UNIVERSITY VILLAGES
VILLAGE 3 AND PORTION OF VILLAGE 4 SPA PLAN

PUBLIC FACILITIES FINANCE PLAN
APPENDIX C

SUPPLEMENTAL PFFP
VILLAGE 3 AND PORTION OF VILLAGE 4 SPA PLAN AMENDMENT

ADOPTED DECEMBER 2, 2014
BY RESOLUTION NO. 2014-234

AMENDED DECEMBER 6, 2016
BY RESOLUTION NO. 2016-254

AMENDED _____
BY RESOLUTION NO. _____

Applicant:
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EXHIBIT LIST

TABLES

1. OVERVIEW

The Village 3 North and Portion of Village 4 SPA Plan (2014 SPA) and Public Facilities Finance Plan (2014 PFFP) was approved by the Chula Vista City Council on December 2, 2014, by Resolution 2014-234. The Chula Vista City Council also certified the Final Environmental Impact Report for the Otay Ranch University Villages Project (FEIR) (EIR 13-01; SCH No. 2013071077) on December 2, 2014 which contains a comprehensive disclosure and analysis of potential environmental effects associated with implementation of Village Three North and a Portion of Village Four. The 2014 SPA Plan was subsequently amended on December 6, 2016 by Resolution 2016-254 (2016 SPA).

This Supplemental Public Facility Finance Plan (Supplemental PFFP) addresses proposed changes to the public facility needs associated with the Village 3 and Portion of Village 4 Sectional Planning Area Plan Amendment. HomeFed Village III Master, LLC/FlatRock Land Company, LLC (Applicant) proposed project as described in the SPA Plan may be referred to as the "Project" or "2020 SPA." The Applicant prepared an Addendum to FEIR 13-01 for the Project, as well as technical memos and reports that address the proposed changes to the Project.

The 2014 PFFP was prepared consistent with the requirements of the Chula Vista Growth Management Program and Chapter 9, Growth Management of the Otay Ranch General Development Plan (GDP). The preparation of the Supplemental PFFP is required in conjunction with the preparation of the SPA Plan Amendment for the Project to ensure that the phased development of the Project is consistent with the overall goals and policies of the City of Chula General Plan (CVGP), Growth Management Program and the Otay Ranch GDP adopted by the Chula Vista City Council on October 28, 1993, as may be amended from time to time to ensure that the development of the Project will not adversely impact the City's Quality of Life Threshold Standards. This Supplemental PFFP meets the Otay Ranch GDP policy objectives.

This Supplemental PFFP is based on the phasing and Project information presented in the Otay Ranch GDP, CVGP and Village 3 and a Portion of Village 4 SPA Amendments (2020). The Applicant prepared technical analyses to determine whether the Project resulted in any changes to financing, constructing, or maintaining public facilities within Village 3. The Applicant-prepared Project technical analyses relevant to this Supplemental PFFP are discussed further below and include the following:

- Drainage Study for Otay Ranch Village 3, R-6 and R-20 Tentative Map prepared by Hunsaker & Associates.
- Priority Development Project (PDP) Storm Water Quality Management Plan (SWQMP) for Otay Ranch Village 3, R-6 and R-20 Tentative Map prepared by Hunsaker & Associates.
- Drainage & Storm Water Quality Management Plan Compliance Memo for Otay Ranch Village 3, R-19 Tentative Map, prepared by Hunsaker & Associates.
- Otay Ranch Village 3 Trip Generation Review, prepared by Chen-Ryan, 2020.

- Otay Ranch Village 3 North and a Portion of Village 4 SPA Amendment Water Evaluation, prepared by Dexter Wilson Engineering, Inc., 2020.
- Otay Ranch Village 3 North and a Portion of Village 4 SPA Amendment Sewer Evaluation, prepared by Dexter Wilson Engineering, Inc., My 2020.
- Otay Ranch Village Three Project – Air Quality/Greenhouse Gas Update, prepared by Dudek, 2020
- Village 3 Amendment Fiscal Impact Analysis prepared by DPFG, 2020

These technical analyses supplement the technical reports associated with the original Project approvals and 2014 PFFP and demonstrate that none of the proposed changes to the Project result in changes to Mitigation Measures, Conditions of Approval or Thresholds established in the 2014 PFFP.

2. PURPOSE

The purpose of all PFFPs in the City of Chula Vista is to implement the City's Growth Management Program and to meet the CVGP goals and objectives, specifically those within the Growth Management Element of the General Plan. The Growth Management Program ensures that development occurs only when the necessary public facilities and services exist or are provided concurrent with the demands of new development. The Growth Management Program requires a PFFP be prepared for every new development project which requires either a SPA Plan or tentative map approval. Similarly, amendments to a SPA Plan require an amendment or supplement to the PFFP. The purpose of this Supplemental PFFP is to update and clarify the original 2014 PFFP to address changes to the Project.

In the City of Chula Vista, the PFFP is intended to ensure adequate levels of service are achieved for all public services and facilities impacted by a project. It is understood that assumed growth projections and related public facilities needs are subject to a number of external factors, such as the local economy, the City's future land use approval decisions, etc. It is also understood that funding sources specified herein may change due to financing programs available in the future or requirements of either state or federal laws. It is intended that revisions to cost estimates and funding programs be handled as administrative revisions, whereas revisions to the facilities-driven growth phases are accomplished through an update process via an amendment or supplement to the PFFP.

3. ASSUMPTIONS

This Supplemental PFFP supplements the Village 3 North and a Portion of Village 4 PFFP adopted on December 2, 2014. Project zoning is regulated by the Village 3 and a Portion of Village 4 Planned Community Regulations District, as amended as part of the Project. The Project also includes two new tentative maps (R-6/R-20 and R-19).

A. Proposed Land Use Plan

The 2020 SPA land use plan would allow for the construction of 769 single-family units, 597 multi-family units, and 272 multi-family residential units and 20,000 SF of commercial in a mixed-use

setting; 8.3 acres for a school; 29.3 acres of industrial land use; 2.7 acres of Community-Purpose Facilities (CPF); 25.9 gross acres of parkland; and 27.5 acres of open space. Approximately 192.3 acres of MSCP Preserve Open Space are also within the 2020 SPA boundary. The Applicant proposes revisions to the Village 3 land use plan. The land use changes include expanding the 2016 SPA Plan boundary to include the portion of Village 3 south of Main Street (FlatRock Parcel), changing land uses on three parcels within Village 3 from "Office," "Industrial" and "Medium Residential" to "High Residential" and transferring 260 "Town Center" multi-family residential units from Village 9 to Village 3. With the addition of the FlatRock, Parcel, the SPA Plan would include the entire Village 3 area and would no longer refer to "Village 3 North," but would refer to "Village 3."

Amendments to the Chula Vista General Plan, Otay Ranch General Development Plan, the Village 3 North and a Portion of Village 4 SPA Plan, the Village 9 SPA Plan and the Village 9 Tentative Map are necessary to implement the proposed changes. Tentative maps for the updated residential parcels (R-6/R-20 and R-19) are also necessary to implement the proposed changes. The existing Village 3 unallocated and unused units (377 DUs) and the units proposed to be transferred from Village 9 (41 DUs) would be allocated to Village 3. The proposed changes would increase the total residential unit count in Village 3 from 1,597 units to 1,638 units and reduce the total residential unit count in Village 9 from 4,000 units to 3,959 units.

There would be no proposed changes to the Portion of Village 4. The Project does not propose changes to the backbone street alignments. Please see the Proposed Village 3 and a Portion of Village 4 Site Utilization Plan, Exhibit 3 and Proposed Village 3 4 and a Portion of Village 4 Land Use Summary Table (Table B-2).

In order to address the changes related to the 2016 SPA land use plan, several assumptions were made. The assumptions play a role in determining public facility needs and phasing of those facilities. The key land use and phasing assumptions are summarized below.

- Expand the Village 3 SPA Plan boundary to include the FlatRock Parcel which includes an 11.3 acre Industrial parcel and adjacent Open Space and Preserve Open Space areas and designate the FlatRock Parcel R-20.
- Increase the authorized units in Village 3 from 1,597 to 1,638 and reduce the authorized units in Village 9 by transferring 41 "Town Center" multi-family units from Village 9 to Village 3.
- Change the land use designation of Parcel R-20 from Light Industrial to Medium-High Residential, Parcel R-6 from Medium Residential to Medium-High Residential and the O-1/O-2 Parcels from Professional & Office to High Residential.

- Allocate 377 existing unallocated and unused units and 41 units transferred from Village 9 to Village 3 the R-6, R-19 and R-20 residential parcels (418 units) as follows:
  - R-6 78 Dwelling Units
  - R-19 224 Dwelling Units
  - R-20 116 Dwelling Units

  TOTAL 418 Dwelling Units

The Village 3 and a Portion of Village 4 SPA Amendment will create a viable mixed-use village core that will create a strong sense of place for the residents of Village Three and surrounding communities and meet the market demand for a wider variety of single-family lot sizes, multiple-family products, apartments, and commercial uses. Table 1, Comparison of Land Uses, compares the adopted vs. the proposed land uses.

Table 1 – Comparison of Land Uses: 2016 SPA/2006 FlatRock Entitlements vs. 2021 Proposed Project

	2016 SPA Land Uses/2006 FlatRock		2021 Proposed Project Land Uses		Approved vs. Proposed Land Uses	
Land Use	**Acres**	**Units**	**Acres**	**Units**	**Acres**	**Units**
Village 3 North/Por 4:						
Medium Residential	107.5	1,002	102.1	769	-5.4	-233
Medium High Residential	13.5	317	29.2	257	+15.7	-60
High Residential	0	0	8.3	224	+8.3	+224
Mixed Use Residential	9.0	278	9.0	272	0	-6
Professional & Office Commercial	8.3	0	0	0	-8.3	0
Community Purpose Facility	2.7		2.7		0	
Industrial	29.3	0	29.3	0	0	0
Park	25.9	0	25.9	0	0	
School	8.3		8.3			
Open Space Preserve	157.2	0	157.2	0	0	0
Open Space	40.1		32.2		0	
Circulation	18.0	0	18.0	0	0	0
Subtotal	**436.0**	**1,597**	**436.0**	**1,522**	**0**	**-75**
FlatRock:						
Industrial	11.3	0			-11.3	0
Medium-High Residential		0	10.1	116	+10.1	+116
Open Space Preserve	29.8	0	29.8	0	0	0
Open Space	4.5	0	5.7	0	+1.2	0
Circulation	3.0		3.0		+3.0	
Subtotal	**48.6**		**48.6**	**116**	**0**	**+116**
TOTAL	**484.6**[1]	**1,597**	**484.6**	**1,638**	**0**	**+41**

[1] Acreage rounded to nearest 1/10th acre; therefore, total may vary based on rounding.

B. Discretionary Actions

Discretionary actions which required City Council and/or Planning Commission consideration include an Addendum to EIR 13-01; SCH No. 2013071077, University Villages – Village Three North and a Portion of Village Four, amendments to the City of Chula Vista General Plan, the Otay Ranch General Development Plan, the University Villages - Otay Ranch Village 3 and a Portion of Village 4 Sectional Planning Area Planning, Planned Community District Regulations, Village Design Plan, Preserve Edge Plan, Supplemental PFFP, Fire Protection Plan Addendum, Affordable Housing Plan, Water Conservation Plan Update, Non-Renewable Energy Conservation Plan and approval of two Tentative Maps. A minor amendment to the Village 9 SPA Plan and the Village 9 Tentative Map and Development Agreement(s) amendments are also required.

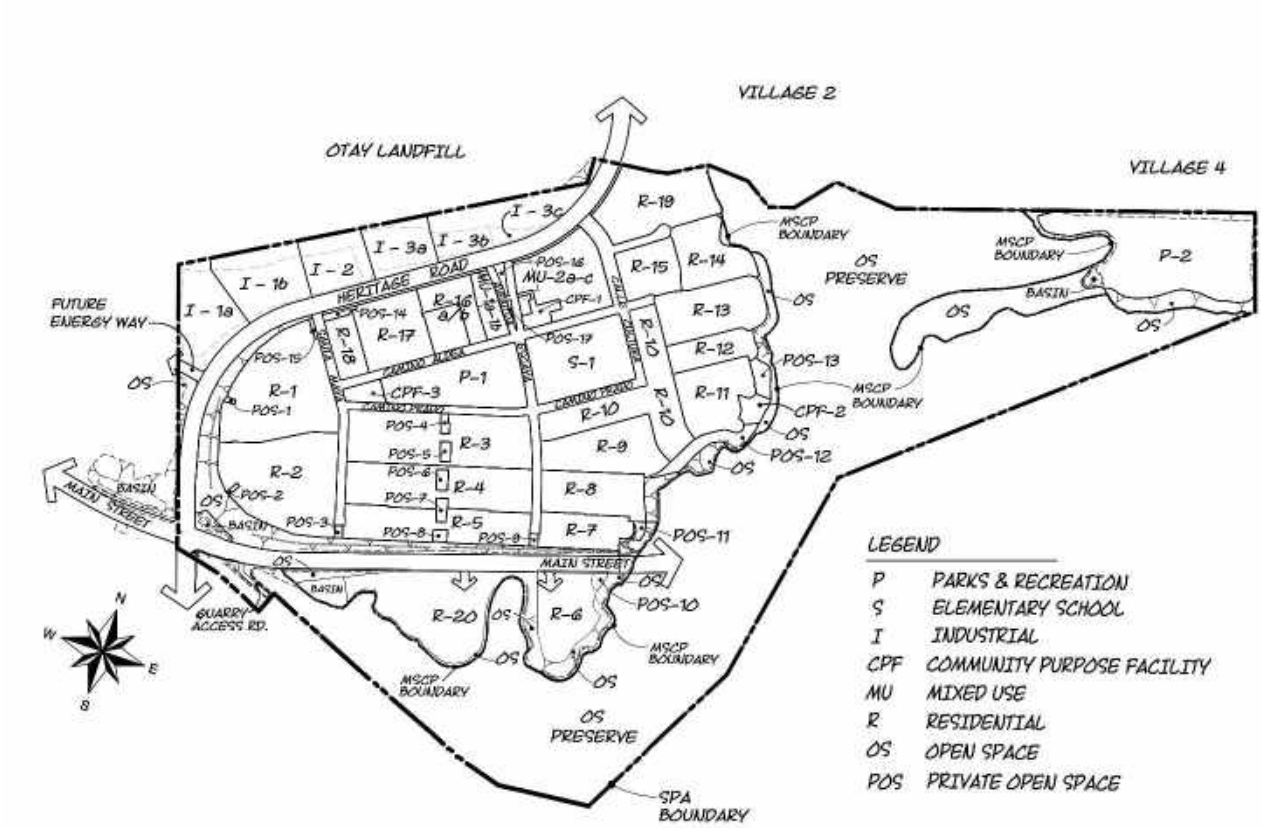

Exhibit 3 (2014 PFFP, Page 15)
Proposed Village 3 North and a Portion of Village 4 Site Utilization Plan

Table B.2 - Village 3 and a Portion of Village 4 Site Utilization Plan (2014 PFFP, Page 16)

Land Use	Land Use	Acres	Units	Target Density
VILLAGE 3				
Single Family				
R-1	SF	12.4	80	6.4
R-2	SF	12.3	65	5.2
R-3	SF	11.5	104	9.1
R-4	SF	9.5	75	7.9
R-5	SF	7.5	46	6.1
R-7	SF	3.8	22	5.8
R-8	SF	5.5	43	7.8
R-9	SF	6.7	40	6.0
R-10	SF	9.5	98	10.3
R-11	SF	5.7	37	6.5
R-12	SF	3.1	24	7.7
R-13	SF	6.6	58	8.8
R-17	SF	5.7	53	9.3
R-18	SF	2.3	24	10.4
Single Family Total		**102.1**	**769**	**7.5**
Multi Family				
R-6	MF	5.6	78	13.9
R-14	MF	5.0	71	14.2
R-15	MF	3.9	54	13.9
R-16 a/b	MF	4.6	54	11.7
R-19	MF	8.3	224	27.0
R-20	MF	10.1	116	11.5
Multi Family Total		**37.5**	**597**	**15.9**
Mixed Use				
MU-1a-d	MU	1.8	30	16.7
MU-2a-e	MU	7.2	242	33.6
Mixed Use Total		**9.0**	**272**	**30.2**
Residential Total		**148.6**	**1,638**	**11.0**
Community Purpose Facilities				
CPF-1	CPF	0.9		
CPF-2	CPF	0.9		
CPF-3	CPF	0.9		
Total CPF		**2.7**		
Private Open Space (POS 1-17)	**POS**	**5.3**		

Land Use	Land Use	Acres	Units	Target Density
Public Park P-1	**P**	**8.1**		
School	**S**	**8.3**		
Industrial				
I-1a	I	6.3		
I-1b	I	6.4		
I-2	I	4.6		
I-3a	I	4.2		
I-3b/c	I	7.8		
Total Industrial		**29.3**		
Open Space				
Open Space @ Village 3 North (OS 1, 2, 4-8, 17)	OS	19.8		
Open Space @ R-6/R-20 (OS 2-8)	OS	8.5		
Preserve @ Village 3 North (OS-12)	OS	157.2		
Preserve @ R-20 (OS-1)	OS	29.8		
Total Open Space		**215.3**		
Circulation				
External Circulation		21.0		
Internal Circulation		16.2		
Total Circulation		**37.2**		
Subtotal Village 3		**454.8**	**1,638**	
VILLAGE 4 (por)				
Public Park P-2	**P**	**17.8**		
Open Space (OS 9-11)	**OS**	**11.9**		
Subtotal Village 4 (por)		**29.7**		
TOTAL		**484.6**	**1,638**	

4. DEVELOPMENT PHASING

Development of the Village 3 portion of the 2016 SPA Plan area is nearly complete. Remaining development parcels include the existing R-6, O-1/O-2, and several Industrial Parcels. 2020 SPA Plan will be completed in multiple, non-sequential phases to ensure construction of necessary infrastructure and amenities for each phase as the Project progresses. Exhibit 4, Conceptual Phasing Plan and Table B.4, Village 3 and a Portion of Village 3 Conceptual Phasing present the phasing plan based on the 2020 SPA Plan.

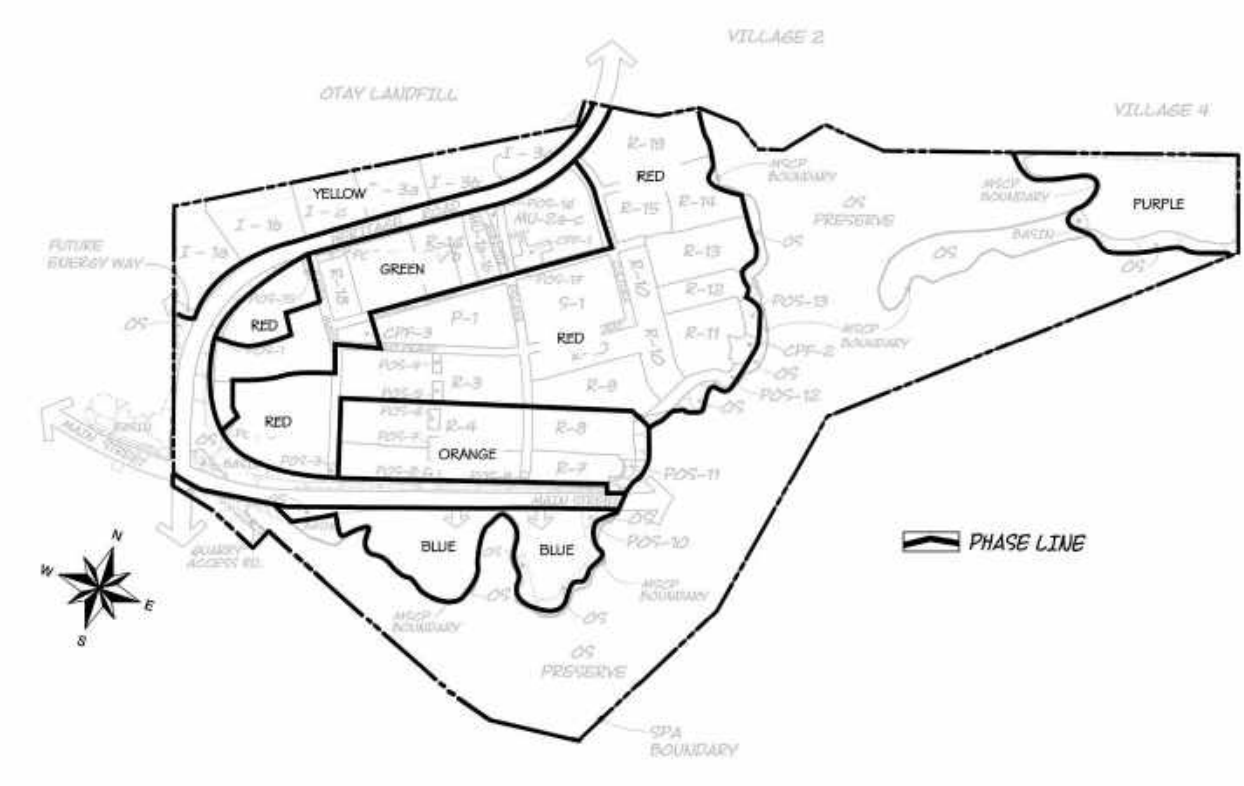

Exhibit 4 (2014 PFFP, Page 18)
Conceptual Phasing Plan

Table B.4 - Village 3 and a Portion of Village 4 Conceptual Phasing

		Yellow		Green		Red		Orange		Blue		Purple		Total	
	Land Use	ac	du	ac	du	ac	du	ac	du	ac	du	ac	du	ac	du
RESIDENTIAL															
R-1	SF			1.8	12	4.0	21	6.6	47					12.4	80
R-2	SF			3.6	19	8.7	46							12.3	65
R-3	SF					9.7	81	1.7	23					11.5	104
R-4	SF							9.5	75					9.5	75
R-5	SF					7.5	46							7.5	46
R-7	SF					3.8	22							3.8	22
R-8	SF					4.0	31	1.5	12					5.5	43
R-9	SF			3.5	22			3.2	18					6.7	40
R-10	SF			3.7	44			5.8	54					9.5	98
R-11	SF							5.7	37					5.7	37
R-12	SF							3.1	24					3.1	24
R-13	SF							6.6	58					6.6	58
R-17	SF			5.7	53									5.7	53
R-18	SF			0.3	3			2.0	21					2.3	24
Subtotal				18.6	153	37.7	247	45.7	369					102.1	769
R-6	MF									5.6	78			5.6	78
R-14	MF							5.0	71					5.0	71
R-15	MF							3.9	54					3.9	54
R-16a/b	MF			4.6	54									4.6	54
R-19	MF									8.6	224			8.3	224
R-20	MF									10.9	116			10.9	116
Subtotal				4.6	54			8.9	125	25.1	418			38.3	597
MU-1a-b	MU			1.8	30									1.8	30
MU-2a-c	MU			7.2	242									5.6	242
Subtotal				9.0	272									9.0	272
NON-RESIDENTIAL															
CPF-1	CPF			0.9										0.9	
CPF-2	CPF							0.9						0.9	
CPF-3	CPF							0.9						0.9	
P-1	Park							8.1						8.1	
P-2	Park											17.8		17.8	
POS-1-3, 7-9, 11	POS					1.2								1.2	

Table B.4 - Village 3 and a Portion of Village 4 Conceptual Phasing (continued)															
		Yellow		Green		Red		Orange		Blue		Purple		Total	
	Land Use	ac	du	ac	du	ac	du	ac	du	ac	du	ac	du	ac	du
POS-4- 6, 14	POS			1.0										1.0	
POS-12, 13, 15	POS							2.5						2.5	
POS-16, 17				0.4										0.4	
POS-10	POS									0.2				0.2	
S-1	School							8.3						8.3	
I-1a	Ind	6.3												6.3	
I-1b	Ind	6.4												6.4	
I-2	Ind	4.6												4.6	
I-3a	Ind	4.2												4.2	
I-3b/c	Ind	7.8												7.8	
Subtotal		29.3		2.3		1.2		20.7		0.2		17.8		71.5	
TOTAL		**29.3**		**34.5**	**479**	**44.4**	**247**	**75.3**	**494**	**19.4**	**418**	**17.8**		**220.9**	**1,638**

5. DEVELOPMENT IMPACT FEE PROGRAMS

Per Chula Vista Municipal Code Section 3.42.101, the Chula Vista City Council must adopt a fee scheduled. The Proposed Project must comply with the City of Chula Vista Development Master Fee Schedule, Chapter 16. Development & In Lieu Fees, revised July 2019. Fees are subject to change as the ordinance is amended by the City Council from time to time, unless stated otherwise in a separate development agreement.

6. SUBDIVISION SECURITY

The Project will be developed in phases over several years. As public improvements are complete, security provided for the Project in accordance with the Subdivision Map Act and the Municipal Code should be reduced to reflect the completed improvements. Accordingly, the process described herein will apply to bonds for Grading and Drainage, Public Improvements and Landscape and Irrigation, but will not apply to Survey Monumentation bonds. Applicant may submit to the City not more often than once every six months a detailed engineer's estimate identifying with respect to each bond the costs to complete the remaining improvements secured by such bond ("Cost to Complete"). The City will review and approve or disapprove the Costs to Complete, and if disapproved Applicant may resubmit a modified estimate of Cost to Complete for City review. Upon approval of the Costs to Complete by the City, the amount of the applicable bond may be reduced to an amount equal to 110% of the Costs to Complete. If approved by the City, the reduced amount will be communicated to the bonding company in a letter. Based on the City's communication, the bonding company may issue a bond reduction rider to reduce the principal amount of the bond to the reduced amount approved by the City.

However, the bond amount may never be reduced by this process to less than 15% of the original estimate of the costs of the applicable improvements.

7. PUBLIC FACILITIES

A. Transportation/Traffic

The Project does not propose changes to the circulation element roadways serving the Project, including Heritage Road and Main Street, or changes to backbone street alignments. The Village 3 and a Portion of Village 4 Circulation Plan is provided as Exhibit 6. Prior to approval of the Village 3 North Final Map No. 16160, the Applicant agreed to secure and to construct all transportation improvements (backbone and in-tract streets) shown on the approved Tentative Map (CVT No. 16-02).

Since the nature of the Project's land uses would remain largely identical to the 2014 SPA Plan land uses, the external trip distribution patterns to the surrounding roadway network, including roadway segments, intersections, and freeway segments, would remain the same as those studied in the FEIR.

Chen-Ryan prepared the *Otay Ranch Village 3 North and a Portion of Village Trip Generation* Review memorandum (2021), to determine if the Project would result in additional traffic related impacts compared to the currently approved land uses. The analysis concluded that the Project would generate 6,691 fewer average daily trips than the project analyzed in the 2014 EIR. Because the Project would generate fewer trips (both daily and during the peak hours) than the 2014 SPA Plan and the trip distribution patterns would remain the same as those studied in the FEIR, it can be concluded that the Project would add fewer average daily trips to the surrounding transportation network, including all study area roadways, intersections, and freeways. Adding fewer project trips to a roadway, an intersection, or a freeway indicates less or equal potential traffic impacts. The Project generates the same or lesser traffic impacts as identified in the 2014 PFFP; therefore, the Project must comply with the requirements and FEIR Mitigation Measures TCA-1 through TCA-17 identified in the 2014 PFFP, IV. 6. Threshold Compliance (2014 PFFP, Pages 41-47).

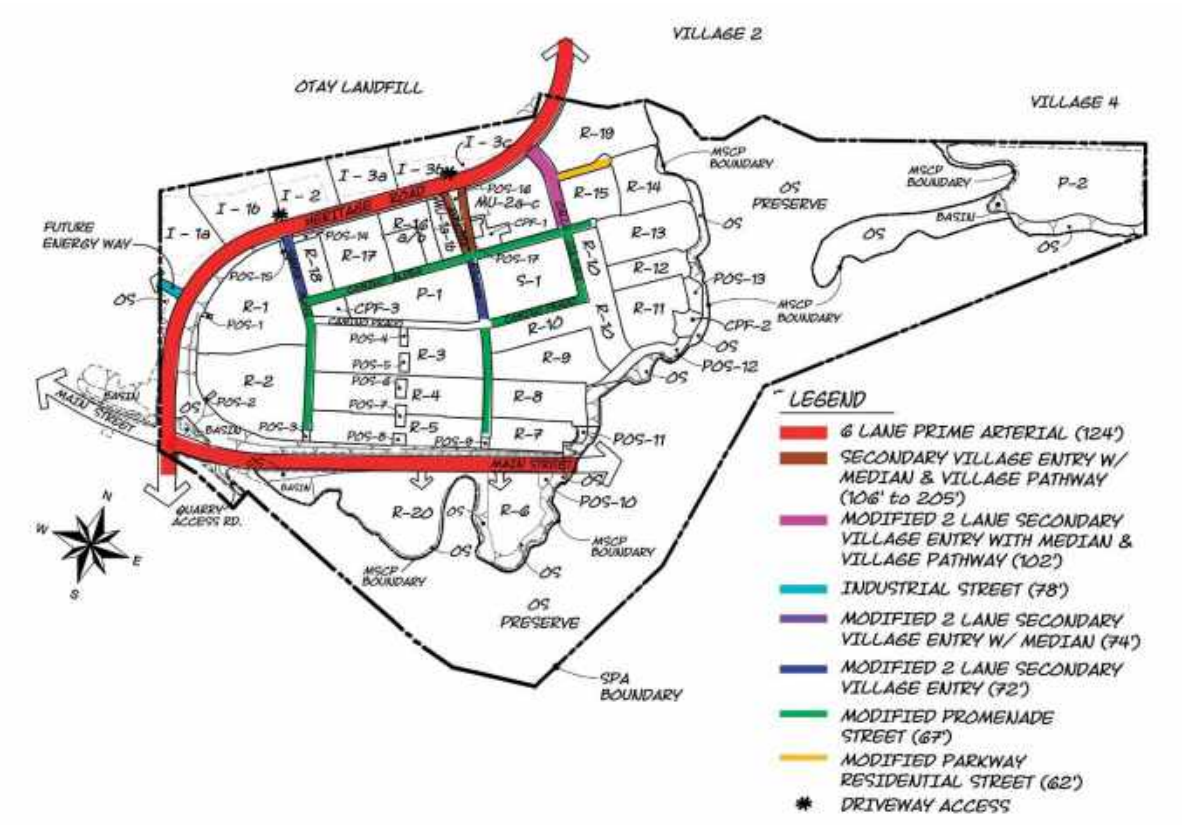

Exhibit 6
Circulation Plan

B. Police Services

The Project generates approximately the same demand for Police services as identified in the 2014 PFFP. The impacts identified in the FEIR remain applicable to the Project and no additional mitigation measures would be required. Therefore, the Project must comply with the requirements and FEIR Mitigation Measures identified in the 2014 PFFP, V.7. Threshold Compliance (2014 PFFP, Page 52).

C. Fire and Emergency Medical Services

The Project generates approximately the same demand for fire and medical emergency services as identified in the 2014 PFFP. The impacts identified in the FEIR remain applicable to the Project and no additional mitigation measures would be required. Therefore, the Project must comply with the requirements and FEIR Mitigation Measures identified in the 2014 PFFP, VI. 7. Threshold Compliance (2014 PFFP, Page 59).

D. Schools

The Project includes an 8.3 acre school site, consistent with the 2014 SPA Plan. The proposed land use changes would change the mix of single family, multi-family and mixed use dwelling units compared to the residential mix authorized in the 2016 SPA Plan and would increase the total residential units within Village 3 from 1,597 to 1,638, representing a 41 dwelling unit increase. Based on current Chula Vista Elementary School District and Sweetwater Union High School District student generation factors (students/dwelling unit) and the revised residential unit mix, there is a need to accommodate approximately 610 elementary students, 139 middle school students, and 268 high school students, for a total of 1017 students, or approximately 67 fewer students than identified in the 2016 Supplemental PFFP. The impacts identified in the FEIR remain applicable to the Project and no additional mitigation measures would be required. However, the Project must comply with the FEIR Mitigation Measures identified in the 2014 PFFP, VII.7. Threshold Compliance (2014 PFFP, Page 67).

E. Libraries

The proposed land use changes would change the mix of single family, multi-family and mixed use dwelling units within Village 3 compared to the residential mix authorized in the 2014 SPA Plan and would increase the total residential units within Village 3 from 1,597 to 1,638 by transferring 41 multi-family units from Village 9 to Village 3; however, the overall dwelling units within Otay Ranch would remain consistent. The impacts identified in the FEIR remain applicable to the Project and no additional mitigation measures would be required. The demand for library services would remain the same for Otay Ranch. The Project must comply with the requirements and FEIR Mitigation Measures identified in the 2014 PFFP, VIII.7 Threshold Compliance (2014 PFFP, Page 71).

F. Parks, Trails and Open Space

The City's 2002 Park Acquisition and Development Fee Update determined that each single family detached dwelling unit generates a need for 460 square feet of developed parkland and each attached multi-family unit generates a need for 341 square feet of developed parkland. A total of 1,638 units (769 and 869 MF) units are authorized per the Village 3 and a Portion of Village 4 Site Utilization Plan (Table 1). As depicted below in Table H.3, pursuant to CVMC, Chapter 17.10, the 1,638 units within Village 3 generate a parkland obligation of 14.92 net acres. The Village 3 parkland obligation will be calculated at the final map level consistent with CVMC, Chapter 17.10 based on the actual number and type of units allocated within Village 3. The revised Parks and Open Space Plan is provided as Exhibit 7 and the Trails Plan is provided as Exhibit 8.

Table H.3
Village 3 and a Portion of Village 4 SPA Plan
Preliminary Parkland Dedication Requirements
City Ordinance Applied to Planning Prediction of Unit Numbers and Types
(2014 PFFP, Table H.3, Page 74)

Residential Unit Type	Units	SF/DU	Total SF	Total Net Acres
Single Family	769	460	353,740	8.12
Multi-Family	597	341	203,577	4.67
Mixed Use	272	341	92,752	2.13
TOTAL	**1,638**	**-**	**650,069**	**14.92**

Note: The industrial land uses in the Otay Ranch Business Park do not create a demand for or obligation to provide parkland.

Table H.4., Village 3 and a Portion of Village 4 Park Acres and Eligible Credits is presented below.

Table H.4
Village 3 and a Portion of Village 4 SPA Plan
Park Acres and Eligible Credits (Net Acres)
(2014 PFFP, Table H.4, Page 74)

Park	Net Acres	Phase	Proposed Credit	Eligible Credit (net ac)
P-1 – Neighborhood Park	7.5	Red	100%	7.5
P-2 – Community Park	15.6	Purple	100%	15.6
Total Acres Eligible for Credit Against PAD				23.1
Total IODs Offered[2]	12.2			12.2
Total Village 3 Parkland Requirements[3]				**14.92**
Remaining Village 3 Obligation				
IOD Credit for Unused Units				
R-6 (44 units @ 460 SF/DU)	0.46			
MU-2 (6 units @ 341 SF/DU)	0.05			
Total IOD Credit	**0.51**			
Amended Remaining Parkland Obligation	**2.21**			**2.21[4]**

[2] 7.5-acre IOD offered on the Village 3 North Final Map No. 16160 and a 4.7 acre Community Park IOD delivered to the City prior to recordation of the Village 3 North Final Map No. 16160.
[3] Parkland fee and land obligations are subject to change pending any changes to the dwelling unit types and numbers, or clarification of unit type at the time the obligations are due.
[4] The Applicant may provide an IOD for 2.21 net acres within either the Village 4 P-2 Community Park or Village 8 East P-2 Community Park to satisfy the remaining Village 3 park land obligation of 2.21 net acres.

Table H.7 Acquisition and Development (PAD) Fees (Preliminary Calculation) (2014 PFFP, Table H.7, Page 79)				
Residential Unit Type	**Units**	**PAD Fee/DU Total**		**Total Fees**
		Development	**Acquisition**	
Village 3				
Single Family	769	$ 6,166,611	$ 9,747,844	$15,914,455
Multi-Family	556	4,458,564	5,230,848	9,689,412
Mixed Use	272	1,618,944	2,558,976	4,177,920
Subtotal Village 3	**1,597**	**$12,244,119**	**$17,264,668**	**$29,508,787**
Village 9 Transfer DUs				
Multi-Family	41	244,032	385,728	629,760
TOTAL	**1,638**	**$12,488,151**	**$17,650,396**	**$30,138,547**

Note: Preliminary Calculation are based on City of Chula Vista 2018 Master Fee Schedule – Parkland acquisition component = $12,676/SF DU and $9,408/MF DU; Parkland development (east) component = $8,019/SF DU and $5,952/MF DU.

The Applicant provided the City with an Irrevocable Offer of Dedication (IOD) on Village 3 Final Map No. 16160 for the 7.5-acre neighborhood park (Lot A). The Applicant also provided the City an IOD for a total of 4.7 net acres of the Otay Ranch North Community Park to satisfy the Village 3 North PLDO obligation per the 2016 SPA Plan. The remaining obligation of approximately 2.21 net acres, may be satisfied within either the Village 4 P-2 Otay Ranch North Community Park or Village 8 East P-2 Otay Ranch South Community Park, or a combination of both. The actual park acreage requirements will be based on the number and type of residential units) approved on a subsequent Final Map(s) for Village 3 as further discussed in the PFFP.

Development of Otay Ranch within the City of Chula Vista, results in a demand for approximately 133.04[5] net acres of park land, which includes 112.12 net acres associated with development of villages within HomeFed Corporation's (HomeFed) ownership (includes the 1.92 net acre IOD recorded within the Otay Ranch Village 4 community park prior to HomeFed's acquisition of the property in 2016) and 20.28 net acres of outstanding park land from previously developed and future Otay Ranch villages. Table 4.6.5: Otay Ranch Parkland Obligations & Planned Park Land presents a comprehensive accounting of park land obligations and planned park land.

Development of HomeFed's Villages 3, 8 West, 8 East, 9 and 10, and the 1.92-acre IOD which satisfied a portion of Village 2's obligation, results in the obligation to provide 112.12 net acres of park land. This is satisfied through adopted SPAs and TM that include 119.67 acres of planned

[5] Excludes 40.4 acres currently reserved in the P-4 Community Park, as shown in the Villages 2, 3 and a Portion of Village 4 SPA Plan and the neighborhood parks constructed within developed Otay Ranch Villages 1, 2, 5, 6, 7 and 11 and the Eastern Urban Center.

park land including neighborhood parks within Villages 3 North, 8 West, 8 East, 9 and 10 (51.40 net acres) as well as community parks planned in Villages 4, 8 West and 8 East (68.27 net acres) and results in 7.55 net acres of excess park land within HomeFed's ownership.

Villages 6 and 11 have met their corresponding parkland obligations through a combination of park land dedication within the respective villages and payment of in-lieu Parkland Acquisition and Development (PAD) fees, while Village 4 will be paying in-lieu PAD fees. Assuming the park land obligations associated with full build out of HomeFed's entitled villages are met within planned neighborhood and community parks, approximately. 7.55 net acres within the Village 4 Community Park may be purchased from HomeFed to satisfy a portion of the remaining unmet obligation of 20.28 net acres associated Villages 4, 6 and 11.

Table 4.6.5 - Otay Ranch Park Land Obligations & Planned Park Land

		Park Land Obligation (Net AC) [6]	Park Land Planned (Net AC)			
Village	**Units[7]**	**Total**	**Neighborhood Park**	**Community Park**	**Total Planned**	**Surplus/ Deficit**
HomeFed Villages:						
2[8]		1.92	0.00	0.00	0.00	(1.92)
3 / 4	1,638	14.92	7.50	15.47	22.97	8.05
8 West	2,334	19.80	7.50	14.80	22.30	2.50
8 East	3,276	28.23	6.80	38.00	44.80	16.57
9	3,959	31.73	23.00	0.00	23.00	(8.73)
10	1,740	15.52	6.60	0.00	6.60	(8.92)
HomeFed Villages Subtotal	**12,947**	**112.12**	**51.40**	**68.27**	**119.67**	**7.55[9]**
Other Otay Ranch Villages:[10]						
4		2.55	0.00	0.00	0.00	(2.55)
6		4.81	0.00	0.00	0.00	(4.81)
11		12.92	0.00	0.00	0.00	(12.92)
Other Otay Ranch Villages Subtotal		**20.28**	**0.00**	**0.00**	**0.00**	**(20.28)**
COMBINED TOTAL		**132.40**	**51.40**	**68.27**	**119.67**	**(12.73)**

[6] Based on current approved SPAs and/or proposed amendments as of 02/18/2020.
[7] HomeFed's park acreage obligations are calculated assuming full buildout of all entitled units. Final park land obligations may vary based on actual units constructed.
[8] A 1.92-acre IOD was recorded within the Village 4 Community Park property when it was acquired by HomeFed in 2016 and is included in the HomeFed subtotal.
[9] After the HomeFed (110.20 AC) and Village 2 (1.92 AC) obligations are met, HomeFed has an additional 7.55 net acres of excess community park land that may be acquired to satisfy the unmet community park obligations of other previously developed or future Otay Ranch villages.
[10] Outstanding obligations associated with developed and future villages within Otay Ranch but outside of HomeFed's ownership.

The Otay Ranch GDP requires the provision of open space, in addition to local parks, at a ratio of 12 acres for every 1,000 residents. Based on an estimated population 5,307, approximately 63.7 acres of open space are required. This requirement is met through the provision of approximately 225.1 acres of open space in the form of preserve open space, non-preserve open space, manufactured slopes, and other interior open spaces within the Project area, exclusive of public park land.

The impact identified in the FEIR remain applicable to the Project and no additional mitigation measures would be required. The Project must comply with the requirements and FEIR Mitigation Measures identified in the 2014 PFFP, IX.10. Threshold Compliance (2014 PFFP, Pages 82-84).

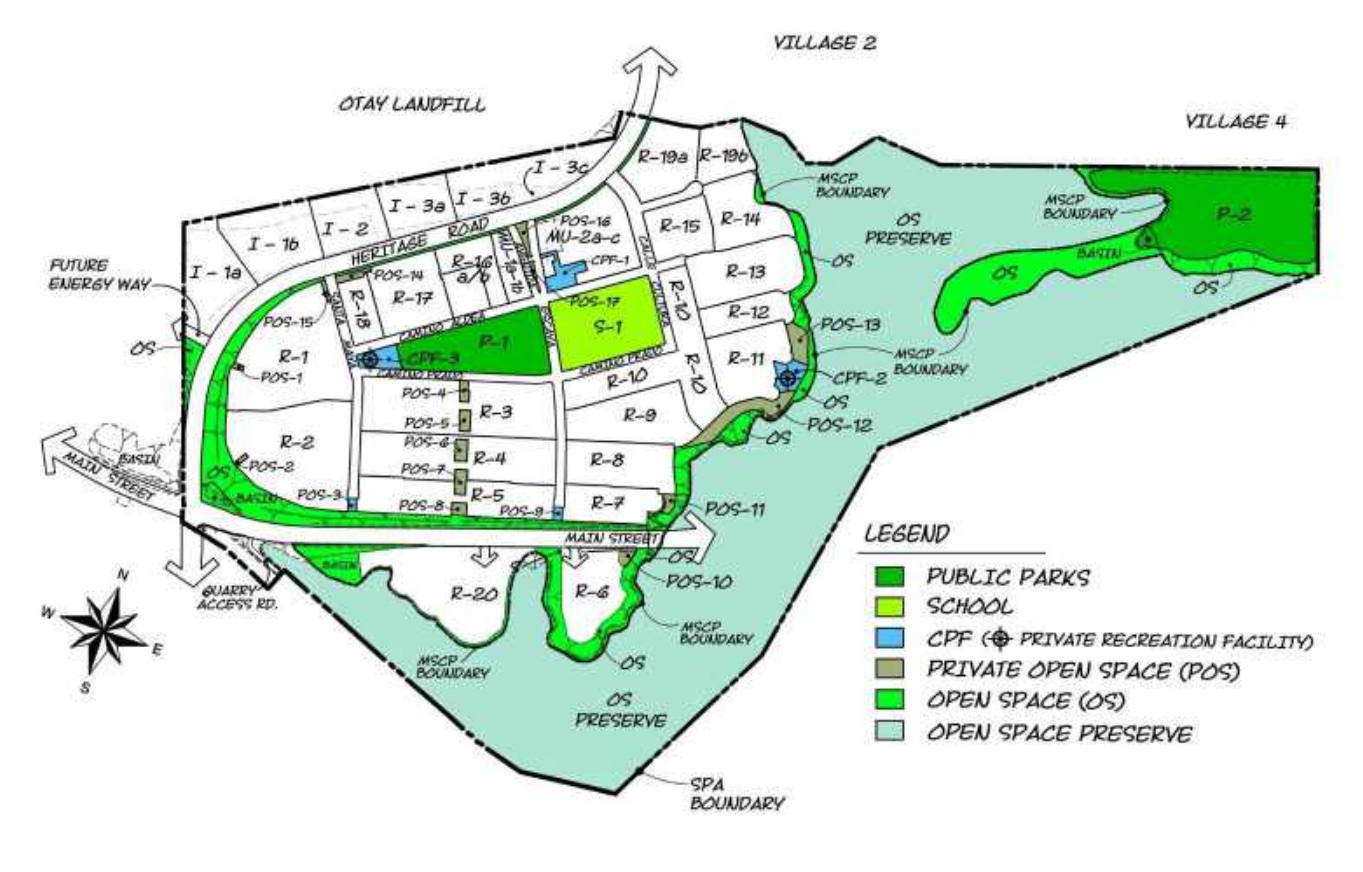

Exhibit 7 (2014 PFFP, Page 85)
Parks and Open Space Plan

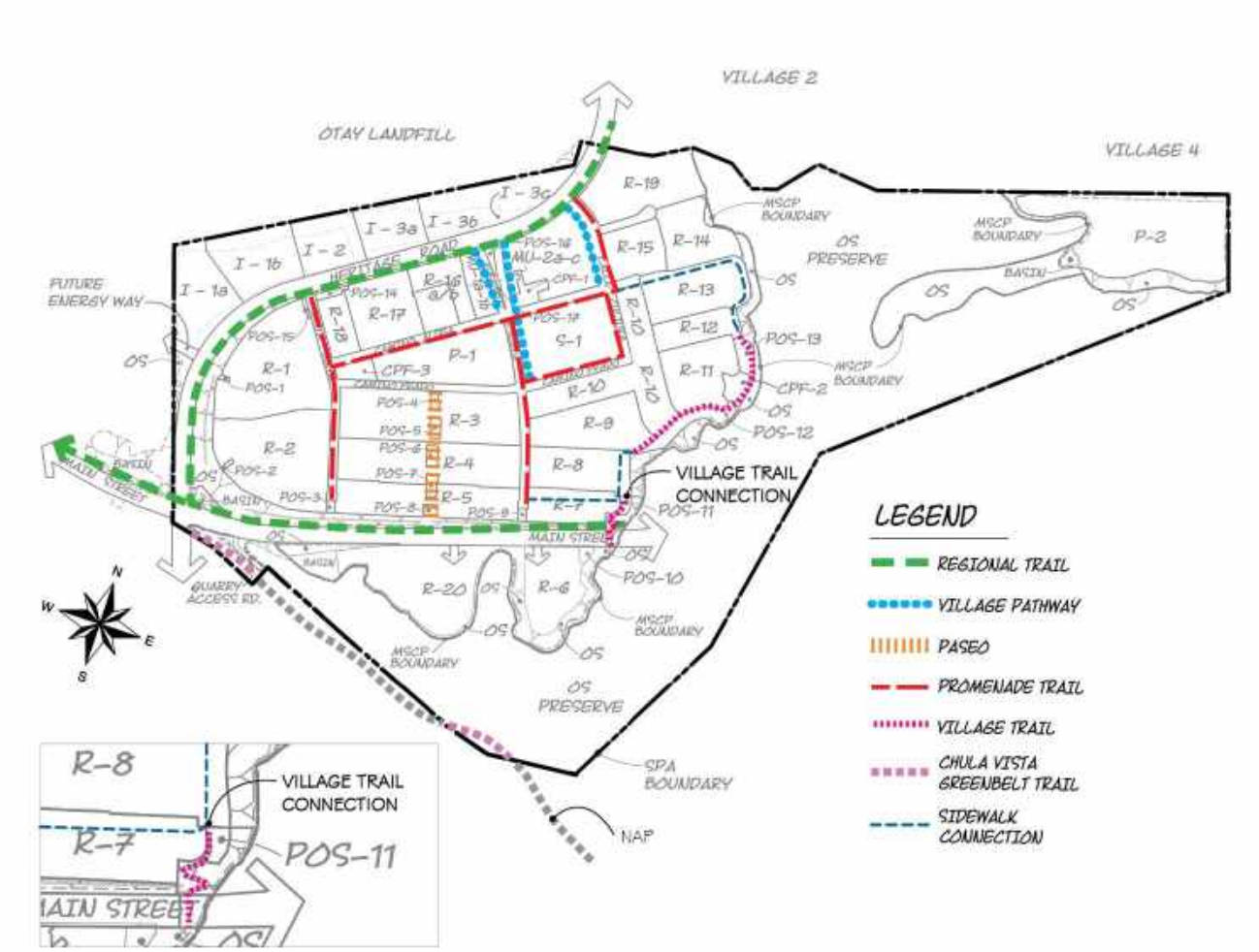

Exhibit 8 (2014 PFFP, Page 86)
Trails Plan

G. Water

A Water System Evaluation was prepared by Dexter Wilson Engineering for the 2014 SPA and FEIR. A Water Supply Technical Memo was prepared by Dexter Wilson Engineering to supplement the prior evaluation based on the Project. Table I.4 and Table I.5 below summarize the anticipated potable and recycled water demand for Project.

Table I.4
Village 3 and a Portion of Village 4 SPA Plan
Projected Potable Water Demand
(2014 PFFP, Table I.4, Page 94)

Land Use	Quantity	Demand Factor	Total Demand (gpd)
Single-Family Residential (3–8 DU/ac)	432	425 gpd/unit	183,600
Single-Family Residential (>8 DU/ac)	337	255 gpd/unit	85,935
Multiple-Family Residential	869	255 gpd/unit	221,595
Schools	8.3	1,428 gpd/ac	11,852
Commercial	8.2	1,607 gpd/ac	13,177
Industrial	15.6[b]	848 gpd/ac	13,229
Community-Purpose Facilities	2.6	714 gpd/ac	1,856
Parks	25.9	0 gpd/ac[d]	2,160
Total	—	—	533,404

gpd = gallons per day; DU = dwelling units; ac = acre.

[a] Mixed Use Commercial is based on 90% of gross acreage.

[b] Net acreage was used for industrial sites.

[c] Only includes CPF-1 since small CPF site will have no potable water use.

[d] Parks will be irrigated with recycled water, but a nominal amount of potable use has been estimated.

The 2016 PFFP and associated Overview of Water Supply Technical Memo projected potable water demand at 641,772 gallons per day (gpd). The most recent Overview of Water Supply Technical Memo (2020) estimated that the land uses proposed in the 2020 SPA Plan would decrease water demand to 533,404 gpd, representing a decrease of 108,368 gpd, or approximately 17%. This decrease in demand will not impact the constructed or future water line sizing within the Project since the backbone water line sizing has been established based on regional needs in the area and internal water line pipe sizing will be based primarily on fire flow requirements. See Proposed Potable Water Plan, Exhibit 9.

Table I.5.
Village 3 and a Portion of Village 4
Projected Recycled Water Demands
(2014 PFFP, Page 95)

Land Use	Area (ac)	% to be Irrigated	Irrigated Acreage	Average Recycled Water Demand, gpd
Open Space	39.4	100	43.0	84,907
Parks	25.9	100	25.9	55,815
Mixed Use Commercial	9.0	10	0.90	1,940
Community Purpose Facility	2.6	20	0.52	1,120
Industrial	29.3	5	1.47	3,168
Multi-Family	38.3	15	5.75	12,391
School	8.3	20	1.66	3,577
TOTAL				**162,918**

The 2014 PFFP and associated Overview of Water Service projected recycled water demand at 172,236 gallons per day (gpd). The most recent Water Conservation Update Memo projected that the Project would decrease recycled water demand to 170,676 gpd, representing an additional 7,758 gpd (approximately 1%) decrease. Landscape systems generally require a minimum of 80 psi at the meter to obtain adequate coverage of landscape area. The primary criteria utilized for sizing recycled water lines is the ability to meet peak hour recycled water demands while maintaining a maximum pipeline velocity of 8 feet per second. See Exhibit 10, Proposed Recycled Water Facilities, for the recycled water system serving Village 3.

The impacts identified in the FEIR remain applicable to the Project and no additional mitigation measures would be required. The Project must comply with the requirements and FEIR Mitigation Measures identified in the 2014 PFFP, X.7. Threshold Compliance (2014 PFFP, Pages 97-98).

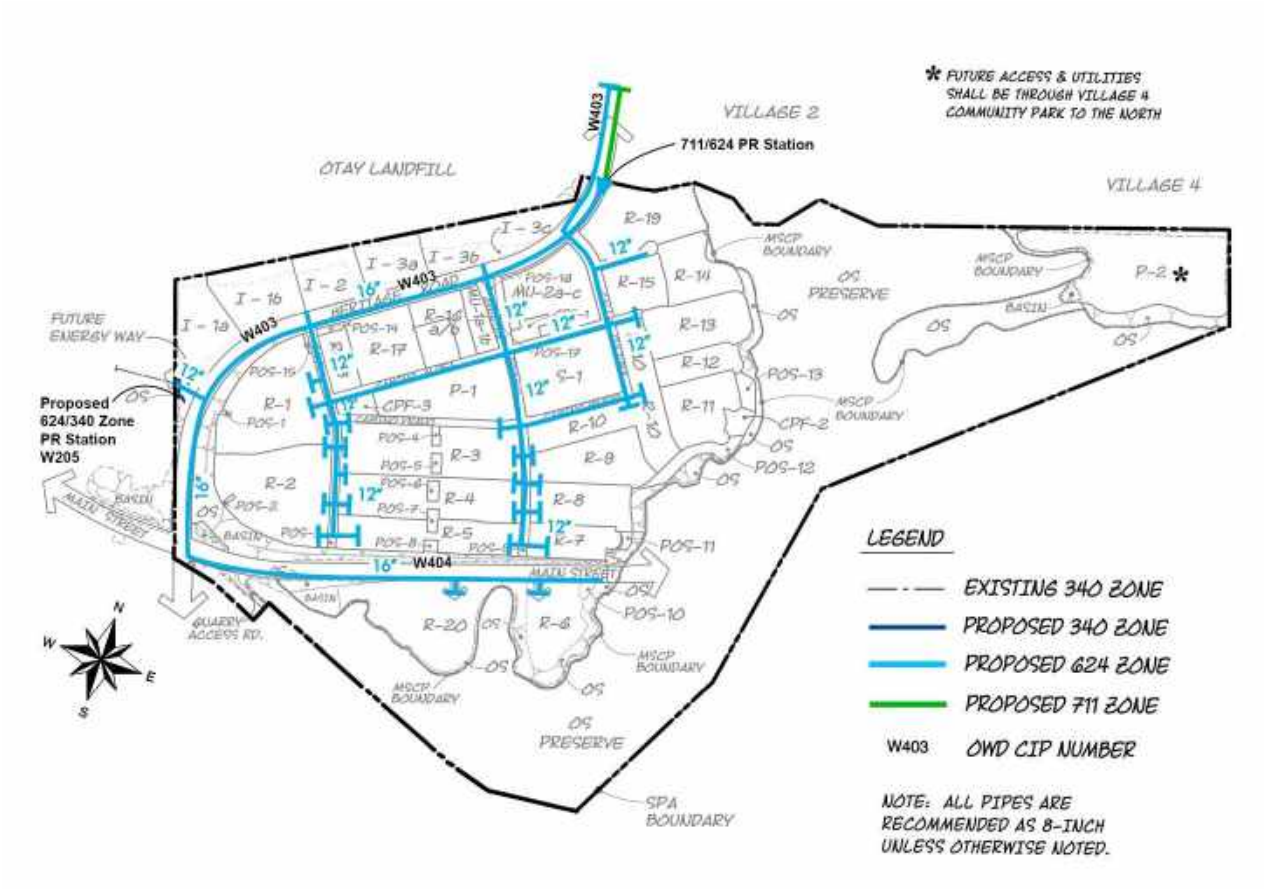

Exhibit 9 (2014 PFFP, Page 100)
Proposed Potable Water Facilities

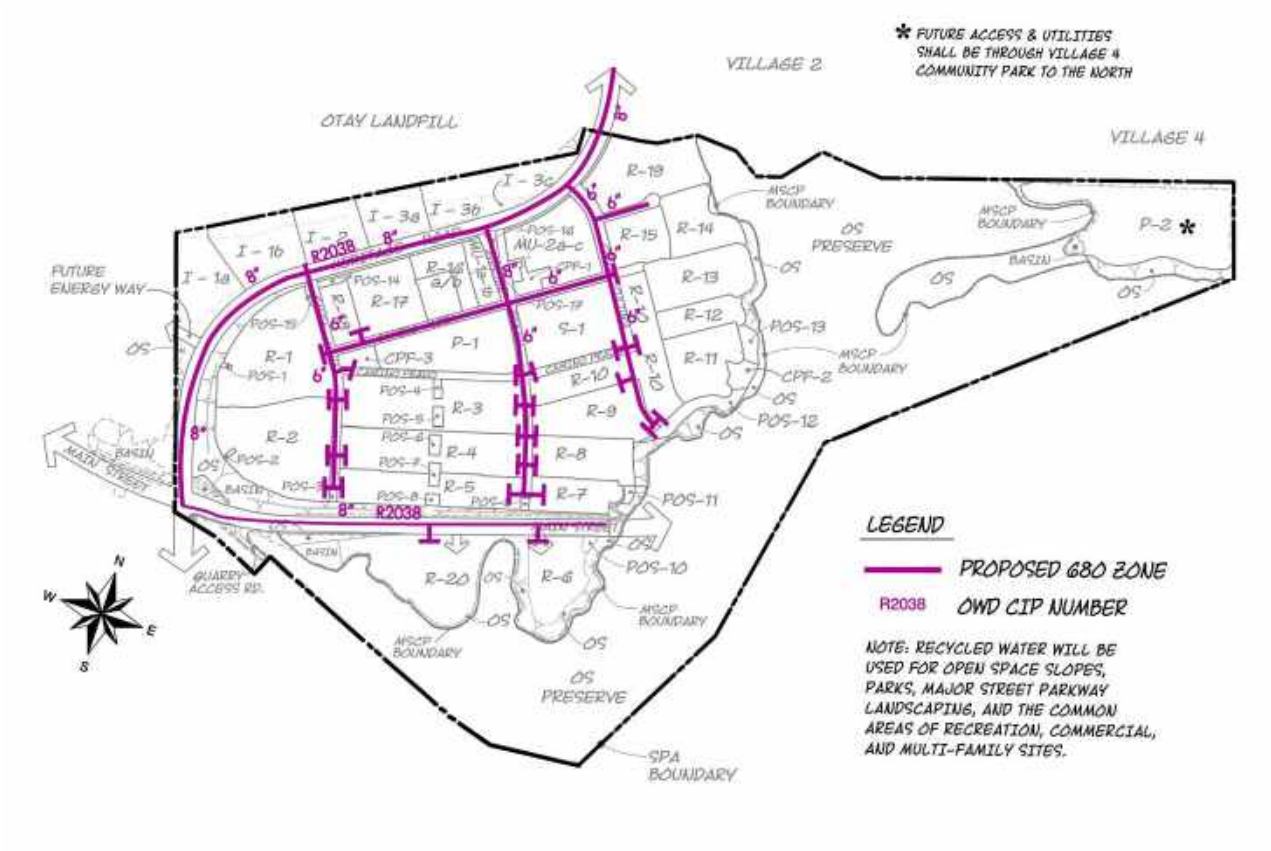

Exhibit 10 (2014 PFFP, Page 101)
Proposed Recycled Water Facilities

H. Sewer

Dexter Wilson Engineering prepared a sewer evaluation for the 2014 SPA Plan and FEIR. A Sewer Evaluation Technical Memo was prepared by Dexter Wilson Engineering based on the 2020 SPA Plan to supplement the prior evaluation. Projected Sewer Flows for the 2020 SPA Plan are provided in Table J.5 below.

Table J.5
Projected Sewer Flows (Summary)
(2014 PFFP, Page 108)

Land Use	Quantity	Demand Factor	Total Demand (gpd)
Single-Family Residential	769 units	230 gpd/unit	176,870
Multiple-Family Residential	869 units	182 gpd/unit	158,158
Schools	948 students	15 gpd/student	14,220
Mixed-Use Commercial	9.0 ac	1,401 gpd/ac	12,609
Industrial	29.3[1]ac	712 gpd/ac	20,682
Community-Purpose Facilities	2.7 ac	1,401 gpd/ac	3,783
School	948 students	15 gpd/student	14,220
Total	—	—	**389,823**

gpd = gallons per day; ac = acre.
[1]Calculation based on net Industrial Acreage.

The 2014 PFFP and associated Overview of Sewer Service projected wastewater generation at 517,455 gpd and the 2016 Supplemental PFFP projected wastewater generation at 429,961 gpd. The projected wastewater flow for the Project decreases flows by approximately 25%, as compared to the 2016 estimates. This decrease in sewer flow projections would not impact the proposed or constructed backbone sewer line sizing but sizing of local sewer lines would be confirmed during final engineering when pipe slopes are known. See Exhibit 12, Proposed On-site Sewer Facilities and Exhibit 13, Proposed On-site Sewer Phasing.

The impacts identified in the FEIR remain applicable to the Project and no additional mitigation measures would be required. The Project must comply with the requirements and FEIR Mitigation Measures identified in the 2014 PFFP, XI.8. Threshold Compliance (2014 PFFP, Pages 112-113).

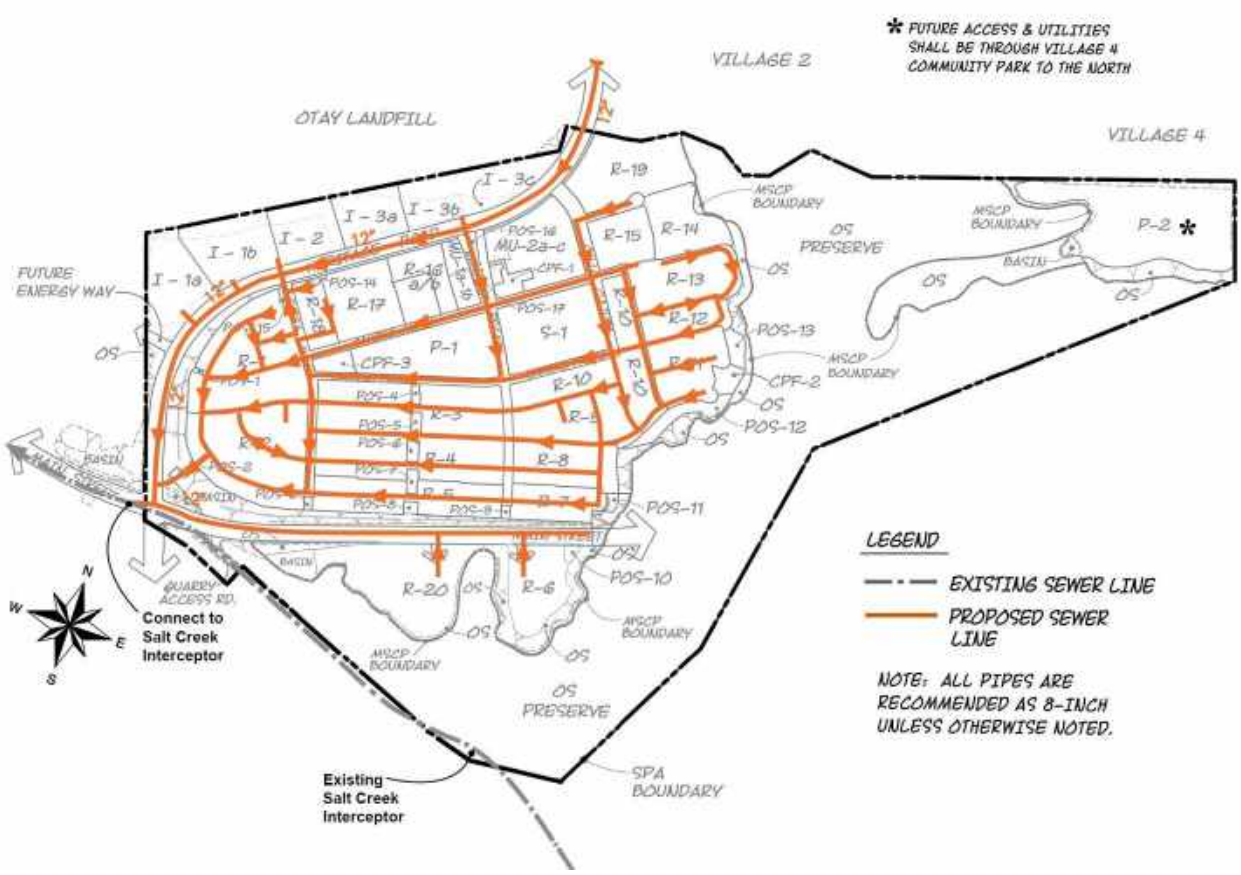

Exhibit 12 (2014 PFFP, Page 115)
Proposed On-site Sewer Facilities

I. Drainage

In 2014, a Hydrology Study and a Storm Water Quality Management Plan (SWQMP) were completed for the Village 3 SPA Plan and FEIR. In 2016, a Tentative Map Hydrology Study and SWQMP, were prepared and processed through City of Chula Vista for the revised Village 3 North and a Portion of Village 4 Tentative Map (2016 Tentative Map). Concurrently with the 2016 Tentative Map, Village 3 Final Engineering Grading and Improvement Plans, and corresponding Final Engineering Hydrology Study and SWQMP, were prepared and processed through City of Chula Vista for approval. The approved 2016 and 2017 Master Hydrology Study and Storm Water Technical Reports for the Village 3 site included the following:

- *Rough Grading Hydrology Study for Otay Ranch Village 3, prepared by Hunsaker & Associates, Dated September 14, 2016*
- *Priority Development Project Storm Water Quality Management Plan for Otay Ranch Village 3, prepared by Hunsaker & Associates, Dated June 12, 2017*

Hunsaker & Associates has prepared the following reports to address the Tentative Maps for R-6/R-20 and R-19:

- *Drainage Study for Otay Ranch Village 3, R-6, and R-20 Tentative Map, prepared by Hunsaker & Associates, 2020.*
- *Priority Development Project (PDP) Storm Water Quality Management Plan (SWQMP) for Otay Ranch Village 3, R-6, and R-20 Tentative Map, prepared by Hunsaker & Associates, 2020.*
- *Drainage & Storm Water Quality Management Plan Compliance Memo for Otay Ranch Village 3, R-19 Tentative Map, prepared by Hunsaker & Associates, 2020.*

At the time of the preparation of the 2016 and 2017 Master Technical Reports, the project discharge to Otay River did not require any peak flow attenuation but was subject to hydromodification requirements. Since then, the Otay River segment from Lower Otay Reservoir to Interstate 805, has been identified as exempt from Hydromodification per Section 1.6 of the March 2019 City of Chula Vista BMP Design Manual.

The 2016 and 2017 Village 3 Master Technical Reports analyzed the land uses for R-6, R-19 and R-20 as single family, office, and open space, respectively. Consistent with these reports and the 2016 TM, a regional biofiltration basin was installed on the parcel designated R-20 in the 2020 SPA Plan. This existing basin serves as the master storm water treatment BMP for the easterly portion of Village 3, including areas R-6, R-19, and R-20.

Per the proposed multi-family land uses in the 2020 SPA Plan, the anticipated runoff from R-6 and R-20 are expected to increase slightly, and runoff from R-19 is expected to decrease slightly. The existing regional biofiltration basin on the R-20 site is proposed to be removed and replaced with a standard graded (no biofiltration) basin within an open space lot adjacent to R-20. In order to address water quality, a series of compact propriety biofiltration BMP's (Modular Wetland Units) are proposed downstream of the proposed basin. The storm drain system conveying flows from Village 3, including the R-6/R-20 and R-19 sub-projects, is per Chula Vista Drawing Number 16026. The cumulative net increase in runoff from the R-6, R-19 and R-20 sites is minimal and is not expected to create any adverse effects to the constructed and/or planned storm drain facilities along Main Street. Refer to Exhibit 13, Proposed Drainage Facilities.

The Project must comply with the requirements and FEIR Mitigation Measures identified in the 2014 PFFP, XII.7. Threshold Compliance (2014 PFFP, Pages 126-127). In addition, the Project would continue to comply with all applicable rules and regulations including compliance with National Pollutant Discharge Elimination System permit requirements for urban runoff and stormwater discharge. BMPs for design, treatment, and monitoring for stormwater quality would be implemented as delineated in the FEIR with respect to municipal and construction permits.

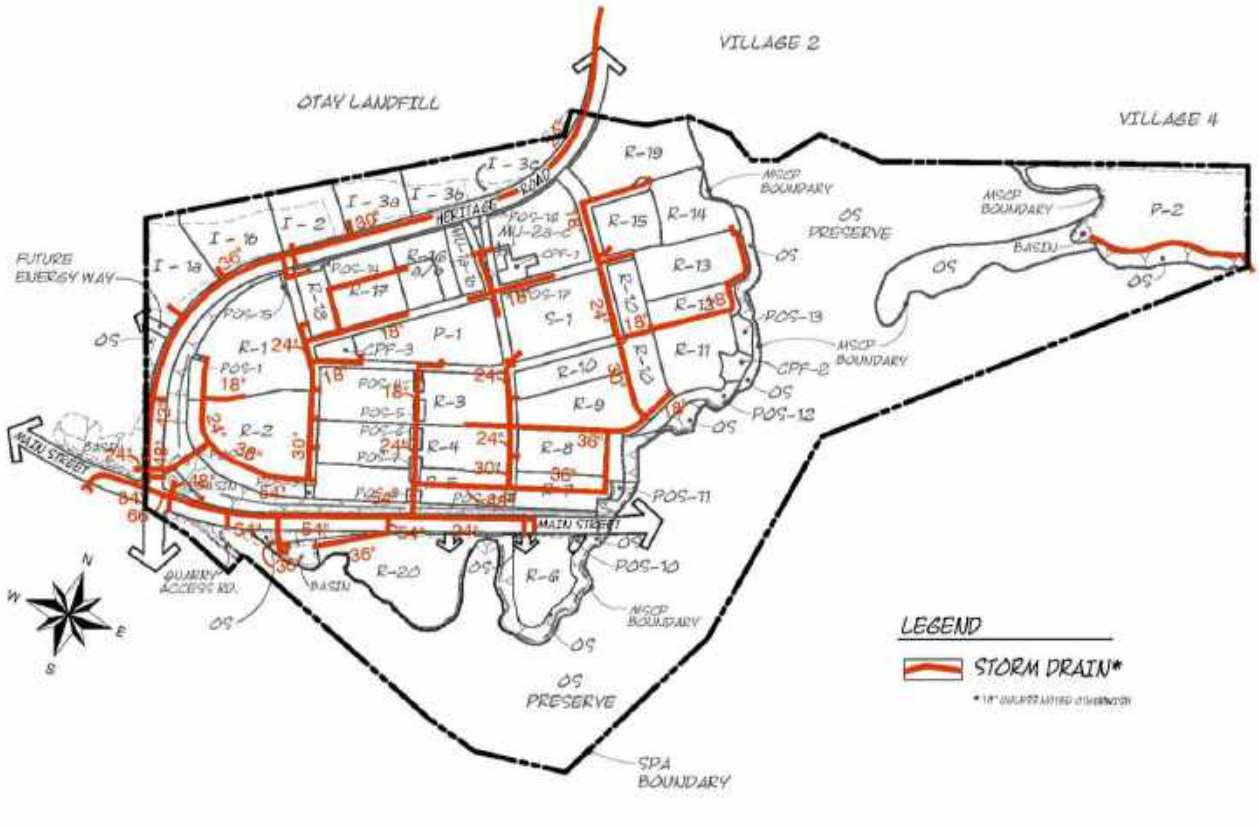

Exhibit 13 (2014 PFFP, Page 128)
Proposed Drainage Facilities

J. Air Quality

GHG emissions and global climate change were addressed in Section 5.14 in the FEIR. An Air Quality and GHG Technical Memo was prepared by Dudek (2020) to analyze the 2020 SPA Plan land uses. The proposed land uses would generate 6,640 fewer trips (24.6% less) when compared to the 2014 SPA Plan land uses. The travel behavior of the remaining land uses previously analyzed as part of the University Villages project would be unchanged. As a result, operational emissions (specifically those resulting from mobile sources) associated with the Village Three project would be reduced as compared to the prior analysis. Construction emissions would remain unchanged, because no change in the construction schedule or required construction equipment is anticipated.

The impacts identified in the FEIR remain applicable to the proposed project, and no additional mitigation measures would be required. The Project must comply with the requirements and Mitigation Measures in the 2014 PFFP, XIII.3 Threshold Compliance (Pages 132-134)

K. Civic Center

Per the 2014 PFFP, there are no adopted Threshold Standards for the Civic Center. The Public Facilities fee must be paid prior to the issuance of building permits, at the rate in effect at the time payment is made.

L. Corporation Yard

Per the 2014 PFFP, there are no adopted Threshold Standards for the Corporation Yard. The Public Facilities fee must be paid prior to the issuance of building permits, at the rate in effect at the time payment is made.

M. Other Public Facilities

Per the 2014 PFFP, there are no adopted Threshold Standards for other public facilities which are part of the Public Facilities Development Impact Fee Program. The Public Facilities fee must be paid prior to the issuance of building permits, at the rate in effect at the time payment is made.

N. Fiscal Analysis

Pursuant to the requirements in CVMC 19.09.040, Threshold Standards for City Facilities, H. Fiscal, the Applicant prepared an updated fiscal analysis for the Proposed Project (Village 3 Amendment – Fiscal Impact Analysis, DPFG (2021) – See Attachment A*)*. The fiscal update model assumed full build out of all 1,638 residential and commercial and industrial land uses. The results generated from the fiscal model meet the requirements of CVMC 19.09.040 and demonstrate that the 2021 SPA Plan will generate a net annual fiscal surplus in years 1 – 20 ranging from $602,744 to $1,208,682 per year and a cumulative net fiscal surplus over the first 20 years of approximately $17,427,955.

O. PUBLIC FACILITY FINANCE

No changes are necessary related to Public Facility Finance.

ATTACHMENT A

VILLAGE 3 CHULA VISTA FISCAL IMPACT ANALYSIS MODEL AND SUMMARY OF ADJUSTMENTS TO CHULA VISTA FISCAL IMPACT ANALYSIS MODEL

PROPOSED PROJECT SCENARIO

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Village 3 Summary of Adjustment to CV Fiscal Impact Model – Proposed Project[11]

Year		1	2	3	4	5	6	7	8	9	10
Cumulative Residential AV - Inflated per CV Model		$896,514,081	$910,532,546	$956,138,004	$977,200,764	$994,765,979	$1,014,661,299	$1,034,954,525	$1,055,653,615	$1,076,766,688	$1,098,302,621
Revised Inflation Assuming 8 year Turnover (a)		896,514,081	913,475,019	959,950,981	979,150,000	998,733,000	1,018,707,660	1,039,081,814	1,176,963,744	1,234,637,217	1,264,072,127
Difference in Assessed Value		$0	$2,942,473	$3,812,977	$3,889,236	$3,967,021	$4,046,362	$4,127,289	$121,310,129	$157,870,529	$165,770,105
Total Residential Property Tax Increase Due to City	[1]	$0	$3,708	$4,804	$4,900	$4,998	$5,098	$5,200	$152,851	$198,917	$208,870
Total Residential Projected Net Revenue Before Turnover Adj.	[2]	$602,744	$659,537	$644,079	$614,487	$582,696	$549,906	$514,073	$479,427	$497,526	$516,824
Total Residential Projected Net Revenue After Turnover Adj.	= [1] + [2]	**$602,744**	**$663,244**	**$648,884**	**$619,388**	**$587,695**	**$555,004**	**$519,273**	**$632,278**	**$696,443**	**$725,694**
Commercial Projected Net Revenue		$0	$23,720	$59,387	$64,847	$80,297	$81,483	$119,863	$136,328	$132,830	$135,388
Total Project Projected Net Revenue		**$602,744**	**$686,965**	**$708,271**	**$684,234**	**$667,991**	**$636,487**	**$639,136**	**$742,606**	**$829,273**	**$861,082**
Cumulative Adjusted Net Revenues		$602,744	$1,289,709	$1,997,980	$2,682,214	$3,350,206	$3,986,693	$4,625,829	$5,368,435	$6,217,708	$7,078,791

Footnotes:

(a) Assumes 8 year turnover with 2.00% annual escalation and 3.50% escalation when re-assessed.

Village 3

Summary of Adjustment to CV Fiscal Impact Analysis Model

Total Project Net Revenue (Residential Turnover based on DPFG Turnover Model - Assumes 3.5% Escalation in new Home Pricing)

January 12, 2021

Year		11	12	13	14	15	16	17	18	19	20
Cumulative Residential AV - Inflated per CV Model		$1,120,369,062	$1,142,673,423	$1,165,516,892	$1,188,837,429	$1,212,614,178	$1,236,866,462	$1,261,603,791	$1,286,835,867	$1,312,572,584	$1,338,824,036
Revised Inflation Assuming 8 year Turnover (a)		1,289,353,509	1,315,140,641	1,341,443,453	1,368,272,322	1,395,637,769	1,556,678,310	1,626,618,015	1,664,581,600	1,697,832,432	1,731,789,080
Difference in Assessed Value		$169,085,597	$172,467,217	$175,916,562	$179,434,893	$183,023,591	$319,811,849	$365,014,224	$377,705,733	$385,259,848	$392,965,045
Total Residential Property Tax Increase Due to City	[1]	$212,048	$217,309	$221,655	$226,088	$230,610	$402,963	$459,918	$475,909	$485,427	$495,136
Total Residential Projected Net Revenue Before Turnover Adj.	[2]	$523,870	$530,547	$536,829	$540,780	$544,189	$547,092	$549,420	$551,121	$552,157	$552,484
Total Residential Projected Net Revenue After Turnover Adj.	= [1] + [2]	**$736,917**	**$747,856**	**$758,484**	**$766,868**	**$774,799**	**$950,055**	**$1,009,338**	**$1,027,030**	**$1,037,584**	**$1,047,620**
Commercial Projected Net Revenue		$137,826	$140,301	$142,812	$145,311	$147,846	$150,417	$153,024	$155,667	$158,346	$161,062
Total Project Projected Net Revenue		**$874,744**	**$888,157**	**$901,296**	**$912,179**	**$922,645**	**$1,100,472**	**$1,162,362**	**$1,182,697**	**$1,195,931**	**$1,208,682**
Cumulative Adjusted Net Revenues		$7,953,535	$8,841,691	$9,742,987	$10,655,166	$11,577,811	$12,678,283	$13,840,645	$15,023,342	$16,219,273	$17,427,955

Footnotes:

(a) Assumes 8 year turnover with 2.00% annual escalation and 3.50% escalation when re-assessed.

[11] See Village 3 Assessed Value and Reassessment Year – Breakdown by Absorption and Med-High Density (Single Family Units) Tables Exhibit A, Page 3.

Village 3
Total Assessed Value After Turnover
January 12, 2021

Year	Total High Density (MF) Assessed Value After Turnover	Total Med-High Density (SF) Assessed Value After Turnover	Total Assessed Value
1	$ 129,200,000	$ 567,314,081	$ 696,514,081
2	241,908,000	671,567,019	913,475,019
3	246,746,160	713,204,821	959,950,981
4	251,681,083	727,468,917	979,150,000
5	256,714,705	742,018,296	998,733,000
6	261,848,999	756,858,662	1,018,707,660
7	267,085,979	771,995,835	1,039,081,814
8	294,149,238	882,814,506	1,176,963,744
9	318,546,641	916,090,577	1,234,637,217
10	324,917,573	939,154,553	1,264,072,127
11	331,415,925	957,937,644	1,289,353,569
12	338,044,243	977,096,397	1,315,140,641
13	344,805,128	996,638,325	1,341,443,453
14	351,701,231	1,016,571,092	1,368,272,322
15	358,735,255	1,036,902,514	1,395,637,769
16	390,604,522	1,166,073,788	1,556,678,310
17	419,465,095	1,207,152,920	1,626,618,015
18	427,854,397	1,236,687,203	1,664,541,600
19	436,411,485	1,261,420,947	1,697,832,432
20	445,139,714	1,286,649,366	1,731,789,080

Village 3
Assessed Value and Reassessment Year - Breakdown by Absorption Year
January 12, 2021

HIGH DENSITY (MULTIFAMILY UNITS)

Current Year	Year 1 Units (272 Units)		Year 2 Units (224 Units)		Year 3 Units (0 Units)		Total MF Assessed Value After Turnover
	Reassessment Year	Final Assessed Value	Reassessment Year	Final Assessed Value	Reassessment Year	Final Assessed Value	
1		$ 129,200,000		$ -		$ -	$ 129,200,000
2		131,784,000		110,124,000		-	241,908,000
3		134,419,680		112,326,480		-	246,746,160
4		137,108,074		114,573,010		-	251,681,083
5		139,850,235		116,864,470		-	256,714,705
6		142,647,240		119,201,759		-	261,848,999
7		145,500,185		121,585,794		-	267,085,979
8	Assess	170,131,728		124,017,510		-	294,149,238
9		173,534,362	Assess	145,012,278		-	318,546,641
10		177,005,049		147,912,524	Assess	-	324,917,573
11		180,545,150		150,870,774		-	331,415,925
12		184,156,053		153,888,190		-	338,044,243
13		187,839,174		156,965,954		-	344,805,128
14		191,595,958		160,105,273		-	351,701,231
15		195,427,877		163,307,378		-	358,735,255
16	Assess	224,030,996		166,573,526		-	390,604,522
17		228,511,616	Assess	190,953,479		-	419,465,095
18		233,081,849		194,772,548	Assess	-	427,854,397
19		237,743,486		198,667,999		-	436,411,485
20		242,498,355		202,641,359		-	445,139,714

MED-HIGH DENSITY (SINGLE FAMILY UNITS)

Current Year	Year 1 Units (948 Units)		Year 2 Units (150 Units)		Year 3 Units (44 Units)		Total SF Assessed Value After Turnover
	Reassessment Year	Final Assessed Value	Reassessment Year	Final Assessed Value	Reassessment Year	Final Assessed Value	
1		$ 567,314,081		$ -		$ -	$ 567,314,081
2		578,660,362		92,906,657		-	671,567,019
3		590,233,569		94,764,790		28,206,461	713,204,821
4		602,038,241		96,660,086		28,770,590	727,468,917
5		614,079,006		98,593,288		29,346,002	742,018,296
6		626,360,586		100,565,154		29,932,922	756,858,662
7		638,887,797		102,576,457		30,531,581	771,995,835
8	Assess	747,044,308		104,627,986		31,142,212	882,814,506
9		761,985,194	Assess	122,340,326		31,765,056	916,090,577
10		777,224,898		124,787,132	Assess	37,142,523	939,154,553
11		792,769,396		127,282,875		37,885,373	957,937,644
12		808,624,784		129,828,532		38,643,081	977,096,397
13		824,797,280		132,425,103		39,415,942	996,638,325
14		841,293,225		135,073,605		40,204,261	1,016,571,092
15		858,119,090		137,775,077		41,008,347	1,036,902,514
16	Assess	983,714,696		140,530,579		41,828,513	1,166,073,788
17		1,003,388,990	Assess	161,098,847		42,665,084	1,207,152,920
18		1,023,456,770		164,320,823	Assess	48,909,610	1,236,687,203
19		1,043,925,905		167,607,240		49,887,802	1,261,420,947
20		1,064,804,423		170,959,385		50,885,558	1,286,649,366

Footnotes:
(a) Turnover calculations based on 3.50% escalation and turnover occuring every 8 years. Assumes 2.00% escalation when no turnover event occurs.

