

Mount San Antonio College Master Plan

Walnut, California September 1981

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Introduction

Nearly all large educational institutions experience change. It can be the inevitable result of the education process itself, but is also the direct result of factors related to growth and decline, as well as more subtle economic, technological, political and social factors. Many Master Plan reports such as this deal primarily with growth, and yet we will see that changes due to factors other than growth may have a greater impact on the organization and physical facilities of Mt. San Antonio College, the subject of this report, in the years to come.

Mt. San Antonio (or Mt. SAC) as an institution has existed for thirty-five years, having grown from approximately 600 students when it opened to a present total enrollment exceeding 26,000. The campus, therefore, experienced an enormous rate of growth, though recently it has slackened somewhat. And yet, typical of many large educational institutions, relatively little of that period of heavy growth was under the guidance of a valid Master Planning process. The effects of this at Mt. SAC are facilities which in some instances are over designed in terms of present needs, whereas other facilities are under designed.

The purpose of this report is to seek a plan to correct the imbalance in facility capacities while planning for the future of the Mt. SAC campus during a period of relatively moderate growth, but rapid change in terms of the makeup of the student body and its educational needs.

The report will be kept as general as possible, avoiding unnecessary specifics in order to increase its flexibility in dealing with unknown future changes. It will project the growth and change of the campus over a twenty year period of time, or from 1980 through the year 2000, and will also project in very general terms the possibilities for growth and change beyond.

Much of the information presented is the result of a 6 month planning process which began with the formation of an Ad Hoc Committee and continued with regular weekly meetings as well as presentations to the Board of Trustees. In addition to the committee members, representatives from the various Instructional Divisions and Departments on campus were invited to participate and discuss their specific needs.

The result of this 6 month period of discussion and design is perhaps a greater awareness of the College as a whole than any one individual had perceived in the past. This, of course, is the benefit of a Master Planning process in that it requires representatives from specialized areas to deal with common goals as well as specific needs.

Because this report represents what is known at only one point in time, its conclusions and recommendations should also be seen as a step in an ongoing process of change. If the past history of unexpected growth and change serves as a lesson, then the "unexpected" should be regarded as an important planning criteria. It is hoped that this document will maintain its effectiveness past the time when many of its specific recommendations have become obsolete, as its greatest value is in establishing guidelines for dealing with change as it comes, rather than arriving at specific solutions in advance.



History

The history of the College site and surrounding region can be traced back to the days of the Mexican government land grants about which much of the colorful history of California was written. The earliest recorded ownership of the land was an 1845 land grant, creating the 50,000 acre Puente Rancho owned by two partners, William Workman and John Rowland. Both men became prominent in the region's history, but after their influence waned, the Rancho was gradually broken up with portions of it, including the College site, reverting back to government ownership.

The first enduring physical development of the College site took place in 1919 when the State constructed a home for wayward boys. Later it was expanded and, in the early 1930's, converted to a narcotics hospital operated by the Los Angeles County Hospital. Most of the structures were of a permanent nature with an early California Ranch motif. The only surviving buildings from this era include south portions of the Admissions & Records and Art Center buildings, the Dining Hall and the Staff Center.

Following the beginning of World War II, the facility was converted first into an Army and later a Navy hospital. A number of temporary wood frame hospital ward structures were constructed, generally across the north boundary of the campus, but all have been demolished except portions which may have survived as farm structures moved to other areas of the campus.

Actual College history began with a predecessor campus in Pomona, Pomona Junior College. This campus served primarily the needs of that community and its immediate vicinity; but as the war was closing, it became evident that the campus would be inadequate to serve projected population growth. In October 1945 the State Board of Education was petitioned by the Pomona, Covina, La Puente and Bonita School Districts for a new junior college to serve the combined districts. In November of that year voters approved the establishment of a new Junior College District, and in January 1946, the first board of Trustees was appointed, with it's first order of duty to select a location for the new campus closer to the geographic center of the new District. The Naval hospital, about to return to the State and only a short distance from the geographic center, was

successfully secured as temporary quarters for the new campus with a two year lease from the State in May 1946.

Using temporarily converted hospital facilities, the campus officially opened in October 1946 with a total enrollment of 635 students, half of whom were veterans. The college, which was officially named Eastern Los Angeles County Junior College, would shortly be renamed Mount San Antonio College after the highest peak in the San Gabriel Mountains. The formal dedication was held in January 1947, coinciding with permission from the State for the College District to permanently acquire the site.

In March 1947, a \$1,750,000 bond issue was passed and the initial building phase began with the construction of buildings housing Physical Science, Liberal Arts and Commerce as well as a library, gymnasium, swimming pool and an 11,000 seat stadium. A Master Plan was formulated projecting the growth of the campus to approximately 1,500 students. Reflecting the dominance of agriculture as the principal industry of the area, the campus was one of four colleges chosen by the State to pioneer a new agri-business curriculum — a combination of business and agricultural training for occupations related to farming.

A six year tax passed in 1950 provided financing for the second construction phase, including buildings housing homemaking, additional Liberal Arts, Commerce and Life Science. By 1955 a Student Personnel Center and an Art Center were completed, and by 1957 construction concluded with the completion of a Music-Drama Little Theater as well as expansions to the Cafeteria and Administration buildings.

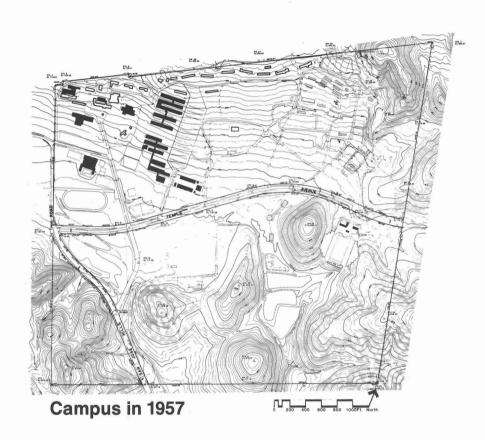
By spring 1956, however, day enrollments had surpassed the Master Plan figure of 1,500, and projected increases called for a campus much larger. There also emerged a need to reconsider the educational goals of the campus, as the agricultural industry in the area was being rapidly displaced by suburban sprawl. With it came a greater demand for more comprehensive academic and occupational programs.

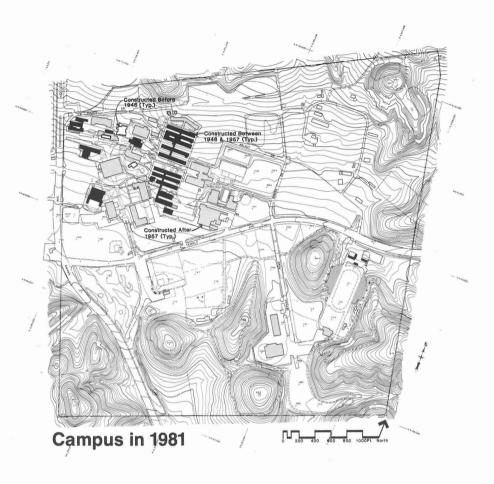
The final construction phase began in 1960, but without the guidance of a formal Master Plan. Responding to the tremendous population increase resulting from the Post War "baby boom," buildings were constructed largely on demand with the pattern continuing over a period of fifteen years. During this period most of the larger multi-story buildings on campus were constructed, gradually replacing the pre-war and World War II hospital buildings.

Reflecting the demand for academic education prevalent at the Community College level during the 1960's, larger academic facilities, such as the Library and buildings housing Physical, Biological, Social Science and Agriculture, were constructed, followed later by more comprehensive occupational facilities such as the Technology Center. The last major teaching building on campus, the Art Center, was completed in 1973 nearly coinciding with the 1975 peak fulltime enrollment.

Following the 1975 peak, enrollments have stabilized and very little new construction has occurred, but emerging changes in educational goals, rather than growth, has stimulated the need to plan for a different kind of construction: the conversion of existing facilities to new and more efficient uses.

Land Surveys





In comparing the 1957 and 1981 surveys above, significant growth within the campus is evident, and yet the overall area of the site and its organizational structure remained largely unchanged. The site was modestly enlarged by a thirty acre acquisition at the north, but beyond this, growth was accommodated largely by a costly process of allowing higher value new functions to displace lesser value existing functions. Many of the older buildings were retained, requiring the newer, larger buildings to be fitted into available space, sometimes less than ideal in location, and often displacing ideally located functions such as Physical Education and Agriculture.

In 1957, the Physical Education program (with the exception of the stadium) and parking, both occupied their own contiguous areas, and Temple Avenue, a deadend two lane road, served College needs only, without bisecting the campus as it does today. The total land allocation to parking in 1957 was far less because the District provided school bus transportation, and fewer students owned cars.

In 1981, it is evident that the new buildings were placed generally around the periphery of the original campus, and the phenomenal increase in parking displaced much of the original Physical Education core into the Agriculture area.

Changing Enrollments

Of the 107 public Community Colleges in California Mt. SAC, based on its fall 1980 ADA enrollment, is among the five largest in the State. Like many campuses founded after World War II, its enrollment increased only modestly until the early 1950's, whereupon a period of rapid increase occurred without fluctuation until the peak was reached in 1975. Enrollments following have fallen and then recovered, marking the beginning of a new era of more modest growth.

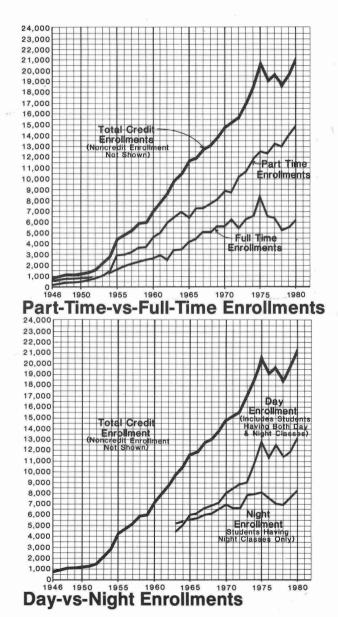
The enrollment charts at the right illustrate changes in full-time-versus-part-time enrollments as well as day-versus-evening enrollments. In early years, full-time enrollments were larger, but by the early 1950's part-time enrollments began expanding with the result that today they comprise more than two-thirds of the total enrollment. During the College's first two years there were no evening programs offered, but by 1963, when records were kept, evening enrollments had grown to where they exceeded day enrollments. Though not reflected on the chart, due to enrollment records which classify students having both day and evening classes as part of day enrollments, evening enrollments have continued higher up to the present.

The enrollment patterns, including the gradual shift from full-time to part-time students and the periodic peaks and valleys, may in many instances, mirror events which are external to the effects of population growth. These include such items as a changing economy, draft deferrments, and competition from other educational institutions. There are factors which may have an impact in the future, including funding restrictions, energy costs, and technological changes in education methods.

The two enrollment peaks in 1975 and 1980 coincide with periods of economic recession. During the Vietnam era enrollments may have been artificially expanded by the effects of draft deferments evidenced by the fact that approximately 60% of the enrollment was male, whereas today the figure has dropped to 45%. Interest in full-time academic programs was high during the Vietnam era, also coinciding with the requirements of draft deferments. The more recent decline in academic programs, balanced by growth in occupational programs reflects not only higher

part-time enrollments, but also competition from other educational institutions, especially the State Universities which have in recent years stepped up their recruiting efforts for lower division students, thereby attracting many of the traditional Community College transfers.

Underlying the superficial fluctuations is the basic enrollment curve as generated primarily by population growth, birth rate, and residential development within the District. Reflecting a decline in the birth rate beginning in the early 1960's, the rate of enrollment increase has begun to drop, though continued residential development within the District and more older students returning for continuing education courses, has counteracted this to some degree.



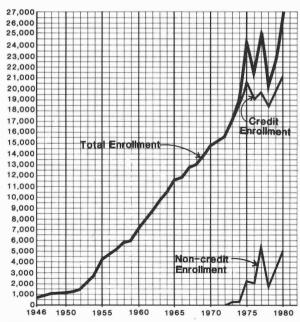
Changing Educational Mission

The traditional role of the Community College providing an economical means of completing the first two years of a four year bachelor's program, as well as two year occupational programs, has in recent years been challenged by need for change. This has originated with the students themselves, and reflects significant changes consistent throughout the State in the makeup of the student body attending Community Colleges.

The average student age at Mt. SAC of 26.9 years has increased substantially in recent years, and with it has come a majority who are employed and often married with families. This has led to a clear need for classes which provide both an upgrade of skills in their occupations and personal enrichment, as well as short term occupational certificate programs. The fact that only 20% of the high school seniors in the District presently transfer to Mt. SAC, whereas the statewide average is 30%, perhaps reflects an increasing number of students who choose to return to school at a later time in life following high school graduation.

Educational changes at Mt. SAC are reflected by the fact that the enrollment balance between Occupational and Academic subject material has changed substantially during the life of the College. In the early years Occupational majors represented approximately 35% of the enrollment, whereas today it totals 63%. The steady enrollment increase in Occupational programs, balanced by a leveling and in some instances decline in Academic programs, follows closely a pattern throughout the State.

Another indication of change is the rapidly expanding Adult Education – Community Services program which provides non-credit educational courses. Approximately 24% of the Fall 1980 total enrollment was non-credit, whereas in Fall 1974 it represented only approximately 1.5%. This is evidence of an emerging strong demand for both fee and non-fee courses where grades and class credits are not a significant consideration. Should this growth rate sustain itself, depending on the outcome of future mandated State and local financing, it will continue to alter the nature of the student body and ultimately the educational mission at Mt. Sac.



Non-Credit Enrollments

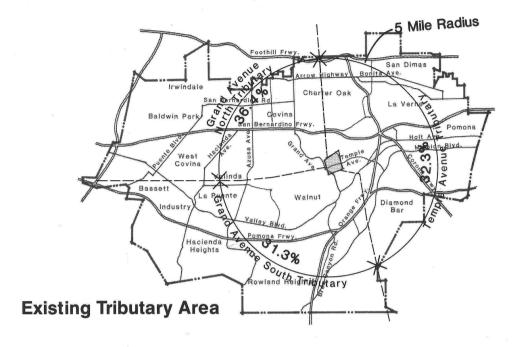
College District

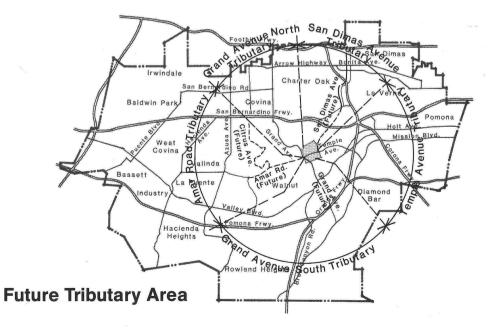
The College District encompasses the boundaries of sixteen major communities and ten unified school districts lying within a ten mile radius of the campus. It encompasses a geographical area of approximately 180 square miles, of which significant undeveloped areas remain in the Cities of Walnut, Diamond Bar and Rowland Heights. Amounting to approximately 23 square miles, undeveloped areas represent 13% of the total District, comprising largely hillside areas slated for medium to low density residential development.

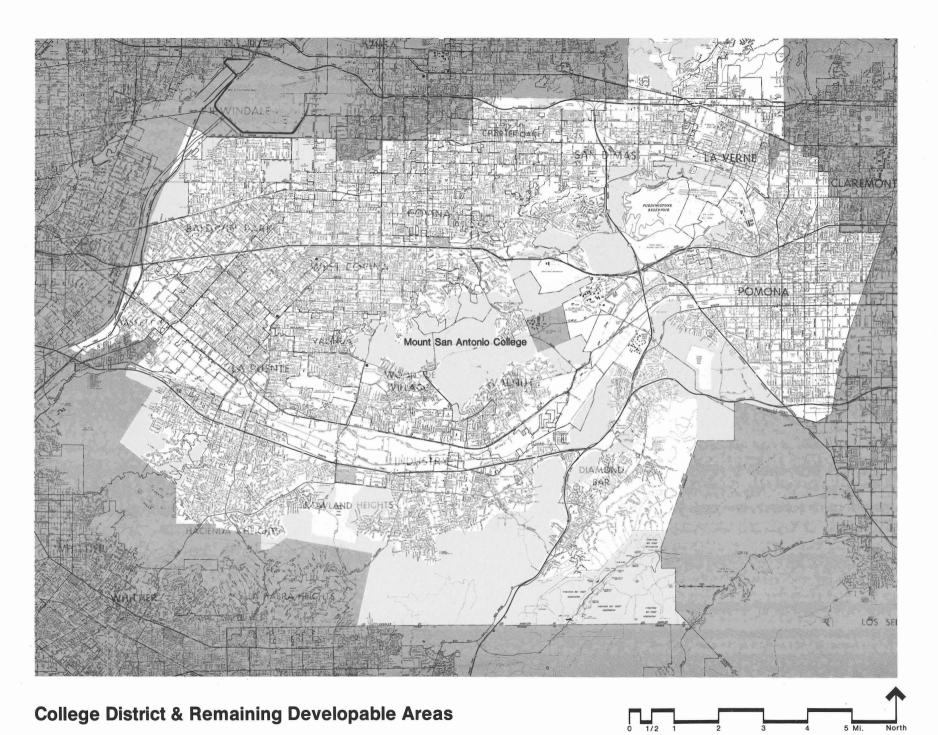
The campus itself lies in a currently undeveloped area which is about to significantly change due to impending residential and commercial development planned around its boundaries. Existing commercial areas are a considerable distance from the campus to the north, south and east, whereas fire protection and paramedic services are available only a short distance to the west. Other land uses, which presently or may, in the future, influence campus operations, include Cal Poly State University, Lanterman State Hospital, Pomona Valley Hospital and Brackett Airfield.

Direct vehicular access to the campus is presently limited to three routes, north and south Grand Avenue, and Temple Avenue; and, for most areas of the District, is largely affected by the hilly terrain surrounding the College. Access, especially from the northeast and southwest, is often rather circuitous with significantly increased driving times. The tributary area map, based on existing conditions, illustrates using the cities listed as home addresses by the students in Spring 1981, that the three routes would be nearly equally used if students followed the shortest route possible (shorter driving times by other routes may lead to somewhat different findings in actual practice). Current heavy peak traffic conditions on North Grand Avenue appear therefore, to be the result of more localized conditions or traffic headed to other locations.

