

ATTACHMENT E

**CITY OF PASADENA
PLANNING DIVISION
HALE BUILDING
175 NORTH GARFIELD AVENUE
PASADENA, CA 91101-1704**

**DRAFT INITIAL STUDY
(REVISED)**

In accordance with the Environmental Policy Guidelines of the City of Pasadena, this analysis, the associated "Master Application Form," and/or Environmental Assessment Form (EAF) and supporting data constitute the Initial Study for the subject project. This Initial Study provides the assessment for a determination whether the project may have a significant effect on the environment.

SECTION I – PROJECT INFORMATION

1. Project Title: 220 North San Rafael Avenue
2. Lead Agency Name and Address: City of Pasadena
Department of Planning & Development
175 N. Garfield Avenue
Pasadena, CA 91101
3. Contact Person and Phone Number: Robert Avila (626) 744-6706
4. Project Location: 220 N. San Rafael Avenue, Pasadena
5. Project Sponsor's Name and Address: James Rodney Youngson
Youngson Company
8648 Holloway Plaza Drive
Los Angeles, CA 90069
6. General Plan Designation: Institutional
7. Zoning: PS (Public and Semi-Public District)
8. Description of the Project: The proposed project involves four actions. The first action is a General Plan Amendment to change the existing "Institutional" general plan designation to Low Density Residential (0-6 du/net acre). The second action is a Zoning Map Amendment to change the existing zoning from PS (Public/Semi-Public District) to RS-2-HD (Single-family Residential/ 2 du/net acre/Hillside Overlay). The third action is a proposed subdivision to split the existing 129,718 square foot parcel into two lots—Parcel A would measure approximately 104,108 square feet; Parcel B would measure approximately 25,610 square feet. The fourth and final action is a variance request for Parcels A and B, to allow these lots to be created with less than the required width of 100 feet. The new residentially zoned parcels would eventually be developed with single-family residences. All four actions will be reviewed concurrently by the City of Pasadena.

The project site is located at 220 N. San Rafael Avenue, Pasadena in the County of Los Angeles. The lot encompasses a small canyon that is the location of the former Richter Research Laboratory operated by the California Institute of Technology. The site is developed with a 6,476 square foot

laboratory structure and a 1,304 square foot garage designed by prominent architect Reginald Johnson and completed in 1925-26. The project site is presently accessed from San Rafael Avenue.

9. **Surrounding Land Uses and Setting:** The project site is located in west Pasadena along the southerly end of the San Rafael Hills, across San Rafael Avenue from the Annandale Country Club at Chateau Road. The surrounding land uses to the east, west and north are primarily large single-family residences on large parcels of at least 20,000 square feet, and the open space of the Annandale Country Club is located to the south of the project site.
10. **Other public agencies whose approval is required:** The proposed project would require advisory reviews from the Historic Preservation and Planning Commissions. Final review of the proposed project would be conducted by the Pasadena City Council.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would involve at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages:

	Aesthetics		Geology and Soils		Population and Housing
	Agricultural Resources		Hazards and Hazardous Materials		Public Services
	Air Quality		Hydrology and Water Quality		Recreation
	Biological Resources		Land Use and Planning		Transportation/Traffic
	Cultural Resources		Mineral Resources		Utilities and Service Systems
	Energy		Noise		Mandatory Findings of Significance

DETERMINATION: (to be completed by the Lead Agency)

On the basis of this initial evaluation:

I find that the proposed project DOES NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	✓
I find that, although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.	
I find that the proposed project MAY have a significant effect(s) on the environment. -Analysis in the Initial Study shows that one or more impact areas will have a "Potentially Significant Impact" An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that were not analyzed in a previously approved EIR or Negative Declaration for the project at hand.	
I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.	

Prepared By/Date

Reviewed By/Date

Printed Name

Printed Name

Negative Declaration/Mitigated Negative Declaration adopted on: _____

Adoption attested to by: _____
Printed name/Signature
Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
 - 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
 - 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect is significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
 - 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Unless Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The Lead Agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section 20, "Earlier Analysis," may be cross-referenced).
 - 5) Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. See CEQA Guidelines Section 15063(c)(3)(D). Earlier analyses are discussed in Section 20 at the end of the checklist.
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier documents and the extent to which address site-specific conditions for the project.
 - 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
 - 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
 - 8) The explanation of each issue should identify:
 - a) The significance criteria or threshold, if any, used to evaluate each question; and
 - b) The mitigation measure identified, if any, to reduce the impact to less than significant
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Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact
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SECTION II - ENVIRONMENTAL CHECKLIST FORM

