Appendix C Geologic and Environmental Hazards Assessment Report

Appendix

This page intentionally left blank.

April 2019 | Geologic and Environmental Hazards Assessment Report

GRAND VIEW ELEMENTARY SCHOOL

for Manhattan Beach Unified School District

Prepared for:

Manhattan Beach Unified School District
Contact: Dawnalyn Murakawa-Leopard
Deputy Superintendent
Manhattan Beach Unified School District
325 S. Peak Avenue
Manhattan Beach, California 90266

Prepared by:

PlaceWorks
Contact: Michael Watson, PG, Associate Geologist
2850 Inland Empire Boulevard, Suite B
Ontario, California 91764
909.989.4449
info@placeworks.com
www.placeworks.com

PLACEWORKS

Table of Contents

Section **Page**

1. Introduction 1
   - 1.1 INTRODUCTION 1
   - 1.2 PROJECT LOCATION 1
   - 1.3 PROJECT DESCRIPTION 2
2. Environmental Checklist 9
   - 2.1 STATE STANDARDS FOR SCHOOL FACILITIES 9
3. Environmental Analysis 11
   - 3.1 AIR QUALITY 11
   - 3.2 GEOLOGY AND SOILS 11
   - 3.3 HAZARDS AND HAZARDOUS MATERIALS 13
   - 3.4 HYDROLOGY AND FLOODING 15
   - 3.5 LAND USE AND PLANNING 15
   - 3.6 NOISE 17
   - 3.7 PUBLIC SERVICES 17
   - 3.8 TRANSPORTATION/TRAFFIC 18
   - 3.9 EXEMPTIONS TO SITING STANDARDS 19
4. Conclusions and Recommendations 21
5. References 23
   - 5.1 PRINTED REFERENCES 23
   - 5.2 RECONNAISSANCE 23
   - 5.3 WEBSITES 24
6. List of Preparers 25
   - 6.1 LEAD AGENCY 25
   - 6.2 PLACEWORKS 25

Table of Contents

LIST OF FIGURES

Figure **Page**

Figure 1 Regional Location 3
Figure 2 Aerial Photograph 5

1. Introduction

1.1 INTRODUCTION

The Manhattan Beach Unified School District (District) is proposing to renovate the existing Grand View Elementary School located at 455 24th Street, Manhattan Beach, Los Angeles County, California (project site). 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 (Ed. Code, Gov't Code and PRC, respectively). This study provides an assessment and supporting documentation of State school facility standards applicable to State-funded new school buildings (SFPD 4.07, Part 4C) and modernization projects (SFPD 4.08B, Section 1).

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.

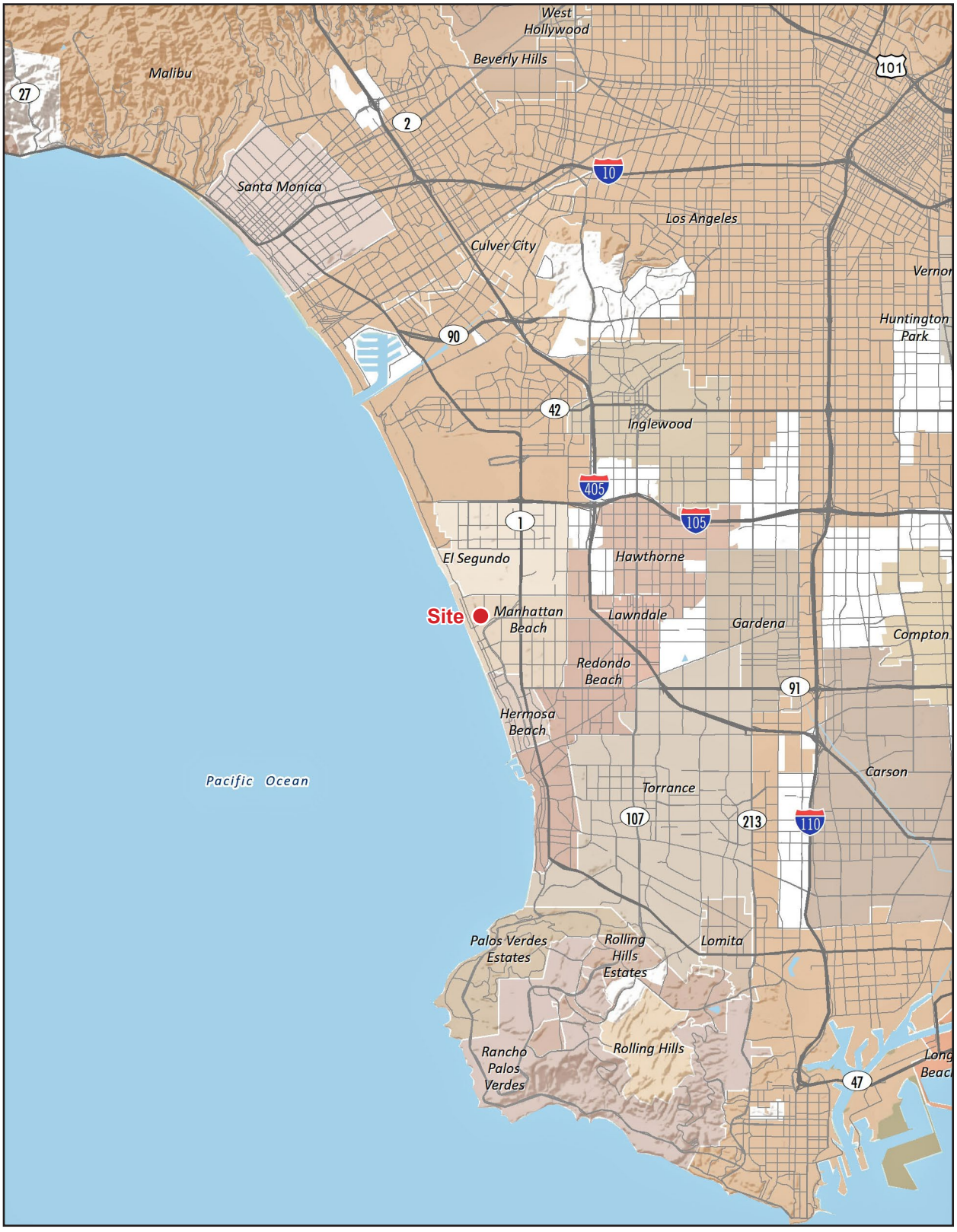
1.2 PROJECT LOCATION

The project site is located at 455 24th Street in Manhattan Beach, Los Angeles County, California (Figure 1). The project site is located outside the Coastal Zone. The project site is located within five Assessor Parcel Numbers (APNs) 4716-005-901, 4177-002-900, 4177-010-900, 4177-011-901, and 4177-011-900. Figure 2 shows the existing site conditions. Danielle Clendening of PlaceWorks performed a site reconnaissance on April 3, 2019 to confirm the current site conditions. Figure 1, *Regional Location*, and Figure 2, *Aerial Photograph*, respectively show the project site from regional and aerial perspectives.

