

APPENDIX O
PROJECT ALTERNATIVES

INSTITUTIONAL ALTERNATIVES

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Introduction

The California State University (CSU) Board of Trustees in May 2003 recognized that higher education enrollment projections had begun to exceed the system's physical capacity. At this time, they requested that campuses develop strategies to meet the CSU mission for student accessibility. And, added that although CSU will continue to add capacity space as the capital budget allows, they stressed that campuses must focus upon strategies that provide instruction with better utilization rates of the existing facilities.

CSU plans to meet these increased enrollment needs primarily by expanding service on its current campuses and, when feasible, by creating off-campus centers in areas in the state which are increasingly under-served. CSU recognizes that each campus faces different physical capacity environments and enrollment demands. These variations require that individual campuses use available options in different ways and combinations and encourage policies that provide flexibility to best serve future students. It has long been the policy of the Board to accommodate enrollment demand where it exists. The Board of Trustees has formalized that policy and encourages campuses to choose the combination of options most appropriate to their situations. It is within this context that SDSU examines the following alternatives; development of new and expansion of off-campus centers, expansion of use of academic technology such as distance learning and expansion of summer term enrollment.

Develop New and Expand Off-Campus Centers

The futures of both San Diego State University and San Diego County are inextricably linked. SDSU, as a major educational institution has an obligation to its students, faculty, and communities to help guide the region into the 21st century. Given the anticipated growth and diversity of the region, SDSU needs to expand its strategies for maintaining strong educational programs while expanding access to higher education.

SDSU's History of Off-Campus Center Sites

SDSU has had a long-standing commitment to Higher Education in the Imperial Valley. SDSU has also provided pilot experiments in areas of San Diego County where the programs could be of benefit to the community and where student enrollment demand has demonstrated the need.

Imperial County

In 1959, San Diego State University established the Imperial Valley Campus off-campus center in southern Imperial County in the city of Calexico, Ca. Known as IVC Calexico, the campus has operated continuously since 1959 steadily growing to serve over 600

FTES in 2002-03 and offering education leading to bachelor's degrees, master's degrees and teaching credentials. Based upon high enrollment demand in the Imperial Valley, in 2004, SDSU opened a second off-campus center in northern Imperial County, known as IVC Brawley in Brawley, Ca. The Brawley facility is now serving 173 FTES.

San Diego County

In 1986, in northern San Diego County, San Diego State University established the SDSU North County Center in San Marcos, Ca. 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 center was operated by SDSU through 1992, at which time the center became the current California State University San Marcos.

SDSU has offered classes at two additional off-campus sites in San Diego County; in National City, Ca. and at Miramar College. Both of these facilities were provided in leased space shared with the local community colleges. This impetus for this concept was three-fold: (1) SDSU had hoped to avoid congestion on the San Diego campus by offering classes at first one and then two off campus sites. (2) Community colleges use their classrooms in the morning and evening and had space available for use in the afternoon. (3) The off-campus sites would be particularly convenient to students who lived in either in the northern or the southern portions of the 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 of size ranging from 32 seats to 50 seats. An invitation had been extended to all SDSU departments to suggest courses to offer in National City. Departments were encouraged to consider different alternatives for scheduling of classes to include weekend offerings and/or compressed time periods (e.g., weekends, one half semester). In the initial semester of this experiment (Spring, 1999), SDSU faculty taught ten classes from Communication, Criminal Justice, Education, Education Technology, Finance, Management, Marketing, Psychology, and Public Administration. Enrollment reached a high of 270 FTES in 2001-02 and fell to 248 FTES for 2002-03.

The initial academic objective for the Higher Education Center in National City was to respond to the community's request to serve South San Diego County students with a local higher education option. SDSU provided courses in National City based on the above assumptions. As a state institution, with statewide mandates to fulfill, in addition to its regional responsibilities, when faced with significant budget reductions as well as minimal student enrollment, SDSU found it necessary to close the facility in 2004. Facing a reduction of more than \$40 million from 2002/03 to 2004/05, it was determined the university 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, San Diego State had incurred annual lease costs of approximately \$250,000 per year associated with providing courses in the South County. Marginal student enrollments 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. The reality was that there were not enough students from the South County to continue to make the Center fiscally viable.

