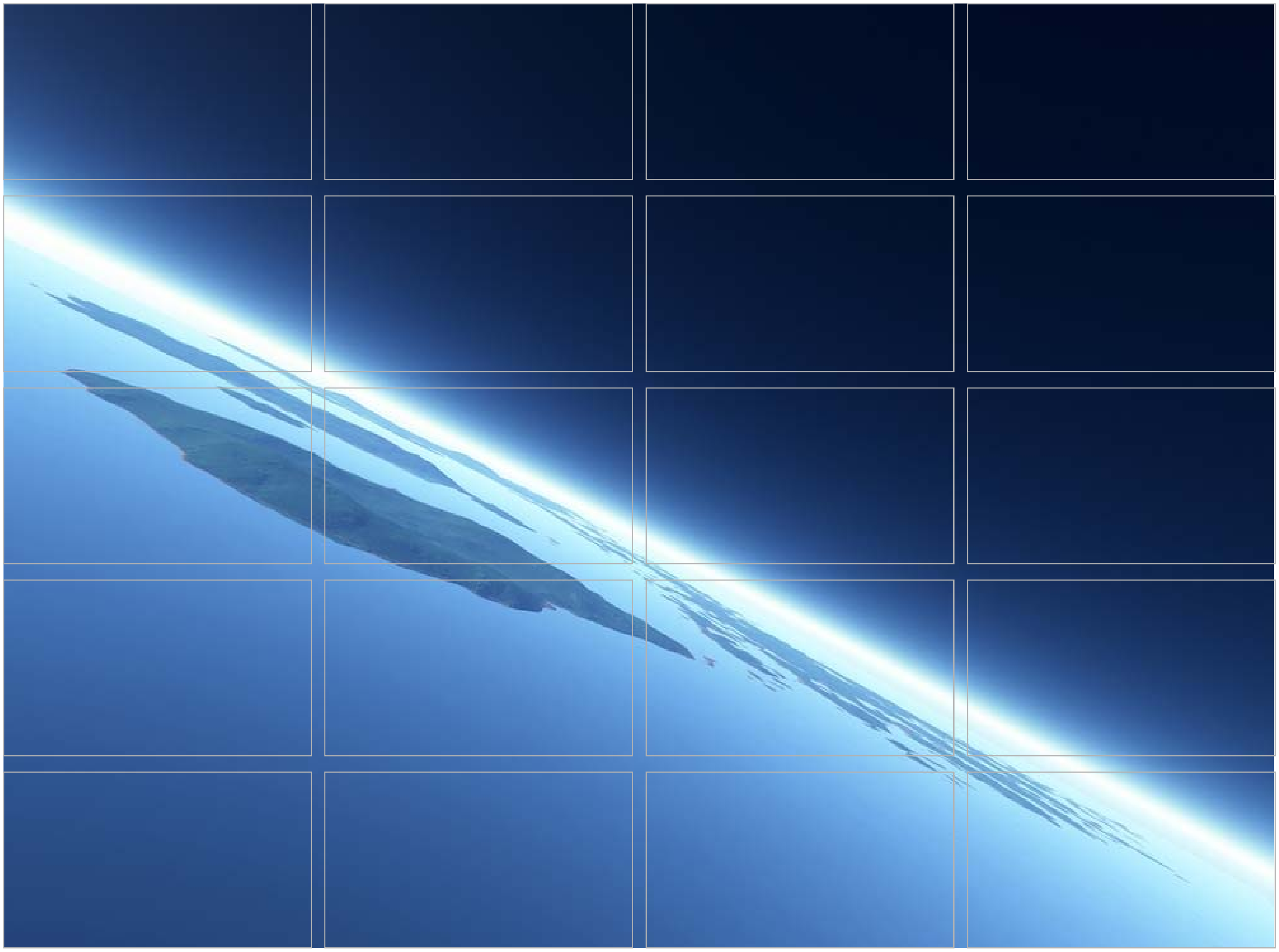

Environmental Site Summary

Former Alondra Landfill
2815-2875 West Alondra Boulevard
Compton, California

23 March 2018

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1. Introduction

1.1 Introduction

ERM-West, Inc. (ERM) was commissioned by Sustainability Development Partners (SDP and/or the “Client”) to prepare a summary report of our Soil Characterization Review conducted for the Former Alondra Landfill Site located at 2815-2875 West Alondra Boulevard, Compton, California (henceforth, the “Site” or “Subject Property”; Figure 1).

