SAN DIEGO STATE UNIVERSITY

PHYSICAL MASTER PLAN

PHASE 1 • EXISTING CONDITIONS

A CENTURY OF LEARNING 1897-1997 SDSU

November 1997

SAN DIEGO STATE UNIVERSITY

PHYSICAL MASTER PLAN

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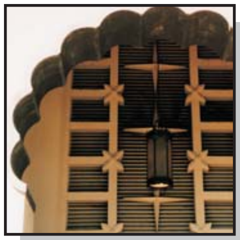





The mission of this Phase 1 Master Plan is to document the existing and essential elements of the San Diego State University physical environment and to outline proposed policies and guidelines that will maintain or enhance the character, form and functional arrangement of the campus. As the campus celebrates its Centennial, this document is dedicated to...

" building for another century of learning "

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TABLE OF CONTENTS

SUMMARY OF FINDINGS

SECTION ONE • INTRODUCTION

1.1 Purpose and Content of the Two-Phased Study 1
1.2 Planning Objectives 2
1.3 Relationship of the Master Plan to the Centennial 2
1.4 University Mission 2
1.5 Current Planning Process 4
1.6 Campus Location & Physical Property 7
1.7 Relationship with Community 7
1.8 Campus Auxiliaries 7
1.9 Campus Demographics 8
1.10 Statewide Funding and Enrollment Projections 8

SECTION TWO • CAMPUS BACKGROUND & HISTORY

2.1 Academic History 13
2.2 Related Off-campus Facilities 14
2.3 SDSU Campus Physical History and Development 18
2.4 Historical Structures 29
2.5 Memorials and Sculptures 30

SECTION THREE • LAND USES & FACILITIES

3.1 Adjacent Community 33
3.2 Foundation Redevelopment Area 37
3.3 Current Campus Land Uses 43
3.4 Facilities and Related Land Uses 47
3.5 Programmed Future Facilities 64

SECTION FOUR • PLANNING & DESIGN ELEMENTS

4.1 Campus Entries 65
4.2 Campus Edges 71
4.3 Campus Landmarks 75
4.4 Campus Nodes 79
4.5 Campus Views 83
4.6 Site Form 89
4.7 Campus Neighborhoods 95
4.8 Building Character 101
4.9 Informal Open Space Elements 105
4.10 Formal Urban Spaces 109
4.11 Landscape Resources 113

4.12 Wayfinding Systems 119
4.13 Memorials and Public Art 123
4.14 Vehicular Circulation and Parking 127
4.15 Pedestrian and Bicycle Circulation 131
4.16 Transit Facilities 139
4.17 Opportunities and Constraints Summary 140

SECTION FIVE • DRAFT DESIGN GUIDELINES

5.1 Campus Entries 146
5.2 Campus Edges 146
5.3 Campus Landmarks 147
5.4 Campus Nodes 147
5.5 Campus Views 148
5.6 Site Form and Layout 149
5.7 Campus Neighborhoods 151
5.8 Building Character, Function & Materials 152
5.9 Informal Open Space Areas 155
5.10 Formal Urban Space Areas 156
5.11 Landscape Materials, Furnishings & Lighting 157
5.12 Wayfinding Systems 161
5.13 Memorials and Public Art 163
5.14 Vehicular Circulation & Parking 164
5.15 Pedestrian and Bicycle Circulation 166
5.16 Transit Facilities 170
5.17 Utility Elements 170

LIST OF FIGURES

SECTION ONE • INTRODUCTION

1-1 Regional Location Map 9
1-2 Community Aerial 11

SECTION TWO • CAMPUS BACKGROUND AND HISTORY

2-1 Related Off-campus Facilities 15
2-2 Historic Core Area Development Patterns 18
2-3 Post War Development Patterns, 1946-1950 20
2-4 Post War Development Patterns, 1951-1960 21
2-5 Revolution & Reform Development Patterns, 1961-1965 22
2-6 Revolution & Reform Development Patterns, 1966-1970 23
2-7 Revolution & Reform Development Patterns, 1971-1975 24
2-8 Revolution & Reform Development Patterns, 1976-1980 24
2-9 Contemporary, 1981-1985 25
2-10 Contemporary, 1986-1990 26
2-11 Contemporary, 1991-1995 27
2-12 Contemporary, 1996-1997 28
2-13 Plaques, Memorials & Sculptures 31

SECTION THREE • LAND USES & FACILITIES

3-1a 1995 Community Land Use 35
3-1b 2000 Community Land Use 35
3-1c College Community Redevelopment Plan 39
3-1 Local Aerial 41
3-3 Existing Campus Land Use 45
3-4 Campus Map 49
3-5 Major Utility Systems 57

SECTION FOUR • PLANNING & DESIGN ELEMENTS

4-1 Campus Entries 69
4-2 Campus Edges 73
4-3 Landmarks 77
4-4 Activity Nodes 81
4-5 Campus Views 87
4-6a Existing Landforms 89
4-6b Development Patterns Cloister 90
4-6c Development Patterns Mesa Buildout 91
4-6d Development Patterns Urban Campus 91
4-6e Site Form 93
4-7 Neighborhoods 99
4-8 Architecture 103
4-9 Informal Spaces 107
4-10 Formal Spaces 111
4-11 Landscape Architectural Elements 117
4-12 Wayfinding 121
4-13 Outdoor Sculptures & Artwork 125
4-14 Vehicular Circulation 131
4-15 Pedestrian & Bicycle Circulation 137
4-16 Transit Facilities 141
4-17 Summary of Development Potential & Constraints 143

LIST OF TABLES

SECTION TWO • CAMPUS BACKGROUND AND HISTORY

2-1 Related Off-campus Facilities 14
2-2 Buildings, 1931-1945 18
2-3 Student Population and Campus Size, 1931-1945 18
2-4 Buildings, 1946-1950 20
2-5 Student Population and Campus Size, 1946-1950 20
2-6 Buildings, 1951-1960 21
2-7 Student Population and Campus Size, 1951-1960 21
2-8 Buildings, 1961-1965 22
2-9 Student Population and Campus Size, 1961-1965 22
2-10 Buildings, 1966-1970 23
2-11 Student Population and Campus Size, 1966-1970 23
2-12 Buildings, 1971-1975 24
2-13 Student Population and Campus Size, 1971-1975 24

2-14 Buildings, 1976-1980 24
2-15 Student Population and Campus Size, 1976-1980 24
2-16 Buildings, 1981-1985 25
2-17 Student Population and Campus Size, 1981-1985 25
2-18 Buildings, 1986-1990 26
2-19 Student Population and Campus Size, 1986-1990 26
2-20 Buildings, 1991-1995 27
2-21 Student Population and Campus Size, 1991-1995 27
2-22 Buildings, 1996-1997 28
2-23 Student Population and Campus Size, 1996-1997 28
2-24 Existing Memorials and Plaques 30

SECTION THREE • LAND USES & FACILITIES

3-1 Redevelopment Area Zoning Summary 38
3-2 Academic Facilities 47
3-3 Administration Facilities 52
3-4 Conference/Special Events Facilities 52
3-5 Food Service Facilities 53
3-6 Residence Buildings 54
3-7 Housing Facilities 54
3-8 Parking Structures 55
3-9 Plant Services & Support Facilities 55
3-10 Public Service Facilities 59
3-11 Recreation Buildings 60
3-12 Outdoor Recreation Facilities 60
3-13 Student Services Facilities 61

SECTION FOUR • PLANNING & DESIGN ELEMENTS

4-1 Summary of Entry Conditions 68
4-2 Summary of Edge Conditions 72
4-3 Summary of Landmark Conditions 76
4-4 Summary of Node Conditions 80
4-5 Summary of View Conditions 86
4-6 Summary of Site Form 92
4-7 Summary of Neighborhoods 97
4-8 Summary of Building Character 102
4-9 Summary of Open Space Elements 106
4-10 Summary of Formal Space Elements 110
4-11 Summary of Landscape Resources 115
4-12 Summary of Wayfinding Elements 120
4-14 Summary of Vehicular Circulation Elements 130
4-15 Summary of Pedestrian & Bicycle Elements 136
4-16 Summary of Transit Elements 140

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PHASE 1 • EXISTING CONDITIONS

A CENTURY OF LEARNING 1897-1997 SDSU

1.0 INTRODUCTION

1.1 Purpose & Content of the Two Phased Study
1.2 Planning and Design Objectives
1.3 Relationship of Master Plan to Centennial
1.4 University Mission
1.5 Current Planning Process
1.6 Campus Location & Physical Property
1.7 Relationship with Community
1.8 Campus Auxiliaries
1.9 Campus Demographics
1.10 Statewide Funding & Enrollment Projections

SECTION ONE • INTRODUCTION

1.1 Purpose and Content of the Two-Phased Study

A master plan is a guide for the physical development of large, complex places such as San Diego State University. A master plan study evaluates programming, planning, design, construction and maintenance of facilities and recommends a comprehensive strategy for construction of future projects.

San Diego State University is like a complex, dynamic and constantly evolving city. In the book. The Image of the City, the venerable American planner Kevin Lynch wrote: "(A city) is the product of many years of growth. While it may be stable in general outlines for some time, it is ever changing in detail. There is no final result, only a continuous succession of phases."

It is important, then, to update master plans to maintain continuity of character, form and functional arrangement on the San Diego State University campus. Without a current master plan, the university risks creating unrelated and disorganized sections of the campus, a situation that could potentially damage the character, form and functional arrangement of the university holdings. An updated master plan, with a five to ten year outlook, will help provide a comprehensive, interrelated, campus-wide guideline for development into the next century.

To manage the overwhelming amount of information that must be assembled, analyzed and documented since the previous Master Plan study of 1963, a strategy has been developed to divide the master planning process into two distinct efforts:

Phase I
Documentation of existing planning policies and conditions.
Outline of draft planning policies and design guidelines.

Phase I identifies the critical elements that help give the campus its character, form and functional arrangement. It includes campus background and history; current land uses and facilities; and current planning and design guidelines. Phase I also includes proposed planning and design guidelines, to be refined and further developed in Phase II.

Phase II
Adopted planning policies and design guidelines.
Based on the recommendations outlined in Phase I, this next phase will establish formal policies and design guidelines for physical changes to the campus.

1.2 Planning Objectives

The Phase I Master Plan is the groundwork for the subsequent Phase II effort. The following planning and design objectives have been established as a guidance mechanism for the two-phased campus master planning effort:

1) Predict future building, site support and infrastructure requirements.
2) Identify appropriate areas for future projects that will not result in the loss of existing functional site conditions.
3) Describe the existing positive aspects of site form and structure that are responsible for efficient circulation, way finding and functional spaces.
4) Prescribe how these existing positive aspects should be protected, enhanced and repeated.
5) Identify land use or facility functions that are incompatible with adjacent uses and recommend appropriate changes to reduce the incompatibility.
6) Determine changes needed to assure an efficient automobile, pedestrian, service vehicle and emergency vehicle circulation network.
7) Accommodate future transit, shuttle and alternative transportation systems.
8) Describe the essential architectural and landscape elements that contribute to a well organized, unique and aesthetically pleasing campus.
9) Prescribe how these assets should be protected and enhanced.
10) Develop guidelines that will assure that the positive aspects of the campus are repeated.
11) Accommodate variety and creativity in the development of future project design efforts while assuring that essential elements are consistent and harmonious with the existing setting.
12) Provide design guidelines that will assure increased public safety, enjoyment, and circulation efficiency in the built environment.
13) Develop guidelines that recognize the unique history, community and regional context of the campus.
14) Describe techniques and tools needed to improve the way finding capabilities of students, faculty and visitors.

1.3 Relationship of the Master Plan to the Centennial

On Founder's Day, March 15, 1997, San Diego State University embarked on its second century of serving the public higher education needs of the San Diego area. In the University's Centennial year, many events are planned in celebration of the occasion such as receptions, dedications and providing additional sculpture on campus sites. San Diego State University is pleased to have the opportunity to issue this new Phase I Campus Master Plan in this Centennial year. This plan is the initial volume of a planned two-phased effort designed to address overall campus development directions. It will set the course for "Building for another century of learning."

1.4 University Mission

The mission of San Diego State University is to provide well-balanced, high quality education for undergraduate and graduate students as it contributes to knowledge and problem solving through excellence and distinction in teaching, research and service.

San Diego State University provides an environment that encourages the intellectual development of students. Its undergraduate and graduate programs in the liberal arts and sciences are designed to help students learn about themselves, their cultural and social heritage, and their physical environment. Additionally, students are challenged to understand how advances in these areas may influence their present lives and their futures. Professional programs, while including many of these broad goals, are designed to meet the needs of the students who seek specific employment in many diverse fields. The University is concerned with developing leaders in cultural, economic, educational, scientific, social and technical fields.

Closely related to the teaching mission of the University is student and faculty research. Involvement in research ensures that students and faculty maintain currency in their disciplines and fosters the advancement of knowledge. Graduate study at San Diego State University at the master's and doctoral levels emphasizes creative scholarship, original research, and the development and utilization of research techniques.

Located in a large and ethnically diverse metropolitan center bordering Mexico and on the Pacific Rim, the University uses the social, cultural, scientific and technical resources of this region to enrich its teaching and research programs. Through its teaching, research and service, the University is primarily responsive to the people of California, but it also addresses issues of the region, nation and world community. The University also seeks cooperative programs with other institutions of higher education both in the United States and abroad.

Administrative Structure

Dr. Stephen L. Weber is the President of San Diego State University.

Dr. Weber assumed the responsibilities of the presidency in July 1996. Prior to coming to San Diego, Steve Weber served as the Interim Provost of the State University System of New York, having previously served seven years as President of its Oswego campus.

The president, as the chief executive officer, leads the institution by managing the human and financial resources to fulfill the stated mission. All major officers of the University report to the president, who is ultimately responsible for decisions. Working in harmony with internal and external constituencies, the president provides overall leadership and guidance for the University. The president is expected to nurture and expand the academic reputation of the University and to plan and chart the future course of the campus. The president is expected to symbolize the best qualities of the institution; the president represents the campus interest within the CSU system, with local, state, and national legislative bodies, and with the state and national higher education community.

Four Vice Presidential line officers currently report directly to the President by providing leadership in various areas:

Dr. Ronald H. Hopkins is the Vice President for Academic Affairs.

The major functions of this division are to provide leadership to achieve the highest standards in teaching, scholarship, creative activities and service. The Academic organization is divided into seven colleges; Arts and Letters, Business Administration, Education, Engineering, Health and Human Services, Professional Studies and Fine Arts and the College of Sciences.

Sally F. Roush is the Vice President for Business and Financial Affairs.

Business Affairs serves two diverse clienteles. The first is the campus community which consists of faculty, staff, students and other constituencies such as representatives from the surrounding neighborhoods, alumni, donors, parents, local political representatives and even sports fans. Examples of the services provided by this office include identifying strategies to increase and maximize revenue, planning and providing for facilities, ensuring the facilities are clean and well-maintained, providing for campus safety, distribution of money to students and provision of financial and budget information.

The second clientele includes national, state and local regulatory and authoritative agencies such as the Federal Government, the State of California, the Chancellor's Office of the California State University (CSU), and local agencies such as the County and City of San Diego. Additionally, Business and Financial Affairs assumes fiscal and personnel oversight responsibilities for the Department of Athletics, fiscal oversight for the Associated Students and many other University entities.

Dr. Daniel B. Nowak is the Vice President for Student Affairs.

The Division of Student Affairs supports the academic mission of the University by providing services which assist students in identifying, clarifying, and achieving their educational and career goals. Through the Division of Student Affairs the University expresses the awareness that students have unique financial, developmental, social, cultural, psychological and health related needs both in and out of the classroom. In addition to direct assistance to students, the Division of Student Affairs is charged with developing programs which enhance the learning environment on campus and improves the quality of life for students and others.

Myrna A Hall is the Interim Vice President for University Relations and Development.

The central mission of the Division of University Relations and Development (UR&D) is to build greater understanding and financial support for academic programs and other activities among the University's many publics. These include current and potential students and their parents; alumni; government; legislators and other officials; business, industry and other leaders in the corporate and academic communities; and the general public.

To accomplish this mission, the Division of University Relations and Development serves the campus community in many ways. There are basically five departments within UR&D. The office of Advancement Services provides a centralized facility for the collection, maintenance and management of biographical, demographic and gift information in support of the University's Advancement efforts. The office of Communications creates the wider context for success through activities that define, sharpen, and market SDSU. The SDSU Alumni Association plans and markets all "friend-raising" programs as its primary responsibility. The central mission of the office of Development is to attract private financial support for the academic programs of SDSU. Another small but growing part of the division is Community/Government Relations. It coordinates the institution's relationships with federal, state and local agencies and community.

1.5 Current Planning Process

The Capital Outlay Program for State-funded projects is shaped through a dynamic and evolutionary process which is defined by state laws, policies, and procedures. The California State University (CSU) policies and procedures generally parallel those of the state. Some capital projects may be unique and require special attention outside the established capital outlay process.

Capital financing through state appropriations may take several forms such as: direct appropriations from various general or special fund revenue sources, proceeds of general obligation bonds, lease purchase agreements, lease revenue bonds, revenue bonds, and in some cases certificates of participation issued by the State Public Works Board. Appropriate financing is determined through the legislative process.

A successful capital outlay program begins with effective program planning and facility management. It is state policy that the justification for all capital outlay projects be based on optimum utilization of existing space and property and documented workload projections. Projects are carefully conceived and justified to provide cost effective solutions for program delivery. Projects are professionally designed and managed to ensure against waste in the expenditure of public funds. Specific appropriations of funds are based upon need, scope, phase, estimates of cost, and relevant environmental reviews.

All campuses in the CSU, including San Diego State University, continue to develop and maintain an effective and aggressive Capital Outlay Program to keep pace with the student enrollment pressures. Historically the Board of Trustees for the CSU has taken special interest in the physical development of each campus because of long-term responsibility to provide adequate facilities at each campus in keeping with the campus master plan objectives. This includes both the Physical Master Plan and the Academic Master Plan for each campus. Proper planning, programming, budgeting, and project administrations are vital to the capital outlay process.

The Department of Finance, the State Public Works Board (SPWB), the Joint Legislative Budget Committee, the Legislative Analyst's Office, the Department of General Services, and other state agencies through powers and duties defined in various sections of the Government Code, all perform key roles in the CSU capital outlay process. The SPWB must approve the preliminary plans for capital projects prior to allocation of additional funds. The SPWB ensures that legislatively approved scope and cost of projects are adhered to. The SPWB has the authority to revise the cost and to modify the scope as granted by statute. Persons in the Department of Finance, Capital Outlay Unit, serve as staff to the SPWB for all construction items. The Office of Energy Assessments (OEA) acts as staff to the Board for energy related projects. Persons in the Office of Real Estate and Design Services act as staff to the SPWB for all real estate related activities.

State Capital Outlay Appropriations to CSU

State appropriations are the predominant source of funds for capital improvements for the CSU. Each year the State of California enacts a budget in which appropriations are made to CSU. The CSU Board of Trustees has a chief executive officer known as the Chancellor who has a staff which administers the funds for capital improvements.

Procedures for Securing Funding for Proposed Capital Outlay Program

The CSU campuses submit an annual capital outlay budget to the Chancellor's Office of Physical Planning & Development (PPD) resulting in a staff proposal to the Board of Trustees. The Trustees then review and approve a proposed capital outlay program for the CSU. The portion of this program for state financing is submitted to the Department of Finance for inclusion in the Governor's Budget.

Questions raised by the control agencies during their review and evaluation of the budget submittals are answered by PPD, with the assistance of the campuses. Fund requests for new buildings are based solely on Program Justifications submitted by the campuses.

Preliminary Planning Funds

Preliminary planning cost benefit analysis and feasibility studies funds appropriated to CSU and allocated by the Department of Finance are used to prepare a budget submittal consisting of plans, outline specifications, and a cost estimate for utility, site development, conversion, and remodeling projects included in the Board of Trustees' proposed capital outlay program. Other preliminary planning funds are appropriated by the Budget Act for specific projects by line item.

Inclusion of Proposed Project Fund Requests in Governor's Budget

Based on evaluation of budget submittals and other appropriate data, the Department of Finance recommends projects for inclusion in the Governor's Budget, which is presented to the Legislature in January each year.

Inclusion of Proposed Project Funding in Legislative Budget Act

The Senate Budget and Fiscal Review Committee and the Assembly Ways and Means Committee, each and separately through its respective subcommittee, considers each project proposed in the Governor's Budget. Legislators are advised on the projects by the Legislative Analyst. If either subcommittee requires additional information on a particular project of the CSU, the Chancellor's Office has an opportunity to speak in depth to the issues during that subcommittee's scheduled hearings.

From the initial recommendations of each subcommittee, and from subsequent amendments made throughout the entire legislative process, the Governor's Budget is transformed into the Budget Act when the Budget Bill is signed by the governor. The Budget Act, referred to by chapter number and the year adopted, identifies each major project appropriation by item number and the time of availability.

Public Works Board Approval of Preliminary Plans

Preliminary plans for all major capital outlay projects must be approved by the Public Works Board before appropriations for working drawings or construction can be expended. Appropriations for preliminary planning, surveys, equipment, or minor projects normally do not require Public Works Board approval. Government Code requires the State Public Works Board to approve all preliminary plans to ensure that projects proceeding are consistent with legislatively approved cost and scope and are carried out with all due speed and diligence.

The Chancellor's Office is responsible for obtaining approval of preliminary plans by the Public Works Board prior to expenditure of appropriated funds for subsequent phases. Requests for Public Works Board actions are prepared by the Chancellor's Office staff from information supplied by the Campus. If the request requires prior legislative notification, it must be sent to the Department of Finance. When transmitting requests for approval of preliminary plans, each must include:

- A completed, dated set of preliminary plans and outline specifications
- A proposed Public Works Board agenda item
- A Project Cost and Funding Summary
- A completed Request for Approval to Proceed or Encumber Funds
- An estimate of cost
- Project Area Summary
- Other related documents as appropriate

After the Public Works Board approves the preliminary plans, PPD will receive the signed Request for Approval to Proceed or Encumber Funds from the Department of Finance. The approved funds can then be encumbered and the Campus is notified of the Action.

Department of Finance Approvals

The Department of Finance must approve the allocation of funds from each appropriation in the Budget Act, except appropriations for acquisition of land or other real property, minor projects, and amounts appropriated specifically for preliminary surveys and planning.

The following approvals of the Department of Finance must be obtained by PPD prior to proceeding into the next phase of development following approval of the preliminary plans.

Scope Changes
No changes may be made to preliminary plans or working drawings as approved by the State Public Works Board and the Department of Finance without first receiving written approval by the Department of Finance.

Changes (changes in program space, increases/decreases in capacity of related areas, non-code architectural design changes that will result in increased costs, etc.) must be approved by the Department of Finance prior to commencing work on the changes to working drawings or preliminary plans. If changes are made, the Department of Finance may require notification to the legislature and request approval of revised preliminary plans by the Public Works Board.

Proceeding into Working Drawings.
Approval to proceed to bid (this request is made with the submission of completed working drawings, specifications, cost estimates, and project schedules). The approval to include bid alternates in the bid is also obtained at this stage.

Awarding Contracts.
For all the above requests, PPD must certify that the project scope has not changed from the approved preliminary plans or, in the case of a change, must indicate the change, the reason for the change, and the date of approval by the Department of Finance. In submitting plans to PPD, the Campus shall certify that the scope of the project has not changed.

Administration of CSU Appropriations for Capital Outlay Programs.
Funds appropriated to the CSU to implement the approved capital outlay program are administered by the Chancellor's Office on behalf of the Board of Trustees. Capital outlay funds such as studies, minor capital outlay, and equipment are generally allocated directly to the Campus to be expended as authorized by the Legislature/Chancellor's office.

In most cases, the Chancellor's Office may find it to be in the best interest of the state to delegate administration including construction management of a major capital outlay project to the Campus. When this occurs, PPD prepares a Memorandum of Understanding (MOU) and upon initiation, it becomes the agreement of delegation between the Chancellor's Office and the Campus.

Funds for Minor Capital Outlay Projects
Each year the Chancellor's Office submits a minor capital outlay request to the Department of Finance for inclusion in the Governor's Budget. The program refers to a specific list of projects; it is for a lump-sum appropriation for allocation to the campuses, based upon the list of approved projects.

Minor capital outlay projects are budgeted as capital outlay and are composed of construction projects whose estimated cost is $250,000 or less. State real estate acquisition projects, regardless of amount, are funded in major capital outlay.

All minor capital outlay funds are appropriated to the Board of Trustees. After execution of the Budget Act, the funds are allocated to the individual campuses. The expenditures are reported to the Legislature and the Department of Finance. A post-Audit report is due in October of each fiscal year.

Funds for minor capital outlay project appropriations are indicated in the Budget Act. These funds have a statutory appropriation term of one year. Funds which are not encumbered by a valid contract or other expenditure document by May 1 of each fiscal year will be redirected to the system wide office to accomplish other high-priority projects. Savings generated by accomplishing a minor project for less than the amount funded may be returned to the system wide account for a reallocation upon system priorities. Funds not encumbered by contract within one year from the date of appropriation automatically revert.

1.6 Campus Location & Physical Property

SDSU is at the population center of the County of San Diego and serves as a community focal point

San Diego State University is located in the central part of the City of San Diego, along the southern rim of Mission Valley and approximately eight miles northeast of the downtown area (Figure 1-1). The campus today contains approximately 284 acres. The campus and the College Area Community share similar land uses on the northern edges and the older, auto-oriented commercial corridor on the southern edge. Pockets of quiet residential areas occur throughout the development.

The campus is directly affected by the adjacent community just as the community is affected and is somewhat dependent on the campus.

Adjacent main arteries that connect I-8 and the community include Fairmont Avenue, Montezuma Road and College Avenue. The University is located immediately adjacent to Interstate 8 which allows incoming traffic to skirt the residential neighborhoods. College Avenue and Collwood Boulevard provide north-south connections within the community and to the south. El Cajon Boulevard provides connections to other communities to the south and west, and to La Mesa to the east.

A large percentage of the adjacent community is part of a redevelopment area, which is made up of a private, state and Foundation parcels.

1.7 Relationship with Community

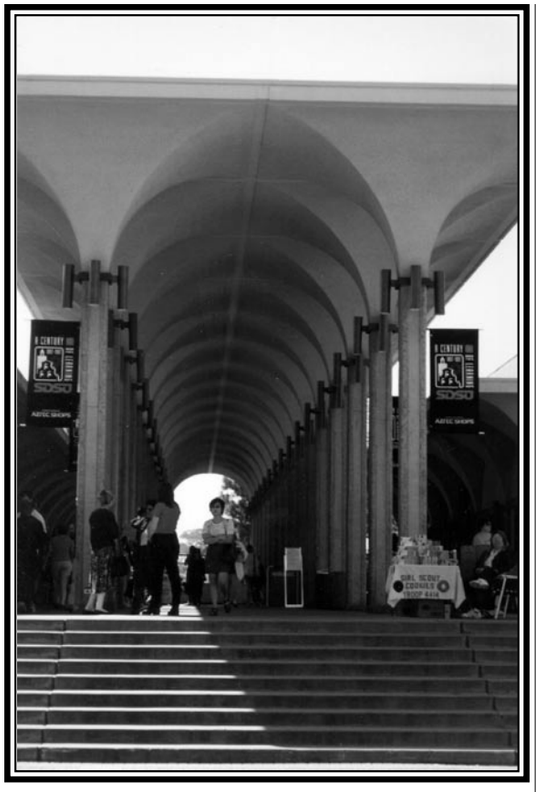
The campus is tightly integrated within the business and residential community (Figure 1-2) that surrounds it. In general, the community appreciates the cultural advantages of having a major University as a neighbor. People not associated with the University can attend the diverse special programs held on campus. Many enjoy walking through the landscaped grounds. The area's Community Plan describes the University as having distinctively broad pedestrian walkways with open plazas and arcades. The document notes that automobile traffic is limited to the perimeter areas only, leaving most of the campus open to landscaping, with wide steps that connect plazas on different levels, and gathering places spacious enough to accommodate large groups of people.

1.8 Campus Auxiliaries

San Diego State University is served by the following self-supporting auxiliaries.

San Diego State University Foundation

The San Diego State University Foundation was incorporated in 1943 as an auxiliary organization authorized by the Education Code of the State of California. It is a nonprofit corporation; self-financed and chartered to provide and augment programs that are an integral part of the educational mission of San Diego State University. While it is organized to function as a private corporation separate from the University, it is integrated with SDSU's goals and programs. The Foundation is responsible for the accomplishment of certain University objectives that require financial support not provided by the state. These activities occur in all aspects of University life: instruction, research and community service.



The Aztec Center is one of the primary facilities managed by the Associated Students

The Foundation serves the University in the following major areas:
-Development and administration of grants and contracts for faculty and staff research and educational projects;
-Administration of funds for more than 1500 campus programs;
-Financial administration of gifts and donations;
-Investment of endowment and other funds;
-Financial administration of student scholarship and loan funds;
-Management of a real property program whereby the Foundation acquires and provides space for grant and contract activity. It leases property to the University and other campus auxiliaries;
-Development of property adjacent to the campus.

Associated Students
The Associated Students of San Diego State University is a student-directed auxiliary organization that strives to serve as a unifying force in a diverse campus community. The organization offers programs, services and facilities which respond to the broad variety of interests of the students and the campus community. The Associated Students lease and operate the Aztec Center building and its satellite facilities, Scripps Cottage, Mission Bay Aquatic Center, the Open Air Theatre, Cox Arena, and the Aztec Recreation Center, as a service. They believe that the Student Union, Aztec Center, and other student-managed facilities should serve as gathering places and be a catalyst which produces a sense of community and lifelong regard for the University.

Aztec Shops
A not-for-profit corporation at San Diego State University, Aztec Shops, Ltd. provides University commercial services to the students, faculty and staff in the areas of food, books, supplies and more. Aztec Shops provides these services without the use of taxpayers' funds, and operates The Campus Store, East Commons, Courtyard Café, West Commons, the residential dining facility, and other food services.

1.9 Campus Demographics

San Diego State employs the following:

Staff	
Full-time	1,130
Part-time	220
Management	184
Faculty	
Full-time	890
Part-time	938
	3,362
Teaching Associates	572
Graduate Assistant	559
Student Assistants	1,861
Assistant Sub-total	2,992
Total	6,354

Student Enrollment (Fall 1996)

Undergraduate	Graduate	Total	FTE*
23,847	5,484	29,331	22,818

Student Body Profile (Fall 1996)

Female	53%
Male	47%
San Diego Co.	56%
Other CA Co.	31%
Other States	3%
Foreign Students	10%
Avg. Undergraduate age	24 years
Avg. Graduate age	32.3 years

**FTE figures represent enrollment in terms of full time equivalents, the number of units attempted by all students divided by 15. FTE is not a head count of all full time students.*

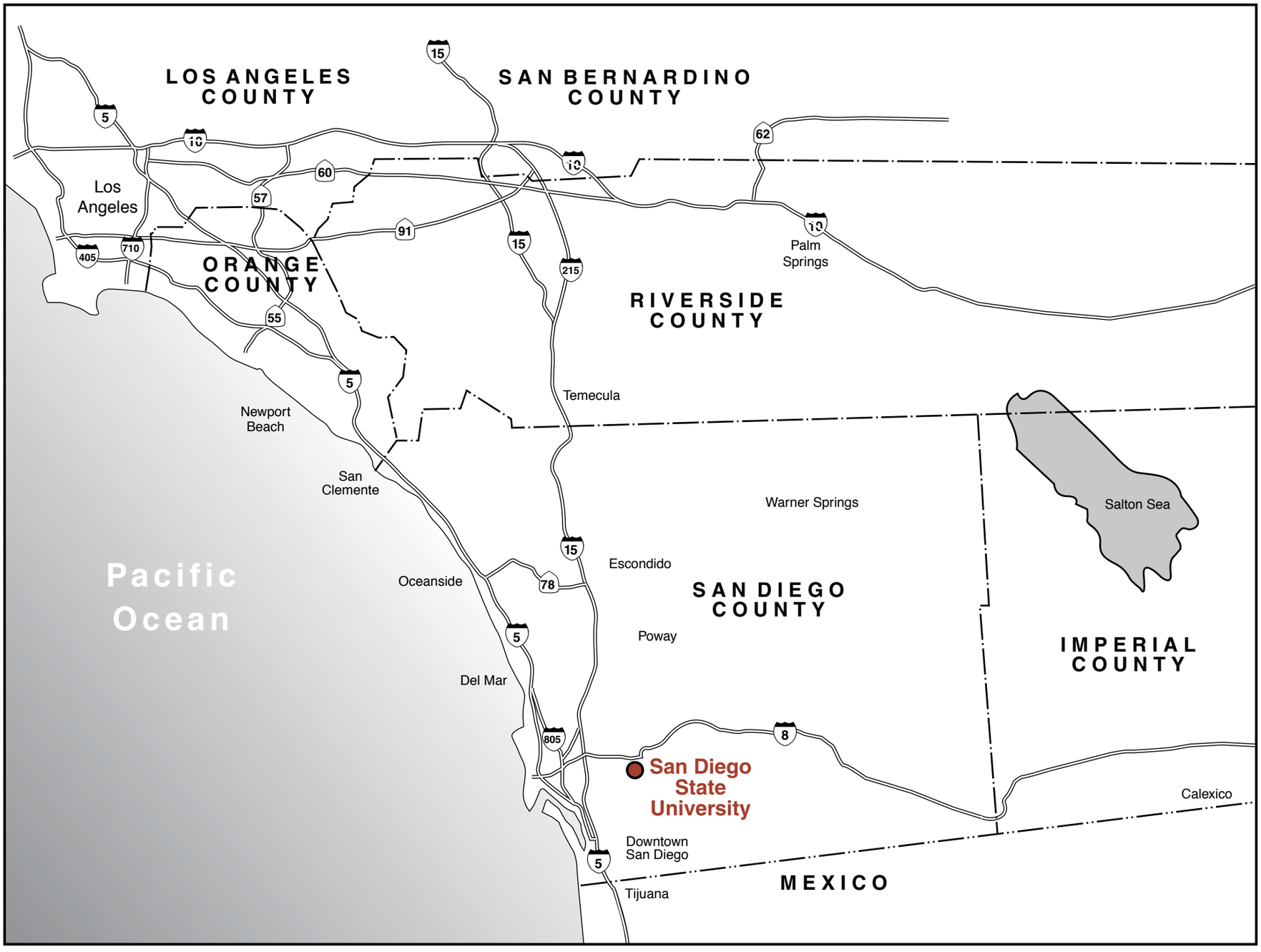
1.10 Statewide Funding and Enrollment Projections

The California State University system is in the process of preparing to receive future additional enrollment of a substantial nature. Driven by demographic forces, and known as Tidal Wave II, California's population is expected to grow by about 10 million people over the next 15 years (approximately 36%). This represents a rise in the demand for public undergraduate education on the order of an estimated 650,000 students statewide. Projections indicate that community colleges may proportionately receive more of the increased demand than will the CSU campuses. If these demographic projections are correct, student enrollment verses space capacity must be studied and planned for. Although it has been higher, San Diego State University has been operating on the premise that the campus has been designed for a maximum enrollment of 25,000 full time equivalent students. Although many unknowns still exist, a report issued by the Rand Corporation provides background for this issue. The report estimates the statewide growth curve, proportionate to SDSU, to push the enrollment above the designed capacity by approximately 2001-2. While these prophecies have yet to be substantiated in student applications, potential enrollment increases of this magnitude will require attention and the need for planning in order to maintain the high level of quality and accessibility currently available at SDSU.

A CENTURY OF LEARNING 1897-1997 SDSU

REGIONAL LOCATION MAP

Figure 1-1



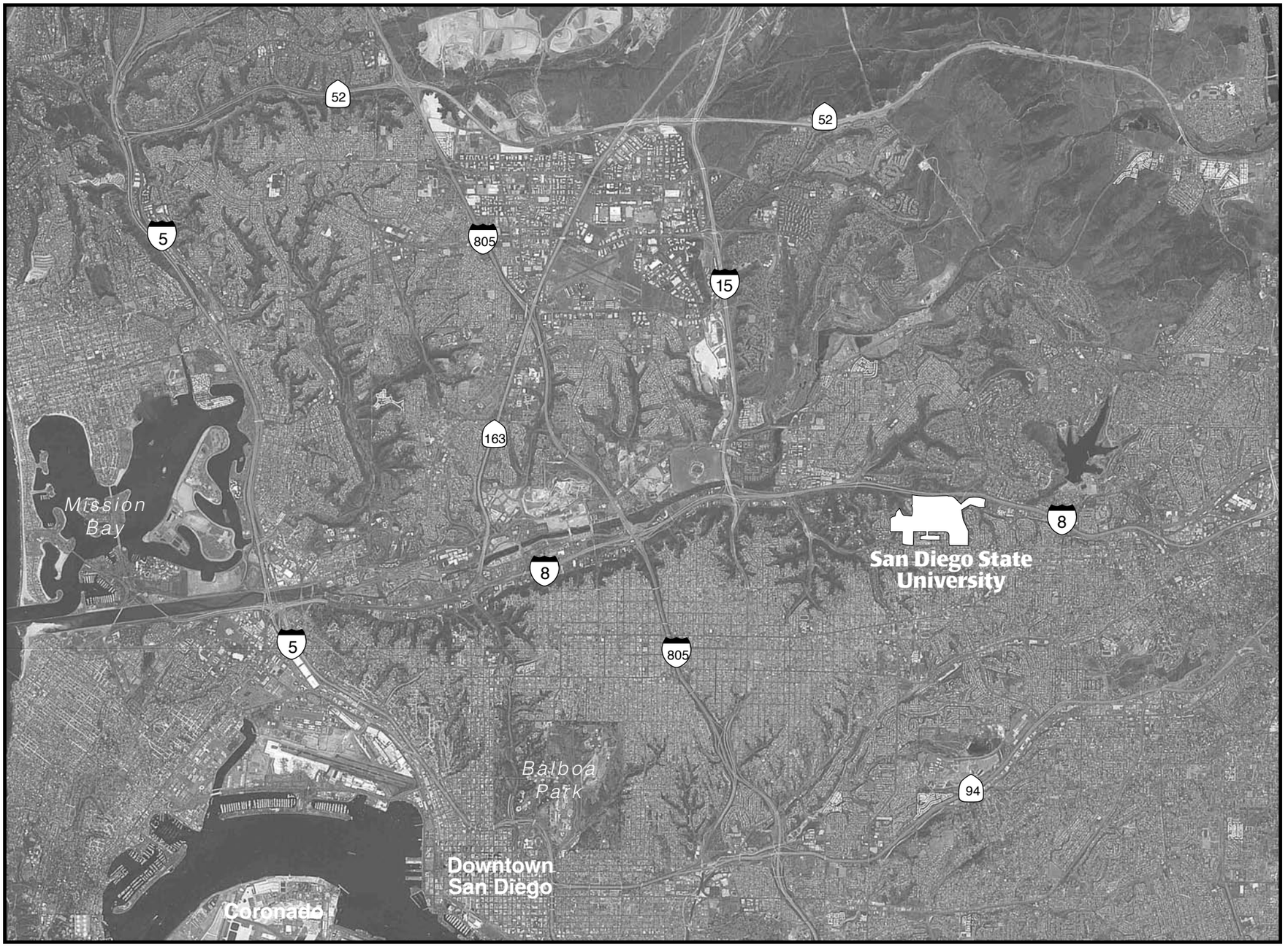
NORTH NOT TO SCALE

SDSU MASTER PLAN - Phase 1

A CENTURY OF LEARNING
1897-1997
SDSU

COMMUNITY AERIAL

Figure 1-2



NORTH

SDSU
MASTER PLAN - Phase 1

SAN DIEGO STATE UNIVERSITY

PHYSICAL MASTER PLAN

PHASE 1 • EXISTING CONDITIONS

A CENTURY OF LEARNING 1897-1997 SDSU

2.0 CAMPUS BACKGROUND & HISTORY

2.1 Academic History

2.2 Related Off-campus Facilities

2.3 SDSU Campus Physical History

2.4 Historical Structures

2.5 Memorials and Sculptures

SECTION TWO • CAMPUS BACKGROUND & HISTORY

2.1 Academic History

San Diego State University was founded in 1897 for the training of elementary school teachers. The seven faculty and ninety-one students of the then Normal School's first class met on November 1, 1898 in temporary quarters downtown while the first unit of the campus' main building was under construction at the intersection of Park and El Cajon Boulevards.

SDSU was founded in 1897 and occupied this building in downtown San

SDSU's second home was located at Park and El Cajon Boulevard until 1931

The curriculum was limited at first to English, history and mathematics, but it broadened rapidly under the leadership of Samuel T. Black, who left the position of State Superintendent of Public Instruction to become the first President (1898-1910).

Under the vigorous administration of the second president, Edward L. Hardy (1910-1935), the School was reorganized as a four-year State Teachers' College in 1921, and control was transferred from a local board of trustees to the State Board of Education. In the same year, the two-year San Diego Junior College, the antecedent institution to the present Community Colleges, was incorporated as a branch of San Diego State, where it remained through 1946.

It quickly became clear that the only collegiate institution in San Diego would soon outgrow its 17-acre site, and a campaign was begun in the 1920s to build a new campus. The Legislature agreed, provided the city furnish a new site and buy the old one. In 1928 the present campus, on what was then the far eastern border of the city, was approved by the electorate.

In February 1931, the college moved into the seven mission-style buildings of the present campus that surround what is still called the Main Quad. In 1935, the Legislature removed the word "Teachers" from the name of the institution and authorized the expansion of degree programs into areas other than teacher preparation. In the same year, Walter R. Hepner (1935-1952) was appointed president, and the institution entered a period of slow growth and then, with the coming of war, of contraction. At the end of World War II, enrollment had fallen to 1,918.

The current home of SDSU was built on a vacant mesa top in 1931

In the next quarter century, under Dr. Hepner and subsequently under Malcolm A. Love (1952-1971), enrollments increased phenomenally to over 25,000 students. In 1960, the college became a part of the newly created California State College system, under a statewide Board of Trustees and a Chancellor. In 1971, recognizing that the institution had in fact achieved the status of a university, the Legislature renamed the system, The California State University and Colleges, and shortly afterward renamed this institution San Diego State University.

Acting President Donald E. Walker (1971-1972), President Brage Golding (1972-1977), and Acting President Travor Colbourn (1977-1978) were followed by the sixth president Thomas B. Day (1978-1996). In July 1996, Dr. Stephen Weber formally accepted the lead position in time to plan for the Centennial year celebration.

San Diego State University is a comprehensive urban public institution, recognized as one of the top five such campuses in the west by college and university presidents in several recent surveys in US News and World Report. In a 1994 report on college rankings, SDSU became the only campus of the California State University System to be classified as a doctoral institution, which places it among the top six percent of institutions across the nation and the unquestioned leader in The California State University system. With over 28,000 students, it is one of the largest universities in the western United States. The student body reflects the demographic mix of a burgeoning and cosmopolitan urban area. SDSU students work while learning. SDSU's joint doctoral programs address the special educational needs of the region, and share the academic resources of University of California campuses. These programs are examples of how higher education institutions will work together in the future.

Table 2-1, Related Off-campus Facilities

Facility	Use	Location	Size	#Bldgs.	Comments
SDSU Marine Laboratory	Support of graduate student +499 research projects, faculty grant-funded research	Naval Training Center, Bldg. 417	950 sq. ft. interior / approximately 1,000 sq. ft. exterior	1	Current lease expires 4/98. Facilities: Seawater tables, marine aquaria, diving locker facilities
Mt. Laguna Observatory	Research and teaching	South of Julian	Located on Forest Service Land	10	Includes Visitors Center, 4 telescope bldgs., workshop and dormitory.
Pacific Estuarine	Experimental research in wetland ecology	Tijuana River National Estuarine Research Reserve, Imperial Beach	Approximately 1 acre.	1 lock box	Facilities include experimental wetland mesocosms, storage and support for research
Santa Margarita	Research and teaching	Southwest Riverside County and northwest San Diego County, 4 miles from Temecula	4,082 acres under lease from US Bureau of Land Management	6	Buildings include a lab, dormitory and scientific instrument storage facility
Sky Oaks	Research and teaching	North-east San Diego County, 17 miles from Warner Springs	Approximately 4000 acres, 1/3 of which is under lease from BLM.	5	Buildings include a alab, 2 dormitory buildings and 2 equipment trailers
Mt. Fortuna	Rural research	Mission Trails Regional Park		0	
Mission Bay Aquatic Center	Student classes in aquatic sports	Mission Bay	3 Acres, 12,776 sf of building	3	
Imperial Valley Campus	Educational Facilities	Calexico, CA	75,600 sf	10	700 FTE students

SDSU is a teaching university with strong research programs. Research and scholarship strengthen the instruction SDSU students receive in the classroom and laboratory. In tough, national competition for federal and private grants and contracts, SDSU faculty members are awarded more than $67 million in funding each year. These projects provide unusual opportunities for students who can work alongside faculty using the latest equipment. The excitement of discovery spreads to the classroom, creating a unique learning experience.

The University now offers bachelor's degrees in 74 areas, the master's degree in 54, and the doctorate in 10 areas. SDSU provides fully educated, carefully trained graduates. Of San Diego County teachers, about two-thirds have been degreed or certified at SDSU. Of San Diego's engineers, about half have been educated at SDSU. The business and arts communities are filled with graduates. More than 100,000 alumni continue to live and lead in the San Diego region.

2.2 Related Off-campus Facilities

San Diego State University enjoys the benefits of many off-campus facilities. The following is a brief overview of locations, distinctions, attributes and academic purpose (Table 2-1 and Figure 2-1).

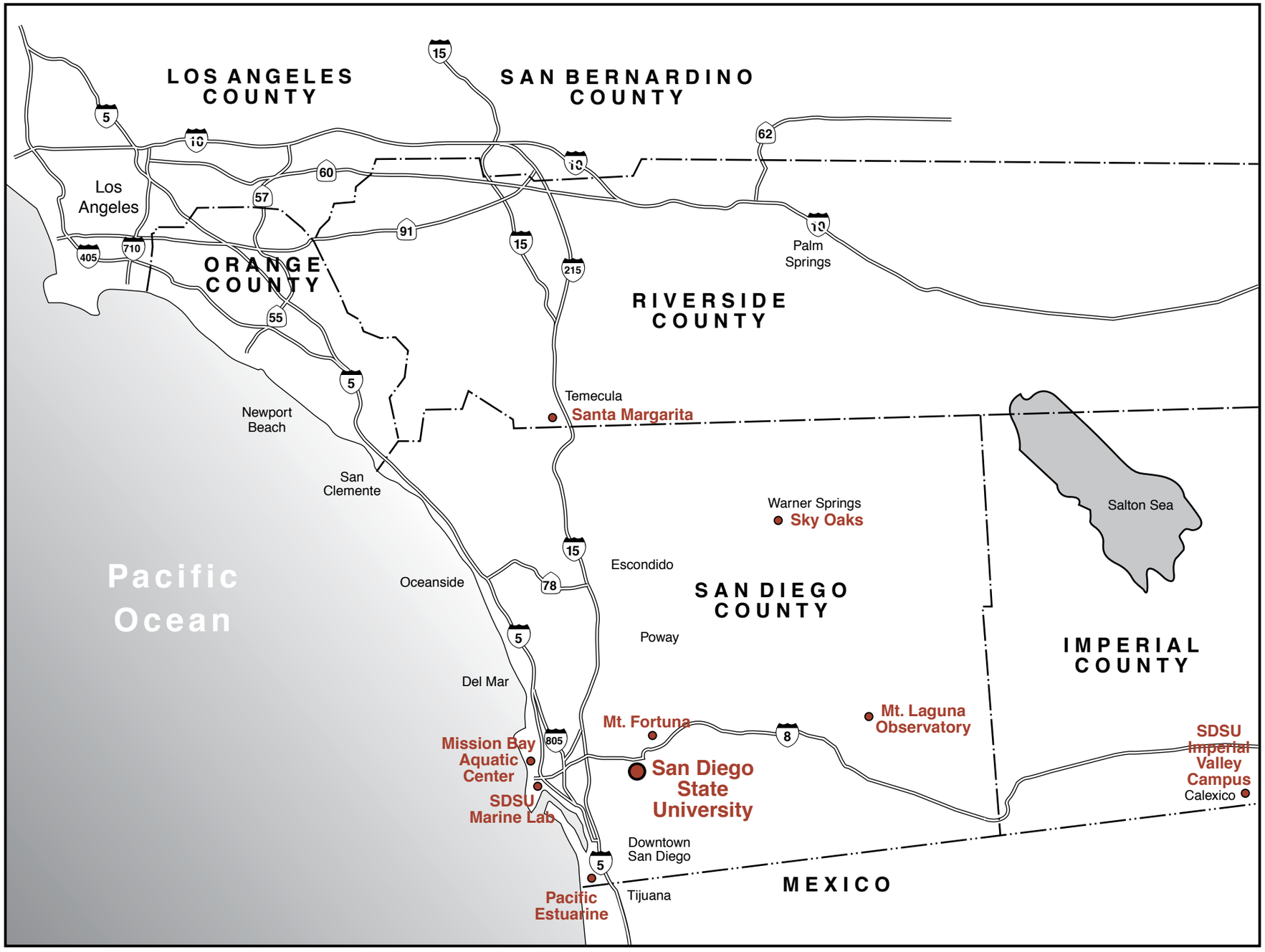
Imperial Valley Campus

The Imperial Valley Campus (IVC) of San Diego State University is a two-year, upper-division facility serving the higher education needs of the residents of southeastern California. Established in 1959, it is a fully-accredited satellite campus of San Diego State University. The campus encompasses one city block in the heart of Calexico, California, a border city with a population of 26,000. The Imperial Valley Campus provides the only baccalaureate opportunity in the remote desert agricultural county with an expanding population of 130,000. While current enrollment is nearly 700, the student population continues to grow as the economic stability of the region increases.

A CENTURY OF LEARNING 1897-1997 SDSU

RELATED OFF-CAMPUS FACILITIES

Figure 2-1



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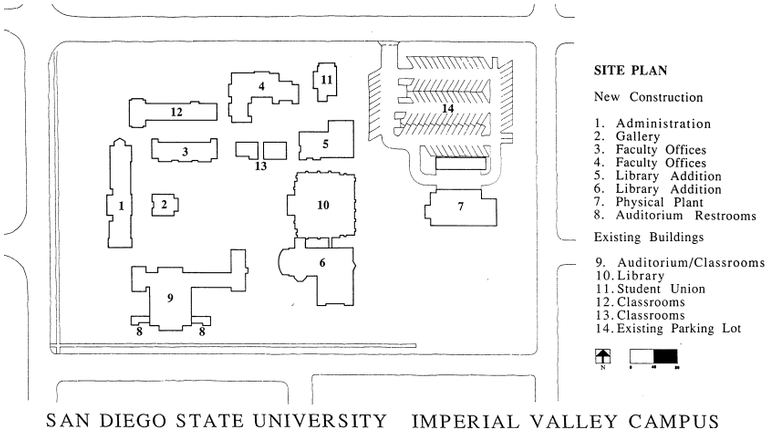
SDSU MASTER PLAN - Phase 1



The Imperial Valley Campus is located in a traditional civic center bounded by city governing bodies to the south and residential neighbors on three sides. Originally developed by the Calexico Union High School District, a large, two-story classroom building was erected in 1915. Other classrooms and an auditorium were added in the early 1920s.

The Imperial Valley Campus is a satellite campus of SDSU with 10 buildings located in the downtown area

After a major earthquake in 1927, the main building was reconstructed as a one-story structure and minimal reinforcement was added to the remaining buildings. In 1965 the site was gifted to the CSU. Another major quake in 1979 resulted in the demolition of the original building and portable classrooms were acquired in order to keep the campus operational. In the early 1980s, a 10,000 -square-foot library and a small classroom building were added. The enrollment, however, continued to grow and, out of necessity, the 25-year-old portable buildings continued to be used for classroom and other functions.

In 1990, the campus underwent a construction project to renovate and improve damaged and deteriorated buildings. The Imperial Valley Campus Master Plan advocated the continuance of the California Mission-style architecture already on site. The 1990 facilities are small, functionally-specific buildings situated around a large courtyard. Providing an internal focus, the intimately scaled areas are reminiscent of the traditional patio courtyards of the San Diego campus. The new bell tower at the heart of the Imperial Valley Campus, and the recently restored Work Projects Administration lantern provide additional collegiate ties between the two campuses. The main courtyard features enhanced paving, landscaping, lighting and other unifying elements.

The project provided six new permanent buildings of wood construction with stucco exteriors and red tile roof lines. These include a 6,000-square-foot Administration Building, which also houses Student Services, and a 2,000-square-foot Art Gallery/multi-purpose building that opens onto the large formal courtyard. Two office buildings, which house 32 faculty members, a student Computer/Multi-Media center, and a Physical Plant building were also added. The original library space was doubled by the addition of 10,000 square feet. The 1927 Auditorium/Classroom building was rehabilitated with current technologies in acoustic dampening, lighting and handicapped accessibility. Public restrooms were added. Ceremonial gated entrances compliment the original California Mission style and create a design link to the San Diego campus. New security lighting improves the level of safety for evening students, and a new looped utility system includes centralized chilled water for heating and cooling. Significant portions of the site were re-landscaped and the old portable buildings were removed.

In conjunction with the new campus construction completed in 1995, a new Student Union facility was established by a renovation of the former campus administration building, made possible by a loan from the Associated Students on the main campus to the Associated Students Council (ASC) on the Imperial Valley Campus. This facility replaced the dilapidated "La Casita" student center which was demolished with the renovation of the new Student Union. A five-year lease agreement, through June 30, 2000, for the Student Union facility was entered into by the campus with the Associated Students. The Imperial Valley Campus administration has expressed interest in the future development of the former "La Casita" site for construction of a new, permanent Student Union that will more adequately provide for the anticipated needs of the campus community as it moves into the 21st century. It is anticipated that development of a program for the proposed facility and financing feasibility of its construction and operation will be studied by the campus in the near future.

2.3 SDSU Campus Physical History and Development

This section outlines the historical development patterns that have resulted in certain physical characteristics—the buildings, structures and plazas that make SDSU what it is today. The predecessors to the current University site, the downtown Gaslamp Quarter and the Park Boulevard location of the State Normal School and the San Diego Teachers College, will not be discussed here. Although these developments were significant factors in shaping SDSU, this Master Plan document is concerned with existing physical developments that are anchored in the current Montezuma Mesa site.

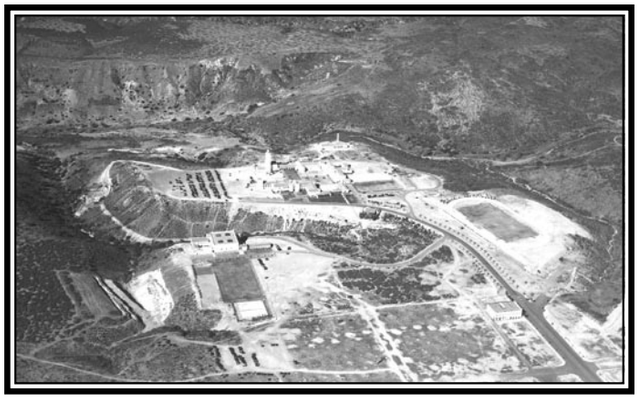
The University's history on Montezuma Mesa spans 68 years. For discussion purposes, development has been divided into the following four separate eras. Physical development in each era is examined in relation to trends caused by war, population expansion, existing physical features, and current needs.

1- Historic Core Area (1929-1945)
2- Post War, Growth and Change (1946-1960)
3- Revolution and Reform (1961-1980)
4- Contemporary (1981-present)

Historic Core Area (1931-1945)

The Site

By the late 1920s, San Diego's population was approaching 150,000 and the Normal School campus on the Park Boulevard site was serving nearly twice the number of students it was built to accommodate. In June of 1928, the Bell Lloyd Investment Company offered 125 acres on Mission Palisades, overlooking East Mission Valley. The land was very much "out in the country" at the time. The company also offered a $50,000 gift to the school as an added incentive to build at the east end of San Diego's lush agricultural valley. Why the largess? The company was planning an eight thousand acre subdivision east of the Central City and believed a college nearby would attract buyers. The offer was accepted and planning for the future College began.



1935 aerial looking north

The site offered 80 flat, buildable acres with a canyon cut across the land that the planners believed was suitable for a stadium. Nearby, Murray Dam was available to provide water. Electricity was also available. The voters approved the State College Bonds and in 1928, and the State Department of Architecture began developing plans for the new campus. By October 1929, workers broke ground on the Montezuma Mesa. The plan was expected to meet the higher education needs of San Diego through 1940. Students attended the first classes on the mesa in February 1931. The campus was called San Diego State College and was popularly regarded as a Liberal Arts College.

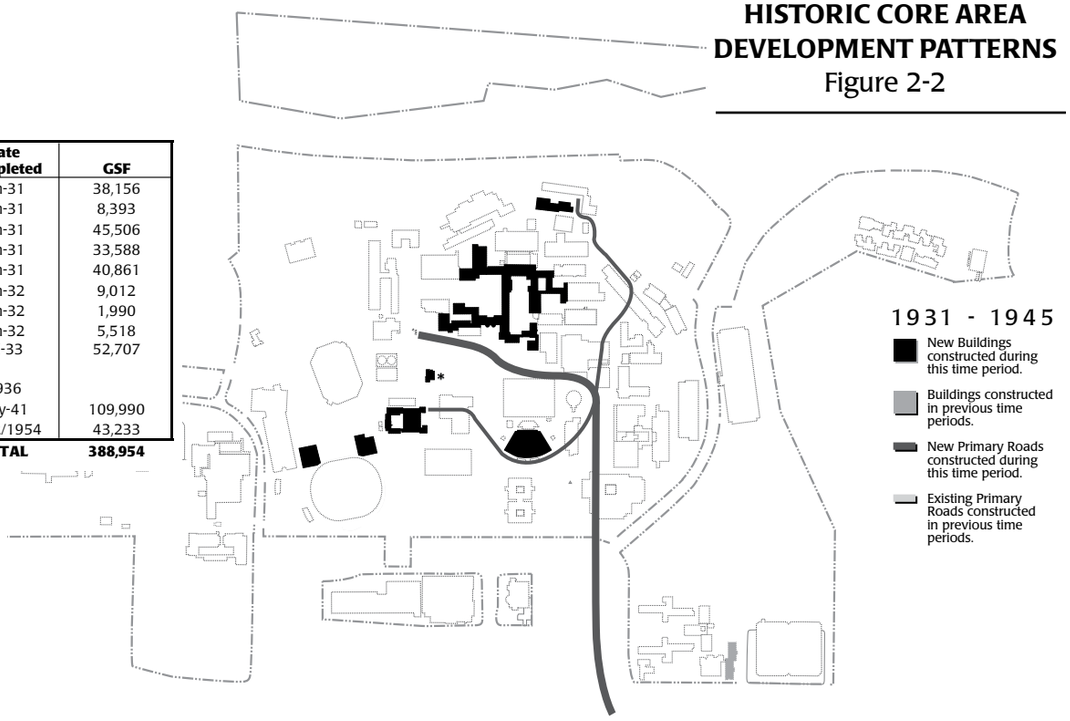
Table 2-2, Buildings, 1931-1945

Building Number	Original Building Name	Current Building Name	Date Completed	GSF
2	Academic Building	Hepner Hall	Jan-31	38,156
11	Little Theater	Little Theater	Jan-31	8,393
26	Hardy Tower and Old Library	Hardy Tower	Jan-31	45,506
17	Teacher Training School	Physical Science Building	Jan-31	33,588
10	Science Building	Life Science Building	Jan-31	40,861
23	Power House	PH Plant Boiler Shop	Jan-32	9,012
41	Scripps Cottage	Scripps Cottage	Jan-32	1,990
39	The Club	Faculty Staff Center	Jan-32	5,518
21	Duplex Gymnasium	Exercise and Nutritional Sciences	Jul-33	52,707
70	Aztec Bowl		1936	
71	Greek Bowl	Open Air Theater	May-41	109,990
12	Music/Speech Building	Speech & Telecommunications	1942/1954	43,233
			TOTAL	**388,954**

Table 2-3, Student Population and Campus Size, 1931-1945

Year	Student Population (Fall Semester)	Overall Campus Gross Square Footage
1935	1,343	235,731
1940	1,914	235,731
1945	1,918	388,954

HISTORIC CORE AREA DEVELOPMENT PATTERNS
Figure 2-2



Six new buildings comprised San Diego State College in these early years. In 1930 - 1931, the original six buildings were concentrated on 5 acres atop a mesa 'finger', with only the Power Plant (currently Physical Plant) set apart to the northeast.

