
ENVIRONMENTAL REVIEW - INITIAL STUDY

1. **Project Title:** Chabot College Facility Master Plan

2. **Lead Agency Name and Address:**

Chabot Las Positas Community College District
5020 Franklin Drive
Pleasanton, California 94588

3. **Contact Person and Phone Number:**

Stan Dobbs, District Director
Facilities Planning and Management
925.485.5244

4. **Project Location:**

25555 Hesperian Boulevard
Hayward, California (See Figure 1)
APN: 441-20-2-7

5. **Project Sponsor's Name and Address:**

Chabot Las Positas Community College Districts
5020 Franklin Drive
Pleasanton, California 94588

Contact: Stan Dobbs, District Director
Facilities Planning and Management
925.485.5244

6. **General Plan Designation:** Public and Quasi Public

7. **Zoning Designation:** RS – Single Family Residential

8. **Description of Project:**

Chabot College is located in Hayward, California. The campus was built in 1965. In March 2004, Alameda County voters and those Contra Costa County voters within the Chabot-Las Positas Community College District (District) boundaries approved Measure B, the \$498 million dollar Chabot-Las Positas Community College District capital improvement (construction) bond that will enable the District to repair and modernize existing buildings and construct new buildings and facilities to meet existing and future needs at both Chabot College and Las Positas College.

Figure 1 – Project Location

The Project is the implementation of the Chabot College Facility Master Plan (Plan). The purpose of the Plan is to provide a guide for future campus development. The Plan describes how the campus would be improved to meet the education mission of the College, serve the changing needs and address the projected enrollment. The Plan presents a development plan to modernize the campus, upgrade facilities and construct new facilities in response to health and safety requirements, deteriorated building conditions, changing curriculum and enrollment growth. The Plan is based on the Chabot College Educational Master Plan developed in 2002. The Plan is intended to accommodate a future enrollment capacity of 17,500 students. Proposed buildout of campus facilities would occur in 2015. The current enrollment at Chabot college is 15,250 students and there is 494 staff. Over the next ten years, student enrollment is forecast to undergo moderate growth, increasing by approximately 15 percent or 17,500 students. Staff is expected to increase to 544. Existing and future student enrollment numbers are presented in Table 1.

TABLE 1: STUDENT ENROLLMENT

Population	2005	2015
Students	15,250	17,500
Faculty & Staff	494	544
TOTAL	15,744	18,044

Existing Campus Plan

The Project site comprises about 88.5 acres. The campus is essentially built out. Primary access to the campus is off Hesperian Boulevard with secondary access off Depot Road. Campus buildings are concentrated at the central portion of the site. Parking lots are located to the west, south and north of the buildings. Three access driveways are located along Hesperian Boulevard and three access driveways are located along Depot Road. A large expanse of turf landscaped with trees and ornamental shrubs is situated at the main campus entrance along Hesperian Boulevard. The outdoor athletic facilities are located northwest of the buildings. Figure 2 shows the existing campus plan. The existing campus building facilities are summarized in Table 2. The campus currently provides approximately 2,492 parking spaces. Tables 3 presents information on existing campus parking facilities. Table 4 presents existing outdoor athletic facilities.

Proposed Project Characteristics

Project construction would occur over four phases. Phase 1: 2006 – 2010; Phase 2: 2011 – 2013; Phase 3: 2013 – 2014; and Phase 4: 2014 – 2015. The Project would eliminate one access driveway on Hesperian Boulevard and one access driveway on Depot Road. On-site campus circulation would be improved. The parking lots would be re-striped and linked via an on-site perimeter road. Six new buildings would be constructed, five existing buildings would be demolished and other college buildings would be modernized. With campus buildout, there would be an increase of approximately 345,000 square feet of building facilities would provide 2,833 parking spaces, an increase of approximately 341 parking spaces. Figure 3 shows the Project campus plan. Table 6 presents a breakdown of parking spaces by lot. Proposed outdoor facilities are presented in Table 7.

Figure 2 – Existing Campus Plan

Figure 3 – Proposed Campus Site Plan

TABLE 2: EXISTING CAMPUS BUILDINGS

Building #	Building Name	Construction		
		Year	Total Rooms	Gross Sq. Ft.
100	Library	1965	91	71,346
200	Administration	1965	46	19,664
300	Business	1965	23	22,111
400	Business Offices	1965	31	5,127
500	Social Sciences	1965	28	21,975
600	Lecture Hall	1965	2	2,762
700	Social Sciences Offices	1965	87	14,313
800	Language Arts	1965	34	21,974
900	Humanities	1965	15	10,305
1000	Art	1965	15	12,646
1100	Humanities Offices	1965	27	5,550
1200	Music/Little Theatre	1967	31	20,663
1300	Auditorium	1965	21	33,852
1400	Tec Voc Shop	1965	17	24,951
1500	Engineering Offices	1965	31	7,168
1600	Engineering	1965	32	27,361
1700	Physics/Math	1965	30	20,306
1800	Classroom	1965	23	20,118
1900	Planetarium	1965	7	7,541
2000	Math/Sciences Offices	1965	59	10,222
2100	Biological Sciences	1965	23	19,084
2200	Medical/Dental	1966	33	17,970
2300	Student Center	1966	44	37,859
2400	Disabeled Student Center	1965	17	5,408
2500	Gymnasium	1965	2	16,880
2600	PE Offices	1965	25	7,026
2700	Women's Lockers	1965	12	11,614
2800	Men's Lockers	1965	27	20,440
2900	PE Classrooms	1966	11	18,513
3000	Warehouse/M&O	1966	22	15,470
3100	Emergency Medicine	1995	14	7,621
3200	Adaptive PE	1991	1	1,920
3300	Security	1991	2	480
3400	Print Shop	1995	10	5,000
	Child Care/ Development			
3500	Center	1995	32	12,368
3600	Warehouse/M&O	1995	7	11,520
3700	Child Development Temp	2002	3	2,400
3800	Bookstore	1997	11	13,928
3900	Chemistry/Computer	1999	37	31,400
TOTAL				636,856

TABLE 3: EXISTING CAMPUS PARKING FACILITIES

Parking Lot	Parking Spaces
A	148
B	779
C	43
D	57
E	286
F	66
G	818
H	78
I	217
TOTAL	2,492

TABLE 4: EXISTING CAMPUS OUTDOOR ATHLETIC FACILITIES

Type of Facility	Number
Baseball Field	1
Softball Field	1
Soccer Field	1
Football/Track	1
Basketball Courts	4
Tennis Courts	12
Practice Field	2

TABLE 5: PROPOSED CAMPUS BUILDINGS

Construction Activity (Building Number)	Phase 1 2006-11 Sq. Ft.	Phase 2 2011-13 Sq. Ft.	Phase 3 2013-14 Sq. Ft.	Phase 4 2014-15 Sq. Ft.	Net Sq. Ft.
<i>Demolition</i>					
Business Office (400)	-5,127				
Social Sciences Offices (700)		-14,313			
Business Lecture Hall (600)		-2,762			
Math/Sciences Offices (2000)		-10,222			
Humanities Offices (1100)				-5,550	
<i>Modernization</i>					
Auditorium (1300)		33,852			
Business (300)		22,111			
Tech Voc Shop (1400)		24,951			
Library (100)			71,346		
Administration (200)			19,664		
Chemistry (1800)			20,118		
Language Arts (800)				21,974	
Humanities (900)				10,305	
Little Theatre (1200)				20,663	
<i>New Construction</i>					
Business -Arts/Faculty Offices/Lecture (700)	20,000				
Team Rooms/Lockers	15,000				
Maintenance & Operations	14,615				
Science Faculty Offices	8,000				
Student Services Center		70,000			
Broadcast Center (3600)				10,000	
TOTAL	52,488	123,617	111,128	57,392	344,625

TABLE 6: PROPOSED CAMPUS PARKING FACILITIES

Parking Lot	Parking Spaces
A and B	1101
C	53
D	58
E and F	396
G and H	1019
I	70
J	136
TOTAL	2833

TABLE 7: PROPOSED CAMPUS ATHLETIC FACILITIES

Type of Facility	Number
Baseball Field	1
Softball Field	1
Football/Track	1
Basketball Courts	4
Tennis Court	9
Practice Field	2

9. **Surrounding Land Uses and Setting:**

Residential development is the predominant land use to the south, west and north of the Chabot campus. Retail and commercial development is located to the east across Hesperian Boulevard with residential development farther east. Hayward Executive Airport is located to the northwest and the Southland Mall is located to the northeast.

10. **Other public agencies whose approval is required:**

- Division of State Architect – approval of building plans
- State Fire Marshall – approval of life/safety plans
- NPDES Permit – State Regional Water Quality Control Board
- Approval of Storm Water Pollution Prevention Plan – State Regional Water Quality Control Board

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by the project, involving at least one impact that is a potentially significant impact as indicated by the checklist on the following pages.

