

PUBLIC REVIEW DRAFT

**EMERYVILLE CENTER OF COMMUNITY LIFE
INITIAL STUDY/MITIGATED NEGATIVE
DECLARATION**

LSA

June 2013

**NOTICE OF INTENT TO ADOPT A
MITIGATED NEGATIVE DECLARATION FOR THE
EMERYVILLE CENTER OF COMMUNITY LIFE PROJECT**

NOTICE IS HEREBY GIVEN that the Emery Unified School District (District) has completed an Initial Study/Mitigated Negative Declaration for the Emeryville Center of Community Life Project in accordance with the California Environmental Quality Act.

Project Location: The project site is located in the City of Emeryville in Alameda County, California. The approximately 7.7-acre project site is located at 4727 San Pablo Avenue and 1100 47th Street and is generally bound by 53rd Street to the north, San Pablo Avenue to the east, 47th Street to the south, and Emery Bay Village (a residential neighborhood) to the west.

Proposed Project: The proposed project includes demolition of the majority of buildings located on the existing site (Emery Secondary School) and construction of the new Emeryville Center of Community Life (ECCL), a joint use project by the District and the City of Emeryville. The ECCL would house K-12 students within the District and include several community uses. Structures would include: community and school multi-purpose rooms; an administrative and community services building; a library; classroom spaces for K-12 students; a school gymnasium and a community gymnasium; teaching theater; and improvements to existing athletic facilities, landscaping, and circulation.

Findings: The Initial Study prepared by the District was undertaken for the purpose of deciding whether the project may have a significant effect on the environment. On the basis of the Initial Study, District staff has concluded that the project will not have a significant effect on the environment and, therefore, has prepared a Mitigated Negative Declaration. The project site is included on a list of hazardous waste sites compiled pursuant to Government Code Section 65962.5.

Public Review: Copies of the Initial Study/Mitigated Negative Declaration are on file and available for review at the District's website (<http://www.emeryusd.k12.ca.us/>) and at the following locations:

- Emery Unified School District, 1275 61st Street, Emeryville, California
- Office of the City Clerk, Emeryville City Hall, 1333 Park Avenue, Emeryville, California

Written comments are accepted from June 11, 2013 until July 11, 2013. Comments from all Responsible Agencies are requested. Any person wishing to comment on the Draft Initial Study/Mitigated Negative Declaration must submit such comments in writing to the following address: Roy Miller, District Architect, Emery Unified School District, 1275 61st Street, Emeryville, CA 94608, or roy.miller@emeryusd.k12.ca.us

The Emery Unified School Board of Trustees will consider adoption of the proposed Mitigated Negative Declaration and its findings at a public hearing scheduled for 6:00 p.m. on July 15, 2013, at the Ralph Hawley School Multipurpose Room, 1275 61st Street in Emeryville. Additionally, the City of Emeryville Planning Commission will consider approvals associated with the project on July 25, 2013 at 6:30 p.m. at the Emeryville Civic Center, 1333 Park Avenue, Emeryville, California.

Debbra Lindo, Ed.D.
Superintendent

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Jag Lathan, Principal
1070 41st Street
Emeryville, CA 94608

Emery Secondary School
William Chavarin, Principal
915 54th Street
Oakland, CA 94608

PUBLIC REVIEW DRAFT

**EMERYVILLE CENTER OF COMMUNITY LIFE
INITIAL STUDY/MITIGATED NEGATIVE
DECLARATION**

Submitted to:

Emery Unified School District
1275 61st Street
Emeryville, California 94608

Prepared by:

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LSA

June 2013

TABLE OF CONTENTS

A.	INTRODUCTION	1
B.	DRAFT MITIGATED NEGATIVE DECLARATION	3
C.	SUMMARY INFORMATION	4
D.	PROJECT DESCRIPTION	5
CHECKLIST		35
I.	AESTHETICS.	35
II.	AGRICULTURAL AND FORESTRY RESOURCES.	57
III.	AIR QUALITY	59
IV.	BIOLOGICAL RESOURCES	65
V.	CULTURAL RESOURCES	69
VI.	GEOLOGY AND SOILS.	77
VII.	GREENHOUSE GAS EMISSIONS	82
VIII.	HAZARDS AND HAZARDOUS MATERIALS.	85
IX.	HYDROLOGY AND WATER QUALITY.	93
X.	LAND USE AND PLANNING.	101
XI.	MINERAL RESOURCES	103
XII.	NOISE.	104
XIII.	POPULATION AND HOUSING	112
XIV.	PUBLIC SERVICES.	113
XV.	RECREATION	117
XVI.	TRANSPORTATION/TRAFFIC	118
XVII.	UTILITIES AND SERVICE SYSTEMS	159
XVIII.	MANDATORY FINDINGS OF SIGNIFICANCE	167
REPORT PREPARATION		169
A.	PREPARERS	169
B.	REFERENCES	170
C.	COMMUNICATIONS	175

APPENDICES

Appendix A:	Illumination Summary
Appendix B:	Air Quality Modeling Data
Appendix C:	Cultural Resources Study and Historical Evaluation
Appendix D:	Noise Modeling Data
Appendix E:	Transportation Impact Analysis

FIGURES

Figure 1:	Project Vicinity and Regional Location	7
Figure 2:	Aerial Photograph and Photo Location Map	8
Figure 3a:	Photo Viewpoints 1 and 2.....	9
Figure 3b:	Photo Viewpoints 3 and 4.....	10
Figure 3c:	Photo Viewpoints 5 and 6.....	11
Figure 4:	Phase 1 – Conceptual Site Plan	17
Figure 5:	Phase 2 – Conceptual Site Plan	19
Figure 6a:	Conceptual Elevation – Phase 1	23
Figure 6b:	Conceptual Elevation – Phase 2	24
Figure 7:	Conceptual Elevation – San Pablo Ave. and 53 rd Street.....	25
Figure 8:	Conceptual Elevation – Community Commons	26
Figure 9:	View Location Map.....	39
Figure 10:	Visual Simulations – Viewpoint 1	40
Figure 11:	Visual Simulations – Viewpoint 2.....	41
Figure 12:	Visual Simulations – Viewpoint 3.....	42
Figure 13:	Visual Simulations – Viewpoint 4.....	43
Figure 14:	Visual Simulations – Viewpoint 5.....	44
Figure 15:	Individual Light Pole Details.....	46
Figure 16a:	Illumination Summary for Spill Light Under Scenario A Light Conditions for Emery Bay Drive Residential Neighborhood, Horizontal Footcandles.....	51
Figure 16b:	Illumination Summary for Spill Light Under Scenario A Light Conditions for Emery Bay Drive Residential Neighborhood, Maximum Vertical Footcandles	52
Figure 17a:	Illumination Summary for Spill Light Under Scenario A Light Conditions for 53 rd Street Residential Neighborhood, Horizontal Footcandles.....	53
Figure 17b:	Illumination Summary for Spill Light Under Scenario A Light Conditions for 53 rd Street Residential Neighborhood, Maximum Vertical Footcandles	54
Figure 18:	Area-Wide Illumination Summary for Spill Light Under Scenario A Light Conditions, Horizontal Footcandle	55
Figure 19:	Project Site Vicinity and Study Intersection Locations	120
Figure 20:	Existing Intersection Bicycle and Pedestrian Volumes	129
Figure 21:	Existing Transit Service.....	130
Figure 22:	Existing Intersection Turn Volumes, Lane Configurations and Traffic Control	131
Figure 23:	Project Trip Distribution Percentages.....	138
Figure 24:	Existing Conditions Project Trip Assignment	139
Figure 25:	Cumulative Conditions Project Trip Assignment.....	140
Figure 26:	Existing Plus Project Peak Hour Traffic Volumes	141
Figure 27:	Cumulative Conditions No Project Peak Hour Volumes.....	146
Figure 28:	Cumulative Plus Project Peak Hour Volumes	147
Figure 29:	Site Plan Recommendations	151
Figure 30:	Conceptual Design of 53 rd Street Turnaround	153

TABLES

Table 1:	Summary of Existing Uses and Structures	6
Table 2:	Summary of Classrooms and Square Footage by Building	15
Table 3:	Summary by Use and Phase of Construction	16
Table 4:	Existing Use of Sports Field Facility	27
Table 5:	Proposed Use of Sports Field Facility	28
Table 6:	Approvals and Permits	32
Table 7:	Illumination Summary for Football, Soccer, Track, and Baseball Horizontal Footcandles	47
Table 8:	Illumination Summary for Spill Light under Scenario A Lighting Conditions – Western Boundary (Footcandles)	49
Table 9:	Illumination Summary for Spill Light under Scenario A Lighting Conditions – North (Footcandles)	50
Table 10:	Project Construction Emissions in Pounds Per Day	61
Table 11:	Project Regional Emissions	62
Table 12:	Stationary Sources within 1,000 feet of the Project Site	64
Table 13:	Emeryville Center of Community Life Greenhouse Gas Emissions	83
Table 14:	Modeled Traffic Noise Levels at 50 feet from Centerline of Outermost Travel Lane, dBA	105
Table 15:	Typical Construction Equipment Maximum Noise Levels, L_{max}	109
Table 16:	Signalized Intersection Level of Service Criteria	122
Table 17:	Unsignalized Intersection Level of Service Criteria	122
Table 18:	Multi-Modal Level of Service Criteria	123
Table 19:	Existing (2011/2012) Peak Hour Level of Service	132
Table 20:	Existing (2011/2012) Multi-Modal Level of Service (MMLOS)	133
Table 21:	Trip Generation Rates	134
Table 22:	Travel Mode Splits by Trip Purpose	135
Table 23:	Trip Generation Estimates – Phase 1	136
Table 24:	Trip Generation Estimates – Phase 2	136
Table 25:	Existing (2011/2012) Plus Project Peak Hour Level of Service	142
Table 26:	95 th Percentile Queues under Existing and Existing with Project Scenarios	143
Table 27:	Cumulative (2030) Conditions Peak Hour Levels of Service	145
Table 28:	95 th Percentile Queues under Cumulative and Cumulative with Project Scenarios	148
Table 29:	City Code Automobile Parking Requirements	155
Table 30:	Phase 1 Parking Demand for Typical Uses by Time of Day	155

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A. INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared in accordance with relevant provisions of the California Environmental Quality Act (CEQA) of 1970, as amended and the CEQA Guidelines, as revised. This IS/MND evaluates the environmental effects of the proposed Emeryville Center of Community Life Project (project) located on District property, to be built as a collaborative project by a partnership between the City of Emeryville (City) and the Emery Unified School District (District), and resulting in re-use of the property for both education and community activities. The project would consolidate classroom facilities for Emeryville's K-12 student population and include: community and school multi-purpose rooms; an administrative and community services building; a library; classroom spaces for K-12 students; school and community gymnasiums; a teaching theater; as well as improvements to athletic facilities, landscaping, and circulation.

Maximum enrollment at the school for Phase 1 is 900 students, with approximately 60 students per grade. Phase 2 would increase enrollment up to 1,120 students (approximately 80-90 students per grade). The site is bound by San Pablo Avenue to the east, 53rd Street to the north, a residential neighborhood to the west, and 47th Street to the south. All significant environmental impacts of the project would be reduced to a less-than-significant level with implementation of the mitigation measures outlined in this document.

1. Components of the IS/MND

The IS/MND includes the following components:

- A Draft Mitigated Negative Declaration and the formal finding made by the District that the recommended mitigation measures for the project would avoid or mitigate the potentially significant effects identified in the Initial Study to the point where no significant effect on the environment would occur.
- A detailed Project Description.
- The CEQA Checklist, which provides standards to evaluate the potential for significant environmental impacts from the proposed project. This checklist is adapted from the form provided in Appendix G of the State CEQA Guidelines as last amended on December 30, 2009 (California Natural Resources Agency 2009). The checklist is modified as appropriate for this project. The project is evaluated in 17 subject categories on the checklist to determine whether the project's environmental impacts would be significant in any category. Brief discussions are provided outlining the project's anticipated environmental impacts in each category and mitigation measures are established to reduce any identified significant impact to a less-than-significant level.
- Appendix materials that provide more detailed information on air quality, cultural resources, greenhouse gas emissions, noise, and traffic issues as they relate to the proposed project.

2. CEQA Process

Because the proposed project fits into the definition of a "project" under Public Resources Code section 21065 requiring discretionary approvals by the District, and because the project could result in a significant effect on the environment, the project is subject to CEQA review. An Initial Study (IS), which comprises a portion of this document, was prepared to determine the appropriate environmental document to satisfy CEQA requirements: an Environmental Impact Report (EIR), a negative

Declaration (ND), or a Mitigated Negative Declaration (MND). The analysis in this IS supports the conclusion that, with recommended mitigation measures agreed to by the District and listed in the MND, the project would not result in significant environmental impacts; therefore, an MND has been prepared.

This IS/MND will be circulated for 30 days for public and agency review, during which time, individuals and agencies may submit comments on the adequacy of the environmental review. Following the public review period, the District Board of Trustees will consider any comments received on the IS/MND when deciding whether to adopt the MND.

B. DRAFT MITIGATED NEGATIVE DECLARATION

Project Name: Emeryville Center of Community Life (ECCL)

Project Location: 1100 47th Street and 4727 San Pablo Avenue, Emeryville, CA 94608

Description of Project: The proposed project includes demolition of the majority of buildings located on 7.7 acres of property previously occupied by the Emery Secondary School and construction of the Emeryville Center of Community Life (ECCL) on that site. The ECCL would house K-12 students within the District and include several community uses. Structures would include: community and school multi-purpose rooms; an administrative and community services building; a library; classroom spaces for K-12 students; school and community gymnasiums; a teaching theater; as well as improvements to athletic facilities, landscaping, and circulation.

Findings: It is hereby determined that, based on the information contained in the attached Initial Study and the approved mitigation measures, the project would not have a significant adverse effect on the environment.

Mitigation measures necessary to avoid or reduce to a less-than-significant level the project's potentially significant effects on the environment are detailed on the following pages. These mitigation measures are incorporated and fully made part of this Draft Mitigated Negative Declaration. The project applicant has agreed to incorporate as part of the project and implement each of the identified mitigation measures, which would be adopted as part of the Mitigation Monitoring and Reporting Program.


Date


Emery Unified School District

C. SUMMARY INFORMATION

1. **Project Title:** Emeryville Center of Community Life

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

Emery Unified School District
1275 61st Street
Emeryville, CA 94608

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

Roy Miller, Architect
Emery Unified School District
(510) 601-4750

4. **Project Location:**

1100 47th Street and 4727 San Pablo Avenue
Emeryville, CA 94608

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

Emery Unified School District
1275 61st Street
Emeryville, CA 94608

6. **General Plan Designation:** Public

7. **Zoning:** Public Use (P-U)

8. **Description of Project:**

The proposed project includes demolition of the majority of buildings located on the existing site (Emery Secondary School) and construction of the new Emeryville Center of Community Life (ECCL), a joint use project by the District and the City. The ECCL would house K-12 students within the District and include several community uses. Structures would include: community and school multi-purpose rooms; an administrative and community services building; a library; classroom spaces for K-12 students; school and community gymnasiums; a teaching theater; and improvements to existing athletic facilities, landscaping, and circulation. Please see Section D for more information on the project description.

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

A variety of uses surround the project site. Immediately north is 53rd Street, a two-lane roadway that also serves as the Oakland/Emeryville boundary. North of 53rd Street is a residential neighborhood with single- and multi-family homes. Emery Bay Village, a two-story residential development, is

located immediately west of the project site. Industrial and commercial uses, Interstate 80 (I-80), and the San Francisco Bay are located farther west. Forty-seventh Street, a two-lane street, is located immediately south of the project site. The majority of the southern 47th Street frontage is occupied by the AC Transit Emeryville Division Transportation Building and bus parking lot. Institutional, commercial and industrial uses are located further south. San Pablo Avenue, a four-lane State highway (State Highway 123), provides the eastern boundary of the project site. Commercial uses are located along San Pablo Avenue, and residential uses and the City of Oakland are located further to the east.

10. Other agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

City of Emeryville; California Department of Transportation; Division of State Architect;
California Geological Survey; California Regional Water Quality Control Board; Alameda
County Flood Control Board

D. PROJECT DESCRIPTION

This chapter describes the improvements proposed as part of the Emeryville Center of Community Life (ECCL) Project, and includes a description of the project location, existing conditions, project background, proposed project, and approvals and permits. The Emery Unified School District (District) is the CEQA Lead Agency for this project.

PROJECT LOCATION AND EXISTING CONDITIONS

The following section describes the project location, existing conditions and uses on the project site, and the surrounding land uses.

1. Project Location

The project site is located in the eastern portion of the City of Emeryville, within Alameda County. The approximately 7.7-acre project site (APNs 049-1181-001; 049-1182-015-08; 013-1182-023-04,-005-03, 008-04), owned by the Emery Unified School District (District), is located at 4727 San Pablo Avenue and 1100 47th Street and is generally bound by 53rd Street to the north, San Pablo Avenue to the east, 47th Street to the south, and Emery Bay Village (a residential neighborhood) to the west. A site location map is included as Figure 1, and an aerial of the project site and surrounding land uses is shown in Figure 2.

2. Project Site Existing Conditions

The following uses are located on the project site when it is in use: the Emery Secondary School; District Administrative Buildings; YMCA Headstart Emeryville Marina; and the Emery Unified Wellness Program. As of October 2012, the existing uses on-site were relocated to allow for project construction. These uses are further described below.

a. Emery Secondary School. In the 2010-2011 school year, the Emery Secondary School provided education for children in grades 8 through 12 within the City of Emeryville at the project site. During the 2010-2011 school year, there were approximately 352 students and approximately 45 teachers and administrative staff. Within the District, regular school hours for grades K-8 are 8:00 a.m. to 3:00 p.m., and for grades 9-12 are 8:30 a.m. to 3:30 p.m.

The Emery Secondary School includes 7 buildings, generally constructed in the 1950s and 1960s. A photo location map is shown in Figure 2, and representative photos of the project site are shown in Figures 3a, 3b, and 3c. With the exception of the gymnasium, these buildings are single-story structures of varying construction materials, and are concentrated along the southern and eastern border of the project site. The Emery Secondary School buildings have 22 classrooms which include a music room, art room, computer lab, library, cafeteria, and gym. Additionally, the Secondary School includes an outdoor pool (which is also used as a community pool), athletic fields and a track. A summary of the existing buildings on the project site is included in Table 1.

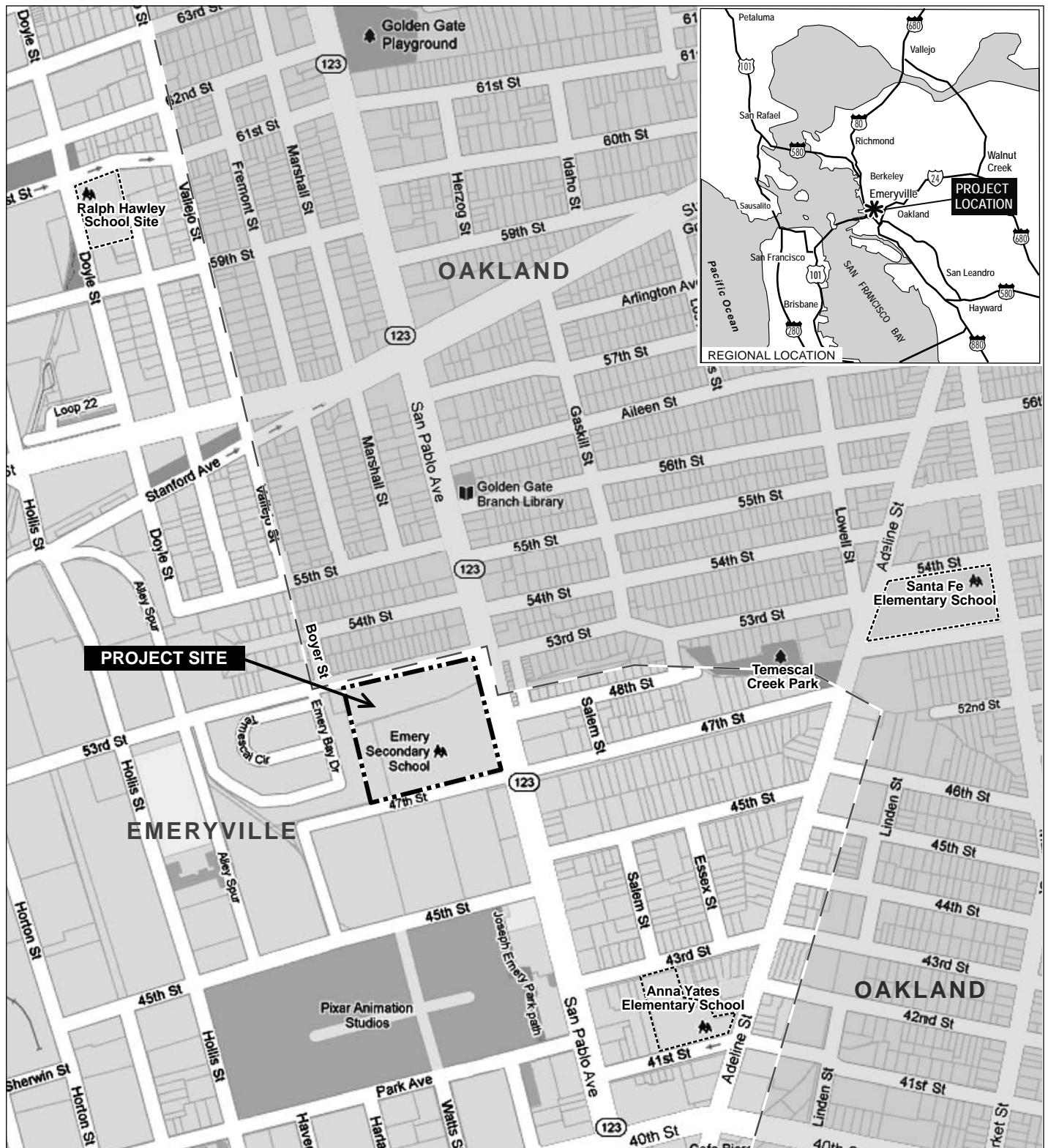
Table 1: Summary of Existing Uses and Structures

Building Number ^a	Building Description	Year Built	Number of Classrooms	Square Footage
Emery Secondary School				
1	Art Lab/Computer Lab	1966	2	8,808
2	Library/Offices/Classrooms	1966	9	18,228
3	Cafeteria/Kitchen/Offices/Classrooms	1966	10	20,383
4	Gymnasium	1966	0	17,223
5	Girls Locker Room	1966	0	2,882
6	Boys Locker Room	1966	0	2,282
7	Music Building	1957	1	2,331
8	Central Plant Building ^b	1958	0	741
Emery Secondary School Subtotal			22	72,878
School District Administrative Buildings				
9	Offices/Theater	1968	0	4,118
10	Warehouse	1964	0	3,080
11	District Administrative Offices	1949	0	2,251
School District Administrative Building Subtotal			0	9,449
YMCA Headstart Emeryville Marina				
12	Portable Classrooms	NA	2	2,800
YMCA Headstart Emeryville Marina Subtotal			2	2,800
Emery Unified Wellness Program				
13	Portable Structure	NA	0	1,100
Emery Unified Wellness Program Subtotal			0	1,100
TOTAL			24	86,227

^a Building numbers are keyed to Figure 2, which shows approximate location of buildings identified within Table 1.

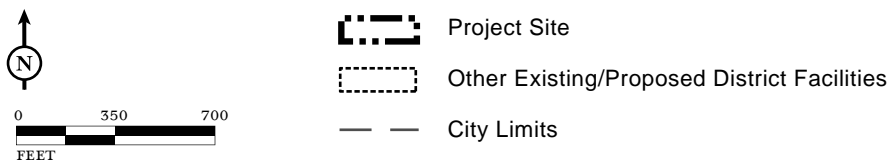
^b The Central Plant Building contains the boilers for the heating system.

Source: bfgc Architecture, Site Diagrams, 1999. Emery Unified School District, 2012.



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FIGURE 1



SOURCES: GOOGLE MAPS, LSA ASSOCIATES, INC., 2012.

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Emeryville Center of Community Life IS/MND
Project Vicinity and Regional Location

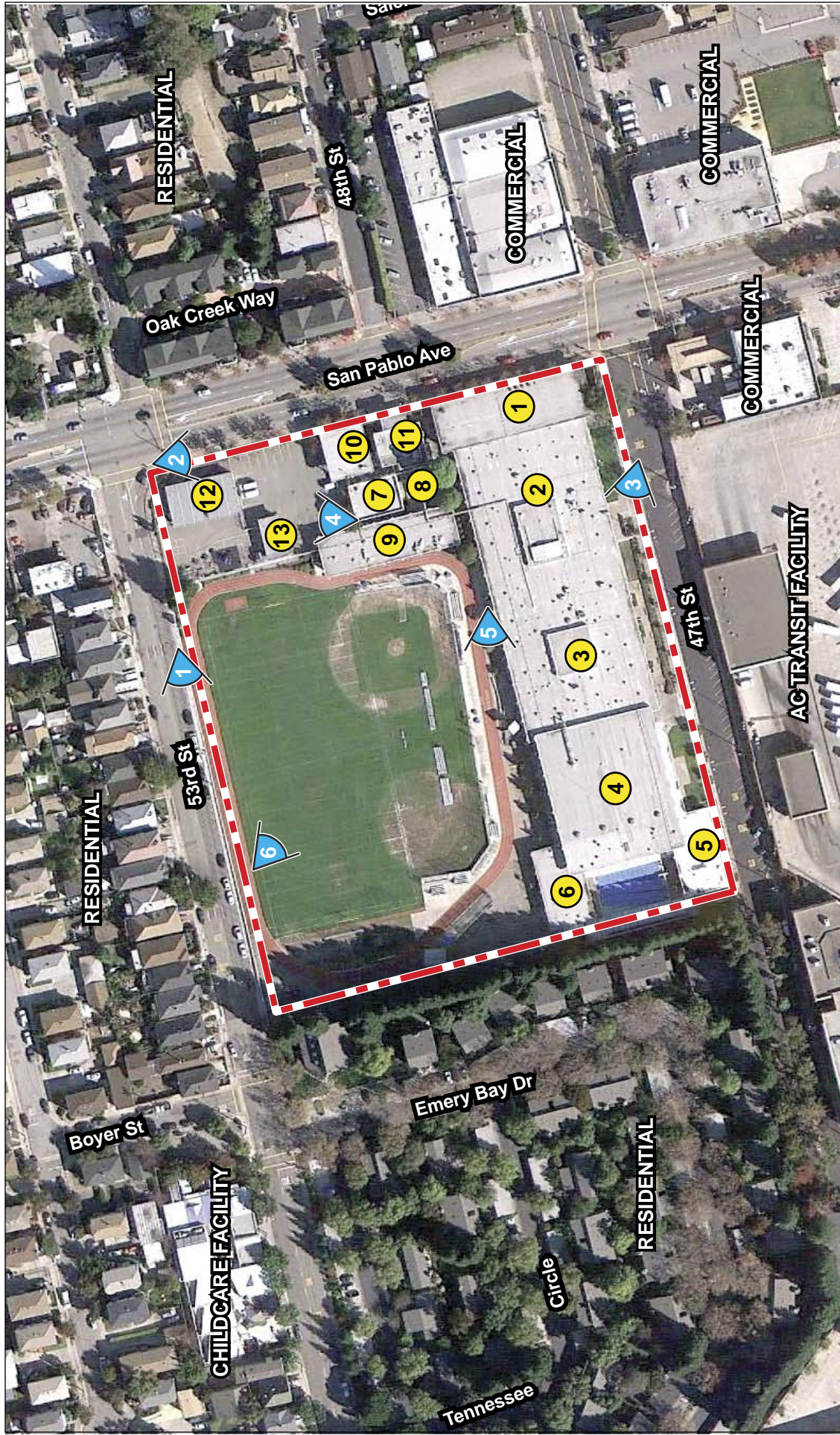


FIGURE 2

Project Site

Building Identification Numbers

Photo Viewpoint Locations

Note: Building identification numbers are keyed to Table 1

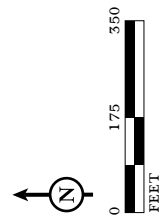




Photo 1: View looking west toward Emery Secondary School track and field and 53rd Street.



Photo 2: View looking south toward Emery Secondary School frontage and San Pablo Avenue sidewalk.

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FIGURE 3a

Emeryville Center of Community Life IS/MND
Photo Viewpoints 1 and 2



Photo 3: View looking west toward Emery Secondary School buildings.



Photo 4: View looking north toward Emery Secondary School parking lot, YMCA Headstart Emeryville Marina portable classrooms, and Emery Unified Wellness Program portable classroom.

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FIGURE 3b

Emeryville Center of Community Life IS/MND
Photo Viewpoints 3 and 4



Photo 5: View looking west toward Emery Secondary School classrooms and track and field.



Photo 6: View looking southeast toward Emery Secondary School field (foreground) and classrooms (background).

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FIGURE 3c

Emeryville Center of Community Life IS/MND
Photo Viewpoints 5 and 6

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b. Emery Unified School District Administrative Buildings. The District's Administrative offices were located within three buildings on the project site. These single-story buildings are adjacent to the Emery Secondary School, and provided office, warehouse, and meeting space for approximately 15 District Staff.

c. YMCA Headstart Emeryville Marina. Two portable classrooms on the parking lot of the project site housed the YMCA Head Start Emeryville Marina program which provides 3 to 5 year olds with comprehensive services designed to foster healthy development. Serving low-income children and their families in Berkeley, Albany and Emeryville, this comprehensive child development program provides health, nutrition, educational, social and emotional services. For the 2012-2013 school year, there are approximately 48 students and 7 teachers/staff within the program.

d. Emery Unified Wellness Program. A portable classroom on the project site housed the Emery Unified Wellness Program. This program provides health services for the high school students, and includes three staff members.

3. Surrounding Land Uses

As shown in Figure 2, a variety of uses surround the project site. Immediately north of the project site is 53rd Street, a two-lane roadway that also serves as the Oakland/Emeryville boundary. North of 53rd Street is a residential neighborhood with single- and multi-family homes. Emery Bay Village, a two-story residential development, is located immediately west of the project site. Industrial and commercial uses, Interstate 80 (I-80), and the San Francisco Bay are located further west. Forty-seventh Street, a two-lane street, is located immediately south of the project site. The majority of the southern 47th Street frontage is occupied by the AC Transit Emeryville Division Transportation Building and bus parking lot. Institutional, commercial and industrial uses are located further south. San Pablo Avenue, a four-lane State highway (State Highway 123), provides the eastern boundary of the project site. Commercial and residential uses are located along San Pablo Avenue, and residential uses and the City of Oakland are located further to the east.

BACKGROUND

In November 2010, Emeryville residents passed Measure J, a ballot initiative to fund school improvements within the Emery Unified School District. Priorities associated with use of Measure J funds include:

- Building seismically safe schools;
- Improving energy-efficiency and lowering utility costs, putting more money into the classroom;
- Bringing classroom technology up to date;
- Providing facilities for youth after-school recreational and learning programs;
- Updating school science labs; and
- Establishing a job-training center for students and the community.

Funds associated with Measure J will replace aging schools, and will provide facilities that include a range of services such as adult education, job training, after-school activities, childcare, and health services. While located on District property, the ECCL project is a collaborative partnership between the City of Emeryville and the Emery Unified School District.

PROPOSED PROJECT

The following outlines the components of the ECCL project. Figure 1 shows all the existing facilities on the project site from which students and staff have been relocated to accommodate future construction associated with this project.

1. Relocation of Existing Students and Staff

To accommodate future construction on the project site, grade 8 students housed at Emery Secondary School were relocated to Anna Yates Elementary School at 1070 41st Street. Relocation of the eighth grade students resulted in two more teachers and approximately 60 more students at Anna Yates Elementary School.

Grades 9-12 and the Emery Unified Wellness Program were moved to the vacant Santa Fe Elementary School, located at 54th and Adeline in Oakland, which is part of the Oakland Unified School District (OUSD). As part of the proposed project, the District rents this facility from OUSD until the planned occupancy of the new ECCL facilities in the summer of 2015. Approximately 220 students and 30 staff have been relocated to this site.

The District Offices, including the current warehouse facility on the Emery Secondary School site, moved to the Ralph Hawley School site at 61st and Doyle in Emeryville, which is owned by the District; approximately 15 District staff members are located at this site as of March 2013.

The Headstart program located at the Emery Secondary School was also relocated to the Ralph Hawley School site. Approximately 48 students and 7 staff associated with the program have been relocated, and will remain at the new location after the ECCL is opened.

With the exception of the Headstart Program, all other uses would relocate back to the project site after completion of construction, anticipated in 2015.

Additionally, as part of the project, K-8th grade Emery Unified School District students who are currently housed at Anna Yates Elementary School would be incorporated into the ECCL. As of March 2013, the District has not finalized reuse plans for Anna Yates Elementary School after the ECCL is opened, but the school would be available for community and recreational/educational use and the property would not be sold.¹

¹ According to Roy Miller, District Architect, a community task force has been established that will develop recommendations for the Anna Yates and City Recreation Center sites, and those recommendations will be heard by the City Council and School Board late in 2013.

2. Demolition of Emery Secondary School

With the exception of the gymnasium, swimming pool, and adjacent locker and support spaces, all existing permanent buildings on the project site would be demolished and landscaping on the project site would be selectively removed as part of the project. A tree survey has been undertaken to assess the condition of the existing trees on the street edges and the site interior, and existing trees will be preserved if deemed to be in good health and do not conflict with areas of new construction. The three portable classrooms located in the parking lot and used for the Headstart and Wellness programs are currently leased and would be returned. Demolition is expected to begin in Summer 2013 and last approximately 4 months.

3. Construction of ECCL

The construction of the ECCL project is proposed in two phases. Phase 1 is anticipated to begin in 2013, and a starting date for Phase 2 has not yet been identified. A description of the work anticipated in each phase is described below. A summary of space by building is shown in Table 2 and a summary of space by use is shown in Table 3. Figure 4 shows development associated with Phase 1 and Figure 5 shows development associated with Phase 2.

a. Phase 1. Construction of Phase 1 of the project is anticipated to begin in the Fall of 2013, and would include the construction of most of the structures on the project site. As shown in Figure 4, the majority of the structures would be located on the eastern portion of the project site centered around a community commons open space area. The components of Phase 1 construction are described below.

Table 2: Summary of Classrooms and Square Footage by Building

Building Title	Number of Classrooms	Square Footage
PHASE 1		
Community Multi-Purpose Room	0	5,942
Administrative and Community Services Building	0	13,233
Community and Student Library/9-12 Grade Classroom		
Community and Student Library	1	5,425
2 Labs and Administration Space	2	8,738
9-12 Classrooms	9 ^a	6,300
Other ^b	0	6,108
School Multi-Purpose Building/K-8 Classroom Building	24 ^c	53,314
Gym	2	30,745
Total Phase 1	38	129,805
PHASE 2		
School Gym, Teaching Theater, Classrooms, Other	9	52,466
TOTAL	47	182,271

^a This space includes special education classrooms.

^b Circulation and service uses are included in this space.

^c This space includes special education classrooms, K-5 science and music studios.

Source: Brett Kelly, Architect, MKThink. June 2013.

Table 3: Summary by Use and Phase of Construction

	Phase 1 Square Footage	Phase 2 Square Footage	Project Completion Square Footage
Administrative Space			
EUSD	3,140	—	3,140
Community Services (CS)	1,850	—	1,850
Arts + Dining Space			
Studios	5,400	1,544	6,944
Multi-Purpose + Ancillary (EUSD)	6,058	—	6,058
Multi-Purpose + Ancillary (CS)	3,680	—	3,680
Theater	0	5,959	5,959
Community Services			
Health Clinic	2,964	—	2,964
Resource Center	997	—	997
Pre-K	656	—	656
Game Rooms/Lounge	1,305	—	1,305
Library	5,425	—	5,425
Recreation			
Gym	10,500	7,138	17,638
Other Recreation Facilities	10,047	—	10,047
Classrooms			
K-5	18,080	—	18,080
K-5 Sci. Lab	1,300	—	1,300
6-8	7,292	—	7,292
9-12	6,300	8,971	15,271
9-12 Sci. Lab	2,600	—	2,600
School Office	7,784	912	8,696
Total Program Area	95,378	24,524	119,902
Support and Circulation	34,427	27,942 ^a	62,369
TOTAL	129,805	52,466	182,271

Note: There would be approximately 130,000 square feet or almost 3 acres of fields and basketball courts on the project site.

^a Support and circulation area at Phase 2 includes a 21,546-square-foot parking area at Level 1.

Source: Based on project information from MKThink as of June 2013.

Uses located on the project site would include both school and public uses. While it is anticipated that there would be approximately 780 students at the ECCL facility once it is completed, the Phase 1 school structures would be built to accommodate a maximum of 900 students and 90 teachers/staff. Phase 2 would increase enrollment capacity to 1,120 (approximately 90 students per grade). During school hours (approximately 8:00 a.m. to 4:00 p.m.), public access to the portions of the project site used by the K-12 grade students would be limited through the use of architectural features such as grade separations, walls, fencing, gates, building placement and locked doors dependent on classroom loading conditions and School Board decisions.

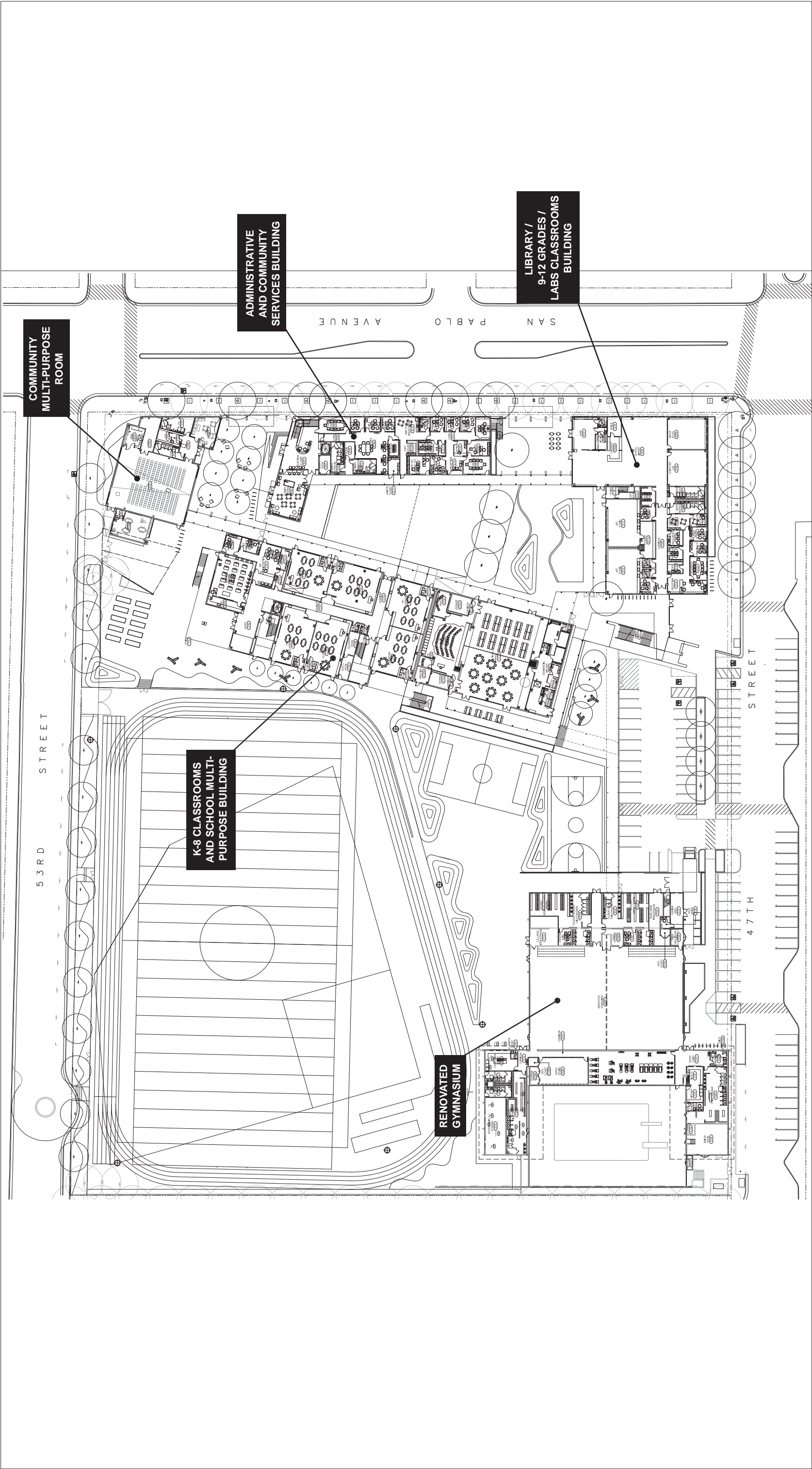


FIGURE 4

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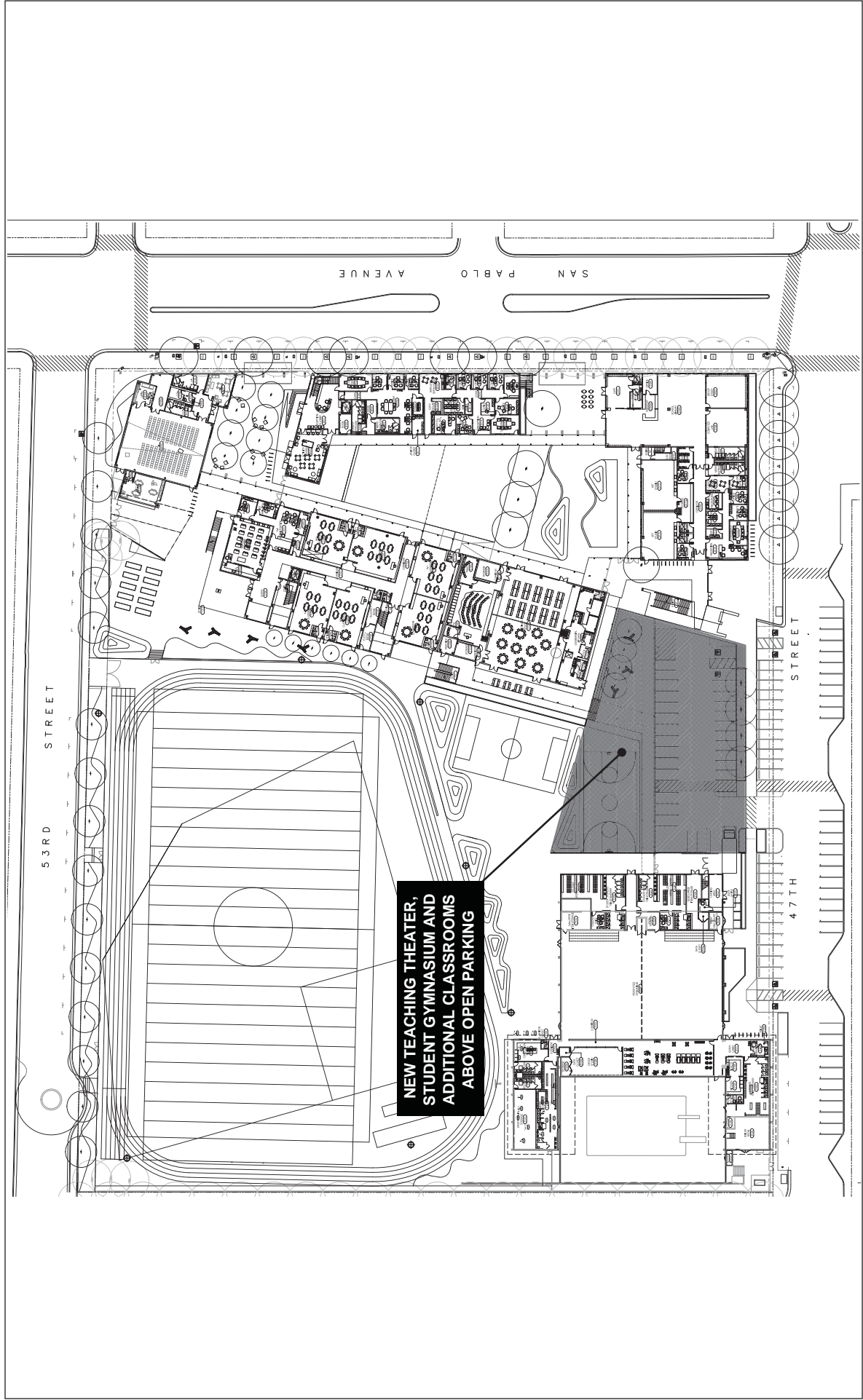
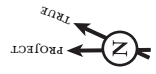


FIGURE 5

Emeryville Center of Community Life IS/MND
 Phase 2 - Conceptual Site Plan

LSA

NOT TO SCALE



SOURCES: NEXUS PARTNERS | DKS ARCHITECTS, JUNE 2013.

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The ECCL will be jointly operated by the City of Emeryville and the District. A Joint Occupancy Agreement is being prepared to detail the relationship of the two organizations. During school hours, the school functions will occur in dedicated areas of the facility and are secure from public access. Also, within the dedicated school area, specific zones are provided for separating elementary, middle and high school age students. The entire facility has been designed so that it can be managed and operated in flexible ways for different uses during different times of the day while still maintaining safety and security for the various user groups. During non-school hours, the site has a number of security systems in place that will provide controlled access for different public and school uses.

(1) Buildings. The buildings that would be constructed as part of Phase 1 of the project are described below. Please see Figure 4 for a conceptual site plan. While architectural details of the buildings have not been finalized, it is anticipated that the buildings will have a modern appearance using a variety of materials. All buildings will be designed to have common elements and unifying architectural themes. Conceptual elevations are provided in Figures 6, 7, and 8.

Community Multi-Purpose Room. A community multi-purpose room would be constructed at the southwest corner of San Pablo Avenue and 53rd Street. This one-story structure would be approximately 5,900 square feet and would be available for community use.

Administrative and Community Services Building. The approximately 13,200-square-foot administrative building would be located along the San Pablo Avenue frontage, and would contain District and community services space. This building will include District and community services offices and conference rooms, as well as a storage room, break room, health/dental clinic, senior lounge, game room and a family resource center. An overhead walkway would connect this building to the high school classroom structure, which would also front on San Pablo Avenue.

Community and Student Library/9-12 Grade Classrooms/Science Lab Building. While these areas would be distinctly separated by restricted access points and by being on separate floors, the community library, and 9-12 grade classroom space and science lab spaces would all be contained within one building totaling approximately 26,600 square feet. These components are further described below.

Community and Student Library. The library would front on San Pablo Avenue, would be located on the ground floor of the structure, and would be open to the public during non-school hours (after 4:00 p.m.). The square footage of the library is approximately 5,400 square feet. During non-school operating hours, the public would have access to the entire library offerings. During school hours (approximately 8:00 a.m. to 4:00 p.m.), it is expected that the public would have access to limited spaces such as the cafe. However, the public would have access to a variety of library services in a “community living room” including public-access computers, mobile collections, casual seating, small meeting facilities adjoining a cafe with spill-out seating into the Library Plaza.

9-12 Grade Classrooms. The 9-12 grade classroom space would be located within this building. This component would include 9² classrooms, and would be approximately 6,300 square feet.

Science Labs and Administration Space. This building would also include 2 science lab classrooms and administration space that would total approximately 8,700 square feet.

School Multi-Purpose/K-8 Grade Building. The school multi-purpose and K-8 grade classroom space would be housed in an approximately 53,300-square-foot three-story structure located on the interior of the project site, west of the community commons. It is anticipated this building would have approximately 22 classrooms, learning centers, a science center, a music room, and additional support and administrative areas.

Gymnasium. The existing gymnasium currently located on the project site, which fronts on 47th Street, would remain but would be renovated. Renovations would include construction of girls and boys locker rooms on the eastern side of the gymnasium, a dance/aerobics area, and community locker rooms constructed on the western side. In total, this two-story structure would be approximately 30,740 square feet in size.

(2) Outdoor Sports and Recreation Features. As part of the project, the existing sports field would be reconfigured and resurfaced with artificial turf, as shown in Figure 4. This improvement would allow for the field to be used for football, soccer, baseball, and other uses. Existing and proposed uses of the sports field are shown in Tables 4 and 5. Additionally, a track, spectator bleachers, night lighting and public address (PA) system would be installed. Netting would be installed on the north side of the field to prevent stray balls from entering 53rd Street. One full basketball court would be located immediately east of the gymnasium. Elementary school play areas would also be installed on the project site. Active play areas would be located to the east and west of the K-8 school multi-purpose room. A learning garden and pre-bell recreation area would be located north of the K-8 Building. A 9-12 grade “social space” would be located east of the basketball courts.

