FINAL INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION FOR THE PROPOSED CAPUCHINO HIGH SCHOOL ATHLETICS COMPLEX PROJECT

Prepared for:

San Mateo Union High School
District
650 N. Delaware Street,
San Mateo, CA 94401

Prepared by:

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October 2020

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
ADWF	average dry weather flow
APE	Area of Potential Effect
BAAQMD	Bay Area Air Quality Management District
BMP	Best Management Practice
CARB	California Air Resources Board
DPR	California Department of Parks and Recreation
FEMA	Federal Emergency Management Agency
HPD	Historic Property Directory
CO	carbon monoxide
CO2E	carbon dioxide equivalent
GHG	greenhouse gas
gpd	gallons of wastewater per day
LOS	level of service
mgd	million gallons per day
MLD	Most Likely Descendant
NAHC	Native American Heritage Commission
NO_x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NWIC	Northwest Information Center
OHP	State Office of Historic Preservation
O_3	ozone
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns
RWQCB	Regional Water Quality Control Board
SCH	State Clearinghouse
SFBAAB	San Francisco Bay Area Air Basin
SFBRWQCB	San Francisco Bay Regional Water Quality Control Board
SLF	Sacred Lands File
SO_x	sulfur dioxide
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminant
TMDL	Total Maximum Daily Load
UCMP	University of California Museum of Paleontology
VOC	volatile organic compound
WWTP	Wastewater Treatment Plant

ENVIRONMENTAL DETERMINATION

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.

	Aesthetics		Greenhouse Gas Emissions		Public Services
	Agricultural and Forestry Resources		Hazards and Hazardous Materials		Recreation
	Air Quality	X	Hydrology/Water Quality		Transportation/ Traffic
X	Biological Resources		Land Use/Planning	X	Tribal Cultural Resources
X	Cultural Resources		Mineral Resources		Utilities/Service Systems
	Energy		Noise		Wildfire Hazards
X	Geology/Soils		Population/Housing	X	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.	**X**
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.	

DocuSigned by:
Elizabeth Mcmanus
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10/29/2020

Elizabeth McManus, Deputy Superintendent, SMUHSD **Date**

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I. INTRODUCTION

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared by the San Mateo Union High School District (SMUHSD or District), 650 North Delaware St. San Mateo, CA 94401, pursuant to the California Environmental Quality Act (Public Resources Code Sections 21000 et seq.), CEQA Guidelines (Title 14, Section 15000 et seq. of the California Code of Regulations). It provides documentation to support the conclusion that the proposed Capuchino High School Athletics Complex Project ("the Project"), with mitigation identified herein, would not cause a potentially significant impact to the physical environment. The proposed site is located on the Capuchino High School campus, in the City of San Bruno, in San Mateo County.

This IS/MND describes the location of the Project site, the Project sponsor's objectives, and the details of the proposed Project. The Environmental Checklist Form included as Appendix G of the CEQA Guidelines serves as the basis for the environmental evaluation contained in the IS/MND. The Checklist Form examines the specific potential Project-level physical environmental impacts that may result from the construction and operation of the proposed new and expanded facilities onsite. Mitigation measures have been identified to reduce any potentially significant impacts that would otherwise occur with development and operation of the new facilities to a less-than-significant level.

The District will serve as the "lead agency" (the public agency that has the principal responsibility for carrying out and/or approving a Project) for the proposed Project. The governing board of the District is responsible for ensuring that the environmental review and documentation meet the requirements of CEQA. The draft IS/MND is subject to review and comment by responsible agencies and the public during a statutory public review period (30 days). Any necessary revisions will be incorporated in the Final IS/MND.

Should the District approve the Project, it will be required to file a "Notice of Determination" for posting by the County Clerk and the State Clearinghouse. The filing of the notice and its posting starts a 30-day statute of limitations on court challenges to the CEQA review of the Project.

Document Organization

This document is organized into the following sections:

SECTION I – INTRODUCTION: Provides background information about the Project name, location, sponsor, and the date this Initial Study was completed.

SECTION II – PROJECT DESCRIPTION: Includes a Project background and detailed description of the proposed Project.

SECTION III – INITIAL STUDY CHECKLIST AND DISCUSSION: Reviews the proposed Project and states whether the Project would have potentially significant environmental effects.

SECTION IV – MANDATORY FINDINGS OF SIGNIFICANCE: States whether environmental effects

associated with development of the proposed Project are significant, and what, if any, added environmental documentation may be required.

SECTION V – REFERENCES: Identifies source materials that have been consulted in the preparation of the IS.

SECTION IV – REPORT PREPARERS: Identifies the firms and individuals who prepared the IS.

APPENDICES: Includes technical reports and Mitigation Monitoring and Reporting Program (in Final IS/MND)

II. PROJECT DESCRIPTION

Project Name:	Capuchino High School Athletics Complex Project
Project Location:	1501 Magnolia Avenue, San Bruno CA 94066
Project Applicant and Lead Agency Contact:	Elizabeth McManus, Deputy Superintendent - Chief Business Officer San Mateo Union High School District 650 N. Delaware Street, San Mateo, CA 94401 (650) 558-2299 emcmanus@smuhsd.org
General Plan Designation:	City of San Bruno, Low Density Residential
Zoning:	City of San Bruno, Single-Family Residential
Project Approvals:	SMUHSD approval. Review of facilities by Division of the State Architect for structural safety, fire and life safety, and ADA accessibility. Possible City of San Bruno approval of Grading Permit. SWPPP from RWQCB
Date Final Initial Study Completed:	October 15, 2020

PROJECT DESCRIPTION

Project Location

Capuchino High School is located at 1501 Magnolia Avenue in the southern area of City of San Bruno, in San Mateo County. (See Figure 1.) While the campus is within the San Bruno City limits, it is surrounded by land within the City of Millbrae. Regionally, the campus is accessed via from US Highway 101, via El Camino Real and Park Boulevard. The Capuchino High School campus is located north of Barcelona Drive and Millwood Drive, south and east of Park Boulevard, and southwest of Magnolia Avenue (see Figure 2).

Capuchino High School occupies approximately 34 acres of land. The campus opened in 1950 with one building on the site of the former Rancho del Capuchino, and most of the rest of the campus was completed by 1953. Existing athletic facilities include eight tennis courts, baseball and softball diamonds, a practice field, swimming pool, and a football stadium and track.

Surrounding Land Uses

As shown in Figure 2, the high school campus is bounded on all sides by residential land uses across Park Boulevard, Barcelona Drive, Magnolia Avenue, and Millwood Drive. The athletic facilities that comprise the project area are located at the northeastern and northwestern edges of the campus.

Existing Site Conditions and Facilities

The existing athletic fields and site conditions are described below and shown on Figure 2. The District has determined that the athletic fields and facilities have several deficient conditions including the following:

- Some of the fields are not level.
- The fields do not meet the District's sustainability policy: https://www.smuhsd.org/Page/5190
- Water usage, herbicide (glyphosate) and fertilizer usage, significant manpower is required for maintenance, and the related carbon footprint is larger than desired to meet the District's sustainability goals.
- The practice field irrigation system has failed.
- The practice field drainage system is in poor condition.
- Field play time for students is limited.

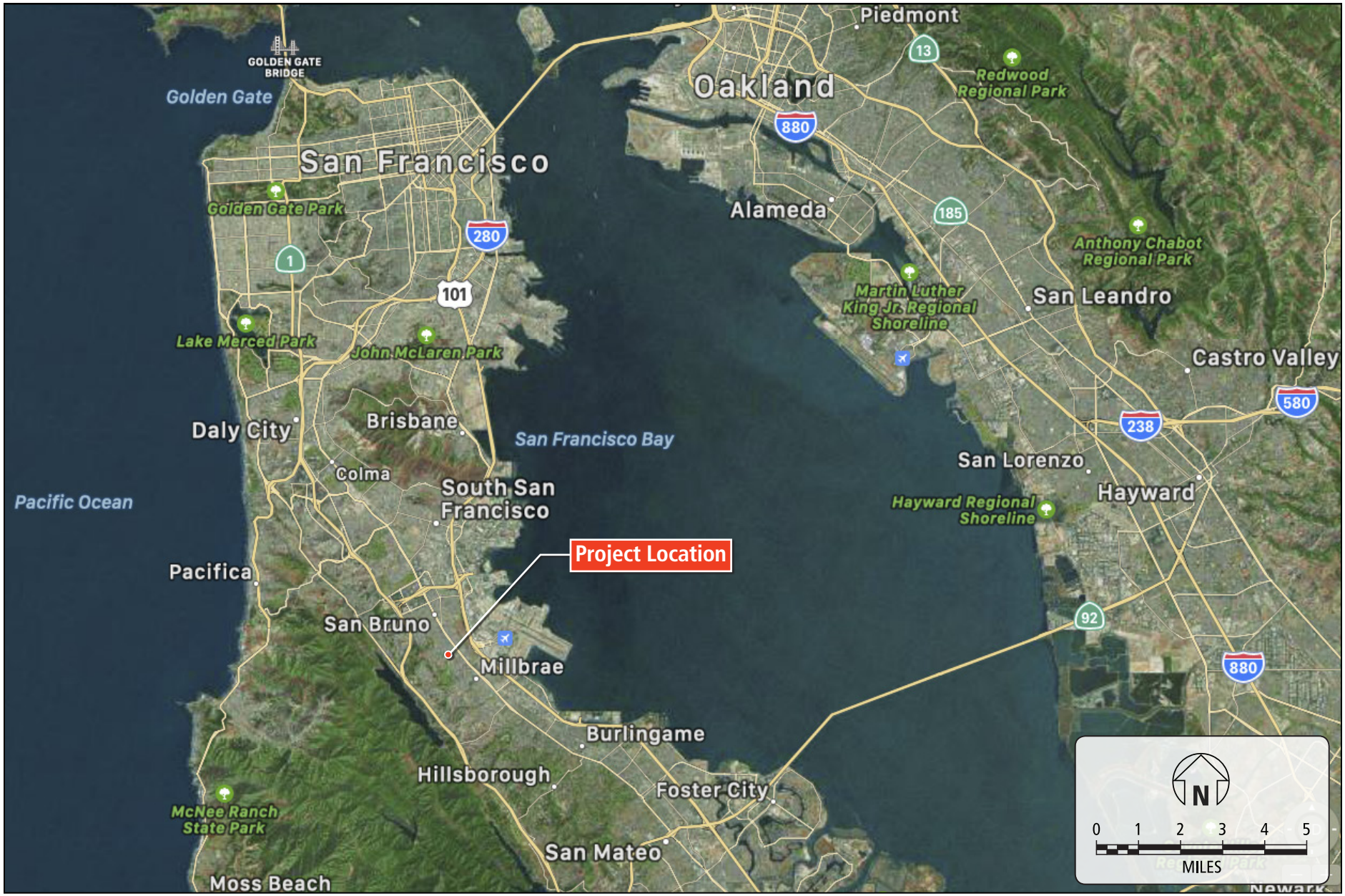


Figure 1
Project Location

Source: TomTom Maps

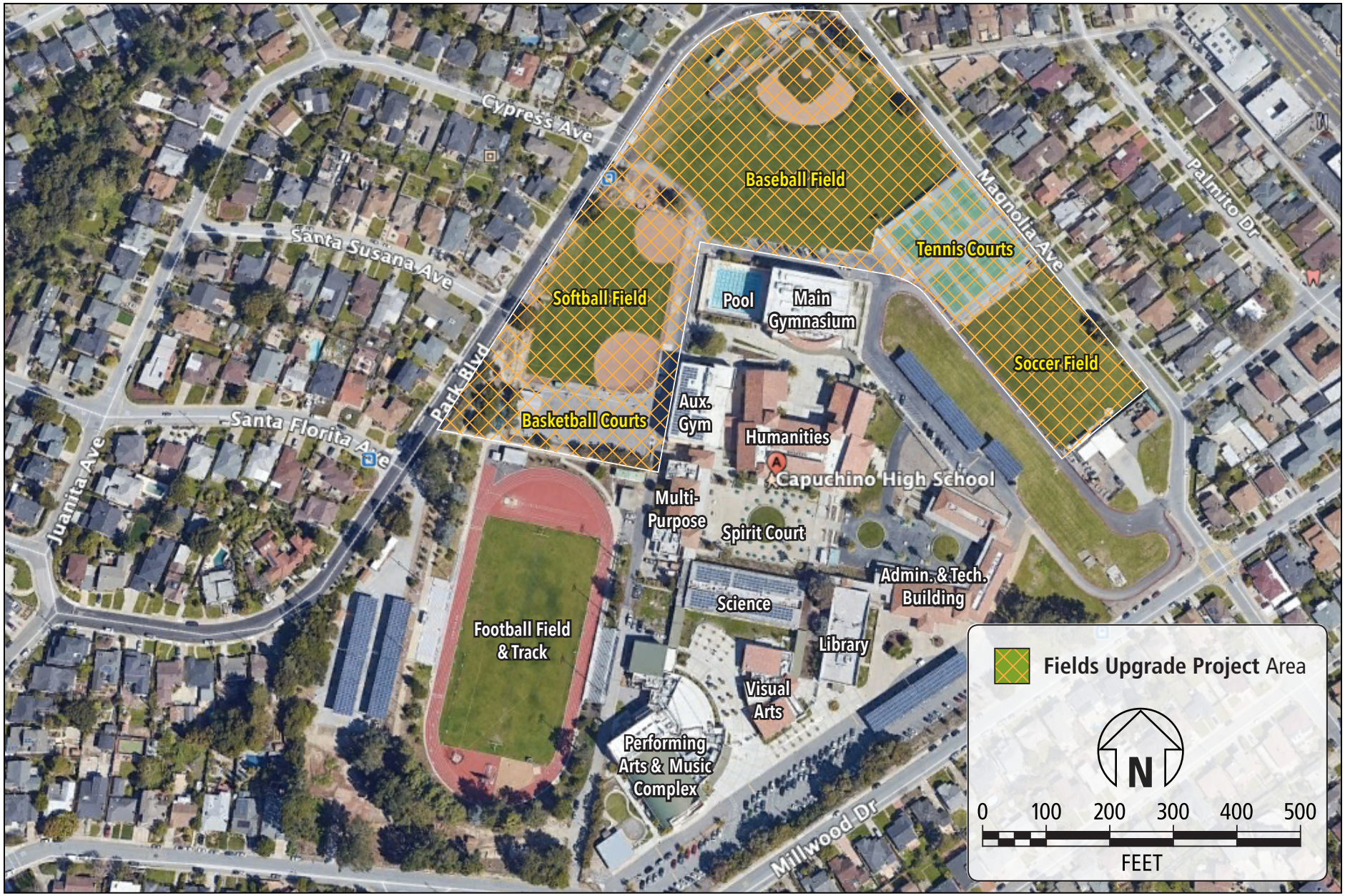


Figure 2
Aerial Photograph of Existing Campus and Project Site

Source: Google Earth, 2019

None of the athletic facilities that are part of the project currently have lighting or permanent public address (PA) systems. The additional features of these facilities are as follows:

Baseball Field. The existing baseball field is located at the north end of the campus, adjacent to Magnolia Avenue and Park Boulevard on the north, east and west, with single-family housing on the other side of these streets. The campus softball field, tennis courts, and swimming pool are adjacent and to the south of the baseball field. The baseball field is approximately 164,000 square feet in size with grass surface of approximately 120,000 square feet and soil covering the remaining 44,000 square feet of the field.

Softball Field. The softball field is located just south of the baseball field at the western edge of campus adjacent to Park Boulevard. Single-family homes are located across the street from the softball field. The softball field is approximately 70,000 square feet in size with grass surface of approximately 50,000 square feet and soil covering the remaining 20,000 square feet of the field.

Practice Field. The practice field is located south of and adjacent to the tennis courts along Magnolia Avenue at the eastern edge of campus. The practice field is approximately 56,000 square feet in size with grass surface of approximately 54,000 square feet and soil covering the remaining 2,000 square feet of the field.

Tennis Courts. Eight tennis courts covering approximately 41,000 square feet are located at the eastern edge of the campus along Magnolia Avenue.

Swimming Pool. The existing swimming pool complex is located in the central area of campus next to the baseball and softball fields. The only existing lighting for the swimming pool is egress lighting.

Fields Hours of Operation. School hours are generally between 8:00 AM to 3:15 PM weekdays, with variations in the bell schedule depending upon the day of the week. Student activities, including sports and performing arts occur after school hours weekdays and weekends. Currently, baseball and softball games are played from 3:30 PM to 6:30 PM. Baseball and softball practices currently occur from 3:30 PM to 7:00 PM. Tennis occurs throughout the day.

District Lighting and PA Policies. The San Mateo Union High School District Board Policy 7325 was adopted in 2016 and updated in March 2018 to limit the impacts of stadium lights and public address systems. The policy limits the number of athletic games and contests, practice and other use of facilities, and public address system limits. This policy is included as Appendix A to this document.

Proposed Athletic Fields Upgrades

The proposed plan for the Capuchino High School athletics complex upgrades is described below and shown in Figure 3. Please note that all lighting and PA system use would comply with District policy.

Baseball Field. The existing natural grass surface of the baseball field would be replaced with synthetic turf. The turf would include four components: fiber, infill, backing, and underlayment. The fiber would consist of polyethylene slit film, would be grass-like in appearance. The infill, which would be used to provide stability, would be made of sand, cryogenic rubber and natural cork. The backing would be comprised of a polyethylene mat and its function would be to bind the fibers. The underlayment would consist of a polyethylene shock pad.

Accessory facilities for the baseball field would include:

- three batting cages,
- a backstop,
- two bullpens (one home and one away),
- an approximately 15' -foot-high illuminated scoreboard,
- terraced bleachers that would be four feet high to the top bench and seven feet to the top of the rail with seating for approximately 125 spectators and a 100-square-foot press box that would be approximately 25 feet high,
- two dugouts with a drinking fountains, and a storage shed,
- a 150 square-foot storage shed and a 1,500 square-foot open storage area, and
- a concrete pad for two porta-potties.

Lighting and a PA system would be included as part of the project. Six LED light poles would be installed. Table 1 shows that the light poles would range from 70 to 90 feet high, and the average, minimum, and maximum illumination proposed expressed in "maintained horizontal footcandles." Lighting would also be provided for the batting cages, bullpens, and equipment areas. Please see Section III.I of this document for discussion of the light and glare impacts associated with this lighting and Appendix B for exhibits showing additional lighting details. The PA system would be an off the shelf commercial system. The system is intended to provide focused coverage of the bleachers, and would include loudspeakers behind home plate (near the press box).

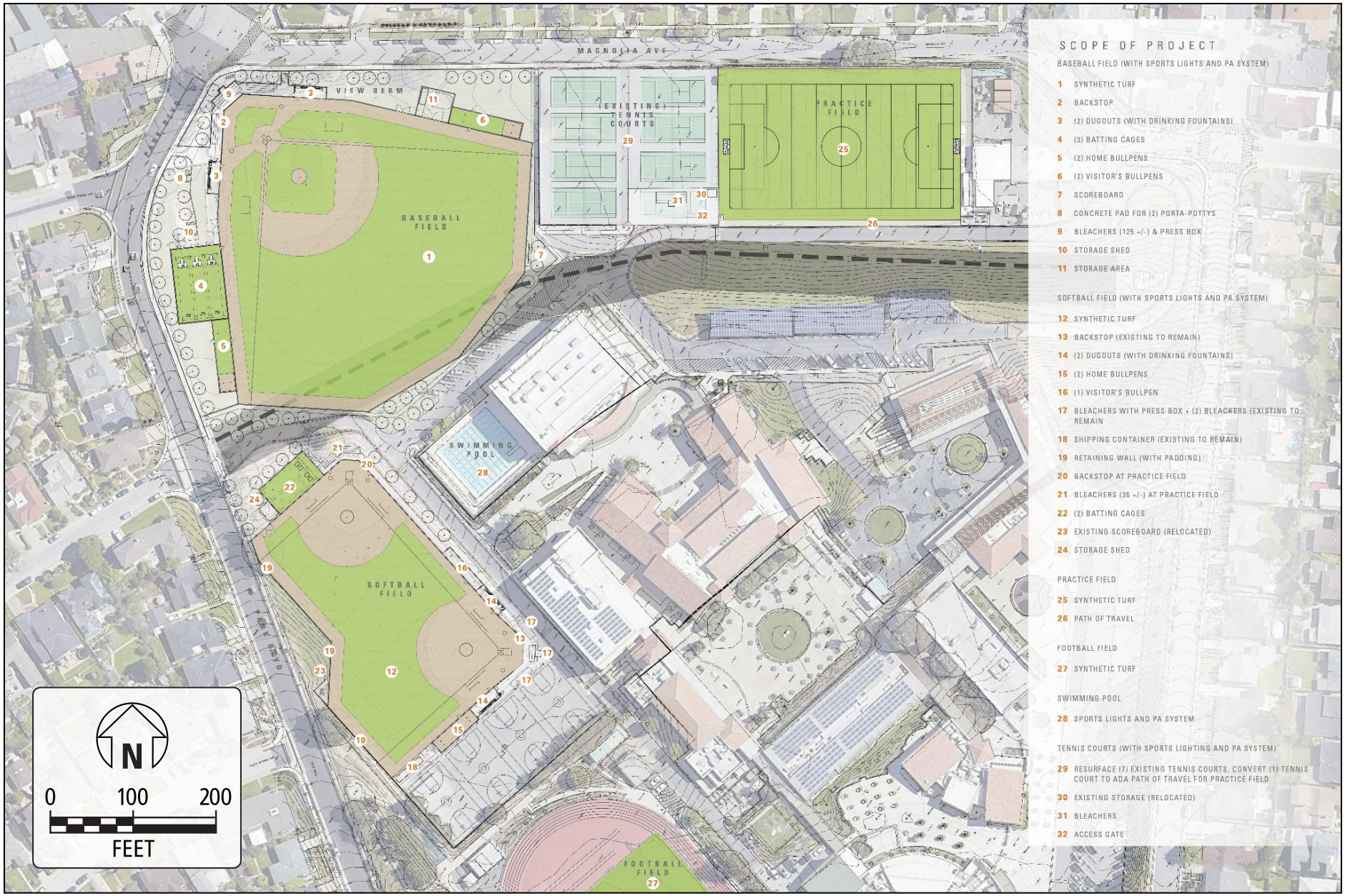


Figure 3
Proposed Fields Complex Upgrades

Source: Carducci Associates

Table 1. Proposed Lighting

Facility	Number of Light Poles	Pole Heights	Average Illumination[1]	Maximum Illumination
Baseball Field	6	70'-90'	30-50	46.1-63.8
Softball Field	5	60'-70'	30-50	46.3-63.8
Swimming Pool	4	70'	30	36.3

[1] Illumination is described in "maintained horizontal footcandles". A footcandle is defined as the illuminance on a one square foot surface from a uniform source of light. When a range is provided, the lower figure is for the outfield and higher for the infield.

Softball Field. The existing natural grass on the softball field would be replaced with 68,238 square feet of synthetic turf. The components and lifespan of the turf would be the same as described above for the baseball field.

Lighting and a PA system would be included for the softball field. Five LED light poles ranging from 60 to 70 feet in height would be installed on each of the two softball field diamonds. Table 1 summarizes the lighting system. The PA system would be an off-the-shelf commercial system. New accessory facilities for the softball field would include:

- two batting cages,
- three bullpens (two home and one visitor),
- two new four-foot-high bleachers with seating for approximately 150 people, and a 100-square-foot elevated press box (approximately 25 feet from the ground to the rooftop),
- two dugouts with drinking fountains, and
- a 300-square-foot storage shed.

The existing backstop would remain, and the scoreboard would be relocated from farther down the leftfield line from the current location. Two existing bleachers would remain, for a total seating capacity of 300.

Practice Field. The existing 54,000 square feet of grass on the multi-use field would be replaced with synthetic turf and a new path of travel would be added at the western edge of the field to connect it to the interior campus path system.

