Appendix E Geological Environmental Hazards Assessment

Appendices

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October 2019 | Geological and Environmental Hazards Assessment

DEL MAR HEIGHTS ELEMENTARY SCHOOL REBUILD

Del Mar Union School District

Prepared for:

Del Mar Union School District
Contact: Chris Delehanty, Executive Director
Capital Programs and Technology
11232 El Camino Real, Suite 100
San Diego, CA 92130
858.755.9301

Prepared by:

PlaceWorks
Contact: Dwayne Mears, AICP, Principal
3 MacArthur Place, Suite 1100
Santa Ana, California 92707
714.966.9220
info@placeworks.com
www.placeworks.com

PLACEWORKS

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1.1 INTRODUCTION

The State of California's standards for school site selection are found in Title 5 of the California Code of Regulations (CCR) Section 14010, and additional codes and regulations applicable to school facilities that are found in the Education, Government and Public Resources Codes. Del Mar Union School District is planning to demolish and rebuild the existing elementary school located at 13555 Boquita Drive in San Diego, California. This study provides an assessment and supporting documentation of State school facility standards applicable to State-funded new school buildings and modernization projects.

In addition to the standards addressed herein, there are other health and safety requirements under the purview of the Department of Toxic Substances Control (DTSC), which were addressed under separate cover.

The California Environmental Quality Act (CEQA) requires lead agencies to address the environmental impacts of a project on the environment. These are separate and distinct from the issues addressed in this study, which deal with a site's ability to provide a safe and healthy environment for the school. Documentation of the project's environmental impacts under CEQA is provided under separate cover.

1.2 PROJECT LOCATION

The approximately 10.5-acre project site encompasses the Del Mar Heights Elementary School property at 13555 Boquita Drive in the City of San Diego. The project site consists of Assessor's Parcel Number (APN) 301-0500-700, and is in Del Mar Heights, a 760-lot subdivision located in the Torrey Pines community. The project site is surrounded by Boquita Drive to the north, Mira Montana Drive to the east, and open space canyonlands to the south and west of the project site. The subdivision of Del Mar Heights, in the City of San Diego, is surrounded by the City of Del Mar to the west, and the City of San Diego to the north, east, and south, and is approximately 0.30-mile west of Interstate 5 (I-5). Figure 1, *Regional Location,* and Figure 2, *Aerial Photograph,* show the project site from its regional and aerial contexts.

1.3 PROJECT DESCRIPTION

Del Mar Union School District (District) is proposing to fully redevelop the Del Mar Heights Elementary School. The capacity will remain the same, buildings will be limited to one story, and access to the school will remain via Boquita Drive. The District plans to seek matching state funds, which will trigger the need for California Department of Education (CDE) and Department of Toxic Substances Control (DTSC) approvals in addition to the CEQA process. The District seeks to submit plans to California Division of the State Architect (DSA) in March 2020, with construction to start in July 2020. School opening is planned for September 2021.

1. Introduction

Under the proposed project, the number of classrooms would be reduced by one, from 22 classrooms to 21 classrooms; the number of specialty classrooms, 13, would remain unchanged.

All buildings, play spaces, and fields would be located in the central portion of the site, to the south of the proposed parking area and west of the drop-off zone and staff parking area. The administration building, kindergarten classrooms and playground, and after school classrooms would be located at the northwestern portion; classrooms and learning spaces for grades 1 through 4 would be located at the western portion; and classrooms and learning spaces for grades 5 and 6 would be located at the southern portion of the site. To the south of the administration building would be a terrace and amphitheater. Apparatus and creative play spaces for grades 1 through 3 and grades 4 through 6 would be located to the west of the grades 1 through 4 classrooms. Additionally, the art, science, and music studios, multi-use room (M.U.R.), and Innovation Center (I.C.) which was formerly the library would be located to the west of the administration building.

In order to reduce circulation and congestion issues, as well as the number of cars parked within the neighborhood, the District is proposing to increase onsite parking and the passenger loading and vehicle queuing zone, to ensure impacts to the neighborhood north of the project site are reduced.

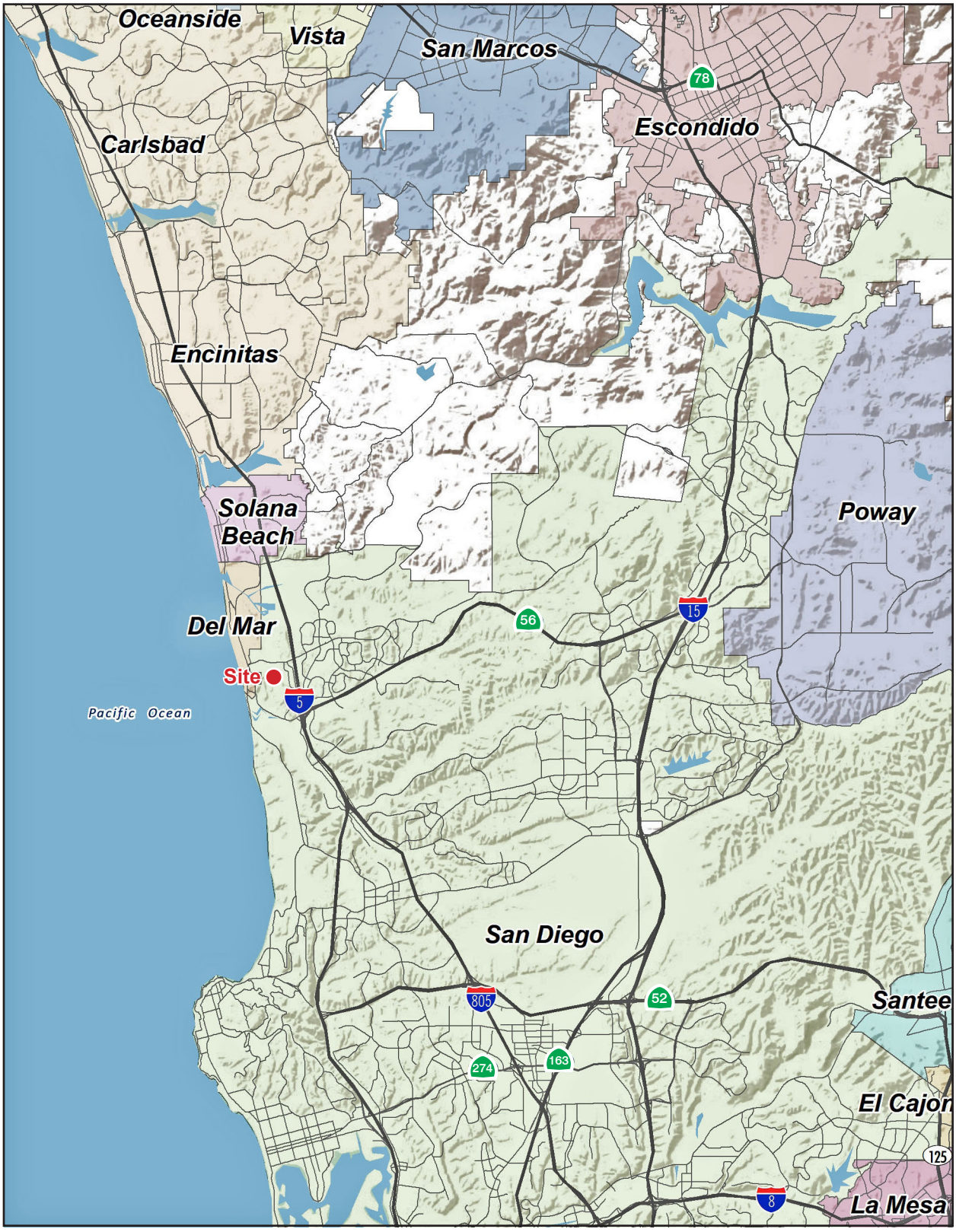
The parking lot onsite would be expanded to include 66 staff, visitor, and kindergarten parking spaces in the existing parking lot, and 49 staff parking spaces along the entire eastern boundary of the project site, adjacent to Mira Montana Drive. This would result in a total of 115 parking spaces onsite, a net increase of 67 stalls, compared to existing conditions. Additionally, the proposed eastern parking lot would be at a lower elevation, approximately 15 feet, than Mira Montana Drive, which would reduce views of the parking lot from Mira Montana Drive.

At the end of the eastern parking lot, at the southeastern portion of the site, a drop-off/pick-up zone and turnaround would be created, to allow vehicles to exit from the existing driveway on Boquita Drive. Moreover, the passenger loading, and vehicle queuing zone would be extended from the entrance of the driveway to the southeastern portion of the site. The extended queueing zone would accommodate approximately 45 cars, which is a net increase of approximately 26 cars from existing conditions and would be adjacent to the kindergarten and first through third grade classrooms. Special-education van queuing would be located at southeastern portion, within the turnaround.

The existing kindergarten area, at the northwest corner of the site, would be converted to a shared use passive park. The multi-use field would be reconfigured and would remain in the western portion of the site. As the proposed improvements would require additional learnings spaces, due to educational specifications, the Little League fields cannot be accommodated. The two ballfields and batting cages would be eliminated. However, the District is seeking alternative sites for the Little League.

No lighting is proposed for the field. The school and parking areas would have motion-detected lighting for security and safety purposes. Lighting along the eastern portion of the site are 20 feet and are no higher than the slope. Solar collectors would be installed on the roofs of the buildings.

