

The Chula Vista Fire Department would provide fire services for the proposed project area. Fire Station Number 7 is located adjacent to the Village Two core, and two additional fire stations are planned within Village Eight West and the Eastern Urban Center. The analysis of the proposed project's impacts on police and fire services is provided in Section 5.12 of this EIR. The proposed project includes 100-foot fuel modification zones around the perimeter of each village adjacent to natural open space, with specific management directives to limit the spread of wildfire from the adjacent Preserve areas. Figures 4-32 through 4-34 depict the proposed fuel modification zones for Village Three North and a Portion of Village Four, Village Eight East, and Village Ten.

American Medical Response provides emergency medical services on a contract basis within the City of Chula Vista. The proposed project would increase the demand on emergency medical services. Additional information regarding police, fire, and emergency medical services is provided in Section 5.12 of the EIR.

### **Library**

The Otay Ranch Facility Implementation Plan calls for the location of an approximately 36,750-square-foot "Main" library in the Eastern Urban Center. No library facilities/services are required in other Otay Ranch villages, including the project area. Additional information regarding library services is provided in Section 5.12 of the EIR.

### **Solid Waste**

Residential and commercial solid waste generated by the proposed project would be collected by Republic Waste Services and be disposed of at the Otay Landfill. The City has a construction and demolition debris recycling program that mandates that 90% of all inert material (rock, dirt, concrete, brick, etc.) and 50% of all other debris be diverted from disposal. Implementation of the proposed project would increase the amount of solid waste generated in the City. Information regarding solid waste services is provided in Section 5.13 of the EIR.

### **Gas and Electric**

Gas and electric service are provided by San Diego Gas & Electric, the owner and operator of electricity transmission and distribution and natural gas distribution infrastructure in the County. Implementation of the proposed project would increase energy consumption.

### **Cable and Telephone**

Various service providers provide cable and telephone services in the San Diego region. The proposed project would require extension of these services to the project site.

## **Community-Purpose Facility**

The City of Chula Vista CPF Ordinance allows exemption for projects in which an agreement is entered into providing a Public Benefit in exchange for providing less CPF sites. The proposed project is subject to a Land Offer Agreement (LOA) with the City whereby the requirement would be reduced to 4 acres per village if the City accepts the Irrevocable Offers of Dedication for the university property. CPF uses are described by the Chula Vista Municipal Code, Section 19.48.025. Further information regarding CPFs is provided in Sections 5.1 and 5.12 of the EIR.

### **4.2.5 Conceptual Grading**

Grading for the proposed project would utilize grading practices consistent with the requirements of the Chula Vista General Plan, the Otay Ranch GDP, the Otay Ranch Overall Design Plan, and the Otay Ranch Phase 2 RMP. Grading of the site would consist of maximum cuts and fills of approximately 80 and 90 feet, respectively, with cut and fill slopes having a maximum height of 85 and 90 feet, respectively, and a maximum slope inclination of 2:1 (horizontal to vertical). All slopes would be landscaped. Grading for the proposed project would result in a total of 14.31 million cubic yards of balanced cut and fill material on site.

The conceptual grading plans for each village of the proposed project are described in the following subsections.

#### **Village Three North and a Portion of Four**

The proposed raw grading quantity for Village Three North and a Portion of Village Four is approximately 5,405,000 cubic yards of cut and fill that would balance on each of the two separate land areas.

#### **Village Eight East**

The proposed raw grading quantity for Village Eight East is approximately 4,855,000 cubic yards of balanced cut and fill. The grading of the Community Park (P-2) will be balanced on site (i.e., – no export/import will be required through the Preserve).

#### **Village Ten**

The proposed raw grading quantity for Village Ten is approximately 3,400,000 cubic yards of cut and fill that would balance on site. In addition, 650,000 cubic yards of grading on the adjacent University property is required for the construction of two off-site roads: Discovery Falls and University Drive. All grading associated with Discovery Falls and University Drive, including the borrow/disposal site, would balance within the University site.

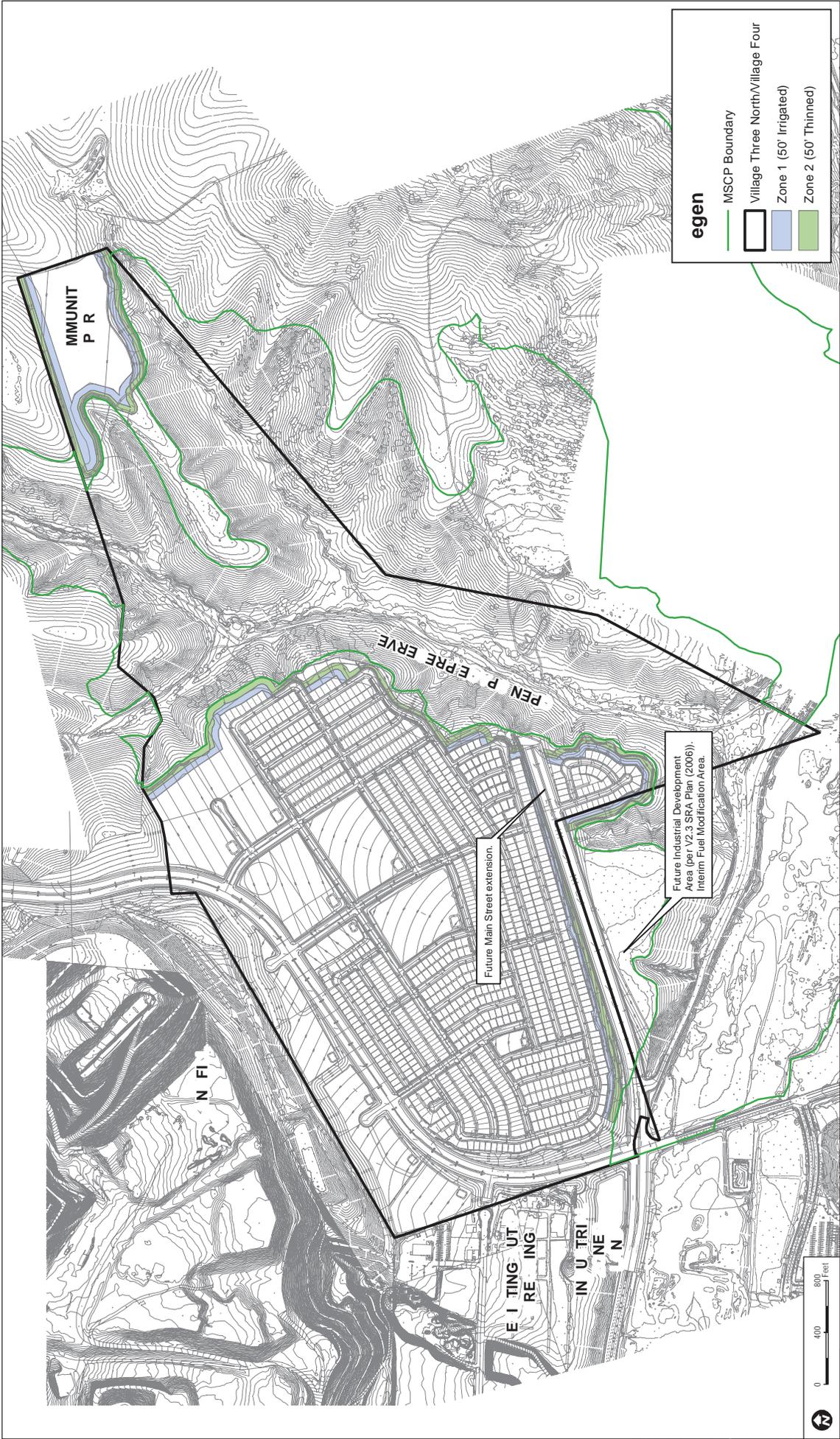


FIGURE 4- 2  
 Village Three North and a Portion of Village Four Fuel Modification Zones

UNIVERSITY VILLAGES PROJECT

7000

INTENTIONALLY LEFT BLANK

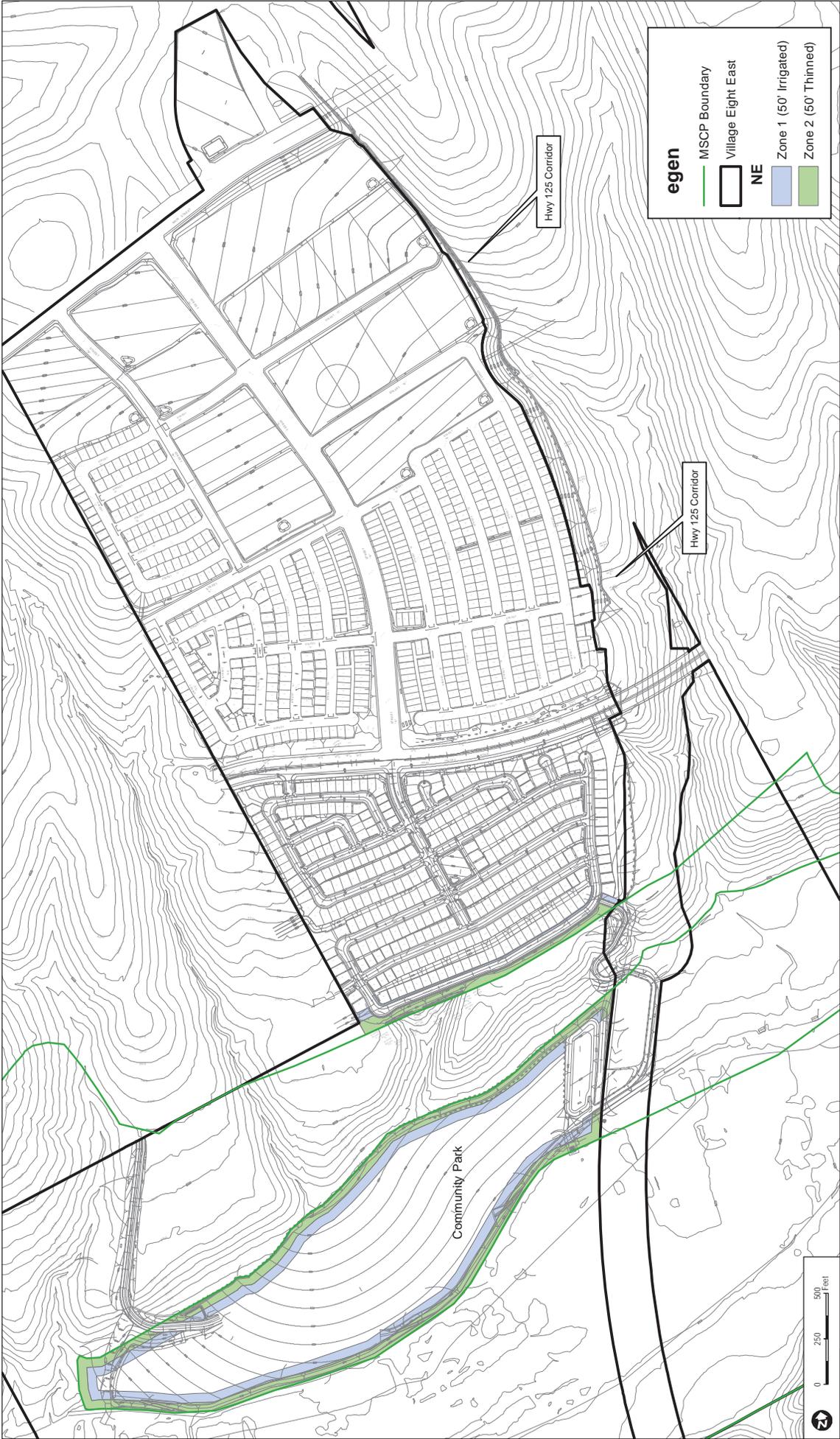


FIGURE 4-  
 Village Eight East Fuel Modification Zones

UNIVERSITY VILLAGES PROJECT

7000

INTENTIONALLY LEFT BLANK

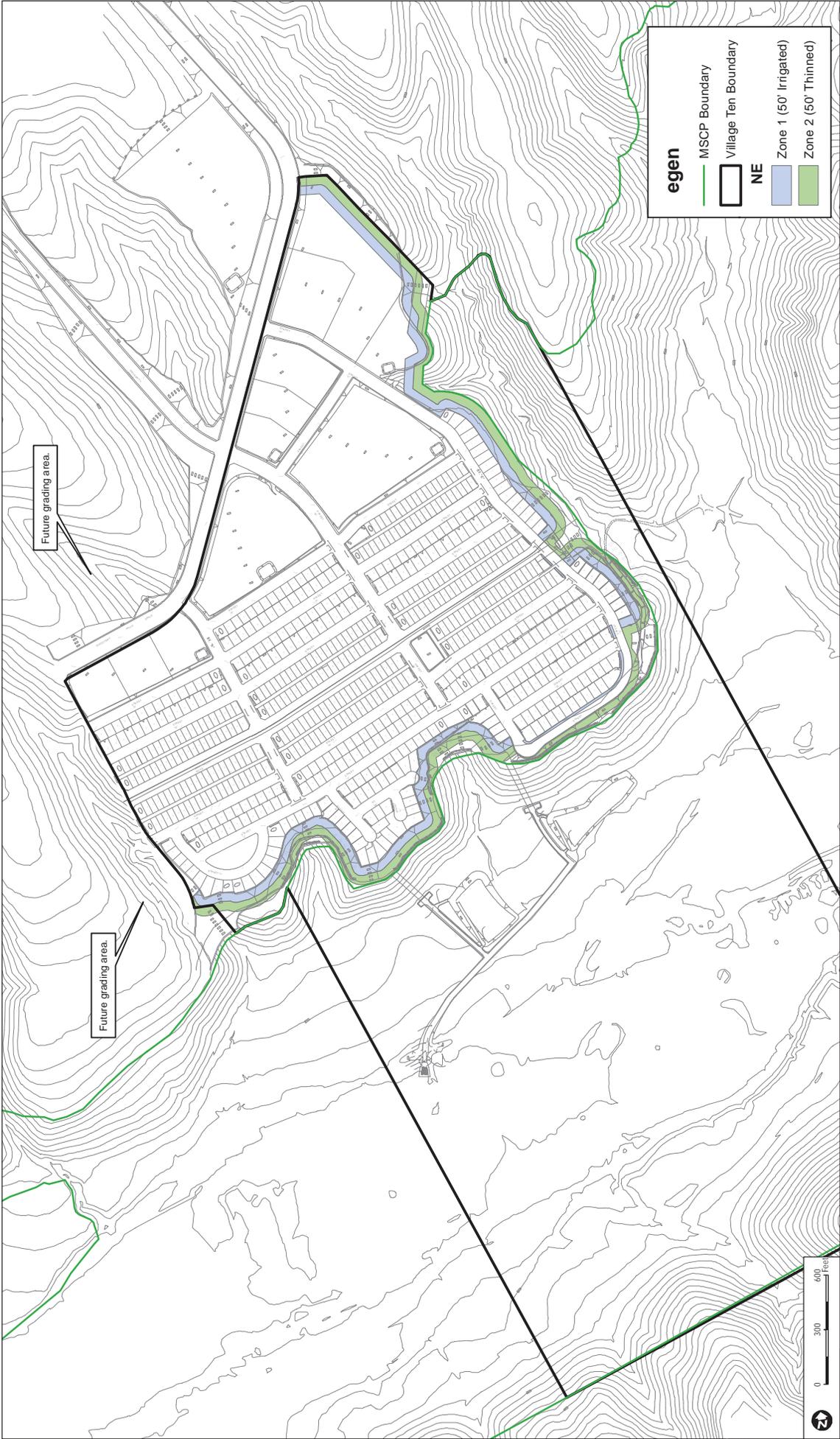


FIGURE 4- 4

Village Ten Fuel Modification Zones

UNIVERSITY VILLAGES PROJECT

7000

INTENTIONALLY LEFT BLANK

Figures 4-35 through 4-37 depict the proposed conceptual grading plans for Village Three North and a Portion of Village Four, Village Eight East, and Village Ten; and Figures 4-38 through 4-40 depict the proposed cut and fill for Village Three North and a Portion of Village Four, Village Eight East, and Village Ten.

#### **4.2.6 Tentative Maps**

Three TMs are proposed for the SPA Plan Areas concurrent with the SPA Plans. Figures 4-41 through 4-43 depict the proposed TMs for Village Three North and a Portion of Village Four, Village Eight East, and Village Ten. The TMs would address subdivision of the sites, street standards, and infrastructure. They would also address provisions for underground encroachment (e.g., all underground utilities line, etc.) into the right-of-way, off-site streets, and grading required to implement the subdivision. This includes the re-location of the City of San Diego waterlines in Villages Eight East and Ten.

#### **4.2.7 Construction Phasing**

Construction of the proposed project is anticipated to begin with Village Three North in late 2014<sup>4</sup>. Construction of the residential portion of Village Three North is anticipated to be complete in September 2018 and the non-residential portion (Industrial) is anticipated to be complete by 2025. Generally, Village Three North is expected to phase from northwest to southeast. Construction of Village Eight East is anticipated to begin in February 2016 and to be complete in September 2024. Village Eight East is expected to phase from north to south. Lastly, construction of Village Ten is anticipated to begin in August 2023 and to be complete in September 2029. Village Ten is expected to phase from north to south. Phasing dates are different between the Traffic Impact Analysis (Appendix M) and the EIR, because the TIA only analyzes the project in 5-year increments.

Figures 4-44 through 4-46 depict the conceptual phasing plans for Village Three North and a Portion of Village Four, Village Eight East, and Village Ten, respectively. The water quality basins depicted in Figure 4-44 for Village Three North and Portion of Village Four will serve any and all of the development, therefore, it is not constructed in any particular phase. It will be constructed and operational prior as required by the Village Three North Public Facilities Financing Plan (PFFP). Similarly, the water quality basins depicted in Figure 4-46 for Village Ten are required to serve any and all phases of development and would be constructed and operational as required by the Village Ten PFFP.

---

<sup>4</sup> The original construction schedule beginning in March 2014 is analyzed for the proposed project; however, as identified above, construction would start at a later date. The construction scenario and schedule analyzed as part of the proposed project analysis is considered conservative.

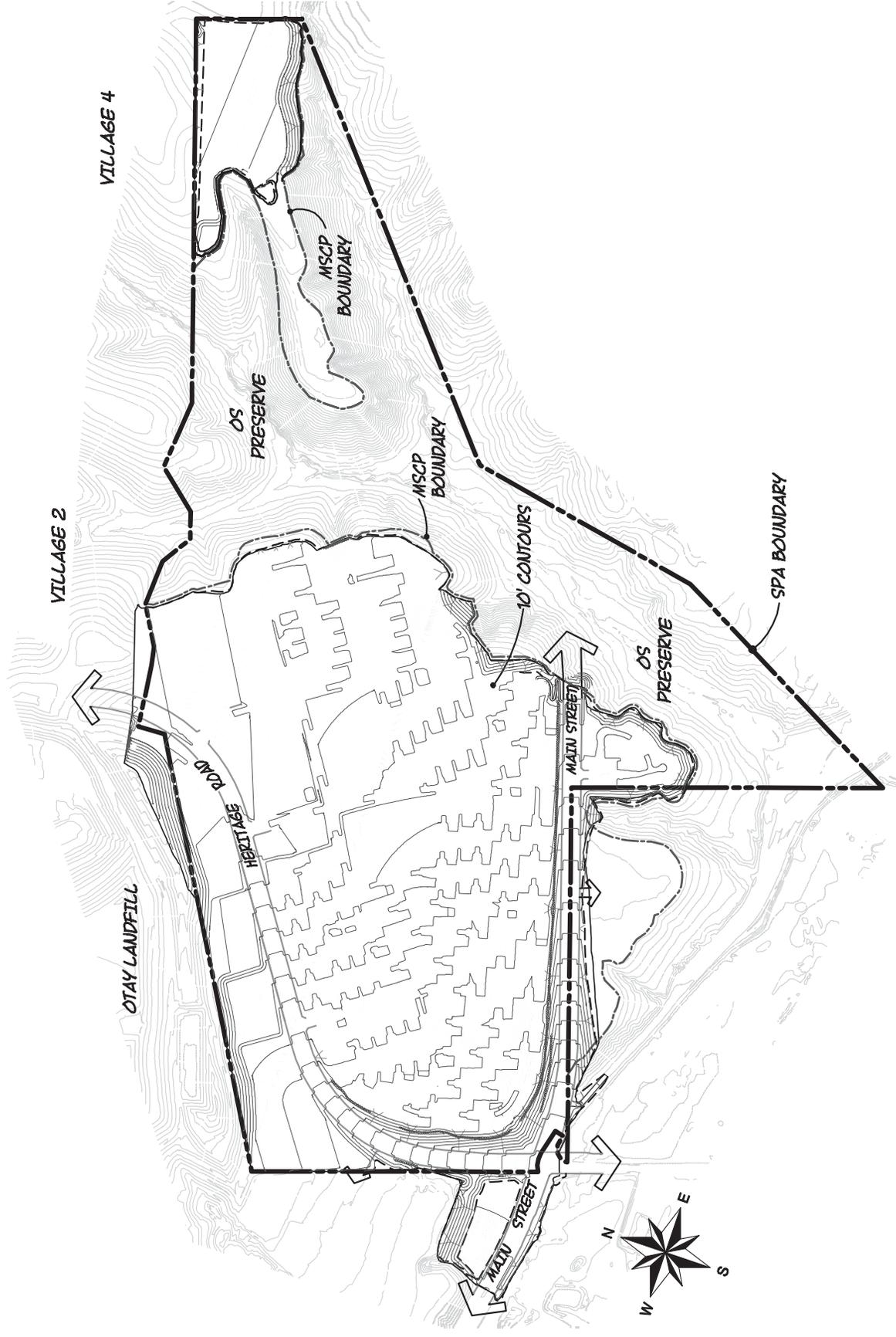
The proposed project is analyzed in accordance with the assumed phasing schedule identified above, and further refined in Table 4-3 below. If the project is not implemented in accordance with the assumed phasing schedule, additional planning and environmental analysis will be required.

Public facilities finance plans (PFFPs) have been prepared as appendices for each SPA plan. The PFFPs define different phases of development within each village, identify the infrastructure improvements and services required for each phase of development, and establish triggers for when those improvements and services must be performed to meet the City's Growth Management thresholds. In addition, the proposed project's Traffic Impact Study (Chen Ryan 2014, Appendix M) was based on specific phasing assumptions for each horizon year (5-year increments). Table 4-3 provides the phasing by horizon year assumed in the Traffic Impact Study.

**Table 4-3  
Project Land Use by Study Year**

Land Use	Village Three North			Portion of Village Four			Village Eight East			Village Ten		
	2015	2020	2025	2030	2015	2020	2025	2030	2015	2020	2025	2030
Single Family (DU)	408	1,002	1,002	1,002	-	-	-	963	0	0	288	691
Multi-Family (DU)	250	595	595	595	-	-	-	2,597	0	0	438	1,049
Mixed-Use Commercial (KSF)	0	10	20	20	-	-	-	20	0	-	-	-
Office (AC)	0.0	9.8	9.8	16.1	-	-	-	-	-	-	-	-
Light Industrial (AC)	0.0	10.2	16.7	23.1	-	-	-	-	-	-	-	-
CPF (AC)	1.0	1.5	1.5	1.5	-	-	-	4.2	0.0	0.0	0.8	4.6
Elementary School (AC)	0.0	8.3	8.3	8.3	-	-	-	10.8	0.0	0.0	0.0	8.9
Neighborhood Park (AC)	0.0	7.8	7.8	7.8	-	-	-	7.3	0.0	0.0	0.0	7.1
Community Park (AC)	-	-	-	-	0.0	17.8	17.8	17.8	0.0	0.0	-	-

INTENTIONALLY LEFT BLANK



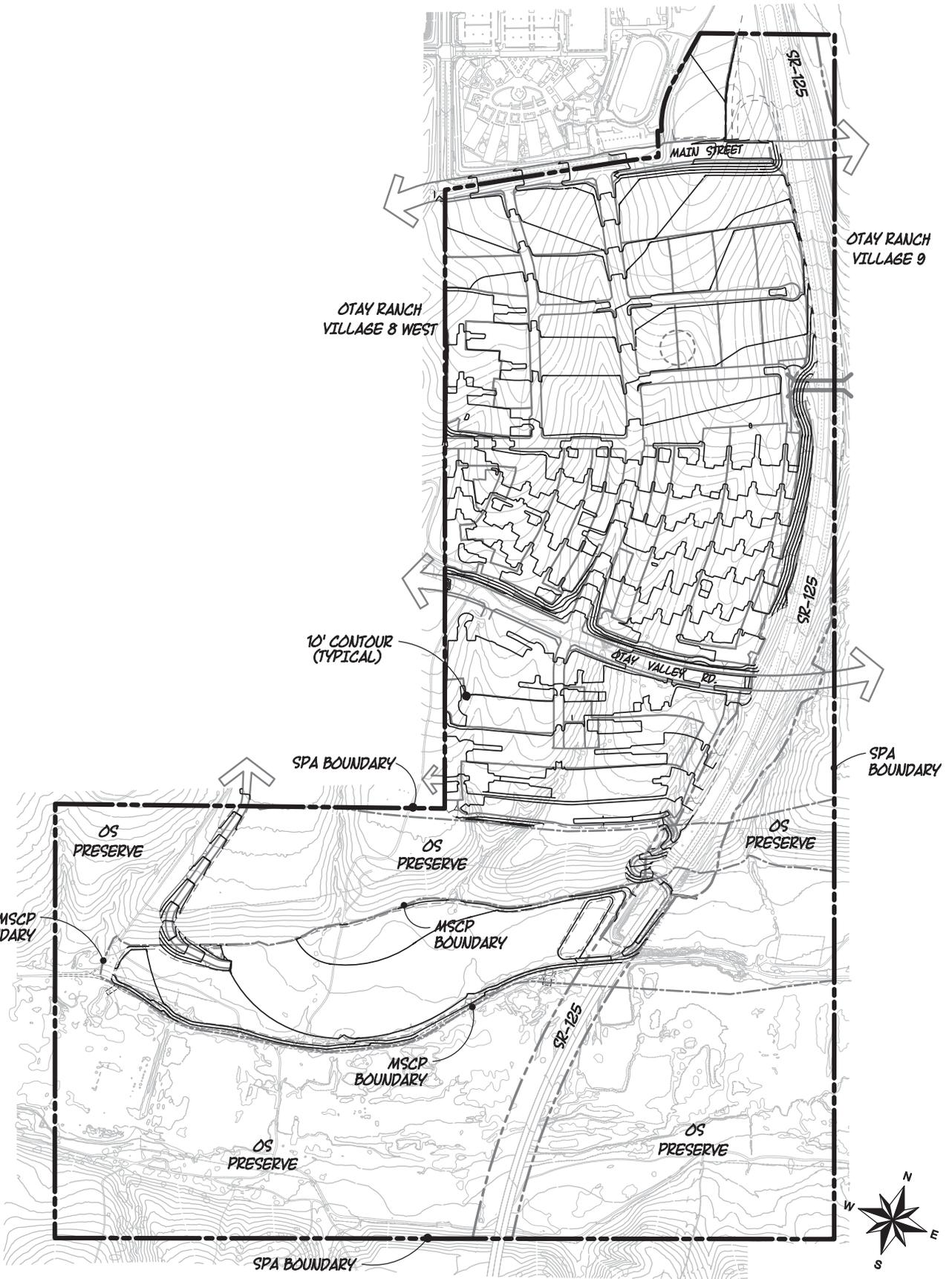
SOUR E OT R E OMES 2014

FIGURE 4-35  
Conceptual Grading Plan for Village Three North and a Portion of Village Four

7000

UNIVERSITY VILLAGES PROJECT EIR

INTENTIONALLY LEFT BLANK



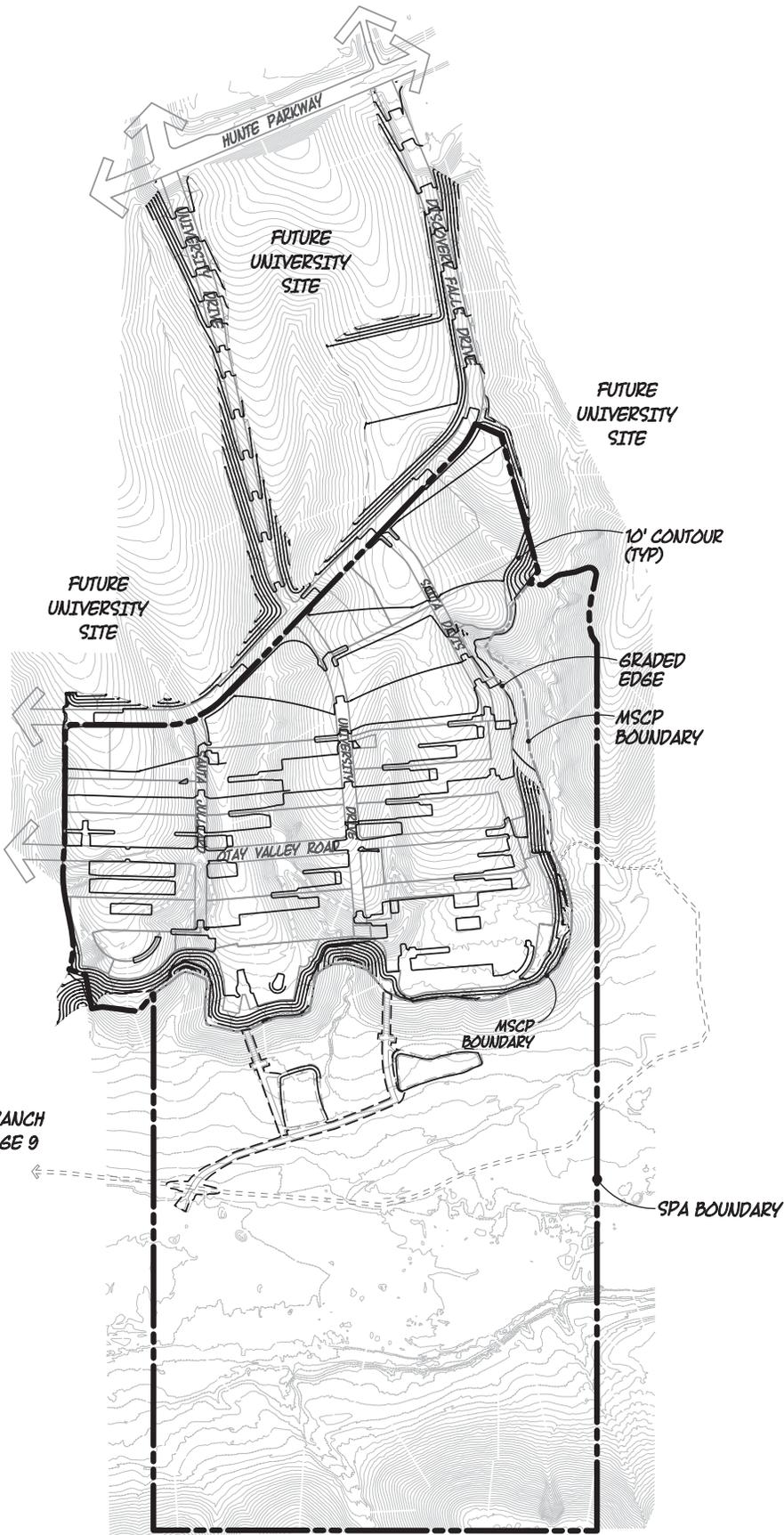
SOUR E OT R E OMES 2014

FIGURE 4-36  
Conceptual Grading Plan for Village Eight East

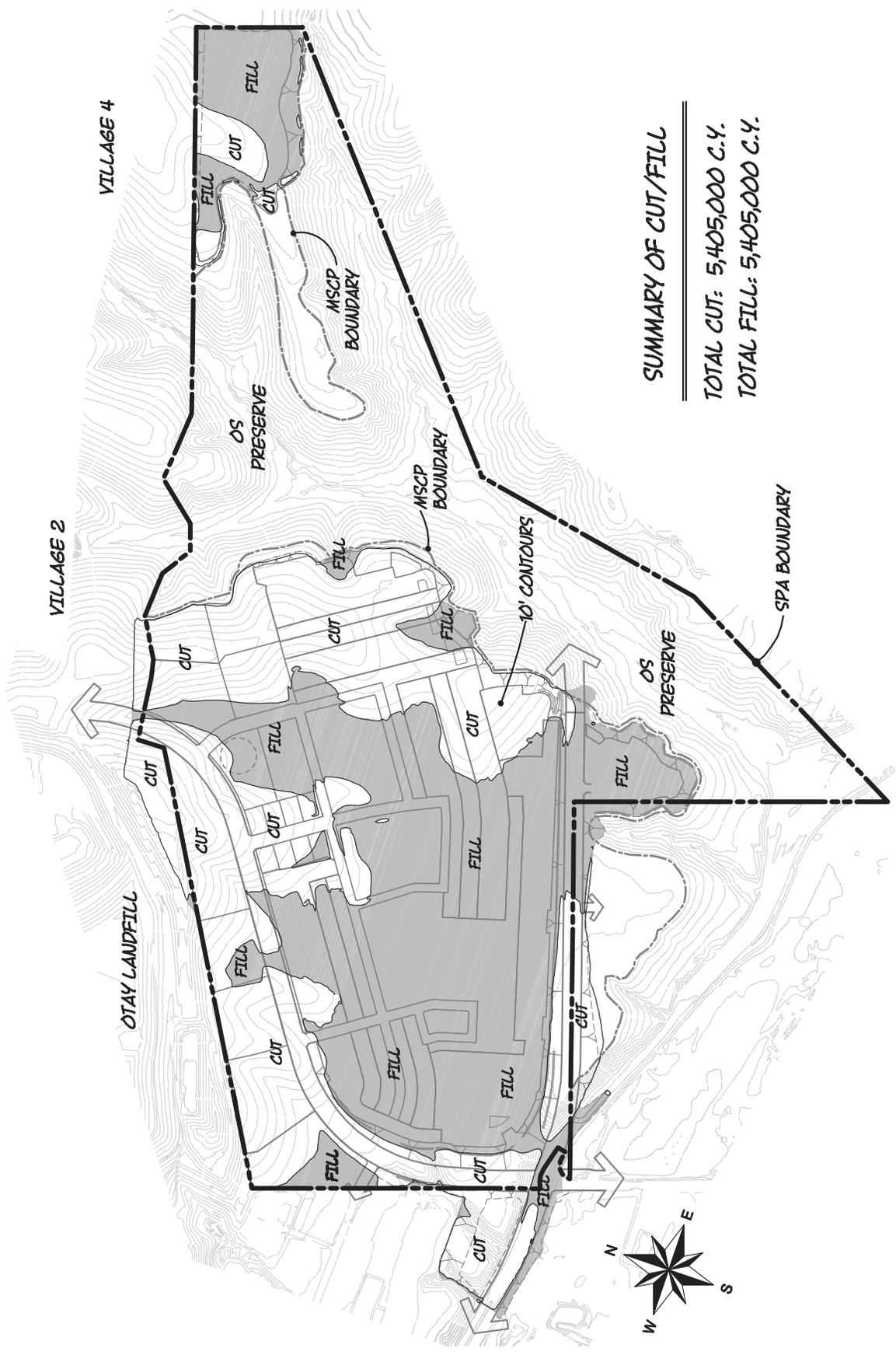
7000

UNIVERSITY VILLAGES PROJECT EIR

INTENTIONALLY LEFT BLANK



INTENTIONALLY LEFT BLANK



**SUMMARY OF CUT/FILL**

**TOTAL CUT: 5,405,000 C.Y.**

**TOTAL FILL: 5,405,000 C.Y.**

SOUR E OT R E OMES 2014

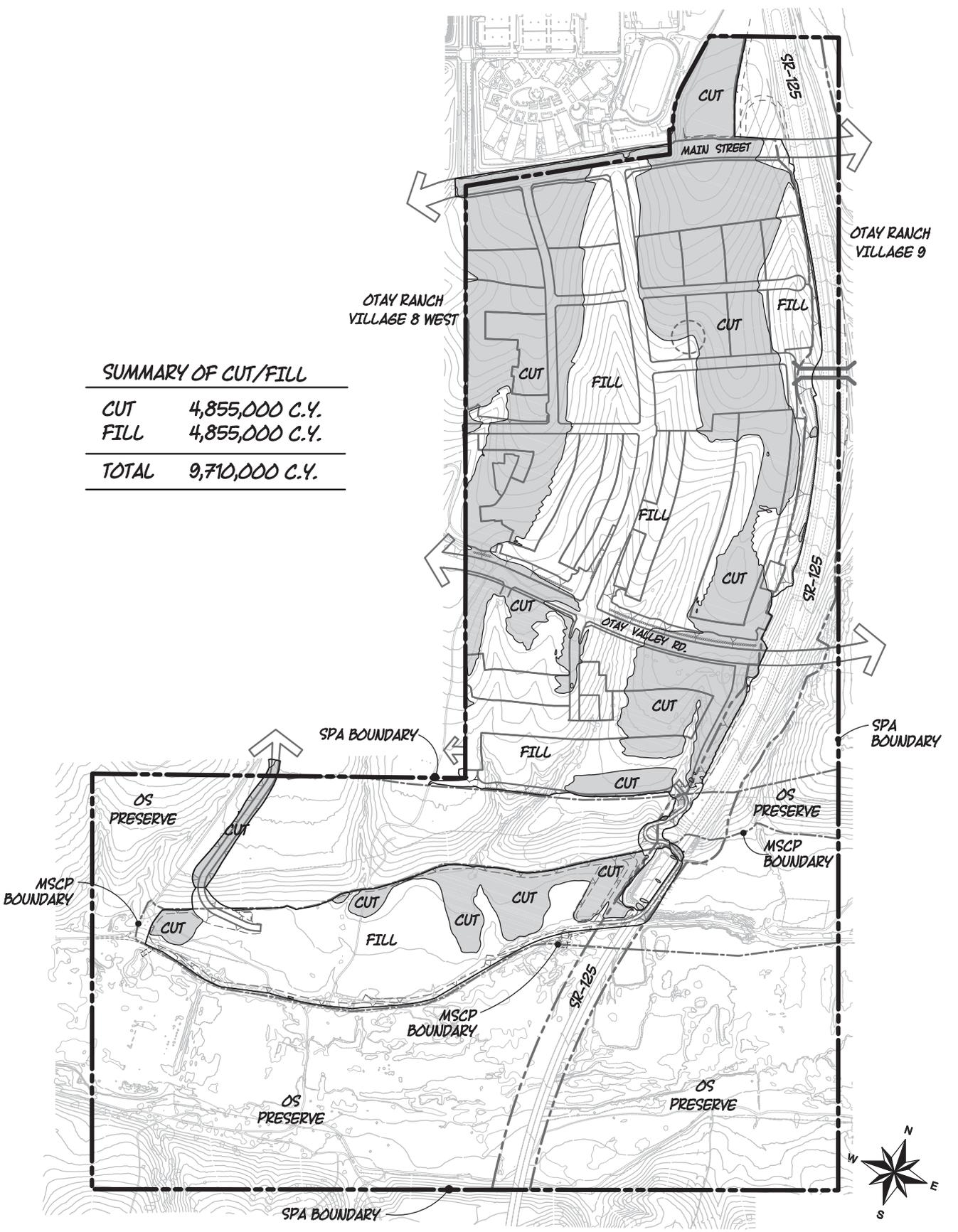
**FIGURE 4-38  
Cut/Fill Plan for Village Three North and a Portion of Village Four**

7000

UNIVERSITY VILLAGES PROJECT EIR

INTENTIONALLY LEFT BLANK

SUMMARY OF CUT/FILL	
CUT	4,855,000 C.Y.
FILL	4,855,000 C.Y.
<b>TOTAL</b>	<b>9,710,000 C.Y.</b>



Projects 700000 M PDO M PS E R Section 4

SOUR E OT R E OMES 2014

**FIGURE 4-39**  
**Cut/Fill Plan for Village Eight East**

7000

UNIVERSITY VILLAGES PROJECT EIR

INTENTIONALLY LEFT BLANK

**SUMMARY OF CUT/FILL**

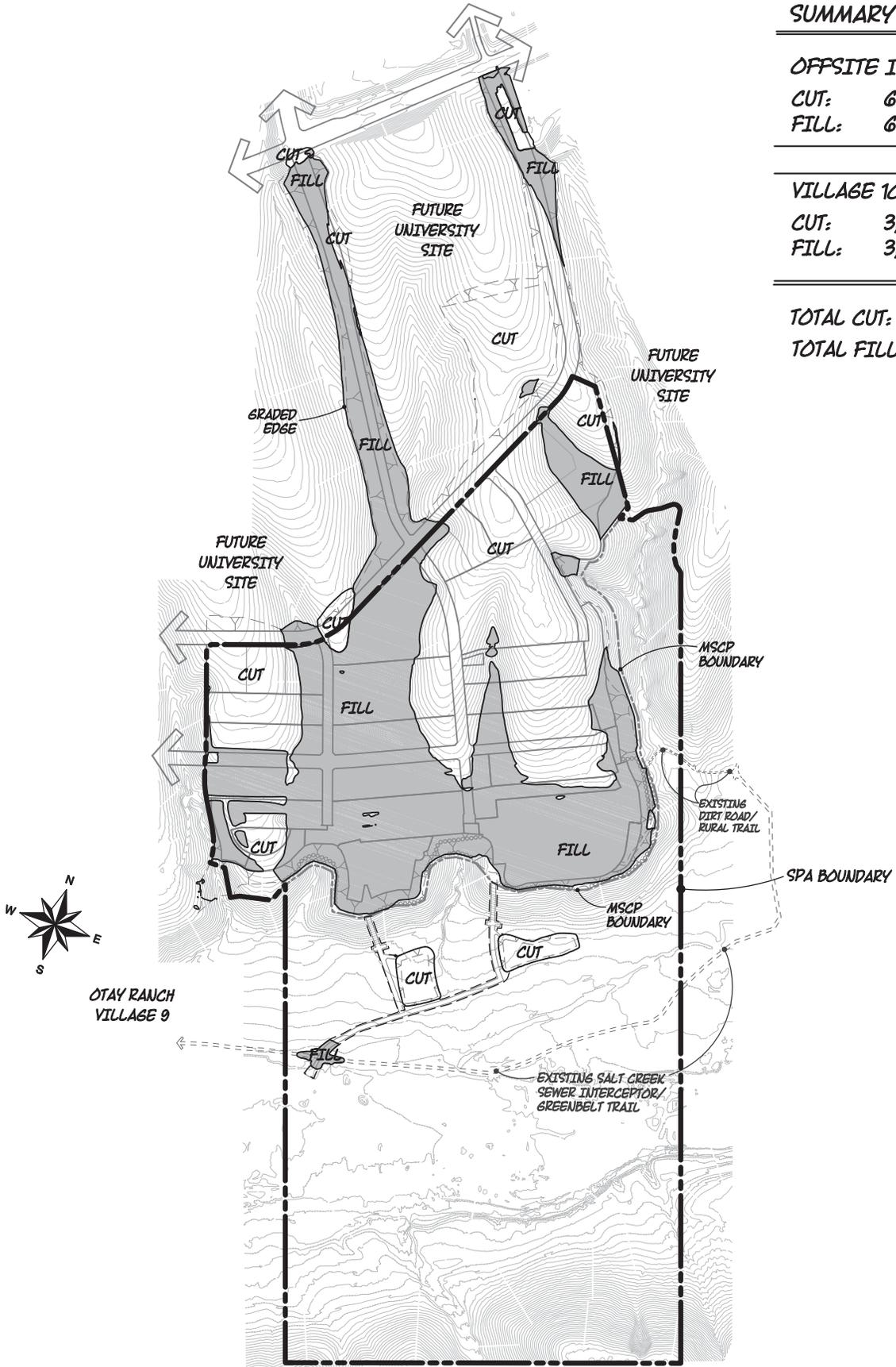
**OFFSITE INFRASTRUCTURE**

CUT: 650,000 C.Y.  
 FILL: 650,000 C.Y.

**VILLAGE 10**

CUT: 3,400,000 C.Y.  
 FILL: 3,400,000 C.Y.

**TOTAL CUT: 4,050,000 C.Y.**  
**TOTAL FILL: 4,050,000 C.Y.**



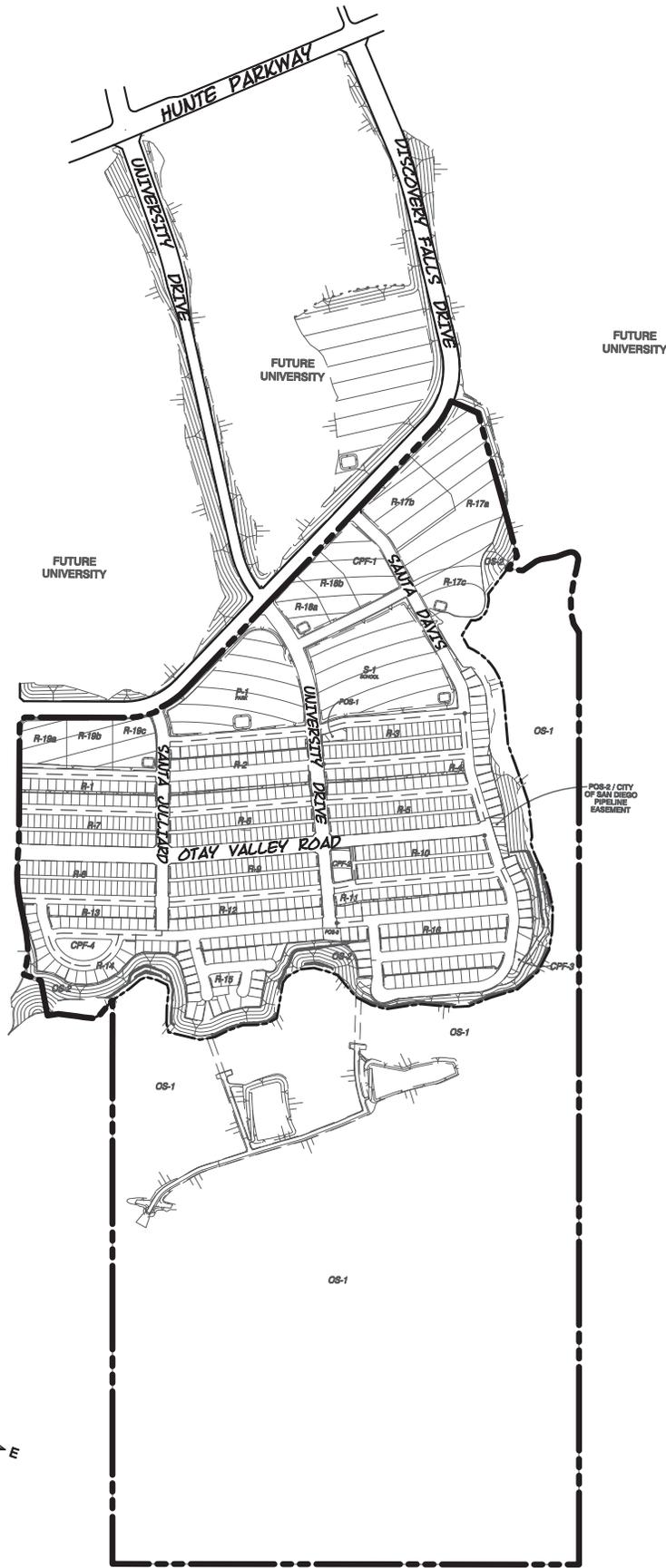
INTENTIONALLY LEFT BLANK



INTENTIONALLY LEFT BLANK



INTENTIONALLY LEFT BLANK



SOUR E OT R E OMES 2014

FIGURE 4-43  
Tentative Map for Village Ten

7000

UNIVERSITY VILLAGES PROJECT EIR

INTENTIONALLY LEFT BLANK

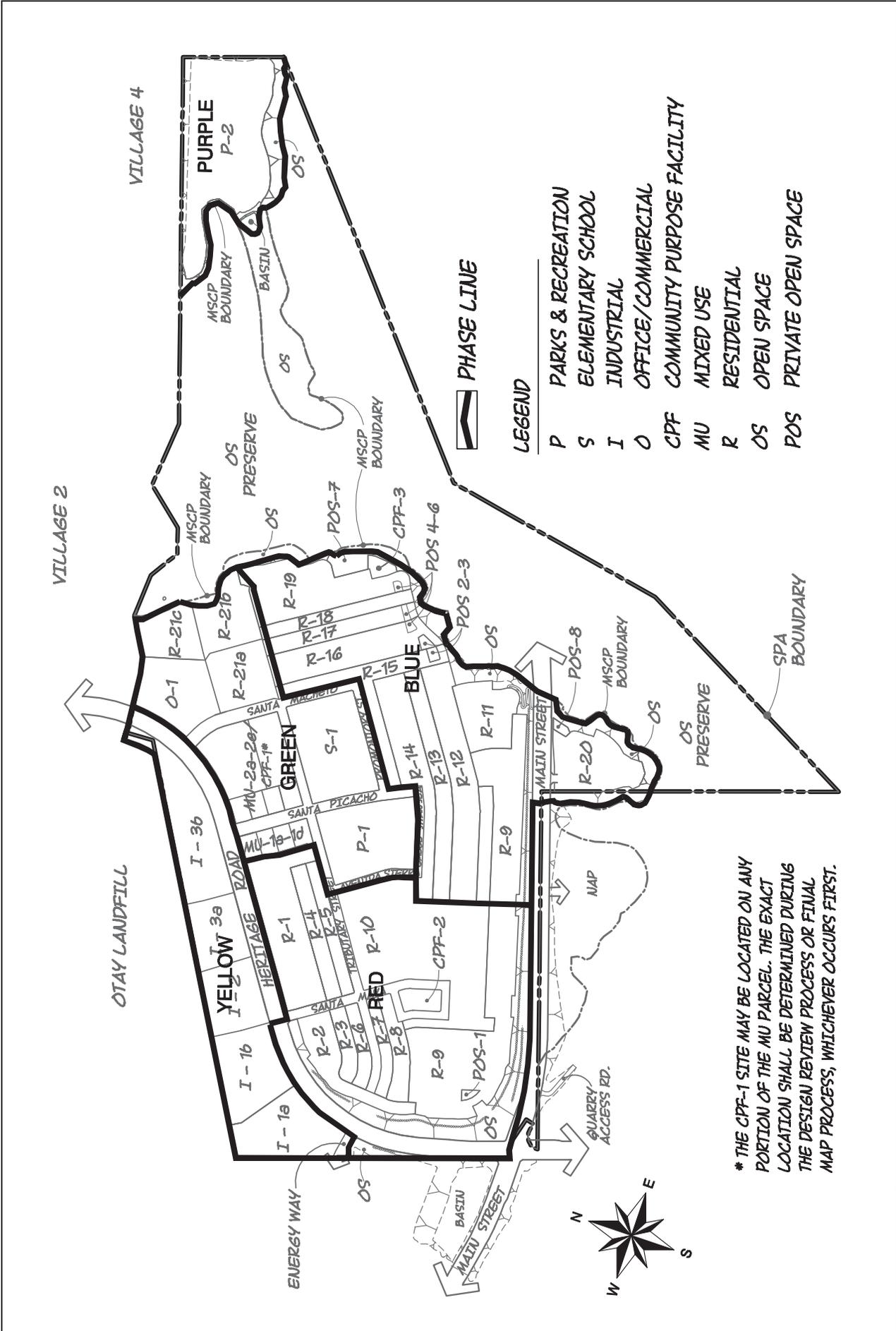


FIGURE 4-44  
**Phasing Plan for Village Three North and a Portion of Village Four**

SOUR E OT R E OMEs 2014

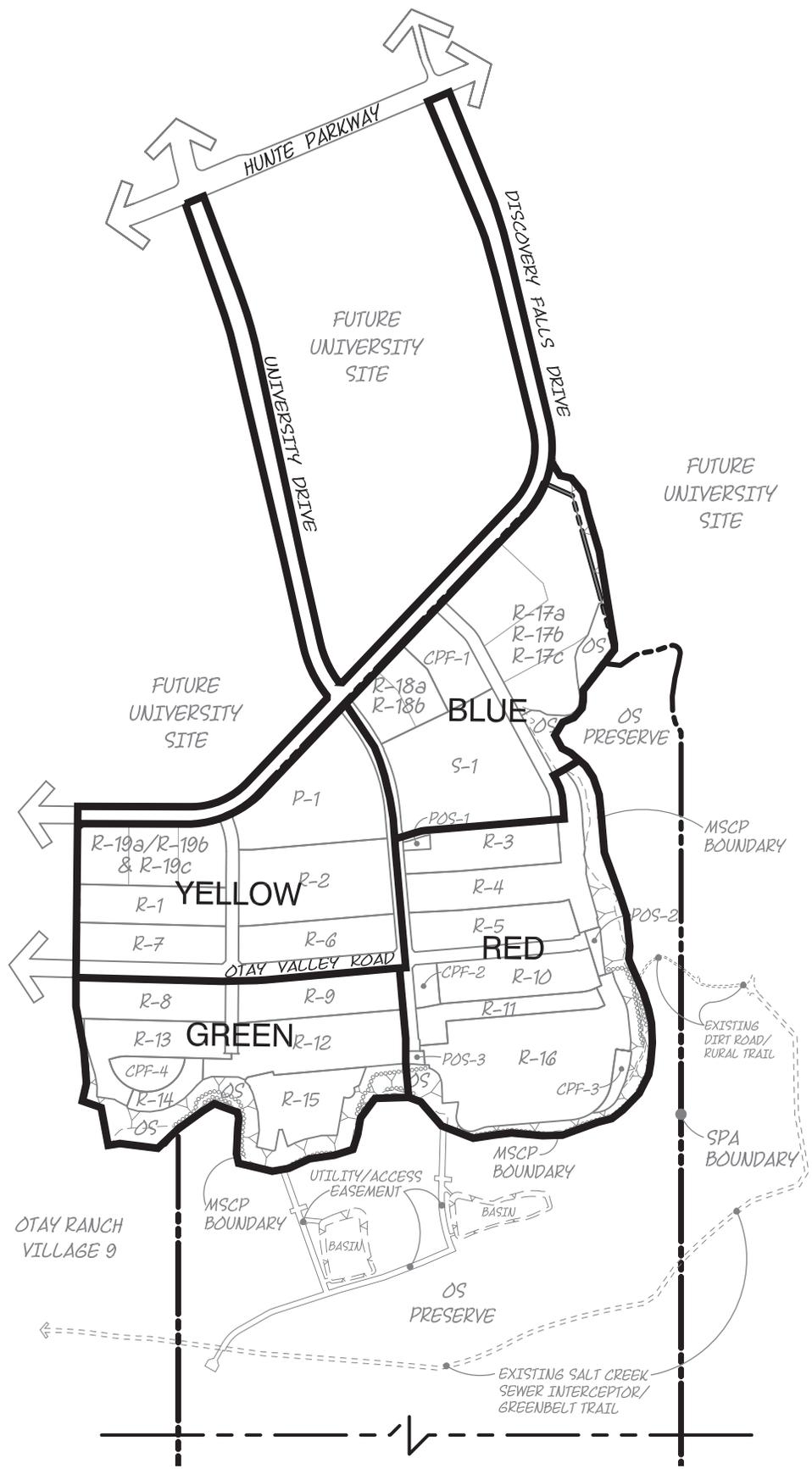
UNIVERSITY VILLAGES PROJECT EIR

7000

INTENTIONALLY LEFT BLANK



INTENTIONALLY LEFT BLANK



SOUR E OT R E OMES 2014

**FIGURE 4-46**  
**Phasing Plan for Village Ten**

7000

**UNIVERSITY VILLAGES PROJECT EIR**

INTENTIONALLY LEFT BLANK

## 4.2.8 General Plan and Otay Ranch GDP Amendments

### Chula Vista General Plan Amendments

The following subsections provide an overview of proposed amendments to the Chula Vista General Plan. These amendments are required to implement the land plans of the proposed project.

#### *Land Use Changes*

The adopted Chula Vista General Plan Land Use Plan for the project area is shown on Figure 4-47. The proposed project includes proposed amendments to the land uses identified on the General Plan Land Use Map in Village Three North and a Portion of Village Four, Village Eight East, and Village Ten. The proposed Chula Vista General Plan Land Use Plan for the project area is shown on Figure 4-48. The proposed amendments would result in the following changes in land use in each village.

#### Village Three North and a Portion of Village Four

Village Three North land use changes would convert the existing Limited Industrial land uses to the following: Residential Low–Medium, Residential Medium, Mixed-Use Residential, Parks and Recreation, Public and Quasi Public, Open Space (OS), Open Space Preserve (OS/P), and Mixed-Use Commercial. The proposed land use changes for the Portion of Village Four would convert a portion of the area designated as OS to OS/P. The amendment would allow for residential land uses to be located within the 1,000 foot nuisance easement area.

#### Village Eight East

Uses proposed for Village Eight East are consistent with the existing designated land uses: Mixed-Use Residential, Public and Quasi Public, Parks and Recreation, Open Space – Active Recreation and OS. Modifications are proposed to convert Residential Medium-High to Residential Medium.

#### Village Ten

Village Ten land use changes would convert the existing designated uses of Public and Quasi Public to Residential Medium, Mixed-Use Residential, Parks and Recreation, and OS.

### Circulation Plan Changes

The adopted Chula Vista General Plan Circulation Plan–East is shown on Figure 4-49. The proposed project seeks to change portions of the adopted Circulation Plan–East. The

proposed Chula Vista General Plan Circulation Plan–East is shown on Figure 4-50a and Figure 4-50b. These amendments would allow the Circulation Plan to be consistent with proposed land use changes and include the following:

- Extend Discovery Falls Drive southerly and westerly to connect with Village Nine Street “B”, and designate Discovery Falls Drive between Hunte Parkway and the University/RTP driveway as a 4-lane Major Road, and designate Discovery Falls Drive between the University/RTP driveway and Village Nine Street “B” as a Class II Collector;
- Rename Eastlake Parkway as “University Drive” between Hunte Parkway and Discovery Falls Drive. University Drive between Hunte Parkway and University Driveway #1 (northern) will retain its classification as a 4-lane Major Road, and reclassify the segment between University Driveway #1 and Discovery Fall Drive from a 4-lane Major Road to a Class II Collector;
- Rename Eastlake Parkway between Discovery Falls Drive and Otay Valley Road as University Drive, and reclassify this segment from a 4-lane Major Road to a 2-lane non-Circulation Element road (Residential Promenade Street w/ Village Pathway); and
- Reclassify Otay Valley Road, east of Village Nine Street “B” from a 4-lane Major Road to a 2-lane non-Circulation Element road (Secondary Village Entry w/ Median).

### **Otay Ranch GDP Amendments**

The following provides an overview of proposed amendments to the Otay Ranch GDP. These amendments are required to implement the land plans of the proposed project.

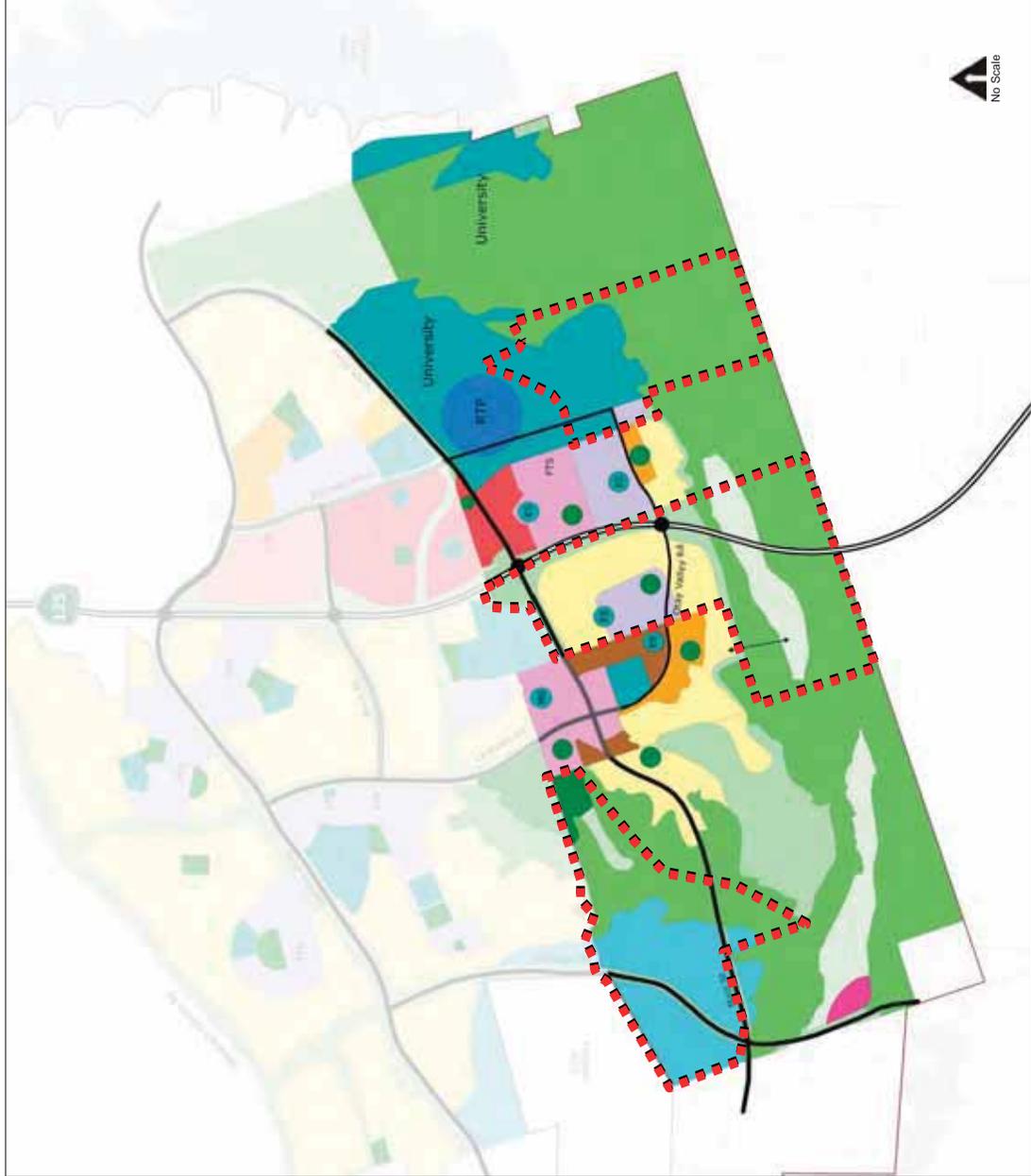
#### ***Land Use Changes***

The adopted Otay Ranch GDP Land Use Plan for the project area is shown on Figure 4-51. The proposed project seeks to amend the land uses identified on the Otay Ranch GDP Land Use Map in Villages Three North, a Portion of Village Four, Village Eight East, and Village Ten. The proposed Otay Ranch GDP Land Use Plan for the project area is shown on Figure 4-52. Tables 4-4, 4-6, and 4-8 provide the existing Otay Ranch GDP land uses as currently approved. Tables 4.5, 4-7, and 4-9 provide the proposed Otay Ranch land uses. The proposed amendments are the same as the previously described General Plan Amendments and would result in the following changes in land use in each village.



# Existing General Plan Land Use

- LEGEND**
- RESIDENTIAL**
    - RESIDENTIAL LOW DENSITY
    - RESIDENTIAL MEDIUM
    - RESIDENTIAL MEDIUM DENSE
  - COMMERCIAL**
    - RETAIL
    - MIXED USE/COMMERCIAL
  - SPECIAL PLANNING AREA**
    - UNIVERSITY
    - COIN CENTER
    - EXHIBITION/CONVENTION CENTER
    - LABORATORY
    - RESEARCH/TECHNOLOGY BOUNDARY
  - INDUSTRIAL**
    - INDUSTRIAL-4
    - INDUSTRIAL-1
  - OPEN SPACE, PARKS & PUBLIC/QUADRANT/BIODIVERSITY**
    - OPEN SPACE
    - PARKS & RECREATION
    - PUBLIC & QUADRANT/BIODIVERSITY
    - ACTIVE RECREATION
    - OPEN SPACE/RECREATION
  - CIRCULATION SYSTEM**
    - STATE ROUTE (101, 56)
    - EXPRESS STREET (7 or 8 Lane)
    - PRINCIPAL STREET (5 Lane)
    - MAJOR STREET (3 Lane)
    - TOWN CENTER AVENUE
    - MAJOR STREET (4 Lane)
    - ACCESS TO ACTIVE RECREATION
  - BOUNDARY**
    - PROPOSED PROJECT



SOURCE: City of Chula Vista 2014

7000

UNIVERSITY GENERAL PLAN

FIGURE 4-47 Chula Vista General Plan Land Use

INTENTIONALLY LEFT BLANK



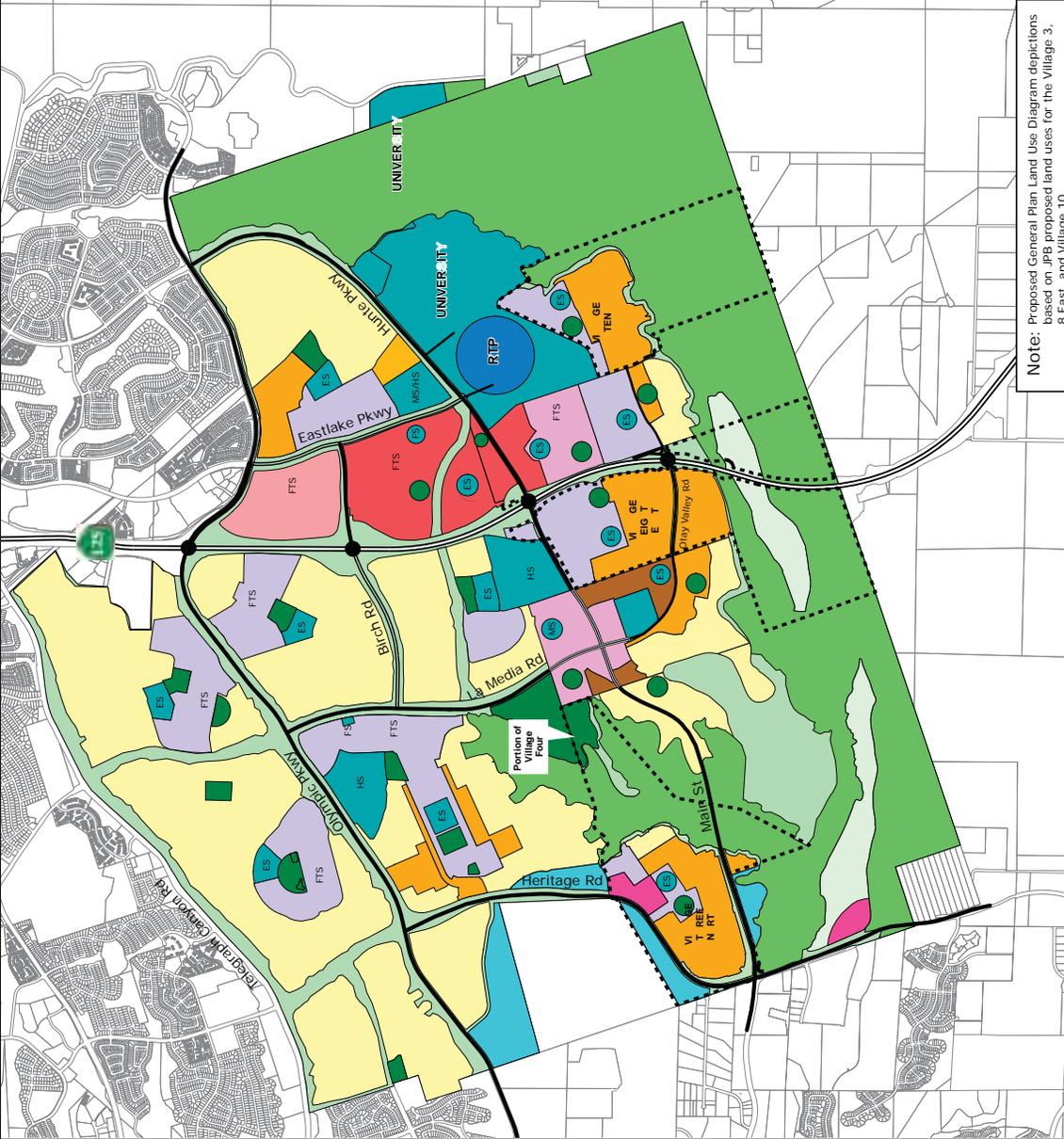
P P  
L P L U  
P

**LEGEND**

- RELENT**  
 RESIDENTIAL LOW MEDIUM  
 RESIDENTIAL MEDIUM  
 RESIDENTIAL MEDIUM HIGH
- MMERL**  
 RETAIL  
 MIXED USE COMMERCIAL
- PELLPANNINGBE**  
 MIXED USE RESIDENTIAL  
 TOWN CENTER  
 EASTERN URBAN CENTER  
 UNIVERSITY  
 REGIONAL TECHNOLOGY PARK (RTP)
- INUTRI**  
 RESEARCH & LIMITED INDUSTRIAL
- PENPEPR**  
 PU U HPU I
- OPEN SPACE  
 PARKS & RECREATION  
 PUBLIC & QUASI PUBLIC  
 OPEN SPACE - ACTIVE RECREATION  
 OPEN SPACE - PRESERVE
- IRUTINTEM**  
 SR - 125 (TOLL ROAD)  
 EXPRESS HWY (7 or 8 LANE)  
 PRIME ARTERIAL STREET (6 LANE)  
 MAJOR STREET (6 LANE)  
 TOWN CENTER ARTERIAL  
 MAJOR STREET (4 LANES)  
 PROPOSED PROJECT



DRAFT  
 F R REV E N



Note: Proposed General Plan Land Use Diagram depictions based on JPB proposed land uses for the Village 3, 8 East, and Village 10.