Swimming Pool. Lighting would be added to the existing swimming pool facility as part of the project. As shown in Table 1, four 70-foot-high LED light poles would be installed. The

addition of these systems would not change the existing pool use hours or annual number of events.

Tennis Courts. Seven of the eight existing tennis courts would be resurfaced and one of the tennis courts would be eliminated to provide space for an Americans with Disabilities Act (ADA) compliant path accessing the practice field. Bleachers with seating for 25 and a new access gate also would be installed. The existing storage area located at the northeast corner of the courts would be relocated to the southwest corner. Two of the courts would include lighting on 20 and 24-foot high poles.

The grass on the football field will be replaced with synthetic turf as part of a separate project in summer or fall of 2020. This project was approved as a separate project. (Capuchino High School Stadium Field Turf Replacement Project Notice of Exemption, October 29, 2019, https://ceqanet.opr.ca.gov/2019110195/2/Attachment/gHjiXS)

Days and Hours of Operation. Games and practices for all of the sports using the project facilities currently take place and will continue to do so Monday through Saturday. Currently, baseball and softball games are played from 3:30 PM to 6:30 PM. With the project, the games would be played generally from 4 PM to 6:30 PM except on Fridays when the games would be played from 4 PM to 9 PM. The number of spectators and players would also remain the same. Baseball and softball practices currently occur from 3:30 PM to 7 PM and 3:30 to 6:30 PM, respectively. With the project, baseball and softball practices would occur from 3:30 PM to 8:30 PM and 3:30 PM to 8:00 PM, respectively. In sum, baseball and softball practices would run up to 1.5 hours longer than they currently do and Friday night games would run 2.5 hours longer than they currently run. Baseball and softball games and practices take place in the spring, and will continue to do so.

Currently water polo practices and games occur in the fall from 3:30 PM to 6:30 PM and swim practices and meets occur in the spring during the same hours. With the project, these times would extend an additional 30 minutes to 7:00 PM.

The hours for soccer practice would not change with the project. Tennis practice and games which occur in the fall and spring, would start 30 minutes later then they currently do (changing from 3:30 PM to 4:00 PM) but would not run any later than the current stop time of 6:30.

Combined Changes

Total Building Area Added. The project would result in a 650-square foot increase in building area (two storage sheds and two press boxes).

Capacity Increases. There would be no student enrollment change or increase in staff due to the proposed project. And, as specified above, the upgrades would not result in any changes to the number of games or overall hours of operations. Spectator attendance is not expected to increase as a result of the upgrades.

Tree Planting and Removal. An arborist report[2] was prepared for the project which determined the following:

- There are seven trees that are located in and around the project area including three are blackwood acacias (*Acacia melanoxylon*), three Monterey pines (*Pinus radiata*), and one unidentified pine (*Pinus* sp.)
- Up to two trees may be removed as a result of the project. These trees, both Monterey Pines, are located near the softball field, south of the baseball field along Park Boulevard. One is currently recommended for removal because it is in very poor condition and another may conflict with the project design. Six trees would be transplanted and 13 existing trees would be protected.
- Fifty-seven new trees would be planted as part of the project, resulting in a net increase of 55 trees.

Grading and Earthwork. The preliminary project grading scheme would result in 7,713 cubic yards of cut and 1,875 cubic yards of fill. Minor topographic changes would occur as a result of the project's cut and fill.

Drainage and Water Quality. The project area includes 381,568 square feet of surface area, 322,031 of which are pervious and 59,537 of which are impervious. With the project there would be a net increase in impervious surface area of 25,968 square feet: 296,063 would be pervious and 85,504 would be impervious. New storm drains would be installed to connect field subdrains to the existing stormwater collection system. Peak flows would not be expected to exceed existing site peak runoff conditions because any increase would be detained by the stormwater system. The quality of the runoff would improve since pesticide and fertilizer use would decrease since such substances would no longer be needed for the natural grass that would be replaced with synthetic turf.

Construction Schedule

Project construction would start in September of 2020 and be completed in August of 2021.

Construction Equipment, Workers, and Hours

Equipment Use. Equipment used during construction would vary by phase, but would include excavators, backhoes, dump trucks, graders, compactors, water trucks, and similar equipment.

Construction Workers. Up to 20 construction workers would be onsite on an average day.

[2] "Tree Protection for Proposed Sports Field Reconstruction at Capuchino High School", Aesculus Arboricultural Consulting, February 14, 2020. A copy is on file at the District offices.

Construction Hours. Typical construction hours would be 7:00 AM to 4:30 PM, weekdays only.

***Construction Staging Areas*.** Construction staging areas would be located on the basketball courts and the parking area adjacent to the baseball field.

Land Use Entitlements and other Agency Approvals

SMUHD Approvals. The School District is a local agency with independent discretionary authority over site improvements. The District would take approval actions for the project at a noticed SMUHSD Board of Trustees Meeting.

Other Agency Approvals. The Project would require the following approvals from other agencies:

- Regional Water Quality Control Board, San Francisco Bay Region, Construction Stormwater Pollution Prevention Plan and Permit; and
- Division of the State Architect review of construction plans.
- Consultation with California Native American tribes has been completed pursuant to Public Resources Code section 21080.3.1. Tribal requests for consultation have been responded to by the District from tribes traditionally or culturally affiliated with the project area.

III. INITIAL STUDY CHECKLIST

The initial study checklist recommended by the CEQA Guidelines is used to describe the potential impacts of the proposed Project on the physical environment.

I. Aesthetics

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				**X**
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				**X**
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			**X**	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			**X**	

Discussion

a, b) There are no rock outcroppings, historic buildings, or scenic highways on or immediately adjacent to the project site. There are also no designated scenic highways with views of the site. While there are historic or potentially buildings on

campus, the project upgrades would not adversely impact the integrity or views of these historic buildings. The project site is approximately a half of a mile away from U.S. Highway 101 and about one mile from I-280. The project improvements would not be visible from these highways due to the distance from them and the intervening topography and buildings. El Camino Real is located two blocks east of the site. The section near the project site is not designated as a Scenic Road in the San Mateo County General Plan. El Camino Real between Crystal Springs Road in San Mateo and Easton Drive in Burlingame is the only section that is considered a Scenic Road[3]. Therefore, the Project would have **no impact** on scenic vistas or scenic resources.

c) As shown in Figures 4 through 10, project area is fairly visible from the adjacent streets and sidewalks

The project would introduce new accessory equipment and small structures, including two batting cages, three bullpens, two dugouts, two new four-foot-high bleachers, a 100-square-foot elevated press box (approximately 25 feet from the ground to the rooftop), a 15-foot-high scoreboard, and a small (300-square-foot) storage shed.

The project would also result in the removal of several trees adjacent to and north of the softball field and the planting of 57 new trees in the project area.

The project would result in a change in the views of the campus from the adjacent streets and sidewalks that run between the campus and adjacent residential areas, including Magnolia Avenue, Park Boulevard, and Millwood Drive. However, the project would not substantially degrade the existing visual character or quality of public views of the site from the adjacent streets, because the project features would (1) either not be visible from these public vantage points due to vegetative screening, other buildings on campus, or changes in grade; or (2) would introduce minor features, such as light poles and new bleachers that, while visible, would not significantly detract from the existing visual quality of the high school campus. Because the project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings the impacts on visual quality would be **less than significant.**

[3] https://planning.smcgov.org/sites/planning.smcgov.org/files/SMC-GP%201986.pdf.

Figure 4. View of project site from Magnolia Avenue near Capuchino Drive looking southeast

Figure 5. View of project site from Magnolia Avenue looking southeast – the practice field is shielded from view along Magnolia due to shrubs and fencing.

Figure 6. View from Magnolia Avenue looking south. This Blackwood Acacia tree will remain and provides visual screening between the campus and Magnolia Avenue.

Figure 7. View from Magnolia Avenue looking east – baseball field visible in background.

Figure 8. View from Magnolia Avenue looking east -- single-family homes on the left across the street from the campus

Figure 9. Panoramic view showing tennis courts and baseball field from Magnolia Avenue looking southwest

Figures 10 and 11. View looking north from Magnolia Avenue toward Park Boulevard with Baseball Field on the left

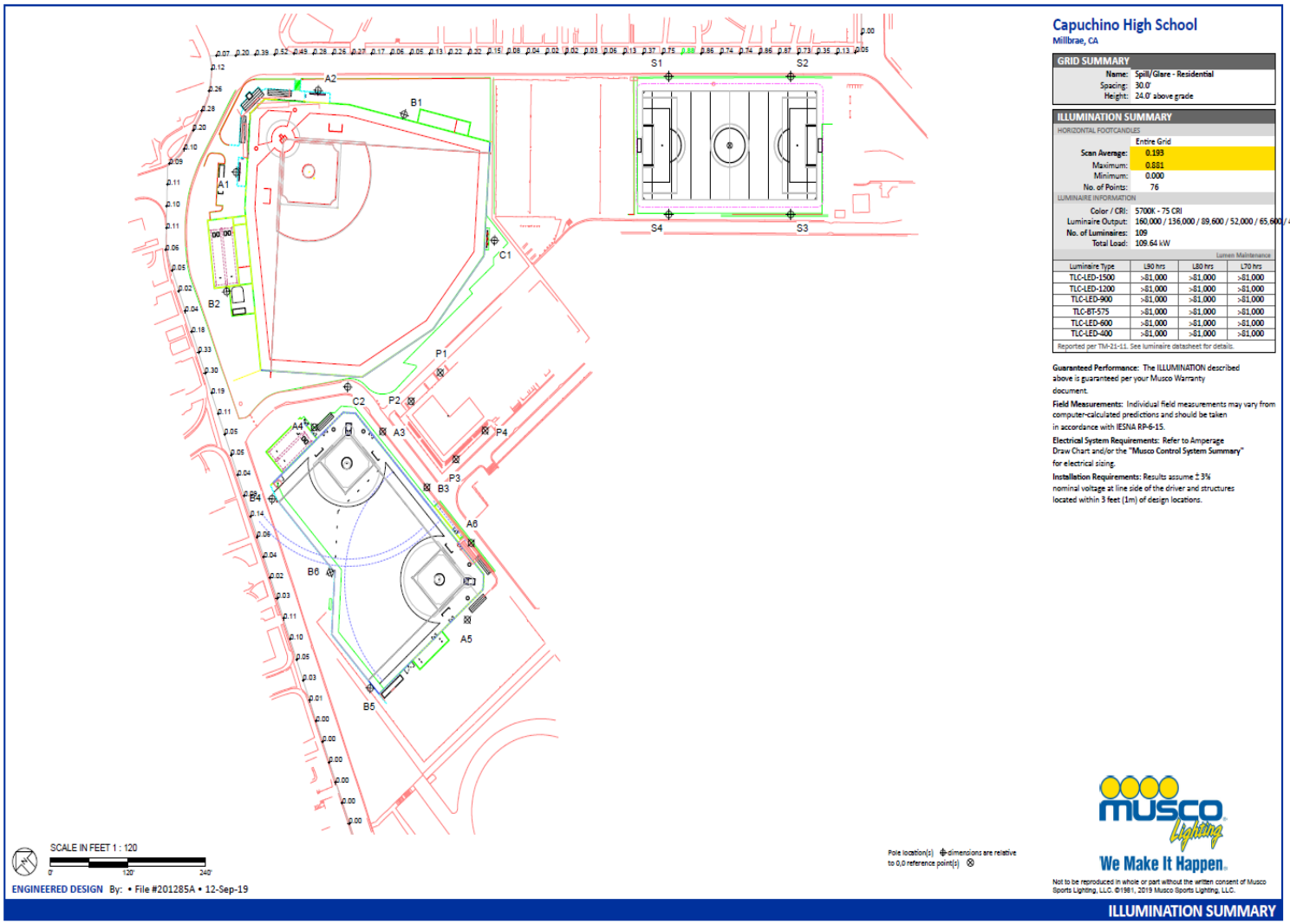
Figure 12. View from Park Boulevard looking north with Baseball Field on the right and single-family homes on the left

d) The proposed project lighting for the athletic facilities would create a new source of nighttime light and glare. Currently, baseball and softball games are played from 3:30 PM to 6:30 PM. With the project, baseball and softball games would be played generally from 4 PM to 6:30 PM except on Fridays when the games would be played from 4 PM to 9 PM.

Residents adjacent to the Baseball field along Magnolia and Park Boulevard would experience new nighttime light as a result of six new 70- to 90-foot-high light poles for the baseball field. Residents along Park Boulevard would also experience new nighttime light due to five new 60- to 70-foot-high light poles for the softball field. New lighting would be provided for the swimming pool as well (four 70-foot-high poles), but the swimming pool is located towards the center of campus away from nearby residents. Two of the tennis courts would also be lit.

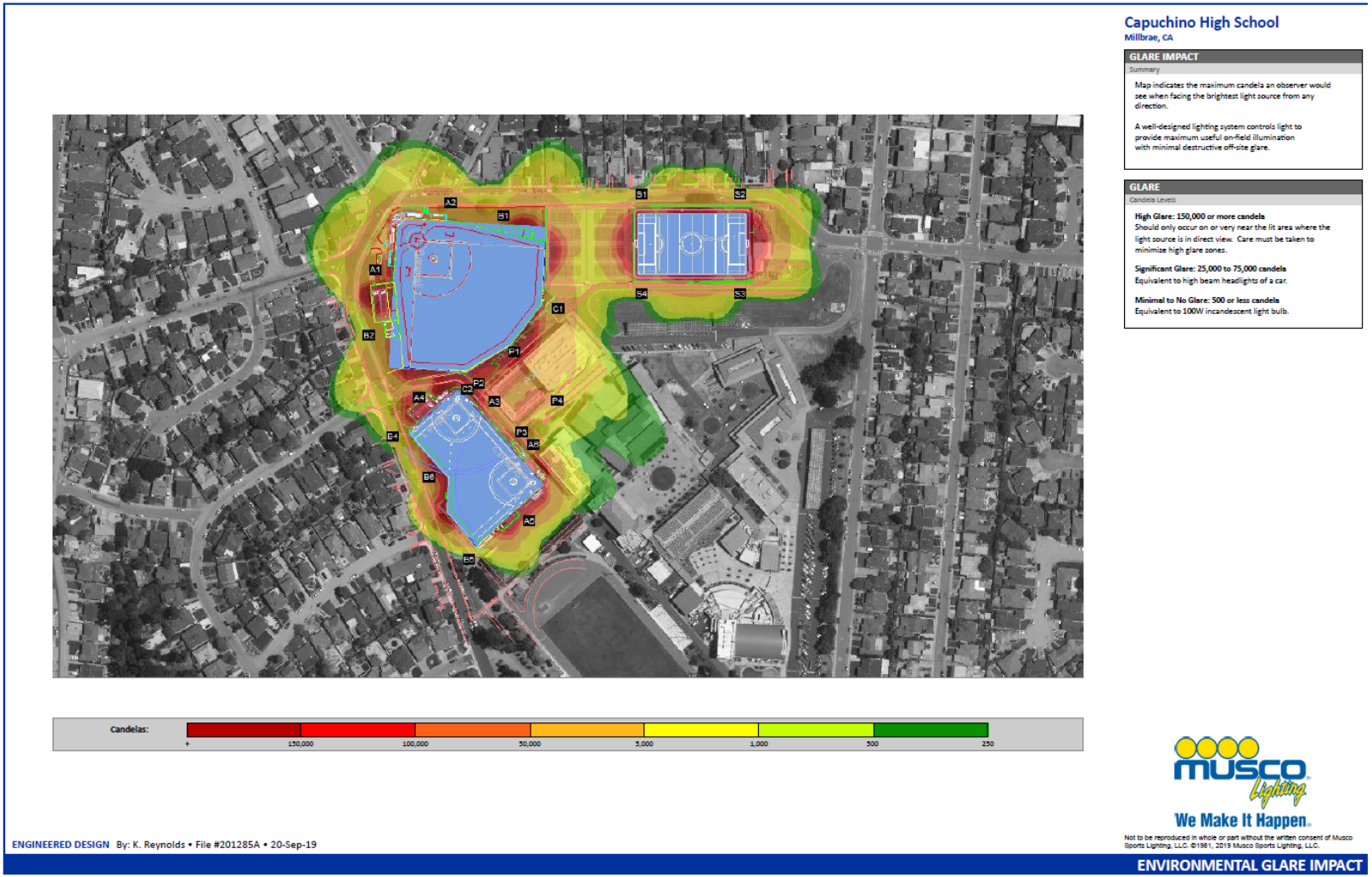
The proposed sports lighting for the softball and baseball fields is designed to control light to maximize illumination on the field and minimize off-site light and glare. The proposed lighting would be less impactful and more focused than older systems. Light and glare studies prepared by Musco Sports Lighting, LLC (See Figures 13 and 14 below, and Appendix B.) looked at light spillover at 76 points at the front property lines of homes across the street from the fields along Magnolia Avenue and Park Boulevard. They determined that the maximum illuminance in footcandles (fc) from proposed lights at the front residential property lines across the street from the fields would range from 0.0 to 1.0 fc, with an average of 0.279 fc. This average would be less than is typical of roadway lighting which ranges from 0.3 to 1.6 fc.

Figure 13. Illumination Summary



Source: Musco Sports Lighting, LLC, 2019

Figure 14. Glare Impact Map



Source: Musco Sports Lighting, LLC, 2019

The glare impacts on adjacent residents would be limited to the areas shown in Figure 14, above. The figure indicates the maximum *calenda*, or amount of glare an observer would see when facing the brightest light source from any direction. *High glare* is considered to be 150,000 or more candela. *Significant glare* is defined as 25,000 to 75,000 candela, which is equivalent to the high beam headlights on a car. *Minimal to no glare* is 500 or fewer candela, or equivalent to a 100-watt incandescent light bulb. Figure 14 shows that the glare from the lighting that the residents adjacent to the practice field, softball field, and baseball field would experience would be 5,000 candela or less, which is not considered a significant level of glare. Additional lighting diagrams are provided in Appendix B.

Currently, baseball and softball games are played from 3:30 PM to 6:30 PM. With the project, baseball and softball games would be played generally from 4 PM to 6:30 PM except on Fridays when the games would be played from 4 PM to 9 PM. While baseball and softball practices would run up to 1.5 hours longer than they currently do and Friday night games would run 2.5 hours longer than they currently run, lights would be turned off well before average bed-times. As stated above, tennis practice and games which occur in the fall and spring, would start 30 minutes later then they currently do (changing from 3:30 PM to 4:00 PM) but would not run any later than the current stop time of 6:30.

The project also would comply with San Mateo Union High School District Board Policy 7325 to limit the impacts of lighting on neighbors. **Appendix A** includes the detailed lighting policy, but applicable highlights the would govern the baseball and softball lighting are as follows:

Other [non-football] SMUHSD High School Athletic Contests After Daylight Hours

- Other nighttime athletic contests are those that start at 7:00 p.m. or later.
- These events can be scheduled throughout the school year, Monday through Friday.
- The goal is to end other SMUHSD athletic contests by 8:30 p.m., Monday through Thursday. There will be sports, such as lacrosse, that may end at 9:15 p.m. Every effort will be made to complete games as efficiently as possible.
- On Friday nights, competition level lighting will be turned off within 10 minutes of the completion of the game (typically before 9:30 p.m.).
- The Public Address (PA) system for these contests shall be limited to key game facts and shall not include running game commentary.
- The same lighting guidelines used for evening football games, and related to crowd disbursement and litter abatement/field restoration will apply.

Because (1) the proposed lighting would have only a minimal amount of spillover light and glare, (2) the hours that the lights would be on at night would be limited to non-bedtime hours, and (3) the project would comply with SMUSD policies to limit the hours

that lighting can be used, the light and glare impacts of the project would be considered **less than significant.**

II. Agricultural and Forestry Resources

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				**X**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				**X**
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))?				**X**
d) Result in the loss of forest land or conversion of forest land to non-forest use?				**X**
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?				**X**

Discussion

a-e) The Project site is covered by existing athletic fields and a swim complex on an existing high school campus in a highly urbanized area. There are no agricultural or forested lands on or in the vicinity of the school. Therefore, the project would not result in the conversion of farmland or forestland to non-agricultural uses would have **no impact** on agricultural and forestry resources.

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:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			**X**	
b) Result in a cumulatively considerable net increase of any criteria for which the Project region is non-attainment under an applicable federal or state ambient air quality standard?			**X**	
c) Expose sensitive receptors to substantial pollutant concentrations?			**X**	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			**X**	

Background

The Project site (i.e., the Capuchino High School campus) is located in the Bay Area's "Peninsula" climatic sub-region, which includes all of San Mateo County. In the summer and fall, episodes of high temperatures and low wind speeds in the County increase the potential for local ozone formation and build up. During the winter, surface-based temperature inversions (i.e., colder air near the ground, capped by warmer air aloft, which limits the vertical dispersion of air pollutants) concentrate pollutants such as carbon monoxide and particulate matter generated by motor vehicles, fireplaces/ woodstoves, etc. Many other chemical compounds, generally termed toxic air contaminants (TACs), pose a present or potential hazard to human health through airborne exposure from a wide variety of TAC sources, both stationary (e.g., dry cleaning facilities, gasoline stations, and emergency diesel-powered generators) and mobile (e.g., motor vehicles, construction equipment).

Ozone and suspended particulate matter (i.e., two types of the latter - particulate matter less than ten microns in diameter [PM_{10}] and particulate matter less than 2.5 microns in diameter [$PM_{2.5}$]) are of particular concern in the Bay Area, which is currently designated "nonattainment" for state and national ozone ambient air quality standards, for the state PM_{10} standards, and for state and national $PM_{2.5}$ standards; it is "attainment" or "unclassified" with respect to all the other major air pollutants. The BAAQMD maintains a number of air quality monitoring stations, which continually

measure the ambient concentrations of major air pollutants throughout the Bay Area. The closest station to the Project site is at 897 Barron Avenue in Redwood City, about 13 miles southeast of the Project site. The data collected show violations of the ozone and $PM_{2.5}$ particulate standards on a few days per year over the last three years (see Table AQ-1).

Table AQ-1. Local Ambient Air Quality Monitoring Summary

Pollutant	Air Quality Standard	Maximum Concentrations and Number of Days Standards Exceeded		
		2016	2017	2018
Ozone				
Maximum 8-hour concentration (ppb)		60	86	49
# Days 8-hour national/California standard exceeded	70 ppb	0	2	0
Nitrogen Dioxide (NO_2)				
Maximum 1-hour concentration (ppb)		46	67	77
# Days national 1-hour standard exceeded	100 ppb	0	0	0
Suspended Fine Particulates ($PM_{2.5}$)				
Maximum 24-hour concentration ($\mu g/m^3$)		19.5	60.8	120.9
# Days national 24-hour standard exceeded	35 $\mu g/m^3$	0	6	13*

Notes:
The pollutants are monitored at the BAAQMD station at 897 Barron Avenue in Redwood City (about 15 miles southeast of the Project site).
$\mu g/m^3$ = micrograms per cubic meter
ppb = parts per billion.
* The number of days exceeding the $PM_{2.5}$ standard in 2018 was unusually high due to the influence of the Camp Fire on Bay Area air quality.
Source: BAAQMD Air Quality Summary Reports http://www.baaqmd.gov/about-air-quality/air-quality-summaries

San Francisco International Airport (SFO) and the Highway 101 corridor in San Mateo County contain a dense concentration of stationary industrial/commercial air pollution sources. The County is crossed by several major freeways and State highways, but stationary sources of emissions become relatively sparse in the residential areas west of El Camino Real and in mountainous open-space areas beyond. The only notable stationary source near the Project site is a gas station located on the Capuchino High School campus (at 1501 Magnolia Avenue). El Camino Real (State Route 82), a major source of airborne toxics from motor vehicles, lies about 600 feet east of the Project site.[4]

[4] The BAAQMD Stationary Source Screening Analysis Tool and Highway Screening Analysis Tool allow all major Bay Area stationary and freeway/highway TAC sources to be located on Google Earth maps and their health risks displayed. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools

Analysis Methodology and Significance Criteria

The air quality analysis addressing this Initial Study checklist items was performed using the methodologies and significance thresholds recommended in *CEQA Air Quality Guidelines* (*Guidelines*; BAAQMD, May 2017, Table 2-1). The air pollutant impacts evaluated in the Items "a" and "b" discussions below are from precursors to ozone formation (i.e., reactive organic compounds [ROG] and nitrogen oxides [NO_x]) and small-diameter particulate matter (i.e., PM_{10} and $PM_{2.5}$).