Figure 1 - Regional Location
1. Introduction



Note: Unincorporated county areas are shown in white.
Source: ESRI, 2019

0 3
Scale (Miles)

1. Introduction

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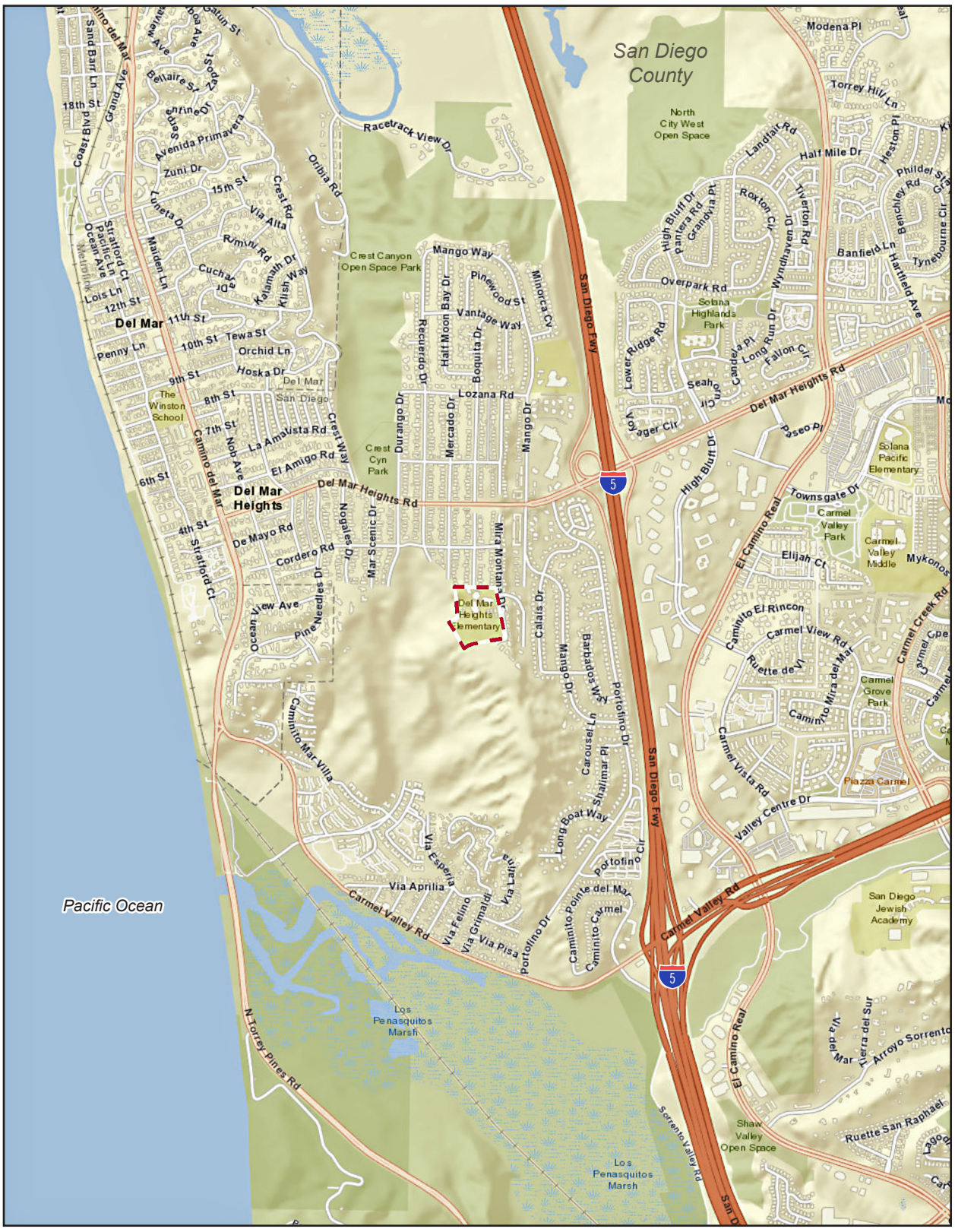
Figure 2 - Local Vicinity
1. Introduction



Project Boundary

0 2,000
Scale (Feet)

Source: ESRI, 2019

1. Introduction

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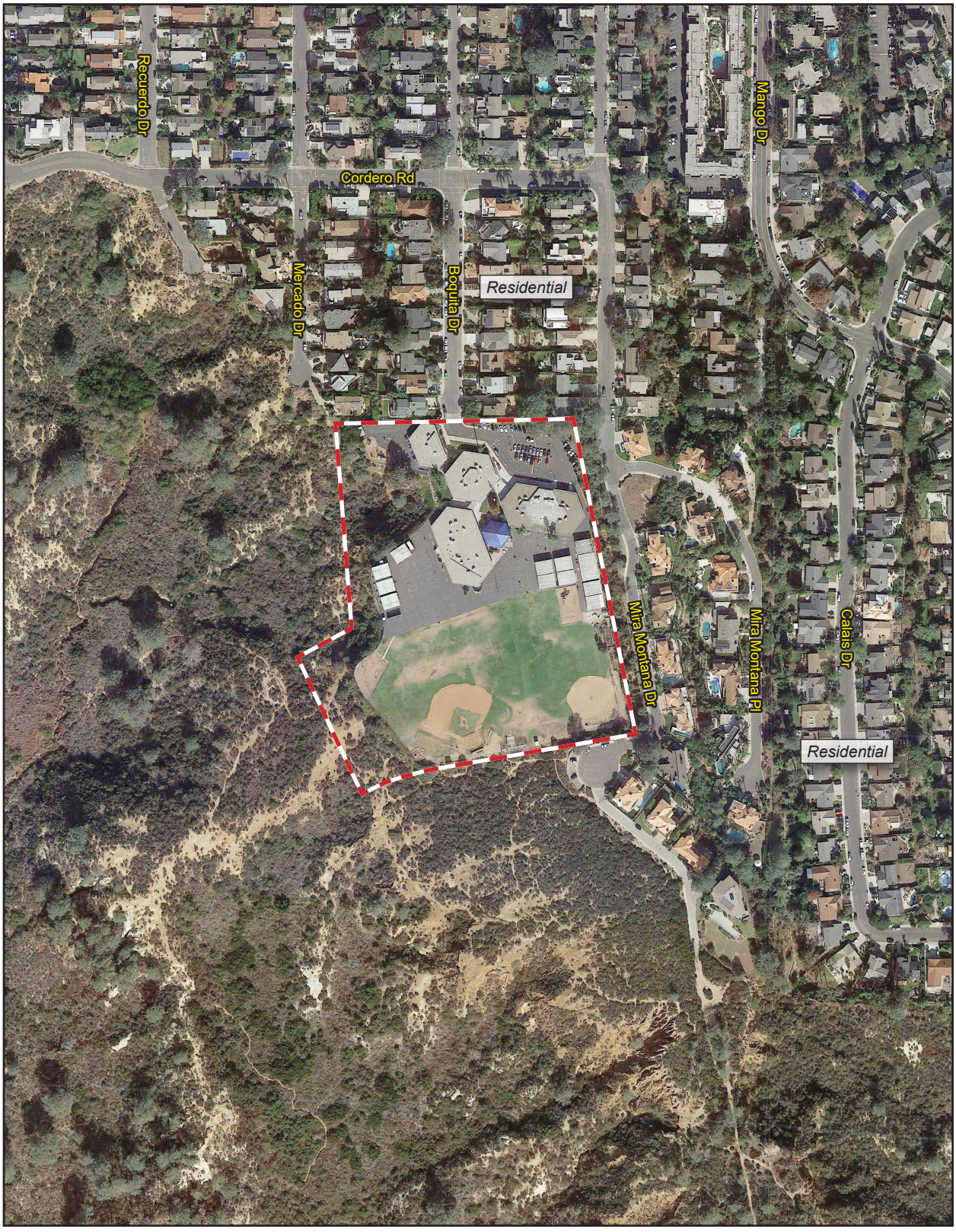
Figure 3 - Aerial Photograph
1. Introduction



Project Boundary

0 350
Scale (Feet)

Source: Google Earth Pro, 2019

1. Introduction

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2. Environmental Checklist

2.1 STATE STANDARDS FOR SCHOOL FACILITIES

The State of California's standards for school site selection are found in Title 5 of the California Code of Regulations (CCR) Section 14010 and additional codes and regulations applicable to school facilities are found in the Education, Government and Public Resources Codes. The following checklist provides a list of a questions and code citations related to State-funded new school building/modernization approvals. The health and safety issues reviewed in the Department of Toxic Substances Control (DTSC) process are addressed under separate cover.

