



DEXTER WILSON ENGINEERING, INC.

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CONSULTING ENGINEERS

**PRIVATE SEWER SYSTEM ANALYSIS
FOR THE
VILLAGE 8 WEST
PARCEL C PROJECT**

September 16, 2022



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FOR THE
VILLAGE 8 WEST
PARCEL C PROJECT**

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**Prepared by:
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Job No. 509-137



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September 16, 2022

509-137

Hunsaker & Associates
9707 Waples Street
San Diego, CA 92121

Attention: Ryan Martin, Principal

Subject: Private Sewer System Analysis for the Otay Ranch Village 8 West Parcel C Project

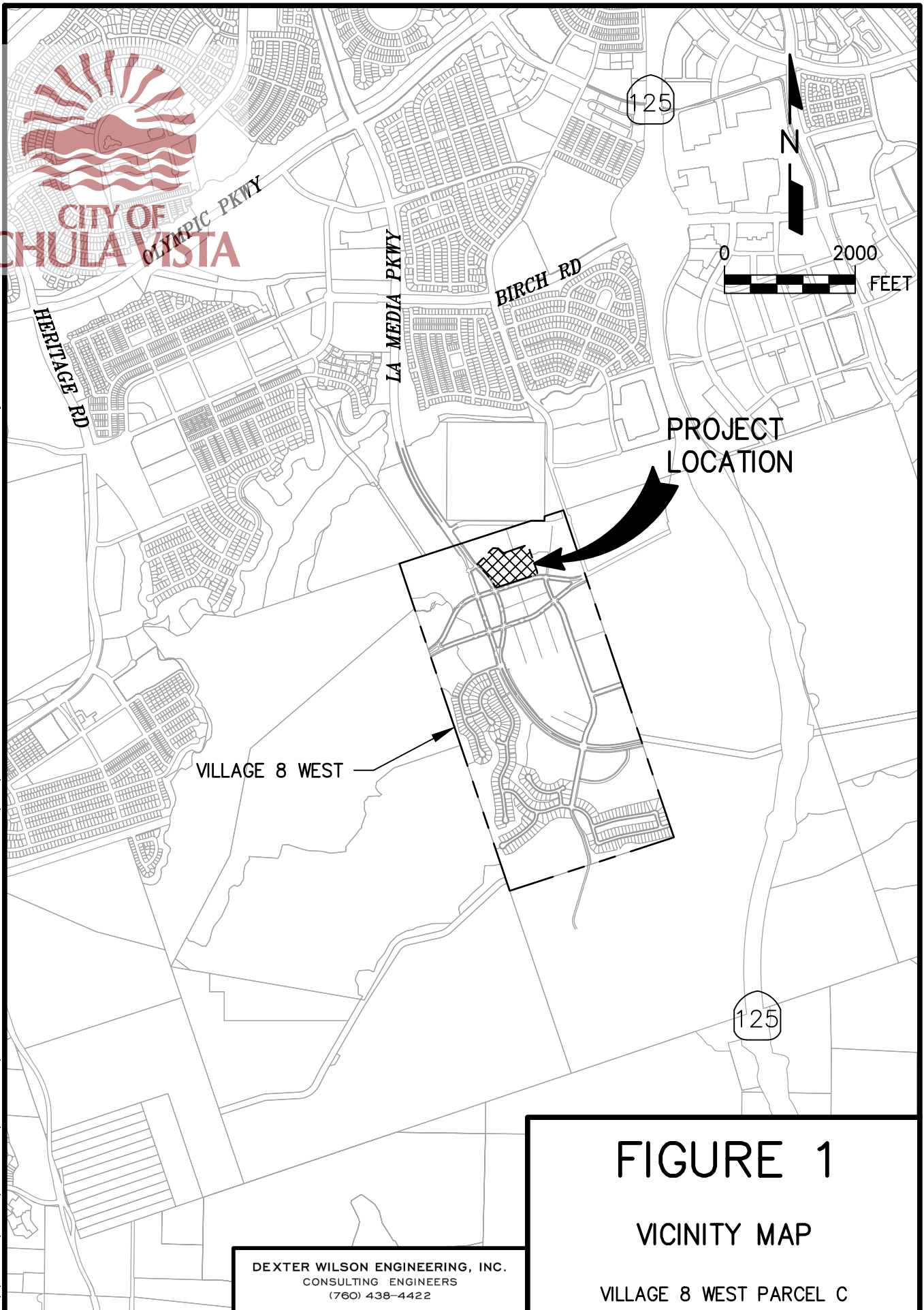
Introduction

The Village 8 West Parcel C project is located in the City of Chula Vista. The project is located in Otay Ranch Village 8 West, east of the La Media Parkway and north of Main Street West. Figure 1 provides a vicinity map for the project site.

The Village 8 West Parcel C project encompasses 8.6 acres and is proposing to develop a total of 267 multi-family residential units. The project site has Finish Floor elevations that range from 469 feet to 481 feet.

The purpose of this letter report is to present a hydraulic analysis of the private onsite sewer system that will provide service to the Parcel C project.

\\ARTIC\DWG\509137\REPORT\V8WC_FIGURE-1_VCMAP.DWG 9/16/2022 8:15:35 AM LAYOUT:8x11 USER:Timothy



Sewer System Overview

Private sewer lines are proposed for the project. A private sewer line is proposed in Private Drive “A” on the north side of the project. All other sewer lines within the project site will also be private sewer lines. The proposed private sewer line in Private Street “A” will extend from the existing 8-inch public sewer line in La Media Parkway to the end of Private Street “A” and will accommodate sewer flows from the leasing office and pool area within Parcel C. The remaining private onsite sewer system will make one connection to the existing 8-inch public sewer line in Main Street West.

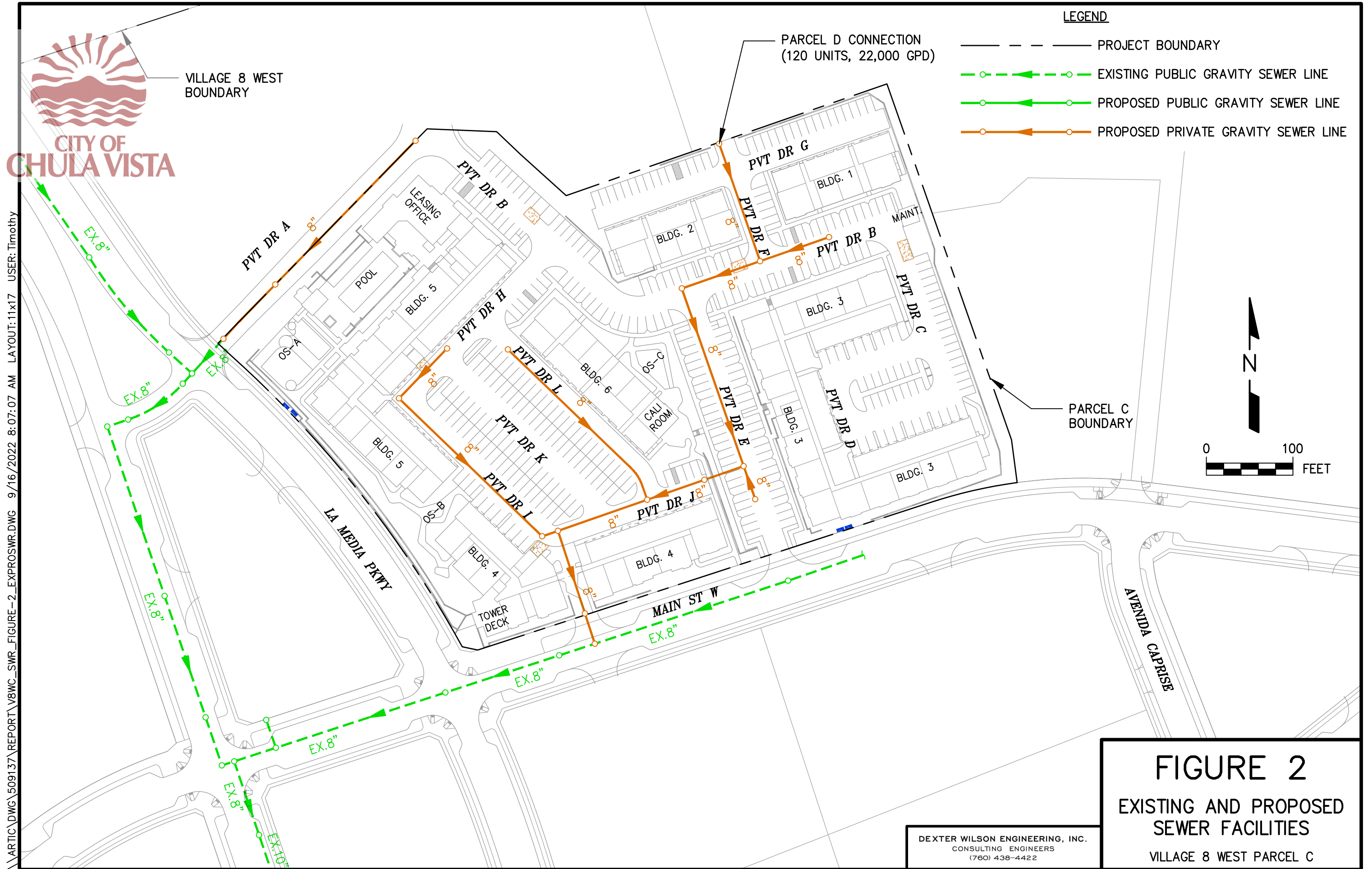
The entire project with the exception of the leasing office and pool area will sewer to Main Street West. The leasing office will sewer to Private Drive “A.” Figure 2 presents the proposed sewer system for the project.

Design Criteria

All sewer lines proposed for the project were designed to City of Chula Vista Engineering Department Standards. Sewer Design Criteria for public services is provided in the City of Chula Vista Subdivision Manual, Section 3-300. The minimum required velocity is 2.0 feet per second (fps). Where a velocity of 2.0 fps cannot be achieved, a minimum pipe slope of 1.0 percent is recommended. Additionally, while conveying peak flow, pipes should not flow more than half full. A Manning’s Equation “n” value of 0.012 was used for the calculations.

Building Department Standards. Building Department standards were not used to size the onsite private gravity sewers. This is because all reaches of sewer within the project have a Drainage Fixture Unit loading greater than 576, which is the maximum unit load for a private 6-inch sewer line at one percent. Excerpts from the 2019 California Plumbing Code pertinent to DFU calculations are included in Appendix A and Appendix B presents the DFU summary for the project for reference.

\\ARTIC\DWG\509137\REPORT\V8WC_SWR_FIGURE-2_EXPROSWR.DWG 9/16/2022 8:07:07 AM LAYOUT:11x17 USER: Timothy



Estimated Sewage Flows

The project consists of 267 multi-family residential units. The City of Chula Vista 2014 Wastewater Master Plan indicates that the sewage generation factor for multi-family residential units is 182 gpd/DU. Peak flow was determined by using the City of Chula Vista Development Services peaking factor curve CVD-SW01, which is provided in Appendix C. The peaking factor is based on the total estimated population for the project. Equivalent population was determined based on a factor of 80 gpd/capita. Using the peaking factor curve gives a peaking factor of 2.50. Table 2 provides a summary of the total estimated sewage flow from the Parcel C project.

TABLE 1 OTAY RANCH VILLAGE 8 WEST PARCEL C ESTIMATED SEWAGE FLOW			
Land Use	Quantity	Sewage Generation Factor	Average Sewage Flow, gpd
Multi-family	267 units	182 gpd/unit	48,594
Total Average Sewage Flow			48,594
Equivalent Population (80 gpd/capita)			607
Peaking Factor			2.50
Total Peak Sewage Flow			121,485

Comparison to Other Reports

A sewer analysis was prepared in October 2019 by Dexter Wilson Engineering, Inc. to address the latest Sectional Planning Area Plan for Village 8 West that was adopted by the City of Chula Vista in March 2020 (2020 SPA). The analysis is presented in Appendix D. The sewer analysis included 414 dwelling units split between Parcels C and D (180 to Parcel C and 234 to Parcel D). Per Footnote 8 of Table 2.1 of the 2020 SPA, the dwelling unit allocation for Parcels C and D is subject to adjustment during final design. The final dwelling unit count for Parcel C is 267 dwelling units. The October 2019 analysis included in Appendix D analyzed 180 dwelling units for Parcel C.

The City of Chula Vista via the Zoning Administrator issued a Notice of Decision approving for the Village 8 West Intensity Transfer (which includes Parcel C and Parcel D). This intensity transfer formally accounts for the total current Parcel C and Parcel D unit counts. A copy of this intensity transfer is included within Appendix D for reference.

While the current dwelling unit count for Parcel C is 87 dwelling units more than what was studied in the October 2019 analysis, the overall unit count for Otay Village Ranch Village 8 did not increase. As such, the regional analysis was revised to include 267 units for Parcel C and 147 units for Parcel D (414 units total). The revised analysis and corresponding Manhole Diagram are presented in Appendix E. The results show that the regional sewer system meets design criteria.

Analysis of Private Sewer Lines

Hydraulic calculations were performed for the onsite private sewer lines. The calculations are presented in Appendix F for the worst-case section of pipe that takes flow from the entire site and has a minimum slope of one percent. The worst-case section of pipe includes the tributary units from Parcel D as well. The hydraulic calculations indicate that all proposed 8-inch gravity sewer lines onsite are sized adequately. Sizing of building laterals will be determined by the building plumbing designer in accordance with the California Plumbing Code.