According to the *Guidelines*, any Project would have a significant potential for obstructing air quality plan implementation or making a cumulatively considerable contribution to a regional air quality problem if its pollutant emissions would exceed any of the thresholds presented in Table AQ-2 during construction or operation.

TABLE AQ-2. CEQA Air Quality Significance Thresholds for Air Pollutant Emissions

Pollutant	Construction Average Daily (lbs./day)	Operational	
		Average Daily (lbs./day)	Maximum Annual (tons/year)
Reactive Organic Gases (ROG)	54	54	10
Oxides of Nitrogen (NO_x)	54	54	10
Inhalable Particulate Matter (PM_{10})	82 (exhaust)	82	15
Fine Inhalable Particulate Matter ($PM_{2.5}$)	54 (exhaust)	54	10
PM_{10}/$PM_{2.5}$ (Fugitive Dust)	BMPs[a]	N/A	N/A

Notes: BMPs = Best Management Practices N/A = Not Applicable

[a] If BAAQMD Best Management Practices (BMPs) for fugitive dust control are implemented during construction, the impacts of such residual emissions are considered to be less than significant.
Source: Bay Area Air Quality Management District, May *2017, CEQA Air Quality Guidelines*.

In addition to the major air pollutants (as identified above), many other chemical compounds, generally termed toxic air contaminants (TACs), pose a present or potential hazard to human health through airborne exposure. A wide variety of sources, stationary (e.g., dry cleaning facilities, gasoline stations, and emergency diesel-powered generators, etc.) and mobile (e.g., motor vehicles, construction equipment, etc.), emit TACs. The health effects associated with TACs are quite diverse. TACs can cause adverse health effects from long-term exposure (e.g., cancer, birth

defects, neurological damage, asthma, bronchitis, or genetic damage) and/or from short-term exposure (e.g. eye watering, respiratory irritation, running nose, throat pain, and headaches). Most of the estimated carcinogenic/chronic health risk in California can be attributed to relatively few airborne compounds, the most important being particulate matter from diesel-fueled engines (DPM). The California Air Resources Board (CARB) has identified DPM as being responsible for about 70 percent of the cumulative cancer risk from all airborne TAC exposures in California.

The *Guidelines* establish a relevant zone of influence for an assessment of project-level and cumulative health risk from TAC exposure to an area within 1,000 feet of a project site. Project construction-related or Project operational TAC impacts to sensitive receptors within the zone that exceed any of the following thresholds are considered significant:

- An excess cancer risk level of more than 10 in one million
- A non-cancer hazard index greater than 1.0.
- An incremental increase of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$) for annual average $PM_{2.5}$ concentrations.

Cumulative impacts from TACs emitted from freeways, state highways or high-volume roadways (i.e., the latter defined as having traffic volumes of 10,000 vehicles or more per day or 1,000 trucks per day), and from all BAAQMD-permitted stationary sources within the zone to sensitive receptors within the zone that exceed any of the following thresholds are considered cumulatively significant:

- A combined excess-cancer-risk levels of more than 100 in one million.
- A combined non-cancer hazard index greater than 10.0.
- A combined incremental increase in annual average $PM_{2.5}$ concentrations greater than 0.8 $\mu g/m^3$.

Project and cumulative TAC impacts are evaluated in the Item "c" discussion below.

Discussion

a) The BAAQMD's current *Clean Air Plan: Spare the Air, Cool the Climate* (2017 Plan), focuses on two closely-related goals: protecting public health from air pollutant exposures and reducing Bay Area emissions of heat-trapping gases (termed greenhouse gases [GHG]) that promote global climate change (Project GHG impacts will be addressed in Section VIII below).

Key elements in the 2017 Plan control strategies having particular applicability to the Project, are:

Controls on Transportation Sources:

- Direct new development to areas that are well-served by transit, and conducive to bicycling and walking.

Controls on Buildings and Energy Sources:

- Promote energy and water efficiency in both new and existing buildings.

The Project site is served by the San Mateo County Transit District (SamTrans) bus line "ECR" that connects it to other Peninsula communities and to the greater Bay Area via the Millbrae BART and Caltrain stations about a mile south. The Project would renovate the high school's baseball, softball, soccer, practice fields and tennis facilities on a site that has contained similar outdoor sports facilities serving the San Bruno School District since the 1950s. But the School's student population, faculty and staff levels would remain unchanged. Thus, the Project would not have the potential to substantially affect regional housing, employment, and/or population levels in San Mateo County or the Bay Area, which are the bases of the 2017 Plan regional emission inventories and control strategies.

Project construction would include the installation of outdoor lighting and public address systems that would comply with California's CALGreen (Title 24) energy code. Also, the renovated athletic fields would be converted from natural to artificial turf, thus, conserving water that is now used to irrigate the existing fields. Both are control strategies promoted by the 2017 Plan

Compliance with BAAQMD-approved CEQA thresholds of significance is another condition for determining Project consistency with 2017 Plan control measures (as addressed in the Items b discussion below). Thus, the Project would have **less-than-significant** air quality plan compliance impacts because it meets all BAAQMD CEQA emission thresholds.

b) The BAAQMD *Guidelines* recommend quantification of Project construction and operational emissions and their comparison to the CEQA significance thresholds. For the construction estimates, the California Emissions Estimator Model (CalEEMod, Version 2016.3.2) was used. The Project would renovate the School's existing baseball, softball, soccer, practice fields and tennis facilities. Construction activities are expected to commence in 2020 and be completed within a year. The model was initialized with project-specific equipment types, numbers and durations appropriate to each sub-phase of Project construction, as provided by the Project engineers.

Table AQ-3 shows the estimated exhaust air-pollutant emissions for all Project sub-phases from construction equipment, haul/delivery trucks and worker commute vehicles, including comparisons with the BAAQMD CEQA significance thresholds. Provided that there is no overlap of the sub-phases (especially during clear & grub, rough grade, lime treatment, fine grade and rock placement), no CEQA thresholds would be exceeded and construction air pollution impacts would be **less than significant**.

Table AQ-3. Project Construction Pollutant Emissions (Maximum Pounds per Day)

Construction Phase	ROG	NOx	PM_{10} (Exhaust)	$PM_{2.5}$ (Exhaust)
Demolition	0.5	5.3	0.3	0.2
Clear & Grub	1.5	15.8	0.7	0.6
Rough Grade	3.9	40.0	1.8	1.7
Lime Treatment	2.1	22.1	1.0	0.9
Fine Grade	2.0	19.7	0.9	0.8
Rock Placement	2.2	23.0	1.0	1.0
Paving	1.0	10.6	0.7	0.5

Turf Placement	1.1	9.1	0.8	0.8
Fencing	0.5	3.1	0.4	0.4
Landscaping	0.6	5.1	0.3	0.2
Concrete Placement	0.4	5.9	0.2	0.2
Significance Thresholds	**54**	**54**	**82**	**54**
Significant Impact?	**No**	**No**	**No**	**No**

Since the Project would renovate existing outdoor athletic facilities that would serve the same high school student, faculty and staff levels, the number of motor vehicle trips and on-site air pollutant sources, and the operational air pollutant emissions from them, would be about the same after Project completion as before. Thus, the Project's operational air pollutant emissions and their effects on local ambient levels would be **less than significant**.

c) The Project site is in a residential area of San Bruno west of El Camino Real. Existing single-family residential face the site on all sides, with predominantly commercial uses along El Camino Real a few hundred feet to the east. The local maximally exposed sensitive receptors [MESR] to Project construction emissions and to existing emissions from cumulative local TAC sources would be the residential uses along Magnolia Avenue closest to El Camino Real.

A screening health risk assessment (HRA) for TAC and particulate exposures to nearby sensitive receptors from Project construction activities was conducted following guidelines established by the California Office of Environmental Health Hazard Assessment (OEHHA 2015) and the BAAQMD (2012).

Cancer risk is the probability of developing cancer from a lifetime exposure (i.e., 70 years) to carcinogenic substances. The likelihood of other adverse chronic health impacts unrelated to cancer are measured using a hazard index (HI) defined as the ratio of a project's incremental annual TAC concentration to a published reference exposure level (REL) as determined by OEHHA (which for DPM is 5 µg/m3). Project incremental cancer risks and HI were estimated by applying established DPM toxicity factors to the construction equipment exhaust DPM concentrations estimated by the SCREEN3 model (Lakes Environmental).

As shown in Table AQ-4, the cancer risk from Project construction DPM at the existing adjacent residential uses most exposed to TACs from Project construction would be 1.62 additional cancer cases per million people exposed, which is below the project-level CEQA threshold for cancer risk. The HI from Project construction DPM would be 0.001, which is well below the BAAQMD threshold for chronic hazard. The modeled annual $PM_{2.5}$ concentration from Project construction would be 0.21 µg/m3, which is below the Project-level CEQA threshold (0.3 $\mu g/m^3$).

As also shown in Table AQ-4, the cumulative TAC exposure at the MESR would be considerably below the BAAQMD cumulative thresholds for cancer risk, chronic hazard

and annual $PM_{2.5}$ concentration.

After it is operational, the Project would not include substantial stationary TAC emission sources nor add substantial mobile TAC emission sources (i.e., by BAAQMD definition, daily incremental traffic volumes of 10,000 or more).

Table AQ-4. Project and Cumulative TAC Impacts on Maximally Exposed Sensitive Receptor (MESR) in the Project Site Vicinity

Source	Cancer Risk	Chronic Hazard Index	$PM_{2.5}$ Concentration
From Local Permitted Stationary TAC Sources*			
None within 1000 feet of the Project site			
From Major Local Roadways**			
El Camino Real	1.083	0.001	0.015
From Project Sources***			
Project Construction TAC Impacts	1.62	0.04	0.21
Project-Level Significance Thresholds	10	1.0	0.3
Significant Project Construction Impact?	No	No	No
From Cumulative Sources (after Project Mitigation)			
Cumulative Sources TAC Impact	2.71	0.04	0.22
Cumulative Significance Thresholds	100	10	0.8
Significant Cumulative Impact?	No	No	No

*The BAAQMD's Stationary Source Screening Analysis Tool was used to locate substantial stationary TAC sources near the Project site. The San Bruno School District confirmed that an on-campus fueling station listed in the BAAQMD inventory had been removed.

**The BAAQMD's Roadway Screening Calculator was used to estimate maximum cancer risks, hazard indexes, and $PM_{2.5}$ concentrations at the closest existing residences about 500 feet west of El Camino Real.

***Project construction cancer risk, chronic hazard and $PM_{2.5}$ increments were estimated by the SCREEN3 dispersion model using Project construction equipment TAC emission estimates from the CalEEMod model. Project construction cancer risk, chronic hazard and PM2.5 could be reduced by about 40% by requiring that Project construction equipment have EPA-rated Tier 3 diesel engines. Project construction health risks could be reduced even further (i.e., > 90%) by requiring all construction to have Tier 4 diesel engines.

To reduce the exposure of local sensitive receptors to PM_{10} and $PM_{2.5}$ in the fugitive dust released during Project construction, the BAAQMD *Guidelines* also require that all Bay Area construction projects implement Best Management Practices (BMPs) to control fugitive dust emissions. Thus, the following basic control measures must be implemented by the Project construction contractor:

BAAQMD Required Dust Control Measures: The construction contractor shall reduce

construction-related air pollutant emissions by implementing BAAQMD's basic fugitive dust control measures, including:

- 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 surfaces shall be limited to 15 miles per hour.
- 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.
- A publicly visible sign shall be posted with the telephone number and person to contact at the School District regarding dust complaints. This person shall respond and take corrective action with 48 hours. The BAAQMD's phone number shall also be included to ensure compliance with applicable regulations.

As described above, potential TAC emissions would be **less than significant.**

d) Project operation would not introduce substantial sources of odor emissions to the area. However, the Project's diesel-powered construction equipment would emit odorous exhaust that could impact existing local residents. But since the Project construction activities would be short-term (i.e., less than a year) and most local odor-sensitive receptors (i.e., the existing low-density residential neighborhoods) are at distances greater than a few hundred feet from the site center, construction odor emissions would not affect a substantial number of people for a substantial time, nor be substantially objectionable to any particular receptor while construction is underway. Therefore, this impact would be **less than significant**.

IV. Biological Resources

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 Wildlife or U.S. Fish and Wildlife Service?		**X**		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				**X**
c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				**X**
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?				**X**
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				**X**
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?				**X**

Background

The project site is currently comprised of athletic fields and a swim complex on an existing high school campus in a highly developed urban area.

Based on habitat requirements and regional distribution, no State or federally Threatened or Endangered species are expected to occur on the project site. No sensitive habitats or plant communities for these occur on the project site. However, there are several mature trees surrounding the fields, which may provide nesting habitat for special status songbirds and raptors. An arborist report was prepared to address impacts to trees (Aescules Arboicultural Consulting, February 14, 2020). No potential jurisdictional wetlands or Waters of the United States occur on the project site. Trees surrounding the school fields may provide nesting and/or roosting habitat for a number of special-status bird species.

Discussion

a) The project has the potential to affect migratory and nesting protected bird species by tree removal and noise impacts on active nests. Roosting or nesting special-status bat species also may be affected. Thirteen trees would be protected, two trees would be removed, six trees would be transplanted, and 57 replacement trees would be planted. This potentially significant impact would be reduced to a ***less-than-significant*** level by implementation of Mitigation Measures BIO- 1 and BIO-2, below.

b) The project would not affect any riparian habitat or sensitive natural communities, as none of those are present on the site. ***No impact*** would occur.

c) The project would not affect any wetlands habitats, as none of those are present on the site. ***No impact*** would occur.

d) The project has no potential to impede any migration corridors. With respect to native wildlife nursery sites, see Migratory and Nesting Bird Species discussion, above. ***No impact*** would occur.

e) The project would remove two mature Monterey pine trees and transplant six other protected trees. In addition, the proposed basketball complex lies within the tree protection zone (TPZ) of tree #1 (a non-native black acacia). The proposed tennis complex lies within the TPZ of tree #2 (a pine). Some grading and/or excavation appears necessary in these areas. The City of San Bruno regulates the removal or alteration of trees to preserve scenic beauty, maintain property values, minimize erosion problems. *The* City's Heritage Tree Ordinance applies to:

- Native Bay (*Umbellularia californica*), Buckeye (*Aesculus* species), Oak (*Quercus* species), Redwood (*Sequoia sempervirens*), or Pine (*Pinus radiata*) tree that has a diameter of six (6) inches or more measured at fifty-four (54) inches above

natural grade;

- *Any* tree or stand of trees designated by resolution of the city council to be of special historical value or of significant community benefit;
- A stand of trees, the nature of which makes each dependent on the others for survival; or
- *Any* other tree with a trunk diameter of ten (10) inches or more, measured at fifty-four (54) inches above natural grade.

The City's Heritage Tree Ordinance declares such trees, whether located on City or private property, to be an asset to the community at large and provides penalties for removing or improperly pruning these trees. However, the City does not have jurisdiction over on-site activities, as this site falls under SMUHSD jurisdiction. Therefore, the District would not be required to obtain a tree removal permit from the City of San Bruno for their removal. **No impact** would occur.

f) The project site is not covered by any federal, state, or local conservation plan. Therefore, the project would have no impact with respect to habitat conservation plan compliance.

Mitigation Measures

Measure BIO-1: Prevent Loss of Active Bird Nests. A pre-construction survey for nesting birds shall be conducted by a qualified biologist within two weeks of construction activities, if activities are to occur within nesting/breeding season of native bird species (February-August). If active nests are identified within 300 feet of construction, and would be exposed to prolonged construction-related noise above normal levels, a buffer shall be implemented around nests during the breeding season, or until a biologist determines the young have fledged. The size of the buffer and the type of construction activity will depend on multiple factors including relative change in noise and disturbance during construction activity, amount of vegetative screening between activity and nest, and sensitivity of species.

***Measure BIO-2: Prevent Loss of Roosting Habitat for Bat Species*.** The potential of the large trees to provide suitable roosting habitat shall be assessed by a qualified bat biologist, and if necessary, a roosting bat protection plan shall be implemented. If bats are determined to be using the site, minimization measures shall include prohibiting night work activities (between 10pm and sunrise), and minimizing work activities to outside of the most sensitive breeding (non-volant) period of April to August.

V. Cultural Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?		X		

Background

The project is located on an existing graded and benched, developed, high school fields and swim center site. There are no buildings other than the existing swim center on the site. A database review was conducted for the project site by the Northwest Information Center at Sonoma State University February 18, 2020). That review identified no previously recorded prehistoric or historic resources on the site. The review identified the site as having a "moderate" potential to contain prehistoric or historic cultural resources due to its proximity to a creek and to the former Bay shoreline. A pedestrian survey of the site and site augering conducted by consulting archaeologists found no cultural resources (Coleman, pers. com. March 23, 2020).

A building across the street from the site, at 1501 Magnolia Avenue, was found to be potentially locally historic.

Discussion

a) The project site is an existing graded, benched, and developed high school fields and swim center on an existing high school campus. Consequently, the project site contains no historical resources as defined in CEQA Guidelines Section 15064.5. Minimal additional grading would occur for construction of the proposed field upgrades. The project would not have any potential to affect off-site historic resources, including the building at 1501 Magnolia Avenue. Therefore, the project would have **no impact** on historical resources.

b) The project site has been graded and benched in the development of the existing fields and school facilities. The proposed project would alter site topography, including

subsurface disturbing activities. Grading would be limited to areas previously filled or graded for construction of the existing fields. Although the likelihood of project's grading, trenching, and digging for utility lines and lighting fixture foundations to encounter and disturb archaeological resources is low, it is possible that prehistoric materials and sites could be encountered. Mitigation Measures CULT-1 and CULT-2 would reduce this **potentially significant impact** to a **less-than-significant level**.

c) Although no prehistoric or historic-era human remains are known to exist on the project site, it is possible that presently undocumented human interments may be uncovered during grading. This **potentially significant** impact would be a potentially significant. Implementation of Mitigation Measures CULT-2 and CULT-2 would reduce this impact to a **less-than-significant** level.

Mitigation Measures

Mitigation Measure CULT-1: Archaeological Deposits. If archaeological remains are encountered during project activities, project ground disturbances at the find and immediate vicinity shall be halted immediately until a qualified archaeologist can evaluate the finds (§15064.5 [f]). The archaeologist shall examine the finds and recommend mitigation measures which may include documentation in place, avoidance, testing, and/or data recovery. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

Mitigation Measure CULT-2: Human Remains. California law recognizes the need to protect interred human remains, particularly Native American burials and associated items of patrimony, from vandalism and inadvertent destruction. The procedures for the treatment of discovered human remains are contained in California Health and Safety Code Section 7050.5 and Section 7052 and California Public Resources Code Section 5097.

In accordance with the California Health and Safety Code, if human remains are uncovered during ground disturbing activities all such activities in the vicinity of the find shall be halted immediately and the District or the District's designated representative shall be notified. The District shall immediately notify the county coroner and a qualified professional archaeologist. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The responsibilities of the District for acting upon notification of a discovery of

Native American human remains are identified in detail in the California Public Resources Code Section 5097.9. The District or their appointed representative and the professional archaeologist will consult with a Most Likely Descendent determined by the NAHC regarding the removal or preservation and avoidance of the remains and determine if additional burials could be present in the vicinity.

VI. Energy

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

Discussion

a) The Project would not result in wasteful, inefficient, or unnecessary consumption of energy, given Project installation of outdoor lighting and public systems compliant with State of California energy conservation regulations, and its reduction of water use associated with the replacement of natural turf athletic fields by artificial turf. Therefore, this impact would be **less than significant.**

b) The California State Building Standards Commission adopted updates to the California Green Building Standards Code (CALGreen), which went into effect in January 2011. CALGreen contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, and site irrigation conservation. CALGreen is intended to (1) reduce GHG emissions; (2) promote environmentally responsible, cost-effective, healthier places to live and work; and (3) reduce energy and water consumption. The Project would be built on accord with CALGreen standards and reduce water use by the installation of artificial turf athletic fields. Therefore, this impact would be **less than significant**.

VII. Geology and Soils

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Directly or indirectly cause 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.				X
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?		X		
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?		X		
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?		X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial director indirect risks to life or property?			X	
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 wastewater?				X
f) Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?			X	

Background

This analysis considers the project's potential impacts on unique paleontological resources unique geologic features on the project site.

Geologic Conditions

Regional geologic mapping (Knudsen et al, 1997) indicates the campus is underlain by early or middle-Pleistocene alluvial deposits. This formation consists of interbedded layers of unconsolidated gravel, sand, silt, and clay. The nearest trace of the San Andreas Fault is mapped approximately 1.6-miles southwest of the project site. Soil studies at the school's football field, adjacent to the site, identified sandy soils extending up to 20 feet below the surface. Although groundwater was not encountered in the borings, it is anticipated to be seasonally high.

Seismic Conditions

The project site is located within a seismically active region that includes the Central and Northern Coast Mountain Ranges. As shown on the Fault Map, Figure 5, several active faults are present in the area including Maacama, Healdsburg, Rodgers Creek, San Andreas, and Hayward Faults, among others. An "active" fault is defined as one that shows displacement within the last 11,000 years and, therefore, is considered more likely to generate a future earthquake than a fault that shows no evidence of recent rupture. The California Geologic Survey has mapped various active and inactive faults in the region (CDMG, 1972 and 2000). The San Andreas Fault is the nearest known active fault and is located approximately 1.6-miles southwest of the site (Caltrans ARS, 2019).

The site will likely experience moderate to strong ground shaking from future earthquakes originating on any of several active faults in the San Francisco Bay region. The historical records do not directly indicate either the maximum credible earthquake or the probability of such a future event. To evaluate earthquake probabilities in California, the USGS has assembled a group of researchers into the "Working Group on California Earthquake Probabilities" (USGS 2003, 2008; Field, et al 2015) to estimate the probabilities of earthquakes on active faults.

Conclusions from the most recent studies indicate there is a 72% chance of an M>6.7 earthquake in the San Francisco Bay Region between 2014 and 2043. The highest probability of an M>6.7 earthquake on any of the active faults in the San Francisco Bay region by 2043 is assigned to the Hayward/Rodgers Creek Fault system the site at 33% followed by the San Andreas Fault at 22%.

Discussion

a) i. Based on available published geologic information, the project site is not located within an Alquist-Priolo Earthquake Fault Zone. The potential for fault rupture on the site is therefore considered to be low and **no impact** would occur.

ii. The site would be subject to moderate to strong ground shaking in the event of a major earthquake on any of the regional fault zones. Due to its close proximity, the San Andreas Fault (approximately 1.75 miles southwest) presents the highest potential for strong ground shaking. The small buildings proposed for the suite may be damaged by this shaking, however they are intended for storage and would be constructed to current seismic codes so would not pose a safety risk in an earthquake. This impact would be **less than significant**.

iii. The site has sandy soils and a seasonally high groundwater level, so may be subject to liquefaction and/or lateral spreading and differential settlement in a major earthquake. This could result in damage to the fields and associated infrastructure. The impact associated with liquefaction and differential settlement hazards would be reduced to a **less-than-significant** level by implementation of Mitigation Measure GEO- 1, below.

b) The nearly level site does not contain any slopes that would be subject to landslide hazards. Minimal topographic changes would occur on the site.

