4 EXISTING CONDITIONS
& SITE INFLUENCES
4 Existing Conditions and Site Influences

4.1 Neighborhood Location
The ECHS Neighborhood is bounded on the north by the UCSD Park canyon preserve and undeveloped land slated for recreational uses, on the east by a campus surface parking facility, and on the southeast by the Science Research Park Neighborhood.

On the south the Neighborhood is bounded by the canyon. The Interstate 5 (I-5) right-of-way forms the west boundary of the area. Figure 4.1 shows neighborhood boundaries.

4.2 Surrounding Non-UCSD Land Uses
Existing regional land uses surrounding the East Campus are shown in Figure 4.1:

A. Mixed-Use Commercial/Office and Residential in the Genesee Avenue and La Jolla Village Drive corridors near East Campus support a high-density, mixed-use zone with mid-rise buildings, commercial and retail facilities and high-density planned development housing.

B. Off-Campus Housing: Non-UCSD multi-unit condominiums with off-street parking.

C. Medical Center Uses: The Scripps Medical Center supports hospital and ambulatory care uses, including emergency department and medical offices.

4.3 UCSD East Campus Land Uses
Existing land uses around the ECHS Neighborhood are identified in Figure 4.2:

A. UCSD Academic Space: The Preuss School, a 75,000-GSF middle and high school.

B. UCSD Academic Reserve: Specific use not yet determined.

C. UCSD Campus Parking: Permanent surface lots totaling about 2,215 spaces.
D. UCSD Student Recreational Open Space: Programmed recreation uses, including a baseball field. A proposed playing field complex will include three soccer fields. A future Events Center building has been proposed to be located at the Voigt Drive intersection with Campus Point Drive. A portion of this land is currently occupied by a parking lot.
E. Science Research Park [SRP]: Research and development facilities proposed to include five buildings totaling approximately 550,000 gross square feet [GSF]. One thousand six hundred parking spaces in surface parking and a parking structure will be provided in the ultimate build-out.

F. UCSD Mesa Housing: Six hundred units of two and three-story apartments with approximately 900 parking spaces.

G. UCSD Park lands.

\section*{4.4 ECHS Neighborhood Land Uses}
The existing ECHS Neighborhood is comprised of approximately 43 acres of gross site area.

The general categories of land use in the Neighborhood are defined in the 1989 LRDP as 545,000 assignable square feet (ASF) of Clinical space and 40,000 ASF of space allocated to Instruction and Research, Organized Research Units, and Academic Administration.

Current existing functional land uses are shown in Figure 4.3. They include Hospital inpatient beds and diagnostic and treatment facilities, Ambulatory Care [clinic] facilities, and surface parking.

Functional zoning on the site is organized into Medical Center, Ambulatory Care, Clinical/Research, and parking zones. The Hospital zone includes parcels directly adjacent to the north and west sides of Thornton Hospital to provide internal functional connections and a planned expansion of the public atrium space to the west. Ambulatory Care zones are located to the east and south of the Perlman Ambulatory Care Center. Clinical/Research parcels are generally in the eastern third of the neighborhood.

The existing ECHS Neighborhood development has seen little expansion since the first facilities were constructed eight years ago. Four buildings occupy approximately 9.5 acres of the site:
1. The Thornton Hospital, 235,000 GSF/116,000 ASF, two and three floors plus partial lower level.
2. The Perlman Ambulatory Care Center, 56,000 GSF/32,000 ASF, two floors plus lower level.
3. The Shiley Eye Center, 32,000 GSF/24,000 ASF. Two and three floors.
4. The Ratner Children’s Center, 3,000 GSF/2,000 ASF, one level.

The total area of the existing facilities is 326,000 GSF/174,000 ASF.
4.5 The Natural Environment

Located to the east of the UCSD central campus and about 1.5 miles east of the Pacific Ocean, the ECHS neighborhood is located within the 270-acre UCSD East Campus on a 43-acre coastal mesa. The mesa is bounded on the north and south edges by natural canyons that have been somewhat altered by the former military training facility and the construction of I-5. The mesa has been terminated at the west end by the transecting Interstate 5 right-of-way corridor that lies some 40 feet below the top of the mesa (Figure 4.4).