1.2 Limitations

This report is based upon the application of scientific principles and professional judgment to certain facts with resultant subjective interpretations. Professional judgments expressed herein are based on the facts currently available within the limits of the existing data, scope of work, budget, and schedule. We make no warranties, express or implied, including, without limitation, warranties as to merchantability or fitness for a particular purpose. In addition, the information provided to the Client in this report is not to be construed as legal advice.

1.3 Purpose

This report is intended to summarize the Environmental Site Information based on readily available public information.

2. Background

2.1 Location and Description

The Site is located on the northern side of West Alondra Boulevard, between South Cylmar Avenue and Visalia Avenue is the City of Compton, Los Angeles County, California. The Site is comprised of a 17.9-acre parcel that has been zoned “other property type and assigned Assessor’s Parcel Number (APN) 6139-028-900 by the Los Angeles County Assessor. The Site is currently vacant. The Site is located in an area that is primarily residential.

2.2 Former Property Use

The Site is located in an area that is primarily residential. The Site was historically an open-pit clay mine operated by the Compton Brick and Tile Company from 1928 to the early 1940s. The deepest portion of the mine, located in the southcentral portion of the Site, reportedly extended to a depth of 63 feet below ground surface. The City of Compton purchased the property from Compton Brick and Tile Company in 1956. From 1956 to 1975, the City of Compton operated as the City of Compton Sanitary Landfill Site. The landfill accepted municipal solid and construction wastes pursuant to Regional Water Quality Control Board (RWQCB) Resolution No. 55-39 from December 1955 (AMEC, 2013). Based on information included in the geotechnical investigation report prepared by Converse (1979), landfill operations included dumping and spreading refuse in trenches. The trenches were reportedly 20 to 30 feet wide, about 25 feet deep, and as much as 300 feet long. Once filled, the trenches were reportedly covered with soil. According to the ERM 2008 Phase I ESA, early landfilling activities may have resulted in the disposal of Crude oil products from nearby oil drilling operations. A 1997 Initial Study for the proposed Alondra Community Park prepared by the Mark Group in 1997, state that historical investigations conducted at the Site in the late 1970s and into the mid-1980s report that the landfilled materials consisted of construction rubble including concrete slabs, glass, metal, nested lumber, and minor amounts of house hold trash such as landscape waste and newspapers (ERM, 2008). The landfill was officially closed in 1975. The closure activities included placement of a 3- to 5-foot thick soil cap over the landfill area and final grading.

2.3 Current Property Use

Based on readily available information, the Site is currently vacant. ERM has did not physically assess the Site as a part of this Environmental Summary.

The Site is estimated to contain approximately 450,000 cubic yards of waste. Fill materials encountered during previous investigations reportedly included concrete, wood, pieces of metal, decomposed plant materials, and residential and commercial trash.

2.4 Proposed Property Use

SDP proposes to construct numerous new multi-tenant residential buildings across the northern portions of the Site, three commercial buildings on the southern end of the Site and a small park on the eastern side of the Site.

2.5 Topography

The Site is at an elevation of approximately 70 feet above mean sea level (msl) at the southern end and approximately 90 feet msl in the northern end. The Site and Site Vicinity slopes toward the south. No surface water features are located on the Site.

2.6 Geology and Hydrology

The Site is located at the northwestern end of the Peninsular Ranges geomorphic province, on the western slope of the Rosecrans Hills. The Rosecrans hills are geomorphic features associated with uplift along the Newport-Inglewood structural zone and are underlain by fine-grained fluvial sediments. The 1997 Initial Study prepared by the Mark Group Inc. (Mark Group) reported that alluvium soils are locate beneath the Site. The alluvium is reported to consist of clay, silt, sand, gravel or similar detrital materials. The thickness of the alluvium was report to range from 3 to 9 feet across the Site. The alluvium and the reported landfill materials are underlain by the Lakewood Formation. The upper part of the Lakewood formation consists of fine-grained alluvial sediments of the Bellflower aquitard and coarse-grained sediments of the Gage aquifer. Based the Mark Group, fine-grained clay and silt of the Bellflower aquitard extends from the base of fill materials to the depths of approximately 90 to 100 feet below grade. Sand and gravel of the Gage aquifer were encountered beneath the Bellflower aquitard to a depth of approximately 120 feet, which was the depth of previous investigation activities at the site. During that investigation, groundwater was encountered in the Gage aquifer at depths between 90 and 100 feet and groundwater flow direction was toward the southwest.