The tributary area map based on future conditions illustrates significant improvements in access from the west, with an overall reduction in student traffic on all routes, if the future roads are constructed.







College Vicinity

The area immediately surrounding the College has, for the most part, remained in its natural state with the only development having occurred to the northwest. This, however, is about to change significantly as illustrated on the drawings to the right, due to major housing developments planned for the north, west and south boundaries of the College. The east boundary line, shared with Cal Poly, will, however, likely remain undeveloped for the foreseeable future.

Plans are relatively complete for three housing developments with construction underway on a project to the south, and construction due to begin shortly on a project to the north, which will have the greatest visual impact from on campus. Planning appears complete on the housing development to the west, and a fourth housing development with approximately 60 sites is contemplated for the same area, along with a large commercial development at the intersection of Grand Avenue and Amar Road.

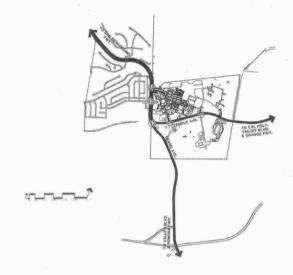
The traffic diagrams at the right graphically depict both present and future traffic around the campus. The existing streets appear to be adequate to handle existing traffic, which is largely students headed for both the Mt. SAC and Cal Poly campuses. However, without specific estimates of future traffic, it appears that the commercial development at the strategic Amar-Grand Avenue intersection, as well as the future residential areas adjoining the campus and farther to the west, will generate a significant traffic increase, which may aggravate already congested conditions around the campus without on and off campus improvements. Temple Avenue is likely to experience the greatest percentage traffic increase and therefore is of great concern to the College due to its route which bisects the campus.

Future roads having a possible impact on the campus include Mountaineer Road across the north of the campus and San Dimas Avenue, providing a direct connection to the San Bernardino Freeway. If the two streets are constructed traffic congestion around the campus may be reduced through the creation of a bypass route around the campus, and a new freeway access route from the northeast. The possibility of also constructing a direct

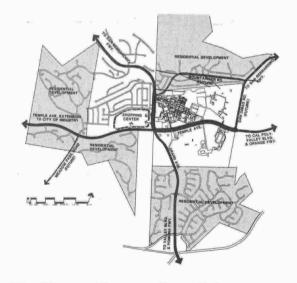
northeast entrance into the College from Mountaineer Road has been discussed with the developer of the project to the north.

The construction of the portion of San Dimas Avenue along the boundary between Mt. SAC and Cal Poly may have a negative impact on the Agriculture programs at both campuses by bringing the public in closer contact with the animal programs, inviting the possibility of vandalism and theft. Other negative considerations include heavy grading requirements, and a hazardous intersection at Temple Avenue. Discussions are currently taking place with Cal Poly about rerouting San Dimas Avenue through a portion of the Cal Poly Campus. The new route (not shown) would minimize the grading and traffic hazards, and might also involve a land swap with Mt. Sac.

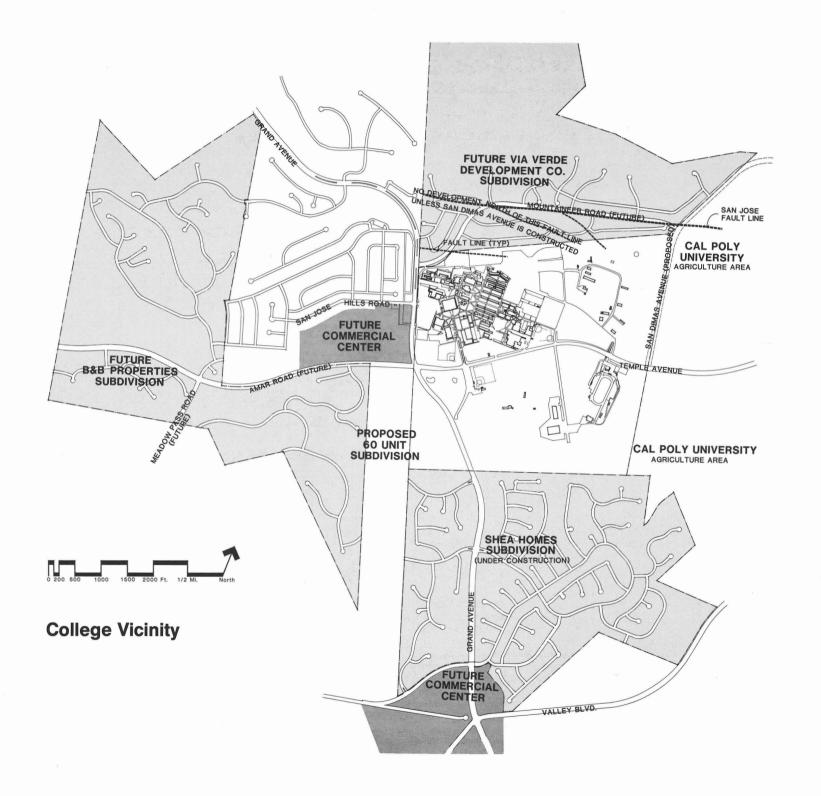
The property development at the north is directly affected by the construction of San Dimas Avenue and a ruling by the City of Walnut permitting only the portion of the planned housing development west of an existing seismic fault be constructed, unless a second access road (San Dimas Avenue) is constructed. However, the College has successfully concluded an agreement with the developer regarding the west portion of the housing development, whereby the developer will construct a new northwest entrance into the College and perform on-campus grading operations which would benefit both the College and the housing development consistent with the recommended Master Plan.



Traffic — Present Conditions



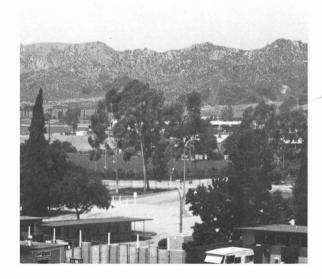
Traffic — Future Conditions

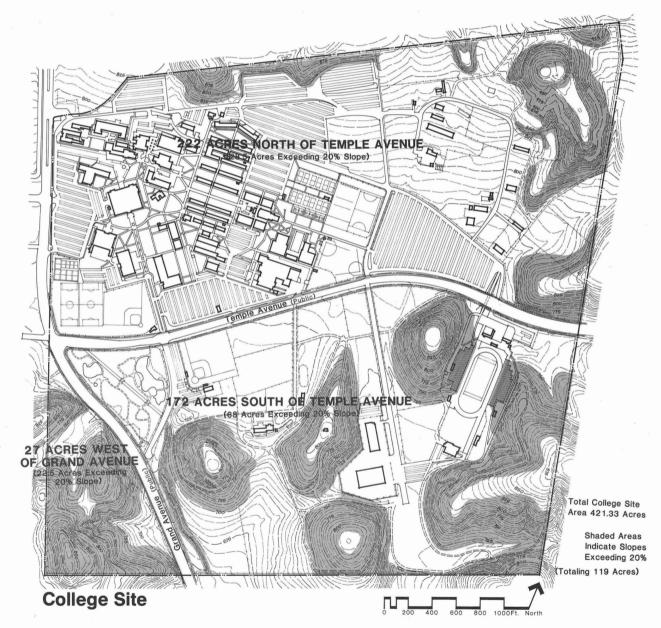


College Site

The total land area of the Mt. SAC campus is 421.33 acres, and is subdivided by the public streets which cross it into three basic areas, including 222 acres north of Temple Avenue, 172 acres south of Temple Avenue, and 27 acres southwest of Grand Avenue. Although the total acreage is quite large by Community College standards, its hilly nature reduces the usable area to only 302 acres at 20% or less slope.

The College lies in a small valley, drained southward by a tributary of the San Jose Creek. Its north boundary occurs on the main ridge of the San Jose Hills, and its south and east boundaries encompass a number of small hills and ridges separated by canyons. These areas of steeply sloping terrain have had a significant effect on organizing the overall campus, as well as determining the location of the public streets which traverse it. The main portion of the campus occupies the majority of the largest contiguous non-hilly area, and the athletic fields, adjacent to Temple Avenue, occur at the most nearly level land. The Stadium is located between two hills in order to utilize the two facing slopes for bleacher seating, and the Agriculture areas have been adapted to fit both the slopes and remaining flat areas.



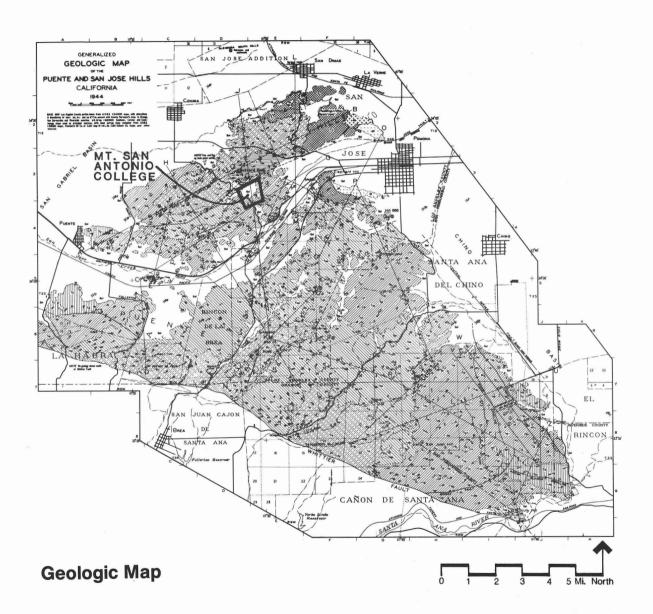


Geology

The geologic map at the right is apparently the most detailed and current comprehensive map of the area's geology. It has been reproduced to draw attention to the fact that significant fault activity occurs close to the campus, and especially along the San Jose Hills to the north. Because a number of small faults, some trending toward the campus, have been located in the geologic investigation for the housing development to the north, as well as indication on the map itself of a north-south fault trending toward the campus along South Grand Avenue, it is the recommendation of this report that before major new construction commences, a detailed geologic investigation be completed. A review of existing available soil reports for previous on-campus construction suggests that a general geologic investigation of seismic faults affecting the campus has not been performed.

Other significant geologic features include a soil type which varies from sandy clay in the valley portions of the site to shale and sandstone on the hillsides. The soil type in the building areas and P.E. fields is relatively expansive and poor in drainage and bearing value, creating drainage problems and requiring driven pile or caisson foundations at larger buildings. The baseball field and pasture area south of Temple Avenue, for instance, have been rendered unusable for significant periods of time during wet winters.

Possible solutions to the drainage problem lie in an investigation of the storm drainage system on campus, with the observation that significant runoff results from the north large paved areas of the campus, and most of this runoff is carried through the affected areas in open unpaved ditches. It appears that construction of paved ditches or underground pipes would help to reduce the amount of moisture entering the ground at this area.



Land Use

The College campus can be classified into four major land uses: Buildings, Physical Education, Parking and Agriculture. Of the 421.33 acres comprising the campus, approximately 48 acres are allocated each to Buildings, Parking, and Physical Education, with approximately 255 acres allocated to Agriculture for a total of 399 acres. The remaining acres are either devoted to vehicular access or are unusable.

In comparing these area allocations with recommendations by educational authorities, it has been observed by the Stanford Research Institute and Dr. Odell McConnell that the optimum core area for a large Community College campus is approximately 120 acres. The core area would include a basic campus of Buildings and Physical Education and does not include Parking. Mt. SAC, therefore, at approximately 96 acres for its core area, is substantially under area by these standards when its large enrollment is accounted for.

In further reviewing the allocation of land, the allocation of only 48 acres for Physical Education and athletics is probably the most significantly low, especially in light of the high popularity and strong participation at this campus. The present allocation for Parking, however, appears to be adequate, and will accommodate even peak load conditions through the use of an overflow, unpaved lot at the northeast. The possibility of expanding the present parking allocation to accommodate future growth is unlikely due to expected increased use of public transportation and increasing fuel costs. The allocation for Buildings also appears adequate, and existing penetrations of parking into the Building areas should provide sufficient space for planned expansion. Lastly, the allocation for Agriculture is adequate under the present program, with the exception of insufficient grazing area for which the College must lease grazing land off campus in order to accommodate the large animal program.



Campus Plan Building Legend

1A Art Center (East)

Art Center (West)

Music & Dramatic Arts

P.E. Center 1 (Gym)

College Center

Admissions & Records

Health Services

Learning Resources Center

Physical Sciences

College Dining Hall

Sac Book Rac

9B Student Center (North)

90 Student Center (South) Financial Aid (Relocatable)

9D

Child Development (Relocatable)

10 Staff Center

11 Chemistry

Agricultural Science 12

Biological Science 13 Humanities (1)

14

Humanities (2) 15

Humanities (3) 16 17

Business Education (1) Business Education (2) 18

Nursery School Education

19B Home Economics (1) South Campus Snack Bar

19C

Home Economics (2) Air Conditioning/ Refrig. 20

21

Welding Shop 22

26A Social Science Center (North) 26B Social Science Center (East)

26C Social Science Center (Planetarium)

26D Social Science Center (South)

27A P.E. Center No. 2 (Men)

27B Pool Equipment

27C P.E. Center No. 2 (Women)

28A Technology Center (North)

Technology Center (South)

Baseball Locker Room

College Service Center (North)

48 College Service Center (South)

Memorial Stadium Ticket, Womens locker& Restrooms

50B Mens Restrooms

50C Concession Stand

50D Press Box

50E S.W. Restrooms

50F S.E. Restrooms

50G Field House

50H Storage Building T10 Residence

T12 Garage

Farm Building Legend

F1A Horticulture Head House

F1B Horticulture Lath House

F1E Picnic Area Restroom

F2A Poultry Processing F2B Poultry Brooder House

F2C Poultry Layer House

F3A Dairy Processing F3B Dairy Storage

F4A Swine Barn

F5A Farm Machinery Shed

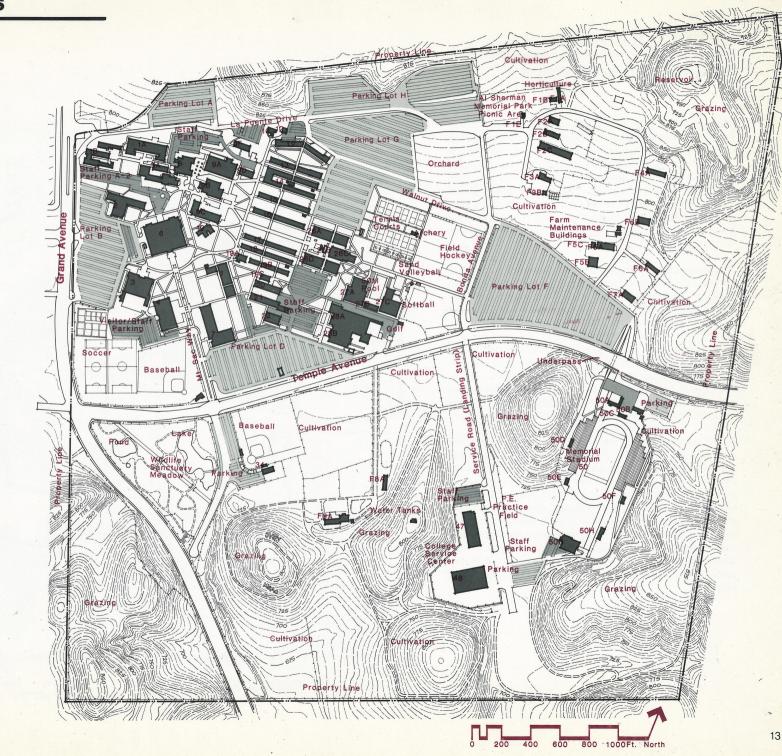
Farm Shop F5B

F5C Farm Paint Shop F6A Sheep Barn

F6B Vivarium

F7A Farm Storage

F8A Horse Barn F9A Beef Barn

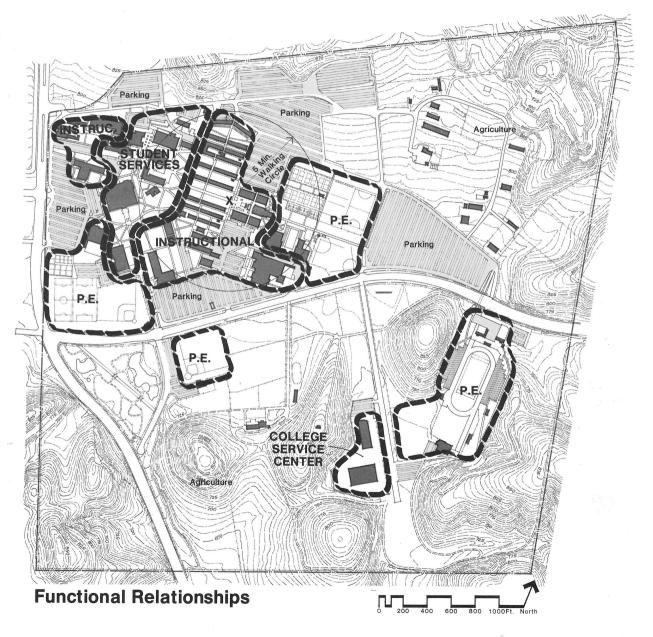


Functional Relationships

The primary building area of the campus occurs north of Temple Avenue and is surrounded by a ring of separated parking lots. In reviewing the earliest Master Plan for the campus, it can be seen that this was not how it was originally planned, but occurred as an evolutionary process after rapid expansion began in the early 1960's. The parking lots effectively form a noose around much of the building area preventing expansion, and by protruding in and among the buildings has resulted in a less compact campus with greater walking distances.

Classroom areas of the campus are separated by Student Service-oriented functions into two areas, one large and one small. Physical Education is fragmented into four areas including two north of Temple Avenue and two south. Parking lots are fragmented into five major student lots on the campus perimeter with close in faculty parking lots protruding into the building areas. At present, designated visitor parking in the area of the Library, Performing Arts, and the Art Gallery is inadequate. The Agriculture area is fragmented by the bisecting effect of Temple Avenue as well as on-campus developments in recent years, which have intruded into some of its most level and productive land area.

