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M E M O R A N D U M

TO: Pedro Mora, Construction Project Manager

FROM: Justin Witt

SUBJECT: Alameda Unified School District
Otis Elementary School (Otis) Site Work and New Construction
Class 2 and Class 14 Categorical Exemption Supporting Memorandum

DATE: February 13, 2025

The Alameda Unified School (District) is currently considering filing a Categorical Exemption for the Otis Elementary School (Otis Campus) Site Work and New Construction under the California Environmental Quality Act (CEQA). This memorandum describes the applicability of a Class 2 and Class 14 Categorical Exemption to the proposed project.

Project Background and Description

The District is moving forward on several campus modernization projects identified in the District's July 2022 Master Plan Revision (Master Plan). Each campus improvement project is intended to be implemented independently under separate approvals, schedules and construction budgets to allow the District to ensure the orderly provision of educational services while construction occurs. Each of the projects are a "project" under CEQA, so the District is preparing a Categorical Exemption and this supporting memorandum to comply with CEQA for the Otis Campus project.

The Otis Campus is located at 3010 Fillmore Street within the City of Alameda (Figure 1). The Otis Campus serves grades K through 5 in southeast Alameda and has been a school site since the 1950s when that area of the San Francisco Bay was filled. An aerial view of the existing campus is shown on Figure 2.

The overall Otis Campus project includes replacement of the existing administration/classroom building and one portable building with a new one-story administration and media center building and a two-story classroom building. The project will also include limited modernization of existing buildings and reconfiguration of exterior spaces within the existing campus. The overall Otis Site Plan improvements are shown on Figure 3. The administration and media center building and classroom building improvements have advanced to the construction documents design phase and are anticipated to begin construction in summer 2026. These are further described below.

The existing administration/classroom building and one portable building would be replaced with a new one-story administration and media center building and a new two-story classroom building. Available classroom space will be reduced from approximately 44,966 square feet to approximately 41,018 square feet. The new two-story classroom building will consist of general education classrooms, transitional kindergarten (TK), and kindergarten classrooms on the ground floor, and a Special Day Classroom with a counselor's office for

intensive needs students. The existing blacktop playground, basketball and tether ball posts, and ball walls would be replaced with a new blacktop playground, a synthetic turf area, a student garden, outdoor learning spaces, a fabric shade structure for eating meals outdoors, and a low-fenced TK and kindergarten play area with kinder appropriate play structures and surfacing. The existing bike racks would be replaced with a new secured bike parking area with bike racks and lockers. The proposed improvements are shown on Figure 3.

Modernization work would consist of a fire alarm upgrade at all existing buildings and adding air conditioning (cooling) to the two-story modular classroom building only. A new automatic fire alarm system with voice evacuation shall be provided to work with the head-end equipment being installed at the new administration building. A new electrical feed would be provided to bring additional power to the classroom building for the air conditioning system. The exterior of the existing multi-purpose building and existing classroom building that will not be replaced would be repainted. Construction of both the new construction and the modernization of existing buildings is anticipated to be completed in summer 2028.

Construction Noise Commitment

To comply with the City's Noise Ordinance, the following Standard Best Management Practices (BMPs) would be implemented at the construction site to reduce the effects of construction noise on adjacent residences:

- In compliance with Section 4-10.7 Special Provisions of the City's Noise Ordinance, demolition, grading, and pile driving activities shall only occur between the hours of 7:00 a.m. to 7:00 p.m. Monday through Fridays or 8:00 a.m. to 5:00 p.m. on Saturdays,.
- The District would provide notice to all residents within 200 feet of construction activities at least two weeks prior to commencing construction. Notice would include an overall expected construction schedule and specific demolition, grading, and pile driving schedules would be provided. The notice would include the contact information for the District's Construction Department and the anticipated construction schedule.
- All internal combustion engine driven equipment would be equipped with intake and exhaust mufflers which are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines would be strictly prohibited.
- Staging of construction equipment and all stationary noise-generating construction equipment, such as air compressors and portable power generators, would be staged as far as practical from existing noise sensitive receptors.
- "Quiet" air compressors and other "quiet" stationary noise sources would be utilized where technology exists.
- Noise from construction workers' radios would be controlled to the point where radio noise is not audible at existing residences bordering the project site.
- A sign providing contact information for the District's Construction Department would be posted onsite for construction-related questions/complaints

Applicability of a Class 2 Exemption

Section 15302 of the CEQA Guidelines includes a Categorical Exemption for replacement or reconstruction, defined as follows (emphasis added):

> Class 2 consists of **replacement or reconstruction** of existing structures and facilities **where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced**,

including but not limited to:

(a) **Replacement or reconstruction of existing schools** and hospitals to provide earthquake resistant structures **which do not increase capacity more than 50 percent**.
(b) Replacement of a commercial structure with a new structure of substantially the same size, purpose, and capacity.
(c) Replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity.
(d) Conversion of overhead electric utility distribution system facilities to underground including connection to existing overhead electric utility distribution lines where the surface is restored to the condition existing prior to the undergrounding

The proposed project fits squarely within the Class 2 Categorical Exemption. The administration/classroom building and one portable building would be replaced on the same site and have the same purpose and approximate capacity as the existing facilities. The proposed two-story classroom building would supplement the existing portable buildings. The new buildings would result in a modest decrease in existing available square footage. The new buildings would be constructed to modern seismic codes to enhance campus safety.