Village 3
Initial Home Value by Year
Assumes 3.50% Annual Appreciation
January 12, 2021

Year	1	2	3	4	5	6	7	8	9	10
High Density (Multifamily)										
MF Unit Absorption	272	224	-	-	-	-	-	-	-	-
MF AV of Single unit	$ 475,000	$ 491,625	$ 508,832	$ 526,641	$ 545,073	$ 564,151	$ 583,896	$ 604,333	$ 625,484	$ 647,376
Med-High Density (Single Family)										
SF Unit Absorption	948	150	44	-	-	-	-	-	-	-
SF AV of Single Unit	$ 598,433	$ 619,378	$ 641,056	$ 663,493	$ 686,715	$ 710,750	$ 735,626	$ 761,373	$ 788,021	$ 815,602

Chula Vista Fiscal Impact Analysis Model – Proposed Project

	Year	1	2	3	4	5	6	7	8
Population									
Single Family Residential		2,664	3,074	3,198	3,198	3,198	3,198	3,198	3,198
Multi-Family Residential		762	1,389	1,389	1,389	1,389	1,389	1,389	1,389
Total (Per Capita Base)		3,426	4,463	4,586	4,586	4,586	4,586	4,586	4,586
Employment Population 5% Res Pop		171	223	229	229	229	229	229	229
Non-Residential		-	64	143	189	207	207	327	354
Totals		3,597	4,751	4,959	4,974	5,021	5,021	5,143	5,170
Number of Homes									
Single Family Residential		948	1,098	1,142	1,142	1,142	1,142	1,142	1,142
Multi-Family Residential		272	496	496	496	496	496	496	496
Totals		1,220	1,594	1,638	1,638	1,638	1,638	1,638	1,638
	Year	1	2	3	4	5	6	7	8
General Fund Revenues									
Tax Revenues									
Property Tax	AV	$ 877,608	$ 1,139,846	$ 1,221,953	$ 1,289,938	$ 1,295,660	$ 1,321,582	$ 1,375,090	$ 1,408,030
Sales and Use Tax	Per Capita	428,823	541,291	554,580	553,301	551,454	549,665	547,933	546,258
Sales and Use Tax - *Project Specific*	*Project Specific*	-	18,217	43,402	44,259	45,237	46,242	47,965	48,686
Transient Occupancy Tax	Per Capita	52,719	66,359	68,121	68,002	68,875	69,138	69,394	69,787
Motor Vehicle In-Lieu of VLF	AV	650,666	732,723	779,190	797,560	820,624	837,395	872,024	895,860
Franchise Fees	Per Capita	147,657	194,589	201,980	203,953	205,884	207,864	209,658	211,536
Other Taxes	Per Capita	103,689	137,872	149,657	139,987	139,497	138,880	138,290	136,139
Subtotal Tax Revenues		2,159,962	2,856,867	3,020,862	3,067,631	3,127,215	3,170,666	3,259,449	3,314,199
Other Revenues	Per Capita	8,658	18,691	20,775	22,290	23,762	25,185	26,975	27,030
Licenses and Permits	Per Capita	19,500	25,501	26,140	26,430	26,528	26,653	26,745	26,864
Fines, forfeitures, penalties	Per Capita	15,133	20,091	20,711	20,782	20,859	20,941	21,029	21,123
Use of Money & Property	Per Capita	27,601	48,880	50,088	50,260	50,446	50,645	50,858	51,085
Charges for Services	No Forecast	-	-	-	-	-	-	-	-
Intergovernmental	Per Capita	26,421	34,621	35,689	35,812	35,944	36,086	36,238	36,299
Subtotal Other Revenues		108,308	147,542	152,602	155,576	157,539	159,491	162,846	162,501
Total General Fund Revenues		$ 2,266,956	$ 2,998,408	$ 3,173,965	$ 3,223,208	$ 3,284,758	$ 3,330,157	$ 3,420,295	$ 3,476,901
General Fund Expenditures									
General Government	Per Capita	$ 24,602	$ 46,412	$ 49,973	$ 49,882	$ 51,051	$ 51,756	$ 52,717	$ 54,792
Community Development (0%)	Per Capita	7,762	10,270	10,691	10,833	10,980	11,131	11,289	11,449
Public Works/Engineering (0%)	Per Capita	12,418	16,998	17,925	18,154	18,401	18,652	19,287	19,537
	PC/EMP Base								
Drainage Management System	$ 26.50	91,111	120,440	123,670	123,670	123,670	123,670	123,670	123,670
Building Management System	4.10	14,233	18,999	19,112	19,112	19,112	19,112	19,112	19,112
Parks Management System	15.90	54,488	71,192	73,157	73,157	73,157	73,157	73,157	73,157
Open Space Management System	6.72	23,232	30,511	31,353	31,353	31,353	31,353	31,353	31,353
Fleet Management System	3.73	12,973	16,958	17,418	17,418	17,418	17,418	17,418	17,418
Pavement Annual (PMP)	14.10	49,299	64,412	66,190	66,190	66,190	66,190	66,190	66,190
General Govt Management System	0.85	2,279	2,966	3,040	3,040	3,040	3,040	3,040	3,040
Urban Forestry Management System	6.72	23,232	30,511	31,353	31,353	31,353	31,353	31,353	31,353
	$ 68.00	272,890	355,498	365,301	365,301	365,301	365,301	365,301	365,301
Community Services	Per Capita	46,874	62,022	64,363	66,420	66,206	67,221	68,166	69,140
New Library	Project Specific	-	-	-	-	-	-	-	-
New Facilities	Project Specific	-	-	-	-	-	-	-	-
Public Safety:									
Police Services	DU/Acre	798,614	1,152,097	1,239,190	1,290,908	1,346,177	1,401,380	1,462,634	1,522,386
Fire Services	DU/Acre	456,988	624,919	675,721	694,623	714,130	733,815	754,233	773,100
Animal Control Services	Per Capita	24,875	46,145	48,935	48,673	49,332	50,013	50,715	51,440
Total Public Safety		1,296,476	1,823,161	1,962,946	2,034,202	2,109,640	2,184,708	2,268,582	2,346,926
Total General Fund Expenditures		$ 1,664,212	$ 2,315,151	$ 2,470,498	$ 2,544,073	$ 2,621,765	$ 2,698,768	$ 2,786,340	$ 2,867,145
Projected Net Revenues/(Shortfall)		$602,744	$683,257	$703,466	$679,134	$662,993	$631,389	$633,956	$609,756

	Year	9	10	11	12	13	14	15	16
Population									
Single Family Residential		3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198
Multi-Family Residential		1,389	1,389	1,389	1,389	1,389	1,389	1,389	1,389
Total (Per Capita Base)		4,586	4,586	4,586	4,586	4,586	4,586	4,586	4,586
Employment Population 5% Res Pop		229	229	229	229	229	229	229	229
Non-Residential		354	354	354	354	354	354	354	354
Totals		5,170	5,170	5,170	5,170	5,170	5,170	5,170	5,170
Number of Homes									
Single Family Residential		1,142	1,142	1,142	1,142	1,142	1,142	1,142	1,142
Multi-Family Residential		496	496	496	496	496	496	496	496
Totals		1,638	1,638	1,638	1,638	1,638	1,638	1,638	1,638
	Year	9	10	11	12	13	14	15	16
General Fund Revenues									
Tax Revenues									
Property Tax	AV	$ 1,437,067	$ 1,465,747	$ 1,495,062	$ 1,524,963	$ 1,555,492	$ 1,586,572	$ 1,618,302	$ 1,650,669
Sales and Use Tax	Per Capita	562,638	579,517	596,903	614,810	633,254	652,252	671,829	691,974
Sales and Use Tax - Project Specific	*Project Specific*	48,966	49,946	50,945	51,964	53,002	54,063	55,144	56,247
Transient Occupancy Tax	Per Capita	71,880	74,037	76,258	78,545	80,902	83,329	85,829	88,404
Motor Vehicle In-Lieu of VLF	AV	932,096	950,698	969,667	989,010	988,756	1,008,890	1,029,425	1,050,372
Franchise Fees	Per Capita	217,882	224,419	231,151	238,086	245,228	252,585	260,163	267,968
Other Taxes	Per Capita	140,216	144,420	148,753	153,216	157,812	162,546	167,423	172,446
Subtotal Tax Revenues		*3,390,682*	*3,488,780*	*3,588,739*	*3,690,593*	*3,714,419*	*3,888,236*	*3,888,106*	*3,970,078*
Other Revenues	Per Capita	27,841	28,676	29,537	30,423	31,335	32,276	33,244	34,241
Licenses and Permits	Per Capita	27,670	28,500	29,355	30,236	31,143	32,077	33,039	34,031
Fines, Forfeitures, penalties	Per Capita	21,757	22,409	23,082	23,774	24,487	25,222	25,979	26,758
Use of Money & Property	Per Capita	52,617	54,196	55,822	57,496	59,221	60,998	62,828	64,713
Charges for Services	No Forecast	-	-	-	-	-	-	-	-
Intergovernmental	Per Capita	37,491	38,616	39,775	40,968	42,197	43,463	44,767	46,110
Subtotal Other Revenues		*167,376*	*172,398*	*177,570*	*182,897*	*188,384*	*194,035*	*199,856*	*205,852*
Total General Fund Revenues		**$ 3,558,059**	**$ 3,661,178**	**$ 3,766,307**	**$ 3,873,490**	**$ 3,902,803**	**$ 3,994,271**	**$ 4,087,962**	**$ 4,183,930**
General Fund Expenditures									
General Government	Per Capita	$ 55,580	$ 56,409	$ 57,254	$ 58,124	$ 59,020	$ 60,461	$ 61,952	$ 63,478
Community Development (0%)	Per Capita	11,616	11,787	11,960	12,145	12,332	12,613	12,946	13,294
Public Works/Engineering (0%)	Per Capita	19,721	19,870	20,176	20,483	20,798	21,306	21,832	22,369
	PC/DMP Base								
Drainage Management System	$ 26.50	122,670	122,670	122,670	122,670	122,670	122,670	122,670	122,670
Building Management System	4.16	19,112	19,112	19,112	19,112	19,112	19,112	19,112	19,112
Parks Management System	15.88	73,157	73,157	73,157	73,157	73,157	73,157	73,157	73,157
Open Space Management System	6.72	31,353	31,353	31,353	31,353	31,353	31,353	31,353	31,353
Fleet Management System	3.73	17,418	17,418	17,418	17,418	17,418	17,418	17,418	17,418
Pavement Annual (PMP)	14.16	66,190	66,190	66,190	66,190	66,190	66,190	66,190	66,190
General Govt Management System	0.65	3,040	3,040	3,040	3,040	3,040	3,040	3,040	3,040
Urban Forestry Management System	6.72	31,353	31,353	31,353	31,353	31,353	31,353	31,353	31,353
	$ 78.20	365,301	365,301	365,301	365,301	365,301	365,301	365,301	365,301
Community Services	Per Capita	70,146	71,180	72,246	73,344	74,474	75,292	76,176	80,100
New Library	Project Specific	-	-	-	-	-	-	-	-
New Facilities	Project Specific	-	-	-	-	-	-	-	-
Public Safety:									
Police Services	DU/Acre	1,560,445	1,599,457	1,639,443	1,680,429	1,722,440	1,765,501	1,809,638	1,854,879
Fire Services	DU/Acre	792,700	811,997	844,477	878,256	913,386	949,921	987,918	1,027,435
Animal Control Services	Per Capita	52,188	52,958	53,752	54,568	55,409	56,263	58,163	59,995
Total Public Safety		*2,405,333*	*2,464,412*	*2,537,671*	*2,613,253*	*2,691,235*	*2,772,185*	*2,855,720*	*2,941,909*
Total General Fund Expenditures		**$ 2,927,703**	**$ 2,988,966**	**$ 3,064,611**	**$ 3,142,650**	**$ 3,223,160**	**$ 3,308,180**	**$ 3,395,927**	**$ 3,486,422**
Projected Net Revenues/(Shortfall)		**$630,356**	**$672,212**	**$661,696**	**$670,840**	**$679,643**	**$686,091**	**$692,035**	**$697,509**

	Year	17	18	19	20
Population					
	Single Family Residential	3,198	3,198	3,198	3,198
	Multi-Family Residential	1,389	1,389	1,389	1,389
	Total (Per Capita Base)	4,586	4,586	4,586	4,586
	Employment Population 5% Res Pop	229	229	229	229
	Non-Residential	334	334	334	334
	Totals	5,170	5,170	5,170	5,170
Number of Homes					
	Single Family Residential	1,142	1,142	1,142	1,142
	Multi-Family Residential	496	496	496	496
	Totals	1,638	1,638	1,638	1,638
	Year	17	18	19	20
General Fund Revenues					
Tax Revenues					
Property Tax	AV	$ 1,669,682	$ 1,717,366	$ 1,761,703	$ 1,786,737
Sales and Use Tax	Per Capita	732,733	734,115	756,138	770,823
Sales and Use Tax - Project Specific	*Project Specific*	*37,272*	*38,519*	*39,600*	*40,804*
Transient Occupancy Tax	Per Capita	91,056	93,787	96,601	99,499
Motor Vehicle In-Lieu of VLF	AV	1,071,737	1,093,530	1,115,799	1,138,432
Franchise Fees	Per Capita	276,067	284,287	292,815	301,600
Other Taxes	Per Capita	177,639	182,947	188,436	194,089
Subtotal Tax Revenues		*4,056,186*	*4,144,542*	*4,251,142*	*4,340,963*
Other Revenues	Per Capita	35,248	36,326	37,416	38,539
Licenses and Permits	Per Capita	35,052	36,103	37,186	38,302
Fines, forfeitures, penalties	Per Capita	27,561	28,388	29,239	30,116
Use of Money & Property	Per Capita	66,654	68,654	70,713	72,835
Charges for Services	No Forecast	-	-	-	-
Intergovernmental	Per Capita	47,493	48,918	50,385	51,897
Subtotal Other Revenues		*212,027*	*218,388*	*224,940*	*231,688*
Total General Fund Revenues		**$ 4,282,233**	**$ 4,362,930**	**$ 4,486,082**	**$ 4,591,751**
General Fund Expenditures					
General Government	Per Capita	$ 66,046	$ 66,862	$ 68,120	$ 70,045
Community Development (0%)	Per Capita	13,591	13,929	14,277	14,636
Public Works/Engineering (0%)	Per Capita	22,922	23,491	24,078	24,683
	PC/DMP Base				
Drainage Management System	$ 26.50	122,670	122,670	122,670	122,670
Building Management System	4.16	19,112	19,112	19,112	19,112
Parks Management System	15.88	73,157	73,157	73,157	73,157
Open Space Management System	6.72	31,153	31,153	31,153	31,153
Fleet Management System	3.73	17,418	17,418	17,418	17,418
Pavement Annual (PMP)	14.18	66,190	66,190	66,190	66,190
General Govt Management System	0.65	3,040	3,040	3,040	3,040
Urban Forestry Management System	6.72	31,153	31,153	31,153	31,153
	$ 78.39	365,101	365,101	365,101	365,101
Community Services	Per Capita	82,070	84,110	86,220	88,387
New Library	Project Specific	-	-	-	-
New Facilities	Project Specific	-	-	-	-
Public Safety:					
Police Services	DU/Acre	1,901,251	1,948,783	1,997,502	2,047,440
Fire Services	DU/Acre	1,080,512	1,111,274	1,165,725	1,201,954
Animal Control Services	Per Capita	61,067	62,584	64,140	65,760
Total Public Safety		*3,038,830*	*3,122,641*	*3,217,378*	*3,315,153*
Total General Fund Expenditures		**$ 3,579,709**	**$ 3,676,142**	**$ 3,775,579**	**$ 3,878,285**
Projected Net Revenues/(Shortfall)		**$702,444**	**$706,788**	**$710,503**	**$713,346**

Year		1	2	3	4	5	6	7	8	9	10
Property Tax Analysis											
Residential Units											
Single Family Residential											
Total Cumulative SFR Units	1,142	848	1,048	1,142	1,142	1,142	1,142	1,142	1,142	1,142	1,142
Total Cumulative Residents	2.80	2,054	3,074	3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198
Percentage Complete		82%	96%	100%	100%	100%	101%	101%	101%	100%	100%
Constructed Assessed Values	$683,410,000	$547,314,001	$657,976,967	$683,410,000	$683,410,000	$683,410,000	$683,410,000	$683,410,000	$683,410,000	$683,410,000	$683,410,000
Multi-Family Residential - Attached Townhomes											
Total Cumulative MFR Units	896	272	496	496	496	496	496	496	496	496	496
Total Cumulative Residents	2.80	762	1,389	1,389	1,389	1,389	1,389	1,389	1,389	1,389	1,389
Percentage Complete		55%	100%	100%	100%	100%	101%	101%	101%	100%	100%
Constructed Assessed Values	$298,600,000	$139,206,000	$235,000,000	$298,600,000	$298,600,000	$298,600,000	$298,600,000	$298,600,000	$298,600,000	$298,600,000	$298,600,000
Total Cumulative Residents		3,416	4,463	4,586	4,586	4,586	4,586	4,586	4,586	4,586	4,586
Non-Residential Population		-	63	143	188	207	207	327	354	354	354
Commercial	Population		63	143	188	207	207	327	354	354	354
Percentage Complete		0%	30%	100%	100%	100%	101%	101%	101%	100%	100%
Constructed Assessed Values	$ 5,500,000	$ -	$ 2,750,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000
Industrial	Population										
Percentage Complete		0%	14%	31%	50%	62%	62%	91%	101%	100%	100%
Constructed Assessed Values	$ 40,880,000	$ -	$ 5,706,128	$ 12,563,948	$ 17,763,675	$ 25,407,746	$ 25,407,746	$ 44,504,891	$ 40,880,000	$ 40,880,000	$ 40,880,000
Office	Population										
Percentage Complete		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Constructed Assessed Values	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Hotel	Population										
Percentage Complete		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Constructed Assessed Values	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Constructed Assessed Values											
Total Current Period Assessed Value Additions		$ 936,314,001	$ 921,812,995	$ 939,775,044	$ 942,275,635	$ 949,397,746	$ 948,997,746	$ 969,079,891	$ 973,390,000	$ 973,390,000	$ 973,390,000
Inflation Factor	2.00%	100.00%	102.00%	104.04%	106.12%	108.24%	110.41%	112.62%	114.87%	117.17%	119.51%
Total AV - Inflated		$936,314,001	$921,812,995	$977,740,817	$999,950,440	$1,028,308,134	$1,048,874,297	$1,091,341,354	$1,118,119,142	$1,140,481,525	$1,163,294,155
Cumulative AV (w/o Prior Years Inflation)		$936,314,001	$921,812,995	$977,740,817	$999,950,440	$1,028,308,134	$1,048,874,297	$1,091,341,354	$1,118,119,142	$1,140,481,525	$1,163,294,155
Prior Year's AV Inflation Factor	2.00%	0.00%	2.04%	2.02%	2.00%	2.00%	2.01%	2.00%	2.00%	2.00%	2.00%
Prior Year's AV Inflation Amount		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Cumulative Residential AV - Inflated		**$936,314,001**	**$920,512,155**	**$977,740,817**	**$999,950,440**	**$1,028,308,134**	**$1,048,874,297**	**$1,091,341,354**	**$1,118,119,142**	**$1,140,481,525**	**$1,163,294,155**
Property Tax Revenue Estimate											
Ad Valorem	1.00%	$ 6,265,141	$ 9,205,124	$ 9,777,409	$ 9,999,504	$ 10,283,081	$ 10,488,743	$ 10,913,414	$ 11,181,191	$ 11,404,815	$ 11,632,942
Total AV Tax Due to City	**13.60%**	**$877,600**	**$1,199,016**	**$1,231,953**	**$1,299,938**	**$1,295,068**	**$1,321,582**	**$1,375,490**	**$1,408,830**	**$1,437,067**	**$1,465,747**

Year	11	12	13	14	15	16	17	18	19	20
Property Tax Analysis										
Residential Units										
Single Family Residential										
Total Cumulative SFR Units	1,142	1,142	1,142	1,142	1,142	1,142	1,142	1,142	1,142	1,142
Total Cumulative Residents	3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198	3,198
Percentage Complete	100%	100%	100%	101%	100%	101%	100%	100%	100%	100%
Constructed Assessed Values	$683,410,000	$683,410,000	$683,410,000	$683,410,000	$683,410,000	$683,410,000	$683,410,000	$683,410,000	$683,410,000	$683,410,000
Multi-Family Residential - Attached Townhomes										
Total Cumulative MFR Units	496	496	496	496	496	496	496	496	496	496
Total Cumulative Residents	1,389	1,389	1,389	1,389	1,389	1,389	1,389	1,389	1,389	1,389
Percentage Complete	100%	100%	100%	101%	100%	100%	100%	100%	100%	100%
Constructed Assessed Values	$298,600,000	$298,600,000	$298,600,000	$298,600,000	$298,600,000	$298,600,000	$298,600,000	$298,600,000	$298,600,000	$298,600,000
Total Cumulative Residents	4,586	4,586	4,586	4,586	4,586	4,586	4,586	4,586	4,586	4,586
Non-Res	354	354	354	354	354	354	354	354	354	354
Commercial	354	354	354	354	354	354	354	354	354	354
Percentage Complete	100%	100%	100%	101%	100%	100%	100%	100%	100%	100%
Constructed Assessed Values	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000	$ 5,500,000
Industrial										
Percentage Complete	100%	100%	100%	101%	100%	100%	100%	100%	100%	100%
Constructed Assessed Values	$ 40,880,000	$ 40,880,000	$ 40,880,000	$ 40,880,000	$ 40,880,000	$ 40,880,000	$ 40,880,000	$ 40,880,000	$ 40,880,000	$ 40,880,000
Office										
Percentage Complete	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Constructed Assessed Values	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Hotel										
Percentage Complete	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Constructed Assessed Values	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Constructed Assessed Values										
Total Current Period Assessed Value Additions	$ 973,390,000	$ 973,390,000	$ 973,390,000	$ 973,390,000	$ 973,390,000	$ 973,390,000	$ 973,390,000	$ 973,390,000	$ 973,390,000	$ 973,390,000
Inflation Factor	121.94%	124.44%	126.82%	129.96%	131.95%	134.59%	137.28%	140.02%	142.82%	145.68%
Total AV - Inflated	$1,186,556,970	$1,210,288,110	$1,234,493,880	$1,259,183,758	$1,284,367,433	$1,310,054,782	$1,336,255,877	$1,362,980,995	$1,390,240,615	$1,418,045,427
Cumulative AV (w/o Prior Years Inflation)	$1,186,556,970	$1,210,288,110	$1,234,493,880	$1,259,183,758	$1,284,367,433	$1,310,054,782	$1,336,255,877	$1,362,980,995	$1,390,240,615	$1,418,045,427
Prior Year's AV Inflation Factor	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Prior Year's AV Inflation Amount	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Cumulative Residential AV - Inflated	**$1,186,556,970**	**$1,210,288,110**	**$1,234,493,880**	**$1,259,183,758**	**$1,284,367,433**	**$1,310,054,782**	**$1,336,255,877**	**$1,362,980,995**	**$1,390,240,615**	**$1,418,045,427**
Property Tax Revenue Estimate										
Ad Valorem	$ 11,865,570	$ 12,102,881	$ 12,344,939	$ 12,591,838	$ 12,843,674	$ 13,100,548	$ 13,362,559	$ 13,629,810	$ 13,902,406	$ 14,180,454
Total AV Tax Due to City	**$1,495,062**	**$1,525,363**	**$1,555,662**	**$1,586,372**	**$1,616,193**	**$1,650,069**	**$1,683,602**	**$1,717,386**	**$1,751,780**	**$1,786,707**

Year	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Property Tax Analysis								
Residential Units								
Single Family Residential								
Total Cumulative SFR Units	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Cumulative Residents	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Percentage Complete	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Constructed Assessed Values	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Multi-Family Residential - Attached Townhomes								
Total Cumulative MFR Units	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Cumulative Residents	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Percentage Complete	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Constructed Assessed Values	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Cumulative Residents	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Non-Resi								
Commercial								
Percentage Complete	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Constructed Assessed Values	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]
Industrial								
Percentage Complete	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Constructed Assessed Values	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]
Office								
Percentage Complete	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Constructed Assessed Values	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]
Hotel								
Percentage Complete	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Constructed Assessed Values	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]
Constructed Assessed Values								
Total Current Period Assessed Value Additions	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]
Inflation Factor	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total AV - Inflated	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Cumulative AV (w/o Prior Years Inflation)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Prior Years AV Inflation Factor	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Prior Years AV Inflation Amount	$0	$0	$0	$0	$0	$0	$0	$0
Cumulative Residential AV - Inflated	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Property Tax Revenue Estimate								
Ad Valorem	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]	$ [illegible]
Total AV Tax Due to City	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CITY OF CHULA VISTA

Year	1	2	3	4	5	6	7	8	9	10	11	12	13
Sales Tax Analysis - Project Specific													
Total (Square Feet)													
Small Format		15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Large Format		-	-	-	-	-	-	-	-	-	-	-	-
Totals		15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Gross Leasable Area (Square Feet)	Occupancy												
Small Format	75%	-	9,000	22,500	22,500	22,500	22,500	22,500	22,500	22,500	22,500	22,500	22,500
Large Format	75%	-	-	-	-	-	-	-	-	-	-	-	-
Occupied Gross Leasable Area (Square Feet)	Occupancy Rate												
Small Format	100%	-	9,000	22,500	22,500	22,500	22,500	22,500	22,500	22,500	22,500	22,500	22,500
Large Format	100%	-	-	-	-	-	-	-	-	-	-	-	-
Taxable Sales Projected (Estimate)	Sales PSF	$ 163	$ 163	$ 166	$ 169	$ 172	$ 175	$ 178	$ 181	$ 185	$ 188	$ 192	$ 195
Small Format	$ 100.00	$ -	$ 1,467,750	$ 4,348,905	$ 4,485,045	$ 4,626,744	$ 4,616,215	$ 4,756,563	$ 4,905,431	$ 4,918,646	$ 4,934,773	$ 5,944,670	$ 5,146,364
Large Format	$ 100.00	-	-	-	-	-	-	-	-	-	-	-	-
Total Taxable Retail Sales Projected		$ -	$ 1,467,750	$ 4,348,905	$ 4,485,045	$ 4,626,744	$ 4,616,215	$ 4,756,563	$ 4,905,431	$ 4,918,646	$ 4,934,773	$ 5,944,670	$ 5,146,364
Annual Sales Taxes to the City													
Small Format	1.00%	$ -	$ 14,217	$ 43,491	$ 44,850	$ 46,267	$ 46,162	$ 47,566	$ 49,054	$ 49,186	$ 49,348	$ 59,447	$ 51,464
Large Format	1.00%	-	-	-	-	-	-	-	-	-	-	-	-
Growth Percentage - Adjusted													
Total Annual Sales Taxes to the City		$ -	$ 14,217	$ 43,491	$ 44,850	$ 45,237	$ 46,162	$ 47,005	$ 48,006	$ 48,866	$ 49,846	$ 58,945	$ 51,464

CITY OF CHULA VISTA

Year	14	15	16	17	18	19	20
Sales Tax Analysis - Project Specific							
Total (Square Feet)							
Small Format	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Large Format	-	-	-	-	-	-	-
Totals	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Gross Leasable Area (Square Feet)	Occupancy						
Small Format	22,500	22,500	22,500	22,500	22,500	22,500	22,500
Large Format	-	-	-	-	-	-	-
Occupied Gross Leasable Area (Square Feet)	Occupancy Rate						
Small Format	22,500	22,500	22,500	22,500	22,500	22,500	22,500
Large Format	-	-	-	-	-	-	-
Taxable Sales Projected (Estimate)	Sales PSF	$ 199	$ 202	$ 206	$ 210	$ 214	$ 218
Small Format	$ 100.00	$ 5,400,203	$ 5,214,416	$ 5,124,707	$ 5,717,131	$ 5,681,948	$ 5,848,984
Large Format	$ 100.00	-	-	-	-	-	-
Total Taxable Retail Sales Projected		$ 5,400,203	$ 5,214,416	$ 5,124,707	$ 5,717,131	$ 5,681,948	$ 5,848,984
Annual Sales Taxes to the City							
Small Format	1.00%	$ 54,002	$ 55,144	$ 56,247	$ 57,172	$ 58,519	$ 59,690
Large Format	1.00%	-	-	-	-	-	-
Growth Percentage - Adjusted							
Total Annual Sales Taxes to the City		$ 54,002	$ 55,144	$ 56,247	$ 57,172	$ 58,519	$ 59,690

	FY2019-20 ADOPTED	FY2020-21 FORECAST	FY2021-22 FORECAST	FY2022-23 FORECAST	FY2023-24 FORECAST	FY2024-25 FORECAST	FY2025-26 FORECAST	FY2026-27 FORECAST	FY2027-28 FORECAST	FY2028-29 FORECAST	FY2029-30 FORECAST	FY2030-31 FORECAST	FY2031-32 FORECAST
		1	2	3	4	5	6	7	8	9	10	11	12	13
POPULATION	202,278	207,138	208,610	209,610	210,402	208,479	211,295	216,110	220,898	225,758	230,279	235,240	240,233
CHANGE IN POPULATION	10,064	4,820	4,820	4,820	4,820	4,820	4,820	4,820	4,820	4,820	4,820	4,820	4,820
# of DU	3,918	1,721	1,721	1,721	1,721	1,721	1,721	1,721	1,721	1,721	1,721	1,721	1,721
SFR	896	306	306	306	306	306	306	306	306	306	306	306	306
MFR	3,020	1,415	1,415	1,415	1,415	1,415	1,415	1,415	1,415	1,415	1,415	1,415	1,415
DEVELOPER SFR (UNITS)		945	1,098	1,142	1,142	1,142	1,142	1,142	1,142	1,142	1,142	1,142	1,142
DEVELOPER MFR (UNITS)		272	496	496	496	496	496	496	496	496	496	496	496
9.06 COMMERCIAL (ACRES)		-	4.83	9.06	9.06	9.06	9.06	9.06	9.06	9.06	9.06	9.06	9.06
17.02 INDUSTRIAL (ACRES)		-	2.45	5.24	6.19	8.88	8.88	10.52	17.02	17.02	17.02	17.02	17.02
- OFFICE (ACRES)		-	-	-	-	-	-	-	-	-	-	-	-
- HOTEL (ACRES)		-	-	-	-	-	-	-	-	-	-	-	-
EXISTING DU													
POLICE Single Family Units	53,629 PER DU	$ 590.80	$ 595.80	$ 628.21	$ 651.62	$ 661.71	$ 710.00	$ 759.11	$ 769.65	$ 808.02	$ 820.00	$ 860.50	$ 861.82	$ 901.98	$ 905.13
POLICE Multi-Family Units	10,561 PER DU	$ 646.51	$ 866.51	$ 916.72	$ 955.26	$ 994.80	$ 1,054.07	$ 1,079.56	$ 1,115.12	$ 1,167.42	$ 1,196.60	$ 1,216.52	$ 1,257.18	$ 1,286.61	$ 1,310.03
EXISTING ACRES															
POLICE Commercial Acres	2,624 PER ACRE	$ 1,496.44	$ 1,496.44	$ 1,572.55	$ 1,633.63	$ 1,706.30	$ 1,777.50	$ 1,850.19	$ 1,926.43	$ 2,002.40	$ 2,082.68	$ 2,164.00	$ 2,250.40	$ 2,333.51	$ 2,408.79
POLICE Industrial/Office Acres	1,481 PER ACRE	$ 308.91	$ 308.91	$ 330.24	$ 357.74	$ 369.31	$ 604.31	$ 628.73	$ 655.73	$ 681.61	$ 698.88	$ 716.22	$ 734.02	$ 752.28	$ 771.10
POLICE COSTS - PROJECT SPECIFIC			$ 2,956.14	$ 3,165.97	$ 3,279.30	$ 3,391.98	$ 3,746.177	$ 3,901.300	$ 3,983.634	$ 4,026.386	$ 4,160.446	$ 4,196.457	$ 4,378.445	$ 4,490.429	$ 4,593.490
EXISTING DU															
FIRE Single Family Units	53,629 PER DU	$ 376.82	$ 376.82	$ 393.49	$ 411.05	$ 421.51	$ 435.10	$ 446.70	$ 458.71	$ 469.99	$ 481.91	$ 493.64	$ 513.28	$ 531.92	$ 555.28
FIRE Multi-Family Units	10,561 PER DU	$ 346.75	$ 346.75	$ 392.94	$ 403.06	$ 413.18	$ 423.46	$ 434.53	$ 446.44	$ 457.42	$ 468.52	$ 480.43	$ 499.65	$ 519.54	$ 540.42
EXISTING ACRES															
FIRE Commercial Acres	2,624 PER ACRE	$ 527.79	$ 527.79	$ 551.13	$ 577.19	$ 591.10	$ 609.40	$ 625.76	$ 642.47	$ 659.28	$ 674.36	$ 691.19	$ 719.05	$ 747.61	$ 777.92
FIRE Industrial/Office Acres	1,481 PER ACRE	$ 166.06	$ 166.06	$ 173.41	$ 181.60	$ 186.44	$ 191.74	$ 196.89	$ 202.15	$ 207.12	$ 212.77	$ 217.74	$ 226.24	$ 235.29	$ 244.71
FIRE COSTS - PROJECT SPECIFIC			$ 600.980	$ 624.919	$ 675.71	$ 694.611	$ 715.120	$ 735.315	$ 756.313	$ 775.200	$ 792.900	$ 811.587	$ 844.477	$ 876.204	$ 912.306

	FY2032-33 FORECAST	FY2033-34 FORECAST	FY2034-35 FORECAST	FY2035-36 FORECAST	FY2037-38 FORECAST	FY2038-39 FORECAST	FY2039-40 FORECAST
	14	15	16	17	18	19	20
POPULATION	242,040	242,944	246,051	247,440	251,119	253,779	252,450
CHANGE IN POPULATION	1,801	1,776	1,407	1,389	1,746	1,708	1,607
# of DU	641	631	641	634	633	632	636
SFR	117	117	111	114	111	108	106
MFR	524	514	531	520	522	524	529
DEVELOPER SFR (UNITS)	1,142	1,142	1,142	1,142	1,142	1,142	1,142
DEVELOPER MFR (UNITS)	496	496	496	496	496	496	496
9.06 COMMERCIAL (ACRES)	9.06	9.06	9.06	9.06	9.06	9.06	9.06
17.02 INDUSTRIAL (ACRES)	17.02	17.02	17.02	17.02	17.02	17.02	17.02
- OFFICE (ACRES)	-	-	-	-	-	-	-
- HOTEL (ACRES)	-	-	-	-	-	-	-
EXISTING DU							
POLICE Single Family Units	53,629 PER DU	$ 927.76	$ 950.85	$ 974.71	$ 999.09	$ 1,024.07	$ 1,049.67	$ 1,075.92
POLICE Multi-Family Units	10,561 PER DU	$ 1,350.85	$ 1,387.19	$ 1,422.36	$ 1,457.94	$ 1,494.19	$ 1,511.78	$ 1,570.05
EXISTING ACRES								
POLICE Commercial Acres	2,624 PER ACRE	$ 2,332.42	$ 2,390.48	$ 2,479.99	$ 2,550.99	$ 2,543.52	$ 2,617.61	$ 2,690.30
POLICE Industrial/Office Acres	1,481 PER ACRE	$ 790.46	$ 810.22	$ 830.48	$ 851.24	$ 872.52	$ 894.24	$ 916.70
POLICE COSTS - PROJECT SPECIFIC		$ 1,745.401	$ 1,809.618	$ 1,874.379	$ 1,941.281	$ 1,948.733	$ 1,957.502	$ 1,967.445
EXISTING DU								
FIRE Single Family Units	53,629 PER DU	$ 576.81	$ 577.49	$ 600.19	$ 624.61	$ 649.89	$ 675.18	$ 702.60	$ 730.71
FIRE Multi-Family Units	10,561 PER DU	$ 546.75	$ 562.04	$ 584.53	$ 607.90	$ 631.23	$ 657.51	$ 683.81	$ 711.16
EXISTING ACRES								
FIRE Commercial Acres	2,624 PER ACRE	$ 827.79	$ 866.81	$ 941.19	$ 974.91	$ 909.83	$ 946.22	$ 984.07	$ 1,023.43
FIRE Industrial/Office Acres	1,481 PER ACRE	$ 165.06	$ 254.49	$ 264.67	$ 275.31	$ 286.27	$ 297.72	$ 309.63	$ 322.03
FIRE COSTS - PROJECT SPECIFIC		$ 945.921	$ 957.919	$ 1,027,435	$ 1,068.532	$ 1,111.274	$ 1,155.725	$ 1,201.954

Village 3 and a Portion of Village 4 SPA Plan

Village 3 Design Plan

Appendix A

ADOPTED DECEMBER 2, 2014
BY RESOLUTION NO. 2014-234

AMENDED DECEMBER 6, 2016
BY RESOLUTION NO. 2016-254

AMENDED _____
BY RESOLUTION NO. _____

APPLICANT:

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PREPARED BY:

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TABLE OF CONTENTS

EXHIBIT LIST

I. Introduction

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A. Design Plan Document

1. Village Design Plan

The Otay Ranch General Development Plan (GDP) requires that a Village Design Plan be prepared for each village at the Sectional Planning Area (SPA) level of planning. The Village Design Plan guides planning and development by defining intended character and design elements of the village. It provides guidance for developers and designers in creating the village and it will be used by the City of Chula Vista to evaluate the village design.

The Village 3 Design Plan guides the design of sites, buildings and landscapes within the village to ensure that the quality of the adopted urban design and architectural concepts established for the overall Otay Ranch community are maintained. The design plan identifies a theme for Village 3 and delineates that identity through streetscape and landscape design, signage programs, and architectural and lighting guidelines. The design plan also identifies the village core design concepts that will implement Otay Ranch's planned pedestrian orientation.

This introductory section of the Village Design Plan provides a description of the design review process for development within Village 3. Section II describes the Village 3 setting, land use plan, and the design theme of the village. The following sections describe the overall village design features and provide guidelines for the Village Core, and multi-family and single family residential developments.

2. Companion Documents

Otay Ranch GDP Overall Design Plan

The guiding framework plan is the Otay Ranch GDP Overall Design Plan. The Overall Design Plan provides general design guidelines appropriate to the pedestrian and transit-oriented village concepts envisioned for the community.

Village 3 Planned Community (PC) District Regulations

The PC District Regulations establish land use development standards and appropriate regulations (zoning) for all construction within the Village 3 project area. All proposed developments must adhere to the land uses, setbacks, building heights and similar regulatory criteria specified in the PC District Regulations.

I. Introduction

Village 3 Master Precise Plan(s)

Master Precise Plan(s) will be prepared to provide additional design direction within the Village Core areas. A Master Precise Plan must be approved and adopted prior to the issuance of building permits for the first multi-family or mixed use development within the village core area.

Separate Site Plans for the Mixed Use area will establish a more detailed framework for Village Core implementation, taking into consideration the Village Core Concept Plan, yet allowing flexibility for subsequent Individual Site Plan preparation should additional detail be necessary. Site Plans shall include the following:

- Building Design/Siting – Locations of proposed structures.
- Pedestrian/Vehicle/Transit Access – Identification of pedestrian, bike and vehicle access and circulation for all planning areas within the Village Core.
- Urban Character/Architecture – Identification of architectural style and key urban elements, including the transit station design.
- Lighting/Signing/Street Furnishings – Specifications for lighting fixtures, signage and street furnishings.

B. Design Review Process

1. Process

Formal design review processes have been established in the Village 3 PC District Regulations to ensure all development within Otay Ranch is consistent with City of Chula Vista policies and development standards, Otay Ranch GDP Overall Design Plan, Village 3 Design Plan and PC District Regulations. The process requires preparation of site, landscape and architectural plans that will be reviewed and approved by the Master Developer, City of Chula Vista Director of Development Services and/or City of Chula Vista Planning Commission, depending on the type of proposed project. The various review processes are described greater detail in Chapter X, Implementation & Administration of the Village 3 PC District Regulations.

2. Master Developer Review

The Village 3 infrastructure and building lots will be developed by the Master Developer. Most of the elements described in Section II of this document, including landform grading, village entries and streets will be implemented by the Master Developer. The development of commercial, community-serving uses, multi-family and single family residential neighborhoods will be by Merchant Builders and/or builder(s) affiliated with the Master Developer. A design review process has been created to facilitate development by Merchant Builders within the unique village planning concepts of the Otay Ranch planned community.

The design review process includes two integrated procedures: preliminary design review by the Master Developer and review and approval by the City of Chula Vista. The process requires the Merchant Builder to formulate the design for their parcel and review it with the Master Developer prior to formal application and review by the City. The review requirements of the Master Developer are intended to ensure that the builder's intended product and designs meet the standards and criteria for the entire planned community. The Merchant Builder's design submittal package to the Master Developer would typically consist of preliminary site, landscape and architectural plans. Following review of the Merchant Builder's schematic design, a continuing exchange of information will be expected as the design is finalized, and the City's review process begins. Final, approved plans shall be provided to the Master Developer. If there is no Master Developer available to facilitate this process, design review will move directly to the City, unless otherwise specified in project CC&Rs.

3. City of Chula Vista - Minor Design Review

The Development Services Director is authorized to approve applications as provided in Section 19.14.030 of the Chula Vista Municipal Code and described in greater detail in the Village 3 PC District Regulations, Chapter X. The Minor Design Review process shall be used for all single-family detached units on lots of/or exceeding an average size of 2,700 square feet, including all proposals in the SF-4 zone designation and lots served by alleys and courtyards in the RM-1 Zone which have tentative subdivision map approval. Further, all proposals for attached products within the RM-2 zone with less than 200 dwelling units shall also be subject to the Minor Design Review process All proposals shall be consistent with the Village 3 PC District Regulations and Design Plan.

4. City of Chula Vista - Major Design Review

All proposals for single-family detached units on lots less than an average size of 2,700 square feet (except detached alley and courtyard homes), all attached products within the RM-1 and RM-2 zone designations containing more than 200 units, and all proposals for non-residential land uses except (except public parks and private recreation areas), are subject to the Major Design Review process as described in CVMC Sections 19.14.58 1 (through 19.14.600). The Planning Commission shall review plans as required by the Village 3 PC District Regulations, Chapter X, Implementation & Administration. Findings shall be based on the City's Design Manuals and this Village 3 Design Plan. All Public Parks shall be approved by the Parks and Recreation Commission.

5. Appeals

An appeal to the City Council on a decision of the Planning Commission may be filed as provided for in CVMC Section 19. 14.583.

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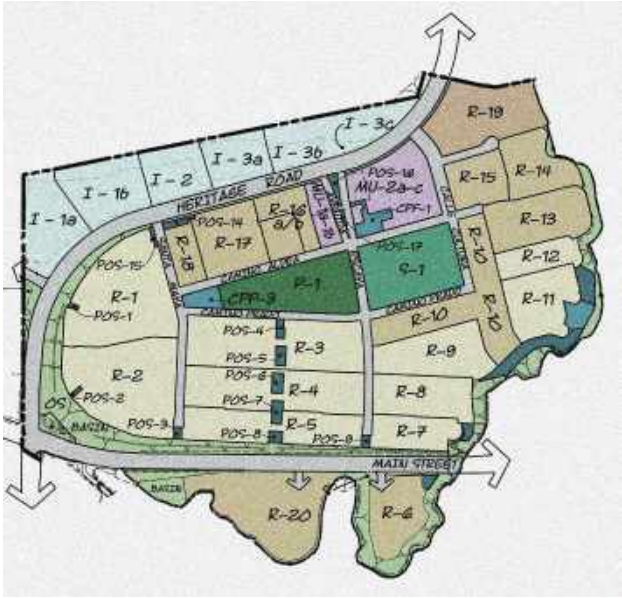
II. Village Structure



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A. Setting and Design Influences

Village 3 is located on a mesa north of the Otay River Valley within the Otay Valley Parcel of Otay Ranch. The site slopes from north to south and provides view opportunities across the Otay River Valley to the south and Wolf Canyon and mountains to the east.

Otay Ranch Village 2 and the Otay Landfill are located to the north, the future Village 4 Area is located to the east, existing industrial land uses are located to the west and the Otay River Valley is to the south. A Rapid Bus Route is planned along Main Street and a transit stop/station is proposed south of Village 3. The village core is located in the northeast corner of Village 3, placing neighborhood serving mixed use commercial a public neighborhood park and an elementary school site within walking distance of a majority of village residents. The Village 3 portion of the Otay Ranch Business Park is separated from the Village Core by Heritage Road. The Otay Valley Regional Park is located south of Village 3 within the Otay River Valley. Pedestrian linkages are planned between the southern residential neighborhoods and the regional park.

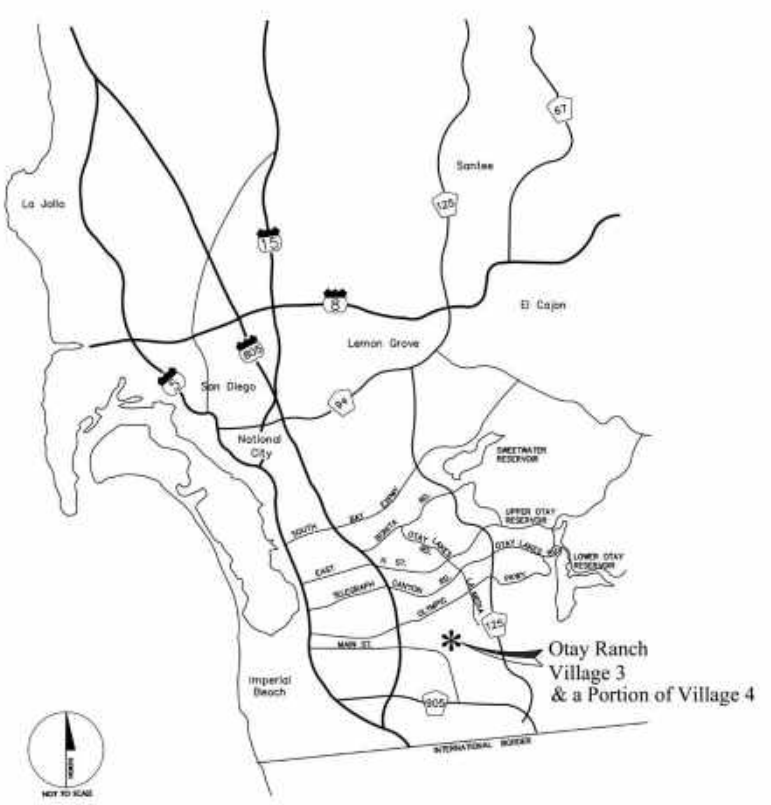


Exhibit 1

Regional Location Map

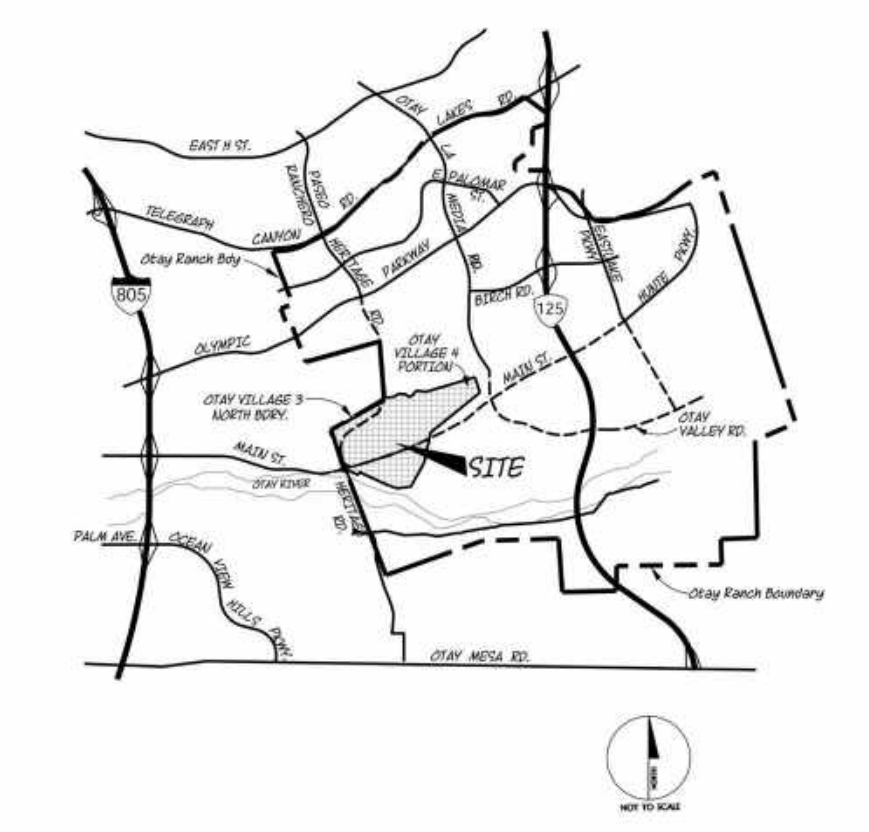


Exhibit 2

Vicinity Map

B. Pedestrian/Multi-Modal Orientation

The Otay Ranch pedestrian and multi-modal oriented design concepts have been implemented in the village design. Village 3 has village-serving land uses located within a grid street pattern as a basis for the pedestrian-oriented village design. The grid street pattern provides a variety of circulation routes through the village. The circulation system includes sidewalks separated from the roadway by parkways, tree-lined walkways, pedestrian-scaled lighting and other amenities. The pedestrian circulation system incorporates a network of Promenade Trails, Village Pathways and a Paseo connecting Village 3 to the City's regional trail system along Heritage Road and Main Street. The circulation system may include local bus service extending through the village with strategically located stops along Heritage Road. In addition, a community serving Rapid Bus route is proposed along Main Street.

Bicycle circulation is also planned within Village 3. Class 2 Bike Lanes are planned along Main Street and Heritage Road. Bicyclists have the option of utilizing the off-street Village Pathway or Class 3 Bike lanes which provide connections through the village core. Sharrows will be utilized on the Secondary Village Entry Streets and Modified Promenade Streets connecting residential neighborhoods to the Class 2 Bike Lanes along Heritage Road and Main Street.

C. Land Use Organization

The Village 3 land use plan organizes land uses around a village core comprised of a mixed use area containing multi-family residential, commercial/retail and a community purpose facility component. Multi-family and courtyard neighborhoods, a school site and a neighborhood park complete the village core. Single-family neighborhoods are planned within the secondary village area, linked to the village core along the Village Pathway, Promenade Trails and a multi-use paseo. Multi-family homes are planned on two parcels located south of Main Street. See Village 3 Illustrative Plan, Exhibit 3 for additional details.

II. Village Structure

Exhibit 3

Village 3 Illustrative Plan

Note: This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.

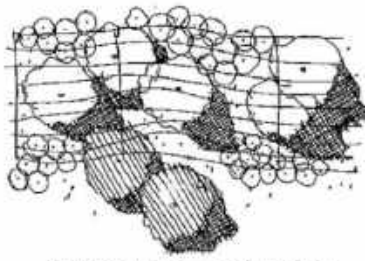
D. Urban Theme and Character

The historical agrarian use of the land within Otay Ranch is the inspiration for the theme and character of Village 3. An eclectic approach to community thematic architecture captures Transitional Spanish, Farmhouse and Ranch styles. These architectural styles are fresh and reinterpreted in a more contemporary way. Simple forms with an earthy palette comprised of colored stucco, stone, clay tile and wood accents establish this architectural theme. The landscape design will also evoke Otay Ranch's agrarian past with canopy trees, groves, citrus trees, ornamental grasses, raised wood and stone planters arranged in a less formal design.

The defining design agrarian architectural features are particularly applicable to the pedestrian and multi-modal transportation design of the Village 3 Core. The "Main Street" will be designed with arcades and outdoor seating and gathering spaces. Design elements may include awnings, trellises and a variety of street trees to define and highlight the created spaces. In addition to trees, the landscaping may include planting areas with a variety of colorful shrubs, groundcover and vines, as well as potted and hanging accent plants. Architecture in the Village Core mixed use commercial/residential area will allow for variety but maintains a strong basis in Farmhouse and Ranch architecture. The design theme will extend to village-serving buildings such as elementary school and recreational facilities.

D. Landform Grading

The natural sloping landform provides the opportunity to tier the site and create a fairly level, pedestrian-oriented village core. On the north side of the village, the topography slopes from north to south from Heritage Road to Main Street. The Otay River Valley preserve open space is located below the village to the south. The site design of the village follows the undulating landform of the canyon.



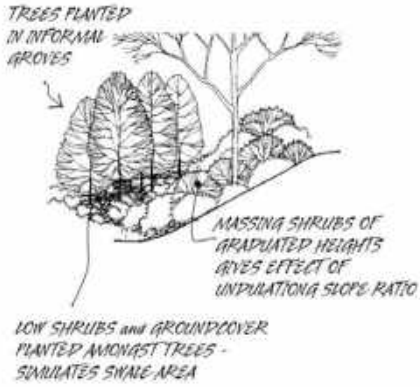
TYPICAL SLOPE PLANTING

Building sites have been created in terraces and streets are located within the topography to adhere to City horizontal and vertical curve standards.

The design plan for the village strives to minimize grading and create an aesthetically pleasing landform. The following are guidelines for grading and slope design:

- Create elevation changes within the property that strive for a balance of cut and fill grading.
- Use grade changes to optimize views and a sense of spaciousness.
- Use grade changes between different land uses where separation and buffering is desired.
- Avoid, where possible, creating slopes over 25 feet in height to minimize a sense of enclosure, particularly in residential rear yards.
- Use landform grading techniques, where appropriate, in slopes over 25 feet in height.
- Use varied-height trees, shrubs and groundcovers to undulate the surface of slopes.
- Minimize surface runoff and erosion potential by planting slopes with low water consumptive and drought tolerant plants.
- Use state-of-the-art erosion control, irrigation and water management practices to protect slopes.

TYPICAL SLOPE PLANTING



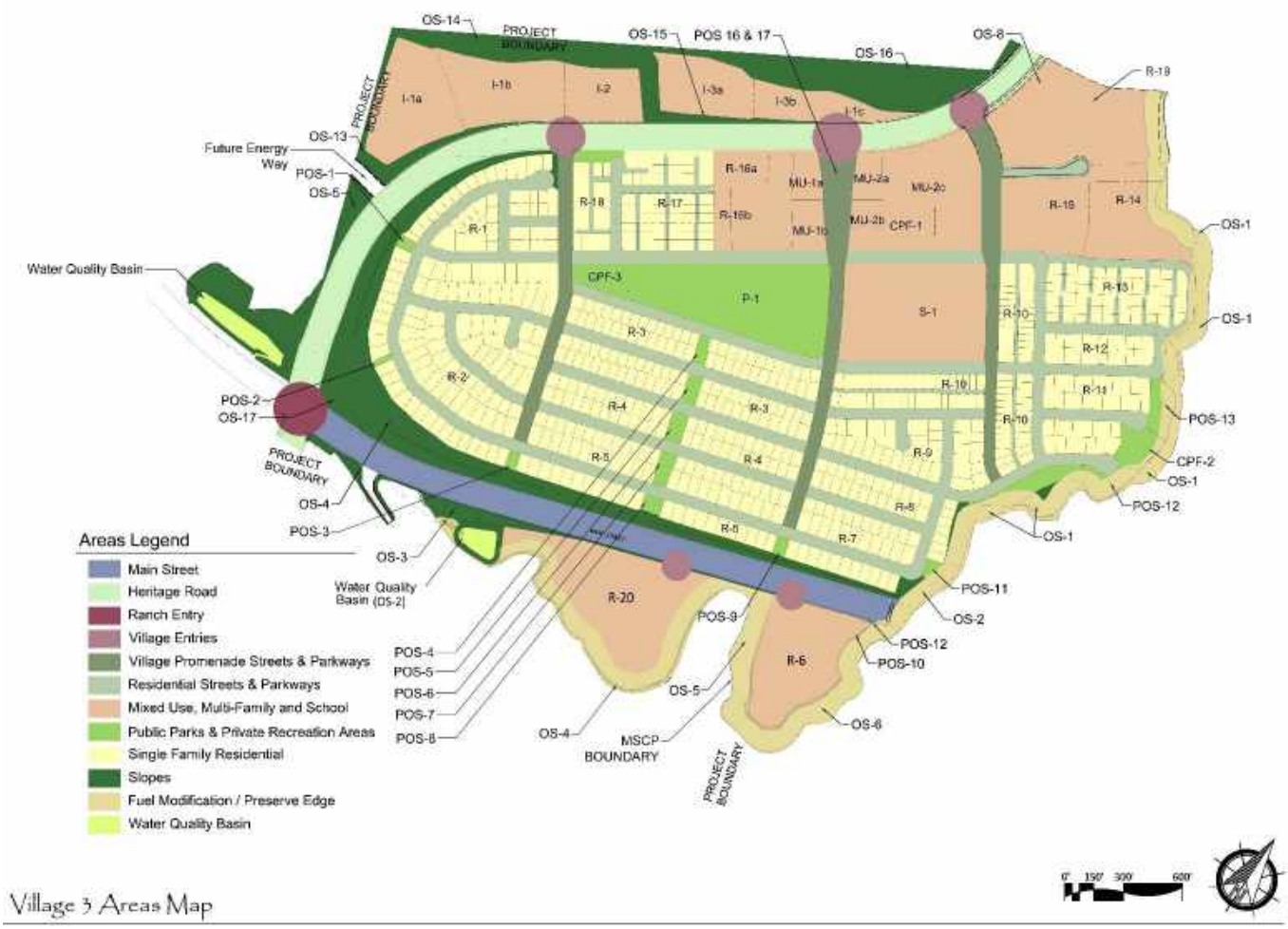
E. Landscape Concept

The landscape concept for Village 3 is intended to integrate into the overall Otay Ranch design theme while creating a distinctive and unique village design theme. The Otay Ranch design theme is addressed by extending established arterial streetscape designs and perimeter slope landscape designs into the Village 3 landscape plan. Within the village, the agrarian-inspired design theme

will be created through a comprehensive landscape plan that addresses the design of outdoor spaces, features, furnishings, and the use of a variety of trees, shrubs and groundcovers. Derivatives of the agrarian style including Transitional Spanish, Farmhouse and Ranch architecture will complement the landscape and create an elegant and cohesive community. The plant palette is a collection of water efficient materials that connect the diversity in agrarian-inspired architectural styles.

The landscape concept is illustrated in the Landscape Concept Plan (Exhibit 4). The Master Street Tree Plan (Exhibit 5) establishes the tree planting program along major arterial roads and all internal Village 3 streets. Descriptions of the landscape concepts within specific zones or areas within Village 3 are provided in the following sections. Additional information about the Village 3 landscape plan is provided in the Preserve Edge Plan. The Landscape Master Plan and the Village Core Master Precise Plan(s), developed after the SPA Plan is approved, provide more detailed descriptions of the village landscapes. See Village 3 North and a Portion of Village 4 Fire Protection Plan and 2021 Fire Protection Plan Amendment for additional plant palette information.

II. Village Structure



Village 3 Areas Map

Exhibit 4
Landscape Concept Plan

II. Village Structure

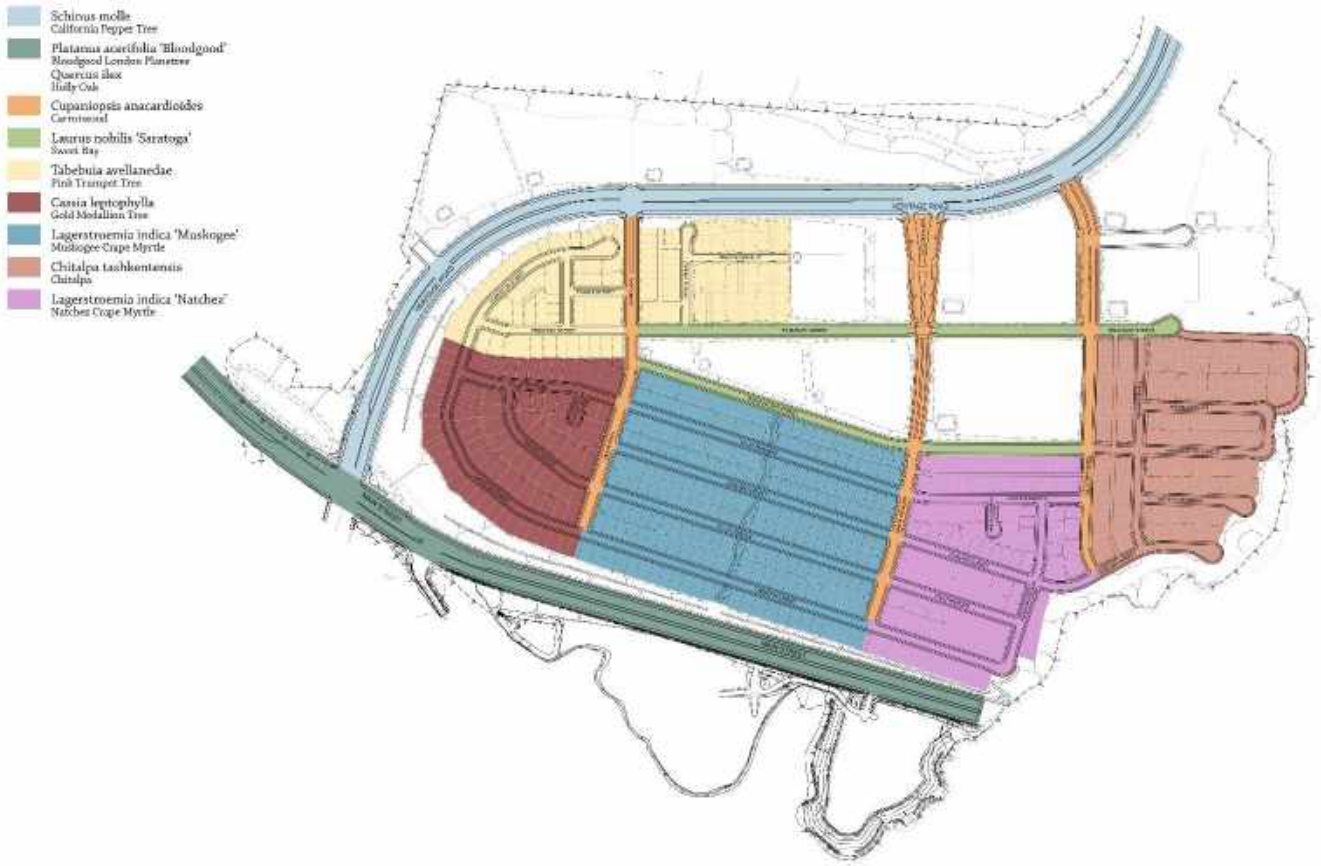


Exhibit 5
Master Tree Plan

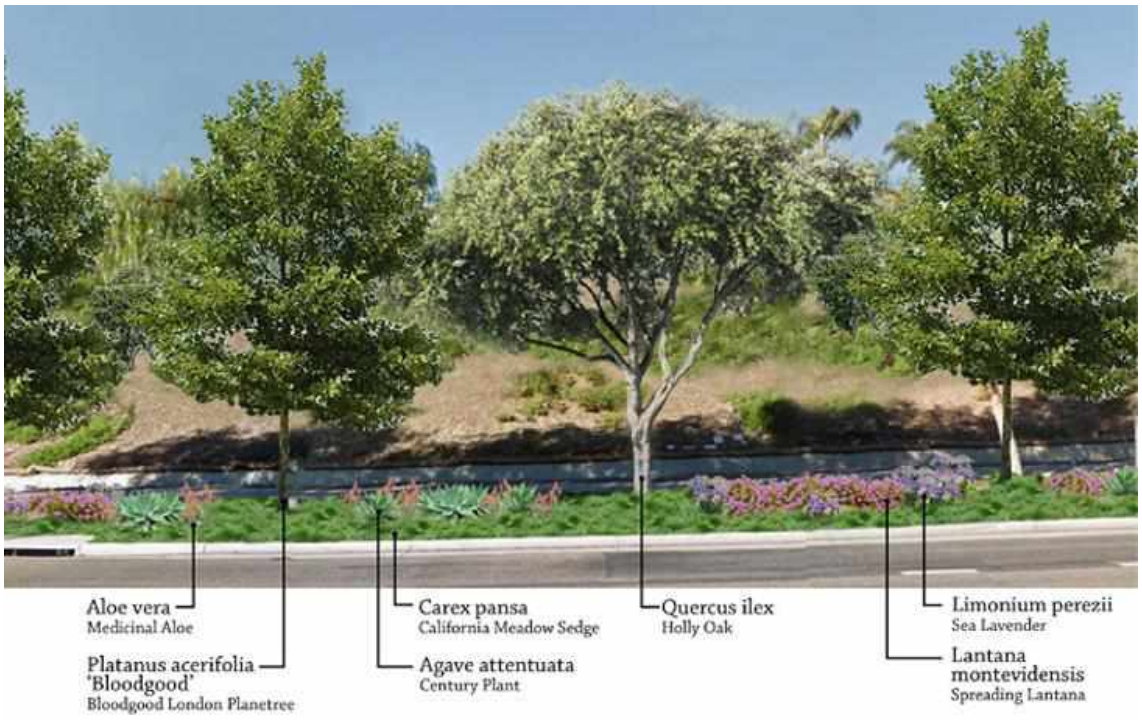
II. Village Structure

1. Six-Lane Arterials – Heritage Road and Main Street

Heritage Road and Main Street provide primary access to Village 3. The primary street and median tree along Heritage Road is the California Pepper Tree. Understory planting includes Aloe, Century Plant, California Meadow Sedge. Sea Lavender and Lantanta, creating a colorful and interesting palette. This landscape concept provides continuity with the existing landscape theme to the north.

II. Village Structure

The landscape theme along Main Street includes the Holly Oak and London Plane Tree as the featured street and median trees. Understory planting includes Aloe, Century Plan, California Meadow Sedge. Sea Lavender and Lantanta, creating a colorful and interesting palette.



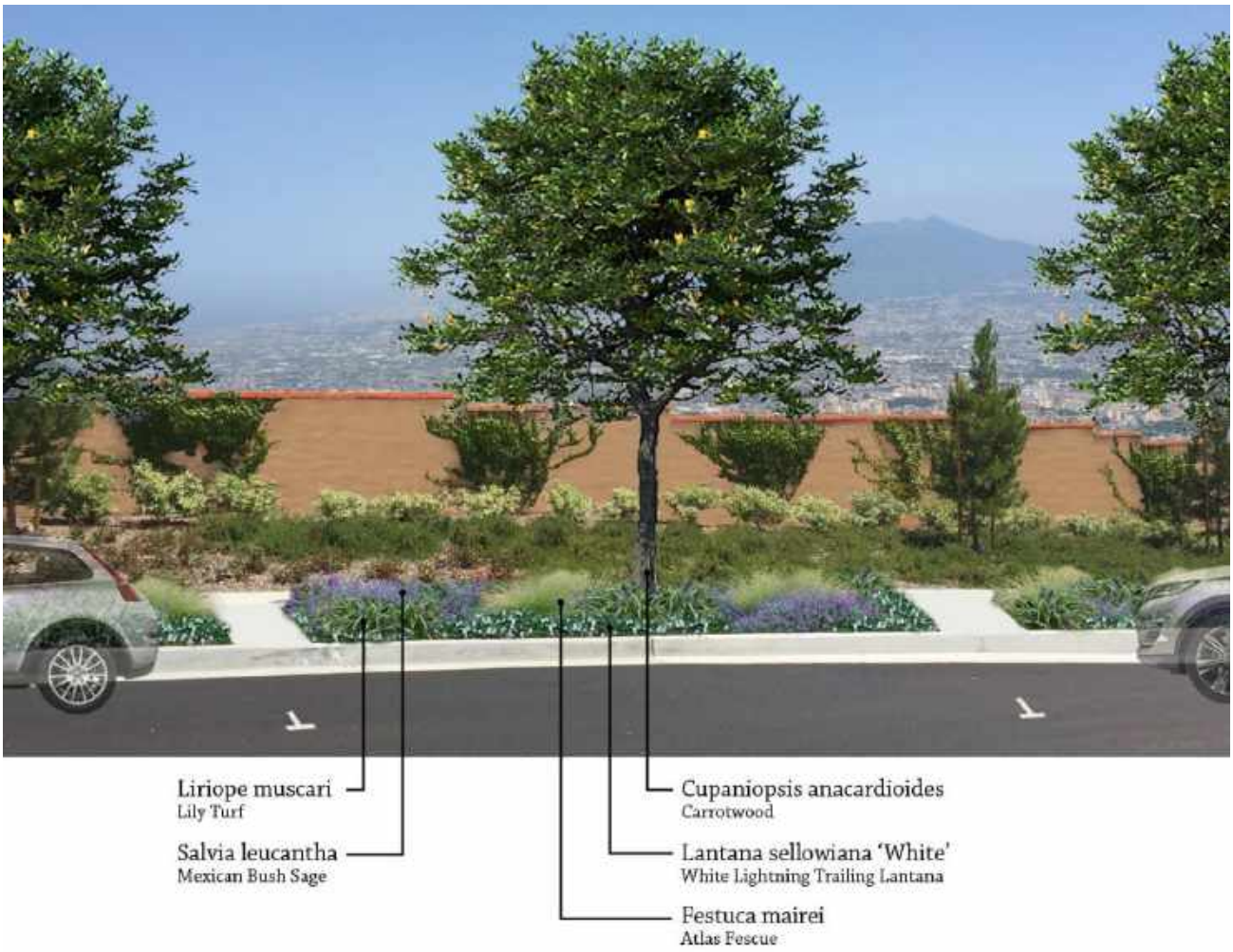
2. Ranch Entry (Heritage Road & Main Street)

A Sycamore grove is planned at the Ranch Entry located at the intersection of Heritage Road and Main Street. This grove planting will create a gateway into the southwestern portion of Otay Ranch and Village 3.

3. Secondary Village Entry Streets and Promenade Streets

The landscape concept for the Secondary Village Entry Streets (Avenida Escaya, Santa Maya and Paseo Cultura) features the Carrotwood Tree within the parkways and medians. The understory consists of Lily Turf, Mexican Bush Sage, Atlas Fescue and White Lantana. This planting concept creates color, depth and interest along these entryways into Village 3.

Promenade Streets (Camino Aldea, Camino Prado and Corte Nueva) provide a strong connection to and through the village core. These streets feature a wider sidewalk, double row of trees and a pedestrian scaled light fixture on one side of the street and a standard sidewalk and single row of trees on the opposite side. The landscape concept features the Sweet Bay Tree in the parkways. The understory includes Hakone Grass, Spanish Sage and Cyprus Spurge. This creates a colorful, unique landscape palette for the Promenade Streets.



4. Residential Streets

Residential streets feature colorful, blooming parkway trees including the Gold Medallion Tree and Pink Trumpet Vine. The parkway understory features Atlas Fescue, Fortnight Lily, Dalmation Bellflower, Spanish Lavender, White Texas Sage, Century Plant, Gold Lantana.

5. Public Parks and Private Recreation Areas

The landscape theme for the P-1 Public Park is reflected in the images presented below. Final landscape design will be determined during the City of Chula Vista Park Master Plan process.

Public Neighborhood Park Concepts

II. Village Structure

The conceptual landscape theme for the private recreation facilities, including the swim club and perimeter open space area is represented in the images provided below. The final landscape design will be refined during preparation of construction drawings for the facilities.

Private Swim Club Concepts

II. Village Structure

Private Recreation Facility Concepts

6. Slopes

The Village 3 landscape is compatible with the established Otay Ranch design theme visible from the village as well as the City's Water Conservation Ordinance. Perimeter slopes are one of the dominant landscapes visible from public view. Distinct landscape designs have been developed for the project perimeters: Main Street to the south, Wolf Canyon and Village 4 to the east and the Otay River Valley to the south. The following describes the design concepts and primary plant species that will create slopes complementary to the overall Otay Ranch theme. The design concepts and plant palettes described below are consistent with the Village 3 Preserve Edge Plan and Otay Valley Regional Park Private Development Guidelines and are subject to requirements of the University Villages – Village 3 and a Portion of Village 4 Fire Protection Plan and City of Chula Vista Landscape Manual. Signage within areas adjacent to the MSCP shall be provided and must meet the requirements of the City of Chula Vista and Preserve Owner/Manager.

The OVRP Standards and Guidelines, Section 5, Private Development Guidelines include principles for private development adjacent to the OVRP. Consistent with these principles, manufactured perimeter slopes adjacent to the OVRP complement and do not negatively impact the park by utilizing the following techniques:

- Perimeter slopes follow the existing topography, blending the site into natural topography and preserving natural drainages between Village 10 and the Otay River Valley.
- Landscape buffers are planted with native plant materials, consistent with the Village 8 East Fire Protection Plan and Preserve Edge Plan.
- Retaining walls are planted and irrigated to avoid large expanses of blank walls and blending the retaining walls into the natural setting, making them virtually undetectable with full landscape cover. Wherever possible plantable retaining walls are split into two sections, providing opportunities to screen the walls with native landscaping in front of the wall and reduce single wall heights.
- Non-residential fencing at the perimeter is typically post & rail, permitting views to and from the park.
- Residential fencing at the perimeter is typically, 2' of block with 4' of view fencing, permitting views to and from the park.
- Lighting at the perimeter must be directed away from the Preserve/OVRP by placing light fixtures in appropriate locations and shielding lamps.

II. Village Structure

Plantable retaining wall systems are planned at both the perimeter and at internal slopes within Village 3. The plantable wall system plantable face softens the visual impact of large retaining structures. The plantable wall transforms a grade transition into a vegetated "steepened slope" instead of a concrete scar across a hillside. Per OVRP Design Standards and Guidelines, Section 5.3.2, "If large retaining walls are necessary then they should be the type of construction that allows for planting on the walls…." Plantable walls are proposed along Heritage Road, Main Street and at the perimeter of the village. Vegetation covering the face of the retaining walls will create seamless transitions between natural areas, landscaped slopes and plantable retaining walls, and create enhances visual experiences for Otay Valley Regional Park users.

The Plantable Retaining Wall Plan is depicted below (Exhibit 6). Slope conditions at the project perimeter are described below. The following plants will be utilized to screen the plantable walls. Exact species will be dependent upon the wall location, consistent with the Preserve Edge Plan and Fire Protection Plan requirements. The 100' Brush Management Zone (BMZ) occurs at the perimeter of Village 3 and a Portion of Village 4. Manufactured slopes, a single-loaded residential street, a private street, a portion of the CPF-2/POS-12 & 13 Private Recreation Facilities and portions of multi-family sites are proposed within this zone. Retaining walls are planned at the toe of slope outside of the Preserve Area[1], as depicted below in Exhibit 7, Plantable Retaining Walls at Preserve Edge. Consistent with the Chula Vista MSCP Subarea Plan and Village 3 and a Portion of Village 4 Preserve Edge Plan, a 100' BMZ and Preserve Edge is also provided, outside of the Preserve. Native plants (non-irrigated) will be used on manufactured slopes within the 50' closest to the Preserve. However, consistent with the Chula Vista MSCP, the first 50' of the BMZ will be irrigated and planted with native-compatible plant species. Temporary irrigation may be utilized outside the first 50' of the BMZ during plant establishment, subject to approval of the Development Services Director. The Preserve Edge Plan provides detailed irrigation requirements. The plant palette is provided in Attachment A and is subject to the requirements of the Chula Vista MSCP Plan, Preserve Edge Plan and the Village 3 and a Portion of Village 4 Fire Protection Plan and the approval of the Chula Vista Development Services Director.

[1] Avoid placing the geogrid associated with the Plantable Retaining Walls within the public right-of-way or private residential lots to the greatest extent possible.

II. Village Structure

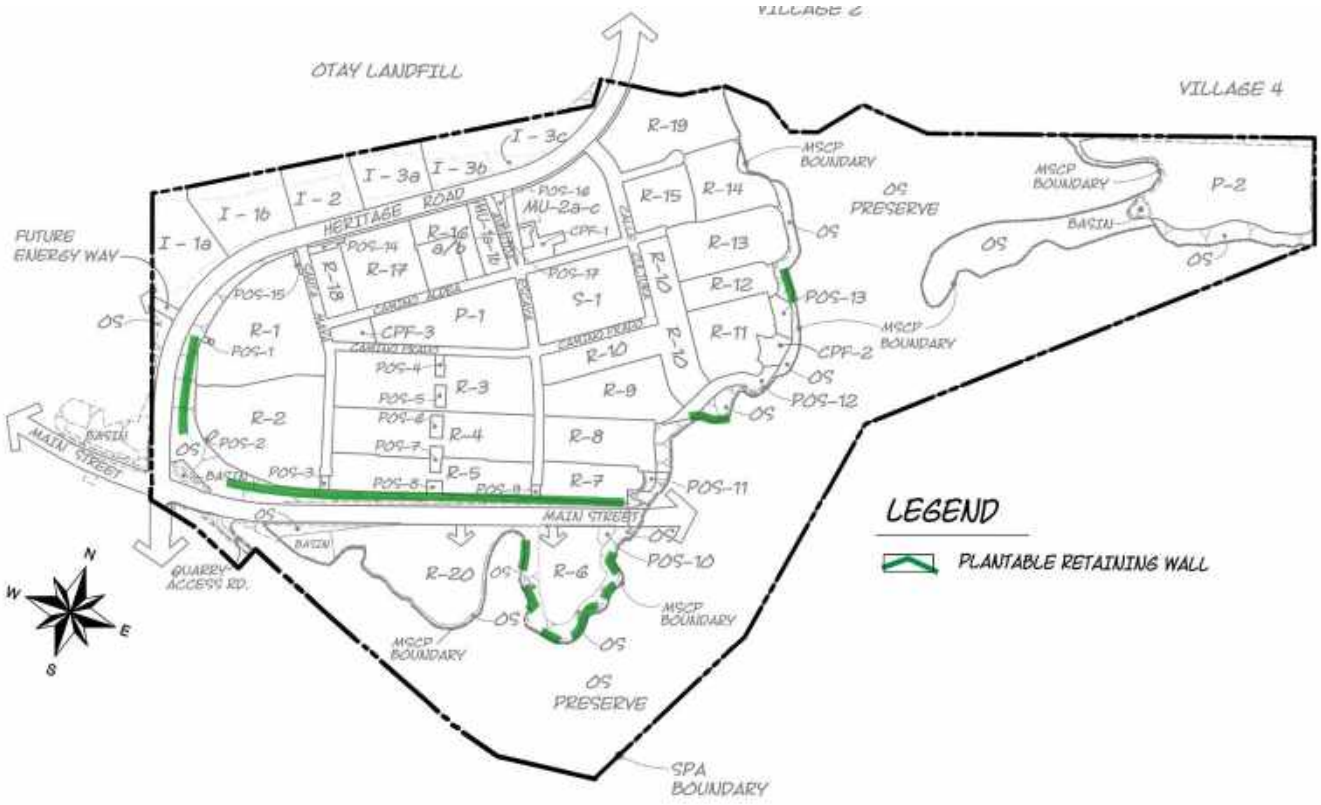


Exhibit 6
Plantable Retaining Wall Plan

a. Slopes Adjacent to Open Space Preserve Areas and Plantable Retaining Wall Systems

Consistent with the Chula Vista MSCP Subarea Plan, OVRP Design Standards Guidelines (Section 5, Private Development Guidelines) and Preserve Edge Plan, a 100' brush management zone /Preserve Edge is provided outside of the Preserve. Native plants (non-irrigated) will be used on manufactured slopes within half of the Preserve Edge area. However, consistent with the Chula Vista MSCP, the first 50' of the Brush Management Zone will be irrigated and planted with native-compatible plant species. Temporary irrigation may be utilized outside the first 50' of the Brush Management Zone during the plant establishment period, subject to approval of the Development Services Director. In addition, consistent with the Village 3 Fire Protection Plan, the plantable retaining walls must be permanently irrigated. The Preserve Edge Plan provides detailed irrigation requirements. The "Approved Plant List" is provided in Attachment A to this document is subject to the requirements of the Fire Protection Plan, Preserve Edge Plan and the approval of the Chula Vista Development Services Director. The following images depict the planting palette for this area.

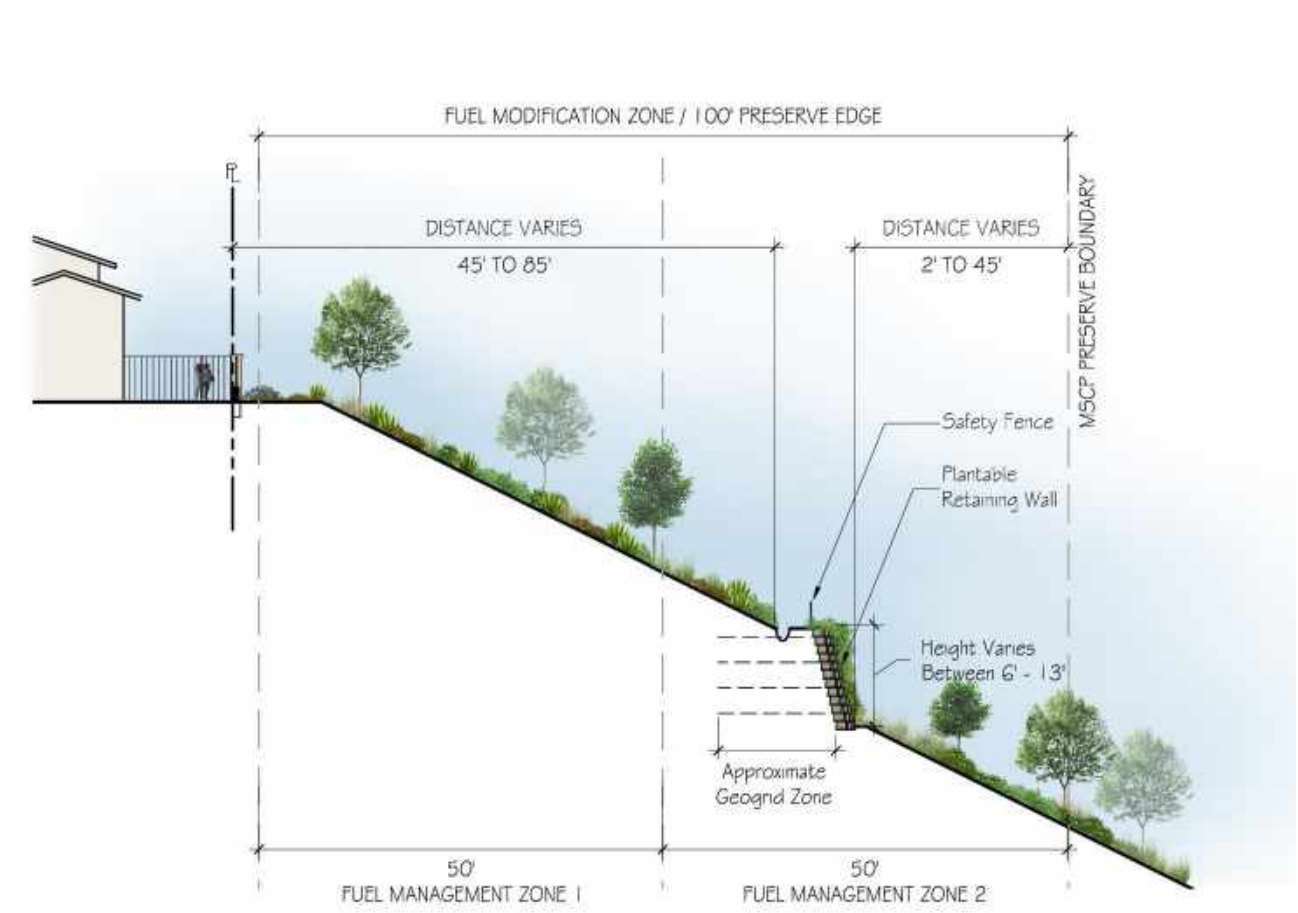


Exhibit 7
Slopes & Plantable Retaining Walls at Preserve Edge

Note: Plantable wall location, height, setback, and geogrid zone are conceptual, subject to final engineering design.

II. Village Structure

b. Slopes Adjacent to Heritage Road

Slopes adjacent to Heritage Road and Main Street will be landscaped with a palette featuring a mix of drought tolerant and fire wise plant materials. Plantable retaining walls are also proposed within the west-facing slopes, as depicted in Exhibit 8, Slopes & Plantable Walls at Heritage Road. This corridor will be planted and irrigated with an indigenous landscape palette. More ornamental shrubs and trees will be utilized at key intersections to create a sense of arrival and entry. The following is representative of the landscape concept for these slope areas.

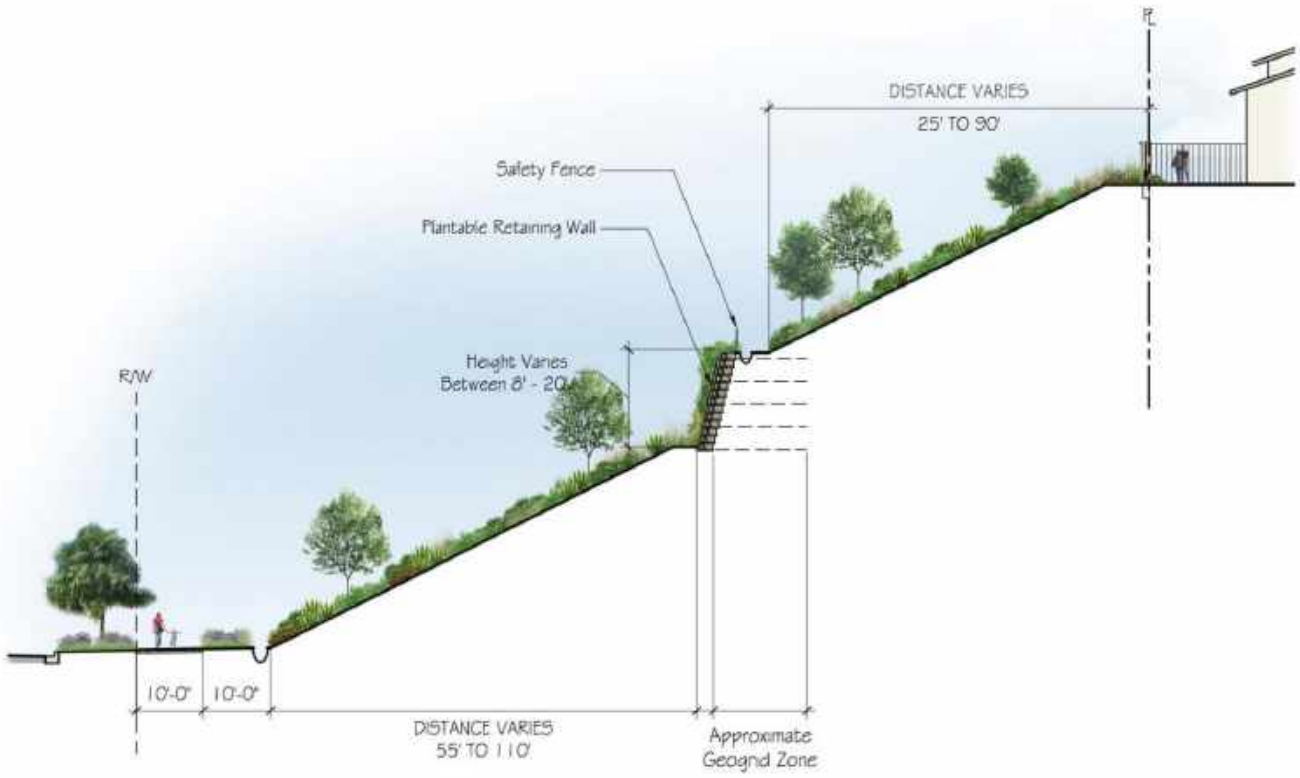
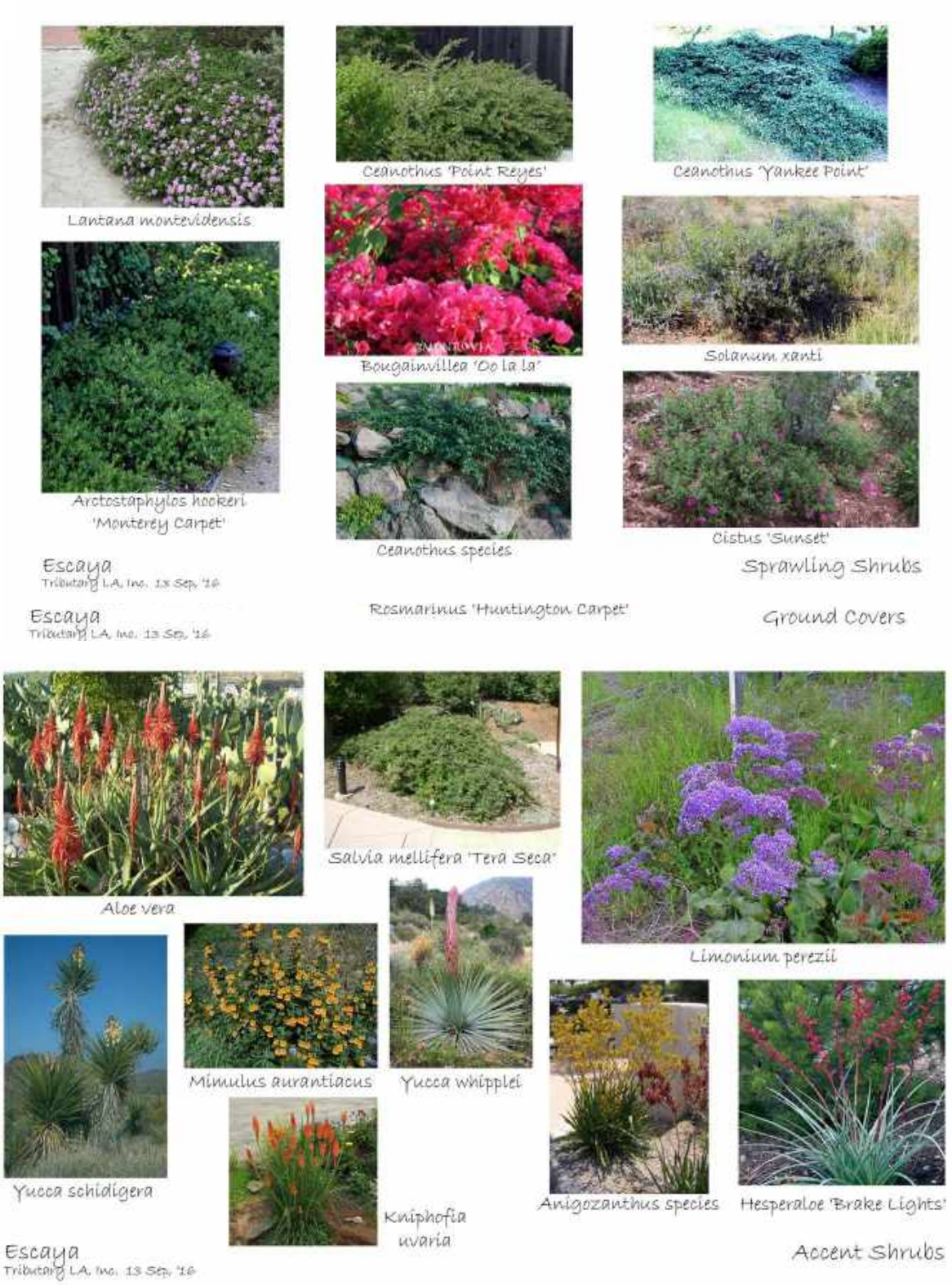


Exhibit 8
Slopes & Plantable Walls at Heritage Road

Note: Plantable wall location, height, setback, and geogrid zone are conceptual, subject to final engineering design.

II. Village Structure



II. Village Structure

c. Slopes Adjacent to Main Street

This landscape zone occurs on the slopes north of Main Street. Transition planting will occur on irrigated/manufactured slopes with an indigenous landscape with taller, open trees at the top of slopes and lower trees and shrubs at mid slope along these existing arterials. Slopes adjacent to the MSCP Preserve must be planted with native species and are subject to the Preserve Edge Plan and the "Approved Plant List" provided in Attachment A to this document. Plantable retaining walls are planned north of Main Street, as depicted in Exhibit 9, Perimeter Slope & Plantable Walls at Main Street. The slope and retaining wall planting concept is consistent with the slopes and wall planting palette for the slopes adjacent to Heritage Road described above.

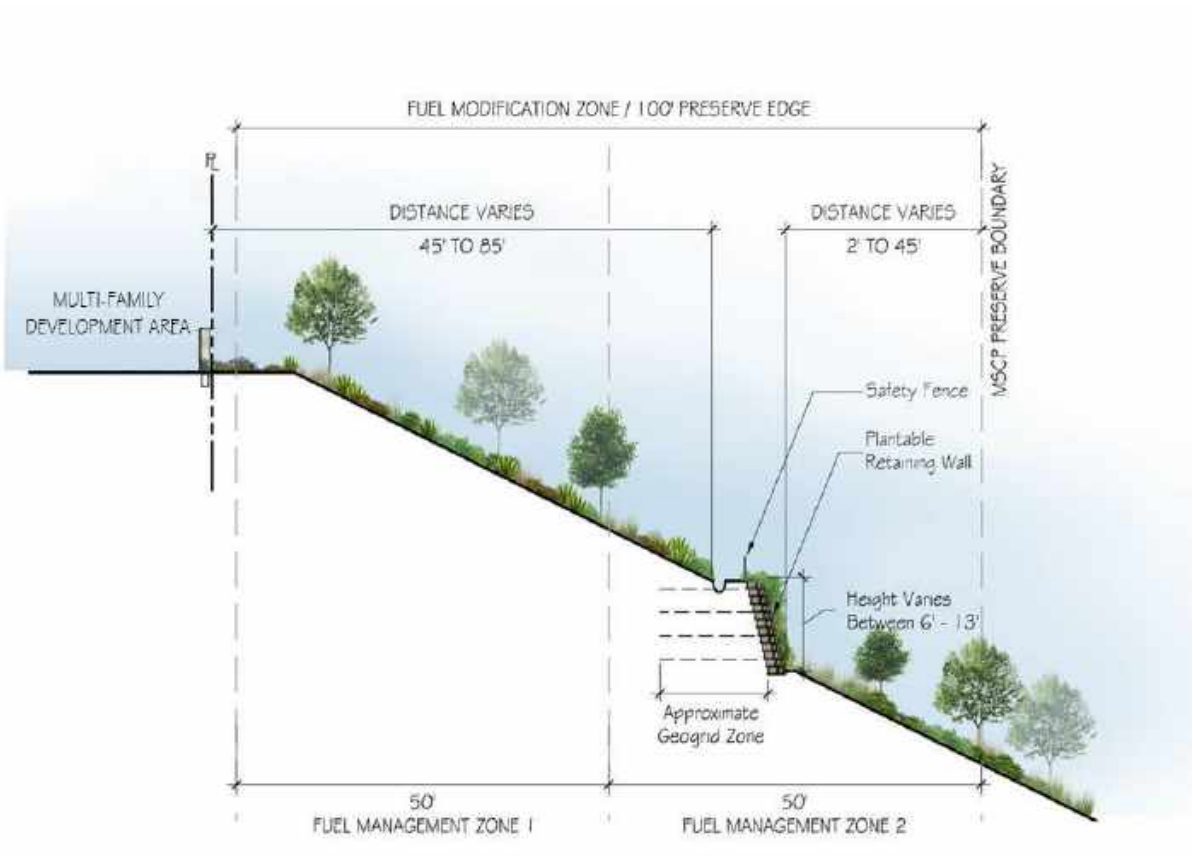


Exhibit 9

Perimeter Slope & Plantable Retaining Walls at Main Street

Note: Plantable wall location, height, setback, and geogrid zone are conceptual, subject to final engineering design.

F. Entryways/Identity Concept

Entry landscape features and monument signs identify the village and contribute to the establishment of the village design theme. A hierarchy of entries has been established to help direct visitors to Otay Ranch, Village 3 and neighborhood areas of the village. Descriptions of these entries follow.

1. Ranch-Wide Entry & Ranch Corner Marker – Main Street & Heritage Road

The Ranch-wide entry monument is planned at the northeast corner of the intersection of Heritage Road and Main Street. Per the Otay Ranch Overall Design Plan, a Ranch Corner Marker is also incorporated into this design to mark the southwestern Ranch boundary. The landscape palette for the median and parkways is conceptually depicted below.

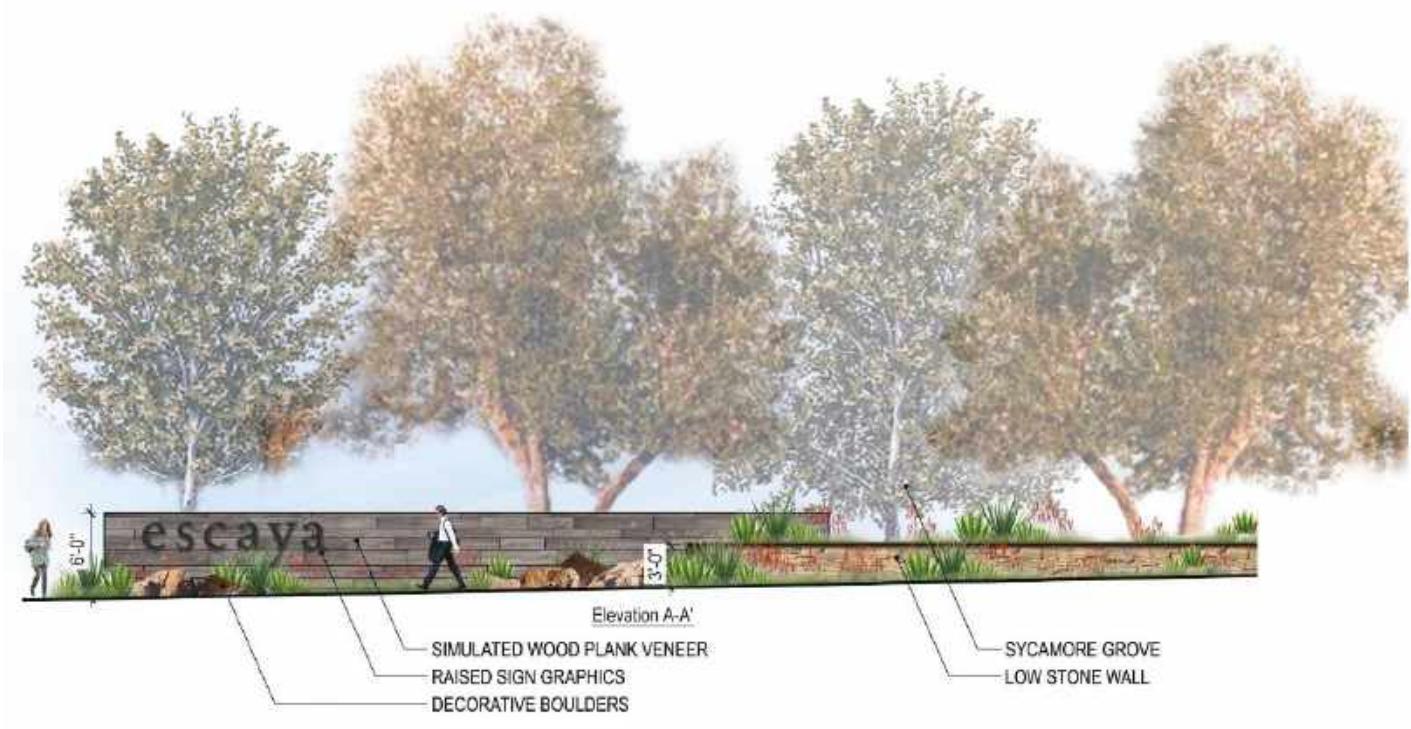


Exhibit 10

Otay Ranch-Wide Entry & Corner Marker (Main Street & Heritage Road)

2. Village Entry – Avenida Escaya @ Heritage Road

The primary village entry is planned at the intersection of Avenida Escaya and Heritage Road. This entry brings residents and visitors through the heart of the Village 3 Core. A variety of plant species will be used to complement the agrarian-inspired architectural theme for Village 3. Low walls with a simulated wood plank veneer located behind the sidewalk and within the median, provides the signature monumentation for Village 3. A wide median, outside of the right-of-way will be utilized as a gathering space and area for community events, such as holiday tree light, farmer's markets, art shows and other events sponsored by the Master HOA or local businesses.