Architecture and Vision

Connecting the architectural style and design of the original core buildings reflected a revolutionary approach to higher learning by providing a visual and cultural connection between the school and the community. The new style and design expressed a unique sense of pride in the campus. President Hardy (1910 - 1935) believed that there was a strong relationship between learning and learning's physical environment. He promoted his vision of an 'educational monastery' dedicated to holistic education.

Connecting the architectural style of the campus to Southern California's early settlement history was an essential consideration. The site overlooked the ruins of Mission San Diego de Alcala and the new campus would, in a sense, rise from the ruins above Mission Valley. Mission Revival had recently been the style of choice in a proliferation of buildings throughout California. The buildings in Balboa Park, built for the 1915 and 1935 Expositions, are perhaps the clearest examples of this architectural direction. Mission Revival principles worked well to incorporate multiple structures into a unified whole. The Mission Revival approach to landscape and the relationships between monumental and personal scale were especially appealing to the planners of the college campus. The courtyard and arcade became defining elements. Interior and exterior spaces were successfully connected, a suitable arrangement based on the areas climate and Hispanic architectural history.

The visions of President Hardy and architect Howard Spencer Hazen were a good match. Together, they created the historic campus core we admire today. From this contrived environment, interesting and unique architectural design evolved. Spanish Gothic accents became prominent in these early buildings. Outstanding features are the *Ventanna Geminada* windows consisting of slender central columns of stone and pointed horseshoe (ogee) arches. The provincial architecture of Spain and Mexico was influential because of its concern for human scale, coherence of the whole and simplicity of form. Other prominent features included the whitewashed, stucco-covered reinforced concrete. Red tile roofs, arches, towers and wrought iron details added to the richness of the original campus environment.

Expansions From the Core

In the next 15 years, four additional buildings and two mechanical structures were built with strong Mission Revival elements. Enrollment during the depression (1931-1935), rose by 230 students. Since employment was very scarce, education became popular. The college developed as a commuter campus since it was geographically removed from the city core and campus housing was not provided. College Avenue was the only street access to the campus during this early period. The initial expansion began to cover the top of the mesa in a southeasterly direction based on the access from College Avenue.

With the aid of the Works Project Administration (WPA), an entity that arose out of the New Deal/ Depression era, and generous donations, the campus was able to continue building. The Club (currently Faculty Staff Centre) was completed in 1932. Designed like a small country cottage in the same Mission Revival style, it provided a lounge and cafeteria for students.

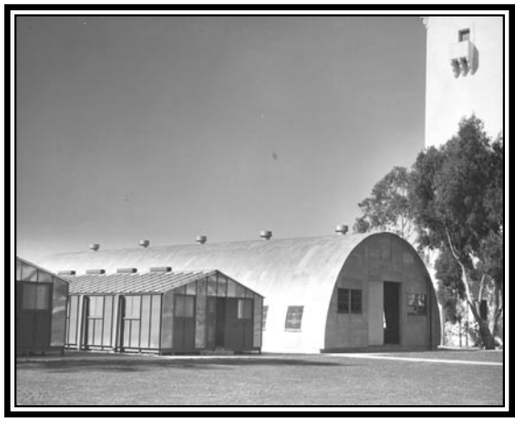
The first building built away from the original core was the Gymnasium or Women's Gym, (currently Exercise and Nutritional Sciences). A dirt bridge was constructed to provide a connection to the Gymnasium and to the main access point of the campus at the time. This earth infill was the first in what would later become a trend of canyon infilling in order to capture more usable land for campus expansion.

In 1936, the Aztec Bowl was completed using the natural canyon walls west of the Women's Gym. Aztec Bowl was the only State College stadium of the time. Scripps Cottage, originally built where the Love Library is now sited, was also built in the Mission Revival style. Local philanthropist Ellen Browning Scripps donated the money for this building so the campus women "could have a place of their own". After surmounting construction problems, the Open Air Theater or Greek Bowl, was completed in 1941 and still seats 4,280 today. The original buildings of the campus core and the expansions, together, created an architectural environment which still provides San Diego State a unique sense of place, differentiating it from other State Colleges campuses while providing an unmistakable link to California's Spanish heritage.

The campus core was developed as part of the original campus. This core has set the form, character and pattern of all development that has followed.

Post War, Growth and Change (1946-1960)

While a drop in enrollment ensued in the early 1940s which was created by conditions from World War II, post war enrollment swelled with returning veterans using their GI Bill's. After World War II, the percentage of the population that wanted to attend college also increased. The campus enrollment in 1946 was approximately 2,000 students. Enrollments jumped to approximately 10,000 by 1960. Additional classroom space quickly became a necessity.



The war period saw a significant amount of temporary buildings added in and around the historic core, many of which stayed into the Post War period.

The campus development policy at the time included the preservation of flat, buildable site areas for new academic buildings and infilling and/or leveling portions of bisecting canyon bottoms for parking and future buildings. By 1950, enough earth was moved to create 66 more usable acres in addition to the 113 usable acres that President Hepner purchased. The campus square footage increased fivefold in the 1950s. A shift toward teaching more classes after 1pm began in 1955 in order to spread out parking demand.

By infilling the canyon, an important site development element was created; the campus was no longer identifiable as an isolated academic Quad on the mesa. Over time, as the bisecting canyon element was being modified, a larger and more circulation-efficient site was being created. Open spaces on the campus perimeter were reserved for athletic uses, parking, and the expansion of service facilities. At the same time, planning considerations allowed development to occur mainly in the vicinity of the original quad core, locating as many new buildings as possible near the campus center. New buildings were placed to align with the east-west axis of the original campus or located on the valley rim, encircling the north and east perimeter of the campus. Buildings constructed during this era included: Art I, Speech and Telecommunication, Physics and Physics / Astronomy, Professional Studies and Fine Arts, Administration Addition, Engineering Lab, Education, Family Studies, Storm/ Nasatir Halls, East Commons and the Communications Clinic, to name a few.

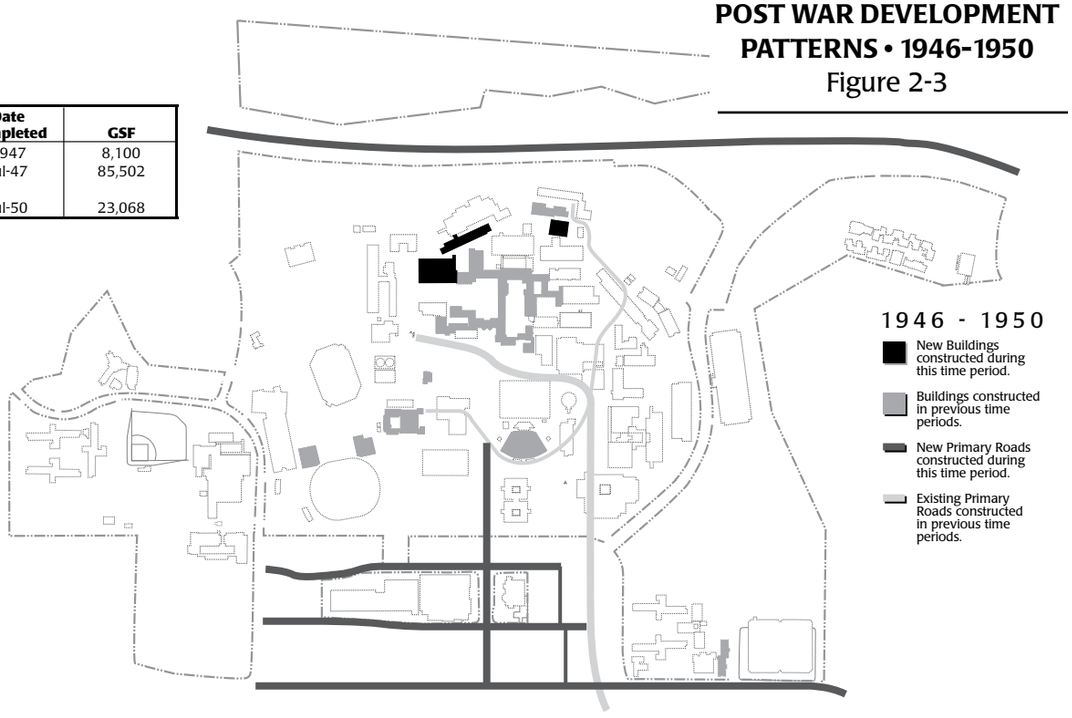
Table 2-4, Buildings, 1946-1950

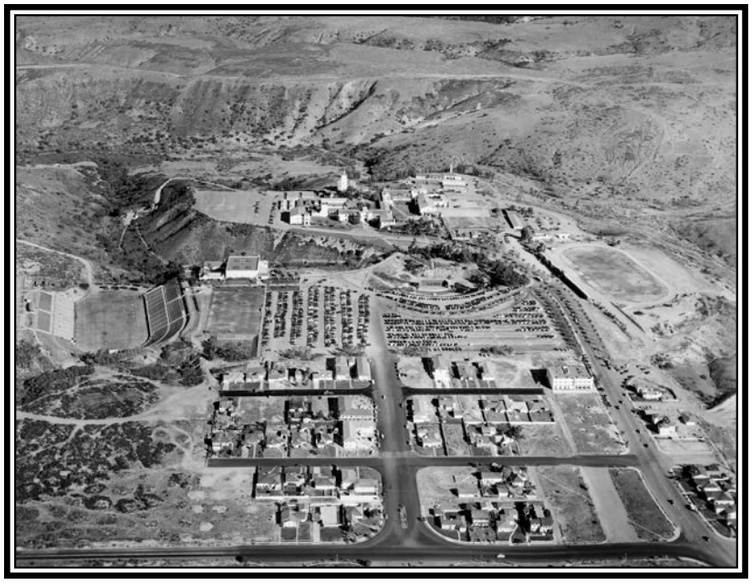
Building Number	Original Building Name	Current Building Name	Date Completed	GSF
201	Quonset Hut	Receiving/Mail	1947	8,100
27	Old Library Addition	Professional Studies and Fine Arts	Jul-47	85,502
1	Art Building	Art I (south)	Jul-50	23,068

Table 2-5, Student Population and Campus Size, 1946-1950

Year	Student Population (Fall Semester)	Overall Campus Gross Square Footage
1946	3,636	388,954
1950	4,268	505,624

POST WAR DEVELOPMENT PATTERNS • 1946-1950
Figure 2-3





1948 Aerial looking north

Increasing pressure to accommodate students had created a new era at San Diego State. This period saw more new buildings than any other in campus history. The Office of the State Architect was called upon to create classrooms which could meet the growing demand.

The style of campus architecture during this building boom radically changed from a courtyard and arcade concept to a "California State College" minimalist architectural style. Although economical and practical, the buildings developed during this era did not maintain the original aesthetics of the campus. Buildings were typically massive concrete structures with double-loaded corridors which provided easy access to the much needed classroom space. A somewhat standardized design consisted of rectangular, block-shaped building exterior with metal-framed ribbon windows and flat roof structures with mechanical penthouses.

It was during this time that the residential and commercial community to the south expanded to meet the campus boundary. Access to the campus was improved with the construction of Highway 80 in Mission Valley to the north. Other significant roadway improvements included the upgrade of Montezuma Road.

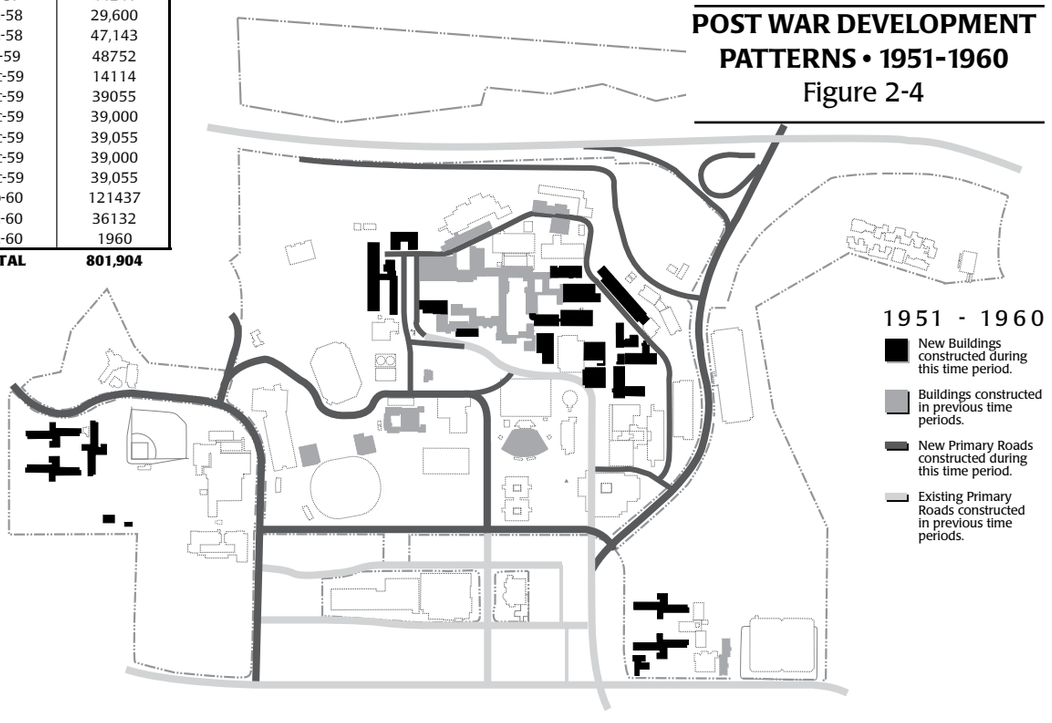
Table 2-6, Buildings, 1951-1960 **TOTAL** **116,670**

Building Number	Original Building Name	Current Building Name	Date Completed	GSF
30	Administration Building	Administration Building	Jan-53	53,392
9	Industrial Arts	Industrial Technology	Jul-53	31,962
14	Physics-Astronomy	Physics-Astronomy	Jul-54	27,539
40	Housing Office	Housing/Residential Life	Jun-56	7,142
5	Engineering Laboratory	Engineering Laboratory	Jul-56	12,460
6	Education	Education	Jul-57	17,004
7	Home Economics	Family Studies	Jul-57	15909
8	Social Science	Storm Hall	Jul-57	97952
18	Social Science	Nasatir Hall	Jul-57	44241
45	Aztec Shops Bookstore	Aztec Shops Bookstore	Jun-58	29,600
32	East Commons	East Commons	Jun-58	47,143
13	Physics	Physics	Jul-59	48752
28	Health Services Building	Communciations Clinic	Dec-59	14114
49	Toltec Hall	Toltec Hall	Dec-59	39055
46	Maya Hall	Maya Hall	Dec-59	39,000
50	Zapotec Hall	Zapotec Hall	Dec-59	39,055
47	Olmeca Hall	Olmeca Hall	Dec-59	39,000
48	Tarastec Hall	Tarastec Hall	Dec-59	39,055
3	Chemistry-Geology	Chemistry-Geology	Feb-60	121437
38	North Education	North Education	Jun-60	36132
38	North Education - 60	North Education - 60	Jun-60	1960
			TOTAL	**801,904**

Table 2-7, Student Population and Campus Size, 1951-1960

Year	Student Population (Fall Semester)	Overall Campus Gross Square Footage
1951	4,134	505,624
1960	10,821	1,307,528

POST WAR DEVELOPMENT PATTERNS • 1951-1960
Figure 2-4



Revolution and Reform (1961-1980)

The pressure to add facilities to keep pace with increasing student enrollment ultimately replaced numerous, original campus open-space areas with new, large building footprints. At the same time, increased enrollment and surrounding neighborhood development coupled to create increased traffic congestion on College Avenue. Campus parking became inadequate and relief was sought by utilizing neighborhood on-street parking.

The courtyard / arcade pattern had been eliminated from new building construction and the arrangement and scale of structures had shifted the focus away from the campus' original building design concept. Interstate 8 replaced Highway 80, effectively bisecting the campus property north of the freeway.

REVOLUTION & REFORM DEVELOPMENT PATTERNS 1961-1965
Figure 2-5

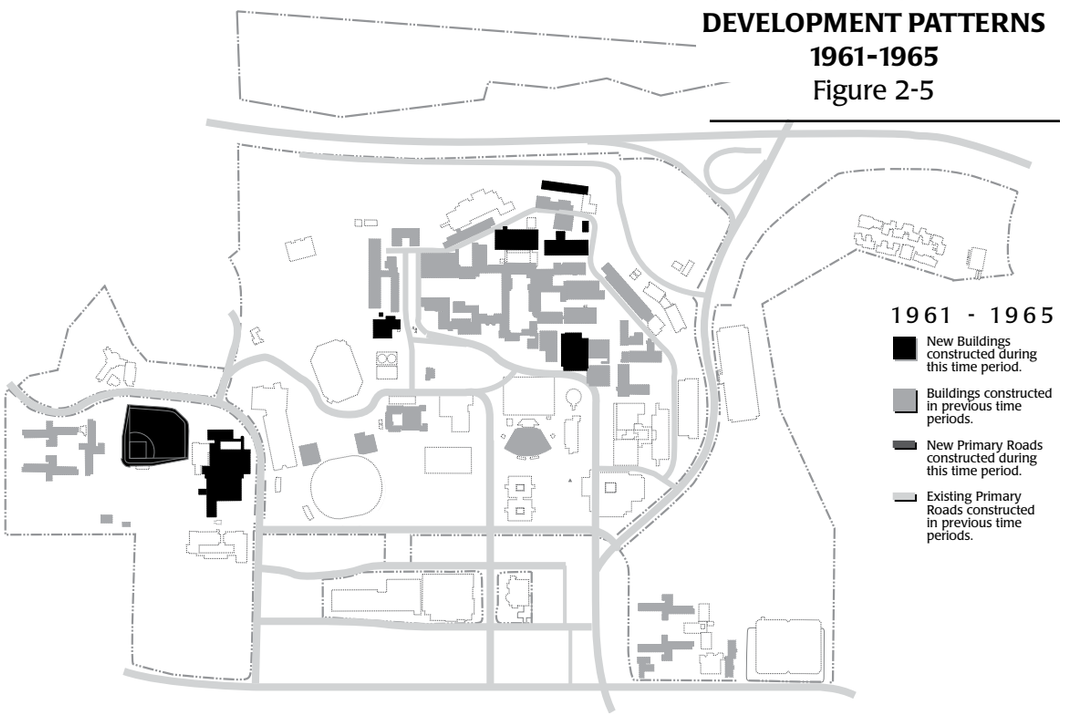


Table 2-8, Buildings, 1961-1965

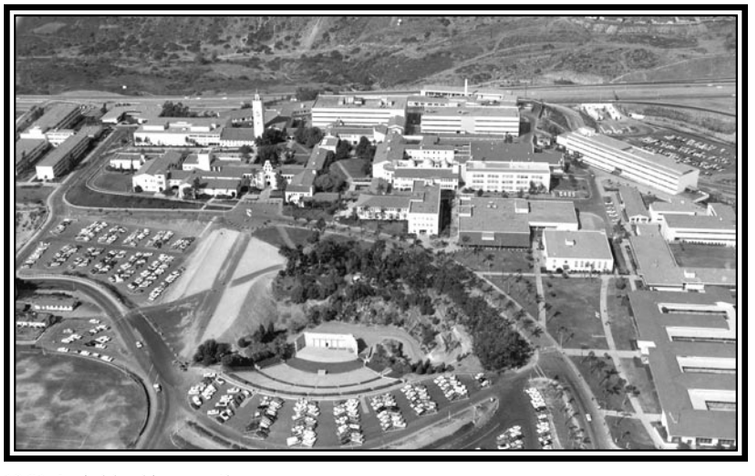
Building Number	Original Building Name	Current Building Name	Date Completed	GSF
15	Physical Education	Athletics	Jun-61	14,701
16	Peterson Gymnasium	Peterson Gymnasium	Jun-61	88,397
19	Engineering	Engineering	Jan-62	98,316
22	Engineering Test Cell	Computer Appl. Mechanic	Jan-62	1,710
24	Physical Plant	Physical Plant	Jul-62	27,480
32A	East Commons Addition	East Commons Addition	Jul-61	12,643
35	Life Science Addition	Life Science North	Dec-62	135,683
37	Business Admin. & Math	Business Admin. & Math	Jul-64	149,695
34	West Commons	West Commons	Feb-65	24,850
			TOTAL	**553,475**

Table 2-9, Student Population and Campus Size, 1961-1965

Year	Student Population (Fall Semester)	Overall Campus Gross Square Footage
1961	12,021	1,410,626
1965	16,411	1,861,003

Individual State College campuses joined forces in 1960 and the California State University System (CSU) was born. The CSU Board of Trustees was formed and immediate action was taken to design a physical Master Plan for each campus site. A San Diego State College Master Plan was developed by Frank L. Hope and Associates of San Diego in 1963. This original CSU San Diego Master Plan concept was based on a full-time equivalent (FTE) student enrollment of 20,000 and became the guide for future development. Many of the guiding principles of that plan are still reflected in the current Master Plan for 25,000 FTE; the central Library location, the broad campanile mall, perimeter parking and a modernized attempt to return to the architecture of the original campus with arched forms, colonnades and red tile roofs. The plan also addressed careful siting of new buildings and emphasized the importance of creating an interplay between interior and exterior space.

Further refinements of the 1963 Master Plan produced the expansion south of the original College Avenue loop. A new library was located in the now shifted center of the essentially enlarged campus. Named after president Malcolm A. Love (1952-1971), the library opened the year Love left San Diego State. The physical presence of the large, new library de-emphasized the original quad as the core of the campus. The library, designed by the State Department of General Services, and other buildings of this period marked a new phase of construction that could be characterized as a 'Mission Revival' style. In the wake of the frenzied construction of the austere, minimalist State College structures built in the 1950s to meet enrollment demands, planners recognized the need for better design. Instead of designing buildings that encircled and created their own courtyards and arcades, planners sought to create the same effect



1961 Aerial looking north

REVOLUTION & REFORM
DEVELOPMENT PATTERNS
1966-1970
Figure 2-6

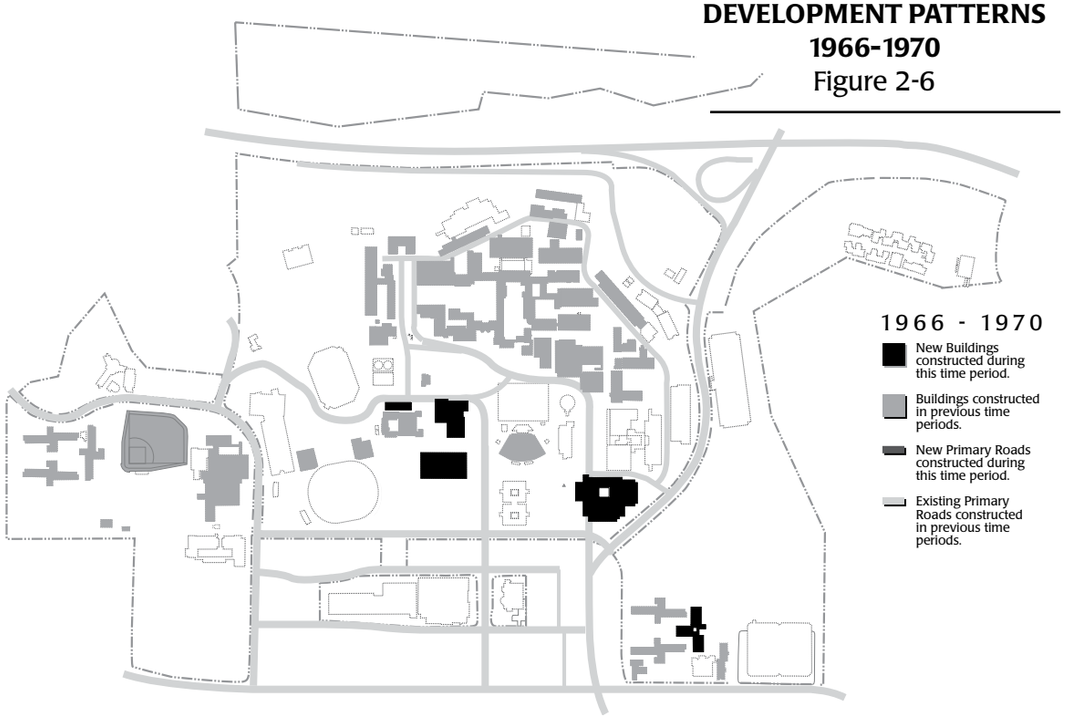


Table 2-10, Buildings, 1966-1970

Building Number	Original Building Name	Current Building Name	Date Completed	GSF
20	Physical Education Annex	Physical Education Annex	Dec-66	7,471
36	Dramatic Arts	Dramatic Arts	May-67	65,388
51	Zura Hall	Zura Hall	Aug-68	128,000
52	Aztec Center	Aztec Center	Jun-68	91,740
53	Music	Music	Nov-69	79,152
		TOTAL		**371,751**

Table 2-11, Student Population and Campus Size, 1966-1970

Year	Student Population (Fall Semester)	Overall Campus Gross Square Footage
1966	17,762	1,868,474
1970	25,059	2,232,754

1970 aerial looking north

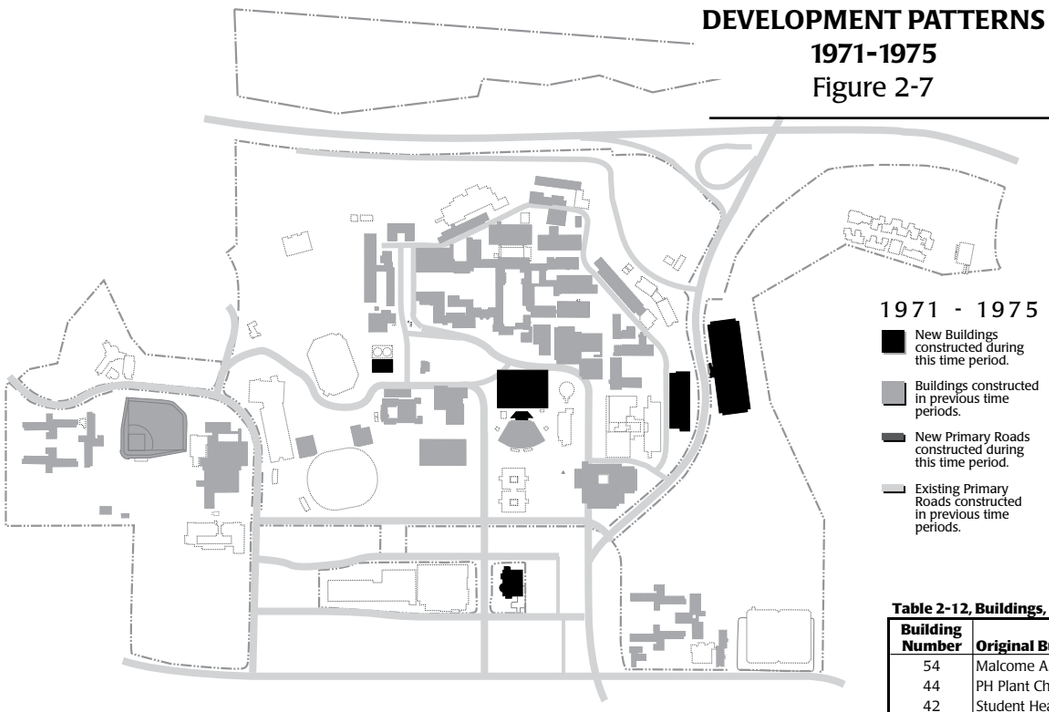
through physical relationships between buildings, like the tree-shaded seating area between Love Library and the Administration Building. The prominent architectural elements, arched colonnades and walls of glass of the 'Mission Revival' style buildings, bridged the gap between old and new. Examples of this era include: Aztec Center, which still serves as a gateway to the campus, and the Dramatic Arts and Music Buildings, which were built adjacent to one another along the Campanile Mall.

The Campanile Mall became the central organizing element of the expanded campus, providing a link between the old academic core to the north and the expansion to the south. A physical connection between the historic core and this south expansion area was made by developing a north-south channel of fill over the canyon west of the Open Air Theater. The mall leads directly to the entry towers of the original campus and provides several desirable features: a grand gesture of open space to expose the architectural design of the old and new campuses, a physical link between old and new, and a functional pedestrian preserve. Success of this plan would be ensured if the Mall were flanked with a mix of uses, and a continuous, intense pedestrian atmosphere.

The Plan identified housing at the western and southeastern edges of the campus property; athletic facilities on 55th Street; and parking structures on the eastern side of the College Avenue extension, at 55th Street and on Lindo Paseo Avenue. Each of these facilities was built approximately as proposed.

The 1963 Master Plan was successful to the degree that the campus center was shifted from the quad to the new library without destroying the historic center of the campus. With few exceptions, the campus has been developed according to the 1963 Master Plan. One interesting exception was to abandon plans for a nuclear reactor at the northeast corner of the campus. Student housing was built in its place.

REVOLUTION & REFORM DEVELOPMENT PATTERNS 1971-1975
Figure 2-7



Love library soon after construction in 1971

Table 2-13, Student Population and Campus Size, 1971-1975

Year	Student Population (Fall Semester)	Overall Campus Gross Square Footage
1971	25,786	2,576,498
1975	30,839	3,275,799

Table 2-12, Buildings, 1971-1975

Building Number	Original Building Name	Current Building Name	Date Completed	GSF
54	Malcome A. Love Library	Malcome A. Love Library	Jan-71	343,744
44	PH Plant Chill Plant	PH Plant Chill Plant	Jun-72	75,559
42	Student Health Services	Student Health Services	Nov-74	28,809
55	Parking Structure I	Parking Structure I	Oct-75	594,933
			TOTAL	**1,043,045**

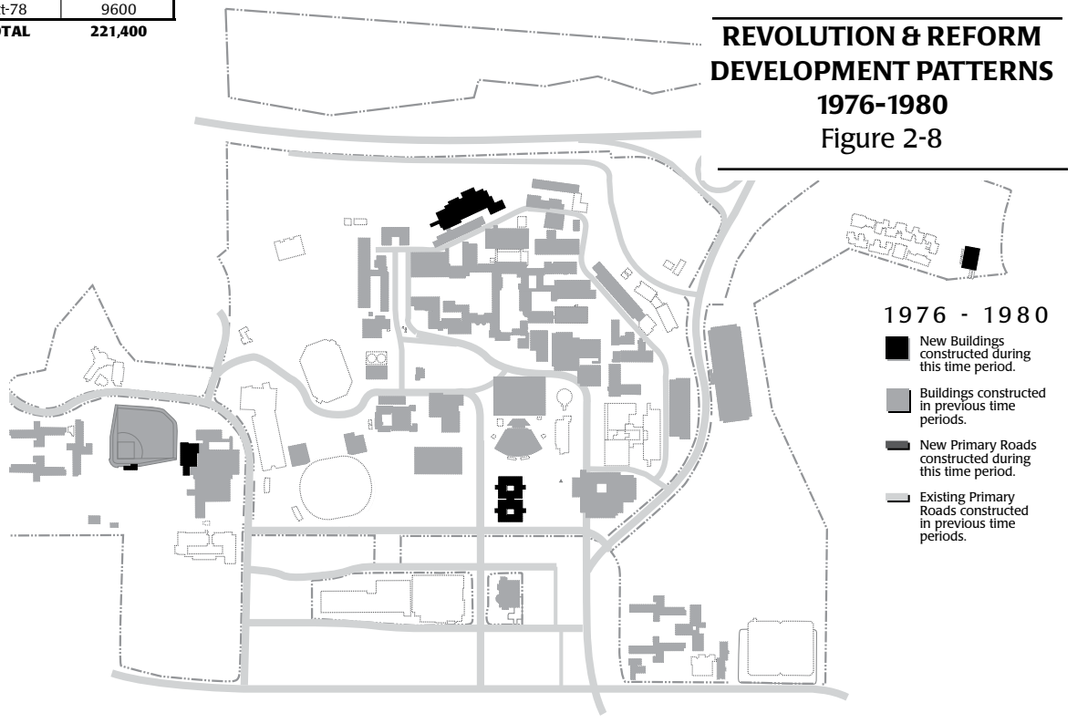
Table 2-14, Buildings, 1976-1980

Building Number	Original Building Name	Current Building Name	Date Completed	GSF
73	Racquetball Courts	Racquetball Courts	Aug-76	12,157
56	New Art Building	Art II (north)	Feb-77	94,594
58	Humanities Classroom Building	Adams Humanities	Mar-77	101,857
61	Baseball Clubhouse	Baseball Clubhouse	Mar-77	3,192
97	Rehabilitation Center	Rehabilitation Center	Oct-78	9600
			TOTAL	**221,400**

Table 2-15, Student Population and Campus Size, 1976-1980

Year	Student Population (Fall Semester)	Overall Campus Gross Square Footage
1976	29,760	3,287,956
1980	32,791	3,497,199

REVOLUTION & REFORM DEVELOPMENT PATTERNS 1976-1980
Figure 2-8



A 1967 update to the 1963 Master Plan was again authored by Frank L. Hope and Associates. The update further defined potential building and parking structure sites. It was the last formal comprehensive Master Plan Study undertaken for the campus.

Subsequent master plan documentation has included in-house oversight of numerous building siting and massing studies which have resulted in the local production of, and subsequent CSU Board of Trustees approval of, Campus Master Plan maps.

Contemporary (1981-present)

Beginning in the late 1980s and extending into the mid-1990s, the campus again undertook redevelopment of the area east of the library as an improved student activity area and library expansion. In place of the green space, historically known as Campus Lab Lawn, Centennial Mall was created. Centennial Mall is a highly populated outdoor node and corridor. The Mall's distinctive character is accentuated by contemporary interpretations of arcaded buildings on three sides. On the east side is the massive Student Services Building. The building houses classrooms and the majority of campus student services. Despite its size, the Student Services Building is successful in leading pedestrians through rhythmic visual flows of arches and architectural fixtures as they pass through its bi-level system of modern courtyards and plazas, with a Mission Revival style clock tower as its centerpiece. With the design and development of this building came a conscious effort to return to an architectural style that was more closely tied to the original campus architecture.

CONTEMPORARY
1981-1985
Figure 2-9

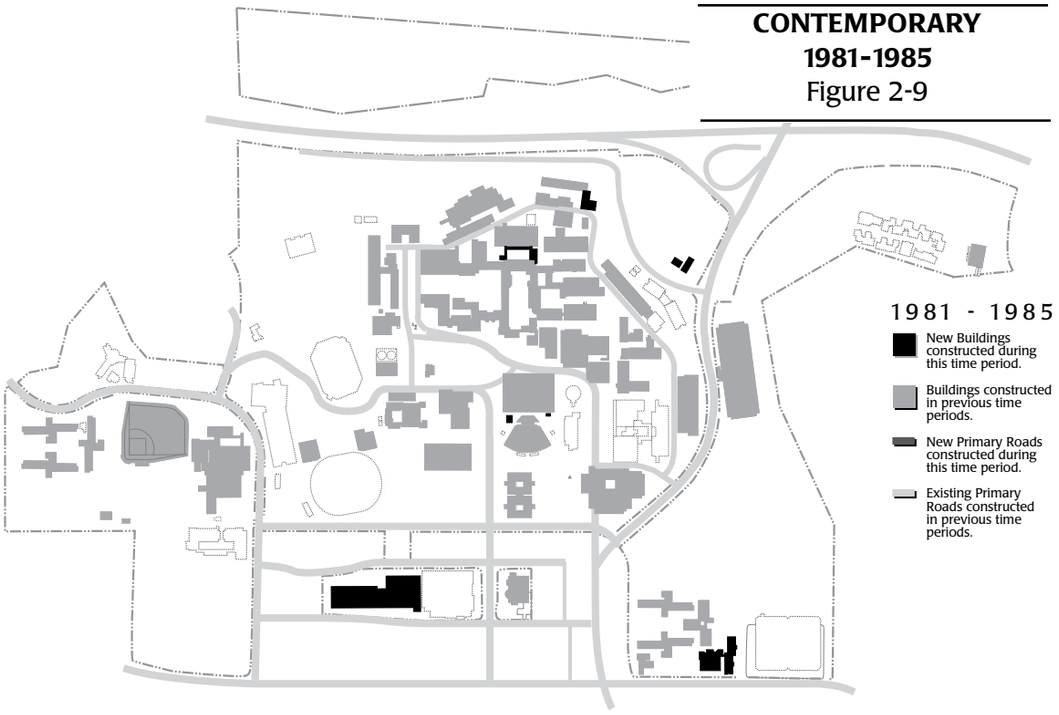


Table 2-16, Buildings, 1981-1985

Building Number	Original Building Name	Current Building Name	Date Completed	GSF
79	Parking Structure II	Parking Structure II	Aug-82	197,862
91A	Tula Hall	Tula Hall	Sep-82	15,750
91	Tenochca Hall	Tenochca Hall	Sep-82	78,637
101	Garage, Physical Plant	Garage, Physical Plan	May-84	3,532
112	Hazmat Hall	Hazmat Building	Aug-84	1,920
71A	OAT Hospitality House	OAT Hospitality House	1985	2,100
25	Physical Plant Cogen Plant	Physical Plant Cogen Plant	1985	5,020
			TOTAL	**304,821**

Table 2-17, Student Population and Campus Size, 1981-1985

Year	Student Population (Fall Semester)	Overall Campus Gross Square Footage
1981	33,330	3,497,199
1985	34,014	3,802,020

1981 aerial looking southeast

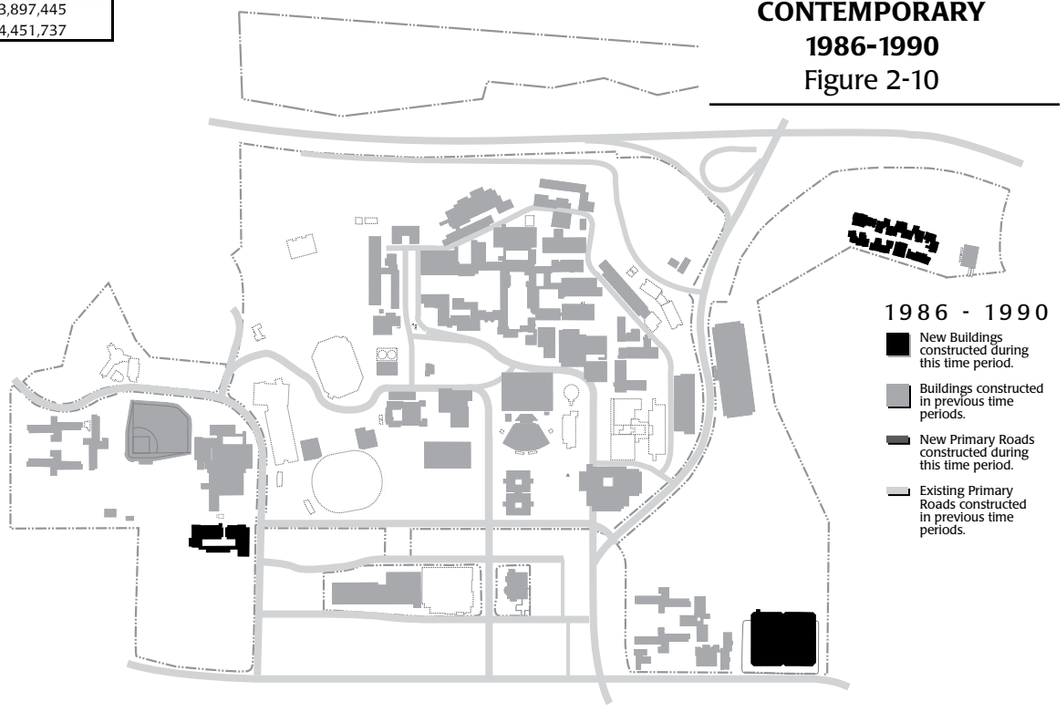
Table 2-18, Buildings, 1986-1990

Building Number	Original Building Name	Current Building Name	Date Completed	GSF
100	Villa Alvarado Apartments	Villa Alvarado Apartments	Jan-86	95,425
99	Parking Structure III	Parking Structure III	Oct-86	520,202
75	Weight Training Facility	Weight Training Facility	Jan-88	12,936
83	Athletics Offices	Athletics Offices	Jan-88	2,600
84	Athletics Training Facility	Athletics Training Facility	Jan-88	18,554
		TOTAL		**649,717**

Table 2-19, Student Population and Campus Size, 1986-1990

Year	Student Population (Fall Semester)	Overall Campus Gross Square Footage
1986	34,677	3,897,445
1990	35,021	4,451,737

CONTEMPORARY
1986-1990
Figure 2-10



Campus Design Standards from this era began to direct building designers to include original Mission Revival forms. To the west is the new Library addition, built with architectural features on a similar scale to the Student Services Building, with the exception of the signature glass, domed entrance. Pedestrian traffic very effectively cascades down the broad steps of the Aztec Center to the south and spills onto the Centennial Mall to the Bookstore and Library, providing the new epicenter of campus activity and reinforcing the Library as central to the campus. Attention during this period returned to the axial arrangements and view corridors that were first established in the original development patterns of the campus.

Today, the campus is an eclectic mix of pedestrian experiences, from the broad, refined Centennial Mall to the meandering pathways in the original Quad to the main pedestrian promenade from Centennial Mall to the West Commons. No single underlying organizing structure is controlling or guiding overall campus development patterns. However, the overall experience of the campus, with some exceptions, is one of controlled, conscientious, piecemeal development. The overall effect is that the sum is greater than the individual parts.

CONTEMPORARY
1991-1995
Figure 2-11

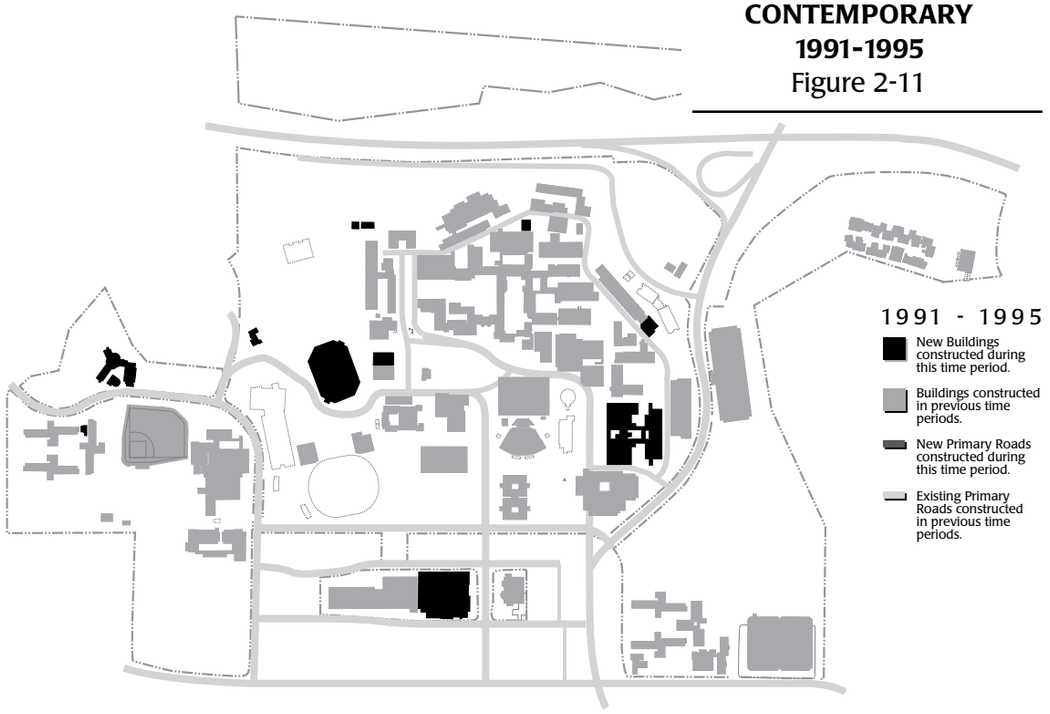


Table 2-20, Buildings, 1991-1995

Building Number	Original Building Name	Current Building Name	Date Completed	GSF
59	Student Services East	Student Services East	Jan-91	65,448
59A	Student Services Garage	Student Services Garage	Jan-91	36,639
93B	Monty's Market	Monty's Market	1992	1,708
817	Dean of Sciences Extension	Dean of Sciences Extension	Jun-92	2,800
85	Child Care Facility	Child Care Facility	Sep-92	2,700
93	Chapultepec Hall	Chapultepec Hall	Sep-92	115,875
93A	Cholula Hall	Cholula hall	Sep-92	4,295
29	Student Services West	Student Services West	Dec-92	99,326
3A	Chem/Geo Addition	Chem/Geo Addition	Mar-93	15,240
74	International Students	International Students	May-93	3,372
44A	TES Add to Chill Plant	TES Add to Chill Plant	Sep-93	9,224
82	Parking Structure IV	Parking Structure IV	May-94	577,614
72	KPBS Radio/TV	KPBS Radio/TV	Jun-94	67,450
72A	Gateway Center/Ex Stud	Gateway Center/Ex Stud	Jun-94	97,305
50A	Templo Del Sol	Templo Del Sol	Apr-95	1,710
			TOTAL	**1,100,706**

Table 2-21, Student Population and Campus Size, 1991-1995

Year	Student Population (Fall Semester)	Overall Campus Gross Square Footage
1991	32,951	4,553,824
1995	28,724	5,552,443

Present Conditions

The campus has evolved from a very small, cloistered, academic mission isolated on a remote plateau, into an enormous, dynamic, urban university, intertwined with the surrounding city fabric. As an element in the larger context of the City of San Diego, the campus maintains and encourages long-term identity as a place similar to other institutional treasures, such as Balboa Park. An analysis of the existing conditions at the campus indicate that the physical and experiential boundaries of the campus are unclear or unmarked, and that identity needs to be strengthened.

San Diego, like most cities, is a largely regular grid of fast-paced streets that surround unrelated and financially competing structures. By contrast, the campus is a pedestrian-oriented experience involving somewhat related and non-competing structures. Opportunities exist both to maintain the urban setting and to emphasize the differences among the city, the community and the campus while creating sustainable identities which will provide aesthetically and culturally pleasing transitions.

Most of the historic facilities on the main campus are still being used today for classroom and office space

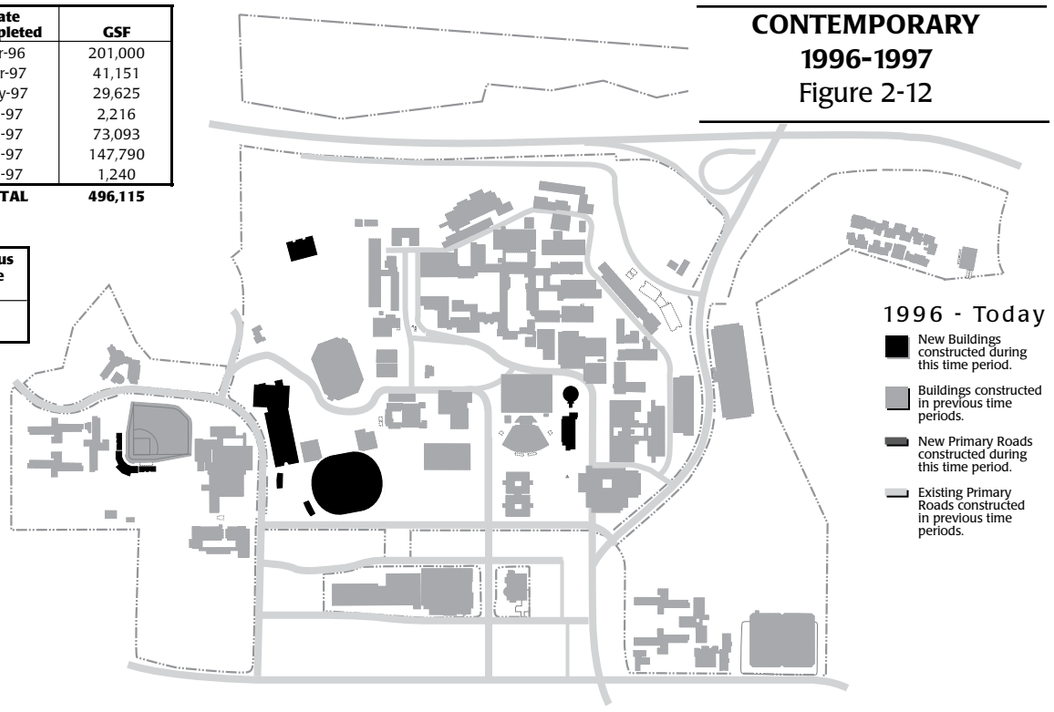
Table 2-22, Buildings, 1996-1997

Building Number	Original Building Name	Current Building Name	Date Completed	GSF
76	Love Library Addition	Love Library Addition	Apr-96	201,000
62	Tony Gwynn Stadium	Tony Gwynn Stadium	Mar-97	41,151
314	Business Services Building	Business Services Building	May-97	29,625
68	Arena Meeting Center	Arena Meeting Center	Jul-97	2,216
69	Aztec Recreation Center	Aztec Recreation Center	Jul-97	73,093
70	Cox Arena	Cox Arena	Jul-97	147,790
70A	Arena Tick Office	Arena Ticket Office	Jul-97	1,240
			TOTAL	**496,115**

Table 2-23, Student Population and Campus Size, 1996-1997

Year	Student Total Population (Fall Semester)	Student Full Time Equiv. Population (Fall Semester)	Overall Campus Gross Square Footage
1996	29,331	22,818	5,753,443
1997	29,898	23,281	6,048,558

CONTEMPORARY
1996-1997
Figure 2-12



2.4 Historical Structures

All of these structures are listed on the National Register of Historical buildings.

Hepner Hall
formerly the "Academic Building"
Date: 1930
Style: Mission Revival
Architect: Howard Spencer Hazen

Little Theater
Date: 1930
Style: Mission Revival
Architect: Howard Spencer Hazen

Hardy Tower and Old Library
(formerly Library Building and Campanile)
Date: 1931
Style: Mission Revival
Architect: Howard Spencer Hazen

Physical Science Building,
formerly the "Teacher Training School Building"
Date: 1930
Style: Mission Revival
Architect: Howard Spencer Hazen

Life Science Building
formerly called the "Science Building"
Date: 1930
Style: Mission Revival
Architect: Howard Spencer Hazen

Life Science Building Annex
Date: 1942
Style: Mission Revival
Architect: Unknown

Corporation Boiler Shop
(formerly Power Plant Building)
Date: 1930
Style: Mission Revival
Architect: Howard Spencer Hazen

Scripps Cottage
Date: 1931
Style: Mission Revival
Architect: Unknown

Faculty-Staff Center,
formerly "The Club"
Date: 1932
Style: Mission Revival
Architect: Howard Spencer Hazen

Exercise and Nutritional Sciences Building
formerly the "Women's' Gymnasium"
Date: 1933
Style: Mission Revival
Architect: Howard Spencer Hazen

Aztec Bowl
Date: 1936
Style: Mission Revival
Architect: Unknown

Speech and Telecommunications Building,
formerly the "Music Building"
Date: 1942
Style: Mission Revival
Architect: Unknown

The Open Air Theater,
formerly "The Greek Bowl"
Date: 1941
Style: Mission Revival
Architect: Unknown

Hepner Hall (formerly Montezuma Mesa building), 1930, A former president of SDSU, Walter Hepner served the University from 1935 to 1952. His administration oversaw many important milestones at SDSU, including the construction of Aztec Bowl., the Open Air Theater, and the first dormitory. Toward the end of Hepner's reign, SDSU also began to offer graduate study programs for the first time.

Hardy Tower, 1931, Named for former SDSU President Edward Hardy, who served as SDSU's top administrator from 1910 to 1935. He was the second president of the University and helped to transition the campus from a normal school to a four year teachers college. He also oversaw the move of the campus from downtown to its present location. The bell chimes in Hardy Tower were donated to the University by Col. and Mrs. Fletcher in 1946 to commemorate its 50 year anniversary.

Scripps Cottage, 1931, With a gift of $6,000 from ellen Browning Scripps, SDSU constructed the Scripps Cottage for women in 1931. At that time, it became the headquarters for the Associated Women Students. The cottage was moved in 1968 to make room for Love Library, and since then has been used primarily for conferences and meetings.

2.5 Memorials and Sculptures

Many of the historical places and SDSU events are noted through the use of plaques and memorials. Many of these plaques and memorials have been donated by community groups, civic organizations or alumni. The more highly visible memorials serve as landmarks and node markers that help wayfinding. The smaller memorials and plaques help to establish unique places or commemorate a person or event. Table 2-24 lists all known memorials and plaques. Several of the plaques listed on this table, however, are reported as missing and do not appear on Figure 2-13.