Minor improvements to the existing buildings to be retained would also be categorically exempt. The existing classroom would be upgraded with no expansion of capacity, consisting of fire alarm system improvements and the addition of an air conditioning system. The new classroom building would replace the capacity of the classrooms of the existing administration/classroom building and portable building to meet existing student needs. The replacement of outdoor play and gathering areas would not expand capacity.

Proposed improvements are for existing students, not to serve any anticipated growth in student demand. According to the California Department of Education (CDE) Ed-Data shown below[1], student population at the Otis Campus and within the District has been declining. The proposed improvements are intended to respond to existing student demands associated with the inadequate and dated existing facilities. Due to the downward trending enrollment, the proposed improvements would not provide facilities for additional students as such facilities are not necessary.

Census Day Enrollment	2019-20	2020-21	2021-22	2022-23	2023-24
Otis Campus	638	610	570	541	524
AUSD	11,285	10,927	10,245	10,359	10,557

None of the replacement facilities or improved existing facilities would increase school capacity by more than 50 percent, all facilities essentially have the same purpose as the facility they replace, and all occur on the same site. The project fits within the Class 2 Exemption.

Applicability of a Class 14 Exemption

Section 15314 of the CEQA Guidelines include a Categorical Exemption for minor additions to schools, defined as follows: "Class 14 consists of minor additions to existing schools within existing school grounds where the addition does not increase original student capacity by more than 25% or ten classrooms, whichever is less. The addition of portable classrooms is included in this exemption."

The proposed project would result in the construction of the new administration and media center building.

[1]https://www.ed-data.org/school/Alameda/Alameda-Unified/Frank-Otis-Elementary

The existing campus does not include a library or media center to serve the existing student population. The proposed media center would serve as a library, electronic, and digital center. The addition of the media center would alleviate constraints associated with the existing insufficient facilities to store books and electronic educational materials. The new media center would not increase student capacity by 25 percent (it would serve existing students) or ten classrooms (the media center would serve as one additional classroom). The administration portion of the administration and media center building would replace the use of the existing administration building and would not contain any additional classrooms or increase student capacity. Similarly, the student garden would occur on the campus and would not increase student capacity or classrooms. The new two-story classroom building would replace the existing classroom building and will modestly decrease the existing square footage of classroom space. As indicated above, attendance at Otis and the District overall has been slowly declining for years. The proposed Master Plan facilities at the Otis Campus are to meet existing student demands and replace or modernize dated facilities. These activities are within the bounds of a Class 14 Exemption.

Exceptions to Categorical Exemptions

The CEQA Guidelines (Section 15300.2) include exceptions to the use of Categorical Exemptions, as follows:

> (a) Location. Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located – a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply all instances, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.
> (b) Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.
> (c) Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.
> (d) Scenic Highways. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.
> (e) Hazardous Waste Sites. A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.
> (f) Historical Resources. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

With regard to the proposed project, none of the exceptions to the use of a Categorical Exemption apply for the following reasons:

a) Location: The Otis Campus project would utilize a Class 2 and Class 14 Categorical Exemption that are not limited by location, per 15300.2(a). There are no environmental resources of hazardous or critical concern designated, precisely mapped and officially adopted by federal, state, or local agencies for the Otis Campus project site. It is a replacement and modernization project occurring on the same site with the same capacity and purpose. There are no unusual circumstances specific to the project location that would preclude the use of a Class 2 or Class 14 Categorical Exemption.

b) Cumulative Impact: The project would not result in a cumulatively considerable impact. District-wide and Otis Campus student and teacher populations would not be increased by the project and the project occurs entirely within the existing school grounds. As a replacement and modernization project, all required infrastructure to support the campus already exists including the transportation network and utilities.

The project would not result in increased traffic due to its replacement and modernization of existing facilities and slowly declining enrollment. The Otis Campus is already included in local planning documents (Alameda General Plan and zoning ordinance) and the project would not result in cumulatively considerable impacts. The project area is already essentially built out and no significant development in the area is anticipated. No cumulatively considerable impacts are associated with the project.

c) Significant Effect: The project occurs entirely within existing developed school grounds within an existing developed area and does not increase campus populations. The Otis Campus has existed since the 1950s and all supporting infrastructure for the campus exists.

There are no significant biological resources that would be impacted by the proposed project—all construction is contained to the existing school grounds in locations that are either paved or hardscaped. The site has continuously been used and maintained as a school site since it was filled. No waterways or wetlands are present within the existing campus. No significant trees would be impacted by the project.

The project occurs within the 0.2% annual chance flood hazard zone mapped by FEMA. Newly constructed buildings would be constructed with floor elevations higher than the flood elevation anticipated to result from the 0.2% annual chance flood.

Analysis of noise effects resulting from the project is included in Appendix A. The project would not have a significant impact on the existing noise environment.

The scope and size of the project are consistent with Class 2 and Class 14 categorically exempt projects and the project is consistent with its existing school site land use.