In studies performed by the University it was found that 57 percent of the students taking San Diego State courses at the Higher Education Center had residential addresses with zip codes outside the South Bay. In this circumstance, the off-site program was contributing to more traffic on the freeways rather than less, as was the original objective.

It was additionally found that 89.4 percent of the students that registered for SDSU courses at the Higher Education Center took most of their courses on SDSU's main campus and when questioned, students indicated they would presumably continue to do so. In essence, and contrary to the original objectives, rather than reducing freeway congestion, the split class locations were actually adding to freeway congestion so students could attend functions at both sites. In addition, 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.

With regard to South County enrollment demand, it is important to note that the key factor is not the overall population growth, but rather the number of high school graduates eligible for entry to the UC or 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, San Ysidro/south San Diego. It 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 San Diego State University and the Sweetwater Union High School District. This program was developed to try 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 for the next 3-5 years. These numbers have been and will be revisited on an

annual basis although; it appears the logical place to consider a full branch campus would be in the South County.

Notwithstanding, the SDSU School of Teacher Education continues to offer a significant amount of teacher credential instruction at high school sites in South County schools.

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 being more common. Most classes were offered in two portable classrooms, fully equipped as smart classrooms, and computer science classes were offered in the computer labs in another building. The classrooms used generally had a maximum capacity of 42 students.

Currently

Due to the State of California's current budgetary problems, and limited regional enrollment demand, the SDSU National City and SDSU Miramar Off-Campus Center sites were discontinued in 2004. In response to this event, SDSU increased the class offerings on the San Diego campus to offset the loss of these sites. SDSU continues to operate the Imperial Valley Campus centers in Calexico and Brawley, Ca. 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 call.

SDSU Off-Campus Center Policy

The SDSU campus is rapidly approaching enrollment capacity, reflected in the doubling of freshman/transfer applications in just the past two years and projections suggest the pressure on enrollment will continue to accelerate. As such, SDSU continues to explore the use of alternative sites. SDSU's strong commitment to the teacher/scholar model and diverse faculty interests and skills provide a foundation from which to develop innovative strategies for the future while continuing to sustain the high quality of SDSU's educational programs and to build upon existing strengths. SDSU has developed policies to aide in assessing the educational and fiscal viability of developing off-campus center agreements. By policy, off-campus site viability is evaluated by assessing potential off-campus site benefits against the following criteria.

Mission Statement for Off-Campus Sites

The following mission statement provides a broad framework.

"The general goals of any San Diego State University off-campus site should be consistent with the University's educational mission. Any such site should complement or add value to the University's programs. Baccalaureate, graduate, post-baccalaureate, certificate, and/or continuing education programs located in these sites should reflect the high academic expectations of the institution and provide access to higher education for diverse communities.

An off-campus site should develop educational goals and academic programs specific to the needs of the region and, where appropriate, local communities. A site should provide the intellectual and physical environment to maximize educational opportunities consistent with individual and community interests and needs. Collaboration with other higher education institutions, governmental entities, and interested businesses/industries should be considered. In addition to traditional core academic programs, an off-campus site may provide education through field placement, clinical experience, and/or faculty/student research opportunities, using a broad spectrum of learning modalities."

Principles for Off-Campus Site Planning

SDSU Academic policy states that Off-Campus Centers should be guided by the following academic principles. The overriding point is that all academic programs should be as comparable as possible with programs on the main campus, remaining in conformity with the University's overall mission and adhering rigorously to the long-standing teacher-scholar model that distinguishes SDSU. To that end, Off-Campus Centers should provide and maintain:

- Admission standards identical to those of the main campus
- Significant faculty, student, and staff involvement in planning;
- Faculty control over curriculum, programs, and scheduling through departments and colleges;
- Faculty profile similar to that of faculty teaching equivalent curricula at the main campus;
- A teaching faculty connected closely to the main campus in terms of governance, personnel actions, and flow of information;
- Clear lines of communication with and access to responsible persons;
- Opportunities for faculty and students to conduct research;
- Access to resources at either the center or main campus necessary to foster teaching effectiveness and sustain professional growth;
- Assessment of student learning outcomes against identified performance standards;
- Appropriate levels of student services, including advising and mentoring, to enhance student learning, personal development, retention and graduation;
- Programs and curricula specific to the needs of local communities as appropriate.

