SECTION 5.0 Alternatives

5.0 ALTERNATIVES

5.1 INTRODUCTION

Section 15126.6 of the CEQA Guidelines states that an EIR is to describe a range of reasonable alternatives to the proposed project that would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project. The alternatives discussion is to evaluate the comparative merits of each alternative relative to the proposed project. According to CEQA Guidelines §15126.6, discussion of each alternative should be sufficient "to allow meaningful evaluation, analysis and comparison with the proposed project." Therefore, the significant effects of each alternative are discussed in less detail than those of the project, but in enough detail to provide decision-makers perspective and a reasoned choice among alternatives to the proposed project.

The goal of the proposed SDSU 2007 Campus Master Plan Revision is to provide a framework for SDSU decisions concerning the allocation and management of resources, capital outlay programs, and construction planning for facilities and improvements needed to accommodate growing enrollment, which is projected to reach 35,000 full-time equivalent students ("FTES") by the 2024-25 academic year. The proposed project would facilitate SDSU's ability to accommodate the students, faculty and staff with appropriate, adequate, and modern teaching, research, administrative, and support facilities needed to provide a high-quality education to a large student body, and further facilitate SDSU's ability to house its students and faculty on the SDSU campus.

The analysis in this EIR indicates that implementation of the proposed project would result in the following significant and unavoidable impacts: (1) further declines in traffic service levels on portions of Alvarado Road, Montezuma Road, at the Interstate 8 ("I-8")/College Avenue interchange, and on I-8 between Fairmount Avenue and Fletcher Parkway; (2) the addition of air pollutant emissions (reactive organic gases) to the San Diego Air Basin in excess of acceptable thresholds due to the increased number of students residing on the SDSU campus and the associated vehicle trips; (3) a change from undeveloped, natural habitat to residential uses, thereby resulting in a permanent aesthetic change in the Adobe Falls area; and (4) the addition of structures into areas that would be visually prominent to the surrounding College Area community. All other potential impacts associated with the proposed project either would be less than significant, or can be mitigated to less than significant levels with mitigation measures identified in this EIR.

5.2 BACKGROUND

5.2.1 **Project Alternatives**

Three project alternatives were developed during the conceptual planning phase of the proposed project. These alternatives were selected in an effort to reduce the proposed project's identified significant impacts and include:

- a "No Project Alternative," under which student enrollment would remain at the current 25,000 full-time equivalent students ("FTES") level and no additional development would be master-planned;
- (2) a "5,000 FTES Alternative" under which the SDSU student enrollment ceiling would be raised to 30,000 FTES (rather than 35,000 FTES), the Alvarado Campus would be reduced in size from the proposed 612,000 square feet to 350,000 square feet, and the number of housing units proposed for the Adobe Falls Faculty/Staff Housing would be reduced by 50% from 348 units to 174 units; and,
- (3) a "No Adobe Falls Faculty/Staff Housing Alternative" under which the Adobe Falls Faculty/Staff Housing component of the proposed project would not be master-planned, although the student enrollment ceiling would be increased by 10,000 FTES, and the other five project components (Alvarado Campus, Alvarado Hotel, Student Union Expansion, Student Housing and Campus Conference Center) would still be master planned as under the proposed project. Related to this alternative is a scenario under which 50% of the Adobe Falls Faculty/Staff Housing project component is master planned, along with the other project components as proposed, such that 174 housing units, rather than 348 units, would be developed. This variation on the No Adobe Falls Alternative also is considered in this section.

The impacts of each of these alternatives relative to the proposed project are presented in this section.

Additionally, this section includes an analysis of alternate access routes to serve the proposed Adobe Falls Faculty/Staff Housing project component. The section also discusses "Institutional Alternatives," a scenario under which a portion of the SDSU student enrollment is served by off-campus centers (*i.e.*, alternative locations), academic technology and summer-term

enrollment. Finally, this section presents a discussion of "Alternative Locations," property locations in the immediate vicinity of SDSU that were considered for classroom/research facilities and/or student/faculty/staff housing development along with the Alvarado Campus and Student Housing sites.

5.2.2 Off-Campus Alternative Locations

CEQA Guidelines §15126.6 states that an EIR should consider alternate locations to the proposed project if an alternate location would avoid or substantially lessen the project's significant environmental effects.

Because the objectives of the proposed project are focused on facilities and improvements to the existing SDSU campus necessary to accommodate a projected 35,000 FTES enrollment, an alternative location for the development of academic facilities to accommodate the increase in FTES would not meet one of the primary objectives of the project. Additionally, as discussed in Section 5.4 below, Institutional Alternatives, SDSU has in the past, and continues to, explore the establishment of off-campus centers in both the South Bay and East County San Diego regions. Included within this effort, SDSU has been in intermittent talks with Chula Vista officials about developing a satellite campus in that city for many years. However, as discussed further in Section 5.4, it is not presently feasible from a student demand perspective and, consequently, cost perspective, to develop a South Bay alternative. Furthermore, also as discussed in Section 5.4, aside from the feasibility of establishing another university in the greater San Diego region, relocation of the proposed academic facilities to another area merely would have the effect of shifting the traffic and air quality impacts to another location, rather than avoiding or lessening the significant impacts of the proposed project.

With respect to alternative locations for student housing, recent newspaper reports have suggested the Qualcomm Stadium site as a possible location for the development of both student housing and academic facilities. However, the Qualcomm Stadium site presently is improved as a football stadium and is not available for other uses. Any future redevelopment plans for the site, generally, including redevelopment plans that include SDSU, are speculative. Therefore, Qualcomm Stadium as an alternative project location site is not a viable alternative location.

Specific to the faculty/staff housing component of the project, during the EIR NOP scoping process, members of the community suggested that *in lieu* of development of the Adobe Falls site, future faculty and staff housing should be included in the redevelopment plans for the City

of San Diego Grantville Redevelopment Area. However, as described in Section 2.0, *Cumulative Projects*, many of the redevelopment projects are already in the planning stages and do not include housing for SDSU faculty and staff. Future consideration of the Grantville area for redevelopment as faculty/staff housing may occur, although that decision is out of the purview of SDSU, and would need to be considered by the City's Redevelopment Agency.

Additionally, because the State/SDSU has owned the Adobe Falls property since 1941, its cost basis in the property is low. This low cost basis provides SDSU with the opportunity to develop housing on the site at a relatively low cost, which it would then, in turn, make available to prospective faculty and staff who might otherwise not be able to afford to live in the San Diego area. (See EIR Section 1.0, *Project Description*, for discussion regarding faculty/staff housing affordability issues.) The selection of an alternative location on property the State/SDSU does not already own would eliminate this low cost advantage. Furthermore, because the State/SDSU is prohibited by law from selling the Adobe Falls property, SDSU cannot simply sell the property and purchase replacement property in the immediate area.

For these reasons, the development of academic facilities, student housing, and/or faculty/staff housing is not feasible and alternative locations are not considered further in this EIR.

5.3 **PROJECT ALTERNATIVES**

5.3.1 No Project Alternative

Under the No Project Alternative, the proposed 2007 Campus Master Plan Revision would not be adopted, and campus growth and development would proceed under the existing 2000 Campus Master Plan. Therefore, under the No Project Alternative, the student enrollment ceiling would remain at 25,000 FTES, and there would be no planned development of the Adobe Falls Faculty/Staff Housing, Alvarado Campus, Alvarado Hotel, Student Housing, Student Union Expansion, or Campus Conference Center.

As discussed below, the No Project Alternative would avoid the visual quality impacts associated with development of the proposed project, and because there would be no increase in vehicle trips under this alternative, the proposed project's significant and unavoidable impacts relative to transportation/circulation would be eliminated. However, this alternative would result in a redistribution of these vehicle trips, as the 10,000 FTES would seek education elsewhere, thereby shifting the traffic burden and related air quality impacts to another area. Furthermore, because the No Project Alternative would not increase the student enrollment ceiling, nor would it revise the existing campus master plan to accommodate the projected increase in student enrollment demand over the next 20 years, the No Project Alternative does not attain the basic objectives of the proposed project.

5.3.1.1 Aesthetics And Visual Quality

Under the proposed project, there would be significant impacts to the surrounding community due to the alteration of existing views and increased lighting primarily attributable to development of the Student Housing and Adobe Falls Faculty/Staff Housing components of the project. Some of these impacts would be mitigated to a level below significant, while others would remain significant and unavoidable. Under the No Project Alternative, because there would be no development of additional buildings and associated lighting, there would be no potentially significant impacts to aesthetics and visual quality.

5.3.1.2 Air Quality

Under the proposed project, potentially significant short-term and long-term impacts to air quality would result. Potentially significant short-term impacts would be those attributable to finish work emissions associated with construction of the proposed project, and include reactive organic gases ("ROG") emissions during finish work. Mitigation measures are proposed to reduce these short-term impacts to a level below significant. Long-term operational emissions from project-related traffic and consumer products use will exceed suggested thresholds for ROG. Because there are no feasible mitigation measures to reduce long-term air quality impacts to a level below significant and unavoidable.

Under the No Project Alternative, there would be no increase in student enrollment and oncampus student residents. Consequently, there would be no significant and unavoidable air quality impacts, assuming the increased demand for student enrollment is not accommodated elsewhere in the San Diego Air Basin, thereby shifting the increased emissions to another location within the basin.

5.3.1.3 Biological Resources

Under the proposed project, there would be potentially significant direct and indirect impacts to vegetation communities, sensitive plants, and sensitive wildlife attributable to development of the Adobe Falls Faculty/Staff Housing component of the proposed project. Mitigation measures are proposed to reduce the identified impacts to a level below significant. Under the No Project Alternative, there would be no potentially significant impacts to biological resources, assuming the Adobe Falls Faculty/Staff Housing site remained undeveloped.

5.3.1.4 Cultural Resources

Under the proposed project, there would be potentially significant impacts to cultural resources associated with development of the Adobe Falls Faculty/Staff Housing site. Mitigation in the form of site avoidance and establishment of an archaeological monitor is proposed in the event that cultural resources, previously unknown, are discovered during project construction. Under the No Project Alternative, because there would be no development of the project component sites, there would be no potentially significant impacts to cultural resources.

5.3.1.5 Geotechnical/Soils

Under the proposed project, site specific measures for potential geotechnical constraints would be developed during the geotechnical design phase of project development, thereby reducing any potentially significant impacts to a level below significant. Under the No Project Alternative, because there would be no building development, there would be no potentially significant impacts attributable to geotechnical conditions.

5.3.1.6 Hazards and Hazardous Materials

Under the proposed project, construction in the vicinity of former underground storage tanks and dry cleaning facilities could result in the discovery of soils impacted by these former operations. Mitigation is proposed in the event soil and/or groundwater contamination, previously unknown, is discovered during project construction. Under the No Project Alternative, because there would be no building development, there would be no potentially significant impacts associated with the discovery of previously unknown contamination.

5.3.1.7 Hydrology and Water Quality

Under the proposed project, there would be potentially significant impacts associated with hydrology (flooding) and water quality (runoff contamination). Mitigation is proposed to reduce the identified impacts to a level below significant. Under the No Project Alternative, because there would be no building development, there would be no potentially significant impacts relating to hydrology and water quality.