To the south, Bonita Drive, which doubles as an aircraft landing strip, connects the maintenance area and the south end of the Stadium with the rest of the campus. Its use as a landing strip is relatively infrequent and requires that the Sheriff's Department close Temple Avenue to permit landings and takeoffs. It is anticipated, with the completion of residential development to the south, possible conflicts with the residents due to noise and safety considerations may emerge. Also, the proximity of Agriculture areas to the future housing may result in controversy similar to that currently experienced at L.A. Pierce College in Woodland Hills.



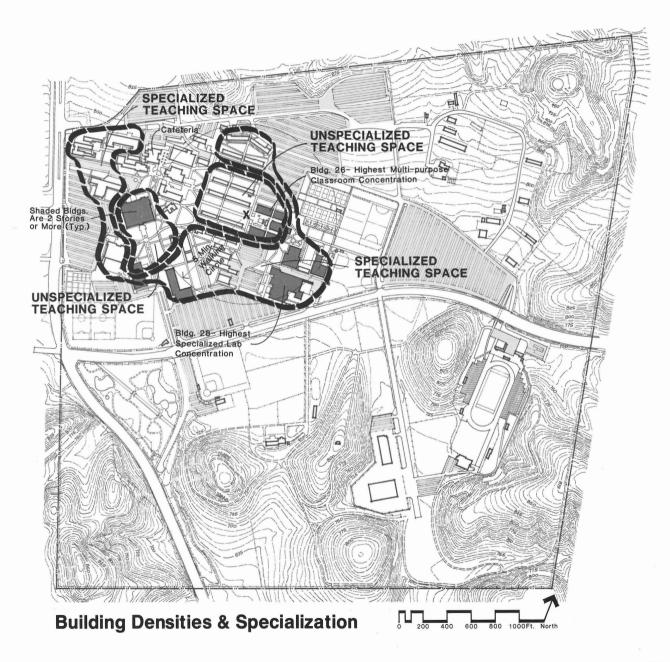
Building Densities & Specialization

The drawing at the right indicates locations of buildings of various heights within the campus, with the higher buildings representing a greater density. The one-story, finger plan buildings at the geographic center of the campus comprised the original classroom area of the campus, with later, higher density construction occurring along both sides, and tending to create the present condition of a low density campus core with a higher density perimeter.

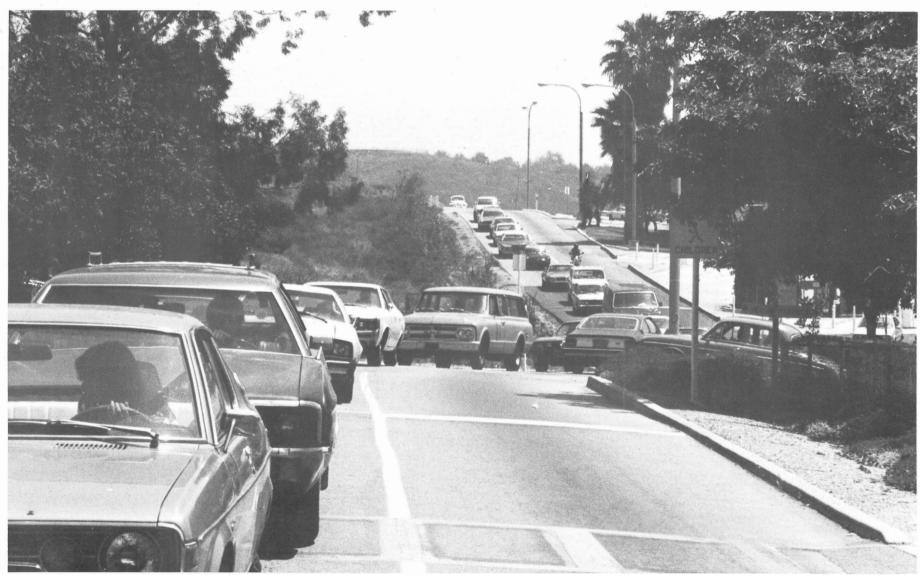
The epicenter of the campus, represented by the area of greatest pedestrian interaction, lay originally in a favorable location slightly to the west of the finger plan classrooms and adjacent to student service-related functions such as the library, cafeteria, student union, etc. However, today the high concentration of classrooms in Buildings 26 and 28 to the east and south have tended to pull the epicenter of the campus away from the student service-oriented functions. This can be evidenced by touring the campus and noting that the greatest pedestrian concentration occurs at the east side of the finger plan buildings instead of west where it would be more beneficial to the student service functions.

Also indicated is a five minute walking circle, representing the optimum maximum walking distance and therefore the ideal circle within which all teaching facilities, with the possible exception of P.E., should occur. At Mt. SAC some teaching areas as well as the Cafeteria and Library already occur outside the optimum circle, and in actual practice are often low in utilization due to excessive walking distances and isolation.

Also illustrated is a rough distribution of specialized and unspecialized teaching facilities throughout the campus. The specialized facilities, including laboratories and P.E., generally occur at the perimeter with unspecialized facilities, including classrooms and lecture halls more to the center. The present pattern of use where the specialized laboratory areas often utilize the general use classrooms closer to the center of the campus for their lecture needs has proven highly adaptable to the recent curricula changes. Detracting from this somewhat are existing classroom and lecture facilities occurring within the specialized areas and occupying costly Laboratory building space.



Vehicular Circulation



Typical narrow and congested campus road

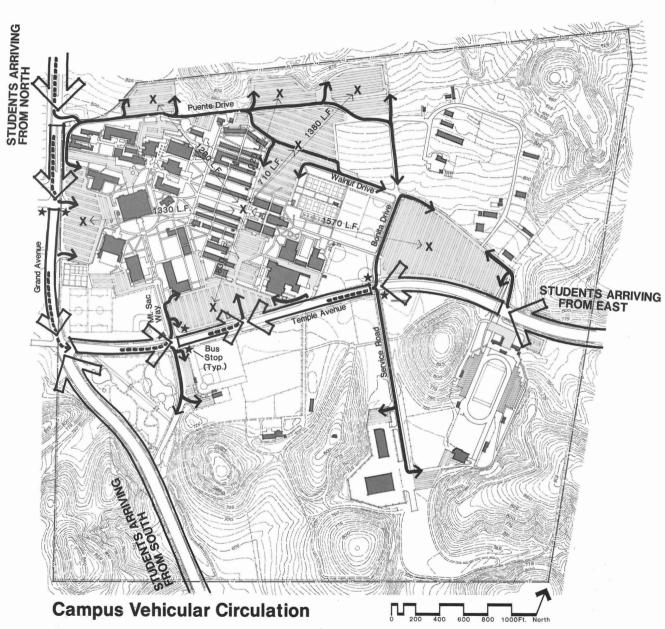
Vehicular Circulation

The campus is serviced by five major student parking lots, partially interconnected by an on-campus roadway network. Of the five, Parking Lot D is isolated from the rest requiring, in the event it is full, that a vehicle return to the public streets to seek additional parking. The on-campus roads as well as entrances from the public streets are inadequate to handle the peak load of the traffic entering the campus, with the result of hazardous lineups of cars waiting to turn into the campus.

Incoming traffic peak loads occur at 8:00 and 9:00 A.M. and at 7:00 P.M., whereas outgoing traffic peak loads occur at 12:00 Noon and 9:00 and 10:00 P.M. The greatest traffic occurs during the early portions of the Fall and Spring semesters, and often results in cars backing up to the top of the ridge on north Grand Avenue while attempting to turn left into the campus.

Traffic studies have shown the public streets are adequate to handle present peak load, college-bound traffic. The problems instead are caused by inadequate stacking and manuvering space for cars once they have entered the campus, and the parking layout aggravates this by allowing cars manuvering into parking stalls to block major access lanes. Further congestion is caused by the relatively unequal distance from the epicenter of the campus of the various parking lots. Due to widely differing walking distances from the epicenter, parking lots presently fill unevenly, creating traffic congestion when cars seek the closest parking and then must move outward against the traffic flow when the lots are full.

Review by safety officials, including the County and State Fire Marshal, has determined that the narrow and congested campus roads are required emergency access routes, and in the event of a major disaster, would make it impossible for emergency vehicles to enter the campus. They have recommended that student vehicular traffic be separated from the required emergency and service vehicle access routes, as well as widening many of the pedestrian walkways which provide the only means of emergency vehicle access into the campus center.



Pedestrian Circulation

Pedestrian circulation can be subdivided into two basic patterns: Parking Lot - to - Classroom and Classroom - to - Classroom. All students except those using public transportation encounter the first pattern, and those students having more than one consecutive class follow the second as well. The Parking Lot - to - Classroom pattern follows primarily a north/south pattern at Mt. SAC, whereas the Classroom - to Classroom follows primarily an east/west axis through the campus.

Improved pedestrian routes are needed in areas of heaviest concentration and especially along the major east/west axis extending northwest from Building 28 through Building 26 and west to the Fine Arts Complex. Faculty parking lots between Building 26 and 28 and adjacent to the Fine Arts Complex presently interfere with important segments of this route.

In addition to simple pedestrian traffic loading, aesthetic factors, such as the creation of visual axis and gathering spaces, need to be considered where they would benefit the overall functioning of the campus. Many spaces on campus, such as the north/south axis at the Library and the courtyard at the Student Center, are good examples of unused spaces needing revitalization. Also needed are new spaces, such as a courtyard, which will better identify the Fine Arts Comolex and perhaps an outdoor gathering space or "green" to relieve the visual drabness in the southeast technology area of the campus.



Existing Campus Mall



Classroom-to-Classroom Circulation

Pedestrian Circulation

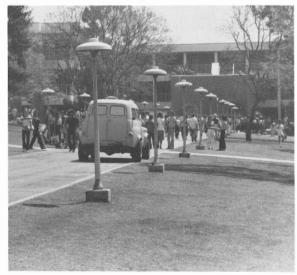
The location of bus stops at present discourages use of public transportation because of the greater walking distance from the campus epicenter than many of the student parking lots. The most heavily used bus stop at the Mt. SAC Way and Temple Avenue intersection is an unsheltered area, which doubles as an often-flooded storm drain inlet. A new public transportation center - bus stop is needed which will provide shelter, and hopefully a shorter walking distance from the epicenter than to the student parking lots in order to encourage increased public transportation use.



Parking Lot-to-Classroom Circulation



Most heavily used bus stop at Mt. SAC Way and Temple Ave.



Heavy Pedestrian Traffic

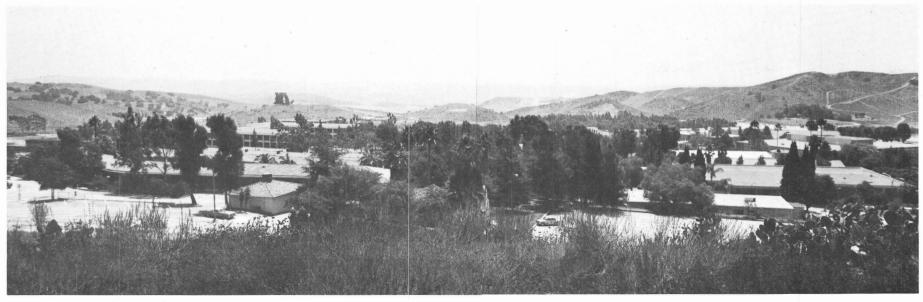
Visual Features

Mt. SAC, with 421 acres and nearly 1,000,000 square feet of buildings, is one of the largest Community Colleges in the State. Visually organizing such a large campus is perhaps more difficult than a smaller one, and yet many of its current problems stem not from its size, but from the difficult transition from a small to a very large College over a short span of years.

The uninitiated may find the organization of the campus confusing because of its unorthodox placement of lower density buildings in the center surrounded by higher density buildings on the perimeter, or reversing the normal layout. Compounding this is the fact that the majority of the campus is oriented on a north/south grid with a number of major buildings shifted to a northwesterly grid, placing many at oblique angles to their neighbors.



Rolling Hills & Pastures south of Temple Ave.

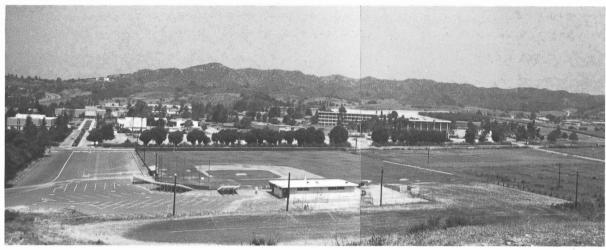


Campus panorama from north

Visual Features

Existing monumental spaces, such as the northwest axis at Mt. Sac Way are somewhat ineffective in orienting persons outside the campus as to how it is structured, and once within the campus often do not serve areas of highest pedestrian interaction. Visual symbols, common to many campuses such as a major gateway or entry shelter, campanile, major fountain or strategically placed plaza which visually identify entrances, provide visual orientation, or serve as a catalyst for activity, are often missing at Mt. SAC.

Surprisingly, the most effective visual elements at Mt. SAC are largely natural and comprise the rolling hills, pastures and similar elements which contribute to a rural atmosphere. Unfortunately, the contemporary and more urban character of the newer buildings tends to detract from this rural atmosphere, as well as conflicts with the more indigenous and traditional Early California Rancho style of the earlier buildings.



Campus panorama from south

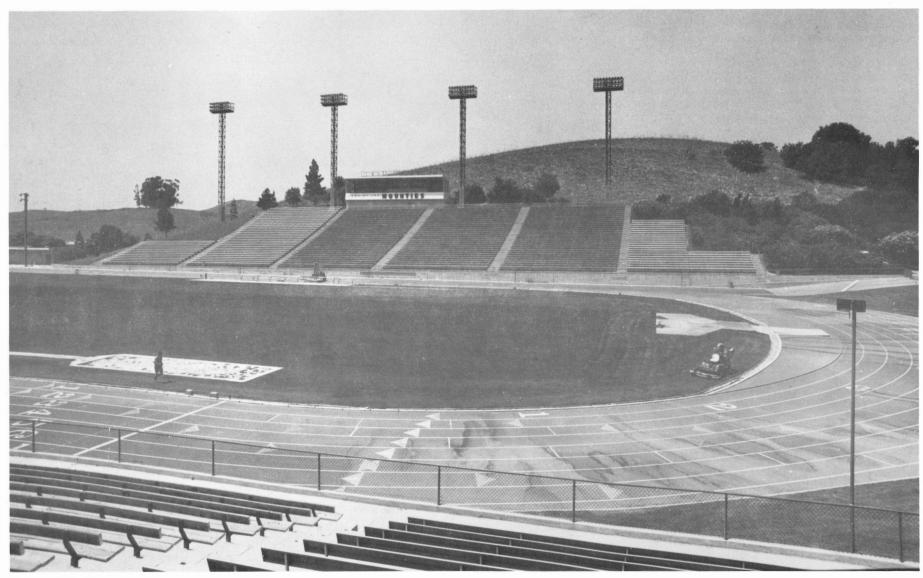


Inconsistent architectural styles



View of Library from south

Physical Education



Memorial Stadium

Physical Education

Mt. Sac is well known for its competitive athletic program, with such events as the Mt. SAC Relays, a track and field competition, receiving nationwide recognition. The quality of facilities oriented to competitive athletics, including the Stadium, 50 Meter Pool, and to a lesser extent the Baseball Stadium and Basketball Gymnasium is generally high and deemed adequate to support present and future programs. Facilities, however, for Physical Education and recreation are generally less well accommodated and suffer from inadequate land area within a reasonable walking distance of the epicenter.

Walking distances greater than ten minutes from classrooms are acceptable for competitive athletics, but the hourly scheduled nature of the P.E. program makes it desirable that at least locker rooms, be kept within the ten minute limit. The present shortage of P.E. facilities has resulted in the P.E. program utilizing some of the athletic facilities requiring excessive walking distances with the result that students often use their cars. Competition for use of some overcrowded facilities has also led to curtailment of some P.E. programs, which considering the large enrollment, might receive strong interest.

New P.E. facilities would be best located within five minutes of the existing locker rooms and preferably north of Temple Avenue to eliminate hazardous pedestrian crossings. Growing interest in such activities as racquetball, exercise, gymnastics and dance suggests the need for additional indoor facilities. The existing Gymnasium, because of its fixed concrete seating, is inflexible and inadequate to accommodate sufficient teaching stations for P.E. activities, resulting in the need for a small highly flexible teaching gymnasium, preferably adjacent to the existing locker rooms and pool.

Because of increasing interest in soccer, an additional large field preferably with limited bleacher seating is needed, and the existing hockey-archery field could be made into a multi-purpose field due to relatively low interest in field hockey and the fact that archery should be moved to a less hazardous location. A golf driving range with relocated putting greens and a dry-land ski run are other needed facilities which might share the hilly grazing areas with the

Agriculture program. Other needed facilities include lighting for the tennis courts, improved public facilities and a womens team locker room at the Stadium, indoor and outdoor handball/racquetball courts, improved drainage at the baseball field and remodeling of the existing public restroom/locker rooms at the Gymnasium.