Roadblocks to Off-Campus Site Expansion

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 the University'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;

Additionally, a basic plan for academic and support services must accompany the initiation of any off-campus program. Moreover, particular attention should be given to (1) sites serving economically diverse populations, and (2) sites where remoteness from the main campus creates unequal access to educational resources and support services enjoyed by regularly enrolled students on the main campus. Support service needs and frequency of use may vary with the availability of personal health coverage, family income, and personal preparation for progress within the educational culture.

Significant planning is required for access to student services for "regular" and "open" enrolled students at an off-campus site given the manner in which this assistance is funded. These differences become particularly important if the intent of the off-campus site is to go beyond a basic "open" enrollment certificate training of area residents and includes strategies to influence the growth of career tracks in a community.

Possible Off-Campus Site Models

There are numerous models to consider in selecting off-campus sites. Several models offer benefits and several might exist concurrently to best serve the needs of the University and the region or communities.

- a full branch campus modeled after the main campus that might serve as a precursor to a free-standing campus;
- a full branch campus in which there might also be a community college and/or high school in close proximity to facilitate education programming;
- a campus focused on a specific issue or theme that would offer programs supportive of that theme;
- a campus that offers classes and services but requires students to matriculate on the main campus as well; and
- a campus that supports access to distributed learning.

Expand Use of Academic Technology such as Distance Learning

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

Academic Technologies and Distance Learning At SDSU

In response to the current Master Planning effort, SDSU has reviewed the current and proposed uses of campus academic technologies. The university 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 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 have an installed data display and other technological resources in place. These "Smart" classrooms will need to grow in number to facilitate our 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 we attempt to keep our students connected to the University.

Expand Summer Term Enrollment

History of Summer Enrollment Growth/Year-Round Operations

In March 2000, the 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 was 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 is currently proposing the campus grow 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 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.

SDSU Policy on Implementing Summer Enrollment/Year-Round Operations

Senate Policy on year-round operations has evolved since the first report from an ad hoc task force, in 1999, followed by review by the Academic Policy and Planning Committee. On May 9, 2000, the SDSU Senate approved the following series of planning principles designed to facilitate planning for year-round operations. SDSU year-round operations have since been implemented based upon these guidelines.

Principle 1. All planning for year-round operation shall be undertaken with the participation of affected divisions and the Senate. Primary responsibility for coordination of planning shall lie within the Provost's office. Proposed changes to faculty workload and working conditions shall be negotiated between the CSU and CFA. Meanwhile current policies for summer staffing shall be followed.

Principle 2. The academic quality and rigor of the courses taught in Summer Term shall be consistent with courses taught in the Fall and Spring Semesters.

Principle 3. Only courses offered through the regular general-fund course schedule shall be offered through the Summer Term. This will not preclude for-credit summer session programs offered through the College of Extended Studies.

Principle 4. Summer Term assignments shall be consistent with and supportive of the teacher/scholar model. Time shall be preserved for faculty research.

Principle 5. Faculty shall have input into which semesters and terms they teach.

Principle 6. Tenured and tenure-track faculty shall retain use of their offices and laboratories year round.

Principle 7. Faculty compensation for Summer Term teaching shall be consistent with Unit 3 Agreement and supplemental to the CSU and CFA Summer Term agreements.

Principle 8. Office space shall be provided for lecturers during the term of their

employment, consistent with current departmental policies and practices.

Principle 9. Graduate Assistant, Graduate Research Assistant, and Graduate Teaching Associate positions shall be made available in the Summer Term to support grant and contract activities, student -faculty research, and teaching of introductory courses where appropriate.

