Appendix J Geologic and Environmental Hazards Assessment

Appendices

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Geologic and Environmental Hazards Assessment| 2019

EASTSIDE SCHOOL SITE

for Riverside Unified School District

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1. Introduction

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. This study provides an assessment and supporting documentation of State school facility standards applicable to State-funded new school site approvals[1] (see SFPD 4.0, and 4.01-4.03).

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 are 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 project site is located in the City of Riverside in Riverside County, California and is subdivided into five subareas. The existing Lincoln High School, Area A, is located at 4341 Victoria Avenue. Area B, adjacent to and northwest of Lincoln High School, includes eight residential parcels. Areas C1 and C2 are located to the northwest, across Park Avenue from Area B. Area C1 consists of nine residential parcels along 13th Street and separated by an alley way from area C2 to the southwest. Site C2 consists of six commercial parcels on 14th Street. Area D, Lincoln Park, is located across 13th Street from Area C1. Figure 1, *Regional Location*, Figure 2, *Existing Site Conditions* and Figure 3 *Project Subareas*, show the project site from regional and aerial perspectives as well as the site subareas.

The commercial parcels in Area C2 include L&M Friction Materials, an auto part store, located at 2993 14th Street, and J&A Tire and Auto Repair at 2945 14th Street. At the southeast corner of 14th Street and Park Avenue is a vacant parcel that historically has structures located on the parcel that may have been a gas station based on the configuration of structures seen in old aerial photographs of the area. The project site is generally bounded by single family residences to the northeast and southeast except at the intersection of 14th Street and Victoria Avenue where a gas station and a used car dealership are located. To the southwest of the site there are a number of commercial sites including Caliber Collision, an auto body shop, at 2910 14th Street. To the northwest of the project site across Howard Avenue is Solarmax Technology, a solar

[1] This includes property additions to existing schools.

energy company, and Sunrise Custom Storage, an RV storage facility. The Site is approximately 1000 ft southeast of State Route 91 and 550 ft southeast of the Riverside Amtrak railway.

The site is roughly "L" shaped. Area A is 3.92-acres in size, and is identified as County of Riverside Assessor Parcel Number (APN) 211-251-001. Area B is identified as APNs 211-234-001, 002, 003, 004, 005, 006, 007, and 009. The parcels in Area C1 are identified as APN 211-233-001, 002, 003, 004, 005, 006, 007, 008, and 009. The APNs for area C2 are 211-233-011, 013, 017, 018, 021, and 022. Lincoln Park (Area D) is 3.8 acres and is identified as APN 211-231-001.

The project site includes an existing city park, an existing high school, commercial and residential parcels, concrete and asphalt hardscape (parking lot), and vacant land.

1.3 PROJECT DESCRIPTION

The Riverside Unified School District (District) is considering expanding the existing Lincoln High School campus (Area A) to encompass Area B, C1, C2 and D. Prior to deciding whether to proceed with purchasing additional land for the campus, the District requested preparation of a feasibility study to determine if there were any "fatal flaws" at this site that would advise against such changes. This Geological and Environmental Assessment (Geohazard) is intended to answer this question.

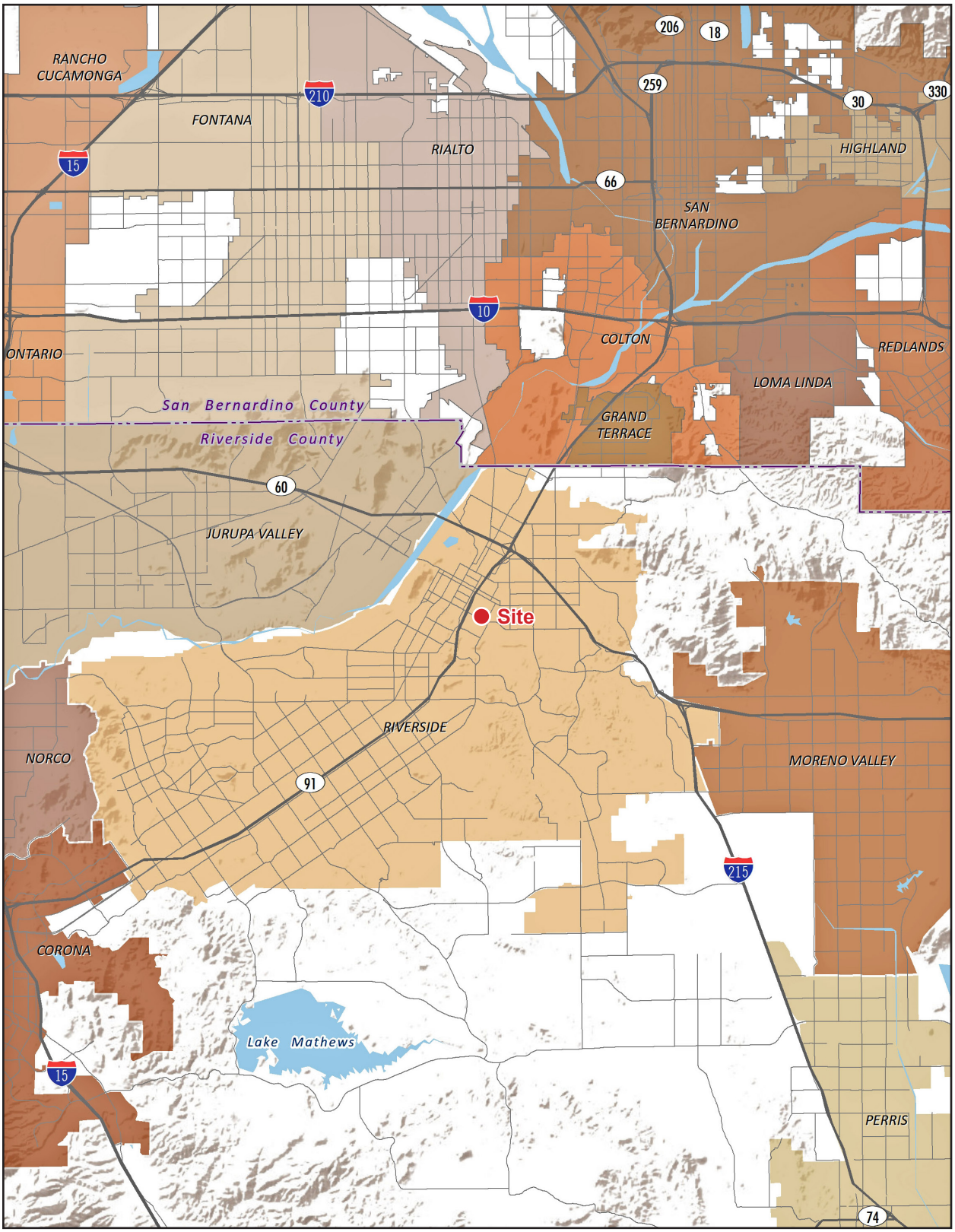
1.4 CONCLUSIONS/RECOMMENDATIONS

Based on a review of various information sources contained in this report, the following potentially environmental health and safety hazards are subject to further evaluation:

- An 8-inch high-pressure natural gas pipeline is located within 1,500 feet of the project site. A pipeline safety risk assessment is recommended to address the proximity of the pipeline to the project site. Figure 4 shows the location of the pipeline.
- Fifteen water mains with diameters at or greater than 12 inches are located within 1,500 feet of the project site. A water pipeline safety assessment is recommended to address the proximity of these pipelines to the project site. The water mains are shown in Appendix A.
- Although a small area on the southwest corner of the site is within a Dam Inundation Zone for the Box Springs Dam, the vast majority of the project site is not, and is therefore less than significant.
- A Preliminary Environmental Assessment is currently in preparation for the site.
- Railroad tracks are located to the northwest, within 1,500 feet of the project site. A Rail Risk Assessment is recommended to address the proximity of the railroad tracks to the project site.

