	31.2	24.6	24.6	26.6	0.0	0.0	28.7	0.0	25.7
Incr Delay (d2), s/veh	38.5	0.9	0.8	68.0	11.9	12.8	3.7	0.0	0.0	7.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	2.6	2.7	8.3	7.8	7.5	4.4	0.0	0.0	4.5	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.2	25.0	25.0	99.2	36.5	37.4	30.3	0.0	0.0	35.9	0.0	26.1
LnGrp LOS	E	C	C	F	D	D	C	A	A	D	A	C
Approach Vol, veh/h		485			1048			262			295	
Approach Delay, s/veh		36.4			51.3			30.3			34.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	14.0	20.8		17.1	10.0	24.8		20.3				
Change Period (Y+Rc), s	* 4.2	4.6		4.6	* 4.2	4.6		4.6				
Max Green Setting (Gmax), s	* 9.8	18.3		17.9	* 5.8	22.3		41.0				
Max Q Clear Time (g_c+I1), s	11.8	8.5		11.7	6.9	18.4		13.4				
Green Ext Time (p_c), s	0.0	1.4		0.8	0.0	1.8		1.9				

Intersection Summary			
HCM 6th Ctrl Delay		42.8	
HCM 6th LOS		D	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



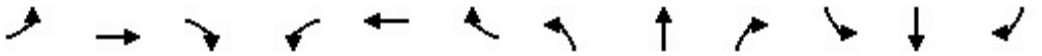
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	228	169	170	365	32	242	2	111	99	10	82
Future Volume (veh/h)	41	228	169	170	365	32	242	2	111	99	10	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		0.99	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1808	1821	1821	1808	1821	1821	1808	1808	1821	1808	1808	1821
Adj Flow Rate, veh/h	44	245	182	181	388	34	306	3	141	110	11	91
Peak Hour Factor	0.93	0.93	0.93	0.94	0.94	0.94	0.79	0.79	0.79	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	55	345	245	156	771	67	386	4	178	227	23	219
Arrive On Green	0.03	0.18	0.18	0.09	0.24	0.24	0.34	0.34	0.34	0.14	0.14	0.14
Sat Flow, veh/h	1722	1907	1351	1722	3218	281	1123	11	518	1572	157	1514
Grp Volume(v), veh/h	44	221	206	181	208	214	450	0	0	121	0	91
Grp Sat Flow(s),veh/h/ln	1722	1730	1528	1722	1730	1769	1652	0	0	1730	0	1514
Q Serve(g_s), s	1.9	9.0	9.6	6.8	7.8	7.9	18.4	0.0	0.0	4.8	0.0	4.1
Cycle Q Clear(g_c), s	1.9	9.0	9.6	6.8	7.8	7.9	18.4	0.0	0.0	4.8	0.0	4.1
Prop In Lane	1.00		0.88	1.00		0.16	0.68		0.31	0.91		1.00
Lane Grp Cap(c), veh/h	55	313	277	156	415	424	568	0	0	250	0	219
V/C Ratio(X)	0.80	0.71	0.74	1.16	0.50	0.51	0.79	0.00	0.00	0.48	0.00	0.42
Avail Cap(c_a), veh/h	138	420	371	156	438	448	902	0	0	945	0	827
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.1	28.9	29.1	34.1	24.6	24.7	22.2	0.0	0.0	29.5	0.0	29.2
Incr Delay (d2), s/veh	22.4	3.5	5.5	121.5	0.9	0.9	2.5	0.0	0.0	1.5	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	4.0	3.8	8.0	3.1	3.2	7.2	0.0	0.0	2.1	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.5	32.3	34.5	155.6	25.6	25.6	24.7	0.0	0.0	31.0	0.0	30.5
LnGrp LOS	E	C	C	F	C	C	C	A	A	C	A	C
Approach Vol, veh/h		471			603			450			212	
Approach Delay, s/veh		35.7			64.6			24.7			30.8	
Approach LOS		D			E			C			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	18.2		15.4	6.6	22.6		30.4				
Change Period (Y+Rc), s	* 4.2	4.6		4.6	* 4.2	4.6		4.6				
Max Green Setting (Gmax), s	* 6.8	18.2		41.0	* 6	19.0		41.0				
Max Q Clear Time (g_c+I1), s	8.8	11.6		6.8	3.9	9.9		20.4				
Green Ext Time (p_c), s	0.0	1.5		1.1	0.0	1.6		3.1				

