

An aerial photograph of the Harvey Mudd College campus, featuring several large, modern academic buildings and green spaces. The image is overlaid with a semi-transparent red filter and a yellow grid pattern, including concentric circles and intersecting lines.

# **Harvey Mudd College**

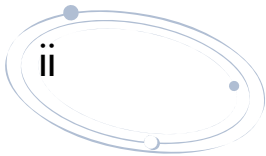
## **Master Plan Update**



# Table of Contents

Section 1:	Master Plan Update Summary	Page i
Section 2:	The Existing Campus	5
Section 3:	The Process and the Program	13
Section 4:	The Master Plan	17
Section 5:	The Implementation Schedule and Public Process	31
	Participants	38

18 April 2003



## Table of Contents for Appendix

*Bound separately for reference only. Not a part of the master plan.*

Section 1	Master Plan Update - Utilization Analysis
Section 2	Master Plan Update - Dean of Faculty Response to Utilization Analysis
Section 3	Master Plan Update - Facility Program Analysis
Section 4	Master Plan Update - Alternative Floor Plans
Section 5	Master Plan Update - Program Cost Model
Section 6	Master Plan Update - Parking Analysis
Section 7	Master Plan Update - Work Session Conference Reports
Section 8	Campus Master Plan Alumni Summary - Summer 2000
Section 9	City of Claremont Land Use and Development Code - Educational Districts- Rev.Ord. 93-7, 4/27/93.  City of Claremont Negative Declaration - 28 June 1991
Section 10	1989 Harvey Mudd College Master Plan and 1983 Planning Issues





# Master Plan Update Summary

## MASTER PLAN UPDATE PURPOSE

Harvey Mudd College undertook the Master Plan Update to address the current needs of 700 students while allowing the College to accommodate its entitlement of 800 students. The planning process builds upon the 1989 Master Plan developed by Sasaki Associates as adopted by the City of Claremont in 1991. The College provided Sasaki Associates with a preliminary list of projects that the planning team refined and accommodated in the Master Plan Update, in concurrence with principles for the campus's physical development.

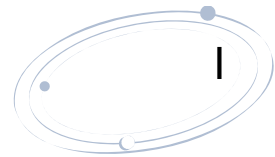
## MASTER PLAN GOALS

The broad physical goals established in the Master Plan Update (MPU) serve to strengthen the campus structure and improve the campus environment, furthering the quality, identity, and function of the campus.

The master plan goals include:

**Maintain the simplicity and unity of the campus plan**

The axial organization of open space malls and the repetition of building mass, symmetry, and placement unifies the campus. The clarity and



simplicity of the campus plan is the campus's strongest physical asset.

### **Preserve the existing campus structure of the three major intersecting malls**

These are the primary "public" spaces of the campus that connect campus facilities and symbolically represent the College. They should remain open with bold and simple landscape treatments.

### **New facilities will reflect the formal precepts established in the original campus design**

The siting of new buildings will replicate the alignment, size, shape, and spacing of existing campus buildings along the Great Mall axis.

### **Accommodate new facilities to meet both current and entitlement needs**

Recognize the needs of the current enrollment while planning for future needs, based on entitlement and unforeseen program demands.

### **Site new educational and residential facilities to benefit the relationship between proposed and existing uses**

Maintain the established campus land use relationships while using building and landscape design to provide increased community interaction amongst students, faculty, and staff.

### **Establish stronger pedestrian linkages**

Reinforce and foster pedestrian connections with the adjacent Claremont Colleges.

## **PROJECTS FOR CURRENT NEEDS**

The Master Plan Update identifies the following projects and options to meet current needs:

- Platt Campus Center - (renovation)
- New Dining Center- (new construction)
- Thomas-Garrett Hall - (renovation)
- Kingston Hall - (renovation of offices)
- Sprague Library - (renovation of first two floors to accommodate classrooms and/or offices, café)
- Facilities and Maintenance Building - (new construction)
- Residential Hall - (new construction)
- Swimming pool complex - (relocation if the current pool site is used for a New Dining Center)
- Garrett House - (renovation)

The following projects are considered optional depending on the final resolution of College's educational needs:

- New Classroom-Office Building - (new construction)
- Galileo Hall - (conversion to two medium sized classrooms)

Additional potential projects, identified for the College's entitlement program, are described in Section 4.

**Refer to Section 5: for administrative procedures including the proposed schedule of implementation.**

## **MASTER PLAN STRATEGY AND RECOMMENDATIONS**

The Master Plan Update establishes the following strategies:

- The plan accommodates all current and entitlement program needs - educational, residential, campus commons, and recreation - on existing campus land
- The plan reaffirms the spatial order of the campus - recognizing the intent of the original designers to create a campus that balances the integrity of the architecture and landscape
- The plan establishes a phased approach to address parking needs, allowing for the potential replacement of parking currently accommodated on Foothill Boulevard
- The plan provides options to the College to address educational and student support services via renovation and/or new construction
- The plan addresses and balances renovation and new construction needs based on costs and program analysis.

## **ISSUES ADDRESSED IN THE MASTER PLAN UPDATE**

In the course of preparing the Master Plan Update, the consultants and the HMC Trustees Physical Plant and Campus Planning Committee identified and addressed the following issues.

### Does the College have enough facilities space to meet current education and office needs?

#### Response

- The College needs to provide additional faculty and administrative offices to meet current demand
- The College can better utilize current classroom space
- The College needs to provide a better mix of small, medium, and large classrooms with appropriate configurations
- The College needs to upgrade classrooms to include modern teaching technologies.

#### Recommendations

- Increase the utilization of classroom facilities through their use during currently off-peak hours
- Renovate available space on the first two floors of Sprague Library to accommodate classrooms and offices
- Reconfigure and renovate Thomas-Garrett classrooms
- Reconfigure and renovate Kingston Hall
- If the classroom and office needs are not addressed by the recommendations noted above, construct the New Classroom-Office Building north of Thomas-Garrett Hall or construct two medium sized classrooms by partitioning Galileo Hall.

### Does the College have enough land to accommodate current and entitlement needs?

#### Response

- Yes, the College has adequate land to accommodate foreseen current and entitlement needs.

### Does the College have adequate and acceptable facilities for dining?

#### Response

- The Platt Campus Center requires renovation and expansion to accommodate the current needs of 680 student FTE
- The Platt Campus Center, even with expansion, is inadequate to serve the entitlement needs of 800 student FTE
- There appears to be a minor difference between the costs to renovate and expand the Platt Campus Center compared to the costs of constructing a new facility, renovating Platt Campus Center, and constructing a new pool.

#### Recommendations

- Construct a new dining facility on the existing pool site
- Design the new facility to accommodate entitlement needs
- Use Platt Campus Center as a surge building to accommodate displaced users during the renovation of other buildings
- Convert Platt Campus Center to accommodate a variety of uses, including offices, classrooms, music practice rooms, a

lounge, and informal performance space.

### Does the College have adequate space for its facilities and maintenance needs?

#### Response

- Staff currently uses a trailer which is permitted through 2002
- Additional storage, equipment facilities, and offices are dispersed inefficiently throughout the campus
- The College lacks secure warehousing for equipment and vehicles

#### Recommendations

- Consolidate staff and warehousing into one facility
- Construct a new facility to accommodate staff, maintenance, and limited storage needs
- Locate this facility convenient to students who utilize staff services on a daily basis.

### Does the College have adequate space to accommodate City of Claremont parking requirements?

#### Response

- The College has an adequate number of parking spaces to meet current needs only, not the needs of entitlement
- The inventory of parking, however, includes areas destined for future building development as well as a number of spaces along Foothill Boulevard which, in the future, could be eliminated
- It will be necessary for the College to



An early image of Sprague Library and the Libra Complex.

4

construct the parking deck designated in the plan to accommodate the entitlement parking count

#### Recommendations

- Develop a new parking lot north of the New Residence Hall
- Renovate the parking area to accommodate service needs for the Facilities and Maintenance Building
- Add surface parking to the existing lot north of the soccer field to meet current needs, and
- Construct deck over surface lot north of soccer field to accommodate the loss of

Foothill Boulevard parking and/or entitlement needs.

### Are there specific phasing requirements in the construction of facilities to meet current needs?

#### Response

- Yes, although some projects are not contingent upon others
- Proposed educational building options exceed the current needs
- Phasing recommendations include consideration of logistics, costs and impacts to campus life

#### Recommendations

- The College will establish priorities regarding the educational building options
- Expand parking prior to construction of facilities that take away parking inventory; e.g. the residential units or  
Enter into an agreement within the consortium to accommodate parking within the parking pool for a stated period of time
- Construct the New Dining Center first to allow the existing Platt Campus Center to serve as a surge building for users displaced during the renovation of other campus buildings; e.g. Thomas-Garrett Hall
- Finalize the need for the New Classroom-Office Building to allow construction concurrent with the renovation of Thomas-Garrett Hall, avoiding the premiums associated with phased construction

- Renovation and adaption of the Sprague Library can be accomplished independently
- Construction of the new Residence Hall can be accomplished independently
- Construction of the new Facilities and Maintenance Building can be accomplished independently
- Construction of the new pool facility can be accomplished independently
- Conversion of a portion of Galileo Hall to classrooms can be accomplished independently.

### Does the campus landscape require renovation?

#### Response

- The overall structure and upkeep of the interior campus landscape is well-defined and maintained
- The perimeter landscape of the campus requires renovation to reflect its use patterns and the opportunity to reduce water consumption.

#### Recommendations

- Undertake minor improvements to the interior landscape recognizing plant replacement due to age, health, and vigor of the plant materials
- Eliminate the majority of lawn from the perimeter of the campus, replacing this with plant materials with minimal water requirements
- Maintain a simple and elegant appearance to the campus perimeter.



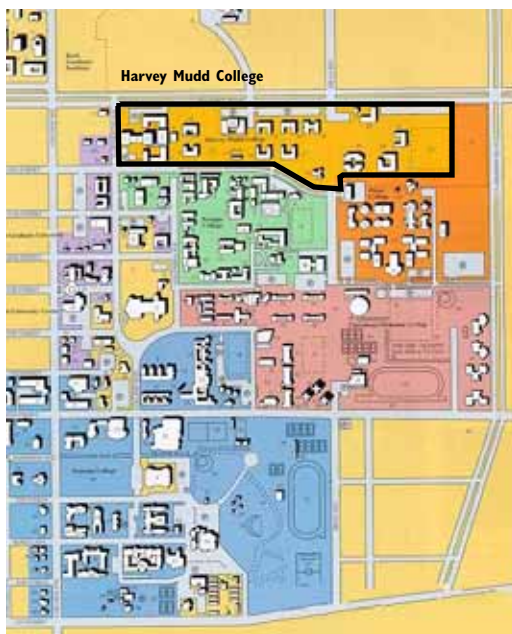


In September of 1957, less than a month before Sputnik I launched the Space Age, Harvey Mudd College (HMC) opened the doors of its new campus. The pioneers – forty-eight students and a faculty of seven – shaped this unique, highly selective institution. The founders of the College were businessman and philanthropist Harvey Mudd combined with the vision of Joseph Platt, the nuclear physicist who served as the College's first president.

The College mission statement reflects HMC's approach to education:

*Harvey Mudd College seeks to educate engineers, scientists, and mathematicians, well versed in all of these areas and in the humanities and the social sciences so that they may assume leadership in their fields with a clear understanding of the impact of their work on society.*

The original curriculum was formulated through a grant from the Carnegie Foundation. It was designed to produce scientists, mathematicians, and engineers with an unusual



A map of the Claremont colleges indicates Harvey Mudd's location at the north edge of the Claremont consortium, bordered by Foothill Boulevard.

offers students a wide selection of courses and facilities, access to faculty, student services and extracurricular activities throughout the university. Each College has its own educational focus, and the benefits of an excellent curriculum and faculty student ratio. The consortium includes Pomona College (established 1887), Claremont Graduate University (1925), Scripps College (1926), Claremont McKenna College (1946), Harvey Mudd College (1955), Pitzer College (1963), and the Keck Graduate Institute of Applied Life Science (1997).

The Claremont Colleges are located in the city of Claremont, approximately 35 miles east of Los Angeles, in southwestern California. The City's location adjacent to the mountains allows for direct access for outdoor activities, and environmental education opportunities. The area is semi-arid in nature, with a mild climate. Although wide variations occur, the average monthly temperature ranges from 65 degrees fahrenheit in September to 93 degrees in July and the average annual rainfall is 10.3 inches.