Various smaller memorials and plaques occur throughout the campus

Some memorials function as sculpture and wayfinding landmarks such as this Veteran's Memorial obelisk

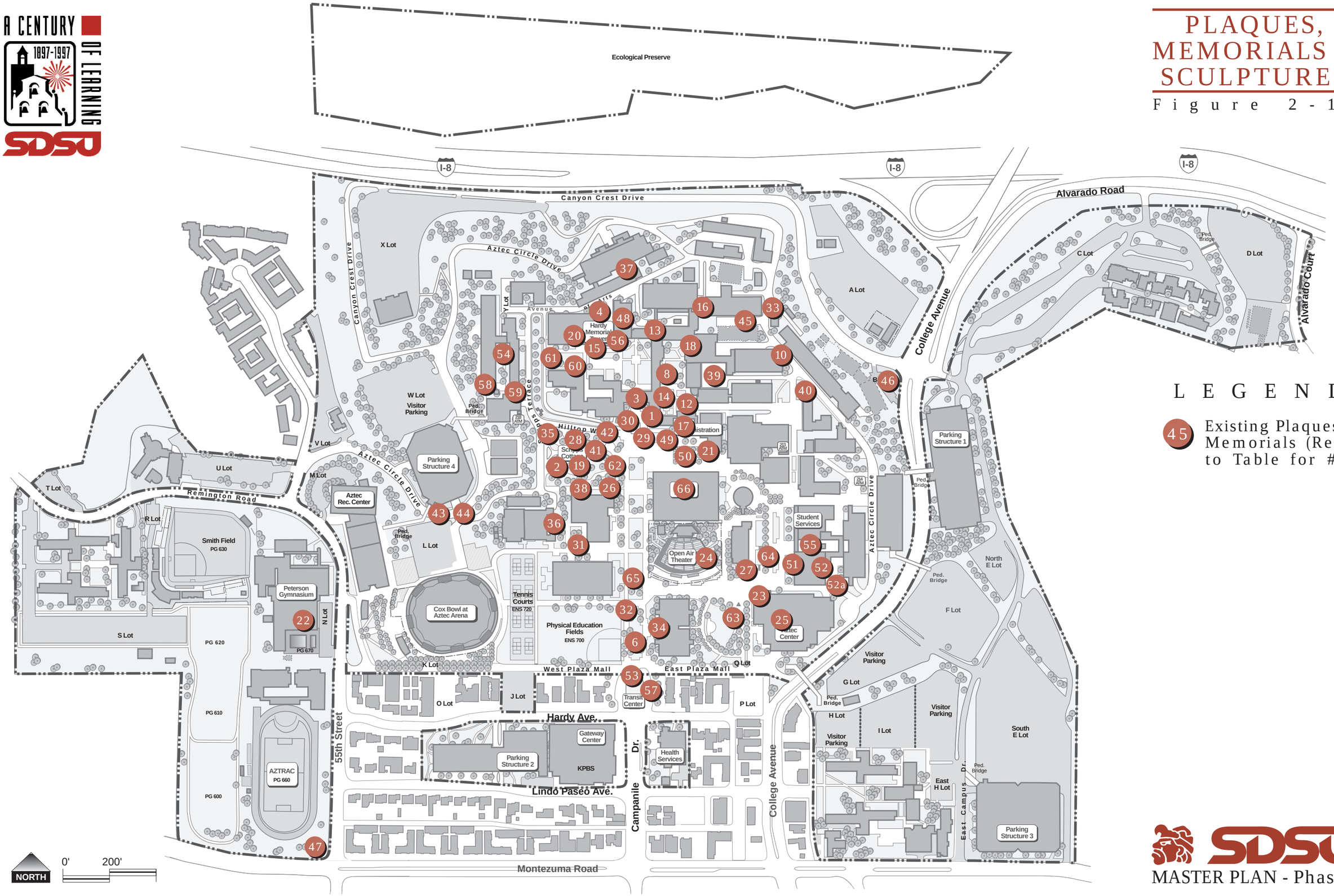
Table 2-24, Existing Memorials and Plaques

ITEM	NAME	YEAR	LOCATION	BACKGROUND
1	Corner Stone	13-Apr-05	Hepner Hall	Donated by San Diego Chamber of Commerce to Honor San Diego State College
2	Queen Palms	17-Apr-05	Various Loc.	Donated by San Diego Chamber of Commerce *(Plaque Missing)*
3	Drinking Fountain	17-Apr-05	Scripps Park - Patio	Donated by Mrs. J. C. Cramer/Honor of Jesse Grant Cramer
4	Dr. Hardy Profile	18-Apr-05	Hardy Tower	Bronze plaque honor of Dr. E.L.Hardy; Pres. 1910-35, donated by Alumni
5	WPA Plaque	1935-36	Aztec Bowl, Grandstand E. Main Stairs	Donated by WPA (U.S. Work Projects Administration) *(Plaque Missing)*
6	Montezuma Statue	20-Apr-05	So. End Campanile Mall	Donal Hord, Sculptor. Statue Donated by Federal Government, Base Donated by Senior Class 1931, Site Placement, Donated by Hubbard Family. Statue relocated to Campanile Mall in 1984 (better visibility)
7	Main Quad Bench	20-Apr-05	Main Quad (Hardy Tower)	Bench donated by Pi Sigma Nu (now Pi Beta Phi) *(Plaque Missing)*
8	WPA Plaque	20-Apr-05	No. Wing Hepner Hall	Donated by WPA (U.S. Work Projects Administration)
9	WPA Plaque	20-Apr-05	W. Grndstnd, Aztec Bowl	Donated by WPA (U.S. Work Projects Administration)
10	WPA Plaque	21-Apr-05	Rock Wall, E. End of Ind. Tech. Bldg.	Donated by WPA (U.S. Work Projects Administration)
11	WPA Plaque	21-Apr-05	Aztec Bowl, E. Grndstnd	Donated by WPA (U.S. Work Projects Administration) *(Plaque Missing)*
12	"Hello Walk" - Plaque	22-Apr-05	F/S Center to SLS Bldg	Walkway honoring CETZA. Women's Service Club Donated by Shen Yo (now Chi Omega)
13	WPA Plaque	23-Apr-05	So Clsroom/So Life Sci.	Donated by WPA (U.S. Work Projects Administration)
14	Frosh Quad	28-Apr-05	E. of Hepner Hall	Donated by Frosh Class 1938 & 1945
15	Chimes	29-Apr-05	Hardy Tower	Honoring the 50th Anniversary - SDSU / Donated by Col & Mrs. Ed Fletcher. Upgraded Fall 1985 by Fletcher Family
16	WW II Memorial	30-Apr-05	E. Wing S Life Science	Honoring SDSU Students Who Died in World War II
17	Senior Circle	1947-48	NW Corner Admin.	Honoring SDSU Seniors / Donated by Frosh Class of 1947/48
18	Korean War Memorial	6-May-05	E. Wing/ S. Life Science, By Fletcher Chimes Plaque	Honoring SDSU Students Who Died in the Korean War
19	Bar - B - Q	10-May-05	Scripps Park	Honoring Irving Outcalt, SDSU V.P. 1912-39; Arthur Peterson, Dean 1921 to 1945 & Jesse Ault, Dean 1925-47/Donated by the Campus Committee
20	SDSC Seal	12-May-05	PSFA Breezeway	Bronze Seal - Donated by Associated Students and Ed Churchman, 1929
21	SDSC Seal	14-May-05	Adm. Bldg. So. Entrance	Bronze Seal - Donated by ??
22	C.E. Peterson	14-May-05	Pete Gym/Main Corridor	Bronze Memorial in Honor of C.E. Peterson, Dean of Men, donated by Alpha Phi Omega and Others, Senior Class 1968
23	SDSC Seal	21-May-05	Aztec Center N/W Corner in concrete/Free Speech	Donated by Senior Class 1968
24	Theatre Seats & Backs	21-May-05	Open Air Theatre	Donated by Mr. & Mrs. Arthur Johnson & Associated Students
25	Aztec Center	21-May-05	Aztec Center No. Side	Bronze Dedication Plaque - Donated by Associated Students
26	Scripps Park	23-May-05	No. Side Drama Bldg	Donated by Associated Students *(26a = Views taken of Park Site 3/1997)*
27	Cameron Memorial	23-May-05	Bookstore Courtyard Moved to S end of Cenn Hall 9/96	Bronze Plaque honor of Roy Cameron, Professor 1929-69. Donated by Friends of Roy Cameron
28	Freedom Tree	26-May-05	Scripps Park	Bronze Plaque honor of all POW/MIA's. Donated by Family of Lt. Col. Charles Scharf
29	Walter R. Hepner	29-May-05	Hepner Hall	Bronze Plaque, Honor of Walter R. Hepner, Pres. 1935-52. Donated by SDSU
30	Koester Sundial	30-May-05	No. End of Campanile Mall	Honor George A. Koester, Ex. Dean 1950-74. Donated by Friends & Family
31	Mendenhall Memorial	1-Jun-05	DA / E&NS Courtyard	Honor Mary Mendenhall, Dean of Women 1939-63. Donated by Friends
32	"S" Mountain Alder	1-Jun-05	Southwest Mall	Honor the Spirit of "S" Mountain - Donated by Class of 1979
33	The Bent of Tau Beta Pi	1-Jun-05	So. E. School of Engr.	Honor Engineering Honor Society - Donated by the SDSU Chapter
34	John R. Adams	30-May-05	Adams Humanities, E/Entry. Left Facing Column	Honor John R. Adams, Prof.. 1928-68 - Donated by SDSU
35	Spooner Memorial	1-Jun-05	N.W.Corner Scripps Park	Honor Robert A. Spooner III, Student - Donated by Friends
36	Kessler Rose Garden	2-Jun-05	E. Side Exercise & Nutr. Science Bldg.	Honor Carolyn Kessler, SDSU Employee 1949-80
37	Art Courtyard Bricks	2-Jun-05	North Art Building	Each Brick Paid for by the Person(s) Whose Name it Bears
38	Hallahan Grove Trees	3-Jun-05	N. of DS & SE of Scripps. Park - Moved from "Central Green", Fall 1994	Honor Timothy V. Hallahan-SDSU Employee 1938-80. Donated by Friends (Original location: Central Green Love Library & Student Services Buildings (Campus Lab Lawn)
39	Industrial Arts Courtyard	3-Jun-05	Ind Tech/Engr Lab/Phy Sci	Donated by Geology Department/Referred to as Geo. Park West
40	Rock Sculpture	4-Jun-05	Comm. Clinic No. Lawn	Donated by Geology & Art Depts. (Prof. Pat Abbott)
41	Directions 2000	4/21/82	Scripps Park - Grass E. of Wood Deck	Bronze Plaque - Donated by CSU Board of Trustees & The Committee on the Future
42	Bridestine Memorial	4-Jun-05	Hilltop Way	Concrete Seating w/plaque Honoring Don C. Bridestine, Prof. of Econ. 1955-81. Donated by Family and Colleagues
43	Kennedy Memorial Base	5-Jun-05	Northend Aztec Bowl	Concrete Base w/plaque - Honor Tony R. Aguirre, Donated by Family
44	Kennedy Memorial	5-Jun-05	Northend Aztec Bowl	14 ton Granite Stone w/plaque Honoring President John F. Kennedy, 1963 Honorary Degree (1st CSU Honorary Degree). Donated by the Families of Gary Aguirre and Michael Aguirre.
45	Engineering Park	6-Jun-05	Between Engr & Engr Lab	Wood Monument - Donated by Associated Students - SDSU Tau Beta Pi Engineering Honor Society/ Ca Xi Chapter; Industrial Studies Club; Epsilon Pi Tau; Industrial Technology Honor Society; and Beta Alpha Chapter
46	SDSU	Fall 1984	B-Lot; College Ave. Canyon Crest Drive	Concrete Monument Sign Donated by Associated Students
47	SDSU	Sp. 1986	55th St. at Montezuma Rd.	Concrete Monument Sign Donated by Associated Students
48	"MURAL"	1-Jan-86	Hardy Tower - Room 140	Mural depicting millions of yrs of evolution containing the inscription of "The Arecibo Interstellar Message" of November 16, 1974
49	President Black	15-Mar-97	So. W. Corner Adm. Bldg	Statue on Granite Base of President Samuel L. Black (1989-1910). Donated by Dr. Sue & Lester Earnest/Base by Wm & Hortencia Emery
50	Dedication Plaques	Various	Stand of Trees Between Adm. & Love Library	Donated by the Mortar Board Society to 15 Retired Employees for "Outstanding Service"
51	Campus Lab School	15-Jun-05	Student Services West	Donated by Campus Lab School Farewell Committee. Dedicated at Homecoming Ceremony on October 24, 1993 to commemorate the Campus Lab School that formerly occupied this site.
52	Lipinsky Tower	15-Jun-05	Student Services West	Donated by the SDSU Retirement Association. In Honor of the Lipinsky Family who funded the Clock Tower & Chimes
52a	Lipinsky Room		Student Services West	Formal Conference Room funded with a donation from the Lipinsky Family
53	SDSU Transit Center	8-Jun-05	Transit Center, Cntr Island	Donated by the County of San Diego to commemorate the joint effort in construction of the Transit Center. "Beautification" Plaque Donated by Associated Students, 1986. Unveiled at the opening ceremony, November 14, 1986.
54	"A Pioneer"	17-Jun-05	Between Storm & Nasatir Center Tree in Lawn	Donated by the Political Science Department, Louis Terrell. To Honor Betty A. Nesvold, Prof.., 1922-1992. Dedicated Spring 1995
55	Bench	15-Jun-05	W. Facing Side of Lipinsky Clock Tower, SSW Bldg	Presented by Mortar Board Actives and Alumni in Celebration of the 75th Anniversary of its Founding, February 15, 1918
56	Painting	Unknown	Hardy Tower Lobby, N. Wall	Painted by Art Students, under Lowell Houser. Painting depicts multi culture and varied employment fields. Painting uncovered by Hardy Tower Remodel. It was preserved and hung in the lobby of the building upon completion of the construction project.
57	"Gateway to Campus"	8-Jun-05	Transit Center, Cntr Island	Funded by 2% Project Cost set aside for County Projects. It Symbolizes "Gateway to Campus". Material is solid copper, chosen by representatives of SD County, SDSU Art Dept., Facilities Planning & Management, & Physical Plant.
58	Storm Hall		So. Entrance to Building	Dedicated to Alvena S. Storm, Prof. 1926 - 1966
59	Nasatir Hall		So. Entrance to Building	Dedicated to Abraham P. Nasatir, Prof. 1928 - 1974
60	Dedication Plaques	Various	Trees between PSFA Bldg & Speech & TeleCom	Presented by Mortar Board to: Alma Marosz 11/2/96; Charles W. Lamden. 11/2/96; Lois Westcott 11/5/94; George Sorenson 11/5/94; George Babilot 11/18/95, and George Gross 11/18/95
61	Sculpture	?	Lawn betwen PSFA Bldg & Speech & TeleCom	?
62	Plaque/Tree	1-Nov-86	S.E. Lawn-Scripps Park Along Walkway	Presented to SDSU by Fraternity, Phi Gamma Delta
63	The Veternan's Memorial	1-Aug-96	So. Cenn Hall/W. Aztec Center & E. of A/H Bldg	25 Ft. High Granite Veneer Memorial to Student Lost in the various wars. Designed by Jesus Dominguez, SDSU Prof., Funded by Committee.
64	Centennial Walk	13-Mar-97	E or Entry to Centennial Hall & W. of Student Svc Bld	Honoring 100 years of Academic Achievement,March 13, 1987-97. Presented by the Honors Council, Dedicated on Founders Day, 1997
65	Centennial Art Project		West of the Open Air Theatre on the Campanile	

A CENTURY OF LEARNING
1897-1997
SDSU

PLAQUES, MEMORIALS & SCULPTURES

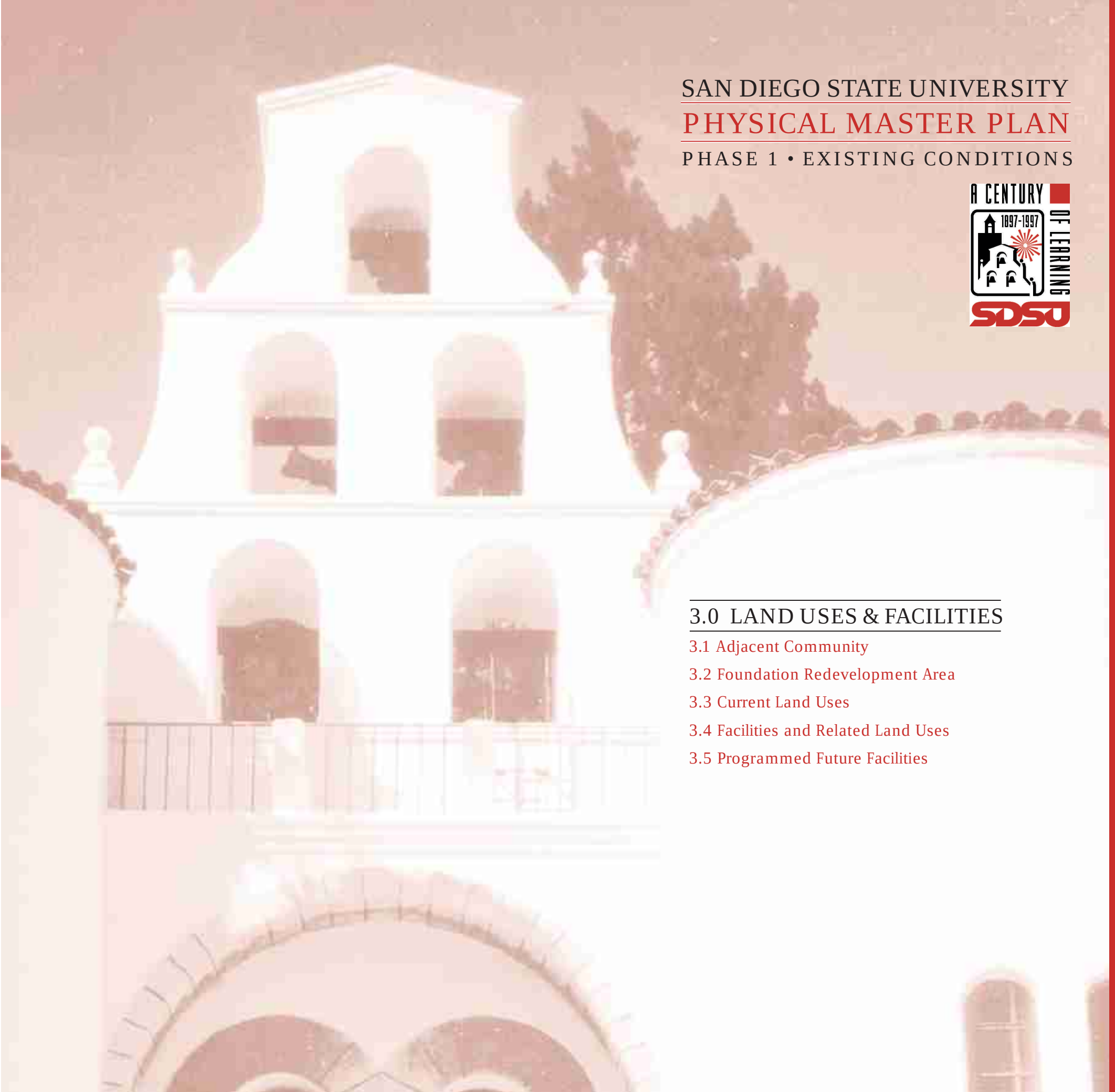
Figure 2-13



LEGEND

45 Existing Plaques & Memorials (Refer to Table for #'s)

SDSU
MASTER PLAN - Phase 1



SAN DIEGO STATE UNIVERSITY

PHYSICAL MASTER PLAN

PHASE 1 • EXISTING CONDITIONS

A CENTURY OF LEARNING 1897-1997 SDSU

SECTION THREE
LAND USES & FACILITIES

3.0 LAND USES & FACILITIES

3.1 Adjacent Community

3.2 Foundation Redevelopment Area

3.3 Current Land Uses

3.4 Facilities and Related Land Uses

3.5 Programmed Future Facilities

SECTION THREE • LAND USES & FACILTIES

3.1 Adjacent Community

The College Area Community Plan consists of approximately 1,950 acres with about 56% of developable land devoted to single family land use (Figure 3-1a). The present residential population totals approximately 19,000 people, but the area population expands daily with the influx of persons associated with the University. A major portion of the area is zoned for single family housing, but multi-family housing is located in the vicinity of the University and along the transportation corridors. Commercial development is located along El Cajon Boulevard and along a portion of College Avenue adjacent to the University. The Institutional uses include San Diego State University and Alvarado Medical Center which occupy a large segment of the community land.

The community is served by three elementary schools, one junior high, and one senior high school, all of which are within the high school attendance area. One of these schools, Hardy Elementary, is located adjacent to the University. Two public school facilities, Montezuma and Muir Elementary, have been closed due to declining enrollment.

3.1.1 Open Space

The hillside and canyon topography in the northern and western portions of the community have resulted in development patterns which have left open spaces in the community. These areas, officially designated open spaces, are highly visible from public right-of-ways, especially from Interstate 8, Fairmont Avenue/ Montezuma Road and Collwood Boulevard. Also designated as open space are those areas zoned for very low residential development within the Hillside Review Overlay zoning ordinance. These areas are part of a canyon system and are principally the backyard areas of lots in the Alvarado Estates neighborhood. Limited development is permitted in these designated open space areas, but whatever development does occur must be designed to fit onto the existing topography of the site and preserve the majority of the existing vegetation.

3.1.2 Primary Adjacent Development

The College Area Community presents a dual visual image. Entrances to the community are along heavily traveled streets that lead to the high activity areas on the University's perimeter. Development on El Cajon Boulevard is auto-oriented and visually fragmented. However, within one block of the main arteries of the community and within just a few blocks of the University, the character of the community changes. The resident home-owners in this area are determined to preserve the single-family character of these neighborhoods and wish to provide multi-family housing only when it is compatible with the existing neighborhood. In these residential neighborhoods, the curving streets are lightly traveled, many ending in cul-de-sacs. Canyons and hillsides are visible. The houses in these neighborhoods exhibit architectural styles which span five decades and range from Spanish and Craftsman style bungalows to 1950's and 1960's stucco ranch houses.

Residential

The recommendations of the Community Plan focus on the protection of this community's single-family neighborhoods and include rezonings and retention of existing single -family zoning to ensure that the community remains so in the future (Figure 3-1b).

The 1980's witnessed a University enrollment growth period which was not accompanied by a growth of multi-family or student life-style oriented housing. During this time, students started to rent from the single-family housing stock in order to live close to the University. To keep costs affordable, many students shared an individual house, a situation that created pockets of higher-density living accommodations. These houses typically generated more traffic, had insufficient parking, poor maintenance and caused a conflict of lifestyles between the family-oriented property owners and the student renters.

In May, 1987, the City of San Diego adopted a Single Family Rental Overlay Zone Ordinance to help alleviate the problem. Although the ordinance served to protect the local single-family housing neighborhoods, it also forced students to find housing farther away from campus, thus adding credence to the University's reputation as a commuter campus. Increased traffic counts and parking problems resulted.

Due to the daily influx of University commuters, parking is always of concern. University parking is provided on a permit basis to those associated with the University. The cost of a permit is currently $16./month. During the high enrollment period of the 1980's, parking was difficult to obtain in close proximity to the campus core. Students found parking relief by utilizing the on-street parking available in the nearby residential neighborhoods. Many residents found they were without adequate parking for themselves or their visitors and once again, the City of San Diego stepped in to provide relief for the situation. In this case, a system was implemented to provide a Parking District which reserved a radius of on-street parking for neighborhood residents which eased the mounting tension. The system appears to be working well for the residents and the University parking situation is currently under control. Recent road and parking lot improvements have lessened parking problems for the 30,000 student enrollment population.

Commercial Development

Existing commercial development in the community is located in three separate areas: strip commercial development along El Cajon Boulevard, the major commercial area in the community; small in scale, student-oriented retail development along College Avenue, north of Montezuma Road; and medical offices along Alvarado Road. With the exception of the medical offices which are newer and oriented toward Alvarado Hospital, commercial development is generally older, auto-oriented, strip development interspersed with newer, small scale auto-oriented shopping centers. Landscaping and off-street parking are minimal and the structures are one or two stories high with little continuity of architectural style.

As part of the effort to revitalize El Cajon Boulevard, a Business Improvement District (BID) was formed by property owners in the area. The BID members work together to coordinate private revitalization efforts to help ensure conformity with the planned district regulations and continuity among different projects in the same areas. Although geographically detached from the El Cajon businesses, the student-oriented commercial establishments at the southeast corner of the University are also included in the BID. This area consists of restaurants, a book store, a quick-copy facility and a variety of other retail service establishments that serve the University.

College Avenue splits this commercial area. Most of the development is older with the exception of some newer restaurants and the copy store on the east side of College Avenue. Development is generally pedestrian-oriented with little automobile access and difficult parking availability. A pedestrian bridge crosses College Avenue immediately to the north of the commercial area but heavy traffic on College Avenue makes pedestrian access between the two sides of the street difficult except at the bridge and intersections. Ideally, discussions need to be held between the University and the University area BID property owners to suggest that future development conform with the University Design Guidelines, particularly in respect to landscape, lighting and paving standards.

Specific concerns raised in the Community Plan regarding the interaction between the University and the community focus on the impacts of the University's student population. These impacts are felt most strongly in the limited availability of student housing, traffic congestion, scarcity of parking and the corollary issues of noise and the shifting character of the traditional single-family neighborhoods.

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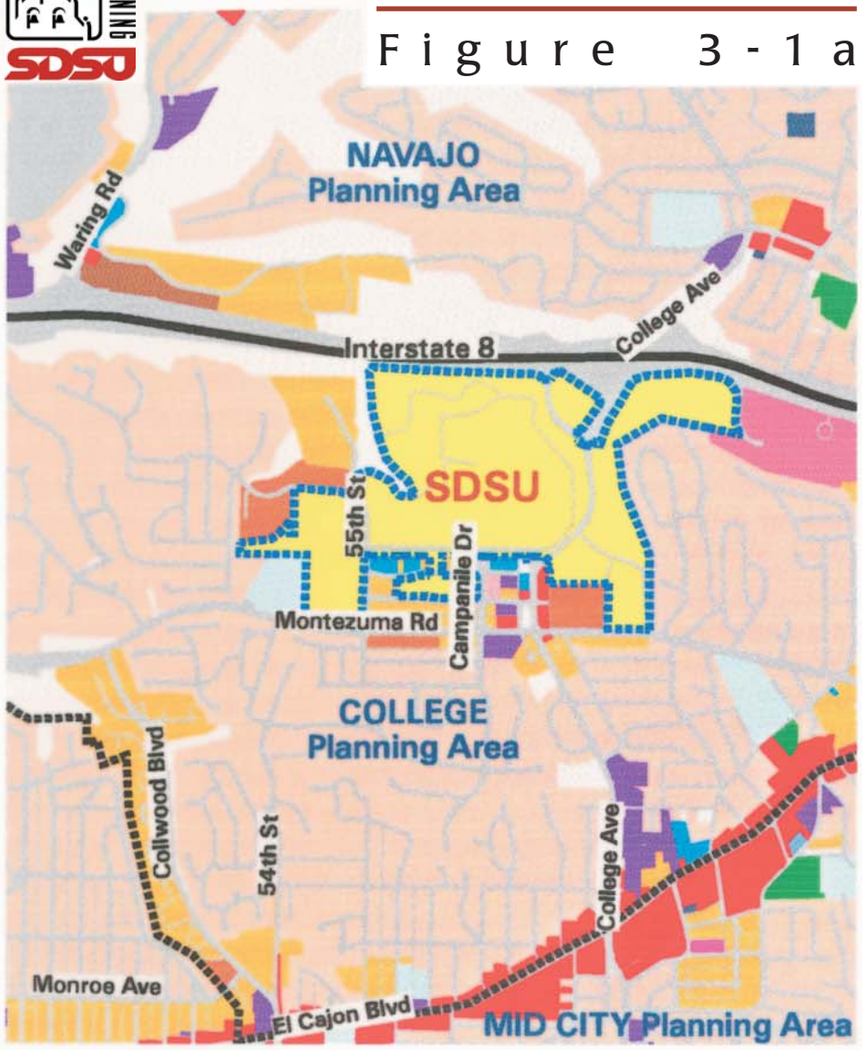
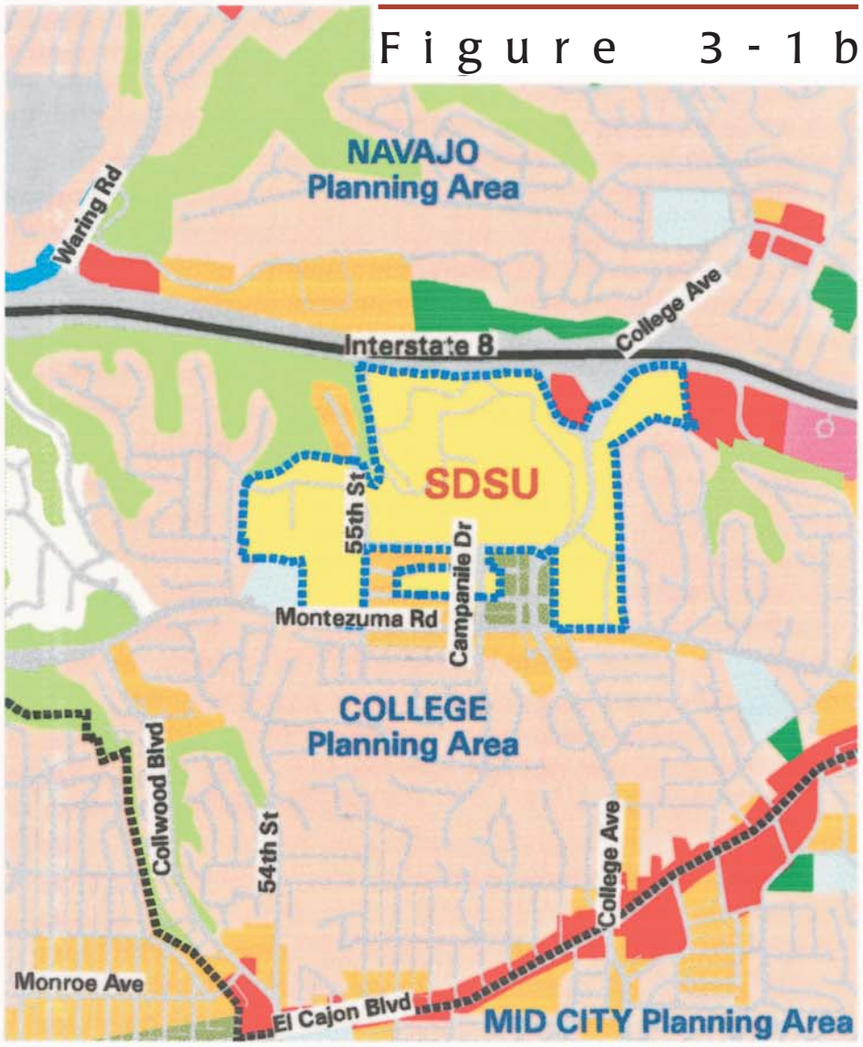
1995 COMMUNITY LAND USE

Figure 3-1a



2000 COMMUNITY LAND USE

Figure 3-1b



Legend (Applies to both maps)

RESIDENTIAL
- Spaced Rural Residential
- Single Family Residential
- Multi-Family Residential
- Group Quarters
- Hotel/Motel/Resort

COMMERCIAL
- Commercial (wholesale, shopping centers, retail/strip)

OFFICE
- Office (low/high rise)

INDUSTRIAL/TRANSPORTATION
- Freeways/Transit
- Communication/Utilities

HEALTH CARE
- Hospitals

PUBLIC SERVICES
- Churches
- Libraries
- Post Offices
- Fire/Police

SCHOOLS
- SDSU
- Elementary

MISCELLANEOUS
- Parks
- Open Space
- Mixed Use
- Vacant

- City of San Diego Community Planning Areas
- San Diego State University

NORTH

0 0.25 0.5 Miles

★ The major differences between these two maps are mostly attributable to level of detail. The 1995 map includes more land use categories than the simplified 2000 map.

SDSU MASTER PLAN - Phase 1

The Community Plan encourages the creation of a "community campus" rather than a "commuter campus". The Plan suggests that this transformation could be accomplished in the following ways:

- by providing housing for students near the campus to enhance the community quality of the campus
- creating a mixed-use activity center along College Avenue that becomes a focal point for student life
- developing a strong pedestrian character within the housing/mixed-use development areas to encourage walking, biking, and use of transit

To provide the appropriate development for the transition to a community campus, the Community Plan supports the redevelopment concept authored by the San Diego State University Foundation. The Foundation Redevelopment Plan provides new high-density, mixed-use development in five sub- areas adjacent to the campus. Although a specific land use program has been proposed, the final phasing, type and mix of uses will ultimately be determined by a combination of policy and market conditions.

3.2 Foundation Redevelopment Area

In 1987, the SDSU Foundation ("The Foundation") set out to evaluate the potential to redevelop certain properties contiguous to and surrounding the SDSU campus. Over a period of several years, the Foundation retained marketing, financial, planning, redevelopment and other consultants to evaluate the project. All plans and entitlements necessary to commence the first phase of the project were completed and approved in 1997.

3.2.1 Redevelopment Project- Existing Entitlements

In late 1991, The Foundation entered into agreements with the City of San Diego under which the parties agreed to pursue in good faith the establishment of a redevelopment district and to process related entitlements. The major entitlements were completed in late1993 with the establishment of the College Community Redevelopment Project, certification of an Environmental Impact Report (July 1993), and approval of a Master Project Plan ("MPP"), College Area Community Plan update ("CACP") and College Area Public Facilities Financing Plan ("PFFP") (all in October 1993). In August 1997, the San Diego City Council approved Design Guidelines for the Core Sub-area of the project. This was the final discretionary approval required in order to commence construction of the project. These entitlements provide for the following:

• A 131-acre redevelopment area ("Redevelopment Area") which is broken into five distinct sub-areas which include the Core Area (58.6 acres), 55th Street (23 acres), Alvarado Road (22.4 acres), Lot A (14 acres) and Montezuma School (13 acres). This area and the development planned within it is referred to as the "Project" (Figure 3-1c). The MPP and CACP provide entitlements for 3,100 residential units including 2,650 conventional multi-family units and 450 units in up to 38 group quarters facilities for campus Greek organizations. All of the Greek housing and 2,050 units of the conventional multi-family housing is provided in the Core Area. The balance of 600 conventional units is allowed in the 55th Street Area.

• The MPP and CACP also provide for 1.335 million square feet ("sf") of commercial uses including commercial retail, office, research and development space and certain specialty uses. This includes 300,000 sf of commercial retail space and 45,000 sf of religious centers in the Core Area, 600,000 sf of office, 110,000 sf of R&D and 5,000 sf of retail on Alvarado Road, and a 260,000 sf hotel (including retail and conference space) on Lot A. A 10,000 sf library is permitted on the Montezuma School site and 5,000 sf of retail can be built on 55th Street.

• Parking requirements for residential developments within the project area will be determined according to Section 101.0835 of the City of San Diego Municipal Code. The Design Guidelines recommend shared and off-site parking as potential methods to meet project parking requirements in the residentially-zoned areas. Non-residential parking requirements are 2.5/1000 sf for retail and R&D space, 3.3/1000 sf for office and religious centers and .58/bed for Greek housing. There are no surface parking lots permitted for guest parking adjacent to 55th Street.

The amended zoning in the CACP allows for varying densities and height limits in the Redevelopment Area. The general parameters are summarized below in Table 3-1:

Table 3-1, Redevelopment Area Zoning Summary

Sub-Area	Location	Zoning/Density/Maximum Height
CORE AREA		
Mixed Use	Core Area - East	CN (Commercial, Very High Density Res.), 3.0 FAR, 75-110 du/ac, 5-12 stories
Very high density housing	Core Area - N/S of Hardy Ave	Very High Density Res, 75-110 du/ac,12 stories
Fraternity Area	Core Area - NW	High Density Res. (Fraternity Zone), 45-75 du/ac, 21 Fraternities Max, 5-12 stories
High Density Housing	Core Area - SW	High Density Res, 45-75 du/ac, 3-8 stories
Sorority Area	Core Area - East	High Density Res, (Sorority Zone), 45-75 du/ac, 17 Sororities Max, 3-4 stories
55th STREET	55th St. cul-de-sac	High Density Res, 45-75 du/ac, 4 stories
LOT A	SWC College & Canyon Crest	Visitor Commercial, 2.0 FAR, 12 stories
ALVARADO ROAD	Alvarado Road	Office/Commercial, 715,000 sf, 8 stories
MONTEZUMA SCHOOL	Eastern Montezuma Rd.	R1-5000, 10,000 sf library, 2-3 stories]

3.2.2 Redevelopment Project- Design

The MPP and CACP set forth certain development and design conditions and constraints which effect the project as a whole, and certain Sub-Areas, in particular. In addition, prior to issuance of a building permit for any project within the Redevelopment District, the project will undergo design review for conformance with the Urban Design guidelines. The following are the major conditions of approval which impact projects proposed in the Redevelopment Area:

• Maximum lot coverage of 60%

• In Primarily Commercial or mixed-use projects, a minimum 50% of ground floor space shall be used for retail commercial or personal services (Primarily Commercial being defined as 50% or more of the project being commercial uses)

• Primarily Commercial projects are required to dedicate an additional 10% of the site area (above the standard) as landscaped public use areas.

• Any surface parking is subject to 10-foot setback from public-right-of-way, which setback area shall be fully landscaped.

• A minimum 10% of all parking lots/areas (excluding subterranean and structured parking) shall be landscaped.

• At least 50% of first story street wall in commercial space within the Core Area shall be devoted to pedestrian entrances, display windows or window.

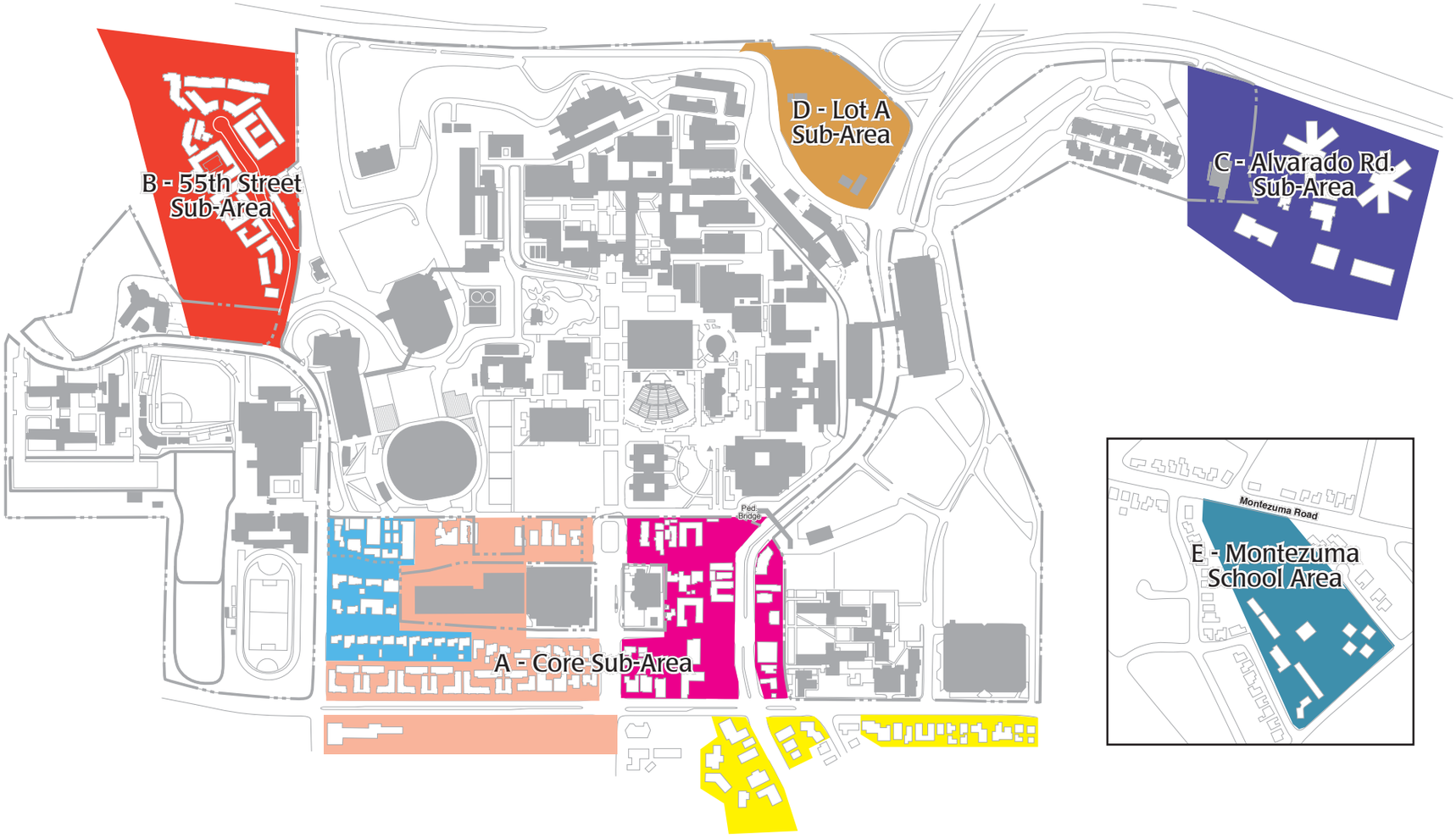
• Off premises billboard advertising is not permitted.

• All Greek housing is required to obtain a Conditional Use Permit

A CENTURY OF LEARNING 1897-1997 SDSU

COLLEGE COMMUNITY REDEVELOPMENT PLAN

Figure 3-1c



- Student Housing & Religious Centers
- Fraternity Housing
- Sorority Housing
- Graduate Student & Faculty / Staff Housing / Retail Services
- Hotel / Conference Center
- Institutional
- Commercial Mixed Use & Student Housing
- University-Serving Office / Research & Development / Retail Services

Note: Information furnished by San Diego State University Foundation.

NORTH NOT TO SCALE

SDSU MASTER PLAN - Phase 1

A CENTURY OF LEARNING
1897-1997
SDSU

LOCAL AERIAL

Figure 3-2

NORTH 0' 200' 400'

SDSU
MASTER PLAN - Phase 1

3.3 Current Campus Land Uses

A variety of activities exist on the campus, most of which require specific types of facilities. The entire campus has been classified under one of eleven land use categories (Figure 3-3). These categories represent similar activities and functions. Generally speaking, none of these activities are detrimental to the other activities of the campus. Under many forms of planning, similar activities are often grouped and separated in order to limit nuisance effects between land uses. This approach to planning, however, assumes that centralization and massing single purpose activities together is beneficial in all cases. In the case of a campus, decentralization generally improves access to a variety of primary and secondary support functions that are necessary to support the general student and faculty daily requirements. A matrix of intermixed land uses is extremely important for a tightly knit campus that must rely on foot and bike traffic for most of its internal circulation.

In general, the land use patterns at SDSU follow a logical and decentralized approach. Large scale parking and vehicular circulation are located at the perimeter of the campus. Housing, which generally needs a buffer zone between private units and busy public spaces, is also kept to the edges of the campus. These areas are next to off-campus residential areas, which helps to provide some additional buffer between highly active on-campus uses and quieter adjacent residential areas. Likewise, the placement of several of the athletic fields on the west end of the campus, provides some additional buffer space between the campus and the adjacent neighborhoods and schools.

The dining and student support services are fairly decentralized and close to where the majority of students attend classroom functions. The larger conference and special event centers occur towards the periphery of the campus, thus making them more accessible to the general public that might use them. The open space / undeveloped portions of the campus also tend to buffer the campus from adjacent off-campus activities. The natural, sloping open space areas, though very limited, serve to ring the campus and help set it apart from adjacent development on the west and east. The interior open space areas are well connected, and despite the overall density of the campus, these spaces still contribute to a spacious and campus-like setting for SDSU.

3.3.1 Major Land Use Liabilities

Despite the generally well-planned nature of the campus land uses, some problems do exist. Below is a listing of tentative land use issues that have also been shown on the campus land use map (Figure 3-3).

1) The redevelopment area south of the campus property (Hardy, Lindo Paseo, and Montezuma Roads) contains land uses that are not appropriate directly adjacent to the front door of SDSU. What once may have been an established residential neighborhood has now become a mixture of residential property that was converted to office uses, and higher density fraternity/sorority housing. These units detract from the campus and are negatively affected by the higher levels of activity found on the campus. Within the area of relatively low density housing, an island of higher density campus functions has leapfrogged over the adjacent development. These activities (Gateway Center, Health Services and Parking Structure 2) generate high levels of vehicular and pedestrian traffic. The connections that could be made through architecture and landscape are missing in this area.

2) Although the student housing areas are appropriately situated on the periphery of the campus, their isolation in these corners has removed them from important dining, recreation and other student services. Development around these facilities should be limited to adding satellite dining, recreation and student activities.

3) The development of the Cox Arena at Aztec Bowl and Recreation Center has caused a substantial centralization of single functions within the central areas of the campus. The disharmony with adjacent uses is related not only to land use functions, but to the different scale and character of these new facilities. Low intensity recreational uses (tennis courts and softball fields) have now been surrounded by high intensity campus and general public activity centers. A closer connection between activity levels, pedestrian connections and spatial arrangements is needed in this area.

4) The proposed Light Rail Transit (LRT) deep tunnel route and transit station locations represent a very difficult challenge for the campus. These facilities will need to be integrated into the functions and circulation patterns of SDSU. The tunnel route and stations present constraints and opportunities for redevelopment.

5) Most of the dining facilities on campus are appropriately located at the central core. Although this is important to the economic viability of these activities since a centralized location serves the most users, the residence are less well served. The recent addition of a intercampus shuttle bus has improved access, however.

6) The storage of hazardous materials on campus is necessary for the operation of the campus. From a land-use standpoint, the concern is that the current locations of these facilities are directly adjacent to a flood plain and a major Interstate Highway. Preliminary investigations into this land use issue point to several factors and safeguards that indicate this should not be a major concern.

7) The remote surface parking lot areas found to the north of Parking Structure 3 are generally underutilized and occur on top of an unstable canyon fill. This unstable ground represents a constraint to future development, yet it also offers an opportunity to establish land uses in this area that would help to support the East Residence Halls.

A CENTURY OF LEARNING
1897-1997
SDSU

EXISTING CAMPUS LAND USE

Figure 3-3

LEGEND

- Academic
- Administration
- Food Services
- Recreation / Play Fields
- Housing
- Parking Structures / Lots
- Plant Services & Support
- Biological & Habitat Areas
- Student Services
- Conference / Special Events
- Public Service
- Campus Boundary
- Future Light Rail Transit Route
- ① Major Land Use Liabilities

SDSU
MASTER PLAN - Phase 1

3.4 Facilities and Related Land Uses

All of SDSU's Main Campus facilities belong to one or more of the designated 11 land uses on and around the Main Campus. An inventory of all current facilities is represented by 13 separate tables corresponding to each land use, excluding Biological Habitat.

For each land use, the facilities are broken down into 4 items: Facility number (this number refers to its location on the Land Use Map, Figure 3-3 as well as on the campus index, Figure 3-4), Facility name, Date Completed, and Gross square feet or GSF (except for "Outdoor Recreation", which is shown in acres). Each facility is assigned to a land use table based on its primary land use. Some facilities encompass two or three land uses.

The 11 land use categories are:

- Academic
- Administration
- Biological and Habitat
- Conference / Special Events
- Food Services
- Housing
- Parking Structures
- Plant Services and Support
- Public Services
- Recreation
- Student Services

Table 3-2, Academic Facilities (Ordered by Completion Date)

Facility Number	Facility Name	Date Completed	Facility GSF
26	Hardy Tower	Jan '31	45,506
11	Little Theatre	Jan '31	8,393
2	Hepner Hall	Jan '31	38,156
10	Life Science South	Jan '31	40,861
17	Physical Sciences	Jan '31	33,588
21	Physical Education	July '33	52,707
202	Greenhouse (T32)	June '47	750
204	Chemical Storage (T35)	June '47	1,065
27	Prof Studies& Fine Arts	July '47	85,502
1	Artl (South)	July '50	3,068
9	Industrial Technology	July '53	1,962
12	Speech & Telecommunications	July '54	43,233
14	Physics-Astronomy	July '54	27,539
5	Engineering Lab	July '56	12,460
6	Education	July '57	17,004
7	Family Studies	July '57	15,909
8	Storm Hall	July '57	97,952
18	Nasatir Hall	July '57	44,241
13	Physics	July '59	48,752
28	Communications Clinic	Dec '59	14,114
3	Chemistry-Geology	Feb '60	121,437
38	North Education	June '60	36,132
38 A	North Education -60	June '60	1,960
22	Computer Appl. Mechani	Jan '62	1,710
19	Engineering	Jan '62	98,316
35	Life Science North	Dec '62	135,683
37	Business Admin & Math	July '64	149,695
20	Physical Education Annex	Dec '66	7,471
36	Dramatic Arts	May '67	65,388
53	Music	Nov '69	79,152
54	Love Library	Jan '71	343,744
56	Art II (North)	Feb '77	94,594
58	Adams Humanities	Mar '77	101,857
97	Rehabilitation Center	Oct '78	9,600
59	Student Services East	Jan '91	65,448
3A	Chem/Geo Addition	Mar '93	15,240
76	Love Library Addition	Apr '96	201,000
72A	Gateway Center/Ex Studies	May '92	97,305
		TOTAL	**2,258,494**

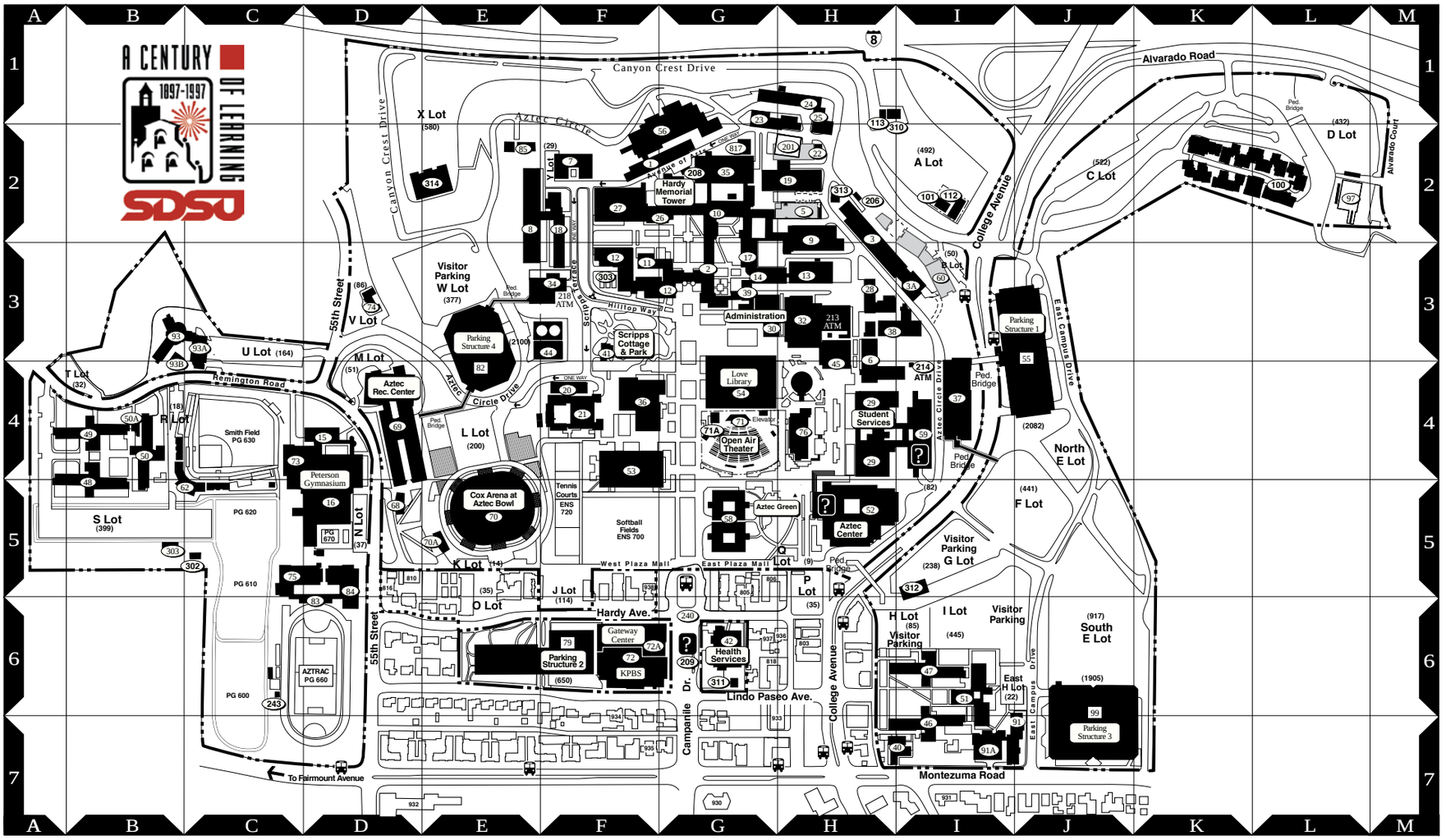
3.4.1 Academic Facilities

Academic buildings on campus are occupied by entities which provide direct instruction and general academic support. Academic building functions include facilities designed for classrooms, laboratories, instructional support, and faculty offices including departmental administrative support. The campus enrollment population size, available facilities, age and condition of the facilities and availability of maintenance and building upgrade funding are of continual concern in this dynamic environment. Consequently, campus planners must work to maintain a delicate balance to provide facilities which continuously meet changing academic program requirements. The instructional and academic facilities on campus, as with all of the campus facilities, range in building size, space layouts and equipment, physical condition, and maintenance needs. While much data has been compiled on this subject, this information can be garnered from numerous existing reports and is beyond the extent of this study.

Building Name	Bldg. #	Map Grid
Academic Advising	29	H-4
Adams Humanities	58	G-5
Administration	30	G-3
Admissions & Records	29	H-4
Affirmative Action / Education Programs	59	I-4
Alumni House - Basketball	816	D-5
Alvarado Medical Center		
Building 1 (6475 Alvarado Road)	907	M-2
Building 2 (6505 Alvarado Road)	908	N-2
Building 3 (6495 Alvarado Road)	909	M-2
Building 4 (6330 Alvarado Court)	910	M-2
Building 5 (6310 Alvarado Court)	911	M-2
Building 6 (6363 Alvarado Court)	912	M-3
Rehabilitation Center (6361 Alvarado Court)	97	L-2
American Language Institute	72A	F-6
Annex	806	G-5
Art - South	1	G-2
Art - North	56	G-2
Athletics	15	D-4
ATM Kiosk	213	H-3
ATM Kiosk	214	I-4
ATM Kiosk	218	E-3
Aztec Athletic Foundation	15	D-4
Aztec Bowl Arena	70	E-5
Arena Ticket Office	70A	E-5
Aztec Bowl Student Activity Center Classroom	68	D-5
Aztec Center	52	H-5
Aztec Recreation Center	69	D-4
Aztec Shops Bookstore	45	H-3
AZTRAC	PG 660	D-6
Track Ticket Booth	243	C-6
Basketball Offices	816	D-5
Betty's Hotdogger	208	G-2
Business Administration & Mathematics	37	I-4
Business & Financial Affairs	30	G-3
CAM Lab (Computer Aided Mechanics)	22	H-2
Campus Child Care Facility	85	E-2
Career Services	59	I-4
Cashier's Office	29	H-4
Centennial Hall	76	H-4
Chabad House Lubavitch	931	I-7
Cholula Hall	93A	C-3
Chapultepec Residence Hall	93	B-3
Chemistry (Office Trailer)	206	H-2
Chemistry / Geology	3	H-3
Chemistry / Geology Addition	3A	I-3
Child Care - Faculty / Staff	Off Campus	
Chill Plant	44	F-3
Cogeneration Plant	25	H-1
College Park Presbyterian Church	930	G-7
Communications Clinic	28	H-3
Computer Center	37	I-4
Counseling & Psychological Services	59	I-4
Courtyard Cafe	32	H-3
Disabled Students Services	29	H-4
Dramatic Arts	36	F-4
East Commons	32	H-3
Education	6	H-4
Educational Opportunity / Ethnic Affairs	59	I-4
El Conquistador	932	D-7
El Nido - KPBS	803	H-6
Emerald Isle	818	G-6
Engineering	19	H-2
Engineering Lab	5	H-2
Evaluations	29	H-4
Exercise & Nutritional Sciences	21	F-4
Exercise & Nutritional Sciences Annex	20	F-4
Extended Studies Complex	72A	F-6
ESC Classroom - West	810	D-5
Facilities Planning & Management	30	G-3
Faculty/Staff Center	39	G-3
Family Studies & Consumer Sciences	7	F-2
Field Equipment Storage	302	C-5
Financial Aid	29	H-4
Football Operations Center-Athletics Offices	83	D-5
Athletics Training Facility	84	D-5
Football Coaches Offices	75	C-5
Weight Training Facility	75	E-5
Foundation Administration Office	72A	F-6
Gateway Center / Extended Studies	72A	F-6
Graduate Division & Research	30	G-3
Grounds Storage	303	B-5
Hardy Memorial Tower	26	G-2
Health Services	42	G-6
Hepner Hall	2	G-3
Housing & Residential Life	40	H-7
Industrial Technology	9	H-3
Information Booth (Parking)	209	G-6
Institute of Religion - LDS	933	G-6
International Student Center	74	D-3
Intersection House	934	F-7
Jewish Campus Center	935	F-7
KPBS Offices	72	F-6
KPBS-FM Studio	72	F-6
KPBS-TV Studio	72	F-6
Leisure Connection	805	G-5
Life Science - North	35	G-2
Life Science - South	10	G-2
Life Science Annex	817	G-2
Little Theater	11	F-3
Love Library	54	G-4
Lutheran Campus Center	936	H-6
Maintenance Garage	101	I-2
Maya Residence Hall	46	I-7
Monty's Den	52	H-5
Monty's Market	93B	B-3
Montezuma Hall	52	H-5
Music	53	F-4
Nasatir Hall	18	F-2
North Education	38	I-3
Newman Center	937	G-6
Olmeca Residence Hall	47	I-6
Open Air Theater	71	G-4
Open Air Theater Hospitality House	71A	G-4
Parking Structure 1	55	J-3
Parking Structure 2	79	F-6
Parking Structure 3	99	J-7
Parking Structure 4	82	E-4
Personnel	30	G-3
Peterson Gymnasium	16	D-5
Physical Plant	24	H-1
Physical Plant - Boiler Shop	23	H-2
Physical Sciences	17	G-3
Physics	13	H-3
Physics / Astronomy	14	G-3
Playfield	PG 600	C-6
Playfield	PG 610	C-5
Playfield	PG 620	C-5
Police / Public Safety	59	I-4
President's Office	30	G-3
Professional Studies & Fine Art	27	F-2
Purchasing / Contracting	30	G-3
Racquetball Courts	73	C-4
Resource Conservation	112	I-2
ROTC	21	F-4
SDSU Communications Clinic	910	M-2
SDSU Interdisciplinary Center	910	M-2
SDSU / UCSD Clinical Psy. & Ph. D. Program	912	M-3
Scholarship Office	29	H-4
Scripps Cottage & Park	41	F-3
Shipping / Receiving / Mail	314	E-2
Smith Field	PG 630	C-4
Softball Field	ENS 700	F-5
Speech / Telecommunication	12	F-3
Sports Medicine	84	D-5
Sportsman Field - AZTRAC	PG 660	D-6
Storage Building	201	H-2
Storage Shed	310	H-1
Storm Hall	8	E-2
Student Health Services	42	G-6
Student Outreach Services	59	I-4
Student Resource Services	29	H-4
Student Services - East	59	I-4
Student Services - West	29	H-4
Sub-station A	313	H-2
Sub-station D	311	G-6
Sub-station B	312	I-6
Tarastec Residence Hall	48	B-4
Templo Del Sol	50A	B-4
Tennis Courts	ENS 720	F-5
Tenochca Residence Hall	91	I-7
Terry Pool	PG 670	D-5
Test Office	29	H-4
Toltec Residence Hall	49	B-4
Tony Gwynn Stadium	62	C-5
Press Box/Ticket Office	62	C-5
Baseball Weight Room	62	C-5
Baseball Ticket Office	62	C-5
Transit Center	240	G-5
Tula Hall	91A	I-7
Undergraduate Office	30	G-3
Veteran Affairs	29	H-4
Villa Alvarado Residence Hall	100	K-2
Waste Facility	113	H-1
Wesley Methodist Foundation	938	F-5
West Commons	34	F-3
West End Plaza	34	F-3
Zapotec Residence Hall	50	B-4
Zura Residence Hall	51	I-6

CAMPUS MAP

Figure 3 - 4



General Information

		Bldg. No.	Grid Key
?	Information Center	52, 59	H-5, I-4
?	Information - Parking	283	G-6
	Transit Center	475	G-5
	Campus Boundary		
	Restricted Access Lanes		

Parking Type

Student	S	Handicapped	
Resident Student	R	Special Permit	SP
Faculty / Staff	FS	Motorcycles	
Visitor / Metered	MV	S D Transit	

Parking Index

Lot Name	Grid Key	Parking Key
A Lot	I-2	S
B Lot	I-3	FS SP
C Lot	J-2	S SP
D Lot	L-2	S
E Lot (South)	J-6	S
E Lot (North)	J-4	S
F Lot	J-5	FS
G Lot	I-5	MV SP
H Lot	I-6	SP MV
I Lot	I-6	FS SP MV
J Lot	F-5	FS

Lot Name	Grid Key	Parking Key
K Lot	D-5	
L Lot	D-4	SP
M Lot	D-4	MV SP
N Lot	D-5	FS SP
O Lot	E-6	SP
P Lot	H-6	MV
Q Lot	H-5	
R Lot	B-4	SP
S Lot	B-5	SP R
T Lot	B-4	R
U Lot	C-3	R

Lot Name	Grid Key	Parking Key
V Lot	D-3	S SP MV
W Lot	E-3	FS MV SP
X Lot	E-1	S FS SP
Y Lot	F-2	SP
Parking Structure 1	J-3	FS SP S
Parking Structure 2	F-6	FS SP
Parking Structure 3	J-7	S
Parking Structure 4	E-4	FS SP S
Student Services	I-4	SP

NORTH 0' 200' 400'

SDSU

MASTER PLAN - Phase 1

Instead, a look at issues on the horizon affecting academic facilities and the campus environment may prove more instructional. The following suggests academic issues of current relevancy and provides a review of their status.

• There are currently twenty-eight Electronic (Smart) Classrooms in service in various facilities throughout the campus. These classrooms provide students with the benefit of electronic, interactive instruction at each station. While individual classrooms setups vary, the equipment provided often includes a combination of the following capabilities.

Audio/Visual
+ video projector
+ video disc
+ visual presenter
+ video tape
+ closed circuit (CCTV)
+ audio public address
+ computer (audio and visual)

Computer
+ computer (MAC, PC, MAC/PC Platform)
+ CD ROM
+ removal hard drive
+ computer network connectivity

• The campus supports the concept of providing instruction through the use of electronic classrooms and plans to double the current inventory of electronic classrooms over the next three years.

• Changing instructional requirements and enrollment trends shift classroom configuration requirements periodically. Current projections suggest the campus is in need of several large lecture spaces. Planners are currently surveying for opportunities to establish the best way to resolve these needs. Locations for lecture halls with capacities ranging from 250 -500 stations are being sought.

• Due to the age of the campus and the intensity of use, a dependable maintenance plan is a must. Recent years have witnessed a CSU-enacted policy of deferred building and infrastructure maintenance funding opting to reallocate these dollars to other programs. While a continuance of this precedent would be of great concern, the campus maintenance program has persevered. The list of maintenance conditions continues to require daily diligence but the issues affecting the instructional programs are most readily centered around the provision of adequate electrical capacity and heating, ventilating and air conditioning (HVAC) systems to academic environments, especially instructional laboratories. Electrical requirements have been substantially increased by bringing computers and related equipment to existing facilities which were not designed to accept the loads now imposed upon them. Additionally, the campus continues to operate facilities without the installation of air conditioning. Each of these conditions requires substantial upgrades to the existing campus infrastructure.

• The University will be offering Distance Learning. Studies are currently being conducted to evaluate the programs to be offered, the space requirements and whether the associated facilities will be housed in a centralized or decentralized manner.

• Evaluations are under way to assess how to best increase classroom utility. This issue is being addressed with knowledge of a latent population of students not yet attending the University. With a potential increase of students on the horizon from both Tidal Wave II and the population of individuals that wish to attend classes but for either schedule or program availability reasons are not currently enrolled, planning is underway to accomodate this population. Increasing classroom utility by increasing the availibility of classrooms for both longer hours or during non-traditional hours are methods under discussion to accomodate this influx. Additionally, alternative program offerings are being studied.

• More faculty offices are needed. Facilities built during the classroom boom of the 1950's, and others designed by the Office of the State Architect, frequently accomodated faculty in double station offices. Over time these accomodations proved to be distracting for one-on-one student / faculty discussions. Accomodating faculty computer equipment in double station layouts, which have limited space and were designed for limited equipment, also proved difficult. In response to modern faculty requirements, individual faculty members now occupy many of the offices originally designed to accomodate two stations. Additionally, the academic Departments of Teacher Education, Psychology

and Public Health oversee faculty operated programs for which the campus does not have the capacity to provide housing for these faculty members or programs on campus. Many of these programs also have specific laboratory and/or clinical requirements which, regrettably, must also be accomodated in a variety of locations off campus. This condition is undesirable for many reasons and one for which a solution must be sought.

• The campus is in need of various new buildings to house campus programs. A new classroom building is needed to accomodate classroom requirements for current and future student population trends. A Psychology building and clinical training center should be evaluated which would serve to accomodate the present off-campus facilities currently held under lease agreement. The campus is in need of a new Public Health building to house public health programs on campus. The Public Health programs are currently split between three separate facilities which are located off-campus.

• The University currently leases over 22,000 sf. of space adjacent to the campus for University use. The SDSU Foundation provides space for sponsored projects in leased facilities immediately adjacent to the campus (19,000 sf.), at the Alvarado buildings (74,000 sf.) and at Skypark (37,000 sf.) approximately 12 miles north of the campus. These facilities primarily house programs sponsored by the Graduate School of Public Health, Psychology, Math, Communicative Disorders and Social Work. These facilities house permanent state supported programs which should be permanently relocated to on campus facilities to eliminate the necessity for space rental funding and the feeling of campus disassociation expressed by many of the faculty.

• The renovation of campus buildings is an on-going process to provide for currency with building, seismic and handicapped accessibility codes. Academic program growth, shifting or restructuring are also common reasons for building renovation and upgrade. The renovations of both the Business Administration and Math (BAM) Building and the Chemistry and Geology (CG) Building are currently necessary to allow for academic shifting of programs in the College of Education. Current configurations and technology will not be adequate to meet future program needs in these 1960's era buildings.

• The San Diego State University campus is presently designed to meet the needs of 25,000 full-time equivalent students in the tradional pattern of enrollment. With student population growth projections on the rise, campus planners are exploring other opportunities. Evaluation and assessment of potential alternatives will be examined including the possibility of a South San Diego County campus site.