1.3 PROJECT DESCRIPTION

The District plans to remove the existing Ladera classroom building, the multi-purpose (PAC) building, the kindergarten classrooms, and relocatable classrooms. The District plans to construct new classrooms and a larger multi-purpose building in the playfields east of the existing buildings. There is significant grading associated with the proposed changes to maximize the usable site area for additional playfields and hard courts due to the substantial grade change across the project site. Additionally, the District proposed to modernize or reconfigure existing classrooms to comply with the specifications for "Next Generation" learning. Prior to deciding whether to proceed with constructing the school, the District requested preparation of a feasibility study to determine if there were any "fatal flaws" at this site that would advise against such actions. This Geologic and Environmental Hazards Assessment (GEHA) is intended to help answer this question.

Figure 1 - Regional Location



Note: Unincorporated county areas are shown in white.

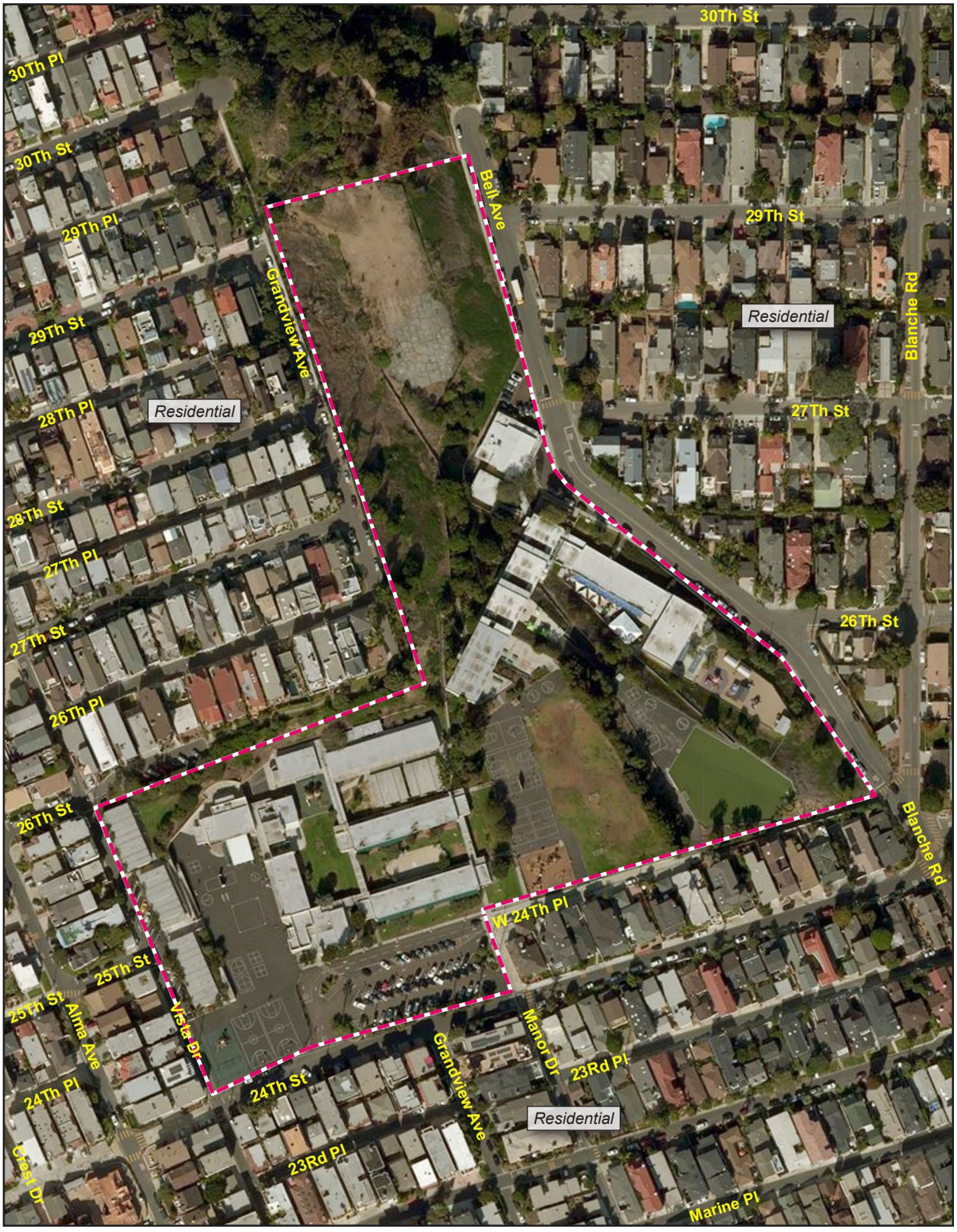
Source: ESRI, 2019

0 3
Scale (Miles)

1. Introduction

This page intentionally left blank.

Figure 2 - Aerial Photograph



School Boundary

0 200
Scale (Feet)