Sited in the Pomona Valley, Claremont has a spectacular setting at the foot of the San Gabriel Mountains, with direct views of the mountains. The Pomona Valley evolved as an agricultural center, principally of citrus orchards. As the metropolitan area of Los Angeles has grown, the agricultural lands have

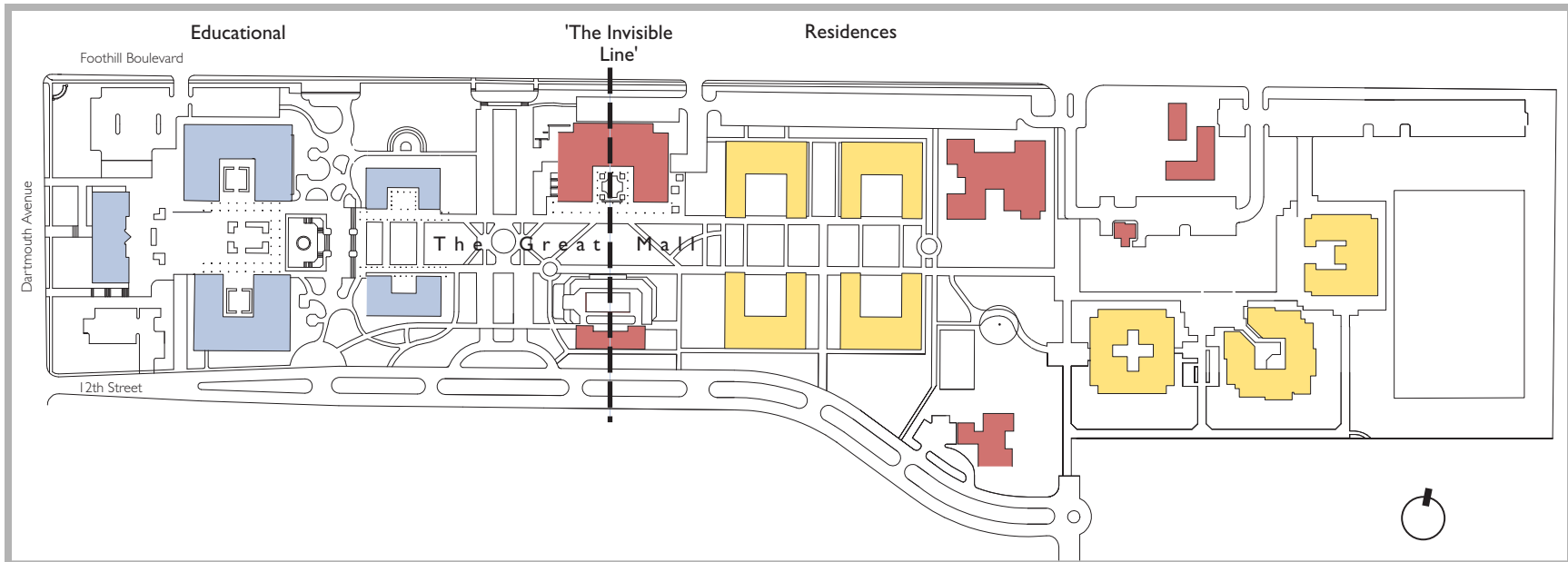
been urbanized. With its educational focus, Claremont has evolved as a quiet oasis within an otherwise burgeoning region.

The Harvey Mudd campus is located at the northern edge of the developed Claremont consortium. Bordered by Scripps College on its south edge, and Foothill Boulevard with undeveloped consortium land on the north, the Harvey Mudd campus consists of 33 acres. The campus is a long rectangular site with a mature landscape. The majority of the buildings west of Mills Avenue constitute the original campus designed by Edward Durrell Stone (EDS) in the mid 1950's. The campus buildings create a rigid layout to the campus which is then softened by the landscape, designed by Thomas Church during the same period. Subsequent years resulted in expansion east of Mills Avenue and infill buildings that bracket the west edge of the original campus buildings. Because of its manageable size, clear organization, and rigorous architectural form, the campus is cohesive, and easily navigated.

Students enrolled in the sister colleges share classes, creating a flow of students among the college campuses. Due to the ease access provided by the proximity and small size of the campuses, students typically access their classes by foot. The restricted nature of the parking supply typically encourages the students to maintain their parking throughout the duration of the day.

breadth of knowledge. HMC continues to offer bachelor of science degrees in biology, chemistry, computer science, engineering, mathematics, and physics. With thirty percent of the students' classes in the humanities and social sciences, HMC has the highest percentage of humanities coursework for an accredited engineering college in the United States.

HMC is the sixth college established within the Claremont consortium. The consortium was the first of its kind in the United States, and



**Existing Campus Land Use** Educational uses are located on the west end, residential uses on the east end with recreational uses adjacent, and the campus common in the center.

## 1991 MASTER PLAN

In 1989 the College and Sasaki Associates prepared a master plan to provide for the expansion of the educational and residential capacity of the campus. This master plan was reviewed and approved by the City of Claremont in 1991, and serves as the development guide for the campus. The planning process was conducted through a series of on-site charrette sessions in which the planners and the College community partnered to define planning problems and solutions. Anticipated growth included a near term component of 630 FTE, and the

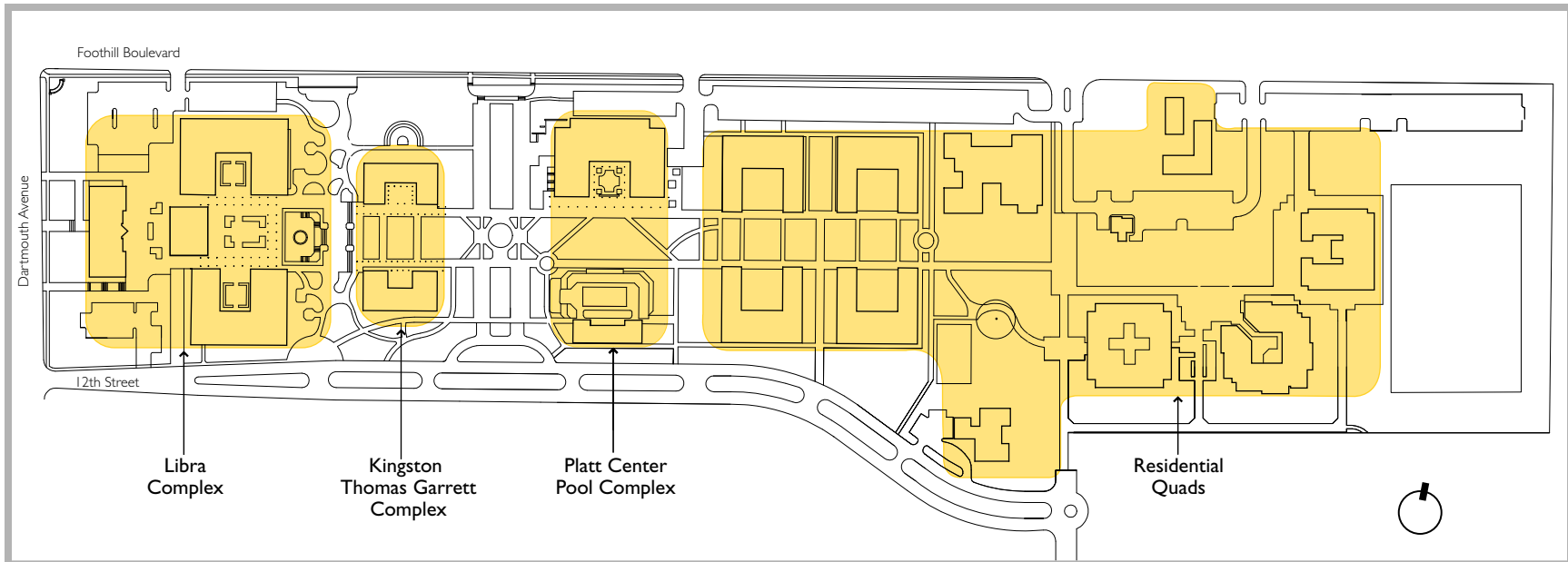
entitlement capacity of 800 FTE. The completed master plan document was reviewed by the City of Claremont, resulting in a negative declaration in 1991. Since that time, the College has constructed 84 residential beds, the Linde Activities Center, and the Olin Science Center.

## LAND USE

The existing organization of educational (defined as academic and support uses), residential, recreational, and parking uses on the campus form a clear and simple pattern of land and building use relationships. Educational buildings lay to the west of the Platt Campus

Center serving as the campus's common; residential and the recreational uses are located to the east. Parking is located along the north, west, and south boundaries of the campus, with the majority located on the north edge adjacent to Foothill Boulevard. As the College is surrounded by streets on three sides, the orientation of campus life is inward towards the Great Mall. Building entrances and primary pedestrian circulation focus on the mall.

The sense of community found in the residences is particularly important for first year students. At HMC, students form study



**Campus Building Subgroups** Buildings are organized in subgroups, reflecting their respective construction phases. Each group includes the design characteristics noted on page 9.

8

groups as part of their course work, requiring appropriate places for study within the residence halls. The physical separation of the educational and residential uses is particularly important at HMC since the student residences serve as the focus of student life.

Students noted there is an “invisible line” between Platt Campus Center (the student center) and the residence areas to the east, that faculty and staff seldom cross. This tacit separation of students, faculty, and staff is a topic of debate on campus. Some campus members would like to have the campus operate in a more open manner, in line with

College's goals of building a sense of community. Others prefer the separation to remain intact. Currently the Platt Campus Center, as the singular dining facility, provides a gathering place for the entire campus community.

## CAMPUS BUILDINGS

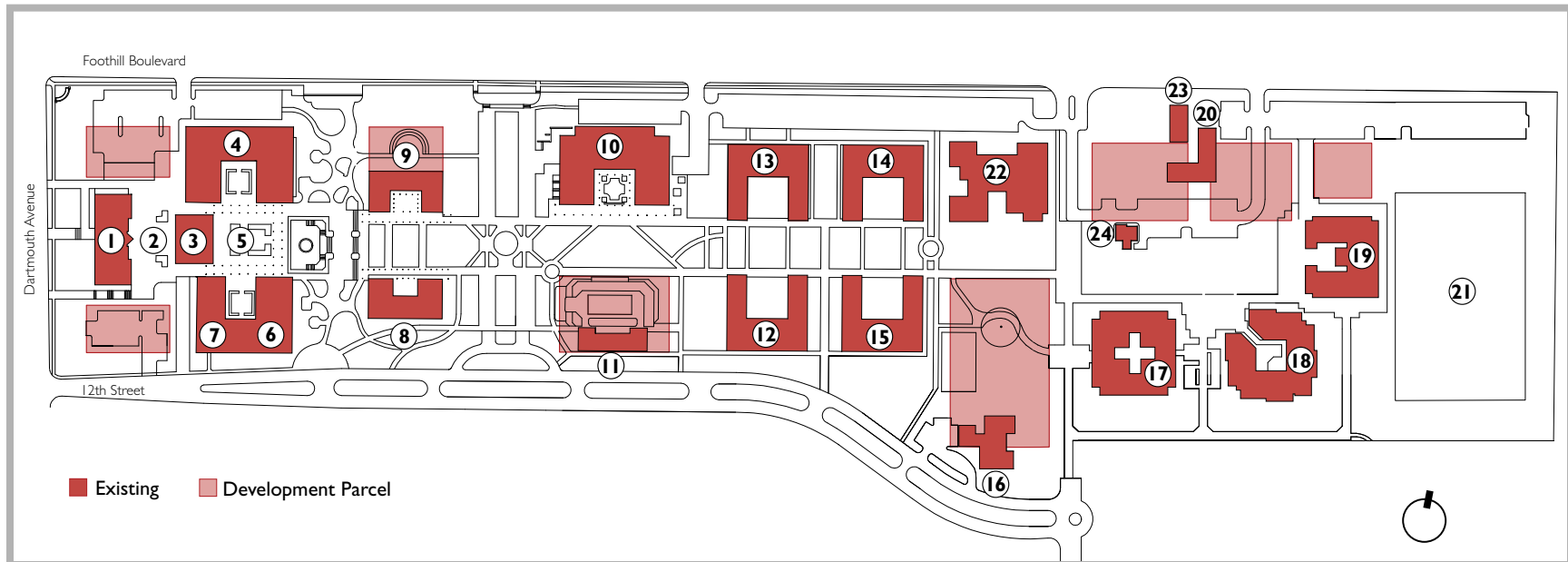
The composition of campus buildings form a regular geometric pattern, and an overall physical order for the campus. The buildings form a cohesive complex through repetition of building mass, symmetry, and materials.

There are four subgroups of buildings on campus: the residential quads, the Libra

Complex (with Sprague Library in the center), the Kingston and Thomas-Garrett couplet and the Platt Campus Center - pool complex. Each group is sited with a common topographic base plane. All campus buildings face the Great Mall, emphasizing the importance and function of the campus core.. The Library is the most physically dominant campus building based on its height and its central position on the axis.

In order to create this comprehensive architectural form, Edward Durrell Stone designed campus buildings to share specific characteristics. While there is variation within the building subgroups, the overall composition is powerful as an ensemble.





**Existing Built Form** The plan indicates the existing relationship of campus buildings and potential development parcels for current and entitlement needs.

### Building Legend

1 Olin Science Center	13 South R. Hall
2 Beckman Hall	14 North R. Hall
3 Sprague Library	15 East R. Hall
4 Parsons Engineering	16 The Garrett House
5 Gallileo Hall	17 Atwood R. Hall
6 Jacobs Science Center	18 Case R. Hall
7 W.M. Keck Laboratories	19 Linde R. Hall
8 Kingston Hall	20 Foothill Apartments
9 Thomas-Garrett Hall	21 Linde Field
10 Platt Campus Center	22 Linde Act. Center
11 Bell Swimming Pool	23 Stolle Hall
12 West R. Hall	24 The Pump House

### Courtyards

The majority of buildings have courtyards and most educational buildings are fronted by arcades. The building wings have solid ends framing the courtyard spaces. A solid - open - solid rhythm across the facades provides a sense of animation.

### Symmetry

All the buildings are symmetrical about their centers and their courtyards. Likewise, the original buildings are symmetrical in their form and placement along the Great Mall.