Intersection Summary			
HCM 6th Ctrl Delay		42.3	
HCM 6th LOS		D	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



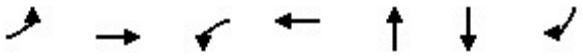
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	266	210	113	46	151	276	99	366	66	360	458	149
Future Volume (veh/h)	266	210	113	46	151	276	99	366	66	360	458	149
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1808	1821	1821	1808	1821	1821	1808	1808	1821	1808	1808	1821
Adj Flow Rate, veh/h	320	253	136	51	168	307	108	398	72	409	520	169
Peak Hour Factor	0.83	0.83	0.83	0.90	0.90	0.90	0.92	0.92	0.92	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	359	944	490	64	449	396	171	712	125	493	983	309
Arrive On Green	0.21	0.43	0.43	0.04	0.26	0.26	0.05	0.17	0.17	0.15	0.27	0.27
Sat Flow, veh/h	1722	2192	1137	1722	1730	1527	3341	4207	738	3341	3701	1164
Grp Volume(v), veh/h	320	198	191	51	168	307	108	309	161	409	461	228
Grp Sat Flow(s),veh/h/ln	1722	1730	1599	1722	1730	1527	1671	1646	1654	1671	1646	1574
Q Serve(g_s), s	16.3	6.6	7.0	2.6	7.2	16.8	2.9	7.8	8.1	10.7	10.8	11.3
Cycle Q Clear(g_c), s	16.3	6.6	7.0	2.6	7.2	16.8	2.9	7.8	8.1	10.7	10.8	11.3
Prop In Lane	1.00		0.71	1.00		1.00	1.00		0.45	1.00		0.74
Lane Grp Cap(c), veh/h	359	745	689	64	449	396	171	557	280	493	874	418
V/C Ratio(X)	0.89	0.27	0.28	0.79	0.37	0.77	0.63	0.55	0.58	0.83	0.53	0.55
Avail Cap(c_a), veh/h	473	1015	938	189	729	643	333	1510	759	622	1780	851
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.7	16.5	16.6	43.1	27.4	31.0	42.0	34.3	34.5	37.4	28.3	28.5
Incr Delay (d2), s/veh	15.3	0.2	0.2	19.0	0.5	3.3	3.8	0.9	1.9	7.5	0.5	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	2.5	2.5	1.4	2.9	6.3	1.2	3.0	3.2	4.7	4.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.0	16.7	16.8	62.1	27.9	34.2	45.8	35.2	36.4	44.9	28.8	29.6
LnGrp LOS	D	B	B	E	C	C	D	D	D	D	C	C
Approach Vol, veh/h		709			526			578			1098	
Approach Delay, s/veh		31.7			34.9			37.5			34.9	
Approach LOS		C			C			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.5	20.6	7.6	44.6	8.8	29.3	23.0	29.1
Change Period (Y+Rc), s	* 4.2	* 5.3	* 4.2	5.7	* 4.2	5.3	* 4.2	5.7
Max Green Setting (Gmax), s	* 17	* 41	* 9.9	52.9	* 9	48.8	* 25	38.0
Max Q Clear Time (g_c+I1), s	12.7	10.1	4.6	9.0	4.9	13.3	18.3	18.8
Green Ext Time (p_c), s	0.6	2.8	0.0	2.5	0.1	4.6	0.5	2.8

