

Introduced by: _____

RESOLUTION NO. _____

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PASADENA
APPROVING THE AMENDMENT TO THE MASTER DEVELOPMENT PLAN
FOR THE CALIFORNIA OF INSTITUTE OF TECHNOLOGY**

WHEREAS, the proposed amendments to the Master Development Plan (“Plan”) for the California Institute of Technology (“Caltech”) has been considered at the public hearing before the Planning Commission on September 13, 2006, November 8, 2006, and December 6, 2006; and the City Council on December 11, 2006; and

WHEREAS, the Planning Commission on December 6, 2006, recommended adoption of the amendments to the Plan, and the City Council adopted the amendments to the Plan on December 11, 2006; and

WHEREAS, the proposed amendments to the Plan are consistent with the Comprehensive General Plan and Zoning Ordinance; and

WHEREAS, the City duly provided notice of availability of the Draft Supplemental Environmental Impact Report for the amendments to the Plan by posting a Notice of Availability at the Los Angeles County Clerk’s office from August 22, 2006 to October 6, 2006; and

WHEREAS, a duly notice public hearing was held by the Planning Commission on September 13, 2006, November 8, 2006, and December 6, 2006 on the proposed amendments to the Plan; and

WHEREAS, a duly notice public hearing was held by the City Council on December 11, 2006 on the proposed amendments to the Plan for Caltech; and

WHEREAS, the City Council does hereby find and determine as follows:

MASTER DEVELOPMENT PLAN AMENDMENT:

- 1. The proposed use is allowed with a Conditional Use Permit (Major and Minor) within the applicable zoning district and complies with all applicable provisions of this Zoning Code.*** Absent a Master Development Plan, colleges/universities institutions, such as Caltech are permitted with a Conditional Use Permit in Public and Semi-Public (PS) zones. The Caltech campus with its education, academic, research and supportive uses, are consistent with the Public and Semi-Public (PS) zoning district and the General Plan Land Use designation, Institutional. The proposed amendments to the Master Development Plan will continue to provide for educational opportunities for its students and faculties. The proposed amendments are within the proximity of the campus as intended by the Master Development Plan.
- 2. The location of the proposed amendments to the Master Development Plan complies with the special purposes of the Zoning Code and the purposes of the applicable zoning district.*** The purpose of an amendment to the Master Development Plan is to allow an institutional use to plan for future development without the need for conditional use permits for each phase of development. Caltech campus occupies approximately 124-acre area bounded by Hill Avenue on the east, Catalina Avenue on the west, Del Mar Boulevard on the north, California Boulevard from Hill Avenue to Arden Road on the southeast, and Arden Road, Tournament Park, and Wilson Avenue to the south. Since its founding in 1910, academic and related uses have been the focus of this institution. The Caltech's Master Development Plan amendments will respect and protect the surrounding neighborhoods by restricting development at campus edges to uses and buildings that are compatible with surrounding land uses. Furthermore, the proposed new amendments only affects buildings and land within the boundaries of the existing Master Development Plan and does not add any additional properties to the existing boundary area.
- 3. The proposed amendments to the Master Development Plan are in conformance with the goals, policies, and objectives of the General Plan and the purpose and intent of any applicable specific plan.*** The Caltech Master Development Plan recognized as an implementation tool of the Comprehensive General Plan and is consistent with the objectives, goals, and policies of the General Plan. The amendments to the Master Development Plan further goals of the General Plan, by providing for the Caltech campus to improve its educational facilities in balance with their surroundings. The Master Development Plan establishes a thirty-year framework that will reduce uncertainty in the development process, which will ensure orderly and thorough review from the City for the future planning of the campus.
- 4. The establishment, maintenance, or operation of the Master Development Plan would not, under the circumstances of the particular case, be detrimental to the health, safety, or general welfare of persons residing or working in the neighborhood of the proposed Master Development Plan amendment.*** To proposed amendments to the Master Development Plan continue the operation of an existing private learning institution, Caltech.

the continued operation of Caltech would not be detrimental to the health, safety, or general welfare to the neighboring residents, visitors, students, faculties, and staff.

5. ***The proposed amendments to the Master Development Plan as described and conditionally approved would not be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the City.*** The proposed amendments allow Caltech to provide improved facilities for its students and academic programs envisioned by the Master Development Plan, while providing mitigation measures and conditions of approval for preserving the views of the Athenaeum, South Undergraduate Houses, and the landscape features in the area. The new design review thresholds ensure Design Commission review of new buildings along the edges of the campus. For buildings in the “historic core” of the campus, the new thresholds provide for the Historic Preservation Commission and the Planning Director to review any exterior alterations or additions for compliance with the Secretary of Interior Standards for rehabilitation. These thresholds will allow for the protection of historic buildings on the campus and the City.
6. ***The design, location, operating characteristics, and size of the proposed amendments to the Master Development Plan would be compatible with the existing and future land uses in the vicinity, in terms of aesthetic values, character, scale, and view protection.*** The proposed amendments to the Master Development Plan establish standards for the location and setback of some of the new buildings; and change the design guidelines and design review thresholds that will ensure compatible future development between the existing private learning institution and the adjacent residential neighborhood. Individual development amendments as proposed in the Master Development Plan are subject to review and approval by the Design Commission to ensure the improvement and quality of the environment for Pasadena and its region. The amended design guidelines would broaden the range of architectural styles and landscape designs utilized for future development outside the “historic core” of the Caltech campus. These changes in the design guidelines would encourage architectural and landscaping design that would implement the objectives of the Master Development Plan.

NOW, THEREFORE, BE IT RESOLVED that the Final Supplemental Environmental Impact Report prepared for the amendments to the Master Development Plan for the California Institute of Technology, were reviewed and considered prior to approving the Master Development Plan, and by separate resolution has been certified and the City Clerk has been directed to file a Notice of Determination with the Clerk of the Los Angeles County within five working days.

NOW, THEREFORE, BE IT FURTHER RESOLVED that the City Council approves the amendments to the California Institute of Technology Master Development Plan, attached hereto as Exhibit A, and subject to the Conditions of Approval set forth therein.