In addition to the above studies, in order for construction to proceed within the existing street and alley easements on the project site, a vacation of the public right-of-way will need to be coordinated with the City of Riverside.

Figure 1 - Regional Location
1. Introduction



Note: Unincorporated county areas are shown in white.

0 3
Scale (Miles)

Source: ESRI, 2018

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1. Introduction

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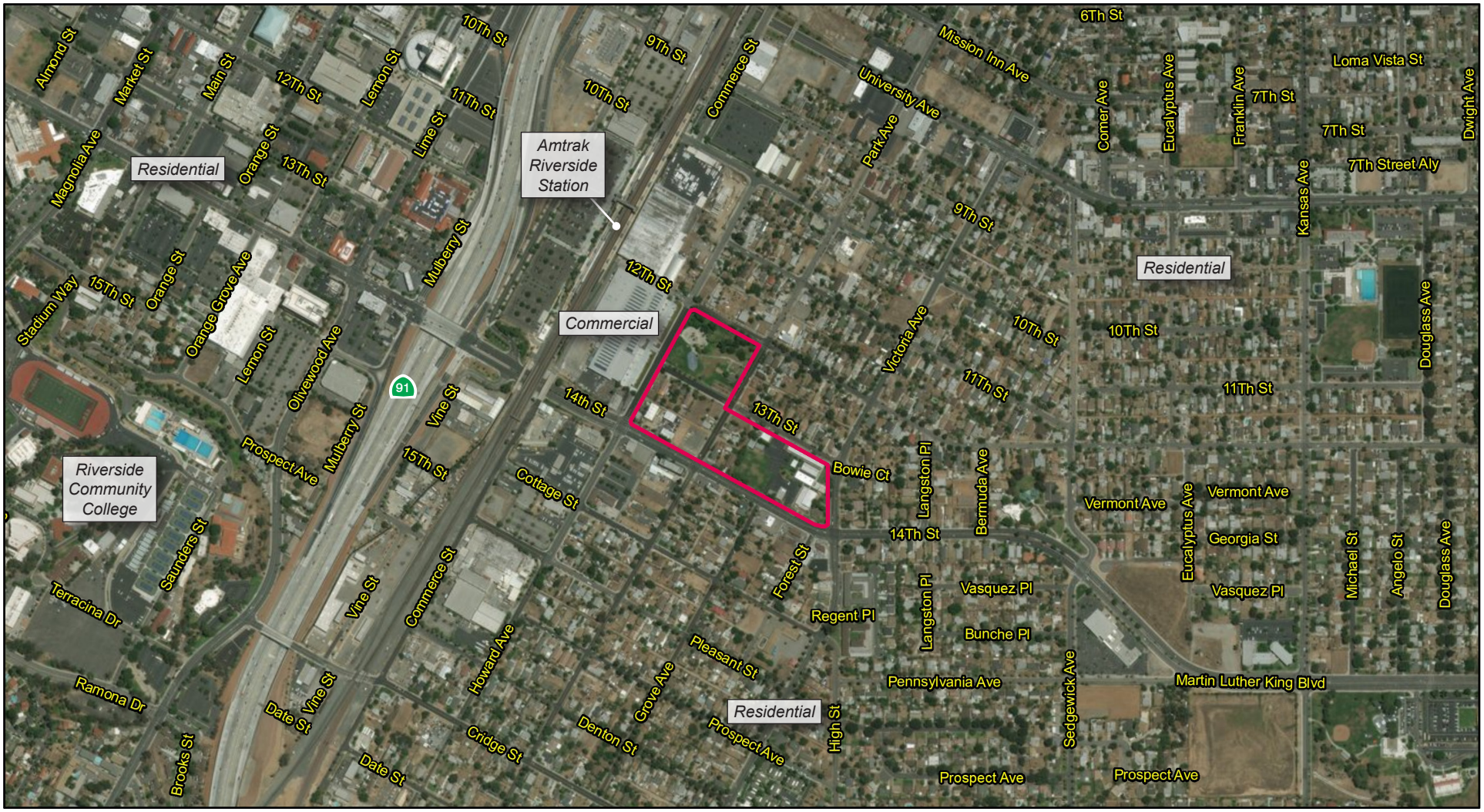
Figure 2 - Local Area



Source: ESRI, 2018

1. Introduction

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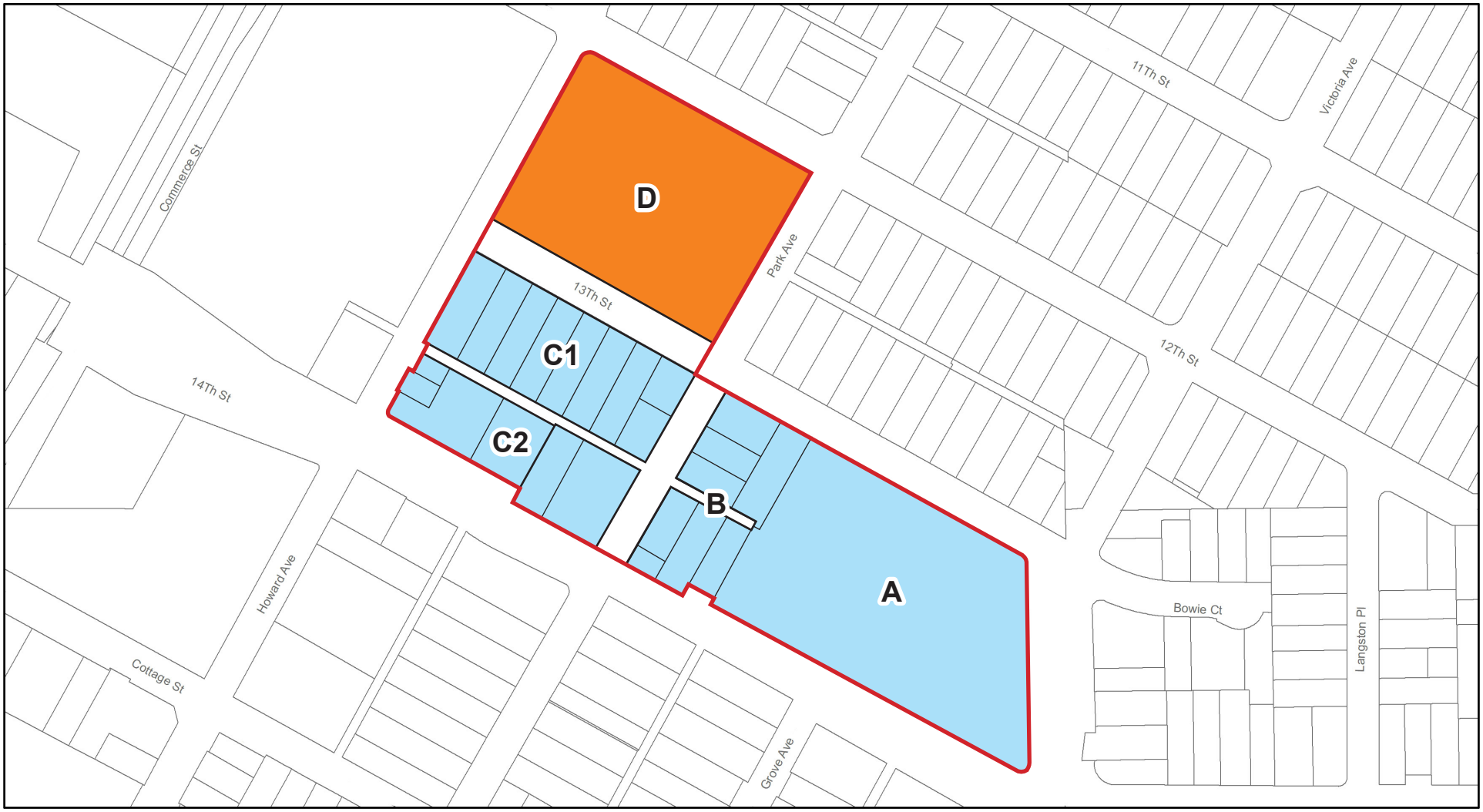
Figure 3 - Project Subareas