The Avalon-Compton Fault traverses the northeast corner of the Subject Property. A fault trench investigation by Converse Consultants in 1984 (Converse, 1984) identified two splays of the fault approximately 60 and 105 feet southwest of the northeast corner of the site. The Avalon-Compton Fault is within a north-northeast segment of the Newport Ingle Wood Fault Zone.

The California Environmental Protection Agency, State Water Resources Control Board (Water Board) monitors groundwater extraction and water quality to provide comprehensive protection for California waters. The Water Board maintains the GeoTracker Groundwater Ambient Monitoring & Assessment (GAMA) online groundwater monitoring information system. According to GAMA, a cluster of public supply wells is located within a 3-mile radius of the site.

Groundwater extraction in the area was approximately 6,325 acre-feet for the fiscal year 2009/2010, and the average monthly production was approximately 600 acre-feet between July and October 2012 (Water Replenishment District of Southern California, http://www.wrd.org/engineering/technical-groundwater.php).

A Cross Section Location Map and Cross Section depicting known existing subsurface conditions are provided as Figures 1 and 2, respectively.

3. Historical Site Investigation Summary

3.1 Historical Site Investigation Summary

In the 1970s and 1980s, preliminary studies were conducted to investigate the feasibility of developing the Site and to assess Site Conditions. This information was obtained from the 2008 ERM Draft Phase I ESA. The following is a chronologic summary of pertinent information obtained from the review of the ERM Draft Phase I ESA.

- 1979-Converse Consultants conducted a Geotechnical Investigation of the former Compton Dump Site to determine soil thickness and the nature of the landfill materials. This investigation also determined the potential for methane gas to be present.
- 1984- Converse Consultants conducted a Geological Fault Investigation
- 1986- Woodward Clyde conducted a Geotechnical Investigation. The Regional Water Quality Control Board (RWQCB) notified the City that the landfill Site was classified as Rank 2 facility and as such a Solid Waste Assessment Test (SWAT) was required to be submitted.
- 1988- Kleinfelder conducted a Final Report SWAT. This SWAT investigated groundwater and leachate at the Site. Four groundwater monitoring wells were installed to depths of 120 feet below ground surface and two soil borings were conducted in the middle of the landfill for the collection of leachate samples. Groundwater sampling indicated that Bis (2-Ethylhexl) phthalate Di-n-octyl phthalate were present in one groundwater sample at concentrations of 0.19 and 0.108 milligrams per liter respectively. The analytical results for the fluid obtained indicated that waste is percolating down and migrating through the landfill is being degraded and forming leachate. Pockets of leachate may be present elsewhere across the Site. Groundwater in the underlying Gage aquifer does not appear to have been affected by the landfilling operations at the Site.
- 1989- Kleinfelder Quarterly Sampling Report- Iron, chromium, and manganese were found in concentrations above federal drinking water standards. No other constituents of concern were detected.
- 1994-1995- The Mark Group prepared a Report of Field Investigation, Additional Site Investigations which included well installation related to groundwater leachate and gas monitoring in order to complete the SWAT Studies from 1998. The landfill monitoring system consisted of two shallow vadose zone lysimeters, four groundwater monitoring wells, one leachate collection well, and two vadose zone gas collection wells. Based on review of the investigation and monitoring data obtained by the Mark Group, the Los Angeles County Department of Environmental Health Services concluded that methane test results (3 percent methane) were consistent with the materials encountered, groundwater samples indicated that perched water (leachate) within the fill had not impacted the underlying aquifer, and it would serve very little purpose to restrict activities on the surface related to irrigation. Results of these studies were submitted to the RWQCB in August 1995, December 1995 and April 1996.
- December 1996- The Los Angeles County Department of Environmental Health Services, Solid Waste Management Program, issued a letter to the City of Compton stating that a gas protection system may be required if the site is developed with buildings.
- May 1996- The RWQCB issued a letter to the City of Compton CRA stating that they reviewed the SWAT monitoring data, in the reports prepared by the Mark Group in 1995 and 1996. Based on the review the RWQCB stated that the Site does not appear to be leaking hazardous waste. The RWQCB stated that the onsite wells could be abandoned and decommissioned.