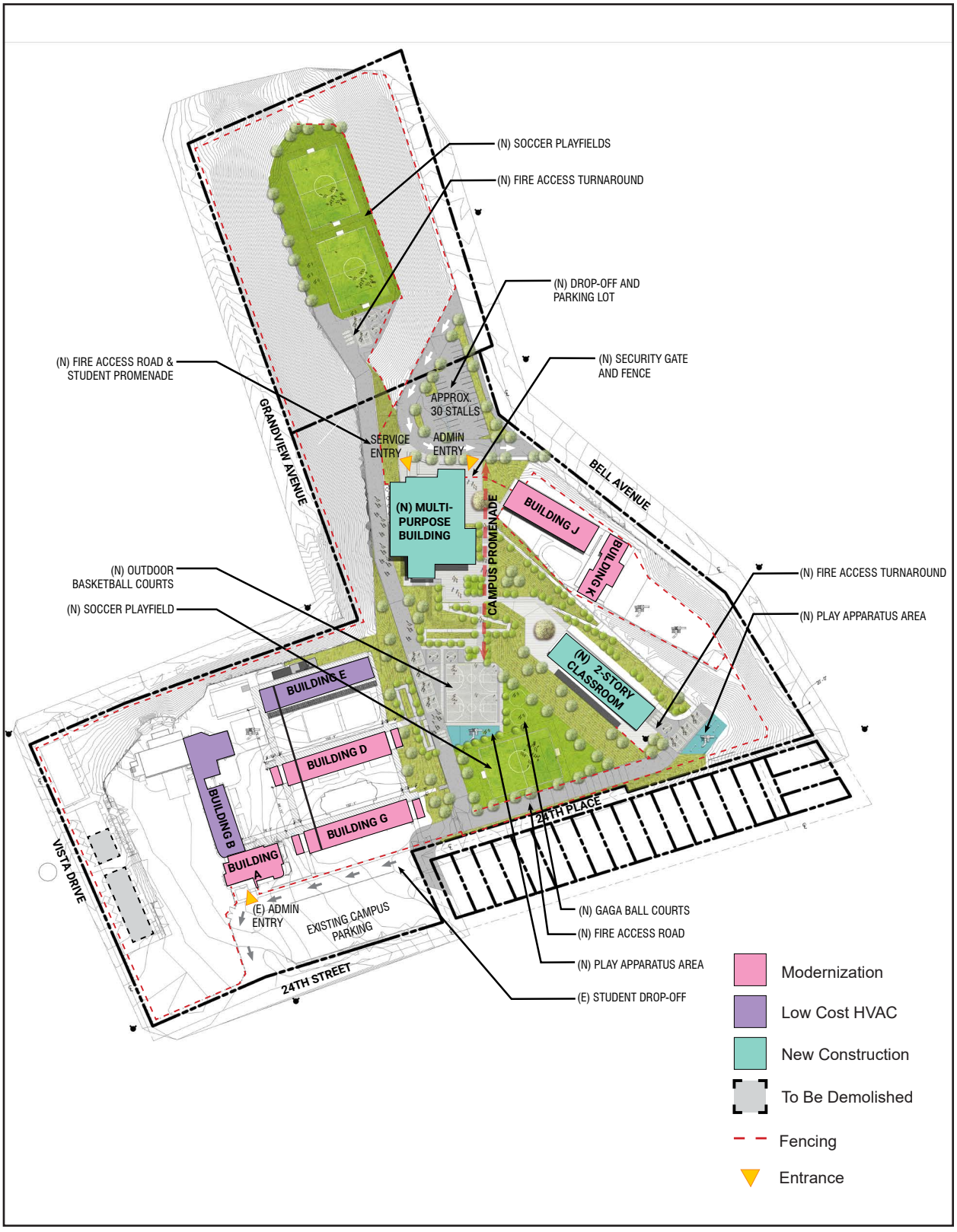
Source: ESRI, 2018

PlaceWorks

1. Introduction

This page intentionally left blank.

Figure 3 - Site Plan



Source: DLR Group, 2018

1. Introduction

This page intentionally left blank.

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 (Ed. Code, Gov't Code and PRC, respectively). The following checklist provides a list of questions and code citations related to State-funded school site approvals. An additional report on health and safety issues reviewed in the Department of Toxic Substances Control (DTSC) process is addressed under a separate cover being concurrently prepared by PlaceWorks.

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)

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 a pressure ridge or 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)
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	CCR, Title 5 § 14010 (c)

2. Environmental Checklist

kV line; or (3) 350 feet of a 500–550 kV line?	
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)
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)
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)
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).

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. 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. There are no freeways or busy traffic corridors within 500 feet of the project site (USGS 2018). The City of Manhattan Beach (2017) has classified streets surrounding the site within 500 feet as residential local, major local, and collector. Therefore, potential air quality risks due to the school's proximity to a freeway or busy traffic corridor is not a hazard, and the project will not create any significant hazards.

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) database, there is one permitted and no nonpermitted facilities within a quarter mile of the site (AQMD 2019). The Sanitation Districts of Los Angeles County has an emergency diesel generator located about 0.22 miles west of the site. Based on the restricted use of the generator for emergencies only, this facility is not expected to impact the site. Based on a review of Google Earth (2019) and a site reconnaissance (PlaceWorks 2019), there are no busy traffic corridors, large agricultural operations, or rail yards within a quarter mile of the project site.

3.2 GEOLOGY AND SOILS

Based on a review of the United States Geological Survey (USGS) 7.5-minute Topographic Series, Venice, California Quadrangle Map (USGS 2018) and Yerkes et al. (1965), the property is located on the El Segundo Sand Hills. The Peninsular Ranges Geomorphic Province extends approximately 900 miles southward from

3. Environmental Analysis

the Los Angeles Basin 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 Mountains within the Transverse Ranges Geomorphic Province north of the site. The property itself sits atop late Holocene eolian deposits (Saucedo et al. 2003).

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 (California Geological Survey [CGS] 2000a and 2019). The nearest Alquist-Priolo Earthquake Fault Zone is located approximately 5.9 miles northeast of the site for the Newport-Inglewood Fault. Based on a review of readily-available geologic literature (Leighton Consulting, Inc. 2018; Saucedo et al. 2003; CGS 2000a; CGS 2019; Jennings and Bryant 2010) and the Manhattan Beach General Plan (2003), there are no known active faults or geologically hazardous areas on or immediately adjacent to the site.

3.2.2 Would the project involve the construction, reconstruction, or relocation of any school building on a pressure ridge or 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 (California Geological Survey 2019). The nearest Alquist-Priolo Earthquake Fault Zone is located approximately 5.9 miles northeast of the site for the Newport-Inglewood Fault. Based on a review of readily-available geologic literature (Leighton Consulting, Inc. 2018; Saucedo et al. 2003; CGS 2000a; CGS 2019; Jennings and Bryant 2010) and the Manhattan Beach General Plan (2003), the site is not on a pressure ridge, and there are no known active faults on or immediately adjacent to the site. On this basis, the potential for tectonic fault rupture 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) cohesion less, 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 seismic hazard mapping within the Venice Quadrangle, the site is not located in an area susceptible to liquefaction (CGS 2019). The Leighton Consulting, Inc. (2018) report stated that due to the lack of shallow groundwater, there is no potential susceptibility for liquefaction at the site. The project will be evaluated for the potential for liquefaction under the oversight of California Geological Survey [CGS] and Division of the State Architect [DSA]. Therefore, the project will not expose people or the new school buildings to adverse effects associated with liquefaction.

Landsliding is 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 Sand Dune Park and small portion of the northwest corner of the project site are mapped as being part of an earthquake induced landslide zone (CGS 1999). According to Leighton Consulting, Inc. (2018), no known landslides exist on the site or within the nearby vicinity, and none of the areas where new building structures are planned are within an earthquake induced landslide zone. Therefore, the project will not expose people or the new school buildings 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 the sandy soils beneath the project, expansive soils are not a concern. Based on the geotechnical investigation by Leighton Consulting (2018), the potential for expansive soils at the site is negligible. CGS and DSA will ensure that the buildings are tested for, and if necessary, sufficiently mitigated for the condition. Therefore, the project will not expose people or the new school buildings 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 in within 10 miles of the site (CGS 2000b; Van Gosen and Clinkenbeard 2011). The nearest outcrop of serpentine rock is located on Santa Catalina Island offshore and over 33 miles south of the site.

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 Tank

No Significant Hazard. No aboveground water or fuel storage tanks were identified within a 1,500-foot radius, based on a site reconnaissance (PlaceWorks 2019), and review of a topographic map (USGS 2018). The development of the project will not create any significant hazard.

Hazardous Substance Pipelines

No Significant Hazard. There are no chemical pipelines within a 1,500-foot radius, according to the National Pipeline Mapping System (online mapping database (NPMS 2019). There are no high pressure natural gas pipelines within a 1,500-foot radius. Appendix A includes the correspondence from the Southern California Gas Company.

3. Environmental Analysis

Sewer and Water Pipelines

No Significant Hazard. Based on plans from the Sanitation Districts of Los Angeles County, there are three pressurized sewer lines within 1,500 feet of the school site. South Bay Cities Force Main, and Force Mains No. 2 and No. 3 are located underneath 26th Place, between Bayview Drive and The Strand, west of the site. Since the proposed project will not put any structures closer to the force mains than currently exist, and because there is a significant topographic high between the location of the force mains and the project site, the project will not exacerbate the current hazard at the site, which is already negligible (Figure 3). Water District, there are is one large volume (>12 inch diameter) pipeline 1,500 feet of the school site. A 16-inch diameter recycled water line is located beneath Valley Drive, southeast of the site. Since the proposed project will not put any structures closer to the large volume recycled water line than currently exists, the project would not exacerbate any existing hazards to students at the 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. Based on the response from Southern California Edison, there are no power lines 50 kV or greater within the CDE setback criteria. Based on the response from Southern California Edison, the project will not create any significant safety hazards to students. The response from Southern California Edison is located in Appendix A.