4.5.1 Topography and Landforms

The canyon retains some of the indigenous natural vegetation of sage and chaparral that has been augmented by the introduction of eucalyptus trees along the edges. The eastern edges of the neighborhood gradually ascend in elevation to about 15 to 20 feet above the mesa. The canyon elevations descend from about 10 feet in the east to about 40 feet in the west as they meet the I-5 corridor.
Canyon edge slopes vary widely from flat to 50 degrees at the north canyon transect with the I-5 corridor. The average slope along the canyon edges is about 30 percent.

Riparian wetland habitats have been established at the base elevation of the canyons and are restricted from any future alteration or development.

The strong visual character of the natural dry coastal California landscape and arroyos that surround the mesa creates the unifying image of the neighborhood environment.
4.5.2 Climate
The regional climate enjoyed by the site is governed by a temperate coastal influence. Waters of the coastal Pacific Ocean in the region range in the 55-70 degree F. range, mitigating the seasonal temperature swings to a range of 45-80 degrees F.

The Pacific Ocean generates near-constant breezes from the west-northwest. Occasional off-shore wind patterns known as Santa Anas, occur from mountains to the northeast of the region, and create very warm dry winds. Winter storms also generally come from the northeast.

Seasonal rainfall is low, occurring mostly November-February. Spring weather includes the "gray May" and "June gloom," when coastal low clouds and fog blanket the region each day for about two months.

4.5.3 Open Space and Landscape
Significant landscape elements have been constructed as a part of the neighborhood infrastructure in accordance with the 1993 UCSD Campus Landscape Planning Study. The concept for the Neighborhood follows the conceptual design for the West Campus, which has three main goals:

- The rustic landscape should have a cohesive character along campus edges to strengthen UCSD's visual presence in the community.

- The rustic landscape of the campus interior should exhibit more diversity to differentiate various Neighborhoods and gathering areas.

- The rustic landscape should function as an aesthetic, ecological, and educational resource.

Figure 4.5 indicates the existing landscape elements and their location.

The UCSD Campus Landscape Planning Study Guidelines define various rustic elements of the Campus. Specific design considerations for the ECHS Neighborhood include:
- **Campus Edge**: The I-5 corridor edge includes eucalyptus groves along the corridor slopes, with view corridors into canyons from I-5.

- **Secondary Entries**: 60-foot landscape setback planted with Eucalyptus torquata and rustic understory plantings.

- **Parking Lots**: An informal rustic planting design should be used.

The featured open space of the ECHS neighborhood is the main plaza and drop-off circle directly at the front door of Thornton Hospital. It has been planted with Sycamores as the entry feature.

The interface between the UCSD Park areas and the rustic landscape of the canyons has specific requirements to differentiate the two zones. The rustic landscape is not to be introduced into the canyons. Rather, the canyon vegetation should be incorporated into the rustic area.

*Figure 4.5*  
*Existing landscape elements*
4.6 Vehicular Circulation and Parking

4.6.1 Existing Access and Circulation

The single point of access to the ECHS Neighborhood is via Campus Point Drive at the Voigt Drive intersection [Figure 4-6a]. The four-lane Campus Point Drive bisects the Neighborhood, terminating at the edge of the canyon and the south leg of the Medical Center Drive loop road. The loop road encircles the entire mesa at the canyon and I-5 edges, forming a strong vehicular boundary to the site.

Medical Center Drive terminates at the Hospital circle drop-off, however, a road segment continues along the north edge of the site. This configuration provides direct access to the Hospital, but is confusing for overall site vehicular wayfinding. Vehicular circulation onsite includes:

- **Emergency Vehicles**: Travel to the east along the north side of the site to the Hospital Emergency court. Parking for the Emergency Department is in Lot 752. A helipad for emergency response helicopter service has been previously approved on grade to the west of the Hospital, but has not been constructed. A new location will require review and approval by the FAA and regional authorities.