Source: ESRI, 2018

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 school site 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 SITE APPROVAL
(Documentation for SFPD 4.0, 4.01–4.03, School Site Approval)

Topic	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	
Does the proposed school site contain one or more pipelines, situated underground or aboveground, which carry hazardous substances, acutely hazardous materials, or hazardous wastes, unless the pipeline is a natural gas line that is used only to supply natural gas to that school or neighborhood?	Ed. Code § 17213(a)(3)
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 SITE APPROVAL
(Documentation for SFPD 4.0, 4.01–4.03, School Site Approval)

Topic	Code References
Is the school site in an area designated in a city, county, or city and county general plan for agricultural use and zoned for agricultural production, and if so, do neighboring agricultural uses have the potential to result in any public health and safety issues that may affect the pupils and employees at the school site? *(Does not apply to school sites approved by CDE prior to January 1, 1997.)*	Ed. Code § 17215.5
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)
Does the project site contain a current or former hazardous waste disposal site or solid waste disposal site and, if so, have the wastes been removed?	Ed. Code § 17213(a)(1)
Is the project site a hazardous substance release site identified by the state Department of Health Services in a current list adopted pursuant to § 25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code?	PRC § 21151.8 (a)(1)(B); Ed. Code § 17213(a)(2)
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 dam/tank 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)
Is the school site proportionate in its length to width ratio to accommodate the building layout, parking and playfields that can be safely supervised and does not exceed the allowed passing time to classes for the district?	CCR, Title 5 § 14010(j)
Is the site located within the proposed attendance area to encourage student walking and avoid extensive bussing unless bussing for ethnic diversity?	CCR, Title 5 § 14010(n)
Has the district considered environmental factors of light, wind, noise, aesthetics, and air pollution in its site selection process?	CCR, Title 5 § 14010(q)
Is the site within a designated Farmland Security Zone?	Government Code § 51296.5
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)
Public Services	
Does the site promote joint use of parks, libraries, museums, and other public services?	CCR, Title 5, § 14010 (o)
Is the site conveniently located for public services, including but not limited to fire protection, police protection, public transit and trash disposal wherever feasible?	CCR, Title 5, § 14010 (p)

STATE STANDARDS CHECKLIST FOR STATE-FUNDED SCHOOL FACILITIES – SCHOOL SITE APPROVAL
(Documentation for SFPD 4.0, 4.01–4.03, School Site Approval)

Topic	Code References
Transportation/Traffic	
Are traffic and pedestrian hazards mitigated per Caltrans' School Area Pedestrian Safety manual?	CCR, Title 5 § 14010 (l)
Is the site easily accessible from arterials and is the minimum peripheral visibility maintained for driveways per Caltrans' Highway Design Manual?	CCR, Title 5 § 14010 (k)
Is the proposed school site within 1,500 feet of a railroad track easement?	CCR, Title 5 § 14010 (d)
Is the proposed school site within two nautical miles, measured by air line, of that point on an airport runway or potential runway included in an airport master plan that is nearest to the site? *(Does not apply to school sites acquired prior to January 1, 1966.)*	Ed. Code §§ 17215 (a)&(b)

Note: Any documentation related to the California Environmental Quality Act is provided under separate cover.
This checklist is also applicable to property additions to existing school sites.

2. Environmental Checklist

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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. There are no freeways within 500 feet of the project site. Additionally, Public Resources Code Section 21151.8(b)(9) and Education Code Section 17213(d)(9) define a "freeway or other busy traffic corridors" 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. According to the City of Riverside (2008), the average daily traffic volume on Victoria Avenue at Pleasant Avenue was 7,820 trips in December 2001. The average daily traffic on 12th Street between Victoria Avenue and Sedgwick Avenue was 1,557 trips in January 2006. The average daily traffic volume on 14th Street at Mulberry Street in June 2004 was 35,743 trips. Information is not available on Howard Avenue, which is assumed to have similar traffic to Park Avenue. Average daily traffic on Park Avenue at the intersection with Cridge Street in September 2001 is 1,347 trips in September 2001. Therefore, potential air quality health risks due to the school's proximity to a freeway or busy traffic corridor is not a hazard.

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. Based on a review of the South Coast Air Quality Management District's [AQMD] Facility Information Detail (FIND) website, there are three active permitted facilities, fifteen inactive permitted facilities and no non-permitted facilities within a quarter mile of the site (AQMD 2018). The three permitted facilities are for the operation of gasoline dispensers, which is not expected to create a significant hazard for the site (Appendix B). A review of regulatory databases showed that there are two historic potential sources of hazardous air emissions within a quarter-mile radius of the school site (EnviroStor 2018; EnviroMapper 2018; EJScreen 2018). Neither of these historic potential sources are expected to create a significant hazard for the site.

There are no freeways or busy traffic corridors within 500 feet of the school site (see section 3.1.1). There are no large agricultural operations within a quarter-mile of the school site (Google Earth Pro 2018). The project is located about 550 feet southeast of the Union Pacific/Atchison, Topeka and Santa Fe/Metrolink railroad tracks. There is no rail yard within a quarter mile of the project site.

Therefore, potential risks associated with hazardous air emissions; hazardous or acutely hazardous material, substances, or waste from industrial/commercial facilities; freeways and other busy traffic corridors; large agricultural operations; and rail yards are negligible and would not cause a significant hazard.

3.2 GEOLOGY AND SOILS

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. The site is not within or immediately adjacent (i.e., within a few hundred feet) to an Alquist-Priolo Earthquake Fault Zone (CGS 2018). The nearest Alquist-Priolo Earthquake Fault Zone is the San Jacinto Fault located approximately 7.1 miles northeast of the site for the San Jacinto Fault (CGS 2010). Based on the City of Riverside's General Plan (City of Riverside 2018), there are no identified geologic hazards pursuant to Government Code 65302 (g) in the Planning Area. On this basis, the potential for tectonic fault rupture and other geologic hazards at the site is considered negligible.

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. The site is not within or immediately adjacent (i.e., within a few hundred feet) to an Alquist-Priolo Earthquake Fault Zone (CGS 2015). The nearest Alquist-Priolo Earthquake Fault Zone is the San Jacinto Fault located approximately 7.1 miles northeast of the site for the San Jacinto Fault (CGS 2010). Based on the City of Riverside's General Plan (City of Riverside 2018), there are no identified geologic hazards pursuant to Government Code 65302 (g) in the Planning Area. On this basis, the potential for tectonic fault rupture and other geologic hazards at the site is considered negligible.

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 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 liquefaction hazard mapping in the City of Riverside General Plan (City of Riverside 2018), the site is not in an area of potential liquefaction. Therefore, the project will not expose people to adverse effects associated with liquefaction.

Landslides are a type of erosion in which masses of earth and rock move down slope 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.

The project site and its adjoining properties are relatively flat and exhibit no substantial elevation changes or unusual geographic features. The site is not within or immediately adjacent to a landslide zone (CGS 2015). Therefore, the project will not expose people to adverse effects associated with landslides.