- August 1996 - The vadose zone and groundwater monitoring wells were reported to be abandoned in accordance with State and locals agency requirements.
- April 1997- A Draft Nosie and Traffic Study conducted by Environmental Audit Inc., reported that the proposed community park would not have a significant noise impact to the community and mitigation measure were not recommended.
- In 2011 the City of Compton retained Ninyo & Moore (N&M) to conduct a geotechnical evaluation for the proposed Alondra Regional Park site. The purpose of the study was to evaluate the soil and geologic conditions at the site to provide geotechnical design recommendations for the planned improvements. Based on N&M's evaluation (N&M, 2011), the primary geotechnical condition that will impact the site development is the presence of relatively deep old landfill materials. The old landfill materials are heterogeneous and contain non engineered fill soil and as such, have a high potential for settlement. Because mitigating the settlement hazards was not considered practical, the planned park improvements in the landfill areas will not include buildings and will have limited settlement-sensitive improvements.
- In 2013 AMEC Environment and Infrastructure conducted a Targeted Site Investigation Report (TSI) on behalf of the California Department of Toxic Substances Control (DTSC). The TSI sampling efforts focused on evaluation of site-wide conditions. AMEC concluded that based on the data obtained from the TSI, the following is a summary of pertinent findings that describe the site conditions and Constituents of Potential Concern (COPCs) that are present at concentrations that may pose unacceptable risks in context of future re-use plans.

    1. Landfill materials were detected in all TSI soil borings except those in the former nursery area.
    2. COPCs detected in soil and soil gas samples are consistent with compounds commonly associated with historic operations conducted at the former landfill property.
    3. In general, concentrations of COPCs in soil samples (metals, total petroleum hydrocarbons, polychlorinated biphenyls (PCBs), semivolatile organic compounds, pesticides, and herbicides) are below their respective screening levels for commercial/industrial land use and do not pose a significant threat to human health. Only two soil samples collected at the former landfill property reported lead at concentrations above the California Human Health Screening Levels (CHHSLs) for commercial/industrial land use.
    4. Concentrations of volatile organic compounds (VOCs) in soil gas samples are below their respective screening levels for residential land use and do not pose a significant threat to human health. Hydrogen sulfide concentrations in soil gas samples collected from ARP-SG17 and step out location ARP-SG24 were above the estimated residential screening level of 0.75 parts per million (ppm).
    5. Reported methane concentrations in soil gas samples collected from probes installed in the central portion of the former landfill in general were above methane Lower Explosive Limit (LEL) of 5 percent.

4. Environmental Conditions

4.1 Soil

Based on the AMEC 2008 TSI report, only two soil samples collected from the Site reported lead at concentrations above the CHHSLs for commercial/industrial land use and three samples reported lead at concentrations above the CHHSLs for residential land use. CHHSLs were used as screening levels and do not indicate an actual risk to human health or the environment exists. CHHSLs are no longer used as screening levels.

The analytical results for the fluid obtained indicated that waste percolating down and migrating through the landfill is being degraded and forming leachate. Pockets of leachate may be present elsewhere across the Site.

4.2 Groundwater

Groundwater sampling during the SWAT conducted by Kleinfelder in 1998 indicated that Bis (2-Ethylhexl) phthalate and Di-n-octyl phthalate were present in one groundwater sample at concentrations of 0.19 and 0.108 milligrams per liter respectively.

The SWAT report concluded that groundwater in the underlying Gage aquifer does not appear to have been affected by the landfilling operations at the Site. However, the above concentrations for Bis (2-Ethylhexl) phthalate is greater than the current Maximum Contaminant Level (MCL) for drinking water of 4.0 µg/l.

4.3 Soil Gas

Based on the AMEC 2008 TSI report, concentrations of VOCs in soil gas samples are below their respective screening levels for residential land use and do not pose a significant threat to human health.

Hydrogen sulfide concentrations in two soil gas samples collected were above the estimated residential screening level of 0.75 ppm.

Reported methane concentrations in soil gas samples collected from probes installed in the central portion of the former landfill in general were above methane LEL of 5%.