Intersection Summary	
HCM 6th Ctrl Delay	34.7
HCM 6th LOS	C

Notes

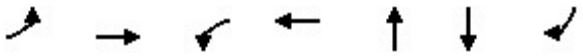
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	117	661	127	345	360	44	41
v/c Ratio	0.54	0.69	0.58	0.36	0.80	0.19	0.15
Control Delay	51.9	30.2	54.2	30.7	45.6	37.1	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.9	30.2	54.2	30.7	45.6	37.1	1.2
Queue Length 50th (ft)	57	126	63	70	171	22	0
Queue Length 95th (ft)	145	#292	#241	193	345	52	0
Internal Link Dist (ft)		999		959	181	336	
Turn Bay Length (ft)	145		135				80
Base Capacity (vph)	262	960	220	955	823	837	755
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.69	0.58	0.36	0.44	0.05	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	44	427	181	422	450	121	91
v/c Ratio	0.35	0.65	1.23	0.49	0.80	0.39	0.26
Control Delay	53.6	30.2	187.4	34.4	38.5	35.6	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	30.2	187.4	34.4	38.5	35.6	8.9
Queue Length 50th (ft)	21	71	~115	100	189	57	0
Queue Length 95th (ft)	#87	185	#376	#247	374	120	38
Internal Link Dist (ft)		999		959	181	336	
Turn Bay Length (ft)	145		135				80
Base Capacity (vph)	130	821	147	881	869	895	828
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.52	1.23	0.48	0.52	0.14	0.11

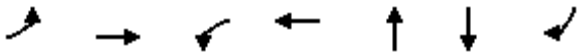
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX G

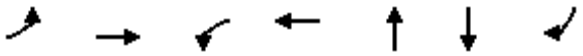
PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS – OPENING YEAR + PROJECT (SYNCHRO 10 QUEUE)



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	117	661	127	345	360	44	41
v/c Ratio	0.72	0.73	0.86	0.40	0.76	0.17	0.14
Control Delay	65.5	29.5	86.2	29.1	37.5	31.0	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.5	29.5	86.2	29.1	37.5	31.0	1.0
Queue Length 50th (ft)	50	106	55	59	138	18	0
Queue Length 95th (ft)	#200	#306	#271	184	310	47	0
Internal Link Dist (ft)		999		959	181	336	
Turn Bay Length (ft)	145		135				80
Base Capacity (vph)	162	905	148	857	974	993	885
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.73	0.86	0.40	0.37	0.04	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBL	WBT	NBT	SBT	SBR
Lane Group Flow (vph)	44	427	181	422	450	121	91
v/c Ratio	0.32	0.63	1.35	0.50	0.80	0.39	0.26
Control Delay	51.7	29.2	232.6	35.0	38.6	35.7	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	29.2	232.6	35.0	38.6	35.7	8.9
Queue Length 50th (ft)	22	70	~125	101	194	58	0
Queue Length 95th (ft)	77	183	#383	#257	374	120	38
Internal Link Dist (ft)		999		959	181	336	
Turn Bay Length (ft)	145		135				80
Base Capacity (vph)	147	847	134	852	872	898	830
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.50	1.35	0.50	0.52	0.13	0.11

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX G

PEAK HOUR INTERSECTION ANALYSIS WORKSHEETS – OPENING YEAR + PROJECT (SIMTRAFFIC QUEUE)

Intersection: 3: Santa Andreas St/Monarche Dr & E Palomar St

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LT	R
Maximum Queue (ft)	158	279	370	158	230	208	181	79	69
Average Queue (ft)	80	119	209	94	81	98	119	22	20
95th Queue (ft)	154	241	346	160	179	174	170	58	53
Link Distance (ft)		1010	1010		973	973	186	369	
Upstream Blk Time (%)							1		
Queuing Penalty (veh)							1		
Storage Bay Dist (ft)	145			135					80
Storage Blk Time (%)	1	4		8	1			1	0
Queuing Penalty (veh)	2	4		10	2			0	0

Intersection: 4: Santa Alicia Ave & E Palomar St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	T	LR
Maximum Queue (ft)	172	175	74	144	153	197
Average Queue (ft)	72	81	33	65	72	94
95th Queue (ft)	132	154	65	125	131	157
Link Distance (ft)	973	973		1890	1890	464
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			180			
Storage Blk Time (%)				0		
Queuing Penalty (veh)				0		

Intersection: 5: E Palomar St & Santa Flora Rd

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T
Maximum Queue (ft)	76	143	163	71	116	121
Average Queue (ft)	36	46	44	24	32	35
95th Queue (ft)	64	107	110	56	86	89
Link Distance (ft)	477	1890	1890		1082	1082
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				190		
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 3: Santa Andreas St/Monarche Dr & E Palomar St