- | | | |
|---|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input checked="" type="checkbox"/> Air Quality |
| <input checked="" type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input checked="" type="checkbox"/> Geology/Soils |
| <input checked="" type="checkbox"/> Hazards/Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Mineral Resources | <input checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities/Service Systems | <input checked="" type="checkbox"/> Mandatory Findings of Significance | |

DETERMINATION:

On the basis of this initial evaluation:

- I find that the proposed project COULD 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 revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- 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.

Signature

Date

Stan Dobbs
Printed Name

Chabot-Las Positas College District
For

EVALUATION OF ENVIRONMENTAL IMPACTS

A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources identified in the parentheses following each question and listed in the References section of this document.

ENVIRONMENTAL ISSUES

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
1. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

The proposed Project would not result in significant adverse impacts to aesthetics. A brief discussion of each environmental topic included under Section 1 is presented below.

- a. The Project site is in a predominantly residential area with retail and commercial development along Hesperian Boulevard. The site contains the Chabot College campus. Buildings are one to three stories in height. The campus includes athletic fields which provide expanses of green space. The campus is landscaped with trees, turf and planted areas. There are no scenic vistas available from the Project site or in the Project area.
- b. The Project site is not within a state scenic highway. The majority of buildings on campus are 40 years old and are not considered historic. The campus is landscaped with trees, turf and vegetative plantings. There are no rock outcroppings on campus.
- c. The Project would demolish and modernize existing campus buildings. The new buildings would be one to three stories in height. The modernized existing buildings and new buildings would be well-designed and constructed of building materials compatible with the existing campus buildings. New landscaping would be installed along Hesperian

Boulevard. The Project would improve the visual character of the campus and would be compatible with nearby residential development. See Items 1a and 1b above.

- d. The campus currently includes night lighting. Project night lighting would be similar to existing conditions. As needed, outdoor lighting for athletic facilities would be upgraded. Replacement of existing night lighting for outdoor athletic facilities with new lighting would generally improve night lighting conditions at the locations of outdoor athletic facilities. Current designs for outdoor lighting poles for athletic fields are shielded and cast light downwards, which eliminates spillover. Project night lighting would not be intrusive to adjacent residential development and is considered a less than significant impact.

Mitigation Measures:

None required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
2. 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 Dept. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The proposed Project would not affect agricultural resources. A brief discussion of each environmental topic included under Section 2 is presented below.

- a. The Project site not shown on the California Resources Agency maps as Prime, Unique or Farmland of Statewide Importance.
- b. The Project site is zoned RS – Single-Family Residential. The Project site is not under a Williamson Act contract.
- c. The Project site is a college campus located in an urban area surrounded by residential, retail and commercial development. The Project would not result in the conversion of any farmland to non-agricultural use.

Mitigation Measures:

None required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
3. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

LFR conducted the air quality analysis for the proposed Project. The Project would result in less than significant operational air quality impacts. Potentially significant impacts due to construction activities could occur. The recommended mitigation measures would reduce

potentially significant construction air quality impacts to a less than significant level. A discussion of each environmental topic included under Section 3 is presented below.

- a) The Project would not conflict with the Bay Area Air 2000 Clean Air Plan (BAAQMD 2000).
- b) Activities at Chabot College result in emissions of air pollutants into the atmosphere. Sources of air emissions at Chabot College include stationary sources (e.g. heating boilers) and mobile sources (e.g. automobiles). In addition, the Project will result in emissions from construction activities. Emissions were evaluated for criteria pollutants (ozone, carbon monoxide, volatile organic compounds, particulate matter, nitrogen oxides and sulfur dioxide) as well as Toxic Air Contaminants.

Meteorology

The Project site is located in Alameda County which lies within the San Francisco Bay Area Air Basin. Temperatures at Chabot College range from the high 90's during the day and low 50's in the evening during the summer months, (June through August) and mid 60's during the day and mid 30's in the evening during the winter months (December – February), respectively. Daily and seasonal fluctuations in temperature are relatively minor because of moderating effects of the Bay immediately adjacent to the college and the overall influence of the Pacific Ocean. Rainfall averages approximately four inches each month during the “rainy season”, occurring between November through April. Total annual rainfall averages around 20 inches. Because much of the area's rainfall is derived from the fringes of mid-latitude storms, a shift in the annual storm track of a few hundred miles can mean the difference between a very wet year with flooding or drought – like conditions. Winds direction at Chabot College and surrounding vicinity is generally to the south – southeast.

Ambient Air Quality Standards

The federal Clean Air Act Amendments of 1970 established national ambient air quality standards (NAAQS) to which states are required to adhere. The federal act also afforded individual states the option to adopt AAQS standards that are more stringent and/or include other pollutants.

The ambient air quality standards are intended to protect the public health and welfare. They are designed to protect those segments of the public most susceptible to respiratory distress, known as “sensitive receptors”, including asthmatics, the very young, the elderly, people weakened from other illness or disease, or persons engaged in strenuous work or exercise.

California had established its own air quality standards when federal standards were promulgated. Some of the California Ambient Air Quality Standards (CAAQS) are more stringent than their counterparts the NAAQS. Details of both the NAAQS and CAAQS are

included in Appendix A.

The California Air Resources Board (ARB) is the state agency responsible for regulating air quality. ARB's responsibilities include establishing state ambient air quality standards, emissions standards and regulations for mobile emission sources (i.e. autos, trucks, etc) and monitoring the efforts of county-wide and multi-county air pollution control districts, which have primary responsibility over stationary sources. The Bay Area Air Quality Management District (BAAQMD) is the regional agency responsible for air quality regulations within the San Francisco Bay Area Air Basin. The BAAQMD regulates air quality through its permit authority over most types of stationary emission sources and through its planning and enforcement activities.

Ambient Air Quality

The Bay Area Air Quality Management District (BAAQMD) operates a regional monitoring network which measures the ambient concentrations of six criteria air pollutants: ozone (O₃), carbon dioxide (CO), small diameter particulate matter (PM₁₀), lead (Pb), nitrogen dioxide (NO₂) and sulfur dioxide (SO₂). The BAAQMD also established a monitoring system for toxic constituents. In addition, monitoring has commenced for ultra small particulate matter (PM_{2.5}). A description of health related impacts associated with some of these is provided below.

Existing and probable future levels of air quality within the site vicinity can be best inferred from ambient air quality measurements conducted by the BAAQMD and reports by the ARB from monitoring stations located in Hayward and Fremont, Alameda County. Table 8 is a five year summary of the monitoring data reported by the BAAQMD and ARB.

Ozone

O₃ is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving hydrocarbons (HC) and nitrogen oxides (NO_x). O₃ is a regional air pollutant because its precursors are transported and diffused by wind concurrently with O₃ production by the photochemical reaction process. When inhaled, O₃ is readily delivered to terminal respiratory airways and alveolar tissue, the major target sites for its effects. O₃ injures tissue membranes by oxidizing amino acids and polyunsaturated fatty acids resulting in swelling and disintegration of cellular organelles and an inhibition of metabolic pathways. O₃ also causes eye and respiratory irritation, reduces resistance to lung infection, and may aggravate pulmonary conditions in persons with lung disease.

Carbon Monoxide (CO)

CO is an odorless, invisible gas usually formed from combustion of organic substances (i.e. fuel sources). Approximately 80 percent of the CO emitted in the Bay Area comes from

TABLE 8: FIVE YEAR AIR QUALITY MONITORING SUMMARY

(Days standards were exceeded and maximum concentrations observed)

Pollutant / Standard	2000	2001	2002	2003	2004
Ozone (O₃)					
1-Hr. > 0.09 ppm (S)	1	2	0	3	0
1-Hr. > 0.12 ppm (F)*	0	0	0	0	0
8-Hr. > 0.08 ppm (F)	0	1	0	1	0
Max. 1-Hr. Conc. (ppm)	0.111	0.103	0.093	0.116	0.088
Carbon Monoxide (CO) **					
1-Hr. > 20 ppm (S)	0	0	0	0	0
8-Hr. > 9 ppm (S, F)	0	0	0	0	0
Max. 1-Hr. Conc. (ppm)	4.6	5.4	3.7	3.2	3
Max. 8-Hr. Conc. (ppm)	2.7	2.7	2.2	1.9	1.7
Particulate Matter (PM₁₀)					
24Hr. > 50 µg/ m ³ (S)	11.8	18.1	6.1	0	0
24Hr. > 150 µg/ m ³ (F)	0	0	0	0	0
Max. 24-Hr. Conc. (µg/ m ³)	61.1	60.4	54.1	37.2	48.9
Fine Particulates (PM_{2.5}) **					
24-Hr. > 65 µg/ m ³ (F)			0	0	0
Max. 24-Hr. Conc. (µg/ m ³)			48	34	40

--- = No data

[] (S) =State Clean Air Standard

[] (F) =Federal Clean Air Standard *Note: the national 1 hour ozone standard was revoked by the US EPA on June 15, 2005.