### Building Articulation

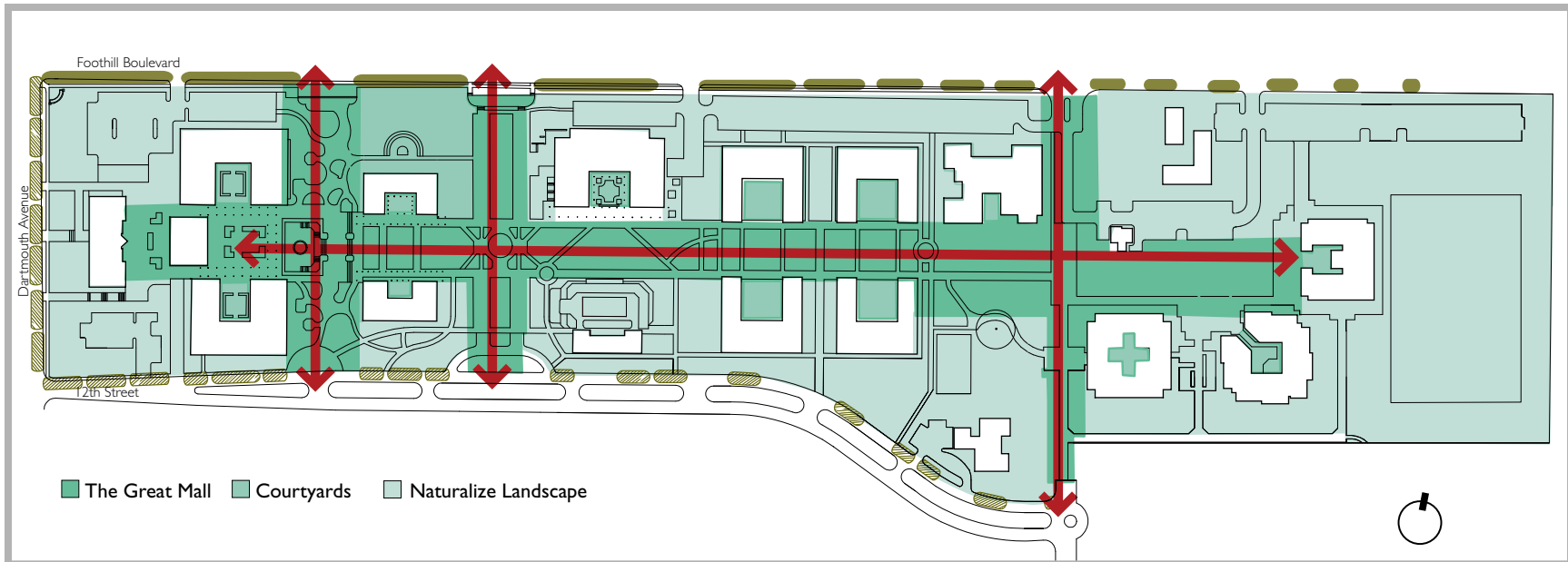
An open section of wall, articulated with glass, metal, and vertical piers, is framed by solid block walls at the corners.

### Strong Horizontal Lines

All building and arcade roofs overhang deeply, creating a strong horizontal line and a deep shadow at the top of the walls.

### Arcades

Arcades front the majority of the educational buildings, visually notating the building use and connecting the entries with the Great Mall. The arcades provide a visual focus and reinforce the campus's pedestrian scale.



**Existing Landscape Structure** The Great Mall forms the center of campus with a linear axis - three cross axes form north-south circulation connections.

10

### Proportioned Composition

Rational composition, defined by a system of building proportions, structures the original campus building designs. The buildings are organized in a 12 foot grid, both in plan and elevation. The 12 foot grid is further divided into four foot modules to create rhythm of the windows and vertical piers on the building facades.

### CAMPUS LANDSCAPE

The defining feature of the campus landscape is its linearity. The main element reinforcing the campus linearity is the Great Mall - an axis running west to east forming a spine along

which the campus is organized. All campus buildings front the Great Mall, and all landscape elements intercept it. The generally informal planting patterns and variety of materials soften and humanize the rigorous form of the architecture.

The campus topography is generally flat, with a slight slope following the longitudinal axis of the Great Mall, from northeast to southwest. The subtle gain in elevation from the educational precinct in the west to the residential precinct in the east enforces the physical and visual separation between the two ends of the campus.

There are several areas with distinct landscape character within the campus. The landscape of the Great Mall responds to the formality of the building arrangements. The Liquidambar Mall, a shady colonnade of trees, forms a significant campus open space element. To the east of the Liquidambar Mall, the character of planting becomes more informal. To the west, the Great Mall extends into a pattern of courtyards that relate to educational buildings.

Along the Great Mall, building placement creates courtyards and transition spaces between buildings. The building related courtyards form intimate outdoor spaces,



**Campus Images**

Aerial view of the Campus



Liquidambar Mall



Platt Campus Center

supporting both educational and residential uses. The courtyards offer a respite from the formality of the Great Mall.

The campus edges are well defined, with each edge responding to its context. The west edge of the campus, along Dartmouth Avenue, is formally treated with lawn and trees. Although few people use this as an everyday entrance, it is the symbolic 'front door' to the College and relates directly to the formal Claremont College's entrance at the corner of Dartmouth and Foothill. Bordering Foothill Boulevard, the north edge is the public edge of the campus. To reduce the impacts from Foothill Boulevard, it

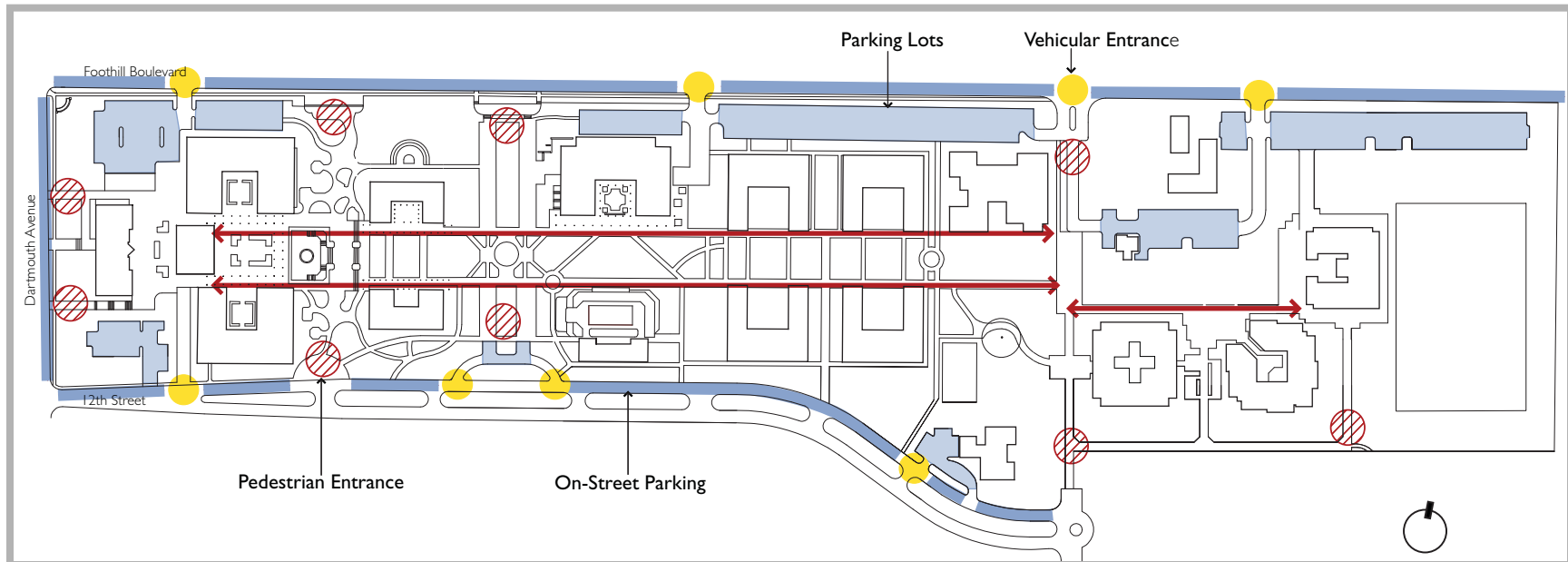
is treated with a wall and planting, punctuated with entrances to the campus. A majority of the campus parking and service needs are located on this edge and are generally well screened from both the public side and the campus. The east edge, adjacent to the soccer field, is a non-permeable landscape separating the border of HMC and Pitzer College. The south edge, along 12th Street, is the most open edge, providing opportunities for pedestrian connections between HMC and the Claremont Colleges.

## CAMPUS CIRCULATION AND PARKING

The present system of pedestrian paths is successful in providing linkages within HMC. Connections to the other consortium colleges, and major exterior pedestrian links need to be reinforced.

The main campus entries are comprised of the ceremonial entrance at the west edge, the vehicular entrances along the north edge, and the pedestrian entrances along the south edge.

The majority of HMC campus parking is currently accommodated within surface lots



**Existing Campus Circulation** Primary pedestrian circulation is focused along the Great Mall, with the need for the cross axes to be strengthened. Vehicular circulation is limited to the campus periphery, with campus parking lots primarily on the north edge along Foothill Boulevard.

12

combined with some on-street parking. Most campus lots are on the north side of campus, located on the narrow strip between campus buildings and Foothill Boulevard. This is a convenient and practical arrangement as the lots are easily accessed from Foothill Boulevard, located adjacent to campus buildings, and hidden from the view of the the Great Mall. Additional lots are located off 12th Street, and on-street parking is located along Foothill Boulevard, Dartmouth Avenue, and 12th Street.

The current campus parking count is 584 spaces, which is just short of the 595 spaces required for the current enrollment.

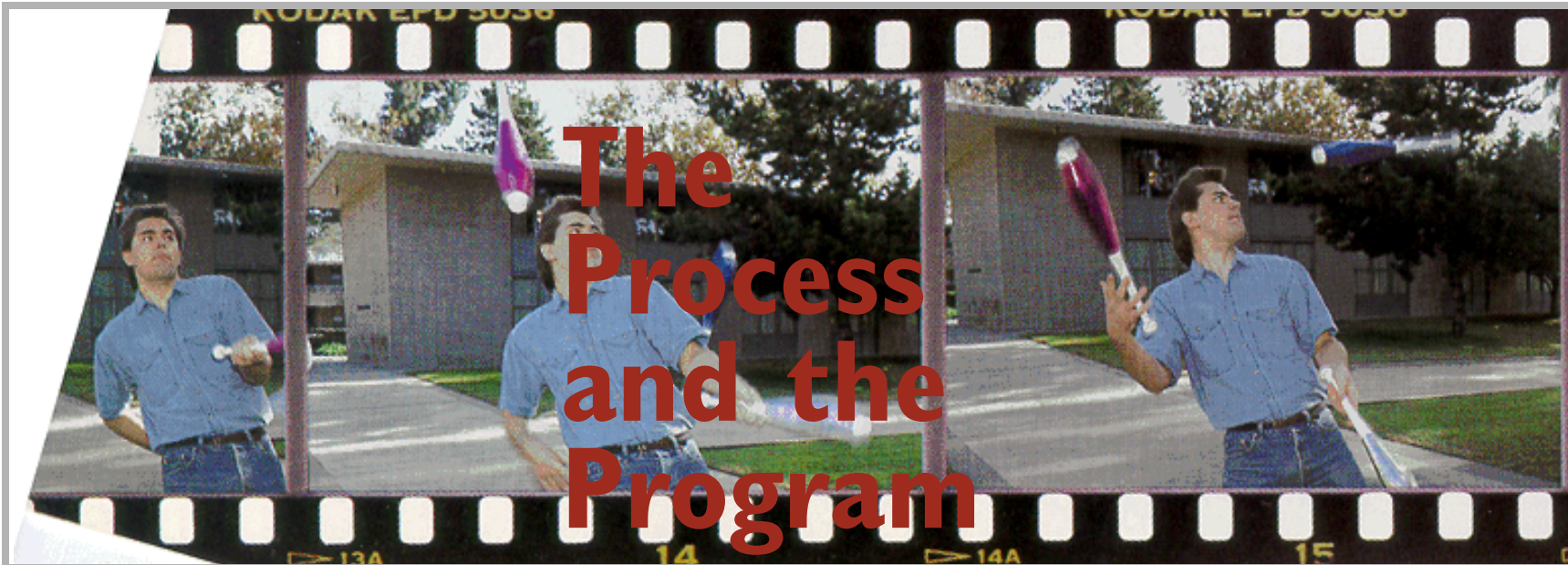
The HMC parking count is specified by the City of Claremont zoning. The consortium colleges combine together on a yearly basis to provide the overall required number of spaces. For additional information on campus parking, see the Appendix.

## CAMPUS UTILITIES AND SERVICE

Campus utilities are located beneath the Great Mall. Since the College has no intention of siting new buildings on the Great Mall, there is no apparent known obstacles to meet the capacity identified in the master plan.

Existing campus service areas are appropriately located in peripheral areas. Building service is provided for the west end of campus from 12th Street, and for the Platt Campus Center from Foothill Boulevard. Both of these areas operate adequately and are well screened. Other campus buildings requiring service are accessed from campus walkways. The College would benefit from a centralized grounds and maintenance facility located on campus.





The Master Plan Update (MPU) addresses the current needs of 700 students and the College's entitlement of 800 student FTE, by identifying appropriate improvements for campus buildings, landscape, and circulation. The master plan process supported this approach through a prioritization of the College's goals and programmatic needs. Based on the goals established, the College and the planning team identified the educational program need through an inventory of existing facilities coupled with a utilization analysis.

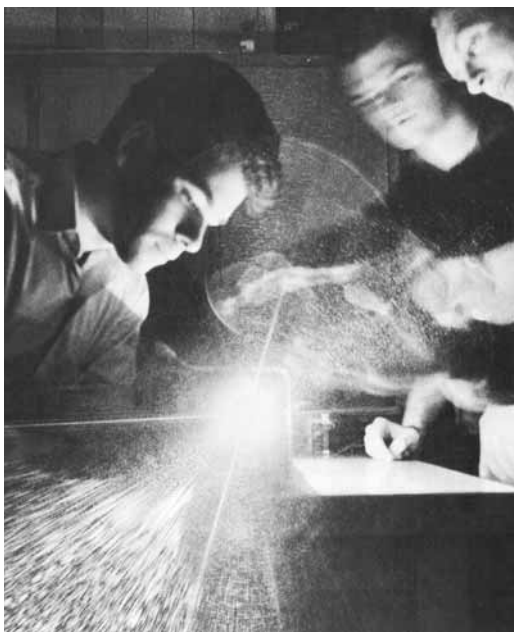
## MASTER PLAN UPDATE PROCESS

The planning process consisted of the five phases articulated below. The process included work sessions held on the campus involving students, faculty, staff, and the Physical Plant and Campus Planning Committee of the Board of Trustees.

### Phase One

#### Identification of Goals and Resources

Within the first work session, the campus community identified goals, issues, and initial concepts for the campus plan. A session was



An early example of students testing their ideas on campus. Photograph from the Honnold Library historical archive -

14

held to review the 1991 Master Plan, campus development between 1991-1999, current projects specified by the College, potential development sites, and the current review process for campus development. Following the work session the exhibits were posted both on campus and the HMC website, to solicit input from the campus community.