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	L	T	TR	LTR	LT	R
Maximum Queue (ft)	75	162	210	160	518	451	203	158	105
Average Queue (ft)	30	72	112	137	255	169	147	69	46
95th Queue (ft)	66	138	186	191	584	418	225	122	95
Link Distance (ft)		1010	1010		973	973	186	369	
Upstream Blk Time (%)							6		
Queuing Penalty (veh)							24		
Storage Bay Dist (ft)	145			135					80
Storage Blk Time (%)		0		49	3			9	0
Queuing Penalty (veh)		0		89	5			8	0

Intersection: 4: Santa Alicia Ave & E Palomar St

Movement	EB	EB	WB	WB	WB	NB
Directions Served	T	TR	L	T	T	LR
Maximum Queue (ft)	166	209	90	134	97	145
Average Queue (ft)	74	73	47	37	30	56
95th Queue (ft)	139	145	81	101	79	103
Link Distance (ft)	973	973		1890	1890	464
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)			180			
Storage Blk Time (%)				0		
Queuing Penalty (veh)				0		

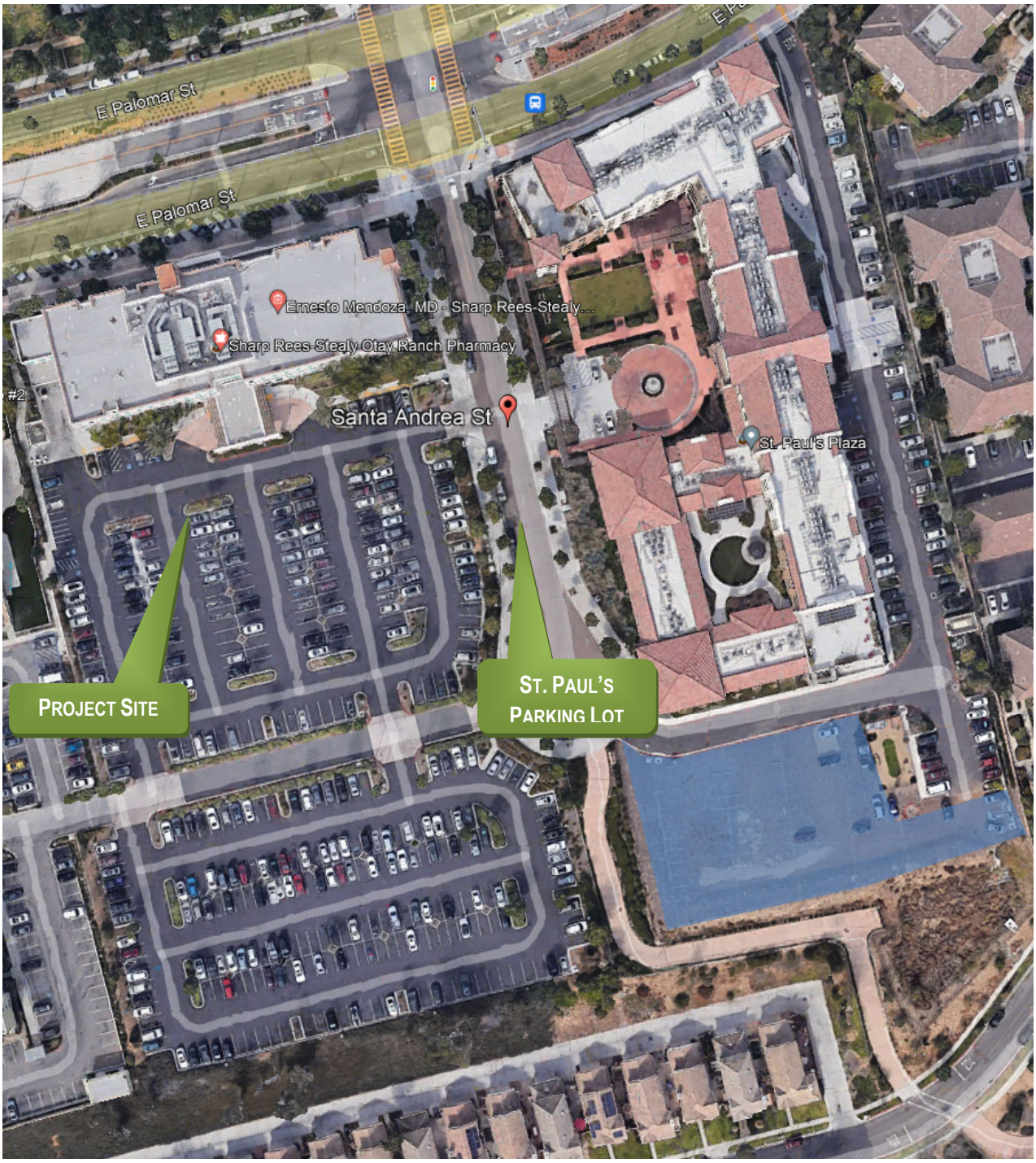
Intersection: 5: E Palomar St & Santa Flora Rd