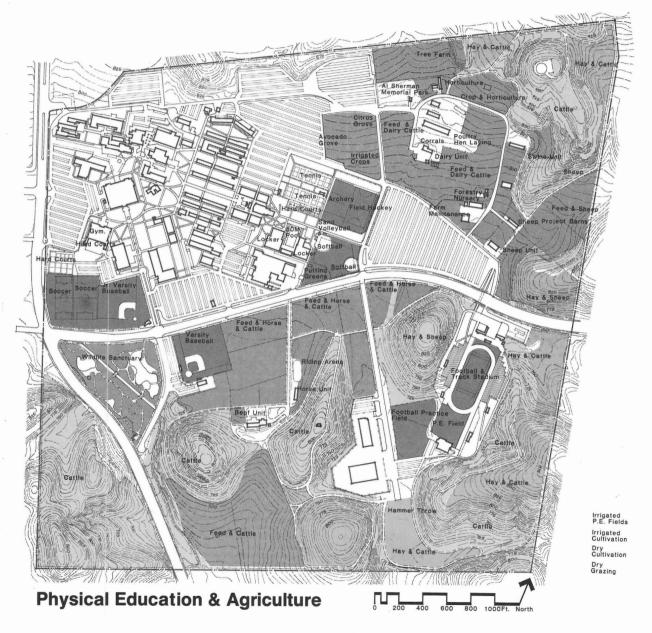
Existing Public Facilities at Stadium needing improvement

Agriculture

The Agriculture program has historically been one of the most widely recognized activities at Mt. SAC. It continues strong despite high operating costs and the effects of urbanization around the College because it is one of only two Community College campuses in southern California providing a comprehensive curriculum. Along with L.A. Pierce College, it serves the Los Angeles Metropolitan area having the largest population concentration in the State, with the result that much of its enrollment comes outside the District.



Large Animal Unit



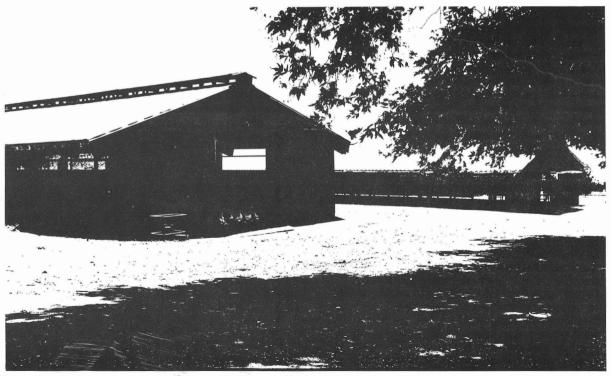
Agriculture

By far the largest user of land on campus, its importance to the Master Plan is significant in terms of its long-term viability. Generally those programs which have the greatest long-term viability are those which support growing segments of the local agriculture industry, including horticulture, forestry, animal health, and agriculture engineering and business. Those programs, which may weaken in the long run, are those which support segments of the local agriculture industry presently in decline, including the poultry and dairy industry. Overall enrollments are likely to remain stable, but requirements for land area may reduce because of the more compact nature of the programs expected to remain strong.

Over the years the land base for the Agriculture program has been steadily declining, with much of it fragmented by the intrusion of other land uses, as well as the construction of Temple Avenue which bisects the campus. Most of the indoor lab facilities occur north of Temple Avenue with most of the large pasture areas to the south. Irrigation is confined to the more level areas, with hillsides reserved for grazing and dry cultivation, though overall utilization would be increased if more area were irrigated. A reclaimed water system, presently serving Cal Poly and Forest Lawn, could be extended into Mt. SAC and provide needed additional water once its cost effectiveness is assured.

The location of the Agriculture program separated only by a fence from a similar program at Cal Poly, may in the future permit sharing facilities should it be deemed beneficial or necessary to reduce operating costs. A possible deterrent is the proposed construction of San Dimas Avenue, which would create a physical barrier between the two campuses.

The Wildlife Sanctuary, though not technically part of the Agriculture program, occupies several acres at a strategic and highly visible corner of the campus. Though heavily used by public schools and the College Biological Science program shortly after its construction in 1969, it is only lightly used at present, perhaps due to funding shortages, and yet remains high in operating costs. Its future viability is tied to the question of its costs effectiveness as well as possible pressures for other land uses, though none are evident at present.



Poultry Unit

Organization & Growth Projections

In 1978 the College underwent a significant reorganization, converting from a departmental to a divisional organization, to more effectively manage the College. Approximately 30 departmental entities were consolidated into 7 larger divisional entities, representing a return to a similar organizational structure when the College opened in 1946.

Recent enrollment declines in some Departments has resulted in classroom and laboratory space exceeding State standards. The State standards, though criticized by requiring unpopular afternoon and Friday time periods to be included in the space calculations, seek to place all Community Colleges under a uniform system of enrollments-related-to-building areas. Mt. SAC is over-built in four broad categories: Laboratory – 58%, Lecture – 70%, Library – 35%, and Office – 15%.

This section will review the 7 Instructional Divisions as well as the Non-Instructional Organizational entities on campus. Discussion will center on the relative potential for growth or decline in each Division to ascertain where there may be existing over and under utilized facilities, and where new construction might be needed to meet future demand.

INSTRUCTIONAL DIVISIONS Business Division

This Division, largely occupational, is the largest on campus comprising approximately 20% of the total enrollment. Its departments have experienced either steady growth or remained stable during the recent enrollment fluctuations.

Accounting & Finance — Moderate Growth
Business Management — Light Growth
Computer Science — Heavy Growth
Home Economics and Child
Development — Moderate Growth
Marketing Law and Real Estate — Stable
Office Occupations — Moderate Growth

The existing Data Processing Lab in Building 26 will likely need a 50% expansion to accommodate heavy interest in Computer Science; and because of a close functional

relationship, Word Processing and Accounting would benefit by being moved adjacent to the Computer Sciences Lab.

Home Economics needs additional design labs and classrooms for Interior Design and Fashion and Merchandising Design. One solution is to move the design-related programs from the Home Economics Department to the Humanities/Art Department because of functional similarities and present under-utilization of the Art Center facilities.

Health Care Sciences Division

This Division will likely remain stable in enrollment, in spite of the heavy demand for more registered nurses and medical technicians. Its growth is limited by the lack of off-campus hospital facilities which provide required on-the-job lab training.

Registered Nursing — Light Growth
Licensed Vocational Nursing — Stable
Medical Health Technology — Stable
Respiratory Therapy — Stable
Radiologic Technology — Light Growth

The classroom and lab facilities for this Division are physically separated, with the lab facilities temporarily occupying basement space in Building 28 and classrooms in Building 26. The Division would benefit from being consolidated into one location and preferably into its own building.

Humanities Division

This Division, largely academic, has experienced a slight enrollment decline in recent years, although enrollments are expected to remain stable unless a new Performing Arts facility is constructed. Based upon the construction of a new theater, the following is the growth potential of the departments:

Art — Slight Decline
 English and Journalism — Slight Decline
 Languages — Stable
 Music — Moderate Growth
 Speech Communication and Drama — Heavy Growth

The Performing Arts and Fine Arts facilities within this Division are located in an isolated corner of the campus. They would benefit from the construction of additional classroom/lab facilities, such as the theater, by attracting more activity into that area of the campus.

Industrial Studies Division

This Division, largely occupational, has experienced a significant growth even during recent periods of enrollment fluctuation, and is expected to continue a pattern of moderate-to-heavy growth.

Aeronautics and Transportation — Moderate Growth Aircraft Mechanics and Industrial

Technology — Heavy Growth
Drafting and Design — Light Growth
Electronics and Electromechanical
Technology — Moderate Growth
Metals Technology — Moderate Growth
Public Safety and Service — Light Decline

The Aircraft Mechanics and Industrial Technology Departments occupy the most costly space within the Division with little likelihood of funding for new construction in the foreseeable future. Because of potential conflicts, with residential areas being constructed at the south of the campus as well as overall benefits to the program, Aircraft Mechanics might be moved off campus to an existing airport providing a more realistic working environment. This would free substantial existing space for growth of the Industrial Technology program. Negotiations are currently taking place with Los Angeles County for possible establishment of a College facility at Brackett Airfield in Pomona.

Natural Sciences Division

This Division, largely academic, is relatively mixed in terms of growth with Engineering and Biological Sciences, but compensated by no growth in the Physical Sciences.

Agricultural Sciences — Stable
Biological Sciences — Moderate Growth
Chemistry — Stable
Earth Sciences and Photography — Stable
Mathematics and Astronomy — Light Growth
Physical Science and Engineering — Light Growth

Organization & Growth Projections

The Engineering program has been strong in recent years, but is highly susceptible to fluctuating demand within the industry. Agriculture will likely experience declines in the Large Animal and Poultry programs, but its other programs are stable with slight growth expected in the Animal Health programs. Plant Science programs have experienced growth in Forestry and Horticulture, balanced by declines in Crop Science.

Physical Education Division

This Division has little or no growth potential without additional facilities and land area. Light-to-moderate growth will occur, however, if new facilities are constructed requiring little or no additional land area. The Dance program presently occurs in four separated locations, and would benefit greatly from a single facility. In general, facilities for competitive athletics are more adequate than those for Physical Education, where additional indoor teaching space is needed.

Social Sciences Division

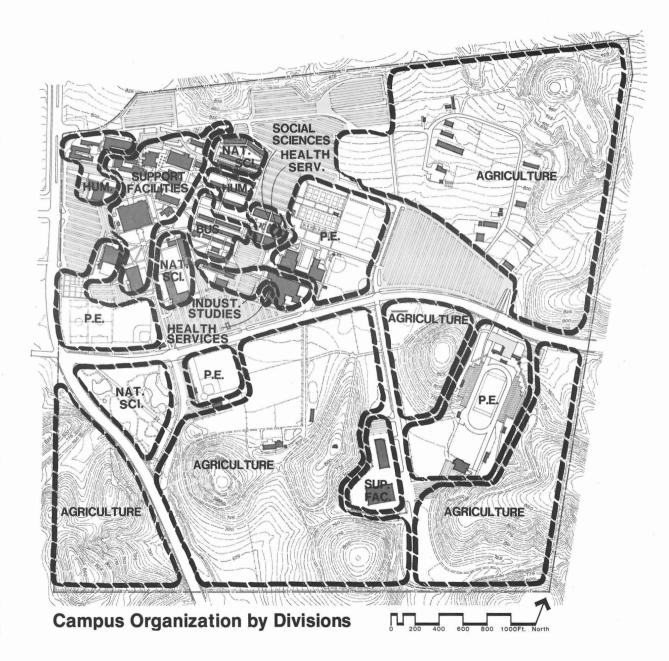
This Division, largely academic, has experienced a moderate decline since enrollments have leveled, but is projected to be relatively stable in the future.

Anthropology, Philosophy, Sociology — Stable History, Geography, Political Science — Slight Decline Psychology, Education — Stable

This Division uses primarily general-use classrooms, which has permitted easy reassignment to other divisions when enrollment declines have occurred.

NON-INSTRUCTIONAL ENTITIES Office of the President

Having overall responsibility for the entire College operation, the office of the President also has direct responsibility for Personnel, Public Relations, Computer Services, and Research and Development. All but Computer Services are located in Building 4 which has adequate space to accommodate planned growth. Computer Services is located at the Computer Center, part of Building 5



Organization & Growth Projections

and in spite of the compact nature of the facility, appears adequate for planned growth due to decentralization of some functions at satellite computer terminals elsewhere on campus.

Business Services

This activity includes the following functions: Accounting, Purchasing, Maintenance and Operations, Transportation and Warehousing, Facilities Planning and Construction, Parking Control, Mail Distribution, and Cafeteria Food Service. A recent administrative reorganization added Fast Food Services, Bookstore, Associated Students Business Office, Financial Aid, and Veterans' Affairs. With the exception of Financial Aid and Veterans' Affairs, facilities are generally adequate to accommodate planned growth.

Instructional Services

This activity encompasses all of the Instructional Divisions as well as Learning Resources and Community Services. With a recent administrative reorganization, Student Services activities have also been added.

Learning Resources

This activity incorporates Library Services, Audiovisual Services, and Learning Assistance Services. Its facilities, which are in Building 6, are currently significantly over-area because the building was planned for a 30,000 student campus with the expectation that the College would continue its rapid growth.

The Library itself was originally designed to function as 4 satellite libraries, each with its own check-out station and related service functions. Though 2 of the 4 check-out stations have been closed and other consolidations have occurred, the present facility continues high in operating costs and is significantly over-area in terms of projected needs.

Audiovisual services may also be over-area, although not to the degree of the Library, and appears adequate for projected growth. Learning Assistance Services, however, was added more recently and is operating at capacity with evidence of significant further growth. Its facilities need enlargement as well as perhaps greater visibility and better access to the Library.

Student Services

These operations are spread among 3 buildings consisting of Admissions and Records, Registration, Health Services, Special Programs, Counseling, and Student Activities. An administrative reorganization has taken place which eliminates Student Services as a separate entity and combines it with Instructional Services. The highly fragmented nature of the facilities has resulted in inadequate space and difficulty for the public to locate them. If consolidated in one location, sharing common elements such as public waiting areas, they may need little additional space. Overall efficiency will also improve, and if relocated to a more visible area, will improve access by the public.

Health Services need not be adjacent to the remainder of the facilities and, in fact, would be best located closest to the Physical Education and Industrial Studies areas where accidents and injuries are most likely.

Community Services

This activity, incorporating both Community Services and Adult Education, administers the non-credit educational program as well as publicly-oriented entertainment, educational and recreational activities. Its Administrative facilities are located in Building 4, and its teaching and entertainment facilities are spread throughout the campus.

It is perhaps the fastest growth activity on campus at present, and would benefit from having its own separate facilities to accommodate future growth as well as strengthen its public identity.

Graphics & Signage

The large scale of Mt. SAC with its numerous buildings and vehicular entrances makes it difficult to perceive the physical campus organization as well as the location of important functions. Existing vehicular and pedestrian-oriented signage is generally too small in scale to be easily read from normal viewing distances, and is often not strategically enough located to serve the needs of persons unfamiliar with the campus. On the whole, the existing graphics program does not function well and is made unattractive due to inconsistencies in lettering style and overall design. A coordinated graphics program is therefore needed regardless of whether the campus continues to grow.

The program might take into account the development of a consistent lettering color and style, and might also integrate international graphic symbols for vehicular and pedestrian directions. A consistent vocabulary for design and construction of all signage, directories, campus maps, as well as other elements including kiosks, bulletin boards, newsstands, trash containers, benches and even light fixtures would enhance the overall program. To achieve this, a graphics consultant would be advantageous to both the District and the Architect in developing this overall program.







Conclusions

From the aforementioned analysis of the Existing Campus and the forces which have shaped it, a number of conclusions can be made. For an understanding of the present campus, and also to serve as significant guidelines for Master Planning, the following conclusions are important:

- The total building area is presently over-area in accordance with state standards, necessitating a strong emphasis in future planning on remodeling to increase utilization, rather than new construction.
- The total land area for various uses is adequate, except for Physical Education where new outdoor facilities are needed within a reasonable walking distance of the campus and north of Temple Avenue.
- The College vicinity is about to dramatically change from rural to residential and commercial uses. Increased traffic congestion and possible conflicts with existing College land uses are among the potential future problems to be dealt with.
- 4. New access routes to the college will be beneficial to counteract projected traffic increases. San Dimas Avenue and Mountaineer Road will form a useful bypass route, drawing traffic away from the Grand Avenue—Temple Avenue intersection.
- A new northeast entrance from Mountaineer Road would be beneficial.
- Temple Avenue, where it bisects the campus, should be widened and improved to eliminate current traffic hazards. A possible southward relocation would only be necessary in the event of substantial College growth or a southward displacement of outdoor P.E. functions.
- Existing traffic congestion problems at campus entrances are the result of inadequate on-campus, rather than off-campus, roads.
- Campus vehicular entrances accommodating peak load student traffic should be moved farther from the Grand Avenue—Temple Avenue intersection, where substantial future congestion is likely.

- Many current planning problems can be traced to the substantial growth of parking. Future planning should seek methods of increasing present parking lot utilization, as well as encouraging use of public transportation to avoid further parking growth.
- 10. Student parking lots should be in as contiguous an area as possible, avoiding the present pattern of widely separated and isolated lots which lead to greater traffic congestion.
- Planning to accommodate parking and vehicular circulation should avoid compromising the functioning of the Central Campus and Physical Education areas.
- The past process of displacing functions to accommodate growth of others is costly, and should be avoided.
- 13. Growth of the three primary functions—buildings, parking, and Physical Education—can be better accommodated if each becomes more open-ended, with the elimination of the "noose" of parking presently surrounding the central campus.
- Use of public transportation is presently discouraged by inadequate waiting facilities and excessive walking distances.
- 15. The increasing percentage of part-time students may lead to more trips to and from the campus, resulting in a greater demand for parking.
- Existing congested on-campus roads are inadequate for emergency access. They would, however, be adequate if peak load student traffic could be accommodated elsewhere.
- 17. The present campus epicenter (or area of greater pedestrian traffic) has moved substantially east of the campus geographic center due to the recent construction of large teaching facilities at the east. As a result, functions such as the Library and Cafeteria, though close to the geographic center, have become under-utilized.

- 18. Additional new construction at the east will tend to draw the epicenter farther from the geographic center, whereas new construction to the west (other than P.E.) will tend to draw it closer.
- 19. The largest teaching buildings on campus occur largely at the perimeter of the building area. It would be desirable if future large teaching buildings were constructed closer to the geographic center rather than on the perimeter.
- Many teaching facilities presently occur outside the ideal ten-minute diameter walking circle (coinciding with the ten-minute passing time between classes). The placement of future facilities should recognize this.
- 21. Physical Education and athletics are presently fragmented into four areas. Future planning should seek to place the majority of the P.E. activities north of Temple Avenue and in as contiguous a location as possible.
- 22. The Agriculture program has lost considerable land to other uses, most notably parking. If the program continues strong, efforts should be made to prevent further losses.
- 23. A high percentage of the existing agriculture area is unirrigated, with greater utilization possible if a lowcost water source can be developed.