Adopted at the regular meeting of the City Council on the _____ day of _____, 2006, by the following vote:

AYES:

NOES:


ABSENT:

ABSTAIN:

ATTEST:

Jane L. Rodriguez, CMC
City Clerk

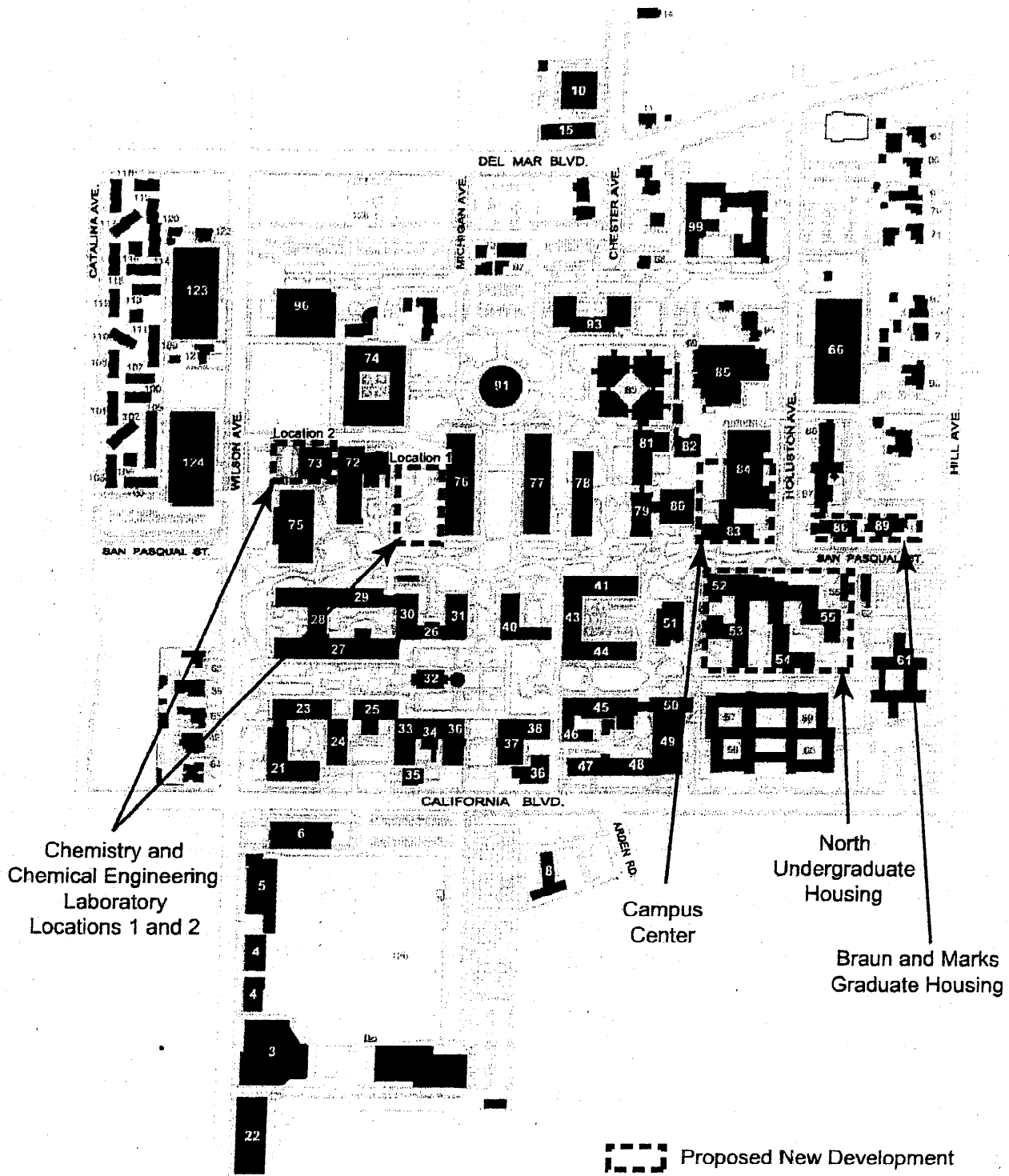
APPROVED AS TO FORM:



Theresa E. Fuentes
Deputy City Attorney

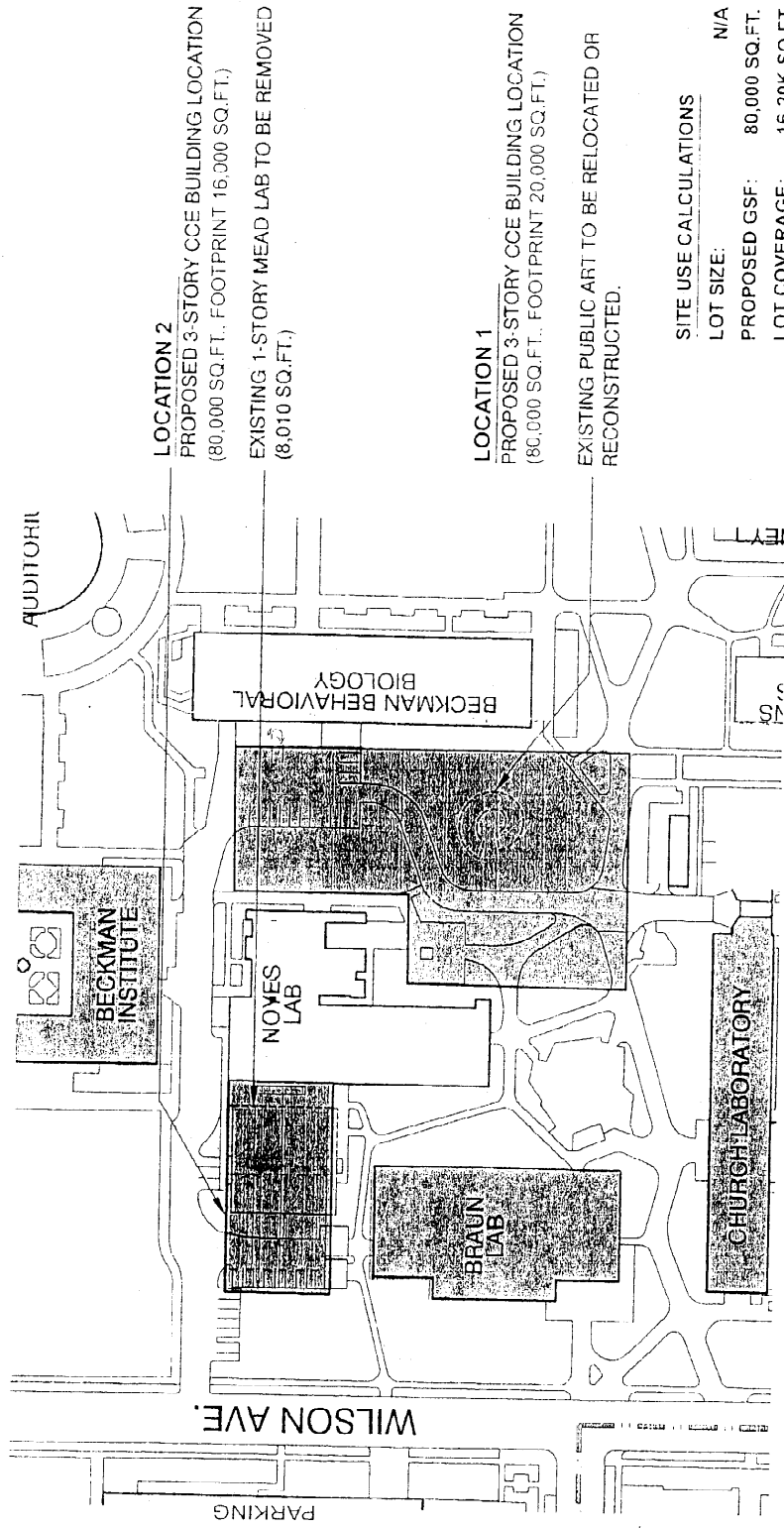
Exhibit A

Caltech Master Development Plan Amendment Project EIR
 Section 2.0 Project Description



Amendment Locations

Figure 2-4
 City of Pasadena



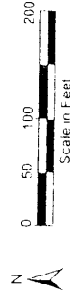
LOCATION 2
 PROPOSED 3-STORY CCE BUILDING LOCATION
 (80,000 SQ.FT., FOOTPRINT 16,000 SQ.FT.)
 EXISTING 1-STORY MEAD LAB TO BE REMOVED
 (8,010 SQ.FT.)