² The 9 classrooms include art and learning center classrooms.



LSA

FIGURE 6a

NOT TO SCALE

Emeryville Center of Community Life IS/MND
Conceptual Elevation - Phase 1

SOURCE: ECCL, APRIL 2013.

I:\EVU1201 ECCL\Figures\Fig_6a.ai (5/28/13)



LSA

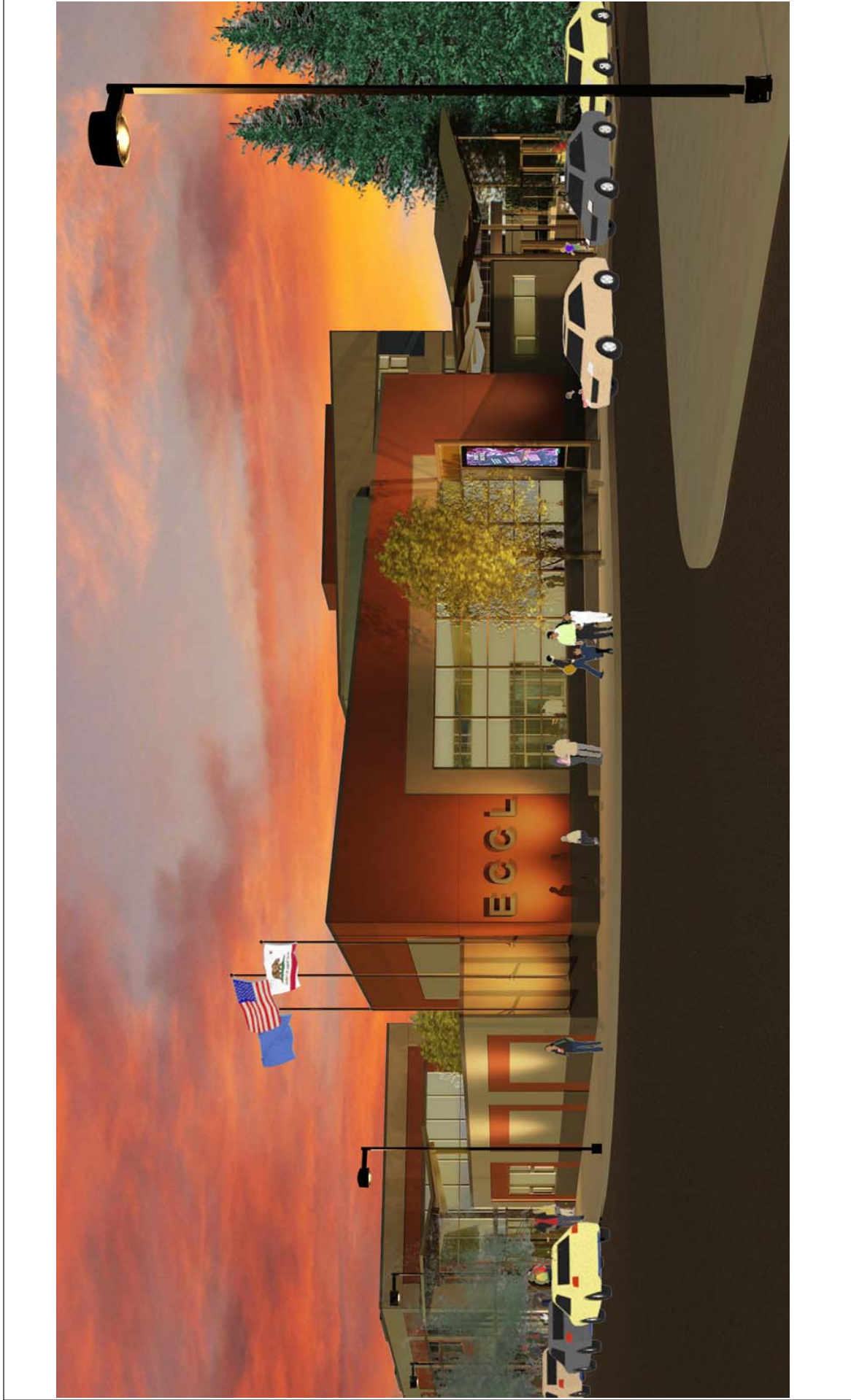
FIGURE 6b

NOT TO SCALE

Emeryville Center of Community Life IS/MND
Conceptual Elevation - Phase 2

SOURCE: ECCL, MAY 2013.

I:\EVU1201 ECCL\Figures\Fig_6b.ai (5/28/13)



LSA

FIGURE 7

NOT TO SCALE

Emeryville Center of Community Life IS/MND
Conceptual Elevation - San Pablo Ave. and 53rd Street

SOURCE: ECCL, APRIL 2013.

I:\EVU1201 ECCL\figures\Fig_7.ai (4/10/13)



LSA

FIGURE 8

NOT TO SCALE

Emeryville Center of Community Life IS/MND
Conceptual Elevation - Community Commons

SOURCE: ECCL, MAY 2013.

I:\EVU1201 ECCL\Figures\Fig_8.ai (5/28/13)

Table 4: Existing Use of Sports Field Facility

Type of Use or Event	Number of Events Per Year	Approximate Number of Spectators/Day	Time of Year Activities Occur	Days of the Week	Time Frame	PA System (Yes/No)	Lighting (Yes/No)
FOOTBALL							
Football Games							
Varsity	4	75	Fall	Sat.	12:00 p.m. to 2:00 p.m.	No	No
Total Football Games	4						
Football Practices	100	25	Fall	Mon. – Fri.	4:00 p.m. to 6:00 p.m.	No	No
SOCCKER							
Men's Soccer							
Soccer Games, Varsity & Junior Varsity	12	75	Fall	Tues. and Thurs.	4:00 p.m. to 6:00 p.m.	No	No
Soccer Play-offs	1	10	Fall	Thurs.	4:00 p.m. to 6:00 p.m.	No	No
Total Men's Soccer Games	13						
Soccer Practice	175	10	Fall	Mon. – Fri.	4:00 p.m. to 6:00 p.m.	No	No
Women's Soccer							
Soccer Games, Varsity & Junior Varsity	12	75	Spring	Tues. and Thurs.	4:00 p.m. to 6:00 p.m.	No	No
Soccer Play-offs	1	10	Spring	Thurs.	4:00 p.m. to 6:00 p.m.	No	No
Total Women's Soccer Games	13						
Soccer Practice	175	10	Spring	Mon. – Fri.	4:00 p.m. to 6:00 p.m.	No	No
Total Soccer Games	26						
LACROSSE AND TRACK & FIELD							
Lacrosse and Track & Field Practice	110	30	Spring	Mon. – Sat.	4:00 p.m. to 6:00 p.m. (M-F) 12:00 p.m. to 2:00 p.m. (Sat)	No	No
BASEBALL							
Baseball Practice	18	25	Spring	Mon. – Fri.	4:00 p.m. to 6:00 p.m.	No	No
COMMUNITY YOUTH SPORTS							
Community User Youth Soccer	18	30	Spring/Summer/Fall	Sat.	8:00 a.m. to 9:00 a.m.	No	No
Community User Youth Football	8	200	Spring/Summer/Fall	Sat.	9:00 a.m. to 12:00 p.m.	No	No
COMMUNITY ADULT SPORTS							
Community User Adult Soccer	100	0	Year Round	Mon. – Fri.	6:00 p.m. to 10:00 p.m.	No	No
Community User Adult Flag Football	24	50	Spring/Summer/Fall	Saturday	1:00 p.m. to 5:00 p.m.	No	No
Community User Adult Ultimate Frisbee	50	0	Spring/Summer/Fall	Mon. – Fri.	6:00 p.m. to 10:00 p.m.	No	No
Total District Games	30						
Total District Practices	578						
Total Community Events	200						
TOTAL EVENTS	808						

Source: Emery Unified School District, 2013.

Table 5: Proposed Use of Sports Field Facility

Type of Use or Event	Number of Events Per Year	Approximate Number of Spectators/Day	Time of Year Activities Occur	Day of the Week	Time Frame ^c	PA System (Yes/No)	Lighting (Yes/No)
FOOTBALL							
Football Games							
<i>Varsity</i>	4	75	Fall	Sat.	12:00 p.m. to 2:00 p.m.	Yes	No
Total Football Games	4						
Football Practices	100	25	Fall	Mon. – Fri.	4:00 p.m. to 6:00 p.m.	No	Yes
SOCCER							
Men's Soccer							
Soccer Games, Varsity & Junior Varsity	12	75	Fall	Tues. and Thurs.	4:00 p.m. to 6:00 p.m.	Yes	Yes
Soccer Play-offs	1	10	Fall	Thurs.	4:00 p.m. to 6:00 p.m.	Yes	Yes
Total Men's Soccer Games	13						
<i>Soccer Practice</i>	175	10	Fall	Mon. – Fri.	4:00 p.m. to 6:00 p.m.	No	Yes
Women's Soccer							
Soccer Games, Varsity & Junior Varsity	12	75	Spring	Tues. and Thurs.	4:00 p.m. to 6:00 p.m.	Yes	Yes ^b
Soccer Play-offs	1	10	Spring	Thurs.	4:00 p.m. to 6:00 p.m.	Yes	Yes ^b
Total Women's Soccer Games	13						
<i>Soccer Practice</i>	175	10	Spring	Mon. – Fri.	4:00 p.m. to 6:00 p.m.	No	Yes ^b
Total Soccer Games	26						
LACROSSE AND TRACK & FIELD							
Lacrosse and Track & Field Practice	110	30	Spring	Mon. – Sat.	4:00 p.m. to 6:00 p.m. (M-F) 12:00 p.m. to 2:00 p.m. (Sat)	No	Yes ^b
BASEBALL							
Baseball Practice	18	25	Spring	Mon. – Fri.	4:00 p.m. to 6:00 p.m.	No	Yes ^b
COMMUNITY YOUTH SPORTS							
Football							
Middle School Sports ^a	48	24	Fall	Mon/Wed/Fri	4:00 p.m. to 6:00 p.m.	No	No
Elementary Punt, Pass Kick ^a	32	15	Fall	Tues/Thurs	4:00 p.m. to 6:00 p.m.	No	No
Youth Flag Football ^a	16	30	Fall	Sat.	10:00 a.m. to 1:00 p.m.	No	No
Soccer							
Middle School Sports ^a	96	30	Fall/Spring	Mon/Wed/Fri	4:00 p.m. to 6:00 p.m.	No	Yes ^b
Elementary Soccer Camp ^a	64	20	Fall/Spring	Tues/Thurs	4:00 p.m. to 6:00 p.m.	No	Yes ^b
Youth Soccer Camp ^a	32	30	Fall/Spring	Sat.	10:00 a.m. to 1:00 p.m.	No	No
Track and Field							
Hershey Track and Field (Middle School) ^a	58	25	Spring/Summer	Tues/Thurs	4:00 p.m. to 6:00 p.m.	No	Yes ^b
Hershey Track and Field (Elementary) ^a	87	30	Spring/Summer	Mon/Wed/Fri	4:00 p.m. to 6:00 p.m.	No	Yes ^b
Hershey Track ^a	29	30	Spring/Summer	Sat.	10:00 a.m. to 1:00 p.m.	No	No

Table 5: Proposed Use of Sports Field Facility

Type of Use or Event	Number of Events Per Year	Approximate Number of Spectators/Day	Time of Year Activities Occur	Day of the Week	Time Frame ^c	PA System (Yes/No)	Lighting (Yes/No)
Baseball/Softball							
Middle School Sports ^a	87	20	Spring/Summer	Mon/Wed/Fri	4:00 p.m. to 6:00 p.m.	No	Yes ^b
Hit, Field and Run ^a	58	30	Spring/Summer	Tues/Thurs	4:00 p.m. to 6:00 p.m.	No	Yes ^b
Pee-Wee Baseball ^a	29	20	Spring/Summer	Sat.	1:00 p.m. to 3:00 p.m.	No	No
COMMUNITY ADULT SPORTS							
Ultimate Frisbee	52	10	All year	Mon.	6:00 p.m. to 10:00 p.m.	No	Yes
Kickball League	52	10	All year	Tues.	6:00 p.m. to 10:00 p.m.	No	Yes
Open Soccer	52	5	All year	Wed.	6:00 p.m. to 10:00 p.m.	No	Yes
Corporate Softball	52	15	All year	Thurs.	6:00 p.m. to 10:00 p.m.	No	Yes
Flag Football	52	30	All year	Fri.	6:00 p.m. to 10:00 p.m.	No	Yes
Softball League	52	30	All year	Sat.	6:00 p.m. to 8:00 p.m.	No	Yes
Outdoor Volleyball	52	10	All year	Sun.	6:00 p.m. to 10:00 p.m.	No	Yes
Total District Games	30						
Total District Practices	578						
Total Community Events	1,000						
TOTAL EVENTS	1,608						

^a This event currently conflicts with the Emery Unified School District use of the field. The District has priority use of the field, and this event will only occur if the District is not using the field at this time. However, to provide for the most conservative analysis, it is assumed that both uses can occur at the same time.

^b This event includes field use in early February, and may require lighting. Lighting is not anticipated if there is enough sunlight to allow for field use.

^c In months with longer daylight (typically during the months of April to August), the field lights would be turned on later and the lighted hours of the sports field would be shorter.

^d This number of events is the District and City's best estimate of events. It is possible that additional, unanticipated events may occur during the year.

Source: Emery Unified School District, 2013.

Lighting. Field lighting is included as part of the proposed projects. The main sports lighting system would include six 80-foot-tall light poles, each equipped with six 1,500-watt lamp fixtures. The proposed lamp fixtures are specifically designed to direct light onto the sports field with minimal glare. Design elements for light beam control on the lamp fixture include factory aiming, back visors and shielding, reflective die-cast housing around the lamp, shift beam control, a multi-watt system to allow for various light modes, and appropriate light levels recommended by the Illuminating Engineering Society of North America (IESNA) RP-6 Current Recommended Practice for Sports and Recreational Area Lighting and compliant with the International Dark Sky Association.³ The proposed light fixtures would incorporate all these design elements to better direct the light beam inwards and towards the ground and reduce spill light and glare. The proposed mounting height of 80 feet would allow for steep downward positioning of the light fixture for better light beam control. Each light fixture would be shielded by a light hood and 14-inch visor and would be equipped with 1,500-watt Green Generation[®] lamps. All light fixtures and visors would be colored powder-coated gray to blend into surroundings and avoid reflective properties during daylight hours. The approximate location of these poles is shown in Figure 4.

Public Address (PA) System. The PA system will be comprised of two small directional speakers aimed to the east and mounted on lighting poles. The PA system is anticipated to be used primarily on Tuesday and Thursday evenings from 4:00 p.m. to 6:00 p.m. for school sporting events and Saturdays from 12:00 p.m. to 2:00 p.m.

Soundwall. A 12-foot-high soundwall will be installed along the western boundary of the property, from 53rd Street to the existing wall bordering the outdoor pool facility. The wall will be constructed of 1.5-inch-thick wood boards attached to wood posts with no gaps. It is expected that the soundwall will provide a minimum 8 dBA reduction in noise.

(3) Landscaping and Other Exterior Features. New landscaping would be installed along 47th and 53rd Streets and throughout the interior of the project site. Landscaping would include trees, shrubs, as well as turf areas. There are currently 14 trees on the project site; 6 redwood trees in the northwest and northeast corners of the project site would be retained and all other trees would be removed. The landscape of the project, both hardscape and softscape, will be connected to the academic and recreational-sports program and specific age-user groups. The athletic field comprises the majority of the site's open space and will be a multi-use sports field surfaced with artificial turf.

Other open space or landscape areas within the campus will provide an integrated system of stormwater management: containment, bioretention, filtration and release. Some water-adapted plant material will be chosen for its biofiltration abilities and will also require supplemental irrigation during the dry periods.

The overall intent of the campus landscape plan is to provide a durable and easily managed landscape given the limitation of public school maintenance budgets and funding sources.

³ The International Dark Sky Association is an educational/environmental 501(c)(3) non-profit organization whose mission is to "preserve and protect the nighttime environment through environmentally responsible outdoor lighting".

The new streetscape plantings surrounding the site will meet existing City standards and utilize existing streetscape plantings where appropriate, and will insert new streetscape trees as required.

All irrigation applications will utilize the proper water application type and be programmed to maximize efficiency in water application and delivery. Re-use of grey water will be explored as the project develops.

Several terrace and outdoor spaces are incorporated into the project site. A community commons area courtyard will be a central feature of the project. This courtyard space, which will include both turf and hardscape, will provide an outside gathering place and will serve as the focal point of the project.

A student terrace will also be provided on the north side of the high school classrooms on the second floor of the high school building. This space will be approximately 9,000 square feet and will provide a student gathering place securely separated from the K-5 play area in the Community Commons below. Elevated walkways will be incorporated into the project to facilitate movement between buildings. Elevated walkways would be located between the administrative and Library buildings.

(4) Circulation and Parking. Two student drop-off zones would be provided on the project site: K-8 grade drop-off and passenger loading would be provided along the entire length of the school site on 53rd Street. Parking would be allowed in this space during non-drop-off/pick-up hours. A 9-12 grade drop-off area would be provided on 47th Street. Parking on 47th Street would be re-stripped to provide 90-degree pull-in parking. Approximately 65 on-street parking spaces would be provided on 47th Street.

A parking lot would be located on the south side of the project site. This lot would include approximately 28 parking spaces.

A raised-turnaround island would be installed mid-block on 53rd Street to facilitate cars turning around to access the school drop-off zone.

(5) Utilities. The project will utilize existing utility connections where feasible. Existing water, sewer, electrical, gas, and cable television services are available from San Pablo Avenue, 53rd Street, and 47th Street.

Stormwater runoff from roofs, pavement, concrete and other impervious surfaces will be directed to bioretention areas, flow through planter boxes and other treatment facilities sized to comply with stormwater quality requirements of Provision c.3 of the California Regional Water Quality Control Boards' Municipal Regional Permit. After treatment, drainage will be routed through a network of underground pipes prior to discharge to the existing 15-foot by 11-foot reinforced concrete box culvert which traverses the northern portion of the site flowing from east to west. Some landscape areas, considered "self-treating" will be graded to area drains connecting directly to the underground system.

b. Phase 2. The timing of Phase 2 of the project will be dependent on the existing student population as well as availability of the remaining bond funds; as such, no construction start time has been identified for this phase. As shown in Figure 5, Phase 2 would include construction of a new school gymnasium, teaching theater, industrial arts studio, teacher and parent collaboration spaces, and additional classrooms and support spaces. Reallocation of uses within ECCL would occur with

construction of Phase 2 (as shown in Figure 5). The new structure would be two stories of educational spaces located above the on-site parking area, as shown in the Phase 1 Conceptual Site Plan (Figure 4). Phase 2 would result in a maximum capacity of 1,120 students, with approximately 90 students per grade. A conceptual elevation of Phase 2 is provided in Figure 6b.

APPROVALS AND PERMITS

This IS/MND is intended to evaluate the environmental impacts of the proposed project, which will require approval from a variety of agencies, including but not limited to the agencies listed in Table 6.

Table 6: Approvals and Permits

Lead Agency	Potential Permit/Approval/Responsibility
Emery Unified School District	Project construction and operation
Responsible/Trustee Agencies	
City of Emeryville	Conditional use permit; Design Review approval; parking variance; tree removal permit for street trees
Division of State Architect	Approval of Construction Plans; project inspections
California Department of Transportation	Approval of plans and encroachment permit for improvements located within the State right-of-way along San Pablo Avenue (State Highway 123); improvements within public right-of-way
East Bay Municipal Utility District	Approval of water lines, water hook-ups and review of water needs; approval of wastewater hook-ups
California Geological Survey	Review/approve geohazard/geotechnical reports required for new construction
California Regional Water Quality Control Board (RWQCB)	National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharge
Other Agencies	
Alameda County Flood Control Board	Encroachment permit for discharge to the Temescal Creek culvert
Pacific Gas & Electric/AT&T	Connection/Relocation of utilities

Source: LSA Associates, Inc., 2012.

Environmental Factors Potentially Affected:


The environmental factors checked below would be potentially affected by this 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 and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality |
| <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Mineral Resources | <input 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 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 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.



Dr. Debra Lindo, Superintendent
Emery Unified School District



Date

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CHECKLIST

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a) Have a substantial adverse effect on a scenic vista? (Less-than-Significant Impact)

No scenic views in the vicinity of the project site are explicitly identified in the City of Emeryville General Plan.⁴ Views of the East Bay Hills, natural areas along the shoreline of the San Francisco Bay, and the San Francisco city skyline and other landmarks adjacent to the Bay are generally considered scenic views. The General Plan identifies the northeast corner of the project site, located at 53rd Street and San Pablo Avenue as a gateway or point of entry into the City.

The project site is located in an urbanized neighborhood within the flat coastal plain that extends along the eastern shore of San Francisco Bay. Because the project site does not contain significant topographical variation, views from the project site are limited by urban development in the vicinity of the site. In particular, one- to two-story building along San Pablo Avenue, 53rd and 47th Streets constrain views to the east and west.

No views of the San Francisco Bay are available from the site or streets immediately adjacent to the site. Partial views of the East Bay hills are intermittently available throughout the project site, but may be obscured by vegetation or buildings depending on the viewpoint location. North/South views down San Pablo Avenue, adjacent to the project site, extend south towards Oakland and north into central Emeryville, but do not include scenic vistas.

⁴ Emeryville, City of, 2009. *Emeryville General Plan*. October 13.

With the exception of the gymnasium, swimming pool, and adjacent locker and support spaces, implementation of the proposed project would result in the demolition of all existing one-story buildings on the project site and replacement of these structures with new buildings ranging from 30 to 48 feet (approximately two to three stories) in height. The proposed buildings would be from one to two stories taller than other buildings in the vicinity of the project site, but would still allow the potential for intermittent views of the hills depending on the viewpoint location. The proposed project would have a less-than-significant impact on a scenic vista.

- b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? (No Impact)*

In Alameda County, segments of I-580 are designated by the State Department of Transportation (Caltrans) as California Scenic Highways, which requires the protection of the scenic resources visible from the roadway. There are no State scenic highways within the vicinity of the project site.⁵ The project site is located approximately 2 miles from Interstate 580, and is not visible from this highway. The City of Emeryville's General Plan does not designate any scenic roadways. The proposed project would have no impact on scenic resources associated with a State scenic highway.

- c) *Substantially degrade the existing visual character or quality of the site and its surroundings? (Less-than-Significant Impact)*

Visual Setting

Existing Visual Character of the Site. The generally level project site gently slopes to the southwest. The southern and eastern peripheries of the project site are visually characterized by one-story buildings of varying architectural detail. Three portable classroom structures and a surface parking lot are located at the northeast corner of the project site. The northwest portion of the project site is visually characterized by a grass-turf athletics fields and a track, with fencing that runs along the northern border of the site. The buildings that make up the Emery Secondary school buildings were generally constructed in the 1950s and 1960s. These rectangular buildings comprise a combined square footage of approximately 86,227 square feet and include minimal architectural detail and a flat roofline. Vegetation on the site is comprised of ornamental trees and shrubs. A row of mature redwood trees is located along the western border of the project site.

Existing Visual Character of Adjacent Area. The visual character within the vicinity of the site consists of one- to two-story single-family residential buildings along 53rd Street, two- to three-story multi-family residential buildings and one- to two-story commercial buildings along San Pablo Avenue. Along the southern side of 47th Street, opposite the project site, is a brick wall preventing views into the AC Transit property. Tall mature trees are located along the western border of the project site. Views in the vicinity of the site are urban in nature, and views of the Berkeley/Oakland Hills in the distance to the east are intermittently blocked by existing buildings, trees, and other vegetation on 53rd and 47th Streets and San Pablo Avenue. Buildings in the area may range in age from the early 20th century to new construction completed within the past ten years. The visual character of the San Pablo Avenue corridor is one of an urban developed area with structures ranging

⁵ California Department of Transportation, 2012. California Scenic Highway System. Website: www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm (accessed September 14).

in height and differing architectural styles. Roadways in the area are organized on a grid system and are paralleled by sidewalks and street trees.

Proposed Project

Implementation of the proposed project would change the visual character of the project site through the demolition of all existing one-story (except the gymnasium, swimming pool, and adjacent locker and support space) structures and the replacement of these structures with new buildings ranging from 30 to 48 feet (approximately two to three stories) in height. The proposed buildings would be visually different from the existing structures as they would be taller and include different design elements and building materials. All new buildings would have a modern appearance using a variety of materials, including painted plaster (stucco), colored concrete, fiber cement board, aluminum sunshades, and painted metal canopies. Existing and proposed landscaping features throughout the project site and its perimeters would assist in providing some screening from surrounding roadways. The change in visual character at the project site would not be considered a significant environmental impact as it would not substantially degrade the visual character of the neighborhood.

To further assess the potential visual impact of the proposed project, visual simulations of the proposed project have been prepared. The District, in consultation with LSA Associates, Inc., selected five locations from which to prepare visual simulations. Using a digital SLR camera with a wide-angle 35mm equivalent lens (37-degree view angle), Andrew McNichol photographed the project site from several representative public viewpoints surrounding the project site. Using computer modeling and rendering techniques, and design data provided by the architect team, visual simulations were prepared. The simulations are intended to show building massing, height and bulk as architectural details have not been finalized. Project landscaping is shown at 7 to 8 years maturity. A description of the photo simulations are described below, and Figure 9 shows the view point locations for the visual simulations.

Viewpoint 1 – View from San Pablo Avenue/53rd Street Intersection Looking Southwest.

The existing view in Figure 10 shows the project site frontage along San Pablo Avenue looking south. This majority of the San Pablo Avenue project site frontage shows one-story structures along San Pablo Avenue, which prevent views to the interior of the site. Street trees are shown along the project frontage. During non-winter months, these trees would provide some screening of the buildings.

The visual simulation from this viewpoint offers a similar visual context to the proposed project. The majority of project frontage along San Pablo Avenue would include buildings up to the sidewalk. The proposed project would be two stories in height along San Pablo Avenue, which is higher than currently exists, but would not be considered unusual given the developed urban nature of this portion of San Pablo Avenue. This visual simulation also includes a more prominent and open entrance into the interior of the project site. As shown in the simulation, street trees would be planted as part of the project.

Viewpoint 2 – View from San Pablo Avenue Looking North. The existing view in Figure 11 shows the project site and its context within this section of the San Pablo Avenue corridor. The one-story school structures are minimally visible from this viewpoint location and are shielded by existing landscaping and trees on the sidewalk and within the San Pablo Avenue median.

The visual simulation from this viewpoint shows the new two-story structures along San Pablo Avenue that would be built as part of the proposed project. As is the case with the existing structures, the project would be minimally visible from this viewpoint, and intervening landscaping would block part of the view of the project site. The two-story structures included in the proposed project would blend with the existing urban nature of the neighborhood.

Viewpoint 3 – View from 53rd Street Looking West. The existing view in Figure 12 shows the northeast corner of the project site looking west on 53rd Street. This view shows one of the portable classrooms, as well as views of existing mature trees in the background. Views to the Bay are not available from this vantage point.

The visual simulation from this viewpoint shows the corner of the Community Multi-Purpose Room. This structure would be approximately 29 feet high at this location, and would change the existing view from this vantage point. However, while this new structure would somewhat block existing views of mature trees in the distance, these views would still be available.

Viewpoint 4 – View from 48th Street Looking West. The existing view in Figure 13 shows the formal main entrance to the Emery Secondary School, as well as the one-story buildings located on both sides of the entrance. Ornamental landscaping can be seen from this viewpoint, as well as mature trees in the distance.

The visual simulation from this viewpoint shows the Administrative and Community Services building that would front on San Pablo Avenue. This building would be a two-story structure, and would block views of mature landscaping in the background. It should be noted that these visual simulations are intended to show massing. The final design of the structure will include windows and other architectural details, instead of the long solid wall shown in the visual simulation. Installation of street trees would be included as part of the project, as shown in the simulation.

Viewpoint 5 – View from 53rd Street Looking East. The existing view in Figure 14 shows the northern boundary of the project site looking east on 53rd Street. From this vantage point, the chain link fence is the most prominent feature of the project site. Views of mature landscaping, as well as the Berkeley/Oakland Hills in the distance, are available from this vantage point.

The visual simulation from this viewpoint shows the new development associated with the project. Multi-story structures, including the Community Multi-Purpose Building, and the K-8 Classroom Building, are seen in this simulation. An 8 foot 6 inch fence with netting up to 20 feet in height would also be installed along the edge of the playing field; however views of the Berkeley/Oakland Hills in the distance would be unchanged from existing views.

The site's existing appearance would be altered by demolition of the existing buildings and construction of the proposed project. However, the visual changes to the project site that would result from the proposed project would not be considered adverse, as the coordinated design of the proposed buildings and associated features are consistent with this urban area of San Pablo Avenue. Impacts associated with changes to the visual quality and character of the site and surroundings would be less than significant.



LSA

FIGURE 9

Emeryville Center of Community Life IS/MND
View Location Map



Existing view from San Pablo Avenue/53rd Street intersection looking southwest



Visual simulation of proposed project

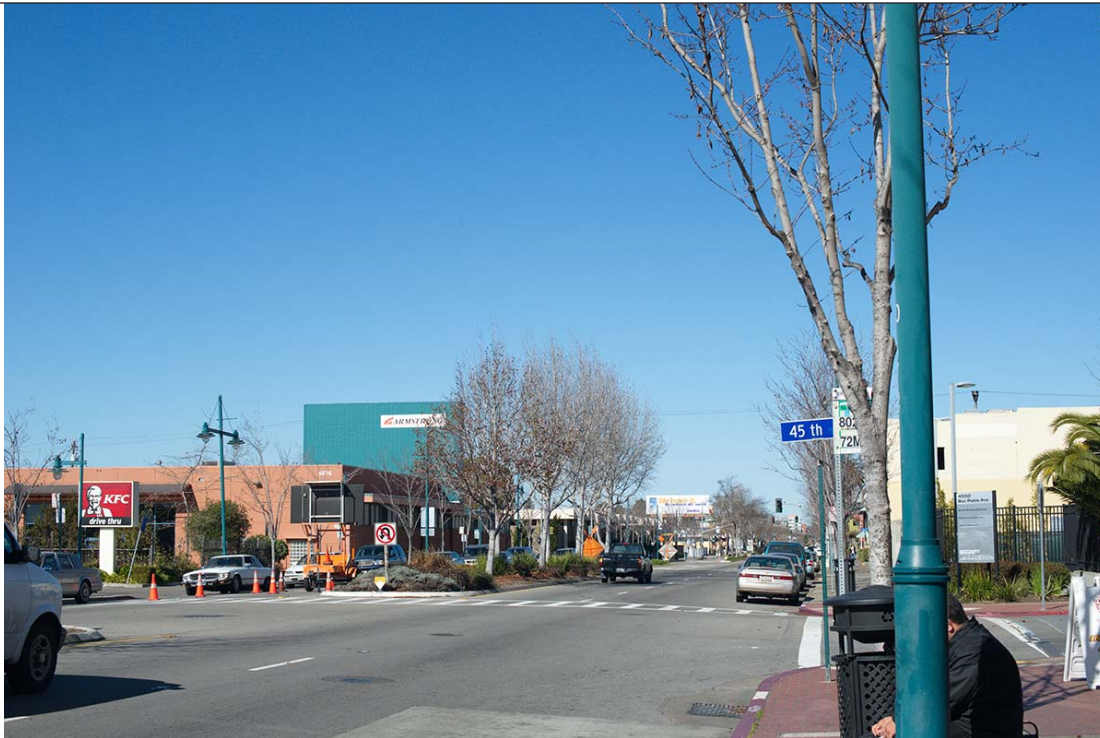
LSA

FIGURE 10

Emeryville Center of Community of Life IS/MND
 Visual Simulations
 Viewpoint I

SOURCE: ANDREW MCNICHOL, MARCH, 2013.

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Existing view from San Pablo Avenue looking north



Visual simulation of proposed project

LSA

FIGURE 11

Emeryville Center of Community of Life IS/MND
Visual Simulations
Viewpoint 2



Existing view from 53rd Street looking west



Visual simulation of proposed project

LSA

FIGURE 12

Emeryville Center of Community of Life IS/MND
Visual Simulations
Viewpoint 3



Existing view from 48th Street looking west



Visual simulation of proposed project

LSA

FIGURE 13

Emeryville Center of Community of Life IS/MND
 Visual Simulations
 Viewpoint 4



Existing view from 53rd Street looking east



Visual simulation of proposed project

LSA

FIGURE 14

Emeryville Center of Community of Life IS/MND
 Visual Simulations
 Viewpoint 5

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Potentially Significant Unless Mitigation Incorporated)*

Currently, the existing sources of nighttime lighting within the vicinity of the project site are typical of urbanized areas, and include lighting sources such as pole street lights, building lights, vehicle headlamps, and interior lighting visible through windows. Existing nighttime sources from the project site include security lighting around buildings.

The proposed project would introduce new sources of light and glare to the project site. New interior and exterior lighting would be installed throughout the project. New anticipated light sources would include exterior lighting on campus buildings, along the campus' promenade and in courtyards, modifications to the existing pool deck exterior lighting, and lighting for the campus' sports field.

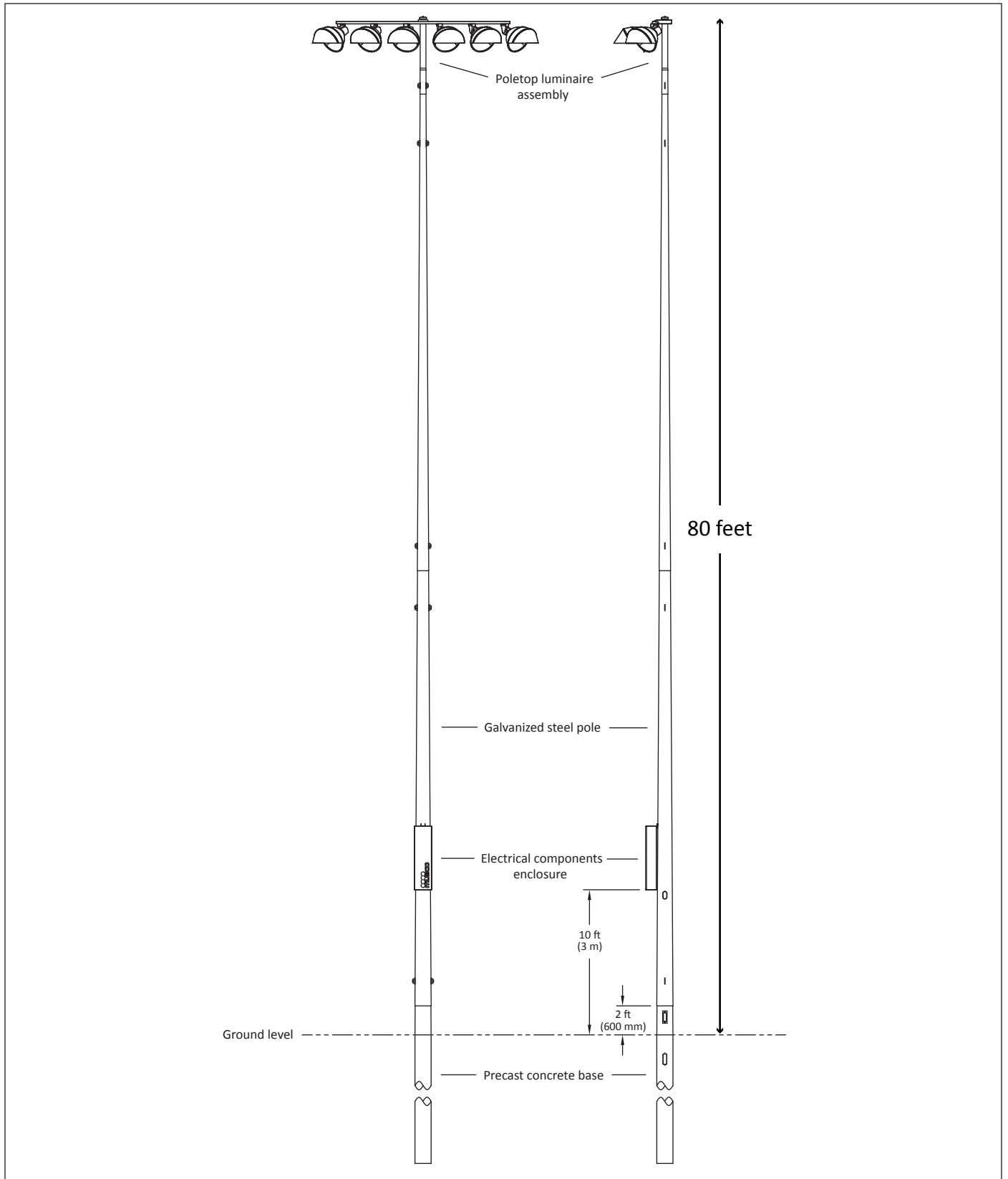
The project includes the reconfiguration of a multi-use sports field and the installation of a field lighting system located at the northwest portion of the project site. The proposed project would allow for high school and community sports events to extend beyond dusk and into nighttime hours, for practices and games in football, soccer, baseball, lacrosse, and track, as well as community uses of the field. All proposed lighting is intended to adequately illuminate the sports field to assure safety for sports field users. Implementation of the proposed lighting system would change daytime and nighttime views of the project site. The proposed lamp fixtures and poles would be visible during the daytime and during their use at nighttime. As shown in Figure 15 under the proposed project, the main sports lighting system would include six 80-foot tall lighting poles, bordering the multi-use sports field each equipped with six 1,500-watt lamp fixtures.

The residential neighborhood located along the north side of 53rd Street, and the adjacent Emery Bay Drive residential neighborhood (located immediately west of the project site), would have intermittent obstructed views of the lamp fixtures and poles as a result of existing and new landscaping along the northern and western perimeters of the project site.

The proposed light pole locations and the orientation of the light fixtures are designed to minimize potential spill light beyond the perimeter of the sports field.⁶ See Figure 4 which shows the locations of the light poles. The proposed lamp fixtures are specifically designed to reduce light spill and glare to the greatest extent with the following key features:

- All fixtures are designed with 14" external visors for optimal cut off and glare reduction. The visors to conform to Dark Sky (IDA) Lighting recommendations;
- There would be single rows of fixtures on all poles to avoid lighting from one row reflecting off another;
- All fixtures are aimed at 25 degrees or greater and all fixtures have 14-inch external visors;
- A multi-watt system will be used to allow light levels to be run at 1/3 power and to allow a system with a high/low lighting mode; and
- Musco back visors can be installed to further reduce off-site light trespass where specific neighboring site conditions warrant.

⁶ Spill light is light that illuminates surfaces beyond the area intended to be illuminated.



LSA

FIGURE 15

Note: This figure shows a 14-inch visor, not the 14-inch Musco back visor which will be installed to further reduce spill light.

NOT TO SCALE

Emeryville Center of Community of Life IS/MND
Individual Light Pole Details

SOURCE: MUSCO SPORTS LIGHTING, LLC, MARCH 2013.

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Each light fixture would be shielded by a light hood and 14-inch Musco back visor and would be equipped with 1,500-watt Green Generation® lamps.⁷ Upon installation, the proposed light fixtures and visors would be adjusted to shield the lamps from view from off-site locations. The ability to precisely position and focus the fixtures in addition to their shielding design elements would minimize potential glare impacts to a less-than-significant level.

The proposed lighting fixtures would allow various lighting modes to be programmed depending on an event. For example, a lower watt power setting could be used to allow for lower light levels during sports practices, the last hour or half hour of community use, and/or housekeeping/field maintenance.

Table 7: Illumination Summary for Football, Soccer, Track, and Baseball Horizontal Footcandles

	Football	Soccer	Track	Baseball	
				Infield	Outfield
Minimum	20.0	18.0	6.75	33.0	18.0
Maximum	42.0	42.0	36.50	64.0	45.0
Average	30.6	31.0	20.19	50.2	30.5

Source: MUSCO, 2013.

For a high school facility with a spectator capacity under 5,000, the IESNA recommends an average light level of 50 horizontal footcandles for football and soccer fields, and 100 and 70 horizontal footcandles for safe play on a baseball's infield and outfield, respectively. The maximum anticipated number of spectators at a school varsity-level (regular season, non-playoff) game during night events is anticipated to remain at 75 spectators and the maximum anticipated number of spectators at a community sport event is anticipated to be 30 spectators. According to the project's illumination summary provided in Appendix A and in Table 7, when in use, the proposed lamp fixtures would generate averages of 30.6 footcandles for the football field, 31.0 footcandles for the soccer field, 20.19 for the track, and 50.2 and 30.5 footcandles for the baseball's infield and outfield, respectively. The highest light levels (average of 50.2 footcandles) are anticipated during baseball games (infield). While no District baseball games are anticipated, community youth and adult baseball and softball use of the field is anticipated. Approximately 52 adult softball events, over the course of a year, are anticipated to occur between 6:00 p.m. and 10:00 p.m. While community youth baseball also would occur at the field, the youth events would not extend beyond 6:00 p.m. The most frequent light use would be during practices, which could operate under lower lighting conditions.

For school-related lighted events, all football, soccer, lacrosse, track and field, and baseball practices and/or games are not expected to extend beyond 6:00 p.m. during the fall and spring seasons, as is currently the case. As previously described, community youth-related lighted events also would not extend beyond 6:00 p.m. during the fall, spring, and summer seasons, and community adult-related lighted uses would not extend beyond 10:00 p.m. during the weekdays and weekends, year-round. As

⁷ The 14-inch Musco back visors would reduce spillover light levels by approximately 1-2 footcandles over regular light hoods. A footcandle is a common unit of measurement used to calculate adequate lighting levels of workspaces in buildings or outdoor space. It is used to describe the light level that a lamp is expected to provide over the long-term. A horizontal footcandle is the amount of light striking horizontal plane and a vertical footcandle is the amount of light striking vertical plane.

noted in Table 5, in months with longer daylight, typically during the spring and summer months, the proposed field lights would be turned on later (at dusk), and the lighted hours of the sports field would be shorter than the listed time frame.⁸

As previously described, the project site is located adjacent to residential neighborhoods north and west of the project site. The nearest façades of the 53rd Street residences are located approximately 70 feet from the sports field; Emery Bay Drive residences are located approximately 30 to 55 feet from the sports field. The 53rd Street residences, north of the project site, would be partially separated from the sports field by 53rd Street and new street landscaping, and the Emery Bay Drive residences, west of the project site, would be separated from the sports field by existing tall mature trees.

The existing sources of nighttime lighting within the vicinity of the project site are typical of urbanized areas with residential and commercial uses in the vicinity.

Examples of commonly experienced light levels in other settings are shown below:

- Typical neighborhood streetlight: 1 to 5 footcandles
- Main road intersection street lighting: 2.5 to 3 footcandles
- School non-dedicated or private roadways with high activity: 2 footcandles
- School parking areas with high activity: 3.6 footcandles
- School building exteriors, near active entrances (pedestrians and vehicles): 5 footcandles
- Residential lighting at night: 7 to 10 footcandles
- Dusk: approximately 10 footcandles
- Gas station canopies: 25 to 30 footcandles

The City of Emeryville recently updated their Planning Regulations and require that all new and replacement exterior lighting be designed to confine direct lighting to the premises. Spillover light beyond the property line is not permitted, except onto public thoroughfares; provided that no such light would cause a hazard to motorists. In addition, the Planning Regulation also requires all exterior lighting on a nonresidential property be on a time clock or photo-sensor system so as to be turned off during daylight hours and during any hours when the facility is not in use and the lighting is not required for security.⁹ While the District is a State institution and therefore exempt from local land use regulations when land use development is used to further its educational mission, the District is complying with City regulations to the maximum extent feasible in regards to reducing spillover light as discussed below.

⁸ In Emeryville, sunsets generally occur during the following time frames for each season: Fall (September to November): 7:40 p.m. to 4:50 p.m.; Winter (December to February): 4:40 p.m. to 6:00 p.m.; Spring (March to May): 6:00 p.m. to 8:20 p.m.; and Summer (June to August) 8:25 p.m. to 7:40 p.m.

⁹ Emeryville, City of, 2013. Planning Regulations. Emeryville Municipal Code, Ordinance No. 13-001. Section 9-4.705(c). Lighting and Illumination General Regulations. February 5. Effective March 7, 2013.

For the purposes of this analysis, the District has selected a very conservative significance threshold of a maximum spill light of over 2.0 footcandles on adjacent properties. Because most of the existing nighttime lighting in the vicinity of the site consists of street lighting on an active urban corridor, the maximum 2.0 footcandle threshold would represent spillover light below main road intersection street lighting.

To analyze the proposed field lighting, three different lighting scenarios were identified, as described below:

- Scenario A: Competitive Athletic Use (six poles in use)
- Scenario B: Recreation and Community Use (four poles in use)
- Scenario C: Clean-up Use (minimal lights on)

The goal of having different lighting scenarios is to provide appropriate lighting for activities currently on the field (for example, competitive lighting does not need to light the field when there is after game clean up occurring). The project will include a lighting system with a multi-watt 1/3rd power capability to allow the District to adjust light levels for specific uses. This allows the District to restrict the amount of light spill to the maximum feasible amount while still allowing safe play on the sports fields.

As shown in Tables 8 and 9, and Figures 16a, 16b, 17a, and 17b, the illumination summary (see Appendix A for entire summary) analyzes both maximum vertical and horizontal footcandle values for spill light lighting conditions onto adjacent properties, both on the properties on the north side of 53rd Street, and the adjacent residential development west of the project site. To determine the average spill light, the spill light footcandle measurement points along each perimeter (both the north and the west) were averaged. Tables 8 and 9 below indicate that the light levels across the west property line and along the north curb of 53rd Street are below the 2.0 footcandle threshold. Lighting values for Scenarios B and C are included in Appendix A.

Table 8: Illumination Summary for Spill Light under Scenario A Lighting Conditions – Western Boundary (Footcandles)

	Adjacent Emery Bay Drive Residential Neighborhood	
	Maximum Vertical	Horizontal
Minimum	0.01	0.00
Maximum	1.39	0.83
Average	0.316	0.172

Notes:

– Spill light analysis for the adjacent Emery Bay Drive Residential neighborhood is shown in Figures 16a and 16b.

Source: MUSCO, 2013.