4.4 Data Gaps

Based on a review of the documentation the following data gaps have been identified with respect to the newly proposed mixed residential/commercial and recreational land uses proposed for the Site:

- No soil samples have been collected and analyzed for waste characterization purposes. None of the soil samples collected to date have been analyzed for soluble threshold limit concentration method (STLC) and/or toxicity characteristic leaching procedure (TCLP). Two samples collected during the AMEC 2008 investigation indicate levels of Lead present on site that would need further analysis for waste characterization purposes.

- No soil or solid waste samples have been collected or analyzed from depths greater than 15 feet below ground surface.
- The most recent groundwater sampling date is from 1998, which is not a current representation of onsite conditions. However, the RWQCB has already concluded that the landfill does not pose a threat to groundwater.
- Further soil gas sampling may be warranted based on potential Site development strategies.

A subsequent proposal is being prepared to address the data gaps and further details of ERM's recommendations.

5. Cost Considerations

5.1 Rough Order of Magnitude Costs

ERM solicited rough order of magnitude (ROM) costs from a reputable 3rd party including project oversite, shoring costs, earthwork costs (export and import) and transportation and disposal costs associated with the “dig and haul” as discussed with SDP. The disposal costs are based on the assumption that all materials assumed to be transported off Site for disposal would be acceptable for South Yuma Landfill as non-hazardous waste. The estimate below also assumes the existing soil cap can be reused as clean backfill. If it can be established that fill containing only inert solids can be left in place (item 5 below), the estimated ROM costs would be reduced proportionally. If it can be established that fill containing only inert solids can be left in place (item 5 below), the estimated ROM costs would be reduced proportionally.

1	Subcontractor Project Management	$ 2,250,000
2	ERM Project Management	$ 2,250,000
3	Excavate and Stockpile cap/clean fill for re-use	$ 712,000
4	Excavate and dispose fill-inert household/commercial refuse	$14,741,000
5	Excavate and dispose of inert solids	$32,763,000
6	Shoring allowance	$ 2,500,000
7	Average purchase of import soil (assumed to replace all export item 3&4)	$ 6,334,000
8	**Total Estimated ROM Cost**	**$61,550,000**

Other geotechnical approaches may also be cost effective (i.e., fill stabilization, foundation design, above ground parking structures, active landfill mitigation measures to control leachage, landfill gasses, and/or indoor air concerns).

6. References

AMEC Environment and Infrastructure (AMEC). 2008. Targeted Site Investigation Report- Proposed Alondra Regional Park

AMEC. 2013. Targeted Site Investigation Report, Proposed Alondra Regional Park, Compton, California

California Regional Water Quality Control Board. 1995- Los Angeles Region. Solid Waste Water Quality Assessment Test (SWAT) Report- City of Compton Landfill Approval

Converse Consultants. 1979. Geotechnical Investigation of Former Compton City Dump Site, 2701-2801 West Alondra Boulevard, Compton, California, Project No. 79-2228-01, 9 October.

Converse Consultants. 1984. Geologic Fault Investigation of Former Compton City Dump Site, 2700-2800 West Alondra Boulevard, Compton, California; Project Number 83-02218-02, 23 April 23.

Environmental Audit, Inc. 1997. Draft Noise and Traffic Study. April.

ERM. 2008. *Draft Phase I ESA- Former Alondra Landfill.*

Kleinfelder. 1988. Final Report Solid Waste Assessment Test (SWAT) City of Compton Landfill, Compton, California, Project No. 50-1377-01, 29 June.

Kleinfelder. 1989. Quarterly Sampling Report, March 1989, Solid Waste Assessment Test (SWAT), City of Compton Landfill, Compton, California.

Los Angeles County Department of Health Services. 1996. Solid Waste Management Division, Section 17616, Report of Disposal Site Information

The Mark Group, Inc. 1995. City of Compton, Report of Field Investigation, Monitoring Well Installation, Leachate Monitoring and First Semi-Annual Groundwater and Gas Monitoring Compton Landfill, Compton, California, Project No. 94-1380001.80, 23 August.

Mark Group, 1996, Well Abandonment Report for Monitoring and Vadose Zone Wells at Compton Landfill, 2701-2801 Alondra Boulevard, Compton, California, 26 August.

Mark Group, 1997. Initial Study for the Proposed Alondra Community Park. December.

Ninyo & Moore, 2011, Geotechnical Evaluation, Alondra Regional Park, 2815-2875 West Alondra Blvd., Compton, California, 15 July.