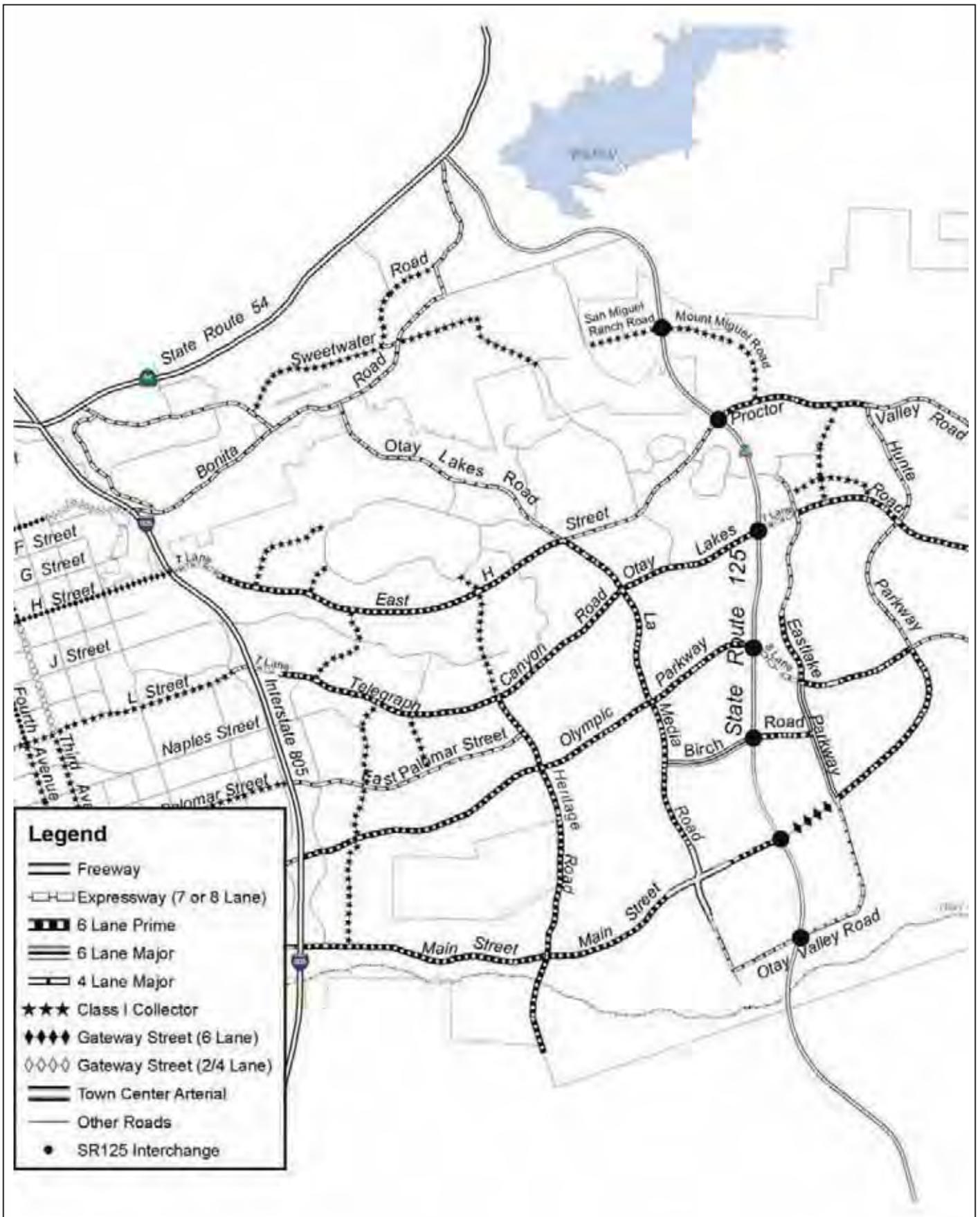
SOUR E Ily o la Vista 2014

7000

UNIVER IT VI GE PR E T EIR

Propose hula Vista General Plan an Uses **FIGURE 4-4**

INTENTIONALLY LEFT BLANK



Projects 700000 M PDO M PS E R Section 4

SOUR E E R SSO TES 201

**FIGURE 4-4**  
**Existing General Plan Circulation**

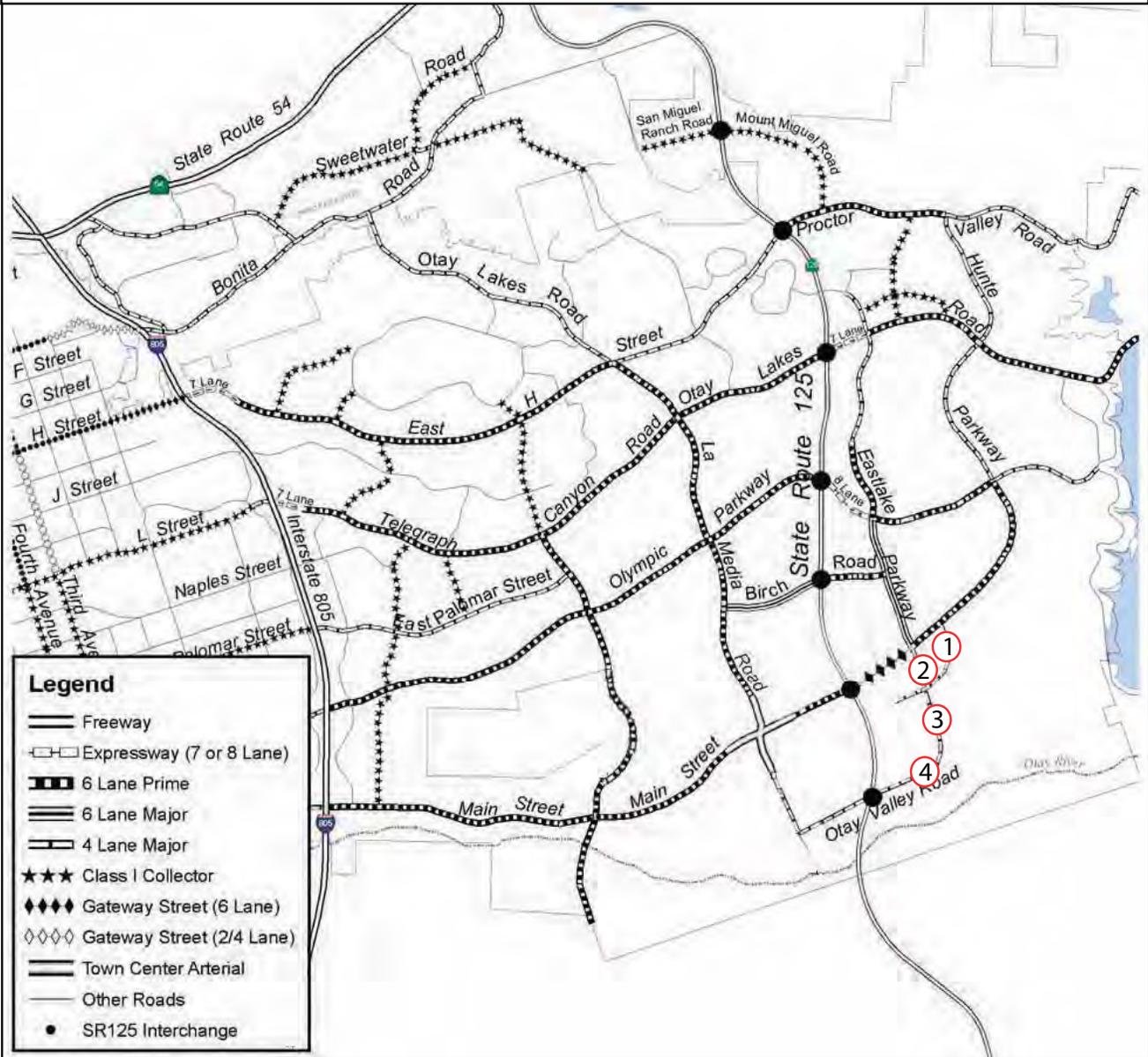
7000

UNIVER IT VI GE PR E TEIR

INTENTIONALLY LEFT BLANK

**PROPOSED ES**

- ① Extend Discovery Falls Drive southerly and westerly to connect with Village 9 Street "B", and designate Discovery Falls Drive between Interstate Parkway and the University/RTP driveway as a 4 lane Major Road, and designate Discovery Falls Drive between the University/RTP driveway and Village 9 Street "B" as a Class I collector
- ② Rename Eastlake Parkway between Interstate Parkway and Discovery Falls Drive as "University Drive" University Drive between Interstate Parkway and University Driveway #1 northern will retain its classification as a 4 lane Major Road, and reclassify the segment between University Driveway #1 and Discovery Falls Drive from a 4 lane Major Road to a Class I collector
- ③ Rename Eastlake Parkway between Discovery Falls Drive and Otay Valley Road as Village 10 Street "B" interim official street name will be assigned at a later time, and reclassify this segment from a 4 lane Major Road to a 2 lane non circulation Element road Residential Provenance Street w/ Village Parkway and
- ④ Reclassify Otay Valley Road, east of Village 9 Street "B" from a 4 lane Major Road to a 2 lane non circulation Element road Secondary Village Entry w/ Median



SOURCE: ES, SSO, OCTOBER 2014

**FIGURE 4- 0a**  
**Proposed General Plan Circulation**

INTENTIONALLY LEFT BLANK



INTENTIONALLY LEFT BLANK

### Village Three North and a Portion of Village Four

Village Three North land use changes are proposed to convert existing Industrial use designations to the following: Low–Medium Village Residential, Medium Residential, Mixed Use, Mixed Use Commercial (MU-C), Community Park/Park (P-2/P), and OS. The Otay Ranch GDP land use changes for the Portion of Village Four would adjust a portion of the area designated as OS to OS/P. The amendment would locate residential uses within the 1,000 foot nuisance easement area (Table 4-4 and 4-5).

**Table 4-4**  
**Existing Village Three Land Uses**

Use	Dwelling Units				Acreage									Approx. Pop.
	SF	MF	Total	Dens	Res.	Park	CPF	Sch.	C'ml.	Ind.	Open Sp.	Art.	Total	
Industrial										176.5			176.5	
Other							10.2				146.9	34.8	191.9	
<b>Total</b>							<b>10.2</b>			<b>176.5</b>	<b>146.9</b>	<b>34.8</b>	<b>368.4</b>	<b>0</b>

**Table 4-5**  
**Proposed Village Three Land Uses**

Use	Dwelling Units				Acreage									Approx. Pop.
	SF	MF	Total	Dens	Res.	Park*	CPF	Sch.	C'ml.	Ind.	Open Sp.	Art.	Total	
LMV	51		51	4.9	10.5		.5						11.0	169
M	951		951	7.8	122.4		1.1	8.3					123.5	3,169
MU		595	595	40.8	14.6	7.9	2.6		+				33.4	1,535
MUC									11.3				11.3	
I										39.9			39.9	
Other											129.5	19.8	164.3	
<b>Total</b>	<b>1,002</b>	<b>595</b>	<b>1,597</b>	<b>10.8</b>	<b>147.5</b>	<b>7.9</b>	<b>4.2</b>	<b>8.3</b>	<b>11.3</b>	<b>39.9</b>	<b>129.5</b>	<b>19.8</b>	<b>368.4</b>	<b>4,873</b>

+ 20,000 Square feet of commercial may occur vertically or horizontally; therefore, actual acreage may vary.

\* Part of park acreage requirement has been allocated to community parks. Actual park size to be determined at the SPA level. Park acreage based on ratio of 3.0 acres per 1000 persons.

\*\* Includes 5.2 acres of Office and 6.1 acres of Mixed Use.

### Village Eight East

Land uses proposed for Village Eight East would be consistent with the existing Otay Ranch GDP land use designations—Mixed Use, Community Park/Park, and OS—and would convert Medium-High Residential to Medium Residential (Table 4-6 and 4-7).

**Table 4-6**  
**Existing Village Eight East Land Uses**

Use	Dwelling Units				Acreage								Approx. Pop.
	SF	MF	Total	Dens	Res.	Park	CPF+	Sch.	C'ml.	Open Sp.	Art.	Total	
LMV	635		635	4.3	148.5							148.5	2,115
MU						5.9**	2.9		8.9			17.7	
MH		293	293	14.5	20.2			10.0				30.2	756
Other										15.1	9.5	24.6	
<i>Village Eight East Subtotal</i>	<i>635</i>	<i>293</i>	<i>928</i>	<i>5.5</i>	<i>168.7</i>	<i>5.9</i>	<i>2.9</i>	<i>10.0</i>	<i>8.9</i>	<i>15.1</i>	<i>9.5</i>	<i>221.0</i>	<i>2,871</i>

\*\* Part of park acreage requirement has been allocated to community parks. Actual park size to be determined at the SPA level. Park acreage based on ratio of 3.0 acres per 1000 persons.

**Table 4-7**  
**Proposed Village Eight East Land Uses**

Use	Dwelling Units				Acreage								Approx. Pop
	SF	MF	Total	Dens	Res.	Park	CPF	Sch.	C'ml.	Open Sp.	Art.	Total	
M	943		943	7.2	130.5		1.6					132.1	3,140
MU		2,617	2,617	42.2	62.1	7.3	2.6	10.8				82.8	6,752
Other										11.2	9.9	21.1	
<i>Village Eight East Subtotal</i>	<i>943</i>	<i>2,617</i>	<i>3,560</i>	<i>18.5</i>	<i>192.6</i>	<i>7.3</i>	<i>4.2</i>	<i>10.8</i>	<i>*</i>	<i>11.2</i>	<i>9.9</i>	<i>236.0</i>	<i>9,892</i>

\* 20,000 Square feet of commercial may occur vertically or horizontally; therefore, actual acreage may vary.

\*\* Part of park acreage requirement has been allocated to community parks. Actual park size to be determined at the SPA level. Park acreage based on ratio of 3.0 acres per 1000 persons.

### Village Ten

Village Ten proposed land use changes would convert the existing land designated as University to the following: Medium Residential, Mixed-Use Residential, Park, and OS (Table 4-8 and 4-9).

**Table 4-8**  
**Existing Planning Area Village Ten Secondary Land Uses\***

Use	Dwelling Units				Acreage								Approx. Pop.
	SF	MF	Total	Dens	Res	Park**	CPF+	Sch	C'ml	Open Sp.	Art	Total	
L	35		35	2.0	17.8							17.8	112
LMV	242		242	4.5	53.9							53.9	774
M	30		30	6.0	5.1							5.1	96
MU						4.0	2.5		3.1			9.6	

**Table 4-8 (Continued)**  
**Existing Planning Area Village Ten Secondary Land Uses\***

Use	Dwelling Units				Acreage								Approx. Pop.
	SF	MF	Total	Dens	Res	Park**	CPF+	Sch	C'ml	Open Sp.	Art	Total	
MH		335	335	17.8	18.8			4.6				23.4	854
CP						3.3						3.3	
Other										24.9	12.7	37.6	
<b>Total</b>	<b>307</b>	<b>335</b>	<b>642</b>	<b>6.7</b>	<b>95.6</b>	<b>7.3</b>	<b>2.5</b>	<b>4.6</b>	<b>3.1</b>	<b>24.9</b>	<b>12.7</b>	<b>150.7</b>	<b>1,836</b>

\* Area is a project boundary as of September 27, 2013.

\*\* Actual park size to be determined at the SPA level. Park acreage based on ratio of 3.0 acres per 1000 persons.

+ Actual CPF acreage to be determined at the SPA level; CPF acreage based on ratio of 1.39 acres per 1000 persons.

**Table 4-9**  
**Proposed Village Ten Land Uses**

Use	Dwelling Units				Acreage								Approx. Pop
	SF	MF	Total	Dens	Res.	Park	CPF	Sch.	C'ml.	Open Sp.	Art.	Total	
M	695		695	7.9	88.0		1.7					89.7	2,314
MU		1,045	1,045	41.6	25.1	7.6	2.6	9.2				44.5	2,696
Other										16.5		16.5	
<b>Total</b>	<b>695</b>	<b>1,045</b>	<b>1,740</b>	<b>15.4</b>	<b>113.1</b>	<b>7.6</b>	<b>4.3</b>	<b>9.2</b>		<b>16.5</b>		<b>150.7</b>	<b>5,010</b>

### ***Circulation Plan Changes***

The adopted Otay Ranch GDP Circulation Plan is shown on Figure 4-53. The proposed project seeks to change portions of the adopted Otay Ranch Circulation Plan. The proposed Otay Ranch GDP Circulation Plan is shown on Figure 4-54. These amendments would allow the Circulation Plan to be consistent with proposed land use changes and include the following:

- Extend Discovery Falls Drive southerly and westerly to connect with Village Nine Street “B”, and designate Discovery Falls Drive between Hunte Parkway and the University/RTP driveway as a 4-lane Major Road, and designate Discovery Falls Drive between the University/RTP driveway and Village Nine Street “B” as a Class II Collector;
- Rename Eastlake Parkway as “University Drive” between Hunte Parkway and Discovery Falls Drive. University Drive between Hunte Parkway and University Driveway #1 (northern) will retain its classification as a 4-lane Major Road, and reclassify the segment between University Driveway #1 and Discovery Fall Drive from a 4-lane Major Road to a Class II Collector;
- Rename Eastlake Parkway between Discovery Falls Drive and Otay Valley Road as University Drive, and reclassify this segment from a 4-lane Major Road to a 2-lane non-Circulation Element road (Residential Promenade Street w/ Village Pathway); and

- Reclassify Otay Valley Road, east of Village Nine Street “B” from a Four-Lane Major Road to a Class II Collector.

Other amendments to the Otay Ranch GDP include the following:

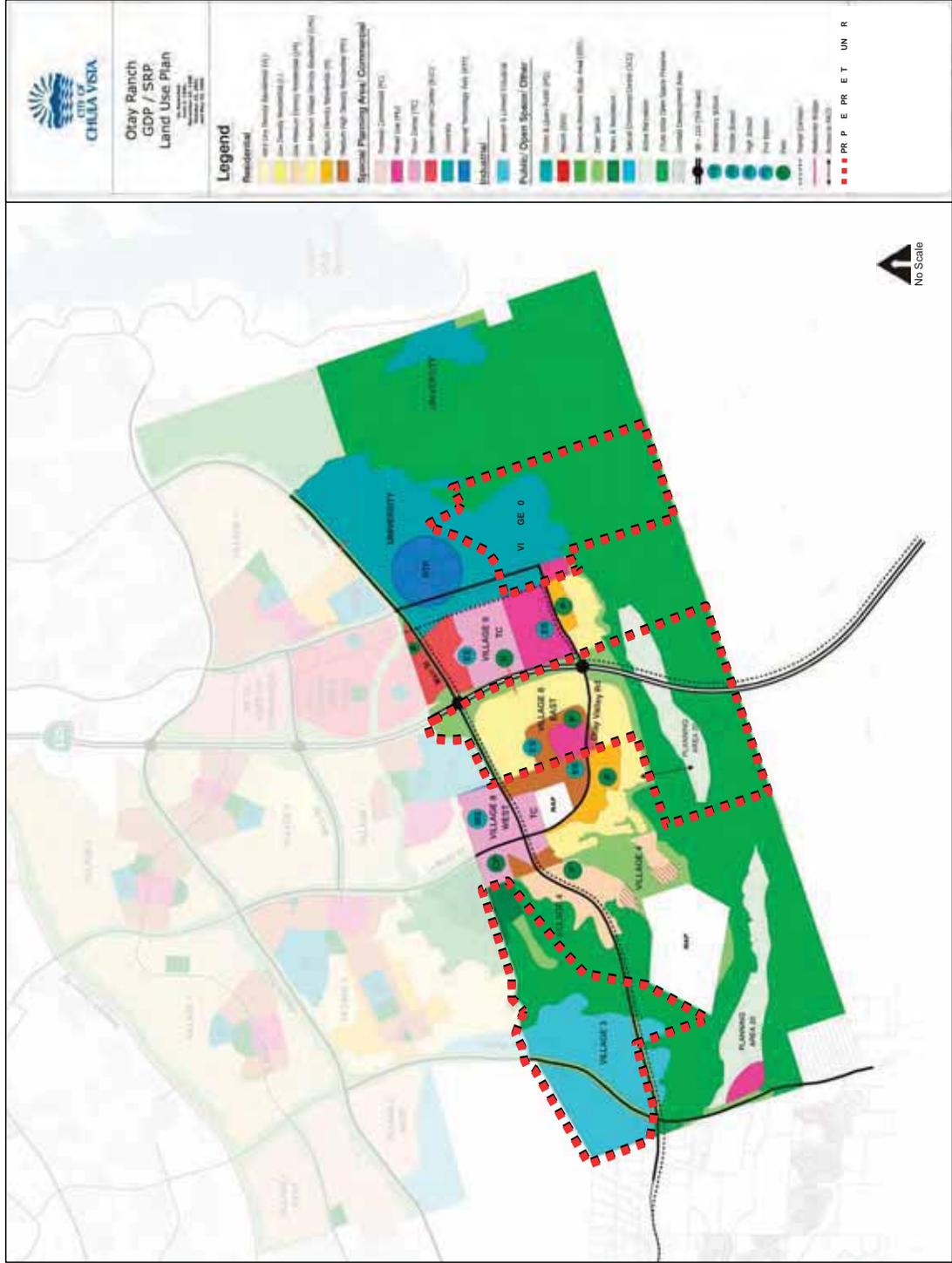
- Establish revised village/planning area boundaries for Village Three North, Village Eight East, Village Nine, Village Ten, and the University/Research Technology Park Planning Area.
- Eliminate the requirement to provide an average 75-foot landscape buffer along Otay Valley Road through Village Ten due to the change in character of the road and surrounding village development.

### **Chula Vista MSCP Subarea Plan Boundary Adjustment**

The adopted Chula Vista MSCP Subarea Plan is shown on Figure 4-55. The proposed project would result in an adjustment to the boundaries of the Chula Vista MSCP Preserve as identified in the MSCP Subarea Plan. Specifically, the project proposes to develop approximately 5.1 acres adjacent to Village Three North, 1.3 acres adjacent to Village Ten, and roughly 40.9 acres adjacent to the University site previously identified as Preserve. The project proposes to designate 4.3 acres in Village Three North and a Portion of Village Four and 50.7 acres on the east side of Salt Creek, previously identified for development by the MSCP, as Preserve. The result is an overall increase of approximately 7.7 acres of MSCP Preserve land. The proposed Chula Vista MSCP Subarea Plan is shown on Figure 4-56. Additional information on the MSCP Boundary Adjustment is provided in Section 5.8, Biological Resources, of the EIR.

### **Otay Ranch Resource Management Plan**

The proposed project would result in a Boundary Modification to the Otay Ranch Preserve as identified in the Otay Ranch RMP. As described above, the project proposes to develop approximately 5.1 acres adjacent to Village Three North, 1.3 acres adjacent to Village Ten, and 40.9 acres adjacent to the future University/Research Technology Park site that were previously identified as Preserve. The project proposes to designate 4.3 acres in a Portion of Village Four and 50.7 acres on the east side of Salt Creek, which were previously identified for development by the Otay Ranch GDP and RMP, as Preserve, resulting in an overall increase of about 7.7 acres of Preserve land.



**Otay Ranch  
GDP / SRP  
Land Use Plan**

- Legend**
- Residential**
    - Single-Family Detached (SFD)
    - Single-Family Attached (SFA)
    - Multi-Family Detached (MFD)
    - Multi-Family Attached (MFA)
    - Mobile Home Park (MHP)
    - Medium-Density Residential (MDR)
    - High-Density Residential (HDR)
  - Special Planning Area - Commercial**
    - Community Center (CC)
    - Neighborhood Center (NC)
    - Neighborhood Office (NO)
    - Neighborhood Store (NS)
    - Neighborhood Services (NCS)
    - Neighborhood Office (NO)
    - Neighborhood Store (NS)
    - Neighborhood Services (NCS)
  - Industrial**
    - Light Industrial (LI)
    - Medium Industrial (MI)
    - Heavy Industrial (HI)
    - Research & Development (RD)
    - Office (O)
    - Warehouse (W)
    - Manufacturing (M)
    - Logistics (L)
    - Storage (S)
    - Other (OT)
  - Public/Open Space/Other**
    - Community Center (CC)
    - Neighborhood Center (NC)
    - Neighborhood Office (NO)
    - Neighborhood Store (NS)
    - Neighborhood Services (NCS)
    - Neighborhood Office (NO)
    - Neighborhood Store (NS)
    - Neighborhood Services (NCS)

SOURCE: City of Chula Vista, 2014

7000

UNIVERSITY VILLAGE PRELIMINARY

FIGURE 4- otay Ranch General Development Plan and Uses

INTENTIONALLY LEFT BLANK



**Otay Ranch  
GDP / SRP  
Land Use Plan**  
As Amended June 8, 1996, Approved to 2006,  
and February 28, 2013

**Legend**

**Residential**

- Very Low Density Residential (VL)
- Low Density Residential (L)
- Low-Medium Density Residential (LM)
- Medium Density Residential (M)
- Medium High Density Residential (MH)
- High Density Residential (H)

**Special Planning Area/Commercial**

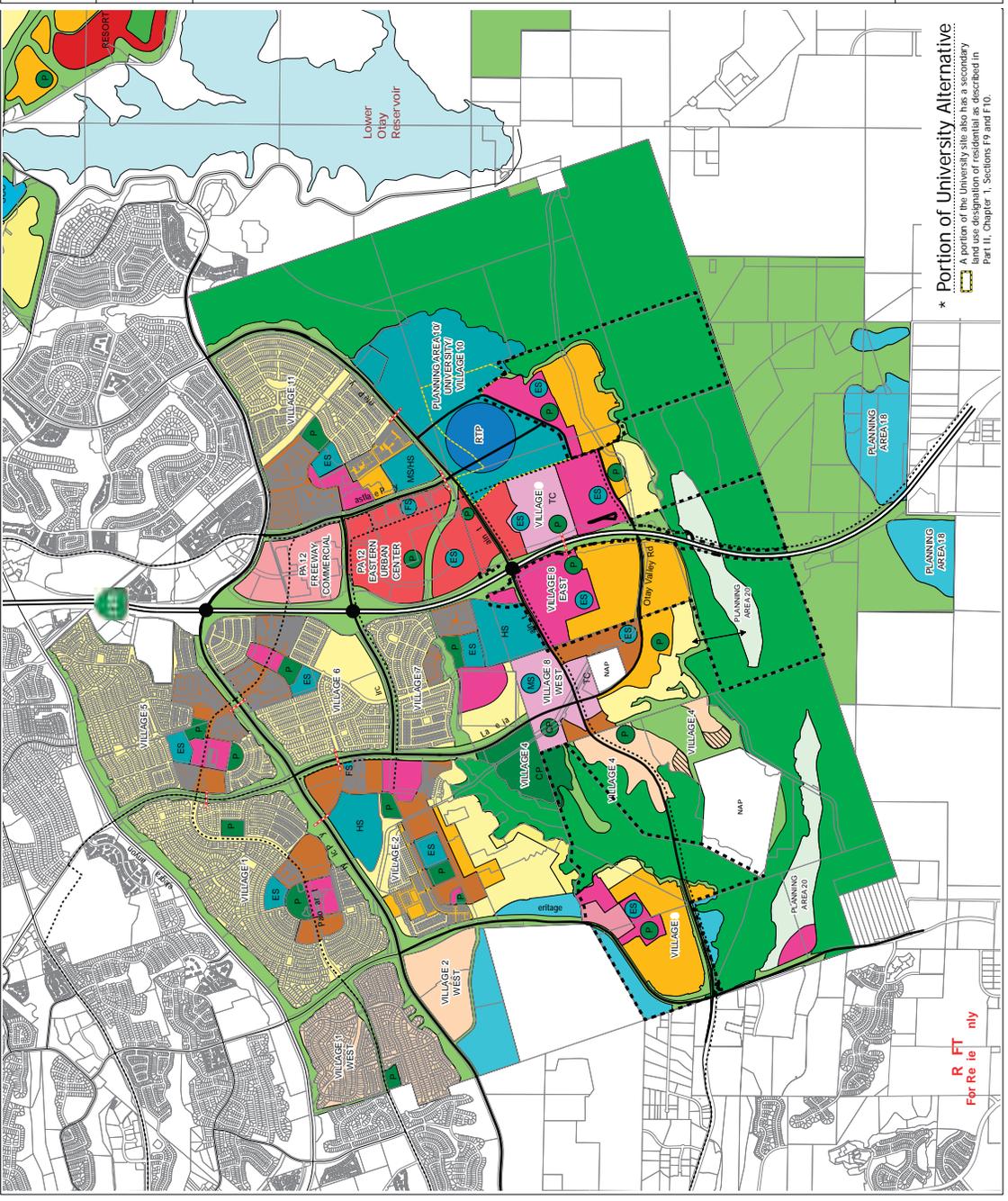
- Freeway Commercial (FC)
- Mixed Use Commercial (MUC)
- Mixed Use (MU)
- Town Center (TC)
- Eastern Urban Center (EUC)
- University
- Regional Technology Park (RTP)

**Industrial**

- Research & Limited Industrial
- Other

**Public / Open Space / Other**

- Public & Quasi-Public (PQ)
- Forest (RES)
- Recreational Resource Study Area (RRSA)
- Open Space
- Trails & Recreation
- Special Conference Center (SCC)
- Active Recreation
- Chula Vista Open Space Preserve
- Limited Development Area
- JR - 125 (Old Road)
- Elementary School
- Middle School
- High School
- Fire Station
- Park
- Transit Corridor
- Production Bridge
- Access to PA20
- Proposed Project

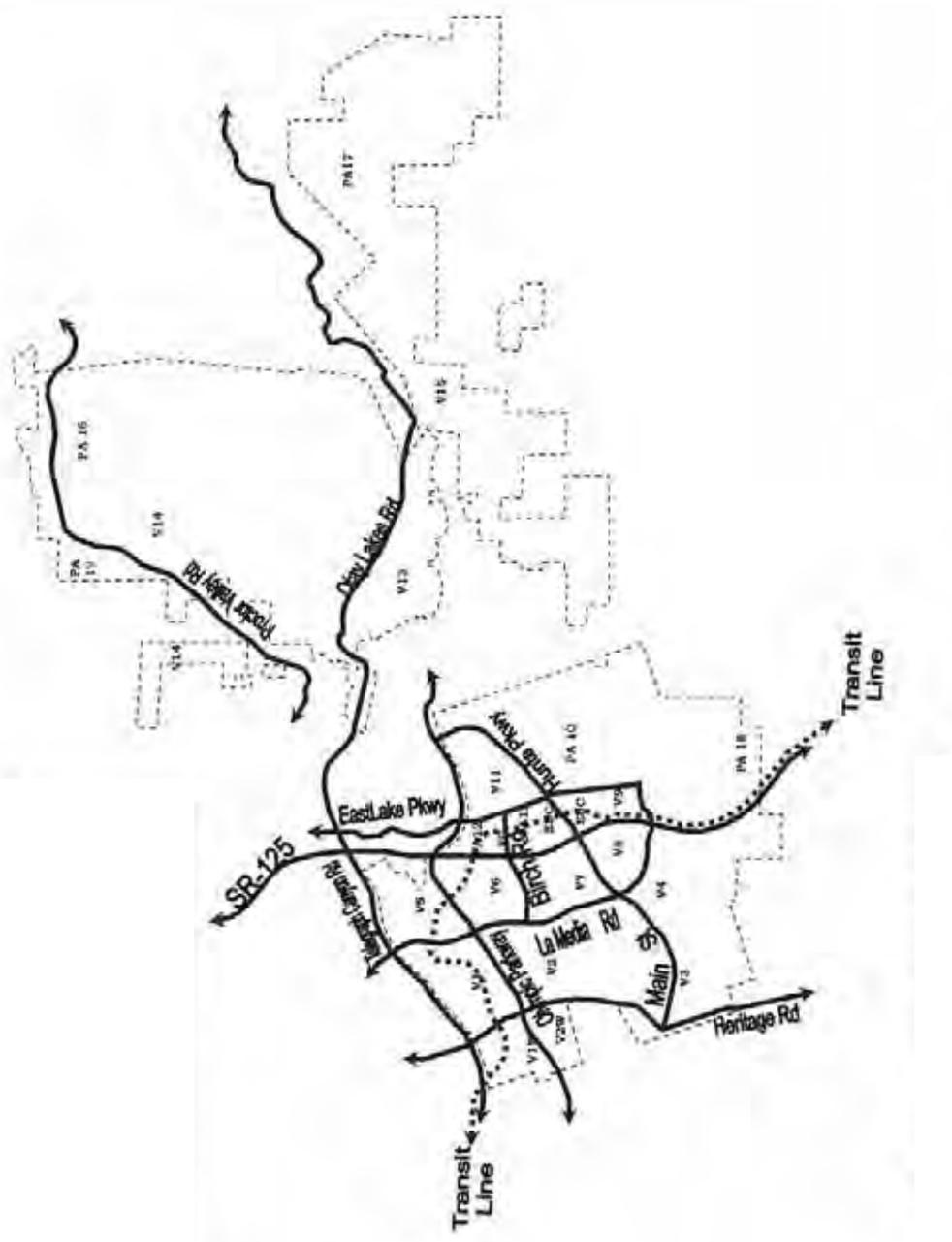
\* Portion of University Alternative  
 ...  
 land use designation of residential as described in  
 Part II, Chapter 1, Sections F9 and F10.

FIGURE 4-2  
 Propose Otay Ranch General Development Plan and Uses

SOURCE: City of Chula Vista 2014

UNIVERSITY GENERAL DEVELOPMENT PLAN

INTENTIONALLY LEFT BLANK



Adopted October 28, 1993 Amended June 4, 1996 Amended November 10, 1998 Amended October 23, 2001 Page II-46  
 Amended December 13, 2005 Amended September 2012

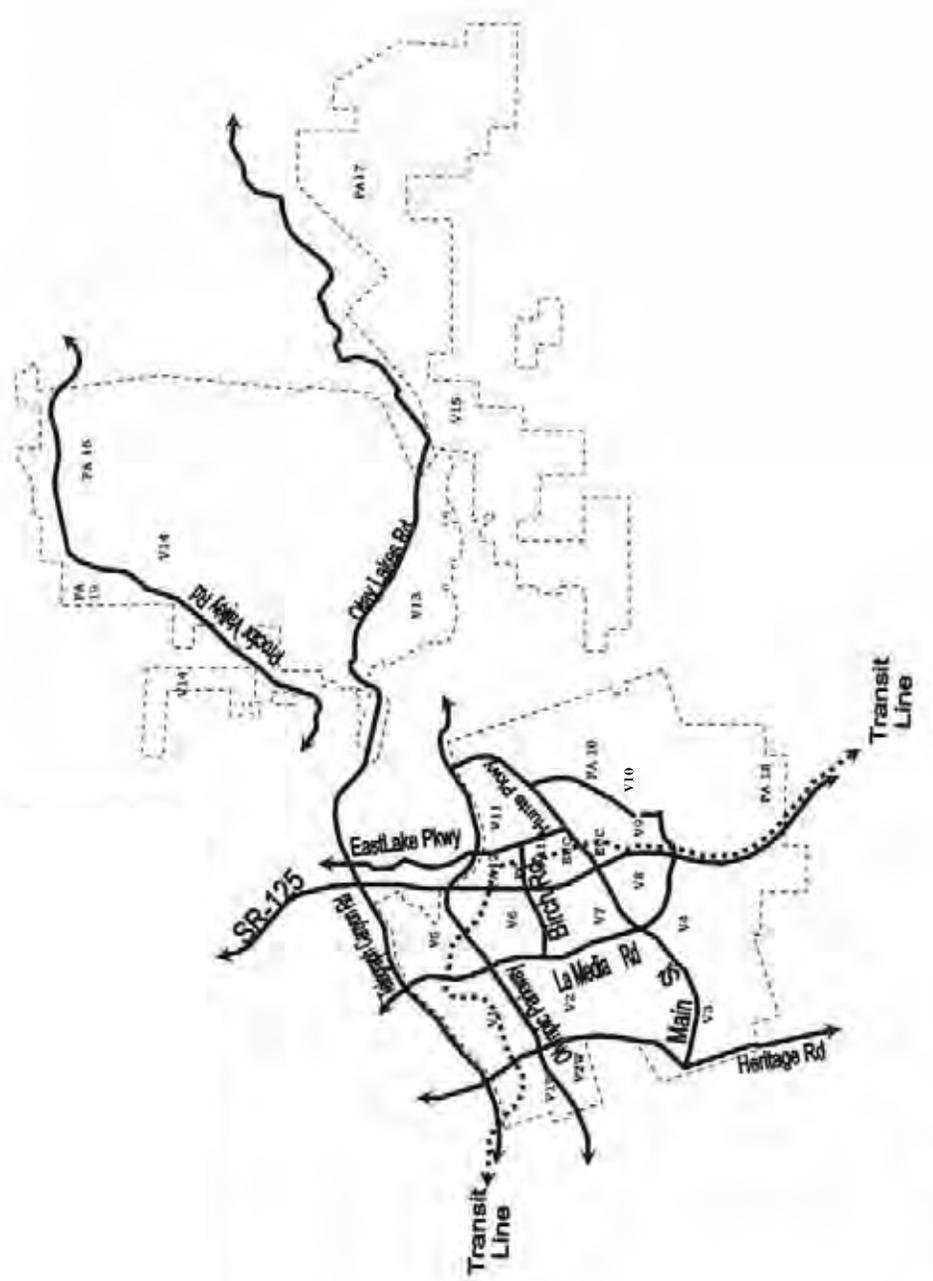
SOUR E OT R E OMES 201

**FIGURE 4-  
 Existing tay Ranch G P irculation Plan**

7000

UNIVER IT VI GE PR E TEIR

INTENTIONALLY LEFT BLANK



Adopted October 28, 1993 Amended June 4, 1996 Amended November 10, 1998 Amended October 23, 2001 Page JI-45  
 Amended December 13, 2005 Amended September 2012

SOUR E OT R E OMES 201

**Propose Clay Lakes Ranch G P irculation Plan**

**FIGURE 4- 4**

7000

UNIVER IT VI GE PR E TE IR

INTENTIONALLY LEFT BLANK

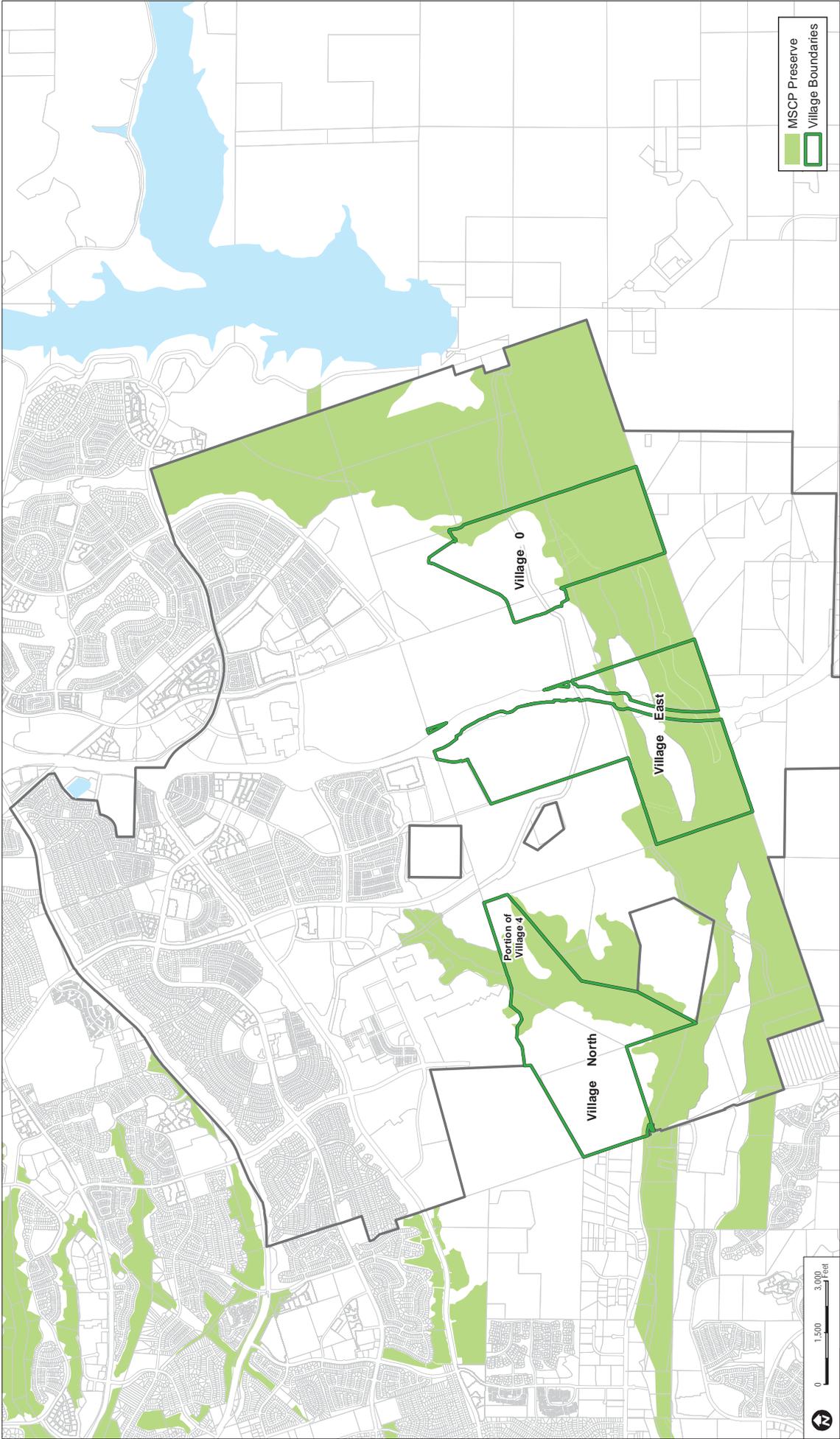


FIGURE 4-

Listing M P

INTENTIONALLY LEFT BLANK

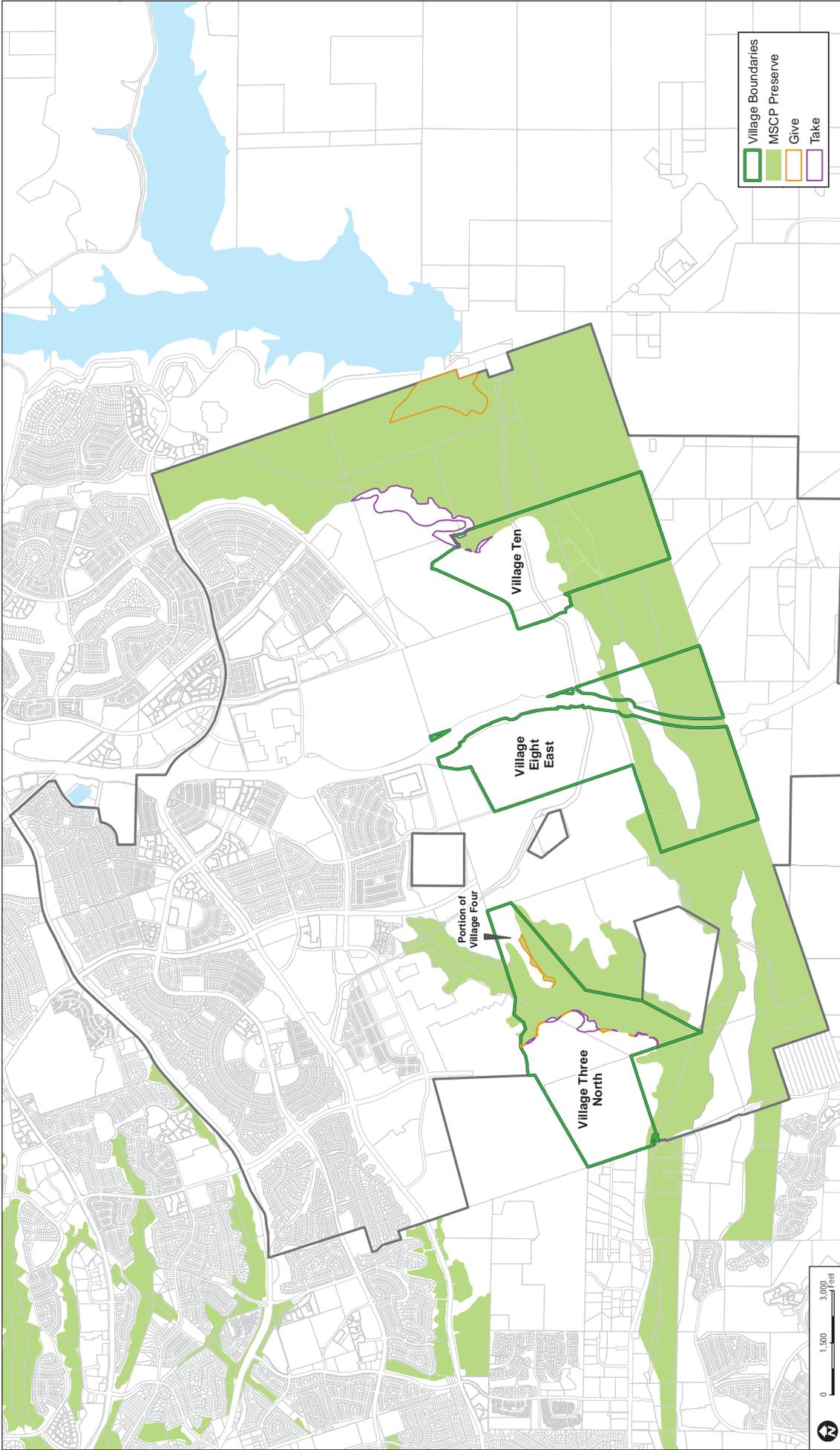


FIGURE 4-  
Propose Preserve

INTENTIONALLY LEFT BLANK

### **4.2.9 Sectional Planning Area Elements**

The proposed project would require the approval of SPA Plan Amendments for the Village Seven SPA Plan (2004); Village Two, Village Three, and a Portion of Village Four SPA Plan (2006); and Village Nine SPA Plan (2014) to adjust the boundaries of those SPA Plans. This is required such that the same property is not within the boundaries of two SPA Plans. In addition, the project proposes the adoption of three SPA plans: Village Three North and a Portion of Village Four, Village Eight East, and Village Ten. The SPA plans include the following components.

#### **Air Quality Improvement Plan**

The Air Quality Improvement Plan responds to the City's Growth Management policies and those policies and regulations established at the broadest geographic level (state and federal) to minimize air quality impacts during and after construction of projects. The Air Quality Improvement Plan also demonstrates compliance with the air quality standards and policies of the San Diego County Air Pollution Control District.

#### **Water Conservation Plan**

The Water Conservation Plan responds to the City's Growth Management policies and addresses the long-term need to conserve water in new developments, to address short-term emergency measures, and to establish standards for water conservation.

#### **Energy Conservation Plan**

The Otay Ranch GDP requires that all SPA plans prepare a Non-Renewable Energy Conservation Plan. This plan identifies measures to reduce the use of non-renewable energy resources through, but not limited to, transportation, building design and use, lighting, recycling, and alternative energy sources.

#### **Preserve Edge Plan**

In accordance with the Otay Ranch RMP, a Preserve Edge Plan must be prepared for all SPA plans that contain areas adjacent to the Otay Ranch Preserve. The Preserve edge plan identifies allowable uses within appropriate land use designations for areas adjacent to the Preserve.

#### **Fire Protection Plan**

In accordance with the requirements of the City of Chula Vista Fire Department, Chapter 49 of the 2010 California Fire Code, and the City of Chula Vista Fire Code, a fire protection plan must be provided for all new development in the wildland–urban interface. A Fire Protection Plan

prepared for each SPA Plan Area identifies the wildfire risk associated with the proposed development in the wildland–urban interface and provides measures to minimize and mitigate potential for loss.

### **Agricultural Plan**

The 1993 Otay Ranch certified Program EIR requires preparation of an Agriculture Plan concurrent with the approval of any SPA plan affecting on-site agricultural resources. This plan describes the type of agriculture activities allowed as an interim use, including buffering guidelines designed to prevent potential land use interface impacts related to noise, odors, dust, insects, rodents, and chemicals that may accompany agricultural activities and operations.

### **Affordable Housing Plan**

The City of Chula Vista General Plan Housing Element requires that residential development with 50 or more dwelling units provide a minimum of 10% of the total dwelling units for affordable housing. Of these affordable housing units, one-half (5% of the total project) are to be designated available to low-income households and the remaining 5% to moderate-income households. To guarantee the provision of affordable housing opportunities, the City requires that the Applicant prepare a specific Affordable Housing Plan. The Affordable Housing Plan is implemented through an affordable housing agreement with the City.

The Affordable Housing Plan delineates how, when, and where affordable housing units will be provided, intended subsidies, income and/or rent restrictions, and methods to verify compliance.

### **Emergency Disaster Plan**

An Emergency Disaster Plan should be adopted that becomes operative during periods of major emergency. This plan may be an existing plan of the City of Chula Vista or the County of San Diego or a separate plan that complements existing disaster responses. The plan shall include the following:

- A system for the effective management of emergency situations
- Lines of authority, communication, and relationships
- Staff tasks and responsibility assignments
- Protection and maintenance of community facilities and services
- Continuity of government
- A framework of recovery operations.

### **Parks, Open Space, and Recreation Master Plan**

The Otay Ranch GDP requires all SPA plans to include a Parks, Recreation, Open Space, and Trails Plan. This plan identifies locations, conceptual designs, ownership, maintenance, and phasing of park, recreation, and trails facilities within the SPA plan area. The Parks, Recreation, Open Space, and Trails Plan for each village are provided in the corresponding SPA plan.

### **Public Facilities Finance Plan (PFFP)**

The PFFP implements the City’s Growth Management Program and Ordinance to ensure that the project’s phased development is consistent with the overall goals and policies of the City’s General Plan and Growth Management Program and the Otay Ranch GDP. The PFFP ensures that facilities are constructed concurrent with demand such that development of the project will not adversely impact the City’s Quality of Life Standards. The PFFP also contains a fiscal analysis identifying capital budget impacts on the City as well as maintenance and operation costs for each phase of development.

The PFFP components include an analysis of infrastructure facilities such as drainage, traffic, water, and sewer, as well as the provision of community services and facilities, including fire protection and emergency services, law enforcement, libraries, schools, and parks. The analysis and provisions of the PFFP fulfill the Otay Ranch GDP requirements for SPA-level master facility plans for most facilities associated with the development of the villages. Where additional project-specific study and planning is needed, separate technical studies and plans for the villages have been prepared and included as a component of each SPA plan.

### **4.2.10 Environmental Design Features**

In addition to the features of the project described in previous sections, other features designed to avoid or minimize project effects are proposed. Specifically, measures to avoid adverse effects on water quality from stormwater runoff are proposed, consistent with the requirements of the City. In addition, elements of the SPA Plans including the Air Quality Improvement Plan, Water Conservation Plan, Energy Conservation Plan, PFFP, and Pedestrian, Bicycle, and Transit Circulation Plans, have been incorporated into the project design and are discussed in this EIR as appropriate.

## **4.3 DISCRETIONARY ACTIONS/APPROVALS**

A discretionary action is an action taken by an agency that calls for the exercise of judgment in deciding whether to approve or how to carry out a project. The following discretionary actions

are associated with the proposed project and will be considered by the Chula Vista Planning Commission and City Council:

- Certification of a Final EIR, adoption of the Mitigation Monitoring and Reporting Program pursuant to CEQA, and approval of the CEQA Findings and Statement of Overriding Considerations
- Approval of the Chula Vista General Plan Amendments (please see discussion in Section 4.2.8)
- Approval of the Otay Ranch GDP Amendments (please see discussion in Section 4.2.8)
- Approval of the Otay Ranch RMP Boundary Modification
- Approval of amendments to the Villages Two, Three, and a portion of Four SPA Plan; Village Seven SPA Plan and Village Nine SPA Plan
- Adoption of the Village Three North and a Portion of Village Four SPA Plan (please see discussion in Section 4.2.9)
- Adoption of the Village Eight East SPA Plan (please see discussion in Section 4.2.9)
- Adoption of the Village Ten SPA Plan (please see discussion in Section 4.2.9)
- Approval of three TMs; Village Three North and a Portion of Four, Village Eight East, and Village Ten (please see discussion in Section 4.2.6)
- Approval of the Chula Vista MSCP Subarea Plan Boundary Adjustment (please see discussion in Section 4.2.8)
- Approval of Grading Plans (please see discussion in Section 4.2.5)
- Habitat Loss and Incidental Take (HLIT) Ordinance Permit
- Amend the Development Agreement in accordance with the Land Offer Agreement provisions.

Additionally, implementation of the project may require that the Applicant obtain approval, permits, licenses, certifications, or entitlements from various federal, state, and other local agencies, including but not limited to those listed in Table 4-10.

**Table 4-10  
Future Discretionary Approvals and Permits**

Discretionary Approval/Permit	Agency Description	Agency Status	Notes/Explanation
Final "A" Map(s)/Financial Parcel Map(s)	City of Chula Vista	Lead Agency	Mapping to facilitate project financing.
Final "B" Map(s)	City of Chula Vista	Lead Agency	Final mapping to facilitate development.
Construction and Encroachment Permit(s)	City of Chula Vista	Lead Agency	Construction and encroachment permits are required for work performed within the City's road right-of-way.
License, Easement, Entry Permit, Encroachment Permit, Land Sale, Land Exchange, or Other Similar Action	City of San Diego	Responsible Agency	Approval to relocate City of San Diego waterlines through Villages Eight East and Ten from existing alignment into future alignment of Otay Valley Road/La Media Road.
Construction and Encroachment Permit(s)	Caltrans	Responsible Agency	Construction and encroachment permits are required for work performed within Caltrans road right-of-way (SR-125).
Site Plans	City of Chula Vista	Lead Agency	Site plans for single-family residential, mixed-use sites, and park developments.
Village Core Master Precise Plans	City of Chula Vista	Lead Agency	Each SPA Plan includes a requirement to prepare a subsequent Master Precise Plan to better define the village core uses, character and site plan.
Section 401 Water Quality Certification	RWQCB	Responsible Agency	Action required for development projects affecting waters of the United States.
Section 404 Permit – Clean Water Act	ACOE	Responsible Agency	Action required for development projects affecting waters of the United States.
Streambed Alteration Agreement/Memorandum of Understanding	CDFW	Responsible Agency/Trustee Agency	Action required for development projects affecting jurisdictional streams/waters.
Air Quality Permit	SDAPCD	Responsible Agency	Action required for construction and development projects using certain machinery, such as backup or emergency generators.
NPDES Permit; General Construction Activity Storm Water Permit, including the Storm Water Pollution Prevention Plan	RWQCB	Responsible Agency	Action required for development projects.
NPDES General Groundwater Extraction Waste Discharge Permit	RWQCB	Responsible Agency	Permit would be applicable if groundwater disposal is proposed during construction.
General Construction Storm Water Permit	RWQCB	Responsible Agency	Action required for development projects.
Subarea Master Plan	OWD	Responsible Agency	Reporting approval required from OWD for overall water availability, service connection, etc.

Caltrans = California Department of Transportation; RWQCB = Regional Water Quality Control District; ACOE = U.S. Army Corps of Engineers; CDFW = California Department of Fish and Wildlife; SDAPCD = San Diego Air Pollution Control District; NPDES = National Pollutant Discharge Elimination System; OWD = Otay Water District

INTENTIONALLY LEFT BLANK

## 5.1 LAND USE, PLANNING, AND ZONING

This section tiers from the 1993 Otay Ranch GDP Program EIR, because the proposed project is within the boundaries of the Otay Ranch GDP and implements land uses (although at a different intensity), a circulation network, and village design policies that were analyzed in the 1993 Otay Ranch GDP. This section also tiers from the 2005 General Plan Update and GDP Amendment (GPU/GDPA) Program EIR, because existing conditions for the entire Otay Ranch area were assessed as part of the 2005 GPU/GDPA Program EIR. The 1993 Otay Ranch GDP Program EIR determined that land use impacts as a result of implementation of the proposed land plan would be significant and unavoidable. The 2005 GPU/GDPA also determined that impacts to land use would be significant and unavoidable. However, the Chula Vista City Council determined that land use impacts identified in these EIRs were acceptable because of specific overriding considerations.

A proposed project's land use effects fall into two main categories: (1) conflicts with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect; and (2) physically dividing an established community. This section of the EIR addresses potential impacts to land use resulting from the proposed project. Other environmental issues associated with land use decisions include aesthetics, noise, and resource conservation. These issues are separately addressed in their respective sections of this EIR.

### 5.1.1 Existing Conditions

#### 5.1.1.1 Regulatory Framework

##### Regional Level

##### *Regional Comprehensive Plan*

The San Diego Association of Governments (SANDAG) is a council of governments that serves as a forum and decision-making body for regional planning issues including population growth, transportation, and land use in San Diego County. SANDAG's Regional Comprehensive Plan (RCP) serves as the long-term planning framework for the San Diego region. It also provides a broad context in which local and regional land use decisions can be made with respect to anticipated regional growth, and its effect on housing, economics, transportation, environmental planning, and overall quality of life needs. The goals of the RCP are to establish a planning framework and implementation actions that increase the region's sustainability and encourage "smart growth" while preserving natural resources and limiting urban sprawl (SANDAG 2004).

In an effort to facilitate smart growth planning, SANDAG created a Smart Growth Concept Map that identifies areas of the region that are existing, planning, or potential smart growth areas. Within the project area, a portion of Village Eight East is identified as a planned Town Center

and a portion of Village Ten as a potential Special Use Center. Village Three North and the Portion of Village Four are not identified as smart growth areas by SANDAG (SANDAG 2012). Basic RCP smart growth principles applicable to the proposed project to strengthen land use and transportation integration are summarized as follows:

- **Land Use and Urban Design.** Reduce land consumption by focusing future growth in the cities and in the appropriate unincorporated suburban communities and village centers through new development, redevelopment, and infill, emphasizing pedestrian-friendly design and mixed-use development.
- **Travel Choices.** Provide people with additional travel choices (walking, biking, rail, bus, and automobile).
- **Jobs/Housing Mix.** Locate housing near or within major employment areas and provide employment opportunities near major housing areas.
- **Housing Choices.** Provide, in each community, a variety of housing types for residents of all incomes.
- **Infrastructure, Capacity, and Location.** Provide adequate infrastructure in designated smart growth opportunity areas.
- **Environment.** Protect open space and habitat areas. When constructing residential, commercial, or industrial areas, or building transportation systems, provide environmentally sensitive development that conserves water and energy, protects water quality, promotes the use of alternative energy sources, protects sensitive plants and habitats, and restores natural open spaces through the use of native plants.

### ***2050 Regional Transportation Plan/Sustainable Communities Strategy***

SANDAG adopted the 2050 Regional Transportation Plan (RTP) in October 2011. The 2050 RTP provides a vision of the San Diego region's transportation system over the next 40 years. The document contains a robust transportation network, with a diversity of projects that will provide residents and visitors with a variety of travel choices (SANDAG 2011). Along with the 2050 RTP, SANDAG adopted the Sustainable Communities Strategy (SCS), which details how the region will reduce greenhouse gas (GHG) emissions to state-mandated levels as required by Senate Bill 375. The goal of the SCS is to establish a development plan for the region, which, after considering transportation measures and policies, will achieve, if feasible, the GHG reduction targets. The GHG reduction targets to be achieved through the adoption of SANDAG's SCS are a 7% reduction in emissions per capita by 2020 and a 13% reduction by 2035. Both the 2050 RTP and SCS seek to guide the San Diego region toward a more sustainable future by integrating land use, housing, and transportation planning to create communities that are more sustainable, walkable, transit-oriented, and compact (SANDAG 2011).

After the RTP/SCS were adopted by SANDAG, a lawsuit was filed by petitioners Cleveland National Forest Foundation and the Center for Biological Diversity (later joined by Sierra Club and the California Attorney General’s Office). The lawsuit challenges SANDAG’s EIR evaluating the adopted 2050 RTP/SCS based on claims arising under CEQA. The trial court issued a decision partially in favor of petitioners in December 2012.

SANDAG appealed the trial court’s decision; the appeal has been fully briefed and is set for oral argument before the Court of Appeal on August 14, 2014. A Court of Appeal decision is expected within 90 days of the conclusion of oral argument (or about November 2014). No injunction was issued during the appeal process, and SANDAG continues to implement the 2050 RTP/SCS.

## **Local Level**

### ***City of Chula Vista General Plan***

The City of Chula Vista (City) General Plan was updated by the City on December 13, 2005, and most recently amended in 2013. The General Plan provides a long-term strategy to address planning issues for the growth and development of the city and is composed of the following six elements: land use and transportation, economic development, public facilities and services, growth management, environmental, and housing.

The proposed project is located in the Otay Ranch subarea of the General Plan. Otay Ranch is identified as a master planned community in the Chula Vista General Plan. The adopted General Plan Land Use Plan for the project area is shown in Figure 4-47. The 2005 GPU/GDPA proposed preferred land uses for the project area. Village Three North was designated for Limited Industrial, consistent with the Otay Ranch GDP land uses; however, the land uses for Villages Eight East and Ten were not adopted. These areas which were not acted upon as part of the 2005 GPU were designated as “Deferral Areas” and the land uses remained as identified by the 2001 Otay Ranch GDP uses for Villages Eight East and Ten.

The 2013 GPA/GDPA did not address Village Three North and a Portion of Village Four. The 2013 GPA/GDPA did include Village Eight East and Village Ten; however, it did not alter any land uses for these villages, rather, the 2013 GPA/GDPA separated Village Eight into Villages Eight West and Eight East and relocated the RTP out of Village Eight to combine with the University site.

### **Village Three North and a Portion of Village Four**

Village Three is designated Research & Limited Industrial and Open Space Preserve (OS/P) in the Chula Vista General Plan Land Use Diagram (Figure 4-47).

The Portion of Village Four within the project area is designated Open Space (OS) and Parks & Recreation in the Chula Vista General Plan Land Use Diagram (Figure 4-47).

### Village Eight East

The General Plan designates Village Eight East for residential uses including Residential Mixed Use, Residential Low–Medium, Public and Quasi Public, Parks and Recreation, Active Recreation, and OS (Figure 4-47).

### Village Ten

The General Plan designates Village Ten as Public & Quasi Public (University Study Area, Figure 4-47).

## **Land Use and Transportation Element**

The Land Use and Transportation Element establishes the land use categories, roadway classifications, and generalized land use patterns for city development, while focusing on themes that (1) support strong community character and image, (2) support strong and safe neighborhoods, and (3) improve mobility. This element establishes plans and policies to identify the general distribution of housing, businesses, industry, open space (including parks), education facilities, and public buildings. Standards for population density and building intensity in each land use classification are also provided.

## **Economic Development Element**

The Economic Development Element establishes policies to ensure the long-term vitality of the local economy and to help develop, guide, and encourage appropriate employment and business ownership in Chula Vista. It promotes a sustainable local economy to benefit present and future generations without detrimentally affecting resources. Employment land, or land designated for commercial, industrial and other non-residential, or open space use, is concentrated in three principal areas: the tideland area, the Montgomery area, and the Otay Ranch area.

## **Public Facilities and Services Element**

The Public Facilities and Services Element establishes the plan to provide and maintain infrastructure and public services for future growth, without diminishing services to existing development within the city. The overall goal of this element is to provide and maintain public facilities and services within Chula Vista through abundant public infrastructure and community services that support and enhance the well-being of the City and its residents.

### **Growth Management Element**

The purpose of the Growth Management Element is to guide future development in the City based on the principles that (1) rapid population growth and development have the potential to cause a variety of problems and impact the well-being of a city and its residents, and (2) impacts can be mitigated by balancing competing demands for growth and development through the adoption of comprehensive objectives and policies. This element serves as the assurance that the vision described within the General Plan is achieved without sacrificing the quality of life enjoyed in the community, and establishes a framework for directing new development, redevelopment, and community enhancement, and provides the guidance to realize the vision for the City.

### **Environmental Element**

The Environmental Element establishes the policy framework for improving sustainability through the City’s stewardship of natural and cultural resources, promotion of environmental health, and protection of persons and property from environmental hazards and noise. Sustainable development is identified as a means of balancing current growth and economic progress with protection of future resources.

### **Housing Element**

The Housing Element details a 5-year strategy for enhancement and preservation of the city character, identifies strategies for expanding housing opportunities for the various economic segments of the city, and provides policy guidance for local decision-making related to housing. The focus of this element is to (1) maintain and enhance the quality of housing and residential neighborhoods in the city, (2) support housing opportunities to meet the City’s diverse needs, and (3) fund and implement services that provide vital community resources for lower-income residents. Inclusionary policies of this element require 10% affordable (“inclusionary”) housing, including 5% low-income and 5% moderate-income units, for projects consisting of 50 or more dwelling units.

### ***City of Chula Vista Multiple Species Conservation Program Subarea Plan***

The Multiple Species Conservation Program (MSCP; August 1998) is a subregional plan under the California Natural Community Conservation Planning Act (Fish and Game Code sections 2800-2835). The MSCP covers an area encompassing 12 jurisdictions and 582,243 acres. The MSCP addresses the potential impacts of urban growth, loss of natural habitat, and species endangerment, and creates a plan to mitigate for the potential loss of covered species and their habitat due to the direct, indirect, and cumulative impacts of future development of both public and private lands within the MSCP area. The MSCP Subregional Plan is a comprehensive, long-

term habitat conservation plan that addresses the needs of multiple sensitive plant and animal species and the preservation of natural vegetation communities in southern San Diego County. The MSCP Subregional Plan is implemented through local subarea plans prepared by participating jurisdictions. The City of Chula Vista MSCP Subarea Plan was approved in May 2003, and it provides for conservation of covered species and their associated habitats by establishing a preserve of interconnected conservation lands. The combination of the MSCP Subregional Plan and subarea plans, including the City's MSCP Subarea Plan, serves as a Multiple-Species Habitat Conservation Plan pursuant to section 10(a)(1)(B) of the federal Endangered Species Act and as Natural Community Conservation Plan (NCCP) and associated permit under the Natural Community Conservation Planning Act. The MSCP Subregional Plan is being implemented in phases as participating jurisdictions and special districts submit their subarea plans for approval to the U.S. Fish and Wildlife service (USFWS) and the California Department of Fish and Wildlife (CDFW). Upon approval, the USFWS and CDFW authorize the take of listed species and other species of concern, subject to the terms of the MSCP Subarea Plan and the MSCP Subregional Plan. Conservation and management responsibilities and implementation guarantees for each subarea plan are set forth in implementing agreements between the entity responsible for each subarea plan and USFWS and CDFW.

As stated above, the City's MSCP Subarea Plan was approved in 2003. The City's Implementation Agreement with USFWS and CDFW was entered into in February 2003. The City's MSCP Subarea Plan was prepared pursuant to a general outline developed by USFWS and CDFW to meet the requirements of the Natural Community Conservation Planning Act. The City's MSCP Subarea Plan is consistent with the MSCP Subregional Plan and contributes to its implementation. In addition, the City's MSCP Subarea Plan is a stand-alone document for purposes of implementing portions of the MSCP Preserve.

The City's Preserve was developed by the City, in cooperation with USFWS and CDFW, property owners, developers, and environmental groups. The majority of the City's Preserve consists of hard-line areas designated for 100% conservation, and these areas are either already in public ownership or will be dedicated into the Preserve as part of the City's development approval process for covered projects. Preserve boundaries for covered projects were established on a project-by-project basis after evaluation of habitat and species data and/or surveys conducted as part of project entitlement processing, evaluation by USFWS and CDFW, and consideration of how such mitigation could best contribute to the overall MSCP Subregional Plan.

For development projects located within Otay Ranch, the City's MSCP Subarea Plan relies on the Preserve design and policies contained in the Otay Ranch Resource Management Plan (RMP) as the framework for conservation and management of biological resources within the Otay Ranch Preserve (City of Chula Vista 2003a; City of Chula Vista and County of San Diego 1993, 1996). Otay Ranch, including the proposed project, is considered a covered project under the

MSCP Subarea Plan. This means that the areas proposed to be preserved (100% conservation areas) either are already in public ownership or will be dedicated to the Otay Ranch Preserve as part of the development approval process for covered projects. As it pertains to development in Otay Ranch, lands will be conveyed to the Otay Ranch Preserve in accordance with the RMP.

In addition, the City's MSCP Subarea Plan allows for infrastructure within the Preserve to support planned development, subject to specific conditions. The conditions affecting the proposed project include facility siting criteria for the proposed storm drain and sewer facilities to be located in the Preserve. A discussion of the facility siting criteria is contained in Section 5.8, Biological Resources.

### ***Otay Ranch General Development Plan***

The Otay Ranch GDP was approved jointly by the City of Chula Vista and County of San Diego in 1993 for the future development of Otay Ranch. The Otay Ranch GDP was amended in December 2005 as part of the City's General Plan Update and most recently was amended in February 2013. The Otay Ranch GDP establishes land use plans, design guidelines, objectives, policies, and implementation measures that apply to all portions of Otay Ranch while supporting a balance of housing, shops, workplaces, schools, parks, civic facilities, and open spaces. The majority of development is intended to be clustered in villages, with conveniently located "core" features and well-defined edges such as the Chula Vista greenbelt, open spaces, and wildlife corridors. The goals of the Otay Ranch GDP are to (1) create a well-integrated, balanced land use; (2) reduce reliance on the automobile and promotion of alternative modes of transportation; and (3) diversify the economic base within Otay Ranch. The Otay Ranch GDP land use designations for the villages included in the project area are shown in Figure 4-51.

As shown in Figure 4-51, the Otay Ranch GDP designates Village Three North as Industrial and Open Space (OS); the Portion of Village Four as OS; Village Eight East as Low-Medium Density Village Residential, Medium-High Density Residential, Mixed Use, and OS; and Village Ten as University and OS. The Otay Ranch GDP also provides an alternative land use plan for Village Ten with the following designations: Low-Medium Density Village Residential, Medium-Density Residential, Medium-High Density Residential, and Mixed Use.

### ***Otay Ranch Resource Management Plan***

The Otay Ranch RMP was adopted in 1993 with the approval of the Otay Ranch GDP to establish a permanent preserve within Otay Ranch. The RMP is composed of two separate documents, the Phase 1 RMP and Phase 2 RMP (adopted in 1996 and revised in 2002). The Phase 1 RMP identifies Preserve areas within Otay Ranch, and contains policies regarding species and habitat conservation and long-term management of the Preserve. The Phase 2 RMP includes Ranch-wide studies that were conducted pursuant to the Phase 1 RMP and provides additional detail on conveyance, management, and funding (City of Chula Vista and County of

San Diego 1993 and 2002). The purpose of the Otay Ranch Preserve is to protect and enhance biological, paleontological, cultural, and scenic resources. Plan objectives include biological diversity and promotion of the survival and recovery of native species and habitats.

The RMP identifies an open space system of 11,375 acres to be dedicated within the Otay Ranch, targeting lands that include important resources such as vernal pools, coastal sage scrub habitat, coastal California gnatcatcher (*Polioptila californica californica*) populations, and potential wetlands restoration areas. The Otay Ranch Preserve also connects large areas of open space through a series of wildlife corridors and cover portions of Salt Creek Canyon to Otay Valley. The preserve boundaries from the RMP have been incorporated into the adopted Otay Ranch GDP. The preserve/development boundary of the Otay Ranch GDP is consistent with the objectives, policies, and criteria established in the RMP (City of Chula Vista and County of San Diego 1993 and 2002).

The Phase 2 RMP adopted in 1996 and revised in 2002, identified implementation measures that included procedures for dedicating parcels of land to the Preserve and for determining the proportionate share for each village. The Phase 2 RMP also addresses preservation of steep slopes within Otay Ranch.

Land identified by the RMP as part of the 11,375-acre Otay Ranch Preserve is required to be conveyed to the Preserve prior to the approval of Final Maps. The conveyance ratio (ratio of land to be dedicated per acre of development) is 1.188 acres dedicated for each developable acre that is Final Mapped. This ratio was established by the Phase 2 RMP. The Phase 2 RMP identified 9,574 developable acres in Otay Ranch, which are defined as the total amount of developable acreage minus common uses (local parks, schools, arterials, SR-125, and lands designated as public use areas) and limited development areas. In order for the conveyance of the entire 11,375-acre Otay Ranch Preserve, the Phase 2 RMP calculated that 1.188 acres of preserve land must be dedicated for each developable acre (11,375 acres of preserve divided by 9,574 developable acres). The conveyance obligation is required to be met on a village-by-village basis.

### ***City of Chula Vista Municipal Code***

#### **Zoning Ordinance**

Title 19 of the City of Chula Vista Municipal Code (CVMC) is the City's Zoning Code, which is intended to implement the City of Chula Vista General Plan. The Eastern Planning Area, which includes most of the project area, is zoned Planned Community (P-C), as defined in Chapter 19.48 of the CVMC. The purposes of the P-C zone are as follows:

- Provide for the orderly preplanning and long-term development of large tracts of land. These tracts may contain a variety of land uses, but are under unified ownership or development control, so that the entire tract will provide an environment of stable and desirable character;

- Give the developer reasonable assurance that sectional development plans in accordance with the approved general development plan will be acceptable to the City. Sectional development plans may include subdivision plans and/or planned unit development plans as provided in this title; and
- Enable the City to adopt measures for the development of the surrounding area compatible with the planned community zone (City of Chula Vista 2012, Chapter 19.48).

According to Section 19.48.020 of the Zoning Code, P-C zoning may be established on lands that are suitable and of sufficient size for planning and development in a manner consistent with the purpose of the zone. P-C zoning does not include any area of less than 50 acres of contiguous land (City of Chula Vista 2012, Section 19.48.020). Section 19.48.025 establishes a requirement for Community-Purpose Facility (CPF) sites to be provided within the P-C zone at the rate of 1.39 acres per 1,000 persons (City of Chula Vista 2012, Section 19.48.025).

As described above, a majority of the project area is zoned P-C. However, off-site improvement areas include limited areas outside the P-C zone. These areas are located to the north and west of Village Three North (Off-Site Improvement Areas 1, 2, 3, and 5) and are zoned Agriculture (A), General Industrial (I), and Limited Industrial (LI) (City of Chula Vista 2012).

#### Growth Management Ordinance

The purpose and intent of the City of Chula Vista Growth Management Ordinance (GMO) (CVMC Sec. 19.09) is to provide quality housing opportunities for all economic sections of the community; to balance the community with adequate commercial, industrial, recreational, and open space areas to support the residential areas of the City; to provide that public facilities, services, and improvements meeting City standards exist or become available concurrent with the need created by new development; to 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 and other programs associated with quality of life. The GMO prohibits new development unless adequate public facilities are provided in advance of or concurrently with the demands created by new development.

The GMO created the Growth Management Oversight Commission (GMOC) and established "quality of life" threshold standards. These include police, fire, and emergency response times; anticipated demand for schools and evaluation of school funding; establishment of a library service ratio; a service ratio for neighborhood and community park land; water service availability; compliance with City engineering sewage flow and related standards (subdivision manual); compliance with City engineering stormwater drainage standards (subdivision manual); maintenance of acceptable City-wide traffic flows; and air quality and pollution

overview and evaluation to foster air quality improvement pursuant to relevant regional and local air quality improvement strategies. The GMO also requires public facilities finance plans (PFFPs), air quality improvement plans, and water conservation plans for every SPA plan, or, if a SPA plan is not required, for every tentative map (TM) application. The PFFP provides a complete description of all public facilities included within the boundaries of the plan as defined by the development services director, including phasing and financing of infrastructure. The plan must contain an analysis of the individual and cumulative impacts of the proposed development on the community as it relates to the Growth Management Program, the specific facility master plans, and the threshold standards. Proposed development must also prepare a fiscal impact report and provide funding for periods when City expenditures for the development would exceed projected revenues.

#### Park Land Dedication Ordinance

Chapter 17.10 of the CVMC establishes requirements for parklands and public facilities, including regulations for the dedication of land and development of improvements for park and recreational purposes (Section 17.10.010); determination of park and recreational requirements (Section 17.10.020); calculation of area to be dedicated (Section 17.10.040); specifications for park improvements (Section 17.10.050); criteria for area to be dedicated (Section 17.10.060); procedures for in-lieu fees for land dedication and/or park development improvements (Section 17.10.070); and other regulations regarding park development and collection and distribution of fees (City of Chula Vista 2012).

#### Tentative Map

Title 18 of the CVMC requires the adoption of a tentative map (TM) for division and development of land into five or more parcels. A TM is made for the purpose of showing the design of a project, including the locations and layouts of streets and parcels. Under CVMC Section 18.04.050, provisions shall be made in a TM to assure adequate access, light, air, and privacy on all parcels of property, regardless of the land use. CVMC Section 18.05.060 provides for necessary land for community facilities, including schools, parks, open space, playgrounds, and other required public facilities. The TM must be reviewed by the Director of Public Works to ensure compliance with regulations applicable to public and private utilities, streets, and respective rights-of-way and easements. The TM also must be reviewed by the Development Services Director with regard to the number, size, and configuration of lots to be created, and the alignment and width of streets and easements. TMs may be adopted at the time of project approval and shall expire in 36 months in accordance with the Subdivision Map Act, although extensions may be requested.