Table 9: Illumination Summary for Spill Light under Scenario A Lighting Conditions – North (Footcandles)

	Adjacent 53 rd Street Residential Neighborhood	
	Maximum Vertical	Horizontal
Minimum	0.03	0.01
Maximum	1.97	1.22
Average	0.830	0.394

Note:

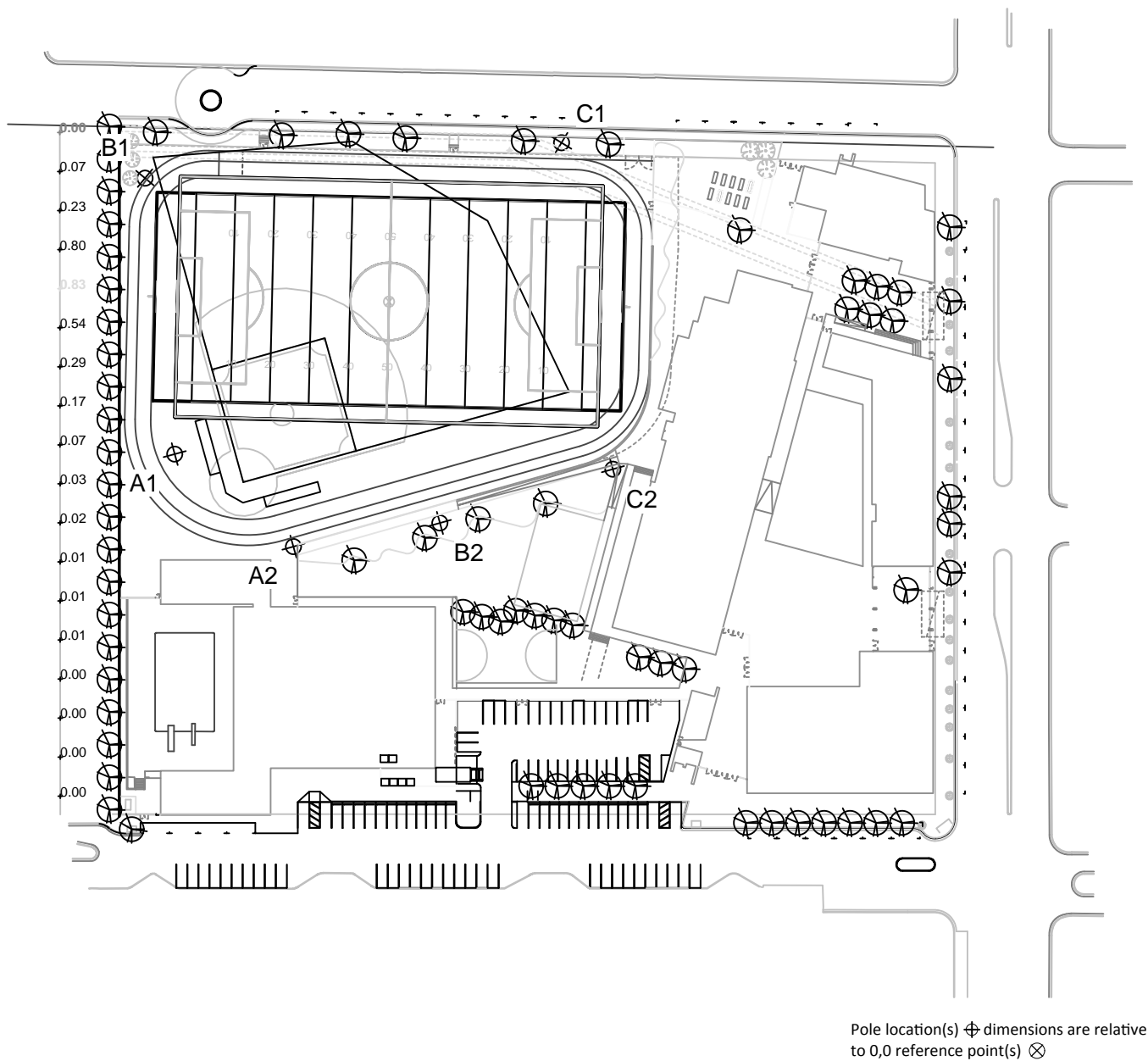
– Spill light analysis for the adjacent 53rd Street Residential neighborhood is shown in Figures 17a and 17b.

Source: MUSCO, 2013.

The spill light generated by the proposed light fixtures would be partially shielded by tall mature trees, located along the western perimeter of the site, and by proposed landscaping to be located in the northern portion of the project site. As previously described, each light fixture would have a mirror polished interior and light hood. Additionally, a 14-inch Musco back visor to direct light onto the sports field to reduce the amount of spill light can be provided at specific locations.

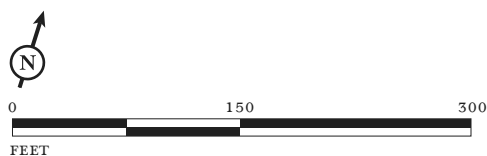
The operation of the proposed light fixtures would be limited to school- and community-related events throughout the year, typically from dusk until 6:00 p.m. for school-related and community youth sports events on weekdays only, and from dusk until 10:00 p.m. for community adult sports events on weekdays and weekends. The proposed field lighting system also includes a multi-watt system that allows for a 1/3 power setting and remote lighting control, which will be used to preschedule on and off times to ensure that the field lights are turned off at scheduled times. For school-related and community youth-related lighted events, the proposed field lights would likely be turned on during months with shorter daylight (typically between November and early March) and would light the field for no more than 1.5 hours during days with a shorter daylight period. For community adult-related lighted events, proposed field lights would likely be turned on 1.5 to 2.5 hours after the 6:00 p.m. start time for months with a longer daylight period (typically between April and August), and would result in less lighted hours of the sports field.

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	A1	80'	0'	80'	1500W MZ	6	6	0
1	A2	80'	0'	80'	1500W MZ	6	6	0
1	B1	80'	0'	80'	1500W MZ	6	6	0
1	B2	80'	0'	80'	1500W MZ	6	6	0
1	C1	80'	0'	80'	1500W MZ	6	6	0
1	C2	80'	0'	80'	1500W MZ	6	6	0
6	TOTALS					36	36	0



LSA

FIGURE 16a

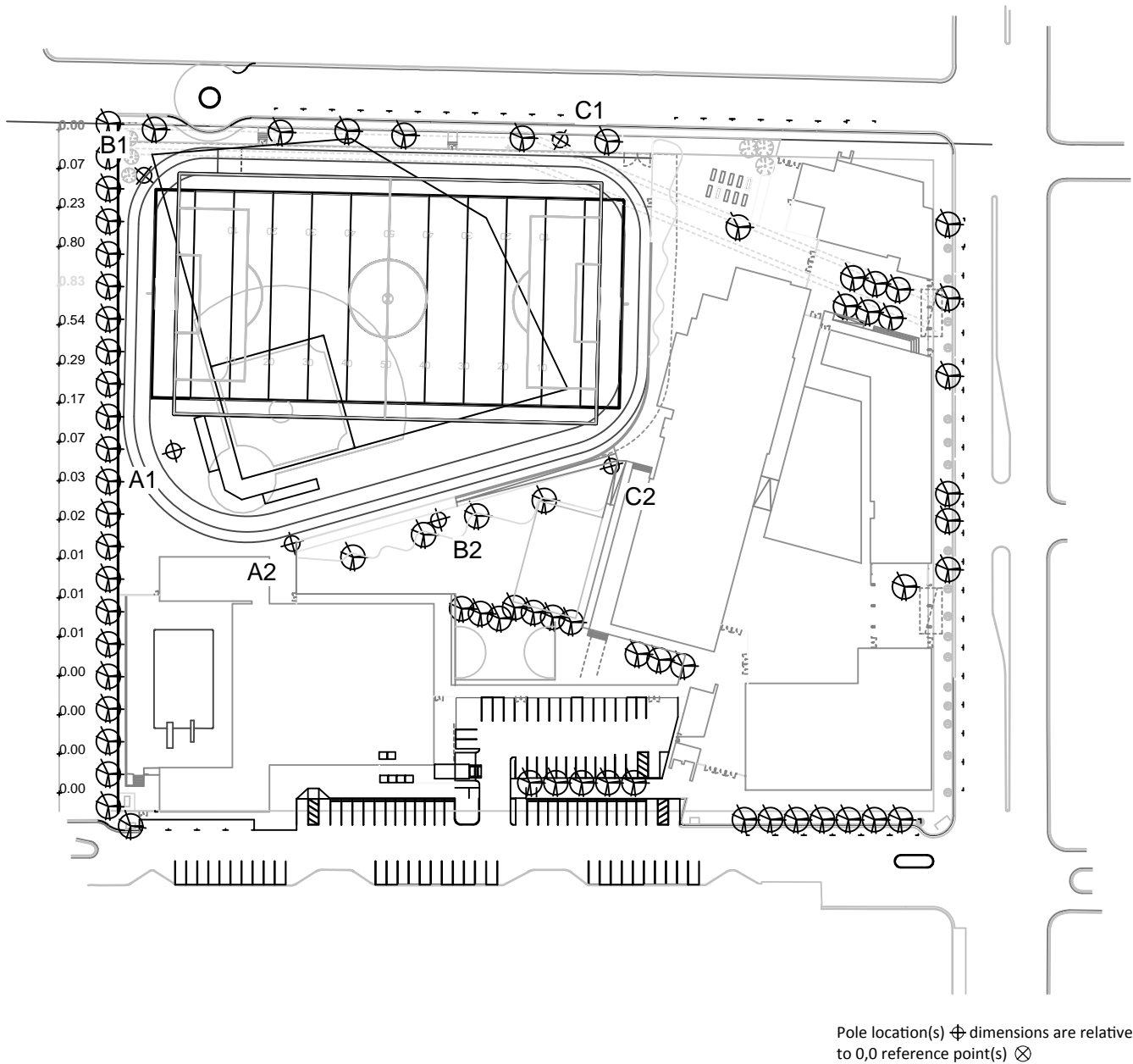


Emeryville Center of Community of Life IS/MND
Illumination Summary for Spill Light Under Scenario A
Light Conditions for Emery Bay Drive Residential
Neighborhood, Horizontal Footcandles

SOURCE: MUSCO SPORTS LIGHTING, LLC, JUNE 2013.

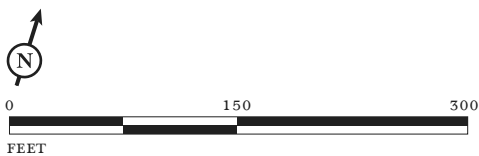
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EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	A1	80'	0'	80'	1500W MZ	6	6	0
1	A2	80'	0'	80'	1500W MZ	6	6	0
1	B1	80'	0'	80'	1500W MZ	6	6	0
1	B2	80'	0'	80'	1500W MZ	6	6	0
1	C1	80'	0'	80'	1500W MZ	6	6	0
1	C2	80'	0'	80'	1500W MZ	6	6	0
6	TOTALS					36	36	0



LSA

FIGURE 16b



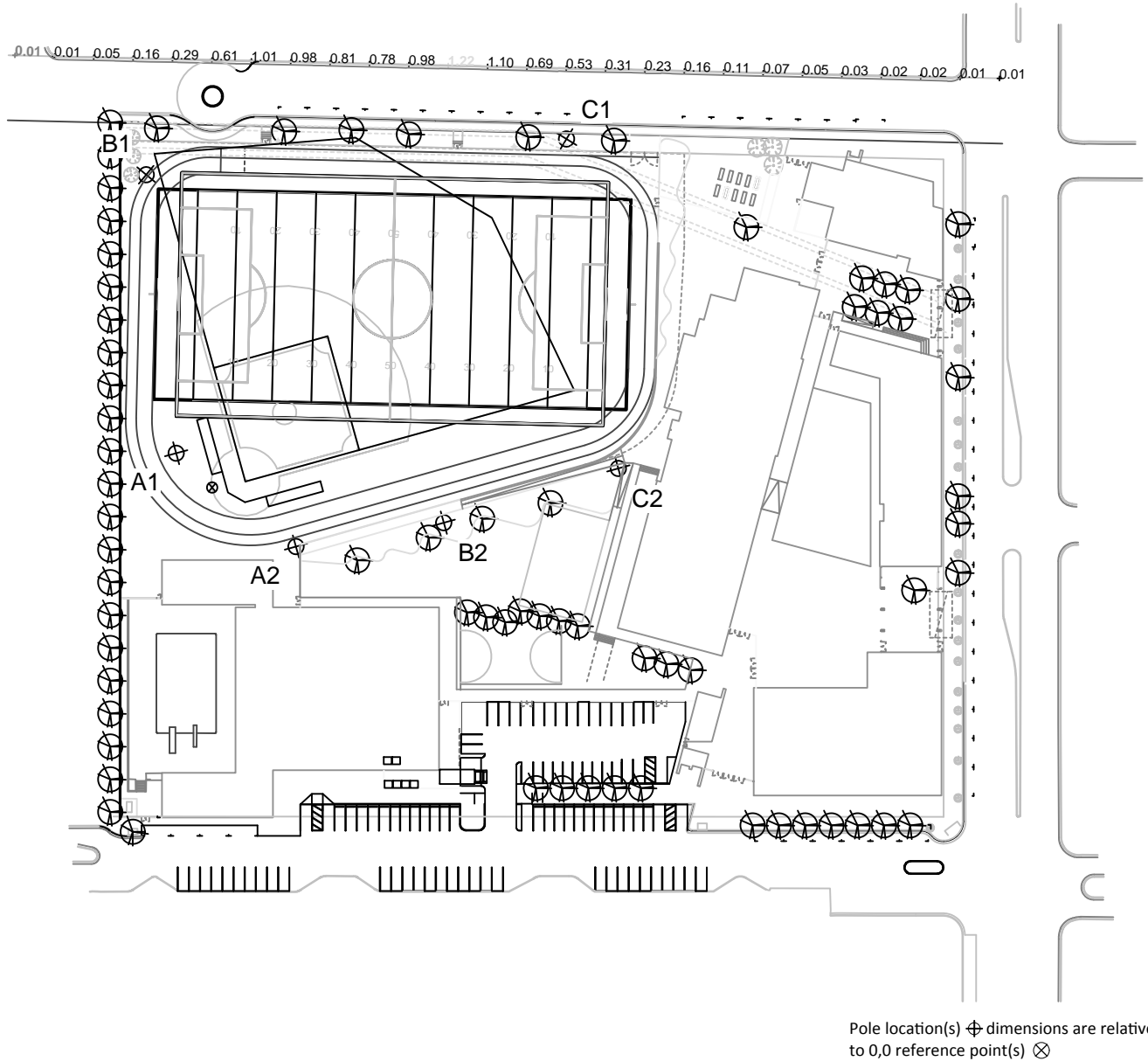
Emeryville Center of Community of Life IS/MND
 Illumination Summary for Spill Light Under Scenario A
 Light Conditions for Emery Bay Drive Residential
 Neighborhood, Maximum Vertical Footcandles

SOURCE: MUSCO SPORTS LIGHTING, LLC, JUNE 2013.

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EQUIPMENT LIST FOR AREAS SHOWN

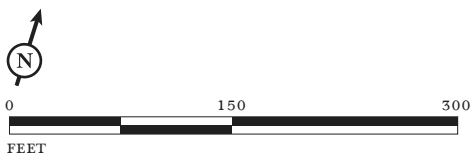
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	A1	80'	0'	80'	1500W MZ	6	6	0
1	A2	80'	0'	80'	1500W MZ	6	6	0
1	B1	80'	0'	80'	1500W MZ	6	6	0
1	B2	80'	0'	80'	1500W MZ	6	6	0
1	C1	80'	0'	80'	1500W MZ	6	6	0
1	C2	80'	0'	80'	1500W MZ	6	6	0
6	TOTALS					36	36	0



Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

LSA

FIGURE 17a

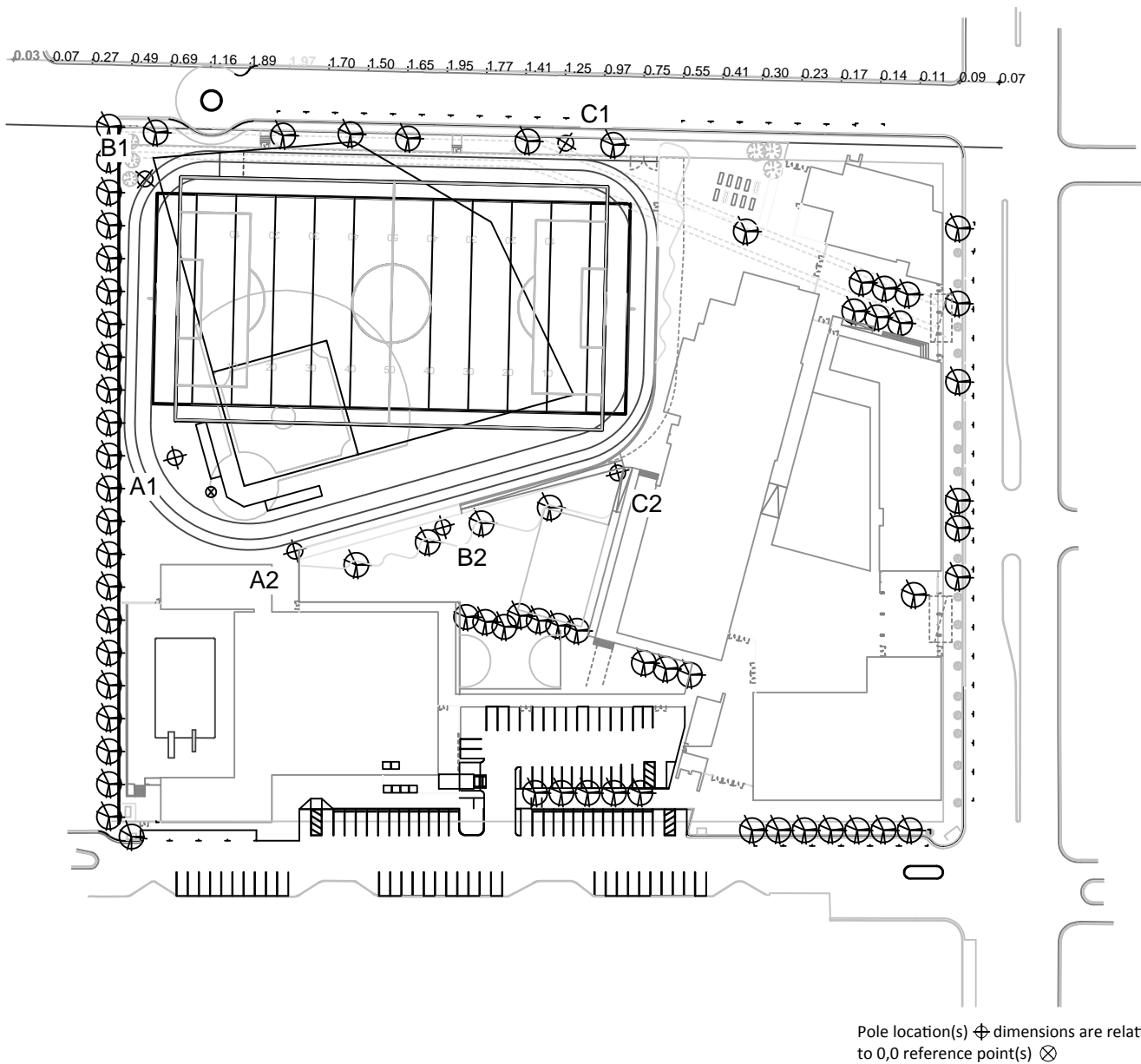


Emeryville Center of Community of Life IS/MND
Illumination Summary for Spill Light Under Scenario A
Light Conditions for 53rd Street Residential
Neighborhood, Horizontal Footcandles

SOURCE: MUSCO SPORTS LIGHTING, LLC, JUNE 2013.

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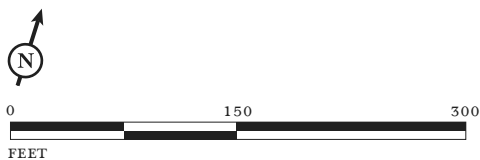
EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	A1	80'	0'	80'	1500W MZ	6	6	0
1	A2	80'	0'	80'	1500W MZ	6	6	0
1	B1	80'	0'	80'	1500W MZ	6	6	0
1	B2	80'	0'	80'	1500W MZ	6	6	0
1	C1	80'	0'	80'	1500W MZ	6	6	0
1	C2	80'	0'	80'	1500W MZ	6	6	0
6	TOTALS					36	36	0



Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗

LSA

FIGURE 17b

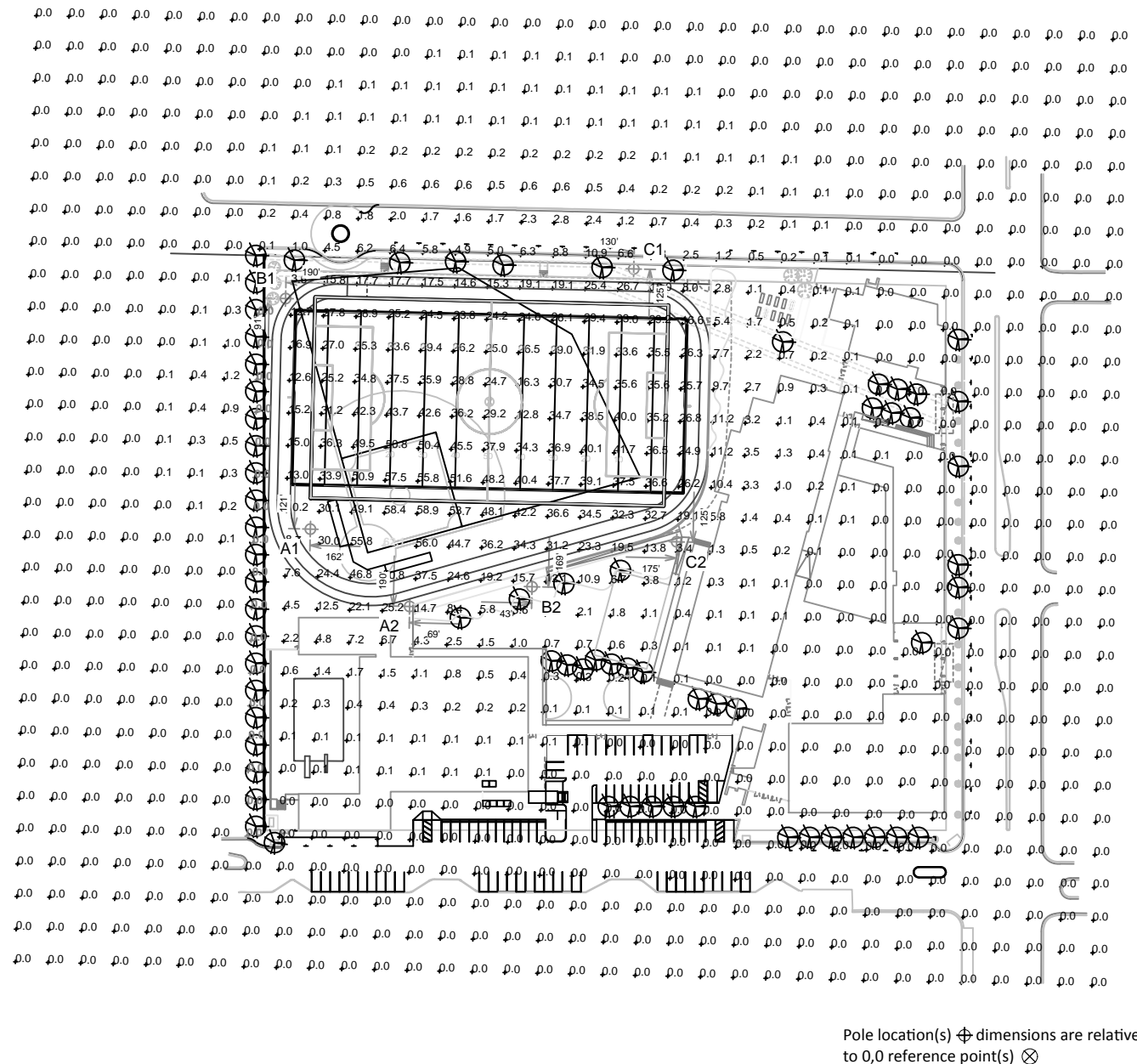


Emeryville Center of Community of Life IS/MND
 Illumination Summary for Spill Light Under Scenario A
 Light Conditions for 53rd Street Residential
 Neighborhood, Maximum Vertical Footcandles

SOURCE: MUSCO SPORTS LIGHTING, LLC, JUNE 2013.

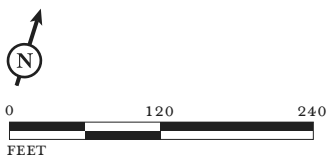
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EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LAMP TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	A1	80'	0'	80'	1500W MZ	6	6	0
1	A2	80'	0'	80'	1500W MZ	6	6	0
1	B1	80'	0'	80'	1500W MZ	6	6	0
1	B2	80'	0'	80'	1500W MZ	6	6	0
1	C1	80'	0'	80'	1500W MZ	6	6	0
1	C2	80'	0'	80'	1500W MZ	6	6	0
6	TOTALS					36	36	0



LSA

FIGURE 18



Emeryville Center of Community of Life IS/MND
Area-Wide Illumination Summary for Spill Light Under
Scenario A Light Conditions, Horizontal Footcandles

SOURCE: MUSCO SPORTS LIGHTING, LLC, JUNE 2013.

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While the proposed project lighting would fall below the maximum 2.0 footcandle threshold identified by the District at the north curb of 53rd Street and across the west property line, the following mitigation measures would be implemented to further reduce the potential impact to a less-than-significant level.

Mitigation Measures AES-1: The District shall implement the following measures:

- The District will identify three distinct lighting scenarios – Scenario A: Competitive Athletic Use (six poles in use); Scenario B: Recreation and Community Use (four poles in use); and Scenario C: Clean-up Use (minimal lights on) – to allow for field light levels at the lowest acceptable setting for safety depending on the type of field use. This includes flexibility of light level settings for practices where the full competitive safety light levels may not be needed.
- The light poles will have an additional 1/3 power reduction switch to further adjust and reduce lighting to provide the lowest safe lighting levels needed for any event.
- Unless a District game is occurring, all lighted use of the field shall conclude at 8:30 p.m., with lighting turned off at 9:00 p.m. This 9:00 p.m. ending time coincides with the required time for end use of the PA system.
- Except for District games, no lighting of the field will occur on Saturdays and Sundays exceeding the Scenario B lighting scheme.

As discussed, the project would include a field lighting system with design elements that would control the timing of lighting use to prescheduled cut off times and would minimize average light spill levels during lighted events to nighttime lighting levels similar to the existing nighttime light conditions in the area. Therefore, the project would be in substantial compliance to the intent of Ordinance No. 13-001, Section 9-4.705(c) and would not pose a safety hazard or create substantial spill over or obtrusive light.¹⁰

¹⁰ Bryant, Charlie, 2013. Director of Planning and Building, City of Emeryville. Personal communication with Roy Miller, Emery Unified School District, Architect. June 6.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURAL AND FORESTRY 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. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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 a 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) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- 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 a non-agricultural use? (No Impact)*

No agricultural resources are located on or near the project site. The project site is classified as "Urban and Built-Up Land" by the State Department of Conservation.¹¹

- b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract? (No Impact)*

The project site is not zoned for agricultural use and is not operated under a Williamson Act contract.

- c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? (No Impact)*

The project site is located in an urban area within the City of Emeryville. The project site would not meet the definition of forest land (as defined by Public Resources Codes Section 12220 (g)), timberland (as defined by Public Resources Code Section 4526), or timberland zone Timberland Production (as defined by Government Code Section 51104(g)).

- d) *Result in the loss of forest land or conversion of forest land to non-forest use? (No Impact)*

The project site is located in an urban area within the City of Emeryville, and includes significant amounts of urban development, impervious surface, and turf. Implementation of the proposed project would not result in a loss of forest land or conversion of forest land to non-forest use.

- e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? (No Impact)*

The project area is located in an urban area that does not include farming or forest use.

¹¹ California Department of Conservation, 2012. Division of Land Resource Protection, Farmland Mapping and Monitoring Program. Website: <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2010/ala10.pdf> (accessed May 6).

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
III. 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 checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
a) <i>Conflict with or obstruct implementation of the applicable air quality plan? (Less-Than-Significant Impact)</i>				

An air quality plan describes air pollution control strategies to be implemented by a city, county, or region classified as a non-attainment area. The main purpose of an air quality plan is to bring an area into compliance with the requirements of federal and State air quality standards.

The project site is located within the San Francisco Bay Area Air Basin and is within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The BAAQMD is responsible for developing a Clean Air Plan¹² which guides the region's air quality planning efforts to attain the California Ambient Air Quality Standard (CAAQS). The BAAQMD 2010 Clean Air Plan (CAP) is the latest Clean Air Plan which contains district-wide control measures to reduce ozone precursor emissions (i.e., ROG and NO_x), particulate matter, and greenhouse gas emissions.

¹² Bay Area Air Quality Management District, 2010. *Bay Area 2010 Clean Air Plan*. September.

The current CAP, which was adopted on September 15, 2010, by the BAAQMD Board of Directors:

- Updates the Bay Area 2005 Ozone Strategy in accordance with the requirements of the California Clean Air Act to implement “all feasible measures” to reduce ozone;
- Provides a control strategy to reduce ozone, particulate matter (PM), toxic air contaminants (TACs), and greenhouse gases in a single, integrated plan;
- Reviews progress in improving air quality in recent years; and
- Establishes emission control measures to be adopted or implemented in the 2010 to 2012 timeframe.

The project supports the goals of the CAP and would not conflict with any of the control measures identified in the plan or designed to bring the region into attainment. Additionally, the proposed project would not increase population or substantially increase vehicle miles traveled. Therefore, the proposed project would not conflict with, or obstruct implementation of, the BAAQMD CAP.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Potentially Significant Unless Mitigation Incorporated)

The San Francisco Bay Area Air Basin is under State non-attainment status for ozone and particulate matter (PM₁₀ and PM_{2.5}) standards. The Air Basin is also classified as non-attainment for both the federal ozone 8-hour standard and the federal PM_{2.5} 24-hour standard. Air pollutant emissions associated with the proposed project would primarily occur over the short-term in association with construction activities, including demolition, excavation and vehicle/equipment use. Long-term operational emissions would result from vehicle trips to and from the project site. The following is a description of potential air quality violations that could occur as a result of short-term construction emissions, including fugitive dust, and long-term operational emissions.

Localized CO Impacts. The BAAQMD has established a screening methodology that provides a conservative indication of whether the implementation of a proposed project would result in significant CO emissions. According to the BAAQMD *CEQA Air Quality Guidelines*, the proposed project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).

The proposed project would not conflict with an applicable congestion management program for designated roads or highways, the regional transportation plan or other agency plans. Additionally, traffic volumes on roadways in the project vicinity are less than 5,000 vehicles per hour, and the project is expected to generate a maximum of 450 peak hour trips. Therefore, the proposed project

would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour and would not result in localized CO concentrations that would exceed State or federal standards.

Construction Period Impacts. Air pollutant emissions associated with the proposed project would occur over the short-term in association with construction activities. Construction vehicle traffic, the use of construction equipment, and wind blowing over exposed earth would emit exhaust and dust that affect local and regional air quality. Construction emissions were quantified using the California Emissions Estimator Model (CalEEMod) v.1.1. and are presented in Table 10 (see Appendix B for calculation details).

Table 10: Project Construction Emissions in Pounds Per Day

Project Construction	ROG	NO _x	Exhaust PM _{2.5}	Exhaust PM ₁₀
Average Daily Exhaust Emissions	18.1	46.2	2.9	2.9
BAAQMD Thresholds	54.0	54.0	54.0	82.0
Exceed Threshold?	No	No	No	No

Source: LSA Associates, Inc., 2013.

As shown in Table 10, exhaust emissions would be below the BAAQMD thresholds, however, the BAAQMD requires that all projects implement best management practices to reduce construction fugitive dust impacts to a less-than-significant level. With implementation of Mitigation Measure AIR-1, construction of the proposed project would not substantially contribute to an air quality violation.

Mitigation Measure AIR-1: The following construction practices shall be implemented at the project site during construction of the project:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- Post a publicly visible sign with the telephone number and person to contact at EUSD regarding dust complaints. This person shall respond and take corrective action within 48 hours.

Operational Emissions – Regional Emissions Analysis. Long-term air emission impacts are those emissions associated with stationary sources and mobile sources. Stationary source emissions result from the consumption of natural gas and electricity. Mobile source emissions result from vehicle trips generated by the project and result in air pollutant emissions affecting the entire air basin. Regional emissions associated with the project's area source and operational source emissions were calculated using CalEEMod.

The incremental daily emission increase in reactive organic gases (ROG) and nitrogen oxides (NO_x) (two precursors of ozone) and particulate matter (PM₁₀ and PM_{2.5}) associated with buildout of the proposed project are identified in Table 11. The BAAQMD has established thresholds of significance for ozone precursors and PM_{2.5} of 54 pounds per day, and a threshold of 82 pounds per day for PM₁₀. As shown in Table 11, emissions from the project would not exceed these thresholds of significance; the impacts to air quality from criteria air pollutant and precursor emissions related to project operations would be less than significant. The proposed project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Table 11: Project Regional Emissions

Emissions in Pounds Per Day				
	Reactive Organic Gases	Nitrogen Oxides	PM ₁₀	PM _{2.5}
Project Emissions	6.88	6.20	7.16	0.38
BAAQMD Standard	54.0	54.0	82.0	54.0
Exceed?	No	No	No	No
Emissions in Tons Per Year				
Project Emissions	1.1	0.8	0.8	0.1
BAAQMD Standard	10.0	10.0	15.0	10.0
Exceed?	No	No	No	No

Source: LSA Associates, Inc., 2013.

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

CEQA defines a cumulative impact as two or more individual effects, which when considered together, are considerable or which compound or increase other environmental impacts. According to the BAAQMD, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Therefore, if daily average or annual emissions of operational-related criteria air pollutants exceed any applicable threshold established by the BAAQMD, the proposed project would result in a cumulatively significant impact.

As shown in Table 11, implementation of the proposed project would generate less-than-significant regional emissions. As described in the project-specific air quality impacts discussion above, the

proposed project would not result in individually significant impacts and therefore would not make a cumulatively considerable contribution to regional air quality impacts.

d) *Expose sensitive receptors to substantial pollutant concentrations? (Less-Than-Significant Impact)*

The project could expose sensitive receptors to substantial pollutant concentrations during project construction or during operation of the project.

Construction Impacts. Residents and other sensitive receptors in the vicinity of the project site would be temporarily exposed to diesel engine exhaust during the construction period due to the operation of construction equipment. Health risks from TACs are a function of both concentration and duration of exposure. Construction diesel emissions are temporary, affecting an area for a period of days or perhaps weeks. Additionally, construction-related sources are mobile and transient in nature, and the emissions occur within the project site. Because of its short duration, health risks from construction emissions of diesel particulate would be a less-than-significant impact.

Operational Impacts. Future students of the project site could be exposed to increased levels of TACs from vehicle emissions on high volume roadways or from stationary sources in the project vicinity.

High Volume Roadways. High volume roadways in the project vicinity could expose students on the project site to toxic air contaminants. Classrooms would be located as close as 10 feet from San Pablo Avenue, which is considered a high volume roadway. According to the BAAQMD roadway screening tools, given the project site's proximity to San Pablo Avenue, the increased PM_{2.5} concentration on the project site would be 0.10 µg/m³, which is below the BAAQMD's threshold of 0.30 µg/m³. When adjusted to account for a child's breathing rate and school exposure duration, the estimated cancer risk associated with exposure to this roadway is 5.77 in 1 million, which is below the BAAQMD's threshold of 10 in 1 million. The project site is located more than 3,000 feet from Interstate 80 (I-80), also considered a high volume roadway; however, at this distance I-80 would not be expected to be a significant source of emissions. Potential toxic air contaminant impacts from high volume roadways would not be significant.

Stationary Sources. The BAAQMD issues permits to businesses whose operation includes the release of TACs. These operations are known as stationary air pollution sources and should be considered for their exposure when locating sensitive receptors in a new location. In order to identify stationary sources for a particular location, the BAAQMD provides KML (Google Earth) files for each county within the BAAQMD jurisdiction. Using the KML file for the Alameda County and a 1,000-foot buffer zone, the five stationary sources shown in Table 12 were identified.

Results of the stationary source analysis indicate that all sources in the project vicinity would be below the established significance criteria established by the BAAQMD, for both adult staff members and students, at the single source level.

According to the BAAQMD, a significant cumulative toxic air contaminants (TAC) impact would occur if the project, in combination with other projects located within a 1,000-foot radius of the project site, would expose sensitive receptors to TACs resulting in an increased cancer risk greater than 100.0 in one million, an increased cancer risk of greater than 10.0 on the hazard index (chronic),

or an ambient PM_{2.5} increase greater than 0.8 µg/m³ on an annual average basis. As shown in Table 12, the cumulative contribution of all TAC sources, which includes stationary and roadway sources, would not exceed the thresholds established by the BAAQMD.

Table 12: Stationary Sources within 1,000 feet of the Project Site

Source (Name & Address)	Distance (feet)	Adjusted Child Risk (in a million)	Adjusted Adult Risk (in a million)	PM _{2.5} (µg/m ³)	Hazard
Alameda Contra Costa Transit District 1177 47 th Street, Emeryville (Fueling Station)	300	0.85	1.25	NA	0.002
Alameda Contra Costa Transit District 1177 47 th Street, Emeryville (Wipe Cleaning operation, Spray Booth , Diesel Engine)	300	2.55	3.75	0.027	0.005
Pixar Animation Studios 1215 45 th Street, Emeryville	800	1.03	1.52	0.006	0.009
Alpha Restoration Studio, Inc. 4514A Hollis Street, Emeryville	957	0.00	0.00	0.000	0.000
Level 3 Communications, Inc. 5000 Hollis Street, Emeryville	750	1.15	1.7	0.005	0.021
Single Source Threshold		10 in 1 million	10 in 1 million	1.0	0.3
Exceeds Single Source Thresholds		No	No	No	No
Cumulative Sources		11.35	16.72	0.038	0.037
Cumulative Sources Threshold		100 in 1 million	100 in 1 million	10.0	0.8
Exceeds Cumulative Threshold		No	No	No	No

Note: BAAQMD has two listings for AC Transit.

Source: BAAQMD and LSA Associates, 2013

As shown in Table 5, implementation of the project would increase adult community sports usage of the site by up to 30 additional people on weekdays between the hours of 6:00 p.m. and 10:00 p.m. The project site is in an area of increased pollutant concentration potential during periods of stagnant air due to the presence of high volume roadways and existing stationary sources in the project vicinity. However, as shown in Table 12, cancer risk levels and PM_{2.5} concentrations from all sources would not exceed the established BAAQMD thresholds; therefore, air quality at the outdoor activity areas would not present a significant risk to users.

Alameda County (AC) Transit operates a bus parking and maintenance facility directly south of the project site across 47th Street. At this location, approximately 150 buses start their routes throughout the morning beginning at 4:21 a.m. each day. In high concentrations, diesel exhaust from buses has the potential to exceed the BAAQMD's risk threshold. However, high concentrations of exhaust would not be expected from this facility as the movement of buses on and off the site are staggered throughout the day, thereby limiting the concentration of diesel exhaust being generated by the engines at one time. Additionally, these buses (as with all diesel engines) are prohibited from idling

under State law, which is enforced by AC Transit through the use of an automatic shut off mechanism in the engine when it is left idling more than 5 minutes.¹³

e) *Create objectionable odors affecting a substantial number of people? (Less-Than-Significant Impact)*

The proposed project would not involve permanent land uses or activities that would generate objectionable odors. Construction-related activities, such as exhaust from construction vehicles and equipment and building materials, may result in objectionable odors; however, these odors would be temporary and short in duration. Once operational, the proposed project would not create objectionable odors affecting a substantial number of people.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. 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 type="checkbox"/>	<input checked="" 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 U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹³ Chaewsky, Suzanne, 2012. P.E., Manager Safety and Environmental Engineering, AC Transit. Personal communication with Roy Miller. October 23.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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"/>
a) <i>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? (Less-Than-Significant Impact)</i>				

The project site is located within an urban area and includes buildings, impervious surfaces, athletic facilities, and landscaping; given the existing development, the site is considered to have very little wildlife habitat value. Wildlife species that would be expected to use or pass through the site would be common species that are adapted to urban and suburban conditions. No protected species are known to occur within the project site. Implementation of the proposed project would not have a significant direct or indirect effect on protected species.

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 U.S. Fish and Wildlife Service? (Potentially Significant Unless Mitigation Incorporated)*

The project site is located within an urban area of Emeryville, and does not contain any riparian habitats or other sensitive natural communities. The Temescal Creek culvert is located on the project site, but is completely underground. The proposed project would result in a new outfall connection to the culvert.

Given that the project site is currently developed, implementation of the proposed project would not measurably affect the water quality of this creek. However, the project site eventually drains to the San Francisco Bay, which hosts a variety of sensitive natural communities. Runoff from the project site could adversely affect water quality in the Bay and associated natural communities. Implementation of the following mitigation measure, which addresses runoff during construction and operation of the proposed project, would reduce this impact to a less-than-significant level:

Mitigation Measure BIO-1: Implement Mitigation Measures HYD-1 and HYD-2 which require preparation and implementation of a Storm Water Pollution and Prevention Plan (SWPPP) and full compliance with the Water Board stormwater permit requirements.

- 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? (Potentially Significant Unless Mitigation Incorporated)*

Temescal Creek runs under the north edge of the Secondary School site in a box culvert that is approximately 15 feet by 11 feet in size. The proposed project would include a new outfall into the culvert. As the project site is largely developed, a significant increase in stormwater flow into Temescal Creek is not anticipated. Implementation of HYD-1 and HYD-2 would ensure that any impact to Temescal Creek would be considered less than significant.

- 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? (Potentially Significant Unless Mitigation Incorporated)*

The project area is developed, but includes landscaping that can support wildlife species typically associated with urban uses. Because the project site is located in an urban environment, there are no major wildlife movement corridors that pass through the site. However, existing trees and other landscape vegetation on the project site generally have the potential to support nests of common native bird species.

Project construction would result in the removal of trees and shrubs that could provide habitat for nesting birds. Project activities conducted during the nesting season could directly impact nesting birds by destruction of nests. Construction-related disturbance (e.g., noise, vehicle traffic, personnel working adjacent to suitable nesting habitat) could also indirectly impact nesting birds by causing adults to abandon nests in nearby trees or other vegetation, resulting in nest failure and reduced reproductive potential. All native birds and their nests, regardless of their regulatory status, are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code. Implementation of the following mitigation measure would ensure that potential impacts to nesting birds are reduced to a less-than-significant level.

Mitigation Measure BIO-2: If feasible, all vegetation removal shall be conducted during the non-breeding season (i.e., August 1 to February 28) to avoid direct impacts to nesting birds. If such work is scheduled during the breeding season, a qualified biologist shall conduct a pre-construction survey to determine if any birds are nesting in the vegetation to be removed. The pre-construction survey shall be conducted within 15 days prior to the start of work from March through May (since there is higher potential for birds to initiate nesting during this period) and within 30 days prior to the start of work from June through July. If active nests are found during the survey, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer shall be determined by the biologist in consultation with the California Department of Fish and Wildlife (CDFG), and would be based on the nesting species, its sensitivity to disturbance, and the expected types of disturbances.

e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Potentially Significant Unless Mitigation Incorporated)*

The project site contains 14 trees; additionally, 30 street trees are adjacent to the project site along San Pablo Avenue (17 street trees) and 47th Street (13 street trees).¹⁴ Trees in the project site include Australian brush cherry (*Syzygium paniculatum*), Redwood (*Sequoia sempervirens*), Carolina laurel cherry (*Prunus caroliniana*), Purple leaf plum (*Prunus cerasifera* 'Pissardi'), *Pittosporum undulatum*, *Griselinia littoralis*, and *Eucalyptus sp.* trees. All street trees along San Pablo Avenue are Trident maple trees (*Acer buergerianum*), and street trees along 47th Street include Trident maple (*Acer buergerianum*), Chinese elm (*Ulmus parvifolia*), Sweetshade (*Hymenodendrum fluvium*), Chinese pistache (*Pistachia chinensis*), Evergreen pear (*Pyrus kawakamii*), and ornamental pear (*Pyrus sp.*) trees.¹⁵ Most of the trees in the project site will be removed; however six existing redwood trees, located in the northwest and northeast corners of the project site, would be preserved. Street trees along San Pablo Avenue would likely be preserved and street trees along 47th Street would likely be removed and replaced with new trees. The City of Emeryville Urban Forestry Ordinance,¹⁶ provides mechanisms by which street trees may be removed or replaced, and imposes penalties on unauthorized tree removal. In general, the Urban Forestry Ordinance requires an encroachment permit for the planting or removal of street trees.

Under the proposed project, new streetscape plantings surrounding the site would meet existing City standards and utilize existing streetscape plantings where appropriate. In addition, new streetscape trees would also be planted as required. The District would procure all appropriate encroachment permits prior to the removal and/or planting of street trees, consistent with the City's Urban Forestry Ordinance. The proposed project would comply with this ordinance, and would not conflict with any local policies or ordinances adopted for the protection of biological resources.

Implementation of the following mitigation measure would ensure that existing trees to be preserved on and adjacent to the project site would be protected during construction and grading activities.

Mitigation Measure BIO-3: Prior to the commencement of construction activities, the general contractor (and/or team) shall meet with the project arborist to review Tree Protection Measures and the procedures outlined in the Tree Inventory Report.¹⁷ Beyond on-site supervision of recommended pruning, the project arborist shall make periodic inspections of the site during the length of construction to monitor trees and ensure Tree Protection Measures are in place.

¹⁴ Insideout Design, Inc., 2012. *ECCL Tree Inventory Report*. November 2.

¹⁵ Ibid.

¹⁶ Emeryville, City of, 2010. *Municipal Code Section 7-10, Urban Forestry Ordinance*.

¹⁷ Insideout Design, Inc., 2012. *ECCL Tree Inventory Report*. November 2.

- 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? (No Impact)*

The project site is located within an urbanized portion of Emeryville and is not subject to the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan; no impact would occur.

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

The following section is based on a cultural resources study prepared by LSA Associates, Inc, January 2013, which is included in Appendix C. This memorandum documents the background research and the field review conducted for this project.

Cultural Setting

The prehistory and ethnographic background of the project site are described below. The historical and architectural context of the project site is also presented below.

Prehistory. The Paleo-Archaic-Emergent cultural sequence developed by Fredrickson¹⁸ is commonly used to interpret the prehistoric occupation of Central California. The sequence consists of three broad periods: the Paleoindian Period (10,000-6000 B.C.); the three-staged Archaic Period, consisting of the Lower Archaic (6000-3000 B.C.), Middle Archaic (3000-500 B.C.), and Upper Archaic (500 B.C.-A.D. 1000); and the Emergent Period (A.D. 1000-1800).

¹⁸ Fredrickson, David A., 1974. Cultural Diversity in Early Central California: A View from the North Coast Ranges. *Journal of California Anthropology* 1(1):41-53.

The Paleo Period began with the first entry of people into California. These people probably subsisted mainly on big game, minimally processed plant foods, and had few or no trade networks. Current research, however, is indicating more sedentism, plant processing, and trading than previously believed. During the Lower Archaic, milling stones appear in abundance and hunting is less important than plant foods. Artifacts are made predominantly from local materials, suggesting that few if any extensive trade networks were established at this time. During the Middle Archaic, the subsistence base begins to expand and diversify with a developing acorn economy, as evidenced by the mortar and pestle, and the growing importance of hunting. Status and wealth distinctions are evidenced in the Upper Archaic archaeological record; regional exchange networks are well established at this time with exchange of goods and ideas, such as obsidian and Kuksu ceremonial practices involving spirit impersonations. Increasing social complexity continued during the Lower Emergent. Territorial boundaries were well established by this time with regularized inter-group exchanges involving more and varied goods, people, and ideas. Bow and arrow technology was also introduced. By the Upper Emergent, a monetary system based on the exchange of clamshell disk beads was established. Native population reached its zenith during this time, as evidenced by high site densities and large village sites in the archaeological record.

Historically, archaeological excavations in the East Bay have focused on shellmounds. These sites often contain a rich, diverse assemblage of dietary remains, artifacts, and human remains. Excavations at two major shellmounds near the project site—the Emeryville Shellmound, CA-ALA-309, and the West Berkeley Shellmound, CA-ALA-307—have helped refine our understanding of the Bay Area’s earliest inhabitants. Excavations at the Emeryville Shellmound^{19,20,21} have identified hundreds of human burials, groundstone (e.g., mortars, pestles, and “charmstones”), flaked stone (e.g., obsidian and chert projectile points and flaking debris), bone tools, and dietary debris, including clams, mussels, oysters, and land and sea mammal bones. Excavations at the West Berkeley Shellmound have identified an assemblage as diverse as the Emeryville Shellmound’s, with two cultural components; the oldest component is believed to predate 2000 B.C. and the earliest known occupation of the Emeryville Shellmound.²²

Ethnography. The project site is situated within territory once occupied by Costanoan – also commonly referred to as Ohlone – language groups. Eight mutually unintelligible Ohlone languages were spoken in an area extending from the southern edge of the Carquinez Strait to portions of the Sur and Salinas rivers south of Monterey.²³ The Ohlone language spoken by the eastern bayshore

¹⁹ Nelson, Nels C., 1996. *Excavation of the Emeryville Shellmound, 1906: Nels C. Nelson’s Final Report*, transcribed and prefaced by Jack M. Broughton. Contributions of the University of California Archaeological Research Facility, Number 54. Berkeley.

²⁰ Schenck, W. Egbert, 1926. The Emeryville Shellmound Final Report. *University of California Publications in American Archaeology and Ethnology* 23(3):147-282. Berkeley.

²¹ Uhle, Max, 1907. The Emeryville Shellmound. *University of California Publications in American Archaeology and Ethnology* 7(1):1-106. Berkeley.

²² Wallace, William J., and Donald W. Lathrap, 1975. *West Berkeley (CA-ALA-307): A Culturally Stratified Shellmound on the East Shore of San Francisco Bay*. Contributions of the University of California Archaeological Research Facility, Number 29. Berkeley.