Sandy soils on moderate slopes are susceptible to erosion when exposed to concentrated water runoff. Sandy soils were observed near or at the ground surface during our subsurface exploration. Development of the proposed Project would require disturbance and a small amount of grading, as described in the Project Description. If grading were to occur during the rainy season, substantial erosion could result. Mitigation Measure HYDRO-1, in the Hydrology and Water Quality section, and Mitigation Measure GEO-2, below, would reduce this potential impact to **less than significant**.

c) Please see response to item a) iii, above. This impact would be reduced to a **less-than-significant** level by implementation of Mitigation Measure GEO-1, below.

d) Expansive soils shrink and swell with fluctuations in moisture content and are capable of exerting significant expansion pressures on building foundations, interior floor slabs, and exterior flatwork. Distress from expansive soil movement can include cracking of brittle wall coverings (stucco, plaster, drywall, etc.), cracked door and/or window frames, and uneven floors and cracked slabs. Flatwork, pavements, and concrete slabs-on-grade are particularly vulnerable to damage from soil swelling and shrinking highly plastic and/or expansive soils were not observed by Cornerstone during their subsurface exploration. Therefore, the risk of expansive soil affecting the proposed improvements is low. The impact would be **less than significant**.

e) The proposed project would be served by the City's sewer system and would not include any septic systems. Therefore, **no impact** would occur with respect to adequacy of site soils for septic systems.

f) The foundation work would occur primarily within the areas of recent fill and recently

deposited soils, therefore potential impacts to paleontological resources would be considered **less than significant**.

Mitigation Measures

Mitigation Measure GEO-1. The project's site clearing, site preparation, subgrade preparation and stabilization, fill, drainage, and any foundation systems shall be designed and constructed per the specifications set forth on the project geotechnical report.

Mitigation Measure GEO-2. The project shall include a site drainage system to collect surface water and discharging it into an established storm drainage system. The project Civil Engineer or Architect shall be responsible for designing the site drainage system and, an erosion control plan could be developed prior to construction per the current guidelines of the California Stormwater Quality Association's Best Management Practice Handbook.

VIII. Greenhouse Gas Emissions

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			**X**	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			**X**	

Background

Greenhouse gases (GHGs) are atmospheric gases that capture and retain a portion of the heat radiated from the earth after it has been heated by the sun. The primary GHGs are carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), ozone, and water vapor. While GHGs are natural components of the atmosphere, CO_2, CH_4, and N_2O, are also emitted in substantial quantities from human activities and their accumulation in the atmosphere over the past 200 years has substantially increased their concentrations. This accumulation of GHGs has been implicated as the driving force behind global climate change.

Human emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with organic decay processes in agriculture, landfills, etc. Other GHGs, including hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, are generated by certain industrial processes. The global warming potential of GHGs are typically reported in comparison to that of CO_2, the most common and influential GHG, in units of "carbon dioxide-equivalents" (CO_2e).

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity.

Discussion

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for air quality regulation in the nine-county San Francisco Bay Area Air Basin.

As part of that role, the BAAQMD has prepared *CEQA Air Quality Guidelines* that provide CEQA thresholds of significance for operational GHG emissions from land use project. (i.e., 1,100 metric tons of CO_2e per year, which is also considered the definition of a cumulatively considerable contribution to the global GHG burden and, therefore, of a significant cumulative impact), but has not defined thresholds for project construction GHG emissions. The *Guidelines* methodology and thresholds of significance have been used in this Initial Study's analysis of potential GHG impacts associated with the Project.

The CalEEMod model was used to quantify GHG emissions associated with Project construction activities. The Project would renovate the School's existing baseball, softball, soccer, practice fields and tennis facilities. Construction activities are expected to commence in 2020 and be completed within a year. The model was initialized with project-specific equipment types, numbers and durations appropriate to each sub-phase of Project construction, as provided by the Project engineers.

After renovation of the outdoor athletic facilities, the School that would accommodate the same high school student, faculty and staff levels. Thus, operational GHG emissions from motor vehicle trips and on-site stationary would be about the same after Project completion as before. Project construction would also include the installation of outdoor lighting and public address systems that would comply with California's CALGreen (Title 24) energy code. Also, the renovated athletic fields would be converted from natural to artificial turf, conserving water that is now used to irrigate the existing fields. Both are GHG reduction strategies promoted by the BAAQMD's 2017 Clean Air Plan.

The estimated Project construction GHG emissions would be about 175 metric tons of CO_2e (for which there is no BAAQMD CEQA significance threshold). The Project's estimated operational GHG emissions would be slightly less than they are now because of the reduction in water use by the renovated sports fields. Therefore, this impact would be **less than significant.**

a) Assembly Bill 32 (AB32), the California Global Warming Solutions Act, requires the CARB to lower State GHG emissions to 1990 levels by 2020—a 25% reduction statewide with mandatory caps for significant GHG emission sources. AB32 directed CARB to develop discrete early actions to reduce GHG while preparing the Climate Change Scoping Plan in order to identify how best to reach the 2020 goal. Statewide strategies to reduce GHG emissions to attain the 2020 goal include the Low Carbon Fuel Standard (LCFS), the California Appliance Energy Efficiency regulations, the California Renewable Energy Portfolio standard, changes in the motor vehicle corporate average fuel economy (CAFE) standards, and other early action measures that would ensure the state is on target to achieve the GHG emissions reduction goals of AB 32.

b) The Project site is accessible by mass transit and would be required to obtain building permits for construction, which would ensure compliance with CALGreen (Title 24). Thus, the Project would not conflict with the goals and policies of AB32 and the Bay Area's 2017

Clean Air Plan. The project would have a **less-than-significant** impact related to this issue.

IX. Hazards and Hazardous Materials

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			**X**	
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?			**X**	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			**X**	
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?			**X**	
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 or excessive noise for people residing or working in the Project area?				**X**
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				**X**
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				**X**

Discussion

a) Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the construction contractor would be required to implement a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the Project site. Therefore, no significant impacts would occur during construction activities.

In addition, the proposed Project would not be a large-quantity user of hazardous materials. Small quantities of hazardous materials would likely routinely be used on site, primarily fertilizers, herbicides, and pesticides. These substances would be stored in secure areas and would comply with all applicable storage, handling, usage, and disposal requirements. The potential risks posed by the use and storage of these hazardous materials are limited primarily to the immediate vicinity of the materials. Any transport of these materials would be required to comply with various federal and state laws regarding hazardous materials transportation.

In summary, the proposed Project would not create a significant hazard to the public or the environment from routine transport, use, or disposal of hazardous materials and impacts would be **less than significant**.

b, d) The site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962 (Cortese List)[5] because a “Schools Investigation” was conducted at the site. That investigation found no contamination and no action was required by DTSC or the RWQCB. This 35-acre site was undeveloped open land prior to the 1950's when the Capuchino High School was constructed. Since the school was constructed, the land use in the area has remained similar. The surrounding community is residential housing with some commercial properties along El Camino Real to the east. Therefore, potential impacts from site contamination would be **less than significant**.

c) As described under response to questions IX b and d, above, the project would reduce the amount of pesticides and other hazardous materials used on campus and storage and use would comply with applicable regulations. Therefore, the project would have a **less-than-significant** potential to significantly affect children or adults at the school.

e) The project site is less than a mile from San Francisco International Airport. However, it

[5] https://www.envirostor.dtsc.ca.gov/public/map/?global_id=43990007

is outside of the outer boundary of the airport safety zone[6] the Airport Land Use Plan area but within the FAA 14 CFR Part 77 Conical Surface (which applies limits to heights of structures within that zone). The project would not change the land use or increase the height of any buildings. Therefore, it would not present a hazard to air safety, and **no impact** would occur.

f) Construction and operation of the project are not expected to interfere with the City of San Bruno's emergency response. Construction would be limited to the existing high school fields and swim center areas, and traffic would not be substantially affected by the project. Therefore, it would not adversely affect emergency response or access. **No impact** would occur.

g) The project is in a highly developed urban area. It is completely surrounded by urban uses and the nearest wildfire-hazard areas are several miles west of the site. Therefore, the project would have **no impact** with respect to wildfire hazards.

[6] City/County Governments of San Mateo County, California, July 2012. *Comprehensive Airport Land Use Plan, San Francisco International Airport.* Exhibit IV-4- Airport Influence Area B – Southeast Side -- Land Use Policy Action/Project Referral Area

X. Hydrology and Water Quality

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?		**X**		
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				**X**
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: i) result in substantial erosion or siltation on- or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site; iii) 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; or iv) impede or redirect flood flows?		**X**		
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				**X**
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				**X**

Discussion

a, c, e) Under Section 402 of the Clean Water Act, the U.S. EPA has established regulations through the National Pollution Discharge Elimination System (NPDES) stormwater program to control stormwater discharges, including those associated with construction activities. The NPDES stormwater permitting program regulates stormwater quality from construction sites. The State Construction General Permit (CGP) requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and the use of appropriate best management practices (BMPs) for erosion control and spill prevention during construction. Dischargers whose Projects disturb one or more acres of soil or whose Projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the CGP for Discharges of Stormwater Associated with Construction Activity (CGP Order 2009-0009-DWQ).

The City of San Bruno is under the jurisdiction of the San Mateo County Flood Control District (SMFCD), which manages stormwater and flooding problems in San Mateo County and is responsible for administering the San Mateo Countywide Water Pollution Prevention Program (SMCWPPP) and FEMA Flood Insurance Program.

The Project site is relatively flat and mostly covered with existing athletic fields. Development of the proposed Project would require disturbance and light grading, as described in the Project Description. Minimal topographic changes would occur as a result of the project as the site is, and would remain, relatively flat.

During construction activities, there would be a potential for surface water to carry sediment from on-site erosion and small quantities of pollutants into the City's stormwater system and, ultimately, San Francisco Bay. Soil erosion may occur along Project boundaries during construction in areas where temporary soil storage may be required. Small quantities of pollutants may enter the storm drainage system, potentially degrading water quality.

Construction of the proposed Project also would require the use of gasoline and diesel-powered heavy equipment. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances would be used during construction. An accidental release of any of these substances could degrade the water quality of the surface water runoff and add additional sources of pollution into the drainage system.

The proposed Project would be required to comply with the State CGP. The District would be required to develop and implement a SWPPP that identifies appropriate construction BMPs in order to minimize potential sedimentation or contamination of storm water runoff generated from the Project site. The SWPPP would identify the risk level for erosion and sedimentation and how much monitoring of potential pollutants is required. Implementation of a SWPPP as required would ensure that the construction of the proposed Project would not violate any water quality standards or waste discharge requirements and reduce potential impacts to a

less-than-significant level, as described in Mitigation Measure HYD-1.

As required under State Water Resources Control Board Order No. R2 2009-0074, the City of San Bruno requires regulated projects, such as this one, to prepare a Stormwater Control Plan (SWCP). The SWCP must include post-construction stormwater treatment measures such as bio-retention facilities and source controlled BMPs. The SWCP must also address ongoing maintenance of those facilities.

Prior to the issuance of grading permits or building permits (whichever occurs first), the Project would be required to obtain coverage under the State CGP (NPDES General Permit for Stormwater Discharges Association with Construction Activity (Order 2009-0009 DWQ) by preparing a Stormwater Pollution Prevention Plan (SWPPP) and submitting it along with a notice of intent, to the San Francisco Bay RWQCB. The SWPPP must identify a practical sequence for BMP implementation and maintenance, site restoration, contingency measures, responsible parties, and agency contacts. The SWPPP would include but not be limited to the following elements:

- Temporary erosion control measures would be employed for disturbed areas.
- No disturbed surfaces would be left without erosion control measures in place during the winter and spring months. Cover disturbed areas with soil stabilizers, mulch, fiber rolls, or temporary vegetation.
- Sediment would be retained on site by a system of sediment basins, traps, or other appropriate measures. Drop inlets shall be lined with filter fabric/geotextile.
- The construction contractor would prepare Standard Operating Procedures for the handling of hazardous materials on the construction site to eliminate or reduce discharge of materials to storm drains. This may include locating construction-related equipment and processes that contain or generate pollutants in a secure area, away from storm drains and gutters, and wetlands; parking, fueling, and cleaning all vehicles and equipment in the secure area; designating concrete washout areas; and preventing or containing potential leakage or spilling from sanitary facilities.
- BMP performance and effectiveness would be determined either by visual means where applicable (e.g., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination (such as inadvertent petroleum release) is required by the RWQCB to determine adequacy of the measure.
- In the event of significant construction delays or delays in final landscape installation, native grasses or other appropriate vegetative cover would be established on the construction site as soon as possible after disturbance, as an interim erosion control measure throughout the wet season.

The project area includes 381,568 square feet of surface area, 322,031 of which are pervious and 59,537 of which are pervious. With the project there would be a net increase in impervious surface area of 25,968 square feet: 296,063 would be pervious and 85,504 would be impervious. New storm drains would be installed to connect field subdrains to the existing stormwater collection system. Peak flows would not be expected to exceed existing site conditions because any increase in peak runoff would be detained by the stormwater system. The District would coordinate any new connections with the City. Therefore, impacts to runoff would be **less than significant**.

The quality of the runoff would improve since pesticide and fertilizer use would decrease since such substances would no longer be needed for the natural grass that would be replaced with synthetic turf. Implementation of the Construction General Permit requirements described above, as well as Mitigation Measures HYD-1 and HYD-2, below, would reduce the other water quality impacts described above to a **less-than-significan**t level.

b) The Water Division of the City of San Bruno Public Works Department is responsible for the efficient and effective operation and maintenance of the City's water supply and distribution systems. The City of San Bruno receives its water through 5 San Francisco Public Utilities Commission (SFPUC) turnouts and from 5 deep-water wells. The City also purchases water from the North Coast County Water District. The Public Works Water Division maintains a distribution system that includes 13 pressure zones, 21 pumps, 8 water tanks, 900 hydrants, and 100 miles of mains.

SFPUC water is filtered by the Harry Tracy plant (San Andreas Reservoir) and supplied to upper elevation areas of the community. Crystal Springs Supply Lines #2 or #3 deliver water to the lower elevations. The groundwater is blended with water from the SFPUC. Groundwater is typically used as a backup supply, and was not used in 2017-18. Through this complex network of interrelated systems, the Water Division maintains and operates the water supply and distribution systems so that water delivered to its customers meets all Federal and State water quality standards, pressure and quantity mandates, and meets secondary standards such as taste and color through active distribution system infrastructure assessment and flushing programs. Total demand in Fiscal Year 2017-18 was approximately 3 million gallons/day, the vast majority of which was SFPUC water.

The project would re-arrange and improve existing athletic fields and associated facilities, and replace large areas of natural turf, which require irrigation, to synthetic turf. Because the natural grass-covered softball, baseball, and practice fields covering 240,330 square feet would be replaced with synthetic turf, it is estimated that approximately six million gallons of water per year currently used for irrigation annually would no longer be needed[7]. Therefore, the proposed Project would not contribute to depletion of groundwater supplies and **no impact** would occur to groundwater.

[7] This is an estimate based on the "Maximum Applied Water Allowance" figure identified in Section 492.4 of the California Code of Regulations Title 23 (See https://www.waterboards.ca.gov/laws_regulations/docs/wrregs.pdf).

Because of the reduced overall demand from the project, and because it would incorporate water conservation equipment, landscaping, and practices, it would not conflict with any groundwater management plan.

d) The Federal Emergency Management Agency (FEMA) is recently updated its maps for San Bruno. Most of the site is mapped as an "Area of Minimal Flood Hazards". However, a portion of the existing baseball field and the Magnolia Avenue frontage of the fields is mapped as in Zone X, which has a 0.2% annual chance of flood hazard, and 1% annual chance of a flooding of less than one foot[8].

The project site is not within a dam failure area[9]. Therefore, the project would not impede flood waters nor increase flood hazards from that source.

Seiches and tsunamis are seismically induced large waves of water. Because of the distance of the site from any large water body, the absence of steep slopes above the site, and the elevation of the site well above sea level, there is no potential for a tsunami seiche, or mudflow to affect this part of San Bruno. Therefore, the proposed Project would have no impact to future occupants of the project from these hazards, and **no impact** would occur.

Mitigation Measures

Mitigation Measure HYD-1: Prior to the issuance of grading permits for the proposed Project, the Project engineers shall prepare a Stormwater Control Plan. The Stormwater Control Plan shall identify pollution prevention measures and practices to prevent polluted runoff from leaving the Project site.

Mitigation Measure HYD-2: The District shall maintain in perpetuity the post-construction BMPs listed in the Stormwater Control Plan. The District shall make changes or modifications to the BMPs to ensure peak performance. The District shall be responsible for costs incurred in operating, maintaining, repairing, and replacing the BMPs. The owner shall conduct inspection and maintenance activities and complete annual reports.

[8] Federal Emergency Management Agency (FEMA) FIRM Flood Hazard Maps, Effective April 5, 2019, Panels 06081C0131F and 06081C0132F

[9] https://planning.smcgov.org/sites/planning.smcgov.org/files/documents/files/Dam_Failure_Inundation.pdf

X. Land Use and Planning

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?				**X**
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?				**X**
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				**X**

Discussion

a) The athletic facility improvements are proposed for existing facilities on an existing high school campus. Because the project would not change the existing land use but would instead upgrade the existing athletic facilities onsite, the project would not create conflicts between uses or divide an established community, there would be **no impact.**

b) The project would not change the existing land use on site and would therefore have **no impact** on plan conformance.

c) The Project site is not located within the boundaries of a habitat conservation plan or a natural community conservation plan; therefore, the Project would not conflict with any habitat plans and there would be **no impact**.

XI. Mineral Resources

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?				**X**
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?				**X**

Discussion

a, b) The Project site a developed school campus in an urban area, and is not identified in the City of San Bruno's General Plan as a site containing mineral resources that would be of local, regional, or statewide importance; therefore, the Project is not considered to have any impacts on mineral resources. The Project site is also outside of any areas designated by the State Mining and Geology Board as containing regionally significant PCC-grade aggregate resources (used in concrete). The Project site does not contain any known mineral deposits or active mineral extraction operations. Therefore, there would be **no impact** to mineral resources.

XIII. Noise

Would the Project result in:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a Project within the vicinity of a private airstrip or 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?			X	

Background

A detailed noise analysis was conducted for the project by RGD Acoustical Consulting (February 2020). The discussion below is summarized from that analysis. The full RGD study is included in Appendix C of this document.

Noise Descriptors

Noise can be defined as unwanted sound. It is commonly measured with an instrument called a sound level meter. The sound level meter captures the sound with a microphone and converts it into a number called a sound level. Sound levels are expressed in units of decibels.

To correlate the microphone signal to a level that corresponds to the way humans perceive noise, the A-weighting filter is used. A-weighting de-emphasizes low-frequency and very high-frequency sound in a manner similar to human hearing. The use of A-weighting is required by most local General Plans as well as federal and state noise regulations (e.g. Caltrans, EPA, OSHA and HUD). The abbreviation dBA is sometimes used when the A-weighted sound level is reported.

Because of the time-varying nature of environmental sound, there are many descriptors that are used to quantify the sound level. Although one individual descriptor alone does not fully

describe a particular noise environment, taken together, they can more accurately represent the noise environment. The maximum instantaneous noise level (L_{max}) is often used to identify the loudness of a single event such as a car pass-by or airplane flyover.

To express the average noise level the L_{eq} (equivalent noise level) is used. The L_{eq} can be measured over any length of time but is typically reported for periods of 15 minutes to 1 hour. The background noise level (or residual noise level) is the sound level during the quietest moments. It is usually generated by steady sources such as distant freeway traffic. It can be quantified with a descriptor called the L_{90} which is the sound level exceeded 90 percent of the time.

There are other statistical descriptors that are used, often times as part of a local noise ordinance. These descriptors are used since local ordinances will have limits based on the number of minutes per hour that an intrusive sound may exceed a specified limit. For example, if a specified noise level cannot be exceeded more than 30 minutes in an hour that is referred to as the L_{50}. The L_{50} is used in this is also referred to as the median noise level.

To quantify the noise level over a 24-hour period, the Day/Night Average Sound Level (DNL or L_{dn}) or Community Noise Equivalent Level (CNEL) is used. These descriptors are averages like the L_{eq} except they include a 10 dB penalty during nighttime hours (and a 5 dB penalty during evening hours in the CNEL) to account for peoples increased sensitivity during these hours. The CNEL and DNL are typically within one decibel of each other.

In environmental noise, a change in noise level of 3 dB is considered a just noticeable difference. A 5 dB change is clearly noticeable, but not dramatic. A 10 dB change is perceived as a halving or doubling in loudness.

Vibration is an oscillatory motion which can be described in terms of the displacement, velocity, or acceleration. Because the motion is oscillatory, there is no net movement. Displacement is the easiest descriptor to understand. For a vibrating floor, the displacement is simply the distance that a point on the floor moves away from its static position. The velocity represents the instantaneous speed of the floor movement.

The peak particle velocity (PPV) is the descriptor used in monitoring of construction vibration since it is related to the stresses that are experienced by buildings. Although PPV is appropriate for evaluating the potential of building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals and a time averaged vibration descriptor correlates better with human response. For this reason, criteria for transit vibration is presented in terms of the root-mean-square (rms) vibration velocity and is typically shown in units of decibels referenced to 1 micro-inch per second (with the abbreviation “VdB" to reduce the potential for confusion with sound decibels).

Regulatory Setting

General Plan Noise Element

Chapter 5 of the Health and Safety Element of the City of San Bruno General Plan has policies to assure the compatibility of a new development with the noise environment of the City. The City uses the L_{dn} descriptor in various policies but it does not have a policy with quantitative standards related to acceptable increases in noise.

City of San Bruno Municipal Code

Chapter 6.16.050 "Noise levels exceeding ambient base level" states that "Any noise level exceeding the zone ambient base level at the property plane of any property, or exceeding the zone ambient base level on any adjacent residential area zone line or at any place of other property (or, if a condominium or apartment house, within any adjoining apartment) by more than ten decibels shall be deemed to be prima facie evidence of a violation of the provisions of this chapter. However, during the period of seven a.m. to ten p.m. the ambient base level may be exceeded by twenty decibels for a period not to exceed thirty minutes during any twenty-four hour period."

According to section 6.16.030, the ambient noise level in a residential zone is 60 dBA between 7 a.m. and 10 p.m.

Chapter 6.16.160 "Amplified sound – regulations" , the commercial and noncommercial use of sound-amplifying equipment shall be subject to the following regulations:

A. The only sounds permitted shall be either music or human speech, or both.

B. The operation of sound-amplifying equipment shall only occur between the hours of eight a.m. and eight p.m. each day except on Sundays and legal holidays. No operation of sound-amplifying equipment for commercial purposes shall be permitted on Sundays or legal holidays. The operation of sound-amplifying equipment for noncommercial purposes on Sundays and legal holidays shall occur only between the hours of ten a.m. and eight p.m.

C. Sound level emanating from sound-amplifying equipment shall not exceed fifteen decibels above the ambient base noise level, as measured at a distance of one hundred feet from the sound source. [NOTE: Per section 6.16.030 of the code, the ambient noise level between seven a.m. and ten p.m. is 60 decibels]

D. Notwithstanding the provisions of subsection C, sound-amplifying equipment shall not be operated within two hundred feet of churches, schools, hospitals or city or county buildings.

Existing Noise Environment

Noise levels around the school site emanates from school activities as well as other ambient noise sources. Activities at the school consist of sporting events (e.g. baseball games, softball games, swim meet, water polo games) as well as practices for various sports teams. The practices generate lower noise levels than games but tend to occur more frequently. Other ambient noise sources are vehicular traffic on local roads as well as nearby and regional aircraft. To quantify ambient noise levels at Capuchino High School, two continuous, long-term (5-day) noise measurement and five short-term (15 minute) noise measurements were made in the surrounding neighborhoods. Long-term measurements are shown in Tables Noise-1 and Noise-2, below. A summary of the short-term measurements is provided in Table Noise-3.