### Phase Two

#### Current Projects

Focus sessions held with campus resource groups served to refine the programmatic needs for the campus buildings. The

information gathered was summarized to express current programmatic needs and a general description for each project. In conjunction with this process, a utilization analysis of the classroom and lab space at the College was prepared. This analysis provided a quantifiable means for the College to determine the current efficiency of classroom and lab building use, and the resulting magnitude of need for additional space in the future.

### Phase Three

#### Campus Plan

Using the 1991 Master Plan as a basis, the planning team prepared a series of diagrams documenting key aspects of the campus's character and function. These diagrams illustrated existing conditions, potential development sites, land use patterns, parking supply, campus landscape zones, as well as proposed campus structure. HMC provided information on the major campus infrastructure corridors for analysis of potential current or future development location conflicts. This diagrammatic information directed the accommodation of the College's projects within the campus. An important part of the process was siting the projects on available development parcels, with an overall view towards promoting campus-wide master planning goals.

### Phase Four

#### Alternatives, Preferred Concept Selection, and Master Plan Update

The planning team identified alternatives for the current projects, applying the master plan principles to the building and open space framework. The alternatives addressed the overall limits and opportunities for the College by comparing renovation and new construction options and related magnitudes of cost. Development of the alternatives occurred in two rounds, culminating in the selection of a preferred direction.

### Phase Five

#### Documentation

This phase documented the master plan update – this report and the accompanying appendix. The plan will serve as a strategic planning document to guide campus improvements, including building construction, renovations, landscape improvements, and parking accommodation.

## EDUCATIONAL PROGRAM

The educational program includes the College's academic, administrative, and student service uses. To develop the educational program, the College and planning team reviewed the need for expansion based on the educational goals in conjunction with use of existing campus facilities. The current component of the Master Plan Update addresses 700 FTE students; entitlement

	1991 Master Plan <sup>1</sup>		Existing	2003 Master Plan	
	Near Term	Entitlement	Fall 2002	Near Term	Entitlement
<b>Student FTE</b>	630	800	700	700	800
<b>Faculty FTE</b> <sup>2</sup>	70	100	82	84	92
<b>Staff FTE</b>	115	175	184	184	200
<b>Educational Facilities (GSF)</b>	286,600	362,600	278,600	357,500	405,500
<b>Residential (Beds)</b>	636	800	636	716	800 <sup>3</sup>
<b>Parking (Spaces)</b> <sup>4</sup>	576	727	567	599	667

NOTE:

<sup>1</sup> City of Claremont approved master plan for Harvey Mudd College

<sup>2</sup> Faculty FTE equates to 100% full time; 50% part-time; and 0% emeritus

<sup>3</sup> 2003 Master Plan includes a mix of apartment suites and dormitory rooms ranging from 350 - 525 GSF/bed: 1991 Master Plan included dormitory rooms only. See appendix for more detail

<sup>4</sup> Refer to Section 5 of this document for the analysis of parking space demand

### Comparison of Program Need

reflects a student FTE of 800. The entitlement program of 800 student FTE allows for the associated expansion of faculty, staff, and facilities in support of the student enrollment.

The educational goals for the institution are a realization of the College's mission statement. HMC is acknowledged as a leader in undergraduate education providing the opportunity for all students to conduct research or engineering design. As HMC has developed, its educational facilities have advanced to support this distinct form of learning and teaching.

To sustain the quality of the education, the planning team was asked to determine the College facilities needs for current and entitlement goals. An inventory and utilization analysis of all educational space (i.e. exclusive of residential and recreation) was developed to verify the current use of facilities and their projected capacity. In addition, the usage of space was compared with normative standards for the major space types; tailored to apply to a small independent college appropriate to Harvey Mudd College.

The broad results from the utilization analysis

are summarized below:

- The College does not need new administrative, classroom, office, or support space for its current or entitlement enrollment, though the need for targeted renovation and space reallocation is imperative.
- There is an excess of library space on campus, providing the potential for adaptive reuse of parts of the Sprague Library.
- In fall 1999, classrooms were scheduled an average of 18.1 hours a week- 40% occupancy. This is below the generally accepted criterion of 67% occupancy.

- Some classrooms are overscheduled and others are underscheduled, which indicates a need to better match room size with the curriculum; creating more medium sized classrooms.

The results indicate the College has considerable flexibility in accommodating the current and entitlement needs related to space usage. Recommendations related to the utilization analysis are noted below:

- The findings indicate that if the College increased its scheduling efficiency, particularly between 8 - 9 am, it could accommodate current and entitlement enrollment.
- Excess space in the Sprague Library could be reallocated to accommodate the office space problem in Kingston Hall.
- To better match the room supply with the curriculum, the College should consider renovating or replacing classrooms in Thomas-Garrett and reconfigure one or two of the smaller lecture theaters in Galileo to meet the need for a medium sized lecture hall.

While the utilization analysis allowed for the unique educational qualities of Harvey Mudd College, there are also some cultural issues to be considered. In view of this, the planning team has set forth the recommendations noted above, while some questions have been raised by the College's faculty regarding the

recommendations. Both the utilization analysis, and a response prepared by the faculty are included in the Appendix. The College will consider these concerns as it moves forward with the improvements identified in this document.

## **PROGRAM CHANGES SINCE THE 1991 MASTER PLAN**

The 1991 Master Plan approved by the City of Claremont established the total program numbers for the College. This total program accommodates the educational, residential, and parking supply needs for the College through entitlement. The master plan update verifies and re-establishes some program numbers to support the current and entitlement needs. The table on the prior page summarizes these needs. Below, key points are highlighted from an analysis of the program.

### **Educational Facilities**

Educational facilities include academic, administrative, and support uses.

The following facilities are proposed in this master plan (2003 MPU) and were not included as projects in the 1991 Master Plan

- New Dining Center (36,000 GSF)
- New Classroom-Office Building (9,000 GSF)
- Facilities and Maintenance Building (13,900 GSF)
- Future Building (20,000 GSF - site of the Garrett House)

- Future Building (24,000 GSF - site north of Olin Hall)
- Future Building (24,000 GSF - site south of Olin Hall)

The New Dining Center provides dining for the whole campus and allows Platt Campus Center to become a student center, the New Classroom-Office Building provides medium sized lecture halls, the Facilities and Maintenance Building will house the campus maintenance and facilities program, and the Future Buildings provides a reserve for future needs.

### **Residential Facilities**

The 2001 MPU includes a mix of apartment suites and residence hall rooms ranging from 350 - 525 GSF per bed. This approach provides the College flexibility in the type of residences it will develop. The residences in the 1989 Master Plan accommodated dormitory rooms exclusively.

### **Parking Supply**

The 1991 Master Plan did not accommodate the total required on-campus parking spaces. The 2003 MPU accommodates all on-campus parking requirements for the current and entitlement needs. Refer to the remaining sections of this document for more detail.





# The Master Plan

The master plan focuses on the most effective and economic options for building and campus organization. Current and entitlement options afford the College flexibility in defining building locations, open space, landscape treatments, circulation patterns, and parking areas. Following a set of goals and physical planning principles, the plan serves as a guide and source of continuity during periods of change and growth.

Rather than specifying one phased approach for the campus improvements, the plan provides different scenarios for the future

buildings and landscape improvements. These scenarios afford the College flexibility in meeting future demands.

## **BROAD PHYSICAL GOALS**

The broad physical goals established in the Master Plan Update (MPU) serve to strengthen the campus structure and improve the campus environment, furthering the quality, identity, and function of the campus.



**Master Plan Illustrative** The illustrative presents the campus build-out, with the overall relationship of campus buildings and landscape

18

The physical goals include:

**Maintain the simplicity and unity of the campus plan**

The axial organization of open space malls and the repetition of building mass, symmetry, and placement unifies the campus. The clarity and simplicity of the campus plan is the campus's strongest physical asset.

**Preserve the existing campus structure of the three major intersecting malls**

These are the primary "public" spaces of the campus that connect campus facilities and symbolically represent the College. They

should remain open with bold and simple landscape treatments.

**New facilities will reflect the formal precepts established in the original campus design**

The siting of new buildings will replicate the alignment, size, shape, and spacing of existing campus buildings along the Great Mall axis.

**Accommodate new facilities to meet both current and entitlement needs**

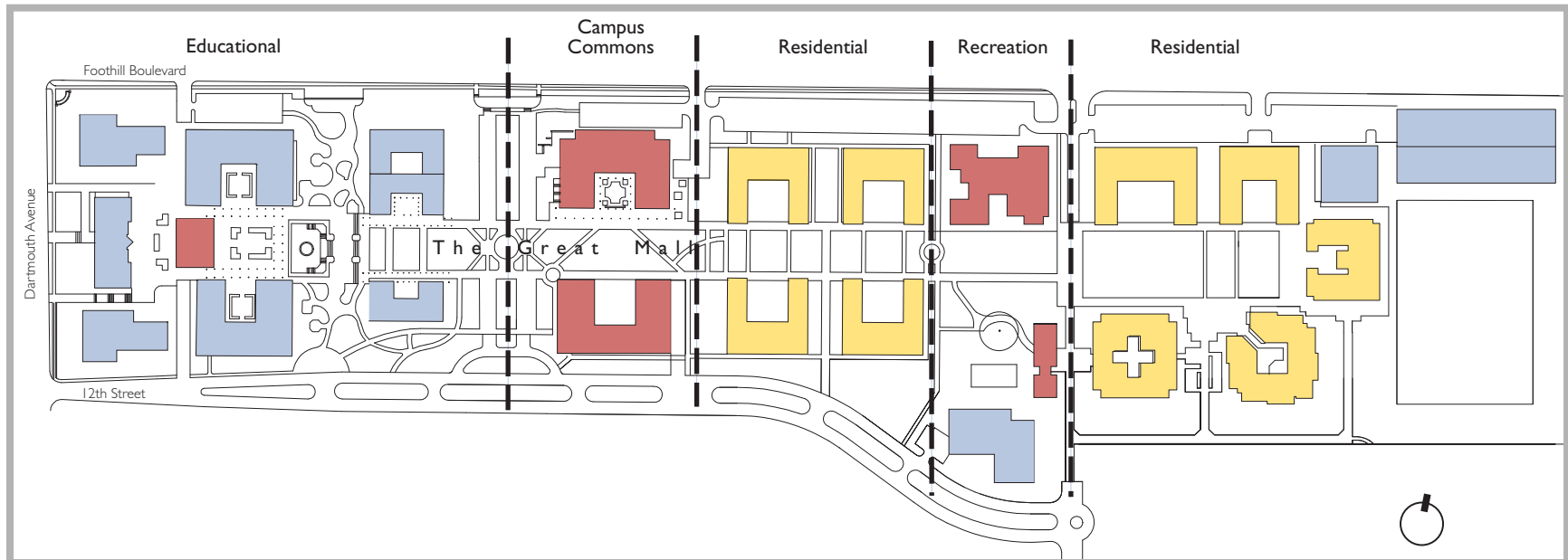
Recognize the needs of the current enrollment while planning for future needs, based on entitlement and unforeseen program demands.

**Site new educational and residential facilities to benefit the relationship between proposed and existing uses**

Maintain the established campus land use relationships while using building and landscape design to provide increased community interaction amongst students, faculty, and staff.

**Establish stronger pedestrian linkages**

Reinforce and foster pedestrian connections with the adjacent Claremont Colleges.



**Primary Building and Land Uses** Educational uses are located on the west end, residential uses on the east end with recreational uses adjacent, and the campus common in the center.

### Establish a conscientious attitude towards the use of water for the campus landscape

Areas of multiple uses at the heart of the campus will be maintained as lawn, while peripheral spaces will be transformed to less water intensive naturalistic landscapes.

### CAMPUS LAND USE

The master plan land uses build on and are compatible with existing land uses. The College will continue to accommodate all educational, residential, and parking uses within the campus boundary. The west end will remain as the

educational core and the east end will continue to be home to residential life on campus. The center of campus will function as commons zone with Platt Campus Center becoming a student center complemented by the New Dining Center across the Great Mall. Recreational uses will be in close proximity to the Linde Activities Center with the relocation of the pool to the site north of the Garrett House, facing the Great Mall.

Development in the educational area includes: the renovation of Sprague Library, Thomas-Garrett, Kingston, and Galileo Halls to improve

the performance of existing campus buildings. The New Classroom-Office Building will be constructed to the north of Thomas-Garrett Hall.

At the east end of the campus, development in the residential area includes two new buildings on and adjacent to the Foothill Apartments. These new residential buildings reinforce the existing residential area of the campus. Developing this residential cluster will foster a sense of community for the students and will also provide suitable study and meeting spaces. New residential buildings will follow the



**Master Plan Built Form** This diagram indicates the existing, current, and entitlement development of campus buildings. The building numbers correspond to the Building Options described on pages 21-22.

20

pattern of the existing residences – arranged around a courtyard space with direct access to the Great Mall. The addition of the Facilities and Maintenance building in this zone will help accommodate the student needs.

Recreational uses are located at the intersection of the Great Mall and the north-south open space at Mills Avenue. This location is convenient to the Harvey Mudd residential halls and allows for easy access by students from other Colleges to the south. The Mills Avenue corridor is reinforced as a pedestrian spine linking the adjacent colleges.

## CAMPUS BUILDINGS

The architectural design of educational building expansion will reflect the formal precepts established by Edward Durrell Stone (EDS) in the original campus design. This approach allows for refinements in keeping with current architectural expressions. The campus is a congregation of buildings and facilities which have historic, symbolic and utilitarian value; renovations and expansions should perpetuate this value. The siting of new buildings will replicate the alignment, size, shape, and spacing of existing campus buildings along the Great Mall axis.

There are differences in the use of educational and residential buildings. The educational buildings form and serve the public spaces of the campus, while the residential are semi-public or private. This supports the need to locate the educational buildings in the west area of campus, and the residential in the east area. Courtyard spaces should express this difference in the building uses. The educational courtyards should be larger and open to the Great Mall for group and assembly needs, while the residential courtyards should be smaller and distinguished as separate spaces from the adjacent Great Mall.