Please refer to Table 3-2 for a summary of current academic building inventory.

3.4.2 Administration

Please refer to Table 3-3 for a summary of current administrative building inventory.

3.4.3 Biological Habitat

Please refer to Figure 3-3 for a display of areas currently classified as biological habitat.

3.4.4 Conference / Special Events

Aztec Center's satellite facilities will continue to play important roles in serving the needs of the campus community (Table 3-4). Scripps Cottage consists of 1,990 sq. ft. of lounge and reservable space for meetings, musical performances, poetry readings, lectures and receptions. Its adjacent patio and green space are popular locations for outdoor picnics and other activities. The Open Air Theater is a 4,800 seat outdoor amphitheater located adjacent to Love Library and Centennial Hall. Constructed in 1941, it continues to be a functional facility for concerts, lectures, community events, commencements and other large-group activities. The Housing Facilities of Tula Hall and Cholula Hall provide conference and special event opportunities as well.

Table 3-3, Administration Facilities (ordered by completion date)

Facility Number	Facility Name	Date Completed	Facility GSF
30	Administration Building	Jan '53	53,392
40	Housing/Residential Life	June '56	7,142
76	Centennial Hall	April '96	9,000
817	Dean of Sciences Extension	June '92	2,880
		TOTAL	**72,414**

Table 3-4, Conference / Special Events Facilities (ordered by completion date)

Facility Number	Facility Name	Date Completed	Facility GSF
41	Scripps Cottage	June '32	1,990
71	Open Air Theater	May '41	109,990
91A	Tula	?	15,750
93A	Cholula	1992	4295
		TOTAL	**132,025**

3.4.5 Food Services

A large, self contained campus such as SDSU requires extensive on-campus food service facilities to serve a diverse population of students, staff and visitors (Table 3-5). All meals and snacks sold on the SDSU campus are the responsibility of Aztec Shops Food Services Division. Cash sales at SDSU average 17,000 transactions daily, plus another 4,800 transactions to residential hall students holding meal cards. Food service facilities include six concessionaires and 58 vending machines operated by two contractors. More than 400 employees, working almost around the clock, seven days a week, are required to meet the requirements of the campus.

Food Services' progressive concepts and strategies incorporate into the campus some of the most popular food chains on the market. These include a Taco Bell unit, a Kentucky Fried Chicken unit, an Arby's and two Sbarro pizza/pasta stores. Food Services also recognizes the renewed popularity of coffee houses and now operates three units on campus.

The East and West Commons are the primary food service facilities on the San Diego State University campus. The renovation work in the East Commons that started in March, 1997 will change the operation from a cafeteria-style facility to a tenant-occupied food court (McDonalds). Confining interior walls and previous remodeling had resulted in inefficient customer access and circulation. The existing East Commons could not accommodate the new style of service. The renovation will enhance visibility, access and the flexibility of the space because interior constraints will be removed. That design decision will enable great numbers of customers to be served at the same time, a need that occurs during peak hours several times a day. Adjacent exterior spaces are designed to direct access, ensure security and provide opportunities for outside patio dining and social interaction.

The West Commons renovation project increases kitchen and restroom capacity, addresses handicapped accessibility and allows for additional dining service capacity, a necessary requirement particularly while the East Commons is closed for renovation.

Table 3-5, Food Service Facilities (Ordered by Completion Date)

Facility Number	Facility Name	Date Completed	Facility GSF
39	Faculty/Staff Center	Jan '32	5,518
208	Hotdogger	?	?
32	East Commons	Jun '58	47,143
32A	East Commons Addition	July '61	12,643
34	West Commons	Feb '65	24,850
93B	Monty's Market	Sept. '92	1,708
		TOTAL	**91,862**

Faculty/Staff Centre

Completed in January of 1932 as an early addition to the original campus core. The Faculty/Staff Centre originally housed the Campus Bookstore and Campus Dining Rooms. The Long Room, now designated as the conference room was the location of the bookstore. The present dining room and lounge areas provided space for both a student dining area and a faculty dining area. In the 1950's, the patio was added to serve larger numbers of patrons. When the bookstore left for lack of room, the vacated space housed various student government offices, conference rooms, and the Faculty Senate over the years.

When the present bookstore and East Commons were built, the building became a Faculty Lounge, supported by voluntary contributions from the faculty, and operated by Aztec Shops. When Aztec Shops proposed closing it, the Senate appointed a committee to study the feasibility of a facility to serve faculty and staff. In 1974 that committee formed a corporation and, as the Board of Directors, enlisted over 300 members. The corporation retained an architectural firm to renovate the Centre at a cost of $120,000.

The Centre serves lunch year round and manages meeting rooms. There are currently about 380 members who pay monthly dues based on a three tiered salary scale. The Centre receives no money from the University and has Aztec Shops provide Food Service through contracts. The sole employee of the Centre is the manager, who manages the daily lunches and plans meetings, or occasionally special events, like weddings.

Table 3-6, Residence Buildings

	Completed	Designed Rooms	Designed Spaces	Operating Spaces*	GSF
East Residence Hall Complex					
Maya Residence	Dec-59	114	223	212	39,000
Olmeca Residence	Dec-59	114	223	212	39,000
Tenochca Residence	Sep-82	200	424	340	78,637
Zura Residence	Aug-68	342	594	564	128,000
Tula Hall (Conf.)	Sep-84	---	---	---	15,750
West Residence Hall Complex					
Chapultepec Resid.	Sep-92	300	590	460	115,875
Cholula Hall (Conf.)	Aug-92	---	---	---	4,295
Templo del Sol Complex					
Office/Main Desk	Apr-95	---	---	---	1,710
Tarastec Residence	Dec-59	114	223	199	39,055
Toltec Residence	Dec-59	114	223	152	39,055
Zapotec Residence	Dec-59	114	223	190	39,055
Student Apartments					
Villa Alvarado Apts.	Jan-86	90	354	344	95,425
TOTAL RESIDENCE HALLS & APTS.		**1,502**	**3,077**	**2,673**	**634,857**

*Operating spaces do not include Resident staff or displaced spaces in Doubles-as-Singles, Super Singles, or Study Lounge Conversions.

3.4.6 Housing

University housing is operated by the Housing and Residential Life Office under the Division of Student Affairs. The goal of the residential life program is to emphasize and increase student development and to assist the University's efforts for student recruitment and retention. The objective is the creation of an environment which will support students' intellectual and personal growth for those who choose to live on campus during their college years. Housing and Residential Life supports the concept of successful special interest (affinity) housing programs and the Graduate / reentry program. In addition, new options are underway which include the Aztec Engineering Residence, International Business housing and the Living Learning Center. Various other new programs are under discussion and new ideas are currently being encouraged. One such concept includes the analysis and development of the Residential Dining program with options to better meet the needs of residential students. The Housing and Residential Life Office has also expressed interest in participating in discussions of student center space and recreational space and are progressing aggressively in efforts to renovate and refurbish existing on-campus housing. They stand behind the Brailsford and Dunlavey Study recommendations to pursue a detailed analysis of housing and/or retail demand prior to approval of any new housing proposals. They strongly advocate a Redevelopment Plan that would enhance the campus physical environment for marketability, profitability, social mission and safety without financial risk or liability to the University.

From 1970-1990, the campus Residence Hall occupancy rate averaged near 100%. In 1991, occupancy dropped to 91% as a result of a decrease in enrollment and, especially pertinent to the residence halls, in first-time freshmen enrollment. The following year, when Chapultepec was completed, an additional 580 spaces were added, the enrollment declined even more, and occupancy dropped to 74%. Since that time, occupancy has grown to 83%, 87%, 91%, and is at 87% in 1996-97.

Table 3-7, Housing Facilities (ordered by completion date)

Facility Number	Facility Name	Date Completed	Facility GSF
49	Toltec Hall	Dec '59	39,055
46	Maya Hall	Dec '59	39,000
50	Zapotec Hall	Dec '59	39,055
47	Olmeca Hall	Dec '59	39,000
48	Tarastec Hall	Dec '59	39,055
51	Zura Hall	Aug '68	128,000
91	Tenochca	Sep '82	78,637
100	Villa Alvarado Apartments	Jan '86	95,425
93A	Cholula Hall	Sep '92	4,295
93	Chapultepec Hall	Sep '92	115,875
50A	Templo Del Sol	Apr '95	1,710
91A	Tula Hall	?	15,750
		TOTAL	**634,857**

A listing of the Residence Halls by site and space allowances is shown in Table 3-6 and summarized on Table 3-7.

Approximately 600 students are housed in 24 Greek Letter Residential Houses. These houses are privately owned and while not on campus, they are located within close proximity.

3.4.7 Parking Structures

Parking facilities include the total available number of parking spaces on the campus, including surface lots and parking structures (Table 3-8). A Department of Facilities Planning and Management study- entitled Parking Circulation Systems Facilities Report, Spring 1997- notes there were a total of 12,289 parking spaces including student, faculty, visitors, permitted and metered spaces at this time.

Table 3-8, Parking Structures (ordered by completion date)

Facility Number	Facility Name	Date Completed	# of Spaces	Facility GSF
55	Parking Structure 1	Oct '75	1945	594,933
79	Parking Structure 2	Aug '82	600	197,862
99	Parking Structure 3	Oct '86	1881	520,202
59A	Student Services Garage	Jan '91	80	36,639
82	Parking Structure 4	May '94	2091	577,614
		TOTAL	**6,597**	**1,927,250**

Table 3-9, Plant Services & Support Facilities (ordered by completion date)

Facility Number	Facility Name	Date Completed	Facility GSF
23	PH Plant Boiler Shop	June '32	9,012
201	Receiving / Material / Mail	1947	8,100
24	Physical Plant	July '62	27,480
44	PH Plant Chill Plant	June '72	75,559
101	Garage, Physical Plant	May '84	3,532
112	Hazmat Building	Aug '84	1,920
44A	Tes Add to Chill Plant	Sep '93	9,224
25	PH Plant Cogen Plant	?	5,020
310	EHS Storage (A LOT)	?	1,920
314	Business Services Bldg.	June '97	29,625
		TOTAL	**171,392**

3.4.8 Plant Services and Support

San Diego State University operates utility plants 24 hours a day every day of the year (Table 3-9). The campus purchases electricity and natural gas from San Diego Gas and Electric. Water and sewer services are purchased from the City of San Diego. The utility plants on campus are managed by the Department of Physical Plant. The campus generates its own steam, chilled water, and a portion of the electricity. In addition to these utilities the campus also generates over 2,800 tons of waste each year. Details of each area are given below.

Electricity

San Diego State University is SDG&E's 16th largest electric customer. The campus purchased over 24,000,000 kwhs of electricity in fiscal year 95/96. Summer peak demand is approximately 8 mega watts and winter peak demand is around 7 mega watts. The campus received service at 12 kV from three separate SDG&E circuits. The campus owns and maintains high voltage substations at these service points and also maintains a fourth high voltage substation at the Central Chiller Plant. From the substations the power is distributed to the individual buildings at either 12 kV or 4,160 volts. A unique feature of the campus distribution system is that power can be looped from one substation to another. In the event of a prolonged outage on one SDG&E circuit power can be brought from one of the other circuits to that portion of campus. In addition to purchased electricity, the campus generates approximately one third of the campus's requirements at the Cogeneration Plant.

Cogeneration

The campus cogeneration plant consists of a Solar Centaur gas turbine engine rated at 4500 horsepower which drives a 3 mega watt generator. Exhaust gas is routed through a waste heat boiler which produces approximately 14,000 lbs/hr of saturated steam at 125 psi. Through the production of both electricity and steam from the same fuel source the campus realizes annual savings in excess of $1 million. The campus generated 14,841,440 kwh of electric power in fiscal 1995/96 or 38% of the total campus consumption.

Steam Plant
In addition to the waste heat boiler the campus operates three additional boilers as necessary to meet campus demand. These boilers are rated at 25,000 lbs/hr, 17,000 lbs/hr, and 10,000 lbs/hr output of 125 psi steam. The boilers are staged to achieve the highest firing rates and efficiencies possible. The boilers are typically fired with natural gas although a backup diesel fuel capability is maintained. In FY 95/96 the campus used approximately 900,000 therms of gas for the boilers. Steam is distributed to campus at 125 psi through over two miles of underground piping. At each building, steam is utilized to provide space heating, domestic hot water, and to enable lab/kitchen uses. The condensate is then returned to the steam plant through underground piping where it is reused.

Chilled Water Plant
The campus operates a central chilled water plant which produces chilled water for use in air conditioning the campus. The Central Chill Plant contains three chillers; a 1,000 ton electric, a 1,200 ton electric, and a 1,000 ton steam absorber. In addition to the chillers, the plant maintains 24,000 ton hours of thermal energy storage in two water storage tanks of approximately 1,000,000 gallons capacity each. The chillers are typically operated late at night and charge the tanks with chilled water. During the morning and evening hours the chillers provide chilled water to campus. During the afternoon peak hours water is then pumped from the tanks. Water is distributed by two 300 horsepower variable speed pumps through underground piping. In addition to the central chill plant, the campus operates a satellite plant of two 400 ton steam absorption chillers. This plant runs 24 hours per day and provides cooling when the central plant is charging the thermal energy storage tanks.

Water
The campus is served by four main city water meters. Water is distributed throughout campus by a looped system. In 1995/96 the campus used over 100 million gallons of water. This includes uses for academic labs, classrooms, restrooms, showers, irrigation, utility systems, cleaning, and construction.

Waste Removal
The campus generates over 2,800 tons of waste each year including food service operations and green waste from grounds maintenance. Over the last three years the campus have reduced the waste stream by approximately 22% and now diverts over 25% of the waste away from the landfill through an aggressive recycling program.

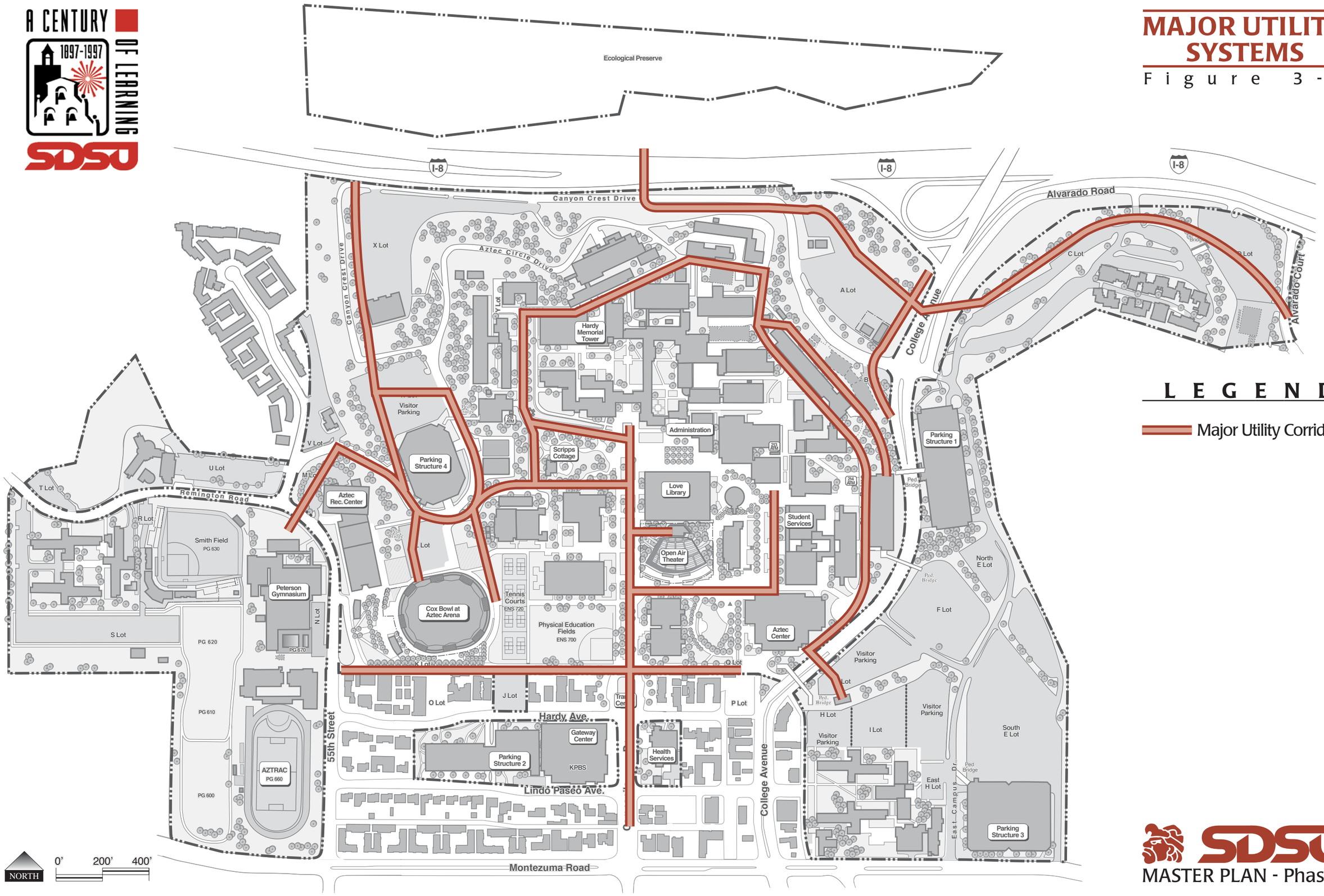
Telecommunications
The Department of Telecommunication & Network Services operates both the telephone and data services for the campus. The department maintains a large network infrastructure known as the SDSU net and comprised of several local area network topologies with different bandwidth requirements, connected to form one campus network. Each local area of the network has a significant impact on the daily tasks of the San Diego State University population. Applications such as e-mail, remote access, Internet research, file transfer, mainframe access, multimedia, and distance learning are all dependent on network performance.

The campus network backbone consists of a high speed FDDI ring connecting 6 Cisco routers that direct network traffic to its final destination. Each of these routers acts as a hub location connecting many buildings to the network via a fiber optic cable structure.

A CENTURY OF LEARNING
1897-1997
SDSU

MAJOR UTILITY SYSTEMS

Figure 3-5



LEGEND

Major Utility Corridors

SDSU
MASTER PLAN - Phase 1

3.4.9 Public Services

There are two public service providers located within the SDSU campus; KPBS Television and Radio, and child care facilities for both students and faculty/staff.

KPBS
KPBS Television and Radio, San Diego's only public broadcasting stations, is located on the SDSU campus at the south end of Gateway Center, on the corner of Lindo Paseo Avenue and Campanile Drive. KPBS is licensed to the Board of Trustees of the California State University and is under the direction of a General Manager. It is staffed by 109 full-time and 67 part-time employees with an annual operating budget of nearly $13 million. More than 40 percent of the budget comes from contributions of nearly 65,000 community supporters. The rest of the budget funding is spread among corporations and businesses, federal government, SDSU, and from grants, projects and major independent donors.

Television
KPBS television has been broadcasting in San Diego since 1967 and is anchored by PBS flagship programs such as "Sesame Street" and "Nova". KPBS also produces programs on local issues in cooperation with independent producers, such as "Under the Knife", which examines the business of Health Care in San Diego.

Community Outreach
Through outreach projects, KPBS provides the community with tools to recognize and solve problems, including a campaign to decrease youth violence and promoting science education in partnership with regional schools.

Radio
KPBS radio 89.5 FM , which signed on in September, 1960, is where San Diegans find news and information from National Public Radio and KPBS' local reporters. NPR's respected and influential news programs offer complete coverage of important national and international issues. NPR's news programming is complemented by KPBS Radio's own daily interview/call-in programs, as well as the station's award-winning weekday newscasts which feature reports on local issues and events.

Table 3-10, Public Service Facilities (ordered by completion date)

Facility Number	Facility Name	Date Completed	Facility GSF
72	KPBS Radio/TV	?	67,340
		TOTAL	**67,340**

3.4.10 Recreation

The campus currently has three distinct and separate organizations supporting athletic and recreational programs at San Diego State University; Athletics, Exercise and Nutritional Sciences and Associated Students. The Athletics department, with its extensive staff of coaches, coaching assistants, and program coordinators, sponsors a broad range of varsity intercollegiate athletics for women and men. Programs include but are not limited to men's baseball, women's softball, basketball, football, cross-country, swimming, tennis, soccer and golf. These teams are part of the National Collegiate Athletic Association and compete in the 16 member Western Athletic Conference, the largest in the country.

Exercise and Nutritional Sciences is a formal academic program leading to degrees in physical education, exercise physiology and kinesiology. Courses offered include both academic and recreational/sport oriented activities. These include basketball, football, baseball, track and field, volleyball, and other additional courses as required.

The Associated Students employs a professional staff that manage an extensive physical recreation and intramural program in facilities either leased from or shared with the campus. Associated Students offers a variety of programs and services which encompass a broad range of activities in support of both students and faculty. These activities include management of the new Aztec Recreation Center, Aztec Center bowling and video games, Mission Bay Aquatic Center, the Leisure Connection as well as a host of recreational activities to include intramural sports, weight training, tennis, racquetball. Their intercollegiate sport club teams participate nationally.

All of these programs share the limited assets of the campus. These include recreation fields, the Peterson Gym, Aztec Recreation Center, tennis courts, the Terry Pool etc. Currently there is a critical shortage of recreational space available to support many of the programs to their full extent. In 1967, with a campus FTE of approximately 18,000 students, the recreation / playfield area totaled almost 28 acres. Due to campus facility expansion in 1997, with an FTE of approximately 29,000, the recreation / playfield area totals only approximately 19 acres. Existing field space is limited to three fields for recreation with only one being lit for night activities. These fields are heavily used by Sports Club field activities and intramural sports (flag football, soccer, and softball). These same fields are utilized by the SDSU Marching Band for rehearsals and Exercise and Nutritional Science programs and activities. Finding ways to increase the quantity and availability of outdoor recreation field space is a critical unmet need on the campus.

Terry Pool is the only aquatic facility on campus whose principal users are Athletics and the Department of Exercise and Nutritional Sciences (ENS), limiting student recreational usage to a mere 2.5 hours per day during the academic year. There is a strong demand for increased recreational usage, causing the Associated Students to identify a new aquatic complex as its top priority for future student facilities. There is strong interest in creating a recreational aquatic complex on the campus that would provide at least one sand volleyball court, 50 meter by 25 meter pool with ample decking area, wading pool and diving tank with 1 and 3 meter diving platforms and barbecue area suitable for socializing, sunbathing, picnics and group activities.

The Mission Bay Aquatic Center is a cooperative collegiate waterfront facility located in Mission Bay Park, approximately 12 miles west of the campus, and operated in cooperation with the University of California, San Diego. The facility was built in 1975 by the Associated Students on public park land leased from the City of San Diego and consists of a 12,000 sq. ft. structure with a 12,000 sq. ft. perimeter yard, housing classrooms, men's and women's shower room, locker space and storage and maintenance facilities for instructional and recreational use in rowing, waterskiing, wind surfing, surfing, kayaking and sailing.

Table 3-11, Recreation Buildings (ordered by completion date)

Facility Number	Facility Name	Date Completed	Facility GSF
16	Peterson Gymnasium	June '61	88,397
15	Athletics	June '61	14,701
73	Racquetball Courts	Aug '76	12,157
75	Weight Training Facility	June '82	12,936
84	Athletic Training Facility	June '82	18,554
83	Athletics Offices	July '83	2,600
70	Cox Arena @ Aztec Bowl	Aug. '97	147,790
69	Aztec Recreation Center	June '97	73093
62	Tony Gwynn Stadium	April '97	41,151
		TOTAL	**411,379**

Table 3-12, Outdoor Recreation Facilities (acreage as of February 1997)

Facility Number	Facility Name	Facility Acreage
PG 630	Smith Field	3.44
PG 610/620	'Playing Fields'	4.64
?	Sand Volleyball Courts	0.44
PG 600?	Football field	2.85
PG 660	Aztrac	4.25
PE 700	Physical Ed. Fields	1.88
PE 720	Tennis Courts	1.25
PG 670	Pool	0.17
	TOTAL	**18.92**

3.4.11 Student Services

There are five different entities that provide important services to the students of San Diego State University (Table 3-13). These entities include:

Student Services

Through the Division of Student Affairs the campus expresses its awareness that students have unique financial, developmental, social, cultural, psychological, and health related needs both in and out of the classroom. In addition to direct assistance to students, the Division of Student Affairs is charged with developing programs which enhance the learning environment on campus and improves the quality of life for students and others. Central to this charge are activities which promote and sustain an appreciation for the diversity of cultural, racial and lifestyle backgrounds represented on the campus; the investigation of contemporary issues concerning the well-being and life choices of students; and a campus environment which encourages a productive interchange of ideas.

The majority of student service departments are housed in the Student Services buildings, East and West. The West building is dedicated entirely to student services, while the East building shares its space with academic departments along with the four student services departments. The following is a break down of these departments.

WEST

- Disabled Student Services
- Student Resource Center
- Admissions and Records
- Veterans Affairs
- Financial Aid Office
- Test Office
- Scholarship Office
- Ombudsman

EAST

- Student Outreach Services
- Educational Opportunity / Ethnic Affairs (EOP)
- Counseling and Psychological Services
- Career Services

There are also five other student services department offices at SDSU that have locations detached from the Student Services buildings. These departments are Student Health Services; Housing and Residential Life; International Student Center; Judicial Procedures and Student Athlete Academic Support Services.

Student Health Services

Student Health Services (SHS) is a 28,800 square foot campus medical facility located on Campanile Drive between Hardy and Lindo Paseo Avenues. Student Health Services brings together a multi disciplinary team of qualified, professional staff specifically dedicated to working with students. Staff include board certified physicians and nurse practitioners. The support staff of registered and licensed vocational nurses, laboratory technologists and x-ray technicians, medical assistants, health educators, pharmacists and medical record assistants complement general medical services. During the Fall and Spring semesters, hours of operation are from 8am to 4pm, Monday through Friday. There is no overnight or weekend care and urgent care is not available when SHS is closed.

Student Health Services undergoes voluntary accreditation by the Accreditation Association for Ambulatory Health Care, Inc. and the California Medical Association. All of the departments within SHS must maintain compliance with the standards of care set by these organizations.

Table 3-13, Student Services Facilities (ordered by completion date)

Facility Number	Facility Name	Date Completed	Facility GSF
45	Aztec Shops Bookstore	June '58	29,600
52	Aztec Center	June '68	91,740
42	Student Health Services	Nov '74	28,809
29	Student Services West	Dec '92	99,326
240	Faculty Staff Children's Center	?	4,200
85	Campus Children's Center	?	3,000
74	International Students	1993	3,372
		TOTAL	**260,047**

The clinical staff participates in weekly Continuing Medical Education seminars to keep them current on new developments and treatments in the medical field.

All students who enroll in San Diego State University pay a mandatory Student Health Services fee each semester. This fee is paid at the time of registration and covers the costs of providing required basic health services, the objective of which is to provide outpatient medical services for the care of acute and subacute conditions, illnesses and injuries rather than comprehensive care for major and / or chronic problems. The mandatory Student Health Services fee includes the average cost of staffing, supplies, services, and administrative and accounting costs incurred by Student Health Services. Augmented services, services that are not covered by the mandatory health fee, can be made available to SDSU students for a fee which covers Student Health Services' cost to provide them.

In addition to providing basic health services, SHS brings SDSU students closer to good health by increasing knowledge, creating positive attitudes and teaching the skills necessary to change behavior and support overall well-being. These goals are met through a team of health educators who implement educational workshops, provide individual health counseling, form health crisis support groups and disseminate health information.

International Student Center

Since its grand opening in 1993, after eight years of private fundraising, the International Student Center (ISC), located on the "S" lot along Aztec Circle Drive, has served well as a campus catalyst for bringing together internationally-minded people to exchange perspectives in the pursuit of understanding. ISC offers programs to the entire campus that foster global perspectives, intercultural awareness and international goodwill.

Campus Children's Centers

The Associated Students operates the Children's Centers on SDSU's campus (Table 3-10). The goal of the program is to provide quality care for children of students, faculty and staff. In addition, the program provides opportunities for students in many majors including Child and Family Development, to observe and work with children as part of their educational program. The program is operated in three facilities:

- The Faculty-Staff Children's Center consists of 4,200 sq. ft. of interior space and 15,600 sq. ft. of fenced play yard. The facility is located off-campus at Montezuma School on nearby Curry Drive. It primarily serves children of faculty and staff but accepts children of students and community members on a space-available basis. The facility is owned by the Associated Students who lease the ground it is located on at the Montezuma School site from the San Diego City School District. The program has a capacity of 76 children.

- The Campus Children's Center is located on-campus in two facilities. The "Preschool" location is in a temporary building owned by the Associated Students and a second building constructed by them. The "Infant/Toddler" location is housed in the lower level of the Family Studies Building. The combined facilities occupy 3,000 sq. ft. of space and have a capacity of 127 children. These facilities provide services to children of SDSU students.

The Associated Students has identified as a priority the construction of a new permanent on-campus facility to house the Campus Children's Center, contingent upon the availability of funding and the approval of a design to replace the current temporary structures.

Aztec Shops Campus Store at SDSU
A not-for-profit corporation at San Diego State University, Aztec Shops, Ltd., provides University commercial services to the students, faculty and staff in the areas of food, books, supplies and more. Aztec Shops provides these services without the use of taxpayers' funds and operates The Campus Store, East Commons Courtyard Cafe (residential dining), West Commons and other food services.

The present store, a building constructed by Aztec Shops on leased land in 1958, has 17,000 square feet of selling space and 12,000 square feet of storage under one roof. It maintains one of the highest sales per square foot of any major campus store. The store has had to accommodate the growth of SDSU from 10,000 students up to 29,000 students. Subsequently, the structure has undergone remodeling several times.

There are more than 5,400 textbook titles shelved on the mezzanine. The General Book Department, which includes books recommended by faculty, totals more than 27,500 titles. A 600 square foot convenience store offers snack items, school supplies, magazines, a flower boutique, a copy service and a film processing counter. The Campus Store hires up to 160 temporary employees at the beginning of each semester and has 110 students on the payroll during normal operating periods.

Aztec Center (Student Union)
Since its establishment in 1968, Aztec Center has emerged as the center of organized student activities at SDSU and a destination for convenient services and facilities which support and complement the primary academic mission of the University. In the nearly thirty years since the Center was first established, the needs of students and the campus community have changed. The campus community has become more diverse; vital services and facilities and the essential revenues they produce are at capacity and face new and increased competition. The number and size of student organizations on campus has increased dramatically beyond the capacity and capability of the Center to adequately serve the needs of the campus. Therefore, the Associated Students have embarked on a mission to define and author an Aztec Center Master Plan Project.

The Project proposed to provide guidelines for developing a student center which will appropriately meet the needs of the 21st century. While the majority of the Plan is still in the development stage, various site constraints have been identified. Aztec Center expansion siting is currently being considered as the existing site with possible expansion to the west by realigning the fire access road and to the south and east by the relocation or reconfiguration of the campus access road connecting to College Avenue. At this time, there are no restrictions on the vertical (either up or down) expansion of the Aztec Center.

3.5 Programmed Future Facilities

Phase 2 of this master plan will help to identify some of the projects that may be needed to support future academic and support facilities. Below is a discussion on those projects that are already at some level of programming for State Funding.

Current Major Capital projects being considered for state funding in the 1997/98 fiscal year include:

Seismic Upgrade East Commons (Construction - $537,000)
This project will seismically upgrade the East Commons Building. The roof diaphragm of this building has been identified as seismically deficient requiring strengthening. This retrofit will require asbestos abatement of the steel fireproofing material prior to performing the work.

Infrastructure Improvements (Working Drawings - $254,000)
This project will correct existing deficiencies and improve seven utilities distribution systems to serve both existing and projected future buildings. It will also improve deteriorated roads. Additional funding for construction will be requested for 1998/99.

Projects planned for design and/or construction in 1998 through 2002.

Engineering/Bio. Engineering/Pharmacy Addition
This project will provide new replacement laboratory and support space facilities as well as lecture space and facility offices for the Engineering and Bio. Engineering program. It will have similar space for a new program in Pharmacy in a second building. A third building will provide carpenter and paint shops and warehouse space to serve the entire campus. An existing outmoded Engineering Laboratory building and metal Quonset building built in the 1940's will be demolished to make room for the new buildings. The new academic buildings will have 78,690 assignable square feet (ASF) and 125,989 gross square feet (GSF). The shops and warehouse building will have 10,900 ASF and 12,111 GSF. The academic building will contain space to accommodate 261 full time equivalent students (FTES) in lecture, 98 FTES in laboratories, 263 research stations and 30 faculty.

Science Laboratory Building
This project will equip a new 61,000 ASF (98,200 GSF) Science Laboratory Building which is replacing the existing deteriorated and hazardous building. It will permanently house chemistry and geology teaching and research laboratories, chemical storage, and the Environment Health and Safety Office. A total of 217 FTES in lower division and upper division laboratory, 80 graduate research laboratory stations and 17 faculty offices will be accommodated.

Chemistry-Geology/Business Administration Math Buildings Renovation
The project includes the renovation of 68,400 ASF (110,300 GSF) in two buildings to provide a net of 135 lecture stations, the loss of 195 laboratory stations, the addition of 19 graduate research stations, 288 self-instruction computer stations, and 85 faculty offices. Combining the renovation of these two facilities will allow for the relocation of mathematics and computer science and education disciplines with this 119 FTE increase.

Speech and Telecommunications Building Renovation and Addition
This project will update and modernize the existing building. Included in the project are 224 lecture stations, 3 laboratories, self-instruction laboratories, and 21 faculty offices, as well as miscellaneous office space.

Engineering Building Renovation
This project will fulfill facilities needs for all programs in the College of Engineering. The building renovation involves an upgrade to 62,300 ASF of existing space and will include 15 laboratories, 1 lecture classroom, 10 self-instructional computer laboratories, 8 faculty offices, and miscellaneous space with a net reduction of 304 FTE.

Parking and Transit Improvements
This project will provide improvements to campus transportation and parking facilities to support the construction of a new regional mass transit commuter rail line and campus station planned for the year 2000. Work will include relocation of East Campus Drive, construction of landscaped berms, redesign and restriping of parking lots E, F, G, and H, and replacement of a pedestrian bridge. Funding for this project, which is scheduled for construction in 2000/2001, will be provided by campus parking reserves. Proceeding with this project depends on demonstrated demand, as shown by a parking study and upon a financial evaluation of parking space usage.

SAN DIEGO STATE UNIVERSITY

PHYSICAL MASTER PLAN

PHASE 1 • EXISTING CONDITIONS

A CENTURY OF LEARNING 1897-1997 SDSU

4.0 PLANNING & DESIGN ELEMENTS

4.1 Entries
4.2 Edges
4.3 Landmarks
4.4 Nodes
4.5 Views
4.6 Site Form
4.7 Neighborhoods
4.8 Building Character
4.9 Informal Open Space Elements
4.10 Formal Urban Space
4.11 Landscape Resources
4.12 Wayfinding Systems
4.13 Memorials and Public Art
4.14 Vehicular Circulation and Parking
4.15 Pedestrian and Bicycle Circulation
4.16 Transit Facilities
4.17 Opportunities and Constraints Summary

SECTION FOUR • PLANNING & DESIGN ELEMENTS

Spatial Environment Elements

As highly mobile beings, we carry a visual and spatial roadmap in our mind that helps us to find our way around and interact with our environment. We perceive entries, edges, landmarks, nodes of activity and circulation, as well as views and view corridors. These elements combine to create the physical context of our environment and provide a mental roadmap of familiar landmarks, mileposts and destinations.

In reviewing the physical environment, it is important to understand the relationship among these spatial elements and to provide direction on how visual spatial clues can be used to aid all campus visitors and students in reaching their destination, as well as to explore the campus environment. The following is a discussion of the spatial organization of SDSU.

Each of the following subsections in this chapter discuss a particular design element in detail. These design elements are defined in relation to the campus by identifying assets, liabilities, constraints and opportunities. The preceding terms are used for describing the current condition of each element and are defined below.

Assets- Existing major features that should be protected since they contribute to the form, function and/or aesthetics of the campus.

Liabilities- Existing major features that should be eliminated or revised since they detract from the form, function and/or aesthetics of the campus.

Opportunities- Unbuilt areas or features that represent opportunities for expansion, renovation and/or enhancement.

Constraints- Built features, site conditions or physical limitations that may prevent expansion or enhancements from occurring.

Each section is formatted in a consistent manner. An effort has been made to provide definitions for each of the topic areas. Relevance to the SDSU campus and this planning effort have also been included in the opening remarks. Descriptions or lists of good examples of each of these topic areas are discussed. Major elements associated with the topic (as listed on the accompanying map) are reviewed. Each section is summarized by a table that includes specific notes resulting from extensive field work. The last item on the table includes a numbered listing of possible treatments or projects that address some of the issues uncovered by the consultant team. The numbering system in this table corresponds with the floating numbers on the associated map.

4.1 Campus Entries

Campus Entry Defined
Entries are those areas where an individual passes through from one definable area to another. For the purposes of this study, entries are limited to the areas that lead from off campus to on campus. Some gateways are experienced from the automobile while others are passed through on foot. Main Entry Elements are those with the highest continuous pedestrian or vehicular traffic.

Physical elements of a gateway can consist of an arch that is bridging a path or road, pylons or similar post elements which stand beside the path, a door, a gate, or portal. Other elements used to define entries can include special paving site furnishings, lighting systems, banners, signage and plant materials. All of these elements help delineate the beginning of a new area or space.

The pedestrian bridges do function as gateway indicators


The primary gateway into the campus is ill defined

Relevance to the Campus

Entry statements add clarity and prominence to the campus and they establish the character of the overall campus or its individual neighborhoods. Gateways and pedestrian portals are among the most important elements in a successful wayfinding system.

Characteristics of a Good Entry

For an entry statement to be successful, the entry area must communicate that the pedestrian or driver is approaching and about to enter a new area of the campus. This requires that the entry point be highly visible, have clarity, and be distinctively prominent from adjacent physical elements. Prominent entry areas are often defined by physical elements and contrast with other adjacent elements through the use of materials, plantings, colors and patterns.


This is the primary gateway that most see at SDSU

Entry gateways need to be at the edge of a defined district or neighborhood. Entries should be compatible with the edge materials used to define the adjacent area from the campus district or neighborhood. The element needs to be both unique and different than the common palette used throughout the district, or utilized in a hierarchy of similar style and materials but executed in a different scale than its surroundings.

Another important factor in the successful design of an entry point is the design treatments that can focus attention toward the entry point. The orientation of the elements draw the eye to the gateway and, consequently, one's path of travel is drawn to the gateway element as well.

Major Entry Elements

Major gateways and entry points have been mapped on Figure 4-1. The discussion below includes examples of vehicular and pedestrian entries. A more detailed discussion of assets and liabilities is addressed on Table 4-1.

Current Vehicular Gateways

The Interstate-8 and College Avenue intersection is an area that is clearly a major entry gateway into the campus and is perceived as the northern entry to SDSU. The gateway needs further development for clarity, prominence, and aesthetics. Monumental signage exists but is not prominent and exists only on the western side of College Avenue.

The adjacent pedestrian bridge leading from Parking Structure 1, and two other bridges to the south, are strategically placed to help form a major gateway ensemble, but design treatments of these bridges are underdeveloped and do not convey an important overall entry statement.

The 55th Street and Montezuma Road intersection is the western and southern major entry point into the campus. This entry point, however, is considered as a liability. Although this intersection does have entry signage, the signage exists on the NW corner and faces traffic as it leaves the campus, or has turned north into campus. The Redevelopment Area also contributes to the lack of readability of this entry

Most all of the major gateways into the SDSU do not read as though you are entering the campus

Several major entry monuments exist for the campus

Many of the major pedestrian portals are ill defined

gateway. Gateway elements, edge materials, and a well designed palette of materials need to be added to create a defined entry.

The same situation occurs at College Avenue and Montezuma Road. The seemingly chaotic arrangement of the businesses and uses in this area dramatically degrade the entry experience of this major roadway. To the north of this intersection, a campus entry is defined by the pedestrian bridge that leads into the East Plaza Mall. This bridge, the adjacent mature trees, and the bend in the road all help to make a statement that the campus edge has been reached. The prominence of the signage on the pedestrian bridge also clearly defines this bridge as a portal through the campus.

The vehicular entry point at Campanile Drive and Montezuma suffers from the same problems as do the 55th Street with Montezuma and College Avenue intersections. Lack of signage and landscape or architectural improvements in these areas make this entry point very confusing. Redevelopment of this area must take into account the potential that exists for this area to become a major transit entry portal. It could possibly become the main ceremonial entry for the campus.

A variety of minor Service Entry Points exist off College, Canyon Crest and Remington Roads. All need gateway improvements.

Conflicts exist between the service entry point at College Avenue and Aztec Circle Drive. Excessive vehicular traffic competes with pedestrian traffic in this area. The limited sight lines and geometrics make this entry point particularly problematic.

Current Vehicular Entry Signage

A variety of large-scale entry monuments exists along major thoroughfares. These elements are found on Figure 4-1.

Current Pedestrian Portals

Since the majority of campus students and faculty do not live on campus, several well- defined pedestrian entry points have developed at major surface parking areas and parking structures. These pedestrian portals into the campus are shown on Figure 4-1. Because of the extensive use of pedestrian bridges at these locations, a great opportunity exists to emphasize these entry points because there will always be a concentrated flow of pedestrians through these portals. All of these pedestrian portals require upgrades if they are to make important and clear statements about the campus layout.

A few street level off-campus pedestrian entry points exist that are not related to surface parking lots or structures. These pedestrians are approaching the campus on foot from adjacent residential areas. Pedestrian connections to the community exist at 55th Street and Remington Road, as well as throughout the Foundation-controlled neighborhood and the East/West Plaza Mall.

Potential Vehicular Gateways

At least four major vehicular gateways require upgrading. (see Figure 4-1). These improvements should include new entry monuments, lighting, banners, landscape treatments and other physical improvements that will help these gateways to be prominent and clearly defined.

Potential Vehicular Entry Signs

Related to the major vehicular gateway potentials listed above, additional SDSU entry signage should be added. This signage should exist on both sides of the intersection through which traffic passes.

In addition, smaller entry monuments signage are needed at the campus boundary at 55th Street, as well as at the campus boundary at Remington Road. Entry signs will help to define the campus edge more clearly in these locations.

Potential New or Enhanced Pedestrian Portals

Opportunities for clarifying pedestrian entries occur at all current pedestrian entry points. Of particular importance are the entry portals that occur at the end of each of the pedestrian bridges along College Avenue and at the stairs and bridge leading from Lot "W" and Parking Structure 4.

Table 4-1 • Summary of Entry Conditions

Assets
- Controlled level of vehicular entry points into the campus
- Vehicular Gateway at I-8 / Canyon Crest at College Avenue
- Vehicular Gateway at College Avenue at East Plaza Mall
- Axial arrangement and entry prominence of Campanile Mall and Drive

Liabilities
- Entry areas along College Avenue along Lindo Paseo Ave.
- Entry area along Montezuma Road at 55th Street
- Entry area along Montezuma Road at Campanile Drive
- Multiple pedestrian entry points through multiple pathways along the Plaza Mall
- Undefined entry points for pedestrians from the West Residence / Chapultepec Halls to the main campus at Aztec Circle Drive
- Undefined entry points for pedestrians from East Residence Halls / Parking Structure 3 to the main campus
- Lack of design treatments and wayfinding at pedestrian portals from the pedestrian bridges along College Avenue
- Lack of design treatments and wayfinding at pedestrian portals from "W" lot and the pedestrian bridge at Parking Structure 4.

Constraints
- Lack of jurisdiction over the Redevelopment Area. This area is essential in providing a "front door" entry to the campus.
- Lack of jurisdiction over the College Avenue right of way
- Lack of jurisdiction over the College Avenue business district
- Lack of jurisdiction over 55th Avenue and Remington Road
- Limited space to work with design treatments at exit points for pedestrian bridges

Opportunities
- Ability to influence the Redevelopment Master Plan through cooperative efforts.
- Existing life cycle of most buildings in the Redevelopment Area will require redevelopment and can be much more intensive in density and use.
- Axial arrangement and visibility of entry area at College and East Plaza Mall.
- Perimeter nature of access roads and parking facilities allows for the control and concentration of pedestrian flows through entries.
- A new entry point from "F" and "G" lots (as well as Parking Structure 3 and the East Residence Halls) to the northeast corner of the Aztec Center.

This major pedestrian route winds through stairs, parking spaces and across the street

High volume pedestrian portal with vehicular conflicts

Example Entry Projects or Treatments

1) A more formal and higher design level of a vehicular gateway should be added to the intersection of College Avenue and Canyon Crest Drive. Increasing entry monumentation and landscaping, and installing light standards with banners and/or graphics on the adjacent pedestrian bridge would help to establish this intersection as one of four main entry gateways. (General note: Each number listed below and in other sections of this chapter, are referenced on the adjacent map. Please consult this map for the actual location for intended projects or treatments.)

2) Coordinate with the Foundation Redevelopment Area and the local Business Improvement District to establish University Gateways at Montezuma and College; Montezuma and Campanile; and Montezuma and 55th Street. Each of these gateways should include large monumentation and/or signage, enhanced streetscapes around the intersections, light standards with banners, grand mall paving materials, well-designed walls with integral seating, integration of sculpture / artwork and special treatments of adjacent architecture. All of these elements should help to celebrate these gateways. They should also help to identify the major vehicular entry areas into the campus as they serve as visual landmarks for wayfinding in the community. In the case of Campanile Drive, the entry must also serve as a visual terminus for Campanile Mall.

3) Pedestrian portals need to be established at the existing funneled entry points into the campus. These portals would consist of directional kiosks, prominent landscape treatments, architectural features and increased lighting with banners or graphics.

The path to and from Parking Structure IV is inadequate

A CENTURY OF LEARNING
1897-1997
SDSU

CAMPUS ENTRIES

Figure 4-1

LEGEND

- Current Vehicular Gateway
- Current Vehicular Entry Sign
- Current Pedestrian Portal
- Potential Vehicular Gateway
- Potential Vehicular Entry Sign
- Potential New or Enhanced Pedestrian Portal (including Pedestrian Signage)

SDSU
MASTER PLAN - Phase 1

4.2 Campus Edges

Campus Edges Defined
Edges are defined as the perceived boundaries between dissimilar areas. Edges may or may not be coincident with the legal boundaries and property lines. Edges separate neighborhoods and districts. Edges can be defined by open spaces, streets, walls, fences, rows of trees, sides of buildings or land forms.

The south end of College has a poor edge definition

The East Residential halls provide a community edge

A well defined edge exists along this portion of Montezuma, west of 55th

Relevance to the Campus

Edges tell campus visitors that they have arrived at the campus and need to pay attention to visual clues for entries and vehicular circulation around and into the campus. Edge definitions are important to the visitor who wants to enter the campus and to the traveler who wants to bypass the campus. In both cases, the edge communicates the information needed for these decisions.

The campus as a whole does not include distinctive elements which identify the edge of campus to a visitor. Gateway elements and edge materials need to be developed which clearly state "this is SDSU" .

Characteristics of a Good Edge

In the built campus environment, edges are perceived when the mass, scale and character of the campus edge contrasts with the mass, scale and character of the off-campus areas. Orientation of elements, a strong spatial organization and landscaping will help to define an edge. The edge should contrast with adjacent off-campus areas but should not contrast so strongly that it is out of character with adjacent development.

A consistent edge material palette can be achieved through the consistent use of edge elements such as paving patterns and materials, plant materials and landscape elements, light standards, banners, lighting treatments, signage, site furnishings, walls and fencing and monuments.

Major Edge Elements

The following elements are shown on Figure 4-2 and summarized on Table 4-2.

Perceived Campus Edges Coincident with Campus Property Line

College Ave. from I-8 to Montezuma Rd.:
Strong edges exist on the east and west sides of College Avenue. Topography creates a defined edge to the west while trees define the east edge. Both sides of College Avenue could still benefit from additional consistent treatments such as banners, lighting, or specialty planting materials.

Eastern Edge of Campus:
Existing topography creates a strong campus edge to the east. This edge is further defined by the change of use from parking at bottom of the slope to single family residential at the top. However, the Alvarado Court segment of the boundary does not clearly define this as an edge of the campus.

Perceived Campus Edges Different from the Campus Property Line

Southern Campus Edge Along the East/West Plaza Mall:
At the northern edge of the Redevelopment area and the southern edge of the campus, numerous structures, inconsistent landscaping, site organization and overall sterility of the area make it difficult to perceive a well-defined edge along the present East / West Plaza Mall. Both sides of the mall will benefit from additional consistent treatments such as banners, lighting and specialty planting materials.

Northern Campus Edge Along I-8:
SDSU campus property is on both the north and south sides of Interstate-8, but this is not perceived when making a freeway approach. To the south of Interstate-8, Canyon Crest Road and the adjacent undeveloped native slopes are the perceived, but relatively undefined edge of the campus.

Areas with no Perceived Edge

Montezuma from 55th to College Avenue:
Montezuma Road is a poorly perceived southern edge of campus. Both sides of Montezuma Road could benefit from additional consistent treat-

ments such as banners, lighting and specialty planting materials.

Western Edge

The westerly edge between Hardy Elementary and the P.E. fields is undefined. The segment of boundary directly west of the existing residence halls is supported by a change in use to single family residences. Although this edge has a minor amount of traffic, it could also be improved with edge treatments. The boundary adjacent to parking lots U and V is not well-defined. Housing at the west end of Remington Road is not a part of the campus.

Northeast Corner at I-8 and College

Areas around the "A" surface parking lot do not appear to be part of the campus.

Opportunity for a Well-Defined Edge

Opportunities exist throughout the campus to create stronger edges. The northern boundary of the campus could be more clearly defined as seen from I-8. This edge could benefit from new and consistent treatments such as banners, lighting, quality fencing, and a strong street tree planting program.

The campus biological preserve located on the north side of I-8 should be better identified as being part of SDSU. An edge treatment on Canyon Crest Drive as well as along slopes located in the biological preserve could communicate daily to hundreds of thousands of freeway drivers that they are passing through the campus. Consider bold treatments such as a 'bridge' over the freeway, connecting the campus on the south to the biological reserve on the north. An alternative would include a tunnel undercrossing that would allow campus users access to a trail system and nature interpretive functions.

The southern boundary of the campus could be greatly improved if the perceived campus edge was located along Montezuma Road instead of the East/ West Plaza mall (which currently is a poorly defined edge). Although this edge would not coincide with the actual campus boundary, it would correspond to the Redevelopment boundary, which should be an area perceived as part of the campus.

Table 4-2 • Summary of Edge Conditions

Assets

- Topography helps define some of the campus limits.
- Major vehicular arterials and freeways help to define the campus edge.

Liabilities

- The entire Redevelopment area confuses the edge definition of the campus.
- Development along Hardy Avenue tends to visually hide the southern edge of the campus.
- Remington Road / 55th Street confuses the campus edge definitions because it splits the campus.
- The commercial district along College Avenue, north of Montezuma, hides the campus edge in this area.
- The apartment development located at the northwest corner of campus confuses the campus boundary because it is landlocked by the campus, with access only through 55th Street.

Constraints

- The campus boundary is set by ownership limitations and is not likely to change.
- Difficulty in bridging the ecological preserve with the main campus.
- Difficulty in connecting the west side of the campus because of the interruption of 55th Street.

Opportunities

- If Montezuma does not become the new southern edge of the campus, then the East/West Plaza Campus Mall can be strengthened to better define this edge.
- With redevelopment eminent, the Foundation Redevelopment area could help to resolve the edge definition problems and extend the edge of the campus to Montezuma Road.

Example Edge Projects and Treatments

1) Improved edge treatments are necessary on College Avenue along the center median.

2) The "front door step" (South District) of the campus needs better edge definitions. A project is needed for the extension of the Campanile Mall. This edge should become a neighborhood identifier only, since the actual campus edge should be considered as Montezuma Road.

3) Close coordination will be required with the Foundation and MTDB to assure that the southern edge of the campus is better defined along the East/West Plaza Drive, and is extended to Montezuma Road, thus incorporating Health Services, the Gateway project and Parking Structure 2.

4) Improved streetscape treatments are needed along Canyon Crest Drive especially parallel with I-8.

5) Identification of the Ecological Preserve should occur through signage, plantings or a direct connection of these segmented sides. The possibility of a trail through the drainage structures that pass under the freeway, or the construction of a small foot bridge should be considered to improve these edge areas.

The campus and its edges are unclear along 55th Ave.

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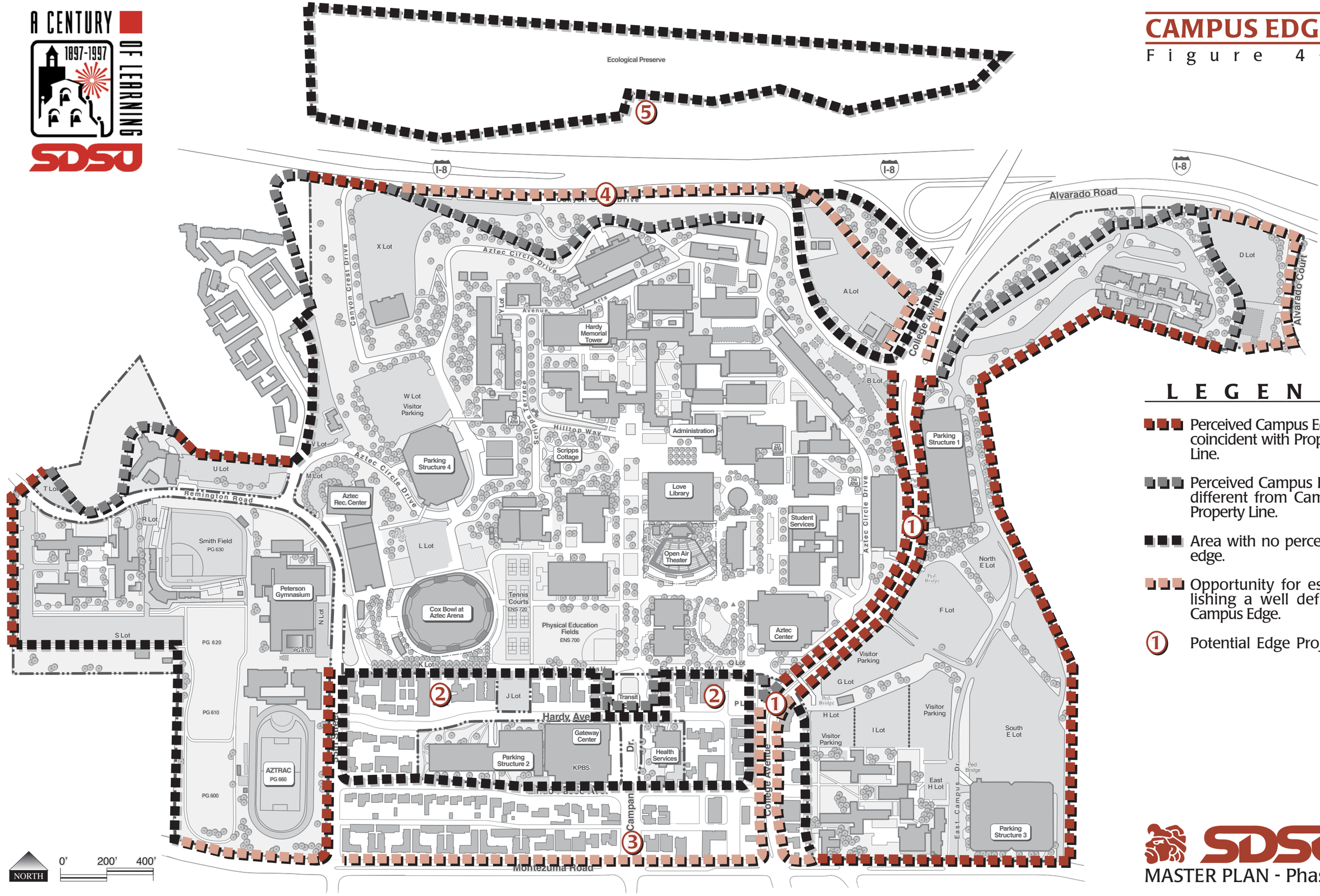
CAMPUS EDGES

Figure 4-2



LEGEND

- Perceived Campus Edges coincident with Property Line.
- Perceived Campus Edge different from Campus Property Line.
- Area with no perceived edge.
- Opportunity for establishing a well defined Campus Edge.
- ① Potential Edge Projects

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4.3 Campus Landmarks

Campus Landmarks Defined
A campus landmark is a physical element that is highly visible from a variety of campus locations. These landmarks can be building towers, unique architecture, archways, sculptures, mature trees or other major physical elements that have a high degree of visibility to the pedestrian on campus. Landmarks are prominent due to their mass, scale, height or uniqueness. They are often elevated above other structures or catch your eye because of scale or through design treatments. For purposes of this study, campus landmarks are limited to those that serve as moderately to highly visible wayfinding elements. Other sections of this study examine historical content and architectural values.

The student services clock tower is a good example of a landmark that is an architectural asset as well as an important wayfinding device

Other subtle architectural elements such as this stack also serve as landmarks

Relevance to the Campus

Landmarks are important features that provide points of reference for wayfinding in the environment. These elements are used as directional markers and they give structure to the architectural composition of the campus. They also provide important design statements and can establish architectural character.

Characteristics of a Good Landmark

Any structure or element that is highly visible from various areas of the campus and serves to help orient campus users should be considered a successful landmark. A deteriorated or poorly designed architectural element can still serve as a landmark. A good landmark not only serves as a directional aid, but can also function as an architectural asset that helps to reinforce neighborhood character, historical elements and/or to locate the current activity or destination.

A variety of elements can be considered as landmarks such as communication towers

Major Landmark Elements

Visually Prominent Structures/Landmarks

All major visible campus landmarks have been noted on Table 4-3 and Figure 4-3. The most dominant landmarks are the Hardy Memorial Tower and the Student Services Clock Tower. Other landmarks based on mass and height include Chapultepec Residential Tower, Parking Structures III and IV, Tenochca Residence Hall, Gateway Center and the Love Library. Other landmarks notable due to architectural uniqueness or siting include the new Love Library addition, the Transit Center, the three pedestrian bridges and the arches at Hepner Hall.

Campus Landmarks Visible from I-8

Several on campus landmarks have high visibility from Interstate 8 and the adjacent major arterials. Most of the landmark status comes from the relative position of the buildings along the north slopes of the campus. Buildings in the highly-visible zone include the Art North Building, the Physical Plant/Cogeneration Plant, Hardy Memorial Tower and the Chemistry/Geology Building. The high visibility of these buildings and the spaces around them should be considered when new development or major renovations are proposed in these areas.

Towers provide orientation throughout the campus

Table 4-3 • Summary of Landmark Conditions

Assets

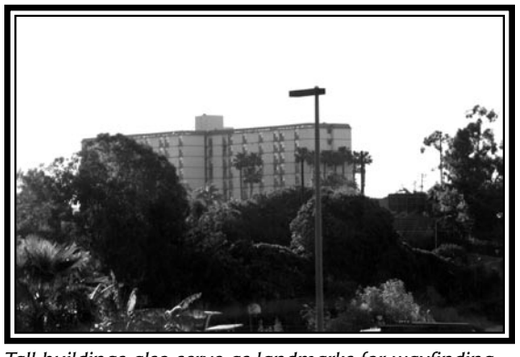
- Hardy Memorial Tower - Historically designated structure. Highly visible campus-wide and from I-8.
- The arches at Hepner Hall - Historically designated structure. Original entry to campus. North terminus of Campanile Mall. Gateway to historical area.
- Love Library - Highly visible.
- Love Library Addition - Highly visible from Centennial Mall. Unique domed element.
- Arts Building- Highly visible from eastbound I-8. Good condition.
- Central Plant Complex - Highly visible westbound on I-8.
- Chemistry/Geology Building - Highly visible westbound on I-8.
- Pedestrian Bridges #1-3 - Highly visible southbound on College Avenue.
- Parking Structure 3 - Highly visible west and eastbound on Montezuma Road.
- East Residence Tower Building (Tenochca and Zura Halls)- Highly visible from east campus area.
- Gateway Building -Campus identity in Redevelopment Area.
- Transit Center - Presently serves as south terminus of Campanile Mall and north boundary of Redevelopment Area. Future site of LRT station.
- West Residence Tower (Chapultepec) - Highly visible from West Campus district.
- Parking Structure IV - Highly visible from West and Central campus districts.
- Clock Tower at Student Services - Highly visible from East and Centennial campus districts.