Expansive soils swell when they become wet and shrink when they dry out, resulting in the potential for cracked building foundations and in some cases, structural distress of the buildings themselves. In each case, minor to severe damage to overlying structures is possible. Based on high shrink/swell soil mapping in the City of Riverside's General Plan (City of Riverside 2018), the site is not within an expansive soil zone. Therefore, the project will not expose people to adverse effects associated with expansive soils.

3.2.4 Are naturally occurring asbestos minerals located at the site?

No Significant Hazard. Based on available data, no naturally-occurring serpentine rock or rock formations that may contain a significant quantity of asbestos are located within 10 miles of the site (Van Gosen and Clinkenbeard 2010).

3.3 HAZARDS AND HAZARDOUS MATERIALS

3.3.1 Does the proposed school site contain one or more pipelines, situated underground or aboveground, which carry hazardous substances, acutely hazardous materials, or hazardous wastes, unless the pipeline is a natural gas line that is used only to supply natural gas to that school or neighborhood? Does the proposed school site contain pressurized sewer lines and high pressure water pipelines within 1,500 feet of the proposed site?

Potentially Significant Hazard. Southern California Gas Company (SCGC) was contacted for information on the presence of high pressure (over 80 psig) natural gas pipelines located within a 1,500-foot radius of the site. The Transmission Department of SCGC confirmed that they do not operate any facilities within the proposed site (Ramirez 2018).

The SCGC Southeast Distribution Region operates one high pressure natural gas pipeline within a 1,500 ft radius of the proposed site (shown in Figure 4). The high-pressure pipeline is an 8-inch diameter line in good condition that operates below 20% Specified Minimum Yield Strength. The pipeline operating pressure for the 8-inch line is 170 pounds per square inch-gauge (psig) and has a Maximum Allowable Operating Pressure of 175 psig. The SCGC operation and maintenance procedures are in compliance with the Department of Transportation, Title 49 of the Code of Federal Regulations, Part 192. These procedures are on file with the California Public Utilities Commission that audits SCGC's compliance annually. SCGC implements an active pipeline integrity management program, and is an active participant in the statewide Underground Service Alert Program. Furthermore, all high-pressure lines are surveyed on an annual basis (Ordonez 2018).

3. Environmental Analysis

The City of Riverside Public Works provided sewer maps. No pressurized sewer lines are located within 1,500 feet of the site (Webber 2018).

The City of Riverside Water Development Utilities Department provided overview maps that showed 12-inches in diameter or greater water lines located within a 1,500-foot radius of the site. Pipe diameters and locations are listed in Table 1 and shown in Appendix A.

Table 1 Large Volume Water Pipelines

Pipe Location	Pipe Diameter
Twelfth Street	36" Mortar Lined and Coated Steel (ML&C) Transmission Main
Vine Street	12" Ductile Iron (DI) Distribution Main
Fourteenth Street – East of Vine Street	12" Asbestos Cement (AC) Distribution Main
Twelfth Street – West of Howard	12" DI Distribution Main
Park Avenue	30" Welded Steel (WS) Transmission Main
Howard Avenue – Between Tenth Street Starts and Prospect Avenue	12" AC Distribution Main
Tenth Street – West of Howard Avenue	12" DI Distribution Main
Twelve Street – East of Victoria Avenue	42" ML&C Transmission Main
Victoria Avenue	36" ML&C Transmission Main
Sedwick Avenue	48" ML&C Transmission Main
Victoria Avenue - Ends at the junction of Victoria Avenue and Pleasant Street	12" AC Distribution Main

Source: Castro, 2018

A pipeline safety hazard assessment is recommended to address the eleven large volume water pipelines and the high pressure natural gas distribution pipeline located within 1,500 feet of the site.

3.3.2 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?

Potentially Significant Hazard. There is one 500-gallon diesel aboveground storage tank (AST) on the 2945 14th Street J&A Tire and Auto Repair property. This diesel AST will be addressed in the future investigation to be submitted to DTSC. No other aboveground water or fuel storage tanks were identified within 1,500 feet of the site. As stated in Section 3.3.1, a pipeline safety hazard assessment is recommended to address the eleven large volume water pipelines and the high pressure gas pipeline located within 1,500 feet of the site.

3.3.3 Is the school site in an area designated in a city, county, or city and county general plan for agricultural use and zoned for agricultural production, and if so, do neighboring agricultural uses have the potential to result in any public health and safety issues that may affect the pupils and employees at the school site? (Does not apply to school sites approved by CDE prior to January 1, 1997.)

No Significant Hazard. Based on the City of Riverside's General Plan Land Use Element (City of Riverside 2018), the site is not in an area, or adjacent to an area, designated for agricultural use. The County

of Riverside's General Plan does not designate any areas within the City of Riverside for agricultural use (Riverside County 2017). Therefore, the project will not expose people to adverse effects associated with agricultural operations.

3.3.4 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?

Southern California Edison was contacted for information on the presence of power transmission or distribution lines in the vicinity of the site. Southern California Edison confirmed that the location of the site of interest is not within the service territory of SCE. (Hung 2018).

The City of Riverside Public Utilities Department (Beck 2018) sent power line maps. There are three 69 kV lines in the vicinity of the site, but they are all more than 100 feet away from the site boundary. All other lines are less than 50 kV (refer to Appendix B).

3. Environmental Analysis

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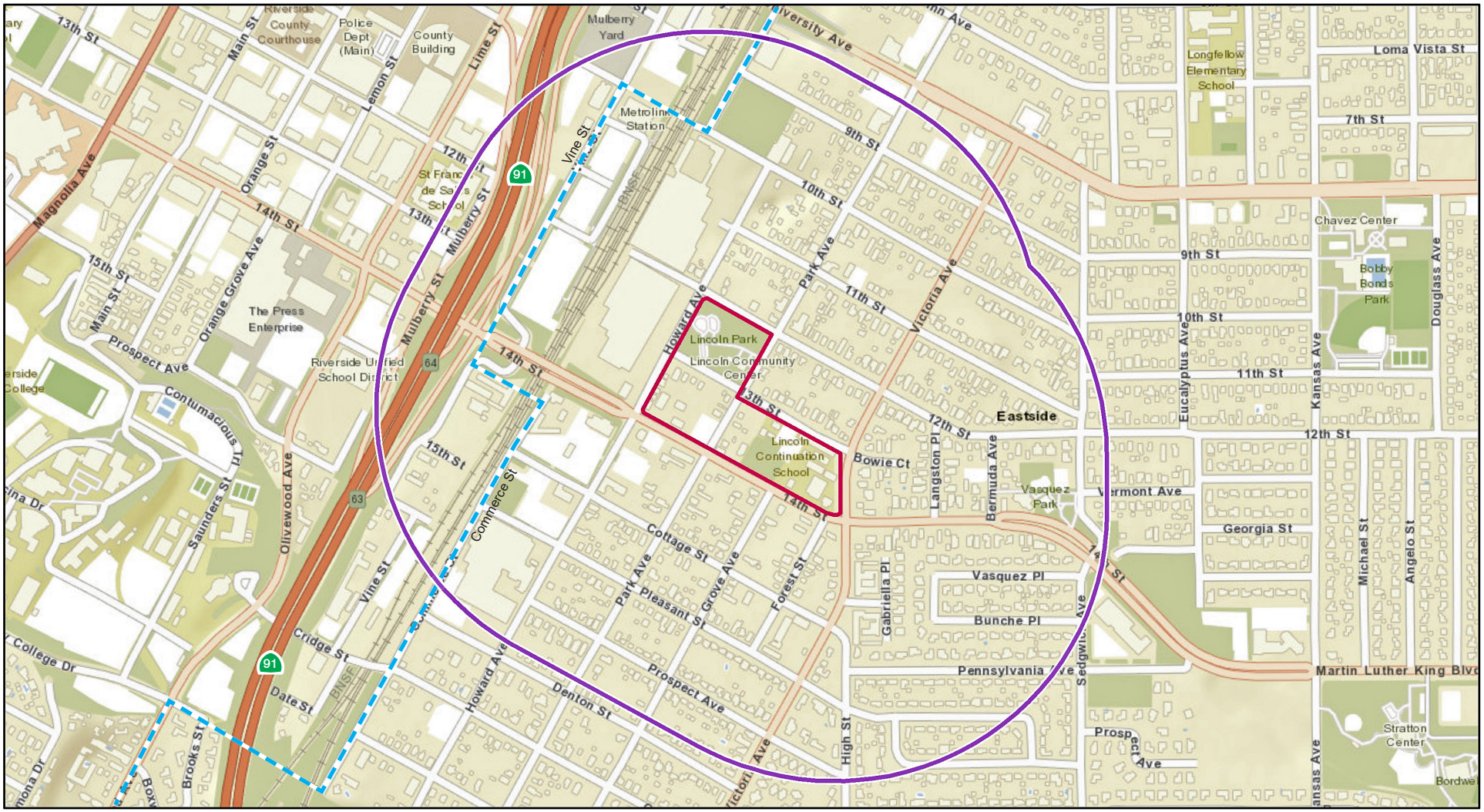
Figure 4 - High Pressure Natural Gas Pipeline Location