- **Hospital Patients and Visitors**: Arrive at the Hospital entry to drop off, or park directly to the east of the main entrance in Lot 751. When full, overflow parking occurs in Lot 755.

- **Ambulatory Care Patients**: Are expected to turn before the Hospital circle into the Parking Lot 751 area, and drop off and park at the Perlman Center entrance at the south end of the lot. The entry wayfinding for Perlman is also somewhat obscured. The Shiley/Ratner Center Lot 757 provides patient parking.

- **Staff, Faculty, Physicians and Students**: Lot 752 provides Faculty/Physician space for "A" Permit holders, while the Staff parking is in Lot 753, for "B" Permit holders. The two eastern Lots 755 and 756 are for Student "S" Permit holders and overflow parking for staff.
Figure 4.6a Existing vehicular access

- **Service Access**: To the Neighborhood is also from Campus Point Drive to service bays along the south edge. The Hospital service yard is located directly south of the main Hospital facility. Future facilities to be constructed on the north side of the site will require carefully sited service facilities, as there is no separate service access available.

- **UCSD Campus Shuttle System**: Provides access to the Central Campus on 15-minute intervals to the Student Parking Lots 701 and 702 on the north edge of the Neighborhood, but does not travel near the Medical Center facilities or Shiley/Ratner Centers.

- **Public Bus Transit**: Serves the ECHS neighborhood with a stop on Campus Point Drive near the east-west pedestrian crossing.

### 4.6.2 Planned Access and Circulation Elements

Several important proposed projects that will dramatically alter the current access and circulation patterns in the Neighborhood are shown in Figure 4.6b.
- **Gilman Bridge**: Is proposed to span I-5 and link the east end of Gilman Drive on the West Campus to Medical Center Drive South in 2004. It will provide a direct vehicular connection to the School of Medicine and the West Campus. Pedestrian access will be a 10-15 minute walk between Thornton Hospital and the School of Medicine; bicycle travel east and west will be less than a five-minute ride. Campus shuttles will also increase the access between the East and West Campuses.
• **METROPOLITAN TRANSIT DEVELOPMENT BOARD LIGHT RAIL TRANSIT STATION (LRT):** Is proposed on the east side of the I-5 corridor which will provide an excellent location for a transit station at the west end of the ECHS Neighborhood. The proposed alignment will proceed east along the canyon edge, cross the east end of the canyon on an elevated trackway, and across the south edge of the Science Research Park. The terminus is a station proposed to be near Eastgate Mall at Executive Drive and Judicial Drive. The MTDB Executive Board is currently seeking additional ridership and cost information to ensure a sound decision regarding the location of the line.

• **ROADWAYS: Eastern Entry from Regents Road:** Health Sciences Drive is a newly constructed (1999) four-lane road with bike lanes to serve the student parking lots east of the Neighborhood boundary. It will extend into the neighborhood in the future, forming a new east gateway at the intersection with Medical Center Drive East. The Regents Road intersection will be signalized.

**STREET C:** The proposed roadway through the SRP Neighborhood will connect to Regents Road via the new SRP entry road. Access into the SRP is proposed to be designed to discourage unrelated through traffic.

### 4.6.3 Parking

Approximately of 15.2 acres of the site is developed into surface parking and landscaped areas. A total of 936 spaces are currently provided in the six Neighborhood parking lots. Current utilization of the parking is approaching full capacity. As of February, 1999, the UCSD Campus Parking Inventory program reported occupancies of about 91 percent.

Approximately 1,800 Campus parking spaces in surface lots have been constructed east of the Neighborhood, primarily to serve West Campus needs. The space will also be made available for ECHS staff and faculty in overflow conditions.
4.7 Pedestrian and Bicycle Circulation

4.7.1 Pedestrian Circulation
The ECHS currently exists as a vehicle-oriented Neighborhood, since the development has yet to reach the capacity which provides a "critical mass" of pedestrian activity. The 1988 SMP Master Plan provided several pedestrian pathways to traverse the site. Figure 4.7 illustrates the current pathways:

Existing East-West Walk: Originates at the easternmost surface parking lot with the Hospital entry as the destination. The path is implied through the public atrium of the Hospital, and extends to the west through the Hospital parking lot.