²³ Shipley, William F., 1978. Native Languages of California. In *California*, edited by Robert F. Heizer, pp. 80-90. *Handbook of the North American Indians*, Volume 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

groups was Chochenyo, which was spoken by about 2,000 people from Richmond to Mission San Jose and possibly as far east as the Livermore Valley.²⁴

Ohlone territories were comprised of one or more land holding groups that anthropologists refer to as “tribelet.” The tribelet, a nearly universal characteristic throughout native California, consists of a principle village occupied year round, and a series of smaller hamlets and resource gathering and processing locations occupied intermittently or seasonally.²⁵ Populations of tribelets ranged between 50 and 500 persons and were largely determined by the carrying capacity of a tribelet’s territory. According to Milliken,²⁶ the Huchiun tribelet occupied the Emeryville area at the time of Spanish contact.

Tribelet political organization included the position of chief, who inherited his or her office patrilineally and required the community’s approval to assume the role.²⁷ Although the chief had little coercive power over the population, administrative responsibilities and influence did accompany the position. The chief’s responsibilities involved directing ceremonial activities and dances; caring for captive animals, including grizzly bears and coyotes; feeding visiting members from other villages; and overseeing subsistence-related hunting and gathering activities.

Ohlone groups employed a sexual division of labor to hunt and gather food. Women gathered and processed a variety of nuts, seeds, and berries.²⁸ Important food staples included acorns gathered from different oak species; nuts from the buckeye tree; hazelnuts; grassland and plant seeds from buttercup, chia, redmaids, tarweed, and grey pine; wild strawberries, elderberries, madrone berries; and wild grapes. The diet was supplemented with hunting and gathering numerous creek, shore, and terrestrial species.^{29,30} Small creeks in the hills were fished for trout, while groups with access to bay and estuarine resources acquired shellfish, waterfowl, salmon, sturgeon, and lamprey eels. Larger terrestrial mammals (e.g., grizzly bear, Roosevelt elk, and black tailed deer) were hunted with the bow and arrow while communal drives and nets were used to capture smaller game (e.g., rabbits, mice, and rats).

Resources were distributed via trade networks between the Ohlone and neighboring groups.³¹ Ohlone traded abalone, mussels, salt, Olivella shells, and bows to the Sierra Miwok and Yokuts groups to the east. Pinon nuts obtained from the Yokuts are the only ethnographically documented import of

²⁴ Levy, Richard, 1978. Costanoan. In *California*, edited by Robert F. Heizer, pp. 485-495. Handbook of the North American Indians, Volume 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

²⁵ Kroeber, Alfred L. 1955. Nature of the Land-Holding Group. *Ethnohistory* 2:303-314.

²⁶ Milliken, Randall, 1995. *A Time of Little Choice: The Disintegration of Tribal Culture in the San Francisco Bay Area 1769-1810*. Ballena Press, Menlo Park, California.

²⁷ Levy, Op. cit.

²⁸ Ibid.

²⁹ Ibid.

³⁰ Margolin, Malcolm, 1978. *The Ohlone Way: Indian Life in the San Francisco-Monterey Bay Area*. Heyday Books, Berkeley, California.

³¹ Davis, James T., 1974. *Trade Routes and Economic Exchange among the Indians of California*. Ballena Press, Ramona, California.

Ohlone groups, although undoubtedly other significant economic items, including obsidian used for tools, were imported as well.

By the late eighteenth century, Spanish exploration and settlement of the Bay Area transformed Ohlone culture. Spanish settlers moved into northern California and established the mission system that exposed the Ohlone to diseases to which they had no immunity. Mission records indicate that the first Huchiun was baptized in 1787 with the first large group from that tribelet arriving at Mission San Francisco in the fall of 1794.³² Following the secularization of the missions in 1834, many Ohlone worked as manual laborers on ranchos.³³

Emeryville. The project site is within the Rancho San Antonio land grant, which was originally granted to Luis Maria Peralta on August 3, 1820, for his service to the Spanish government. His 44,800-acre rancho included what are now the cities of Emeryville, Oakland, Berkeley, Alameda, Piedmont, and a part of San Leandro. Peralta's land grant was confirmed after Mexico's independence from Spain in 1822. In 1842, Peralta's son Vicente received the southwestern portion of the rancho lands, which included today's Emeryville, central and north Oakland, and Piedmont. Alta California was annexed by the United States in 1848, and Peralta's land title was confirmed by the United States government in 1856.

In 1859, Joseph Emery purchased 185 acres of an unincorporated tract north of Oakland that would become the City of Emeryville. At that time, Emeryville contained two major thoroughfares, Park and San Pablo Avenues, and a section of the Southern Pacific railroad that paralleled the bayshore. Emery built a Victorian mansion on the corners of San Pablo and Park Avenues, and then subdivided and sold the remainder of his land. In 1871, Emery built the San Pablo Avenue Horse Car Railroad which connected Oakland with Emeryville, attracting new residents and development to Emeryville.³⁴

Business investors and concerned citizens, including Joseph Emery, proposed incorporating Emeryville in 1896. The group was interested in maintaining control of profits and taxes related to their investment. Local voters agreed and the City of Emeryville was established.³⁵ In the 1920s, the City's Board of Trustees promoted Emeryville's prime location on San Francisco Bay as an excellent location for business enterprises, and its proximity to major cities, ports, and transportation. Coupled with the offer of reduced taxes, Emeryville became the home of industrial businesses. By 1935, 100 manufacturing plants operated within the city.³⁶ The construction of the Bay Bridge connected Emeryville with San Francisco in 1939 and led to further industrial growth. Paint factories, steel mills, and other heavy industries continued to thrive during and after World War II.

³² Milliken, op. cit.

³³ Levy, op.cit.

³⁴ Hausler, Donald, 1994. Emeryville Horse Race Track: 1871-1915. Journal of Emeryville Historical Society V(1):3-14.

³⁵ Ibid.

³⁶ Walker, Richard A., 2004. *Industry Builds out the City: The Suburbanization of Manufacturing in the San Francisco Bay Area, 1850-1940*. Electronic document, oldweb.geog.berkeley.edu/PeopleHistory/faculty/R_Walker/IndustryBuildsOut.pdf (accessed October 31, 2012).

Today, Emeryville is less reliant on industry and is restoring former factories and converting them via adaptive reuse into work/live spaces. Service, shopping facilities, educational, entertainment, and biological and other high tech industries are the new industries of this urban residential city.

Project Site and Vicinity. In 1902, the project site was occupied by a large, single-family house facing San Pablo Avenue on a large, open, estate-like parcel with several detached buildings to the rear of the property. To the west of the house, and adjacent to the project site, was the Oakland Trotting Park. By 1911, the Trotting Park became the New California Jockey Club Race Track, and the residential building at 47th Street and San Pablo Avenue was removed and the property cleared of buildings, structures, and objects. In the 1930s, the site of the Oakland Trotting Park became the Emeryville Motorcycle Speedway.^{37,38,39}

After Emeryville incorporated in 1896, a push to construct civic buildings began. For most of Emeryville's history the project site was associated with civic uses and not dense residential, as in the neighborhoods to the north and east. This condition could be related to foreseeable land use conflicts associated with the noise from the nearby motorcycle race track and baseball fields, which discouraged residential development and created a de facto area for libraries, schools, and repair shops and storage yards for the Key Streetcar System and later the AC Transit system across 47th Street.^{40,41}

In 1920, a two-story, classical revival-styled school was built at the northwest corner of San Pablo Avenue and 47th Street, which later became Emery High School.⁴² In 1949, a public library was constructed in the project site, which is now the District Administrative Offices at 4727 San Pablo Avenue. The school was demolished and replaced in 1966 by Buildings 1 and 2, the one-story, L-shaped, Brutalist-styled Art Lab/Computer Lab and the Library/Offices/Classrooms designed by notable schools architect, Corwin Booth. The school was later renamed Emery Secondary School.

Architectural Context

International. Architecture on the project site closely followed trends elsewhere in California during the twentieth century. The buildings on the project site that are over 50 years old (District Administrative Offices, the Music Building, and the Central Plant Building) are associated with the International Style, a design trend that began in Europe during the mid-1920s by Walter Gropius, Mies van der Rohe, and the Bauhaus School. The essence of this style was to create an entirely new

³⁷ Emeryville, City of, 2012. City History. Electronic document: www.ci.emeryville.ca.us/index.aspx?NID=660 (accessed May 26, 2012).

³⁸ Sanborn Fire Insurance Company: 1902, Oakland Sheet 315, 316, 319, 320, 321; 1911, Oakland Sheet 267, 270, 271, 272, 275, 279, 281; 1951, Oakland Sheet 299, 315, 316, 320. Sanborn Map Publishing Company, New York, New York.

³⁹ Thompson & West, 1878. *Historical Atlas of Alameda County, California*. Reprinted 1976 by Valley Publishers, Fresno, California.

⁴⁰ Nationwide Environmental Title Research, LLC: 1931, 1946, 1959, 1968. Aerial photographs of Emeryville. Electronic document: www.historicaerials.com (accessed May 26, 2012).

⁴¹ Sanborn Fire Insurance Company. 1911, Oakland Sheet 267, 270, 271, 272, 275, 279, 281; 1951, Oakland Sheet 299, 315, 316, 320; 1953, Oakland Sheet 316; 1967, Oakland Sheet 316. Sanborn Map Publishing Company, New York, New York.

⁴² Emeryville, City of, 2012, op. cit.

design without historical or nationalist roots; a design for the Machine Age, easily replicated worldwide. Fleeing Hitler's Germany, Gropius and others brought the Internationalist Style to the United States where it became popular. The International Style is most famous in the design of skyscrapers using a skeleton of structural steel with various wall claddings, usually glass. In a general sense, an International-styled building had a flat roof with shallow or no eave or overhang across the top, no decorative detailing on the façade, smooth, unadorned wall surfaces, an asymmetrical façade, cantilevered sections jutting out from the wall and fenestration consisting of metal casements usually set flush with the wall.^{43,44}

Brutalism. The buildings in the project site that are less than 50 years old (Art Lab/Computer Lab, the Library/Offices/Classrooms, the Cafeteria/Kitchen/Offices/Classrooms, the Gymnasium, and the Girls and Boys Locker Rooms) are expressions of Brutalist architecture, a style prominent in the United States between 1950 and 1970 and used in many California public schools and civic buildings. The International Style was popular following World War II, but gave way to other architectural designs. Of these, Brutalism became popular among younger architects as a more aggressive design for public buildings than the Bauhaus-derived International School. The design features of the Brutalist architectural style (known as *béton brut* in French) was popularized by French Integrationist/Modernist architects Mies van der Rohe, Le Corbusier, and others. Brutalist architecture was an attempt to redesign how people interacted with their environment. The style proved popular among young architects of the time, who were keen to work with raw concrete, favored economy in materials and "honesty" in design, Brutalist architects favored working with fixed-paned windows, full-height walls of poured concrete with wall surfaces often textured with ribbed wall finishes or faced with exposed aggregate. Brutalism's blockish arrangement, stressing linear patterns and arranged in large chunks, evokes a cold, fortress-like feeling.^{45,46,47,48,49}

a) *Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? (Less-than-Significant Impact)*

Background research and field reviews identified one resource in the project site: the Emeryville School Administration Office District (District) which comprises three single story, International

⁴³ Gelernter, Mark, 1999. *A History of American Architecture: Buildings in Their Cultural and Technological Context*. University Press of New England, London, United Kingdom.

⁴⁴ McAlester, Virginia & Lee McAlester, 2003. *A Field Guide to American Houses*. Alfred A. Knopf, Inc., New York.

⁴⁵ Gane, John F., 1970 *American Architects Directory*. Third Edition. American Institute of Architects. R.R. Bowker Company, New York.

⁴⁶ Gelernter, Mark, 1999. *A History of American Architecture: Buildings in Their Cultural and Technological Context*. University Press of New England, London, United Kingdom.

^{47,48} Koyl, George S., 1955 *American Architects Directory*. American Institute of Architects, R.R. Bowker Company, New York; 1962 *American Architects Directory*. Second Edition. American Institute of Architects, R.R. Bowker Company, New York.

⁴⁸ San Francisco Chronicle, 2008. *Booth, Corwin L. Obit. 13 March 2008*. Electronic document, www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/03/13/MNBOOTHCOR4.DTL (accessed May 25, 2012).

⁴⁹ Wiseman, Carter, 2000. *Twentieth-Century American Architecture: The Buildings and Their Makers*. W.W. Norton & Company, New York, New York.

Style buildings constructed between 1949-1958: the Administration Building (1949); the Music Building (1957); and the Central Plan Building (1958). Due to a lack of significance, the District does not appear eligible for inclusion in the California Register of Historic Resources (CRHR), nor does it otherwise constitute a historical resource for the purposes of CEQA. No additional study or protection of the District is warranted. Please see Appendix C for the cultural resources study and historical evaluation.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? (Potentially Significant Unless Mitigation Incorporated)

Background research and a field survey did not identify any archaeological deposits in the project site. The project site, however, is currently developed with built-environment features and the native ground surface is overlain by fill. Due to the project site's proximity to several recorded prehistoric archaeological sites along Temescal Creek, historical archaeological site CA-ALA-634H, and development of the project site by at least 1902, there is a high possibility of identifying subsurface archaeological deposits and human remains during project ground-disturbing activities. Implementation of the following mitigation measures would reduce this potential impact to a less-than-significant level.

Mitigation Measures CULT-1: Archaeological monitoring should be conducted for construction-related ground disturbance below soil that is demonstrated to be fill in the project site. The monitoring should be done in accordance with, and as guided by, an Archaeological Monitoring and Evaluation Plan (AMEP) prepared and implemented for the project. The purpose of the AMEP is to ensure that significant archaeological deposits discovered during construction are identified, evaluated, and appropriately treated through the use of a pre-established research design and field evaluation strategy, consistent with the requirements of *CEQA Guidelines* §15126.4 (b)(3)(C). The AMEP should be approved by the District well in advance of construction, and its implementation should be made a condition of the issuance of a grading or building permit for the project. The AMEP should be prepared by professionals who meet the Secretary of the Interior's Professional Qualifications Standards in historical archaeology and prehistoric archaeology.

The AMEP should include a construction monitoring component and an evaluation component. The monitoring component of the AMEP should refine the archaeological sensitivity of the project site to: (1) identify areas that will be subject to monitoring; (2) define the frequency of monitoring; and (3) identify those areas with little to no possibility of containing intact deposits. This assessment should focus on the project site's land use history based on historical maps and photographs, past site improvement/utilities construction plans, historical documents, and soils/geotechnical information. The possibility for encountering human remains during construction should also be addressed by consultation with the appropriate descendant groups.

The evaluation component of the AMEP would guide fieldwork if archaeological resources or human remains are identified during monitoring. The purpose of this component is to establish an evaluation process to shorten the time necessary to respond to and evaluate the significance of discoveries made during archaeological monitoring. The evaluation component should contain a field study and technical analysis work plan to guide the methods and procedures to be used during the significance evaluation. The treatment of human remains during the evaluation process should be addressed, and procedures for the respectful treatment of such remains should be developed through consultation with descendant communities prior to the final draft of the AMEP.

c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Potentially Significant Unless Mitigation Incorporated)*

There is the possibility of encountering significant paleontological resources (fossils) in the Pleistocene alluvium underlying the project site. Should fossils be identified during project ground-disturbing activities, implementation of Mitigation Measures CULT-2 would reduce this potential impact to a less-than-significant level.

Mitigation Measure CULT-2: Should paleontological resources be encountered during project subsurface construction activities, all ground-disturbing activities within 25 feet should be redirected and a qualified paleontologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the discovery. If found to be significant, and project activities cannot avoid the paleontological resources, adverse effects to paleontological resources should be mitigated. Mitigation may include monitoring, recording the fossil locality, data recovery and analysis, a final report, and accessioning the fossil material and technical report to a paleontological repository. Public educational outreach may also be appropriate. Upon completion of the assessment, a report documenting methods, findings, and recommendations should be prepared and submitted to the District for review, and (if paleontological materials are recovered) a paleontological repository, such as the University of California Museum of Paleontology.

d) *Disturb any human remains, including those interred outside of formal cemeteries? (Potentially Significant Unless Mitigation Incorporated)*

While not anticipated, the potential to discover human remains during construction of the proposed project could occur. Implementation of Mitigation Measures CULT-1 would reduce this potential impact to a less-than-significant level.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. 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 known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<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 waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Responses in this section rely on the information and findings provided in the geotechnical evaluation⁵⁰ prepared for the project site, unless otherwise noted. This report is available for review at the District Administration Office.

⁵⁰ BAGG Engineers, 2012. *Geologic and Seismic Hazards Assessment and Geotechnical Engineering Investigation, Emeryville Center of Community Life, 4727 San Pablo Avenue, Emeryville, California*. September.

- 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 known fault?* **(Less-Than-Significant Impact)**

No portion of the proposed project site is within the established Alquist-Priolo Earthquake Fault Zone (A-PEFZ),^{51,52} and no active faults have been mapped on the project site by the United States Geological Survey (USGS) or the California Geological Survey (CGS).⁵³ Fault rupture of the surface typically occurs along existing faults that have ruptured the surface in the past. Since faults with known surface rupture have been mapped in California, and none are known to occur at the project site, the potential for impacts to the proposed project due to fault rupture are less than significant.

- (ii) *Strong seismic ground shaking?* **(Potentially Significant Unless Mitigation Incorporated)**

Ground shaking is likely to occur within the life of the project as a result of future earthquakes.⁵⁴ The closest known active fault to the project site is the Hayward Fault, which has been mapped in an A-PEFZ approximately 2.8 miles east of the site. Other active faults within 20 miles of the project site include the San Andreas, Calaveras, Rodgers Creek, and Concord-Green Valley Faults. The Working Group on California Earthquake Probabilities report, and the USGS, predicted there is a 31 percent probability of a 6.7 magnitude or greater earthquake on the Hayward/Rodgers Creek fault system between 2007 and 2037.⁵⁵ The Association of Bay Area Governments (ABAG) has classified the Modified Mercalli Intensity Shaking Severity Level of ground shaking in the proposed project vicinity due to an earthquake on the North Hayward segment of the Hayward-Rodgers Creek Fault System as “X-Very Violent”.⁵⁶ Very violent shaking could result in destruction of most masonry and frame buildings and underground pipe breakage.

Implementation of the following three-part mitigation measure would reduce impacts to occupants as a result of seismic shaking to a less-than-significant level:

Mitigation Measure GEO-1a: Prior to the issuance of any grading or construction permits for the project, a design-level geotechnical investigation shall be prepared by a licensed professional and submitted to the City Building Division and the California Division of the State

⁵¹ California Geological Survey, 2012. *Alquist-Priolo Fault Zones in Electronic Format, Oakland West Quadrangle*. Website: www.quake.ca.gov/gmaps/ap/ap_maps.htm (accessed December 21, 2012).

⁵² BAGG Engineers, 2012, op. cit.

⁵³ California Geological Survey, 2010. *2010 Fault Activity Map of California*. Website: www.quake.ca.gov/gmaps/FAM/faultactivitymap.html (accessed December 21, 2012).

⁵⁴ Ibid.

⁵⁵ United States Geological Survey, 2008. *Forecasting California’s Earthquakes – What Can We Expect in the Next 30 Years*, USGS Fact Sheet 2008-3027.

⁵⁶ Association of Bay Area Governments, 2003. *Earthquake Hazard Map for North Oakland/Piedmont/Emeryville, Scenario: North Hayward Segment of the Hayward-Rodgers Creek Fault System*. Website: quake.abag.ca.gov/shaking/maps/ (accessed December 21, 2012).

Architect (DSA) for review and approval. The geotechnical investigation shall determine the proposed project's geotechnical conditions and geohazards, including seismic shaking, subsidence, collapse, soil expansion, and differential settlement. The investigation shall identify engineering techniques appropriate to minimize potential geohazard damage.

The analysis presented in the geotechnical investigation shall conform to the California Division of Mines and Geology recommendations presented in the Guidelines for Evaluating Seismic Hazards in California. Briefly, the guidelines recommend that the investigation include: a site screening evaluation; an evaluation of on- and off-site geologic hazards; a quantitative evaluation of hazard potential; a detailed field investigation; an estimation of ground-motion parameters; an evaluation of landslide, liquefaction, lateral-spreading and ground-displacement hazards; and recommendations to reduce identified hazards.

The geotechnical investigation report shall include a finding that the proposed development fully complies with the California Building Code, applicable City ordinances, and DSA requirements. The CBC and applicable City ordinances were developed to ensure that compliant structures would be "earthquake-resistant," not "earthquake-proof." The CBC is intended to protect people inside buildings by preventing collapse and allowing for safe evacuation. Structures built according to code should resist minor earthquakes undamaged, resist moderate earthquakes without significant structural damage, and resist severe earthquakes without collapse.

Mitigation Measure GEO-1b: Plan check review for the project shall include evaluation of fixtures, furnishings, and fasteners with the intent of minimizing collateral injuries to building occupants from falling fixtures or furnishings during the course of a violent seismic event.

Mitigation Measure GEO-1c: All design measures, recommendations, design criteria, and specifications set forth in the design-level geotechnical investigation shall be implemented as a condition of project approval.

(iii) *Seismic-related ground failure, including liquefaction? (Potentially Significant Unless Mitigation Incorporated)*

Liquefaction of soils can occur when ground shaking causes saturated soils to lose strength due to an increase in pore pressure. ABAG has identified the liquefaction hazard at the project site and vicinity as generally "moderate."⁵⁷ Liquefaction susceptibility depends on the engineering properties of the sediments below individual structures. Review of the official seismic hazard map for this area prepared by the CGS indicates that the site is within a mapped zone for which an evaluation of soil liquefaction is required by the State of California.⁵⁸ The geotechnical investigation prepared for the project evaluated liquefaction potential at the project site using the methodology suggested in the

⁵⁷ Association of Bay Area Governments, 2001. *Liquefaction Hazard Map, North Oakland/Piedmont/Emeryville, Scenario: 1906 San Francisco Earthquake*. Website: www.abag.ca.gov/cgi-bin/pickmapliq.pl (accessed January 15, 2013).

⁵⁸ California Geological Survey, 2003. *Seismic Hazard Zonation Map, Oakland West*. Website: gmw.consrv.ca.gov/shmp/html/pdf_maps_no.html (accessed January 15, 2013). February 14.

*Guidelines for Evaluating and Mitigating Seismic Hazards in California.*⁵⁹ Subsurface data from six borings were evaluated, and the geotechnical report concluded that liquefaction-related settlement could be on the order of approximately two inches in the northeast corner of the site, and 0.1 to 0.5 inches in the remainder of the site during a design-level seismic event.⁶⁰ Therefore, the liquefaction hazard is potentially significant unless mitigation is incorporated. Implementation of Mitigation Measure GEO-1a would reduce the liquefaction hazard impact to a less-than-significant level.

(iv) Landslides? (No Impact)

Slope stability issues can result in either slow slumping earth movements or rapid landslide events. The project site is nearly level, and there are no adjacent hills.^{61,62} The project site is not located within a mapped landslide or landslide hazard area or within an official zone of Required Investigation for seismically-induced landsliding.⁶³ Improvements proposed as part of the project do not include substantial mounding of earth or other substantive changes to grade that would create slope instability hazards. Therefore, there is no potential for impacts related to landslides.

b) Result in substantial soil erosion or the loss of topsoil? (Potentially Significant Unless Mitigation Incorporated)

The proposed project would demolish existing structures, remove existing landscaping and pavement, and require site grading. The potential for the project to cause erosion impacts during construction and operations is potentially significant. This potential impact would be mitigated to a less-than-significant level by implementation of Mitigation Measure HYD-1.

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

The project site has an elevation of approximately 40 feet above mean sea level with a gentle slope to the west⁶⁴ and is underlain by Holocene age alluvial fan and fluvial deposits.⁶⁵ The area around the project site does not include hills or cut slopes likely to be subject to landslide.

According to the geotechnical report prepared for the project, most of the borings drilled on the site encountered very stiff to hard lean to fat clays with lenses of medium-dense to dense granular soils. Softer compressible soils were encountered below the northern portions of the K-8 classroom and

⁵⁹ California Geological Survey, 2008. *Guidelines for Evaluating and Mitigating Seismic Hazards in California, Special, Publication 117A*. Website: www.conservation.ca.gov/cgs/shzp/webdocs/sp117.pdf (accessed January 25, 2013). September 11 (Revised).

⁶⁰ BAGG Engineers, 2012, op. cit.

⁶¹ National Geographic Holdings, Inc., 2011. *Seamless USGS Topographic Maps* on CD-ROM.

⁶² BAGG Engineers, 2012, op. cit.

⁶³ California Geological Survey, 2003, op. cit.

⁶⁴ National Geographic Holdings, Inc., 2011, op. cit.

⁶⁵ BAGG Engineers, 2012, op. cit.

District Administrative buildings in the northeast corner of the project site. Imported fill material was encountered to a depth of 22 feet in boring B-1, located in the northeast corner of the site apparently in the backfill of the underground culvert channelizing Temescal Creek.

Considerations affecting the selection of appropriate foundations at the proposed site include: 1) the presence of loose, compressible fill in the northeast corner of the site; 2) the presence of the concrete culvert in the northeast corner of the site; 3) the presence of groundwater at shallow depths (12 to 24 feet below ground surface); and 4) the lack of subsurface data from the southern portion of the site, in the area underlain by a possible southern channel of Temescal Creek. Therefore, the potential for impacts related to unstable soils is potentially significant unless mitigated.

Mitigation Measure GEO-1a, which requires the project applicant to include analysis of the potential for unstable soils impacts as part of the design-level geotechnical investigation to be prepared for the proposed project, would reduce the potential impacts related to unstable soils impacts to a less-than-significant level.

- 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? (**Potentially Significant Unless Mitigation Incorporated**)*

Expansive soils expand and contract in response to changes in soil moisture, most notably when near surface soils change from saturated to a low moisture content condition, and back again. Based on the geotechnical report, “the on-site soils are generally suitable for use as structural fill but need further evaluation to confirm if they are suitable for use as non-expansive fill.” The onsite soils include clay materials that are potentially expansive. Mitigation measures may include: 1) deepened footings/mats; 2) placement of footings/mats on non-expansive fill; 3) placement of footings/mats on soil treated with lime to reduce its expansion potential; and 4) construction on structurally supported grade beams or slabs above the expansive soil.

Mitigation Measure GEO-1a, which requires the project applicant to include analysis of the potential for soil expansion impacts as part of the design-level geotechnical investigation to be prepared for the proposed project, would reduce the potential expansive soils impacts to a less-than-significant level.

- e) *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? (**No Impact**)*

The proposed project does not include the installation or use of septic or on-site wastewater disposal systems, and would be connected to the City of Emeryville sanitary sewer system. Therefore, no geologic or soils impact would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Less-Than-Significant Impact)*

Construction Emissions. Construction activities, such as site preparation, site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting the construction crew would produce combustion emissions from various sources. During construction of the project, greenhouse gasses (GHGs) would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Furthermore, CH₄ is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change. The only GHG with well-studied emissions characteristics and published emissions factors for construction equipment is CO₂.

Using the CalEEMod emissions estimator model to estimate construction equipment use, total project construction activities would emit approximately 759 metric tons of CO₂e. Model output sheets are included in Appendix B.

BAAQMD does not have a quantitative threshold of significance for construction-related GHG emissions. Therefore, the threshold is based on a qualitative evaluation of whether the project implements applicable BAAQMD Best Management Practices. Implementation of Mitigation Measure AIR-1 would reduce GHG emissions by reducing the amount of construction vehicle idling and by requiring the use of properly maintained equipment. Therefore, project construction impacts associated with global climate change would be considered less than significant.

Operational GHG Emissions. Long-term operation of the proposed project would generate GHG emissions from mobile sources and indirect emissions from sources associated with energy consumption. Mobile-source emissions of GHGs would include project-generated vehicle trips associated with teachers, students, visitors and other employee trips to the project site. Emissions would also be generated at off-site utility providers as a result of demand for electricity by the proposed project.

Greenhouse gas emissions associated with the project were estimated using CalEEMod v. 2011.1.1. Table 13 shows the calculated GHG emissions for the proposed project. Motor vehicle emissions are the largest source of GHG emissions (62 percent of total emissions). Energy use associated with the project is the next largest source of the total project greenhouse gas emissions at 30 percent, with water and waste representing approximately 8 percent of the total. Additional calculation details are provided in Appendix B.

Table 13: Emeryville Center of Community Life Greenhouse Gas Emissions

Emission Source	Emissions (Metric Tons Per Year)				
	CO ₂	CH ₄	N ₂ O	CO ₂ e	Percent of Total
Area Source	0.00	0.00	0.00	0.00	0
Transportation	583.96	0.03	0.00	584.49	62
Water/Wastewater	17.40	0.15	0.00	21.73	2
Waste	0.00	2.21	0.00	55.25	6
Electricity	287.87	0.01	0.00	287.65	30
Total Annual Emissions				949.03	100

Source: LSA Associates, Inc., 2013.

As shown in Table 13, the proposed project would generate approximately 949 metric tons of CO₂e per year of emissions. Annual emissions of operational-related GHGs for the proposed project do not exceed the BAAQMD's significance threshold of 1,100 metric tons of CO₂e per year. Therefore, operation of the proposed project would not generate significant GHG emissions and would have a less-than-significant impact on operational GHG emissions.

*b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (**Less-Than-Significant Impact**)*

The City of Emeryville adopted a Climate Action Plan in November of 2008. The purpose of the Plan was to set a goal to reduce community-wide greenhouse gas emissions by 25 percent below 2004 levels by 2020. To meet this goal, the City proposed community-wide and government actions to reduce emissions. Actions applicable to the proposed project include enhanced Transportation Demand Management Conditions, Conserve Potable Water and develop Rainwater Usage. Reduce 2004 Landfilled Water Tonnage by 50 percent by 2020.

The proposed project would replace buildings that were constructed in the 1950s and 1960s with energy-efficient buildings using California's Built it Green standards. Current energy efficiency standards would greatly reduce energy use and subsequent greenhouse gas emissions associated with the project. An analysis of current and projected energy usage was conducted by the Integral Group. The analysis compared the energy use of the existing secondary school and the comparable spaces of the new project. The comparison indicates the proposed school-related uses would reduce energy demand by over 50 percent (See Appendix B).⁶⁶

⁶⁶ Martinez, Andrew, 2013. Integral Group Memorandum to Mark Seiberlich, "CEQA Compliance at ECCL". May 31.

The project would also contribute to a reduction in greenhouse gas emissions by reducing transportation demand by providing a school and community use facility that is located with pedestrian, bicycle, and transit facilities within close proximity. According to the Transportation Impact Analysis prepared by Fehr & Peers for the project, the project's library and multi-purpose space would reduce trips a minimum of 20 percent over standard building construction due to carpool, walking, cycling and transit options. The project would also reduce trips by providing facilities for after-school activities, thereby reducing the need for additional trips by students already on campus. The project would incorporate water conservation measures into site design. The project would also comply with the City's Construction and Demolition Ordinance and will prepare a Construction Demolition Waste Management Plan prior to building or demolition of the proposed project.

To be consistent with the specific Community-wide Solid Waste Reduction Measures and Transportation Measures outlined in the Climate Action Plan, and further reduce vehicle trips and GHG emissions, the following measure shall be implemented:

Mitigation Measure GHG-1: The proposed project shall participate in recycling/reuse programs for paper, cardboard, metal, glass and plastics. The proposed project shall also participate in a commercial food waste collection program for composting. The project shall recycle and compost 75 percent of operational waste to comply with City GHG reduction goals. The District shall provide bus passes to high school students to meet the City's GHG transportation emission reduction goals.

Implementation of Mitigation Measure GHG-1 would implement the specific measures applicable to the project from the City's Climate Action Plan and, therefore, the project would not conflict with the City of Emeryville's Climate Action Plan.

The California Environmental Protection Agency Climate Action Team (CAT) and the California Air Resources Board (ARB) have developed several reports to achieve the Governor's GHG targets, which rely on voluntary actions by California businesses, local government and community groups, and State incentive and regulatory programs. These include the CAT 2006 *Report to Governor Schwarzenegger and the Legislature*, the ARB 2007 *Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California*, and the ARB *Climate Change Scoping Plan: a Framework for Change*. The reports identify strategies to reduce California's emissions to the levels proposed in Executive Order S-3-05 and AB 32. The adopted Scoping Plan includes proposed GHG reductions from direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as cap-and-trade systems.

In addition to reducing GHG emissions to 1990 levels by 2020, AB 32 directed ARB to identify a list of "discrete early action GHG reduction measures" that can be adopted and made enforceable by January 1, 2010.⁶⁷ In June 2007 ARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on High Global Warming Potential Refrigerants, and Landfill Methane Capture). The ARB adopted additional early action measures in October 2007 that tripled the number of discrete early action measures.

⁶⁷ Discrete early action measures are measures that are required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code (HSC) Section 38560.5.

ARB's focus in identifying the 44 early action items was to recommend measures that ARB staff concluded were "expected to yield significant GHG emission reductions, and likely to be cost-effective and technologically feasible."⁶⁸ The combination of early action measures is estimated to reduce Statewide GHG emissions by nearly 16 million metric tons (MMT). Accordingly, the 44 early action items focus on industrial production processes, agriculture, and transportation sectors.

Early action items associated with industrial production and agriculture do not apply to the proposed project. The transportation sector early action items, which include truck efficiency, low carbon fuel standard, proper tire inflation, truck stop electrification and strengthening light duty vehicle standards, are either not specifically applicable to the proposed project or, if implemented, would result in a reduction of GHG emissions associated with the project (i.e., emissions from vehicles traveling to the project site would be reduced due to implementation of light duty vehicle standards). Measures implemented as part of the Scoping Plan at the Statewide level that would reduce project-specific emissions include emission reductions, such as light-duty vehicle GHG standards ("Pavley standards"), low carbon fuel standard, and energy efficiency measures (i.e., electricity use associated with the project lighting).

As previously discussed, the proposed project does not exceed the BAAQMD threshold of significance for GHG emissions. The BAAQMD approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce Statewide GHG emissions. The project's GHG emissions are below this threshold, and, therefore, would not conflict with any applicable plan, policy or regulation for the purpose of reducing greenhouse gas emissions.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS.				
Would the project:				
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"/>

⁶⁸ California Air Resources Board, 2007, op. cit.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 checked="" 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 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 located 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 checked="" type="checkbox"/>	<input type="checkbox"/>
h) 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"/>

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Less-Than-Significant Impact)*

Development of the proposed project would not involve the routine transport, use, or disposal of significant quantities of hazardous materials. The project would routinely handle and use small quantities of commercially-available hazardous materials, such as cleaning, and landscaping and pool supplies. However, these materials would not be expected to be used in sufficient quantities or, contrary to normal use, to pose a threat to human health or the environment. Development of the proposed project would have a less-than-significant impact on the public and the environment related to the routine transport, use, and handling of hazardous materials.

- 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? (Potentially Significant Impact Unless Mitigation Incorporated)*

The project site is located in an area of Emeryville that has been developed since the late 1800s. While the more recent type of land use of the site has included a school – as described in the Phase I Environmental Site Assessment (ESA),⁶⁹ – historic land uses on the northeast portion of the site have included a gas and oil station, auto repair shop, rubber mat manufacturing, spray painting facility, and plastic molding workshop. These types of uses are associated with the presence of hazardous materials.

The Phase I ESA identified six Recognized Environmental Conditions (REC),⁷⁰ as defined by ASTM E1527-05,⁷¹ on the project site due to former site and adjacent property uses. These REC are briefly described below:

1. Use and refueling of the emergency generator with an attached fuel tank located southwest of Building 5 constitute a material threat of a release of fuel to soil near the generator.
2. Polychlorinated biphenyls (PCB) may be present in the transformer southwest of Building 1. If PCB are present and not properly abated prior to demolition, it could potentially expose construction workers, the public, future users of the project site, and the environment to hazardous materials.
3. Herbicides may have been used on the athletic field, and may be present in soil at concentrations that could pose a health risk to the public or the environment.
4. The use of lead-based paint on school buildings in the past could have resulted in the presence of lead in the soil near buildings. If present, this lead could pose a health risk to construction workers and future users of the project site, and/or require special soils management procedures.
5. Groundwater below the northeast portion of the project site may be affected by diesel from the release at R&H Auto Repair (identified in the Phase I ESA as Site 11); if present, these concentrations would likely be below applicable environmental screening levels.
6. Groundwater below the southeast portion of the Site could be affected by low concentrations of diesel from the former Berkeley Farms Truck Shop Yard (identified in the Phase I ESA as Site 10).

⁶⁹ BASELINE Environmental Consulting, 2013. *Phase I Environmental Site Assessment, Proposed Emeryville Center of Community Life, 4727 San Pablo Avenue, Emeryville, California*. January 8.

⁷⁰ REC are defined in ASTM E1527-05 as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.” According to ASTM E1527-05, the term “REC” is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental authorities.

⁷¹ ASTM International, 2005. *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, Method E1527-05.

Four Vapor Encroachment Concerns (VEC)⁷² as defined by ASTM E2600-10⁷³ were identified in the Phase I ESA due to reported releases of petroleum to groundwater adjacent to the project site. These REC and VEC have the potential to have affected the quality of subsurface conditions on the project site. Specific chemicals of concern would include petroleum hydrocarbons, solvents, pesticides, herbicides, lead, and polychlorinated biphenyls. If chemicals of concern from past or adjacent land uses were present at the project site, they could pose a hazard to human health and the environment during construction or following site development.

Hazardous building materials may be present in structures proposed for demolition at the project site and could pose a threat of a hazardous materials release or affect construction workers if not handled properly. Destruction or remodeling of buildings constructed prior to about 1980 has the potential to release lead particles, asbestos fibers, and/or other hazardous materials to the air, where they may be inhaled by construction workers and the general public. Hazardous concentrations of lead, which is a State-recognized carcinogen,⁷⁴ may be present on the surface of painted structures on the project site, as well as in shallow soils surrounding the painted structures. Prior to 1978, lead compounds were commonly used in interior and exterior paints. Prior to the 1980s, building materials often contained asbestos fibers, which were used to provide strength and fire resistance. The project proposes to demolish buildings that were constructed from the 1930s through the mid-1960s.

The California Department of Toxic Substances Control (DTSC) is the lead reviewing agency for potential contamination at new, existing, or expanding school sites,⁷⁵ and requires evaluation of asbestos-containing material (ACM) for all schools constructed prior to 1976⁷⁶ and evaluation of lead in paint on the structures and soil near the painted structures for all schools constructed prior to January 1, 1993.^{77,78} An assessment with limited sampling for lead in paint chips and ACM was conducted in 2003, and results are discussed below.⁷⁹

⁷² VEC are defined in ASTM 2600-10 as “the presence or likely presence of COC [chemicals of concern] vapors in the sub-surface of the target property (TP) caused by the release of vapors from contaminated soil or groundwater either on or near the TP as identified by Tier 1 or Tier 2 procedures.”

⁷³ ASTM International, 2010. *Standard Guide for Vapor Encroachment Screening on Properties Involved in Real Estate Transactions*, Method E2600-10.

⁷⁴ California Environmental Protection Agency, 2013. Office of Environmental Health Hazard Assessment. *Safe Drinking Water and Toxic Enforcement Act of 1986, Chemicals Known to the State to Cause Cancer or Reproductive Toxicity*. Website: oehha.ca.gov/prop65/prop65_list/Newlist.html (accessed January 21, 2013). January 13.

⁷⁵ California Code of Regulations. *Education Code, Title 19, Sections 17210 -17224*. Website: www.leginfo.ca.gov/cgi-bin/displaycode?section=edc&group=17001-18000&file=17210-17224 (accessed January 21, 2013).

⁷⁶ California Department of Toxic Substances Control, 2001. *Interim Guidance for Evaluating Lead-Based Paint and Asbestos-Containing Materials at Proposed School Sites*. July 23.

⁷⁷ California Department of Toxic Substances Control, 2006. *Interim Guidance Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers*. June 9 (Revised).

⁷⁸ California Code of Regulations. Title 22, Section 69105, *Sampling for Lead from Lead-Based Paint*. Website: www.dtsc.ca.gov/LawsRegsPolicies/Title22/upload/Ch-51-5-Article-1-Phase-I-Environmental-Site-Assessments-Proposed-New-and-Expanding-School-Sites.pdf (accessed January 21, 2013).

⁷⁹ BFGC Architects, 2004. *Emery Unified School District Facilities Assessment*. March 8.

Asbestos. Asbestos was reported in some drywall, joint compound, building exterior surface material, vinyl floor tiles, and boiler tank insulation, and was assumed to be present in some roofing, vents, and insulation. The removal of hazardous building materials prior to demolition and renovation is governed by federal and State regulations. Section 19827.5 of the California Health and Safety Code requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants. The Code of Federal Regulations National Emissions Standards for Hazardous Air Pollutants (NESHAP) classifies and regulates material containing more than 1 percent asbestos.⁸⁰ The Bay Area Air Quality Management District (BAAQMD) is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified 10 days in advance of any proposed demolition or abatement work. Consistent with requirements of State PRC 21151.8, the District sent letters to BAAQMD and Alameda County Environmental Health requesting a list of facilities within ¼ mile of the project site that emit hazardous emissions or handle hazardous waste.

Lead. Paint with regulated concentrations of lead (>0.06 percent) was reported in multiple areas including the administration offices, kitchen, and art/computer lab building, and was assumed to be present in additional areas where no paint chips were collected. The site is currently paved; however, paint particles and/or chips from lead-based paint may have historically been deposited in shallow soils around the structures due to weathering. Loose and peeling lead-based paint must be disposed of as a State and/or federal hazardous waste if the concentration of lead equals or exceeds applicable waste thresholds. State and federal construction worker health and safety regulations require a supervisor who is certified to identify existing and predictable lead hazards to oversee air monitoring and other protective measures during demolition activities where lead-based paint may be present. Special protective measures and notification to the California Department of Industrial Relations, Division of Occupational Safety and Health (DOSH) are required for highly hazardous construction tasks related to lead, such as manual demolition, abrasive blasting, welding, cutting, or torch burning of structures where lead-based paint is present.⁸¹

Hazardous building materials on the project site may also include fluorescent lighting tubes and ballasts, mercury thermometers, and several other common items that are regulated as “universal wastes” by the State of California. Universal waste must be recycled and managed under the simple, streamlined universal waste handler standards for the State of California.⁸²

Following construction, the project is not expected to generate or use significant quantities of hazardous materials. In addition, on-site handling and storage of hazardous materials would be undertaken according to all applicable local, State, and federal regulations. No upset or accident conditions resulting in the release of hazardous material into the environment can be reasonably

⁸⁰ Code of Federal Regulations. *National Emission Standards for Hazardous Air Pollutants*, 40 CFR, Part 61, Subpart M. Website: www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=7b82ef4327b56ace1a4405f30f480127&rgn=div6&view=text&node=40:9.0.1.1.1.13&idno=40 (accessed January 21, 2013).

⁸¹ California Code of Regulations. Title 8 CCR Section 1532.1, *Lead*. Website: www.dir.ca.gov/title8/1532_1.html (accessed January 21, 2013).

⁸² California Code of Regulations. Title 22 CCR Section 66273, *Standards for Universal Waste Handlers*. Website: www.dtsc.ca.gov/LawsRegsPolicies/Title22/upload/Ch-23-Art-3-Standards-for-Large-Quantity-Handlers-of-Universal-Waste-pdf.pdf (accessed January 21, 2013).

expected to occur during operation of the project and therefore this impact would be less than significant.

Summary

Hazardous materials, including metal and organic compounds, may be present in shallow soils, soil vapor, groundwater, at the project site from current and past land uses onsite and adjacent to the site. Hazardous building materials including lead and asbestos have been reported onsite. Direct contact, inhalation, or ingestion of hazardous materials could potentially cause adverse health effects to construction workers and future site users. Implementation of the following mitigation measures would reduce potentially significant impacts associated with potential hazardous materials in soil, soil vapor, groundwater, and building materials at the project site to a less-than-significant level:

Mitigation Measure HAZ-1: A Preliminary Endangerment Assessment (PEA) shall be completed by a licensed professional in accordance with DTSC requirements to determine if a release of hazardous materials has occurred on the site. The scope of the PEA shall be determined in accordance with a DTSC-approved workplan and the Phase I ESA recommendations. If contaminants are identified in subsurface soil, soil vapor, or groundwater, the PEA shall screen the identified contaminant concentrations relative to applicable environmental screening levels as directed by the DTSC to ensure the protection of construction workers, future site users, and the environment, and also be screened against hazardous waste thresholds to determine soil management options.

If contaminant concentrations are above the applicable environmental screening levels, the PEA shall make recommendations for remedial actions for the protection of public health and the environment. If the PEA recommends remedial action (which may include but not be limited to soil and/or groundwater removal or treatment, a site-specific soil and groundwater management plan, a site-specific health and safety plan, and a risk management plan), the District shall consult with the appropriate local, State, or federal environmental regulatory agencies, including the DTSC, to ensure sufficient minimization of risk to human health and the environment, both during and after construction, posed by soil, soil vapor, or groundwater contamination. The District shall obtain and submit written approval documentation for any remedial action, if required by a local, state, or federal environmental regulatory agency prior to project occupancy.

Mitigation Measure HAZ-2: An updated hazardous building materials survey shall be conducted by a qualified professional for structures proposed for demolition at the project site. All loose and peeling lead-based paint and asbestos shall be abated by a certified contractor(s) in accordance with local, state, and federal requirements. All other hazardous materials, such as “universal wastes,” shall be removed from structures prior to demolition in accordance with DTSC regulations. The findings of the abatement activities shall be documented by a qualified environmental professional(s) and submitted to the DTSC, the Division of State Architect and the City of Emeryville prior to the issuance of construction and demolition permits.

- c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, sub-stances, or waste within one-quarter mile of an existing or proposed school? (Potentially Significant Impact Unless Mitigation Incorporated)*

Emeryville Child Development Center preschool is located approximately 200 feet northwest of the project site, the Escuela Bilingüe International is located approximately 125 feet southeast of the project site, and the Grace Children's Center is located just under one-quarter mile east of the project site. However, implementation of Mitigation Measures HAZ-1 and HAZ-2 would prevent any potential contamination from the project site from migrating off-site during construction and reduce the potential impact to a less-than-significant level.

- 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? (Less-Than-Significant Impact)*

The provisions of Government Code 65962.5 require the DTSC, the State Water Resources Control Board, the California Department of Health Services, and the California Integrated Waste Management Board to submit information pertaining to sites associated with solid waste disposal, hazardous waste disposal, and/or hazardous materials releases to the Secretary of Cal/EPA. The Phase I ESA scope included completion of a review of regulatory databases, including listed hazardous materials release sites compiled pursuant to Government Code 65962.5, and concluded that the project site is listed as a hazardous materials site.⁸³ The project site was listed due to permitted disposal under hazardous waste manifests of laboratory waste chemicals in 2004 and 2011; asbestos-containing waste in 2003 and 2006; and solids with PCB in 2003. These permitted disposal events were related to upgrading school facilities. No unauthorized releases of hazardous substances were reported on the project site. Therefore, the project would not result in an impact to the public or the environment related to a reported release or disposal of hazardous materials related to a listed site.

- 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? (No Impact)*

The project site is located approximately 7.5 miles north of the Oakland International Airport. The project site is not located within any restrictive area in the Oakland International Airport Master Plan.⁸⁴ The proposed project would not result a safety hazard to people working or residing in the area due to the proximity of an airport.

⁸³ BASELINE Environmental Consulting, 2013, op. cit.

⁸⁴ Port of Oakland, 2006. *Oakland International Master Plan, Chapter 4, Potential Development Areas*. Website: www.flyoakland.com/masterplan_oak/support_documents.shtml (accessed January 21, 2013). March.

- f) *For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? (No Impact)*

The proposed project is not within the vicinity of a private airstrip. The proposed project would not result in a safety hazard to people working or residing in the area due to the proximity of a private airstrip.

- g) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (Less-Than-Significant Impact)*

San Pablo Avenue, adjacent and east of the project site, is designated as an evacuation route in the event of a disaster. The City of Emeryville has an informal agreement with AC Transit, located adjacent to and south of the project site, to assist in evacuation in case of an emergency.⁸⁵ The proposed project would not obstruct San Pablo Avenue or reduce the width of this emergency corridor, or obstruct access to or from AC Transit. The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

- h) *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? (No Impact)*

The project site is in an urban area and is not within or adjacent to a wildland fire hazard area. The proposed project would not expose people or structures to a significant impact related to loss, injury or death involving wildland fires.

⁸⁵ Emeryville, City of, 2009. *General Plan, Chapter 6, Conservation, Safety, and Noise*. Website: www.emeryville.org/DocumentView.aspx?DID=1013 (accessed January 21, 2013).