** = Data from the BAAQMD Pollution Summary Sources: ARB: Ozone – Hayward Monitoring Station/
PM₁₀ – Fremont – Chapel Way BAAQMD: Carbon Monoxide – Fremont Monitoring Station

motor vehicles. Exposure to high concentrations of CO may be lethal with death resulting from asphyxiation. Asphyxiation and sub-lethal symptoms are usually caused by poorly vented combustion appliances, idling motor vehicles in closed environments, excessive CO production and inadequate ventilation associated with a variety of industrial occupational activities. Lower levels of CO can impair the transport of oxygen in the bloodstream and cause fatigue, headaches, nausea, dizziness, as well as, aggravating cardiovascular disease.

Volatile Organic Compounds (VOCs)

Volatile Organic Compounds (VOCs) are organic chemicals that easily vaporize at room temperature. VOCs are found in everything from fuels, paints and coatings, consumer products and cleaning fluids. All of these products can release organic compounds while you are using them, and, to some degree, when they are stored. VOCs include a wide range of individual substances such as aliphatic hydrocarbons, halogenated hydrocarbons such as chlorine and oxygenated hydrocarbons such as alcohols, ethers, acids and ketones. VOCs are emitted by a variety of sources including gasoline and diesel engines in vehicles and construction equipment, building materials and furnishings and consumer products. VOCs have been found to be a major contributing factor to ozone, a common air pollutant which has been proven to be a public health hazard.

VOCs also have the potential to cause a variety of health effects. As with other pollutants, the extent and nature of the health effect will depend on many factors including the specific chemicals, level of exposure and length of time exposed. Health effects of VOCs may include eye, nose, and throat irritation, headaches, dizziness, loss of coordination, nausea; damage to liver, kidney, and central nervous system. Some organics can cause cancer in animals and others are suspected or known to cause cancer in humans.

Particulate Matter (PM₁₀ and PM_{2.5})

The health consequences of atmospheric particulate matter depend on its ability to penetrate respiratory defense mechanisms. In general, defense mechanisms are adequate to remove inhaled particles larger than 10 μm from the inhaled air stream.

PM₁₀ consists of small diameter ($\leq 10\mu\text{m}$) particulate matter that is inhalable into deep lung tissue. PM_{2.5} consists of particles that are respirable ($\leq 2.5\mu\text{m}$) and can enter and be deposited in pulmonary tissue. Particles greater than 2.5 μm are mostly removed in the upper respiratory system. PM₁₀ can include certain substances such as sulfates and nitrates that can cause lung damage directly or can contain absorbed gases and suspended droplets that may be injurious to health (i.e. benzene or other toxic contaminants). The effective toxicity of PM_{2.5} particles may be greater than that of larger particles because proportions of toxic substances such as lead, mercury, zinc and chromium increase with decreasing particle size. A portion of PM₁₀ is derived from dust created by soil disturbance, vehicle turbulence, and some portions are from natural processes.

In July 1997, the U.S. Environmental Protection Agency (U.S. EPA) adopted an 8-hour ozone

standard and a new standard for PM_{2.5}. PM_{2.5} is considered a better indicator of health impact potential from airborne particulate matter because of its ability to penetrate deeply into human lung tissue. PM_{2.5} in urban atmospheres contains substantial quantities of diesel particulate matter (DPM). ARB has indicated that DPM is the largest source of cancer risk from breathing the air in the Bay Area.

Other Criteria Air Pollutants

The standards for NO₂, SO₂ and lead are currently being met in the Bay Area and the latest pollutant trend information suggests that these standards will not be exceeded in the future. In fact, recent regulatory activity is likely to result in additional reductions.

Regulatory Framework Planning Considerations – Federal Standards

The 1977 Clean Air Act (CAA) required that the regional planning and air pollution control agencies prepare a regional Air Quality Plan to achieve all standards within the deadline specified in the CAA. For the Bay Area Air Basin, the Association of Bay Area Governments (ABAG), the Metropolitan Transportation Commission (MTC), and the BAAQMD jointly prepared a Bay Area Air Quality Plan in 1982 that predicted attainment of all federal clean air standards within the basin.

According to the BAAQMD, the current Bay Area Attainment Status for the national standards is in “attainment” for carbon monoxide, nitrogen dioxide, sulfur dioxide, PM₁₀ (unclassified status at the 24 hour interval) and PM_{2.5}. The Bay area ozone status for the national 8-hour standard is “non-attainment”. The national 1-hour ozone standard was revoked by the U.S. EPA on June 15, 2005. No national standard for lead is identified. The Bay Area Air Basin attainment status with respect to state and federal standards is included in Appendix B.

State Standards

In 1988 California passed the California Clean Air Act (Assembly Bill 2595), which like its federal counterpart, called for designations of areas as attainment or non-attainment based on the state Ambient Air Quality Standards rather than federal standards. The Bay Area Air Basin attainment status with respect to state and federal standards is included in Appendix B.

The 1988 California Clean Air Act (CCAA) also required development of air quality plans and strategies to meet state air quality standards in the Bay Area. The Bay Area 1991 Clean Air Plan (1991 CAP) included a comprehensive strategy to reduce air pollutant emissions and focused on control measures to be implemented from the 1991 – 1994 period and from 1995 to 2000. The Bay Area Clean Air Plan was revised and amended in 1994, 1997, 1999 and 2001.

New ARB regulation passed in 2002 aims to improve fuel specifications and reduce diesel particulates matter by at least four percent over the next ten years beginning in 2006.

Currently, the Bay area is in “non-attainment” for the state one hour ozone standard. The Bay Area is

in “attainment” for the state standards for carbon monoxide, nitrogen dioxide, sulfates, sulfur dioxide and lead.

Method of Analysis

To determine the potential impact that the addition of student and faculty may have on the air quality, traffic impacts were evaluated using the ARB-approved, Urban Emissions Model (URBEMIS) 2002 pr that can be used to estimate emissions associated with land development projects in California such as residential neighborhoods, shopping centers, and office buildings.

Construction

No construction details were included in the URBEMIS model due to a lack of detailed equipment information for the project. The impact assessment assumes that average types, sizes and quantities of construction equipment will be used and operated on a short-term basis.

Traffic

URBEMIS 2002, Version 7.5.0 is the latest version that uses emission factors (EMFAC) based on the California Air Resources Board's on-road emissions inventory model to estimate vehicle emissions associated with various land uses. URBEMIS calculates volatile organic compounds (VOCs) reported as reactive organic gases (ROGs), nitrogen oxides, carbon monoxide, PM10, and sulfur dioxide. The URBEMIS 2002 program was used in conjunction with local traffic information provided by Hexagon Transportation Consultants, Inc. to assess potential impacts to air quality.

The traffic conditions of the Project, current and proposed, were modeled for winter and summer using URBEMIS 2002 for the years 2005 and 2015 at traffic speeds of both 30 miles per hour (mph) and 20 mph. Two ranges of traffic speed were included to assess potential impacts that may occur due to a decrease in average speed due to possible increases in traffic congestion at peak hours.

The traffic information provided by Hexagon Transportation Consultants, Inc. showed an approximate 14.29 percent increase in traffic in both the peak morning and peak evening hours. The 14.29 percent increase over a ten year period averages to 0.10 trips per student per peak hour in the morning and 0.06 trips per student per peak hour in the evening. A conservative scenario was assumed for the model to quantify an average trip per student per day. The figure was derived from estimating 0.10 trips per student for six peak hours and 0.06 trips per student for six non-peak hours over a 12 hour operation period. The number of trips per student calculated and used in the URBEMIS 2002 model for emissions calculation was 0.96.

The default values were modified to reflect the specific site conditions including the addition of sidewalks, trees to provide shade, pedestrian walkways and street lighting. The data generated by the URBEMIS 2002 model is included in Appendix C.

New ARB regulation passed after 2002 aims to improve fuel specifications and emission factors for

diesel particulate by at least four percent over the next ten years. The improved emission factors for diesel particulate were not taken into account in the URBEMIS currently being used. To account for more stringent diesel particulate regulations, a four percent reduction of PM₁₀ was incorporated in the 2015 model result prior to total emission calculations.

Stationary Sources

The potential impact of an increase in building space of 345,000 square feet on natural gas emissions was calculated by ratio using the estimated annual gas consumption value for the campus from 2004 (640,000 therms), the current building area of 636,856 square feet and emission factors of criteria pollutants derived from the U.S. EPA AP-42 program for external combustion sources fueled by natural gas.