Liabilities

- Hardy Memorial Tower-Poor night lighting of a major campus element.
- Love Library- Dated architectural style with no focal points.
- The arches at Hepner Hall- Obscured by landscape on Campanile Mall. Visible only as one of a succession of gateways on Promenade.
- Arts Building - Highly prominent location with mediocre design statement.
- Central Plant- Poor impression of campus.
- Chemistry/Geology Building - Poor impression of campus.
- East Residence Tower Building (Tenochca and Zura Halls) - Dated architectural style.
- Pedestrian Bridges #1-3 Poor impression of campus.
- Transit Center - Insignificant mall terminus element. Berms obstruct view from Montezuma Road to the arches at Hepner Hall.

Opportunities

- Hardy Memorial Tower - Possible pedestrian/elevator access to viewing platform.
- Pedestrian Bridges #1-3 - Opportunity for art, signage, landscaping and enhanced architectural bridge treatments.
- Parking Structure 3 - Opportunity for landscaping.
- East Residence Tower Building (Tenochca and Zura Halls)- Renovate exterior assembly.
- Transit Center - Opportunity to redesign area with future LRT station incorporated into the Redevelopment Area.



Tall buildings also serve as landmarks for wayfinding

Some landmarks can be seen from a great distance

Example Landmark Projects or Treatments

1) Develop a landmark at the north end of Centennial Mall at the current site of the bookstore to act as a visual terminus to this view corridor. Doing so would enhance the wayfinding capability of the northeast "village" campus and extend the architectural character of the Centennial Mall neighborhood.

2) Develop a more substantial landmark at the south end of Campanile Mall. This could be done either at the Transit Center or at Montezuma Road as part of a new formal entry. Encourage MTDB to develop a new transit center that recognizes Campanile Drive as the formal entry area of the campus. Encourage MTDB and the Foundation to design and build the landmark this study recommends at the north end of Campanile Mall. MTDB and the Foundation also need to consider creating a landmark at the south end at Montezuma Road.

3) Adjust tree plantings, memorials, sculptures, seating areas and grade changes along Campanile Mall to focus on the existing Hardy Tower/Campanile arch. It is an essential visual terminus and campus landmark.

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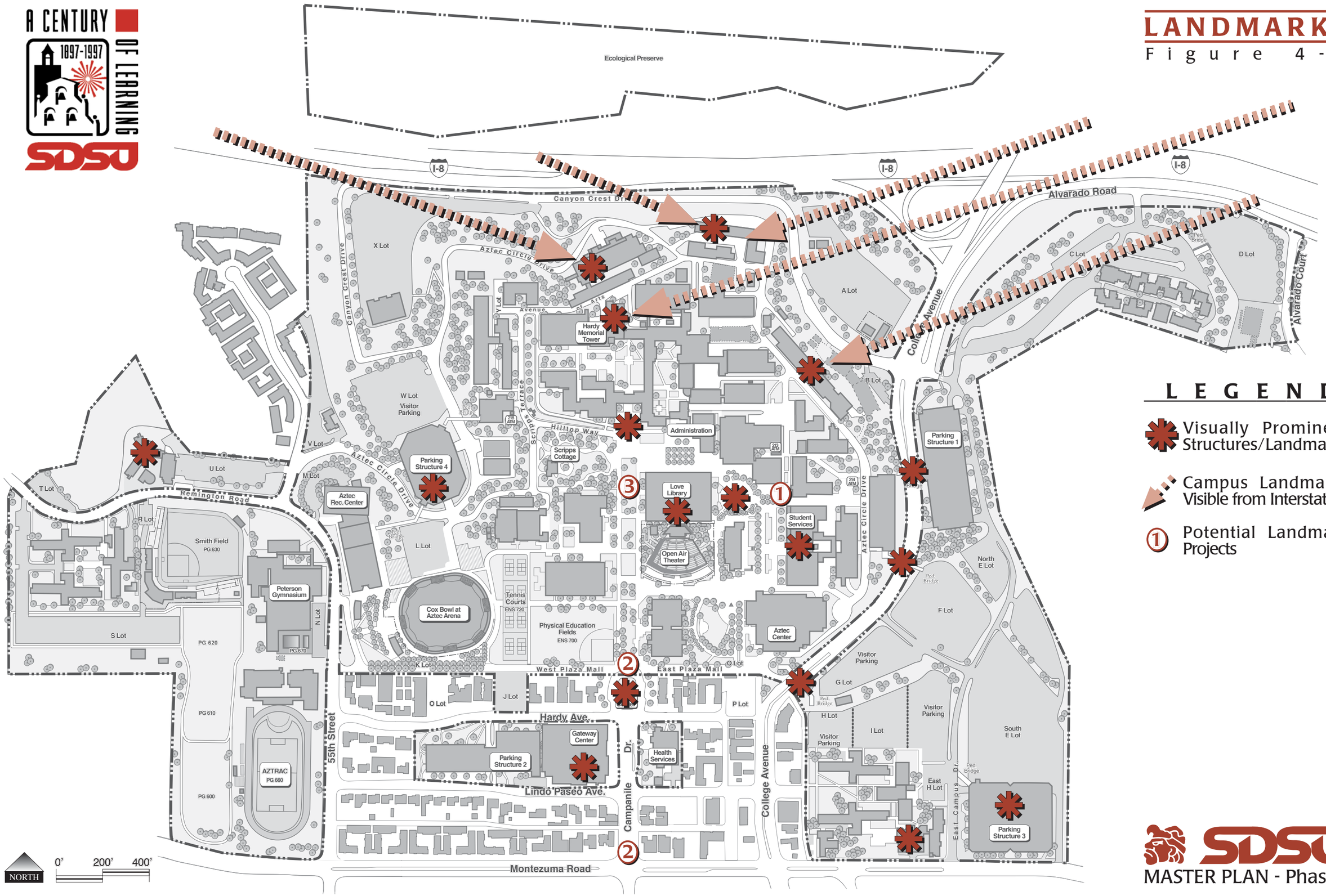
LANDMARKS
Figure 4-3



LEGEND

- Visually Prominent Structures/Landmarks
- Campus Landmarks Visible from Interstate 8
- ① Potential Landmark Projects

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4.4 Campus Nodes

Campus Nodes Defined
Nodes are places of increased activity where people tend to stop and gather. Nodes are considered to be definable areas that are smaller than neighborhoods, but represent major concentrations of activity. Nodes generally coincide with landmarks or buildings that house important functions. Nodes can also occur in spaces between buildings where high levels of vehicular or pedestrian traffic exist.

Nodes are concentrated areas of activity

Relevance to the Campus

Nodes encourage social interaction and support the exchange of ideas. Nodes punctuate wayfaring routes and provide interest by providing different levels of activity. Nodes can accommodate high levels of pedestrian activity if they are designed correctly.

Characteristics of a Good Node

Successful and dynamic nodes happen when a high level of pedestrian circulation occurs in conjunction with a high activity function. In most cases, these spaces include places for seating and viewing. But a space located at an intersection of high circulation will not be a successful node based on the circulation alone. Nodes need to include seating, exposure to sun and shade, opportunities for people to watch other people and places for casual conversation, studying, relaxing and/or eating.

A space where gathering activity is to be sited will usually be successful if it is located along a high density pedestrian circulation path, yet is supportive of semi-private gatherings for small groups of people.

Major Pedestrian Node Elements

High Volume Nodes that Encourage Social Interaction

All major activity nodes have been identified on Figure 4-4 and listed on Table 4-4. A variety of special purpose type nodes exist but are not shown on the accompanying figure. These nodes are important to the structure of the campus, but are considered too minor and detailed to show on maps. These nodes include:

- Minor Circulation Nodes (such as greens and intersecting promenades).
- Gathering Nodes (high volume plazas or courts with seating).
- Secluded Nodes (park areas, turf, or small low volume plazas).
- Sunny Open Plazas / Seating Places.

High Level Activity Node

High level indoor activities help to create adjacent high volume pedestrian nodes. Most dining and food service facilities such as the East Commons and West Commons, generate high levels of activity. The library and Aztec Shops are major destination points and gathering areas as well. The Aztec Center, Transit Center and off-campus retail food outlets should also be considered as activity nodes. Special event nodes include the new Cox Arena at Aztec Bowl, the Aztec Recreation Center, the Tony Gwyn Stadium and the Open Air Theater. These event venues can change dramatically from low levels of activity to extremely high levels of activity.

Activity can be generated by pedestrian flow or by a related function such as outdoor eating areas

Table 4-4 • Summary of Node Conditions

Assets

- West Commons.
- Intersection of Campanile Mall and Hilltop Way .
- Campanile Mall.
- Love Library Quad.
- East Commons/Bookstore.
- Centennial Mall.
- Aztec Center.
- North end of Business Administration Building.
- Cox Arena at Aztec Bowl.
- Open Air Theater.

Liabilities

- East side of West Commons and Scripps Terrace.
- Intersection of East Plaza Mall, Aztec Circle Drive and pedestrian footbridge.

Example Node Projects or Treatments

1) A broader range of seating and definition is needed south of the bookstore. This plaza area should be upgraded with more benches and tree plantings. This project should be integrated with the need for a visual terminus / landmark at the north end of Centennial Mall.

2) The outdoor eating area associated with Monty's Den should be relocated to a new building extension to the western side of Aztec Center. The outdoor eating area currently blocks pedestrian flow and visual access through one of the most important axial arrangements on campus. This axis starts along College Avenue, runs through the colonnades of the Aztec Center and continues through Centennial Mall, ending at the bookstore. A new location for this outdoor eating activity, to the west would help to establish an activity node in an underutilized area that could provide seating areas, observation areas, as well as sunning areas.

3) Both the East Campus and West Campus student Residence Halls lack exterior gathering places. These places are needed for social interaction as well as for exterior sunning and study areas. Nodes created in these areas must be carefully designed so as not to not create excessive activity when they are next to residence halls or other academic activities. They also need to establish more semi-private areas and less structured areas for casual sunning, socializing and reading.

4) Both the East Commons and West Commons eating areas presently lack exterior gathering and eating places. These places need to provide varying degrees of privacy, sunning and observation activities.

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ACTIVITY NODES

Figure 4-4

LEGEND

- High Volume Pedestrian Nodes that Encourage Social Interaction
- High Level Activity Node
- ① Potential Node Projects

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4.5 Campus Views

Campus Views Defined
Views are important spatial elements that can assist in wayfinding, orientation and identification of activity nodes. Views typically have three elements: the viewing scene, such as a distant view of a valley or landmark; the viewing place , the place from where one sees this view; and the view corridor, the space between you and the viewing scene. Interior views are those views in which all three of these elements are found on the campus.

A view terminus provides a focal point and directional clue that communicate to pedestrians that they should continue in this direction and that there is a destination at this location.

Characteristics of a Good View

An off-campus view needs to be regionally significant and interesting to be classified as a good view. Unique structures, water bodies, land forms and expansive views of the city or canyons are all considered to be regionally important. A successful view also needs an unobstructed viewing corridor, as well as a viewing place that is comfortable for the viewer to stand or sit and to enjoy the view. Interior views need to be structured and directed with view corridor edges and a highly prominent terminus.

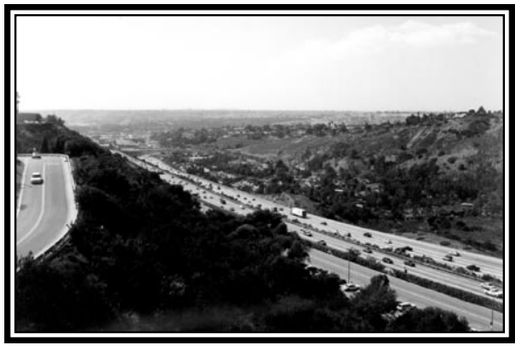
Major View Elements

The following elements are shown on Figure 4-5 and summarized on Table 4-5.

High Visibility Areas as seen from Major Thoroughfares

The public generally forms a visual image of SDSU as seen from major thoroughfares located adjacent to the campus. A small percent of the campus is actually visible from these locations. Figure 4-5 shows the amount of visual penetration into the campus. This penetration is generally limited to areas from the south such as Montezuma, Campanile Drive, and 55th Street; from the east as seen from College Avenue; and from the north as seen from Interstate 8 and the Del Cerro community. Areas within public view should receive special attention for new construction, renovation and maintenance activities. Visual landmarks and termini are needed to help express the campus structure and destination points as seen from these off-campus locations.

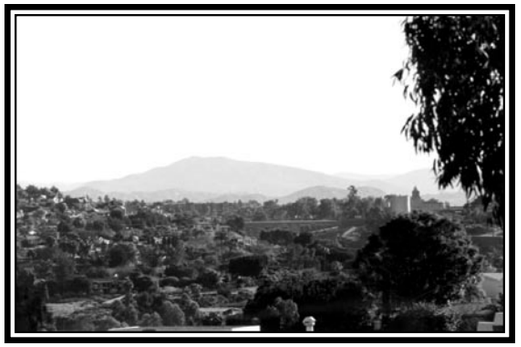
The northeast side of the campus is the most visible and is seen by a substantial numbers of viewers using I-8



The mesa top position of SDSU allows for significant views to the northwest , north, northeast and east

On-campus Viewpoints
The northwest and northeast side of the campus contain several important distant views. A variety of locations is shown on Figure 4-5 that indicate viewing locations where these off-campus views are available.

On-campus Viewpoints (seen from building tops only)
Some of the on-campus viewpoints of off-campus views can only be seen from the tops of buildings. Since some of these areas are not available for the general public to access, they should be treated differently than those that are readily accessible. Protection of these semi-private views from blockage of adjacent buildings should still be considered, however, especially if future mid-rise buildings are constructed.



Views of Lake Murray reservoir and historic water treatment facility exist to the northeast along with distant views of the mountains

Major views of Distant Landmarks
The north end of the campus has several important off-campus views of distant hills and valleys, including Fortuna Mountain, Cowles Mountain, Mt. Helix and Mt. San Miguel. Several opportunities exist for exposing or framing these distant views. In many cases, plant material has blocked the view or an appropriate viewing place has not been established. The cone of view shown on Figure 4-5 indicates that views can be obtained for about 180 degrees. However, only a few locations along the campus edges take advantage of these view opportunities.

Interior Campus View Corridors
Several views can be found at SDSU where the view scene, the view corridor and the viewing location are all contained within the campus boundaries. These corridors generally are defined by building masses and spaces such as malls, promenades and plazas. These corridors tend to be important wayfinding devices. The corridors are sometimes coincident with the axial arrangements of the campus form.

The Campanile Mall has an appropriate geometric layout that acts to define the view corridor. Several factors degrade this view corridor, including the change in topography, the land form at the Transit Center, the current non-geometric arrangement of trees that tend to block the view terminus, as well as the myriad of service vehicles found on the mall at any time that interfere with the view corridor.

Views to the north include Fortuna and Cowles Mtn.

Scripps Terrace represents a strong road view corridor, though lacking in a well designed visual terminus

The Centennial Mall is a clearly-defined corridor and visually interesting space. However, the existing Aztec Shops Bookstore is a rather chaotic and aesthetically lacking retail building that serves as an interruption of views to the south and north. This facility detracts from the interplay of positive and negative space around the Centennial Mall and is a very uninteresting and disruptive terminus.

The East/West Plaza Mall is fairly well developed, except that the west end needs substantial help. This mall could become a very important spine and view corridor for the campus.

Scripps Terrace has a strong axial relationship that exists between this corridor and adjacent buildings. This area has very heavy pedestrian traffic due to approximately 20% of the class load being held at the neighboring academic buildings. Scripps Terrace is blessed with the Scripps Cottage park that creates a very pleasant internal view.

A new view corridor could be added that extends from Peterson gymnasium, past the new Aztec Recreation Center and on towards the Music Building

The Dramatic Arts and Music buildings provide the framework for an important east - west visual corridor. The corridor suffers from a poorly defined area between the Open Air Theater and Humanities Building. It is currently blocked by the tennis courts south of the Physical Education building. This corridor could help tie together the Cox Arena at Aztec Bowl and Peterson Gym with the eastern portions of the campus. This view corridor could be improved between the Centennial Mall and the Cox Arena at Aztec Bowl.

Current View Termini

The Campanile Mall has a strong view terminus at Hardy Tower and the arches at Hepner Hall.

The Student Services building provides a very appropriate view terminus as seen from the East Campus Mall.

One end of the Scripps Terrace view corridor has a terminus, though is could be greatly enhanced.

A strong axial arrangement and view corridor exists from the central College Avenue pedestrian bridge, through the Education Building and courtyards of the Student Services Building, terminating at the new Love Library and Centennial Hall.

Edge of Campus opportunities for view enhancements

The entire north campus section exists on top of a mesa overlooking important viewpoints. Views of distant hills and valleys, including Fortuna Mountain, Cowles Mountain, Mt. Helix and Mt. San Miguel exist. Several opportunities exist for increasing or framing these views. The line shown on Figure 4-5 indicates the edge of this mesa top where these view potentials are the highest.

Another view corridor could occur as an extension of the West Plaza Mall towards the southern end of Peterson Gym

The extension of Monty's Den interrupted a very important visual corridor

Campanile Mall is an important view corridor that currently has informally arranged trees blocking an important view terminus

Missing View Termini

The Aztec Shops Bookstore has a very uninteresting terminus to the Centennial Mall corridor. Likewise, the College Avenue area does not provide a terminus for the southern end of this corridor.

The East/West Plaza Mall is fairly well developed but lacks a visual terminus at either end.

The Scripps Terrace corridor could benefit from an improved view terminus at the north end (Family Studies Building), and an improved facade of the Exercise and Nutritional Sciences Annex at the south end.

No visually interesting focal points exist along the eastern portions of Aztec Circle Drive. The view corridor is very well defined along its edges but is not at all defined at its ends.

Table 4-5 • Summary of View Conditions

Assets
- Variety of off-campus views and viewing locations.
- Limited public visual penetration into the campus.
- Consistency between campus form, pedestrian paths, landmarks and view corridors.
- Topographic position allows for prominence of the north campus edge.
- Position of pedestrian bridges crossing College Ave. provide good views.

Liabilities
- The north and northeast corners of the campus were developed without regard to viewing opportunities and tend to block other views.
- Poor visual termini at the bookstore, campus mall ends, along Aztec Circle Drive, Scripps Terrace and 55th Street.
- High visual penetration into barren parking lots, service buildings and storage areas along the north side of the campus.
- Tennis courts and the Drama building tend to block visual connections between the east and west sides of the main campus.

Constraints
- Existing topography cannot be changed.
- Buildings blocking view corridors will not be removed just for this purpose.
- The eastern and western portions cannot be tied together by visual corridors due to building arrangements.

Opportunities
- The entire northern and eastern edge of the mesa top could take much more advantage of views.
- Visual termini are not that difficult to build and can incorporate public art and memorials.
- Several east/west view corridors could be developed.

Example View Projects or Treatments

1) An outdoor seating area should be added on the northwest corner of Storm Hall to take advantage of excellent views to the west and north.

2) Several seating areas should be added to spaces north of the Chemistry / Geology Building and north of the BAM Building. Pruning and thinning of some of the Eucalyptus trees in this area will be required in order to reopen views to the north and northeast.

3) The West Plaza Drive could be extended to the Peterson Gym complex through the completion of the West Plaza Drive and the incorporation of a visual terminus located at the west end of this corridor.

4) The tennis courts should be relocated to allow two east/west visual corridors that will help to connect the disjointed portions of the east and west campus areas.

5) Visual treatments should be added along several locations of the eastern portion of Aztec Circle Drive.

6) The exterior seating area of Monty's Den should be relocated in order to open up this important view corridor and axial arrangement.

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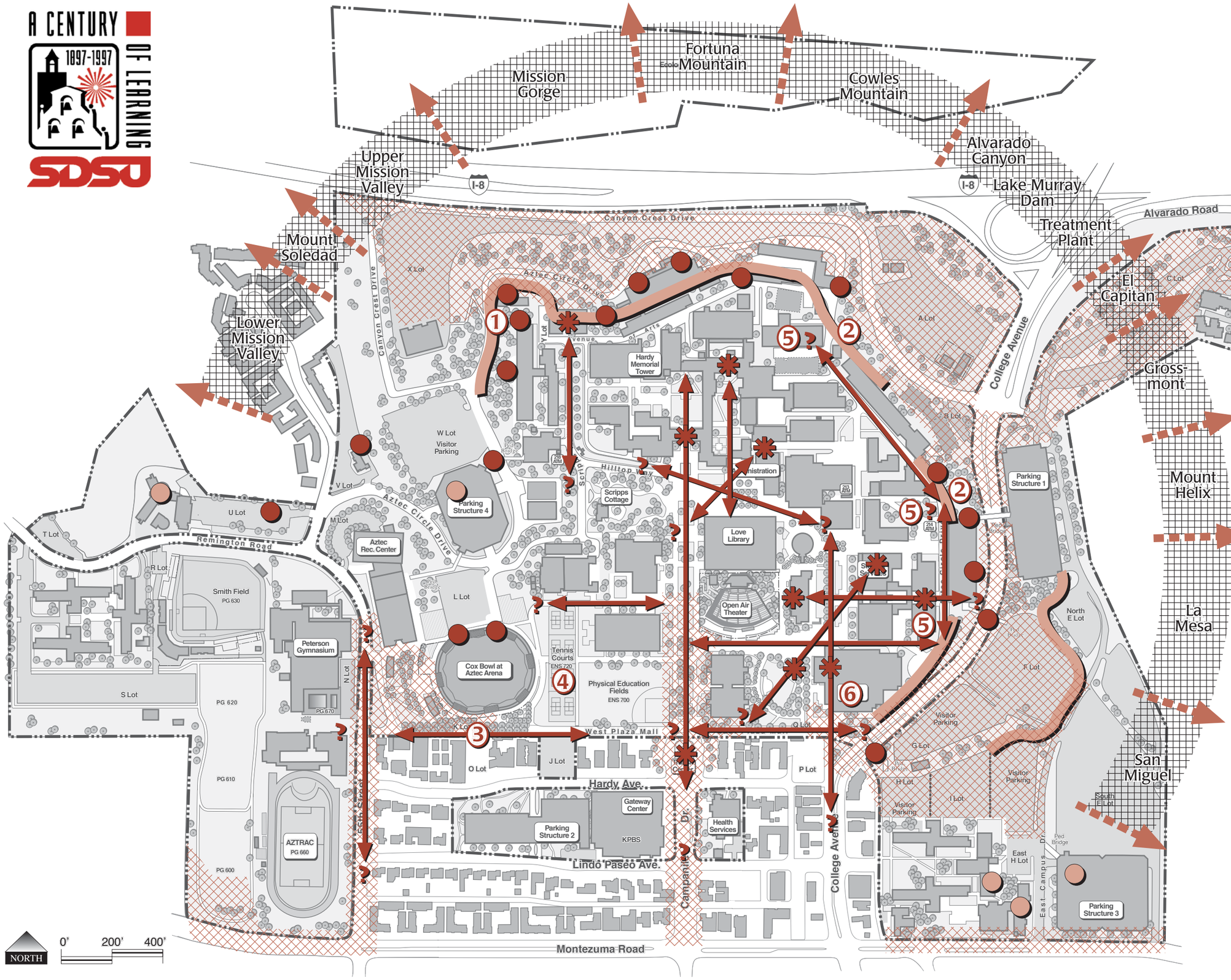
CAMPUS VIEWS

Figure 4-5



LEGEND

- Areas with High Public Visibility as seen from Major Thoroughfares
- On-Campus Viewpoints
- On-Campus Viewpoints seen from Building Tops only
- Major Views of Distant Landmarks
- Interior Campus View Corridors
- Current View Terminus
- Edge of Campus where opportunities for view enhancements exist
- ? Missing View Terminus
- ① Potential View Projects

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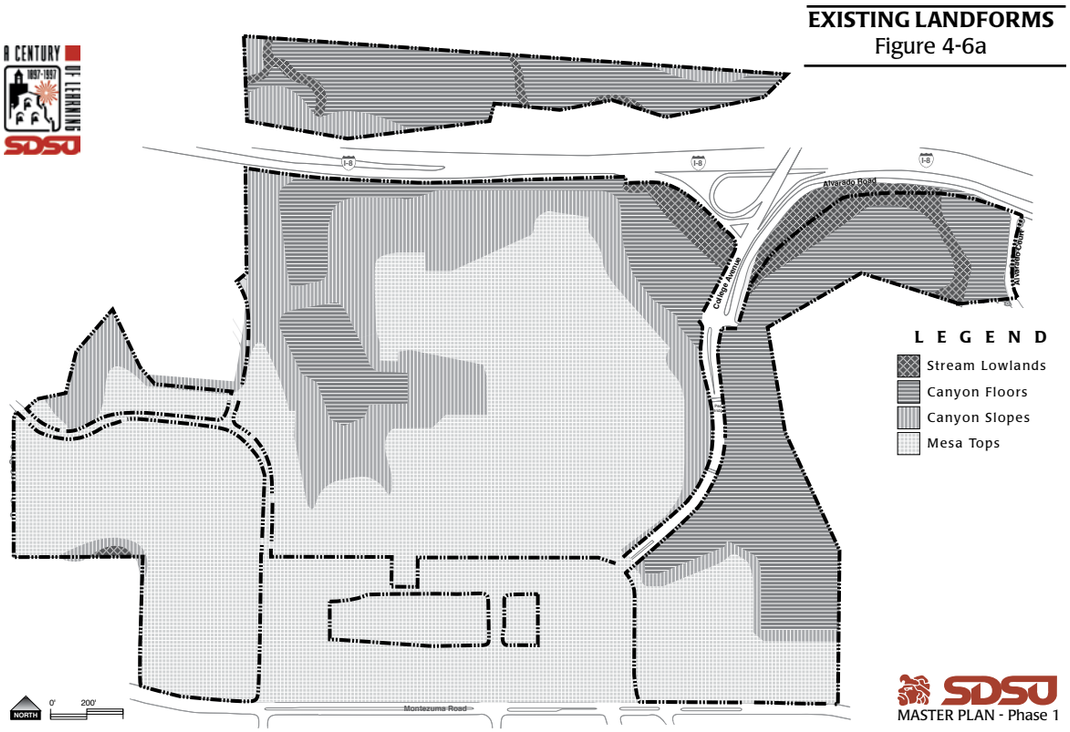
Architectural Elements

Existing architecture on campus encloses outdoor spaces because of building-to-building spatial relationships. It also helps to define the edges of exterior spaces. Architecture contributes to the character, form and functional arrangement of the campus. This section will focus on Site Form, Campus Neighborhoods and Building Character.

4.6 Site Form

Campus Site Form Defined
Site Form refers to the continuity that relates various design elements to the whole. Continuity between elements, and therefore comprehension of the whole, becomes recognizable when a dominant underlying organization of elements such as linear, meandering, grid, centralized or clustered, is apparent.



EXISTING LANDFORMS
Figure 4-6a

Relevance to the Campus

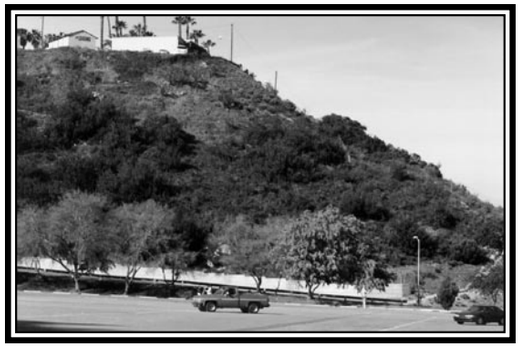
Geometric arrangements, whether meandering or linear, symmetrical or asymmetrical, experienced or otherwise understood, are important elements in campus organization. Axial arrangements are the underlying order of the campus. Relationships of landmarks, view corridors, wayfinding, building siting and creation of exterior spaces are all dependent upon clear axial arrangements.

Characteristics of Good Site Form

Site form, architectural arrangements and wayfinding techniques are mutually supportive elements. Appropriate site form will dictate building locations and pathways, and once in place, buildings and pathways reinforce and enhance wayfinding. The arrangement of these elements is the foundation of the pedestrian experience. All new construction should build on this underlying site form and enhance and reinforce it.

Major Site Form Elements

Any discussion of site form should first examine the land form factors that shaped the site form. Figure 4-6a shows the current major land forms of the campus. Much of the land form remains the same as it was in 1939. The mesa tops were the most logical place to start campus development. The mesa top provided a pedestal for the centralized core of the campus and also provided great viewing opportunities. The adjacent canyons constrained development to the core area but eventually, functions were placed into the canyons, such as the Open Air Theater. With the separation of the recreation facilities from the main core, eventually pressure to fill this canyon was imminent. Most of the other major slopes were preserved and development jumped from the mesa top to canyon floors. Some development eventually occurred on the slopes, but because the lower canyon floors and upper mesa tops were already developed, major grading could not occur. As a result, facilities were built into the slopes. Several lowland areas still exist along streams. These areas are somewhat intact, primarily due to land use regulations and flooding constraints.



The landform of the area was responsible for most of the original site layout and facility placement

The overall form of the campus has evolved over many decades. (see Figures 4-6b through 4-6e). Campus development could be characterized as a loosely related series of independent planning efforts. From the original Quadrangle through today's efforts, no single vision has permeated plans for campus growth. Consequently, campus architectural resources (buildings, landmarks, view corridors, malls and pathways) appear seamlessly joined in some areas, supporting campus uses, yet seriously incompatible in others.

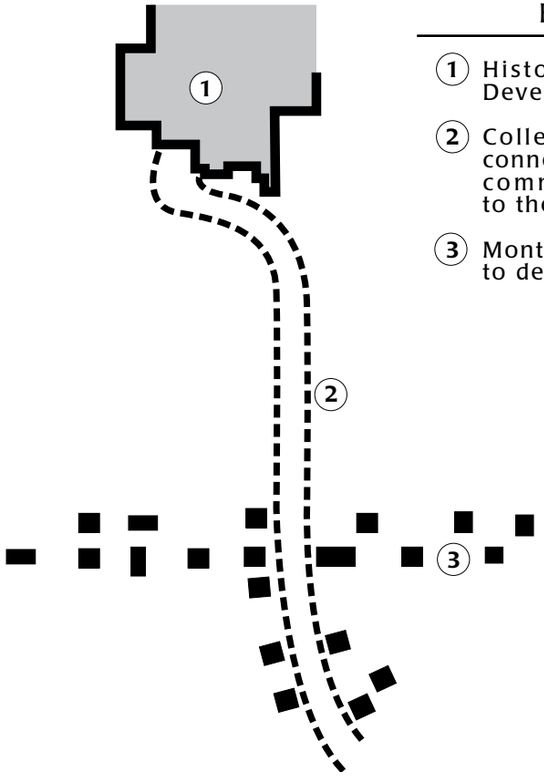
It should be noted that distinct phases of development are identified only to explain the specific thrust of Site Form at that specific time period. The campus is a dynamic and evolving place that has continued to grow since the construction of the initial quadrangle.

• The original 1931 Quadrangle of academic buildings was visually isolated on the mesa rim. The courtyard concept was enhanced by the intimate scale, materials and traditional details of the Mission Revival architecture. The only road into the campus was College Avenue, a road that terminated at the entry to the Quad.

• New buildings, 1940- 1960, are located where buildable sites were available or were easily created. The campus built out the mesa and overcrowded the original Quad. College Avenue mediated between new parking to the southwest and the University to the north.

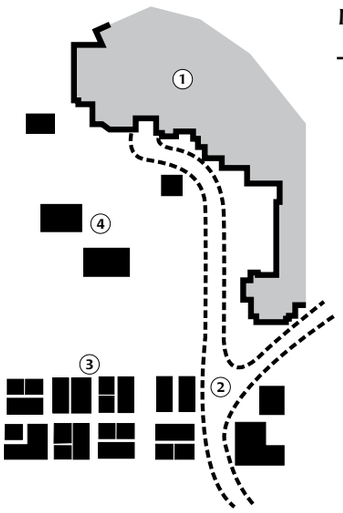
• To facilitate expansion, a 1963 Master Plan recommended the infill of the main bisecting canyon to create a larger and more circulation-efficient building site to the south.. College Avenue was diverted off campus to I-8. Perimeter service roads were built. The new north-south Campanile Mall became the main organizing element of the expanded campus and was extended between the entry to the original Quad and the peripheral community, which had been built up to the southern boundary of the campus. Remnants of College Avenue became open space. A new urban campus was created and the emphasis of the isolated academic Quad was lost. The southeast corner of the campus became the new epicenter of activity.

DEVELOPMENT PATTERNS
CLOISTER (1931-45)
Figure 4-6b



1. Historic Campus Core Developed.
2. College Ave. provides connection to the community emerging to the South.
3. Montezuma Ave. begins to develop.

The original historic core set the site form through the 40s before a marked change in the site layout occurred



DEVELOPMENT PATTERNS
MESA BUILDOUT (1945-68)
Figure 4-6c

1. Remainder of Mesa Top is developed to the northeast with high density.
2. College Ave. splits to provide new access to highways in Mission Valley.
3. Off Campus development fills in towards the Campus.
4. The southwest portion of the Campus is developed with Major New Structures. Canyon filling connects the two Mesa Tops.

The Campanile Mall created a central spine for many new buildings to be arranged around

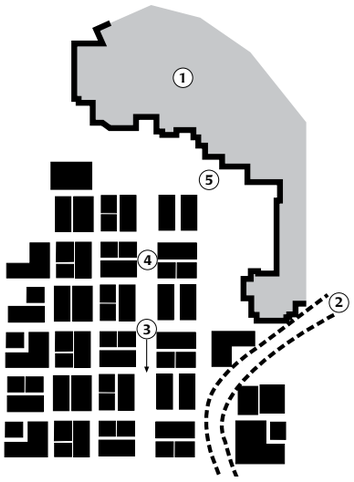
Development in the 50s and 60s moved toward the mesa edge and eventually resulted in overcrowding of exterior spaces

• The 1963 Master Plan was successful in that the Campus Center was shifted from the original quad without destroying the historic center of the campus.

• The new north- south 1996 Centennial Mall is parallel to the Campanile Mall and has usurped the activity from it, relegating Campanile Mall to a formal linear element. Though a variety of factors have contributed to the increased use of Centennial Mall and the decreased use of the Campanile Mall, the location of specific activity functions and the shifting of student density to the Centennial Mall area is most responsible. The Centennial Mall is the new epicenter of campus activity.

• Two campus organizations are evident- the older Quad, or campus village, with meandering pathways and intimate, interconnected courtyards- contrasting with the "City" of broad plazas and Cartesian efficiency of the expansion area. The seam between the two organizations is the "village edge." It is experienced as an asymmetrical wall with a succession of gateways between old and new.

The overall major elements of form are shown on Table 4-6 and Figure 4-6.



DEVELOPMENT PATTERNS
URBAN CAMPUS (1969-97)
Figure 4-6d

1. Infill continues.
2. College Ave. is removed from Campus & connects with I-8 only.
3. Commercial & Residential development completes a grid iron pattern south of the Campus.
4. Development along a grid pattern fills a major portion of the southwest Campus, creating an Urban Campus.
5. Formal spaces are developed where College Ave. is vacated. A contrast between the Historic Core and the larger / spaced buildings creates a Village Wall.

Table 4-6 • Summary of Site Form

Assets
- Historic neighborhood quadrangles and courtyards- Historic site form.
- Scripps Terrace- Intense linear pedestrian path. Tree-lined street.
- Pedestrian Promenade from Centennial Mall to East Commons- -Buildings to the north are strong, asymmetrical borders to the diagonal pedestrian path. They form the historical College Avenue facade of the original campus, and provide counterpoint to the Cartesian geometry of the newer campus to south.
- Path north of Chemistry/ Biology Building- Ficus Tree acts as a terminus.
- Alley at north facade of the Physics and Physics Astronomy Buildings- Intense linear pedestrian path.
- Campanile Mall- Well-defined linear pedestrian space. Existing or implied building edges on east and west sides. The perceived extension of Campanile Drive is supportive of the urban campus concept.
- Centennial Mall/ perimeter buildings- Well-defined linear pedestrian space, strong building edges and raised porches on plaza.
- Aztec Central Green Veteran's Memorial- Landmark obelisk at apex of greenspace. Aztec Center Building—raised porch element fronting onto Green.
- West and East Plaza Malls- Southern boundary of campus, pedestrian path.

Liabilities
- Tennis courts block three axial arrangements between the Cox Arena at Aztec Bowl, Peterson Gym, Music and Dramatic Arts buildings.
- The northeast corner of the campus is lacking in any formal space, axial arrangement or view corridor that would provide a sense of structure.

Constraints
- The canyon running north/south in which Parking Structure 4 is located tends to split the campus in two and prevents the extension of the mesa top campus form.
- The curvilinear nature of Remington Road and College Avenue and their associated slopes and lower land forms prevent the extension of some of the geometric arrangements of the campus mesa top.
- The structured arrangement of the northeast corner of the campus can not be easily fixed without the wholesale removal of a substantial number of buildings.

Opportunities
- The existing form of the campus is clear and can be built upon.
- The mesa-top topography is conducive to formal arrangement.
- Several new buildings can be placed in areas where they can enhance the existing form.

Example Form Projects or Treatments

1) Historic neighborhood quadrangles and courtyards— Add arcade element to the Professional Studies and Fine Arts building to reinforce axis to Scripps Terrace. Align stairway to entry at Storm Hall.

2) Scripps Terrace- Replace or improve the Family Studies building to maintain acoustic barrier from freeway and add terminus element.

3) Pedestrian Promenade from Centennial Mall to East Commons- Add terminus at East Commons.

4) Alley at north facade of the Physics and Physics Astronomy building- Mark intersection with path to Centennial Mall.

5) Campanile Mall- Add south terminus element. Redesign landscape relationship. Mark intersection of path to Aztec Central Green.

6) Centennial Mall/ perimeter buildings- Replace facade or remove the Aztec Shops / Bookstore building, demolish the Education building and add new structure mediating between Centennial Mall and potential pedestrian gateway from east, add south terminus at intersection.

7) West and East Plaza Malls— Add terminus/ node in Centennial Mall implying an axis to the memorial. Add node at intersection with Campanile Mall. Add node at intersection with Centennial Mall. Add node at Cox Arena at Aztec Bowl. Add terminus at 55th Street and at Parking Structure 3.

8) Emphasize and accommodate walkways and design elements to connect Peterson Gym with the Historic Exercise and Nutritional Sciences building and Dramatic Arts / Music complex.

9) Relocate tennis courts and Physical Education ball field and replace with buildings that can help form new visual and physical connections with the Cox Arena at Aztec Bowl and the Campanile Mall.

10) Provide rehabilitation of the south side of the Exercise and Nutritional Sciences building (shower rooms) to serve as a visual terminus to Scripps Terrace.

11) Provide a series of view corridors, axial alignments and visual terminus along the eastern portion of Aztec Circle Drive.

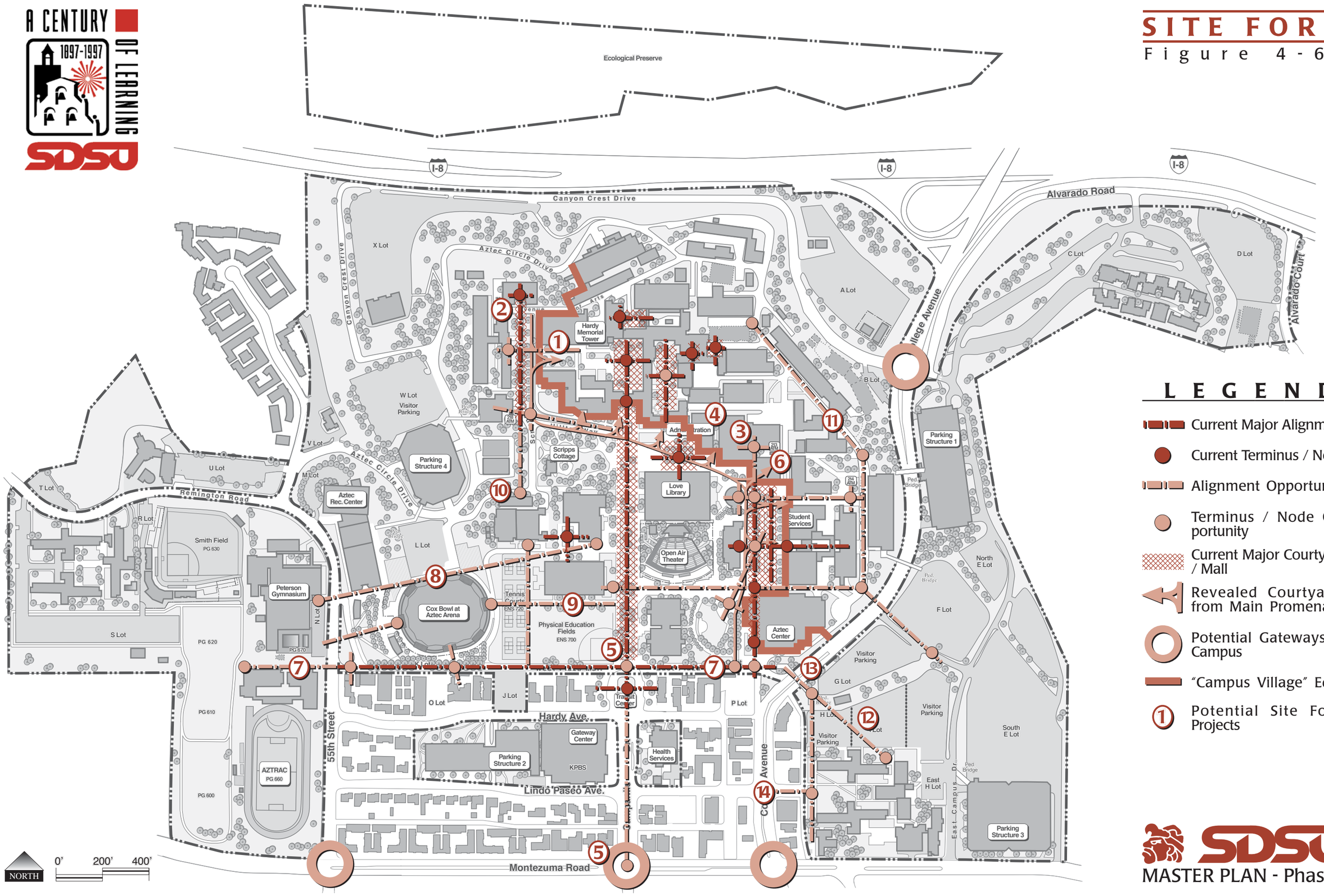
12) Create new connections between Parking Structure 3, the East Residence Halls and adjacent surface parking lots. This diagonal arrangement should reinforce directional pedestrian patterns through this area. Pathways coupled with a prominent visual terminus will help direct pedestrian traffic toward the pedestrian bridges.

13) A new, grand scale promenade bridge should be considered between "F" lot and "G" lot. This bridge could be designed and built in conjunction with a major new building.

14) Set up a formal axial arrangement leading from the intersection of College Avenue and Lindo Paseo Ave. This axis should extend through the residence hall grounds and terminate at the renovated residence tower.

A CENTURY OF LEARNING
1897-1997
SDSU

SITE FORM
Figure 4-6e



LEGEND

- Current Major Alignment
- Current Terminus / Node
- Alignment Opportunity
- Terminus / Node Opportunity
- Current Major Courtyard / Mall
- Revealed Courtyards from Main Promenade
- Potential Gateways to Campus
- "Campus Village" Edge
- ① Potential Site Form Projects

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4.7 Campus Neighborhoods

Campus Neighborhoods and Districts Defined
Neighborhoods are generally areas of similar uses and activities that are supported and defined by structures or naturally occurring land forms. Similarities in architectural and site character are necessary for an area to be considered cohesive and related. The exact edges of neighborhoods are often difficult to define, but are most apparent where sharp contrasts in scale, character, land form, built elements or activity occur.

A district consists of a series of neighborhoods that are adjacent to each other and generally have similar characteristics. Districts are defined in this study so that design guidelines can be developed to help set the campus areas apart from each other. The present SDSU campus is comprised of five districts: West, North, Central, South and East.

The Historic Neighborhood is part of the North District

The Arts and Sciences Neighborhood, also part of the North District, contrasts sharply with the Historic Neighborhood

Relevance to the Campus

In order to visually comprehend the complexities associated with a large institutional campus, it is necessary to subdivide the campus into smaller units. All areas on the campus have been grouped by district and subdivided by neighborhoods.

Characteristics of a Good Campus Neighborhood

Successful campus neighborhoods are perceived to have a sense of place. For example, people recognize an area because of a group of buildings and spaces with clear boundaries. Or, if well-defined boundaries don't exist, people recognize a unifying element or neighborhood-wide character or center.

Elements which contribute to the sense of neighborhood might include, to varying degrees, similar uses and activities, recognizable position on campus, architectural and landscape character, landmarks, neighborhood boundaries and the unifying strength of plazas, paths and promenades.

All physical design and planning aspects should take into account the goal of establishing distinct neighborhoods that are reflective and supportive of the activities that take place in the neighborhood. If the primary activity is that of education, then the character and physical form should support the visual explanation that the user is in an educationally oriented area. Likewise if the area is used for residence or recreational purposes, the neighborhood should be designed to communicate this purpose. Appropriate behavior, primarily noise levels and access, can then match the perceived activities of the neighborhood.

Major Neighborhood Elements

The following elements are shown on Figure 4-7 and summarized on Table 4-7.

Campus Districts.
The campus has been divided into 5 geographic districts. These districts follow the cardinal layouts (compass points) with a central area. The districts are named

- West
- North
- Central
- South
- East

The 5 campus districts are further subdivided into 12 neighborhoods:

West District:
- West Housing neighborhood
- West and North Parking neighborhood
- Athletics neighborhood

North District:
- Scripps neighborhood
- Historic neighborhood
- Arts and Science neighborhood
- 55th Street Residential neighborhood

Central District:
- Campanile neighborhood
- Centennial neighborhood

South District:
- Residential neighborhood
- Campus mall
- Mixed use neighborhood

East District:
- Alvarado Housing neighborhood
- East Parking neighborhood
- East Housing neighborhood

Neighborhoods Primarily Defined by Boundaries

Boundaries are actual or implied physical edges that are understood as the extent of a neighborhood. Neighborhoods defined by boundaries are:

• West Housing- Hillside to north, athletics facility to east, parking to south, residential to the west. Similar use, tower building, location on campus, similar architecture.

• Scripps- North and west mesa edges, slope on east side of Scripps Terrace. Similar use, park-like landscaping on Scripps Terrace, elevation change down Hillside Terrace and down from the Historic neighborhood.

• South Campus- 55th Street to west, Montezuma Road to south, College Avenue to east, West Plaza Mall to north. Residential scale housing.

• Alvarado Housing- I-8 and College Avenue and hillside to south. Similar use, location on campus, similar architecture.

• East Parking- College Avenue to west, Montezuma Road to north and hillside to the east.

• East Housing- College Avenue to west, Montezuma Road to south and parking to north and east. Similar use, similar architecture, tower buildings, location on campus, green space.

Neighborhoods Primarily Defined by Architectural Character

Architectural character is a unique or recognizable element pervasive in some neighborhoods. Neighborhoods defined by architectural character are:

• Historic— Mission Revival architecture. Similar use, Hardy Tower, courtyards and arcades, Avenue of the Arts boundary, Scripps Terrace boundary, hillside terrace area boundary.

• Arts and Science— "California State College" architecture. Similar use, location on campus, intimate courtyards and pedestrian pathways.

Neighborhoods Primarily Defined by Exterior Spaces

Exterior Spaces can also help to define edges or centers of neighborhoods.

• Centennial Mall— Similar use, clock tower, surrounding building walls.

• Campanile—Central mall. Similar use.

The accompanying Neighborhood Map (Figure 4-7 and Table 4-7) should be read in conjunction with the following detailed information. This study does not evaluate the asset or liability of a particular neighborhood to the campus. Assets, liabilities and opportunities refer only to specific elements within each neighborhood.

The Centennial Neighborhood is centered around the Centennial Mall as part of the Central District

The West Residence Halls are classified as the West Housing Neighborhood as part of the West District

Table 4-7 • Summary of Neighborhoods

Assets

- West Housing- Recognizable position at western edge of campus. Tower landmark. A group of similar uses. Similar architectural character.
- West Parking- Recognizable position in canyon. Parking Structure 4 is a landmark. Convenient to campus. A group of similar uses. ADA accessible.
- Athletics- Recognizable group of buildings flanking 55th Street. A group of similar uses. ADA accessible.
- Scripps- Recognizable position at canyon edge and end of East/West promenade. Intense, continuous pedestrian use. A group of similar uses. Similar architectural character. Shady and cool outdoors. Buildings provide acoustic barrier between pedestrian paths and freeway.
- Historic- Recognizable position as terminus of Campanile Mall. Recognized by architectural character and intimate scale. Tower landmark. Distinct because of courtyard/pathway typology, a condition that contributes to the village ambiance of the North District. A group of similar uses. Except for minor aberrations, a completely pedestrian environment. Shady and cool outdoors.
- Arts and Science- Recognizable position at North East edge of campus. Recognizable by courtyard/ pathway typology, contributes to village ambiance of the North District. Intimate scale. A group of similar uses. Except for minor aberrations, a completely pedestrian environment.
- Campanile- Recognized by grand scale and the linear axis of the mall. Recognized by the regularly-spaced, isolated buildings flanking mall. Similar architectural style.
- Centennial- Recognized by grand scale. Recognized by the enclosure formed by similar buildings surrounding large, bright plaza. Tower landmark. Intense, continuous pedestrian use from adjacent occupancies. Building base/ porch typology contributes strong edge to plaza.
- South Campus- Recognized by scale and mass of similar structures. Proposed agreement to develop in conjunction with campus needs. Proposed intense, continuous pedestrian use from residential/ commercial occupancies. Access from main city streets.
- Alvarado Housing- Recognizable position at eastern edge of campus. Similar use. Similar architectural character.
- East Parking- Recognizable position east of College Avenue. Bridge landmarks. Convenient to campus.
- East Housing- Recognizable position east of College Avenue. Tower landmark. Convenient to campus. Similar use.

Liabilities

- West Housing- No land for housing expansion without demolition of existing facilities, or demolition of resident parking. No dining facility.
- West Parking- Lack of landscaping in parking areas. Lack of speed bumps or elevators from lower surface parking areas. Remnants of Aztec Bowl.
- Athletics- Lack of parking for new Cox Arena at Aztec Bowl needs. PE 700 field inappropriately located on Campanile Mall. Poor pedestrian connection between East Annex to 55th street. ADA non-compliance at Peterson Gym and the Exercise and Nutritional Sciences building.
- Scripps- ADA non-compliance.
- Historic- ADA non-compliance. Intense use accelerates wear and tear of historic structures. Difficult Fire Department access to some courtyards.
- Arts and Science- ADA non-compliance. Deferred building maintenance.
- Campanile- Poor landscape and hardscape relationship to visual axis. Intense, intermittent pedestrian use from adjacent occupancies. Transit Center does not provide adequate terminus or, alternatively, does not provide design elements that enhance the open vista down Campanile.
- Centennial- Use of landscaped amphitheater west of Aztec Center is unresolved. Neighborhood bleeds off to southwest for lack of edge.
- South Campus- Current site is underutilized. Lack of edge definition on College Ave., Montezuma Road and 55th Street.
- Alvarado Housing- No land for housing expansion without demolition of parking. Freeway noise. Lack of landscaping in parking "D" lot.
- East Parking- Lack of landscaping in parking areas. No land for housing expansion without demolition of existing facilities or demolition of resident parking. No dining facility.

Example Neighborhood Projects or Treatments

The following projects will help to extend the existing character and definition of the campus neighborhoods. The focus of each project listed below should be improvements and extensions of the existing neighborhood character.

1) West Housing- Upgrade existing facility. Upgrade pedestrian path east to campus.

2) Athletics- Add parking structure to meet needs of Cox Arena at Aztec Bowl. Relocate athletic uses from west end of Campanile Mall nearer to 55th Street.

3) Scripps- Upgrade existing facilities.

4) Historic- Replace high intensity classroom occupancy with a lower intensity educational or administrative use. Though this area is still compatible with classroom activities, extremely heavy use will complicate pedestrian patterns and lower the quiet and secluded quality of many of these spaces. Historic structures should become maintenance priority.

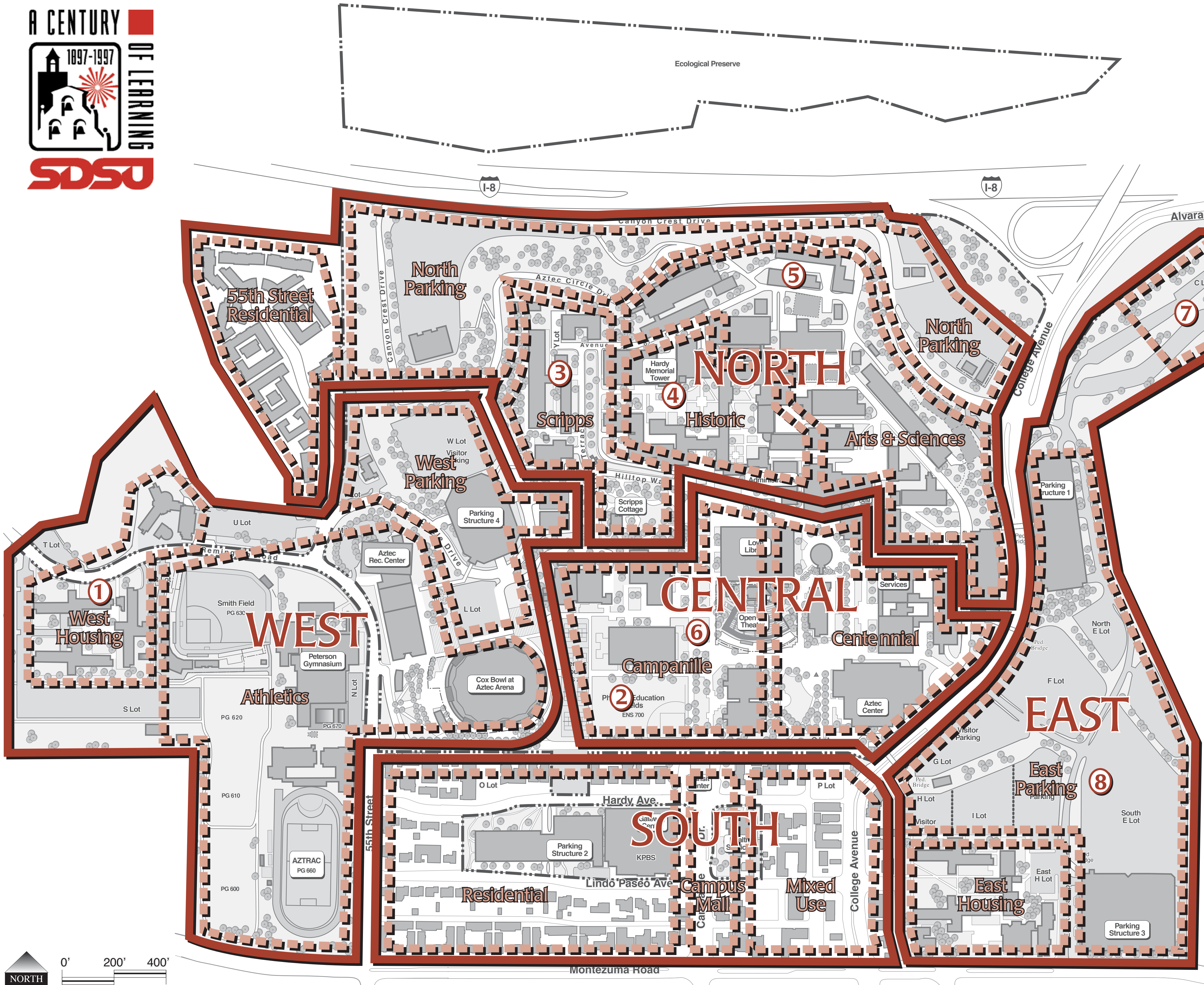
5) Arts and Science- Upgrade existing facilities.

6) Campanile- Upgrade existing building facilities. Enliven pedestrian activities on mall. Provide existing occupancies with more intense, more continuous use. Building infill at PE 700 field to complete mall edge and enhance visual axis. Landscape and hardscape solution to enhance visual axis. Enhance south terminus.

7) Alvarado Housing- Upgrade pedestrian path west to campus. Add multi-level structured parking at existing surface parking areas.

8) East Parking- Upgrade existing facility. Upgrade pedestrian path west to campus. Add adjacent recreation space.

NEIGHBORHOODS
Figure 4-7


A CENTURY OF LEARNING
1897-1997
SDSU
Ecological Preserve
I-8
Alvarado Road
Canyon Crest Drive
55th Street Residential
North Parking
NORTH
Hardy Memorial Tower
Scripps
Historic
Arts & Sciences
Alvarado Housing
Alvarado Medical
C Lot
D Lot
College Avenue
West Parking
W Lot
Parking Structure 4
Aztec Rec. Center
U Lot
T Lot
L Lot
Scripps Cottage
WEST
West Housing
Smith Field
Peterson Gymnasium
Athletics
Cox Bowl at Aztec Arena
S Lot
N Lot
PG 620
PG 610
PG 600
AZTRAC
CENTRAL
Campanile
Centennial
Aztec Center
Services
Parking Structure 1
North E Lot
F Lot
EAST
East Parking
G Lot
H Lot
I Lot
South E Lot
East H Lot
East Housing
Parking Structure 3
SOUTH
O Lot
P Lot
Hardy Ave.
Parking Structure 2
KPBS
Lindo Paseo Ave
Residential
Campus Mall
Mixed Use
55th Street
Montezuma Road
NORTH
0'
200'
400'

LEGEND

- Campus Districts
- Campus Neighborhoods
- ① Potential Neighborhood Projects

SDSU
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4.8 Building Character

Building Character Defined
The overall impression of a building results from a perception of how its individual elements come together. This composite and the feelings it evokes, is referred to as character. Character is set by all of the standard design elements: mass, form, scale, line, color, pattern, and texture. It is also established by architectural themes and expressions that may be regional, historic or representative of a specific design philosophy. Character is also greatly determined by the use of materials, fenestration and other building details. All of these elements combine to create character.

Student Services is a positive contextual design

Centennial Hall (Love Library Addition) is another good example of appropriate scale and context

An example of poor design with improper scale, fenestration and building massing

Relevance to the Campus

As an element in the larger context of the City of San Diego, the campus must maintain and encourage long-term identity as a learning institution. Its importance to the community is on the same level as other institutional treasures, such as Balboa Park.

Unlike an isolated setting, SDSU is a part of the city and must not rely solely on its architecture, most of which is indistinguishable from other urban architecture, to maintain its identity. It should encourage opportunities to enhance the quality and unique character of buildings as well as open spaces between buildings. It is critical that the campus commits to a harmonious built environment, with occasional punctuations coming from architectural statements.

Characteristics of Good Building Character

For a building to be considered as an asset, it should be harmonious with its surroundings, relate well to pedestrian scales, relate to historical context, be visually interesting, and include materials that are or appear to be permanent. The character of the building should also clearly communicate the activities that occur within the building and help support both the interior and exterior functions that are relevant to the primary activity. A building that is considered to be a liability would be out of scale, interferes with axial arrangements, inhibits a view corridor, contains a chaotic arrangement of building elements and materials that may be degraded.

Every structure on campus either contributes to the character, form and functional arrangement of the whole, has a neutral affect, or detracts from it. The quality of pedestrian spaces in an urban setting is largely controlled by the buildings and landscape that border them.

Major Architectural Elements

All buildings are rated as assets, liabilities or neutral elements as shown on Table 4-8 and Figure 4-8.