1. BACKGROUND.

Date checklist submitted	December 15, 2005 (Revised)
Department requiring checklist:	Planning & Development
Planner assigned:	Robert Avila

2. ENVIRONMENTAL IMPACTS. (explanations of all answers are required):

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact
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3. AESTHETICS. Would the project:

a. *Have a substantial adverse effect on a scenic vista? (17)*

WHY? The project site is in an area located near the southerly base of the San Rafael Hills. This area contains structures ranging from 1 to 2 stories in height (approximately 36-feet) and dense growth of mature trees which obstruct views throughout the vicinity. Potential new residential development that may occur on the project site would have to meet the height and mass limitations of the Zoning Code (Single-Family Residential Development and Hillside Development Standards).

The project does not substantially impact any scenic vista as defined in the 2004 final EIR for the Land Use and Mobility Elements of the City of Pasadena General Plan.

b. *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (23)*

WHY? The project does not substantially impact an Official State Scenic Highway, L.A. County Recommended Scenic Highway or unofficial City Designated Scenic corridor.

The proposed project would not result in the removal of protected native Coast Live Oak and California Sycamore Trees. The proposed parcel map, the portion identified as Parcel B (the southwesterly portion of the project site) depicts a building pad would be developed with a single-family residence on a relatively flat area where development currently does not exist. The potential building pad is located behind the required minimum 25-foot front yard set back. However, no immediate development is proposed by the applicant at this time.

New homes in the Hillside Overlay District require the review and approval of a Hillside Development Permit. This process requires a public hearing and review of the project to ensure compliance with all code standards, including the specific regulations for hillside zoned parcels. At this time, only the General Plan Amendment, Zone Change and Tentative Parcel Map with a Variance for Lot Width is proposed. There is

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact
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no development project proposed and specific aesthetic impacts of any future development are too speculative to evaluate at this time. However, the future development of the parcels will be subject to a Hillside Development Permit and review by City staff to ensure there are no aesthetic impacts as a result of the development.

Any negative impacts caused by the proposed destruction of trees or other desirable aesthetic natural features would be reduced to a level of insignificance by conditions imposed during this review to preserve recognized aesthetic natural features. There are no trees proposed for removal under this application.

The site does not have structures that have been officially designated as historic resources, although the laboratory and garage have been identified as eligible for listing in the National Register of Historic Places for their association with Charles Richter and Beno Gutenberg and the development of the Richter scale, as well as the association with prominent architect Reginald Johnson. The proposed project would not impact nearby sites or structures which are historic resources. As noted above, any future development will require approval of a Hillside Development Permit and review by City staff including Design and Preservation staff, to ensure new homes on the site are compatible with the existing structures. The site is not part of a landmark district.

c. *Substantially degrade the existing visual character or quality of the site and its surroundings?* ()

WHY? The project site is a narrow canyon that is heavily wooded along its western and eastern flanks. At the north end of the parcel, a large retaining wall and dense vegetation obscure views into the property. Overall, the geography, and dense tree and shrub growth obscure views into the center of the parcel from most vantage points along the public rights of way. No officially designated scenic vistas are associated with this parcel or its location within the San Rafael Hills. New development that may be built on the project site would be subject to the height and mass limitations of the Zoning Code and a Hillside Development Permit. The General Plan and Zoning Map Amendments would change the existing Institutional-Public/Semi-Public district to Low Density Residential-RS-2-HD (Single-family Residential, 2 du/acre/ Hillside Overlay). This change would be consistent with the general plan and zoning designations for the surrounding properties.

The proposed parcel map as revised has the potential to impact 18 mature trees on Parcel B. The potential building pad for Parcel B is located at the southern end of the lot, north of San Rafael Avenue. Given the standards of the Hillside Development, Tree Protection and Grading Ordinances, this is the most likely location for the building pad that would require the least amount of grading and tree removal. However, several large trees are also at this location. Both the Tree Protection Ordinance and Hillside Development Permit process require landscape plans to be submitted and approved prior to the issuance of a building permit. The Tree Protection Ordinance requires that for each protected tree removed, there will have to be replacement tree plantings that will equal or exceed the existing canopy coverage and volume. Compliance with the statutory requirements of the Tree Protection Ordinance will result in less than significant impacts to the visual character and quality of the project site.