### ***Parks and Recreation Master Plan***

The City of Chula Vista Parks and Recreation Master Plan (PRMP) was adopted in 2002 and a Draft Update was completed in 2010. The PRMP is the blueprint for the City's park system through the year 2030. The PRMP identifies existing park and recreation facilities and provides guidance for future park sites, including locations for specific types of additional recreational facilities. The PRMP envisions a comprehensive and interrelated package of community and neighborhood parks and presents each park within the context of the whole park system to ensure that it provides a balance of recreational opportunities. The PRMP states that the year 2030 citywide park system will contain community, neighborhood, mini, urban, and special-purpose parks and recreation facility and community center sites (City of Chula Vista 2010). The PRMP identifies a 70-acre community park to be developed in Village Four.

The PRMP includes a set of goals and policies for the City's parks and recreation aspirations. Each goal is accompanied by a set of specific policies, rationales, and action plans, as appropriate. The goals are as follows:

- Create a comprehensive parks and recreation system that meets the needs of the general public of Chula Vista by effectively distributing park types and their associated recreation facilities and programs.
- Establish allocation of existing and future public parkland resources that balance public priorities and needs with quality of parks and facilities.
- Provide a program for implementation.

### ***Greenbelt Master Plan***

The City of Chula Vista Greenbelt Master Plan provides guidance and continuity for the planning of open space and construction and maintenance of Greenbelt Trails (City of Chula Vista 2003b). There are two general types of trails: multi-use and rural. Multi-use trails are designed for a variety of users, such as bicyclists, equestrians, pedestrians, joggers, and other non-motorized activities. According to the Greenbelt Master Plan, even a single-track pedestrian-only trail would be considered multi-use since it could accommodate hikers, backpackers, runners, bird-watchers, and others. Minimum standards for trails are set forth in the City Landscape Manual and the Greenbelt Master Plan (City of Chula Vista 1994). A multi-use trail may also be improved with a variety of trail surfaces, with concrete and asphalt surfacing to accommodate the broadest range of users in an urban setting. A paved multi-use trail would be 10 feet wide with 2-foot natural shoulders. However, variation in the minimum standards may be allowed, based on consideration of the number and types of trail users and environmental constraints. Other minimum standards include Greenbelt Trail signs. Standards including fencing and signage shall be determined based upon environmental and other constraints and are subject

to review and approval of the Development Services Director. The proposed project includes segments of the Greenbelt Trail.

### ***Airport Land Use Compatibility Plan–Brown Field***

The San Diego County Regional Airport Authority, designated as the Airport Land Use Commission for all public airports in the County of San Diego, adopted the Brown Field Airport Land Use Compatibility Plan (ALUCP) in September 1981 (last updated in December 2010). The ALUCP assists in achieving compatible land use development in the area surrounding Brown Field airport located in Otay Mesa on Heritage Road, east of I-805. Brown Field is a general aviation airport accommodating both propeller- and jet-powered aircraft and serves as a port of entry for private aircraft coming into the United States from Mexico. Brown Field is also heavily used by military and law enforcement agencies and is classified as a “reliever airport” by the Federal Aviation Administration (SDCRAA 2010). The ALUCP designates the airport influence area and contains projected noise contours, flight activity zones, a land use compatibility matrix, and plan recommendations for areas surrounding Brown Field. The airport influence area is delineated by using the projected 60-decibel (dB) community noise equivalency level (CNEL) contour and is generally the area in which current and future airport-related noise, overflight, safety, and/or airspace protection factors may affect land uses or necessitate restrictions on uses. The airport influence area is divided into Review Area 1 and Review Area 2. The composition of each area is determined as follows:

- Review Area 1 consists of locations where noise or safety concerns may necessitate limitations on the types of land use actions. Specifically, Review Area 1 encompasses locations exposed to aircraft noise levels of 60 dB CNEL or greater together with all of the safety zones identified in the ALUCP.
- Review Area 2 consists of locations beyond Review Area 1 but within the airspace protection and/or overflight notification areas. Limits on the heights of structures, particularly in areas of high terrain, are the only restrictions on land uses within Review Area 2.

As depicted in Figure 5.1-1, a majority of the project area is within Review Area 2 of the airport influence area and a small portion is within Review Area 1. The portion of the project area within Review Area 1 is designated as Safety Zone 6–Traffic Pattern Zone; however, it is not exposed to aircraft noise levels of 60 dB CNEL or greater. The Traffic Pattern Zone has a low relative risk level and both residential and non-residential development is compatible in this zone. A majority of the project area is within the FAA Height Notification Boundary and the southern portion of the project area is subject to height restrictions ranging from 676.3 feet above mean sea level (amsl) to 876.3 feet amsl. In addition, a majority of the project area is within the Airport Overflight Notification Area, which requires notification for all new residential development in this area (SDCRAA 2010).



UNIVERSITY VILLAGES PROJECT EIR

7000

SOURCE: Aerial/Bing Maps

FIGURE - ro n Fiel irport influence rea

INTENTIONALLY LEFT BLANK

### ***Otay Valley Regional Park Concept Plan***

The Otay Valley Regional Park (OVRP) Concept Plan was adopted in July 1997 as the result of a multi-jurisdictional planning effort including the cities of San Diego and Chula Vista and the County of San Diego (County of San Diego et al. 1997). The planning area for the OVRP Concept Plan is located in the southern portion of the County of San Diego, 4 miles north of the United States/Mexico International Border. The planning area spans approximately 11 miles from the southeastern edge of the salt ponds in the OVRP to the land surrounding the Lower and Upper Otay Lakes. A majority of the land within the plan is privately owned. The plan does not change existing zoning, land use plans or add new development regulations, nor does it preclude private development. Rather, it provides the multiple jurisdictions with policies and direction regarding land acquisition and development of the plan. The intent of the plan is to continue to provide south bay residents and visitors with a variety of active and passive recreation opportunities, protect environmentally sensitive areas, protect cultural and scenic resources and encourage compatible agricultural uses in the park.

#### **5.1.1.2 On-Site Conditions**

The 1,375-acre project area is located within the Otay Valley Parcel of Otay Ranch. As described above, the proposed project is a component of the Otay Ranch GDP, which organizes the Otay Ranch into 20 villages or planning areas. The proposed project is composed of Village Three North and a Portion of Village Four, Village Eight East, and Village Ten, as well as off-site improvement areas for necessary infrastructure and public utilities. Historically, the Otay Valley Parcel, including the project area, has been used for ranching, grazing, dry farming, and truck farming activities. The project area is undeveloped and is not currently occupied by any structures or uses.

#### **5.1.1.3 Surrounding Land Uses**

Surrounding land uses are more fully described in Chapter 3, Environmental Setting. Village Three North is surrounded by the existing Otay Landfill and Village Two to the north, various auto parts recycling facilities to the west, Main Street/Heritage Road to the southwest, the OVRP to the south, and Wolf Canyon to the east. The portion of Village Four included in the proposed project (a Portion of Village Four) is surrounded by Wolf Canyon to the south and west, Village Two to the north and Village Seven to the east.

Village Eight East is surrounded by Village Eight West to the west, Wiley Road and the OVRP to the south, SR-125 to the east, and Village Seven to the north. Village Seven is currently developed with a mix of residential densities and schools, including Wolf Canyon Elementary School and Olympian High School.

Village Ten is surrounded by Village Nine to the west, Wiley Road and the Preserve/OVRP to the south, Salt Creek to the east, and the future University site to the north and east. The Brown Field Formerly Used Defense Site (FUDS) is within the southern portion of the Village Ten SPA Plan Area. Residential land uses are developed in Village Eleven further to the north of Village Ten.

As described in greater detail in Section 5.15, Hazards, the Brown Field FUDS consists of real property formerly owned, leased, or otherwise controlled by U.S. military services (U.S. Navy) during which contamination occurred, and where such property was disposed of prior to 1986. Specifically, the Brown Field FUDS was used by the Navy between 1942 and 1960 for practice dive-bombing and later as an aerial rocket range (Parsons 2007). By mid-1961, the Brown Field FUDS area was determined to be surplus and was sold or otherwise disposed of through the General Services Administration (Parsons 2007).

The only structures within the former Brown Field FUDS-eligible property boundary are buildings associated with the state's Richard J. Donovan State Correctional Facility. Another portion of the Brown Field FUDS area consists of Preserve land.

A portion of the southern Village Ten SPA Plan area is within the Brown Field FUDS-eligible property boundary. However, no Village Ten housing development is proposed in this area (Parsons 2007). As explained further in Section 5.15, Hazards and Risk of Upset, of this EIR, the former Brown Field FUDS-eligible property boundary area does not pose an unacceptable risk to human health or ecological receptors resulting from exposure to hazardous munitions in the surface soil at the site (see Parsons 2007, p. ES-2). Relying on site inspections and screening level risk assessments, Parsons reported to the U.S. Army Corps of Engineers (Corps or ACOE) that "immediate removal action was not warranted at this time," and recommended that the Corps complete a remedial investigation and feasibility study, along with surface water and sediment sampling of munitions debris and constituents (see Parsons 2007, p. ES-2).

The OVRP Concept Plan is one of the major open space areas within the southern area of San Diego County, linking south San Diego Bay with Otay, San Miguel, and the Jamul Mountains. It provides current and future residents and visitors recreational opportunities while protecting open space and biological resources. The plan is located south of the proposed project and portions of the Village Three North, Village Eight East, and Village Ten development sites are visible from trails and canyons located north and south of Otay River within the plan's planning area.

## 5.1.2 Thresholds of Significance

The following significance criteria, included in Appendix G of the CEQA Guidelines (14 CCR sections 15000 et seq.), will determine the significance of land use impacts. Impacts to land use would be significant if the proposed project would:

- A. Physically divide an established community or be incompatible with adjacent and surrounding uses.
- B. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.
- C. Conflict with any applicable habitat conservation plan or natural community habitat conservation plan.

## 5.1.3 Impacts

The following impact analysis is based on the proposed land use plans for Village Three North and a Portion of Village Four, Village Eight East, and Village Ten. As described in Chapter 4, Project Description, the Village Eight East land use plan includes an alternative development scenario, which allows for either single-family or multi-family dwelling units in neighborhoods R-11A and 12A, south of Otay Valley Road. The analysis below considers the single-family land use option presented in Chapter 4.

### **A. Physically divide an established community or be incompatible with adjacent and surrounding uses.**

The proposed project site is currently undeveloped; thus, the project would not incur an impact relating to physically dividing an established community on the site. Instead, the following discussion focuses on potential land use incompatibilities with surrounding off-site and future on-site land uses. First, potential land use conflicts associated with construction are discussed. Then the project's operational compatibility with surrounding land uses and internal land uses and the off-site improvement area are analyzed. Lastly, the project's impact on community character is addressed.

#### **i. Short-Term Construction Impacts**

Construction of the proposed project would primarily require grading, road building, installation of utilities, and building construction. Construction would be phased, beginning with Village Three North and a Portion of Village Four, then Village Eight East, and lastly Village Ten. The cut and

fill material resulting from grading for each village development area would be balanced on site and would not impact any existing surrounding land uses or roadways. Construction activities within the village development areas would not encroach upon surrounding villages or local streets outside the project area. Trips associated with construction of the proposed project would be directed to adjacent major arterials. The major arterials are part of the City's Circulation Element which was established such that roadways would not divide communities; rather, they would create the border within which communities exist. The villages would be built on currently undeveloped land and designed to improve connectivity in the region. Since no development currently exists on the proposed project sites, construction would not divide an established community.

During construction of the proposed project, indirect effects may include dust and construction related soil erosion and runoff. Dust may result in indirect impacts to a number of special-status wildlife species. Indirect impacts to special-status bird species may occur if construction is conducted during the breeding season for coastal California gnatcatcher (February 15–August 15) and raptors (January 15–August 31). Dust control will be implemented per the Air Quality Technical Report (Dudek 2014) to limit impacts of fugitive dust on sensitive habitat and species (See Section 5.4 Air Quality MM-AQ-2). Additionally, as required by MM-BIO-6, graded areas will be periodically watered to minimize dust that may affect adjacent vegetation.

The proposed project is subject to SDAPCD Rule 55 – Fugitive Dust Control. This requires that the project take steps to restrict visible emissions of fugitive dust beyond the property line. Compliance with Rule 55 would limit any fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) that may be generated during grading and construction activities. To account for dust control measures in the calculations, it was assumed that the active sites would be watered at least two times daily, resulting in an approximately 55% reduction of particulate matter.

The majority of the project site is adjacent to currently undeveloped land; therefore, construction activities would not be incompatible with the undeveloped land to the north, east, and west of the project site. The northern edge of Village Eight East is adjacent to Olympian High School (part of Village Seven). Construction activities in this area would have the potential to be incompatible with the high school if equipment generates noise or vibration that would be disruptive to the operation of the school. The potential for construction to result in excessive noise or vibration is addressed in Section 5.5, Noise. As discussed in this section, construction noise and vibration could potentially impact sensitive receptors (including Olympian High School), and mitigation measures NOI-7 and NOI-8 are required to reduce potential impacts. No conflict with this existing land use would occur during construction; impacts would be **less than significant**.

The City's MSCP Subarea Plan Preserve is adjacent to each of the villages. Construction would have the potential to result in direct and indirect impacts to the biological resources in the MSCP

areas as a result of loss of habitat, stormwater runoff, noise, and dust. The mitigation measures in Section 5.10, Water Quality and Hydrology, of this EIR would protect the MSCP area from stormwater runoff from construction. Requirements for noise levels, pre-construction biological surveys, and habitat replacement and restoration are included as mitigation in Section 5.5, Noise, and Section 5.8, Biological Resources, of this EIR. Dust-minimizing construction practices are required in mitigation measure AQ-3 in Section 5.4, Air Quality, of this EIR. This measure would protect sensitive species from indirect impacts related to fugitive dust and reduced access to sunlight. No land use conflict with the MSCP Preserve would occur during construction as a result of direct or indirect biological resources impacts. Construction of the proposed project would not be incompatible with existing adjacent land uses. Impacts would be **less than significant**.

**ii. Incompatibility with Surrounding Land Uses**

**Infrastructure in the MSCP Preserve**

Certain infrastructure improvements associated with the proposed project would be placed within the Preserve, including trail, sewer, and stormwater facilities. These improvements have been located in the least biologically sensitive areas pursuant to the City's MSCP Subarea Plan's Facility Siting Criteria (CV MSCP Section 6.3.3). The infrastructure improvements have been designed consistent with the MSCP Facility Siting Criteria to minimize impacts to covered species in the Preserve. Following construction, the sewer and stormwater facilities would be located underground and would not result in any land use impacts.

The southern portion of Village Ten, approximately 153.9 acres, are located within the Brown Field FUDS-eligible property boundary. The 153.9 acres are part of the designated Otay Ranch Preserve. The project proposes no inhabited structures (or any other structures) within the 153.9-acre FUDS-eligible property boundary.

However, the project proposes certain improvements within the Preserve at the outer perimeter of the FUDS-eligible property boundary. The proposed improvements consist of: (a) construction of two water quality basins; (b) installation an access road for maintenance of the basins; and (c) installation of the OVRP/Greenbelt trail. All such improvements would be situated outside the former target boundary within the FUDS-eligible property boundary, as shown in Figure 5.15-6 found in Section 5.15, Hazards and Risk of Upset, of this EIR.

Of the 153.9-acre FUDS-eligible property boundary, the project's water quality basins would cover approximately 1.8 acres, the access road would cover 0.8 acres, and the trail would cover about 1.3 acres. The balance of the acreage, approximately 150 acres, would remain undisturbed Preserve land, and public access would be restricted through appropriate barriers (e.g., fencing) and signage as determined necessary by the Otay Ranch Preserve Owner/Manager.

The Brown Field FUDS-eligible property was the subject of a site inspection conducted by Parsons Infrastructure and Technology group for the ACOE in 2007. The site inspection consisted of a qualitative reconnaissance of the site area and munitions constituent sampling (Parsons 2007). During the inspection, munitions debris was found within the area, along with evidence of surface soil contamination (Parsons 2007).

After conducting screening level risk assessments, Parsons determined that the area does not pose an unacceptable risk to human health or ecological receptors due to exposure to hazardous munitions constituents in the soil at the site. Further, Parsons concluded that the presence of munitions and explosives of concern, along with munitions debris, have the potential for harm to human health, if there is contact to still functioning munitions. However, Parsons determined that immediate removal action was not warranted; instead, Parsons recommended a remedial investigation and feasibility study with surface water and sediment sampling as the next step in ACOE's phased cleanup process (Parsons 2007).

Notwithstanding the determinations in the Parsons report, because of the presence of some munitions and explosives of concern within the 153.9-acre FUDS-eligible property where some project-related improvements will be constructed, this EIR provides mitigation measures HAZ-2A and HAZ-2B as part of Section 5.15, Hazards and Risk of Upset, to address the potential safety issues related to the construction of project-related improvements within the FUDS-eligible property area.

The recommended mitigation in Section 5.15, Hazards and Risk of Upset, of this EIR would ensure that the improvement areas (i.e., installation of basins and road/trail access) would be inspected and safety-checked, and remediated to the extent required, to the satisfaction of the Development Services Director, the ACOE and the Department of Toxic Substances Control, as applicable, prior to any ground disturbance activities. Impacts as to Hazards and Risk of Upset therefore would be **less than significant** after the mitigation discussed immediately above.

The Corps also can and should implement various additional measures to further enhance public safety associated with the FUDS-eligible property boundary. In addition, through the remedial investigation and feasibility study process, the Corps will evaluate and balance site remediation against the potential damage that may occur to sensitive resources within the FUDS-eligible project boundary, including further coordination/consultation with U.S. Fish and Wildlife Service officials, the Department of Toxic Substances Control, and California Department of Fish and Wildlife (see Parsons 2007, p. 2-2, 8-1). Therefore, implementation and operation of the proposed improvements in the MSCP Preserve would not be incompatible with adjacent Preserve uses, and impacts would be **less than significant**.

Potential impacts associated with the land uses proposed in the village development areas are evaluated below.

### **Village Three North and a Portion of Village Four**

#### ***Landfill Nuisance Easement***

As described above, and shown in Figure 4-2, Vicinity Map, Village Three North is surrounded by the Otay Landfill to the north, existing industrial lands/auto dismantlers to the west, and open space preserve to the east (Wolf Canyon) and south (OVRP). A portion of the proposed development in Village Three North would occur within an existing 1,000-foot nuisance easement area around the Otay Landfill.

On March 15, 1996 the County of San Diego and City of Chula Vista entered into the Agreement between the County of San Diego and the City of Chula Vista Regarding Jurisdiction Over and Operation of Otay Landfill (Landfill Agreement). Subsection 6(f) of the Landfill Agreement required as a condition precedent to the annexation of the Otay Valley Parcel of the Otay Ranch GDP from the County to the City that property owners in Villages Two, Three, and Planning Area 18b grant to the County “Landfill Nuisance Easements” covering all land within 1,000 feet of the landfill property line. On March 17, 1997, the Applicants predecessor in interest (Otay Ranch L.P.) signed a Landfill Nuisance Easement to the County. This Landfill Nuisance Easement created the nuisance easement area.

This easement is designed to discourage, if not prohibit, the property owner from suing the landfill operator as a result of various defined Nuisance Items (e.g, dust, noise, vibrations, seagulls, etc.). The easement does not prohibit or even address any land use types that may be allowed or prohibited within the area of the nuisance easement. It is strictly a nuisance easement, not a land use covenant. Nothing in the document would prohibit changes to the land uses in the buffer.

The nuisance easement area is located along the south and southeast property boundary of the Otay Landfill and extends into the northern portion of Village Three North. The Otay Ranch GDP currently designates industrial land uses within the nuisance easement area and the proposed project would designate industrial, office, mixed-use, and residential land uses within the nuisance easement area. The Industrial land use designation proposed in the northern portion of Village Three North is consistent with the permitted land uses adjacent to the Otay Landfill and the existing land use designation in the Chula Vista General Plan, Otay Ranch GDP and Village Two, Three and Portion of Village Four SPA Plan. This land use is also adjacent to land zoned Industrial to the northeast (in Village Two) and the existing Industrial uses west of Village Three North.

Proposed Residential land uses within Village Three North will be screened from the Industrial land uses by slopes and landscaped streets, including the 104' right of way Heritage Road. In addition, the Planned Community District Regulations and Business Park Guidelines and the Village Three North Village Design Plan included in the Village Three North SPA Plan provide requirements and guidance related to buffering between land uses, such as landform grading, planting trees and tall shrubs, and screening techniques with decorative walls and fencing.

### ***Health Risk Assessment***

As explained above and in Section 4.0, Project Description, the project proposes residential uses within an area currently subject to a nuisance easement due to its proximity to the Otay Landfill. Because of the proposal for residential uses within this nuisance easement area, an HRA was prepared for analyzing any potential increased cancer risk impacts associated with potential development in Village Three North on property located within 1,000 feet of the Landfill resulting from the emission of toxic air pollutants. The HRA was prepared using guidance from Assembly Bill 2588 risk guidance document, *Air Toxics Hot Spots Program Risk Assessment Guidelines: The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, with additional guidance from San Diego Air Pollution Control District (SDAPCD) guidance documents. Risks were evaluated to determine if residential populations within the 1,000-foot landfill nuisance easement area would have increased cancer risks from the Otay Landfill. Residential receptors have the highest level of exposure and represent the most conservative receptor scenario. Industrial/commercial receptors were also evaluated to determine whether significant health impacts would occur to workers in zones not designated for residential use.

The nuisance easement area currently contains no sensitive receptors. Cancer risks are summed across all carcinogens to arrive at a total increased lifetime cancer risk for each receptor population. SDAPCD CEQA guidance indicates that an increased cancer risk of  $1 \times 10^{-6}$  is significant, and San Diego County uses a threshold of  $10 \times 10^{-6}$  as significant. An increased cancer risk of  $1 \times 10^{-6}$  (one additional cancer case per million individuals exposed) or less is uniformly considered negligible by all state and federal regulatory agencies.

Cancer risk isopleths for residential receptors with 30 years of exposure do not exceed  $1 \times 10^{-6}$  in any location that would be utilized for residential development. The maximum cancer risk for a residential receptor in a location proposed for residential use is  $0.85 \times 10^{-6}$ , which is below County, DTSC, OEHHA, and EPA risk thresholds for residential receptors. The nine-year exposure duration cancer risk does not exceed  $1 \times 10^{-6}$  at any location outside of the Otay Landfill. The maximum nine-year cancer risk at a location proposed for residential use is  $0.55 \times 10^{-6}$ .

There is not a standard for non-residential cancer risk; thus, the same risk level for residential was assumed as the standard for non-residential uses to be conservative. Cancer risk does not exceed  $1 \times 10^{-6}$  for industrial or commercial receptors at any location outside the landfill boundary. The maximum cancer risk for a commercial or industrial worker outside the landfill boundary is  $0.54 \times 10^{-6}$ . Therefore, all calculated carcinogenic (cancerous) risks are below the  $1 \times 10^{-6}$  threshold for each respective receptor within the development and are not significant under CEQA. Additionally, while the city does not have thresholds for non-carcinogenic (non-cancerous) risks, they adhere to the SDAPCD thresholds<sup>1</sup> developed by OEHHA. The non-cancerous risks were determined to be below the SDAPCD threshold and are not considered significant. A detailed discussion of the HRA for the Landfill is provided in Section 5.4, Air Quality, and Section 5.15, Hazards and Risk of Upset, of this EIR.

### ***Odor Nuisance***

The Otay Landfill could occasionally produce odors that may be detected outside of the landfill boundary. Odor control practices are in place at all landfills, and odor control is under the purview of the SDAPCD. Landfill odor control practices include application of odor absorbing materials or collecting and treating gases from the landfill before they are released into the surrounding community. Nonetheless, it is possible that odors from the Otay Landfill may be detected occasionally (depending on wind direction or other meteorological factors) by the future residents of Village Three North.

Additionally, the proposed project would locate residential units approximately 450 feet from the property boundary of the landfill and 700 feet from the waste containing portion of the landfill (i.e. –the portion of the landfill eligible to accept waste).

The 2005 GPU/GDPA included a mitigation measure (5.11-2), which indicated that no residential use shall be permitted within 1,000 feet of the Otay Landfill unless a project specific analysis is completed demonstrating that odor effects fall below odor thresholds for common compounds. The proposed project conducted specific analysis to determine the extent to which odors from the Otay Landfill may be detectable by future residents in Village Three North. Detailed analysis is provided in the Village Three North Nuisance Study conducted by SCS Engineers in June 2014 and is summarized herein.

Odor impacts are analyzed relative to the maximum impact on an area currently developed for residential use. The maximum odor impacts from the Otay Landfill in currently developed areas

---

<sup>1</sup> The ratio of the modeled air concentration to the Reference Exposure Level (REL) is the Hazard Quotient (HQ), with a quotient of one (1) or less indicating negligible non-cancer risks. HQs are summed across all chemicals to determine a Hazard Index (HI). The HI is the standard measure of cumulative non-cancer risks, with a value of one (1) or less considered by California regulatory agencies to be negligible.

are identified as “100%” and are considered the baseline impact. Complaints have come from residential areas to the north and west of the Landfill, from areas with 50% to 100% of the baseline odor impact. This zone extends more than one mile from the Landfill, and covers extensive residential development. Most of the Village Three North development would be within this 50% to 100% area or lower exposure areas.

Figure 5.1-2 shows modeled odors on the Village Three North development. The maximum odor effects beyond the Landfill property line would occur to the southeast of the Landfill in areas proposed for industrial and multi-purpose use. Odors in this area would be 200% to 400% (i.e., two to four times greater than) the baseline odor impact. A small portion of the lot proposed for use as a school (S-1) and a small portion of the lot proposed for use as a park (P-1) fall within this area.

Most residential development in the Village Three North development will be located between 50% and 200% of the maximum odor levels from the Otay Landfill. This range (50% to 200 % of the baseline odor level) extends well outside the Village Three North area and into existing residential areas to the north and west of the Otay Landfill. Residential development above the 100% of baseline isopleth would potentially experience more intense and/or frequent odors than the maximally affected current residential areas, but the isopleth extends well outside the 1,000-foot nuisance easement area.

The Village Three North development would include approximately 1,597 additional residential units, and approximately 5,174 residents. Based on the proposed tentative map, of these estimated 5,174 residents, 259 would be located in the 200% to 400% zone (compared to zero residents currently) and 3,904 would be located in the 100% to 200% zone (compared to 39 residents currently). This zone represents the maximum current odor exposure for an existing resident. 1,011 residents would be located in the 50% to 100% zone (compared to 7,128 residents currently residing within the 50% to 100% west, north west, north and northeast of the Landfill), meaning they would be exposed to expected odor impacts equal to or below the current maximally exposed resident.

Table 5.1-1 summarizes the modeled odor impacts, their relation to where odor complaints have been made, the existing use of the areas in that odor range, and the proposed use in the Village Three North development. Table 5.1-1 also shows the expected number of complaints if the number of complaints is proportional to the modeled impacts.



Odor Zones and Proposed Development  
 Image from Google Earth  
 Site layout provided by Hunsaker and Associates  
 Existing 1,000 foot nuisance easement area shown in Red.

SOURCE: E. S. S. Engineers 2014	
UNIVERSITY OF GEORGETOWN	FIGURE -2
7000	or Effects in Village Three North

INTENTIONALLY LEFT BLANK

**Table 5.1-1  
Odor Zone Impacts**

Zone	Approximate Maximum Distance from Waste Containing Area <sup>2</sup>	Existing Use (Existing Units and estimated # of residents <sup>3</sup> )	Number of Complaints – 2001 to 2013 (per 1000 units per year) <sup>1</sup>	Proposed Use (Proposed Units and estimated # of residents)	Village Three North Development Number of Complaints per year <sup>1</sup>
200-400%	1,500 feet	Not developed	0 (0.7)	Industrial, small portion of school lot, small portion of park mixed use, (80 DU – 259 residents)	0.056/year
100-200%	1 mile	Moderate commercial/ industrial, small residential area (12 DU – 39 residents)	0 (0.35)	Industrial, mixed use, school, community purpose facility residential, (1,205 DU – 3,904 residents)	0.42/year
50-100%	>1 mile	Commercial /industrial, moderate residential (2,200 DU – 7,128 residents)	5 (0.17)	Industrial, residential (312 DU – 1,011 residents )	0.054/year
25-50%	>1 mile	Diverse use, extensively developed (>2,000 DU)	0	Zone not located in Village Three North Area	N/A
10-25%	>1 mile	Diverse use, extensively developed (>4,000 DU)	0	Zone not located in Village Three North Area	N/A
<b>Total</b>			<b>0.38</b>		<b>0.53</b>

RU = residential units

<sup>1</sup> Assumes complaints double with modeled odor intensity

<sup>2</sup> Waste Containing Area is any area of the Landfill in which waste has been placed in the Landfill

<sup>3</sup> Assumed number of residents based on 3.24 residents per household per 2013 Census data for City of Chula Vista

### ***Amended and Restated Otay Landfill Expansion Agreement***

On or about August 5, 2014, the City Council approved the Amended and Restated Otay Landfill Expansion Agreement. Section 2.5 of this Amended Agreement states, in part, that the “City shall not allow the construction of residential units on properties within 1,000 feet of the active area of the Otay Landfill ....” Based on this Amended Agreement, which is a valid expression and implementation of the City’s police power and zoning authority to avoid the proximity of incompatible land uses, residential units in the proposed project will not be allowed to be constructed within 1,000 feet of the then active solid waste disposal areas of the Otay Landfill.

Section 2.5 of the Amended Agreement also provides that the operator of the Landfill will not move or open new active solid waste disposal areas within 1,000 feet of any already constructed residential units. Further, both the City and the Landfill operator will confer from time to time as appropriate to coordinate regarding the implementation of their obligations under Section 2.5 of the Amended Agreement.

### ***Preserve Buffer***

On the eastern edge of the village, single- and multi-family homes are proposed adjacent to Wolf Canyon, which is part of the Otay Ranch Preserve. The proposed residential uses would be compatible with the adjacent Preserve through implementation of the Preserve Edge Plan, MSCP Preserve Edge requirements, 100-foot fuel modification zone buffer, Fire Protection Plan, P-C District Regulations, and Village Design Plan, all of which will control the design and orientation of development adjacent to the Preserve. Buildings will be setback from the Preserve and fenced where appropriate to prevent intrusion. No buildings are permitted within the 100-foot Preserve buffer and fuel modification zone. There would be an increased potential for impacts to wildlife and possible fire hazards by placing development adjacent to open space. This would be offset by not allowing development within the 100-foot Preserve buffer and fuel modification zone. The fuel modification zone limits the likelihood of wildland fires from encroaching upon development and vice-versa through the establishment of irrigation zones and a water efficient plant palette with restrictions on plant spacing. The main objective is to prevent wildland fires from impacting development through implementation of two-zone irrigation systems with the irrigated zone closest to development. A ring of open space would extend along the southern and eastern borders of Village Three North, serving as a buffer between the proposed residential uses and Preserve.

### ***Surrounding Land Uses***

Auto dismantlers and an operation center for the Otay Landfill are located west of Village Three North. These uses have been in place for many years. There would be a 150 foot distance between these existing land uses and the closest residential area, and this distance would decrease potential noise levels at residential areas. Noise from the current operations was included in the noise measurements taken in Village Three North and analyzed in Section 5.5, Noise of this EIR.

Otay Valley Rock Quarry is located south east of Village Three North and southwest of Village Four. The quarry produces rock products for construction material. Potential land use conflicts associated with the quarry would include dust and noise impacts that may disturb nearby residents. However, Village Three North and the quarry are separated by Wolf Canyon and Village Four is separated from the quarry by Rock Mountain. Intermittent noise from

particularly loud operations, such as blasting, is occasionally audible on the project site; however, it would not be a substantial disturbance to future residents. Occasional blasting operations may occur within approximately 1,600 feet from Village Three North; however, these activities would be temporary in nature and the quarry is required to follow protocol for any blasting activity, further described below. In addition, the proposed residential land uses along the eastern edge of Village Three North and park uses along the southern edge of Village Four are not vibration sensitive. Further, according to the Declaration of Covenants of Operation for the quarry, blasting would be limited to the hours between 10:00 a.m. and 4:00 p.m. and would not disturb residences' sleep.

The Mining Operator is required to retain a qualified blasting specialist to develop a site-specific blasting program report to assess, control, and monitor ground vibration from blasting, for any residences located within 1,000 feet of the mining operation. The Mine Operator is required to provide public notification of the blasting schedule for residents within 1,000 feet of blasting. The Mine Operator will give a monthly blasting schedule in writing to residences within 1,000 feet of potential blast locations. The notice will disclose the anticipated blasting schedule and provide a contact phone number for the blasting contractor. Unscheduled changes to the blasting schedule will require the blasting schedule to be reissued no less than 24 hours prior to the blasting.

I-805 and Main Street provide the main access routes to the quarry; therefore, no truck trips from the quarry would be anticipated to traverse the project site due to the quarry's proximity to I-805. The development of Village Three North or a Portion of Village Four would not encroach into the limits of the quarry or affect existing operations at the quarry. Therefore, implementation of the project would not result in a land use conflict with the existing operation of the quarry, and impacts would be below a level of significance. The quarry has been approved to expand operations eastward. Potential land use conflicts as a result of noise impacts associated with the expansion are addressed in Chapter 6, Cumulative Impacts.

Residential uses proposed adjacent to arterial roadways would be compatible through implementation of the Otay Ranch GDP setback requirement for homes adjacent to arterial roadways. A 75-foot average setback will be maintained along Heritage Road and Main Street, which are arterials with an anticipated 55 mph posted speed limit.

The Portion of Village Four included in the proposed project includes 17.8 acres of the planned Community Park located to the north and is consistent with the existing General Plan Land Use designation. This park use is appropriate adjacent to open space Preserve and is also subject to the Preserve Edge Plan, MSCP Preserve Edge requirements, 100-foot fuel modification zone buffer, and Fire Protection Plan.

The proposed conversion of land currently designated Open Space in the General Plan to Open Space Preserve is consistent with surrounding lands currently designated Open Space Preserve within Wolf Canyon.

### **Village Eight East**

As described above, Village Eight East is surrounded by the Village Eight West property to the west, existing Olympian High School and the future extension of the Main Street to the north, SR-125 to the east, and OS/P to the south. Village Eight East was planned to complement Village Eight West by locating higher intensity land uses adjacent to Main Street and in the northern portion of the village, near the Village Eight West Town Center. The Village Eight East and Village Eight West interface would be primarily multi-family residential and pathways would be provided through the multi-family neighborhoods to provide direct pedestrian connections between the villages. Main Street would also provide a connection to the adjacent Village Eight West Town Center and would include bicycle lanes and sidewalks. Village Eight East is proposed to include a mixture of high-density, multi-family homes and single-family homes north of Otay Valley Road. This high-intensity configuration is appropriate because of the proximity to the neighboring Village Eight West Town Center, Eastern Urban Center, SR-125, and the future University site to the east. Where residential land uses are proposed adjacent to SR-125, an HRA has been prepared which determined there are no additional health risk impacts associated with proximity to the toll road (see Section 5.15, Hazards and Risk of Upset).

Single-family residential uses are proposed south of Otay Valley Road, where development approaches the OVRP and MSCP Preserve. These land uses will be compatible with the adjacent Preserve through implementation of the Preserve Edge Plan, MSCP Preserve Edge requirements, a 100-foot fuel modification zone buffer, the Fire Protection Plan, P-C District Regulations and the Village Design Plan, all of which will control the design and orientation of development adjacent to the Preserve. Buildings will be setback from habitat and fenced where appropriate to prevent intrusion. No buildings are permitted within the 100-foot Preserve buffer and fuel modification zone. There is an increased potential for impacts to wildlife and possible fire hazards by placing development adjacent to open space. This would be offset by not allowing development within the 100-foot Preserve buffer and fuel modification zone. The fuel modification zone limits the likelihood of wildland fires from encroaching upon development and vice-versa through the establishment of irrigation zones and a water efficient plant palette with restrictions on plant spacing. The main objective is to prevent wildland fires from impacting development through implementation of two-zone irrigation systems with the irrigated zone closest to development. A ring of open space would extend along the southern border of Village Eight East, serving as a buffer between the proposed residential uses and Preserve.

Additionally, locating single-family homes adjacent to open space would reduce the visual impact to users of the OVRP by placing lower-scale buildings at the top of slopes rather than taller multi-family buildings. The potential visual impact of the proposed development to users of the OVRP is discussed in Section 5.2, Landform Alteration/Aesthetics of this EIR.

The Village Eight East Land Use Plan includes an alternate development scenario, as described in Section 4.0, Project Description of this EIR, which would allow for either single-family or multi-family homes in the R-11A and R-12A neighborhoods immediately south of Otay Valley Road. This area is located adjacent to a planned multi-family site in Village Eight West and across the street from a planned elementary school; hence, this higher-density land use would be appropriate in this location.

A Community Park (P-2) is proposed south of the single-family neighborhoods on a site designated Open Space Active Recreation in the General Plan, OVRP Concept Plan and Chula Vista MSCP Subarea Plan. The siting of the Community Park (P-2) is consistent with the Open Space Active Recreation designation because the uses are similar. This area has been designed such that grading would balance on-site and no trucking would be required to import or export soil through the Preserve. While not required by the MSCP to comply with the 100-foot preserve edge requirement, the Community Park (P-2) must meet MSCP adjacency guidelines to reduce potential indirect impacts to the Preserve. For a discussion of how the indirect impacts are minimized, please see Section 5.8, Biological Resources, of this EIR.

### **Village Ten**

Village Ten is surrounded by the future University site to the north, future Village Nine residential development and Town Center to the west, and open space Preserve to the east and south. The Village Ten land use plan includes a mix of single-family and multi-family homes. The highest intensity uses within Village Ten, including high-density multi-family homes, are proposed adjacent to the Village Nine Town Center, a high-intensity urban village, and the future University site. Tall high-density multi-family buildings proposed in Village Ten would be compatible with future building heights on the University site and also provide the high-density housing necessary to support students attending the University. Due to its proximity to the Village Nine Town Center and EUC, Village Ten does not include any mixed-use commercial/retail; however, Village Ten would still include a mix of uses in the village core, including a park, school and CPF site and high density housing. Similar to Village Eight East, density would generally decrease as development moves south toward the OVRP to minimize edge impacts on adjacent open space/Preserve areas. An open space buffer would be located along the southern and eastern boundaries between the residential uses and the Open Space Preserve. Both the Village Ten subdivision area and the open space buffer are located outside of the Brown Field FUDS eligible property boundary. However, the two water quality basins,

associated access roads, a portion of the OVRP trail that traverses the Village Ten SPA Plan area and Preserve land are within the FUDS-eligible property.

Lower density single-family neighborhoods are appropriate in the southern portion of the village as development approaches the OVRP and MSCP Preserve. This land use would be compatible with the adjacent Preserve through implementation of the Preserve Edge Plan, MSCP Preserve Edge requirements, a 100-foot fuel modification zone buffer, the Fire Protection Plan, Planned Community District Regulations, and the Village Design Plan, all of which will control the design and orientation of development adjacent to the Preserve. Buildings will be setback from habitat and fenced where appropriate to prevent intrusion.

No buildings are permitted within the 100-foot Preserve buffer and fuel modification zone. There is an increased potential for impacts to wildlife and possible fire hazards by placing development adjacent to open space. This would be offset by not allowing development within the 100-foot Preserve buffer and fuel modification zone. The fuel modification zone limits the likelihood of wildland fires from encroaching upon development and vice-versa through the establishment of irrigation zones and a water efficient plant palette with restrictions on plant spacing. The main objective is to prevent wildland fires from impacting development through implementation of two-zone irrigation systems with the irrigated zone closest to development. A ring of open space would extend along the southern and eastern borders of Village Ten, serving as a buffer between the proposed residential uses and Preserve.

For the reasons described above, the proposed project's villages would not physically divide an established community or be incompatible with any adjacent or surrounding land uses. Therefore, impacts would be **less than significant**.

### **iii. Internal Land Use Compatibility**

Each SPA Plan is designed to facilitate a high level of compatibility between adjoining land uses within the project area. The SPA Plan establishes the plan for development implementation that would ensure that the project site is developed with compatible land uses. The SPA Plans also include Planned Community District Regulations that specify development standards, establishes neighborhoods, and includes allowable land uses. Additionally, the Village Design Plans establish design guidelines for development of each village. Development standards that ensure compatibility between different land uses include requirements for building configuration, open space, parking, design considerations, frontage types, performance standards, and sign regulations.

The potential for land use conflicts to occur as a result of air quality, noise, and water quality are addressed in the applicable sections of Chapter 5 of this EIR. As discussed in Section 5.4, Air Quality, compliance with SDAPCD regulations would minimize potential toxic air

contaminant risks. Section 5.5, Noise, describes how on-site noise-sensitive land uses may be exposed to excessive traffic noise and/or operational noise from sources including HVAC equipment, commercial equipment, and recreational facilities. However, the mitigation measures identified in Section 5.5 would reduce potentially excessive noise levels to the standards established in the city noise compatibility guidelines. As discussed in Section 5.10 Hydrology and Water Quality, impacts as a result of increased runoff would be reduced through mitigation measures.

Several water transmission lines traverse the project site that are owned, operated, and maintained by the City of San Diego. These pipelines would not provide water to the project, but the SPA Plan and TM would construct development above ground of where these pipelines are currently located. Construction of the proposed development would impede the availability of access to these pipeline easements. The project proposes to relocate these pipelines into the future public rights of way within Otay Valley Road. If relocation of these water transmission pipelines did not occur prior to construction of the proposed development, a conflict with the existing City of San Diego waterline easements would occur. Therefore, impacts to land use compatibility is considered **potentially significant**.

#### **iv. Compatibility of the Off-Site Improvements and Grading with Surrounding Land Uses**

The off-site improvement areas are located in undeveloped areas or along existing roadways and no land uses are proposed in these areas. The nearest developed areas include Olympian High School in Village Seven and residential uses in Village Eleven. In addition, the majority of the off-site improvements are associated with improvements to the City's Circulation Element Roadways. As shown in Section 5.3 of this EIR, the proposed project implements the City's adopted Circulation Element as planned. The Circulation Element was established such that roadways would not divide communities; rather, they would create the border within which communities exist.

Off-site areas 2, 3, 4, 5, 6, 7, 9, 13, 15, 16, and 18 are required for roadway improvements. These improvements generally follow the road alignments depicted in the General Plan Circulation Plan. As depicted in Figure 4-19, implementation of these off-site improvements would not physically divide an existing neighborhood or result in incompatible land uses with surrounding areas. The other off-site areas 1, 8, 10, 12, 14, 17, 19, and 21 are required for either pipeline relocation, to match proposed grading plans with existing grades, or for trail improvements. Similarly, implementation of these off-site improvements would not physically divide an existing community or result in incompatible land uses with surrounding areas. Therefore, impacts related to off-site improvements and grading would be **less than significant**.

#### v. **Community Character Impacts**

The SPA Plans include Planned Community District Regulations that specify development standards for the entire project area, specific neighborhoods, as well as individual development types. Additionally, the Village Design Plans in each SPA Plan establish design guidelines for the project area as a whole, as well as for specific land uses and the village cores. As discussed in greater detail in Section 5.2, Landform Alteration/Aesthetics, of this EIR, the development standards and guidelines proposed in the SPA Plan would ensure that a consistent community character is maintained within each village, as well as with surrounding development in Otay Ranch. The 2013 GPA/GDPA SEIR determined that specific design guidelines and regulations would minimize community character impacts. Therefore, implementation of the proposed SPA Plans would assure that impacts to community character are **less than significant**.

#### **B. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.**

##### **i. On-Site Development Areas**

Construction and grading activities for the proposed project would comply with the Chula Vista Building Code and other established regulations, including local noise, air quality, and water quality regulations. Since the proposed project would be required to comply with existing construction regulations and codes, no impacts or conflicts associated with regulatory plans and policies are anticipated as a result of the proposed project's construction.

Below is an evaluation of the proposed project's consistency with the SANDAG RCP, SANDAG 2050 RTP/SCS, Chula Vista General Plan, Otay Ranch GDP, City of Chula Vista Municipal Code (Zoning Code, Design Manual, Subdivision Ordinance and Manual, Growth Management Ordinance, Park Land Dedication Ordinance, Tentative Map), Parks and Recreation Master Plan, OVRP Concept Plan, Greenbelt Master Plan, Airport Land Use Compatibility Plan–Brown Field, and the Otay Landfill Solid Waste Facility Permit.

#### **Regional Comprehensive Plan**

As described above, the SANDAG RCP establishes a planning framework to increase the region's sustainability and encourage smart growth. The RCP includes sustainability principles designed to encourage cohesive integration of land use and transportation throughout San Diego County. The proposed project's consistency with the RCP smart growth principles is addressed in Table 5.1-2. The proposed project would be consistent with the land use and urban design principle because development is focused in identified growth areas, design of each village

emphasizes pedestrian friendly design, and each village includes mixed use development. The proposed project provides a variety of travel choices including walking and biking trails, as well as a variety of housing choices within proximity of existing and planned employment centers. As shown in Table 5.1-2, the proposed project would support the RCP’s smart growth principles and, therefore, not conflict with the applicable growth policies of the RCP.

**Table 5.1-2  
Consistency with the SANDAG RCP Smart Growth Principles**

Principle	Comparison
<p><b>Land Use and Urban Design.</b> Reduce land consumption by focusing future growth in the cities and in the appropriate unincorporated suburban communities and village centers through new development, redevelopment, and infill, emphasizing pedestrian friendly design and mixed use development.</p>	<p><b>Consistent.</b> This RCP Smart Growth Principle is applicable to the proposed project. The proposed project is not located within the urban city or unincorporated suburban area, nor is it a redevelopment project. However, the proposed project is consistent with this principle because development is focused in identified growth areas, design of the villages emphasizes pedestrian friendly design, and each village includes mixed use development. As discussed in Chapter 4, Project Description, the pedestrian circulation network includes an interconnected system of village pathways, sidewalks, the City’s Regional Trail, the Chula Vista Greenbelt Trails, and rural trails.</p>
<p><b>Travel Choices.</b> Provide people with additional travel choices (walking, biking, rail, bus, and automobile).</p>	<p><b>Consistent.</b> This RCP Smart Growth Principle is applicable to the proposed project. The proposed project is consistent with this principle by providing a variety of travel choices, including walking and biking trails, future transit stops, and adequate roadways for automobiles and rapid transit. These travel choices are depicted in the Pedestrian and Bicycle Circulation Plans in Chapter 4, Project Description.</p>
<p><b>Jobs/Housing Mix.</b> Locate housing near or within major employment areas and provide employment opportunities near major housing areas.</p>	<p><b>Consistent.</b> This RCP Smart Growth Principle is applicable to the proposed project. The proposed project is consistent with this principle because it provides a variety of housing choices within proximity of existing and planned employment centers, including the Eastern Urban Center, the Otay Ranch Town Center, and the Village Eight West and Village Nine Town Centers and the Village Three North Business Park. In addition, the proposed project results in job-producing land uses (Industrial, and Mixed Use Retail/Office) in proximity to residential land uses.</p>
<p><b>Housing Choices.</b> Provide, in each community, a variety of housing types for residents of all incomes.</p>	<p><b>Consistent.</b> This RCP Smart Growth Principle is applicable to the proposed project. The proposed project is consistent with this principle by providing a variety of housing types, including single family, multi-family, and affordable housing. These travel choices are depicted in the Pedestrian and Bicycle Circulation Plans in Chapter 4, Project Description.</p>
<p><b>Infrastructure Capacity and Location.</b> Provide adequate infrastructure in designated smart growth opportunity areas.</p>	<p><b>Consistent.</b> This RCP Smart Growth Principle is applicable to the proposed project. As discussed above, the PFFPs include an analysis of infrastructure facilities, such as water, sewer and transportation, and the provision of community services including fire protection and emergency services, law enforcement, libraries, schools and parks. The PFFPs will require specific facilities be built in conjunction with development to ensure that improvements adequately serve such development and meet City threshold standards.</p>

**Table 5.1-2 (Continued)**  
**Consistency with the SANDAG RCP Smart Growth Principles**

Principle	Comparison
<p><b>Environment.</b> Protect open space and habitat areas. When constructing residential, commercial, or industrial areas, or building transportation systems, provide environmentally sensitive development that conserves water and energy, protects water quality, promotes the use of alternative energy sources, protects sensitive plants and habitats, and restores natural open spaces through the use of native plants.</p>	<p><b>Consistent.</b> This RCP Smart Growth Principle is applicable to the proposed project. Otay Ranch is a covered project in the Chula MSCP Subarea Plan. The Otay Ranch RMP created the Otay Ranch Preserve which identified the most important habitat for Otay Ranch and set aside those areas the Otay Ranch Preserve. The Otay Ranch Preserve is managed in accordance with the Otay Ranch RMP (Phase 1 and Phase 2), which requires land to be contributed to the Otay Ranch Preserve in conjunction with development of each Otay Ranch village. In accordance with the Otay Ranch RMP, prior to the approval of each Final Map, the Applicant shall convey land within the Otay Ranch Preserve at a ratio of 1.188 acres of Preserve land for every acre of development. The SPA Plans would be compatible with these biologically sensitive areas by designating adjacent development areas for the lowest density residential development. Additionally, the Preserve Edge Plans establish requirements to ensure that development in the area is compatible with the Preserve, such as, limiting uses within 100 feet of the Preserve edge to passive uses that are not noise generating. As discussed in Section 5.14, Global Climate Change, the proposed project includes environmentally sensitive design considerations to conserve water and energy. As discussed in Section 5.10, Water Quality and Hydrology, implementation of the SPA Plans would not result in significant impacts to water quality. The Fire Protection Plan, Village Design Plan, and Preserve Edge Plan, which are all part of the SPA Plan, include a landscape palette of native planting. In addition, each SPA Plan includes a Water Conversation Plan, and Energy Conservation Plan and an Air Quality Improvement Plan. Combined, these plans ensure that the proposed project would reduce potable water demand and provide for energy efficient homes.</p>

Source: SANDAG 2004.

**2050 Regional Transportation Plan/Sustainable Communities Strategy**

The SANDAG 2050 RTP/SCS includes a set of policy objectives related to mobility, reliability, system preservation and safety, social equity, healthy environment, and economy. The proposed project’s consistency with these policy objectives is presented in Table 5.1-3. The proposed project is consistent with mobility objectives because it is designed to facilitate connections between people and jobs and other activities, by providing both residential and job-producing land uses, including industrial uses and a future University/RTP site. The proposed project would create equitable transportation opportunities by creating close proximities to bus stations and stops, and by creating a variety of transportation choices. Furthermore, transportation improvements would be sited in the least environmentally sensitive locations and would not be overbuilt; rather, improvements would be sized to accommodate the proposed project and

minimize impacts on the environment. Therefore, as shown in Table 5.1-3, the proposed project would not conflict with the applicable policy objectives of the 2050 RTP/SCS.

**Table 5.1-3  
Consistency with SANDAG 2050 RTP/SCS Policy Objectives**

Policy Objectives	Comparison
<p><b>Mobility:</b></p> <p>Tailor transportation improvements to better connect people with jobs and other activities.</p> <p>Provide convenient travel choices including transit, intercity and high speed trains, driving, ridesharing, walking, and biking.</p> <p>Preserve and expand options for regional freight movement. Increase the use of transit, ridesharing, walking and biking in major corridors and communities.</p> <p>Provide transportation choices to better connect the San Diego region with Mexico, neighboring counties, and tribal nations.</p>	<p><b>Consistent.</b> This RTP/SCS Policy Objective is applicable to the proposed project. The proposed project is consistent with these policy objectives because it is designed to facilitate connections between people and jobs and other activities, by providing both residential and job-producing land uses, including industrial and office uses. Additionally, the proposed project would include transit stops that will ultimately connect with the future University/Research Technology Park (RTP) site which will provide employment opportunities. The proposed project is also designed to encourage alternative transportation modes such as walking and biking. Although transit is not currently running through the project area, the villages are designed to accommodate transit in the future. Transit stops will also be provided within a one-quarter mile of residential areas.</p> <p>Since the proposed project is limited in geographic area, the policy objectives related to regional freight movement and transportation choices are not applicable.</p>
<p><b>Social Equity:</b></p> <p>Create equitable transportation opportunities for all populations regardless of age, ability, race, ethnicity, or income.</p> <p>Ensure access to jobs, services, and recreation for populations with fewer transportation choices.</p>	<p><b>Consistent.</b> This RTP/SCS Policy Objective is applicable to the proposed project. The proposed project would create equitable transportation opportunities by creating close proximities to bus stations and stops, and by creating a variety of transportation choices. As described above,, residential developments will be in close proximity to employment opportunities in Village Three North, Village Eight West, Village Nine, the Eastern Urban Center and the RTP.</p>
<p><b>Healthy Environment:</b></p> <p>Develop transportation improvements that respect and enhance the environment.</p> <p>Reduce GHG emissions from vehicles and continue to improve air quality in the region.</p> <p>Make transportation investments that result in healthy and sustainable communities.</p>	<p><b>Consistent.</b> This RTP/SCS Policy Objective is applicable to the proposed project. The proposed project is consistent with these policy objectives because transportation improvements are being sited in the least environmentally sensitive locations and are not being overbuilt; rather, the improvements are sized to accommodate the proposed project and minimizes impacts on the environment. The proposed project is also designed to encourage alternative transportation modes such as walking and biking. The villages are designed with transit stops to accommodate transit in the future. Each SPA Plan includes an Air Quality Improvement Plan to specifically address air quality and what project design features have been incorporated, including providing a variety of land uses and travel choices. This will reduce GHG emissions from vehicles and promote improved air quality. The GHG emissions resulting from the project are addressed in Section 5.14 of this EIR.</p>

Source: SANDAG 2011.

## City of Chula Vista General Plan and Otay Ranch GDP

### *Consistency with General Plan and Otay Ranch GDP Policies*

The proposed project's consistency with the applicable policies of the City of Chula Vista General Plan and Otay Ranch GDP are provided in Appendix B of this EIR. Prior to adoption of the proposed General Plan Amendment, the proposed project would be inconsistent with General Plan Policies LUT 61.1 and 69.1, which require development to be consistent with existing Otay Ranch GDP and SPA Plans.

Prior to the adoption of the Otay Ranch GDP Amendment, the proposed project would be inconsistent with the number of housing units and land use designations currently identified in the Otay Ranch GDP. However, the project proposes amendments to the Otay Ranch GDP primarily related to the number of housing units and land uses, not regulations. After adoption of the proposed General Plan and Otay Ranch GDP Amendments, the proposed project will be consistent with the General Plan and Otay Ranch GDP.

General Plan Objective E 6 aims to limit the exposure of people to air pollutants and toxic air contaminants. The proposed project has been designed to limit the exposure of people to such toxicity. In order to demonstrate consistency with this objective, the proposed project analyzed air quality impacts resulting from project implementation in the Air Quality and Global Climate Change Technical Report (Appendix D, Part I). The proposed project also evaluated potential air pollutants and toxic air contaminants in Village Three North and Village Eight East, due to proximity to the Otay Landfill and State Route 125, respectively. Additionally, the proposed project includes Energy Conservation Plans and an Air Quality Improvement Plan (AQIP). Furthermore, as discussed in Section 5.4, Air Quality, of this EIR, the proposed project would be consistent with all applicable transportation and area source control measures proposed in the Regional Air Quality Strategy (RAQS).

General Plan Policy E 6.4<sup>2</sup> calls for not placing sensitive receptors, such as a residential land use, within 1,000 feet of a major toxic emitter. (The terms of Section 2.5 of the Amended and

---

<sup>2</sup> General Plan Policy E 6.4 was amended in 2013 to state "Do not site new or re-powered fossil-fueled baseload or peaking-type Electrical Generating Facilities within 1,000 feet of sensitive receptors, or site sensitive receptors within 1,000 feet of such facilities." This amendment inadvertently omitted previously existing language to make the Policy applicable to other forms or types of possible toxic air emitters, which omission was not consistent with the intent or purpose of the amendment to the Policy. Consequently, the City is processing a further amendment and refinement to Policy E 6.4, which amendment is scheduled to be presented to the City Council in fall 2014 and will conform the text of the Policy to the intent of the City Council. The proposed language for the remedial amendment to Policy E 6.4 will read: "Do not site new or re-powered fossil-fueled baseload or peaking-type Electrical Generating Facilities and other major toxic air emitters within 1,000 feet of sensitive receptors, or site sensitive receptors within 1,000 feet of such facilities." This corrective amended language of Policy E 6.4 is used in this EIR to determine the proposed project's consistency with the General Plan.

Restated Otay Landfill Expansion Agreement discussed above are consistent with General Plan Policy E 6.4 (as ~~will be corrected~~) in prohibiting the construction of residential units on properties or lots within 1,000 feet of the then active solid waste disposal areas and operations of the Otay Landfill.) In the case of proposed Village Three North land uses, planned residential land uses are considered sensitive receptors and the landfill to the north of Village Three is considered a major toxic emitter. The proposed project would locate residential units approximately 450 feet from the property boundary of the landfill and 700 feet or more from the current active solid waste disposal operation areas of the landfill. The active solid waste disposal areas of the landfill will change over time and could move further away from the location of residential units as proposed by the project.

As solid waste placed in the landfill decomposes, it generates LFG. Uncontrolled LFG is emitted through the landfill surface and is the main source of odor. To determine the extent to which odorous emissions from the Otay Landfill may be detectable by future residents in Village Three North, a Nuisance Study was conducted. The same LFG emissions that are known to cause odor were analyzed in the HRA for toxicity and potential to increase cancer risk. As previously discussed, the HRA determined that the toxicity LFG emissions, also known to cause odor, are below the threshold for each respective receptor within the development and are not considered significant under CEQA. Notwithstanding the fact that LFG emissions at the landfill do not pose a significant human health risk, the proposed project would not be consistent with the intent under General Plan Policy E 6.4 (as ~~will be corrected~~) to not site residential land uses within 1,000 of a major toxic air emitter. Therefore, a **potentially significant** impact related to consistency with the General Plan would occur. Mitigation for this potentially significant impact is provided (see MM LU-4).

As demonstrated in Appendix B, the proposed project is consistent with all but one of the policies and regulations outlined in the General Plan Land Use Element and Otay Ranch GDP. The SPA Plans propose a mix of land uses that provide for a variety of uses both residential and commercial to meet the current and future needs of residents, as well as parks and open space, community purpose facilities, public transit opportunities, and schools, and would allow for the development of other facilities to maintain a high quality of life. The SPA Plans include P.C. District Regulations and Village Design Plans, which implement design guidelines for the project area to enhance Chula Vista's character and quality. The proposed project would include village cores, which would be a mixed-use area to support adjacent residential neighborhoods and foster walkability. Landscaped buffers would line sidewalks and be designed to encourage pedestrian activity. Transit stops are planned in the village cores. These core areas would include compact development consisting of a mix of retail sales and services,

and high-density attached homes located adjacent to neighborhood parks and schools<sup>3</sup>. As demonstrated in Appendix B, the proposed project is consistent with all but one of the applicable General Plan policies related to land use.

### ***Consistency with General Plan and Otay Ranch GDP Land Uses***

The Proposed Chula Vista General Plan land use designations are shown in Figure 4-48 and the Proposed Otay Ranch GDP land use designations for the villages are shown in Figure 4-52. The analysis of the proposed General Plan and Otay Ranch GDP amendments is provided in the following subsections to demonstrate the proposed project’s consistency with these adopted plans.

#### Village Three North and Portion of Village Four

Village Three North is part of the existing Village Two, Three, and Four SPA Plan. The Village Two, Three, and Four SPA Plan designates Village Three North as Industrial, consistent with the Chula Vista General Plan and Otay Ranch GDP. The proposed project re-designates Village Three North as a residential village south of Heritage Road and maintains Industrial land uses on 28.6 acres north of Heritage Road.

The land use changes proposed for Village Three North and a Portion of Village Four would reduce the amount of land designated Limited Industrial by 136.7 acres and increase the amount of land designated for residential uses by 129.1 acres, including Low–Medium Residential, Medium Residential, and Mixed-Use Residential, as well as increase land designated Office/Commercial, School, CPF, Parks & Recreation, and OS. These changes would result in an increase of 1,597 dwelling units allocated to Village Three North. The change in land use would provide for housing consistent with SANDAG’s 2050 forecasts.

Due to the reduction of industrial land, an Employment Lands Analysis (ELA) was performed. The ELA analyzes the project’s impact on jobs created in the City. Village Three North will result in an array of jobs due to the various land uses proposed. Up to 20,000 sq. ft. of Mixed Use Commercial/Retail is proposed to serve the village at a neighborhood-commercial level. 11.3 acres of commercial/office and 28.6 acres for an industrial park, are also job-producing land uses which would result from implementation of the Village Three North land use plan. Additionally, the project will create service jobs such as landscape maintenance, public works maintenance, fire protection and law enforcement positions. The ELA findings demonstrate the City will still have more than sufficient lands (approx. 650 acres) for future industrial development (AECOM, 2014). See Appendix B and Section 6.3.1 for further information on the conversion of industrial land to residential.

---

<sup>3</sup> The locations designated as future school sites (S-1) have underlying zoning. If the school district does not want or need the site, then residential land uses will be put in place.

The Portion of Village Four included in the project includes 29.7 acres, of which 17.8 acres are designated Community Park (P-2), 8.6 acres remain designated OS, and 3.3 acres previously identified as OS are re-designated OS/P. Overall, Village Three North and a Portion of Village Four include 158.1 acres designated OS/P.

After adoption of the proposed amendments to the Otay Ranch GDP, the proposed project will be consistent with the land use designations in the General Plan and Otay Ranch GDP.

#### Village Eight East

The land use changes proposed in Village Eight East would increase the overall allocation of units by designating areas for higher-density residential uses, including Medium Residential and Mixed-Use Residential. These changes would result in a total allocation of 3,560 dwelling units compared to the planned 965 units from the Otay Ranch GDP and Chula Vista General Plan. In addition, consistent with the Otay Ranch GDP approximately 51.5 acres of Open Space (OS)–Active Recreation (AR) would accommodate development of a Community Park (P-2).

Under the proposed alternative development scenario, Neighborhoods R-11A and R-12A would develop as multi-family residential. To increase the density in these neighborhoods, units from the Mixed-Use Residential uses north of Otay Valley Road would be reallocated to the R-11A and R-12A neighborhoods such that the number of units in R-11A and R-12A would increase, but the overall unit count in Village Eight East would remain at 3,560 through a commensurate reduction in unit counts in other Mixed Use neighborhoods north of Otay Valley Road.

After adoption of the proposed amendments to the Otay Ranch GDP, the proposed project will be consistent with the land use designations in the General Plan and Otay Ranch GDP.

#### Village Ten

The land use changes proposed in Village Ten would eliminate the University designation and replace it with Medium Residential, Mixed-Use Residential, and Parks & Recreation. The proposed project would increase the number of residential units in Village Ten by 1,280 dwelling units. The village core area contains higher-density, multi-family homes, an elementary school site, a 2.6-acre CPF site, and a 7.6-acre neighborhood park (P-1) located along the northern village edge. It provides a transition area between future University land uses and the lower-density residential land uses to the south.

After adoption of the proposed amendments to the Otay Ranch GDP, the proposed project will be consistent with the land use designations in the General Plan and Otay Ranch GDP.

**City of Chula Vista Municipal Code**

**Zoning Code**

The proposed project is compared to the existing P-C District zoning regulations, which apply to the Village Development Areas, in Table 5.1-4. The proposed project would provide for orderly pre-planning and long-term development because it includes SPA Plans for each village within the project area, which will guide development in each village. Each SPA Plan includes a Village Design Plan which establishes the identity and character of each village and establishes a design review process for the villages. In combination with the P-C District Regulations, the Village Design Plan would ensure a stable and desirable village character. As shown in the table, the proposed project is consistent with the P-C zoning regulations.

**Table 5.1-4  
Comparison of the Proposed Project to the P-C Zoning Regulations**

Code Requirement	Evaluation of Consistency
<p><b>Section 19.48.010 A:</b> Provide for the orderly preplanning and long-term development of large tracts of land which may contain a variety of land uses, but are under a unified ownership or development control, so that the entire tract will provide an environment of stable and desirable character.</p>	<p><b>Consistent.</b> The proposed project is consistent because it includes SPA Plans for each of the villages within the project area, which will guide development in the villages. As described above, with adoption of the proposed amendments, the SPA Plans are consistent with the General Plan and the Otay Ranch GDP. Each SPA Plan includes a Village Design Plan which establishes the identity and character of each village and establishes a design review process for the villages which, in combination with the P-C District Regulations, will ensure a stable and desirable character.</p>
<p><b>Section 19.48.020 A:</b> P-C zones may be established on parcels of land which are suitable for, and of sufficient size to be planned and developed in a manner consistent with the purpose of this title. No P-C zone shall include less than 50 acres of contiguous land.</p> <p><b>Section 19.48.020 B:</b> All land in each P-C zone, or approved section thereof, shall be held in one ownership or other unified control unless otherwise authorized by the planning commission.</p>	<p><b>Consistent.</b> The proposed project is consistent because it contains approximately 1,375 acres of land, which exceeds this requirement. In addition, the project area is held under the single ownership of SSBT LCRE V, LLC, with the exception of the off-site improvement areas, which are required for the provision of adequate public infrastructure and utilities.</p>
<p><b>Section 19.48.025 A:</b> All land in the P-C zone, or any section thereof, shall provide adequate land designated as "community purpose facilities" (CPF).</p> <p><b>Section 19.48.025 B:</b> A total of 1.39 acres of net usable land (including setbacks) per 1,000 population shall be designated for such facilities in any planned community, and shall be so designated in the SPA and planned community district regulations of each planned community. The total acreage requirement may be reduced only if the City Council determines, in conjunction, with its adoption of an SPA plan, that a lesser amount of land is needed, based on the availability of shared parking with other facilities, or other community purpose facilities that are guaranteed to be made available to the community. Any shared parking arrangements shall be guaranteed regardless of any future changes in occupancy of facilities.</p>	<p><b>Consistent.</b> The projected population at build-out of the proposed project is 22,346 which would require a total of 30.8 acres of CPF. However, as part of the Land Offer Agreement with SSBT LCRE V, LLC, the City Council reduced the CPF requirement to 4 acres in each Village with the remaining CPF requirement met as part of the transfer of the future University/RTP site to the City of Chula Vista. The proposed project includes a total of 12 acres of CPF.</p>

**Table 5.1-4 (Continued)**  
**Comparison of the Proposed Project to the P-C Zoning Regulations**

Code Requirement	Evaluation of Consistency
<p><b>Section 19.48.025 D:</b> Criteria outlining the siting, property development standards, and operational parameters such as location, building setbacks, maintenance and design, and hours of operation, shall be incorporated into the SPA's planned community district regulations.</p>	<p><b>Consistent.</b> Each SPA Plan locates CPF uses in appropriate locations. Private recreational facilities are distributed throughout neighborhoods within walking distance of residences. Larger CPF sites for non-recreational land uses are sited in the village core areas. Each SPA Plan includes a Village Design Plan establishing design character of each village and designating a design review process for the villages. P-C District Regulations establish property development standards and setback criteria. Hours of operation are subject to permitting requirements by the City of Chula Vista.</p>
<p><b>Section 19.48.040 B.6.d:</b> Recreational facility land uses shall not utilize more than 35 percent of the overall CPF acreage required for CPF master plan area. Sites identified for recreational facilities in CPF land districts shall be a minimum one-half acre, and shall meet the minimum development criteria outlined in CVMC 19.48.025(H). Recreational facilities proposed for CPF credit will not receive park or open space credit.</p>	<p><b>Consistent.</b> Of the required 12 acres provided as CPF, 65% (7.8 acres) will be provided in the village cores (2.6 acres per village core area) as a non-recreational facility. The remaining 4.2 acres are proposed as private recreational facilities.</p>

### ***City of Chula Vista Design Manual***

The City's Design Manual provides a set of guidelines in conjunction with development standards to assist the City in achieving a high quality of aesthetic and functional design (City of Chula Vista 2011). Consistent with the City's Design Manual, the proposed project includes Village Design Plans that guide the site, building, and landscape design within the villages to ensure that the quality of the adopted urban design and architectural concepts established for the overall Otay Ranch community are maintained. The Village Design Plans identify a theme for the villages and delineate the identity of each village through streetscape and landscape design, architecture, signage programs and lighting guidelines. The Village Design Plans, therefore, do not conflict with the City's Design Manual.

### ***Subdivision Ordinance and Manual***

The Subdivision Ordinance requires that land be subdivided and developed in accordance with the provisions and regulations of the City's zoning ordinance and General Plan. As described above and in Appendix B, the proposed project is consistent with the City's Zoning Code and General Plan. Additionally, the Subdivision Ordinance contains provisions to ensure adequate public facilities and utilities are provided. A PFFP has been prepared for the proposed project consistent with the requirements of the Subdivision Ordinance. For these reasons, the proposed project does not conflict with the Subdivision Ordinance and Manual.

### ***Growth Management Ordinance***

The City's GMO (City of Chula Vista 2012, Chapter 19.09) requires the provision of a PFFP, air quality improvement plan, and water conservation plan for every SPA plan to ensure that existing public services or financing for new public facilities would be provided for new development, that adequate water supply would be available to serve the development, and that the project would meet air quality standards. The proposed project includes a SPA plan for each village within the project area, including a PFFP, air quality improvement plan, and water conservation plan. Since the proposed project would not be developed without approved SPA plans, the project is consistent with the GMO.

The PFFP contains a complete description of all public facilities necessary to implement the SPA plans, including phasing and financing of infrastructure. The plan contains an analysis of the individual and cumulative impacts of the proposed project on the community as it relates to the Growth Management Program, the specific facility master plans, and the threshold standards. The proposed project would also prepare a fiscal impact report and provide funding for periods when City expenditures for the development would exceed projected revenues. In addition, the GMO requires that a project meet GMO quality of life threshold standards related to traffic, police and fire services, parks, schools, libraries, sewers, storm drainage, air quality, and water. The project's compliance with the GMO thresholds is provided in Appendix B. As discussed in Appendix B, the proposed project would be consistent with GMO threshold standards with respect to police service, fire service, libraries, parks and recreation, water, wastewater, drainage, and traffic — with the implementation of the mitigation measures identified throughout this EIR.

Additionally, as discussed in Section 5.4, Air Quality of this EIR, the proposed project would reduce its construction and operational air quality emissions to the maximum extent feasible. Therefore, for the reasons listed above, the proposed project would not interfere or conflict with the City of Chula Vista GMO.

### ***Park Land Dedication Ordinance***

Section 17.10.040 of the Chula Vista Municipal Code, the Park Land Dedication Ordinance, requires the dedication of three acres of parkland per 1,000 population. The Ordinance applies a per-unit park demand factor for single-family and multi-family homes to achieve this park standard. Each single family home is required to dedicate 460 square feet of parkland and each multi-family home is required to dedicate 341 square feet of parkland. Based on the projected mix of the proposed project of 2,656 single-family homes and 4,241 multi-family homes, a total of 61.3 acres of parkland is required (Village Three North – 15.3 acres, Village Eight East – 30.5 acres, and Village Ten – 15.5 acres). This requirement is met and exceeded with a total of 76.6 acres of dedicated parkland proposed by the project. Therefore, the proposed project

would be consistent with the Park Land Dedication Ordinance and land use impacts would be less than significant.

### ***Tentative Map***

Title 18 of the Chula Vista Municipal Code requires the adoption of a TM for division and development of land into five or more parcels. The proposed project is in accordance with this ordinance because it includes a TM for each of the villages. Each TM will be reviewed by the Director of Public Works, or their designee, to assure compliance with regulations applicable to public and private utilities, streets, and respective rights-of-way and easements. The TMs will also be reviewed by the Development Services Director, or their designee, to assure compliance with regard to the number, size, and configuration of lots to be created and the alignment and width of streets and easements.

### **Amended and Restated Otay Landfill Expansion Agreement**

The Amended and Restated Otay Landfill Expansion Agreement, at Section 2.5, prevents the City from allowing the construction of residential units within 1,000 feet of the active solid waste disposal areas of the Otay Landfill, which active areas may change over time. Also under Section 2.5, the Landfill operator is prohibited from moving or opening new active solid waste disposal areas within 1,000 feet of already developed residential units. Further, both the City and the Landfill operator will confer from time to time as appropriate to coordinate regarding the implementation of their obligations under Section 2.5 of the Amended and Restated Otay Landfill Expansion Agreement.

While the active solid waste disposal areas of the landfill will change over time and could move further away from the location of residential units as proposed by the project, the project proposes to site residential units within 1,000 feet of the currently active solid waste disposal areas at the landfill. Accordingly, an impact related to consistency with the Amended and Restated Otay Landfill Expansion Agreement would occur.

### **Parks and Recreation Master Plan**

The City of Chula Vista PRMP includes a set of goals and policies for the City's parks and recreation aspirations (City of Chula Vista 2010). The proposed project is consistent with the goals and policies of the adopted PRMP because it will implement a comprehensive system of parks and recreation facilities distributed throughout the villages that meet the City's requirements for park land and CPF.