Historic Design Period Background

For purposes of this study, architectural design can be subdivided into three periods:

Mission Revival 1929- 1939
International Style 1940- 1960
Neo- Classicism and Neo-Spanish Revivalism 1961- present

Mission Revival Style

The Mission Revival style is a justifiable architectural style because it contributes to the Spanish-Californian identity of the region. The style is characterized by plain white stucco walls, arches, towers, red tile roofs and wrought iron decorative elements. As a romanticized Spanish villa, the scale of interconnected courtyards and arcades is intimate. Detailing reinforces a crafted and purposeful appearance. Asymmetrical building form grows from function. The Mission Revival structures are designated National Register of Historic Structures and can be modified only within the guidelines of the State Historic Building Code and in consultation with the National Park Service. Seismic resistance capability has been investigated. The buildings are partially ADA accessible.

Poor relation to adjacent buildings and historic context

As of March 1997, thirteen structures on the campus have been historically designated:

Historical Neighborhood:

- Hepner Hall, Mission Revival, 1930
- Little Theater, Mission Revival, 1930
- Life Science Building, Mission Revival, 1930
- Physical Science Building, Mission Revival, 1930
- Hardy Memorial Tower, Mission Revival, 1931
- Faculty / Staff Centre, 1932
- Life Science Building Annex, 1942
- Speech and Telecommunications Building (southeast portion), 1942

Arts and Science Neighborhood:

- Boiler Shop, Mission Revival, 1930

Scripps Neighborhood:

- Scripps Cottage, Mission Revival, 1931
- Campanile Neighborhood:
- Exercise and Nutritional Sciences Building (Women's Gym), Mission Revival, 1933
- Open Air Theatre, 1941

Athletics Neighborhood:

- Aztec Bowl, 1936

International Style

The style is recognized for a minimalist box-like simplicity, flat-roofed, anonymous white or buff colored box-like volumes, clear or tinted strip windows, south and west facing brize-soliels, and austere, undecorated facades. Designed by the State Architects Office, the design style proliferated throughout State campuses. Building form celebrates anonymity of function and mass production. The buildings feature poured-in-place concrete walls. The buildings are partially ADA accessible.

Neo-Classicism Style

Neo-Classicism is characterized by flat-roofed, white or buff colored cube-like volumes, clear or tinted strip windows behind roof to shade thin, taut, decorative screen walls, and/or austere, delicate colonnaded perimeter elements. Building form grows from forcing all functions into a single geometric volume, a reinterpretation the symmetry and studied geometry of the ancient classical era. Neo-Classicism shared some design elements with the historical Mission Revival style, primarily material texture and columns, specifically, an opportunity to allude to arched colonnades as a surrounding perimeter element.

Neo-Revivalism Style

Since the 1960s, the campus has maintained a policy that architecture will be complimentary to the original Mission Revival cloister. Justification for design elements had to be found on the campus. This has effectively narrowed opportunities for architectural exploration or radical departures from known campus architecture. New structures, with some exceptions, revisit elements of the Mission Revival cloister arched arcades, material and colors and tiled roofs.

Although the size, scale and repetition of spaces of buildings today do not foster the intimate scale or delightful asymmetry of the Mission Revival style, new structures on Centennial Mall are handsome and complimentary additions to the campus.

Table 4-8 • Summary of Building Character

Assets

- Historic central quadrangles/ Historic Core Buildings- Circulation relationship of quad and surrounding arcades, good examples of intimate academic quads, human scale, authentic building details.
- Historic easternmost courtyard/ Historic Core Buildings- Well defined courtyard volume.
- Alley/ north facade of Physics and Physics Astronomy Buildings.
- Avenue of Arts/ south facade of the Art Building.
- Scripps Terrace/ South facade of the Family Studies Building - Acoustic barrier from freeway noise.
- Campanile Mall/ buildings to the west and east- Well defined linear space.
- Centennial Mall/ perimeter buildings - Well-defined building edges and raised porches on plaza.
- Aztec Central Green, Axtec Center and the East Plaza Mall - Strong raised porch element fronting the Green.
- Pedestrian Promenade from Centennial Mall to East Commons/ building facades to north - Buildings are strong, asymmetrical borders to diagonal pedestrian path, historical College Avenue facade of original campus, counterpoint to Cartesian geometry of new campus to south.

Example Building Character Improvement Projects or Treatments

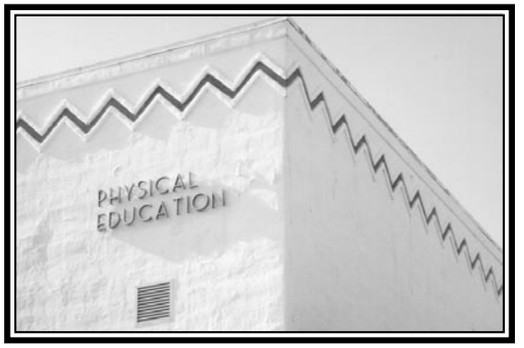
1) Historic Central Quadrangles/ Historic Core Buildings - Add arcade element to the Professional Studies and Fine Arts Building and replace deteriorating hardscape.

2) Campanile Mall/ buildings to the west and east -Place new structures on PE 700 field to complete mall edge to build on the mall character and improve enclosure.

3) Centennial Mall/ perimeter buildings - Replace facade or remove the Aztec Center Building, demolish the Education Building and add new structure mediating between Centennial Mall and potential pedestrian gateway from east, remove or reduce scale of tomb-like elements at new Library entry.

4) Aztec Central Green, Aztec Center and East Plaza Mall - Remove Ticket Office to fully expose arcade and raised porch to the Aztec Central Green, or alternatively, renovate and expand on existing structure and provide a more appropriate building facade facing the Aztec Central Green. Add border element on north edge of East Plaza Mall or rely on Redevelopment Area structures.

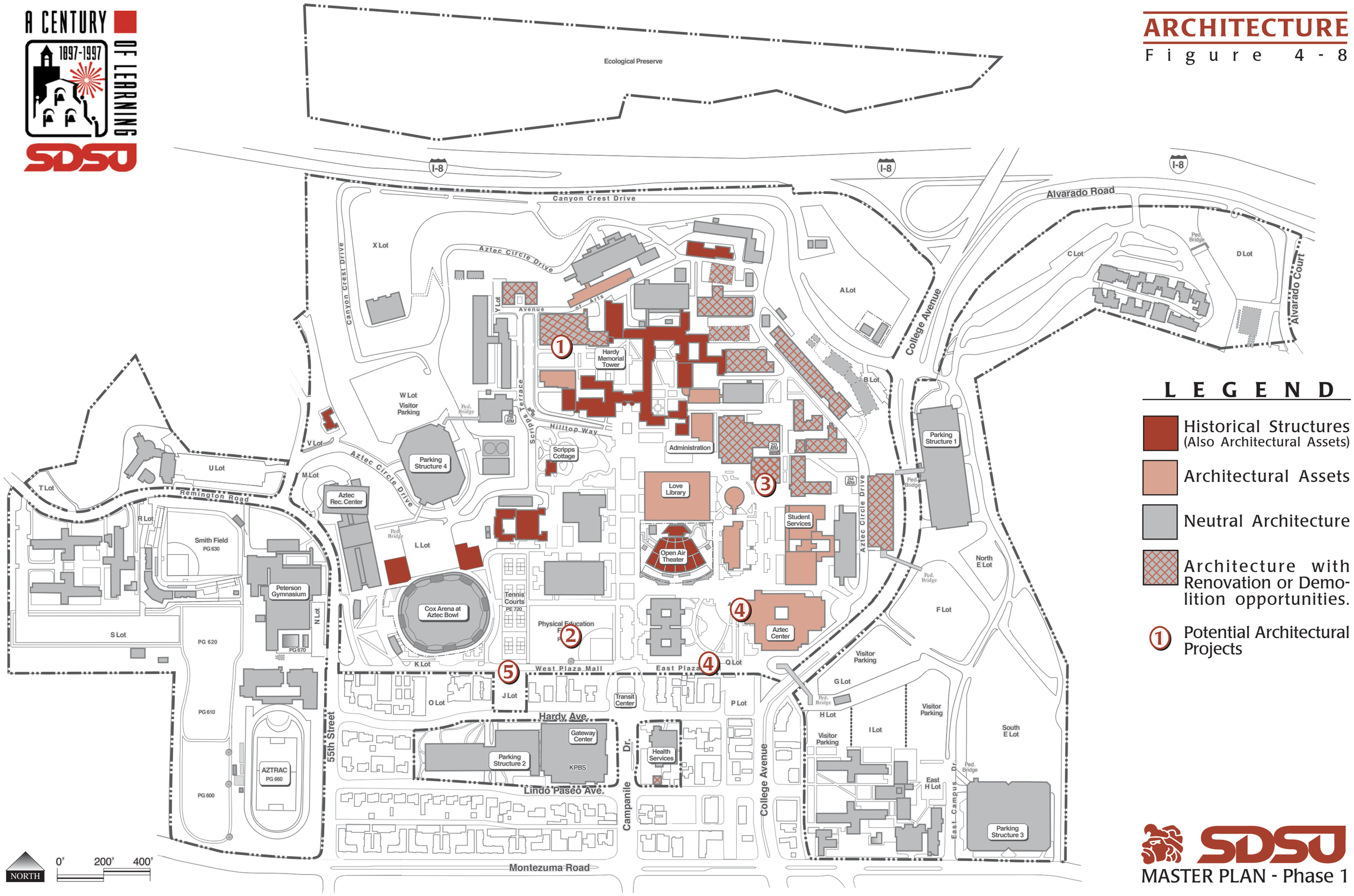
5) West and East Plaza Malls/ potential Redevelopment Area structures - Rely on Redevelopment Area structures, add hardscape, add visual terminus at west end and element at intersection of Campanile Mall. All of these improvements have the opportunity for not only defining this space, but also to set the character of the area through architectural form, detail and materials.



Much of the detailing and architectural character of the older buildings need to be repeated in new

A CENTURY OF LEARNING
1897-1997
SDSU

ARCHITECTURE
Figure 4-8



LEGEND

- Historical Structures (Also Architectural Assets)
- Architectural Assets
- Neutral Architecture
- Architecture with Renovation or Demolition opportunities.
- ① Potential Architectural Projects

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Landscape Architectural Elements

Landscape architectural elements include plant materials, site furnishings, light standards, fencing, walls, land form, paving materials, signage and artwork. Exterior spaces such as plazas, promenades, malls and courtyards are generally placed under the category of landscape architecture. Open space, greens, recreation facilities and parks also fall under this category.

4.9 Informal Open Space Elements

Campus Open Space Defined

Though the campus is fully developed and gives the appearance of an urban area, a significant amount of formal and informal open space still exists. Most of this open space consists of either slopes and environmentally sensitive areas, or are courtyards, plazas and malls. Some open space is defined by recreational activities such as field sports and jogging facilities. This section discusses only the informal open space and recreation facilities.

Scripps park is an important informal open space that is used by many as a retreat from adjacent activity

The Aztec Central Green is not only important as an open space resource but it also allows for diagonal site lines from East Plaza Mall to Centennial Mall

Relevance to the Campus

SDSU is an urban campus. As such, it contains a significant density of buildings and hard surface spaces. As a campus, however, it still needs to retain a "campus like" setting, which usually involves an integrated amount of informal natural and formal public spaces. To provide areas of respite and a relationship to the natural mesa top and canyon setting, remnants of this open space must remain intact.

Characteristics of Good Open Space

Natural open space should contain sustainable native vegetation, which generally consists of coastal sage, scrub oak and chaparral species on slopes and sycamores, cottonwoods and willows in lowland areas. A mixture of non-native indigenous species is also acceptable from an aesthetic and functional standpoint because most people do not know the difference between much of the native or non-native vegetation. Recreational facilities provide a more formalized setting, but also need to contain extensive amounts of landscape plant materials. Intensive recreational areas generally should have turf for ground surfaces and should be buffered and defined by dense plant materials.

Major Open Space Elements

The following elements are shown on Figure 4-9 and summarized on Table 4-9.

Natural Open Space

The north and northwest corner of the campus are the primary locations where natural slopes merge with the developed portions of the campus. This happened because the infill of what was once a major canyon running through the central area of the campus.

A lowland stream runs through this portion of the campus. The lowland is an inaccessible area, but is very visible from the mesa top as well as from I-8 and Canyon Crest Road. A significant open space exists on the north side of the campus, adjacent to I-8. Although this space is intact and native, it is not perceived as part of the campus.

The Aztec Central Green and the Scripps Cottage Park are two naturally appearing, non-formal landscaped spaces that are central to the campus open space system.

Recreational Open Space

Recreational facilities are concentrated in the western portion of the site. The tennis courts and ball field located west of Campanile are the only remnants of a more integrated recreation system. All other areas are devoid of recreational aspects.

Urban Open Space with no Plant Material

In general, the east and west sides of the campus contain significant amounts of open space. In many cases, however, this open space is composed of surface parking lots that are not perceived as positive open space.

Recreation fields are important informal open spaces

Table 4-9 • Summary of Open Space Elements

Assets
- The area on the slope west of Canyon Crest Drive to the northwestern boundary is an area of native vegetation.
- The area on the slope between Aztec Circle Drive and the west face of Storm Hall.
- The slope west-northwest of Chapultepec Hall.
- The area north-northeast of parking "A" lot is an area of biological and habitat preserve.
- The arched strip of land north of the Villa Alvarado Hall housing area bounded by Alvarado Road on the north, parking "C" Lot on the south and west, and "D" Lot on the east.
- The area north of the freeway currently designated as a biological and habitat preserve.
- Alvarado creek stream course and adjacent riparian areas.
- The Aztec Central Green, Aztrac and associated recreation fields.
- Scripps Cottage Park.

Liabilities
- Tennis courts- interrupt formal open spaces.
- PE Field number 700- should be developed as an urbanized core of campus.
- Open space areas associated with major surface lots in northwest and southeast corners of the campus.

Constraints
- Finite amount of natural open space that cannot be recreated.
- Constraints related to topography and campus development.
- Large space requirement for recreational fields and court sports.
- Limited land adjacent to existing recreation fields for creating the necessary additional fields within a succinct land use neighborhood and as appropriate for campus housing facility recreational use.

Opportunities
- Integration of natural open space and slopes into canyon edge facility development.
- Integration of recreational trails into natural areas including the preserve located north of I-8.
- Increased landscape plant materials can be added to non-native slopes to provide better buffering between the campus and adjacent streets and neighborhoods.

Potential Open Space Projects and Treatments

1) After appropriate historical research has been completed, demolition and removal of non-historically significant buildings should be planned in the northeast "village." Consideration should be given to the creation or enhancement of courtyards and plazas rather than the replacement with a building on the same site. Many buildings in this area are too closely sited. There is a lack of visual focal points. Currently, pedestrian travel through this area requires focus on the path of travel rather than enjoyment of the spatial surroundings because of the narrow spaces between buildings. Opening up some areas in this district would provide a modulation of the rhythms of positive and negative spaces as well as variety between the perceived and revealed spatial sequences.

2) Open space for passive recreation needs to be developed at each of the housing areas.

3) A reorientation of recreational facilities from the campus core (tennis courts and PE Field 700) will be necessary to handle future campus expansion. These facilities should be sited closer to the recreation complex and/or the East or West Residence Halls. Once these functions have been relocated, the open spaces found in these areas should be turned into formal open spaces that are integrated with the new structures. Site development should respect and enhance the axial arrangements and visual corridors that are possible in this area.

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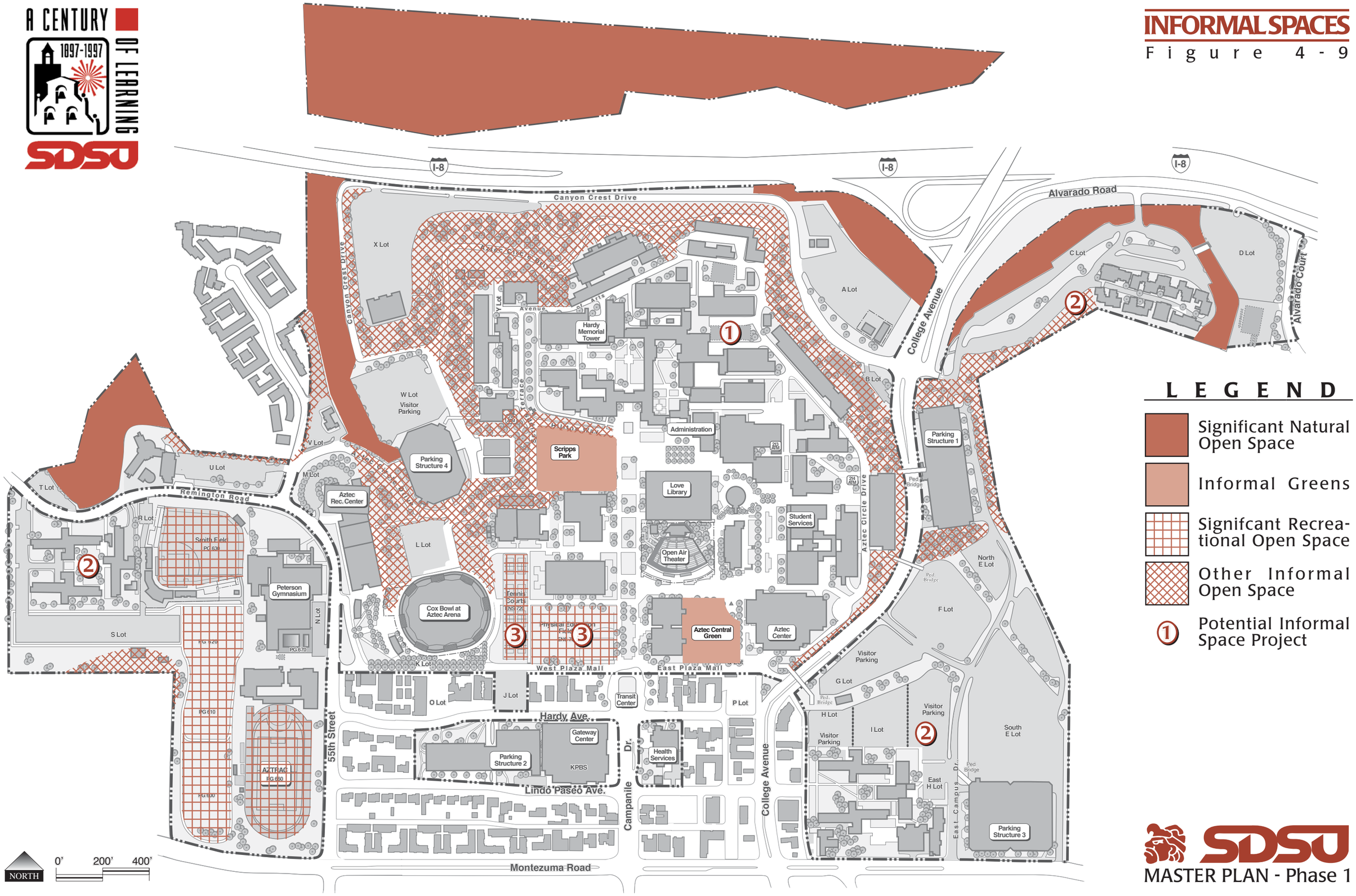
INFORMAL SPACES

Figure 4-9



LEGEND

- Significant Natural Open Space
- Informal Greens
- Signifcant Recreational Open Space
- Other Informal Open Space
- ① Potential Informal Space Project

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4.10 Formal Urban Spaces

Formal Urban Space Defined
Urban spaces are generally defined by building walls and are structured by vehicular and pedestrian corridors. These spaces are directly adjacent to one or more buildings and include significant amounts of hard surface treatments. Urban spaces can include promenades, malls, courtyards, plazas and terraces. The elements shared by all of these spaces is that they include a balance of hardscape and softscape, are partially or fully enclosed by architectural elements and accommodate pedestrian and/or vehicular traffic.

A mall is a multi-block lineal walkway with buildings arranged on each side of wide pedestrian pathways. These malls tend to be very geometric in layout and form.

A promenade is a lineal walk, smaller than a mall and not always geometrically aligned.

A plaza is a non-linear space, defined by buildings on one to three sides. Plazas are generally large and include seating with formalized landscape elements. Plazas typically contain large amounts of paving.

A courtyard is a small plaza that is enclosed by buildings or walls on three or more sides.

A terrace is a multi-level area that is above or below malls, plazas, pathways or roads. A terrace can be a transitory space for users on the move, but it can also serve as a seating and eating location.

Centennial Mall

Love library plaza, north of Love library

Relevance to the Campus

One of the important elements that helps to establish the form and character of the campus are plazas, courtyards and malls. These spaces define and make usable, the areas between buildings. These formal spaces set the character, function and circulation patterns for most of the campus.

These formal spaces are important because they provide the user with a sequential experience that unfolds when traveling from one building to the next. Formal spaces also serve as way-finding tools to help the viewer understand the campus.

Characteristics of a Good Formal Space

A formal space is considered successful it if relates to adjacent architecture, spaces, integrates pedestrian circulation, and provides site amenities that have interest and usability. Generally, in California, these spaces need both sunlight and shade if they are to be comfortable for sitting or passing through.

Formal spaces should also serve as front doorsteps to building entrances and as focal points for the overall campus. Inclusion of site elements such as seating, lighting and public art is also valuable for creating for a successful public plaza or formal space.

Major Formal Space Elements

The south and central portions of the campus include an integrated level of development and formal open space. The north and northeast areas of the campus are lacking in formal open space. The enclosed areas and leftover spaces that exist are not well interconnected and are dominated by vehicular traffic and parking. The following elements are shown on Figure 4-10 and summarized on Table 4-10.

Malls and Promenades

Two important malls exist on the campus, Centennial Mall and Campanile Mall. Of these two, Campanile Mall tends to function best as a formal, linear mall whereas, Centennial Mall is a combination of a mall and a plaza. Both of these elements contribute to the form and character of the campus and set the circulation patterns for most of the campus core. The East Plaza Mall represents a third mall that is both a promenade and a plaza (as its name indicates). Scripps Terrace, Hilltop Way and Aztec Circle Drive are all promenades in the sense that they are major pedestrian routes, even though they do not appear as pedestrian spaces. Although these areas provide a wide walking space, they do not contain the design elements that make them feel like major pedestrian promenades or malls.

Courtyard in the football operations center

An overall promenade exists as a pedestrian route that combines several other formal spaces. This promenade starts at East Plaza Mall; extends north through the Aztec Center and Centennial Mall; proceeds to the northwest through the Love Library Plaza; crosses Campanile Mall; continues down Hilltop Way and up Scripps Terrace.

Plazas and Terraces
Several plazas exist throughout the campus including those associated with Student Services, Aztec Center, Love Library (both old and new) and Administration buildings. Terraces exist by the Aztec Center, Dramatic Arts and the East Commons Courtyard eating area.

Courtyards
Several areas of the campus contain rigidly defined exterior spaces. The definition of the space is determined by the walls of buildings that enclose the space. Courtyards are typically enclosed and are accessed through portals. This enclosed spatial treatment is concentrated in the historic core of the campus by Hardy Tower, Hepner Hall, Physical Sciences, Physics, and Life Sciences buildings. Smaller courtyards exist within the Aztec Center and Student Services Buildings.

East Plaza Mall

West Campus Mall needs an extension and upgrade

Table 4-10 • Summary of Formal Space Elements

Assets
- All formal spaces, by definition, are considered to be campus assets unless they do not function properly or detract from the aesthetics and form of the campus.
- The Centennial Mall and Campanile Mall are two very important resources to the campus.
- Many of the smaller courtyards provide interest and a sense of discovery.

Liabilities
- All building entrances that do not contain a formal urban space should be considered as liabilities unless they are minor buildings or structures.
- Extensive use by vehicles for service, deliveries as well as by staff and visitors interrupts the functional and visual aspects of these important spaces.
- West Plaza Mall does not function or have the design elements of a mall.
- Aztec Circle Drive, Avenue of the Arts, Scripps Terrace and Hilltop Way function as important promenades but are currently aesthetically and functionally developed as roadways.
- Extensive amounts of asphalt for vehicular circulation and parking occurs throughout the campus even in areas that are extremely small yet service high levels of pedestrians.

Constraints
- As future development must occur, the amount of space for formal outdoor space will continue to decrease.
- Topographic conditions in several areas of the campus limit the ability to establish formal and geometrically designed spaces.
- Accommodation of vehicular traffic and service / emergency traffic must occur through areas designed for pedestrians.
- ADA requirements can make it difficult to create positive outdoor designs.

Opportunities
- Roadway spaces can be converted to pedestrian spaces while still being able to support restricted vehicular use.
- With demolition of the smaller low-density buildings in the northeast and north portions of the campus, an opportunity to increase courtyard space exists.
- Lighting, signage systems and site elements can be added to a number of partially enclosed spaces to make them more formal and functional.

Potential Formal Space Projects and Treatments

1) Many of the enclosed spaces in the northeast quadrant of the core campus can be substantially improved by the removal of miscellaneous parking, elimination of support equipment, screening of utilities and the establishment of new plant materials. Spaces between the following buildings should be improved: north of the East Commons and Administration Buildings; north of the North Education Building; north of the Physics and Physics Astronomy Buildings; north of the Industrial Technology Building; and the space south and west of the Engineering Building.

2) A stronger plaza space is needed between the West Plaza Mall to the historic Exercise and Nutritional Sciences Building, with an enhanced connection to the east side of the building on through to Scripps Terrace.

3) Reinforce the existing plaza edges and enhance and extend the spaces between Humanities and the Open Air Theater, and continue the plaza westward between the south side of the Music and Drama buildings and on to the Cox Arena at Aztec Bowl.

4) The existing courtyards found in the historic quad of the campus, need to be upgraded with both plant material, paving, lighting and seating. These design treatments need to respect and enhance the historic basis of these courtyards. Incorporation of fountains, memorials and sculptures in these areas should be considered but only after an in depth analysis of how the new elements relate to the historic nature of the area, how they relate to campus axial arrangements and how they will enhance instead of clutter the proposed courtyard.

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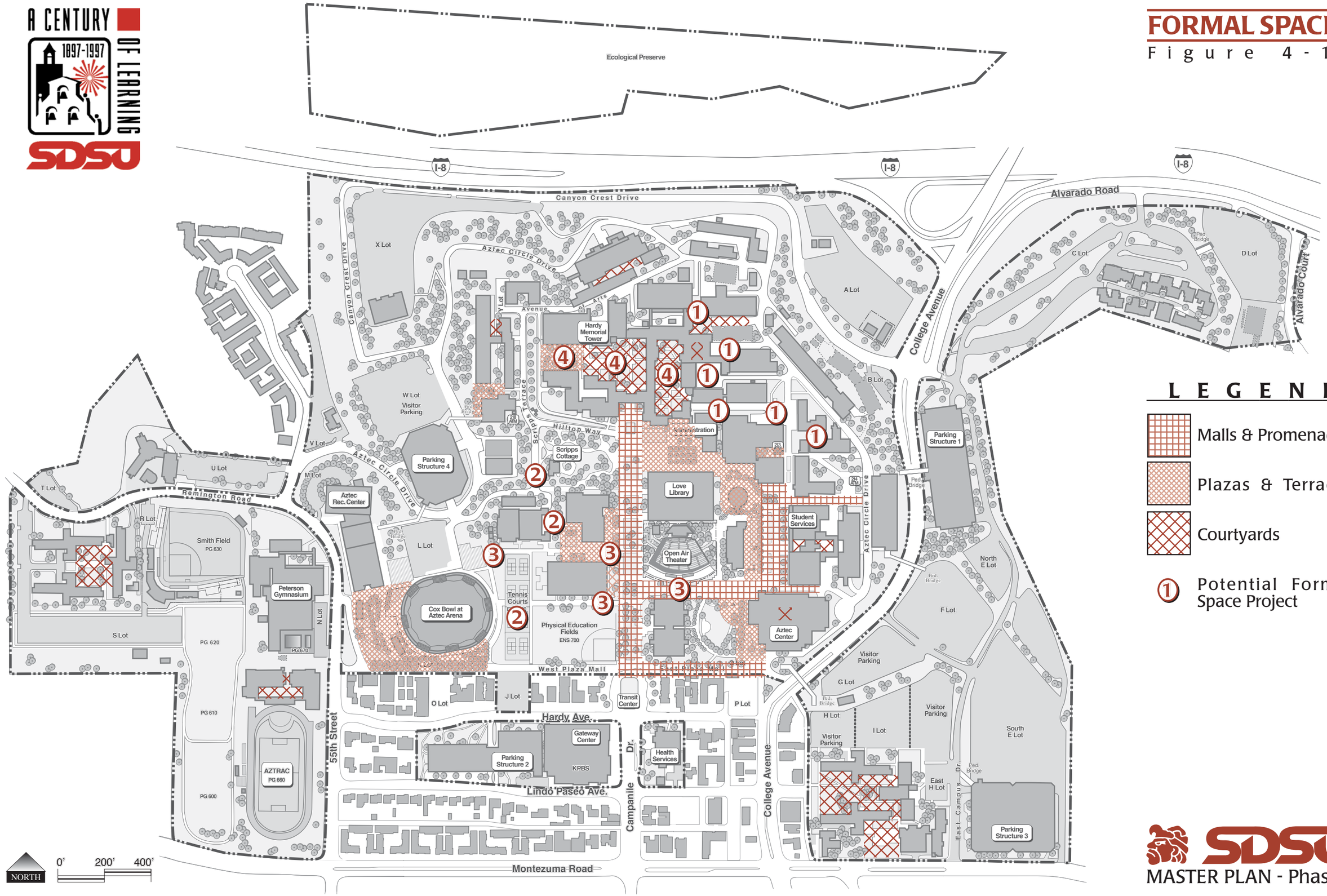
FORMAL SPACES

Figure 4-10



LEGEND

- Malls & Promenades
- Plazas & Terraces
- Courtyards
- ① Potential Formal Space Project

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4.11 Landscape Resources

Landscape Resources Defined
Although a variety of elements make up landscape architectural elements, the most common are plant materials. Plants tend to occur in most all locations on campus, but in many cases, the plant material becomes a backdrop or screening element. These plant material resources can include horticultural exotics, indigenous or native species.

Site furnishings include all of those elements that provide an important function or design statement that are not considered as architectural elements, plant materials or pavements. Furnishings usually include benches, wall seating, signage, lighting, fencing, water fountains, bike racks, and walls. Some of these elements are discussed under different sections in this chapter.

Relevance to the Campus

Plant materials tend to soften the harder elements of an urban campus. These materials have both a functional aspect (i.e. windbreak, screening, shade etc.) as well as aesthetic aspects such as spatial definition, accent and backdrops.

Site furnishings finish out the design of exterior spaces while at the same time they provide certain functional elements that accommodate seating, bike parking, night time visibility and wayfinding directions.

The new entry plaza at the Love Library expansion represents a good balance between high quality hardscapes and softscape design treatments

Characteristics of Good Landscape Design

Well designed landscaped areas take into account the functional requirements of a site as well as the design compositional requirements. Plant compositions need to be harmoniously associated with other plant materials in the same area. Plant materials also need to relate to the architecture and other site elements. Materials that are native or indigenous generally are more sustainable and relate to the regional context better. However, in many cases, the limited plant palette of natives and the poor soils and drainage make it difficult to achieve other functional and design requirements.

The inclusion of site furnishings is the first step in making outdoor spaces work. These elements should be consistent campus-wide while still relating to adjacent architecture and neighborhood elements. The scale, color, texture, design form, and materials are all important and must be coordinated.

The street tree canopy along Scripps Terrace is an asset. New sidewalks along the east side are warranted or the asphalt could be replaced with an upgraded material that would feel more pedestrian.

Major Landscape Architectural Elements

The following elements are shown on Figure 4-11 and summarized on Table 4-11.

Areas with High Landscape Architectural Quality

This category evaluates the quality and quantity of plant material along with an evaluation of how this material relates to the adjacent architecture and other exterior physical elements The central core of the campus including the Campanile Mall, Centennial Mall, Scripps Cottage Park, Aztec Central Green and East Campus Mall are all considered to have high quality landscape architectural treatments. All four parking structures tend to have higher quantities of landscape materials than most other buildings. The Cox Arena at Aztec Bowl and the Aztec Recreation Center are assumed to be assets based on review of current landscape plans.

Though the spatial form of the historic courtyards are assets, the existing plant material needs upgrading

Areas with Low Landscape Architectural Quality

Although most of the campus contains plant material, portions of the campus are somewhat devoid of vegetation, mostly the result of the crowding together of buildings, the use of the remaining space for vehicular circulation and parking, and the limited amount of maintenance.

The surface parking lots, residence halls and northeast corner of the campus are generally lacking in landscape architectural quality. These areas are devoid of plant material and are dominated by asphalt and vehicles. Though the spatial arrangements of the Campanile Mall, Transit Center, and historic building courtyards are considered as assets, each of these areas have specific problems or need enhancements in order to be considered as assets.

Areas with Native or Naturalized Vegetation

Figure 4-11 shows the location of naturalized or native vegetation. Though these areas may not be completely native, they do have the appearance of being natural or naturalized.

Neutral Landscape Areas

Most of the remaining areas of the campus are considered to be neutral. Either these areas have adequate treatments or they are in low visibility / low activity areas where these treatments are not essential.

Major Tree Resources

Figure 4-11 also shows the generalized locations of major tree masses located on the campus. These symbols represent mature trees that are substantial in size, thereby providing high levels of shade and functioning as important visual features and wayfinding elements.

Many of the spaces between the buildings in the northeast quadrant of the campus, are wall to wall asphalt and would benefit from adding higher quality pavement and plant materials

A redesign is needed for spaces north of the Courtyard Cafe and the administration building

Table 4-11 • Summary of Landscape Resources

Assets

- Major trees, mature vegetation or interesting patterns of plant material that are visually prominent.
- Native vegetation on natural land forms.
- High quality and design intensive plazas, terraces, greens and courtyards with extensive amounts of plant material.
- Large mature trees and shrubs that give a substantial historic and mature feeling to the campus.

Liabilities

- North campus area including spaces around the Engineering Building, Physical Plant/Boiler Shop, Physical Plant Building, and the Co-Generation Plant.
- The southwestern / Aztec Circle Drive front side of the Chemistry-Geology Building.
- The court bounded by the Industrial Technology Building, Physics and Physics Astronomy Buildings, and Physical Sciences Building.
- The delivery, service, parking area bounded by the Physics Building, Physic Astronomy Building, Faculty/ Staff Center Building, Administration Building, East Commons, and the Communications Clinic Building.
- The southern court between Storm Hall and Nasatir Hall.
- The slope around the pedestrian stairway between Aztec Circle Drive and West Commons.
- Parking Lots "W" and "X".
- The strip west of Canyon Crest Drive before the area of native vegetation on the slope.
- West campus areas including the strip along the north side of Remington Road and the strip west of 55th Street (especially near N Lot).
- Various central campus areas including the West Plaza Mall, the center quads of Campanile Mall, the center strip of grass in Centennial Mall and the space between the Exercise and Nutritional Sciences Building and the Exercise and Nutritional Sciences Building Annex.
- Several East campus areas including Parking Lots E, F, G, H, and I and the western court between Olmeca Residence Hall and Maya Residence Hall.

Constraints

- Budgetary construction cost limits and maintenance constraints.
- Difficulty in establishing native plant material areas.
- Existing native areas should be considered as constraints to new development.
- Limited planting spaces in the northeast quadrant of the campus.

Opportunities

- Removal of pavements and older, non-historic buildings and replacement with pedestrian plazas and pathways that include plant material.
- Perimeter and interior parking lot tree placements.
- Streetscape development along Aztec Circle Drive, Canyon Crest, Avenue of the Arts, Scripps Terrace, and Hilltop Way.
- Extension of West Plaza Mall and other areas out into the Redevelopment property up to Montezuma Road can represent opportunities for new streetscape developments.

Potential Landscape Architectural Projects and Treatments

1) The East Residence Hall exterior grounds need substantial landscape architectural improvements. Many of these areas will be addressed by the current revitalization efforts of this area. However, these improvements should extend beyond the immediate grounds of the resident halls. Several pedestrian projects have been listed above under the circulation section that would need to be integrated into this landscape improvement project.

2) A rework of the Campanile Mall and the Transit Center is needed. New lineally arranged trees should replace the randomly arranged trees that now block the view of the Campanile arch and Hardy tower. Returning to a more axial and formal arrangement will help strengthen this important pedestrian plaza space.

3) New design treatments are needed for the central turf mounds located in Centennial Mall. Although the mounds provide some informal seating areas, the level of pedestrian traffic in this area and the centralized focus of the axial arrangements, leaves the design lacking. Seating walls, sunken terraces, sculptures and plant material are needed to provide a more interesting and intensive design statement.

4) The major pedestrian portal that occurs from surface parking Lot "W: and from Parking Structure 4, currently is poorly maintained and lacks visual interest. The pedestrian crossing, stairs and adjacent slopes do not portray the importance of this entrance. New paving, lighting, signage and plantings are needed in this area. Since a substantial number of steps exists in this area and pedestrians tend to focus on adjacent areas to these steps, it represents an unique opportunity to provide terraced planters, walls and colorful plant species.

5) The pathway leading from Scripps Terrace/ Hilltop Way to the pedestrian portals leading to Parking Structure 4 and to the steps leading down to Lot "W" is mostly hidden from view and contains several negative features. The service entrance and trash area are directly exposed to pedestrians and serve to hide the pathway extending south of Nasatir and Storm Halls. The service area should be reconfigured and screened and the pathway should be made more visible with plant materials, paving, lighting and signage.

6) Historic central quadrangles/Historic Core Buildings- Replace/renovate deteriorating landscape.

7) Historic east courtyard/Historic Core Buildings (Alley/ north facade of the Physics and Physics Astronomy Buildings) - Replace vehicle parking with pedestrian use, add hardscape and landscaping.

8) Create a pedestrian promenade from Centennial Mall to West Commons with hardscape, landscape and lighting elements.

9) Aztec Circle Drive - Improve pedestrian crossings and pedestrian bridge. Add hardscape and landscape to physically connect to other pathways.

10) Develop East / West Plaza Drive into East / West Plaza Mall thereby creating an enhanced pedestrian experience.

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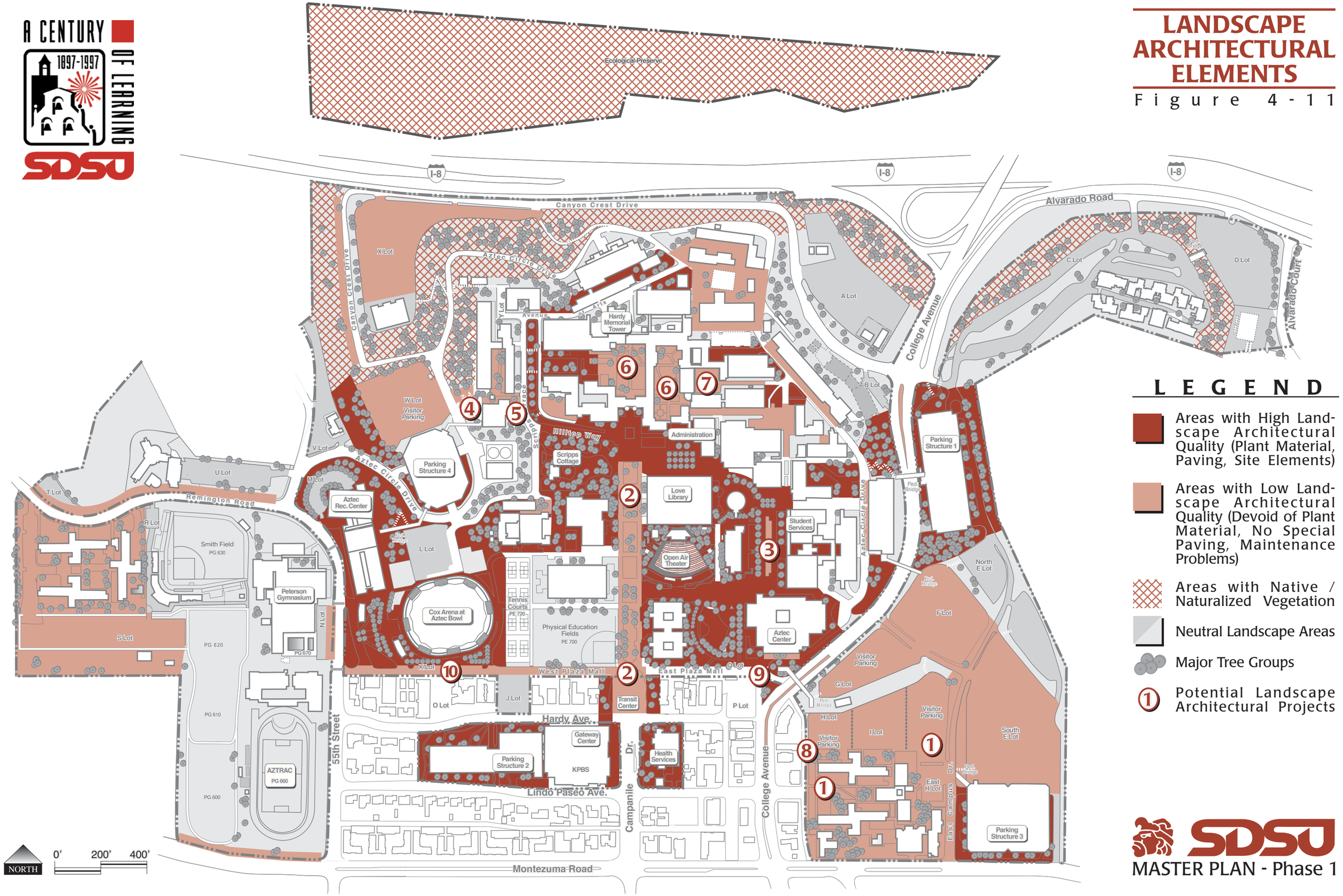
LANDSCAPE ARCHITECTURAL ELEMENTS

Figure 4-11



LEGEND

- Areas with High Landscape Architectural Quality (Plant Material, Paving, Site Elements)
- Areas with Low Landscape Architectural Quality (Devoid of Plant Material, No Special Paving, Maintenance Problems)
- Areas with Native / Naturalized Vegetation
- Neutral Landscape Areas
- Major Tree Groups
- ① Potential Landscape Architectural Projects

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4.12 Wayfinding Systems

Wayfinding Defined

A wayfinding system is a mutually reinforcing group of aids that forms a language of visual cues that enable people to make navigational and directional decisions. The language may include signs, art, color, shape, symbolism, maps, landscape, architectural elements and lighting. Because people respond differently to stimuli, incorporating a variety of components into the wayfinding system increases its usefulness. The wayfinding system should also reinforce the neighborhoods/districts concept outlined in this master plan.

Most of the signage system is made up of scattered small wooden directional signs

Newer signs consist of prefabricated metal with slip in panel systems

Relevance to the Campus

A basic need of first time campus visitors, as well as those that are only partially familiar with the campus, is wayfinding. Since the urban pattern of the campus does not allow for street names, addresses, or city block arrangements that are often relied upon off campus, a wayfinding system is essential. This wayfinding system is needed at both the vehicular level and at the pedestrian level.

Characteristics of a Good Wayfinding System

Areas that are easy for people to find their way around are characterized by larger open spaces where the site layout and form are formal and allow for uninterrupted views of major buildings and landmarks. These elements are used by campus users to "connect the dots" between origin points and destination points. Full view of buildings and other architectural interest points also helps users find their way around. Consistent paving materials, site furnishings, architectural style, lighting standards, colors and other design elements can all contribute to sense of place, which in turn, provides the user with neighborhoods and districts that help mark the boundaries of their journey through the campus.

Major Wayfinding Elements

The following elements are shown on Figure 4-12 and summarized on Table 4-12.

Areas with High Wayfinding Capability

Most of the areas with high wayfinding capability are at the central core of the campus. The Campanile Mall, Hilltop Way, North Library Court and Centennial Mall are all spatial features that contribute greatly to wayfinding ability.

Areas Lacking in Wayfinding Capability

Difficult wayfinding areas tend to be concentrated on the northeast side of the campus, adjacent to the historic district. Building types, arrangements and density all serve to make it difficult for users to find their way around. Without being able to see building tops, forms and landmarks, travel through these areas is difficult. Constant changes in paving material, pathway direction and blocked visual corridors may make for interesting adventures but do not provide good wayfinding elements for visitors and new students.

Additional areas of wayfinding difficulty include the East Commons Parking Lots "H" and "I" as well as the Peterson Gymnasium area. In the case of the East Commons area, the site position of the buildings and adjacent parking lots are all contrary to the diagonal pedestrian pattern through this area. An overall lack of clearly defined spaces and paths is most responsible for wayfinding difficulty in this area. Areas around Peterson Gym are difficult to get to because they are segmented from the pathways and spatial arrangements characteristic of the rest of the campus. Also, the western end of Aztec Circle Drive where it meets 55th Street, has a general lack of sidewalks making it difficult to find one's way around.

Neutral Structures and Areas with Moderate Wayfinding Capability

The remaining areas of the campus are considered to be neutral in terms of difficulty of wayfinding. Some of these areas are relatively easy to navigate because of large open areas and high visibility of destination points. Other areas contain very low volumes of activity and wayfinding is a low priority.

Existing Directional Signs

For the most part, SDSU has very few signs to help the visitor or new student. In many areas, the use of signs is generally an admittance that other spatial arrangements and wayfinding techniques have failed and that literal wayfinding elements are needed. Because of the large number of students and visitors to SDSU and the complex nature of the campus, directional signs are needed regardless of the success of the layout of physical elements. Kiosks and directional signs are all but nonexistent, though several have been added very recently. Building name, use and numbers are not clearly identified. An extensive signage system is needed in addition to the incorporation of sculptures and other spatial definers. For areas with major public attendance such as the new Cox Arena at Aztec Bowl, Open Air Theater, Love Library and the Aztec Center, signage is extremely critical and should receive top priority. Based on the design of the existing signs, most of these signs will need to be replaced.

Existing Informational Kiosks

Figure 4-12 indicates the location where informational kiosks have been added. The Centennial Mall is now well served by these informational kiosks. Appropriate kiosks should also be added at or near the pedestrian portals.

New directory kiosk map system

Table 4-12 • Summary of Wayfinding Elements

Assets

- All areas listed on Figure 4-12 as High Wayfinding Capability.
- Formal and axial arrangements of the campus.
- Larger plazas and spaces that allow for fuller view of building arrangements.
- Formal arrangements of buildings in around Centennial Mall and Campanile Mall.
- Limited number of streets and turns where drivers must make decisions.

Liabilities

- Crowded and dense nature of the northeast corner of the campus.
- Limited sight lines and view corridors.
- Lack of signage and building numbering system.

Constraints

- Cannot change the basic form of the campus that makes it difficult to wayfind.
- Constant change in pedestrian / vehicular spaces and the use of roadways by pedestrians and use of pedestrian spaces by vehicles.

Opportunities

- Centralized and controlled pedestrian entrances from parking structures and parking lots routed through pedestrian bridges.
- Incorporation of site elements, lighting, signage, landscape treatments and public art to form a wayfinding system.

Raised metal lettering should never be placed away from the wall. Cast shadows make it difficult to read.

Potential Wayfinding Projects and Treatments

1) Take a fresh look at major campus entry signs and gateway treatments.

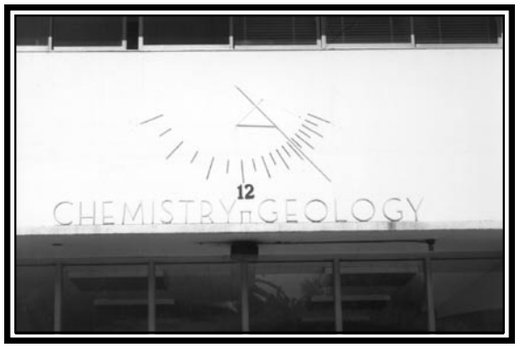
2) Add primary vehicular directional signs along College Ave., Montezuma Road, Campanile Drive, Canyon Crest Drive, Aztec Circle Drive, 55th Avenue and Remington roadways. Many existing vehicular signs are improperly placed and / or oriented for the intended viewer. New signs should be carefully located and oriented perpendicular to the primary traffic flow.

3) Add map systems and directional kiosks at all of the major pedestrian portals. Maps should always be oriented properly for the viewer, i.e. a north facing map should have a north orientation. Maps should be simplified as much as possible down to their essential components, showing only the information the viewer needs to know.

4) Construct pedestrian level directional signage system throughout the campus.

5) Provide a hierarchical system of signs that concentrate on special event venues such as the Open Air Theater, Cox Arena at Aztec Bowl, Love Library, and Aztec Center.

6) Create a signage system that creates distinct neighborhood character identification.



The "ribbon" typestyle on raised aluminum letters (mounted flush) should be used throughout the campus

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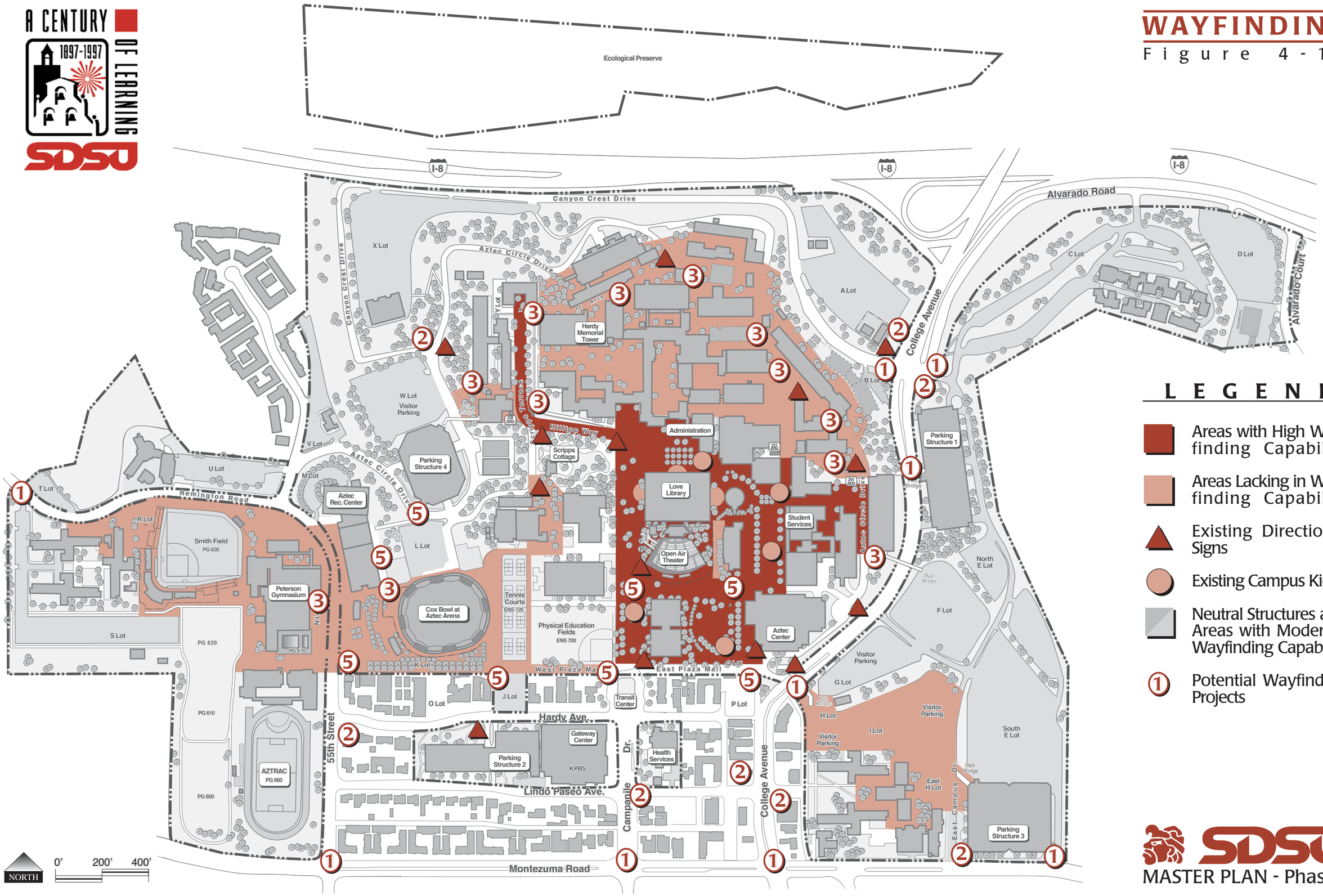
WAYFINDING
Figure 4-12



LEGEND

- Areas with High Wayfinding Capability
- Areas Lacking in Wayfinding Capability
- Existing Directional Signs
- Existing Campus Kiosk
- Neutral Structures and Areas with Moderate Wayfinding Capability
- ① Potential Wayfinding Projects

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4.13 Memorials and Public Art

Memorials and Public Art Defined
A memorial is defined as a sculpture, plaque or marking that has a historic story or is recognizing an individual, event or group. Public art is defined as sculptures, art pieces, murals, or other non-functional and functional elements arranged in an artistic way.

Relevance to the Campus

Considering the number and variety of spaces found on the campus, it is surprisingly devoid of sculptures and artwork. These types of public art pieces can dramatically improve the visual and perceptual layout of the campus. Most art pieces are vivid and memorable. The human mind marks different spaces by noting unusual or distinctive elements. Just as a treasure map identifies major turning points by the use of distinctive land forms, water bodies, streams, unique trees etc., so can artwork, sculptures, memorials and plaques. These elements put a name to miscellaneous spaces and they often provide visual terminuses and landmarks.

In general, only a few pieces of public art are available on the SDSU campus, such as this one at the transit center

Based on the historic nature of the campus, a large variety of memorials and plaques could exist. These elements, however, are not discussed here in detail since they were covered in Chapter 2.

Characteristics of Good Public Art

Most art has the potential of being controversial. This controversy is often a sign of success since one of the major objectives of public art is to be noticed, interpreted and commented on. This master plan does not intend to comment or direct the actual content of art elements. However, since art does provide a functional aspect in place-making and wayfinding, it is discussed here as an important element.

Major Public Art Elements

Figure 4-13 shows the current location of public art and sculptures. This map also shows potential locations where other major art pieces could be placed. These locations were determined by the prominence of the proposed locations as well as by their role in wayfinding.

No evaluation of public art elements or potential treatments is included in this phase of the study.

Sculpture can provide a focus to an open space area and can create a serene environment

Memorials should combine information as well as sculpture together whenever possible

Public art and memorials, such as Montezuma statue located on Campanile Mall, should be an integral part of the formal open space systems and should be viewed as having a functional role in setting the character of a space and as wayfinding markers

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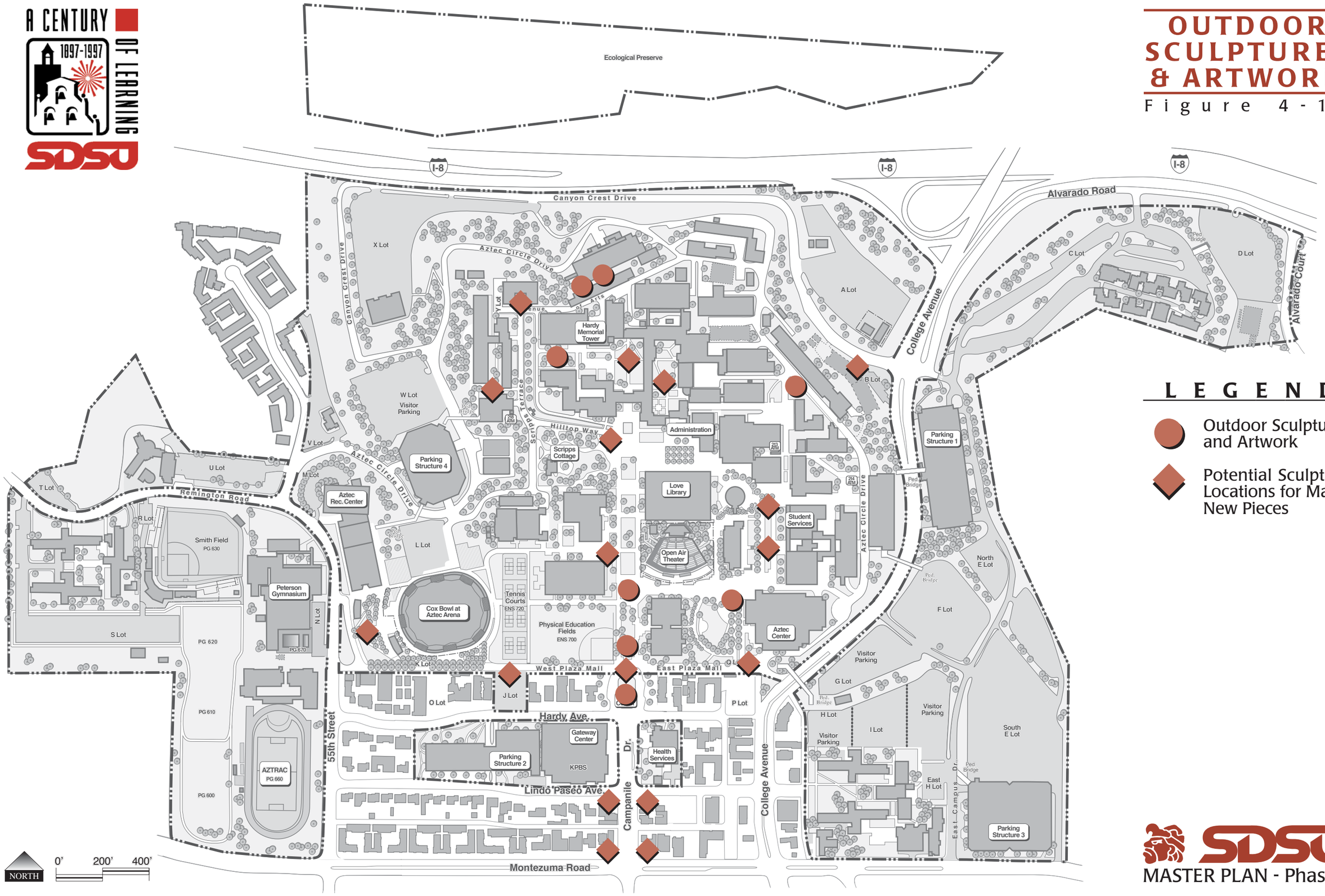
OUTDOOR SCULPTURES & ARTWORK

Figure 4-13



LEGEND

- Outdoor Sculptures and Artwork
- Potential Sculpture Locations for Major New Pieces

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Circulation Elements

There are three levels of circulation on the campus: vehicular, bicycle and pedestrian. The most important and sensitive type of campus circulation is the pedestrian pathway activity. Pathways include all roads, walkways and unimproved paths. Pathways provide physical access to all areas of the campus and are the primary wayfinding element.

Primary, secondary and service roads provide vehicular access to all areas of the campus. Bicycle accessible roads and paths are dispersed around the campus and are strictly governed by campus policy.

Particular problems with the circulation elements include incomplete pathways, poor lighting, perception of lack of safety, steep grades, rough surfaces, narrow roadways, tight turning radius and unclear pedestrian/vehicular divisions.

Parking issues are included in this section, in support of vehicle circulation. Particular problems with parking are the condition of surfaces, consistency of light fixtures, scale of the lot, the presence of or lack of landscaping, definition of pedestrian areas and walks.

4.14 Vehicular Circulation and Parking

Vehicular Circulation and Parking Defined
Vehicular Circulation and Parking refers to all vehicular movement and parking facilities including primary routes, secondary routes, service roads, parking structures and lots. Vehicular Circulation and Parking, except for emergency access and circulation, are necessary elements for campus operations but are secondary to pedestrian activity.

The entry to the campus for most users is from adjacent major arterials to the south or from I-8 to the north

Relevance to the Campus

Vehicular Circulation and Parking serves all areas of the campus— arrivals and departures, deliveries, parking and disabled parking, and emergency access. Numerous pedestrian pathways are accessible to special permit vehicles.

Characteristics of a Good Vehicular System

A good vehicular system will readily support all campus activities while not intruding on the primary pedestrian environment. Vehicles will arrive and depart the campus environs with little or no conflict with major rights of way serving the campus. Intersections will be designed to allow smooth flow of traffic and include turnout and pass-through lanes for continuous traffic movement. Vehicle entries to the campus and parking areas will not conflict with pedestrians. Pedestrian overpasses are encouraged. The campus will restrict on-site vehicles in support of pedestrian activities. Adequate parking will be provided. Mass transit will be encouraged to reduce vehicle volume.