Woodward-Clyde Consultants. 1986. Geotechnical Investigation, Compton City Landfill, Compton, California, Project No. 55932N-ECO 1, 24 February.

7. Signature Page

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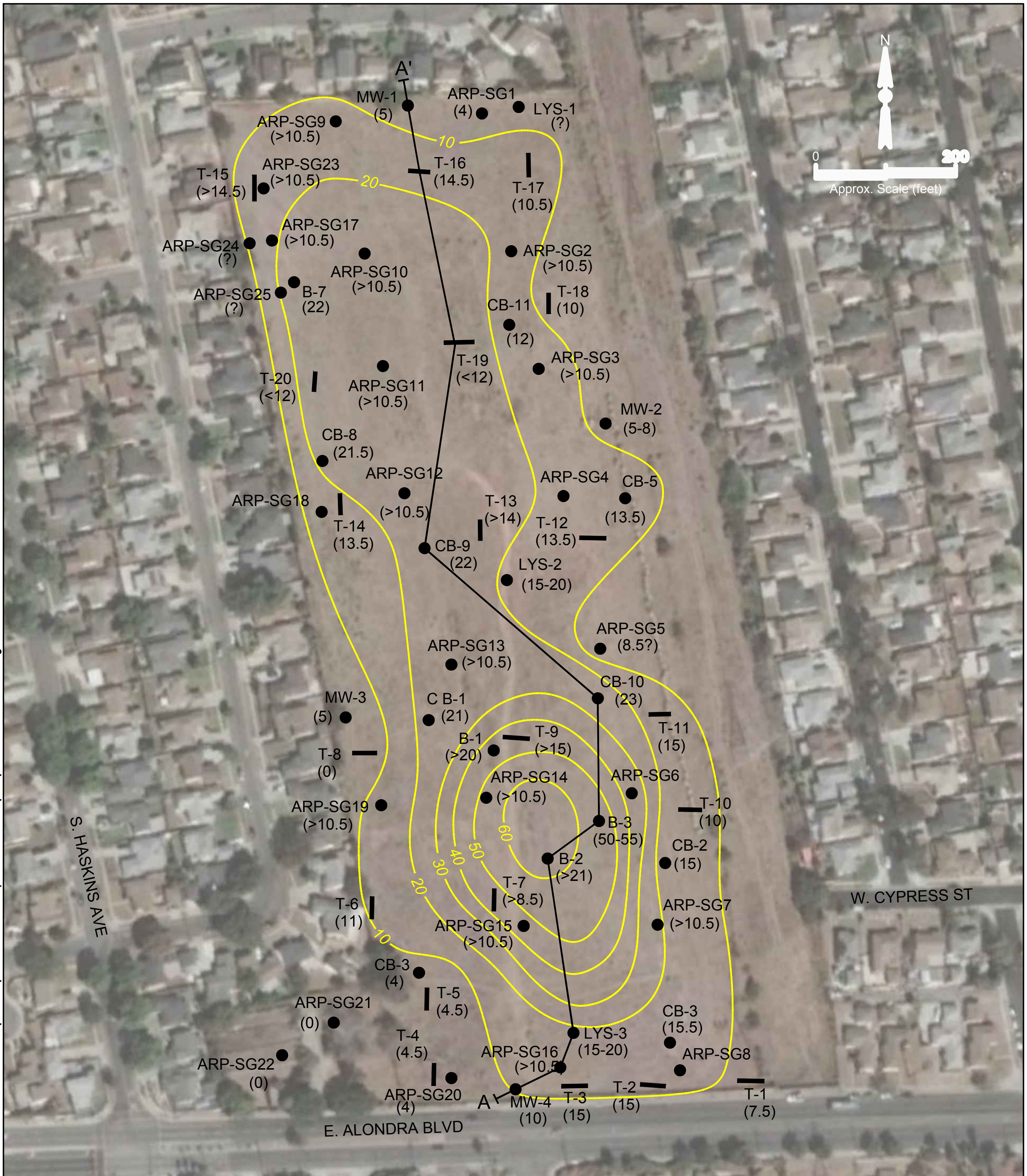
Figures