Principle 10. University fees for Summer Term shall be proportional to fees charged in the Fall and Spring Semesters.

Principle 11. Student support services shall be sustained year-round. In the Summer Term, graduate and undergraduate student services shall be appropriate to the number of students enrolled.

Principle 12. Library and computing services shall be sustained year-round. In the Summer Term, library and computing services shall be appropriate to the number of students enrolled.

Principle 13. Housing and financial aid services shall be sustained year-round. In the Summer Term, housing and financial aid services shall be appropriate to the number of students enrolled.

Principle 14. Initially, applications and admissions shall be reserved to the Fall and Spring Semesters.

Principle 15. Initially, disqualification and reinstatement shall apply to Fall and Spring Semesters only.

Principle 16. Adequate time shall be provided for implementing changes to operational systems such as SIMS/R and financial aid processing.

Principle 17. Adequate business, financial, security, maintenance, computer networking, and auxiliary organization services shall be assured year round.

Principle 18. On a rotating basis, university facilities (classrooms, laboratories, housing, and others) shall be taken off-line for remodeling, renovation, and repair.

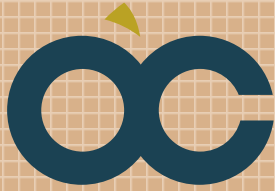
Principle 19. Evaluation of the effectiveness of the Summer Term and the impact of the Summer Term on curriculum development, research, the College of Extended Studies, facilities renovation, and other activities normally conducted during the summer shall be coordinated by the Office of the Provost, with the participation of the affected university divisions. The results shall be reported to AP&P and the Senate annually.

Principle 20. To maintain academic quality, standard annualized assignments consistent with the teacher-scholar model shall be maintained. Any teaching

above the standard annualized assignment will be treated as overload (extra pay for extra work) irrespective of the term in which it occurs.

Principle 21. Year Round Operations shall not dilute resources required to maintain and enhance the quality of Fall and Spring semester operations.

CONSTRUCTION COST ESTIMATE



O'Connor
Construction
Management, Inc.

Alternate Access Routes to Adobe Falls

San Diego State University

Options #3 and # 6 Pre Conceptual Budget Cost Estimates

30 December 2004

Job Number: 04-134

INTRODUCTORY NOTES

These estimates are based on the following information received and verbal direction from the client:

1. Adobe Falls Community Plan – 1 sheet
2. Profile of Proposed Tunnel Access to Adobe Falls – 1 sheet
3. Map 9347 – Smoke Tree Adobe Falls (Condm) – 1 sheet
4. Map 10645 – Adobe Falls Estates (Condm) – 1 sheet
5. Study of Alternate Access Routes to Adobe Falls Property (Options #1 through #8)– 1 sheet

The following items are excluded from these estimates:

- A. Professional fees.
 - B. Building permits and fees.
 - C. Inspections and tests.
 - D. Escalation beyond the midpoint of construction.
 - E. Construction change order contingency.
 - F. Contractor bonding.
 - G. Hazardous material abatement/removal.
 - H. Environmental Impact Reports.
 - I. Easement acquisition costs.
 - J. Open space mitigation costs.
 - K. Land acquisition costs.
 - L. Special insurance or bonding that may be required for working near or under a major arterial freeway.
- This estimate is based on prevailing labor wage rates.
 - This estimate is based on a minimum of four (4) competitive bids at both the general and sub-trade levels and a stable bidding market. If less than four (4) bids are received, the following increases in cost can be anticipated:

3 bids	10%
2 bids	13%
1 bid	23%
 - Due to recent market conditions in the steel industry, the owner and designers should be advised that the market for steel-based products (i.e., reinforcing steel, structural steel, metal decking, and various metal fabrications) is volatile, and may fluctuate. The prices in this estimate reflect current construction costs. Current market conditions make it impossible to project the future cost of steel, and we cannot predict the impact of lead times, guarantee periods, or terms for this project.

- This estimate is based on a detailed measurement of quantities. O'Connor has made allowances for items that were not clearly defined in the drawings. The client should verify these allowances.
- O'Connor recommends that this estimate should be updated if more definitive information becomes available, or if there is any change in scope.
- We strongly advise the client to review this estimate in detail. If any interpretations in this estimate appear to be contrary to those intended by the design documents, they should be addressed immediately.