Conclusions and Recommendations

The following conclusions and recommendations are presented based on the sewer system analysis for the Village 8 West Parcel C project.

1. A public 8-inch sewer line is proposed in Private Drive "A" on the north side of the project. All other sewer lines within the project site will be private 8-inch sewer lines.
2. The proposed sewer system will make two connections to the existing public sewer system: one in La Media Parkway and the other in Main Street West.

3. Figure 2 presents the proposed sewer system for the Village 8 West Parcel C project.
4. Sizing of building laterals will be determined by the building plumbing designer in accordance with the California Plumbing Code.
5. Private sewer lines for the project are recommended to be SDR-35 PVC.

Thank you for the opportunity to provide assistance with the private sewer system planning for this project. If you have any questions regarding the information presented in this report, please do not hesitate to call.

Dexter Wilson Engineering, Inc.



Steven Henderson, P.E.

SH:ah

Attachments



APPENDIX A

CALIFORNIA PLUMBING CODE REFERENCE TABLES

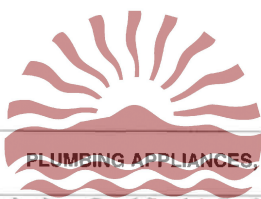


TABLE 702.1
DRAINAGE FIXTURE UNIT VALUES (DFU)

PLUMBING APPLIANCES, APPURTENANCES, OR FIXTURES	MINIMUM SIZE TRAP AND TRAP ARM ⁷ (inches)	PRIVATE	PUBLIC	ASSEMBLY ⁸
Bathtub or Combination Bath/Shower	1½	2.0	2.0	—
Bidet	1¼	1.0	—	—
Bidet	1½	2.0	—	—
Clothes Washer, domestic, standpipe ⁵	2	3.0	3.0	3.0
Dental Unit, cuspidor	1¼	—	1.0	1.0
Dishwasher, domestic, with independent drain ²	1½	2.0	2.0	2.0
Drinking Fountain or Water Cooler	1¼	0.5	0.5	1.0
Food Waste Disposer, commercial	2	—	3.0	3.0
Floor Drain, emergency	2	—	0.0	0.0
Floor Drain (for additional sizes see Section 702.0)	2	2.0	2.0	2.0
Shower, single-head trap	2	2.0	2.0	2.0
Multi-head, each additional	2	1.0	1.0	1.0
Lavatory	1¼	1.0	1.0	1.0
Lavatories in sets	1½	2.0	2.0	2.0
Washfountain	1½	—	2.0	2.0
Washfountain	2	—	3.0	3.0
Mobilehome or Manufactured Home, trap ⁹	3	6.0	—	—
Receptor, indirect waste ^{1,3}	1½	See footnote ^{1,3}		
Receptor, indirect waste ^{1,4}	2	See footnote ^{1,4}		
Receptor, indirect waste ¹	3	See footnote ¹		
Sinks	—	—	—	—
Bar	1½	1.0	—	—
Bar ²	1½	—	2.0	2.0
Clinical	3	—	6.0	6.0
Commercial with food waste ²	1½	—	3.0	3.0
Exam Room	1½	—	1.0	—
Special Purpose ²	1½	2.0	3.0	3.0
Special Purpose	2	3.0	4.0	4.0
Special Purpose	3	—	6.0	6.0
Kitchen, domestic ²	—	—	—	—
(with or without food waste disposer, dishwasher, or both)	1½	2.0	2.0	—
Laundry ² (with or without discharge from a clothes washer)	1½	2.0	2.0	2.0
Service or Mop Basin	2	—	3.0	3.0
Service or Mop Basin	3	—	3.0	3.0
Service, flushing rim	3	—	6.0	6.0
Wash, each set of faucets	—	—	2.0	2.0
Urinal, integral trap 1.0 GPF ²	2	2.0	2.0	5.0
Urinal, integral trap greater than 1.0 GPF	2	2.0	2.0	6.0
Urinal, exposed trap ²	1½	2.0	2.0	5.0
Water Closet, 1.6 GPF Gravity Tank ⁶	3	3.0	4.0	6.0
Water Closet, 1.6 GPF Flushometer Tank ⁶	3	3.0	4.0	6.0
Water Closet, 1.6 GPF Flushometer Valve ⁶	3	3.0	4.0	6.0
Water Closet, greater than 1.6 GPF Gravity Tank ⁶	3	4.0	6.0	8.0
Water Closet, greater than 1.6 GPF Flushometer Valve ⁶	3	4.0	6.0	8.0

For SI units: 1 inch = 25 mm

Notes:

¹ Indirect waste receptors shall be sized based on the total drainage capacity of the fixtures that drain therein to, in accordance with Table 702.2(2).

² Provide a 2 inch (50 mm) minimum drain.

³ For refrigerators, coffee urns, water stations, and similar low demands.

⁴ For commercial sinks, dishwashers, and similar moderate or heavy demands.

⁵ Buildings having a clothes-washing area with clothes washers in a battery of three or more clothes washers shall be rated at 6 fixture units each for purposes of sizing common horizontal and vertical drainage piping.

⁶ Water closets shall be computed as 6 fixture units where determining septic tank sizes based on Appendix H of this code.

⁷ Trap sizes shall not be increased to the point where the fixture discharge is capable of being inadequate to maintain their self-scouring properties.

⁸ Assembly [Public Use (see Table 422.1)].

⁹ For drainage fixture unit values related to lots within mobilehome parks in all parts of the State of California, see California Code of Regulations, Title 25, Division 1, Chapter 2, Article 5, Section 1268. For drainage fixture unit values related to lots within special occupancy parks in all parts of the State of California, see California Code of Regulations, Title 25, Division 1, Chapter 2.2, Article 5, Section 2268.

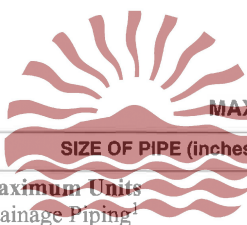


TABLE 703.2
MAXIMUM UNIT LOADING AND MAXIMUM LENGTH OF DRAINAGE AND VENT PIPING

SIZE OF PIPE (inches)	1¼	1½	2	3	4	5	6	8	10	12
Maximum Units										
Drainage Piping ¹										
Vertical	1	2 ²	16 ³	48 ⁴	256	600	1380	3600	5600	8400
Horizontal	1	1	8 ³	35 ⁴	216 ⁵	428 ⁵	720 ⁵	2640 ⁵	4680 ⁵	8200 ⁵
Maximum Length										
Drainage Piping										
Vertical, (feet)	45	65	85	212	300	390	510	750	—	—
Horizontal (unlimited)										
Vent Piping										
Horizontal and Vertical ⁶										
Maximum Units	1	8 ³	24	84	256	600	1380	3600	—	—
Maximum Lengths, (feet)	45	60	120	212	300	390	510	750		

For SI units: 1 inch = 25 mm, 1 foot = 304.8 mm

Notes:

¹ Excluding trap arm.

² Except sinks, urinals, and dishwashers – exceeding 1 fixture unit.

³ Except six-unit traps or water closets.

⁴ Only four water closets or six-unit traps allowed on a vertical pipe or stack; and not to exceed three water closets or six-unit traps on a horizontal branch or drain.

⁵ Based on ¼ inch per foot (20.8 mm/m) slope. For ⅛ of an inch per foot (10.4 mm/m) slope, multiply horizontal fixture units by a factor of 0.8.

⁶ The diameter of an individual vent shall be not less than 1¼ inches (32 mm) nor less than one-half the diameter of the drain to which it is connected. Fixture unit load values for drainage and vent piping shall be computed from Table 702.1 and Table 702.2(2). Not to exceed one-third of the total permitted length of a vent shall be permitted to be installed in a horizontal position. Where vents are increased one pipe size for their entire length, the maximum length limitations specified in this table do not apply. This table is in accordance with the requirements of Section 901.3.

the manufacturer's installation instructions and shall comply with Section 705.2.1 or Section 705.2.2.

» **705.2.1 Caulked Joints.** Caulked joints shall be firmly packed with oakum or hemp and filled with molten lead to a depth of not less than 1 inch (25.4 mm) in one continuous pour. The lead shall be caulked thoroughly at the inside and outside edges of the joint. After caulking, the finished joint shall not exceed ⅛ of an inch (3.2 mm) below the rim of the hub. No paint, varnish, or other coatings shall be permitted on the joining material until after the joint has been tested and approved.

» **705.2.2 Mechanical Joints and Compression Joints.** Mechanical joints for cast-iron pipe and fittings shall be of the elastomeric compression type or mechanical joint couplings. Compression type joints with an elastomeric gasket for cast-iron hub and spigot pipe shall comply with ASTM C564 and be tested in accordance with ASTM C1563. Hub and spigot shall be clean and free of dirt, mud, sand, and foreign materials. Cut pipe shall be free from sharp edges. Fold and insert gasket into hub. Lubricate the joint following manufacturer's instructions. Insert spigot into hub until the spigot end of the pipe bottom out in the hub. Use the same procedure for the installation of fittings.

A mechanical joint shielded coupling type for hubless cast-iron pipe and fittings shall have a metallic shield in accordance with ASTM A1056, ASTM C1277, ASTM C1540, or CISPI 310. The elastomeric

gasket shall comply with ASTM C564. Hubless cast-iron pipe and fittings shall be clean and free of dirt, mud, sand, and foreign materials. Cut pipe shall be free from sharp edges. Gasket shall be placed on the end of the pipe or fitting and the stainless steel shield and clamp assembly on the end of the other pipe or fitting. Pipe or fittings shall be seated against the center stop inside the elastomeric sleeve. Slide the stainless steel shield and clamp assembly into position centered over the gasket and tighten. Bands shall be tightened using an approved calibrated torque wrench specifically set by the manufacturer of the couplings.

705.3 Copper or Copper Alloy Pipe (DWV) and Joints. «
Joining methods for copper or copper alloy pipe and fittings shall be installed in accordance with the manufacturer's installation instructions and shall comply with Section 705.3.1 through Section 705.3.4.

705.3.1 Brazed Joints. Brazed joints between copper «
or copper alloy pipe and fittings shall be made with brazing alloys having a liquid temperature above 1000°F (538°C). The joint surfaces to be brazed shall be cleaned bright by either manual or mechanical means. Piping shall be cut square and reamed to full inside diameter. Brazing flux shall be applied to the joint surfaces where required by manufacturer's recommendation. Brazing filler metal in accordance with AWS A5.8 shall be applied at the point where the pipe or tubing enters the socket of the fitting.



APPENDIX B

DRAINAGE FIXTURE UNIT SUMMARY

Drainage Fixture Units

The basis for the Drainage Fixture Units is "Private" per the 2019 California Plumbing Code.

DESCRIPTION	Unit A1-A			Unit A1-B			Unit A2-A			Unit A2-B			Unit A2-BL			Unit A3		
	FIXTURE		TOTAL	FIXTURE		TOTAL	FIXTURE		TOTAL	FIXTURE		TOTAL	FIXTURE		TOTAL	FIXTURE		TOTAL
	QUANTITY	UNITS	FIXTURE	QUANTITY	UNITS	FIXTURE	QUANTITY	UNITS	FIXTURE	QUANTITY	UNITS	FIXTURE	QUANTITY	UNITS	FIXTURE	QUANTITY	UNITS	FIXTURE
	EACH		UNITS	EACH		UNITS	EACH		UNITS	EACH		UNITS	EACH		UNITS	EACH		UNITS
CLOTHES WASHER	1	3	3	1	3	3	1	3	3	1	3	3	1	3	3	1	3	3
LAUNDRY SINK		2	0		2	0		2	0		2	0		2	0		2	0
TUB/SHOWER	1	2	2		2	0	1	2	2	1	2	2	1	2	2	1	2	2
SHOWER		2	0	1	2	2		2	0		2	0		2	0		2	0
KITCHEN SINK	1	2	2	1	2	2	1	2	2	1	2	2	1	2	2	1	2	2
DISHWASHER	1	2	2	1	2	2	1	2	2	1	2	2	1	2	2	1	2	2
LAVATORY	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
WATER CLOSET (1.6 GPF)	1	3	3	1	3	3	1	3	3	1	3	3	1	3	3	1	3	3
TOTAL			13			13			13			13			13			13

DESCRIPTION	Unit B1-A			Unit B1-B			Unit B1-BD			Unit B2-A			Unit B2-B			Unit B2-BL		
	FIXTURE		TOTAL	FIXTURE		TOTAL	FIXTURE		TOTAL	FIXTURE		TOTAL	FIXTURE		TOTAL	FIXTURE		TOTAL
	QUANTITY	UNITS	FIXTURE	QUANTITY	UNITS	FIXTURE	QUANTITY	UNITS	FIXTURE	QUANTITY	UNITS	FIXTURE	QUANTITY	UNITS	FIXTURE	QUANTITY	UNITS	FIXTURE
	EACH		UNITS	EACH		UNITS	EACH		UNITS	EACH		UNITS	EACH		UNITS	EACH		UNITS
CLOTHES WASHER	1	3	3	1	3	3	1	3	3	1	3	3	1	3	3	1	3	3
LAUNDRY SINK		2	0		2	0		2	0		2	0		2	0		2	0
TUB/SHOWER	1	2	2	2	2	4	2	2	4	1	2	2	2	2	4	2	2	4
SHOWER	1	2	2		2	0		2	0	1	2	2		2	0		2	0
KITCHEN SINK	1	2	2	1	2	2	1	2	2	1	2	2	1	2	2	1	2	2
DISHWASHER	1	2	2	1	2	2	1	2	2	1	2	2	1	2	2	1	2	2
LAVATORY	2	1	2	2	1	2	2	1	2	2	1	2	3	1	3	3	1	3
WATER CLOSET (1.6 GPF)	2	3	6	2	3	6	2	3	6	2	3	6	2	3	6	2	3	6
TOTAL			19			19			19			19			20			20