Existing North-South Walks: Intersect the major east-west path and connect perimeters of parking, Neighborhood edges, and canyon recreational pathways.

4.7.2 Bicycle Circulation
Bicycle lanes are located on-street in the Neighborhood, except for a pathway crossing the south canyon to the Mesa Housing on the south rim. Bike parking facilities are not currently provided in the Neighborhood. Figure 4.7 also shows current bicycle routes.

The bicycle lanes are proposed for the Gilman Bridge and east entries to the Neighborhood. Integration of bicycle paths and lanes with all existing and new streets will be required.

4.8 Site and Utilities Infrastructure
The major infrastructure services in the Neighborhood are represented in Figure 4.8. These include the following services:

- 12KV Electrical Service: Electrical service is provided from UCSD 69/12KV main east campus substation located on Voigt Drive west of the Pruess School. There are currently two 69/12 KV transformers at the substation. A third transformer will be added in the year 2001. The service is fed to building sites within the Campus Point Drive east setback and Medical Center Drive South in multiple under
Bicycle Paths and Dedicated
On-Street Lanes

Pedestrian Pathways

Figure 4.7 Existing pedestrian and bike paths

ground conduits. Two circuits provide power to Thornton and Perlman. Future loads due to expansion of Thornton Hospital will be connected to Thornton circuit. Two additional circuits provide power to Shiley/Ratner facilities, Preuss School, parking lots and street lighting and will provide power to future loads for Shiley Eye Center Expansion and new research buildings east of Campus Point Drive. Two spare conduits are set aside for the remainder of the site.

Capacity of the system is assumed to be in the range of the LRDP development of about 545,000 ASE, but is highly dependent upon the proportion of use between Hospital, Ambulatory Care, and Research uses. A third transformer location is reserved in the 69KV Substation and will begin construction in August 2000.

- Domestic Water Service: Domestic water service is provided along the Campus Point Drive and Medical Center Drive South roadways in the landscaped median, and serves the existing facilities via 8-inch mains. Capacity is estimated to be adequate for the LDRP development ca-
capacity, but would require new analysis to determine system capacity if more extensive development occurs.

- **Fire Protection Water**: Fire protection water main is branched from the domestic service and feed each parcel along the curb of the Medical Center Drive loop, and wet and dry standpipes in the existing facilities. Hydrants are in place throughout the Neighborhood.

- **Natural Gas**: SDG&E provides natural gas services from the same utility alignment as above services, but to a lesser extent. The main extends only to the existing facilities. Capacity of mains is deemed adequate for the LDRP capacity of the site.

- **Sanitary Sewer Services**: Sanitary sewer services are also located in the same utility alignment, and extend along Medical Center Drive South to the Hospital from the offsite pumping station on Voigt Drive. A new sewer extension project has been planned by the City of San Diego to connect to the regional system traversing the I-5 corri-
dor via the south canyon. Capacity of the current system is unknown. Mains currently do not extend to the north or west parcels of the neighborhood.

- **Storm Drainage:** Stormwater collection from facilities and parking areas is sent to the regional storm drainage system located along the I-5 corridor. Capacity for future expansion of the Neighborhood is unknown.

- **Telecommunications/Information Services:** All ECHS Neighborhood telephone services originate from a node located in the lower level of Thornton Hospital. A proposed new node on the eastern side of the site will serve future facilities. The system carries Campus Security/CCTV, Fire Alarm, and other telecommunications services.

- **SMA Triton Cable Television:** SMA Triton cable television system head end is also located in Thornton Hospital, and services provide Campus cable television via dishes mounted at grade on the slope of South Canyon.