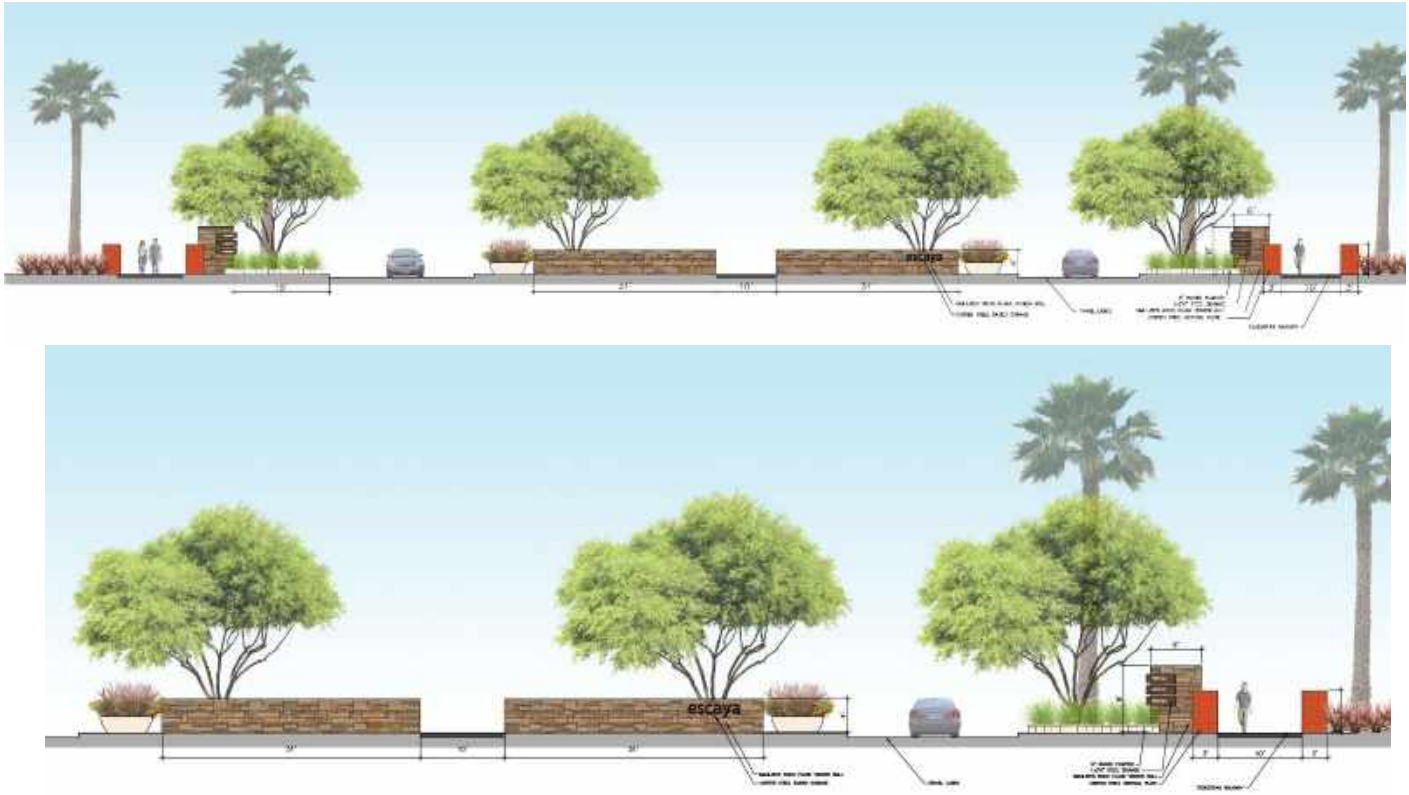


Exhibit 11
Primary Village Entry Concept Plan (Avenida Escaya @ Heritage Road)

3. Village Entries along Heritage Road

Two secondary village entries along Heritage Road (Santa Maya and Paseo Cultura) provide access to the both the northern and southern Village 3 neighborhoods. Similar to the Primary Entry monumentation, these entries feature simulated wood plank veneer monumentation walls located behind the sidewalk. A Secondary Village Entry is also planned at Main Street and Avenida Seneca.

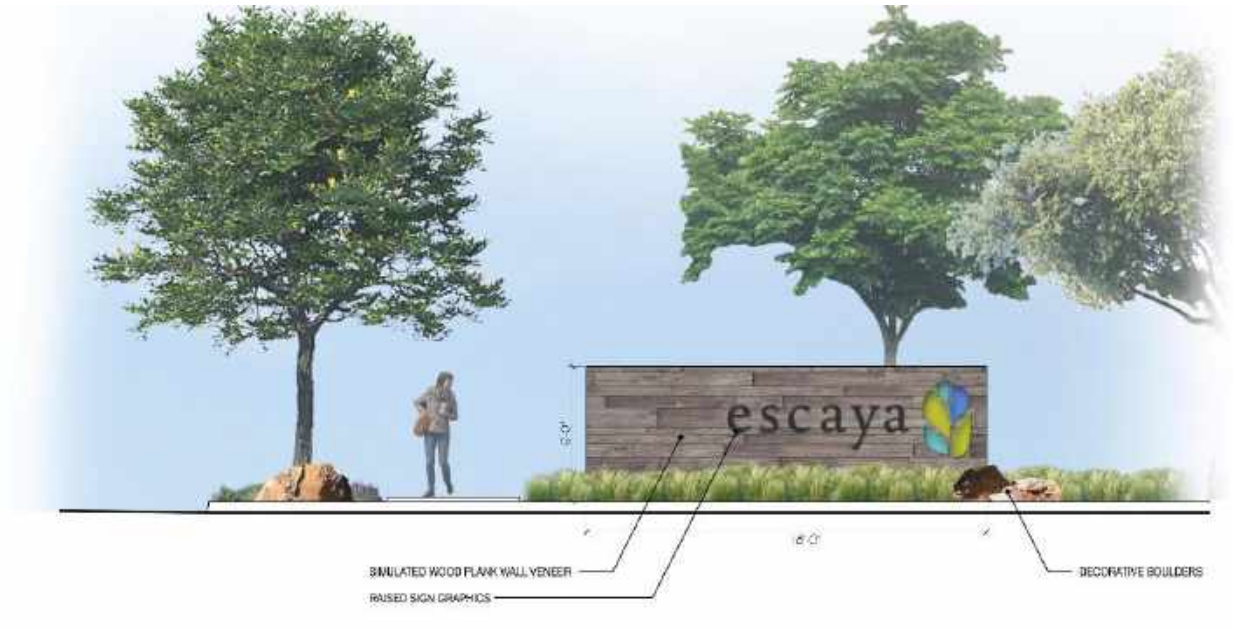


Exhibit 12
Typical Village Entry Monument

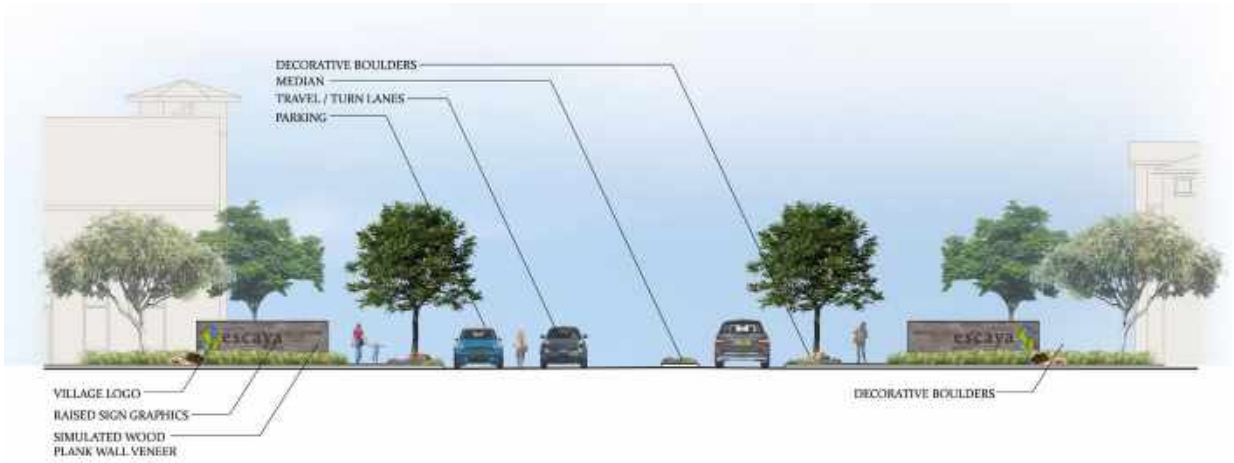


Exhibit 13
Secondary Village Entry Concept Plan (Santa Maya@ Heritage Road)

II. Village Structure

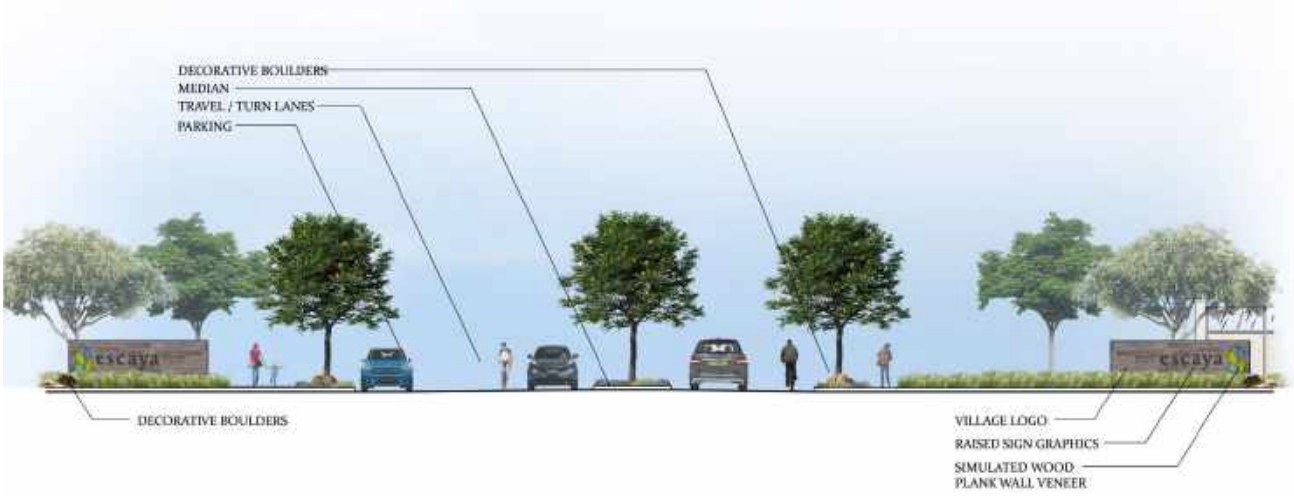


Exhibit 14
Secondary Village Entry Concept Plan (Paseo Cultura @ Heritage Road)

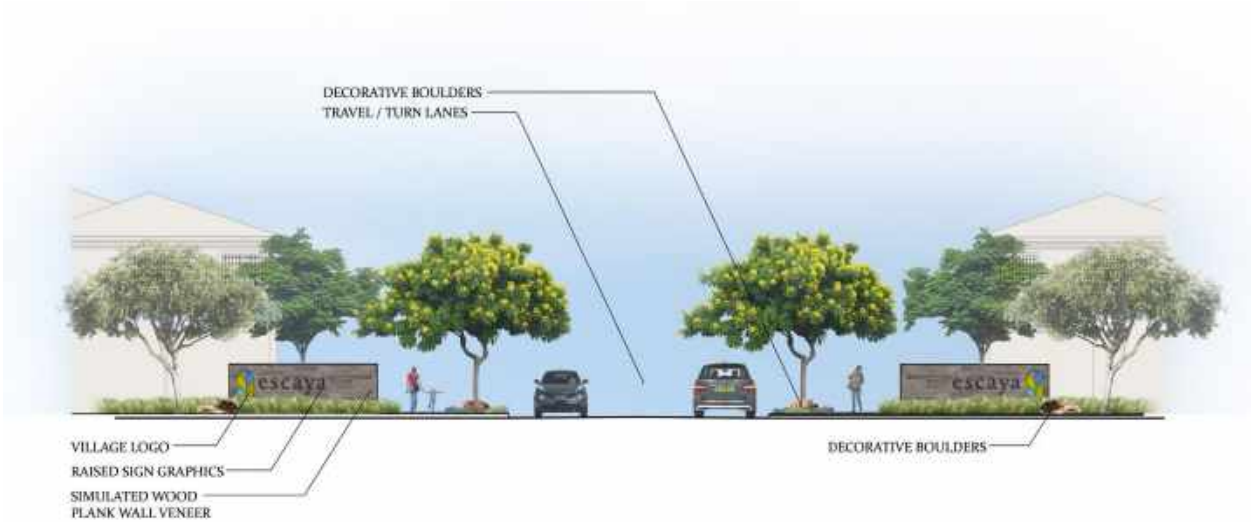


Exhibit 15
Secondary Village Entry Concept Plan (Avenida Seneca @ Main Street)

G. Streetscape Design Concept

Streetscapes are an important component in creating the village design theme. Streetscapes identify the edges of project and major points of entry and they serve as the unifying design theme. The streetscapes for the surrounding major streets will adhere to the Otay Ranch "ranch theme" through implementation of an agrarian landscape theme within Village 3. Within the village, the design of the streetscapes will emphasize the village pedestrian-oriented concept by providing tree-shaded walkways, lighting, and shortened or enhanced crosswalks. The Circulation Plan, Exhibit 16, shows the surrounding and internal street designations for the village. Please see the Village 3 and a Portion of Village 4 SPA Plan for street cross sections.

II. Village Structure

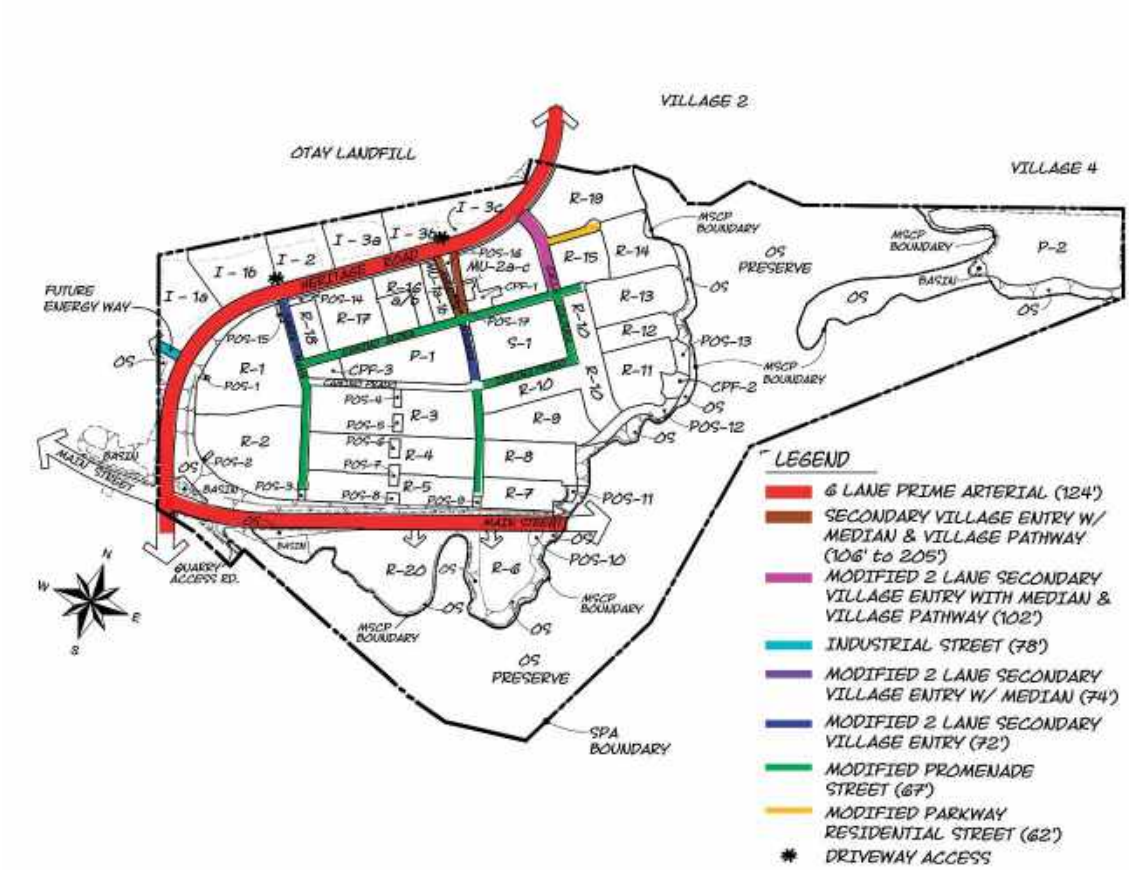


Exhibit 16
Circulation Plan

II. Village Structure

H. Non-Vehicular Circulation Concept

A well-designed pedestrian circulation system is a fundamental component of the village concept. . This section describes the pedestrian circulation system, including sidewalks, lighting and shade trees in the context of the Otay Ranch, City and OVRP trail systems. An overall plan is provided as well as descriptions of the types of pedestrian paths provided in the Plan area.

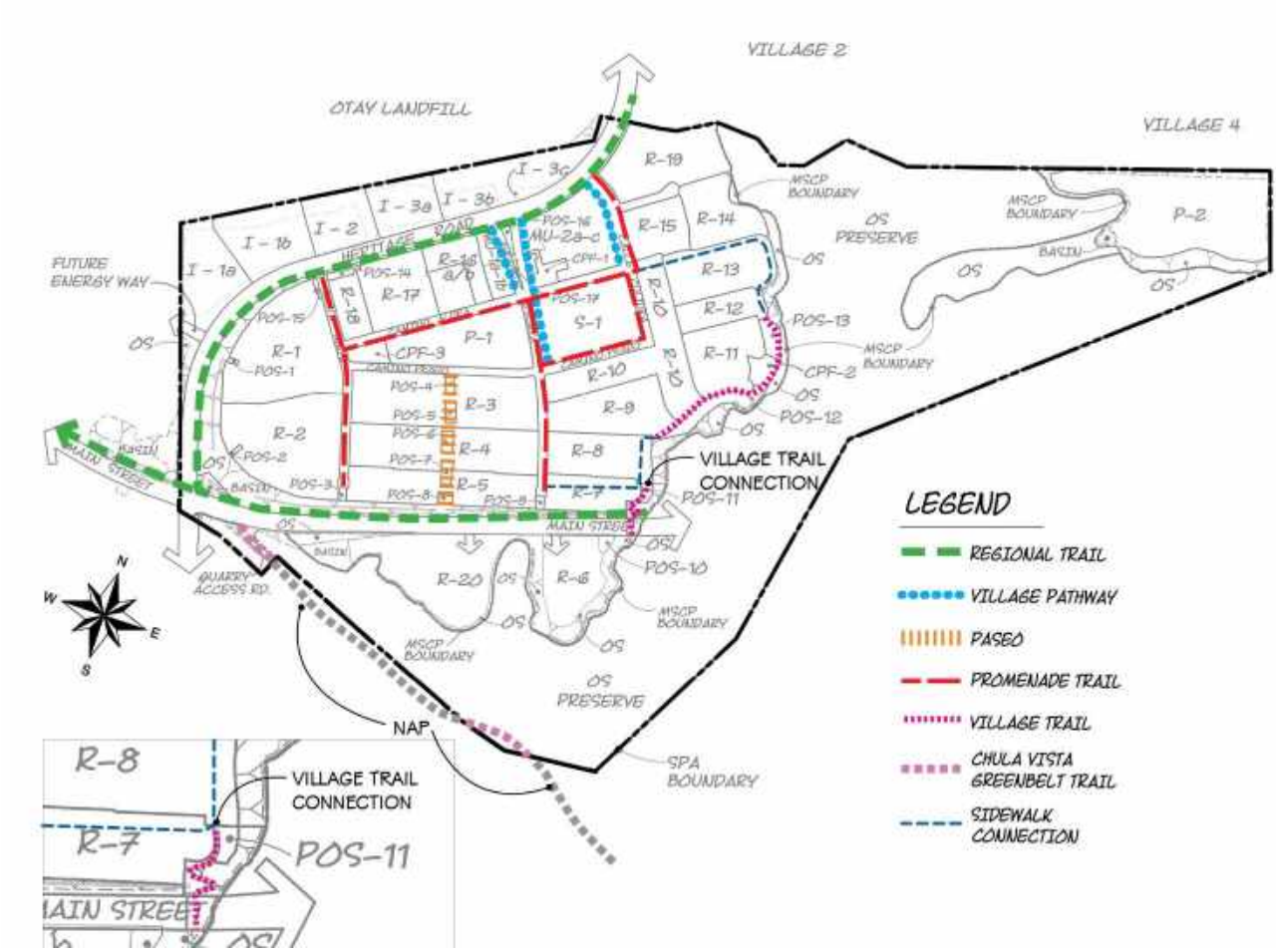


Exhibit 17
Trails Plan

II. Village Structure

1. Chula Vista Greenbelt Trail/Otay Valley Regional Park (OVRP) Trail

As described in the Chula Vista Greenbelt Master Plan, planned multi-use trails, including equestrian uses, will be implemented within the existing Salt Creek sewer access/maintenance road through the Otay Valley on the north side of the river. Two segments of the Greenbelt Trail (approximately 565 feet) are within the SPA boundary south of Village 3. The Village 3 village core will be connected to the Greenbelt via the Regional Trails along Heritage Road and Main Street, ultimately connecting to the east and west Greenbelt segments within the Otay Valley Regional Park.

The OVRP Concept Plan also identifies a multi-use trail system through the Otay River Valley. The portion of the Greenbelt Trail described above coincides with the OVRP trail. Consistent with the MSCP, this trail is co-located within the existing Salt Creek Sewer maintenance road, to avoid impacts to sensitive habitat in the river valley and control access to the Otay Ranch Preserve. The surface treatment within the existing Salt Creek Sewer Easement is PMB – Processed Miscellaneous Base. The Greenbelt Master Plan requires surface treatment comprised of "Decomposed Granite/Concrete/Asphalt/Soil-stabilized treatment: and the OVRP Trail Guidelines require "D.G. or Native Soil" on Type "A" Trails. The existing surface treatment is consistent with these requirements. Proposed trail improvements are limited to fencing and signage within the easement area, to the satisfaction and approval of the Development Services Director. The Chula Vista Greenbelt Trail will be implemented according the Greenbelt Master Plan and OVRP Design Standards and Guidelines. All trail signage shall conform to the Greenbelt Master Plan.

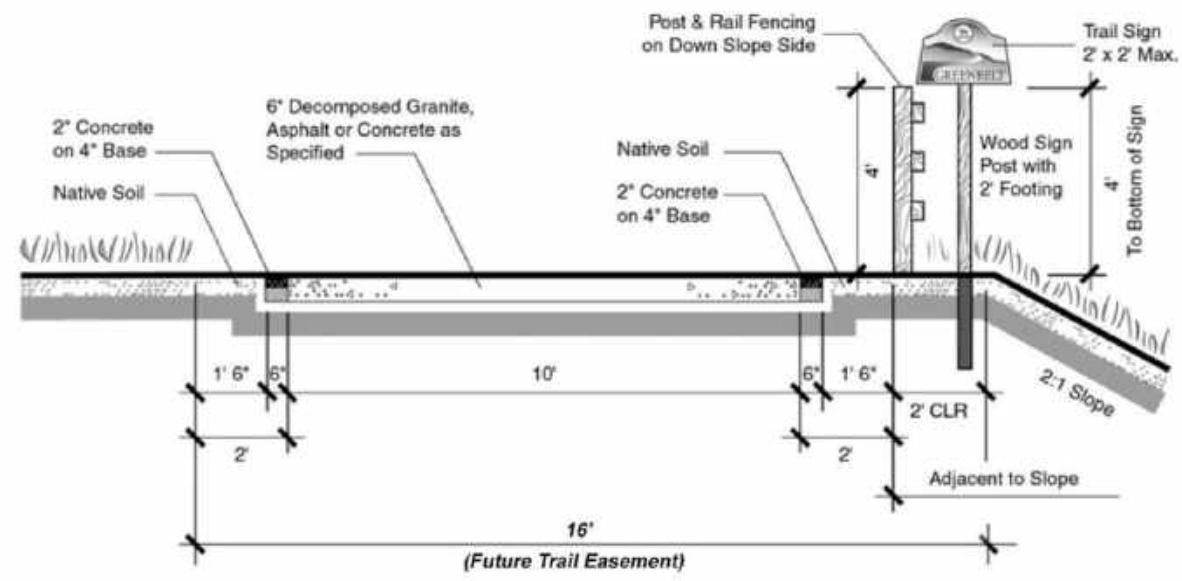
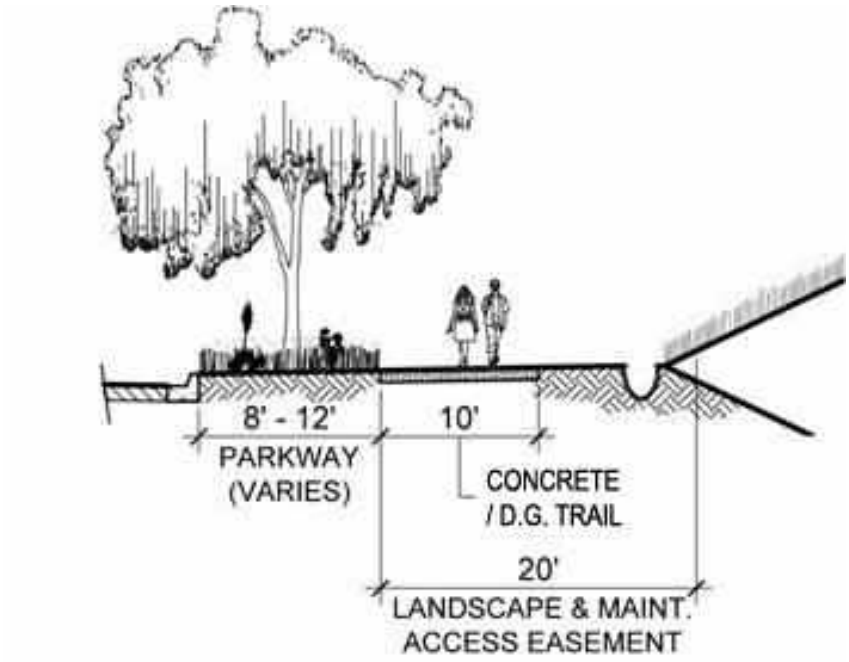


Exhibit 18
Chula Vista Greenbelt Trail

2. Regional Trails

Regional Trails provide off-street pedestrian and bicycle connections throughout Chula Vista. Chula Vista Regional Trails are located on the south side of Main Street and south west side of Heritage Road. These trails are located adjacent to the roadways within landscape buffers. The trails are 10 feet wide to accommodate both pedestrians and bicycles and may be decomposed granite or concrete, depending on gradient.



Note: Concrete trail surfacing will be implemented where gradient exceeds 5%. D.G. will be utilized where gradient is less than 5%.

Exhibit 19
Chula Vista Regional Trail

3. Village Pathway

Village Pathways are inter-village multi-purpose paths that link all of the Otay Valley Parcel villages and provide access to the regional transit stations. In Village 3, a Village Pathway is proposed to extend through the village core along Avenida Escaya providing pedestrian connectivity from the Chula Vista Regional Trail along Heritage Road to the mixed use area, elementary school and public neighborhood park. The Village Pathway also extends along Santa Maya, Paseo Cultura and Calle Aldea, providing a network of enhanced pathways throughout the village core. The Village Pathway is a 10' colored concrete path (Adobe Tan with a brush finish), separated from the street by a landscaped, tree-lined parkway.

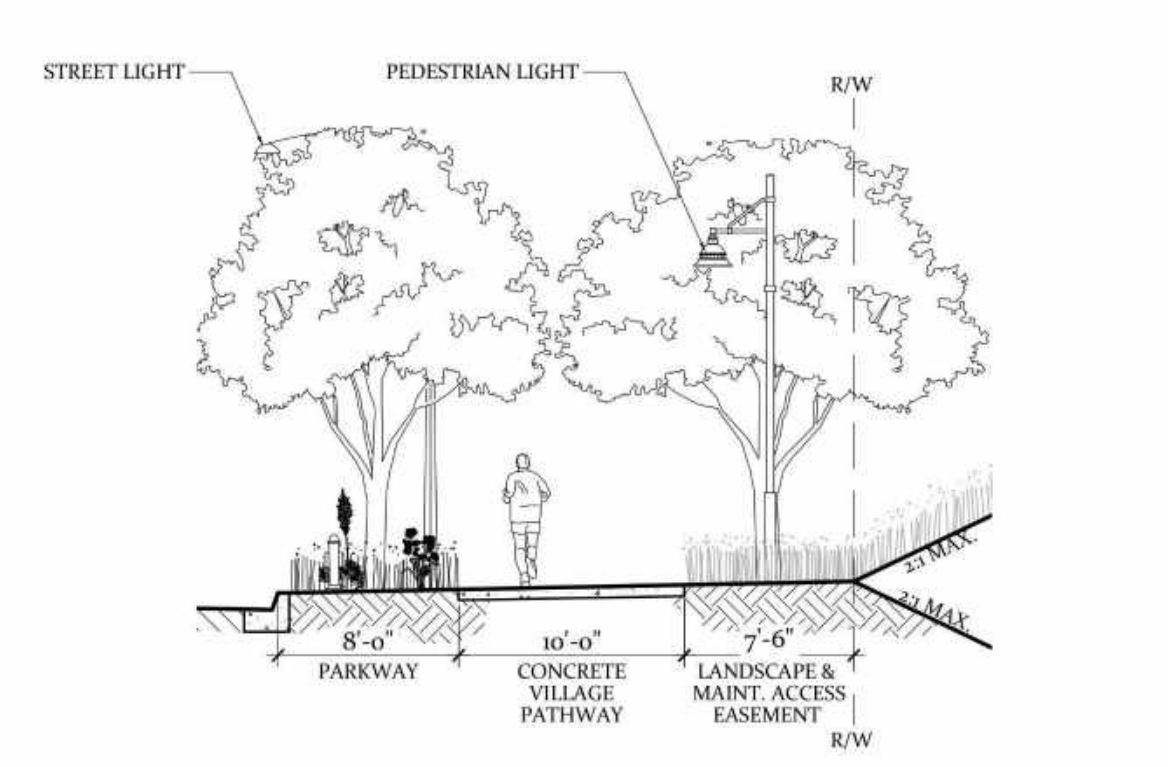


Exhibit 20
Village Pathway

4. Promenade Trail

Promenade Trail, a component of village Promenade Streets, are 6 foot wide paved sidewalks enhanced with shade trees and pedestrian–scaled lighting. Promenade Trails in the village provide links through the Village Core to recreation facilities and residential neighborhoods.

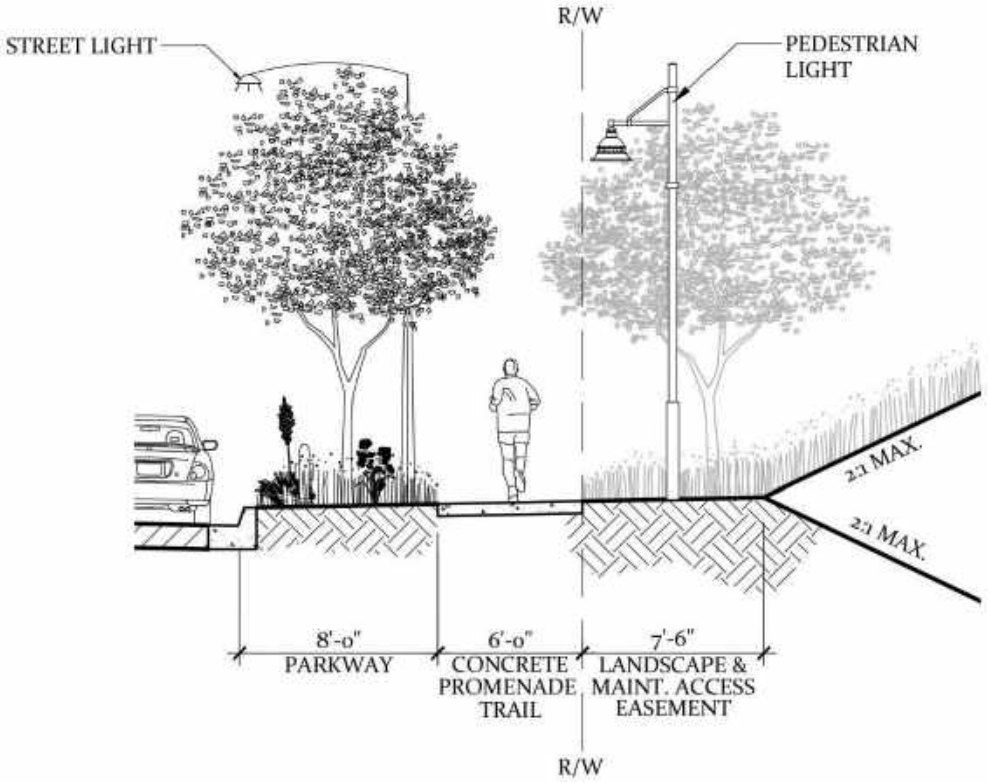


Exhibit 21
Promenade Trail

5. Paseo

A centrally located, 55' to 78' wide paseo is planned to provide a pedestrian connection between the residential neighborhoods and the park, school and village core. The paseo features a 10' meandering concrete path, with adjacent landscape areas comprised of pedestrian-scaled lighting, benches, recreational lawn areas, trees and shrub plantings.

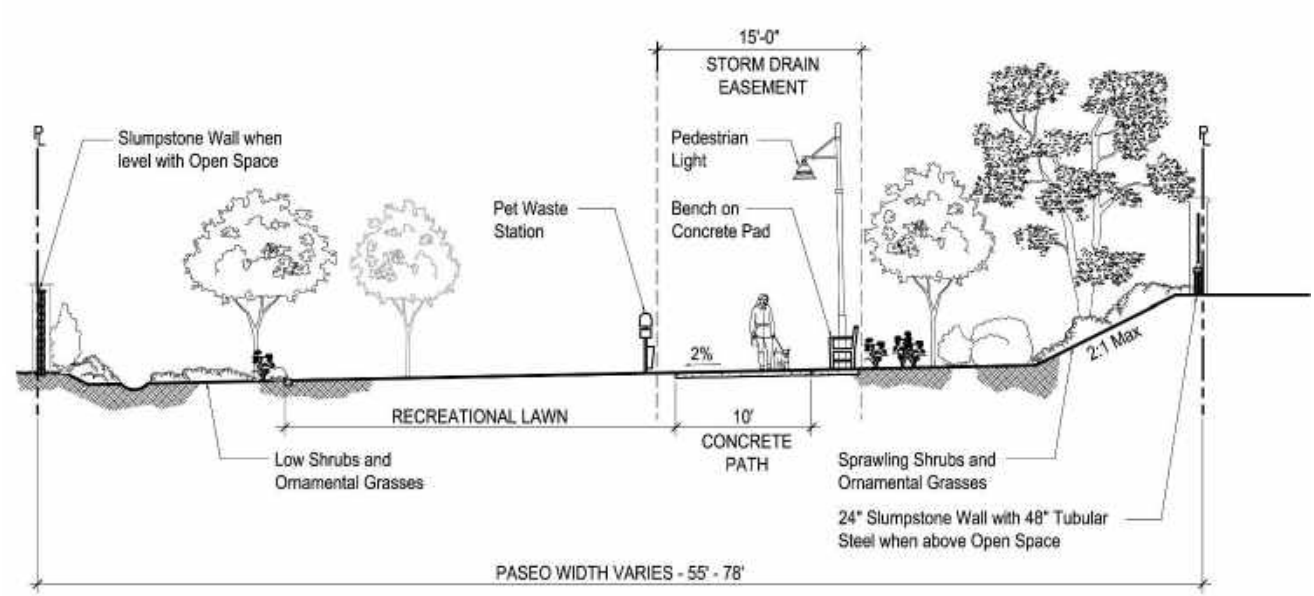
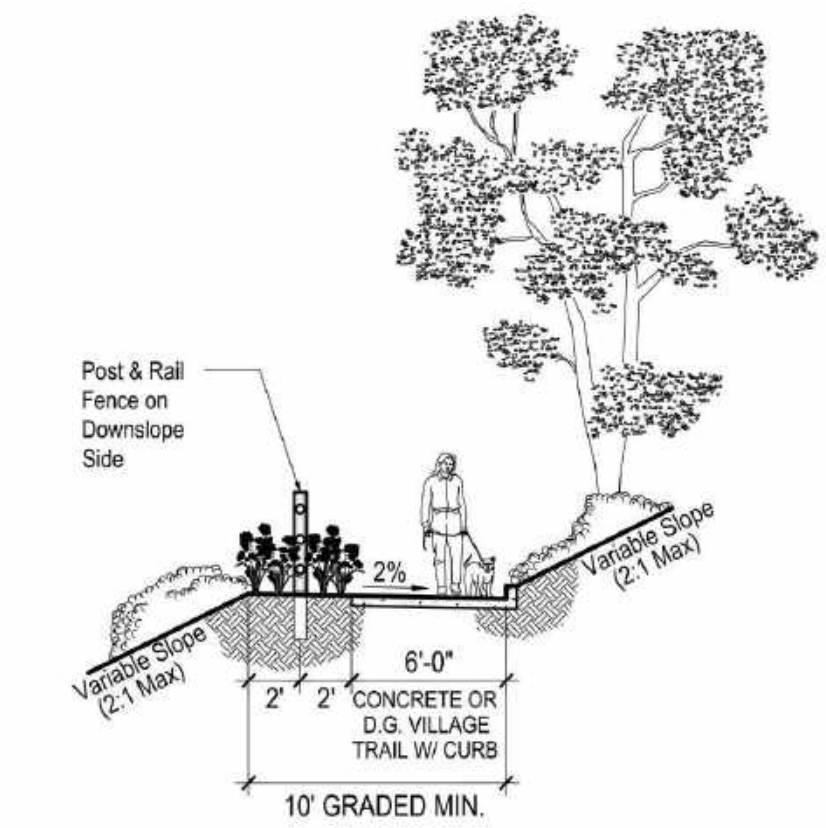


Exhibit 22
Paseo

6. Village Trail

The Village Trail provides a pedestrian connection from Village 3 to the Chula Vista Greenbelt/OVRP trail located in the Otay River Valley via the Regional Trail along Main Street. The Village Trail also provided a link along the eastern perimeter of Village 3 between residential neighborhoods and the CPF-2 and POS-12 private recreation sites. The Village Trail segment at the southeastern portion of Village 3 provides a pedestrian connection between the residential neighborhoods south of Main Street and the village core area where the elementary school, neighborhood park, community recreation facility and retail/commercial uses are located. The Trail is comprised of a 6' wide concrete or stabilized decomposed granite surface with a post and rail fence where required.



Note: Concrete trail surfacing will be implemented where gradient exceeds 5%. D.G. will be utilized where gradient is less than 5%.

Exhibit 23
Village Trail

I. Village Park, Recreation and Open Space Concept

The village park, recreation and open space system is designed to provide diverse park and active and passive recreational opportunities for village residents. The park and recreation facilities have been located to create focal points and identity within the village. Private facilities will be designed in conformance with the City Parks Master Plan, Design Manual and Landscape Manual. The following includes the overall plan (Parks, Recreation and Open Space Plan, Exhibit 24) and conceptual designs for the park and recreational facilities. Additional information.




II. Village Structure

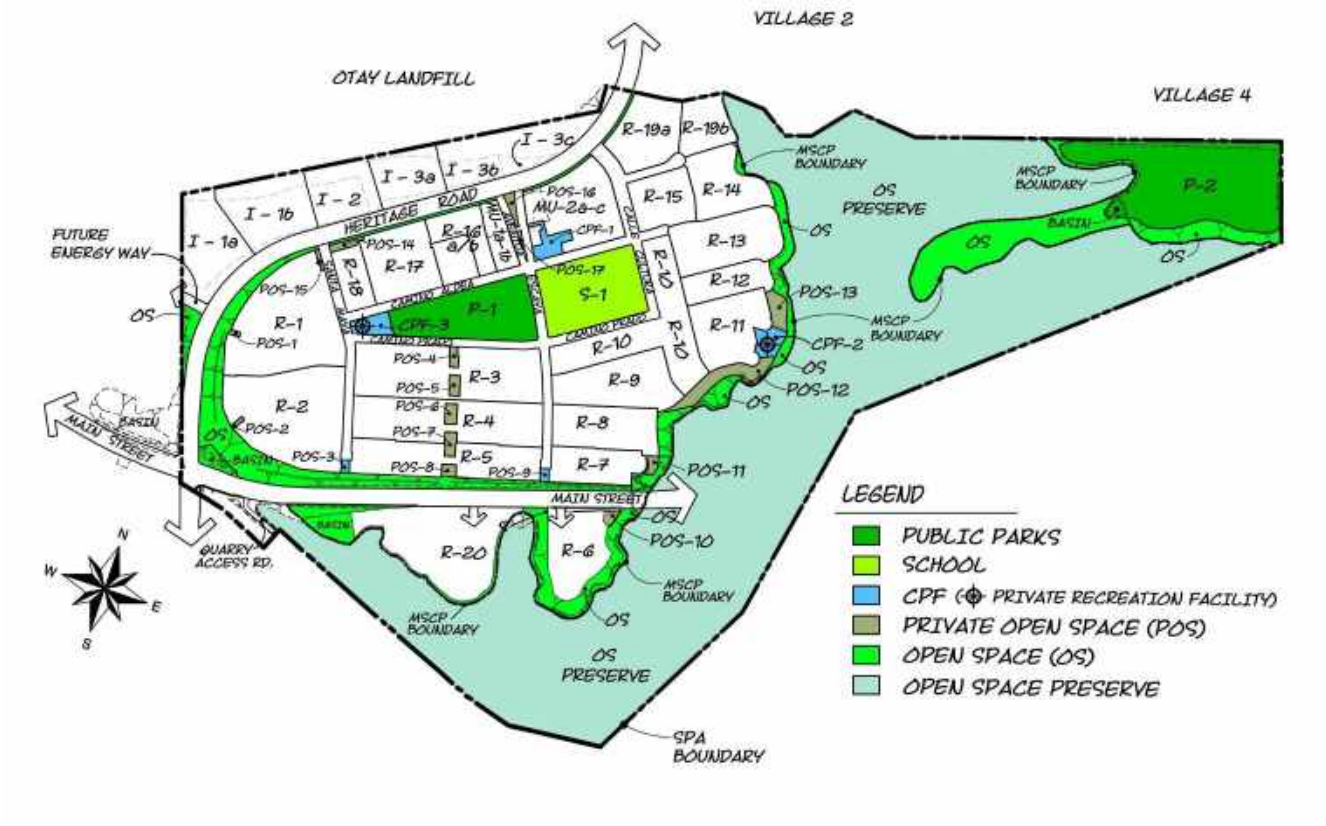


Exhibit 24
Parks, Recreation and Open Space Plan

II. Village Structure

1. P-1 Neighborhood Park

The public neighborhood park located adjacent to the elementary school will provide active and passive recreational opportunities. The location adjacent to the elementary school creates an expanse of open space and combines active recreational activities in one area of the village. Access to the adjacent school site should be coordinated with park site design. Access to the park site should be planned along all sides. Park amenities will be in conformance with the requirements of the City Parks Master Plan and may include multi-purpose open lawn areas, lighted sports courts and fields, picnic shelters, tot lots and restroom and maintenance buildings. Parking will be accommodated both on site and along adjacent streets. (See Neighborhood Park (P-1) Concept Plan, Exhibit 25)



II. Village Structure

AMENITIES:
- Perimeter Trail (7/16 mile loop)
- Multi-Use Arena
- Multi-use Fields w/ Soccer Fields
- Gagaball Court
- Baskbetball Court
- Parkour Park
- Play Structures
- Outdoor Amphitheater for Community Concerts & Movies in the Park
- Exercise Stations

Exhibit 25
Neighborhood Park (P-1) Concept Plan

This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.

2. P-2 Community Park

The P-2 Community Park (portion of Otay Ranch North Community Park) is located in Village 4 south of the larger P-4 Community Park (portion of Otay Ranch North Community Park) established in the Villages 2, 3 and a portion of Village 4 SPA Plan. The Wolf Canyon Preserve area surrounds the park on the east and south and provides opportunities for views to expanded open space. Access is provided via a signalized intersection at Santa Luna and La Media Road. The P-2 Park serves the recreational needs of the area with a lighted softball field, lighted multi-purpose field, skateboard park, picnic areas with shade structures, lighted parking lot and trails. (See Community Park (P-2) Concept Plan, Exhibit 26) Lighting within the P-2 Park shall be directed away from adjacent Preserve areas and shielded to prevent light spillage into the Preserve. See "Public Park Lighting" on Page 96 for additional lighting guidelines. Landscaping with the 100' Preserve Edge/Brush Management Zone must be consistent with the "Approved Plant List" (Attachment A) and consistent with the Preserve Edge Plan and Fire Protection Plan.




II. Village Structure

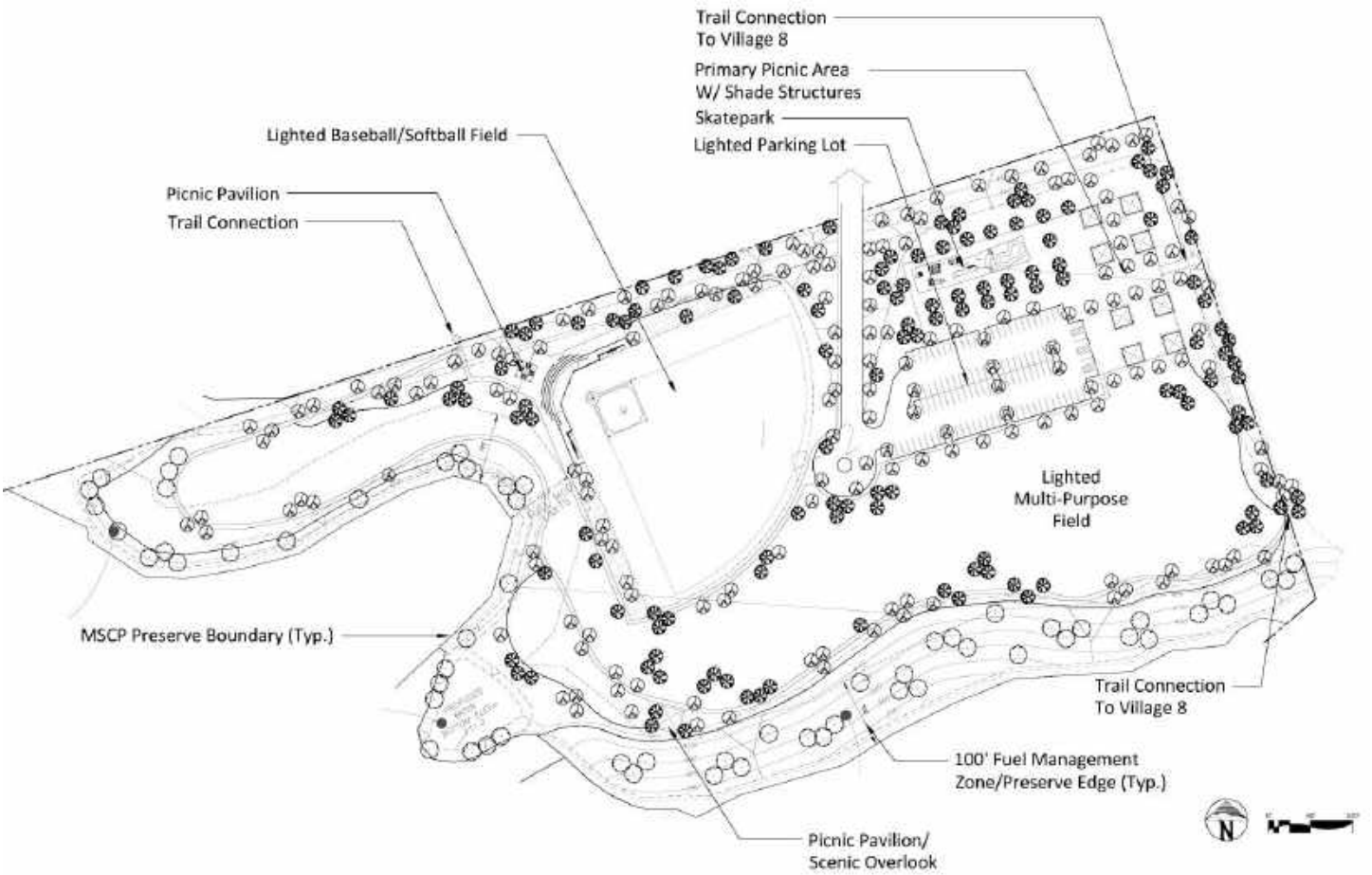


Exhibit 26

Community Park (P-2) Concept Plan

This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.

3. Community Purpose Facilities

Community purpose facilities are defined in Chula Vista Municipal Code 19.48 PC – Planned Community Zone. The Village Core includes a CPF site (CPF-1) within the Mixed Use area. In addition, two CPF sites are privately owned and maintained Private Recreation Facilities (PFR) are located to provide recreational amenities in proximity to single family neighborhoods throughout the village. The facilities create focal points in the village and are connected through the village pedestrian circulation system. Each facility will be designed to complement the surrounding neighborhood and amenities will be tailored to the specific needs of the neighborhood. Typical PFR concept plans are provided below.

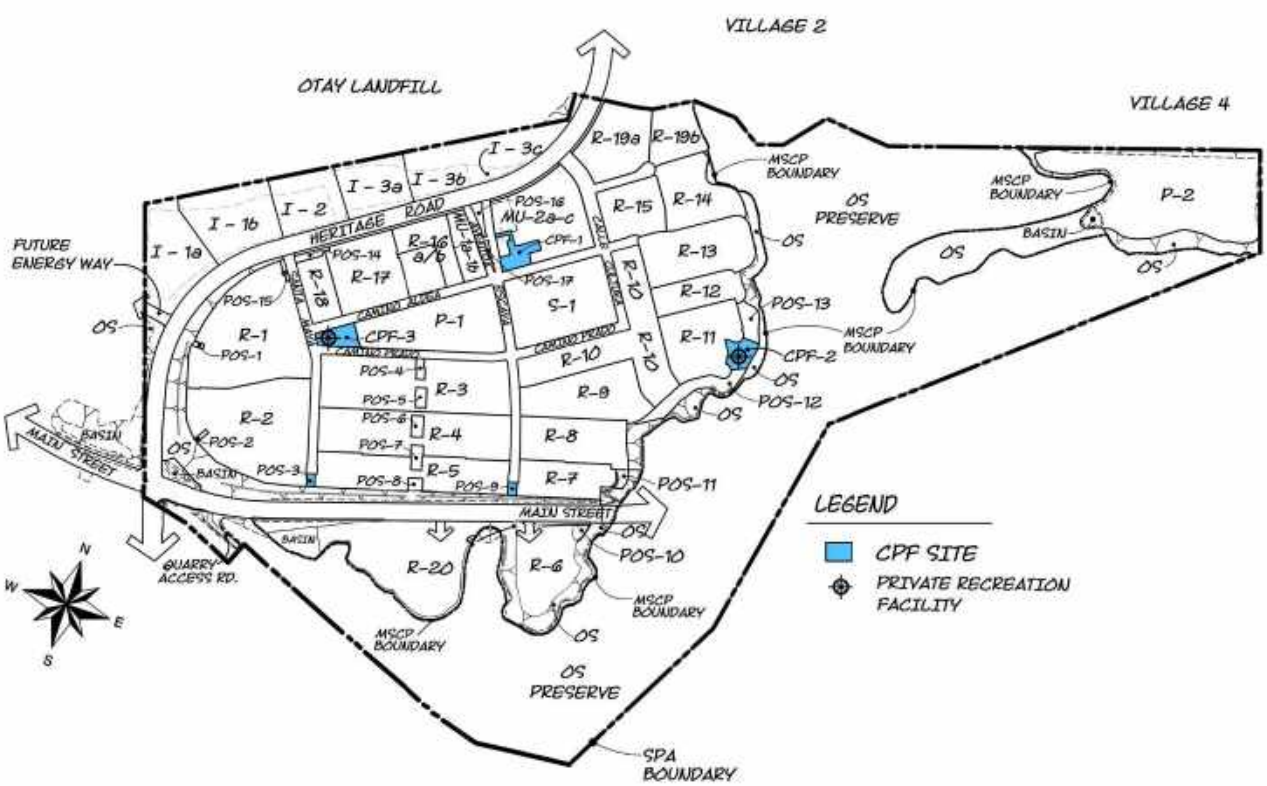


Exhibit 27
Community Purpose Facility Plan

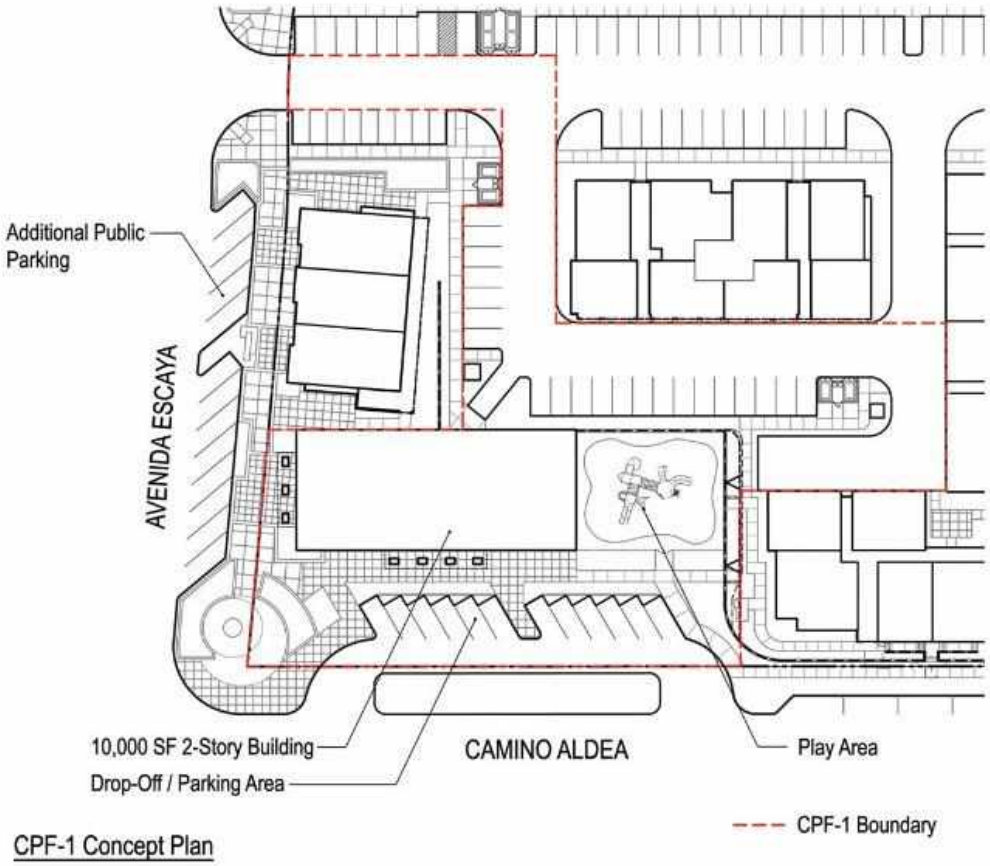


Exhibit 28
Community Purpose Facility Concept Plan (CPF-1)

This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.

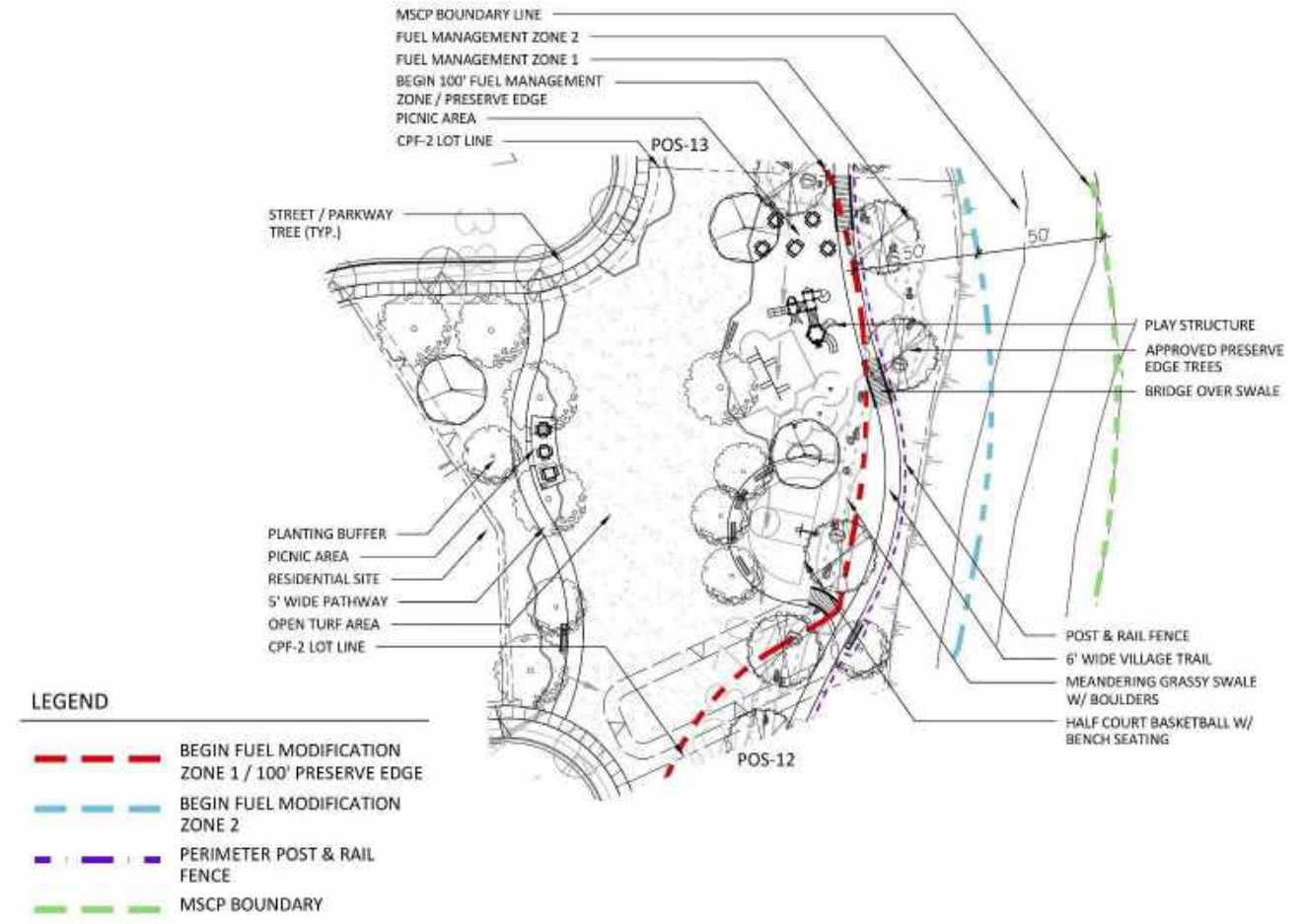


Exhibit 29
Private Recreation Facility Concept Plan (CPF-2)

This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.

No structures other than fencing and walls shall be allowed within 100-feet Preserve Edge. Perimeter fences and walls within the 100-foot Preserve Edge shall be built and landscaped to minimize visual impacts on the Preserve and the Otay Valley Regional Park. Landscape plans for areas adjacent to the MSCP Preserve must be consistent with the "Approved Plant List" (Attachment A) and the Preserve Edge Plan landscaping and irrigation requirements. Any proposed use within the Preserve Edge shall be subject to review and approval of the Deputy City Manager / Development Services Director.

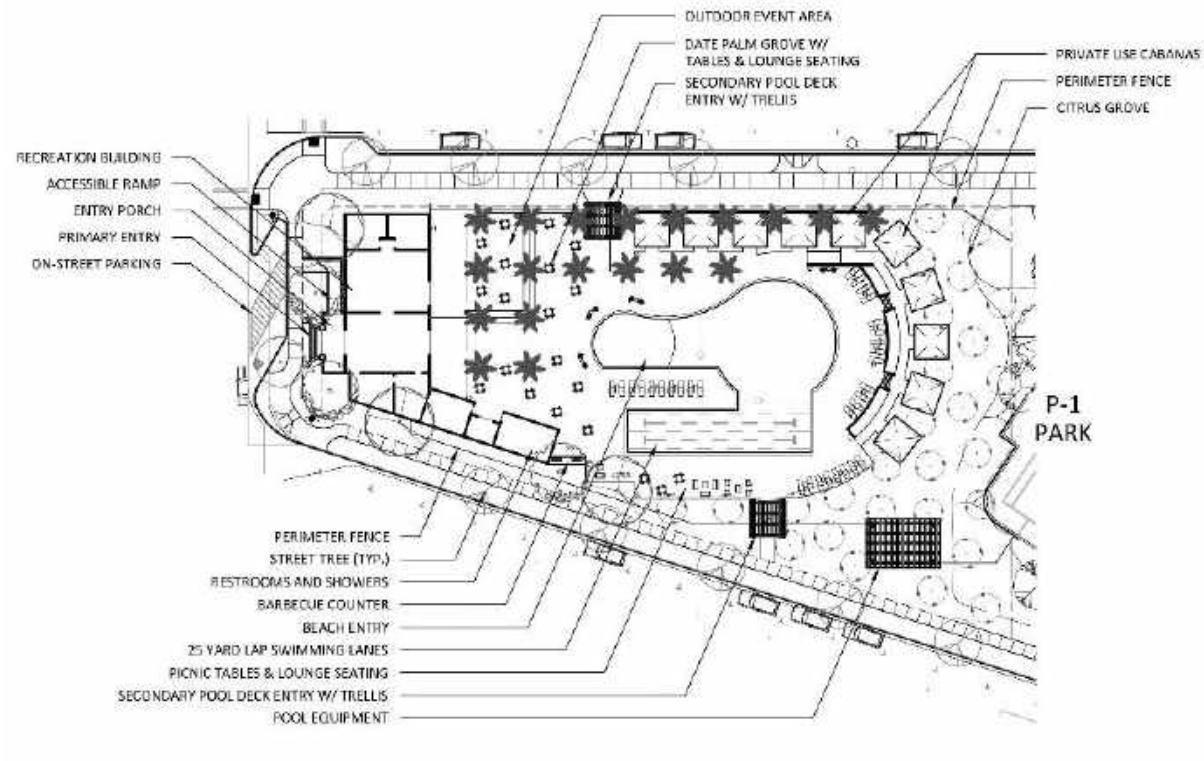


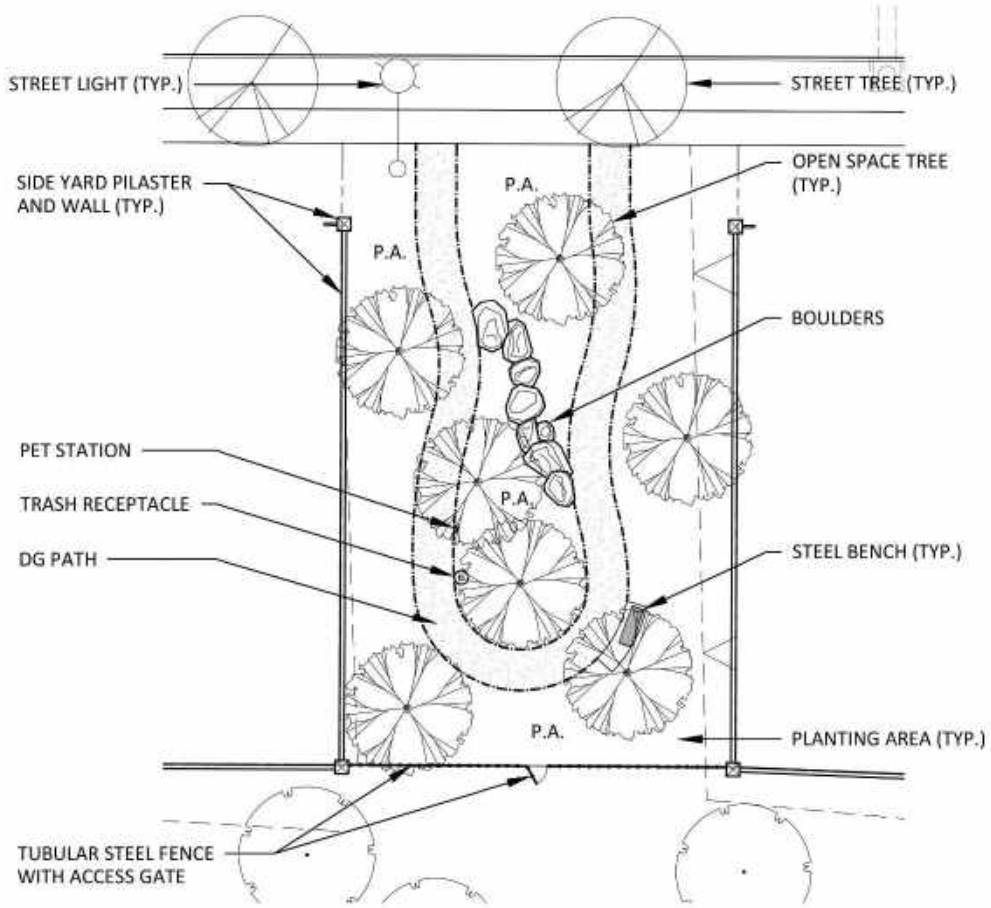
Exhibit 30

Private Recreation Facility Concept Plan (CPF-3)

This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.

4. Private Open Space

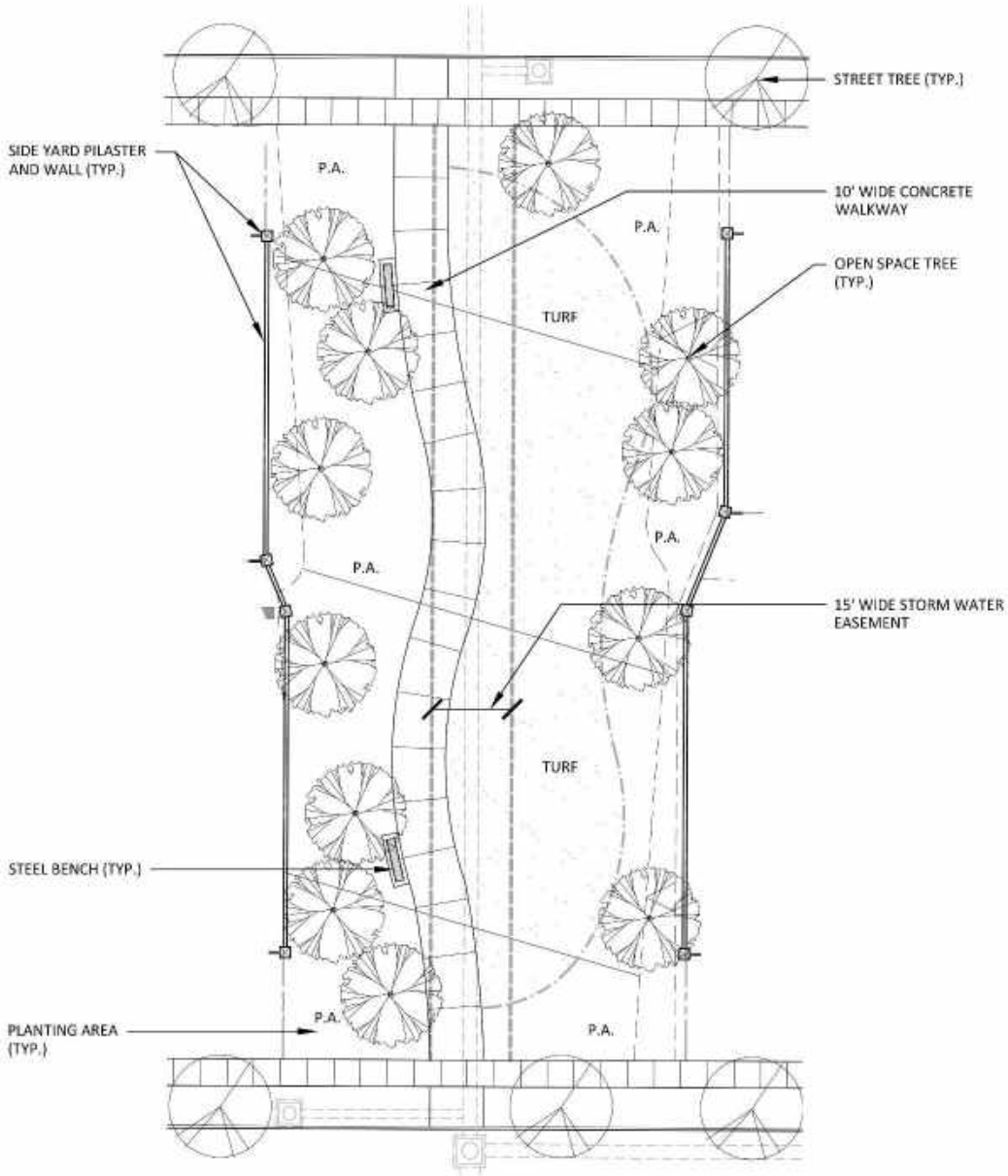
Private Open Space areas are distributed throughout Village 3. They are located within single family neighborhoods and at the perimeter of Village 3 and may contain trails, open lawn areas, bench seating, picnic areas and/or exercise stations. Private Open Space Areas may provide Common Useable Open space requirements identified in the PC District Regulations. No structures other than fencing and walls shall be allowed within 100-feet Preserve Edge. Perimeter fences and walls within the 100-foot Preserve Edge shall be built and landscaped to minimize visual impacts on the Preserve and the Otay Valley Regional Park. Landscape plans for areas adjacent to the MSCP Preserve must be consistent with the "Approved Plant List" (Attachment A) and the Preserve Edge Plan landscaping and irrigation requirements. Any proposed use within the Preserve Edge shall be subject to review and approval of the Deputy City Manager / Development Services Director. Concept plan are provided for illustrative purposes only. Actual site development may vary from concepts depicted below.



Private Recreation Facility

Exhibit 31
Private Open Space (POS-3) Concept Plans

This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.

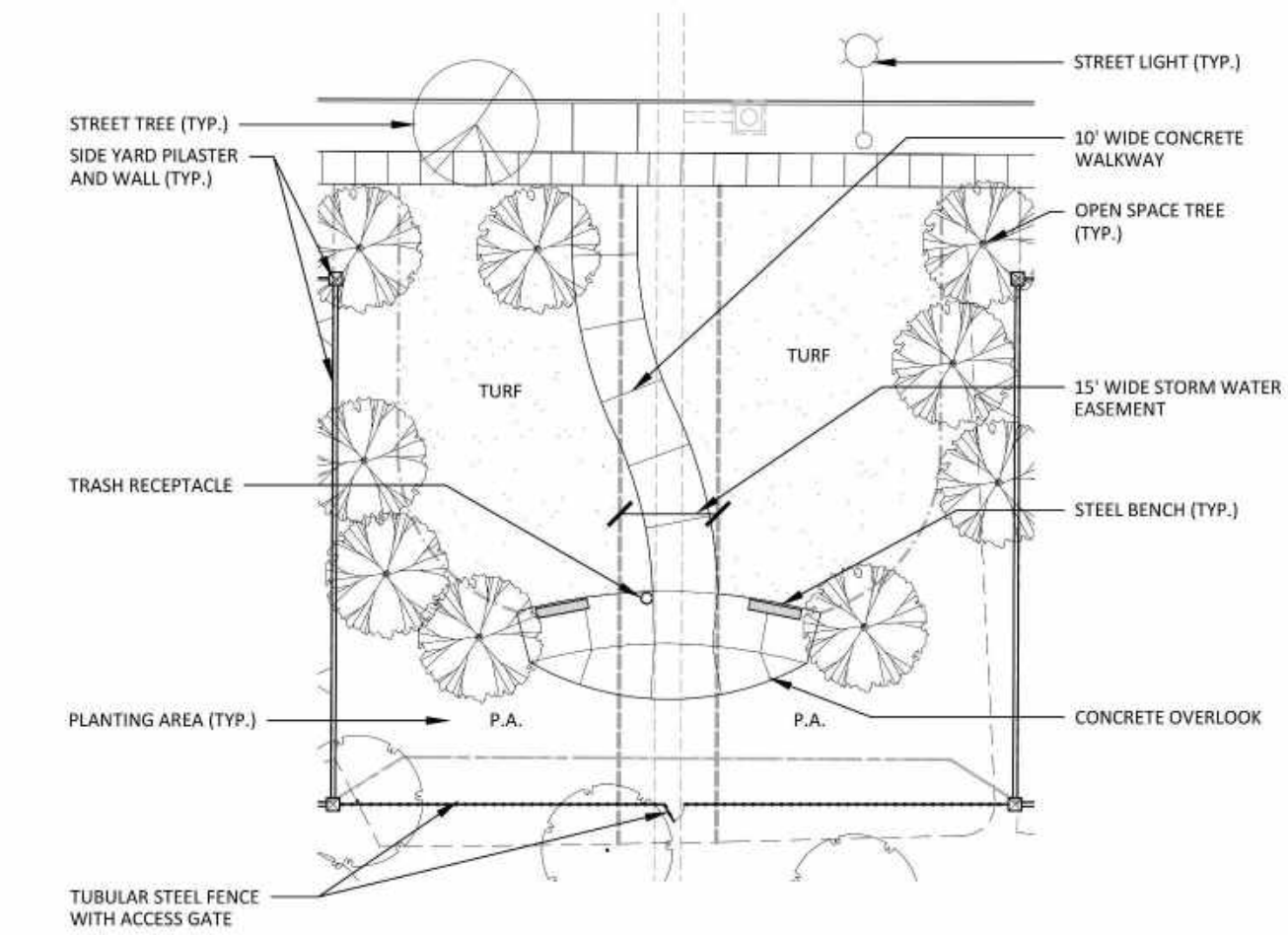


Private Recreation Facility -Paseo (Typical Segment)

Exhibit 32a

Private Open Space (POS-4, 5, 6 & 7) Concept Plans

This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.

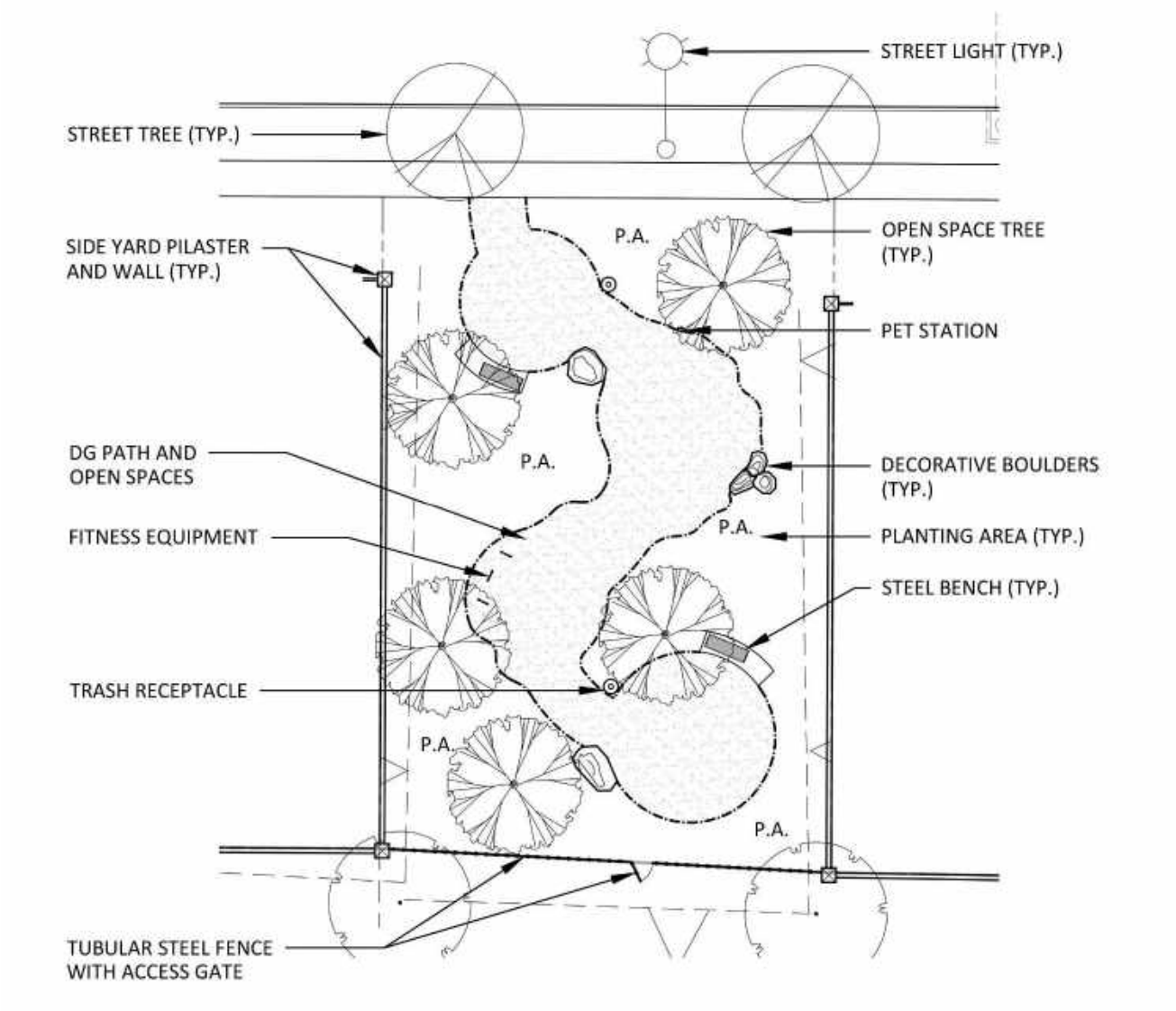


Private Recreation Facility

Exhibit 32b

Private Open Space (POS-8) Concept Plans

This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.

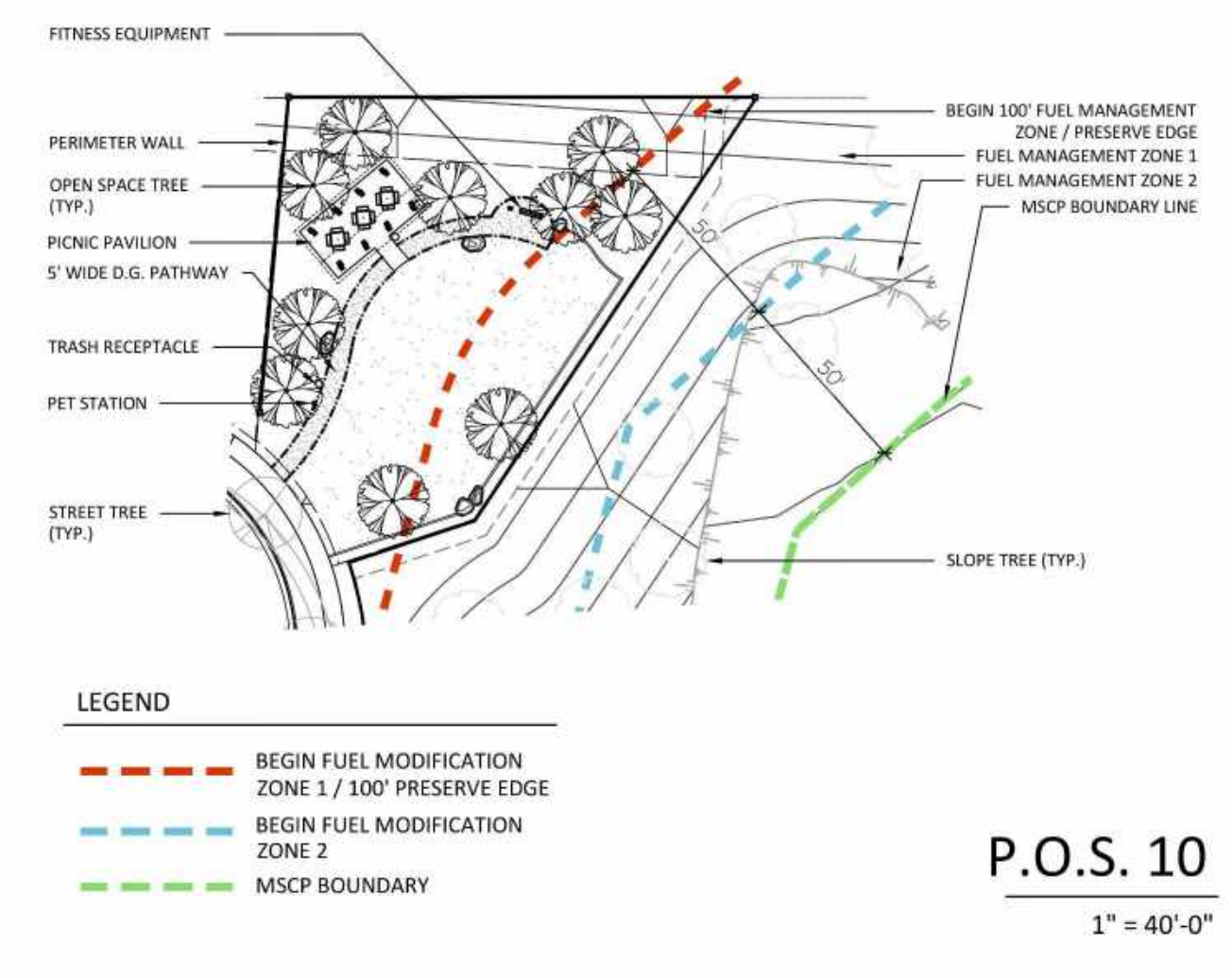


Private Recreation Facility

Exhibit 32c

Private Open Space (POS-9) Concept Plans

This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.

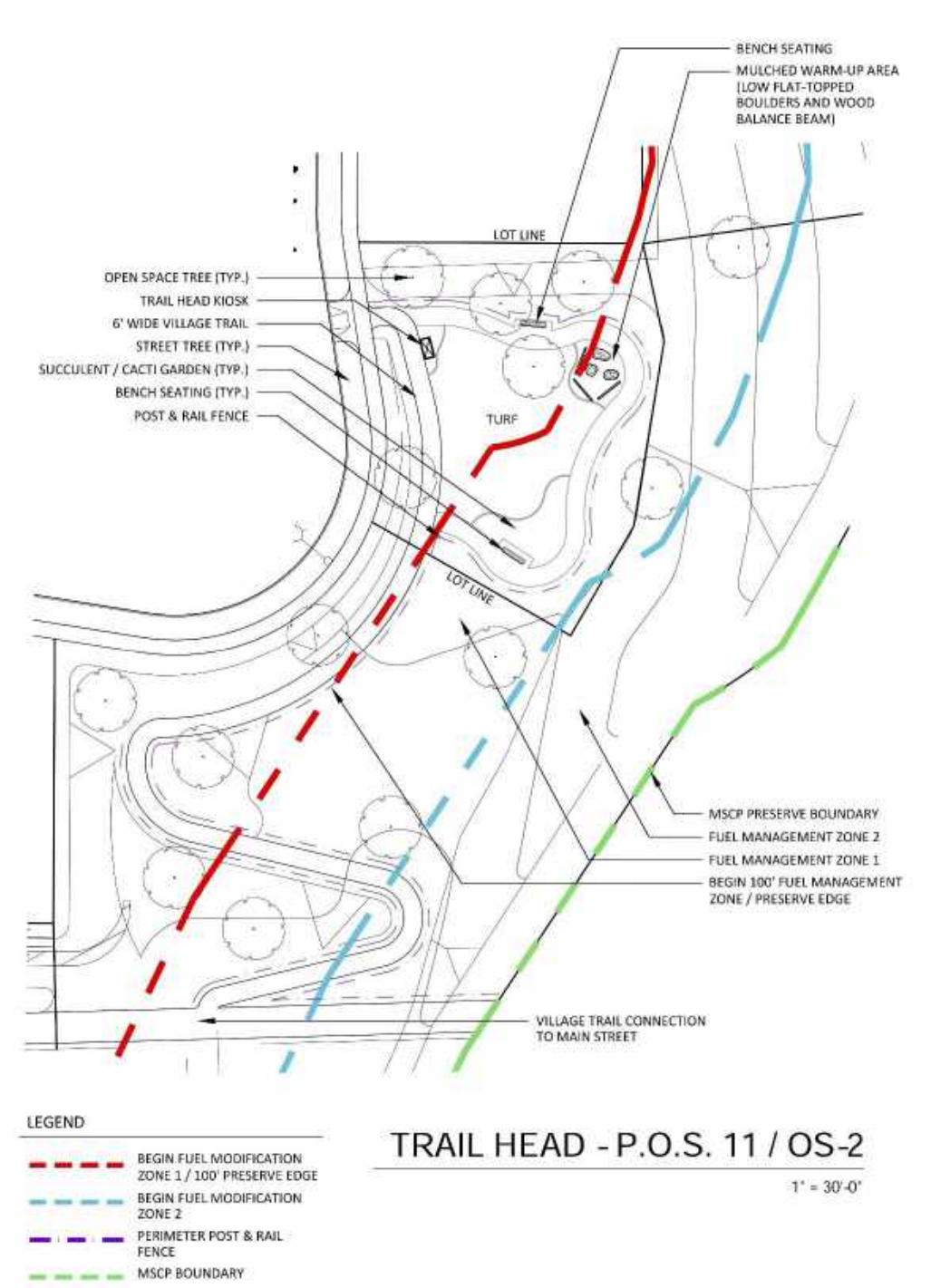


Private Recreation Facility

Exhibit 33a

Private Open Space (POS-10) Concept Plans

This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.

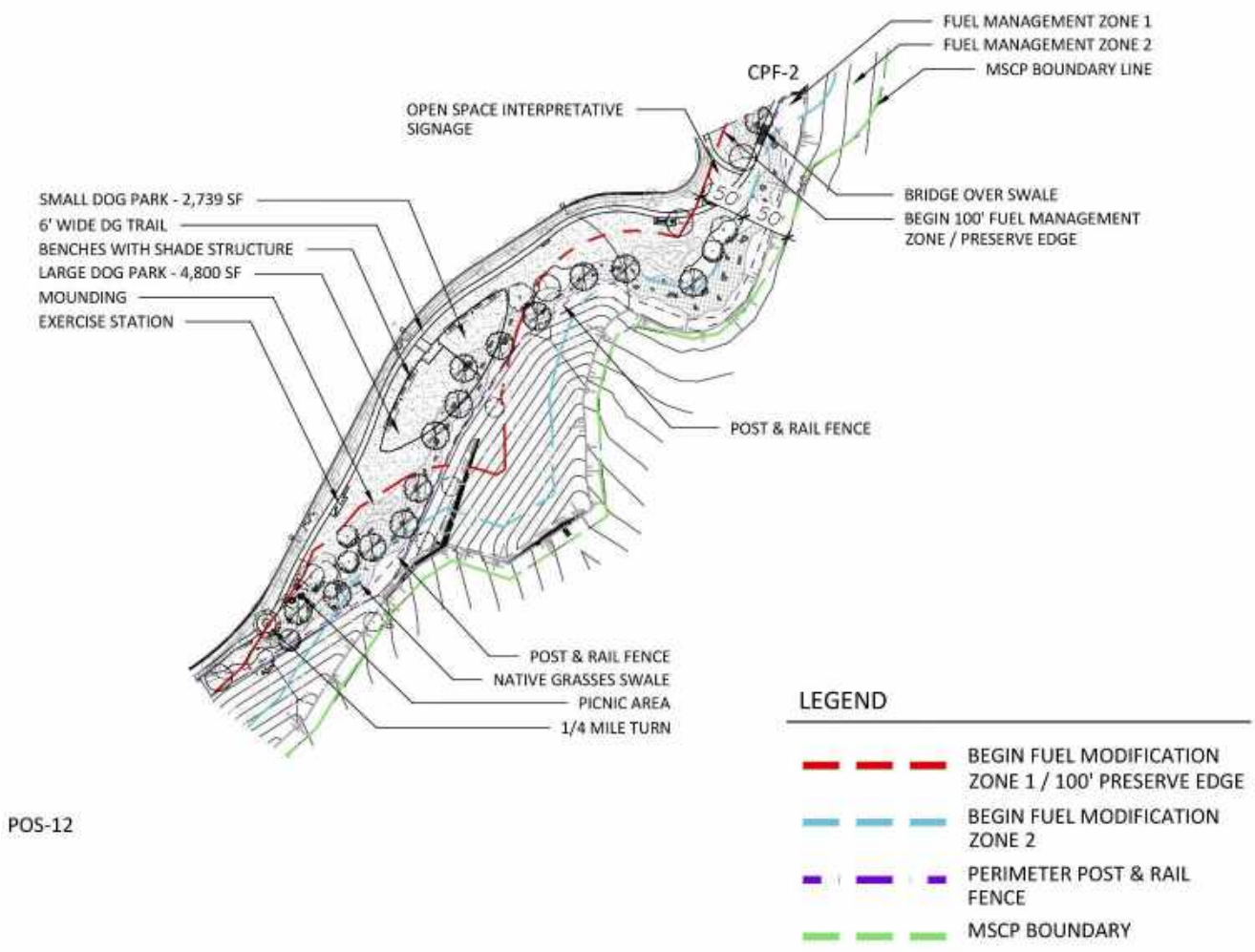


Private Recreation Facility - Trail Head

Exhibit 33b

Private Open Space (POS-11 & OS-2) Concept Plan

This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.