There are no unusual circumstances that would result in a reasonable possibility that the project would have a significant impact on the environment that would preclude the proposed project from use of Class 2 and Class 14 Categorical Exemptions.

d) Scenic Highways: The proposed project is not visible from any scenic highway. The nearest designated scenic highway is Interstate 580 through Oakland, approximately 3.5 miles to the north of the project[2].

e) Hazardous Waste Sites: The proposed project locations are not located in the immediate vicinity of hazardous materials sites compiled pursuant to Section 65962.5 of the Government Code[3]. As shown on Figure 4, there is one site identified on the State Water Resources Control Board GeoTracker within 1,000 feet of the Otis Campus parcel. The site (Krusi Park, T06019772227) is located southwest of the campus, approximately 820 feet from anticipated ground disturbing construction. Because no contaminants of concern were identified at the cleanup program site, the

[2] https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways
[3] https://calepa.ca.gov/SiteCleanup/CorteseList/

case was closed, and the site is not located at the construction site so it does not preclude the use of a Categorical Exemption.

f) Historical Resources: As part of the determination made pursuant to Section 21080.1 of CEQA, the lead agency shall determine whether the project may have a significant effect on unique archaeological resources. The Otis Campus was constructed entirely on imported fill material when that portion of the bay was filled between 1947 and 1958 based on aerial photos[4]. A geotechnical report prepared for the Otis Campus in 2024 confirms the site is built on approximately five to six feet of imported fill on top of five to six feet of Bay Mud or similar marsh deposits[5]. Based on this, it is extremely unlikely that any buried archaeological resources are present at the site. If such resources were present, they would have been transported in with the fill material from unknown locations and would lack any contextual relevance or integrity. The project would not impact archeological resources.

[4] https://mil.library.ucsb.edu/ap_indexes/FrameFinder/
[5] Geotechnical Investigation, Proposed Modernization and Construction, Otis Elementary School, 3010 Fillmore Street, Alameda, California. Miller Pacific Engineering Group. November 26, 2024.

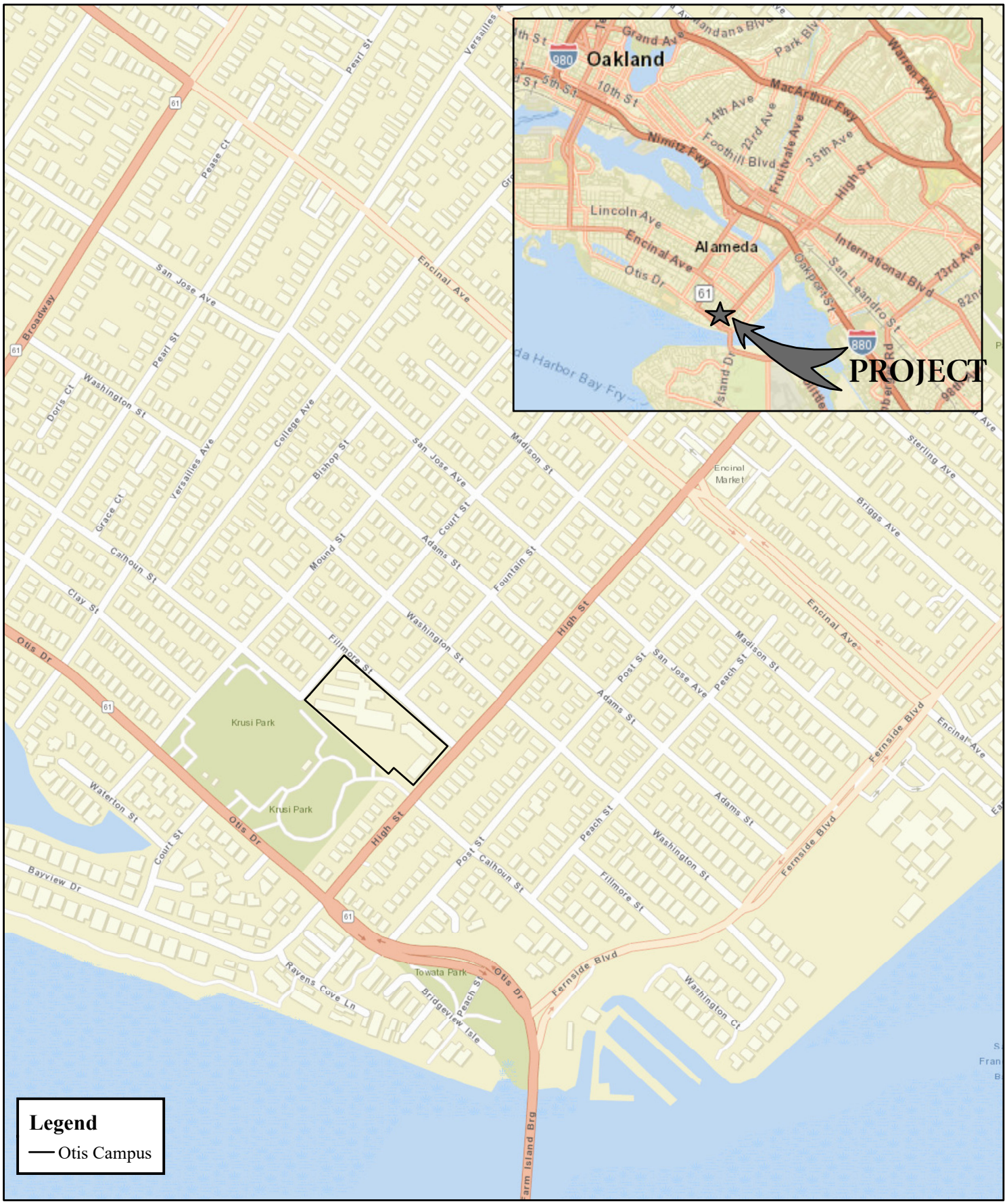
The Otis Campus was constructed in the 1950s, making the buildings eligible for listing as historical resources. Under CEQA, the importance of a historical resource is measured in terms of criteria for inclusion on the California Register of Historical Resources (California Register) (Title 14 CCR, §4852(a)) as listed below. A resource may be important if it meets any one of the criteria below, or if it is already listed on the California Register or a local register of historical resources. An important historical resource is one which:

1. Is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2. Is associated with the lives of persons important to local, California, or national history.
3. Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of a master or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important to the pre-history or history of the local area, California, or the nation.