LEGEND

CROSS SECTION LOCATION

BORING LOCATION

A ⊢—⊣ A' TRENCH

10 BASE OF FILL CONTOUR (FEET BELOW GROUND SURFACE)

(4.5) DEPTH BELOW SURFACE TO BASE OF FILL

Aerial Photo Source: © 2012 Google Earth Pro Image, Date: 10/22/2017

Figure 1

Cross Section Location Map
Proposed Alondra Regional Park
Compton, California

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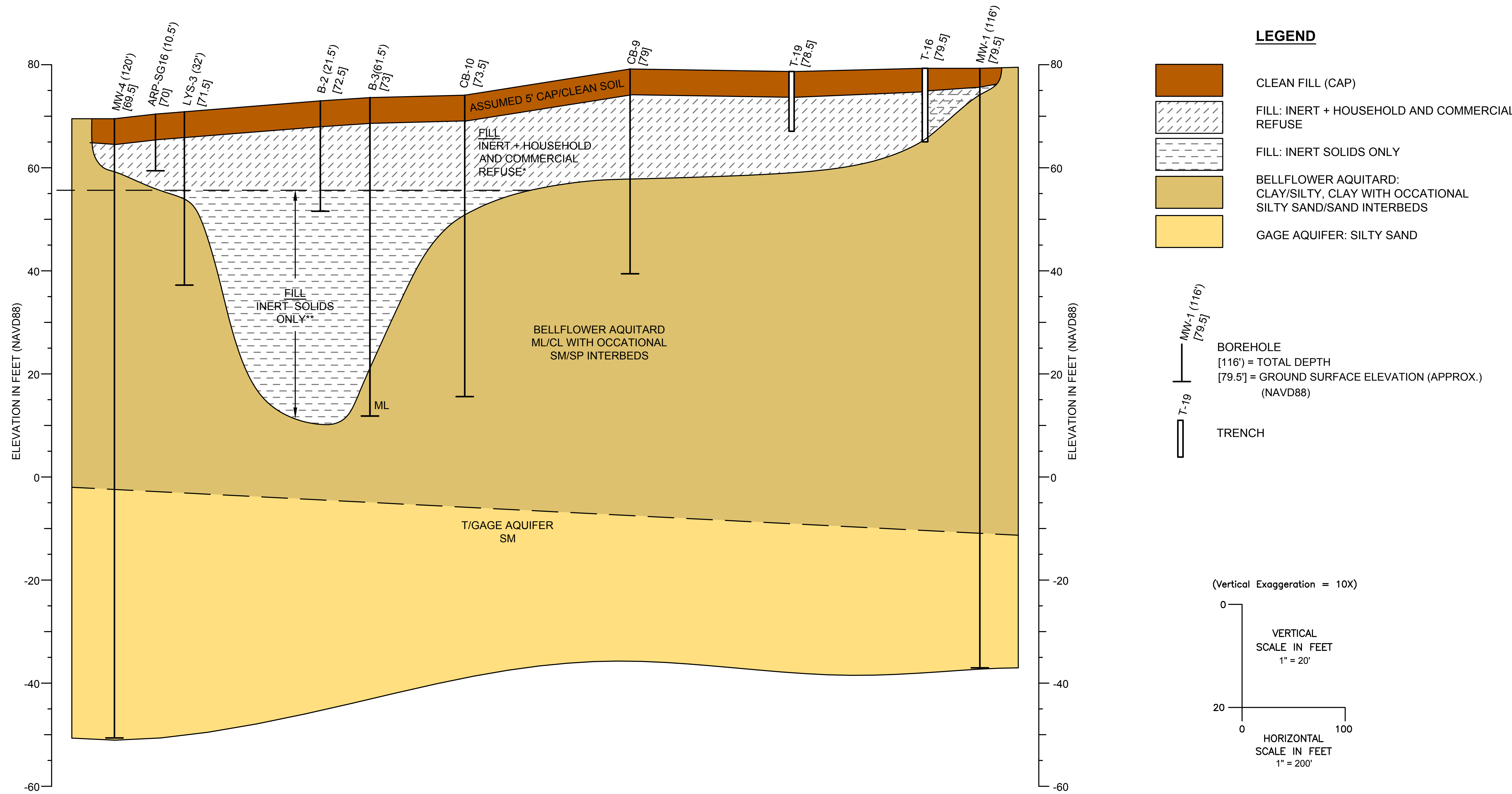

Figure 2

Cross Section A-A'

Proposed Alondra Regional Park

Compton, California

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