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 is currently preparing a Phase I Environmental Site Assessment for the site, which will determine if there are any known hazardous materials releases or threatened releases are on the project site. In addition, as stated in Section 3.2.4, there are no naturally-occurring asbestos deposits in the vicinity of the site.

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. Based on the preliminary results of the ongoing Phase I Environmental Site Assessment, a response action is not necessary at the site.

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 a review of the EnviroStor and GeoTracker websites (Department of Toxic Substances Control 2019; State Water Resources Control Board 2019), the project site is not within 2,000 feet of a significant disposal of hazardous waste.

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, the site does not lie within a 100-year flood zone. The California Office of Emergency Service (Cal OES) Dam Inundation Map website does not show the project site within a dam inundation zone (2016).

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. As there are no large permanent bodies of water on, or topographically upgradient in the immediate vicinity of the subject site, seiching is not considered to be a potential hazard for 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 elevation of the site, the distance from the ocean, and the State of California Tsunami Inundation Map for Emergency Planning the potential for tsunami inundation at the site is negligible (CGS 2009).

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 already utilized as a school site and is situated in a developed residential area. Properties within a quarter-mile radius of the site are generally zoned for residential. Based on a review of the City of Manhattan Beach Community Development Department website (2019), there are currently no proposed land uses or zoning changes in the project area. Therefore, there is no significant hazard to the project.

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 assessor's parcel map, no easements are located on or near the project site. Therefore, there is no significant hazard to the project.

3.5.3 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 Manhattan Beach, which is generally characterized by a generally warm very mild climate. Based on a windrose prepared for Manhattan Beach, the predominant wind direction is from the southwest, and winds

3. Environmental Analysis

rarely exceed 15 miles per hour (Meteoblue 2019). 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.

Noise

Refer to section 3.6.

Aesthetics

No Significant Hazard. Project development would not degrade the existing visual character of the site, which is an existing school. 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 site would not be incompatible with the nearby structures.

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.

A review of regulatory databases showed that there is only one current or historic source of hazardous air emissions within a quarter-mile radius of the school site (EnviroStor 2019; EnviroMapper 2019; EJScreen 2019; FIND 2019). No rail yards and no agricultural uses nearby, and the site is not within one-quarter mile of a freeway or busy traffic corridor[1] (see Section 3.1.2). As stated in Section 3.1.2, based on a review of FIND, there are no permitted and nonpermitted facilities that are expected to have an impact on the site within a quarter mile of the site (AQMD 2019).

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 surrounded by residential streets on all sites. No arterial roadways or freeways are located within a quarter mile of the site. The proposed new structures are not any closer to existing noise sources, and would not impact the educational program. No significant impacts would occur as a result of the proposed project.

3.7 PUBLIC SERVICES

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

No Significant Hazard. The school could be made available for public use as the scheduling of scholastic purposes allow, in accordance with the Civic Center Act and District policy. No significant impacts would occur as a result of the proposed project.

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 0.5-miles northwest of the Manhattan Beach Police Station and 0.43-miles northwest of the Manhattan Beach Fire Department Station 1. The Highland Avenue and 26th Street bus stop is 550 feet to the west of the project site and the Highland Avenue and Marine Avenue bus stop is 471 feet to the southwest of the project site. The city of Manhattan Beach also provides regular trash collection services to the project site and surrounding area.

[1] A busy traffic corridor is defined as "Roadways with an average daily traffic in excess of 50,000 vehicles in a rural area and 100,000 daily vehicles in an urban area" (Education Code Section 17213(d)(9)).

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 Grand View Elementary School are mitigated per Caltrans School Area Pedestrian Safety Manual (Caltrans 1996). 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.

Based on existing conditions, the future project is not expected to have any significant traffic or pedestrian hazards to overcome on the existing school campus.

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

No Significant Hazard. Based on a review of Google Earth, the site is not located within 1,500 feet of a railroad track easement.

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-i), (l), (m), (q), (c), (t)?

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

3. Environmental Analysis

This page intentionally left blank.

4. Conclusions and Recommendations

Based on the above literature review of geologic and environmental hazards that could potentially be a "fatal flaw" for the site, no known potential geologic or environmental hazards exist at the site that would disqualify the site for the proposed school improvements. A Phase I Environmental Site Assessment is also being prepared.

4. Conclusions and Recommendations

This page intentionally left blank.

5. References

5.1 PRINTED REFERENCES

California Geological Survey (CGS), 2000a. Digital Images of Official Maps of Alquist-Priolo Earthquake Fault Zones of California, Southern Region, CD 2000-003.

California Geological Survey (CGS), 2000b. "A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Natural Occurring Asbestos." August 2000.

California Office of Emergency Services (OES), 2015. Dam Inundation, Registered Images and Boundary Files in ESRI Shapefile Format, Version FY 2014, CD-ROM.

City of Manhattan Beach General Plan, 2003.

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

Leighton Consulting, Inc. (Leighton), 2018. Preliminary Geotechnical Exploration, Grand View Elementary School, 455 24th Street, Manhattan Beach, California, prepared for Manhattan Beach Unified School District, dated September 14, 2018.

Saucedo, G. J., H. G. Greene, M. P. Kennedy, and S. P. Bezore, 2003. Geologic Map of the Long Beach 30' X 60' Quadrangle, California, Version 1.0, California Geological Survey Regional Map Series, Map No. 5, scale 1:100,000.

United States Geological Survey, 2018. 7.5' Topographic Series, Venice, 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.

5.2 RECONNAISSANCE

PlaceWorks, 2019. Site reconnaissance by Ms. Danielle Clendening on April 3, 2019.

5. References

5.3 WEBSITES

California Department of Toxic Substances Control (DTSC), 2019. EnviroStor website. https://www.envirostor.dtsc.ca.gov/public/.

California Department of Transportation (Caltrans), 1996. Traffic Manual, School Area Pedestrian Safety. http://www.dot.ca.gov/trafficops/camutcd/docs/TMChapter10.pdf.

California Geological Survey (CGS), 1999. Earthquake Zones of Required Investigation, Venice Quadrangle, dated March 25, 1999. http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/VENICE.pdf.

California Geological Survey (CGS), 2009. Tsunami Inundation Map for Emergency Planning, Venice Quadrangle, dated March 1, 2009. https://www.conservation.ca.gov/cgs/documents/tsunami/maps/Tsunami_Inundation_Venice_Quad_LosAngeles.pdf.

California Geological Survey (CGS), 2019. Alquist-Priolo Earthquake Fault Zone maps. http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm.

City of Manhattan Beach, 2017. Functional Traffic Classifications webpage. https://www.citymb.info/home/showdocument?id=34900.

City of Manhattan Beach, 2019. Community Development Department Current Projects/Programs website. https://www.citymb.info/departments/community-development/planning-zoning/current-projects-programs.

Google Earth Pro, 2019.

Meteoblue, 2019. Manhattan Beach Windrose webpage. https://www.meteoblue.com/en/weather/archive/windrose/manhattan-beach_united-states-of-america_5370089.

National Pipeline Mapping System (NPMS), 2019. NPMS Public Map Viewer website, https://www.npms.phmsa.dot.gov/PublicViewer/.

Southern California Air Quality Management District (AQMD), 2019. Facility Information Detail (FIND) database, http://www.aqmd.gov/home/tools/public/find.