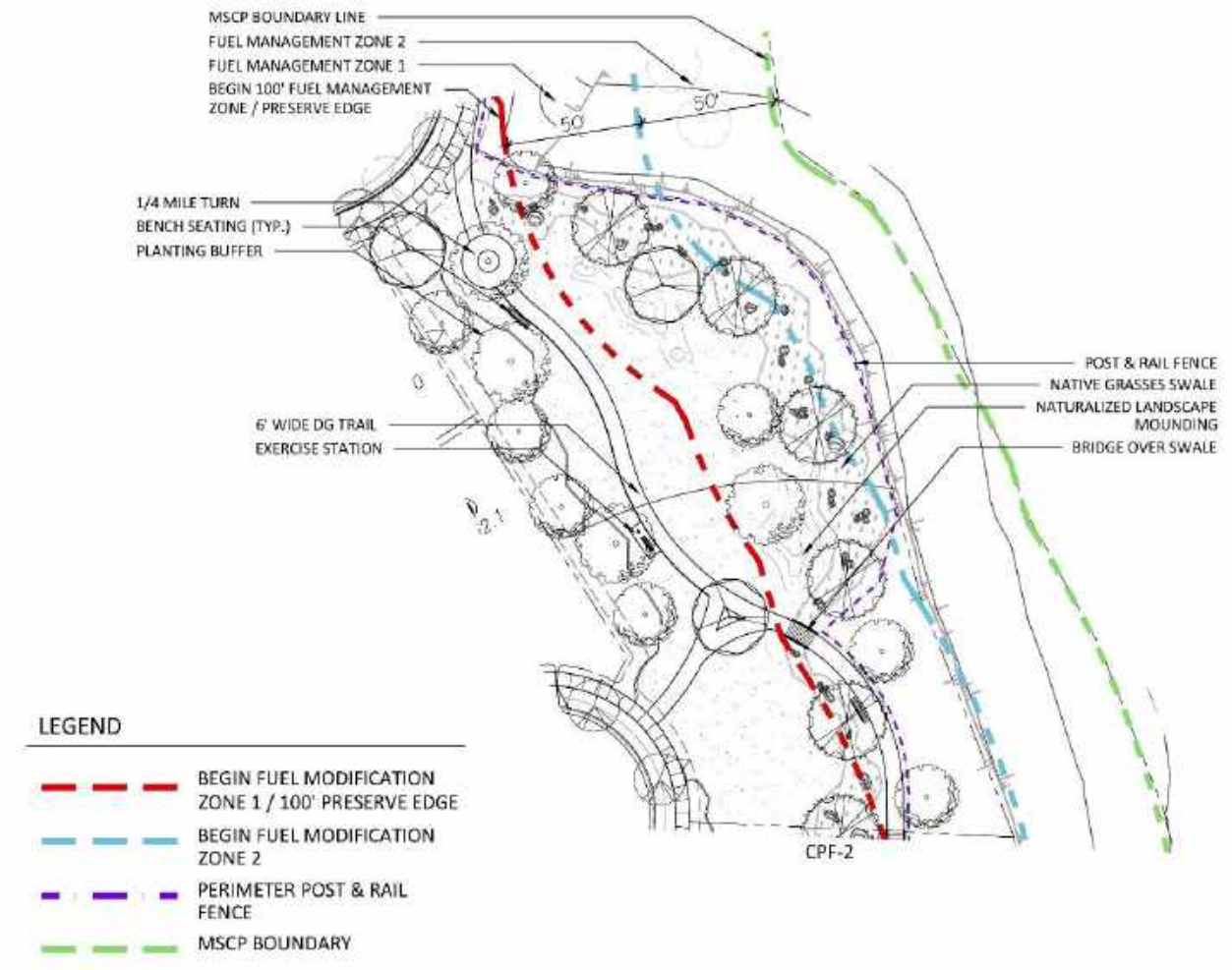


Private Recreation Facility

Exhibit 34

Private Open Space (POS-12) Concept Plans

This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.



Private Recreation Facility

Exhibit 35a
Private Open Space (POS-13) Concept Plans

This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.

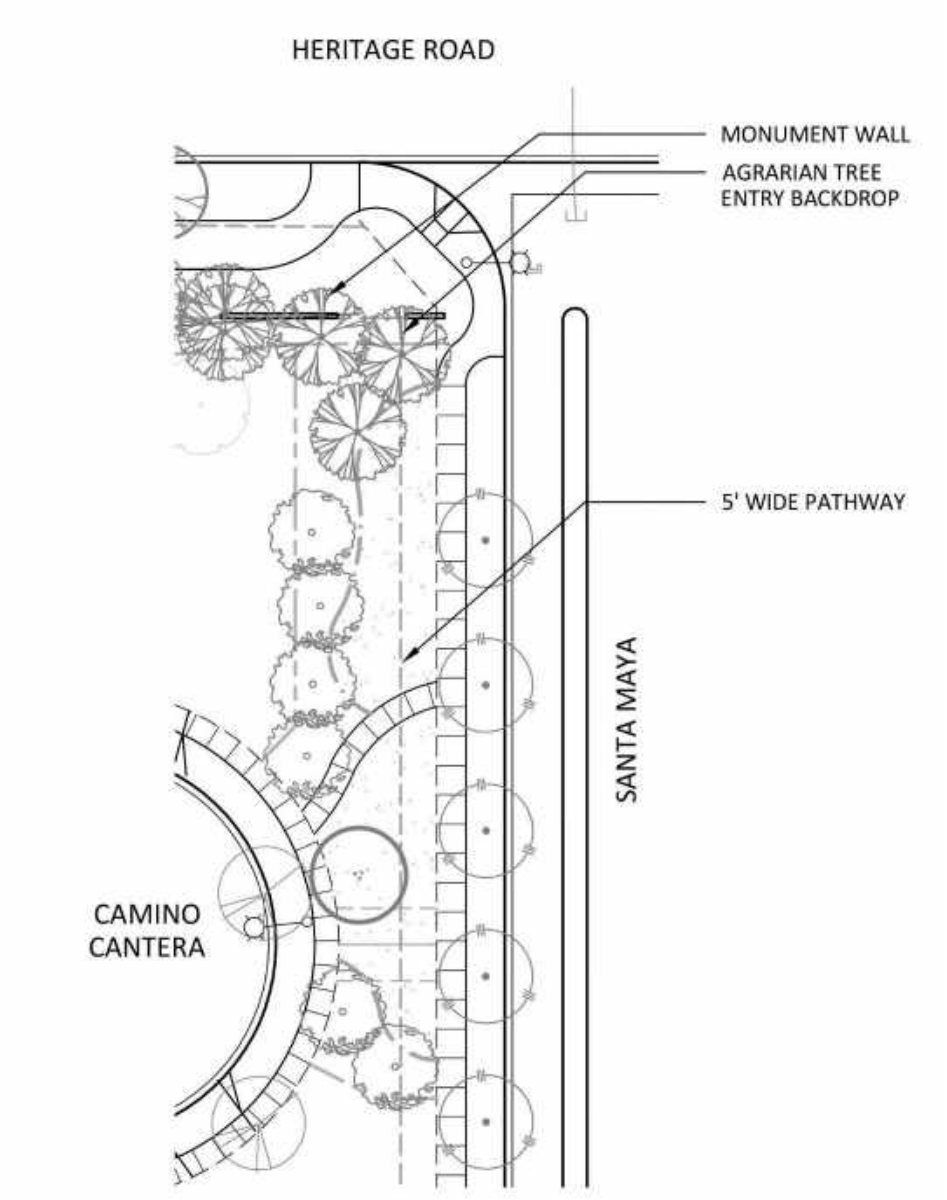
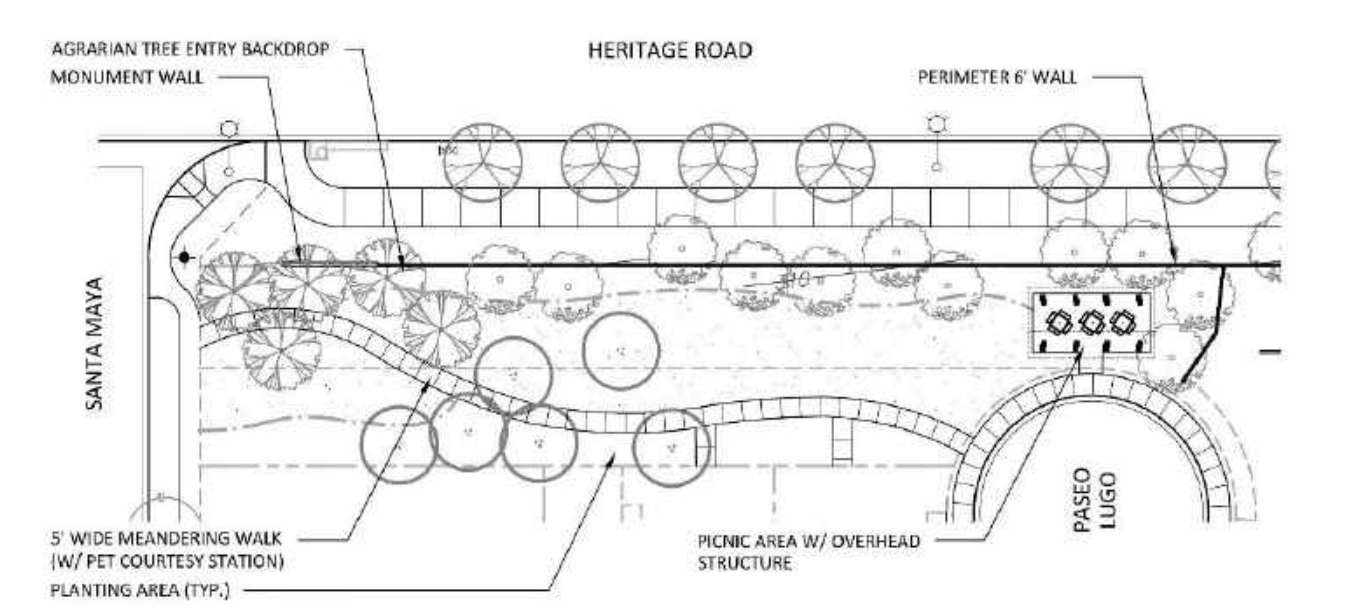


Exhibit 35b

Private Open Space (POS-14) Concept Plans

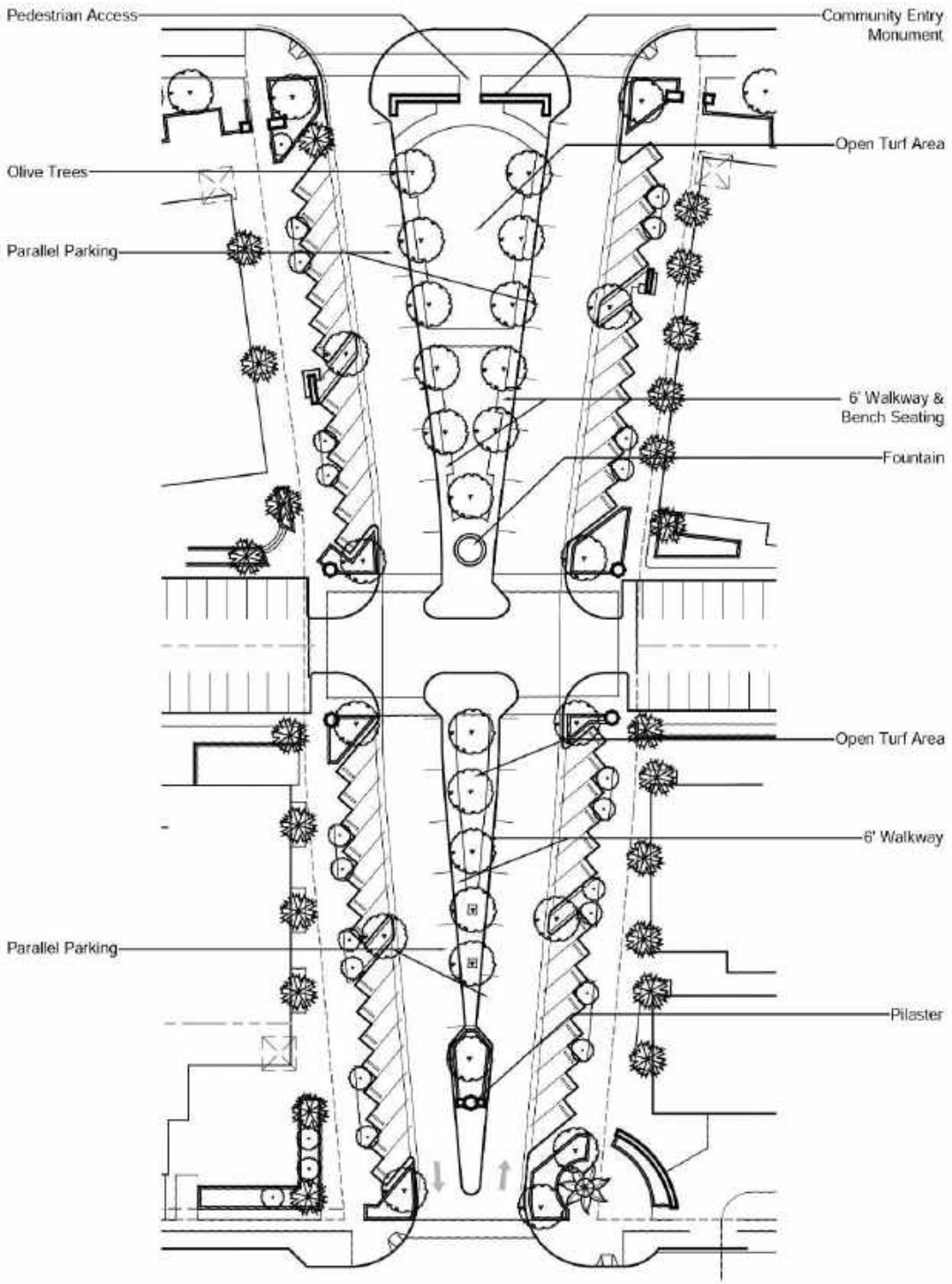
This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.



Private Recreation Facility

Exhibit 35c

Private Open Space (POS-15) Concept Plans



Private Recreation Facility - Avenida Escaya Concept Plan

Exhibit 36

Private Open Space (POS 16 & 17) Concept Plans

II. Village Structure

J. Wall and Fence Concepts

1. Community Walls

The Ranch-wide theme will be maintained through a comprehensive system of walls and fences. Walls at the Village entries will be designed to accent the entries and reflect the agrarian character. Enhanced architectural walls will be comprised of a light stucco finish and will provide screening, sound attenuation, security, and neighborhood identity. Community perimeter walls will be constructed of light colored integral color concrete block. An enhanced wall design is also proposed at key locations within the village core and at community entries. Fence and Wall Details are provided in Exhibit 38 below. Plantable retaining walls are as described beginning on Page 23.

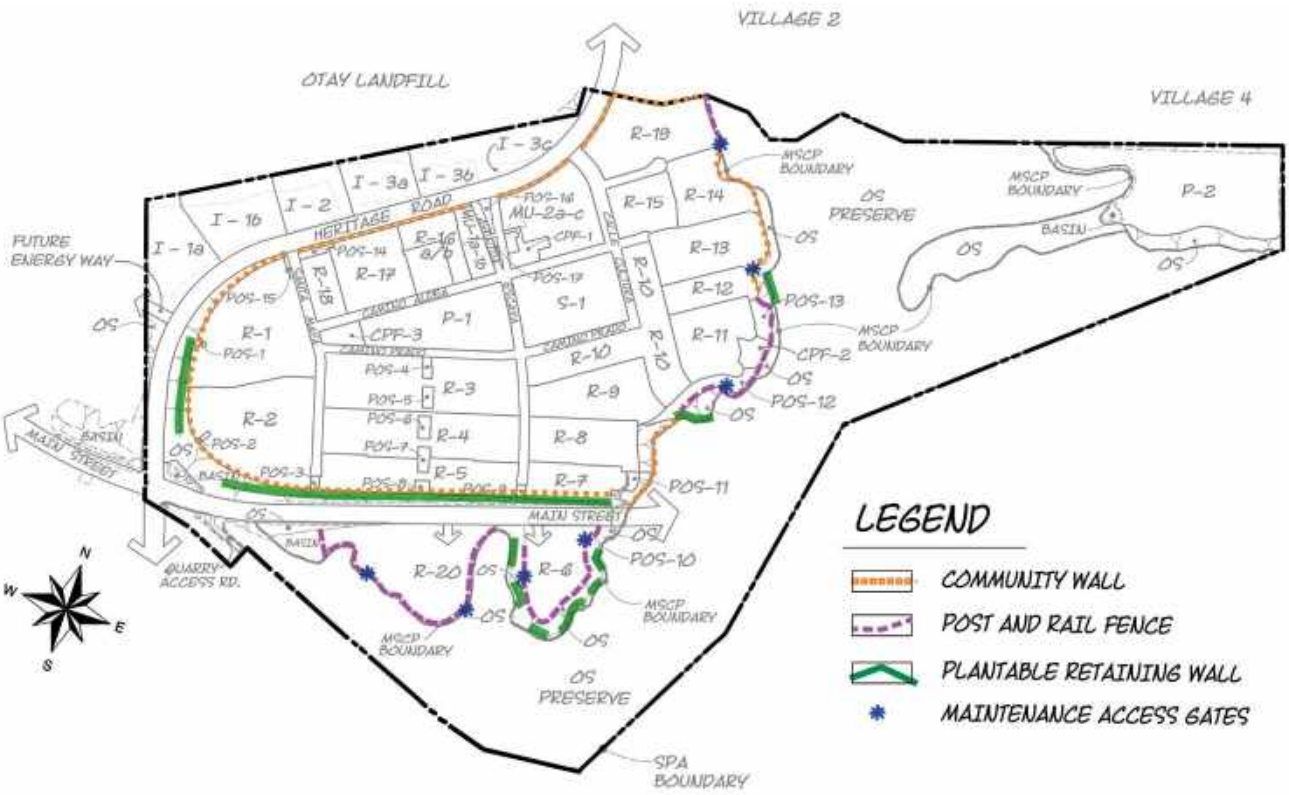
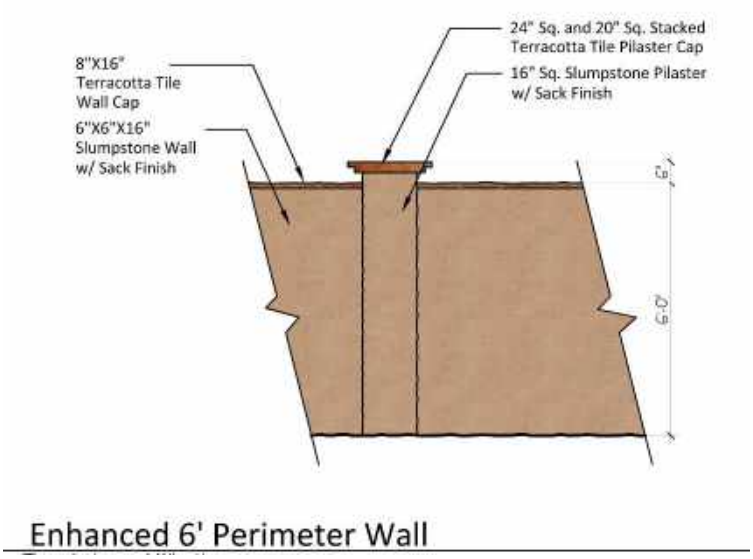
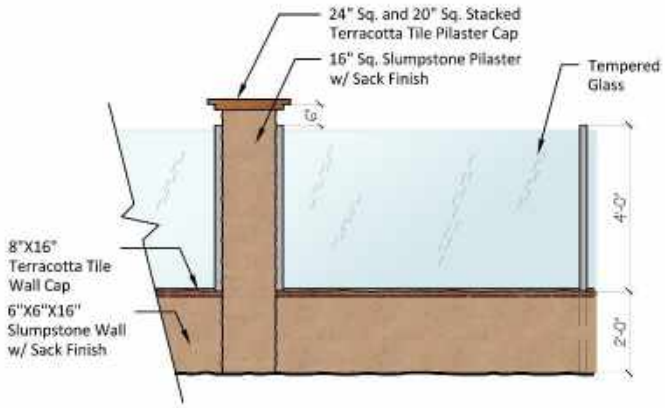


Exhibit 37
Fence and Wall Concept Plan

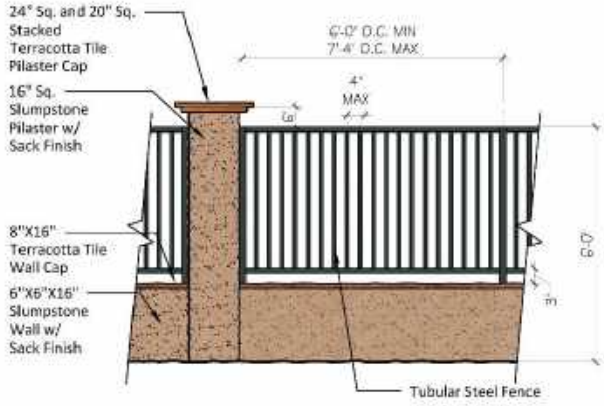
II. Village Structure



Enhanced 6' Perimeter Wall

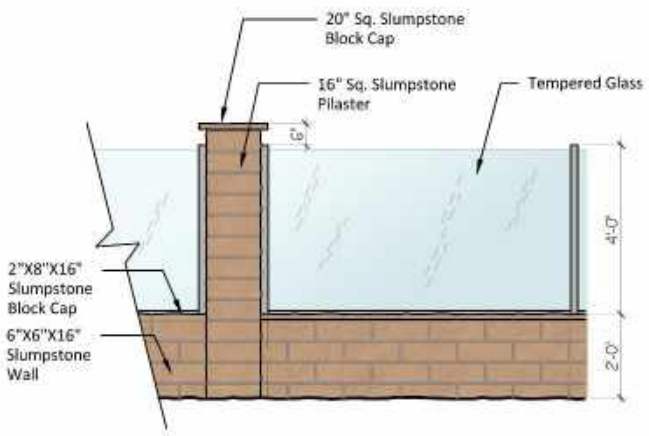


Enhanced 6' Perimeter View Wall

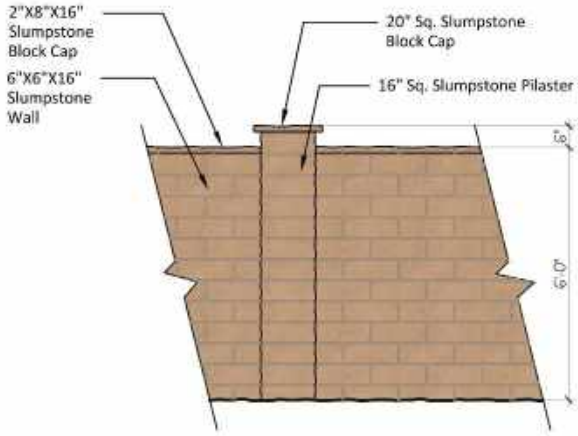


Enhanced 6' Perimeter View Fence

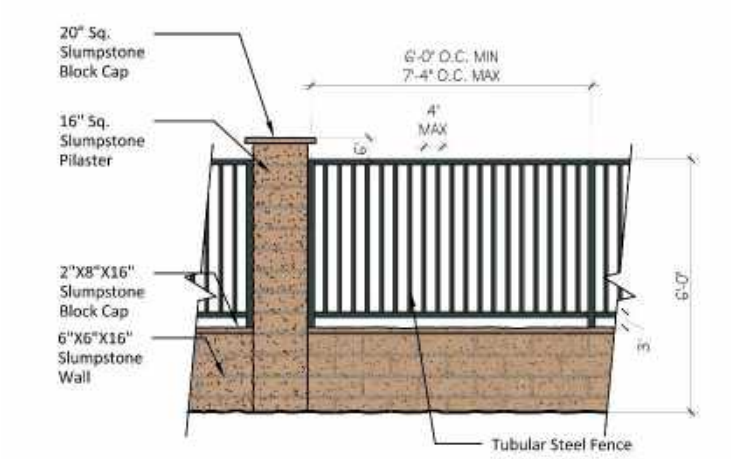
Exhibit 38
Fence and Wall Details



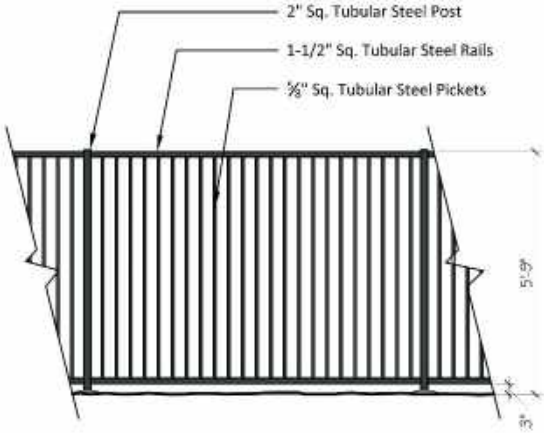
6' Perimeter View Wall



6' Perimeter Wall

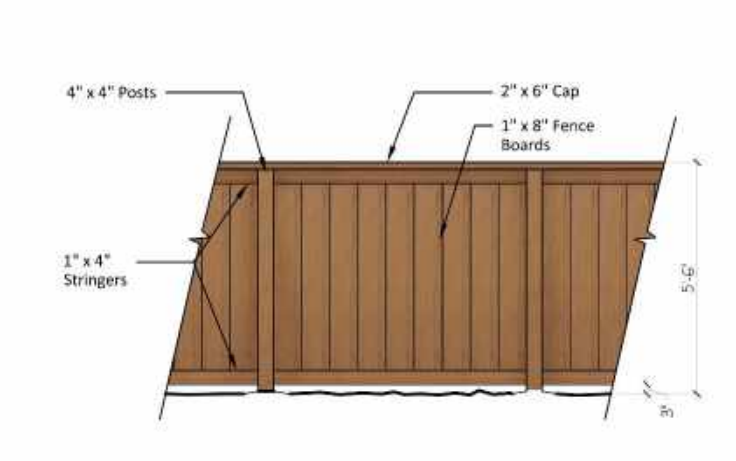


6' Perimeter View Fence

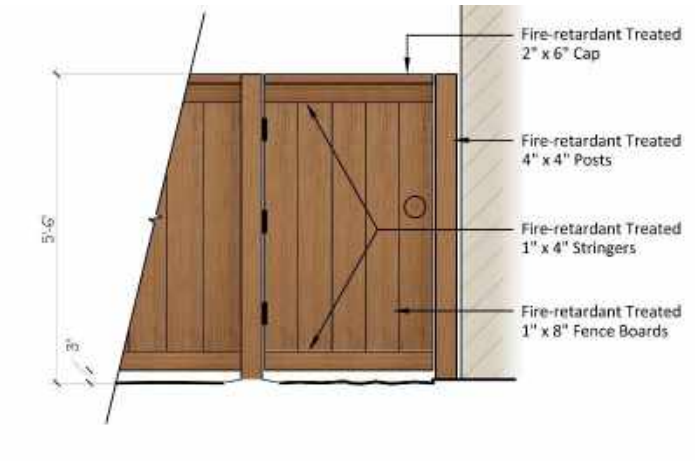


5'-9" Production View Tubular Steel Fence

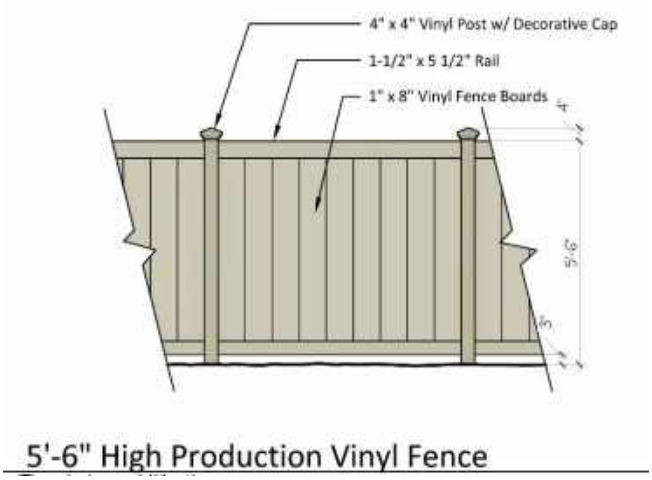
Exhibit 38 (continued)
Fence and Wall Details



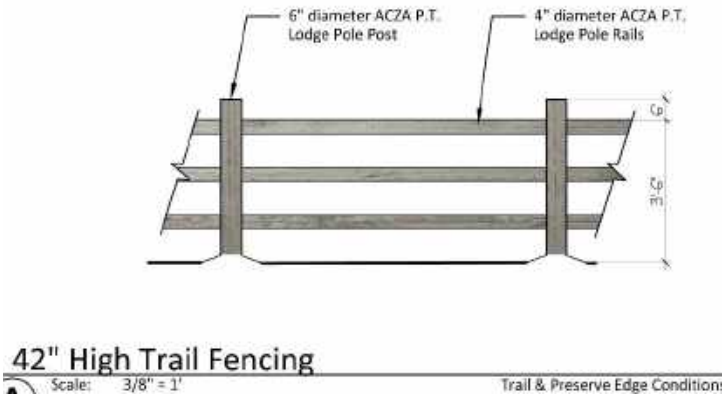
5'-6" High Production Wood Fence



5'-6" High, Fire-Retardant Wood Fence Return



5'-6" High Production Vinyl Fence



42" High Trail Fencing

Scale: 3/8" = 1'

Trail & Preserve Edge Condition:

Exhibit 38 (continued)
Fence and Wall Details

Note: All side yard fencing, including returns, are subject to the Village 3 North Fire Protection Plan and subsequent amendment requirements.

K. Lighting Concepts

The village lighting design concept depicted in Exhibit 39 below focuses on the quality of light along specific corridors and areas. Light standards must have a distinctive character to relate to the corridors they serve. Lighting along pedestrian corridors must be more human in scale, closer spaced and lower than is typically found on an urban street. Light standards should be manufactured of high-quality materials that are visually pleasing. The base, pole and light fixture must be attractive and suitable to the design theme of the village. Light fixtures shown in Exhibit 40 below are conceptual. Final fixture design will be determined in the Village 3 Master Precise Plan. The objectives for exterior lighting are as follows:

- To contribute to the safe and efficient use of all public and private areas in the village.
- To increase the perception of personal and property safety.
- To complement and reinforce the architectural and landscape character of all public and private spaces.
- To contribute to the ease of way finding through the village.
- To meet all applicable public and environmental standards, including energy conservation.
- To provide a consistent quality of lighting throughout the village.
- To avoid adverse impacts such as excessive glare and light spill.
- To reinforce the identity of each component of the village, including private and public space improvements.
- To avoid adverse impacts to sensitive biological resources within the adjacent Otay Ranch Preserve by directing light away from Preserve areas through the placement and shielding.

II. Village Structure

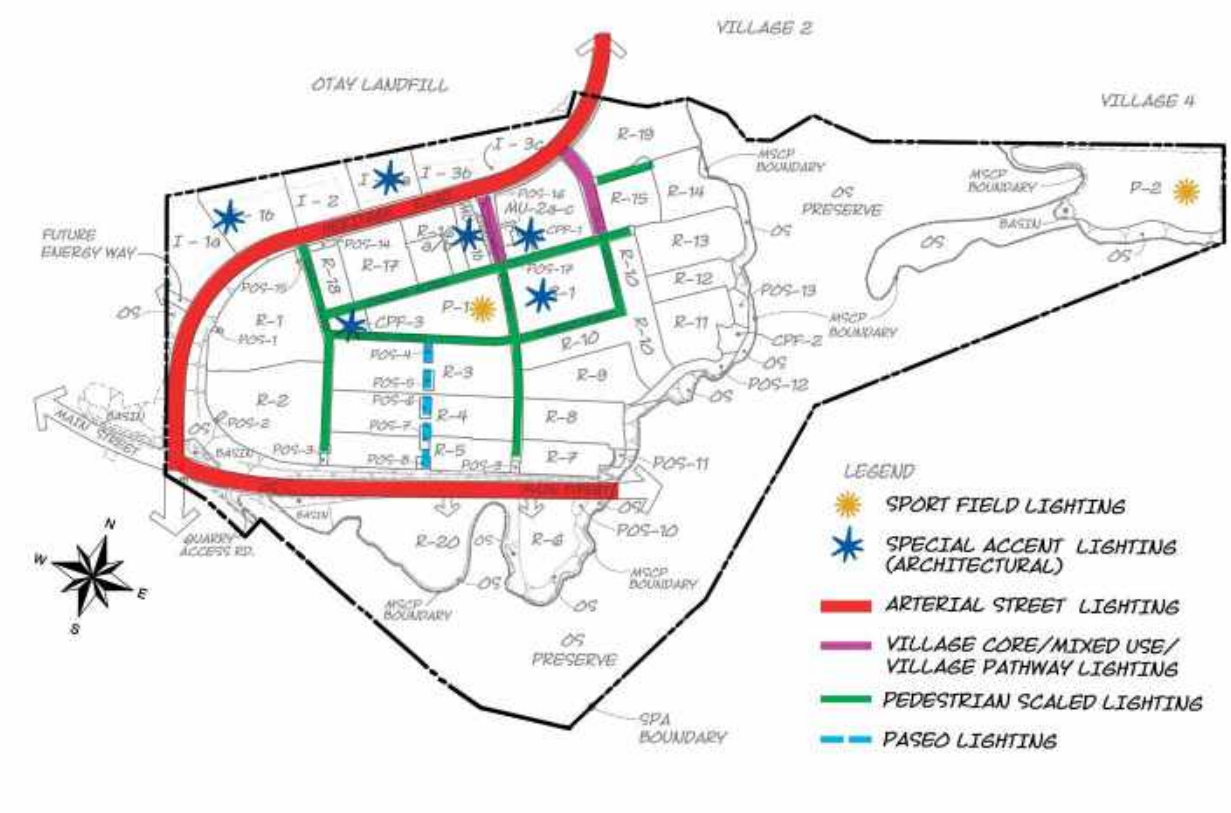


Exhibit 39
Lighting Concept Plan

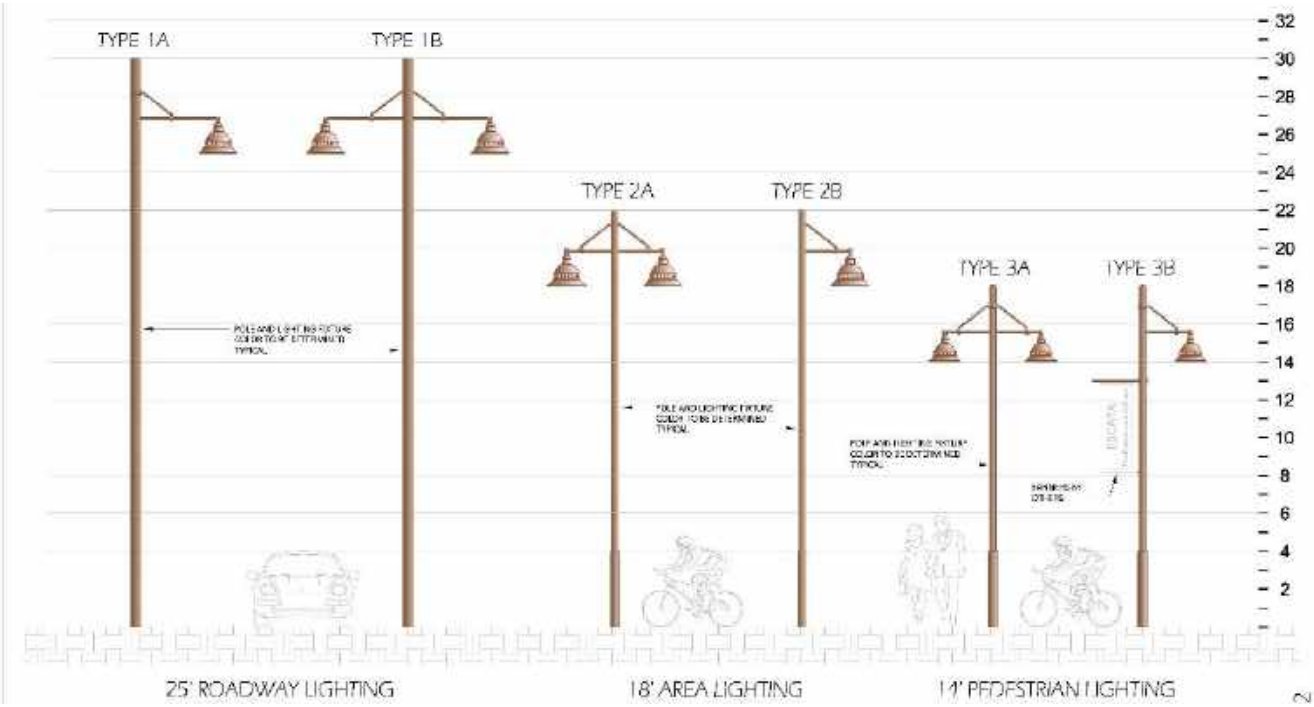


Exhibit 40
Conceptual Light Fixtures

Note: Master Developer may substitute like fixtures

- Special accent lighting may be proposed within the mixed use commercial, CPF sites and school site. Special accent lighting may include architectural, pathway and/or lighting on signage. All special accent lighting proposed within the 100' Preserve Edge must be shielded and directed away from the Preserve to minimize/avoid light spillage into Preserve areas. Detailed lighting plans will be provided at the improvement/site plan level.

- Sport field, sport court, parking lot and architectural lighting is planned within public parks, including Neighborhood Park, P-1 and Community Park P-2. Lighting within public parks must be shielded to prevent light spillage into adjacent MSCP Preserve area and other adjacent land uses. See "Public Park Lighting" on Page 104 for lighting requirements.

II. Village Structure

1. Secondary Village Entry Street Lighting

Street lighting will be from the opposite side of the street from the pathway. The pathway lighting will be illuminated by a pedestrian scale theme light source.

Pole:
Custom color concrete, approximately 22 feet tall for street lights and painted metal theme character 12 feet tall for pathway lights.

Fixture Type:
Street lights – conventional with special color fixture and custom color concrete pole.

Pathway lights – design and color complimentary to the Village design theme.

Lamp Type:
LED Lamp

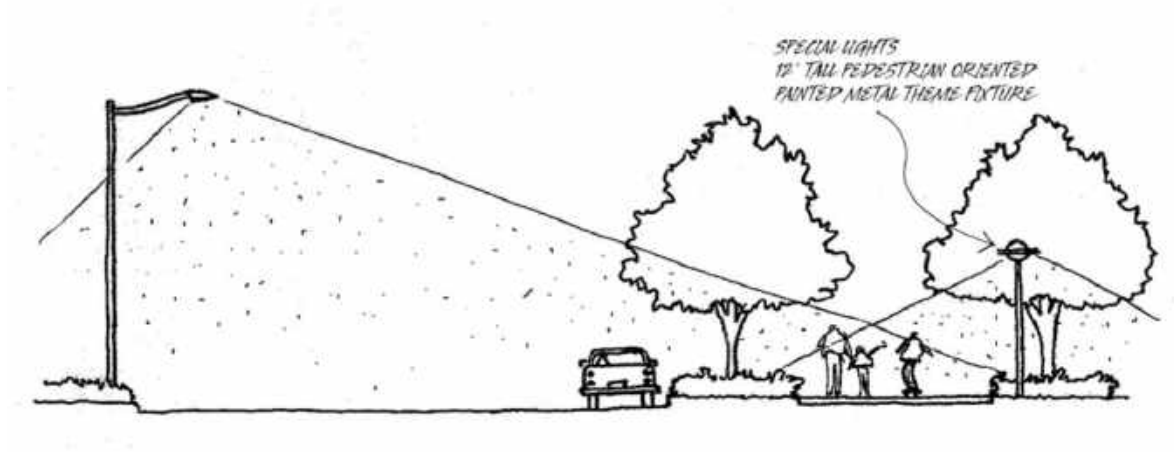


Exhibit 41
Secondary Village Entry Street Lighting

2. Promenade Streets Lighting

Promenade Streets serve automobile, pedestrian and/or bicycle traffic. Street lighting will be located on the opposite side of the street from the promenade walk. Pedestrian scale lighting will be located next to the promenade walk.

Pole:
Custom color concrete, approximately 22 feet tall for street lights and painted metal theme character 12 feet tall for pathway lights.

Fixture Type:
Cut-off feature for glare control for both lights.
Standard "Cobra Style" with cut off shield for street lights. Theme fixture for pedestrian path lights with shield.

Lamp Type:
LED Lamp

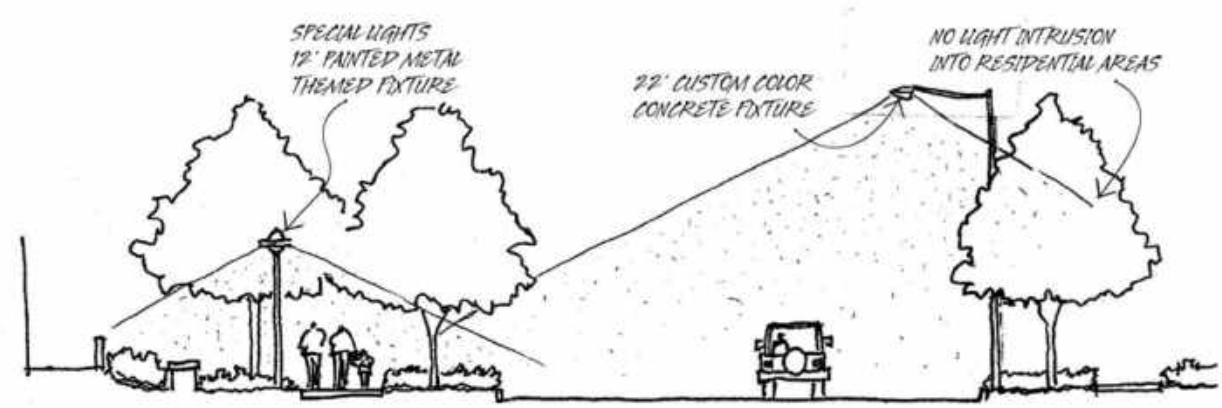


Exhibit 42
Promenade Street Lighting

3. Parkway Residential Street Lighting

Residential streets are semi-urban roads with a pedestrian scale. The streets have homes on one or both sides, with pedestrian walks and on-street parallel parking.

Pole:
Pre-cast custom color concrete approximately 22 feet tall.

Fixture Type:
Cut-off feature for glare control, either pole top or single davit mount.

Lamp Type:
LED Lamp

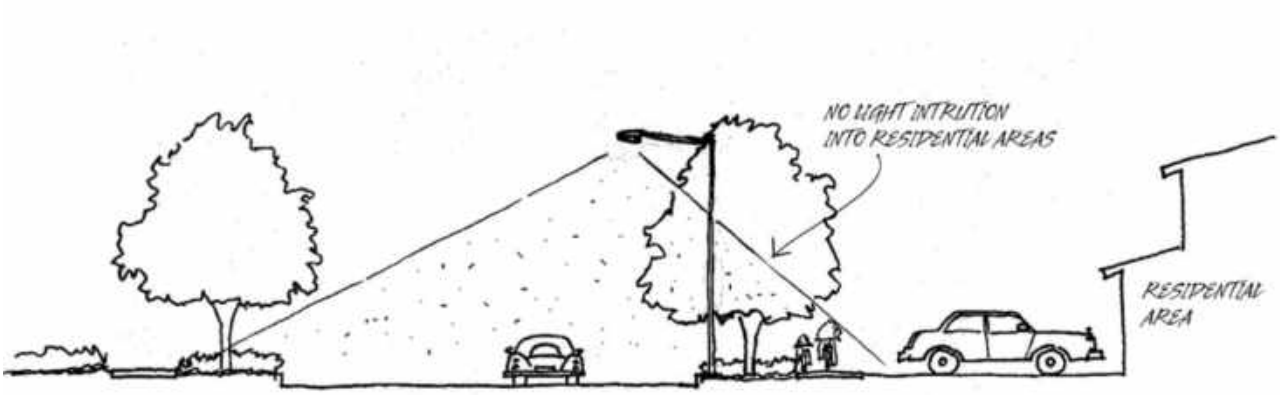


Exhibit 43
Parkway Residential Street Lighting

4. Lighting within 100' Preserve Edge

Lighting is proposed along the Residential Street and Private Street located within the 100' Preserve Edge. This single-loaded street has a home on one side of the street, with pedestrian walks on both sides of the street and on-street parallel parking permitted in front of homes. Light fixtures must be shielded to minimize light spillage (see example below) into Preserve areas. In addition, street lights must be installed on the south side of the single-loaded street, closest to the Preserve area, with light directed away from the Preserve. See Page 101 for Parkway Residential Street Light details.

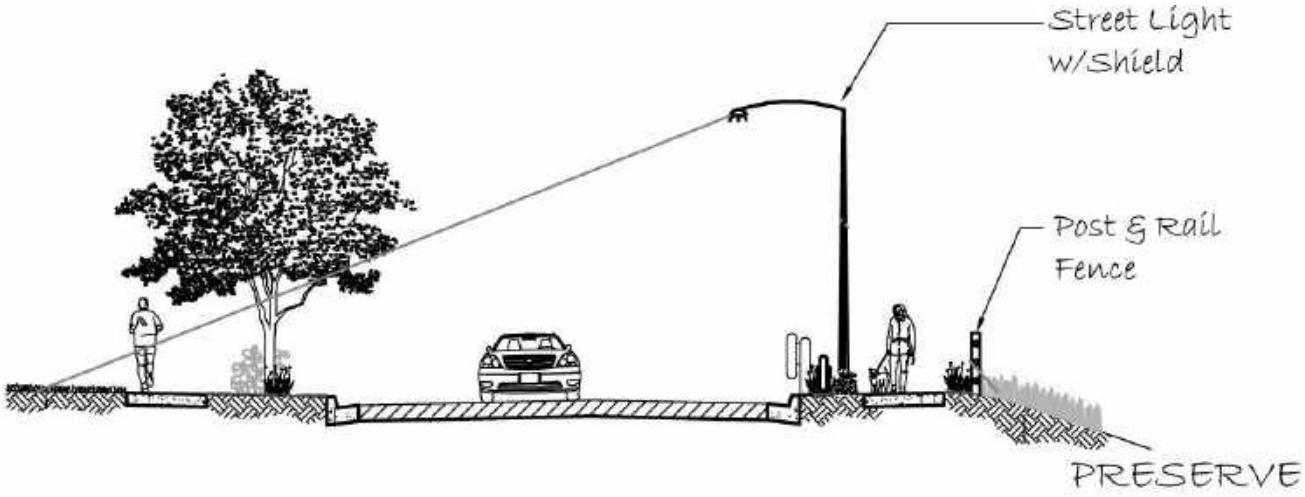


Exhibit 44
Lighting within 100' Preserve Edge

5. Public Park Lighting

Lighting is anticipated within the P-1 Neighborhood Park and P-2 Community Park. Sport court and field lighting will be provided to accommodate night-time use of sports fields and courts within public parks. In addition to sport court and field lighting, pathway/sidewalk, parking lot and architectural lighting may also occur within public parks. Light fixtures must be shielded to minimize light spillage into Preserve areas and other adjacent land uses. Specific lighting fixtures and lamps will be determined during the park master planning process.

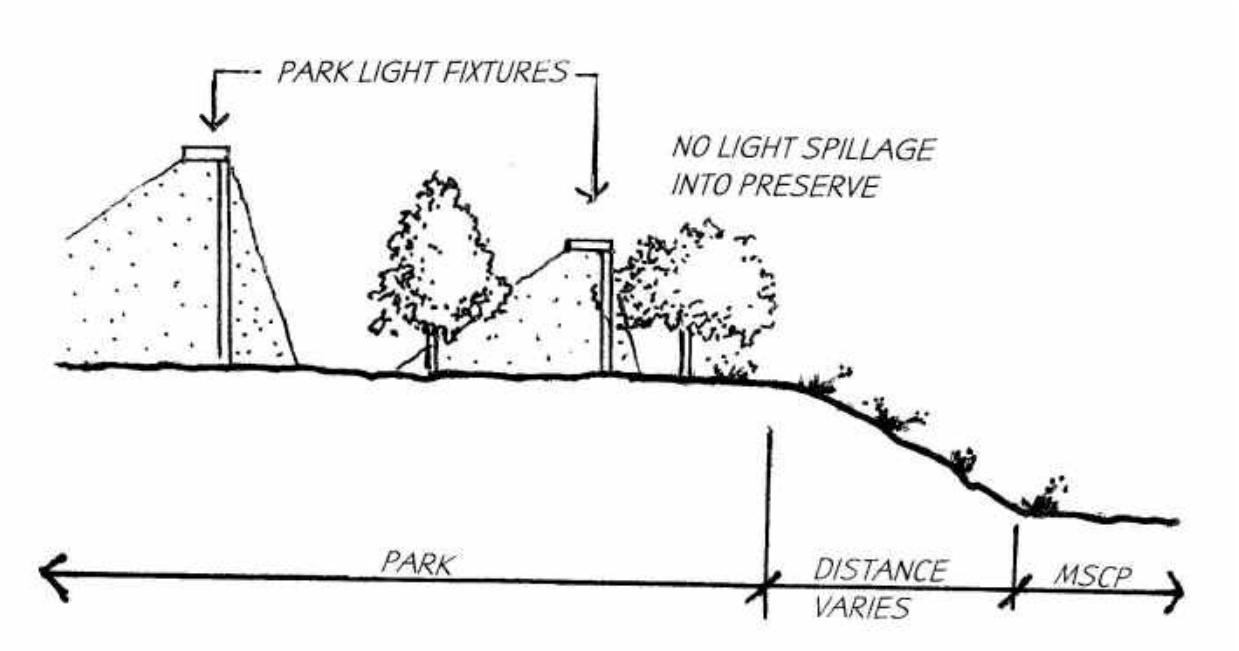


Exhibit 45
Public Park Lighting

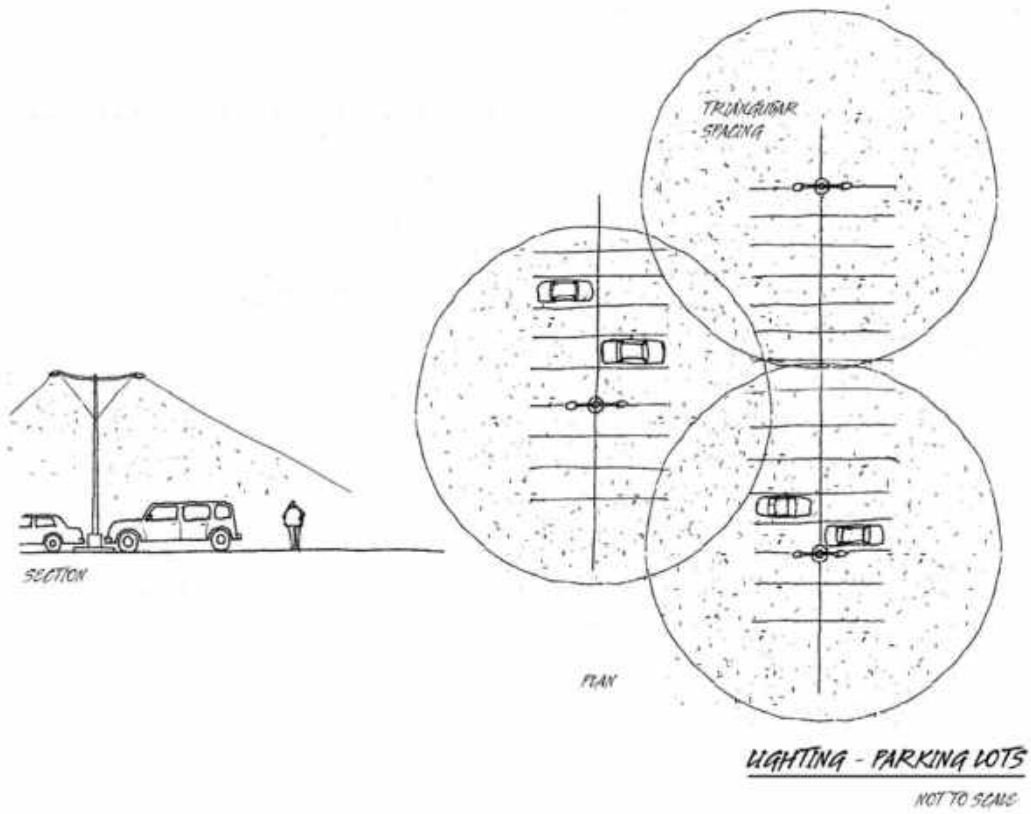
6. Parking Lot Lighting

Parking lot lighting is consistent throughout the village, in terms of fixture height, spacing, light source and performance characteristics. Fixture style may differ between projects if necessary. Parking lots should be adequately lighted with pole mounted fixtures. Parking lot lighting adjacent to residential uses should be located to minimize light intrusion and be adequately shielded.

Pole:
Painted metal, 20 feet tall, triangularly spaced.

Fixture Type:
Single or double mount, full cut-off fixtures.

Lamp Type:
LED



Lamp

Exhibit 46
Parking Lot Lighting

III. Village Core Guidelines

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A. Village Core Design Concept

The primary feature of the village is the Village Core. The village core is composed of a variety of land uses that form the social, commercial and recreational focus for the village. The land uses that form the Village 3 core include a neighborhood park, an elementary school, mixed-use commercial/retail/residential and a variety of higher density residential housing types. Exhibit 47, Village Core Illustrative depicts the conceptual layout of the Village Core and Exhibit 47, Avenida Escaya Corridor Concept Plan provides conceptual depictions of the organization and structure of the heart of the village core. The design objectives for creating the Village Core are:

- Create a sense of place with a highly identifiable character.
- Create a pedestrian friendly environment with activity, enclosure, and comfort in specific areas.
- Maximize connections to the Village Core from secondary area residential development with pedestrian and bicycle routes.
- Implement a "Main Street" concept for the commercial/retail/residential mixed-use area.
- Balance parking and vehicle access needs of commercial uses with the pedestrian focus within the village.
- Encourage a unified architectural style within the commercial core that can accommodate pedestrian oriented urban design concepts consistent with the village character.

In order to achieve these objectives, a conceptual plan has been developed. The plan addresses the arrangement and connection of uses in the Village Core and conceptually depicts the siting of buildings and parking. The unique character intended within the Village Core precludes the use of fixed or mandated design solutions. Instead, the critical elements of the Village Core, general character statements and identification of important design and site planning features are utilized to convey a qualitative description. Additionally, design flexibility is necessary to respond to changing market conditions that may occur between initial project planning and final building.

A Village Core Master Precise Plan(s) was prepared and approved by the City Council in 2016. The Master Precise Plan(s) expands on the design concepts and themes of this document and provides more detailed guidelines for architecture, signage, lighting, street furnishings and landscape. The Master Precise Plan was amended to reflect the land use change from office to residential within the northeast portion of the Village Core area.

B. Village Design Features

This section highlights important features of the Village Core Concept Plan and provides guidelines in four design areas: site planning and building orientation, pedestrian and vehicular access, urban character (landscape and/or hardscape) and lighting, signing and street furnishings.

Exhibit 47
Village Core Concept Plan

This concept plan is for illustrative purposes only. Actual site development may vary from concepts depicted in this exhibit.

1. Site Planning and Building Orientation

- Community serving developments, including the elementary school, and the public park, are encouraged to orient building entrances to the main circulation streets. Parking, service and utilitarian uses should be located internally to the sites or where they can be screened from public view. Parking within the public park should be sited to facilitate visual surveillance from the public street.

- Mixed use/commercial building entrances should be located along the street edge and should be closely spaced to increase articulation and interest along the pedestrian walk. See Exhibit 48, Avenida Escaya Corridor Concept Plan below. Design emphasis on the entries improves the street scene and helps distinguish individual shops in multi-tenant buildings. Storefronts should incorporate display windows to create interest and encourage window shopping along the pedestrian walk. Uses that are not conducive to such exposure should be located away from the street-level shopping corridor.

AMENITY LIST

1. 3' High themed wall with vista opening to look down upon open turf area; backside of wall to have tile mural
2. Decorative plaza area (typ.)
3. Open grass area framed by mature olive trees with seating nodes
4. Enclosed dog park
5. 20" raised planters
6. Village fountain; provides destination point to open grass area and marks center of retail core
7. Large icon pillaster
8. Decorative retail paving with interior planters and seating opportunities
9. Pool with large sun deck and shade structure
10. Restroom building with large California outdoor room
11. Entertainment terrace with central fire table
12. Lower wood deck/patio gym with an integrated rubber yoga panel and rock climbing wall behind
13. Elevated wood tile sundeck
14. Covered bar
15. Sunken garden with open play turf and meandering garden
16. BBQ node with pedestal gas BBQ and picnic tables (typ.)
17. Interior "semi-private" courtyards with decorative paving
18. Retaining wall, split face block with pre-cast cap; stairs and /or ramp access provided to maintain interior pedestrian circulation and connection with village
19. Trash enclosures (typ.)
20. Landscape per village master developer
21. On-site landscaping

Exhibit 48
Avenida Escaya Corridor Concept Plan

Note: All amenities are not represented on this focused exhibit.

- Shaded areas and a sense of enclosure will encourage visitors to linger and enjoy the defined areas within the Village Core. Features such as canopies, arcades and roof overhangs can achieve these objectives and also provide weather protection when necessary.

- In general, the exterior building elevations should incorporate a range of scale defining elements that relate larger building masses to the pedestrian scale. Examples include columns, archways, doorways, upper floor windows and balconies.

2. Pedestrian and Vehicular Access

- Vehicle access should be clearly secondary to pedestrian access through street design that incorporates narrow travel lanes and minimal driveways and curb cuts. Parking lots should be located behind buildings which front onto pedestrian-oriented streets.

- Broad sidewalks should be located along pedestrian streets to allow groups to comfortably pass each other. Frequent opportunities to sit, relax and observe should be provided with the inclusion of benches, steps, planters and low walls within and adjacent to the pedestrian walk.

- Pedestrian and bicycle routes should be maximized and well-marked.

3. Landscaping Design Guidelines

- Design landscape and open space areas shall be an integral part of the overall site plan design, with a style and amenity level consistent with the surrounding environment and Preserve Edge Plan.

- Trees shall be used to define and enclose exterior spaces and to provide physical protection from the sun and wind.

- Street tree planting shall comply with the City of Chula Vista Shade Tree Policy Number 576-19. The objective is to maximize shade cover to the greatest extent possible.

- The design of landscaped open space areas shall enhance the building design, create meaningful viewsheds and provide buffers and transitions between adjacent uses.

- Trees, shrubs and vines shall be used to conceal walls, building elevations and parking facilities.

- Plant materials shall not interfere with security lighting or restrict access to emergency equipment such as fire hydrants or fire alarm boxes.

- Any structures surrounding mailboxes should match the style of the homes/business where they are located.

- The pedestrian ground plane should be well defined with a hard surface that is textured or accented to identify focal areas.

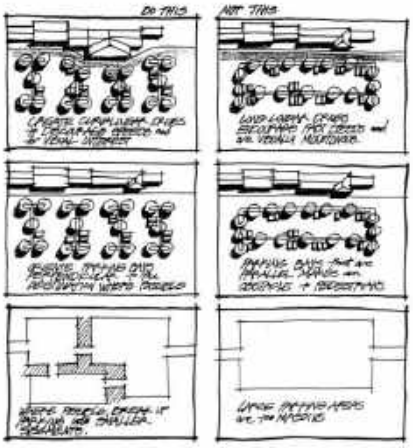
- Grade separations should use structures rather than landscape banks to emphasize the urban character of the village and to serve as seating areas.

- Landscaping should reinforce the urban character of the area and reflect ordered, formal plantings rather than random, natural appearing materials. Trees should be incorporated into the pedestrian path, planted flush to ground level with overhead branches to create overhead canopies.

4. Surface Parking Area Landscape Guidelines

- Surface parking lots shall be landscaped and maintained with a combination of trees, shrubs and groundcover.

- Surface parking lots shall utilize “Orchard Style” tree planting for shade and screening purposes. Island finger planters shall include at least 2 trees (one tree on each end of the island) and shall be at least 8 feet in width and 18 feet in length.



❖ Trees shall be distributed throughout the surface parking area.

❖ Ensure through tree choice and maintenance that the lowest tree branches are more than eight feet above the finish grade at the base of the tree to prevent damage from and to automobiles, pedestrians and bicyclists.

❖ Shade trees shall be provided for all new parking lots that will achieve 50% canopy cover over the parking stall areas five to 15 years after planting, pursuant to Chula Vista Shade Tree Policy Number 576-19 (May 22, 2012)

5. Landscape Paving Design Guidelines

These guidelines for paving apply to pedestrian-oriented areas within the Village. Pedestrian pavements may include, but are not limited to, sidewalks, paths, walkways, courtyards and plazas. Enhanced paving may be utilized within key vehicular areas as well.

❖ Paved surfaces intended for pedestrian and/or bicycle use shall have the following qualities:
- A surface texture rough enough to prevent slipping, but smooth enough to prevent trip hazards;
- Maintenance-free and/or low maintenance;
- Stain-resistant;
- Fade resistant; and
- Non-reflective

❖ The following pedestrian paving materials meet these criteria:
- Colored concrete; broom finished; salt finished, heavy sandblasted and top cast (exposed aggregate).
- Stamped and saw-cut concrete and tile, provided pavers do not have joints or score lines that catch high heels or cause tripping.
- Concrete and stone pavers

6. Lighting, Signing and Street Furnishings

III. Village Core Guidelines

- The mixed-use/commercial streetscape should be well lit to encourage evening use. Street lighting fixtures should relate to the pedestrian scale.

- Architectural accent lighting is encouraged.

- Illumination of walkway/trail connections should be provided through the use of low intensity fixtures for safety and comfort. The lighting pattern and intensity should become more intense at path intersections and vehicular crossings.

- Within building groups, architectural and accent lighting should be indirect and subtle. Increased lighting levels should highlight pedestrian areas to clearly define the pedestrian path. Service area lighting should be contained within the service area boundaries/enclosure. Lighting should be designed to minimize glare and intrusion into neighboring land uses.

- A Comprehensive Sign Program will be developed to establish specific design parameters for all signage and related theme lighting and street furnishings within the Village Core. Signage should inform and direct but not dominate the visual character of the area. See Village 3 Core Master Precise Plan for additional details regarding street furnishings.

IV. Residential Guidelines

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A. Single Family Residential Guidelines

These guidelines address the design elements that contribute to the Village planning concepts for pedestrian-oriented design. Guidelines are provided for architectural styles, façade elements, garage location and design and landscape themes.

1. Architecture

The Village 3 Design Plan community thematic architecture is influenced by Transitional Spanish, Farmhouse and Ranch styles, cleaned up and reinterpreted in a more contemporary way. Simple forms with an earthy palette – with colored stucco connected to stone, clay tile and wood. Emphasis is placed on proportions, materials and color. These styles are attractive, compatible with one another, and can be easily integrated into the individual style and scale of each neighborhood. It is important to note that these styles are intended for modern adaptation, not recreation of historic homes. The architecture is expected to be somewhat simplified, yet still maintain the unique characteristics that exemplify the style. The following architectural styles and their individual elements are provided to guide builders/architects during preparation of architectural elevations. A brief description of the architectural styles is provided in this section with pedestrian-oriented elements appropriate to each style.

a. Spanish

The Spanish style includes reference elements borrowed from Moorish, Spanish and Mission Revival architecture, and reinterpreted with a more contemporary character. The building massing is varied and decorative features are incorporated to add interest and detail. Pedestrian oriented features of the Spanish style may include courtyard patio entries, porches supported by arched forms, and a front-facing large arched window.







b. Farmhouse

The Farmhouse style encompasses a range of variations, lending itself to a wide range of interpretation. Fundamentally this style is defined by simply detailed, understated, and utilitarian features that reflect the concept of a simple back-to-nature lifestyle. Homes are often simple in massing and can include a covered porch element, gable roof forms, and wood columns and posts. Contemporary interpretations of the Farmhouse may use more asymmetrical massing and forms combined with a palette of contemporary and traditional materials. Corrugated roofing, stone veneer and vertical board and batten siding are typical to this style



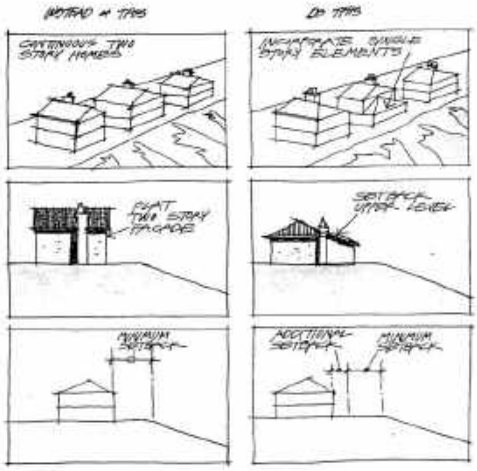




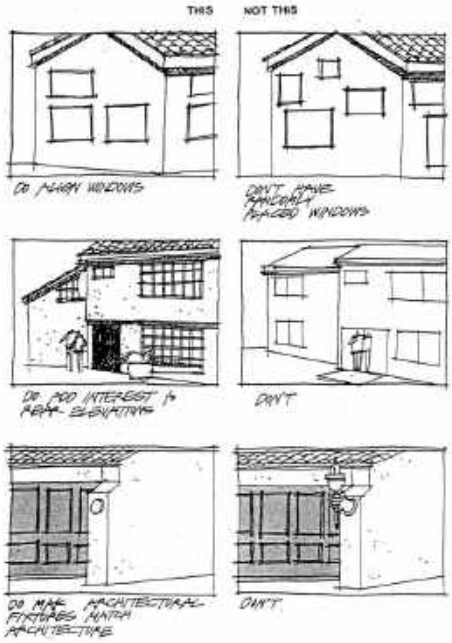

c. Ranch

The Ranch style is notable for its use of simple wall planes, clean lines and natural material resources. The architecture evokes a lifestyle of simple elegance and informality. This style bridges the organic and the man-made with an emphasis on pared-down forms, contemporary patterns, natural materials and a seamless flow between indoors and out to create a medley of functional comfort and chic style. Architectural features often include exposed post and beam construction, extensive glass, and open floor plans.

2. Pedestrian-Oriented Design



Pedestrian-oriented neighborhood design emphasizes a sense of neighborliness and community through aesthetically pleasing site planning and architecture. Essential elements include attractive architecture, inviting entries and a minimization of utilitarian areas facing the street. The structure of a neighborhood must be understood to better promote its pedestrian-orientation. The area between the street and residence contains a hierarchy of public to private spaces. The street, sidewalk and parkway are perceived as public, common neighborhood use areas. Residential front yards provide a transition space between the public spaces of the sidewalk and street, and the private spaces of the home. The residential entry is the final demarcation area between public and private spaces. The design of residential neighborhoods can complement that orientation by borrowing elements from traditional neighborhoods, such as porches, and minimizing the influence of the automobile. The following sections describe three primary areas of design that will facilitate the creation of pedestrian-oriented neighborhoods: site planning, façade elements and garage and driveway design.



3. Site Planning

Appropriate site planning and building plotting are fundamental to creating a pedestrian-oriented neighborhood. Variety is the key to creating a vibrant neighborhood and promoting individual residential identity. Site planning and building plotting in single-family residential neighborhoods should be based upon the following criteria:

- Single-family detached residential lots and setbacks shall encourage variety in the design, orientation and placement of homes, wherever practical.

- Front yard building setbacks shall be varied, where possible, to avoid a monotonous pattern of houses.

- Where slopes in side yards allow for varied side yard setbacks, provide more useful private open space in side yards and avoid a monotonous pattern of houses.

- A minimum of three housing plans shall be provided for compatibility with different lot configurations (interior and corner lots) and variety of designs for entry and garage designs.

- Side entry floor plans may be used on corner lots, provided that the entry is clearly defined, and the front elevation includes front-facing bay windows, porches or other pedestrian-oriented design features.

- Housing plans used on corner lots shall provide for architectural features, such as porches or entry trellises to wrap around the street-facing corner.

- Production wall fencing shall be integrated into the design of corner lots to provide for reduced wall length and other enhancements to side yards.

- Where the rear of a lot abuts a street, the design shall provide for a privacy wall and landscaping consistent with the village streetscape theme and enhanced architectural features.

- Grade differentials within neighborhoods shall be used to add variety and enhance the sense of open space between residences.

- Housing plans shall provide a variety of designs for garage locations and treatments.

- Housing plans shall provide for a variety of designs for entry features.

4. Building/Lot Schematics

The following illustrations are options for site planning and building plotting on alley and courtyard lots. These are possible prototypical concepts and are not intended to constrain more creative solutions. The examples provide minimum setbacks and do not address special lot configurations, such as non-perpendicular lot lines, allowances for easement and slopes or other constraints.

Single Family Plotting Guidelines:

- Optimize architecture on the street frontage.
- De=emphasizes garages through varied plotting design.
- Provide for undulated building massing and varied setbacks appropriate to architectural style.
- Provide for varied roof pitches and directions.
- Orient front doors and entries toward street where possible.
- Provide for private, usable rear yards/driveway side yard.
- Curb separated sidewalks provides a traditional tree-lined foreground for homes.
- Garage Plotting Options
  - 2 or 3 car garages
  - Shallow recessed
  - Deep recessed
  - Side entry
  - Split
  - Tandem (3 car garage configurations)

See Village 3 and a Portion of Village 4 SPA Plan, PC District Regulations for lot size, zoning, setback and plotting for single family lots.

IV. Residential Guidelines

Corner Lots

Homes built on corner lots are often the most visible within the neighborhood. Due to the visibility, the architectural treatment of corner lot homes defines the character of the neighborhoods. It is important for each neighborhood to include one house plan that can be used in both interior and corner designs. Variety in architectural styles and treatments should also be included to create interest and individual home identity for corner lots.

Architectural treatments for corner lots include "wrap around" architecture such as porches, siding, roof treatments, door and window trim and other embellishments. These features enhance the front façade of the home and continue with equal emphasis on the forward side of the house. Variation in the wall planes or a single component of building mass may be oriented toward the corner. Entries, windows, garages, landscaped trellises and decorative privacy walls may also be located toward the corner or the side of the house.

Alley Plotting Guidelines

- Optimize architecture on the street frontage.
- Garages access provided via alley at the rear elevation.
- Provide for undulated building massing and varied setbacks appropriate to architectural style.
- Provide for varied roof pitches and directions.
- Orient front doors and entries toward street or to private open space areas.
- Provide for private, usable side yards.
- Curb separated sidewalks provides a traditional tree-lined foreground for homes.

Conceptual Alley Elevations

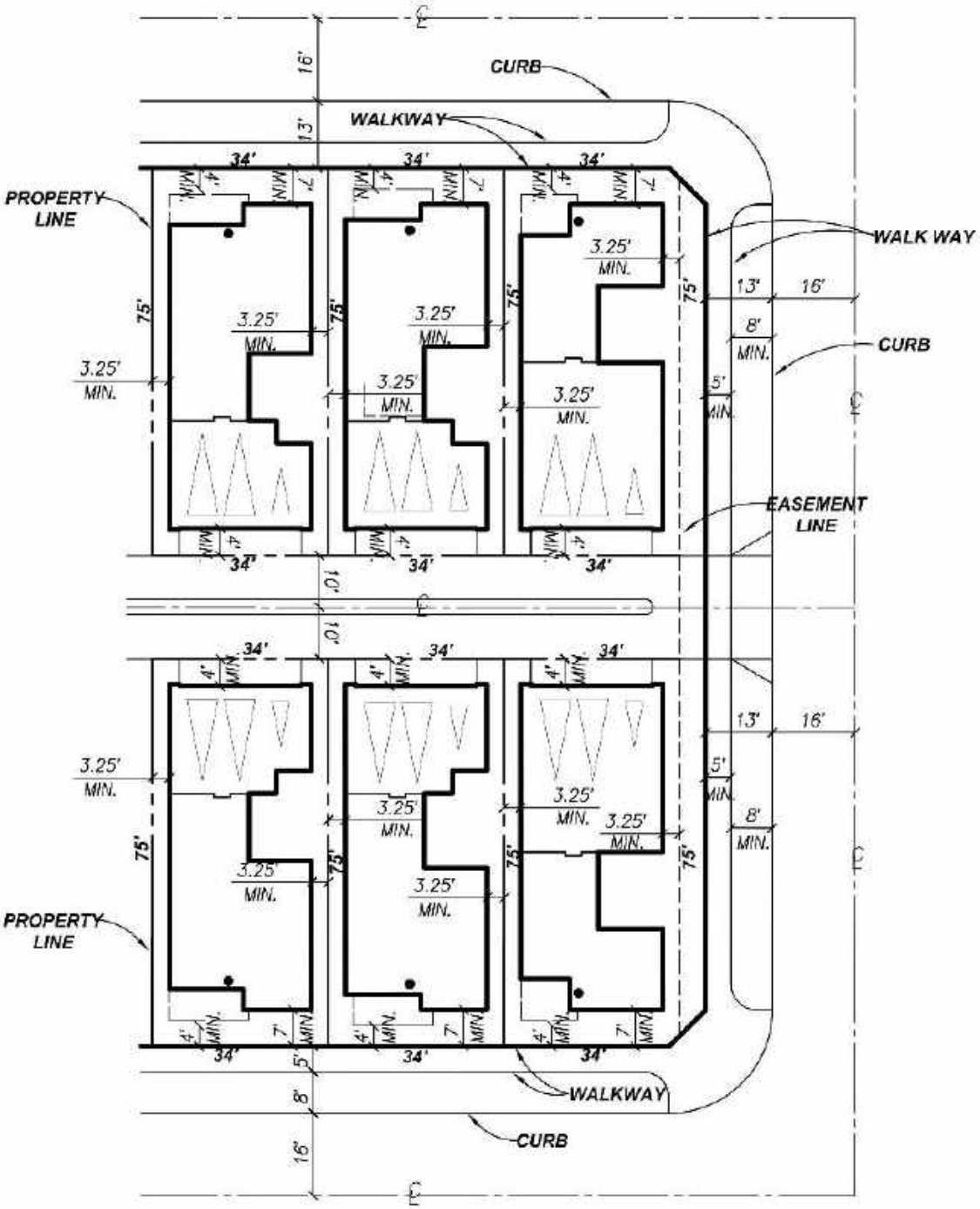


Exhibit 49
34' X 75' Typical Alley Plotting

Courtyard Plotting Guidelines

- Optimizes architecture on the street frontage.
- Garages via courtyard driveway
- Provide for undulating building massing, including single story elements
- Provide for varied roof pitches and directions
- Orient front doors and entries on street-fronting courtyard plotted lots toward public or private streets
- Provide for useable, private rear yards
- Curb separated sidewalks provided along adjacent public street
- Curb adjacent sidewalks provided along private street

Conceptual Elevation @ Street

Conceptual Elevation @ Courtyard

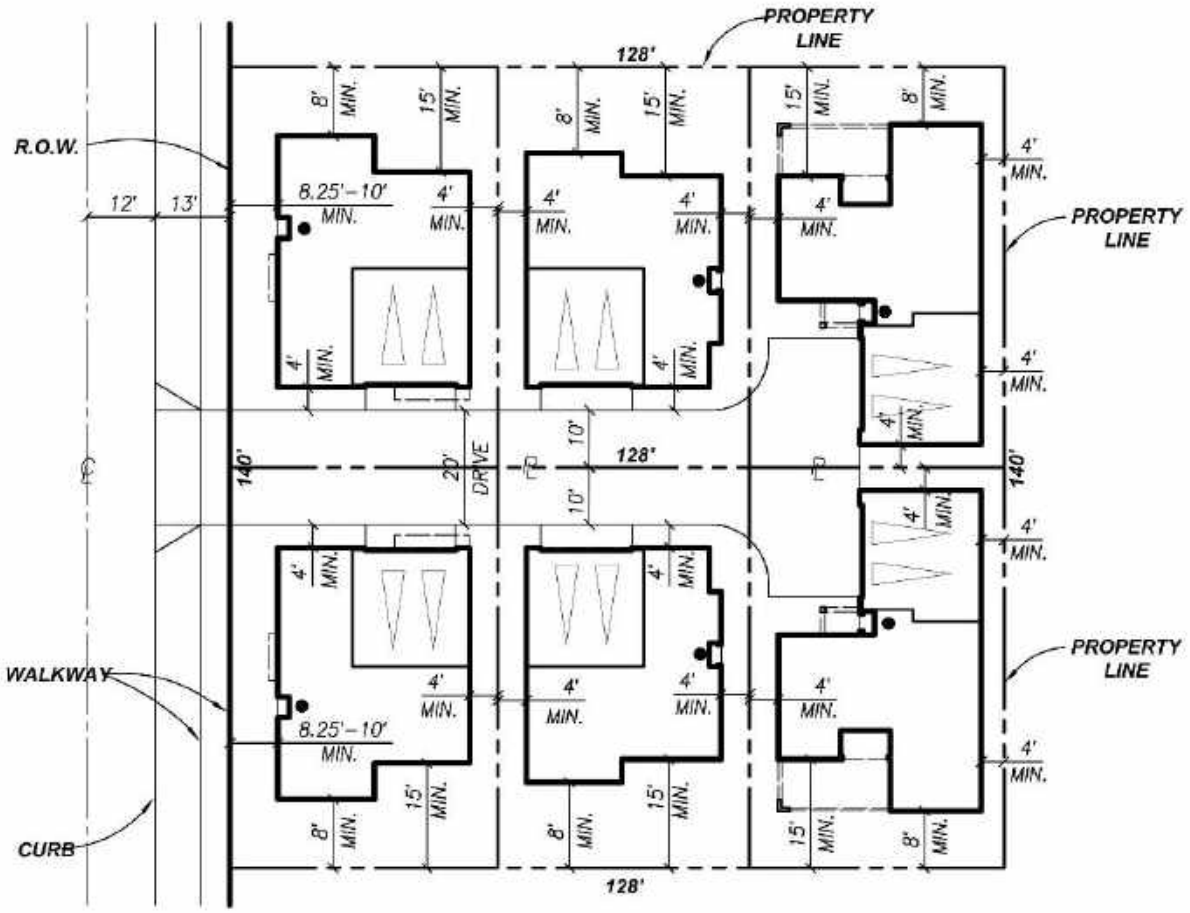


Exhibit 50
Typical Courtyard Plotting

5. Facade Elements

Residential building facades should be attractively designed with varied features for individual identity and neighborhood interest. Façade features should be pedestrian-oriented to provide a connection between the public street and sidewalk and the private residence. Façade treatments may include:

- Variation in architectural style.
- Undulating building mass and roof planes.
- Vertical and horizontal stepped massing.
- Visually minimized garages.
- Entry features such as doors, windows, porches, patios, courtyards and trellises oriented towards the street and appropriate to the architectural style.
- Facades that are visible from public view areas (open spaces, streets, parks, etc.) shall be articulated to avoid monotony.

6. Garages and Driveways

The pedestrian-orientation of a neighborhood places emphasis on the home and front yard rather than the garage. This section describes building massing and plotting techniques, as well as specific solutions for garage placement and façade design. Designers are encouraged to explore additional methods to meet the objective of minimizing the visual dominance of garages in neighborhoods. Basic guidelines for garage design are:

- Minimize the impact of garages facing the street by techniques such as varying garage door patterns and utilizing deep recessed doors, varying colors, splitting one large door into two single doors, and integrating door windows and coach lights.
- Vary the garage setbacks; the preferred design is for the garage wall to be set back farther than the front wall of the home.
- Provide variety through the use of alternative garage configurations such as split, swing-in, and mid to deep recess garage.
- Do not place front facing garages forward of front building wall.
- Vary the garage setback from the back of sidewalk.

B. Multi-Family Residential Guidelines

1. Architectural Theme

The multi-family residential neighborhoods are located within the Village 3 core area. As a fundamental component of the village core, the architecture of the multi-family development is focused primarily on the agrarian architectural design theme, including Transitional Spanish, Farmhouse and Ranch styles.

Multi-family residential in Village 3 may include a variety of housing types, ranging from small lot, detached homes, to medium to medium high-density townhouses, triplexes and flats. These guidelines address the design elements that contribute to the Village planning concepts: pedestrian-oriented design, façade elements, parking and garage location and design and landscape themes. Specific building architectural styles should be complementary to the agrarian architectural design theme for the Village.

The pedestrian-oriented Village concept is enhanced by the intensity of multi-family development in the Village Core located in proximity to public transit, shopping, and community facilities. It is anticipated that residents of multi-family developments will take advantage of the available opportunities to walk to schools, parks and shopping areas. Pedestrian access and amenities are fundamental components of the Village. The siting, access, entries and architecture of multi-family development should complement the pedestrian orientation of the Village.

Multi-story attached developments, such as townhomes and apartments are the primary focus of the guidelines in this section. The small lot detached residential developments within the multi-family category shall adhere to the guidelines for single-family residential development.

IV. Residential Guidelines

Multi-Family Conceptual Architecture
3-Story Stacked Flat

2-Story Triplex

2-Story Row Townhomes

2. Site Planning and Building Plotting

The site planning and plotting of multi-family residential buildings will contribute to the pedestrian-oriented Village concept. Site planning which focuses on the pedestrian includes designs that orient entries toward Village streets and minimize views to garages and parking areas. The following guidelines are provided for siting and building plotting of multi-family developments.

- Developments fronting onto Village Pathway and Promenade and private streets shall be oriented toward the street with reduced setbacks, multiple entries and pedestrian connections to ground floor units.

IV. Residential Guidelines

- Buildings should be oriented to create outdoor rooms, such as courtyards, connected by landscaped walkways in the agrarian architecture-inspired Village design theme.

- Building orientation should consider indoor and outdoor privacy, noise, solar access and overall aesthetic appearance.

- Where grade differentials occur between the street and a development, the differential may be used to create separation between the public street and private living space. Interesting entries incorporating steps, porches or landings may be integrated into the design.

- Developments adjacent to major streets surrounding the Village and adjacent to Village Entry Streets may be buffered with sound and privacy walls. Walls and view fences located along village entry streets shall incorporate inviting entry openings for both pedestrians and cars.

- Buildings shall create "pedestrian edge" along streets by orienting front doors, porches, balconies, patios, and courtyards on streets throughout the village core.
- Building architecture that is visible beyond sound and privacy walls shall be well-articulated with pedestrian-oriented features, such as second story windows and balconies.

- On village streets within the core area, the use of solid masonry walls should be minimized and used primarily between buildings to screen parking areas or to enclose private entries and courtyards.

- A wide variety of housing types are suitable for Village 3 and creative site planning solutions are encouraged. The following exhibits illustrate site planning and building plotting for alley homes, row town home, court yard and apartment developments. These examples are not intended to be all-inclusive or restrictive. Minimum setbacks may be reduced or modified through the Design Review process. That process provides for consideration of unique site planning and architectural solutions for multi-family housing.

- Site planning for multi-family neighborhoods adjacent to the Preserve are subject to MSCP adjacency guidelines, the Preserve Edge Plan and Fire Protection Plan. Any uses proposed within the 100' Preserve Edge will be reviewed in conjunction with the Major Design Review process and are subject to review and approval of the Development Service Director.

IV. Residential Guidelines

Multi-Family Site Planning guidelines include the following:

- Optimizes architecture on the street frontage.
- Garages located in alleys or parking courts.
- Provides for undulated building massing and varied setbacks appropriate to architectural style.
- Provides for varied roof pitches and directions.
- Orients entries toward street or interior pedestrian courtyards or walkways.
- Provides for private open space.

Multi-family residential development should be designed to promote variety and enhance the human-scaled pedestrian activity of the Village. The following guidelines suggest methods for creating vital, interesting architecture:

- Developments should be unique but share fundamental architectural characteristics consistent with the Village theme.
- Building elevations that are visible from public view areas (all Village streets, surrounding arterial streets and public open spaces) shall be articulated with elements such as wall offsets, balconies, and windows, appropriate to the architectural style.
- The architectural style along the same street or within an individual development shall be compatible through the use of similar building heights, materials, window or door style, detailing, porches, arcades, overhangs, roof materials or colors.
- Varied building elements, roof pitches, and setbacks should be employed to avoid monotony.
- Each development shall provide a well-articulated, identifiable pedestrian entry oriented toward the village street.
- Distinctive building elements shall be oriented toward the corners of prominent village core and entry street intersections.
- Street facing facades shall incorporate a range of scale-defining elements that relate larger building masses to the scale of the pedestrian. Elements may include trellises, columns, archways, doorways, porches or patios and upper floor balconies and windows.

- Individual residential unit entries shall be oriented towards the village streets wherever possible.
- Internal residential units shall be connected to the village streets by courtyards or landscaped walkways wherever possible.
- Stairs shall be sensitively designed and integrated into the overall building design.
- Utilitarian areas, including parking, loading, mechanical equipment and trash enclosures, shall be screened from view from public views to the extent possible.

3. Parking, Carport and Garage Design

Views of parking areas, carports and garages should be minimized to create the pedestrian-oriented Village. The following guidelines provide direction for location and design of multi-family parking facilities:

- Parking and vehicular access shall be located to the rear or within each development and separated from the pedestrian-oriented street frontage.
- Site planning and architectural treatments, such as offsets, should be used to minimize the appearance of garage corridors.
- Carports and freestanding garages shall be architecturally treated and designed to match the architectural style of residential buildings.
- All surface and covered parking within multi-family areas shall be separated from Village streets, tops or toes of slopes, patios or courtyards with a landscaped buffer. The buffer shall include screening elements such as low walls or masses of shrubs to screen headlights and glare from reflective car surfaces.

4. Landscape

Landscape in multi-family developments shall adhere to the Chula Vista Design Manual and Landscape Manual. The front and side yard landscaping shall be complementary to the streetscape and adhere to the overall Village design theme. The interiors of multifamily residential projects shall provide for common and private outdoor spaces that are functional and aesthetically pleasing. Interior landscapes are encouraged to maintain the tranquil, courtyard style landscapes established by the Village design theme. The following guidelines are for multi-family landscapes:

- The landscape is to be comprised of trees, shrubs, vines, and ground covers that are consistent with the overall Village theme.

- Tree plantings in the front yard areas shall be varied to provide interest in the landscape.
- Side and rear yard areas shall be landscaped to soften the architecture and provide privacy for residential units.
- The landscape should be simple, bold and easy to maintain which incorporates many drought-tolerant non-toxic plant materials.
- Landscape elements on multi-family parcels visible from the public right-of-way should blend with and appear to be an extension of the public right-of-way landscaping.
- All permanently landscaped areas shall be irrigated with permanent underground irrigation systems.
- Transformer and cable box locations are to be carefully planned and coordinated with both the utility company and the landscape architect. Transformers and cable boxes should be located to be unobtrusive and screened from view with plantings where possible.
- Mailboxes and mailbox structures are to be designed to complement the architectural style of the development for which they are intended. Ganged mailboxes are to be used with a maximum of 4 boxes per cluster. Only Postmaster approved boxes will be allowed.
- Trash enclosures shall be designed to complement the architectural style of the development for which they are intended. Provisions for trash and recycling shall be in conformance with the Chula Vista Municipal Code.
- Large expanses of asphalt paving shall be avoided, and the appearance softened by landscape screening where possible.