The new residential buildings denoted in the MPU are modeled on the EDS dormitories. The general scale of the buildings and the courtyards framed by the buildings should echo those of the original dormitories. Future residences will likely be more varied, reflecting an increasing diversity of needs and preferences among students.

## CURRENT BUILDING OPTIONS

The expansion of the educational facilities involves choices the College will address as the campus develops in the future. There is a need for adaptive reuse, renovation and /or new construction of the campus buildings. The plan presents an array of options, allowing the College to make informed decisions in response to phasing and addressing programmatic need. Buildings under consideration for modifications, expansions, or new construction are noted below.

### Adaptive Reuse Renovations

These buildings are currently underutilized and are considered for reuse renovations to increase their utilization.

#### I Sprague Library

Renovate levels one and two for a café, study spaces, classrooms, and offices. Relocate library uses to the upper floors. Reorganize the Sprague Library circulation given the new public functions at ground level.

#### 2 Galileo Hall

Divide Galileo to accommodate two medium sized classrooms.

#### 3 Thomas Garrett Hall

Renovate and reconfigure classrooms as seminar rooms and offices.

### Improvement Renovations

The function of these buildings can be improved by making more effective use of existing space.

#### 4 Kingston Hall

Renovate and reconfigure offices to provide fewer but more appropriately sized offices.

#### 5 Platt Campus Center

Move the dining functions to the New Dining Center and renovate Platt Campus Center as the student center. The building would include offices, small classrooms, recreational, practice rooms, and informal assembly uses.

### New Construction

Some new buildings are necessary to accommodate expanded or new programmatic needs.

#### 6 New Dining Center

Because of its central location on campus, the existing pool site is designated for the New Dining Center. To accommodate this new facility, a new pool will be constructed on the site north of the Garrett House, across the Great Mall from the Linde

Activities Center. The New Dining Center will provide seating for campus dining, and smaller meeting rooms. The construction of the building will include a basement level service ramp on its east side, and the median on 12th Street will be adjusted to allow for service truck access.

#### 7 New Classroom - Office Building

A new building on the north side of Thomas-Garrett Hall would accommodate state of the art classrooms and offices.

#### 8 Residential Building

Construct the first of two residential buildings to accommodate the current needs. This building will be located on the existing Foothill Apartments site.

#### 9 Pool

A new pool and pool house will be constructed on the north side of Garrett House. The pool and pool house will reflect the size of the existing pool facility.

#### 10 Facilities and Maintenance Building

A New Facilities and Maintenance Building is located on the east end of the campus, north of Linde Hall with truck access from the parking lot along the northern edge. Staff offices visited by students will be located as close to the Great Mall as possible.

#### 11 Expanded Surface Parking

Expand the surface lot just north of the Linde Field to accommodate current needs of 112 parking spaces.

Current	Primary Uses	Unit	Renovation	New Construction	Costs (000's)
1 Sprague Library <sup>1</sup>	Café, offices and classrooms	GSF	14,000		\$5,058
2 Galileo	Classrooms	GSF	5,400		\$658
3 Thomas-Garrett Hall	Classrooms and offices	GSF	9,700		\$1,472
4 Kingston Hall	Offices	GSF	11,000		\$1,740
5 Platt Campus Center	Offices, Classrooms, student services	GSF	37,000		\$6,073
6 New Dining Center	Dining and meeting rooms	GSF		36,000	\$8,039
7 New Classroom - Office Building	Classrooms and offices	GSF		9,000	\$1,803
8 Residence Hall - 80 Beds	Apartments and common areas	GSF		42,000	\$6,843
9 Pool Building	Recreation	GSF		Replace in kind	\$1,650
10 Facilities and Maintenance Building	Offices, shops, and storage	GSF		13,900	\$1,819
11 Parking Deck	Parking				
<b>Entitlement</b>					
A Olin Annex North	Classrooms and offices	GSF		24,000 <sup>2</sup>	TBD
B Olin Annex South	Classrooms and offices	GSF		24,000 <sup>2</sup>	TBD
C Future Building-Garrett House site	To be determined	GSF		20,000	TBD
D Residence Hall - 84 Beds	Apartments/dorm's and common areas	GSF		36,000	TBD

**NOTE:**

-- The program above provides options of renovation and new construction.

Selective implementation is dependent upon further review and detailed programming.

1 Sprague Library addresses floors 1 and 2. Remaining floors would also require upgrading to address current codes.

2 Excludes basement concourse level to connect to adjacent facilities.

## Master Plan Update 2003 Options

22

### ENTITLEMENT BUILDING OPTIONS

The entitlement options provide sites for future buildings to meet the college's entitlement needs and/or unforeseen program demand.

#### A,B Future Building

These two sites flank the Olin Science Center to allow expansion of the academic functions of the College. These sites would include a basement level, continuing the underground concourse of adjacent buildings. The parking lots located on these

sites would be removed, with replacement spaces provided in the parking area on the northeast edge of campus.

#### C Future Building

The site of the Garrett House is directly adjacent to the campus recreation uses.

#### D New Residential Building

Construct the second residential building to accommodate the entitlement needs.

#### 11 Parking Deck

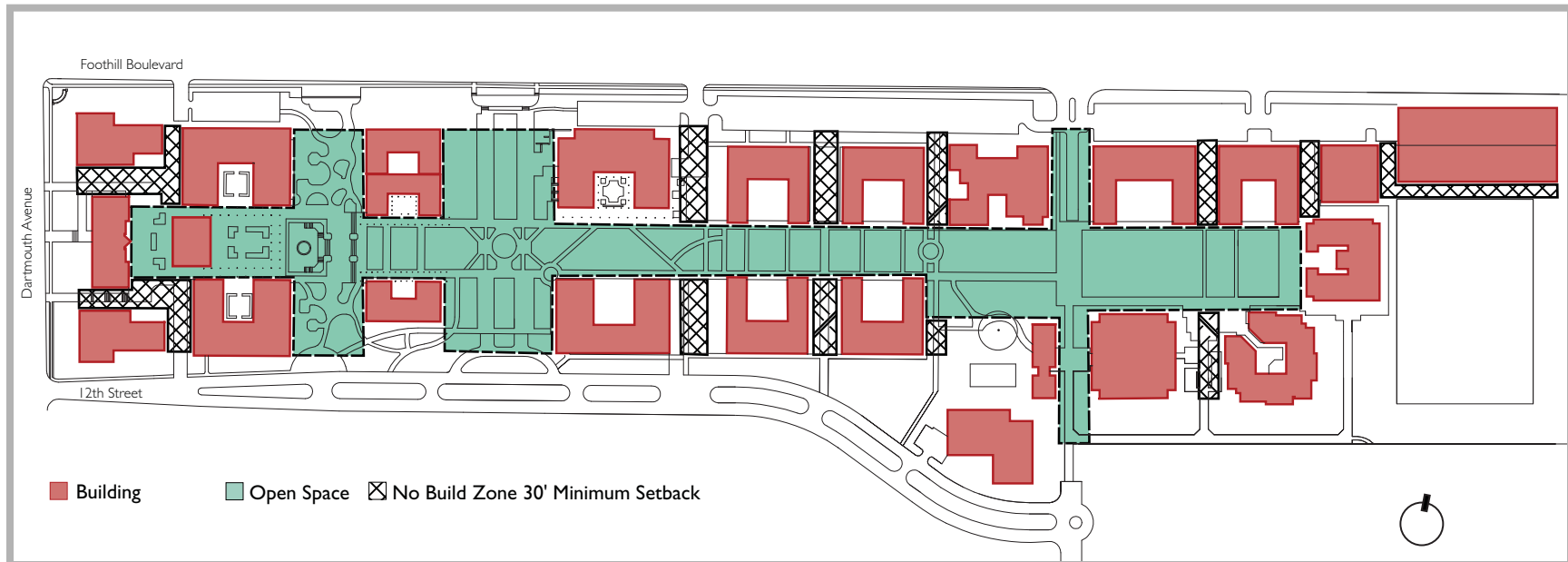
A new parking deck is built which will ultimately accommodate 330 spaces at the entitlement FTE. The parking deck can be phased in segments as the College desires.

### BUILDING GUIDELINES

New buildings and building renovations will respect the MPU guidelines. These guidelines serve to reinforce the design parameters developed within the EDS Master Plan. The building design guidelines governing setbacks and build-to-lines are illustrated in the related diagram.

#### Setbacks and Build-to-lines

Setbacks will follow the Educational District of the Claremont Land Use and Development Cod. Accordingly, front setbacks will be 25 feet from the property line on all dedicated streets.



**Master Plan Building Guidelines** The guidelines indicate available building sites and related build-to and setback lines.

Setbacks adjacent to Pitzer College will be a minimum of 20 feet. Build-to-lines will be respected along the Great Mall, the Liquidambar Mall, and Mills Avenue Mall. There will be a setback at Foothill and along 12th, to align new buildings with existing buildings. There will be a minimum 40 foot setback between buildings. The pedestrian areas between Kingston and Jacobs Hall and at Mills Avenue should have a minimum 60 foot setback between buildings.

### **Courtyards**

Courtyards in residential buildings should have a minimum dimension of 48 feet by 48 feet.

Courtyards in educational buildings should have a minimum dimension of 72 feet by 72 feet. Courtyards should face onto the Mall and be at the same elevation as the Mall (to avoid steps). Building entries should be located on the courtyards to activate these spaces. Residential courtyards shall have a planted buffer between the Mall and the courtyard space to delineate their semi-public use.

### **Building Massing**

Building massing and scale should be compatible with existing buildings. Buildings should be no more than two stories in height along the mall but can step up to three stories

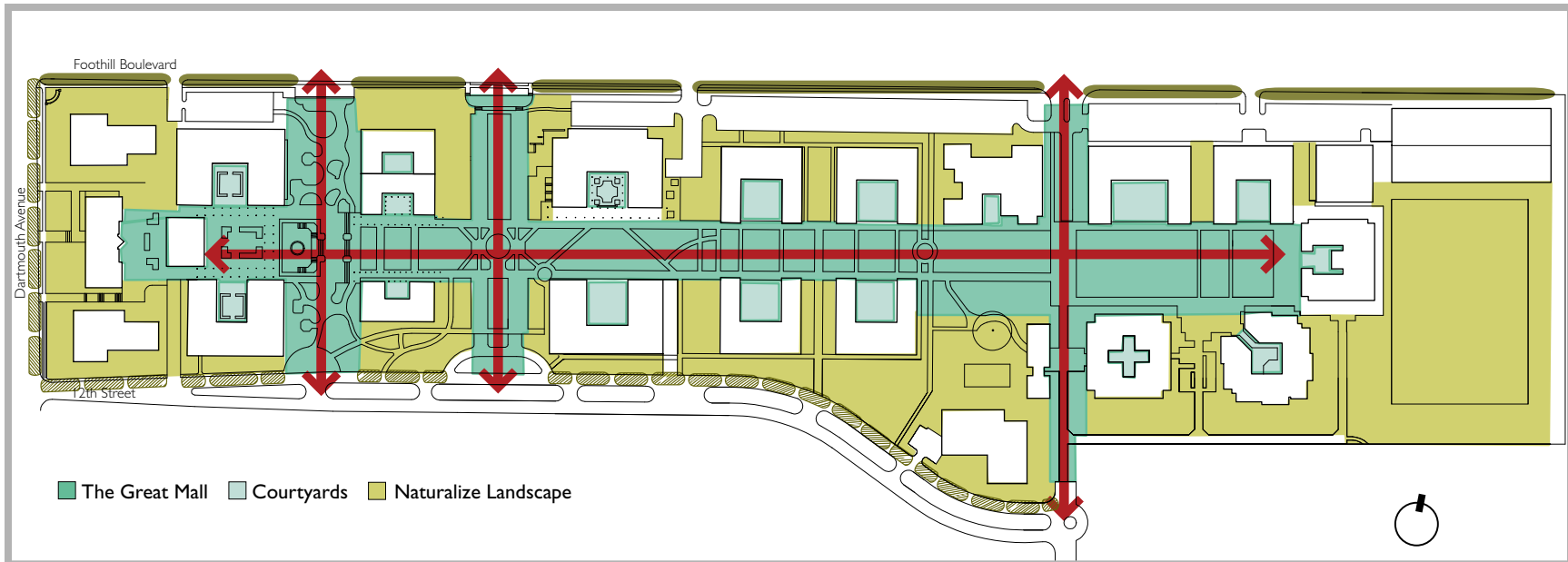
along Foothill Boulevard. Buildings should not exceed 45' in height according to the City zoning code.

### **Pedestrian Environment**

Community rooms including study rooms, lounges, and other common rooms should be located on the courtyards and along the mall. Non-residential buildings facing the Great Mall shall have arcades.

### **CAMPUS LANDSCAPE**

The campus landscape provides great strength and clarity to the College's identity. In keeping



**Master Plan Landscape Structure** The Great Mall is emphasized as the center of campus with the change in the periphery to a naturalized, low water use zone. Campus connectors are strengthened to encourage interaction between HMC the Colleges to the south.

24

with the strong clarity of the building forms and placement, the landscape is expressed in large panels of turf and ground cover overlaid by formal and informal tree plantings. The plan views the campus landscape as comprised of several zones.

### The Campus Perimeter

The largest change that will occur in the campus landscape is the treatment of the campus perimeter – the campus space that fronts onto Foothill Boulevard, Dartmouth Avenue, and 12th Street. The campus periphery will be restored as a naturalized landscape. This

naturalized landscape is already represented on campus within the planting schemes designed by Thomas Church. These areas will be treated with groundcover, bark, and an informal tree canopy overhead. The tree canopy should consist primarily of Live Oak supplemented by pines and deciduous trees.

The landscape treatment of campus periphery should be simple and elegant, reflecting the overall order of the campus. While naturalized in plant material, the periphery will portray an even and clean look, foreshadowing the landscape treatment of the campus interior.

The use of a naturalized landscape achieves two objectives. The first design objective is to clarify the importance of the campus malls and interior spaces. The second is to advocate water conservation and reduce grounds maintenance requirements in the areas of the campus that are not actively used.