Table Noise-1: Long-Term Noise Measurement Results (CNEL), Location LT-1 (Magnolia Ave. at Tennis Courts)

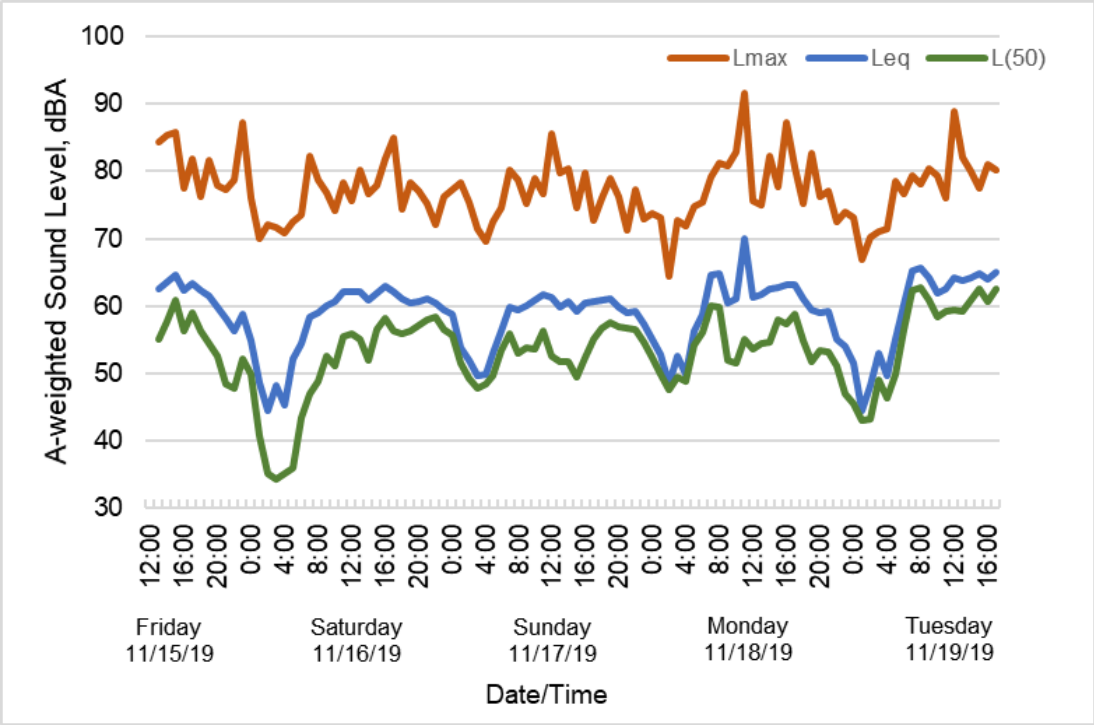


Table Noise-2: Long-Term Noise Measurement Results (CNEL), Location LT-2 (Park Boulevard at edge of baseball field))

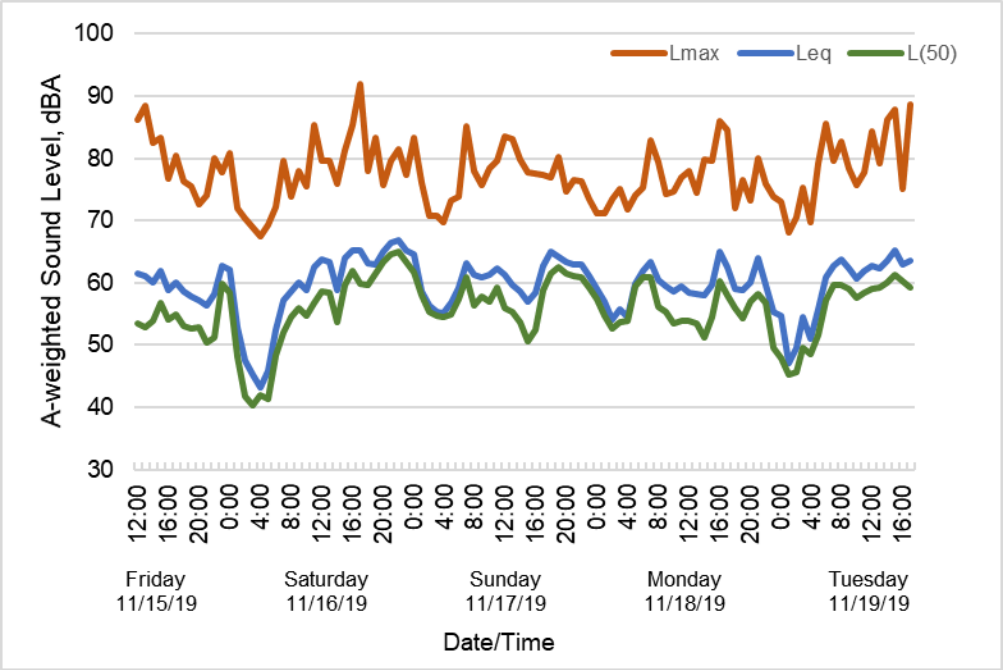


Table Noise-3: School Short-Term Noise Measurement Results

Location		Date/Time	A-weighted Sound Level, dBA					
			L_{eq}	L_8	L_{33}	L_{50}	CNEL *	L_{max}
ST-1	Magnolia Ave, 5 feet above ground	15 Nov 2019 12:58 – 1:13 P.M.	57	63	52	48	62	Cars: 64 – 73 Jets: 51, 53, 57-68
ST-2	Park Boulevard, 5 feet above ground	15 Nov 2019 1:33 – 1:48 P.M.	64	62	53	50	66	Cars: 57 – 70 Pickup truck: 87 Jets: 53 – 55 Scavenger truck: 73
ST-3	Park Boulevard, 5 feet above ground	15 Nov 2019 1:17 – 1:32 P.M.	56	59	54	52	64	Cars: 58 – 68 Jets: 55, 58, 52, 56, 50, 51, 55, 58, 60
ST-4	Millwood Drive, 5 feet above ground	19 Nov 2019 3:48 – 4:07 P.M.	63	66	61	59	63	Cars: 64 – 75 SUV: 79 Jets: 58, 60 – 65, 69 Voices of soccer practice

								occasionally audible typically < 55
ST-5	Magnolia Ave across soccer practice, 5 feet above ground	19 Nov 2019 4:12 – 4:27 P.M.	62	66	61	58	63	Cars: 64 – 68, 75, 77 Jets: 60 – 65 Voices of soccer practice: 54 – 61, 64, 67 Ball kick: < 52, 54

*CNEL based on comparison with simultaneous measurement at the long-term location.

CEQA Thresholds of Significance

CEQA does not provide quantitative noise level limits to use as thresholds of significance for a project. Instead, it points to use of local ordinances, adopted standards of agencies as well as the potential for a project to significantly increase existing noise levels above those that were present without the project. Within this framework, the following thresholds are adopted for this project.

Threshold 1: A significant noise impact would occur if the noise from the new PA system would exceed 65 dBA at the nearest property line.

Discussion: The Board of Directors for the District, in recognition of the importance of minimizing noise impact to neighbors from PA use, has adopted a policy for amplified sound. The policy requires that the sound of the PA system be limited to 65 dBA at the closest property line to the school or compliance with the local ordinance, whichever is less. San Bruno uses 75 dBA (15 dBA over ambient of 60 dBA) at a distance of 100 feet as a limit and this is less restrictive than the 65 dBA property line limit from the district. Therefore, the District policy is adopted as a threshold of significance.

Threshold 2: A significant impact would occur if the daily CNEL increases by 3 dBA or more when a baseball game, softball game, swim meet, or water polo game is played at night (as compared to a day when a game is played during the daytime).

Discussion: The San Bruno General Plan does not provide specific guidance on how to evaluate increases in community noise. In neighboring cities, the General Plans of San Mateo and Millbrae provide specific guidance on how to evaluate increases in community noise for their respective communities. The San Mateo and Millbrae policies are similar and require consideration of mitigation measures for projects that increase the L_{dn} by 3 dBA or more.

The L_{dn} has an adjustment to account for peoples increased sensitivity to noise at night (between 10 pm and 7 am) but does not include an adjustment to account for the increased sensitivity of people to noise during evening hours when the games would occur. There is another metric called CNEL which is similar to the L_{dn} but includes a 5 dBA “penalty” which is added to noise during evening hours (7 pm – 10 pm) to account for peoples’ sensitivity to evening noise.

In order to evaluate the potential impact that would occur as a result of a change from day game events to night game events, this report considers the increase in the CNEL on a day when a game event occurs later in the day (proposed project) as compared to the CNEL on a day when a game event occurs during the day (existing). A game day is used since these are generally louder than practices.

The existing and future CNEL for a baseball game, softball game, swim meet, and water polo game were calculated based on noise measurements discussed in the previous section and the SoundPlan 3-D environmental model. The existing and future game day CNEL was then added to the ambient CNEL to determine a total CNEL for both existing and future conditions.

Threshold 3: A significant impact would occur if the annual average CNEL increases by 3 dBA or more as a result of the project.

Discussion: While the CNEL increase on a game day is helpful to understand potential impact on a daily basis, it does not necessarily provide a measure of the impact over time since there will be events happening on the field throughout the year.

In order to evaluate the potential impact of noise from all field related activities during the course of a year, this report considers the increase in the annual average CNEL that would result from all games and practices on the fields.

To determine the increase in the annual average CNEL from all field sources, a method similar to the daily CNEL was used. In this case, an annual average CNEL from each field noise source was calculated for existing and future conditions. Under existing conditions, most activities on the project fields end by 7 PM. The existing and future annual average CNEL for each field source was then added to the ambient CNEL to determine a total CNEL for existing and future conditions.

Threshold 4: A significant impact would occur if the project results in the generation of excessive groundborne vibration or groundborne noise.

Discussion: The operation of the project (i.e. activities on the field) is not expected to include groundborne vibration sources. However, construction activities will generate groundborne vibration.

Neither CEQA, City, nor the State specifies acceptable vibration levels from construction activities. For the purposes of this assessment, the methodology described by the Federal Transit Administration (FTA) for assessing potential damage to structures is used[10]. These construction vibration damage criteria for typical buildings range from a PPV of 0.5 inches/sec for reinforced concrete, steel or timber structures to 0.2 inches/sec for non-engineered timber and masonry buildings. Construction vibration is also assessed against criteria for annoyance which is much

[10] Transit Noise and Vibration Impact Assessment, Federal Transit Administration, September 2018

more stringent than criteria for structural damage. The FTA specifies vibration impact criteria of 80 VdB for residences. These criteria are for "infrequent" events (i.e. transit train passbys). Although more stringent criteria are recommended for "frequent" or "occasional" events, these are not used since construction activities would occur during the daytime and would not be permanent.

Threshold 5: A significant impact would occur if the project would expose people residing or working in the project area to excessive aircraft noise levels.

Discussion: According to the 2012 Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport's Noise/Land Use Compatibility Criteria (Table IV-1), public and private schools exposed to an aircraft CNEL of below 65 dBA is considered compatible without restrictions. Schools exposed to an aircraft CNEL of 65 to 70 dBA are considered "conditionally compatible" and schools exposed to an aircraft CNEL above 70 dBA are considered incompatible.

Discussion

a) *Construction Noise Impacts*

Construction of the project would include the renovation of existing fields, grading/foundation work, and the addition of light poles and other structures. Equipment used during construction would vary by phase, but would include excavators, backhoes, dump trucks, graders, compactors, water trucks and similar equipment. According to the Project Description, construction hours would be 7:00 AM to 4:30 PM on weekdays only.

Existing neighboring residential homes are generally located about 80 feet or more from the project's proposed field upgrades. Based on a typical noise source level of 84 dBA at 50 feet, the noise levels are calculated to be approximately 80 dBA at the nearest homes when construction equipment are located 80 feet away. Construction noise levels will be clearly noticeable for the nearest residences and at times, may temporarily interfere with normal activities such as speech communications outdoors.

The City's daytime (7 a.m. to 10 p.m.) construction noise limit is 85 dBA at 100 feet. Table Noise-4 shows that the typical construction equipment is calculated to be less than 80 dBA at 100 feet. Since the construction equipment levels do not exceed the City's daytime construction noise limit, this is considered **less than significant**.

The noise study recommends the following Best Management Practices be employed during construction to minimize noise effects:

- All construction equipment shall be equipped with mufflers and sound control devices (e.g., intake silencers and noise shrouds) that are in good condition and appropriate for the equipment.
- Maintain all construction equipment to minimize noise emissions.

- Stationary equipment shall be located on the site so as to maintain the greatest possible distance to the sensitive receptors.
- Unnecessary idling of internal combustion engines should be strictly prohibited.
- Neighbors located adjacent to the construction site shall be notified of the construction schedule in writing.
- The construction contractor shall provide the name and telephone number an on-site construction liaison. In the event that construction noise is intrusive to the community, the construction liaison shall investigate the source of the noise and require that reasonable measures be implemented to correct the problem.

Table Noise-4: Construction Equipment Sound Levels

Construction Equipment	Ref. Sound Level at 50 ft (dBA) [11]	Adjustment for Distance at 100 ft.	Calculated Noise Level at 100 ft (dBA)
Backhoe	78	-6	72
Compressor	78	-6	72
Dozer	82	-6	76
Dump Truck	76	-6	70
Gradall	83	-6	77
Flat Bed Truck	74	-6	68
Excavator	81	-6	75
Tractor	84	-6	78
Front End Loader	79	-6	73
Compactor (ground)	83	-6	77
Scraper	84	-6	78
Auger Drill Rig	84	-6	78
Generator	81	-6	75
Pneumatic Tools	85	-6	79
Concrete Mixer Truck	79	-6	73
Pump	81	-6	75
Roller	80	-6	74
Paver	77	-6	71
Crane	81	-6	75
Man-lift	75	-6	69

Operational Noise Impacts

The RGD noise analysis considered long-term noise at the nearest sensitive receptors from the various changes in fields and facility use that would result from the project. Proposed changes in field/facility usage are shown in Table Noise-5, below.

[11] Roadway Construction Noise Model, Federal Highway Administration, January 2006

Table Noise-5: Existing and Project Field Usage

Fields	Activities	Time of Year	Existing			with Project		
			Time of Day	# of players and spectators	# of Events per Year	Time of Day	# of players and spectators	# of Events per Year
Baseball field	Baseball game	Spring	3:30-6:30	90	27	4-6:30 (4-9 Fri)	90	27
	Baseball practice	Spring	3:30-7	90	100	3:30-8:30	90	100
Softball field	Softball game	Spring	3:30-6:30	80	27	4-6:30 (4-9 Fri)	80	27
	Softball practice	Spring	3:30-6:30	45	100	3:30-8:00	45	100
Practice field	Soccer practice	Winter	3:30-9	50	100	3:30-9	50	100
Tennis courts	Tennis games	Fall/ Spring	3:30-6:30	50	16	4-6:30	50	16
	Tennis practice	Fall/ Spring	3:30-6:30	27	100	4-6:30	27	100
Pool	Water polo game	Fall	3:30-6:30	150	12	3:30-7	150	12
	Water polo practice	Fall	3:30-6:30	65	100	3:30-7	65	100
	Swim meet	Spring	3:30-6:30	150	4	3:30-7	150	4
	Swim practice	Spring	3:30-6:30	65	100	3:30-7	65	100

Source: email from Greystone West Company to RGD Acoustical Consultants, January 31, 2020

Operational impacts based on these changes in use are shown in Table Noise-6, below. The table shows that the annual average CNEL would increase by less than 3 dBA at all receiver locations and this is considered **less than significant**. The calculated noise level from the PA sound system from the baseball and softball fields would be less than the threshold of 65 dBA at the nearest receivers. This is considered **less than significant**. Daily average CNEL for different game day activities due to the project would increase by less than 3 dBA at all receiver locations. This is considered **less than significant**. The annual average CNEL would increase by less than 3 dBA at all receiver locations. This is considered **less than significant.** Thus, the project would have no potentially significant operational noise impacts, and no mitigation measures would be required.

Table Noise-6. Increase in Annual Average CNEL from all Field Activities

Receiver	A-weighted Annual CNEL, dBA		
	Existing	Existing w/ Project	Increase
R-1			
Ambient	63.5	63.5	
Baseball field	33.4	38.6	
Softball field	45.7	51.1	
Practice field	15.3	19.8	
Tennis courts	20.0	27.9	
Pool	38.3	39.0	
Total	63.6	63.8	0.2
R-2			
Ambient	64.1	64.1	
Baseball field	48.3	53.2	
Softball field	37.8	42.0	
Practice field	24.8	29.3	
Tennis courts	26.4	33.3	
Pool	37.0	37.7	
Total	64.3	64.5	0.2
R-3			
Ambient	64.1	64.1	
Baseball field	50.6	55.3	
Softball field	39.1	43.0	
Practice field	24.5	29.0	
Tennis courts	26.6	32.9	
Pool	36.0	36.7	
Total	64.3	64.7	0.4
R-4			
Ambient	62.2	62.2	
Baseball field	51.0	55.6	
Softball field	38.7	43.0	
Practice field	24.3	28.8	
Tennis courts	27.1	33.7	
Pool	38.8	39.5	
Total	62.5	63.1	0.6

Receiver	A-weighted Annual CNEL, dBA		
	Existing	Existing w/ Project	Increase
R-5			
Ambient	62.2	62.2	
Baseball field	39.2	43.5	
Softball field	31.9	35.7	
Practice field	40.5	45.0	
Tennis courts	32.9	36.0	
Pool	23.4	24.1	
Total	62.2	62.3	0.1
ST-1			
Ambient	62.2	62.2	
Baseball field	42.8	47.1	
Softball field	34.1	37.9	
Practice field	34.8	39.3	
Tennis courts	39.2	45.0	
Pool	32.8	33.5	
Total	62.3	62.4	0.1
ST-2			
Ambient	66.1	66.1	
Baseball field	45.7	50.4	
Softball field	43.1	47.4	
Practice field	21.3	25.8	
Tennis courts	25.0	31.4	
Pool	36.6	37.3	
Total	66.2	66.3	0.1
ST-3			
Ambient	63.5	63.5	
Baseball field	39.0	43.9	
Softball field	49.6	53.8	
Practice field	16.9	21.4	
Tennis courts	22.8	27.8	
Pool	39.9	40.6	
Total	63.7	64.0	0.3

Receiver	A-weighted Annual CNEL, dBA		
	Existing	Existing w/ Project	Increase
ST-4			
Ambient	62.9	62.9	
Baseball field	29.2	34.2	
Softball field	11.9	22.8	
Practice field	28.3	32.8	
Tennis courts	21.0	26.2	
Pool	7.6	8.3	
Total	62.9	62.9	< 0.1

Based on the above analysis, the project would have a **less-than-significant** noise impact, and no mitigation would be required.

b) Construction of the project would include the renovation of existing fields, grading/foundation work, and the addition of light poles and other structures. Equipment used during construction would vary by phase, but would include excavators, backhoes, dump trucks, graders, compactors, water trucks and similar equipment. According to the Project Description, there would be up to 20 construction workers on-site on an average day and construction hours would be 7:00 AM to 4:30 PM on weekdays only. Project construction would start in September 2020 and be completed in July 2021.

Existing neighboring residential homes are generally located about 80 feet or more from the project's proposed field upgrades. Table Noise-7 shows the calculated vibration levels using the construction vibration damage assessment methodology in the Federal Transit Administration's 2018 Transit Noise and Vibration Impact Assessment report. The table shows that the calculated construction vibration levels do not exceed 80 VdB and do not exceed 0.2 in/sec. This is considered **less than significant**.

Table Noise-7: Calculated Vibration Levels at a Distance of 80 Feet from Source

Equipment	Vibration Velocity Level at 80 feet	PPV at 80 feet
	VdB	in/sec
Vibratory Roller	79	0.04
Hoe Ram	72	0.02
Large Bulldozer	72	0.02
Caisson Drilling	72	0.02
Loaded Trucks	71	0.01
Jackhammer	64	0.01
Small Bulldozer	43	< 0.01

a) According to the 2012 Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport Exhibit IV-5 which shows the airport CNEL noise contours, the project site is outside the aircraft CNEL 65 dBA noise contour. Based on the document's Table IV-1, school uses outside the aircraft CNEL 65 dBA noise contour is considered compatible with the noise environment. This is considered less than significant.

XIII. Population and Housing

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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)?				**X**
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				**X**

Discussion

a) The proposed athletics field upgrade project would not directly increase population growth because there is no housing component and would not indirectly increase housing (through increased demand) because the Project would not, in itself, generate any new demand. No new permanent jobs would be generated by the project. The site and surrounding areas have been or are developed with urban land uses and no extensions of roads or other infrastructure would be required that would indirectly induce growth. Therefore, the project would not induce new development on nearby lands, and **no impact** would occur.

b) The Project site is an existing high school athletic fields facility with no housing. The proposed project would not displace existing housing or people, so there would be **no impact**.

XIV. Public Services

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 following public services:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Fire protection?			**X**	
b) Police protection?			**X**	
c) Schools?				**X**
d) Parks?				**X**
e) Other public facilities?				**X**

Discussion

a) The City of San Bruno Fire Department (SBFD) provides fire protection and emergency medical services for the Project site. The SBFD maintains two strategically located and professionally staffed fire stations. The Department staffs two fire engines and one ladder truck 24 hours a day, 365 days a year. The Department responds to approximately 3900 calls for service annually. Implementation of the project would not materially alter uses of the site, and therefore would not result in an incremental increased demand for fire protection services. The project would not require the provision of or need for new or physically altered facilities to continue to serve the project site. As a result, the project would not result in a substantial adverse physical impact nor would it substantially affect response times for fire services. The project's impact related to the provision of fire services would be **less than significant.**

b) The City of San Bruno Police Department (SBPD) provides police protection services for the Project site. The Department has 50 sworn officers and over 60 employees. The Department provides a wide range of law enforcement services to the community and responds to over 32,000 calls for service each year. The SBPD currently provides police protection to the existing school fields and would continue to provide service when the upgraded fields are constructed. The Project plans would be reviewed by the SBPD for safety provisions. Full emergency access to the site would be provided. Because there would be no new demand for police protection services, the impact would be **less than significant**.

c) The proposed facilities would not increase the population or otherwise increase demands for school services. Therefore, the Project would have **no impact** on schools.

d) As described above, the proposed Project would not result in an increase in residents and therefore, would not increase demand for any parks facilities. For this reason, the project would be expected to have **no impact** to recreational facilities

e) No other public facilities would be required by the proposed Project. Therefore, there would be no impact to other facilities.

XV. Recreation

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would occur or be accelerated?				**X**
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?				**X**

Discussion

a) As described in response to question d) under Public Services, above, the Project would have **no impact** on parks and other recreational facilities because the Project would not cause physical deterioration of any recreational facility to occur or be accelerated.

b) The Project includes upgrades to the school athletic facilities which are evaluated by topic in this document. The Project would not require the construction or expansion of other recreational facilities. Because the Project does not include features that would result in additional adverse impacts to recreational facilities beyond that addressed herein, **no impacts** would occur.

XVII. Transportation/Traffic

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?			**X**	
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?			**X**	
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?				**X**
d) Substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			**X**	
e) Result in inadequate emergency access?			**X**	

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?				**X**

Discussion

a, b, d) The project would not alter site access, parking, or circulation. There may be a slight increase in after-school traffic associated with the project due to additional practice time associated with the athletics complex improvements, however this would not affect any roadways to the extent that any congestion plans could be affected. The minimal traffic from the proposed Project also would not affect any hazards associated with project access. Therefore, project traffic and safety impacts would be **less than significant**.

c) San Francisco International Airport is located approximately 0.75 miles east of the Project site. However, the proposed fields improvements would not extend into the protected air space and would not create aviation safety hazards for persons residing or working in the Project vicinity. The Project would replace existing athletic fields on the site, and the lighting fixtures would not be at heights that could alter air traffic hazards. Therefore, it would have **no impact** on air traffic patterns.

e) The project would not alter or otherwise affect emergency access to the fields. The City of San Bruno Fire Department would review the Project plans for adequacy of emergency access. Therefore, the Project would not affect emergency access to the site and surrounding area. Impacts would be **less than significant**.

f) The Project would be limited to the existing high school fields areas and therefore have **no impact** on existing bus, bicycle and pedestrian access. It would not conflict with any adopted plans, policies, or programs that address alternative transportation, and would have **no impact** on those plans.