Movement	WB	NB	NB	SB	SB	SB
Directions Served	LR	T	TR	L	T	T
Maximum Queue (ft)	59	183	177	65	171	129
Average Queue (ft)	23	59	52	23	40	34
95th Queue (ft)	51	147	130	55	120	101
Link Distance (ft)	477	1890	1890		1082	1082
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				190		
Storage Blk Time (%)					0	
Queuing Penalty (veh)					0	

APPENDIX H

PARKING DATA

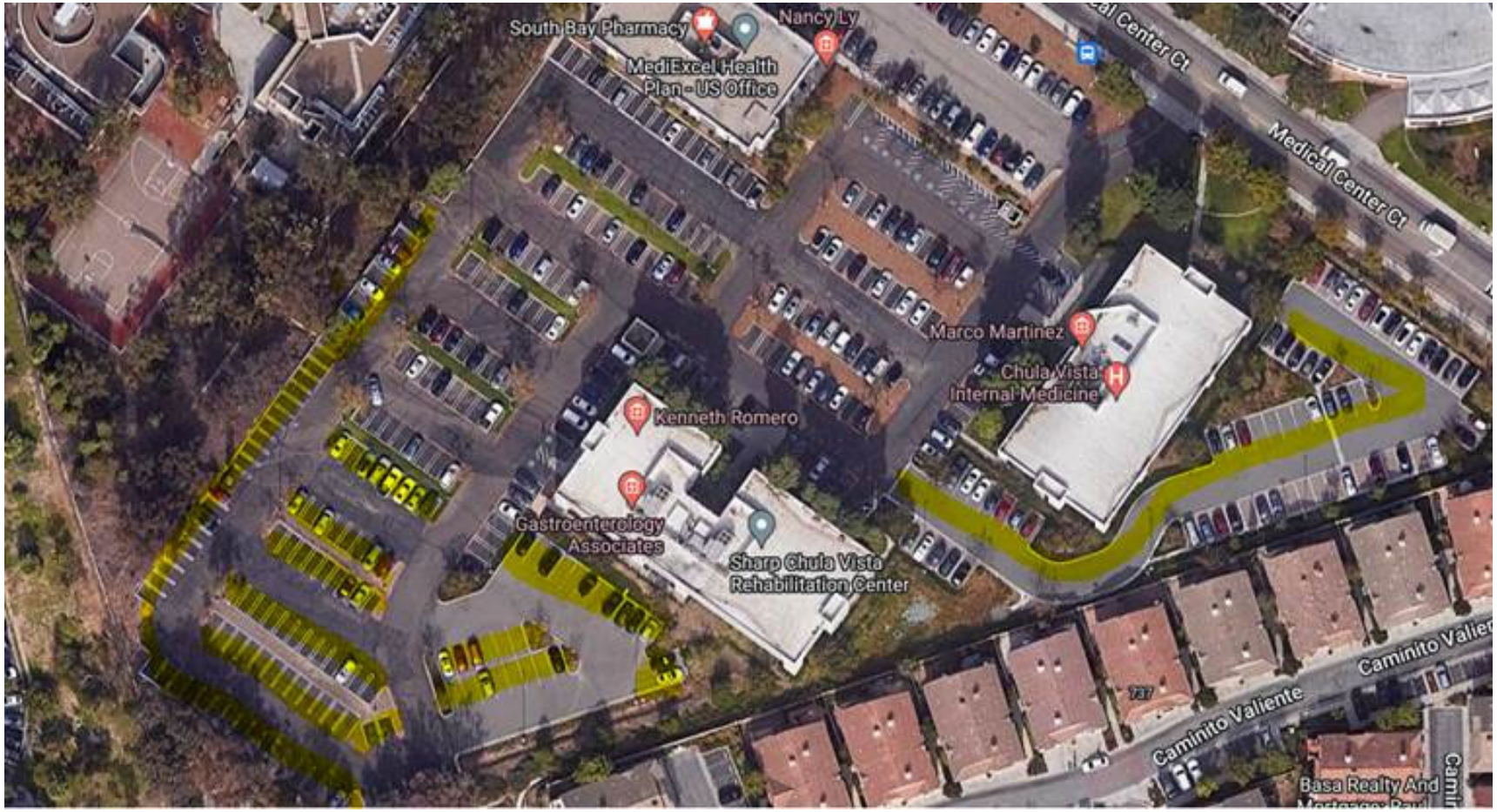
ST PAUL'S PARKING LOT AND ROUTE TO PROJECT SITE



SCVMC Parking Lot and Route To Project Site

Route between SCVMC and Project Site – 3 miles

SCVMC Parking Lot



Spaces reserved for 1400 Palomar Street Highlighted in yellow

Parking Occupancy

Sharp Chula Vista Medical Center, 752 Medical Center Court

Time of Day	Thursday, May 12, 2022						Tuesday, May 17, 2022						Wednesday, May 18, 2022						Average of Three Days						Total Parking Area	
	3 Spaces		157 Spaces		114 Spaces		3 Spaces		157 Spaces		114 Spaces		3 Spaces		157 Spaces		114 Spaces		3 Spaces		157 Spaces		114 Spaces		274 Spaces	