The existing campus periphery treatments vary with the circumstances of each campus boundary. Because of the inward orientation of the campus to the Great Mall, most edges rely primarily on landscape treatments for their definition. The north, west, and south edges are





An example of the existing naturalized landscape on campus, shows the proposed treatment of the campus periphery.

bounded by streets, which vary in their treatment of street trees. The MPU proposes these street landscapes will consist of large shade trees to reinforce the campus edges, and provide shade for pedestrians. The edge along Dartmouth Street will continue to serve as the formal campus entry.

The MPU proposes that 12th Street assume the character of an inner campus lane. Trees along the north edge would remain and be supplemented to run the full length of the campus 12th Street border. Keeping these trees pruned up to a height of 12'-15' will

retain visual transparency at eye level while creating a recognizable and substantial campus edge. Maintaining parking along 12th Street is a practical necessity, although an impediment to pedestrian movement.

The campus should continue the edge planting of Live Oak or other long-lived indigenous species along the east and southeast edges of the campus. Formal plantings at the street edge will ensure consistency of line and form that tend to presently be unmanaged or irregular in character.

On the north edge, the landscape treatment should be increased to act as a visual buffer between the campus and Foothill Boulevard. This buffer will reduce the noise and impact of Foothill Boulevard traffic, and screen the campus service and parking uses from the public eye. Trees will be an important element along the south edge of the parking lots in order to shade the lots.

### **Campus Interior**

Serving as a campus oasis, the landscape treatment of the interior will functionally accommodate a variety of uses from passive recreation to graduation ceremonies.

Planting in the malls will consist of lawns and large trees with some areas of ground cover. Ground cover, when used, should always be in bold simple blocks such as in the Liquidambar

Mall. Trees should be long-lived species with modest water and maintenance requirements. A management program should be instituted on the Great Mall to plan for long-term replacements of trees in the campus center area and for the replacement or reshaping of trees in the planters on the upper level surrounding Hixon Court.

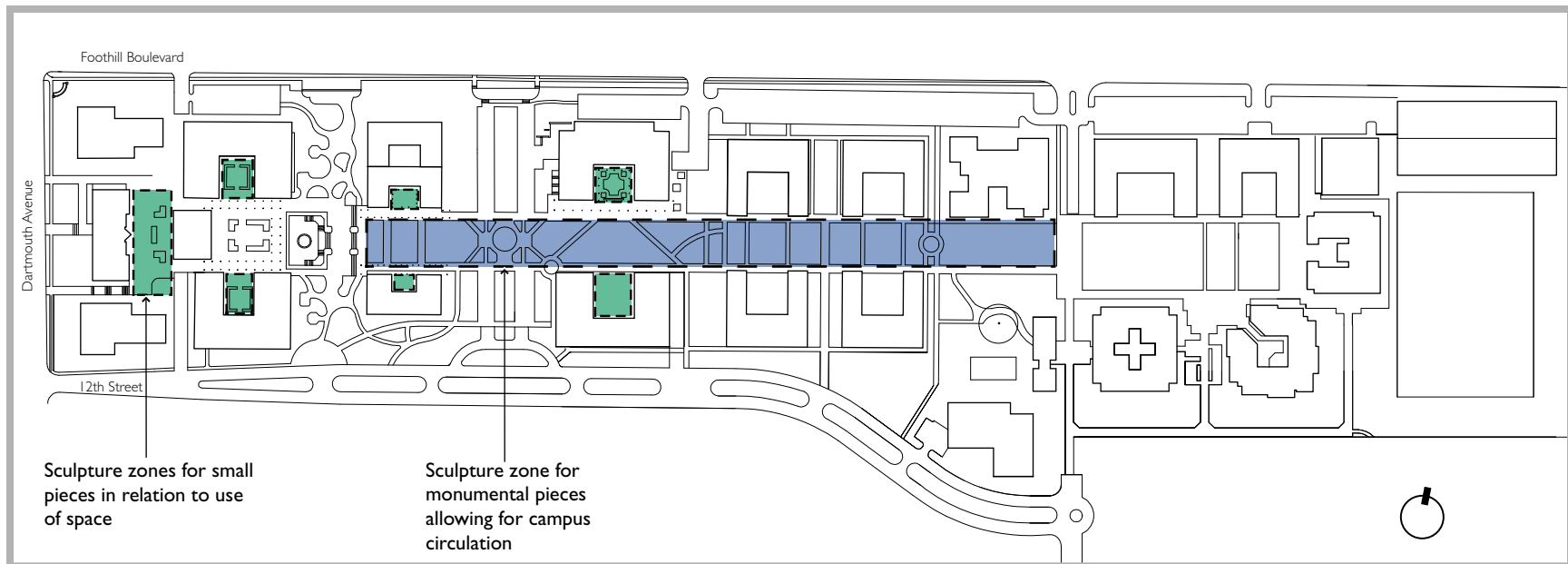
Allowing trees to assume an open form of growth will be true to the original intent of the Thomas Church planting plan and will enhance the campus environment and create shade.

### **The Campus Malls**

The Great Mall open space will remain as the principal unifying element of the campus plan. At 2,000 feet in length, it serves as the focal element for building orientation and multiple campus uses. The landscape character along the Great Mall should vary in relationship to the cross axes and the related building uses. The importance of the Liquidambar Mall will be preserved as the secondary axis crossing the Great Mall. Mills Avenue and the north-south connection adjacent to the Libra Complex will be developed as important pedestrian links into and through the campus.

### **Courtyards and Gardens**

The courtyards act as a complementary landscape component to the malls. The value of



**Master Plan Sculpture Zones** Sculpture zones are defined for the Great Mall and adjacent educational courtyards. To retain a sense of scale in relation to the space, larger pieces are indicated for the Mall, and small pieces in the courtyards.

26

these spaces lies in the contrast they offer to the simplicity and large scale of the Great Mall. The design of the courtyards should vary depending on their context and location, but they should always have well-defined simple edges. Ample seating with choices of sun or shade should be provided in the gardens and courtyards.

### Sculpture and Fountains

Sculpture or fountains should be located on the Great Mall commensurate to its scale to enrich the campus experience. Structurally speaking, these elements will serve as major campus landmarks and will assist in defining the

various districts along the Great Mall. The sculptural piece to be located at the intersection of the Liquidambar Mall and the Great Mall should be the most visually important sculptural element on campus.

In terms of scale, the sculpture should relate to and not overwhelm its context. Site large pieces along the Mall, and consider both permanent and temporary exhibits. Locate small scale pieces within educational courtyards, along the pedestrian axes or the Liquidambar Mall. Sculpture should be located in the public realm, not within residential courtyards.

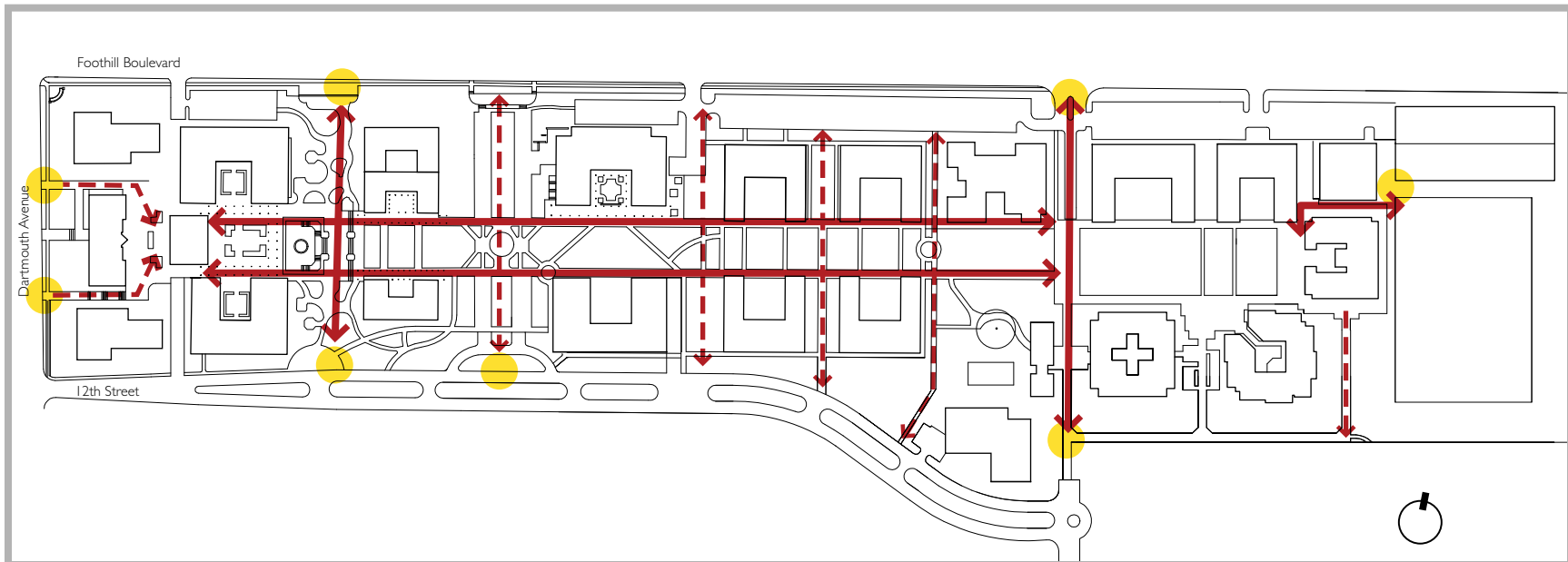
The placement of sculptural pieces needs to reflect the function of the space. For instance, sculpture is not suggested in the proposed assembly space, since it would be an impediment to the assembly usage.

### Site Furnishings

Furnishings should be located along the edges of the malls associated with the buildings; such as the benches at Thomas-Garrett Hall.

### Site Lighting

A campus standard light pole, fixture and lamp should be established when the College decides to upgrade its lighting. Because of the scale of the malls, a light pole 14-16 feet would



**Master Plan Pedestrian Circulation** Pedestrian activity is focussed within the Great Mall, and north-south connectors are emphasized. The new connection between the parking deck and the Great Mall is landscaped as a pleasant arrival to the campus.

be appropriate at a 60-70 foot spacing depending on the fixture's photometrics. A warm color source would be ideal for color rendition, compatible with existing building lights and the mood created.

## PEDESTRIAN CIRCULATION

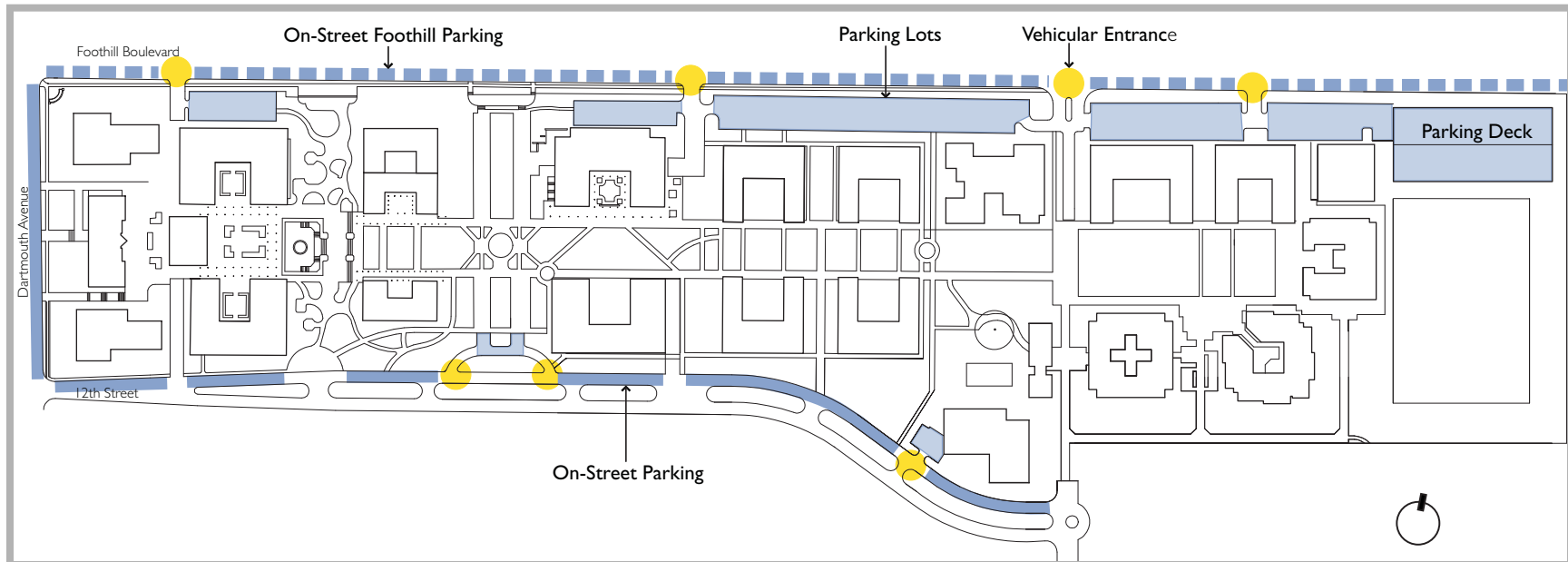
The primary entries for first time visitors to Harvey Mudd College are off 12th Street at the Liquidambar Mall and off Dartmouth Avenue at the Olin Science Center. These formal gateways should be designed with clearly marked paths and appropriate wayfinding signs.

The plan proposes the extension and clarification of existing pedestrian circulation. Pedestrian linkages will be improved to emphasize connections among campus facilities and between Harvey Mudd College and the other Claremont Colleges.

Specific attention will be paid to the pedestrian connection from the visitor parking lot off of 12th Street to the improved south entry to Kingston Hall. Also, due to the number of new facilities in the northeast corner of the campus, detailed design will strengthen the connection between the proposed parking deck and the interior of the campus.

The two most prominent college connectors are Mills Avenue and the connection west of the Liquidambar Mall. These are recognized as cross axes to the Great Mall and are essential elements of the campus plan.