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 level (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 or 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 checked="" type="checkbox"/>	<input 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 of as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) *Violate any water quality standards or waste discharge requirements? (Potentially Significant Unless Mitigation Incorporated)*

The State Board and nine Regional Water Quality Control Boards regulate water quality of surface water and groundwater bodies throughout California. In the Bay Area, including the project site, the San Francisco Bay Regional Water Quality Control Board (Water Board) is responsible for implementing the Water Quality Control Plan (Basin Plan).⁸⁶ The Basin Plan establishes beneficial water uses for waterways and water bodies within the region.

Development of the project may result in an indirect impact to surface water bodies as a result of stormwater runoff contamination. Stormwater runoff from the project site would be captured in storm drains connected to Temescal Creek, which has been channelized in an underground concrete culvert near 53rd Street, in the northern portion of the project site. Stormwater would be conveyed directly from Temescal Creek to San Francisco Bay, which has been designated as an impaired waterway under Section 303(d) of the federal Clean Water Act due to pollutants including pesticides, furan compounds, mercury, polyaromatic hydrocarbons, polychlorinated biphenyls, and selenium. Development projects that discharge to an impaired water body must be consistent with Total Maximum Daily Load (TMDL) action plans designed to identify and eliminate pollutant sources. To date, TMDL plans for San Francisco Bay have been developed for mercury and PCBs.⁸⁷

Construction activities associated with the proposed project would cause disturbance of soil during excavation work, which could adversely impact water quality. Contaminants from construction vehicles and equipment and sediment from soil erosion could increase the pollutant load in runoff being transported to receiving waters during development.

The project would include a parking lot and landscaping, which may potentially be sources of stormwater runoff contaminants. Operation and parking of vehicles has the potential to introduce motor oil, metals, and sediment to runoff. New landscaping and gardens at the project site would generally be expected to improve runoff quality (relative to the existing condition), as long as that landscaping is maintained properly and eroded soils and horticultural chemicals are not allowed to become entrained in the stormwater.

In Emeryville, stormwater permitting is the responsibility of the City's Department of Public Works, which administers the City's stormwater treatment design, management, and discharge control program (Emeryville Municipal Code Title 6, Chapter 13). The City stormwater program includes provisions exceeding federal, state, and Water Board requirements, including mandating site owners to implement "all practicable measures" to reduce stormwater pollutants (Emeryville Municipal Code 6-13.204).

The Alameda Countywide Clean Water Program (ACCWP), a consortium of local municipalities and County agencies, facilitates local compliance with federal, state, and Water Board requirements.

⁸⁶ Regional Water Board, 2011. *Water Quality Control Plan (Basin Plan)*, incorporating all amendments approved by the Office of Administrative Law as of December 31, 2011. Website: www.waterboards.ca.gov/sanfranciscobay/basin_planning.shtml.

⁸⁷ Ibid.

Runoff water quality is regulated by the National Pollutant Discharge Elimination System (NPDES) Program (established through the federal Clean Water Act). The NPDES program objective is to control and reduce pollutant discharges to surface water bodies. Compliance with NPDES permits is mandated by state and federal statutes and regulations. In the Bay Area, the NPDES Program is administered by the Water Board. Any construction activities, including grading, that would result in the disturbance of one acre or more would require compliance with the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity (Construction General Permit). The project site is 7.7 acres in area, and would be subject to the Construction General Permit.

The project would also be subject to the Water Board's Municipal Regional Permit (MRP), implemented in October 2009 by Order R2-2009-0074. Provision C.3 of the MRP addresses new development and redevelopment projects. As project construction would replace more than 10,000 square feet and more than 50 percent of the existing impervious surface at the site, the entire project site, consisting of all existing, new, and/or replaced impervious surfaces, must be included in the treatment system design (i.e., stormwater treatment systems must be designed and sized to treat stormwater runoff from the entire project site). Effective December 1, 2012, all projects creating or replacing more than 2,500 square feet of impervious surfaces must implement additional stormwater control measures, which may include recycling roof runoff, directing roof and pavement runoff to vegetated areas, and/or constructing sidewalks, driveways, and parking lots with permeable surfaces. The proposed project will be subject to these requirements.

Plans for the project site show bioremediation areas and flow-through planters designed to meet these requirements for site buildings and surrounding paved areas.⁸⁸ The bioremediation areas and planters would consist of a minimum of 18 inches of a biotreatment soil mix over 12 inches of permeable rock. These areas have been designed with a sizing factor of 4 percent for each of the buildings and paved areas at the site. While these plans exclude the proposed artificial turf playing field and do not constitute a complete Stormwater Control Plan (SCP), required under the MRP, the proposed site plans appear to be in general compliance with MRP requirements.

A complete SCP must be prepared and submitted for the project site detailing applicable design elements and implementation measures, and providing calculations demonstrating that site design will meet MRP requirements. The project will be required to include Low Impact Development (LID) design measures and a Stormwater Facility Operation and Maintenance Plan must be prepared to ensure that stormwater control measures are inspected, maintained, and funded for the life of the project.

Long-term degradation of runoff water quality from project construction and operation could adversely affect water quality in Temescal Creek and San Francisco Bay. Implementation of the following two mitigation measures would reduce potential construction- and operation-period impacts to water quality to a less-than-significant level.

⁸⁸ Nexus Partners, 2013. *Utility Plans, Emeryville Center of Community Life*, sheets C 7.0 through C 10.0. February 7. These plans do not provide stormwater control details for the athletic field in the northwest corner of the project site, but assume that the athletic field design will include integrated stormwater treatment.

Mitigation Measure HYD-1: Consistent with the requirements of the statewide Construction General Permit, the project applicant shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP) designed to reduce potential adverse impacts to surface water quality through the project construction period. The SWPPP shall be designed to address the following objectives:

1. All pollutants and their sources, including sources of sediment associated with construction, construction site erosion and all other activities associated with construction activity are controlled;
2. Where not otherwise required to be under a Water Board permit, all non-storm water discharges are identified and either eliminated, controlled, or treated; and
3. Site Best Management Practices (BMPs) are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity to the Best Available/Best Conventional Technology (BAT/BCT) standard.

The SWPPP shall be prepared by a Qualified SWPPP Developer. The SWPPP shall include the minimum BMPs required for this type of project (based on final determination of the project's Risk Level status, to be determined as part of the Notice of Intent for coverage under the Construction General Permit). These include: BMPs for erosion and sediment control, site management/housekeeping/waste management, management of non-stormwater discharges, runoff and runoff controls, and BMP inspection/maintenance/repair activities. BMP implementation shall be consistent with the BMP requirements in the most recent version of the California Stormwater Quality Association Stormwater Best Management Handbook-Construction.

The SWPPP shall include a construction site monitoring program that identifies requirements for dry weather visual observations of pollutants at all discharge locations, and as appropriate (depending on the Risk Level), sampling of the site effluent and receiving waters. A Qualified SWPPP Practitioner shall be responsible for implementing the BMPs at the site and performing all required monitoring and inspection/maintenance/repair activities.

Mitigation Measure HYD-2: The project applicant shall fully comply with the Water Board stormwater permit requirements, including Provision C.3 of the MRP. This will require preparation and implementation of a Stormwater Control Plan (SCP) for the project. The SCP would act as the overall program document designed to provide measures to mitigate potential water quality impacts associated with the operation of the proposed project. At a minimum, the SCP for the project shall include:

1. An inventory and accounting of existing and proposed impervious areas.
2. Low Impact Development (LID) design details incorporated into the project. Specific LID design may include, but is not limited to: using pervious pavements and green roofs, dispersing runoff to landscaped areas, and/or routing runoff to rain gardens, cisterns, swales, and other small-scale facilities distributed throughout the site.
3. Measures to address potential stormwater contaminants. These may include measures to cover or control potential sources of stormwater pollutants at the project site.

4. A Draft Stormwater Facility Operation and Maintenance Plan for the project site, which will include periodic inspection and maintenance of the storm drainage system. Persons responsible for performing and funding the requirements of this plan shall be identified. This plan must be finalized prior to issuance of building permits for the project.
 5. All stormwater runoff from impervious surfaces shall be treated with Bay-Friendly Landscaping.⁸⁹
 6. All stormwater treatment landscaping shall be maintained using a Bay-Friendly Landscaping company or staff.
- 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 level (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)?*
(Less-Than-Significant Impact)

The proposed project would connect to the East Bay Municipal Utility District (EBMUD) water system and would not use groundwater during construction or operation. Although no use of groundwater is proposed, some dewatering could potentially be required during construction activities. Groundwater in the project vicinity has historically been encountered at depths as shallow as five feet below the ground surface (bgs),⁹⁰ and therefore could be encountered during installation of utilities or other below-grade features. Should significant excavation occur below this depth at the project site, groundwater encountered in the excavation could require dewatering and disposal. Should groundwater dewatering be required, groundwater management procedures would be included in the SWPPP for the project (Mitigation Measure HYD-1) and permits would be required prior to discharge of the dewatered groundwater to the storm or sanitary sewer.

Any dewatering activity would be expected to be temporary and affect only the uppermost water-bearing zone, not the deeper regional aquifer. Therefore, the proposed project would not deplete groundwater supplies or interfere substantially with groundwater recharge. Once dewatering is completed, groundwater would be expected to recharge completely. Groundwater recharge may also be supplemented by increased stormwater infiltration resulting from an increase of pervious surfaces created in accordance with Mitigation Measure HYD-2, implementing Provision C.3 of the MRP. Therefore, the proposed project would have a less-than-significant impact on groundwater supplies and groundwater recharge.

⁸⁹ The Bay-Friendly Landscaping and Gardening Coalition is a Bay Area non-profit organization that encourages practices designed to minimize the impact of landscaping on natural resources. The organization provides credentials in Bay-Friendly Landscaping to landscape professionals and has developed scorecards to evaluate landscape design. In order for a new civic, commercial, or multifamily project to be rated as Bay-Friendly, the landscaping must incorporate nine required practices and score at least 60 points on the Bay-Friendly Scorecard for Civic and Commercial Landscapes. [Bay-Friendly Landscaping and Gardening Coalition, 2011. *Rating Manual for New Civic, Commercial and Multifamily Landscapes, Version 1.1*, July. Website: www.bayfriendlycoalition.org/download/R-Manual_CCMF.pdf (accessed June 4, 2013)].

⁹⁰ BAGG Engineers, 2012. *Geologic and Seismic Hazards Assessment and Geotechnical Engineering Investigation, Proposed Emeryville Center of Community Life, 4727 San Pablo Avenue, Emeryville, California*. September 21.

- 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? (**Less-Than-Significant Impact**)*

The project may potentially result in an alteration in drainage patterns due to changes in the amount and locations of impervious surfaces at the project site. Although buildings and other paved areas under the proposed project would be generally similar in area and location to existing conditions, replacement of the existing natural turf athletic field with an artificial surface would result in changes in the area and location of impervious surfaces. However, compliance with construction- and operation-phase stormwater requirements (Mitigation Measures HYD-1 and HYD-2) would ensure that development of the project would not result in substantial erosion or siltation on- or off-site. No additional mitigation is required.

- d) *Substantially alter the existing drainage pattern of the site or 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? (**Potentially Significant Unless Mitigation Incorporated**)*

Implementation of operational phase stormwater requirements (Mitigation Measure HYD-2) would ensure that runoff from the project site is not substantially increased, and therefore would not result in flooding due to an increase in the rate and amount of surface drainage.

Development of the project has the potential to affect Temescal Creek, which is the primary drainage outfall within the City of Emeryville. Temescal Creek is located in an underground concrete culvert in the project vicinity, crossing the northeast corner of the project site and running along the south side of 53rd Street. The culvert was constructed in 1963 in order to eliminate flooding and erosion within the Creek drainage area. Any damage to the Creek culvert may therefore result in potential flooding hazards.

The project geotechnical investigation noted that the Temescal Creek culvert, located approximately 11 feet below ground surface (bgs), was most likely not designed to support loads from overlying buildings, and recommended that no building be located within the easement area of the culvert.⁹¹ An earlier, preliminary geotechnical investigation recommended that the culvert either be relocated off the project site or that buildings within the creek easement area be designed to prevent any additional loads on the culvert.⁹²

Implementation of the following mitigation measure would ensure that development does not result in flooding due to damage of the Temescal Creek culvert from additional loads:

⁹¹ Ibid.

⁹² BAGG Engineers, 2009. *Preliminary Geotechnical Engineering Investigation and Geologic Hazards Evaluation Emeryville Center of Community Life San Pablo Avenue Between 47th Street and 53rd Street Emeryville, California*. September.

Mitigation Measure HYD-3: Prior to issuance of construction permits for the project site, any building foundations located within the easement area of the Temescal Creek underground culvert must be designed in accordance with written recommendations from a Certified Engineering Geologist or Professional Engineer in order to eliminate any significant additional horizontal or vertical loads on the existing concrete culvert.

- 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? (Less-Than-Significant Impact)*

An evaluation of existing site drainage conditions at the project site concluded that the site drainage system functions adequately with routine maintenance and cleaning, and that the City storm drainage system had adequate capacity.⁹³ Implementation of a required SWPPP (Mitigation Measure HYD-1) and a SCP (Mitigation Measure HYD-2) would be expected to reduce potential pollutants and result in lower flows to the storm water drainage system than under current conditions. No additional mitigation measures are required.

- f) *Otherwise substantially degrade water quality? (Less-Than-Significant Impact)*

Construction and operation of the proposed project would not result in any substantial changes to on-site water quality, with the exception of potential impacts associated with stormwater runoff. Implementation of Mitigation Measures HYD-1 and HYD-2 would reduce potential impacts to water quality to a less-than-significant level. No additional mitigation measures are required.

- 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? (No Impact)*

The proposed project does not include a housing component.

- h) *Place within a 100-year flood hazard area structures which would impede or redirect flood flows? (No Impact)*

According to the Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA), the project site is designated as Zone X, areas outside the 100-year and 500-year flood hazard zones.⁹⁴ Therefore, development of the proposed project would not place any structures within a 100-year flood hazard area.

- i) *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam? (Less-Than-Significant Impact)*

As noted in Section IX.h, above, the project site is not located in a mapped 100-year or 500-year flood hazard zone.

⁹³ Zumwalt Engineering Group, 2004. *Existing Site Condition Assessment, Emery High School, Emery Unified School District Facilities Assessment*. March.

⁹⁴ Emeryville, City of, 2009. *City General Plan*. Conservation, Safety, and Noise Chapter, Figure 6-7. October 9.

The nearest dam to the project site is Temescal Dam, located approximately 3 miles east of the project site. The project site is located within the mapped inundation hazard zone for the dam, and could be flooded in the event of a dam failure.⁹⁵

In California, the Department of Water Resources, Division of Safety of Dams (DSOD) has the responsibility of protecting people from loss of life and property caused by dam failure.⁹⁶ The DSOD accomplishes this goal by conducting annual inspections to ensure proper operation and maintenance of dams. Temescal Dam is regularly inspected, and was described in the 2009 City General Plan as having no concerns for stability, due to its wide cross section and buttressing from State Highway 24.⁹⁷ Regular inspections performed by DSOD would ensure that any safety concerns associated with Temescal Dam would be identified early and corrected promptly and reduce the potential flooding impact from dam failure to a less-than-significant level.

According to the San Francisco Bay Conservation and Development Commission (BCDC), a 16-inch sea level rise is projected the San Francisco Bay by mid-century, during the operational lifetime of the proposed project.⁹⁸ The sea level rise could affect coastal areas including shores, marshes, and wetlands, and increase the salinity in rivers. However, according to mapping performed by BCDC, the project site would not be vulnerable to flooding associated with sea level rise due to its elevation of approximately 40 feet above mean sea level and location approximately 3,500 feet east of San Francisco Bay.⁹⁹

As no significant risk of flooding due to mapped flood hazards, dam inundation, or sea level rise have been identified for the project site, this impact is less than significant.

j) Inundation by seiche, tsunami, or mudflow? (No Impact)

Seiches are standing waves in rivers, reservoirs, ponds, and lakes caused by an earthquake.¹⁰⁰ Areas immediately adjacent to a water body are most vulnerable to flooding by a seiche because of their proximity. The project site is located approximately 3,500 feet east of San Francisco Bay, which is the nearest surface water body. Based on distance from potential sources of seiches, there is no potential flooding impact associated with a seiche at the project site.

⁹⁵ Ibid.

⁹⁶ Division of Safety of Dams, 2013. California Department of Water Resources. *About DSOD*. Website: www.water.ca.gov/damsafety/aboutdamsafety/index.cfm (accessed January 13, 2013).

⁹⁷ Emeryville, City of, 2009. *City General Plan*. Conservation, Safety, and Noise Chapter. October 9.

⁹⁸ San Francisco Bay Conservation and Development Commission, 2013. *Climate Change Planning Program*. Website: www.bcdc.ca.gov/planning/climate_change/climate_change.shtml (accessed January 15, 2013).

⁹⁹ San Francisco Bay Conservation and Development Commission, 2009. *16-Inch Sea-Level Rise by Mid-Century, Central Bay East Shore*. Website: www.bcdc.ca.gov/planning/climate_change/maps/16/cbay.pdf (accessed January 15, 2013).

¹⁰⁰ U.S. Geological Survey, 2013. *Earthquake Hazards Program, Seismic Seiche*. Website: earthquake.usgs.gov/learn/topics/seiche.php (accessed January 15, 2013).

Tsunamis are waves created by sudden uplift of the sea floor during an earthquake.¹⁰¹ According to tsunami inundation maps developed by the California Geological Society (CGS), a potential tsunami could inundate areas adjacent to San Francisco Bay, including coastal areas of Emeryville.¹⁰² However since the project site is located more than 1,000 feet east of the mapped tsunami inundation areas,¹⁰³ the project site would not be affected by flooding caused by a tsunami.

Mudflows are geologic hazards associated with mudslides, debris avalanches, or debris flows from hillside or wildfire areas.¹⁰⁴ As discussed in Section VI.a, Geology and Soils, and Section VIII.h, Hazards and Hazardous Materials, the project site is not located in or adjacent to an area prone to landslide or wildland fire. Therefore, there is no potential impact associated with mudflow at the project site.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND 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 checked="" type="checkbox"/>	<input 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"/>

a) Physically divide an established community? (No Impact)

The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. For instance, the construction of an interstate highway through an existing

¹⁰¹ Ibid.

¹⁰² California Geological Society, 2009. *Tsunami Inundation Map for Emergency Planning, State of California, County of Alameda, Oakland West Quadrangle*. July 31.

¹⁰³ Ibid.

¹⁰⁴ California Geological Society, 2013. *Note 33 – Hazards From Mudslides...Debris Avalanches and Debris Flows in Hillside and Wildfire Areas*. Website: www.consrv.ca.gov/cgs/information/publications/cgs_notes/note_33/Pages/Index.aspx (accessed January 15, 2013).

community may constrain travel from one side of the community to another; similarly, such construction may also impair travel to areas outside of the community.

The proposed project would not change access patterns around the project site or otherwise restrict traffic flow on 47th and 53rd Street, San Pablo Avenue, or other streets in the vicinity of the project site. The proposed turnaround island on 53rd Street would facilitate cars turning around to access the school drop-off zone. Emergency vehicle access would be provided through 53rd and 47th Streets. Additionally, pedestrian access via sidewalks along 47th Street, San Pablo Avenue, and 53rd Street, would remain unchanged. The proposed project would serve to better connect existing uses on the project site and would not divide an established community. Therefore, no impact would occur.

- 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? (Less-than-Significant Impact)*

The project site is designated Public in the City's General Plan Land Use Diagram, and the eastern portion of the project site is within the San Pablo Avenue Urban Design Plan and Neighborhood Retail Overlay designation. The San Pablo Avenue Urban Design Plan is a phased strategy for the development of San Pablo Avenue into an active, attractive, neighborhood retail center.¹⁰⁵ The project site is within the Public Use (P-U) District of the City's Zoning Ordinance. The proposed project would be consistent with the goals and policies of the General Plan and the City's Zoning Ordinance, as described in detail below.

General Plan. The proposed project would be consistent with the Public designation in the City's General Plan. The appropriate uses for this designation include public and quasi-public uses, such as government offices; fire and police facilities; schools; community services; transit stations and ancillary facilities. In addition, the General Plan identifies the project site as an area of potential change and supports the development of the proposed project (Policy PP-P-17), describing it as a major public facility investment and a place that would serve as the focal point for community gathering and social services in the City. The public use characteristics of the project would be consistent with the Public land use designation.

Zoning Ordinance. The project site is within the Public Use (P-U) District and is classified as a Community Education use in the City's Zoning Ordinance. The Community Education use type refers to educational services provided by public, private, or parochial institutions.¹⁰⁶ The maximum Floor Area Ratio (FAR) for uses in the P-U District is 1.2, and buildings have a height limit of 30 feet. However, a bonus height of up to 55 feet can be constructed at the project site if applicants demonstrate that the project meets community goals. The approximate FAR for the proposed project would be 0.38 FAR for Phase 1 and 0.47 FAR for Phase 2 (covered parking not included in Phase 2 FAR). The project's maximum building height would be 48 feet, 18 feet higher than the base height allowed at this site, but within the 55 feet that can be built under the "bonus height" scenario.

¹⁰⁵ Emeryville, City of, 2009, op. cit.

¹⁰⁶ Emeryville, City of, 1988. Emeryville Municipal Code Section 9-4.4.204.

- c) *Conflict with any applicable habitat conservation plan or natural community conservation plan?*
(No Impact)

The project site is not located within an area that is included in a habitat conservation plan or natural community conservation plan.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. 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"/>

- 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?* **(No Impact)**

The proposed project is located within an urban area on a developed site. No known mineral resources are present at the project site. Implementation of the proposed project would not result in the loss of availability of a known mineral resource of value to the region or residents of the State, and no impact would occur.

- 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?* **(No Impact)**

Refer to Section XI.a. The proposed project would not result in the loss of availability of any known locally-important mineral resource recovery site.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XII.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 or 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 ground borne vibration or ground borne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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?	<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 expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

a) *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Potentially Significant Unless Mitigation Incorporated)*

The City of Emeryville sets noise standards in the Emeryville General Plan and Noise Ordinance of the Municipal Code. The City identifies exterior noise thresholds up to 65 dBA L_{dn} as normally acceptable for school and library land uses, while exterior noise levels between 65 dBA and 70 dBA L_{dn} are considered conditionally acceptable for such land uses.

The City of Emeryville regulates construction noise in the City's Municipal Code Section 5-13.05, Construction Noise Limits ordinance. This ordinance limits construction and demolition activities to 7:00 a.m. to 6:00 p.m. on weekdays; pile driving and extremely loud activities are limited to weekdays from 8:00 a.m. to 5:00 p.m. Construction and demolition activities are not permitted on weekends. Preconstruction noise, including but not limited to loading and unloading, deliveries, truck idling, yelling and radios, is also limited to the general construction noise hours.

The Noise Ordinance Section 5-13.04 prohibits any person from making or permitting noise so as to disturb or cause discomfort to any reasonable person of normal sensitivity located at the property line of the property from which such noise is emanating before 7:00 a.m. or after 9:00 p.m. Monday through Friday, or before 8:00 a.m. or after 9:00 p.m. on Saturday or Sunday. Prohibited noises include, but are not limited to: loud or raucous yelling or shouting, whistling, or singing; band or orchestral concert, rehearsals, or practices; and electronically or acoustically amplified sound.

Long-Term Noise Impacts

Traffic Noise Impacts. Implementation of the proposed project would result in an increase in vehicle trips in the vicinity of the project site and an increase in traffic noise along road segments in the project vicinity. Table 14 shows traffic noise levels for roadway segments in the project site vicinity under existing no project and plus project conditions, and under cumulative no project and plus project conditions. These 24-hour average weighted noise levels (L_{dn}) are based on Average Daily Trips as measured at 50 feet from the centerline of the outermost travel lane of the indicated roadway segments. As shown in the table, the project would not generate enough traffic to create a perceptible change (at least 3 dBA) in traffic noise in the project vicinity; nor would it result in traffic noise levels that would exceed the City's normally acceptable noise levels for the project's indicated land uses (school or library land uses). Therefore, project related traffic noise impacts would be less-than-significant.

Table 14: Modeled Traffic Noise Levels at 50 feet from Centerline of Outermost Travel Lane, dBA

Roadway Segment	Existing (L_{dn})	Existing + Project (L_{dn})	Difference Between Existing and Existing + Project	Significant Project Contribution to Cumulative Impact?	Cumulative No Project (L_{dn})	Cumulative + Project (L_{dn})	Difference Between Cumulative and Cumulative + Project	Significant Project Contribution to Cumulative Impact?
53 rd Street – Hollis Street to Boyer Street	53.3	53.5	0.2	No	55.8	55.9	0.1	No
54 th Street – Boyer Street to San Pablo Avenue	53.9	53.9	0.0	No	56.1	56.2	0.1	No
San Pablo Avenue – 53 rd Street to 47 th Street	64.3	64.5	0.2	No	65.3	65.5	0.2	No
47 th Street – Doyle Street to San Pablo Avenue	44.5	44.5	0.0	No	44.5	45.0	0.5	No

Source: LSA Associates, Inc., June 2010.

Railroad Noise Impacts. The western project property line is located approximately 0.5 miles (2,700 feet) east of the centerline of the Union Pacific railroad line. The nearest at-grade railroad crossing is located on Addison Street, approximately 1.1 miles (5,750 feet) northwest of the project site. The nearest Amtrak train station is located approximately 0.6 miles (3,350 feet) northwest of the project site. According to Figure 6-10 of the City's General Plan Noise Element, the western portion of the project site lies within the 60 dBA L_{dn} future projected noise contour for these railroad noise sources. These noise levels are considered normally acceptable for school land uses. Therefore, impacts to the proposed project from railroad noise sources would be less than significant.

Stationary Noise Impacts. Implementation of the proposed project could result in a substantial increase in ambient noise levels in the vicinity of the project site with the expected increased use of the proposed outdoor recreation facilities, including the installation and use of a PA system.

As noted previously, the Noise Ordinance Section 5-13.04 prohibits any person from making or permitting noise so as to disturb or cause discomfort to any reasonable person of normal sensitivity located at the property line of the property from which such noise is emanating before 7:00 a.m. or after 9:00 p.m. Monday through Friday, or before 8:00 a.m. or after 9:00 p.m. on Saturday or Sunday. Prohibited noises include, but are not limited to: loud or raucous yelling or shouting, whistling, or singing; band or orchestral concert, rehearsals, or practices; and electronically or acoustically amplified sound.

As noted previously, future uses located on the project site would include both school and public uses. While it is anticipated that there would be approximately 780 students at the ECCL facility once it is completed, the school structures would be built to accommodate a maximum of 1,120 students and 90 teachers/staff. During school hours, public access to the portions of the project site used by the K-12 grade students would be limited. Evening use of the project's outdoor sports facilities by the school would be similar to what it is now, whereas community use of the facilities would increase. Use of the outdoor facilities would include school sports events from 4:00 p.m. to 6:00 p.m., and community youth and adult sports events from 6:00 p.m. to 10:00 p.m. Monday through Friday. Weekend use would include school lacrosse and track and field events and community youth soccer, track, and pee-wee baseball events from 10:00 a.m. to 3:00 p.m. on Saturdays. Adult softball league events would occur from 6:00 p.m. to 8:00 p.m. on Saturdays, while adult outdoor volleyball sporting events would occur on Sundays from 6:00 p.m. to 10:00 p.m. The existing and projected hours of use of the outdoor sporting facilities are shown in Tables 4 and 5 of the project description discussion.

Noise sources associated with use of the outdoor sports facilities would include noise from participants, spectators, and use of the proposed PA system. It should be noted that the outdoor facilities (the track, baseball field, and multi-purpose field) are in approximately the same location as they were under existing conditions. As shown in Tables 4 and 5 of the project description, spectator use and total number of sporting events will increase over existing conditions. However, the proposed use's worst case scenario of attendance of 225 spectators during a single time period would occur during spring sporting events between the hours of 4:00 and 6:00 p.m. on weekday afternoons. The maximum anticipated attendance under project conditions during a use-period time slot would only represent an increase of 25 spectators over the existing use's worst case scenario of 200 spectators at community youth football events. A characteristic of sound is that a doubling of a noise source is required in order to result in a perceptible increase (3 dBA or greater) in outdoor ambient noise levels. Therefore, because the project would not double spectator attendance it would not result in a perceptible increase in ambient noise levels during any single use event time slot compared to noise levels existing without the project. Similarly it can be shown that daily average total use will not result in a substantial increase with implementation of the proposed project compared to existing average uses of the project site.

While spectator and participant noise would not result in a substantial increase in ambient noise levels, single event operational noise associated with use of the outside sports facilities could still potentially result in evening and night time disturbance of noise sensitive receptors in the project vicinity. To alleviate the potential for this type of disturbance, the proposed project will include the construction of a 12-foot-high sound wall along the western property line extending from the edge of

the property bordering 53rd Street to abut the existing wall bordering the outdoor pool facility. This sound wall would be expected to provide a minimum of 8 dBA in reduction of noise from activities at the outdoor recreational facilities for the residential land uses west of the project site. Therefore, with implementation of this sound wall, potential single event operational noise levels associated with use of the outside sports facilities would be reduced to levels similar to or below existing operational noise levels, and would result in a less-than-significant impact on adjacent noise sensitive receptors.

At the time of this analysis, the final details of the PA system design and speaker location have not been determined; however, final details of the PA system will comply with Mitigation Measures NOISE-1a through NOISE-1d, described below. The proposed PA system would primarily be used for school team events on weekday evenings from 4:00 p.m. to 6:00 p.m. and on Saturdays from 12:00 p.m. to 2:00 p.m. With these proposed use hours, use of the PA system would not result in violation of the City's Noise Ordinance Section 5-13.04. As noted previously, a 12 foot high sound wall is proposed to be constructed as part of the project along the western property line, and is expected to provide a minimum of 8 dBA in reduction of noise from activities on the outdoor recreational facilities for the residential land uses west of the project site. However, even with implementation of this wall, use of the proposed PA system could potentially result in substantial temporary increases in ambient noise levels at sensitive receptors in the project vicinity. In order to reduce this potential impact to less-than-significant, the speakers must be mounted and directionally shielded to direct sound away from the residential properties west of the project site (i.e., directed to the east and downward). In addition, the sound system shall be required to include a processor to control the maximum output that the speakers can reach; so that even if the announcer shouts into the microphone, the levels will be controlled to the maximum allowable level programmed into the processor. The maximum output noise level shall be set to not exceed 75 dBA L_{max} as measured at any point on the receiving property of an off-site noise sensitive land use. This noise level limit would prevent the use of the PA system from resulting in a substantial increase in interior noise levels at adjoining sensitive land uses. In addition, use of the system shall be strictly limited to the hours of 7:00 a.m. to 9:00 p.m. Monday through Friday, or 8:00 a.m. to 9:00 p.m. on Saturday or Sunday, to comply with the requirements of the Noise Ordinance Section 5-13.04. Such restrictions would ensure that operational noise levels would not result in a substantial increase in noise levels in the project vicinity nor result in disturbance of or causing discomfort to any reasonable person of normal sensitivity residing adjacent to project site.

To reduce these operational noise impacts, the following multi-part mitigation measure shall be implemented:

Mitigation Measure NOISE-1a: The speakers of the proposed PA system shall be located and shielded to directionally focus the emitted sound away from the residential land uses located west of the project site.

Mitigation Measure NOISE-1b: The PA system shall include a processor to control the maximum output that the speakers can reach; so that even if the announcer shouts into the microphone, the levels will be controlled to the maximum allowable level programmed into the processor. The maximum output noise level shall be set to not exceed 75 dBA L_{max} as measured at any point on the receiving property of an off-site noise sensitive land use.

Mitigation Measure NOISE-1c: The hours of operation of the PA system shall be restricted in order to not cause additional impacts related to sleep disturbance of nearby residential property

owners and to comply with the City's Noise Ordinance Section 5-13.04. The hours from 7:00 a.m. to 9:00 p.m. Monday through Friday, or 8:00 a.m. to 9:00 p.m. on Saturday or Sunday shall be considered permissible hours of operation, outside of which use of the system would be prohibited in all but the most extraordinary of circumstances.

Mitigation Measure NOISE-1d: The project applicant shall provide to the City the final design requirements of the PA system demonstrating compliance with Mitigation Measures NOISE-1a, 1b, and 1c.

Implementation of multi-part Mitigation Measure NOISE-1 would reduce operational noise levels so as to not result in a substantial increase in ambient noise levels and to not exceed the requirements of the City's Noise Ordinance Section 5-13.04; and therefore, this impact would be less-than-significant.

Short-Term Noise Impacts

Project implementation would include demolition of all existing structures on the project site, with the exception of the gymnasium, swimming pool, and adjacent locker and support spaces. The construction of the ECCL project is proposed in two phases. Phase 1 is anticipated to begin in 2013, and a starting date for Phase 2 has not yet been identified.

Phase 1 would include construction of the Community Multi-Purpose Room, the Administration and Community Services Building, the Community Library/Student Library/9 – 12 Grade Classrooms/Science Lab Building, and the School Multi-Purpose/K-8 Grade Building. Phase 1 would also include renovations to the existing gymnasium building, including the construction of girls and boys locker rooms on the eastern side of the gymnasium, a dance/aerobics area, and community locker rooms constructed on the western side. The outdoor sports field would be reconfigured to include installation of a new track, spectator bleachers, night lighting, and a public address (PA) system. A new full outdoor basketball court would be constructed immediately east of the gymnasium. Elementary school play areas would also be installed on the project site. A play area would be located west of the school multi-purpose building. A learning garden would be located north of the K-8 Building. A 9-12 grade "social space" would be located east of the basketball courts.

Phase 2 would include construction of a school gym, the teaching theater and additional classrooms. Reallocation of uses within ECCL would occur with construction of Phase 2 (as shown in Figure 5). The structures would be located on the area that includes basketball courts and over the parking lot, as shown in the Phase 1 Conceptual Site Plan (Figure 4).

Project-related construction activities could expose nearby noise sensitive receptors to noise levels in excess of established noise standards of the Noise Ordinance of the Municipal Code.

Two types of short-term noise impacts would occur during remediation and project construction. The first type would result from the increase in traffic flow on local streets, associated with the transport of workers, equipment, and materials to and from the project site. Heavy equipment for remediation and construction is expected to be moved to the site and remain for the duration of the demolition and construction phases. There would be short-term intermittent high noise levels associated with trucks arriving at and departing from the project site, especially during the demolition and site preparation phase of construction.

The second type of short-term noise impact is related to the noise generated by heavy equipment operating on the project site. Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 14 lists typical construction equipment noise levels recommended for noise impact assessments, based on a distance of 50 feet between the equipment and a noise receptor.

Demolition and construction activities at the project site are expected to require the use of earthmovers such as bulldozers and scrapers, loaders and graders, water trucks, and haul trucks. As shown in Table 14, the typical maximum noise level generated by each bulldozer on the project site is assumed to be 85 dBA L_{max} at 50 feet from the operating earthmover. The maximum noise level generated by hydraulic backhoes is approximately 86 dBA L_{max} at 50 feet. The maximum noise level generated by haul trucks is approximately 88 dBA L_{max} at 50 feet from these vehicles operating at full power. The use of pile drivers is not expected during construction of this project.

Each doubling of the sound sources with equal strength would increase the noise level by 3 dBA. Assuming each piece of construction equipment operates at some distance apart from the other equipment, the worst-case combined noise level at the nearest uses to the site during this phase of construction would be 91 dBA L_{max} at 50 feet from the operating equipment. The nearest existing sensitive receivers in the vicinity of the project site include the residences located west of the project site on Emery Bay Drive, whose rear property boundaries border the project site. The closest onsite construction activity requiring the use of heavy construction equipment would be the demolition of the project buildings on the eastside of the gymnasium, approximately 300 feet from the western property boundary. At this distance, construction-related noise levels from the use of heavy construction equipment would be expected to attenuate to approximately 76 dBA L_{max} .

Due to the short-term nature of this construction-related noise impact, it would be considered a less-than-significant impact if each of the noise-reducing measures, described under Mitigation Measure NOISE-2, is implemented.

Table 15: Typical Construction Equipment Maximum Noise Levels, L_{max}

Type of Equipment	Range of Maximum Sound Levels (dBA at 50 feet)	Suggested Maximum Sound Levels for Analysis (dBA at 50 feet)
Pile Drivers	81 to 96	93
Rock Drills	83 to 99	96
Jackhammers	75 to 85	82
Pneumatic Tools	78 to 88	85
Pumps	74 to 84	80
Scrapers	83 to 91	87
Haul Trucks	83 to 94	88
Cranes	79 to 86	82
Portable Generators	71 to 87	80
Rollers	75 to 82	80
Dozers	77 to 90	85
Tractors	77 to 82	80
Front-End Loaders	77 to 90	86
Hydraulic Backhoe	81 to 90	86
Hydraulic Excavators	81 to 90	86
Graders	79 to 89	86
Air Compressors	76 to 89	86
Trucks	81 to 87	86

Source: Bolt, Beranek & Newman, 1987. *Noise Control for Buildings and Manufacturing Plants*.

Mitigation Measure NOISE-2a: The project contractor shall ensure that, unless the City Council grants a waiver allowing different construction hours pursuant to Section 5-13.06 of the Emeryville Municipal Code, construction hours shall be limited to 7:00 a.m. to 6:00 p.m., Monday through Friday. In an urgent situation, the City Manager, Planning and Building Director, or Public Works Director may approve weekend or night work pursuant to Section 5-13.05(e) of the Emeryville Municipal Code.

Mitigation Measure NOISE-2b: The construction contractor shall ensure that all heavy construction equipment used on the project shall be maintained in good operating condition, with all internal combustion, engine-driven equipment equipped with intake and exhaust mufflers that are in good condition as deemed to be practically feasible. All non-impact tools shall be operated so as to meet a maximum noise level of no more than 85 dB when measured at a distance of 50 feet. Where feasible, the project contractor shall place all stationary construction equipment so that emitted noise is directed away from the closest off-site sensitive receptors. The construction contractor shall locate on-site equipment staging areas so as to maximize the distance between construction-related noise sources and noise-sensitive receptors nearest the project site during construction.

Mitigation Measure NOISE-2c: The project applicant shall designate a “Noise Disturbance Coordinator” who shall be responsible for responding to any complaints about construction noise. The Noise Disturbance Coordinator shall determine the cause of the noise complaint and shall require that reasonable measures warranted to correct the problem be implemented. The applicant shall conspicuously post a telephone number for the Noise Disturbance Coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.

Implementation of multi-part Mitigation Measure NOISE-2 would reduce temporary construction noise impacts to less-than-significant.

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels? (Potentially Significant Unless Mitigation Incorporated)

Refer to Section XII.a. No permanent noise sources that would expose persons to excessive ground-borne vibration or noise levels would be located within the project site. Construction activities associated with implementation of the proposed project are not expected to result in excessive groundborne vibration or groundborne noise levels with implementation of all components of multi-part Mitigation Measure NOISE-2. Therefore, implementation of the proposed project would not permanently expose persons within or around the project site to excessive groundborne vibration or noise.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? (Less-Than-Significant Impact)

Refer to Section XII.a and XII.d. Implementation of the proposed project would result in increases in traffic noise levels on local roadways in the project vicinity ranging up to 0.2 dBA L_{dn} under existing plus project conditions and up to 0.5 dBA L_{dn} under cumulative plus project conditions. Audible increases in noise levels generally refer to a change of 3 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Therefore, these project related traffic noise increases would not be substantial and would be considered less-than-significant.

Implementation of the project would result in increased operational noise levels resulting from the noise sources (such as the proposed PA system) and from increased attendance at sporting events. However, as shown in the discussion in Section XII.a, conscientious implementation of Mitigation Measure NOISE-1 would reduce operational noise impacts from stationary sources to less-than-significant.

Therefore, the project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project, and this impact would be less-than-significant with implementation of the specified mitigation.

- d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? (Potentially Significant Unless Mitigation Incorporated)*

Refer to Section XII.a. Project-related construction activities could result in high intermittent noise levels of up to 76 dBA L_{max} at nearby land uses. This noise would result from the temporary use of construction equipment. Implementation of Mitigation Measure NOISE-2, including permissible hours of construction, would reduce potential impacts associated with construction-related noise to a less-than-significant level.

As previously described, use of the proposed PA system could potentially result in a substantial temporary or periodic increase in ambient noise levels at sensitive receptors in the project vicinity. However, as described in the impact discussion of Section XI.a, implementation of multi-part Mitigation Measure NOISE-1 would reduce this potential noise impact to less-than-significant.

- 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? (No Impact)*

The project site is located approximately 7.5 miles north of Oakland International Airport (the nearest airport) and 15 miles northeast of San Francisco International Airport. Due to the distance from these two airports and the orientation of the runways and flight patterns, the project site does not lie within the 55 dBA CNEL noise contours of any airport. Therefore, the impact of noise levels from aviation sources would be less than significant.

- 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? (No Impact)*

The project site is not located in the vicinity of a private airstrip, and no impact would occur.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) 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"/>

a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? (No Impact)*

The proposed project does not include housing, and therefore would not directly induce population growth on the project site. In addition, the project would not result in the extension of infrastructure or roadways within the site's vicinity. The proposed project would not directly or indirectly induce substantial population growth on the project site or in the surrounding area.

b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? (No Impact)*

The project site does not include residential units, and no housing is located on the project site. Construction of the proposed project would not displace any housing.

c) *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? (No Impact)*

The project site does not include residential units, and implementation of the proposed project would not remove existing housing or displace residents.

Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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XIV. PUBLIC SERVICES.

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental 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:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental 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: Fire protection, police protection, schools, parks, other public facilities? (Less-than-Significant Impact)*

The following section addresses the project's potential effects on: fire services, police service, schools, parks, and other public facilities. Creation of the need for new public services is not an environmental impact in and of itself. However, impacts to public services would occur if the project increased demand for services such that new or expanded facilities would be required, and these new facilities would themselves cause environmental impacts.

Fire Protection. As of July 2012, the City of Emeryville has contracted with the Alameda County Fire Department (ACFD) to provide fire protection and emergency medical services. The ACFD also provides services to unincorporated areas of Alameda County in addition to the cities of Dublin, Newark, San Leandro, Union City, and the Lawrence Berkeley National Laboratory and Lawrence Livermore National Laboratory.¹⁰⁷ The ACFD operates 30 fire stations including 27 engine

¹⁰⁷ Emeryville, City of, 2012. Fire Services. Website: www.ci.emeryville.ca.us/index.aspx?NID=120 (accessed September 18).

companies, seven ladder truck companies, and one heavy rescue vehicle.¹⁰⁸ Currently, the ACFD has 112 sworn firefighters assigned on a daily basis.¹⁰⁹ In the City of Emeryville, ACFD has six firefighters assigned to two engine companies on a daily basis, and each engine company has at least one paramedic assigned at all times.¹¹⁰

Primary service to the project site would be provided by Alameda County Fire Station 35, located at 6303 Hollis Street, approximately 1 mile northwest of the project site. Station 35 is staffed by three firefighters, including a paramedic. ACFD provides a Type I Hazardous Materials Team response to the City of Emeryville. The closest ACFD hazardous materials response unit is located at the Lawrence Berkeley Laboratory, with additional personnel and response units available from the City of San Leandro, Castro Valley and Lawrence Livermore National Laboratory. Additionally, ACFD has mutual aid agreements with the cities of Oakland and Berkeley for hazardous materials response. ACFD has an automatic aid agreement with the City of Oakland to provide an engine, truck and battalion chief response. The Oakland Fire Department truck has a 100-foot aerial ladder, use of which depends on building height and setbacks to the street. ACFD also has a rescue company capable of high angle rescue for taller buildings.¹¹¹

During the 2010-2011 fiscal year, the ACFD responded to 31,887 calls for service – 952 calls for fires and 23,038 medical calls; the remainder included calls regarding hazardous materials, good intent, and false alarms.¹¹² For single unit incidents, the response time for emergency medical service calls is within seven minutes or less from the time the company is first dispatched 90 percent of the time.¹¹³

Development of the proposed project would increase the daytime population on the site, incrementally increasing the demand for emergency fire services. However, the project site is currently developed and served by the ACFD. Project buildings would be up to 48 feet tall and would be one to two stories higher than most surrounding structures; however, the ACFD has the appropriate equipment to access taller buildings. The potential increase is not expected to be substantial and would not adversely affect existing response times to the site or within the City.

The proposed project would be required to comply with all applicable codes for fire safety and emergency access. Redevelopment of the site with new and upgraded facilities may actually reduce the demands on firefighting services as new buildings would be built to comply with the most current Fire Code provisions.

¹⁰⁸ Alameda County Fire Department, 2012. General Information. Website: www.co.alameda.ca.us/fire/about/index.htm (accessed September 18).

¹⁰⁹ Rocha, David, 2013. Deputy Fire Chief, Alameda County Fire Department. Personal communication with LSA Associates, Inc. January 23.

¹¹⁰ Ibid.

¹¹¹ Ibid.

¹¹² Alameda County Fire Department, 2012. Response and Activity Statistics. Website: www.co.alameda.ca.us/fire/about/statistics.htm (accessed September 18).

¹¹³ Rocha, David, 2013, op. cit.

The ACFD would provide services to the project site. In addition, through the ACFD, Emeryville will have increased emergency response through partnerships and contracts with neighboring jurisdictions, the Alameda County mutual aid system, and the California Fire and Rescue Mutual Aid System.¹¹⁴ The construction of new or expanded fire stations would not be required. The proposed project would not result in a substantial adverse physical impact associated with the provision of additional fire facilities or services.

Police Protection. The Emeryville Police Department provides police protection services to the project site. Police headquarters are located at 2449 Powell Street, approximately 1.5 miles west of the project site. The Police Department currently consists of 38 sworn officers and 17 civilian staff.¹¹⁵

Primary law enforcement concerns in this area include traffic, homelessness, theft, and public intoxication.¹¹⁶ In 2012, the Police Department responded to 34,707 calls for service.¹¹⁷ As noted in the City's General Plan, the Police Department does not have service ratios or formal response standards.¹¹⁸ While no formal response standards have been adopted, it aims to respond to emergency calls in two minutes and to non-emergency calls in six minutes.¹¹⁹ Currently, citywide response time for Priority 1 calls (life-threatening situations) is four to five minutes from the time of dispatch, and five to six minutes for non-emergency calls.¹²⁰

Development of the proposed project would increase the daytime population on the site, incrementally increasing the demand for police services. However, this daytime population includes existing students and residents, and the project would not increase the residential population within the City. The Police Department indicated that crimes have increased by 31 percent from 2011 to 2012.

As of April 2013, the City of Emeryville and the District are jointly applying for federal grant funding from the U.S. Department of Justice's Community Oriented Policing Services (COPS). COPS advances the practice of community policing in State, local and tribal law enforcement agencies.¹²¹ If awarded with the COPS grant, the City and District would use the funding to provide a School Resource Officer for the project site.

Creation of the need for police services is not an environmental impact in and of itself. However, if the project necessitates new police facilities, the construction of such facilities could lead to impacts. Therefore, the project would have a significant impact on police services if it would result in substantial adverse physical impacts associated with the provision of new or physically altered police

¹¹⁴ Emeryville, City of, 2012, Fire Services, op. cit.

¹¹⁵ Quan, Jeannie, 2013. Commander, Field Services Division. Emeryville Police Department. Personal communication with LSA Associates, Inc. January 22.

¹¹⁶ Ibid.

¹¹⁷ Ibid.

¹¹⁸ Emeryville, City of, 2010. *Emeryville General Plan, Parks, Open Space, Public Facilities, and Services Element*. Adopted October 13, 2009. Amended January 19 and September 21.

¹¹⁹ Ibid.

¹²⁰ Quan, Jeannie, 2013, op. cit.

¹²¹ Community Oriented Policing Services, 2013. Website: www.cops.usdoj.gov (accessed April 16).

facilities or the 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 police services. The construction of new or expanded police facilities would not be required. Additionally, the Police Department has no formal response standard. The proposed project would not result in a substantial adverse physical impact associated with the provision of additional police facilities or services.

Schools. The Emery Unified School District operates two schools, Anna Yates Elementary School (grades K-7), located at 1070 41st Street and Emery Secondary School (grades 8-12), located on the project site. During the 2010-2011 school year, there were approximately 352 students attending Emery Secondary School. The proposed school structures would accommodate a maximum of 1,120 students and therefore would have adequate capacity to accommodate existing and future students.