The RS-2-HD development standards regulate setbacks, lot coverage and building mass. The development standards for the Hillside Overlay District also have standards for siting and grading, as well as gross floor area and neighborhood compatibility. Furthermore, an applicant seeking to develop either of the newly subdivided parcels would be required to submit a landscape plan for review and approval by the Zoning Administrator prior to the issuance of any building permits. Approval of the proposed project would not lead to any demonstrable negative aesthetic impact.

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d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? ()

WHY? Any future development that results from the proposed project will not have a significant impact on light and glare because it will be required to comply with the standards in the zoning code that regulate glare and outdoor lighting. The height and direction of any outdoor lighting and the screening of mechanical equipment must conform to Zoning Code requirements. The project is in an older, developed residential urban area with streetlights in place. These lights are not sources of glare and are an aide to public safety.

4. AGRICULTURAL RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? ()

WHY? The City of Pasadena is a developed urban area surrounded by hillsides to the north and northwest. The western portion of the City contains the Arroyo Seco, which runs from north to south through the City. It has commercial recreation, park, natural and open space. There is no prime farmland, unique farmland, or farmland of statewide importance, as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency.

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract? ()

WHY? The City of Pasadena has no land zoned for agricultural use other than commercial nurseries being allowed by right in the CG (General Commercial) and IG (General Industrial) zones and conditionally in the CO (Office Commercial), CL (Limited Commercial), OS (Open Space) and PS (Public-Semi Public) Zoning Districts.

c. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? ()

WHY? There is no known farmland in the City of Pasadena; therefore the proposed project would not result in the conversion of farmland to a non-agricultural use.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact
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5. **AIR QUALITY.** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a. *Conflict with or obstruct implementation of the applicable air quality plan?* ()

WHY? The proposed General Plan and Zoning Map Amendments along with proposed two-parcel subdivision may lead to the development of two single-family residences on what is currently a 129,718 square foot lot developed with a university research center. The purpose of the Air Quality Management Plan (AQMP) for the South Coast Air Basin is to set forth a comprehensive program that will lead the area into compliance with all federal and state air quality planning requirements. Specifically, the AQMP is designed to satisfy the California Clean Air Act (CCAA) tri-annual update requirements and fulfill the District’s commitment to update transportation emission budgets based on the latest approved motor vehicle emissions model and planning assumptions. See response 5-b.

The project must comply with the Federal Clean Air Act, the California Clean Air Act and the regional Air Quality Management Plan (AQMP) adopted by the South Coast Air Quality Management District and Southern California Association of Governments. The AQMP contains measures to meet federal and state requirements. The City of Pasadena is also part of the West San Gabriel Valley Planning Council, which adopted the West San Gabriel Valley Air Quality Plan.

b. *Violate any air quality standard or contribute to an existing or projected air quality violation?* ()

WHY? Due to its geographical location and the prevailing off shore daytime winds, Pasadena receives smog from other areas in the Los Angeles basin. The prevailing winds, from the southwest, carry smog from wide areas of Los Angeles and adjacent cities, to the San Fernando Valley and to Pasadena in the San Gabriel Valley where it is trapped against the foothills. For these reasons the potential for adverse air quality in Pasadena is high.

Pasadena is located in a non-attainment area, an area that frequently exceeds national ambient air quality standards. However, the project itself does not meet the South Coast Air Quality Management District’s (SCAQMD) land use threshold for significant air emissions, according to the 1993 updated SCAQMD’s CEQA Air Quality Handbook.

According to the 1993 updated SCAQMD’s CEQA Air Quality Handbook Table A9-5A-1, with the future development of two single family residences, this project will generate 19 average daily trips (ADT) on a workday. The construction screening threshold of significance for potentially significant air quality impacts is 1,309,000 square feet of gross floor area or 166 single-family residential units. The most potential development that could be accommodated from the proposed two parcel subdivision is 16,772 square feet, including existing development. Potential new development is below the screening thresholds. Therefore, there would be no significant impact.

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c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? ()

WHY? The City of Pasadena is within the South Coast Air Basin (SCAB). This basin is a non-attainment area for Nitrogen Dioxide (NO₂) and fine particulates matter (PM₁₀). Projects that contribute to a significant cumulative increase in NO₂ or PM₁₀ will be considered to be significant and require the consideration of mitigation measures. This project will not cause a cumulatively considerable increase in NO₂ and/or PM₁₀ during construction and/or operation. The project does not exceed the size and use limits in the SCAQMD's CEQA Air Quality Handbook for either construction or operation.

d. Expose sensitive receptors to substantial pollutant concentrations? ()

WHY? According to Figure 5-1 and Table 5-1 of the 1993 updated SCAQMD's CEQA Air Quality Handbook the project is located near sensitive receptors, however the General Plan and Zoning Map Amendment with the Tentative Parcel Map will not generate any significant toxic air emissions. The proposed general plan and zoning map amendments and the tentative parcel map application may result in the development of two single-family lots. Single-family residences are not classified as generators of pollutants and are compatible with the existing surrounding residential development.

e. Create objectionable odors affecting a substantial number of people? ()

WHY? This type of use is not shown on the 1993 updated SCAQMD's CEQA Air Quality Handbook Figure 5-5 "Land Uses Associated with Odor Complaints."