LOCATION 1
 PROPOSED 3-STORY CCE BUILDING LOCATION
 (80,000 SQ.FT., FOOTPRINT 20,000 SQ.FT.)

EXISTING PUBLIC ART TO BE RELOCATED OR
 RECONSTRUCTED.

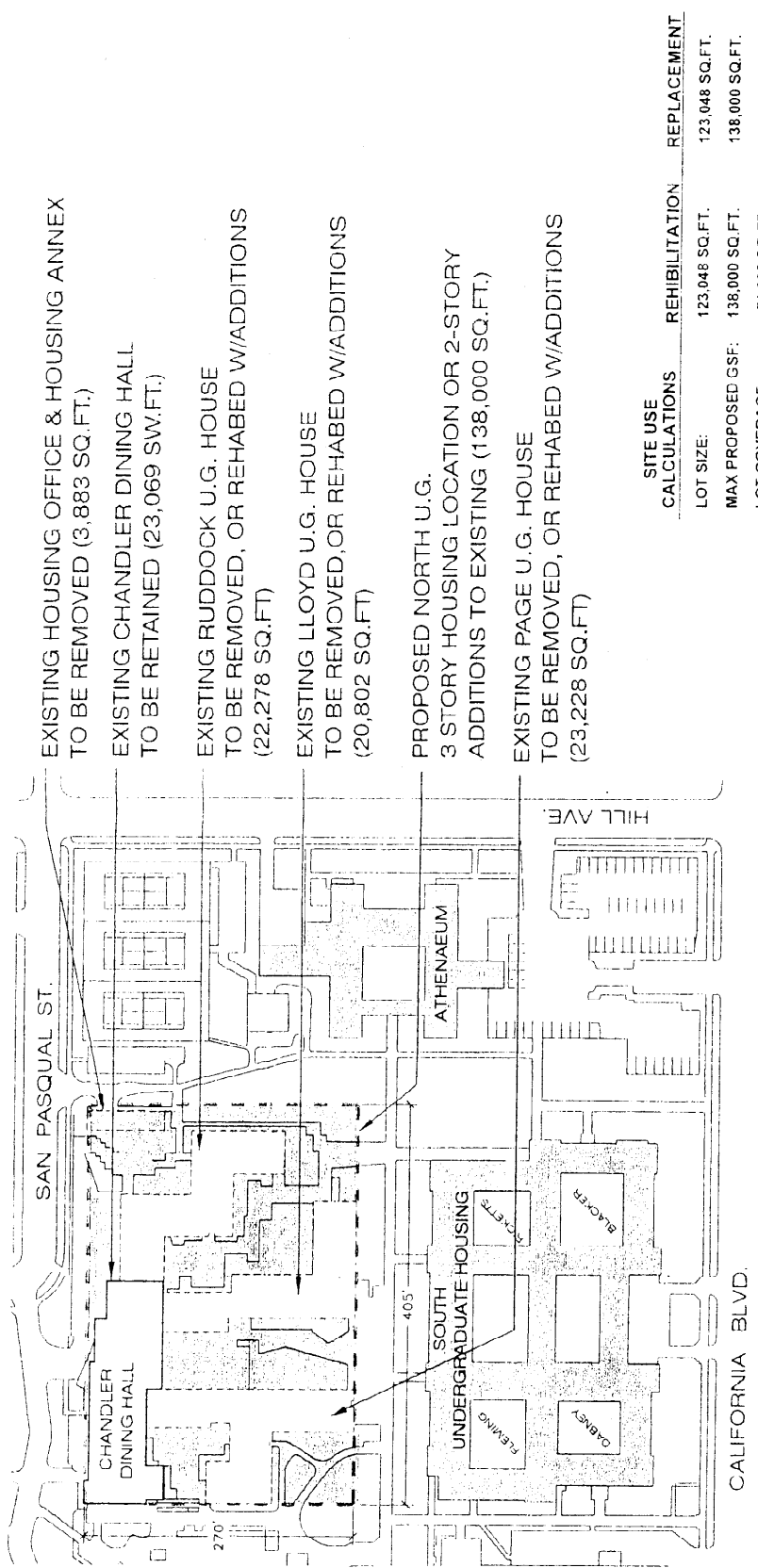
SITE USE CALCULATIONS

LOT SIZE:	N/A
PROPOSED GSF:	80,000 SQ.FT.
LOT COVERAGE:	16-20K SQ.FT.
# OF UNITS:	N/A
BEDROOMS/UNIT:	N/A
PARKING:	0



Proposed New Chemistry and
 Chemical Engineering Lab at
 Location 1 (between Noyes and BBB Lab)
 or Location 2 (Existing Mead Lab)

Figure 2-5
 City of Pasadena



EXISTING HOUSING OFFICE & HOUSING ANNEX
 TO BE REMOVED (3,883 SQ.FT.)

EXISTING CHANDLER DINING HALL
 TO BE RETAINED (23,069 SW.FT.)

EXISTING RUDDOCK U.G. HOUSE
 TO BE REMOVED, OR REHABED W/ADDITIONS
 (22,278 SQ.FT)

EXISTING LLOYD U.G. HOUSE
 TO BE REMOVED, OR REHABED W/ADDITIONS
 (20,802 SQ.FT)

PROPOSED NORTH U.G.
 3 STORY HOUSING LOCATION OR 2-STORY
 ADDITIONS TO EXISTING (138,000 SQ.FT.)

EXISTING PAGE U.G. HOUSE
 TO BE REMOVED, OR REHABED W/ADDITIONS
 (23,228 SQ.FT)

SITE USE CALCULATIONS	REHABILITATION	REPLACEMENT
LOT SIZE:	123,048 SQ.FT.	123,048 SQ.FT.
MAX PROPOSED GSF:	138,000 SQ.FT.	138,000 SQ.FT.
LOT COVERAGE:	71,000 SQ.FT. (57%)	38,000 SQ.FT.
# OF UNITS:	275	275
BEDROOMS/UNIT:	275	275
PARKING:	0	0



North Undergraduate Houses
 Figure 2-6
 City of Pasadena

EXISTING HOUSING OFFICE & HOUSING ANNEX
TO BE REMOVED (3,883 SQ.FT.)