DESCRIPTION

CLOTHES WASHER
LAUNDRY SINK
TUB/SHOWER
SHOWER
BAR SINK
KITCHEN SINK
DISHWASHER
LAVATORY
WATER CLOSET (1.6 GPF)
WATER CLOSET (FLUSHO)
URINAL
TOTAL

Unit B3			Unit B4			Clubhouse			Fitness Center		
FIXTURE TOTAL			FIXTURE TOTAL			FIXTURE TOTAL			FIXTURE TOTAL		
QUANTITY	UNITS	FIXTURE	QUANTITY	UNITS	FIXTURE	QUANTITY	UNITS	FIXTURE	QUANTITY	UNITS	FIXTURE
EACH UNITS			EACH UNITS			EACH UNITS			EACH UNITS		
1	3	3	1	4	4	4	0		4	0	
	2	0		1.5	0	1.5	0		1.5	0	
	2	0	1	4	4	4	0		4	0	
2	2	4	1	2	2	2	0	4	2	8	
	1	0		1	0	1	1	1	1	0	
1	2	2	1	1.5	1.5	1	1.5	1.5	1.5	0	
1	2	2	1	1.5	1.5	1	1.5	1.5	1.5	0	
2	1	2	3	1	3	2	1	2	4	1	4
2	3	6	2	2.5	5	2.5	0		2.5	0	
	3	0		5	0	3	5	15	5	5	25
	2	0		3	0	1	3	3	3	3	9
		19			21			24			46

TOTAL WFU

Unit	Quantity	WFU/Unit	WFU
Unit A1-A	27	13	351.0
Unit A1-B	22	13	286.0
Unit A2-A	47	13	611.0
Unit A2-B	32	13	416.0
Unit A2-BL	2	13	26.0
Unit A3	4	13	52.0
Unit B1-A	16	19	304.0
Unit B1-B	15	19	285.0
Unit B1-BD	6	19	114.0
Unit B2-A	49	19	931.0
Unit B2-B	37	20	740.0
Unit B2-BL	5	20	100.0
Unit B3	2	19	38.0
Unit B4	3	21	63.0
Clubhouse	1	24	24.0
Fitness Center	1	46	46.0
TOTAL			4,387.0



APPENDIX C

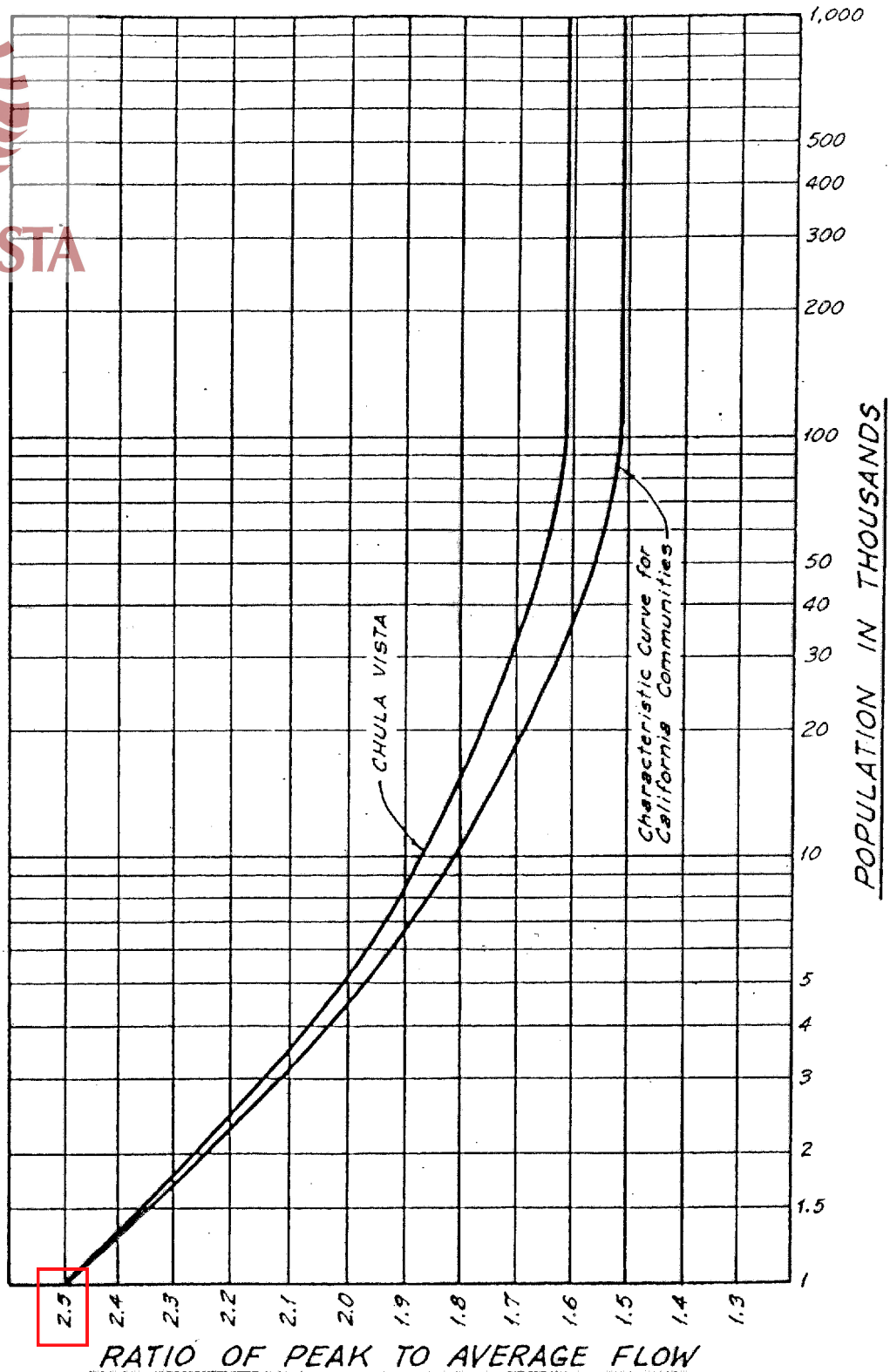
CITY OF CHULA VISTA DEVELOPMENT SERVICES

PEAKING FACTOR CURVE

CVD-SW01



RATIO OF PEAK TO AVERAGE SEWAGE FLOW
VS. MAGNITUDE OF TRIBUTARY POPULATION



Revised	Drawn J.W.H. Date 10-10-72	CITY OF CHULA VISTA PUBLIC WORKS DEPARTMENT	
	Approved Date 8-18-78		
	<i>Clifford Shannon</i>	PEAK TO AVERAGE SEWER FLOW	CVD-SW01
	CITY ENGINEER Date: 11-7-02		



APPENDIX D

**OCTOBER 2019 VILLAGE 8 WEST SEWER SYSTEM ANALYSIS AND
COPY OF NOD APPROVING THE VILLAGE 8 WEST INTENSITY TRANSFER**

**CITY OF
CHULA VISTA**



DEXTER S. WILSON, P.E.
ANDREW M. OVEN, P.E.
STEPHEN M. NIELSEN, P.E.
NATALIE J. FRASCHETTI, P.E.
STEVEN J. HENDERSON, P.E.

MEMORANDUM

646-382

TO: Curt Smith, HomeFed Village 8, LLC

FROM: ^{SMN} Stephen M. Nielsen, P.E., Dexter Wilson Engineering, Inc.

DATE: October 18, 2019

SUBJECT: Otay Ranch Village 8 West TM/SPA Amendment Sewer Evaluation

Background

HomeFed Village 8, LLC proposes revisions to the Village 8 West land use plan in order to adjust for current market demands. The land use changes involve transferring residential units from Village 8 East to Village 8 West and eliminating a previously planned middle school from Village 8 West. Amendments to the Village 8 West Sectional Planning Area (SPA), and Village 8 West Tentative Map (TM) are necessary to implement the proposed changes.

The November 2010 Overview of Sewer Service for Otay Ranch Village 8 West was prepared as a supporting document to the EIR. More recently, a May 21, 2018 Sewer System Analysis was prepared for Village 8 West. The purpose of this memorandum is to evaluate the impact of the proposed land use changes for Village 8 West on the findings from these previous studies.

SPA Amendment Summary



A summary of proposed changes to the Village 8 West use plan is provided as follows:

- Transfer 284 units from the adjacent Village 8 East SPA Plan and TM to Village 8 West, increasing the total authorized units within Village 8 West to 2,334 and correspondingly reducing the total authorized units within Village 8 East to 3,276 units.
- Eliminate the previously planned middle school designation from Parcel D and change the land use designation from T-4: TC (Town Center) to T-32:NC (Medium High Residential)
- Show Parcel E as a water quality/hydromodification basin.
- Change the land use designation of Parcel W from SD:Basin to T-4:TC (Town Center)
- Modify the limits of Parcels A and E to reflect the preservation of designated jurisdictional waters.
- Modify the limits of adjacent parcels T and U to adjust the size of the neighborhood park (Parcel T) to 5.5 acres and correspondingly adjust the size of residential Parcel U to 15.6 acres.
- Redistribute the residential units and office retail SF allocations within Village 8 West.

Proposed Land Use Plan

The proposed site utilization plan and land use summary table is provided as Attachment 1 to this memorandum. The project does not propose changes to the backbone street

alignments for the project, but does involve adjustments to the acreages and residential unit count of the various planning areas.



Sewer Flow Projections – Approved Plan

Table 1 summarizes the projected average sewer flows for Village 8 West based on the approved land use plan as presented in the November 2010 Overview of Sewer Study. Table 2 summarizes the projected average sewage flow based on the May 21, 2018 Sewer System Analysis. The decrease in sewer flow projections in the 2018 Study is a result of reduced sewer generation factors utilized by the City of Chula Vista as a result of recent water conservation efforts.

TABLE 1 VILLAGE 8 WEST APPROVED LAND USE PLAN PROJECTED SEWER FLOWS (NOVEMBER 2010 STUDY)			
Land Use	Quantity	Flow Factor	Average Flow, gpd
SF Residential	621 units	265 gpd/unit	164,570
MF Residential	1,429 units	199 gpd/unit	284,370
Commercial	14.5 ac	2,500 gpd/ac	36,250
School – Elementary	860 students	15 gpd/student	12,000
School – Middle	1,200 students	20 gpd/student	24,000
Park	28.0 ac	500 gpd/ac	14,000
CPF	5.8 ac	2,500 gpd/ac	14,500
TOTAL			549,700



TABLE 2
VILLAGE 8 WEST PROJECTED SEWER FLOWS
(MAY 21, 2018 SEWER SYSEM ANALYSIS)

Land Use	Quantity	Flow Factor	Average Flow, gpd
SF Residential	533 units	230 gpd/unit	122,590
MF Residential	1,517 units	182 gpd/unit	276,094
Commercial ¹	300,000 SF	0.08 gpd/SF	24,000
School – Elementary	11.4 ac	1,181 gpd/ac	13,463
Park	27.9 ac	410 gpd/ac	11,439
CPF	5.8 ac	1,401 gpd/ac	8,126
TOTAL			455,712

Sewer Flow Projection – Proposed Plan

Table 3 summarizes the projected average sewer flows for Village 8 West based on the currently proposed SPA Amendment. This projection also uses current sewage generation factors from the City of Chula Vista.

TABLE 3
VILLAGE 8 WEST PROPOSED LAND USE PLAN
PROJECTED SEWER FLOWS (SPA AMENDMENT)

Land Use	Quantity	Flow Factor	Average Flow, gpd
Residential (3-10 DU/Ac)	561 units	230 gpd/unit	129,030
Residential (>10 DU/Ac)	1,773 units	182 gpd/unit	322,686
MU-Commercial ¹	37.8 ac	1,401 gpd/ac	52,958
School – Elementary	11.1 ac	1,181 gpd/ac	13,109
Park	23.4	410 gpd/ac	9,594
CPF	5.5 ac	1,401 gpd/ac	7,706
TOTAL			535,083

¹ Commercial acreage is based on 90 percent of gross acreage for MU sites.


In comparing the projections from Tables 1 2, and 3 the proposed SPA Amendment will reduce previous sewer flow projections by approximately 2.7 percent relative to the November 2010 Study, but will increase flows by approximately 17 percent relative to the May 2018 Study.

Onsite Sewer System Analysis

The May 21, 2018 Sewer System Analysis was for the purpose of sizing onsite sewer lines based on actual design slopes on the backbone final engineering improvement plans for the project. With the increase in sewer flows from the proposed SPA Amendment, the onsite sewer system has been re-evaluated and the results are provided in Attachment 2. The results indicate that a section of onsite gravity sewer line in La Media Parkway is recommended to be upsized from 12-inch to 15-inch to accommodate additional flows from the SPA Amendment.