6. BIOLOGICAL RESOURCES. Would the project:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? ()

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact
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WHY? The project is in a PS (Public-Semi-Public Zone District which is proposed for a change to RS-2 HD (Single-Residential/2 du/net acre). The project site is currently developed with two primary structures and ancillary sheds. The Annandale Country Club is situated to the south across San Rafael Avenue, while the surrounding adjacent areas are developed with single-family residences. A Biological Constraints Analysis for the project site was prepared by Pacific Southwest Biological Services, Inc., dated June 22, 2005. The analysis concluded that the long history of cultivation and development of the site precludes the presence of any sensitive species. No sensitive vegetation community occurs on the property. No sensitive plant or animal taxa occur on the site.

b. *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? ()*

WHY? See response 6 a.

There are no designated natural communities. Although the project site is a canyon that is tributary to the Arroyo Seco, the past development of the site limits drainage aspects to sheet flows across paved patio and driveway areas. There are no Wetlands or Jurisdictional Drainages on the property.

c. *Have a substantial adverse effect of federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? ()*

WHY? See Response 6 a.

The project is located in a developed urban area. There is no known naturally occurring wetland habitat.

d. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? ()*

WHY? A Biological Constraints Analysis for the project site was prepared by Pacific Southwest Biological Services, Inc., dated June 22, 2005 which found no animal taxa occurs on the project site.

e. *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? ()*

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No Impact



WHY? The applicant has revised the parcel map to address community concerns presented at the neighborhood meeting of October 11, 2005, to limit access and egress to and from the redeveloped site to one point on San Rafael Avenue. The site contains 159 trees, of which 67 are considered significant by the Ordinance No. 6896 "City Trees and Tree Protection Ordinance" as detailed in the table below. The proposed revisions may potentially impact 18 trees, six of them protected. The original proposal potentially five affected trees all of which are considered protected based on their species size and location on the site.

#	Genus & Species	Common Name	Diameter	Remain	Move	Replace	Remove
1	Quercus agrifolia	Coast Live Oak	10.2	✓			
2	Pittosporum undalatum	Victorian Box	15.5, 16.5	✓			
3	Pittosporum undalatum	Victorian Box	15.2	✓			
4	Quercus agrifolia	Coast Live Oak	27.7	✓			
5	Platanus racemosa	Calif. Sycamore	15.8	✓			
6	Quercus agrifolia	Coast Live Oak	12.5	✓			
7	Platanus racemosa	Calif. Sycamore	31.4	✓			
8	Quercus agrifolia	Coast Live Oak	13.5	✓			
#	Genus & Species	Common Name	Diameter	Remain	Move	Replace	Remove
9	Quercus agrifolia	Coast Live Oak	12.1	✓			
10	Quercus agrifolia	Coast Live Oak	14	✓			
16	Umbellularia californica	Calif. Laurel	13.7	✓			
17	Platanus racemosa	Calif. Sycamore	26.6	✓			
19	Olea europaea	Olive Tree	4.7, 2.2, 2, 3.5	✓			
32	Umbellularia californica	Calif. Laurel	21.3	✓			
33	Platanus racemosa	Calif. Sycamore	9.9, 23.7	✓			
35	Quercus agrifolia	Coast Live Oak	11.3, 13.7	✓			
40	Pittosporum undalatum	Victorian Box	6.5, 7	✓			
41	<i>Pittosporum undalatum</i>	<i>Victorian Box</i>	6.1, 8.4, 10.3	✓			
42	Platanus racemosa	Calif. Sycamore	28.1	✓			
43	Platanus racemosa	Calif. Sycamore	25.7, 29.1	✓			
44	Pinus canariensis	Canary Island Pine	28.3	✓			
61	Pittosporum undalatum	Victorian Box	7.2, 5.2, 3	✓			
63	Pittosporum undalatum	Victorian Box	2, 3, 3.6, 4.5	✓			
73	Quercus agrifolia	Coast Live Oak	21.8	✓			
75	Quercus agrifolia	Coast Live Oak	18.5	✓			
76	Quercus agrifolia	Coast Live Oak	32.7	✓			
77	Pittosporum undalatum	Victorian Box	6, 6.1, 7.3	✓			