### **Otay Valley Regional Park Concept Plan**

The OVRP Concept Plan provides multiple jurisdictions with policies and direction regarding land acquisition and development of the plan. The proposed project would be consistent with the policies that encourage private development adjacent to the OVRP Concept Plan to provide linkages with the plan's trails, create open space and recreational facilities, and encourage recreational uses as buffers between the Preserve and private development. The proposed project is also consistent with the policies regarding the creation of the Preserve, coordinating with the OVRP Concept Plan Citizen Advisory Committee, preserving viable wildlife corridors, and clustering development around SR-125 and Hunte Parkway. Therefore, implementation of the SPA Plans and TM would be compatible with the applicable portions of the OVRP Concept Plan. Land use impacts would be less than significant.

### **Greenbelt Master Plan**

The City of Chula Vista Greenbelt Master Plan provides guidance and continuity for planning open space and constructing and maintaining the Greenbelt Trail. The Greenbelt Master Plan addresses existing and potential trail locations, trail and staging area development standards, maintenance responsibilities and a system of trails and open space that serve as a unifying element in linking other trails within the central areas of the city. The project would provide key segments of the Greenbelt Trail, which have been added to the Greenbelt Master Plan as a major trail linkage. This Greenbelt Trail presents an opportunity as a multi-use trail that would provide mobility for residents between several villages and connectivity between recreation areas in the project area and future parks along the Greenbelt Trail. According to the City of Chula Vista Greenbelt Maintenance Map, segments of Greenbelt Trail both future and proposed will run through the University Villages project (City of Chula Vista 2003b). The Village Greenbelt Trail is intended to connect active and passive users and provide them with the opportunity to stop and enjoy an enhanced open space paseo.

The project would be consistent with the Greenbelt Master Plan (GMP) goal to establish a greenbelt system that would visually reinforce the character of the community and integrate cultural resources to ensure public access through an active and passive recreation park system with trails connecting each segment, to accommodate a wide range and number of users, to offer a variety of active and passive recreation experiences, to provide disabled access whenever possible and to provide other amenities that enhance the greenbelt system. Further evaluation of the proposed project's compatibility with the Greenbelt Master Plan is provided in Section 5.12, Public Services, of this EIR.

### **Airport Land Use Compatibility Plan–Brown Field**

The ALUCP designates the airport influence area and contains projected noise contours, flight activity zones, a land use compatibility matrix and plan recommendations for areas surrounding the Brown Field airport. As depicted in Figure 5.1-1, a majority of the project area is within Review Area 2 of the airport influence area and a small portion is within Review Area 1. As described in Section 5.1.1, Existing Conditions of the EIR, the portion of the project area within Review Area 1 is not subject to land use restrictions related to aircraft noise levels. In addition, the proposed project land uses are compatible in Safety Zone 6. The project would also be in compliance with the height restrictions ranging from 676.3 feet amsl to 876.3 feet amsl that apply to the southern portion of the project area because this area would be developed with Park and Recreation uses and Low-Density Residential. The project would also comply with the notification requirements for the areas that fall within the Federal Aviation Administration Height Notification Boundary and Airport Overflight Notification Area. On July 7, 2012, the Airport Land Use Commission determined Villages Three North and Eight East to be conditionally consistent with the ALUCP for Brown Field (Village Ten was not within Zone 1 or Zone 2 of Brown Airfield; and, thus, is not subject to compliance with the ALUCP) (SDCRAA 2012).

A conditionally consistent determination means that the City must place certain conditions on the project in order for it to be consistent. The proposed project was found to be conditionally consistent because the findings require that the project distribute notices to future home buyers regarding the existence of Brown Field. This condition will be placed on the TMs for Village Three North and Eight East. As discussed in Section 5.15 Hazards, mitigation measure HAZ-5 also requires an Airport Overflight Agreement to be recorded at the County Recorder's office and to the City's Development Services Director prior to approval of the first Final Map.

### **Otay Landfill Solid Waste Facility Permit**

The Otay Landfill Solid Waste Facility Permit (No. 37-AA-0010), details landfill specifications, findings, prohibitions, and local enforcement agency (LEA) conditions. The permit specifies allowable non-hazardous municipal solid waste disposal per day tonnage to be below 5,830 tons. The proposed project would not exceed allowable per day tonnage and would be consistent with the permit. The permit finds that the design and operation of the facility is in compliance with the State Minimum Standards for Solid Waste Handling and Disposal as determined by the LEA. Implementation of the proposed project would not affect the Otay Landfill's compliance with LEA standards. The permit prohibits the acceptance of any liquid waste that is less than 50% solid by weight, designated waste, or hazardous waste. The proposed project would be required to comply with the landfill's prohibitions of liquid waste. Furthermore, the permit lists LEA conditions in which the landfill must operate under

and the proposed project would not conflict with these conditions or prohibit the landfill from operating under these conditions. Therefore, the proposed project is consistent with the Otay Landfill Solid Waste Facility Permit.

As demonstrated above, the proposed project is consistent with the applicable plans, policies, and regulations related to land use, except for General Plan Policy E 6.4 (as ~~will be~~ corrected) and for the Amended and Restated Otay Landfill Expansion Agreement. The proposed project would also conflict with the land use designations in the City's adopted General Plan and Otay Ranch GDP; however, upon adoption of the proposed amendments to the General Plan and Otay Ranch GDP, impacts as to land use designation issues would not be significant. Nonetheless, impacts as to inconsistency of the proposed project with General Plan Policy E 6.4 (as ~~will be~~ corrected) and the Amended and Restated Otay Landfill Expansion Agreement are **potentially significant**. Mitigation for this potentially significant impact is provided (see Mitigation Measure LU-4).

#### ii. Off-Site Improvement Areas

The off-site improvement areas do not include any proposed land uses. The short-term construction of the improvements would be carried out in accordance with the Chula Vista Building Code (City of Chula Vista 2012, Title 15) and engineering standards, including local noise regulations and regional water and air quality regulations. In addition, the off-site improvements are mostly circulation roads and would comply with the City's General Plan policies by providing adequate infrastructure needed to support the proposed project. For these reasons, the off-site improvements would not conflict with the City's applicable land use plans, policies, and regulations; therefore, there would be **no impact**.

### C. Conflict with any applicable habitat conservation plan or natural community habitat conservation plan.

#### i. On-Site Development Areas

Development of the proposed project would primarily occur in areas previously identified as developable under the Chula Vista MSCP Subarea Plan and the Otay Ranch GDP, the Phase 1 RMP, and the Phase 2 RMP. Portions of the project area proposed for development are currently within the Preserve; however, this land is being replaced with biologically equivalent Preserve land, which would result in a superior Preserve design, increased wildlife connectivity/improved wildlife corridors, and preservation of sensitive species and habitat. The exchange of Preserve land is consistent with the requirements of the City's MSCP Subarea Plan for adjusting the boundaries of the MSCP. For further explanation of how the proposed project is consistent with the requirements of the MSCP, please see Section 5.8, Biological Resources, of the EIR.

Additionally, the proposed project will continue to implement the Otay Ranch RMP (Phase 1 and Phase 2). An amendment to the Otay Ranch RMP to amend the boundaries of the Otay Ranch Preserve is proposed by the project. The amendment is consistent with RMP Policies 9.6 and 9.7 regarding amendment of the RMP Preserve boundary and Policy 9.8 regarding Preserve boundary adjustments, as further analyzed in Table 5.1-5.

**Table 5.1-5  
Comparison of the Proposed Project to the Otay Ranch RMP**

Applicable Goals, Objectives, and Policies	Comparison
<p>Policy 9.6: Guidelines</p> <ol style="list-style-type: none"> <li>1. An amendment to the RMP is viewed as a discretionary action subject to CEQA review.</li> <li>2. The overall size of the Preserve shall not be reduced by a Preserve boundary modification unless the County Board of Supervisors and the Chula Vista City Council are satisfied that the biological standards and guidelines set for the in the RMP can nevertheless be met and the Preserve design is not adversely affected by a Preserve boundary modification that results in a reduced acreage.</li> <li>3. Amendments must be consistent with RMP goal, objectives and policies</li> </ol>	<p><b>Consistent.</b> The proposed project and associated RMP amendment are addressed in this EIR.</p> <ol style="list-style-type: none"> <li>1. As a result of the proposed RMP amendment, the RMP overall size of the Otay Ranch Preserve will increase by approximately 6.8 acres; therefore, Guideline #2 does not apply.</li> <li>2. The amendment to the RMP is consistent with the RMP goals, objectives and policies.</li> <li>3. Because the RMP amendment is analyzed as part of this EIR and is consistent with the RMP goals, objectives and policies, the proposed project is consistent with this policy.</li> </ol>
<p>Policy 9.7: An amendment shall be required for any land use within the Preserve that is not specifically permitted by these policies, including the location of a university, landfill, or other development within the Preserve.</p>	<p><b>Consistent.</b> The proposed project includes an amendment to the Otay Ranch RMP because it proposes both a boundary modification for the location of a University and development within the Preserve. Thus, the project is consistent with this policy.</p>
<p>Policy 9.8: Preserve boundary modifications shall be made based on site-specific studies completed for individual SPA/Specific Plans.</p>	<p><b>Consistent.</b> The proposed project includes site-specific biological studies which were used to determine the proposed boundary modification.</p>

**Table 5.1-5 (Continued)**  
**Comparison of the Proposed Project to the Otay Ranch RMP**

Applicable Goals, Objectives, and Policies	Comparison
<p>Standards</p> <p>1. The overall size of the Preserve shall not be reduced by a Preserve boundary modification unless it can be demonstrated that the biological standards and guidelines can be met and the Preserve design is not adversely affected by a Preserve boundary modification that results in a reduced acreage.</p> <p>2. All amendments to the RMP that would reduce the size or substantially revise the location of the Preserve boundary, or that would in any way delay the conveyance of all or portions of the Preserve the Owner/Manager, shall require written approval by both the City of Chula Vista and the County of San Diego.</p> <p>3. Boundary modifications shall conform with the setback criteria listed below. The locations of the most sensitive areas are illustrated in Figure 19.</p> <p>4. Boundary modifications are intended for use at the SPA level to make minor refinements to include additional resources within the Preserve.</p>	<p><b>Consistent.</b></p> <p>1. As analyzed in Section 5.8 Biological Resources, the overall size of the Preserve is not proposed to be reduced as part of this project. Further, the proposed boundary modification would result in a superior Preserve design, increased wildlife connectivity/improved wildlife corridors, and preservation of sensitive species and habitat.</p> <p>2. See above. The proposed boundary modification would not substantially revise the location of the Preserve because it would result in a superior Preserve design, increased wildlife connectivity/improved wildlife corridors, and preservation of sensitive species and habitat.</p> <p>3. The proposed boundary modifications conform to the setback criteria through the establishment of a 100-foot Preserve edge which is the longest required setback.</p> <p>4. The proposed boundary modification is being processed as part of an application for SPA Plans which will result in a superior Preserve design, increased wildlife connectivity/improved wildlife corridors, and preservation of sensitive species and habitat.</p>
<p>Guidelines</p> <p>1. Coastal sage scrub and chaparral shall be provided with a 100-foot setback where interfacing with residences, and a minimum of 50 feet where interfacing with commercial and industrial development, active park uses, and schools.</p> <p>2. Gnatcatcher- or cactus wren-occupied habitat shall be provided with a setback no less than 100 feet determined in consideration of topography or other factors through additional study at the SPA level.</p>	

**Table 5.1-5 (Continued)**  
**Comparison of the Proposed Project to the Otay Ranch RMP**

Applicable Goals, Objectives, and Policies	Comparison
<p>3. Perennial (native) grassland shall be provided with a setback of a minimum 25 feet and a maximum of 50 feet between the habitat and proposed development (e.g., residential, commercial, pipeline, roadway).</p> <p>4. Vernal pools setback must include the watershed and a minimum of an additional 100 feet, depending upon adjacent land use.</p> <p>5. Mule fat scrub should be provided with a setback that is a minimum of 50 feet and a maximum of 100 feet wide, depending upon the quality of the habitat and its function within the matrix of the surrounding vegetation (e.g., corridor, foraging habitat, etc.), and the specific type of adjacent development.</p>	

Development would only occur with approval of the proposed MSCP Boundary Adjustment by the Chula Vista City Council and concurrence from the wildlife agencies. The project proposes an adjustment to the Chula Vista General Plan Land Use designations and the Otay Ranch RMP Preserve Boundary to implement the proposed General Plan and Otay Ranch GDP land uses. This amendment would provide consistency between the RMP Preserve and the adjusted MSCP Preserve.

The proposed project would comply with the requirements of the City's MSCP Subarea Plan, including facility siting criteria, the 100-foot Preserve edge zone, and minimizing impacts to narrow endemics and sensitive species. The project includes Preserve edge plans and fire protection plans with each SPA Plan. These documents describe what uses may occur in the fuel modification zone and adjacent to the Preserve.

Because the subject property is part of Otay Ranch, 1.188 acres of land would be conveyed to the Preserve owner/manager for every impacted acre of land defined as developable land under the Otay Ranch RMP. As such, any development in addition to what already has been identified in the Otay Ranch GDP would result in additional land conveyed to the Otay Ranch Preserve. Implementation of the proposed project would ensure the Otay Ranch Preserve, which is a part of the Chula Vista MSCP Preserve, is fully conveyed to the Preserve owner/manager.

Although the proposed project includes MSCP boundary adjustments and changes to the Otay Ranch Preserve boundary, the project would comply with the requirements of the City's MSCP Subarea Plan and the Otay Ranch RMP (Phase 1 and Phase 2). Therefore, impacts to

applicable habitat conservation plan or natural community habitat conservation plans would be **less than significant**.

**ii. Improvement Areas within the Preserve**

The development of the proposed project would be within the area designated for development under the Otay Ranch RMP and the MSCP Subarea Plan, with the exception of the areas subject to the boundary adjustment and some of the off-site improvement areas. However, a limited number of facilities proposed within the off-site improvement areas are proposed to be located in designated Preserve areas. Section 6.0 of the City's MSCP Subarea Plan identifies permitted uses within the Preserve. The proposed project includes permanent impacts to the Preserve resulting from the following infrastructure uses: detention basins south of Village Ten, associated storm drain lines and access roads for detention basins, sewer laterals connecting to the Salt Creek Interceptor, and access and emergency/fire roads to the Community Park (P-2) south of Village Eight East. Trails within the Preserve area are either located in existing dirt roads or are co-located with other planned facilities (i.e., sewer line roads). These uses are considered facilities within the Preserve as described in Section 6.3.3 of the MSCP Subarea Plan.

Section 6.3.3 of the MSCP Subarea Plan differentiates between planned facilities and future facilities. Planned facilities are major roads and infrastructure that were planned for development through existing plans and/or project approvals (i.e., General Plan and Otay Ranch GDP) and allowed to be constructed, operated, and maintained within the Preserve at the writing of the City's MSCP Subarea Plan. These planned facilities are identified in Table 6-1 of the MSCP Subarea Plan. Consistent with Table 6-1, associated ancillary sewer facilities for the Salt Creek Interceptor, including connections and maintenance access roads, are planned facilities, as are trails designated in the OVRP Concept Plan, which are also discussed above under compatible uses within the Preserve since these are existing trails and not new trails. In addition, the off-site areas within the Preserve include improvements associated with Main Street widening.

Future facilities are those facilities necessary to support planned development that were not identified at the time of the City's MSCP Subarea Plan but were anticipated to be required. Table 6-2 of the MSCP Subarea Plan identifies future facilities and implementation criteria. These facilities include detention facilities/basins, fire access roads, maintenance and operations roads, and new trails.

Both planned and future facilities located within the Preserve are subject to the Facility Siting Criteria contained in Section 6.3.3.4 of the City's MSCP Subarea Plan. Compliance with the Facility Siting Criteria ensures that the facilities located within the Preserve have been sited within the least environmentally sensitive areas and that impacts to the Preserve have been minimized to the maximum extent practical. An analysis of compliance with these requirements is provided in Section 5.8 of this EIR, which concludes that with the proposed mitigation, the

planned and future facilities would be in conformance with the Facility Siting Criteria. In addition, Preserve land included within the FUDS-eligible property as well as proposed improvements within the Preserve would be subject to mitigation in Section 5.15, Hazards and Risk of Upset, of this EIR. Therefore, impacts would be **less than significant**.

#### 5.1.4 Level of Significance Prior to Mitigation

The project area is currently undeveloped, but is planned for development in the City's General Plan and the Otay Ranch GDP. The area surrounding the project area consists of recently developed or planned development, and therefore, the proposed project would not physically divide an established community. The proposed design and layout of land uses for the project area would be compatible with one another, as well as with the surrounding areas except, possibly, with respect to any active solid waste disposal areas of the Otay Landfill that may be within 1,000 feet of the proposed location for the construction of residential units in the project at the time of approval of building permits for those units within Village Three North and a Portion of Village Four. With adoption of the proposed General Plan and Otay Ranch GDP amendments, implementation of the proposed project would not conflict with an adopted plan, policy, or regulation established to avoid environmental effects. The proposed MSCP Preserve Boundary Adjustment and RMP boundary adjustment would comply with the requirements of the Chula Vista MSCP Subarea Plan and the Otay Ranch RMP. However, a potentially significant land use compatibility impact would occur if the on-site City of San Diego waterlines would not be relocated before development of Village Eight East and Village Ten and if the SPA Plan area within the FUDS-eligible property is not inspected for and cleaned of potential unexploded ordinance. In addition, a potentially significant land use compatibility impact may occur as to General Plan Policy E 6.4 (as ~~will be corrected~~) and as to Section 2.5 of the Amended and Restated Otay Landfill Expansion Agreement if any residential units in Village Three North and a Portion of Village Four shall be constructed within 1,000 feet from the then active solid waste disposal areas of the Otay Landfill at the time of approval of building permits for those units within Village Three North and a Portion of Village Four. Therefore, the proposed project would result in a **potentially significant** land use impact.

#### 5.1.5 Mitigation Measures

**MM LU-1** Prior to approval of the mass grading permit for Village Eight East and Village Ten, the mass grading plans shall include the relocation of the City of San Diego waterlines to the satisfaction of the City of San Diego and the City of Chula Vista.

**MM LU-2** Prior to approval of the first Final Map in Village Eight East, the Applicant shall provide evidence satisfactory to the Development Services Director (or their designee) that the:

1. Applicant has entered into an agreement with the City of San Diego to relocate the City of San Diego waterlines within Village Eight East within the right-of-way of future Otay Valley Road, as approved by both the City of San Diego and the City of Chula Vista. The pipeline relocation work contemplated by said agreement shall be secured with the City of Chula Vista listed as a third party beneficiary of the bonds.
2. The City of San Diego has abandoned, or is required to abandon, any water main easements not needed as a consequence of the relocation of the City of San Diego waterlines within Village Eight East and entered into a Joint Use agreement for the new location of the facility within the City of Chula Vista right of way of future Otay Valley Road.

Prior to the Final Map approving the 1,200th Residential Dwelling Unit (Single-Family and/or Multi-Family Residential) for Village Eight East, the new water line shall be constructed.

**MM LU-3** Prior to approval of the first Final Map in Village Ten, the Applicant shall provide evidence satisfactory to the Development Services Director (or their designee) that the:

1. Applicant has entered into an agreement with the City of San Diego to relocate the City of San Diego waterlines within Village Ten within the right-of-way of future Otay Valley Road, as approved by both the City of San Diego and the City of Chula Vista. The pipeline relocation work contemplated by said agreement shall be secured with the City of Chula Vista listed as a third party beneficiary of the bonds.
2. The City of San Diego has abandoned, or is required to abandon, any water main easements not needed as a consequence of the relocation of the City of San Diego waterlines within Village Ten and entered into a Joint Use agreement for the new location of the facility within the City of Chula Vista right of way of future Otay Valley Road.

Prior to the Final Map approving the 580th Residential Dwelling Unit (Single-Family and/or Multi-Family Residential) for Village Ten, the new water line shall be constructed.

**MM LU-4** Prior to approval of each residential building permit in Village Three North and a Portion of Village Four, the applicant shall provide evidence satisfactory to the Development Services Director (or their designee) that each proposed residential unit to be constructed shall be located at least 1,000 feet away from the then active solid waste disposal areas of the Otoy Landfill as required by General Plan Policy E 6.4 (as ~~will be corrected~~) and by Section 2.5 of the Amended and Restated Otoy Landfill Expansion Agreement.

Notwithstanding the typically ministerial nature of building permit approvals, the City shall have and retain discretion here to deny any building permit application regarding any residential lot or parcel that does not comply with this Mitigation Measure.

### **5.1.6 Level of Significance After Mitigation**

The mitigation measures listed above in Section 5.1.5 and in Section 5.15, Hazards, would reduce potentially significant impacts related to land use compatibility to **less than significant**.

INTENTIONALLY LEFT BLANK

## **5.2 LANDFORM ALTERATION/AESTHETICS**

This section tiers from the 1993 Otay Ranch GDP Program EIR because the proposed project is within the boundaries of the Otay Ranch GDP and development of the proposed project area was analyzed in the 1993 Otay Ranch GDP. This section also tiers from the 2005 GPU/GDPA Program EIR, because existing conditions for the entire Otay Ranch area were assessed as part of the 2005 GPU/GDPA Program EIR. The 1993 Otay Ranch GDP Program EIR determined that impacts to visual character, alteration of landforms, and development in highly visible areas as a result of development planned in the 1993 Otay Ranch GDP would be significant and unmitigable. Mitigation measures were provided to reduce impacts; however, they would not reduce impacts to below a level of significance. However, the Chula Vista City Council determined that impacts were acceptable because of specific overriding considerations. The 2005 GPU/GDPA determined that impacts to landform alteration/aesthetics would be less than significant with implementation of General Plan objectives and policies as well as mitigation measures.

This section describes relevant regulations, policies and guidelines governing views and aesthetic considerations. As applicable, provisions of view ordinances, design guidelines, and general plan and scenic highway plans are summarized. Views of the site from representative public vantage points such as from scenic roads and regional trails are described using current photographs. On-site and nearby off-site scenic resources are also identified. Using photosimulations the analysis assesses the impact to existing topography and site character from the proposed grading and development of the site with potentially multi-story residential, commercial, industrial and community purpose facilities. The impact analysis determines whether the proposed project would significantly impact a scenic vista or visual feature or preclude the ability of the public to view a significant visual feature. In addition, the analysis addresses the introduction of new sources of lighting into the proposed project area.

### **5.2.1 Existing Conditions**

#### **5.2.1.1 Regulatory Framework**

##### **State**

##### ***California Scenic Highway Program***

The California Scenic Highway Program was created in 1963 with the intent “to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment.” The state laws that govern the Scenic Highway Program are Sections 260 through 263 of the Streets and Highways Code. A highway may be designated scenic based on the natural landscape visible by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the views of the highway. The Scenic

Highway Program includes both officially designated scenic highways and highways that are eligible for designation. It is the responsibility of local jurisdictions to apply for scenic highway approval, which requires the adoption of a Corridor Protection Program (Caltrans 2011). In addition, once a scenic highway is designated, the local jurisdiction is responsible for regulating development within the scenic highway corridor. There is no designated or eligible state Scenic Highway within the project area.

## **Regional**

### ***County of San Diego Light Pollution Code***

County Code of Regulatory Ordinances Section 59.101-59.115 (Light Pollution Code) was adopted for the purposes of minimizing light pollution for the public enjoyment of the dark sky environment and to protect astronomical research at the Palomar and Mount Laguna observatories. The Light Pollution Code contains restrictions regarding the type of outdoor light fixtures that may operate on private property and designates all lands into one of two zones (Zone A or Zone B). Zone A has more stringent lighting regulations than Zone B and includes all areas within a 15-mile radius of the Palomar or Mount Laguna observatory. Zone B includes all other lands located outside of the 15-mile radius. The proposed project is located within Zone B and while Village Three North and a Portion of Village Four, Village Eight East, and Village Ten are located outside of County land use jurisdiction, the Otay Ranch General Development Plan requires compliance with the County Light Pollution Code.

## **Local**

### ***City of Chula Vista Design Manual***

The City's Design Manual (City of Chula Vista 2011) provides a set of guidelines in conjunction with development standards to assist the city in achieving a high quality of aesthetic and functional design. Consistent with the City's Design Manual, the proposed project includes Village Design Plans that guide the site, building and landscape design within the villages to ensure that the quality of the adopted urban design and architectural concepts established for the overall Otay Ranch community are maintained. The Village Design Plans identify a theme for the villages and delineate the identity of each village through streetscape and landscape design, architecture, signage programs and lighting guidelines. The Village Design Plans implement and conform to the City's Design Manual.

### ***City of Chula Vista General Plan***

The City of Chula Vista General Plan contains objectives and policies to preserve and enhance aesthetic resources. Specifically, the Land Use and Transportation Element includes policies that

strive to continue to protect the open space network and design policies for features such as view, entryways, gateways, streetscapes, buildings, parks and plazas. The General Plan identifies valued scenic vistas and open space throughout the city. Resources in the project vicinity include the Otay River Valley and the Chula Vista Greenbelt, which is the backbone of the city's open space and park system and consists of a 28-mile open space system encircling the city. A consistency analysis concerning the proposed project and relevant policies of the General Plan is included in Appendix B and is summarized in Section 5.2.3 (F), below.

### Gateways

The General Plan identifies entryways and gateways, which offer opportunities to improve the City's appearance and establish a community image through special design treatments such as signage, landscape, and architectural design enhancements. The City designates both Primary and Secondary Gateways. Primary Gateways are from freeways and should appear visually inviting, provide adequate direction to places of interest, and have high quality design features. Primary Gateways within or near the project site include State Route 125 at Otay Lakes Road, Olympic Parkway, and Birch Road. Also, General Plan Figure 5-6 calls for a Primary Gateway at State Route 125 and Main Street/Hunte Parkway, east of SR-125 which leads to the University site and Eastern Urban Center. There are no Secondary Gateways within or near the project site (City of Chula Vista 2005).

### City-Designated Scenic Roadways

The City of Chula Vista has designated several Scenic Roadways that pass through or are adjacent to the project site. These roadways are designated for their views of natural features and roadway characteristics, including enhanced landscaping, adjoining natural slopes, or special design features (City of Chula Vista 2005). Existing and city-designated Scenic Roadways in the project area include:

- Main Street from Interstate 805 to Heritage Road;
- Hunte Parkway from Eastlake Parkway to Proctor Valley Road;
- Olympic Parkway;
- Rock Mountain Road from Heritage Road to State Route 125 (designated – not yet constructed);
- Heritage Road from Telegraph Canyon Road to the City's southerly boundary (designated- not yet constructed); and
- La Media Road from Otay Lakes Road to /Main Street (designated – not yet constructed).

### ***City of Chula Vista Municipal Code***

The City of Chula Vista regulates signage through Chapter 19.60, Signs, of the City’s Municipal Code. Among other things, the purpose of the Sign Ordinance is “To balance the public interests in community aesthetics against the signage needs of establishments and persons who wish to express information or a message by displaying a sign.” In addition, the Sign Ordinance is intended to improve the visual environment for residents and visitors of the city, and protect prominent viewsheds. There are specific standards for “sensitive” zones, such as agricultural, residential estates, and other residential zones.

Light and glare are regulated by Chapter 17.28 and Section 19.66.100 of the City’s Municipal Code, respectively. Chapter 17.28, Unnecessary Lights, is intended to prevent lighting from creating a nuisance by regulating the use of lighting in and around residential areas. Although lighting can be used to improve the aesthetics of a residential property, this chapter ensures that such lighting is properly controlled and doesn’t create a nuisance. The ordinance recognizes that lighting is widely used in commercial or industrial zones for the purpose of advertising and security and that such lighting is essential to the conduct of many commercial or industrial enterprises. The ordinance requires light shielding on commercial and industrial lighting near residences; prohibits residential lighting that spills over to adjacent properties during nighttime hours; and requires multi-family residential, commercial, and industrial developments to submit lighting plans to the city. Lighting from any use which is unshielded or so directed as to focus the beams directly upon adjacent residential property is prohibited at all times.

Section 19.66.100, Glare, prohibits direct or sky-reflected glare from floodlights and high-temperature processes that produce glare that is visible at the points of measurement as specified in Section 19.66.060, Locations where determinations are to be made. In any district except the Industrial zone, the point of measurement is at the lot line of the establishment or use. Within the Industrial zone it is 500 feet from the establishment or use or at any point within an adjacent zone other than an Industrial zone.

### ***City of Chula Vista Greenbelt Master Plan***

Comprised of natural and park-like elements, the City of Chula Vista Greenbelt System functions as a collection of open space segments or areas around the city that are linked by existing and proposed trails. The primary purpose of the Greenbelt Master Plan is to establish goals and policies, trail design standards and implementation tools to guide the acquisition and creation of trails connecting the greenbelt system. Design standards are also established in order to maintain a consistent architectural character in greenbelt facilities and elements. Chapter 3 of the Master Plan contains goals and policies that provide general direction regarding the establishment, maintenance and monitoring of the overall greenbelt system program. More specific regulations including design standards for multi-use and rural trails, design principles for facilities located

within natural resource areas and detailed design examples of signage, informational kiosks, trail sign posts and staging areas, are discussed in Chapter 4.

### ***Otay Ranch General Development Plan***

According to the Otay Ranch GDP, the major Otay Ranch visual elements include the Otay Lakes, which are man-made reservoirs, canyons, and steep mountain peaks. Otay Mountain, Jamul Mountain, and San Miguel Mountain are prominent peaks visible from the Otay Ranch area but located outside of the proposed project boundaries.

Otay Ranch GDP policies mirror the aesthetic policies of the General Plan and require that activities should flow out from buildings onto public spaces to create vitality and excitement along the street front. In addition, Otay Ranch GDP policies encourage the incorporation of public art into individual buildings or building clusters.

The Otay Ranch GDP includes objectives to retain the natural character of landforms in Otay Ranch and the Otay River Valley, preserve steep slopes, relate development to topography and natural features, and preserve views of major physical features. The Otay Ranch GDP includes design standards addressing architectural massing, grading, landscaping, and retaining walls to minimize adverse visual effects. The Otay Ranch GDP also includes a goal to preserve dark skies to allow for continued astronomical research and exploration to be carried out at the county's two observatories. Policies supporting this goal require compliance with the city lighting standards and outdoor lighting fixtures to be shielded to avoid spillage of light onto adjacent properties.

### ***The Otay Resource Management Plan Phase 1 and 2***

The Otay Ranch RMP, which was adopted concurrent with the Otay Ranch GDP, identifies prominent landforms and steep slopes within the Otay Ranch. These include the Jamul Mountains, portions of the San Ysidro Mountains, the Otay River Valley, and other associated ridges and drainages. The RMP establishes a ranch-wide standard that requires preservation of at least 83% of all natural slopes with gradients of 25% or greater throughout the Otay Ranch.

As part of the Otay Ranch GDP PEIR, a Ranch-wide steep slope analysis was completed using then available USGS topography. The results of the original steep slope analysis (circa 1989) concluded that Otay Ranch contained 7,651 acres of land with gradients of 25 percent or greater, of which 6,350 acres (83 percent of 7,651 acres) shall be preserved, and not more than 1,301 acres could be impacted for the entire Otay Ranch.

As an implementing action of the Otay Ranch GDP and RMP, a steep slope allocation table was provided as part of the Phase 2 RMP. The Phase 2 RMP requires that the ranch-wide preservation standard must be reviewed and monitored as additional Otay Ranch villages are processed to ensure that the 83% ranch-wide goal of steep slope preservation is maintained. The

Phase 2 RMP further allows some flexibility on steep slope allocated for each village provided that each SPA Plan demonstrate that the project's actual impacts to steep slopes will not preclude subsequent entitlements from achieving the ranch-wide 83% preservation standard. (City of Chula Vista and County of San Diego 1993).

A subsequent Ranch-wide analysis was performed in 2012 to verify current conditions and the accuracy of the steep slope assumptions contained in the Otay Ranch GDP PEIR. Based on the updated modeling results, Otay Ranch contains 9,821 acres of land with gradients of 25 percent or greater. The difference between the current steep slope acreages and the original calculations is attributed to advancements in computer aided data collection and processing, and the availability of detailed topographic data.

To date, development entitlements approved within Otay Ranch have impacted approximately 255 acres of natural steep slopes within the Otay Valley Parcel; therefore, 9,566 acres of steep slopes remain in Otay Ranch.

### ***Otay Valley Regional Park Design Standards and Guidelines***

In addition to the establishment of design standards for publicly owned facilities in Otay Valley Regional Park (OVRP), guiding principles for adjacent private development that interfaces with the park are also incorporated into the OVRP design standards and guidelines document. Guiding principles are provided in Section 5 of the planning document and are intended to maintain a consistent architectural style and synergy between park development and neighboring land uses as well as to ensure consideration of the park's natural character in future development plans. Goals and policies applicable to aesthetics and landform alteration include the enhancement of public access to the park through attractive, safe, and controlled access points and gateways, the provision of compatible edge treatment and buffering adjacent to the park to enhance the visual experience for park users, and minimization of natural landform alteration.

#### **5.2.1.2 Visual Resources Components**

The characterization of existing visual resources and available scenic vistas on the project site and the surrounding areas form the basis of this aesthetics and views analysis. Aesthetics refers to visual qualities within a given field of view and may include such considerations as size, shape, color, texture, and general composition, as well as the relationships between these elements.

Aesthetic features often consist of unique or prominent natural or man-made attributes or several small features that, when viewed together, create a whole that is visually interesting or appealing. Views refer to visual access to aesthetic features. Viewsheds, or the extent of a given view, are typically defined by landscape elements and building locations. Existing views may be partially obstructed or entirely blocked by modification of the environment. Conversely, modifications to the natural or man-made landscape of an area may create or enhance view opportunities.

Light impacts are typically associated with the use of artificial light during the evening and nighttime hours. Artificial light may be generated from point sources as well as from indirect sources of reflected light. Uses such as residences, hospitals, and hotels are considered light sensitive since they are typically occupied by persons who have expectations for privacy during evening hours and who are subject to disturbance by bright light sources. Wildlife habitat areas may also be considered light sensitive if the introduction of light sources would compromise the quality and function of a habitat area.

Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light by highly polished surfaces such as window glass or reflective materials and, to a lesser degree, from broad expanses of light-colored surfaces. Daytime glare generation is common in urban areas and is typically associated with mid- to high-rise buildings with exterior façades largely or entirely comprised of highly reflective glass or mirror-like material from which the sun can reflect at a low angle in the periods following sunrise and prior to sunset. Glare can also be produced during evening and nighttime hours by the reflection of artificial light sources such as automobile headlights. Glare generation is typically related to either moving vehicles or sun angles, although glare resulting from reflected sunlight can occur regularly at certain times of the year. Glare-sensitive uses generally include residences and transportation corridors.

### **5.2.1.3 Existing Aesthetic Character**

#### **Village Three North and a Portion of Village Four**

The Village Three North and Portion of Village Four project site is comprised of large mesas north of the Otay River Valley. Numerous drainages trend north–south and drain into the Otay River, which is located immediately south of Main Street (south of the southwesternmost corner of Village Three North). The eastern portion of the site is a narrow “finger” that extends west from Village Four toward Wolf Canyon. This portion of the project site is surrounded by Wolf Canyon with open space to the south, east, and north. Non-native grassland is the dominant vegetation community on Village Three North; however, agriculture/pastures occur in the northeastern portion of Village Three North/Portion of Village Four and on-site vegetation communities also include lesser occurrence of coastal sage scrub, disturbed habitat, and maritime succulent scrub. Some areas of the project site are devoid of vegetation due to grading, while other areas support vegetation characteristic of disturbed communities, including low-lying weedy vegetation and some brush. On-site elevations range from approximately 150 feet above mean sea level along the south/southwestern boundary of the site to 470 feet to the north. The northern and western boundaries of the site are defined by the Otay Landfill and auto recycling facilities and the Sleep Train Amphitheatre and SeaWorld Aquatica Water Park are located to the southwest (south of Main Street and west of Heritage Road). In addition, the Otay Valley Rock Quarry, operated by Vulcan Materials Company, is located southeast of Village Three North. Existing sources of light in the vicinity of Village Three North include auto salvage yards to the

west, Sleep Train Amphitheatre to the southwest, distant residential development to the north and vehicle traffic on Main Street.

In the Village Three North area, views of Rock Mountain and the Otay River Valley are available from Main Street and Heritage Road to the south. From the site there are view opportunities of adjacent open space and mountain areas, including the Otay River Valley preserve areas, Wolf Canyon, and Rock Mountain to the east, and distant views to the mountains to the east. Views of the Otay River Valley are considered scenic in the Chula Vista General Plan. From the Portion of Village Four, scenic views of Wolf Canyon are available to the south, east, and north, and scenic views of Rock Mountain are available to the south/southeast.

### **Village Eight East**

The Village Eight East site consists of large mesas north of the Otay River Valley. There are several drainages within Village Eight East that drain south to Otay River. Agriculture vegetation consisting of pastures dominated by non-native grasses, dove weed, and black mustard comprises the majority of existing vegetation on Village Eight East; however, coastal sage scrub, developed cover, and disturbed habitat also occur, though at a lesser extent.

On-site elevations range from approximately 190 feet in the south/southwest portion of the site to 600 feet in the northern/north-central portion of the site. The northern edge of Village Eight East is defined by Village Seven development, including Olympian High School, and the existing Main Street, which is identified by the Otay Ranch GDP as a 6-lane Prime Arterial. In addition, Village Eight East is surrounded by the remainder of Village Eight (Village Eight West) and Village Four to the west, SR-125 and Village Nine to the east, and the Otay River Valley and Otay Ranch Preserve areas to the south. Existing sources of light in the area surrounding Village Eight East include exterior lighting at Olympian High School and residential development to the north and northwest, lighting installed along streets to the north, and vehicle traffic and lights on SR-125 to east and south.

From Village Eight East, view opportunities to open space areas and mountains, including Rock Mountain (located approximately 0.4 miles to the west), and the Otay River Valley (a portion of which is located within the Village Eight East development boundary), are available. In addition, more distant views to Otay Mountain (located approximately 7.4 miles to the east) and the San Ysidro Mountains are also available.

### **Village Ten**

The Village Ten landform consists of large mesas north of the Otay River Valley and west of Salt Creek. Salt Creek Canyon and the Otay River Valley preserve areas are located east and south/southwest of the site, respectively. There are several drainages within Village Ten that drain south to the Otay River. Although dominant onsite vegetation includes non-native

grassland and coastal sage scrub, agriculture/pastures, disturbed habitat, maritime succulent scrub and limited areas of mulefat scrub and southern willow scrub also occur.

On-site elevations range from approximately 280 feet in the very south to 500 feet along the northern boundary of the site. The northern edge of Village Ten is defined by the future University land uses, existing Hunte Parkway identified by the Otay Ranch GDP as a 6-Lane Prime Arterial, and High Tech High Chula Vista. Village Nine (currently undeveloped open space) is located to the west, Salt Creek Canyon is located to the east, and the Otay River Valley is located to the south. While not located immediately adjacent to Village Ten, existing sources of light in the area consist of vehicle traffic on Eastlake Parkway and Hunte Parkway and existing development to the north (Village Eleven) and SR-125.

From Village Ten scenic views extend along Otay Valley Road, an open space scenic corridor. In addition, there are view opportunities to Rock Mountain (located approximately 1.5 miles to the west) and the Otay River Valley to the south and southwest. More distant views to Otay Mountain (located approximately 6 miles to the southeast) are also available from Village Ten.

### **Light and Glare**

Two astronomical observatories are located within 50 miles of the project area: Mount Laguna Observatory, located approximately 20 miles from the site and Palomar Mountain Observatory, located approximately 37 miles north. Both of these observatories use large telescopes and conduct astronomical and other related research. These observatories are located in the unincorporated County of San Diego. Light pollution within a 15-mile radius of these observatories is strictly controlled through implementation of the County of San Diego's Light Pollution Code (Title 5, Division 9), which includes less restrictive measures for areas outside the 15-mile radius. The project site is outside the jurisdiction of the County of San Diego; however, the Chula Vista Unnecessary Lights Ordinance outlines restrictions and limitations on the use of lighting in or near the residential zones to prevent lighting from creating a nuisance to residents. These lighting restrictions also benefit the observatories.

Currently, the project site and the areas adjacent to the project site are undeveloped and not lit at night. Additionally, these areas do not contain expanses of material that would result in glare. To the north of Village Eight East is residential and commercial development that has nighttime lighting. The City of Chula Vista, including the Otay Ranch area, is urbanized and currently generates substantial night lighting. The buildings in the surrounding area include windows and other glass or metal expanses that can result in localized glare.

### **Viewers**

Viewer exposure varies depending on several factors including the angle of view (i.e., normal, inferior, or superior viewing angles); view distance (foreground, middle ground, and background);

relationship to sun angle (backlighting versus front or side lighting); the extent of visibility (i.e., whether views are panoramic or limited by vegetation, topography, or other land uses); and viewer screening conditions (e.g., whether the project facilities will be skylined on ridgelines, backscreened by topography and/or vegetation, or screened by structures or vegetation in the foreground). Viewer exposure also considers the duration of view based on viewer activity (e.g., travel route, residential, recreation, etc.) and often relates to speed of travel (pedestrian, vehicular, or stationary).

Viewers that are exposed to the visual resources on and around the project site include area residents and pedestrians and cyclists and motorists on local roads and SR-125. Village Three North is visible from a portion of Village Two (currently developing) to the northeast and from existing industrial development to the west, but due to its elevation and location down-gradient of the Otay Landfill, it is not visible from residences to the north. Village Three North is however visible from distant residences to the south atop the Otay Mesa landform. Village Eight East is not visible from the residences to the north due to intervening structures at Olympian High School and elevated berms and landforms in the immediate area. The site is visible from Olympian High School by students, faculty and visitors. Motorists along Magdalena Avenue and Main Street are able to partially view the site, and motorists on SR-125 can view the entire site. Distant views of the project site are available looking north from Otay Mesa. Village Ten is visible from Hunte Parkway, and in the distance from SR-125. Portions of the Village Three North, Village Eight East, and Village Ten development sites are also visible from trails and canyons located north and south of Otay River within OVRP.

### **Key Views**

Available public views to a site are affected by distance, viewing angle, and the number and type of visual obstacles, both natural and manmade. Public views can be from relatively stationary locations, such as from parks or scenic viewpoints, or from mobile locations such as trails and roadways. The visibility of an object or area mainly depends on the distance from the views. The further the object or area is from the viewer, the less distinct the objective/area becomes, and there is greater possibility of intervening objects blocking some or all of the view of a particular view or site.

As it is not feasible to analyze all possible locations from which a project may be seen, it is necessary to select a number of key public view points (KVP) that would most clearly display the visual effects of the project. Figure 5.2-1 illustrates the locations of twelve representative views of the proposed project. More specifically, KVP 1 to 6 illustrate the existing visual environment of the Village Three North/Portion of Village Four area as viewed primarily from public off-site areas to the south and the north. KVPs 7 through 11 illustrate the existing visual environment of the Village Eight East area as viewed from public off-site areas to the north, east, and south and includes locations on and immediately adjacent to SR-125 (i.e., KVPs 9 and 11) and within OVRP (KVP 10). Lastly, KVPs 12 through 16 illustrate existing conditions of the

Village Ten site as viewed from public areas (on- and off-site) to the north, east, and south. It should be noted that KVPs 10, 14, 15, and 16 are from locations situated within the OVRP. In addition, photo simulations from locations 1 and 11, while not within the OVRP, are representative of what potential users of the southern OVRP trail may observe. The photographs for the simulations were taken with a Canon Powershot at 28mm.

## 5.2.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines and the 1993 Program EIR for the Otay Ranch GDP (EIR 90-01), impacts regarding aesthetics and landform alteration would be significant if the project would:

- A. Have a substantial adverse effect on a scenic vista.
- B. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- C. Substantially degrade the existing visual character or quality of the site and its surroundings.
- D. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.
- E. Alter areas of sensitive landforms and grade steep slopes that may be visible from future development and roadways that negatively detract from aesthetic character of the site or surrounding area.
- F. Be inconsistent with General Plan, Otay Ranch GDP or other objectives and policies regarding visual character thereby resulting in a significant physical impact.

## 5.2.3 Impact Analysis

### A. Have a substantial adverse effect on a scenic vista

The analysis of the proposed projects potential impacts on view considers the changes in key views to and from the project site. Figure 5.2-1 illustrates the locations of views to and from the project site. Anticipated changes to key views are discussed below according to village development and location.

### Village Three North and a Portion of Village Four

#### a. Key View Point 1

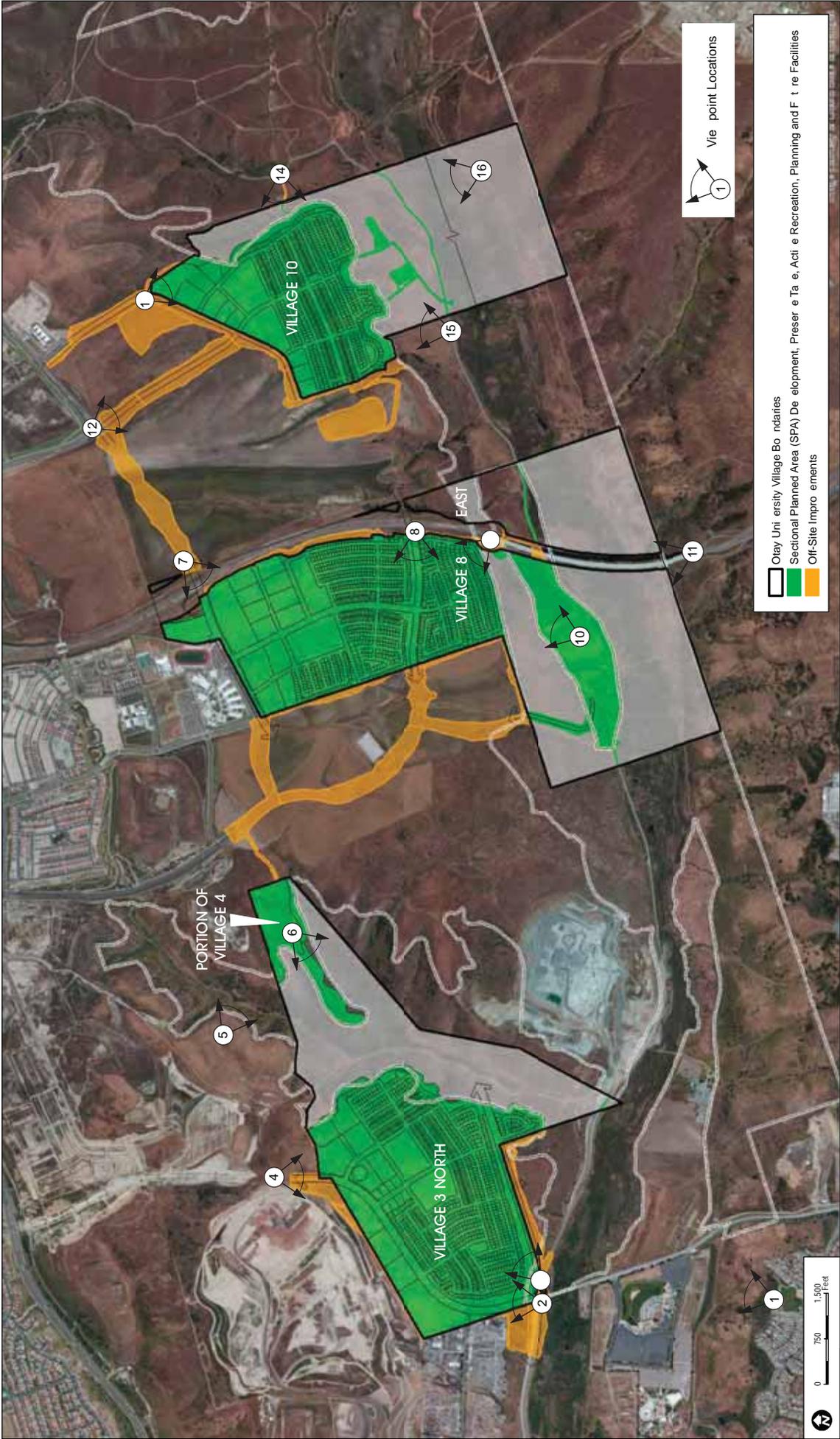
KVP 1 (see Figure 5.2-2) shows the view north from the paved perimeter trail of Vista Pacifica Neighborhood Park, a City of San Diego facility located approximately 0.75 miles south of the southwestern corner of the Village Three North development area in the community of Otay Mesa. The view from this location was selected as it is from a public vantage point, and due to

its elevation above the river valley, shows a more panoramic view of Village Three North. Due to the village's elevation, less of the proposed development within Village Three North would be visible from the river valley. Therefore, this vantage point is considered a conservative representation of views from the southern portion of the valley, such as the OVRP trail.

The view shows the sloping terrain and tan colored vegetation of the Otay Mesa landform in the immediate foreground, structures, seating, lawn and landscaping associated with the Sleep Train Amphitheatre and the patchy form and texture of vegetation located in the Otay River Valley in the middleground. North of the river valley, the terrain abruptly rises to form a mesa landform on which Village Three North and a Portion of Village Four would be located. Auto recycling facilities are visible north of the Otay River Valley and west of the mesa landforms and the elevated terrain of the Otay Mesa landfill can be seen to the northwest. The prominent, pyramidal forms of Mother Miguel Mountain (approximately 7.5 miles northeast of KVP 1) and San Miguel Mountain (approximately 8.8 miles northeast of KVP 1) and are visible in the distant background.

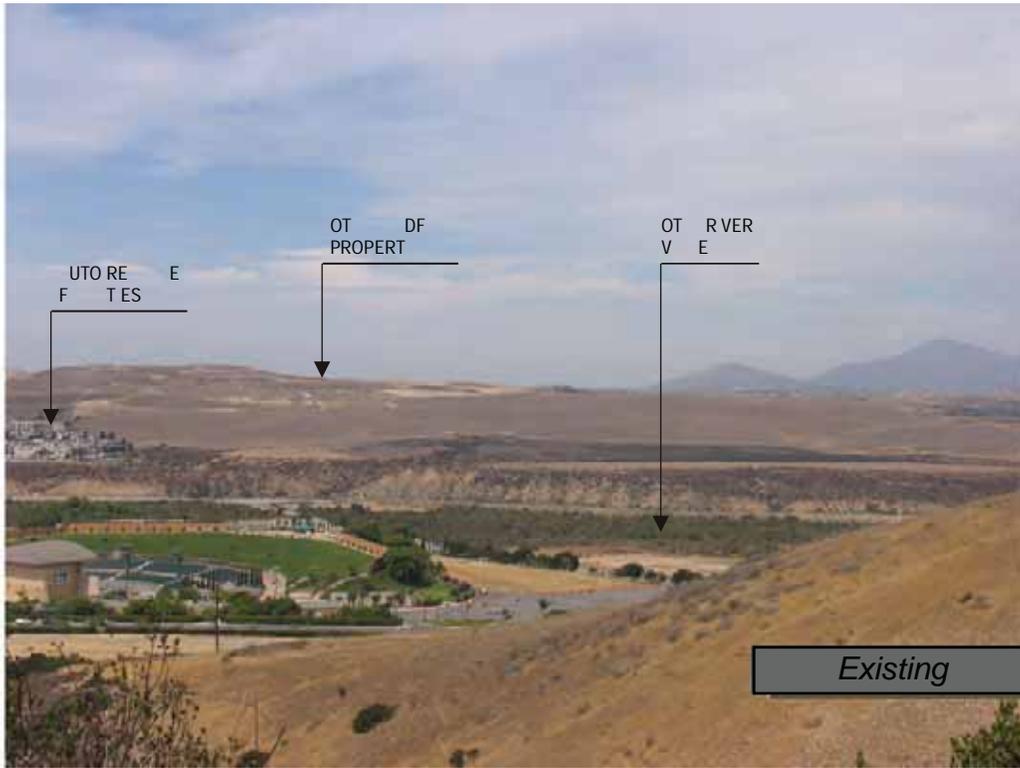
From KVP 1 (see Figure 5.2-2), existing south facing slopes and mesa tops would be graded to accommodate several travel lanes and the proposed landscaped median of the northerly extension of Heritage Road. The proposed easterly extension of Main Street would also be visible along the southernmost extent of the Village Three North development. As viewed from Vista Pacific Park (i.e., KVP 1), middleground terrain located north of the Otay River Valley would be developed primarily with single-family residences (east of Heritage Road) and industrial uses (west of Heritage Road) within the Village Three North boundary (see Figure 5.2-2). A neighborhood park, multistory school buildings located northeast of the park and multistory mixed-use buildings located adjacent to Heritage Road would also be visible in the middleground distance from KVP 1 but would be buffered from the Otay River Valley by low-density residential land uses. Project landscaping installed throughout Village Three North and vegetated open space installed along Heritage Road and Main Street would help break up the intensity of development as viewed from KVP 1 and would somewhat soften the resulting visual effect.

While development would occupy a large portion of the landscape in the middleground distance, vegetation within the Otay River Valley and prominent peaks in the surrounding area including San Miguel Mountain and Mother Miguel Mountain would remain visible and would not be screened or blocked by proposed development from this vantage point. The incorporation of design principles such as locating lower-intensity uses and landscaping at the southern extent of the development edge would soften the transition between development and existing landforms of the Otay River Valley. Further, the implementation of project landscaping throughout the development sites would alleviate the visual effect of graded slopes and structures as viewed from off-site viewing locations.



**FIGURE 2**  
**View point locations Map**

INTENTIONALLY LEFT BLANK



Key View 1: Existing view from Vista Pacifica Park looking north



Key View 1: Post-project view from Vista Pacifica Park looking north towards Village Three North

INTENTIONALLY LEFT BLANK

As noted previously, the vantage point is elevated above and across the river valley from the proposed development. Therefore, it offers a more panoramic view of Village Three North than vantage points within the valley, such as from future OVRP trail locations. While closer views of Village Three North would be afforded from future OVRP trail locations, the elevation difference between the OVRP trail locations and Village Three North would allow views of only the southern portion of the proposed development and Main Street. As such, KVP 1 can be considered a more conservative representation of views from the future OVRP trails.

While KVP 1 is a public vantage point, it is not a designated scenic vista and implementation of the project would be consistent with policies of the General Plan requiring the installation of landscaping and/or open space to maintain naturalized or soft edges for proposed private development located directly adjacent to natural areas. Therefore, the project would not result in adverse impacts from this KVP.

***b. Key View Point 2***

KVP 2 (see Figure 5.2-3a and 5.2-3b) shows a northeasterly view towards the southwestern corner of the Village Three North development area from Heritage Road at the existing access road to the Vulcan Materials Company construction aggregate quarry. The view presented in KVP 2 also represents the future northerly view available from the proposed westerly access road to Village Three North. The cracked, paved surface of Heritage Road, the lightly colored band displayed by the distant surface of the road and chain link fencing running parallel to the road comprise the immediate foreground of the existing view from KVP 2. Beyond the fenceline, the terrain abruptly rises and is dotted with clumps of darkly colored shrubs, scattered trees and rocks, and exposed tan soils. A series of overlapping ridgelines displaying the red to dark green colors of characteristic vegetation are visible to the northeast.

Located within the Village Three North boundary, the post-project foreground view from KVP 2 would consist of the intersection of the proposed extensions Heritage Road and Main Street at the southwestern corner of the development area. As shown in Figure 5.2-3a and 5.2-3b, several travel lanes of Main Street and Heritage Road would be constructed consistent with the Circulation Element and these roads would be lined with large landscaping trees. In addition, the post-project view from KVP 2 would include the entryway into Village Three North from the west and south and would show the 6-foot monument/wall constructed at the northeastern corner of the Heritage Road/Main Street intersection. Foreground views would also show steep, densely vegetated terrain sloping upwards towards a relatively flat building pad upon which single-family residences would be constructed.

The manufactured slope at the corner of Heritage Road and Main Street is approximately 100 feet tall. Along the eastern extension of Main Street, two plantable retaining walls would be constructed as part of the manufactured slope as shown on the Tentative Map. The wall nearest

to Main Street would be restricted to ten feet and setback from the road and screened by landscaping. Likewise, the higher wall would be setback from the lower wall by 25 feet to allow for landscaping to screen the appearance of the taller wall. These walls reach a maximum combined height of approximately 40 feet. Along Heritage Road, a single wall up to approximately 28 feet is proposed which would also be setback from the roadway and screened with landscaping. Figure 5.2-3a illustrates the view from the intersection of Heritage Road/Main Street towards Village Three North in the interim years, after the plantable walls have been constructed but prior to any landscaping. This exhibit is provided to demonstrate a worst-case scenario of the retaining walls without any screening from future landscaping. The inclusion of plantable walls along graded slopes would soften the appearance of retaining systems and would better visually integrate the retaining structures into the existing and proposed landscape setting (Figure 5.2-3b). Figure 5.2-3b illustrates what the plantable walls will look like approximately ten years after installation.

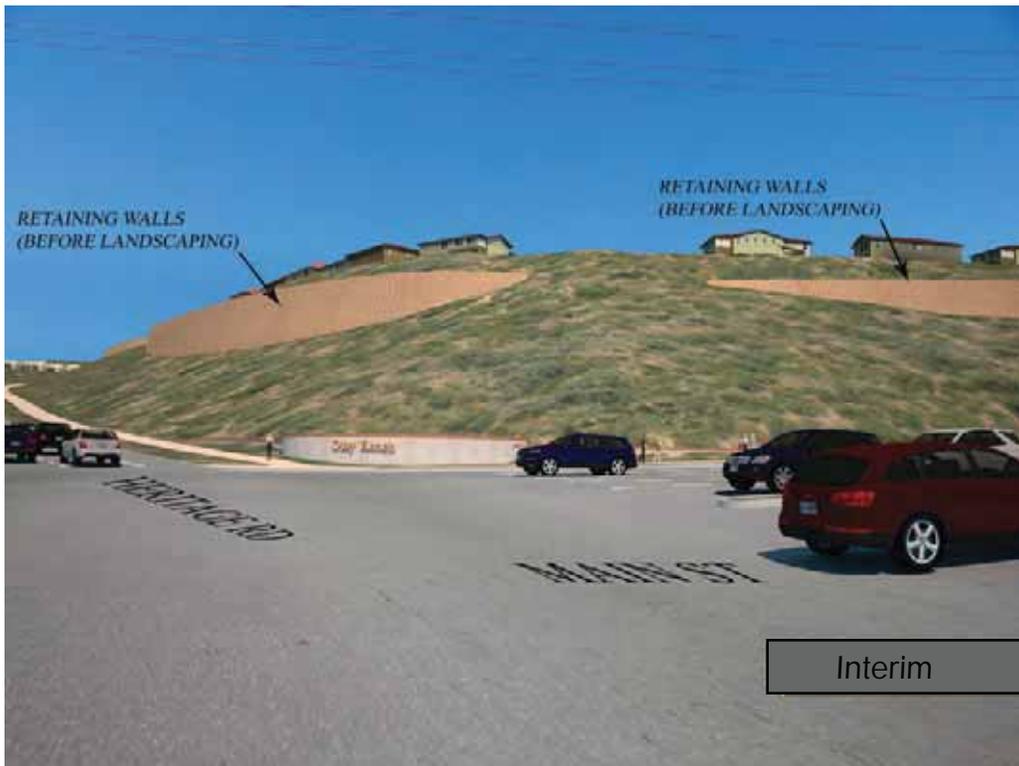
The vegetated terrain would comprise a portion of the overall dedicated open space proposed for Village Three North and would soften the visual effect associated with vegetation removal and grading. While KVP 2 is a public vantage point, KVP 2 is not a designed scenic vista and is not considered a public view corridor. Further, the extent of the view from KVP 2 is limited to the foreground viewing distance due to the presence of existing tall terrain and as a result, broad and/or panoramic views are not available to viewers from this location. Therefore, the project would not result in adverse impacts from this KVP.

*c. Key View Point 3*

The existing view from KVP shown in Figure 5.2-4a looks east from Heritage Road towards the entrance and access road to the Vulcan Materials Company construction aggregate quarry (a Vulcan Materials sign is visible north of the road). The landscape visible from KVP 3 is similar to that discussed above for KVP 2 as both KVPs are located in the same general location on Heritage Road and south of southwestern corner of the Village Three North development area (see Figure 5.2-1). However, in addition to coastal sage scrub vegetation and exposed tan soils on rising terrain and chain link fencing adjacent to Heritage Road, a single, tall wooden pole supporting a communication line, stacked granite-colored boulders, and a lone palm tree are visible in the foreground viewing distance from KVP 3.



Key View 2: Existing view from Heritage Road looking north



Key View 2: Interim project view from Heritage Road looking north towards Village Three North

INTENTIONALLY LEFT BLANK

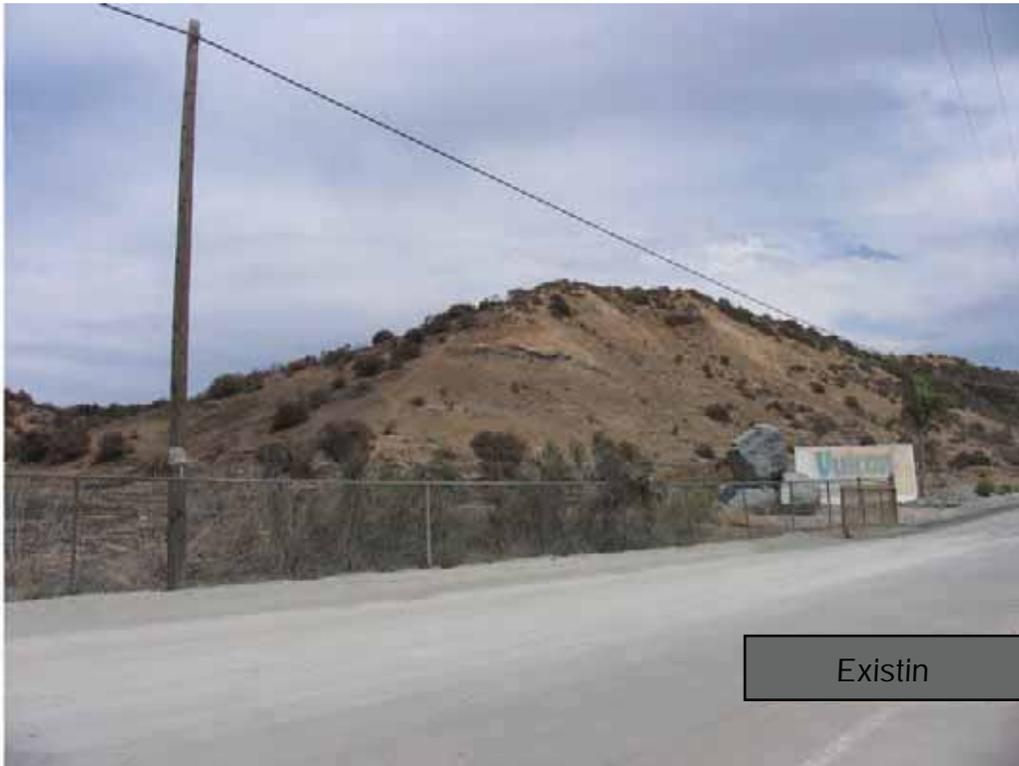


Key View 2: Existing view from Heritage Road looking north

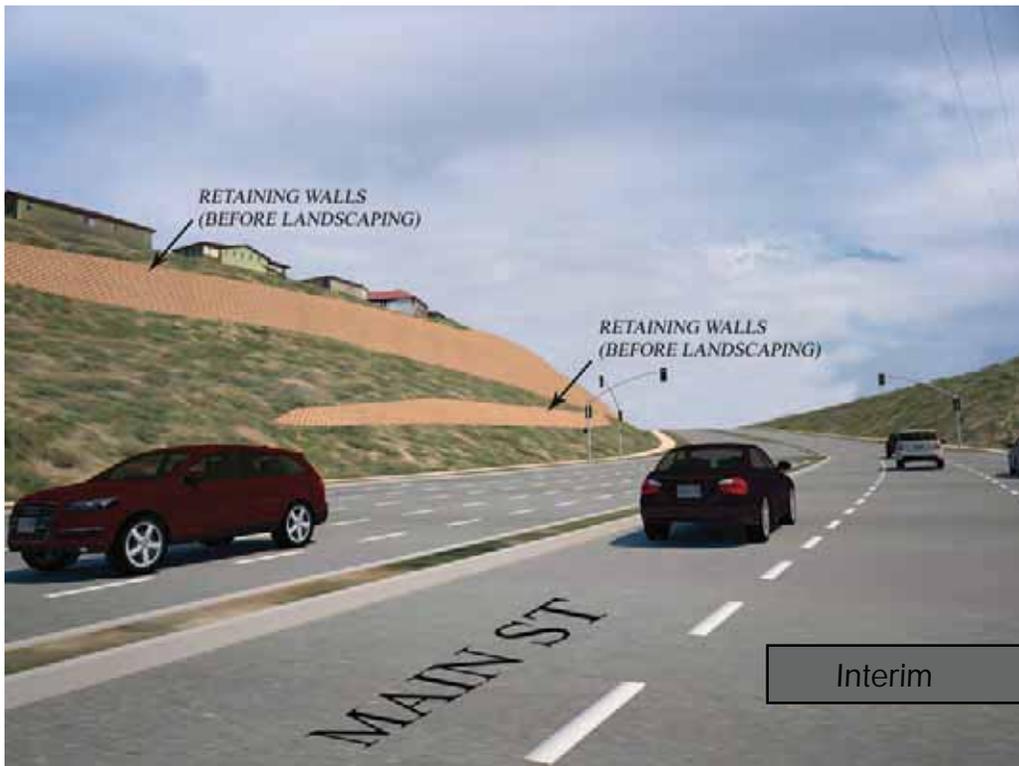


Key View 2: Post-project view from Heritage Road looking north towards Village Three North

INTENTIONALLY LEFT BLANK



Key View : Existing view from Heritage Road looking northeast



Key View : Interim view from Heritage Road looking northeast towards Village Three North

INTENTIONALLY LEFT BLANK

Similar to KVP 2, KVP 3 is located within the Village Three North boundary and the post-project view consist primarily of the proposed easterly extension of Main Street along the southern extent of the development area (see Figure 5.2-4a and 5.2-4b). Foreground views consist of the slightly curving alignment of Main Street (several west- and east-bound travel lanes would be constructed), a narrow landscaped median, and numerous street trees. In addition, densely vegetated and sloping terrain/open space and single-family residences located on elevated terrain north of Main Street would also contribute to the post-project view from KVP 3. As noted under KVP 2, plantable retaining walls would be constructed on this slope. Figure 5.2-4a illustrates the view looking northeast from Heritage Road towards Village Three North in the interim years, after the plantable walls have been constructed but prior to any landscaping. This exhibit is provided to demonstrate a worst-case scenario of the retaining walls without any screening from future landscaping. Once fully vegetated, the walls would not be visually intrusive as shown in Figure 5.2-4b. While KVP 3 is a public vantage, the current entryway to the Vulcan Materials Company quarry (i.e., KVP 3) is not considered a public view corridor or a scenic vista. Surrounding terrain to the north and an existing long berm constructed alongside the road to the south limits the availability of broad, panoramic views including southerly views of the Otay River. As such, implementation of the proposed project would not result in adverse scenic vista impacts from this KVP.

*d. Key View Point 4*

KVP 4 shows a southerly view toward Village Three North from undeveloped lands located east of the Otay Landfill (see Figure 5.2-1). In addition, KVP 4 is situated on the alignment of the proposed northerly access road (i.e., the northern extension of Heritage Road) into the Village Three 3 North development area. As shown on Figure 5.2-5, foreground views from KVP 4 include rolling, non-native grassland covered terrain to the east and west sloping downward towards a narrow, shallow canyon running the length of the Village Three North development area. Coastal sage scrub vegetation, fencing and narrow dirt trails are visible on east-facing terrain in the foreground. Traces of development including cleared land and lightly colored surfaces and structures located south of the Otay River Valley are visible in the middleground as is the rising, mounded terrain and elevated landform of Otay Mesa. Structures and vegetation atop Otay Mesa creates an irregular southern horizon line. Lastly, the silhouette of distant mountainous terrain in Mexico is visible in the background. Due to the elevated terrain on which KVP 4 is located, views of the undisturbed Otay River Valley are not visible from this location.

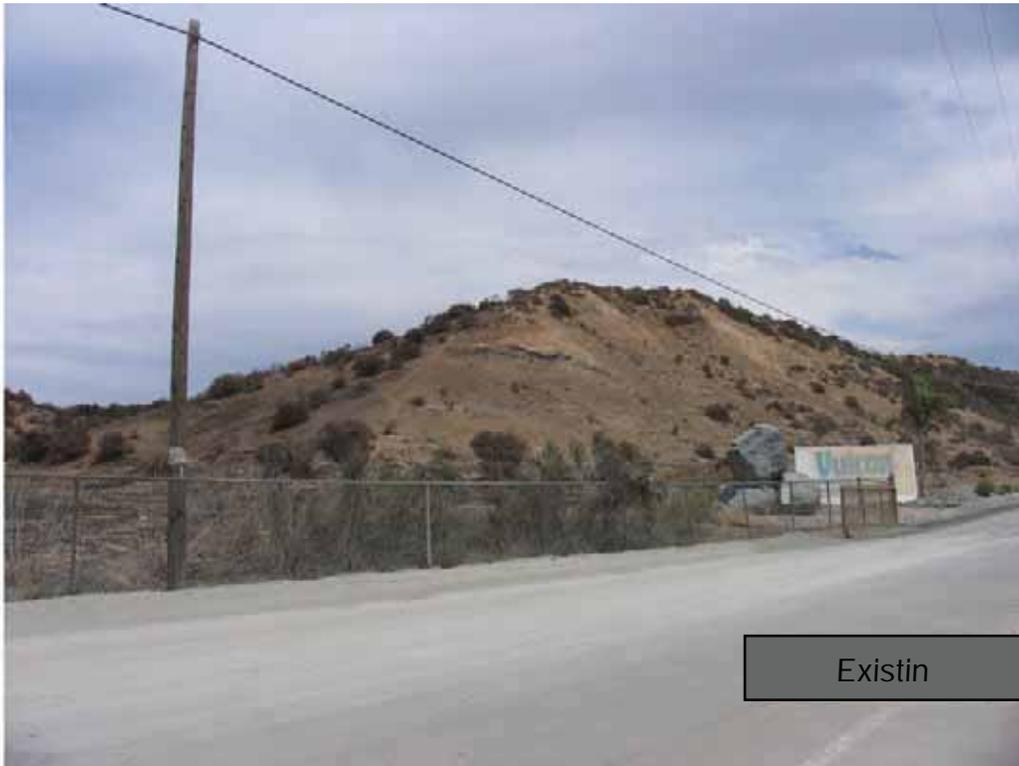
Post-project views from KVP 4 would be dominated by the northerly extension of Heritage Road and vegetation installed on terrain graded to accommodate the roadway, bicycle and pedestrian facilities. This post-project view appears elevated because the grading associated with the extension of Heritage Road would lower the location where the existing condition photograph was taken by approximately 70 feet. As shown on Figure 5.2-5, southerly post-project views from KVP 4 would include the paved and striped travel lanes of Heritage Road and raised landscaped median, street trees installed along roadway-adjacent parkways and sidewalk facilities. Existing terrain

would be substantially altered to accommodate the roadway and densely vegetated open space buffers would be created east and west of Heritage Road. Characteristic non-native vegetation would remain on a higher elevation slope to the west bordering the Otay Landfill and open space would be installed up to the MSCP boundary line located east of Heritage Road and residential development. Located in the northerly extent of Village Three North, post-project views from KVP 4 would include larger scale and more dense office/commercial and mixed use development (these uses occur adjacent to Heritage Road in the post-project view – see Figure 5.2-5) and viewers may also be afforded views of the buildings constructed on the proposed elementary school site. As shown on Figure 5.2-5, project development would display a consistent architectural style and theme and building scale would be appropriate for uses located in the urban village core. In addition, southerly views to the elevated landform of Otay Mesa would largely be maintained however, the southerly views of motorists, residents, and office workers may be partially obstructed by landscaping and project development. Still, mesas to the south of Village Three North are not designated scenic resources according to the City of Chula Vista and views of the Otay River Valley are not currently visible from KVP 4.

While Heritage Road is a City-designated scenic roadway, implementation of the proposed project would create a similar visual experience as currently provided on Heritage Road between Telegraph Canyon Road south to Olympic Parkway. This segment of the roadway is currently lined with street trees, features a raised landscaped median, and is located adjacent to sloped, vegetated terrain to the east and west. Therefore, for the reasons discussed above, implementation of the proposed project would not result in adverse scenic vista impacts from this KVP.

***e. Key View Point 5***

KVP 5 (Figure 5.2-6) shows a southeasterly view towards the Portion of Village Four included in the proposed project. As shown on Figure 5.2-1, KVP 5 is situated approximately 1,500 feet northwest of the Portion of Village Four development area and is located on currently undeveloped lands accessible by a trail off Santa Victoria Road. KVP 5 is located on the northwestern edge of Wolf Canyon and the visible landscape is dominated by the tan color of non-native grasslands in the foreground and middleground viewing distance. Clumps of coastal sage scrub vegetation are visible on northwest-facing slope of Wolf Canyon and vegetation is visibly denser in the canyon to the south. The lightly colored soil of a narrow trail leading to the top of Rock Mountain (located approximately 1 mile to the southeast) is also visible from KVP 5 in the middleground viewing distance. Background views include the descending and rising lines created by distant ridgelines to the southeast.