3. Environmental Analysis



Source: ESRI, 2018; SocalGas, 2018

PlaceWorks

3. Environmental Analysis

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3.3.5 Does the project site contain a current or former hazardous waste disposal site or solid waste disposal site and, if so, have the wastes been removed?

No Significant Hazard. A review of regulatory databases showed that the project site does not contain a current or former hazardous waste disposal site or solid waste site (EnviroStor 2018; EnviroMapper 2018; EJScreen 2018; GeoTracker 2018).

3.3.6 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. Based on the information obtained from Environmental Data Resources (EDR), there is no evidence that a hazardous materials release or threatened release have occurred on the site or in the site vicinity. The project site is surrounded by residential uses, vacant land, and a number of commercial plots. No significant hazard from hazardous materials is expected at the project site. As stated in Section 3.2.4, no asbestos-containing rock formations are located within a 10-mile radius of the project site.

3.3.7 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?

Potentially Significant Hazard. The environmental investigation currently underway being conducted by PlaceWorks will determine whether a response action is necessary at the project site. Until this investigation is completed, a response action cannot be ruled out.

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

No Significant Hazard. Based on a review of the EnviroStor and GeoTracker databases, the project is not within 2,000 feet of a significant disposal of hazardous waste (EnviroStor 2018; GeoTracker 2018).

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

No Significant Hazard. Based on a review of the California Division of Oil, Gas and Geothermal Resources' (DOGGR 2018) Well Finder website, the project is not located within 300 feet of any active oil or natural gas well.

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. According to the FEMA Map Service Center website maps (FEMA 2008), the site does not lie within a 100-year flood zone. The California Office of Emergency Services' [OES] Dam Inundation Map locates the southwestern corner of subarea C2 as within the inundation area of Box Springs Dam (OES 2016). Box Springs Dam is located about 2.4 miles from the project site.

The small area within the inundation zone can be easily evacuated to other parts of the site that are outside of the zone (see Figure 5). In addition, the Box Springs Dam is a flood control feature rather than a dam for

a standing reservoir, and as a result of that designation, it rarely holds back standing water (Google Earth Pro 2018). Therefore, the impact from dam inundation is less than significant.

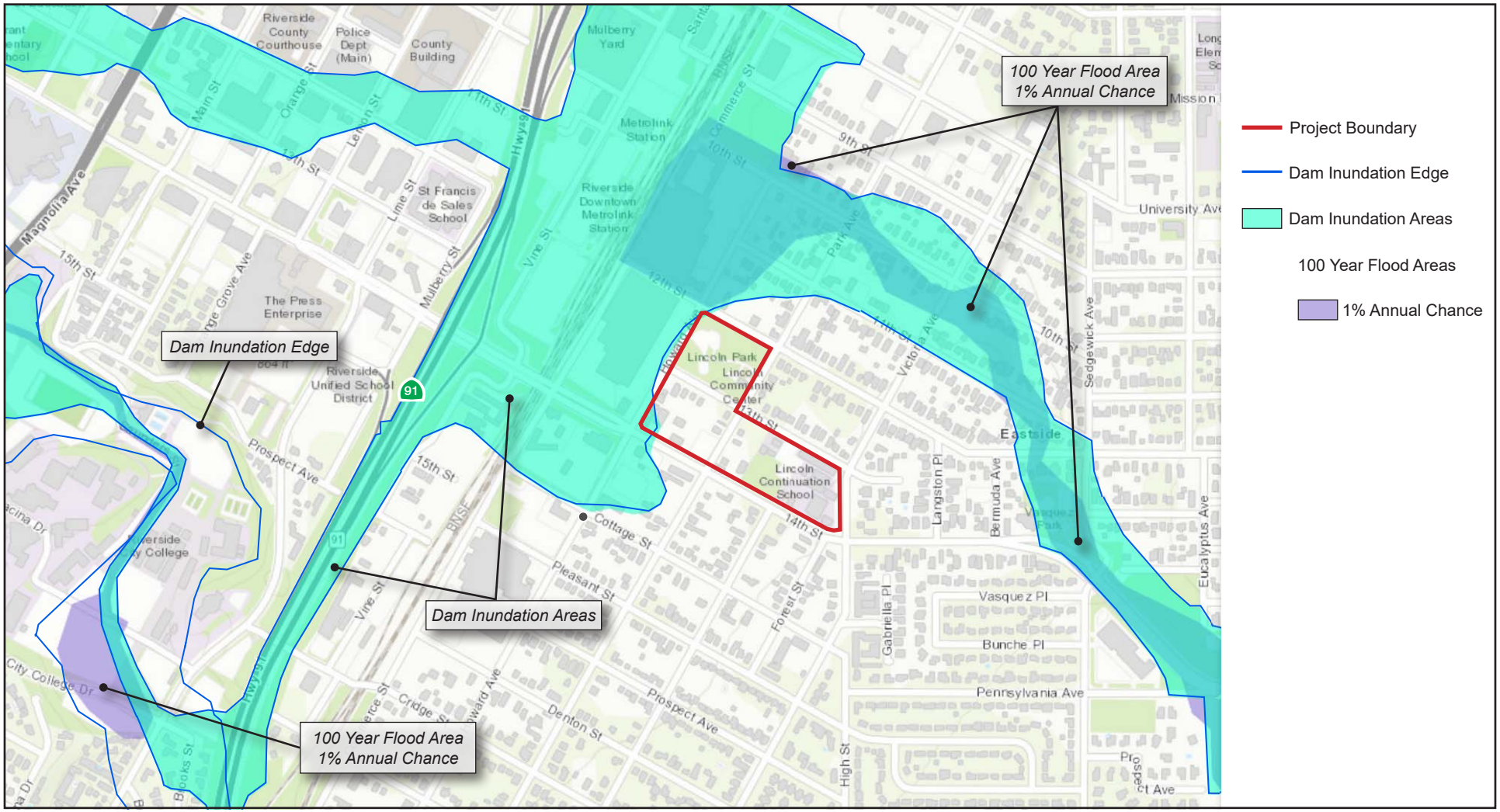
A seiche is an oscillating surface wave in a restricted or enclosed body of water, generated by ground motion, usually during an earthquake. Seiches are of concern relative to water storage facilities, because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam, or other artificial body of water.