Regional Sewer System Analysis

All sewage flows from Village 8 West will be conveyed to the Salt Creek Interceptor. The Salt Creek Interceptor was analyzed as part of the approved EIR for the project based on the sewer flows from the November 2010 sewer study which are 2.7 percent higher than the current projected flows. Additionally, the increased units in Village 8 West are being transferred from Village 8 East which also flows to the Salt Creek Interceptor so there is no net increase in the number of units being served by the Salt Creek Interceptor. Based on the above, the Salt Creek Interceptor has adequate capacity to serve the proposed Village 8 West SPA Amendment.



Curt Smith
October 18, 2019
Page 6

Conclusion

**CITY OF
CHULA VISTA**

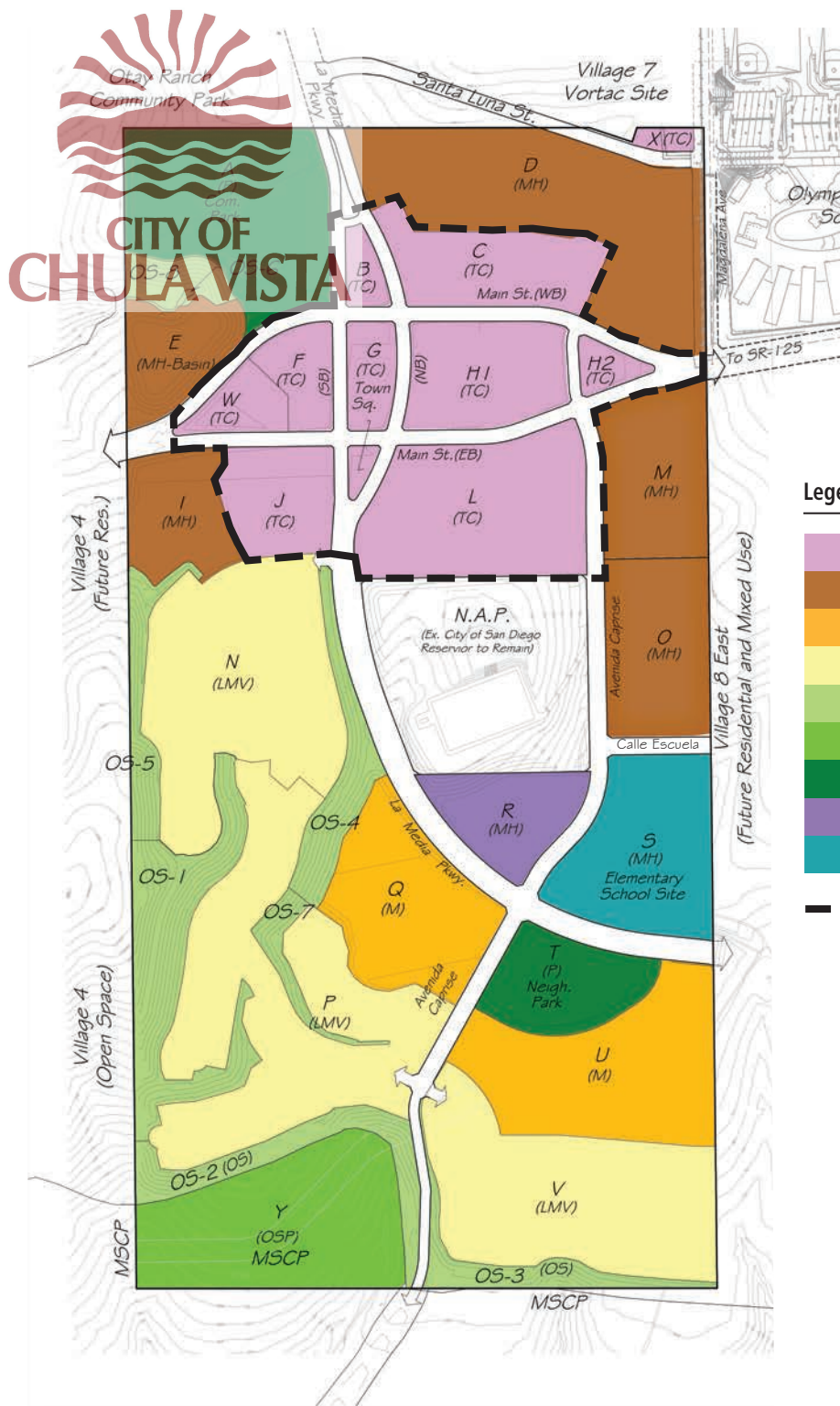
The proposed SPA Amendment for Village 8 West will reduce sewer flows from the land uses and projections from the November 2010 Sewer Study by approximately 2.7 percent, but increase flows from the most recent sewer system analysis by 17 percent. The result of the increased flows will be minor changes to the recommended onsite sewer system sizing. From a regional planning standpoint, all flows from the project will go to the Salt Creek Interceptor and, based on the results of this analysis, the proposed SPA Amendment will not create any new impacts.

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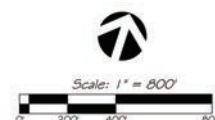
ATTACHMENT 1

SITE UTILIZATION PLAN LAND USE SUMMARY



Legend - Land Use

- Town Center (TC)
- Medium-High Density Residential (MH)
- Medium Density Residential (M)
- Low-Medium Density Residential Village (LMV)
- Open Space (OS)
- Open Space (Preserve - OSP)
- Park (P)
- Community Purpose Facility (CPF)
- School
- Boundary of Town Center (Master Precise Plan Required - See Section 9.3.7)



Commercial and Residential					
Town Center - 18-45 du/ac					
Planning Area	Gross Acres	Transect ⁽¹⁾	Target Res. Units ⁽²⁾	Com'l Min. ^{(2) (3)}	Com'l Max ^{(2) (3)}
B	1.2	T-4:TC	-	0	4
C	7.5	T-4:TC	180	0	36
F	2.8	T-4:TC	175 ⁽⁷⁾	10	10
W	2.3	T-4:TC	See ⁽⁷⁾	0	0
H-1A-L-D	7.5	T-4:TC	225	20	75
H-2	1.2	T-4:TC	0	0	12
J	5.5	T-4:TC	199	0	18
L-A-L-D	14.0	T-4:TC	431	87	145
X	0.7	T-4:TC	0	0	0
Subtotal	42.7		1,210	117	300
Medium-High Density Residential - 9-18 du/ac					
Planning Area	Gross Acres	Transect ⁽¹⁾	Target Res. Units ⁽²⁾	Com'l Min. ^{(2) (3)}	Com'l Max ^{(2) (3)}
D	19.4	T-3:NC	234		
E	5.1	T-3:NC	0	Basin	
I	6.1	T-3:NC	84		
M	8.3	T-3:NC	125		
O	8.7	T-3:NC	120		
Subtotal	47.6		563		
Medium Density Residential Attached/Detached - 4-11 du/ac					
Planning Area	Gross Acres	Transect ⁽¹⁾	Target Res. Units ⁽²⁾	Com'l Min. ^{(2) (3)}	Com'l Max ^{(2) (3)}
Q	11.1	T-2:NG	106		
U	15.6	T-2:NG	127		
Subtotal	26.7		233		
Low-Medium Density Residential Village - 3-6 du/ac					
Planning Area	Gross Acres	Transect ⁽¹⁾	Target Res. Units ⁽²⁾	Com'l Min. ^{(2) (3)}	Com'l Max ^{(2) (3)}
N	20.1	T-2:NE	117		
P	25.4	T-2:NE	115		
V	19.1	T-2:NE	96		
Subtotal	64.6		328		
TOTAL	181.6		2,334	300K ⁽³⁾	

Public, Quasi Public, and Other				
Community Purpose Facility (CPF) ⁽⁴⁾				
Planning Area	GDP Land Use	Gross Acres	Transect ⁽¹⁾	Description
R-A-R-C	MH	5.5	SD: CPF	CPF
Subtotal		5.5		
Potential School (S) Sites ⁽⁵⁾				
Planning Area	GDP Land Use	Gross Acres (Ac.)	Transect ⁽¹⁾	Description
S	MH	11.1	T-3: NC	Elementary
Subtotal		11.1		
Parks (P)				
Planning Area	GDP Land Use	Gross Acres (Ac.)	Transect ⁽¹⁾	Classification
A	P	15.1	SD: P	Community
G-1-2	TC	2.8	SD: P	Town Square
T	P	5.5	SD: P	Neighborhood
Subtotal		23.4		
Open Space (OS)				
Planning Area	GDP Land Use	Gross Acres (Ac.)	Transect ⁽¹⁾	Classification
Y	OSP	15.6	T-1: OSP	Preserve (MSCP)
OS-1-7	OS	28.7	T-1: OS	Open Space
Subtotal		44.3		
Other				
Planning Area	GDP Land Use	Gross Acres (Ac.)	Transect ⁽¹⁾	Description
Right-of-Way	NA	34.8	N/A	Arterials
Subtotal		34.8		
TOTAL		119.1		

SPA Total Area: 300.7 Gross Acres⁽⁶⁾

Notes:

1. Transects are defined in Chapter 3.
2. See Chapter 9 regarding Intensity Transfers and minimum commercial square footage requirements.
3. 17,000 sf of office and 100,000 sf of retail for the low range; 50,000 sf of office and 250,000 sf of retail for the high range (excludes Live/Work)
4. As Defined by CVMC 19.48.
5. The Elementary School site will revert to the underlying Medium-High Residential land use if site is not accepted by the school district.
6. Acreage does not include 19.2-acre San Diego Reservoir.
7. 185 DUs are authorized on Parcels F and W combined. Final unit allocation to be determined at Design Review.
8. Parcels I and J are being planned together. The final unit allocation shall be determined at Design Review.
9. The unit allocation and boundaries between Parcels C and D may be adjusted and will be finalized during Design Review so long as the total number of combined units does not exceed a total of 414 units between C and D.



ATTACHMENT 2

ONSITE SEWER SYSTEM SIZING

DATE: 10/16/2019

JOB NUMBER: 646-382

SEWER STUDY SUMMARY

FOR: Otay Land Compay Village 8 West
BY: Dexter Wilson Engineering, Inc.

SHT 1 OF 1
REFER TO PLAN SHEET:

LINE	FROM	TO	IN-LINE FLOW (gpd)	AVG DRY WEATHER FLOW (gpd)	EQUIV POP.	PEAKING FACTOR	PEAK WET WEATHER FLOW (gpd)	PEAK WET WEATHER FLOW (DESIGN FLOW)		LINE SIZE (inches)	DESIGN SLOPE (%)	DEPTH K ⁽¹⁾	dn (feet)	dn/D ⁽²⁾	C _a for Velocity ⁽³⁾	VELOCITY (f.p.s.)	Remarks
								M.G.D.	C.F.S.								
	4	9	118,700	118,700	1,484	2.36	280,132	0.28	0.43	8	0.50	0.216880	0.32000	0.48	0.3727	2.62	Village 4 Park + Village 7 W of Magdalena
	9	7	0	118,700	1,484	2.36	280,132	0.28	0.43	8	0.50	0.216880	0.32000	0.48	0.3727	2.62	
	12	11	42,588	42,588	532	2.50	106,470	0.11	0.16	8	4.96	0.026172	0.10667	0.16	0.0811	4.57	Planning Area D
	11	10	0	42,588	532	2.50	106,470	0.11	0.16	8	4.82	0.026549	0.10667	0.16	0.0811	4.57	
	10	8	42,217	84,805	1,060	2.47	209,468	0.21	0.32	8	2.50	0.072526	0.18000	0.27	0.1711	4.26	Planning Area C
	8	7	1,512	86,317	1,079	2.47	213,203	0.21	0.33	8	0.50	0.165063	0.27333	0.41	0.3032	2.45	Planning Area B
	7	19	164,320	250,637	3,133	2.14	536,363	0.54	0.83	10	0.50	0.229029	0.41667	0.50	0.3930	3.04	Planning Area A, F/W, G + MH 9
	19	18	0	250,637	3,133	2.14	536,363	0.54	0.83	10	0.50	0.229029	0.41667	0.50	0.3930	3.04	
	12b	13	120,894	120,894	1,511	2.36	285,310	0.29	0.44	8	1.45	0.129711	0.24000	0.36	0.2546	3.90	Village 7 E of Magdalena
	13	14	0	120,894	1,511	2.36	285,310	0.29	0.44	8	7.22	0.058129	0.16000	0.24	0.1449	6.86	
	14	16	1,513	122,407	1,530	2.36	288,881	0.29	0.45	8	2.90	0.092867	0.20000	0.30	0.1982	5.07	Planning Area H-2
	16	17	0	122,407	1,530	2.36	288,881	0.29	0.45	8	3.21	0.088269	0.20000	0.30	0.1982	5.07	
	17	18	50,407	172,814	2,160	2.32	400,928	0.40	0.62	8	6.73	0.084606	0.19333	0.29	0.1890	7.39	Planning Area H-1
	18	23	293,790	466,604	5,833	1.99	928,542	0.93	1.44	15	0.50	0.134479	0.46250	0.37	0.2642	3.48	Planning Area J + MH 19
	54	57	5,520	5,520	69	2.50	13,800	0.01	0.02	8	4.00	0.003777	0.04000	0.06	0.0192	2.50	24 SF units
	57	58	2,990	8,510	106	2.50	21,275	0.02	0.03	8	4.00	0.005823	0.05333	0.08	0.0294	2.52	13 SF units
	58	59	2,070	10,580	132	2.50	26,450	0.03	0.04	8	5.37	0.006249	0.05333	0.08	0.0294	3.13	9 SF units
	59	60	460	11,040	138	2.50	27,600	0.03	0.04	8	5.86	0.006242	0.05333	0.08	0.0294	3.27	2 SF units
	60	61	15,748	26,328	329	2.50	65,820	0.07	0.10	8	5.86	0.014885	0.08000	0.12	0.0534	4.29	2 SF units + Planning Area I
	61	62	460	26,788	335	2.50	66,970	0.07	0.10	8	5.86	0.015145	0.08000	0.12	0.0534	4.37	2 SF units
	69	71	3,680	3,680	46	2.50	9,200	0.01	0.01	8	2.00	0.003561	0.04000	0.06	0.0192	1.67	16 SF units
	71	72	2,530	6,210	78	2.50	15,525	0.02	0.02	8	6.64	0.003298	0.04000	0.06	0.0192	2.82	11 SF units
	72	68	460	6,670	83	2.50	16,675	0.02	0.03	8	3.85	0.004652	0.04667	0.07	0.0242	2.40	2 SF units