GENERAL SUMMARY

ELEMENT	TOTAL COST
1. FOUNDATIONS	
2. SUBSTRUCTURE	
3. SUPERSTRUCTURE	
4. EXTERIOR CLOSURE	
5. ROOFING	
6. INTERIOR CONSTRUCTION	
7. CONVEYING	
8. MECHANICAL	\$53,900
9. ELECTRICAL	\$42,000
10. GENERAL CONDITIONS & PROFIT	
11. TUNNEL EXCAVATON, LINING AND PORTAL	\$11,457,504
12. SITEWORK	\$785,313
NET DIRECT CONSTRUCTION COST	\$12,338,717
GENERAL CONDITIONS, OH&P,	20.0% \$2,467,743
SUBTOTAL	\$14,806,460
DESIGN CONTINGENCY,	30.0% \$4,441,938
SUBTOTAL	\$19,248,399
ESCALATION TO MIDPOINT OF CONSTRUCTION, 1/2009	20.0% \$3,849,680

TOTAL CONSTRUCTION COST	\$23,098,078
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DETAIL SUMMARY

ELEMENT	AMOUNT	TOTAL COST
1. FOUNDATIONS		
011 Standard Foundations		
012 Special Foundations		
2. SUBSTRUCTURE		
021 Slab On Grade		
022 Basement Excavation		
023 Basement Walls		
3. SUPERSTRUCTURE		
031 Floor Construction		
032 Roof Construction		
033 Stair Construction		
4. EXTERIOR CLOSURE		
041 Exterior Walls		
042 Exterior Doors/Windows		
5. ROOFING		
050 Roofing		
6. INTERIOR CONSTRUCTION		
061 Partitions		
062 Interior Finishes		
063 Specialties		
064 Interior Doors/Windows		
7. CONVEYING		
070 Elevators		
8. MECHANICAL		
081 Plumbing		\$53,900
082 H.V.A.C.	53,900	
083 Fire Protection		
084 Special Mechanical		
9. ELECTRICAL		
091 Standard Electrical	42,000	\$42,000
092 Special Electrical		
10. GENERAL CONDITIONS & PROFIT		
General Conditions & Profit	(INCLUDED AT GENERAL SUMMARY PAGE)	
11. TUNNEL EXCAVATION, LINING AND PORTAL		
111 Fixed/Movable Equipment		\$11,457,504
112 Furnishings		
113 Special Construction	11,457,504	
12. SITEWORK		
121 Site Preparation		\$785,313
122 Site Improvements	699,813	
123 Site Utilities	85,500	
124 Off-Site Work		

NET DIRECT BUILDING COST	\$12,338,717
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ADOBE FALLS ACCESS ALTERNATE #3, TUNNEL**SAN DIEGO STATE UNIVERSITY
PRE CONCEPTUAL COST ESTIMATE****OCMI JOB #: 04-134
DATE: 30 DECEMBER 2004**

DESCRIPTION	QUANTITY	UNIT	UNIT RATE	ESTIMATED COST
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ELEMENT - MECHANICAL**082 H.V.A.C.**

Tunnel exhaust duct	600	LF	16.50	\$9,900
Tunnel exhaust fan	2	EA	22,000.00	\$44,000

TOTAL - 082 H.V.A.C.**\$53,900****ELEMENT - ELECTRICAL****091 STANDARD ELECTRICAL**

Lights	12	EA	1,000.00	\$12,000
Traffic control caution lighting	2	EA	2,500.00	\$5,000
Electrical service	1	EA	25,000.00	\$25,000