Standards of Significance

The California Environmental Quality Act (CEQA) Appendix G Guidelines includes a number of tests of potential air quality impact significance. Although CEQA does not allow the lead agency to defer its decision and findings to another agency, it encourages the use of significance criteria established by a responsible or commenting party with expertise in air quality. For the Bay Area Air Basin, the BAAQMD has developed numerical significance criteria or has provided technical guidance for significance evaluation in the “BAAQMD CEQA Guidelines” (BAAQMD 1996). The BAAQMD guidelines are designed to identify those impacts that may contribute to possible exceedances of existing ambient air quality standards. Significant impact on regional air quality is defined in this analysis as an increase in emissions of an ozone precursor or PM₁₀ exceeding the BAAQMD recommended thresholds of significance.

Construction

Construction related emissions are generally short term in duration, but may still cause adverse air quality impacts. PM₁₀ is the pollutant of greatest concern with respect to construction activities. PM₁₀ emissions can result from a variety of construction activities including excavation, grading, demolition, vehicle travel on paved and unpaved surfaces, as well as vehicle and equipment exhaust. The PM₁₀ emissions can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions etc. Despite this variability in emissions, experience has shown that they are a number of feasible control measures that can be reasonably implemented to significantly reduce PM₁₀ emissions from construction.

According to the BAAQMD Guidelines, the determination of significance with respect to construction emissions should be based on a consideration of the control measures to be implemented. A summary of the control measures to be implemented during construction is included in the section below.

Traffic

Traffic impacts would be considered significant if they would:

- Result in a 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). The latest guidelines issued by the BAAQMD for the evaluation of project air quality impacts consider emission increases significant if they exceed 80 pounds per day (or 15 tons/year) for ozone precursors or PM₁₀.
- Expose sensitive receptors to substantial additional pollutant concentrations.
- Expose the public to significant levels of Toxic Air Contaminants (TACs), defined as follows: (1) a societal cancer risk exceeding 10 in one million or (2) a non carcinogenic hazard index greater than 1.
- Create objectionable odors affecting a substantial number of people.

Stationary Sources

The standards of significance for stationary emission sources are the same as described above for traffic.

Air Quality Impacts

Construction

Temporary construction-related air quality impacts are potentially significant without mitigation and are discussed under Item 3d below.

Traffic

2005-2015 Summer/Winter at 30 mph

The result of modeling show an overall reduction in emissions of VOCs (-202.8 lbs/day), NO_x (-191.6lbs/day), CO (-1689.6 lbs/day), SO₂ (-0.87 lbs/day) and an increase in PM₁₀ of 22.6 lbs/day over a ten year period. The increase in PM₁₀ of 22.6 lbs/day is below the significance criteria of 80 lbs/day and is considered a less than significant impact. .

2005-2015 Summer/Winter at 20 mph

The result of modeling show an overall reduction in emissions of VOCs (-272.6 lbs/day), NO_x (-211.6 lbs/day), CO (-2211.9 lbs/day), SO₂ (-0.85 lbs/day) and an increase in PM₁₀ of 22.8 lbs/day over a ten year period. The increase in PM₁₀ of 22.8 lbs/day is below the significance criteria of 80 lbs/day.

The increase of PM₁₀ from mobile sources must also be evaluated for impacts due to the carcinogenic properties of particulate produced by diesel combustion. Using reasonably conservative assumptions, the assessment has shown that societal cancer risk is less than ten in one million and is, therefore, a less than significant impact.

Stationary Sources

The potential impact on natural gas emissions caused by increasing the building space by 345,000 square feet equates to an increase of all criteria pollutants. The increases calculated include 9.28 lbs/day of NO_x, 7.8 lbs/day of CO, 0.71 lbs/day of PM (total), 0.06 lbs/day of SO₂ and 0.51 lbs/day of VOCs. These emission estimates are conservative since new buildings and new boilers being upgraded or built will be more energy efficient than those being demolished and removed. Projected increases in natural gas consumption would result in a slight increase of all the criteria pollutants. The slight increases were accounted for during the significance threshold and toxic assessment and are considered less than significant.

- c) The Project would not result in cumulatively considerable net increases in criteria pollutants. As discussed in Item 3b above, there would be a reduction in VOCs, NO_x, CO and SO₂ emissions. The increase in PM₁₀ would be below BAAQMD thresholds and is considered a less than significant impact.
- d) Land uses such as schools, children's day care centers, hospitals and convalescent homes are considered to be more sensitive than the general public to poor air quality because the population groups associated with these uses are more susceptible to respiratory distress. Persons engaged in strenuous work or exercise may also be more sensitive to poor air quality. Residential areas are also considered more sensitive than commercial or industrial areas, due to prolonged exposure to ambient air quality conditions.

The campus itself is considered a sensitive receptor (classrooms, child care center and outdoor athletic activities). Sensitive receptors located approximately one-half-mile from the campus include a day care, a middle and elementary school, children's academic and gymnastic facilities and a little league center. The majority of the off-campus sensitive receptors are located to the south/southeast of the proposed project with two facilities located to the north/northeast of the site. A sensitive receptor location map is included in Appendix D.

Project construction activities would generate dust as a result of soil disturbance. Dust is a component of PM₁₀. The temporary increase in PM₁₀ exposure to sensitive receptors is a significant impact. With implementation of the recommended air quality mitigation measures, potential impacts associated with construction activities would be reduced to a less than significant level.

The sensitive receptors identified within the site vicinity are located within 0.50-mile of the Project and are situated primarily to the south along and across Depot Road. Based on the reduction of criteria pollutants identified in the traffic emission impact models/calculation (see Item 3b above), the Project would result in less than impacts to sensitive receptors (see Item 3b above).

- e) The Project would not create any objectionable odors. During construction, any use of organics such as architectural coatings or paving will use low solvent/organic compliant or compliant

cutback asphalts as required by the BAAQMD. Based on the type and scope of the proposed renovations/demolition on site, no objectionable odors affecting a substantial number of people are expected.

Campus operations would not create any objectionable odors affecting a substantial number of people.

Mitigation Measures:

According to the current BAAQMD CEQA guidelines, the following mitigation measures would reduce construction period air quality impacts to sensitive receptors to a less than significant level.

- 3.1 Construction contractors shall be required to water all active earth construction areas at least twice daily.
- 3.2 Construction contractors shall be required to cover all trucks hauling soil, sand and other loose materials or require all trucks to maintain at least two feet of freeboard.
- 3.3 Construction contractors shall be required to pave, apply water three times daily or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- 3.4 Construction contractors shall be required to sweep daily (preferably with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- 3.5 If visible soil material is carried onto adjacent public streets, Construction contractors shall be required to sweep streets daily.

For construction areas greater than four acres, the following additional mitigation measures shall be implemented:

- 3.6 Construction contractors shall be required to enclose, cover and water exposed stockpiles of sand, dirt etc.
- 3.7 Traffic speeds on unpaved roads shall be limited to 15 mph.
- 3.8 Sandbags or other erosion control measures shall be installed to prevent silt runoff onto public roadways.
- 3.9 Vegetation in disturbed areas shall be replanted promptly.
- 3.10 Limit the areas subject to excavation, grading and other activity at any one time.
- 3.11 Excavation and grading activities shall be suspended when winds (including instantaneous gusts) exceed 25 mph.
- 3.12 Wind breaks at the windward side of construction areas shall be installed.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
4. 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The proposed Project could result in potentially significant adverse impacts to swallows that may nest in some buildings on campus. Mitigations are included that would reduce potentially significant impacts to swallows to a less than significant level. A brief discussion of each environmental topic included under Section 4 is presented below.

- a) The Project site is currently developed as a college campus. Project development would not adversely affect candidate, sensitive or special status species. Swallows are present on the campus and have historically nested in some of the college buildings. The swallows are protected under the Migratory Bird Act. Disturbance of swallow nests in active use during construction is considered a potentially significant impact. The nesting/breeding season for swallows generally is from March 15 through August 15. The College has initiated an ongoing maintenance program to prevent swallows

from nesting in campus buildings. The college has installed netting to prevent access to building eaves and has enclosed and/or covered openings in buildings to prevent swallows from establishing nests. The recommended mitigation measures would reduce potentially significant impacts to swallows to a less than significant level.

- b) There is no riparian habitat located on the Project site.
- c) There are no wetland areas on the Project site.
- d) Implementation of the Project may interfere with the migratory movement of swallows that nest in campus buildings. See also Item 4a above. Recommended mitigation measures would reduce potentially significant impacts to swallow to a less than significant level.
- e) The campus is not governed by local regulations concerning the protection of biological resources, such as tree preservation ordinances. It is noted the City of Hayward does not currently have a tree preservation ordinance. (City of Hayward) The Project site is landscaped with trees, turf areas and plantings. Demolition activities, building modernizations and new construction would avoid the removal of or damage to trees to the extent feasible. In situations where trees would be removed, the landscape plan proposed for the campus would increase the number of trees planted on campus over what is currently present.
- f) Project development would not conflict with any Habitat Conservation Plans or Natural Community Conservation Plans or other approved local, regional or state habitat conservation plans.