STATE STANDARDS CHECKLIST FOR STATE-FUNDED SCHOOL FACILITIES—
SCHOOL PLAN/MODERNIZATION APPROVAL
(Documentation for SFPD 4.07, Part 4 C and SFPD 4.08B, Section 1)

A. Topic	B. Code References
Air Quality	
Is the boundary of the proposed school site within 500 feet of the edge of the closest traffic lane of a freeway or busy traffic corridor? If yes, would the project create an air quality health risk due to the placement of the school?	Ed. Code §17213(c)(2)(C); CCR Title 5 §14010(q)
Would the project create an air quality hazard due to the placement of a school within one-quarter mile of: (a) permitted and non-permitted facilities identified by the jurisdictional air quality control board or air pollution control district; (b) freeways and other busy traffic corridors; (c) large agricultural operations; and/or (d) a rail yard, which might reasonably be anticipated to emit hazardous air emissions, or handle hazardous or acutely hazardous material, substances, or waste?	Ed. Code § 17213(b); CCR Title 5 §14010(q)
Geology and Soils	
Does the site contain an active earthquake fault or fault trace, or is the site located within the boundaries of any special studies zone or within an area designated as geologically hazardous in the safety element of the local general plan?	Ed. Code, §17212 and §17212.5; CCR Title 5 §14010(f)
Would the project involve the construction, reconstruction, or relocation of any school building on the trace of a geological fault along which surface rupture can reasonably be expected to occur within the life of the school building?	Ed. Code §17212.5
Would the project involve the construction, reconstruction, or relocation of any school building on a site subject to moderate-to-high liquefaction, landslides, or expansive soils?	CCR, Title 5 §14010(i) School Site Selection and Approval Guide, Appendix H
Are naturally occurring asbestos minerals located at the site?	School Site Selection and Approval Guide, Appendix H
Hazards and Hazardous Materials	
Is the proposed school site located near an aboveground water or fuel storage tank or within 1,500 feet of an easement of an aboveground or underground pipeline that can pose a safety hazard to the site?	CCR, Title 5 § 14010 (h)

2. Environmental Checklist

STATE STANDARDS CHECKLIST FOR STATE-FUNDED SCHOOL FACILITIES— SCHOOL PLAN/MODERNIZATION APPROVAL

(Documentation for SFPD 4.07, Part 4 C and SFPD 4.08B, Section 1)

Is the property line of the proposed school site less than the following distances from the edge of respective power line easements: (1) 100 feet of a 50–133 kV line; (2) 150 feet of a 220–230 kV line; or (3) 350 feet of a 500–550 kV line?	CCR, Title 5 § 14010 (c)
If prepared, has the risk assessment been performed with a focus on children's health posed by a hazardous materials release or threatened release, or the presence of naturally occurring hazardous materials on the schoolsite?	Ed. Code § 17210.1(a)(3)
If a response action is necessary and proposed as part of this project, has it been developed to be protective of children's health, with an ample margin of safety?	Ed. Code § 17210.1(a)(4)
Is the proposed school site situated within 2,000 feet of a significant disposal of hazardous waste?	CCR, Title 5 § 14010 (t)
Is the site within 300 feet of an active oil or natural gas well?	Fire Code § 3406.3.1
Hydrology and Flooding	
Is the project site subject to flooding or tank/dam inundation or street flooding?	Ed. Code § 17212 and 17212.5; CCR, Title 5 § 14010 (g) School Site Selection and Approval Guide, Appendix H
Land Use and Planning	
Would the proposed school conflict with any existing or proposed land uses, such that a potential health or safety risk to students would be created?	Ed. Code § 17213; Gov't. Code § 65402; CCR, Title 5 § 14010 (m)
Are there easements on or adjacent to the site that would restrict access or building placement?	CCR, Title 5 § 14010(r)
Has the district considered environmental factors of light, wind, noise, aesthetics, and air pollution in its site selection process?	CCR, Title 5 § 14010(q)
Noise	
Is the proposed school site located adjacent to or near a major arterial roadway or freeway whose noise generation may adversely affect the educational program?	CCR, Title 5 § 14010 (e)
Transportation/Traffic	
Are traffic and pedestrian hazards mitigated per Caltrans' School Area Pedestrian Safety manual?	CCR, Title 5 § 14010 (l)
Is the proposed school site within 1,500 feet of a railroad track easement?	CCR, Title 5 § 14010 (d)

School building "means and includes any building used, or designed to be used, for elementary or secondary school purposes and constructed, reconstructed, altered, or added to…" (Ed. Code § 17283).
Note: Any documentation related to the California Environmental Quality Act is provided under separate cover.

3. Environmental Analysis

Section 2.1 provided a checklist of the State of California's health and safety standards for school sites. This section provides documentation and an evaluation of applicable standards, and mitigation measures where appropriate.

3.1 AIR QUALITY

3.1.1 Is the boundary of the proposed school site within 500 feet of the edge of the closest traffic lane of a freeway or busy traffic corridor? If yes, would the project create an air quality health risk due to the placement of the school?

No Significant Hazard. According to Public Resources Code Section 21151.8(b)(9) and Education Code Section 17213 (d)(9), "freeways or other busy traffic corridors" are defined as roadways that on an average day have traffic in excess of 50,000 vehicles in a rural area or 100,000 vehicles in an urban area. The closest highway and highest volume roadway in the vicinity of the site is Interstate 5 (I-5), approximately 0.3 miles east of the site. The streets within 500 feet of the edge of the project site are designated local streets. Project implementation would not expose school occupants to significant air quality health risks caused by vehicular emissions on roadways.

3.1.2 Would the project create an air quality hazard due to the placement of a school within one-quarter mile of: (a) permitted and non-permitted facilities identified by the jurisdictional air quality control board or air pollution control district; (b) freeways and other busy traffic corridors; (c) large agricultural operations; and/or (d) a rail yard, which might reasonably be anticipated to emit hazardous air emissions, or handle hazardous or acutely hazardous material, substances, or waste?

No Significant Hazard. Public Resources Code Section 21151.8 and Education Code Section 17213 prohibit the approval of a project involving new school construction and acquisition of a school site unless the following occur:

1. Consultation with an air pollution control district or air quality management district indicates that permitted and nonpermitted facilities (including, but not limited to, freeways and other busy traffic corridors, large agricultural operations, and railyards within one-fourth of a mile of the proposed school site that might be reasonably be anticipated to emit hazardous air emissions, or to handle hazardous or extremely hazardous materials, substances, or waste) or significant pollution sources do not exist; or

2. The facilities or other pollution sources exist, but one of the following conditions applies:

    A. The health risks from the facilities or other pollution sources do not and will not constitute an actual or potential endangerment of public health to persons who would attend or be employed at the school.

B. The governing board finds that corrective measures required under an existing order by another government entity that has jurisdiction over the facilities or other pollution sources will, before the school is occupied, result in the mitigation of all chronic or accidental hazardous air emissions to levels that do not constitute an actual or potential endangerment of public health to persons who would attend or be employed at the proposed school. If the governing board makes this finding, the governing board shall also make a subsequent finding, prior to the occupancy of the school, that the emissions have been mitigated to these levels.

C. For a school site with a boundary that is within 500 feet of the edge of the closest traffic lane of a freeway or other busy traffic corridor, the governing board of the school district determines, through analysis pursuant to paragraph (2) of subdivision (b) of Section 44360 of the Health and Safety Code, based on appropriate air dispersion modeling, and after considering any potential mitigation measures, that the air quality at the proposed site is such that neither short-term nor long-term exposure poses significant health risks to pupils.

D. The governing board finds that neither of the conditions set forth in subparagraph (B) or (C) can be met, and the school district is unable to locate an alternative site that is suitable due to a severe shortage of sites that meet the requirements in subdivision (a) of Section 17213. If the governing board makes this finding, the governing board shall adopt a statement of Overriding Considerations pursuant to Section 15093 of Title 14 of the California Code of Regulations.

Streets surrounding the project site are not identified as busy traffic corridors (see Section 3.1.1), and the project site is not within 500 feet of a freeway. Hazardous air emissions generated from surrounding roadways are not anticipated to pose and actual or potential endangerment to students and staff occupying the proposed site.

Properties within a quarter-mile radius (1,320 feet) were surveyed to identify facilities that have the potential to generate hazardous and acutely hazardous air emissions. In addition, the San Diego County Air Pollution Control District (SDAPCD) was contacted to identify facilities within a quarter-mile radius (1,320 feet) with the potential to generate hazardous air emissions (Appendix A). The SDAPCD responded that no facilities were identified within a quarter-mile radius that have the potential to emit air contaminants (Appendix A).

3.2 GEOLOGY AND SOILS

Based on a review of the United States Geological Survey (USGS) 7.5-minute Topographic Series, Del Mar, California Quadrangle Map (USGS 2018), the site is in the coastal terrace margin of the Peninsular Ranges Geomorphic Province. The Peninsular Ranges Geomorphic Province extends approximately 900 miles southward from the Los Angeles-Pomona-San Bernardino Basins to Baja California, Mexico and is characterized by elongated northwest-trending mountain ranges separated by sediment-floored valleys (Yerkes et al. 1965). The most dominant structural features of the province are the northwest-trending fault zones, most of which die out, merge with, or are terminated by the steep reverse faults at the southern margin of the San Gabriel-San Bernardino Mountains within the Transverse Ranges Geomorphic Province far to the north of the Site. The site sits atop middle to early Pleistocene paralic deposits, Units 10 and 10a composed

of interfingered strandline, beach, estuarine and colluvial deposits of siltstone, sandstone and conglomerate, and dune and back beach deposits composed of cross-bedded sandstone (Kennedy and Tan 2005).

3.2.1 Does the site contain an active earthquake fault or fault trace, or is the site located within the boundaries of any special studies zone or within an area designated as geologically hazardous in the safety element of the local general plan?

No Significant Hazard. Based on a review of the Fault Activity Map of California, no fault traces are depicted on the site and the nearest faults are offshore; the Rose Canyon Fault, approximately 3 miles to the southwest, and the Coronado Bank Fault, approximately 17 miles to the southwest (Jennings and Bryant 2010).