TOTAL - 091 STANDARD ELECTRICAL**\$42,000****ELEMENT - EQUIPMENT****113 SPECIAL CONSTRUCTION**

600' tunnel 38' wide, 1 lane traffic each way, 5' sidewalk each side

Tunnel excavation including removal from tunnel to portal	600	LF	11,960.00	\$7,176,000
Fill	9,706	CY	12.00	\$116,472
Haul and dump	18,581	CY	20.00	\$371,620
Spiling / shoring / grouting	600	LF	4,335.00	\$2,601,000
Shotcrete lining	654	CY	380.00	\$248,520
Portal development:				
Structural excavation	13,889	CY	18.00	\$250,002
Structural fill	2,778	CY	35.00	\$97,230
Haul and dump	13,333	CY	20.00	\$266,660
Concrete headwalls	6,000	SF	55.00	\$330,000

TOTAL - 113 SPECIAL CONSTRUCTION**\$11,457,504****ELEMENT - SITEWORK****122 SITE IMPROVEMENTS**

Collector street:

Grading				
Cut	6,133	CY	2.00	\$12,266
Fill	4,256	CY	3.00	\$12,768
Haul and dump	2,253	CY	20.00	\$45,060
Road bed				
Aggregate base, 12"	32,400	SF	1.20	\$38,880
Asphalt pavement, 4"	32,400	SF	1.60	\$51,840
Median				
Topsoil	333	CY	28.00	\$9,324
Trees	50	EA	450.00	\$22,500
Irrigation	9,000	SF	1.25	\$11,250
Shrubs and groundcover	9,000	SF	2.00	\$18,000
Sidewalk	9,000	SF	6.50	\$58,500
Curb and gutter	3,600	LF	6.90	\$24,840
Striping	3,600	LF	1.00	\$3,600
Signage	1	EA	5,000.00	\$5,000

ADOBE FALLS ACCESS ALTERNATE #3, TUNNEL**SAN DIEGO STATE UNIVERSITY
PRE CONCEPTUAL COST ESTIMATE****OCMI JOB #: 04-134
DATE: 30 DECEMBER 2004**

DESCRIPTION	QUANTITY	UNIT	UNIT RATE	ESTIMATED COST
Tunnel				
Road bed				
Aggregate base, 12"	15,600	SF	1.20	\$18,720
Asphalt pavement, 4"	15,600	SF	1.60	\$24,960
Sidewalk	6,000	SF	6.50	\$39,000
Retaining wall	6,000	SF	25.00	\$150,000
Retaining wall foundation	1,200	LF	35.00	\$42,000
Curb and gutter	1,200	LF	6.90	\$8,280
Guardrail	1,200	LF	55.00	\$66,000
Median barrier	600	LF	49.38	\$29,625
Striping	2,400	LF	1.00	\$2,400
Signage	1	EA	5,000.00	\$5,000
TOTAL - 122 SITE IMPROVEMENTS				\$699,813

ELEMENT - SITEWORK**123 SITE UTILITIES**

Drainage structures	3	EA	3,500.00	\$10,500
Storm drain	300	LF	100.00	\$30,000
Street light	9	EA	5,000.00	\$45,000
TOTAL -123 SITE UTILITIES				\$85,500

GENERAL SUMMARY

ELEMENT	TOTAL COST
1. FOUNDATIONS	
2. SUBSTRUCTURE	
3. SUPERSTRUCTURE	
4. EXTERIOR CLOSURE	
5. ROOFING	
6. INTERIOR CONSTRUCTION	
7. CONVEYING	
8. MECHANICAL	
9. ELECTRICAL	
10. GENERAL CONDITIONS & PROFIT	
11. EQUIPMENT	
12. SITEWORK	\$3,022,865
NET DIRECT CONSTRUCTION COST	\$3,022,865
GENERAL CONDITIONS, OH&P,	20.0% \$604,573
SUBTOTAL	\$3,627,438
DESIGN CONTINGENCY,	30.0% \$1,088,231
SUBTOTAL	\$4,715,669
ESCALATION TO MIDPOINT OF CONSTRUCTION, 1/2009	20.0% \$943,134

TOTAL CONSTRUCTION COST	\$5,658,803
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DETAIL SUMMARY