Major Vehicular Circulation and Parking Elements

Primary Off- Campus Vehicular Routes

From a regional perspective, the entrance to the campus is perceived to be from either the north or the south:

College Avenue- College Avenue is a primary north/south vehicle artery connecting Interstate-8 to Del Cerro and the College Area communities. SDSU, located at the intersection of I-8 and College Avenue, is impacted by traffic heading south to the College Area community. The community is similarly impacted by SDSU traffic congestion on College between Montezuma Road and I-8. Several turnouts to parking lots aggravate this problem. Both sides of College Avenue, adjacent to the University, are landscaped and otherwise improved. Sidewalks, lighting and banners contribute to the aesthetics. If widening is a consideration, the hillside on the west side of College Avenue is a restriction to road widening. Some widening adjacent to Parking Lots "G" and "F" may be possible on the east side. This would facilitate a double turnout lane, from the north, into that large parking area and may ease congestion in that specific area. Road widening north of Parking Lot "F" is not likely because of Parking Structure 1.

A grid pattern of arterials and collector streets exists south of the main campus in the Redevelopment area

Canyon Crest Dr. provides for an external loop system that serves several major parking structures / lots

Aztec Circle Drive provides for an internal loop system

Primary intersections, heading south on College Avenue, are:

1. Canyon Crest Drive leading west to unrestricted lower parking areas and the spur road leading east to all parking east of College Avenue.
2. Aztec Circle Drive leading west to restricted parking and service areas.
3. Lindo Paseo Drive leading west to restricted parking and East to student housing and Visitor Parking areas.
4. Montezuma Road leading west and east across south boundary of campus.

Montezuma Road- Montezuma Road is a primary east/ west artery at the south boundary of the campus. On the west, Montezuma Road connects directly to I-8 via the Fairmont Avenue exit and to El Cajon Boulevard on the east. Montezuma Road is the destination for all traffic coming to the campus from points south of I-8. Both sides of Montezuma Road, adjacent to the University, are landscaped and otherwise improved. Sidewalks, lighting and banners contribute to the aesthetics. If widening is a consideration, housing on both sides is a restriction to widening, however the redevelopment project could dedicate an additional westbound turnout lane at College Avenue. The College Avenue intersection is the most impacted by traffic.

Primary intersections, heading east on Montezuma Road are:

1. Collwood Avenue bringing traffic north from El Cajon Boulevard.
2. 54th Street bringing traffic north from El Cajon Boulevard.
3. 55th Street, the westernmost primary campus entry to parking areas.
4. Campanile Drive, the existing public transit entry and the proposed ceremonial entry, per redevelopment plans.
5. College Avenue.
6. East Campus Drive

Secondary Off-Campus Vehicular Routes

Lindo Paseo Drive- Lindo Paseo Drive is the first primary public access into the campus south of the College/Canyon Crest intersection. Lindo Paseo leads to both unrestricted and restricted parking areas and, notably, the campus parking permit kiosk. Lindo Paseo Drive is unimproved and not an attractive thoroughfare. Lindo Paseo Drive is a poor first impression for visitors needing a parking permit for special parking. The road is likely to be abandoned or improved as part of the redevelopment project.

Campanile Drive- Campanile Drive is a major public transit entry into the campus north of Montezuma Road. The place where it aligns with Campanile Mall and the entry to the historic Quad, is designated for improvement to become the ceremonial main entry into the campus at the time of redevelopment. The proposed LRT will include a station at or near Campanile Drive. Both sides of Campanile Drive are unimproved. The minimum width of Campanile Drive should maintain the view corridor to the Mall and Quad beyond.

55th Street- 55th Street is a major traffic entry into the campus north of Montezuma Road. 55th Street is the primary right-of-way into and out of the residential pocket west of the campus. Improvements need to be sympathetic to the residential needs. 55th Street is the primary vehicle entry leading to unrestricted parking in the western area of the campus and to special events at the Cox Arena at Aztec Bowl. 55th Street has a direct connection to I-8 via Montezuma Road and substantial amount of east bound traffic on I-8 will enter here to avoid College Avenue. Both sides of 55th Street are landscaped and otherwise improved. Sidewalks, lighting and banners contribute to the aesthetics. The recently completed Cox Arena at Aztec Bowl and Aztec Recreation Building are restrictions to widening. The athletic facilities on the west may allow for some widening.

Parking Structure "2" is one of four major parking structures on campus

Parking Structure "3" is located on the extreme southeast corner of the campus

Primary On-Campus Vehicular Routes

Canyon Crest Drive- Canyon Crest Drive serves only the university and no other uses. From the north, this is the first opportunity to enter the lower campus road system leading to on-campus roadways and destinations, including parking. Canyon Crest Drive ultimately connects to Aztec Circle Drive and 55th Street. Canyon Crest Drive will be heavily used at all times, including special events. Canyon Crest Drive is currently proposed to be widened to three lanes.

Aztec Circle Drive- Aztec Circle Drive serves only the university and no other uses. Aztec Circle Drive is a loop road through the campus from 55th Street to College Avenue. Traveling south on College Avenue, this is the first opportunity to enter the upper campus road system leading to on-campus roadways and destinations, including Special Permit Parking, Restricted Service Vehicles, Vendors and Emergency. At the intersection of College Avenue, conflict exists between heavy vehicular traffic competing with pedestrian traffic from the footbridge. Off 55th Street, Aztec Circle Drive leads to lower parking areas and ultimately connects to Canyon Crest Drive and back to College Avenue. Portions of Aztec Circle Drive will be heavily used at all times, including special events.

East Campus Drive- Links College to Montezuma. This road provides the primary route to eastside parking lots and garages. The road is in need of better landscape treatments and pedestrian sidewalks.

Service/Special Parking Access Routes

Aztec Circle Drive- Aztec Circle Drive is the primary campus service road. From Aztec Circle Drive traffic can access most academic facilities and many restricted parking areas. The campus discourages the use of Aztec Circle Drive as a traffic connector between the east and west sides of the campus.

Scripps Terrace- Scripps Terrace is an extension of Aztec Circle Drive. Scripps Terrace fronts onto Storm Hall, the Quad and the West Commons, providing delivery access and restricted parking to this intensely pedestrian-oriented area of the campus.

Avenue of Arts- As is the case with Scripps Terrace, Avenue of Arts provides delivery access and restricted parking to this intensely pedestrian-oriented area of the campus.

Restricted Service/ Vendor/Emergency Routes

Numerous Restricted Service/Vendor/ Emergency Routes exist throughout the campus (see map). It is intended that all pedestrian pathways of the campus are vehicle accessible for emergency purposes. All hardscape shall be designed for traffic loading and maintenance.

Parking Facilities

It is forecasted that 80% of students, faculty and visitors will commute by car to the campus by the year 2015. This number does not include another 4,400 daily LRT commuters. A Parking Demand Study was conducted in May, 1996 (Rich and Associates) and concluded that a shortfall of 1,675 spaces is projected by the year 2000 even if 1,100 new spaces are added to the inventory with a new Parking Structure 5.

-A shortfall of 2,775 spaces is projected for 2000 without the new structure.

-The LRT construction will cause a three-year shortfall of 1,843 spaces.

-Redevelopment is projected to cause loss of 203 spaces by 2000.

-Campus growth is projected to cause loss of 729 spaces by 2000.

For a summary of total spaces per lot or structure, refer to a Department of Facilities Planning Management study-Parking Circulation Systems Facilities Report, as of Fall 1997.

For ADA compliance of parking lots and structures, refer to the Architectural Barrier Removal Project (Building Analytics, July, 1993).

The primary Parking Structures and Lots are (refer to Figure 4-14):
Parking Structures 1,2,3,4
Surface Lots E, F, G, I, W

The Secondary Parking Lots are:
Surface Lots A, X, C, D

Off-Campus Parking

Limited off-campus parking is available throughout the College Area Community. Off-campus parking policy will need to be coordinated with the emerging College Area Business Improvement District.

Table 4-14 • Summary of Vehicular Circulation Elements

Assets

- The campus is served by an outer loop system- College Avenue, Montezuma Road, 55th Street, Aztec Circle Drive, Canyon Crest Drive- and an inner loop system- Aztec Circle Drive. These two systems support a surrounding public access element and an inner semi-private element. Conflicts exist but the concept is clear and easy to understand.
- A majority of campus parking is appropriately accessed from the outer loop system. This has substantially reduced vehicular traffic in the academic areas and enhanced the pedestrian environment.
- Campanile Mall, an extension of Campanile Drive, and Centennial Mall, an extension of College Avenue both provide view corridors into the campus to passing traffic on College Avenue and Montezuma Road, reinforcing the campus presence and aiding campus navigation.
- College Avenue exit at Interstate-8 is convenient to campus without substantial impacts to the surrounding community.

Potential Vehicular Circulation and Parking Projects and Treatments

1) Most of the existing surface lots are devoid of screening and shade trees, resulting in a poor visual image. These lots also need a more defined pedestrian route through them. Enhanced paving, street trees and signage are all needed to pull pedestrians from and through these lots into the pedestrian portals. Design treatments are especially needed for the following surfaces Parking Lots: H, I, E, T ,W, and X.

2) A reconfiguration of the Aztec Circle Drive at the College Avenue Entrance is needed. Pedestrian and vehicular conflicts exist here and the design quality of this major vehicular and pedestrian portal is diminished by the current materials and configurations. Pedestrian-scale bollards, lighting, landscaping and paving material should be extended from the pedestrian bridge to the Aztec Center. A pedestrian oriented kiosk should also be placed out of the travel lane to provide a quick orientation tool for visitors.

3) The limited number of parking spaces found in "Q" lot does not appear to justify the use of this area for parking. This pedestrian entry portal and linear mall serves as one of the front doorsteps of the campus, but it is often cluttered by numerous vehicles parked in this area. Once adjacent parking can be identified, these spaces should be removed and redesigned to become part of the East Plaza Mall.

4) Significant changes to the circulation system should occur in the Redevelopment area. The primary entrance should be at Montezuma Road and Campanile Drive. Hardy Avenue and Lindo Paseo Avenue should not connect through to College Avenue. Multiple entrances into this area tend to confuse the driver and diminish the importance of gateways in this area.

5) The Canyon Crest Drive and College Avenue intersection is heavily impacted. This intersection accommodates traffic to parking east of College Avenue and to parking west of College via Canyon Crest Drive. Take whatever traffic engineering and street reconfigurations are necessary to protect and increase the efficiency of this off-ramp and intersection.

6) Coordinate with Caltrans to encourage the majority of parking-bound I-8 traffic to exit directly to parking facilities via additional I-8 exit spurs and a tunnel under College Avenue facilitating traffic directly east to Alvarado Road and west to Canyon Crest Drive, avoiding the College Avenue and Canyon Crest intersection.

A CENTURY OF LEARNING
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SDSU

VEHICULAR CIRCULATION

Figure 4-14

Ecological Preserve

I-8

Canyon Crest Drive

Alvarado Road

College Avenue

Alvarado Court

Canyon Crest Drive

Aztec Circle Drive

Remington Road

55th Street

Hardy Ave.

Lindo Paseo Ave.

X Lot

W Lot
Visitor Parking

V Lot

U Lot

M Lot

R Lot

S Lot

Y Lot

A Lot

B Lot

C Lot

D Lot

E Lot

F Lot

G Lot

H Lot

I Lot

J Lot

O Lot

P Lot

Hardy Memorial Tower

Administration

Scripps Cottage

Love Library

Student Services

Open Air Theater

Aztec Center

Parking Structure 1

Parking Structure 2

Parking Structure 3

Parking Structure 4

Gateway Center

KPBS

Health Services

Aztec Rec. Center

Smith Field
PG 630

Peterson Gymnasium

Cox Arena at Aztec Bowl

Tennis Courts
ENS 720

Physical Education Fields
ENS 700

AZTRAC
PG 660

PG 620

PG 610

PG 600

PG 670

Ped Bridge

NORTH

0' 200' 400'

LEGEND

- Primary Off-Campus Vehicular Routes
- Primary On-Campus Vehicular Routes
- Service / Special Parking Access Routes
- Restricted Service / Vendor / Emergency Routes
- Surface Parking Areas
- Parking Structures
- ① Potential Vehicular Circulation Projects

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MASTER PLAN - Phase 1

4.15 Pedestrian and Bicycle Circulation

Pedestrian and Bicycle Circulation Defined
Pedestrian circulation systems consist of sidewalks, pathways, promenades, malls and courtyards and any other element serving pedestrian use. The pedestrian circulation system is a primary element on the pedestrian-oriented campus and all efforts are made to encourage a pedestrian-friendly environment. An efficient pedestrian circulation system will ensure that students, faculty and visitors move effortlessly through the campus.

Bicycle systems include all paved areas where bicycles are permitted on campus.

SDSU contains a variety of pedestrian walkways from formal malls, promenades and walks down to sidewalks and alley ways

Many pedestrian routes and pathways do not communicate that they are important connections, especially those that appear to be going into alleys or service areas

Relevance to the Campus

As a pedestrian-oriented environment, the campus pedestrian systems must be efficient, accommodating and convenient. The campus is clearly a unique environment and must at all times prioritize the pedestrian environment over vehicle use. As with motor vehicles, this campus is concerned with providing adequate, safe and secure bike parking facilities in defined nodes at transition points between the vehicle and pedestrian circulation systems. Bike parking should be developed with high security locks and lighting, visual screening and appropriate signage.

Characteristics of Good Pedestrian and Bicycle Circulation

A good pedestrian and bicycle circulation system will emphasize the pedestrian over all others through good design. Conflicts of vehicles, pedestrians and bicycles will not exist or be minimized. Pedestrian environments will include durable, accessible walking surfaces, opportunities for shade and sun, opportunities for conversation and gathering, seating, lighting, signage and be of ample width to serve projected pedestrian loads. Good pedestrian systems will be supported by other planning elements such as landmarks, view corridors, nodes and wayfinding systems.

Primary Pedestrian and Bicycle Circulation Elements

The campus offers a variety of pedestrian experiences, from the meandering Quad organization to the more regular grid of the urban campus. Whereas the Quad offers major pedestrian corridors to the north campus facilities, it also provides unique courtyard settings and solitude. By contrast, the urban campus is wide-open and direct, and provides many pedestrian seating areas.

The Promenade

The major pedestrian element found on campus is the promenade that starts from the West Commons area to Aztec Center. The pedestrian environment changes character several times between these two points and is not on a straight line. Although some sections are narrow, the promenade is sufficiently wide and offers a number of pedestrian experiences-the West Commons and Scripps Terrace, the historic campus entry at Hepner Hall, shady Aztec Grove, the tension of the cantilevering corner of Love Library and the broad and bright Centennial Mall. Other than Hilltop Way, all surfaces are concrete based. The steepness of Hilltop Way is supported by an elevator to the Quad level.

Campanile Mall

Campanile Mall is a primary north / south route from the East and West Plaza Malls. The northern half of the Mall is constructed over a filled canyon. The Mall was the major pedestrian element of the 1963 Plan and established the future linear and grid organization of the campus expansion area. The Mall remains an important element and should be protected against encroachment. Concrete walking surfaces are in reasonably good condition, but should be replaced. Landscaping interferes with the view corridor to Hepner Hall and should be redesigned. The area is ADA compliant. The mall has a substantial slope differential along its length from the south to the north. The Mall is important as a view corridor from Montezuma Road to Hepner Hall and as a major utility lane. The mall is sufficiently wide and offers opportunities for additional pedestrian amenities such as food and refreshment kiosks. Although often crowded, the Mall is primarily a passageway and is not supported by continuous, intense pedestrian activity.

Several major malls and promenades on campus can handle very high volumes of pedestrians

Centennial Mall

Centennial Mall is a fine example of a well-scaled urban plaza. The Mall is the center of campus pedestrian activity, supported by the Library, food services and student services. It is a place of continuous, intense pedestrian activity. The Mall is broad and bright and offers numerous view corridors to landmarks and distant parts of the campus. The walking surface is precast concrete pavers.

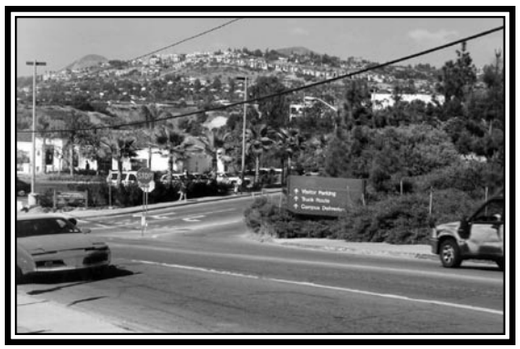
The Quad

The Quad is an historic, intimately-scaled pedestrian environment characterized by courtyards and narrow connecting walkways and covered arcades. It is the most climactically responsive pedestrian element on the campus. Walking surfaces are deteriorating and lighting could be improved.

Secondary Pedestrian Pathways and Courts

Hilltop Way is located at the western end of the Promenade and connects to Scripps Terrace. It is heavily used. An elevator bypasses the steep grade, per ADA accessibility standards. The surface is asphalt.

Aztec Court is a landscaped courtyard on the Promenade, north of the Library. Aztec Court offers seating and shade. It is a well-proportioned and comfortable pedestrian experience between the broad and bright adjacent plazas and Promenade.



This area along Aztec Circle Drive and Remington Road handles a large number of pedestrians from the residence halls and is in need of a more extensive pedestrian system

East Plaza Mall to Footbridge— East Plaza Mall (and West Plaza Mall) are the southern boundaries of the campus, adjacent to the redevelopment area, and should be considered important edge elements. East Plaza Mall is improved. West Plaza Mall is unimproved. East Plaza Mall may be impacted by the LRT, as it runs east to College Avenue. East Plaza Mall terminates at the footbridge over College Avenue. The intersection of the Mall and the footbridge need improvement as an important node. Opportunity exists to include alignment of the intersection with Centennial Mall to the north and College Avenue to the south.

Parking Structure I Footbridge - The footbridge is a major entry element on College Avenue. As it exists, it is a poor first impression of the campus. The utilitarian sense of the footbridge could be substantially improved. Opportunity exists to strengthen the design of the pathway over the footbridge and on to Centennial Mall.

Parking Structure 4 Footbridge- The footbridge is heavily used as a direct link from the west to the West Commons. Opportunities exist to improve the utilitarian design and amenities of the bridge.

Since the campus has a variety of grade levels, a major issue that needs to be dealt with campus wide is that of ADA access requirements

Permissible Routes

All accessible routes are permissible routes that are available to pedestrians unless signs indicate restricted entry. Pedestrian routes are supported by site amenities including light fixtures, benches, trash receptacles and shade trees. Most permissible routes are sufficiently wide. Surfaces are concrete, concrete pavers or asphalt and are in good condition. Not all permissible routes are adequately separated from vehicular traffic, specifically Aztec Circle Drive. However, due to the volume of pedestrian traffic, vehicles need to be cautious in pedestrian areas. Crosswalks with accessible curbs at numerous locations were noted.

Bike and skateboard use is prohibited in most all pedestrian areas of the campus

Restricted Zones

Restricted zones include those areas posted specifically for campus services and maintenance.

Accessibility Requirements- Access shall comply with ADA standards.

Bicycle Circulation

Since 1988, bicycle, skateboard and in-line skate use has been severely restricted or prohibited on campus. The policy is in response to accident prevention.

Permissible Routes- Bicycles are permitted only on defined campus roadways including the area within the Avenue of the Arts, Scripps Terrace, East/ West Plaza Mall and Aztec Circle Drive.

Restricted Zones- Bicycles are prohibited from walkways, pathways, footbridges and areas with restricting signs. Bicycles are further prohibited Monday through Friday 7 am to 10 pm from the campus inner core.

Skateboards and in-line skates are prohibited at all times.

Table 4-15 • Summary of Pedestrian and Bicycle Elements

Assets

- Centennial Mall is the center of campus pedestrian activity, supported by the Library, food services and student services. It is a place of continuous, intense pedestrian activity. The Mall is broad and bright and offers numerous view corridors to landmarks and distant parts of the campus. The walking surface consists of precast concrete pavers.
- The Promenade connects to west and east ends of the campus. This area is sufficiently wide and offers a number of pedestrian experiences. All surfaces are concrete based.
- Campanile Mall connects to the East and West Plaza Malls and the Transit Center. Concrete walking surfaces are in reasonable condition but should be replaced. ADA compliant. The Mall is important as a view corridor from Montezuma Road to Hepner Hall and as a major utility lane. The mall is sufficiently wide and offers opportunities for additional pedestrian amenities.
- The Quad is an historic, intimately scaled pedestrian environment characterized by courtyards and narrow connecting walkways and covered arcades. It is the most climactically-responsive pedestrian element on the campus.
- Aztec Court is a landscaped courtyard on the Promenade, north of the Library. Aztec Court offers seating and shade. It is a well-proportioned and comfortable pedestrian experience between the broad and bright adjacent plazas and Promenade.
- East Plaza Mall contains important pedestrian resources. This area offers a good connection between the east and west ends of the campus.
- Footbridge I, II and III - Footbridges are a major entry element on College Avenue and facilitate uninterrupted traffic flow on College Avenue.
- Parking Structure 4 Footbridge- The footbridge is heavily used as a direct link from the west campus residence halls.

Potential Bike and Pedestrian Circulation Projects and Treatments

1) An enhanced pedestrian zone is needed from Parking Structure 3 and the East Campus Residence Halls, through Lots "H" and "I". A clearly defined pathway with street trees, enhanced paving, signage and lighting is needed through these areas. The existing sidewalk along the unnamed access road to H lot should be removed to allow for a wider access road. A new pathway should be set away from the street just to the east of this new widened roadway.

2) Many areas of the northeast "village" campus are congested and present a poor visual image because of the conflict between pedestrians and vehicular parking. Parking should be removed. Service and ten minute loading zones should be provided. The parking lots and asphalt paved areas should be replaced with enhanced concrete walkways, courtyard treatments and increased plant material.

3) A 4 foot wide Class II (Caltrans Standards) bike lane should be added along Canyon Crest, Aztec Circle, Scripps Terrace and Avenue of the Arts. This lane would be added on each side of the street. This lane would increase safety by making it clear where pedestrians, vehicles and bikes should be. It would also serve as a visual reminder of where bikes are and are not allowed.

4) A bollard and signage system is needed at the Campanile Mall terminus of Hilltop Way. An excessive number of vehicles drive through this area causing tire marks on paving, pedestrian safety issues, damage to adjacent irrigation heads, destruction of plant material as well as cluttering the mall cluttered with parked vehicles. Although access for emergency and service vehicles is warranted, a high number of private vehicles used by staff, visitors, faculty and students are common in this area. Part of the problem stems from the way Hilltop Way meets Campanile Mall. No signage, bollards or barriers communicate to the driver that access is restricted. A simple bollard system and signage in this area would decrease the amount of vehicles driving through this area.

5) The West Plaza Mall should be extended from its current limits of improvement at Campanile Drive out past the Cox Arena at Aztec Bowl and through to courtyards south of Peterson Gymnasium, eventually connecting with the new Tony Gwyn stadium.

6) A major new pedestrian bridge and campus core entry portal should be created from the "G" lot parking area, across College Avenue and to the Northeast corner of the Aztec Center. This major new corridor would serve as a grand entry into the campus, decrease the conflicts and congestion through the southwest corner of the Aztec Center / East Plaza Mall. This major pedestrian pathway should be made part of a new building or major reconfiguration of the southeast Parking Lots H, I, G, F and E lots, required by the extension of the trolley.

7) An improved walkway system is needed along the western end of Aztec Circle Drive where it meets Remington Road/55th Street. Pedestrians currently must navigate with cars because of the lack of appropriate sidewalks in this area. A significant number of students walk from the Chapultepec and West Commons resident halls and from the apartments northwest of the campus.

8) Develop a strong pedestrian linkage between Centennial Mall and the Cox Arena at Aztec Bowl, passing by the Open Air Theatre, the Humanities Building, south of the Music Building and through the area now occupied by tennis courts.

A CENTURY OF LEARNING
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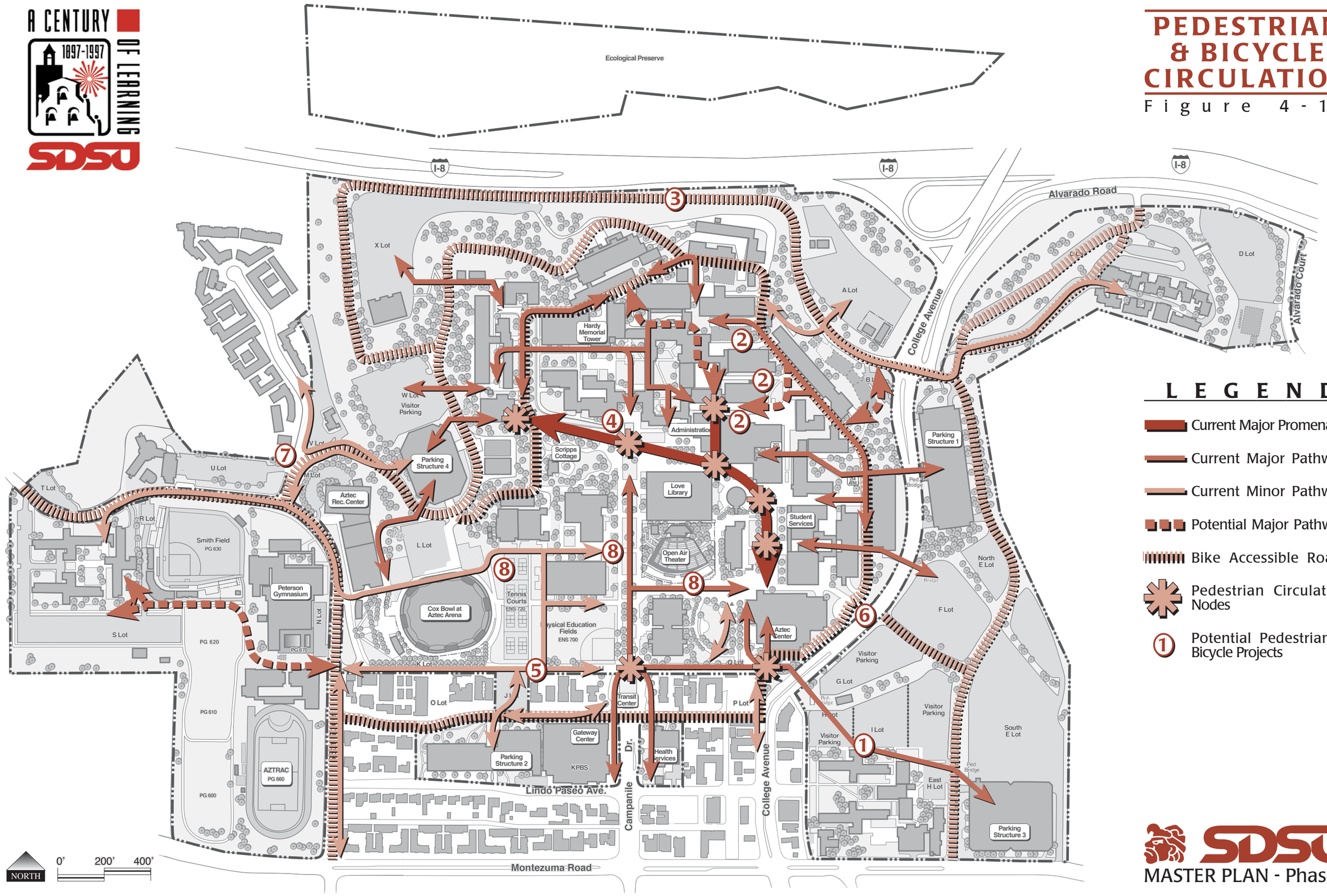
PEDESTRIAN & BICYCLE CIRCULATION

Figure 4-15



LEGEND

- Current Major Promenade
- Current Major Pathway
- Current Minor Pathway
- Potential Major Pathway
- Bike Accessible Roads
- Pedestrian Circulation Nodes
- ① Potential Pedestrian & Bicycle Projects

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MASTER PLAN - Phase 1

4.16 Transit Facilities

Transit Facilities Defined
Transit Facilities include all mass transit operations to and from and within the campus. This can include off-campus buses, on-campus shuttles, light rail transit facilities of other publicly used van/car pool services.

The transit center provide close access to campus facilities and connects well with the pedestrian system

Relevance to the Campus

Transit Facilities are a necessary component to reduce private vehicle traffic to and from the campus. These services are also needed to provide access to all socio-economic groups and to meet ADA transit requirements.

Characteristics of a Transit System

Good Transit Systems should operate on a posted schedule and be convenient to SDSU operations. They should have ample capacity, be safe, licensed and have frequent arrivals and departures. They should connect to other modes of transportation, for example, remote parking areas and transit systems with a greater range of destinations. Transit Facilities should also support the pedestrian environment.

Major Transit Elements

Metropolitan Transit District buses arrive from outside the campus area. Shuttle systems are inter-campus vehicles operating on a loop circuit with convenient pick-up and drop-off points. Light Rail Transit (LRT) is the Metropolitan Transit District (MTD) train system currently operating in the City of San Diego. The LRT is proposed to extend east on Interstate-8 to Grossmont with a major stop at the SDSU campus.

- MTDB buses arriving and departing at the transit center Campanile Drive and East Plaza Mall. The bus schedule is somewhat convenient to SDSU, however late- night service is understandably lean, based on city-wide late evening usage. The transit center is conveniently located on the campus.

- A shuttle system is proposed to begin service on the campus. The shuttle will follow the outer access loop with some exceptions. The shuttle will have five stops and run continuously between 7 am and 10:30 pm. Weekend service is also planned.

- The LRT is a major transit influence on the campus. It is predicted that approximately 4,000 riders will use the system, alleviating private vehicle traffic. The LRT stop is proposed to be located at the intersection of Campanile Drive (Mall) and East / West Plaza Mall, dislocating the existing Bus Transit Center to another adjacent area. The LRT station will be coordinated with the Redevelopment area project. The LRT is proposed to arrive at the campus through a tunnel beginning near Lot "X" and remaining below ground until daylighting in the east parking area. The station is proposed to be below ground.


The only negative associated with the current transit center is that it is at the front door of the campus and affects the overall image and the important Campanile sight line

Table 4-16 • Summary of Transit Elements

Assets
- Frequent MTDB bus service.
- Close proximity to major arterials.
- Existing locations of transit center and bus stops.

Opportunities
- Future extension of the LRT system.
- Future shuttle routes and services.

Potential Transit Projects and Treatments

1) Coordinate a user-friendly LRT station with the Redevelopment area project. Pedestrian traffic from Campanile Drive to the Mall should not be compromised. Locate a bus transit center adjacent to the LRT for ease of connections. Station shall be well-lighted and include necessary security.

2) Increase the frequency and number of stops for the inter-campus loop shuttle service. This shuttle service should accommodate cross-campus travel and reduce the impact of 'favored' and convenient parking areas.

3) An improved transit center shall not be located as a terminus to the Campanile Mall, but located slightly off-axis. Though the activity generated by a new Transit Center is needed in the Campanile Mall area, care should be taken to make sure that the improvements do not block the long vista along Campanile Drive and Mall. A Transit Center shall be conveniently located, safe, well-lighted and have necessary security. Extensive bus use in this area could be pedestrian-unfriendly. Care must be given to make sure that pedestrian traffic is not negatively affected by bus traffic. Be aware that most buses have unsightly oil leaks and will leave discoloration on the transit center surface.

4.17 Opportunities and Constraints Summary

The previous sections of this chapter have identified a great number of assets, liabilities, opportunities and constraints. An attempt has been made to provide a generalized summary of these conditions. Phase II of this study will refine the summary map shown on Figure 4-17 and will take into account a more accurate assessment of development opportunities. Specific conditions will be investigated that may support or prevent these opportunities.

The summary map was developed by combining the important architectural elements found on the campus, along with formal spaces and site form elements that represent major assets of the campus. Essential pedestrian and vehicular corridors that could not be re-routed around a specific area were also considered to be important assets. Constraints included biological resources, steep slopes, the future LRT, and major utility corridors.

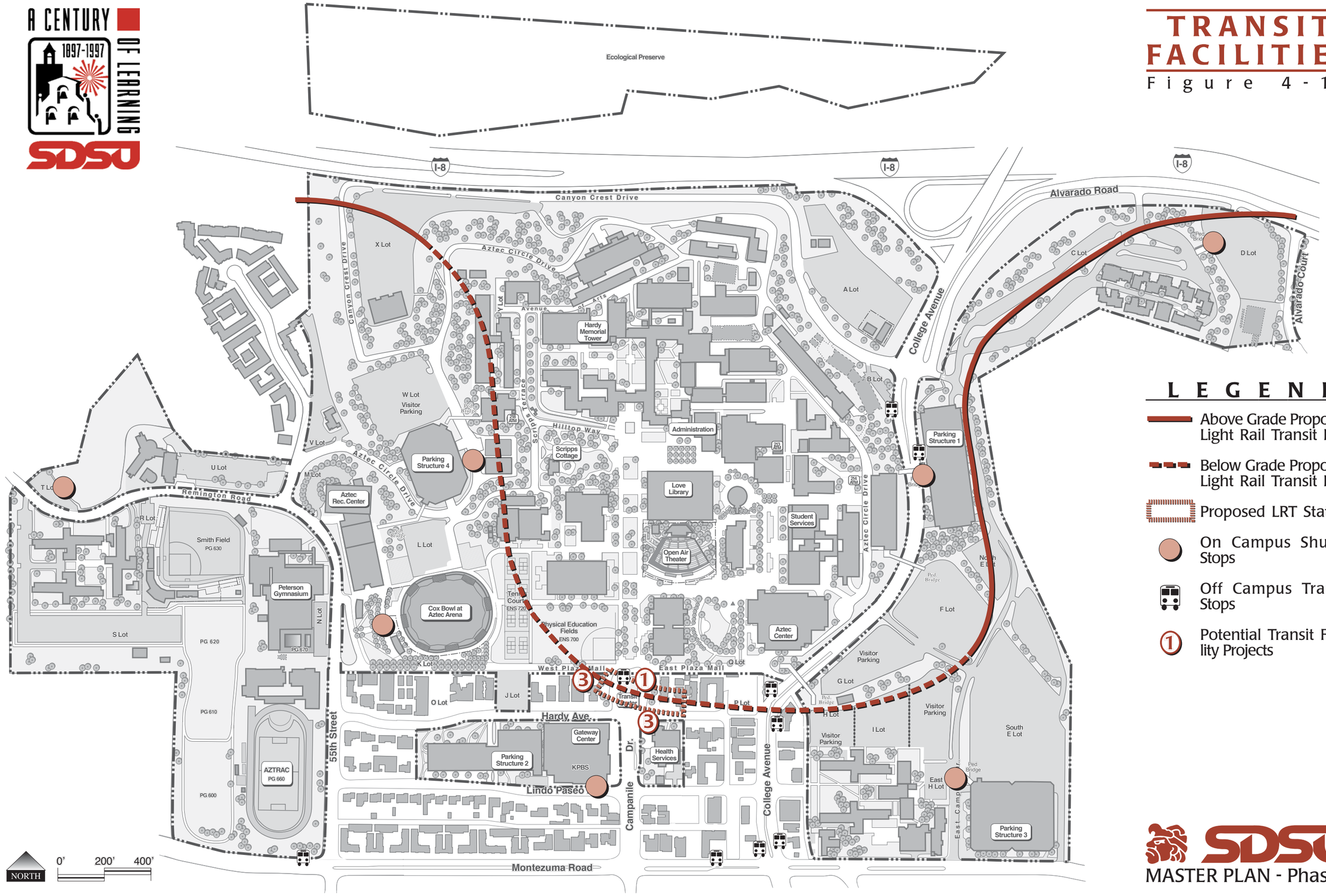
The map presents a range of conditions that help characterize the built-out nature of the campus. Clearly, some areas could be reconfigured to accommodate future projects. Just as clearly, many areas of the campus are not available due to high investment facilities that are not at the end of their life cycle. Minor expansions and small new facilities could be placed within areas that are rated as moderate or low potential for development. Large new facilities will be limited, for the most part, to those areas shown as having a high development potential. Much of the high potential occurs in areas where surface parking exists. Development should not occur in these areas unless a similar number of new parking spaces are created elsewhere, presumably in new parking structures.

A program of expansion and a summary of facility deficiencies are currently under discussion on campus. Once an expansion program has been evaluated and quantified, the high development potential locations shown on Figure 4-18 should be considered first for site development. Areas shown as having low or no development potential should be considered for expansion only as a last resort.

A CENTURY OF LEARNING
1897-1997
SDSU

TRANSIT FACILITIES

Figure 4-16



LEGEND

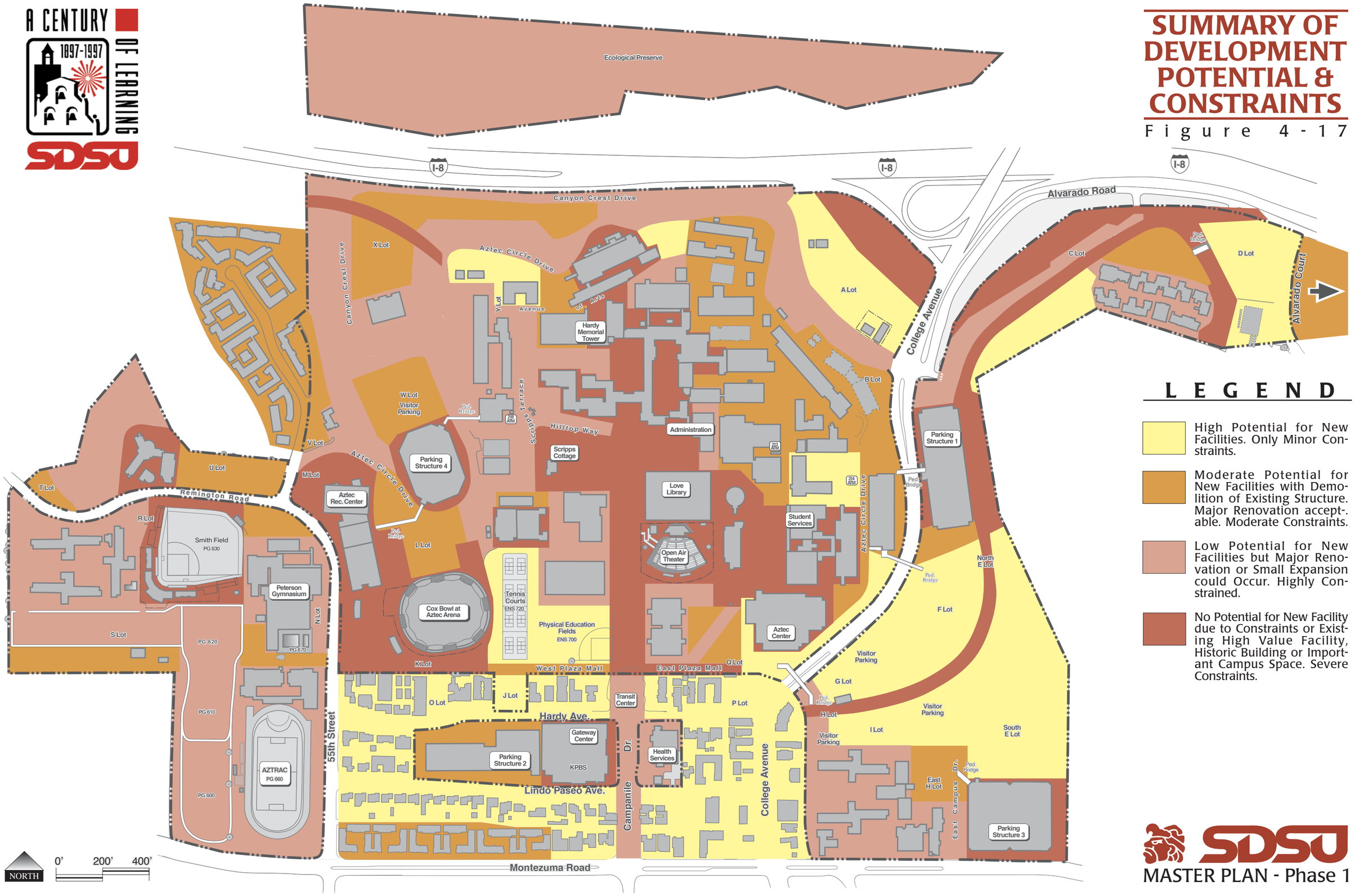
- Above Grade Proposed Light Rail Transit Line
- Below Grade Proposed Light Rail Transit Line
- Proposed LRT Station
- On Campus Shuttle Stops
- Off Campus Transit Stops
- ① Potential Transit Facility Projects

SDSU
MASTER PLAN - Phase 1

A CENTURY OF LEARNING
1897-1997
SDSU

SUMMARY OF DEVELOPMENT POTENTIAL & CONSTRAINTS

Figure 4-17



LEGEND

- High Potential for New Facilities. Only Minor Constraints.
- Moderate Potential for New Facilities with Demolition of Existing Structure. Major Renovation acceptable. Moderate Constraints.
- Low Potential for New Facilities but Major Renovation or Small Expansion could Occur. Highly Constrained.
- No Potential for New Facility due to Constraints or Existing High Value Facility, Historic Building or Important Campus Space. Severe Constraints.

SDSU
MASTER PLAN - Phase 1

SAN DIEGO STATE UNIVERSITY

PHYSICAL MASTER PLAN

PHASE 1 • EXISTING CONDITIONS

A CENTURY OF LEARNING 1897-1997 SDSU

5.0 DRAFT DESIGN GUIDELINES

5.1 Entry Guidelines
5.2 Edge Guidelines
5.3 Landmark Guidelines
5.4 Node Guidelines
5.5 View Guidelines
5.6 Site Planning & Site Form Guidelines
5.7 Neighborhood Guidelines
5.8 Building Character Guidelines
5.9 Informal Open Space Guidelines
5.10 Formal Urban Space Guidelines
5.11 Landscape Resource Guidelines
5.12 Wayfinding / Signage Guidelines
5.13 Memorial and Public Art Guidelines
5.14 Vehicular Circulation & Parking Guidelines
5.15 Pedestrian & Bicycle Circulation Guidelines
5.16 Transit Facility Guidelines
5.17 Utility Guidelines

SECTION FIVE • DRAFT DESIGN GUIDELINES

5. Draft Design Guidelines

Design guidelines provide criteria and standards for the continuing development of the campus exterior environment. Design guidelines are needed to maintain high standards of design quality and to assure a functional site layout. Development of design guidelines will ultimately direct the arrangement of new buildings in a manner that helps future visitors, staff and faculty guide their way through and around the campus. Design guidelines will establish standards for a clearly organized built environment with a hierarchy of districts, neighborhoods, landmarks, buildings, entries and edges.

This is a first attempt at creating a comprehensive, uniform, campus-wide Master Plan. Phase II will build on these guidelines once approved by those reviewing this report. Refinement of these policies along with supporting sketches and examples will be included in Master Plan Phase II.

This Phase I study has assembled, evaluated and analyzed previous SDSU planning documents and design guidelines and formal or informal policies. Analysis was then conducted to identify those elements that are worthy of protection and repetition and those that require policy development. From these efforts, a loose framework of important site-planning principles and design guidelines has been determined.

The following narrative includes guidelines that are intended to be applied throughout the campus. In the subsequent phase, these findings will be refined to reflect neighborhood or district-level guidelines. Although several elements will need to be consistent throughout the campus, some should be adjusted to help build unique characteristics for each neighborhood or district.

Spatial Environment Elements

The following sections of guidelines relate to those elements most responsible for creating the spatial environment of the SDSU campus. Though architectural and landscape elements are very important components of the visual environment, this section will only deal with exterior spaces themselves and not the physical elements that exist within them.

5.1 Campus Entries

Campus entries should be examined at two levels—entries for vehicles into the campus area and its associated parking areas, and the pedestrian entries into the central core of the campus. Entries are an integral part of the campus wayfinding system.

5.1.1 Existing Entry Policies

In 1996, a campus entry design program was begun. The program addressed the design of the northern campus boundary entries. The program is currently in the implementation stage.

5.1.2 Framework for New Entry Guidelines

Entry points should be highly visible and clear. Entry gateway elements should be developed to help make it clear that a visitor is entering SDSU. Entry gateways should be placed at the edge of the space being defined. This can include the edge of the campus, a district, or a campus neighborhood. The building material palette should be compatible with the edge materials used to define the campus district or neighborhood.

Application of campus-wide design treatments (discussed in other sections of this chapter) should occur at pedestrian and vehicular entry points identified in Chapter 4.

5.2 Campus Edges

The campus edge is the first visual element that all visitors, staff, faculty and students experience. A vast majority of the general public may never enter the campus and therefore their perception of the campus will be limited to these edges. Edges are also very important in identifying a sense of arrival and they form the first visual clues to warn the traveler that turning and entry decisions will need to be made.

5.2.1 Existing Edge Policies

No formal or informal policies exist.

5.2.2 Framework for New Edge Guidelines

Guidelines for edge treatments need to include a materials palette identifying paving patterns, paving materials, plant materials, landscape elements, light standards, banners, lighting treatments, signage, site furnishings, walls, fencing and monuments. These elements should be consistently utilized to establish a campus-wide character that states "You are now on the SDSU campus." Specific guidelines for edge material palettes are discussed in other sections of this chapter.

Edge treatments shall be applied to the most visible edges along College Avenue (from I-8 to Montezuma Road), Montezuma Road (from 55th Street to East Campus Drive) and edges on Interstate-8.

5.3 Campus Landmarks

Landmarks establish identity for the campus and help to serve as entry points and wayfinding tools. A hierarchy of landmarks are needed including those seen from off-campus to those that identify on-campus pathways and small spaces. Generally, the largest landmarks are buildings, spires and towers. Each new building established on the campus should include a landmark feature as a basic part of its design. The role and prominence of this landmark should be determined based on adjacent landmarks, visibility and the intensity of the proposed building use. The role that the landmark may have within the spatial hierarchy of the campus must be analyzed in relation to the project site and more remote areas of the campus.

5.3.1 Existing Landmark Policies

No formal or informal policies exist.

5.3.2 Framework for New Landmark Guidelines

Develop landmarks to act as a visual terminus to view corridors and to enhance the wayfinding capability of the campus. Landmarks should be used to add architectural character to each district or neighborhood. Protection of existing landmarks identified in Chapter 4 should also be given a high priority. Of equal importance is the protection of view corridors between major pedestrian areas and the landmarks. The siting of all new structures and major tree groupings must be analyzed to assure that they will not block any of these important view corridors.

5.4 Campus Nodes

Nodes are important centers of activity that should encourage social interaction and provide places of rest and observation. Although a variety of nodes exist that include minor pedestrian activities, seating areas and plazas, these guidelines primarily address the larger nodes identified in Chapter 4.

5.4.1 Existing Node Policies

No formal or informal policies exist.

5.4.2 Framework for Node New Guidelines

Nodes should be carefully developed throughout the campus, especially in those areas of high activity. Spaces where nodes exist should efficiently accommodate high levels of pedestrian traffic while providing areas for seating, especially in the sun. Spaces around nodes should also provide differing degrees of privacy where a person can sit or observe others. Nodes provide a sense of place and can help in wayfinding throughout the campus. Wayfinding can be improved if these nodes become more visible, as well as unique. Successful major nodes occur where activity and circulation nodes converge because activity and circulation produce a sense of place and prominence.

5.5 Campus Views

Both internal and external views exist on campus. Internal views are covered under the guidelines for site layout and form. This section will discuss off-campus views that originate from on-campus viewpoints.

5.5.1 Existing View Policies

No formal or informal policies exist.

5.5.2 Framework for New View Guidelines

From its mesa top position, views of Mission Valley, Mission Gorge, Fortuna Mountain, Cowles Mountain, Adobe Falls, Lake Murray Reservoir, Mt. Helix and San Miguel Mountain should be captured and protected.

New facilities should not be placed within existing view corridors (as identified in Chapter 4) nor block views from the interior of buildings. Opportunities for enhancing existing views should be explored where ever possible. Spaces between buildings that currently have views, should have seating areas and pathway orientations directed toward these views. New building projects should orient outdoor plazas, seating areas and window placements to take advantage of views. Placement of trees and the pruning of these trees should also be addressed to avoid view blockage.

Architectural Elements

Buildings, structures and miscellaneous walls are responsible for defining the exterior spaces at SDSU. They are also responsible for setting the design character of the campus and determine the circulation system. This section examines only the exterior aspects of architecture and its form-giving characteristics. Interior functional aspects are beyond the scope of this study except as summarized below.

Interior functional aspects of buildings shall be part of the programming phase of individual projects. A separate study shall be conducted to document academic department requirements. Architectural programming must be specific to its intended use and be responsive to the needs of its users. Facility planning staff and future users shall jointly determine specific requirements including technological requirements, functional interior spatial arrangement, standards, orientation and connections with exterior spaces and circulation systems.

5.6 Site Form and Layout

Implementation of basic site planning principles and spatial design guidelines will help to provide an understandable layout of the campus.

Buildings should be arranged in a manner that promotes a coherent physical appearance, image and identity for SDSU. A consistent and unified architectural approach to site planning fosters a "sense of order" and a "sense of place." Buildings which are properly sited provide a positive sense of order that will enhance the campus image.

5.6.1 Existing Site Form Policies

Site studies are conducted on a per project basis in which individual project factors such as environmental, soils, utilities, topography, massing and location, etc., are evaluated.

5.6.2 Framework for New Site Form Guidelines

Site Planning Concept

The guiding force for site planning should be to direct the arrangement of new buildings to achieve clarity of districts, neighborhoods, entries, nodes and roadways. Site planning elements should be direct, simple and practical. Thoughtful site planning is the key to development of a functional and attractive setting for campus activities. Site planning must begin with the acknowledgment of the existing forms and features of the campus. Buildings and other supplemental elements should be arranged to achieve perceptual unity of appearance. Mini-

mum site planning and design should describe and integrate the following components:

- Access to the site/facility.
- Separation of vehicular, pedestrian and service traffic.
- Functional and visual organization of spaces and circulation between buildings.
- Establishment of compatible scale with the buildings and space defined by the buildings.
- Provisions for future growth and expansion.

Strong linear axial arrangements of buildings in the central urban core of "city blocks" along the plazas should continue to be reinforced. The meandering nature and intimate scale of the Quad area should be protected. The promenade between the two spatial arrangements should be protected and enhanced with gateway elements along the edge separating the historic core and the more open sections of the campus. Setbacks should be maintained to enhance view corridors and circulation systems.

Enclosure

Buildings should be used as elements of spatial enclosure to reinforce existing campus site forms. Outdoor spaces between buildings can be designed to create variety in volume of space and sense of enclosure. This variation provides a more interesting visual experience and an identifiable hierarchy of spaces within a group of buildings. An ordered sequence of outdoor spaces can provide a sense of orientation. Undefined spaces lacking continuity can be confusing and disorienting.

Building Form

The form of a building is derived from the articulation of its massing. Form is characterized by shape and silhouette. The size and proportion of a building's elevations and roof are the primary form-defining characteristics used in relating a new building to its setting. In terms of basic form, new buildings should be contemporary architectural expressions that are respectful of the historic, or modern form language found in existing adjacent buildings.

The visual rhythm established by existing buildings should be utilized as a design tool to integrate a new building into its contextual surroundings. A sequence of solids and voids that occur along a building facade as well as the sequence of positive building masses and negative open spaces between buildings contribute to the rhythm of the campus exterior.

Scale refers to the perceived size of the architecture as seen in relation to the size of the human body and other familiar elements. People are more comfortable in an architectural setting that complies with human scale. New buildings can achieve a comfortable sense of scale by incorporating appropriate reinterpretations of the principles established by the Mission Revival Style that defines the SDSU historic core. Fenestration patterns, steps, doorways and plinths are essential elements of the campus vocabulary..

The size and proportion of a building's exterior envelope and elevations should be designed to relate to adjacent structures. A large facility can be designed to respond to existing smaller buildings by dividing its mass into smaller components. A small building can stand up to a larger neighbor by incorporating strong and meaningful details at its base, or adopting an overall form that respectfully expresses its presence.

Site Planning Process

The first step in the development of a new building will include the review of the adopted campus Master Plan Phase II document. Phase II will identify appropriate areas for future campus development and identify the comprehensive issues facing the site. These issues will include limitations and restrictions on environmental, safety and land use compatibility.

An overall site development plan (similar to a functional / bubble diagram) should be established that provides a framework within which individual buildings can be compatibly integrated and coordinated with other buildings. A written program should then be formulated that addresses building space requirements; access requirements for pedestrians, vehicular and service traffic; setback requirements; and

utility requirements. A preliminary site plan should be developed that formulates the general location, massing and orientation of new buildings. This site plan should be based on the program and desired relationship to other buildings, site circulation, parking, natural site features, views, campus form and climate. The site plan should also summarize all known environmental and cultural constraints, as well as functional relationships with other structures, pedestrian patterns and spatial arrangements of the immediate area.

With the development of a site plan by the consultant, campus planning staff should then be responsible for reviewing the site plan to make sure that it is consistent with the adopted Master Plan and that it meets the following objectives:

- The layout of entries, nodes and building complexes should be functional and emphasize the relationship of the three dimensional buildings to the ground plane.
- Appropriate terminuses should be provided for roadways, pathways and view corridors to improve the visual quality of the campus.
- Expansion areas and future projects should maintain open space continuity to preserve the natural character of SDSU and provide a desirable buffer between the campus and adjacent noise / traffic and sensitive land uses.

Often buildings are designed and sited with little regard to climatic conditions. Typically, there has been a heavy reliance on the mechanical and electrical systems of a building to moderate climatic conditions. Consideration should be given to prevailing winds, solar orientation and micro-climate conditions. Building orientation as related to solar and wind conditions, building form in terms of shape, massing, fenestration and color, and planting can all be used to modify the adverse effects of the climate.

5.7 Campus Neighborhoods

Design guidelines for this section will be more fully developed under Phase II of this study. It is intended that specific neighborhood guidelines be established to help each of these neighborhoods or design districts, establish an individual identity while still being harmonious on a campus wide basis.

5.7.1 Existing Neighborhood Policies

No policies exist.

5.7.2 Framework for New Neighborhood Guidelines

The campus shall recognize that neighborhoods will foster a sense of place and encourage the development of neighborhood guidelines.

5.8 Building Character, Function & Materials

These architectural guidelines focus primarily on those elements that relate to the context and character of the campus and upon appropriate architectural design

5.8.1 Existing Building Policies

• Designers must carefully study the functional requirements of a building to ensure the proper operation of the building, its systems and surrounding amenities.

• While recognizing that SDSU has to some extent acquired a variety of architectural expressions during its evolution, serious attempts have been made by campus planners in the last decade to unite the architectural vocabulary of the San Diego campus with that of the original campus quad.

• Because the lowest initial cost does not necessarily mean the lowest total cost, life-cycle cost analysis should be an important component of the design process. When designing building systems, operational factors to be considered include functionality, cost, reliability, long life, energy conservation, maintenance costs, simplicity and adequacy of control system, and availability of replacement parts. The University's goal is to make its buildings and grounds as energy efficient as possible.

• It is University policy to acquire, build, and maintain (to the maximum extent feasible) buildings and other facilities which provide an acceptable level of earthquake safety at all locations.

• It is University policy to minimize the risk of injury to persons and damage to property from fire. Design University facilities with fire prevention, detection, reporting, and suppression systems as are necessary to protect students, employees, and the public against injury, and University property against loss.

• It is University policy that all new projects be designed and constructed for accessibility by persons with disabilities. When existing University facilities are renovated, such renovations will be designed and constructed so that all programs occurring in such facilities are fully accessible.

• It is University policy to preserve and enhance architecturally significant buildings.

• Roofing tile shall be standard 18″ mission style, color to match campus existing colors and patterns.

5.8.2 Framework for New Building Guidelines

All new construction or alterations to existing facilities must include harmonizing physical features that are recommended campus wide, provide the identifying physical features that will help to define neighborhoods and create the unique physical features that will improve the distinctiveness of spaces and building complexes. All design features should help to create a contemporary urban campus that has its roots in the historical nature of the site while branching into unique neighborhood areas. All design efforts must be direct, simple and practical. An emphasis on durable and easily maintained materials is required.

Existing Architecture of Merit

Often the best method for describing guidelines for future development is to identify the existing architecture that represents the best implementation of the guidelines. Architecture of merit includes historical expressions of Mission Revival architectural form including: Hepner Hall (#2), Little Theatre (#11), Life Science (#10), Physical Science (#17), Hardy Memorial Tower (#26), Corporation Boiler Shop (#23), Scripps Cottage (#41) and the Women's Gym (#21). Other examples of architectural forms that are harmonious with the existing historic structures includes: Student Services (#29), and the Love Library Addition / Centennial Hall (#76). Though not consistent with recent interpretations of the Mission Revival style, the Aztec Center is considered to be an architectural asset, especially the arched colonnades and interior court arrangements.

Building Character

Many of the existing structures at SDSU do not contain an identifiable architectural theme. Much of the architecture could be characterized as utilitarian. Since most of these existing structures will remain, all new architecture should be harmonious with these facilities but strive to build on the historical vernacular and regional context of the campus.

Many factors contribute to perpetuating a coherent architectural character including scale, materials, color, massing, form, proportions, fenestrations, spatial relationships, and supporting site components. A consistent and unified architectural character fosters a "sense of order" and a "sense of place." Buildings which are well-designed, properly sited, and unified by common elements of architectural detail provide a positive sense of order that will enhance the campus image.

It is critical that new projects enhance the existing architectural character of the districts to promote a recognizable consistent image. Exterior building materials should provide a consistent architectural character. Existing buildings that possess a positive architectural style primarily consist of the Spanish / Mission Revival Style. Materials chosen should respond to this style and be appropriate for institutional purposes.

Architectural Proportions

A building's proportions are the dimensional relationships between its parts. A building's fenestration (doors, windows, and other openings) have proportions that give them distinction. Successful architecture will proportion openings to carefully relate to the larger mass of the building itself. Proportional relationships are established with other elements such as columns and colonnades, arches and arcades, and projections and recesses. Architectural detailing may be used to define proportional elements of a building's character.

Materials and Finishes

Exterior building materials should provide and contribute to a cohesive and consistent architectural character. Building materials should be selected based upon their appropriateness to the building type, the prevailing architectural design, and the landscape character.

Building Colors

Exterior building colors are one of the most visible design elements used to relate buildings physically and to strengthen identity within the visual environment. Colors shall be used which evoke a historical Spanish/Mission Revival Style of architecture.

The following colors shall be used: 4600W (Frazee) "Balsa" for painted wall surfaces (including integrated color in stucco), louver, gutters and downspouts; 4925A (Frazee) "Blue Spruce" for painted doors and trim, window mullions, wrought iron grilles and rails, pipe rails, and flues.

Walls

Walls can be made of poured-in-place, tilt-up, or precast concrete. Pigmented admixtures may be added to the concrete to achieve a particular color. Building elevations with detailed fenestration created by windows, doorway detailing, scoring, shadow lines, and horizontal banding, convey a strong sense of scale.

Entries and Doors

The building entrance must be the focal point of all architectural elements. It should be highly visible for pedestrians. Doors should be set deep into the building to provide protection from the sun and rain and to serve as a transition from the outside to the inside of the building. The addition of a planted entry court with well designed paving patterns and furnishings will help to accentuate the entry.

Windows

Windows should be simple, well-proportioned and grouped together as a single design element. The primary window type at SDSU is a metal-paned fixed glass with a surrounding operable hopper sash. This type of window should continue to be used when feasible for future projects. Window frames must be either bronze anodized aluminum or Kynar painted trim using the campus color scheme. Glazing must be a medium solar gray or green tint. Glass should be double glazed where heat and /or sound control are required. Sun control should be provided through the use of deep-set, shaded windows or window awnings. Surface applied mylar films or paint should not be used to mitigate heat gain, glare or other solar-related problems.

Exterior Stairs

Exterior stairways should be designed to use forms and materials that are compatible with the main portion of the building. Covered colonnades and building extensions should be encouraged over these stairs and walkways whenever they are adjacent to the building. The stairway can achieve a sculptural quality that enhances the building form.

Roofs, Gutters, Downspouts and Mechanical Stacks
The type of roof for a building is based on its size and function. Roof forms should be simple to enhance the structure and complement the surrounding buildings. Roof overhangs and covered colonnades are appropriate for the warmer climates of the area, since they provide shade and protection from the sun. Flat roofs are appropriate for buildings taller than three stories. Parapet walls are preferred over exposed low pitched roofs. Parapet walls also provide screening for roof-mounted equipment.