Based on a review of the California Geologic Survey database, the project site is not in an Alquist-Priolo Earthquake Fault Zone (CGS 2019). There is no potential for ground rupture on the project site caused by a known earthquake fault.

3.2.2 Would the project involve the construction, reconstruction, or relocation of any school building on the trace of a geological fault along which surface rupture can reasonably be expected to occur within the life of the school building?

No Significant Hazard. As mentioned in Section 3.2.1, the closest major active fault, the Rose Canyon Fault, is located offshore approximately 3 miles southwest of the site. There are no active faults on or immediately adjacent to the site, and construction of the proposed improvements would not be on a known geological fault that can reasonably be expected to rupture.

3.2.3 Would the project involve the construction, reconstruction, or relocation of any school building on a site subject to moderate-to-high liquefaction, landslides, or expansive soils?

No Significant Hazard.

Liquefaction

Liquefaction refers to loose, saturated sand, or gravel deposits that lose their load-supporting capability when subjected to intense shaking. Liquefaction potential varies based upon three main contributing factors: 1) cohesionless, granular soils having relatively low densities (usually of Holocene age); 2) shallow groundwater (generally less than 50 feet); and 3) moderate to high seismic ground shaking.

Based on a review of a City of San Diego geologic hazards map (2008), liquefaction is unlikely at the site. Furthermore, all structures built for the project would adhere to the 2019 California Building Code (California Code of Regulations, Title 24, Part 2), which provides minimum standards to protect property and public welfare by regulating design and construction to mitigate the effects of adverse soil conditions.

Landslides

Landsliding is a type of erosion in which masses of earth and rock move downslope as a single unit. Susceptibility of slopes to landslides and other forms of slope failure depend on several factors. These

factors are usually present in combination and include steep slopes, condition of rock and soil materials, the presence of water, formational contacts, geologic shear zones, and seismic activity.

Based on a review of a City of San Diego geologic hazards map (2008), the site has a low to moderate risk for landslides. The site is relatively level and is located on a terrace. No landslides have been mapped on the site (Kennedy and Tan 2005). Furthermore, all structures built for the project would adhere to the 2019 California Building Code (California Code of Regulations, Title 24, Part 2), which provides minimum standards to protect property and public welfare by regulating design and construction to mitigate the effects of adverse soil conditions.

Expansive Soils

Expansive soils swell when they become wet and shrink when they dry out, resulting in the potential for cracked building foundations, and each case, minor to severe damage to overlying structures is possible. A site-specific geotechnical report is recommended to assess for this condition. Furthermore, all structures built for the project would adhere to the 2019 California Building Code (California Code of Regulations, Title 24, Part 2), which provides minimum standards to protect property and public welfare by regulating design and construction to mitigate the effects of adverse soil conditions.

3.2.4 Are naturally occurring asbestos minerals located at the site?

No Significant Hazard. Based on statewide mapping, no naturally occurring serpentine rock or rock formations—which may contain significant quantities of asbestos—are within 10 miles of the project site (Van Gosen and Clinkenbeard 2011). Risk associated with asbestos is negligible and would not be a significant hazard.

3.3 HAZARDS AND HAZARDOUS MATERIALS

3.3.1 Is the proposed school site located near an aboveground water or fuel storage tank or within 1,500 feet of an easement of an aboveground or underground pipeline that can pose a safety hazard to the site?

Aboveground Water or Fuel Storage Tanks

No Significant Hazard. Based on a site reconnaissance and review of recent aerial photographs and topographic maps, there are no aboveground fuel storage tanks within 1,500 feet of the project site. Therefore, aboveground water or fuel storage tanks would not pose a safety hazard to the project site.

Hazardous Substance Pipelines

No Significant Hazard. Based on a review of Underground Service Alert of Southern California agency contacts for the project site, a review of the National Pipeline Mapping System online map and correspondence with San Diego Gas and Electric (included in Appendix A), there are no petroleum product pipelines or high-pressure natural gas pipelines within 1,500 feet of the project site.

Sewer and Water Pipelines

No Significant Hazard. The City of San Diego provided sewer and water line maps, which include the location of storm drains, sewer, and water lines within 1,500 feet of the project site. According to the City of San Diego utilities map, there are only gravity-flow sewer lines in all the streets in the immediate vicinity surrounding the school. Because these lines are not pressurized, they do not present a risk at the project site, and project development would not create a hazardous condition associated with sewer lines.

The California Department of Education (CDE) defines high volume water lines in their "Guidance Protocol for School Site Pipeline Risk Analysis" as lines 12 inches in diameter or greater. The City of San Diego map identified three large-volume potable water pipelines within a 1,500-foot radius of the project site (Appendix A). The 12-inch water mains are located underneath Boquita Drive north of Cordero Road, Cordero Road between Boquita Drive and Mira Montana Drive, and Mira Montana Drive immediately east of the project site. The CDE has developed risk analysis procedures for evaluating flooding associated with releases from pipelines 12 inches in diameter or greater, and thus, a Water Pipeline Analysis was conducted to further assess potential risks associated with project development and proximity of the improvements to the identified high-volume water pipelines (Appendix B). The Water Pipeline Analysis concluded that a full-flow rupture of any of the three water lines would be completely contained within existing street curbing, and therefore, no significant flooding would occur to the project site.

3.3.2 Is the property line of the proposed school site less than the following distances from the edge of respective power line easements: (1) 100 feet of a 50–133 kV line; (2) 150 feet of a 220–230 kV line; or (3) 350 feet of a 500–550 kV line?

No Significant Hazard. According to San Diego Gas and Electric (SDGE), the property lines of the proposed school site are not within 100 feet of a 50-133 kilovolt (kV) line, 150 feet of a 220-230 kV line, or 350 feet of a 500-550 kV line. There are no lines above 50 kV near the project site (Appendix A). Therefore, health hazards associated with proximity to powerlines would be negligible.

3.3.3 If prepared, has the risk assessment been performed with a focus on children's health posed by a hazardous materials release or threatened release, or the presence of naturally occurring hazardous materials on the school site?

No Significant Hazard. PlaceWorks prepared a Phase I Environmental Site Assessment for the site, which concluded that neither a release of hazardous material nor the presence of a naturally occurring hazardous material was indicated at the site, and that further environmental investigation is not required.

3.3.4 If a response action is necessary and proposed as part of this project, has it been developed to be protective of children's health, with an ample margin of safety?

No Significant Hazard. As stated in Section 3.3.3, no further environmental investigation is required.

3.3.5 Is the proposed school site situated within 2,000 feet of a significant disposal of hazardous waste?

No Significant Hazard. Based on the Phase I Environmental Site Assessment report for the site prepared by PlaceWorks (2019) and a review of EnviroStor, GeoTracker and EnviroMapper databases, the project site

is not within 2,000 feet of a significant disposal of hazardous waste (DTSC 2019; SRWQCB 2019; USEPA 2019).

3.3.6 Is the site within 300 feet of an active oil or natural gas well?

No Significant Hazard. According to the California Division of Oil, Gas, and Geothermal Resources (DOGGR) Well Finder, the project site is not within 300 feet of an active oil or natural gas well (DOGGR 2019). Therefore, health hazards associated with oil and gas wells would be negligible.

3.4 HYDROLOGY AND FLOODING

3.4.1 Is the project site subject to flooding or tank/dam inundation or street flooding?

No Significant Hazard. The project site is not within a 100-year flood zone. The site is located within an area of minimal flood hazard (FEMA 2012).

The closest dam to the project site is the San Dieguito Reservoir, approximately 7 miles northeast of the project site; there are no dams or levees within close vicinity that could impact the project site. The project site is approximately 0.7 miles east of the Pacific Ocean and is not at risk for flooding from tsunami inundation.

3.5 LAND USE AND PLANNING

3.5.1 Would the proposed school conflict with any existing or proposed land uses, such that a potential health or safety risk to students would be created?

No Significant Hazard. As shown in Figure 2, *Aerial Photograph*, the project site is surrounded by residential uses and open space canyonlands. The proposed project consists of rebuilding school buildings within the fence line of the project site boundaries. The project site is currently zoned RS-1-3 and the existing land use designation is Institutional and Public and Semi-Public Facilities. Implementation of the proposed project would not change the zoning or land use designations of the site. Residential uses would not present hazardous conditions to school operations. There are no proposed land use or zoning changes proposed nearby that would create a hazardous condition for school occupants.

3.5.2 Are there easements on or adjacent to the site that would restrict access or building placement?

No Significant Hazard. Based on a review of the San Diego County Assessor's Map for the site (Appendix A) and the San Diego Geographic Information Source (2019), no easements are located on or adjacent to the site that would restrict access or building placement.

3.5.3 Has the district considered environmental factors of light, wind, noise, aesthetics, and air pollution in its site selection process?

No Significant Hazard. The project site is an existing elementary school campus in a residential coastal community; there are no existing ambient environmental factors of light, wind, noise, aesthetics, or air

pollution that would jeopardize use of the site as a school. Please see Section 3.1, *Air Quality* and Section 3.6, *Noise,* for additional discussion on the respective environmental factors on the project site.

3.6 NOISE

3.6.1 Is the proposed school site located adjacent to or near a major arterial roadway or freeway whose noise generation may adversely affect the educational program?

No Significant Hazard. The project site is in a suburban environment surrounding by residences to the north, south, and east, with open space to the south and west.