State Water Resources Control Board, 2019. Geotracker website. http://geotracker.waterboards.ca.gov/.

6. List of Preparers

6.1 LEAD AGENCY

Manhattan Beach Unified School District
325 S. Peak Avenue
Manhattan Beach, CA 90266

6.2 PLACEWORKS

PlaceWorks
2850 Inland Empire Boulevard, Suite B
Ontario, CA 91764
Tel: 909.989.4449
Fax: 909.989.4447

Michael Watson, PG
Associate Geologist

Danielle Clendening
Planner

6. List of Preparers

This page intentionally left blank

Appendix A - Agency Records

Appendix

This page intentionally left blank.

455 24TH ST, MANHATTAN BEACH, LOS ANGELES

CSDCOMP

EMERGENCY

ANDRE SCHMIDT
920 S. ALAMEDA ST, COMPTON, CA 90221
310-638-1161
ASCHMIDT@LACSD.ORG

VACUUM

DOUG WALTON
920 ALAMEDA ST, COMPTON, CA 90221
310-638-1161
DWALTON@LACSD.ORG

DESIGN

ENGINEERING COUNTER
P O BOX 4998, WHITTIER, CA 906014998
562-908-4288
ENGINEERINGCOUNTER@LACSD.ORG

LAF54

EMERGENCY

MARTY MARTINEZ
562-861-0316

VACUUM

STEVE CAUDILLO
5525 E IMPERIAL HWY, SOUTH GATE, CA 90280
562-379-2911

DESIGN

AREA ENGINEER IMPERIAL YARD
5525 E IMPERIAL HWY, SOUTH GATE, CA 90280
562-861-0316

MAN01DIST

EMERGENCY

CHRISTINA LOPEZ
3621 BELL AVE, MANHATTAN BEACH, CA 90266
310-802-5304
CMLOPEZ@CITYMB.INFO

VACUUM

MARK WOOD
3621 BELL AVE, MANHATTAN BEACH, CA 90266
310-802-5326
MWOOD@CITYMB.INFO

DESIGN

LIANA URRUTIA
3621 BELL AVE, MANHATTAN BEACH, CA 90266
310-802-5353
LURRUTIA@CITYMB.INFO

SCG32F
EMERGENCY
LEAD DISPATCHER
800-427-8894
VACUUM
NO PERMISSION REQUIRED
DESIGN
SAM SIFUENTES
9400 OAKDALE AVE ML9331, CHATSWORTH, CA 91311
818-701-3245
NORTHWESTDISTRIBUTIONUTILITYREQUEST@SEMPRAUTILITIES.COM

TMOBILE
EMERGENCY
WALTER CALLEJAS
7543 WOODLEY AVE, VAN NUYS, CA 91406
818-840-0808
WCALLEJAS@SYNERGY.CC
VACUUM
SHAWN HENDERSON
7543 WOODLEY AVE, VAN NUYS, CA 91406
818-840-0808
SHENDERSON@SYNERGY.CC
DESIGN
SHAWN HENDERSON
7543 WOODLEY AVE, VAN NUYS, CA 91406
818-840-0808
SHENDERSON@SYNERGY.CC

UCCT99
EMERGENCY
Information Not Available
VACUUM
Information Not Available
DESIGN
CESAR TORRES
1529 VALLEY DR, HERMOSA BEACH, CA 90254
310-371-7469

UQSTSO
AFTER HOURS
Information Not Available
VACUUM
Information Not Available
DESIGN
Information Not Available

USCE44
EMERGENCY
SC EDISON PERSONNEL
800-611-1911
VACUUM
GILBERT ACEVES
14005 S. BENSON AVE, CHINO, CA 91710
909-548-7249
GILBERT.ACEVES@SCE.COM
DESIGN

USCETT83NW
EMERGENCY
TCC
800-655-8844
VACUUM
VINCENT PONTICELLO
501 S MARENGO AVE BLDG E, ALHAMBRA, CA 91803
626-308-6320
VINCENT.PONTICELLO@SCE.COM
DESIGN
GILBERT ACEVES
14005 S BENSON AVE, CHINO, CA 91710
909-329-9445
MAPREQUESTS@SCE.COM

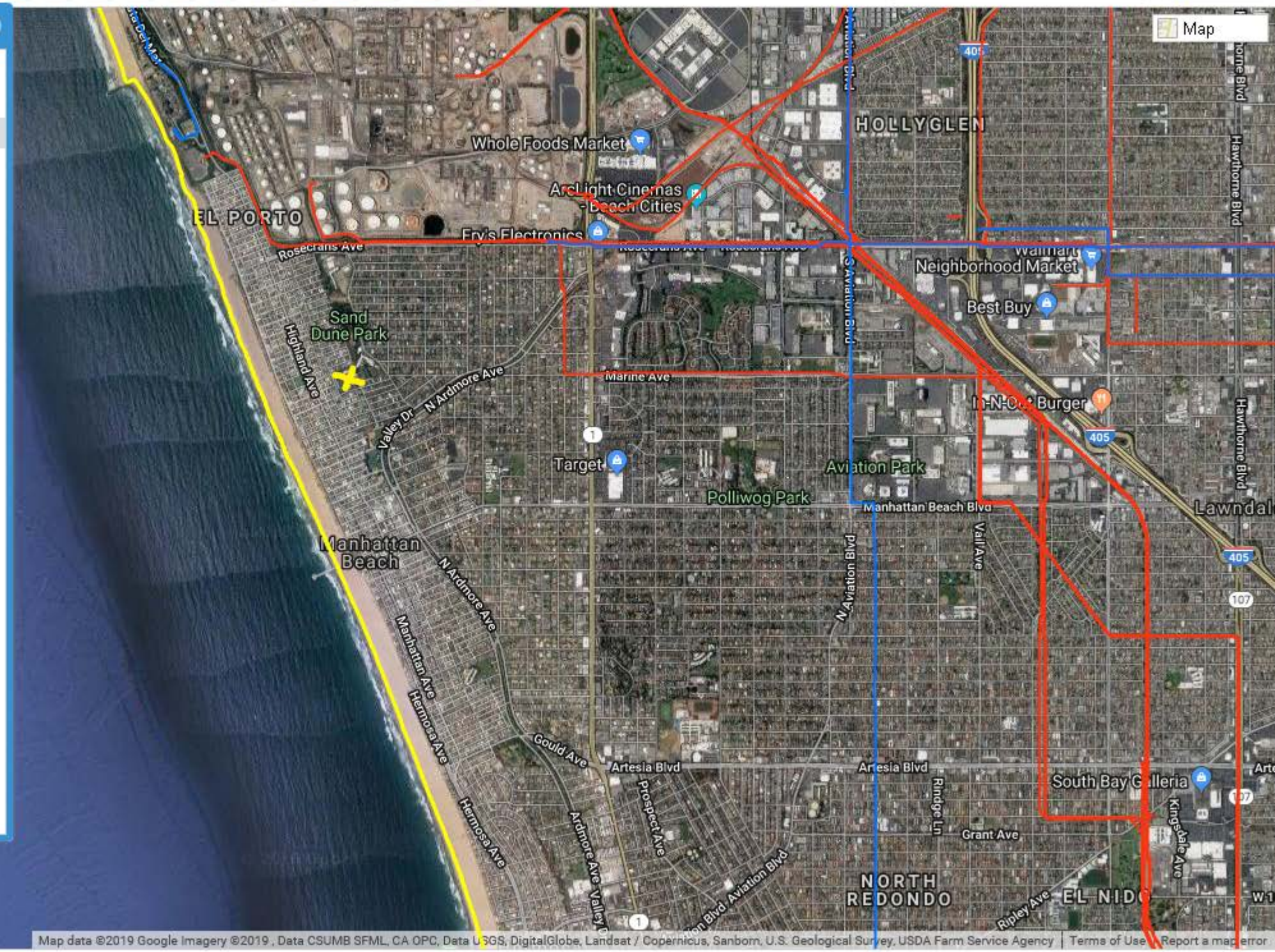
UVZIRWN
EMERGENCY
REPAIR CALL CENTER
800-921-8101
VACUUM
NONE PROVIDED
800-837-4966
DESIGN
JERRY RUIZ
909-469-6343