5.3.1.8 Land Use and Planning

Under the proposed project, there would be no potentially significant impacts to land use and planning. This also would be the case under the No Project Alternative.

5.3.1.9 Mineral Resources

Under the proposed project, there would be no potentially significant impacts to mineral resources due to the existing conditions at the Adobe Falls site, which precludes use of the land for mineral extraction purposes. This also would be the case under the No Project Alternative.

5.3.1.10 Noise

Under the proposed project, there would be potentially significant short-term construction noise impacts attributable to project construction, and potentially significant long-term noise impacts to the project's residential components due to surrounding traffic noise. Mitigation is proposed to reduce the identified impacts to a level below significant. Under the No Project Alternative, there would be no building development (construction and mechanical noise) and no new residences constructed (traffic noise impacts). Consequently, there would be no potentially significant noise impacts either to the surrounding community or to the project's residential components.

5.3.1.11 Paleontological Resources

Under the proposed project, there would be no impacts to known unique paleontological resources and therefore, there would be no potentially significant impacts. Mitigation in the form of a paleontological monitor is proposed in the event that paleontological resources, previously unknown, are discovered during project construction. Under the No Project Alternative, because there would be no building development, there would be no potentially significant impacts to paleontological resources.

5.3.1.12 **Population and Housing**

Under the proposed project, there would be no potentially significant impacts relative to population and housing. Under the No Project Alternative, the elimination of the Student Housing component of the proposed project would eliminate the provision of additional on-campus housing and, thereby, adversely affect efforts to curtail nuisance rentals ("mini-dorms").

5.3.1.13 **Public Utilities and Service Systems**

Under the proposed project, there would be potentially significant impacts to existing water and sewer conveyance facilities, campus police services, and solid waste disposal facilities. Mitigation is proposed to reduce the identified impacts to a level below significant. Under the No Project Alternative, because there would be no increase in student enrollment and no development of the project component sites, including the Adobe Falls Faculty/Staff Housing site, there would be no impacts to public utilities and service systems.

5.3.1.14 Transportation/Circulation and Parking

Under the proposed project, there would be potentially significant impacts to the identified intersections, street segments, freeway ramps and freeway mainline segments located within the proposed project study area. Mitigation in the form of roadway improvements is proposed that would reduce most of the impacts to a level below significant; however, impacts to the I-8/College Avenue interchange, I-8 segments in the vicinity of SDSU, and portions of Alvarado Road and Montezuma Road would remain significant and unavoidable.

Under the No Project Alternative, the SDSU student enrollment ceiling would remain at 25,000 FTES, and neither the Adobe Falls Faculty/Staff Housing, nor the Alvarado Hotel project components would be developed. Therefore, no additional vehicle trips would be generated under this alternative, and there would be no significant and unavoidable impacts to transportation and circulation under the No Project Alternative.

5.3.2 5,000 FTES Alternative

Under the 5,000 FTES Alternative: (i) the SDSU enrollment ceiling would increase to 30,000 FTES by the 2024-25 academic year (rather than 35,000 FTES as proposed); (ii) only the D Lot portion of the Alvarado Campus component would be developed, eliminating the master planning of the existing medical center site, and reducing the ultimate Alvarado Campus size from approximately 612,000 square feet of instructional and research space to approximately 350,000 square feet; and, (iii) the number of housing units planned for the Adobe Falls Faculty/Staff Housing site would be reduced by 50%, from 348 units to 174 units; and (iv) development of the Lot G Residence Hall, Olmeca Residence Hall, and Maya Residence Hall would be developed as planned, but the Lot U Residence Hall and Villa Alvarado Residence Hall Expansion would be eliminated. Under this alternative, the Student Union Expansion, and Alvarado Hotel would proceed as under the proposed project.

As discussed below, the 5,000 FTES Alternative would result in potentially significant impacts to many of the same environmental categories as the proposed project, although the impacts would be proportionately less. Specific to Transportation/Circulation impacts, while the 5,000 FTES Alternative would result in a significant reduction in average daily trips ("ADT") relative to the proposed project, because many of the street segments and intersections located within the project study area are projected to be operating at unacceptable levels of service in the horizon year even without the proposed project, the number of ADT added under this alternative would result, nevertheless, in significant impacts. Significantly, however, with respect to air quality, under the 5,000 FTES Alternative, impacts attributable to long-term ROG emissions would be below significant, as compared to significant and unavoidable under the proposed project. Short-term construction emissions would remain significant, although they are reduced below that level with mitigation.

Because the 5,000 FTES Alternative would increase the student enrollment ceiling by only 5,000 FTES, rather than the 10,000 FTES increase projected over the next 15-20 years, and because this alternative would reduce by approximately 1,000 the number of additional on-campus student beds that would be available under the proposed project, this alternative is a short-term plan that would not provide the necessary framework to enable SDSU to meet fully the projected increase in student enrollment demand. This alternative also would shift future enrollment growth to other campuses or proportionally reduce future higher education opportunities in the region. Therefore, this alternative would not attain most of the basic objectives of the proposed project.

5.3.2.1 Aesthetics And Visual Quality

Under the proposed project, there would be significant impacts to the surrounding community due to the alteration of existing views and increased lighting primarily attributable to development of the Student Housing and Adobe Falls Faculty/Staff Housing components of the project. Some of these impacts would be mitigated to a level below significant, while others would remain significant and unavoidable. Under the 5,000 FTES Alternative, although building development would be reduced, there would still be an alteration of existing views, as well as the need for night lighting associated with the new development. Therefore, this alternative would not eliminate potentially significant impacts to the SDSU surrounding community from lighting and urban skyglow, although such impacts could be mitigated to a level below significant. However, impacts to existing viewsheds would remain significant and unavoidable.

5.3.2.2 Air Quality

Under the proposed project, significant short-term and long-term impacts to air quality would result. Significant short-term impacts would be those attributable to emissions associated with construction of the proposed project, and include ROG emissions during finish work. Mitigation measures are proposed to reduce these short-term impacts to a level below significant. Long-term operational emissions from project-related consumer product use and increased vehicular traffic would exceed suggested thresholds for ROG. Because there are no feasible mitigation measures to reduce long-term impacts to a level below significant, these impacts are significant and unavoidable.

As discussed in EIR Section 3.2, under the proposed project, annual ROG emissions from area sources (including consumer product use), stationary sources, and vehicular emissions would total over 23 tons per year, exceeding the applicable 15 ton threshold by approximately 8 tons. Assuming, for purposes of this analysis, that area source, stationary source, and vehicular source emissions were reduced by 50% under the 5,000 FTES Alternative (50% less consumer product use, 50% less energy use, and 50% less vehicular use), and that ROG emissions were reduced by an equivalent percentage, the 5,000 FTES Alternative would result in annual ROG emissions less than 12 tons per year, which is less than the 15 ton threshold of significance. Thus, under the 5,000 FTES Alternative, the project would not result in significant impacts to air quality due to ROG emissions under the 5,000 FTES Alternative would result in potentially significant impacts, as is the case with the proposed project. However, as is the case with the proposed project, mitigation measures are available to reduce these impacts to a level below significant.

With respect to vehicle emissions, with a 50% reduction in the number of additional students and a 50% reduction in the number of housing units at Adobe Falls Faculty/Staff Housing (the two primary generators of vehicle trips under the proposed project), it is assumed for purposes of this analysis that 50% of the proposed project's ADT would be generated under the 5,000 FTES Alternative.

Table 5.0-1, 5,000 FTES/Proposed Project Regional Emissions Summary (Pounds/Day), depicts the total estimated operational emissions under the 5,000 FTES Alternative and the proposed project at buildout. As **Table 5.0-1** shows, the 5,000 FTES Alternative would not result in any emissions that exceed the permissible threshold. In comparison, as shown on **Table 5.0-1**, under the proposed project ROG emissions would exceed permissible thresholds in the buildout year. Therefore, the 5,000 FTES Alternative would not result in potentially significant impacts attributable to ROG emissions that would result from the proposed project.

Proposed Project (Buildout)	ROG	NOx	со	SOx	PM ₁₀
Area Emissions Sources	13.00	3.01	2.23	0.00	0.01
Stationary Source Emissions Increase	0.86	8.24	1.14	0.14	1.43
Vehicle Emissions Sources	9.15	4.78	48.02	0.12	12.46
TOTAL	23.01	16.3	51.39	0.26	13.89
Significance Thresholds	15	40	100	40	15
Exceeds Thresholds?	Yes	No	No	No	No
5,000 FTES Alternative (Build-Out)	ROG	NOx	СО	SOx	PM10
Area Emissions Sources	6.50	1.51	1.12	0.0	0.01
Stationary Source Emissions Increase	0.43	4.12	0.57	0.07	0.72
Vehicle Emissions Sources	4.58	2.39	24.01	0.06	6.23
TOTAL	11.51	8.2	25.70	0.13	6.94
Significance Thresholds	15	40	100	40	15
Exceeds Thresholds?	No	No	No	No	No

 Table 5.0-1

 5,000 FTES/Proposed Project Emissions Summary (Tons/Year)

Source: URBEMIS2002 Computer Model (output in Appendix).

5.3.2.3 Biological Resources

Under the proposed project, there would be potentially significant direct and indirect impacts to vegetation communities, sensitive plants, and sensitive wildlife attributable to development of the Adobe Falls Faculty/Staff Housing component of the proposed project.

Under the 5,000 FTES Alternative, development of the Adobe Falls Faculty/Staff Housing residential community would go forward, although only 174 housing units would be developed, rather than 348 units. This reduction in total units potentially could result in a 50% reduction in the development footprint, which would, in turn, reduce project grading by approximately 50%. Direct impacts to vegetation communities and sensitive plants under this alternative, therefore, could be reduced by 50% due to the reduced development footprint. However, direct impacts to sensitive wildlife, including the California gnatcatcher, may not be reduced by the reduction in development footprint. Additionally, indirect impacts (*i.e.*, impacts resulting from adverse "edge effects" related to construction or development in proximity to biological resources) would not be reduced. Like the proposed project, however, mitigation

could reduce the potentially significant impacts to biological resources under this alternative to a level below significant.

5.3.2.4 Cultural Resources

Under the proposed project, there would be potentially significant impacts to cultural resources associated with development of the Adobe Falls Faculty/Staff Housing site. Mitigation in the form of site avoidance and establishment of an archaeological monitor is proposed in the event that cultural resources, previously unknown, are discovered during project construction. Under the 5,000 FTES Alternative, while building development would be reduced, previously unknown cultural resources still may be present on the project component construction sites. Therefore, potential impacts under this alternative would be similar to those under the proposed project.

5.3.2.5 Geotechnical/Soils

Under the proposed project, site specific measures for potential geotechnical constraints would be developed during the geotechnical design phase of project development, thereby reducing any potentially significant impacts to a level below significant. Under the 5,000 FTES Project Alternative, while building development would be reduced, previously unknown geotechnical constraints still may be present on the various project component sites. Therefore, potential impacts under this alternative would be similar to those under the proposed project.