The California Green Building Standards Code (CALGreen) has requirements for noise exposure affecting non-residential structures. The State of California's noise insulation standards for non-residential structures are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 11, California Green Building Standards Code (CALGreen). Proposed projects may use either a prescriptive (Section 5.507.4.1) or performance (5.507.4.2) method to show compliance. Pursuant to CALGreen Section 5.507.4.1, *Exterior Noise Transmission*, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite sound transmission class (STC) rating of at least 50 or a composite outdoor-indoor transmission class (OITC) rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 within a 65 dBA[1] CNEL or L_{dn}[2] noise contour of an airport, freeway or expressway, railroad, industrial source or fixed-guideway source.

Vehicle Traffic Noise Sources

As provided in Section 3.1.1, the streets in the vicinity of the site are designated as local streets.

Currently, the school has one parking lot and entrance on the north via Boquita Drive. The proposed project would expand the parking lot and add a drop-off/pick-up lane along the east and southeast portion of the school. The new drop-off/pick-up lane would be parallel to Mira Montana Drive and approximately 15 feet below Mira Montana Drive. The 15-foot slope would act as an acoustical barrier to car idling, and other vehicle related noises and obstruct line-of-site to residences off Mira Montana. The new drop-off/pick-up lane would deter vehicles from using Mira Montana as a drop off-lane, where some parents/guardians currently park and walk students to school via Gully Trail at the end of the cul-de-sac through the school fields.

Drop-off/pick-up trips could increase along Boquita Drive due to redistribution of trips from Mira Montana Drive. However, idling and queuing noise would not substantially increase due to cars vehicles being directed to the new drop-off/pick-up lane, in lieu of queuing and idling outside residential streets. Noise would not

[1] A-weighted decibel (dBA). An overall frequency-weighted sound level that approximates the frequency response of the human ear.
[2] Community Noise Equivalent Level (CNEL). The energy average of the A weighted sound levels occurring during a 24-hour period, with 5 dB added to the A-weighted sound levels occurring during the period from 7 PM to 10 PM and 10 dB added to the A-weighted sound levels occurring during the period from 10 PM to 7 AM. A closely related noise metric is the Day-Night Sound Level (L_{dn} or DNL) which has the same 10 dB added to the sound levels occurring during the period from 10:00 PM to 7:00 AM (as with the CNEL metric), but foregoes the 5 dB evening adjustment. For general community/environmental noise, CNEL and L_{dn} values rarely differ by more than 1 dB. As a matter of practice, L_{dn} and CNEL values are interchangeable and are treated as being equivalent in this assessment.

significantly increase due to new project trips or trip re-distribution therefore; impacts would be less than significant.

3.7 TRANSPORTATION/TRAFFIC

3.7.1 Are traffic and pedestrian hazards mitigated per Caltrans' School Area Pedestrian Safety manual?

No Significant Hazard. Students would continue to follow the Safe Routes to School Strategic Plan developed by the San Diego Association of Governments (SANDAG), which helps to identify safe routes to the school's access points. The site plan proposed pedestrian site access and loading from Boquita Drive. The project would comply with Part 7, *Traffic Control for School Areas,* of the California Department of Transportation's Manual on Uniform Traffic Control Devices (MUTCD), which would ensure potential traffic and pedestrian hazards are adequately addressed (Caltrans 2019).

3.7.2 Is the proposed school site within 1,500 feet of a railroad track easement?

No Significant Hazard. The proposed school site is not within 1,500 feet of a railroad track easement. The closest railroad track is the Amtrak Coaster rail line, approximately 0.7 miles west of the site.

3.8 EXEMPTIONS TO SITING STANDARDS

3.8.1 Is the district seeking any exemptions to the standards found in CCR, Title 5, § 14010(c) through (t)?

No Significant Hazard. The District will not be seeking any exemptions to the standards found in CCR Title 5 Section 14010.

3.8.2 If so, has mitigation been identified that demonstrates that the standard may be overridden without compromising a safe and supportive school environment?

No Significant Hazard. The proposed project would comply with all CCR Title 5 standards.

4. References

4.1 PRINTED REFERENCES

California Building Code, 2019.

California Division of Mines and Geology (CDMG), 2000. "A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos." August 2000.

Jennings, C. W., and W. A. Bryant, 2010. Fault Activity Map of California, California Geological Survey Geologic Data Map No. 6, scale 1:750,000.

Kennedy and Tan, 2005. Geologic Map of the San Diego 30' x 60' Quadrangle, California: A Digital Database, California Geological Survey Regional Geologic Map Series, Map No. 3, scale 1:100,000.

PlaceWorks, 2019. Phase I Environmental Site Assessment, Del Mar Heights ES Rebuild Project for Del Mar Union School District, dated October.

United States Geological Survey (USGS), 2018. 7.5' Topographic Series, Del Mar, California Quadrangle Map, scale 1:24,000.

Van Gosen, B. S., and J. P. Clinkenbeard, 2011. Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California. USGS Open-File Report 2011-1188, scale 1:990,000.

Yerkes, R. F., T. H. McCulloch, J. E. Schoellhamer, and J. G. Vedder, 1965. Geology of the Los Angeles Basin, California – An Introduction, United States Geological Survey Professional Paper 420-A.

4.2 WEB SITES

California Department of Toxic Substances Control, 2019. https://www.envirostor.dtsc.ca.gov/public/

California Department of Transportation (Caltrans), 2019. California Manual on Uniform Traffic Control Devices, 2014 Edition, Revision 4 (March 29, 2019). https://dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/camutcd2014_rev4_hires.pdf

California Division of Oil, Gas, and Geothermal Resources. 2019. Division of Oil, Gas, and Geothermal Resources Well Finder. http://maps.conservation.ca.gov/doggr/#close

California Geological Survey, 2019. CGS Information Warehouse: Regulatory Maps. Accessed August 5. https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/

4. References

California State Water Resources Control Board (SWRCB), 2019. GeoTracker website. http://geotracker.waterboards.ca.gov.

City of San Diego, 2008. Seismic Safety Study, Geologic Hazards and Faults, Grid Tile 38, scale 1:12,000, dated April 3, 2008. https://www.sandiego.gov/sites/default/files/geo38.pdf

Federal Emergency Management Agency (FEMA), 2012. FEMA Flood Map Service Center, 16 May 2012. https://msc.fema.gov/portal/search?AddressQuery=13555%20Boquita%20Drive%20Del%20Mar#searchresultsanchor

National Pipeline Mapping System, 2019. https://www.npms.phmsa.dot.gov/

San Diego Association of Governments (SANDAG), 2012. San Diego Regional Safe Routes to School Strategic Plan, March 2012. https://www.sdforward.com/pdfs/AppendixU18-SanDiegoRegionalSafeRoutesToSchoolStrategicPlan.pdf

San Diego Geographic Information Source, 2019. Interactive Map. http://sdgis.sandag.org/map.aspx

United States Environmental Protection Agency (USEPA), 2019. EnviroMapper website. https://www.epa.gov/emefdata/em4ef.home

5. List of Preparers

5.1 LEAD AGENCY

Del Mar Union School District
11232 El Camino Real, Suite 100
San Diego, CA 92130

5.2 PLACEWORKS

Michael Watson, PG, Associate Geologist

5. List of Preparers

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Appendix A Agency Records

Appendix

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APCD
AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO

September 13, 2019

Michael Watson
PLACEWORKS
2850 Inland Empire Blvd, Suite B
Ontario, CA 91764

Dear Mr. Watson,

Pursuant to Assembly Bill 3205 (Waters), which became effective January 1, 1989, the siting of new elementary or secondary schools, must meet the requirements of Section 21151.8 of the Public Resources Code. This section of the code requires the lead agency preparing an environmental impact report or negative declaration concerning a proposed school site, to consult with the appropriate air pollution control district to identify facilities within one-quarter mile of the proposed school site, which might reasonably be anticipated to emit hazardous , or acutely hazardous air emissions.

The District has been asked to identify any such facilities within one-quarter mile of Del Mar Heights School located at 13555 Boquita Drive, in the city of Del Mar, California. Accordingly,a grid search of the affected areas was conducted and revealed there were no facilities located that may have the potential to emit air contaminants as outlined in the aforementioned Public Resources Code.

Please be advised that this study was completed on September 13, 2019 and includes only the facilities that were in operation up until that date. Should you have any further questions concerning this matter, please contact me (858) 586-2671.

Respectfully,

William Jacques
Program Coordinator

10124 Old Grove Rd. – San Diego - California 92131-1649 – (858) 586-2600
FAX (858) 586-2601– Smoking Vehicle Hotline – 1-800-28-SMOKE
www.sdapcd.org

From: Agarma, Regimund
To: Danielle Clendening
Subject: RE: Information Request For a Site in Del Mar, San Diego
Date: Wednesday, August 21, 2019 1:51:43 PM

Please see below:

Please let me know if you have any questions?

From: Danielle Clendening <dbclendening@placeworks.com>
Sent: Monday, August 19, 2019 9:37 AM
To: Agarma, Regimund <RAgarma@sdge.com>
Subject: [EXTERNAL] Information Request For a Site in Del Mar, San Diego

Good morning,

Del Mar Unified School District, in compliance with CCR Title V Section 14010 (h), has contracted the services of PlaceWorks to complete safety hazard assessments related to powerlines around Del Mar Heights School at 13555 Boquita Drive in the city of Del Mar, San Diego County.