Proposed new Public Transportation Center

Functional Relationships & Provisions for Expansion

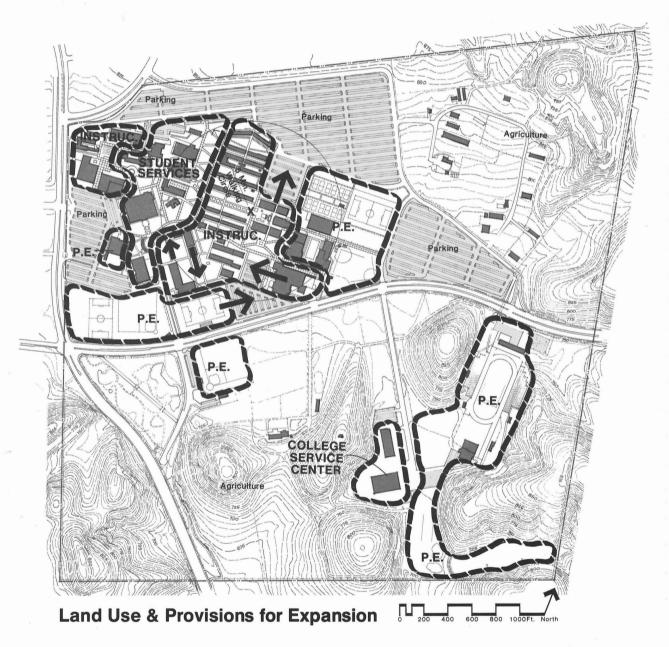
The physical Master Plan at Mt. SAC is based on a 20 year period of time during which a relatively modest 13% growth rate is projected. It is designed for a 20% overall growth capability, though a higher rate may be accommodated with little change recognizing the current over-area status of many existing facilities.

New teaching facilities will be limited only to those experiencing substantial growth, or where no present facilities exist. They include a 600 seat theater, music expansion, teaching gymnasium, indoor P.E. activity rooms with racquetball courts and a modest expansion to the P.E. fields. There is a strong emphasis on remodeling existing facilities to increase their efficiency or convert to new uses in order to better accommodate recent curricula changes. Agriculture facilities will remain generally unaltered with the exception of a loss to parking of the currently under-utilized orange grove area.

Expansion, where needed, is provided for within the basic areas allocated for Buildings, Parking and Physical Education. The possible use of off campus facilities, such as for Aircraft Maintenance, remains an alternative to expansion indicated on the plan. The "noose" of parking lots limiting expansion for the Building Area is eliminated by consolidating student parking in one contiguous area across the north while placing public and visitor parking closer to those functions requiring a high degree of public access.

The Building Area will not be allowed to expand beyond present walking distances, and will instead be permitted to fill-in areas now largely occupied by close-in staff parking. The isolated teaching areas at the northwest will be strengthened by the addition of the new Performing Arts facilities and linked to the rest of the campus with a major pedestrian mall.

P.E. Facilities are modestly enlarged with new indoor facilities as well as an additional soccer field. Its program may be expanded by the addition of a driving range and a dry land ski run, both of which can share existing grazing areas with the Agriculture Program.



Physical Campus

Building Legend

1A Art Center (East)

Art Center (West)

Music & Dramatic Arts P.E. Center 1 (Gvm)

College Center

Community Services Center

Health Services

Learning Resources Center

Physical Sciences

Dance Center

Sac Book Rac 9A 9B Student Center (North)

Student Center (South)

9D Home Economics (Relocated)

Child Development (Relocated) 9F

Staff Center

11 Chemistry

Agricultural Science 12

Biological Science 13

Humanities (1) Humanities (2)

15 16 Humanities (3)

17 **Business Education (1)**

Business Education (2) 18

Nursery School Education 19A

Home Economics (1)

South Campus Snack Bar Home Economics (2)

Air Conditioning/ Refrigeration

Welding Shop

Social Science Center (North)

26B Social Science Center (East)

26C Social Science Center (Planetarium)

Social Science Center (South)

27A P.E. Center No. 2 (Men)

27B Pool Equipment

27C P.E. Center No. 2 (Women) 28A Technology Center (North)

Technology Center (South)

Baseball Locker Room

College Service Center (North) 47

College Service Center (South)

Memorial Stadium

Press Box

50E S.W. Restrooms

50F S.E. Restrooms

50G Field House (Men)

50H Storage Building

New Building Legend

No.

Theatre

Music Expansion

Public Transit Shelter

Teaching Gymnasium

P.E. Activity Room Expansion P.E. Activity Room Expansion

Stadium Concession, Ticket & Rstrms.

Womens Field House

Remodeled Building Legend

Community Services/

Adult Education Center

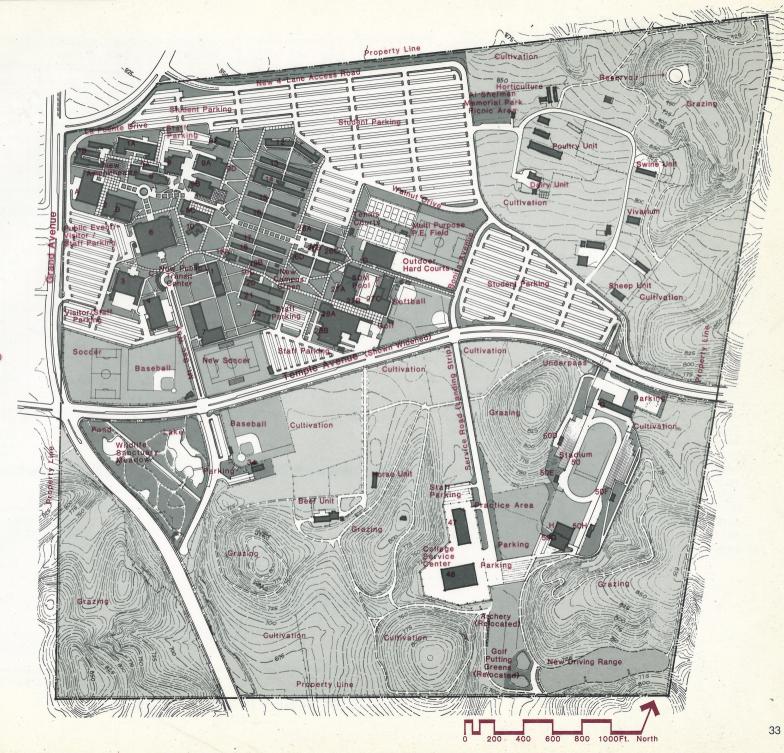
Expanded Health Services

Learning Resources / Admissions **Records Counseling Center**

Multi Purpose Dance Center

Main Food Service/

Student Body Offices Home Economics or Industrial Studies

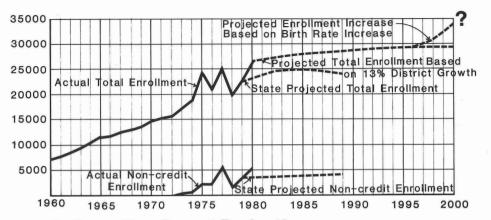


Enrollment Projections

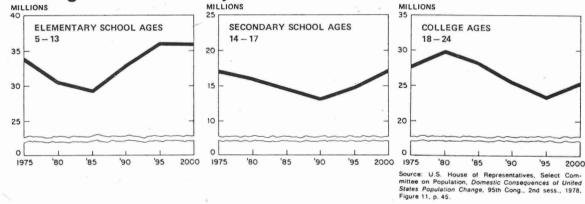
Current enrollment projections by the State, at the upper right, are based primarily on public school enrollments and the birth rate, which significantly declined during the early 1960's. Recent enrollment fluctuations are closely tied to that decline 18 to 20 years ago. But, in comparing the State's projection with the actual enrollment for Fall 1980, an unexpected increase appeared and reflects the unpredictable nature of Community College enrollments today.

Major changes in the makeup of the student body, especially the large number of older students returning to College, points out the possibility of significant inaccuracies in the State's calculations. Whereas the State suggests the enrollment will peak in the mid 1980's and begin to decline, even a very conservative accounting for the 13% developable area remaining in the District suggests a modest rate of enrollment increase to the year 2000.

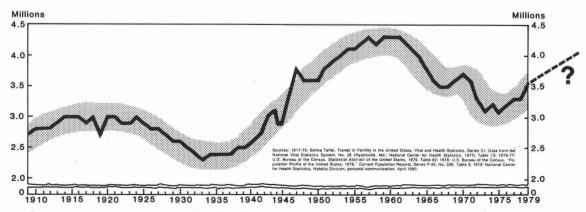
Birth rates have historically had a significant effect on school enrollments, and the chart at the lower right suggests it is largely cyclical in nature. There are indications that the birth rate has begun to increase rather than decline as predicted by local governmental agencies. Even a modest increase in the birth rate in the early 1980's will be reflected in an enrollment increase approximately 18 to 20 years hence, and suggests the possibility of major growth beginning in the late 1990's at the end of the period of detailed study in this report. Though this will be known more clearly as birth rate data for the next few years is recorded, it would seem prudent to always plan for the possibility for rapid growth, whether or not it is tied to a known source of information, if the past history of unpredicted growth serves as an example.



College Enrollment Projections



Nationwide Educational Enrollment Projections



Cyclical Nature of Birth Rates

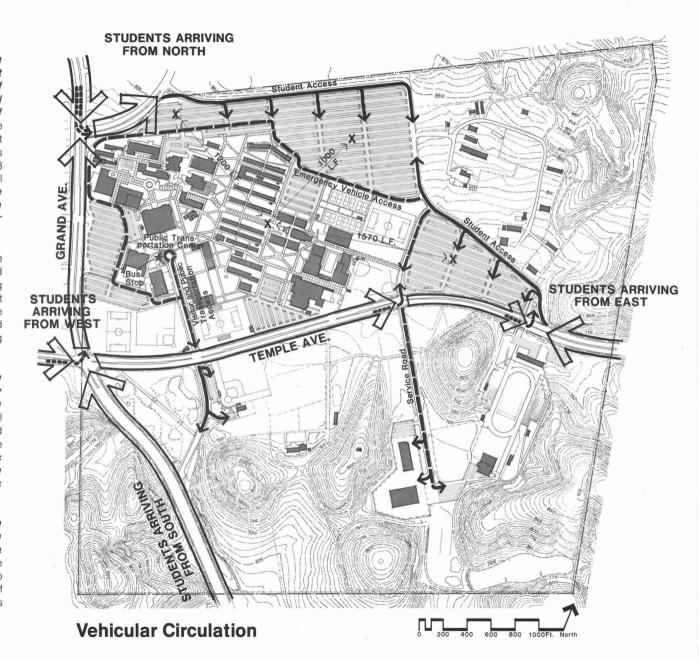
Vehicular Circulation

Responding to projected future congestion problems along Grand and Temple Avenues, a major new entrance at Mountaineer Avenue and an improved entrance north of the Stadium, connected by a 3 lane campus road, will permit College-bound traffic to bypass the areas of greatest congestion. The Mountaineer Road - Grand Avenue intersection will be signalized and given a lengthened left turn lane. At the two College entrances, right turn-only lanes will be provided to smooth the inward flow of traffic; and the 3 lane campus road interconnecting all student parking lots will help to reduce off-campus traffic congestion. By feeding the parking lots from their outer perimeters, traffic is drawn away from the existing inner roads necessary for emergency access.

Parking Lot B will be extended southward to connect to the existing Visitor Parking Lot and reclassified as a Visitor and Staff Lot, with public and student access for evening performances and athletic events. The existing entrance at Mt. SAC Way is extended farther north and closer to the campus center to create a Public Transportation Center and vehicle drop-off point. Parking Lot G and a remnant of Parking Lot D are reclassified for Staff Parking.

By eliminating or reclassifying the close-in student parking lots, walking distances to the epicenter are more nearly equal, and should result in less traffic congestion generated by persons seeking close-in parking. Overall safety of pedestrian access from the parking lots is improved by moving the major vehicular access routes outboard of the parking lots, and the desirability of utilizing public transportation is enhanced by shortened walking distances from the epicenter to the new Public Transportation Bus Stop.

Other on-campus roads will remain unchanged with the possible exception of Mt. Sac Way whose intersection with South Grand Avenue was closed several years ago due to a hazardous left turn condition. The intersection might be reopened to permit college-bound traffic from the south to bypass the congested areas of Grand and Temple Avenues if it is signalized or otherwise controlled, and if public access does not pose a problem.



Pedestrian Circulation

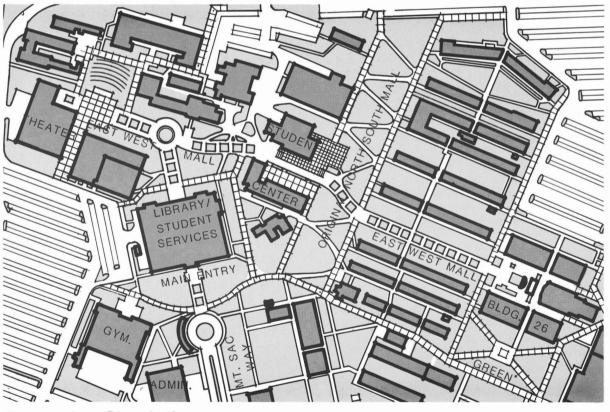
In response to the need for improved visual orientation and outdoor activity areas, an east/west pedestrian Mall, with a major intersection point at the north Library entrance, is proposed. The Mall, developed with landscaping, paving patterns, and lighting, will interconnect the 2 major "anchor buildings" at either end of the campus: Building 26 and the future Theater. Where the Mall passes through the Student Center, it will provide access to enlarged outdoor paved areas for dining and activities, strengthening its importance as a major focal point.

The main campus entry at Mt. SAC Way will be strengthened by extending it farther north to the south entrance of the Library creating a readily identifiable drop-off point for public and private vehicular traffic. Clustered near the dropoff point will be high public-use functions, such as Administration, Student Services, Gymnasium, Library, the future Theater and the Student Center.

The existing north/south Mall, a feature of the original Master Plan, will be restored by removing temporary buildings which have intruded into the Mall area. Major north/south access routes will be widened to meet Fire Marshal requirements as well as serve the increasing pedestrian traffic from the enlarged student parking lots at the north.

A large "green" will be created at the site of the Faculty Parking Lot south of Building 26, and will serve as a new outdoor focal point for the Business, Technology and P.E. areas of the campus.

In an overall sense the plan seeks to strengthen identifiable nodes of activity on campus, including the Main Entrance/Public Transportation Center, the publically-oriented Performing Arts/Fine Arts Center, the Library, the Student Center, and of course, the various Academic, Vocational, and Physical Education Centers.



Pedestrian Circulation

Reutilization of Existing Buildings

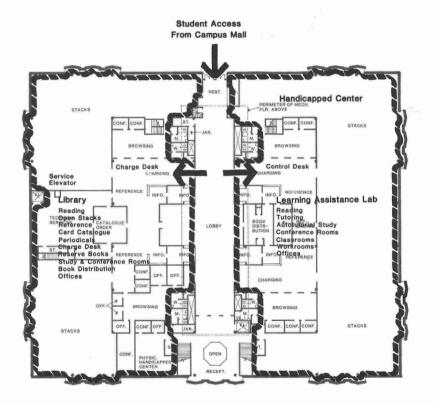
Central to the success of this Master Plan is the program to rehabilitate many of the existing buildings in order to increase overall campus utilization and meet changing functional requirements of the buildings. On the following pages diagramatic floor plan studies have been completed and represent perhaps one of several possible solutions for the remodeling of functions which, during the study period, were identified as having acute problems in lack of space, inappropriateness of facilities, or high operating costs.

Not included, but identified during the study period as also having problems with inadequate facilities which might benefit from remodeling or consolidation by relocation include: Computer Sciences, Interior Design and Fashion and Merchandising Design, Aircraft Mechanics, Industrial Technology, Electronics and Electromechanical Technology, Health Sciences, Photography, Business, and some P.E. programs. Programs identified as having possible excess space include Physical Science and Fine Arts, requiring specialized space, and English, Journalism, Public Safety, Anthropology, Geography and Political Science, requiring unspecialized classroom space. It is, however, extremely difficult to ascertain whether it would be prudent to reassign this space to other uses, in light of potential enrollment increases and their present location and configuration.

Proposed new programs which may need space in the future include Physical Therapy, Sign Language Training and other training programs for the handicapped, as well as Microelectronics Manufacture and Assembly and Consumer Education.

BUILDING 6 REMODEL

Remodel of Building 6 is based on the assumption that the Library public areas can be accommodated in approximately one half of its existing space and still meet present and future projected needs. Though one of several possible solutions, the scheme at the right would temporarily consolidate the Library on the east side of the building, permitting the west side to be remodeled as a permanent Library location. Operating costs will be reduced by eliminating the duplication of checkout stations and other similar functions.



Upper Floor

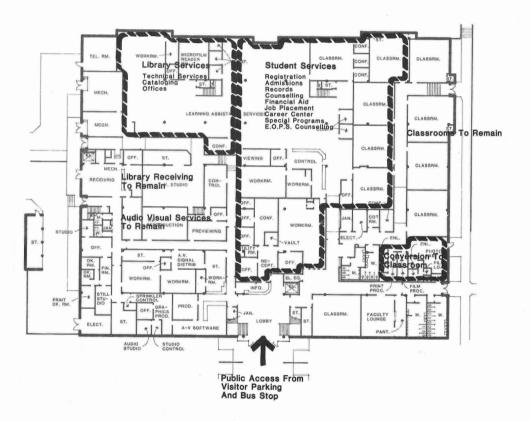
37

Reutilization of Existing Buildings

BUILDING 6 REMODEL (continued)

The Learning Resources Lab would then be moved to the second floor, sharing space with the Handicapped Center at the vacated east half of the Library. It will then have closer access to the Library facilities as well as the rest of the campus by being placed in close proximity to the major campus mall. Flexibility in possible shared use of facilities during peak load periods is an added benefit.

Library service functions would then be consolidated on the lower floor in a portion of the present Learning Assistance Lab area. The remainder of this space, as well as some of the classroom space, will be remodeled into a new Student Services facility consolidating functions which presently are scattered in several locations. The consolidated Student Services facility, with direct visual access from the main campus entrance, will result in reduced operating costs and much improved service to the public.