The proposed project would result in the redevelopment of an existing school; other than requiring relocation during construction, the project would not affect the District's existing school population or increase school enrollment. All physical environmental impacts associated with this project are identified and described within this IS/MND.

Parks. Parks located near the project site include the 0.7-acre Temescal Creek Park, located approximately 0.3 mile east of the project site at Adeline and 47th Streets; the 1.74-acre Stanford Avenue Park at Stanford Avenue and Doyle Street, located approximately 0.4 mile northwest of the project site; and the 1.25 -acre Doyle Hollis Park, located 0.7 mile northwest of the project site at 1333 62nd Street. Recreational facilities located near the project site are within ½ mile of the site and include the following: Bridgecourt Room (3900 Harlan Street), Recreation Center (4300 San Pablo Avenue), and Senior Center (4321 Salem Street).¹²²

The proposed project would accommodate future population growth identified in the Emeryville General Plan, and would not directly or indirectly increase housing on the project site or in the surrounding area, and therefore would not significantly increase the use of these parks within the City. The proposed project would not adversely affect the physical conditions of existing local and regional open space areas or recreational facilities, or require the provision of new parks or facilities. In addition, the proposed project would provide recreational facilities, including a sports field, a track, basketball courts, school play areas, and common outdoor spaces. The provision of common open and recreational space on the site would further ensure that the project's impacts on local parks and recreational facilities would be less than significant.

Other Public Facilities. The proposed project would provide community facilities for students, staff, and the Emeryville community. The proposed project includes the development of other public facilities, including a community multi-purpose room, community services building, and community and student libraries. Because of the built-out nature of Emeryville, development of such community facilities are not likely to have significant environmental effects. These proposed facilities would be constructed on already-developed land currently occupied by existing buildings, portable classrooms,

¹²² Emeryville, City of, 2012. City Parks. Website: www.ci.emeryville.ca.us/index.aspx?NID=158 (accessed September 19).

and a surface parking lot. The increased daytime population on the project site during operation hours that would result from the project is not expected to result in substantially increased usage of these new facilities.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. RECREATION.				
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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>
a) <i>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? (Less-than-Significant Impact)</i>				

As discussed in Section XIV, the proposed project would accommodate future population growth, and would not directly or indirectly generate population growth on the project site or in the surrounding area. Students, staff, and community users of the project site could use local parks and recreational facilities in the vicinity of the project site; however, this incremental increase in use of area parks is not expected to result in substantial deterioration of local parks.

The nearest regional parks and other recreational facilities include the San Francisco Bay Trail, located approximately 1.5 mile west of the project site, the Eastshore State Park, located approximately 3 miles northwest of the project site, and regional parks in the Berkeley/Oakland Hills such as Lake Temescal and Tilden Regional Park (both owned by the East Bay Regional Parks District), located approximately 4 to 8 miles east of the project site. Although the project could incrementally increase use of community and regional recreation facilities, this minor increase is not expected to result in substantial physical deterioration of these facilities. Use of local and regional parks would be distributed over several locations on any given day.

In addition, the proposed project would provide open space and recreational facilities such as a sports field, a track, basketball courts, school play areas, and common outdoor spaces within the project site for use by students, staff, and the public. The provision of common open and recreational space on the site would further ensure that the project's impacts on local parks and recreational facilities would be less than significant.

- 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? (Less-than-Significant Impact)*

The proposed project would include the renovation and construction of recreational facilities. The proposed project includes the renovation of the existing gymnasium, reconfiguration of the existing sports field, the construction of a track, basketball courts, school play areas, common outdoor spaces (including terraces and elevated walkways), and other public facilities, such as a community multi-purpose room, community services building, and community and student libraries.

As described in Section XIV, because of the built-out nature of Emeryville, development of such recreational facilities are not likely to have significant environmental effects. These proposed facilities would be constructed on already-developed land currently occupied by existing buildings, portable classrooms, and a surface parking lot, and would not result in substantial adverse physical impacts.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards 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"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The following section was prepared based on a Transportation Impact Analysis prepared by Fehr & Peers, included in Appendix E.¹²³ The study evaluates the transportation impacts that would result from the proposed project, including impacts associated with traffic congestion, transit ridership, and pedestrian and bike circulation. Please see Appendix E for additional details.

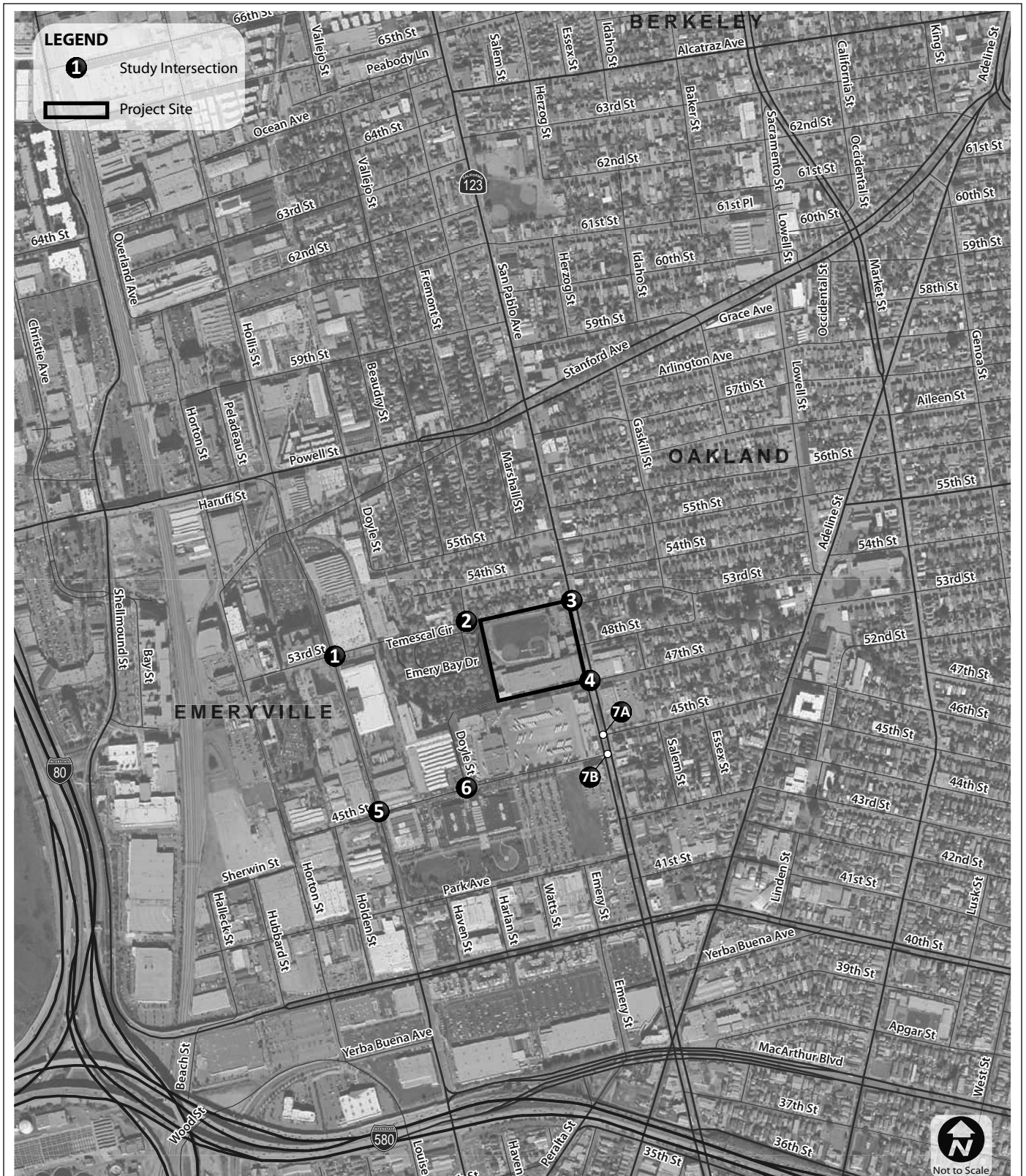
- a) *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? (Less-Than-Significant Impact)*

Overview

Project impacts on the study area roadway facilities were determined by measuring the effect project traffic would have on operations of key intersections during the morning (7:00 a.m. to 9:00 a.m.), afternoon (2:00 p.m. to 4:00 p.m.) and evening (4:00 p.m. to 6:00 p.m.) peak periods. The study intersections, chosen in consultation with City of Emeryville staff, are listed below and shown on Figure 19. These intersections were selected in consultation with the District and the City of Emeryville as they provide primary access to the site and would be the intersections most likely to experience increased congestion with the project.

1. Hollis Street/53rd Street
2. Boyer Street/53rd Street
3. San Pablo Avenue/53rd Street
4. San Pablo Avenue/47th Street
5. Hollis Street/45th Street
6. Doyle Street/45th Street
- 7A. San Pablo Avenue/45th Street (north leg)
- 7B. San Pablo Avenue/45th Street (south leg)

¹²³ Fehr & Peers, 2013. *Transportation Impact Analysis, Emeryville Center of Community Life*. June.



LSA

FIGURE 19



NOT TO SCALE

SOURCE: FEHR & PEERS, FEBRUARY 2013.

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Emeryville Center of Community of Life IS/MND
Project Site Vicinity and Study Intersection Locations

For this study, the following scenarios were evaluated:

- **Existing Conditions** – Existing (2011/2012) conditions based on recent traffic counts.
- **Existing Conditions With Project** – Existing (2011/2012) conditions plus project-related traffic.
- **Cumulative Conditions Without Project** – Future forecast conditions (2030) based on the City of Emeryville General Plan build-out and planned roadway improvements.
- **Cumulative Conditions With Project** – Future forecast conditions (2030) based on the City of Emeryville General Plan build-out and planned roadway improvements plus project-related traffic.

Analysis Methods

The operations of roadway facilities are described with the term level of service (LOS). LOS is a qualitative description of traffic flow based on such factors as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, with the best operating conditions, to LOS F, with the worst operating conditions. LOS E represents “at-capacity” operations. Operations are designated as LOS F when volumes exceed capacity, resulting in stop-and-go conditions. The City of Emeryville does not have a level of service policy for vehicles, but strives to achieve a Quality of Service. Quality of Service recognizes that people travel by a variety of modes, not just in vehicles, and that the use of an auto-focused level of service standard does not address the mobility needs for non-auto roadway users.

Level of service can also be calculated for active modes and transit. A multi-modal level of service (MMLOS) analysis is also presented. This method uses the same six levels of service categories as auto LOS; however, MMLOS calculates discrete service levels for pedestrians, bicyclists, transit, and autos. The MMLOS analysis is presented later in this section.

Intersection Analysis. Traffic conditions at intersections were evaluated using the LOS method developed by the Transportation Research Board (TRB), as documented in the *2000 Highway Capacity Manual* (HCM). Although the Transportation Research Board has recently published the 2010 HCM, the City of Emeryville has not yet adopted the analysis procedures prescribed in the 2010 HCM. Analysis methods and significance thresholds are presented below.

Signalized Intersections. At signalized intersections, the HCM method calculates control delay at an intersection based on average control vehicular delay, using the method described in Chapter 16 of the 2000 HCM. Inputs to the analysis include traffic volumes, lane geometry, signal phasing and timing, pedestrian crossing times, and peak hour factors. Control delay is defined as the delay directly associated with the traffic control device (i.e., a stop sign or a traffic signal) and specifically includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. These delay estimates are considered meaningful indicators of driver discomfort and frustration, fuel consumption and lost travel time. The relationship between average control delay and LOS for signalized intersections is summarized in Table 16.

Table 16: Signalized Intersection Level of Service Criteria

Level of Service	Description	Delay in Seconds
A	Progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	< 10.0
B	Progression is good, cycle lengths are short, or both. More vehicles stop than with LOS A, causing higher levels of average delay.	> 10.0 to 20.0
C	Higher congestion may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level, though many still pass through the intersection without stopping.	> 20.0 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	> 35.0 to 55.0
E	This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	> 55.0 to 80.0
F	This level is considered unacceptable with oversaturation, which is when arrival flow rates exceed the capacity of the intersection. This level may also occur at high V/C ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be contributing factors to such delay levels.	> 80.0

Source: Transportation Research Board, 2000. *Highway Capacity Manual*.

Unsignalized Intersections. Operations of the unsignalized intersections were evaluated using the method contained in Chapter 17 of the 2000 HCM. The LOS rating is based on the weighted average control delay expressed in seconds per vehicle, as shown in Table 17. At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement, the left-turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled locations, LOS is computed for the intersection as a whole.

Table 17: Unsignalized Intersection Level of Service Criteria

Level of Service	Description	Average Control Per Vehicle (Seconds) ^a
A	Little or no delays	< 10.0
B	Short traffic delays	> 10.0 to 15.0
C	Average traffic delays	> 15.0 to 25.0
D	Long traffic delays	> 25.0 to 35.0
E	Very long traffic delays	> 35.0 to 50.0
F	Extreme traffic delays with intersection capacity exceeded	> 50.0

Source: Transportation Research Board, 2000. *Highway Capacity Manual*.

Multi-Modal Level of Service. Multi-Modal Level of Service (MMLOS) calculations are presented at the link and segment levels for pedestrians, bicyclists, transit, and autos. Inputs for each mode include criteria such as:

- **Pedestrian:** peak hour vehicle volume, speed limit, number of vehicle lanes, lane width in feet, parking occupancy, clear sidewalk space, presence of a continuous barrier, and length of continuous facilities.
- **Bicycle:** block length, bicycle lane width, pavement condition, peak hour vehicle volume, number of vehicle lanes, speed limit, parking occupancy, and shoulder width.
- **Transit:** number of bus lines and bus stops, near side stops, bus stop amenities, exclusive transit lanes, average dwell time, on-time performance, and load factor.
- **Auto:** percent green per cycle for through movement, number of vehicle lanes, number of through lanes at intersection, lane width, peak hour vehicle volume, speed limit, intersection control type, signal coordination, signal cycle length, and median type.

Table 18 shows the 2010 HCM MMLOS criteria. Based on recently published sensitivity analysis (Fehr & Peers, 2013), there are limitations to this approach and some built environment factors can produce counterintuitive results when using the HCM MMLOS method. However, MMLOS can provide a supplementary metric to better understand the trade-offs and impacts to walking, biking, and transit associated with improving auto LOS.

Table 18: Multi-Modal Level of Service Criteria

Pedestrian/Bike/Transit LOS Score	Auto LOS Score	Level of Service
Score ≤ 2.00	Score ≤ 0.85	A
$2.00 < \text{score} \leq 2.75$	$0.84 < \text{score} \leq 0.67$	B
$2.75 < \text{score} \leq 3.50$	$0.66 < \text{score} \leq 0.50$	C
$3.50 < \text{score} \leq 4.25$	$0.49 < \text{score} \leq 0.40$	D
$4.25 < \text{score} \leq 5.00$	$0.39 < \text{score} \leq 0.30$	E
Score > 5.00	Score > 0.30	F

Source: Transportation Research Board, 2010. *Highway Capacity Manual*.

Significance Criteria

According to the City of Emeryville, a significant traffic-related impact would occur if:

- The project would conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. A significant impact could be identified:
 - If a signalized intersection is projected to operate within expected delay ranges (i.e., LOS D or better with an average control delay of equal to or less than 55 seconds per vehicle) without the project and the project is expected to cause the facility to operate at an unacceptable LOS (LOS E or F);

- If an intersection is projected to operate at or over capacity (i.e., LOS E or F) without the project, and the project is expected to increase the average control delay by more than 5 seconds; or
- If the operations of an unsignalized study intersection is projected to decline with the addition of project traffic, and if the installation of a traffic signal based on the *Manual on Uniform Traffic Control Devices* (MUTCD) Peak Hour Signal Warrant (Warrant 3) would be warranted.

For intersections that meet the above criteria, capacity enhancing measures that do not degrade other modes of travel should be considered, including upgrading signal equipment, extending left-turn pocket storage, providing non-motorized facilities to reduce vehicular demand, or enhancing transit access to a site.

- The project would conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads and highways:
 - Exceed, either individually or cumulatively, an LOS standard established by the Alameda County Transportation Commission (ACTC) for designated roads or highways;
 - For a roadway segment of the ACTC Congestion Management Program (CMP) Network, the project would cause (a) the LOS to degrade from LOS E or better to LOS F or (b) the V/C ratio to increase 0.03 or more for a roadway segment that would operate at LOS F without the project; or
 - Cause congestion of regional significance on a roadway segment on the Metropolitan Transportation System (MTS) evaluated per the requirements of the Land Use Analysis Program of the CMP.
- The project results in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks;
- The project substantially increases traffic hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment);
- The project results in inadequate emergency access;
- The project conflicts with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities;
- A pedestrian or bicycle impact is considered significant if it would:
 - Disrupt existing pedestrian facilities;
 - Interfere with planned pedestrian facilities; or
 - Create inconsistencies with adopted pedestrian system plans, guidelines, policies, or standards.
- A bicycle impact is considered significant if it would:
 - Disrupt existing bicycle facilities;

- Interfere with planned bicycle facilities;
- Create inconsistencies with adopted bicycle system plans, guidelines, policies, or standards; or
- Not provide secure and safe bicycle parking in adequate proportion to anticipated demand.
- A transit impact is considered significant if it would result in development that is inaccessible to transit riders.

Caltrans Facilities

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State Highway facilities.¹²⁴ However, Caltrans recognizes that achieving LOS C/LOS D may not always be feasible. A standard of LOS E or better on a peak hour basis was used as the planning objective for the evaluation of potential impacts to Caltrans facilities of this development (San Pablo Avenue) as that is the standard set for San Pablo Avenue in the study area by the ACTC. The following criteria were used to evaluate potential impacts to Caltrans facilities:

- If a Caltrans facility is projected to operate at LOS E or better without the project and the project is expected to cause the facility to operate at LOS F, the impact may be considered significant.
- If a Caltrans facility is projected to operate at LOS F without the project and the project is expected to increase delay, the impact may be considered significant.

Existing Conditions

The following describes transportation facilities in the project area, including the surrounding roadway network, transit, pedestrian, and bicycle facilities in the vicinity of the project site.

Roadway System. The project site is located in the City of Emeryville, adjacent to the City of Oakland. In the study area, the City of Oakland boundary falls along 53rd Street/Temescal Creek to the north and Boyer Street/Vallejo Street to the west. The project site is located within the block bound by San Pablo Avenue to the east, 53rd Street to the north, 47th Street to the south, and single-family houses abutting the site to the west. Emery Secondary School (grades 8-12) and its associated athletics fields currently occupy the site. Other roadways in the study area include Doyle Street and 45th Street. The roadways in the study area are described below and their locations in relation to the site are shown on Figure 19.

- **San Pablo Avenue** (SR 123) is a major north-south arterial that forms the eastern border of the site and provides an important inter-city link between Oakland and Richmond. As a designated State route through Emeryville, Caltrans is responsible for roadway maintenance and signal operations. Within the study area, San Pablo Avenue is median-separated with two vehicular lanes in each direction. The street is a local commercial corridor, and on-street parking is permitted on both sides of the street. San Pablo Avenue is also a local truck route. Sidewalks are continuous along San Pablo Avenue and the posted speed limit

¹²⁴ Caltrans, 2002. *Guide for the Preparation of Traffic Studies*. December

is 30 miles per hour (mph) within the study area. San Pablo Avenue is a designated transit street in the Emeryville General Plan.

- **Hollis Street** is a two-lane north-south arterial connecting Folger Avenue to the north in Berkeley with Peralta Street in the City of Oakland. Hollis Street has sidewalks and on-street parking on both sides of the street. Land uses along Hollis Street consist of commercial and industrial uses, with some high density residential uses. Hollis Street is a designated transit street in the Emeryville General Plan and has a posted speed limit of 30 mph.
- **53rd Street** is an east-west roadway local roadway forming the northern boundary of the site. 53rd Street runs between Horton Street in the west and terminates west of SR 24 to the east. In the study area, 53rd Street is a two-lane roadway with sidewalk and on-street parking on both sides of the street. Adjacent uses in the study area consist of single-family residential uses as well as commercial and industrial uses to the west.
- **47th Street** is an east-west local roadway that forms the southern boundary of the project site. 47th Street extends between Doyle Street and Adeline Street within the study area. A full diverter at 47th Street/Salem Street prevents east-west through traffic between San Pablo Avenue and Adeline Street. The two-lane roadway has sidewalks and on-street parking on both sides of the street. East of San Pablo Avenue, 47th Street has bicycle lanes in both directions. On-street parking is allowed on 47th Street.
- **45th Street** is a two-lane east-west roadway to the south of the project site. The street is designated as a bicycle boulevard from Horton Street to San Pablo Avenue. 45th Street between Hollis Street and San Pablo Avenue is a designated bicycle boulevard.
- **Doyle Street**, within the study area, is a one-block long, north-south roadway connecting 47th and 45th Streets. Adjacent uses consist of commercial uses and an AC Transit bus yard.
- **Boyer Street** is a one-block long, north-south roadway connecting 54th and 53rd Streets. Adjacent uses are single-family residential.

Pedestrian Facilities. Pedestrian facilities include sidewalks, crosswalks, and pedestrian signals. Sidewalks are provided on the north (53rd Street), east (San Pablo Avenue), and south (47th Street) sides of the site. The west side of the site abuts private development. Sidewalk widths are approximately 12 feet adjacent to the existing school on 47th Street and 5 feet along the 53rd Street frontage. Along the San Pablo Ave frontage, sidewalks are approximately 10 feet wide, but a landscape buffer reduces the pedestrian clearing. Pedestrian volumes through the study intersections are presented on Figure 20.

Yellow school crosswalks are marked at the signalized San Pablo Avenue/53rd Street intersection on the east, south, and west approaches and San Pablo Avenue/47th Street at all approaches. Crosswalks on San Pablo Avenue are not marked at 48th Street. The stop-controlled intersection at Boyer Street/53rd Street has yellow school crosswalks on the north and east approaches.

South of the project site, a high-visibility mid-block crosswalk is provided at the north leg San Pablo Avenue/45th Street intersection (northern location). At the San Pablo Avenue/45th Street intersection (southern location), crosswalks are marked on the north and west approaches.

Bicycle Facilities. Bicycle facilities include the following:

- Bike paths (Class I) – Paved trails that are separated from roadways.
- Bike lanes (Class II) – Lanes on roadways designated for use by bicycles through striping, pavement legends, and signs.
- Bike routes (Class III) – Designated roadways for bicycle use by signs only; may or may not include additional pavement width for cyclists.
- Bicycle boulevards – Designated low-volume roadways for use by bicycles through signage, pavement markings, intersection crossing treatments, traffic calming, and traffic diversion.

45th Street between Horton Street and Adeline Street is a designated bicycle boulevard. West of San Pablo Avenue, the bicycle boulevard is marked with oversized “BIKE BLVD” pavement legends centered on the travel lane. A mid-block Class I path paralleling and approximately 200 feet west of San Pablo Avenue connects 45th Street and Park Avenue. *The City of Emeryville Pedestrian and Bicycle Plan*¹²⁵ identifies future Class I connections between 45th Street and 47th Street, west of San Pablo Boulevard and along the west side of the site connecting 53rd Street to 47th Street. Spur Alley between 53rd Street and 45th Street is a Class III bike route. 53rd Street between Horton Street and San Pablo Avenue is a designated bicycle boulevard and continues as a Class III bike route to the east of San Pablo Avenue into Oakland. A connection between Spur Alley and Doyle Street is also identified in the Pedestrian and Bicycle Plan, as well as a Class I path along the western boundary of the project site connecting 53rd Street to 47th Street. East of the study area, bicycle lanes on Adeline Street provide north-south access through Emeryville. Bicycle volumes through the study intersections are presented on Figure 20.

Existing Transit Service. AC Transit and Emery-Go-Round provide transit service within the study area, connecting to neighboring cities in the East Bay as well as the MacArthur BART Station and Downtown Oakland. Emery-Go-Round provides service at 10 minute headways during peak hour and 20 minute headways in the off-peak. AC Transit provides 12 to 20 minute headways during the weekdays. Transit routes in the vicinity of the project site are shown on Figure 21 along with the stop locations in the immediate vicinity of the site.

AC Transit. The following AC Transit bus routes operate in the vicinity of the site:

- **Route 72 and 72M** operates on San Pablo Avenue adjacent to the project site, providing local service. This route only operates on weekdays from approximately 5:00 a.m. to 1:45 a.m., with 13- to 20-minute headways throughout the day. Weekend service is also provided with 15- to 30-minute headways. The nearest bus stop is located across from the project site at San Pablo Avenue/47th Street. The route runs along San Pablo Avenue connecting Jack London Square in City of Oakland with Contra Costa College in the City of San Pablo. The 72M operates on San Pablo Avenue and Macdonald Avenue (in the City of Richmond) connecting Jack London Square in City of Oakland with Point Richmond. The route provides connections to 19th Street, 12th Street, El Cerrito, and El Cerrito Del Norte BART Stations in addition to the Oakland Amtrak Station.

¹²⁵ Emeryville, City of, 2012. *Pedestrian and Bicycle Plan*. May.

- **Route 72R** operates on San Pablo Avenue adjacent to the project site and is one of AC Transit's limited-stop "rapid" bus routes. This route only operates on weekdays from approximately 6:00 a.m. to 8:00 p.m., with 12-minute headways throughout the day. The nearest bus stop is located approximately a 1/3-mile walking distance to the north or south of the site at the intersections of Stanford Avenue or 40th Street with San Pablo Avenue. The route runs along San Pablo Avenue connecting Jack London Square in City of Oakland with Contra Costa College in the City of Richmond. This route only operates weekdays. The 72R provides connections to 19th Street, 12th Street, El Cerrito, and El Cerrito Del Norte BART Stations.
- **Route 802** operates on San Pablo Avenue, connecting the Berkeley Amtrak Station with the 19th Street BART Station in the City of Oakland. The route provides late night service only between approximately 12:30 a.m. and 5:00 a.m., with 60-minute headways. Daily service is provided.

Emery Go-Round. The following Emery-Go-Round operates in the Study Area:

- **Hollis Route** operates on Hollis Street weekdays, connecting the MacArthur BART Station and 7th/Anthony Streets in the City of Berkeley. The Hollis route has 10 minute headways during the morning and evening peak periods, and 20 minute headways mid-day and late evening. The route operates between approximately 5:45 a.m. and 10:15 p.m. weekdays. No weekend service is provided on the Hollis route. Stops on Hollis Street at 53rd Street are approximately 1/4-mile from the project site.

BART. The Bay Area Rapid Transit (BART) system provides regional transit service connecting San Francisco, Alameda County, Contra Costa County, and parts of San Mateo County. The nearest BART station to the project site is MacArthur BART Station, which is approximately 1.25 miles to the southeast. From the MacArthur BART station, direct connections to San Francisco, destinations on the Richmond and Fremont lines, and the Pittsburgh Bay Point Line are provided. The Emery-Go-Round Hollis route connects to MacArthur BART. The AC Transit routes that serve the project site (72, 72M, 72R, and 802) do not service the MacArthur BART Station but do serve the 19th Street BART/Uptown Transit Center. During the peak periods, trains operate on less than 10 minute headways to/from San Francisco. Trains run to/from San Francisco with 15 to 20 minute headways during off-peak time periods.

Rail Service. Amtrak provides passenger rail service approximate 0.8 miles to the northwest of the study area, running through the City of Emeryville. Service from the Emeryville Amtrak station provides inter-regional travel to Sacramento, the Central Valley, Southern California, and Northern California.

Existing Traffic Counts. Weekday morning (7:00 a.m. to 9:00 a.m.), afternoon (2:00 p.m. to 4:00 p.m.) and evening (4:00 p.m. to 6:00 p.m.) peak period intersection turning movement counts were conducted at the study intersections in November 2011, May 2012, and December 2012 when area schools were in normal session. For each intersection, the single hour with the highest traffic volumes during the count periods was identified. The peak hour volumes are presented on Figure 22, in addition to the existing lane configurations and traffic control. The existing traffic counts are provided in Appendix E.

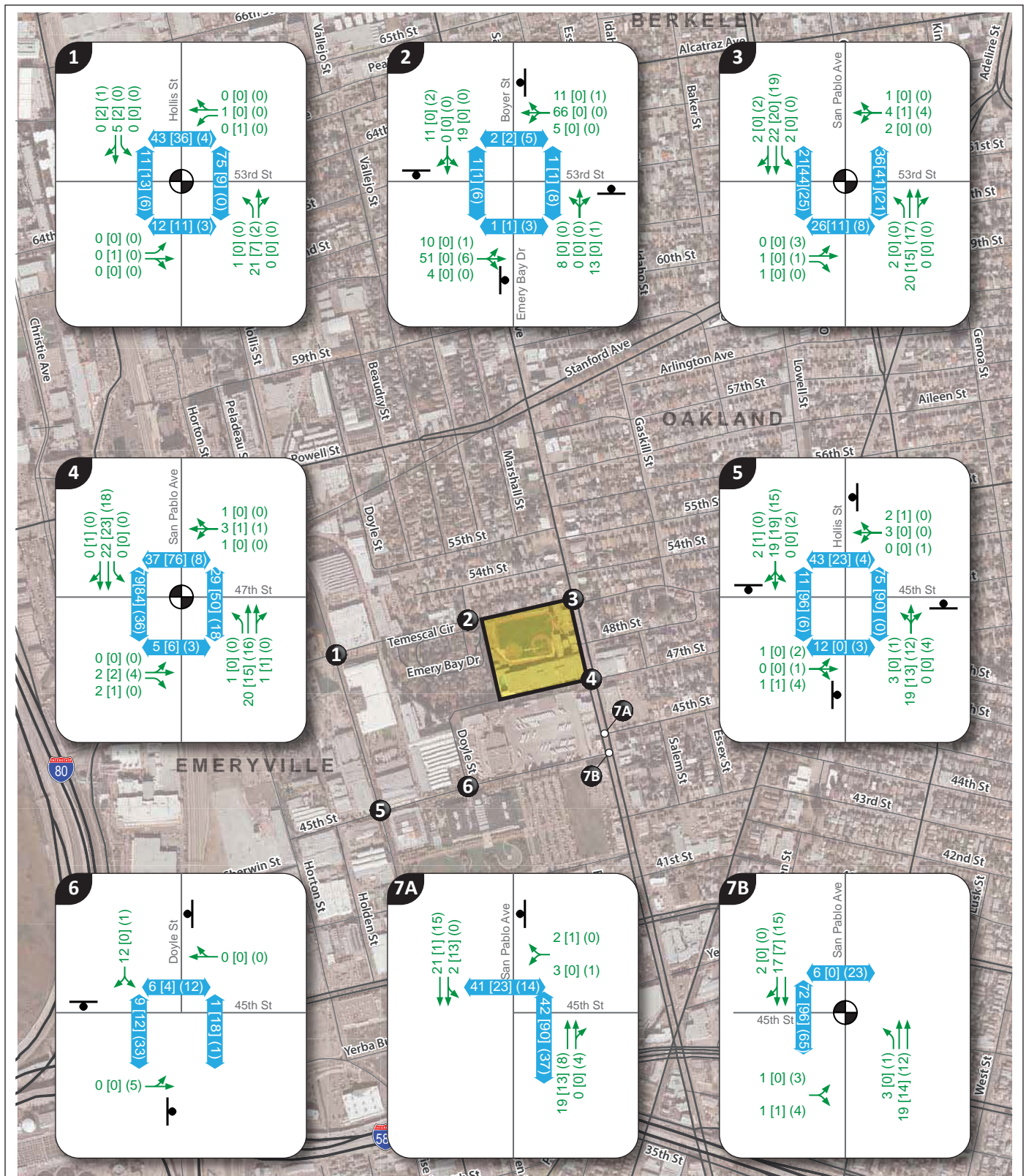


FIGURE 20

LSA



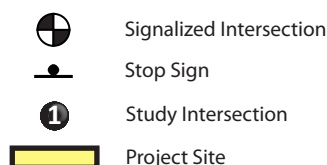
NOT TO SCALE

LEGEND

XX [YY] (ZZ) AM [Afternoon] (PM)
Peak Hour Traffic Volumes

■ Bike Volumes ■ Pedestrian Volumes

*Bike counts at Doyle St/45th St not available by turning movement

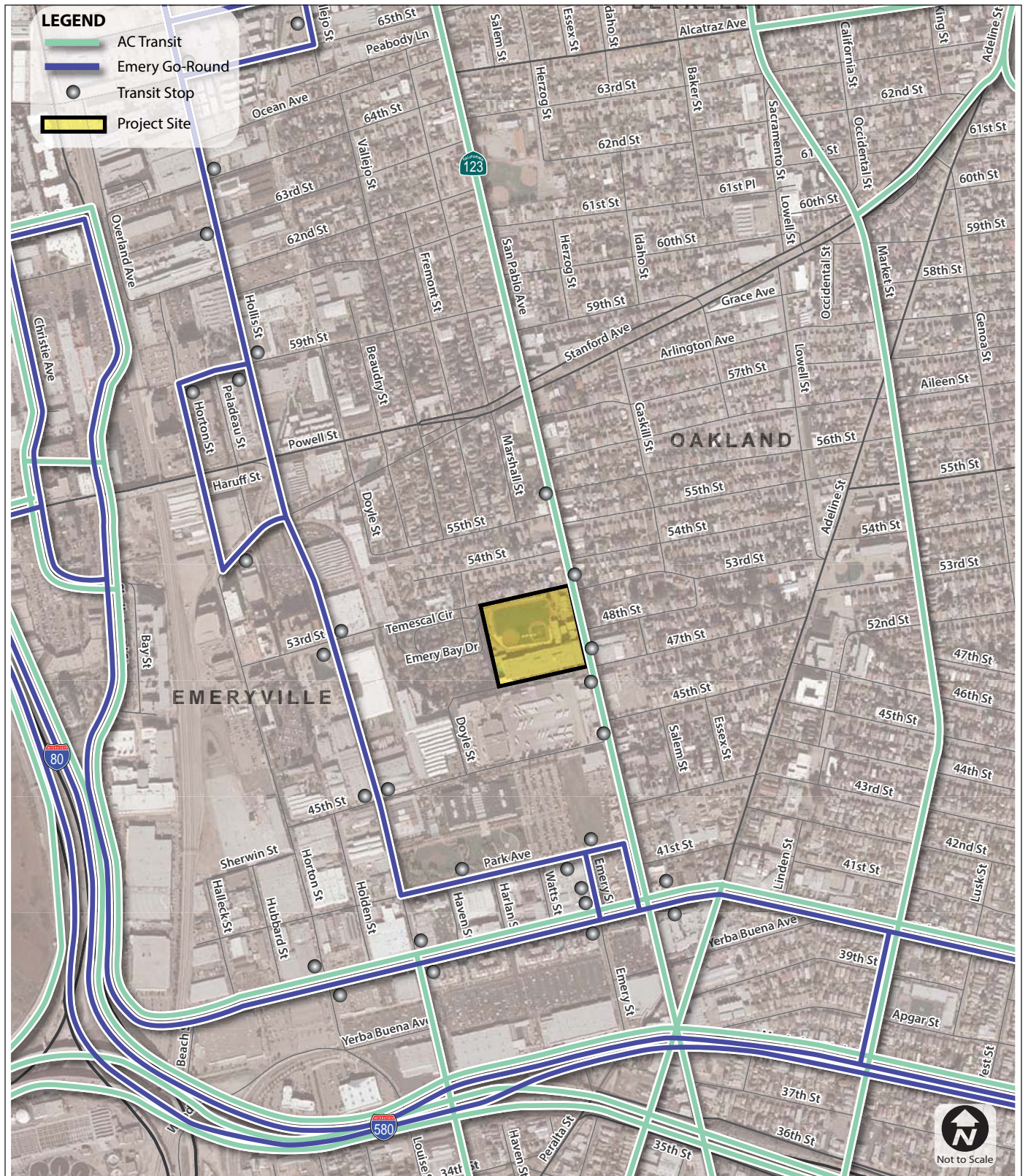


Emeryville Center of Community of Life IS/MND

Existing Intersection Bicycle and Pedestrian Volumes

SOURCE: FEHR & PEERS, FEBRUARY 2013.

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LSA

FIGURE 21

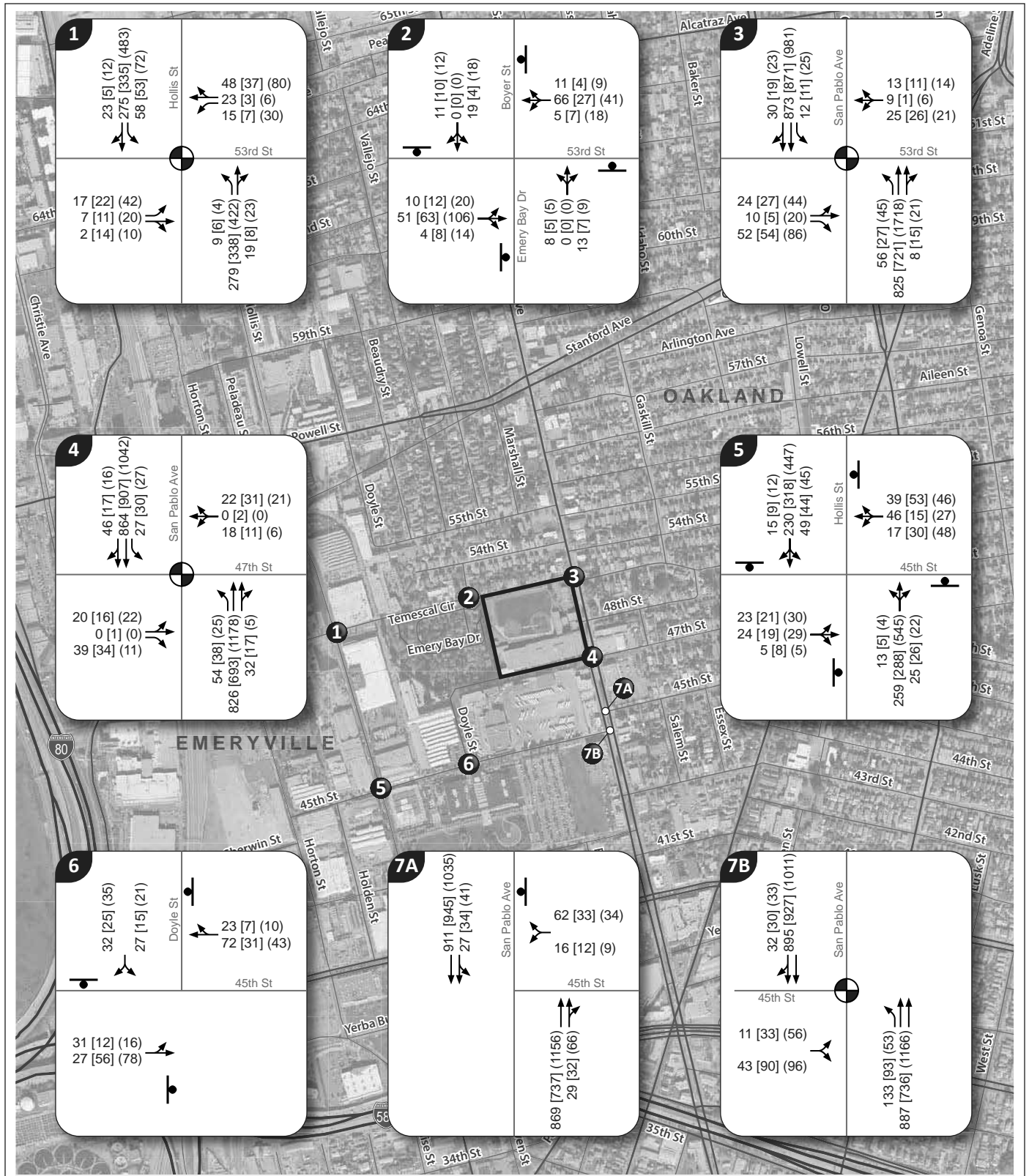


NOT TO SCALE

SOURCE: FEHR & PEERS, APRIL 2013.

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Emeryville Center of Community of Life IS/MND
Existing Transit Service



LSA

LEGEND

XX [YY] (ZZ) AM [Afternoon] (PM)
Peak Hour Traffic Volumes



Signalized Intersection



Stop Sign



Study Intersection



Project Site



NOT TO SCALE

FIGURE 22

Emeryville Center of Community of Life IS/MND

Existing Intersection Turn Volumes,
Lane Configurations and Traffic Control

SOURCE: FEHR & PEERS, FEBRUARY 2013.

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Existing Intersection Level of Service. Existing operations were evaluated for the weekday AM, afternoon, and PM peak hours at the study intersections, as summarized in Table 19, based on the lane configurations, traffic control, and volumes shown on Figure 22. Pedestrian and bicycle activity through the intersections was also factored into the analysis and peak hour factors were used to account for the variation in traffic volumes during the peak hour. The all-way stop-controlled intersection of Hollis Street/45th Street operates at a LOS E during the PM peak hour. The remaining study intersections operate at an overall LOS B or better during the AM, afternoon and PM peak hours, indicating good operations with little delay. Detailed intersection LOS calculation worksheets are presented in Appendix E.

Table 19: Existing (2011/2012) Peak Hour Level of Service

Location	Control ^a	Peak Hour ^b	Average Delay ^c (Seconds)	Level of Service
1. Hollis Street/53 rd Street	Signal	AM AFT PM	5 4 6	A A A
2. Boyer Street/53 rd Street	AWSC	AM AFT PM	8 7 8	A A A
3. San Pablo Avenue/53 rd Street	Signal	AM AFT PM	9 11 9	A B A
4. San Pablo Avenue/47 th Street	Signal	AM AFT PM	4 3 3	A A A
5. Hollis Street/45 th Street	AWSC	AM AFT PM	12 13 37	B B E
6. 45 th Street/Doyle Street	AWSC	AM AFT PM	8 7 8	A A A
7A. San Pablo Avenue/45 th Street (north) ^d	SSSC	AM AFT PM	1 (19) 1 (19) 1 (25)	A (C) A (C) A (C)
7B. San Pablo Avenue /45 th Street (south) ^d	Signal	AM AFT PM	3 5 6	A A A

^a Signal = signalized intersection, SSSC = side street stop controlled intersection, AWSC = all-way stop controlled intersection

^b AM = morning, AFT = afternoon, PM = evening

^c For signalized intersections, average intersection delay and LOS based on the 2000 HCM method is shown. For side-street stop-controlled intersections, delays for worst approach and average intersection delay are shown: intersection average (worst approach)

^d San Pablo Avenue/45th Street is an offset intersection.

Source: Fehr & Peers, 2013.

Queing. A vehicle queue assessment was conducted for the study intersections. This evaluation was performed to determine if vehicle queues extend beyond the available storage and potentially block traffic, such as queues from a left-turn pocket blocking through traffic, or through movement

queues extending to adjacent intersections. Queue spillback can result in worse service levels than reported in this study if not accounted for.

The analysis tool Synchro 7.0 was used to calculate the 95th percentile left-turn queue for signalized and unsignalized intersections. The analysis results show that vehicle storage provided at the turn-pockets in the study area is generally sufficient to accommodate the existing 95th percentile vehicle queues. This was confirmed during field observations during the analysis periods. Queue worksheets for signalized and unsignalized intersections are located in Appendix E.

Signal Warrants. To assess the need for signalization of stop-controlled intersections, the peak hour volume and peak hour delay warrants are used in this study as a supplemental analysis tool to assess operations at unsignalized intersections. The signal warrant analysis is intended to examine the general correlation between the existing and future traffic conditions and the need to install new traffic signals. The results of the traffic signal warrant analysis indicate that neither the peak hour volume or peak hour delay traffic signal warrant is satisfied at any of the unsignalized study intersections. Signal warrant worksheets are provided in Appendix E. Although not currently warranted, the City of Emeryville does plan to signalize the Hollis Street/45th Street intersection.

Multi-Modal Level of Service. Intersection operations were evaluated for vehicles as previously presented in in Table 19. Results of the multi-modal level of service are presented in Table 20 for the San Pablo Avenue corridor along the project frontage. The Pedestrian LOS is LOS C, which considers the clear sidewalk width on the corridor as well as the high peak hour vehicle volume. The Bicycle LOS D reflects the lack of bicycle facilities on San Pablo Avenue and the high peak hour traffic volumes. The Transit LOS C score indicates bus frequency as well as dwell time and on-time performance factors. Auto LOS on the corridor responds to peak hour volume, number of auto lanes at the downstream intersection, and the percent of green time at signal lights.

Table 20: Existing (2011/2012) Multi-Modal Level of Service (MMLOS)

Location	Pedestrian LOS	Bicycle LOS	Transit LOS	Auto LOS
San Pablo Avenue between 47 th and 53 rd Streets	2.91 (C)	3.55 (D)	3.36 (C)	0.43 (D)

Source: Fehr & Peers, 2013.

Neighborhood Traffic. A comprehensive set of traffic calming measures were recently installed in the Triangle Neighborhood, generally located in the triangle bound on the west by San Pablo Avenue, on the east by Adeline Street and south of Temescal Creek. Measures such as street closures, traffic circles, and speed bumps were installed. Traffic volumes on 41st, 45th, Salem, Essex, 47th and 48th Streets are within the expected range of a residential street with less than 3,000 vehicles per day. Adeline Street carries between 6,000 and 7,000 vehicles on a typical weekday. 43rd Street carries over 3,000 vehicles on a typical day. Some of that traffic is likely associated with Anna Yates Elementary school and with relocation of those students to the project site after construction of the proposed project, traffic volumes would likely decrease on 43rd Street.

Since the installation of traffic calming devices to discourage through traffic from traveling through the Triangle Neighborhood streets, traffic volumes have decreased on all streets except 48th Street and a portion of Salem Street, with the total traffic traveling through the neighborhood decreasing by over 2,000 vehicles per day.

Trip Generation

Trip generation refers to the process of estimating the amount of vehicular traffic a project might add to the local roadway network. In addition to estimates of daily traffic, estimates are also created for the peak one-hour periods during the morning (AM) and evening (PM) commute hours, when traffic volumes on adjacent streets are typically at their highest. When a development generates peak traffic patterns that do not coincide with the AM or PM peak (e.g., a school), estimates specific to that development's traffic patterns (site peak hour) are also created.

Trip generation estimates for the project were developed by using rates and equations contained in the Institute of Transportation Engineers (ITE), Trip Generation (9th Edition). The base trip generation rates were adjusted considering:

- **Existing Trips** – traffic counts at the study intersections were collected when the high school was in normal session at the site with an enrollment of approximately 220 students. The project trip generation was adjusted so as not to double count the existing high school-related trips already included in the intersection turning movement counts.
- **Internally Captured Trips** – Students may stay on-site after school because of the community center. The potential for afternoon/evening trip rate reductions due to the mixture of activities proposed within the project site was considered.
- **Modal Split** – The project, because of its land uses and location, has a higher propensity of walk, bike, carpool, and transit trips to/from the site than a typical suburban project. Available data was reviewed to identify potential reductions in auto trips to account for the transit, pedestrian and bicycle facilities that serve the project site.

Fehr & Peers also conducted observations of morning drop-off and afternoon pick-up activity at Anna Yates Elementary School in February 2012. Current Anna Yates students would be relocated to the project site as part of the project. Peak hour trip generation estimates were compared to the existing level of drop-off/pick-up activity at the existing school site. Trip generation rates used to calculate the project's trip generating potential are presented in Table 21.

Table 21: Trip Generation Rates

Land Use (ITE Land Use Code)	Trips Generated Per:	Daily	AM Peak Hour	Afternoon Peak Hour	PM Peak Hour
Elementary School/ Middle School (520/522) ^a	Student	1.87	0.68	0.39	0.15
High School (530) ^b	Student	1.71	0.43	0.29	0.13
Library (590) ^c	Student	56.24	1.04	3.65	7.30
Community Health Clinic (720) ^d	1,000 sf	36.13	2.39	2.68	3.57
Administrative Offices (710) ^e	1,000 sf	11.03	1.56	0.78	1.49
Community Center (495) ^f	1,000 sf	33.82	2.05	3.35	2.74

^a Reflects an average of the ITE Average and Maximum rate per student to reflect level of vehicular activity observed at Anna Yates Elementary.

^b ITE Average Rate for High Schools which reflects the high levels of walking, biking and transit use to the site by High School Students.

^c ITE Average Rate for Libraries; Afternoon peak hour rate assumed to be half of the PM rate.

^d Reflects ITE Average Rate for Medical Office Building. Afternoon peak hour rate assumed to be 75% of the PM rate.

^e Reflects ITE Average Rate for General Office. Afternoon peak hour rate assumed to be 50% of the PM rate.