I have attached a pdf with a map showing the exact location of the site outlined in red.

Specifically, the safety hazard assessment report is looking for powerlines that fall within the following parameters:

The property line of the site shall be at least the following distance from the edge of respective power line easements:
(1) 100 feet for 50-133 kV line. No (We do have 69kV overhead power lines that is about 320' away from the school (Measured from the closest point to the school (Southeast Corner 69kV lines run on Miramontana Place)
(2) 150 feet for 220-230 kV line. No
(3) 350 feet for 500-550 kV line. No

If there are no powerlines around the site that meet the previously stated specifications, could I get a response stating such for the school district's safety hazard report.

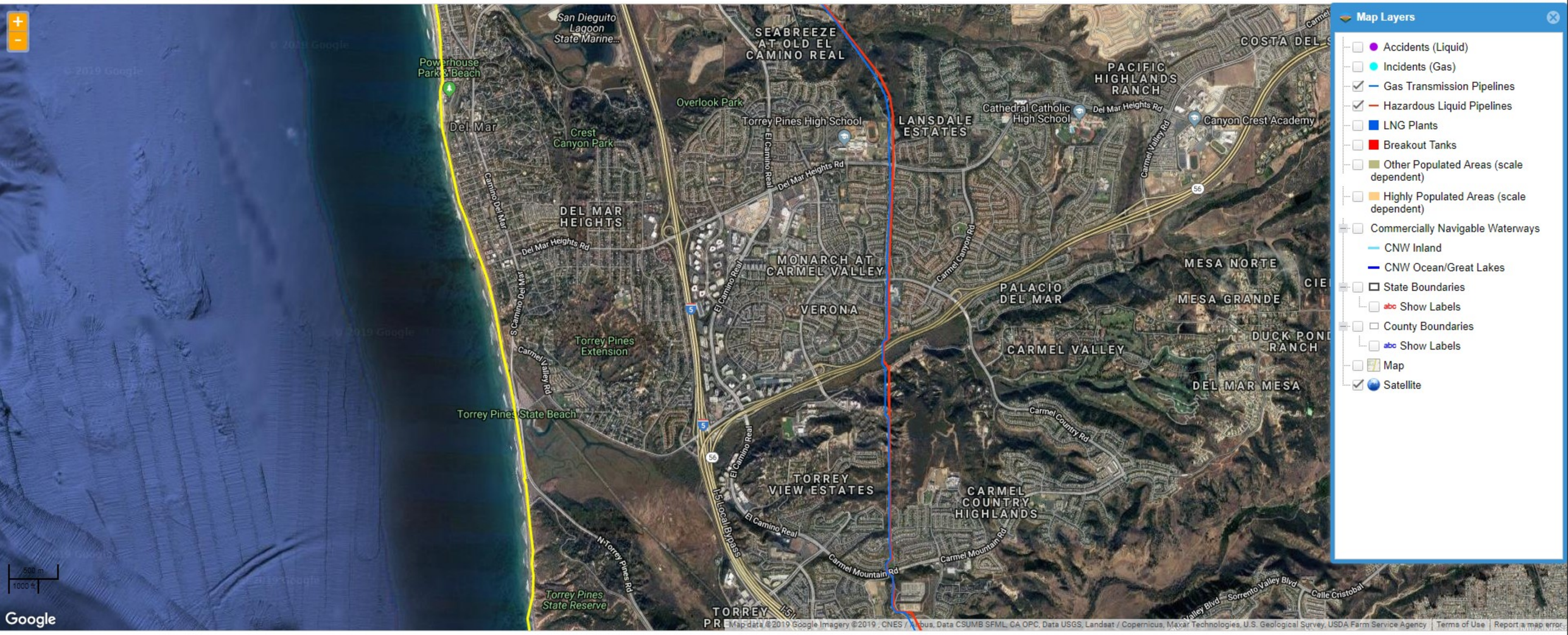
Thank you so much for your help, please contact me if you have any questions or need more information!

DANIELLE CLENDENING
Planner
2850 Inland Empire Boulevard, Suite B | Ontario, California 91764
909.989.4449 | dbclendening@placeworks.com | placeworks.com

13555 BOQUITA DR, Del Mar, San Diego

ATTDSOUTH
EMERGENCY
ATT DAMAGE PREVENTION HOTLINE
510-645-2929
VACUUM
AT&T DAMAGE PREVENT HOTLINE
510-645-2929
MCISOCAL
EMERGENCY
FIBER SECURITY DEPT
800-624-9675

VACUUM
MCI OPERATOR
800-289-3427
SDG01
EMERGENCY
SDG&E PHONE CENTER
800-411-7343
VACUUM
NO PERMISSION REQUIRED
SND01
EMERGENCY
EMERGENCY SERVICES
619-515-3525
VACUUM
STEVE PALMER
2797 CAMINITO CHOLLAS, SAN DIEGO, CA 92105
619-527-7444
SPALMER@SANDIEGO.GOV
UCHTRW_S3
EMERGENCY
SPECTRUM REG OPERATIONS CTR
EMERGENCY ONLY - NO LOCATES,
844-780-6054
VACUUM
PETER CRAMPTON
8949 WARE CT, SAN DIEGO, CA 92121
858-635-8404
PETER.CRAMPTON@CHARTER.COM
UQSTSO
EMERGENCY
Information Not Available
VACUUM
Information Not Available



Ready | Zoom Level: 14 of 19 (1:24,000) Closest Zoom for Pipelines | 32.915290, -117.260109 | COUNTY : San Diego, CA

High Pressure Gas Pipeline Map

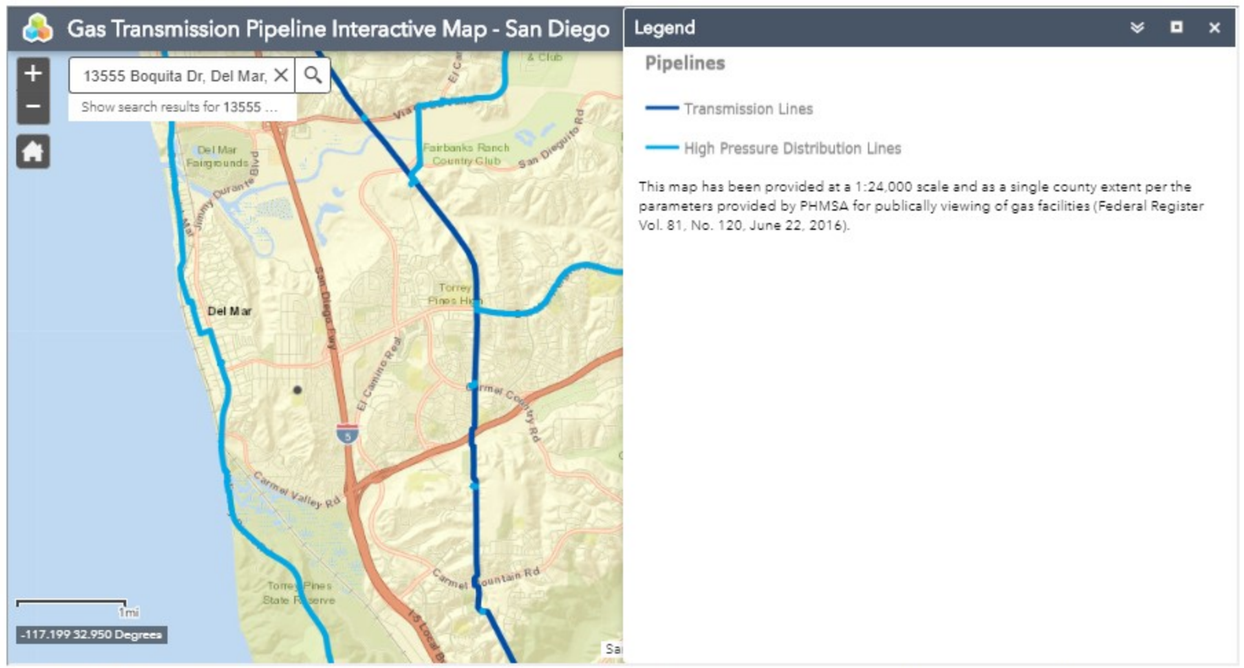
Dark Blue: Gas Transmission Pipeline: Generally large diameter pipelines that operate at pressures above 200 psi and transport gas from supply points to the gas distribution system.

Light Blue: High Pressure Gas Distribution Main: Pipelines that operate at pressures above 60 psi and deliver gas in smaller volumes to the medium pressure distribution system.

Accuracy of pipeline locations varies +/- 500 feet.

Information from this website should never be used as a substitute for calling 811 two business days before digging.

Enter your address or zip code.



San Diego Gas & Electric (SDG&E) is providing this map as a courtesy and for general information purposes only. It does not represent that the information contained herein is accurate for any particular purpose, and therefore disclaims all warranties, expressed or implied, including the warranty of fitness for a particular purpose. Independent verification from experts should be obtained prior to any specific use. Recipient accepts full responsibility for any consequences associated with use of this information.

From: GasFacilityMaps
To: Danielle Clendening
Subject: RE: Information Request for a School Site in Del Mar Heights, San Diego
Date: Monday, August 19, 2019 1:44:35 PM

Danielle,

There are no Hi-Pressure pipes within the indicated radius.