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78	<i>Pittosporum undalatum</i>	Victorian Box	~14	✓			
81	<i>Pittosporum undalatum</i>	Victorian Box	7.3, 9.7, 11.9	✓			
86	<i>Pinus halepensis</i>	Aleppo Pine	~22	✓			
93	<i>Pittosporum undalatum</i>	Victorian Box	3.9, 6.7, 8.9	✓			
95	<i>Heterimeles arbutifolia</i>	Toyon	5.5, 6.4	✓			
96	<i>Pinus canariensis</i>	Canary Island Pine	26.8	✓			
97	<i>Pittosporum undalatum</i>	Victorian Box	25 @ base	✓			
98	<i>Pittosporum undalatum</i>	Victorian Box	6.2, 7.8	✓			
99	<i>Pittosporum undalatum</i>	Victorian Box	16.3, 8, 10.1	✓			
100	<i>Pittosporum undalatum</i>	Victorian Box	5.2, 4.6, 2	✓			
101	<i>Pinus canariensis</i>	Canary Island Pine	26	✓			
115	<i>Pittosporum undalatum</i>	Victorian Box	3, 3, 3.5, 3.8, 5	✓			
122	<i>Quercus agrifolia</i>	Coast Live Oak	9.1				✓
125	<i>Heterimeles arbutifolia</i>	Toyon	2, 2, 4.6, 4.1, 3.5				✓
126	<i>Quercus berberidifolia</i>	Calif. Scrub Oak	8.5	✓			
#	Genus & Species	Common Name	Diameter	Remain	Move	Replace	Remove
127	<i>Quercus agrifolia</i>	Coast Live Oak	17.4	✓			
128	<i>Pittosporum undalatum</i>	Victorian Box	3.8, 5.1, 3.8	✓			
129	<i>Pittosporum undalatum</i>	Victorian Box	5, 5.3, 5.4	✓			
131	<i>Quercus agrifolia</i>	Coast Live Oak	12, 6.6	✓			
132	<i>Quercus agrifolia</i>	Coast Live Oak	5, 5.8	✓			
133	<i>Heterimeles arbutifolia</i>	Toyon	5, 5 @ 4	✓			
137	<i>Platanus racemosa</i>	Calif. Sycamore	34.7	✓			
139	<i>Quercus agrifolia</i>	Coast Live Oak	17.5				✓
140	<i>Pittosporum undalatum</i>	Victorian Box	16.9				✓
141	<i>Quercus agrifolia</i>	Coast Live Oak	24				✓
142	<i>Quercus agrifolia</i>	Coast Live Oak	9.6				✓
143	<i>Pittosporum undalatum</i>	Victorian Box	14				✓
144	<i>Pittosporum undalatum</i>	Victorian Box	18.7				✓
145	<i>Quercus agrifolia</i>	Coast Live Oak	26.2				✓
146	<i>Umbellularia californica</i>	Calif. Laurel	11.7				✓
147	<i>Platanus racemosa</i>	Calif. Sycamore	~27				✓
148	<i>Quercus agrifolia</i>	Coast Live Oak	13.6				✓
149	<i>Platanus racemosa</i>	Calif. Sycamore	26.7				✓
151	<i>Quercus agrifolia</i>	Coast Live Oak	19.7	✓			

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152	Quercus agrifolia	Coast Live Oak	11.9	✓	
153	Quercus agrifolia	Coast Live Oak	13.3	✓	
154	Platanus racemosa	Calif. Sycamore	9, 14.9	✓	
155	Pittosporum undalatum	Victorian Box	12.9, 7.2, 7.3	✓	
156	Quercus agrifolia	Coast Live Oak	7.4, 6.6, 6.3, 4.2	✓	
158	Platanus racemosa	Calif. Sycamore	20.6	✓	

The tree analysis above provides information that will aid in assessing the potential impacts to existing protected trees from future residential development of the project site. The most likely redevelopment of Lot A, which contains the historic laboratory and garage and is the larger of the two, is adaptive reuse of these resources. Tree removal is not anticipated as there are large areas of the lot that are flat where development could occur without disturbing trees.