The most likely areas that could be subject to seiche in the City of Riverside are areas near Lake Mathews and Lake Evans. The land uses proposed in the City's General Plan for the areas surrounding Lake Mathews are predominately open space/conservation. Because Lake Evans is surrounded by park area and directly outlets into the Santa Ana River, the damage related to a seiche in Lake Evans and Lake Mathews is considered minimal (City of Riverside 2007). Neither Lake Evans nor Lake Mathews has any potential to impact the site.

Tsunamis are a type of earthquake-induced flooding produced by large-scale sudden disturbances of the sea floor. Tsunami waves interact with the shallow sea floor bathymetry upon approaching a landmass, resulting in an increase in wave height, and a destructive run-up (wave surge) into low-lying coastal areas. Based on the distance from the ocean and elevation of the site, the potential for tsunamis at the site is negligible. Project implementation would not expose people or structures to adverse effects associated with flooding or inundation.

Figure 5 - Box Spring Dam Inundation Area

3. Environmental Analysis



Source: ESRI, 2018

3. Environmental Analysis

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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 the aerial photograph in Figure 2, the project site is in an area characterized with suburban development. Properties within a quarter-mile radius of the site are generally zoned for residential. Based on a review of the City of Riverside Planning Division website, there is currently no land use or zoning changes proposed in the project area. Therefore, there is no significant hazard to the project from existing or proposed land uses adjacent to the site.

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

No Significant Hazard. The site currently has easements for alleys running between Areas C1 and C2 and Area B, and for streets along the segment of 13th Street between Howard Avenue and Park Avenue, and the segment of Park Avenue between 13th Street and 14th Street. If the school project were to include these areas, the vacation of these easements would need to be enacted in coordination with the City of Riverside.

3.5.3 Is the school site proportionate in its length to width ratio to accommodate the building layout, parking and playfields that can be safely supervised and does not exceed the allowed passing time to classes for the district?

No Significant Hazard. The site layout has a length to width ratio of about 1:2. This indicates that the site is not excessively long or narrow and would not exceed allowed passing time to classes.

3.5.4 Is the site located within the proposed attendance area to encourage student walking and avoid extensive bussing unless bussing for ethnic diversity?

No Significant Hazard. The project site is an expansion of the Lincoln High School. The residential homes adjacent to Fairmont Park, and residents adjacent to the Ryan Bonaminio Park lie at the furthest extent of the attendance area (Riverside Unified School District 2018). These homes are about 1.7 miles from the school, which should minimize extensive bussing.

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

Light and Wind

No Significant Hazard. The project site would be exposed to standard climate conditions experienced by the City of Riverside, which is generally characterized by Mediterranean conditions. August is the hottest month with an average maximum temperature of 94°F and an average minimum temperature of 60°F. January is the coolest month with an average maximum temperature of 67°F and an average minimum temperature of 40°F. The average rainfall is 15 inches per year (Western Regional Climate Center 2018). The predominant wind direction is from the west, and the wind speed is below 8 miles per hour over 80 percent of the time, with sustained winds in the 13 to 19 mph range occurring only 0.5% of the time (Western Regional Climate Center 2018). As applicable, operation of the proposed project would consider these

environmental conditions. Therefore, project implementation would not expose site occupants to adverse light or wind conditions.

Aesthetics

No Significant Hazard. The project site is in an area with suburban land uses. Development of the proposed project would be consistent with the surrounding land uses. The character and quality of the school and parking area would not be incompatible with the nearby structures. Project implementation would not place school structures or a parking area in an aesthetically unacceptable area or expose people to inappropriate sights.

Air Pollution

No Significant Hazard. Public Resources Code Section 21151.8 and Education Code Section 17213 prohibit the approval of a project involving 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 non-permitted 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 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.

The South Coast Air Quality Management District (SCAQMD) identified three active permitted facilities, fifteen inactive permitted facilities and no non-permitted facilities within a quarter mile of the site (AQMD 2018). The three permitted facilities are for the operation of gasoline dispensers, which is not expected to create a significant hazard for the site. There are no rail yards or agricultural uses nearby, and the site is not within 500 feet of a freeway or busy traffic corridor (see Section 3.1.1). Therefore, Section 2A, as listed above, applies, and no air pollution constraints would preclude use of the project site as a school.

3.5.6 Is the site within a designated Farmland Security Zone?

No Significant Hazard. As shown in the Riverside County Williamson Act map (California Department of Conservation 2016) the site is not located within a Farmland Security Zone.

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 consists of the existing Lincoln High School, Lincoln Park and residential and commercial plots. The project site is generally bounded by single family residences to the northeast and southeast except for a gas station and a used car dealership near the intersection of 14th Street and Victoria Avenue. To the southwest of the site there are a number of commercial sites including Caliber Collision, an auto body shop, at 2910 14th Street. To the northwest is Solarmax Technology, a solar energy company, and Sunrise Custom Storage, an RV storage facility. As stated in Section 3.1.1, there are no freeways or busy traffic corridors adjacent to the site. Therefore, there is no significant hazard to the project from potential noise impacts.

3.7 PUBLIC SERVICES

3.7.1 Does the site promote joint use of parks, libraries, museums, and other public services?

No Significant Hazard. Any community use of the school buildings or athletic fields would be limited by the Civic Center Act (Education Code Sections 38130–38139) and would be coordinated so that it would not coincide with regular operating hours of the school.

3.7.2 Is the site conveniently located for public services, including but not limited to fire protection, police protection, public transit and trash disposal wherever feasible?

No Significant Hazard. The project site is located 1.8 miles from the Riverside City Fire Station 3, at 6395 Riverside Avenue, and 1.4 miles from the Riverside City Fire Station 4, at 1496 West Linden Street. The Riverside City Police Station, at 4102 Orange Street, is 0.77 miles from the site. The Riverside Downtown Train Station, at 4066 Vine St, is about 550 feet northwest of the project site. Six bus stations are located within a 1,000 feet radius from the site.

The City of Riverside's Public Works Department provides trash and recycling services for business within the City of Riverside. Commercial businesses receive trash and recycling services from City approved waste haulers. The project can be accessed by haulers through 14th Street, Victoria Avenue, 12th Street, and Howard Avenue. In 2016, about 90 percent of the solid waste landfilled from the City of Riverside was disposed of at two facilities: the Badlands Sanitary Landfill near the City of Moreno Valley in Riverside County; and the El Sobrante Landfill near the City of Corona in Riverside County (CalRecycle 2018a). The current remaining capacity for the Badlands Sanitary Landfill is 11,811,599 tons (CalRecycle 2018b), while the El Sobrante Landfill has a remaining capacity of 145,530,000 tons (CalRecycle 2018c). The landfills can accommodate the waste generation from the proposed site.

3.8 TRANSPORTATION/TRAFFIC

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

No Significant Hazard. Traffic and pedestrian hazards for the existing Lincoln High School are mitigated per Caltrans' School Area Pedestrian Safety Manual. The school implements safety programs in line with the safety manual and will augment the program accordingly when the school site is expanded. Furthermore, the School Area Pedestrian Safety Manual will be used as a guide, but decisions related to particular traffic control devices at particular locations shall be made on the basis of an engineering and traffic survey. The school district governing board may request the appropriate city, county, or state agency to consider the installation of traffic control devices if the engineering and traffic survey determines the request to be justified. Traffic control devices include (Caltrans, 1996):

1. Warning signs and markings.
2. Variable speed limits.
3. Intersection stop signs.
4. Flashing yellow beacons.
5. Traffic signals.
6. Remove visibility obstructions.
7. School Safety Patrol.
8. Adult Crossing Guard.
9. Pedestrian separation structures.
10. Pedestrian walkways along the roadway.
11. Pedestrian walkways separated from the roadway.
12. Parking controls and curb-use zones.