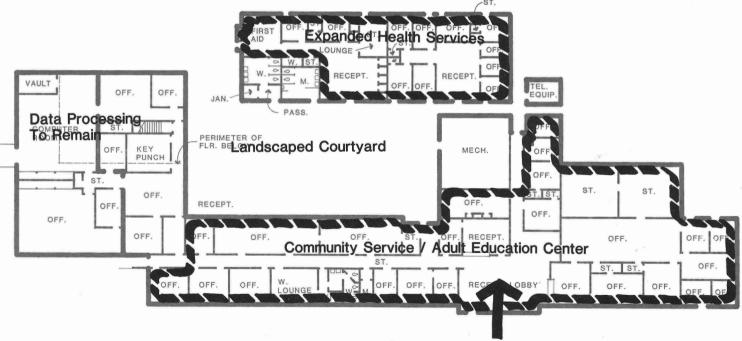
Lower Floor

Reutilization of Existing Buildings

BUILDING 5 REMODEL

The south wing vacated by the movement of Student Services into the Learning Resources Building, and comprising one of the few remainders of the hospital, has been proposed to be converted to a Community Services/Adult Education Center. Though limited by the nature of its construction, with relatively small rooms enclosed by reinforced concrete partitions, it will provide a highly visible location for both clerical and office functions as well as limited facilities for seminars.

The north wing of the building, vacated by Counseling, will provide space for Health Services expansion on a temporary basis with a permanent plan to relocate Health Services into new or converted facilities adjacent to P.E. Center No. 2. The Computer Center, occupying a newer portion of the building, will remain in its present location and size.

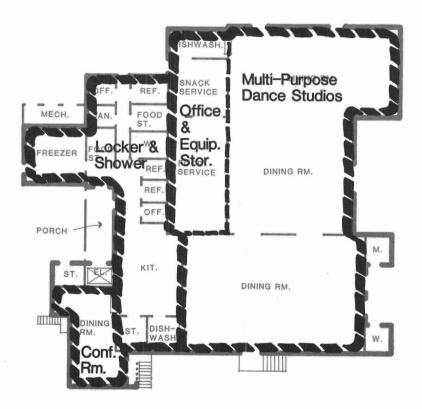


Reutilization of Existing Buildings

BUILDING 8 REMODEL

This building contains large open spaces, and with Food Services being moved elsewhere, is readily adaptable to many uses. Its location, however, would be favorable as a dance facility, while also providing a multipurpose space for Community Services Programs. The present Dance program, spread throughout the campus, is operated by the Physical Education Department and Community Services. With the construction of the future Theater, however, it is likely that the Dance program would be strengthened if it were moved closer to the Theater and other performing arts facilities.

Because of inadequate existing space and the lack of funding for new P.E. facilities, the conversion of the Dining Hall represents a very cost effective means of consolidating the Dance program to a more visible location on campus adjacent to other public oriented functions. The remodel would place locker and shower facilities at the site of the existing kitchen, with the main dining rooms left largely unchanged excepting installation of a dance floor, mirrors and railings.



Ground Floor

Reutilization of Existing Buildings

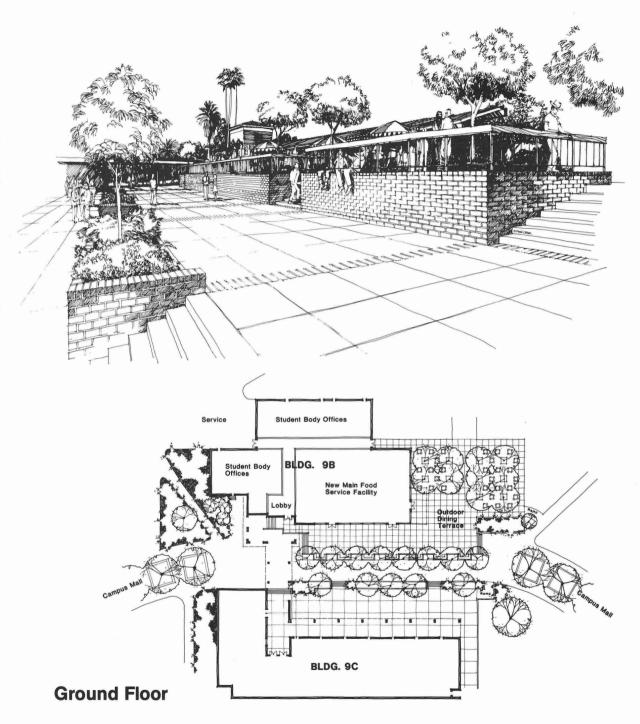
BUILDING 9B REMODEL

Originally the campus Library, this building is apparently of substantial construction with relatively long spans permitting some degree of freedom in its remodel. By vacating Student Service functions, a substantial amount of space is available; and because of its strategic location astride the campus Mall, it would be a desirable location for a major Food Service facility.

Recognizing the long term financial losses at the existing full meal cafeteria operation at Building 8 and the high degree of success of the Snak Shak vending facilities at Building 9B, it has been determined that the Foods Program should be revised to a fast food type operation. Located at the Student Center, the Foods Program might be operated by an outside vendor and would require a relatively small kitchen and considerably less total square footage than the present facility.

The indoor dining area would ideally orient toward an outdoor patio area with landscaping and grass areas beyond, perhaps having the appearance of a sidewalk restaurant. Above all, the total indoor and outdoor facility should have a warm and inviting appearance capturing a degree of romantic architectural appeal as is used in many commercial restaurants. The rustic Early California style of the existing building should lend itself well to a restaurant facility.

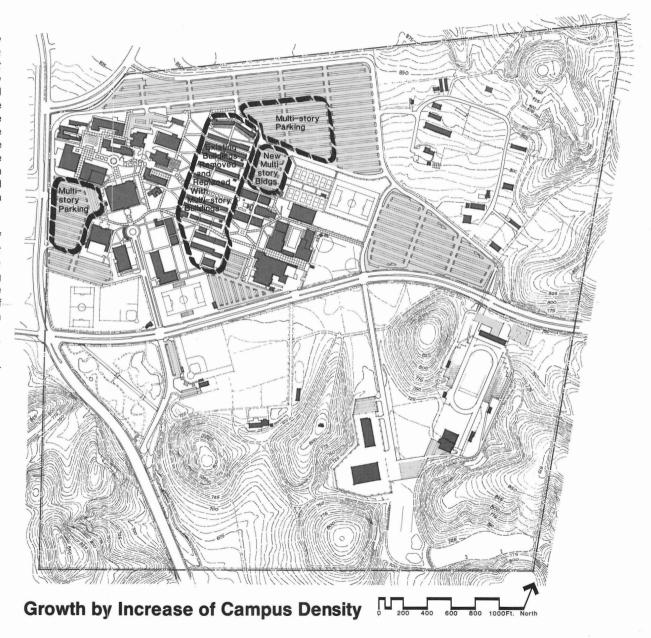
The remaining north and west portions of the building will be remodeled into student body offices, while correcting the existing, confusing corridor layout and possible code violations. Vehicular service will most likely be provided from the north and west of the Bookstore.



Long Range Growth

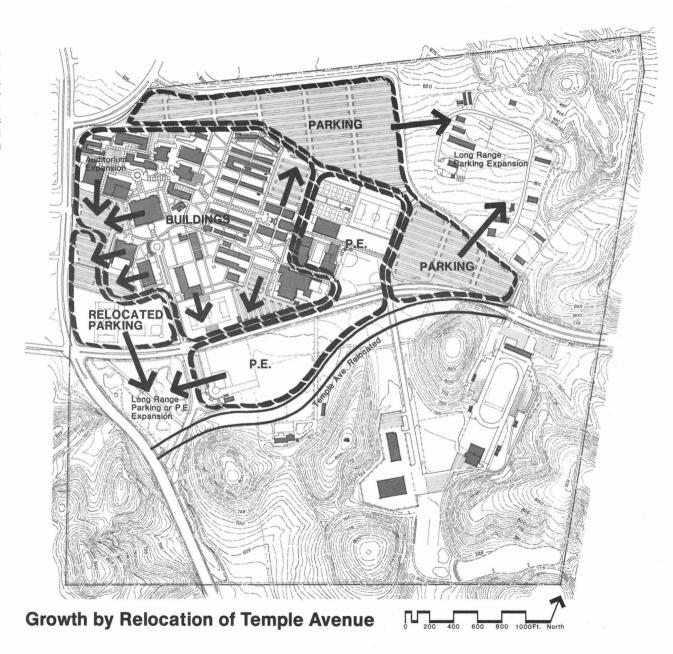
For the next 20 years it is reasonable that growth at the College will occur as projected because it is largely a function of past and current conditions. Beyond that period, however, substantial enrollment growth is possible when one recognizes the cyclical nature of birth rates as well as the possibility of increasing urban density within the College District. Although an unlikely extreme, if the birth rate were to return to its 1950's level, it would nearly double present enrollments without requiring an increase in the number of housing units. However, a more realistic moderate birth rate increase combined with a moderate increase in urban density in older District areas should result in a period of substantial growth beginning sometime in the next fifteen or twenty years.

The following two plans represent possible methods of accommodating a period of substantial growth. The first scheme at the right is based on the Agriculture program remaining strong, and unable to give up land area, requiring instead that overall density of Building and Parking areas be increased. The older one story-buildings, reaching the end of their useful lives, would be gradually replaced with multi-story buildings; and if additional parking is required, parking structures would replace close-in surface parking. Its major advantage is in keeping the building area, as much as possible, within present walking distances and its major disadvantage is the relatively high cost of new construction.



Long Range Growth

The second scheme at the right is based on a possible decline in the large animal segment of the Agriculture program. Were this to occur, significant amounts of land area at the south of the campus would become available for expansion. Its primary advantage is in lower construction costs and preservation of existing construction, whereas disavantages are in greater walking distances and the need to relocate Temple Avenue southward to eliminate pedestrian crossing hazards.



Energy Conservation

SPACE HEATING AND COOLING

Mt. SAC has nearly 1,000,000 square feet of heated and cooled space, and pays between 5% and 6% of its total annual budget for energy. Of the \$1,250,000 spent for energy in 1980, approximately \$750,000 was for power and \$500,000 for gas. The greatest percentage of this is for building heating and cooling, where significant cost savings are possible, recognizing the outdated nature and low energy efficiency of much of its mechanical equipment.

The College has already installed an energy management computer which, by providing more finite control of the mechanical equipment through the campus, has reduced electrical consumption by 29% and gas consumption by 40%, averting a much higher energy bill in 1980. The installation of the computer, however, as well as a program of "class clustering" during off peak hours, represents perhaps the least costly of the alternatives available for energy savings. Once these have been exhausted, then more costly equipment changes must be relied upon in order to counteract projected energy cost increases which will shortly approach an estimated 10% of the total College budget. The following are a number of possible programs which will further reduce energy costs.

CHILLED WATER TEMPERATURE OPTIMIZATION

This project will modify existing controls at existing chilled water air conditioning systems to permit controlled variation of the chilled water temperatures. Existing equipment supplies chilled water at a fixed low temperature based on peak hot weather conditions, when a higher temperature will suffice during the majority of the year. Higher equipment efficiency and lower energy costs will result, and the program may be very cost effective if it is possible to interface it with the existing energy management computer system.

AIR ECONOMIZER SYSTEM FOR MAJOR BUILDINGS (40 Tons of Cooling and Larger)

This project involves retrofitting existing systems with the necessary ductwork, equipment, and controls to supply up to 100% outside air to satisfy cooling demand when the outside air temperature is low enough. The existing systems were designed to meet only minimum code standards for outside fresh air; and yet if modified to deliver larger air volumes, can directly cool the building with outside air, thereby saving the energy cost of refrigeration. Design work has already been completed to retrofit three major buildings; Building 12, Building 4 and Building 28B, and estimates have shown that these projects will be very cost effective.

NIGHT PURGE PROGRAM

This program involves providing controls at economizer and other large capacity ventilation systems to provide early morning operation when outside air is coolest. It will permit precooling of the buildings by purging residual heat from the previous day's use without the use of refrigeration required presently. It will be very cost effective, especially if the program can be interfaced with the existing energy management computer system.

RETROFIT TO VARIABLE VOLUME SYSTEMS

Some of the existing air conditioning systems on campus utilize a double duct variable-volume heating and cooling system, where both heated and chilled air is supplied and mixed to an optimum temperature. Unnecessary energy is expended due to providing both hot and cold air when only one is normally needed at any time.

The retrofit modifies the controls and dampers so the double duct system will convey either heated air or cooled air and never both at the same time. It will be a very cost effective program even at current energy rates, and all efforts should be made to fund it.

REFRIGERATION CONDENSER WATER HEAT RECLAIM SYSTEMS

This project would modify existing chilled water cooling systems to reclaim heat otherwise rejected to the atmosphere through cooling towers or air-cooled

condensers. The reclaimed heat would instead be used for preheating domestic hot water or for swimming pool heating. Depending upon the demand profile for domestic hot water and with increasing gas rates, this retrofit should become cost effective within the next five years.

COOLING THERMAL ENERGY STORAGE

Recognizing the recently instituted time-of-day metering of electric power, this project provides for operation of chilled water equipment during the nightime low rate periods, when the equipment also operates at a higher efficiency due to lower nighttime temperatures. Underground tanks would be provided to store the chilled water for use during the day. This system can be applied to existing mechanical systems at Buildings 2, 4, 6, 26, and 28.

DOMESTIC WATER HEATING

Domestic water heating on campus is provided in several high-use areas and then in smaller applications throughout most of the remaining buildings. The high-use areas include Shower/Locker facilities at P.E. Center 1, P.E. Center 2, and the Stadium Field House as well as the College Dining Hall. These areas, as well as other areas having central hot water systems, would be well suited to a number of energy saving solutions:

REFRIGERATION CONDENSER WATER HEAT RECLAIM SYSTEMS

The already mentioned condenser water heat reclaim system could be applied at locations where large central chilled water and hot water equipment is located. P.E. Center 1 might utilize heat reclaimed from refrigeration equipment at the adjacent Building 4, and P.E. Center 2 might utilize similar equipment at Buildings 26 and 28. The Field House, having no large air conditioned building nearby, would have to rely on other methods, and the College Dining Hall, by being relocated and converted into a fast food facility, may not have nearly the demand for hot water that it has at present.

Energy Conservation

SOLAR SYSTEMS

Solar hot water systems are also feasible with the equipment improving rapidly. The cost effectiveness, however, of a system designed to raise the water to a fully usable temperature is questionable at present, due to the high cost and lower efficiency of high temperature panels.

A system designed only for preheating, however, can utilize higher efficiency low temperature panels, and depending upon the location, may be cost effective.

HEAT PUMPS

A third possibility is an emerging technology for smaller scale systems, utilizing package air-to-water heat pump units, which heat domestic hot water and provide air cooling

at the same time. These, however, are in the early stages of development and are likely not feasible at the present time.

SWIMMING POOL HEATING

The 50 Meter Pool at Mt. SAC, presently heated with natural gas, is likely the largest single consumer of energy on campus. Recent natural gas shortages and a ruling by the Public Utilities Commission which provides for possible curtailment of gas for swimming pool heating, suggests that it would be prudent to plan for an alternate heating source as well as methods of conserving energy presently being used.

SWIMMING POOL COVER

Analysis has shown that a 30% to 35% reduction in fuel consumption is possible if evaporative heat losses are



50 Meter Pool

controlled through the use of a pool cover each night. This would represent by far the most cost effective energy saving method, but labor cost and inconvenience in installing the cover have deterred its regular use at other similar large pools. A motorized pool cover system, were it available for large pools, would provide the necessary convenience to assure its use, and if deployed during the daylight hours when the entire pool area is not needed, might also function as a direct solar collector.

LOWERED WATER TEMPERATURES AND SCHEDULE CHANGES

Other low cost methods of energy savings include lowering the pool temperature and changing the hours of use. The present temperature requirement of 78° is based on the average physiological need of a competition swimmer who must remain in a pool for relatively long periods of time. Were the temperature lowered several degrees and swimming times commensurately shortened, significant energy savings will result. Also, the present pattern of swimming during morning hours requires the boilers be fired up early in the morning to heat the water up to the minimum temperature. Delaying the hours of use by several hours, would allow the water to be heated naturally by the sun, lessening dependence on the boilers.

SOLAR HEATING

Solar water heating for swimming pools has become quite cost effective, mainly due to the relatively low temperature requirements and lower collector panel costs. The limiting factor facing most large pool solar installations, is the amount of area required. Typically the effective solar panel area required to achieve the optimum use of solar energy is approximately 75% of the pool surface subject to evaporation. A 50 meter pool would, therefore, require approximately 9,000 to 10,000 square feet of panels occupying a true area of approximately 20,000 square feet horizontally. The most ideal placement is at ground level due to lower wind velocities and lower installation costs. Installation at existing roofs can yield significant problems due to the weight of the system in operation at 10 pounds per square foot and waterproofing difficulties.

Energy Conservation

REFRIGERATION CONDENSER WATER HEAT RECLAIM SYSTEMS

Lastly there is the possibility of refrigeration condenser water heat reclaim systems as were mentioned for domestic hot water heating. *This would be well suited for the swimming pool, considering the lower temperature requirements.* Existing cooling tower capacities at the buildings closest to the pool (26 and 28), may not be sufficient, especially during winter months, to justify the cost of such an installation. Were, however, more buildings added with chilled water systems and/or a central plant located adjacent to the pool, this method might become feasible.

ELECTRICAL

The College has, in recent years, significantly upgraded the campus electrical distribution system. The majority of its power and communication service is underground and appears adequate to satisfy projected growth. Energy savings, other than those already mentioned for electrically operated mechanical equipment, are primarily in the area of lighting. The College has already completed a program of replacing all 40 Watt fluorescent lamps with 35 Watt energy saver types, and many of the existing incandescent parking lot and walkway light fixtures are currently being replaced with high pressure sodium lamps.

There are several other programs, which could substantially reduce the electrical load and energy costs, recognizing the effects of time-of-day metering. Many older buildings have four lamp fluorescent fixtures where two lamps in each fixture, as well as one half of the ballasts, could be disconnected. Light fixtures around the window walls could be controlled separately and not used during daylight hours. Lighting at the existing Gymnasium, Library and Administration buildings is not energy efficient, with studies currently in progress to determine the most feasible solution.

Automatic lighting control systems may be feasible, particularly where large central lighting loads exist, such as in Buildings 1A, 4, 6, 26 and 28. Automatic control systems, by shutting off when rooms are not in use, can result in an energy conservation of as much as 25%, with twenty-four month payback periods in most instances.