Increased to 15"
based on SPA
Amendment

1 K' based on n = 0.012
2 dn/D using K' in Brater King Table 7-14
3 From Brater King Table 7-4, based on dn/D

LINE	FROM	TO	IN-LINE FLOW (gpd)	AVG DRY WEATHER FLOW (gpd)	EQUIV POP.	PEAKING FACTOR	PEAK WET WEATHER FLOW (gpd)	PEAK WET WEATHER FLOW (DESIGN FLOW)		LINE SIZE (inches)	DESIGN SLOPE (%)	DEPTH K ⁽¹⁾	dn (feet)	dn/D ⁽²⁾	C _a for Velocity ⁽³⁾	VELOCITY (f.p.s.)	Remarks
								M.G.D.	C.F.S.								
	67	63	1,610	1,610	20	2.50	4,025	0.00	0.01	8	2.07	0.001532	0.02667	0.04	0.0105	1.33	7 SF units
	63	64	2,300	3,910	49	2.50	9,775	0.01	0.02	8	2.00	0.003784	0.04000	0.06	0.0192	1.77	10 SF units
	64	65	2,530	6,440	81	2.50	16,100	0.02	0.02	8	2.00	0.006232	0.05333	0.08	0.0294	1.91	11 SF units
	65	68	4,140	10,580	132	2.50	26,450	0.03	0.04	8	2.00	0.010239	0.06667	0.10	0.0409	2.25	18 SF units
	68	62	7,590	18,170	227	2.50	45,425	0.05	0.07	8	2.00	0.017584	0.08667	0.13	0.0600	2.64	4 SF units + MH 72
	62	23	26,788	44,958	562	2.50	112,395	0.11	0.17	8	5.86	0.025418	0.10667	0.16	0.0811	4.82	MH 61
	23	25	562,517	607,475	7,593	1.95	1,184,576	1.18	1.83	15	0.50	0.171560	0.52500	0.42	0.3130	3.75	Planning Area L + MH 18
	25	26	0	607,475	7,593	1.95	1,184,576	1.18	1.83	15	0.50	0.171560	0.52500	0.42	0.3130	3.75	
	26	27	0	607,475	7,593	1.95	1,184,576	1.18	1.83	15	3.86	0.061746	0.31250	0.25	0.1535	7.64	
	27	28	0	607,475	7,593	1.95	1,184,576	1.18	1.83	15	4.15	0.059550	0.30000	0.24	0.1449	8.10	
	28	29	0	607,475	7,593	1.95	1,184,576	1.18	1.83	15	4.37	0.058031	0.30000	0.24	0.1449	8.10	
	29	30	0	607,475	7,593	1.95	1,184,576	1.18	1.83	15	4.25	0.058845	0.30000	0.24	0.1449	8.10	
	30	31	89,785	697,260	8,716	1.91	1,331,767	1.33	2.06	15	1.58	0.108502	0.41250	0.33	0.2260	5.84	Planning Area M, O, Q, R, and S
	31	33	0	697,260	8,716	1.91	1,331,767	1.33	2.06	15	1.58	0.108502	0.41250	0.33	0.2260	5.84	
	33	36	27,600	724,860	9,061	1.90	1,377,234	1.38	2.13	15	3.01	0.081295	0.35000	0.28	0.1800	7.58	3 SF units + MH 90
	36	37	1,380	726,240	9,078	1.90	1,379,856	1.38	2.14	15	5.25	0.061673	0.31250	0.25	0.1535	8.90	6 SF units
	37	38	690	726,930	9,087	1.90	1,381,167	1.38	2.14	15	5.11	0.062571	0.31250	0.25	0.1535	8.91	3 SF units
	38	39	690	727,620	9,095	1.90	1,382,478	1.38	2.14	15	5.11	0.062631	0.31250	0.25	0.1535	8.92	3 SF units
	39	40	920	728,540	9,107	1.90	1,384,226	1.38	2.14	15	6.19	0.056977	0.30000	0.24	0.1449	9.46	4 SF units
	40	41	2,300	730,840	9,136	1.90	1,388,596	1.39	2.15	15	3.63	0.074638	0.33750	0.27	0.1711	8.04	10 SF units
	41	43	44,345	775,185	9,690	1.89	1,465,100	1.47	2.27	15	2.00	0.106094	0.41250	0.33	0.2260	6.42	5 SF units + MH 80
	43	44	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	1.75	0.113419	0.42500	0.34	0.2355	6.16	
	44	45	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	2.81	0.089506	0.37500	0.30	0.1982	7.32	
	45	46	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	6.39	0.059355	0.30000	0.24	0.1449	10.01	
	46	48	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	5.30	0.065173	0.31250	0.25	0.1535	9.45	
	48	49	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	10.90	0.045446	0.26250	0.21	0.1199	12.10	
	49	51	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	15.17	0.038522	0.23750	0.19	0.1039	13.96	
	51	52	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	12.20	0.042956	0.26250	0.21	0.1199	12.10	
	52	53	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	17.72	0.035643	0.23750	0.19	0.1039	13.96	
	53	53A	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	5.65	0.063122	0.31250	0.25	0.1535	9.45	
	84	83	34,455	34,455	431	2.50	86,138	0.09	0.13	8	4.01	0.023548	0.10000	0.15	0.0739	4.06	13 SF units + Planning Area T and U
	83	82	2,990	37,445	468	2.50	93,613	0.09	0.14	8	1.00	0.051248	0.14667	0.22	0.1281	2.54	13 SF units
	82	81	2,070	39,515	494	2.50	98,788	0.10	0.15	8	1.49	0.044305	0.14000	0.21	0.1199	2.87	9 SF units
	81	80	2,070	41,585	520	2.50	103,963	0.10	0.16	8	1.00	0.056914	0.16000	0.24	0.1449	2.50	9 SF units
	80	41	3,680	43,195	540	2.50	107,988	0.11	0.17	8	1.00	0.059118	0.16000	0.24	0.1449	2.59	16 SF units
	90C	90B	2,300	2,300	29	2.50	5,750	0.01	0.01	8	5.52	0.001340	0.02667	0.04	0.0105	1.91	10 SF units
	90B	90A	1,840	4,140	52	2.50	10,350	0.01	0.02	8	5.47	0.002423	0.03333	0.05	0.0147	2.45	8 SF units
	90A	90	2,300	6,440	81	2.50	16,100	0.02	0.02	8	2.00	0.006232	0.05333	0.08	0.0294	1.91	10 SF units

1 K' based on n = 0.012

2 dn/D using K' in Brater King Table 7-14

3 From Brater King Table 7-4, based on dn/D

LINE	FROM	TO	IN-LINE FLOW (gpd)	AVG DRY WEATHER FLOW (gpd)	EQUIV POP.	PEAKING FACTOR	PEAK WET WEATHER FLOW (gpd)	PEAK WET WEATHER FLOW (DESIGN FLOW)		LINE SIZE (inches)	DESIGN SLOPE (%)	DEPTH K ⁽¹⁾	dn (feet)	dn/D ⁽²⁾	C _a for Velocity ⁽³⁾	VELOCITY (f.p.s.)	Remarks
								M.G.D.	C.F.S.								
	92B	92A	2,760	2,760	35	2.50	6,900	0.01	0.01	8	2.02	0.002658	0.03333	0.05	0.0147	1.63	12 SF units
	92A	92	2,300	5,060	63	2.50	12,650	0.01	0.02	8	4.93	0.003119	0.04000	0.06	0.0192	2.29	10 SF units
	95A	95	3,680	3,680	46	2.50	9,200	0.01	0.01	8	1.00	0.005037	0.04667	0.07	0.0242	1.32	16 SF units
	97	96	1,150	1,150	14	2.50	2,875	0.00	0.00	8	3.31	0.000865	0.02000	0.03	0.0069	1.45	5 SF units
	96	95	2,300	3,450	43	2.50	8,625	0.01	0.01	8	3.72	0.002448	0.03333	0.05	0.0147	2.04	10 SF units
	95	94	5,060	8,510	106	2.50	21,275	0.02	0.03	8	2.01	0.008215	0.06000	0.09	0.0350	2.12	6 SF units + MH 95A
	94	93	920	9,430	118	2.50	23,575	0.02	0.04	8	7.76	0.004633	0.04667	0.07	0.0242	3.39	4 SF units
	93	92	2,070	11,500	144	2.50	28,750	0.03	0.04	8	8.45	0.005414	0.05333	0.08	0.0294	3.40	9 SF units
	92	91	6,670	18,170	227	2.50	45,425	0.05	0.07	8	5.83	0.010299	0.06667	0.10	0.0409	3.87	7 SF units + MH 92A
	91	90	1,150	19,320	242	2.50	48,300	0.05	0.07	8	7.17	0.009875	0.06667	0.10	0.0409	4.11	5 SF units
	90	33	7,590	26,910	336	2.50	67,275	0.07	0.10	8	8.67	0.012508	0.07333	0.11	0.0470	4.98	5 SF units + MH 90A

Min Slope
0.50

Max dn/D
0.50

1 K' based on n = 0.012

2 dn/D using K' in Brater King Table 7-14

3 From Brater King Table 7-4, based on dn/D



**ZONING ADMINISTRATOR
NOTICE OF DECISION**

Date: July 11, 2022
Applicant: HomeFed Village 8, LLC
Case No.: SPA22-0002
Intensity Transfer Request for Multiple Parcels
Location: Otay Ranch Village 8 West
Project Manager: Janice Kluth

Notice is hereby given that on July 11, 2022, the Zoning Administrator considered an Intensity Transfer Request for multiple parcels within Otay Ranch Village 8 West, filed by HomeFed Village 8, LLC. The requested transfers are described below. The subject parcels are owned by HomeFed Village 8, LLC ("Property Owner") or by Lennar Homes of California (dba AG Essential Housing CA 2 LP).

The Project is described as an Intensity Transfer, Minor Zone Change, and Comprehensive Project Information Form (PIF).

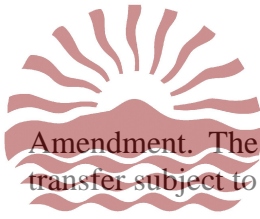
The zoning and the General Plan designations for the subject parcels is shown in the table below:

Parcel	Land Use	Zone	General Plan
C	Residential	Town Center	Town Center
D	Residential	Neighborhood Center	Medium High Residential
H-1	Commercial	Town Center	Town Center
J	Residential	Town Center	Town Center
L	Mixed Use	Town Center	Town Center
M*	Residential	Neighborhood Center	Medium High Residential
O*	Residential	Neighborhood Center	Medium High Residential

**Owned by Lennar Homes of California (dba AG Essential Housing CA 2 LP)*

Intensity Transfer

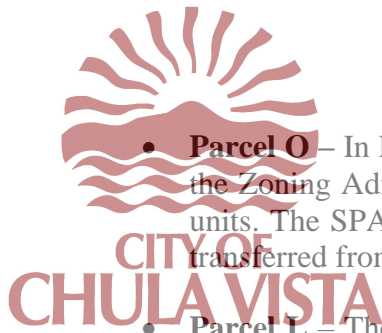
In accordance with the Village 8 West Sectional Planning Area (SPA) Plan, Chapter 9, which recognizes the need for flexibility in planning to accommodate future development constraints and market demands, a transfer of intensity (residential units and/or commercial square footage) is allowed between planning areas. The total number of units and commercial square footage within the village may not be exceeded without a SPA



Amendment. The Zoning Administrator shall approve or deny the proposed intensity transfer subject to certain findings and conditions.