ELEMENT	AMOUNT	TOTAL COST
1. FOUNDATIONS		
011 Standard Foundations		
012 Special Foundations		
2. SUBSTRUCTURE		
021 Slab On Grade		
022 Basement Excavation		
023 Basement Walls		
3. SUPERSTRUCTURE		
031 Floor Construction		
032 Roof Construction		
033 Stair Construction		
4. EXTERIOR CLOSURE		
041 Exterior Walls		
042 Exterior Doors/Windows		
5. ROOFING		
050 Roofing		
6. INTERIOR CONSTRUCTION		
061 Partitions		
062 Interior Finishes		
063 Specialties		
064 Interior Doors/Windows		
7. CONVEYING		
070 Elevators		
8. MECHANICAL		
081 Plumbing		
082 H.V.A.C.		
083 Fire Protection		
084 Special Mechanical		
9. ELECTRICAL		
091 Standard Electrical		
092 Special Electrical		
10. GENERAL CONDITIONS & PROFIT		
General Conditions & Profit		(INCLUDED AT GENERAL SUMMARY PAGE)
11. EQUIPMENT		
111 Fixed/Movable Equipment		
112 Furnishings		
113 Special Construction		
12. SITEWORK		
121 Site Preparation	350,000	
122 Site Improvements	1,370,824	
123 Site Utilities	1,302,041	
124 Off-Site Work		

NET DIRECT BUILDING COST	\$3,022,865
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ADOBE FALLS ACCESS ALTERNATE #6, COLLECTOR STREET**SAN DIEGO STATE UNIVERSITY
PRE CONCEPTUAL COST ESTIMATE****OCMI JOB #: 04-134
DATE: 30 DECEMBER 2004**

DESCRIPTION	QUANTITY	UNIT	UNIT RATE	ESTIMATED COST
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ELEMENT - SITEWORK**121 SITE PREPARATION**

Remove existing drainage channel	2,000	LF	25.00	\$50,000
Clear and grub	600,000	SF	0.50	\$300,000

TOTAL - 121 SITE PREPARATION**\$350,000****ELEMENT - SITEWORK****122 SITE IMPROVEMENTS**

Collector street:

Grading				
Cut	20,444	CY	2.00	\$40,888
Fill	14,186	CY	3.00	\$42,558
Haul and dump	7,511	CY	20.00	\$150,220
Road bed				
Aggregate base, 12"	108,000	SF	1.20	\$129,600
Asphalt pavement, 4"	108,000	SF	1.60	\$172,800
Median				
Topsoil	1,111	CY	28.00	\$31,108
Trees	167	EA	450.00	\$75,150
Irrigation	30,000	SF	1.25	\$37,500
Shrubs and groundcover	30,000	SF	2.00	\$60,000
Sidewalk	30,000	SF	6.50	\$195,000
Curb and gutter	60,000	LF	6.90	\$414,000
Striping	12,000	LF	1.00	\$12,000
Signage	1	EA	10,000.00	\$10,000

TOTAL - 122 SITE IMPROVEMENTS**\$1,370,824****ELEMENT - SITEWORK****123 SITE UTILITIES**

Drainage structures	9	EA	3,500.00	\$31,500
Storm drain	500	LF	100.00	\$50,000
Street light	27	EA	5,000.00	\$135,000
Box culvert				
Concrete box culvert, 8' x6'	2,000	LF	395.00	\$790,000
Excavation				
Structural excavation	6,222	CY	18.00	\$111,996
Structural fill	3,111	CY	35.00	\$108,885
Haul and dump	3,733	CY	20.00	\$74,660

TOTAL - 123 SITE UTILITIES**\$1,302,041**

**ALTERNATE ACCESS ROUTES TO
ADOBE FALLS PROPERTY**

MEMORANDUM

To: Mr. Michael Haberkorn
Gatzke, Dillon and Ballance, LLP

Date: January 14, 2005

From: John Boarman
Linscott, Law and Greenspan, Engineers

LLG Ref: 3-04-1423

Subject: Alternate Access Routes to Adobe Falls Property

Per your request, Linscott, Law and Greenspan, Engineers (LLG) has prepared the following assessment of several alternate access routes to the Adobe Falls property. The purpose of the assessment is to estimate the amount of "Adobe Falls" project traffic that could be potentially eliminated on the residential roadways within the community (i.e. Adobe Falls Road, Del Cerro Boulevard, etc) if alternate access was provided. The Adobe Falls project is included in the overall SDSU traffic study currently being prepared by our firm. This project is assumed to consist of 70 townhomes in the Upper Village, and 70 townhomes, 150 apartments and a 250-unit senior housing complex in the Lower Village.