In obviously overlighted rooms with respect to their functions such as corridors, offices and general use classrooms, existing lighting can be reduced or removed and more efficient fixtures with energy saving ballasts installed where possible. Where lighting levels are being reduced, the implementation of a lighting maintenance program is essential in order that the equipment operate as designed. Cleaning of fixtures, lenses and lamps and replacing burned out lamps on a strict schedule is important as well as keeping painted surfaces clean.

The need for education in accepting lower lighting levels is important, as high light levels do not necessarily mean improved visibility. The reduction of glare as well as repainting using lighter colors, will often provide a better visual environment and require less lighting.

The stadium and softball field lighting, which is presently incandescent, would yield substantial energy savings and reduced long term maintenance costs through the installation of high pressure sodium or metal halide lamps and fixtures. At the Stadium this would reduce the number of lamps to approximately one half the number now existing.

REQUIREMENT FOR A FULLTIME ENERGY MANAGEMENT COORDINATOR

Due to the increasing cost of energy, combined with increasingly complex governmental regulations for energy conservation and retrofit cost participation, a fulltime coordinator would likely be cost effective. Many educational institutions have found that the cost benefits have far outweighed the salary of the coordinator.

In order for an energy conservation program to succeed, the coordinator must have the full support of the administration as many programs will create a negative response from the teaching staff and students. They are, however, necessary if the College is to put a limit on the rapidly increasing energy costs.

ENERGY CONCLUSIONS

An energy audit, covering 58% of the buildings on campus, has been completed by the College Staff and the College District retained a mechanical engineer to perform a technical audit of the campus in conformance to the requirements of the State Department of Energy. From these the College has embarked on a five year plan for energy conservation, incorporating 21 projects, some of which have already been mentioned and some are only under study for feasibility. Those under feasibility include co-generation, chilled water storage and an extending of present computer capabilities to control building, walkway and parking lot lighting. Many of the projects have been funded under a Federal 50% matching program, and as design work is completed, will progress into construction.

Conclusions & Acknowledgments

CONCLUSIONS

This Master Plan has made many important recommendations for the future of Mount San Antonio College. It represents a concensus of what is known today in 1981, and what can be extrapolated from it for the future. If past history serves as an example, there are many possible events which will occur to alter the present recommendations. It is therefore hoped that this report will be seen as a part of an ongoing process, rather than a rigid procedure by which the campus is to grow and change in the future. Above all, it should be recognized that none of the items recommended for the future have as yet been constructed, and in fact, some may never be constructed. Its greatest value, therefore, is to serve as a guide, not a blueprint, which will need to be periodically updated in order that it remain relevant to the current needs of the future which continually reshape the College as an Institution.

CASHION HORIE COCKE GONZALEZ ARCHITECTS, INC.

SEPTEMBER, 1981

ACKNOWLEDGMENTS

We gratefully acknowledge the time and effort given by many individuals and groups at Mt. SAC. It is their research and candor in expressing opinions that will determine the success of this document, and the overall Master Planning process. A special note of thanks should be given to the members of the Ad Hoc Committee, who met on a regular weekly basis over a six month period to assist in the formulation of this Master Plan. Members of this committee include:

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Community Services

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Also participating, and representing various Departments and Divisions on campus are:

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Art Boster & Barbara Crane

Agriculture

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Library

Marvin Gore

Business Education

Irvin Colt

Industrial Studies

Carter Doran

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Existing Floor Plans

Note: Scale of all floor plans is 1/64'' = 1'-0''

1A ART CENTER (East)

Sculpture • Ceramics • Design Completed: 1973 GSF = 27,668

ASF = 17,958

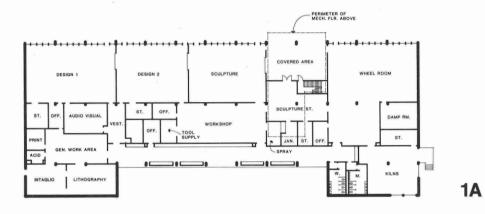
1B ART CENTER (West)

Studios • Gallery

Completed: 1931 South Wing

1955 North Wings

GSF = 17,502ASF = 11,835





49

Existing Floor Plans

2 MUSIC & DRAMATIC ARTS

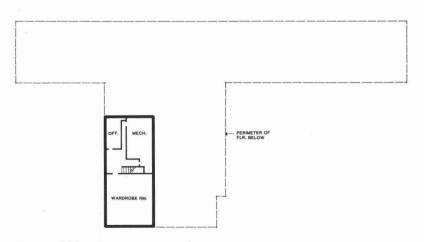
Music • Drama • Little Theater

Completed: 1957 GSF = 21,262

ASF = 13,309



First Floor



Second Floor

Existing Floor Plans

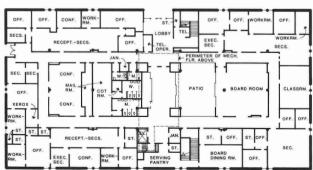
3 P.E. CENTER 1

Gymnasium Completed: 1950 GSF = 33,430 ASF = 26,708

4 COLLEGE CENTER Administration • Classrooms

Board of Trustees Completed: 1965 GSF = 42,723 ASF = 27,077

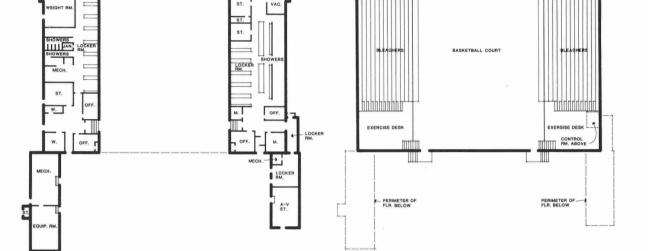




Second Floor

First Floor

Lower Floor



HYDRO THERAPY RM.

Upper Floor

Existing Floor Plans

5 ADMISSIONS & RECORDS

Admissions • Registration • Counseling

Data Processing

Completed: 1941 South Wing

1962 Courtyard Shelter 1969 File Room Addition

5A HEALTH SERVICES

Health Services • Counseling

Completed: 1955

GSF: 18,399 (5 & 5A Combined) ASF: 11,888 (5 & 5A Combined)

6 LEARNING RESOURCES CENTER

College Library • Audio Visual Center Learning Assistance • Classrooms Completed: 1963

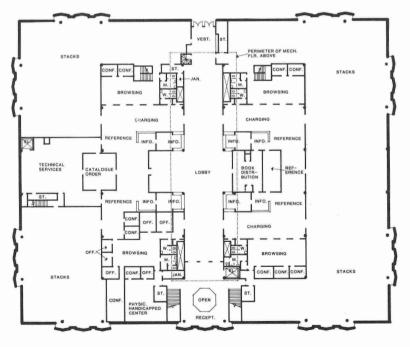
1976 Basement Expansion

GSF = 100,805ASF = 75,093



Existing Floor Plans

6 LEARNING RESOURCES CENTER



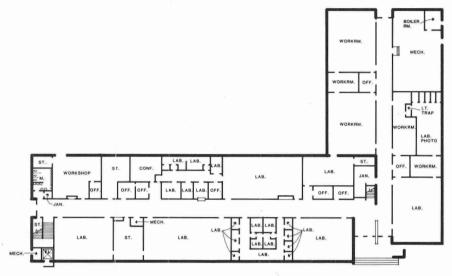
Upper Floor

Existing Floor Plans

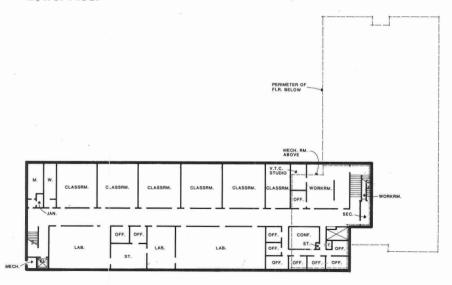
7 PHYSICAL SCIENCES

Physical Science • Graphics Mathematics • Engineering Completed: 1959

GSF = 42,500ASF = 28,541



Lower Floor

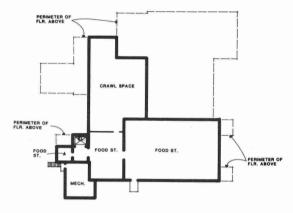


Upper Floor

Existing Floor Plans

8 COLLEGE DINING HALL

Main Cafeteria Completed: 1941 GSF = 12,698 ASF = 9,515



Basement Floor

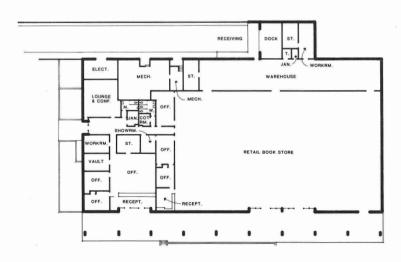


Ground Floor

9A SAC BOOK RAC

Bookstore • ASB Offices Completed: 1969

GSF = 24,472ASF = 18,130



Existing Floor Plans

9B STUDENT CENTER (North)

Student Offices • Placement Office Counseling • Tutorial Center Completed: 1949 GSF = 13,587

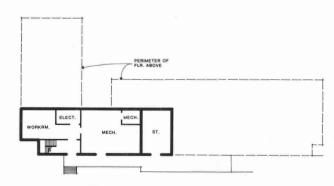
ASF = 13,587ASF = 9,195



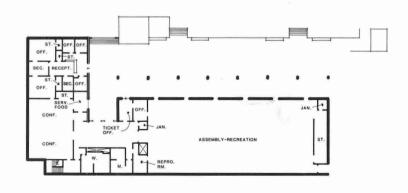
Ground Floor

9C STUDENT CENTER (South)

Convocation Hall • Lounge Student Body Offices Completed: 1962 GSF = 16,366 ASF = 9,901



Basement Floor



Ground Floor

Existing Floor Plans

9D FINANCIAL AID

Relocatable Building Completed: 1977 GSF = 3,800 ASF = 2,610

9F CHILD DEVELOPMENT

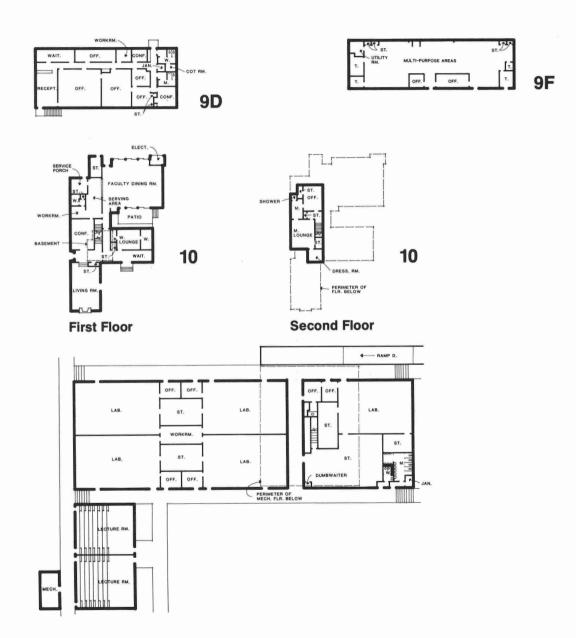
Relocatable Building Completed: 1977

10 FACULTY CENTER

Faculty Dining Completed: 1932 GSF = 4,972 ASF = 3,172

11 CHEMISTRY

Chemistry • Lecture Halls Completed: 1960 GSF = 27,786 ASF = 18,538



Existing Floor Plans

12 AGRICULTURAL SCIENCE

Completed: 1963 GSF = 15,670 ASF = 9,436

13 BIOLOGICAL SCIENCE

Museum Completed: 1953 GSF = 12,654 ASF = 8,899

14 HUMANITIES (1)

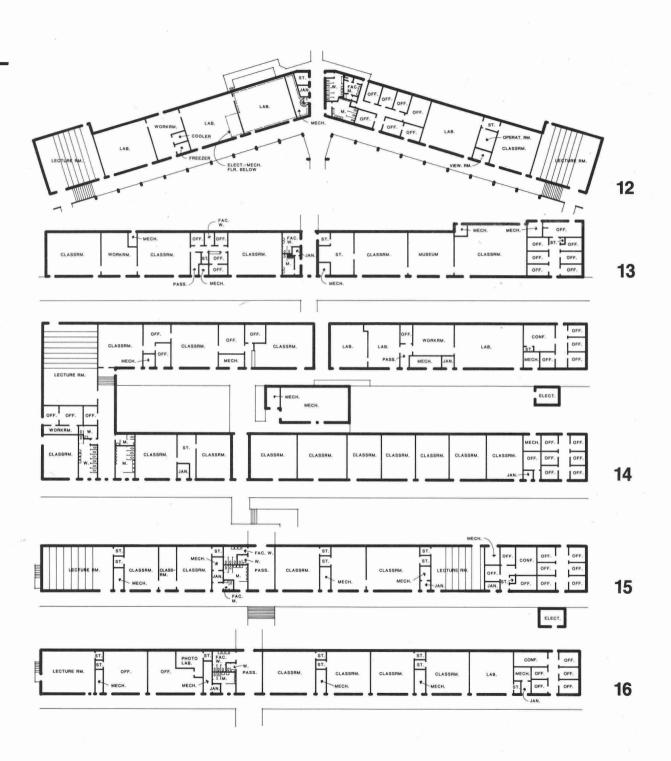
English • Speech Completed: 1949 GSF = 27,737 ASF = 17,969

15 HUMANITIES (2)

Liberal Arts • Language Labs Completed: 1949 GSF = 12,127 ASF = 7,969

16 HUMANITIES (3)

Journalism Completed: 1953 GSF = 12,194 ASF = 8,142



Existing Floor Plans

17 BUSINESS EDUCATION (1)

Completed: 1949 GSF = 12,025 ASF = 8,188

18 BUSINESS EDUCATION (2)

Completed: 1953 GSF = 11,814 ASF = 8,684

19A NURSERY SCHOOL EDUCATION

Completed: 1952GSF = 2,334ASF = 1,376

19B HOME ECONOMICS (1)

Completed: 1952 GSF = 9,579 ASF = 6,406

19C SOUTH CAMPUS SNACK BAR

Completed: 1959 GSF = 1,323 ASF = 620

20 HOME ECONOMICS (2)

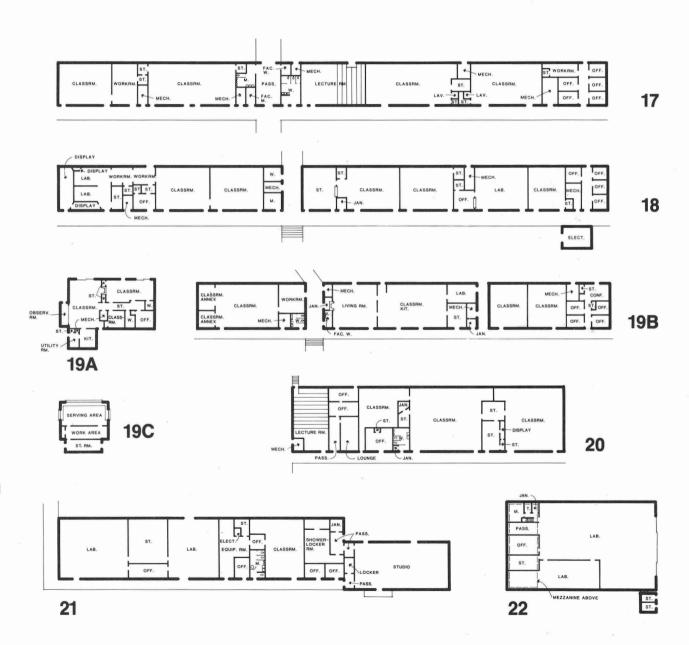
Completed: 1948 GSF = 8,466 ASF = 6,723

21 AIRCONDITIONING/REFRIGERATION

Completed: 1948 GSF = 11,040 ASF = 9,860

22 WELDING SHOP

Completed: 1948 GSF = 8,581 ASF = 7,682



Existing Floor Plans

26A SOCIAL SCIENCE CENTER (North)

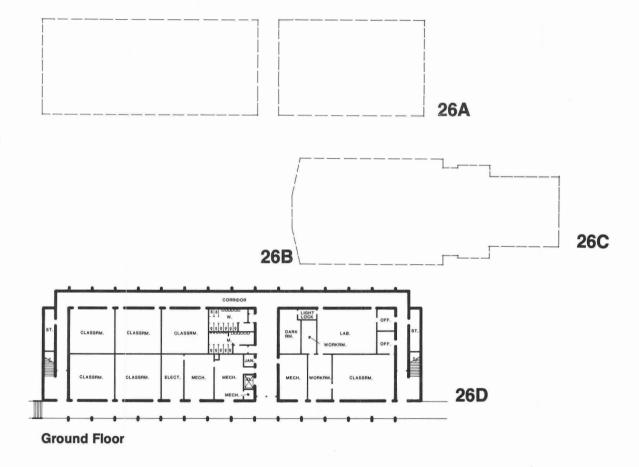
Psychology • Sociology • Philosophy Public Safety • Public Service Completed: 1967 GSF = 50,687 ASF = 26,404

26 B & C SOCIAL SCIENCE CENTER (East)

Lecture Hall • Planetarium Completed: 1967 GSF = 23,935 ASF = 12,459

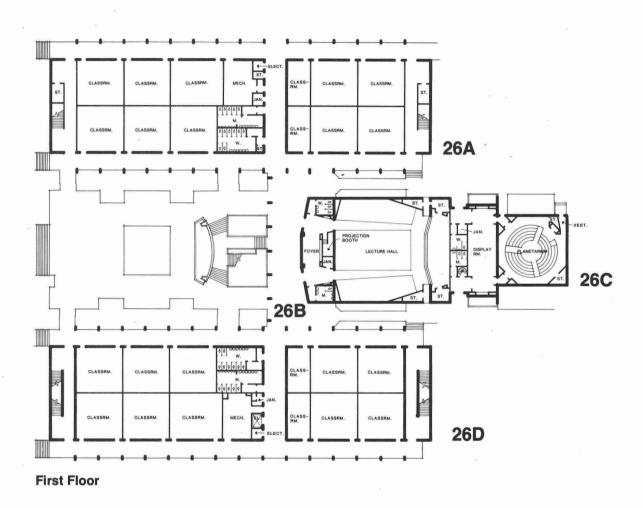
26D SOCIAL SCIENCE CENTER (South)