The plan also recommends that pathways linking the campus to the south be clarified and reinforced to provide an improved pedestrian experience and encourage intercollegiate interaction. Dartmouth Avenue, the Liquidambar Mall and the Mills Avenue Mall are recognized as primary links to the south. In addition, the two Scripps service areas



**Master Plan Vehicular Circulation** Vehicular circulation is limited to the campus periphery, with some revisions in campus parking lots. A new lot has been added north of the Residence Hall, service access provided to the Facilities and Maintenance Building, and a new parking deck to accommodate the entitlement FTE.

28

between the proposed multipurpose building and the Garrett House are secondary links. The Mills Avenue Mall will be developed with a gateway and planted with an allee of trees to create a strong colonnaded walk.

## VEHICLE CIRCULATION AND PARKING

The master plan identifies parking to meet the near-term and entitlement needs of the campus on the existing campus property. This should be viewed as a conservative physical planning objective as the Claremont Colleges pool their parking supply and demand into a

single analysis, provided annually to the City of Claremont. This conservative approach will assure the viability of the campus to support its parking needs on campus should this require implementation in the future.

The parking plan continues the practice of locating parking on the campus perimeter - thus limiting vehicular access to the campus center. Existing parking lots are retained in all locations except those that will serve as future building sites. An additional lot will be built adjacent to Foothill Boulevard north of the new residence halls. The campus is currently just short of the City of Claremont

599 required spaces derived from the current program. The existing count is 567. However, once the construction commences for the new Residence Hall, three parking lots will be removed and it will be necessary to expand the surface parking at the lot located north of the Linde Field. The expansion of this lot will accommodate a total of 112 spaces.

For entitlement, the campus will be required to supply 667 parking spaces. A parking deck will replace the existing lot north of Linde Field. However, there is one variable in addressing the current/entitlement parking requirement.



There are 78 spaces located along Foothill Boulevard, currently included in the parking inventory, that could be removed in the future to accommodate traffic improvements. The removal of these spaces would require a larger parking deck. Therefore, the current parking requirement is presented in two scenarios to address this variation. Refer to Section 5 further detail.

Other options may be available to address parking demand and the needed supply on the campus through a more comprehensive parking management program. Options for such a program include:

- Selectively restrict student parking (e.g. prohibiting first year students from having a car on campus)
- Offer incentives to faculty and staff who carpool or use alternate modes of transportation
- Coordinate long range parking plans with other Claremont Colleges to capitalize on opportunities for shared parking .

## **MAGNITUDE OF COST SUMMARY**

The MPU utilized a cost model to determine the feasibility of building renovation versus new construction. In some cases, it is necessary for the College to construct a new facility in order to accommodate new building programs - such as in the case of the new Dining Center. However, in terms of providing additional classrooms and offices, there are both renovation and new construction options. Based on the building options presented on pages 21-22, the College will use the model to inform future decisions related to building development.

In addition to building costs, the cost model includes an analysis of the landscape costs, related to the conversion to a naturalized landscape treatment of the campus periphery. Costs were also included for the proposed enhanced street tree program.

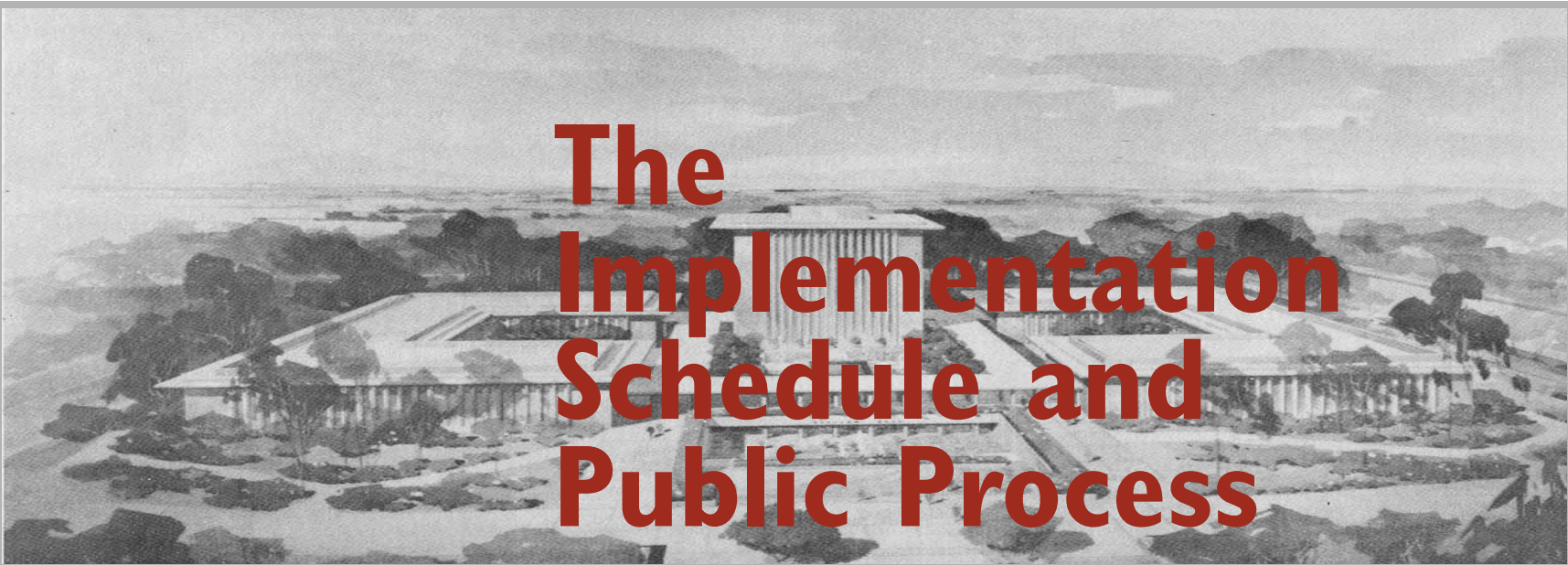
Based on the cost of parking, the College determined that while surface and structured parking above grade are feasible, underground parking would not be utilized. The cost model includes costs for the proposed parking lot and deck additions to the campus. Refer to the Appendix for more detail.

## **NEXT STEPS**

As Harvey Mudd College proceeds with the implementation of the plan, it will be mindful of the following items:

- Refinement of educational program and facility needs will reflect the Harvey Mudd College institutional culture
- Detailed programming and costing for new facilities will be undertaken for each improvement
- Continuing coordination with architects and landscape architects will serve to adhere to the master plan update as the College focuses upon specific improvements.





# The Implementation Schedule and Public Process

This section presents the proposed implementation schedule and public process for the administration of the master plan update. In many cases, the text will reference City of Claremont documents such as the Land Use Development Code. The college will refer to these documents for specific detail.

## **IMPLEMENTATION SCHEDULE**

The schedule of building improvements as shown on the following pages categorizes the improvements in five-year increments: 0 to 5; 5 to 10; and 10 to 15 years. The master plan update's first two increments address the college's needs to fulfill the near-term student

target of 700 full time equivalent (FTE). The last increment of 10 to 15 years addresses programmatic need to achieve the college's entitlement student FTE of 800. Based on the above, the master plan projects the near-term need of 257 FTE faculty and staff. Entitlement need projects 292 FTE faculty and staff. The college, at present, does not propose to achieve the entitlement enrollment.

Parking is addressed by the consortium of the campuses and, as a consortium, the supply and demand is addressed in aggregate. The master plan update does reserve land should the college in the distant future need to supply all parking on campus.





#### Planned Building Improvements

Refer to accompanying table for a description and schedule of the improvements

32

### ADMINISTRATIVE PROVISIONS

As requested by, and in conformance with, the administrative provisions set forth by the City of Claremont, the following administrative provisions contribute to governing the implementation of the Harvey Mudd Master Plan Update 2003 (the master plan):

#### Uses and development permitted within the Harvey Mudd College Master Plan Update 2003 boundaries

##### (a) Relationship of the master plan to Land Use and Development Approval Process

The permitted uses and development within the master plan boundaries are governed by the provisions set forth in the City's Land Use and Development Code (LUDC) for the underlying (E) Educational zoning district, and this master plan. The City cannot issue permits which are inconsistent with either document.

##### (b) Additional Uses and Development Which May Be Permitted Without An Amendment to the master plan

In addition to the permitted uses outlined in (a) above, special uses or developments which are listed in Chapter 6, Part 3 of the LUDC as permitted in the (E) Educational District subject to the issuance of special use and development permit issued may be permitted within the master plan boundaries in accordance with the appropriate review procedures in the LUDC.



Current	Primary Uses	Unit	Student FTE		Near-Term		Entitlement
			Renovation	New	700	700	800
					0-5 Years	5-10 Years	10-15 Years
1 Sprague Library <sup>1</sup>	Café, offices and classrooms	GSF	14,000			●	
2 Gallileo	Classrooms	GSF	5,400			●	
3 Thomas-Garrett Hall	Classrooms and offices	GSF	9,700			●	
4 Kingston Hall	Offices	GSF	11,000		●		
5 Platt Campus Center	Offices, Classrooms, student services	GSF	37,000		●		
6 New Dining Center	Dining and meeting rooms	GSF		36,000	●		
7 New Classroom - Office Building	Classrooms and offices	GSF		9,000		●	
8 Residence Hall - 80 Beds	Apartments and common areas	GSF		42,000	●		
9 Pool Building	Recreation	GSF		Replace in kind	●		
10 Facilities and Maintenance Building	Offices, shops, and storage	GSF		13,900	●		
11 Parking Deck	Parking	Spaces	184				●
<b>Entitlement</b>							
A Olin Annex North	Classrooms and offices	GSF		24,000 <sup>2</sup>			●
B Olin Annex South	Classrooms and offices	GSF		24,000 <sup>2</sup>			●
C Future Building-Garrett House site	To be determined	GSF		20,000			●
D Residence Hall - 84 Beds	Apartments/dorm's and common areas	GSF		36,000			●

NOTE:  
 -- The program above provides options of renovation and new construction  
 Selective implementation is dependent upon further review and detailed programming  
<sup>1</sup> Sprague Library addresses floors 1 and 2. Remaining floors would also require upgrading to address current codes  
<sup>2</sup> Excludes basement concourse level to connect to adjacent facilities

### Schedule of Planned Building Improvements

Refer to accompanying plan for the location of the improvements

### (c) Additional Uses Which May Be Permitted Only With An Amendment to the master plan

Conditional uses listed in Chapter 6, Part 2 of the LUDC as permitted in the (E) Educational District subject to the issuance of a conditional use permit, and the construction of buildings, the conversion of structures to different uses, and the demolition of structures, not identified in the master plan, may only be permitted after a formal amendment to the master plan and in accordance with the appropriate review procedures in the LUDC.

### Development review procedures

#### (a) Review Requirements

Unless plans for buildings and structures, and all signs, luminaries, landscaping, irrigation and other features of the site for buildings, parking lots, or other structures, have been approved pursuant to the review procedures established for this master plan, no building permits will be issued.

#### (b) Review Responsibilities

All new construction, modifications, and site changes shall be reviewed as set forth in Chapter 6, Part I of the LUDC.

### (c) Scope of Design and Environmental Review

Once the specific plans for Harvey Mudd College - including parking - have been developed and submitted for City review, the review shall be limited to the architectural elements, the layout, the massing, landscaping, lighting, and compliance with the development standards of the (E) Education District, as set forth in the LUDC, the project mitigation measures, the conditions of approval, and the guidelines of the master plan

If the specific detailed plans are substantially in conformance with the location and intensity of development outlined in the environmental documentation and do not create an impact any greater than what was discussed in the final environmental documentation, then no additional environmental review is necessary. If the plans are not in substantial conformance with the plans outlined in the final environmental documentation or create an impact greater than that which was discussed in the environmental documentation, then additional environmental review and mitigation will be necessary.

### **Administration of the Harvey Mudd College Master Plan Update 2003**

#### **(a) Administrative Adjustments**

Certain minor adjustments to explicit provisions in the master plan may be made administratively by the Director of Community Development. These types of changes are as follows:

- (i) The addition of new information to the master plan maps or text that does not change the effect of any regulations or guidelines.
- (ii) Minor expansions in the boundaries of the master plan provided the area of the expansions do not exceed 5% of the total master plan area.

#### **(b) Master Plan Amendments**

This plan may be amended in accordance with master plan review provisions in Chapter 6, Part I of the LUDC. Each amendment shall include all sections or portions of the master plan that are affected by the change. All amendments shall be required to be consistent with the General Plan.

#### **(c) Clarification**

If an issue, condition, or situation arises or occurs that is not sufficiently covered or provided for, or is not clearly understandable, those regulations of the LUDC that are applicable for the most similar issue, condition, or situation shall be used by the Director of Community Development as guidelines to resolve the unclear issue, condition or situation. This provision shall not be used to permit uses or procedures not specifically authorized by the LUDC or by this master Plan. If such issue, condition, or situation in the LUDC is silent, the provisions of this master plan shall govern.