In addition to meeting one or more of the above criteria, eligibility for the California Register requires that a resource retains sufficient integrity to convey a sense of its significance or importance. Seven elements are considered key in considering a property's integrity: location, design, setting, materials, workmanship, feeling, and association.

The campus is not listed on the Office of Historic Preservation's Built Environment Resource Directory of historic buildings[6]. The campus is a typically constructed school facility and does not represent a building or site that meets any one of the four criteria listed above. The District does not find the existing campus or its buildings to historic resources and the project would not impact historic resources.

[6] https://ohp.parks.ca.gov/?page_id=30338



2/12/2025 AUTHOR J:\J4189\GIS\4189.07 CEQA Figures\F1-Otis-Location Map.mxd

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

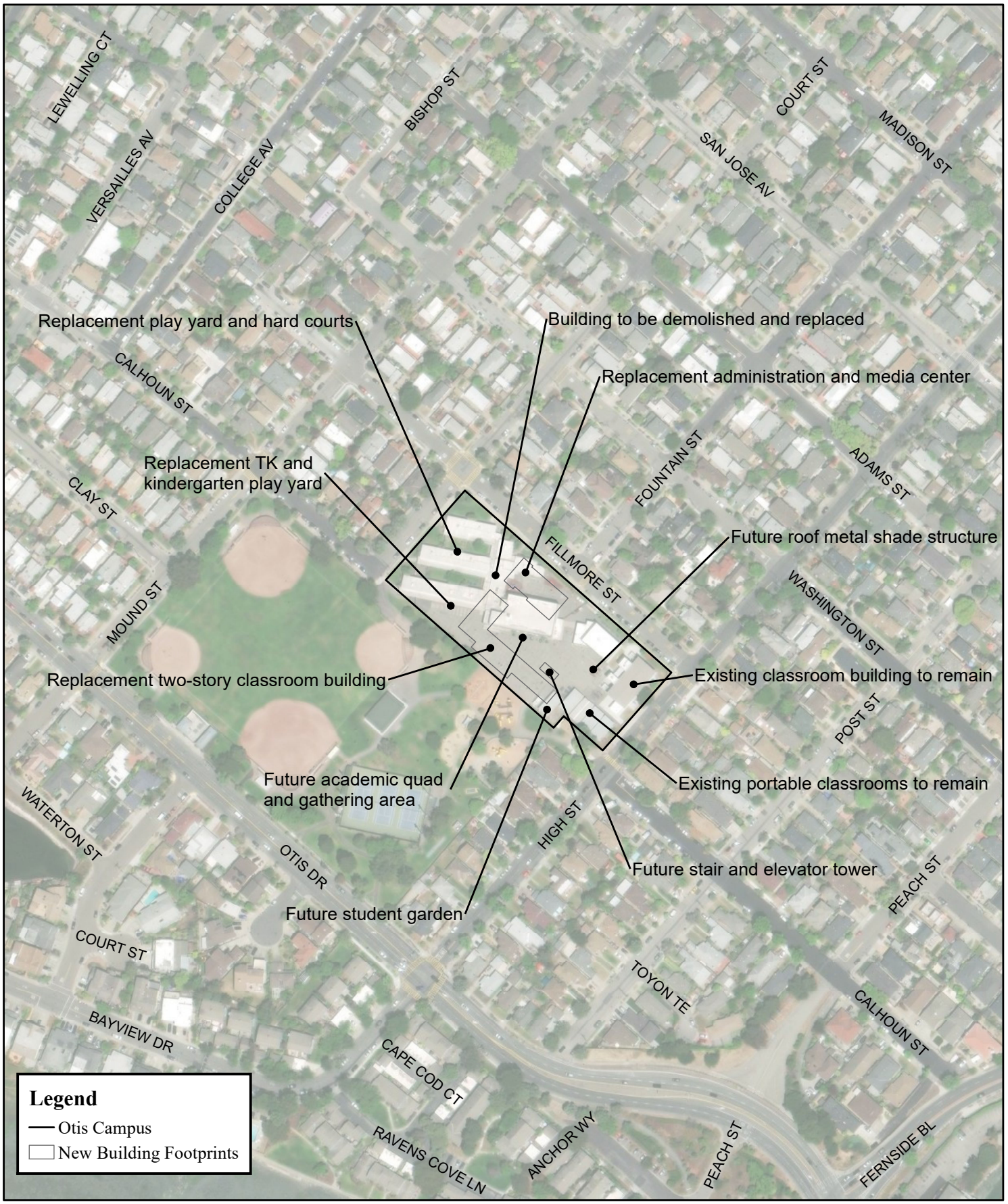
FIGURE 1

OTIS CAMPUS LOCATION MAP

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Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

NORTH

0 62.5 125 250 Feet

FIGURE 2

OTIS CAMPUS AERIAL VIEW

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FIGURE 3 - OVERALL SITE PLAN