Mitigation Measures:

- 4.1 The College shall continue its building maintenance program to prevent swallows from nesting in college buildings. Methods to discourage nesting swallows shall include but not be limited to: netting to prevent access to building eaves and enclosing and/or covering openings in buildings accessible to swallows for nest building. Buildings shall be inspected on an annual basis to replace and/or repair netting and cover openings.
- 4.2 Between March 15 and August 15, prior to the demolition or exterior modernization of college buildings, the buildings shall be surveyed by a qualified biologist 30 days in advance of the construction activity to determine if nests are present and in use during this period. If nests are in use, construction activity at the building shall be delayed and a qualified biologist shall continue the surveys until it has been determined that any young have fledged and are no longer using the nest. If construction activities occur outside of the nesting/breeding period, surveys will not be required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
5. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The proposed Project would not result in significant adverse impacts to cultural resources. A brief discussion of each environmental topic included under Section 5 is presented below.

- a) The oldest buildings on campus are 40 years old. There are no buildings on site that are considered historical resources as defined in Section 15064.5.
- b) There are no known archaeological resources present on the Project site. The site has undergone significant disturbance with the development of the college campus. No archaeological resources were discovered during these construction activities.
- c) There are no known paleontological resources present on site.
- d) Project development would not disturb any known human remains. See Item 5a above.

Mitigation Measures:

None required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
6. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				

i) 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 know fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit of 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

This discussion is based on the *Geologic Hazards Evaluation Report Proposed Chabot College Modernization Project Hayward, California* prepared by LFR (2005). The Project site is within the seismically active San Francisco Bay Area and, thus, strong ground shaking may be expected at the site. The recommended mitigation measures would reduce potentially significant impacts to a less than significant level. A brief discussion of each environmental topic included under Section 6 is presented below.

- a) The Project site is within the Coast Ranges geomorphic province, and within the basin that includes San Francisco Bay. The bedrock geology in the Hayward area is characterized by two highly deformed Mesozoic basement assemblages that are overlain by younger sedimentary and volcanic rocks. These Mesozoic basement complexes are the Great Valley Complex (to the east) and the Franciscan complex (to the west). The complexes are separated by the Hayward fault, which trends north-northwest to the east of the site, at the base of the Oakland hills.

The site is located within the East Bay Alluvial Plain near the shore of San Franciscan Bay, where Quaternary alluvial fans from the East Bay Hills abut basin deposits associated with the flatland areas adjacent to San Francisco Bay. The East Bay Hills to the east are part of the Coast Range hills,

trending north-northwest. The sediments, including those eroded from the hills to the east, slope gently westward from the East Bay Hills to beneath the Bay.

Based on a review of the results of a fault search performed using the computer program EQFAULT, the nearest active fault is the Hayward Fault. The nearest trace of the Hayward Fault is located approximately 2.7 miles northeast of the site. Other regionally active faults capable of producing significant ground shaking at the site are the Calaveras, Concord-Green Valley and San Andreas Faults. The distance from the site to these faults ranges from 10 to 16 miles from the site.

- b) Due to the College campus's topography, the potential for soil erosion is low; however, a standard stormwater pollution prevention plan (SWPP) will be prepared for campus construction, which would reduce potential erosion impacts to a less than significant level.
- c) The Project site is underlain by alluvial fan and fluvial deposits (Holocene) and floodplain deposits (Holocene). Soil borings were not drilled by LFR. The local and regional geologic conditions described are based solely on LFR's regional experience and available geotechnical reports and published literature regarding the area. Review of boring logs in a geotechnical study for the bookstore building (Woodward Clyde Consultants 1995) indicate at this location sediments beneath the Project site consist of interbedded layers of silty to sandy clay, sandy silt and silty sand. The consistency of the clay soils is described as medium to stiff and the relative density of the sand and silt mixture is described as loose to medium dense.

According to published literature, a liquefaction hazard may exist in areas where the depth to groundwater is 40 feet below ground surface (bgs) or less. Based on geotechnical data in the Project vicinity, the depth to groundwater is approximately 15 to 20 feet below existing grades. The highest historic depth to groundwater in the site area is 15 to 20 feet bgs. No historic liquefaction has been documented for the immediate site vicinity. The liquefaction susceptibility assigned by the California Geological Survey for this area is moderate where the groundwater level is between 10 and 30 feet.

- d) The clay soils are moderately expansive. See Item 6c above.
- e) The College campus is hooked up to the municipal sewer system. See Section 16 Utilities and Service Systems below.

Mitigation Measures:

- 6.1 Detailed geotechnical investigations shall be performed prior to the design of the five new buildings or structural modifications to other existing buildings. The geotechnical investigation shall include borings and laboratory testing to provide supporting data for geotechnical design recommendations.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
7. HAZARDS AND HAZARDOUS MATERIALS. Would the project involve:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

A brief discussion of each environmental topic included under Section 7 is presented below.

- a) Limited quantities of hazardous materials would be used in educational laboratories. Hazardous materials storage in science labs would be limited to quantities allowed by the Uniform Building

Code for Group B Occupancies as set forth by Table 7902.5A of the California Fire Code. The potential for Project-related emission of hazardous materials is considered less than significant.

- b) The college campus was built in 1965. The Master Plan proposes to demolish five buildings and modernize nine existing buildings. Due to their age, it is likely that some or all of these buildings contain asbestos and lead-based paint. These materials are considered hazardous and their presence represents a potentially significant impact.
- c) As previously discussed, it is likely that some or all of the college buildings to be demolished or modernized contain potentially hazardous materials. In addition to the college campus itself, there three schools located within one-quarter mile of the campus: Ochoa Middle School, Eden Gardens Elementary School and Lea's Christian School. Although the college does not emit hazardous emissions nor would buildout of the Master Plan result in hazardous emissions, the removal and transport of hazardous materials contained in building debris could expose students and staff to hazardous materials. This is a potentially significant impact.
- d) The Project site is not included on DTSC's Hazardous Waste and Substances Site List (DTSC 2005).
- e) The Project site is within two miles of Hayward Air Terminal. According to the Alameda County Airport Land Use Policy Plan (Alameda County 1986), the campus is within the Airport Land Use Commission (ALUC) General Referral Area and the Height Referral Area for the Hayward Air Terminal. ALUC has established Hazard Prevention Zones to prevent hazards to safe navigation such as concentrations of birds, electrical interference, glare and smoke. The Hazard Prevention Zones correspond to the General Referral Area.

The college campus is not within an ALUC designated safety zone. (Alameda County 1986). The northwest portion of the campus, which contains athletic fields and track facilities is under a departure track from the Hayward Air Terminal. The construction of new buildings on campus would not be incompatible with the ALUC Airport Land Use Policy Plan.

- f) The Project site is not located within two miles of any private airstrip.
- g) The Project would not interfere with any existing local emergency response or evacuation plans. The College maintains an emergency response and evacuation plan that will be updated to reflect the new facilities proposed in the Master Plan. As necessary, the College would coordinate with the City of Hayward as their emergency response and evacuation plan is updated.
- h) The Project site is within the city limits and surrounded by urban development. There are no wildland areas within the Project vicinity.

Mitigation Measures:

- 7.1 Prior to demolition or modernization of any building identified in the Master Plan, a Phase I Environmental Assessment shall be prepared. The recommendations of the Phase I study shall be implemented. All hazardous materials contained in the affected buildings shall be properly abated and disposed of in compliance with local, state and federal standards.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
8. HYDROLOGY AND WATER QUALITY.				
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?
- j) Inundation by seiche, tsunami, or mudflow?

Discussion:

The Project would not result in significant adverse hydrology and water quality impacts. A brief discussion of each environmental topic included under Section 8 is presented below.

- a) The Project would not result in the violation of any water quality standards.
- b) The Project site is currently served with water by the City of Hayward. Project buildout would not generate a significant increase in water demand that could not be served by existing water facilities. See Section 16 for a discussion on water service. The Project would not adversely affect groundwater.
- c) The Project would not substantially alter current drainage at the site. Approximately 64 percent of the site is impervious surface and 36 percent is pervious. The Project would result in about a four percent increase in impervious surfaces, or 68 percent. The Project is relatively flat and would not cause substantial erosion or siltation on or off site. Standard erosion control measures would be included in site grading and construction activities as specified in the Stormwater Pollution Prevention Plan (SWPPP) that will be prepared for the Project.
- d) There are no streams or drainages on the Project site. Storm water runoff is captured and conveyed to the City's storm water system. Half is captured and conveyed to storm drain facilities in Depot Road and half is captured and conveyed to facilities in West Street. Site runoff would generally remain the same.
- e) Project development runoff would be similar to existing conditions at the site. It would not exceed the capacity of existing or planned stormwater systems. See Section 16 Utilities and Service Systems.
- f) Other than potential pollutants caused by Project construction there is no Project operation that would substantially degrade water quality. The Project SWPPP would include measures to maintain water quality.
- g) The college campus does not include any housing. The Project site is not within a Special Flood Hazard Area that could be inundated by a 100-year flood (LFR 2005)
- h) See Item 8g above.
- i) The Project site is not within an inundation area that would be subject to flooding as a result of a levee or dam failure.