- **Fiber Optics IS Network:** An underground fiber optics network links the West Campus with the Neighborhood facilities and the Preuss School. System capacity is unknown.

- **Microwave Links:** UCSD Health operates information systems utilizing rooftop microwaves linked by a station atop Mt. Soledad to the Hillcrest campus.

Improvements to the infrastructure include a new utility connection to West Campus for 12KV electrical service, water and telecommunication lines to be located in the proposed Voigt Drive tunnel under I-5.
4.9 Noise

Noise is generated in and around the Neighborhood by several sources as shown in Figure 4.9.

- The I-5 corridor creates ambient noise along the western edge of the site and into canyon areas. No mitigation elements are currently required.

- Onsite traffic from service vehicles in the Hospital service court generate occasional noise. Acoustical mitigation of the adjacent patient bedrooms includes double-glazed windows.

Once the Gilman Bridge and Science Research Park are complete, traffic noise will increase along the south edge of the Neighborhood. Additionally, moderate to severe noise will be created by the Light Rail Transit as it navigates the tight radius turns of the elevated canyon track. These conditions will require mitigation for buildings on the south edge of the Neighborhood.

4.10 Building Services

Thornton Hospital has central plant facilities that support the current Hospital, as well as the Perlman Ambulatory Care Center. The plant has the extra capacity to support a small addition to Thornton. Existing cooling towers are located at the edge of the canyon below the south wing of the Hospital.

Future expansion of the Hospital will require new central plant facilities for chilled water, domestic hot water, primary electrical service, steam, and medical gas systems. These systems must be designed to the essential structure standards of the State of California Office of Statewide Health Planning and Development (OSHPD).

The Shiley and Ratner Centers have freestanding building service systems.
4.11 Site Influences

The analysis and understanding of site conditions suggest important influences on the concept direction for the Neighborhood. These site influences have been distilled through the planning process to a set of key elements that inform and direct the plan concept development.

- **The Pedestrian Experience:** As the Neighborhood transitions from vehicle-oriented to a pedestrian-focused environment, the pathway network must be clarified and reinforced. A strong hierarchy must provide order, clear wayfinding, and adequate separation from vehicle traffic. The network must also have clear destinations. Figure 4.10.

- **Identity:** The Health Sciences Neighborhood will be physically linked with the School of Medicine (SOM) when the Gilman Bridge is completed. The bridge will become a regional visual landmark which provides the opportunity to present the “leading-edge” image of advanced education and research that UCSD represents. The image and visibility of the Medical Center can be enhanced by the appropriate buildings orientation above I-5 on the west edge of the Neighborhood. Figure 4.11.

- **Canyons:** The Canyons provide a strong and unique edge to the Neighborhood, and a spatial organization to the entire site. The opportunity exists to establish vistas toward the canyon edge, and to integrate the natural canyon landscape and topographic character into the center of the site, creating new secondary edges or fringes that order space, views, and create building places. Figure 4.12.

- **De-emphasizing the Vehicle:** The existing roadway system currently organizes the Neighborhood, and moving around the site is dependent upon vehicles. While access is extremely important, the road network must be simplified and de-emphasized. The opportunity exists, as the Neighborhood grows and matures, to reconsider the single ground plane of roads and parking to allow greater flexibility, separation of circulation, and the enrichment of the visual and spatial experience.
• **The Courtyard as an Open Space:** As the neighborhood evolves, the multi-phase development of buildings presents an opportunity to add the courtyard to the vocabulary of the open space network. The "outdoor room" concept is highly appropriate in the climate, and the courtyard can become a feature of the pedestrian network, as well, in the form of colonnades. Figure 4.13.

• **Articulate Building Development:** Future development of the Neighborhood building sites must balance the program need for open, flexibly planned buildings for healthcare and research with discrete and articulated building scale. Building siting, scale, massing, and planning must strengthen the conceptual framework of the pedestrian network, open space and the canyons and buildings.

*Figure 4.12  Canyons*

*Figure 4.13  Courtyard*
5 LAND USE & DEVELOPMENT PROGRAM