13. Bus transportation.

3.8.2 Is the site easily accessible from arterials and is the minimum peripheral visibility maintained for driveways per Caltrans' Highway Design Manual?

No Significant Hazard. Based on a review of area maps, the site is accessible by 14th Street, which is an arterial to State Route 91. Victoria Avenue, 14th Street, Howard Avenue, and 12th Street are all flat, with no substantial vertical or horizontal curves. The minimum peripheral visibility for driveways per Caltrans' Highway Design Manual should be maintained with roads of this nature. The development of site plans and a traffic study will investigate this matter further so as to fully substantiate that minimum peripheral visibility is maintained for driveways.

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

Potentially Significant Hazard. Based on a review of aerial photographs and maps, the site is located within 1,500 feet of a railroad track easement. A Rail Risk Assessment is recommended to address the proximity of the railroad tracks to the project site.

3.8.4 Is the proposed school site within two nautical miles, measured by air line, of that point on an airport runway or potential runway included in an airport master plan that is nearest to the site? (Does not apply to school sites acquired prior to January 1, 1966.)

No Significant Hazard. Based on a review of area maps the site is not within two nautical miles of an existing airport or proposed airport runway. The closest airport is Flabob Municipal Airport located about 2.04 nautical miles (or about 2.4 statute miles) west of the site.

3.9 EXEMPTIONS TO SITING STANDARDS

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

No Significant Hazard. The District is not seeking any exemptions to the standards found in CCR, Title 5 § 14010(c) through (t).

3.9.2 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 District is not seeking any exemptions.

3. Environmental Analysis

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4.2 PERSONAL COMMUNICATIONS

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City of Riverside, Riverside Public Utilities – Water Development. 2018. Correspondence provided by Marissa Castro, Senior Engineering Aide, to Dina El Chammas Gass, Project Engineer/Planner, PlaceWorks. Dated June 7, 2018.

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4. References

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5. List of Preparers

5.1 LEAD AGENCY

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Riverside, CA 92501
Tel: 951.788.7135

5.2 PLACEWORKS

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Michael Watson, PG
Associate Geologist

Dina El Chammas Gass, EIT
Project Engineer

Dwayne Mears
Principal

5. List of Preparers

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Appendix A Water Main Maps

Appendix

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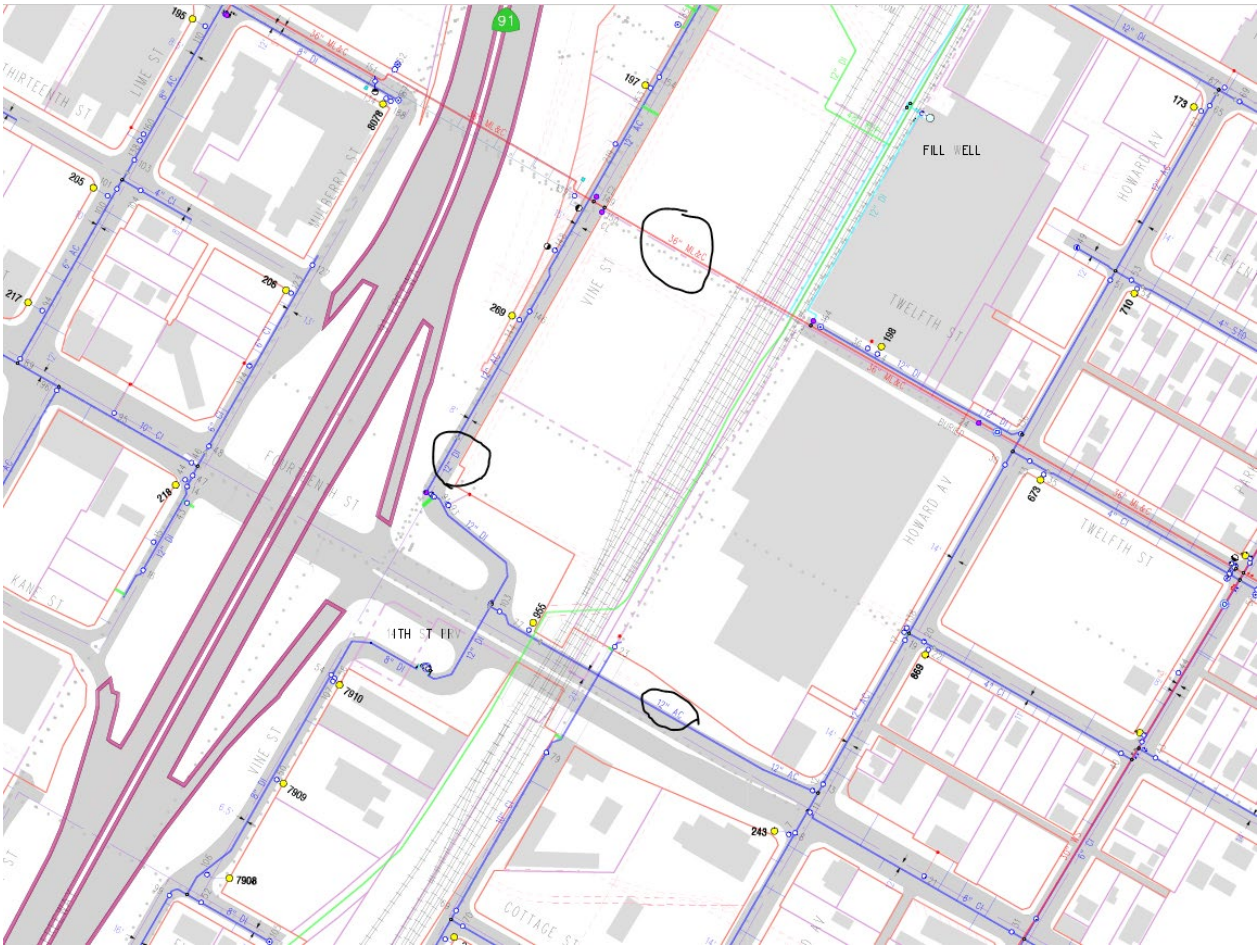
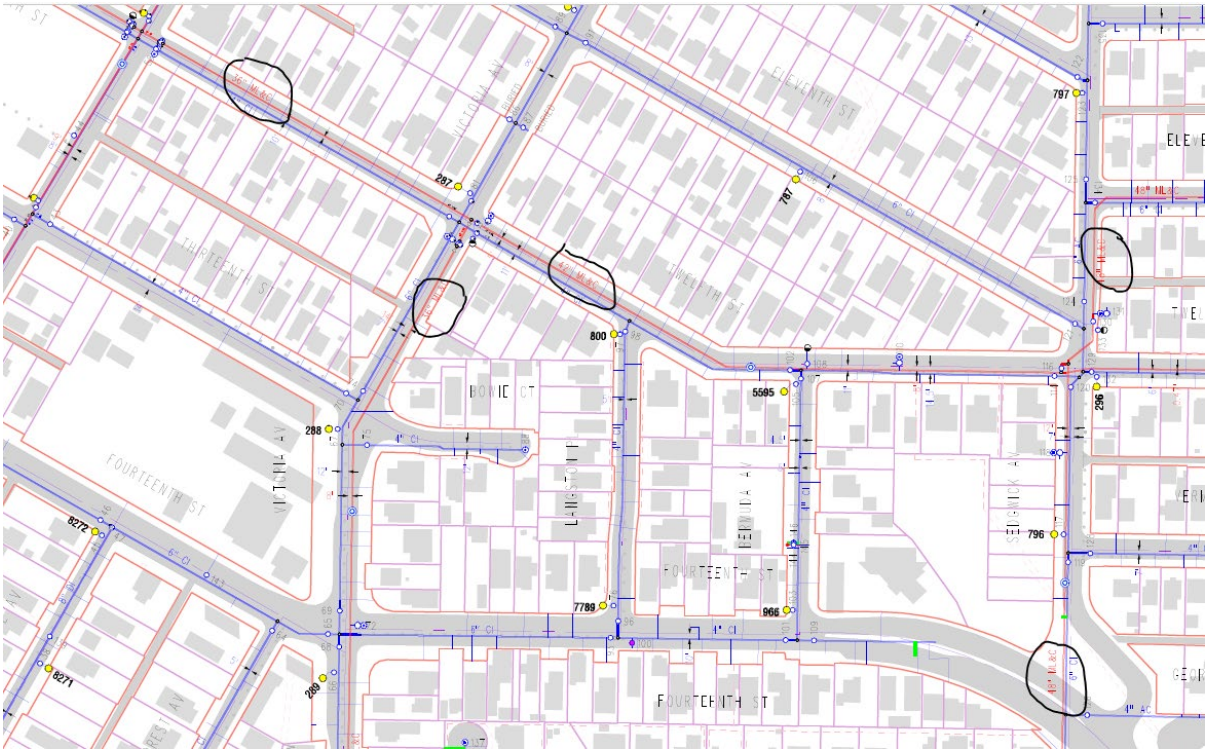
Appendix