5.3.2.6 Hazards And Hazardous Materials

Under the proposed project, construction of the proposed Lot G, Olmeca and Maya Residence Halls in the vicinity of former underground storage tanks and dry cleaning facilities could result in the discovery of soils impacted by these former operations. Mitigation is proposed in the event soil and/or groundwater contamination, previously unknown, is discovered during project construction. Under the 5,000 FTES Project Alternative, while the Student Housing component would be reduced, the proposed Lot G, Olmeca and Maya Residence Halls would move forward under this alternative. Therefore, potential impacts under this alternative would be similar to those under the proposed project.

5.3.2.7 Hydrology And Water Quality

Under the proposed project, there would be potentially significant impacts associated with hydrology (flooding) and water quality (runoff contamination). Mitigation is proposed to reduce the identified impacts to a level below significant. Under the 5,000 FTES Project Alternative, building development would be reduced and, therefore, development potentially

could occur outside of the floodplain, thereby reducing potential impacts associated with flooding. However, even with a reduction in building development, there still would be an increase in impervious surfaces that would lead to potential runoff contamination. Therefore, under this alternative, potential flooding impacts would be reduced, while potential runoff impacts would be similar to the proposed project.

5.3.2.8 Land Use And Planning

Under the proposed project, there would be no potentially significant impacts to land use and planning. This also would be the case under the 5,000 FTES Alternative.

5.3.2.9 Mineral Resources

Under the proposed project, there would be no potentially significant impacts to mineral resources due to the existing conditions at the Adobe Falls site, which precludes use of the land for mineral extraction purposes. This also would be the case under the 5,000 FTES Alternative.

5.3.2.10 Noise

Under the proposed project, there would be potentially significant short-term construction noise impacts attributable to project construction, and potentially significant long-term noise impacts to the project's residential components due to surrounding traffic noise. Mitigation is proposed to reduce the identified impacts to a level below significant. Under the 5,000 FTES Alternative, construction-related impacts would be reduced proportionate to the reduction in construction; however, the potentially significant impacts to the project's residential component would remain, although these impacts can be mitigated.

5.3.2.11 Paleontological Resources

Under the proposed project, there would be no direct or indirect impacts to known unique paleontological resources and therefore, there would be no potentially significant impacts. Mitigation is proposed in the event that paleontological resources, previously unknown, are discovered during project construction. Under the 5,000 FTES Alternative, although building development would be reduced, previously unknown paleontological resources still may be present on the respective project component construction sites. Therefore, potential impacts under this alternative would be similar to those under the proposed project.

5.3.2.12 **Population And Housing**

Under the proposed project, there would be no potentially significant impacts relative to population and housing. This would also be the case under the 5,000 FTES Alternative.

5.3.2.13 Public Utilities And Service Systems

Under the proposed project, there would be potentially significant impacts to existing water and sewer conveyance facilities, campus police services, and solid waste disposal facilities. Mitigation is proposed to reduce the identified impacts to a level below significant. Under the 5,000 FTES Project Alternative, while building development and student enrollment levels would be reduced by 50%, this alternative would result in potential impacts to the same public services and utilities as the proposed project, although the impacts would be at a proportionately reduced rate.

5.3.2.14 Transportation/Circulation And Parking

Under the proposed project, there would be potentially significant impacts to the identified intersections, street segments, freeway ramps and freeway mainline segments located within the proposed project study area. Mitigation in the form of roadway improvements is proposed that would reduce most of the impacts to a level below significant; however, impacts to the I-8/College Avenue interchange, I-8 segments in the vicinity of SDSU, and portions of Alvarado Road and Montezuma Road would remain significant and unavoidable.

Under the 5,000 FTES Alternative, with a 50% reduction in the number of additional students and a 50% reduction in the number of housing units at Adobe Falls Faculty/Staff Housing (the two primary generators of vehicle trips under the proposed project), it is assumed for purposes of this analysis that 50% of the proposed project's ADT would be generated under the 5,000 FTES Alternative.

While the number of ADT added under the 5,000 FTES Alternative represents a significant overall reduction in ADT relative to the proposed project, because many of the street segments and intersections located within the project study area are expected to be operating at unacceptable levels of service in the horizon year without the project, even a slight increase in the number of ADT over existing conditions would lead to a decrease in service and potentially significant impacts.

For example, as shown in **Table 5.0-2**, **Horizon Year Segment Operations**, 10 of the 11 street segments located within the project study area are expected to be operating at unacceptable "E" or "F" levels of service ("LOS") in the horizon year.

Segment	LOS E	Horizon Year without Project			Horizon Year with Project			V/C
	Capacity -	Volume	LOS	V/C ·	Volume	LOS	V/C	Δ
Alvarado Road						-	÷	
E. Campus Dr to Reservoir Dr	10,000	13,950	F	1.40	17,510	F	1.75	0.35
Reservoir Dr to 70th St	10,000	16,450	F	1.65	18,520	F	1.85	0.20
College Avenue		-						
Del Cerro Blvd to I-8 EB Ramps	40,000	52 <i>,</i> 800	F	1.32	54,970	F	1.37	0.05
I-8 EB Ramps to Zura Way	40,000	69,570	F	1.74	76,140	F	1.90	0.16
Zura Way to Montezuma Rd	40,000	53 , 200	F	1.33	56 <i>,</i> 040	F	1.40	0.07
South of Montezuma Rd	30,000	38,490	F	1.28	40,200	F	1.34	0.06
Montezuma Road								
Fairmount Ave to Collwood Blvd	40,000	57,000	F	1.43	58 ,2 80	F	1.46	0.03
Collwood Blvd to 55th St	40,000	32,570	D	0.81	33,850	D	0.85	0.04
55th St to College Ave	30,000	33,430	F	1.11	35,010	F	1.17	0.06
College Ave to E. Campus Dr	30,000	28,250	E	0.94	28,800	E	0.96	0.02
Fairmount Avenue								
Montezuma Rd to I-8	60,000	89,000	F	1.483	89,530	F	1.492	0.009

Table 5.0-2Horizon Year Segment Operations

Notes:

a. Capacities based on City of San Diego's Roadway Classification & LOS table (See Appendix C).

b. Average Daily Traffic

c. Volume to Capacity ratio

Under the City of San Diego thresholds of significance, an increase of 0.021 in the vehicle/capacity ratio would result in a significant impact at those segments operating at LOS E or F under without project conditions. Assuming, for purposes of this analysis, that the 5,000 FTES Alternative would increase the V/C ratio 50% of the increase that would result under the proposed project. Applying the City's thresholds under such scenario, the 5,000 FTES Alternative would result in significant impacts on the following roadway segments:

Alvarado Road:	E. Campus Drive to Reservoir Drive				
• •	Reservoir Drive to 70th Street				
College Avenue:	Del Cerro Boulevard to I-8 Eastbound Ramps				
	I-8 Eastbound Ramps to Zura Way				
	Zura Way to Montezuma Road				
	South of Montezuma Road				

Montezuma Road 55th Street to College Avenue

Therefore, while the 5,000 FTES Alternative would reduce substantially the number of projectrelated ADT that would be added to the local street network, the increase in ADT would still result in potentially significant impacts, including impacts that would be significant and unavoidable (Alvarado Road, between E. Campus Drive and 70th Street).

5.3.3 No Adobe Falls/50% Adobe Falls Alternative

Under the No Adobe Falls Faculty/Staff Housing Alternative ("No Adobe Falls Alternative"), the SDSU Campus Master Plan would be revised to reflect the planned development of the full Alvarado Campus, Alvarado Hotel, Student Union Expansion, Campus Conference Center, and Student Housing, and the student enrollment ceiling would be increased to 35,000 FTES by the 2024/25 academic year. However, under this alternative, the proposed Adobe Falls Faculty/Staff Housing housing development would not be included in the revised Campus Master Plan. Related to this alternative is the 50% Adobe Falls Alternative under which the Adobe Falls Faculty/Staff Housing project component would be included in the full project as proposed, although at a 50% development level, or 174 housing units rather than 348 units (the "50% Adobe Falls Alternative").

As discussed below, potential impacts under the No Adobe Falls Alternative generally would be comparable to those under the proposed project with two exceptions. Under the No Adobe Falls Alternative, potentially significant impacts to biological resources would be eliminated, as would impacts to visual quality associated with the development of residential housing units on an existing open space/natural habitat environment. However, potentially significant impacts to transportation/circulation would not be eliminated or reduced under this alternative and, therefore, impacts relating to increased vehicle traffic would remain significant and unavoidable. While the No Adobe Falls Alternative would attain many of the proposed project's academic goals and objectives, this alternative would not attain the project's objective of providing affordable housing for faculty and staff. Similarly, the 50% Adobe Falls Alternative would partially, though not fully attain, this objective.

5.3.3.1 Aesthetics And Visual Quality

Under the proposed project, there would be potentially significant impacts to the surrounding community due to the alteration of existing views, increased lighting and urban skyglow. Potential impacts would be reduced to a level below significant, with the exception of impacts due to the alteration of existing views. These impacts would remain significant and unavoidable. Under the No Adobe Falls Alternative, there would be no development on the Adobe Falls Faculty/Staff Housing site and, consequently, there would be no alteration of existing views and no significant impacts relative to the Del Cerro community. However, development would go forward on the central campus. Therefore, while this alternative would eliminate significant visual impacts to the Adobe Falls/Del Cerro community, it would not eliminate similar impacts to the College Area community. Under the 50% Adobe Falls Alternative, visual and aesthetic impacts to the Adobe Falls community would be proportionately reduced, although the reduced development would, nevertheless, convert existing open space thereby resulting in significant and unavoidable impacts as under the proposed project.

5.3.3.2 Air Quality

Under the proposed project, significant short-term and long-term impacts to air quality would result. Significant short-term impacts would be those attributable to emissions associated with construction of the proposed project, and include ROG emissions during finish work. Mitigation measures are proposed to reduce these short-term impacts to a level below significant. Long-term operational emissions from project-related consumer product use and increased vehicular traffic would exceed suggested thresholds for ROG. Because there are no feasible mitigation measures to reduce long-term impacts to a level below significant, these impacts are significant and unavoidable.

Under the No Adobe Falls Alternative, construction finish work operations would be reduced, along with a commensurate reduction in ROG emissions, since there would be no development of the Adobe Falls Faculty/Staff Housing project component. Under the proposed project, ROG emissions due to the application of paints and coatings would exceed 265 pounds per day under a scenario in which the Adobe Falls Faculty/Staff Housing, portions of the Student

Housing, and the Alvarado Campus project components are constructed simultaneously. (*See*, Section 3.2, *Air Quality*, **Table 3.2-5**, **Second Phase Construction Emissions**.) The applicable significance threshold is 137 pounds per day. The ROG emissions attributable to the Adobe Falls Faculty/Staff Housing component would be about 70 pounds and, therefore, elimination of the Adobe Falls Faculty/Staff Housing component and the associated ROG emissions would not bring ROG emission levels below the applicable threshold.