The proposed parcel map as revised has the potential to impact 18 mature trees on Parcel B, six of which are protected. The potential building pad for Parcel B will most likely be located at the southern end of the lot, north of San Rafael Avenue. Given the standards of the Hillside Development, Tree Protection and Grading Ordinances, this is the most likely location for the building pad that would require the least amount of grading and tree removal. However, several large mature trees are also located at this location. Both the Tree Protection Ordinance and Hillside Development Permit process require landscape plans to be submitted and approved prior to the issuance of a building permit. The Tree Protection Ordinance requires that for each protected tree removed, there will have to be replacement tree plantings that will equal or exceed the existing canopy coverage and volume. Compliance with the statutory requirements of the Tree Protection Ordinance will result in less than significant impacts to the visual character and quality of the project site. It is anticipated that development on Lot B may impact protected trees #'s 125, 141, 144, 145, 148, and 158. The future development of the parcels will be subject to a Hillside Development Permit and would require Tree Removal Permits for each of the protected trees. The HDP for a residence in the hillside is also subject to tree retention and removal plan requirements in addition to the Tree Protection Ordinance. Tree protection plans are also required which detail how all remaining trees will be protected throughout the construction process. Compliance with these established regulations would ensure that the proposed project would not lead to any significant tree impacts.

f. Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan?
()

WHY? There is no adopted Habitat Conservation or Natural Community Conservation Plans within the City of Pasadena. There are also no approved local, regional or state habitat conservation plans in the City.

7. CULTURAL RESOURCES. Would the project:

a. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5? ()

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact
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WHY? There are two buildings on the project site which are of historic significance. The first is the Charles Richter Laboratory and the ancillary garage structure. The lab and garage were constructed 1925-26 on the property owned and managed by Caltech. They were designed in the Mediterranean Revival Style by renowned local architect Reginald D. Johnson to emulate the appearance of a single-family residential development. The architecture is modest in its scale and styling. The property appears eligible for listing in the National Register of Historic Places for its association with the development of seismology and key individuals in the field (Charles Richter, Beno Gutenberg, etc.), its construction methods used for the lab building, and its design by Johnson. In addition, the property is eligible for local landmark designation.

Demolition, relocation, removal or significant alteration of these buildings is subject to review by the Historic Preservation Commission prior to issuance of a building permit by the City. The Historic Preservation Commission may deny or delay a demolition, relocation, or significant alteration for periods as long as 180-405 days.

The parcel depicted as Lot "A" measures approximately 104,108 square feet. The laboratory is approximately 6,746 square feet. The structure is large enough that adaptive reuse could be considered. There is sufficient opportunity to explore designing additional square footage adjacent to both the laboratory and garage. No specific design plans are attached to this application. Instead, during review of the Hillside Development Permits that are required for new residential development on the site(s), parcel specific development impacts to historic resources will be considered. In addition, any future development that involves changes to the historic structures on site will be subject to the City's Historic Preservation Ordinance, including review by the Historic Preservation Commission. Therefore, there will be a less than significant impact to historic resources.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5? ()

WHY? There are no known prehistoric or historic archeological sites on the project site. If any such sites are encountered during grading or construction of the project, all grading or construction efforts, which would disturb these sites, shall cease. An archaeologist shall be notified and provisions for recording and excavating the site shall be made in compliance with Section 15064.5 of the California Environmental Quality Act Guidelines.

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ()

WHY? There are no records of any significant paleontological resources in the City of Pasadena. Therefore, there are no known paleontological resources affected by the project. If any such sites are encountered during grading or construction of the project, all grading or construction efforts, which would disturb these sites, shall cease. An archaeologist shall be notified and provisions for recording and excavating the site shall be made in compliance with Section 15064.5 of the California Environmental Quality Act Guidelines.

d. Disturb any human remains, including those interred outside of formal ceremonies? ()

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact
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WHY? The project site is a previously developed parcel in an urbanized area. There are no known human remains on the site. If any remains are encountered during project implementation the Los Angeles County Coroner will be contacted.

8. ENERGY. Would the proposal:

a. *Conflict with adopted energy conservation plans?* ()

WHY? The project does not conflict with the 1983 adopted Energy Element of the General Plan. The proposed intensity of the project is within the intensity allowed by the Zoning Code and envisioned in the City's approved General Plan. Furthermore, the project will comply with the energy standards in the California Energy Code, Part 6 of the California Building Standards Code (Title 24). Measures to meet these performance standards may include high-efficiency Heating Ventilation and Air Conditioning (HVAC) and hot water storage tank equipment, lighting conservation features, higher than required rated insulation and double-glazed windows.

b. *Use non-renewable resources in a wasteful and inefficient manner?* ()

WHY? The proposed project will not create a high enough demand for energy to require development of new energy sources. Construction of the project will result in a short-term insignificant consumption of oil-based energy products. However, the additional amount of resources used will not cause a significant reduction in available supplies.