OTIS ELEMENTARY SCHOOL | SITE WORK & NEW CONSTRUCTION

CARDUCCI ASSOCIATES

QUATTROCCHI KWOK ARCHITECTS



LEGEND

1 EXISTING PROPERTY LINE
2 LIMIT OF WORK LINE
3 ACCESSIBLE DROP OFF AREA
4 COMMUNITY PARK
5 PRIMARY SCHOOL ENTRY
6 SECONDARY SCHOOL ENTRY
7 EMEGENCY VEHICLE ACCESS (EXISTING GATE TO BE REUSED)
8 ELEMENTARY SCHOOL PLAYGROUND
9 K/TK PLAYGROUND
10 SHARED CENTRAL STUDENT QUAD AREA
11 SHADED OUTDOOR LUNCH AREA
12 GARDEN WITH RAISED BEDS & SHED
13 SYNTHETIC TURF LAWN
14 SECURED BIKE PARKING (2 X 60 SPACES)
15 TRASH STORAGE
16 ELECTRICAL YARD
17 2' TALL CONCRETE WALL WITH 6' TALL ORNAMENTAL FENCE
18 6' TALL ORNAMENTAL FENCING
19 FLAG POLE
20 NEW SECURED CAMPUS GATES
21 PUBLIC ACCESS TO SCHOOL PLAY AREAS
22 SCHOOL MONUMENT SIGN
23 EXISTING TRANSFORMER TO BE REPLACED WITH NEW TRANSFORMER AT SAME LOCATION
24 BUS DROP OFF/PICKUP AREA
25 K/TK ENTRY GATE
26 BIOFILTRATION AREAS/RAIN GARDENS
27 DRINKING FOUNTAIN
28 EXISTING ORNAMENTAL FENCING AND GATES TO REMAIN

NOTES

1 SEE SCHEMATIC DESIGN PROJECT CRITERIA DOCUMENT FOR FOR SITE LIGHTING.
2 SEE CIVIL PLANS FOR GRADING & DRAINAGE.



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Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

NORTH

0 150 300 600 Feet

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FIGURE 4

GEOTRACKER SITES

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APPENDIX A - NOISE

City of Alameda Noise Regulations

The City of Alameda controls noise through Chapter IV, Article II Section 4-10 of its Code of Ordinances (Noise Ordinance). Table 1 of the Noise Ordinance establishes acceptable noise levels for surrounding residential land uses and is reproduced below.

RECEIVING LAND USE **Single or Multiple Family Residential, School, Hospital, Church, or Public Library Properties** **NOISE LEVEL, STANDARDS, dB(A)**			
Category	***Cumulative Number of Minutes in Any One (1) Hour Time Period***	***Daytime (7:00 a.m. to 10:00 p.m.)***	***Nighttime (10:00 p.m. to 7:00 a.m.)***
1*	30	55	50
2	15	60	55
3	5	65	60
4	1	70	65
5	0	75	70

The General Plan also includes the following policies to control noise that would be applicable to the proposed project:

- HS-59: Require Noise Reduction Strategies in All Construction Projects. Require a vibration impact assessment for proposed projects in which heavy-duty construction equipment would be used (e.g. pile driving, bulldozing) within 200 feet of an existing structure or sensitive receptor. If applicable, the City shall require all feasible mitigation measures to be implemented to ensure that no damage to structures will occur and disturbance to sensitive receptors will be minimized.
- HS-60: Significant CEQA Impacts. In making a determination of impact under the California Environmental Quality Act (CEQA), consider the following impacts to be "significant" if the proposed project causes: an increase in the day-night average sound level (Ldn) of 4 or more dBA if the resulting noise level would exceed that described as normally acceptable for the affected land use, as indicated by State guidelines, or any increase in Ldn of 6 dBA or more.
- HS-61: Community Noise Ordinance. Continue to Enforce the Community Noise Ordinance by promptly responding to local noise complaints.

Section 4-10.7 Special Provisions of the City's Noise Ordinance indicates that "the provisions of this section shall not apply to noise sources associated with construction provided the activities take place between the hours of 7:00 a.m. to 7:00 p.m. Monday through Fridays or 8:00 a.m. to 5:00 p.m. on Saturdays." The District would require that project construction be consistent with this exemption to ensure the Noise Ordinance is not violated.

Environmental Setting

This section includes a description of the terminology and concepts related to noise and vibration impacts that are considered in the analysis. This section also includes a discussion of the existing environmental conditions related to noise-sensitive receptors and ambient conditions found in urban areas such as the project vicinity.

The project occurs within a developed suburban area of Alameda with single family residential uses to the north, east and west. Residential uses and a Public Park are immediately to the south.

NOISE-SENSITIVE USES

Noise-sensitive land uses in the project area are nearby single family and residences. The school itself is considered a noise-sensitive use.

NOISE CONDITIONS

Primary noise in the area is from traffic. The Oakland International Airport is approximately one mile to the south but the project area is not within any of the airport's defined noise compatibility zones. Traffic noise is highest during the daytime hours and subsides during the night. Figure 7.4 of General Plan indicates that High Street typically experiences noise levels of 60-64 db.

CONSTRUCTION NOISE

The types of equipment that would be used to construct the proposed project include:

- track excavator medium and large size
- pile driving equipment
- earth compactor
- roller
- backhoe/loader
- wheel loader (two yard bucket)
- water truck
- crane truck
- crane
- ten-wheel dump trucks
- end dump trucks

The table below presents the typical noise levels for the construction equipment listed above based on a worst-case scenario including several pieces of the loudest equipment (running simultaneously). This includes the typical measured A-weighted Lmax noise levels (maximum noise level) that would occur at a 50-foot distance from the construction site. The acoustical use factor is the fraction of time that the equipment would typically be in use over a 1-hour period.