Typical Plotting for the following multi-family products that may be developed within Village 3 are provided:

- 2-Story Townhomes
- 3-Story Flats
- 3-Story Townhomes
- 3-Story Apartment Homes
- 5-Story Wrap
- 4-Story Podium

Two and Three Story Townhouses (15 – 22 DUs/ac)

Design Characteristics:

- Optimizes architecture on street frontage
- Garages located in alleys or parking courts
- Undulated building massing
- Varied roof pitches and directions
- Orients entries toward street or interior pedestrian green courts or walkways
- Private open space
- Internal pedestrian network connecting to public walkways
- Architectural relief at internal walkways

Garage Options:

- Alley Entry
- Internal Private Street
- Carport

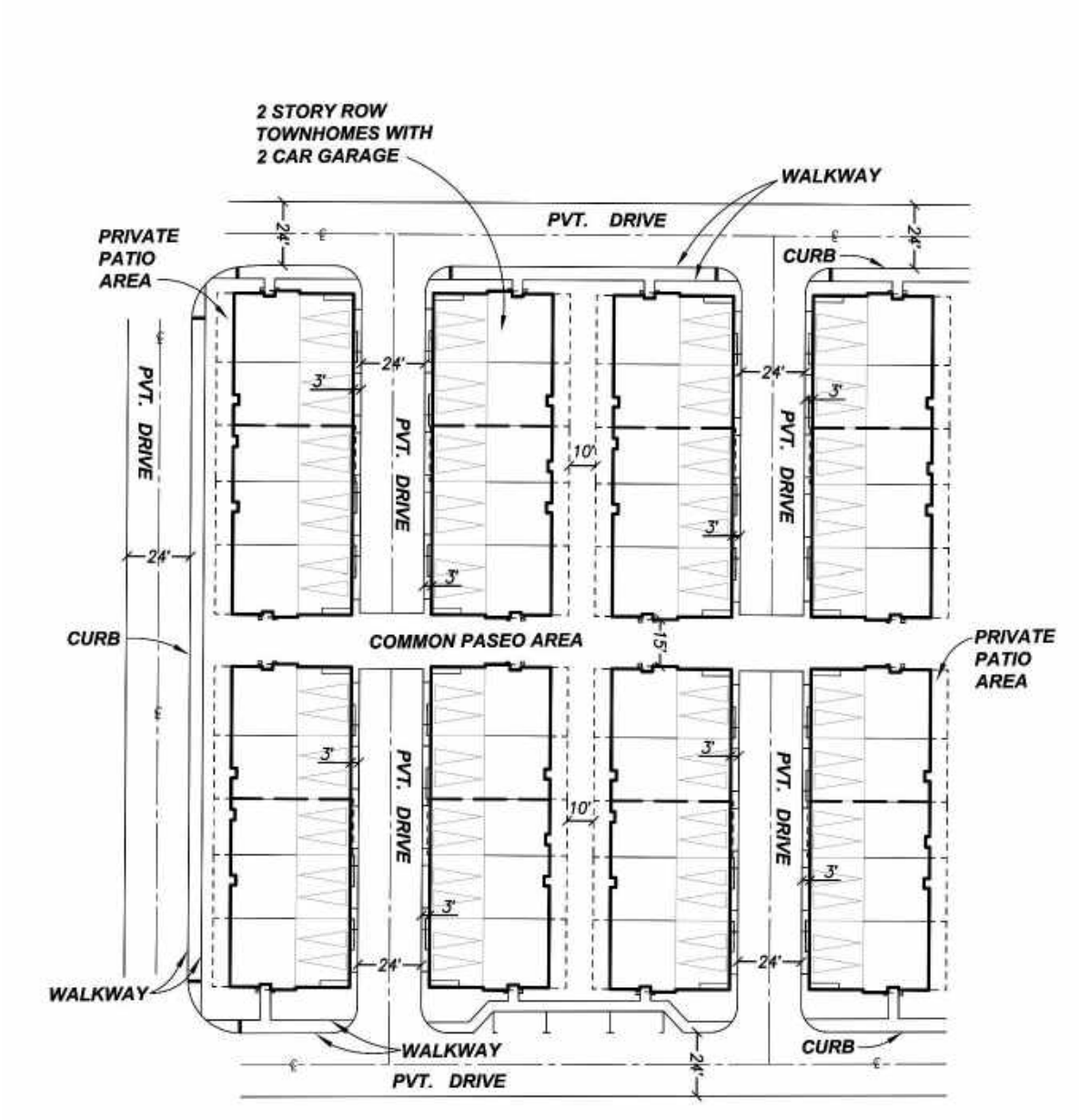


Exhibit 51
Typical Two-Story Townhome Plotting

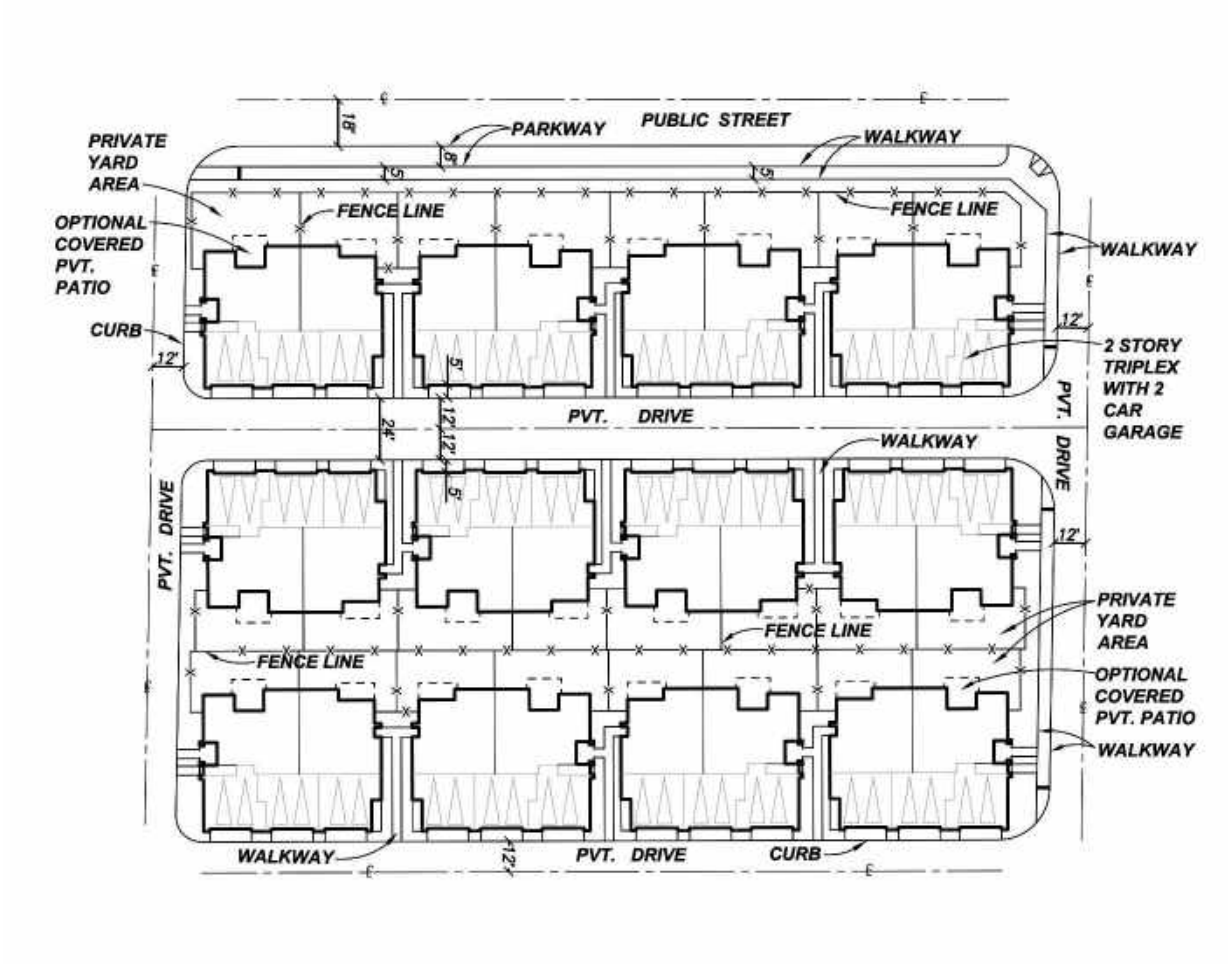


Exhibit 52
Typical Two-Story Triplex Home Plotting

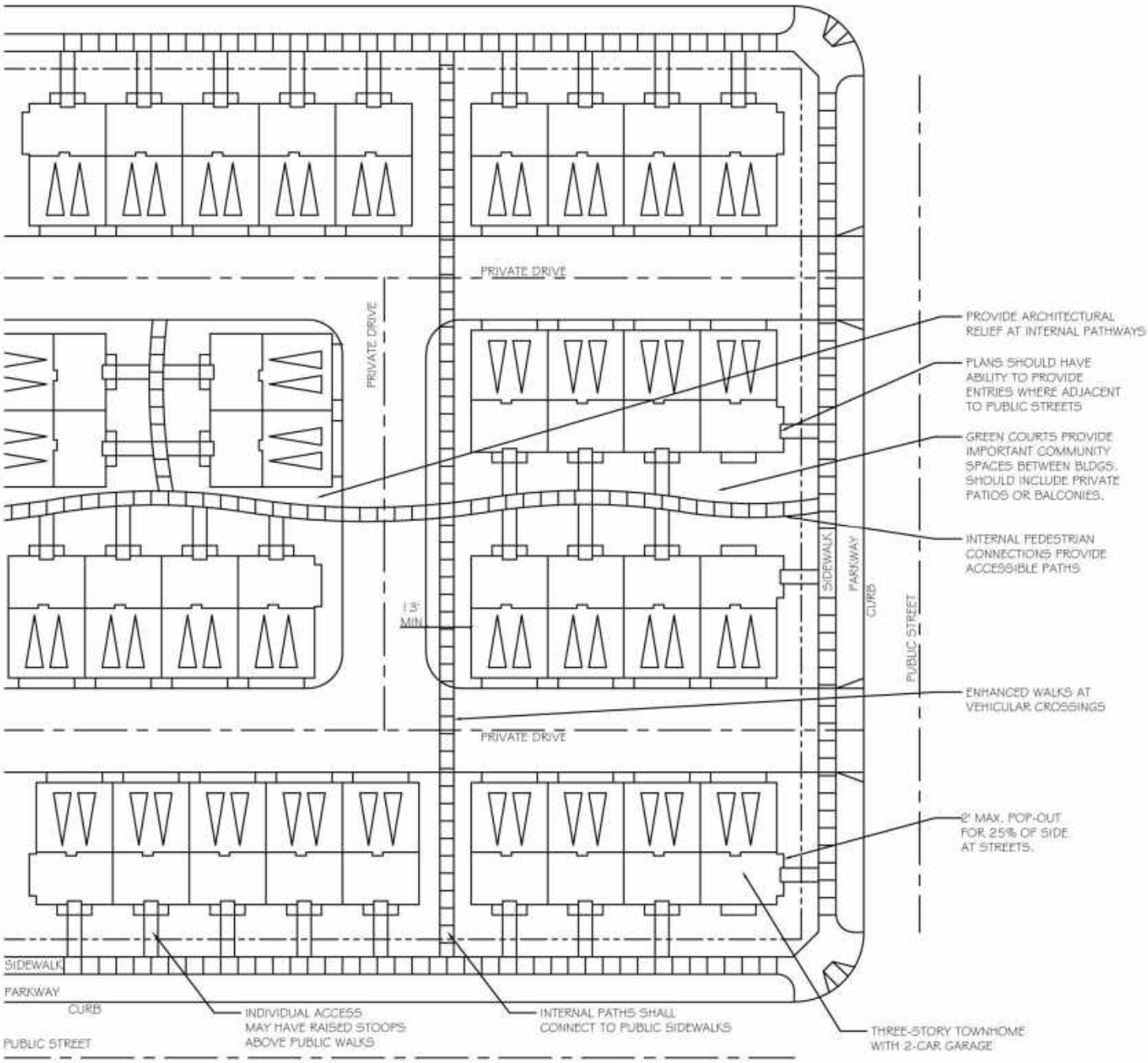


Exhibit 53
Typical Three-Story Townhome Plotting

IV. Residential Guidelines

Three Story Stacked Flats (25 – 30 DUs/ac)

Design Characteristics:

- Optimizes architecture on street frontage
- Undulated building massing
- Varied roof pitches and directions
- Residential entries, porches and balconies oriented toward street or interior pedestrian green courts or walkways
- Private open space and common useable open space
- Internal pedestrian network connecting to public walkways
- Architectural relief at internal walkways

Garage Options:

- Alley/Parking Court Entry
- Internal Private Street
- Carport
- Garages screen from public street

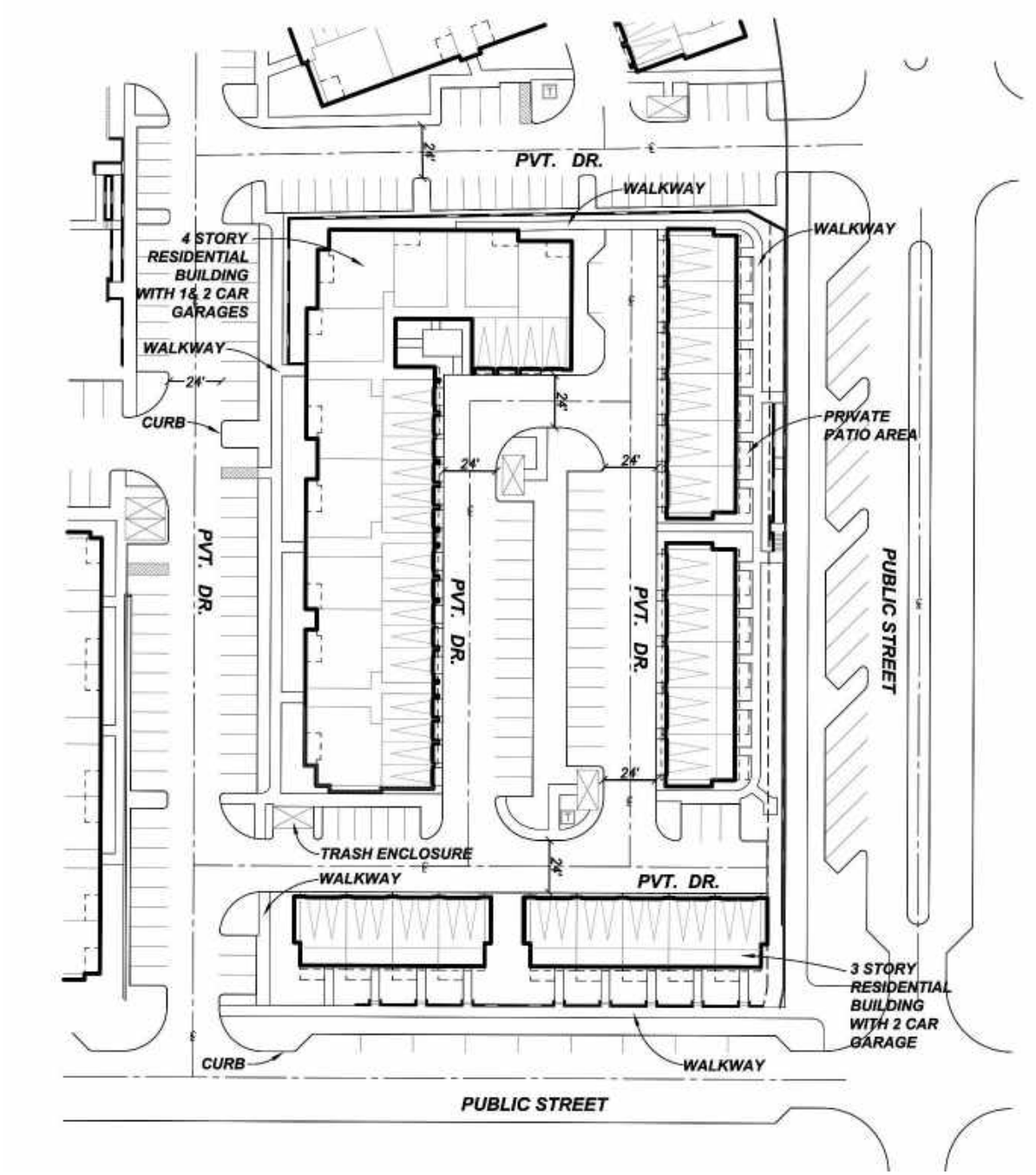


Exhibit 54
Typical Three/Four-Story Flats and Townhome Plotting

IV. Residential Guidelines

Five Story Wrap Multi-Family (40-50 DUs/ac)

Design Characteristics:

- Five story residential buildings at street level
- Optimizes architecture on street frontage
- Undulated building massing
- Varied roof pitches and directions
- Residential entries, porches and balconies oriented toward street
- Private open space and common useable open space
- Internal pedestrian network connecting to public walkways
- Typical ground level recreation amenity with residences above

Garage:

- Four or five level parking structure
- Screened from public view

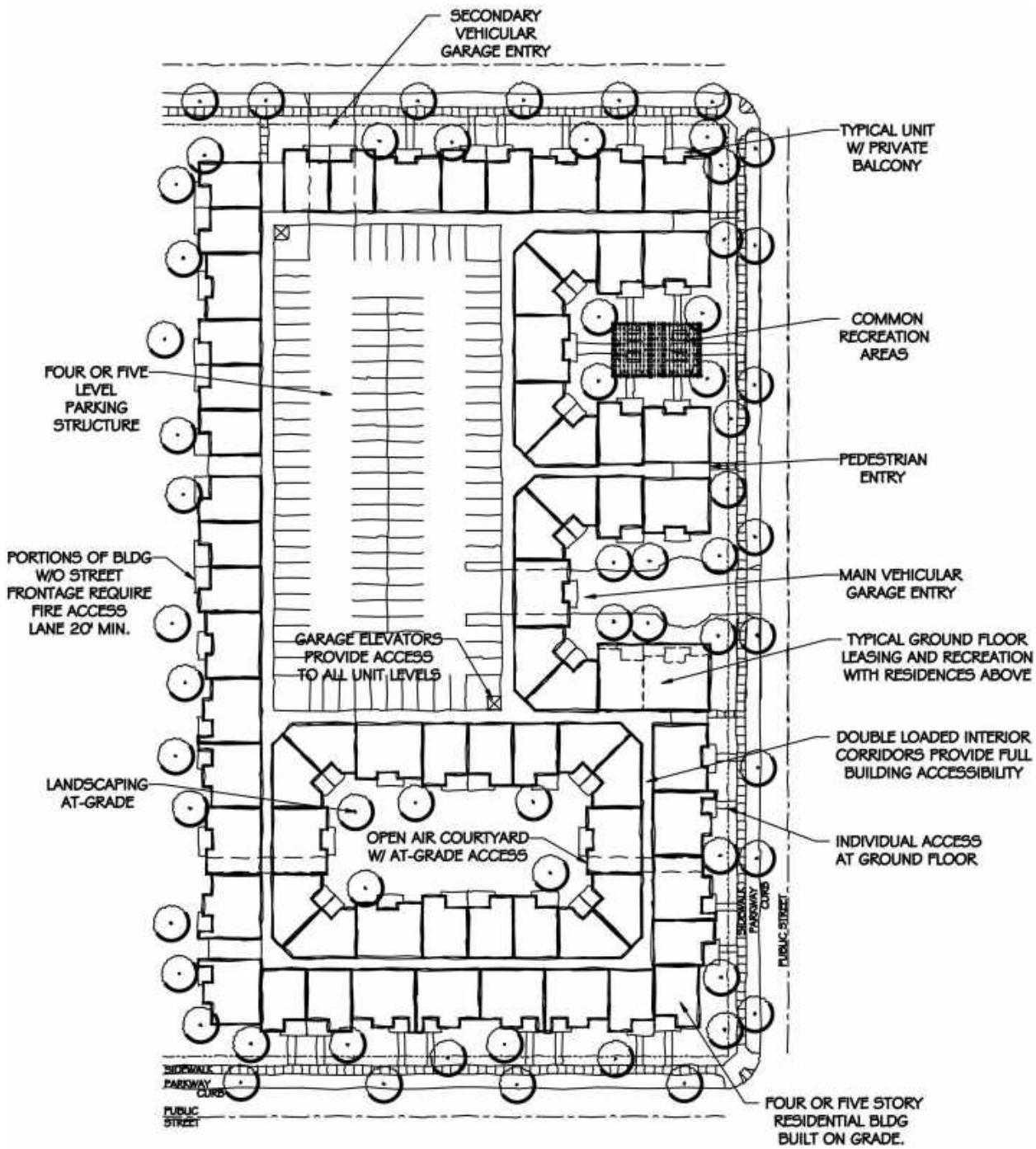


Exhibit 55
Typical Five Story Wrap Plotting

IV. Residential Guidelines

Four Story Podium Multi-Family (50+ DUs/ac)

Design Characteristics:

- Three or four story residential buildings over one or two level parking structure
- Optimizes architecture on street frontage
- Undulated building massing
- Varied roof pitches and directions
- Residential entries, porches and balconies oriented toward street
- Private open space and common useable open space
- Internal pedestrian network connecting to public walkways
- On-site recreational amenities
- On-site leasing offices

Garage:

- Semi-subterranean Parking Structure

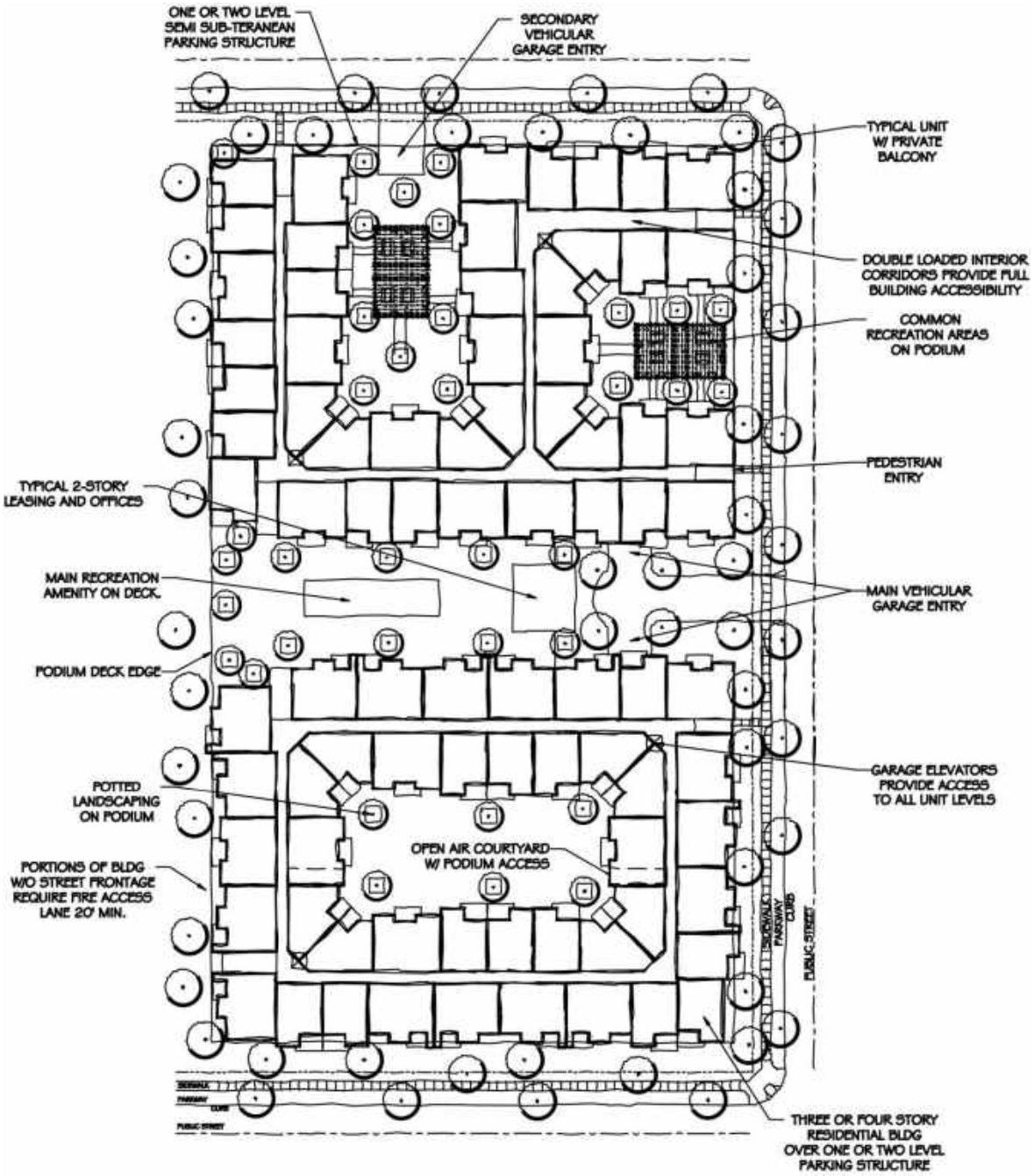


Exhibit 56
Typical Four Story Podium Plotting

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V. Crime Deterrence Design Guidelines

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A. Overview

Both safety and security are key components of a quality lifestyle. Proper design and effective use of the built environment can reduce the fear and incidence of crime and thereby improve the overall quality of life. Safety must be incorporated into the community design by creating friendly streetscapes, facilities and a perceivable social infrastructure. Crime Prevention through Environmental Design (CPTED) offers a framework that complements the Otay Ranch neo-traditional principals for planning, designing and building a safer community and to creating livable communities. This approach to crime prevention is much more far-reaching than dead bolts on doors and locks on windows. CPTED principles can be applied easily and inexpensively to new communities and have been successfully implemented across the nation. Creating a design that eliminates or reduces criminal behavior and at the same time encourages people to "keep an eye out" for each other is the key to crime prevention. The CPTED strategies and design objectives for the Resort Village include:

B. Natural Surveillance

Natural Surveillance is a design concept directed primarily at keeping intruders easily observable. Promoted by features that maximize visibility of people, parking areas and building entrances; doors and windows that look out onto streets and parking areas; pedestrian friendly sidewalks and streets; front porches; and adequate nighttime lighting. Natural Surveillance design objectives include:

- To the maximum extent practicable, locate high activity uses to the front of buildings.
- Place windows overlooking sidewalks and parking lots.
- Leave window shades open.
- Use passing vehicular traffic as a surveillance asset.

- Create landscape designs that provide surveillance and avoid screening, especially in proximity to walkways and designated points of entry and opportunistic points of entry.
- Use the shortest, least sight-limiting fence appropriate for the situation.

- When creating lighting design, avoid poorly placed lights that create blind spots for potential observers and miss critical areas. Ensure potential problem areas are well lit (pathways, stairs, entrances/exits, parking areas, ATMs, phone kiosks, mailboxes, bus stops, children's play areas, recreation areas, pools, laundry rooms, storage areas, dumpster and recycling areas, etc.)

- Avoid too-bright security lighting that creates blinding glare and/or deep shadows, hindering the view for potential observers. Eyes adapt to night lighting and have trouble adjusting to severe lighting disparities. Using lower intensity lights often requires more fixtures.

- Use shielded or cut-off luminaries to control glare.

- Place lighting along pathways and other pedestrian use areas at proper heights for lighting the faces of the people in the space.

C. Natural Territorial Reinforcement

Territorial reinforcement promotes social control through increased definition of space and improved proprietary concern. An environment designed to clearly delineate private space accomplishes two things. First, it creates a sense of ownership. Owners have a vested interest and are more likely to challenge intruders or report them to the police. Second, the sense of owned space creates an environment where "strangers" or "intruders" stand out and are more easily identified. By using buildings, fences, pavement, signs, lighting and landscape to express ownership and define public, semi-public and private space, natural territorial reinforcement occurs. Natural Territorial Reinforcement design objectives include:

- Maintain premises and landscaping such that it communicates an alert and active presence occupying the space.

- Provide trees in residential areas. Research results indicate that outdoor residential spaces with more trees are seen as significantly more attractive, safer, and more likely to be used than similar spaces without trees.

- Restrict private activities to defined private areas.

- Display security system signage at access points.

- Place amenities such as seating or refreshments in common areas in a commercial mixed use setting to attract larger numbers of desired users.

- Schedule activities in common areas to increase proper uses, attract more people and increase the perception that these areas are controlled.

Territorial reinforcement measures make the normal user feel safe and make the potential offender aware of a substantial risk of apprehension or scrutiny.

D. Natural Access Control

Natural access control limits the opportunity for crime by taking steps to clearly differentiate between public and private space. By selectively placing entrances and exits, fencing, lighting and landscape to limit access or control flow, natural access control occurs. Natural Access Control design objectives include:

- Use a single, clearly identifiable point of entry.
- Use structures to divert visitors to reception areas.
- Use low, thorny bushes beneath ground level windows.
- Avoid design features that provide access to roofs and upper levels.
- In the front yard, use waist-level, fencing along residential property lines wherever possible to control access and encourage surveillance.
- Use a locking gate between front and backyards.
- Use shoulder-level, open type fencing along lateral residential property lines between side yards. They should be sufficiently unencumbered with landscaping to promote social interaction between neighbors.
- Use substantial, high, closed fencing between backyards and a public alley.
- Natural access control is used to complement mechanical and operational access control measures, such as target hardening.

E. Community Based Organizations

In the final analysis, government, planners and builders can only create the physical environment within which a neighborhood operates. Over time, neighbors own the neighborhood and they are responsible for the neighborhood character sense of community and safety. A community based formal and/or informal organization can play the decisive role. Implementation of a safe community requires constant attention to the changing needs of the residents. A Master Homeowner's Association (or similar community organization) is the natural catalyst to bring residents together in a productive atmosphere of community involvement. Activities, clubs, events and services including a monthly newsletter, holiday displays, sports programs, etc. can facilitate interaction and reinforce relationships. The following design guidelines should be considered for the Resort Village:

- The neighborhood is designed with human scale foremost
- Neighborhood design fosters interaction
- Neighborhood design creates a sense of ownership and responsibility
- Real and symbolic resident control within the neighborhood can be provided through signage, paving, landscaping and street furnishings

Attachment "A"
"Approved Plant List"

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UNIVERSITY VILLAGES
VILLAGE 3 AND A PORTION OF VILLAGE 4
APPROVED MASTER PLANT LIST
MARCH 2021

FUEL MODIFICATION ZONE 1

BOTANICAL NAME	COMMON NAME	NOTES

Plant and seed material should be locally sourced to the greatest extent possible to avoid genetically compromising existing Preserve vegetation. Notes provided below must be adhered to and planting must be implemented in accordance with the Chula Vista Fire Department's fuel modification guidelines summarized in the Village 3 North and a Portion of Village 4 Fire Protection Plan and subsequent amendments.

Trees:

Heteromeles arbutifolia	Toyon	May be planted within Fuel Management Zone 1 up to 10% of the plant palette mix. No single mass shall exceed 400 sf. These shall be spaced such that the nearest shrub is no closer than the tallest shrub height (at maturity)
Metrosideros exelsus (un-cut leader)	New Zealand Christmas Tree	
Plantanus racemosa	California Sycamore	
Quercus agrifolia	Coast Live Oak	
Rhus Iancea	African Sumac	Plant acceptable on a limited basis (Max. 30% of the area at the time of planting)

Shrubs, Cacti & Groundcovers:

Acalypha californica	California Copperleaf	
Agave Shawii	Coastal Agave	
Arctostphylos 'Emerald Carpet'	Emerald Carpet Mazanita	
Baccharis Pilularis	Coyote Brush	Only local native shrub species will be utilized. No cultivars shall be permitted.
Bloomeria Crocea	Common goldstar	
Ceanothus verrocosus	Wartystem Ceanothus	Plant acceptable on a limited basis (Max. 30% of the area at the time of planting)

Botanical Name	Common Name	Notes
Comarostaphylis diversifolia	Summer Holly	
Cotoneaster dammeri 'Lowfast'	Bearberry Cotoneaster	
Cotoneaster horizontalis	Rock Cottoneaster	
Cylindropuntia prolifera	Coast Cholla	
Dudleya pulverulenta	Chalk Lettuce	
Encielia californica	California Encelia	
Epilobium californicum	California Fushcia	
Euphorbia misera	Cliff Spurge	
Galvezia speciosa	Bush Snapdragon	
Helianthemum scoprium	Sun Rose	
Isomeris arborea	Bladder Pod	
Iva hayesiana	San Diego Marsh Elder	
Lupinus succulentus	Arroyo Lupine	
Lycium californicum	Box Thorn	
Malachothamnus fasciculatus	Chaparrel Bushmallow	
Malamosa laurina	Hollyleaf Cherry	
Nassella pulchra	Purple Needlegrass	
Opuntia littoralis	Coastal Prickly Pear Cactus	Plants must be locally sourced
Opuntia oricola	No Common Name	Plants must be locally sourced
Rhamnus crocea	Redberry	
Rhus Integrifolia	Lemonade Berry	
Ribes speciosum	Fuschia Flowering Gooseberry	
Salvia apiana	White Sage	May be planted in limited quantities and must be properly spaced. *S. mellifera* is a prohibited species
Simmondsia chinesnsis	Jojoba	May be planted in limited quantities and must be properly spaced
Sisyrinchium bellum	Blue-Eyed Grass	
Thymus serphyllum 'Reiters'	Creeping Thyme	Restricted to 30% of area at time of planting. Use in irrigated areas only
Yucca schidigera	Mojave Yucca	
Yucca whipplei	Our Lord's Candle	

Hydroseed Mix:

BOTANICAL NAME	COMMON NAME	NOTES
Baccharis Pilularis	Coyote Brush	Only local native shrub species will be utilized. No cultivars shall be permitted.
Ceanothus verrocosus	Wartystem Ceanothus	Plant acceptable on a limited basis (Max. 30% of the area at the time of planting)
Encielia californica	California Encelia	
Hazardia squarrosa	Sawtooth Goldenfields	
Isomeris arborea	Bladder Pod	
Iva hayesiana	San Diego Marsh Elder	
Layia platyglossa	Tidy tips	
Lupinus succulentus	Arroyo Lupine	
Malachothamnus fasciculatus	Chaparrel Bushmallow	
Malamosa laurina	Hollyleaf Cherry	
Nassella pulchra	Purple Needlegrass	
Phacelia campanularia	California Blue Bells	
Rhamnus crocea	Redberry	
Rhus Integrifolia	Lemonade Berry	
Salvia apiana	White Sage	
Sisyrinchium bellum	Blue-Eyed Grass	
Viguiera laciniata	San Diego Sunflower	
Yucca whipplei	Our Lord's Candle	

Hydroseed Mix (Plantable Retaining Walls):

Baccharis Pilularis	Coyote Brush	Only local native shrub species will be utilized. No cultivars shall be permitted.
Camissonia cheiranthifolia	Beach Evening Primrose	
Ceanothus verrocosus	Wartystem Ceanothus	Plant acceptable on a limited basis (Max. 30% of the area at the time of planting)
Clarkia bottae	Botta's Clarkia	
Eriophyllum confertiflorum	Golden Yarrow	
Hazardia squarrosa	Sawtooth Goldenfields	
Lasthenia californica	California Gold Rush	
Mimulus aurantiacus	Sticky Monkey Flower	Plants must be locally sourced

BOTANICAL NAME	COMMON NAME	NOTES
Salvia apiana	White Sage	May be planted in limited quantities and must be properly spaced. *S. mellifera is a prohibited species*
Sisyrinchium bellum	Western Blue-Eyed Grass	
Viguiera laciniata	San Diego Sunflower	
Yucca whipplei	Our Lord's Candle	

FUEL MODIFICATION ZONE 2

Plant and seed material should be locally sourced to the greatest extent possible to avoid genetically compromising existing Preserve vegetation

BOTANICAL NAME	COMMON NAME	NOTES
Trees:		
Quercus agrifolia	Coast Live Oak	
Shrubs, Cacti & Groundcovers:		
Acalypha californica	California Copperleaf	
Agave shawii	Coastal Agave	
Aristida pupurea	Purple Three-Awn	
Chlorogalum parviflorum	Smallflower Soap Plant	
Cotoneaster dammeri 'Lowfast'	Bearberry Cotoneaster	
Cylindropuntia prolifera	Coast Cholla	
Deinandra fasciculata	Fascicled Tarplant	
Dodonaea viscose	Hop Bush	Plant acceptable on a limited basis (Max. 30% of the area at the time of planting)
Dudleya pulverulenta	Chalk Lettuce	
Encelia californica	Coastal Sunflower	
Epilobium californicum	California Fushcia	
Euphorbia misera	Cliff Spurge	
Grindelia robusta	Gum Plant	
Helianthemum scoprium	Sun Rose	

BOTANICAL NAME	COMMON NAME	NOTES
Isomeris arborea	Bladderpod	
Lupinus succulentus	Arroyo Lupine	
Lycium californicum	Box Thorn	
Malachothamnus fasciculatus	Chaparrel Bushmallow	
Mirabilis californica	Wishbone Bush	
Nassella pulchera	Purple Needlegrass	
Opuntia littoralis	Coastal Prickly Pear Cactus	Plants must be locally sourced
Opuntia oricola	No Common Name	Plants must be locally sourced
Prunus ilicifolia	Hollyleaf Cherry	
Rhamnus crocea	Redberry	
Rhus integrefolia	Lemonade Berry	
Ribes speciosum	Fuschia Flowering Gooseberry	
Salvia apiana	White Sage	May be planted in limited quantities and must be properly spaced. *S. mellifera is a prohibited species*
Simmondsia chinesnsis	Jojoba	
Sisyrinchium bellum	Western Blue-Eyed Grass	
Yucca schidigera	Mojave Yucca	
Yucca whipplei	Foothill Yucca	

Hydroseed Mix:

Bloomeria crocea	Common Goldstar
Encelia californica	Coastal Sunflower
Eriophyllum confertiflorum	Golden Yarrow
Gnaphalium bicolor	Bicolor Cudweed
Hazardia squarrosa	Sawtooth Goldenfields
Heteromeles arbutifolia	Toyon
Isomeris arborea	Bladderpod
Isocoma menziesii	Coast Goldenbush
Lasthenia californica	Goldfields
Layia platyglossa	Tidy tips
Lupinus bicolor	Miniature Lupine
Lupinus succulentus	Arroyo Lupine
Nassella pulchera	Purple Needlegrass
Phacelia campanularia	California Blue Bells

BOTANICAL NAME	COMMON NAME	NOTES
Plantago erecta	Dot-Seed Plantain	
Rhamnus crocea	Redberry	
Rhus integrefolia	Lemonade Berry	
Salvia apiana	White Sage	May be planted in limited quantities and must be properly spaced. *S. mellifera is a prohibited species*
Sisyrinchium bellum	Blue-Eyed Grass	
Sphaeralcea ambigua	Desert Mallow	
Viguiera laciniata	San Diego Sunflower	
Yucca whipplei	Foothill Yucca	

Hydroseed Mix (Plantable Retaining Walls - irrigated):

Clarkia bottae	Botta's Clarkia
Eriophyllum confertiflorum	Golden Yarrow
Eschscholzia californica	California Poppy
Hazardia squarrosa	Sawtooth Goldenfields
Lasthenia californica	Goldfields
Mimulus aurantiacus[4]	Sticky Money Flower
Sisyrinchium bellum	Blue-Eyed Grass
Viguiera laciniata	San Diego Sunflower

OTAY RANCH VILLAGE 3 AND A PORTION OF VILLAGE 4

Air Quality Improvement Plan

APPENDIX G

March 2021

Adopted on December 2, 2014
By Resolution No. 2014-234

Amended December 6, 2016
By Resolution No. 2016-254

Amended _____
By Resolution No. _____

Prepared for:

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1. Executive Summary

A. Intent of the AQIP

This AQIP provides an analysis of air pollution impacts which would result from the proposed development, and demonstrates the best available design to reduce vehicle trips, maintain or improve traffic flow, reduce vehicle miles traveled and reduce Greenhouse Gasses (GHG) direct or indirect emissions. This AQIP demonstrates how Village 3 has been designed consistent with the City's Energy and Water Conservation regulations (CVMC 20.04) and Landscape Water Conservation (CVMC 20.12), and represents the best available design in terms of improving energy efficiency and reducing GHG emissions. GHG emissions include gases such as CO2, CH4, and N2O. These emissions occur naturally and are produced by human activities, such as by automobile emissions and emissions from production of electricity to provide power to homes and businesses. These gases prevent heat from escaping the earth's atmosphere, while allowing in sunlight, which has the effect of warming the air temperature.

Applicable action measures contained in the City's CO2 Reduction Plan and specific measures for the Village 3 Sectional Planning Area (SPA) Plan Amendment are addressed.

B. Community Site Design Goals

A central component of the Otay Ranch GDP is the "village" concept. Each village is approximately one square mile and is defined by a village core. Village cores consist of facilities and services needed to serve the everyday needs of its residents. Such uses include a school, shops, parks, and civic facilities. The highest density residential uses occur in and around the core in the form of mixed-use housing and retail as well as high-density attached homes. Residential densities decrease near the outer edges of each village to provide diversity in housing and serve a wide range of lifestyles and economic levels within each village. Most village cores include a transit stop. Higher residential densities at the core are intended to support commercial uses by activating the village core during all hours of the day and promote more walkable communities by providing facilities and services within a quarter mile of most homes. The village concept also promotes more efficient public transit and increased ridership by providing strong activity centers in each village and making transit close and convenient for most residents.

Village 3 complies with the "village" concept and design goals. It is composed of 493 acres and is located at the southwestern portion of the Otay Valley Parcel of Otay Ranch, just north of the Otay River Valley. The notable intersection of Village 3 is Main Street and Heritage Road. Village 3 is located south of Village 2 and the Otay Landfill, west of existing light industrial uses in the City of Chula Vista and north of the Otay River Valley. Existing development in the vicinity of Village 3 includes Otay Ranch Village 2 to the north. Future development includes Villages 4, 8 West and 8 East to the east.

Village 3 proposes a mixed-use community including diverse housing types, commercial, open space, and educational uses. It is designed to be pedestrian oriented and multi-modal with sidewalks, trails and public transit opportunities throughout. The community is designed to attract village residents to the core for social, public service, neighborhood shopping and recreation and

community activities. A variety of residential neighborhoods are planned south of the village core connected by an internal circulation network that emphasizes pedestrian comfort and safety. This further supports the Otay Ranch GDP "village" concept and pedestrian-centric objectives. These objectives focus on reducing automobile dependence and promoting an active walkable and bikeable community with convenient neighborhood services and recreation.

C. Planning Features

Village 3 land use and circulation pattern are designed to reflect traditional town planning principles including the pedestrian and transit-oriented village concept described in the Otay Ranch GDP. This village concept intensifies residential densities and commercial uses at the heart of the community to enhance transit use, promote walkability, and create vibrant commercial and public spaces that promote social interaction and a strong community identity. The mix of proposed residential, educational, commercial, industrial and community uses are intended to provide a mixed-use environment that serves the needs of residents and employees.

Public Spaces and Amenities

Village 3 has an 8.1-acre neighborhood park located in the village core and adjacent to the elementary school and mixed-use area. The mixed use area also includes a site and facilities for a Community Purpose Facility (CPF) qualified user. Additionally, the Village also has planning areas designated CPF sites designed to provide active and passive recreation opportunities within walking distance of residences. In total, Village 3 offers 5.3 acres of private usable open space.

Open Space and Trails Network

The Open Space Preserve (OSP) Zone is intended to protect natural areas that are part of the City of Chula Vista's Multiple Species Conservation Plan (MSCP) Subarea. In Village 3, these lands consist of 192.3-acres around the southern and eastern portions of the Village. This Zone allows for habitat preserves pursuant to the regulations of the MSCP Subarea Plan, the Otay Ranch Resource Management Plan (RMP), and the Otay Valley Regional Park (OVRP) Concept Plan.

Additionally, there are trails that connect to local and regional trails systems, providing access between the village core, neighborhood park, school, open space and residential areas. The Village Pathway and Promenade Trails allow for bicycle and pedestrian use throughout the village and connect to the regional trail network and adjacent communities. The Chula Vista Regional Trail is located on Heritage Road and Main Street, connecting Village 3 to Village 2 to the north, and Villages 4 and 8 to the east. In addition, portions of the Chula Vista Greenbelt Trail system within the Otay River Valley are within the SPA Plan boundary

The vision for Village 3 is to develop a cohesive community with inter-connected uses and densities. The village concept intensifies residential densities and commercial uses to enhance transit use, reduce automotive dependency.

A variety of residential neighborhoods are planned south of the village core connected by an internal circulation network that emphasizes pedestrian comfort and safety. The City of Chula Vista Regional Trail continues south from Village 2 along Heritage Road through Village 3, ultimately connecting to the Greenbelt Trail planned in the Otay River Valley. The Regional Trail

along Main Street provides an east-west pedestrian connection between Village 3 and villages to the east. The Village Pathway connects the village core to the Regional Trail.

Higher density residential uses are located within and adjacent to the Village 3 village core and south of Main Street, creating opportunities for synergistic land use relationships and access to the planned Rapid Bus service on Main Street and Local Bus service on Heritage Road. The potential Rapid Bus service will enable access to the regional transportation network. A transit stop may be provided within the Otay Ranch Business Park to serve both the business park and village residents. Bicycle circulation is accommodated along Main Street and Heritage Road, as well as on the internal street network.

Building and Design Features

Village 3 incorporates several features into the site design that promote alternative transportation use, reduce traffic congestion, encourage energy efficiency, and reduce area source pollutants. These measures include the following:

- Foster development patterns which promote orderly growth and prevent urban sprawl.
- Establish an urban pedestrian-oriented village with a village core designed to reduce reliance on automobiles.
- Promote multi-modal transportation, including walking and the use of bicycles, buses, and regional transit.
- Establish multi-use trail linkages to the Chula Vista Greenbelt and OVRP, consistent with the Greenbelt Master Plan and OVRP Concept Plan.
- Promote synergistic uses to balance activities, services and facilities with employment, housing, transit, and commercial opportunities.

The updated California Building Standards Code, Title 24, went into effect on January 1, 2020 (2019 Code). This includes Building, Residential, Electrical, Mechanical and Plumbing, as well as Energy and Green Building (CalGreen) Codes. However, it is important to note that the majority of the homes within Village 3 were constructed subject to the 2016 California Building Code. Future construction within Village 3 will at a minimum comply with the 2019 Code or the building code in place at the time of building permit issuance.

January 1, 2020 was the statewide effective date established by the California Building Standards Commission (CBSC) for the 2019 California Building Standards Code. In accordance with California Health and Safety Code, Section 18938.5, all applications for a building permit submitted on or after January 1, 2020 are subject to compliance with the 2019 California Building Standards Code.

The 2016 California Building Standards Code remains in effect and is applicable to all plans and specifications for, and to construction performed where the application for a building permit is received on or before December 31, 2019.

The 2019 Code updates is another step towards GHG reduction and energy efficiency increases. For example, regarding residential, the 2019 Code is 7% more efficient than 2016.

Non-residential Energy Codes are also proving to be more efficient with the 2019 update reflecting a 30% efficiency increase from 2016, whereas the 2016 Code was only 5% more efficient than 2013.

Therefore, future construction within Village 3 will by design will continue to work towards consistency with Chula Vista's Energy and Water Conservation regulations (CVMC 20.04) and Landscape Water Conservation (CVMC 20.12) and represents code compliance in terms of energy efficiency and GHG emissions reductions.

D. Modeled Effectiveness of Community Design

The City of Chula Vista previously used the INDEX CO2 model requirements. This tool is no longer used. Therefore, LEED-ND v4.0 is being utilized as an analytical tool for sustainable design.

A LEED-ND Equivalency Analysis has been prepared to study various design features within Village 3 for the Village 3 SPA Amendment. Please refer to Table 10.

2. Introduction

A. Need for a Qualitative Air Quality Plan

Pursuant to Chula Vista's Growth Management Ordinance (CVMC 19.09.050B), an Air Quality Improvement Plan (AQIP) is required to be prepared in conjunction with the Otay Ranch Village 3 and a Portion of Village 4 Sectional Planning Area (SPA) Plan Amendment. The Growth Management Ordinance requires that no application for a SPA Plan or Tentative Map shall be deemed complete or accepted for review unless an AQIP is provided and approved as part of the approval of the SPA Plan or Tentative Map by the City.

This AQIP will serve to implement several of the key aspects of the City's CO_2 Reduction Plan and Green Building and Energy Efficiency Ordinances for the continued development of Village 3.

B. Purpose and Goals

The purpose of the AQIP is to provide an analysis of air pollution impacts that would result from development of Village 3 and to demonstrate how the village's design reduces vehicle trips, maintains or improves traffic flow, reduces vehicle miles traveled, reduces direct or indirect Greenhouse Gas (GHG) emissions, and minimizes pollutant emissions during construction per regulations. This AQIP also demonstrates how Village 3 has been designed consistent with the City's requirements.

As the result of rapid development not keeping pace with the demand for facilities and improvements, the City Council adopted Growth Management policy measures that would prohibit new development to occur unless adequate public facilities, improvements and environmental quality of life standards were put in place. The City of Chula Vista's Growth Management ordinance (CVMC Chapter 19.09) purpose is to provide the following:

- Provide quality housing opportunities for all economic sections of the community;
- Provide a balanced community with adequate commercial, industrial, recreational and open space areas to support the residential areas of the City;
- Provide that public facilities, services and improvements meeting City standards exist or become available concurrent with the need created by new development;
- Balance the housing needs of the region against the public service needs of Chula Vista residents and available fiscal and environmental resources;
- Provide that all development is consistent with the Chula Vista general plan;
- Prevent growth unless adequate public facilities and improvements are provided in a phased and logical fashion as required by the general plan;

- Control the timing and location of development by tying the pace of development to the provision of public facilities and improvements to conform to the City's threshold standards and to meet the goals and objectives of the growth management program;

- Provide that the air quality of the City of Chula Vista improves from existing conditions;

- Provide that the City of Chula Vista conserves water so that an adequate supply be maintained to serve the needs of current and future residents; and

- Conserve energy use consistent with the General Plan, the General Development Plan, and other City regulations including the City of Chula Vista Climate Action Plan.

The AQIP has been prepared based on the best available design practices and also serves to implement several of the key aspects of the City's Climate Action Plan and Municipal Code.

C. Regulatory Framework Related to Air Quality

There are a number of actions that Federal, State and Local jurisdictions have taken to improve air quality, increase energy efficiency, and reduce GHG emissions. This section summarizes those actions.

Air quality is defined by ambient air concentrations of specific pollutants determined by the Environmental Protection Agency (EPA) to be of concern with respect to the health and welfare of the public. The subject pollutants monitored by the EPA include the following:

- Carbon Monoxide (CO),
- Sulfur Dioxide (SO2),
- Nitrogen Dioxide (NO2),
- Nitrogen Oxides (NOx)
- Ozone (O3),
- Respirable 10- and 2.5-micron particulate matter (PM10 and PM2.5),
- Volatile Organic Compounds (VOC),
- Reactive Organic Gasses (ROG),
- Hydrogen Sulfide (H2S),
- Sulfates,
- Lead (Pb),
- Vinyl Chloride, and
- Visibility reducing particles (VRP).

The EPA has established ambient air quality standards for these pollutants. These standards are called the National Ambient Air Quality Standards (NAAQS). The California Air Resources Board

(CARB) subsequently established the more stringent California Ambient Air Quality Standards (CAAQS). Both sets of standards are shown in Table 3: Ambient Air Quality Standards Matrix. Areas in California where ambient air concentrations of pollutants are higher than the state standard are considered to be in "non-attainment" status for that pollutant.

Regulation of air emissions from non-mobile sources within San Diego County has been delegated to the San Diego County Air Pollution Control District (APCD). As part of its air quality permitting process, the APCD has established thresholds for the preparation of Air Quality Impact Assessments (AQIAs) and/or Air Quality Conformity Assessments (AQCAs). APCD has also established an "emissions budget" or Regional Air Quality Strategy (RAQS) for the San Diego Air Basin. This budget considers existing conditions, planned growth based on General Plans for cities within the region, and air quality control measures implemented by the APCD. The applicable standards are shown in Table 1: Thresholds of Significance for Air Quality Impacts.

Table 1: Thresholds of Significance for Air Quality Impacts

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

SCAQMD Air Quality Significance Thresholds

Mass Daily Thresholds [a]		
Pollutant	**Construction [b]**	**Operation [c]**
NOx	100 lbs/day	55 lbs/day
VOC	75 lbs/day	55 lbs/day
PM10	150 lbs/day	150 lbs/day
PM2.5	55 lbs/day	55 lbs/day
SOx	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day
Lead	3 lbs/day	3 lbs/day

[a] Source: SCAQMD CEQA Handbook (SCAQMD, 1993)
[b] Construction thresholds apply to both the South Coast Air Basin and Coachella Valley (Salton Sea and Mojave Desert Air Basins).
[c] For Coachella Valley, the mass daily thresholds for operation are the same as the construction thresholds.

1. Federal

Clean Air Act (CAA)

Air quality is defined by ambient air concentrations of specific pollutants identified by the EPA to be of concern with respect to health and welfare of the general public. The EPA is responsible for enforcing the Federal CAA of 1970 and its 1977 and 1990 Amendments. The CAA required the EPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health

and welfare are anticipated. In response, the EPA established both primary and secondary standards for several criteria pollutants, which are introduced above. Table 3: Ambient Air Quality Standards shows the federal and state ambient air quality standards for these pollutants.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. California Air Resources Board (CARB) has established the more stringent California Ambient Air Quality Standards (CAAQS) for the six criteria pollutants through the California Clean Air Act of 1988 (CCAA), and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide (H2S), vinyl chloride, and visibility-reducing particles. Areas that do not meet the NAAQS or the CAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. On April 30, 2012, the San Diego Air Basin (SDAB) was classified as a marginal nonattainment area for the 8-hour NAAQS for ozone. The SDAB is an attainment area under the NAAQS for all other criteria pollutants. The SDAB currently falls under a national "maintenance plan" for CO, following a 1998 re-designation as a CO attainment area (SDAPCD 2010). The SDAB is currently classified as a nonattainment area under the CAAQS for ozone (serious nonattainment), PM10, and PM2.5.

The U.S. Supreme Court ruled on April 2, 2007, in Massachusetts v. U.S. Environmental Protection Agency that CO2 is an air pollutant, as defined under the CAA, and that the EPA has the authority to regulate emissions of GHGs. The EPA announced that GHGs (including CO2, CH4, N2O, HFC, PFC, and SF6) threaten the public health and welfare of the American people. This action was a prerequisite to finalizing the EPA's GHG emissions standards for light-duty vehicles, which were jointly proposed by the EPA and the United States Department of Transportation's National Highway Traffic Safety Administration (NHTSA). The standards were established on April 1, 2010, for 2012 through 2016 model year vehicles and on October 15, 2012, for 2017 through 2025 model year vehicles (EPA 2011; EPA and NHTSA 2012).

Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards

The EPA and the NHTSA have been working together on developing a national program of regulations to reduce GHG emissions and to improve fuel economy of light-duty vehicles. The EPA is finalizing the first-ever national GHG emissions standards under the CAA, and the NHTSA is finalizing Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. On April 1, 2010, the EPA and NHTSA announced a joint Final Rulemaking that established standards for 2012 through 2016 model year vehicles. This was followed up on October 15, 2012, when the agencies issued a Final Rulemaking with standards for model years 2017 through 2025. The rules require these vehicles to meet an estimated combined average emissions level of 250 grams per mile by 2016, decreasing to an average industry fleet-wide level of 163 grams per mile in model year 2025. The 2016 standard is equivalent to 35.5 miles per gallon (mpg), and the 2025 standard is equivalent to 54.5 mpg if the levels were achieved solely through improvements in fuel efficiency. The agencies expect, however, that a portion of these improvements will be made through improvements in air conditioning leakage and the use of alternative refrigerants that would not contribute to fuel economy. These standards would cut GHG emissions by an estimated 2 billion metric tons (MT) and 4 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2017–2025). The combined EPA GHG standards and NHTSA CAFE standards resolve previously conflicting requirements under both

federal programs and the standards of the State of California and other states that have adopted the California standards (EPA 2011; EPA and NHTSA 2012).

Table 2: Ambient Air Quality Standards Matrix

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[13]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m³		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

Source: California Air Resources Board.

San Diego Air Pollution Control District (SDAPCD) is the local agency responsible for the administration and enforcement of air quality regulations for the County. The SDAPCD and San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The County's Regional Air Quality Strategies (RAQS) was initially adopted in 1991, and is updated on a triennial basis. The most recent version of the RAQS was adopted by the SDAPCD

in 2009. The local RAQS, in combination with those from all other California nonattainment areas with serious (or worse) air quality problems, is submitted to CARB, which develops the California State Implementation Plan (SIP). The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The current federal and state attainment status for San Diego County is presented in Table 3: San Diego County Attainment Status.

Table 3: San Diego County Attainment Status

Criteria Pollutant	Federal Designation	State Designation
Ozone (8-Hour)	Nonattainment	Nonattainment
Ozone (1-Hour)	Attainment *	Nonattainment
Carbon Monoxide	Attainment	Attainment
PM10	Unclassifiable **	Nonattainment
PM2.5	Attainment	Nonattainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility	No Federal Standard	Unclassified

** The federal 1-hour standard of 12 pphm was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.*

*** At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.*

Source: Air Pollution Control District (https://www.sdapcd.org), April 2015.

As stated above, the SDAPCD is responsible for planning, implementing, and enforcing federal and state ambient standards. The following rules and regulations apply to all sources in the jurisdiction of SDAPCD:

SDAPCD Regulation IV Prohibitions; Rule 51: Prohibits the discharge from any source such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property.

SDAPCD Regulation IV: Prohibitions Rule 55: Fugitive Dust Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site.

SDAPCD Regulation IV Prohibitions; Rule 67.0: Architectural Coatings: Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

2. State of California

Toxic Air Contaminants

Toxic Air Contaminants (TACs) are a category of air pollutants that have been shown to have an impact on human health but are not classified as criteria pollutants. Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. Air toxics are generated by a number of sources, including stationary ones such as dry cleaners, gas stations, combustion sources, and laboratories; mobile ones such as automobiles; and area sources such as farms, landfills, construction sites, and residential areas. Adverse health effects of TACs can be carcinogenic (cancer-causing), short-term (acute) noncarcinogenic, and long-term (chronic) noncarcinogenic. Public exposure to TACs is a significant environmental health issue in California.

California's air toxics control program began in 1983 with the passage of the Toxic Air Contaminant Identification and Control Act, better known as AB 1807 or the Tanner Bill. When a compound becomes listed as a TAC under the Tanner process, the CARB normally establishes minimum statewide emission control measures to be adopted by local air pollution control districts (APCDs). Later legislative amendments (AB 2728) required the CARB to incorporate all 189 federal hazardous air pollutants (HAPs) into the state list of TACs.

Supplementing the Tanner process, AB 2588 the Air Toxics "Hot Spots" Information and Assessment Act of 1987 currently regulates over 600 air compounds, including all of the Tanner-designated TACs. Under AB 2588, specified facilities must quantify emissions of regulated air toxics and report them to the local APCD. If the APCD determines that a potentially significant public health risk is posed by a given facility, the facility is required to perform a health risk assessment (HRA) and notify the public in the affected area if the calculated risks exceed specified criteria.

On August 27, 1998, CARB formally identified PM emitted in both gaseous and particulate forms by diesel-fueled engines as a TAC. The particles emitted by diesel engines are coated with chemicals, many of which have been identified by the EPA as HAPs and by CARB as TACs. CARB's Scientific Advisory Committee has recommended a unit risk factor (URF) of 300 in 1 million over a 70-year exposure period for diesel particulate. In September 2000, the CARB approved the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (Diesel Risk Reduction Plan; CARB 2000). The Diesel Risk Reduction Plan outlined a comprehensive and ambitious program that included the development of numerous new control measures over the next several years aimed at substantially reducing emissions from new and existing on-road vehicles (e.g., heavy-duty trucks and buses), off road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps), and stationary engines (e.g., stand-by power generators). These requirements are now in force on a state-wide basis.

California Greenhouse Gas Regulations

There are numerous State plans, policies, regulations, and laws related to GHGs and global climate change. Following is a discussion of some of these plans, policies, and regulations that (1) establish overall State policies and GHG reduction targets; (2) require State or local actions that result in direct or indirect GHG emission reductions for the proposed Project; and (3) require CEQA analysis of GHG emissions.

California Code of Regulations, Title 24, Part 6

California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for water heating) results in GHG emissions.

The Title 24 standards are updated approximately every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The latest update to the Title 24 standards occurred in 2016 and went into effect in January 1, 2017. The newest code update will go into effect on January 1, 2020, with subsequent iterations expected in three-year cycles that may be in-force at time of build-out. Each building that submits for permit will be required to meet the prevailing code at the time of permit submission, at the sole discretion of the authority having jurisdiction.

California Green Building Standards Code

The California Green Building Standards Code (24 California Code of Regulations [CCR], Part 11) is a code with mandatory requirements for new residential and nonresidential buildings (including buildings for retail, office, public schools and hospitals) throughout California. The current version of the code went into effect on January 1, 2020. The code is Part 11 of the California Building Standards Code in Title 24 of the California Code of Regulations and is also known as the CalGreen Building Standards Code (California Building Standards Code [CBSC] 2014a).

The development of the CalGreen Code is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

The CalGreen Code contains requirements for storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for the verification that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency.

The CalGreen Code also focuses on Electric Vehicle (EV) infrastructure. Depending on what type of use, EV requirements ranges from EV-capable to fully installed EV charging stations. As it pertains to townhomes and single-family homes with attached private garages, the 2019 CalGreen Code requires the garages to be EV-capable with the installation of raceways to accommodate a dedicated 208/240-volt branch circuit.

Executive Order S-3-05

On June 1, 2005, Executive Order (EO) S-3-05 proclaimed that California is vulnerable to climate change impacts. It declared that increased temperatures could reduce snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. In an effort to avoid or reduce climate change impacts, EO S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

AB 32 – Global Warming Solution Act of 2006

The California Global Warming Solutions Act of 2006, widely known as AB 32, requires that the CARB develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB is directed to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

Executive Order B-30-15

On April 29, 2015, EO B-30-15 established a California GHG reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG reduction targets with those of leading international governments, including the 28 nation European Union. California is on track to meet or exceed the target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in AB 32. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal established by EO S-3-05 of reducing emissions 80 percent under 1990 levels by 2050.

AB 1493 – Vehicular Emissions of Greenhouse Gases

AB 1493 (Pavley) requires that CARB develop and adopt regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State." On September 24, 2009, CARB adopted amendments to the Pavley regulations that intend to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments bind California's enforcement of AB 1493 (starting in 2009), while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to merge its rules with the federal CAFE rules for passenger vehicles (CARB 2013). In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single packet of standards called Advanced Clean Cars (CARB 2013).

AB 341

In 2011, the State legislature enacted AB 341 (California Public Resource Code § 42649.2), increasing the diversion target to 75 percent statewide. AB 341 also requires the provision of recycling service to commercial and residential facilities that generate four cubic yards or more of solid waste per week.

Executive Order S-01-07

This EO, signed by Governor Schwarzenegger on January 18, 2007, directs that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by the year 2020. It orders that a Low Carbon Fuel Standard (LCFS) for transportation

fuels be established for California and directs the CARB to determine whether a LCFS can be adopted as a discrete early action measure pursuant to AB 32. CARB approved the LCFS as a discrete early action item with a regulation adopted and implemented in April 2010. Although challenged in 2011, the Ninth Circuit reversed the District Court's opinion and rejected arguments that implementing LCFS violates the interstate commerce clause in September 2013. CARB is therefore continuing to implement the LCFS statewide.

Senate Bill (SB)375

SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO's Regional Transportation Plan (RTP). Qualified projects consistent with an approved SCS or Alternative Planning Strategy categorized as "transit priority projects" would receive incentives to streamline CEQA processing.

CARB: Scoping Plan

On December 11, 2008, the CARB adopted the Scoping Plan (CARB 2008) as directed by AB 32. The Scoping Plan proposes a set of actions designed to reduce overall GHG emissions in California to the levels required by AB 32. Measures applicable to development projects include those related to energy-efficiency building and appliance standards, the use of renewable sources for electricity generation, regional transportation targets, and green building strategy. Relative to transportation, the Scoping Plan includes nine measures or recommended actions related to reducing vehicle miles traveled and vehicle GHGs through fuel and efficiency measures. These measures would be implemented statewide rather than on a project by project basis.

The CARB released the First Update to the Climate Change Scoping Plan in May 2014, to provide information on the development of measure-specific regulations and to adjust projections in consideration of the economic recession (CARB 2014a). To determine the amount of GHG emission reductions needed to achieve the goal of AB 32 (i.e., 1990 levels by 2020) CARB developed a forecast of the AB 32 Baseline 2020 emissions, which is an estimate of the emissions expected to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. CARB estimated the AB 32 Baseline 2020 to be 509 million metric tons (MMT) of CO2e. The Scoping Plan's current estimate of the necessary GHG emission reductions is 78 MMT CO2e (CARB 2014b). This represents an approximately 15.32 percent reduction. The CARB is forecasting that this would be achieved through the following reductions by sector: 25 MMT CO2e for energy, 23 MMT CO2e for transportation, 5 MMT CO2e for high-GWP GHGs, and 2 MMT CO2e for waste. The remaining 23 MMT CO2e would be achieved through Cap-and-Trade Program reductions. This reduction is flexible—if CARB receives new information and changes the other sectors' reductions to be less than expected, the agency can increase the Cap-and-Trade reduction (and vice versa).

3. Regional

SANDAG Regional Plan

The Regional Plan (RP) (SANDAG 2015) is the currently approved long-range planning document developed to address the region's housing, economic, transportation, environmental, and overall quality-of-life needs. The RP establishes a planning framework and implementation actions that increase the region's sustainability and encourage "smart growth while preserving natural resources and limiting urban sprawl." The RP encourages the regions and the County to increase residential and employment concentrations in areas with the best existing and future transit connections, and to preserve important open spaces. The focus is on implementation of basic smart growth principles designed to strengthen the integration of land use and transportation. General urban form goals, policies, and objectives are summarized as follows:

- Mix compatible uses.
- Take advantage of compact building design.
- Create a range of housing opportunities and choices.
- Create walkable neighborhoods.
- Foster distinctive, attractive communities with a strong sense of place.
- Otay Ranch Preserve open space, natural beauty, and critical environmental areas.
- Strengthen and direct development towards existing communities.
- Provide a variety of transportation choices.
- Make development decisions predictable, fair, and cost-effective.
- Encourage community and stakeholder collaboration in development decisions.

As plans are ever-evolving, it is recognized that new plans may be approved in the future. SANDAG lists 12 Near-Term Actions that are intended for implementation in the next Regional Plan. Along with the strategies of the approved RP, these concepts are recognized as potential features in development going forward. The 12 Near Term Actions are as follows:

1. The Regional Transportation Improvement Program (RTIP).
2. Develop a long-term specialized transportation strategy through 2050, as part of the next biennial update of the SANDAG Coordinated Plan, to address the increasing specialized service needs of seniors and people with disabilities.
3. Promote Vehicle Miles Traveled (VMT) reduction by applying the Regional Complete Streets Policy to relevant SANDAG plans, programs, and projects.
4. Develop a Regional Mobility Hub Implementation Strategy.
5. Complete a follow-up study that details ways to reduce greenhouse gases by expanding the use of alternative fuels regionwide.

6. Incorporate regional transportation model enhancements to provide more robust data regarding bike and pedestrian travel, carpools, vanpools, carshare, and public health.

7. Expand the Integrated Corridor Management Concept and design for up to three corridors.

8. Complete the comprehensive 10-year review of the TransNet Program in accordance with the TransNet ordinance.

9. Develop innovative financing tools to self-finance near-term projects for the new border crossing at Otay Mesa East.

10. Participate in the target-setting and monitoring processes for federal performance measures and report on progress toward the achievement of these federal performance measure targets in the new System Performance Report.

11. Develop an Intraregional Tribal Transportation Strategy with tribal nations in the region.

12. Explore the development of a Regional Military Base Multimodal Access Strategy.

4. City of Chula Vista

City of Chula Vista Climate Action Plan

Since 2000, Chula Vista has been implementing a Climate Action Plan (CAP) to address the threat of climate change to the local community. The original Carbon Dioxide Reduction Plan was revised to incorporate new climate mitigation and adaptation measures to strengthen the City's climate action efforts and to facilitate the numerous community co-benefits such as utility savings, better air quality, reduced traffic congestion, local economic development, and improved quality of life. To help guide implementation of the CAP, the City regularly conducts GHG emission inventories. The City's CAP was updated in 2008, 2010 and 2017.

Municipal Codes

The Chula Vista City Council adopted the California Energy Code 2016 effective January 1, 2017. The 2016 Building Energy Efficiency Standards are more efficient than previous standards and the 2019 Standards exceed 2016 and subsequent code cycles are expected to move aggressively toward zero-energy and zero-emission buildings. The 2019 Energy Code is the current code being applied.

Per CVMC § 15.24.045, each store in a store building, each flat in a flat building, and each building used as a dwelling shall be so wired that each store, apartment, flat or dwelling shall have separate lighting and/or power distribution panels. Such panels shall not serve other portions of the building. Hotels, motels, hotel apartments and similar types of buildings may be wired from one or more distribution panels. It is expected that this ordinance may be superseded by Title 24 updates though the build-out of the SPA Plan—future buildings will comply with the more stringent of the requirements.

Per CVMC § 20.04.040, all new residential units shall include electrical conduit specifically designed to allow the later installation of a photovoltaic (PV) system which utilizes solar energy as a means to provide electricity. No building permit shall be issued unless the requirements of this section and the Chula Vista Photovoltaic Pre-Wiring Installation Requirements are

incorporated into the approved building plans. It is expected that this ordinance may be superseded by Title 24 updates though the build-out of the SPA Plan—future buildings will comply with the more stringent of the requirements.

Additionally, per CVMC § 20.04.030, all new residential units shall include plumbing specifically designed to allow the later installation of a system which utilizes solar energy as the primary means of heating domestic potable water. It is expected that this ordinance may be superseded by Title 24 updates though the build-out of the SPA Plan—future buildings will comply with the more stringent of the requirements following the prevailing approach to water heating.

Finally, per CVMC § 20.04.050, commercial businesses are required to participate in a free resource and energy evaluation of their facilities when they obtain a new business license and every five years thereafter.

The City of Chula Vista has developed a number of strategies and plans aimed at improving air quality. The City is a part of the Cities for Climate Protection Program, which is headed by the International Council of Local Environmental Initiatives (ICLEI). The original plan followed by the city to reduce fossil fuel consumption was the CO2 Reduction Plan, adopted in 2002. Currently, the City uses the Climate Action Plan (CAP) which was adopted in 2017. The Climate Action Plan references the 2002 CO2 Reduction Plan, however, the initiatives set forth in the CAP are more relevant to today's conditions.

They are as follows:

- Water Conservation and Reuse
- Waste Reduction
- Renewable and Efficient Energy
- Smart Growth and Transportation

3. Village 3 SPA Amendment Project Description

Otay Ranch is a 23,000-acre master-planned community and includes a mix of land uses within 20 villages and/or planning areas. Village 3 and a Portion of Village 4 encompasses 493.5 gross acres and a variety of allowable uses. Village 3 proposes a range of residential units and densities, a mix of uses that blends commercial and residential together, parks and open space, and community facilities including one school site.

The Otay Ranch Village 3 and a Portion of Village 4 Sectional Planning Area Plan and Tentative Map was originally approved in December 2014. (University Villages Project Comprehensive SPA Plan Amendment Final Environmental Impact Report (2014 FEIR). The Village 3 project was subsequently amended by the City of Chula Vista City Council in December 2016. The 2016 Village 3 (approved project) land uses consist of:

- Up to 1,597 residential units in Village 3;
    - 813 single family dwelling units
    - 179 multi family dwelling units
    - 278 dwelling units (under mixed use land use)
    - 327 unallocated dwelling units (permitted in parcels within Village 3)
- 8.3 acres of office
- 29.3 acres of industrial
- 8.3 acres of school
- 5.3 acres of Private Open Space
- 2.7 acres of Community Purpose Facility
- 25.9 acres of public parks
- 34.8 acres of open space
- 157.2 acres of MSCP preserve

HomeFed Village III Master, LLC/FlatRock Land Company, LLC (Project Applicant) is proposing land use changes to the approved project resulting in:

- 769 single-family units
- 1,088 multi-family units
- 20,000 SF of commercial/retail uses in a mixed use setting
- 2.7 acres of Community Purpose facilities
- 5.3 acres of Private Open Space

- 25.9 acres of Public Parks (8.1-acre Neighborhood Park in Village 3) and 17.8-acre Community Park in Village 4)
- 8.3-acre elementary school site
- 29.3 acres of Light Industrial
- 27.5 acres of Open Space
- 192.3 acres of MSCP Open Space

Proposed revisions consist of parcels re-designation from "Office" to "High Residential" within the Village 3 village core; converting R-6 from "Single Family" to "Medium High Residential;" expanding the boundary of the Village North SPA Plan to include the approximately 54-acre property owned by FlatRock, LLC; and changing the land use from "Industrial" to "Medium-High Residential." The Proposed Project also includes the transfer of 41 units from Village 9 to Village 3 which would increase the authorized units in Village 3 from 1,597 to 1,638 units and correspondingly reduce the authorized units in Village 9 from 4,000 to 3,959 units. Both the Village 9 SPA Plan and Tentative Map land use tables would be revised to reflect this unit reduction. The existing Village 3 units (377 DUs) and the units proposed to be transferred from Village 9 (41 DUs). These proposed changes to the land use plan of Village 3 are collectively referred to as the "proposed project".

The Village 3 proposed revisions would require amendments to the Chula Vista General Plan, Otay Ranch General Development Plan (GDP) and Village 3 and a Portion of Village 4 Sectional Planning Area (SPA). The Proposed Project also includes a rezone and a tentative map for Parcels O-1 and O-2 (R-19) and a tentative map for R-6 and R-20 (Flat Rock, LLC property) to implement the proposed land use changes. The Village 9 SPA and Tentative Map would also be amended to reduce authorized units from 4,000 to 3,959. The Proposed Project also includes a Development Agreement amendment.

Village 3 land use and circulation pattern are designed to reflect traditional town planning principles including the pedestrian and transit-oriented village concept described in the Otay Ranch GDP. This village concept intensifies residential densities and commercial uses at the heart of the community to enhance transit use, promote walkability, and create vibrant commercial and public spaces that promote social interaction and a strong community identity. The mix of proposed residential, educational, commercial, industrial and community uses are intended to provide a mixed-use environment that serves the needs of residents and employees.

Figure 1: Site Utilization Plan and Table 4: Land Use Summary implement the land uses contemplated by the Otay Ranch. The site utilization plan and site utilization summary work together and assign a general utilization to each neighborhood within the SPA.

Village 3 concentrates much of its higher density housing near the village core and transit opportunities. A school, park, mixed use commercial and industrial land uses are also located within close proximity to residential to encourage pedestrian and bicycle travel.

Figure 1: Amended Site Utilization Plan

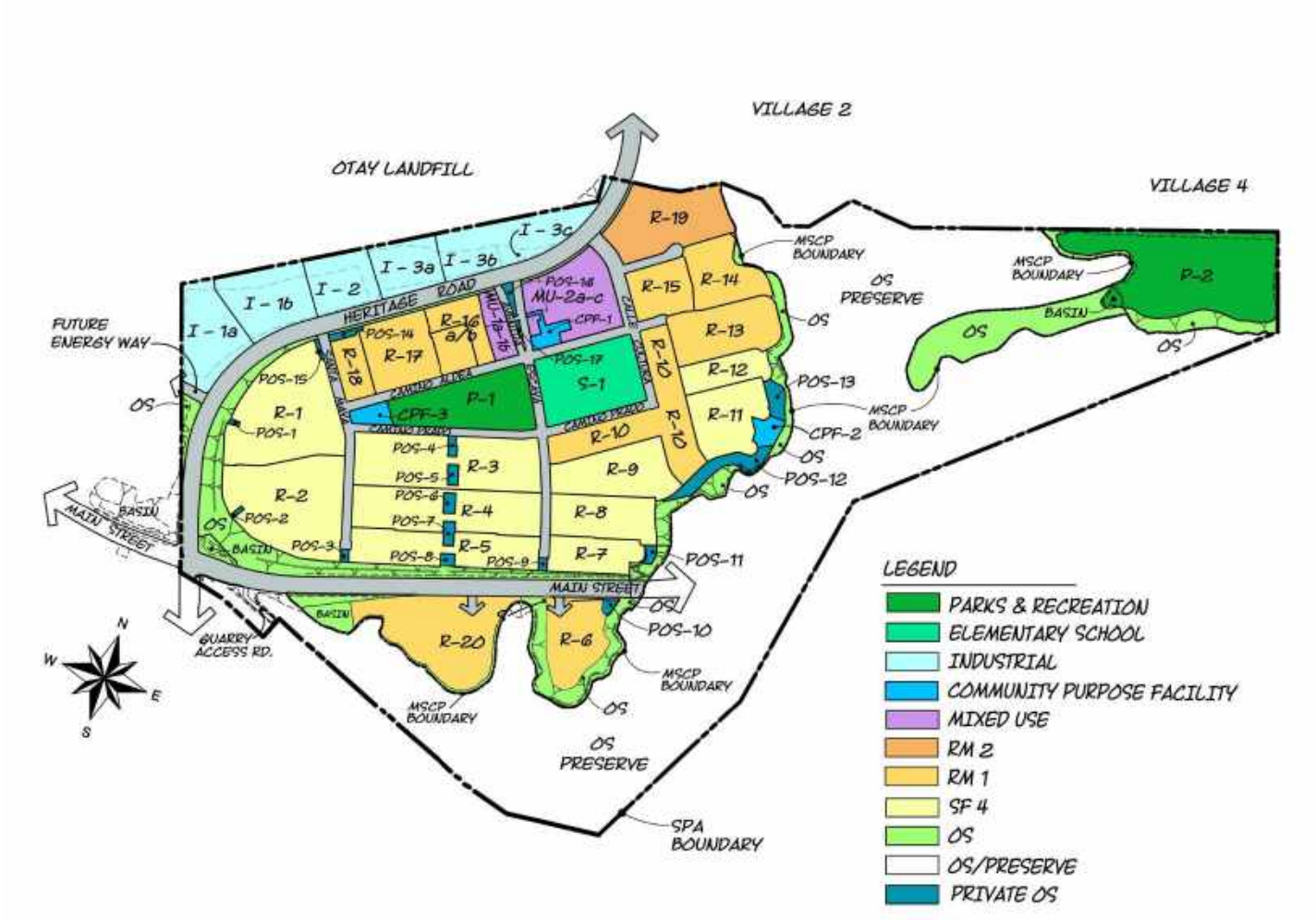


Table 4: Village 3 and a Portion of Village 4 Land Use Summary

Land Use	Land Use	Acres	Units	Target Density
VILLAGE 3				
Single Family				
R-1	SF	12.4	80	6.4
R-2	SF	12.3	65	5.2
R-3	SF	11.5	104	9.1
R-4	SF	9.5	75	7.9
R-5	SF	7.5	46	6.1
R-7	SF	3.8	22	5.8
R-8	SF	5.5	43	7.8
R-9	SF	6.7	40	6.0
R-10	SF	9.5	98	10.3
R-11	SF	5.7	37	6.5
R-12	SF	3.1	24	7.7
R-13	SF	6.6	58	8.8
R-17	SF	5.7	53	9.3
R-18	SF	2.3	24	10.4
Single Family Total		**102.1**	**769**	**7.5**
Multi Family				
R-6	MF	5.6	78	13.9
R-14	MF	5.0	71	14.2
R-15	MF	3.9	54	13.9
R-16 a/b	MF	4.6	54	11.7
R-19	MF	8.3	224	27.0
R-20	MF	10.1	116	11.5
Multi Family Total		**37.5**	**597**	**15.9**
Mixed Use				
MU-1a-d	MU	1.8	30	16.7
MU-2a-e	MU	7.2	242	33.6
Mixed Use Total		**9.0**	**272**	**30.2**
Residential Total		**148.6**	**1,638**	**11.0**
Community Purpose Facilities				
CPF-1	CPF	0.9		
CPF-2	CPF	0.9		
CPF-3	CPF	0.9		
Total CPF		**2.7**		
Private Open Space (POS 1-17)	**POS**	**5.3**		
Public Park P-1	**P**	**8.1**		

Land Use	Land Use	Acres	Units	Target Density
School	**S**	**8.3**		
Industrial				
I-1a	I	6.3		
I-1b	I	6.4		
I-2	I	4.6		
I-3a	I	4.2		
I-3b/c	I	7.8		
Total Industrial		**29.3**		
Open Space				
Open Space @ Village 3 North (OS 1, 2, 4-8, 17)	OS	19.8		
Open Space @ R-6/R-20 (OS 2-8)	OS	8.5		
Preserve @ Village 3 North (OS-12)	OS	157.2		
Preserve @ R-20 (OS-1)	OS	29.8		
Total Open Space		**215.3**		
Circulation				
External Circulation		21.0		
Internal Circulation		16.2		
Total Circulation		**37.2**		
Subtotal Village 3		**454.8**	**1,638**	
VILLAGE 4 (por)				
Public Park P-2	**P**	**17.8**		
Open Space (OS 9-11)	**OS**	**11.9**		
Subtotal Village 4 (por)		**29.7**		
TOTAL		**484.6**	**1,638**	

Notes:

(1) A minimum of 2,000 SF of commercial/retail uses are required in the MU-1/MU-2 parcels.
(2) MU-2 a-c acreage does not include the 0.9 acre CPF-1 site.
(3) The CPF-1 site is shown above as 0.9 acre site; however, the 2.6 acre obligation is met through a combination of land, site improvements and building construction, per the approved Alternative Compliance Agreement.
(4) The Project includes over 4.0 acres of CPF credit, 0.3 acres more than the CPF requirement per the Land Offer Agreement; therefore; up to 0.3 acres of the CPF-2 and/or CPF-3 sites may be used to satisfy a portion of the Common Useable Open Space requirement for Village 3 neighborhoods.

4. Effect of Project on Local/Regional Air Quality

Construction Emissions

Construction of the proposed project would result in a temporary addition of pollutants to the local airshed caused by soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts. Fugitive dust (PM10 and PM2.5) emissions would primarily result from grading and site preparation activities. NOx and CO emissions would primarily result from the use of construction equipment and motor vehicles.

As stated in the Otay Ranch Village Three Project – Air Quality and Greenhouse Gas Update Memo (Dudek, 2020), "construction emissions would remain unchanged, as no change in the construction schedule or required construction equipment is anticipated. In addition, based on our review of the proposed changes, the identified impacts and associated mitigation measures in the previous EIRs (City of Chula Vista 2006 and 2014) remain applicable to this project, and no additional mitigation measures would be required."

Operational Emissions

Following the completion of construction activities, the proposed project would generate VOC, NOx, CO, SOx, PM10, and PM2.5 emissions from project land uses, as well as mobile and stationary sources including vehicular traffic from residents, space heating and cooling, water heating, and fireplace (hearth) use.

As indicated in the *Otay Ranch Village 3 North and a Portion of Village 4 Trip Generation Review* (Chen Ryan 2020), the proposed land uses would generate approximately 20,357 daily trips, while the approved land uses would generate approximately 26,997 daily trips. The proposed land uses would therefore generate approximately 6,640 fewer trips (24.6% daily) when compared to the approved land uses. The proposed Village 3 land uses would generate fewer trips (both daily and during the peak hours) than the approved land uses, and thus adding fewer trips to the surrounding roadway network. It can be concluded that no additional traffic analysis would be required since no new or more substantially significant traffic impacts would occur beyond those analyzed in the two previous EIRs (the Otay Ranch Village Two, Three, and a portion of Village Four SPA Plan Final Second Tier Environmental Impact Report 2006 and the University Villages Project Comprehensive SPA Plan Amendment Final Environmental Impact Report 2016).

Vehicular Traffic

Annual CO_2 emissions from motor vehicle trips for full project buildout were quantified using the URBEMIS 2007 model (refer to Appendix A for additional details and model assumptions). As described earlier, CH_4 and N_2O emissions were accounted for by multiplying the URBEMIS 2007 CO_2 emissions by a factor based on the assumption that CO_2 represents 95% of the CO_2E emissions associated with passenger vehicles (EPA 2005).

Several regulatory initiatives have been passed to reduce on-road vehicle emissions. These initiatives (Pavley and EPA/NHTSA standards for light-duty vehicles and the LCFS) have been

estimated to reduce emissions from motor vehicles by approximately 32% by the year 2020, according to the SDCGHGI (University of San Diego 2008).

Area Sources

Annual CO_2 emissions from natural gas combustion for space and water heating, hearth combustion, and gas-powered landscape maintenance equipment were estimated using URBEMIS 2007. The CO_2 emissions from natural gas combustion were adjusted by a factor derived from the relative CO_2, CH_4, and N_2O for natural gas as reported in the CCAR's *General Reporting Protocol* (CCAR 2009) for stationary combustion fuels and their GWPs.

The proposed project would be required to comply with Section 15.26.030 of the City's Municipal Code, which requires that new residential projects that fall within climate zone 7 be at least 15% more energy efficient than the 2008 Energy Code. As such, building design would employ energy efficient measures beyond that required by the Energy Code, resulting in a 15% reduction in emissions generated by natural gas use.

Electrical Generation

Annual electricity use for the proposed project was based upon estimated generation rates for land uses in the San Diego Gas & Electric service area. The proposed project would consume approximately 65,521,407 kilowatt-hours per year (see Appendix B for calculations). The generation of electricity through combustion of fossil fuels typically results in emissions of CO_2 and to a smaller extent CH_4 and N_2O. The proposed project will comply with the 2019 California Energy Code at minimum.

Again, the proposed project would be required to comply with Section 15.26.030 of the City's Municipal Code, which would result in a 15% reduction in emissions generated by electricity use.

Water Supply

Water supplied to the proposed project requires the use of electricity. Accordingly, the supply, conveyance, treatment, and distribution of water would indirectly result in GHG emissions through use of electricity. Water usage rates were obtained from the Overview of Water Service completed for the proposed project (Dexter Wilson Engineering 2014). The estimated electrical usage associated with supply, conveyance, treatment, and distribution of water was obtained from a California Energy Commission report on electricity associated with water supply in California (CEC 2006).

The City's Municipal Code defers to Title 24. At minimum, the proposed project will comply with the 2019 Title 24 Code Cycle which is more stringent than the Code Cycle that was in effect at the time of the original Village 3 project approval. At that time, it was required, all new residential construction, remodels, additions, and alterations must provide a schedule of plumbing fixture fittings that will reduce the overall use of potable water by 20%, which would result in a 20% reduction in the GHG emissions from electricity generated for supply, conveyance, treatment, and distribution of water. The 20% reduction in the overall use of potable water was substantiated in the project's Water Conservation Plan; in fact, the Water Conservation Plans for Villages Three and Portion of Village Four, Village Eight East and Village Ten identify a 29.2% reduction in the overall use of potable water. A new analysis is not being conducted for the proposed amendment project. However, due to the increased stringency of the 2019 Title 24 Codes, it is believed that

energy conservation is still being enforced by implementation of the State's water and energy conservation requirements.

Summary of Operational Emissions

The estimated GHG emissions associated with vehicular traffic, area sources, electrical generation, and water supply are shown below in Table 9. Because the project phasing overlaps with other villages, Table 9 includes emissions for Village Three and portion of Village Four, Village Eight East and Village Ten. Additional detail regarding these calculations can be found in Appendix B of the Air Quality and Global Climate Change Technical Report for the Otay Ranch University Villages Project. The estimated emissions of CO_2E would be 203,688 metric tons per year without the GHG reduction measures ("business as usual"), and 144,520 metric tons per year with the GHG reduction measures. As indicated in Table 8, the GHG reduction measures would reduce GHG emissions by approximately 29%.

Table 5: Estimated Operational GHG Emissions (metric tons/year)
Villages Three /Portion of Four, Eight East and Ten

Source	CO_2E Emissions	CO_2E Emissions w/ GHG Reduction Measures	Percent Reduction
Motor Vehicles	138,188	93,968	32%
Area Sources			
Natural Gas Combustion	18,213	12,749	30%
Hearth Combustion	26	26	0%
Landscaping	39	39	0%
Electrical Generation	22,031	15,422	30%
Water Supply	9,844	6,970	29%
Solid Waste	14,043	14,043	0%
Amortized Annual Construction Emissions	1,304	1,304	0%
Total	203,688	144,520	29.0%

Source: See Appendix B of the Air Quality and Global Climate Change Technical Report for the Otay Ranch University Villages Project for complete results.
Note: Construction emissions shown include emissions from construction of all Villages analyzed under the proposed project, including Village Three and a Portion of Village Four, Village Eight East, and Village Ten.

Assessment of GHG Impacts

The City of Chula Vista has developed a number of strategies and plans aimed at improving air quality while also addressing global climate change. In November 2002, Chula Vista adopted the Carbon Dioxide Reduction Plan in order to lower the community's major greenhouse gas emissions, strengthen the local economy, and improve the global environment. In addition, as a part of its Growth Management Ordinance and Growth Management Program, the City of Chula Vista requires that an Air Quality Improvement Plan (AQIP) be prepared for all major

development projects with air quality impacts equivalent to that of a residential project of 50 or more dwelling units.

As shown in Table 9, with implementation of GHG reduction measures the proposed project would reduce GHG emissions by 29%. The proposed project would therefore exceed the target of 20% below business as usual that has been established for the purposes of assessing operational GHG emissions of projects in the City of Chula Vista, and this reduction would be consistent with the goals of AB 32. Furthermore, the proposed project would be consistent with Section 15.26.030 of the City's Municipal Code by employing energy efficient measures beyond that required by the Energy Code, resulting in a 15% reduction in emissions generated by energy use. Additionally, the proposed project would reduce the overall use of potable water by 29%, consistent with the City's Municipal Code. Lastly, the project design features would help to further reduce GHG emissions. The project would therefore have a less than significant impact on global climate change.

5. Quantitative Project Evaluation

A quantitative analysis has been performed for Village 3 using Option Two: Alternative Modeling Programs, specifically a LEED-ND equivalency analysis was conducted. LEED-ND criteria are more appropriate than INDEX indicators for the Village 3 SPA Plan for the following reasons:

- INDEX indicators do not take habitat preservation and conservation efforts into account, of which the Project is providing a significant amount.
- LEED-ND criteria measure these benefits to a greater and more accurate extent.
- The INDEX approach uses only 16 indicators, whereas LEED-ND has 56 indicators that are able to characterize a project much more comprehensively and thoroughly, and ultimately capture more contributors to GHG emission reductions.
- The underlying basics of the INDEX approach are nearly 15 years old in contrast to LEED-ND's latest update in July of 2018. Consequently, current best practices in urban design, green infrastructure and resilient neighborhoods are not addressed by INDEX indicators, but are covered by LEED-ND criteria.
- The California Energy Code and Green Building Standards have been updated since the INDEX approach was established.
- The INDEX model is no longer being used.

The Village 3 SPA Plan scores the equivalent of 41 points under the LEED-ND rating system. Table 9: LEED Equivalency Scorecard provides a description of the project attributes that were considered from the LEED-ND rating system. The base ND certification of 40 points is the functional equivalent of INDEX indicator thresholds. Therefore, the Project has demonstrated AQIP compliance.

Table 6: LEED Neighborhood Development Plan Village 3 Equivalency Analysis

LEED-NDv4 Credit		Options	Possible Points	Village 3 Equivalency Points	Notes
Smart Location & Linkage					
SLLp1	Smart Location	Transit Served	Y/N	Yes	1. New infrastructure will be installed for Village 3, but will connect into existing waste and wastewater infrastructure. Village 3 also has a Subarea Master Plan approved by Otay Ranch Water District. The intent of this prerequisite is being met as Village 3 will be an extension of existing infrastructure. 2. 50% of dwellings and businesses within 1/2 mile walk of local bus or proposed BRT stop which is believed to comply with the minimum weekday trips (60) and weekend trips (40). Bus stops are located at Heritage Road at the Village Core and at the intersection of Main Street and Heritage Road. 3.The BRT stop in Village 3 is under the jurisdiction of MTS which also manages funding. Funding comes from various federal, state, and local sources.
SLLp2	Imperiled Species and Ecological Communities	None	Y/N	Yes	192.3 acres of MSCP designated area are within the SPA boundary.
SLLp3	Wetland and Water Body Conservation	None	Y/N	Yes	Village 3 is implementing the MSCP Chula Vista Subarea Plan. Thus, Village 3 meets the intent of this prerequisite due to the fact that a large designation of land will be conveyed to public ownership for permanent preservation and management.
SLLp4	Agricultural Land Conservation	None	Y/N	Yes	Village 3 is implementing the MSCP Chula Vista Subarea Plan. Thus, it meets the intent of this prerequisite due to the fact that a large designation of land will be conveyed to public ownership for permanent preservation and management.

LEED-NDv4 Credit		Options	Possible Points	Village 3 Equivalency Points	Notes
SLLp5	Floodplain Avoidance	None	Y/N	Yes	Village 3 is not located within a floodplain.
SLLc1	Preferred Locations	1. Location Type	10		
		2. Connectivity			
		3. High Priority Locations			
SLLc2	Brownfield Remediation	Brownfield Site	1		
		High Priority Redevelopment Area	2		
SLLc3	Access to Quality Transit	Existing/Planned Transit	1-7	3	Weighted allocation of points based on 100 weekday trips and 65 weekend trips (inclusive of BRT).
SLLc4	Bicycle Facilities	Bicycle Storage	1	1	
		Bicycle Location			
		Bicycle Network	1	1	Connects to an existing bicycle network with at least 3 continuous miles (refer to Fig. 2)
SLLc5	Housing and Jobs Proximity	Affordable housing	3		
		30% of total SF residential OR # of jobs within 1/2 mile = # of housing	2		
		Infill project with nonresidential component	1		
SLLc6	Steep Slope Protection		1	1	Per the Otay Ranch GDP §10.C.3 Steep Slope Policy, there is a ranch-wide requirement to preserve 83% of steeps slopes and as stated in the Village 3 SPA §6.2.1(2) – Village 3 is consistent with the

LEED-NDv4 Credit		Options	Possible Points	Village 3 Equivalency Points	Notes
					Otay Ranch GDP steep slope preservation requirement.
SLLc7	Site Design for Habitat or Wetland and Water Body Conservation	Sites w/o Significant habitat or wetlands	1		
		Sites with habitat or wetlands	1		
SLLc8	Restoration of Habitat or Wetlands and Water Bodies		1	1	Village 3 includes 192.3 acres of Preserve (MSCP) but also connects to the greater MSCP area. The steepest slopes are preserved within the RMP/MSCP Preserve areas. (Refer to Fig. 5)
SLLc9	Long-Term Conservation Management of Habitat or Wetlands and Water Bodies		1	1	The Preserve Owner/Manager is responsible for overseeing the day-to-day and long range preserve management activities within the MSCP Preserve in accordance with the Otay Ranch Resource Management Plan (RMP).
Neighborhood Pattern & Design					
NPDp1	Walkable Streets		Y/N	Yes	All streets have sidewalks and the mixed-use retail area fronts the main circulation network. (Refer to Fig. 7)
NPDp2	Compact Development		Y/N	Yes	Village 3 has densities from 5-27 du/ac. (Refer to Table 5)
NPDp3	Connected and Open Community		Y/N	Yes	233 intersections/square mile. (Refer to Chula Vista CO2 Index Model Results (approved 2016): Intersection Density. This exceeds the pre-requisite of 140.
NPDc1	Walkable Streets	25' setback (80%)	1	1	Per the PC District Regulations, no suggested front setbacks equal or are greater than 25’ from the right-of-way.