The subject parcels are more specifically described as follows:

- **Parcel C** – In March 2022, an application for a Design Review (DR22-0006) was filed with the City of Chula Vista by Cota Vera Apartments II, LLC. The development plan proposes 267 residential units on 8.6 acres located on the northeast corner of the Main Street/La Media Parkway couplet. The Village 8 West SPA Plan's Site Utilization Plan allocation of 180 residential units is less than that required to accommodate the proposed Project (Attachment 2). Parcel C has a commercial square footage range of 0-36,000 in the SPA Plan; however, the development does not propose any commercial development. Eighty-seven residential units will be transferred to Parcel C from Parcel H-1 and 36,000 commercial square feet will be transferred from Parcel C to Parcel L with the Project.
- **Parcel D** – In April 2022, an application for a Design Review (DR22-0008) was filed with the City of Chula Vista by Cota Vera Townhomes, LLC. The development plan proposes 272 residential units; however, only 234 units are currently allocated in the SPA Plan. Thirty-eight residential units will be transferred to Parcel D from Parcel H-1 with the Project.
- **Parcel H-1** – In January 2022, an application for a Design Review and Conditional Use Permit (DR22-0001 and CUP22-0002) was filed with the City of Chula Vista by LTF Real Estate Company, Inc. The development plan proposes an 84,766 square foot commercial (fitness center) building and no residential units on 7.5 acres. The Site Utilization Plan allocates 20,000-75,000 commercial square feet and 225 residential units to Parcel H-1. Two hundred and twenty-five residential units will be transferred from Parcel H-1 to Parcels C, D, and L, and commercial square footage will be transferred from Parcel L to Parcel H-1 with the Project, increasing the range to 84,000-106,000 square feet.
- **Parcel J** – In May 2020, the Design Review (DR19-0019) was approved by the Planning Commission for the Residences at Cota Vera, with a development plan for 196 residential units on Parcel J. The SPA Plan allocation for this site is 199 units. Parcel J has a commercial square footage range of 0-18,000, but the development did not propose any commercial development. Three residential units and 18,000 commercial square feet will be transferred from Parcel J to Parcel L.
- **Parcel M** – In February 2021, the Design Review (DR20-0011) was approved by the Zoning Administrator for Bluestone, with a development plan for 116 residential units. The SPA Plan allocation is for 125 units. Nine residential units will be transferred from Parcel M to Parcel L with the Project.



- **Parcel O** – In February 2021, the Design Review (DR20-0012) was approved by the Zoning Administrator for Trevi, with a development plan for 108 residential units. The SPA Plan allocation is for 120 units. Twelve residential units will be transferred from Parcel O to Parcel L with the Project.
- **Parcel L** – The vacant 14-acre parcel is located southeast of the Main Street/La Media Parkway couplet and currently has an allocation of 431 residential units and 81,380-143,380 commercial square feet. The property does not have a development plan in process at this time. The proposed Project would transfer/re-allocate 124 residential units to Parcel L (from Parcels H-1, J, M, and O) for a total residential allocation of 555 units and update the commercial square footage range to 17,380-166,380 (transfers to Parcel H-1 and from Parcels C and J).

Comprehensive Project Information Form (PIF)

A trip generation analysis was performed (Attachment 4), showing the overall Average Daily Trips (ADT) do not increase as a result of the intensity transfer within the village. The Village 8 West Comprehensive PIF was also prepared to reflect the intensity transfer. Provided future site-specific PIFs show less than or equal to the number of trips referenced in the Comprehensive PIF, the Development Services Department Traffic Planning review will be streamlined.

Minor Zone Change

In accordance with Section 9.1.2 of the SPA, minor zone changes may be made to the Regulating Plan administratively when they are the result of a tentative or final map (Ordinance 2020-3480). A Lot Consolidation/Lot Line Adjustment (LC/LLA) mapping project, identified as LA21-0009, is being processed concurrently with the Intensity Transfer. Approval of the mapping project will ultimately adjust the lot line between Parcels C (zoned Town Center) and D (zoned Neighborhood Center), a change of approximately 1.1 acres.

Parcel	Existing Acreage	Proposed Acreage	Change
C	7.5	8.6	+1.1
D	19.4	18.3	-1.1

The LC/LLA constitutes a change to the final map – new legal descriptions and plats will be recorded, a perfecting deed will be processed and a Certificate of Compliance will be issued by the City for both new legal parcels. The perfecting deed is a means to provide clean title – it is a deed transferring ownership from one property owner to another. In this case, both Parcels C and D are owned and being developed by HomeFed Corporation related entities.

The Minor Zone Change is contingent upon approval of the LLA/LC (See Attachment 1).



The Director of Development Services has reviewed the proposed Zoning Administrator actions for compliance with the California Environmental Quality Act (CEQA) and has determined that the development was adequately covered in previously certified Final Environmental Impact Report (FEIR 10-03) (SCH #2010062093) for the Otay Ranch SPA Plan - Village 8 West. Thus, no further environmental review or documentation is required.

The Zoning Administrator, under the provisions of Section 9.3.2.B of the SPA Plan, has approved the Project subject to the following findings and conditions:

- a. That the resulting density of both the granting and receiving planning areas shall be consistent with the density ranges specified for each area.**

All parcels subject to the intensity transfer remain consistent with existing density ranges:

Town Center Parcels – 18-45 dwelling units per acre			
Parcel	Units	Acres	Density (du/ac)
C	267	8.6	31.0
J	196	5.5	35.6
L	555	14.0	39.6
Medium High Residential Parcels – 11-18 dwelling units per acre			
Parcel	Units	Acres	Density (du/ac)
D	272	18.3	14.9
M	116	8.3	14.0
O	108	8.7	12.4

- b. The overall SPA intensities shall not be exceeded.**

The intensity transfer does not result in an increase in residential units or commercial square footage for the village; therefore, the overall approved intensities are not exceeded.

- c. The Neighborhood Builder has received a letter of recommendation for approval, modification, or denial of the intensity transfer from the Master Developer.**

HomeFed, the Village 8 West Master Developer and Property Owner, is submitting the intensity transfer request for its own properties and on behalf of Lennar Homes,



therefore, a separate letter from the Master Developer is not needed. HomeFed Village 8, LLC recommends approval of the proposed intensity transfer.

- d. The planned identity of Village 8 West SPA is preserved including the creation of a pedestrian-friendly community.**

The proposed intensity transfer does not impact the implementation of the pedestrian network and associated pedestrian-friendly community planned for Village 8 West. The parcels subject to the intensity transfer would remain subject to the design principles in the Village 8 West SPA Plan and Master Precise Plan.

- e. The Neighborhood Builder has provided supporting technical studies, if necessary, to the satisfaction of the Zoning Administrator, that substantiate adequate infrastructure exists to support the intensity transfer.**

Because the proposed residential and non-residential transfers are within the vicinity of the Town Center, and the infrastructure has been designed to serve the residential and non-residential land uses within and around the Town Center, there would be no impact to infrastructure as a result of the transfers.

- f. Public facilities and infrastructure including schools and parks shall be provided based on the final number of units and the applicant shall agree to pay any additional fees resulting from said transfer. Preserve conveyance obligation shall be based upon the final map development area.**

Public facilities and infrastructure are adequate as planned to accommodate this intensity transfer. The total number of residential units for Village 8 does not change, and the intensity transfer would have no impact on public parks or school facilities within Village 8 West. The Master Developer and/or Neighborhood Builder agree to pay any additional fees resulting from the proposed transfer. The Village 8 West conveyance obligation was satisfied prior to approval of the Village 8 West Final “A” Map (Map No. 16428) through recordation of the conveyance Grant Deed on October 15, 2020 (Document No. 2020-0627343).

- g. The overall target intensity of 2,334 residential units and a maximum of 300,000 square feet of non-residential floor area is not exceeded, and a minimum combined total of 100,000 square feet of retail commercial floor area and 17,000 square feet of office is maintained within Village 8 West.**

Consistent with the adopted Village 8 West SPA Plan, the maximum of 300,000 square feet of non-residential floor area is not exceeded and a minimum 100,000 square feet of retail commercial floor area and 17,000 square feet of office is maintained within the Village 8 West Town Center.



- I. **The following shall be accomplished to the satisfaction of the Director of Development Services, prior to issuance of building permits, unless otherwise specified:**

**CITY OF
CHULA VISTA
Development Services Department:**

1. Prior to approval by the City of Chula Vista for the use of the subject property in reliance on this approval, the Master Developer, Neighborhood Builder, and Property Owners shall execute this document by making a true copy of this letter of approval and signing both this original Notice of Decision and the copy on the lines provided below, said execution indicating that the Master Developer, Neighborhood Builder, and Property Owners have each read, understood and agreed to the conditions contained herein, and will implement same. Upon execution, the true copy with original signatures shall be returned to the Development Services Department. Failure to return the signed true copy of this document within 30 Days of the effective date herein shall indicate the Master Developer's, Neighborhood Builder's, and Property Owners' desire that the Project, and corresponding application for building/grading permits and/or business license, be held in abeyance without approval.

Signature of Master Developer/
Authorized Representative

Date

Print Name

Alex Plishner

Signature of Neighborhood Builder/
Authorized Representative

07/15/22

Date

Alexander L Plishner

Print Name

Signature of Property Owner/Representative

Date

Print Name

2. Prior to, or in conjunction with the issuance of the first building permit, the Master Developer shall pay all applicable fees, including any unpaid balances of application processing fees for deposit account DDP1539.



3. Approval of the minor zone change is contingent upon approval of the lot line adjustment between Parcels C and D. Prior to the approval of the first design review permit for either Parcel C or Parcel D:

- a. A Perfecting Deed shall be recorded by the applicant to document the new property lines and ownership.
- b. The updated Site Utilization Plan (SPA - Exhibit 2.1) and Regulating Plan (SPA – Exhibit 3.1) shall be provided to the City by the Applicant.

II. The following on-going conditions shall apply to the Project as long as it relies upon this approval.

4. The Master Developer/Representative, Neighborhood Builder/Representative, and Property Owner shall and do hereby agree to indemnify, protect, defend and hold harmless City, its City Council members, officers, employees and representatives, from and against any and all liabilities, losses, damages, demands, claims and costs, including court costs and attorney's fees (collectively, liabilities) incurred by the City arising, directly or indirectly, from (a) City's approval and issuance of this Design Review approval, (b) City's approval or issuance of any other permit or action, whether discretionary or non-discretionary, in connection with the use contemplated herein, and Applicant/operator shall acknowledge their agreement to this provision by executing a copy of this Design Review approval where indicated below. The Neighborhood Builder/Representative and Property Owner's compliance with this provision is an express condition of this permit and shall be binding on any, and all of Neighborhood Builder's and Property Owner's successors and assigns.



APPROVED BY ZONING ADMINISTRATOR OF THE CITY OF CHULA VISTA,
CALIFORNIA, this 11th of July 2022.

CF  TA

D. Todd Philips
Zoning Administrator

Attachments:

- Attachment 1 - Village 8 West Site Utilization Plan (Current/Proposed)
- Attachment 2A/B – Village 8 West Site Utilization Summary
- Attachment 3 – Trip Generation Analysis / Comprehensive PIF



Attachment 1 – Village 8 West Site Utilization Plan (Current/Proposed)

**CITY OF
CHULA VISTA**

Otay Ranch Village 8 West SPA

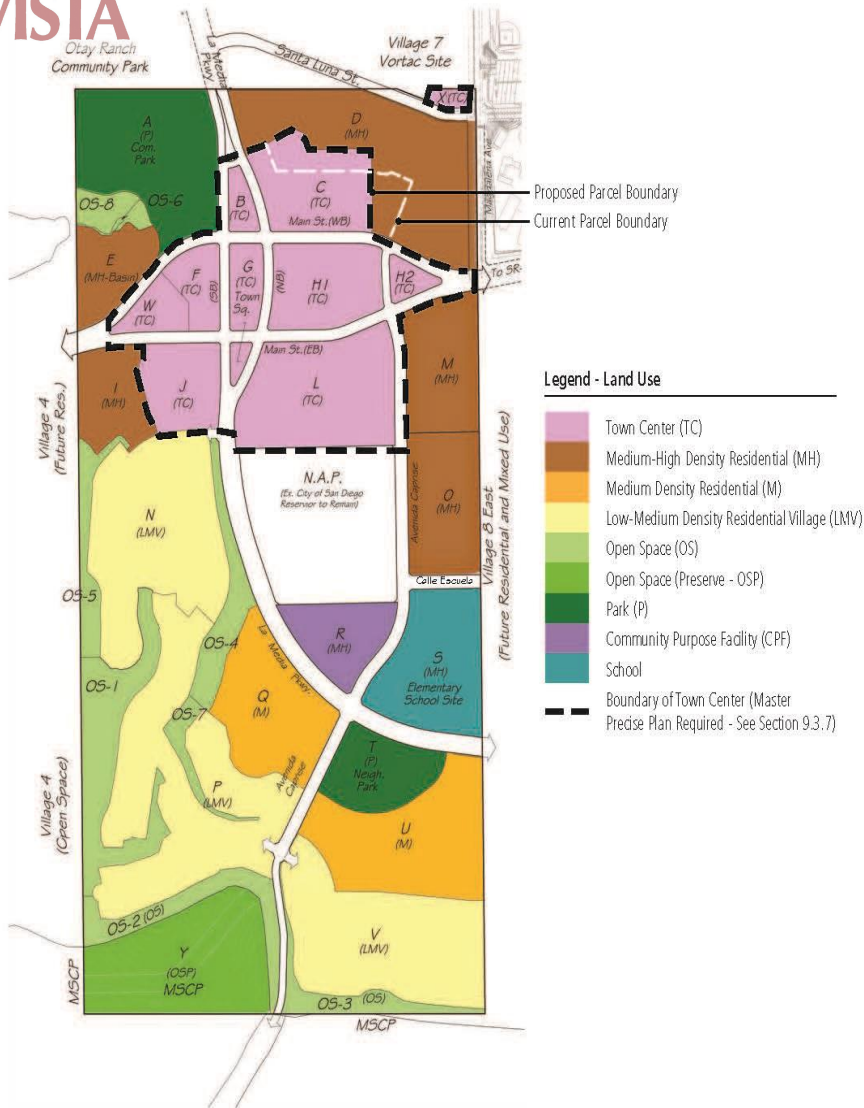
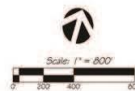


Exhibit 2.1 - Site Utilization Plan





Attachment 2A – Village 8 West Site Utilization Summary (Current)