The long-term impact from increased energy use by this project (including future development resulting from this project) is not significant in relationship to the number of customers currently served by the electrical and gas utility companies. Supplies are available from existing mains, lines and substations in the area. Occupation of the project will result in an insignificant increase in the consumption of natural gas. This consumption will be lessened by adherence to the performance standards of California Energy Code, Part 6 of the California Building Standards Code Title 24. This project does not include any development of the site, therefore will be no impacts related to energy consumption.

However, future development resulting from this project will most likely generate two single-family residences. This development will result in the increased consumption of 252 net kilowatt-hours of electrical energy per day. This increased consumption will be reduced to an insignificant level by meeting the above referenced energy standards. Measures to meet these performance standards may include high efficiency Heating Ventilation and Air Conditioning (HVAC) and hot water storage tank equipment, lighting conservation features, higher than required rated insulation and double-glazed windows. The energy conservation measures will be prepared by the developer and shown on a building plan(s). This plan will be submitted to the Water and Power Department and Building Official for review and approval prior to the issuance of a building permit. Installation of energy-saving features will be inspected by a City Inspector prior to issuance of a Certificate of Occupancy.

Future development will also result in an increase of approximately 660 gallons per day in water consumption. The current use consumes approximately 412 gallons of water per day. The net gain in water consumption would be 248 gallons of water per day. However, this impact will be mitigated during drought periods by the applicant adhering to the Water Shortage Procedures Ordinance, which restricts

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water consumption to 90% of expected consumption during each billing period. Installation of plumbing will be inspected by a Building Division Code Enforcement Inspector prior to issuance of a Certificate of Occupancy.

9. GEOLOGY AND SOILS. Would the project:

Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

- a. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ()*

WHY? According to the 2002 adopted Safety Element of the City of Pasadena’s General Plan, the San Andreas Fault is a “master” active fault and controls seismic hazards in Southern California. This fault is located approximately 21 miles north of Pasadena.

The County of Los Angeles and the City of Pasadena are both affected by Alquist-Priolo Earthquake Fault Zones. Pasadena is in four USGS Quadrants, the Los Angeles, and the Mt. Wilson quadrants were mapped for earthquake fault zones under the Alquist-Priolo Act in 1977. The Pasadena and Condor Peak USGS Quadrangles have not yet been mapped per the Alquist-Priolo Act.

Adjacent to and partially in the City of Pasadena are two faults, considered active, the Sierra Madre primarily north of the City and the Raymond Fault primarily south of the City. The 2002 Safety Element of the General Plan considers the Sierra Madre Fault to be in a Fault Hazard Management Zone and the Raymond Fault to be in an Alquist-Priolo Earthquake Fault Zone. Within the south west of the City, the Eagle Rock Fault is considered potentially active. The proposed project site is 4.5 miles southwest of the Sierra Madre Fault, 1.8 miles southwest of a potentially active strand of the Sierra Madre Fault, 2 miles north of the Raymond Fault and 0.6 miles northeast of the Eagle Rock Fault.

The potential exists for people and property to be exposed to the hazards of seismic activity in most of California. This project will not increase the potential occurrence of earthquakes. The risk of earthquake damage is minimized because the new structure shall be built according to the Uniform Building Code and other applicable codes, and is subject to inspection during construction. Structures for human habitation must be designed to meet or exceed California Uniform Building Code standards for Seismic Zone 4.

- b. *Strong seismic ground shaking? ()*

WHY? City of Pasadena is within a larger area traversed by active fault systems, such as the San Andreas and Newport-Inglewood. Any major earthquake along these systems will cause seismic ground shaking in Pasadena. At a minimum the earthquake-resistant design and materials of new projects must meet or exceed the current seismic engineering standards of the California Uniform Building Code Seismic Zone 4 requirements. Much of the City is on sandy, stony or gravelly loam formed on the alluvial fan adjacent to the San Gabriel Mountains. This soil is more porous and loosely compacted than bedrock and thus subject to greater impacts from seismic ground shaking than bedrock.