With respect to vehicle emissions, under the No Adobe Falls Alternative, total project vehicle trips would be reduced approximately 10%. (*See*, Section 3.13, *Transportation/Circulation And Parking*, **Table 3.14-15A**, **Horizon Year Project Trip Generation**.) Under the proposed project, ROG emissions would total 9.15 tons per year. (*See*, Section 3.2, *Air Quality*, **Table 3.2-15**, **Summary of Total Estimated Operational Emissions**.) Under the proposed project, the vehicle emissions, in combination with area source and stationary source emissions, would total 23.01 tons of ROG emissions per year. This amount exceeds the significance thresholds of 15 tons per year and, therefore, results in significant impacts.

Based on a 10% reduction in ADT, and assuming a linear relationship, the No Adobe Falls Alternative would result in vehicular ROG emissions of approximately 90% of the full project vehicle emissions, or approximately 8 tons per year. When this amount is combined with the annual area and stationary source emissions, the No Adobe Falls Alternative would result in approximately 21 tons of ROG emissions per year, which exceeds the 15 tons per year significance threshold. Therefore, the No Adobe Falls Alternative would result in significant and unavoidable long-term impacts to air quality due to vehicular and area source ROG emissions, as is the case with the proposed project.

Under the 50% Adobe Falls Alternative, total project vehicle trips would be reduced approximately 5%. Again, assuming a linear relationship relative to the proposed project emissions, the 50% Adobe Falls Alternative would result in vehicular ROG emissions of approximately 8.7 tons per year. In combination with area and stationary source emissions, total ROG emissions under the 50% Adobe Falls Alternative would be approximately 22 tons per year, which exceeds the 15 tons per year significance threshold. Therefore, the 50% Adobe Falls Alternative would result in significant and unavoidable long-term impacts to air quality due to vehicular and area source ROG emissions.

5.3.3.3 Biological Resources

Under the proposed project, there would be potentially significant direct and indirect impacts to vegetation communities, sensitive plants, and sensitive wildlife attributable to development of the Adobe Falls Faculty/Staff Housing component of the proposed project. Under the No Adobe Falls Alternative, there would be no development on the Adobe Falls Faculty/Staff Housing site and, therefore, no potentially significant impacts to biological resources. Under the 50% Adobe Falls Alternative, the 50% reduction in housing units potentially could result in a reduction in the development footprint, which would, in turn, reduce project grading. Direct impacts to vegetation communities and sensitive plants under this alternative, therefore, could be reduced by up to 50% due to the reduced development footprint. However, direct impacts to sensitive wildlife, including the California gnatcatcher, may not be reduced by the reduction in development footprint. Additionally, indirect impacts (*i.e.*, impacts resulting from adverse "edge effects" related to construction or development in proximity to biological resources) would not be reduced. Like the proposed project, however, mitigation could reduce the potentially significant impacts to biological resources under this alternative to a level below significant.

5.3.3.4 Cultural Resources

Under the proposed project, there would be potentially significant impacts to cultural resources associated with development of the Adobe Falls Faculty/Staff Housing site. Mitigation in the form of site avoidance and establishment of an archaeological monitor is proposed in the event that cultural resources, previously unknown, are discovered during project construction. Under the No Adobe Falls Alternative, potential impacts to cultural resources would be eliminated as to the Adobe Falls Faculty/Staff project site, although potential impacts to the rest of the project development areas would be the same as under the proposed project. Under the 50% Adobe Falls Alternative, assuming a reduction in the development footprint, potential impacts to cultural resources would be reduced proportionate to the potential impacts under the proposed project.

5.3.3.5 Geotechnical/Soils

Under the proposed project, site specific measures for potential geotechnical constraints would be developed during the geotechnical design phase of project development, thereby reducing any potentially significant impacts to a level below significant. Under the No Adobe Falls Alternative, potential impacts relating to geotechnical and soil conditions would be comparable to those under the proposed project, although proportionately reduced due to the elimination of the proposed Adobe Falls Faculty/Staff Housing project component. This is also the case with respect to the 50% Adobe Falls Alternative – a proportionate reduction in potential impacts relative to the proposed project.

5.3.3.6 Hazards And Hazardous Materials

Under the proposed project, construction of the proposed Lot G, Olmeca and Maya Residence Halls in the vicinity of former underground storage tanks and dry cleaning facilities could result in the discovery of soils impacted by these former operations. Mitigation is proposed in the event soil and/or groundwater contamination, previously unknown, is discovered during project construction. Under the No Adobe Falls Alternative, potential impacts relating to hazards and hazardous materials would be comparable to those under the proposed project because there is no evidence of hazardous materials use or disposal on the Adobe Falls site and, therefore, this component of the proposed project does not affect the determination of impacts in this regard. This is also the case with respect to the 50% Adobe Falls Alternative.

5.3.3.7 Hydrology And Water Quality

Under the proposed project, there would be potentially significant impacts associated with hydrology (flooding) and water quality (runoff contamination), although mitigation is proposed to reduce the identified impacts to a level below significant. Under the No Adobe Falls Alternative, potential impacts to hydrology and water quality generally would be comparable to those under the proposed project, although the potential impacts associated with flooding and runoff contamination attributable to the Adobe Falls project component would be eliminated. Under the 50% Adobe Falls Alternative, the potential impacts would be reduced proportionately relative to the proposed project, though not reduced entirely.

5.3.3.8 Land Use And Planning

Under the proposed project, there would be no potentially significant impacts relative to land use and planning. Similarly, under the No Adobe Falls Alternative, there would be no potentially significant impacts, as would be the case with respect to the 50% Adobe Falls Alternative.

5.3.3.9 Mineral Resources

Under the proposed project, there would be no potentially significant impacts to mineral resources due to the existing conditions at the Adobe Falls site, which precludes use of the land for mineral extraction purposes. This also would be the case under the No Adobe Falls Alternative, and the 50% Adobe Falls Alternative.

5.3.3.10 Noise

Under the proposed project, there would be potentially significant short-term construction noise impacts attributable to project construction, and potentially significant long-term noise impacts to the project's residential components due to surrounding traffic noise. Mitigation is proposed to reduce the identified impacts to a level below significant. Under the No Adobe Falls Alternative, significant impacts to future residents of the proposed Adobe Falls Faculty/Staff Housing would be eliminated, as would the potential impacts associated with construction attributable to the Adobe Falls project component. Under the 50% Adobe Falls Alternative, these same impacts would be reduced, though not eliminated.

5.3.3.11 Paleontological Resources

Under the proposed project, there would be no direct or indirect impacts to known unique paleontological resources and, therefore, there would be no potentially significant impacts, although mitigation in the form of a paleontological monitor is proposed in the event that paleontological resources, previously unknown, are discovered during project construction. Under the No Adobe Falls Alternative, potential impacts to paleontological resources would be comparable as under the proposed project, although proportionately reduced due to the elimination of the Adobe Falls Faculty/Staff Housing component of the project. Under the 50% Adobe Falls Alternative, potential impacts would be reduced relative to the proposed project, though not as much as under the No Adobe Falls Alternative.

5.3.3.12 **Population And Housing**

Under the proposed project, there would be no potentially significant impacts relative to population and housing. Under both the No Adobe Falls Alternative and the 50% Adobe Falls Alternative, there would be potential impacts due to reductions in the provision of affordable housing for campus uses.

5.3.3.13 Public Utilities And Service Systems

Under the proposed project, there would be potentially significant impacts to existing water and sewer conveyance facilities, campus police services, and solid waste disposal facilities. Mitigation is proposed to reduce the identified impacts to a level below significant. Under the No Adobe Falls Alternative, potential impacts to public utilities and service systems generally would be similar to those under the proposed project, although any potentially significant impacts to water/sewer conveyances in the Navajo community would be reduced to a level below significant due to the elimination of the Adobe Falls project component and its associated new residents. Under the 50% Adobe Falls Alternative, potentially significant impacts to the Navajo community would be reduced, though not eliminated.

5.3.3.14 Transportation/Circulation And Parking

Under the proposed project, there would be potentially significant impacts to the identified intersections, street segments, freeway ramps and freeway mainline segments located within the proposed project study area. Mitigation in the form of roadway improvements is proposed that would reduce most of the impacts to a level below significant; however, impacts to the I-8/College Avenue interchange, I-8 segments in the vicinity of SDSU, and portions of Alvarado Road and Montezuma Road would remain significant and unavoidable.

Under the No Adobe Falls Project Alternative, total project vehicle trips would be reduced by approximately 10%. (*See*, Section 3.13, *Transportation/Circulation And Parking*, **Table 3.14-15A-C**, **Horizon Year Project Trip Generation**.) As shown in Section 3.14, *Transportation/Circulation And Parking*, under the impacts analysis scenario under which the Adobe Falls Faculty/Staff Housing project component is assumed to reach full build out (*i.e.*, existing + cumulative projects + near-term project conditions), the proposed project does not result in significant impacts to the Del Cerro area street segments, including Adobe Falls Road/Mill Peak Road, Arno Drive, Capri Drive, Genoa Drive, Lambda Drive, Rockhurst Drive, and Del Cerro Boulevard. (*See*, Section 3.14, *Transportation/Circulation And Parking*, **Table 3.14-23**, **Near-Term Del Cerro Street Segment Operations**.) Therefore, the No Adobe Falls Alternative would not reduce significant impacts to the street segments because no significant impacts would occur in the first instance. This is also the case with respect to the 50% Alternative. (Under the 50% Adobe Falls Alternative, total project vehicle trips would be reduced approximately 5%.)

The proposed project would, however, result in potentially significant impacts at the College Avenue/Del Cerro Boulevard intersection, although these impacts would be mitigated to a level below significant. (*See,* Section 3.14, *Transportation/Circulation And Parking,* **Table 3.14-21**, **Near Term Intersection Operations**.) Under both the No Adobe Falls Alternative, and the 50% Adobe Falls Alternative, there would be significant impacts at this intersection; although, as is the case with the proposed project, the significant impacts could be mitigated under the 50% Adobe Falls Alternative.

A summary comparison of the significant impacts attributable to each of the project alternatives relative to the proposed project is presented below in **Table 5.0-3**, **Alternatives Matrix – Significant Impacts**.

		•	-		
	No Project Alternative	5,000 FTES Alternative	No Adobe Falls Alternative	Proposed Project	50% Adobe Falls Alternative
Aesthetics & Visual Quality		X, SU	X, SU	X, SU	X, SU
Air Quality		X	X, SU	X, SU	X, SU
Biological Resources		Ŷ		X	Х
Cultural Resources					
Geotechnical/Soils		X	Х	X	Х
Hazards & Hazardous Materials		X	X	X	Х
Hydrology & Water Quality		X	X	X	Х
Land Use & Planning					
Noise		X	X	X	X a
Paleontological Resources	1	, , , , , , , , , , , , , , , , , , ,			
Population & Housing			Х		X
Public Utilities & Service Systems		X	X	X	X
Transportation/Circulation &		X, SU	X, SU	X, SU	X, SU

Table 5.0-3 Alternatives Matrix – Significant Impacts

Note: All potentially significant impacts can be mitigated to a level below significant, except where noted. SU = Significant and unavoidable impact.