**CITY OF
CHULA VISTA**

Table 2.1 - Site Utilization Summary

Development Concept

Commercial and Residential						Public, Quasi Public, and Other				
Town Center - 18-45 du/ac						Community Purpose Facility (CPF) ⁽⁴⁾				
Planning Area	Gross Acres	Transect ⁽¹⁾	Target Res. Units ⁽²⁾	Com'l Min. ^{(3) (4)}	Com'l Max ^{(3) (4)}	Planning Area	GDP Land Use	Gross Acres	Transect ⁽¹⁾	Description
B	1.2	T-4:TC	-	0	4	R-A – R-C	MH	5.5	SD: CPF	CPF
C ⁽⁴⁾	7.5	T-4:TC	180	0	36	Subtotal		5.5		
F	2.8	T-4:TC	175 ⁽⁴⁾	10	10	Potential School (S) Sites ⁽⁵⁾				
W	2.3	T-4:TC	See ⁽⁷⁾	0	0	Planning Area	GDP Land Use	Gross Acres (Ac.)	Transect ⁽¹⁾	Description
H-1A – 1D	7.5	T-4:TC	225	20	75	S	MH	11.1	T-3: NC	Elementary
H-2	1.2	T-4:TC	0	0	12	Subtotal		11.1		
J	5.5	T-4:TC	199	0	18	Parks (P)				
L-A – L-D	14.0	T-4:TC	431	87	145	Planning Area	GDP Land Use	Gross Acres (Ac.)	Transect ⁽¹⁾	Classification
X	0.7	T-4:TC	0	0	0	A	P	15.1	SD: P	Community
Subtotal	42.7		1,210	117	300	G-1-2 ⁽⁴⁾	TC	2.8	SD: P	Town Square
Medium-High Density Residential - 11-18 du/ac						T	P	5.5	SD: P	Neighborhood
Planning Area	Gross Acres	Transect ⁽¹⁾	Target Res. Units ⁽²⁾	Com'l Min. ^{(3) (4)}	Com'l Max ^{(3) (4)}	Subtotal		23.4		
D ⁽⁴⁾	19.4	T-3:NC	234			Open Space (OS)				
E	5.1	T-3:NC	0	Basin		Planning Area	GDP Land Use	Gross Acres (Ac.)	Transect ⁽¹⁾	Classification
I	6.1	T-3:NC	84			Y	OSP	15.6	T-1: OSP	Preserve (MSCP)
M	8.3	T-3:NC	125			OS-1-8	OS	28.7	T-1: OS	Open Space
O	8.7	T-3:NC	120			Subtotal		44.3		
Subtotal	47.6		563			Other				
Medium Density Residential Attached/Detached - 6-11 du/ac						Planning Area	GDP Land Use	Gross Acres (Ac.)	Transect ⁽¹⁾	Description
Planning Area	Gross Acres	Transect ⁽¹⁾	Target Res. Units ⁽²⁾	Com'l Min. ^{(3) (4)}	Com'l Max ^{(3) (4)}	Right-of-Way	NA	34.8	N/A	Arterials
Q	11.1	T-2:NG	106			Subtotal		34.8		
U	15.6	T-2:NG	127			TOTAL		119.1		
Subtotal	26.7		233			SPA Total Area: 300.7 Gross Acres ⁽⁴⁾				
Low-Medium Density Residential Village - 3-6 du/ac										
Planning Area	Gross Acres	Transect ⁽¹⁾	Target Res. Units ⁽²⁾	Com'l Min. ^{(3) (4)}	Com'l Max ^{(3) (4)}					
N	20.1	T-2:NE	117							
P	25.4	T-2:NE	115							
V	19.1	T-2:NE	96							
Subtotal	64.6		328							
TOTAL	181.6		2,334		300K ⁽³⁾					



Attachment 2B – Village 8 West SPA's Site Utilization Summary (Proposed)

Table 2.1 - Site Utilization Summary
Village 8 West - Proposed Intensity Transfer
Commercial and Residential

Town Center - 18-45 du/ac						Public, Quasi Public, and Other				
Planning Area	Gross Acres	Transect	Target Res. Units	Com'l Min	Com'l Max	Planning Area	GDP Land Use	Gross Acres	Transect	Description
B ¹	1.2	T-4:TC	-	5,620	5,620	R-A - R-C	MH	5.5	SD:CPF	CPF
C	8.6	T-4:TC	267	0	0	Subtotal		5.5		
F	2.8	T-4:TC	175	10,000	10,000	Potential School (S) Site				
W	2.3	T-4:TC	-	-	-	Planning Area	GDP Land Use	Gross Acres	Transect	Description
H-1A-1D	7.5	T-4:TC	-	84,000	106,000	S	MH	11.1	T-3:NC	Elementary
H-2	1.2	T-4:TC	-	0	12,000	Subtotal		11.1		
J ²	5.5	T-4:TC	196	0	0	Parks (P)				
L-a - L-d	14.0	T-4:TC	555	17,380	166,380	Planning Area	GDP Land Use	Gross Acres	Transect	Description
X	0.7	T-4:TC	-		0	A	P	15.1	SD:P	Community
Subtotal	43.8		1,193	117,000	300,000	G-1-2	TC	2.8	SD:P	Town Square
Medium-High Density Residential - 11-18 du/ac						T	P	5.5	SD:P	Neighborhood
Planning Area	Gross Acres	Transect	Target Res. Units	Com'l Min	Com'l Max	Subtotal		23.4		
D	18.3	T-3:NC	272			Open Space (OS)				
E	5.1	T-3:NC	-	Basin		Planning Area	GDP Land Use	Gross Acres	Transect	Description
I	6.1	T-3:NC	84			Y	OSP	15.6	T-1:OSP	MSCP Preserve
M	8.3	T-3:NC	116			OS 1-8	OSP	28.7	T-1:OSP	Open Space
O	8.7	T-3:NC	108			Subtotal		44.3		
Subtotal	46.5		580			Other				
Medium Density Residential - Attached/Detached 6-11 du/ac						Planning Area	GDP Land Use	Gross Acres	Transect	Description
Planning Area	Gross Acres	Transect	Target Res. Units	Com'l Min	Com'l Max	Right-of-way	NA	34.8	N/A	Arterials
Q	11.1	T-2:NG	106			Subtotal		34.8		
U	15.6	T-2:NG	127			TOTAL		119.1		
Subtotal	26.7		233			SPA Total Area: 300.7 Gross Acres				
Low-Medium Density Residential - 3-6 du/ac										
Planning Area	Gross Acres	Transect	Target Res. Units	Com'l Min	Com'l Max					
N	20.1	T-2:NE	117							
P	25.4	T-2:NE	115							
V	19.1	T-2:NE	96							
Subtotal	64.6		328							
TOTAL	181.6		2,334	117,000	300,000					

¹ Zoning Administrator Notice of Decision 3-30-21

² DR19-0019 Approved by CV Planning Commission 7-15-19



**Attachment 3 – Trip Generation Analysis / Comprehensive Project Information
Form**

See Separate Document.



APPENDIX E

REVISED VILLAGE 8 WEST SEWER SYSTEM ANALYSIS

DATE: 6/8/2022

SEWER STUDY SUMMARY

FOR: Otay Land Compay Village 8 West Analysis Update
BY: Dexter Wilson Engineering, Inc.

SHT 1 OF 1
REFER TO PLAN SHEET:

JOB NUMBER: 509-137

LINE	FROM	TO	IN-LINE FLOW (gpd)	AVG DRY WEATHER FLOW (gpd)	EQUIV POP.	PEAKING FACTOR	PEAK WET WEATHER FLOW (gpd)	PEAK WET WEATHER FLOW (DESIGN FLOW)		LINE SIZE (inches)	DESIGN SLOPE (%)	DEPTH K ⁽¹⁾	dn (feet)	dn/D ⁽²⁾	C _a for Velocity ⁽³⁾	VELOCITY (f.p.s.)	Remarks
								M.G.D.	C.F.S.								
	4	9	118,700	118,700	1,484	2.36	280,132	0.28	0.43	8	0.50	0.216880	0.32000	0.48	0.3727	2.62	Village 4 Park + Village 7 W of Magdalena
	9	7	0	118,700	1,484	2.36	280,132	0.28	0.43	8	0.50	0.216880	0.32000	0.48	0.3727	2.62	
	12	11	26,754	26,754	334	2.50	66,885	0.07	0.10	8	4.96	0.016441	0.08667	0.13	0.0600	3.88	Planning Area D
	11	10	0	26,754	334	2.50	66,885	0.07	0.10	8	4.82	0.016678	0.08667	0.13	0.0600	3.88	
	10	8	58,051	84,805	1,060	2.47	209,468	0.21	0.32	8	2.50	0.072526	0.18000	0.27	0.1711	4.26	Planning Area C
	8	7	1,512	86,317	1,079	2.47	213,203	0.21	0.33	8	0.50	0.165063	0.27333	0.41	0.3032	2.45	Planning Area B
	7	19	164,320	250,637	3,133	2.14	536,363	0.54	0.83	10	0.50	0.229029	0.41667	0.50	0.3930	3.04	Planning Area A, F/W, G + MH 9
	19	18	0	250,637	3,133	2.14	536,363	0.54	0.83	10	0.50	0.229029	0.41667	0.50	0.3930	3.04	
	12b	13	120,894	120,894	1,511	2.36	285,310	0.29	0.44	8	1.45	0.129711	0.24000	0.36	0.2546	3.90	Village 7 E of Magdalena
	13	14	0	120,894	1,511	2.36	285,310	0.29	0.44	8	7.22	0.058129	0.16000	0.24	0.1449	6.86	
	14	16	1,513	122,407	1,530	2.36	288,881	0.29	0.45	8	2.90	0.092867	0.20000	0.30	0.1982	5.07	Planning Area H-2
	16	17	0	122,407	1,530	2.36	288,881	0.29	0.45	8	3.21	0.088269	0.20000	0.30	0.1982	5.07	
	17	18	50,407	172,814	2,160	2.32	400,928	0.40	0.62	8	6.73	0.084606	0.19333	0.29	0.1890	7.39	Planning Area H-1
	18	23	293,790	466,604	5,833	1.99	928,542	0.93	1.44	15	0.50	0.134479	0.46250	0.37	0.2642	3.48	Planning Area J + MH 19
	54	57	5,520	5,520	69	2.50	13,800	0.01	0.02	8	4.00	0.003777	0.04000	0.06	0.0192	2.50	24 SF units
	57	58	2,990	8,510	106	2.50	21,275	0.02	0.03	8	4.00	0.005823	0.05333	0.08	0.0294	2.52	13 SF units
	58	59	2,070	10,580	132	2.50	26,450	0.03	0.04	8	5.37	0.006249	0.05333	0.08	0.0294	3.13	9 SF units
	59	60	460	11,040	138	2.50	27,600	0.03	0.04	8	5.86	0.006242	0.05333	0.08	0.0294	3.27	2 SF units
	60	61	15,748	26,328	329	2.50	65,820	0.07	0.10	8	5.86	0.014885	0.08000	0.12	0.0534	4.29	2 SF units + Planning Area I
	61	62	460	26,788	335	2.50	66,970	0.07	0.10	8	5.86	0.015145	0.08000	0.12	0.0534	4.37	2 SF units
	69	71	3,680	3,680	46	2.50	9,200	0.01	0.01	8	2.00	0.003561	0.04000	0.06	0.0192	1.67	16 SF units
	71	72	2,530	6,210	78	2.50	15,525	0.02	0.02	8	6.64	0.003298	0.04000	0.06	0.0192	2.82	11 SF units
	72	68	460	6,670	83	2.50	16,675	0.02	0.03	8	3.85	0.004652	0.04667	0.07	0.0242	2.40	2 SF units