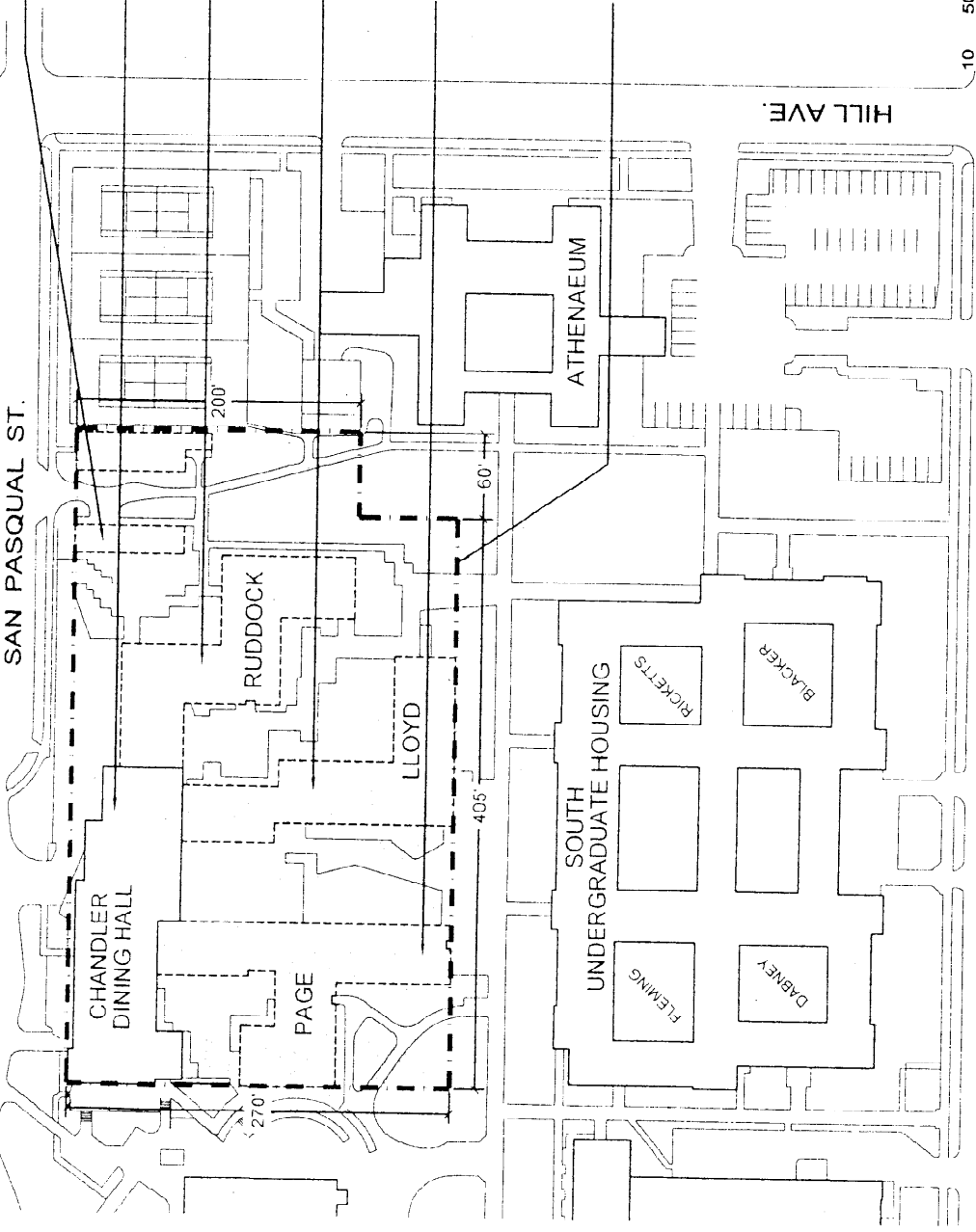
EXISTING CHANDLER DINING HALL
TO BE RETAINED (23,069 SQ.FT.)

EXISTING RUDDOCK U.G. HOUSE
TO BE REMOVED, OR REHABED W/ ADDITIONS
(22,278 SQ.FT.)

EXISTING LLOYD U.G. HOUSE
TO BE REMOVED, OR REHABED W/ ADDITIONS
(20,802 SQ.FT.)

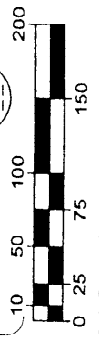
EXISTING PAGE U.G. HOUSE
TO BE REMOVED, OR REHABED W/ ADDITIONS
(23,228 SQ.FT.)

PROPOSED NORTH U.G.
3-STORY HOUSING LOACTION,
OR 2-STORY ADDITIONS TO EXISTING
(138,000 SQ.FT.)

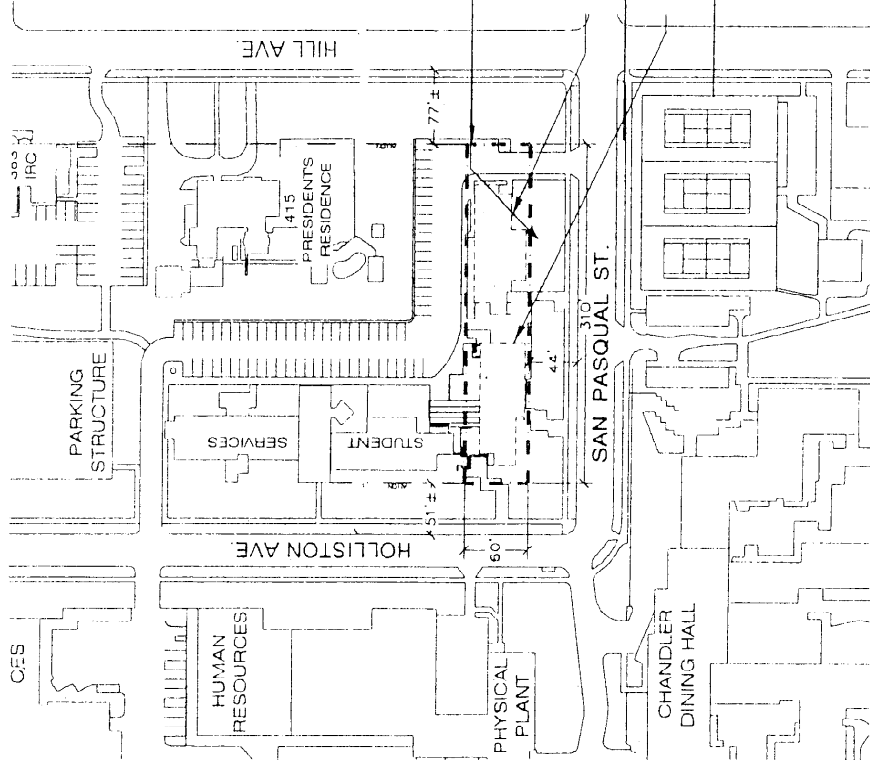


SITE USE CALCULATIONS

LOT SIZE:	123,048 SQ.FT.
PROPOSED GSF:	138,000 SQ.FT.
LOT COVERAGE:	71,000 SQ.FT. (57%)
# OF UNITS	273
BEDROOMS/UNIT	273
PARKING	0



NEW, OR REHABED W/ ADDITIONS, NORTH UNDERGRADUATE HOUSING
AT SITE OF EXISTING NORTH UNDERGRADUATE HOUSES



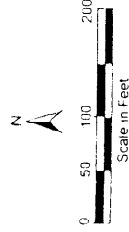
PROPOSED 3 STORY
 HOUSING LOCATION

EXISTING MARKS U.G. HOUSE
 TO BE REMOVED (11,267 SQ. FT.)