As Table 5.0-3 shows, the 5,000 FTES Alternative generally would result in potentially significant impacts, though reduced proportionately to those of the proposed project, including significant and unavoidable impacts to aesthetics/visual quality, and transportation/ circulation. However, under this alternative, significant and unavoidable air quality impacts would be eliminated. The No Adobe Falls Alternative would eliminate the potentially significant impacts to biological resources, although significant and unavoidable impacts relating to aesthetics/visual quality, air quality, and transportation/circulation would remain. Similarly, the 50% Adobe Falls Alternative would not eliminate significant and unavoidable impacts relating to aesthetics/visual quality, air quality, and transportation/circulation. The No Project Alternative, in comparison, would result in no potentially significant impacts and, therefore, is the environmentally superior alternative. Of the other project alternatives, the No Adobe Falls Alternative is the environmentally superior alternative because it would eliminate the significant, but mitigable, impacts to biological resources, and it would reduce, but not eliminate, significant and unavoidable impacts to aesthetics/visual quality, air quality and transportation/circulation.

5.4 INSTITUTIONAL ALTERNATIVES

In an effort to serve the increasing student demand for higher education in locations other than the SDSU main San Diego campus, and to more efficiently utilize the facilities presently available on the main campus, SDSU has developed off-campus centers, expanded the use of academic technology such as distance learning, and expanded summer term enrollment. However, as discussed below, while the continued use of off-campus centers, academic technology, and expanded summer term enrollment will assist SDSU in meeting future student enrollment demands, these institutional alternatives alone will not enable SDSU to meet the projected future student enrollment demands.

5.4.1 Develop New And Expand Off-Campus Centers

In 1959, SDSU established the Imperial Valley Campus off-campus center in southern Imperial County in the City of Calexico ("IVC Calexico"). IVC Calexico has operated continuously since 1959, steadily growing to serve over 600 FTES in 2002-03. The off-campus center offers instruction leading to bachelor's degrees, master's degrees and teaching credentials. In 2004, based upon high enrollment demand in the Imperial Valley, SDSU opened a second off-campus center in Brawley, in northern Imperial County. The Brawley facility presently serves approximately 200 FTES.

In 1980-81, SDSU established the SDSU North County Center in San Marcos, north San Diego County. While the student population at this campus fluctuated somewhat over the years, as many as 1,000 FTES per semester were served from this location. This off-campus center was operated by SDSU through 1991, at which time the center became the current California State University San Marcos.

In addition to San Marcos, SDSU has offered classes at two additional off-campus sites in San Diego County – National City and at Miramar College. Both of these facilities were provided in leased space shared with the local community colleges. The impetus for this concept was three-fold: (1) SDSU hoped to reduce traffic congestion on the San Diego campus by offering classes at the two off-campus sites; (2) community colleges use their classrooms in the morning and evening and had space available for SDSU use in the afternoon; and (3) the off-campus sites would be particularly convenient to students who lived either in the northern or the southern portions of San Diego County.

National City Project with Southwestern College. In 1999, SDSU formed a partnership with Southwestern College and began offering existing SDSU classes at the Higher Education Center

in National City. The site consisted of two buildings and SDSU used from 10-20 classrooms at a time. All classrooms were modern, smart classrooms ranging in size from 32 seats to 50 seats. An invitation was extended to all SDSU departments to suggest courses to offer in the National City center. Departments were encouraged to consider different alternatives for scheduling classes, including weekend offerings and/or compressed time periods (*e.g.*, weekends, one-half semester). During the initial semester (Spring, 1999), SDSU faculty taught ten classes, including Communication, Criminal Justice, Education, Education Technology, Finance, Management, Marketing, Psychology, and Public Administration. Enrollment reached a high of 270 FTES in the 2001-02 academic year, and then fell to 248 FTES in 2002-03.

The initial academic objective for the National City center was to respond to the community's request to serve South San Diego County students with a local higher education option. However, as a state institution, with statewide mandates to fulfill, in addition to its regional responsibilities, SDSU found it necessary to close the facility in 2004 when faced with significant budget reductions, as well as minimal student enrollment. Facing a reduction of more than \$40 million from 2002-03 to 2004-05, it was determined SDSU could best serve all of its students, including those that resided in the South County, by providing the necessary courses in the following year on the main campus to allow students to graduate in a timely manner.

Financially, SDSU had incurred annual lease costs of approximately \$250,000 per year associated with providing courses in the South County. Marginal student enrollment cost formulas do not support funding for leases, nor is there other State funding available for leased facilities. Consequently, instruction is more costly in leased facilities, such as the National City off-campus site, than on the main SDSU campus. Periodic cost analysis is performed to maintain fiscal responsibility. Based on the operating expense, SDSU determined that there were not enough students from south San Diego County to continue to make the National City Center fiscally viable.

In studies conducted by SDSU, it was found that 57% of the students taking SDSU courses at the National City center had residential addresses with zip codes outside the South County. Therefore, rather than reducing traffic, as had been the original objective, the off-site program actually was contributing to more traffic on the freeways. Additionally, it was found that 89.4% of the students that registered for SDSU courses at the National City center took most of their courses on SDSU's main campus. When surveyed, the students indicated they would continue to do so; the main campus offered services and opportunities, such as the library, health facilities and social environments, that could not be duplicated on smaller campus sites. Again,

contrary to the original objectives, the split class locations actually were adding to freeway congestion in that students were attending classes at both sites.

With regard to South County enrollment demand, it is important to note that the key factor contributing to demand is not the overall population growth, but rather the number of high school graduates eligible for entry to the University of California ("UC") or California State University ("CSU") higher education systems. The percentage of Sweetwater Union High School graduates that take the required UC/CSU high school course pattern is approximately 30%. This percentage is drawn from a diminished pool of high school graduates due to higher drop out rates in a number of Sweetwater high schools.

To improve the number of Sweetwater Union High School graduates eligible for entry to the UC or CSU systems, in 1999, SDSU developed the college readiness program called, "The Compact For Success." Sweetwater district schools serve approximately 33,000 students in grades 7-12 and 34,000 adult learners in the South San Diego County communities of Bonita, Chula Vista, Eastlake, Imperial Beach, National City, Otay Mesa, and San Ysidro/south San Diego. The Sweetwater district is the largest secondary (grades 7-12) school system in California. The Compact For Success is a guaranteed admissions program and an educational reform partnership between SDSU and the Sweetwater Union High School District. In 2007, the program was renewed and will be in place until 2012. This successful program was developed to increase the college going rates of students from the Sweetwater district and to decrease the high school drop out rates in South San Diego County.

Until the college going rates increase, there is questionable enrollment demand to warrant a full branch campus or significant upper division or graduate programs in the South County. These numbers have been and will be revisited on an annual basis.

SDSU at the Miramar College Site. In 2001, SDSU began offering classes at the Miramar College campus in Mira Mesa. At its peak, SDSU offered 19 classes at this site, with 14 classes the average offered. Most classes were offered in two portable classrooms, fully equipped as smart classrooms; computer science classes were offered in the computer labs in another building. The classrooms used generally had a maximum capacity of 42 students.

Whereas increased access is the principal benefit of off-campus sites, there are a number of challenges to providing high quality off-campus instruction. Among those challenges are:

- Where to locate off-campus sites that enhance SDSU's mission;
- How to obtain accurate needs assessments of potential students with differing needs;
- How to recognize, and where appropriate, incorporate plans of other educational institutions;
- How to identify adequate funding and resources (*e.g.*, lease costs, library, student services, computer labs);
- How to attract and sustain interest of permanent faculty in off-campus sites; and
- How to create access to educational resources and support services enjoyed by regularly enrolled students studying in similar programs on the main campus.

Due to the State of California's budgetary constraints, and limited regional enrollment demand, the SDSU National City and SDSU Miramar Off-Campus Center sites were discontinued in 2004. In response, SDSU increased the class offerings on the San Diego campus to offset the loss of these sites. SDSU continues to operate the IVC centers in Calexico and Brawley. The decision to continue to operate the Imperial Valley Campus centers is based upon the increased enrollment demand demonstrated in the Imperial Valley. Pilot experiments to corroborate enrollment demand in other areas of both San Diego and Imperial County will continue based upon individual circumstances when feasible. As in the past, when enrollment demand demonstrates the need to provide off-site instruction and remote facilities, SDSU will make every effort to respond to the demand.

5.4.2 Expand Use Of Academic Technology Such As Distance Learning

SDSU has a long-standing commitment to the productive use of academic technologies and will continue to research applicable new technologies while analyzing their potential for incorporation into the academic learning environment.

As part of the current master planning effort, SDSU has reviewed the current and proposed uses of campus academic technologies, and proposes to include the use of academic technologies and distance learning into its long-term plans in the following ways:

- SDSU will continue to expand web-enhanced instruction. Fall 2004 data on usage of the campus' web-based course management system indicates there were:
 - 1,788 total available courses;
 - 897 individual instructors;

- 30,543 individual students; and
- 67,271 student/course combinations.

This information supports the fact that use of the Web to support instruction at SDSU is growing at a rapid rate.

- SDSU will be developing more distance learning courses, but solely online courses have not proven cost effective.
- SDSU will encourage and support more hybrid courses that blend face-to-face instruction with online instruction. The initial focus will be on large introductory courses with high enrollment.
- In fall 2004, over 50% of the teaching classrooms at SDSU had an installed data display and other technological resources in place. These "Smart" classrooms need to grow in number to facilitate SDSU's commitment to distance education.
- To facilitate a hybrid approach to distance learning, SDSU will need to continue to expand not only the number, but also the quality of the technology-rich ("Smart") classroom spaces, including rooms with expanded capability for two-way videoconferencing.
- Classrooms will need to be designed in such a way as to allow for broadcasting a lecture *via* the web. For instance, larger spaces may need a video control room and classrooms must be designed to allow for acoustic integrity. As such, wall construction and surfaces, furniture, floor coverings, ceiling height, lighting, *etc.*, all must be taken into account when designing new instructional spaces.
- Classroom standards will need to be reconsidered in light of supporting hybrid courses (*e.g.*, much planning needs to go into providing secure wireless Internet connectivity in classroom spaces).
- Introductory courses may be well suited for online instruction or for refresher/supplementary courses because there is often less discussion and more didactic lecture in these types of courses.
- The Internet provides access to rich, timely information and recent scientific discoveries.
- The number of online courses will continue to grow as SDSU continues to keep its students connected to the university.

5.4.3 Expand Summer Term Enrollment

In March 2000, the CSU Board of Trustees endorsed enrollment management principles that reflected the CSU's commitment to year-round operations. The endorsement was made in an effort to meet increased enrollment needs by establishing year-round operations at impacted campuses (including SDSU) to allow the CSU to fully realize its mission of providing access.

One advantage of year-round operations is that it both increases capacity and can help students finish their degree faster. Over a period of years, year-round operations would allow a greater number of students to complete their baccalaureate studies in a shorter period of time. Students also would be helped under state-supported year-round operations because they would pay lower fees than those required through the current extended education self-support summer programs.