LEED-NDv4 Credit		Options	Possible Points	Village 3 Equivalency Points	Notes
		18' setback (50%)	1	1	As constructed, the mixed-use retail is design is pedestrian oriented and encourages walking. All storefronts are accessed from sidewalks. Parking is located on street or in the rear/side of planning areas. The Village 3 Design Plan also states, "Design emphasis on the entries improves the street scene and helps distinguish individual shops in multi-tenant buildings." Furthermore, homes are being built at minimum setbacks to maximize square footage. Garage driveways require 17' setbacks which are still less than the required 18'. It is believed that the intent of this credit is has been achieved.
		1' setback for nonresidential (50%)	1		
		Functional entries every 75 feet	1	1	As constructed, the mixed-use retail design is pedestrian oriented and encourages walking. All storefronts are accessed from sidewalks. Parking is located on street or in the rear/side of planning areas. The Village 3 Design Plan also states, "Design emphasis on the entries improves the street scene and helps distinguish individual shops in multi-tenant buildings." It is believed that the intent of this credit is has been achieved.
		Function entries every 30 feet	1		
		Glass on 60% of facades	1	1	Per the Village 3 Design Plan: Design emphasis on the entries improves the street scene and helps distinguish individual shops in multi-tenant buildings. Storefronts should incorporate display windows to create interest and encourage window shopping along the pedestrian walk.
		No blank walls 40% of sidewalk	1	1	Mixed-use retail is constructed. Blank walls do not exceed 40% of

LEED-NDv4 Credit		Options	Possible Points	Village 3 Equivalency Points	Notes
					the sidewalk. The village area is designed to be pedestrian oriented.
		Ground-level retail, services must be unshuttered at night	1		
		On-street parking provided both sides on 70% of streets	1	1	On-street parking is provided throughout the Village.
		Continuous sidewalks (10' wide on mixed-use blocks)	1		
		Ground-floor residential units at least 24" above grade	1		
		Ground floor retail in multi-stores	1	1	100% retail in the mixed-use planning area is accessed from the ground floor. Furthermore, all is accessed from the sidewalk, creating preferable street frontage.
		Building height-street width	1		
		20 mph residential streets	1		
		25 mph mixed use street	1		
		Driveways limited	1	1	Refer to Figure 7 which shows on-street parking and limited driveways.
NPDc2	Compact Development	Density/acre	1-6	3	The SPA Amendment areas have densities of the following: R-19:27.0 du/ac R-20:10.6.0 du/ac R-6: 13.9 du/ac (Refer to Table 4)

LEED-NDv4 Credit		Options	Possible Points	Village 3 Equivalency Points	Notes
NPDc3	Mixed-Use Neighborhoods	Uses with 1/4 mile walking distances	1-4	1	Community-serving retail, industrial, recreation center, public park, School, Diverse housing types, preserved open space, transit stop.
NPDc4	Housing Types and Affordability	Diverse housing types	1-7		
		Affordable housing	1-3		
		Additional diverse housing types			
NPDc5	Reduced Parking Footprint	All off-street parking at side or rear	1	1	Please refer to Fig. 7.
NPDc6	Connected and Open Community	Intersections/mile 300-400+	1-3		
NPDc7	Transit Facilities		1	1	Local bus facilities will be provided. BRT station is also potential at intersection of Heritage and Main (Refer to Fig. 3).
NPDc8	Transportation Demand Management	Transit Passes	1-21 points for every 2 options		
		Developer-sponsored transit			
		Vehicle sharing			
		Unbundling of parking/fees			
		Guaranteed ride home			
		Flexible work arrangements			

LEED-NDv4 Credit		Options	Possible Points	Village 3 Equivalency Points	Notes
NPDc9	Access to Civic & Public Space	90% of units and non-residential use entrances within 1/4 mile of 1 civic and passive use space	1	1	90% of dwelling units within 1/4 mile walk distance to civic and public space. There are green spaces, parks and paseos throughout Village 3 including fields at the school and park at the village core (Refer to Fig. 1).
NPDc10	Access to Recreation Facilities	1 Rec facility of 1 acre within 1/2	1	1	90% of dwelling units are within 1/2 mile walk distance to rec facilities. Individual planning areas may also include rec amenities (Refer to Fig. 1).
NPDc11	Visitability and Universal Design	20% of dwellings are a visitable unit	1		
		At least 5 Universal Design Features	1		
		Kitchen features	1		
		Bedroom/Bathroom features	1		
NPDc12	Community Outreach and Involvement	Community outreach	1		A community meeting will be held prior to project approval.
		Charrette	2		
		Endorsement Program	2		
NPDc13	Local Food Production	Neighborhood gardens	1		
		Community supported agriculture	1		
		Farmers Market within 1/2 mile walking distance	1		

LEED-NDv4 Credit		Options	Possible Points	Village 3 Equivalency Points	Notes
NPDc14	Tree-Lined and Shaded Streetscapes	Trees planted 50 oc on at least 60% of streets	1	1	For the current amendment planning areas, per the landscape architect, street trees will be planted 30-40' oc.
		Shaded sidewalks on 40% of sidewalks within 10 years	1	1	For the current amendment planning areas, the landscape architect believes this requirement could be met.
		Certification from landscape architect that trees are planted properly and not invasive	1	1	
NPDc15	Neighborhood Schools	Neighborhood school within 1/2 mile	1	1	An elementary school is located in the village core. (Refer to Fig. 1).
Green Infrastructure & Buildings					
GIBp1	Certified Green Buildings		Y/N	No	
GIBp2	Minimum Building Energy Efficiency		Y/N	Yes	
GIBp3	Minimum Building Water Efficiency		Y/N	Yes	
GIBp4	Construction Activity Pollution Prevention		Y/N	Yes	
GIBc1	Certified Green Buildings	Number of buildings certified under LEED OR other green building rating system 10-20% 1 point; 20-30% 2 points; 30-40% 3 points, 40-50% 4 points; +50% 5 points	1-5		
GIBc2	Optimize Building Energy Performance	12% above ASHRAE; OR 20% ASHRAE	1-2		

LEED-NDv4 Credit		Options	Possible Points	Village 3 Equivalency Points	Notes
		ASHRAE 50% Advanced Energy Design	2		
GIBc3	Indoor Water Use Reduction	Reduce water use 40% non-residential	1	1	CalGreen exceeded requirement at the time the original 2016 project was approved. Except for toilets, the 2019 CalGreen code is consistent with this credit requirement.
		90% of residential buildings would earn 4 points under LEED v4	1	1	CalGreen exceeded the requirement at the time original 2016 project was approved. Except for toilets, the 2019 CalGreen code is consistent with this credit requirement.
GIBc4	Outdoor Water Use Reduction	No irrigation	2		
		Reduced irrigation 30% 1 point; 50% 2 points	1-2	2	California Code exceeds requirements. Approved landscape plans meet California MWELO.
GIBc5	Building Reuse	N/A	1		
GIBc6	Historic Resource Preservation and Adaptive Reuse	N/A			
GIBc7	Minimized Site Disturbance		1		
GIBc8	Rainwater Management	Manage runoff on site 80th percentile 1 point; 85th 2 points; 90th 3 points; 95th 4 points	1-4	2	Stormwater management requirements in the San Diego Region require capture of the 85th percentile
GIBc9	Heat Island Reduction	Non-roof measures	1		
		High-reflectance and vegetated roofs	1		
		Mixed non-roof & roof measures	1		

LEED-NDv4 Credit		Options	Possible Points	Village 3 Equivalency Points	Notes
GIBc10	Solar Orientation	Block orientation	1	1	Homes approved under the 2016 SPA and TM built to 2016 standards, homes that have yet to obtain approvals will be built at a 2019 minimum standard.
		Building orientation	1	1	Homes approved under the 2016 SPA and TM built to 2016 standards, homes that have yet to obtain approvals will be built at a 2019 minimum standard.
GIBc11	Renewable Energy Production	Renewable energy production 5% - 1 point, 12.5% -2 points; 20% -3 points	1-3	1	2019 California Energy Code requires solar installation unless alternative method that is equally efficient as solar is used.
GIBc12	District Heating and Cooling	Needs to be 80% of projects annual heating and/cooling	2		
GIBc13	Infrastructure Energy Efficiency	Infrastructure to be 15% annual energy reduction	1		
GIBc14	Wastewater Management	25% of wastewater is reused on-site 1 point; 50% 2 points	1-2		
GIBc15	Recycled and Reused Infrastructure		1		
GIBc16	Solid Waste Management		1	1	CalGreen requires that a minimum of 65% of nonhazardous construction and demolition waste be either recycled or salvaged for reuse.
GIBc17	Light Pollution Reduction		1	1	Per CalGreen requirements.
Innovation & Design Process					
IDCPc1	Innovation				
IDCPc2	LEED® Accredited Professional		1	1	

LEED-NDv4 Credit		Options	Possible Points	Village 3 Equivalency Points	Notes
Regional Priority Credits					
	Regional Priority Credit: Region Defined	Rainwater Management			
	Regional Priority Credit: Region Defined	Mixed-Use Neighborhoods			
	Regional Priority Credit: Region Defined	Housing Types and Affordability			
	Regional Priority Credit: Region Defined				
Total points				40	

Figure 2: Bicycle Circulation Plan

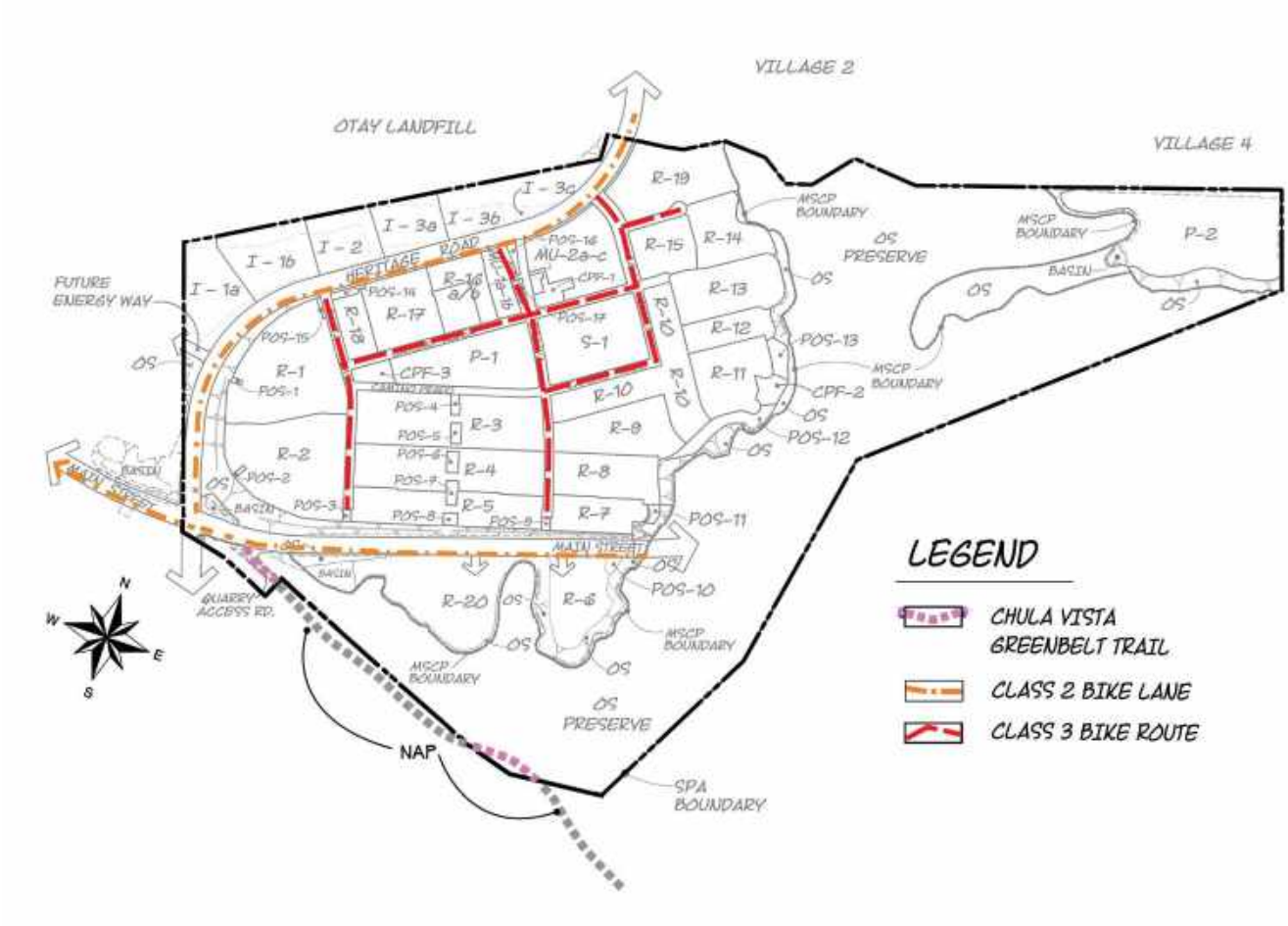


Figure 3: Transit Plan

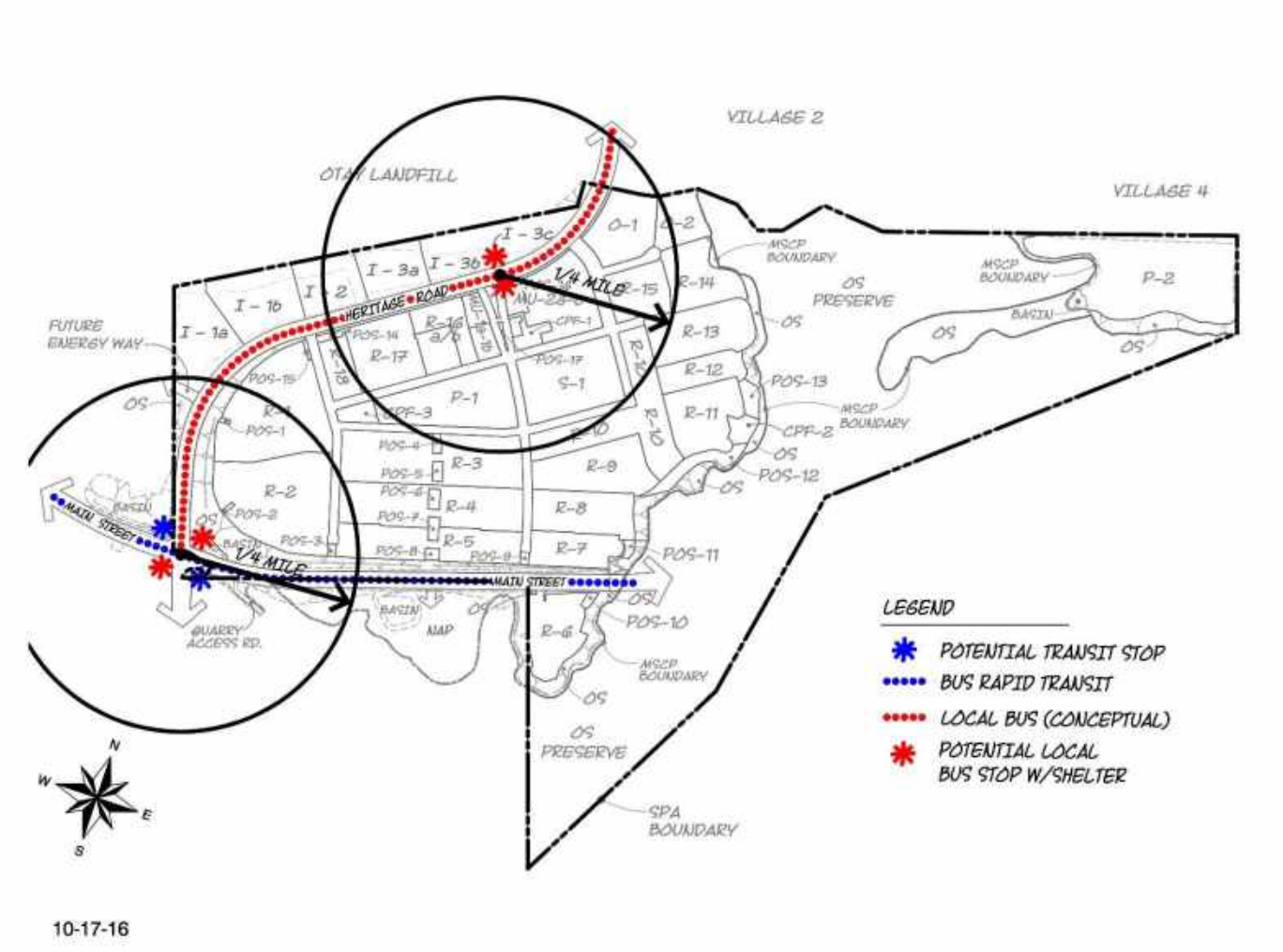


Figure 4: Pedestrian Circulation Plan

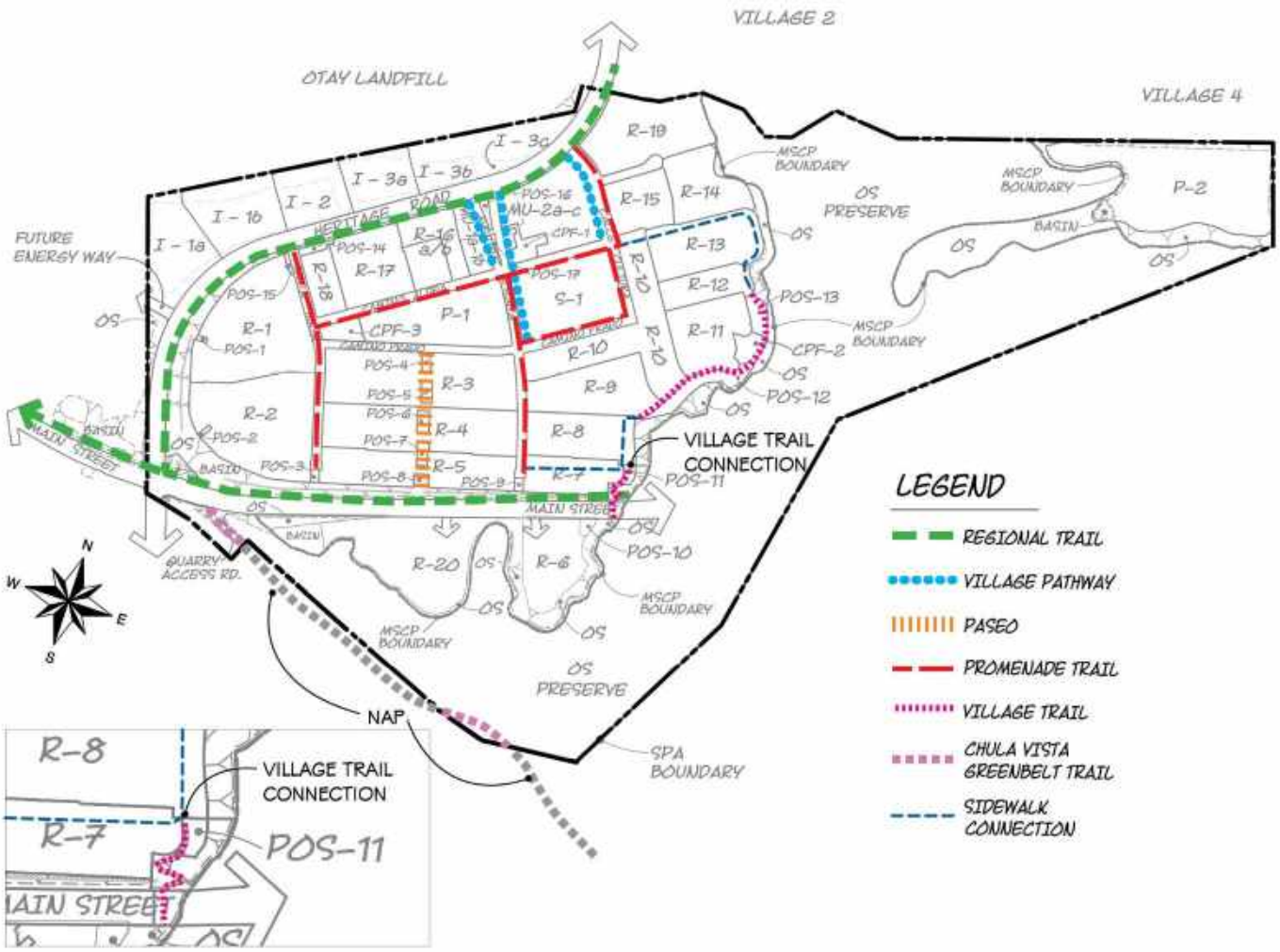
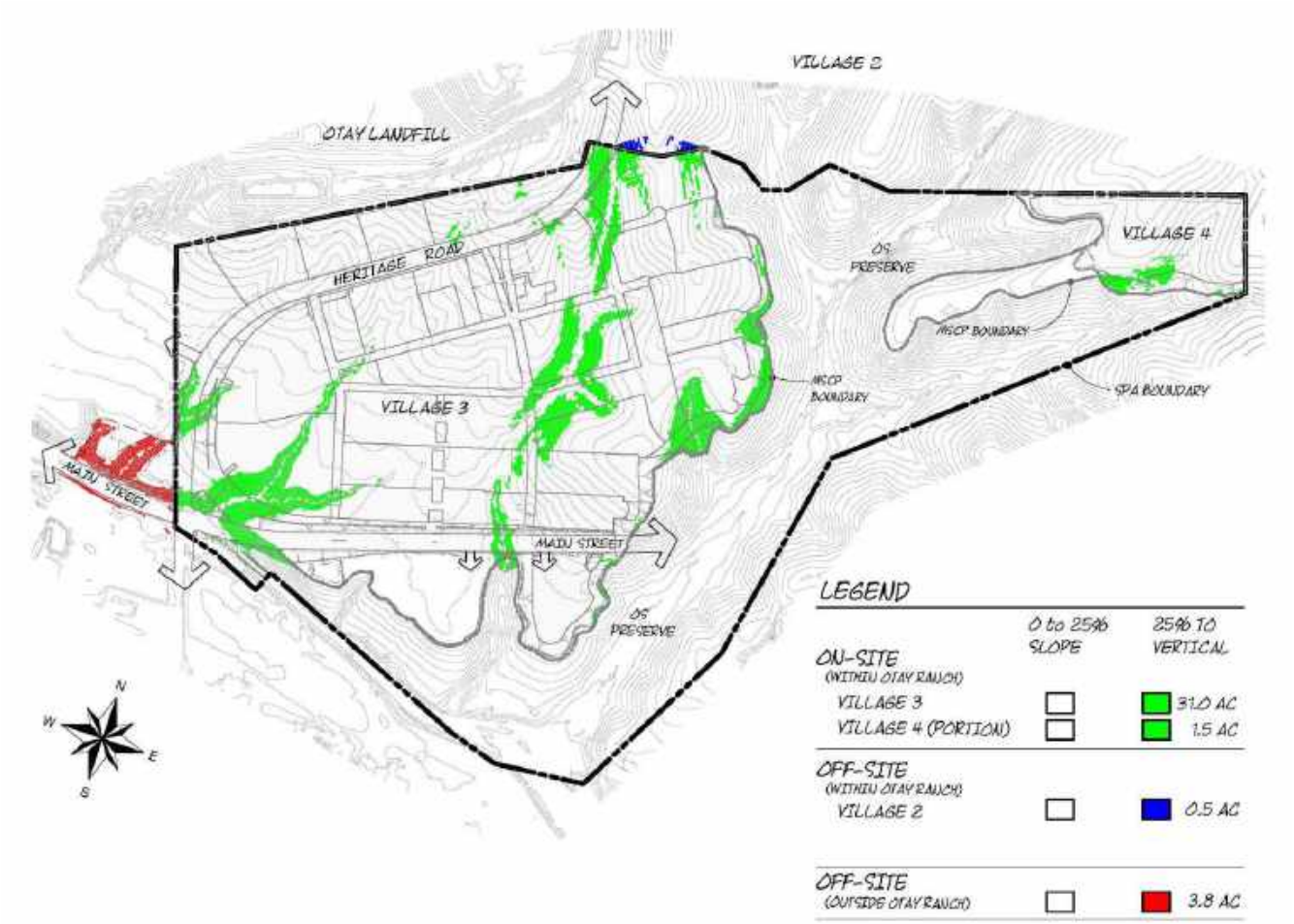


Figure 5: Steep Slopes



Note: The Project is required to convey 1.188 acres of land to the preserve for every acre of development. The steep slope preservation requirement is satisfied Otay Ranch-wide, consistent with the Otay Ranch Resource Management Plan requirements. This exhibit shows project steep-slope impacts only.

Figure 6: Development Standards (Reference for Front Setbacks)

Table 3 – Property Development Standards – Residential Districts				
	Land Use Districts			
	SF-4	RM-1	RM-2	Notes
Yards & Setbacks				
Minimum Front Yard Setback (Feet)				
To side entry (swing in) garage with or without residential above	7	DR	DR	
To main residence	7 (min)	DR	DR	
To garage	Either 7 or min 17			
To porch, patio, entry feature, or veranda	4	DR	DR	Minimum 66%, depending on number of models, shall have at least one pedestrian oriented feature (see Page 23).
To semi-private courtyard	3	DR	DR	
To front entry garage	17	DR	DR	Or minimum front yard setback must be 7' exactly

Table 9 - Property Development Standards – Industrial and Office Districts			
	Land Use District		Notes
	I	O	
Lot Criteria			
Minimum Lot Size	½ Acre	6,000 Sq. Ft.	
Front Setback (in feet)	10 Feet	10 Feet	Increased setback shall be provided for buildings over 30' in height, subject to Design Review.
Side Setback (in feet)	15 Feet	15 Feet	
Public Street Setback (in feet)	10 Feet	10 Feet	
Rear Setback (in feet)	10 Feet	10 Feet	May be reduced to zero (0) with Site Plan approval. For the purpose of this provision.
Building Height, maximum	DR	DR	Height limit for buildings to be established at Design Review.
Lot Coverage (percent, net)	70%	70%	
Floor Area Ratio	DR	.395	

E. PROPERTY DEVELOPMENT STANDARDS

The property development standards that shall apply to all land and buildings permitted in the Village Core Districts shall be those indicated on an approved Design Review application pursuant to Section 19.14.420 *et. seq.* CVMC (Site Plan and Architectural Approval Purpose – Prerequisite for Certain Uses).

Figure 7: Illustrative Site Plan

6. Community Design and Site Planning Features

Table 10: Community Design and Site Planning Features below provides an overview of the Community Design and Site Planning Features, as well as building and landscape features, which have been integrated into the Village 3 SPA Plan to create a sustainable community. These measures are based on California Air Pollution Control Officers Association (CAPCOA) Greenhouse Gas Mitigation Measures.

Table 7: Community Design and Site Planning Features

Transportation Related Measures
The Village 3 SPA land use plan locates a school, parks, and commercial land uses in proximity to residential areas to encourage pedestrian and bicycle travel as an alternative to the automobile. In addition, the Village 3 Trail and Pathway system provides alternate routes to these destinations.
Village 3 is part of the overall Otay Ranch GDP which created concentrated activity centers surrounded by supporting land uses. Village 3 includes high density multi-family in proximity to the village core and future transit stop.
The Village 3 land use plan includes narrow streets and reduced paving, which reduces heat buildup and the demand for air conditioning. Street trees are also included to provide shade and further reduce ambient air temperatures.
The Village 3 provides for future local bus services through the Village Core. In addition, there is a planned Rapid Bus transit stop in the southwestern corner of the Village 3 SPA Plan area at the intersection of Main Street and Heritage Road.
Village 3 SPA streets will provide for a maximum travel speed which allows residential streets to be also used by bicycles.
Off-street pathways and trails in Village 3 will accommodate pedestrian and bicycle travel.
R-6, R-19 and R-20 will comply with CalGreen standards for EV charging stations. Depending on the type of home, this could mean providing EV-ready garages. However, EV charging stations will be provided in the common parking area such as the recreation area parking.
Energy-Conservation Related Measures
Project will be compliant with prevailing building and energy codes at the time of permit submission.
Project-wide recycling for single-family, multi-family, school, commercial, and retail establishments will be required as required under the County's recycling ordinance and CalGreen.
For Village 3 construction that was under the 2016 approval, all private residential and commercial structures will be designed and constructed to improve energy conservation 15% above the 2008 Building Energy Efficiency Standards in Title 24 of the California Code. For Village 3 projects approved after January 1, 2020, compliance with 2019 California Energy Code is required or the code at the time of approval. The 2019 code is more stringent than the 2016 code.
Indoor residential appliances will carry the Environmental Protection Agency's (EPA) ENERGYSTAR® certification, as applicable and feasible.
California Green Building Code Title 24, Part 11 (CalGreen) requires that a minimum of 50% (2016 Code) all new construction waste generated at the site be diverted to recycle or salvage. 2019 Code will require 65% of all new construction waste generated at the site be diverted to recycle or salvage. Additionally, the State has set per capita disposal rates of 5.3 pounds per person per day for the City of Chula Vista.
CVMC 8.25.095 requires all new construction and demolition projects to divert 100% of inert waste

(asphalt, concrete, bricks, tile, trees, stumps, rocks and associated vegetation and soils resulting from land clearing from landfill disposal); and 50% of all remaining waste generated, unless partial or full diversion exemption is granted. Contractors will be required to put up a performance deposit and prepare a Waste Management Report form to ensure that all materials are responsibly handled. Upon verification that the diversion goals have been met the performance deposit will be refunded.
Landscape and irrigation to comply with California's Model Water Efficient Landscape Ordinance (MWELO).
All residential units will be part of the local utility demand response program to limit peak energy usage for cooling.
All single family structures will be designed and constructed to facilitate the installation or retrofit of photovoltaic systems.
Energy efficient lighting for streets, parks, and other public spaces will be required. Private developers will use energy efficient lighting and design.
All single-family structures will be designed and constructed to allow for installation of solar hot water heaters.
Water-Related Measures to Reduce GHGs
All landscape shall comply with CVMC § 20.12. Landscape Water Conservation requirements.
Drought tolerant, low-water usage native vegetation will be planted in public landscaped areas.
Natural turf in residential development will be limited to no more than 30% of the outdoor open space.
High-efficiency irrigation equipment, such as evapotranspiration controllers, soil moisture sensors and drip emitters, will be required for all projects that install separate irrigation water meters.
Indoor residential plumbing products will carrythe EPA's WaterSense certification and be compliant with CalGreen.

7. Chula Vista CO_2 Reduction Plan

This section provides a comparative evaluation between the community /site design features and the energy efficiency emission reduction action measure. This section provides a comparative evaluation between the community /site design features and the energy efficiency emission reduction action measures contained in the City's Carbon Dioxide CO2 Reduction plan Appendix C.

Table 8: Summary of Village 3 Consistency with CO_2 Reduction Action Measures

Action Measure	**Project/Community Design Features**	**Describe how project design will Implement CO_2 Reduction Action Measures**
Measure 6 (Enhanced Pedestrian Connections to Transit): Installation of walkways and crossings between bus stops and surrounding land uses.	Section III- Circulation of the SPA provides information on the detailed circulation network. Design features to enhance a pedestrian and multi-modal community include: Village Pathway on Street "V" connecting to local bus stop and Promenade Streets/Trails; Intersection neck-downs; Regional Trails on Main Street and Heritage Road connected to Rapid Bus stop at Heritage and Main Street intersection	Reduces vehicle-miles traveled that in turn reduces the GHG emissions. The Project will also implement the design features which will enhance the pedestrian connection to transit stops located with the SPA Plan area and the planned local and Rapid Bus stops on Main Street and Heritage Road.
Measure 7 (Increased Housing Density near Transit): General increase in land use and zoning designations to reach an average of at least 14-18 dwelling units per net acre within ¼ mile of major transit facilities.	The proposed modifications to the site utilization summary and plan provide opportunity to have residential densities above 18 du/ac within a ¼ mile of the transit stop (R-19). The proposed density for R-19 is 27 du/ac. The other changes, although outside of a ¼ mile radius to the proposed transit provides densities that also exceed 14-18 du/ac with R-6 averaging 14.0 du/ac and R-20 at 10.6 du/ac.	Reduces vehicle-miles traveled that in turn reduces the GHG emissions.
Measure 8 (Site Design with Transit Orientation): Placement of buildings and circulation routes to emphasize transit rather than auto access; also includes bus turn-outs and other transit stop amenities.	*Section II.C. Community Structure* discusses that the highest residential densities are located within and adjacent to the Village core creating opportunities for synergistic land use relationships and access to the planned Rapid Bus service on Main Street and Local Bus service on Heritage Road. Heritage Road, as well as on the internal street network. *Section III.B.2* of the Village 3 Design Plan states vehicle access should be clearly secondary to pedestrian access through street design that incorporates	These features emphasize the street and focus people toward transit stops rather than into parking lots. Visible and easy access to transit will encourage ridership. Orienting buildings toward transit and connecting stops with trails and sidewalks will provide convenience and way-finding features. The Village 3 SPA land use plan site design accommodates a centrally located mixed use core

Action Measure	**Project/Community Design Features**	**Describe how project design will Implement CO_2 Reduction Action Measures**
	narrow travel lanes and minimal driveways and curb cuts. Parking lots should be located behind buildings which front onto pedestrian-oriented streets. The Village 3 SPA transit plan also reflects that there is a centrally-located local bus stop at the village core. Building setbacks for the district regulations further encourage pedestrian/transit oriented environment.	with a transit stop which is within ¼ mile of most residents. The building setback requirements in the PC District Regulations and Village Design Plan policies provide for pedestrian-scaled building frontages to encourage walking. The local bus stop shelter will be all-weather and provide seating.
Measure 9 (Increased Land Use Mix): Provide a greater dispersion/variety of land uses such as siting of neighborhood commercial uses in residential areas and inclusion of housing in commercial and light industrial areas.	The Village Core is intended to be a mixed use environment. Further, the entire Village 3 provides for a range of uses (i.e. residential, open space, commercial/retail, school).	Reduces vehicle-miles traveled that in turn reduces the GHG emissions. The Village Core provides a mix of uses including office, commercial and park uses in a residential area, consistent with Measure 9.
Measure 10 (Reduced Commercial Parking Requirements): Lower parking space requirements; allowance for shared lots and shared parking; allowance for on-street spaces.	The SPA provides for on-street parking.	The project includes on-street parking spaces throughout the Village Core which reduces the need for large, paved parking lots.
Measure 11 (Site Design with Pedestrian/Bicycle Orientation): Placement of buildings and circulation routes to emphasize pedestrian and bicycle access without excluding autos; includes pedestrian benches, bike paths, and bike racks.	*Section II.A – Setting and Design Influences* of the Village 3 Design Plan states that Village 3 has village-serving land uses located within a grid street pattern as a basis for the pedestrian-oriented village design. The grid street pattern provides a variety of circulation routes through the village. The circulation system includes sidewalks separated from the roadway by parkways, tree-lined walkways, pedestrian-scaled lighting and other amenities. The pedestrian circulation system incorporates a network of Promenade Trails, Village Pathways and a Paseo connecting Village 3 to the City's regional trail system along Heritage Road and Main Street. *Section III.A. – Village Core Design Concept* of the Village 3 Design Plan states that there should be balance	Promotes bicycling and walking thereby reducing vehicle-miles traveled that in turn reduces the GHG emissions. The building setback requirements in the PC District Regulations and Village Design Plan policies will provide for pedestrian-scaled building frontages to encourage walking and bicycling. Bike racks will be provided at parks, the elementary school and the mixed use commercial/retail center in the village core. Garages set back from the living area of homes and are discouraged in fronts of homes on multi-family and cluster units.

Action Measure	Project/Community Design Features	Describe how project design will Implement CO_2 Reduction Action Measures
	between parking and vehicle access needs of commercial uses with the pedestrian focus within the village. *Section III.B.1 – Site Planning and Building Orientation* of the Village 3 Design Plan states that broad sidewalks should be located along pedestrian streets to allow groups to comfortably pass each other. Frequent opportunities to sit, relax and observe should be provided with the inclusion of benches, steps, planters and low walls within and adjacent to the pedestrian walk. *Section IX.A* of the Village 3 SPA notes that paths are designed with landscaped parkways between the walkways and streets, landscaping, lighting and furnishings to make the pedestrian experience pleasant and promote safety. The Village Pathway provides an off-street multi-purpose pathway for pedestrian and bicycle travel. Convenient support features, such as bus stops and bicycle racks may be provided within the core area and/or business park.	
Measure 12 (Bicycle Integration with Transit and Employment): Provide storage at major transit stops and employment areas. Encourage employers to provide showers at the place of employment near major transit nodes.	Bicycle storage per the P.C. District Regulations. CalGreen requires nonresidential buildings anticipated to generate visitor traffic to provide short-term bicycle racks within 200 feet of the visitors' entrance.	Promotes bicycling that can reduce vehicle-miles traveled that in turn reduces the GHG emissions. The P.C. District Regulations include requirements for bicycle storage and shower/changing facilities in businesses such that future employees may bike to work.
Measure 13 (Bike Lanes, paths, and Routes): Continued implementation of the City's bicycle master plan. Emphasis is to be given to separate bike paths as opposed to striping bike lanes on streets.	*Section III*-Circulation of the SPA details the circulation system in the Village. Village Pathway on Street "V", the Promenade Streets/Trails; Regional Trails on Main Street and Heritage Road all provide bike paths. *Exhibit 26 – Bicycle Circulation Plan* in the SPA reflects the Class II bike lanes on Heritage Road and Main Street as well as Class III bike routes within the Village. Village 3 also includes the Greenbelt/OVRP Trails.	Promotes bicycling that can reduce vehicle-miles traveled that in turn reduces the GHG emissions. The Village 3 SPA Circulation and Trail Plans provide for off-street bike travel on the Village Pathway, Regional Trails and within the Chula Vista Greenbelt Trail. Bike share travel lanes on Promenade Streets.

Action Measure	**Project/Community Design Features**	**Describe how project design will Implement CO_2 Reduction Action Measures**
Measure 14 (Energy Efficient Landscaping): Installation of shade trees for new single-family homes as part of an overall City-wide tree planting effort to reduce ambient temperatures, smog formation, energy use, and CO2.	*Section III.B.3 – Landscaping Design Guidelines* of the Village 3 Design Plan states Street tree planting shall comply with the City of Chula Vista Shade Tree Policy Number 576-19. The objective is to maximize shade cover to the greatest extent possible. The Village 3 street sections provide for landscaped parkways with street trees. The Water Conservation Plan identifies appropriate tree which are water efficient.	Reduces energy consumption that reduces GHG emissions.
Measure 16 (Traffic Signal & System Upgrades): Provide high-efficiency LED lamps or similar as approved by the City Engineer.	Chula Vista Public Works Department is testing the use of induction/LED lighting for public streets in a pilot program. If it is determined that one of these lighting systems is feasible on a citywide basis, the applicable lighting system will be used in Village 3.	Reduces energy consumption that reduces GHG emissions.
Measure 18 (Energy Efficient Building Recognition Program): Reducing CO2 emissions by applying building standards that exceed current Title 24 Energy Code requirements.	Project will meet code.	The updated T24 code requirements are continually more stringent to reduce energy consumption and emissions. Therefore, meeting code will inherently work towards energy efficiency and GHG reductions.
Measure 20 (Increased Employment Density Near Transit): General increase in land-use and zoning designations to focus employment-generating land-uses within ¼ mile of major transit stops throughout the City.	Mixed-use Commercial/Retail and Office adjacent to local bus stop.	Reduces vehicle-miles traveled that in turn reduces the GHG emissions The Village 3 SPA land use plan locates a commercial/retail and office center in the Village Core near the planned future local bus stop.

8. Credit Towards Increased Minimum Energy Efficiency Standards

Village 3 and the applicable portion of Village 4 will comply with CVMC Sections 15.12 and15.26 which both defer to California Code, Title 24. Title 24, Part 6 refers to the Energy Code and Part 11 refers to Green Building Standards. These code sections work toward energy efficiency in the building envelope, lighting and appliances, and landscape features.

9. Compliance Monitoring

This section includes a written description and a checklist (Table 12) summarizing the project design features and mitigation measures that have been identified to reduce Village 3 effects on air quality and improve energy efficiency.

Table 9: Village 3 Air Quality Improvement Plan Compliance Checklist

	Method of Verification[1]	**Timing of Verification**	**Responsible Party[2]**	**Project Consistency & Compliance Documentation[3]**
PLANNING				
AQIP Project Design Features/Principles				
Mixed Use Village Core	Plan Review	Tentative Map	City of Chula Vista	
Elementary School	Plan Review	Tentative Map	City of Chula Vista	
Neighborhood Park	Plan Review	Tentative Map	City of Chula Vista	
Commercial/ Retail Center	Plan Review	Tentative Map	City of Chula Vista	
Office (O-1)	Plan Review	Tentative Map	City of Chula Vista	
Local Bus Stop	Transit Review	Per SANDAG	SANDAG/City	
Rapid Bus Stop	Transit Review	Per SANDAG	SANDAG/City	
CPF-1 & 2	Plan Review	Tentative Map	City of Chula Vista	
Private Open Spaces	Plan Review	Tentative Map	City of Chula Vista	
Village Pathway – Avenida Escaya and Paseo Cultura	Plan Review	Tentative Map	City of Chula Vista	
Promenade Trails	Plan Review	Tentative Map	City of Chula Vista	
Chula Vista Regional Trail	Plan Review	Tentative Map	City of Chula Vista	
Chula Vista Greenbelt Trail	Plan Review	Tentative Map	City of Chula Vista	
Small-Lot Single Family Homes	Plan Review	Tentative Map	City of Chula Vista	

	Method of Verification[1]	**Timing of Verification**	**Responsible Party[2]**	**Project Consistency & Compliance Documentation[3]**
Alley-loaded Single Family Homes	Plan Review	Tentative Map	City of Chula Vista	
Narrower Streets	Plan Review	Tentative Map	City of Chula Vista	
Air Quality Mitigation Measures				
Construction related emissions	Permit Review	Grading Permit	City of Chula Vista	
Siting of sensitive land uses	Permit Review	Building Permit	City of Chula Vista	
TAC Emission Compliance	Permit Review	Building Permit	City of Chula Vista	
BUILDING				
Green Building Standards				
New Construction Recycling Plan	Waste Management Report Review	Construction or demolition permit	City of Chula Vista	
Space of recycling in projects	Plan Check	Tentative Tract OR Building Permit	City of Chula Vista	
Energy Efficiency Standards				
Size of dwellings units	Plan Check	Building Permit	City of Chula Vista	
Orientation of Town Center	Plan Check	Tentative Tract Final Map, Improvement Plans	City of Chula Vista	
Building compliance with prevailing code	Plan Check	Building Permit/ Title 24 Energy Report	City of Chula Vista	
Installation of energy efficient appliances as code requires	Plan Check	Building Permit	City of Chula Vista	
Indoor water fixture requirements: Hot Water Pipe Insulation Water Efficient Dishwashers (residential only) Dual Flush Toilets	Plan Check	Plumbing Permit	City of Chula Vista	

	Method of Verification[1]	**Timing of Verification**	**Responsible Party[2]**	**Project Consistency & Compliance Documentation[3]**
Installation of Pressure Reducing Valves	Plan Check	Plumbing Permit	Otay Water District	
Landscape Water Conservation	Plan Check	Landscape Plan	City of Chula Vista	
Installation of Recycled Water for street parkway landscape, parks, manufactured slopes and landscape common areas of commercial and multi-family residential sites.	Plan Check	Tentative Tract Final Map, Improvement Plans	Otay Water District/ City of Chula Vista	

Notes:

1. Method of verification may include, but is not limited to, plan check, permit review, and site inspection.

2. Identify the party responsible for ensuring compliance (City of Chula Vista, San Diego APCD, Other).

3. This column shall include all pertinent information necessary to confirm compliance including document type, date of completion, plan/permit number, special notes/comments, and contact information.

OTAY RANCH VILLAGE 3 AND A PORTION OF VILLAGE 4

Non-Renewable Energy Conservation Plan

Appendix I

March 2021

Adopted on December 2, 2014
By Resolution No. 2014-234

Amended December 6, 2016
By Resolution No. 2016-254

Amended _____
By Resolution No. _____

Prepared for:

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Table of Contents

I. Introduction

The Otay Ranch General Development Plan (GDP) requires the preparation of a Non-Renewable Energy Conservation Plan that identifies feasible methods to reduce the consumption of non-renewable energy resources. Categories identified in this Plan where reductions may occur include but are not limited to: Transportation, Building Design & Use, Lighting, Business, Recycling, Alternative Energy Sources and Land Use.

The Chula Vista region's current reliance on fossil fuels provides the majority of non-renewable energy consumption. Fossil fuels are directly consumed in the form of gasoline, diesel fuel and natural gas and indirectly as electricity generated from these fuels. The goals, objectives and policies of the GDP require that any new project identify a plan that assists in a long-range strategy that will increase the conservation of and decrease the consumption of non-renewable energy resources.

II. Non-Renewable Energy Conservation Plan

Opportunities for energy conservation in Village 3 are characterized by the following:

A. Transportation
Transportation design features that encourage energy conservation in Village 3 include:

- ***Reduced Vehicle-trip Miles:***
  On the regional level, Village 3 is designed to accommodate Bus Rapid Transit as well as local bus service. The Bus Rapid Transit stop is proposed at the intersection of Heritage Road and Main Street, and there is a local bus stop along Heritage Road that serves the Business Park and the Village 3 Residents.

  The circulation plan for the Village encourages pedestrian activity and bike access by way of the Village Pathway, an off-street paved path for bicycles and pedestrians. The design of all streets within Village 3 include sidewalks and landscaping to promote pedestrian movement. Additionally, the Village provides connections between the internal pedestrian trail network and the Chula Vista Greenbelt Trail and Regional Trail. In fact, a segment of the Chula Vista Greenbelt is located within the Village 3 SPA boundary.

  The 10' Regional Trail connects Village 3 to Village 2 along Heritage Road and Villages 4 and the Village 8 West Town Center along Main Street. The 10-ft. wide trail is designed to accommodate both pedestrians and bicyclist who wish to utilize this unique system of pedestrian/bikeway pathways, and other regional trails.

  The project also includes bike lanes on all Transportation Element roadways. A Class 2 Bike Lane is planned along both Heritage Road and Main Street, providing a strong connection from Village 3 to the City of Chula Vista Bikeway system. Class 3 Bike Lanes are accommodated throughout the Village as well.

Additional measures to promote alternative transportation use or reduce traffic congestion include: uses such as open space and an elementary school within walking distance to the majority of homes, parking lots designed to the rear or side of commercial sites to improve the aesthetics, design features that encourage walking and minimize conflicts between cars and pedestrians; appropriately scaled architecture and landscape aesthetics that are engaging and interesting from the sidewalk.

Trip reductions produce for this SPA was and are based on the internal trip capture methodology outlined in the ITE Trip Generation Handbook. As indicated in the Otay Ranch Village 3 North and a Portion of Village 4 Trip Generation Review (Chen Ryan 2020), the proposed land uses would generate approximately 20,826 daily trips, while the approved land uses would generate approximately 26,107 daily trips. The proposed land uses would therefore generate approximately 5,281 fewer trips (20.2 percent) when compared to the approved land uses. The travel behavior of the remaining land uses previously analyzed as part of the approved project would be unchanged. As a result, operational emissions (specifically those resulting from mobile sources) associated with the approved project would be reduced as compared to the prior analysis.

- ***Alternative Travel Modes***
  The GDP describes the automobile oriented improvements as only one component of an integrated mobility system, which includes bicycles, low speed electric vehicles, pedestrian trails and public transit systems. For this reason, all circulation streets in and around the SPA Plan area have been designed to minimize steep gradients wherever possible. The village has trails and sidewalks throughout, providing connectivity and access within the village and outside of the village using means other than an automobile.

  Furthermore, any single-family homes and townhomes with private garages built after 2020 will include Electric Vehicle (EV) - Capable infrastructure enabling electric vehicle charging. Common area parking will also include charging stations as required by Code.

- ***Increase Use of Transit***
  Village 3 has higher density homes that are close to transit and pedestrian/bicycle trails. Enabling safe walking and biking environments as well as convenience to the transit stops (local and BRT) encourages transit use. Village 3 has done this by their land use planning and by the design of the streets and trails.

- ***Roadway Pavement Widths and Street Trees***
  Otay Ranch street sections are narrower than typical standards. Narrow streets and a reduction in asphalt pavement reduce the "urban heat-island effect" by limiting the number of reflective surfaces and the demand for air conditioning. Street trees provide shade which further reduces heat-gain. Street and parking lot tree planting shall comply with the City of Chula Vista Shade Tree Policy Number 576-19 (May 22, 2012). The objective is to maximize shade cover to the greatest extent possible. Shade trees are provided for all new parking lots that will achieve 50% canopy cover over the parking stall areas five to 15 years after planting. Shade street trees are also designed into village landscape plan reducing pavement temperatures in the hotter months.

B. Building Design & Use

Building design & use features that encourage energy conservation in Village 3 include:

- ***Housing Efficiency***
  Village 3 is comprised of smaller detached homes and attached buildings which use less energy for heating and cooling than larger, single-family detached homes. In addition, the small-lot single family homes have a smaller area of landscaping than typical single-family lots, which reduces the amount of water used for irrigation. The amendment purpose is to incorporate greater densities into the Village 3 area. R-6 is changing from "single family" to "high residential," R-19 is changing designation from office to "high residential," and R-20, which is a new addition to the Village 3 boundary will also permit "high residential".

- ***Solar Orientation***
  Passive solar design including the orientation of buildings can take advantage of the sun's warmth in winter to assist with heating as well as minimize heat gain in summer months to assist with cooling. Village 3 was designed to accommodate 2016 standards, however anything that still requires permits will have to comply with the 2019 Energy Code or the code cycle at the time of approval. The 2019 Energy Code uses a baseline home with a PV system, all homes being submitted for building permit approval will be compared against this baseline home, which includes all low-rise single family and multifamily buildings. With the code requirement, it is likely that all low rise single family and multifamily homes will utilize PV systems, unless the building qualifies for an exception. The minimum qualifying size of the PV system is based on the projected annual electrical usage with the goal of generating the same amount of energy that the home consumes. With the assumption of increase solar usage, the 2019 California Energy Code has expanded the preferred solar access zone which provides a greater range of effective rooftop orientation.

- ***Building Efficiency***
  The majority of Village 3 was built under the 2016 SPA approval, using Title 24, Part 6 of the California Building Standards Code regulates energy uses including space heating and cooling, hot water heating, and ventilation. The energy code allowed new buildings to meet a "performance" standard that enables a builder to choose the most cost-effective energy saving measures to meet the standard. These choices include:

  - Quality insulation installation
  - Low thermal emissivity windows
  - Radiant barriers
  - Cool roofs
  - High-efficiency HVAC systems
  - Alternative heating and cooling systems
  - Efficient water heating systems
  - Efficient lighting systems

  The modified planning areas that are the subject of this Amendment, will fall under the 2019 California Building and Energy Code at minimum. According to the California Energy Commission, "single-family homes built with the 2019 standards will use about 7

percent less energy due to energy efficiency measures versus those built under the 2016 standards. Once rooftop solar electricity generation is factored in, homes built under the 2019 standards will use about 53 percent less energy than those under the 2016 standards. This will reduce greenhouse gas emissions by 700,000 metric tons over three years, equivalent to taking 115,000 fossil fuel cars off the road.

Nonresidential buildings will use about 30 percent less energy due mainly to lighting upgrades. In addition, nonresidential buildings will be solar ready and compliant with applicable codes from Title 24, Part 6 and Part 11.

The City of Chula Vista has adopted Green Building Standards (CVMC Chapter 15.12) and an Energy Efficiency Ordinance (CVMC Section 15.26) that requires compliance with the current Title 24 Part 11 and Part 6, respectively.

- ***Water Conservation***

  Water-related energy use consumes 19 percent of California's electricity, 30 percent of its natural gas and 88 billion gallons of diesel fuel every year. The water-related energy use includes water and wastewater treatment as well at the energy needed to transport the water from it source (either northern California or the Colorado River.)

  Village 3 built under the 2016 approval complied with the following requirements:

  The Village 3 North and a Portion of Village 4 SPA Plan included a Water Conservation Plan which outlines strategies to reduce water use inside and outside of the built environment. The Village 3 and a Portion of Village 4 Water Conservation Plan Update was prepared by Dexter Wilson Engineering (May 2020) to address the proposed changes to Village 3. These strategies include the following requirements:

  Indoor Water Conservation

  - Plumbing fixtures and fixture fittings shall comply with the current California Energy Code.

  Outdoor Water Use

  - Outdoor water use shall comply with the requirements of current California Green Building Standards Code.

  - Controllers for landscaping provided by the builder and installed at the time of final inspection shall comply with the following:

    - Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.

    - Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.

Village 3 projects that are approved after January 1, 2020:

In compliance with the 2019 CALGreen Code and CVMC 15.12, all residential units will be required to have:

- Hot Water Pipe Insulation
- Water Efficient Dishwashers
- Dual Flush Toilets
- Water Efficient Landscape and Irrigation

- ***Use of Energy Efficient Appliances***
  Homes and other buildings built under the 2016 approval were built in compliance with the applicable California Energy Code Requirements at the time approval. Homes and other buildings built after January 1, 2020 will comply with the 2019 California Energy Code or with the applicable code cycle at the time of approval.

- ***Use Improved Construction Standards***
  Residential and commercial construction within Village 3 is required to adhere to the Energy Efficiency Standards of the City of Chula Vista Municipal Code Section 15.24, 20.04 and the Building and Energy Efficiency Standards in Title 24 Part 6 of the California Code of Building Regulations.

- ***Use of Solar Energy Systems***

  Village 3 built under the 2016 approval complied with the following requirements:

  Passive solar design and building orientation can take advantage of the sun in the winter for heating and reduce heat gain and cooling needs during the summer. See the discussion above regarding community. Village 3 and a portion of Village 4 will also comply with the City of Chula Vista's "Solar Ready" Ordinance which requires solar hot water pre-plumbing (CVMC Section 20.04.030) and photovoltaic pre-wiring requirements (CVMC 20.04.040). These requirements facilitate future installation of solar hot water systems and roof top photovoltaic panels.

  Village 3 that will be built after January 1, 2020 will comply with the following requirements and the California Energy Code requirements at the time of approval which may require use of PV systems rather than simply solar-ready.

  Chula Vista Municipal Code Section 20.04.040 requires all new residential units to include plumbing specifically designed to the later installation of a system that utilizes solar photovoltaic or other renewable energy resource as a means of generating electricity.

  New buildings will be designed to be photovoltaic ready. This includes providing space on the roof surface and penetrations through the roof surface with a minimum one-inch conduit from the electrical service equipment for the future roof installation to provide for a PV system.

At minimum, all projects being approved under the Village 3 and Portion of Village 4 SPA Amendment will be required to meet the 2019 California Energy Code.C. Lighting

Energy efficient lighting will be used to light streets, parks and other public spaces. All residential and commercial use lighting is and will need to comply with current California Energy Code requirements.

- **Energy Efficient Public Lighting**
  Standards for Village 3 will comply with Title 24, Part 6 requiring the use of energy efficient lighting in commercial public areas including plazas and parks. The proposed project will also comply with Title 24, Part 11 regarding light pollution reduction.

  The City of Chula Vista Public Works Department has installed 16,000 LED lights in the City that use 1/3 the electricity without reducing lighting levels and impacting public safety. The applicable lighting system will continue to be used in Village 3.

D. Recycling

Residential and Commercial Recycling programs in Village 3 include:

- Building built under the 2016 approval comply with the 2016 CALGreen Building Codes.

Projects approved after January 1, 2020 will be require:

- Chula Vista Municipal Code Sections 8.23-25 requires all commercial and industrial establishments that recycle with a third-party recycler to submit recycling tonnage documentation on an annual basis to the City's conservation coordinator, due on or before January 31st, for the previous year. Those establishments recycling with a franchised hauler do not need to report because the hauler does the reporting to the City. This requirement promotes recycling of materials.

  The City of Chula Vista's Recycling and Solid Waste Planning Manual, adopted by City Council, provides information for adequate space allocated to recycling and solid waste within individual projects, based upon the type of project and collection service needed.

  Additionally, the City of Chula Vista encourages the use of compost materials to be incorporated into the soil of all new construction projects to improve soil health, water retention, less water runoff and filtration of water run-off prior to entering storm drains and creeks on the way to San Diego Bay. The yard trimmings collected in Chula Vista are composted at the Otay Landfill and may be available for purchase.

- **New Construction Waste Reduction**
  California Green Building Code Title 24, Part 11 (CALGreen) requires that a minimum of 65% all new construction waste generated at the site be diverted to recycle or salvage. Additionally, the State has set per capita disposal rates of 5.3 pounds per person per day for the City of Chula Vista. To maintain these targets the following programs must be implemented per Chula Vista Municipal Code Sections 8.23 Solid Waste and Recycling Contract or Franchise; 8.24 Solid Waste and Litter; 8.25 Recycling and 19.58.340 Trash Enclosures:

All new construction and demolition projects in the City are required to divert from landfill disposal 100% of inert waste to include asphalt, concrete, bricks, tile, trees, stumps, rocks and associated vegetation and soils resulting from land clearing; and 50% of all remaining waste generated. Contractors will be required to put up a performance deposit and prepare a Waste Management Report form to ensure that all materials are responsibly handled. Upon verification that the diversion goals have been met the performance deposit will be refunded. CVMC 8.25.095.

E. Land Use

Land use patterns and project features that conserve non-renewable energy resources and reduce the reliance on the automobile Village 3 include:

- ***Reduce the Reliance on the Automobile***

  The vision for Village 3 is to develop a community with inter-connected uses and densities. The mix of proposed residential, commercial and community uses are intended to provide a complementary, mixed-use environment with a focus on promoting a walkable and bikeable community that reduces automobile trips.

  The Village has sidewalks and trail throughout as well as public transit stops. The various opportunities encourage walking or biking rather than driving. The trails also connect to the larger regional system as does the transit, thus enabling transit use beyond the Village itself.

  Per the Otay Ranch Village Three Project – Air Quality and Greenhouse Gas Update (Dudek 2020), the proposed Village 3 and Portion of Village 4 Amendment would reduce the daily trips by 20% as compared to the 2016 approved project.

- ***Regional Mass Transit Facilities***

  Otay Ranch and Village 3 are designed and ready to accommodate public transportation and alternative travel modes to reduce energy consumption. Village 3 is designed with a local bus stop and Bus Rapid Transit to accommodate connection to the region. In conformance with General Plan policy, public transportation is an integral part of Otay Ranch. The Village 3 plan has responded by providing such public transit facilities.

  The current regional transit plan includes transit lines on East "H" Street, East Palomar Street, La Media Road and Eastlake Parkway as well as a transit route on La Media Parkway with a transit stop planned at La Media Parkway and Birch Road. Transit stations are planned to be located approximately five to six miles apart with the nearest station to Village 8 West located in the Eastern Urban Center. In conformance with the General Plan, a future transit line also is located on Main Street and two transit stops are planned in the Village 8 West Town Center, one along west-bound Main Street and one along east-bound Main Street. The actual transit plan will be developed in conjunction with SANDAG. Specific access points as well as the internal circulation for bicycle riders and pedestrians and exact roadway crossings will be approved during the Tentative Tract Map (TM) process.

UNIVERSITY VILLAGES

Otay Ranch Village 3 and a Portion of Village 4

Preserve Edge Plan

Appendix D

ADOPTED DECEMBER 2, 2014
BY RESOLUTION NO. 2014-234

AMENDED DECEMBER 6, 2016
BY RESOLUTION NO. 2016-254

AMENDED _____
BY RESOLUTION NO. _____

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EXHIBIT LIST

A. INTRODUCTION

The purpose of the Preserve Edge Plan is to identify allowable uses within appropriate land use designations for areas adjacent to the Otay Ranch Preserve. In accordance with Policy 7.2 of the Otay Ranch Resource Management Plan, a Preserve Edge Plan is to be developed for all SPA Plans that contain areas adjacent to the Preserve. The Preserve Edge is a 100-foot wide area within the development area adjacent to the Preserve. To provide further guidance relating to the content of the Preserve Edge Plan, the Chula Vista MSCP Subarea Plan contains policies related to land use adjacency. Otay Ranch GDP, RMP and Chula Vista MSCP Subarea Plan policies are summarized and evaluated below. Areas subject to the Preserve Edge Plan requirements are depicted on Exhibit 1 and further described below.

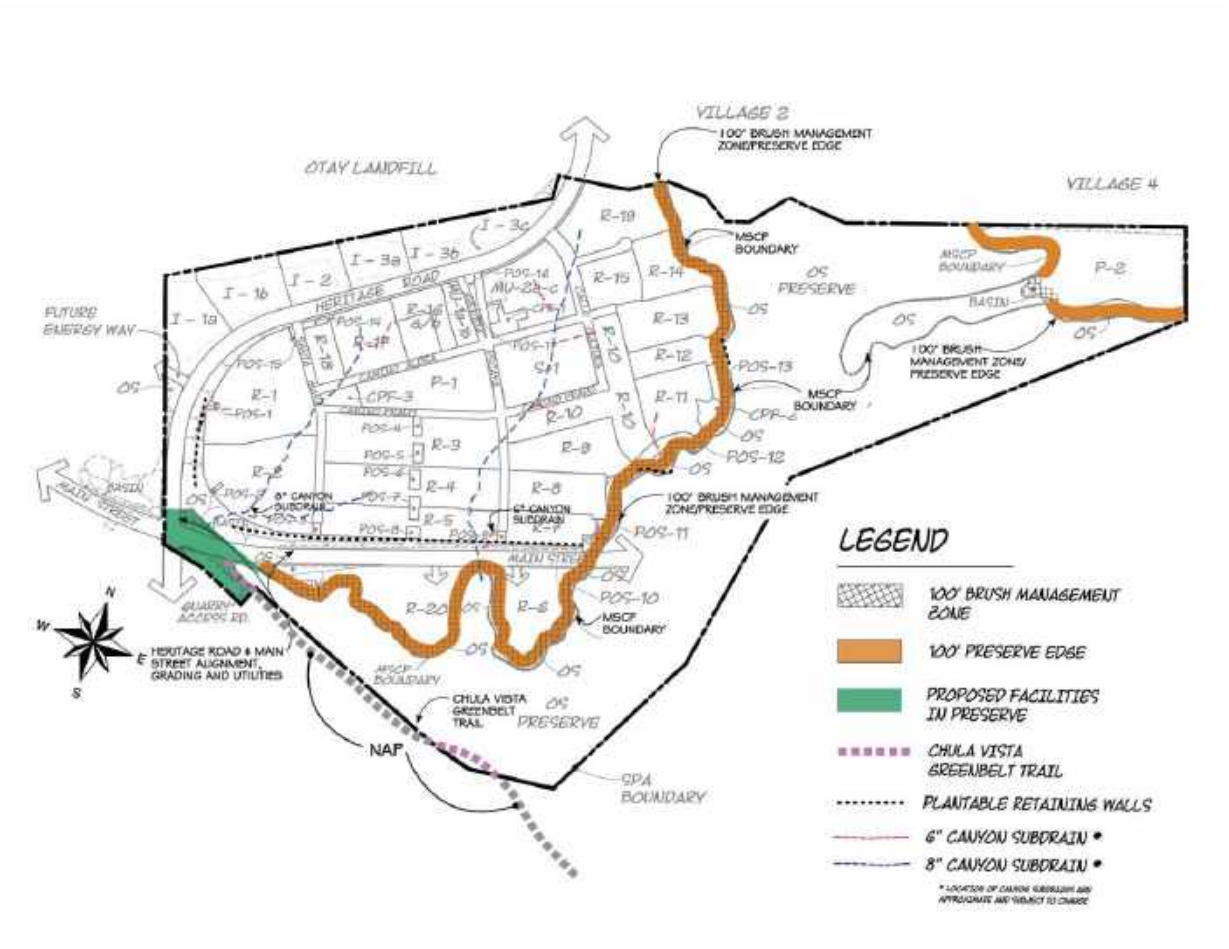


Exhibit 1
Areas Subject to the Preserve Edge Plan and Facilities Proposed in the Preserve

B. FACILITIES AND IMPROVEMENTS PROPOSED WITHIN THE PRESERVE

The facilities described below and depicted on Exhibit 1 are proposed within the MSCP Preserve and are not subject to this Preserve Edge Plan, but rather are discussed for context purposes only. Per the MSCP Subarea Plan, certain infrastructure and roads planned in conjunction with development will be allowed to be constructed, operated and maintained within the Preserve. The Subarea Plan anticipated these "Planned" and "Future" facilities and requires compliance with the siting criteria identified in Section 6.3.3.4 or the Subarea Plan. The Project's Biological Report provides the siting criteria analysis. Facilities proposed within the Preserve include:

1. Pedestrian and Vehicular Access Facilities

The Village 3 and a Portion of Village 4 SPA Plan ("Project") includes the extension of Main Street and Heritage Road through the Project site. In conjunction with the extension of Main Street, modifications to the off-site Quarry Access (Wiley Road) are also proposed (Refer to Exhibit 2).

a. Both Main Street and Heritage Road are 6-Lane Prime Arterials on the Chula Vista General Plan Circulation Element. These roadways are identified on Table 6.1 of the Chula Vista MSCP Subarea Plan as "Planned Facilities." In addition to roadway improvements, utilities are co-located within the right-of-way to serve both Village 3 and portions of Village 2. The Project's Biological Technical Report includes a detailed analysis of the Heritage Road and Main Street grading impacts as they relate to the MSCP Planned and Future Facility Siting Criteria.

b. The Quarry Access (Wiley Road) located off-site south of Village 3 has been redesigned to intersect with Main Street east of Heritage Road. This two lane improved road serves the existing Otay Valley Quarry and has been designed at the steepest gradient physically possible in order to minimize grading impacts on the Preserve. The Project's Biological Report includes a detailed analysis of the impacts as they relate to the MSCP Planned and Future Facility Siting Criteria.

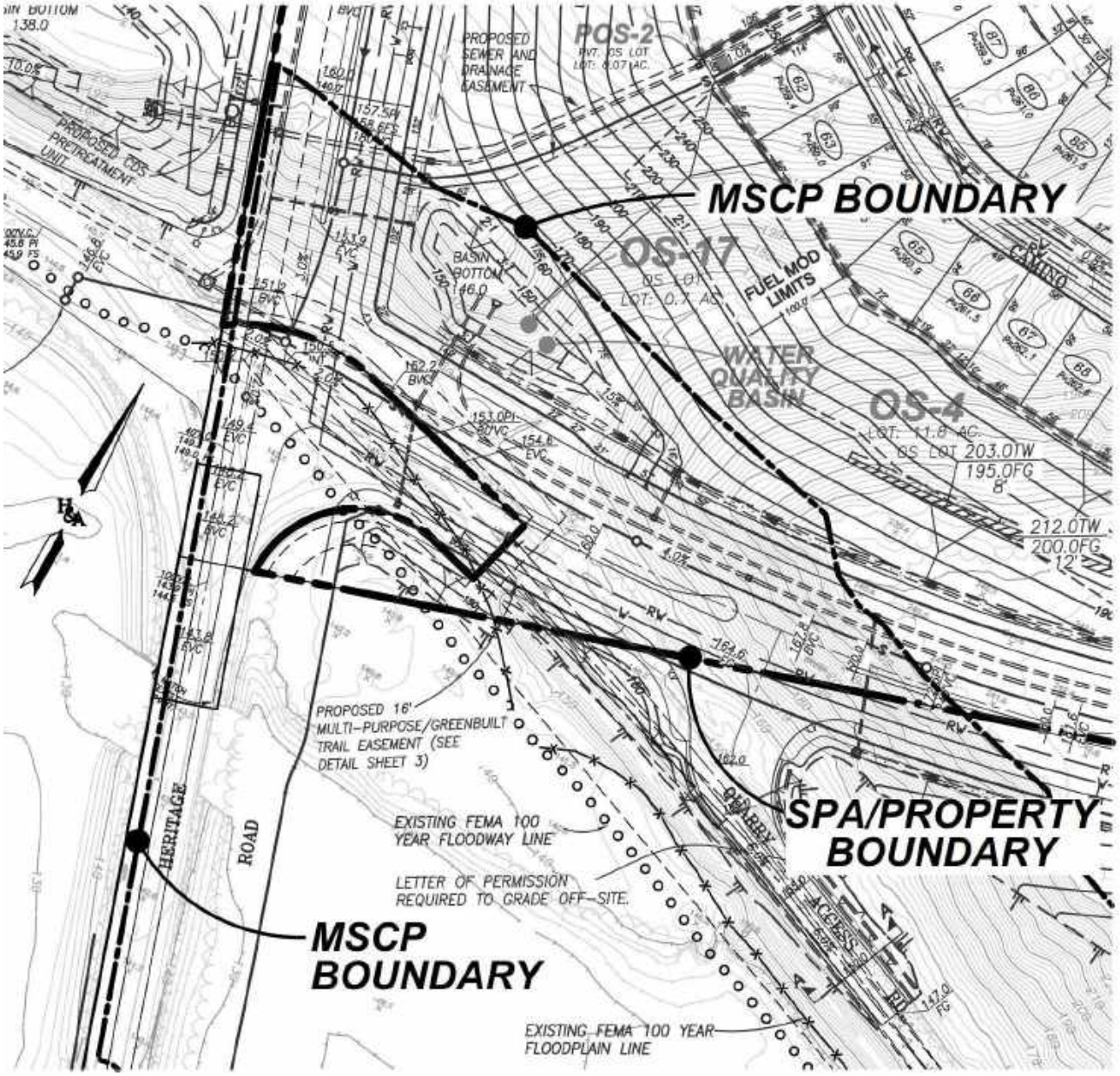


Exhibit 2
Heritage Road/Main Street, Off-site Quarry Access Facility within the Preserve

c. The Chula Vista Greenbelt/OVRP Trail is co-located within the existing Salt Creek Sewer Easement on the north side of the Otay River Valley, south of Village 3. Village 3 includes two a small segments of this trail (289') located south of Village 3, within the MSCP Preserve. This trail is a Planned Facility within the MSCP Subarea Plan. Physical implementation of this trail facility would not create any additional impacts on the MSCP Preserve. See Biological Report for MSCP adjacency analysis.

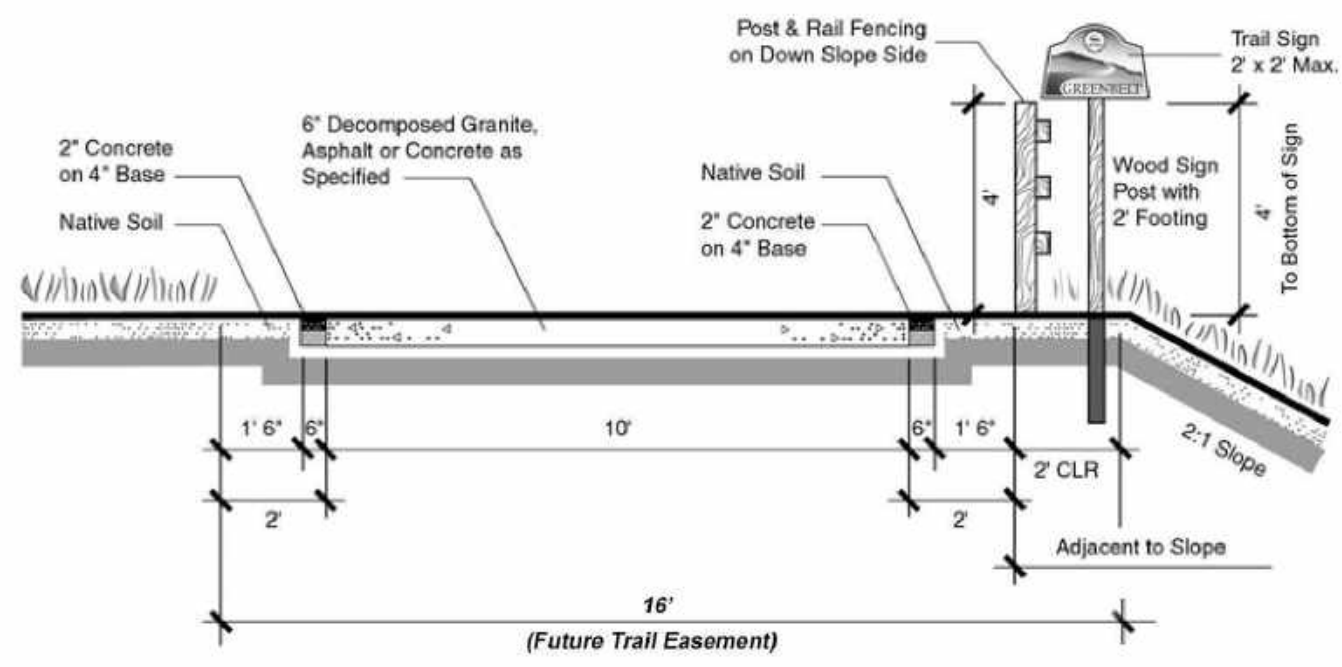


Exhibit 3
Chula Vista Greenbelt Trail

C. FACILITIES PROPOSED WITHIN THE 100-FOOT PRESERVE EDGE

Several facilities are proposed within the 100' Preserve Edge as depicted on Exhibit 1 and described below:

1. Residential Street

Portions of a residential street at the Project perimeter is proposed within the 100' Preserve Edge. These improvements include two travel lanes, parking and sidewalks. Post and rail fencing is provided outside the right-of-way, behind the planting area/sidewalk. Standard City streetlights are also proposed along these residential streets. Lighting within the 100' Preserve Edge is subject to the Village 3 Design Plan, Exhibit 44, Lighting within the 100' Preserve Edge.

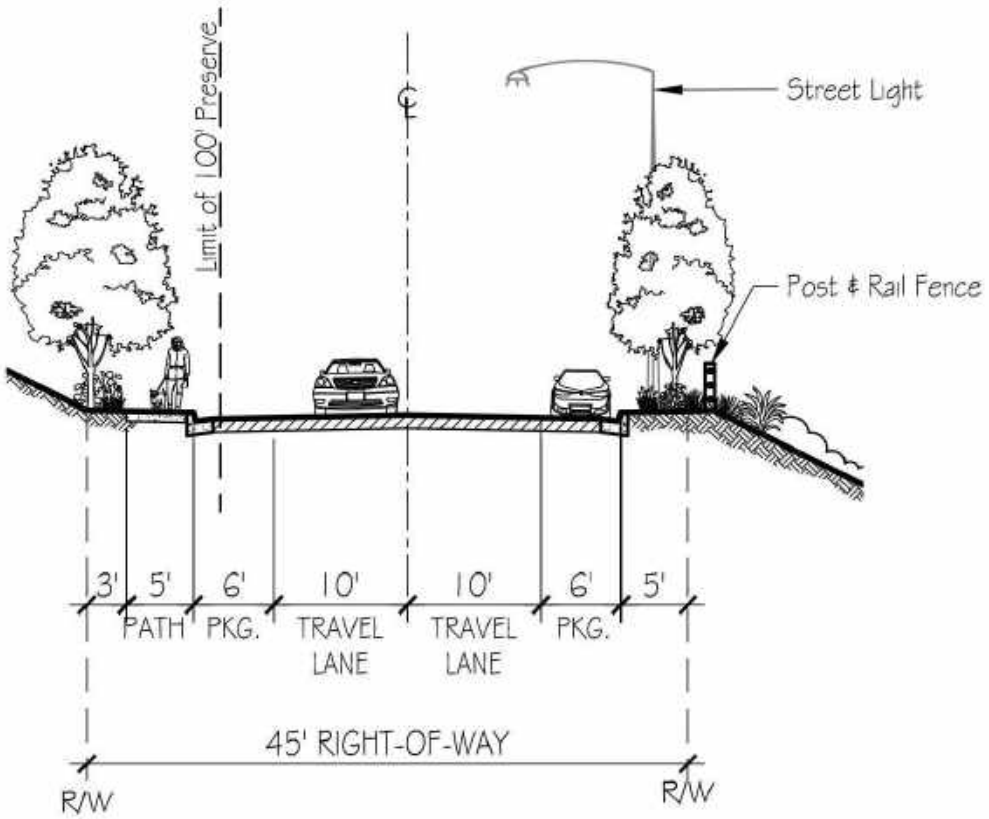


Exhibit 4
Private Residential Street Section)

2. Perimeter Open Space Plan

A comprehensive plan for the eastern perimeter of Village 3 is comprised of portions of the parcels and neighborhoods depicted below on Exhibit 5, Perimeter Open Plan Space Key Map. Conceptual designs for each area are provided below in Exhibits 6 to 12c. Pursuant to the Otay Ranch Phase 2 RMP, "No structures other than fencing and walls shall be allowed within 100-feet Preserve Edge. Perimeter fences and walls within the 100-foot Preserve Edge shall be built and landscaped to minimize visual impacts on the Preserve and the Otay Valley Regional Park." Landscape plans for areas adjacent to the MSCP Preserve must be consistent with the "Approved Plant List" (Attachment A) and the Preserve Edge Plan landscaping and irrigation requirements. Any proposed use within the Preserve Edge shall be subject to review and approval of the Development Services Director. Post & rail fencing and signage will be implemented along the outer edge of the Perimeter Open Space Plan area. A full-sized Conceptual Village 3 Perimeter Plan is also attached to the Preserve Edge Plan for reference.

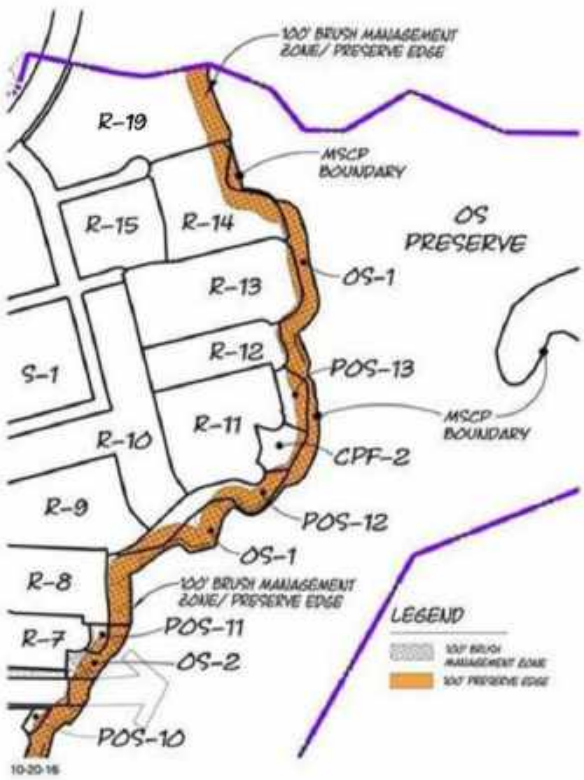


Exhibit 5
Perimeter Open Space Plan Key Map

a. Multi-Family Residential (R-19)

Passive recreational facilities, including pedestrian trail and seating areas with benches are proposed within the 100' Preserve Edge within the R-19 Multi-Family Parcel. The conceptual design is presented below in Exhibit 6.

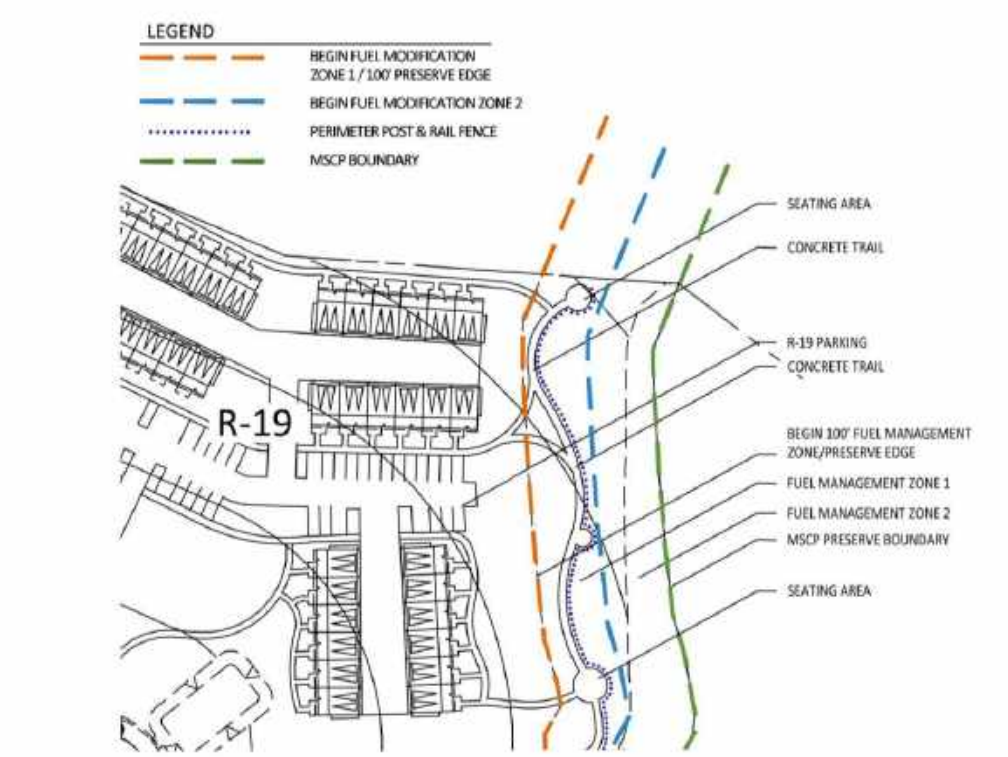


Exhibit 6
Preserve Edge @ Residential (R-19) Concept Plan

Note: Exhibit 6 was prepared based on a conceptual site plan for R-19. Proposed uses within the 100' Preserve to be finalized during Design Review, subject to Development Services Director, or their designee, review and approval.

b. Multi-Family Residential (R-14)

The R-14 portion of the Perimeter Open Space Plan includes passive recreation areas comprised of a trail and central seating areas. Landscape mounding and naturalized landscaping creates a transition between the passive recreation area and the natural open space areas within the Preserve. Post and rail fencing is planned along the trail and edge of the parking areas. Two small parking areas and an entry driveway are also proposed. The conceptual design is depicted below in Exhibit 7.

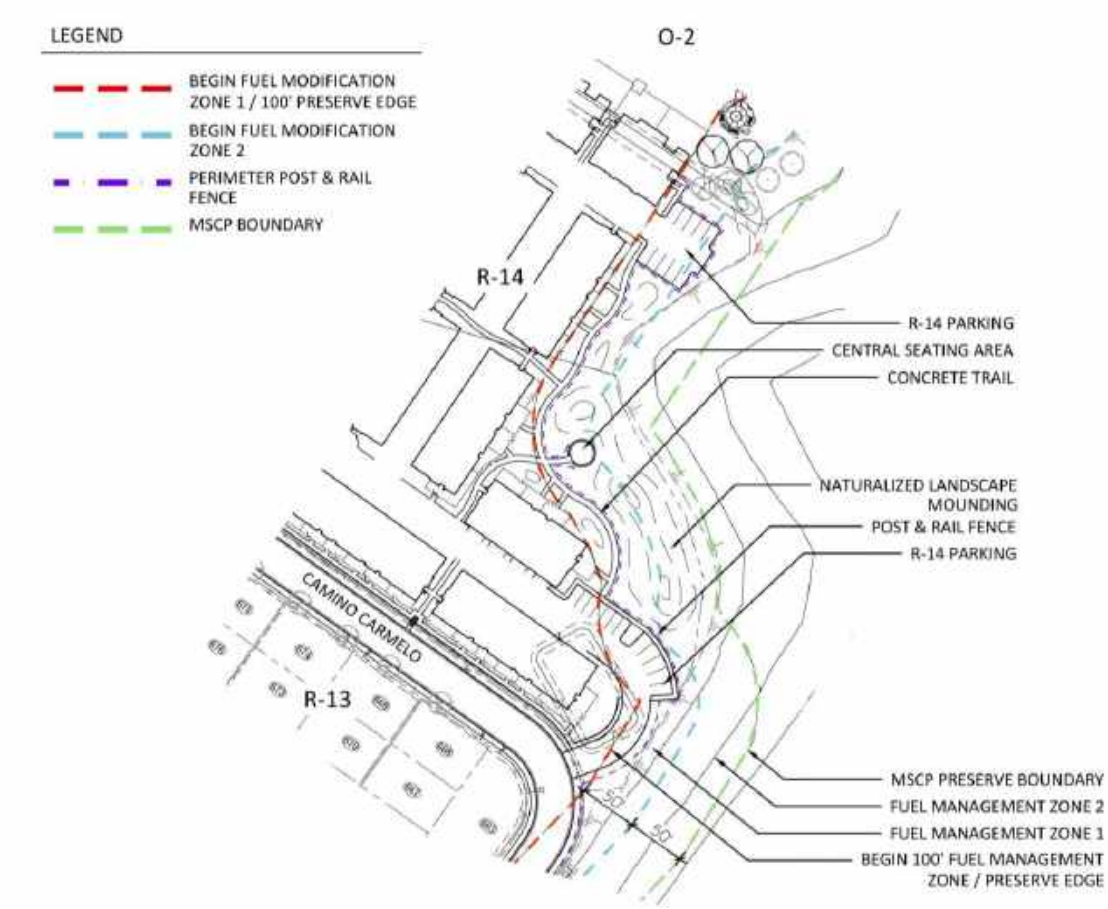


Exhibit 7
Preserve Edge @ Multi-Family Residential R-14 Concept Plan

c. Residential Street at R-12 and R-13

Portions of a Residential Street (See Exhibit 4) and proposed within the Preserve Edge adjacent to the R-12 and R-13 single family detached neighborhoods. Improvements include travel lanes, a sidewalk on one side, parking lanes, City of Chula Vista standard street lights and a post and rail fence. Lighting is directed away from the Preserve per the Village Design Plan, Exhibit 44, Lighting within the 100' Preserve Edge. This segment of the Perimeter Open Space Plan is depicted below in Exhibit 8.

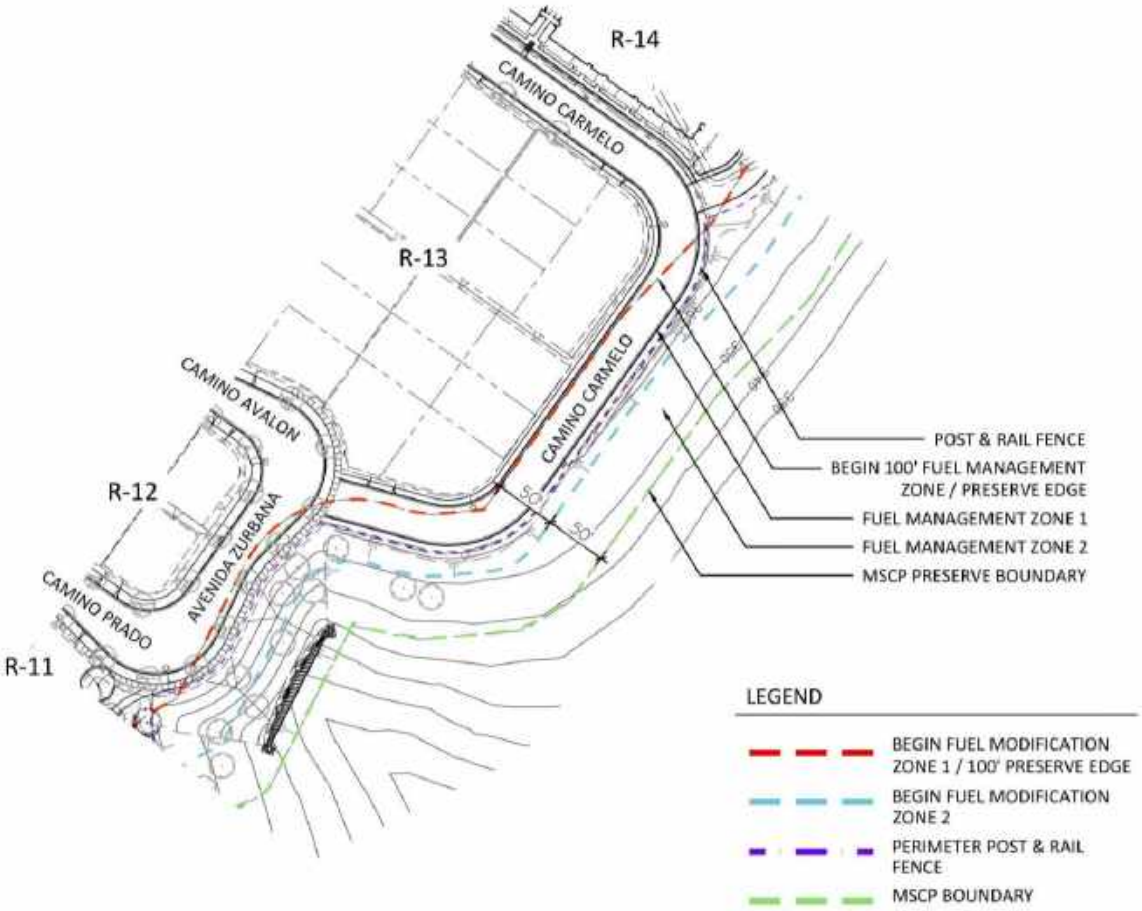


Exhibit 8
Preserve Edge @ R-12 and R-13 Concept Plan

d. Private Recreation Facility (POS-13)

A portion of the Private Recreation Facility planned in the POS-13 lot is within the 100' Preserve Edge. Improvements include passive recreation uses including a 6' wide D.G. trail and bench seating. Landscape mounding and naturalized landscaping create a transition between the passive uses and the adjacent Preserve area. A post and rail fence at the edge of grading and will create a barrier. The conceptual design is depicted below in Exhibit 9.

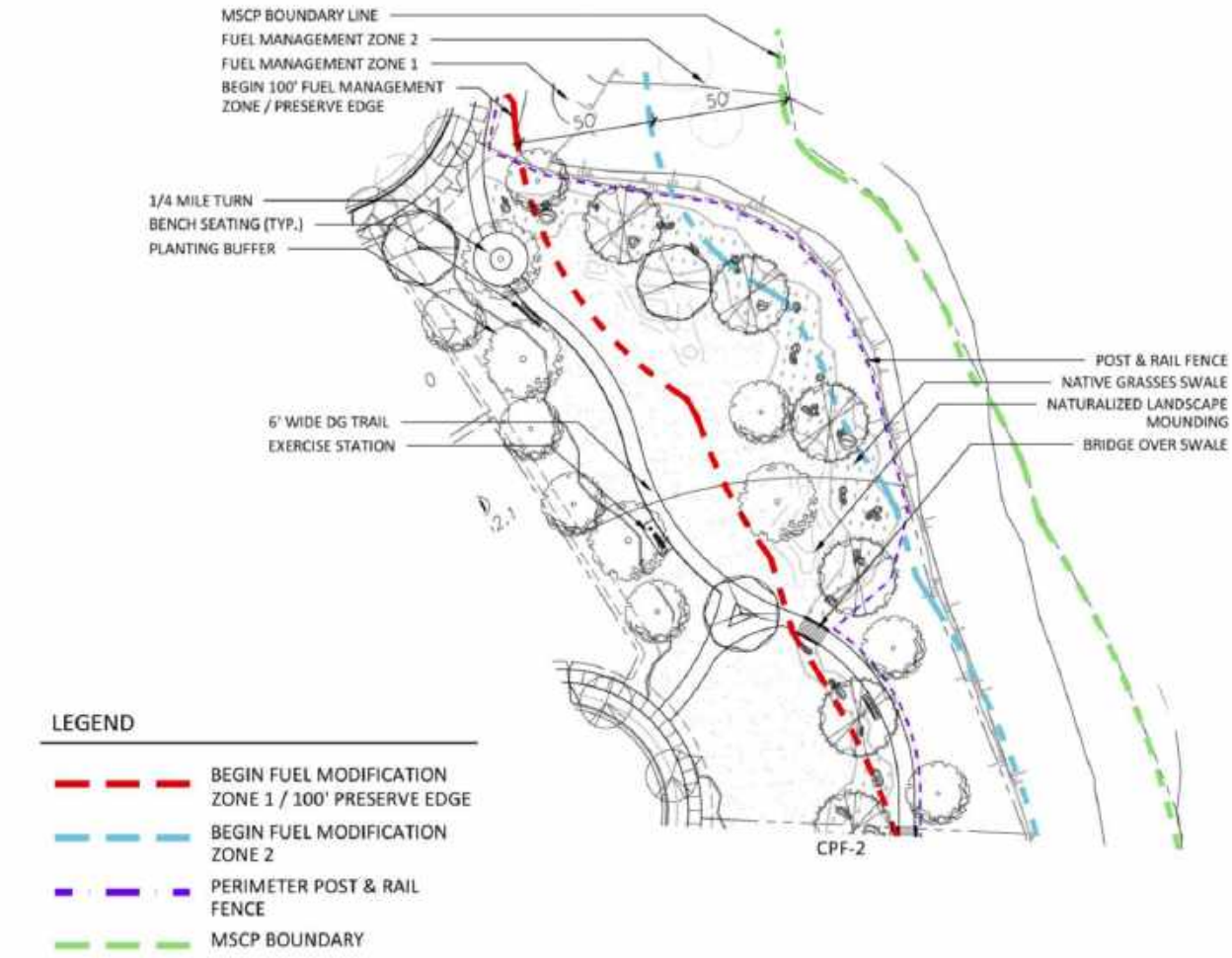


Exhibit 9
Preserve Edge @ POS-13 Concept Plan

e. Private Recreation Facility (CPF-2)

A portion of the Private Recreation Facility planned within the CPF-2 lot is within the 100' Preserve Edge. Improvements include a 6' wide D.G. trail and bench seating. Landscape mounding and naturalized landscaping create a transition between the passive uses and adjacent Preserve area. A post and rail fence is planned along the Village Trail. The conceptual design is depicted below in Exhibit 10.