EXISTING BRAUN GRADUATE HOUSE
 TO BE REMOVED (10,428 SQ. FT.)

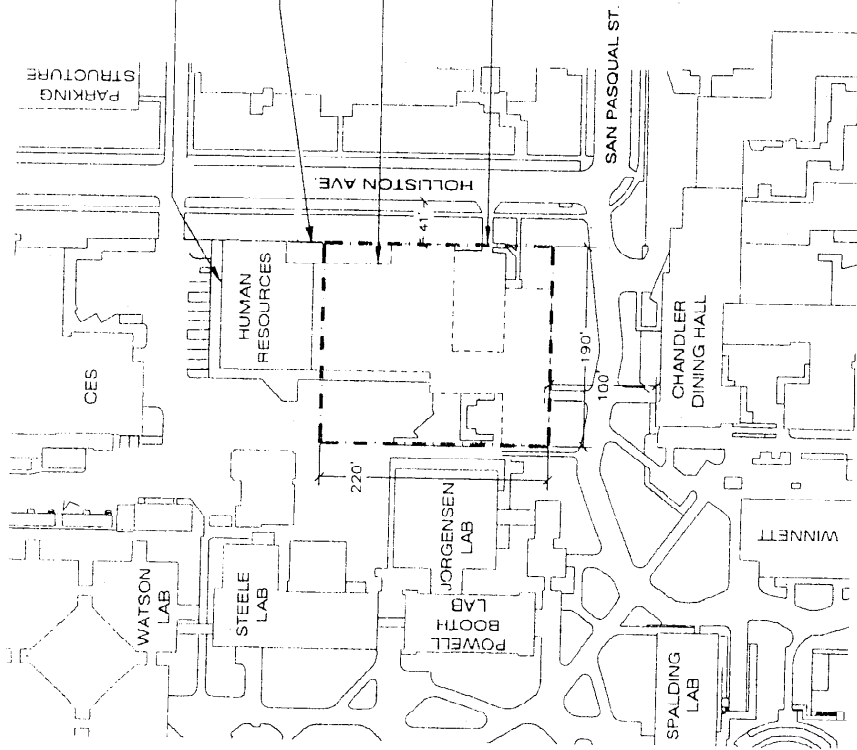
SITE USE CALCULATIONS

LOT SIZE:	50,631 SQ.FT.
PROPOSED GSF:	55,000 SQ.FT.
LOT COVERAGE:	15,000 SQ.FT. (30%)
# OF UNITS:	62
BEDROOMS/UNIT:	62
PARKING:	18 SPACES



Braun & Marks Graduate Houses

Figure 2.7.



EXISTING HUMAN RESOURCES BUILDING TO BE RETAINED

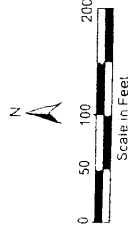
ALIGN SETBACK WITH EAST FACE OF HUMAN RESOURCES BUILDING

EXISTING PHYSICAL PLANT OFFICES & SHOPS TO BE REMOVED (36,648 SQ.FT.)

PROPOSED CAMPUS CENTER BUILDING LOCATION (100,000 SQ.FT.)

SITE USE CALCULATIONS

LOT SIZE:	77,450 SQ. FT.
PROPOSED GSF:	100,000 SQ.FT.
LOT COVERAGE:	20,000 SQ.FT. (26%)
# OF UNITS:	N/A
BEDROOMS/UNIT:	N/A
PARKING:	0



Campus Center

Revisions to the Open-Space Strategy and Design Guidelines Sections of the Master Plan

1. At page 60 revise the fourth paragraph to read as follows:

While this axis will maintain a sense of continuous open space by virtue of a visual corridor along its entire length, it **should** be designed as a series of interconnected courtyards. These courtyards **should** be developed as a combination of **more** formal hardscape and landscape spaces, in contrast with the more free-form landscaping along the San Pasqual alignment. Landscape and hardscape **in this area** should reinforce the axial design of these spaces **so that this area may be reflective of the rest of the Caltech campus.** As of the first five-year compliance review, the axis began to be delineated with the construction of both the Moore Laboratory and the Avery House.

2. At Page 61 map, strike out lefthand margin arrow and entire note: “BREAK STREET TREES @ CAMPUS ENTRIES AND CONSTRUCT LANDSCAPED ISLAND @ AUTO DROP OFF.”
3. At Page 61 map, strike out righthand margin arrow and entire note: “CREATE INFORMAL PARK @ WEST SIDE OF HOLLISTON ACROSS [SIC] FROM DORMS.”
4. Change page 89 by revising the text of the third paragraph (“East-West Axis”) to read as follows:

While this axis is intended to be an open space along its entire length, it **should** be designed as a series of interconnected courtyards. **The design of the courtyards should be consistent with the Master Plans’ “open space strategy.” The width of the outdoor “corridors” formed by the building facades on either side should be approximately 120 feet wide. Optional arcades on building facades may project into the 120-foot width but should not reduce the “corridor” width to less than 80 feet.** Individual buildings along the axis **should** be clustered to form courtyards. **These courtyards may incorporate “corridor” elements, including arcades, tree alees and pedestrian paths.”** **The “corridors”, should terminate at small at small pavilion structures, tree groupings or other landscape features (similar to those seen at the original east-west axis) at their intersection with Wilson Avenue and Holliston Avenue, to promote a consistent encoding of the gateways into the campus.**

5. Change text beginning at the bottom of page (“Architecture, Academic Buildings”) through 100 as follows:

Caltech’s original campus was designed with two distinctive architectural styles: that of the academic buildings in the western portion of the original campus and

that of the **south** dormitories and Athenaeum at the east end. The Goodhue design of the academic buildings was scholarly and classic in nature; they were unified with an arcade system to create sheltered courtyards and present a unified architectural statement rather than expressions of individual buildings. The architecture of Gordon Kaufmann at the Athenaeum, **and the S. Undergraduate Houses, however, reflected a more decorative style; they were unified with each other and the western portion of the campus by way of the landscaping along Olive Walk.** However, it should be kept in mind that even in the western portion of the campus, there is a distinctive architectural expression exhibited in Elmer Grey's design of Parsons-Gates, the oldest building on the campus. This building is more reflective of Kaufmann's work than Goodhue's. This variance of style between the two ends of the original campus, and even within the western portion, works to create a more dynamic campus. Both the landscaping and the buildings contribute to make the campus a park for learning and discovery. The surroundings provide a framework conducive to realizing Caltech's mission. The campus is not a monotonous park of a singular architectural style but rather an ever changing setting starting with the styles of Goodhue and Kaufman, and continuing with a collection of buildings that reflect the styles of the various periods that they were built in. The architectural pastiches works because of the layout of the buildings, the carefully thought-out paths that connect them, the open spaces and the canopy of trees that provide shelter from the sun.