WBMWD
EMERGENCY
FRANK FUCHS
310-660-6255
VACUUM
FRANK FUCHS
17140 S AVALON BLVD SUITE 210, CARSON, CA 90746
310-660-6255
DESIGN
FRANK FUCHS
17140 S AVALON BL #210, CARSON, CA 907461218
310-660-6255
FRANKF@WESTBASIN.ORG

Map Layers | Query Tools | Enter search term (min 4 chars) | Help

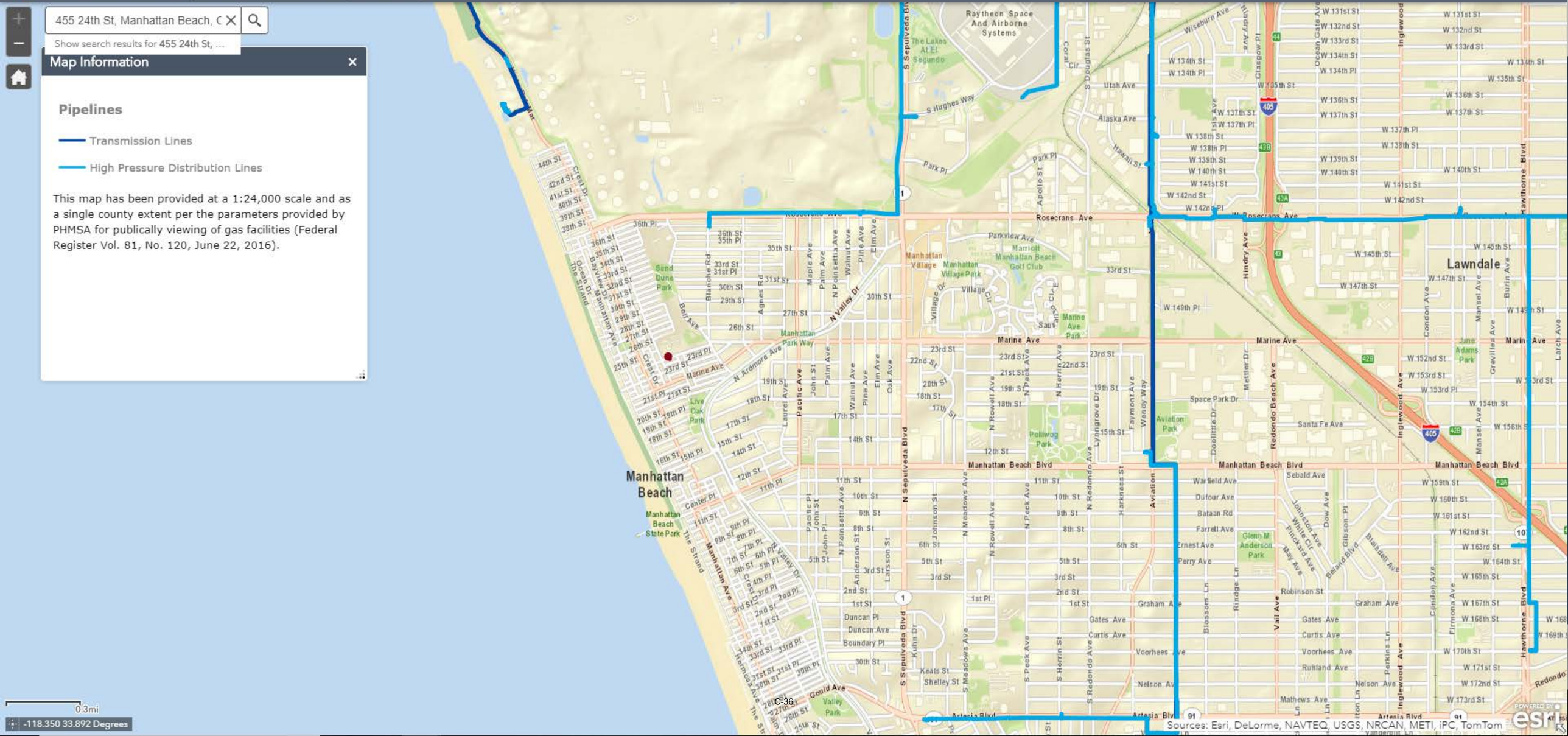
Map Layers

- Accidents (Liquid)
- Incidents (Gas)
- Gas Transmission Pipelines
- Hazardous Liquid Pipelines
- LNG Plants
- Breakout Tanks
- Other Populated Areas (scale dependent)
- Highly Populated Areas (scale dependent)
- State Boundaries
  - Show Labels
- County Boundaries
  - Show Labels
- Map
- Satellite



Ready | Zoom Level: 14 of 19 (1:24,000) Closest Zoom for Pipelines | 33.887272, -118.432720 | COUNTY : Los Angeles, CA

Gas Transmission Pipeline Interactive Map - Los Angeles



SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL℠ Company

Phil Hung, P.E.
EMF Program Manager
6042 N. Irwindale Ave
Irwindale CA 91702
Phone: (626) 633-3415
E-mail: phil.hung@sce.com

SCE Voltage Identification Report of Proposed or Existing School Site

Request Received: **01/14/2019** Received By: **Phil Hung**

Requesting Entity: __ School ____District __**X**__Consultant ___ School Representative:

Danielle Clendening
dbclendening@placeworks.com
The Planning Center
2850 Inland Empire Boulevard, Suite B
Ontario, California 91764
(909) 989-4449