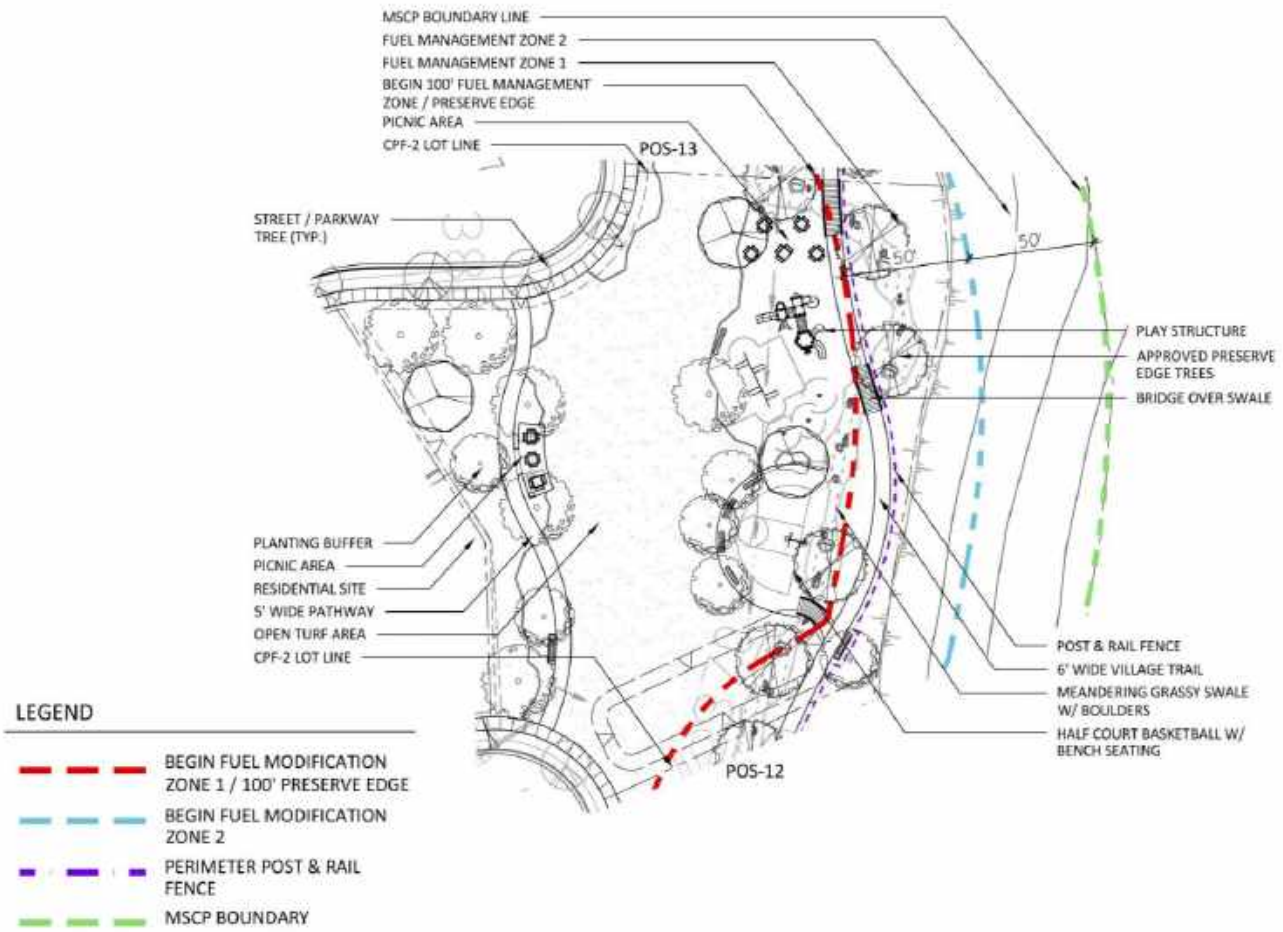


Exhibit 10
Preserve Edge @ CPF-2 Concept Plan

f. Private Recreation Facility (POS-12)

A portion of the Private Recreation Facility planned within the POS-12 lot is within the 100' Preserve Edge. Improvements include a 6' wide D.G. trail and bench seating. Landscape mounding and naturalized landscaping create a transition between the passive uses and adjacent Preserve area. Post and rail fencing is planned along the trail. Open space interpretive signage is also planned within this area. A plantable retaining wall is also within the POS-12 lot. The conceptual design is depicted below in Exhibit 11.

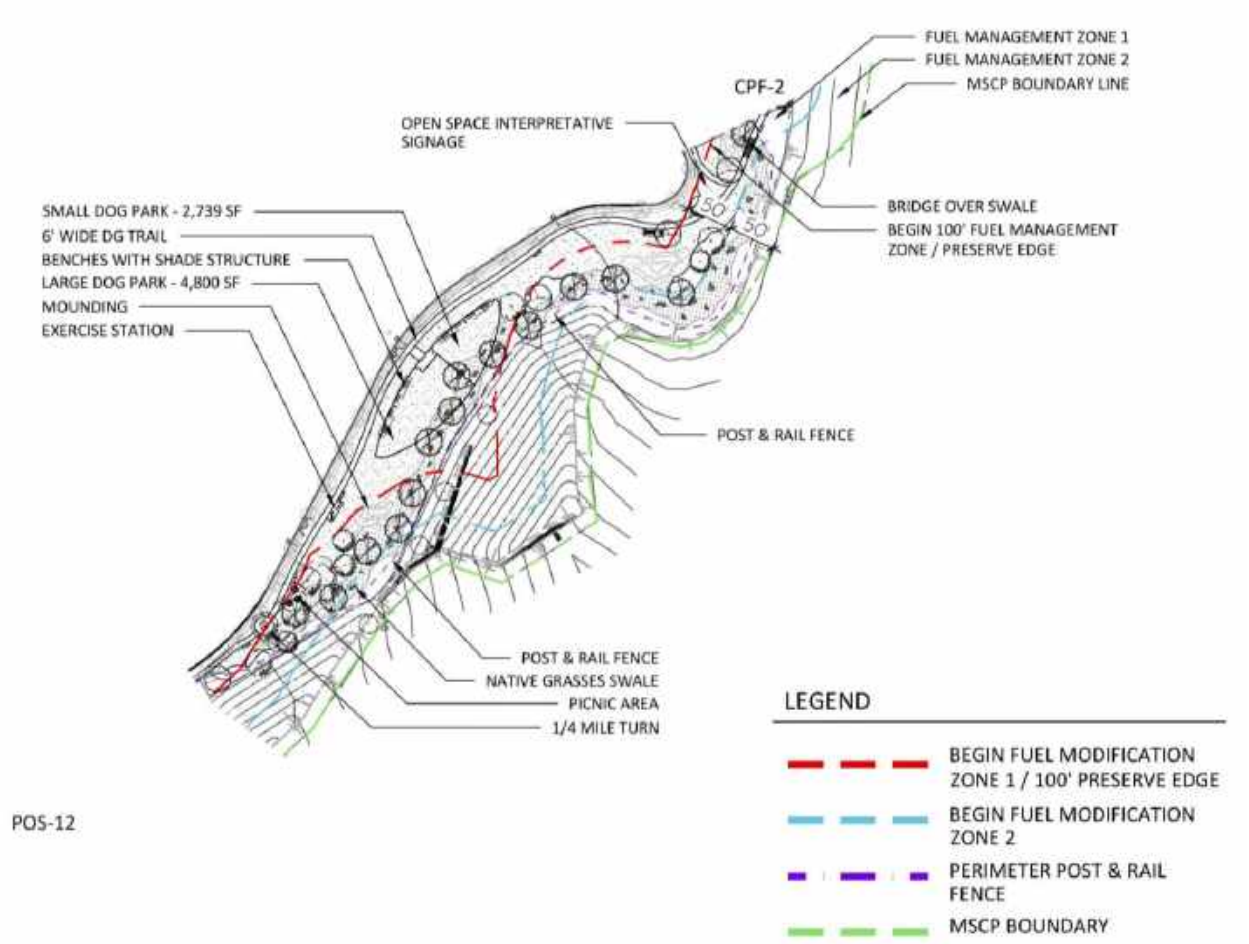


Exhibit 11
Preserve Edge @ POS-12 Concept Plan

g. Private Recreation Facility (POS-11) and Trail Head (OS-2)

A portion of the POS-11 and OS-2 lots are within the 100' Preserve Edge. The conceptual design for this combined area includes a warm-up area comprised of natural materials including boulders and a wood balance beam. A succulent/cacti garden is also planned within this area. Post and rail fencing is planned along the Village Trail. The Village Trail connects through this area to the Chula Vista Regional Trail along Main Street to the south. The conceptual design is depicted below in Exhibit 12a.

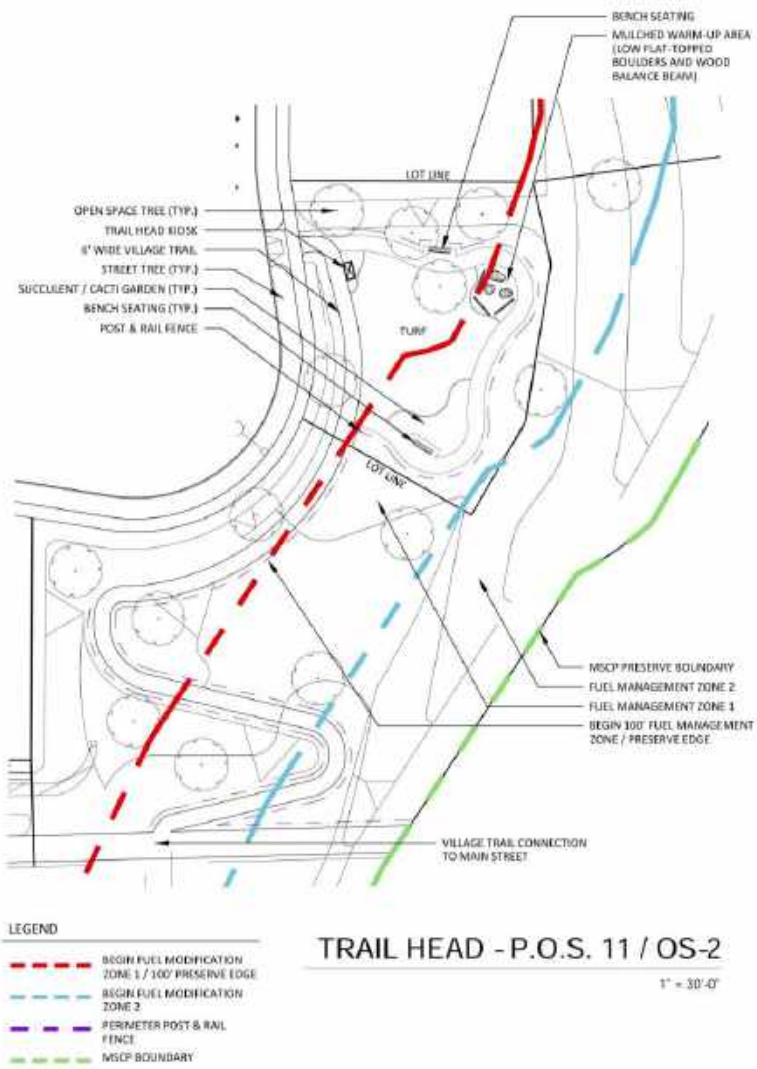


Exhibit 12a
Preserve Edge @ POS-11/OS-2 Concept Plan

h. Private Recreation Facility (POS-10)

A portion of the POS-10 lot is within the 100' Preserve Edge. The conceptual design for the area within the 100' Preserve includes a passive open space landscaped and slope areas. A perimeter community wall is planned at the perimeter of the POS-10 site. The conceptual design is depicted below in Exhibit 12b.

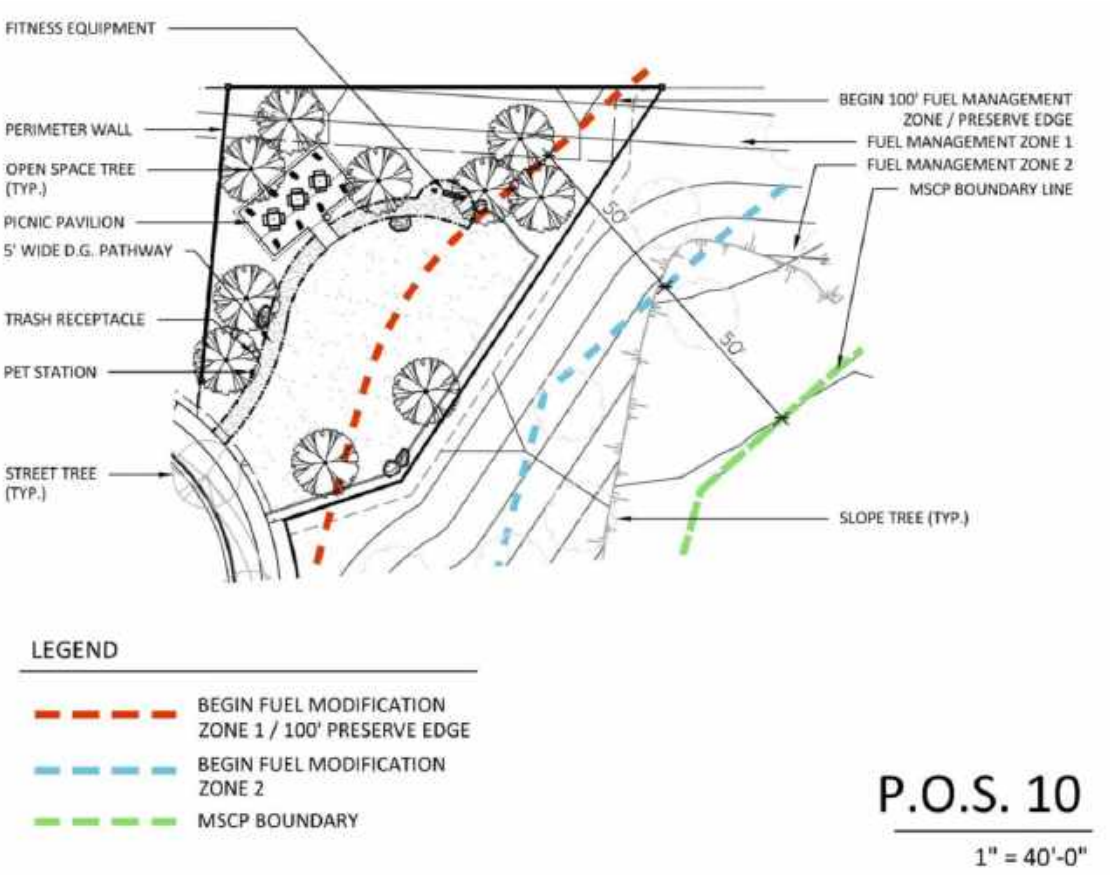


Exhibit 12b
Preserve Edge @ POS-10 Concept Plan

i. Multi-Family Residential (R-6 and R-20)

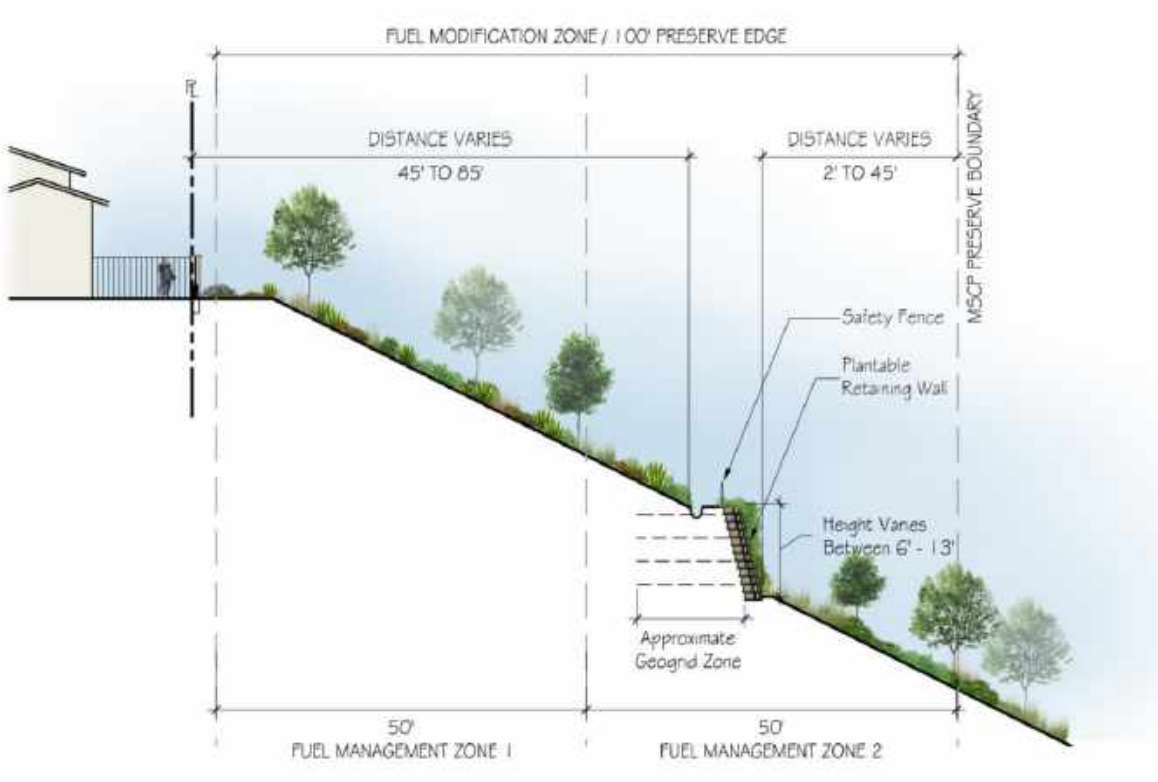
A portion of the R-6 and R-20 multi-family residential parcels are within the 100' Preserve Edge. The conceptual design for the area within the 100' Preserve includes landscaped slope and level areas, concrete pedestrian trails and seating areas associated with the multi-family project. Post and rail fencing is planned along the trail. The conceptual design is depicted below in Exhibit 12c.

Exhibit 12c
Preserve Edge @ Multi-Family Residential R-6 and R-20 Concept Plan

Note: Exhibit 17 was prepared based on conceptual site plans for R-6 and R-20. Proposed uses within the 100' Preserve to be finalized during Design Review, subject to Development Services Director, or their designee, review and approval.

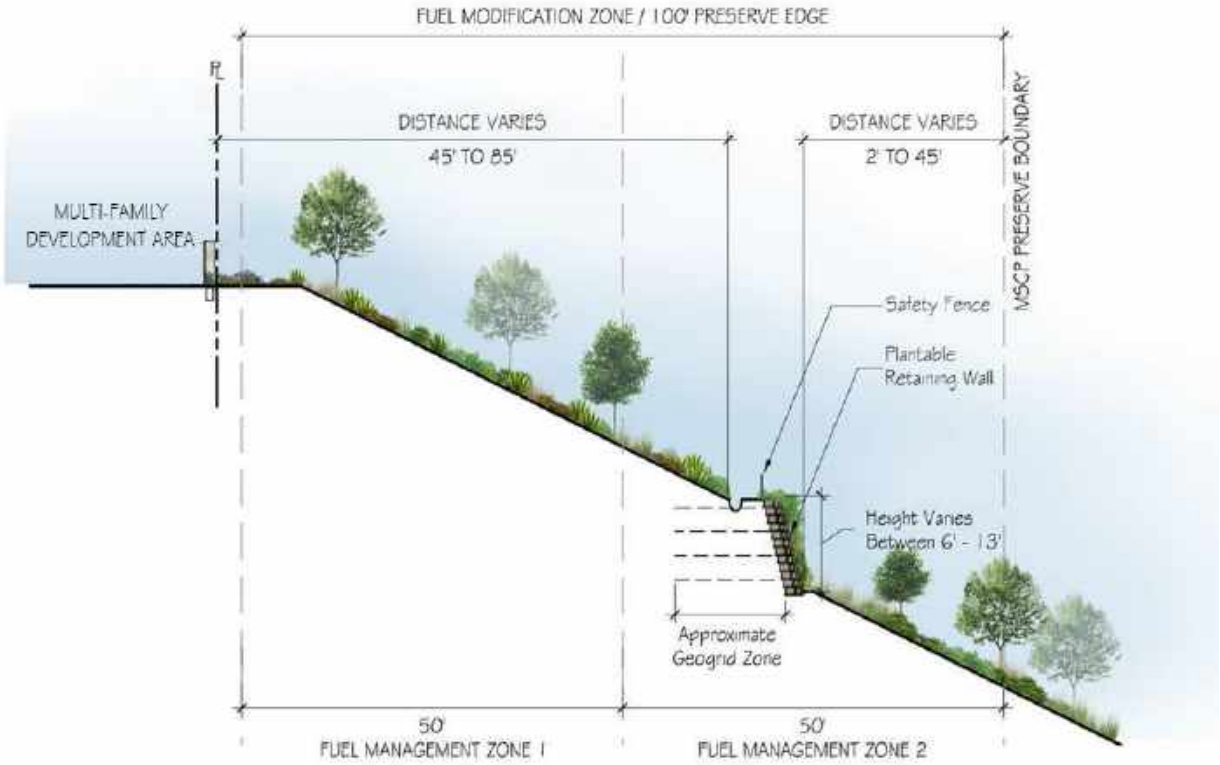
3. Plantable Retaining Walls

Plantable retaining walls are proposed within the 100' Preserve Edge at the Project perimeter, outside of the MSCP Preserve. The retaining walls range in height between 6' and 16'. A range of 2' to 45 setback for pedestrian only access and maintenance buffer area is provided between the base of the wall and the MSCP Preserve Boundary, A fence is provided at the Preserve Boundary. Plantable wall locations, heights, setbacks and geogrid zone depicted below are conceptual, subject to final engineering design.



Plantable Retaining Wall at R-8

Exhibit 13
Plantable Retaining Wall Conditions within 100' Preserve Edge



Plantable Retaining Wall at R-6

Exhibit 13 (Continued)
Plantable Retaining Wall Conditions within 100' Preserve Edge

3. Canyon Subdrain

A series of canyon subdrains are proposed at the perimeter of Village 3. One 6" drain is proposed within the 100' Preserve Edge. See Exhibit 1 for the approximate location of the subdrain. The subdrain outlet is comprised of a concrete headwall, flow channel and a 15' x 5' to 10' wide percolation areas. The outlet pipe is a minimum of 20' from the Preserve Boundary and the system maintains a minimum 3' setback from the Preserve Boundary. Because the subdrain is located in the vicinity of proposed retaining walls, the pipe will extend through the wall at the base and then outlet per the detail provided in Exhibit 14. Additional details are provided in the Village 3 North and Portion of Village 4 Geotechnical Study prepared by GEOCON.

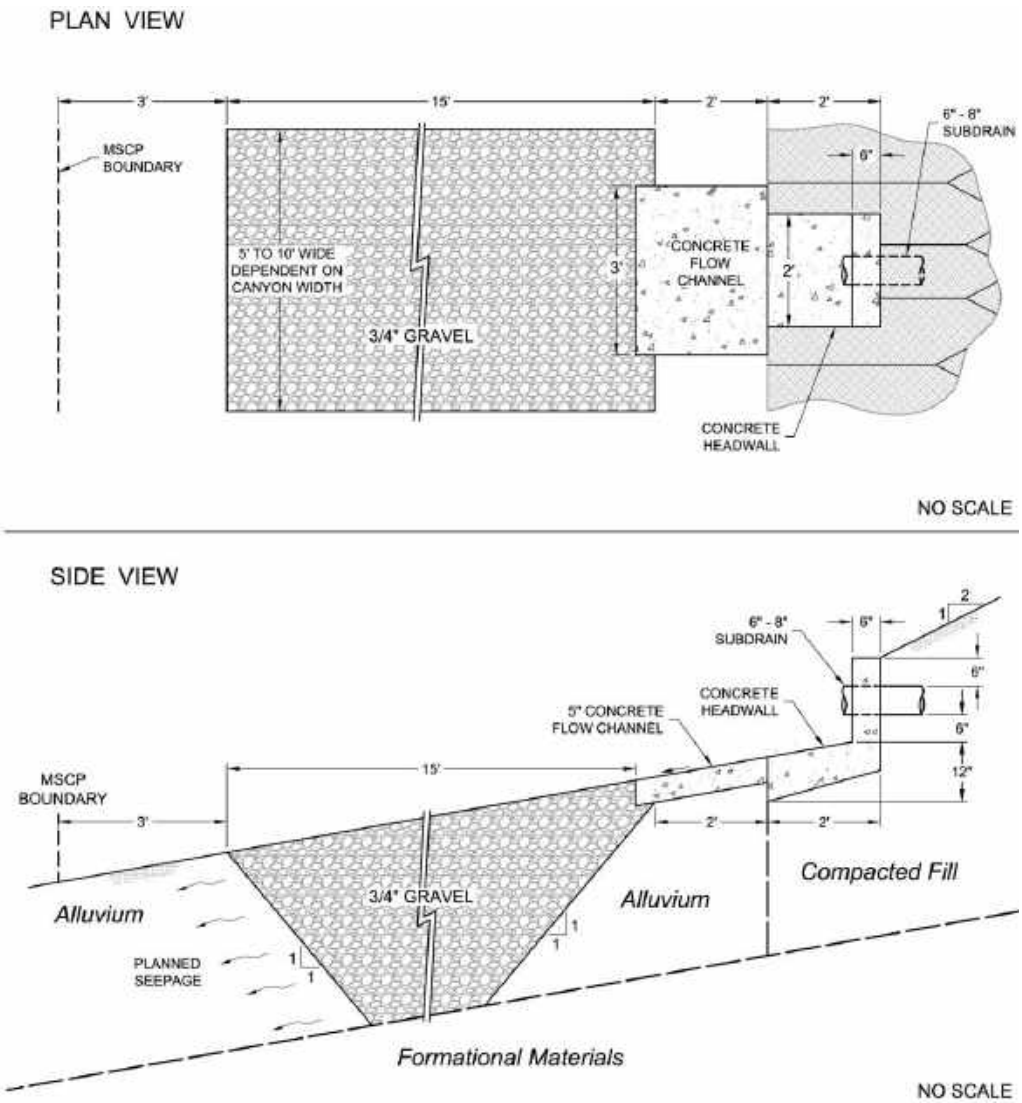


Exhibit 14a
Typical Canyon Subdrain Detail

D. BIOFILTRATION BASIN PROPOSED WITHIN THE 100' PRESERVE EDGE

A water quality facility is proposed adjacent to the R-20 Multi-Family neighborhood, south of Main Street. A portion of the basin is within the 100' Preserve Edge and the 100' Fuel Management Zone. Runoff from the developed portions of Village 3 is treated within three biofiltration basins located at the downstream portion of the site. The basin south of Main Street is approximately 0.89 acres in size located outside of the MSCP Preserve and within the Village 3 development area. The portion of the basin area within the Preserve Edge is approximately 25,700 SF or 0.59 acres comprised of perimeter slope and the basin bottom. 6' high chain link fencing at the top of slope is also within the Preserve Edge, as depicted on Exhibit 14b below. Access to the basin is provided via a maintenance access road from Main Street to the basin. The slope plant palette must be consistent with the City of Chula Vista BMP Design Manual and Attachment A, Approved Plant List. Irrigation on the side slopes may consist of temporary irrigation during establishment or permanent irrigation (drip/spray), depending on the plant species implemented.

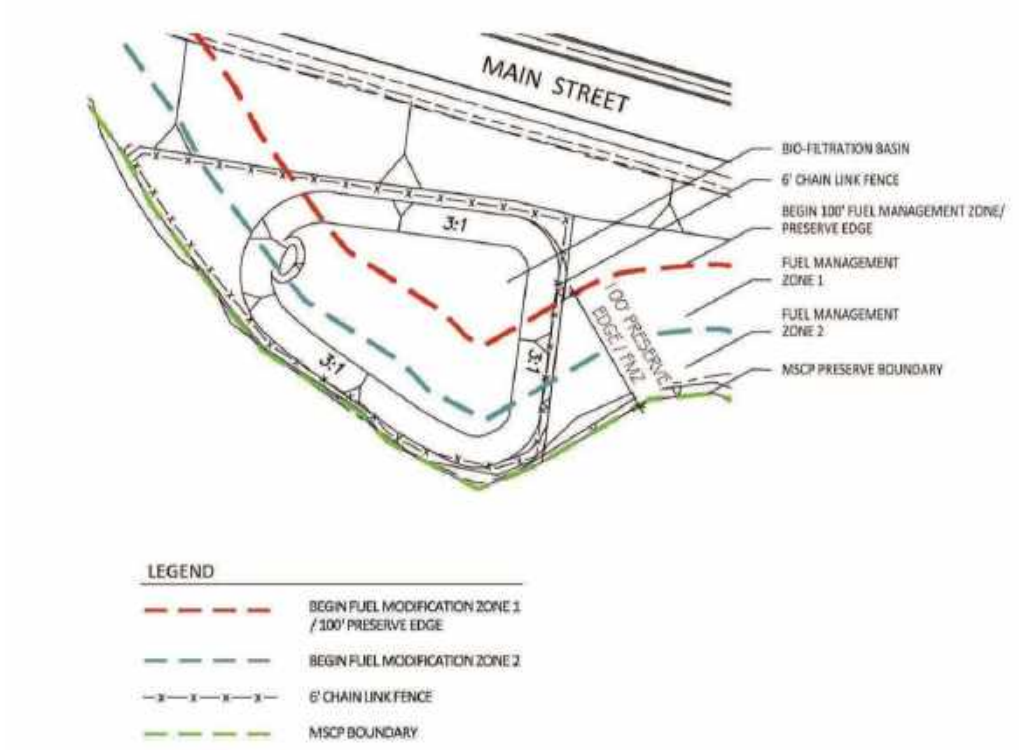


Exhibit 14b
Off-Site Biofiltration Basin

The above exhibit represents a conceptual design. Final basin design to be determined during final engineering.

E. COMPLIANCE WITH RMP/MSCP SUBAREA PLAN POLICIES

The following discussion provides a description of policies identified in the Chula Vista MSCP Subarea Plan, which were developed in consideration of the requirements of the RMP, as well as compliance measures to be implemented within Village 3. The discussion is divided into edge effect issue areas identified in the Subarea Plan.

1. Drainage

MSCP Policy:

"All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the Preserve. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. These systems should be maintained approximately once a year, or as often as needed, to ensure proper functioning. Maintenance should include dredging out sediments if needed, removing exotic plant materials, and adding chemical-neutralizing compounds (e.g., clay compounds) when necessary and appropriate." (Page 7-25)

Compliance:

The *Master Drainage Study* ("Drainage Plan"), *Water Quality Technical Report* ("Water Quality Plan") prepared by Hunsaker & Associates for the 2016 SPA Plan and *Drainage Study for Otay Ranch Village 3, R-6 and R-20 Tentative Map, Priority Development Project (PDP) Storm Water Quality Management Plan (SWQMP) for Otay Ranch Village 3, R-6 and R-20 Tentative Map* and the *Drainage & Storm Water Quality Management Plan Compliance Memo for Otay Ranch Village 3, R-19 Tentative Map*, prepared by Hunsaker & Associates, 2020 address the three multi-family parcels associated with the proposed project assessed the existing and developed drainage and water quality conditions in the SPA Plan area. In conformance with the GDP and SPA requirements, the Drainage Plan provides the necessary hydrological studies, analysis and design solutions to provide appropriate urban runoff and water quality for the SPA Plan Area. Key elements of the Drainage Plan and Water Quality Plan are described below. See Exhibit 15 for Water Quality/Biofiltration Basin locations.

Village 3

- All pre development and post development runoff from the Project is within the Otay River Valley watershed.

- Portions of the pre-development runoff from Village 3 flow directly to Wolf Canyon (which in turn is tributary to the Otay River Valley) and portions of the pre-development runoff flow directly to the Otay River Valley.

- Due to the impact of Savage Dam at the Otay Reservoir, studies have determined that development of the Project site will not increase the 100 year frequency peak flows in the Otay River. Therefore, no detention basins are required to mitigate 100 year peak flows.

- The storm drain and associated outlet serving Village 3 is located west of Heritage Road. This facility conveys treated runoff from Village 3 and outlets directly to the Otay River.

Village 4 Portion (Community Park)

- All pre development and post development runoff from Village 4 is within the Otay River Valley watershed.

- Community Park development is not expected to significantly impact peak flows to Wolf Canyon. Any peak flow mitigation required will be constructed on site through LIDs such as utilizing on-site permeable surfaces (grass fields, planters, etc.) to clean on-site flows through an ongoing filtration process. The storm drain system ties into an off-site Water Quality/Hydromodification Basin located within Village 8 West that outlets to Wolf Canyon. The P-2 Park and Village 8 West facilities are co-located to minimize impacts to the Preserve.

- A storm drain outfall will be extended to Wolf Canyon and will be designed to attenuate flows to non-erosive velocities through the use of energy dissipating devices.

4. Urban Runoff/Water Quality

Village 3

The development of the SPA Plan area will implement all necessary requirements for water quality as specified by the State and local agencies.

The development will meet the requirements of the City's BMP Design Manual, the Jurisdictional Urban Runoff Management Plan and the Storm Water Management and Discharge Ordinance (as specified in the City of Chula Vista Development and Redevelopment Storm Water Management Standards/Requirements Manual).

The Otay River is a USGS blue line stream, which makes it a waterway of the United States under the Clean Water Act (CWA). All development in excess of five acres must incorporate urban runoff planning, which will be detailed at the Tentative Tract Map level. The conceptual grading and storm water control plan for the SPA Plan area provides for water quality control facilities to ensure protection for the Otay River.

The Otay River is listed in the County of San Diego *Hydromodification Management Plan* as an exempt facility for the reach west of Interstate 805. Since all runoff from the developed area within Village 3 are proposed to drain directly to the Otay River, hydromodification basins are required for this development. The Biological Resources Technical Report further discusses the potential for erosion/scouring, habitat removal, habitat conversion, flooding and washing out existing/future facilities and the cumulative effects as a result of increased discharge volumes and the rate of discharge into the Otay River.

Runoff from the development portion of Village 3 is treated in biofiltration basins located at the northwest corner of the Main Street and Heritage Road intersection and south of Main Street. Flows from the basins will confluence and then outlet directly to the Otay River.

Bioretention basin regular maintenance activities are anticipated four times a year (February, May, September and December). Rainy Season (February and December) and Pre-Rainy Season (September) maintenance activities include removal of trash, debris and excess sediment, clear clogged riser orifices and perform basin area repairs. Post-Rainy Season maintenance includes full silt removal from the dry weather storage area, vegetation removal, annual inspections by a registered civil engineer, removal of trash, debris and excess sediment above the dry weather zone, clear clogged riser orifices and perform basin area repairs. Additional maintenance may be required following major rainfall events unless the next regularly scheduled maintenance dates are within one month of the rain event. Access to the biofiltration basins that serve Village 3 are provided via Main Street.

No runoff from developed or impervious portions of Village 3 outlet to Wolf Canyon. Some graded slopes along the southerly edge are tributary to Wolf Canyon and will be self-treating.

Village 4

The development of the SPA Plan area will implement all necessary requirements for water quality as specified by the State and local agencies.

The development will meet the requirements of the City's BMP Design Manual, the Jurisdictional Urban Runoff Management Plan and the Storm Water Management and Discharge Ordinance (as specified in the City of Chula Vista Development and Redevelopment Storm Water Management Standards/Requirements Manual).

The Otay River and are USGS blue line streams, which make them a waterway of the United States under the Clean Water Act (CWA). All development in excess of five acres must incorporate urban runoff planning, which will be detailed at the Tentative Tract Map level. The conceptual grading and storm water control plan for the SPA Plan area provides for water quality control facilities to ensure protection for Wolf Canyon.

The proposed development in Village 4 is tributary to Wolf Canyon. Since Wolf Canyon is not listed as an exempt facility, Village 4 will be subject to hydromodification requirements as specified in the County of San Diego *Hydromodification Management Plan*. Hydromodification requirements will be met through the use of Biofiltration Basins in conjunction with Low Impact Development measures.

Village 4 is proposed to be developed as a park and will be developed with very little impervious area. The impervious areas will be self-treating through the use of LIDs for water quality.

Graded slopes along the southerly and westerly edge of the P-2 Park are tributary to Wolf Canyon and will be self-treating.

In addition to the permanent drainage facilities, temporary desiltation basins to control construction related water quality impacts will be constructed within the SPA Plan area with each grading phase to control sedimentation during construction. The interim desiltation basins are designed to prevent discharge of sediment from the project grading operations into the natural drainage channel and will be detailed in the Storm Water Pollution

Prevention Plan (SWPPP) as required by the Construction General Permit from the State Water Resources Control Board. The exact size, location and component elements of these interim basins will be identified on the grading plans and SWPPP. Temporary, interim measures will occur within the development area.

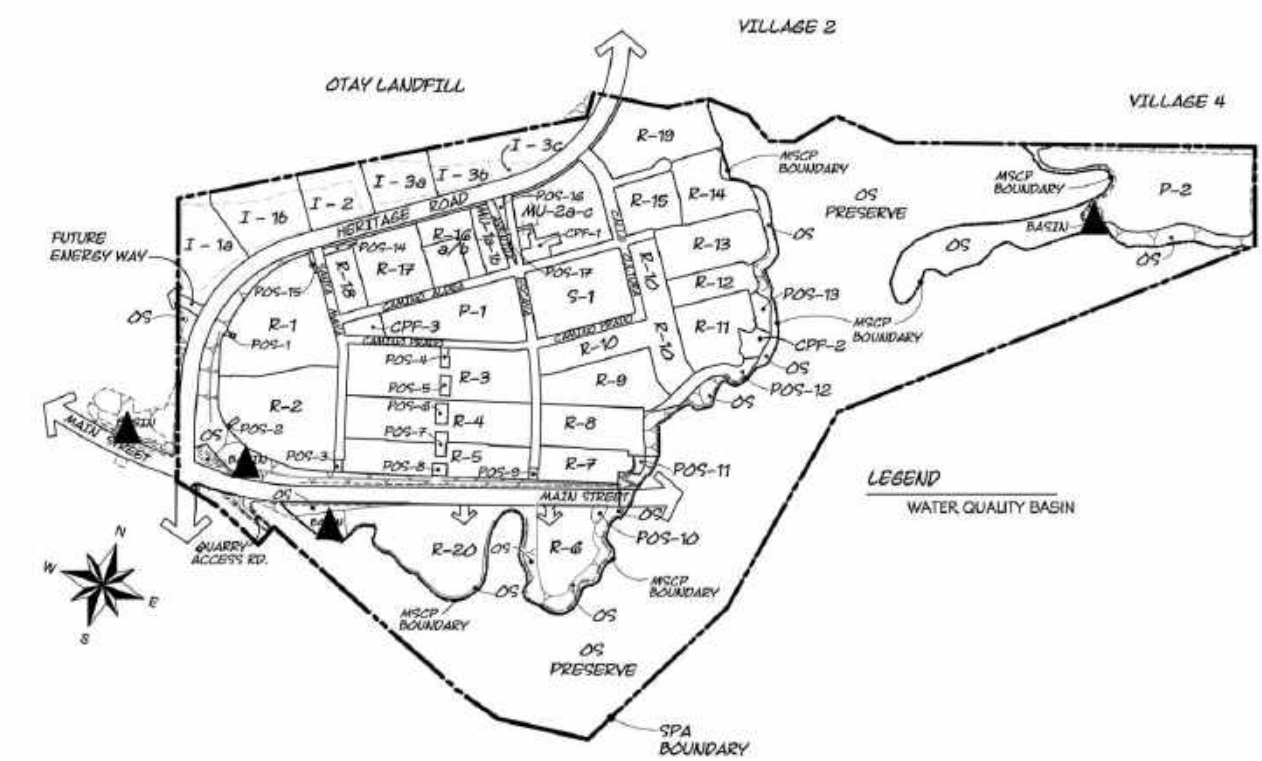


Exhibit 15
Water Quality/Biofiltration Basin Facilities

5. Toxic Substances

MSCP Policy:

"All agricultural uses, including animal-keeping activities, and recreational uses that use chemicals or general by-products such as manure, potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate methods on their site to reduce impacts caused by the application and/or drainage of such materials into the Preserve. Methods shall be consistent with requirements requested by the Regional Water Quality Control Board (RWQCB) and National Pollution Discharge Elimination System Permit (NPDES)." (Page 7-26)

Compliance:

The SPA Plan area would phase out agricultural uses adjacent to the Preserve, consistent with the Village 3 and a Portion of Village 4 Agricultural Plan. There are no agricultural activities currently occurring on the site. As described in greater detail in the Water Quality Technical Reports, prepared by Hunsaker & Associates, the combination of proposed construction and permanent BMPs will reduce, to the maximum extent possible, the expected project pollutants and will not adversely impact the beneficial uses of the receiving waters.

Anticipated pollutants from the project site may include sediments, nutrients, heavy metals, organic compounds, trash and debris, oxygen demanding substances, oil and grease, bacteria and viruses and pesticides. Runoff from Village 3 will be transmitted via public storm drain to biofiltration basins located at the downstream portion of Village 3. Storm water pollutants are removed through physical and biological processes, including adsorption, filtration, plant uptake, microbial activity, decomposition, sedimentation and volatilization (EPA 1999). Adsorption is the process whereby particulate pollutants attach to soil (e.g., clay) or vegetation surfaces. Pollutants removed by adsorption include metals, phosphorus, and hydrocarbons. Filtration occurs as runoff passes through the biofiltration area media, such as the sand bed, ground cover, and planting soil. Treated water is released into the Otay River within 96 hours of capture. This system ensures that, to the greatest extent practicable, Preserve areas adjacent to Village 3 and Village 4 will not be impacted from toxic substances that may be generated from the project site.

6. Lighting

MSCP Policy:

"Lighting of all developed areas adjacent to the Preserve should be directed away from the Preserve, wherever feasible and consistent with public safety. Where necessary, development should provide adequate shielding with noninvasive plant materials (preferably native), berming, and/or other methods to protect the Preserve and sensitive species from night lighting. Consideration should be given to the use of low-pressure sodium lighting." (Page 7-26)

Compliance:

The Village 3 Design Plan includes criteria for the design of lighting for the village. Improvement plans for the areas within the 100’ Preserve Edge will include shielded lighting designs that avoid spillover light in the Preserve. Lighting Plans and a photometric analysis shall be prepared in conjunction with improvement plans or the Design Review process to illustrate the location of proposed lighting standards and type of shielding measures. Lighting Plans and accompanying photometric analyses must be prepared in conjunction with street and other

improvements proposed within the Preserve to demonstrate that light spillage into the Preserve is avoided to the greatest extent possible. City of Chula Vista updated street lighting standards require installation of energy saving LED lamps on all City streets.

7. Noise

MSCP Policy:

"Uses in or adjacent to the Preserve should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas and any other use that may introduce noises that could impact or interfere with wildlife utilization of the Preserve. Excessively noisy uses or activities adjacent to breeding areas, including temporary grading activities, must incorporate noise reduction measures or be curtailed during the breeding season of sensitive bird species."

Where noise associated with clearing, grading or grubbing will negatively impact an occupied nest for the least Bell's vireo during the breeding season from March 15 to September 15, noise levels should not exceed 60 CNEL. However, on a case by case basis, if warranted, a more restrictive standard may be used. If an occupied Least Bell's Vireo nest is identified in a pre-construction survey, noise reduction techniques, such as temporary noise walls or berms, shall be incorporated into the construction plans to reduce noise levels below 60 CNEL.

Where noise associated with clearing, grubbing or grading will negatively impact, an occupied nest for raptors between January 15-July 31 or the California gnatcatcher between February 15 and August 15 (during the breeding season), clearing, grubbing or grading activities will be modified if necessary, to prevent noise from negatively impacting the breeding success of the pair. If an occupied raptor or California gnatcatcher nest is identified in a pre-construction survey, noise reduction techniques shall be incorporated into the construction plans. Outside the bird breeding season(s) no restrictions shall be placed on temporary construction, noise." (Page 7-26)

Compliance:

The project includes Mitigation Measures requiring pre-grading surveys for gnatcatchers, vireos and nesting raptors. Based on those surveys and locations of nesting birds in the year of grading, if it is determined that the noise impact thresholds established in the Chula Vista MSCP Subarea Plan would be exceeded, the applicant would be required to reduce the impact below the designated threshold through either modification of construction activities (such as berming) or avoiding clearing, grubbing, grading or construction activities within 300 feet of an occupied nest site. Post-construction noise impacts associated with residential development will be minimized to the greatest extent possible through site layout. Single family lots backing onto the Preserve Edge have been minimized to the greatest extent possible to reduce impacts on the Preserve. Residential streets located within the 100' Preserve Edge buffer residential uses from the Preserve.

8. Invasive Plant Materials

MSCP Policy:

"No invasive non-native plant species shall be introduced into areas immediately adjacent to the Preserve. All slopes immediately adjacent to the Preserve should be planted with native species that reflect the adjacent native habitat. The plant list contained in the "Wildland / Urban

Interface: Fuel Modification Standards," and provided as Appendix L of the Subarea Plan, must be reviewed and utilized to the maximum extent practicable when developing landscaping plans in areas adjacent to the Preserve." (Page 7-27)

Compliance:

Landscape plans within the 100' Preserve Edge will not contain invasive species, as determined by the City of Chula Vista and identified in the MSCP Subarea Plan, Appendices N, List of Invasive Species. Landscape areas within the 100' Preserve Edge including, but not limited to, manufactured slopes, street-adjacent landscaping, public parks, residential areas, CPF sites, private useable open space and schools must comply with the Approved Plant List provided as Attachment "A" to this document. This list also meets the requirements outlined in the Village 3 and a Portion of 4 Fire Protection Plan as these areas are also within the 100' Brush Management Zone required by the MSCP Subarea Plan. Any changes to the Approved Plant List (Attachment A) must be approved by the Development Services Director. The area may be planted with container stock (liners) or a hydroseed mix. See the Fire Protection Plan for landscape planting and irrigation requirements.

9. Buffers

MSCP Policy:

"There shall be no requirements for buffers outside the Preserve, except as may be required for wetlands pursuant to Federal and/or State permits, or by local agency CEQA mitigation conditions. All open space requirements for the Preserve shall be incorporated into the Preserve. Fuel modification zones must be consistent with Section 7.4.4 of the Subarea Plan."

Compliance:

Brush Management Zones have been incorporated into the proposed development areas of the SPA Plan pursuant to the requirements of the Subarea Plan. Where appropriate, graded landscaped slope areas will be maintained pursuant to Fire Department requirements and will be outside of the Preserve. The Village 3 North and a Portion of 4 Fire Protection Plan (FPP) and subsequent amendments to the FPP has been prepared and provides specific fuel modification requirements for the entire SPA area. Consistent with the Chula Vista MSCP requirements, a 100' Brush Management Zone has been established and coincides with the 100' Preserve Edge. A description of the Brush Management Zone is provided below and shown in Exhibits 17 through 22.

a. Brush Management Zones

Zone 1: All public and private areas located between a structure's edge and 50 feet outward. These areas may be located on publicly maintained slopes, private open space lots, public streets, and/or private yards.

- Provide a permanent irrigation system within this irrigated wet zone.
- Plantable retaining walls shall be permanently irrigated.
- Only those trees on the Approved Plant List and those approved by the Development Services Director as not being invasive are permitted in this zone.
- All plant and seed material to be locally sourced to the greatest extent possible to avoid genetically compromising the existing Preserve Vegetation.

- Tree limbs shall not encroach within 10 feet of a structure or chimney, including outside barbecues or fireplaces.
- Provide a minimum of 10 feet between tree canopies.
- Additional trees (excluding prohibited or highly flammable species may be planted as parkway streets on single loaded streets.
- Limit 75% of all groundcovers and sprawling vine masses to a maximum height of 18 inches.
- 25% of all groundcover and sprawling vine masses may reach a maximum height of 24 inches.
- Ground covers must be of high-leaf moisture content.
- Shrubs shall be less than 2 feet tall and planted on 5-foot centers.
- Randomly placed approved succulent type plant material may exceed the height requirements, provided that they are spaced in groups of no more than three and a minimum of five feet away from described "clear access routes."
- Vegetation/Landscape Plans within this zone shall be in compliance with the Preserve Edge Plan, the Chula Vista MSCP Subarea Plan and the Fire Protection Plan

Zone 2: All public and private areas located between the outside edge of Zone 1 and 50 feet outward to 100 feet, per the Fire Protection Plan. These areas may be located on public slopes, private open space lots and public streets, and are subject to the criteria provided below:

- Utilize temporary irrigation to ensure the establishment of vegetation intended to stabilize the slopes and minimize erosion.
- Plantable retaining walls shall be permanently irrigated.
- Trees may be located within this zone, provided they are planted in clusters of no more than three. A minimum distance of no less than 30 feet shall be maintained between the tree cluster's mature canopies.
- Only those trees on the Approved Plant List and those approved by the Development Services Director as not being invasive are permitted in this zone.
- All plant and seed material to be locally sourced to the greatest extent possible to avoid genetically compromising the existing Preserve Vegetation.
- Limit 75% of all groundcover and sprawling vine masses to a maximum height of 36 inches.
- 25% of all groundcover and sprawling vine masses may reach a maximum height of 48 inches.
- Randomly placed approved succulent type plant material may exceed the height requirements, provided that they are spaced in groups of no more than three and a minimum of five feet away from described "clear access routes."
- Shrubs may be planted in clusters not exceeding a total of 400 sq. ft.
- Provide a distance of no less than the width of the largest shrub's mature spread between each shrub cluster.
- Provide "avenues" devoid of shrubs a minimum width of 6 feet and spaced a distance of 200 linear feet on center to provide a clear access route from toe of slope to top of slope.
- When shrubs or other plants are planted underneath trees, the tree canopy shall be maintained at a height no less than three times the shrub or other plant's mature height (break up any fire laddering effect).
- Hedging of shrubs is prohibited.

b. Conditions within 100' Preserve Edge

There are 6 unique conditions within the 100' Preserve Edge along the perimeter of the Project (see Exhibit 16 – Conditions within 100' Preserve Edge). The relationships between the proposed land uses and the 100' Preserve Edge are depicted on Exhibits 17 – 22B. Site planning adjacent to the Preserve is subject to MSCP adjacency guidelines, this Preserve Edge Plan and the Fire Protection Plan. Any uses proposed within the 100' Preserve Edge are subject to review and approval of the Development Service Director, unless the improvements are part of a Major Design Review process.

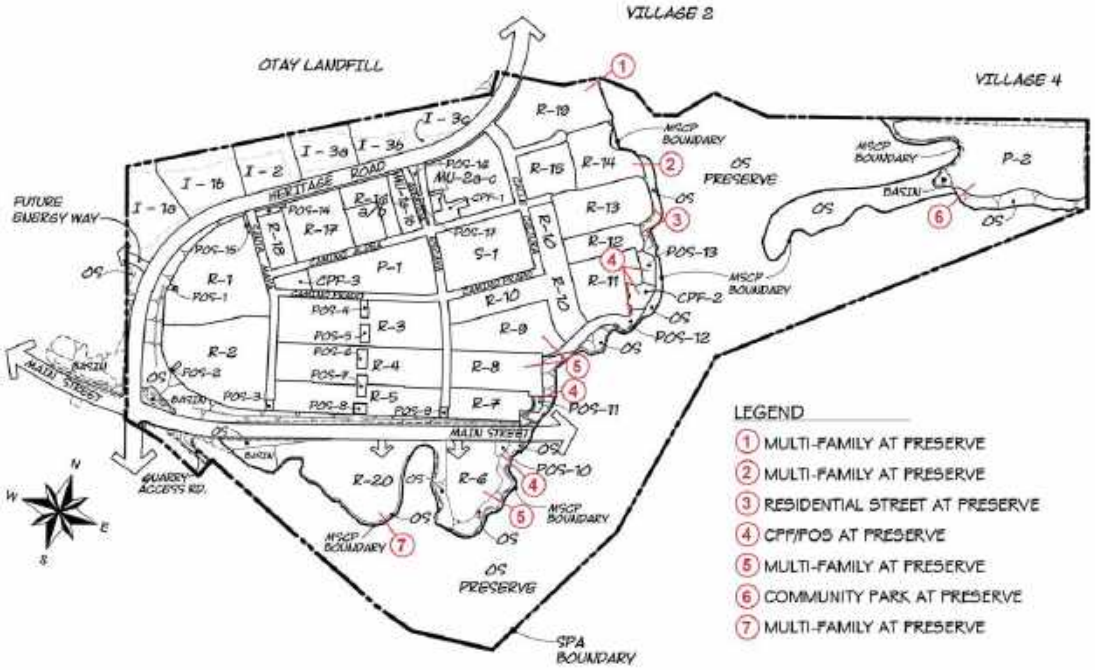


Exhibit 16
Conditions within 100' Preserve Edge

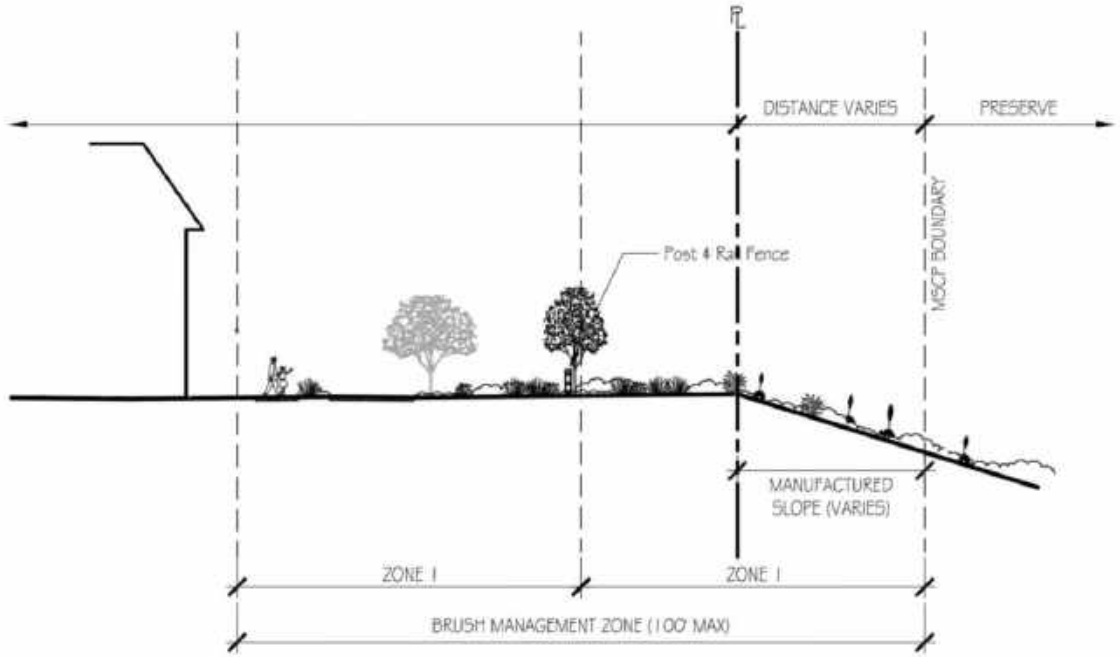


Exhibit 17
Condition 1 - Residential R-19 at Preserve

Note: Exhibit 17 was prepared based on a conceptual site plan for R-19. Proposed uses within the 100' Preserve to be finalized during Design Review, subject to Development Services Director, or their designee, review and approval.

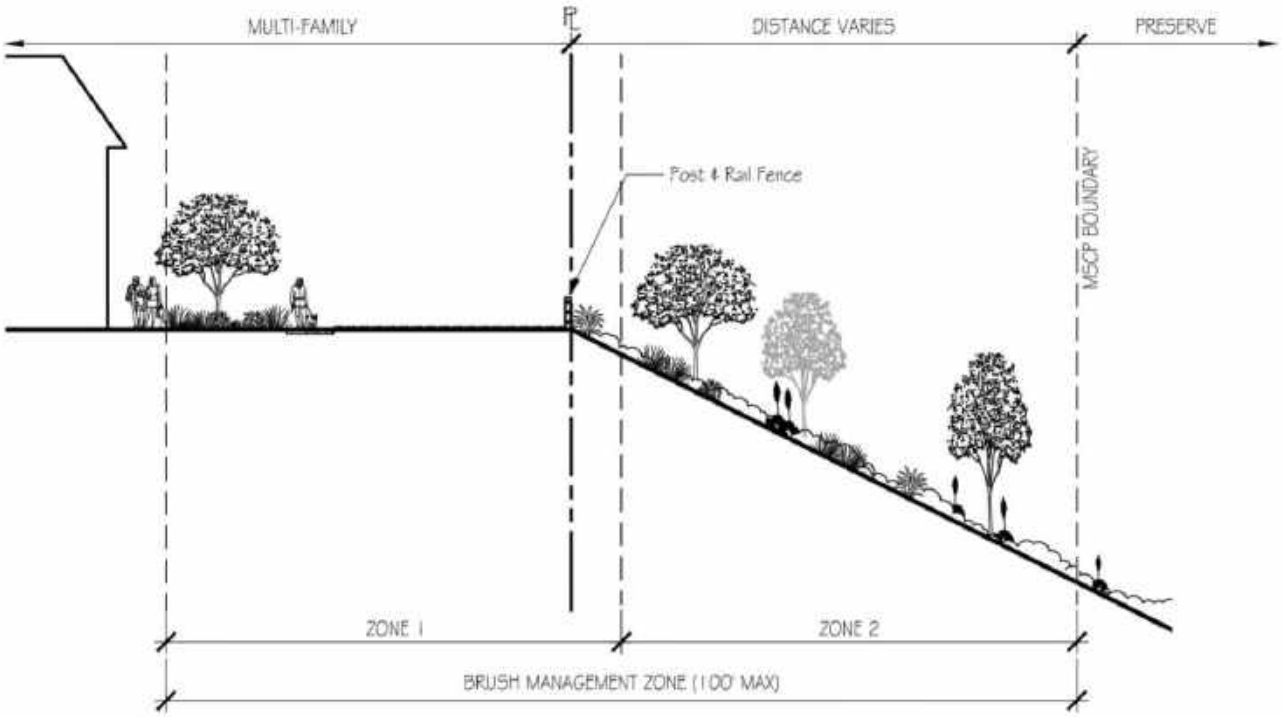


Exhibit 18
Condition 2 – Residential R-14 at Preserve

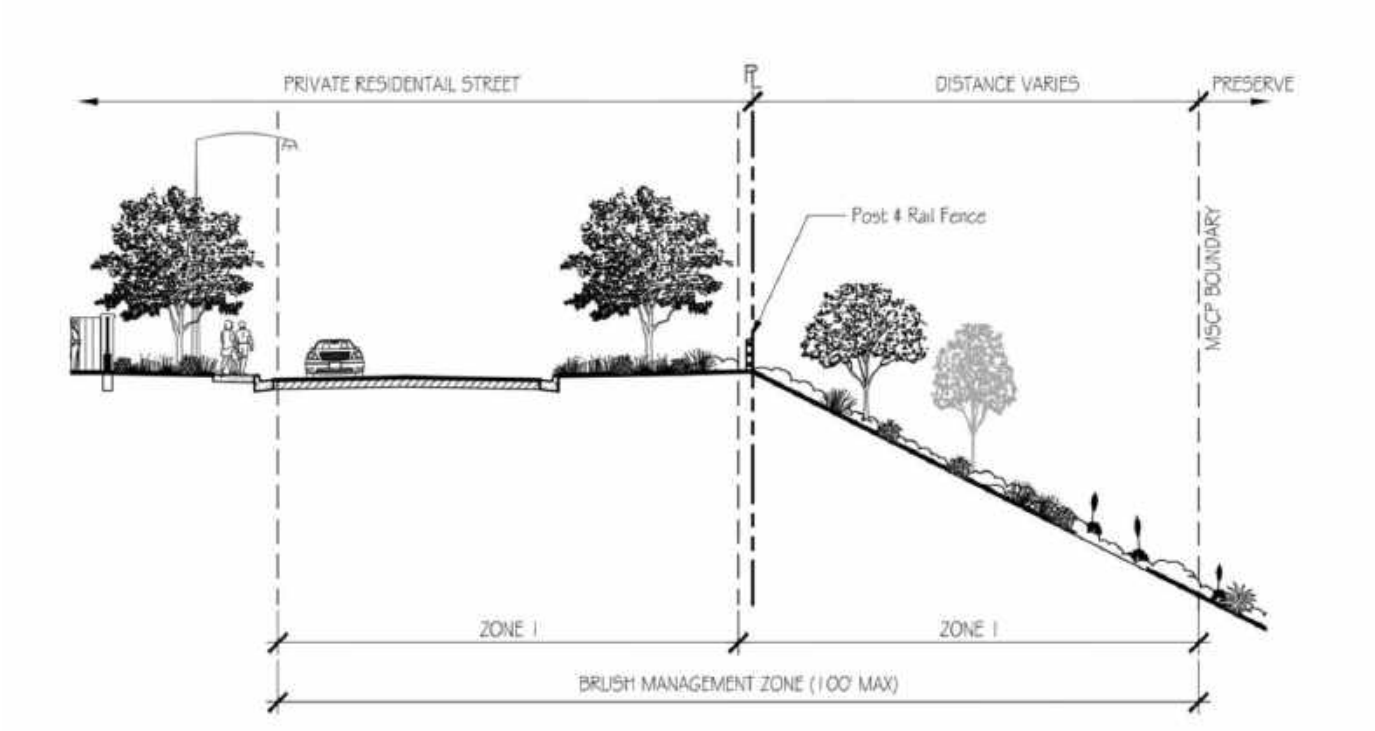


Exhibit 19
Condition 3 – Residential R-12/R-13 at Preserve

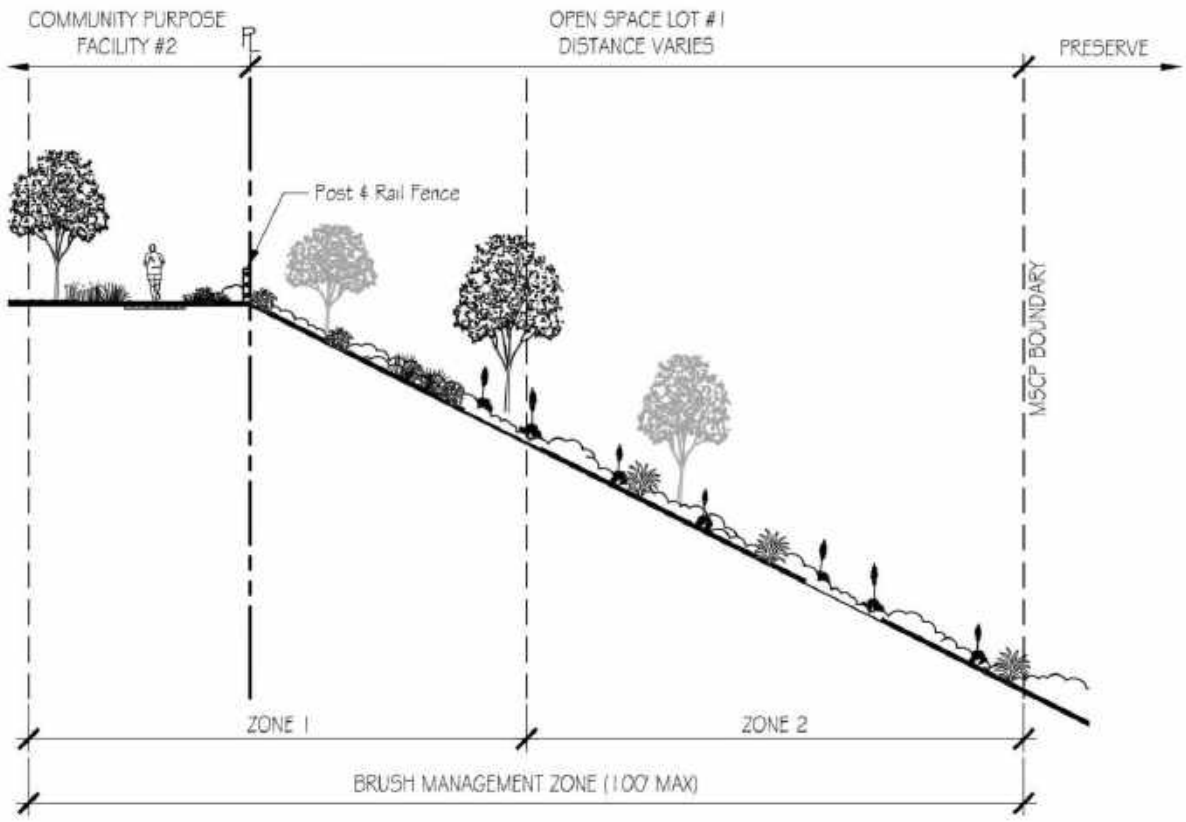


Exhibit 20
Condition 4 – CPF-2 at Preserve

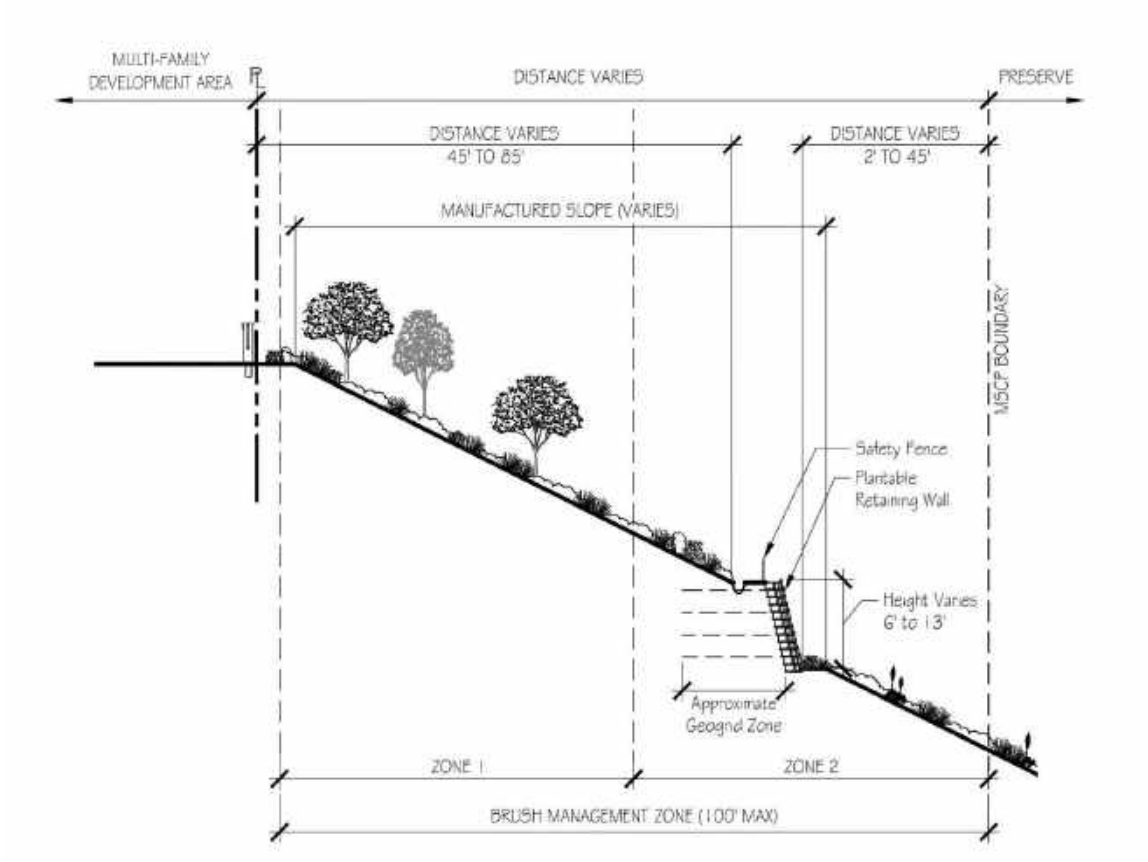


Exhibit 21
Condition 5 – Residential R-6 at Preserve

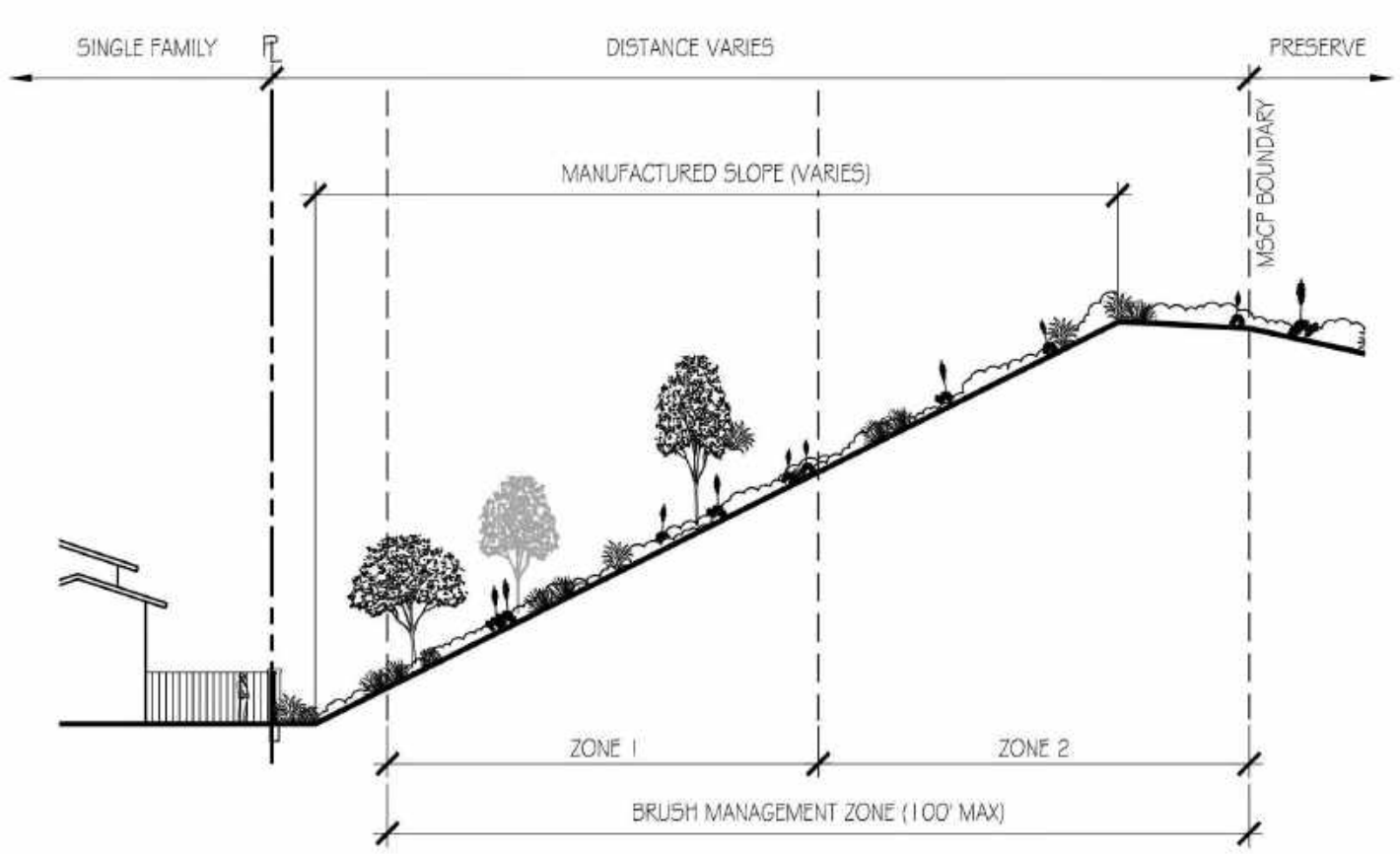


Exhibit 21 (Continued)
Condition 5 – Residential R-8 and R-9 at Preserve

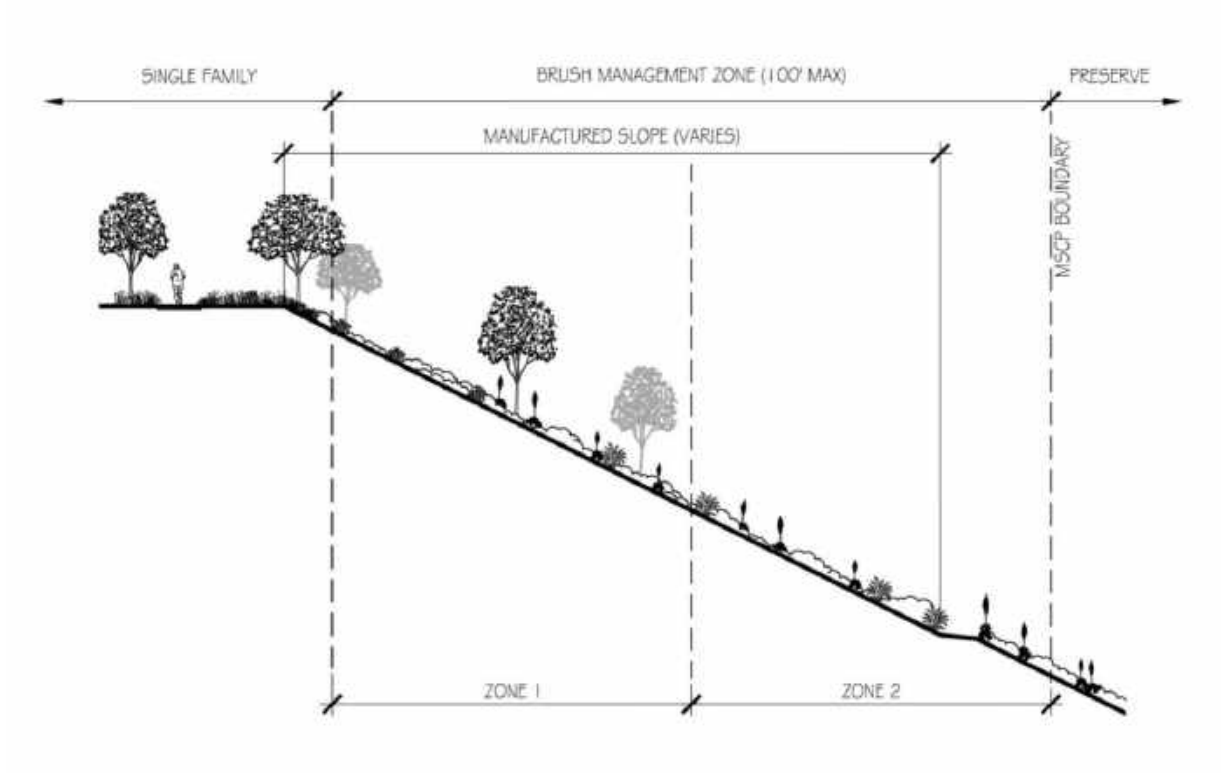


Exhibit 22A
Condition 6 – Village 4 Community Park P-2 at Preserve

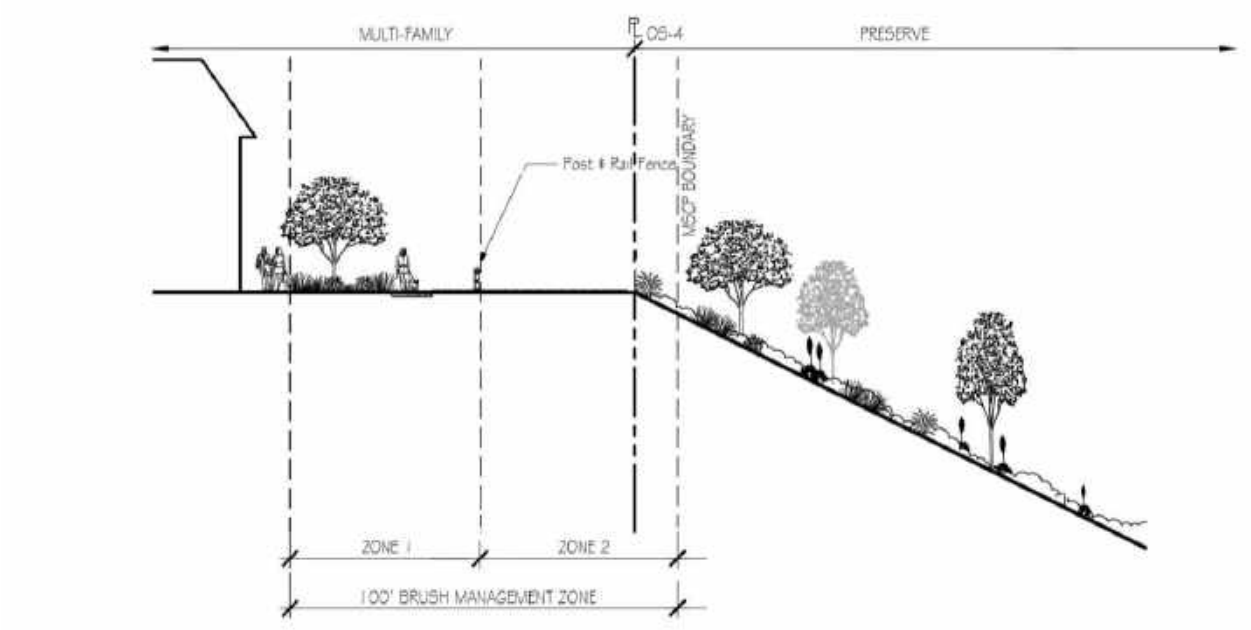


Exhibit 22B
Condition 7 –Residential R-20 at Preserve

Note: Exhibit 22B was prepared based on a conceptual site plan for R-20. Proposed uses within the 100' Preserve to be finalized during Design Review, subject to Development Services Director, or their designee, review and approval.

A more detailed description of the Brush Management Zone, including maintenance activities, planting programs, etc. is provided in the University Villages Fire Protection Plan: Villages 3 /4. A portion of Zone 1 may be incorporated into streets, CPF sites, private recreation areas, multi-family, schools, parks and other areas, as appropriate. Any proposed changes in the Brush Management Zone are subject to approval by the Chula Vista Development Services Director and the Chula Vista Fire Chief.

The 100' Preserve Edge coincides with the 100' Brush Management Zone. Where the edge condition involves streets adjacent to Preserve areas, hard surface and irrigated landscaped areas would serve as wildland fire buffers, in accordance with any specific requirements of the Fire Protection Plan. Plantable retaining walls are also included within Zone 2 of the 100' Brush Management Zone.

The irrigation design proposed for the Preserve Edge includes permanent irrigation within Brush Management Zone 1 (0-50 feet) and temporary irrigation in Zone 2 to ensure the establishment of vegetation intended to stabilize the slope and minimize erosion. Permanent irrigation is required on the plantable retaining walls within Zone 2. The temporary irrigation is described below:

Zone 2 (51 – 100 feet) would be irrigated with above ground irrigation lines utilized only during plant establishment using sprinkler heads that spray 360 degrees. When the plants have become established, the sprinkler heads will be adjusted to spray only 180 degrees toward the upper 50 feet of the slope.

Plantable Retaining Wall irrigation shall utilize low flow point drip irrigation emitters to minimize, to the greatest extent possible, run-off into the Preserve. Water saving devices shall also be utilized including flow-sensing, rain-sensing devices, and automatic control systems that either interface with CIMIS data or on-site weather sensors, in compliance with the City of Chula Vista Landscape Water Ordinance, Chapter 20.12 of the Municipal Code.

If properly managed, the temporary irrigation of brush management Zone 2 as described above, does not conflict with the Adjacency Management Issues found in Section 7.5.2 of the City of Chula Vista MSCP Subarea Plan.

Otay Ranch GDP Objective:

Identify allowable uses within appropriate land use designations for areas adjacent to the Preserve.

Policy: All development plans adjacent to the edge of the Preserve shall be subject to review and comment by the Preserve Owner/Manager, the City of Chula Vista, and the County of San Diego to assure consistency with resource protection objectives and policies.

Policy: "Edge Plans" shall be developed for all SPAs that contain areas adjacent to the Preserve. The "edge" of the Preserve is a strip of land 100 feet wide that surrounds the perimeter of the Preserve. It is not a part of the Preserve. This area is a privately or publicly owned area included in lots within the urban portion of Otay Ranch immediately adjacent to the Preserve.

Compliance:

The preparation of this Village 3 and a Portion of Village 4 Preserve Edge Plan fulfills the requirement to develop an "Edge Plan" for any SPA Plan Area adjacent to the Preserve and is subject to review and comment by the Preserve Owner/Manager, City of Chula Vista and County of San Diego. Uses within the 100' Preserve Edge are either privately or publicly owned and maintained, including the Perimeter Open Space Plan at the eastern edge of Village 3. Exhibits 6 to 12 show the portion of the sites comprising the Perimeter Open Space Plan within the 100' Preserve Edge and what conceptual uses are proposed within those areas.

MSCP Adjacency Guidelines

All new development must adhere to the Adjacency Guidelines for drainage found on Page 7-25 of the Subarea Plan. In summary, the guidelines state that:

1. All developed areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the Preserve.
2. Develop and implement urban runoff and drainage plans which will create the least impact practicable for all development adjacent to the Preserve.
3. All development located within or directly adjacent to or discharging directly to an environmentally sensitive area are required to implement site design, source control, and treatment control Best Management Practices (BMPs).

Compliance:

To adhere to these MSCP guidelines, excessive runoff into the Preserve from adjacent irrigated slopes must be prevented. Erosion control BMPs must be installed prior to planting and watering to prevent siltation into the Preserve. The irrigation system installed on the slopes should have an automatic shutoff valve to prevent erosion in the event the pipes break. Irrigation schedules for the slopes adjacent to the Preserve must be evaluated and tested in the field to determine the appropriate water duration and adjusted, as necessary, to prevent excessive runoff.

The irrigation system proposed for the plantable retaining walls, utilizes the latest industry technology and application methods to maximize the efficiency of the water applied. The system is designed to ensure irrigation run-off never reaches the MSCP Preserve, even in emergency situations. This is accomplished by utilizing a number of the standards already approved by the City of Chula Vista. This includes the following:

1. Weather based control systems, that limit the amount of water applied (based on the weather conditions), on a daily basis. These controllers are web based, with 2-way communication that downloads local weather conditions and applies the data to each irrigation system run-time.

2. Flow sensing valves in conjunction with master valves, sense when an emergency occurs (such as a pipe break) and shut the whole system down within seconds. The flow sensor also records the performance data to assist in system adjustments as seasons change.

The method proposed to irrigate the wall includes the use of low-volume (drip) systems that distribute water at a rate of less than 1 gallon per hour. The low rate ensures that the water infiltrates the soil at such a slow rate it eliminates the possibility of run-off. Systems are also designed with pressure compensating nozzles that distribute water consistently throughout the whole system, avoiding over saturating areas. Lastly, check valves are utilized that prevent low head drainage, as each system turns-off.

These individual measures are water conserving, however when combined, water efficiency is extremely high, and waste and run-off virtually eliminated. Detailed irrigation plans will be prepared in conjunction with slope improvement plans.

In addition, a manual weeding program or the focused application of glyphosate shall be implemented on the manufactured slopes adjacent to the Preserve to control weeds that are likely to be encouraged by irrigation. Weed control efforts should occur quarterly or as needed, to prevent weeds on the manufactured slopes from moving into the adjacent Preserve. A qualified monitor shall check the irrigated slopes during plant establishment to verify that excessive runoff does not occur and that any weed infestations are controlled.

10. Restrict Access

Both the Otay Ranch RMP and Chula Vista MSCP Subarea Plan contain policies that restrict or limit access into the Preserve. These policies are discussed below:

Otay Ranch RMP Policy 6.5:

"Identify restricted use areas within the Preserve."

> ***Standard***: Public access may be restricted within and adjacent to wetlands, vernal pools, restoration areas, and sensitive wildlife habitat (e.g., during breeding season) at the discretion of the Preserve Owner/Manager.
>
> ***Guidelines***:
>
> 1. The Preserve Owner/Manager shall be responsible for identifying and designating restricted areas based on biological sensitivity..."

MSCP Policy:

"The public access to finger canyons will be limited through subdivision design, fencing or other appropriate barriers, and signage."

"Install barriers (fencing, rocks/boulders, and appropriate vegetation) and/or signage in new communities where necessary to direct public access to appropriate locations."

Compliance:

Pursuant to the requirements of the MSCP Subarea Plan and RMP, the land plan has been designed to provide access to the Preserve areas at designated locations, directing pedestrians to developed public trails within the Otay River Valley via designated public trails and roadways. The SPA Plan and Village Design Plan provide Wall and Fence Plans for Village 3

and a Portion of Village 4. View fencing/walls along the Preserve Edge will be provided outside the Preserve, within the Brush Management Zone/100' Preserve Edge. This property will be maintained either by the Master HOA or City of Chula Vista, with maintenance funded through an open space maintenance district or the through the Homeowners Association.

Access to the Brush Management Zone for maintenance and fire protection activities only will be provided via locked gates every 1,000' at the perimeter of the site. Interim access control measures, such as fencing, signage, etc. will be provided within the development area to restrict public access until trail improvements within the Preserve are complete. The conceptual location of perimeter fencing and walls at the Preserve Edge is depicted in Exhibit 23 and creates a barrier between development and the Preserve. See Village Design Plan, pages 88-90. The exact location and type of all proposed fencing and walls will be depicted on the overall Village 3 Landscape Master Plan and will be subject to review and approval by the Development Service Director. Signage, identifying the MSCP Preserve and notifying the public of access restrictions, will be provided at key locations along the Preserve Edge. A detailed sign program for trails will be provided on the Village 3 and a Portion of 4 Landscape Master Plan and will be subject to review and approval by the Development Services Director, and the Public Works Director or designee.

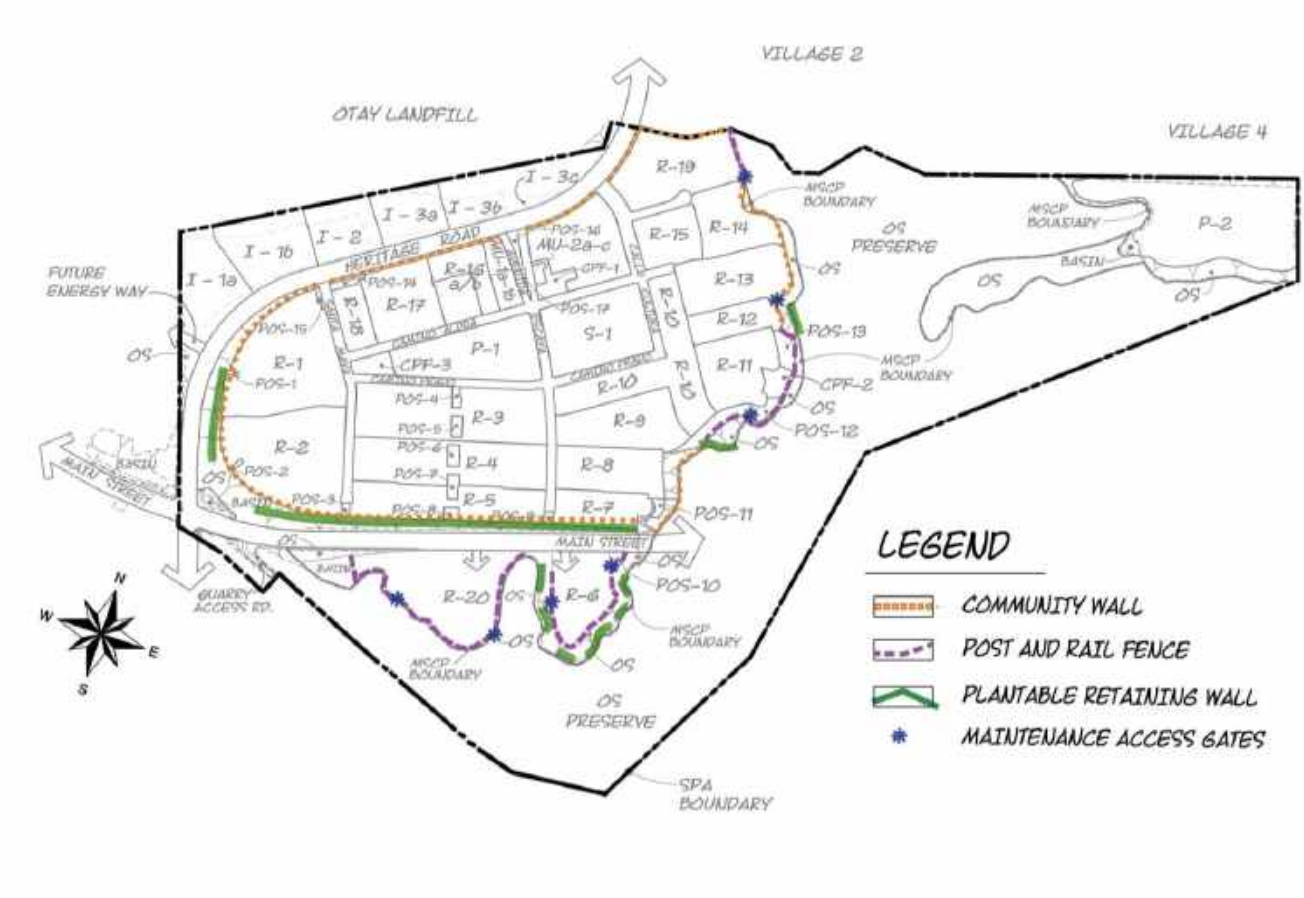


Exhibit 23
Perimeter Wall (Barrier) Plan

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ATTACHMENT "A"
APPROVED PLANT LIST

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UNIVERSITY VILLAGES
VILLAGE 3 AND A PORTION OF VILLAGE 4
APPROVED MASTER PLANT LIST
MARCH 2021

FUEL MODIFICATION ZONE 1

BOTANICAL NAME	COMMON NAME	NOTES

Plant and seed material should be locally sourced to the greatest extent possible to avoid genetically compromising existing Preserve vegetation. Notes provided below must be adhered to and planting must be implemented in accordance with the Chula Vista Fire Department's fuel modification guidelines summarized in the Village 3 North and a Portion of Village 4 Fire Protection Plan and subsequent amendments.