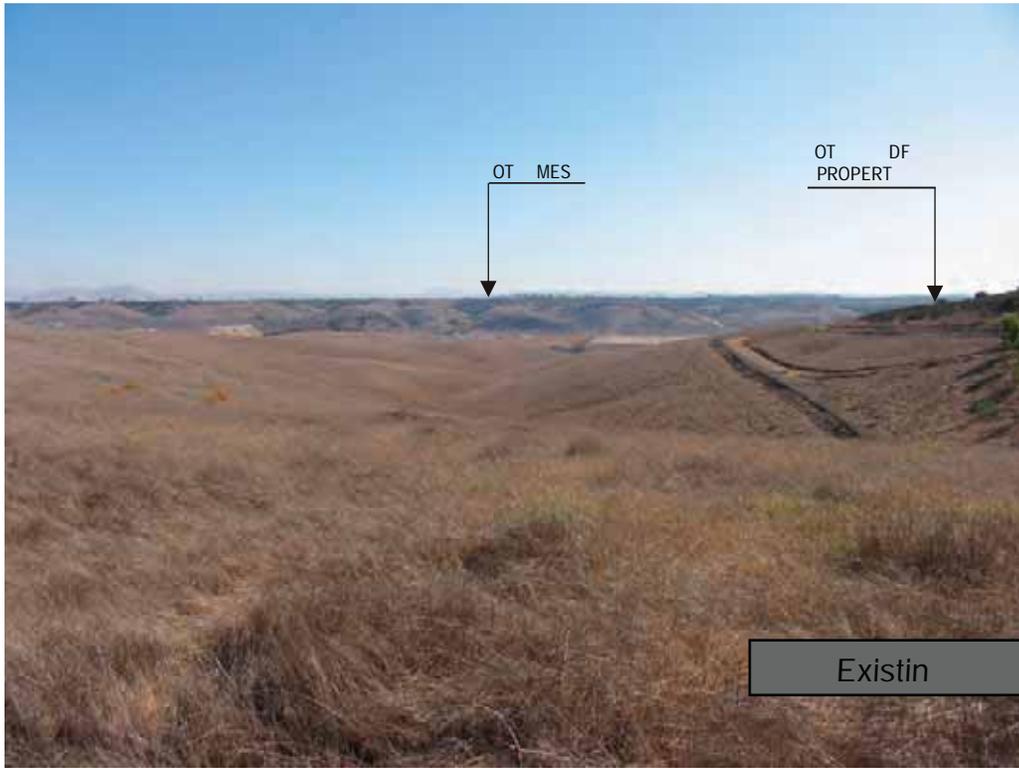


Key View : Existing view from Heritage Road looking northeast



Key View : Post-project view from Heritage Road looking northeast towards Village Three North

INTENTIONALLY LEFT BLANK

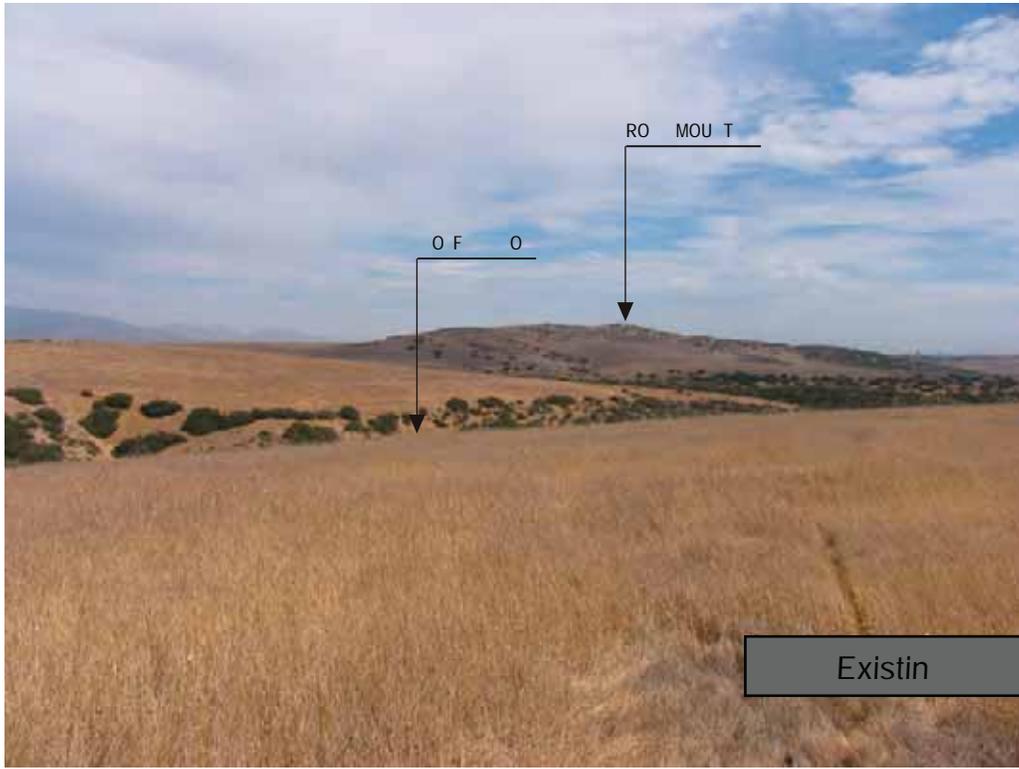


Key View 4: Existing view from east of Otay Landfill looking south



Key View 4: Post-project view from east of Otay Landfill looking south towards Village Three North

INTENTIONALLY LFT BLANK



Key View 5: Existing view from the north eastern edge of Wolf Canyon looking southeast

INTENTIONALLY LEFT BLANK

No post-project views from KVP 5 are provided because no plan for the Village Four Community Park have been developed, thus, any simulation would be speculative at this time. However, post-project views from KVP 5 would include dedicated open space adjacent to the MSCP boundary and open space preserve. Therefore, southerly views including those of Wolf Canyon and the western slopes of Rock Mountain would be maintained. Further, foreground views of gently rolling terrain and non-native grasslands would also be maintained. Some park development and fencing occurring on a portion of the tan-yellow grassland covered elongated and elevated terrain located in the foreground may be visible but would not interfere with views of Wolf Canyon and Rock Mountain in the foreground to middleground viewing distance or views of the mountainous ridgelines located in the background viewing distance to the southeast. Therefore, implementation of the proposed project would not result in adverse scenic vista impacts from this KVP.

*f. Key View Point 6*

KVP 6 (Figure 5.2-7) is located on the Portion of Village Four included in the Project. It shows a southeasterly view towards the long, elevated grassland and occasional shrub covered terrain within the Portion of Village Four in the foreground. As shown on Figure 5.2-1, KVP 6 is located approximately 0.75 miles east of the eastern boundary of Village Three North and as proposed, development (primarily residential) would occur on the elevated landform located to the west and southwest in the middleground (see Figure 5.2-7). In addition to elevated terrain, existing middleground views from KVP 6 include the southerly extent of Wolf Canyon and an associated drainage. More distant views include cleared lands located south of the Otay River, the lightly colored band of Heritage Road heading south towards the community of Otay Mesa, residential structures and the elevated, flat landform of Otay Mesa. A series of tan colored hills supporting relatively few shrubs comprise the north-facing slopes of the mesa and hills are periodically interrupted by the darkly colored canyon slopes.

As shown in Figure 5.2-7, the post-project foreground view from KVP 6 would remain unchanged as the southeasterly extension of the land on which KVP 6 is located would not be developed. Similarly, project implementation would not obstruct or block views of Wolf Canyon (see Figure 5.2-7) as development would be located atop elevated terrain to the south and southeast. Southeasterly views of Otay Mesa would also be maintained. Single-family residential structures and landscaping would comprise the majority of proposed project components visible from KVP 6 however, the taller forms of school and mixed use buildings would also be visible and portions of these structures would be skylined. Despite these changes, the KVP 6 landscape would retain much of its existing natural character and views of scenic features including Wolf Canyon and the Otay River Valley would not be substantially screened or obstructed by project elements. As shown on Figure 5.2-7, project development would generally follow the natural terrain and would not substantially impede existing views available from KVP 6. Further, while KVP 6 is a public vantage point it is not a public view corridor or a designated scenic vista. Therefore, implementation of the proposed project would not result in adverse scenic vista impacts from this KVP.

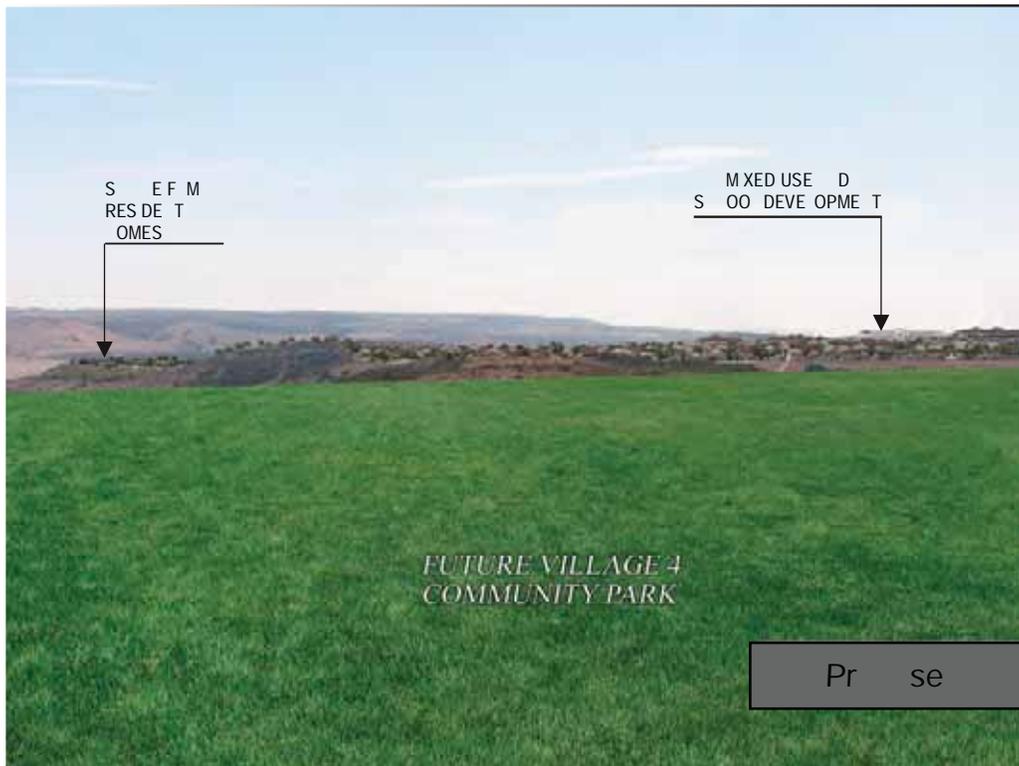
## Village Eight East

### *a. Key View Point 7*

Located east of SR-125 on southwest-facing slopes comprising a road cut associated with construction of the state route, KVP 7a presents a southwesterly view towards elevated terrain that slopes gently to the east towards the Otay River Valley. As shown on Figure 5.2-1, the northeastern boundary of Village Eight East would be located immediately west of SR-125 and associated right-of-way and KVP 7b is situated on the alignment of a new street (Main Street) that would provide access from SR-125 to Village Eight East. As shown in Figure 5.2-8a, foreground views from KVP 7 consist of grassland-covered descending terrain interrupted by a concrete drainage running parallel to SR-125. Separated by a long band of low-growing shrubs and grassland, the paved surface of SR-125 is visible in the foreground as is a dark colored line created by fencing located on terrain to the west. The low, pyramidal form of the Rock Mountain summit is visible in the middleground viewing distance beyond sloping terrain located immediately west of the state route and the elevated, slightly rolling landforms of Otay Mesa are visible in the distance to the southwest. Lastly, the silhouette of mountainous terrain in Mexico is visible in the background viewing distance.

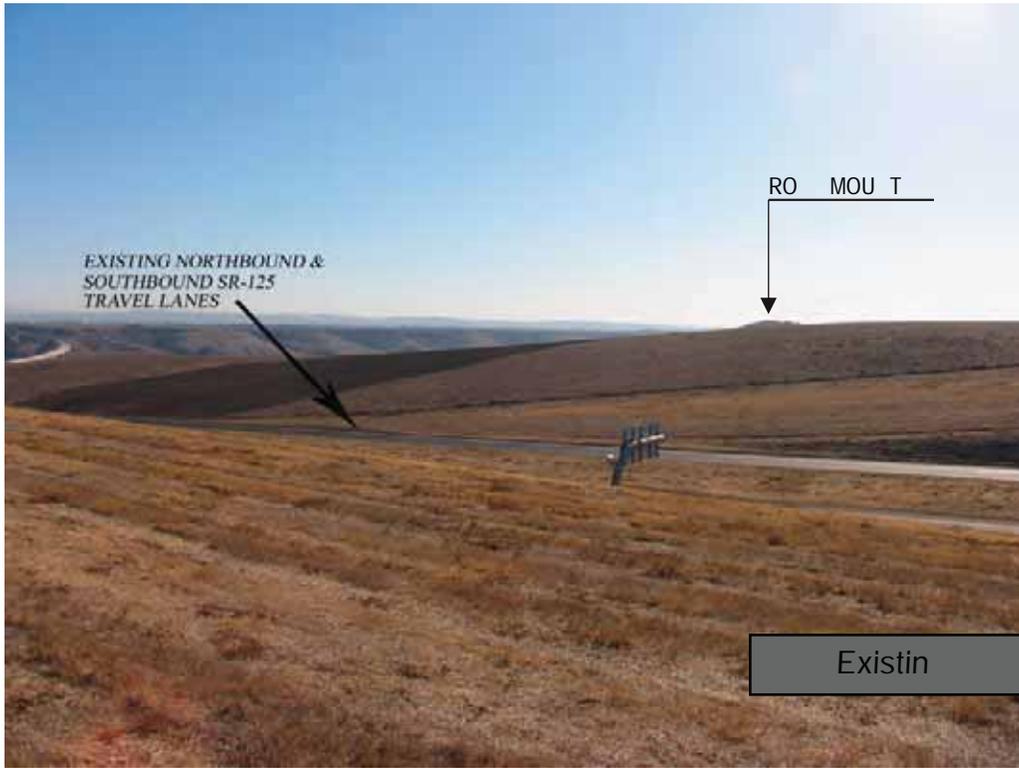


Key View 6: Existing view from Portion of Village Four looking east towards Village Three North

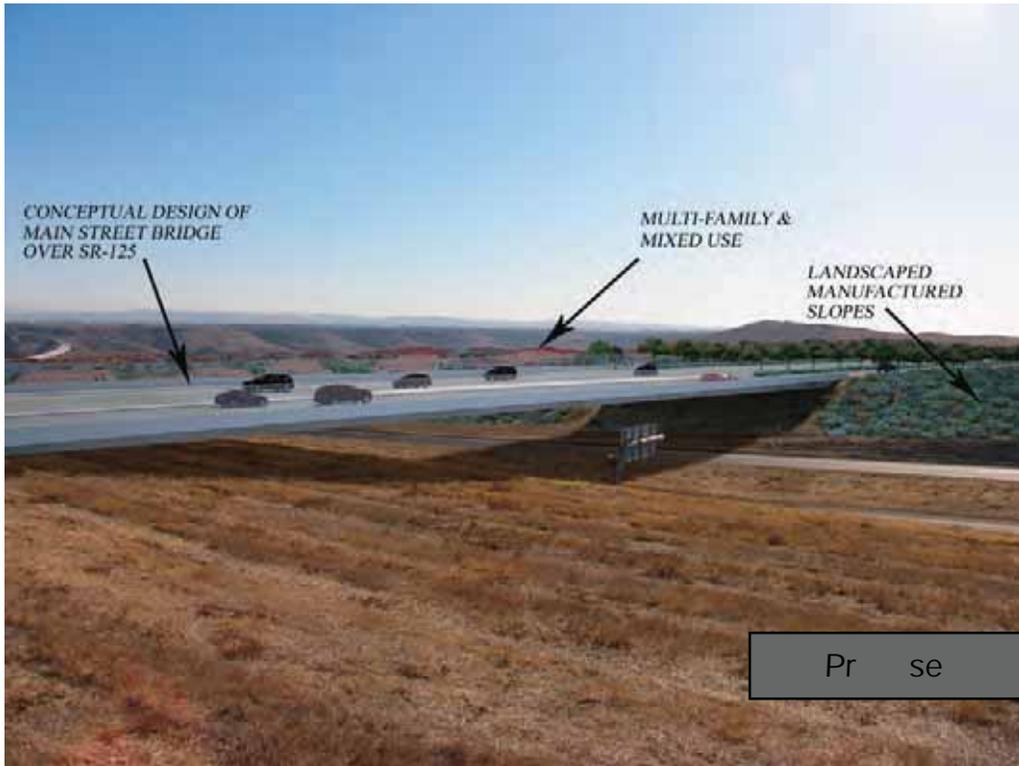


Key View 6: Post-project view from Portion of Village Four looking east towards Village Three North

INTENTIONALLY LEFT BLANK



Key View 7: Existing view from east of SR125 looking south east



Key View 7a: Post-project view from east of SR125 looking south east

INTENTIONALLY LEFT BLANK

As shown on Figure 5.2-8a, rolling terrain located south and west of SR-125 would be extensively graded in order to accommodate multi-family residential and high density mixed land uses, project landscaping and a new road (Main Street) that would provide direct access to SR-125. As viewed from KVP 7a, Main Street would span SR-125 to connect elevated terrain located east and west of the state route and on- and off-ramps not visible in the Figure 5.2-8a would likely be constructed off the new road. It should be noted that the alignment, height and configuration of the Main Street crossing of SR-125 depicted in Figure 5.2-8a is purely conceptual at this time and that the crossing/bridge structure would be located outside of the Village Eight East development boundary. As discussed in Section 5.3 Traffic and Transportation, Main Street is an assumed improvement in 2030. For purposes of this analysis, multiple travel lanes, bicycle and pedestrian facilities, a raised median and landscaping along Main Street could be visible in the post-project foreground views from KVP 7a, consistent with a typical 6-lane prime arterial. In addition, multi-family residential land uses and mixed use development to the west-southwest would be located on graded terrain lower in elevation than the raised deck of Main Street. Because of this elevation difference, existing views to Rock Mountain and Otay Mesa from KVP 7a would be maintained (see Figure 5.2-8a). While views of the Otay River Valley are not available from KVP 7a, views of the north facing slopes of Rock Mountain are visible. However, the SR-125 crossing, landscaping and proposed multifamily development would not obscure, obstruct or screen views of Rock Mountain from KVP 7a (see Figure 5.2-8a). Therefore, implementation of the proposed project would not affect the availability of existing views of scenic resources in the area. In addition, SR-125 has not been designated as a scenic roadway by the City of Chula Vista and KVP 7a is not a public view corridor or a designated scenic vista. Southwesterly and westerly oriented views from KVP 7a are relatively limited in extent due to the presence of elevated, sloping terrain in the foreground viewing distance and as a result, long and broad views of the surrounding landscape are generally not available. Therefore, implementation of the proposed project would not result in adverse scenic vista impacts from this KVP.

An additional post-project view from approximately 300 feet south of KVP 7a is provided in Figure 5.2-8b. KVP 7b is situated on the future elevated deck of the proposed Main Street bridge (depicted in profile on Figure 5.2-8a) spanning SR-125 and presents a southwesterly view along the bridge. In addition to views of multiple travel lanes, bicycle and pedestrian facilities, and street trees, multi-family and mixed-use development planned in the northeastern corner of Village Eight East is also visible to the southwest and below grade of the Main Street bridge. Similar to the analysis of views presented above for KVP 7, views of Rock Mountain and Otay Mesa would be maintained from this location following project implementation (see Figure 5.2-8b). This post-project view appears elevated because of the grading associated with the extension of Main Street would lower the location where the existing condition photograph was taken by approximately 25 feet.

***b. Key View Point 8***

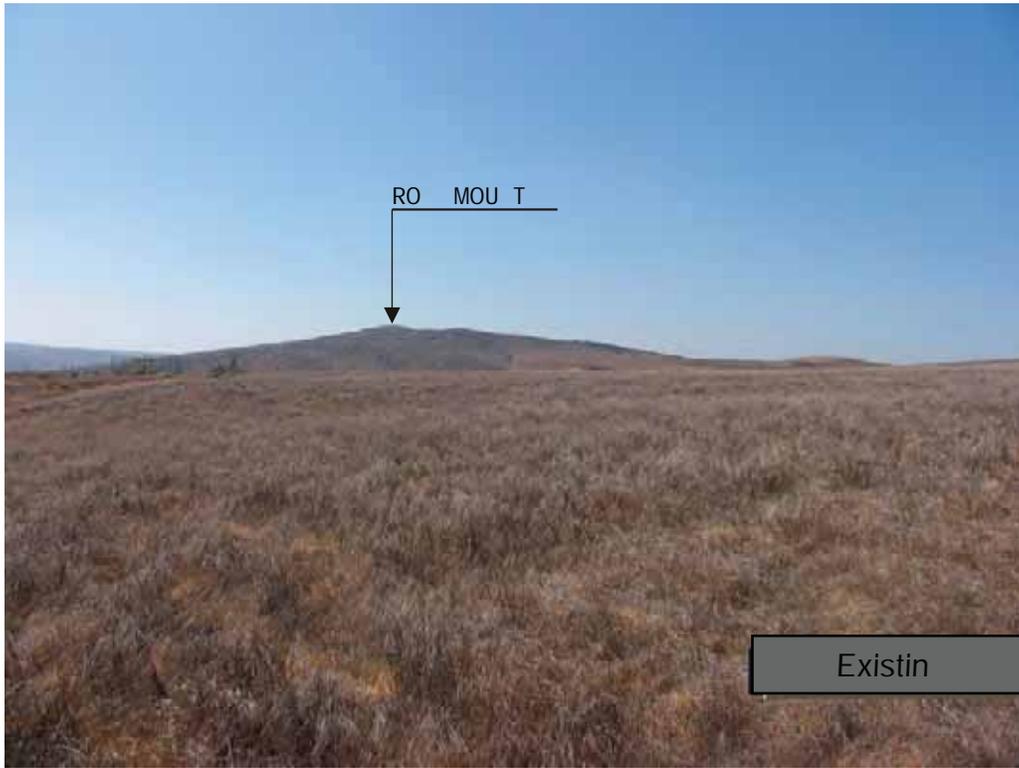
KVP 8 is situated with the southeastern extent of the Village Eight East development area and is located west of and adjacent to SR-125 at the planned location of Otay Valley Road (see Figure 5.2-1). As shown on Figure 5.2-9, KVP 8 shows a westerly view across the non-native grasslands comprising the Village Eight East development area and towards Rock Mountain. The foreground terrain visible in the KVP 8 is relatively flat and displays the tan to brown color and rough texture of non-native vegetation. A narrow access road is visible in the existing landscape as are the effects of vegetation removal and grading on the east-facing slopes of Rock Mountain. Background views include the silhouette of a ridgeline to the west.

The post-project view from KVP 8 would include multiple travel lanes and landscape trees installed along the new extension of Otay Valley Road providing access to Village Eight East. In addition and as shown in Figure 5.2-9, single-family residences and landscaping south of future Otay Valley Road and densely vegetated open space on terrain sloping to the north towards additional single-family residences would also be visible from this location. The location of Otay Valley Road and the lack of tall development between KVP 8 and prominent terrain to the west would maintain existing views of Rock Mountain from this location. Motorists on Otay Valley Road and residences located north and south of the road would be afforded views of Rock Mountain however, visibility would ultimately be determined by the presence or lack thereof of trees within the line of sight of individual viewers. Still, as shown on Figure 5.2-9, proposed residential and road development would not obstruct, screen or block available views of Rock Mountain. Further, KVP 8 is not currently a public view corridor (the area is not currently accessible to the public but will be when Village Eight East is developed) or a designated scenic vista. Once the project is developed, views to Rock Mountain would be available from KVP 8 (see Figure 5.2-9) and intermittently from future Otay Valley Road and therefore, implementation of the proposed project would not result in adverse scenic vista impacts from this KVP.



Key View 7 : Post-project view looking south east from Main Street Bridge

INTENTIONALLY LEFT BLANK



Key View 8: Existing view from Village Eight East development area looking west towards Rock Mountain



Key View 8: Post-project view from Village Eight East development area looking west towards Rock Mountain

	SOURCE USER: SSO TES 201	<b>FIGURE 2- Village Eight East Key View</b>
7000	<b>UNIVERSITY PROJECT</b>	

INTENTIONALLY LEFT BLANK

*c. Key View Point 9*

As shown on Figure 5.2-1, KVP 9 offers a northwesterly oriented view from undeveloped right-of-way located immediately adjacent to the southbound travel lanes of SR-125 and north of state route bridge crossing the Otay River Valley. While the travel lanes of SR-125 are not visible in the KVP 9 landscape captured in Figure 5.2-10, non-native grasslands and clumps of California buckwheat are visible in the immediate foreground and the foreground terrain slopes downward towards the paved surface of an existing unstriped access road. Given the location and alignment, it is assumed that the road provided construction access from bridge pier locations in the Otay River Valley to SR-125. This access road would be replaced as part of the proposed project by the Community Park Paseo. The sand colored soils of a narrow and slightly curving drainage are visible beyond the roadway and the drainage is surrounded by rising terrain to the south, west and north. Vegetation is relatively dense on north and south-facing slopes located the west of KVP 9 however; east-facing slopes in the foreground lack dense clusters of vegetation. As viewed from KVP 9, rising terrain to the west forms a relatively flat mesa in the distance.

From KVP 9, post-project views would include single-family residential development on the relatively flat grassland and occasional shrub covered terrain to the northwest. Residential development and a narrow strip of dedicated open space would extend to the existing fence line. The small drainage and canyon visible from KVP 9 would be filled and developed. While development associated with Village Eight East would be apparent to passing motorists on SR-125 in the vicinity of KVP 9, the existing northwesterly view is limited in extent by the elevated, mesa terrain of the project site and therefore, broad, panoramic views are not currently available. In addition, this specific segment of SR-125 is not a designated or eligible state scenic highway and KVP 9 is not a designated scenic vista. Therefore, given the lack of broad, panoramic views available from KVP 9 and because development would not obscure or obstruct views of valued scenic resources in the area, implementation of the proposed project would not result in adverse scenic vista impacts from this KVP.

*d. Key View Point 10*

KVP 10 is located in the Village Eight East Community Park (P-2), south of Village Eight East, north of the Otay River and Wiley Road, and west of SR-125 (see Figure 5.2-1). The key view was selected because it is representative of views of the Village Eight East site afforded to future OVRP trail and Community Park users. This location is on the community park site, which is at higher elevation and closer to the edge of development, and would be considered a worst case visual scenario for park and trail users. KVP 10 presents a northerly view across non-native grasslands and toward rising, coastal sage scrub covered terrain comprising the southern extent of the mesa on which the majority of the Village Eight East development area would be located. In addition to grasslands and scrub-covered terrain visible from KVP 10 (see Figure 5.2-11), the southern extent of a small canyon system is visible and the mounded form of large shrubs and

trees are visible in the distance (these features are distinguishable by their color as opposed to their scale because of the backscreening effect of existing terrain).

As shown in Figure 5.2-11, post-project foreground views would include developed park space constructed north of the Otay River and proposed single-family residential development located on the distant ridgeline to the north, approximately 800 feet from the location of where this simulation is situated. The MSCP Preserve located between the park space and the proposed single-family residential development in Village Eight East would be maintained. In addition to turf areas in the foreground and residential development in the distance, landscaping installed around the perimeter of the new park space would be visible from KVP 10. Rolling, coastal sage scrub covered terrain that is part of the MSCP Preserve would remain visible in the middleground. However, existing vegetation on a south-facing slope to the north (not a part of the MSCP Preserve) would be removed and replaced with project landscaping (this landscaped slope would comprise dedicated open space)

While existing broad views of the Otay River Valley landscape would be replaced with views of a turf park space and project landscaping, KVP 10 is not a designated scenic vista and Wiley Road (access to KVP 10 is currently available via Wiley Road) is currently used as a sewer maintenance road. KVP 10 is not currently a heavily trafficked viewing location; however, planned trail and park improvements, and access proposed by the project will increase the number of users within this portion of the OVRP. These users would be a minimum of approximately 800 feet from the edge of development, which is reflected in Figure 5.2-11. A plantable retaining wall reaching a maximum height of 38 feet is proposed within a drainage south of Village Eight East. The wall reaches maximum height for less than 20 feet before tapering off on either side into the contoured slope. The southern perimeter of Village Eight East consists of landscaped slopes with a plant palette that is consistent with existing native vegetation. In addition, in the post-project view, existing views of rolling terrain would largely be maintained. Further, locating lower density homes adjacent to open space would reduce the visual impact to users of the Otay River Valley by placing lower-scale buildings at the top of the slopes rather than taller multi-family buildings. Therefore, implementation of the proposed project would not result in adverse scenic vista impacts from this KVP.

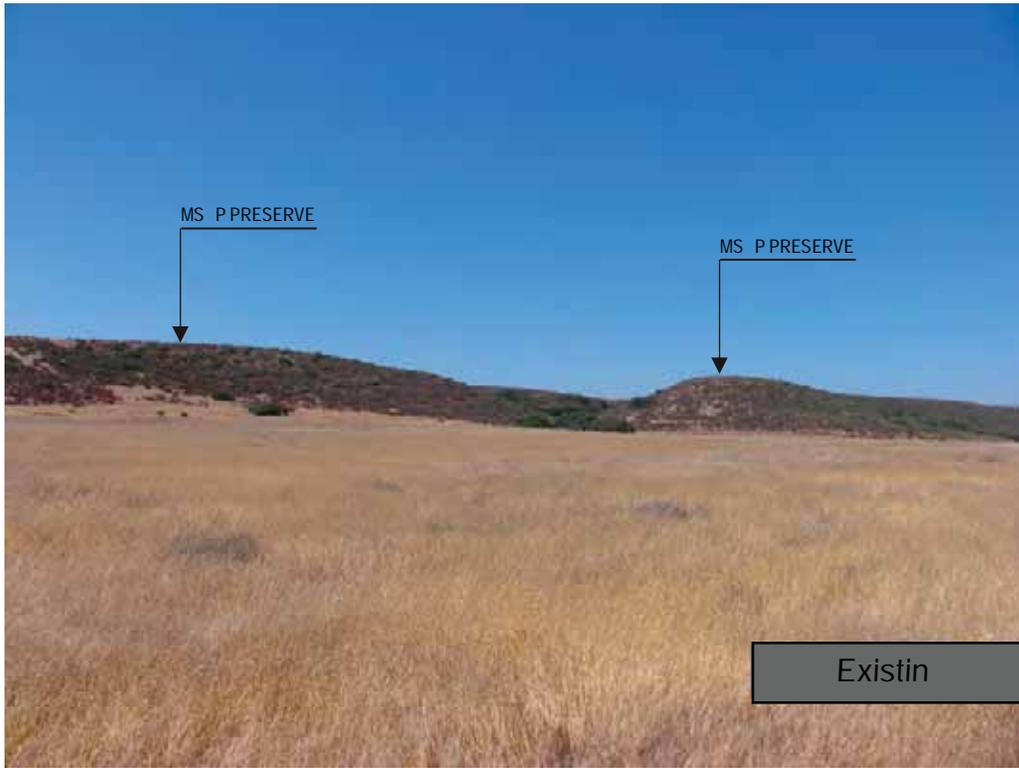


Key View : from SR-125 right-of-way looking north east



Key View : from SR-125 right-of-way looking north east

INTENTIONALLY LEFT BLANK



Key View 10: Existing view north of Wiley Road looking north



Key View 10: Post-project view from north of Wiley Road looking north towards Village Eight East

INTENTIONALLY LEFT BLANK

*e. Key View Point 11*

As shown on Figure 5.2-1, KVP 11 is located adjacent to SR-125 and provides a northerly oriented view towards distant south-facing hills and slopes on which a portion of the Village Eight East development is planned. KVP 11 is situated adjacent to the northbound travel lanes of SR-125 on a disturbed and revegetated portion of land just south of the state route bridge spanning the Otay River Valley (a physical break in k-rail installed alongside the state route provides access to the area for maintenance of electrical, sewer, and water infrastructure). This vantage point was chosen because it is representative of public views of Village Eight East from SR-125. In addition, this vantage point is located at a higher elevation than the OVRP trails, and as such, provides a more panoramic view of Village Eight East as opposed to a location within the river valley.

Coastal sage scrub vegetation, black chain link fencing and the deck and pylons of the state route bridge comprise the majority of landscape visible from KVP 11 (see Figure 5.2-12). North of the black chain link fence, the topography suddenly drops and then forms the relatively flat but colorful characteristic form of the Otay River Valley. Near the northern terminus of the bridge the terrain rises and forms a series of mounded hills and distant tan to brown colored mesas. As viewed from KVP 11, vegetation north of the Otay River Valley appears to be clumped near and along drainages.

Lastly, the silhouette of several tall lights and buildings associated with Olympian High School are visible atop the distant ridgeline to the north. The pyramidal form of Mother Miguel Mountain and the larger form of San Miguel Mountain are visible in the background.

KVP 11, as shown in Figure 5.2-12, is representative of the views from the OVRP Trail in the southern portion of the valley even though the vantage point is located above the future trail location. As noted above, this vantage point provides a more panoramic view of Village Eight East, which is more conservative than from lower elevations. The OVRP Trail along the southern river valley is over 2,000 feet south of the edge of Village Eight East and approximately 110 feet below the grade of the first row of homes.

Upon implementation of the proposed project, views of the Otay River Valley from this vantage point would be maintained. Single family residential development, dedicated open space (i.e., landscaping) and new Street A would comprise the majority of proposed project components visible from KVP 11 and would be located in the middleground to the north of the river valley and west of SR-125 on south-facing slopes (see Figure 5.2-12). As stated previously, lower density homes would be located towards the southern extent of Village Eight East and larger scale elementary school buildings and multi-family residential development would be located further to the north on the distant ridgeline.

While views of rolling grassland-covered terrain would be replaced by views of residential development and project landscaping, views of Mother Miguel Mountain and San Miguel Mountain would be maintained at KVP 11. The incorporation of design principles such as locating lower-intensity uses and landscaping at the southern extent of the development edge would soften the transition between development and existing landforms of the Otay River Valley. The implementation of project landscaping throughout the development sites would alleviate the visual effect of graded slopes and structures as viewed from off-site viewing locations. In addition, implementation of the proposed project would be consistent with City of Chula Vista General Plan policies requiring landscaping and/or open space buffers to maintain a naturalized soft edge for development located adjacent to natural open space areas. Further, the segment of SR-125 located in the vicinity of the proposed project is not a designated or eligible scenic highway. As such, implementation of the proposed project would not result in adverse scenic vista impacts from this KVP.

### **Village Ten**

#### ***a. Key View Point 12***

KVP 12 shows a southeasterly view towards the Village Ten development area near the southeastern corner of the University Drive/Hunte Parkway intersection (see Figure 5.2-1 for location). Foreground and middleground views are characterized by an expanse of non-native grasslands strewn across a long, wide landform that slightly slopes downward to the southwest (see Figure 5.2-13). From KVP 12 the foreground view shows the gently sloping terrain of the Future University Site across which a new access road from University Drive to the Village Ten development area would be constructed. The middleground view includes several distant, dark green colored shrubs clumps that demarcate the approximate western boundary of the Village Ten development area. Background views include pyramidal forms and dark colored ridgelines of the Jamul Mountains.



Existing

Key View 11: Existing view from east of SR-125 looking north



Proposed

Key View 11: Post-project view from SR-125 right-of-way looking north east towards Village Eight East

INTENTIONALLY LEFT BLANK



Key View 12: Existing view from future location of University Drive/Hwy 16 intersection looking southeast

	SOURCE USER: SSO TES 201	<b>FIGURE 2-2</b>
7000	<b>UNIVERSITY VILLAGE PRELIMINARY</b>	

INTENTIONALLY LEFT BLANK

Post-project foreground views from KVP 12 would include the new easterly extension of University Drive to the Village Ten development area in the foreground, park and recreation space and elementary school buildings approximately 0.75 miles to the east in the middleground and single-family residential development and associated landscaping. Lower density residential development would be of lower scale (1 to 2 story buildings) and would therefore not obstruct or block views of distant prominent landforms including the Jamul and Laguna Mountains. Broad views of the project area would be available at KVP 12 as development would occur within the middleground and the apparent scale of structures would be reduced and would not obstruct the panoramic nature of existing views. In addition, KVP 12 is not a designated scenic vista (KVP 12 is located near the near the southeastern corner of University Drive/Hunte Parkway intersection) and viewers primarily consists of passing motorists and occasional recreationists (i.e., runners, walkers, cyclists). Therefore, project implementation would not obstruct or screen views of distant mountainous ridgelines or other scenic resources identified by the City of Chula Vista and therefore, the proposed project would not result in adverse scenic vista impacts from this KVP.

It should also be noted that university development is planned immediately south of Hunte Parkway (see Figure 4-14, Village Ten Site Utilization) and future university development would obscure and/or screen views of Village Ten development from passing motorists and occasional recreationists. However, because specific development plans for the future university site have not been developed, affects to existing views and the severity of view blockage are speculative and therefore, a photosimulation from KVP 12 has not been provided.

***b. Key View Point 13***

As shown on Figure 5.2-1, KVP 13 is located approximately 0.4 miles southeast of KVP 12 on undeveloped land just outside of the Village Ten development area. In addition, KVP 13 is located on the alignment of the proposed southeasterly extension of Discovery Falls Drive that would provide local access to Village Ten. Foreground views from KVP 13 consist of rolling, grassland covered terrain supporting occasional dark green colored shrubs (see Figure 5.2-14). A narrow trail is visible on the rolling terrain to the east. The reddish color of shrubs on east-facing canyon slopes and trees and other vegetation on the canyon floor is visible in the middleground viewing distance. Views of the canyon, surrounding terrain and vegetation extend to the southeast and the relatively flat form of a mesa beyond the Otay River Valley is visible in the middleground viewing distance. The silhouette of a low mountainous ridgeline is also visible in the background.

As shown in Figure 5.2-14, foreground post-project views would be dominated by multi-family residential housing and project landscaping located in the northeastern corner of the Village Ten development area. In addition, the curving alignment of and street trees installed adjacent to the

new extension of Discover Falls Drive into the Village Ten area would be visible and would replace existing views of gently rolling, non-native grassland covered terrain. Further, the vertical scale of multi-family residential development and landscaping would screen existing views of rolling terrain. Residences located adjacent to the open space preserve (east of Village Ten) would be afforded views of the Otay River Valley; however, due to the presence of intervening structures, views of the valley would not be available to residences located closest to the new extension of Discover Falls Drive or to motorists on Discover Falls Drive. However, KVP 13 is not a designated scenic vista and while Discover Falls Drive will be a public vantage point following project development, post-project views from the road would primarily be afforded to future residents of Village Ten. Therefore, because the proposed project would not result in substantial adverse impacts to scenic resources currently visible from an existing public vantage point, implementation of the proposed project would not result in adverse scenic vista impacts from this KVP. This post-project view appears elevated because of the grading associated with the extension of Discover Falls would lower the location where the existing condition photograph was taken by approximately 35 feet.

*c. Key View Point 14*

KVP 14 is located east of the University Villages boundary and presents a westerly view from Wiley Road towards an existing dirt trail/access road and slightly rolling terrain. The key view is representative of views of the Village Ten site afforded to trail users in OVRP near the southern extent of Salt Creek Canyon. The rolling, grassland and coastal sage scrub covered terrain visible in the foreground viewing distance from KVP 14 (see Figure 5.2-14) encompasses the eastern boundary of the Village Ten development area. Immediate foreground views consist of the gravel surface of Wiley Road and a narrow dirt trail/access road leading to the west. Non-native grasslands and occasional short shrubs populate the undeveloped lands in the foreground and the green crowns of trees and shrubs located near the Salt Creek drainage are visible to the southwest.



Key View 1 : Existing view from proposed southeasterly extension of Discovery Falls Drive looking southeast



Key View 1 : Post-project view from proposed southeasterly extension of Discovery Falls Drive looking southeast towards Village Ten

7000	SOURCE USER SSO TES 201	<b>FIGURE 2- 4</b> <b>Village Ten Key View</b>
<b>UNIVERSITY VILLAGE PROJECT</b>		

INTENTIONALLY LEFT BLANK

Post-project immediate foreground views from KVP 14 would consist of an improved trail leading to the eastern extent of the Village Ten boundary. As shown in Figure 5.2-14, rustic, round wood rail fencing would be installed alongside the existing trail and signage noting the trail's inclusion in the Chula Vista Greenbelt system signage would be erected. Fencing would clearly demarcate the trail and would reduce opportunities for trail users to access adjacent natural lands. In the foreground, east-facing slopes would be graded, a plantable wall would be constructed and a relatively flat building pad would be developed. Existing vegetation on slopes would be removed and project landscaping would be installed (this area is planned as a dedicated open space buffer). Single-family residences would be constructed atop the leveled terrain and while portions of structures would be screened from view by project landscaping, the rooflines of structures viewed from the inferior angle location of KVP 14 would be skylined against the background sky (see Figure 5.2-14). Implementation of the proposed project would be apparent to users of Wiley Road however, KVP14 is not a designated scenic vista and the tall form of terrain in the foreground limits the availability of broad, panoramic views to the west. View to the south towards the Otay River Valley and the elevated landform of Otay Mesa are scenic and implementation of the proposed project would not obstruct or screen views of these resources. Therefore, implementation of the proposed project would not result in adverse scenic vista impacts from this KVP.

**d. Key View Point 15**

Located approximately 0.7 miles southwest of KVP 14 (see Figure 5.2-1), KVP 15 is also situated on Wiley Road within the Otay River Valley and presents a north-northeasterly view towards the Village Ten development area. The key view is representative of views of the Village Ten site afforded to trail users in OVRP. As shown on Figure 5.2-15, the existing landscape visible from KVP 15 consists of disturbed lands and non-native grasslands in the immediate foreground on terrain that slightly rises to the north towards a series of grasslands and coastal sage scrub dotted hills comprising the southerly extent of the Village Ten development area. In addition to several clumped shrubs of moderate height, two tall wooden poles supporting a single communication line are visible in the foreground viewing distance from KVP 15. The dark green crowns of vegetation are visible to the north and are located within the southern extent of a shallow canyon and drainage that runs across a portion of the Village Ten project site.

As shown in Figure 5.2-16, densely vegetated open space and single-family residential development would be installed/constructed atop elevated terrain located north of the KVP 15 in the middleground viewing distance. Manufactured slopes would be constructed at the southern extent of the Village Ten in order to construct level building pads and a vegetated open space buffer would be provided between residential development and natural areas. Foreground views of disturbed terrain and non-native grasslands would be maintained (KVP 15 is located on Wiley Road just south of the existing open space preserve) and coastal sage scrub and grassland-covered hills to the north would remain in place. Project components visible from KVP 15 would be skylined however, vegetation would reduce the resulting visual effect as experienced by users

of the Otay River Valley. Also, the inferior viewing location of KVP 15 and the presence of tall terrain to the north limits the availability of broad, long views to the north and KVP 15 is not a designated scenic vista. Therefore, implementation of the proposed project would not result in adverse scenic vista impacts from this KVP.

*e. Key View Point 16*

Located approximately 0.5 miles southeast of KVP 15 (see Figure 5.2-1) KVP 16 is south of Wiley Road in the Otay River Valley and represents a north-northwesterly view towards the Village Ten development area. The key view is representative of views of the Village Ten site afforded to southern trail users in OVRP. As shown in Figure 5.2-17, the existing landscape visible from KVP 16 consists of disturbed lands and non-native grasslands in the immediate foreground. Dark green crowns of varying vegetation types are visible within the southern extent of a shallow canyon and drainage that runs across a portion of Village Ten. Looking further to the north a series of grasslands and coastal sage scrub are scattered leading up to a series of mesas that comprise the southerly extent of the Village Ten development area. Due to the location of these mesas in the middleground viewing distance, far-reaching and expansive views to the north are limited.

As shown in Figure 5.2-17, the views from this location would be of the southern portion of development in Village Ten. Single-family residences atop the elevated mesas would be skylined; however, vegetation, natural terrain, and open space would reduce the resulting visual effect as experienced by users of the OVRP trails. Lower intensity single-family residential development located at the southern extent of the Village Ten development would be low profile and less visually disruptive than multi-story buildings. Two plantable retaining walls are proposed through an existing drainage which would reach a maximum combined height of 60 feet for a span of approximately 30 feet before gradually transitioning into the existing and proposed manufactured slopes. The plantable walls would consist of two 30-foot walls with roughly 50 feet of landscaped slopes between them.

The manufactured slopes that border the southern perimeter of Village Ten are approximately 110 feet max. Landscaped slopes include a plant palette that is consistent with existing native vegetation. Manufactured slopes would be constructed at the southern extent of the Village Ten in order to construct level building pads and a vegetated open space buffer would be provided between residential development and natural areas. The water quality basins would not be visible because they would be at roughly the same elevation as the trail users. The construction corridors on the southern slopes of Village Ten between the water quality basins and the development edge would be revegetated, which would further reduce visual impacts. Foreground views of disturbed terrain and non-native grasslands would be maintained and coastal sage scrub, and grassland-covered hills to the north would remain in place. The foreground views would remain undisturbed because it would be designated open space as part of the ultimate Preserve. KVP 16 is not designated as a scenic vista and would not result in adverse scenic vista impacts.



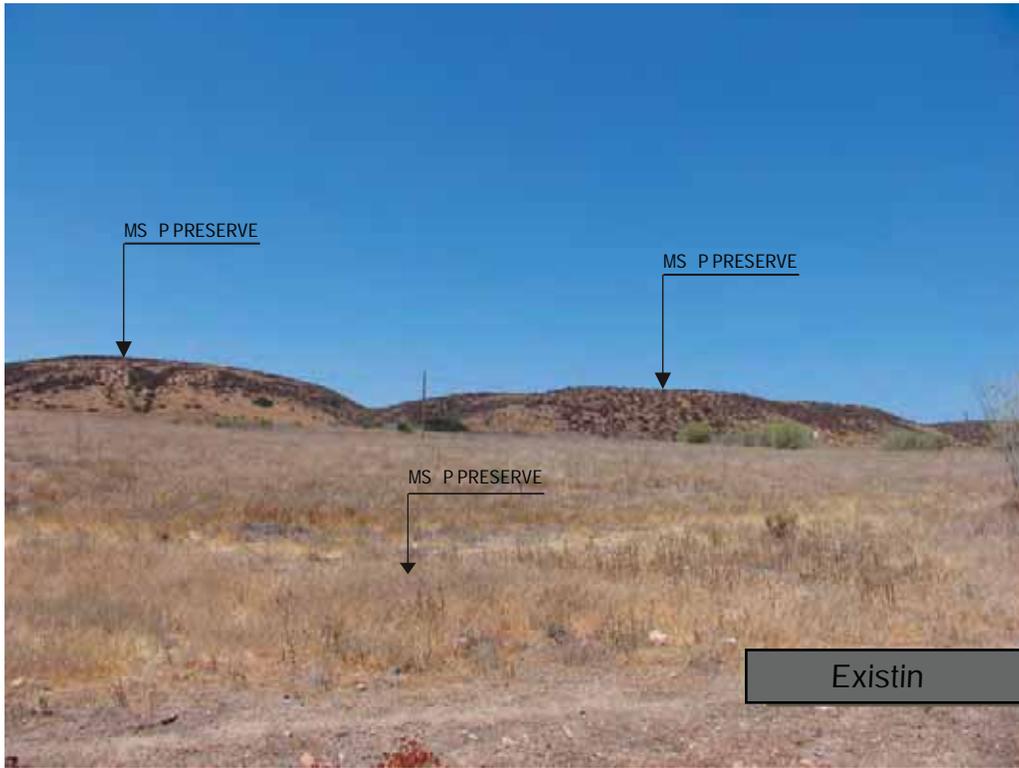
Key View 14: Existing view from Wiley Road looking east



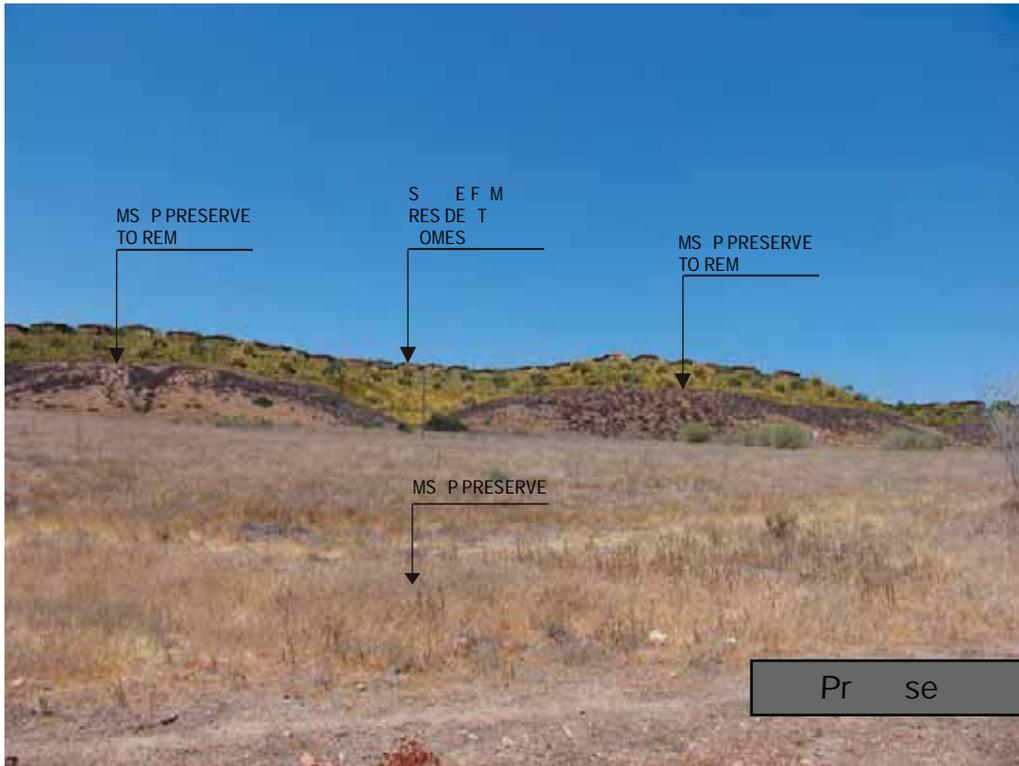
Key View 14: Post-project view from Wiley Road looking east towards Village Ten

	<p>SOURCE USER SSO TES 201</p>	<p><b>FIGURE 2-4</b> <b>Village Ten Key View 4</b></p>
<p>7000</p>	<p><b>UNIVERSITY VILLAGE PROJECT</b></p>	

INTENTIONALLY LEFT BLANK

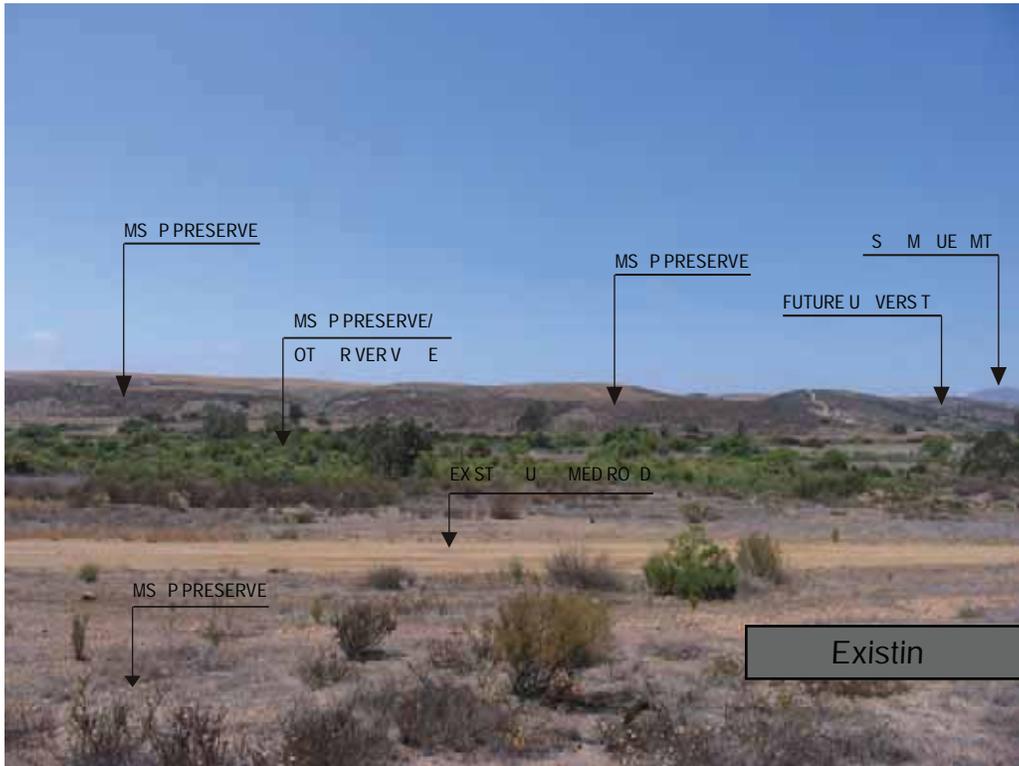


Key View 15: Existing view from Wiley Road looking north-northeast

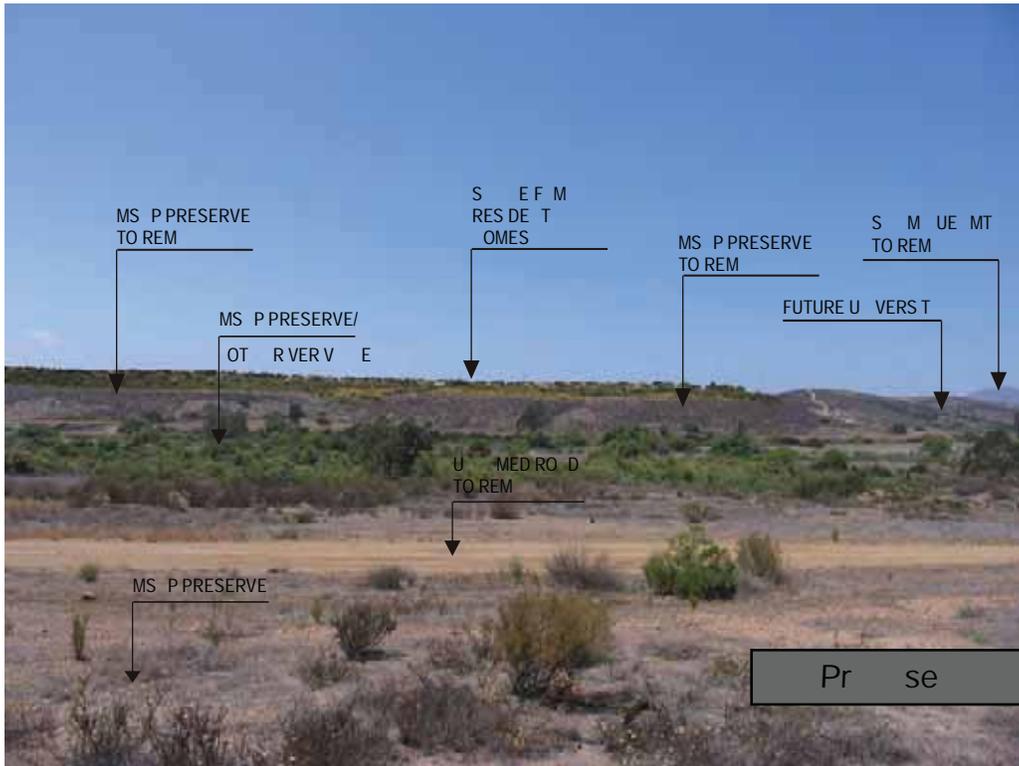


Key View 15: Post-project view from Wiley Road looking north-northeast towards Village Ten

INTENTIONALLY LEFT BLANK



Key View 16: Existing view from south side of Otay River looking north-northeast



Key View 16: Post-project view from south side of Otay River looking north-northeast towards Village Ten

INTENTIONALLY LEFT BLANK

Implementation of the proposed project would not obstruct or screen views of local scenic resources identified by the City of Chula Vista including the OVRP. Therefore, based on the discussion above, the proposed project would result in less than significant impacts.

**B. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.**

While the project area has been historically used for ranching, grazing, dry farming, and truck farming activities, the proposed project sites (i.e., land included within the SPA boundaries of Village Three North and Portion of Village Four, Village Eight East and Village Ten) are currently undeveloped and are not currently occupied by any structures or uses. Development of the proposed project and the transformation of undeveloped and natural rolling hills to an urban residential environment would substantially alter the existing visual landscape by increasing densities, intensity, and human activity in the project area. Rock Mountain and the Otay River Valley are designated scenic resources within the project area as identified in the City of Chula Vista General Plan. Further, the proposed project would be visible from these scenic resources and from SR-125 which runs adjacent to the eastern boundary of Village Eight East. Implementation of the proposed project would not result in physical impacts to Rock Mountain, and proposed active recreation development in the Otay River Valley associated with Village Eight East would be consistent with the City of Chula Vista General Plan Land Use Diagram. While active recreation development in the Otay River Valley is planned and contemplated by the City of Chula Vista, development would alter the existing visual character of the valley compared to existing conditions.

The Otay Ranch GDP and Design Plan, the City of Chula Vista Subdivision Manual and the SPA Plans for Village Three North and a Portion of Village Four, Village Eight East and Village Ten contain guidelines concerning grading techniques and landscaping that are sensitive to the existing environment. According to the Otay Ranch GDP, final grading designs are required to incorporate criteria such as, but not limited to the following:

- Naturalized buffering shall be provided as a transition between development and significant existing landforms;
- Manufactured slope faces over 25 feet in height shall be varied to avoid excessive “flat panned” surfaces;
- Variable slope rations not exceeding 2:1 should be utilized when developing grading plants; and
- To complement landform grading, landform planting techniques will be utilized. As in the natural setting, major elements of the landscape are concentrated largely in the concave “drainages,” while convex portions are planted primarily with ground cover and minor materials.

In addition, the Otay Ranch Overall Design Plan contains applicable grading and landscaping policies including:

- When grading in any of the defined scenic corridors, contours shall be carefully modulated and softened to blend with existing natural slopes to create a more natural and irregular appearance;
- Excessively long, uniform slopes shall be avoided;
- Contours should be rounded and blended without sharp or unnatural corners where cut of fill slopes intersect with a natural canyon or slope;
- Transitions between new cut and fill slopes and natural slopes should be made by rolling the top or bottom of the new slope to integrate the two conditions; and
- Landscape grading slopes with native and indigenous plant materials to blend with existing planting when adjacent to new landscaping.

Sections IV, Grading, of the SPA Plans for Village Three North and a Portion of Village Four, Village Eight East, and Village Ten lists objectives that would implement the Otay Ranch GDP and Design Plan. Objectives applicable to the grading of the Rock Mountain slope and landscaping in the Otay River Valley include:

- Create efficient man-made landforms that visually respond to natural terrain characteristics where practical.
- Create and maintain on- and off-site views.
- When significant land forms are modified for project implementation, round the landform as much as possible to blend into the natural grade.
- With the approval of the City Engineer, round the tops and toes of slopes to blend with adjacent topography. When slopes cannot be rounded, utilize vegetation to alleviate sharp angular appearances.
- Balance earthwork utilizing an equal amount of cut for an equal amount of fill.
- Minimize, where feasible, impacts to sensitive areas adjacent including the Otay River Valley and Salt Creek.

Tentative maps and grading plans prepared for the proposed project would incorporate the grading objectives, policies, and concepts contained in the Otay Ranch GDP and Overall Design Plan and SPA plans would be prepared in conformance with all applicable City policies and ordinances. Applicable policies and ordinances include the Chula Vista Municipal Code, Grading Ordinance No. 1797, Storm Water Management and Discharge Control Ordinance No 2854, the City of Chula Vista Subdivision Manual, Design and Construction Standards of the

City of Chula Vista, San Diego Area Regional Standard Drawings, and Standard Specifications for Public Works Construction.

Also, the preparation of a Landscape Master Plan for the SPA plan areas is required by the City of Chula Vista Subdivision Manual. Landscape techniques and methods, planting concepts and other design features that implement the grading ordinance, Otay Ranch GDP, General Plan and the SPA plans would be included in the Landscape Master Plan as would detailed landscape and irrigation construction plans that would ensure visual compatibility between the manufactured slope areas and the native undisturbed peak of the mountain. In addition and according to the SPA plans prepared for the proposed project, grading permits would provide assurances acceptable to the City Engineer that landscaped slopes will have adequate maintenance to ensure continued viability of landscaping. Further, except for private lots, slopes which exceed ten feet in height would be maintained by a homeowners' or property owners' association or a landscape maintenance Community Facilities District (CFD). Lastly, visual compatibility between the southerly park and recreation area of Village Eight East and the adjacent MSCP Preserve Area and OVRP would also be required.

Portions of the Otay Ranch Preserve are also located within the SPA boundaries of Village Three North and Portion of Village Four, Village Eight East and Village Ten (see Figures 4-4, 4-9, and 4-14). The Otay Ranch Preserve contributes to the scenic value of the Otay River Valley by maintaining open space, native vegetation, and natural topography. As stated in Chapter 4, Project Description (see Table 4-1, Proposed Land Uses), approximately 155 acres of the 436 acre Village Three North and Portion of Village Four SPA area, 252 acres of the 576 acre Village Eight East SPA area, and 212 acres of the 363 acre Village Ten SPA area would be retained as preserve area and would remain in the Otay Ranch Preserve. Retaining open space and preserve areas and locating lower density residential uses and open space buffers adjacent to the preserve and the Otay River Valley would help to maintain the scenic value of these areas. In addition, there are no historic buildings, designated or eligible state scenic highways located within the viewshed of the proposed project. Impacts to views from local scenic roadways are addressed above under Threshold A and as discussed above, the project would not result in substantial adverse effects to views from a locally designated scenic roadway. As such, implementation of the proposed project would not substantially damage scenic resources as they relate to Threshold B and impacts would be **less than significant**.

**C. Substantially degrade the existing visual character or quality of the site and its surroundings.**

While the presence of heavy equipment and machinery would be visible from surrounding off-site areas, impacts to existing visual character resulting from construction activities are deemed less than significant due to the relatively short-term nature of construction. Therefore, the focus

of this analysis pertains to the long-term permanent physical changes anticipated to occur as a result of implementation of the proposed project. More specifically, the following discussion focuses on the nature and extent of the entirety of the proposed project in relation to existing surrounding land uses and consistency with applicable regulatory policies.

The development of the site would change the undeveloped, open and natural character of the on-site rolling hills to one of low to high density residential uses, industrial/office complexes, passive and active park and recreation areas, and public facilities. Natural and developed open space are also incorporated in the proposed project and would be included in Village Three North and Portion of Village Four, Village Eight East, and Village Ten. Although the SPA Plans would result in urban character consistent with the General Plan and Otay Ranch GDP, the change from the existing broad open space to an urban environment would represent a significant aesthetic/visual change that would impact the existing visual character and quality of the project site. As discussed in the Otay Ranch GDP Program EIR, the conversion of undeveloped land to urban uses is a significant and unmitigable impact of development.

As discussed previously, the Otay Ranch GDP Program EIR concluded that the conversion of undeveloped land to urban uses is a significant and unmitigable aesthetic impact of development. The permanent change associated with implementation of the proposed project is discussed under Threshold A above through an examination of existing and post-project views from fifteen representative key viewpoints. In addition, existing conditions and permanent changes anticipated to result from project development are visually displayed through a series photos and visual simulations (see Figures 5.2-3 through 5.2-16). As shown in the visual simulations, proposed project development would result in permanent changes to the existing visual character and quality of the village development areas. Vegetation removal, grading and construction of Village Three North and a Portion of Village Four, Village Eight East, and Village Ten would transform the rolling, coastal sage scrub and grassland covered terrain of the project area into an urban environment supporting residential development, industrial and commercial uses, and roadways. While the project would transform the existing character of the development areas, several design principles and elements are included to help reduce project impacts. For example, the incorporation of design principles such as locating lower-intensity uses and landscaping at the southern extent of the development edge would soften the transition between development and existing landforms of the Otay River Valley and the implementation of project landscaping throughout the development sites would alleviate the visual effect of graded slopes and structures as viewed from off-site viewing locations. Further, the inclusion of plantable walls at graded slopes would help to soften the appearance of retaining systems and would help visually integrate the structures into the existing and proposed landscape setting. However, even with the incorporation of these design principles and elements, the visual change resulting from development of the Proposed Project would be substantial. Therefore, as detailed in the discussion above, the examination of KVPs under

Threshold 1 above and consistent with the conclusion of the 1993 Otay Ranch GDP Program EIR, because the proposed project would permanently alter the character of the project site from open rolling hills development, impacts would be **potentially significant**.

**D. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.**

**i. Lighting**

The proposed project development areas are currently undeveloped and there are no existing sources of on-site lighting. A discussion of existing land uses in the vicinity of Village Three North and a Portion of Village Four, Village Eight East, and Village Ten was included previously in Section 5.2.1.3. Therefore, the following discussion focuses on potential sources of light in the areas surrounding the proposed project.

***Village Three North and Portion of Village Four***

Development in the vicinity of the site include sources of nighttime lighting in the form of interior and exterior security lighting and parking, architectural highlighting, landscape lighting and illuminated signage (architectural highlighting, landscape and signage lighting is associated with Sleep Train Amphitheatre to the southwest). In addition, automobile headlights, streetlights and stoplights along Main Street, Heritage Road, La Media Road, and Santa Luna Road contribute to ambient nighttime lighting levels in the project area. In addition, Village Four and Village Eight West are planned for future development as part of the Otay Ranch GDP and would both be located east of Village.

***Village Eight East***

Located north of Village Eight East, Village Seven is currently developed with a mix of residential densities and schools, including Wolf Canyon Elementary School and Olympian High School, which include interior and exterior security lighting as well as lighting for athletic fields, parking and architectural highlighting. Automobile headlights streetlights and stoplights on local roads including Magdalena Avenue and Rock Mountain Road, as well as automobile headlights and highway lights on SR-125, contribute to ambient nighttime lighting levels in the immediate project area.

***Village Ten***

The areas immediately adjacent to Village Ten are currently undeveloped; however, residential land uses associated with Village Eleven and High Tech High Chula Vista are developed further to the north and include nighttime lighting for interior and exterior security, parking and architectural and signage highlighting. Automobile headlights, streetlights and traffic signals on

University Drive, Hunte Parkway and Discovery Falls Drive contribute to the ambient nighttime lighting levels in the area.

Short-term lighting impacts associated with construction activity would likely be limited to nighttime lighting installed within the SPA Plan boundaries at specific construction sites for security purposes. While residential uses are not immediately adjacent to the village development areas they could potentially be affected by spillover lighting emanating from construction sites. In addition, nighttime lighting may also affect motorists on local area roads in the vicinity of the project sites. Therefore, to minimize the potential for construction lighting impacts and consistent with the County Light Pollution Code, the use of lighting would be minimized to the extent practicable for safety and security and lights would be shielded and directed downwards. Therefore, short-term construction lighting impacts are anticipated to be **less than significant**.

Following construction of the proposed project and other planned village development in the immediate area, the Otay Valley Parcel and surrounding lands would be part of an urban-lighted area and this transformation in visual character would be particularly evident when viewed at nighttime from a distance. In addition, future urban and residential development at Village Three North, Village Eight East, and Village Ten and associated roadway development would include similar sources of interior and exterior lighting as existing and planned uses in the surrounding areas. The project would include low to moderate levels of interior and exterior lighting for security, exterior parking lighting and architectural highlighting. Interior and exterior lighting within the proposed uses would be visible from adjacent properties during evening hours. Development of the project would require outdoor areas to be lighted at night (e.g., public use areas, commercial use parking lots and buildings, street lights, walkways, entry nodes, park activity areas (including sport courts, playgrounds and fields), lighting for courtyards, etc.)). Accent lighting used for signage and illumination of village gateways/monuments, village core buildings, and other architectural highlighting would enhance visibility of the highlighted elements but would not be so bright as to cause direct spillover or glare. Vehicles on proposed project roads would also contribute lighting to the future nighttime environment.

SPA Plans for the proposed project include lighting performance standards that consider public safety as well as the need to minimize unnecessary lighting sources (and light pollution) and energy use and standards that establish consistent fixture styles and scales for the mix of land uses considered. Spillover of light to adjacent properties and undeveloped areas would be reduced through the use of low-glare, full cutoff, and shielded fixtures that would primarily be directed downward. Street lighting would be required to meet or exceed city standards and would require approval by the City Engineer. Site plan review would include a review of lighting for community facilities and recreation areas and would therefore require city approval. Any lighting that would illuminate residential uses beyond 10:00 p.m. would be clearly identified

on the site plan and lighting plans including the location, types, and devices installed to shield adjacent properties would be prepared and review for approval during design review. Lighting performance standards in the Village Design Plans (VDPs) for the proposed project may include the following:

- Lighting shall be designed to minimize spillage onto adjacent properties.
- Illumination of wall and projecting signs shall be limited to external or decorative types.
- Building illumination should be directed and concealed from view. Indirect wall lighting, wall washing from concealed fixtures, and landscape lighting is encourage, provided it is subtle and not overly bright. Exterior lighting shall be selective and shielded to confine light within the site and prevent glare onto adjacent properties or streets.
- Timers shall be provided for lighting associated with outdoor utilities and service activities.
- Lighting in areas designated Open Space: Preserve shall not be permitted
- Lighting in parks and recreation areas shall be designed to minimize light spillage onto neighboring properties, especially where these areas occur adjacent to the MSCP Preserve.

In addition, as stated in the SPA Plans for the proposed project, lighting would be provided in heavily urbanized areas of the Otay Valley Parcel to ensure a high degree of public safety and in less urbanized areas to preserve county-wide dark night skies. In these areas, lighting would be consistent with lighting standards prevalent in non-urbanized areas of San Diego County and lighting would adhere to all applicable City and County ordinances and standards. Also, compliance with the City and State energy conservation measures currently in place would limit the amount of unnecessary interior illumination during evening and nighttime hours.

The development of each village in the proposed project would include the installation and dedication of open space adjacent to the existing MSCP Preserve. Development located nearest to the MSCP Preserve would consist of single-family and multi-family residential uses in Village Three North, park and recreation uses in the Portion of Village Four, single-family residential and park and recreation uses in Village Eight East, and single-family residential uses in Village Ten. Single-family residential uses would include minimal exterior nighttime lighting for security purposes. Per the requirements of the Preserve Edge Plans prepared for the proposed project, all recreational uses are located a minimum of 100 feet from the Preserve boundary; however, a lighting study and photometric analysis (MM BIO-17) would be conducted for the Community Park (P-2) located in the southern extent of the Village Eight East SPA boundary to ensure that indirect impacts to wildlife are less than significant. In addition, park and recreation development in the Portion of Village Four included in the proposed project would be located adjacent to Wolf Canyon and bright nighttime lighting for evening and nighttime activities would result in indirect impacts to wildlife. However, the aforementioned Preserve Edge Plans

included in the SPA plans would address and describe avoidance of indirect effects to special-status species that occur along the preserve/development interface. As detailed in Section 5.8, Biological Resources, Preserve Edge Plans would restrict active uses and lighting within 100 feet of open space areas and therefore, indirect impacts to wildlife from active recreation areas and indirect lighting would be **less than significant**.

Due to the presence of ambient nighttime lighting in the project from existing development and from automobile headlights, street lights, and traffic signals and upon implementation of lighting standards included in the SPA plans, lighting associated with single-family residential neighborhoods would not substantially alter ambient nighttime lighting in the project area. However, specific photometric analyses are necessary for light intensive land uses (parks, mixed-use residential, commercial, multi-family residential, and CPF uses) to ensure that the individual projects would comply with applicable lighting regulations and lighting would be compatible with surrounding land uses. Therefore, impacts associated nighttime lighting are considered **potentially significant**.

#### **ii. Glare**

SPA Plans would include design guidelines and requirements that would limit glare received by on- and off-site viewers in the area. For example, metal or glass awning would be required to have a matte finish. Also, residential and commercial development would be required to display variety in building façades (such as through the incorporation of porches and balconies) and use a variety of building materials subject to design review that would break up continuous expanses of building surfaces and limit potentially reflective materials to reduce glare. In addition, project-generated glare experienced by nearby commercial or residential uses or the occupants of vehicles on nearby streets would be a temporary phenomenon that would change with the movement of the sun throughout the course of the day and the seasons of the year. Lastly, the proposed project would comply with City of Chula Vista Municipal Code Section 19.66.100, Glare, which prohibits direct or sky reflected glare that is visible of the lot-line of the use producing the glare through implementation of design guidelines and requirements included in the SPA plans. Therefore, the proposed project would not create a substantial new source of glare that would adversely affect day or nighttime views in the area and as such, glare impacts would be **less than significant**.