Buildings north of the San Pasqual alignment, including along the east-west axis, should be designed in accordance with the principles that have made the campus so successful thus far. These principles do not imply architectural monotony but rather an active engagement with the present. That is, after all, Caltech's mission – to be building into the future using the wisdom of the past. In the spirit of this mission, buildings should be designed as imaginative architectural visions, whether contemporary in design or reminiscent of the original buildings. However, they should also be designed as part of a larger whole to be interconnected with hardscape or landscape bordered courtyards, paths and open spaces.

Recognizing the significance of Caltech's historic core, any physical changes or additions within the original campus between California Boulevard and the San Pasqual alignment should be sympathetic to and compatible with the massing, size, scale, open space, materials and architectural style of Caltech's original buildings.

The area south of California Boulevard was not added to the campus until after WW II. The existing buildings in this area are not good examples of the periods that they were built in. The remaining building sites along California Boulevard should seek to improve the overall appearance of this area with significant buildings of quality and distinction. This can be

achieved without relating to the buildings in Caltech’s historic core on the north side of California because such an approach could dilute the overall character of the historic core and create a false sense of history.

The architecture and urban design of the existing campus suggest that the following general principles guide the design of new buildings **outside the historic core**:

- New buildings should be designed **in accordance** with the same principles for siting, massing, **size, scale** and **open space** that guided the design of buildings at the original campus bounded by San Pasqual Street, California Boulevard, Wilson Avenue, and Hill Avenue;
- **New buildings should be designed to be** compatible with the massing, scale, architectural treatment, and materials of nearby buildings and places;
- New building should not be designed in isolation, but address and seek to unify the architectural character of surrounding buildings.
- At the edge of the campus, the design of buildings should seek compatibility with the surrounding urban context, while contributing to a unified campus-wide image and character.

Add the following items to the previous amendment proposal:

6. At page 86, revise the 2nd sentence in the 1st paragraph under “BUILDING HEIGHTS AND SETBACKS” as follows: “Building heights are presented in **feet** above natural or finish grade.”
7. At page 88, revise the 1st sentence in the 1st paragraph under “Building Heights” as follows: “Building heights for new facilities to be constructed at the campus are presented in **feet.**”
8. At page 88, revise the 1st sentence in the 2nd paragraph under “Building Heights” as follows: “The **maximum** height of new academic buildings of two-, three-, four-, and six-story structures **is** 35 feet, 50 feet, 65 feet, and 100 feet respectively, measured to the top of the top plate at the uppermost floor with the following exceptions:”
9. At page 88, revise the 1st sentence in the 2nd paragraph under “Building Heights” as follows: “Mansard or pitched roofs may exceed the basic maximum permitted heights by 15 feet. **Occupied space is allowed within this 15 feet.**”
10. At page 88, revise the 1st sentence in the 3rd paragraph under “Building Heights” as follows: “The **maximum** height of new residential facilities will be 25 feet and

35 feet measured to the top of the top plate at the uppermost floor of two- and three-story building respectively, with the following exceptions:"

11. At page 88, revise the 1st bulleted sentence in the 3rd paragraph under "Building Heights" as follows: "Mansard or pitched roofs may exceed the basic maximum permitted heights by 10 feet. **Occupied space is allowed within this 10 feet.**"
12. At page 88, revise the 1st sentence in the 2nd paragraph under "GUIDELINES FOR ACADEMIC FACILITIES" as follows: "Most new academic building will be **50' high**, with one or two basement levels used for academic and administrative purposes.
13. At page 89, revise the 1st paragraph under "North Campus Facilities" as follows: "Buildings in the north campus area will be a maximum of **50' high**, with the exception that new buildings flanking the gateway at Del Mar Boulevard and north of Beckman Auditorium may rise to **65' high**, while the central building at the southern end of the Gateway Plaza may rise to **100' high**, depending on final design. A **50' high** addition to the west side of Mead Laboratory is also planned.
14. At page 90, revise the 2nd and 3rd sentences in the 1st paragraph under "California Boulevard Facilities" as follows: "The height of new structures west of the new parking lot entry driveway shall be limited to **50'** to match the height of the Keith Spalding Building. The height of the structure east of the new driveway shall be limited to **35'.**"
15. At page 91, revise the 1st sentence in the 1st paragraph under "Catalina Dormitories" as follows: "New dormitories at Catalina III will be **35'** in height, matching the scale of Catalina I and II; new facilities at Catalina IV, between Catalina and Wilson Avenues, north of San Pasqual Street, will be predominately **25'** in height as shown on the Catalina Avenue Dormitories map."
16. At page 92, revise the 1st sentence in the 1st paragraph under "Del Mar/Holliston Residential Facility" as follows: "The new undergraduate, graduate student, and faculty housing facility at the corner of Holliston Avenue and Del Mar Boulevard will be **25'** in height, harmonizing with the scale of the surrounding two- and three-story apartments and condominiums existing along the Del Mar Boulevard corridor."
17. At the map on page 87, change all the 'story' heights on the map to the corresponding 'feet' heights.

Design Review

The City of Pasadena has established design review procedures for new construction and rehabilitation that will apply to new development at Caltech as prescribed herein. Projects shall be reviewed and evaluated at three levels of concern: the campus, the specific area, and the individual building.

~~Alterations to Existing Academic/Support Facilities or Dormitories~~

Permits for major exterior alterations or major additions to any existing academic or residential facility visible from the public right-of-way, ~~and new facilities with more than 25,000 square feet of gross floor area,~~ will be reviewed by the Design Review Commission, if deemed necessary by the Planning Director.

New construction of structures 25,000-50,000 square feet on the interior of the campus shall be reviewed by the Planning Director. New construction of structures 25,000 square feet or more where any portion of the structure is within 300 feet of the curb face along Wilson Avenue, California Boulevard, Hill Avenue, and Del Mar Boulevard shall be reviewed by the Design Commission. New construction of structures over 50,000 square feet on the interior of the campus shall be reviewed by the Design Commission. In addition, as to the Planning Director's review for new construction of 25,000-50,000 square feet on the interior of the campus, at the request of the applicant, the Planning Director may defer review of these projects to the Design Commission.

~~New facilities exceeding 70,000 square feet of gross floor area and the tennis court/parking structure south of California Boulevard will be reviewed by the Design Commission.~~ Recognizing the significance of Caltech's older facilities to both Caltech and the community, permit applications for major exterior alterations or major additions to ~~any of the existing academic/residential buildings, except single family houses, more than 50 years old~~ the facilities listed in Table 13 will be reviewed by the Cultural Heritage Historic Preservation Commission. The Secretary of the Interior's Standards for Rehabilitation shall apply to reviews affecting buildings listed in Table 13. Interior remodeling at existing facilities will not be reviewed under the Design Review process.

~~New Academic/Support Facilities or Dormitories~~

~~New facilities with more than 25,000 square feet of gross floor area will be reviewed by the Planning Director. Facilities exceeding 70,000 square feet of gross floor area, residential facilities with more than 50 units and the tennis court/parking structure and academic buildings south of California Boulevard will be reviewed by the Design Review Commission.~~

Existing Houses

Permits for major exterior alterations or major additions to the primary elevations of single-family houses that are visible from Del Mar Boulevard, Wilson Avenue, California Boulevard, Hill Avenue, Catalina Avenue, or Arden Road will be reviewed by the

Planning Director. Interior alterations or exterior alterations/additions ~~not visible from these streets~~ on secondary elevations will not be reviewed under the Design Review process.