	Handicap	% Occupied	Patient/Staff Only	% Occupied	Regular	% Occupied	Handicap	% Occupied	Patient/Staff Only	% Occupied	Regular	% Occupied	Handicap	% Occupied	Patient/Staff Only	% Occupied	Regular	% Occupied	Handicap	% Occupied	Patient/Staff Only	% Occupied	Regular	% Occupied	Regular	% Occupied
10:00 AM	**3**	100%	81	52%	19	17%	3	100%	96	61%	19	17%	2	67%	96	61%	22	19%	3	89%	91	58%	20	18%	114	41%
10:15 AM	**3**	100%	78	50%	19	17%	2	67%	89	57%	20	18%	1	33%	96	61%	22	19%	2	67%	88	56%	20	18%	110	40%
10:30 AM	**3**	100%	73	46%	20	18%	3	100%	85	54%	20	18%	1	33%	98	62%	23	20%	2	78%	85	54%	21	18%	109	40%
3:00 PM	**3**	100%	65	41%	16	14%	2	67%	83	53%	18	16%	3	100%	85	54%	24	21%	3	89%	78	49%	19	17%	100	36%
3:15 PM	**3**	100%	69	44%	16	14%	2	67%	82	52%	17	15%	2	67%	76	48%	23	20%	2	78%	76	48%	19	16%	97	35%
3:30 PM	**3**	100%	67	43%	13	11%	1	33%	79	50%	16	14%	2	67%	74	47%	23	20%	2	67%	73	47%	17	15%	93	34%
Average Occupied	3	**100%**	72	**46%**	17	**15%**	2	**72%**	86	**55%**	18	**16%**	2	**61%**	88	**56%**	23	**20%**	2	**78%**	82	**52%**	19	**17%**	104	**38%**
Average Available	0	**0%**	85	**54%**	97	**85%**	1	**28%**	71	**45%**	96	**84%**	1	**39%**	70	**44%**	91	**80%**	1	**22%**	75	**48%**	95	**83%**	170	**62%**