Nature of Request: Voltage ID ___**X**___ Msmt. Req. _____ Information _____

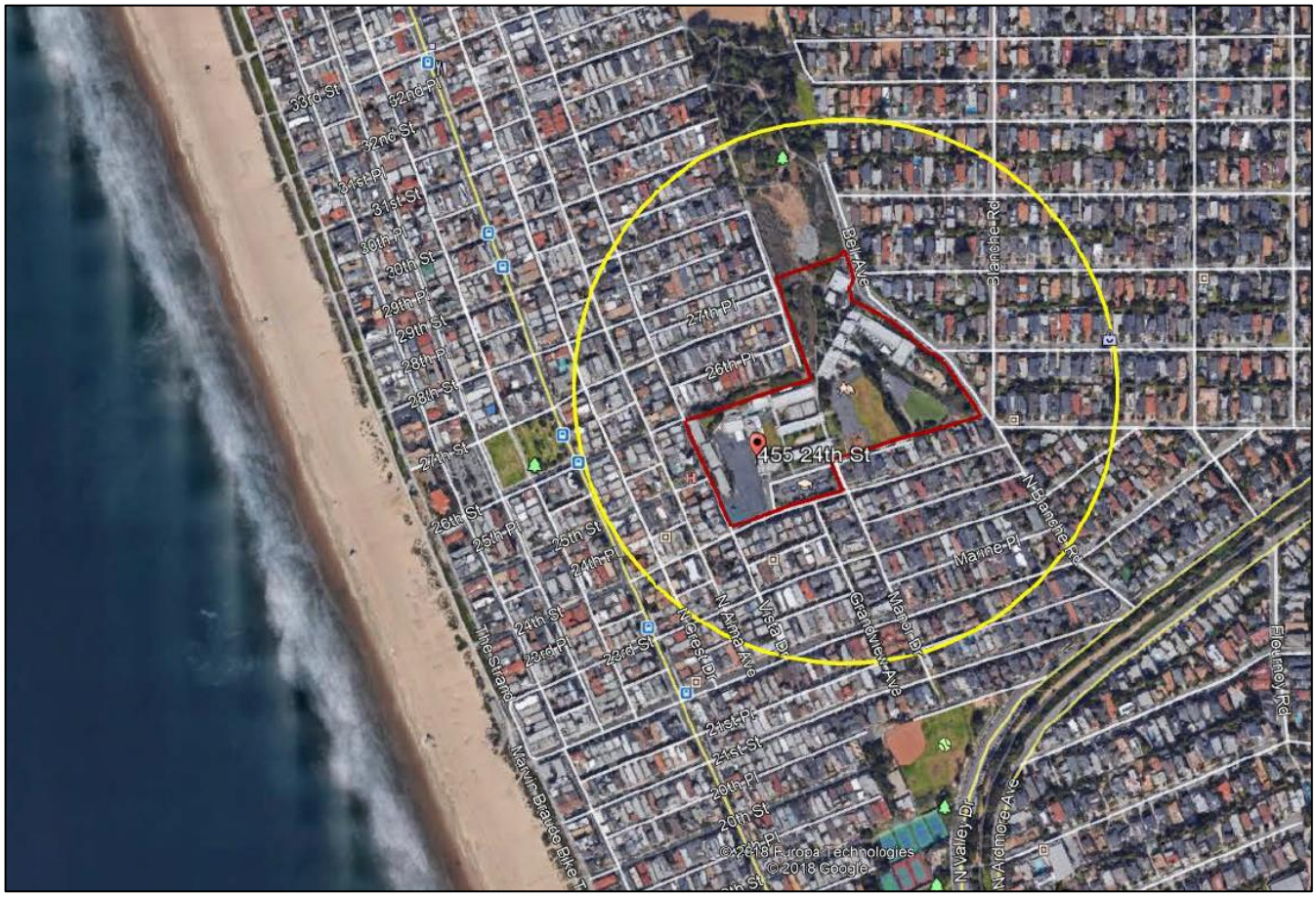
Other: _____

Site Name:	**Grand View Elementary School**
Site Address:	**455 24th Street**
City:	**Manhattan Beach, CA 90266-4348**
County:	**Los Angeles**
Cross Streets:	**Vista Drive**

Client: **Manhattan Beach Unified School District**
325 S. Peak Avenue
Manhattan Beach, CA 90266

Photo(s):

Aerial View



Street View

Looking north on Vista Drive

Date of Site Visit: **01/29/2019 (Bing Maps and Google Maps)**
Support Action(s) Taken: **SCE system database lookup**

SCE Facilities Identified Within California Code of Regulations (CCR) Title 5 Prescribed Distances:

- **There are no SCE facilities of 50 kV or higher within the CDE Title 5 setback distances or within the 350 feet radius.**
- **There are 16 kV distribution overhead circuits on 23rd Place, Vista Drive, and south-east corner of the school property.**

Date(s) responded to Requestor:
01/14/2019: Acknowledged, (E-mail)
01/29/2019: Supplied Information (E-mail)

From: Perez, William
To: Danielle Clendening
Subject: RE: Remittance 43-2019-01-00051 Placeworks.xls
Date: Thursday, February 28, 2019 6:22:52 AM

Good morning. I apologize for the delay response. I have review the area for Manhattan Beach Unified School District and have confirm that in the PDF provided where the assessment is being done, there is no High Pressure gas lines. There are, however, standard gas line of deliver ranging from 2”-6” steel and plastic mains. If you need a copy of the Atlas Maps, then please pay the remittance. If confirmation that there are no High Pressure gas lines is all you need, then I will confirm that there is No High Pressure Gas main in highlighted area

Thank you,
Sincerely,
William Perez
Pipeline Planning Assistant
Wperez@Semprautilities.com
Northwest Region
(310) 687-2011

SoCalGas
A Sempra Energy utility®

From: Danielle Clendening <dbclendening@placeworks.com>
Sent: Monday, February 11, 2019 10:39 AM
To: Perez, William <WPerez@semprautilities.com>
Subject: [EXTERNAL] RE: Remittance 43-2019-01-00051 Placeworks.xls

Good morning,

PlaceWorks is not requesting As-builts, but rather asking for confirmation about the accuracy of the online pipeline map around the project site. Manhattan Beach Unified is conducting a hazard assessment for Grandview Elementary School and we do not want to miss any high pressure natural gas pipelines in our review.

Please let me know if you have any questions or need more clarification.

Best regards,

Danielle

From: Perez, William <WPerez@semprautilities.com>
Sent: Monday, February 11, 2019 8:30 AM
To: Danielle Clendening <dbclendening@placeworks.com>
Subject: Remittance 43-2019-01-00051 Placeworks.xls

Please send top portion of remittance along with your check to the payment center. Checks sent in without the top portion of the remittance form will be delayed.

Thank you,
Sincerely,

William Perez

Pipeline Planning Assistant
Wperez@Semprautilities.com
Northwest Region
(310) 687-2011

SoCalGas
A Sempra Energy utility®

Mike Campisi
Pipeline Planning Assistant

9400 Oakdale Ave
Chatsworth, CA 91311

Tel: 213-231-6081

February 27, 2019

Danielle Clendening
PLACEWORKS
2850 Inland Empire Boulevard, Suite B
Ontario, California 91764
dbclendening@placeworks.com

Subject: **455 24th Street**
Manhattan Beach, CA

DCF: **0240-19NC192**

The Transmission Department of SoCalGas does not operate any facilities within 1500 feet of the address stated above. However, the Distribution Department of SoCalGas may maintain and operate facilities within that location.

To assure no conflict with the Distribution's pipeline system, please e-mail them at:

NorthwestDistributionUtilityRequest@semprautilities.com

Sincerely,

Mike Campisi
Pipeline Planning Assistant
SoCalGas Transmission Technical Services
SoCalGasTransmissionUtilityRequest@semprautilities.com

From:	Schmidt, Andre
To:	Danielle Clendening
Cc:	Engineering Counter; Walton, Doug
Subject:	FW: Title 5 Information Request for a School Site in Manhattan Beach, CA
Date:	Tuesday, January 15, 2019 8:26:51 AM
Attachments:	image002.png image004.png image005.png Site Radius Map.pdf

Danielle,

Thank you for your inquiry. The Sanitation Districts does have pressurized sewer pipelines within the radius you indicated. Our Engineering Counter will provide you with copies of the as-built plans for these pipelines. Information regarding our Engineering Counter can be found at the following website: https://www.lacsd.org/aboutus/contact/counters.asp.