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact
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c. *Seismic-related ground failure, including liquefaction as delineated on the most recent Seismic Hazards Zones Map issued by the State Geologist for the area or based on other substantial evidence of known areas of liquefaction?* ()

WHY? According to Plate P-1 of the Cities Safety Element of the General Plan (as based on the State's Seismic Hazard Zone Maps) or Plate 1-3 of the Technical background Report to the Cities Safety Element of the General Plan, the project site is in an area subject to liquefaction with a historic occurrence of liquefaction. This area is the flat area at the southern end of the property, at the driveway entrance from San Rafael Avenue. This area is not anticipated for development, rather preliminary development plans indicate potential residential development may occur in the northwest corner of the existing parcel; the location is a knoll adjacent to the roadway. Any future development will be subject to Building Codes and City review to ensure no potential impacts.

The site is in a hillside area, and has an approximate 35% slope. Existing City Municipal Code and Building Code regulations will control any slope instability; therefore there will be no impact. Due to these codes and inspections there will be no increased exposure to seismic ground failure including liquefaction.

d. *Landslides as delineated on the most recent Seismic Hazards Zones Map issued by the State Geologist for the area or based on other substantial evidence of known areas of landslides?* ()

WHY? According to Plate P-1 of the Cities Safety Element of the General Plan (as based on the State's Seismic Hazard Zone Maps), the project site is not in a Landside Hazard Zone. According to the Slope Instability Map (Plate 2-4 of the Technical Background Report of the adopted 2002 Safety Element of the General Plan) the project is not in an area of slope instability. According to these same sources there is not any known historic evidence of landslides on the project site or adjacent properties. Existing City regulations will control any slope instability; therefore there will be no impact. In addition the Seismic Hazard map does not show this project to be located in an area where there is geologic evidence of past landslides.

e. *Result in substantial soil erosion or the loss of topsoil?* ()

WHY? The displacement of soil through cut and fill will be controlled by the City's grading ordinance, Appendix Chapter 33 of the 2001 California Building Code relating to grading and excavation, the Hillside Development Overlay District regulations, other applicable building regulations and standard construction techniques; therefore there will be a less than significant impact.

The applicant must have an approved site to receive any exported cut earth.

According to the Final Environmental Impact Report certified for the adoption of the 1994 Land Use and Mobility Elements, the natural water erosion potential of soils in Pasadena is low, unless these soils are disturbed during the wet season. Both the Ramona and Hanford soils associations, which underlay much of

Potentially Significant Impact	Significant Unless Mitigation is Incorporated	Less Than Significant Impact	No Impact
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the City, have high permeability, low surface runoff and slight erosion hazard due to the gravelly surface layer, and low topographic relief away from the steeper foothill areas of the San Gabriel Mountains.

Water erosion during construction will be minimized by limiting construction to dry weather, covering exposed excavated dirt during periods of rain and protecting excavated areas from flooding with temporary berms.

Construction may temporarily expose the soil to wind and/or water erosion. This erosion will be controlled by proper grading techniques as specified in the grading ordinance, a grading plan submitted to the Building Official and Public Works Department for review and approval prior to the issuance of a building permit and by city inspections and condition monitoring after the issuance of a building permit.

- f. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? ()

WHY? The City of Pasadena rests primarily on an alluvial plain. To the north the San Gabriel Mountains are relatively new in geological time. These mountains run generally east-west and have the San Andreas Fault on the north and the Sierra Madre Fault to the south. The action of these two faults in conjunction with the north south compression of the San Andreas tectonic plate is pushing up the San Gabriel Mountains. This uplifting combined with erosion has helped form the alluvial plain. A geological study determined that the soil is stable enough to support the planned project subject to specified standards per applicable codes.

Potential development pads for the proposed residential development would not impact the retaining wall at the north property boundary of the subject parcel. The proposed residential development for Lot A would entail the adaptive reuse of the existing laboratory and garage (under the provisions of the Hillside Overlay Zone District, a second unit is not permitted). For Lot B, the proposed building pad the most likely location for the building pad is the flat area at the southern end of this parcel adjacent to the ornamental entrance onto the property at San Rafael Avenue. There would be no impact to the retaining wall.

- g. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? ()

WHY? According to the 2002 adopted Safety Element of the City's General Plan the project site is underlain by alluvial material from the San Gabriel Mountains. This soil consists primarily of sand and gravel and is in the low to moderate range for expansion potential.

- h. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? ()

WHY? The City of Pasadena allows septic tanks to be used for only specified areas in the hillsides per regulations found in Ordinances 3881 and 4170 and codified in Pasadena Municipal Code. The proposed project is not in any of these specified areas. New construction must be hooked up to a sewer if it is