XVIII. Tribal Cultural Resources

Would the project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project cause a significant adverse change in the significance of a tribal cultural resource defined in Public Resource Code Section 21074 as either a site, feature, place cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:		X		
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or		X		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

Background

As described in the Cultural Resources section, above, no prehistoric or historic resources have been identified on the site. A portion of the site has been identified as having a moderate potential for subsurface archaeological resources. No cultural resources were found in the archaeological survey by SAS (Coleman, pers. com. March 23, 2020), which included the excavation of seven hand-auger units in areas planned for grading.

California Public Resources Code Sections 21080.1, 21080.3.1, and 21080.3.2 (AB 52) requires

public agencies to consult with the appropriate California Native American tribes identified by the NAHC for the purpose of mitigating impacts to cultural resources. Solano Archaeological Services (SAS) conducted Native American community outreach for the project on behalf of the San Mateo Union High School District. This includes consultation with local Native American representatives regarding Tribal Cultural Resources. AB 52 tribal consultation has concluded pursuant to Pub. Resources Code § 21080.3.2, subd. (b).

Discussion

a) i., ii. The NAHC Sacred Land File search had positive results for resources either in or within the vicinity of the project area. SAS was instructed by the NAHC to contact the Ohlone Indian Tribe and the Indian Canyon Mutsun Band of Costanoan to gather more information on the resource(s). As described above, SAS contacted all of the above tribal contacts provided by the NAHC via letters, emails, and telephone conversations to gather their input about the Project. A representative from the Ohlone Indian Tribe indicated that previously recorded pre-contact sites a half-mile north were the sites of concern and that the project area contained no known unrecorded cultural resources. Both tribal contacts from the Indian Canyon Mutsun Band of Costanoan recommended the development of an inadvertent discovery protocol, and one representative further recommended that construction personnel be provided with cultural resources sensitivity training and inadvertent discovery protocol training before construction begins. A tribal representative from the federally recognized Muwekma Ohlone Tribe of the San Francisco Bay Area expressed concern for unearthing pre-contact resources, and recommended 1) construction monitoring by a tribal member as well as a qualified professional archaeologist; 2) inadvertent discovery protocol, and 3) that should any ancestral human remains be discovered, the Muwekma Ohlone Tribe should be contacted and involved with plans for treatment. Mitigation Measures CULT-1, -2, and -3 in the Cultural Resources section would be implemented to address impacts on any unknown cultural resources, and would assure that any potential tribal cultural resource impacts would be **less than significant with mitigation.**

XVII. Utilities and Service Systems

Would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the waste water 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?			X	
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

Background

The City of San Bruno provides wastewater collection, treatment, and disposal services for the project area. The Wastewater Division of the Public Works Department is responsible for the wastewater collection system throughout the City including all sewer mains, manholes, lower

laterals, and 7 lift stations. Wastewater treatment is handled under a Joint Powers Agreement with the City of South San Francisco. Approximately 3.4 million gallons of effluent per day are pumped from San Bruno through the Shaw Road Pump Station to be treated at the South San Francisco/San Bruno Water Quality Control Plant. The treatment plant, which is located on Belle Air Road in the City of South San Francisco, just north of the San Francisco International Airport, is operated and maintained by the City of South San Francisco. Treated wastewater is discharged two miles out into San Francisco Bay via a join outfall pipe shared by the cities of San Bruno, South San Francisco, Millbrae, Burlingame, Colma, and the San Francisco Airport.

The Water Division of the San Bruno Public Works Department is responsible for the efficient and effective operation and maintenance of the Water Supply and Distribution systems. The San Bruno water supply system consists of 5 production wells, 13 pressure zones, 8 storage tanks located at 6 sites, and 5 connections to major transmission pipelines, 4 owned and operated by the San Francisco Public Utility Commission (SFPUC) and one by the North Coast County Water District (NCCWD). The San Bruno water distribution system consists of 100 miles of pipelines, 9,000 valves, 985 fire hydrants, 8 pumping stations, 8 storage tanks and 13 pressure zones. Total City water demand in Fiscal Year 2017-18 was approximately 3 million gallons/day, the vast majority of which was SFPUC water, with the remainder sourced from NCCWD.

The City of San Bruno has partnered with Recology San Bruno to provide compost, recycling, and landfill collection and disposal services to residential and commercial customers. Recology operates a solid waste transfer station at 101 Tanforan Avenue in San Bruno.

Discussion

a, b, c) The project would generate a small amount of wastewater that would be treated by the Regional Wastewater Treatment Plant. However, the project wastewater generation from the upgraded fields use would be approximately the same as from the existing fields use, so there would be no substantive net increased wastewater treatment demand. As a result, the project would have a **less-than-significant** impact related to wastewater treatment facilities.

As described in Hydrology and Water Quality, project water use would be reduced compared to the existing school demand, resulting in **no impact** in water demand.

The project area is fully developed, and no substantial expansions or extensions of utility services would be required.

d, e) Recology San Bruno would continue to provide recycling, organics (green waste), and garbage collection services to the school. Because the Project would replace the existing fields on the site, there would be no net increase in solid waste generation as a result of project operation, and there would **no impact** on solid waste generation or disposal.

XX. Wildfire Hazards

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:

Environmental Issue	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				**X**
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				**X**

Discussion

a, b, c) The project site is adjacent to developed urban uses and the nearest wildfire-hazard areas are several miles west of the site, in the Santa Cruz Mountains, and several miles to the north, on San Bruno Mountain. Therefore, the project would have **no impact** with respect to wildfire hazards, associated hazards, and equipment /infrastructure needs.

IV. MANDATORY FINDINGS OF SIGNIFICANCE

Environmental Issue	Potentially Significant	Less Than Significant with Mitigation	Less Than Significant	No Impact
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, substantially reduce the number or restrict the range of an endangered, rare or threatened species or eliminate important examples of the major periods of California history or prehistory?		X		
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)?			X	
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

a) As described in the Biological Resources section of this IS, potentially significant impacts to biological resource impacts (nesting birds and bats) would be mitigated to a less-than-significant level by measures included in that section. Compliance with the mitigation measures for the unearthing of any unknown cultural resources would ensure all potential impacts associated with cultural resources would be reduced to a **less-than-significant** level.

b) No major development projects are proposed near the project site. Because the Project would replace the existing school fields with only slightly expanded facilities, it would not

contribute in a cumulatively considerable manner to any impacts of any other local projects. All project construction impacts would be limited to the project site and immediately surrounding streets. Long-term impacts would not extend beyond this area as well. Therefore, the proposed project would not contribute in a cumulatively considerable manner to any other projects, and this impact would be **less than significant**.

c) The proposed Project would not increase long-term air pollutant emissions and greenhouse gasses because it would not add any net new workers. Mitigation measures for emissions from construction emissions would reduce any such emissions to less than significant levels. The projects noise impacts also would be less than significant. The Project's hazards to human health and safety would be less than significant, as described in Section VIII of this Initial Study. The impact would be reduced to a **less-than-significant level** with mitigation.

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APPENDIX A
SAN MATEO UNION HIGH SCHOOL DISTRICT
BOARD POLICY DISTRICT STADIUM LIGHTS AND PUBLIC ADDRESS SYSTEMS BP 7325

Board Policy
District Stadium Lights and Public Address Systems BP 7325

Facilities
Updated March 2018 (Last Update March 2017)

The San Mateo Union High School District (SMUHSD) Board of Trustees recognizes the need for our schools to be good neighbors in the use of permanent stadium lights on our school grounds. While the Board believes stadium lights enable schools to enhance opportunities for students, the use of stadium lights and public address systems has an impact on the surrounding neighborhoods of our comprehensive high schools. The Board directs staff to create administrative regulations that guide the use of stadium lights and the accompanying public address systems.

Football Games After Daylight Hours

The District's football games often draw a large number of families and friends to participate in the athletic experience of their students. While there is a significant school and community value to evening sports events, the District recognizes that night football games have the greatest impact on the surrounding neighborhood. Therefore, the following outlines the use of stadium lights at football games:

B. Night Time Football Games

- There shall be typically no more than five nighttime regular season homes games (with a maximum of six) with potentially two playoff games.
- These games will generally take place on Friday nights with varsity games starting no later than 7:30pm. Games will typically end no later than 10pm barring unforeseen issues such as injuries and overtime contests.
-

C. Use of Lights

- Competition level lighting will be turned off within 20 minutes of the completion of the games (typically by 10 p.m.).
- The school has no more than 40 minutes after the end of game to have lower level lights on for safe crowd disbursement.
- The school can keep lights on the lowest level of lighting to ensure that the area is restored to pre-game condition.

Football Games During the Day

- Daytime football games can be played any day except Sunday, but will generally take place Thursday, Friday, or Saturday.

Other SMUHSD High School Athletic Contests After Daylight Hours

- Other nighttime athletic contests are those that start at 7:00 p.m. or later.
- These events can be scheduled throughout the school year, Monday through Friday.
- The goal is to end other SMUHSD athletic contests by 8:30 p.m., Monday through Thursday. There will be sports, such as lacrosse, that may end at 9:15 p.m. Every effort will be made to complete games as efficiently as possible.
- On Friday nights, competition level lighting will be turned off within 10 minutes of the completion of the game (typically before 9:30 p.m.).

- The Public Address (PA) system for these contests shall be limited to key game facts and shall not include running game commentary.
- The same lighting guidelines used for evening football games, and related to crowd disbursement and litter abatement/field restoration will apply.

ADDITIONAL USES AFTER DAYLIGHT HOURS

A. Other School-Related Activities After Daylight Hours

- There will be no more than six school activities (e.g., graduation) each school year during the night that make use of the PA system.
- These events will typically take place during the school year, Monday-Friday.
- On limited occasion, school special events and fundraisers that benefit community causes may occur on a Saturday night and will end by 9:30 p.m. .
- The highest level of lighting (competition level lighting) must be off no later than 9:30pm. The graduation ceremony will be announced/published well in advance of the event.

B. School Athletic Team Practices After Daylight Hours

- The District recognizes the need for our athletic teams to have lighting for safe practices. With this in
- mind, the following applies:
- School teams can use the field lights for such practices during the school year Monday-Friday, weekdays only. School practices that take place Monday through Thursday should end before 8:30 p.m. on the fields.
- Lighting can be used up until 8:30 p.m. Lower level lighting can be used up to 30 minutes after the end of practice.
- To comply with CIF Regulations on length of time between practices, during the month of August and before school starts, practices will be allowed to run until 9 p.m.
- The PA system may not be used for school athletic team practices.
- The lights will not be activated for any summer practices or any other school field activities during the months of June and July. The high school graduation event is the only exception.

C. Other Use of SMUHSD Fields by Organized Sports After Daylight Hours

The District recognizes the shortage of well-maintained fields in the communities it serves. With this in mind, the following applies:

External sports teams can use the field lights, Monday through Saturday (no Sunday use).

- External sports teams can use field lights throughout the year, with the exception of June and
- July.
- These teams may utilize lighting until 8:30 p.m.
- The PA system may not be used for non-school, organized sports leagues.
- Organizations that rent out the District's stadium fields will be informed that the organization must instruct users to park and drop-off participants in school parking areas.
- Outside organizations must restore the facility to pre-use condition.
- School uses and activities will be prioritized over use by external organized sports teams.

Morning Use of Stadium Lights

- The Board values the track being available to the community and this includes the early morning hours. Staff will devise appropriate regulations to govern early morning use of lights.
- Lower level lighting will be used for early morning use.

- School activities are allowed to start at 8 a.m., Monday through Saturday, but typically, school events will occur during school days. School events will commence no earlier than 8 a.m.

Public Address (PA) System: Limits on Use

- Schools can use the PA system during the day for all school events every day, except Sunday and typically not before 9:00 a.m.
- The PA system shall only be used to make essential announcements.
- The PA system cannot exceed 65dBA (or decibel limit according to city ordinance) at closest property line to school.
- The school will do one annual testing of the proper functioning of their PA system, if requested.
- PA sound limits will apply at all times for stadium fields.
- No noisemakers will be allowed at games, per Central Coast Section Sportsmanship Policy.

Traffic & Parking

- The District will work with each City's Police Department to develop a traffic, parking and security plan for football games.
- Upon individual request, schools will provide on-site phone numbers of staff who can address issues should they arise.
- School is not bound by limitations in the case of an emergency.

Litter

- The school is responsible for checking the school grounds and fronting properties for litter. All litter will be immediately removed.
- The school will clear trash bags resulting from games or events from school property and properly dispose immediately or no later than the following morning.
- The school should provide trash receptacles inside and outside the field area.

Activities After Daylight Hours that Precede this Administrative Regulation

- Prior to this AR, Burlingame High School (BHS) lights have been on for hours beyond those set forth in these regulations. These hours will be neither extended nor reduced without Board approval.
- There are several activities (e.g., Relay for Life) that have been approved at specific school sites.
- New requests beyond these pre-existing activities will be specifically approved by the Board. No use of the PA system will be allowed at these events.

General

- The District will review and improve, as needed, signage informing visitors of the location of District parking lots.
- During the first two years of implementation, District staff will review administrative regulations and report to the Board annually. After two years, the District staff will provide future updates and reviews as needed.

APPENDIX B
ADDITIONAL LIGHTING EXHIBITS

Capuchino High School

Millbrae, CA

NOTES: Pole A4 is in a glare zone for the softball field. Poles B4, B5 are in a glare zone for the practice soccer field.

Lighting System

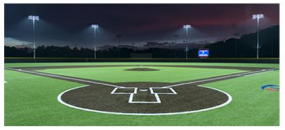
Pole / Fixture Summary

Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A1-A2	70'	70'	4	TLC-LED-1500	5.72 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
		60'	2	TLC-LED-400	0.80 kW	M
A3	60'	60'	3	TLC-LED-900	2.67 kW	C
		16'	1	TLC-BT-575	0.58 kW	C
		50'	1	TLC-LED-400	0.40 kW	M
A4	60'	60'	3	TLC-LED-900	2.67 kW	C
		16'	1	TLC-BT-575	0.58 kW	C
		45'	2	TLC-LED-900	1.78 kW	C
		50'	1	TLC-LED-400	0.40 kW	M
A5	60'	60'	2	TLC-LED-1200	2.34 kW	E
		60'	1	TLC-LED-900	0.89 kW	E
		16'	1	TLC-BT-575	0.58 kW	E
		40'	1	TLC-LED-600	0.58 kW	E
		50'	1	TLC-LED-400	0.40 kW	M
A6	60'	60'	2	TLC-LED-1200	2.34 kW	E
		60'	1	TLC-LED-900	0.89 kW	E
		16'	1	TLC-BT-575	0.58 kW	E
		40'	1	TLC-LED-900	0.89 kW	E
		50'	1	TLC-LED-400	0.40 kW	M
B1	90'	90'	7	TLC-LED-1500	10.01 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
		60'	1	TLC-LED-1200	1.17 kW	A
B2	90'	90'	7	TLC-LED-1500	10.01 kW	A
		16'	1	TLC-BT-575	0.58 kW	A
		60'	4	TLC-LED-900	3.56 kW	A
B3	70'	70'	5	TLC-LED-900	4.45 kW	D
		16'	2	TLC-BT-575	1.15 kW	D
		50'	1	TLC-LED-400	0.40 kW	M
B5	70'	70'	5	TLC-LED-900	4.45 kW	E
		16'	1	TLC-BT-575	0.58 kW	E
B6	70'	70'	5	TLC-LED-900	4.45 kW	D
		16'	2	TLC-BT-575	1.15 kW	D
B7	70'	70'	4	TLC-LED-900	3.56 kW	C
		16'	1	TLC-BT-575	0.58 kW	C
C1-C2	70'	70'	4	TLC-LED-1500	5.72 kW	A
		70'	1	TLC-LED-900	0.89 kW	A
		16'	2	TLC-BT-575	1.15 kW	A
		50'	2	TLC-LED-400	0.80 kW	M
P1-P4	60'	60'	2	TLC-LED-400	0.80 kW	H
		50'	1	TLC-LED-400	0.40 kW	L
S1-S4	50'	50'	3	TLC-LED-1200	3.51 kW	O
22			***127***		***115.76 kW***	

Circuit Summary

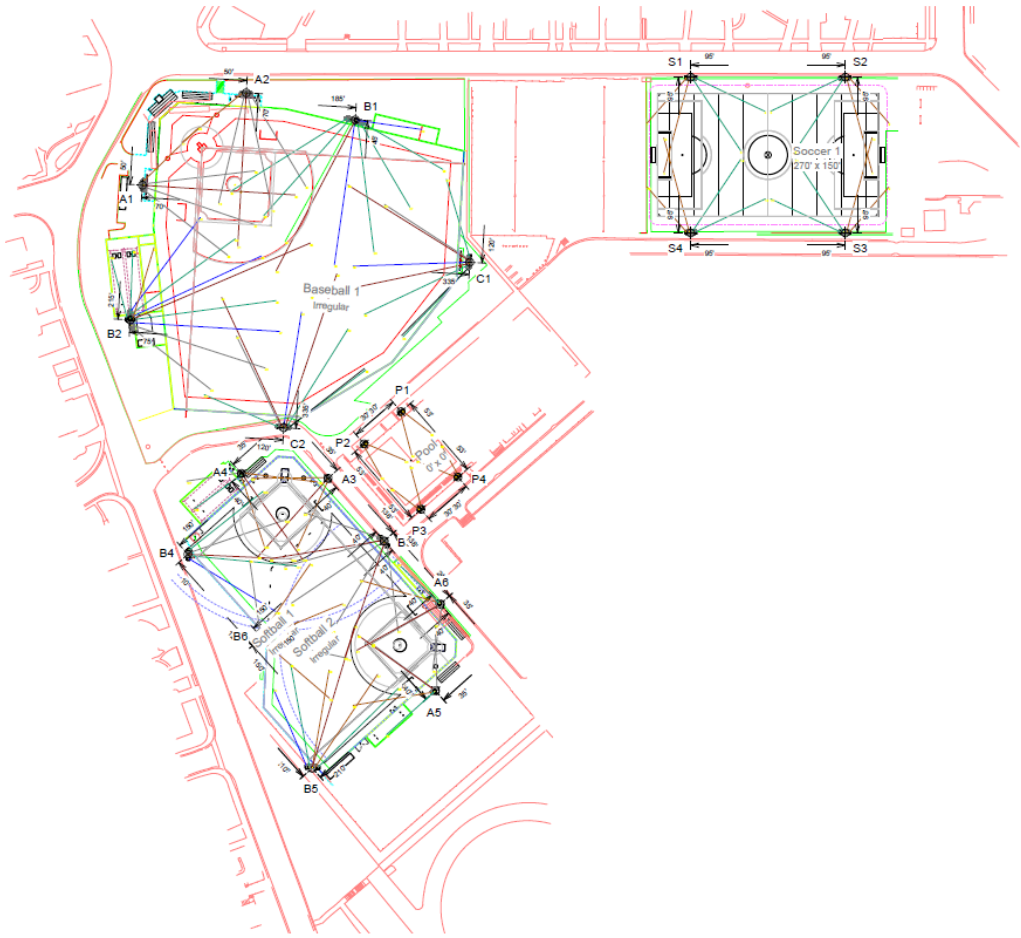
Circuit	Description	Load	Fixture Qty
A	Baseball	54.01 kW	45
C	Softball 1	12.41 kW	15
D	Softball 1/Softball 2	11.2 kW	14
E	Softball 2	14.11 kW	16
H	Pool	3.2 kW	8
L	Pool Egress	1.6 kW	4
M	Exit Path Egress	5.2 kW	13
O	Multipurpose	14.04 kW	12

From Hometown to Professional



We Make It Happen.

ENGINEERED DESIGN By: Brayton Carter · File #201285GR1 · 24-Sep-20



SCALE IN FEET 1 : 120

0' 120' 240'

ENGINEERED DESIGN By: • File #201285A • 12-Sep-19

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

Capuchino High School

Millbrae, CA

EQUIPMENT LAYOUT

INCLUDES:
- Baseball 1
- Pool
- Soccer 1
- Softball 1
- Softball 2

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires		
QTY	LOCATION	CLASS	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
2	A1-A2	LS570C	-	15.5' 70'	TLC-BT-575 TLC-LED-1500	1 4
1	A3	LS560A	-	15.5' 60'	TLC-BT-575 TLC-LED-1200	1 2
1	A4	LS560B	-	15.5' 40' 60'	TLC-BT-575 TLC-LED-600 TLC-LED-1200	1 2 2
1	A5	LS560B	-	15.5' 40' 60'	TLC-BT-575 TLC-LED-600 TLC-LED-1200	1 1 3
1	A6	LS560B	-	15.5' 40' 60'	TLC-BT-575 TLC-LED-600 TLC-LED-1200	1 1 3
1	B1	LS590B	-	15.5' 60' 90'	TLC-BT-575 TLC-LED-900 TLC-LED-1500	1 1 7
1	B2	LS590B	-	15.5' 60' 60' 90'	TLC-BT-575 TLC-LED-900 TLC-LED-600 TLC-LED-1500	1 2 1 7
1	B3	LS570C	-	15.5' 70'	TLC-BT-575 TLC-LED-900	2 5
1	B4	LS570C	-	15.5' 70'	TLC-BT-575 TLC-LED-900	1 4
1	B5	LS570C	-	15.5' 70'	TLC-BT-575 TLC-LED-900	1 5
1	B6	LS570C	-	70'	TLC-LED-900	5
2	C1-C2	LS570C	-	70' 15.5' 70'	TLC-LED-900 TLC-BT-575 TLC-LED-1500	1 2 4
4	P1-P4		-	70'	TLC-LED-400	2
4	S1-S4	LS570C	-	70' 70'	TLC-LED-900 TLC-LED-1500	2 2
22	TOTALS					109

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (90 min power factor)	Line Amperage Per Luminaire (max draw)						
Single Phase Voltage	208 (60)	220 (50)	240 (60)	277 (60)	347 (50)	380 (50)	480 (60)
TLC-LED-1500	8.5	8.1	7.4	6.4	5.1	4.7	3.7
TLC-LED-1200	7.0	6.6	6.1	5.2	4.2	3.8	3.0
TLC-LED-900-A	5.3	5.0	4.6	4.0	3.2	2.9	2.3
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8	1.5
TLC-LED-600-A	3.4	3.2	3.0	2.6	2.0	1.9	1.5
TLC-LED-400-A	2.3	2.2	2.0	1.7	1.4	1.3	1.0

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EQUIPMENT LAYOUT

APPENDIX C: NOISE STUDY

RGD ACOUSTICS

Acoustical & Audiovisual Consultants

NOISE IMPACT ASSESSMENT FOR:

Capuchino High School Athletic Complex

San Bruno, CA

RGD Project #: 19-081

PREPARED FOR:

Grassetti Environmental Consulting
7008 Bristol Drive.
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PREPARED BY:

Alan Rosen
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DATE:

24 March 2020

1. Introduction

The proposed project will add field lighting to the athletic fields and a PA sound system to the baseball and softball field. This study addresses project noise impacts with consideration of the General Plan policies and Municipal Code requirements of the City of San Bruno. The policy for amplified sound from the District's Board of Directors is also addressed. Recommendations for noise control measures are included where potentially significant noise impacts are identified.

2. Environmental Noise Fundamentals

Noise can be defined as unwanted sound. It is commonly measured with an instrument called a sound level meter. The sound level meter captures the sound with a microphone and converts it into a number called a sound level. Sound levels are expressed in units of decibels.

To correlate the microphone signal to a level that corresponds to the way humans perceive noise, the A-weighting filter is used. A-weighting de-emphasizes low-frequency and very high-frequency sound in a manner similar to human hearing. The use of A-weighting is required by most local General Plans as well as federal and state noise regulations (e.g. Caltrans, EPA, OSHA and HUD). The abbreviation dBA is sometimes used when the A-weighted sound level is reported.