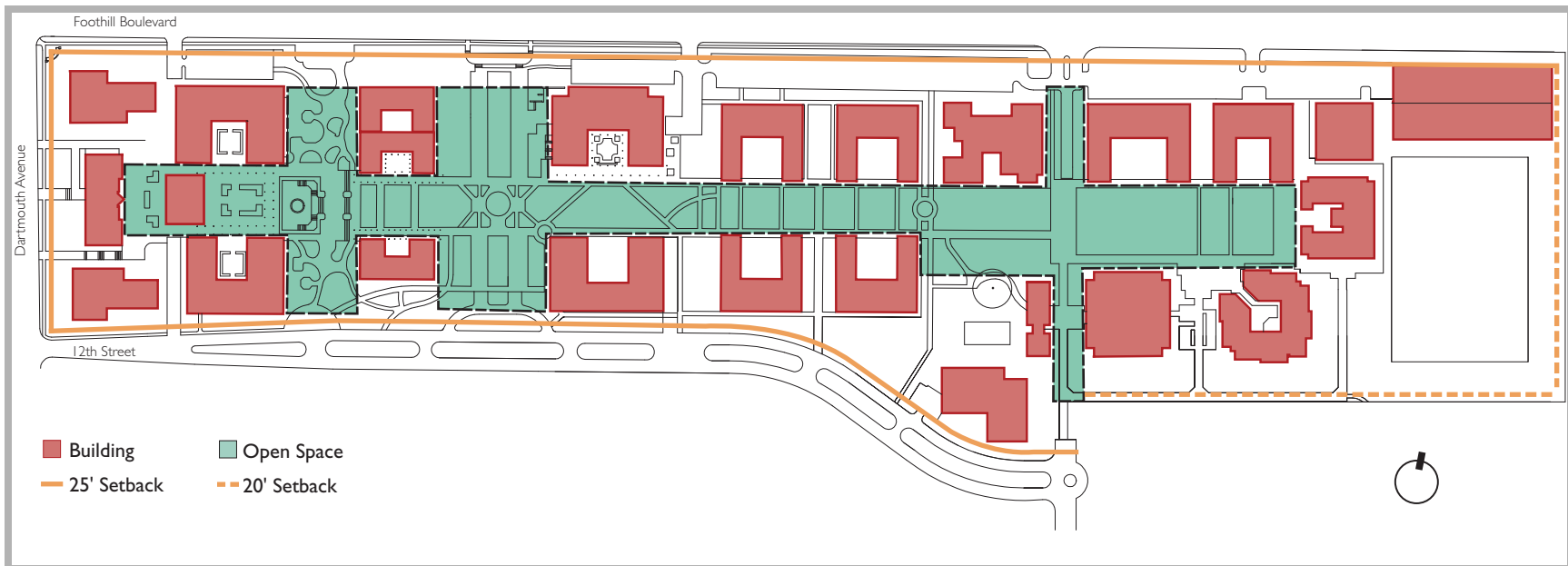
#### **(d) Enforcement**

The master plan development agreement and conditions of approval shall be administered and enforced by the City of Claremont Community Development Department in accordance with the provisions of the LUDC and the administrative fines program of Chapter I.14 of the Claremont Municipal Code.

#### **(e) Duration**

The master plan shall be valid for fifteen years from the date the Development Agreement is executed. At the conclusion of the fifteen-year period, the master plan will expire unless the approval of the master plan and the Development Agreement are formally extended by the City for a specific length of time.

Once the master plan expires, all improvements not implemented prior to the master plan expiring shall not be constructed, unless said improvements are approved pursuant to a new master plan or other applicable city regulations in effect at the time.



Setback Lines - City of Claremont

## ZONING CHANGE

A portion of the campus on the southeast corner of the Mills Avenue Foothill Boulevard intersection is zoned CH (commercial highway). The college will request rezoning to E (Educational District).

## SETBACKS

The master plan maintains the 25 feet setback from the property line along its north, south, and west boundaries. A 20 foot setback will be maintained along the campus property line shared with Pitzer College.

## DEMOLITION

Minor demolition is required for implementation of the master plan only in the near-term:

- Pool building and swimming pool will be removed for construction of the new dining center
- Foothill Apartments, Stolle Hall, and the Pump House removed for construction of a new residence hall.

## BUILDING HEIGHT

The master plan does not propose buildings in excess of 45 feet in height.

## PLANNED BUILDING IMPROVEMENTS

As described in Section 4 (pages 17-30) and quantified in the table on page 33, planned building improvements for the near-term include a new dining facility, pool building, a facilities and maintenance building, a new classroom-office building, and a 80-bed residential hall. Long-term improvements include additional classroom and offices and a 84-bed residential hall.

No additional assembly space is planned for the near- or long-term.

### Parking Requirements Related to Projected Numbers of Students, Faculty and Staff, and Assembly Space

#### PARKING

Parking requirements for near-term (0-10 years) and entitlement (10-15 years) targets are 599 and 667 spaces, respectively based on the number of students, faculty and staff, and assembly space associated with these two stages of potential growth.

The near-term conditions allow for 556 spaces on the campus. Current detailed planning for new residential (Sontag Residential Hall) will realize a gain of approximately 32 spaces bringing the near-term total parking spaces available up to approximately 588. The specific

Description	Standards		Near-Term		Entitlement	
	Ratio	Per	Qty.	Spaces	Qty.	Spaces
Student FTE	0.5	FTE	700	350	800	400
Faculty and Staff	0.5	FTE	257	129	292	146
Assembly Space (SF)	0.2	Seats	604	121	604	121
Total Spaces Required				599		667

NOTE:

1 Based on Claremont Land Use Code

2 Fall 2002

3 Full and part-time

No.	Location	Student FTE		Spaces		
				700	700	800
				Existing	Near Term	Entitlement
64A	South of Olin	Lot	Surface	26	26	0
64B	Dartmouth East - Foothill & Dartmouth	Curb	Surface	13	13	13
66	Foothill - northwest of Parsons	Lot	Surface	77	77	32
67	<sup>1</sup> Foothill South - Dartmouth to Amherst	Curb	Surface	40	40	40
68	Foothill - north of campus center	Lot	Surface	17	17	17
69	Foothill - north of dorms	Lot	Surface	101	101	101
70	<sup>1</sup> Foothill South - Amherst to Mills	Curb	Surface	20	20	20
71	Linde - north of dorm	Lot	Surface	92	92	32
71A	<sup>1</sup> Foothill - east of Mills	Curb	Surface	25	25	25
71B	Stolle House	Lot	Surface	36	0	0
72	Atwood - north of dorm	Lot	Surface	33	0	0
75	12th Street - west of pool	Lot	Surface	7	7	7
76	12th Street - from Dartmouth to Kingston lot	Curb	Surface	28	28	28
80	12th Street - from Kingston lot to Mills	Curb	Surface	42	42	42
82	Garrett House	Lot	Surface	10	10	10
A	Foothill - north of new residence hall	Lot	Surface	0	58	58
B	Foothill - north of playing field	Lot	Surface/Deck	0		242 <sup>2</sup>
Spaces Supplied				567	556	667
Spaces Required				599	599	667

NOTE: <sup>1</sup> Removal of parking along Foothill Boulevard could occur in the future at the direction of the City of Claremont. This plan assumes retention of these 85 spaces for the colleges' use

<sup>2</sup> Capacity assumes multi-level parking deck

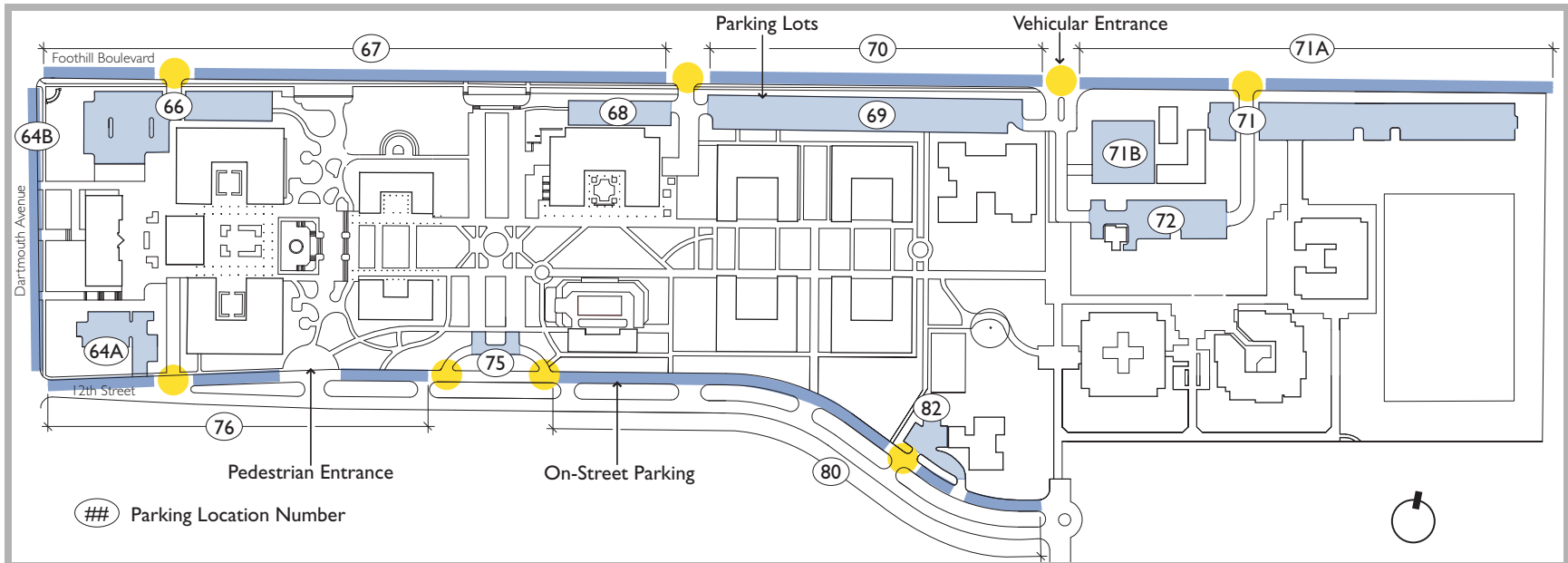
### Parking Analysis for Near-Term and Entitlement

count will be brought forward to the City at the time the residential hall is submitted for City review. Entitlement conditions (long-term) will allow for 667 spaces, inclusive of the proposed parking deck. The purpose of the analysis is to reserve land on the campus that might be needed in the future, should the college have the need to supply all its parking within its specific campus boundaries. This planning precaution is balanced by the on-going practice of the colleges' pooling their parking demand and supply. Also, as discussed in prior sections of this document, other means may become available in the future that will offset the need for parking spaces on campus.

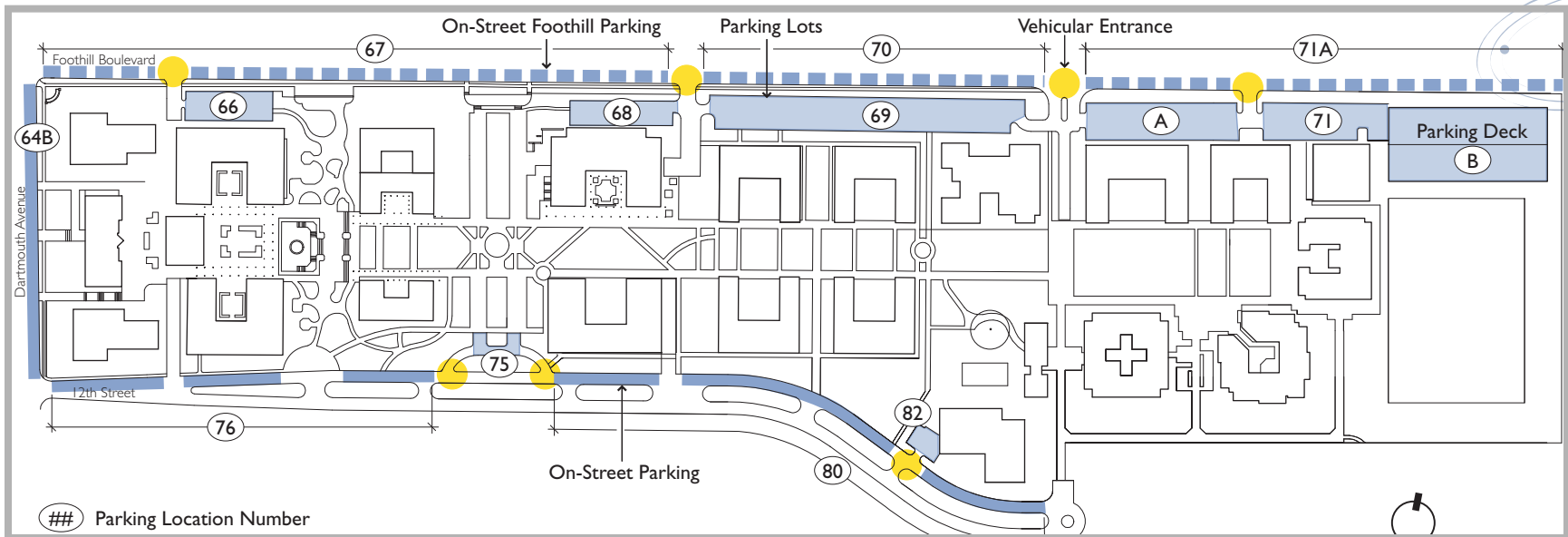
#### PARKING LIGHTING

The college will review and amend existing lighting in parking areas to conform with the City of Claremont's lighting requirements (Chapter 4, Part 3 Parking, Loading and Transportation Demand Management Measures, Section G: Lighting).





**Parking - Existing**



**Parking - Entitlement**



# Participants

38

## **COLLEGE PARTICIPANTS**

### **The Physical Plant and Campus Planning Committee of the Board of Trustees**

Jeffery L. Mitchell - Chair  
Robert S. De Pietro  
Bruce L. DePriester  
Albert A. Dorman  
Jennifer Holladay  
John B. Kilroy  
Malcolm Lewis  
C. Dean Rasmussen  
Jon C. Strauss  
William R. Zimmerman

Hal Van Ryswyk (faculty representative)  
Alexander Mandell (student representative)  
Justin Pava (student representative)  
Eric Vinson (student representative)  
Jan K. Brown (staff)

### **The On-Campus Planning Committee**

#### **Staff Representatives:**

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Jeanne M. Noda  
Theresa M. Potter  
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Jon C. Strauss  
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#### **Faculty Representatives:**

Ziyad H. Duron  
James C. Eckert  
Thomas M. Helliwell

#### **Student Representatives:**

Chris Moore  
Eric Vinson

#### **Alumni Representative:**

Jennifer Shively

#### **Trustee Representatives:**

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Albert A. Dorman  
Jennifer Holladay  
Malcolm Lewis

## MASTER PLAN CONSULTANTS

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Interior Design

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Kae Sharpe

### MGT of America

Educational Programming

Denis Curry

Tom Jons

### Davis Langdon Adamson

Cost Planning and Estimating

Ethan Burrows



## COLLEGE PARTICIPANTS

### The Campus Community

All members of the Harvey Mudd College  
faculty, staff, students and alumni