Equipment	Acoustical Use Factor	Typical Noise Level at 50 Feet (Lmax)[1]
Asphalt/Concrete Truck	40%	81
Backhoe	40%	78
Bulldozer	40%	82
Compactor	20%	83
Compressor	40%	78
Crane	16%	81
Dump Truck	40%	76
Excavator	40%	81
Forklift	40%	75
Front-End Loader	40%	79
Jackhammer	20%	89
Paver	50%	77
Pickup Truck	40%	75
Sheers (on excavator)	40%	96
Roller	20%	80
Water Truck	40%	76
Impact Pile Driver	20%	101

Source: Federal Highway Administration 2006

1 dBA, A-weighted decibel level (actual averaged measurement at 50 feet)

OPERATIONAL NOISE

Noise associated with the Otis campus would be similar to the existing campus upon completion of construction.

Analysis

The project would not result in any long-term increases in noise levels in the project vicinity. The project would continue to operate as an elementary school campus with similar student populations as are currently enrolled at the Otis campus. The project would not result in an increase in long-term ambient noise levels as it would not significantly alter existing use of the site.

Based on typical noise levels associated with equipment used to construct school projects, construction activities are expected to result in a temporary increase in noise levels that could exceed the City's established noise criteria by up to 20 decibels. Section 4-10.7 Special Provisions of the City's Noise Ordinance indicates that "the provisions of this section shall not apply to noise sources associated with construction provided the activities take place between the hours of 7:00 a.m. to 7:00 p.m. Monday through Fridays or 8:00 a.m. to 5:00 p.m. on Saturdays." The District would require that project construction be consistent with this exemption to ensure the Noise Ordinance is not violated.

Surrounding homes would be subject to construction-related noise. While the District can exempt itself from City planning guidelines, the District must still disclose potential noise impacts. The project would be consistent with Policy HS-60 by adhering to the construction hours contained in the Noise Ordinance. Similarly, the District would be consistent with Policy HS-61 through inclusion of a noise disturbance coordinator. Additionally, the following Standard Best Management Practices (BMPs) would be implemented at the construction site to reduce the effects of construction noise on adjacent residences:

- The District would provide notice to all residents within 200 feet of construction activities at least two weeks prior to commencing construction. Notice would include an overall expected construction schedule and specific demolition, grading, and pile driving schedules would be provided. The notice would include the contact information for the District's Construction Department and the anticipated construction schedule.
- All internal combustion engine driven equipment would be equipped with intake and exhaust mufflers which are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines would be strictly prohibited.
- Staging of construction equipment and all stationary noise-generating construction equipment, such as air compressors and portable power generators, would be staged as far as practical from existing noise sensitive receptors.
- "Quiet" air compressors and other "quiet" stationary noise sources would be utilized where technology exists.
- Noise from construction workers' radios would be controlled to the point where radio noise is not audible at existing residences bordering the project site.
- A sign providing contact information for the construction manager would be posted onsite for construction-related questions/complaints.

Demolition and grading associated with the project would generate ground borne vibrations. To mitigate liquefaction at the site, the geotechnical report[8] has recommended the new buildings be supported on piles anchored on bedrock. This would necessitate pile driving that generates ground borne vibration.

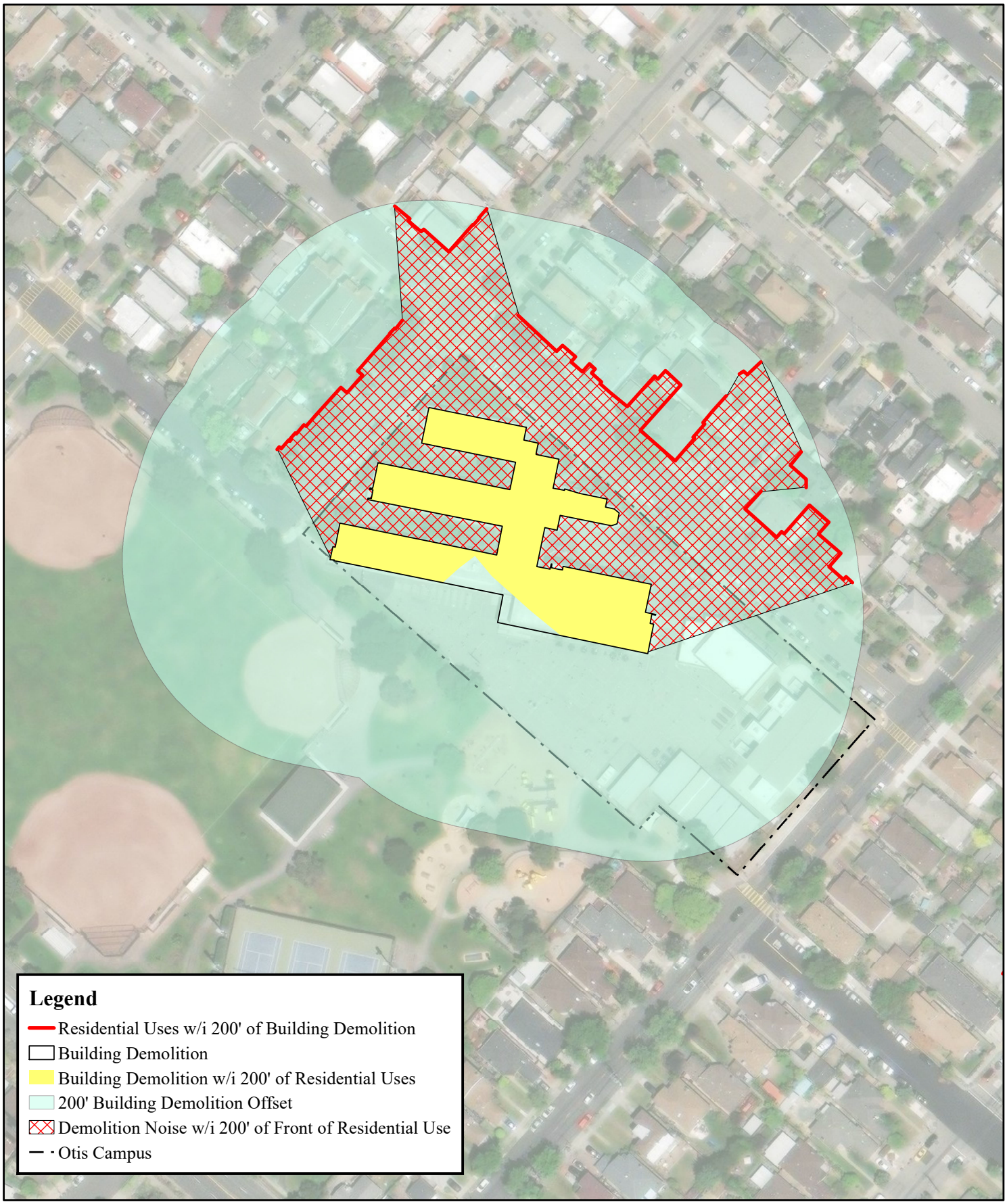
General Plan Policy HS-59 would typically require a vibration impact assessment for heavy-duty construction equipment for sensitive receptors within 200 feet of the project. Adjacent residential uses are considered sensitive receptors. Demolition and grading activities would typically produce the loudest noises at the project site and include construction equipment potentially associated with ground vibration. Those activities are described below.