TABLE 13: FACILITIES WHERE MAJOR EXTERIOR ALTERATIONS OR ADDITIONS WILL BE REVIEWED BY THE HISTORIC PRESERVATION COMMISSION FOR COMPLIANCE WITH THE SECRETARY OF INTERIOR STANDARDS FOR REHABILITATION

South Undergraduate Houses

North Mudd Lab

Robinson Lab

Arms Lab

Gates Annex

Kerckhoff Lab

Crellin Lab

Parson-Gates

Bridge Labs

Bridge Annex

Dabney Hall

Thomas Lab

Guggenheim Lab

Athenaeum

Beckman Auditorium

Kellog Lab

Synchrotron Lab

Footnote: This list includes all academic/support facilities and dormitories ~~over 50 years old~~ that have not been significantly altered, and the only building less than 50 years old (Beckman Auditorium) that may be individually eligible for the National Register of Historic Places.

**Conditions of Approval
California Institute of Technology (Caltech)
Master Development Plan Amendment**

Planning

1. The new Chemistry and Chemical Engineering (CCE) Laboratory, if constructed on Wilson Avenue frontage, shall not exceed a height of 50 feet and shall provide a minimum setback of approximately 90 feet matching the existing Braun Laboratory. The CCE Lab shall not exceed a building floor area of 80,000 gross square feet.
2. The new Chemistry and Chemical Engineering (CCE) Laboratory, if constructed between the Noyes and Beckman Behavior Laboratories, shall not exceed a height of 50 feet. The CCE Lab shall not exceed a building floor area of 80,000 gross square feet. The southern building terminus of the CCE Lab shall not encroach into the main pedestrian walkway of the east-west open space and pedestrian corridor of the San Pasqual Mall. Building plans shall be submitted to the Planning and Development Department for review and approval prior to any grading permit.
3. If the new North Undergraduate Houses are constructed to replace the existing housing, the height shall not exceed 50 feet, floor area shall not exceed 138,000 square feet, and the number of beds shall not exceed 275, plus or minus 2% subject to no net increase overall. The footprint of the building shall not extend more than 35 feet east from the eastern wall of the existing Ruddock House. The existing 7 ¾-foot brick walkway, immediately west of the Athenaeum, shall be extended to San Pasqual with landscaping to create a pedestrian corridor at least 26 feet in width.
4. If the existing North Undergraduate Houses are rehabilitated and a fourth house is added, the footprint of the fourth house shall not extend more than 95 feet from the eastern wall of the existing Ruddock House and shall not exceed 35 feet in height. The number of beds shall not exceed 275, plus or minus 2% subject to no net increase overall. The existing 7 ¾-foot brick walkway, immediately west of the Athenaeum, shall be extended to San Pasqual with landscaping to create a pedestrian corridor at least 26 feet in width.
5. At the eastern edge, the footprint and massing of the expanded or newly constructed North Undergraduate Houses should respect the northwest corner of the Athenaeum with appropriate scale and building separation. Construction to the west of the existing lawn adjacent to the Athenaeum should have a setback from the lawn and massing that are similar to those of the South Undergraduate Houses. The Design Commission shall review the massing and setback of new construction or additions to the North Undergraduate Housing in relationship to the historic setting and context of the Athenaeum.
6. The new Campus Center on the west side of Holliston Avenue shall have a minimum setback of 41 feet. The Campus Center shall not exceed a height of 50 feet and shall not exceed a building floor area of 100,000 square feet.
7. The new graduate dormitories on the northeast corner of Holliston Avenue and San Pasqual Street shall not exceed a height of 50 feet and shall not exceed a building floor area of 55,000 square feet. A minimum setback of 44 feet shall be provided along San Pasqual Street and a minimum setback of 51 feet shall be provided along Holliston Avenue. The

number of beds for the graduate dormitories shall not exceed 62 beds, plus or minus 2% subject to no net increase overall.

8. The applicant shall meet all of the mitigation measures of the Final Environmental Impact Report. The applicant shall retain an Environmental Impact Report Mitigation Monitor Coordinator with experience on construction projects to serve as a liaison between the development/construction team and the City. The Mitigation Coordinator will monitor the implementation of the Mitigation Monitoring and Reporting Program as specified in the project FEIR and prepare and submit written reports to the Condition/Mitigation Monitoring Coordinator of the City of Pasadena. The format and timing of the reports is subject to approval by the Code Compliance Manager
9. For each new academic and administrative building over 70,000 square feet of gross floor area proposed to constructed, Caltech shall include in the project a public art component equal to or greater than one percent (1%) of the construction cost. Caltech shall consult with the Arts Commission of the City of Pasadena and follow the Private Development Public Art Program Guidelines to comply with Public Art requirement.

Transportation

10. The applicant shall continue to participate in the City's Transportation Demand Management program.
11. Based on an on-campus supply of 3,333 parking spaces, a minimum of 170 bicycle parking spaces shall be provided on the site. The locations shall be shown on the master site plan and approved by the Department of Transportation prior to the issuance of a building permit.
12. The applicant shall fund the enhancement of transit stop locations along California Boulevard, Hill Avenue, and Del Mar Boulevard prior to the issuance of grading permits for any development amendments as proposed in this Master Plan.
13. The applicant shall fund the installation of pedestrian count-down indicators at two locations to be identified by the Department of Transportation.
14. The applicant shall participate in the Citywide Transportation Monitoring Program.
15. Prior to the start of construction or issuance of any grading permits, the applicant shall submit a Construction Staging and Traffic Management Plan to the Department of Public Works and the Department of Transportation for review and approval. This plan shall show the impact of the various construction stages on the public right-of-way including street occupations, closures, detours, staging areas, and routes of construction vehicles entering and exiting the construction site.

Noise equipment shall be provided on the construction site to monitor the noise level to ensure compliance with the existing noise standards. If the developer exceeds the noise standards, the project shall be brought immediately into compliance. The noise level during the construction phase shall not exceed the level authorized in the noise ordinance for construction sites.