- j) The nearest significant surface water body is San Francisco Bay, located approximately three miles west of the Project site and 24 miles from the Golden Gate Bridge. At a surface elevation of approximately 35 to 45 feet above mean sea level, attenuation would significantly reduce the height of a tsunami at the Golden Gate Bridge. Thus, it is unlikely the Project site would be inundated by a tsunami (LFR 2005).

Mitigation Measures:

None required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
9. LAND USE PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The Project would not result in significant adverse land use impacts. A brief discussion of each environmental topic included under Section 9 is presented below.

- a) The Project would construct new buildings and modernize existing buildings on campus. New landscaping would improve the visual appearance of the campus. The Project would not physically divide an established community.
- b) The college campus is zoned Public and Quasi-Public. The Master Plan would improve parking and circulation conditions on campus and would provide upgraded landscaping and signage. The campus is compatible with nearby residential, retail and commercial development.
- c) The Project would not conflict with any habitat conservation or natural community conservation plans. See Section 4 Biological Resources.

Mitigation Measures:

None required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
10. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The proposed Project would not affect mineral resources. A brief discussion of each environmental topic included under Section 10 is presented below.

- a) The Project would not affect any known mineral resources.
- b) The Project site is a college campus and is designated under the Hayward General Plan as Public and Quasi-Public.

Mitigation Measures:

None required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
11. NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan, specific plan, noise ordinance or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Discussion:

This discussion is based on the *Draft Environmental Noise Impact Study for the Chabot College Facilities Master Plan Hayward, California* prepared by Rosen Goldberg & Der (2005). A copy of this study is included in Appendix E. Temporary construction noise impacts would result in potentially significant impacts to on-campus uses, such as classrooms, and nearby residences. Project operations would result in potentially significant operational noise impacts from mechanical ventilation equipment and other stationary sources. The recommended mitigation measures would reduce potentially significant noise impacts to a less than significant level. A brief discussion of each environmental topic included under Section 11 is presented below.

- a) The City of Hayward General Plan has land use compatibility guidelines for various community noise environments. The City guidelines are based on similar guidelines promulgated by the State of California office of Planning and Research. According to the City and State Guidelines, exposure of schools to noise levels over an L_{dn} of 60 dBA is considered “conditionally acceptable”. According to guidelines “conditionally acceptable” means that a detailed analysis of noise reduction requirements must be made and needed noise insulation features be included in the design of a building.

Several new buildings would be located near Hesperian Boulevard and Depot Road. Future noise from these roadways would exceed the noise standard of 60 dBA which could result in interference with teaching inside classrooms. This is a potentially significant impact, however, the recommended mitigation measures would reduce potentially significant impacts to a less than significant level.

- b) Project construction would not include construction equipment resulting in excessive groundborne vibration or groundborne noise levels.
- c) Major noise sources that affect the Project site are vehicular traffic on Hesperian Boulevard and Depot Road. Noise from aircraft using the Hayward Air Terminal and Oakland International Airport are also audible throughout the site. Short-term and long-term noise measurements were made on and around the Project site to quantify the existing noise environment. The results of the noise measurements are included in Appendix E.

Using existing and future traffic volumes provided by Hexagon Transportation Consultants, Inc., a comparison was made between existing traffic volumes and future traffic volumes since traffic noise increases in logarithmic proportion to the number of vehicles. For example, a doubling in traffic volumes would correspond to a three dBA increase over existing ambient noise conditions. Noise levels along Hesperian Boulevard, Depot Road and Turner Road would increase by less than 0.5 dBA due to the Project. By the year 2015, cumulative growth combined with Project traffic would result in future noise level increases of 1 dBA or less along these roadways. An increase of 1 dBA or less is considered a less than significant impact.

Noise from mechanical ventilation equipment and other stationary sources included in new and modernized buildings could increase existing noise levels (L_{dn}) by more than three dBA for both nearby residences and classrooms. This is a potentially significant impact. Recommended mitigation measures would reduce this significant impact to a less than significant level.

- d) Project construction activities would result in substantial temporary increases in the noise level by more than three dBA at the Project site. Construction noise levels are presented in Appendix E. This would adversely affect on-campus classrooms and nearby residences. Recommended mitigation measures would reduce noise impacts to a less than significant level.
- e) The Project is located within two miles of the Hayward Air Terminal. The campus is located outside of the most recently published CNEL 65 dBA noise contour included in the ALUC land use plan. There are no contours that indicate the site is within the CNEL 60 dBA noise contour. Thus, the Project would be compatible with aircraft noise according to the ALUC land use compatibility standards (see Appendix E). Though aircraft overflights are audible, and potentially disruptive, aircraft noise is considered a less than significant impact.
- f) The Project is not within the vicinity of any private airstrips.

Mitigation Measures:

11.1 Construction hours shall be limited to 7:00 a.m. to 7:00 p.m. Monday through Saturday. Construction shall not be allowed on Sundays and holidays.

11.2 A demolition and construction noise control plan shall be prepared that identifies detailed, site-specific noise attenuation measures that will be used. The plan shall be prepared under the supervision of a qualified acoustical consultant. The plan may include but is not limited to the following:

- Relocate stationary equipment (if feasible) to minimize noise impacts on the community.
- Provide portable enclosures for stationary equipment and particularly noise areas on the site;
- Use self-adjusting ambient-sensitive back-up alarms, manually-adjustable alarms on low setting, use of observers, and/or schedule activities so that alarm noise is minimized

- Install and maintain intake and exhaust mufflers on all equipment, particularly pneumatic impact tools;
- Install acoustically attenuating shields, shrouds, or enclosures on noise producing equipment;
- Line or cover hoppers, conveyor transfer points, storage bins and chutes with sound-deadening material;
- Minimize the use or air of gasoline driven hand tools;
- Use temporary sound barriers, to inhibit transmission of noise to sensitive receptors.
- A plan for posting signs on-site pertaining to permitted construction days and hours and complaint procedures and who to notify in the event of a problem;
- A listing of telephone numbers (during regular construction hours and off-hours);
- The designation of an on-site construction complaint manager for the project;
- Notification of neighbors within 300 feet of the project construction area at least 30 days in advance of any extreme noise-generating activities and the estimated duration of the activity.
- A pre-construction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise mitigation and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

11.3 Acoustical studies shall be prepared to show how mechanical noise from Project buildings will be controlled. The study must show how noise from mechanical equipment would be reduced so as to not increase existing noise levels by more than three dBA. Based on the measurements made for this report, mechanical noise should not exceed an L_{dn} of 65 dBA at homes along Depot Road and an L_{dn} of 70 dBA at homes along Hesperian Blvd. The exact noise level design goal must be refined as part of the required study.

11.4 Acoustical studies shall be prepared for the new Instructional Office Building, the Student Access Center and the Broadcast Building. The study must identify what measures will be taken to reduce noise inside the affected buildings to an L_{dn} of 45 dBA or less. The exact goal may vary depending on the type of use. For example, the broadcast building may require a higher degree of sound insulation if there are noise sensitive uses in the building. It is likely that an L_{dn} 45 dBA goal can be met with standard construction. Rooms facing the roadways, however, should be provided with some form of mechanical ventilation (e.g. air conditioning) so that windows can remain closed while still allowing for a habitable indoor environment.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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12. **POPULATION AND HOUSING.** Would the project:

- a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
--------------------------	--------------------------	--------------------------	-------------------------------------

- | | | | | |
|---|--------------------------|--------------------------|--------------------------|-------------------------------------|
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Discussion:

The Project would not generate significant population increases or demand in housing. A brief discussion of each environmental topic included under Section 12 is presented below.

- a) The Project would result in a about a 15 percent increase in student enrollment over the next ten years. The Project is upgrading and expanding campus facilities in response to population growth projections in Alameda County. The Project would not induce population growth, but rather is responding to meet education demands as a result of population growth in the County.
- b) Buildout of the Master Plan would not displace any existing housing.
- c) The Project would not displace any residents in the neighborhood.

Mitigation Measures:

None required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
13. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

Project impacts to public services would be less than significant. A brief discussion of environmental topics included under Section 13 is presented below.

- a) The City of Hayward Fire Department provides fire protection services to Chabot College. Fire Station #6 is the first response station at 1401 West Winton Avenue, and Fire Station #2 is the second response station at 360 West Harder Road. The current response time to the College is three to four minutes. Primary concerns of Chabot College are false alarms and medical emergencies with older students on campus (Berg 2005).