The Adobe Falls project is calculated to generate a total of about 3,000 Average Daily Trips (ADT). The Upper Village would generate about 560 ADT and the Lower Village about 2,460 ADT.

The following 4 access alternates were assessed. In all cases it is assumed that these alternate accesses would be provided in addition to access to Adobe Falls Road and/or Mill Peak Road.

- 1) Direct (vehicular) connection of Lower Village to the SDSU campus.
- 2) Direct connection of Lower Village to Alvarado Canyon Road / Waring Road.
- 3) Direct connection of Lower Village to Waring Road through the Smoketree Apartments.
- 4) Direct connection of Upper Village to College Avenue.

In order to assist in estimating the percentage of project traffic that would utilize these alternate access points, a Select Zone Assignment (SZA) was obtained from the SANDAG Computer Model. A SZA is a computerized methodology used to estimate which roadways project traffic will utilize. Based on the assumed project trip distribution, **Table 1** shows the amount of traffic each alternate access is predicted to eliminate from the area residential roadways. However, it should be noted that the provision of access alternates 1- 3 would result in a route that could be utilized as a cut-through for traffic to/from College Avenue and would therefore not result in an

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overall decrease in traffic within the community. These cut-thru traffic estimates are also noted in Table 1 and are based on a review of the anticipated origins of destinations of drivers in the area and a review of the congested locations in the nearby area (i.e. the I-8/College Avenue interchange) which could be avoided with the provision of a new roadway.

Overall, it appears that only Access Alternate 4 would result in a decrease in traffic in the Adobe Falls community.

TABLE 1
FORECASTED UTILIZATION OF ACCESS ALTERNATIVES

Access Alternate	Percentage of Project Traffic Utilizing Alternate Route	Project ADT Utilizing Alternate Route Instead of Using Community Roadways	Forecasted "Outside" Traffic Utilizing New Access Road as a "Cut Thru"
1. Direct (vehicular) connection of Lower Village to the SDSU campus.	65% ^a	1,600	2,000
2. Direct connection of Lower Village to Alvarado Canyon Road/Waring Road.	60% ^b	1,480	1,800
3. Direct connection of Lower Village to Waring Road through the Smoketree Apartments.	55% ^c	1,350	1,500
4. Direct connection of Upper Village to College Avenue.	100% ^d	560	0

Footnotes:

- a. Of Lower Village Traffic Only
- b. Of Lower Village Traffic Only
- c. Of Lower Village Traffic Only
- d. Of Upper Village Traffic Only

It is also possible that a connection could be provided from the Lower Village directly to Waring Road or to Waring Road through the Smoketree Apartments and this would be the only day-to-day access. Based on this assumption, the project would add 2,460 ADT to Waring Road. Table 2 shows an existing and existing + project ADT analysis of Waring Road. The preliminary results show that Waring Road could accommodate the project traffic.

TABLE 2 STREET SEGMENT ANALYSIS WARING ROAD					
STREET SEGMENT	ROADWAY CAPACITY (LOS D)	EXISTING		EXISTING + PROJECT	
		ADT	LOS	ADT	LOS
Waring Road South of Zion Avenue	35,000	23,500	C	25,900	C

However, it should be noted that a significant impact would occur at the intersection of the new project access road with Waring Road if proper geometrics were not provided and a southbound left-turn pocket would be needed on Waring Road. A signal warrant analysis would also be required to determine if a traffic signal should be installed at the new intersection. Regarding gaining access through the Smoketree Apartments, since it appears that the apartment driveway is private, the project impact to the private driveway would be considered significant unless the driveway could be improved to minimum public roadway standards. This does not appear feasible.