1 K' based on n = 0.012
2 dn/D using K' in Brater King Table 7-14
3 From Brater King Table 7-4, based on dn/D

LINE	FROM	TO	IN-LINE FLOW (gpd)	AVG DRY WEATHER FLOW (gpd)	EQUIV POP.	PEAKING FACTOR	PEAK WET WEATHER FLOW (gpd)	PEAK WET WEATHER FLOW (DESIGN FLOW)		LINE SIZE (inches)	DESIGN SLOPE (%)	DEPTH K ⁽¹⁾	dn (feet)	dn/D ⁽²⁾	C _a for Velocity ⁽³⁾	VELOCITY (f.p.s.)	Remarks
								M.G.D.	C.F.S.								
	67	63	1,610	1,610	20	2.50	4,025	0.00	0.01	8	2.07	0.001532	0.02667	0.04	0.0105	1.33	7 SF units
	63	64	2,300	3,910	49	2.50	9,775	0.01	0.02	8	2.00	0.003784	0.04000	0.06	0.0192	1.77	10 SF units
	64	65	2,530	6,440	81	2.50	16,100	0.02	0.02	8	2.00	0.006232	0.05333	0.08	0.0294	1.91	11 SF units
	65	68	4,140	10,580	132	2.50	26,450	0.03	0.04	8	2.00	0.010239	0.06667	0.10	0.0409	2.25	18 SF units
	68	62	7,590	18,170	227	2.50	45,425	0.05	0.07	8	2.00	0.017584	0.08667	0.13	0.0600	2.64	4 SF units + MH 72
	62	23	26,788	44,958	562	2.50	112,395	0.11	0.17	8	5.86	0.025418	0.10667	0.16	0.0811	4.82	MH 61
	23	25	562,517	607,475	7,593	1.95	1,184,576	1.18	1.83	15	0.50	0.171560	0.52500	0.42	0.3130	3.75	Planning Area L + MH 18
	25	26	0	607,475	7,593	1.95	1,184,576	1.18	1.83	15	0.50	0.171560	0.52500	0.42	0.3130	3.75	
	26	27	0	607,475	7,593	1.95	1,184,576	1.18	1.83	15	3.86	0.061746	0.31250	0.25	0.1535	7.64	
	27	28	0	607,475	7,593	1.95	1,184,576	1.18	1.83	15	4.15	0.059550	0.30000	0.24	0.1449	8.10	
	28	29	0	607,475	7,593	1.95	1,184,576	1.18	1.83	15	4.37	0.058031	0.30000	0.24	0.1449	8.10	
	29	30	0	607,475	7,593	1.95	1,184,576	1.18	1.83	15	4.25	0.058845	0.30000	0.24	0.1449	8.10	
	30	31	89,785	697,260	8,716	1.91	1,331,767	1.33	2.06	15	1.58	0.108502	0.41250	0.33	0.2260	5.84	Planning Area M, O, Q, R, and S
	31	33	0	697,260	8,716	1.91	1,331,767	1.33	2.06	15	1.58	0.108502	0.41250	0.33	0.2260	5.84	
	33	36	27,600	724,860	9,061	1.90	1,377,234	1.38	2.13	15	3.01	0.081295	0.35000	0.28	0.1800	7.58	3 SF units + MH 90
	36	37	1,380	726,240	9,078	1.90	1,379,856	1.38	2.14	15	5.25	0.061673	0.31250	0.25	0.1535	8.90	6 SF units
	37	38	690	726,930	9,087	1.90	1,381,167	1.38	2.14	15	5.11	0.062571	0.31250	0.25	0.1535	8.91	3 SF units
	38	39	690	727,620	9,095	1.90	1,382,478	1.38	2.14	15	5.11	0.062631	0.31250	0.25	0.1535	8.92	3 SF units
	39	40	920	728,540	9,107	1.90	1,384,226	1.38	2.14	15	6.19	0.056977	0.30000	0.24	0.1449	9.46	4 SF units
	40	41	2,300	730,840	9,136	1.90	1,388,596	1.39	2.15	15	3.63	0.074638	0.33750	0.27	0.1711	8.04	10 SF units
	41	43	44,345	775,185	9,690	1.89	1,465,100	1.47	2.27	15	2.00	0.106094	0.41250	0.33	0.2260	6.42	5 SF units + MH 80
	43	44	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	1.75	0.113419	0.42500	0.34	0.2355	6.16	
	44	45	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	2.81	0.089506	0.37500	0.30	0.1982	7.32	
	45	46	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	6.39	0.059355	0.30000	0.24	0.1449	10.01	
	46	48	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	5.30	0.065173	0.31250	0.25	0.1535	9.45	
	48	49	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	10.90	0.045446	0.26250	0.21	0.1199	12.10	
	49	51	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	15.17	0.038522	0.23750	0.19	0.1039	13.96	
	51	52	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	12.20	0.042956	0.26250	0.21	0.1199	12.10	
	52	53	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	17.72	0.035643	0.23750	0.19	0.1039	13.96	
	53	53A	0	775,185	9,690	1.89	1,465,100	1.47	2.27	15	5.65	0.063122	0.31250	0.25	0.1535	9.45	
	84	83	34,455	34,455	431	2.50	86,138	0.09	0.13	8	4.01	0.023548	0.10000	0.15	0.0739	4.06	13 SF units + Planning Area T and U
	83	82	2,990	37,445	468	2.50	93,613	0.09	0.14	8	1.00	0.051248	0.14667	0.22	0.1281	2.54	13 SF units
	82	81	2,070	39,515	494	2.50	98,788	0.10	0.15	8	1.49	0.044305	0.14000	0.21	0.1199	2.87	9 SF units
	81	80	2,070	41,585	520	2.50	103,963	0.10	0.16	8	1.00	0.056914	0.16000	0.24	0.1449	2.50	9 SF units
	80	41	3,680	43,195	540	2.50	107,988	0.11	0.17	8	1.00	0.059118	0.16000	0.24	0.1449	2.59	16 SF units
	90C	90B	2,300	2,300	29	2.50	5,750	0.01	0.01	8	5.52	0.001340	0.02667	0.04	0.0105	1.91	10 SF units
	90B	90A	1,840	4,140	52	2.50	10,350	0.01	0.02	8	5.47	0.002423	0.03333	0.05	0.0147	2.45	8 SF units
	90A	90	2,300	6,440	81	2.50	16,100	0.02	0.02	8	2.00	0.006232	0.05333	0.08	0.0294	1.91	10 SF units

1 K' based on n = 0.012

2 dn/D using K' in Brater King Table 7-14

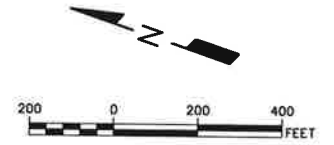
3 From Brater King Table 7-4, based on dn/D

LINE	FROM	TO	IN-LINE FLOW (gpd)	AVG DRY WEATHER FLOW (gpd)	EQUIV POP.	PEAKING FACTOR	PEAK WET WEATHER FLOW (gpd)	PEAK WET WEATHER FLOW (DESIGN FLOW)		LINE SIZE (inches)	DESIGN SLOPE (%)	DEPTH K' ⁽¹⁾	dn (feet)	dn/D ⁽²⁾	C _a for Velocity ⁽³⁾	VELOCITY (f.p.s.)	Remarks
								M.G.D.	C.F.S.								
	92B	92A	2,760	2,760	35	2.50	6,900	0.01	0.01	8	2.02	0.002658	0.03333	0.05	0.0147	1.63	12 SF units
	92A	92	2,300	5,060	63	2.50	12,650	0.01	0.02	8	4.93	0.003119	0.04000	0.06	0.0192	2.29	10 SF units
	95A	95	3,680	3,680	46	2.50	9,200	0.01	0.01	8	1.00	0.005037	0.04667	0.07	0.0242	1.32	16 SF units
	97	96	1,150	1,150	14	2.50	2,875	0.00	0.00	8	3.31	0.000865	0.02000	0.03	0.0069	1.45	5 SF units
	96	95	2,300	3,450	43	2.50	8,625	0.01	0.01	8	3.72	0.002448	0.03333	0.05	0.0147	2.04	10 SF units
	95	94	5,060	8,510	106	2.50	21,275	0.02	0.03	8	2.01	0.008215	0.06000	0.09	0.0350	2.12	6 SF units + MH 95A
	94	93	920	9,430	118	2.50	23,575	0.02	0.04	8	7.76	0.004633	0.04667	0.07	0.0242	3.39	4 SF units
	93	92	2,070	11,500	144	2.50	28,750	0.03	0.04	8	8.45	0.005414	0.05333	0.08	0.0294	3.40	9 SF units
	92	91	6,670	18,170	227	2.50	45,425	0.05	0.07	8	5.83	0.010299	0.06667	0.10	0.0409	3.87	7 SF units + MH 92A
	91	90	1,150	19,320	242	2.50	48,300	0.05	0.07	8	7.17	0.009875	0.06667	0.10	0.0409	4.11	5 SF units
	90	33	7,590	26,910	336	2.50	67,275	0.07	0.10	8	8.67	0.012508	0.07333	0.11	0.0470	4.98	5 SF units + MH 90A

Min Slope
0.50

Max dn/D
0.50

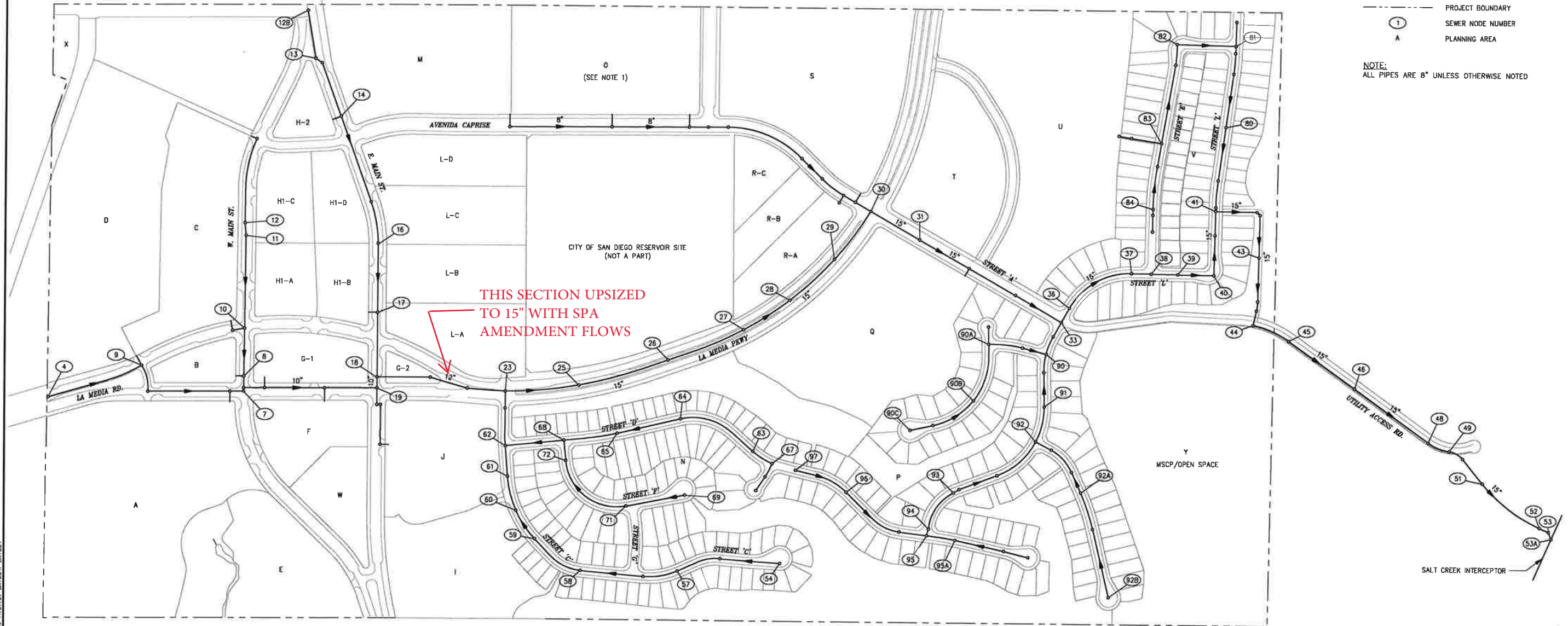
1 K' based on n = 0.012
2 dn/D using K' in Brater King Table 7-14
3 From Brater King Table 7-4, based on dn/D



LEGEND

- PROPOSED GRAVITY SEWER
- - - PROJECT BOUNDARY
- ① SEWER NODE NUMBER
- A PLANNING AREA

NOTE:
ALL PIPES ARE 8" UNLESS OTHERWISE NOTED



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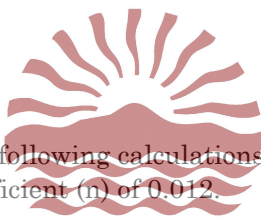
DEXTER WILSON ENGINEERING, INC.
CONSULTING ENGINEERS
(760) 438-4422

EXHIBIT A
OTAY RANCH VILLAGE 8 WEST
SEWER NODE DIAGRAM



APPENDIX F

HYDRAULIC CALCULATIONS FOR 8-INCH SEWER LINE AT ONE PERCENT SLOPE



Village 8 West Parcel C

8-Inch Sewer Line Calculations

The following calculations are based on 8-inch diameter pipe, a minimum slope of 1.00%, and Manning's coefficient (n) of 0.012.

Peak Flow - (Description of Projected Flows)

$$Q_{avg} = 267 \text{ units} \times 182 \text{ gpd/unit} = 48,594 \text{ gpd}$$

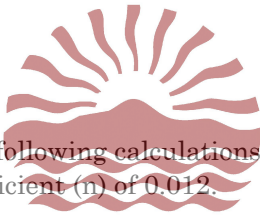
$$\begin{aligned} \text{Peak Factor} &= 2.5 \\ Q_{peak} &= 121,485 \text{ gpd} \\ &= 0.188 \text{ cfs} \end{aligned}$$

Determine Max d/D

Determine d/D using K' in Brater & King Table 7-14.

$$\begin{aligned} \text{Depth K'} &= 0.0665 \\ d/D &= 0.26 \end{aligned}$$

Per the requirement that pipes should not flow more than half full, **d/D= 0.26 < 0.50 OK**



Village 8 West Parcel C and Parcel D

8-Inch Sewer Line Calculations

The following calculations are based on 8-inch diameter pipe, a minimum slope of 1.00%, and Manning's coefficient (n) of 0.012.

Peak Flow - (Description of Projected Flows)

$$Q_{avg} = 539 \text{ units} \times 182 \text{ gpd/unit} = 98,098 \text{ gpd}$$

$$\text{Peak Factor} = 2.5$$

$$Q_{peak} = 245,245 \text{ gpd}$$

$$= 0.379 \text{ cfs}$$

Determine Max d/D

Determine d/D using K' in Brater & King Table 7-14.

$$\text{Depth K'} = 0.1342$$

$$d/D = 0.37$$

Per the requirement that pipes should not flow more than half full, $d/D = 0.37 < 0.50$ OK