History • Political Science Computer Science • Allied Health Completed: 1967 GSF = 66,175 ASF = 34,316



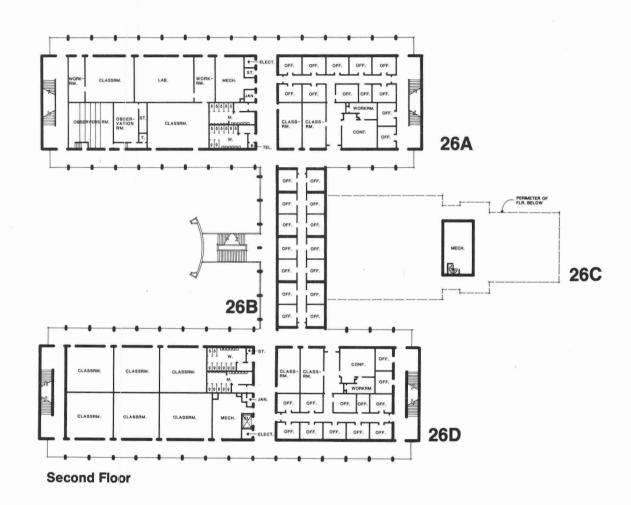
Existing Floor Plans

26 SOCIAL SCIENCE CENTER



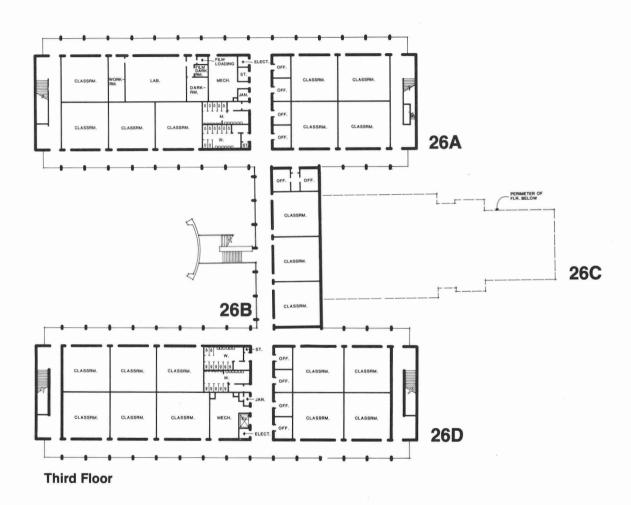
Existing Floor Plans

26 SOCIAL SCIENCE CENTER



Existing Floor Plans

26 SOCIAL SCIENCE CENTER



Existing Floor Plans

27A P.E. CENTER NO. 2

Mens Locker • Exercise Room

Completed: 1962 GSF = 13,600 ASF = 12,291

27B P.E. CENTER NO. 2

Pool Equipment • Offices

Completed: 1970

27C P.E. CENTER NO. 2

Womens Locker • Exercise Room

Completed: 1960 Addition: 1970

GSF = 16,020 (B & C Combined) ASF = 13,317 (B & C Combined)

34 BASEBALL LOCKERS & SHOWERS

Completed: 1959 GSF = 2,344 ASF = 1,594

50A TICKET, WOMENS LOCKER & RESTROOMS

Stadium

Completed: 1948 GSF = 2,116 ASF = 1,339

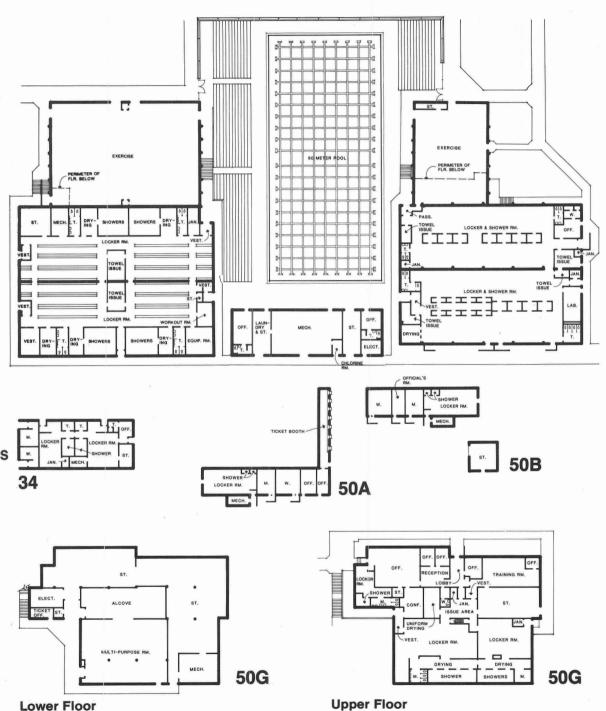
50B MENS RESTROOMS

Stadium

Completed: 1948 GSF = 1,899 ASF = 1,162

50G FIELD HOUSE

Completed: 1973 GSF = 19,242 ASF = 16,255



Existing Floor Plans

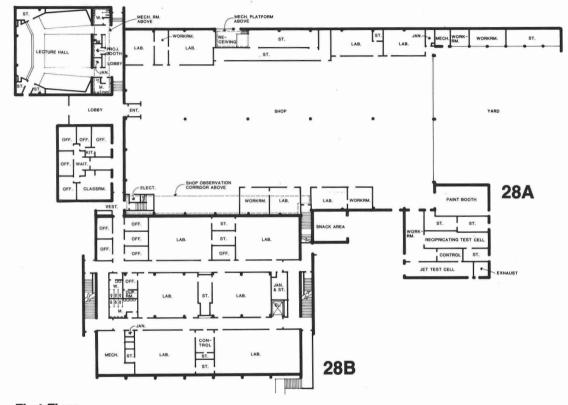
28A TECHNOLOGY CENTER

Machine Shop • Aircraft Shop Lecture Hall Completed: 1971 GSF = 47,400 ASF = 32,283

28B TECHNOLOGY CENTER

Radiology Lab • Drafting • Engineering Aircraft Classroom Labs Completed: 1971

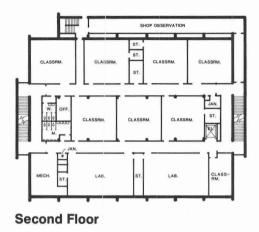
GSF = 71,851 ASF = 47,373

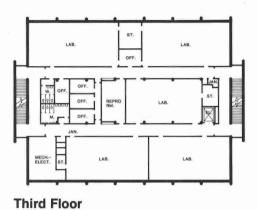


First Floor

Existing Floor Plans

28B TECHNOLOGY CENTER





CAB.

LAB.

LAB.

JAN.

ST.

JAN.

OFF.

MCGH.

PASS.

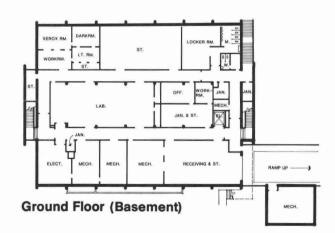
OFF.

LAB.

LAB.

WORKRM. & ST.

FOURTH Floor



Existing Floor Plans

47 COLLEGE SERVICE CENTER

Maintenance • Operations

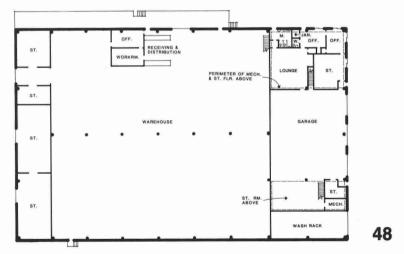
Completed: 1968 GSF = 21,060 ASF = 16,526

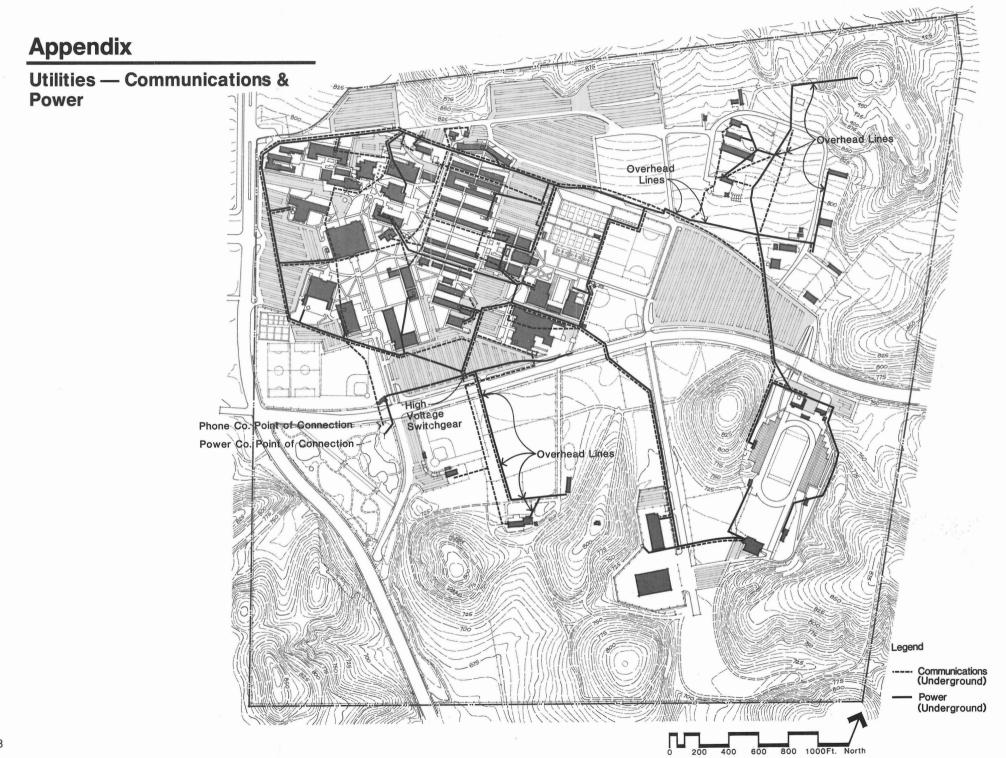


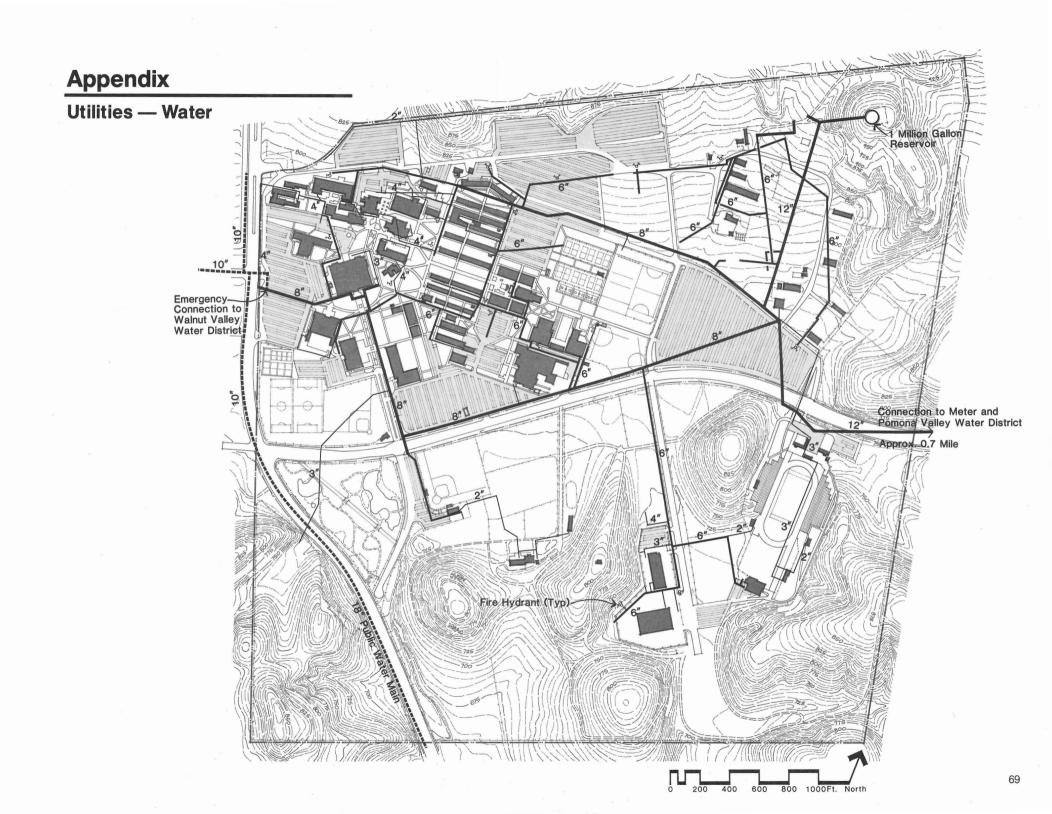
48 COLLEGE SERVICE CENTER

Warehouse • Transportation

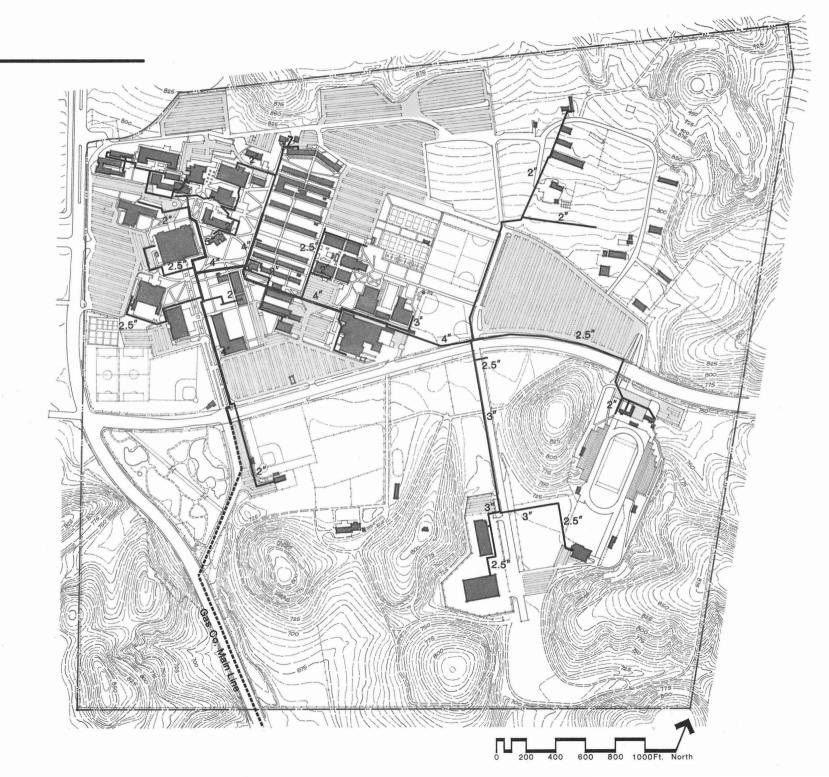
Completed: 1968 GSF = 34,450ASF = 31,593

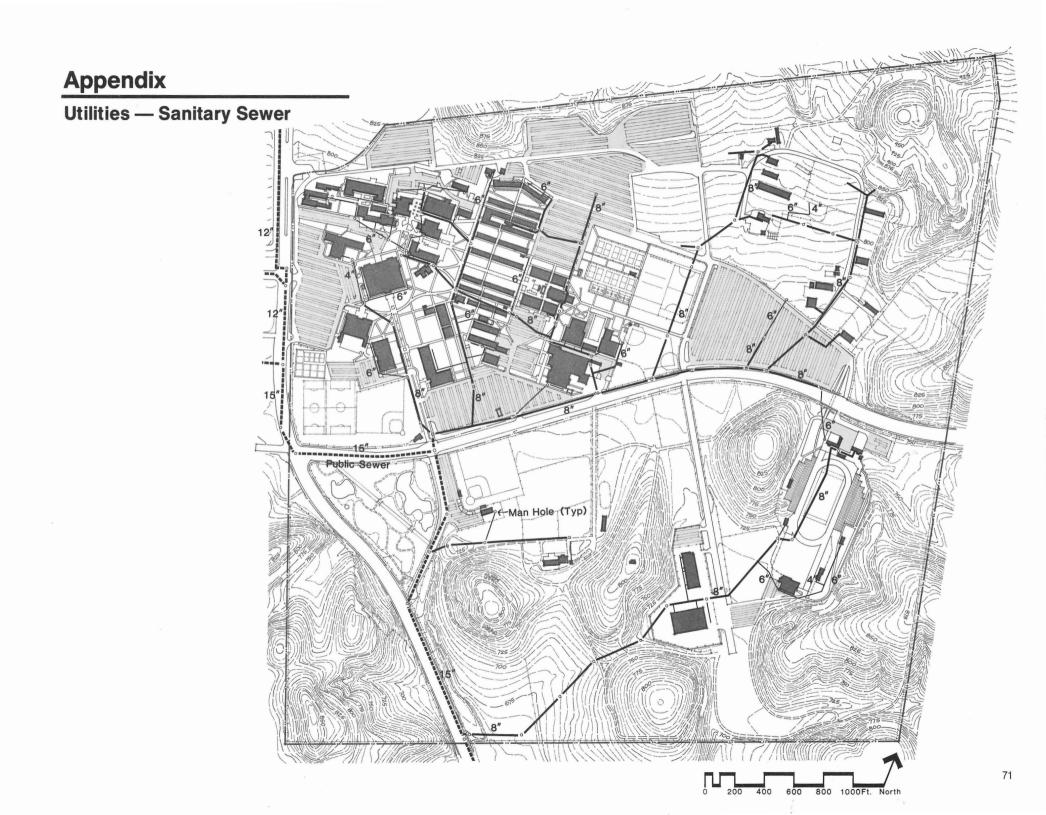






Utilities — Gas





Appendix Utilities — Storm Drainage Drainage in Open Channel Drainage in Open Channel (Typ.)

600