Public Works

16. The project may result in increased sewage discharge. The city will determine if the existing sewer system can safely accommodate an increase in sewer flow. If it cannot, the applicant shall mitigate the capacity deficiencies by a method approved by the Department of Public Works. Mitigation may require replacement of sewer mains with larger size pipe, construction of relief sewers, or payment of the projects share of funds for sewer improvement project(s). If the project is required to construct physical improvements, the applicant shall bear the cost of plan preparation, construction, inspection and other direct costs associated with the improvements.
17. The new laboratory and other buildings shall connect to the public sewer with a new house sewer consisting of one or more six-inch diameter vitrified clay or cast iron pipe laid at a minimum slope of two percent. The house sewer shall meet City Standards as determined by the Department of Public Works.
18. The applicant may be required to obtain a permit from the Los Angeles County Department of Public Works for any work over any LACDPW storm drain facilities.
19. If the applicant proposes any new driveways, the new one-way entry/exit drive approach shall be a minimum of 12 feet in width and two-way entry/exit drive approach shall be a minimum of 24 feet in width and a maximum of 26 feet in width and in accordance with Standard Drawing No. S-403. The existing gutter shall be cut as near the flow line and the paving shall not be disturbed. The street trees shall have a clear distance of a minimum of seven feet from the drive approaches. The new drive approaches shall not cause damage to the existing street trees which shall remain in place. The applicant shall complete the improvements prior to the five-year review.
20. If the proposed improvements drain to the driveway, the applicant shall construct a non-sump grate drain in the driveway at the back of the sidewalk. The drain shall discharge to the street in a curb outlet approved by the Department of Public Works
21. Signs clearly indicating the private streets as 'Private' shall be installed on all private streets, e.g. Lura Street, Holliston Avenue, San Pasqual Street, etc.
22. If any street vacancies exist, the applicant shall plant and maintain, for a period of three years, the officially designated street trees per the City approved master street tree plan on the subject frontages and install and permanently maintain an irrigation system for the trees. Locations will be finalized in the field by the Department of Public Works. Trees must meet the City's tree stock standards, be inspected by the City, and be planted according to the details provided by the Parks and Natural Resources Division. The trees shall be approved by the Forestry Supervisor prior to the five-year review.
23. If the existing street lighting system along the project frontage is in conflict with the proposed development/driveway, it is the responsibility of the applicant to relocate the affected street lights, including conduit(s), conductors, electrical services, pull boxes and miscellaneous appurtenant work in a manner that complies with the requirements and receives the approval of the Department of Public Works.
24. Plans must be submitted to the Parks and Natural Resources Division for approval showing any structures, irrigation, footings, grading or plantings that impact City street trees. The

plans must conform to the Tree Protection Standards which specifically require showing the locations of all existing trees, their diameters and actual canopies as well as any trees to be planted with their canopy at mature size.

25. The applicant shall provide refuse storage specifications in compliance with Pasadena Municipal Code 17.40.120B.
26. The applicant shall provide recycling bin space with refuse storage area in compliance with Pasadena Municipal Code 17.40.120B.
27. The parking, loading and trash enclosure areas shall conform to the requirements of the Zoning Ordinance, and a plan showing all pertinent dimensions for these areas shall be submitted for each development amendment to the Department of Public Works and the Department of Transportation for review and approval prior to the issuance of a building permit for each development. The trash enclosure area shall include provisions for recycling.
28. For any new construction, the applicant shall submit to the Department of Public Works a grading and drainage plan and hydrology study for review and approval prior to the issuance of a building permit. The grading and drainage plan and the hydrology study shall be prepared by a licensed civil engineer registered in the State of California. The hydrology study shall include calculations for the quantities of storm water runoff for the pre-development and post development conditions and how drainage will be handled. On-site drainage shall be connected to an off-site drainage system whenever possible.
29. The applicant is responsible for design, preparation of plans and specifications, and construction of all required public improvements. Plans for the above improvements shall be prepared by an engineer registered in the State of California. Upon submission of improvement plans to the Department of Public Works, the applicant will be required to place a deposit with the Department to cover the cost of plan checking and construction inspection of the improvements.
30. Past experience has indicated that projects such as this tend to damage the abutting street improvements with the heavy equipment and truck traffic that is necessary during construction. Additionally, the City has had difficulty in requiring developers to maintain a clean and safe site during the construction phase of development. Accordingly, the applicant shall place a \$20,000 deposit with the Department of Public Works prior to the issuance of a building or grading permit. This deposit is subject to refund or additional billing, and is a guarantee that the applicant will keep the site clean and safe, and will make permanent repairs to the abutting street improvements that are damaged, including striping, slurry seal/resurfacing, curb, gutter, and sidewalk, either directly or indirectly, by the construction on this site. A processing fee will be charged against the deposit.
31. All costs associated with these conditions shall be the applicant's responsibility. Unless otherwise noted in this memo, all costs are based on the General Fee Schedule that is in effect at the time these conditions are met. A processing fee will be charged against all deposits.

In addition to the above conditions, the requirements of the following ordinances may apply to the proposed project:

32. Sidewalk Ordinance - Chapter 12.04 of the Pasadena Municipal Code (PMC)
In accordance with Section 12.04.031, entitled "Abandoned Driveways" of the PMC, the applicant shall close any unused drive approach with standard concrete curb, gutter and sidewalk. In addition, the applicant shall repair any existing or newly damaged sidewalk along the subject frontages prior to the issuance of a Certificate of Occupancy or any building permit for work in excess of \$5,000 pertaining to occupancy or construction on the property in accordance with Section 12.04.035, entitled "Inspection required for Permit Clearance" of the PMC.
33. City Trees and Tree Protection Ordinance - Chapter 8.52 of the PMC
The ordinance provides for the protection of specific types of trees on private property as well as all trees on public property. No street trees in the public right-of-way shall be removed without the approval of the Urban Forestry Advisory Committee.
34. Stormwater Management and Discharge Control Ordinance – Chapter 8.70 of the PMC
This project is subject to the requirements of the City's Storm Water and Urban Runoff Control Regulation Ordinance which implements the requirements of the Regional Water Quality Control Board's Standard Urban Storm Water Mitigation Plan (SUSMP). Prior to the issuance of any demolition, grading or construction permits for this project, the developer shall submit a detailed plan indicating the method of SUSMP compliance. Information on the SUSMP requirements can be obtained from the Permit Center's webpage at <http://www.cityofpasadena.net/permitcenter/plansubreq/cndord.asp>
35. Construction and Demolition Waste Ordinance, Chapter 8.62 of the PMC
The applicant shall submit the following plan and form which can be obtained from the Permit Center's webpage at <http://www.cityofpasadena.net/permitcenter/plansubreq/cndord.asp> and the Recycling Coordinator, (626) 744-7175, for approval prior to the request for a permit:
- a. C & D Recycling & Waste Assessment Plan – Submit plan prior to issuance of the permit. A list of Construction and Demolition Recyclers can be obtained from the Recycling Coordinator.
 - b. Monthly reports must be submitted throughout the duration of the project.
 - c. Summary Report with documentation must be submitted prior to final inspection.
- If any new construction is proposed, a security performance deposit of three percent of the total valuation of the project or \$30,000, whichever is less, is due prior to permit issuance. This deposit is fully refundable upon compliance with Chapter 8.62 of the PMC. A non-refundable Administrative Review fee is also due prior to permit issuance and the amount is based upon the type of project.
36. The City of Pasadena Water and Power, Power Delivery Unit has been working closely with Caltech engineers in preparing all their electrical needs. Currently, there are 17,000 Volts feeders feeding the campus simultaneously, and Caltech is also in the process of upgrading their co-generating station. All new loads from the new construction within Caltech's property shall be adequately fed from those existing high voltage feeders.
37. The applicant or successor in interest shall meet the applicable code requirements of all other City Departments.