Thank you
Gas Facility Maps

From: Danielle Clendening <dbclendening@placeworks.com>
Sent: Monday, August 19, 2019 1:29 PM
To: GasFacilityMaps <GasFacilityMaps@semprautilities.com>
Cc: EGISS Maps <EGISSmaps@semprautilities.com>
Subject: [EXTERNAL] Information Request for a School Site in Del Mar Heights, San Diego

Good Afternoon,

Attached are request forms requesting information about any high pressure natural gas transmission and/or distribution pipelines (80 psig or greater) potentially located within a 1,500-foot radius of Del Mar Heights School (13555 Boquita Drive, Del Mar Heights, San Diego, 92014).

Please let me know if you need any additional information or require any clarification.

Sincerely,

DANIELLE CLENDENING
Planner
2850 Inland Empire Boulevard, Suite B | Ontario, California 91764
909.989.4449 | dbclendening@placeworks.com | placeworks.com

From: Danielle Clendening
To: Mike Watson
Subject: FW: Information Request for a Site in Del Mar Heights, San Diego
Date: Thursday, October 03, 2019 9:08:47 AM

Hey Mike,

Here is some information regarding the Del Mar Site

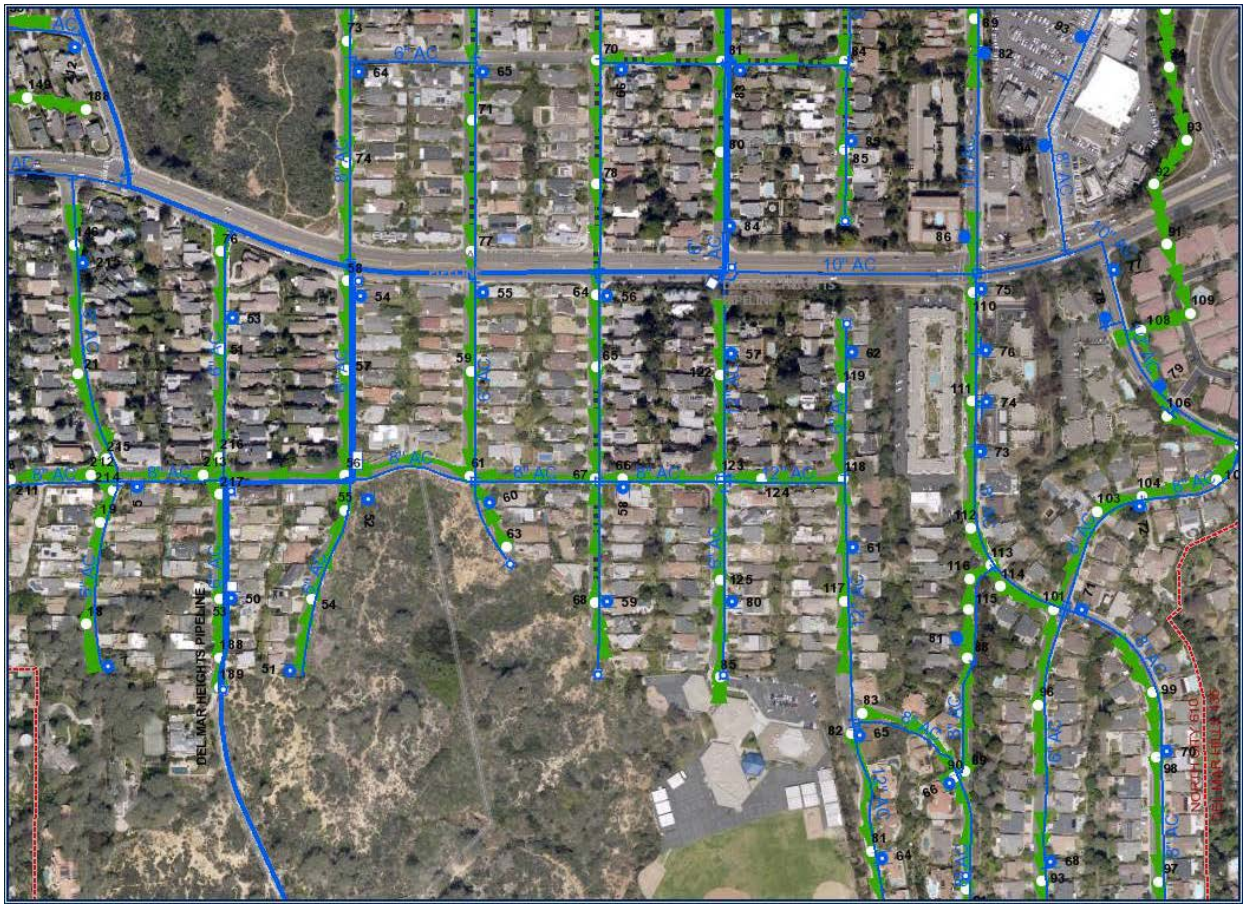
Danielle

From: Kiros, Azeib <AKiros@sandiego.gov>
Sent: Thursday, October 3, 2019 9:06 AM
To: Danielle Clendening <dbclendening@placeworks.com>; Sellona, Nelson <NSellona@sandiego.gov>
Cc: Palmer, Steve <SPalmer@sandiego.gov>
Subject: FW: Information Request for a Site in Del Mar Heights, San Diego

Hello Danielle,
we are with Recycled Water system.
If you are looking for a basic map shows the PW(blue line) and Sewer(green), please see copy below.

He Nelson,
Do you know who is the contact person for PW? And Sewer?

Thank you
Azeib



From: Palmer, Steve
Sent: Wednesday, October 2, 2019 4:18 PM
To: Kiros, Azeib <AKiros@sandiego.gov>
Subject: Fwd: Information Request for a Site in Del Mar Heights, San Diego

Azeib
Good afternoon can you look at this and respond thank you

Sent from my Verizon, Samsung Galaxy smartphone

-------- Original message --------
From: Danielle Clendening <dbclendening@placeworks.com>
Date: 10/2/19 12:41 PM (GMT-08:00)
To: "Palmer, Steve" <SPalmer@sandiego.gov>
Subject: RE: Information Request for a Site in Del Mar Heights, San Diego

Good Afternoon,

I am following up on my email sent August 19, 2019 requesting information about water pipelines and pressurized sewer lines potentially located within 1,500-foot radius of Del Mar Heights Elementary School at 13555 Boquita Drive in Del Mar Heights, San Diego, CA.

If this not the correct email to be sending such a request, could you please help direct this inquiry to the proper division.

Thank you so much for your help, please contact me if you have any questions or need more information!

DANIELLE CLENDENING
Planner
PLACEWORKS
2850 Inland Empire Boulevard, Suite B | Ontario, California 91764
909.989.4449 | dbclendening@placeworks.com | placeworks.com

From: Danielle Clendening
Sent: Monday, August 19, 2019 12:10 PM
To: spalmer@sandiego.gov
Subject: Information Request for a Site in Del Mar Heights, San Diego

Good Afternoon,

Del Mar Unified School District, in compliance with CCR Title V Section 14010 (h), has contracted the services of PlaceWorks to complete safety hazard assessments related to water pipelines (that are 12-inches in diameter or greater) and any pressurized sewer lines located within a 1,500-foot radius of Del Mar Heights School at 13555 Boquita Drive in Del Mar Heights, San Diego.

I have attached a pdf with a map showing the exact location of the site outlined in red and an approximately 1,500-foot radius marked around the site in yellow.

This email is requesting information about any water lines 12-inches in diameter or greater and any pressurized sewer lines operated by the city of San Diego located within a 1,500-foot radius of the site.

If there are no water lines that meet those specifications within the radius of the site, could I get a response stating such for the school district's safety hazard report.

If this not the correct email to be sending such a request, could you please help direct this inquiry to the proper division.

Thank you so much for your help, please contact me if you have any questions or need more information!

DANIELLE CLENDENING
Planner
2850 Inland Empire Boulevard, Suite B | Ontario, California 91764
909.989.4449 | dbclendening@placeworks.com | placeworks.com

Appendix B Water Pipeline Analysis

Appendix

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Table A

Water Pipeline Analysis

Del Mar Union School District - Del Mar Heights Elementary School Reconstruction

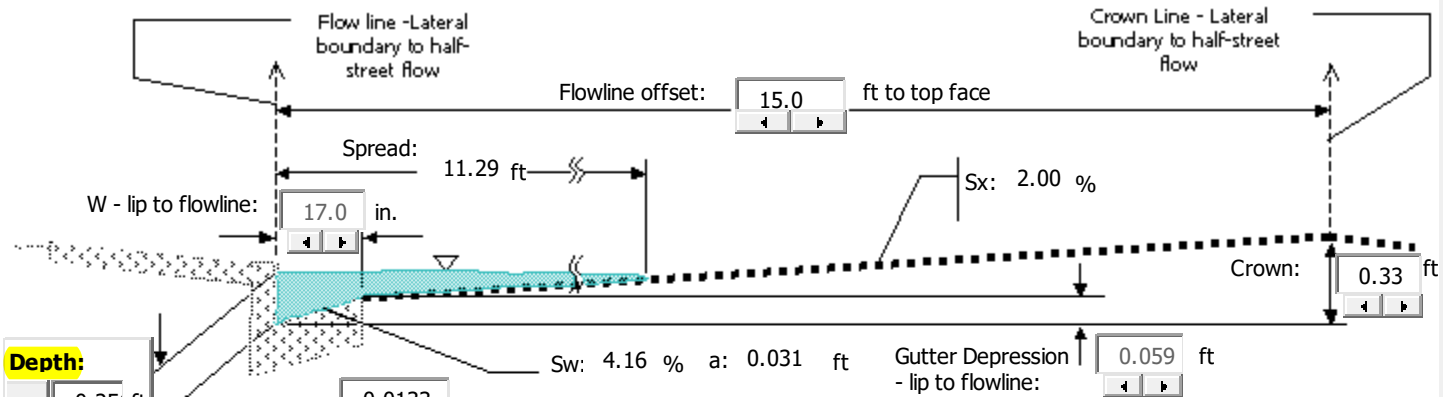
Street Flow							
Pipeline Diameter (in)	Pipeline Location	Release Rate (cfs)	Street Width (ft)	Longitudinal Slope	Depth of Flow in Street (in)	Curb Height (in)	Exceeds Street Capacity?
12	Mira Montana Drive	3.93	24	0.0145	3.0	6	No
12	Cordero Road	3.93	40	0.0471	2.5	6	No
12	Boquita Drive	3.93	30	0.0133	3.1	6	No