The concept put forth with the expansion of year-round operations is that the CSU would be able to educate more students per year without the proportional increase in physical facilities. The Board of Trustees suggested campuses work toward enrolling 40% of their annualized FTES in summer semester course offerings.

Following the CSU mandate, many discussions occurred on campus regarding the implications of summer enrollment growth and year round operations, including analysis of how to increase the academic capacity within the existing infrastructure. In September 2000, the Senate Executive Council discussed the goal of fully converting to state-supported summer terms on all campuses within the next two to five years. In summer 2000, at SDSU, the College of Extended Studies summer courses were converted to a third term, and in summer 2001, SDSU converted to state supported year-round operations offering over 500 summer courses for 931 annualized FTES. In summer 2004, 666 state-supported courses were offered to 1,451 FTES.

SDSU currently is proposing that the campus increase the annualized state supported summer enrollment to 25% of the annualized student FTES over the next 20 years. This equates to approximately 9,300 annualized FTES by 2024-25. Following intensive analysis and discussions, SDSU has determined, with the current and proposed inducements available, summer enrollment growth to 25% of the annualized FTES is compatible with historical and projected enrollment trajectories, student culture (*e.g.*, out-of-area students returning to their home for the summer; area students, like almost all students during the summer, spending many more hours working to earn money for school and, thus, taking much lower average student units during the summer), faculty and staff employment structures and national trends at other comparable universities.

5.5 ALTERNATIVE LOCATION

In addition to the proposed Alvarado Campus and Student Housing locations, SDSU considered five off-campus sites for potential acquisition and development as classroom/research facilities and/or student housing. The six sites, including the Alvarado Campus location, are referred to by their compass location relative to the main campus (West, Northwest, South, Southeast, East and Northeast) and are depicted on **Figure 5.0-1**, **Off-Campus Site Alternatives**. The advantages and disadvantages of acquiring and developing each site are briefly described below.

1. **West.** The West site is approximately 12.7 acres in size, and is located immediately adjacent to the core campus on Montezuma Road. Development of the site would require the displacement of an existing elementary school and 42 existing residential units. Additionally, a portion of the site is located in a canyon, which raises potential environmental concerns. Staff estimates the cost of acquisition of the West site at \$50 million.

2. **Northwest**. The Northwest site is approximately 7 acres in size, and is located adjacent to Chapultepec Residence Hall on 55th Street. Development of the site initially would require the displacement of existing student residences, although buildout would result in a substantial net increase in available housing. Staff estimates the cost of acquisition of the Northwest site, which is located within the College Community Redevelopment Area, at \$50 million.

3. **South**. The South site is approximately 8.5 acres in size, and is located immediately adjacent to University Towers along Montezuma Road and extends south to Dorothy Drive between 55th Street and Campanile Drive. Development of the site would displace 65 existing single-family residences and nine apartment buildings. Staff estimates the cost of acquisition of the site at \$42.5 million.



4. **Southeast**. The Southeast site is approximately 5 acres in size, and is located immediately adjacent to existing campus housing at the corner of College Avenue and Montezuma Road. Development of the site would displace 45 homes/fraternities. Staff estimates the cost of acquisition of the Southeast site, which is located within the College Community Redevelopment Area, at \$32 million.

5. *East*. The East site is approximately 56.5 acres in size, and is located east of College Avenue, north of Montezuma Road. Development of the site would displace approximately 276 residential homes. Staff estimates the cost of acquisition of the East site at \$138 million.

6. **Northeast**. The Northeast site (*i.e.*, the Alvarado Campus site) is 7.2 acres in size, and is located on Alvarado Road, northeast of the main campus. The site presently is owned by the SDSU Research Foundation, and includes office and research facilities associated with the Alvarado Medical Center. The Northeast site is located within the College Community Redevelopment Area. Because of its location relative to the central campus, utilization of the Northeast site for classroom/research uses would require facilities to transport students to the central campus. However, because development of the site would not displace any existing residences, the Northeast site is the least disruptive of the six alternatives. Staff estimates the cost of acquisition of the Northeast site at \$50 million.

Table 5.0-7, **Land Acquisition Matrix**, below, presents a matrix comparing the relative advantages (+) and disadvantages (-) of each of the five alternative sites, and ranks the options based on the total number of (+) and (-).

Table 5.0-4 Land Acquisition Matrix						
	Adjacent and Ease of Access	Acquisition Cost	Area of Usability	Acquisition and Displacement Issues	Overall	Rank
Northeast Site	+	++	+	-	+++	A
South Site	++	-	+	-	+	В
Southeast Site	+	-	-			С
West Site	+		+			С
Northwest Site	+		-			E
East Site	-		++			D

The Northeast site, the site of the proposed Alvarado Campus, ranked the highest of all alternative locations considered.

5.6 ADOBE FALLS ALTERNATE ACCESS ROUTES

In response to concerns raised by the Del Cerro community regarding the increased traffic volumes associated with development of the proposed Adobe Falls Faculty/Staff Housing component of the proposed project, SDSU undertook a study of various alternate routes that could be used to access the proposed Adobe Falls Faculty/Staff Housing component in place of the proposed College Avenue/Del Cerro Boulevard access. The study included the development of five conceptual alternate access routes and related sub-routes; an analysis of the available roadway capacity on the alternate routes; an analysis of the environmental constraints posed by each alternate access route; and, the preparation of construction cost estimates for each access route and the related increased cost per housing unit. A summary of the analysis conducted is presented below.

5.6.1 Background

As discussed in Section 1.0, *Project Description*, under the proposed project, the Adobe Falls Faculty/Staff Housing component would consist of up to 348 housing units (townhomes and/or condominiums) to be developed for faculty and staff housing. Under the proposed project, the Upper Village portion of the site would be developed in Phase 1, in the near-term following project approval, and would include 48 housing units. In contrast, the Lower Village would be developed long-term, and would include between 124 and 300 housing units. The EIR analyzes the Upper Village portion of the project component at the project specific level, while the Lower Village component is analyzed at the program level, requiring that further environmental review under CEQA be conducted at a future date prior to construction of the Lower Village.

Under the proposed project, vehicle access to the Upper Village would be provided *via* Mill Peak Road, and access to the Lower Village would be provided *via* the eastern portion of Adobe Falls Road. See **EIR Figure 5.0-2**, **Adobe Falls Alternate Access Routes**. The total number of housing units ultimately to be developed in the Lower Village is dependent in part upon available access routes (*i.e.*, access routes alternative to Adobe Falls Road (east)/Mill Peak Road), and the associated vehicle carrying capacities of these alternate routes, as well as the environmental and financial constraints presented by each alternate route.



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Figure 5.0-2 Adobe Falls Alternate Access Routes

5.6.2 Alternate Access Route Descriptions

The following is a description of the five alternate access routes, and related sub-routes, considered by SDSU in the analysis. Each of the alternate access routes considered in this analysis and described below is illustrated in **EIR Figure 5.0-2**, **Adobe Falls Alternate Access Routes**.

5.6.2.1 Alternate 1: Adobe Falls Road/Waring Road

Alternate 1a, Via Smoke Tree Condominium Development. Under this alternate access route, a 125-foot roadway with a 50-foot bridge over the existing drainage channel adjacent to the Lower Village development would be constructed with direct connection to the adjacent SmokeTree condominium development. Access to the western portion of Adobe Falls Road and, ultimately, out to Waring Road would be provided *via* the private driveways/roadways through the SmokeTree development. If multiple access roads to the Adobe Falls Faculty/Staff Housing site were provided, private entry gates would be installed to prevent "cut through" traffic.

Alternate 1b, Via Existing Flood Channel. As an alternative to accessing Adobe Falls Road *via* the SmokeTree development, a 40-foot wide private road would be constructed from the Adobe Falls Faculty/Staff Housing Lower Village, and would continue in a westerly direction atop the existing flood control channel (reconstructed to accommodate vehicle traffic) adjacent to the I-8 freeway for a distance between 1250 feet and 2500 feet to a point at which connection to the public street system (Adobe Falls Road) is possible. Potential street connections may be available through the Nicollosi's Restaurant property or an adjacent private condominium complex, each of which would require obtaining an easement through the property from the owner.

Alternate 1c, Upper/Lower Village Connector. Related to this alternate access route would be the construction of a collector street designed to connect the Upper and Lower Villages of the Adobe Falls Faculty/Staff housing development. The necessary street would need to connect an elevation of +190 feet to an elevation of +350 feet. Assuming a 15% grade, the connector would be 1150-1200 feet in length. Additionally, a bridge would be required as the street would cross existing wetlands and riparian habitat.

5.6.2.2 Alternate 2: College Avenue to Upper Village

Under this alternate access route, access to the Adobe Falls Upper Village would be provided by a 40-foot wide private collector road from the intersection of the I-8 freeway westbound off

ramp at the existing traffic signal (elevation +377 feet) to the proposed *cul-de-sac* in the Upper Village development (elevation +402 feet). An approximate distance of 600 lineal feet of collector street, curb, gutter and sidewalk would be constructed with a 7-8% grade. This route would require signalization modifications at the College Avenue southbound/I-8 freeway westbound interchange. Access to the Lower Village would be *via* the Upper/Lower Village Connector, Alternate 1c described above. If multiple access roads to the Adobe Falls Faculty/Staff Housing site were provided, private entry gates would be installed to prevent "cut through" traffic.

5.6.2.3 Alternate 3: Vehicle/Pedestrian Tunnel Under Freeway

Alternate 3a, Via X Lot. This alternate access route would entail the construction of a 750-foot road from X Lot on the SDSU campus (elevation +270) to the Adobe Falls Faculty/Staff Housing Lower Village development (elevation +180). The elevation difference is 110 feet and would require a 14.5% road gradient, and an approximate 400-foot long tunnel bored under the freeway. Access to the Upper Village would be *via* the Upper/Lower Village Connector, Alternate 1c described above. If multiple access roads to the Adobe Falls Faculty/Staff Housing site were provided, private entry gates would be installed to prevent "cut through" traffic.

Alternate 3b, Via A Lot. Alternatively, a 750-foot road with a 400-foot tunnel under the freeway would be constructed from the campus Lot A to the Adobe Falls Faculty/Staff Housing Lower Village through the existing drainage channel. Under this alternate access, the drainage channel from Lot A to Adobe Falls would be enlarged and a collector street along the riparian habitat to the Lower Village would be constructed.

5.6.2.4 Alternate 4: Vehicle/Pedestrian Bridge Over Freeway to Campus Under this alternate access, a vehicle/pedestrian bridge would be constructed over the Interstate-8 freeway to connect the Adobe Falls Faculty/Staff Housing site with the SDSU campus. Connection with the Upper Village would require the construction of a 625-foot roadway and 250-foot bridge from an elevation of +325 feet from Canyon Crest Drive spanning the freeway to an elevation of +270 feet on the Adobe Falls Faculty/Staff Housing site. Access to the Lower Village would be *via* the Upper/Lower Village Connector, Alternate 1c described above. Alternatively, a direct connection to the Lower Village would be provided by way of a 375-foot bridge over the freeway with a spiral ramp down to the Lower Village. The ramp would be 735 feet long at a 15% grade. If multiple access roads to the Adobe Falls Faculty/Staff Housing site were provided, private entry gates would be installed to prevent "cut through" traffic.