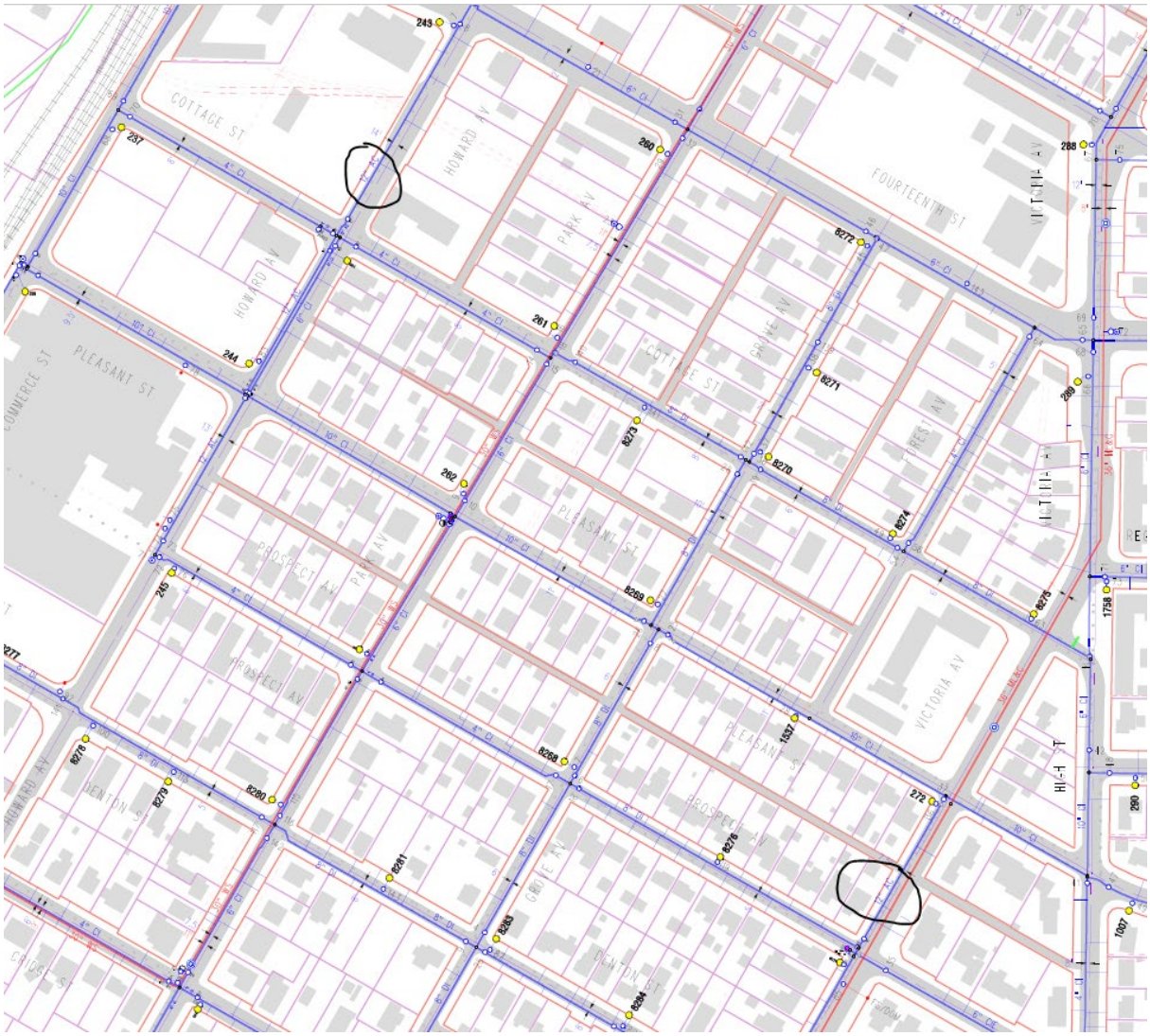
Appendix


TENTH ST
ELEVENTH ST
TWELFTH ST
THIRTEENTH ST
NINTH ST
PARK AV
VICTORIA AV
HOWARD AV
BOWIE CT
WELL
172
173
255
256
257
285
286
287
284
288
710
673
800
5595
5185
6986
6985
5091
787

Appendix


FOURTEENTH ST
FOURTEENTH ST
797
787
800
5595
288
289
9272
9271
7789
966
796
295

Appendix


COTTAGE ST
HOWARD AV
PLEASANT ST
FOURTEENTH ST
PROSPECT AV
VICTORIA AV
DENTON CT
243
237
260
268
261
244
269
262
265
272
280

Appendix B Agency Records

Appendix

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"Damaged" 1-3" Conduit Btwn MC36 & PJC12708

(PI2418)
3110 Fourteenth
14th St. Storm No. 2
Call 351-6140 For All Outages

"CAUTION-BACKFEED"
84.24 kW PV Generator
3980 12th

"CAUTION-BACKFEED"
4.5 kW PV Generator
2929 11th St

"CAUTION-BACKFEED"
5.45 kW PV 2774 Tenth

"CAUTION-BACKFEED"
6.17 kW PV 2645 14th

U2-0005-98

U5-4073-2
U4-4606
U05-140001-18

U2-7789
U4-7905

U4-4278

U2-8299

U5-090011-15

U5-4511
U4-6137
U05-100019-02
U4-6608

U5-4226-2
U5-0730
U04-7127

U5-8850
U5-8999
L5-4867
U5-100051-04

U5-4264-2
L5-13782
05-7465
L2-0545
U5-4073-2
U5-150001-05

L2-0545
05-7465
U5-8850
U5-4073-2

L2-3066-2

L5-13782

U4-4606
OU5-3643

L5-11370

L5-4867

O2-637172
U4-6909
UI-12663

U05-100051-01

U5-110002-14
U04-4066-2

U4-4606
OU4-4501-2
U2-4003-2

U4-080013-48

U05-4473-2

U4-8258

05-4728

L5-13541
U5-4578

U5-7172

U5-4652
U1-7254
U1-13742

U5-7168
U05-090011-15

L5-4803

L2-1092

4803

MULBERRY ST
ELEVENTH ST
TWELFTH ST
THIRTEENTH ST
FOURTEENTH ST
COMMERCE ST
COYOTE ST
PROSPECT AV
PLEASANT ST
HOWARD AV
PARK AV
VICTORIA AV
MARKET ST

1 inch = 100 feet

July 17, 2018

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