^f Reflects ITE Average rate for Recreational Community Center, which includes outdoor athletic fields.

sf = square feet

Source: ITE, 2012, *Trip Generation (9th Edition)*; ITE, 2004, *Trip Generation Manual*; Fehr & Peers, 2013.

The City of Emeryville and the surrounding area include a grid street-network pattern that better facilitates walking and biking than typical suburban landscapes. Emeryville is also served by two bus transit systems, AC Transit and Emery-Go-Round, with frequent service that directly links Emeryville to East Bay communities such as neighboring Oakland and Berkeley, and the MacArthur BART station.

To account for the use of alternative modes and carpooling a variety of resources were consulted, including the most recent Bay Area Transportation Survey (BATS) (2000), 2010 Census Data and the 2007-2011 American Community Survey. The data for home-based work trips and home-based social or recreational trips is shown in Table 22. Since the US Census only collects data for work trips, the project trips were evaluated based on a combination of available data.

The published data compares how much each mode is used, such as driving alone, carpooling, and alternative modes (i.e., transit, walking, and biking) by trip purpose (i.e., work and social/recreation). The data shows that of people who work in Emeryville, 68 percent drive alone, 12 percent carpool and 20 percent walk/bike or take transit. For recreation trips, a greater percentage occurs as part of a carpool or are walk/bike/transit trips.

Table 22: Travel Mode Splits by Trip Purpose

Trip Purpose	Autos		Alternative Modes
	Drive Alone	2-Person Carpool	
Work Trips	68%	12%	20%
Social/Recreation Trips	24%	54%	22%

Sources: Metropolitan Transportation Commission, 2000. *Bay Area Transportation Survey*, www.mtc.ca.gov/maps_and_data/datamart/survey; U.S. Census Bureau, 2010. *2007-2011 American Community Survey*.

The ITE trip generation rates shown in Table 21 primarily reflect suburban locations where the use of transit and non-auto travel modes is lower. The vehicle trip generation estimates were adjusted to reflect that many potential site-users will not drive a vehicle to the site, or will carpool. Additionally, given the mixture of uses on the site, it is expected that many potential afternoon trips to the library and community center portions of the project will come from students already on the site. The trip generation estimates are presented in Table 23 for the Phase 1 project and Table 24 for the Phase 2 project. The trip generation estimates include users of the lighted fields arriving to the site during the evening peak hour in preparation for a community use of the fields, such as for ultimate Frisbee or softball. As games would be scheduled throughout the evening, the majority of activity related to community use of the fields would occur outside of the evening peak hour when traffic volumes on the surrounding roadway system are less than the peak hours analyzed for this study.

At completion of the Phase 1 of the project, approximately 2,680 daily trips, including 530 trips during the AM peak hour, 370 trips during the afternoon peak hour, and 230 trips during the PM peak hour, would be added to the immediate area surrounding the project site. At completion of Phase 2 of the project, expected generation is approximately 3,440 daily trips, including 690 trips during the AM peak hour, 480 during the afternoon peak hour, and 290 trips during the PM peak hour.

Table 23: Trip Generation Estimates – Phase 1

Use	Size	Daily	AM Peak Hour			Afternoon Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Elementary/Middle School	630 Students	1,180	235	193	428	111	135	246	47	48	95
High School	280 Students	480	82	38	120	27	54	81	17	19	36
Existing High School Enrollment	220 Students	(380)	(65)	(30)	(95)	(21)	(43)	(64)	(14)	(15)	(29)
<i>New/Shifted School Trips in Study Area^a</i>		1,280	252	201	453	117	146	263	50	52	102
Community Gym, Multi-Purpose Space ^b	38,643 sf	1,050	42	22	64	33	49	82	31	54	85
Community Health Clinic ^c	2,964 sf	90	5	1	6	3	3	6	2	6	8
District and CS Administrative Offices ^c	4,990 sf	60	6	1	7	2	2	4	2	3	5
Library ^b	5,425 sf	200	3	1	4	6	6	12	15	17	32
Total Vehicle Trips		2,680	308	226	534	161	206	367	100	132	232

^a As the project would shift existing students from the Anna Yates campus to the project site, trip generation estimates shown above are not all new trips to the roadway system as some trips would be shifted from the current school. However, these trips would be new trips to the immediate study area and represent new vehicle turning movements at the intersections closest to the site evaluated as part of this study.

^b Based on ITE rates shown in Table 20, with a 20 percent carpool/walk/bike/transit reduction. For the afternoon peak hour, an additional 25 percent trip discount was applied to account for students attending after-school activities.

^c Based on ITE rates shown in Table 20, with a 12 percent carpool/walk/bike/transit reduction.

sf = square feet

Source: Fehr & Peers, 2013.

Table 24: Trip Generation Estimates – Phase 2

Use	Size	Daily	AM Peak Hour			Afternoon Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Elementary/Middle School	780 Students	1,460	292	238	530	137	167	304	57	60	117
High School	340 Students	580	99	47	146	33	66	99	21	23	44
Existing High School Enrollment	220 Students	(380)	(65)	(30)	(95)	(21)	(43)	(64)	(14)	(15)	(29)
<i>New/Shifted School Trips in Study Area^a</i>		1,660	326	255	581	149	190	339	64	68	132
Gym, Multi-Purpose Space + Theater ^b	53,284 sf	1,440	58	30	88	46	68	114	43	74	117
Community Health Clinic ^c	2,964 sf	90	5	1	6	3	3	6	2	6	8
District and CS Administrative Offices ^c	4,990 sf	50	6	1	7	2	2	4	2	3	5
Library ^b	5,425 sf	200	3	1	4	6	6	12	15	17	32
Total Vehicle Trips		3,440	398	288	686	206	269	475	126	168	294

^a As the project would shift existing students from the Anna Yates campus to the project site, trip generation estimates shown above are not all new trips to the roadway system as some trips would be shifted from the current school. However, these trips would be new trips to the immediate study area and represent new vehicle turning movements at the intersections closest to the site evaluated as part of this study.

^b Based on ITE rates shown in Table 20, with a 20 percent carpool/walk/bike/transit reduction. For the afternoon peak hour, an additional 25 percent trip discount was applied to account for students attending after-school activities.

^c Based on ITE rates shown in Table 20, with a 12 percent carpool/walk/bike/transit reduction.

sf = square feet

Source: Fehr & Peers, 2013.

It should be noted that the elementary/middle school trips, while new to the immediate study area, would not be new to the regional roadway system as the project would shift students from the Anna Yates site (approximately ½-mile away) to the project site. Although not adding new trips to the regional transportation system, student relocation would alter the travel patterns of student arrivals/departures and represent new turning movements at the intersections closest to the project site.

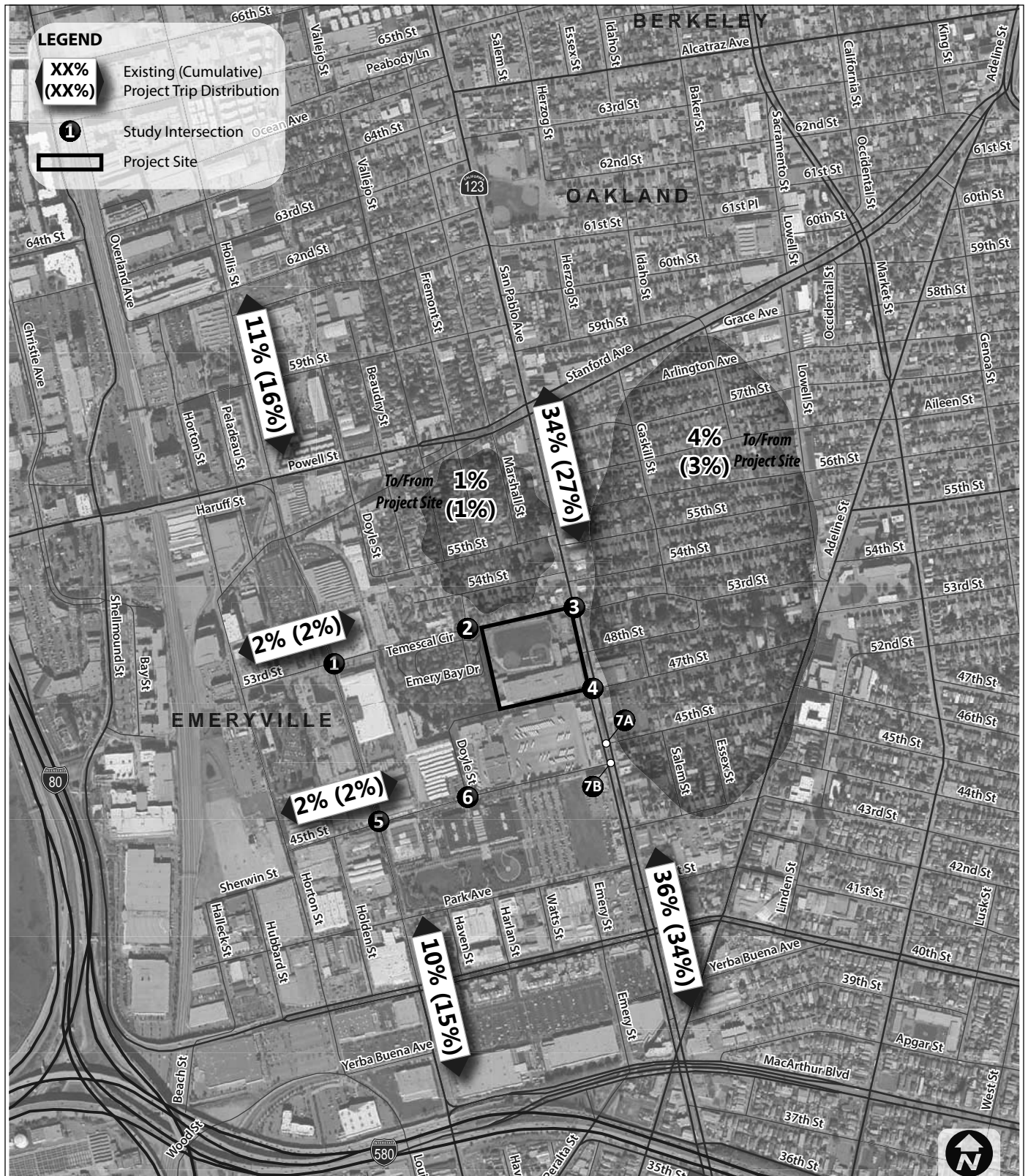
Trip Distribution. Estimates of project trip distribution were developed based on existing travel patterns in the area and the School District enrollment boundary area. Traffic counts were also conducted at the main access point to Anna Yates Elementary School (Adeline Street/41st Street) to ascertain the travel patterns of existing K-8 students. The project trip distribution is shown on Figure 23. Separate distribution percentages were developed for the near-term and cumulative condition to reflect changes to the school district boundary area to serve a greater proportion of students residing in Emeryville versus inter-district transfer students residing in Oakland. New housing developments are expected along the Hollis Street corridor within Emeryville, and as new families move to Emeryville it is expected that a greater percentage of students would reside along the Hollis Street Corridor than within the City of Oakland. The resulting project trip assignment is shown on Figure 24 for the existing condition and Figure 25 for future conditions. The project trip assignment reflects future traffic volumes with completion of Phase 2.

Existing Plus Project Conditions

The project trips (Figure 24) were added to the existing peak hour traffic volumes (Figure 22) to estimate the Existing Plus Project (Phase 1 and Phase 2) peak hour traffic volumes, as shown on Figure 26. No roadway improvements were assumed for this scenario, except for the improvements proposed as part of the project. Improvements that would be constructed as part of the project include modifications to the 53rd Street/San Pablo Avenue intersection that would eliminate the wide east-bound right-turn lane, decreasing the crossing distance for pedestrians on the west leg of the intersection, and construction of a raised mountable turnaround island installed mid-block on 53rd Street.

Intersection Level of Service. Peak hour intersection operations were evaluated using the methods discussed previously and the results are presented in Table 25. For the intersections that provide primary access to the campus that would likely experience peak vehicular trip generation around the school bell times, peak hour factors were reduced to reflect expected peak activity in the 15 to 20 minutes around bell times during the morning and afternoon peak hours. The reductions were based on the observed peak hour factors at intersections around the existing Anna Yates campus.

The addition of project traffic would worsen LOS E conditions at the #5 Hollis Street/45th Street intersection. However, as peak hour signal warrants would not be satisfied at this intersection prior to or with the addition of project traffic, the increase is considered less-than-significant. Project traffic would also increase average delay at the #3 San Pablo Avenue/53rd Street intersection, as that intersection would provide primary access to the elementary school drop-off/pick-up area, degrading intersection operations from LOS A to LOS C (AM) and from LOS A to LOS B (PM). Operations would remain at LOS B during the afternoon peak hour. For through trips on San Pablo Avenue, travel time through the corridor would not noticeably increase for most drivers with the addition of project traffic. Vehicles turning to/from 53rd Street would experience most of the increased delay around bell times.



LSA

FIGURE 23



NOT TO SCALE

SOURCE: FEHR & PEERS, APRIL 2013.

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Emeryville Center of Community of Life IS/MND
Project Trip Distribution Percentages

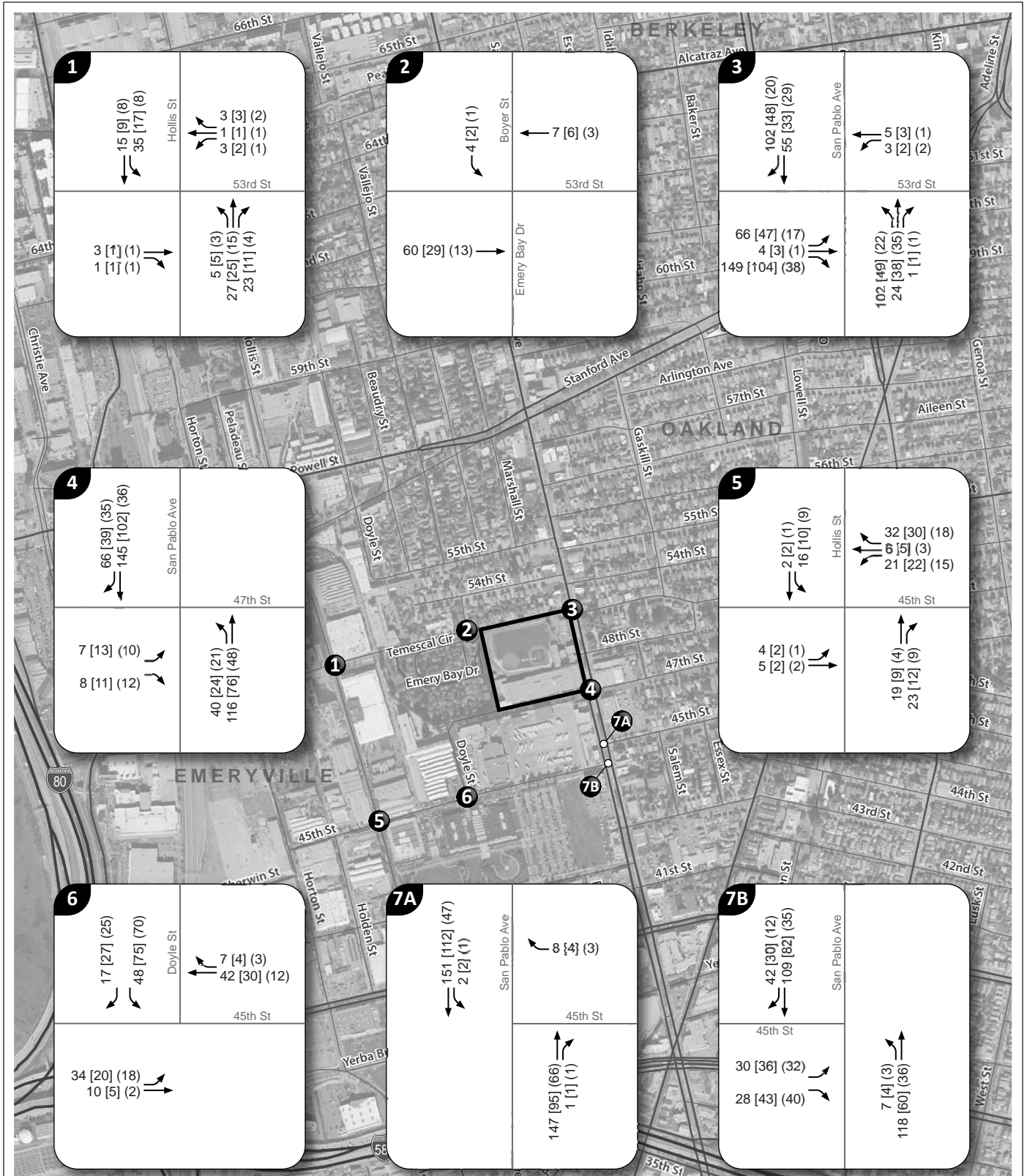


FIGURE 24

LSA



LEGEND

XX [YY] (ZZ) AM [Afternoon] (PM)
Peak Hour Traffic Volumes



Study Intersection



Project Site

NOT TO SCALE

Emeryville Center of Community of Life IS/MND
Existing Conditions Project Trip Assignment

SOURCE: FEHR & PEERS, JUNE 2013.

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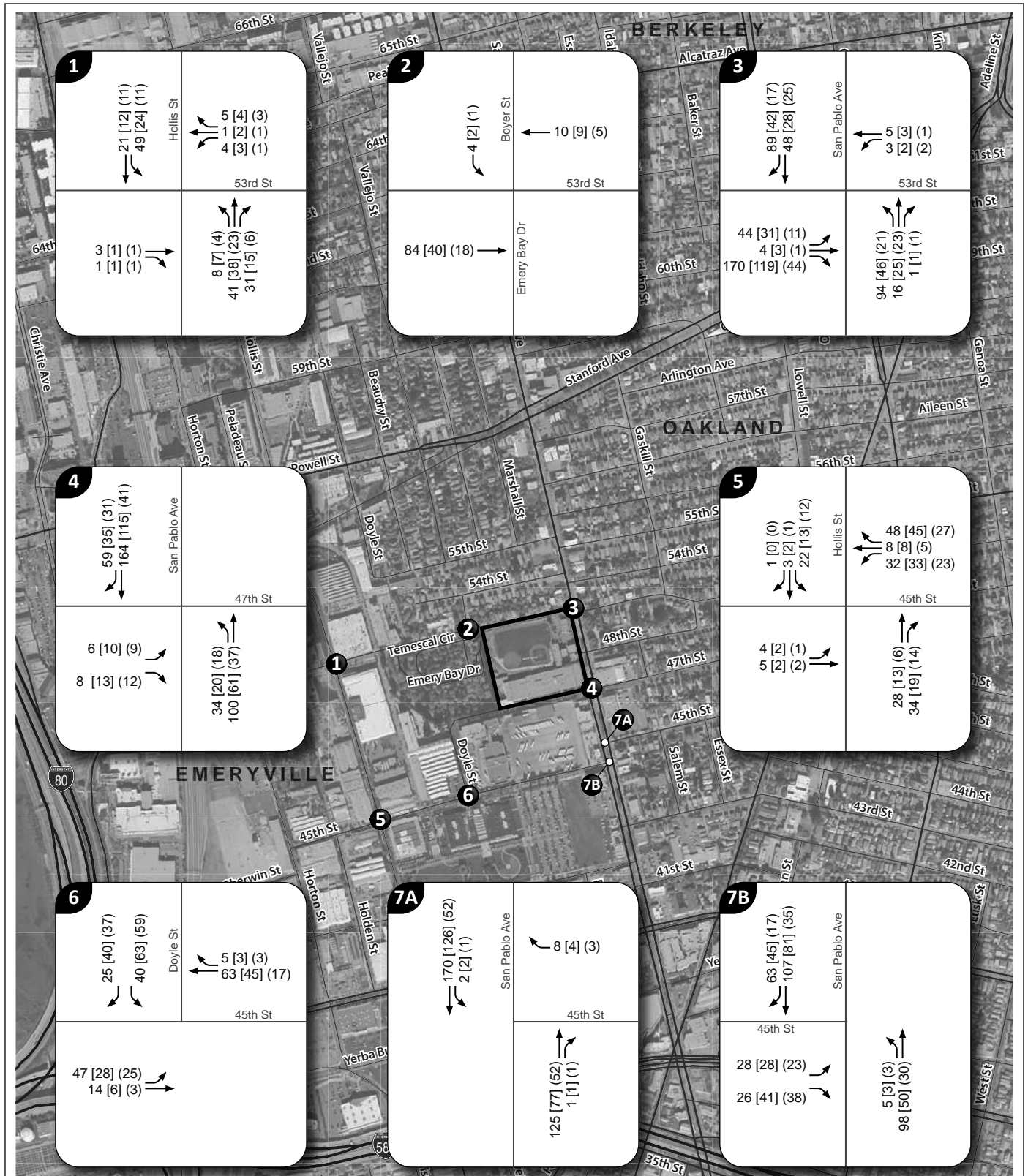


FIGURE 25

LSA



LEGEND

XX [YY] (ZZ) AM [Afternoon] (PM)
Peak Hour Traffic Volumes



Study Intersection



Project Site

NOT TO SCALE

SOURCE: FEHR & PEERS, JUNE 2013.

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Emeryville Center of Community of Life IS/MND
Cumulative Conditions Project Trip Assignment

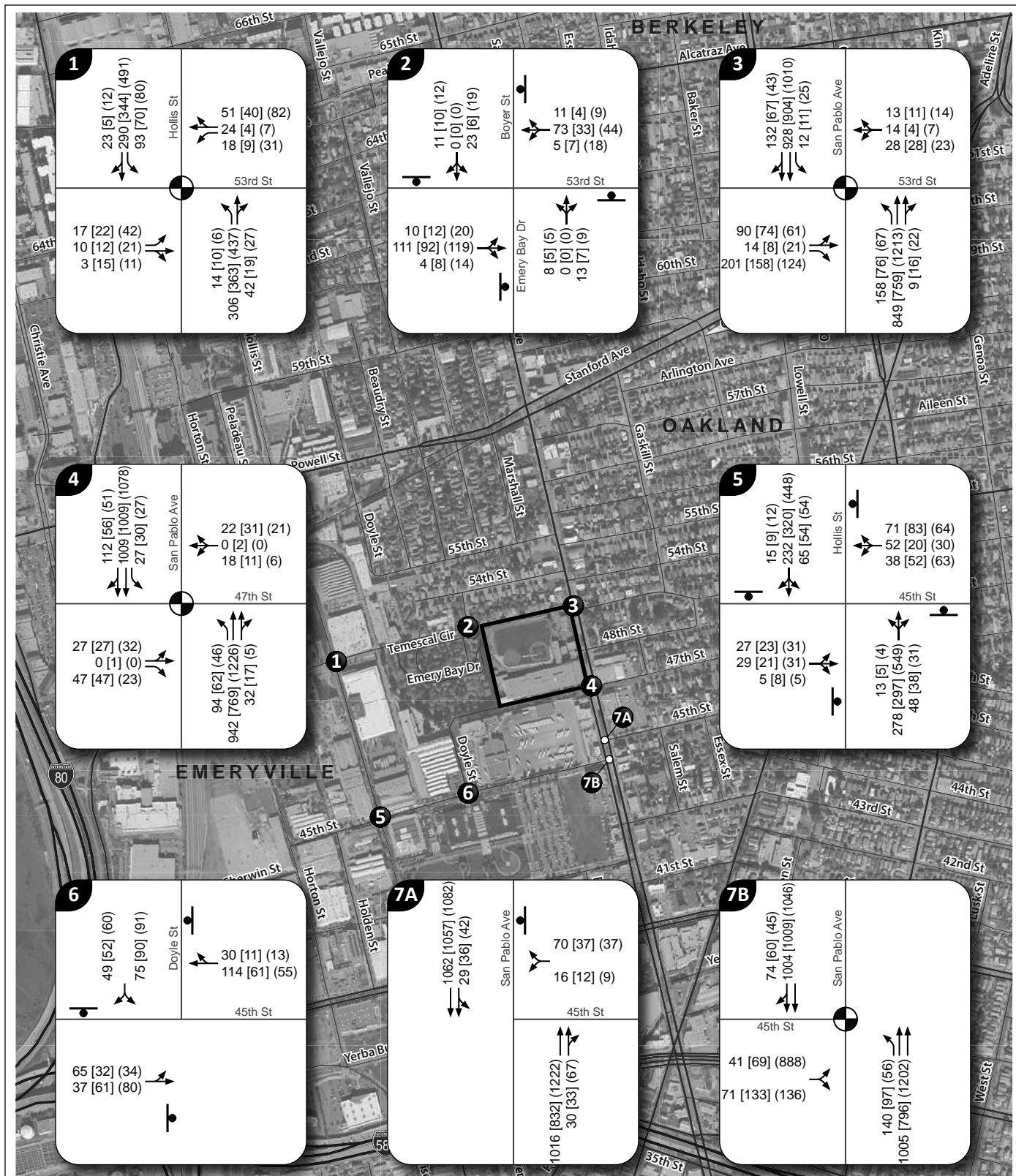


FIGURE 26

LSA

LEGEND

XX [YY] (ZZ) AM [Afternoon] (PM)
Peak Hour Traffic Volumes



Signalized Intersection



Stop Sign



Study Intersection



Project Site



NOT TO SCALE

Emeryville Center of Community of Life IS/MND

Existing Plus Project

Peak Hour Traffic Volumes

SOURCE: FEHR & PEERS, JUNE 2013.

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Table 25: Existing (2011/2012) Plus Project Peak Hour Level of Service

Location	Control ^a	Peak Hour ^b	Existing		Existing Plus Project	
			Delay	LOS ^c	Delay	LOS ^c
1. Hollis Street/53 rd Street	Signal	AM AFT PM	5 4 6	A A A	5 4 6	A A A
2. Boyer Street/53 rd Street	AWSC	AM AFT PM	8 7 8	A A A	8 8 8	A A A
3. San Pablo Avenue/53 rd Street	Signal	AM AFT PM	9 11 9	A B A	26 17 12	C B B
4. San Pablo Avenue/47 th Street	Signal	AM AFT PM	4 3 3	A A A	5 5 4	A A A
5. Hollis Street/45 th Street	AWSC	AM AFT PM	12 13 37	B B E	15 15 48	B B E
6. 45 th Street/Doyle Street	AWSC	AM AFT PM	8 7 8	A A A	9 8 8	A A A
7A. San Pablo Avenue/45 th Street (north) ^d	SSSC	AM AFT PM	1 (19) 1 (19) 1 (25)	A (C) A (C) A (C)	1 (21) 1 (19) 1 (26)	A (C) A (C) A (D)
7B. San Pablo Avenue /45 th Street (south) ^d	Signal	AM AFT PM	3 5 6	A A A	5 9 9	A A A

^a Signal = signalized intersection, SSSC = side street stop controlled intersection, AWSC = all-way stop controlled intersection

^b Peak hour, AM = morning, AFT = afternoon, PM = evening

^c For signalized intersections, average intersection delay and LOS based on the 2000 HCM method is shown. For side-street stop-controlled intersections, delays for worst approach and average intersection delay are shown: intersection average (worst approach)

^d San Pablo Avenue/45th Street is an offset intersection.

Source: Fehr & Peers, 2013.

Queuing. Table 26 presents the 95th percentile queues in the Existing and Existing With Project scenarios for intersections where the 95th percentile vehicle queues are expected to extend beyond the available storage space. The analysis results show that with the addition of project traffic, the northbound left-turn vehicle queue at the #3 San Pablo Avenue/53rd Street and #4 San Pablo Avenue/47th Street intersections would exceed the available storage capacity periodically throughout the AM peak hour. Eastbound vehicle queues on 53rd Street for traffic exiting the drop-off/pick-up area are expected to extend along the project frontage, although intersection queues are not expected to impede drop-off/pick-up maneuvers.

Recommendation 1: Monitor the signal operations at the San Pablo Avenue/53rd Street and San Pablo Avenue/47th Street intersections as school enrollment increases so that the frequency and severity of queue spillback can be moderated through signal timing and phasing adjustments. As

Caltrans maintains and operates this intersection, coordination with Caltrans and the City of Emeryville would be required.¹²⁶

Table 26: 95th Percentile Queues under Existing and Existing with Project Scenarios

Intersection	Movement	Available Storage (Feet)	Peak Hour ^a	Existing Vehicle Queue ^b	Existing With Project ^b
3. San Pablo Avenue/53 rd Street	Northbound Left	120	AM	75	325^c
			AFT	50	175
			PM	75	100
3. San Pablo Avenue/53 rd Street	Eastbound Through	500	AM	50	175
			AFT	50	125
			PM	100	100
3. San Pablo Avenue/53 rd Street	Eastbound Right	75	AM	50	125
			AFT	50	100
			PM	50	50
4. San Pablo Avenue/47 th Street	Northbound Left	100	AM	25	175^d
			AFT	25	50
			PM	25	25

^a AM = morning, AFT = afternoon, PM = evening

^b Vehicle queue shown in feet; numbers shown in **bold** indicate that capacity exceeds available storage length.

^c Average queue is expected to be approximately 100 feet over the entire morning peak hour, but maximum queue is expected to be approximately 325 feet during the peak 10 minutes around the morning bell time.

^d Average queue is expected to be approximately 50 feet over the entire morning peak hour, but maximum queue is expected to be approximately 175 feet during the peak 10 minutes around the morning bell time.

Source: Fehr & Peers, 2013.

Signal Warrant. To assess the need for signalization of stop-controlled intersections, the peak hour volume and peak hour delay warrants are used in this study as a supplemental analysis tool to assess operations at unsignalized intersections. The results of the traffic signal warrant analysis indicate that neither the peak hour volume nor peak hour delay traffic signal warrant is satisfied at any of the unsignalized study intersections under the Existing With Project scenario. Signal warrant worksheets are provided in Appendix E.

Multi-Modal Level of Service. With the project, MMLOS calculations are not expected to change substantially. Pedestrian LOS may increase due to widening of the sidewalk on San Pablo Avenue from 10 to 15 feet with the project. Pedestrian LOS may also improve on 53rd Street, where the sidewalk is proposed to be widened from 5 feet to 6 feet with the project. Existing sidewalks on 47th Street are proposed to be widened from 10 to 13 feet on some portions and narrowed from 10 to 8 feet adjacent to the parallel on-street parking. However, MMLOS does not consider the benefits of intersection crosswalk enhancements that are proposed with the project so the full benefit of the project improvements is not captured by the MMLOS calculations.

Bicycle LOS would degrade as peak period auto volumes increase and with a likely increase in on-street parking utilization along the project frontage. Increased parking utilization on a roadway with no bicycle facilities causes bicycles to ride continuously in the travel lane, with many bicyclists riding along the edge of the travel way in the “door zone” of parked automobiles.

¹²⁶ Please note that some of the recommendation numbering within this IS/MND is different than the numbering within the Transportation Impact Analysis included in Appendix E.

Transit LOS may also degrade with the addition of peak hour traffic on San Pablo Avenue. Transit LOS would degrade if additional bus stops are added, as additional stops can increase transit travel times. Consolidating potential future Emery-Go-Round service to the site or extending the existing AC Transit bus stops could be considered.

Auto LOS would also degrade with the project traffic volumes, as shown in Table 25, but study intersections are expected to continue operating at acceptable service levels.

Neighborhood Conditions. It is expected that some students and visitors of the project site would reside within the Triangle Neighborhood and use those streets to travel to campus. Trips associated with student activities and recreational activities are likely already occurring and would not represent new trips through the neighborhood, but would represent changes in travel patterns and were therefore analyzed as new trips for the purposes of the intersection assessment presented previously. Approximately 40 to 50 vehicle trips are expected to come from within/travel through the various streets within the Triangle Neighborhood during the morning and afternoon peak hours, with approximately 150 to 170 vehicle trips through the neighborhood on a daily basis. These trips would be spread-out over a number of streets, including 53rd Street, 45th Street, 43rd Street and 41st Street, with no more than 15 to 20 vehicle trips in a peak hour or 40 to 50 trips on a daily basis on any individual street. These added trips would be balanced against changes in travel patterns that would result from the relocation of the Anna Yates Elementary School population to the project site.

The existing Anna Yates campus generates approximately 1,000 daily trips, including 350 morning peak hour, 200 afternoon peak hour and 80 evening peak hour vehicle trips on a typical school day. The majority of vehicular activity for the Anna Yates campus is currently focused on 41st, 43rd, and Adeline Streets as well as San Pablo Avenue. With the project, elementary school vehicle traffic originating from the south and west of the study area would no longer travel through the Triangle Neighborhood to access the campus. Vehicles trips originating in the north and east have a variety of travel routes to access the project site, many of which avoid the Triangle Neighborhood. With the project, it is expected that the level of traffic associated with school uses would decrease on 41st, 43rd, and Adeline Streets, and increase slightly on 53rd and 47th Streets, as discussed above.

Cumulative Traffic Conditions

The future traffic conditions analysis considers the completion of the project along with development within the City of Emeryville and the greater region to the year 2030.

Cumulative Roadway Assumptions. Signalization of the #5 Hollis Street/45th Street intersection is planned to occur by 2030 to accommodate expected growth in vehicle trips along the Hollis Street corridor. Separate northbound and southbound left-turn pockets could be provided within the existing Hollis Street cross section. As Hollis Street is a transit priority street, signalization and left-turn pockets would facilitate transit travel along the corridor. The City also plans to upgrade signal equipment throughout the City. For the analysis of cumulative conditions, signal timings were assumed to be optimized from the current timings to better serve future traffic flows and cycle lengths for signalized intersections along San Pablo Avenue were increased to 110 seconds to accommodate increased pedestrian and bicycle clearance intervals. For the Cumulative Conditions With Project Scenario, improvements planned to be constructed with the project were considered in the analysis, including improvements at the 53rd Street/San Pablo Avenue intersection.

Cumulative Traffic Forecasts. Cumulative intersection turning movement forecasts were developed by taking the difference between the existing and cumulative traffic volumes from the Emeryville General Plan EIR and adding the resulting growth in traffic to the existing turning movement counts. Additionally, traffic expected to be generated by Escuela Bilingüe Internacional (EBI), located on San Pablo Avenue at 47th Street, was added to the intersection turning movement counts based on the expected level of the generation when the school reaches the maximum permitted enrollment level. Traffic growth associated with development on the project site was not included in the resulting Cumulative Conditions Without Project forecasts as presented on Figure 27. The peak hour project trips from Figure 25 were added to the Cumulative Conditions Without Project traffic volumes to represent cumulative traffic volumes with the project (Phase 1 and Phase 2), as presented on Figure 28.

Intersection Levels of Service. Peak hour intersection operations for the cumulative scenarios are presented in Table 27. For the With Project scenario, peak hour factors were reduced for the vehicle turning movements to the site from San Pablo Avenue to better account for peak vehicle arrival/departure patterns around bell times. As shown, the addition of project traffic would increase delay slightly at the study intersections but would not cause substantial delay. All study intersections would operate at an overall LOS D or better during the peak hours evaluated in this study. Based on the significance criteria, the cumulative impact to intersections is less-than-significant.

Table 27: Cumulative (2030) Conditions Peak Hour Levels of Service

Location	Control ^a	Peak Hour ^b	Existing		Existing Plus Project	
			Delay	LOS ^c	Delay	LOS ^c
1. Hollis Street/53 rd Street	Signal	AM	7	A	7	A
		AFT	6	A	6	A
		PM	11	B	11	B
2. Boyer Street/53 rd Street	AWSC	AM	8	A	9	A
		AFT	8	A	10	A
		PM	9	A	9	A
3. San Pablo Avenue/53 rd Street	Signal	AM	11	B	36	D
		AFT	11	B	16	B
		PM	12	B	14	B
4. San Pablo Avenue/47 th Street	Signal	AM	8	A	24	C
		AFT	6	A	9	A
		PM	3	A	4	A
5. Hollis Street/45 th Street	AWSC	AM	8	A	10	A
		AFT	7	A	8	A
		PM	12	B	14	B
6. 45 th Street/Doyle Street	AWSC	AM	8	A	10	A
		AFT	8	A	8	A
		PM	8	A	9	A
7A. San Pablo Avenue/45 th Street (north) ^d	SSSC	AM	3 (52)	A (F)	3 (49)	A (E)
		AFT	1 (27)	A (D)	1 (24)	A (C)
		PM	1 (43)	A (E)	1 (42)	A (E)
7B. San Pablo Avenue /45 th Street (south) ^d	Signal	AM	3	A	5	A
		AFT	5	A	8	A
		PM	6	A	8	A

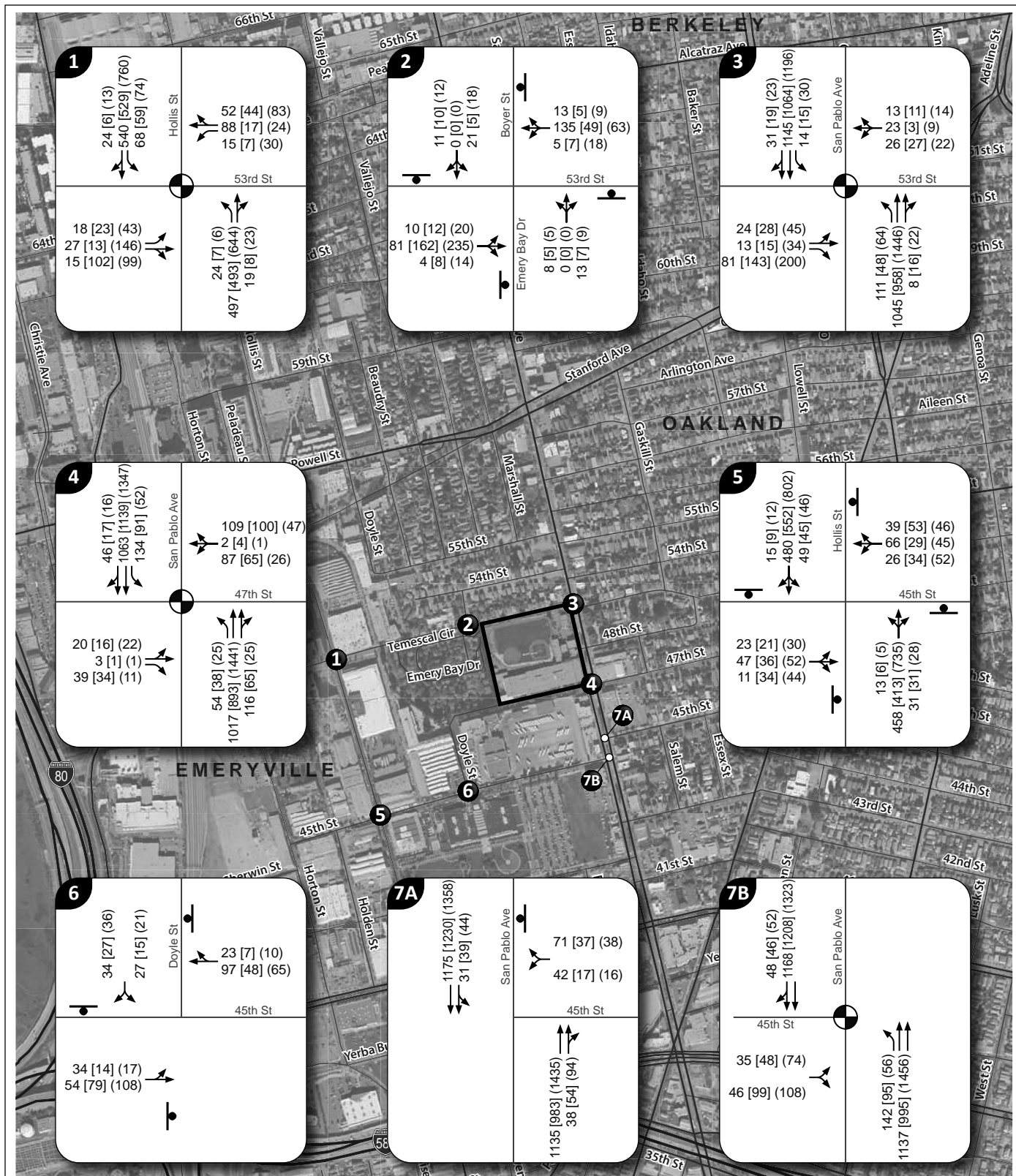
^a Signal = signalized intersection, SSSC = side street stop controlled intersection, AWSC = all-way stop controlled intersection

^b AM = morning, AFT = afternoon, PM = evening

^c For signalized intersections, average intersection delay and LOS based on the 2000 HCM method is shown. For side-street stop-controlled intersections, delays for worst approach and average intersection delay are shown: intersection average (worst approach)

^d San Pablo Avenue/45th Street is an offset intersection.

Source: Fehr & Peers, 2013.



LSA

LEGEND

XX [YY] (ZZ) AM [Afternoon] (PM)
Peak Hour Traffic Volumes



Signalized Intersection



Stop Sign



Study Intersection



Project Site



NOT TO SCALE

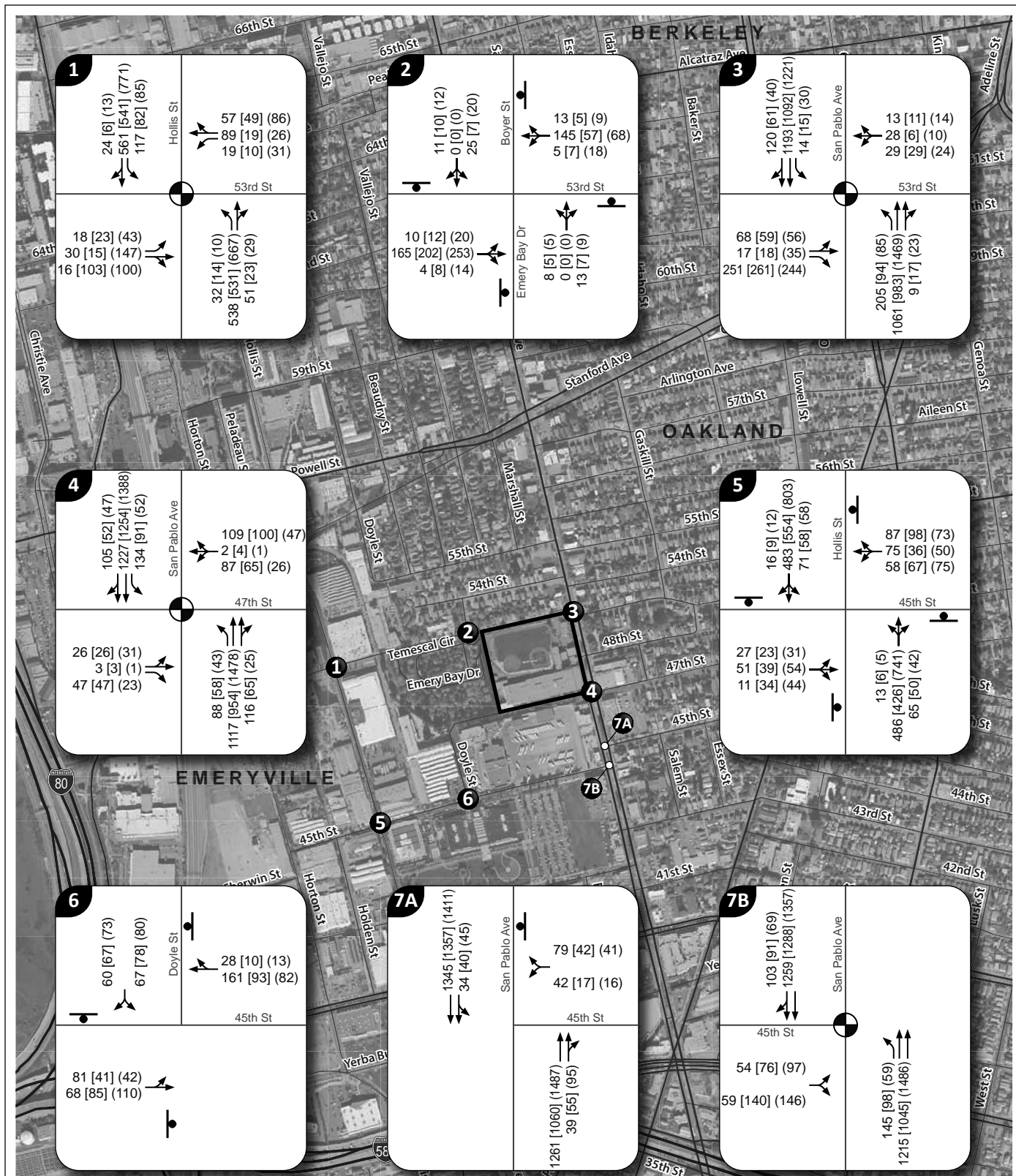
FIGURE 27

Emeryville Center of Community of Life IS/MND

Cumulative Conditions No Project Peak Hour Volumes

SOURCE: FEHR & PEERS, JUNE 2013.

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LSA

LEGEND

XX [YY] (ZZ) AM [Afternoon] (PM)
Peak Hour Traffic Volumes



Signalized Intersection



Stop Sign



Study Intersection



Project Site



NOT TO SCALE

FIGURE 28

Emeryville Center of Community of Life IS/MND
Cumulative Plus Project Peak Hour Volumes

SOURCE: FEHR & PEERS, JUNE 2013.

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Queuing. Table 28 presents the 95th percentile vehicle queues under cumulative conditions for movements where vehicle queues are expected to extend beyond the available storage. The analysis results show that in the Cumulative Without Project scenario, the 95th percentile northbound left-turn movement vehicle queue would exceed the storage capacity at the #3 San Pablo Avenue/53rd Street intersection in the AM and PM peak periods. The addition of project traffic would increase the length of the 95th percentile queue and also increase the frequency that the queue extends beyond the left-turn pocket. Eastbound vehicle queues on 53rd Street would also increase and queue back along the project frontage with the 95th percentile queues extending approximately 200 to 300 feet back from the intersection during the morning and afternoon peak periods. Although these queues would clear within a few cycles as vehicle drop-off and pick-up procedures are completed, there would be congestion along the project frontage during drop-off and pick-up periods. At the #5 San Pablo Avenue/47th Street intersection, forecasted vehicle queues for the northbound left-turn movement are also expected to extend beyond available storage for a few cycles during the morning and afternoon drop-off/pick-up periods when enrollment levels approach capacity.

Table 28: 95th Percentile Queues under Cumulative and Cumulative with Project Scenario:

Intersection	Movement	Available Storage (Feet)	Peak Hour ^a	Cumulative Without Project ^b	Cumulative With Project ^b
3. San Pablo Avenue/53 rd Street	Northbound Left	120	AM	150	400
			AFT	75	150
			PM	100	100
3. San Pablo Avenue/53 rd Street	Eastbound Left/Through	500	AM	75	150
			AFT	75	125
			PM	125	125
3. San Pablo Avenue/53 rd Street	Eastbound Right	75	AM	50	175
			AFT	75	200
			PM	75	75
4. San Pablo Avenue/47 th Street	Northbound Left	100	AM	25	275
			AFT	25	175
			PM	25	25

^a AM = morning, AFT = afternoon, PM = evening

^b Numbers shown in **bold** indicate that vehicle queue exceeds available storage length.

Source: Fehr & Peers, 2013.

Signal Warrants. The results of the traffic signal warrant analysis indicate that neither the peak hour volume nor peak hour delay traffic signal warrant is satisfied at any of the unsignalized study intersections under the Cumulative With or Without Project scenarios. Signal warrant worksheets are presented in Appendix E.

Multi-Modal Level of Service. MMLOS for all modes is expected to degrade with the projected increase in auto volumes on the San Pablo Avenue corridor, as the calculations for all modes are sensitive to increased peak period traffic volumes. The increase in traffic volumes would likely increase transit vehicle dwell time, degrading transit speeds. Bicycle and pedestrian LOS would degrade with increase in traffic volumes and no additional facility improvements on San Pablo Avenue or parallel corridors. Auto LOS also degrades slightly with increased traffic volumes, but planned signal timing changes along San Pablo Avenue would maintain traffic flow through the corridor. Improvements that would be constructed with the project would off-set some decrease in the pedestrian LOS along the project frontage.

- b) *Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? (**Less-Than-Significant Impact**)*

The Alameda County Transportation Commission (ACTC) requires the assessment of development-driven impacts to regional roadways. Because the project would generate more than 100 “net new” PM peak hour trips, the Congestion Management Program (CMP) requires the use of the Countywide Travel Demand Forecasting Model to assess the impacts on regional roadways near the project site. The CMP and Metropolitan Transportation System (MTS) roadways in the project vicinity include the following:

- San Pablo Avenue
- Stanford Avenue
- 40th Street
- Adeline Street

The ACTC Model used in this study is a regional travel demand model that uses socio-economic data and roadway and transit network assumptions to forecast traffic volumes and transit ridership using a four-step modeling process that includes trip generation, trip distribution, mode split, and trip assignment. This process takes into account changes in travel patterns due to future growth and balances trip productions and attractions. This version of the Countywide Model is based on Association of Bay Area Governments (ABAG) Projections 2009 land uses for 2020 and 2035.