Because of the time-varying nature of environmental sound, there are many descriptors that are used to quantify the sound level. Although one individual descriptor alone does not fully describe a particular noise environment, taken together, they can more accurately represent the noise environment. The maximum instantaneous noise level (L_{max}) is often used to identify the loudness of a single event such as a car pass-by or airplane flyover.

To express the average noise level the L_{eq} (equivalent noise level) is used. The L_{eq} can be measured over any length of time but is typically reported for periods of 15 minutes to 1 hour. The background noise level (or residual noise level) is the sound level during the quietest moments. It is usually generated by steady sources such as distant freeway traffic. It can be quantified with a descriptor called the L_{90} which is the sound level exceeded 90 percent of the time.

There are other statistical descriptors that are used, often times as part of a local noise ordinance. These descriptors are used since local ordinances will have limits based on the number of minutes per hour that an intrusive sound may exceed a specified limit. For example, if a specified noise level cannot be exceeded more than 30 minutes in an hour that is referred to as the L_{50}. The L_{50} is also referred to as the median noise level.

To quantify the noise level over a 24-hour period, the Day/Night Average Sound Level (DNL or L_{dn}) or Community Noise Equivalent Level (CNEL) is used. These descriptors are averages like the L_{eq} except they include a 10 dB penalty during nighttime hours (and a 5 dB penalty during evening hours in the CNEL) to account for peoples increased sensitivity during these hours. The CNEL and DNL are typically within one decibel of each other.

In environmental noise, a change in noise level of 3 dB is considered a just noticeable difference. A 5 dB change is clearly noticeable, but not dramatic. A 10 dB change is perceived as a halving or doubling in loudness.

Examples of common noise sources and their corresponding noise levels are provided in the following table.

Sound Source	Sound Pressure Level (dBA)
Air raid siren at 50 ft (threshold of pain)[1]	120
Maximum levels in audience at rock concerts[1]	110
Train horn at 100 ft[3]	103
On platform by passing subway train[1]	100
On sidewalk by passing heavy truck or bus[1]	90
Commuter train traveling at 79 mph at 100 ft[3]	88
On sidewalk by passing automobiles[1]	70
Typical gas and electric powered leaf blower at 50 ft[2]	68 - 71
Conversational speech[4]	60
Typical urban area background/busy office[1]	60
Typical suburban area background[1]	50
Quiet suburban area at night[1]	40
Typical rural area at night[1]	30
Isolated broadcast studio[1]	20
Audiometric (hearing testing) booth[1]	10
Threshold of hearing without hearing damage[1]	0

[1]Cowan, James P. *Handbook of Environmental Acoustics*. Van Nostrand Reinhold, 1994.

[2]California Environmental Protection Agency, Air Resources Board. Mobile Source Control Division (2000). A report to the California legislature on the potential health and environmental impacts of leaf blowers. Retrieved from https://ww3.arb.ca.gov/msprog/leafblow/leafblow.htm

[3]California High-Speed Rail Authority. (2018). *How do High-Speed Train Noise Levels Compare to Traditional Trains. Retrieved from* https://www.hsr.ca.gov/communication/info_center/factsheets.aspx

[4]Everest, Fredrick Alton, and Ken C. Pohlmann. *Master Handbook of Acoustics*, *5th Ed*. McGraw-Hill, 2009.

Vibration is an oscillatory motion which can be described in terms of the displacement, velocity, or acceleration. Because the motion is oscillatory, there is no net movement. Displacement is the easiest descriptor to understand. For a vibrating floor, the displacement is simply the distance that a point on the floor moves away from its static position. The velocity represents the instantaneous speed of the floor movement.

The peak particle velocity (PPV) is the descriptor used in monitoring of construction vibration since it is related to the stresses that are experienced by buildings. Although PPV is appropriate for evaluating the potential of building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals and a time averaged vibration descriptor correlates better with human response. For this reason, criteria for transit vibration is presented in terms of the root-mean-square (rms) vibration velocity and is typically shown in units of decibels referenced to 1 micro-inch per second (with the abbreviation “VdB" to reduce the potential for confusion with sound decibels).

3. Acoustical Criteria

3.1. General Plan Noise Element

Chapter 5 of the Health and Safety Element of the City of San Bruno General Plan has policies to assure the compatibility of a new development with the noise environment of the City. The City uses the L_{dn} descriptor in various policies but it does not have a policy with quantitative standards related to acceptable increases in noise.

3.2. Municipal Code

Chapter 6.16.050 “Noise levels exceeding ambient base level” states that “Any noise level exceeding the zone ambient base level at the property plane of any property, or exceeding the zone ambient base level on any adjacent residential area zone line or at any place of other property (or, if a condominium or apartment house, within any adjoining apartment) by more than ten decibels shall be deemed to be prima facie evidence of a violation of the provisions of this chapter. However, during the period of seven a.m. to ten p.m. the ambient base level may be exceeded by twenty decibels for a period not to exceed thirty minutes during any twenty four hour period.”

According to section 6.16.030, the ambient noise level in a residential zone is 60 dBA between 7 a.m. and 10 p.m.

Chapter 6.16.160 “Amplified sound – regulations” , the commercial and noncommercial use of sound-amplifying equipment shall be subject to the

following regulations:

A. The only sounds permitted shall be either music or human speech, or both.

B. The operation of sound-amplifying equipment shall only occur between the hours of eight a.m. and eight p.m. each day except on Sundays and legal holidays. No operation of sound-amplifying equipment for commercial purposes shall be permitted on Sundays or legal holidays. The operation of sound-amplifying equipment for noncommercial purposes on Sundays and legal holidays shall occur only between the hours of ten a.m. and eight p.m.

C. Sound level emanating from sound-amplifying equipment shall not exceed fifteen decibels above the ambient base noise level, as measured at a distance of one hundred feet from the sound source. [NOTE: Per section 6.16.030 of the code, the ambient noise level between seven a.m. and ten p.m. is 60 decibels]

D. Notwithstanding the provisions of subsection C, sound-amplifying equipment shall not be operated within two hundred feet of churches, schools, hospitals or city or county buildings.

Chapter 6.16.070 “Construction of buildings and projects” contains noise regulations. It states:

No person shall, within any residential zone, or within a radius of five hundred feet therefrom, operate equipment or perform any outside construction or repair work on any building, structure, or other project, or operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or any other construction-type device which shall exceed, between the hours of seven a.m. and ten p.m., a noise level of eighty-five decibels as measured at one hundred feet, or exceed between the hours of ten p.m. and seven a.m. a noise level of sixty decibels as measured at one hundred feet, unless such person shall have first obtained a permit therefor from the director of public works. No permit shall be required to perform emergency work.

4. Existing Noise Environment

Noise levels around the school site emanates from school activities as well as other ambient noise sources. Activities at the school consist of sporting events (e.g. baseball games, softball games, swim meet, water polo games) as well as practices for various sports teams. The practices generate lower noise levels than games but tend to occur more frequently. Other ambient noise sources are vehicular traffic on local roads as well as nearby and regional aircraft.

To quantify ambient noise levels at Capuchino High School, two continuous, long-term (5-day) noise measurement and five short-term (15 minute) noise measurements were made in the surrounding neighborhoods. The long-term monitors began on Friday, November 15, 2019 and ended on Tuesday, November 19, 2019. The noise measurement locations are shown in Figure 1.

The long-term measurement at location LT-1 was made on a utility pole along Magnolia Avenue at a height of twelve feet above ground. The long-term measurement at location LT-2 was made on a utility pole on Park Boulevard. Two short-term measurements at ST-1 and ST-5 were made on Magnolia Avenue, two short-term measurements at ST-2 and ST-3 were made along Park Boulevard, and a short-term measurement at ST-4 were made at Millwood Drive. The short-term measurements were made at a height of five feet above ground.

The short-term measurements at ST-4 and ST-5 were made during soccer practice which occurred on the practice field across from ST-5 with approximately 27 people. Although soccer practice was occurring, the noise was traffic was generally the dominant noise source. Noise from soccer practice were primarily voices of students and coaches. Across from the practice field at location ST-5, the voices generated typical maximum instantaneous noise levels between 53 to 64, and up to 67 dBA. Maximum instantaneous noise levels from ball kicks were generally 54 dBA or less. At location ST-4, noise from soccer practice were generally not audible.

Figures 2 and 3 show a graph of the long-term measurement results at LT-1 and LT-2, respectively. A summary of the short-term measurements is provided in Table 1.

Figure 1: Noise Measurement Locations - Capuchino High School

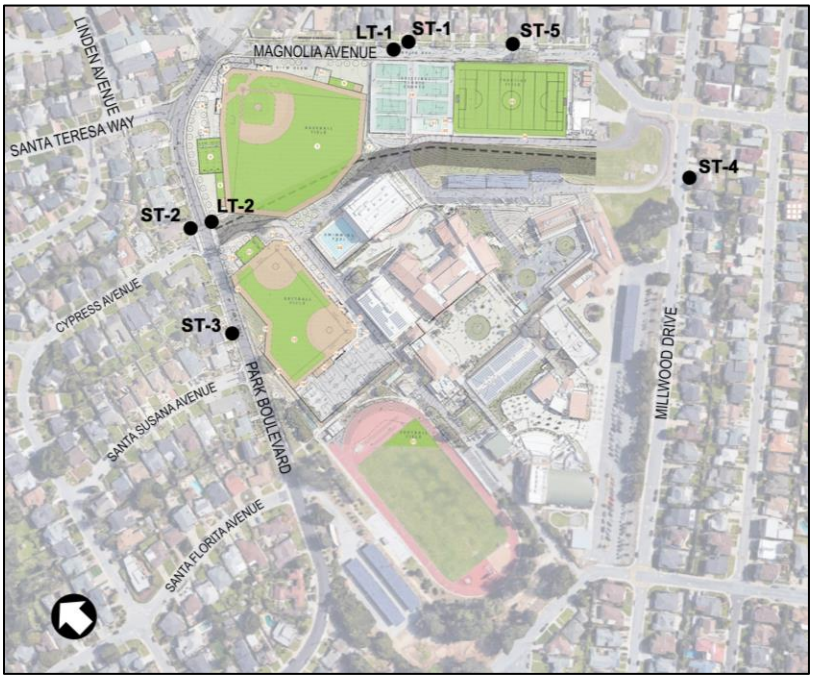

Figure 2: Long-Term Noise Measurement Results, Location LT-1

CNEL 65 dBA

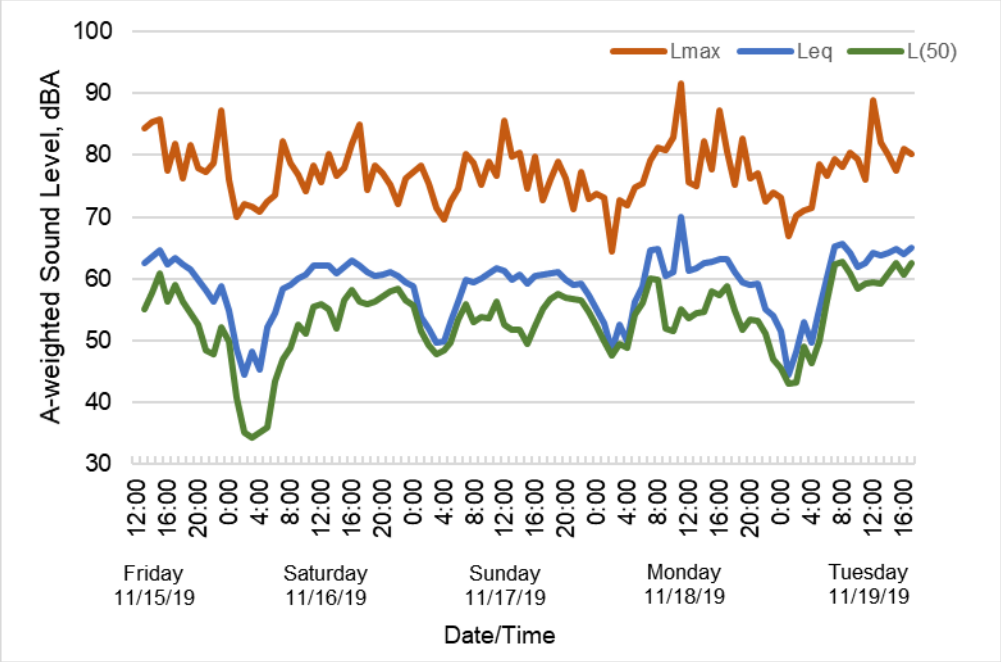

Figure 3: Long-Term Noise Measurement Results, Location LT-2

CNEL 65 dBA

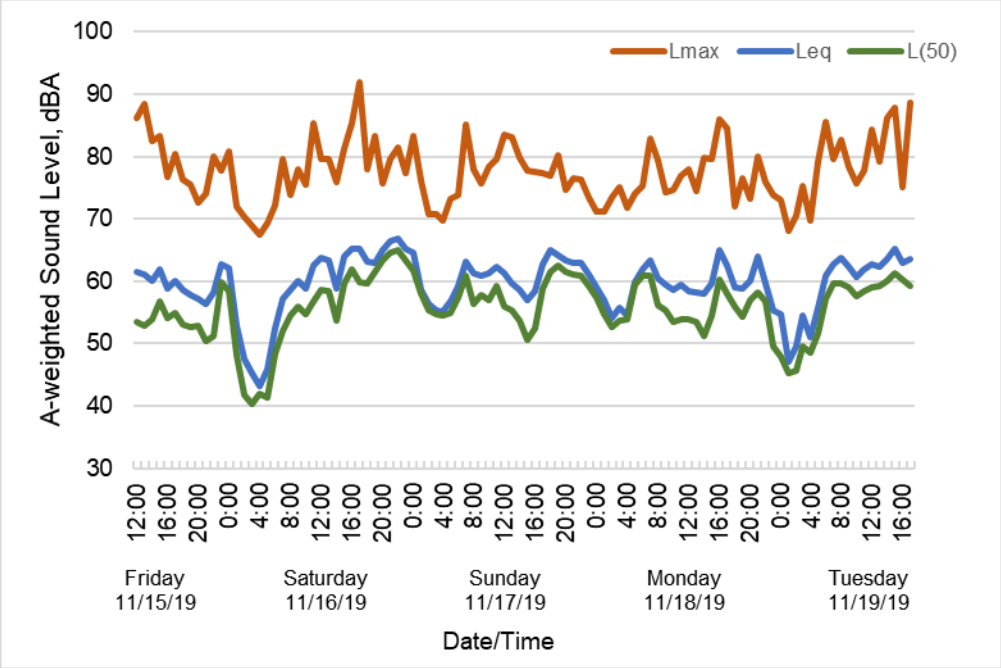

Table 1: School Short-Term Noise Measurement Results - Capuchino High School

Location		Date/Time	A-weighted Sound Level, dBA					
			L_{eq}	L_8	L_{33}	L_{50}	CNEL*	L_{max}
ST-1	Magnolia Ave, 5 feet above ground	15 Nov 2019 12:58 – 1:13 P.M.	57	63	52	48	62	Cars: 64 – 73 Jets: 51, 53, 57-68
ST-2	Park Boulevard, 5 feet above ground	15 Nov 2019 1:33 – 1:48 P.M.	64	62	53	50	66	Cars: 57 – 70 Pickup truck: 87 Jets: 53 – 55 Scavenger truck: 73
ST-3	Park Boulevard, 5 feet above ground	15 Nov 2019 1:17 – 1:32 P.M.	56	59	54	52	64	Cars: 58 – 68 Jets: 55, 58, 52, 56, 50, 51, 55, 58, 60

Location		Date/Time	A-weighted Sound Level, dBA					
			L_{eq}	L_8	L_{33}	L_{50}	CNEL*	L_{max}
ST-4	Millwood Drive, 5 feet above ground	19 Nov 2019 3:48 – 4:07 P.M.	63	66	61	59	63	Cars: 64 – 75 SUV: 79 Jets: 58, 60 – 65, 69 Voices of soccer practice occasionally audible typically < 55
ST-5	Magnolia Ave across soccer practice, 5 feet above ground	19 Nov 2019 4:12 – 4:27 P.M.	62	66	61	58	63	Cars: 64 – 68, 75, 77 Jets: 60 – 65 Voices of soccer practice: 54 – 61, 64, 67 Ball kick: < 52, 54

*CNEL based on comparison with simultaneous measurement at the long-term location.

5. Future Noise Environment

The first part of this section describes the computer modeling of field and PA usage. The second part of this section discusses the methodology and assumptions used to determine future noise levels from all activities on the fields.

5.1. Computer Modeling and PA Systems

The baseball and softball fields will have "off the shelf" PA systems. For the purposes of this analysis, it is assumed that there will be two to four loudspeakers installed to provide coverage of the bleacher areas. For the purposes of this analysis, a design noise level of 75 to 85 dBA in the bleachers was used.

A computer program called Electroacoustic Simulation for Engineers (EASE) was used to determine the predicted output sound pressure level (SPL) at specific locations relative to loudspeaker source locations. EASE is a sound system design and acoustical analysis software package that enables the prediction of audio system performance based on the geometry of a space and data files of loudspeaker driver sources.

Another program called SoundPlan was used to model and predict noise levels from the loudspeakers and field noise at measurement locations and additional points of interest in the surrounding residential areas. SoundPlan is a 3D environmental acoustics modeling software package. The SoundPlan model takes into account attenuation from distance, terrain and buildings.

5.2. Noise from Future Field Activities

In order to evaluate the impact of the project on the neighbors surrounding the school, the data acquired from the site noise measurements and data obtained from other similar projects were used to determine future noise levels emanating from the proposed project. The characteristics and assumptions used for calculating project related noise levels for each activity are discussed in the following sections.

5.2.1. Baseball and Softball

The dominant noise source during baseball and softball games is the crowd cheering. Referee whistles, coaches/player voices, batting cage ball hits, and PA system sound would also be noticeable but are not the dominant contributor to the average noise levels during the games.

Currently, baseball and softball games are played from 3:30 PM to 6:30 PM. With the project, the games would be played generally from 4 PM to 6:30 PM except on Fridays where the games would be played from 4 PM to 9 PM. The number of games with and without the project would remain the same. The number of spectators and players would also remain the same.

Baseball and softball practices currently occur from 3:30 PM to 7 PM and 3:30 PM to 7 PM, respectively. With the project, baseball and softball practices would occur from 3:30 PM to 8:30 PM and 3:30 PM to 8:00 PM, respectively.

The project also proposes a total of three batting cages at the baseball field and two batting cages at the softball field.

In order to model the noise from the baseball and softball games, as well as from practices including the use of additional batting cages, this report uses noise measurements we obtained at the 2013 North Coast Section Baseball Tournament game between Sir Francis Drake High School and Kennedy High School.

To determine the noise associated with batting cage practices, noise measurements obtained at Cartan Field in Atherton California were used. Maximum instantaneous noise levels from bat hitting ball was measured to be an L_{max} of 54 to 57 dBA at a distance of 105 feet. Based on a standard rate of 6 dB per doubling of distance from point noise sources and a standard rate of 3 dB per doubling of the number of sources, the maximum instantaneous noise levels from bat hitting ball with three batting cages in use would be an L_{max} of 61 to 64 dBA at the nearest homes across Park Blvd, approximately 85 feet from the baseball batting cages. Maximum instantaneous noise levels from the two batting cages at the softball field are calculated to be an L_{max} of 55 to 58 dBA at the nearest homes on Park Blvd approximately 140 feet away.

5.2.2. Tennis

There are currently eight tennis courts at the school and no bleachers. With the project, seven of the tennis courts would be resurfaced and one would be eliminated to provide space for an ADA compliant path to the practice field as well as bleachers with seating for 25 people. However, the number of spectators and players would remain the same with the project.

Noise measurements of a tennis game being played by two experienced adults at a public park were used to model the noise from existing and future tennis games at the school. Crowd noise was based on the aforementioned baseball game and adjusted to account for the number of spectators. A 5 dBA factor was included to account for generally quieter tennis game spectators as compared to baseball game spectators.

The tennis courts are approximately 80 feet from the nearest homes across Magnolia Ave. At the nearest homes, the maximum instantaneous noise levels from ball hitting racket and voices of players are calculated to be an L_{max} of 64 dBA and 70 dBA, respectively.

5.2.3. Swimming Pool

As part of the project, lighting would be added to the existing swimming pool facility. The swimming pool facility is used for swim meets/practices in the spring and water polo games/practices in the fall. Currently, the swimming pool is scheduled to be used from 3:30 PM to 6:30 PM and would last until 7 PM with the project. No PA system would be installed under the project.

Noise sources during swim meets and water polo include the voices of the coaches and cheering from spectators and teammates, and referee whistles. This report uses noise measurements of a swim meet at Redwood High School in Larkspur to model the noise from swim meet events. To model the water polo games, we used noise measurements of a water polo game at Menlo College in Atherton. In general, based on our observations for both activities, the voices of the teammates cheering at the edge of the pool are the dominant noise source.

To model the noise from swimming and water polo practices, we used the swim meet and water polo game noise levels and applied an adjustment for attendance using a standard rate of 3 dB per doubling of sources.

5.2.4. Practice Field

The practice field is used for soccer practices during the winter season. No PA system would be installed under the project. The timing and duration of soccer practices would remain the same.

Noise measurements were taken during soccer practices at both Capuchino High School and Mills High School. However, since the measured noise levels were generally more influenced by traffic at Capuchino High School than at Mills High School, the soccer practice noise measurements at Mills High School were used for this study. During the soccer practice at Mills High School, there were approximately 50 people on the field.

5.2.5. Field Usage

Table 2 summarizes the field usage.

Table 2: Field Usage

Fields	Activities	Time of Year	Existing			with Project		
			Time of Day	# of players and spectators	# of Events per Year	Time of Day	# of players and spectators	# of Events per Year
Baseball field	Baseball game	Spring	3:30-6:30	90	27	4-6:30 (4-9 Fri)	90	27
	Baseball practice	Spring	3:30-7	90	100	3:30-8:30	90	100
Softball field	Softball game	Spring	3:30-6:30	80	27	4-6:30 (4-9 Fri)	80	27
	Softball practice	Spring	3:30-6:30	45	100	3:30-8:00	45	100
Practice field	Soccer practice	Winter	3:30-9	50	100	3:30-9	50	100
Tennis courts	Tennis games	Fall/ Spring	3:30-6:30	50	16	4-6:30	50	16
	Tennis practice	Fall/ Spring	3:30-6:30	27	100	4-6:30	27	100
Pool	Water polo game	Fall	3:30-6:30	150	12	3:30-7	150	12
	Water polo practice	Fall	3:30-6:30	65	100	3:30-7	65	100
	Swim meet	Spring	3:30-6:30	150	4	3:30-7	150	4
	Swim practice	Spring	3:30-6:30	65	100	3:30-7	65	100

Source: email from Greystone West Company, 31 January 2020

5.2.6. Noise Assessment Locations

Figure 4 shows the noise assessment locations that represent residences near the project fields.

Figure 4: Noise Assessment Locations

6. Thresholds of Significance used in this Report

According to Appendix G of the *CEQA Guidelines*, a proposed project could have a significant environmental impact if it would result in:

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

b. Generation of excessive groundborne vibration or groundborne noise levels.

c. For a project located within the vicinity of a private airstrip or 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.

CEQA does not provide quantitative noise level limits to use as thresholds of significance for a project. Instead, it points to use of local ordinances, adopted standards of agencies as well as the potential for a project to significantly increase existing noise levels above those that were present without the project. Within this framework, the following thresholds are adopted for this project.

Threshold 1: A significant noise impact would occur if the noise from the new PA system would exceed 65 dBA at the nearest property line.

Discussion: The Board of Directors for the District, in recognition of the importance of minimizing noise impact to neighbors from PA use, has adopted a policy for amplified sound. The policy requires that the sound of the PA system be limited to 65 dBA at the closest property line to the school or compliance with the local ordinance, whichever is less. San Bruno uses 75 dBA (15 dBA over ambient of 60 dBA) at a distance of 100 feet as a limit and this is less restrictive than the 65 dBA property line limit from the district. Therefore, the District policy is adopted as a threshold of significance.