#### **iii. Shade and Shadow**

Shade and shadow issues typically pertain to the blockage of direct sunlight by on-site buildings and the casting of shadows onto residences, schools and outdoor use areas including parks, outdoor gathering places and outdoor restaurants. The extent and range of shading includes several factors included but not limited to season, time of day, weather, building height, bulk and

scale, spacing between buildings, and tree cover. Also, the SPA plans focus on a balance mix of land uses as opposed to building placement and would create vibrant pedestrian-oriented urban villages that include resident-serving public spaces including community and neighborhood parks, pedestrian and bicycle facilities, private open space and community purpose facilities that may include open lawn areas, ball courts, picnic areas, and swimming pools. Buildings located in the village core would be of a larger scale than residences in the outlying single-family residential areas and therefore, there is potential for streets, structures and public places to be shadowed by an adjacent building. Although SPA plans contain requirements that buildings shall be located on the site to provide adjacent buildings adequate sunlight for solar access (when practical), absent specific development plans including the specific location, size, and orientation of future buildings, shade and shadow are considered potentially significant impacts.

**E. Alter areas of sensitive landforms and grade steep slopes that may be visible from future development and roadways.**

For purposes of this analysis, unique/rare natural landforms or those that contribute to the character of a site are considered sensitive landforms. According to the Land Use Element of the Chula Vista General Plan, mesas, hilltops, and gently rolling topography offer the best conditions for development in the city. Where feasible for development, implementation of the proposed project would preserve existing contours of landforms within the individual SPA Plan boundaries; however, the project would include grading within natural steep sloped areas (i.e., areas greater than 25% slope) that are unique to the Otay Ranch areas and considered sensitive landforms in the Otay Ranch GDP. A ranch-wide steep slope standard requiring preservation of 83 percent of the natural steep slopes throughout the Otay Ranch to protect these resources was established in the RMP. As described above, based on current data collection and updated modeling results, Otay Ranch contains 9,821 acres of land with gradients of 25% or greater. Applying the Otay Ranch GDP/RMP requirement for 83% steep slope preservation equates to 1,670 acres of steep slopes ranch-wide that could be impacted.

**Village Three North and a Portion of Village Four**

Development of Village Three North and a Portion of Village Four will impact 36.8 acres of on and off-site natural steep slopes as depicted on Figure 5.2-18. Natural steep slope impacts associated with the Village Three North and a Portion of Village Four SPA Plan include the following:

- 31.2 acres (onsite) and 1.8 acres (off-site) (33.0 acres total) within the Otay Valley Parcel. The 33.0 acres of steep slope impacts are subject to the Otay Ranch GDP/RMP steep slope preservation requirement.

- 3.8 acres of additional off-site steep slope impacts outside of the Otay Ranch Parcel (Figure 5.2-18) which are not subject to the Otay Ranch GDP/RMP steep slope preservation requirement.

### Village Eight East

Development of Village Eight East would impact approximately 18.6 acres of natural steep slopes within the Otay Valley Parcel as depicted on Figure 5.2-19. This acreage is subject to the Otay Ranch GDP/RMP preservation requirement .

### Village Ten

Development of Village Ten would impact approximately 59.8 acres comprised of 53.1 acres (onsite) and 6.7 acres (off-site) of natural steep slopes within the Otay Valley Parcel as depicted on Figure 5.2-20. The on- and off-site impacts to steep slopes are subject to the GDP/RMP Preservation requirement.

Table 5.2-1 provides a cumulative summary of the projected Ranch-wide impacts to steep slopes at build out. As shown in the table, approved SPA Plans in the Otay Valley Parcel will impact 335.6 acres of steep slopes. An estimated 1,069 acres of steep slopes will be impacted by future build out of remaining SPA Plan areas in the Otay Valley Parcel, and Proctor Valley and San Ysidro Parcels. Combined with approved steep slope impacts (approximately 335.6 acres), Ranch-wide impacts are estimated at 1,404.6 acres. The 1,404.6 acres of impact equates to approximately 86% preservation which is above the 83% preservation standard in the RMP. Therefore, the RMP ranch-wide preservation requirement would be maintained and actually exceeded, and impacts to steep slopes would be **less than significant**.

**Table 5.2-1  
Otay Ranch Steep Slopes**

	Existing Steep Slopes (Slope Gradient $\geq$ 25%)	Steep Slope Impacts (City of Chula Vista)	Projected Steep Slope Impacts (County of San Diego)
<i>Otay Valley Parcel</i>			
<i>Approved SPA Plans</i>			
Villages One and One West, Two, Four (Park Portion), Five, Six, Seven, Eight West, 9, 11, and Planning Area 12 (Eastern Urban Center and Freeway Commercial)	439	335.6	—
<i>Remaining SPA Plans</i>			
Village Three, Four (Remainder), Eight East, Ten, University, and Planning Area 18	287.4	202.7 <sup>(1)</sup>	—

**Table 5.2-1 (Continued)**  
**Otay Ranch Steep Slopes**

	Existing Steep Slopes (Slope Gradient $\geq$ 25%)	Steep Slope Impacts (City of Chula Vista)	Projected Steep Slope Impacts (County of San Diego)
<i>Proctor Valley</i>			
Remaining SPA Plans: Village 13, 14, 16, and 19	486.3	–	378.3 <sup>(2a,3)</sup>
<i>San Ysidro Mountains</i>			
Remaining SPA Plans: Villages 15 and 17	560.1	–	488.0 <sup>(2b,3)</sup>
Outside Development Areas	8,048.5	0	0
<i>Ranch-wide Sub-totals</i>	<i>9,821.3</i>	<i>538.3</i>	<i>866.3</i>
<b>Ranch-wide Totals</b>	<b>9,821.3</b>		<b>1,404.6</b>

**Notes:**

- <sup>1</sup> Slope impacts are based on best available data including currently proposed projects (SPA Plans/Tentative Maps) and current Otay Ranch GDP/SRP development areas.
- <sup>2</sup> Excludes acreages associated with Wildlife Agency conservation acquisitions that would no longer be developable:
  - <sup>a</sup> 108 acres within Proctor Valley
  - <sup>b</sup> 72.1 acres within San Ysidro Mountains
- <sup>3</sup> Assumes development will impact 100% of steep slopes (slope gradient  $\geq$  25%) within current Otay Ranch GDP/SRP development areas.

Manufactured internal slopes within the SPA Plan area are typically 2:1 maximum gradient. If however, at the tentative map stage, manufactured slopes of 25 feet in height or greater in highly visible locations are proposed, landform grading techniques may be considered on a case-by-case basis as/and approved by the Development Services Director. In the SPA Plan area, the most visible slope locations are along prime arterial streets and adjacent to the Otay River Valley, Wolf Canyon, and Salt Creek open space preserve areas. It is anticipated that landform grading techniques would be used for manufactured slopes 25 feet in height or greater where they occur along prime arterial streets and natural open spaces.

The goal of the Otay Ranch GDP is to concentrate urban development on the flatter areas and retain the sensitive natural topographic features. The proposed project is located primarily on mesa tops sloping south to the Otay River Valley. Slopes surrounding village development would be undulating with variable horizontal and vertical gradients, to blend into the surrounding terrain and create an aesthetically pleasing setting. In addition, manufactured slopes would be contoured to blend with natural landform characteristics. The Otay Ranch GDP requires naturalized buffering to be provided as a transition between development and significant existing land forms. The Otay Ranch GDP also requires landform planting techniques that will complement landform grading. Each village SPA Plan supports the objective of enhancing the unique environmental and visual qualities of Otay Ranch. The SPA Plans reinforce the importance of conforming the villages to the natural topography of the project area and maintaining views towards open spaces and distant mountains. Implementation of grading techniques and adherence to applicable guidelines, goals and objectives of the SPA plans and

compliance with the Subdivision Manual and Grading Ordinance would reduce potentially significant impacts to sensitive landforms to the extent feasible.

However, development of the proposed project would create a substantial change in the topography of the Otay Ranch area. Placing three new residential communities on the currently undeveloped land would impact the aesthetic character of the area, even when steep slopes are graded to avoid detracting from the visual character. Although all appropriate measures would be taken in order to reduce potential impacts associated with alterations to existing landforms and visibility from future development and roadways, impacts would be considered **potentially significant**.

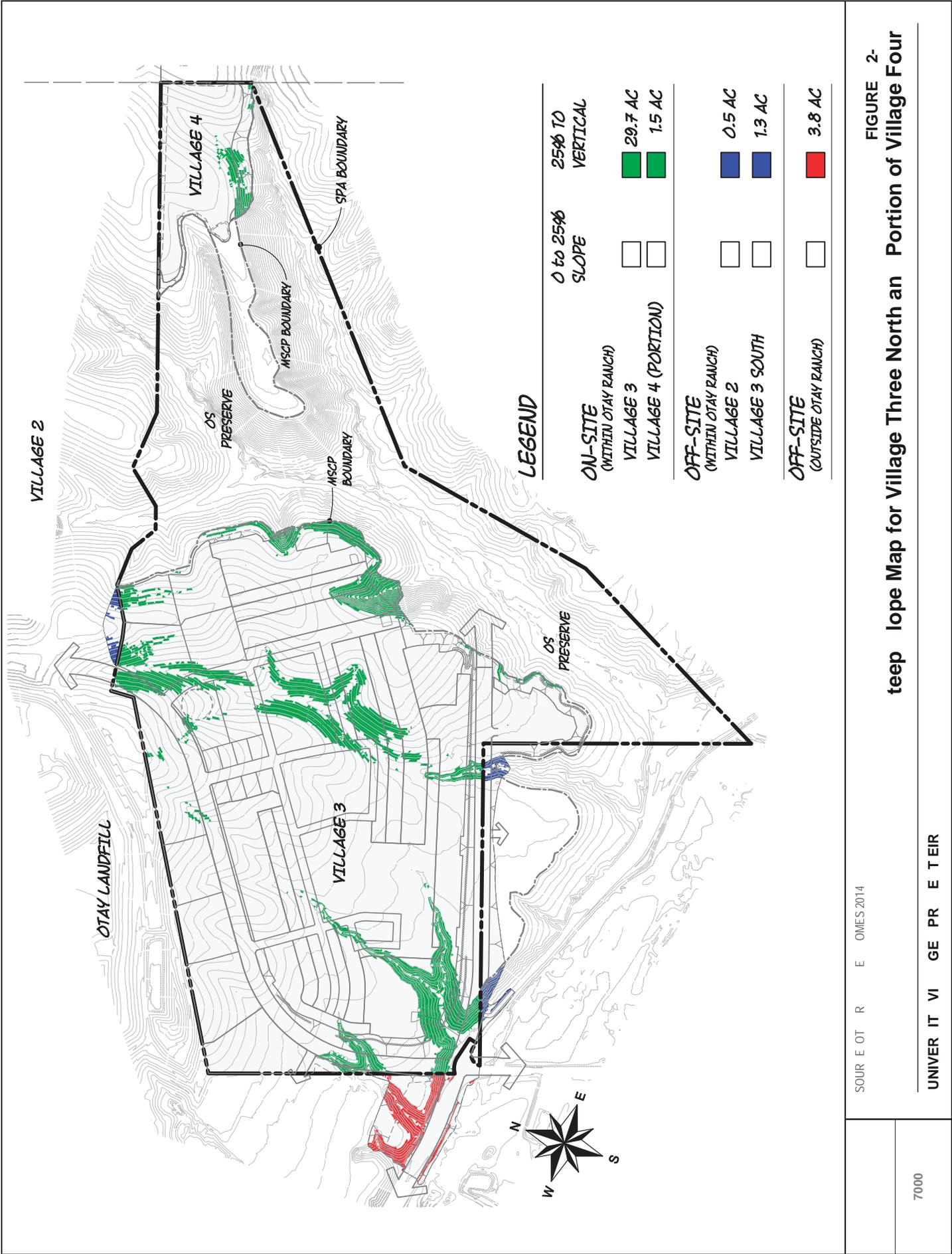
**F. Be inconsistent with General Plan, Otay Ranch GDP or other objectives and policies regarding visual character, thereby resulting in a significant physical impact.**

#### **City of Chula Vista General Plan**

The General Plan contains objectives and policies to preserve and enhance scenic resources and landforms. Objectives and policies include the continued environmental protection of open space, and design policies for features such as views, entryways, gateways, streetscapes, buildings, parks, and plazas. Appendix B lists the relevant visual character objectives and policies in the Land Use and Transportation Element of the City's General Plan. The proposed project would be consistent with the General Plan objectives and policies because the Village Design Plan and P-C District Regulations establish development standards and design guidelines for the project. The P.C. District Regulations established a design review process for the villages which, in combination with the Village Design Plans, will ensure new residential neighborhoods are compatible with the surrounding neighborhood. Additionally, special identity for each village would be achieved through the Village Design Plan for each village as well as implementation of an overall landscape master plan and street cross section details that provide for well-designed landscape as well as specialized themes when appropriate. A more detailed analysis of the proposed project's consistency with the General Plan is provided in Appendix B.

#### **Otay Ranch General Development Plan**

Appendix B lists the relevant landform and visual goals, objectives, and policies found in the Otay Ranch GDP. The table also verifies the proposed project's consistency with each goal, objective, and policy related to aesthetics. The SPA Plans for the proposed project includes design guidelines and regulations for consistent and cohesive development across the various villages. Development would be unified by common elements including buildings heights, massing, and architectural styles, which would reinforce sense of place. In addition, development would be organized based on a centrally located village core that would be accessible to pedestrians from all areas. A more detailed analysis of the proposed project's consistency with the Otay Ranch GDP is provided in Appendix B.



SOURCE: R E O M E S 2014

topographic map for Village Three North and Portion of Village Four

FIGURE 2-

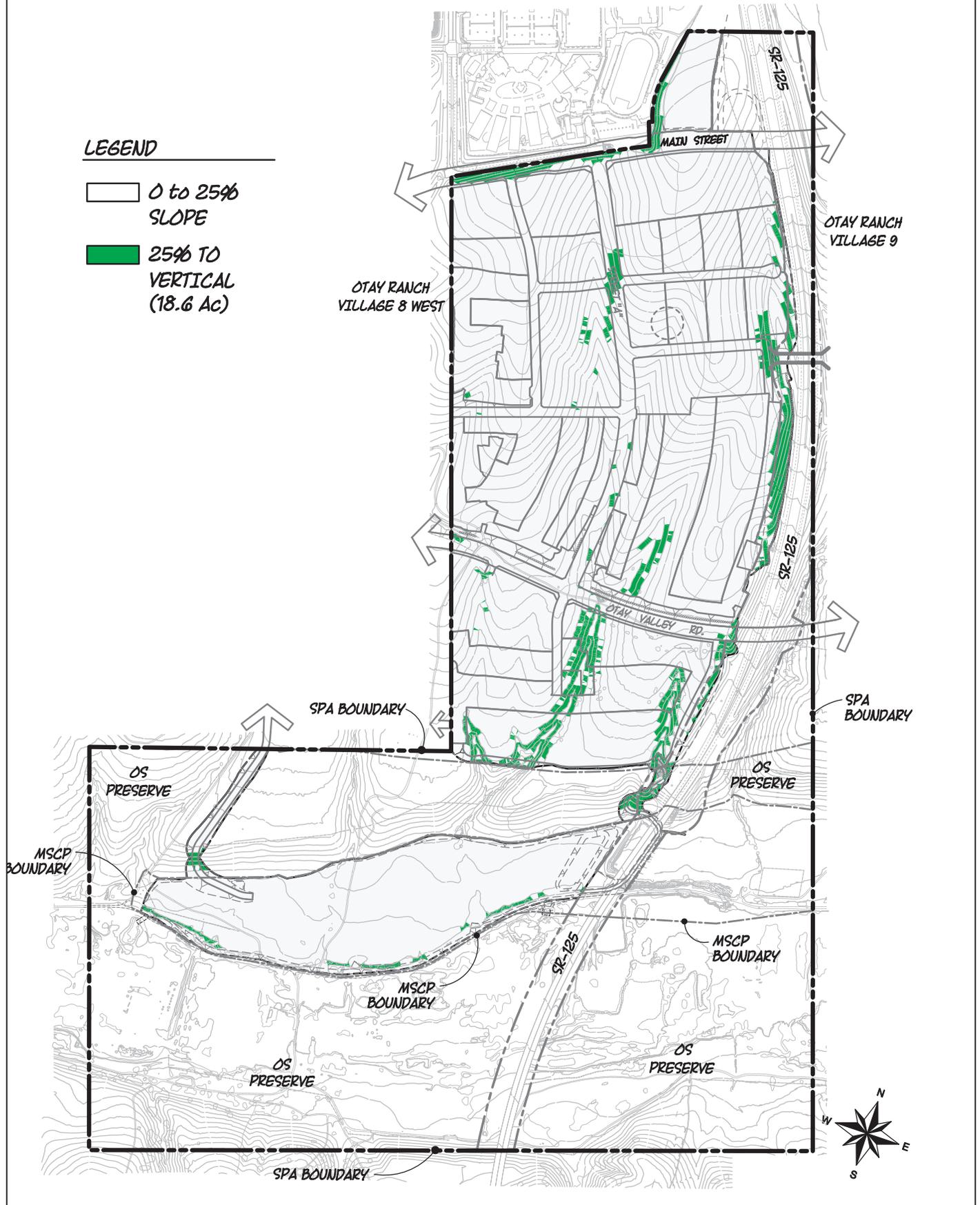
7000

UNIVERSITY OF CALIFORNIA

INTENTIONALLY LEFT BLANK

**LEGEND**

- 0 to 25% SLOPE
- 25% TO VERTICAL (18.6 Ac)



SOURCE: OTAY RANCH COMMUNITY PLAN 2014

**FIGURE 2-  
steep slope Map for Village Eight East**

7000

UNIVERSITY OF CALIFORNIA

INTENTIONALLY LEFT BLANK

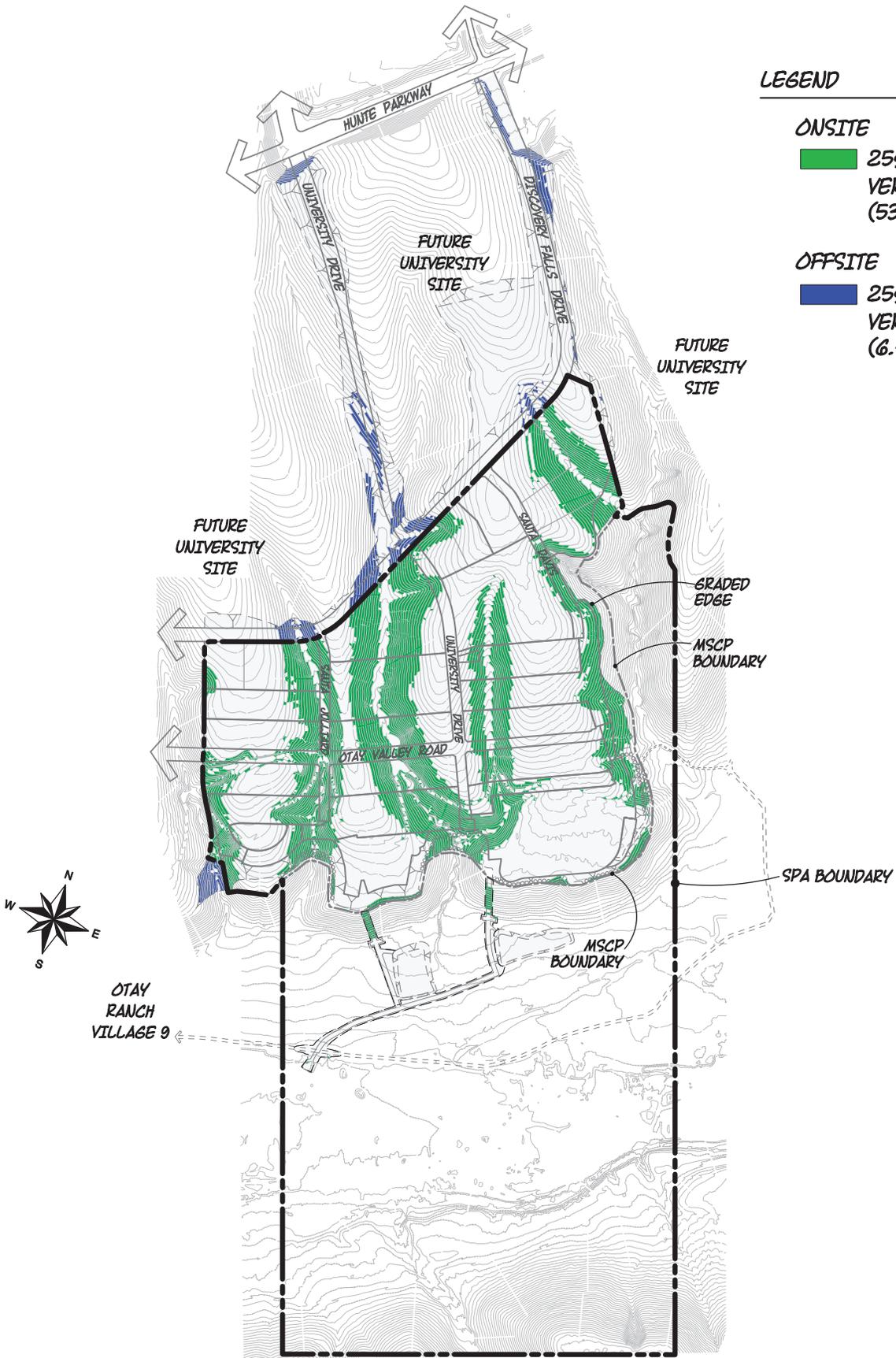
**LEGEND**

**ONSITE**

 25% TO VERTICAL (53.1 ac)

**OFFSITE**

 25% TO VERTICAL (6.7 ac)



INTENTIONALLY LEFT BLANK

### **OVRP Design Standards and Guidelines**

Tables 5.2-2 and 5.2-3 list the relevant landform and visual goals and policies found in the OVRP Design Standards and Guidelines, and the City of Chula Vista Greenbelt Master Plan. The table also verifies the proposed projects consistency with each goal, objective, and policy related to aesthetics. While a detailed landscape plan has yet to be developed, each SPA Plan includes Village Design Plans and Preserve Edge Plants which contain plant palettes that emphasize native plant species as they would help visually integrate project landscaping with the existing setting. Lower intensity single-family residential development would be located at the southern extent of the development sites and would be buffered from OVRP by landscaped open space and natural terrain (see Figures 5.2-11, 5.2-12, 5.2-15, 5.2-16, and 5.2-17). A more detailed analysis of the proposed project's consistency with the OVRP Design Standards and Guidelines is provided below. Each village is surrounded by a 100-foot Preserve edge, which serves as a transition between development and the natural Preserve setting. Additional setbacks are provided by the MSCP Preserve, which limits access to approved trails.

Visual simulations were conducted from locations within the OVRP to represent what development might be seen by future trail and park users (see Figures 5.2-11, 5.2-12, 5.2-15, 5.2-16, and 5.2-17). KVP 10 is taken from the Village Eight East Community Park (P-2), which is part of the OVRP Concept Plan. This vantage point simulates what future users of the community park and trail users would see looking northward toward Village Eight East. The Community Park (P-2) is a minimum of approximately 425 feet from the southern edge of Village Eight East, roughly 90 to 100 feet below the grade of the first row of homes. KVP 10, as shown in Figure 5.2-11, is representative of the views from the OVRP Trail in the southern portion of the valley, along the southern boundary of Village Eight East Community Park (P-2). This vantage point is approximately 800 feet south of the edge of Village Eight East and approximately 110 feet below the grade of the first row of homes. The OVRP Trail on the southern boundary of Village Eight East, as shown in KVP 11 on Figure 5.2-12 is 2,000 feet south of the edge of Village Eight East and approximately 110 feet below the grade of the first row of homes.

KVP 14 and 15 are taken from the Greenbelt/OVRP Trail (existing Wiley Road). While landscaped slopes and retaining walls are proposed at the edges of Village Ten, the proposed development would be a minimum of 650' from the toe of slope (800' from the top of slope/back of homes) to the Greenbelt/OVRP Trail (east of Village Ten). This trail is approximately 115 feet below the top of slope and nearest residential units. KVP 16 is taken from south of the Greenbelt/OVRP Trail (existing Wiley Road). KVP is representative of views afforded to users of future OVRP trails in the Preserve area of Village Ten. Single-family residences atop the elevated mesas would be skylined; however, vegetation, natural terrain, and open space would reduce the resulting visual effect as experienced by users of the OVRP trails.

A more detailed analysis of the proposed project's consistency with the OVRP Design Standards and Guidelines is provided below.

**Table 5.2-2**  
**Project Consistency with OVRP Design Standards and Guidelines**

Applicable Policies	Evaluation of Consistency
<i>Section 5 – Private Development Guidelines</i>	
<p><b>5.3.2 Ensure Compatible Edge Treatment and Buffering Adjacent to the OVRP</b></p> <ul style="list-style-type: none"> <li>• - Proposed private development should be designed to blend with the natural landscape of the OVRP.</li> <li>• - Buildings adjacent to the OVRP should be adequately set back from the park edge and should be reduced in overall height near this edge to protect natural vistas of the park.</li> <li>• - When man made elements such as buildings, trash enclosures, and storage or utility areas are highly visible from the OVRP, provide vertical growing plant material to soften or screen the visual impact.</li> <li>• - Landscape buffers adjacent to the park should consist of native plant species. Manufactured slope banks should be treated with native plant species.</li> <li>• - Avoid constructing large retaining walls facing the park and encourage contoured naturalized slopes. If large retaining walls are necessary then they should be the type of construction that allows for plantings on the wall or a landscape buffer should be planted in front of the wall and should screen 2/3 of the height of the wall within four years.</li> <li>• - Exterior lights should be shielded from intrusion into the park.</li> </ul>	<p><b>Consistent.</b> Lower intensity single-family residential development would be located at the southern extent of the development sites and would be buffered from OVRP by landscaped open space and natural terrain. Landscaped open space along the OVRP-adjacent development edge of Village Three North, Portion of Village Four, Village Eight East, and Village Ten would soften the transition between the natural landscape and the Proposed Project and would help screen views of development from OVRP. While a detailed landscape plan has yet to be developed, the proximity of OVRP and the existing natural character of the OVRP suggest that native plant species would be specified as they would help visually integrate project landscaping with the existing setting. In addition to landscaped open space buffers, plantable walls at select graded slopes would help to soften the appearance of retaining structures and blend project elements with the surrounding natural landscape. Exterior lighting would be buffered from OVRP by proposed development and landscaped open space and would be shielded and directed downward to avoid intrusion into the park.</p>
<p><b>5.3.3 Acknowledge and Complement OVRP Amenities and Resources</b></p> <ul style="list-style-type: none"> <li>• - Minimize the alteration of natural landforms</li> <li>• - All building facades viewed from the OVRP should have three dimensional relief to provide visual interest; this may include pop-outs, offsetting planes, overhangs, and recessed or protruding doorways and windows</li> <li>• - Architectural scale, massing, color, materials, and style for private development within the park</li> <li>• should conform to OVRP standards.</li> <li>• - Landscaping for private development projects within the park should consist of non-invasive</li> <li>• drought-tolerant or native plant species consistent with the OVRP standards.</li> <li>• - Large building signs, reflective glass surfaces, materials that cause glare or lights that cause</li> <li>• high levels of illumination should not be used on the building elevation(s) adjacent to the OVRP.</li> </ul>	<p><b>Consistent.</b> While development of the proposed project would alter the topography of the Otay Ranch area, the implementation of grading techniques and adherence to applicable guidelines, goals and objectives of the SPA plans and compliance with the Subdivision Manual and Grading Ordinance would reduce potentially significant impacts to sensitive landforms to the extent feasible. Structures (single-family residences) located at the development edge and visible from OVRP would be partially screened by landscaped open space (see Figures 5.2-11, 5.2-15, 5.2-16, and 5.2-17) and rooflines, overhangs, protruding windows and offsetting planes would provide three-dimensional relief and variation. As shown on Figure 4-9, park and recreation uses and more specifically, an approximate 51.5-acre active recreation park, is proposed in the southern extent of the Village Eight East SPA boundary. The site is identified as Open Space-Active Recreation in the Chula Vista General Plan, Recreation in the Otay Ranch GDP, and Recreation Area #11 in the OVRP concept plan. In Section 4, Landscape Standards, of the OVRP design standards and guidelines large turf areas for group sports</p>

**Table 5.2-2 (Continued)**  
**Project Consistency with OVRP Design Standards and Guidelines**

Applicable Policies	Evaluation of Consistency
<i>Section 5 – Private Development Guidelines</i>	
	are envisioned in these larger regional recreational facility area and the use of non-invasive drought-tolerant plants endemic to the local climate are recommended in smaller planter, edges, parking islands, and other non-recreation areas. While a landscape plan has yet to be developed, species listed in Section 4 for urban and transition areas will be considered. The use of glass and lights causing high levels of illumination would be limited on single-family residential structures located at the OVRP development edge and development would be partially screened by landscaped open space.

### City of Chula Vista Greenbelt Master Plan

Table 5.2-3 identifies the relevant design criteria and standards found in the City of Chula Vista Greenbelt Master Plan. The table also verifies the proposed project’s consistency with the Greenbelt Master Plan. The proposed project would provide sufficient signage to clearly identify public access to the Preserve. Signage would be provided at public access points to the Preserve and the Greenbelt System. For example, signage consistent with Section 4.2, Greenbelt Design, of the Greenbelt Master Plan would be installed near the proposed Main Street and Heritage Road intersection within the Village Three North development site. As shown in Table 5.2-3 the proposed project would be consistent with the City of Chula Vista Greenbelt Master Plan.

**Table 5.2-3**  
**Project Consistency with City of Chula Vista – Greenbelt Master Plan Policies**

Applicable Policies	Evaluation of Consistency
<i>Chapter 4: Greenbelt Design Criteria and Standards</i>	
<b>4.1.5 Special Trail Design Criteria</b> Provide sufficient signage to clearly identify public access to the Preserve. Barriers such as vegetation, rocks/boulders or fencing may be necessary to protect highly sensitive areas. Use appropriate type of barrier based on location, setting and use. For example, use chain link or cattle wire to direct wildlife movement, and natural rocks/boulders or post and rail fence to direct public access away from sensitive areas.	<b>Consistent.</b> Signage would be provided at public access points to the Preserve and the Greenbelt System. For example, signage consistent with Section 4.2, Greenbelt Design, of the Greenbelt Master Plan would be installed near the proposed Main Street and Heritage Road intersection within the Village Three North development site. In addition, sufficient signage consistent with the Greenbelt Master Plan design standards would also be provided at Greenbelt Trail Connections. In addition and as shown on Figure 5.2-15, post and rail fencing would likely be installed along trails located near sensitive areas to limit opportunities for public trespass. Consistent with the master plan design standards, fencing would also be provided on trails where there is a down slope condition

As shown in Appendix B and in Tables 5.2-2 through 5.2-3, the proposed project would be consistent with the applicable landform and visual policies in the General Plan, Otay Ranch GDP, OVRP Design Standards and Guidelines, and the Greenbelt Master Plan. Impacts associated with the proposed project would be **less than significant**.

#### **5.2.4 Level of Significance Prior to Mitigation**

##### **A. Scenic Vista**

No significant impacts to scenic vistas have been identified; impacts would be **less than significant**.

##### **B. Scenic Resources**

No significant impacts to scenic resources within a state scenic highway have been identified; impacts would be **less than significant**.

##### **C. Visual Character or Quality**

The project would permanently alter the character of the project site from open, rolling topography to urban development. This impact would be **potentially significant** prior to mitigation.

##### **D. Lighting and Glare**

New lighting installed at parks, mixed-use residential and commercial buildings, multi-family residential, and CPF uses may be incompatible with surrounding development and inconsistent with applicable regulations. Future lighting and shade and shadow impacts cannot be determined at this time because the location, size, and orientation of future buildings are not yet known. Therefore, these impacts are considered **potentially significant** prior to mitigation.

##### **E. Landform Alteration**

The project would impact steep slopes; however, landform alterations and the visibility of these alterations from future development and roadways are considered **potentially significant** prior to mitigation. However, the proposed project would not conflict with the RMP 2 steep slope preservation threshold.

##### **F. Consistency with Visual Character Policies**

The project would be consistent with all applicable visual character policies. Impacts would be **less than significant**.

## 5.2.5 Mitigation Measures

### A. Scenic Vista

No mitigation measures are required.

### B. Scenic Resources

No mitigation measures are required.

### C. Visual Character or Quality

**MM AES-1** Prior to issuance of the first Final Maps for Village Three North, Village Eight East, and Village Ten, the Applicant shall prepare to the satisfaction of the Development Services Director (or their designee), a Landscape Master Plan. The Landscape Master Plan shall demonstrate compliance with Otay Ranch GDP Policies pertaining to softening manufactured slopes, particularly on visible manufactured slopes greater than 25 feet in height, through plant selection, placement, and density, etc. The Landscape Master Plan shall also demonstrate compliance with Otay Ranch GDP Policies pertaining to blending development harmoniously with natural features of the land including the OVRP and its major canyons.

### D. Lighting and Glare

**MM AES-2** Concurrent with the preparation of site-specific plan(s) for park sites and prior to issuance of a building permit for any park, the Applicant shall prepare, or in the case of the City being the lead on the preparation of the site specific plan, the Applicant shall fund the preparation of a lighting plan and photometric analysis. The plan shall be prepared to the satisfaction of the Development Services Director (or their designee) and evaluate the proposed height, location, and intensity of all exterior lighting for compliance with the City's performance standards for light, and glare (Chula Vista Municipal Code 19.66.100).

**MM AES-3** Concurrent with design review and prior to the issuance of building permits for mixed-use residential, commercial, Community Purpose Facility and multi-family residential, the Applicant shall prepare a lighting plan and photometric analysis. The plan shall be prepared to the satisfaction of the Development Services Director (or their designee) and evaluate the proposed height, location, and intensity of all exterior lighting for compliance with the City's performance standards for light, and glare (Chula Vista Municipal Code 19.66.100).

**MM AES-4** Prior to design review approval for any structure three ~~four~~ stories and above, the Applicant shall prepare to the satisfaction of the Development Services Director

(or their designee), a shadow analysis demonstrating that adjacent shadow-sensitive uses are not permanently shadowed, and/or any other approved city-standard in place at the time the shadow analysis is performed.

**E. Landform Alteration**

MM AES-1 would also reduce impacts related to landform alteration.

**F. Consistency with Visual Character Policies**

No mitigation measures are required.

**5.2.6 Level of Significance After Mitigation**

**A. Scenic Vista**

Impacts would be **less than significant** without mitigation.

**B. Scenic Resources**

Impacts would be **less than significant** without mitigation.

**C. Visual Character or Quality**

MM AES-1 would reduce impacts to visual character or quality to the extent feasible however, because the project would result in urban development on the primarily natural, open space site, it would permanently alter the character of the project site. Additional mitigation that would maintain the existing character of the site and its surroundings is not available and therefore, impacts would remain **significant and unavoidable**.

**D. Lighting and Glare**

Implementation of MM AES-2 through MM AES-4 would reduce impacts to lighting and shade and shadow to a **less than significant level**.

**E. Landform Alteration**

Implementation of MM AES-1 would reduce scenic resource impacts to a **less than significant level**.

**F. Consistency with Visual Character Policies**

Impacts would be **less than significant** without mitigation.

## 5.3 TRANSPORTATION, CIRCULATION, AND ACCESS

This section of the EIR addresses the potential impacts to transportation, circulation, and access resulting from the proposed project. The discussion found in this section is based on the *University Villages Traffic Impact Analysis, Otay Ranch Village 3 North, 8 East and 10* (TIA), prepared by Chen Ryan Associates (June 2014). The complete TIA is contained in Appendix M of this EIR. Additional information and analysis is provided in Chapter 6.0 Cumulative Impacts. The analysis herein assumes that the proposed project will develop in accordance to an assumed phasing schedule (see Section 4.2.7, Construction Phasing).

This section tiers from the 1993 Otay Ranch GDP Program EIR, because the proposed project implements the circulation roadways that were analyzed in the 1993 Otay Ranch GDP Program EIR. This section also tiers from the 2005 GPU/GDPA Program EIR, because existing transportation and circulation conditions for the entire Otay Ranch area was analyzed in the 2005 GPU/GDPA. Additionally, this section tiers from the 2013 GPA/GDPA Supplemental EIR, because the proposed project was included in the cumulative analysis as a reasonably foreseeable project.

The 1993 Otay Ranch GDP Program EIR determined that traffic and circulation impacts would be significant and unavoidable due to potential secondary impacts related to off-site roadway improvements. However the Chula Vista City Council determined that traffic impacts were acceptable because of specific overriding considerations. The 2005 GPU/GDPA determined that traffic impacts would be significant and unavoidable. Mitigation measure 5.10.2 in the 2005 GPU/GDPA describes how impacts to freeways could not be mitigated because the City has only limited ability to affect the level of congestion on these roadways, as such, mitigation is not within the authority of the City of Chula Vista sufficient to avoid the cumulative contribution to traffic on these roadways and the impact remains significant.

The 2013 GPA/GDPA Supplemental EIR determined that cumulative impacts to roadway segments would be significant and unmitigable because proposed improvements would fall within the jurisdiction of the City of San Diego, and the City of Chula Vista would not have authority over the improvements.

### 5.3.1 Existing Conditions

#### 5.3.1.1 Regulatory Framework and Analysis Methodology

##### Local Level

##### *City of Chula Vista General Plan*

The City of Chula Vista General Plan Land Use and Transportation (LUT) Element contains objectives and policies that support transit, encourage alternative transportation measures and the

development of transit-friendly roads, support parking management policies, and ensure pedestrian-oriented environments. The LUT Element promotes the use of non-polluting and renewable alternatives for mobility through a system of bicycle and pedestrian paths and trails. One of the overall goals of the LUT Element of the General Plan is the development of “a sustainable circulation/mobility system that provides transportation choices and is well-integrated with the City’s land uses” (City of Chula Vista 2005).

### **Analysis Methodology**

The traffic analyses prepared for this EIR were performed in accordance with City of Chula Vista (City) and City of San Diego (with respect to impacts to streets within the jurisdiction of the City of San Diego) traffic impact study guidelines (as the study area roadways lie within one or the other jurisdiction), CEQA, which imposes additional requirements on the analysis of transportation-related impacts and the San Diego Regional Congestion Management Program (CMP) requirements. The analyses were conducted utilizing the San Diego Association of Governments (SANDAG) Series 11 Southbay 2, University Villages traffic forecast model with specific land use and network modifications based upon the proposed project and the most current information available from the City. SANDAG, Chen Ryan Associates, and the City coordinated to conduct an extensive review of the model in order to ensure its accuracy.

### ***Congestion Management Program/Study Area***

The CMP was first adopted on November 22, 1991, and was intended to assist in the monitoring of regional transportation system level of service (LOS) performance. CMP analysis requirements for the San Diego region are delineated in a SANDAG document entitled the 2008 Congestion Management Program Update (SANDAG 2008). The purposes of the CMP are to monitor the performance of the transportation system, develop programs to address near-term and long-term congestion, and better integrate transportation and land use planning. On May 8, 2009 the SANDAG Board of Directors discussed options for the future direction of the CMP and directed staff to work with local jurisdictions electing to opt out of the state CMP. 14 of the 19 local jurisdictions, representing a majority of the population in San Diego County have adopted resolutions electing to be exempt from the state CMP process. The City of Chula Vista was one of the 14 local jurisdictions to opt out.

### ***LOS Definition***

The concept of LOS is defined as a quantitative stratification of a performance measure or measures that represent quality of service. Quality of service describes how well a transportation facility of service operates from a traveler’s perspective. An LOS definition generally describes these conditions in terms of such factors as speed, travel time, freedom to maneuver, comfort, convenience, and safety. LOS A represents the best operating conditions from a traveler’s

perspective, while LOS F represents the worst. Table 5.3-1 describes generalized definitions of urban transportation systems at LOS A through F.

**Table 5.3-1  
LOS Definitions**

LOS	Characteristics
A	Primarily free-flow operation. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Controlled delay at the boundary intersections is minimal. The travel speed exceeds 85% of the base free-flow speed.
B	Reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted and control delay at the boundary intersections is not significant. The travel speed is between 67% and 85% of the base free-flow speed.
C	Stable operation. The ability to maneuver and change lanes at mid-segment locations may be more restricted than at LOS B. Longer queues at the boundary intersections may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed.
D	Less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at the boundary intersections. The travel speed is between 40% and 50% of the base free-flow speed.
E	Unstable operation and significant delay. Such operations may be due to some combination of adverse signal progression, high volume, and inappropriate signal timing at the boundary intersections. The travel speed is between 30% and 40% of the base free-flow speed.
F	Flow at extremely low speed. Congestion is likely occurring at the boundary intersections, as indicated by high delay and extensive queuing. The travel speed is 30% or less of the base free-flow speed. Also, LOS F is assigned to the subject direction of travel if the through movement at one or more boundary intersections has a volume-to-capacity ratio greater than 1.0.

Source: TRB 2010, Chapter 16.

### ***Signalized Intersection Analysis***

The signalized intersection analysis utilized in this study conforms to the operational analysis methodology outlined in Chapter 18 of the Highway Capacity Manual 2010 (HCM; TRB 2010). The HCM methodology defines intersection LOS as a function of intersection control delay in terms of seconds per vehicle (sec/veh). The HCM methodology sets 1,900 passenger cars per hour per lane (pc/h/l) as the ideal saturation flow rate at signalized intersections based upon the minimum headway that can be sustained between departing vehicles at a signalized intersection. The service saturation flow rate, which reflects the saturation flow rate specific to the study facility, is determined by adjusting the ideal saturation flow rate for lane width, on-street parking, bus stops, pedestrian volume, traffic composition (or percentage of heavy vehicles), and shared lane movements (e.g., through and right-turn movements sharing the same lane). The LOS criteria used for this technique are described in Table 5.3-2.

**Table 5.3-2**  
**Signalized Intersection LOS for HCM Operational Analysis Method**

Average Stopped Delay Per Vehicle (seconds)	LOS Characteristics
≤10.0	<i>LOS A</i> occurs when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
10.1–20.0	<i>LOS B</i> occurs when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with <i>LOS A</i> .
20.1–35.0	<i>LOS C</i> occurs when progression is favorable or the cycle length is moderate. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.
35.1–55.0	<i>LOS D</i> occurs when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.
55.1–80.0	<i>LOS E</i> occurs when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.
>80.0	<i>LOS F</i> occurs when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

Source: TRB 2010, Chapter 18.

### ***Unsignalized Intersection Analysis***

Unsignalized intersections, including two-way and all-way stop controlled intersections, were analyzed using the Chapter 19 and 20 HCM methodology. The LOS for a two-way stop controlled intersection is determined by the computed or measured control delay at each minor-street movement. LOS F would occur when the volume-to-capacity ratio exceeds 1.0, regardless of the control delay. Both the City of Chula Vista and the City of San Diego consider LOS D during the AM and PM peak hours to be the minimum standard for intersection LOS. The LOS criteria for unsignalized intersections are provided in Table 5.3-3.

**Table 5.3-3**  
**LOS Criteria for Stop Controlled Unsignalized Intersections**

Average Control Delay (sec/veh)	LOS
≤10.0	A
10.1–15.0	B
15.1–25.0	C
25.1–35.0	D
35.1–50.0	E
>50.0	F

Source: TRB 2010, Chapters 19 and 20.

**Roadway Segment LOS Standards and Thresholds**

Roadway segment LOS standards and thresholds provided the basis for analysis of arterial roadway segment performance. The analysis of roadway segment LOS is based on the functional classification of the roadway, the maximum capacity, roadway geometrics, and existing or forecast ADT volumes. The roadway segment capacity and LOS standards utilized to analyze roadway segments within the City of Chula Vista, and City of San Diego are provided in Tables 5.3-4 and 5.3-5 respectively.

**Table 5.3-4  
City of Chula Vista Roadway Segment Daily Capacity and LOS Standards**

Circulation Element Roadway Classification	LOS				
	A	B	C	D	E
Expressway (7- or 8-lane)	52,500	61,300	<b>70,000</b>	78,800	87,500
Gateway Street (6-lane)	40,800	47,600	54,400	<b>61,200</b>	68,000
Prime Arterial (6-lane)	37,500	43,800	<b>50,000</b>	56,300	62,500
Major Street (6-lane)	30,000	35,000	<b>40,000</b>	45,000	50,000
Major Street (4-lane)	22,500	26,300	<b>30,000</b>	33,800	37,500
Town Center Arterial (6-lane)	37,500	43,800	<b>50,000</b>	56,300	62,500
Town Center Arterial (4-lane)	22,500	26,300	<b>30,000</b>	33,800	37,500
Class I Collector (4-lane)	16,500	19,300	<b>22,000</b>	24,800	27,500
Class II Collector (3-lane)	9,000	10,500	<b>12,000</b>	13,500	15,000
Class III Collector (2-lane)	5,600	6,600	<b>7,500</b>	8,400	9,400

**Source:** Chen Ryan Associates 2014 (EIR Appendix M).  
**Note:** Bold numbers indicate the ADT thresholds for acceptable LOS.

**Table 5.3-5  
City of San Diego Roadway Segment Daily Capacity and LOS Standards**

Roadway Functional Classification	LOS				
	A	B	C	D	E
Expressway (6-lane)	< 30,000	< 42,000	< 60,000	< <b>70,000</b>	< 80,000
Prime Arterial (6-lane)	< 25,000	< 35,000	< 50,000	< <b>55,000</b>	< 60,000
Major Arterial (6-lane, divided)	< 20,000	< 28,000	< 40,000	< <b>45,000</b>	< 50,000
Major Arterial (4-lane, divided)	< 15,000	< 21,000	< 30,000	< <b>35,000</b>	< 40,000
Secondary Arterial / Collector (4-lane w/ center lane)	< 10,000	< 14,000	< 20,000	< <b>25,000</b>	< 30,000
Collector (4-lane w/o center lane)	< 5,000	< 7,000	< 10,000	< <b>13,000</b>	< 15,000
Collector (2-lane w/ continuous left-turn lane)					
Collector (2-lane no fronting property)	< 4,000	< 5,500	< 7,500	< <b>9,000</b>	< 10,000
Collector (2-lane w/ commercial fronting)	< 2,500	< 3,500	< 5,000	< <b>6,500</b>	< 8,000
Collector (2-lane multi-family)					
Sub-Collector (2-lane single-family)	—	—	< 2,200	—	—

**Source:** Chen Ryan Associates 2014 (EIR Appendix M).  
**Note:** Bold numbers indicate the ADT thresholds for acceptable LOS.

The standards shown in Tables 5.3-4 and 5.3-5 generally are used as long-range planning guidelines to determine the functional classification of roadways. The actual capacity of a roadway facility varies according to its physical attributes. Typically, the performance and LOS of a roadway segment is heavily influenced by the ability of the arterial intersections to accommodate peak-hour volumes. For the purposes of this traffic analysis, LOS C is considered acceptable for Circulation Element roadway segments within the City of Chula Vista. Per the Otay Ranch GDP, LOS D is permitted within the Otay Ranch Villages. LOS D is considered acceptable for Circulation Element roadway segments within the City of San Diego.

### ***Growth Management Program***

The City of Chula Vista's Growth Management Program (GMP) requires an additional analysis of roadway segment performance under near-term conditions (Years 0-4) utilizing the methodology described in Chapter 17 (Urban Street Segment) of the HCM (TRB 2010). This methodology determines roadway segment LOS based upon functional classification, roadway segment length, and travel speeds. Current information relating to roadway functional classifications, segment lengths, and travel speeds is maintained by the City's Growth Management Traffic Monitoring Program.

The GMP LOS standard requires the maintenance of LOS C or better, or LOS D for no more than any 2 hours of the day. If LOS D occurs for any period greater than 2 hours, additional analyses may be required along the respective high volume segments based upon direction provided by the Development Services Director (or their designee). For planned arterial facilities that are not currently included in the current Traffic Monitoring Program, the definition of segment length and facility classification will be based on direction provided by the Development Services Director (or their designee).

### ***Freeway/State Highway LOS Standards and Thresholds***

Freeway LOS and performance was based upon procedures developed by the California Department of Transportation (Caltrans) District 11. The procedure for calculating freeway LOS involves estimating a peak hour volume to capacity (V/C) ratio. Peak hour volumes are estimated from the application of design hour (K), directional (D) and truck (T) factors to ADT volumes. The base capacity was assumed to be 2,400 passenger cars per hour per lane (pc/h/ln). The resulting V/C is then compared to acceptable ranges of V/C values corresponding to the various levels of service for each facility classification, as shown in Table 5.3-6. LOS D or better is used in this study as the threshold for acceptable freeway operations based upon Caltrans and the SANDAG Regional Growth Management Strategy requirements. For the purposes of this study, all of the traffic adjustment factors utilized in the analysis of existing and future conditions were obtained from Caltrans.

**Table 5.3.6**  
**Caltrans District 11 Freeway and State Highway Segment LOS Definitions**

LOS	V/C	Congestion/Delay	Traffic Description
<i>Free Flow Speed = 65 mph</i>			
A	<0.41	None	Free flow.
B	0.42–0.62	None	Free to stable flow, light to moderate volumes.
C	0.63–0.79	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted.
D	0.80–0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver.
E	0.93–1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor.
F	>1.00	Considerable	Forced or breakdown flow. Delay measured in average travel speed (in miles per hour (mph)). Signalized segments experience delays >60.0 seconds/vehicle.

Source: SANDAG 2008.

### ***Ramp Intersection Capacity Analysis***

Consistent with Caltrans requirements, all signalized intersections at freeway ramps were analyzed using Intersecting Lane Volume (ILV) procedures as described in Topic 406 of the Caltrans *Highway Design Manual* (Caltrans 2012a). This methodology is based upon an assessment of each intersection as an isolated unit, without consideration of the effects from adjacent intersections. For this reason, the ILV analysis is presented for information purposes only since the analysis does not reflect actual operating conditions. Values of ILV/hr associated with various traffic flow thresholds are shown in Table 5.3-7.

**Table 5.3-7**  
**Traffic Flow Conditions at Ramp Intersections at Various Levels of Operation**

<i>ILV/hr</i> Description
<1200: (Under Capacity) Stable flow with slight, but acceptable delay. Occasional signal loading may develop. Free midblock operations.
1200–1500: (At Capacity) Unstable flow with considerable delays possible. Some vehicles occasionally wait two or more cycles to pass through the intersection. Continuous backup occurs on some approaches.
>1500: (Over Capacity) Stop-and-go operation with severe delay and heavy congestion. <sup>1</sup> Traffic volume is limited by maximum discharge rates of each phase. Continuous backup in varying degrees occurs on all approaches. Where downstream capacity is restrictive, mainline congestion can impede orderly discharge through the intersection.

Source: Caltrans 2012, Topic 406.

<sup>1</sup> The amount of congestion depends on how much the ILV/hr value exceeds 1500. Observed flow rates will normally not exceed 1500ILV/hr, and the excess will be delayed in a queue.

### ***Ramp Metering Analysis***

Ramp metering analysis was conducted based upon the SANDAG CMP and the SANTEC/ITE Guidelines for Traffic Impact Studies in the San Diego Region (SANDAG 2008; SANTEC/ITE 2000) to calculate delays and queues at the study area freeway on-ramps. Within the project study area, the I-805 northbound on-ramp at Olympic Parkway and the I-805 northbound on-ramp at

Main Street have activated ramp meters. Based upon data provided by Caltrans District 11, the ramp meters at these locations are only activated between 5:30 AM and 9:30 AM, and thus ramp metering analysis was conducted during the AM peak hour under the various study scenarios.

The demand per hour per lane was calculated using the following equation:

$$\underline{D_{vol}} = \frac{(P_{vol} - H_{vol})}{N}$$

- D<sub>vol</sub> (Demand Volume per hour per Lane): total peak hour demand expected to use the on-ramp (non-HOV lane only);
- P<sub>vol</sub> (Peak Hour Ramp Volume): sum of all peak hour volumes using the on-ramp;
- H<sub>vol</sub> (HOV lane volume): based on field observation, approximately 20% of the P<sub>vol</sub> utilized the HOV lane; and
- N: number of non-HOV lanes at the on-ramp.

### 5.3.1.2 Existing Setting

Several regionally and locally significant roadways and freeways, and corresponding intersections, traverse and comprise the study area. A list of each of the study area intersections is provided below, followed by a description of the primary roadways. As previously noted, the project study area is depicted in Figure 5.3-1.

#### Study Area

##### *Study Intersections*

Consistent with the cities of Chula Vista and San Diego guidelines, the SANDAG Series 11 Transportation Model (“Southbay 2, University Villages” with updated project land use and network) was utilized to perform a Select Zone Analysis, which identified the number of project-related peak hour trips distributed across the transportation network. All intersections and roadways where the proposed project would add 800 or more daily trips or 50 or more peak hour trips in either direction to the existing traffic were included as study intersections for analysis, as well as all freeway segments where the proposed project would add 2,400 or more daily trips or 150 or more peak hour trips in either direction.

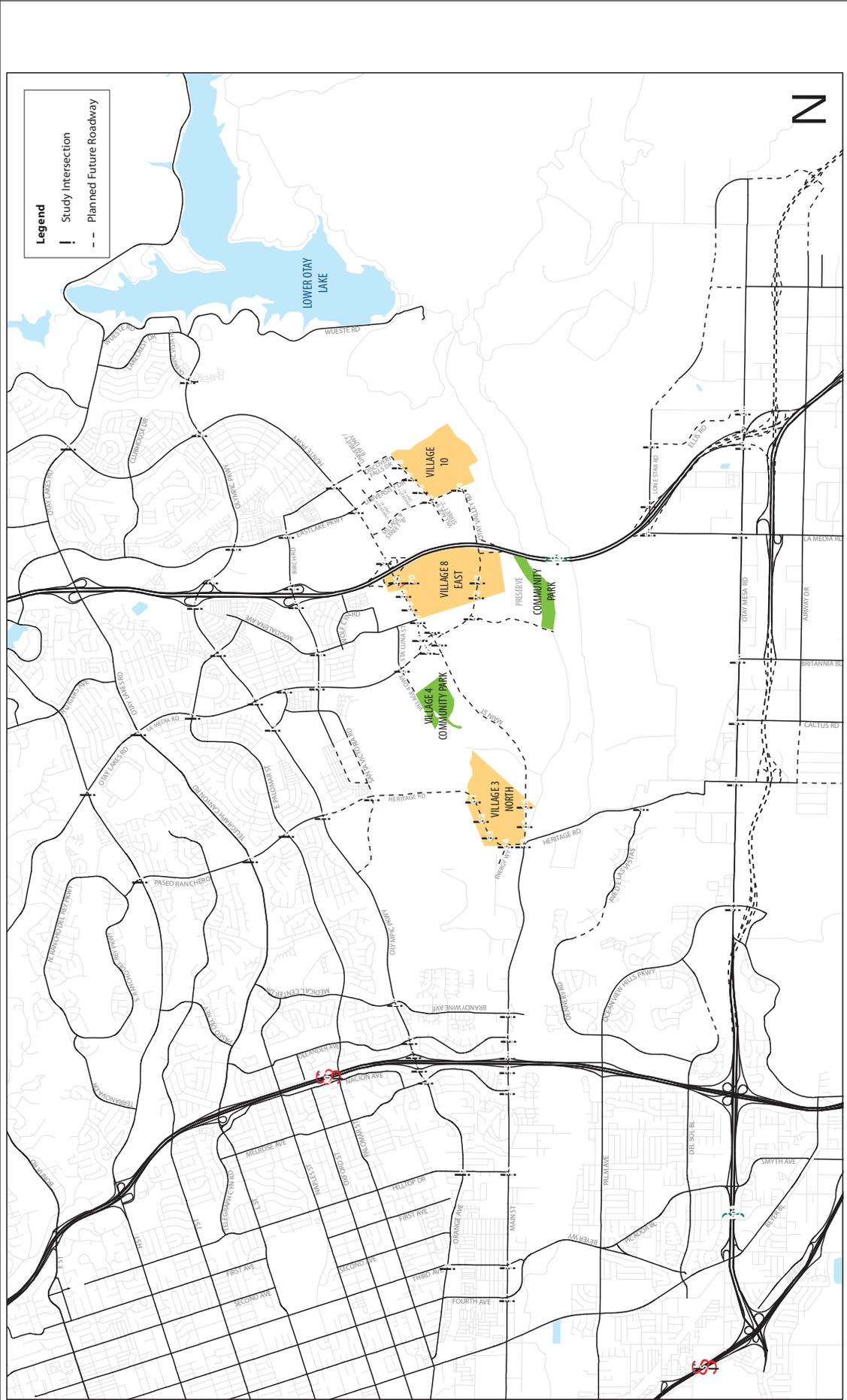


FIGURE 5.3-1  
Project Study Area

SOUR E E R SSO TES 2014

UNIVERSITY VILLAGES PROJECT EIR

INTENTIONALLY LEFT BLANK

As shown on Figure 5.3-1, a total of 78 study area intersections, including 66 in the City of Chula Vista and 12 in the City of San Diego, are included in the study area, as listed below (future intersections not yet existing are noted with an asterisk (\*)) :

1. Paseo Ranchero / H Street
2. Otay Lakes Road / H Street
3. Paseo Rancher / Heritage Road / Telegraph Canyon Road
4. La Media Road / Telegraph Canyon Road / Otay Lakes Road
5. Hunte Parkway / Otay Lakes Road
6. Heritage Road / East Palomar Street
7. La Media Road / East Palomar Street
8. 3rd Avenue / Orange Avenue
9. Hilltop Drive / Orange Avenue
10. Melrose Avenue / Orange Avenue
11. I-805 SB Ramps / Olympic Parkway
12. I-805 NB Ramps / Olympic Parkway
13. Oleander Avenue / Olympic Parkway
14. Brandywine Avenue / Olympic Parkway
15. Heritage Road / Olympic Parkway
16. Santa Venetia Street / Olympic Parkway
17. La Media Road / Olympic Parkway
18. East Palomar Street / Olympic Parkway
19. SR-125 SB Ramps / Olympic Parkway
20. SR-125 NB Ramps / Olympic Parkway
21. EastLake Parkway / Olympic Parkway
22. Hunte Parkway / Olympic Parkway
23. Olympic Vista Road / Olympic Parkway
24. La Media Road / Santa Venetia Street
25. Heritage Road / Santa Victoria Road\*
26. La Media Road / Birch Road

27. Magdalena Avenue / Birch Road
28. SR-125 SB Ramps / Birch Road
29. SR-125 NB Ramps / Birch Road
30. EastLake Parkway / Birch Road
31. 4th Avenue / Main Street
32. 3rd Avenue / Main Street
33. Hilltop Drive / Main Street
34. Melrose Avenue / Main Street
35. I-805 SB Ramps / Main Street
36. I-805 NB Ramps / Main Street
37. Oleander Avenue / Main Street
38. Brandywine Avenue / Main Street
39. Heritage Road / Main Street
40. La Media Road (SB) / Main Street (WB)\*
41. La Media Road (NB) / Main Street (WB)\*
42. La Media Road (SB) / Main Street (EB)\*
43. La Media Road (NB) / Main Street (EB)\*
44. Magdalena Avenue / Main Street – L-intersection
45. SR-125 SB Ramps / Main Street\*
46. SR-125 NB Ramps / Main Street\*
47. EastLake Parkway / Main Street/Hunte Parkway – L-intersection
48. Discovery Falls Drive / Hunte Parkway
49. Heritage Road / Avenida De Las Vistas (City of SD)
50. SR-125 SB Ramps / Lone Star Road (City of SD)\*
51. SR-125 NB Ramps / Lone Star Road (City of SD)\*
52. Ellis Road / Lone Star Road (City of SD)\*
53. Ocean View Hills Parkway / Otay Mesa Road (City of SD)
54. Heritage Road / Otay Mesa Road (City of SD)
55. Cactus Road / Otay Mesa Road (City of SD)

- 56. Britannia Boulevard / Otay Mesa Road (City of SD)
- 57. La Media Road / Otay Mesa Road (City of SD)
- 58. SR-125 SB Ramps / Otay Mesa Road (City of SD)
- 59. SR-125 NB Ramps / Otay Mesa Road (City of SD)
- 60. Ellis Road / Otay Mesa Road (City of SD).\*
- 64. Energy Way / Heritage Road\*
- 65. Quarry Driveway / Main Street\*
- 75. Village Nine Street “B” / Discovery Falls Drive\*

***Project Driveways***

Project driveways do not currently exist. They will be constructed for access and frontage to the project in accordance with the phasing plan.

- 61. Santa Macheto @ Heritage Road\*
- 62. Santa Picacho @ Heritage Road\*
- 63. Santa Maya @ Heritage Road\*
- 66. Village Three North R-20 Driveway @ Main Street\*
- 67. La Media Road/Village Four Driveway @ Santa Luna Street\*
- 68. Santa Tipu @ Main Street (one-way stop RT in/out)\*
- 69. Santa Marisol @ Main Street\*
- 70. Village Eight East R-16 Driveway #3 @ Main Street (one-way stop RT in/out)\*
- 71. Village Eight East Community Park Driveway @ Otay Valley Road\*
- 72. Cutter Avenue @ Otay Valley Road (one-way stop RT in/out)\*
- 73. Santa Marisol @ Otay Valley Road\*
- 74. Village Nine Street “B” @ Otay Valley Road\*
- 76. Santa Julliard @ Discovery Falls Drive\*
- 77. University Drive @ Discovery Falls Drive\*
- 78. Santa Davis @ Discovery Falls Drive.\*

Of the above study area intersections, 29 are not currently constructed; these intersections were included and analyzed as they will be constructed in future year phases because they either will

be constructed as part of the project or are planned for construction by others (City of Chula Vista TDIF, CIP, and/or as project design features or mitigation measures for other approved Otay Ranch project impacts). These intersections are denoted with an asterisk (\*) in the above list. A total of 15 of the intersections will be constructed by the Project Applicant as part of the project. The remaining 14 intersections are identified in the Circulation Element of the respective jurisdiction's General Plan and will be constructed over the project buildout period, with some of the improvements constructed or partially constructed by the Project Applicant as mitigation. Intersection and roadway improvements which will be constructed over the project buildout period (partially constructed by the Project Applicant as mitigation) are also identified in the City of San Diego Facilities Benefit Assessment (FBA)<sup>1</sup>. Study area intersection lane geometrics under existing conditions within the study area are displayed in Figure 3-1A of EIR Appendix M.

The following is a description of the primary roadways in the study area.

### ***East–West Roadway Facilities***

#### City of Chula Vista

***East H Street*** – East H Street is a six-lane roadway with a raised median, Class II bike lanes and a 50 mph posted speed limit west of Otay Lakes Road; and a four-lane roadway with a raised median, Class II bike lanes and a 35 mph posted speed limit east of Otay Lakes Road. East H Street is classified as a Six-Lane Prime Arterial west of Otay Lakes Road, and a Four-Lane Major Road east of Otay Lakes Road.

***L Street/Telegraph Canyon Road*** – L Street is a four-lane roadway west of I-805. L Street becomes Telegraph Canyon Road at I-805, where it is a seven-lane roadway between I-805 and Oleander Avenue, and a six-lane roadway with a raised median and Class II bike lanes between Oleander Avenue and Otay Lakes Road. The posted speed limit is 35 to 50 mph. This facility is classified in the City of Chula Vista General Plan Circulation Element as a Four-Lane Major Road west of I-805, a Gateway Street between I-805 and Oleander Avenue, and a Six-Lane Prime Arterial between Oleander Avenue and Otay Lakes Road.

***Otay Lakes Road*** – The east/west portion of Otay Lakes Road runs from Telegraph Canyon Road/La Media Road to SR-94 in the unincorporated County. Within the study area, this facility is a six-lane roadway with a raised median and is classified as a Six-Lane Prime Arterial in the City of Chula Vista General Plan Circulation Element.

---

<sup>1</sup> The FBA provides funding for public facilities projects that serve a designated area, known as the Area of Benefit. The dollar amount of the assessment is based upon the collective cost of each public facility and is equitably distributed over the Area of Benefit in the Otay Mesa community planning area (City of Chula Vista 2007).

***East Palomar Street*** – East Palomar Street is currently a four-lane roadway with a raised median and on-street parking on both sides. The posted speed limit along this facility is 35 mph. East Palomar Street between I-805 and Heritage Road is classified as a Four-Lane Major Road in the City of Chula Vista General Plan Circulation Element. The future BRT is proposed to travel along the median of East Palomar Street and access I-805 via direct access ramps.

***Orange Avenue / Olympic Parkway*** – Orange Avenue between Melrose Avenue and I-805 is a four-lane roadway with a raised median. Orange Avenue becomes Olympic Parkway at I-805 and widens to a six-lane roadway with a raised median until Hunte Parkway. Between Hunte Parkway and Wueste Drive, Olympic Parkway narrows to a four-lane roadway with a raised median. Orange Avenue is classified as a Four-Lane Major Road in the Chula Vista General Plan Circulation Element. Olympic Avenue is classified as a Gateway Street between I-805 and Oleander Avenue and SR-125 and EastLake Parkway, a Six-Lane Prime Arterial between Oleander Avenue and SR-125, a Six-Lane Prime Arterial between EastLake Parkway and Hunte Parkway, and a Four-Lane Major Road between Hunte Parkway and Wueste Road.

***Birch Road*** – Birch Road is a six-lane roadway with a raised median, Class II bike lanes, and a posted speed of 45 mph between La Media Road and EastLake Parkway. This facility is classified as a Six-Lane Major Road between La Media Road and SR-125, and a Gateway Street between SR-125 and EastLake Parkway in the City of Chula Vista General Plan Circulation Element.

***Main Street*** – Main Street is a four-lane roadway with a continuous left-turn lane and a 40 mph posted speed limit between 4th Avenue and I-805. East of I-805, Main Street becomes a six-lane roadway with a raised median and Class II bike lanes. The posted speed limits along this section of the roadway vary between 45 mph and 50 mph. Main Street currently terminates at Heritage Road. This facility is classified as primarily a Six-Lane Prime Arterial with a couple of exceptions: just west of I-805 and SR-125 it is classified as a Gateway Street; and as couplets (two lanes each direction) at La Media Road.

***Otay Valley Road*** – This road is not currently constructed, but is classified as a Four-Lane Major Road in the City of Chula Vista General Plan Circulation Element. As part of this project, Otay Valley Road between Village Nine Street “B” and EastLake Parkway/University Drive is proposed to be downgraded from a Four-Lane Major Road to a Class II Collector.

#### City of San Diego

***Lone Star Road*** – Lone Star Road is currently an unpaved road, and is classified as a Four-Lane Major Arterial in the City of San Diego’s currently adopted Community Plan Circulation Element.

**Otay Mesa Road** – Otay Mesa Road is a six-lane roadway with a raised median and a 50 mph posted speed limit. It is classified as a Six-Lane Prime Arterial in the City of San Diego’s currently adopted Community Plan Circulation Element.

### ***North–South Roadway Facilities***

#### City of Chula Vista

**Hilltop Drive** – Hilltop Drive is a four-lane roadway with a posted speed limit of 35 mph and on-street parallel parking on both sides within the study area. This facility is classified as a Class I Collector in the City of Chula Vista General Plan Circulation Element.

**Medical Center Drive / Brandywine Avenue** – Medical Center Drive runs north/south between Telegraph Canyon Road and East Palomar Street as a four-lane roadway with a raised median, Class II bike lanes, and no on-street parking on either side. This roadway has a posted speed of 35 mph. Medical Center Drive becomes Brandywine Avenue at East Palomar Street, continues to Main Street to the south. Brandywine Avenue is a four-lane roadway with a striped median (Class II bike lanes and no on-street parking), and then becomes a two-lane roadway with a striped median, Class II bikes lanes and on-street parallel parking south of Olympic Parkway. The posted speed on Brandywine Avenue is 35 mph south of Olympic Parkway and 40 mph north of Olympic Parkway. This facility is classified as a Class I Collector in the City of Chula Vista General Plan Circulation Element.

**Paseo Ranchero / Heritage Road** – Paseo Ranchero runs from East H Street to Telegraph Canyon Road where it becomes Heritage Road and continues to its current southern terminus south of Olympic Parkway. Paseo Ranchero is a four-lane roadway with a continuous left-turn lane/striped median and Class II bike lanes, and Heritage Road is a six-lane roadway with a raised median and Class II bike lanes. The posted speed limit along this facility is 40 mph. South of Main Street (to Chula Vista city limit), Heritage Road is a two-lane roadway with a continuous left-turn lane, Class II bike lanes, and a posted speed limit of 45 mph. Paseo Ranchero is classified as a Class I Collector, while Heritage Road is classified as a Six-Lane Prime Arterial. As part of this project, Heritage Road is proposed to be realigned within Village Three North.

**Otay Lakes Road / La Media Road** – The north/south portion of Otay Lakes Road runs from Bonita Road to Telegraph Canyon Road where it becomes La Media Road. Within the study area, Otay Lakes Road between East H Street and Telegraph Canyon Road is a four-lane roadway with a striped/raised median and discontinuous Class II bike lanes. The posted speed limit is 40 mph. Otay Lakes Road is classified as a Six-Lane Prime Arterial. Otay Lakes Road between East H Street and Telegraph Canyon Road is currently under construction to be widened from a 4-lane roadway to a 6-lane Prime Arterial, the City of Chula Vista is expected to complete

the widening process by the end of 2013. La Media Road is a six-lane roadway with a raised median and Class II bike lanes between Telegraph Canyon Road and its current southern terminus at Santa Luna Street. The posted speed limit is 45 mph. La Media Road is classified as a Six-Lane Prime Arterial in the City of Chula Vista General Plan Circulation Element, with the exception of the couplets (two lanes each direction) at Main Street.

***Magdalena Avenue*** – Magdalena Avenue is generally a four-lane roadway with a raised median between Santa Venetia Street and Main Street, with the exception of the segment between Wolf Canyon Loop and Santa Luna Street which is a two-lane roadway with a raised median. The posted speed limit is 25 mph. This facility is not classified as a Circulation Element road in the City of Chula Vista General Plan.

***EastLake Parkway*** – EastLake Parkway is a four-lane roadway with a raised median and Class II bike lanes between Otay Lakes Road and Clubhouse Drive, and a six-lane roadway with a raised median and Class II bike lanes between Clubhouse Drive and its current southern terminus at Hunte Parkway/Main Street. The posted speed limit is 40 mph. This roadway is classified as a Four-Lane Major Road between Otay Lakes Road and Clubhouse Drive, a Six-Lane Prime Arterial between Clubhouse Drive and Olympic Parkway, a Six-Lane Major Road between Olympic Parkway and Main Street, and a Four-Lane Major Road between Main Street/Hunte Parkway and Otay Valley Road. As part of this project, the southernmost section of the EastLake Parkway, south of Main Street/Hunte Parkway, is proposed to be renamed to “University Drive” and downgraded from a Four-Lane Major Road to a Class II Collector between the 1st University/RTP driveway and Discovery Falls Drive, and a non-Circulation Element road within the Village Ten boundaries.

***Discovery Falls Drive*** – Discovery Falls Drive is currently a two-lane roadway with on-street parallel parking on both sides. It terminates just south of Hunte Parkway at High Tech High in Chula Vista. Discovery Falls Drive is not classified as a Circulation Element road in the City of Chula Vista General Plan. However, with the desire to downsize EastLake Parkway to a two-lane multi-modal facility, the Project Applicant is proposing to designate Discovery Falls Drive between Hunte Parkway and University/RTP Driveway #1 as a Four-Lane Major Street, as well as designated discovery Falls Drive between University/RTP Driveway #1 and Village Nine Street “B” as a Class II Collector.

***Hunte Parkway*** – Hunte Parkway is currently a four-lane roadway with a raised median and Class II bike lanes between Otay Lakes Road and Olympic Parkway. The posted speed limit along this section of the facility is 45 mph. Hunte Parkway turns into a six-lane roadway with a raised median and Class II bike lanes between Olympic Parkway and Main Street/EastLake Parkway. The posted speed limit along this section of the facility is 50 mph. Hunte Parkway is classified in the City of Chula Vista General Plan Circulation Element as a Four-Lane Major

Road between Otay Lakes Road and Olympic Parkway, and a Six-Lane Prime Arterial between Olympic Parkway and Main Street/EastLake Parkway.

### City of San Diego

***Heritage Road*** – Heritage Road, from the Chula Vista city limit to Otay Mesa Road, is currently a two-lane roadway with a partial continuous left-turn lane. Heritage Road south of Avenida De Las Vistas is planned for widening in the City of San Diego FBA. Therefore, this facility is classified as a Six-Lane Prime Arterial in the City of San Diego’s currently adopted Community Plan Circulation Element.

***La Media Road*** – La Media Road is currently a two-lane roadway at 30 mph north of Otay Mesa Road, and a five-lane (three SB and two NB) roadway with striped median south of Otay Mesa Road. This facility is classified as a Six-Lane Prime Arterial in the City of San Diego’s currently adopted Community Plan Circulation Element.

***Ellis Road*** – Ellis Road is not constructed currently, but is classified as a Four-Lane Major Arterial in the City of San Diego’s currently adopted Community Plan Circulation Element.

Figure 3-1B in EIR Appendix M displays the existing roadway geometrics for all roadway facilities within the project study area.

### ***Freeway and State Highway Facilities***

Three Caltrans freeway and state highway facilities traverse the study area, as follows:

***I-805*** – I-805 ranges from 8 lanes to 10 lanes between Home Avenue and SR-905 within the study area. Construction of two new High Occupancy Vehicle (HOV) lanes on I-805, between Home Avenue and East Palomar Street has been recently completed.