[8] Geotechnical Investigation, Proposed Modernization and Construction, Otis Elementary School, 3010 Fillmore Street, Alameda, California. Miller Pacific Engineering Group. November 26, 2024.

- Demolition: Demolition construction noise would occur during the summer/fall of 2026. During that time, jackhammers and excavators with sheers would be utilized to break and remove existing buildings and concrete. As shown on Figure A-1, there are residential uses to the north, east, and south that would be subject to these construction noises associated with building demolition that are within the 200 feet stipulated by Policy HS-59. The figure shows a 200-foot offset from the buildings to be demolished to show individual residential units that would be within that zone. The yellow shaded building footprints are the portions of demolition that would occur within 200 feet of residential uses. Residential uses would only be subject to building demolition activities occurring within 200 feet for two to three weeks while the existing two-story classroom building is demolished. Building demolition would occur as close as approximately 71 feet to residences to the north and approximately 210 feet to residences to the south.
- Grading: Graders would be used to grade the site in preparation for construction. Grading activities would also occur within the 200-foot zone stipulated by Policy HS-59. Grading activities would extend closer to the same residential areas than demolition, but associated noise levels would be less and more intermittent. Grading activities within the 200-foot zone would likely extend between two and three weeks but would be intermittent as grading activities would extend across the site.

Caltrans has produced a Transportation and Construction Vibration Guidance Manual [8] (Caltrans Manual) that provides formulas and thresholds for vibration that are useful in complying with Policy HS-59 to assess potential damage to adjacent structures from vibration associated with these activities (noise impacts would be considered not significant through adherence with the Alameda noise ordinance). The Caltrans Manual indicates that "In describing vibration in the ground and in structures, the motion of a particle (i.e., a point in or on the ground or structure) is used. The concepts of particle displacement, velocity, and acceleration are used to describe how the ground or structure responds to excitation. Although displacement is generally easier to understand than velocity or acceleration, it is rarely used to describe ground and structure borne vibration because most transducers used to measure vibration directly measure velocity or acceleration, not displacement. Accordingly, vibratory motion is commonly described by identifying the peak particle velocity (PPV)." This analysis focuses on PPV and its potential to damage adjacent structures.

[8] https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf



2/12/2025 AUTHOR J:\J\4189\GIS\4189.07 CEQA Figures\200' Demo Buffer.mxd

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

NORTH

0 30 60 120 Feet

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FIGURE A-1

200-Foot Demolition Impact Area

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Demolition and construction equipment would produce vibration. Typical PPVs associated with that equipment is provided by the Caltrans Manual and shown below:

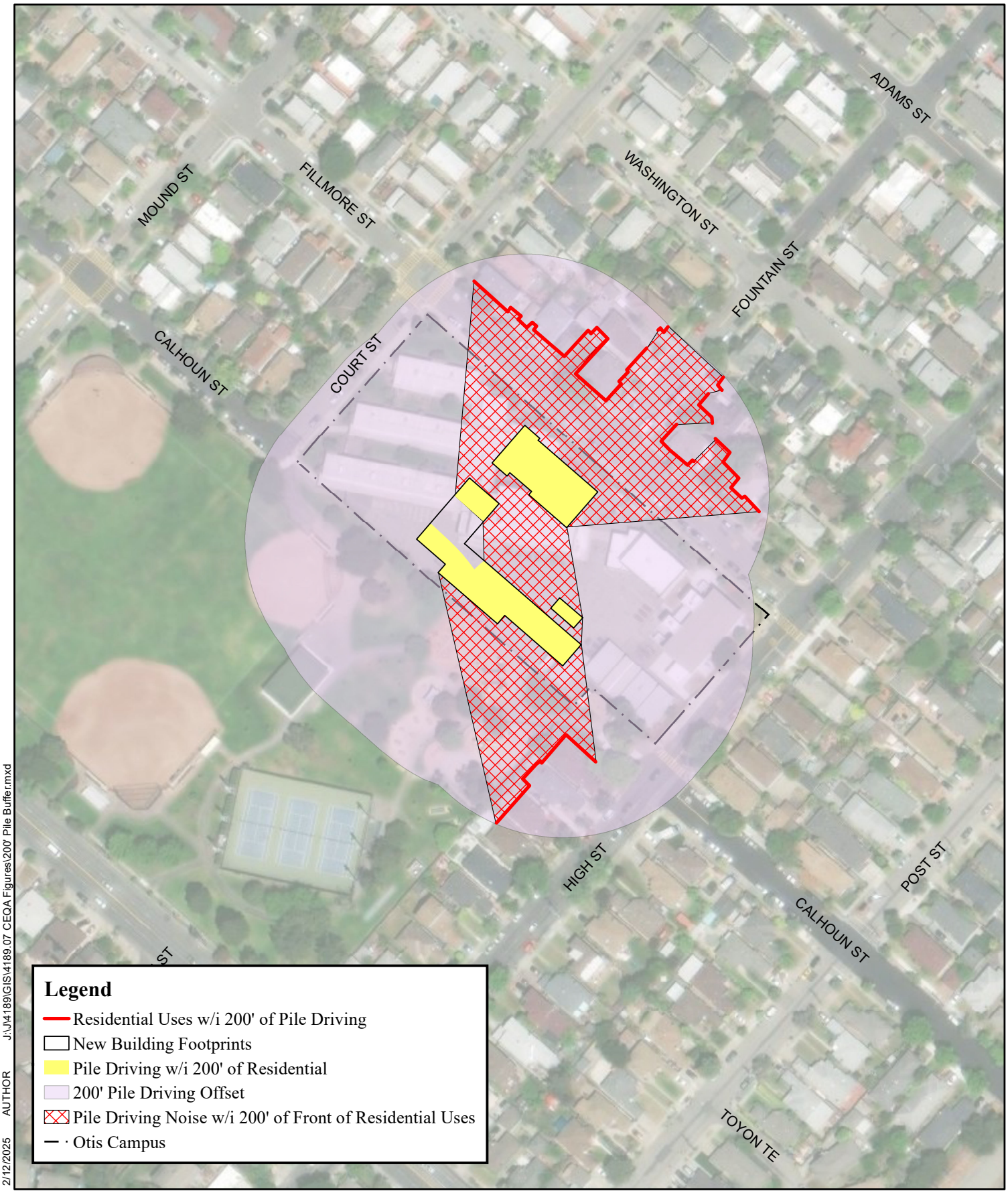
Vibration Source Amplitudes for Construction Equipment	
Equipment	**Reference PPV at 25 feet (inch/second)**
Large Bulldozer	0.089
Loaded Trucks	0.076
Jackhammer	0.035

To understand the potential for construction-generated vibration to damage adjacent buildings, the Caltrans Manual provides threshold criteria for potential PPV impacts to various types of building construction, shown below. Transient sources are intermittent in nature. Sources of noise associated with construction of the project are considered continuous sources even if they would start and stop periodically. If the PPV of the construction activity exceeds the stated threshold shown below, the structure could potentially be damaged by the vibration.

Guideline Vibration Damage Potential Threshold Criteria		
Structure and Condition	**Maximum PPV (in/sec)**	
	Transient Sources	**Continuous Sources**
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial bulidings	2.0	0.5

The Construction Manual also includes formulas to tailor equipment produced PPV based on site soils, type of equipment and distance to the vibration source. Based on the distances from residential structures to construction and grading and soils at the project site, the worst-case equipment for demolition and grading would be expected to produce 0.02 PPV and 0.04 PPV, respectively. The PPV associated with grading is higher due to the closer proximity of grading activities to the residential uses. The modeled PPV levels are well below the damage potential thresholds for adjacent residential uses. No physical impact on those structures would be expected.

Building foundations would require the use of driven piles to mitigate liquefaction concerns. Figure A-2 shows adjacent residential areas that are within 200 feet of pile driving that would experience noise and vibration associated with those activities. The figure shows a 200-foot offset from the new building footprints to show individual residential units that would be within that zone. The yellow shaded building footprints are the portions of construction that would occur within 200 feet of residential uses. Nine homes to the north would be within 200 feet of pile driving at the extreme north end of the administration and media center building. Two buildings within Krusi Park and three homes to the south on High Street would be within 200 feet of pile driving associated with the westerly most portion of the Classroom Building. All pile driving at the site is anticipated to be completed in approximately four to five weeks. Noise and vibration from pile driving would decrease with distance.



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Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

FIGURE A-2

200-Foot Pile Driving Impact Area

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Similar to the discussion of demolition and grading above, the Caltrans Manual provides a formula to estimate the PPV of pile driving for site conditions and distance. Based on the nearest distance to residential uses of approximately 90 feet, pile driving would be expected to produce approximately 0.18 PPV based on mid-sized hammer driven equipment. Anticipated vibration from pile driving to the nearest Residential structures would be below the threshold of 0.3 PPV for older residential structures and no damage would be expected.

While the District can exempt itself from City planning requirements and would therefore be exempt from Policy HS-59, the District has disclosed the general nature of expected ground borne vibrations associated with demolition, grading, and pile driving. Appropriate construction-related noise BMPs allow the District to find no significant impact would occur. Based on the references, formula, and thresholds provided in the Caltrans Manual, there would be no structural risk from ground borne vibration to adjacent residential uses within 200 feet. The District would comply with the allowable construction hours contained in the Noise Ordinance and the District would notify residents within 200 feet of the construction area of the overall construction schedule and specifically the demolition, grading, and pile driving schedule.