All fire department staff is trained in emergency medical response and every rig has a licensed emergency paramedic. Chabot College is provided with a full fire-fighting staff and equipment including trucks, engines and paramedic vehicles. The City of Hayward Fire Department does not anticipate a significant increase in demand for service. Therefore, no additional staff or equipment would be needed. (Berg 2005)

- b) The Project would not require additional police protection services beyond what is currently provided for the neighborhood. The current staffing at the Hayward Police Department is 303 employees, with 186 sworn officers. The ratio of sworn officers to the City's population is 1.27 officers per 1,000 population.

In 2004, the Hayward Police Department dealt with 103 reported Part I and Part II offenses at Chabot College. As a reporting district, the college generated 187.2 percent of the average number of reported Part I and Part II crimes for reporting districts in Hayward. Reported crime in the surrounding area ranged from 25.4 percent to 154.4 percent. The projected 15 percent increase in student enrollment would increase demand for police services at the college. However, it is not anticipated this would adversely affect the Police Department's response time to adequately serve the campus and surrounding neighborhood (Weldon 2005).

Campus police are provided at Chabot College. The Chabot College Department of Campus Safety and Security (DCSS) is served by civilian and campus peace and safety officers, dispatchers, on-call officers, student cadets, and the Hayward Police Department. Officers are on duty at all times during the school session, on weekends, and holidays to patrol the campus. There are several safety programs and measures taken to ensure the safety and welfare of all members of the college community. The DCSS offers escorts to the campus community to and from the parking lots and other services, by calling on campus phones or call boxes. (Chabot College 2005)

- c) The Project would not affect capacities at K-12 schools in the Project area.
- d) The college campus provides athletic facilities that are used by students and staff as well as the community. Buildout of the Master Plan would not adversely affect nearby parks.
- e) The Project would not adversely affect other public facilities.

Mitigation Measures:

None required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
14. RECREATION. Would the project:				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The Project currently provides athletic facilities on site. The Project is not expected to adversely affect nearby parks and recreational facilities as a result of student use. A brief discussion of each environmental topic included under Section 14 is presented below.

- a) The College campus provides athletic facilities for the use of students, staff and the community. The Master Plan responds to future population growth in the District. New students and staff would reside in the area and would not generate an increase in demand on parks and recreational facilities.
- b) See Item 14a above.

Mitigation Measures:

None required.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
15. TRANSPORTATION/CIRCULATION. Would the proposal result in:				
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion				

	management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e)	Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f)	Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The *Chabot College Facilities Master Plan Draft Transportation Impact Analysis* prepared by Hexagon Transportation Consultants, Inc. (2005) is summarized below. The complete traffic study is included in Appendix F. Based on the traffic study, the Project would not result in significant traffic impacts. A discussion of each environmental topic included under Section 15 is presented below.

a) **Existing Traffic Conditions**

Existing Roadway Network

Regional access to the project site is provided via I-880 and SR 92. Local access to the site is provided by Hesperian Boulevard and Depot Road. These facilities are described below.

Interstate 880 (I-880) is a north/south freeway providing regional access from Oakland to San Jose, where it becomes SR 17. I-880 is an eight-lane freeway with six-mixed flow lanes and two High Occupancy Vehicle (HOV) lanes south of SR 92. I-880 widens to ten-lanes north of SR 92 with eight mixed-flow lanes and two HOV lanes. Full interchanges are provided at Winton Avenue, SR 92 and Tennyson Road.

State Route 92 (SR 92) begins at its junction with State Route 1 and State Route 35 in Half Moon Bay, and extends northeast across San Francisco Bay (San Mateo Bridge) and into Hayward. Within the City of Hayward, SR 92 changes designation to Jackson Street at its intersection with I-880 and then Foothill Boulevard at its intersection with Mission Boulevard. SR 92 provides access to Chabot College via a full interchange at Hesperian Boulevard.

Hesperian Boulevard is a six-lane major arterial with a center median in the vicinity of the project site. Hesperian Boulevard begins in San Leandro as a transition from Bancroft Avenue, and extends southward through Hayward and into Union City becoming Union City Boulevard. Left-turn pockets provide protected left turns at the major intersections along Hesperian Boulevard.

Crosswalks with pedestrian push buttons and signal heads also are provided at the major intersections along Hesperian Boulevard. There are no bike lanes on Hesperian Boulevard. Access to Chabot College is provided via four driveways on Hesperian Boulevard.

Depot Road is an east-west undivided minor arterial with one lane of travel in the westbound direction and two lanes of travel in the eastbound direction. Depot Road begins at Cabot Boulevard in an industrial area of Hayward, and extends eastward where it transitions into Cathy Way at its intersection with Hesperian Boulevard. Crosswalks are provided at one Chabot College driveway on Depot Road and at Hesperian Boulevard. There are no bike lanes on Depot Road. Access to Chabot College is provided via four driveways on Depot Road.

Existing Bicycle and Pedestrian Facilities

According to the City of Hayward Bicycle Master Plan, the number of bicycle facilities in the immediate project vicinity are limited and intermittent. Class II bike lanes are provided on Cathy Way between Hesperian Boulevard and Calaroga Avenue, Tennyson Road south of Chabot College, and Calaroga Avenue east of Chabot College. Class II bike lanes are proposed on Turner Court. According to the Bicycle Master Plan, Class III bike routes are proposed near the Project site on the following roadways:

- Depot Road west of Hesperian Boulevard
- Southland Drive east and west of Hesperian Boulevard
- Winton Avenue east of Southland Drive and west of Clawiter Road
- Hesperian Boulevard north of La Playa Drive
- La Playa Drive east of Hesperian Boulevard
- Industrial Boulevard and Clawiter Road

The proposed bike lanes and bike routes would greatly improve the connectivity of the currently limited network of bicycle facilities.

Pedestrian facilities in the study area consist primarily of a continuous network of sidewalks along the previously described local roadways and throughout the Chabot College campus. Crosswalks with pedestrian push buttons and signal heads are provided at the major intersections in the project area. Existing pedestrian traffic in the project area primarily is generated by Chabot College students and local residents walking to and from Chabot College, bus stops, Rancho Arroyo Park, and nearby retail centers such as the Southland Mall.

Existing Transit Service

Existing transit service to the study area is provided by Alameda-Contra Costa Transit District (ACTransit). Chabot College is served directly by local bus lines 92, 97 and M. These bus lines stop on the Chabot College campus via the existing one-way loop road off of Hesperian Boulevard and

provide service to nearby BART stations, retail centers, CSU Hayward, and Foster City and San Mateo via the San Mateo Bridge. A bus duckout is located on the Chabot College campus adjacent to parking lot A for loading and unloading of passengers.

Bus route information was obtained from the ACTransit website. The most recent boardings and alightings count data for these bus lines is for Spring 2005 and was provided by an ACTransit representative. It is reasonable to assume that 100 percent of the boardings and alightings that occur at the Chabot College Lot A bus stop are attributable to students and faculty. For the nearby Turner Court and Depot Road/Cathy Way bus stops, it is assumed that 50 percent of the riders are students and Chabot College faculty.

ACTransit Bus Routes

The 92 line provides service between California State University Hayward and the South Hayward Bay Area Rapid Transit (BART) station, with 15-minute headways during commute hours. This line operates along Hesperian Boulevard, Tennyson Road, Southland Drive and Winton Avenue near the project site. Based on ACTransit counts, approximately 235 Chabot College students and faculty currently use the 92 line on an average weekday.

The 97 line provides service between the Bay Fair BART station and the Union City BART station, with 20-minute headways during commute hours. This line operates along Hesperian Boulevard. Based on ACTransit counts, approximately 130 Chabot College students and faculty currently use the 97 line on an average weekday.

The M line provides transbay service via the San Mateo Bridge between the Castro Valley BART station and Hillsdale Mall in San Mateo, with 30-minute headways during commute hours. This line operates along Hesperian Boulevard, Winton Avenue and SR 92 (San Mateo Bridge). Based on ACTransit counts, approximately 30 Chabot College students and faculty currently use the M line on an average weekday.

Based on the most recent boardings and alightings data provided by ACTransit for bus lines 92, 97 and M, it is estimated that about 395 Chabot College students and faculty currently use these bus lines on an average weekday. Based on a current enrollment of 15,250 students and 494 college faculty, this equates to approximately 2.5 percent of the total college population that currently utilizes ACTransit service.

Existing Intersection Levels of Service

The results of the level of service analysis under existing conditions are shown in Table 3 of the *Draft Transportation Impact Analysis* (see Appendix E). The results show the Hesperian Boulevard and Winton Avenue signalized intersection operates at LOS E during the AM peak hour. All other signalized intersections operate at D or better and are consistent with the City of Hayward level of service standards for signalized intersections.