5.6.2.5 Alternate 5: Direct Freeway Access

Under this alternate access route, a direct connection to the I-8 freeway from the Adobe Falls Faculty/Staff Housing Lower Village would be constructed. Access to the Upper Village would be via the Upper/Lower Village Connector, Alternate 1c described above. If multiple access roads to the Adobe Falls Faculty/Staff Housing site were provided, private entry gates would be installed to prevent "cut through" traffic.

5.6.3 Traffic Capacity Analysis

At the direction of SDSU, Linscott, Law & Greenspan, Engineers ("LLG"), prepared a traffic assessment of alternate access routes 1a through 1c, each of which would provide access to and from the Adobe Falls Faculty/Staff Housing site from the west *via* Adobe Falls Road/Waring Road.

The purpose of the LLG traffic assessment conducted for this section was to estimate the amount of available capacity on access routes 1a - 1c and, correspondingly, calculate the number of housing units that could be developed on the Adobe Falls Faculty/Staff Housing Lower Village site if alternate access to the proposed development was provided.

An existing traffic count was conducted on the western portion of Adobe Falls Road (west), which showed an existing ADT of 3,690. (See **EIR Appendix N, Traffic Technical Report, Appendix E.**) The level of service ("LOS") D capacity of this portion of Adobe Falls Road is 6,500 ADT using the City 2-lane collector capacity. Therefore, Adobe Falls Road (west) presently has capacity for an additional 2,800 ADT. Assuming only townhomes/condominiums were built on the Adobe Falls site, at a trip rate of 8 ADT per unit, there is capacity on Adobe Falls Road for approximately 350 dwelling units to be developed on the Adobe Falls Faculty/Staff Housing site. This capacity determination applies to the existing flood channel alternate access route (Alternative 1b), in combination with the Upper/Lower village connector, Alternative 1c.

For the "Via Smoketree" alternate (Alternate 1a), traffic would need to utilize the private driveway/roadway through the SmokeTree development to reach Adobe Falls Road. Based on a field review of this roadway, there is capacity for approximately 1,500 additional ADT, which means that the maximum number of units that could be built using the private driveway would be about 185 units (assuming 8 ADT per unit).

Under a third scenario, both the eastern portion of Adobe Falls Road and the Smoketree access road (leading to the western portion of Adobe Falls Road) would be available to residents of the

Lower Village and Smoketree development. This "dual utilization" scenario would allow for the development of 174 townhomes and/or condominiums to be constructed in the Lower Village.

5.6.4 Environmental Resources Analysis

An environmental analysis was conducted of each of the alternate access routes. The results of the analysis, including information regarding the presence of environmental constraints or hazards, is presented below. As discussed above, the western portion of Adobe Falls Road has sufficient roadway capacity to accommodate 350 dwelling units, the maximum number of dwelling units that would be developed under any scenario on the Adobe Falls Faculty/Staff Housing site. Therefore, the primary alternate access routes, those providing access to/from the west, would not be constrained by the existing roadway capacities, and no further analysis of traffic capacities is necessary.

The biological constraints analysis of each access route presented below was prepared by Biologist/Habitat Restoration Specialist Scott Boczkiewicz of Dudek & Associates, and is based on Mr. Boczkiewicz' existing condition site reconnaissance conducted in February 2007. Mr. Boczkiewicz is familiar with this area due to past biological work in the Adobe Falls Canyon Area including various sensitive species surveys conducted in the area in 2002, 2004 and 2007. Plant communities within the potential project disturbance areas were mapped in the field directly onto 200-scale (1" = 200') color aerial photograph (Aerial Access LLC: flown January 2006) by Mr. Boczkiewicz. The vegetation boundaries were then transferred to same-scale topographic maps and digitized using AutoCAD. A geographic information system (GIS) coverage was created using ARcCAD to calculate acreages of each vegetation type and impacts of each alternate access route. Similar to the biological resource analysis prepared for the proposed project, all plant community classifications are from Holland (1986). For purposes of biological resource impact calculations, a 100' buffer around each alternate access route was created so as to assume impact areas likely as a result of manufactured slopes, construction work, etc. The analysis includes preliminary input from Federal, State and local resource agencies based on a preliminary project consultation meeting with the agencies held on April 5, 2007.

Cultural and paleontological resource analyses were conducted for the alternate access routes during February - March 2007 for Brian F. Smith & Associates. A records inventory was conducted during this timeframe as well. The results of these surveys are disclosed below for each alternate access route. Similar to the biological resource impact analysis, a 100-foot buffer around each proposed alternate access route was assumed to accommodate manufactured slopes and construction work areas.

Visual resource discussions were prepared by Dudek environmental planner, Sarah Lozano. Discussion of geotechnical constraints was provided by Ms. Lozano with input from Sue Tanges, Southland Geotechnical Consultants. Water quality and hydrology discussions were provided by Dudek Environmental Engineers Glenna McMahon and Sarah Richmond, and analysis of potential noise impacts by Environmental Engineer Mike Komula.

5.6.4.1 Alternate 1: Adobe Falls Road/Waring Road

Alternate 1a, Via Smoke Tree Condominium Development. The following environmental impacts may result with implementation of this alternate access route:

- Depending on the location of this access route into the Smoke Tree Condominium development, construction of this route may result in large retaining walls and concrete structures, which may result in visual impacts.
- Construction of this alternate access route may impact coastal sage scrub and southern mixed chaparral, both considered habitats that support sensitive species. Wetland impacts may also occur if access to the Smoke Tree Condominium development were to include a bridge across Alvarado Creek, immediately west of the proposed Adobe Falls Lower Village site; permits would need to be obtained from resource agencies for impacts to the existing channel and associated wetland habitat.
- Cultural resource impacts would not occur as a result of this alternate access route.
- Per a review of the project Environmental Data Resources ("EDR") Report, no known hazards are located along this access route.
- If a bridge to Smoke Tree spanning the existing concrete-lined drainage were to be utilized, hydrologic impacts would be limited. Additionally, this alternate access route would eliminate the need to construct the bridge connecting the Lower Village and Adobe Falls Road and, therefore, would reduce hydrologic impacts as to that facility. Similar to the proposed project, water pollution control measures would be necessary to control runoff from any future facility, particularly due to the impairment status of the San Diego River (to which Alvarado Creek is a tributary).

- Additional traffic noise would affect Smoke Tree Condominium residents, who would be considered sensitive receptors.
- No paleontological resources would be encountered within this area.
- Similar impacts to public utilities and services would result from this alternate access
 route as the proposed project. If this alternate access route was utilized in addition to
 another access in/out of the Adobe Falls development, emergency access provision to
 future Adobe Falls residents would be enhanced.

Alternate 1b, Via Existing Flood Channel. The following environmental impacts may result with implementation of this alternate access route:

- Depending on the location of this access route into the Smoke Tree Condominium development or other adjacent development, construction of this route may result in large retaining walls and concrete structures, which may result in visual impacts.
- Depending on the length of this alternate access route, impacts would result to coastal sage scrub, southern mixed chaparral and most notably jurisdictional wetlands as a result of the proposal to "cap" the existing channel. Capping an existing channel requires a permit from resource agencies. Impacts to the existing channel could range from 0.75 to 2 acres, which would necessitate an extensive regulatory permitting process. Further, sensitive wildlife species may inhabit portions of the constructed channel or adjacent vegetation within this proposed access corridor.
- Cultural resource impacts would not occur as a result of this alternate access route.
- Due to the high slope along the freeway, landslides and slope instability issues would need to be considered during design. The following other geotechnical constraints would be encountered: landslides/slope instability, erosion, unconsolidated soils, expansive soils, groundwater/seepage, flood inundation, liquefaction and seismic shaking. Similar to the proposed project, these constraints would need to be addressed during alternate access route engineering. There may be a small fault within this alternate access route, which may present feasibility and design constraints.
- Per a review of the project EDR Report, no known hazards are located along this access route.
- If the existing concrete channel was "capped," floodwater conveyance must be considered. It is assumed that a facility could be designed to adequately convey flood

flows beneath a capped channel, although capping would raise issues relating to channel maintenance. Similar to the proposed project, water pollution control measures would be necessary to control runoff from this facility particularly due to the impairment status of the San Diego River (to which Alvarado Creek is a tributary).

- This alternate route would require encroachment onto California Department of Transportation ("Caltrans") property, which may or may not be granted.
- Additional traffic noise would affect Smoke Tree Condominium and other multi-family residents west of Smoke Tree, who would be considered sensitive receptors.
- No paleontological resources would be encountered within this area.
- Similar impacts to public utilities and services would result from this alternate access
 route as the proposed project. If this alternate access route was utilized in addition to
 another access in/out of the Adobe Falls development, emergency access provision to
 future Adobe Falls residents would be enhanced.

Alternate 1c, Upper/Lower Village Connector. The following environmental impacts may result with implementation of this alternaté access route:

- Due to the significant manufactured slopes necessary for this project component, significant visual impacts likely would result.
- This alternate access route would involve impacts to upland habitats including annual (non-native) grasslands, coastal sage scrub and southern mixed chaparral, and wetland habitats including freshwater marsh, mulefat scrub, sycamore/cottonwood riparian woodland (as well as restored sycamore/cottonwood riparian woodland), cismontane alkali marsh, and southern willow scrub. All of these habitats are considered sensitive, may support sensitive wildlife species, and would require mitigation, some of which (narrowly distributed wetland habitats such as cismontane alkali marsh), would be extremely difficult to mitigate.
- Depending on manufactured slope and structures of the roadway and a potential bridge design, this alternate access route may impact the "Adobe Falls." Further, there are other culturally significant sites within the immediate area of the falls which would also be impacted by this alternate access route.
- The following geotechnical considerations would need to be addressed through engineering design for this alternate access route: landslides/slope instability, erosion,

unconsolidated soils, hard rock/excavatability, expansive soils, groundwater/seepage, flood inundation, liquefaction and seismic shaking. Similar to the proposed project, these constraints would need to be addressed during alternate access route engineering.

- Per a review of the project EDR Report, no known hazards are located along this access route. Similar to the proposed project, the existing restoration projects that are ongoing within the canyon to mitigate for historic sewage spills could potentially be within the area of impact of this alternate access route. These historic spill areas are now being restored by the City of San Diego.
- Additional traffic noise would affect Smoke Tree Condominium residents who would be considered sensitive receptors. Additional traffic noise also would affect Del Cerro residents due to the presence of this roadway near rear yards of residents.
- This alternate access route would require the introduction of a new traffic signal, or modification of the existing signal, at the I-8 westbound off ramp/College Avenue intersection, thereby impairing the existing College Avenue southbound access to the I-8 westbound on ramp.
- No paleontological resources would be encountered within this area.
- Similar impacts to public utilities and services would result from this alternate access
 route as the proposed project. If this alternate access route was utilized in addition to an
 additional alternate access route (which is in addition to another access in/out of the
 Adobe Falls development), emergency access provision to future Adobe Falls residents
 would be enhanced.