Threshold 2: A significant impact would occur if the daily CNEL increases by 3 dBA or more when a baseball game, softball game, swim meet, or water polo game is played at night (as compared to a day when a game is played during the daytime).

Discussion: The San Bruno General Plan does not provide specific guidance on how to evaluate increases in community noise. In neighboring cities, the General Plans of San Mateo and Millbrae provide specific guidance on how to evaluate increases in community noise for their respective communities. The San Mateo and Millbrae policies are similar and require consideration of mitigation measures for projects that increase the L_{dn} by 3 dBA or more.

The L_{dn} has an adjustment to account for peoples increased sensitivity to noise at night (between 10 pm and 7 am) but does not include an adjustment to account for the increased sensitivity of people to noise during evening hours when the games would occur. There is another metric called CNEL which is similar to the L_{dn} but includes a 5 dBA "penalty" which is added to noise during evening hours (7 pm – 10 pm) to account for peoples' sensitivity to evening noise.

In order to evaluate the potential impact that would occur as a result of a change from day game events to night game events, this report considers the increase in the CNEL on a day when a game event occurs later in the day (proposed project) as compared to the CNEL on a day when a game event occurs during the day (existing). A game day is used since these are generally louder than practices.

The existing and future CNEL for a baseball game, softball game, swim meet, and water polo game were calculated based on noise measurements discussed in the previous section and the SoundPlan 3-D environmental model. The existing and future game day CNEL was then added to the ambient CNEL to determine a total CNEL for both existing and future conditions.

Threshold 3: A significant impact would occur if the annual average CNEL increases by 3 dBA or more as a result of the project.

Discussion: While the CNEL increase on a game day is helpful to understand potential impact on a daily basis, it does not necessarily provide a measure of the impact over time since there will be events happening on the field throughout the year.

In order to evaluate the potential impact of noise from all field related activities during the course of a year, this report considers the increase in the annual average CNEL that would result from all games and practices on the fields.

To determine the increase in the annual average CNEL from all field sources, a method similar to the daily CNEL was used. In this case, an annual average CNEL from each field noise source was calculated for existing and future conditions based on Table 9. Under existing conditions, most activities on the project fields end by 7 PM. The existing and future annual average CNEL for each field source was then added to the ambient CNEL to determine a total CNEL for existing and future conditions.

Threshold 4: A significant impact would occur if the project results in the generation of excessive construction noise.

Discussion: The City of San Bruno municipal code Chapter 6.16.070 limits construction equipment noise to 85 dBA at 100 feet during the daytime hours of 7 a.m. to 10 p.m. and 60 dBA at 100 feet during the nighttime hours of 10 p.m. to 7 a.m. unless a permit is granted from the director of public works.

Threshold 5: A significant impact would occur if the project results in the generation of excessive groundborne vibration or groundborne noise.

Discussion: The operation of the project (i.e. activities on the field) is not expected to include groundborne vibration sources. However, construction activities will generate groundborne vibration.

Neither CEQA nor the City specifies acceptable vibration levels from construction activities. For the purposes of this assessment, the guideline criteria for building damage recommended by Caltrans[1] is used. The construction vibration damage criteria range from a Peak Particle Velocity (PPV) of 0.5 inches/sec for new residential structures to a PPV of 0.3 inches/sec for older residential structures.

Threshold 6: A significant impact would occur if the project would expose people residing or working in the project area to excessive aircraft noise levels.

Discussion: According to the 2012 Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport's Noise/Land Use Compatibility Criteria (Table IV-1), public and private schools exposed to an aircraft CNEL of below 65 dBA is considered compatible without restrictions. Schools exposed to an aircraft CNEL of 65 to 70 dBA are considered "conditionally compatible" and schools exposed to an aircraft CNEL above 70 dBA are considered incompatible.

[1] Caltrans, *Transportation and Construction Vibration Guidance Manual,* September 2013.

7. Impact and Mitigation Measures

The following section describes potential impacts based on a comparison of project generated noise with adopted thresholds of significance. Where impacts are identified, feasible noise mitigation measures are provided. For ease of identification, any receptor exposed to a significant impact is identified in the following tables with "**bold**" numbers.

7.1. *Noise from PA Sound System*

Table 3 shows the calculated noise level from the PA sound system from the baseball and softball fields. The table shows that the PA sound level would be less than the threshold of 65 dBA at the nearest receivers. This is considered less than significant.

Table 3: Calculated PA System Sound Levels

Receiver	L_{max} dBA
R-1	
Baseball field PA System	48.9
Softball field PA System	63.8
R-2	
Baseball field PA System	57.2
Softball field PA System	44.0
R-3	
Baseball field PA System	61.3
Softball field PA System	45.3
R-4	
Baseball field PA System	62.0
Softball field PA System	50.4
R-5	
Baseball field PA System	49.1
Softball field PA System	31.8
ST-1	
Baseball field PA System	52.7
Softball field PA System	30.1
ST-2	
Baseball field PA System	56.8
Softball field PA System	48.7
ST-3	
Baseball field PA System	54.1
Softball field PA System	61.2
ST-4	
Baseball field PA System	44.6
Softball field PA System	31.3

7.2. Noise from Activities on the Field

Tables 4 to 7 show the change in daily average CNEL for different game day activities due to the project. The tables show that the daily average CNEL would increase by less than 3 dBA at all receiver locations and this is considered less than significant.

Table 4: Baseball Game Day

		A-weighted Daily CNEL, dBA		
		Existing	Existing w/ Project	Increase
R-1				
	Ambient	63.5	63.5	
	Baseball game	40.6	46.8	
	Total	63.5	63.6	0.1
R-2				
	Ambient	64.1	64.1	
	Baseball game	54.7	60.0	
	Total	64.6	65.6	1.0
R-3				
	Ambient	64.1	64.1	
	Baseball game	59.3	64.6	
	Total	65.4	67.4	2.0
R-4				
	Ambient	62.2	62.2	
	Baseball game	58.8	64.2	
	Total	63.8	66.3	2.5
R-5				
	Ambient	62.2	62.2	
	Baseball game	44.2	49.8	
	Total	62.2	62.4	0.2
ST-1				
	Ambient	62.2	62.2	
	Baseball game	47.8	53.3	
	Total	62.3	62.7	0.4
ST-2				
	Ambient	66.1	66.1	
	Baseball game	51.5	57.1	
	Total	66.3	66.6	0.3
ST-3				
	Ambient	63.5	63.5	
	Baseball game	45.7	51.9	
	Total	63.6	63.8	0.2
ST-4				
	Ambient	62.9	62.9	
	Baseball game	35.9	42.2	
	Total	62.9	62.9	< 0.1

Table 5: Softball Game Day

		A-weighted Daily CNEL, dBA		
		Existing	Existing w/ Project	Increase
R-1				
	Ambient	63.5	63.5	
	Softball game	54.2	60.8	
	Total	64.0	65.4	1.4
R-2				
	Ambient	64.1	64.1	
	Softball game	41.2	46.5	
	Total	64.2	64.2	< 0.1
R-3				
	Ambient	64.1	64.1	
	Softball game	41.0	46.5	
	Total	64.2	64.2	< 0.1
R-4				
	Ambient	62.2	62.2	
	Softball game	43.4	49.3	
	Total	62.2	62.4	0.2
R-5				
	Ambient	62.2	62.2	
	Softball game	25.2	31.1	
	Total	62.2	62.2	< 0.1
ST-1				
	Ambient	62.2	62.2	
	Softball game	26.1	31.6	
	Total	62.2	62.2	< 0.1
ST-2				
	Ambient	66.1	66.1	
	Softball game	44.3	49.8	
	Total	66.1	66.2	0.1
ST-3				
	Ambient	63.5	63.5	
	Softball game	54.3	60.2	
	Total	64.0	65.2	1.2
ST-4				
	Ambient	62.9	62.9	
	Softball game	13.7	24.7	
	Total	62.9	62.9	< 0.1

Table 6: Swim Meet Day

		A-weighted Daily CNEL, dBA		
		Existing	Existing w/ Project	Increase
R-1				
	Ambient	63.5	63.5	
	Swim meet	45.8	50.7	
	Total	63.6	63.7	0.1
R-2				
	Ambient	64.1	64.1	
	Swim meet	44.5	49.4	
	Total	64.2	64.3	0.1
R-3				
	Ambient	64.1	64.1	
	Swim meet	43.5	48.4	
	Total	64.2	64.3	0.1
R-4				
	Ambient	62.2	62.2	
	Swim meet	46.3	51.2	
	Total	62.3	62.5	0.2
R-5				
	Ambient	62.2	62.2	
	Swim meet	30.9	35.8	
	Total	62.2	62.2	< 0.1
ST-1				
	Ambient	62.2	62.2	
	Swim meet	40.3	45.2	
	Total	62.2	62.3	0.1
ST-2				
	Ambient	66.1	66.1	
	Swim meet	44.1	49.0	
	Total	66.1	66.2	0.1
ST-3				
	Ambient	63.5	63.5	
	Swim meet	47.4	52.3	
	Total	63.6	63.8	0.2
ST-4				
	Ambient	62.9	62.9	
	Swim meet	15.1	20.0	
	Total	62.9	62.9	< 0.1

Table 7: Water Polo Game Day

		A-weighted Daily CNEL, dBA		
		Existing	Existing w/ Project	Increase
R-1				
	Ambient	63.5	63.5	
	Water Polo	41.0	45.9	
	Total	63.5	63.6	0.1
R-2				
	Ambient	64.1	64.1	
	Water Polo	39.7	44.6	
	Total	64.2	64.2	< 0.1
R-3				
	Ambient	64.1	64.1	
	Water Polo	38.7	43.6	
	Total	64.2	64.2	< 0.1
R-4				
	Ambient	62.2	62.2	
	Water Polo	41.5	46.4	
	Total	62.2	62.3	0.1
R-5				
	Ambient	62.2	62.2	
	Water Polo	26.1	31.0	
	Total	62.2	62.2	< 0.1
ST-1				
	Ambient	62.2	62.2	
	Water Polo	35.5	40.4	
	Total	62.2	62.2	< 0.1
ST-2				
	Ambient	66.1	66.1	
	Water Polo	39.3	44.2	
	Total	66.1	66.1	< 0.1
ST-3				
	Ambient	63.5	63.5	
	Water Polo	42.6	47.5	
	Total	63.6	63.6	0.0
ST-4				
	Ambient	62.9	62.9	
	Water Polo	10.3	15.2	
	Total	62.9	62.9	< 0.1

Table 8 shows the change in the annual average CNEL as a result of the project. The table shows that the annual average CNEL would increase by less than 3 dBA at all receiver locations and this is considered less than significant.

Table 8: Increase in Annual Average CNEL from All Field Activities

Receiver	A-weighted Annual CNEL, dBA		
	Existing	Existing w/ Project	Increase
R-1			
Ambient	63.5	63.5	
Baseball field	33.4	38.6	
Softball field	45.7	51.1	
Practice field	15.3	19.8	
Tennis courts	20.0	27.9	
Pool	38.3	39.0	
Total	63.6	63.8	0.2
R-2			
Ambient	64.1	64.1	
Baseball field	48.3	53.2	
Softball field	37.8	42.0	
Practice field	24.8	29.3	
Tennis courts	26.4	33.3	
Pool	37.0	37.7	
Total	64.3	64.5	0.2
R-3			
Ambient	64.1	64.1	
Baseball field	50.6	55.3	
Softball field	39.1	43.0	
Practice field	24.5	29.0	
Tennis courts	26.6	32.9	
Pool	36.0	36.7	
Total	64.3	64.7	0.4
R-4			
Ambient	62.2	62.2	
Baseball field	51.0	55.6	
Softball field	38.7	43.0	
Practice field	24.3	28.8	
Tennis courts	27.1	33.7	
Pool	38.8	39.5	
Total	62.5	63.1	0.6

Table 8 (cont.): Increase in Annual Average CNEL from All Field Activities

Receiver		A-weighted Annual CNEL, dBA		
		Existing	Existing w/ Project	Increase
R-5				
	Ambient	62.2	62.2	
	Baseball field	39.2	43.5	
	Softball field	31.9	35.7	
	Practice field	40.5	45.0	
	Tennis courts	32.9	36.0	
	Pool	23.4	24.1	
	Total	62.2	62.3	0.1
ST-1				
	Ambient	62.2	62.2	
	Baseball field	42.8	47.1	
	Softball field	34.1	37.9	
	Practice field	34.8	39.3	
	Tennis courts	39.2	45.0	
	Pool	32.8	33.5	
	Total	62.3	62.4	0.1
ST-2				
	Ambient	66.1	66.1	
	Baseball field	45.7	50.4	
	Softball field	43.1	47.4	
	Practice field	21.3	25.8	
	Tennis courts	25.0	31.4	
	Pool	36.6	37.3	
	Total	66.2	66.3	0.1
ST-3				
	Ambient	63.5	63.5	
	Baseball field	39.0	43.9	
	Softball field	49.6	53.8	
	Practice field	16.9	21.4	
	Tennis courts	22.8	27.8	
	Pool	39.9	40.6	
	Total	63.7	64.0	0.3

Table 8 (cont.): Increase in Annual Average CNEL from All Field Activities

Receiver	A-weighted Annual CNEL, dBA		
	Existing	Existing w/ Project	Increase
ST-4			
Ambient	62.9	62.9	
Baseball field	29.2	34.2	
Softball field	11.9	22.8	
Practice field	28.3	32.8	
Tennis courts	21.0	26.2	
Pool	7.6	8.3	
Total	62.9	62.9	< 0.1

7.3. Construction

Construction of the project would include the renovation of existing fields, grading/foundation work, and the addition of light poles and other structures. Equipment used during construction would vary by phase, but would include excavators, backhoes, dump trucks, graders, compactors, water trucks and similar equipment. According to the Project Description, there would be up to 20 construction workers on-site on an average day and construction hours would be 7:00 AM to 4:30 PM on weekdays only. Project construction would start in September 2020 and be completed in July 2021.

7.3.1. Construction Noise

Table 9 presents typical construction equipment noise levels at a reference distance of 50 feet. Table 9 also shows calculated noise levels at a distance of 100 feet using a standard rate of 6 dB per double of distance for comparison with the City's Municipal Code.

Table 9: Construction Equipment Sound Levels

Construction Equipment	Ref. Sound Level at 50 ft (dBA) [2]	Adjustment for Distance at 100 ft.	Calculated Noise Level at 100 ft (dBA)
Backhoe	78	-6	72
Compressor	78	-6	72
Dozer	82	-6	76
Dump Truck	76	-6	70
Gradall	83	-6	77
Flat Bed Truck	74	-6	68
Excavator	81	-6	75
Tractor	84	-6	78
Front End Loader	79	-6	73
Compactor (ground)	83	-6	77
Scraper	84	-6	78
Auger Drill Rig	84	-6	78
Generator	81	-6	75
Pneumatic Tools	85	-6	79
Concrete Mixer Truck	79	-6	73
Pump	81	-6	75
Roller	80	-6	74
Paver	77	-6	71
Crane	81	-6	75
Man-lift	75	-6	69

Existing neighboring residential homes are generally located about 80 feet or more from the project's proposed field upgrades. Based on a typical noise source level of 84 dBA at 50 feet, the noise levels are calculated to be approximately 80 dBA at the nearest homes when construction equipment are located 80 feet away. Construction noise levels will be clearly noticeable for the nearest residences and at times, may temporarily interfere with normal activities such as speech communications outdoors.

The City's daytime (7 a.m. to 10 p.m.) construction noise limit is 85 dBA at 100 feet. Table 9 shows that the typical construction equipment is calculated to be less than 80 dBA at 100 feet. Since the construction equipment levels do not exceed the City's daytime construction noise limit, this is considered less than significant.

[2] *Roadway Construction Noise Model, Federal Highway Administration, January 2006*

In order to minimize disruption and potential annoyance during construction, the following is recommended:

- All construction equipment shall be equipped with mufflers and sound control devices (e.g., intake silencers and noise shrouds) that are in good condition and appropriate for the equipment.
- Maintain all construction equipment to minimize noise emissions.
- Stationary equipment shall be located on the site so as to maintain the greatest possible distance to the sensitive receptors.
- Unnecessary idling of internal combustion engines should be strictly prohibited.
- Neighbors located adjacent to the construction site shall be notified of the construction schedule in writing.
- The construction contractor shall provide the name and telephone number an on-site construction liaison. In the event that construction noise is intrusive to the community, the construction liaison shall investigate the source of the noise and require that reasonable measures be implemented to correct the problem.

7.3.2. Construction Vibration

Existing neighboring residential homes are generally located about 80 feet or more from the nearest edge of the project's proposed field upgrades. Table 10 shows the calculated vibration levels when construction equipment is near the edge of the site and close to the homes.

Table 10: Calculated Vibration Levels at a Distance of 80 Feet from Source

Equipment	PPV at 80 feet in/sec
Vibratory Roller	0.04
Hoe Ram	0.02
Large Bulldozer	0.02
Caisson Drilling	0.02
Loaded Trucks	0.01
Jackhammer	0.01
Small Bulldozer	< 0.01

Caltran categorizes a PPV of 0.04 inches/sec to be “distinctly perceptible”, a PPV of 0.10 inches/sec to be “strongly perceptible”, and a PPV of 0.4 inches/sec to be “severe”. The calculated construction vibration levels for the vibratory roller would be “distinctly perceptible” but not “severe”. Vibration from other equipment would be “barely perceptible” to “distinctly perceptible”. Although vibration from the vibratory roller may be “distinctly perceptible”, all construction activities would be temporary and only occur during daytime hours. Additionally, most construction activities would occur at distances greater than 80 feet and construction vibration would be less noticeable.

Table 10 shows that construction vibration levels are expected to be less than the potential building damage thresholds of a PPV of 0.3 inches/sec for older residential structures and a PPV of 0.5 inches/sec for new residential structures. Since vibration from construction would not exceed the threshold for potential building damage, this is considered less than significant.

7.4. Aircraft Noise Exposure

According to the 2012 Comprehensive Airport Land Use Compatibility Plan for the Environs of San Francisco International Airport Exhibit IV-5 which shows the airport CNEL noise contours, the project site is outside the aircraft CNEL 65 dBA noise contour. Based on the document’s Table IV-1, school uses outside the aircraft CNEL 65 dBA noise contour is considered compatible with the noise environment. This is considered less than significant.

* * *

APPENDIX D: MITIGATION MONITORING AND REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM – CAPUCHINO HIGH SCHOOL ATHLETICS FIELDS PROJECT

When adopting a Mitigated Negative Declaration, the CEQA Guidelines [Section 15074(d)] require that Lead Agencies adopt a program for reporting on or monitoring the changes that it has required in the project or made a condition of approval to mitigate or avoid significant environmental effects.

This monitoring program for mitigation measures identified by the Mitigated Negative Declaration includes:

1. A list of mitigation measures with a space for the completion date,
2. The full text of the mitigation measures, and
3. Monitoring details, including: 1) agency responsible for implementation, 2) timing of implementation and monitoring, and 3) monitoring verification.

Identified Impact	Related Mitigation Measure	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
BIOLOGICAL RESOURCES						
Loss of active protected bird and bat nests	***Measure BIO-1:*** Prevent Loss of Active Bird Nests. A pre-construction survey for nesting birds shall be conducted by a qualified biologist within two weeks of construction activities, if activities are to occur within nesting/breeding season of native bird species (February- August). If active nests are identified within 300 feet of construction, and would be exposed to prolonged construction-related noise above normal levels, a buffer shall be implemented around nests during the breeding season, or until a biologist determines the young have fledged. The size of the buffer and the type of construction activity will depend on multiple factors including relative change in noise and disturbance during construction activity, amount of vegetative screening between activity and nest, and sensitivity of species. ***Measure BIO-2:*** Prevent Loss of Roosting Habitat for Bat Species. The potential of the large trees to provide suitable roosting habitat shall be assessed by a qualified bat biologist, and if necessary, a roosting bat protection plan shall be implemented. If bats are determined to be using the site, minimization measures shall include prohibiting night work activities (between 10pm and sunrise), and minimizing work activities to outside of	SMUHSD Construction contractor	SMUHSD Project Manager/Consulting Biologist	Condition of construction contract; field verify implementation prior to start of construction		

Identified Impact	Related Mitigation Measure	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	the most sensitive breeding (non-volant) period of April to August					
CULTURAL RESOURCES						
Potential impacts to archaeological deposits and human remains	***Mitigation Measure CULT-1: Archaeological Deposits***. If archaeological remains are encountered during project activities, project ground disturbances at the find and immediate vicinity shall be halted immediately until a qualified archaeologist can evaluate the finds (§15064.5 [f]). The archaeologist shall examine the finds and recommend mitigation measures which may include documentation in place, avoidance, testing, and/or data recovery. Project personnel should not collect cultural resources. Native American resources include chert or obsidian flakes, projectile points, mortars, and pestles; and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic-period resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.	SMUHSD Project Manager	SMUHSD Project Manager	Construction contractors shall monitor during ground disturbing activities; if cultural resources are encountered, archaeologist and NAHC, as applicable, shall determine appropriate treatment for the resources.		

Identified Impact	Related Mitigation Measure	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	Mitigation Measure CULT-2: Human Remains. California law recognizes the need to protect interred human remains, particularly Native American burials and associated items of patrimony, from vandalism and inadvertent destruction. The procedures for the treatment of discovered human remains are contained in California Health and Safety Code Section 7050.5 and Section 7052 and California Public Resources Code Section 5097. In accordance with the California Health and Safety Code, if human remains are uncovered during ground disturbing activities all such activities in the vicinity of the find shall be halted immediately and the District or the District's designated representative shall be notified. The District shall immediately notify the county coroner and a qualified professional archaeologist. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a					

Identified Impact	Related Mitigation Measure	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The responsibilities of the District for acting upon notification of a discovery of Native American human remains are identified in detail in the California Public Resources Code Section 5097.9. The District or their appointed representative and the professional archaeologist will consult with a Most Likely Descendent determined by the NAHC regarding the removal or preservation and avoidance of the remains and determine if additional burials could be present in the vicinity.					
GEOLOGIC HAZARDS						
Geotechnical Hazards	***Mitigation Measure GEO-1.*** The project's site clearing, site preparation, subgrade preparation and stabilization, fill, drainage, and any foundation systems shall be designed and constructed per the specifications set forth on the project geotechnical report.	SMUHSD Project Manager	SMUHSD/ Project geotechnical engineer	Prior to submittal of final design plans to Division of the State Architect		
Drainage, Erosion., Sedimentation	***Mitigation Measure GEO-2.*** The project	SMUHSD Project Manager	SMUHSD/ Project civil engineer	Prior to submittal of final design plans to Division		

Identified Impact	Related Mitigation Measure	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	shall include a site drainage system to collect surface water and discharging it into an established storm drainage system. The project Civil Engineer or Architect shall be responsible for designing the site drainage system and, an erosion control plan could be developed prior to construction per the current guidelines of the California Stormwater Quality Association's Best Management Practice Handbook.			of the State Architect		
HYDROLOGY AND WATER QUALITY						
Impacts on Water Quality.	***Mitigation Measure HYD-1:*** Prior to the issuance of grading permits for the proposed Project, the Project engineers shall prepare a Stormwater Control Plan. The Stormwater Control Plan shall identify pollution prevention measures and practices to prevent polluted runoff from leaving the Project site. ***Mitigation Measure HYD-2:*** The District shall maintain in perpetuity the post-construction BMPs listed in the Stormwater Operations and Management Plan. The owner shall make changes or modifications to the BMPs to ensure peak performance. The owner shall be responsible for costs incurred in operating, maintaining, repairing, and replacing the BMPs. The owner shall conduct	SMUHSD Project Manager	SMUHSD Project Manager/ Project Civil Engineer	Prior to submittal of final design plans to Division of the State Architect		

Identified Impact	Related Mitigation Measure	MONITORING			VERIFICATION	
		Implementation Entity	Monitoring and Verification Entity	Timing Requirements	Signature	Date
	inspection and maintenance activities and complete annual reports.					