For the purposes of this CMP and MTS Analysis, the project is assumed to not be included in the Countywide Model in order to present a more conservative analysis. The traffic forecasts for the 2020 and 2035 with project scenario were extracted for the CMP and MTS highway segments from that model and used as the “no project” forecasts. Vehicle trips generated by the project were added to the “no project” forecasts to estimate the “plus project” forecasts.

The CMP and MTS segments were assessed using a v/c ratio methodology. For surface streets, a per-lane capacity of 800 vehicles per hour (vph) was used, consistent with the latest CMP documents.¹²⁷ Roadway segments with a v/c ratio greater than 1.00 signify LOS F.

The “plus project” results were compared to the baseline results for the 2020 and 2035 horizon years. The 2020 and 2035 peak hour volumes, v/c ratios and the corresponding levels of service for without and with project conditions are provided in Appendix E.

Due to differences in the land use assumptions and differences in analysis methodologies, the forecasted traffic volumes on the roadway links can be different from the intersection volumes, particularly at the local level. The first area of difference is the land use data sets employed for the intersection forecasts and the MTS forecasts. The intersection forecasts, which are used to assess project traffic impacts on City of Emeryville intersections, are based on existing intersection counts and expected traffic that could be generated by approved, pending and reasonably foreseeable

¹²⁷ Alameda County Transportation Commission, 2011. *Congestion Management Program*.

projects in the City of Emeryville and projections of through traffic, which differs from the data in the ACTC Model. The CMP analysis is also based on the outputs of the ACTC Model directly on a roadway segment level. It is not unusual to have discrepancies given that the two analyses measure impacts at a different scale. For local streets, intersection operations are typically a more accurate measure of operating conditions because the capacity of an urban street, defined as the number of vehicles that can pass through its intersections, is controlled by the capacity at its intersections.

The project would contribute to 2020 and 2035 increases in traffic congestion on MTS roadways. However, the project would not cause a roadway segment on the MTS to degrade from LOS E or better to LOS F. The project also would not increase the v/c ratio by more than 3 percent for roadway segments that would operate at LOS F without the project. This is a less-than-significant impact, and as a result no mitigation measures are required.

- 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? (No Impact)*

The project site is not located near an airport; the project would not change air traffic patterns.

- d) *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (Less-Than-Significant Impact)*

Recommended design changes are described below and illustrated in Figure 29.

Drop-off and Pick-up Operations. Fehr & Peers conducted observations of drop-off/pick-up activity at the existing Anna Yates school as well as the existing secondary school when classes were in normal session. During the time of data collection at Anna Yates school, the enrollment for grades K-8 was approximately 400 students. Based on observations and projected enrollment at the project site at completion of Phase 1, it is expected that during the peak morning drop-off period, space for approximately 25 vehicles to conduct concurrent drop-offs for K-8 students is needed. The duration of maximum activity is approximately 10 minutes during the morning drop-off period. During the afternoon pick-up period, significantly more vehicles would need to be accommodated as vehicles at the front of the queue cannot depart the project area until school is released and their student enters the vehicle. Approximately 50 to 60 vehicle spaces would be needed during the afternoon pick-up period.

As proposed, drop-off/pick-up for grades K-8 would occur from 53rd Street. The project frontage would be modified to provide a 480 foot loading zone that would also double as parking outside the drop-off/pick-up periods, accommodating approximately 16 vehicle spaces when striped as parking. This area can accommodate 20-25 vehicles when used for active loading/unloading. Approximately 13 parking spaces are provided on the north side of 53rd Street, serving the residential uses. Use of these spaces for school drop-off/pick-up activities was not assumed in this analysis.

An additional 20 vehicle parking spaces would be provided on San Pablo Avenue along the project frontage, although drop-off/pick-up activity would be discouraged in this area. A vehicle turnaround is also proposed at the western edge of the campus on 53rd Street to facilitate vehicle turnaround and discourage vehicular travel through the residential neighborhood to the west of the project site. Separate parking and drop-off/pick-up loading areas would be located on 47th Street to serve the upper grades.

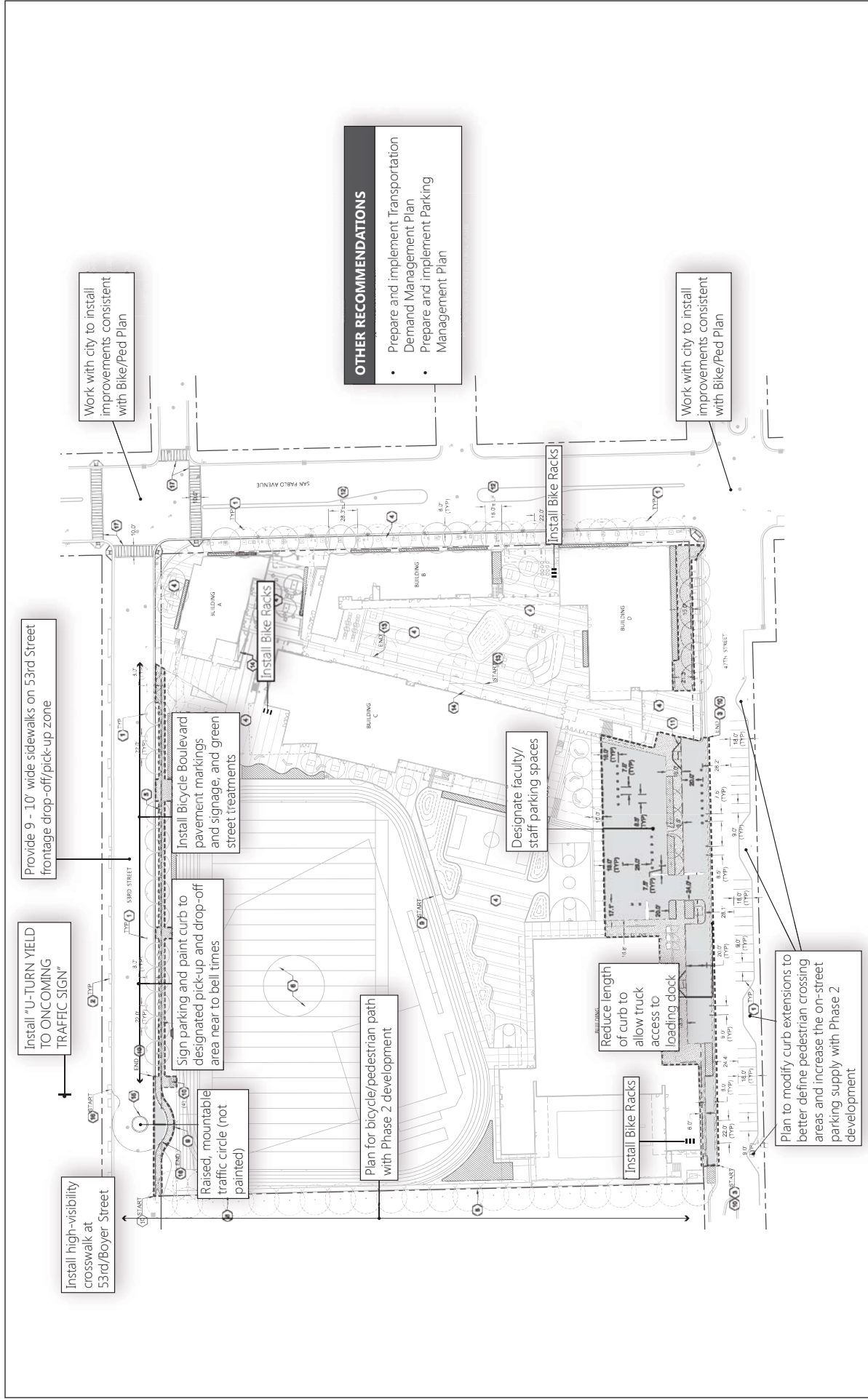


FIGURE 29

LSA



NOT TO SCALE

Emeryville Center of Community Life IS/MND
Site Plan Recommendations

SOURCES: DSK ARCHITECTS; FEHR & PEERS, JUNE 2013.

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The design of the proposed drop-off/pick-up area on 53rd Street is expected to generally accommodate the expected level of activity during the morning drop-off period. However, deficiencies are expected to occur during the afternoon pick-up period.

Observations of drop-off/pick-up activities at the project site were conducted prior to students being moved to the temporary campus. No significant queuing or vehicle delay was observed during either the drop-off or pick-up periods. With the proposed project, parallel curb loading spaces would be converted to parallel parking stalls to increase the on-street parking supply in the vicinity of the school, decreasing the curb space for drop-off/pick-up activities. For vehicles that enter the 47th Street drop-off/pick-up area from San Pablo Avenue, it is expected that the majority of vehicles would continue west on 47th Street, turn to Doyle Street, and then either return to San Pablo Avenue or continue to Hollis Street, which is reflected in the off-site intersection analysis. It is expected that the drop-off/pick-up area on 47th Street would operate similar to the No Project condition.

Recommendation 2: To further manage traffic flows during the afternoon pick-up period, especially as enrollment increases, the following is recommended:

- Develop and implement a Transportation Demand Management (TDM) Plan for the school.
- At the proposed 53rd Street turnaround, install a traffic circle with a raised, mountable center island with painted perimeter striping located between existing driveway curb cuts as shown in Figure 30. Install signage in the westbound direction to indicate that U-turns must yield to oncoming traffic.
- Off-set bell times of some grade levels, such as K, 1-5, 6-8, and 9-12 to disperse drop-off/pick-up activity (expected schedule is 8:00 a.m. to 3:00 p.m. for grades K through 8, and 8:30 a.m. to 3:30 p.m. for grades 9 through 12).
- Prohibit parking on the south side of 53rd Street around bell times through paint, signing and enforcement.
- Designate a student drop-off/pick-up zone on 47th Street and prohibit parking around bell times through paint, signing and enforcement.
- School staff to monitor activities on 53rd Street during the drop-off/pick-up periods to facilitate loading procedures and prevent parking in the loading area.
- Restrict parking along the north side of 47th Street along the school frontage to 15-minute parking only during school drop-off/pick-up periods to provide additional loading/unloading areas.
- Prohibit drop-off/pick-up activities from San Pablo Avenue.
- Encourage students to travel to school via walking, biking and transit.
- Encourage carpooling.
- Encourage the provision of after-school activities or supervised playground time to allow some parents to drop-off/pick-up outside the peak drop-off/pick-up period.

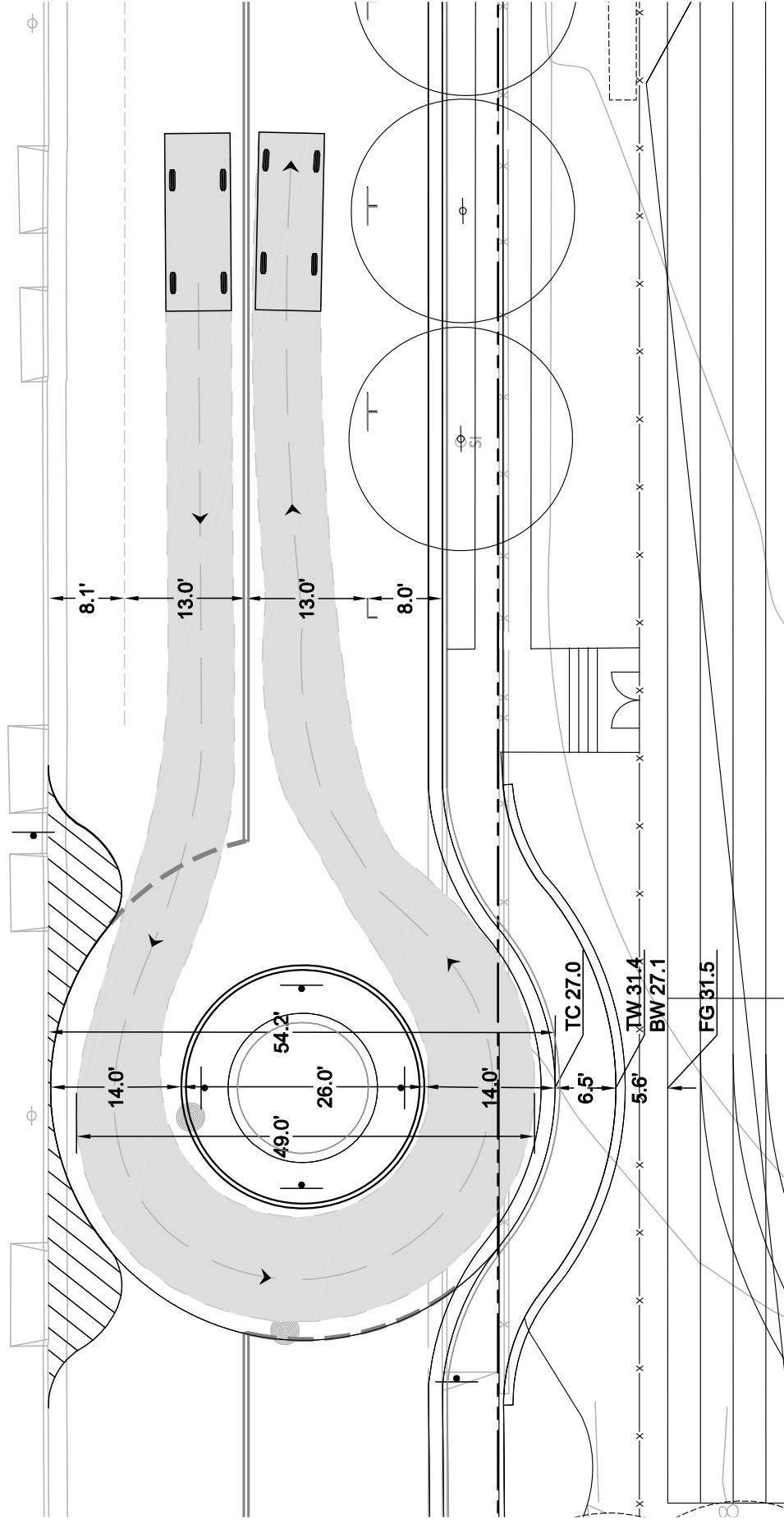


FIGURE 30

LSA



NOT TO SCALE

Emeryville Center of Community Life IS/MND
Conceptual Design of 53rd Street Turnaround

SOURCES: BKF; FEHR & PEERS, JUNE 2013.
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Delivery Truck Access. Access to the site by delivery trucks, food vendors, and trash collection vehicles are expected to occur on a regular basis. A designated loading dock is located on the edge of the proposed off-street parking lot on 47th Street, adjacent to the gymnasium. An auto-turn assessment was conducted, which indicates that delivery vehicles may have a difficult time entering/exiting the designated loading dock area due to the length of the proposed median islands across the drive aisle from the proposed loading block.

Recommendation 3: Adjust length of median islands in the off-street parking lot to allow for delivery vehicles to access the proposed loading dock adjacent to 47th Street.

Parking. The project proposes to provide 28 off-street spaces on the project site, 12 additional spaces from the current on-site supply. With the modifications proposed as part of the project along the 47th Street, San Pablo Avenue, and 53rd Street project frontages, 101 on-street parking spaces would be provided, a slight increase over the existing supply. Additional on-street parking is available on other public streets surrounding the project site.

The City recently updated off-street parking requirements to reflect the expected peak parking demands for various uses, and projects are allowed the flexibility to provide 33 percent less parking than the peak demand and are allowed to build up to 10 percent more than the peak demand. The parking required under the City Zoning Ordinance is presented in Table 29, which shows parking requirements for the site ranges between 125 and 206 spaces for the Phase 1 project and between 137 and 224 spaces at Phase 2 completion. Considering the on-street parking supplies adjacent to the project site on 53rd Street, San Pablo Avenue and 47th Street, approximately 129 parking spaces would be provided to accommodate the expected parking demand, which is within the range permitted under City Code, provided on-street public parking supplies can be considered as part of the project parking supply.

A supplemental parking demand assessment was conducted based on the potential for different uses on the site to share parking supplies as their parking demands vary throughout the day, and to account for non-auto travel to the site. Table 30 presents the estimated parking demand for Phase 1 of the project throughout the day assuming shared parking. Peak parking demand is expected to occur in the afternoon (3:00 p.m. to 4:00 p.m.), with approximately 190 parking spaces required to serve the needs of all uses, including the community recreation uses, which could result in approximately 60 to 70 vehicles parking in the neighborhoods surrounding the Campus. The evening (6:00 p.m. to 9:00 p.m.) parking demand estimate reflects typical use of the lighted fields for community adult sports.

Table 29: City Code Automobile Parking Requirements

Land Use	Rate	Phase 1	Phase 2	Phase 1 Requirement	Phase 2 Requirement
School ^a	0.08 spaces per student	910 students	1,120 students	73	90
Library	2.3 spaces per 1,000 sf	5,425 sf	5,425 sf	12	12
Office	2.4 spaces per 1,000 sf	4,990 sf	4,990 sf	12	12
Community Services ^b	3 spaces per 1,000 sf	5,922 sf	5,922 sf	18	18
Community Assembly ^c	10 spaces per 1,000 sf	3,680 sf	3,680 sf	37	37
Recreation Facilities ^d	3.5 spaces per 1,000 sf	10,047 sf	10,047 sf	35	35
Total				187	204
33% Less Than Demand				125	137
10% More than Demand				206	224

sf = square feet/foot; gsf = gross square feet

^a Parking requirement for school includes all classroom area, teacher/school administrator areas (7,784 sf Phase 1, 8,696 sf Phase 2 completion) school assembly areas, including studios (5,400 sf Phase 1; 6,944 sf Phase 2 completion) and school district multi-purpose area (6,058 sf), gym (10,500 sf Phase 1, 17,638 sf Phase 2 completion) and theater (5,959 sf) which would be restricted to school use during the school day.

^b Includes health clinic (2,964 sf), resource center (997 sf), pre-K (656 sf), and game rooms/lounge (1,305 sf).

^c Reflects 3,680 square foot community services multi-purpose room.

^d Reflects other recreation facilities that would be available for community use. Indoor and Outdoor Recreation are listed as "TBD" in the draft ordinance. Parking demand per 1,000 square feet from ITE Publication Parking Generation, Fourth Edition, for Athletic Club (Lane use 492) was used in this assessment.

Source: City of Emeryville Zoning Ordinance, Fehr & Peers, 2013.

Table 30: Phase 1 Parking Demand for Typical Uses by Time of Day

Parking Demand	Morning (8:00 a.m. – 12:00 p.m.)	Afternoon (12:00 p.m. – 3:00 p.m.)	After School (3:00 p.m. – 4:00 p.m.)	Late Afternoon (4:00 p.m. – 5:00 p.m.)	Early Evening (5:00 p.m. – 6:00 p.m.)	Evening (6:00 p.m. – 9:00 p.m.)	Weekend
Staff Parking	104	104	104	68	41	14	8
Visitor Parking	43	58	64	92	96	100	81
Library Parking ^a	9	9	12	12	10	12	12
Service Vehicles ^b	10	10	10	10	10	10	10
Total	166	181	190^c	182	157	136	111

Note: Parking demand is based on the number of users expected on the site on a typical weekday and weekend, as well as the mode split for trip purpose. This does not include the parking demand for special events. The demand assumes home-based social/recreational trip mode split of 21 percent and a home-based work trip mode split of 20 percent, based on data collected in the Bay Area Travel Survey (2000).

^a The library is open to public use all day. The parking demand for the Library was based on the ITE Parking Generation (2010) publication. For Land Use type 590, ITE reports an average peak parking rate of 2.61 vehicles per 1,000 square feet (ksf). This was reduced by 12 percent to 2.30 based on BATS data to account for the use of alternative modes.

^b Parking for service and other site vehicles would likely be reserved and not shared with other uses.

^c Peak Parking Demand

Source: Bay Area Travel Survey, 2000; American Community Survey, 2007-2011; Fehr & Peers, 2013.

Recommendation 4: Insufficient parking on-site and around the immediate project frontage is expected at various times of the day. A parking management plan should be prepared and implemented. Parking demand around the site should be monitored at regular intervals as the project is built out and parking demand management strategies implemented, including:

- Avoid scheduling overlapping events in the various multi-purpose rooms or athletic venues;
- Work with Emery-Go-Round to have transit serve the site;
- Provide reserved on-site parking spaces for faculty/staff that carpool;
- Provide additional on-site bicycle parking (if needed); or
- Implement parking time restrictions for on-street parking.

The proposed site plan does not include parking designations for faculty and visitors. Designating off-street parking as school visitor or faculty parking only during weekdays may help to manage the limited parking supply. The on-street parking supply can be increased by adjusting the existing curb extensions on the south side of 47th Street as the existing bulb-outs are irregularly spaced. Lengthening the curb extensions to take up the full width of a 90-degree parking space would improve pedestrian visibility at mid-block crosswalks. These also require ADA curb ramps where mid-block crosswalks are proposed. Reducing the overall size of the bulb-outs on 47th Street, as shown on Figure 29, could increase the on-street parking supply by approximately 17 spaces.

Recommendation 5: Consider modifying the curb extensions on the south side of 47th Street to accommodate additional parking spaces with development of Phase 2 of the project. Additionally, prohibit parking through the use of curb extension opposite the parking lot driveway to minimize vehicle conflicts.

As pick-up and drop-off for the schools are expected to occur on both 47th Street and 53rd Street, parking restrictions during bell times should be included with the project through signage and painted curbs, as identified in Recommendation 2.

Given the expected peak typical parking demand of 190 spaces, the Americans with Disability Act requires 6 accessible stalls to support a parking supply/demand between 151 and 200 spaces, including 1 van accessible spaces. A total of 6 accessible stalls are proposed, all of which are van accessible stalls.

Phase 2 of the project proposes to add structured parking onto the proposed surface parking lot, which would increase the parking supply.

Recommendation 6: Parking demand for the Phase 1 project should be evaluated prior to the development of the Phase 2 project to determine the level of parking needed to accommodate existing and future activities within the project site.

Bicycle parking is discussed in the bicycle subsection.

e) Result in inadequate emergency access? (Less-Than-Significant Impact)

Emergency vehicle access to the project site would be provided from 47th Street and 53rd Street. Emergency vehicle access would be provided from the on-site parking lot on 47th Street. On the northern project frontage, access would be provided via a gated entrance on 53rd Street, with the track and sports fields constructed to allow for emergency vehicle circulation to the center portion of the campus. Therefore, the project is not expected to result in inadequate emergency access.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (Less-Than-Significant Impact)

Pedestrians. As part of the project, pedestrian improvements would be constructed along the project frontages on 53rd Street, San Pablo Avenue and 47th Street. On 47th Street, improvements include three mid-block pedestrian crosswalks in addition to a bulb-out at the northwest corner of the San Pablo Avenue/47th Street intersection.

Recommendation 7: Modify the crosswalk locations on 47th Street as shown on Figure 29. Modify the curb extensions on 47th Street to maximize the number of parking stalls and better define the pedestrian crossing areas. Extensions should be 16 feet deep and 12 to 18 feet wide (depending on the desirability of landscaping). All curb extensions should have ramps.

Recommendation 8: Provide ADA curb ramps at the pedestrian path through the parking lot.

Pedestrian access to the project site is provided from 47th Street, San Pablo Avenue, and 53rd Street. The primary pedestrian access points are located on 47th Street, with entry points to the swimming pool, gymnasium, sports fields, and secondary school. Two pedestrian access points are provided on San Pablo Avenue, one south of 48th Street and one south of 53rd Street, adjacent to the auditorium. Pedestrian access is provided on 53rd Street, with an entry point to the sports field as well as adjacent to the auditorium.

Sidewalks between 8 and 14 feet in width would be provided on 47th Street, with wider sidewalks adjacent to the drop-off/pick-up area. Sidewalks on San Pablo Avenue would be increased from approximately 10 feet to 15 feet. On 53rd Street, sidewalks would be increased from 5 feet to 6 feet, with additional sidewalk width adjacent to the main entrance. Given the level of pedestrian activity expected along the entire 53rd Street frontage, 6 foot sidewalks are insufficient adjacent to the parking/loading/unloading areas. No pedestrian access or paths are provided on the west side of the project, where the site abuts residential development, with Phase 1 of the project.

Recommendation 9: Increase the width of sidewalks on 53rd Street to 9 to 10 feet along the parking/loading/unloading areas.

Improvements to the northeast corner of the project site include geometry improvements to the 53rd Street/San Pablo Avenue intersection, as shown on Figure 4. The intersection is currently offset, and east-west through movements on 53rd Street are not aligned. The project proposes reducing the curb radii on the southwest corner, which would reduce the speed of eastbound right-turn movements onto San Pablo Avenue and shorten the pedestrian crossing on 53rd Street, as well as providing a crosswalk on the north leg of the intersection.

Recommendation 10: In addition to the modifications shown on the project site plan, work with the City of Emeryville to install additional improvements at the San Pablo Avenue/53rd Street intersection consistent with the City of Emeryville *Pedestrian and Bicycle Plan*, including:

- Providing ADA-accessible curb ramps and pedestrian push buttons on all crossings.
- Installing pedestrian countdown heads and audible detectors for each pedestrian crosswalk.

A bulb out is proposed on the northwest corner of the 47th Street/San Pablo Avenue intersection, which would reduce the pedestrian crossing distance.

Recommendation 11: Install pedestrian countdown heads and audible detectors for each pedestrian crosswalk at the San Pablo Avenue/47th Street intersection, consistent with improvements identified for this intersection in the City of Emeryville *Pedestrian and Bicycle Plan*.

Transit. Transit currently serves the project site and no changes to the number of transit stops or level of transit service are proposed as part of the project. As the project enhances transit access and does not conflict with any transit plans, the project is not expected to create a significant impact to the transit system.

Recommendation 12: The District should work with the Emeryville Business Improvement District to identify strategies to provide Emery-Go-Round service to the site.

Bicycle. The City of Emeryville *Pedestrian and Bicycle Plan* designates 53rd Street as a bicycle boulevard, greenway and a green street. Existing daily traffic volumes on 53rd Street (estimated from PM peak hour traffic on the roadway) between San Pablo Avenue and Hollis Street are approximately 2,250 vehicles per day (VPD). With the project, traffic volumes on 53rd Street are expected to increase by approximately 1,200 to 1,500 VPD between San Pablo Avenue and Boyer Street as the 53rd Street project frontage would be used as a drop-off/pick-up area for K-8 students. Increases of approximately 200 VPD east of Boyer Street are expected. The City of Emeryville *Pedestrian and Bicycle Plan* indicates that traffic volumes on bicycle boulevards should be below 1,500 VPD for bicycle boulevards east of Hollis Street, and west of Hollis Street traffic volumes should be less than 3,000 VPD. Higher volumes can be permitted for short segments with additional treatments.

Traffic volumes on 53rd Street along the project frontage already exceed the desired volume threshold for bicycle boulevard designation (1,500 VPD) and the addition of project traffic would increase traffic volumes over 3,000 VPD between Boyer Avenue and San Pablo Avenue, requiring additional treatments to calm traffic. The provision of the mid-block turn-around on 53rd Street would serve as a traffic calming device along the corridor, moderating vehicle speeds between Boyer Avenue and San Pablo Avenue and potentially resulting in existing traffic diverting to other travel routes. There are also two existing speed humps on 53rd Street along the project frontage that would not be altered with the project.

Recommendation 13: Install bicycle boulevard signage and striping along the project frontage on 53rd Street and additional level 3 or level 4 measures as identified in the *Pedestrian and Bicycle Plan*, such as a high visibility crosswalk at the 53rd Street/Boyer Avenue intersection.

Greenway and other green street treatments should be included in the final design for the 53rd Street frontage.

A Class I bicycle-pedestrian path is identified in the City of Emeryville *Pedestrian and Bicycle Plan* along the western edge of the campus connecting 47th Street and 53rd Street. This path is not included as part of the Phase 1 project due to constraints on the western edge of the site with the existing pool facility. With the Phase 2 project, modifications to the pool and gymnasium area could permit development of a path along the western project boundary.

Recommendation 14: The District will work with the City to provide a bicycle-pedestrian connection and access between 53rd Street and 47th Street in the Phase 2 project.

Bicycle parking is not shown on the site plan.

Recommendation 15: The District should indicate short-term and long-term bicycle parking spaces on the site plan. Based on parking requirements, at least 19 short-term spaces and 19 long-term spaces must be provided and installed per design guidelines in the Zoning Ordinance and the *City of Emeryville Pedestrian and Bicycle Master Plan*. Recommended locations for short-term and long-term spaces are presented on Figure 29. Locations where additional short-term bicycle parking spaces could be installed as demand dictates should be identified as it is likely more than 36 bicycle parking spaces would be needed to satisfy demand. Additional bicycle parking would be required with Phase 2 of the project.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 that it has adequate capacity to 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"/>
a) <i>Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? (Less-Than-Significant Impact)</i>				

The City of Emeryville's sewer collection system is connected to drainage basins, each of which connects to the East Bay Municipal Utility District's (EBMUD) sanitary sewer interceptor. Wastewater flows are then conveyed to EBMUD's Main Wastewater Treatment Plant (MWWTP) in the City of Oakland. The MWWTP has a primary treatment capacity of 320 million gallons per day (mgd) and a secondary treatment capacity of 168 mgd. Storage basins provide plant capacity for a short-term hydraulic peak of 415 mgd. The average annual daily flow into the MWWTP is approximately 75 mgd, representing 45 percent of the plant's secondary treatment capacity.¹²⁸ Treated effluent is disinfected, dechlorinated, and discharged through a deep-water outfall 1 mile off the East Bay shoreline into the San Francisco Bay.

EBMUD also supplies recycled water and the City of Emeryville has a Recycled Water Ordinance,¹²⁹ requiring residential developments that require subdivisions and buildings with over 100,000 square feet of non-residential development to install a parallel water supply system for elements such as parks, greenbelts, landscaped streets or medians, and any other use that does not require potable water.¹³⁰ The proposed project does not include installation of recycled water lines.

¹²⁸ East Bay Municipal Utility District, 2012a. Wastewater Treatment. Website: www.ebmud.com/wastewater/online_tour (accessed September 7).

¹²⁹ Emeryville, City of, 2002. Municipal Code Sections 9-4.63.5, Water Reuse. March.

¹³⁰ Emeryville, City of, 2009. *Emeryville General Plan*. October 13.

The proposed project would generate wastewater, treated by the EBMUD treatment facilities. EBMUD is required to meet applicable RWQCB treatment requirements. Wastewater generated by the proposed project would be minimal when compared to the average daily flow for the MWWTP and would not exceed the capacity of the MWWTP. Minor modifications to existing sanitary sewer and water lines would be made to enable existing sanitary sewer infrastructure to convey wastewater to EBMUD treatment facilities. The increase in student, employee, and community population that would result from the proposed project would incrementally increase the amount of wastewater generated on the project site.

The project site would generate approximately 55,875 gpd of wastewater, which represents less than one percent of each the MWWTP's primary and secondary capacities, and the MWWTP's average annual daily flow.¹³¹

Wastewater discharges that may occur at the project site may be subject to monitoring by EBMUD to ensure that the development's sewage discharge does not impair the ability of the MWWTP to meet wastewater treatment objectives and requirements. Therefore, the proposed project would not exceed the wastewater treatment requirements of the Regional Water Quality Control Board, San Francisco Bay Region (Water Board).

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? (Potentially Significant Unless Mitigation Incorporated)*

The water and wastewater treatment facilities that serve the project site and area include EBMUD's Orinda Water Treatment Plant (WTP) and the MWWTP, respectively.^{132,133} The Orinda WTP has the largest output of EBMUD's treatment plants with a maximum capacity of 190 mgd and is currently operating at approximately 57 percent of capacity.^{134,135} Please refer to Section XVII.a for a description of the MWWTP's capacity.

The proposed project would connect to existing water delivery systems within the vicinity of the site; an existing 12-inch water line is located along 53rd Street, a 6-inch line is located along the west side of San Pablo Avenue, and a 10-inch line is located along 47th Street. The project would be consistent with the level of development envisioned under the General Plan and would locate public uses on the site.

¹³¹ Integral Group, 2013. Daily Sanitary Sewer Flows for Buildings Calculation. April 29. Wastewater generation was calculated based on Appendix K of the California Plumbing Code.

¹³² East Bay Municipal Utility District, 2012b. Water Treatment Plants. Website: www.ebmud.com/our-water/water-quality/water-treatment-plants (accessed September 7).

¹³³ East Bay Municipal Utility District, 2012a, op. cit.

¹³⁴ East Bay Municipal Utility District, 2012b, op. cit.

¹³⁵ East Bay Municipal Utility District, 2012c. *EBMUD Daily Water Supply Report*. Website: www.ebmud.com/daily-water-supply-report (accessed September 7).

The proposed project would connect to existing sanitary sewer systems within the vicinity of the site; there is an 8-inch line located along 53rd Street that also connects into the northwest portion of the project site, and a 6-inch line is located along the west side of San Pablo Avenue.

EBMUD's system is currently unable to handle storm drainage from the communities where sewer pipes leak heavily during rainstorms. The issue of inadequate wet weather capacity has been particularly critical since 2009, when the San Francisco Regional Water Quality Control Board (RWQCB) issued an order prohibiting further discharges from EBMUD's wet weather facilities. EBMUD is currently conducting extensive flow modeling and hydraulic monitoring to determine the level of flow reduction that will be needed to comply with the RWQCB order. In the meantime, EBMUD is instructing lead agencies in the process of reviewing development projects to require such projects to implement the following improvements: 1) replace or rehabilitate existing sanitary sewer collection systems, including lateral sewer lines, to reduce infiltration and inflow, and 2) ensure that any new wastewater collection systems, including lateral sewer lines, are constructed to prevent infiltration and inflow to the maximum extent feasible. In 2011, EBMUD began working with State, federal and local agencies to focus on wet weather flows at the source, where City and EBMUD pipes would be inspected, cleaned and monitored.¹³⁶

In fiscal year 2010, EBMUD's system demand was on average 174 mgd.¹³⁷ By 2040, EBMUD projects that water demand will increase to approximately 312 mgd in its service area, although with successful completion of water recycling and conservation programs, this demand could be reduced to approximately 230 mgd.¹³⁸ The increased demand (approximately 17,927 gallons of water per day¹³⁹) that would result from the proposed project would represent less than one percent of the anticipated water demand in 2040; therefore water could be supplied to the project site via existing and planned entitlements.

As previously described in Section XVII.a, the MWWTP has a primary treatment capacity of 320 mgd and a secondary treatment capacity of 168 mgd, and the average annual daily flow into the MWWTP is approximately 75 mgd. Approximately 55,875 gpd of wastewater would be generated from implementation of the proposed project, which would represent less than one percent each of the MWWTP's primary and secondary capacities, and the MWWTP's average annual daily flow.

Based on fire service available flow and pressure calculations from EBMUD,¹⁴⁰ there appears to be adequate water flows and pressure from the street main locations to meet the fire flow requirements

¹³⁶ East Bay Municipal Utility District, 2011a. All About EBMUD. Website: www.ebmud.com/resource-center/publications/fact-sheets (accessed September 19, 2012).

¹³⁷ East Bay Municipal Utility District, 2011a, op. cit.

¹³⁸ The planning level of demand (312 mgd) does not include the short-term reduction and rebound in demand caused by the multi-year drought (2007-2010) and the downturn in the economy. The planning level of demand is used to assess demands as dictated by community policies. The EBMUD's 2040 Demand Study projected, on average, less than a one percent growth each year in customer demand through 2030 followed by a much lower increase thereafter to a 2040 planning level of demand of 230 mgd after applying reductions from conservation and recycled water savings.

¹³⁹ Integral Group, 2013. LEED Daily Water Consumption Calculation. April 29. Water demand was generated using the low-flow fixtures specified for the project and usage rates per LEED.

¹⁴⁰ Shew, Kathi, EBMUD, 2013. E-mail of EBMUD Fire Service Available Flow and Pressure Calculations, Request Number: 4062.

for the proposed project. Implementation of Mitigation Measure UTL-1 would ensure that there is adequate fire flow to serve the proposed project.

Mitigation Measure UTL-1: The District shall require that the fire sprinkler be designed to incorporate a design allowance for pressure losses through the fire service meter, backflow prevention, and the lateral from the street main to the fire service meter.

As detailed construction plans for the project have not been completed, it is unknown if existing utilities will need to be relocated or altered to accommodate the realignment and installation of a traffic turn-around on 53rd Street. An assessment of existing utilities (water, sewer, electric) would need to be made by the District, City, and utility providers at the time detailed site plans are available. Implementation of the following mitigation measure would reduce the potential impact associated with utility relocation to a less-than-significant level.

Mitigation Measure UTL-2: When detailed site plans for any proposed street improvements are available, the District and the City shall coordinate with all utility providers to prepare plans for relocation of existing utility lines, as necessary. The District will obtain confirmation from ACFD and EBMUD that any relocated fire hydrants would have adequate water fire flow to serve the project site. The City shall review all plans for utility line relocation.

Given the above, with implementation of Mitigation Measures UTL-1 and UTL-2, it is anticipated that the project's potential impact on utilities would be less-than-significant.

- c) *Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (Potentially Significant Unless Mitigation Incorporated)*

The proposed project would connect to the existing stormwater system and would include a new outfall into the Temescal Creek culvert. The project would not increase impervious surfaces at the site and would therefore not result in increased amounts of stormwater runoff (which may actually be less than existing conditions). Therefore new, larger stormwater facilities are not likely required for the new development and this impact would be less than significant.

Please refer to Section IX.a and e for a discussion of stormwater drainage. Implementation of Mitigation Measures HYD-1 and HYD-2 would ensure that potential impacts to the existing storm drainage system would be less than significant.

- d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? (Less-Than-Significant Impact)*

Water service at the project site and in the project area is provided by EBMUD. EBMUD obtains approximately 90 percent of its water from the Mokelumne River watershed, and transports it through pipe aqueducts to temporary storage reservoirs in the East Bay hills. EBMUD has water rights and facilities to divert up to a daily maximum of 325 mgd from the Mokelumne River.¹⁴¹ Average daily

¹⁴¹ East Bay Municipal Utility District, 2011b. *Urban Water Management Plan 2010*. June.

water demand within the EBMUD service area was approximately 155 mgd in 2010, the most recent year for which this data is available.¹⁴² EBMUD also has a contract with the U.S. Bureau of Reclamation to obtain water from the American River via the Folsom South Canal, but these facilities have yet to be built because of litigation opposing further diversions from the Sacramento River Delta.

EBMUD faces water supply problems such as the growing risk of aqueduct failure in the Delta, increasing shortages in dry periods, and increased difficulty in maintaining high quality drinking water. In response, EBMUD recently completed development of *Water Supply Management Program (WSMP) 2040*, the District's plan for providing water to its customers over the next 30 years.¹⁴³ The plan calls for maintaining a reliable, high-quality water supply by aggressively conserving and recycling water. New water supplies will come from water transfers, groundwater storage and regional supply projects.

EBMUD's Non-Potable Water Policy 73 (Policy 73) seeks to implement recycled water programs. Policy 73 requires that, when non-potable water is available, customers of EBMUD use non-potable water for non-domestic purposes when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health, and not injurious to plant life, fish and wildlife. Policies CSN-P-12 and CSN-P-16 in the City of Emeryville General Plan promotes the use of recycled water on landscaping and other non-food source plantings and supports the use of recycled water in new and rehabilitation projects through the development process. Currently, use of recycled water is not proposed for the project site.

As previously described in Section XVII.b, based on California's average per capita urban water demand rate, the proposed project's water demand would be approximately 17,927¹⁴⁴ gallons of water per day. The increased demand that would result from the proposed project would represent less than one percent of the anticipated water demand in 2040; therefore water could be supplied to the project site via existing and planned entitlements.

Additionally, further evaluation was done to compare water usage at the site when occupied by the Emery Secondary School compared to water use anticipated by future high school users. For fiscal year May 2011 to May 2012, it was estimated that water usage at the project site was 4,151,400 gallons. Based on the area comparisons for the high school use, it is estimated that high school and landscaping associated water use would be 2,319,424 gallons; this would represent a 44 percent savings compared to prior high school use of the site.¹⁴⁵

Therefore, it is not anticipated that EBMUD would need new or expanded entitlements to serve the proposed project.

¹⁴² East Bay Municipal Utility District, 2010. *East Bay Water 2010, A Status Report on Local Water Use and Water Supplies*. November.

¹⁴³ East Bay Municipal Utility District, 2012d. *Water Supply Management Program 2040 Plan*. April.

¹⁴⁴ Integral Group, 2013. LEED Daily Water Consumption Calculation. April 29. Please note that water use is estimated at 16,528 gpd for use within structures and 1,399 gpd for landscaping.

¹⁴⁵ Integral Group, 2013. *CEQA Compliance for ECCL – Water Use Comparison*. June 4.

However, due to EBMUD's limited water supply, future users of the site (and all EBMUD customers) should plan for shortages in time of drought. Compliance with standard City requirements and programs for incorporating water conservation measures into the project design will ensure efficient use of water at the project site and minimize the project's potential water demand to a level that is considered less than significant. EBMUD also imposes a system capacity charge on new developments to fund system maintenance and the development of new water sources. The project applicant would be required to pay this fee and undertake water conservation measures to conserve water such as the installation of low-flow toilets.

The proposed project is not subject to either an assessment required by Senate Bill 221 (project is consistent with the General Plan, is not subject to a referendum, and is not a subdivision) or an assessment required by Senate Bill 610 (project consists of less than 500 units and 500,000 square feet of commercial space, and will have fewer than 1,000 employees).

- e) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? (Less-Than-Significant Impact)*

Please refer to Section XVII,a. The proposed project would not exceed the capacity of the wastewater treatment system.

- f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? (Less-Than-Significant Impact)*

Waste Management of Alameda County (WMAC) collects non-hazardous waste within the City of Emeryville and provides curbside pick-up for residential and commercial non-hazardous waste. Non-hazardous solid waste is taken to the Davis Street Resource and Recovery Complex in San Leandro for processing, and then hauled to the Altamont Landfill and Resource Facility near the City of Livermore. The Davis Street facility has a permitted maximum daily throughput of 5,600 tons.¹⁴⁶ Demolition and construction debris is generally hauled by construction contractors to recycling facilities or the Vasco Road Landfill. In 2011, the City of Emeryville disposed of approximately 20,855 tons of solid waste at various disposal facilities.¹⁴⁷ In 2006 (the year for which the most current data is available), the City of Emeryville diverted approximately 74 percent of its solid waste from landfills through recycling and/or composting efforts.¹⁴⁸

The Altamont Landfill facility has a total estimated capacity of 62 million cubic yards. As of 2000, the landfill's total estimated used capacity was approximately 16.3 million cubic yards, or 26 percent

¹⁴⁶ California Department of Resources Recycling and Recovery (CalRecycle), 2012a. Solid Waste Information System. *Facility/Site Search*. Website: www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx (accessed September 19).

¹⁴⁷ CalRecycle, 2012b, Jurisdiction Review Reports. Website: www.calrecycle.ca.gov/LGCentral/Reports/Jurisdiction/ReviewReports.aspx (accessed September 19).

¹⁴⁸ CalRecycle, 2012c. *Jurisdiction Diversion/Disposal Rate Summary (1995 - 2006)*. Website: www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversion.aspx (accessed September 19).

of the landfill's total capacity. The landfill has a permitted throughput of 11,500 tons per day¹⁴⁹ and is anticipated to have sufficient capacity until 2025, its expected closure date.¹⁵⁰

The Vasco Road Landfill facility has a total estimated capacity of 33 million cubic yards. As of 2000, the landfill's total estimated used capacity was approximately 23 million cubic yards, or 70 percent of the landfill's total capacity. The landfill has a permitted throughput of 2,250 tons per day and is anticipated to have sufficient capacity until 2019, its expected closure date.¹⁵¹

The project site could result in approximately 2,250 tons of demolition waste and approximately 3,000 cubic yards of construction debris. The project applicant will divert 75 percent of construction and demolition waste away from landfills. Waste generated by the proposed project would not exceed the combined permitted capacity of approximately 95 million cubic yards of these landfills.¹⁵²

The project applicant would be required to comply with the City's Construction and Demolition Ordinance and prepare a Construction and Demolition Waste Management Plan (WMP) prior to building or demolition of the proposed project.¹⁵³

g) Comply with federal, State, and local statutes and regulations related to solid waste? (No Impact)

In 1989, the California Legislature enacted the California Integrated Waste Management Act (AB 939), which requires the diversion of waste materials from landfills in order to preserve landfill capacity and natural resources. Cities and counties in California were required to divert 25 percent of solid waste by 1995, and 50 percent of solid waste by the year 2000. AB 939 further requires every city and county to prepare two documents demonstrating how the mandated rates of diversion will be achieved. The Source Reduction and Recycling Element (SRRE) must describe the chief source of the jurisdiction's waste, the existing diversion programs, and current rates of waste diversion and new or expanded diversion programs. The Household Hazardous Waste Element (HHWE) must describe each jurisdiction's responsibility in ensuring that household hazardous wastes are not mixed with non-hazardous solid wastes and subsequently deposited at a landfill.

Alameda County passed the Source Reduction and Recycling Initiative ("Measure D") a local ballot initiative in 1990. Measure D established aggressive countywide waste diversion goals above the goals mandated by the State, and set a 75 percent and higher goal for reduced landfilling. Measure D also emphasized on preserving natural resources, and described the need to establish long-term sustainable consumption and disposal patterns. In support of these goals, the measure directed the Alameda County Source Reduction and Recycling Board to prepare a recycling plan, which would

¹⁴⁹ Permitted throughput is the maximum permitted amount of waste a landfill can handle and dispose of in one day. This figure is established in the current solid waste facilities permit issued by CalRecycle.

¹⁵⁰ CalRecycle, 2012d. *Solid Waste Information System Facility/Site Listing*. Website: www.calrecycle.ca.gov/SWFacilities/Directory/search.aspx (accessed September 6).

¹⁵¹ Ibid.

¹⁵² Ibid.

¹⁵³ Emeryville, City of, 2012. *Construction and Demolition Waste*. Website: www.ci.emeryville.ca.us/index.aspx?NID=737 (accessed September 19).

identify the necessary programs and policies. In 2003, the Alameda County Waste Management Authority and Source Reduction and Recycling Board adopted the Alameda County Source Reduction and Recycling Plan Vision 2010: 75 Percent and Beyond, which identifies specific programs, objectives and strategies for the County to reach its 75 percent diversion goal.¹⁵⁴

The Emery School District is a participating organization with stopwaste.org, and also actively participates in the County's school district recycling program, "irecycle@school", which provides educational program support and indoor classroom signage material to support student's understanding and practices of reducing, reusing, recycling, and composting.¹⁵⁵

The proposed project would comply with all federal, State, and local solid waste statutes and/or regulations related to solid waste. Also refer to Section XVII.f.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. 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 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"/>

¹⁵⁴ Alameda County Waste Management Authority and Alameda County Source Reduction and Recycling Board, 2003. Alameda County Source Reduction & Recycling Plan. January. Website: www.stopwaste.org/home/index.asp?page=512 (accessed April 16, 2013).

¹⁵⁵ Alameda County Waste Management Authority and Alameda County Source Reduction and Recycling Board, 2013. School District Recycling. Website: www.stopwaste.org/home/index.asp?page=497 (accessed April 10).

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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"/>

- 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? (Potentially Significant Unless Mitigation Incorporated)*

Implementation of the proposed project could degrade the quality of the environment; however, implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, CULT-1, and CULT-2 would ensure that potential impacts related to biological and cultural resources would be reduced to less-than-significant levels. With mitigation, the proposed project would not: 1) substantially degrade the quality of the environment; 2) substantially reduce the habitat of a fish or wildlife species; 3) cause a fish or wildlife species population to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major period of California history.

- 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.) (Less-Than-Significant Impact)*

The impacts of the proposed project would be individually limited and not cumulative considerable, as described in this IS/MND. All environmental impacts that could occur as a result of implementation of the proposed project would be reduced to less-than-significant levels through implementation of the mitigation measures recommended in this document.

- c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? (Potentially Significant Unless Mitigation Incorporated)*

With implementation of the mitigation measures included in this document, the proposed project would not result in environmental effects that would cause substantial direct or indirect adverse effects to human beings.

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