Trees:

Heteromeles arbutifolia	Toyon	May be planted within Fuel Management Zone 1 up to 10% of the plant palette mix. No single mass shall exceed 400 sf. These shall be spaced such that the nearest shrub is no closer than the tallest shrub height (at maturity)
Metrosideros exelsus (un-cut leader)	New Zealand Christmas Tree	
Plantanus racemosa	California Sycamore	
Quercus agrifolia	Coast Live Oak	
Rhus Iancea	African Sumac	Plant acceptable on a limited basis (Max. 30% of the area at the time of planting)

Shrubs, Cacti & Groundcovers:

Acalypha californica	California Copperleaf	
Agave Shawii	Coastal Agave	
Arctostphylos 'Emerald Carpet'	Emerald Carpet Mazanita	
Baccharis Pilularis	Coyote Brush	Only local native shrub species will be utilized. No cultivars shall be permitted.
Bloomeria Crocea	Common goldstar	
Ceanothus verrocosus	Wartystem Ceanothus	Plant acceptable on a limited basis (Max. 30% of the area at the time of planting)
Comarostaphylis diversifolia	Summer Holly	
Cotoneaster dammeri 'Lowfast'	Bearberry Cotoneaster	
Cotoneaster horizontalis	Rock Cottoneaster	
Cylindropuntia prolifera	Coast Cholla	
Dudleya pulverulenta	Chalk Lettuce	
Encielia californica	California Encelia	
Epilobium californicum	California Fushcia	

BOTANICAL NAME	COMMON NAME	NOTES
Euphorbia misera	Cliff Spurge	
Galvezia speciosa	Bush Snapdragon	
Helianthemum scoprium	Sun Rose	
Isomeris arborea	Bladder Pod	
Iva hayesiana	San Diego Marsh Elder	
Lupinus succulentus	Arroyo Lupine	
Lycium californicum	Box Thorn	
Malachothamnus fasciculatus	Chaparrel Bushmallow	
Malamosa laurina	Hollyleaf Cherry	
Nassella pulchra	Purple Needlegrass	
Opuntia littoralis	Coastal Prickly Pear Cactus	Plants must be locally sourced
Opuntia oricola	No Common Name	Plants must be locally sourced
Rhamnus crocea	Redberry	
Rhus Integrifolia	Lemonade Berry	
Ribes speciosum	Fuschia Flowering Gooseberry	
Salvia apiana	White Sage	May be planted in limited quantities and must be properly spaced. *S. mellifera* is a prohibited species
Simmondsia chinesnsis	Jojoba	May be planted in limited quantities and must be properly spaced
Sisyrinchium bellum	Blue-Eyed Grass	
Thymus serphyllum 'Reiters'	Creeping Thyme	Restricted to 30% of area at time of planting. Use in irrigated areas only
Yucca schidigera	Mojave Yucca	
Yucca whipplei	Our Lord's Candle	

Hydroseed Mix:

Baccharis Pilularis	Coyote Brush	Only local native shrub species will be utilized. No cultivars shall be permitted.
Ceanothus verrocosus	Wartystem Ceanothus	Plant acceptable on a limited basis (Max. 30% of the area at the time of planting)
Encielia californica	California Encelia	
Hazardia squarrosa	Sawtooth Goldenfields	
Isomeris arborea	Bladder Pod	
Iva hayesiana	San Diego Marsh Elder	
Layia platyglossa	Tidy tips	

BOTANICAL NAME	COMMON NAME	NOTES
Lupinus succulentus	Arroyo Lupine	
Malachothamnus fasciculatus	Chaparrel Bushmallow	
Malamosa laurina	Hollyleaf Cherry	
Nassella pulchra	Purple Needlegrass	
Phacelia campanularia	California Blue Bells	
Rhamnus crocea	Redberry	
Rhus Integrifolia	Lemonade Berry	
Salvia apiana	White Sage	
Sisyrinchium bellum	Blue-Eyed Grass	
Viguiera laciniata	San Diego Sunflower	
Yucca whipplei	Our Lord's Candle	

Hydroseed Mix (Plantable Retaining Walls):

Baccharis Pilularis	Coyote Brush	Only local native shrub species will be utilized. No cultivars shall be permitted.
Camissonia cheiranthifolia	Beach Evening Primrose	
Ceanothus verrocosus	Wartystem Ceanothus	Plant acceptable on a limited basis (Max. 30% of the area at the time of planting)
Clarkia bottae	Botta's Clarkia	
Eriophyllum confertiflorum	Golden Yarrow	
Hazardia squarrosa	Sawtooth Goldenfields	
Lasthenia californica	California Gold Rush	
Mimulus aurantiacus	Sticky Monkey Flower	Plants must be locally sourced
Salvia apiana	White Sage	May be planted in limited quantities and must be properly spaced. *S. mellifera is a prohibited species*
Sisyrinchium bellum	Western Blue-Eyed Grass	
Viguiera laciniata	San Diego Sunflower	
Yucca whipplei	Our Lord's Candle	

FUEL MODIFICATION ZONE 2

BOTANICAL NAME	COMMON NAME	NOTES

Plant and seed material should be locally sourced to the greatest extent possible to avoid genetically compromising existing Preserve vegetation

BOTANICAL NAME	COMMON NAME	NOTES
Trees:		
Quercus agrifolia	Coast Live Oak	
Shrubs, Cacti & Groundcovers:		
Acalypha californica	California Copperleaf	
Agave shawii	Coastal Agave	
Aristida pupurea	Purple Three-Awn	
Chlorogalum parviflorum	Smallflower Soap Plant	
Cotoneaster dammeri 'Lowfast'	Bearberry Cotoneaster	
Cylindropuntia prolifera	Coast Cholla	
Deinandra fasciculata	Fascicled Tarplant	
Dodonaea viscose	Hop Bush	Plant acceptable on a limited basis (Max. 30% of the area at the time of planting)
Dudleya pulverulenta	Chalk Lettuce	
Encelia californica	Coastal Sunflower	
Epilobium californicum	California Fushcia	
Euphorbia misera	Cliff Spurge	
Grindelia robusta	Gum Plant	
Helianthemum scoprium	Sun Rose	
Isomeris arborea	Bladderpod	
Lupinus succulentus	Arroyo Lupine	
Lycium californicum	Box Thorn	
Malachothamnus fasciculatus	Chaparrel Bushmallow	
Mirabilis californica	Wishbone Bush	
Nassella pulchera	Purple Needlegrass	
Opuntia littoralis	Coastal Prickly Pear Cactus	Plants must be locally sourced
Opuntia oricola	No Common Name	Plants must be locally sourced
Prunus ilicifolia	Hollyleaf Cherry	
Rhamnus crocea	Redberry	
Rhus integrefolia	Lemonade Berry	
Ribes speciosum	Fuschia Flowering Gooseberry	
Salvia apiana	White Sage	May be planted in limited quantities and must be properly spaced. *S. mellifera is a prohibited species*
Simmondsia chinesnsis	Jojoba	

BOTANICAL NAME	COMMON NAME	NOTES
Sisyrinchium bellum	Western Blue-Eyed Grass	
Yucca schidigera	Mojave Yucca	
Yucca whipplei	Foothill Yucca	

Hydroseed Mix:

Bloomeria crocea	Common Goldstar	
Encelia californica	Coastal Sunflower	
Eriophyllum confertiflorum	Golden Yarrow	
Gnaphalium bicolor	Bicolor Cudweed	
Hazardia squarrosa	Sawtooth Goldenfields	
Heteromeles arbutifolia	Toyon	
Isomeris arborea	Bladderpod	
Isocoma menziesii	Coast Goldenbush	
Lasthenia californica	Goldfields	
Layia platyglossa	Tidy tips	
Lupinus bicolor	Miniature Lupine	
Lupinus succulentus	Arroyo Lupine	
Nassella pulchera	Purple Needlegrass	
Phacelia campanularia	California Blue Bells	
Plantago erecta	Dot-Seed Plantain	
Rhamnus crocea	Redberry	
Rhus integrefolia	Lemonade Berry	
Salvia apiana	White Sage	May be planted in limited quantities and must be properly spaced. *S. mellifera is a prohibited species*
Sisyrinchium bellum	Blue-Eyed Grass	
Sphaeralcea ambigua	Desert Mallow	
Viguiera laciniata	San Diego Sunflower	
Yucca whipplei	Foothill Yucca	

Hydroseed Mix (Plantable Retaining Walls - irrigated):

Clarkia bottae	Botta's Clarkia	
Eriophyllum confertiflorum	Golden Yarrow	
Eschscholzia californica	California Poppy	
Hazardia squarrosa	Sawtooth Goldenfields	
Lasthenia californica	Goldfields	
Mimulus aurantiacus[4]	Sticky Money Flower	
Sisyrinchium bellum	Blue-Eyed Grass	

BOTANICAL NAME	COMMON NAME	NOTES
Viguiera laciniata	San Diego Sunflower	

DEXTER WILSON ENGINEERING, INC.

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.
FERNANDO FREGOSO, P.E.
KATHLEEN L. HEITT, P.E.

MEMORANDUM **646-385**

TO: **Curt Smith, Home Fed Village 3, LLC**

FROM: **Stephen M. Nielsen, P.E., Dexter Wilson Engineering, Inc.**

DATE: **October 30, 2020**

SUBJECT: **Otay Ranch 3 SPA Amendment Water Conservation Plan Evaluation**

Background

HomeFed Village III, LLC proposes revisions to the Village 3 land use plan. The land use changes are detailed in the project description, site utilization plan, and site utilization table provided as Attachment 1. Amendments to the Chula Vista General Plan, Otay Ranch General Development Plan, the Village 3 North and a Portion of Village 4 SPA Plan, the Village 9 SPA Plan and the Village 9 Tentative Map are necessary to implement the proposed changes. Tentative maps for the updated residential parcels are also necessary to implement the proposed changes. The proposed changes would increase the total residential unit count in Village 3 from 1,597 units to 1,638 units and reduce the total residential unit count in Village 9 from 4,000 units to 3,959 units, resulting in no net change to the unit count of Otay Ranch.

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The Village 3 North project was approved was approved as part of the University Villages Project Comprehensive SPA Plan Amendment Final Environmental Impact Report (2014 FEIR) and amended in 2016. The FlatRock Property was approved for development in 2006 as part of the Otay Ranch Village Two, Three, and a portion of Village Four Sectional Planning Area (SPA) Plan Final Second Tier Environmental Impact Report (2006 FEIR). The Village 3 North 2016 SPA Amendment and the 2006 FEIR reflect the most current approval for the project. The purpose of this memorandum is to evaluate the impact of the proposed land use changes for Village 3 on the findings from previous approvals.

Village 3 and a Portion of Village 4 SPA Amendment Summary

A summary of proposed changes to the Village 3 land use plan is provided as follows:

- Expand the SPA boundary to include the FlatRock Parcel which includes a parcel currently designated Limited Industrial and adjacent Open Space and Preserve Open Space areas.

- Change the land use designation and rezone a portion of the FlatRock Parcel from Industrial (I) to Residential (RM-1), designate the residential parcel "R-20" and allocate 116 multi-family units to R-20.

- Change the land use designation and rezone parcel O-1 and O-2 from Office (O) to Residential (RM-2), designate the parcel "R-19" and allocate 224 multi-family units to R-19.

- Change the land use designation and rezone parcel R-6 from Residential (SF-4) to Residential (RM-1) and allocate 78 multi-family units to R-6.

- Relocate the water quality basin within the R-20 parcel.

Water Demand Projection – Approved Plan (2016 SPA Amendment)

Table 1 summarizes the projected average day water demands for Village 3 based on the approved land use plan as presented in the 2016 SPA Amendment. This analysis used the water demand factors from the 2008 Otay Water District Water Resources Master Plan Update (Revised April 2013).

TABLE 1
VILLAGE 3 APPROVED LAND USE PLAN
PROJECTED WATER DEMANDS (2016 SPA AMENDMENT and 2006 FEIR)

Land Use	Quantity	Demand Factor	Average Demand, gpd
SF Residential (3-8 DU/ac)	621 units	500 gpd/DU	310,500
SF Residential (>8 DU/ac)	381 units	300 gpd/DU	114,300
MF Residential	595 units	255 gpd/DU	151,725
Mixed-Use Commercial	8.1 ac[1]	1,607 gpd/ac	13,017
Office	8.3 ac	1,607 gpd/ac	13,338
Industrial	16.6 ac[2]	848 gpd/ac	14,076
School	8.3 ac	1,428 gpd/ac	11,852
Park	25.9 ac	0 gpd/ac[3]	2,160
CPF	1.0 ac[4]	714 gpd/ac	714
FlatRock – Industrial[5]	11.3 ac	893 gpd/ac	10,090
TOTAL			**641,772**

[1] Mixed use commercial is based on 90 percent of gross acreage.
[2] Industrial is based on net acreage.
[3] Parks will be irrigated with recycled water, but a nominal amount of potable use has been estimated.
[4] CPF only includes CPF-1 since small CPF sites will have no potable water use.
[5] Water estimate based on Village 2, 3 and a Portion of Village 4 EIR (2006 FEIR)

Proposed Land Use Plan

The proposed site utilization plan and land use summary table are provided as Attachment 1. The proposed project does not propose any changes to the backbone streets but does change proposed land uses and residential unit counts in several of the neighborhoods.

Water Demand Projection – Proposed Plan (2020 SPA Amendment)

Table 2 summarizes the projected average sewer flows for Village 3 based on the currently proposed 2020 SPA Amendment. This projection uses current water demand factors from the 2015 Otay Water District Water Master Plan. The decrease in water demand factors compared to the 2016 SPA Amendment is due to water conservation efforts in recent years.

TABLE 2
VILLAGE 3 PROPOSED LAND USE PLAN
PROJECTED WATER DEMANDS (2020 SPA AMENDMENT)

Land Use	Quantity	Demand Factor	Average Demand, gpd
SF Residential (3-8 DU/ac)	432 units	425 gpd/DU	183,600
SF Residential (>8 DU/ac)	337 units	255 gpd/DU	85,935
MF Residential	869 units	255 gpd/DU	221,595
Mixed-Use Commercial	8.2 ac[1]	1,607 gpd/ac	13,177
Industrial	15.6 ac[2]	848 gpd/ac	13,229
School	8.3 ac	1,428 gpd/ac	11,852
Park	25.9 ac	0 gpd/ac[3]	2,160
CPF	1.8 ac	714 gpd/ac	1,285
TOTAL			**532,833**

[1] Mixed use commercial is based on 90 percent of gross acreage.
[2] Industrial is based on net acreage (from 2016 SPA Amendment water memo).
[3] Parks will be irrigated with recycled water, but a nominal amount of potable use has been estimated.
[4] CPF only includes CPF-1 and CPF-3 since CPF-2 will have no potable water use.

In comparing the projections from Tables 1 and 2, the proposed 2020 SPA Amendment will decrease previous water demand projections by approximately 17 percent compared to the 2016 SPA Amendment.

Water Conservation Savings

A water conservation plan was prepared for Village 3 North in 2016 as part of the project approval. In addition to standard water conservation measures, residential units within Village 3 have committed to installing the following two additional measures:

- Dual flush toilets
- Water efficient landscaping

The proposed additional residential units for Village 3 will be required to incorporate the above measures.

The September 2016 Water Conservation Plan estimates water conservation savings from the use of recycled water and from the implementation of water conservation measures at single-family and multi-family residences. Table 3 summarizes the total projected water conservation savings from the 2016 Water Conservation Plan with projections from the Flatrock property included.

TABLE 3
OTAY RANCH VILLAGE 3 NORTH
SEPTEMBER 2016 WATER CONSERVATION PLAN

Description	Units	Water Savings, gpd/unit	Total Water Savings, gpd
Recycled Water	---	---	169,358[1]
Single-Family Residential	1,002	49.25	49,349
Multi-Family Residential	595	24.25	14,429
TOTAL			**233,136**

[1] Includes recycled water demand from Flatrock property per 2006 FEIR.

Based on the current proposed 2020 SPA Amendment, Table 4 provides the estimated recycled water savings and Table 5 summarizes the total estimated water conservation savings.

TABLE 4
OTAY RANCH VILLAGE 3
PROJECTED RECYCLED WATER DEMANDS

Land Use	Area (ac)	% Irrigated	Irrigated Area (ac)	AAD, gpd
Open Space	39.4	100	39.4	84,907
Parks	25.9	100	25.9	55,815
Mixed-Use Commercial	9.0	10	0.90	1,940
CPF	2.7	20	0.54	1,164
Multi-Family	38.3	15	5.75	12,391
School	8.3	20	1.66	3,577
Industrial	29.3	5	1.47	3,168
TOTAL				**162,962**

TABLE 5
OTAY RANCH VILLAGE 3
CURRENT SPA AMENDMENT (2020)
ESTIMATED WATER CONSERVATION SAVINGS

Description	Units	Water Savings, gpd/unit	Total Water Savings, gpd
Recycled Water	---	---	162,962
Single Family Residential	769	49.25	37,873
Multi-Family Residential	869	24.25	21,073
TOTAL			**221,908**

Conclusion

The proposed SPA Amendment for Village 3 will decrease total water conservation savings by 4.8 percent. The estimated recycled water use is slightly decreased from the 2016 report due to a shift in the proposed land uses. Residential water conservation savings are also decreased slightly due to the decrease in the number of single family residential units. The net effect is that projected total water conservation savings are decreased from 233,136 gpd to 221,908 gpd, or by 4.8 percent.

SMN:ah

ATTACHMENT 1

SITE UTILIZATION PLAN
LAND USE SUMMARY

OTAY RANCH VILLAGE 3 PROPOSED AMENDMENTS
PROJECT DESCRIPTION
(Revised September 14, 2020)

Otay Ranch Village 3 is a mixed use village located in the southwest portion of Otay Ranch. While completing a re-planning effort for the Village 3 North area in 2016, HomeFed Village III, LLC/FlatRock, LLC (Applicant) began grading/construction. Village 3 North is completely graded, and all associated infrastructure has been constructed, with the exception of Main Street improvements. The village is built-out, with the exception of several industrial pads located north of Heritage Road and the R-6 residential neighborhood. The FlatRock Parcel is partially developed with a water quality basin that serves Village 3 to the north.

The Applicant proposes revisions to Village 3 which include 1) expanding the Village 3 North and a Portion of Village 3 Sectional Planning Area (SPA) Plan boundary to include the portion of Village 3 south of Main Street (FlatRock Parcel), 2) changing land uses on three parcels within Village 3 from "Office," "Industrial" and "Medium Residential" to "Medium-High Residential" and "High Residential" and 3) transferring 41 "Town Center" multi-family residential units from Village 9 to Village 3. With the addition of the FlatRock Parcel, the SPA Plan would include the entire Village 3 area and would no longer refer to "Village 3 North," but would refer to "Village 3" as a stand-alone SPA Plan document.

Amendments to the Chula Vista General Plan (CVGP), Otay Ranch General Development Plan (GDP), the Village 3 North and a Portion of Village 4 SPA Plan, the Village 9 SPA Plan and the Village 9 Tentative Map are necessary to implement the proposed changes. Tentative maps for the residential parcels R-6, R-19 and R-20 are also necessary to implement the proposed changes. The unallocated and unused units currently authorized within Village 3 (377 DUs) and the units proposed to be transferred from Village 9 (41 DUs) would be allocated to R-6, R-19 and R-20 per the Village 3 and a Portion of Village 4 Land Use Summary Table provided below. The proposed amendments would increase the total Village 3 residential unit count from 1,597 units to 1,638 units and correspondingly reduce the total Village 9 residential unit count from 4,000 units to 3,959 units, resulting in no new units within Otay Ranch. The following table summarizes the unallocated/unused units currently authorized within Village 3 and the proposed transfer units from Village 9 to Village 3 to achieve the proposed allocation of 418 units within the proposed project:

VILLAGE 3 UNITS & PROPOSED TRANSFER UNITS:

Land Use	Acreage	DUs
Village 3		
Office	8.3	0
MU-2 (Unused)	0	6
R-6 (SF)	5.2	44
SF (Unallocated)	0	189
MF (Unallocated)	0	138
Subtotal Village 3	**13.5**	**377**[1]
Villages 2, 3, 4		
FlatRock Industrial	11.3	
Subtotal Villages 2, 3, 4	**24.8**	**377**
Village 9		
MF Unit Transfer	0	41
TOTAL	**24.8**	**418**

The Proposed Project includes the following:

CVGP/GDP Amendments

- Update the CVGP and GDP Land Use Maps and tables to change the land use designations for R-6 from Low-Medium Residential to Medium-High Residential; R-19 from Professional & Office to High Residential and R-20 from Limited Industrial to Medium-High Residential.

Village 3 North and a Portion of Village 4 SPA Amendment

- Expand the SPA boundary to include the FlatRock Parcel which includes a parcel currently designated Limited Industrial and adjacent Open Space and Preserve Open Space areas.
- Change the land use designation and rezone a portion of the FlatRock Parcel from Industrial (I) to Residential (RM-1), designate the residential parcel "R-20" and allocate 116 multi-family units to R-20.
- Change the land use designation and rezone parcels O-1 and O-2 from Office (O) to Residential (RM-2), designate the parcel "R-19" and allocate 224 multi-family units to R-19.
- Change the land use designation and rezone parcel R-6 from Residential (SF-4) to Residential (RM-1) and allocate 78 multi-family units to R-6.
- Relocate the water quality basin within the R-20 parcel.
- Update SPA Plan text, tables and exhibits to reflect the proposed land use changes.

[1] Unallocated and unused units authorized pursuant to the Village 3 North SPA Plan and Tentative Map Approved December 6, 2016.

- Update SPA Appendices Village Design Plan, Air Quality Improvement Plan, PFFP, Fire Protection Plan, Preserve Edge Plan, Affordable Housing Plan, Water Conservation Plan and Energy Conservation Plan to reflect the SPA Amendment.

Tentative Maps

- A Tentative Map is proposed for the R-19 Parcel
- A Tentative Map is proposed for the R-6 and R-20 Parcels

Village 9 SPA Amendment

- Revise the Village 9 Site Utilization Table to reduce the multi-family units within the Urban Center land use category from 1,912 to 1,871 DUs and reduce the total authorized units in Village 9 from 4,000 to 3,959 DUs

Village 9 Tentative Map Revision

- Revise the Land Use Table to reduce the multi-family units in Parcels A, B-1, B-2, D, E-1, E-2, H-1 and H-2 by a combined total of 41 DUs.

Village 3 Core Master Precise Plan

- Update the MPP to reflect the revised land uses within the Village Core (Prior to design review approval for R-19)

Development Agreement Amendments

- Amendments to the Development Agreements between HomeFed Village III Master, LLC and the City and FlatRock, LLC and the City are proposed.

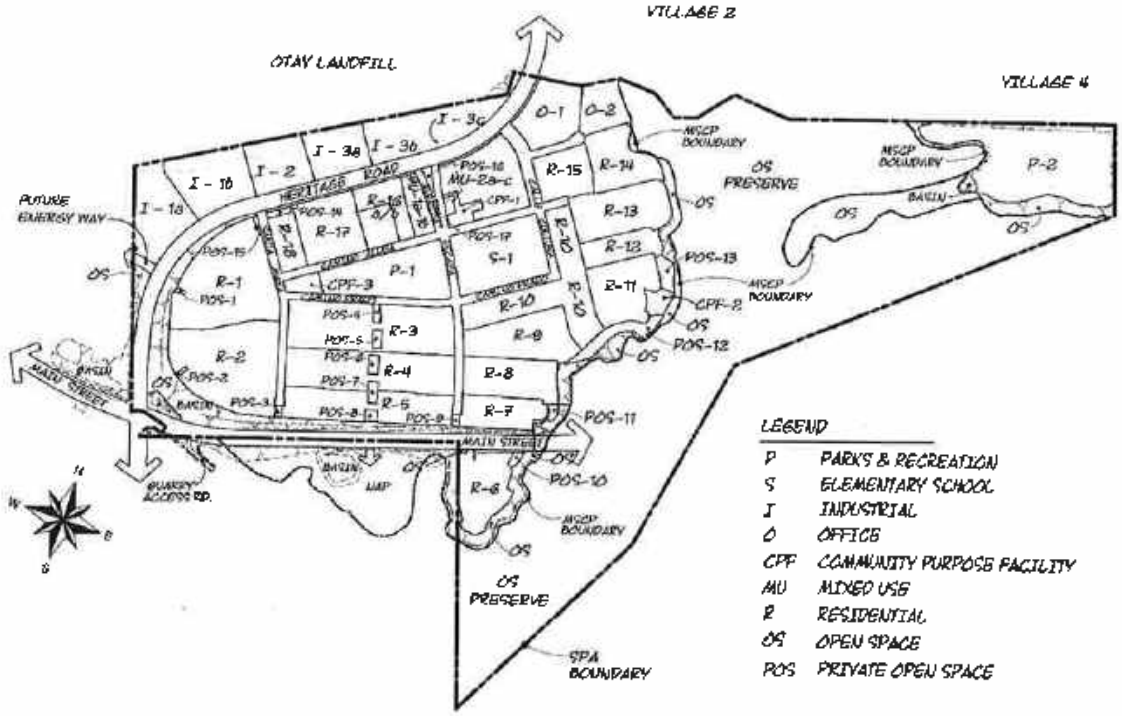
CEQA

The Proposed Project will likely require preparation of an addendum to the University Villages Environmental Impact Report (University Villages EIR) certified by the Chula Vista City Council in December 2014. Analysis of the FlatRock LLC property would rely on the 2006 Villages 2, 3 and a Portion of Village 4 EIR. The technical studies prepared for the University Villages EIR and updated for the 2016 Addendum and the technical studies prepared for the 2006 Villages 2, 3 and a Portion of Village 4 will be evaluated, and the following technical memorandums and studies will be prepared to address plan changes.

- Biological Resources Technical Memorandum (Dudek)
- Air Quality and Global Climate Change Technical Memorandum (Dudek)
- Health Risk Assessment and Nuisance Study (Dudek)
- Noise Assessment Technical Memorandum (Dudek)
- Trip General Memo (Chen Ryan)
- Archaeological Evaluation of Cultural Resources Letter (Dudek)
- Paleontological Resource and Monitoring Assessment Letter (Dudek)
- Drainage Study for Otay Ranch Village 3, R-6 and R-20 Tentative Map (Hunsaker)

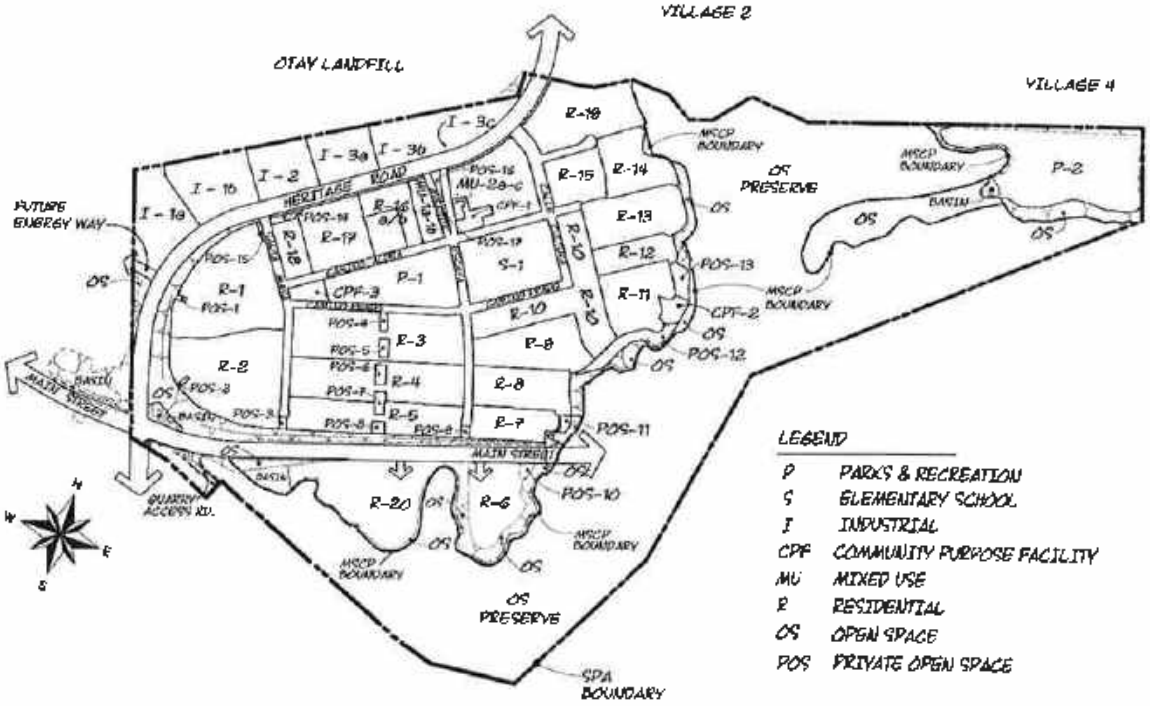
- Priority Development Project (PDP) Storm Water Quality Management Plan (SWQMP) for Otay Ranch Village 3, R-6 and R-20 Tentative Map (Hunsaker)
- Drainage & Storm Water Quality Management Plan Compliance Memo for Otay Ranch Village 3, R-19 Tentative Map (Hunsaker)
- Overview of Sewer Service Update (Wilson Engineering)
- Overview of Water Service Update (Wilson Engineering)
- Geotechnical Investigation Letter (GEOCON)
- Fiscal Impact Analysis Update (Development Planning & Financing Group)

Existing Village 3 North and a Portion of Village 4 Site Utilization Plan



10-17-16

Proposed Village 3 and a Portion of Village 4 Site Utilization Plan



Proposed Site Utilization Plan Table

Land Use	Unit Type	Acres	Units	Target Density
Single Family				
R-1	SF	12.4	80	6.5
R-2	SF	12.3	65	5.3
R-3	SF	11.5	104	9.0
R-4	SF	9.5	75	7.9
R-5	SF	7.5	46	6.1
R-7	SF	3.8	22	5.8
R-8	SF	5.5	43	7.8
R-9	SF	6.7	40	6.0
R-10	SF	9.5	98	10.3
R-11	SF	5.7	37	6.5
R-12	SF	3.1	24	7.7
R-13	SF	6.6	58	8.8
R-17	SF	5.7	53	9.3
R-18	SF	2.3	24	10.4
SF Total		**102.1**	**769**	
Multi Family				
R-6	MF	5.6	78	13.9
R-14	MF	5.0	71	14.2
R-15	MF	3.9	54	13.8
R-16 a/b	MF	4.6	54	11.7
R-19	MF	8.3	224	27.0
R-20	MF	10.9	116	10.6
MF Total		**38.3**	**597**	
Mixed Use				
MU-1a-d	MH	1.8	30	16.7
MU-2a-c	MU	7.2	242	33.6
MU Total		**9.0**	**272**	
Residential Total		**149.4**	**1,638**	**11.0**
Community Purpose Facilities				
CPF-1		0.9		
CPF-2		0.9		
CPF-3		0.9		
Total CPF		**2.7**		
Private Open Space		**5.3**		

Land Use	Unit Type	Acres	Units	Target Density
Public Parks				
P-1		8.1		
P-2 (Village 4)		17.8		
Total Public Parks		**25.9**		
School		**8.3**		
-	-			-
Industrial				
I-1a		6.3		
I-1b		6.4		
I-2		4.6		
I-3a		4.2		
I-3b/c		7.8		
Total Industrial		**29.3**		
Open Space				
Open Space		39.4		
Preserve		192.3		
Total OS		**231.7**		
Circulation				
External Circulation		21.0		
Internal Circulation		16.2		
Total Circulation		**37.2**		
TOTAL		**489.7**	**1,638**	

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MEMORANDUM

To:	Justin Gibson, Fire Division Chief: Director of Fire Prevention and Support Services, Chula Vista Fire Department
From:	Michael Huff, Principal Fire Protection Planner
Subject:	2nd Amendment to University Villages - Village 3 North and Portion of Village 3 Fire Protection Plan (2014)
Date:	February 17, 2021
Attachment (s):	Attachment 1 – Figures 2a and 2b – R-6, R-20, and R-19 Revised Land Use Maps Attachment 2 – Revised Figure 12 – Village 3 Fuel Modification Zones

Background

The Chula Vista City Council approved the Village 2, 3 and a Portion of Village 4 Sectional Planning Area Plan in 2006 (2006 SPA), which designated Village 3 as a business park with industrial land uses. The Villages 2, 3 and a Portion of Village 4 Fire Protection Plan was also approved in 2006 (2006 FPP) and incorporated the FlatRock Parcel described below. This amendment would supersede the 2006 FPP as it relates to the FlatRock Parcel.

The Chula Vista City Council approved the Village 3 North and a Portion of Village 4 Sectional Planning Area Plan in 2014 (2014 SPA), which included the Village 3 North and a Portion of Village 3 Fire Protection Plan (2014 FPP). In 2016, the City approved the first amendment to the 2014 FPP to reflect the revised SPA for Village 3 North and a Portion of Village 4 (2016 SPA) and a new Tentative Map for Village 3 North.

After approval of the Village 3 North entitlements, HomeFed Village III, LLC (Owner/Applicant) initiated development and construction of the approved Village 3 North land uses, with construction of most of the land uses completed between 2016 and 2020. A portion of the Industrial land uses north of Heritage Road, the two sites designated for office development south of Heritage Road and the R-6 residential neighborhood south of Main Street are graded but not constructed as of this date.

In May 2020, HomeFed Village III, LLC/FlatRock, LLC (Applicant) filed an application with the City of Chula Vista to amend the land uses within four parcels. The proposal would amend the two Village 3 North office parcels from Office to High Residential and the R-6 residential parcel from Medium Residential and Medium-High Residential. In addition, the proposal would incorporate a parcel located south of Main Street (FlatRock Parcel) into the Village 3 SPA boundary and amend the land use designation from Industrial to Medium-High Residential.

In order to provide the City with information necessary to evaluate the proposed amendments to the 2014 FPP, Dudek compared the 2014 FPP and the 1st amendment to the FPP (2016 FPP), with the proposed revised Tentative

Maps (TMs) and land use changes. Based on the evaluation, it was determined that the findings of the 2014 FPP remain applicable and valid with some minor changes described below. The 100' Fuel Modification Zones will remain the same throughout the Village 3 Project area, however, the addition of a minimum 100-foot wide fuel modification zone around Parcel R-20 is proposed based on the results of the recent fire behavior models . Fuel modification and fire safety standards will be implemented consistent with Section 4.0 and 4.1 of the 2014 FPP, including two fuel modification zones, Zones 1 and 2.

Item 1. Approved 2014 Fire Protection Plan Amendment – REVISED PROJECT DESCRIPTION AND LAND USE CHANGES.

Otay Ranch Village 3 is a mixed-use village located in the southwest portion of Otay Ranch. While completing a re-planning effort for the Village 3 North area in 2016, HomeFed Village III, LLC/FlatRock, LLC (Applicant) began grading/construction. Village 3 North is completely graded, and all associated infrastructure has been constructed, with the exception of Main Street improvements. The village is built-out, with the exception of several industrial pads located north of Heritage Road and the R-6 residential neighborhood. The FlatRock Parcel is partially developed with a water quality basin that serves Village 3 to the north.

Amendments to the Chula Vista General Plan (CVGP), Otay Ranch General Development Plan (GDP), the Village 3 North and a Portion of Village 4 SPA Plan, the Village 9 SPA Plan and the Village 9 Tentative Map are necessary to implement the proposed changes. Tentative maps for the residential parcels R-6, R-19 and R-20 are also necessary to implement the proposed changes. The unallocated and unused units currently authorized within Village 3 (377 DUs) and the units proposed to be transferred from Village 9 (41 DUs) would be allocated to R-6, R-19 and R-20 per the Village 3 and a Portion of Village 4 Land Use Summary Table provided below. The proposed amendments would increase the total Village 3 residential unit count from 1,597 units to 1,638 units and correspondingly reduce the total Village 9 residential unit count from 4,000 units to 3,959 units, resulting in no new units within Otay Ranch. The following table summarizes the unallocated/unused units currently authorized within Village 3 and the proposed transfer units from Village 9 to Village 3 to achieve the proposed allocation of 418 units within the proposed project:

The Proposed Project includes the following:

<u>CVGP/GDP Amendments</u>

- Update the CVGP and GDP Land Use Maps and tables to change the land use designations for R-6 from Low-Medium Residential to Medium-High Residential; R-19 from Professional & Office to High Residential and R-20 from Limited Industrial to Medium-High Residential.

<u>Village 3 North and a Portion of Village 4 SPA Amendment</u>

- Expand the SPA boundary to include the FlatRock Parcel which includes a parcel currently designated Limited Industrial and adjacent Open Space and Preserve Open Space areas.
- Change the land use designation and rezone a portion of the FlatRock Parcel from Industrial (I) to Residential (RM-1), designate the residential parcel "R-20" and allocate 116 multi-family units to R-20.
- Change the land use designation and rezone parcels O-1 and O-2 from Office (O) to Residential (RM-2), designate the parcel "R-19" and allocate 224 multi-family units to R-19.
- Change the land use designation and rezone parcel R-6 from Residential (SF-4) to Residential (RM-1) and allocate 78 multi-family units to R-6.

- Relocate the water quality basin within the R-20 parcel.
- Update SPA Plan text, tables and exhibits to reflect the proposed land use changes.
- Update SPA Appendices – Village Design Plan, Air Quality Improvement Plan, PFFP, Fire Protection Plan, Preserve Edge Plan, Affordable Housing Plan, Water Conservation Plan and Energy Conservation Plan to reflect the SPA Amendment.

Tentative Maps

- A Tentative Map is proposed for the R-19 Parcel
- A Tentative Map is proposed for the R-6 and R-20 Parcels

Village 9 SPA Amendment

- Revise the Village 9 Site Utilization Table to reduce the multi-family units within the Urban Center land use category from 1,912 to 1,871 DUs and reduce the total authorized units in Village 9 from 4,000 to 3,959 DUs

Village 9 Tentative Map Revision

- Revise the Land Use Table to reduce the multi-family units in Parcels A, B-1, B-2, D, E-1, E-2, H-1 and H-2 by a combined total of 41 DUs.

Village 3 Core Master Precise Plan

- Update the MPP to reflect the revised land uses within the Village Core (Prior to design review approval for R-19)

Development Agreement Amendments

- Amendments to the Development Agreements between HomeFed Village III Master, LLC and the City and FlatRock, LLC and the City are proposed.

CEQA

The Proposed Project will likely require preparation of an addendum to the University Villages Environmental Impact Report (University Villages EIR) certified by the Chula Vista City Council in December 2014. Analysis of the FlatRock LLC property would rely on the 2006 Villages 2, 3 and a Portion of Village 4 EIR. The technical studies prepared for the University Villages EIR and updated for the 2016 Addendum and the technical studies prepared for the 2006 Villages 2, 3 and a Portion of Village 4 will be evaluated, and the following technical memorandums and studies will be prepared to address plan changes.

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- Drainage Study for Otay Ranch Village 3, R-6 and R-20 Tentative Map (Hunsaker)
- Priority Development Project (PDP) Storm Water Quality Management Plan (SWQMP) for Otay Ranch Village 3, R-6 and R-20 Tentative Map (Hunsaker)
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- Overview of Sewer Service Update (Wilson Engineering)
- Overview of Water Service Update (Wilson Engineering)
- Geotechnical Investigation Letter (GEOCON)
- Fiscal Impact Analysis Update (Development Planning & Financing Group)

PROPOSED VILLAGE 3 AND A PORTION OF VILLAGE 4 SITE UTILIZATION TABLE:

Land Use	Land Use	Acres	Units	Target Density
VILLAGE 3				
Single Family				
R-1	SF	12.4	80	6.4
R-2	SF	12.3	65	5.2
R-3	SF	11.5	104	9.1
R-4	SF	9.5	75	7.9
R-5	SF	7.5	46	6.1
R-7	SF	3.8	22	5.8
R-8	SF	5.5	43	7.8
R-9	SF	6.7	40	6.0
R-10	SF	9.5	98	10.3
R-11	SF	5.7	37	6.5
R-12	SF	3.1	24	7.7
R-13	SF	6.6	58	8.8
R-17	SF	5.7	53	9.3
R-18	SF	2.3	24	10.4
Single Family Total		102.1	769	7.5
Multi Family				
R-6	MF	5.6	78	13.9
R-14	MF	5.0	71	14.2
R-15	MF	3.9	54	13.9
R-16 a/b	MF	4.6	54	11.7
R-19	MF	8.3	224	27.0
R-20	MF	10.9	116	10.6
Multi Family Total		38.3	597	15.6
Mixed Use				
MU-1a-d	MU	1.8	30	16.7
MU-2a-e	MU	7.2	242	33.6
Mixed Use Total		9.0	272	30.2

Land Use	Land Use	Acres	Units	Target Density
Residential Total		**149.4**	**1,638**	**11.0**
Community Purpose Facilities				
CPF-1	CPF	0.9		
CPF-2	CPF	0.9		
CPF-3	CPF	0.9		
Total CPF		**2.7**		
Private Open Space (POS 1-17)	**POS**	**5.3**		
Public Park P-1	**P**	**8.1**		
School	**S**	**8.3**		
Industrial				
I-1a	I	6.3		
I-1b	I	6.4		
I-2	I	4.6		
I-3a	I	4.2		
I-3b/c	I	7.8		
Total Industrial		**29.3**		
Open Space				
Open Space @ Village 3 North (OS 1, 2, 4-8, 17)	OS	19.8		
Open Space @ R-6/R-20 (OS 1-8)	OS	7.7		
Preserve @ Village 3 North (OS-12)	OS	157.2		
Preserve @ R-20 (OS-1)	OS	35.1		
Total Open Space		**219.8**		
Circulation				
External Circulation		21.0		
Internal Circulation		16.2		
Total Circulation		**37.2**		
Subtotal Village 3		**460.1**	**1,638**	
VILLAGE 4 (por)				
Public Park P-2	**P**	**17.8**		
Open Space (OS 9-11)	**OS**	**11.9**		

Land Use	Land Use	Acres	Units	Target Density
Subtotal Village 4 (por)		29.7		
TOTAL		489.8	1,638	

Item 2. Proposed Text Amendments by FPP Section

This is an amendment to the 2014 FPP and is a stand-alone document that addresses the proposed revisions to the Village 3 project area. All proposed amendments supersede the approved 2014 FPP for the following sections and shall be implemented within the R-6, R-19 and R-20 Village 3 Parcels:

1. **Section 1.3 Applicable Codes/Existing Regulations** shall be amended to also state that all new parcels and/or parcels with change of use/density shall include the application of the current 2019 Chula Vista Fire Code, namely Title 15 – Building and Construction, Section 15.36 which has adopted the 2019 California Fire Code, Section 15.08 adopting the 2019 California Building Code, specifically, Chapter 7A for development in wildland urban interface areas, and Section 15.09 adopting the 2019 Residential Code.

2. **Section 3.0 – Fire Response Capabilities** amendments address the outcome of the response time analysis prepared for parcels R-6, R-19 and R-20, changed circumstances and current data from the Proposed amendments to Section 3.0 are shown in redline format below.

3.0 Fire Response Capabilities

3.1 Estimated Calls and Demand for Service from the Project

This section analyzes the Village 3 ~~North~~ and Portion of Village 4 Project, including parcels R-6 and R-19 and incorporates parcel R-20 not previously included in the Village 3 North planning area, in terms of current CVFD Fire Service capabilities and resources to provide Fire Protection and Emergency Services. The analysis that follows examines the ability of the existing fire stations as well as fire stations planned in the approved FFMP to serve the area, including parcels R-6, R-19, and R-20 and ensure the timely provision of local fire protection and emergency service facilities. Response times were evaluated using build-out conditions. It was assumed that phased construction would include access roads to the newly constructed dwelling units and that the shortest access route to those dwellings would be utilized.

The nearest existing stations (Stations 3 and 7) vary with regard to their current call volume. The following call volumes were ~~estimated~~ taken from the ~~Chula Vista Fire Department's FFMP. Station 3 included responses from engine 53 (800 calls) and rescue unit 53 (1,250 calls) and Station 7 responses included engine 57 (1,100 calls) and truck 57 (350 calls).~~ City of Chula Vista's Fiscal Year 2017 Annual Report, Section 3.4[1]. Total calls for the CVFD are estimated to be approximately 23,000 annually[2]; Station 3 responded to 858 total fire and EMS calls, while Station 7 responded to 1,060 total fire and EMS calls.

[1] https://www.chulavistaca.gov/home/showdocument?id=15111
[2] https://www.chulavistaca.gov/departments/fire-department/about-us

These call volumes can be used to calculate average daily call volume. Based on the total number of calls handled in ~~2009~~ 2017 by each of these stations, the average daily call volume for each of the units within Stations 3 and 7 were:

- **Station 3:** 858 total calls = 2.5 calls per day~~engine 53 – 2.1 calls per day, rescue 53 – 3.4 calls per day~~
- **Station 7:** 1,060 total calls = 2.9 calls per day~~engine 57 – 3.0 calls per day, truck 57 – 1.0 calls per day~~

As shown in Table 6, using the CVFD estimate of ~~67~~ 84 annual calls per 1,000 population (2017 ~~2009~~ data), the Project's estimated 5,242 ~~5,126~~ residents and visitors would generate approximately 440 ~~343~~ calls per year (about ~~0.94~~1.2 calls per day), roughly 80– 85% of which (1.0~~0.8~~) call per day are expected to be medical emergencies, based on past call statistics.

Table 6. Calculated Call Volume Associated with the University Villages

Emergency Calls per 1,000 (~~2009~~ 2020 Chula Vista Data)	Estimated Population	Avg. No. Calls per Year (~~5,126~~5,242\1,000)~~x67~~x84	Avg. No. Calls per Day (~~431~~440/365)
~~67~~84	~~5,126~~5,242	~~343~~440	~~0.94~~1.2

Type of call	Per capita call generation factor	Number of estimated annual calls
Total Calls	100%	~~343~~440
Total Fires	1.2%	~~4.1~~5.0
Total EMS/Rescue Calls	85.9%	~~295~~378
Total Other Calls	12.9%	~~44.2~~57.0

The City predicts a population increase in the Otay Ranch Sub Area of some 53,000 people at build out. This corresponds to a calculated call volume of nearly ~~3,500~~ 4,450 calls per year, or roughly ~~10~~ 12 calls per day. This call volume added to existing call volume from existing stations that would respond to ~~this area~~ Village 3, including parcels R-6, R-19, and R-20, as first responder or as components of the Effective Fighting Force (EFF) would represent a significant increase. Additional stations would be necessary, and are planned, as identified by the City in its FFMP, to adequately absorb the increased demand from build out of Otay Ranch. With the addition of two planned fire stations in the area, as described in Section 3.2, and the currently low call volume at Stations 3 and 7, the additional calls associated with build out can be absorbed and would result in acceptable emergency response. Only a small number (estimated at ~~4.1~~5.0 calls per year) of fire related calls would be potentially realized at build out while the majority of calls would be medical related.

Based on the relatively low call volumes from existing, nearby fire stations, there is capacity to respond to a higher call volume. The stations'~~are~~ call volumes are currently considered ~~somewhat~~ approximately average (in terms of daily demand) based on their roughly five or fewer calls per day. A typical station averages around five calls per day and a busy station responds to about ten calls per day. Table 7 presents estimated call volume increases based on the demand from Village 3 ~~North~~ and a Portion of Village 4. The

estimated call volume increase assumes that each station would respond to the calculated ~~0.9~~1.2 calls/day given the proximity of stations.

Table 7. Calculated Call Volume Increase Per Station Associated with Village 3

Chula Vista Fire Station	Current Daily Call Volume	Estimated Daily Call Volume Increase	Estimated Total Daily Call Volumes with proposed Project
3	~~2.1 (engine) + 3.4 (rescue)~~2.5	~~0.94~~1.2	~~6.4~~3.7
7	~~3 (engine) + 1 (truck)~~2.9	~~0.94~~1.2	~~4.9~~4.1

If based only on call volume, the existing stations would be able to respond to Village 3 ~~North~~ and a Portion of Village 4 call volume increases. However, response times and cumulative call volume increases in Chula Vista's developing areas must also be considered when determining whether existing resources are adequate, or whether additional resources are necessary. Longer response times to structural fire emergencies may be partially mitigated based on the mandate of interior sprinklers in all structures. Sprinklers extend the fire flashover time or extinguish most room fires, thus compensating for a longer response. The measures outlined in the following section would mitigate potential longer response times by limiting the spread of and minimizing risks associated with fires.

3.2 Emergency Response

The Project Site is located within the City of Chula Vista Fire Department jurisdictional area. Village 3 ~~North~~ and a Portion of Village 4 would be serviced by existing Fire Station ~~7~~3, located approximately ~~2.9~~3.4~~3~~ miles from the furthest point in the project (southern portion of R-20) along with existing Fire Station ~~3~~7, located approximately ~~3.6 8~~3.5 miles from the project. If constructed as anticipated in the approved Chula Vista FFMP, the proposed Village 8 West Fire Station located ~~3.5~~3.8 miles to the most remote portion of Village 3, would also respond to emergency calls for service. Existing Fire Station 4 (~~3.7~~4.2 miles from the furthest portion of Village 3) and ~~the approved EUC~~ Fire Station 9 (~~4.93~~24.8 miles from the furthest portion of Village 3)~~, along with the approved EUC Fire Station (4.9 miles from the furthest portion of Village 3) would possibly also respond~~. Dudek conducted GIS based emergency response modeling from existing and planned fire stations to the furthest portion of Village 3 ~~project~~ to determine potential response coverage. The modeling utilized CVFD input variables that are consistent with the FFMP. Emergency travel time for first arriving engines from each station are provided in Table 8. Automatic and/or Mutual Aid agreements with surrounding fire departments are in place and would result in additional resources that were not analyzed as part of the Village 3 FPP.

Table 8. Village 3 CVFD Emergency Response Analysis

Chula Vista Fire Department Station No.	Total Mileage to Village 3 (furthest point)[1]	Estimated Response Travel Time (minutes)	% of Village within 5-minute travel time
		First Arriving	First Arriving
7	2.93.5[3]	5:.356:00	9079%
3	3.63.4[4]	6:465:49	0%
4	3.74.2	6:567:12	0%
9	4.8	8:15	0%
Proposed Village 8 West	3.53.8	6:366:30	1500%

1. Table 8 presents results of response travel time utilized the travel distances derived from Google road data while travel times are calculated using response speeds at an average of 35 mph, consistent with nationally recognized National Fire Protection Association (NFPA) 1710 and does not include turnout times.
2. Note that the EUC B station was used for modeling prior to selection by the City of EUC A station. Response time differences from EUC A are minimal.
3. Travel distance from CVFD Station 7 achieves 5-minute response time to the northern portion of Village 3, however, it's approximately 0.5 miles further to the southern portion of Land use Area R-6.
4. Travel Distance from CVFD Station 3 is able to provide a faster response time to Land Use Areas R-6 and R-20 (approximately 3.1 miles to southern portion of R-6) than Station 7, however, is not able to achieve the 5-minute response time to any portion of Village 3.

As indicated in Table 8and Figures 9 through 11, the first arriving engine from Station 7 achieves a 5-minute travel time throughout nearly 90 79% of the development, substantially conforming with the approved goal of 7 minutes 90% of the time (5 minutes travel + dispatch + turnout). The 90 79% achievement is based on a study of the number of lots in the project and the percentage of those lots that can be reached within 5 minutes travel using the Insurance Service Office's travel time formula distances derived from Google road data while travel times are calculated using response speeds at an average of 35 mph, consistent with the nationally recognized National Fire Protection Association (NFPA) 1710. The Effective Fighting Force (first 3 engines, 1 truck and battalion chief) could be on-scene within roughly 6:567:12 travel time from three closest existing stations and within 6:366:30 minutes (to the furthest village extent) from the proposed Village 8 West station. In this case, the proposed Village 8 West station does not provide significant time savings, as both EFF responses are under the 8-minute travel time goal.

Station 7 can successfully achieve response to 90 79% of Village 3 North and a Portion of Village 4 within 5 minutes 7.5 second travel time (all of the northern portion of Village 3) and the remainder areas of Village 3 areas (R-6 and R-20) within 5 6 minutes 35 seconds Achievement of 9079% coverage within 5 minutes is considered substantially conforming to the City's standard and the number of dwelling units beyond 5 minutes totals approximately 209 lots194 units in the R-6 and R-20 parcels located south of Main Street, which would not be expected to generate high numbers of calls. The proposed Village 8 West Station, as well as Stations 3 and 4, can respond within roughly 6:567:12 minutes, rounding out the EFF. NFPA 1710 sets the 4-minute response travel time standard, but includes a 90% qualifier, meaning 90% of the responses should include a 4-minute travel time for fire and medical responses. Paramedics (ALS) are not required to arrive until 8 minutes driving time for 90% of incidents, if there is a Basic Life Support (BLS) engine company with AED on scene sooner. Chula Vista includes paramedics on each engine and therefore, exceeds NFPA 1710 to Village 3 North and a Portion of Village 4. Based on the portion of Village 3 North and a Portion of Village 4 that is not within the 4-minute travel time coverage and the number of emergency calls anticipated from those areas, the net effect on the City's ability to meet a 4-minute travel time, 90% of the time will not be significantly affected.

Based on the available firefighting resources from existing stations, the call volume currently experienced along with that generated by Village 3 ~~North~~ and a Portion of Village 4, and the response times achievable by the existing stations, it is expected that overall response will substantially conform with NFPA 1710, at existing response resource levels. Call volume at Stations 7, 3, and 4 are currently estimated at ~~1,200~~1,060, ~~1,500~~858, and ~~1,400~~812 per year, respectively (2017 Fiscal Year Annual Report~~extrapolation from Chula Vista FFMP~~)[3]. The additional ~~0.9~~1.2 call per day expected to be generated by Village 3 ~~North~~ and a Portion of Village 4 would not significantly stress existing emergency response capabilities of existing stations, but when considered cumulatively with surrounding development and related calls, would have the potential to result in a significant impact.

Medical response does not meet the 5.~~5~~:30–6-minute critical time standards for first arriving including dispatch and turnout for the entire Village but does cover a substantial portion of Village 3 within that total response timeframe. With build-out of the area, Station 7 may not be available to respond to every medical emergency at Village 3 ~~North~~ and a Portion of Village 4, thus a slower response may be realized. None of the fire station locations provides an ideal solution to reduce travel times. However, with the addition of the proposed Village 8 West station, Station 7 may be more available to respond to medical and other emergencies in Village 3 ~~North~~ and a Portion of Village 4, resulting in maintenance of a reasonable response travel time (under 7-minutes for first responding) and adequate resources available to respond to typical wildfire and structure fires. Medical emergencies may be slower, unless contract ambulance response can be used to enhance medical emergency response.

3. **Section 4.1 Fuel Modification** (including Sections 4.1.1 and 4.1.2) shall be amended to require that the Project comply with the landscape and fuel modification plant palette contained in the 2014 FPP, Attachment 2, Approved Plant List and Attachment 3, Prohibited Plant List.

4. **Section 4.1.2 Other Vegetation Management** shall be amended to state the interface to the west of Village 3 is bisected by Heritage Road, which provides a 165-foot non-flammable boundary between residential structures and non-maintained fuels, including Manufactured Interior Maintained Landscaped slopes along Heritage Road and the Future Main Street extension, will be consistent with fuel modification zone guidelines. An interim FMZ shall be installed along the southern edge of the Village 3 core (north of the Future Main Street extension) until R-6 and R-20 development sites are completed. The interim FMZ shall be consistent with FMZ guidelines, including a 50-foot irrigated Zone 1 and a 50-foot thinned Zone 2. After completion of R-6 and R-20 development sites, the interim FMZ will be required to be maintained as Manufactured Interior Maintained Landscaped slopes consistent with the fuel modification zone requirements. Figure 12 – *Village 3 North Fuel Modification Zones Map* from the approved 2014 FPP has been updated and amends the FMZs.

5. **Section 4.2 Infrastructure** shall be amended to require that Fire apparatus access roads be marked as Fire Lane in accordance with CVFD standard detail for fire lanes. Locations shall be identified on site plan.

6. **Section 4.2.1 Access** shall be amended to require Fire apparatus access road dimensions be a minimum 24 feet in width and with an unobstructed vertical clearance of 13 feet 6 inches for all new parcels. The Project's engineer shall perform an Auto-Turn Analysis using CVFD auto-turn data and transpose results

[3] https://www.chulavistaca.gov/home/showdocument?id=15111

onto a dedicated sheet. All other layers on this specific sheet shall be turned off, showing only the Auto-Turn Analysis.

7. **Section 4.2.2 Secondary Access, Item 1** shall be amended to require dead end fire apparatus access roads in excess of 150 feet in length be provided with an approved area for turning around fire apparatus.

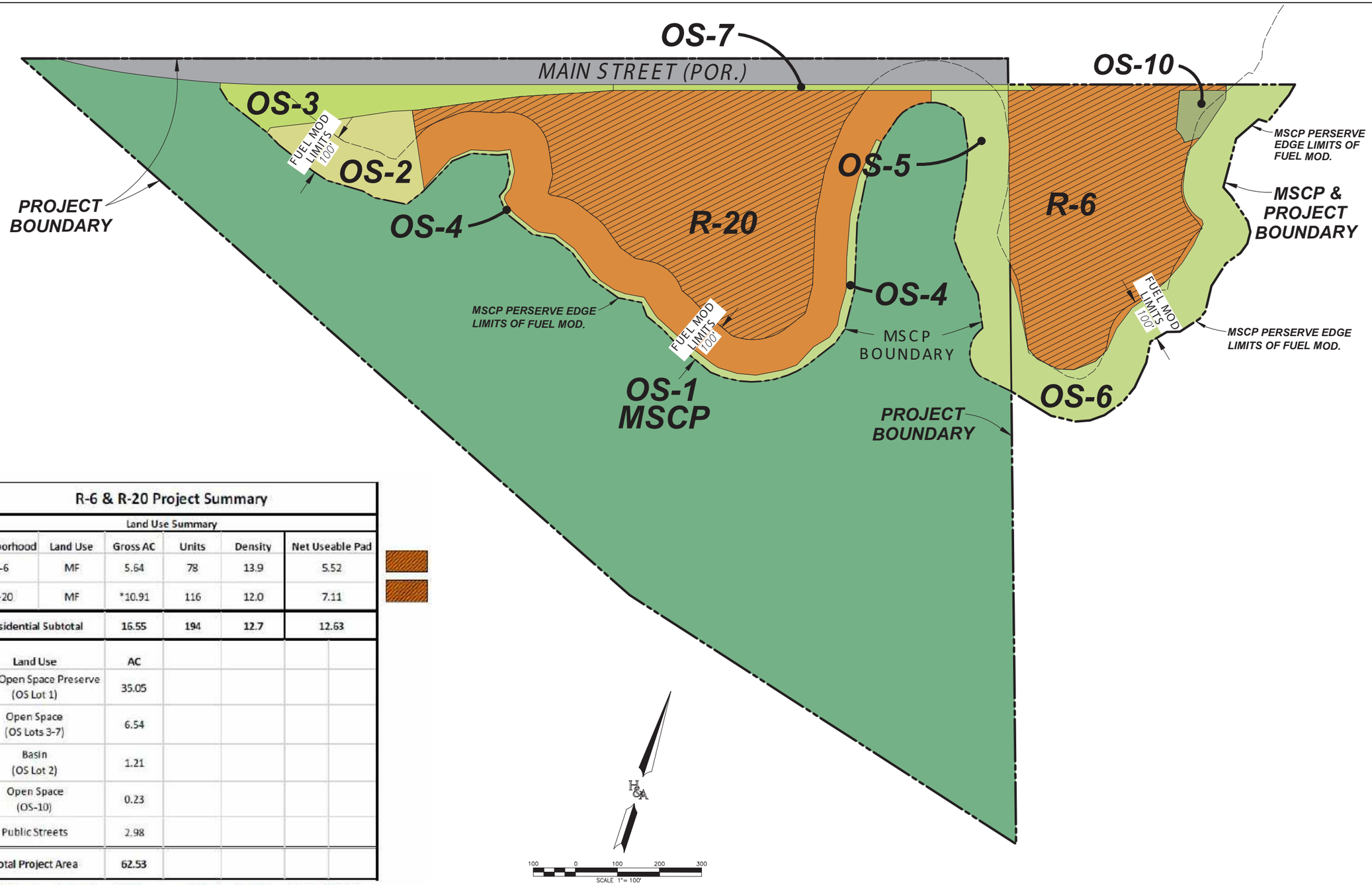
8. **Section 4.2.5 Water Supply** shall be amended to require Fire hydrant spacing throughout all new parcels maintaining an average spacing of 300 feet or 500 feet based upon the building makeup.

9. **Section 4.3 Structure Requirements** shall be amended to require the Project to provide Fire Department/Maintenance Access every 1,000 linear feet south of R-20 and R-6. Attachment 2 - *Revised Figure 12 – Fuel Modification Map* has also been updated to depict the locations of the Fire Department/Maintenance Access points.

Please feel free to contact me at (619) 992-9161, if you have any questions or require any additional information.

Attachment 1

Figures 2a and 2b – R-6, R-20, and R-19 Revised Land Use Maps



R-6 & R-20 Project Summary					
Land Use Summary					
Neighborhood	Land Use	Gross AC	Units	Density	Net Useable Pad
R-6	MF	5.64	78	13.9	5.52
R-20	MF	*10.91	116	12.0	7.11
Residential Subtotal		16.55	194	12.7	12.63
Land Use		AC			
MSCP Open Space Preserve (OS Lot 1)		35.05			
Open Space (OS Lots 3-7)		6.54			
Basin (OS Lot 2)		1.21			
Open Space (OS-10)		0.23			
Public Streets		2.98			
Total Project Area		62.53			

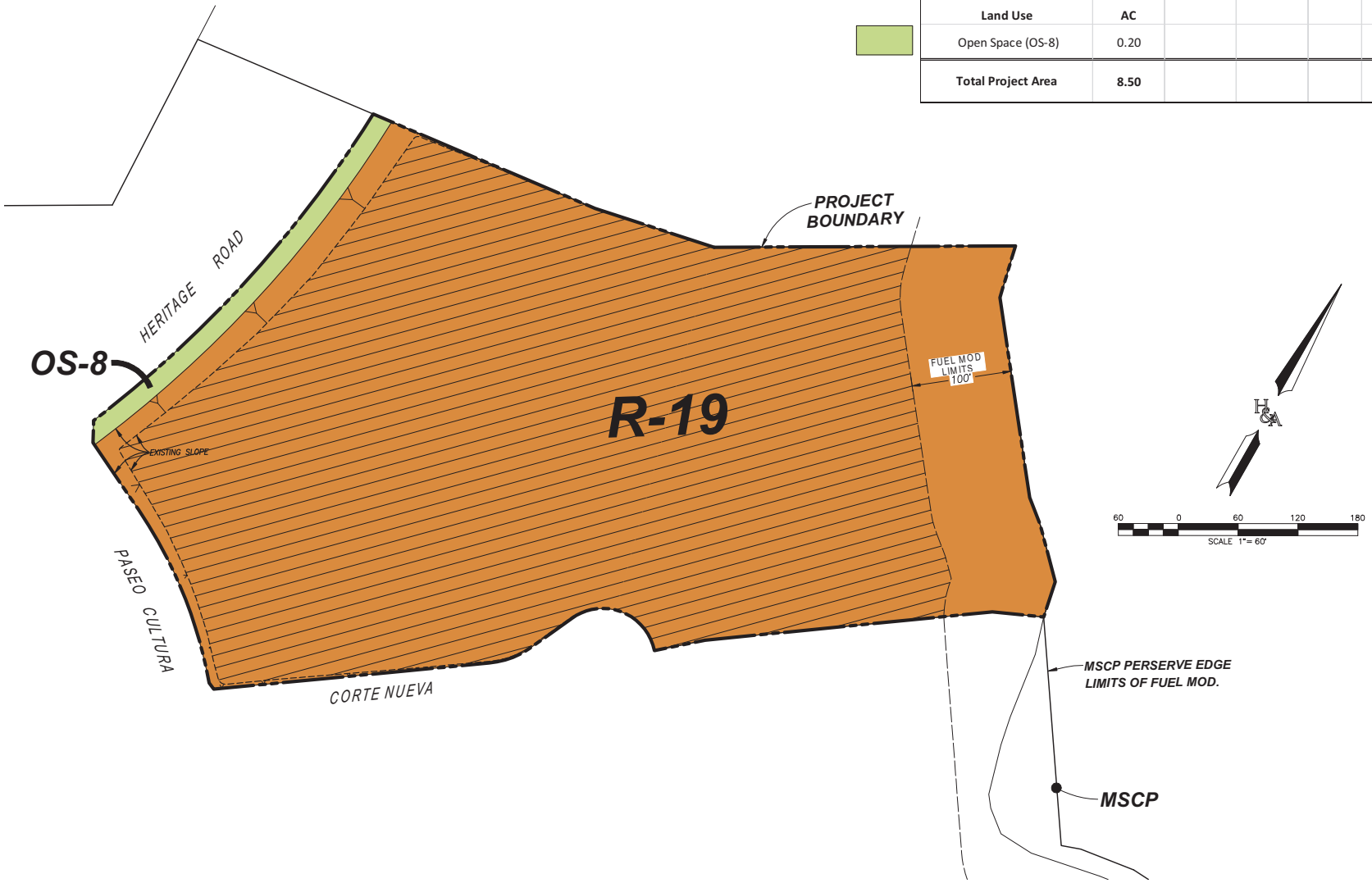
Notes: * Density calculated on 10.91 gross ac - 1.21 ac basin=9.70 ac x 12.0 = 116 DU's.
Acreages are rounded to the nearest 1/100th acre and may vary slightly from calculated total.

SOURCE: HUNSAKER AND ASSOCIATES, INC. 2020

DUDEK

FIGURE 2A
Land Use Plan – R-6 and R-20

R-19 Project Summary					
Land Use Summary					
Neighborhood	Land Use	Gross AC	Units	Density	Net Useable Pad
R-19	MF	8.30	224	27.0	7.10
Residential Subtotal		**8.30**	**224**	**27.0**	**7.10**
Land Use		**AC**			
Open Space (OS-8)		0.20			
Total Project Area		**8.50**			



SOURCE: HUNSAKER AND ASSOCIATES, INC. 2020

DUDEK

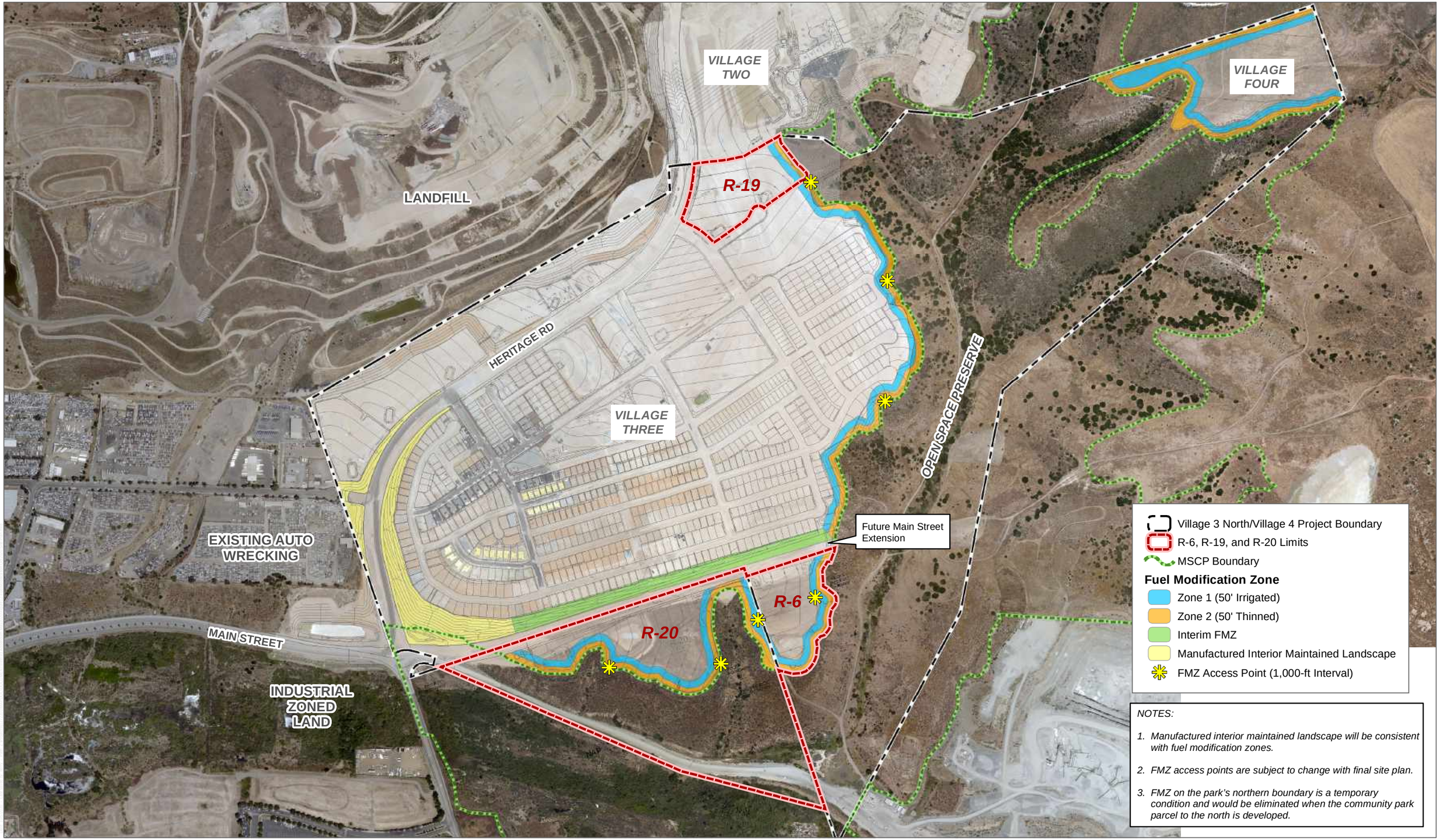
FIGURE 2B

Land Use Plan – R-19

Fire Protection Plan Addendum for the Otay Ranch Village Three

Attachment 2

Updated Figure 12 – Village 3 North Fuel Modification Zones of Approved Village 3 North Fire Protection Plan



SOURCE: HUNSAKER AND ASSOCIATES, INC. 2020

DUDEK

0 350 700 Feet

FIGURE 12

Fuel Modification Zone Exhibit

Fire Protection Plan Addendum for the Otay Ranch Village Three

UNIVERSITY VILLAGES

Otay Ranch Village 3 and a Portion of Village 4

Affordable Housing Program

Appendix F

ADOPTED DECEMBER 2, 2014
BY RESOLUTION NO. 2014-234

AMENDED DECEMBER 6, 2016
BY RESOLUTION NO. 2016-254

AMENDED _____
BY RESOLUTION NO. _____

TABLE OF CONTENTS

EXHIBIT LIST

I. INTRODUCTION

A. Purpose and Content

The purpose and intent of this Affordable Housing Program (AHP) is to encourage the development of diverse and balanced neighborhoods with a range of housing opportunities for all identifiable economic segments of the population, including households of lower and moderate income consistent with the City's housing policies and needs as specified in its General Plan Housing Element. The intent is to ensure that when developing the limited supply of developable land, housing opportunities for persons of all income levels are provided. The provisions of this AHP establish standards and procedures that will encourage the development of housing affordable to low and moderate income households within the Sectional Planning Area (SPA).

The AHP identifies the type and location of affordable housing units to be provided, potential subsidies or incentive programs, income restrictions and methods to verify compliance. The program may be implemented through various mechanisms including development agreements, tentative map conditions, and specific housing project agreements that may include additional terms and conditions, consistent with this program.

B. Needs Assessment

According to San Diego Association of Government's (SANDAG) Preliminary 2050 Cities/Counties Forecast, Chula Vista is expected to gain 92,454 new residents and 28,755 new households. Furthermore, SANDAG, through its Regional Housing Needs Allocation for the sixth housing element cycle, which covers an eight-year planning period (April 15, 2021 – April 15, 2029), the City would experience a demand for 11,105 new housing units, of which 4,527 or 41 percent of the new housing units are to be affordable to low and very low income households and 1,911 new housing units for moderate income households.

To encourage the development of adequate housing to meet the needs of low and moderate-income households and to further geographic and community balance, the City's adopted Housing Element provides for a Balanced Communities Policy, requiring ten percent (10%) affordable housing for low and moderate income households within developments of fifty (50) or more residential units. This inclusionary housing program will serve as only one component of the City's overall housing strategy and will complement other affordable housing efforts, including preservation of existing assisted housing, development of new assisted housing with public subsidies, first-time homebuyer assistance, and rehabilitation loans for low income homeowners. The City does find that such an inclusionary housing policy is beneficial to increasing the supply of housing affordable to households of lower and moderate income incomes and to meet the City's regional share of housing needs given the demographics of the community and its needs,

past housing production performance, and the existing opportunities and constraints as detailed in its Housing Element. The Balanced Communities Policy is necessary to meet the objectives of State Housing Element law requiring jurisdictions to affirmatively furthering fair housing by "taking meaningful actions ... that overcome patterns of segregation and foster inclusive communities" and "address significant disparities in housing needs and in access to opportunity."

The current characteristics of the City's population, housing, employment, land inventory, and economic conditions, that affect its housing goals, policies and programs include:

- The population has more diversity in race/ethnicity than the region, in that 17% of the population is white (non-Hispanic) and 61% is Hispanic (all races). This compares to - percent and - percent, respectively, for the region as a whole.
- There is a disparity in household median income from west to east of I-805. Forty-four percent (44%) of Chula Vista's housing earn below the San Diego Area median income and all such households live west of Interstate-805, with 12 percent of the households living below the federal poverty line. All households east of Interstate-805 earn above the median income.
- Household size is slightly larger than the region, at 3.3 persons per household compared to 2.8 per household for the region.
- Seniors, aged 62 years or older, comprise 12% of the total households.
- Housing west of Interstate-805 was built primarily before 1980 (32% before 1960 and 50% between 1960-1980). Housing east of Interstate-805 was built after 1980, with half of such housing built between 1980-2000 and after 2000.
- Housing types are diverse west of I-805, with 41% multifamily housing and 41% single family housing. Single family homes comprise the majority of housing available east of I-805 (82% of housing).
- With single family homes dominating the landscape east of I-805, housing is predominately owner occupied. West of I-805, housing is primarily renter occupied.
- The median housing cost (resale) in December 2019 of single family housing $660,000 for zip codes 91913-91915 is $26,250 more than the region's median cost of $633,750 for resale single-family homes.
- The well-established neighborhoods and master planned neighborhoods create different opportunities and require a different set of policies and programs to address housing needs.
- The amount of land in the City available for new residential development is severely limited by geography and size. The largest supply of vacant

developable land is planned for master planned communities.

- A high rate of new home construction is anticipated due to the many approved master planned communities in the City.
- Reinvestment in the well-established neighborhoods of Chula Vista continues to be needed.
- The City's diverse employment base will grow by more than 73% between 2008 and 2050, with the majority of growth in the retail, service and governmental sectors.
- Based upon past production of housing, sufficient housing opportunities for households with incomes at or below the Area Median Income have not been provided.
- Despite substantial investments of Federal HOME funds and funding from the Redevelopment Agency's Low and Moderate Income Housing Asset Fund (prior to the dissolution of Redevelopment), the City has not been able to produce all the units called for in the Regional Housing Needs Allocation.

Chula Vista faces a growing shortage of housing that is affordable to a wide range of our population and needed for a healthy functioning housing market. This lack of affordable housing is detrimental to the health, safety and welfare of the City's residents. Employees may be forced to live in less than adequate housing within the City, pay a disproportionate share of their incomes to live in adequate housing within the City or commute increasing distances to their jobs from housing located outside the City. The City's Balanced Communities Policy can enhance the public welfare by increasing the supply of housing affordable to households of lower and moderate income incomes in a balanced manner and thereby combating the adverse effects to the City due to an insufficient supply of affordable housing.

II. VILLAGE 3/4 AFFORDABLE HOUSING OBLIGATION, LOCATION, PHASING, DESIGN AND UNIT MIX

A. Obligation

The City of Chula Vista Housing Element, Guidelines to the Balanced Communities Policy, and the Otay Ranch GDP provide that ten percent of the total units will be affordable to low and moderate income households. Of the ten percent, five percent must be affordable to low income households and five percent must be affordable to moderate income households. In calculating the required number of affordable units, fractional units shall be rounded up to one additional affordable unit or paid as a partial in-lieu fee equal to the resulting fraction.

The estimated Village 3 affordable housing unit obligation is based on the Village 3/4 SPA entitlement authorization of up to 1,638 units within Village 3. The Village 4 portion of the SPA Plan area is a portion of the Otay Ranch North Community Park; therefore, there is no affordable housing obligation associated with Village 4.

The total affordable units required for Village 3 are approximately 164 units or up to 82 low income and up to 82 moderate-income affordable units.

B. Types of Affordable Housing

The housing policies established in the City of Chula Vista Housing Element advocate a broad variety and diversity of housing types. The affordable housing obligations of Village 3 will be met through a combination of housing types including rental and "for-sale" housing. In general, low-income housing needs will be satisfied through the provision of rental units. Depending upon the availability of adequate subsidies, incentives or other financing assistance, a limited number of "for-sale" multi-family housing units affordable to low income households may be available as well.

While Accessory Dwelling Units (ADUs) may provide for housing at a lower cost, ADUs shall not be used for satisfaction of the Balanced Communities affordable housing obligation. Given the significant need for rental housing opportunities for lower income households, particularly with larger households, ADUs provide a limited benefit in addressing this need.

Housing opportunities to meet the needs of moderate income households will be provided through a combination of rental units as well as "for-sale" housing in medium-high to higher density developments.

C. Location

The location of affordable housing developments shall take into consideration proximity to and availability of the following:

- Existing or proposed public transit facilities or transportation routes;
- Existing or proposed community facilities and services, such as shopping, medical, child care, recreation areas and schools; and
- Existing or future employment opportunities.

Affordable housing sites within Village 3/4 are designated as multifamily and/or mixed use development sites, as depicted in Exhibit 1. These sites are in close proximity to parks, schools, public transportation, retail commercial and community purpose facilities.

Identification of potential target sites in this Affordable Housing Program describes one way in which the Village 3 affordable housing obligation might be met and is not meant to require that affordable units be constructed on any specific sites or to preclude other alternatives. A final determination as to the location and type of the affordable housing sites will occur with subsequent entitlements, approvals and agreements and shall be in compliance with the City's goals, policies and programs contained within the General Plan, the Balanced Communities Policy Guidelines and

the Otay Ranch General Development Plan (GDP).

D. Phasing

Development of Village 3/4 will be completed in multiple phases to ensure construction of necessary infrastructure and amenities for each phase as the project progresses. The Phasing Plan is non-sequential. This recognizes that sequential phasing is frequently inaccurate due to unforeseen market changes or regulatory constraints. Therefore, the Village 3/4 SPA Plan and Public Facilities Finance Plan (PFFP) permits non-sequential phasing by imposing specific facilities requirements for each phase to ensure that Village 3/4 is adequately served, and City threshold standards are met.

A phased approach will also be used to ensure the implementation and production of low and moderate-income housing units commensurate with the phasing of market rate residential units within Village 3. Phasing of the low and moderate income units in Village 3 is designed to link progress toward the production of such housing to the continued entitlement and development process for the Village 3/4 SPA Area. The first or "Initial Phase" for construction of the low and moderate-income housing units shall be comprised of 60% of the total number of qualified low and moderate-income housing units and shall commence construction prior to the issuance by the City of the 798th production building permit within Village 3 ("Initial Phase"). Construction of the remaining number of required low and moderate-income housing units shall commence prior to the City's issuance of the 1,197th production building permit ("Final Phase"). A detailed implementation schedule and building permit stipulations for the construction and delivery of affordable units in relation to other market rate units will be established through an Affordable Housing Agreement.

Such Agreement was executed prior to the issuance of the first Final Subdivision Map within Village 3 and recorded against the entire Village 3 North site as the *Balanced Communities Affordable Housing Agreement (Otay Ranch Village 3)* (Doc # 2016-0700046). This agreement anticipated the construction of 1,265 of the 1,597 units authorized in the 2016 SPA Plan and calculated the affordable housing obligation as 64 low income units and 63 moderate income units. Per the Agreement, 30 moderate income units were provided within the Village 3 Mixed-Use site, with the balance (64 low income units and 33 moderate income units) transferred to Village 8 pursuant to the *Affordable Housing Transfer Agreement* (Doc # 2016-0700047).

As discussed above, the total authorized units within Village 3 would increase to 1,638 units and therefore, resulting in a corresponding increase in the affordable housing obligation, from 128 low and moderate income units to 164. A portion of the affordable housing obligation has been satisfied within Village 3 and Village 8 West. Based upon the incremental increase in authorized units per the recorded agreements, transfer of a portion of the obligations to Village 8 and previous

satisfaction of a portion of the obligations, the remaining Village 3 affordable housing obligation would be up to 19 low income units and 19 moderate income units. The Applicant shall be required to enter to an amended *Balanced Communities Affordable Housing Agreement (Otay Ranch Village 3)* to address this remaining Village 3 affordable housing obligation prior to issuance of a final map for Parcels R-6, R-19 or R-20, whichever map comes first.

E. Design

Affordable housing shall be compatible with the design and use of the market rate units, in terms of appearance, materials, and finish quality. The Developer shall have the option of reducing the interior amenities, levels and square footage of the affordable units.

F. Unit Mix by Bedroom Count

The affordable units shall have an overall unit mix by bedroom count which reflects the appropriate community need and shall be comparable to the unit mix by bedroom count of the market rate units in the residential development. Given that 21 percent of the households in Chula Vista (according to the 2010 Census) are large families of five persons or more and a desire on the part of the City to provide housing opportunities for these families throughout the City, a minimum of twenty percent (20%) of the affordable units shall have three or more bedrooms. Affordable housing to be sold and occupied by income eligible households (for sale units) shall also provide a minimum of two bedrooms.

G. Senior Housing

Satisfaction of the affordable housing obligation through the provision of housing for senior citizens as defined by Section 51.3 of the California Civil Code, is at the sole discretion of the City of Chula Vista. The City shall consider such housing in relation to the priority needs of the City's low income housing population and should such provide advantages as to location, diversity of housing types, and/or affordability levels. Senior housing is exempt from requirements to provide three or more bedroom units.

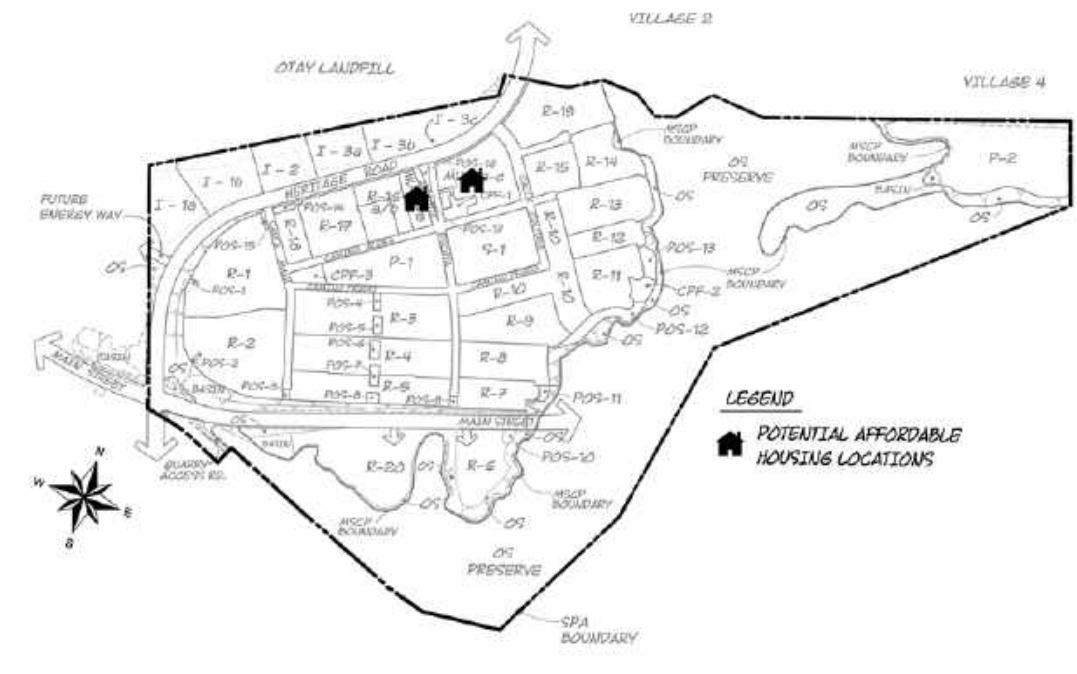


Exhibit 1
Affordable Housing Potential Location Map

III. AFFORDABLE HOUSING RESTRICTIONS

A. Income Eligibility

To determine the eligibility of a household for the low and/or moderate income housing unit, the household purchasing or renting the affordable unit must qualify as a lower income/moderate income household, as established by and amended from time to time pursuant to Section 8 of the United States Housing Act of 1937, as published by the U.S. Department of Housing and Urban Development (HUD), and as also provided in California Health and Safety Code Sections 50079.5 and 50105.

B. Affordable Housing Costs

The allowable housing expense paid by a qualifying household shall not exceed a specified fraction of the gross monthly income, adjusted for household size, for the following classes of housing:

1. Very low-income, rental and for-sale units: 30 percent of the gross monthly income, adjusted for household size, at 50 percent of the Area Median Income (AMI) for San Diego County, or as provided in Section 50053 (b)(2) and 50052.5 (b)(2) of the California Health and Safety Code.

2. Lower-income, rental units: 30 percent of the gross monthly income, adjusted for household size, at 60 percent of the Area Median Income (AMI) for San Diego County, or as provided in Section 50053 (b)(3) of the California Health and Safety Code.
3. Lower-income, for-sale units: 30 percent of the gross monthly income, adjusted for household size, at 70 percent of the Area Median Income (AMI) for San Diego County or as provided in Section 50052.5 (b) (3) of the California Health and Safety Code.
4. Moderate-income, rental units: 30 percent of the gross monthly income, adjusted for household size, at 110 percent of the Area Median Income (AMI) for San Diego County or as provided in Section 50053 (b)(4) of the California Health and Safety Code.
5. Moderate-income, for-sale units: 28 to 35 percent of the gross monthly income, adjusted for household size, at 110 percent of the Area Median Income (AMI) for San Diego County or as provided in Section 50052.5 (b)(4) of the California Health and Safety Code.

To determine the "Allowable housing expense" include all of the actual or projected monthly or annual recurring expenses required of a household to obtain shelter.

1. For a for-sale unit, allowable housing expenses include payments for principal and interest on a mortgage loan, including any loan insurance fees, property taxes and assessments, fire and casualty insurance, homeowner association fees, and a reasonable allowance for utilities, or as defined in 25 California Code of Regulations Section 6920.
2. For a rental unit, allowable housing expenses include payments for rent and a reasonable allowance for utilities, or as defined in 25 California Code of Regulations Section 6918.

C. Underwriting Requirements

To ensure the preservation of affordability of proposed low and moderate-income housing and financial viability of program participants, the City shall encourage the following policies:

- Fixed rate mortgages only. No adjustable rate mortgages;
- Affordable monthly housing payments no more than 33 percent of household income ("Front End Ratio").
- Total debt payments no more than 45 percent of household income ("Back End Ratio").
- No "teaser" rates; and,
- No non-occupant co-borrowers.

D. Resale Provisions of Owner Occupied Housing

In order to ensure the continued affordability of the units, resale of the units must be restricted for the required term of fifty-five (55) years and shall comply with City of Chula Vista Council Policy 453-02, *Development of Affordable for Sale Housing for Low- and Moderate-Income Buyers*, as it may be amended by the Chula Vista City Council from time to time. After initial sale of the affordable units to a low-income household, all subsequent buyers of such units must also be income eligible and the unit must be sold at an affordable price. A developer may opt to have no income or sales price restriction for subsequent buyers, provided however that restrictions to the satisfaction of the City are in place that would result in the recapture by the City or its designee of a financial interest in the units equal to the amount of subsidy necessary to make the unit affordable to a low income household and a proportionate share of any equity. Funds recaptured by the City shall be used to provide assistance to other identified affordable housing production or contributions to a special needs housing project or program. To the extent possible, projects using for-sale units to satisfy the obligations of developers under the City's Affordable Housing Program shall be designed to be compatible with conventional mortgage financing programs including secondary market requirements.

E. Term of Affordability Restrictions

The term of the affordability restrictions shall be fifty-five years (55) years from issuance of the Certificate of Occupancy for the first structure providing income and rent restricted units, consistent with required terms under State housing programs, or the longest period of time if required by the construction or mortgage financing assistance program, mortgage insurance program, or rental financing subsidy or incentive program. The term of affordability and resale restrictions for affordable for-sale units are more appropriately described above in "Resale Provisions of Owner Occupied Housing."

IV. SUBSIDIES, INCENTIVES AND FINANCING MECHANISMS

The obligation to provide affordable housing shall not be dependent upon the availability of subsidies, incentives or financing mechanisms. The City shall consider providing incentives, assistance, and subsidies to those qualifying projects and supporting any applications for assistance that requires approvals from, or allocations by other agencies, to the extent feasible, in a manner that offsets the cost of providing for affordable units. Offsets will be offered by the City to the extent that resources and programs for this purpose are available to the City and to the extent that the qualifying projects, with the use of the offsets, assists in achieving the City's housing goals. To the degree such offsets are available, the Developer may make application to the City. The City agrees to use its reasonable best efforts to assist the Developer in pursuing the benefit of certain financing mechanisms, subsidies and other incentives to facilitate provision of affordable housing for Village 3/4. These mechanisms include, but are not limited to, local, state and federal subsidies and City density bonuses, planning, and design and development

techniques and standards, and City fee waivers or deferrals which reduce the cost of providing affordable housing (collectively, the "Cost Reducing Mechanisms").

The parties acknowledge that the City is not hereby committing, directly or through implication, a right to receive any offsets from City or any other party or agency to enable the Developer to meet the obligations and cannot guarantee the availability of any Cost Reducing Mechanisms to the Developer for Village 3/4. The City reserves the right to approve, approve with conditions or disapprove, in its sole discretion, any Developer request for subsidized financing sponsored by the City.

A. Density Bonus

Projects that meet the applicable requirements of State law (Government Code Section 65915) as a result of affordable housing units, are entitled to a density bonus or other incentives in accordance with the provisions of such law.

V. COMPLIANCE

Terms related to occupancy and affordability restrictions shall be recorded as a separate deed restriction or regulatory agreement, along with a deed of trust, solely on the property designated for the affordable units and shall bind all future owners and successors in interest for the term of years specified therein.

The City shall monitor affordable units for compliance with those terms and conditions of all relevant Affordable Housing Agreements or other restrictions. The Developer shall submit compliance reports in the frequency and manner prescribed by the City of Chula Vista Development Services Department.

VI. AFFIRMATIVE MARKETING PLAN

The Developer shall provide a marketing plan acceptable to the City, in the City's reasonable discretion, for proactively marketing the low and moderate income housing units to low and moderate income tenants and purchasers. Developer shall use good faith and reasonable best efforts to market the low and moderate income housing units to low and moderate income tenants and purchasers according to the affirmative marketing plan. The City will use good faith and reasonable best efforts to assist the Developer in marketing low and moderate income housing units to low and moderate income tenants and purchasers obtaining the services of a third-party organization in connection with such marketing efforts, processing the applications of prospective tenants and purchasers of low and moderate income housing units, and complying with the reporting requirements as required herein.

Selection of tenants shall be made randomly by lottery within the following levels of priority, subject in all circumstances to applicable limitations imposed by law, including, without limitation, the Fair Housing Act under Federal law:

A. Priority. Households which are displaced from their primary residence as a result of an action of City or Agency, a condominium conversion involving the

household's residence, expiration of affordable housing covenants applicable to such residence, or closure of a mobile home or trailer park community in which the household's residence was located, and the household resided in such housing as the household's primary place of residence for at least two years prior to such action or event.

B. Second Priority. Households which meet one of the following criteria: (i) households which are displaced from their primary residence as a result of an action of City or Agency, a condominium conversion involving the household's residence, expiration of affordable housing covenants applicable to such residence, or closure of a mobile home or trailer park community in which the household's residence was located, and the household resided in such housing as the household's primary place of residence for at least one year but less than two years prior to such action or event; (ii) households with at least one member who resides within the City, as that person's primary place of residence; (iii) households with at least one member who works or has been hired to work within the City, as that person's principal place of full-time employment; or (iv) households with at least one member who is expected to live within the City as a result of a bona fide offer of employment within the City.

C. Third Priority. Other Low Income Households who do not meet the criteria for first priority or second priority above.

VII. IMPLEMENTING AGREEMENTS AND CONDITIONS

This AHP may be implemented through various mechanisms including development agreements, tentative map conditions, and specific housing project agreements that may impose additional terms and conditions consistent herewith.

VIII. DEFINITIONS

Affirmative Marketing Plan
An outline that details actions the Developer will take to provide information and otherwise attract eligible persons in the housing market area to the available housing without regard to race, sex, sexual orientation, marital status, familiar status, color, religion, national origin, ancestry, handicap, age, or any other category which may be defined by the law now or in the future.

Low Income Household
A household of persons who claim primary residency at the same unit with combined incomes that are greater than 50%, but not more than 80% of the Area Median Income for the San Diego area based on household size as determined annually by the U.S. Department of Housing and Urban Development (HUD). Household size is calculated by the number of persons residing at the same unit as their primary residency.

Moderate Income Household
A household of persons who claim primary residency at the same unit with combined incomes between 80% to 120% of the Area Median Income for the San Diego area based on household size as determined annually by the U.S. Department of Housing and Urban Development (HUD). Household size is calculated by the number of persons residing at the same unit as their primary residency.

San Diego Area Median Income
The San Diego County area median income level as determined from time to time by HUD, based on household size.

Subsidized Financing
Any financing provided by any public agency specifically for the development and construction of low or moderate income housing units, including but not limited to the following:

- Low Income Housing Tax Credits (LIHTC) – statewide competition;
- Housing Bonds – State;
- Housing Bonds – City of Chula Vista;
- HOME – City of Chula Vista and County of San Diego;
- Community Development Block Grants – City of Chula Vista; and,
- Other Public Financing – State and Federal.