***SR-125*** – SR-125 is a four-lane state highway between East H Street and SR-905. It will operate as a toll road through the Year 2035. However, SANDAG has recently purchased this facility and could potentially convert this facility to a freeway sooner than the Year 2035.

***SR-905*** –SR-905 within the project study area is a six-lane state highway, connecting I-805 and SR-125.

### ***Existing Intersection and Roadway Volumes***

Existing AM/PM peak hour traffic volumes for the study area intersections are shown in EIR Appendix M (Figure 3-2A). Average Daily Traffic (ADT) volumes for study area roadway and

freeway segments are also provided in EIR Appendix M (Figure 3-2B), as are the roadway segment and study area intersection counts.

**Existing Level of Service Analysis**

LOS analyses under existing conditions were conducted using the methodologies described in Section 5.3.1.1. Intersection, roadway segment, freeway segment, and freeway ramp intersection LOS results are each discussed separately below.

**Intersection Analysis**

Table 5.3-8 displays intersection LOS and average vehicle delay results for all study area intersections located in Chula Vista and San Diego under existing conditions. LOS calculation worksheets for existing conditions are provided in EIR Appendix M.

As shown in Table 5.3-8, all of the study area intersections are currently operating at acceptable LOS D or better, with the exception of Heritage Road / Avenida De Las Vistas intersection, which operates at substandard LOS E during the AM peak hour. This intersection is an all-way stop intersection located in the City of San Diego.

**Table 5.3-8  
Peak Hour Intersection LOS Results – Existing Conditions**

Intersection	AM Peak Hour		PM Peak Hour	
	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS
1. Paseo Ranchero / H Street	39.0	D	27.4	C
2. Otay Lakes Road / H Street	25.1	C	26.5	C
3. Paseo Ranchero / Heritage Road / Telegraph Canyon Road	35.6	D	22.1	C
4. La Media Road / Telegraph Canyon Road / Otay Lakes Road	30.6	C	28.8	C
5. Hunte Parkway / Otay Lakes Road	22.7	C	20.1	C
6. Heritage Road / East Palomar Street	26.7	C	20.6	C
7. La Media Road / East Palomar Street	37.1	D	32.5	C
8. 3rd Avenue / Orange Avenue	21.1	C	24.9	C
9. Hilltop Drive / Orange Avenue	26.9	C	19.4	B
10. Melrose Avenue / Orange Avenue	18.2	B	31.3	C
11. I-805 SB Ramps / Olympic Parkway	26.5	C	51.7	D
12. I-805 NB Ramps / Olympic Parkway	43.2	D	28.7	C
13. Oleander Avenue / Olympic Parkway	48.7	D	35.7	D
14. Brandywine Avenue / Olympic Parkway	46.0	D	49.7	D
15. Heritage Road / Olympic Parkway	15.3	B	10.6	B
16. Santa Venetia Street / Olympic Parkway	3.5	A	1.6	A
17. La Media Road / Olympic Parkway	31.1	C	18.3	B
18. East Palomar Street / Olympic Parkway	27.7	C	24.2	C

**Table 5.3-8 (Continued)**  
**Peak Hour Intersection LOS Results – Existing Conditions**

Intersection	AM Peak Hour		PM Peak Hour	
	<i>Avg. Delay (sec.)</i>	<i>LOS</i>	<i>Avg. Delay (sec.)</i>	<i>LOS</i>
19. SR-125 SB Ramps / Olympic Parkway	1.7	A	5.0	A
20. SR-125 NB Ramps / Olympic Parkway	0.9	A	2.6	A
21. EastLake Parkway / Olympic Parkway	16.9	B	20.7	C
22. Hunte Parkway / Olympic Parkway	19.2	B	21.0	C
23. Olympic Vista Road / Olympic Parkway	20.0	B	18.0	B
24. La Media Road / Santa Venetia Street	25.5	C	15.4	B
25. Heritage Road / Santa Victoria Road	Does Not Exist			
26. La Media Road / Birch Road	16.8	B	17.9	B
27. Magdalena Avenue / Birch Road	22.5	C	18.2	B
28. SR-125 SB Ramps / Birch Road	2.2	A	5.0	A
29. SR-125 NB Ramps / Birch Road	0.9	A	1.4	A
30. EastLake Parkway / Birch Road	22.7	C	25.3	C
31. 4th Avenue / Main Street	16.1	B	17.0	B
32. 3rd Avenue / Main Street	22.2	C	24.0	C
33. Hilltop Drive / Main Street	11.6	B	12.5	B
34. Melrose Avenue / Main Street	9.7	A	10.8	B
35. I-805 SB Ramps / Main Street	24.6	C	29.3	C
36. I-805 NB Ramps / Main Street	17.0	B	21.0	C
37. Oleander Avenue / Main Street	4.1	A	4.0	A
38. Brandywine Avenue / Main Street	16.5	B	21.6	C
39. Heritage Road / Main Street (one-way stop controlled)*	10.6	B	12.7	B
40. La Media Road (SB) / Main Street (WB)	Does Not Exist			
41. La Media Road (NB) / Main Street (WB)	Does Not Exist			
42. La Media Road (SB) / Main Street (EB)	Does Not Exist			
43. La Media Road (NB) / Main Street (EB)	Does Not Exist			
44. Magdalena Avenue / Main Street	Does Not Exist			
45. SR-125 SB Ramps / Main Street	Does Not Exist			
46. SR-125 NB Ramps / Main Street	Does Not Exist			
47. EastLake Parkway / Main Street/Hunte Parkway	Does Not Exist			
48. Discovery Falls Drive / Hunte Parkway	16.3	B	11.6	B
49. Heritage Road / Avenida De Las Vistas (SD) (all-way stop controlled)	48.7	E	19.1	C
50. SR-125 SB Ramps / Lone Star Road (SD)	Does Not Exist			
51. SR-125 NB Ramps / Lone Star Road (SD)	Does Not Exist			
52. Ellis Road / Lone Star Road (SD)	Does Not Exist			
53. Ocean View Hills Parkway / Otay Mesa Road (SD)	19.6	B	19.3	B
54. Heritage Road / Otay Mesa Road (SD)	18.5	B	20.8	C
55. Cactus Road / Otay Mesa Road (SD)	7.5	A	9.1	A
56. Britannia Boulevard / Otay Mesa Road (SD)	35.7	D	41.5	D
57. La Media Road / Otay Mesa Road (SD)	16.5	B	19.6	B

**Table 5.3-8 (Continued)**  
**Peak Hour Intersection LOS Results – Existing Conditions**

Intersection	AM Peak Hour		PM Peak Hour	
	<i>Avg. Delay (sec.)</i>	<i>LOS</i>	<i>Avg. Delay (sec.)</i>	<i>LOS</i>
58. SR-125 SB Ramps / Otay Mesa Road (SD)	3.3	A	2.9	A
59. SR-125 NB Ramps / Otay Mesa Road (SD)	2.6	A	3.0	A
60. Ellis Road / Otay Mesa Road (SD)	Does Not Exist			
61. Santa Macheto @ Heritage Road	Does Not Exist			
62. Santa Picacho @ Heritage Road	Does Not Exist			
63. Santa Maya @ Heritage Road	Does Not Exist			
64. Energy Way / Heritage Road	Does Not Exist			
65. Quarry Driveway / Main Street	Does Not Exist			
66. Village Three North R-20 Driveway @ Main Street	Does Not Exist			
67. La Media Road / Village 4 Driveway @ Santa Luna Street	Does Not Exist			
68. Santa Tipu @ Main Street (one-way stop RT in/out)*	Does Not Exist			
69. Santa Marisol @ Main Street	Does Not Exist			
70. Village Eight East R-16 Driveway @ Main Street (one-way stop RT in/out)*	Does Not Exist			
71. Village Eight East Community Park Driveway @ Otay Valley Road	Does Not Exist			
72. Cutter Avenue @ Otay Valley Road (one-way stop RT in/out)*	Does Not Exist			
73. Santa Marisol @ Otay Valley Road	Does Not Exist			
74. Village Nine Street "B" / Otay Valley Road	Does Not Exist			
75. Village Nine Street "B" / Discovery Falls Drive	Does Not Exist			
76. Santa Julliard @ Discovery Falls Drive	Does Not Exist			
77. University Drive @ Discovery Falls Drive	Does Not Exist			
78. Santa Davis @ Discovery Falls Drive	Does Not Exist			

**Source:** Chen Ryan Associates 2014 (EIR Appendix M).

**Note:** Bold letter indicates unacceptable LOS E or F.

\* For one or two-way stop controlled intersections, the delay shown is the worst delay experienced by any of the approaches.

### ***Roadway Segment Analysis***

Table 5.3-9 displays the LOS analysis results for the study area roadway segments located within the City of Chula Vista under existing conditions. As shown in Table 5.3-9, the following two study area roadway segments within the City of Chula Vista are operating at substandard LOS D under existing conditions:

- Olympic Parkway between Oleander Avenue and Brandywine Avenue (LOS D)
- Olympic Parkway between Brandywine Avenue and Heritage Avenue (LOS D).

**Table 5.3-9  
Roadway Segment LOS Results – Existing Conditions (City of Chula Vista)**

Roadway	From	To	Cross Section	Average Daily Traffic (ADT)	LOS Threshold (LOS C)	LOS
H Street	Tierra Del Rey	Paseo Ranchero	6-Ln w/RM	41,342	50,000	B
Telegraph Canyon Road	Medical Center Drive	Heritage Road / Paseo Ranchero	6-Ln w/RM	45,077	50,000	C
Telegraph Canyon Road	Heritage Road/ Paseo Ranchero	La Media Road / Otay Lakes Road	6-Ln w/RM	36,074	50,000	A
Otay Lakes Road	H Street	Telegraph Canyon Road	4-Ln w/SM/RM	26,321	30,000	C
Otay Lakes Road	La Media Road	Rutgers Avenue	6-Ln w/RM	41,612	50,000	B
East Palomar Street	Medical Center Drive	Heritage Road	4-Ln w/RM	13,420	30,000	A
East Palomar Street	Heritage Road	La Media Road	4-Ln w/RM	20,122	30,000	A
East Palomar Street	La Media Road	Olympic Parkway	4-Ln w/RM	12,371	30,000	A
Orange Avenue	3rd Avenue	Hilltop Drive	4-Ln w/ TWLTL RM	18,996	30,000	A
Orange Avenue	Hilltop Drive	Melrose Avenue	4-Ln w/RM	23,117	30,000	B
Orange Avenue	Melrose Avenue	I-805 SB Ramps	4-Ln w/RM	29,025	30,000	C
Olympic Parkway	I-805 SB Ramps	I-805 NB Ramps	6-Ln	39,453	50,000	B
Olympic Parkway	I-805 NB Ramps	Oleander Avenue	6-Ln w/RM	48,508	50,000	C
Olympic Parkway	Oleander Avenue	Brandywine Avenue	6-Ln w/RM	52,262	50,000	D
Olympic Parkway	Brandywine Avenue	Heritage Road	6-Ln w/RM	52,690	50,000	D
Olympic Parkway	Heritage Road	Santa Venetia Street	6-Ln w/RM	48,232	50,000	C
Olympic Parkway	Santa Venetia Street	La Media Road	6-Ln w/RM	45,805	50,000	C
Olympic Parkway	La Media Road	East Palomar Street	6-Ln w/RM	31,038	50,000	A
Olympic Parkway	East Palomar Street	SR-125 SB Ramps	6-Ln w/RM	35,555	50,000	A
Olympic Parkway	SR-125 SB Ramps	SR-125 NB Ramps	8-Ln w/RM	33,827	70,000	A
Olympic Parkway	SR-125 NB Ramps	EastLake Parkway	8-Ln w/RM	35,608	70,000	A
Olympic Parkway	EastLake Parkway	Hunte Parkway	6-Ln w/RM	14,694	50,000	A
Olympic Parkway	Hunte Parkway	Olympic Vista Road	4-Ln w/RM	6,934	30,000	A
Olympic Parkway	Olympic Vista Road	Lake Crest Drive	4-Ln w/RM	1,527	30,000	A
Birch Road	La Media Road	Magdalena Avenue	6-Ln w/RM	9,160	40,000	A
Birch Road	Magdalena Avenue	SR-125 SB Ramps	6-Ln w/RM	10,740	40,000	A
Birch Road	SR-125 SB Ramps	SR-125 NB Ramps	6-Ln w/RM	11,997	50,000	A
Birch Road	SR-125 NB Ramps	EastLake Parkway	6-Ln w/RM	10,734	50,000	A
Main Street	4th Avenue	3rd Avenue	4-Ln w/TWLTL	20,350	30,000	A
Main Street	3rd Avenue	Hilltop Drive	4-Ln w/TWLTL	22,530	30,000	B
Main Street	Hilltop Drive	Melrose Avenue	4-Ln w/TWLTL	24,393	30,000	B
Main Street	Melrose Avenue	I-805 SB Ramps	4-Ln w/TWLTL	26,942	30,000	C
Main Street	I-805 SB Ramps	I-805 NB Ramps	6-Ln	27,812	50,000	A
Main Street	I-805 NB Ramps	Oleander Avenue	6-Ln w/RM	31,341	50,000	A
Main Street	Oleander Avenue	Brandywine Avenue	6-Ln w/TWLTL	23,065	50,000	A
Main Street	Brandywine Avenue	Heritage Road	6-Ln w/RM	10,865	50,000	A
Main Street	Heritage Road	La Media Road	Does Not Exist			
Main Street	La Media Road	SR-125 SB Ramps	3-Ln	200	12,000	A

**Table 5.3-9 (Continued)**  
**Roadway Segment LOS Results – Existing Conditions (City of Chula Vista)**

Roadway	From	To	Cross Section	Average Daily Traffic (ADT)	LOS Threshold (LOS C)	LOS
Main Street	SR-125 SB Ramps	SR-125 NB Ramps	Does Not Exist			
Main Street	SR-125 NB Ramps	EastLake Parkway / University Drive	Does Not Exist			
Otay Valley Road	Main Street	SR-125	Does Not Exist			
Otay Valley Road	SR-125	Village Nine Street "B"	Does Not Exist			
Hilltop Drive	Orange Avenue	Main Street	4-Ln	6,258	22,000	A
Paseo Ranchero	H Street	Telegraph Canyon Road	4-Ln w/SM/RM	13,257	22,000	A
Heritage Road	Telegraph Canyon Road	East Palomar Street	6-Ln w/RM	19,010	50,000	A
Heritage Road	East Palomar Street	Olympic Parkway	6-Ln w/RM	12,877	50,000	A
Heritage Road	Olympic Parkway	Santa Victoria Road	Does Not Exist			
Heritage Road	Santa Victoria Road	Main Street	Does Not Exist			
Heritage Road	Main Street	Avenida De Las Vistas	2-Ln w/TWLTL	8,787	12,000	A
La Media Road	Telegraph Canyon Road	East Palomar Street	6-Ln w/RM	22,569	50,000	A
La Media Road	East Palomar Street	Olympic Parkway	6-Ln w/RM	14,666	50,000	A
La Media Road	Olympic Parkway	Santa Venetia Street	6-Ln w/RM	16,408	50,000	A
La Media Road	Santa Venetia Street	Birch Road	6-Ln w/RM	11,515	50,000	A
La Media Road	Birch Road	Santa Luna Street	6-Ln w/RM	2,072	50,000	A
La Media Road	Santa Luna Street	Main Street	Does Not Exist			
Magdalena Avenue	Santa Venetia Street	Birch Road	4-Ln	3,529	22,000	A
Magdalena Avenue	Birch Road	Wolf Canyon Loop	4-Ln w/RM	8,283	22,000	A
Magdalena Avenue	Wolf Canyon Loop	Santa Luna Street	2-Ln w/RM	3,300 <sup>1</sup>	12,000	A
Magdalena Avenue	Santa Luna Street	Main Street	4-Ln w/RM	3,300 <sup>1</sup>	22,000	A
EastLake Parkway	Corte Vista	Olympic Parkway	6-Ln w/RM	12,092 <sup>2</sup>	50,000	A
EastLake Parkway	Olympic Parkway	Birch Road	6-Ln w/RM	11,843	40,000	A
EastLake Parkway	Birch Road	Main Street / Hunte Parkway	6-Ln w/RM	1,890	40,000	A
University Drive	Main Street / Hunte Parkway	Discovery Falls Drive	Does Not Exist			
University Drive	University Driveway #1	University Driveway #2	Does Not Exist			
University Drive	University Driveway #2	Discovery Falls Drive	Does Not Exist			
Discovery Falls Drive	Hunte Parkway	University / RTP Driveway	Does Not Exist			
Discovery Falls Drive	University / RTP Driveway	University Drive	Does Not Exist			
Discovery Falls Drive	University Drive	Village Nine Street "B"	Does Not Exist			
Hunte Parkway	Otay Lakes Road	Olympic Parkway	4-Ln w/RM	6,976	30,000	A
Hunte Parkway	Olympic Parkway	Discovery Falls Drive	6-Ln w/RM	3,201	50,000	A
Hunte Parkway	Discovery Falls Drive	EastLake Parkway / University Drive	6-Ln w/RM	3,704	50,000	A

**Source:** Chen Ryan Associates 2014 (EIR Appendix M).

**Note:** Bold letter indicates unacceptable LOS (D), E, or F. RM = raised median SM = striped median; TWLTL = two-way left-turn lane

<sup>1</sup> ADT was obtained from SANDAG (2008).

<sup>2</sup> ADT was collected on 9/11/2008.

Table 5.3-10 displays the LOS analysis results for the study area roadway segments located within the City of San Diego under existing conditions. As shown in Table 5.3-10, all study roadways in the City of San Diego are operating at acceptable LOS D or better under existing conditions.

**Table 5.3-10  
Roadway Segment LOS Results – Existing Conditions (City of San Diego)**

Roadway	From	To	Cross Section	Average Daily Traffic (ADT)	LOS Threshold (LOS D)	LOS
Lone Star Road	La Media Road	Ellis Road	2-Ln	280	9,000	A
Otay Mesa Road	Ocean View Hills Parkway	Heritage Road	6-Ln w/RM	35,212	55,000	C
Otay Mesa Road	Heritage Road	Cactus Road	6-Ln w/RM	31,682	55,000	B
Otay Mesa Road	Cactus Road	Britannia Boulevard	6-Ln w/RM	50,978	55,000	D
Otay Mesa Road	Britannia Boulevard	La Media Road	6-Ln w/RM	22,343	55,000	A
Otay Mesa Road	La Media Road	Ellis Road	6-Ln w/RM	10,200	55,000	A
Heritage Road	Avenida De Las Vistas	Otay Mesa Road	2-Ln	7,984	9,000	D
La Media Road	Lone Star Road	Otay Mesa Road	2-Ln	5,438	9,000	B
Ellis Road	Lone Star Road	Otay Mesa Road	Does Not Exist			

Source: Chen Ryan Associates 2014 (EIR Appendix M).  
RM = raised median

***Freeway / State Highway Segment Analysis***

Table 5.3-11 displays freeway LOS analysis results for I-805, SR-125, and SR-905 under existing conditions. The freeway / state highway segment LOS analysis was performed utilizing the methodology presented in Section 5.3.1.1.

As shown in Table 5.3-11, all study area I-805 and SR-125 segments currently operate at acceptable LOS D or better under existing conditions. A majority of SR-905 is newly constructed and therefore no traffic counts were available from Caltrans or SANDAG.

**Table 5.3-11  
Freeway / State Highway Segment LOS Results – Existing Conditions**

Freeway / State Highway	Segment	ADT	Peak Hour %	Peak Hour Volume	Directional Split	# of Lanes Per Direction	Peak Hour Factor (PHF)	% of Heavy Vehicle	Volume (pc/h/ln)	V/C	LOS
I-805	Home Avenue to SR-94	167,100	6.9%	11,530	0.51	4M**	0.97	4.2%	1,582	0.66	C
I-805	SR-94 to Market Street	162,200	8.0%	12,976	0.50	4M**	0.97	4.2%	1,745	0.73	C
I-805	Market Street to Imperial Avenue	162,200	8.0%	12,976	0.50	5M**	0.97	4.2%	1,396	0.58	B
I-805	Imperial Avenue to E Division Street	181,300	8.0%	14,504	0.50	5M**	0.97	4.2%	1,561	0.65	C
I-805	E Division Street to Plaza Boulevard	188,800	7.2%	13,594	0.51	5M**	0.95	3.8%	1,517	0.63	C
I-805	Plaza Boulevard to SR-54	191,500	8.1%	15,512	0.52	5M**	0.96	2.2%	1,718	0.72	C
I-805	SR-54 to Bonita Road	181,300	7.2%	13,054	0.52	4M+1Aux*	0.96	1.7%	1,598	0.67	C
I-805	Bonita Road to East H Street	181,300	7.8%	14,141	0.50	5M**	0.95	1.7%	1,514	0.63	C
I-805	East H Street to Telegraph Canyon Road	174,100	7.8%	13,580	0.50	5M**	0.95	1.9%	1,457	0.61	B
I-805	Telegraph Canyon Road to East Palomar Street	153,200	7.1%	10,877	0.51	4M+1Aux*	0.92	1.7%	1,363	0.57	B
I-805	East Palomar Street to Olympic Parkway	153,200	7.1%	10,877	0.51	4M+1Aux	0.92	1.7%	1,363	0.57	B
I-805	Olympic Parkway to Main Street	121,500	6.9%	8,384	0.51	4M+1Aux	0.93	5.4%	1,080	0.45	B
I-805	Main Street to Palm Avenue	116,300	7.1%	8,257	0.58	4M+1Aux	0.95	10.3%	1,249	0.52	B
I-805	Palm Avenue to SR-905	111,200	7.1%	7,895	0.58	4M+1Aux	0.95	10.3%	1,194	0.50	B
SR-125	Telegraph Canyon Road to Olympic Parkway	6,200*	7.0%	434	0.58	2M	0.95	10.3%	148	0.06	A
SR-125	Olympic Parkway to Birch Road	4,300*	7.0%	301	0.58	2M	0.95	10.3%	102	0.04	A
SR-125	Birch Road to Main Street	4,800*	7.0%	336	0.58	2M	0.95	10.3%	114	0.05	A
SR-125	Main Street to Lone Star Road	4,800*	7.0%	336	0.58	2M	0.95	10.3%	114	0.05	A

**Table 5.3-11 (Continued)**  
**Freeway / State Highway Segment LOS Results – Existing Conditions**

Freeway / State Highway	Segment	ADT	Peak Hour %	Peak Hour Volume	Directional Split	# of Lanes Per Direction	Peak Hour Factor (PHF)	% of Heavy Vehicle	Volume (pc/h/ln)	V/C	LOS
SR-125	Lone Star Road to Otay Mesa Road	4,800	7.0%	336	0.58	2M	0.95	10.3%	111	0.046	A
SR-905	I-805 to Calliente Avenue	56,000	7.0%	3,920	0.60	2M	0.92	8.1%	1,335	0.556	B
SR-905	Calliente Avenue to Heritage Road	53,000	7.0%	3,710	0.60	3M	0.92	8.1%	837	0.349	A
SR-905	Heritage Road to Britannia Boulevard	49,500	7.0%	3,465	0.60	3M	0.92	8.1%	780	0.325	A
SR-905	Britannia Boulevard to La Media Road	49,500	7.0%	3,465	0.60	3M + 1Aux	0.92	8.1%	520	0.217	A
SR-905	La Media Road to SR-125	30,000	7.0%	2,100	0.60	3M	0.92	8.1%	475	0.198	A

Source: Chen Ryan Associates 2014 (EIR Appendix M).

\* ADT was obtained from SANDAG base year (2008) Regional Transportation Model.

\*\* 2 new HOV lanes have been constructed very recently, however freeway ADT information is not available for these HOV lanes. The existing conditions analysis is based on pre HOV freeway geometrics and traffic volumes. This should represent the worst case scenario.

M = Mainline.

Aux = Auxiliary Lane.

### *Ramp Intersection Capacity Analysis*

Consistent with Caltrans requirements, the signalized freeway ramp intersections along I-805 and SR-125 within the study area were analyzed under existing conditions using the ILV procedures as described in Section 5.3.1.1. ILV analysis results are displayed in Table 5.3-12 and analysis worksheets for the existing conditions are provided in EIR Appendix M.

**Table 5.3-12**  
**Ramp Intersection Capacity Analysis – Existing Conditions**

Ramp Intersection	Peak Hour	ILV/Hour	Description
I-805 SB Ramps / Olympic Parkway	AM	1,124	<1200: (Under Capacity)
	PM	1,633	>1500: (Over Capacity)
I-805 NB Ramps / Olympic Parkway	AM	2,019	>1500: (Over Capacity)
	PM	1,213	1200–1500: (At Capacity)
I-805 SB Ramps / Main Street	AM	986	<1200: (Under Capacity)
	PM	1,234	1200–1500: (At Capacity)
I-805 NB Ramps / Main Street	AM	763	<1200: (Under Capacity)
	PM	1,012	<1200: (Under Capacity)
SR-125 SB Ramps / Olympic Parkway	AM	372	<1200: (Under Capacity)
	PM	576	<1200: (Under Capacity)
SR-125 NB Ramps / Olympic Parkway	AM	350	<1200: (Under Capacity)
	PM	481	<1200: (Under Capacity)
SR-125 SB Ramps / Birch Road	AM	297	<1200: (Under Capacity)
	PM	262	<1200: (Under Capacity)
SR-125 NB Ramps / Birch Road	AM	147	<1200: (Under Capacity)
	PM	208	<1200: (Under Capacity)
SR-125 SB Ramps / Main Street	AM		Does Not Exist
	PM		
SR-125 NB Ramps / Main Street	AM		Does Not Exist
	PM		
SR-125 SB Ramps / Lone Star Road	AM		Does Not Exist
	PM		
SR-125 NB Ramps / Lone Star Road	AM		Does Not Exist
	PM		
SR-125 SB Ramps / Otay Mesa Road	AM	430	<1200: (Under Capacity)
	PM	425	<1200: (Under Capacity)
SR-125 NB Ramps / Otay Mesa Road	AM	318	<1200: (Under Capacity)
	PM	390	<1200: (Under Capacity)

Source: Chen Ryan Associates 2014 (EIR Appendix M).

As shown in Table 5.3-12, all of the ramp intersections along I-805 operate under capacity and/or at capacity, with the following two exceptions:

- I-805 SB Ramps / Olympic Parkway – Over capacity during the PM peak hour

- I-805 NB Ramps / Olympic Parkway – Over capacity during the AM peak hour.

All of the existing SR-125 ramp intersections currently operate under capacity.

**Ramp Metering Analysis**

Table 5.3-13 displays the ramp metering analysis conducted at the I-805 northbound on-ramp at Olympic Parkway and the I-805 northbound on-ramp at Main Street under existing conditions. As discussed in the methodology section, based upon data provided by Caltrans District 11, the ramp meters at these locations are only activated between 5:30 AM and 9:30 AM, and thus ramp metering analysis was conducted during the AM peak hour under the various study scenarios.

Both on-ramps currently have three lanes including one High Occupancy Vehicle (HOV) lane. Based upon field observation, approximately 20% of the total northbound on-ramp traffic was utilizing the HOV lane, which results in 80% of the total arrival traffic (demand) utilizing the two non-HOV lanes.

As shown in Table 5.3-13, the peak hour capacity expected to be processed through the ramp meter (Meter Rate) is greater than the peak hour demand (Demand) at both the I-805 northbound on-ramps at Olympic Parkway and Main Street. Therefore, there is no queuing issue at either of these on-ramps.

**Table 5.3-13  
Ramp Metering Analysis – Existing Conditions**

Location	Peak Hour	PVOL- Peak Hour VOL	Demand <sup>1</sup> (veh/hr)	Meter Rate <sup>2</sup> (veh/hr)	Excess Demand <sup>3</sup> (veh/hr)	Delay <sup>4</sup> (min)	Queue <sup>5</sup> (ft)
I-805 NB On-Ramp @ Olympic Parkway	AM	1,851	741	887	0	0	0
I-805 NB On-Ramp @ Main Street	AM	729	292	413	0	0	0

Source: Chen Ryan Associates 2014 (EIR Appendix M).

- <sup>1</sup> Demand is the peak hour demand expected to use the on-ramp.
- <sup>2</sup> Meter rate is the peak hour capacity expected to be processed through the ramp meter.
- <sup>3</sup> Excess demand = (demand) – (meter rate) or zero, whichever is greater.
- <sup>4</sup> Delay = (excess demand / meter rate) × 60 min/hr.
- <sup>5</sup> Queue = (excess demand) × 29 ft/veh.

**Existing Transit Service**

The project study area is currently served by 10 Metropolitan Transit System routes, including:

- Route 701 – runs between the H Street and the Palomar Street Trolley Stations via Main Street, Hilltop Drive, and F Street. Route 701 currently provides services during weekdays and Saturdays, but not on Sundays.

- Route 703 – runs between the H Street Trolley Station and the Otay Ranch Town Center via Hilltop Drive and East Palomar Street. Route 703 currently provides services on Sundays only.
- Route 704 – runs between the H Street and the Palomar Street Trolley Stations via 4th Avenue, Sharp Medical Center, and Orange Avenue. Route 704 currently provides services during weekdays and Saturdays, but not on Sundays.
- Route 705 – runs between the E Street Trolley Station and Southwestern College via Plaza Bonita and Otay Lakes Road. Route 705 currently provides services during weekdays and Saturdays, but not on Sundays.
- Route 707 – runs between Southwestern College and the Otay Ranch Town Center via East H Street and EastLake Parkway. Route 707 currently provides services during weekdays (Monday – Friday) only.
- Route 709 – runs between the H Street Trolley Station and Southwestern College via East H Street. Route 709 currently provides services during weekdays and Saturdays, but not on Sundays.
- Route 712 – runs between the Palomar Street Trolley Station and Southwestern College via Palomar Street. Route 712 currently provides services both during weekdays and on the weekends.
- Route 905 – runs between the Iris Avenue Trolley Station and Otay Mesa Port of Entry via SR-905 and Airway Road. Route 905 currently provides services both during weekdays and on the weekends.
- Route 929 – runs between Downtown San Diego and the Iris Avenue Trolley Station via Highland Avenue and 3rd Avenue. Route 929 currently provides services both during weekdays and on the weekends.
- Route 933/934 – runs in a two-way loop from the Iris Avenue Trolley Station in Otay Mesa, to the Palm Avenue Trolley Station in Palm City, then Imperial Beach, Nestor, and back to the Iris Avenue Trolley Station. Route 934 travels clockwise, while Route 933 travels counter clockwise. Both routes currently provide services both during weekdays and on the weekends.

In addition, the San Diego Trolley’s Blue Line light rail is located just west of the project study area providing regional connections to many local bus routes within the study area, with stations located at E Street, H Street, Palmar Street, Palm Avenue, and Iris Avenue. The Blue Line provides service between Qualcomm Stadium and San Ysidro/Tijuana and travels parallel to and on the east side of I-5. The Blue Line covers 18.8 miles, with 15-minute service 7 days a week.

During weekday rush hours, the Blue Line operates every 7.5 minutes between Old Town and San Ysidro, with 30-minute service during the late evenings.

### 5.3.2 Thresholds of Significance

The following significance criteria, included in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.), are applied in the determination of whether the proposed project would result in a significant traffic, circulation, or access impact. Impacts to traffic, circulation, and access would be considered significant if the proposed project would:

- A. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
- B. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
- C. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- D. Substantially increase hazards due to a design feature or incompatible uses.
- E. Result in inadequate emergency access.
- F. Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The criteria applied by the cities of Chula Vista and San Diego for determining the significance of an impact are outlined below.

#### City of Chula Vista

The proposed project would result in a direct impact or a cumulative impact under short-term and long-term conditions as follows:

#### *Short-Term (Study Horizon Years 0–4)*

For purposes of the short-term analysis roadway sections may be defined as either links or segments. A link is typically that section of roadway between two adjacent Circulation Element intersections and a segment is defined as that combination of contiguous links used in the Growth Management Plan Traffic Monitoring Program. Analysis of roadway links under

short-term conditions may require a more detailed analysis using the Growth Management Oversight Committee (GMOC) methodology if the typical planning analysis using volume to capacity ratios on an individual link indicates a potential impact to that link. The GMOC analysis uses the Highway Capacity Manual (HCM) methodology of average travel speed based on actual measurements on the segments as listed in the Growth Management Plan Traffic Monitoring Program.

1. Intersections

- a. A direct impact would result if both the following criteria are met:
  - i. LOS E or F.
  - ii. Project trips comprise 5% or more of entering volume.
- b. A cumulative impact would result if only criterion i is met.

2. Street Links/ Segments

3. If the ADT methodology indicates LOS C or better, the impact is not significant. If the ADT methodology indicates LOS D, E, or F, the GMOC criteria should be used, which includes the following:

- a. A direct impact would result if all of the following criteria are met:
  - i. LOS is LOS D for more than 2 hours or LOS E/F for 1 hour.
  - ii. Project trips comprise 5% or more of segment volume.
  - iii. Project adds greater than 800 ADT to the segment.
- b. A cumulative impact would result if only criterion i is met.

4. Freeway Segments

- a. A direct impact would result if both the following criteria are met:
  - i. Freeway segment LOS is E or F.
  - ii. Project comprises 5% or more of total forecasted ADT on that freeway segment.
- b. A cumulative impact would result if only criterion i is met.

***Long-Term (Study Horizon Year 5 or later)***

1. Intersections

- a. A direct impact would result if both the following criteria are met:
  - i. LOS E or F.
  - ii. Project trips comprise 5% or more of entering volume.

- b. A cumulative impact would result if only criterion i is met.
2. Street Links/ Segments
- a. A direct impact would result if all of the following criteria are met:
    - i. LOS is LOS D, LOS E, or LOS F.
    - ii. Project trips comprise 5% or more of total segment volume.
    - iii. Project adds greater than 800 ADT to the segment.
  - b. A cumulative impact would result if only criterion i is met. However, if the intersections along an LOS D or LOS E segment all operate at LOS D or better, the segment impact is not considered significant since the intersection analysis is more indicative of actual roadway system operations than street segment analysis. However, if the segment LOS is F, the impact is significant regardless of intersection LOS.
  - c. Notwithstanding the foregoing, if the impact identified in paragraph 2.a. occurs at study horizon Year 10 or later, and is off-site and not adjacent to the project, the impact is considered cumulative. However, study year 10 actually may be a SANDAG model year between 8 and 13 years in the future. For example, in the case of a traffic study performed in 2012, because the model will only evaluate traffic at years divisible by 5 (i.e. 2010, 2015, 2020 and 2025), study horizon year 10 would correspond to the SANDAG model for year 2020 and, thus, actually would be only 8 years in the future.
  - d. In the event a direct impact identified in paragraph 2.a. occurs at study horizon Year 5 or earlier and the impact is off-site and not adjacent to the project, but the property immediately adjacent to the identified project-specific impact is also proposed to be developed in approximately the same time frame, an additional analysis may be required to determine whether or not the identified project specific impact would still occur if the development of the adjacent property does not take place. If the additional analysis concludes that the identified direct impact is no longer a direct impact, then the impact shall be considered cumulative.
3. Freeway Segments
- a. A project-specific impact would result if both the following criteria are met:
    - i. Freeway segment LOS is LOS E or LOS F.
    - ii. Project comprises 5% or more of the total forecasted ADT on that freeway segment.
  - b. Cumulative impact if only criterion i is met.

4. Traffic impacts are defined as either *direct impacts* or *cumulative impacts*. *Direct impacts* are those impacts for which the addition of project trips results in an identifiable degradation in level of service on freeway segments, roadway segments, or at intersections, triggering the need for specific project-related improvements. *Cumulative impacts* are those in which the project trips contribute to a poor level of service at a nominal level and thus requiring the developer to contribute its fair share towards the improvements necessary to mitigate the impact.

### City of San Diego

In general, a significant impact would be identified when the addition of project traffic results in a LOS dropping from D or better to a substandard LOS of E or F. Table 5.3-14 summarizes the allowable change in volume/capacity (V/C), speed and delay for freeways, roadway segments, intersections, and ramp metering attributable to project traffic. Increases above those identified would result in a significant impact.

**Table 5.3-14**  
**City of San Diego – Measures of Significant Project Traffic Impacts**

LOS with Project	Allowable Change Due to Impact					
	Freeways		Roadway Segments		Intersections	Ramp Metering*
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec)	Delay (min)
E	0.01	1.0	0.02	1.0	2.0	2.0
F	0.005	0.5	0.01	0.5	1.0	1.0

Source: City of San Diego 2007.

\* For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

### 5.3.3 Impacts

An analysis of the project's potential impacts relative to each of the CEQA Guidelines significance criteria, and incorporating the significance criteria utilized by the cities of Chula Vista and San Diego, is provided below.

- A. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.**

In considering whether the proposed project would conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, it is necessary to analyze the project's potential impacts relative to the significance criteria utilized by

the cities of Chula Vista and San Diego and discussed above. This impact analysis was conducted under five different scenarios: (1) Existing conditions plus project buildout, (2) 2015 conditions with 2015 project, (3) 2020 conditions with 2020 project, (4) 2025 conditions with 2025 project, and (5) 2030 conditions with project buildout. Also included in this analysis is a comparison of traffic impacts between the proposed and adopted general plan circulation element.

**Project Trip Generation, Distribution, and Assignment**

***Project Trip Generation***

Trip generation rates for the proposed project were developed utilizing SANDAG’s Guide to Vehicular Traffic Generation Rates for the San Diego Region. EIR Appendix M, TIA Tables 4.3 through 4.6, illustrate the project land uses and corresponding trip rates utilized in the analysis. Table 5.3-15 displays daily cumulative, as well as AM and PM peak-hour project trip generation for each of the four development phases (2015, 2020, 2025, and 2030 buildout), respectively.

**Table 5.3-15  
Project Trip Generation**

Land Use / Trip Rate	Year	Cumulative Daily Trips	AM Peak Hour Trips	PM Peak Hour Trips
Single-Family 10 / DU Multi-Family 8/DU	2015	6,110	488 (131 in / 357 out)	610 (427 in / 184 out)
Mixed-Use Commercial 110 / KSF Office 300 / AC	2020	40,736	3,724 (1,488 in / 2,237 out)	4,120 (2,535 in / 1,585 out)
Light Industrial 90 / AC CPF 30 / AC	2025	64,308	5,474 (1,979 in / 3,494 out)	6,444 (4,069 in / 2,375 out)
Elementary School 90 / AC Neighborhood Park 5 / AC Community Park 50 / AC	2030	77,663	6,819 (2,627 in / 4,192 out)	7,816 (4,831 in / 2,985 out)

**Notes:** DU = dwelling unit; KSF = thousand square feet; AC = acre

As shown in Table 5.3-15, by Year 2015, the proposed project would generate a total of 6,110 daily trips, including 488 AM peak hour trips and 610 PM peak hour trips, all of which would be generated by Village Three North. Note that no development is anticipated in Village Eight East, Village Ten, or the portion of Village Four that is part of the project (a Portion of Village Four), by 2015 (see Section 4.2.7 Construction Phasing in Chapter 4, Project Description).

As shown in Table 5.3-15, by Year 2020, the proposed project would generate a total of 40,736 daily trips, including 3,724 AM peak hour trips and 4,120 PM peak hour trips. The Portion of Village Four would be fully built out, and no development is anticipated in Village Ten by 2020. Village Three North and Village Eight East would be under construction in 2020. Of the total

trips generated in Year 2020, 50.5% would be generated by Village Three North, 2.2% would be generated by the Portion of Village Four, and 47.3% would be generated by Village Eight East.

As shown in Table 5.3-15, by Year 2025, the proposed project would generate a total of 64,308 daily trips, including 5,474 AM peak hour trips and 6,444 PM peak hour trips. The Portion of Village Four that is part of the project and non-community park portion of Village Eight East would be fully built out. Village Three North and Village Ten also would be under construction in 2025. Of the total trips generated in Year 2025, 34.6% would be generated by Village Three North, 1.4% would be generated by the Portion of Village Four, 54% would be generated by Village Eight East, and 10% would be generated by Village Ten.

By Year 2030, all of the proposed land uses would be fully developed. As shown in Table 5.3-15, the proposed project would generate a total of 77,663 daily trips, including 6,819 AM peak hour trips and 7,816 PM peak hour trips.

Given the nature of the project land uses, not all trips would leave the project site. For example, some shopping trips would be satisfied by the commercial uses within the project site, as would school trips and some recreational trips. Project trips were therefore disaggregated into those that would remain within the project site (internally captured), and those that would leave the project site (external trips); those that would remain within the project site effectively represent a reduction in the number of external trips. Estimates for internal versus external trip generation percentages were developed based upon likely origins/destinations of each land use type. Only external trips were distributed and assigned to the study area roadways. The proportion of internal and external project trips for each village under all study time frames is provided in the TIA (EIR Appendix M, Tables 4.7 through 4.10). As shown in the referenced tables, each village and associated land use has a different internal/external trip percentage due to the various land use mixes and related trip reduction characteristics. Based on the individual percentages, an overall internal capture rate for the entire project was calculated and applied for each analysis scenario. Specifically, an approximate 0% trip reduction was applied to Year 2015, 15% to Year 2020, 14% to Year 2025, and 15% to Year 2030 to reflect adjustments attributable to internal capture. A 0% internal trip reduction was applied to Year 2015 due to the lack of commercial land use types within Village Three North and the corresponding need to travel externally for commercial needs. The internal capture percentage increases to 15% by the Year 2020 due to an increase in the commercial to residential land uses ratio. However, this internal capture percentage reduced slightly to 14% in the Year 2025, due to an increase in residential units in Village Ten with no corresponding increase in commercial uses as the commercial land uses are not fully constructed at this development stage. The internal capture percentage increases back up to 15% by the Year 2030, when the built out commercial land uses provide additional incentive for residents to patronize businesses inside their individual villages. It also is noted that

the proposed project would be located in close proximity to both future BRT and local transit sites, further reducing vehicle trips generated by the project.

### ***Project Trip Distribution***

The distribution of the external project trips was based upon a computer generated Select Zone analysis utilizing the Series 11 Year 2030 SANDAG Transportation Model, Southbay 2, University Villages. Five different trip distribution patterns were developed in conjunction with the anticipated roadway network under the various analysis scenarios and timeframes, including existing, Year 2015, Year 2020, Year 2025, and Year 2030. The external project trip distribution patterns associated with each of these networks are provided in EIR Appendix M (Figures 4-1A.1 through 4-1E.4).

### ***Project Trip Assignment***

Based upon the project trip distributions, the external daily and AM/PM peak hour project trips were assigned to the various roadway networks. The following five separate sets of trip assignments were developed:

- Buildout land uses on the existing network
- 2015 land uses on the Year 2015 network
- 2020 land uses on the Year 2020 network
- 2025 land uses on the Year 2025 network
- Buildout land uses on the Year 2030 network.

The assignment of project trips to the respective (existing, 2015, 2020, 2025, and 2030) roadway networks and study area intersections are displayed in EIR Appendix M (Figures 4-2A.1 through 4-2E.2).

## **A.1 Existing Plus Project (Buildout) Conditions**

This section provides an analysis of traffic conditions on the existing environment with the addition of project trips from full buildout of the proposed University Villages project. Under this scenario, the proposed project's buildout traffic volumes are added to the existing traffic volumes and roadway configuration, and impacts are assessed. This scenario is regarded by traffic engineers as a hypothetical scenario when used in connection with a long-range development projects such as the proposed University Villages project, which is not anticipated to reach full buildout until approximately 2030. The scenario is hypothetical and ultimately misleading because it incorrectly assumes that a proposed project would be fully built out immediately and the corresponding full buildout traffic volumes added to existing roadway

volumes and infrastructure. This assumption is unlikely to occur because a long-range development project is constructed incrementally and full buildout is not realized until a future projected date at which time intervening changes will have occurred.

The existing plus project analysis also presumes that the existing environment (existing traffic volumes, existing roadway infrastructure, and existing land uses) will not change over the long-term buildout of the project. As a result of this presumption, future increases in traffic volumes attributable to other development projects (i.e., cumulative traffic volumes) are not accounted for in the analysis. As such, the analysis can result in *understating* project impacts because capacity that otherwise would be utilized by future development that precedes a proposed project buildout is now available to that project. For example, in this case, the project would have a direct impact to the segment of Heritage Road, between East Palomar Street and Olympic Parkway under the Year 2025 Plus Project scenario, whereas this roadway segment would operate at LOS A under the Existing Plus Project (Buildout) scenario and, as such, the impact is not identified.

Conversely, because the Existing Plus Project scenario does not account for future Circulation Element planned roadway network improvements that would increase roadway capacities, the analysis can potentially result in *overstating* project impacts. For example, in this case, Olympic Parkway between Oleander Avenue and Brandywine Avenue would operate at LOS E with 60,200 ADT under the Existing Plus Project (Buildout) conditions, whereas under the Horizon Year 2030 Plus Project (Buildout) conditions, this segment of Olympic Parkway would operate at LOS C with 48,700 ADT. The completion of Main Street, Heritage Road, and La Media Road would alleviate traffic from Olympic Parkway by providing alternative routes.

Furthermore, because the analysis does not account for future developments and related changing land uses, the analysis does not account for the corresponding change in trip distribution patterns that accompany changing land uses, which could result in either understating or overstating impacts. For example, the build-out of the University/RTP site would attract trips from the surrounding villages, regional trips, as well as trips generated by the proposed University Villages project, causing the intersection of Discovery Falls Drive / Hunte Parkway to degrade to LOS E under the Year 2030 Base Plus Project Buildout scenario. Without the University/RTP land uses (Existing Plus Project Buildout scenario), traffic would distribute differently, very few trips would travel south onto Discovery Falls Drive from Hunte Parkway. Hence, this intersection of Discovery Falls Drive and Hunte Parkway would operate at acceptable LOS C during both the AM and PM peak hours under the Existing Plus Project (Buildout) scenario.

For these reasons, an existing plus project analysis is provided below for the proposed project, but it is included for disclosure, information, and comparison purposes only.

### *Existing Plus Project (Buildout) Roadway Network and Traffic Volumes*

This scenario includes existing traffic volumes with the addition of the University Villages project buildout traffic. Intersection and roadway geometrics under existing plus project conditions are generally identical to existing conditions, with the addition of the following roadways to provide necessary access for each of the proposed villages:

- Heritage Road along the frontage of Village Three North – This facility was assumed as a Six-Lane Prime Arterial providing access to Village Three North.
- Main Street from Heritage Road to Village Three North R-20 driveway – this facility is included as a 2-lane roadway providing access to parcel R-20 of Village 3 North. The addition of this facility would also convert the intersection of Heritage Road / Main Street into a 4-legged intersection. Quarry Driveway @ Main Street (Int #65) would be constructed as an all-way stop controlled intersection providing access to the existing quarry.
- Main Street from La Media Road to SR-125 right-of-way (western boundary), Otay Valley Road from Main Street to SR-125 right-of-way (western boundary), and La Media Road from Santa Luna Street to Main Street – These three facilities were assumed as Four-Lane Major Roads providing access to Village Eight East, including the proposed community park.
- University Drive between Main Street / Hunte Parkway and Discovery Falls Drive, and Discovery Falls Drive between Hunte Parkway and east of Village Nine Street “B” (Int #75) – These two facilities were assumed to provide access to Village Ten. University Drive is included as a Class II Collector, while Discovery Falls Drive was assumed as a Four-Lane Major Road, both providing necessary access to Village Ten.

In addition, because the following 14 project driveways will be constructed as part of the project, they were analyzed under the “Plus Project” conditions:

- Santa Macheto @ Heritage Road – (Int #61)
- Santa Picacho @ Heritage Road – (Int #62)
- Santa Maya @ Heritage Road – (Int #63)
- Main Street / Quarry Driveway – all-way stop controlled intersection;
- Village Three North R-20 Driveway @ Main Street – (Int #66)
- La Media Road / Village Four Driveway @ Santa Luna Street – (Int #67)
- Santa Tipu @ Main Street (one way stop RT in/out) – (Int # 68)
- Santa Marisol @ Main Street – (Int # 69)
- Village Eight East R-16 Driveway @ Main Street (one way stop RT in/out) – (Int # 70)

- Village Eight East Community Park Driveway @ Otay Valley Road – (Int # 71)
- Cutter Avenue @ Otay Valley Road (one-way stop RT in/out) – (Int # 72)
- Santa Marisol @ Otay Valley Road – (Int #73)
- Village Nine Street “B” @ Otay Valley Road (Int # 74)
- Santa Julliard @ Discovery Falls Drive – Signalized intersection (Int # 76)
- University Drive @ Discovery Falls Drive – (Int #77)
- Santa Davis @ Discovery Falls Drive – (Int #78)

Intersection and roadway geometrics under existing plus project conditions are displayed in EIR Appendix M (Figures 5-1A and 5-1B).

According to Section 12.24 of the City’s Municipal Code, access related impacts would occur if access and frontage improvements are not provided concurrent with development.

### ***Intersection Analysis***

Table 5.3-16 displays the peak-hour intersection LOS results under existing plus project (buildout) conditions. LOS calculation worksheets for the existing plus project (buildout) conditions are provided in EIR Appendix M. As shown in the table, the proposed project would result in significant project-specific impacts at the following seven study intersections, including six in Chula Vista and one in San Diego:

#### City of Chula Vista

- I-805 SB Ramps / Olympic Parkway (signalized) – LOS F during the PM peak hour, and the project traffic would comprise more than 5% of the total intersection entering volume
- Brandywine Avenue / Olympic Parkway (signalized) – LOS E during the AM peak hour and LOS F during the PM peak hour, and the project traffic would comprise more than 5% of the total intersection entering volume
- Heritage Road / Main Street (all-way stop controlled) – LOS F during both the AM and the PM peak hours, and the project traffic would comprise more than 5% of the total intersection entering volume
- La Media Road (NB) / Main Street (WB) (all-way stop controlled) – LOS E during the AM peak hour, and the project traffic would comprise more than 5% of the total intersection entering volume

- La Media Road (SB) / Main Street (EB) (all-way stop controlled) – LOS E during the PM peak hour, and the project traffic would comprise more than 5% of the total intersection entering volume
- Magdalena Avenue / Main Street (one-way stop controlled) – LOS F during both the AM and PM peak hours, and the project traffic would comprise more than 5% of the total intersection entering volume.

As per Chula Vista significant impact criteria, the additional trips generated by buildout of the proposed project would result in project specific impacts at all of the above-identified intersections as the buildout project traffic would comprise more than 5% of the total entering volumes at these locations.

Table 5.3-16  
 Peak-Hour Intersection LOS Results – Existing Plus Project (Buildout) Conditions

Intersection	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec.) AM/PM	LOS w/o Project AM/PM	Project % of Entering Volume (>5%)	Change in Delay (sec.)	Significant Impact?
	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS					
1. Paseo Ranchero / H Street	38.0	D	32.3	C	N/A	N/A	0.9% / 1.1%	N/A	No
2. Olaj Lakes Road / H Street	23.7	C	27.2	C	N/A	N/A	2.5% / 3.0%	N/A	No
3. Paseo Ranchero / Heritage Road / Telegraph Canyon Road	37.8	D	23.6	C	N/A	N/A	5.0% / 7.1%	N/A	No
4. La Media Road / Telegraph Canyon Road / Olaj Lakes Road	33.7	C	30.5	C	N/A	N/A	8.9% / 10.9%	N/A	No
5. Hunte Parkway / Olaj Lakes Road	22.5	C	20.5	C	N/A	N/A	2.9% / 4.5%	N/A	No
6. Heritage Road / East Palomar Street	27.4	C	30.1	C	N/A	N/A	7.4% / 11.5%	N/A	No
7. La Media Road / East Palomar Street	47.9	D	34.6	C	N/A	N/A	17.9% / 27.3%	N/A	No
8. 3rd Avenue / Orange Avenue	21.5	C	32.2	C	N/A	N/A	7.6% / 6.5%	N/A	No
9. Hilltop Drive / Orange Avenue	28.5	C	20.1	C	N/A	N/A	7.5% / 10.0%	N/A	No
10. Melrose Avenue / Orange Avenue	19.9	B	26.9	C	N/A	N/A	6.0% / 6.2%	N/A	No
11. I-805 SB Ramps / Olympic Parkway	36.8	D	84.9	F	N/A	N/A	8.9% / 10.6%	N/A	Yes (Direct)
12. I-805 NB Ramps / Olympic Parkway	49.3	D	51.9	D	N/A	N/A	11.2% / 13.8%	N/A	No
13. Oleander Avenue / Olympic Parkway	51.2	D	49.2	D	N/A	N/A	12.6% / 15.5%	N/A	No
14. Brandywine Avenue / Olympic Parkway	60.9	E	99.7	F	N/A	N/A	14.9% / 18.1%	N/A	Yes (Direct)
15. Heritage Road / Olympic Parkway	19.8	B	17.4	B	N/A	N/A	12.8% / 18.2%	N/A	No
16. Santa Venetia Street / Olympic Parkway	3.3	A	2.4	A	N/A	N/A	14.7% / 19.7%	N/A	No
17. La Media Road / Olympic Parkway	51.9	D	32.2	C	N/A	N/A	24.3% / 33.3%	N/A	No
18. East Palomar Street / Olympic Parkway	27.5	C	28.2	C	N/A	N/A	7.8% / 8.1%	N/A	No
19. SR-125 SB Ramps / Olympic Parkway	4.8	A	5.2	A	N/A	N/A	10.4% / 9.5%	N/A	No
20. SR-125 NB Ramps / Olympic Parkway	1.4	A	6.2	A	N/A	N/A	9.5% / 8.7%	N/A	No
21. EastLake Parkway / Olympic Parkway	18.2	B	22.7	C	N/A	N/A	17.4% / 16.7%	N/A	No
22. Hunte Parkway / Olympic Parkway	20.4	C	22.4	C	N/A	N/A	21.8% / 20.4%	N/A	No
23. Olympic Vista Road / Olympic Parkway	21.8	C	19.0	B	N/A	N/A	18.8% / 19.2%	N/A	No

**Table 5.3-16 (Continued)**  
**Peak-Hour Intersection LOS Results – Existing Plus Project (Buildout) Conditions**

Intersection	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec.) AM/PM	LOS w/o Project AM/PM	Project % of Entering Volume (>5%)	Change in Delay (sec.)	Significant Impact?
	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS					
24. La Media Road / Santa Venelia Street	51.4	C	16.9	B	N/A	N/A	35.5% / 62.1%	N/A	No
25. Heritage Road / Santa Victoria Road	Does Not Exist								
26. La Media Road / Birch Road	36.5	D	29.0	C	N/A	N/A	62.4% / 80.1%	N/A	No
27. Magdalena Avenue / Birch Road	24.9	C	17.4	B	N/A	N/A	42.3% / 58.1%	N/A	No
28. SR-125 SB Ramps / Birch Road	5.6	A	11.8	B	N/A	N/A	54.0% / 62.8%	N/A	No
29. SR-125 NB Ramps / Birch Road	1.9	A	10.4	B	N/A	N/A	54.3% / 59.6%	N/A	No
30. EastLake Parkway / Birch Road	28.3	C	48.3	D	N/A	N/A	45.0% / 51.1%	N/A	No
31. 4th Avenue / Main Street	15.2	B	18.0	B	N/A	N/A	3.3% / 2.9%	N/A	No
32. 3rd Avenue / Main Street	22.6	C	25.3	C	N/A	N/A	4.6% / 4.1%	N/A	No
33. Hilltop Drive / Main Street	12.3	B	13.8	B	N/A	N/A	10.5% / 10.3%	N/A	No
34. Melrose Avenue / Main Street	12.8	B	12.5	B	N/A	N/A	12.8% / 11.9%	N/A	No
35. I-805 SB Ramps / Main Street	32.1	C	42.1	D	N/A	N/A	21.9% / 20.5%	N/A	No
36. I-805 NB Ramps / Main Street	18.7	B	24.7	C	N/A	N/A	30.4% / 28.4%	N/A	No
37. Oleander Avenue / Main Street	5.1	A	6.1	A	N/A	N/A	36.0% / 33.9%	N/A	No
38. Brandywine Avenue / Main Street	24.3	C	44.0	D	N/A	N/A	40.6% / 37.6%	N/A	No
39. Heritage Road / Main Street (all-way stop controlled)	66.6	F	69.3	F	N/A	N/A	99.7% / 99.8%	N/A	Yes (Direct)
40. La Media Road (SB) / Main Street (WB) (all-way stop controlled)	8.3	A	33.7	D	N/A	N/A	100.0% / 100.0%	N/A	No
41. La Media Road (NB) / Main Street (WB) (all-way stop controlled)	41.9	E	16.3	C	N/A	N/A	100.0% / 100.0%	N/A	Yes (Direct)
42. La Media Road (SB) / Main Street (EB) (all-way stop controlled)	13.0	B	44.9	E	N/A	N/A	100.0% / 100.0%	N/A	Yes (Direct)
43. La Media Road (NB) / Main Street (EB) (all-way stop controlled)	12.0	B	32.4	D	N/A	N/A	100.0% / 100.0%	N/A	No

**Table 5.3-16 (Continued)**  
**Peak-Hour Intersection LOS Results – Existing Plus Project (Buildout) Conditions**

Intersection	AM Peak Hour		PM Peak Hour		Delay w/o Project (sec.) AM/PM	LOS w/o Project AM/PM	Project % of Entering Volume (>5%)	Change in Delay (sec.)	Significant Impact?
	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS					
44. Magdalena Avenue / Main Street (one-way stop controlled)*	113.1	F	240.5	F	N/A	N/A	95.9% / 97.8%	N/A	Yes (Direct)
45. SR-125 SB Ramps / Main Street	Does Not Exist								
46. SR-125 NB Ramps / Main Street	Does Not Exist								
47. East Lake Parkway / Main Street/Hunte Parkway	12.9	B	8.7	A	N/A	N/A	45.3% / 78.3%	N/A	No
48. Discovery Falls Drive / Hunte Parkway	27.0	C	33.6	C	N/A	N/A	48.3% / 79.1%	N/A	No
49. Heritage Road / Avenida De Las Vistas (SD) (all-way stop controlled)	48.7	E	36.8	E	38.0 / 19.1	E / C	N/A	10.7 / 17.7	Yes (Direct)
50. SR-125 SB Ramps / Lone Star Road (SD)	Does Not Exist								
51. SR-125 NB Ramps / Lone Star Road (SD)	Does Not Exist								
52. Ellis Road / Lone Star Road (SD)	Does Not Exist								
53. Ocean View Hills Parkway / Otay Mesa Road (SD)	20.7	C	19.6	B	19.6 / 19.3	B / B	N/A	1.1 / 0.3	No
54. Heritage Road / Otay Mesa Road (SD)	26.7	C	30.7	C	18.5 / 20.8	B / C	N/A	8.2 / 9.9	No
55. Cactus Road / Otay Mesa Road (SD)	11.0	B	13.2	B	7.5 / 9.1	A / A	N/A	3.5 / 4.1	No
56. Britannia Boulevard / Otay Mesa Road (SD)	40.0	D	50.7	D	35.7 / 41.5	D / D	N/A	4.3 / 9.9	No
57. La Media Road / Otay Mesa Road (SD)	18.1	B	21.4	C	16.5 / 19.6	B / B	N/A	1.6 / 1.8	No
58. SR-125 SB Ramps / Otay Mesa Road (SD)	15.1	B	15.1	B	3.3 / 2.9	A / A	N/A	11.8 / 12.2	No
59. SR-125 NB Ramps / Otay Mesa Road (SD)	2.6	A	3.0	A	2.6 / 3.0	A / A	N/A	0.0 / 0.0	No
60. Ellis Road / Otay Mesa Road (SD)	Does Not Exist								
61. Santa Macheto @ Heritage Road	3.6	A	4.0	A	N/A	N/A	100.0% / 100.0%	N/A	No
62. Santa Picocho @ Heritage Road	14.7	B	17.0	B	N/A	N/A	100.0% / 100.0%	N/A	No

**Table 5.3-16 (Continued)**  
**Peak-Hour Intersection LOS Results – Existing Plus Project (Buildout) Conditions**

Intersection	AM Peak Hour		PM Peak Hour		LOS w/o Project AM/PM	Project % of Entering Volume (> 5%)	Change in Delay (sec.)	Significant Impact?
	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS				
63. Santa Maya @ Heritage Road	17.9	B	27.7	C	N/A	100.0% / 100.0%	N/A	No
64. Energy Way / Heritage Road	Does Not Exist							
65. Quarry Driveway / Main Street	7.0	A	7.0	A		61.0% / 86.2%		No
66. Village Three North Project R-20 Driveway @ Main Street	7.0	A	6.7	A		100.0% / 100.0%		No
67. La Media Road / Village Four Driveway @ Santa Luna Street	7.1	A	15.7	B	N/A	95.7% / 98.3%	N/A	No
68. Santa Tipu @ Main Street (one-way stop RT in/out)*	9.7	A	15.0	C		96.3% / 94.1%		No
69. Santa Marisol @ Main Street	30.5	C	16.9	B		97.0% / 98.5%		No
70. Village Eight East R-16 Driveway @ Main Street (one-way stop RT in/out)*	19.7	A	8.6	A	N/A	100.0% / 100.0%	N/A	No
71. Village Eight East Community Park Driveway @ Otay Valley Road	8.9	A	10.2	B	N/A	100.0% / 100.0%	N/A	No
72. Cutter Avenue @ Otay Valley Road (one-way stop RT in/out)*	Does Not Exist							
73. Santa Marisol @ Otay Valley Road	3.0	A	2.2	A	N/A	100.0% / 100.0%	N/A	No
74. Village Nine Street "B" / Otay Valley Road	Does Not Exist							
75. Village Nine Street "B" / Discovery Falls Drive	Does Not Exist							
76. Santa Julliard @ Discovery Falls Drive	8.2	A	7.3	A	N/A	100.0% / 100.0%	N/A	No
77. University Drive @ Discovery Falls Drive	11.0	B	24.0	C	N/A	100.0% / 100.0%	N/A	No
78. Santa Davis @ Discovery Falls Drive	12.0	B	9.2	A	N/A	100.0% / 100.0%	N/A	No

Source: Chen Ryan Associates 2014 (EIR Appendix M).

Note: Bold letter indicates unacceptable LOS E or F.  
 N/A = Information not applicable to the respective jurisdiction's impact analysis methodology.

\* For two-way stop controlled intersections, the delay shown is the worst delay experienced by any of the approaches.

City of San Diego

- Heritage Road / Avenida De Las Vistas (SD) (all-way stop controlled) – LOS E during both the AM and PM peak hours and project would add more than 2 seconds of delay.

As per San Diego significant impact criteria, the addition of trips generated by buildout of the proposed project would result in a significant direct impact at this intersection.

***Roadway Segment Analysis***

Tables 5.3-17 and 5.3-18 display the LOS analysis results for roadway segments under existing plus project (buildout) conditions in the City of Chula Vista and City of San Diego, respectively. As shown in the tables, the proposed project would result in significant impacts to the following five roadway segments, including four in Chula Vista and one in San Diego.

City of Chula Vista

- Orange Avenue, between Melrose Avenue and I-805 SB Ramps (LOS D) – Proposed project trips would comprise more than 5% of the total segment volume and would add more than 800 ADT. In addition, one of the intersections (I-805 SB Ramps / Olympic Parkway) along this segment would operate at substandard LOS F during the PM peak hour. Therefore, the proposed project would result in a significant direct impact at this location.
- Olympic Parkway, between Oleander Avenue and Brandywine Avenue (LOS E) – Proposed project trips would comprise more than 5% of the total segment volume and would add more than 800 ADT. In addition, one of the intersections (Brandywine Avenue / Olympic Parkway) along this segment would operate at substandard LOS E during the AM peak hour and LOS F during the PM peak hour. Therefore, the proposed project would result in a direct impact at this location.
- Olympic Parkway, between Brandywine Avenue and Heritage Road (LOS F) – Proposed project trips would comprise more than 5% of the total segment volume and would add more than 800 ADT. In addition, one of the intersections (Brandywine Avenue / Olympic Parkway) along this segment would operate at substandard LOS E the AM peak hour and LOS F during the PM peak hour. Therefore, the proposed project would result in a direct impact at this location.
- Heritage Road, between Main Street and Avenida De Las Vistas (LOS E/D) – Proposed project trips would comprise more than 5% of the total segment volume and would add more than 800 ADT. In addition, one of the intersections (Heritage Road / Main Street) along this segment would operate at substandard LOS E/F during the peak hours. Therefore, the proposed project would result in a significant direct impact at this location.

**Table 5.3-17  
Roadway Segment LOS Results – Existing Plus Project (Buildout) Conditions (City of Chula Vista)**

Roadway	From	To	Cross Section	ADT w/ Project	LOS Threshold (LOS C)	LOS w/ Project	Project ADT (> 800)	Project Contribution (>5%)	Intersection along Segment Operating @ LOS D or Better?	Significant Impact?
H Street	Tierra Del Rey	Paseo Ranchero	6-Ln w/RM	41,800	50,000	B	500	1.2%	—	No
Telegraph Canyon Road	Medical Center Drive	Heritage Road/ Paseo Ranchero	6-Ln w/RM	47,300	50,000	C	2,200	4.7%	—	No
Telegraph Canyon Road	Heritage Road/ Paseo Ranchero	La Media Road/ Olay Lakes Road	6-Ln w/RM	38,800	50,000	B	2,700	7.0%	—	No
Olay Lakes Road	H Street	Telegraph Canyon Road	4-Ln w/SM/RM	29,500	30,000	C	3,200	10.8%	—	No
Olay Lakes Road	La Media Road	Rutgers Avenue	6-Ln w/RM	42,800	50,000	B	1,200	2.8%	—	No
East Palomar Street	Medical Center Drive	Heritage Road	4-Ln w/RM	16,100	30,000	A	2,700	16.8%	—	No
East Palomar Street	Heritage Road	La Media Road	4-Ln w/RM	23,700	30,000	B	3,600	15.2%	—	No
East Palomar Street	La Media Road	Olympic Parkway	4-Ln w/RM	13,200	30,000	A	800	6.1%	—	No
Orange Avenue	3rd Avenue	Hilltop Drive	4-Ln w/TWLT/LRM	21,100	30,000	A	2,100	10.0%	—	No
Orange Avenue	Hilltop Drive	Melrose Avenue	4-Ln w/RM	24,200	30,000	B	1,100	4.5%	—	No
Orange Avenue	Melrose Avenue	I-805 SB Ramps	4-Ln w/RM	31,000	30,000	D	2,000	6.5%	No	Yes (Direct)
Olympic Parkway	I-805 SB Ramps	I-805 NB Ramps	6-Ln	44,400	50,000	C	4,900	11.0%	—	No
Olympic Parkway	I-805 NB Ramps	Oleander Avenue	6-Ln w/RM	56,000	50,000	D	7,500	13.4%	Yes	No
Olympic Parkway	Oleander Avenue	Brandywine Avenue	6-Ln w/RM	60,200	50,000	E	7,900	13.1%	No	Yes (Direct)
Olympic Parkway	Brandywine Avenue	Heritage Road	6-Ln w/RM	62,600	50,000	F	9,900	15.8%	No	Yes (Direct)
Olympic Parkway	Heritage Road	Santa Venetia Street	6-Ln w/RM	57,700	50,000	E	9,500	16.5%	Yes	No

Table 5.3-17 (Continued)  
 Roadway Segment LOS Results – Existing Plus Project (Buildout) Conditions (City of Chula Vista)

Roadway	From	To	Cross Section	ADT w/ Project	LOS Threshold (LOS C)	LOS w/ Project	Project ADT (> 800)	Project Contribution (> 5%)	Intersection along Segment Operating @ LOS D or Better?	Significant Impact?
Olympic Parkway	Santa Venetia Street	La Media Road	6-Ln w/RM	55,300	50,000	D	9,500	17.2%	Yes	No
Olympic Parkway	La Media Road	East Palomar Street	6-Ln w/RM	33,500	50,000	A	2,500	7.5%	—	No
Olympic Parkway	East Palomar Street	SR-125 SB Ramps	6-Ln w/RM	38,800	50,000	B	3,200	8.2%	—	No
Olympic Parkway	SR-125 SB Ramps	SR-125 NB Ramps	8-Ln w/RM	36,800	70,000	A	3,000	8.2%	—	No
Olympic Parkway	SR-125 NB Ramps	EastLake Parkway	8-Ln w/RM	38,800	70,000	A	3,200	8.2%	—	No
Olympic Parkway	EastLake Parkway	Hunte Parkway	6-Ln w/RM	17,300	50,000	A	2,600	15.0%	—	No
Olympic Parkway	Hunte Parkway	Olympic Vista Road	4-Ln w/RM	8,400	30,000	A	1,500	17.9%	—	No
Olympic Parkway	Olympic Vista Road	Lake Crest Drive	4-Ln w/RM	2,200	30,000	A	700	31.8%	—	No
Birch Road	La Media Road	Magdalena Avenue	6-Ln w/RM	25,100	40,000	A	15,900	63.3%	—	No
Birch Road	Magdalena Avenue	SR-125 SB Ramps	6-Ln w/RM	27,000	40,000	A	16,300	60.4%	—	No
Birch Road	SR-125 SB Ramps	SR-125 NB Ramps	6-Ln w/RM	26,600	50,000	A	14,600	54.9%	—	No
Birch Road	SR-125 NB Ramps	EastLake Parkway	6-Ln w/RM	24,000	50,000	A	13,300	55.4%	—	No
Main Street	4th Avenue	3rd Avenue	4-Ln w/TWLT	21,100	30,000	A	700	3.3%	—	No
Main Street	3rd Avenue	Hilltop Drive	4-Ln w/TWLT	23,600	30,000	B	1,100	4.7%	—	No
Main Street	Hilltop Drive	Melrose Avenue	4-Ln w/TWLT	27,000	30,000	C	2,600	9.6%	—	No

**Table 5.3-17 (Continued)  
Roadway Segment LOS Results – Existing Plus Project (Buildout) Conditions (City of Chula Vista)**

Roadway	From	To	Cross Section	ADT w/ Project	LOS Threshold (LOS C)	LOS w/ Project	Project ADT (> 800)	Project Contribution (> 5%)	Intersection along Segment Operating @ LOS D or Better?	Significant Impact?
Main Street	Melrose Avenue	I-805 SB Ramps	4-Ln w/TWLT	29,900	30,000	C	3,000	10.0%	—	No
Main Street	I-805 SB Ramps	I-805 NB Ramps	6-Ln	35,200	50,000	A	7,400	21.0%	—	No
Main Street	I-805 NB Ramps	Oleander Avenue	6-Ln w/RM	43,000	50,000	B	11,700	27.2%	—	No
Main Street	Oleander Avenue	Brandywine Avenue	6-Ln w/TWLT	35,700	50,000	A	12,600	35.3%	—	No
Main Street	Brandywine Avenue	Heritage Road	6-Ln w/RM	27,300	50,000	A	16,400	60.1%	—	No
Main Street	Heritage Road	La Media Road					Does Not Exist			
Main Street	La Media Road	West of SR-125 @ Int #65	4-Ln w/RM*	18,600	30,000	A	18,400	98.9%	—	No
Main Street	SR-125 SB Ramps	SR-125 NB Ramps					Does Not Exist			
Main Street	SR-125 NB Ramps	EastLake Parkway / University Drive					Does Not Exist			
Olay Valley Road	Main Street	SR-125	4-Ln w/RM*	12,700	30,000	A	12,700	100.0%	—	No
Olay Valley Road	SR-125	Village Nine Street "B"					Does Not Exist			
Hilltop Drive	Orange Avenue	Main Street	4-Ln	7,500	22,000	A	1,200	16.0%	—	No
Paseo Ranchero	H Street	Telegraph Canyon Road	4-Ln w/SM/RM	14,300	22,000	A	1,000	7.0%	—	No
Heritage Road	Telegraph Canyon Road	East Palomar Street	6-Ln w/RM	19,900	50,000	A	900	4.5%	—	No
Heritage Road	East Palomar Street	Olympic Parkway	6-Ln w/RM	13,700	50,000	A	800	5.8%	—	No
Heritage Road	Olympic Parkway	Santa Victoria Road					Does Not Exist			

**Table 5.3-17 (Continued)**  
**Roadway Segment LOS Results – Existing Plus Project (Buildout) Conditions (City of Chula Vista)**

Roadway	From	To	Cross Section	ADT w/ Project	LOS Threshold (LOS C)	LOS w/ Project	Project ADT (> 800)	Project Contribution (>5%)	Intersection along Segment Operating @ LOS D or Better?	Significant Impact?
Heritage Road	South of Santa Victoria Road @ Int #61	Main Street	6-Ln w/RM*	20,800	50,000	A	20,800	100.0%	—	No
Heritage Road	Main Street	Avenida De Las Vistas	2-Ln w/TWLT	13,200	12,000	D	4,400	33.3%	No	Yes (Direct)
La Media Road	Telegraph Canyon Road	East Palomar Street	6-Ln w/RM	28,800	50,000	A	6,200	21.5%	—	No
La Media Road	East Palomar Street	Olympic Parkway	6-Ln w/RM	24,600	50,000	A	9,900	40.2%	—	No
La Media Road	Olympic Parkway	Santa Venetia Street	6-Ln w/RM	36,500	50,000	A	20,100	55.1%	—	No
La Media Road	Santa Venetia Street	Birch Road	6-Ln w/RM	32,600	50,000	A	21,100	64.7%	—	No
La Media Road	Birch Road	Santa Luna Street	6-Ln w/RM	31,100	50,000	A	29,000	93.2%	—	No
La Media Road	Santa Luna Street	Main Street	4-Ln w/RM*	28,100	30,000	C	28,100	100.0%	—	No
Magdalena Avenue	Santa Venetia Street	Birch Road	4-Ln	5,200	22,000	A	1,700	32.7%	—	No
Magdalena Avenue	Birch Road	Wolf Canyon Loop	4-Ln w/RM	10,200	22,000	A	1,900	18.6%	—	No
Magdalena Avenue	Wolf Canyon Loop	Santa Luna Street	2-Ln w/RM	4,900	12,000	A	1,600	32.7%	—	No
Magdalena Avenue	Santa Luna Street	Main Street	4-Ln w/RM	6,400	22,000	A	3,100	48.4%	—	No
EastLake Parkway	Corte Vista	Olympic Parkway	6-Ln w/RM	14,500	50,000	A	2,400	16.6%	—	No
EastLake Parkway	Olympic Parkway	Birch Road	6-Ln w/RM	16,900	40,000	A	5,100	30.2%	—	No

**Table 5.3-17 (Continued)**  
**Roadway Segment LOS Results – Existing Plus Project (Buildout) Conditions (City of Chula Vista)**

Roadway	From	To	Cross Section	ADT w/ Project	LOS Threshold (LOS C)	LOS w/ Project	Project ADT (> 800)	Project Contribution (> 5%)	Intersection along Segment Operating @ LOS D or Better?	Significant Impact?
EastLake Parkway	Birch Road	Main Street / Hunte Parkway	6-Ln w/RM	14,100	40,000	A	12,200	86.5%	—	No
University Drive	Main Street/Hunte Parkway	University Driveway #1	2-Ln w/RM*	9,000	12,000	B	9,000	100.0%	—	No
University Drive	University Driveway #1	University Driveway #2	2-Ln w/RM*	9,000	12,000	B	9,000	100.0%	—	No
University Drive	University Driveway #2	Discovery Falls Drive	2-Ln w/RM*	9,000	12,000	B	9,000	100.0%	—	No
Discovery Falls Drive	Hunte Parkway	University/RTP Driveway	4-Ln w/RM*	6,600	30,000	A	5,600	84.8%	—	No
Discovery Falls Drive	University/RTP Driveway	University Drive	2-Ln w/RM*	1,400	12,000	A	5,600	100.0%	—	No
Discovery Falls Drive	University Drive	Santa Julliard	2-Ln w/RM*	2,800	12,000	A	5,600	100.0%	—	No
Hunte Parkway	Olay Lakes Road	Olympic Parkway	4-Ln w/RM	9,100	30,000	A	2,100	23.1%	—	No
Hunte Parkway	Olympic Parkway	Discovery Falls Drive	6-Ln w/RM	6,600	50,000	A	3,400	51.5%	—	No
Hunte Parkway	Discovery Falls Drive	EastLake Parkway / University Drive	6-Ln w/RM	6,600	50,000	A	2,900	43.9%	—	No

Source: Chen Ryan Associates 2014 (EIR Appendix M).