Modified Manning's Equation Solver

Version: 3.0<>7/19/2018 9:28:30 AM

Print | Save | Quit

Parameters | Composite Triangular Sections | Head - Discharge Table | Assumptions | Inlet Geometry | Disclaimer



Street Parameters:

Q:	3.93	cfs
K:	34.0	
Vel:	3.04	ft/s
Eo:	32.6	%
W/T:	0.1255	

Standard Manning's:

Q:	3.22	cfs
K:	27.9	
Vel:	2.49	ft/s
Rh:	0.11	ft
Area:	1.29	sf

Local Parameters:

Local inlet flow line depression: 2.0 in.

Curb Opening Parameters:

C-O Apron wider than gutter: 0 in.

S'w 13.9 % Se: 6.54 %

Length of curb opening inlet: 12.0 ft

Lt: 17.90 ft

80 % Clear Efficiency 74.9 %

Curb opening flowby: 0.98 cfs

P-1-7/8-4

Print Chart 7

Grate Parameters:

Apron wider than grate: 2 in.

Length: 48 in. Width: 22 in.

% Factor 50 % Factor 50

Splash-over Vel: 7.41 ft/s Vel over grate: 3.34 ft/s

Eo: 98.58 %

Rs: 7.27 % Rf: 100.00 %

Side flow captured: 0.04 cfs Frontal captured: 0.49 cfs

Total combined CB flowby: 0.46 cfs

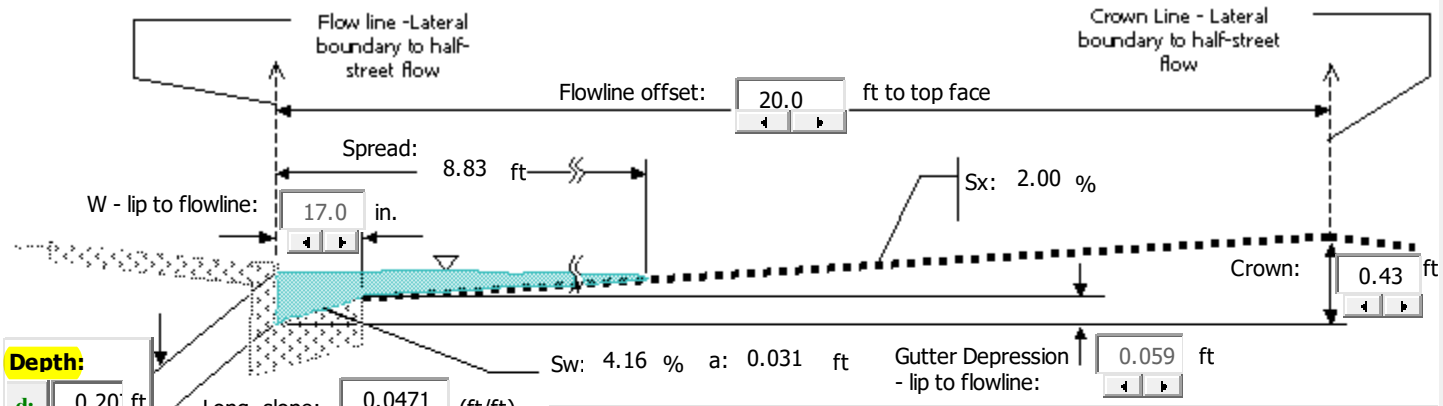
Street Flow - Boquita Drive
12-Inch Water Main

Modified Manning's Equation Solver

Version: 3.0<>7/19/2018 9:28:30 AM

Print | Save | Quit

Parameters | Composite Triangular Sections | Head - Discharge Table | Assumptions | Inlet Geometry | Disclaimer



Street Parameters:

Q:	3.93	cfs
K:	18.1	
Vel:	4.91	ft/s
Eo:	40.9	%
W/T:	0.1604	

Standard Manning's:

Q:	3.20	cfs
K:	14.8	
Vel:	4.00	ft/s
Rh:	0.09	ft
Area:	0.80	sf

Local Parameters:

Local inlet flow line depression: 2.0 in.

Curb Opening Parameters:

C-O Apron wider than gutter: 0 in.

S'w 13.9 % Se: 7.70 %

Length of curb opening inlet: 12.0 ft

Lt: 23.73 ft

80 % Clear Efficiency 60.7 %

Curb opening flowby: 1.55 cfs

P-1-7/8-4

Print Chart 7

Grate Parameters:

Apron wider than grate: 2 in.

Length: 48 in. Width: 22 in.

% Factor 50 % Factor 50

Splash-over Vel: 7.41 ft/s Vel over grate: 5.97 ft/s

Eo: 99.85 %

Rs: 2.48 % Rf: 100.00 %

Side flow captured: 0.02 cfs Frontal captured: 0.77 cfs

Total combined CB flowby: 0.75 cfs

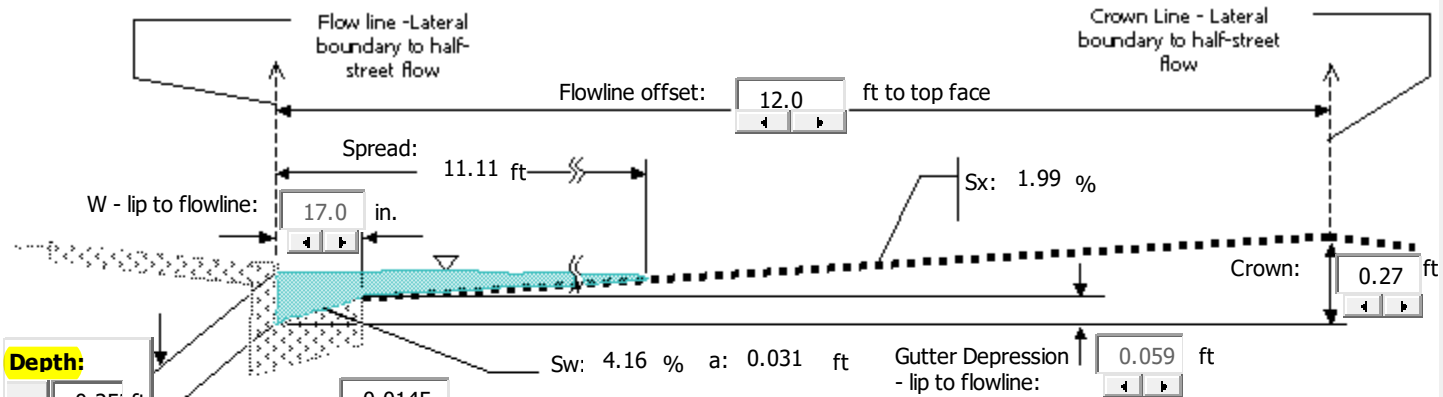
Street Flow - Cordero Road
12-Inch Water Main

Modified Manning's Equation Solver

Version: 3.0<>7/19/2018 9:28:30 AM

Print | Save | Quit

Parameters | Composite Triangular Sections | Head - Discharge Table | Assumptions | Inlet Geometry | Disclaimer



Street Parameters:

Q:	3.93	cfs
K:	32.6	
Vel:	3.14	ft/s
Eo:	33.1	%
W/T:	0.1275	

Standard Manning's:

Q:	3.22	cfs
K:	26.8	
Vel:	2.57	ft/s
Rh:	0.11	ft
Area:	1.25	sf

Local Parameters:

Local inlet flow line depression: 2.0 in.

Curb Opening Parameters:

C-O Apron wider than gutter: 0 in.

S'w 13.9 % Se: 6.61 %

Length of curb opening inlet: 12.0 ft

Lt: 18.27 ft

80 % Clear Efficiency 73.9 %

Curb opening flowby: 1.03 cfs

P-1-7/8-4

Print Chart 7

Grate Parameters:

Apron wider than grate: 2 in.

Length: 48 in. Width: 22 in.

% Factor 50 % Factor 50

Splash-over Vel: 7.41 ft/s Vel over grate: 3.48 ft/s

Eo: 98.59 %

Rs: 6.76 % Rf: 100.00 %

Side flow captured: 0.04 cfs Frontal captured: 0.51 cfs

Total combined CB flowby: 0.49 cfs

Street Flow - Mira Montana Drive
12-Inch Water Main