5.6.4.2 Alternate 2: College Avenue to Upper Village

- Due to the significant manufactured slopes necessary for this project component, significant visual impacts may result.
- Construction of this alternate access route would impact coastal sage scrub, which is a sensitive upland community.
- Cultural resource impacts would not occur as a result of this alternate access route.
- The following geotechnical considerations would need to be addressed through engineering design for this alternate access route: landslides/slope instability, erosion,

unconsolidated soils, hard rock/excavatability, expansive soils and seismic shaking. Similar to the proposed project, these constraints would need to be addressed during alternate access route engineering.

- Per a review of the project EDR Report, no known hazards are located along this access route.
- Hydrologic impacts must be considered due to the proposal for water to drain toward Alvarado Creek. Similar to the proposed project, water pollution control measures would be necessary to control runoff from any future facility, particularly due to the impairment status of the San Diego River (to which Alvarado Creek is a tributary to).
- Additional traffic noise would affect Del Cerro residents due to the presence of this roadway near rear yards of residents.
- No paleontological resources would be encountered within this area.
- Similar impacts to public utilities and services would result from this alternate access
 route as the proposed project. If this alternate access route was utilized in addition to
 another access in/out of the Adobe Falls development, emergency access provision to
 future Adobe Falls residents would be enhanced.

5.6.4.3 Alternate 3: Vehicle/Pedestrian Tunnel Under Freeway

- Due to the fact that tunnels beneath I-8 would not be visible beyond the entrance areas, visual impacts would not result.
- Alternate 3a, Via X Lot likely would not result in impacts to biological resources as this access route would impact existing parking lots or a portion of the proposed Lower Village development area (which has already been assumed as a biological resource impact per the proposed project), and would be located beneath I-8 (which is devoid of biological resources). Alternate 3b, Via A Lot, would impact sensitive upland habitats, including costal sage scrub and southern willow scrub. This access route would also impact sensitive wetland resources, including sycamore cottonwood riparian woodland, southern willow scrub and freshwater marsh. Wetland impacts would be in excess of 1 acre and would, therefore, necessitate an extensive resource agency permitting process.
- Cultural resource impacts would not occur as a result of these access routes.

- The following geotechnical considerations would need to be addressed through engineering design for these alternate access routes: landslides/slope instability, erosion, unconsolidated soils, hard rock/excavatability, expansive soils, hard rock/excavatability, groundwater/seepage, liquefaction and seismic shaking. Similar to the proposed project, these constraints would need to be addressed during alternate access route engineering.
- Per a review of the project EDR Report, no known hazards are located along this access route. However, due to the likely imported soil characteristic of the freeway structure, an investigation of the freeway soil (that would be removed during tunneling) would be required in order to determine if potential hazards could be released during tunnel activity. If contaminated soil was discovered, identification of suitable disposal locations would be necessary.
- For Alternate 3a, Via X Lot, runoff impacts must be considered due to the proposal for water to drain toward Alvarado Creek. Similar to the proposed project, water pollution control measures would be necessary to control runoff from any future facility particularly due to the impairment status of the San Diego River (to which Alvarado Creek is a tributary. For Alternate 3b, Via A Lot, hydrology concerns would need to be addressed in order to ensure that 100-year Alvarado Creek flows could persist with an additional tunnel structure within this area. Similar to the proposed project, water pollution control measures would be necessary to control runoff from any future facility, particularly due to the impairment status of the San Diego River (to which Alvarado Creek is a tributary).
- Due to the subterranean nature of these structures, coupled with the isolation from sensitive receptors, noise impacts would not be likely.
- No paleontological resources would be encountered within this area.
- Similar impacts to public utilities and services would result from these alternate access route as the proposed project. If either of these alternate access routes were utilized in addition to another access in/out of the Adobe Falls development, emergency access provision to future Adobe Falls residents would be enhanced.

5.6.4.4 Alternate 4: Vehicle/Pedestrian Bridge Over Freeway to Campus

- Due to the prominent nature of these structures, significant visual impacts would result to I-8 freeway viewers, Del Cerro and College Area community members.
- These alternate access routes would involve impacts to upland habitats including baccharis scrub, coastal sage scrub and southern mixed chaparral, and wetland habitats including southern willow scrub. All of these habitats are considered sensitive, may support sensitive wildlife species and would require mitigation, and would require resource agency permits.
- Cultural resource impacts would not occur due to these access routes. However, monitoring of grading activities would be necessary during construction in order to avoid potential impacts to the "Adobe Falls" should the eastern-most overpass option be chosen.
- The following geotechnical considerations would need to be addressed through engineering design for these alternate access routes: landslides/slope instability, erosion, unconsolidated soils, hard rock/excavatability, expansive soils, hard rock/excavatability, groundwater/seepage, liquefaction and seismic shaking. Similar to the proposed project, these constraints would need to be addressed during alternate access route engineering.
- Per a review of the project EDR Report, no known hazards are located within these access routes.
- Runoff impacts must be considered due to the proposal for water to drain toward Alvarado Creek. Similar to the proposed project, water pollution control measures would be necessary to control runoff from any future facility particularly due to the impairment status of the San Diego River (to which Alvarado Creek is a tributary). For the easternmost overpass, hydrology concerns would need to be addressed in order to ensure that 100-year Alvarado Creek flows could persist with an additional transportation structure within this area..
- Additional traffic noise would affect Del Cerro and College Area community residents within proximity of these overpasses. However, due to the existing noise environment present along the I-8 corridor, the additional vehicles utilizing these routes would not result in a significant noise increase.
- No paleontological resources would be encountered within this area.
- Similar impacts to public utilities and services would result from these alternate access route as the proposed project. If either of these alternate access routes were utilized in

addition to another access in/out of the Adobe Falls development, emergency access provision to future Adobe Falls residents would be enhanced.

5.6.4.5 Alternate 5: Direct Freeway Access

- Due to the prominent nature of these structures, significant visual impacts would result to I-8 freeway viewers, Del Cerro and College Area community members.
- This alternate access route would involve impacts to upland habitats, including coastal sage scrub and possibly wetland impacts that may be associated with manufactures slopes to support such a structure. Coastal sage scrub habitat is considered sensitive, may support sensitive wildlife species such as the federally listed-threatened coastal California gnatcatcher, and would require mitigation. Impacts to wetlands would also be potentially significant and must be mitigated. Impacts to sensitive wildlife and wetland habitats would require resource agency permits.
- Cultural resource impacts would not occur due to these access routes. However, monitoring of grading activities would be necessary during construction in order to avoid potential impacts to the "Adobe Falls" should the eastern-most overpass option be chosen.
- The following geotechnical considerations would need to be addressed through engineering design for these alternate access routes: landslides/slope instability (due to the steep slope along the freeway), erosion, unconsolidated soils, hard rock/excavatability, expansive soils, groundwater/seepage, liquefaction and seismic shaking. Similar to the proposed project, these constraints would need to be addressed during alternate access route engineering.
- Per a review of the project EDR Report, no known hazards are located along this access route. However, due to the likely imported soil characteristic of the freeway structure, an investigation of the freeway soil (that would be disturbed during construction) would be required in order to determine if potential hazards could be released. If contaminated soil was discovered, identification of suitable disposal locations would be necessary.
- Additional traffic noise would affect Del Cerro residents within proximity of these on/off ramps.

- No paleontological resources would be encountered within this area.
- Similar impacts to public utilities and services would result from this alternate access route as the proposed project. If this alternate access routes were utilized in addition to another access in/out of the Adobe Falls development, emergency access provision to future Adobe Falls residents would be enhanced.
- This alternate access route would not meet Caltrans standards for minimum freeway interchange distance.

5.6.5 Construction Cost Estimates

In furtherance of this analysis, SDSU conducted an engineering study to estimate construction costs for each of the alternate access routes studied above.

As shown in **Table 5.0-5**, **Adobe Falls Alternate Access Routes**, **Cost Impact Summary**, the costs to construct each of the alternate access routes ranges from a low of \$1.6M for the construction of Alternate 1a (the connection to Adobe Falls Road/Waring Road through the Smoketree development), up to a high of \$64M to construct Alternate 1b, a direct connection to Waring Road.

Cost Impact Summary							
Alternate	Description	Total Cost For Alternate	Added Cost/Unit Upper Village	Added Cost/Unit Lower Village			
la	Connect thru Smoketree	\$1.6M	\$36,000	\$13,000			
1b	Connect to Waring Rd. via Nicolosi's	\$28M	\$166,000	\$167,000			
1b	Connect to Waring Rd. via condominiums	\$29.4M	\$82,000	\$68,000			
1b	Connect to Waring directly	\$64M	\$369,000	\$321,000			
2	Connect to College Ave.	\$7.3M	\$54,000	\$43,000			
3a	Tunnel between Lower Village and Lot X	\$23.4M	\$164,000	\$166,000			
3b	Tunnel between Upper Village and Lot A	\$27.5M	\$159,000	\$160,000			
4a	Bridge to Upper Village	\$14.3M	\$145,000	\$84,000			
4b	Bridge to Lower Village	\$24.7M	\$170,000	\$171,000			

Table 5.0-5

Source: SDSU Facilities Planning, Design and Construction (June 2007)

Based on the estimated construction costs, the additional cost to construct each of the Upper and Lower Village housing units was calculated. As shown on Table 5.0-5, construction of the alternate access routes would add \$13,000 per Lower Village unit to construct Alternate 1a, the connection through the Smoketree development, and up to \$369,000 per Upper Village unit in order to construct the direct connection to Waring Road.

5.6.6 Conclusion

Various faculty/staff housing development scenarios have been considered for the Adobe Falls Faculty/Staff Housing Upper and Lower Villages. For each Village, the economic objectives are: (1) Provide housing at prices that are affordable for the SDSU faculty and staff (to achieve this objective, townhomes should average 1,600 square feet and be priced at approximately \$440,000 each); and (2) All development costs must be covered by the revenue generated by the project, *i.e.*, the project must be revenue neutral.

In addition to the townhome/condominium product type considered for this analysis, other housing programs such as apartments (requires capital investment), and single-family homes (fewer homes at higher selling prices) were considered, but these housing types do not meet the two major economic objectives outlined above.

Based on the analysis presented above, Alternate Access Route 1a, which would provide access in to and out of the Adobe Falls Faculty/Staff Housing Lower Village site *via* the Smoketree condominium development, would add the least amount of additional costs to project development, is the only alternate access route that meets the development criteria and economic objectives outlined above, and is determined to be the only financially feasible alternate access route that could be developed to serve the Adobe Falls Faculty/Staff Housing component of the proposed project. For these reasons, SDSU may further investigate the potential for reaching agreement to obtain access in to and out of the Adobe Falls Faculty/Staff Housing Lower Village *via* the Smoketree condominium development. This process would be done in conjunction with the future preparation of project-specific environmental analysis for the Adobe Falls Faculty/Staff Housing Lower Village.