Note: Bold letter indicates unacceptable LOS (D), E, or F.

RM = raised median; SM = striped median; TWLTL = two-way left-turn lane

\* Facility is required for project access.

**Table 5.3-18  
Roadway Segment LOS Results – Existing Plus Project (Buildout) Conditions (City of San Diego)**

Roadway	From	To	Cross Section	ADT w/ Project	LOS Threshold (LOS D)	LOS w/ Project	ADT w/o Project	LOS w/o Project	Change in V/C	Significant Impact?
Lone Star Road	La Media Road	Ellis Road	2-Ln	300	9,000	A	280	A	0.002	No
Otay Mesa Road	Ocean View Hills Parkway	Heritage Road	6-Ln w/RM	36,200	55,000	C	35,212	C	0.016	No
Otay Mesa Road	Heritage Road	Cactus Road	6-Ln w/RM	34,000	55,000	B	31,682	B	0.039	No
Otay Mesa Road	Cactus Road	Britannia Boulevard	6-Ln w/RM	52,900	55,000	D	50,978	D	0.032	No
Otay Mesa Road	Britannia Boulevard	La Media Road	6-Ln w/RM	23,500	55,000	A	22,343	A	0.019	No
Otay Mesa Road	La Media Road	Ellis Road	6-Ln w/RM	10,800	55,000	A	10,200	A	0.010	No
Heritage Road	Avenida De Las Vistas	Otay Mesa Road	2-Ln	11,300	9,000	<b>F</b>	7,984	D	0.332	Yes (Direct)
La Media Road	Lone Star Road	Otay Mesa Road	2-Ln	5,400	9,000	B	5,438	B	0.000	No
Ellis Road	Lone Star Road	Otay Mesa Road	Does Not Exist							

Source: Chen Ryan Associates 2014 (EIR Appendix M).

Note: Bold letter indicates unacceptable LOS E or F.

RM = raised median

### City of San Diego

- Heritage Road, between Avenida De Las Vistas and Otay Mesa Road (LOS F) – The proposed project traffic would cause the V/C ratio at this segment to increase by more than 0.01, thus resulting in a significant direct impact.

#### ***Freeway/State Highway Segment Analysis***

The freeway / state highway segment LOS analysis was performed utilizing the methodology presented in Section 5.3.1.1. Table 5.3-19 displays the resulting LOS for I-805, SR-125, and SR-905 under existing plus project (buildout) conditions.

As shown in Table 5.3-19, the study area freeway / state highway segments would operate at acceptable LOS D or better under existing plus project (buildout) conditions. Based on the available information, the addition of trips generated by full development of the proposed project would not cause significant traffic impacts to the study area freeway / state highway segments.

#### ***Ramp Intersection Capacity Analysis***

Consistent with Caltrans requirements and for information purposes only, the signalized ramp intersections along I-805 and SR-125 within the study area were analyzed under existing plus project (buildout) conditions using the ILV procedures as described in Section 5.3.1.1. ILV analysis results are displayed in Table 5.3-20 and analysis worksheets for the existing plus project (buildout) conditions are provided in EIR Appendix M.

As shown in Table 5.3-20, all of the I-805 ramp intersections would operate at capacity and/or under capacity, with the exception of the following:

- I-805 SB Ramps / Olympic Parkway – Over capacity during the PM peak hour
- I-805 NB Ramps / Olympic Parkway – Over capacity during the AM peak hour.
- I-805 SB Ramps / Main Street – Over capacity during the PM peak hour

All of the SR-125 ramp intersections within the study area would operate under capacity during both the AM and PM peak hours under the existing plus project (buildout) conditions.

#### ***Ramp Metering Analysis***

Table 5.3-21 displays the ramp metering analysis conducted at I-805 northbound on-ramps at Olympic Parkway and Main Street under existing plus project (buildout) conditions. Based on observed existing conditions, it is assumed that approximately 80% of the total arrival traffic (demand) would utilize the two non-HOV lanes.

As shown in Table 5.3-21, the peak hour capacity expected to be processed through the ramp meter (Meter Rate) would be greater than the peak hour demand (Demand) at the I-805 northbound on-ramps at Olympic Parkway and Main Street. Therefore, there would be no queuing issue at either of these on-ramps under the existing plus project (buildout) conditions.

**Table 5.3-19  
Freeway / State Highway Segment LOS Results – Existing Plus Project (Buildout) Conditions**

Freeway/ State Highway	Segment	ADT	Peak Hour %	Peak Hour Volume	Directional Split	# of Lanes Per Direction	PHF	% of Heavy Vehicle	Volume (pc/h/ln)	V/C	LOS w/ Project	Project Contribution (≥ 5%)	Significant Impact?
I-805	Home Avenue to SR-94	172,400	6.9%	11,896	0.51	4M**	0.97	4.2%	1,600	0.667	C	3.1%	No
I-805	SR-94 to Market Street	167,500	8.0%	13,400	0.50	4M**	0.97	4.2%	1,768	0.737	C	3.2%	No
I-805	Market Street to Imperial Avenue	169,600	8.0%	13,568	0.50	5M**	0.97	4.2%	1,432	0.597	B	4.4%	No
I-805	Imperial Avenue to E Division Street	189,000	8.0%	15,120	0.50	5M**	0.97	4.2%	1,589	0.662	C	4.1%	No
I-805	E Division Street to Plaza Boulevard	197,300	7.2%	14,206	0.51	5M**	0.95	3.8%	1,555	0.648	C	4.3%	No
I-805	Plaza Boulevard to SR-54	200,200	8.1%	16,216	0.52	5M**	0.96	2.2%	1,780	0.742	C	4.3%	No
I-805	SR-54 to Bonita Road	192,800	7.2%	13,882	0.52	4M+1Aux**	0.96	1.7%	1,681	0.700	C	6.0%	No
I-805	Bonita Road to East H Street	192,500	7.8%	15,015	0.50	5M**	0.95	1.7%	1,592	0.663	C	5.8%	No
I-805	East H Street to Telegraph Canyon Road	185,900	7.8%	14,500	0.50	5M**	0.95	1.9%	1,541	0.642	C	6.3%	No
I-805	Telegraph Canyon Road to East Palomar Street	163,600	7.1%	11,616	0.51	4M**+1Aux	0.92	1.7%	1,447	0.603	B	6.4%	No
I-805	East Palomar Street to Olympic Parkway	163,600	7.1%	11,616	0.51	4M**+1Aux	0.92	1.7%	1,447	0.603	B	6.4%	No
I-805	Olympic Parkway to Main Street	129,100	6.9%	8,908	0.51	4M**+1Aux	0.93	5.4%	1,115	0.465	B	5.9%	No
I-805	Main Street to Palm Avenue	120,500	7.1%	8,556	0.58	4M**+1Aux	0.95	10.3%	1,218	0.508	B	3.5%	No
I-805	Palm Avenue to SR-905	115,400	7.1%	8,193	0.58	4M**+1Aux	0.95	10.3%	1,173	0.489	B	3.6%	No
SR-125	Telegraph Canyon Road to Olympic Parkway	10,000	7.0%	700	0.58	2M	0.95	10.3%	221	0.092	A	38.0%	No

**Table 5.3-19 (Continued)**  
**Freeway / State Highway Segment LOS Results – Existing Plus Project (Buildout) Conditions**

Freeway/ State Highway	Segment	ADT	Peak Hour %	Peak Hour Volume	Directional Split	# of Lanes Per Direction	PHF	% of Heavy Vehicle	Volume (pc/h/ln)	V/C	LOS w/ Project	Project Contribution (≥ 5%)	Significant Impact?
SR-125	Olympic Parkway to Birch Road	8,500	7.0%	595	0.58	2M	0.95	10.3%	188	0.078	A	49.4%	No
SR-125	Birch Road to Main Street	7,800	7.0%	546	0.58	2M	0.95	10.3%	177	0.074	A	38.5%	No
SR-125	Main Street to Lone Star Road	7,800	7.0%	546	0.58	2M	0.95	10.3%	177	0.074	A	38.5%	No
SR-125	Lone Star Road to SR-905	7,800	7.0%	546	0.58	2M	0.95	10.3%	177	0.074	A	38.5%	No
SR-905	I-805 to Calliente Avenue	56,000	7.0%	3,920	0.60	2M	0.92	8.1%	1,335	0.556	B	0.0%	No
SR-905	Calliente Avenue to Heritage Road	53,000	7.0%	3,710	0.60	3M	0.92	8.1%	837	0.349	A	0.0%	No
SR-905	Heritage Road to Britannia Boulevard	49,500	7.0%	3,465	0.60	3M	0.92	8.1%	780	0.325	A	0.0%	No
SR-905	Britannia Boulevard to La Media Road	49,500	7.0%	3,465	0.60	3M + 1Aux	0.92	8.1%	520	0.217	A	0.0%	No
SR-905	La Media Road to SR-125	30,000	7.0%	2,100	0.60	3M	0.92	8.1%	475	0.198	A	0.0%	No

**Source:** Chen Ryan Associates 2014 (EIR Appendix M).

M = mainline; Aux = auxiliary lane

\*\* 2 new HOV lanes have been constructed very recently, however freeway ADT information is not available for these HOV lanes. The existing conditions analysis is based on pre HOV freeway geometrics and traffic volumes. This should represent the worst case scenario.

**Table 5.3-20  
Ramp Intersection Capacity Analysis – Existing Plus Project (Buildout) Conditions**

Ramp Intersection	Peak Hour	ILV / Hour	Description
I-805 SB Ramps / Olympic Parkway	AM	1,244	1200-1500: (At Capacity)
	PM	1,657	>1500: (Over Capacity)
I-805 NB Ramps / Olympic Parkway	AM	2,287	>1500: (Over Capacity)
	PM	1,478	1200-1500: (At Capacity)
I-805 SB Ramps / Main Street	AM	1,148	<1200: (Under Capacity)
	PM	1,597	>1500: (Over Capacity)
I-805 NB Ramps / Main Street	AM	918	<1200: (Under Capacity)
	PM	1,170	<1200: (Under Capacity)
SR-125 SB Ramps / Olympic Parkway	AM	573	<1200: (Under Capacity)
	PM	646	<1200: (Under Capacity)
SR-125 NB Ramps / Olympic Parkway	AM	345	<1200: (Under Capacity)
	PM	455	<1200: (Under Capacity)
SR-125 SB Ramps / Birch Road	AM	411	<1200: (Under Capacity)
	PM	619	<1200: (Under Capacity)
SR-125 NB Ramps / Birch Road	AM	397	<1200: (Under Capacity)
	PM	537	<1200: (Under Capacity)
SR-125 SB Ramps / Main Street	AM	Does Not Exist	
	PM		
SR-125 NB Ramps / Main Street	AM	Does Not Exist	
	PM		
SR-125 SB Ramps / Lone Star Road	AM	Does Not Exist	
	PM		
SR-125 NB Ramps / Lone Star Road	AM	Does Not Exist	
	PM		
SR-125 SB Ramps / Otay Mesa Road	AM	439	<1200: (Under Capacity)
	PM	436	<1200: (Under Capacity)
SR-125 NB Ramps / Otay Mesa Road	AM	329	<1200: (Under Capacity)
	PM	401	<1200: (Under Capacity)

Source: Chen Ryan Associates 2014 (EIR Appendix M).

**Table 5.3-21**  
**Ramp Metering Analysis – Existing Plus Project (Buildout) Conditions**

Location	Peak Hour	PVOL Peak Hour Volume	Demand <sup>1</sup> (veh/hr)	Meter Rate <sup>2</sup> (veh/hr)	Excess Demand <sup>3</sup> (veh/hr)	Delay w/ Project <sup>4</sup> (min)	Queue <sup>5</sup> (ft)	Delay w/o Project (min)	Significant Impact?
I-805 NB On-Ramp @ Olympic Parkway	AM	<u>2,104</u>	842	887	0	0	0	0	No
I-805 NB On-Ramp @ Main Street	AM	<u>988</u>	395	413	0	0	0	0	No

**Source:** Chen Ryan Associates 2014 (EIR Appendix M).

<sup>1</sup> Demand is the peak hour demand expected to use the on-ramp.

<sup>2</sup> Meter rate is the peak hour capacity expected to be processed through the ramp meter.

<sup>3</sup> Excess demand = (demand) – (meter rate) or zero, whichever is greater.

<sup>4</sup> Delay = (excess demand / meter rate) × 60 min/hr.

<sup>5</sup> Queue = (excess demand) × 29 ft/veh

### ***Summary of Existing Plus Project Conditions***

In summary, under the existing plus project analysis, the proposed project would result in significant impacts at the following seven intersections and five roadway segments:

#### Intersections

- I-805 SB Ramps / Olympic Parkway
- Brandywine Avenue / Olympic Parkway
- Heritage Road / Main Street
- La Media Road (NB) / Main Street (WB)
- La Media Road (SB) / Main Street (EB)
- Magdalena Avenue / Main Street
- Heritage Road / Avenida De Las Vistas.

#### Roadway Segments

- Orange Avenue between Melrose Avenue and I-805 SB Ramps
- Olympic Parkway between Oleander Avenue and Brandywine Avenue
- Olympic Parkway between Brandywine Avenue and Heritage Road
- Heritage Road between Main Street and Avenida De Las Vistas
- Heritage Road between Avenida De Las Vistas and Otay Mesa Road.

Under this scenario, project impacts would be less than significant on freeways / state highways, and at all highway on-ramp meters.

In comparison, as addressed later in this section, under the 2030 Project Buildout scenario, which more accurately accounts for intervening growth in cumulative traffic, infrastructure improvements, and other changing land uses, the proposed project would result in significant impacts at the following two intersections, one roadway segment, eleven freeway / state highway segments, and one ramp meter:

### Intersections

- I-805 SB Ramps / Olympic Parkway
- Discovery Falls Drive / Hunte Parkway.

### Roadway Segment

- Orange Avenue, between Melrose Avenue and I-805 Ramps

### Freeway / State Highway Segments

- I-805, from SR-94 to Market Street
- I-805, from Market Street to Imperial Avenue
- I-805, from Imperial Avenue to E Division Street
- I-805, from Plaza Boulevard to SR-54
- I-805 from SR-54 to Bonita Road
- I-805, from Bonita Road to East H Street
- I-805, from East H Street to Telegraph Canyon Road
- SR-905 from I-805 to Caliente Avenue
- SR-905 from Caliente Avenue to Heritage Road
- SR-905 from Heritage Road to Britannia Boulevard
- SR-905 from Britannia Boulevard to La Media Road.

### Ramp Meter

- I-805 NB On-Ramp at Main Street

Under the 2030 Project Buildout scenario, impacts to roadway segments would be less than significant.

Thus, in this case, the existing plus project analysis both overstates and understates project impacts. It understates impacts by failing to identify the significant impacts at the Discovery Falls Drive / Hunte Parkway intersection, the freeway segments along I-805 and SR-905 and the I-805 ramp meter. It overstates impacts by identifying intersection and roadway segment impacts that effectively would be remedied during the years preceding project buildout either through mitigation measures implemented by the project or through planned infrastructure improvements constructed by the Project Applicant and others.

As such, it would be misleading to the public and decision makers to use the existing plus project scenario to measure significance, that is, for the purpose of identifying project impacts and mitigation. As a result, this scenario is provided for disclosure, information, and comparison purposes only. Significant traffic impacts and recommended mitigation are assessed under the 2015, 2020, 2025, and 2030 scenarios presented below because those scenarios accurately account for the long-range projected development of the proposed project within the context of an ever-changing traffic network and associated land uses.

## **A.2 Year 2015 Traffic Conditions**

This section provides an analysis of the proposed project's impacts under Year 2015 traffic conditions. Project frontage, access, and their respective Equivalent Dwelling Units (EDU), are included in the PFFP discussion as provided in Chapter 13 of Appendix M. For comparison purposes, LOS operations under existing conditions were previously provided in Table 5.3-8, Peak-Hour Intersection LOS Results, and Table 5.3-9, Roadway Segment LOS Results. Intersection and roadway segment analyses in this section focus on facilities within the City of Chula Vista, as interim year information (2015, 2020, and 2025) for facilities within the City of San Diego is not available. Facilities within both the cities of Chula Vista and San Diego are analyzed in the buildout Year 2030 scenario.

### ***Year 2015 Roadway Network and Traffic Volumes***

The Year 2015 roadway network was assumed to be identical to the existing network with the following exceptions:

Roadway improvements to be constructed by the project for access and frontage:

- Heritage Road along the frontage of Village Three North, between Santa Picacho and Main Street – This facility is included as a Six-Lane Prime Arterial providing frontage

and access for Village Three North (project access and frontage and the Public Facilities Financing Plan (PFFP) discussions are provided in EIR Appendix M).

- Santa Picacho @ Heritage Road (Int #62) – All-way stop controlled T-intersection (will provide necessary access to Village Three North, which will be partially developed by Year 2015).
- Santa Maya @ Heritage Road (Int #63) – All-way stop controlled T-intersection (will provide necessary access to Village Three North, which will be partially developed by Year 2015).

According to Section 12.24 of the City’s Municipal Code, access related impacts would occur if access and frontage improvements are not provided concurrent with development (See Table 4-3 in Chapter 4, Project Description).

Roadway improvements to be constructed by others (Assumed Build by Year 2015):

- I-805, between Home Avenue and East Palomar Street – The I-805 South Project area is roughly 11 miles, between East Palomar Street in Chula Vista and the I-805/SR-15 interchange in San Diego. The project includes the addition of HOV/Express Lanes within the freeway median. As originally approved, the I-805 South project would be constructed in two major phases:
  - Phase 1 (2012–2014) – Phase 1, currently under construction, includes building one HOV lane in each direction and the construction of a direct access ramp, and a transit station and park & ride at East Palomar Street in Chula Vista.
  - Phase 2 (2015–2020) – The second phase of the I-805 South project would have further expanded transportation choices by building out the HOV lanes into Express Lanes for a total of 4 lanes, 2 in each direction. Phase 2 also included the addition of in-line transit stations and freeway-to-freeway direct connectors.

However, on December 16th, 2011, the SANDAG Board of Directors gave final approval to buy the lease to operate the SR-125 toll road from South Bay Expressway. SANDAG reported that following completion of the transaction, it expected to begin a process to lower tolls on SR-125 by 40% to 50% of the current rates, and that the reduced tolls are expected to attract more traffic to SR-125, relieving congestion on I-805 and reducing the need for certain planned improvements. Specifically, SANDAG reported that the acquisition of SR-125 will make it unnecessary to add the two additional carpool lanes that would have been constructed as part of Phase 2 of the I-805 South Project.

In support of the Board's action, an Addendum to SANDAG’s 2030 RTP EIR (State of California Clearinghouse #2002071059) was prepared pursuant to the California Environmental Quality Act (CEQA). The Addendum addressed the amendment to the

TransNet Extension Ordinance that would consist of a swap of the two planned HOV lanes on I-805 between SR-54 and SR-905 (Phase 2 of the I-805 South Project discussed above) for a portion of the SR-125 toll road assets acquisition costs. Specific to future traffic conditions, the Addendum determined that while the reduction in tolls would result in a shift of traffic from I-805 to SR-125, freeway operations on both facilities would remain acceptable.

The Series 11 model included 4-HOV lanes on I-805, consistent with SANDAG's 2030 RTP (the 2050 RTP was not prepared until after the SANDAG Series 11 model was developed). No manual adjustments were made to the model outputs on I-805 or SR-125 because it was determined that it would be speculative to estimate the number of trips which would shift from I-805 to SR-125 due to (1) the loss of two HOV lanes on I-805 and (2) the SR-125 reduced toll amount.

Because SANDAG subsequently decided to use the funding previously identified to build two of these I-805 HOV lanes instead to purchase the SR-125 lease, the TIA analyzed potential impacts to I-805 with only 2-HOV lanes (because there is only identified funding for two HOV lanes due to the SR-125 purchase). Thus, the TIA conservatively estimates (over-estimates) potential impacts on I-805 because the modeling attracts more cars (due to the 4-HOV lanes scenario), but the analysis uses fewer lanes/less capacity (only 2-HOV lanes). Then, the TIA analysis relies on the SANDAG Addendum to the 2030 RTP EIR, which concluded that there would be no additional, un-analyzed impacts on SR-125 due to the corresponding reduction in tolls.

For additional information in regard to the I-805 South Project as well as SANDAG's 2030 RTP EIR Addendum, see EIR Appendix M.

- Heritage Road, south of Main Street to Chula Vista city limit – This facility is included as a Four-Lane Major Road in 2015. As indicated in the City's currently adopted General Plan Circulation Element, the ultimate classification designation for Heritage Road south of Main Street is a Six-Lane Prime Arterial. This improvement project (STM364 – Heritage Road Bridge Replacement) is included in the Chula Vista adopted FY 2012–13 through FY 2016–17 Capital Improvement Program (CIP) and will be funded by a mix of the Highway Bridge Program, TDIFs, and other miscellaneous transportation grants. For additional information, see EIR Appendix M.

If the assumed roadway improvements are not in place as modeled for the Year 2015 scenario, additional traffic impacts could occur. Therefore, a potentially significant impact could occur if assumed improvements are not developed as prescribed in the traffic impact analysis. If the assumed roadway improvements are not constructed by others and in place as modeled for the Year 2015 scenario, the Project Applicant and the City will take those steps necessary to either

construct the subject facilities or implement substitute measures to ensure adequate infrastructure as modeled is in place as detailed in TCA-2 and TCA-3.

**Intersection Analysis**

Table 5.3-22 displays peak-hour intersection LOS results for the study area intersections under Year 2015 project conditions. LOS calculation worksheets for the Year 2015 conditions are provided in EIR Appendix M. As shown in Table 5.3-22, all of the study area intersections would operate at acceptable LOS D or better under the Year 2015 conditions and, as such, the project would not result in significant intersection impacts.

**Table 5.3-22  
Peak Hour Intersection LOS Results – Year 2015 Conditions**

Intersection	AM Peak Hour		PM Peak Hour		Project % of Entering Volume (> 5%)	Significant Impact?
	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS		
Paseo Ranchero / H Street	39.1	D	36.3	D	0.0% / 0.0%	No
Otay Lakes Road / H Street	25.9	C	29.1	C	0.0% / 0.0%	No
Paseo Ranchero / Heritage Road / Telegraph Canyon Road	44.5	D	28.9	C	0.2% / 0.3%	No
La Media Road / Telegraph Canyon Road / Otay Lakes Road	28.7	C	43.7	D	0.2% / 0.2%	No
Hunte Parkway / Otay Lakes Road	22.7	C	21.7	C	0.0% / 0.0%	No
Heritage Road / East Palomar Street	35.0	C	25.5	C	0.5% / 0.5%	No
La Media Road / East Palomar Street	48.5	D	45.7	D	0.0% / 0.0%	No
3rd Avenue / Orange Avenue	22.7	C	25.6	C	0.8% / 0.7%	No
Hilltop Drive / Orange Avenue	30.6	C	25.4	C	1.0% / 1.1%	No
Melrose Avenue / Orange Avenue	23.2	C	30.9	D	0.0% / 0.0%	No
I-805 SB Ramps / Olympic Parkway	41.1	D	52.5	D	0.0% / 0.0%	No
I-805 NB Ramps / Olympic Parkway	22.6	C	27.5	C	0.0% / 0.0%	No
Oleander Avenue / Olympic Parkway	31.0	C	38.7	D	0.0% / 0.0%	No
Brandywine Avenue / Olympic Parkway	47.3	D	53.4	D	1.1% / 1.2%	No
Heritage Road / Olympic Parkway	18.4	B	33.1	C	0.5% / 0.6%	No
Santa Venetia Street / Olympic Parkway	10.3	B	2.2	A	0.3% / 0.4%	No
La Media Road / Olympic Parkway	28.6	C	34.5	C	0.2% / 0.3%	No
East Palomar Street / Olympic Parkway	29.4	C	31.8	C	0.1% / 0.1%	No
SR-125 SB Ramps / Olympic Parkway	5.2	A	6.5	A	0.1% / 0.2%	No
SR-125 NB Ramps / Olympic Parkway	3.8	A	3.8	A	0.1% / 0.2%	No
EastLake Parkway / Olympic Parkway	21.3	C	30.1	C	0.1% / 0.1%	No
Hunte Parkway / Olympic Parkway	19.8	B	18.7	B	0.0% / 0.0%	No
Olympic Vista Road / Olympic Parkway	20.8	C	18.4	B	0.0% / 0.0%	No
La Media Road / Santa Venetia Street	43.2	D	26.2	C	0.2% / 0.3%	No
Heritage Road / Santa Victoria Road	Does Not Exist					
La Media Road / Birch Road	22.8	C	41.9	D	0.1% / 0.2%	No

**Table 5.3-22 (Continued)**  
**Peak Hour Intersection LOS Results – Year 2015 Conditions**

Intersection	AM Peak Hour		PM Peak Hour		Project % of Entering Volume (> 5%)	Significant Impact?
	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS		
Magdalena Avenue / Birch Road	21.2	C	18.4	B	0.1% / 0.2%	No
SR-125 SB Ramps / Birch Road	4.1	A	6.2	A	0.2% / 0.2%	No
SR-125 NB Ramps / Birch Road	3.8	A	3.8	A	0.2% / 0.3%	No
EastLake Parkway / Birch Road	28.1	C	28.3	C	0.0% / 0.0%	No
4th Avenue / Main Street	19.3	B	26.4	C	0.4% / 0.3%	No
3rd Avenue / Main Street	30.2	C	36.3	D	0.6% / 0.6%	No
Hilltop Drive / Main Street	14.9	B	13.3	B	1.8% / 1.9%	No
Melrose Avenue / Main Street	18.5	B	23.8	C	1.7% / 1.9%	No
I-805 SB Ramps / Main Street	22.0	C	35.6	D	3.4% / 4.4%	No
I-805 NB Ramps / Main Street	30.3	C	26.9	C	6.0% / 6.0%	No
Oleander Avenue / Main Street	5.4	A	7.4	A	7.5% / 7.3%	No
Brandywine Avenue / Main Street	23.3	C	39.4	D	8.8% / 8.7%	No
Heritage Road / Main Street (all-way stop controlled)	34.5	D	19.1	C	30.0% / 36.4%	No
La Media Road (SB) / Main Street (WB)	Does Not Exist					
La Media Road (NB) / Main Street (WB)	Does Not Exist					
La Media Road (SB) / Main Street (EB)	Does Not Exist					
La Media Road (NB) / Main Street (EB)	Does Not Exist					
Magdalena Avenue / Main Street	Does Not Exist					
SR-125 SB Ramps / Main Street	Does Not Exist					
SR-125 NB Ramps / Main Street	Does Not Exist					
EastLake Parkway / Main Street/Hunte Parkway	Does Not Exist					
Discovery Falls Drive / Hunte Parkway	18.0	B	19.6	B	0.0% / 0.0%	No
Santa Macheto @ Heritage Road	Does Not Exist					
Santa Picacho @ Heritage Road	8.2	A	7.7	A	100.0% / 100.0%	No
Santa Maya @ Heritage Road	10.9	B	10.7	B	100.0% / 100.0%	No
Energy Way / Heritage Road	Does Not Exist					
Quarry Driveway / Main Street	Does Not Exist					
Village Three North Project R-20 Driveway @ Main Street	Does Not Exist					
La Media Road / Village Four Driveway @ Santa Luna Street	Does Not Exist					
Santa Tipu @ Main Street (one-way stop RT in/out)*	Does Not Exist					
Santa Marisol @ Main Street	Does Not Exist					
Village Eight East R-16 Driveway @ Main Street (one-way stop RT in/out)*	Does Not Exist					
Village Eight East Community Park Driveway @ Otay Valley Road	Does Not Exist					
Cutter Avenue @ Otay Valley Road (one-way stop RT in/out)*	Does Not Exist					

**Table 5.3-22 (Continued)**  
**Peak Hour Intersection LOS Results – Year 2015 Conditions**

Intersection	AM Peak Hour		PM Peak Hour		Project % of Entering Volume (> 5%)	Significant Impact?
	<i>Avg. Delay (sec.)</i>	<i>LOS</i>	<i>Avg. Delay (sec.)</i>	<i>LOS</i>		
Santa Marisol @ Otay Valley Road					Does Not Exist	
Village Nine Street "B" / Otay Valley Road					Does Not Exist	
Village Nine Street "B" / Discovery Falls Drive					Does Not Exist	
Santa Julliard @ Discovery Falls Drive					Does Not Exist	
University Drive @ Discovery Falls Drive					Does Not Exist	
Santa Davis @ Discovery Falls Drive					Does Not Exist	

**Source:** Chen Ryan Associates 2014 (EIR Appendix M).

**Notes:** Bold letter indicates unacceptable LOS E or F.

\* For two-way stop controlled intersections, the delay shown is the worst delay experienced by any of the approaches. City of San Diego intersections (#49-#60) are not analyzed for interim years

### *Roadway Segment Analysis*

Table 5.3-23 displays the LOS analysis results for study area roadway segments within the City of Chula Vista under the Year 2015 conditions. As shown in Table 5.3-23, the following four roadway segments in the City of Chula Vista would operate at substandard LOS D, E, or F, although project traffic volumes would be less than the applicable threshold and, therefore, project impacts would be less than significant under the City’s standard criteria.

- Telegraph Canyon Road, between Medical Center Drive and Heritage Road/Paseo Ranchero (LOS D) – The proposed 2015 project traffic would comprise approximately 0.2% (less than 5%) of the total segment volume and would add 100 ADT (less than 800 ADT).
- Orange Avenue, between Melrose Avenue and I-805 SB Ramps (LOS D) – The proposed 2015 project traffic would comprise approximately 0.0% (less than 5%) of the total segment volume and would add 0 ADT (less than 800 ADT).
- Main Street, between Hilltop Drive and Melrose Avenue (LOS D) – The proposed 2015 project traffic would comprise approximately 2.1% (less than 5%) of the total segment volume and would add 700 ADT (less than 800 ADT).
- Main Street, between Melrose Avenue and I-805 SB Ramps (LOS D) – The proposed 2015 project traffic would comprise approximately 2.4% (less than 5%) of the total segment volume and would not add more than 800 ADT.

As stated in the City of Chula Vista’s traffic impact criteria, if the roadway segment analysis results in LOS D, E, or F under short-term conditions (Years 0–4), then the GMOC method should be utilized for roadway segment analysis. The GMOC impact criteria include the following:

- a. Direct impact if all of the following criteria are met:
  - i. LOS is D for more than 2 hours or E/F for 1 hour.
  - ii. Project trips comprise 5% or more of segment volume.
  - iii. Project adds greater than 800 ADT to segment.
- b. Cumulative impact if only criterion [a] is met.

Since project traffic would not comprise more than 5% of the total segment volume and would not add more than 800 ADT, direct impacts would not result along any of the roadway segments identified above. As to cumulative impacts, under the City’s GMO, the threshold for a cumulative impact is LOS D for more than 2 hours.

**Table 5.3-23  
Roadway Segment LOS Results – Year 2015 Conditions**

Roadway	From	To	Cross Section	ADT w/ Project	LOS Threshold (LOS C)	LOS w/ Project	Project ADT (> 800)	Project Contribution (> 5%)	GMOC Analysis	Significant Impact?
H Street	Tierra Del Rey	Paseo Rancho	6-Ln w/RM	45,500	50,000	C	0	0.0%	—	No
Telegraph Canyon Road	Medical Center Drive	Heritage Road / Paseo Rancho	6-Ln w/RM	55,900	50,000	D	100	0.2%	Acceptable	No
Telegraph Canyon Road	Heritage Road / Paseo Rancho	La Media Road / Olaj Lakes Road	6-Ln w/RM	44,800	50,000	C	200	0.4%	—	No
Olaj Lakes Road	H Street	Telegraph Canyon Road	4-Ln w/SM/RM	27,700	30,000	A	100	0.4%	—	No
Olaj Lakes Road	La Media Road	Rutgers Avenue	6-Ln w/RM	39,200	50,000	B	100	0.3%	—	No
East Palomar Street	Medical Center Drive	Heritage Road	4-Ln w/RM	24,300	30,000	B	100	0.4%	—	No
East Palomar Street	Heritage Road	La Media Road	4-Ln w/RM	21,700	30,000	A	100	0.5%	—	No
East Palomar Street	La Media Road	Olympic Parkway	4-Ln w/RM	21,800	30,000	A	0	0.0%	—	No
Orange Avenue	3rd Avenue	Hilltop Drive	4-Ln w/TWLT/RM	23,500	30,000	B	300	1.3%	—	No
Orange Avenue	Hilltop Drive	Melrose Avenue	4-Ln w/RM	27,100	30,000	C	0	0.0%	—	No
Orange Avenue	Melrose Avenue	I-805 SB Ramps	4-Ln w/RM	32,200	30,000	D	0	0.0%	Acceptable	No
Olympic Parkway	I-805 SB Ramps	I-805 NB Ramps	6-Ln	41,200	50,000	B	0	0.0%	—	No
Olympic Parkway	I-805 NB Ramps	Oleander Avenue	6-Ln w/RM	42,800	50,000	B	0	0.0%	—	No
Olympic Parkway	Oleander Avenue	Brandywine Avenue	6-Ln w/RM	35,300	50,000	A	0	0.0%	—	No
Olympic Parkway	Brandywine Avenue	Heritage Road	6-Ln w/RM	30,500	50,000	A	400	1.3%	—	No
Olympic Parkway	Heritage Road	Santa Venetia Street	6-Ln w/RM	47,400	50,000	C	200	0.4%	—	No
Olympic Parkway	Santa Venetia Street	La Media Road	6-Ln w/RM	35,600	50,000	A	200	0.6%	—	No
Olympic Parkway	La Media Road	East Palomar Street	6-Ln w/RM	25,200	50,000	A	100	0.4%	—	No
Olympic Parkway	East Palomar Street	SR-125 SB Ramps	6-Ln w/RM	45,000	50,000	C	100	0.2%	—	No
Olympic Parkway	SR-125 SB Ramps	SR-125 NB Ramps	8-Ln w/RM	45,700	70,000	A	100	0.2%	—	No

**Table 5.3-23 (Continued)**  
**Roadway Segment LOS Results – Year 2015 Conditions**

Roadway	From	To	Cross Section	ADT w/ Project	LOS Threshold (LOSC)	LOS w/ Project	Project ADT (> 800)	Project Contribution (≥ 5%)	GMOC Analysis	Significant Impact?
Olympic Parkway	SR-125 NB Ramps	EastLake Parkway	8-Ln w/RM	47,200	70,000	A	100	0.2%	—	No
Olympic Parkway	EastLake Parkway	Hunte Parkway	6-Ln w/RM	31,300	50,000	A	100	0.3%	—	No
Olympic Parkway	Hunte Parkway	Olympic Vista Road	4-Ln w/RM	11,900	30,000	A	0	0.0%	—	No
Olympic Parkway	Olympic Vista Road	Lake Crest Drive	4-Ln w/RM	4,400	30,000	A	0	0.0%	—	No
Birch Road	La Media Road	Magdalena Avenue	6-Ln w/RM	20,200	40,000	A	100	0.5%	—	No
Birch Road	Magdalena Avenue	SR-125 SB Ramps	6-Ln w/RM	19,600	40,000	A	100	0.5%	—	No
Birch Road	SR-125 SB Ramps	SR-125 NB Ramps	6-Ln w/RM	20,800	50,000	A	100	0.5%	—	No
Birch Road	SR-125 NB Ramps	EastLake Parkway	6-Ln w/RM	23,100	50,000	A	0	0.0%	—	No
Main Street	4th Avenue	3rd Avenue	4-Ln w/TWLT	21,700	30,000	A	100	0.5%	—	No
Main Street	3rd Avenue	Hilltop Drive	4-Ln w/TWLT	28,000	30,000	C	200	0.7%	—	No
Main Street	Hilltop Drive	Melrose Avenue	4-Ln w/TWLT	32,700	30,000	D	700	2.1%	Acceptable	No
Main Street	Melrose Avenue	I-805 SB Ramps	4-Ln w/TWLT	33,300	30,000	D	800	2.4%	Acceptable	No
Main Street	I-805 SB Ramps	I-805 NB Ramps	6-Ln	38,400	50,000	B	2,100	5.5%	—	No
Main Street	I-805 NB Ramps	Oleander Avenue	6-Ln w/RM	41,000	50,000	B	3,400	8.3%	—	No
Main Street	Oleander Avenue	Brandywine Avenue	6-Ln w/TWLT	41,600	50,000	B	3,600	8.7%	—	No
Main Street	Brandywine Avenue	Heritage Road	6-Ln w/RM	30,400	50,000	A	4,800	15.8%	—	No
Main Street	Heritage Road	La Media Road	Does Not Exist							
Main Street	La Media Road	SR-125 SB Ramps	Does Not Exist							
Main Street	SR-125 SB Ramps	SR-125 NB Ramps	Does Not Exist							
Main Street	SR-125 NB Ramps	EastLake Parkway / University Drive	Does Not Exist							
Otay Valley Road	Main Street	SR-125	Does Not Exist							
Otay Valley Road	SR-125	Village Nine Street "B"	Does Not Exist							

Table 5.3-23 (Continued)  
Roadway Segment LOS Results – Year 2015 Conditions

Roadway	From	To	Cross Section	ADT w/ Project	LOS Threshold (LOS C)	LOS w/ Project	Project ADT (> 800)	Project Contribution (≥ 5%)	GMOC Analysis	Significant Impact?	
Hilltop Drive	Orange Avenue	Main Street	4-Ln	7,800	22,000	A	400	5.1%	—	No	
Paseo Ranchero	H Street	Telegraph Canyon Road	4-Ln w/SM/RM	14,300	22,000	A	100	0.7%	—	No	
Heritage Road	Telegraph Canyon Road	East Palomar Street	6-Ln w/RM	19,200	50,000	A	100	0.5%	—	No	
Heritage Road	East Palomar Street	Olympic Parkway	6-Ln w/RM	33,200	50,000	A	200	0.6%	—	No	
Heritage Road	Olympic Parkway	Santa Victoria Road	Does Not Exist								No
Heritage Road	South of Santa Victoria Road @ Int #62	Main Street	6-Ln w/RM*	6,100	50,000	A	6,100	100.0%	—	No	
Heritage Road	Main Street	Avenida De Las Vistas	4-Ln w/RM**	15,000	30,000	A	1,300	8.7%	—	No	
La Media Road	Telegraph Canyon Road	East Palomar Street	6-Ln w/RM	22,500	50,000	A	0	0.0%	—	No	
La Media Road	East Palomar Street	Olympic Parkway	6-Ln w/RM	17,300	50,000	A	0	0.0%	—	No	
La Media Road	Olympic Parkway	Santa Venetia Street	6-Ln w/RM	30,900	50,000	A	0	0.0%	—	No	
La Media Road	Santa Venetia Street	Birch Road	6-Ln w/RM	29,400	50,000	A	100	0.3%	—	No	
La Media Road	Birch Road	Santa Luna Street	6-Ln w/RM	11,800	50,000	A	0	0.0%	—	No	
La Media Road	Santa Luna Street	Main Street	Does Not Exist								No
Magdalena Avenue	Santa Venetia Street	Birch Road	4-Ln	3,700	22,000	A	0	0.0%	—	No	
Magdalena Avenue	Birch Road	Wolf Canyon Loop	4-Ln w/RM	9,000	22,000	A	0	0.0%	—	No	
Magdalena Avenue	Wolf Canyon Loop	Santa Luna Street	2-Ln w/RM	2,000	12,000	A	0	0.0%	—	No	
Magdalena Avenue	Santa Luna Street	Main Street	4-Ln w/RM	4,600	22,000	A	0	0.0%	—	No	
EastLake Parkway	Corte Vista	Olympic Parkway	6-Ln w/RM	17,600	50,000	A	0	0.0%	—	No	
EastLake Parkway	Olympic Parkway	Birch Road	6-Ln w/RM	19,900	40,000	A	0	0.0%	—	No	

**Table 5.3-23 (Continued)**  
**Roadway Segment LOS Results – Year 2015 Conditions**

Roadway	From	To	Cross Section	ADT w/ Project	LOS Threshold (LOS C)	LOS w/ Project	Project ADT (> 800)	Project Contribution (≥ 5%)	GMOG Analysis	Significant Impact?
EastLake Parkway	Birch Road	Main Street / Hunte Parkway	6-Ln w/RM	19,000	40,000	A	0	0.0%	—	No
University Drive	Main Street/Hunte Parkway	University Driveway #1				Does Not Exist				
University Drive	University Drive #1	University #2				Does Not Exist				
University Drive	University Driveway #2	Discovery Falls Drive				Does Not Exist				
Discovery Falls Drive	Hunte Parkway	University/RTP Driveway				Does Not Exist				
Discovery Falls Drive	University/RTP Driveway	University Drive				Does Not Exist				
Discovery Falls Drive	University Drive	Village Nine Street "B"				Does Not Exist				
Hunte Parkway	Olay Lakes Road	Olympic Parkway	4-Ln w/RM	13,500	30,000	A	0	0.0%	—	No
Hunte Parkway	Olympic Parkway	Discovery Falls Drive	6-Ln w/RM	9,800	50,000	A	0	0.0%	—	No
Hunte Parkway	Discovery Falls Drive	EastLake Parkway / University Drive	6-Ln w/RM	4,400	50,000	A	0	0.0%	—	No

**Source:** Chen Ryan Associates 2014 (EIR Appendix M).

**Note:** Bold letter indicates unacceptable LOS (D), E, or F.

RM = raised median; SM = striped median; TWLTL = two-way left-turn lane

\* Facility is required for project access.

\*\* Facility improvement is assumed to be implemented by others, including City's CIP.

Based upon a review of the City’s 2011 GMOC Annual Report (dated April 7, 2011) and discussion with the City Engineer, all four segments above are considered as GMOC compliant and would continue to operate satisfactorily with the addition of project traffic generated by 2015. Thus, the proposed 2015 project traffic would not result in any project specific or cumulative impacts to the project study area roadway segments within Chula Vista.

In addition, as a part of the City’s Growth Management Program (GMP), the City monitors the operating conditions along Olympic Parkway on an annual basis. In 2011, an expanded traffic analysis was prepared, the Olympic Parkway Capacity Enhancement Analysis (LLG 2011), to monitor new development in the East Planning Area<sup>2</sup> with respect to available capacity on Olympic Parkway east of I-805. The study addressed whether GMO thresholds are projected to be reached or exceeded, and whether mitigation measures are necessary in order to remain compliant with the requirements of the GMP. In conformance with the requirements of the GMP, a peak-hour arterial analysis was conducted on the segment of westbound Olympic Parkway between Heritage Road and Oleander Avenue under near-term conditions (Years 0–4) based on the City of Chula Vista’s Traffic Monitoring Program (TMP) methodology. The Chula Vista TMP is used to assess the operating performance of the City’s arterial street system in order to determine compliance with the Threshold Standards of the GMP.

Based on the LLG study, the segment of westbound Olympic Parkway between Heritage Road and Oleander Avenue during AM peak hours would be the first to fall below GMO traffic threshold standards as traffic volumes increase over time with this project and other projects east of I-805. However, the analysis also demonstrated that GMO thresholds would not be reached along Olympic Parkway until building permits for 2,463 dwelling units have been issued for projects east of I-805. The projected 2,463rd dwelling unit (DU) threshold is used by the City to determine when cumulative impacts may occur along the corridor. Therefore, in the short-term (0-4 years), a significant impact could occur on Olympic Parkway between Heritage Road and Oleander Avenue during the AM peak Hour if the 2,463rd building permit for units east of the I-805 is issued.

### ***Freeway / State Highway Segment Analysis***

Table 5.3-24 displays freeway LOS analysis results for I-805, SR-125, and SR-905 under the Year 2015 conditions. As shown in Table 5.3-24, all study freeway / state highway segments along I-805, SR-125, and SR-905 would operate at acceptable LOS D or better under Year 2015 conditions. The addition of trips generated by the proposed project would not cause any significant traffic impacts to study area freeway / state highway segments.

---

<sup>2</sup> The City of Chula Vista’s previous General Plan had five Planning Areas, each with its own Area Plan. However, the 2005 General Plan combines some of the previous Planning Areas. The former Sweetwater and Eastern Territories have been integrated into the East Planning Area.

### ***Ramp Intersection Capacity Analysis***

Consistent with Caltrans requirements and provided for information purposes only, the signalized ramp intersections along I-805 and SR-125 within the study area were analyzed under Year 2015 conditions using the ILV procedures as described in Section 5.3.1.1. ILV analysis results are displayed in Table 5.3-25 and analysis worksheets for the Year 2015 conditions are provided in EIR Appendix M.

As shown in Table 5.3-25, all of the I-805 ramp intersections would operate at capacity and/or under capacity, with the following two exceptions:

- I-805 SB Ramps / Olympic Parkway – Over capacity during the PM peak hour
- I-805 SB Ramps / Main Street – Over capacity during the PM peak hour.

All of the SR-125 ramp intersections within the study area would continue to operate under capacity during both the AM and PM peak hours under the Year 2015 conditions.

### ***Ramp Metering Analysis***

Table 5.3-26 displays the ramp metering analysis conducted at the I-805 northbound on-ramps at Olympic Parkway and Main Street under the Year 2015 conditions. Based on observed existing conditions, it is assumed that approximately 80% of the total arrival traffic (demand) would utilize the two non-HOV lanes.

As shown in Table 5.3-26, the peak hour demand (Demand) at both the I-805 northbound on-ramps (Olympic Parkway and Main Street) would be less than the capacity that the ramp meter (Meter Rate) provides. Therefore, the proposed project would not result in a significant impact at either on-ramp.

**Table 5.3-24  
Freeway / State Highway Segment LOS Results – Year 2015 Conditions**

Freeway/ State Highway	Segment	With Project										Without Project		Project Contribution (>5%)	Significant Impact?
		ADT	Peak Hour %	Peak Hour Volume	Directional Split	# of Lanes Per Direction	PHF	% of Heavy Vehicle	Volume (pch/ln)	V/C	LOS	ADT	LOS		
I-805	Home Avenue to SR-94	228,300	6.9%	15,753	0.51	4+1HOV	0.97	4.2%	1,695	0.706	C	227,800	C	0.2%	No
I-805	SR-94 to Market Street	227,500	8.0%	18,200	0.50	4+1HOV	0.97	4.2%	1,916	0.798	C	227,000	C	0.2%	No
I-805	Market Street to Imperial Avenue	299,800	8.0%	23,984	0.50	5+1HOV	0.97	4.2%	2,105	0.877	D	298,900	D	0.3%	No
I-805	Imperial Avenue to E Division Street	299,900	8.0%	23,992	0.50	5+1HOV	0.97	4.2%	2,105	0.877	D	299,000	D	0.3%	No
I-805	E Division Street to Plaza Boulevard	288,200	7.2%	20,750	0.51	5+1HOV	0.95	3.8%	1,888	0.787	C	287,300	C	0.3%	No
I-805	Plaza Boulevard to SR-54	278,200	8.1%	22,534	0.52	5+1HOV	0.96	2.2%	2,054	0.856	D	277,200	D	0.4%	No
I-805	SR-54 to Bonita Road	303,200	7.2%	21,830	0.52	4+1Aux+1 HOV	0.96	1.7%	2,164	0.902	D	301,700	D	0.5%	No
I-805	Bonita Road to East H Street	260,100	7.8%	20,288	0.50	5+1HOV	0.95	1.7%	1,794	0.748	C	258,600	C	0.6%	No
I-805	East H Street to Telegraph Canyon Road	257,600	7.8%	20,093	0.50	5+1HOV	0.95	1.9%	1,775	0.740	C	255,900	C	0.7%	No
I-805	Telegraph Canyon Road to East Palomar Street	213,900	7.1%	15,187	0.51	4+1Aux+1 HOV	0.92	1.7%	1,546	0.644	C	212,200	C	0.8%	No

Table 5.3-24 (Continued)  
 Freeway / State Highway Segment LOS Results – Year 2015 Conditions

Freeway/ State Highway	Segment	With Project										Without Project		Project Contribution (>5%)	Significant Impact?
		ADT	Peak Hour %	Peak Hour Volume	Directional Split	# of Lanes Per Direction	PHF	% of Heavy Vehicle	Volume (pc/h/ln)	V/C	LOS	ADT	LOS		
I-805	East Palomar Street to Olympic Parkway	195,300	7.1%	13,866	0.51	4M+1Aux	0.92	1.7%	1,721	0.717	C	193,500	C	0.9%	No
I-805	Olympic Parkway to Main Street	193,000	6.9%	13,317	0.51	4M+1Aux	0.93	5.4%	1,667	0.695	C	191,200	C	0.9%	No
I-805	Main Street to Palm Avenue	187,800	7.1%	13,334	0.58	4M+1Aux	0.95	10.3%	1,904	0.793	C	187,000	C	0.4%	No
I-805	Palm Avenue to SR-905	166,000	7.1%	11,786	0.58	4M+1Aux	0.95	10.3%	1,682	0.701	C	165,400	C	0.4%	No
SR-125	Telegraph Canyon Road to Olympic Parkway	13,100	7.0%	917	0.60	2M	0.92	2.0%	307	0.128	A	13,100	A	0.0%	No
SR-125	Olympic Parkway to Birch Road	11,000	7.0%	770	0.60	2M	0.92	2.0%	253	0.105	A	11,000	A	0.0%	No
SR-125	Birch Road to Main Street	21,000	7.0%	1,470	0.60	2M	0.92	2.0%	483	0.201	A	21,000	A	0.0%	No
SR-125	Main Street to Lone Star Road	21,000	7.0%	1,470	0.60	2M	0.92	2.0%	483	0.201	A	21,000	A	0.0%	No
SR-125	Lone Star Road to Olay Mesa Road	21,000	7.0%	1,470	0.60	2M	0.92	2.0%	483	0.201	A	21,000	A	0.0%	No

Table 5.3-24 (Continued)  
 Freeway / State Highway Segment LOS Results – Year 2015 Conditions

Freeway/ State Highway	Segment	With Project										Without Project		Project Contribution (>5%)	Significant Impact?
		ADT	Peak Hour %	Peak Hour Volume	Directional Split	# of Lanes Per Direction	PHF	% of Heavy Vehicle	Volume (pc/h/ln)	V/C	LOS	ADT	LOS		
SR-125	Olaj Mesa Road to SR- 905	20,900	7.0%	1,463	0.60	2M	0.92	2.0%	483	0.201	A	21,000	A	0.0%	No
SR-905	I-805 to Calliente Avenue	94,800	7.0%	6,636	0.60	3M	0.92	5.0%	1,482	0.618	B	94,800	B	0.0%	No
SR-905	Calliente Avenue to Heritage Road	81,200	7.0%	5,684	0.60	3M	0.92	5.0%	1,270	0.529	B	81,200	B	0.0%	No
SR-905	Heritage Road to Britannia Boulevard	81,200	7.0%	5,684	0.60	3M	0.92	5.0%	1,270	0.529	B	81,200	B	0.0%	No
SR-905	Britannia Boulevard to La Media Road	76,400	7.0%	5,348	0.60	3M	0.92	5.0%	1,192	0.497	B	76,300	B	0.1%	No
SR-905	La Media Road to SR-125	58,100	7.0%	4,067	0.60	3M	0.92	5.0%	902	0.376	A	58,000	A	0.2%	No

Source: Chen Ryan Associates 2014 (EIR Appendix M).  
 M = mainline; Aux = auxiliary lane; ML = managed lane

**Table 5.3-25  
Ramp Intersection Capacity Analysis – Year 2015 Conditions**

Ramp Intersection	Peak Hour	With Project		Without Project	
		ILV / Hour	Description	ILV / Hour	Description
I-805 SB Ramps / Olympic Parkway	AM	1,236	1200-1500: (At Capacity)	1,228	1200-1500: (At Capacity)
	PM	1,683	>1500: (Over Capacity)	1,660	>1500: (Over Capacity)
I-805 NB Ramps / Olympic Parkway	AM	1,370	1200-1500: (At Capacity)	1,370	1200-1500: (At Capacity)
	PM	1,328	1200-1500: (At Capacity)	1,328	1200-1500: (At Capacity)
I-805 SB Ramps / Main Street	AM	1,310	1200-1500: (At Capacity)	1,282	1200-1500: (At Capacity)
	PM	1,789	>1500: (Over Capacity)	1,754	>1500: (Over Capacity)
I-805 NB Ramps / Main Street	AM	1,245	1200-1500: (At Capacity)	1,218	1200-1500: (At Capacity)
	PM	1,326	1200-1500: (At Capacity)	1,302	1200-1500: (At Capacity)
SR-125 SB Ramps / Olympic Parkway	AM	367	<1200: (Under Capacity)	366	<1200: (Under Capacity)
	PM	514	<1200: (Under Capacity)	513	<1200: (Under Capacity)
SR-125 NB Ramps / Olympic Parkway	AM	448	<1200: (Under Capacity)	448	<1200: (Under Capacity)
	PM	442	<1200: (Under Capacity)	441	<1200: (Under Capacity)
SR-125 SB Ramps / Birch Road	AM	536	<1200: (Under Capacity)	535	<1200: (Under Capacity)
	PM	692	<1200: (Under Capacity)	692	<1200: (Under Capacity)
SR-125 NB Ramps / Birch Road	AM	515	<1200: (Under Capacity)	515	<1200: (Under Capacity)
	PM	628	<1200: (Under Capacity)	627	<1200: (Under Capacity)
SR-125 SB Ramps / Main Street	AM		Does Not Exist		Does Not Exist
	PM				
SR-125 NB Ramps / Main Street	AM		Does Not Exist		Does Not Exist
	PM				
SR-125 SB Ramps / Lone Star Road	AM		Does Not Exist		Does Not Exist
	PM				
SR-125 NB Ramps / Lone Star Road	AM		Does Not Exist		Does Not Exist
	PM				

Source: Chen Ryan Associates 2014 (EIR Appendix M).

**Table 5.3-26  
Ramp Metering Analysis – Year 2015 Conditions**

Location	Peak Hour	With Project					Without Project					Significant Impact?	
		$\frac{P_{vol} Peak Hour Volume}{1,300}$	Demand Vol1 (veh/hr per lane)	Meter Rate2 (veh/hr)	Excess Demand 3 (veh/hr)	Delay4 (min)	Queue 5 (ft)	$\frac{P_{vol} Peak Hour Volume}{1,300}$	Demand Vol (veh/hr per lane)	Excess Demand (veh/hr)	Delay (min)		Queue (ft)
I-805 NB On-Ramp @ Olympic Parkway	AM	1,300	520	887	0	0	0	1,300	<del>766</del> 520	0	0	0	No
I-805 NB On-Ramp @ Main Street	AM	1,020	408	413	0	0	925	<del>368</del> 370	0	0	0	No	

Source: Chen Ryan Associates 2014 (EIR Appendix M).

- 1 Demand is the peak hour demand expected to use the on-ramp per lane.
- 2 Meter rate is the peak hour capacity expected to be processed through the ramp meter.
- 3 Excess demand = (demand) – (meter rate) or zero, whichever is greater.
- 4 Delay = (excess demand / meter rate) × 60 min/hr.
- 5 Queue = (excess demand) × 29 ft/veh.

### **A.3 Year 2020 Traffic Conditions**

This section provides an analysis of the proposed project's impacts under Year 2020 traffic conditions. For comparison purposes, LOS operations under existing conditions were previously provided in Table 5.3-8, Peak-Hour Intersection LOS Results, and Table 5.3-9, Roadway Segment LOS Results.

#### ***Year 2020 Roadway Network and Traffic Volumes***

The Year 2020 roadway network was assumed to be identical to the Year 2015 network with the following additions:

Roadway improvements to be constructed by the project for access and frontage:

- Main Street from Heritage Road to Village Three North R-20 driveway – this facility is included as a 2-lane roadway providing access to parcel R-20 of Village Three North. The addition of this facility would also convert the intersection of Heritage Road / Main Street into a 4-legged intersection. Quarry Driveway @ Main Street (Int #65) would be constructed as an all-way stop controlled intersection providing access to the existing quarry.
- Main Street, from La Media Road to SR-125 right-of-way (western boundary) – This facility is included as a Six-Lane Prime Arterial providing frontage and access for Village Eight East.
- La Media Road, from Santa Luna Street to Main Street – This facility is included as a Four-Lane Major Road providing access for the community park in Village Four (project access and frontage, and the PFFP discussions are provided in Chapter 13 of EIR Appendix M).
- Heritage Road along the frontage of Village Three North, between the northern project boundary and Int #62 – this facility is included as a 6-lane Prime Arterial providing frontage and access for Village Three North.

In addition, the following 7 driveways to be constructed as part of the project are also included in the Year 2020 analysis:

- Santa Macheto @ Heritage Road (Int #61) – Signalized intersection
- Santa Picacho @ Heritage Road (Int # 62) – Signalized intersection (was modeled as all way stop controlled T-intersection in the 2015 scenario)
- Santa Maya @ Heritage Road (Int #63) – Signalized intersection (was modeled as all way stop controlled T-intersection in the 2015 scenario)

- Village Three North R-20 Driveway @ Main Street (Int #66) – all-way stop controlled intersection
- La Media Road / Village Four Driveway @ Santa Luna Street (Int # 67) – Signalized intersection
- Santa Tipu @ Main Street (Int #68) – one-way controlled intersection
- Santa Marisol @ Main Street (Int #69) – Signalized intersection.

According to Section 12.24 of the City’s Municipal Code, potentially significant impacts would occur if access and frontage improvements are not provided concurrent with development (see Table 4-3 in Chapter 4, Project Description).

Roadway improvements to be constructed by others (Assumed Build by the Year 2020):

- Heritage Road, south of Main Street to Chula Vista City limit – This facility is included as its ultimate classification in 2020. As indicated in the City’s currently adopted General Plan Circulation Element, the ultimate classification designation for Heritage Road south of Main Street is a Six-Lane Prime Arterial. This improvement project (STM364 – Heritage Road Bridge Replacement) is included in the Chula Vista adopted FY 2012–13 through FY 2016–17 CIP and will be funded by a mix of the Highway Bridge Program, TDIFs, and other miscellaneous transportation grants. For additional information, see EIR Appendix M.
- Otay Lakes Road, between H Street and Telegraph Canyon Road – This facility is included as widened from a Four-Lane Major Road to a Six-Lane Prime Arterial consistent with the classification identified in the City’s currently adopted General Plan Circulation Element. This improvement project (STM355 – Otay Lakes Road Widening) is included in the Chula Vista adopted FY 2012–13 through FY 2016–17 CIP and will be funded by the TDIFs. For additional information, see EIR Appendix M.
- Quarry Driveway (Int #65) @ Main Street – As an all-way stop controlled intersection. The signalization of this intersection would occur in conjunction with the construction of Main Street between Heritage Road and La Media Road (City of Chula Vista CIP #STM357). Signalization would not be needed until completion of this Main Street segment.

If the assumed roadway improvements are not in place as modeled for the year 2020 scenario additional traffic impacts could occur. Therefore a potentially significant impact could occur if assumed improvements are not developed as prescribed in the traffic impact analysis. As previously noted, if the assumed roadway improvements are not constructed by others and in place as modeled for the Year 2020 scenario, the Project Applicant and the City will take those

steps necessary to either construct the subject facilities or implement substitute measures to ensure adequate infrastructure as modeled is in place, as detailed in mitigation measure TCA-12.

### *Intersection Analysis*

Table 5.3-27 displays the peak hour intersection LOS results for the study area intersections under Year 2020 project conditions. LOS calculation worksheets for the Year 2020 conditions are provided in EIR Appendix M.

As shown in Table 5.3-27, the proposed project would result in significant project-specific impacts at the following nine intersections:

- I-805 SB Ramps / Olympic Parkway – LOS E during the AM peak hour and LOS F during the PM peak hour. The 2020 project traffic would comprise approximately 6.5% and 7.2% of the total intersection-entering volume in the AM and PM peak hours, respectively. Since the project contribution is more than 5%, the project would result in a direct impact at this intersection.
- I-805 NB Ramps / Olympic Parkway – LOS E during the AM peak hour and LOS F during the PM peak hour. The 2020 project traffic would comprise approximately 11.1% of the total intersection-entering volume in both the AM and PM peak hours. Since the project contribution is more than 5%, the project would result in a direct impact at this intersection.
- Brandywine Avenue / Olympic Parkway (all-way stop controlled) – LOS F during both the AM and PM peak hours. The 2020 project traffic would comprise approximately 11.1% and 11.8% of the total intersection-entering volume in the AM and PM peak hours, respectively. Since the project contribution is more than 5%, the project would result in a direct impact at this intersection.
- Heritage Road / Main Street (all-way stop controlled) – LOS ~~F~~ during the AM peak hour and LOS F during the PM peak hour. The 2020 project traffic would comprise approximately 61.3% and 60.7% of the total intersection-entering volume in the AM and PM peak hours, respectively. Since the project contribution is more than 5%, the project would result in a direct impact at this intersection.
- La Media Road (SB) / Main Street (WB) (all-way stop controlled) – LOS E during the PM peak hour. The 2020 project traffic would comprise approximately 36.3% and 52.3% of the total intersection-entering volume in the AM and PM peak hours, respectively. Since the project contribution is more than 5%, the project would result in a direct impact at this intersection.

- La Media Road (NB) / Main Street (WB) (all-way stop controlled) – LOS E during the AM peak hour. The 2020 project traffic would comprise approximately 41.4% of the total intersection-entering volume in the AM peak hour. Since the project contribution is more than 5%, the project would result in a direct impact at this intersection.
- La Media Road (SB) / Main Street (EB) (all-way stop controlled) – LOS E during the PM peak hour. The 2020 project traffic would comprise approximately 59.0% of the total intersection-entering volume in the PM peak hour. Since the project contribution is more than 5%, the project would result in a direct impact at this intersection.
- La Media Road (NB) / Main Street (EB) (all-way stop controlled) – LOS E during the PM peak hour. The 2020 project traffic would comprise approximately 44.1% of the total intersection-entering volume in the PM peak hour. Since the project contribution is more than 5%, the project would result in a direct impact at this intersection.
- Magdalena Avenue / Main Street (one-way stop controlled) – LOS E during the PM peak hour. The 2020 project traffic would comprise approximately 90.2% of the total intersection-entering volume in the PM peak hour. Since the project contribution is more than 5%, the project would result in a direct impact at this intersection.

**Table 5.3-27  
Peak Hour Intersection LOS Results – Year 2020 Conditions**

Intersection	AM Peak Hour		PM Peak Hour		Project % of Entering Volume (> 5%)	Significant Impact?
	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS		
1. Paseo Ranchero / H Street	50.0	D	37.6	D	1.8% / 2.1%	No
2. Otay Lakes Road / H Street	52.2	C	29.7	C	1.1% / 1.3%	No
3. Paseo Ranchero / Heritage Road / Telegraph Canyon Road	46.5	D	42.4	D	4.0% / 4.8%	No
4. La Media Road / Telegraph Canyon Road / Otay Lakes Road	35.8	C	47.9	D	3.7% / 3.7%	No
5. Hunte Parkway / Otay Lakes Road	23.3	C	31.6	C	0.0% / 0.0%	No
6. Heritage Road / East Palomar Street	37.8	D	30.2	C	8.0% / 9.2%	No
7. La Media Road / East Palomar Street	47.5	D	45.2	D	4.1% / 4.4%	No
8. 3rd Avenue / Orange Avenue	24.6	C	27.6	C	2.8% / 2.5%	No
9. Hilltop Drive / Orange Avenue	32.7	C	26.3	C	2.8% / 3.0%	No
10. Melrose Avenue / Orange Avenue	31.5	C	48.4	D	1.0% / 0.9%	No
11. I-805 SB Ramps / Olympic Parkway	70.9	E	155.2	F	6.5% / 7.2%	Yes (Direct)
12. Oleander Avenue / Olympic Parkway	53.2	D	48.5	D	12.8% / 12.7%	No
13. Brandywine Avenue / Olympic Parkway	116.4	F	87.1	F	11.1% / 11.8%	Yes (Direct)
14. Heritage Road / Olympic Parkway	30.9	C	38.2	D	13.6% / 14.6%	No
15. Santa Venetia Street / Olympic Parkway	9.3	A	2.3	A	10.6% / 14.5%	No

**Table 5.3-27 (Continued)**  
**Peak Hour Intersection LOS Results – Year 2020 Conditions**

Intersection	AM Peak Hour		PM Peak Hour		Project % of Entering Volume (> 5%)	Significant Impact?
	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS		
16. I-805 NB Ramps / Olympic Parkway	60.0	E	97.8	F	11.1% / 11.1%	Yes (Direct)
17. La Media Road / Olympic Parkway	37.7	D	31.7	C	11.9% / 13.7%	No
18. East Palomar Street / Olympic Parkway	30.3	C	30.3	C	2.2% / 2.1%	No
19. SR-125 SB Ramps / Olympic Parkway	6.1	A	5.3	A	2.0% / 2.0%	No
20. SR-125 NB Ramps / Olympic Parkway	6.7	A	6.2	A	2.0% / 1.9%	No
21. EastLake Parkway / Olympic Parkway	23.1	C	25.5	C	1.2% / 1.2%	No
22. Hunte Parkway / Olympic Parkway	21.5	C	21.8	C	0.8% / 1.1%	No
23. Olympic Vista Road / Olympic Parkway	23.7	C	21.7	C	0.9% / 1.0%	No
24. La Media Road / Santa Venetia Street	45.7	D	34.2	C	15.2% / 18.9%	No
25. Heritage Road / Santa Victoria Road	Does Not Exist					
26. La Media Road / Birch Road	37.3	D	53.9	D	20.7% / 18.5%	No
27. Magdalena Avenue / Birch Road	29.6	C	29.6	C	9.1% / 10.5%	No
28. SR-125 SB Ramps / Birch Road	9.3	A	7.3	A	9.7% / 9.7%	No
29. SR-125 NB Ramps / Birch Road	8.0	A	4.7	A	8.1% / 8.0%	No
30. EastLake Parkway / Birch Road	30.7	C	35.2	D	4.2% / 4.5%	No
31. 4th Avenue / Main Street	24.1	C	28.7	C	1.7% / 1.6%	No
32. 3rd Avenue / Main Street	30.1	C	39.0	D	2.4% / 2.3%	No
33. Hilltop Drive / Main Street	18.4	B	17.5	B	4.9% / 4.7%	No
34. Melrose Avenue / Main Street	24.9	C	27.9	C	4.8% / 4.9%	No
35. I-805 SB Ramps / Main Street	37.7	D	51.2	D	13.3% / 15.5%	No
36. I-805 NB Ramps / Main Street	33.8	C	32.3	C	21.8% / 22.1%	No
37. Oleander Avenue / Main Street	11.0	B	8.9	A	24.9% / 26.0%	No
38. Brandywine Avenue / Main Street	42.4	D	47.4	D	23.7% / 24.9%	No
39. Heritage Road / Main Street (all-way stop controlled)	71.7	F	70.7	F	61.3% / 60.7%	Yes (Direct)
40. La Media Road (SB) / Main Street (WB) (all-way stop controlled)	10.3	B	37.2	E	36.3% / 52.3%	Yes (Direct)
41. La Media Road (NB) / Main Street (WB) (all-way stop controlled)	41.4	E	23.8	C	40.0% / 29.0%	Yes (Direct)
42. La Media Road (SB) / Main Street (EB) (all-way stop controlled)	13.9	B	48.4	E	47.9% / 59.0%	Yes (Direct)
43. La Media Road (NB) / Main Street (EB) (all-way stop controlled)	13.4	B	38.8	E	20.9% / 44.1%	Yes (Direct)
44. Magdalena Avenue / Main Street (one-way stop controlled)*	15.5	C	35.9	E	89.7% / 90.2%	Yes (Direct)

**Table 5.3-27 (Continued)**  
**Peak Hour Intersection LOS Results – Year 2020 Conditions**

Intersection	AM Peak Hour		PM Peak Hour		Project % of Entering Volume (> 5%)	Significant Impact?
	Avg. Delay (sec.)	LOS	Avg. Delay (sec.)	LOS		
45. SR-125 SB Ramps / Main Street	Does Not Exist					
46. SR-125 NB Ramps / Main Street	Does Not Exist					
47. EastLake Parkway / Main Street/Hunte Parkway	29.7	C	14.3	B	4.0% / 6.2%	No
48. Discovery Falls Drive / Hunte Parkway	28.5	C	35.2	D	2.5% / 3.4%	No
49. Santa Macheto @ Heritage Road	4.5	A	1.5	A	100.0% / 100.0%	No
50. Santa Picacho @ Heritage Road	12.1	B	11.0	B	100.0% / 100.0%	No
51. Santa Maya @ Heritage Road	11.3	B	17.8	B	100.0% / 100.0%	No
52. Energy Way / Heritage Road	Does Not Exist					
53. Quarry Driveway / Main Street	8.0	A	7.1	A	10.7% / 68.7%	No
54. Village Three North Project R-20 Driveway @ Main Street	7.0	A	6.7	A	100.0% / 100.0%	No
55. La Media Road / Village Four Driveway @ Santa Luna Street	5.2	A	9.4	A	25.6% / 41.1%	No
56. Santa Tipu @ Main Street (one-way stop RT in/out)*	9.8	A	15.1	C	96.5% / 96.9%	No
57. Santa Marisol @ Main Street	9.4	A	20.3	C	98.5% / 99.0%	No
58. Village Eight East R-16 Driveway @ Main Street (one-way stop RT in/out)*	Does Not Exist					
59. Village Eight East Community Park Driveway @ Otay Valley Road	Does Not Exist					
60. Cutter Avenue @ Otay Valley Road (one-way stop RT in/out)*	Does Not Exist					
61. Santa Marisol @ Otay Valley Road	Does Not Exist					
62. Village Nine Street "B" / Otay Valley Road	Does Not Exist					
63. Village Nine Street "B" / Discovery Falls Drive	Does Not Exist					
64. Santa Julliard @ Discovery Falls Drive	Does Not Exist					
65. University Drive @ Discovery Falls Drive	Does Not Exist					
66. Santa Davis @ Discovery Falls Drive	Does Not Exist					

**Source:** Chen Ryan Associates 2014 (EIR Appendix M).

**Note:** Bold letter indicates unacceptable LOS E or F.

\* For two-way stop controlled intersections, the delay shown is the worst delay experienced by any of the approaches. City of San Diego intersections (#49-#60) are not analyzed for interim years