Existing Trip Generation

The total existing peak hour trip generation of Chabot College was determined based on counts at the college driveways conducted in May of 2005. According to driveway counts, the college is generating 1,639 trips during the AM peak hour and 877 trips during the PM peak hour. Of the 1,639 AM peak hour trips, 1,284 trips (about 78%) are inbound and 355 trips (about 22%) are outbound. During the PM peak hour, 434 trips (about 49%) of the 877 total trips are inbound and 443 trips (about 51%) are outbound.

Transportation Network Under Project Conditions

The proposed Project would combine the existing Chabot College driveways #2 (one-way inbound) and #3 (one-way outbound) on Hesperian Boulevard into one full access driveway. The existing Chabot College driveways #5 and #6 on Depot Road also will be combined into one full access driveway. A map showing driveway locations is included in Appendix F.

Project Trip Estimates and Traffic Volumes

Driveway counts at the college were conducted in May of 2005. The college projections for 2015 show a 15 percent increase in student and faculty population compared to the existing student and faculty population. New trips generated by the Master Plan project were estimated by first calculating the existing number of vehicular trips per college student and faculty based on the driveway counts and a total student plus faculty population of 15,744. Using this approach, Chabot College currently generates 0.104 trips per person during the AM peak hour and 0.056 trips per person during the PM peak hour. The existing trip generation rates were then used to determine the number of new peak hour trips generated by the project based on a new student plus faculty population of 18,044. Based on an increase of 2,250 students and 50 college faculty over the next 10 years, the project would generate 239 new AM peak hour trips and 128 new PM peak hour trips by the year 2015. Based on the existing inbound/outbound splits, the project would produce 186 inbound trips and 53 outbound trips during the AM peak hour, and 63 inbound trips and 65 outbound trips during the PM peak hour.

Project Intersection Analysis

The results of the level of service analysis under 2015 Project conditions are shown in Table 6 of the *Draft Transportation Impact Analysis* (Appendix F). The results show the Hesperian Boulevard and Winton Avenue signalized intersection would continue to operate at LOS E during the AM peak hour, and would change from level of service D to level of service E during the PM peak hour. This would also be the case without the Project in 2015. All other signalized intersections operate at D or better and are consistent with the City of Hayward level of service standards for signalized intersections.

- b) Additional trips generated by potential future development in the Project area beyond 2015 were estimated by applying an annual growth rate of one percent to 2015 No Project volumes and then adding the estimated Chabot College Project trips. No increase in student or faculty population is

expected to occur at Chabot College beyond 2015 so not increase associated with the college would be expected between 2015 and 2025. Under 2025 cumulative conditions, the Hesperian Boulevard and Winton Avenue intersection would continue to operate at level of service F during the AM and PM peak hours due to estimated growth in traffic volumes from potential future projects in the study area. All other signalized intersections would operate at level of service D or better.

- c) The Project would not affect air traffic patterns.
- d) The Project design would not create significant hazards either on or off site. The new ring road would improve truck access and on-site circulation.
- e) The Project site plan design provides adequate emergency access to the project site.
- f) The college campus currently provides 2,492 parking spaces. According to a parking space occupancy survey completed for this study in April of 2005, the peak parking demand on a typical weekday is approximately 2,195 spaces, or 88 % of the total 2,492 parking spaces. The peak parking period occurs during the AM. The Facilities Master Plan will provide a total of 2,833 parking spaces in the campus' parking lots. Based on the design goal of 1 space per 6.2 students, the forecast enrollment of 17,500 students at Chabot College would create a need for 2,823 spaces. The planned 2,833 parking spaces would represent a ratio of 1 space per 6.18 students, which exceeds the design goal. Appendix F includes a detailed parking analysis for Chabot College
- g) The Project would not conflict with adopted City policies, plans and programs.

Mitigation Measures: None required. Although the Project would not result in significant traffic impacts, to further improve on-site circulation and safety conditions, the following mitigation measures are recommended:

- 15.1 Locates stop signs in both directions along the ring road at the two driveways connecting Hesperian Boulevard to the ring road to provide a free movement for inbound traffic. The on-site traffic control recommendations also should be clearly marked so there is no driver confusion.
- 15.2 Locate stop signs in both directions along the ring road at the two driveways on Depot Road to provide a free movement for inbound traffic.
- 15.3 Design the proposed on-site T-intersections so that vehicles stopped on the ring road can clearly see vehicles entering the campus.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
16. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) The Project would not adversely affect any wastewater treatment requirements.
- b) The City of Hayward Public Works Department provides wastewater treatment to Chabot College. The City of Hayward's wastewater treatment plant has a dry weather flow capacity of 16.5 million gallons per day (mgd) and a wet weather flow capacity of 40 mgd. The plant is operating at approximately 13.5 mgd. The City is undertaking a wastewater plant improvement project. The capacity of the plant will remain the same. (Ameri 2005)

Development of the Project would increase wastewater generated at the Project site. Project development would increase building facilities by approximately 344,625 square feet. Based on standard wastewater projection data, using a wastewater generation rate of 0.1 gal/ft²/day, the Project would generate an estimated 34,463 gallons per day (gpd) or .034 mgd.. The City could adequately provide wastewater treatment and disposal for the Project. The treatment plant has adequate capacity to treat the Project's projected wastewater generation. (Ameri 2005).

The City of Hayward provides water service to Chabot College. The City of Hayward Public Works Department does not have a pre-set entitlement for water. The City of Hayward obtains its water from the San Francisco Public Utility Commission's Hetch Hetchy system. The City adopted a water conservation ordinance (Ameri 2005).

Buildout of the Master Plan would increase water demand. Based on a standard water demand rate of 0.15 gal/ft²/day, the Project would increase water demand by about 51,694 gallons per day or .052 mgd. The City of Hayward can accommodate this increase in water consumption at the campus. (Ameri 2005).

The Project would not require the construction of new water or wastewater treatment facilities or expansion of existing facilities. The Project would result in less than significant impacts to water and wastewater treatment facilities.

- c) Regional storm water facilities are maintained by Alameda County Flood Control Agency. The City of Hayward is not aware of flooding issues in the Project area. There are flood control lines in Hesperian Boulevard and Depot Road. (Bauman 2005)

The amount of impervious surfaces would be increased by about four percent with the proposed Project. Runoff from the Project site would be similar to existing conditions and would continue to flow into existing storm drains.

A Storm Water Pollution Prevention Plan (SWPPP) will be prepared for Master Plan buildout to ensure that Regional Water Quality Control Board (RWQCB) requirements are achieved. A local drainage analysis will be required by the City that demonstrates Project runoff will not increase flows downstream beyond existing conditions in compliance with Regional Water Quality Control Board requirements (Bauman 2005). The Project would not require the construction of new storm water drainage facilities or expansion of existing facilities to accommodate Project stormwater.

- d) There is sufficient water supply to serve the Project. See Item 16c above.
- e) See Items 16a and 16b above.
- f) Waste Management of Alameda County provides solid waste collection and recycling services to serves Chabot College. The Project would result in an increase in solid waste due to increases in student enrollment. In addition to solid waste, the Project would generate construction and demolition waste. As a state agency, Chabot College is required to divert waste from disposal in compliance with AB 75. This includes diverting 50 percent of all waste generated by January 1, 2004, and each year thereafter via waste reduction, recycling and composting activities. (Dahle-Lacaze 2005).

Solid waste from the campus is transported to the Altamont Landfill, located in Livermore. The permit for the landfill is currently being updated, consequently the anticipated closure date has not been identified (Dahle-Lacaze 2005). If hazardous waste is confirmed to be present on the site upon completion of the site testing, it will be disposed of according to federal and state standards.

- g) The Project would comply with federal, state and local solid waste and hazardous waste regulations.

Mitigation Measures:

None required.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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17. MANDATORY FINDINGS OF SIGNIFICANCE.

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Project would result in the following potentially significant impacts: construction air quality impacts, disturbance of swallows during the nesting season, risk to humans and property due to a seismic event, construction and operational noise impacts, hazardous materials impacts. The recommended mitigation measures would reduce these potentially significant impacts to a less than significant level.

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APPENDIX A

California and Federal Ambient Air Quality Standards

APPENDIX B

Bay Area Ambient Air Quality Standards and Attainment Status – July 25, 2005-08-21

APPENIX C

URBEMIS 2002 Model Data 2005-2015 at Traffic Speeds of 20 mph and 30 mph

APPENDIX D

Sensitive Receptors Within 0.5 Mile of Chabot College

APPENDIX E

Draft Environmental Noise Impact Study for the Chabot College Facilities Master Plan, Hayward, California

APPENDIX F

Chabot College Facilities Master Plan Draft Transportation Impact Analysis

APPENDIX D

Sensitive Receptors Within 0.5 Mile of Chabot College