Miscellaneous Structures
Miscellaneous structures include utility buildings, bus shelters, dumpster enclosures and other small structures. Care should be given to tie these structures to the primary building through the use of similar materials and design treatments. If these structures are unrelated to other surrounding buildings, they should be de-emphasized and made to blend into the background by eliminating trim or accent colors and minimizing architectural fenestration.

Architectural Design Review Objectives
The following objectives should be used to determine if future projects are consistent with these guidelines.

- All new construction or alterations to existing facilities will include the harmonizing physical features that are recommended throughout the campus.

- All new structures will relate to existing structures and clearly communicate the building's role in the overall layout of the campus.

- Since this master plan deals only with the exterior environment, interior issues are not discussed in this document. Interior programming issues and requirements must be considered, however, in the site planning and design process. Since the interior requirements directly affect the exterior form and the requirements for space adjacency, views and entrances are all determined by interior requirements, these issues should be looked at as part of the initial site planning phase.

- Attention to interior requirements of future users as well as adaptability to changing facility requirements must be taken into account. Incorporation of the latest building technologies and systems should be included. Minimum requirements for interior circulation, natural lighting, signage systems, technologies and classroom materials should be determined in consultation with facility planning staff and building users.

- Wherever possible, interior spaces should be extended into the exterior environment and visual penetration into interior spaces should be allowed from adjacent areas. This connects the facility to its environment and provides for a better transition between fully-enclosed interior space and fully- exposed exterior spaces. It also provides visual interest and information that helps the passerby determine the use of the facility, thereby increasing wayfinding capability.

- A human scale will be designed into all buildings through appropriate detailing and massing.

- Building materials will be one of permanence and simplicity. An emphasis on durable and easily-maintained materials is required. All materials must be coordinated to obtain a perceivable unity of appearance with minimum investment.

Landscape Architectural Elements

A lack of design coordination often exists between buildings and their site components such as planting, hardscape, site furnishings, signage and lighting. Budgets for plant material and other site furnishings are often eliminated or significantly reduced to accommodate budget overruns. This can result in facilities that look both barren and unfinished. Even well designed architecture can communicate a poor visual presentation without the proper landscape architectural treatments. A high visual and aesthetic quality translates into a higher quality of life for campus users and a better impression of the campus for visitors. The most successful projects are those that have a concept that integrates architecture, landscape architecture and other site components.

5.9 Informal Open Space Areas

Open Space Integration

SDSU contains areas of indigenous plant and wildlife habitat and natural landforms. These elements provide a pleasant setting and also help to mitigate and buffer the environmental impacts of a harsh urban environment. Open space should not be considered unused space, but rather natural or planned space. Its role in defining districts and helping people map out the arrangement of the campus is very important. Similarly, the character of the campus is defined best by the existing natural open space and vegetative cover found in this region.

No guidelines have been developed for this section besides those contained within this paragraph.

5.10 Formal Urban Space Areas

The exterior spaces of the campus are its most important resources. The social life of the campus as well as it structural organization are dependent upon these exterior spaces.

Courtyards and plazas serve as the outdoor playrooms, dining rooms, studies and living rooms of the campus. They can exist on a small scale directly adjacent to a building, or can be larger scale forming the focus of a complex of buildings.

5.10.1 Existing Spatial Policies

No formal or informal policies exist.

5.10.2 Framework for New Spatial Guidelines

Use buildings and landscaping as elements of spatial enclosure to define outdoor space for orientation, creation of a sense of place, and transitional space between man-made and natural environments. Utilize the spaces between buildings as opportunities to develop outdoor "rooms" for various activities, visual focus, scale definition, circulation, and visual connections.

The project limits of new buildings should be extended into the fabric of the campus to include spaces not only directly around the building, but between it and other spatial definers, such as buildings and major landscape elements. Many opportunities are lost and leftover spaces created simply because the project limits stopped at a predefined distance from the edge of the building.

Public safety should always be kept in mind when creating spaces. Since the campus has so many small and hidden spaces and since a high level of night-time use occurs, it is essential that design principles provide for the utmost visibility into and from these spaces. No solid walls or solid landscape masses above three feet should be allowed. If walls or plant material is needed above three feet, then the walls should be semi-transparent and plant material pruned to allow visibility through them. In no case should any element be added in enclosed spaces that would allow a person to be hidden from others. Lighting levels should be high enough to make sure that all corners of these enclosed spaces are well lighted.

Site future buildings and landscape elements to reinforce existing setback patterns that will enhance and extend existing plazas. Plaza and courtyard widths shall be defined by the building facades and raised platform footprints of adjacent buildings.
All new buildings along Centennial Mall and Campanile Mall will be held to a building facade setback defined by the existing buildings around these malls. Minor encroachments can be made if it can be shown that no view corridors are blocked, that pedestrian traffic will be handled appropriately and that the form and mass of the building does not dominate or appear to intrude into the courtyards.

All new projects shall include a small entry plaza at the main entrance of the facility.

All new projects shall create small courtyards (skylights or open to the sky) as internal forms to the building, or as new forms adjacent to the building.

Courtyards and plazas should be placed on the southeast, south or southwest side of buildings in order to be exposed to the sun. Enhanced walkways should occur on all sides of buildings, regardless of solar orientation.

Higher quality paving materials should be used and care given to make sure that the reflectivity of these materials is not so high as to make the area uncomfortable to walk through or sit in.

Water features, rock elements, sculptures, public art, memorials and plaques should all be encouraged in these areas.

A hierarchy of plant material including vertical accents, tree canopies, shrub masses, ground covers, vines and turf should be incorporated into these plazas and courtyards. Extensive use of colors, forms and patterns should be encouraged.

Wherever possible, activities should be accommodated and encouraged in these areas. Opportunities for siting plazas and courtyards next to high levels of pedestrian flow or next to areas of activity and eating facilities should be taken advantage of wherever possible.

All courtyards and plazas will contain areas for seating such as formal benches or informal seat walls. Depending on the site orientation, shade will be required in these areas either from overhead structures, building overhangs, or trees.

5.11 Landscape Materials, Furnishings & Lighting

A major component of landscape architectural guidelines is that of plant materials. Although this is just one of many components under landscape architecture, it is often thought by many as the definition of landscape.

Site furnishings provide for functional use of exterior spaces and help to set the character of the space and relate it to adjacent architectural elements. Site furnishings are those items which make the outdoor environment safer, easier and more pleasant to use and enjoy. Site furnishings include amenities such as benches and other objects used for sitting, tables, drinking fountains, trash containers, flag poles, bicycle racks and other man-made items located within the landscape. Arbors, overheads, pergolas and trellises are other elements that can extend architectural treatments into the open landscape.

Exterior lighting performs a number of functional uses, primarily related to night-time safety, security and wayfinding. The lighting system should define and reinforce the vehicular and pedestrian circulation systems. Even during daylight hours, lighting standards can help to define primary and secondary streets. Lighting is also necessary to highlight design treatments and spaces. Lights can be used artistically while still providing functional requirements of illumination and wayfinding.

The objectives outlined below explain SDSU's adoption of IES (Illuminating Engineering Society of North America) standards and how the implementation of lighting policy is incorporated into campus design considerations. Policies concerning outdoor lighting are significantly more pertinent to the Master Plan than indoor lighting because the Master Plan is primarily concerned with spatial relationships between buildings and circulation areas. For this reason, the focus should be on outdoor lighting and how it effects perception of the surrounding environment. In addition, SDSU has an interest in curbing light pollution and supporting the lighting ordinance of the City of San Diego.

5.11.1 Existing Landscape Element Policies

No formal or informal policies exist for landscape elements beyond lighting listed below.

Exterior lighting design for walkways, parking lots, and streets shall comply with the Illuminating Engineers Society Standards. Exterior lighting fixtures shall use low pressure sodium lamps matching existing installations. Metal halide lighting sources may also be used.

It is the policy of the University to meet safety and security standards first and foremost. At the same time, the lighting systems should strengthen the public's impression of the SDSU campus by accenting unique architectural qualities and enhancing pedestrian activities. Given these design criteria, the underlying framework of the system should be structured to maximize efficiency and minimize costs. Construction costs, energy efficiency, life cycle operating costs and maintenance costs should all be considered. Roughly 40% to 45% of the electrical power used at SDSU is consumed by lighting systems. Design teams are instructed to contact the utility company serving the campus so that upgrade projects can be structured to meet the requirements of rebate incentive programs for efficient lighting. When possible, outdoor light is controlled by automatic timers. The use of standardized and energy efficient light fixtures is advocated. Minimum standards are to be met, but not exceeded, except in special circumstances like task lighting, to maximize energy efficiency.

5.11.2 Framework for New Landscape Elements

The overall design concept for plant material selection at SDSU is to use a palette of plants that are suitable for a semi-arid climate. An extensive list of approved plant materials has been included in Appendix 1 (a component of Phase II, not available in this Phase I report). The landscape architect responsible for project design should be allowed flexibility in selecting appropriate species.

When a plant is selected that is not on the approved list, it will be the responsibility of the landscape architect to justify the selection. Criteria that must be met in all cases include:

- Low maintenance.
- Ability to adapt to poor soil conditions.
- Ability to adapt to reclaimed water use.
- Low water requirement.
- Non-invasive species.
- Durable and resistant to abuse.
- Native, indigenous or visually similar to natives found in the San Diego region.
- Consistent with other plant materials found in the same "Design District".

Plant Material Design Composition Guidelines

Landscape concept plans should strive to provide scale and comfort to the pedestrian environment. The skillful use of plant materials can significantly cause an apparent reduction in the scale of buildings. The sometimes oppressive impression of large, monumental buildings is partially relieved by the use of trees and other plant material, which are usually at human scales. Large plant material can also draw attention away from large-scale structures by providing a step down between the large structure and human scale.

The overall goal of the planting is to reinforce the design character of a district and its neighborhoods. To achieve a quality exterior environmental image, the campus should adhere to a set of design guidelines that ensure consistency in quality, design, materials, colors and provides a coordinated and consistent landscape design.

Symmetrical balance should be used at entrance approaches and formal pathways where formality is part of the design objective. Asymmetry is appropriate where informal and natural character is the goal.

Contrast should be achieved through the arrangement of plant materials which emphasize their size, scale, color, shape, and texture.

Plant materials should be selected which share the same horticultural requirements and are an appropriate match to the micro-climate in which they are intended to be planted.

Planting should be used to enclose spaces and frame views.

Planting is an effective means to unify districts and incompatible buildings. This unity may be achieved by the consistent use of a coordinated palette of plant materials. Plant material should be selected to define and individualize each of the neighborhoods. All new and renovated landscape treatments should have, as its primary goal, the ability to help establish the character of each neighborhood. Utilizing a select group of plant materials for each district provides an opportunity to visually reinforce the distinction between districts on campus. This, in turn, creates an identity for each district and aids in wayfinding for staff, faculty, students and visitors.

Plant material can be used as a focal point to accent an outdoor area. This may be achieved with a flowering specimen tree or a shrub that has a dynamic or changing form. Framing can be accomplished by a colorful or uniquely textured hedge. Softening is achieved by diverting attention from unattractive or utilitarian features and focusing on colorful, interesting plantings that dominate the foreground. Plant materials can hide hard edges and surfaces, soften geometric shapes and create a gradation of shadows and sunlight patterns. The use of a trellis or other structure to support plant material is effective as accenting, framing and softening treatments.

Functional Aspects of Plant Material

Plant material should be used to resolve site problems, as well as to improve the overall aesthetics of the site. The location of plant material should aid in sun, wind and erosion control. Clusters of plant materials should be provided to frame outdoor spaces, to articulate the edges of districts, to provide screening, and to accent key spaces such as the campus entry points, entries to buildings, and important plazas and courtyards.

Plant masses should be used to buffer incompatible land uses. Depending on the density, form and type of plants used, landscaping can separate buildings, open space areas and other land uses from each other. Often the separation between academic, administrative, parking, circulation, campus support services and dormitory facilities is inadequate. The lack of physical buffer space can often be overcome with the use of plant materials. These buffers screen incompatible activities, provide a sense of scale and define edges between different uses. Psychologically, they provide relief from noise and visually incompatible uses.

Landscaping can successfully screen unsightly views or elements. Screen planting is achieved by the use of plants with dense, abundant foliage. Plant materials, however, require more space and maintenance than architectural techniques to achieve this goal. Plant materials are typically less costly than the construction of a wall or fence. Plant screens can also function as windbreaks, reduce glare, improve aesthetics and help to eliminate graffiti problems. Low maintenance and low water requirement plant materials should be used when planting is used for screening.

Careful placement of plants can impact energy conservation and maintenance savings. Shading south and west walls can reduce cooling costs. Sunlight glare and reflection can be reduced by placing trees and shrubs near roadways and parking lots. An effective design solution should consider both the need for solar protection in the summer and the desire for solar exposure in the winter. South and west exposures are most affected by solar radiation. Masses of trees and shading opportunities should be encouraged whenever possible. When a dense cluster of buildings is contemplated, setbacks with mature planting should be narrow enough to create shadows on adjacent buildings and paved surfaces to increase the cooling process.

Where the wind blows in a predictable direction daily, or almost daily through certain seasons, windbreaks may be warranted. Plants aid in wind control by guiding, deflecting or filtering the wind. If space permits, five rows of trees and shrubs should be planted with sixteen

feet between rows. If space is limited, a row of shrubs should be planted on the windward side followed by a row of trees. Large trees can diffuse winds and shelter outdoor areas, increasing their usefulness.

Some of the natural areas at SDSU are in a state of biological stability. Native species are self sustaining and have evolved to accept minimal moisture and soil nutrients indigenous to the area. Native plants resist pest infestation, but bring with them some risk of fire. Adjacent developed areas may be threatened by this natural burning process, so active fire control should be a part of management practices. Selection of fire retardant plant material within the perimeter zones is necessary to allow the natural burning cycles to be controlled. Native plant areas adjacent to developed areas should be thinned to reduce their foliage mass and break up extensive massing of materials to help slow fires. These areas should be approximately 100 feet wide and divided into brush management zones. The zone within the urbanized / developed area should be approximately thirty feet wide and permanently irrigated. Trees must not be located any closer to a building than a distance equal to the width of the mature tree canopy. An intermediate zone between the developed / urbanized zone and the natural zone should be composed of thinned-out natives and be approximately forty feet wide. This zone should replace the traditionally plowed fire break. New plant material should be low profile (18″ to 24″ in height), with limited foliage and slow burning attributes. The natural zone adjacent to the existing native plant areas should be pruned and thinned out every three years and be approximately thirty feet wide.

Site Furnishings

Site furnishings should provide visual interest and fulfill a functional need within the built environment. The furnishings should complement the architecture and landscape plant materials with regard to style, materials and color.

Seating

Seating must be located in high use areas such as plazas, entries and bus stops. It is appropriate to orient seating towards a view or high activity area. Benches should be located at least two feet from walkways to allow pedestrian traffic flow. Benches and other forms of seating should be a natural gray concrete or a material and/or color which matches the adjacent architecture. The concrete should be sandblasted. Seat heights should be 18 to 20 inches, with a depth of 12 to 18 inches. Provide benches with backrests where long-term seating is anticipated.

Drinking Fountains

Drinking fountains should be located near outdoor eating areas, restrooms, recreation areas and walkways where potable water is available. Fountains should be handicapped accessible and placed on a 4 by 4 foot concrete pad. Fountains should be a natural gray concrete pedestal type with a medium sandblast finish. An alternative material can include metal fixtures that are painted or coated to match the accent or trim color of the adjacent buildings or lighting fixtures.

Trash Containers

Trash containers should be located along walkways, near building entrances, seating areas and heavily used outdoor areas. The trash container should be 3 feet high by 23 inches in diameter. It should be a round natural gray cast concrete receptacle with a medium sandblasted finish. The lid should be a dark bronze anodized spun aluminum with an anchor chain and spring fastener. Inlaid tiles using the Aztec Red should be integral into the design. The liner should be made of galvanized metal.

Bollards

Bollards should be located in areas where separation is required between vehicular, pedestrian and bicycle circulation. Bollards should be an 8 to 24-inch round design made of natural gray concrete with a medium sandblasted finish. Overall height should be approximately 43 inches. Removable bollards will be required for emergency and service access at some locations. Another alternative can include metal bollards painted or coated to reflect the trim or accent color of the adjacent architecture. Bollards with lights are recommended for those areas that need pedestrian lighting along major promenades or at building entrances.

Tree Grates

Trees grates should be located in large paved areas where heavy pedestrian use is expected, particularly in courtyards and plazas. Tree grates should be a four foot minimum square or round grate with a medium sandblasted finish. Tree grates can also be made of steel with a heat-fused coating 1/8 inch thick.

Planters

Planters should be located in areas where permanent planting in the ground is not possible. Planters should be a simple round design made of natural gray or terra-cotta colored concrete with a medium sandblasted finish. Drain holes should be provided in the bottom of planters. Irrigation must be included in all planters.

Site Walls

Walls should be used in high-profile locations. Wing walls are recommended to match the adjacent architectural materials. Concrete masonry units or poured-in-place concrete walls should be designed to incorporate raised planters and seat walls. These walls should be 18 to 24 inches high and 12 inches minimum wide. Building wing walls that connect directly to the primary structure and utilize the same materials, textures and colors tend to extend the architectural design statement out into the site. This treatment tends to tie together the site and the building and can also tie together several separate but related buildings.

Fencing

The use of ornamental metal fencing, hollow metal tubes and posts should be encouraged over standard chain link. These materials should be emphasized through accent colors and simple but dynamic geometric patterns. Fencing should be used to define spaces and encourage and control entry rather than to limit access both visually and physically.

Utilitarian fencing for screening purposes should be located where safety and security are needed, such as electrical substations. Fencing should also be provided in areas where total view obstruction is desired, such as service courts and material storage areas. The fencing should be constructed of galvanized steel chain link with a black or color coated surface. Metal slats in a color to match the fence may be used for total screening. Heights should not extend above eight feet.

Care must be given to control visual penetration into certain security areas while at the same time providing some visual access to increase security. A solid wall should not be allowed to become an element that people can hide behind. Short solid walls (below 3 feet) should be used in combination with metal extensions and fencing. The judicious placement of openings with integrated metal work will help provide the required visual penetration while still physically limiting access and shielding most areas from uncontrolled public view.

Lighting

The primary goal of SDSU's lighting policy is to achieve safety and security on all walkways and parking areas. The way that lighting affects individuals varies from person to person, but by following the recommendations and principals of IES, designers can create pleasing, adequately lighted environments. IES publishes specific values for recommended light levels expressed in foot-candles (FC) and average-to-minimum uniformity ratios. These standards are applied to four distinct classes of walkways/sidewalks to meet IES requisites for pedestrian identification at a distance or special pedestrian security. SDSU also applies IES standards for parking lots based on the classification of the University as an Educational Facility with a medium activity level, due to the large number of vehicles present at night.

SDSU lighting policy voluntarily follows the adopted ordinances of the City of San Diego for any outdoor lighting upgrade. The impetus for establishing this directive lies in the University's interest in reducing light pollution because it effects astronomical research, particularly at the Palomar and Mount Laguna observatories. Attention to light source and fixture selection will address this issue. Inadequately lighted parking lots will be required to upgrade by using 180 watt low pressure sodium (LPS) light sources. However, the nature of LPS light sources precludes the practicality of their use for campus walkways and outdoor assembly areas. Therefore it is recommended that 100 watt high pressure sodium (HPS) light sources be installed on upgraded walkways, stairs, ramps and plazas used for outdoor performances.

Priority Status

Every parking lot and walkway that has been assessed as being below the IES standards has been assigned a priority status of either Level 1 or Level 2, as deemed by both objective and subjective criteria. When the majority of an area (50%+) fails to meet IES standards, it is assigned Level 1 status. If less than 50% of an area fails to meet standards, it is assigned Level 2 status. Subjective criteria that affect priority status are intensity of use and pedestrian safety. In addition, an annual night walk helps to establish priorities. This campus-wide evaluation includes participation from students, faculty, staff and consultants. From this evaluation, priorities can be established and implemented as funding becomes available.

The design concept for lighting is to provide consistency in the selection of light sources, light fixtures, poles and materials. Lighting provides the opportunity to improve the visual quality of an installation by utilizing fixtures that relate to the building materials found in the adjacent architecture. Providing too many different types of light poles and fixtures in a given area tends to look cluttered and chaotic.

General criteria that should apply to all lighting includes:

- High pressure sodium or metal halide fixtures should be used where public safety or aesthetic issues are important. Given that the city has cleared the way for switching from low pressure sodium to high pressure sodium south of I-8, the original Mt. Palomar night sky requirement may not be valid based on the location of the campus.
- Lighting must meet the minimum light distribution requirements necessary to provide a safe night-time environment and to provide for security monitoring.
- Lighting is necessary in all areas where steps, drop-offs or other trip hazards are found.
- Lighting should be used to help direct vehicular and pedestrian traffic to major entrances and parking lots. Light levels should be increased at destination entrances. Entrance portals to walkways should be illuminated to help pedestrians find their way.
- Differing levels of lighting foot-candles should be used to emphasize streets and intersections. The entry gateways and pedestrian portals should have lighting levels of approximately 2.0 foot- candles. High levels of lighting (1.0-1.75 foot-candles) are necessary in areas where pedestrians and vehicles intermix and in major parking lots. Moderate levels of lighting (.5 foot-candle) are encouraged along pedestrian walkways and minor parking lots. Lower levels of lighting (.2 foot-candles) are suggested for any area that is close to a residential unit.
- Shielded lighting and cut-off type box lighting should be encouraged in all areas where lighting spill over into residential areas is anticipated.
- Building mounted lighting will be used to set off building entrances. A wall wash of light is allowed if the light is positioned for down lighting instead of up lighting.
- Flush wall lights along steps or walkways lined with walls/ planters are encouraged.
- Landmark lighting is encouraged to help orient the night-time user to major nodes and landmarks found on the campus. Lighting of entry monuments and landscaping should also encouraged.
- Site furnishings such as bus shelters and special outdoor seating areas should utilize lighting to increase safety.

5.12 Wayfinding Systems

Although wayfinding systems generally include all spatial, architectural and landscape architectural elements discussed above, this section will focus specifically on signage systems.

5.12.1 Existing Signage Policies

Signage shall comply with the requirements of the Americans with Disabilities Act (ADA) and the Accessibility Standards of the California Code of Regulations (CCR), Title 24, whichever requirement is more stringent. Exterior directional and information signs shall match those used in the Student Services Phase I Building.

The existing building identification typestyle used on campus is commonly called "ribbon", originally made by Spanjer Company, who is now out of business. Raised letter building name signs should be made out of aluminum or brushed steel.

5.12.2 Framework for New Signage Guidelines

While the basic purpose of a sign is to convey information, to do so effectively, signage must be clear, concise, legible, consistent in location, and harmonious with the architectural environment. Signs are used by both newcomers and long-time users of the campus.. Signs are seen from both vehicles and pedestrians. Vehicular-directed signs must communicate messages quickly and concisely.

The concept for signage at SDSU is utilitarian with simple components of design that can help to establish a character for the campus and its neighborhoods. This concept translates into signage with simple, clean and functional design elements. Signage materials and detailing of individual signs should draw upon the surrounding architecture as a source of information and context. A visual hierarchy of signage types should be established relative to scale of importance of the information being conveyed. A hierarchical approach helps to establish each signs function and content. This hierarchy should include campus entry signs, primary directional signs, secondary directional signs, neighborhood informational signs, regulatory signs, building user / name identification signs and informational kiosks.

- The campus-wide signage system must have consistent nomenclature.
- Signage must be simple and functional in appearance.
- The number of messages on panels must be limited ideally to not more than seven lines of text and the text on each message panel should be kept to an absolute minimum.
- Signage must be clearly visible and located at key decision points.
- The type of signage must be clearly identified (ie, directional, identification, informational, regulatory) prior to deciding on location, size, message panels, or materials.

Sign Placement

Signs are only effective if they can be seen by their intended viewers. The following principles should be kept in mind when placing signs:

- Directional and identification signs should be located where the signs are visible and placed in advance of key decision points in order to give a visitor the time required to make a decision.
- Entry monumentation should be located at the primary gateways to the campus.

- Destination signage should be integrated and appropriately scaled with buildings. Building name and/or numbers should be oriented to the primary street or primary pathway.

- Building names, logos and other informational signs should be located near the primary entrance of the building. This location will help reinforce where people should enter a building.

Lettering

Lettering, graphics, sign colors and signage materials should be standardized to ensure uniformity, clarity, quick recognition and comprehension of the information conveyed on the sign. Below are guidelines to be used for all categories of signs:

- The Helvetica family of typefaces will be used for all signage. The only exceptions will be those letters or words that are part of a specific logo or other unique graphic element.

- Helvetica Bold will be used only when a hierarchy of lines of information is needed. It should be used to set off and dominate the other pieces of sign information.

- Helvetica Medium will be the primary typestyle used for the majority of signs except raised letter building names.

- Helvetica Regular should be used for secondary information

- Helvetica Condensed should only be used when the sign letter size and width make it impossible to fit the intended line on the sign. Do not mix the condensed version with other versions for related or similar messages.

- Entry monumentation must include lettering sizes on the sign from twelve to twenty inches in height. Lettering size on the sign should be legible from approximately 250 feet away (approximately one city block).

- All signs that need to be visible from passing vehicles must be at least 4″ in height. This would include all building numbers and directional signs.

- Signs that are oriented to pedestrians or are located at building entrances may have lettering as small as 1″ in height.

- Upper and lowercase letters should be used in most instances.

- In general, no more than two type sizes should be displayed on any sign.

- Type sizes should always remain constant for related lines of type.

- Lettering color must always contrast dramatically (at least 70 %) with the color of the background panel. Generally, light colored letters read better on dark backgrounds, but light colored backgrounds stand-out better in the environment. Whether to use a light or dark colored background needs to be weighed against the intended aesthetics of the campus environment and may change per sign type. For instance, to differentiate between types of signs in the system, the primary directional system might have light backgrounds with dark type, while the neighborhood/district markers might have dark backgrounds with light type.

Directional Signage

- The purpose of directional signage is to guide the motorist and pedestrian in and around the campus. Signs intended for pedestrian guidance should be of a smaller scale than those intended to be viewed by passing vehicles. The legibility and positioning of directional signs, as well as the ordering and amount of information on the sign, is critical to their effectiveness.

- Vehicular directional signage should be limited to approximately 10 - 12 words, when possible. If most lines average two words or less, then approximately 5 to 6 lines can be shown on a sign (seven lines maximum).

- Directional signs for pedestrians can often contain more information than signs for motorists (ten lines max.).

Building Identification Signs

- All buildings should provide some level of information to help the visitor determine the functions located inside the building.

- All buildings and structures should be identified by a building name. The location, size and lettering style should be consistent throughout the campus, but appropriately scaled to the individual building and viewing distance.

- The size of the building name should typically be eight inches in height, but may increase to a maximum of ten inches, depending on the size of the building. The typestyle should be consistent campus-wide.

Kiosks

Kiosks are small structures used for conveying information and are similar in function to a bulletin board. Kiosks should be consistent throughout the campus with a portion of the design changing per neighborhood. These changes could pick up on materials, colors, themes or detailing similar to adjacent buildings. Kiosks should provide some type of overhead for protection from weather conditions. These kiosks should provide for future expansion by incorporating communication options such as telephones.

5.13 Memorials and Public Art

The historic nature of the campus and the wishes of the alumni combine to indicate the clear need to accommodate memorials and plaques. Considering the number of existing and potential public spaces on this campus, the use of public art is not only warranted, but should be encouraged. The role these elements play in defining spaces and wayfinding should be considered along with the educational and aesthetic aspects memorials and public art provide.

5.13.1 Existing Memorial / Public Art Policies

No formal or informal policies exist.

5.13.2 Framework for New Memorial/ Pubic Art Guidelines

All new projects shall include either a sculpture or mural. Plaques, memorials, special paving designs, or wall treatments should count toward this art requirement, but should not fully satisfy it. It is important that major art or memorials are prominently added in order to improve the form, wayfinding and place- creation needed at SDSU. These elements should be placed in such a manner to help identify major entrances, to define exterior spatial environments and to assist in wayfinding. They should be visible from some distance and be centrally located. A review of site axial arrangements, visibility of adjacent landmarks and circulation patterns should be completed prior to the placement of these elements. Buildings that are limited to utility, storage or other support functions that do not generate a large amount of foot traffic, will be considered exempt from this requirement.

The central memorial or public art piece should relate in some manner to the materials, character and arrangement of space in which it is placed. Dramatic contrast will be allowed as long as the art or memorial does not excessively dominate the space and adjacent buildings.

Memorials, plaques and public art function equally well in high activity centers and in semi-private nodes. In either case, the elements should reinforce malls, promenades, plazas and courtyards as a central focal point.

Circulation Elements

Access and circulation are key components to site planning. Access points and traffic patterns must be established to minimize the impacts with adjacent streets and facilities. Convenient access for delivery, service and emergency vehicles must be integrated into the site planning of the facility. Appropriate road and walk connections between adjacent facilities must be provided with minimal conflicts between pedestrians, bicycles and vehicles. Walkways must also be barrier-free and designed in accordance with the Americans with Disabilities Act.

5.14 Vehicular Circulation & Parking

The vehicular circulation system provides the means for primary access, as well as a vantage point from which most people see particular facilities and find their way into the campus. Even though the road network at SDSU is an existing system, much can be done to improve the functional and visual aspects of the roadways

5.14.1 Existing Vehicular Circulation and Parking Policies

No formal or informal policies exist.

5.14.2 Framework for New Vehicular Circulation and Parking Guidelines

Functionally, a hierarchy of streets is needed to separate incompatible types of traffic and to emphasize the streets that should be used by the general campus visitor. Visually, a hierarchy of primary, secondary and tertiary streets can reinforce levels of importance of roads to promote better comprehension of the physical layout of the campus, a sense of orientation, ease of circulation and an aesthetically attractive streetscape.

In many areas of the campus, the street designation is unclear. It is desirable that road rights-of-way, pavement widths, speed limits, provisions for curbs and sidewalks, street lighting, street trees, traffic and parking controls are varied to reflect and facilitate a road hierarchy. The road hierarchy should be visually reinforced by utilizing the following guidelines.

Primary Streets

Primary streets should consist of two to three traffic lanes in each direction, with a raised median where space permits. Landscaped medians improve the visual quality of the streetscape and strengthen the perceptual importance of the street. All primary streets should include a minimum eight-foot-wide landscaped parkway. On-street parking should not be permitted. This restriction helps to mitigate parking impacts on adjacent uses and makes these streets more distinctive and less cluttered. Bike lanes should be added to these streets where possible. They should be four feet wide with painted lines and stenciled bikeway symbols.

Currently, only College Avenue approaches these standards. Additional design treatments including median plantings, prominent light fixtures, banners, signage and major entry statements are needed to appropriately emphasize this street. Montezuma Road, from College Avenue to Collwood, and Campanile Drive, north of Montezuma Road, should be brought up to a primary street standard. Adherance to street width standards are not as important as the inclusion of streetscape elements that make these street appear to be more important than other secondary streets. Campus staff will need to work with the City of San Diego as well as the SDSU Foundation in order to affect the design of these streets.

Primary Streets Standards

- Road rights-of-way: 64′ to 106′ wide
- Bike lane: 6′ wide, both sides
- Walkway widths: 12′ wide
- Median: 8′ wide
- Street lighting: 4′ setback from curb. Campus standard fixture and pole with banner bracket arm and banners.

Secondary Streets

Secondary streets include Canyon Crest Drive, 55th Street, the western portions of Aztec Circle Drive and Remington Road. Secondary streets should have one to two lanes of traffic in each direction. These streets provide direct access to on-campus surface lots and parking structures. Where pedestrian traffic follows these street, sidewalks should be added either adjacent to the roadway or separated by a four-foot-wide landscaped parkway. Shared bicycle use of secondary roads is recommended and, space permitting, should be designated as a Class I facility (with bike lanes) or a Class II facility (signage marking route with a widened travel lane at least 3 feet wider than normal for the outside travel lane).

Secondary Streets Standards

- Road rights-of-way: 52′ to 64′ wide
- Bike lane: 4′ wide
- Walkway widths: 8′ wide
- Street lighting: 2′ setback from sidewalk. Campus standard fixture and pole.

Tertiary Streets

Tertiary streets include all other streets not identified as primary or secondary streets. This would include the northern and eastern portions of Aztec Center Drive, Avenue of the Arts, Hilltop Way and East Campus Drive. These streets should be restricted to one lane of traffic in each direction. Sidewalks adjacent to the curb must exist on at least one side of the street, if pedestrian traffic follows these streets. No special bikeway facilities are needed because traffic is typically minimal.

Tertiary Streets Standards

- Road rights-of-way: 30′ to 52′ wide
- Bike lane: no special lane
- Walkway widths: 6′ wide on at least one side
- Street lighting: Campus standard fixture and pole.

Service and Fire Access

A system of service vehicle and emergency vehicle access is required for public safety and efficiency in maintenance programs. The Campanile Mall, Centennial Mall, Aztec Circle and the East Campus mall are capable of supporting this type of activity. Control of non-service and non-emergency access vehicles should be accomplished by signage and bollards. All pavements must be able to support large delivery trucks as well as fire-control vehicles. The minimum pavement will be 8″ thick concrete reinforced walkway with 10″ thickness for the outer two feet of these walks. Stamped concrete with integral color or tile set in concrete will be required in these areas. Expansion joints will be required every 6′ -8′ and score joints every 4′ and should be arranged in geometric patterns that support the paving materials and pathway layouts. Alternatively, 4″ modular concrete interlocking pavers will be allowed if set in a base material designed for truckway loads.

Service Street Standards

- Road rights-of-way: 12′ to 30′ wide
- Bike lane: no special lane
- Walkway widths: Joint use
- Street lighting: Campus standard fixture and pole.

Parking Guidelines

- Existing parking lots must not be utilized for new construction unless provisions are made for replacing the parking.
- All new and renovated parking lots should have edges which are defined by curbs, sidewalks, paving, fencing, walls, planting areas or a combination of the above.
- All parking lots should have an asphaltic concrete surface, designed in conformance with campus standards.
- Concrete bands should be integrated into areas receiving pedestrian cross traffic. These bands help to signify areas of caution, such as pedestrian walks, and break up the monotony of large asphalt lots and road surfaces. At least one concrete band and walkway should take pedestrians from each major parking lot to the pedestrian pathways that lead into the center of the campus.
- Planting must be installed within and around parking lots to mitigate the visual impact of the lot and to provide shade and wind protection.
- Parking lot entries should be a minimum of 50′ feet from street intersections and parking area lighting should be provided in areas of frequent night use.
- Concrete wheel stops (4″ by 8″ by 4′ long) should be securely anchored in paving for any areas where vehicles could potentially overhang pedestrian walkways.
- Provisions for ADA accessible and motorcycle parking must be provided in each parking lot. One accessible parking space must be provided for every 40 spaces. Accessible stall size must conform to the State of California Architectural Barriers Law: 14′ wide by 19′ long, with a 5′ aisle between the two spaces. Standard accessible parking identification markers and signage must be provided.
- Motorcycle parking should be provided at a ratio of 10 spaces for every 100 spaces for cars. Motorcycle parking should be paved with Portland cement concrete and separated from cars by a planted area.

5.15 Pedestrian and Bicycle Circulation

The life flow of the campus depends on efficient pedestrian circulation systems. The role that foot traffic plays on this campus will continue to increase as surface parking is centralized in parking structures and as campus enrollment increases.

Bicycle use throughout the campus should be encouraged to help decrease excessive traffic and parking requirements. Bicycle facilities should be provided in parking structures, "bike barns," or similar designated areas where bikes can be clustered for security and shielded from view corridors. Bike parking may be located adjacent to existing bicycle circulation routes such as curbed streets, and where accessible by such routes, in close proximity to academic, recreational and residence hall facilities between classrooms, student activities, recreation facilities and resident halls. Bike-use restrictions must occur in order to limit safety conflicts between pedestrians and cyclists. In general, bike use should be encouraged along all primary, secondary and tertiary streets. All other areas should be restricted, although the walking of bikes to internal areas with bike parking should be accommodated.

5.15.1 Existing Bicycle / Pedestrian Circulation Policies

• Bike use shall be limited to all streets that have curbs running alongside the travel lane with sidewalks. Use shall further be restricted from Hilltop Drive.

• All walkways shall be concrete or concrete paver stones.

• Provide walkways which are a minimum of six to eight feet in width.

• Provide safe pedestrian areas by providing landscaped parkways between the walkway and the street.

• Provide accessible ramps at all intersections.

5.15.2 Framework for New Bicycle Circulation Guidelines

Special attention should be given to connections with the community in the areas located along Montezuma Drive as well as in the Foundation area. These connections are essential in order to limit the need for vehicular entry and parking within the campus boundaries. Bike access would be far less of a vehicular impact.

Bicycle racks should be conveniently located in accessible locations that are clearly identified and well-lighted. The bike racks should be located out of the flow of pedestrian traffic and shielded from direct view by landscaping or other improvements. Bike racks should consist of a high security, one bike per unit, lockable type of rack. The color should be a dark bronze factory finish or an accent color to match the architecture or other colored metal surfaces. Bike racks should be installed with a surface flange mount or an in-ground anchor.

5.15.3 Framework for Pedestrian Circulation Guidelines

Primary walkways linking major activity centers that carry a high volume of pedestrian traffic may be located either adjacent to primary streets or woven between buildings that attract high concentrations of people. Plazas, promenades and malls function as these pedestrian paths and should be used in interior portions of the campus (away from roadways), wherever possible. These walkways should be at least twelve feet wide and, where possible, separated from vehicular traffic by an eight foot wide planting strip. Primary walkways should be made of concrete or similar material and

furnished with a number of site amenities including light fixtures, benches, trash receptacles and shade trees.

Secondary walkways that link normal activity centers and carry moderate numbers of pedestrian traffic should be eight feet wide, made of concrete or asphalt. They should be separated from vehicular traffic by a four foot wide landscaped strip, or be placed adjacent to the curb. Site amenities should be provided where possible.

Tertiary walks provide the necessary linkages for complete continuity. These walkways should be six feet wide and can be located adjacent to the curb of the street. For recreational purposes, tertiary walks may include walkways or paths in remote areas which are adjacent to natural habitats and ultimately connect with the main walkway system. No special amenities are needed for tertiary walks, except for those used for recreation and exercise purposes.

The conflict between pedestrians and vehicular traffic must be addressed wherever this conflict exists. In all cases, the pedestrian should be given priority, and the design of pedestrian crossings and adjacent pathways must address the unique requirements of the pedestrian. These spaces, including crosswalks, should contain paving, markings, bollards, signage and other physical elements that state that this is an area for pedestrians.

This hierarchy of walkways should include the standard SDSU paver system with the 10′ by 10′ field and grid pattern. A set of criteria needs to be established to designate where the uses are appropriate.

The campus standard for pedestrian paving calls for the use of interlocking unit paving for all major circulation areas including plazas and malls. Other minor paving can consist of concrete walkways constructed of natural gray concrete with a medium broom finish or a sand blasted panel and a four-inch-wide smooth trowel band along the edge. Extensive use of scoring joints must be used and arranged in geometric patterns that help enhance the design quality of the flatwork. Other accepted finishes and materials include: salt finish, exposed aggregate, and integrally-colored concrete.

Crosswalks

Pedestrian traffic should be channeled to designated crosswalks that provide safe and convenient street crossings. In all cases on campus, the pedestrian should be given priority over vehicular traffic. Crosswalks are to be provided at major and heavily-used intersections, parking lots and building entrances. Crosswalks should be at least eight feet wide with bold white striping or textured paving. The textured paving should be used at primary intersections and entrances into major facilities. Pedestrian ramps are to be provided at each corner of an intersection.

Steps

The minimum clear width for any exterior stairway must be four feet wide. The difference in elevation between landings must not exceed four feet when the stairs are exposed to the elements with no overhead protection and should not exceed six feet where overhead protection is provided. Steps with less than three risers must be avoided. Risers should be between four and seven-and-one-half inches high with tread widths between twelve and seventeen inches wide. Steps should have solid risers and a rounded or chamfered nosing with a contrasting, non-slip surface. The tread must be pitched at 1/8 inch per foot to drain surface water.

Ramps

The maximum gradient of a ramp must not exceed 8.33 percent (1:12). The maximum length for a ramp is thirty feet and the minimum clear width is five feet. The cross slope should not exceed 2 percent (1:50). Ramps should have level landings at the bottom and top of each run. The landing should be at least as wide as the ramp leading to it and a minimum of five feet except where a door swings toward the ramp landing. In that case, the landing shall be 42″ clear beyond the door swing. Where a ramp changes directions, the landing should be five feet by six feet. A textural signal for the sight-impaired should be provided at the top and bottom of ramps. Low curbs, a minimum of two inches high, should be provided along the sides of ramps and landings. The color and texture of ramps should match the adjacent paving.

Handrails

Handrails must be one-and-one-half to two inches in diameter. Handrails must not rotate within their fittings. A minimum of one and one-half inch spacing must be provided between the handrail and the adjacent wall and the wall surface should be non-abrasive. For ramps that change directions, inner handrails must be continuous through the change in direction. Outer handrails may be either continuous or must extend at least 12″ from upper and lower ramp segments and be parallel with the landing surface. The ends of the handrails should return to a wall surface or be rounded in lieu of returns to prevent creating a hazard.

For ramps with a rise that is greater than 6 inches or longer than 72 inches, handrails must be provided on both sides of the ramp, extend past the top and bottom of the ramp twelve inches and be parallel to the ground surface. The vertical dimension from the ramp surface to the top of the handrail should be between 34 and 38 inches.

Handrails for steps should be placed on both sides of open stairways. If the stairway is less than 44 inches wide, then a handrail is needed on one side only. Intermediate handrails should be provided whenever steps are wider than 88 inches wide. All steps with more than three risers should be constructed with a handrail. Handrails should extend 12″ beyond the top riser and a minimum of 12″ plus the width of one tread beyond the bottom riser. At the top, the extension should be parallel with the ground surface and at the bottom, the handrail should continue to slope for a distance of the width of one tread from the bottom riser; the remainder of the handrail should be horizontal.

5.15.4 Framework for Campus Barrier Removal Program (ADA)

The consulting firm, Building Analytics, was engaged by the Trustees of the California State University to prepare a Transition Plan for the twenty CSU campuses including SDSU, and eleven off-site locations, in accordance with the Americans with Disabilities Act (ADA). The Title II Regulations of the ADA, Non Discrimination On The Basis Of Disability In State and Local Government Services, was the primary focus of this study. Title II requires that a public entity shall operate each service, program or activity, so that when viewed in its entirety is readily accessible to and usable by the disabled. The public entity complies with this requirement by a variety or combination of means such as reassignment of services to accessible rooms or buildings, use of accessible moveable equipment or facilities, and / or through the removal of existing architectural barriers. It should be emphasized that the public entity (SDSU) is not required to make architectural changes where alternative methods of compliance are effective or if architectural changes would pose an undue financial burden on the institution.

This nine month project included the following primary tasks:

1. Development of a computer based architectural barrier survey checklist to collect the field data.
2. Field survey of all CSU facilities (1,520 buildings totaling 43,435,577 square feet at all the sites).
3. Development of a database management system to analyze and report the field data.
4. Development of compliance tables based on the ADA (ADAAG), the Uniform Federal Accessibility Standards (UFAS), and the California State Building Code (Title 24, part 2) to test compliance.
5. Creation of "Corrective Action Codes" to translate the issues of non-compliance into required corrective action with assigned budget costs for barrier removal.
6. Involvement of the disabled community at each campus in the project through public forums and questionnaires.
7. Establishment of priorities for barrier removal through periodic progress meetings with the CSU Access Committee and Physical Planning and Development representatives.

Title II also requires public entities to prepare a Transition Plan in the event that architectural changes are required to achieve program accessibility. The transition Plan for CSU was completed in July, 1992. All identified architectural barriers which denied access were prioritized for removal. Significant barriers have been removed and will continue to be removed as funding allows.

The accessibility survey included all campus facilities. Facilities were classified as "essential" or "non-essential" based on their function. Essential facilities were defined as containing university program space. Due to the high utilization of campus facilities, relocation of program space to other accessible facilities was not considered to be a realistic option. It was determined therefore that all be made accessible. "Non-essential" facilities were limited to those facilities which contained no program space. However, even these buildings might someday be required to be accessible as part of a job accommodation under Title I, employment provisions. However, the priority assigned rating to modify these facilities would be low.

The prioritization ranking of architectural barrier removal was based on the broad guidelines established under Title III of the ADA Regulations. No guidelines for establishing priorities are provided under Title II. The priority ranking was modified and expanded as recommended by the CSU Access Committee. Greater emphasis was placed on the issues of life safety and telecommunication barriers than found in the regulations. These concerns were voiced at the ADA forums and through questionnaires dispersed to disabled students and staff.

The Transition Plan is viewed as a "living" document and is updated and reprioritized as projects are undertaken to remove architectural barriers. The campus reviews the plan with input from the disabled community.

Priorities For Barrier Removal

The following are proposed priorities used in developing the transition plan. Under each heading is the list of items that would be recommended if not already accessible.

Priority 1; General Access to Sites and Buildings

- parking and passenger loading areas - disperse around the campus reserved spaces for disabled people, for both cars and vans
- at least 2 primary entrances / exits to "essential" campus buildings
- pedestrian circulation to all buildings and facilities (including protruding objects, if they deny access)
- exterior pay telephones, including at least 1 public TDD in a central location
- emergency telephones
- exterior building signage and one tactile campus map at a central location
- stairs at entries (if they occur in the accessible path of travel)
- When campus access is limited due to distance or topography, then an accessible transportation system is recommended to be provided

Priority 2; Basic Access to Program Areas and Essential Support Spaces / Elements

- interior circulation elements to all program spaces, including doors, corridors, ramps, elevators, elevator lobbies, platform lifts, turnstiles, check-out aisles (including protruding objects, if they deny access)
- one toilet room / sex in each building on an entry floor (if provided)
- all elements in dressing / locker rooms
- at least 1 drinking fountain per building (if provided)
- at least one public telephone per building (if provided)
- accessible student housing - including a range of types of units (if provided)
- cafeterias
- library spaces
- add sprinklers or at least 2 rescue assistance areas per floor above grade level
- alarm systems and fire alarm stations
- seating / assembly areas
- accessible science / computer lab station including one fume hood (if provided)
- stadium seating
- stage / speaker platforms
- swimming pools

Priority 3; Important Additional Support Services

- at least two entrances / exits to "non-essential" buildings (e.g. physical plant department)
- interior building signage
- showers - in non-essential buildings
- changing areas
- at least one work are in space where provided
- mailboxes
- 1 TDD in the library, student union building and the office of disabled student services
- locker areas (not changing areas, only storage)
- ATM machines

Priority 4; Comprehensive Accessibility

- new elevators (to buildings not already served by elevators or by an alternative accessible path of travel). Provide areas of rescue assistance at same time.
- interior circulation elements on all floors to be served by new elevators
- additional entrances / exits
- additional toilet rooms (including new toilet rooms if none provided)
- stairways (not in the accessible path of travel)
- storage areas
- windows
- emergency eyewash / shower
- accident prevention, including carpet and additional protruding objects
- additional drinking fountains (all remaining)
- additional telephones (all remaining)
- bathtubs
- quiet areas
- fixed tables
- additional science / computer lab stations and additional fume hoods (all remaining)
- electrical systems

5.16 Transit Facilities

Transportation is an important element for the SDSU campus to consider. The guidelines and policies below are limited to those physical elements of a public transportation system as they affect the character and arrangement of the campus.

5.16.1 Existing Transit Policies

No formal or informal policies exist.

5.16.2 Framework for New Transit Guidelines

Coordinate a user-friendly LRT station with the Foundation Redevelopment area project. The station should remain below-grade level at Campanile Drive to protect Mall views to Hepner Hall. Pedestrian traffic from Campanile Drive to the Campanile Mall should not be compromised. Locate a bus transit center adjacent to the LRT for ease of connections. Station shall be well lighted and include necessary security.

Add a user-friendly inter-campus shuttle service to make all parking areas convenient to all students, faculty and visitors. A shuttle service will accommodate cross-campus travel and reduce the impact on "favored" and convenient parking areas.

5.17 Utility Elements

Specific guidelines for infrastructure are not within the scope of this study. Only those elements of utilities that have the ability to affect the character of the campus or that represent important constraints to development, are included here.

5.17.1 Existing Utility Policies

SDSU has no campus-wide master plan for utilities upgrades. All existing utilities and capacities are mapped and upgrading is on a project-by-project basis. It is prudent to proceed with a utilities master plan only after the Phase II Campus Master Plan is completed. The Campus Master Plan will identify appropriate utility corridors that are coordinated with proposed building projects. Once non-building areas are identified, utilities can be planned with certainty, whether in a main utility group tunnel or in separate underground piping.

SDSU has a Campus Telecommunications Infrastructure Master Plan, completed by ORSA Consulting Engineers in November, 1995. The plan makes recommendations about Inter-campus and Intra-campus infrastructure. Inter-campus infrastructure includes the Internet and other national and world-wide communication systems. Intra-campus infrastructure involves communications within the SDSU campus. Infrastructure improvements must be supported by the "California State University Telecommunications Infrastructure Planning (TIP) Guidelines." (ORSA Consulting Engineers).

The Campus Telecommunications Infrastructure Master Plan makes observations of other elements of campus utilities such as vaults, equipment rooms, manholes, substitute utility pathways, etc.

5.17.2 Framework for New Utility Guidelines

The objective is to construct an infrastructure that will support developing telecommunication systems and technologies over the next twenty years. The Campus Telecommunications Infrastructure Master Plan is proposed to be accomplished in phases, based on priority:

1. Inter-building pathways, media, connections for all major buildings.

2. Intra-building pathways, media connections for major critical classrooms and faculty offices.

3. Intra-building pathways, media connections for other facilities.

4. Additional program-driven requirements.

The following impacts are noted:

1. Relocate Campus Communications Switching Center to a new dedicated facility.

2. Add new communications equipment rooms and upgrade distribution pathways and HVAC in all planned renovated or new buildings with communications needs.

3. Upgrade buildings to TIP minimum equipment standards including 100 Megabits per second (Mbps) to the desktop and Information Outlets (IO) for all buildings that were justified by the academic program.

4. Upgrade vaults, manholes, conduits, backbone wire and fiber in priority locations.

5. Renovate and expand the existing Speech/ Telecommunications Building.

SUMMARY OF FINDINGS

Summary of Phase I Findings

The primary purpose of Phase I of this Master Plan is to identify the current conditions of the SDSU campus. An analysis of the assets, liabilities, constraints and opportunities was performed for all major physical elements found on campus. The focus was on elements found in the exterior environment that contributed to the function, form, character, aesthetics, or wayfinding capability of the campus.

The following are the major findings of this Phase I study:

• The campus has considerable diversity in spaces and treatments. This diversity could be an opportunity for creating distinctive neighborhoods (see Section 4.7 and 5.7).

• The campus has the form and density of an urban campus, even though it is in a suburban area. The density, massing, spacing and scale of buildings shifts the pedestrian's focus from seeing whole buildings to seeing spaces between buildings such as plazas, malls, terraces and courtyards. The street walls and edges of buildings become more important than the overall building form. Much of the pedestrian's attention is focused on the ground plane hard surface. This hard surface connects most of the campus both functionally and visually. The ground plane focus is strongest in the historic core and the northeast corner of the campus. Buildings tend to be viewed as full forms along the Campanile Mall and in western portions of the campus, however (see Sections 4.3, 4.4, 4.6, 5.3, 5.4 and 5.6).

• The variety of spaces created by areas between buildings are very interesting and create a sense of discovery for many users of the campus. However, wayfinding throughout the campus is hindered by constant changes in direction, levels, spatial definitions and paving materials. Also, safety, especially at night, is a substantial challenge due to the frequency of small and hidden spaces. An improved signage system, incorporation of landmarks as wayfinding elements, public art and consistent paving of pathways would all improve this wayfinding challenge. Improved lighting would increase public safety (see Sections 4.12 and 5.12).

• The reference to the historic context of the campus is still intact. All of the historic structures are considered to be architectural assets and help form a central core of the campus. Newer architecture around Centennial Mall is harmonious with the design character and form of these historic structures (see Sections 4.3, 4.7, 4.8, 5.3, 5.7 and 5.8).

• The form of the campus is well defined in many areas. The Campanile Mall, Centennial Mall, and Plaza Malls all provide important structure and form. These malls relate well to pedestrian flow and provide important axial arrangements and view corridors that increase wayfinding and spatial definition (see Sections 4.3, 4.4, 4.5, 4.6, 5.3, 5.4, 5.5, and 5.6).

• To some extent, the campus is visually isolated from adjacent areas and public streets. However, the mesa and sloped edges of the campus are very visible to a large portion of the public traveling on Interstate 8 and College Avenue. Most of the buildings on this side of the campus are of limited interest when analyzed individually, but collectively they produce a cohesive whole due to similar fenestration and building color. Should there be more development along this edge, it should respond to the slopes of the site with multiple terraces that would also serve as pedestrian connections from the lower surface parking lots up to the mesa top campus core (see Sections 4.2, 4.9, 5.2 and 5.9).

• The northern and eastern portions of the campus have locations where views of distant mountains, canyons and hills are available. Most of these viewing locations have not been developed to their best advantage (see Sections 4.5 and 5.5).

• The pedestrian bridges and parking structures funnel the majority of pedestrians onto the main campus. This funneling represents a good opportunity for entry statements as well as centralized signage and informational exhibits. The current design treatments in these areas are not at the level of design they should be, considering the great numbers of pedestrians coming through these portals. This is especially true with the campus entrances leading from Parking Structure 4 and from the major surface parking lots on the west side of campus (see Section 4.1, 4.6, 4.12, 4.15, 5.1, 5.6, 5.12 and 5.15).

• The vehicular and pedestrian circulation system works well with only a few exceptions. The campus is and should continue to be pedestrian oriented. Various small alleys and parking lots should be relocated and the spaces converted to pedestrian areas. The proliferation of vehicles on most of the promenades, plazas and malls may indicate that the circulation system does not adequately provide access for service and maintenance vehicles. The use of these areas by official service and emergency vehicles is appropriate. The large numbers of private vehicles belonging to faculty, staff, students and visitors is not appropriate, however. Traffic control such as signage and bollards are needed in these areas to curb this type of use (see Sections 4.14, 4.15, 5.14 and 5.15).

Preliminary Issues and Concepts

The issues and concepts listed below should not be considered as formal recommendations. They are discussion items that should be addressed in Phase II of this Master Plan. The issues and concepts are included here to help create a dialogue and a method for obtaining formal comment. If these concepts are considered valid, then concept plans, sketches and descriptions would be developed.

The following are the major issues and potential solutions of this Phase I study:

• Although the study has been limited to the existing boundary of the campus, the most critical area affecting the campus and its future form is the Foundation Area to the south. This area is the front door of the campus and its activities and physical form will directly impact the perception of the entry and edges of SDSU. In order to make sure that the Foundation Area relates to and integrates with the campus, development guidelines should require that:

- Campus entry statements are clearly perceived in the redevelopment area;
- New development extends pedestrian patterns similar to those found on the main campus;
- New development encourages pedestrian activity on the Campanile and Plaza malls;
- The scale and character of new development should not dominate the adjacent campus character;
- The form of the campus as depicted by Campanile Mall and the Plaza Mall be extended into the Redevelopment area;
- The design guidelines indicated in Chapter 5 of this study should be applied to the redevelopment area where appropriate;
- and finally, redevelopment should help connect the Health Services, Gateway and Parking Structure 2 to the main campus.

• The perceived edge of the campus is lost as a direct result of the Redevelopment area. Major entries into the campus and its formal edges are obscured by existing Foundation development. Clarity of land use type and function is needed for future redevelopment in this area (see Sections 4.2 and 5.2).

• Entry statements are needed at Campanile Drive, 55th Street and College Avenue along Montezuma. The doorstep of the campus must be extended to Montezuma to improve visibility, accessibility and the perception of where the SDSU campus begins (Sections 4.1 and 5.1).

• The business district along College Avenue functions as a side entrance to the campus. The area is a main entrance to the East Residence Halls and is used by many commuters to access large surface parking lots in this area. The current configuration of the business district confuses wayfinding capability, does not allow for campus entry statements and does not communicate an edge that tells an individual that they are entering the campus. The two-sided nature of some of these businesses indicates the importance of vehicular activity on the west and pedestrian activity on the east. A more formal arrangement of these businesses is needed to accommodate the entry statement and edge definitions of the eastern portions of the campus. Coordination with the Business Improvement District is highly recommended (see Sections 4.2 and 5.2).

• Campanile Drive and the Campanile Mall should be the conduit for bringing people into the campus. This strong axial arrangement could become even better if some sightline problems could be resolved such as the relocation of some transit facility elements and extending special mall treatments out to Montezuma Road. One of the locations for future buildings along the spine of Campanile should be on the site currently occupied by the softball field (ENS 700). An increased level of pedestrian activity and social gathering places are needed along the Campanile Mall. The types of new facilities to be placed on the current softball site could include dining, retail, performing arts and academic functions that would generate high levels of street level activity (see Sections 4.4, 4.5, 4.10, 5.4, 5.5 and 5.10).

• The West Plaza Mall should be extended to the Cox Arena at Aztec Bowl. The extension of the West Campus Mall across 55th Street south of Peterson Gymnasium should also be considered. A major pedestrian crosswalk and visual terminus at the west end of this extension is needed. The crossing of 55th Street should be done in conjunction with a major new entry statement at 55th and the campus boundary (Sections 4.6, 4.10, 4.15, 5.6, 5.10 and 5.15).

• The tennis courts should be relocated. If possible, these facilities should be built on top of future parking structures, reclaimed canyon fills or other buildings. The space could be used to expand the campus academic core and provide a tie with the new Cox Arena at Aztec Bowl and other portions of the west side of SDSU. This site is also needed for formal space as two east/west axial arrangements. A formal plaza is essential in this area to help encourage activity and social interaction (see Sections 4.4, 4.6, 4.10, 4.15, 5.4, 5.6, 5.10, and 5.15).

• The west and east landings of the southernmost pedestrian bridge over College Avenue are in need of major reconfiguration. These areas could provide a stronger gateway statement, improve pedestrian pathways across Surface Lot H & I, project a stronger and more aesthetic impression and resolve pedestrian and vehicular conflicts at Aztec Circle Drive (see Sections 4.1, 4.12, 5.1 and 5.12).

• If required, Aztec Center expansion could occur to the west if the pedestrian plaza located east of the Aztec Green is sensitively reconfigured. An opportunity exists to improve the west facade of the existing Aztec Center that could be renovated or hidden in conjunction with future expansion. The parking associated with the "Q" lot should be relocated and the original axial sightline of the Aztec Center and its colonnade should be restored by pulling back Monty's Den. Other facades of the Aztec Center should also be considered for renovation (see Sections 4.8 and 4.17).

• The north end of Centennial Mall requires an appropriate architectural visual terminus. The current blank wall facade needs a treatment that humanizes the scale of the space and provides visual interest. Consideration should also be given to improving the circulation system in this area because the new Love Library entry plaza has pushed pedestrian circulation toward the bookstore. Improvements to East Commons are also needed, especially on the northeast side at the outdoor dining terraces. The alley and service areas on this side should be better hidden and many of the asphalt areas should be converted to a more pedestrian oriented space (see Sections 4.3, 4.5, 4.6, 4.10, 4.13, 5.3, 5.5, 5.6, 5.10 and 5.13).

• The pedestrian bridge from Parking Structure 4 and from the lower surface lot "W" do not present a strong entry statement for this important pedestrian portal. The bridge empties onto back door entrances of the West Commons complex. The lower lot enters the campus with limited pedestrian crossing treatments, poorly planted slopes and a major sewer structure. Improved design treatments and signage would provide a better impression. The exit points from Scripps Terrace are also poorly defined and designed. The major pedestrian flow leads from this street toward an open trash and service area, with major walls that block views into the pedestrian spaces that lead to Parking Structure 4 and lot "W" (see Sections 4.1, 4.12, 4.15, 5.1, 5.12 and 5.15).