Regards,

Andre Schmidt
Manager | Wastewater Collection Systems Section
310-638-1161 ext. 6803 | Cell 562-360-0456 | aschmidt@lacsd.org
SANITATION DISTRICTS OF LOS ANGELES COUNTY
Converting Waste Into Resources | www.LACSD.org

From: Walton, Doug
Sent: Monday, January 14, 2019 2:57 PM
To: Schmidt, Andre
Subject: FW: Title 5 Information Request for a School Site in Manhattan Beach, CA

From: Danielle Clendening [mailto:dbclendening@placeworks.com]
Sent: Monday, January 14, 2019 1:54 PM
To: Walton, Doug; Engineering Counter
Subject: Title 5 Information Request for a School Site in Manhattan Beach, CA

Good Afternoon,

Manhattan Beach 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 pressurized sewer lines located within a 1,500-foot radius of Grand View Elementary School. The address for the site is 455 24th Street Manhattan Beach, CA.

I have attached a pdf of 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 pressurized sewer pipelines operated by the county

located within a 1,500-foot radius of the site.

If there are no pressurized sewer lines 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!

Best regards,

DANIELLE CLENDENING
Intern

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

40'-0"
20'-0"
20'-0"
STREET
6" LOCAL SEWER
20" FORCE MAIN
MANHATTAN BEACH CITY PARK
1'-0"
35'-6"
30'-0"
R/W LINE
16.86'
CATCH BASIN
STA. 0+02.3
8" LOCAL SEWER TO BE RELOCATED
STD. M.H.
STA. 0+00
VENTURI & BYPASS (UNDER STRAND)
S.B.C. MAIN PUMPING PLANT (UNDER STRAND)
19'-0"
45'-0"
30.66'
15.66'
THE
8" LOCAL SEWER
STRAND
S.B.C. OUTFALL TRUNK SEWER
GRANDVIEW AVE.
CITY OF MANHATTAN BEACH
ALMA AVE.
HIGHLAND AVE.
MANHATTAN AVE.
12TH ST.
ESPLANADE
STRAND
THE
S.B.C. FORCE MAIN
S.B.C. MAIN PUMPING PLANT
Pacific Ocean
LOCATION MAP
SCALE: 1" = 600'
ACCESS TO PUMPING PLANT
COMMUNITOR
2'-6"
26"
PROPOSED 8" SEWER SEE SHEET NO. 7
P.E. Ry. R/W
P.E. Ry.
R/W
30" CONNECTING LINE
2-24" C.S. DRAINS
27 TH
STAIRWAY TO BEACH
11.26'
PROPOSED 10" EL PORTO TRUNK
5'-0"
10'-0"
SPECIAL J.C. BUILT OVER 30" S.B.C. TRUNK SEE SHEET NO. 7
EXISTING 30" S.B.C. TRUNK SEWER
℄ OF 20'-0" ALLEY
OCEAN
OCEAN
SCALE: 1"=5'-0"

S.B.-g-29
SHEET No. 1
OF SHEETS

DESIGNED	N.W. ANDERSON	10-5-48		
DRAWN	E. ALLEN	"	"	"
TRACED	E. ALLEN	"	"	"
CHECKED	H. JOERGENSEN	"	"	"

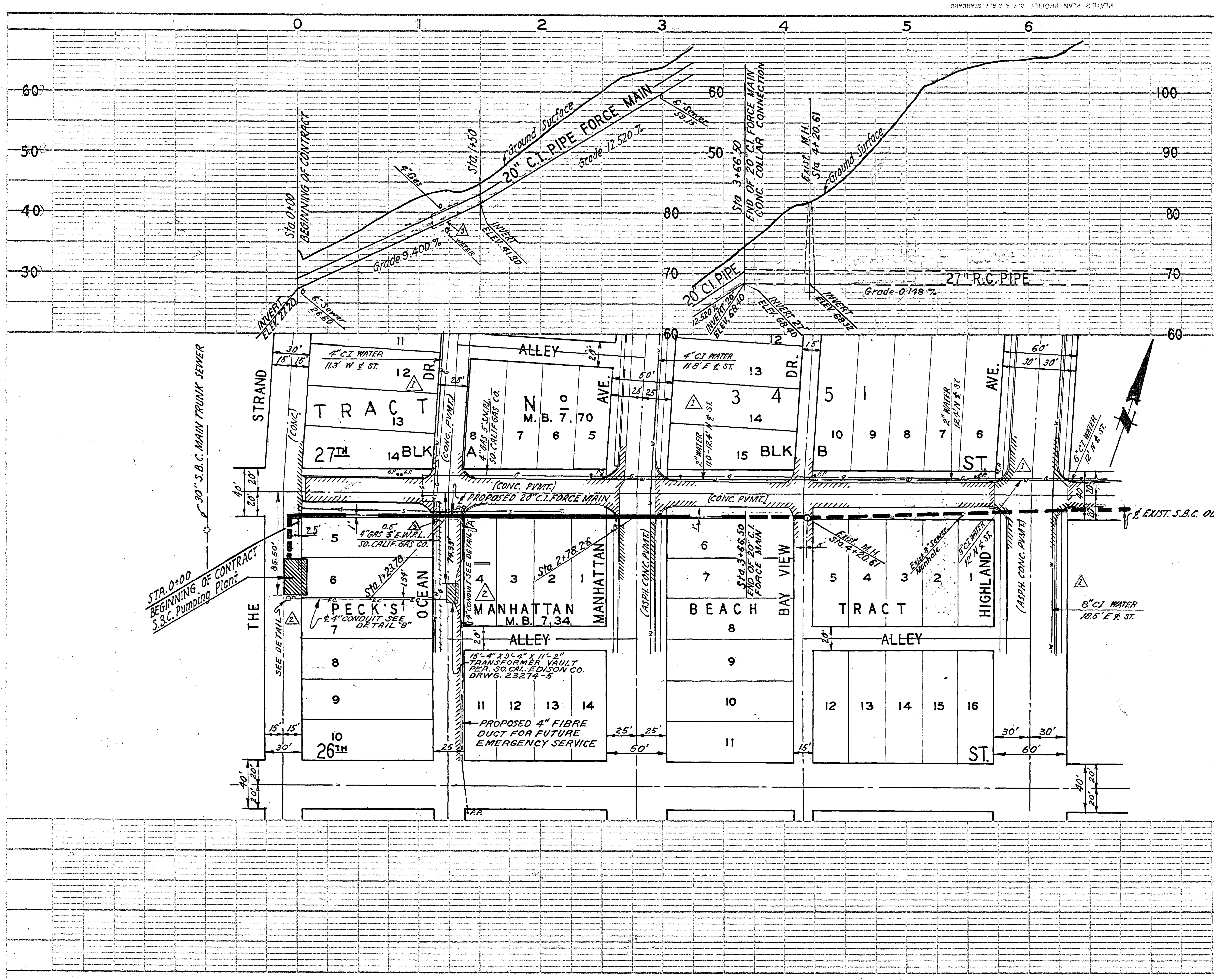
COUNTY SANITATION DISTRICT No. S.B.C.
OF LOS ANGELES COUNTY, CALIF.
OFFICE OF CHIEF ENGINEER

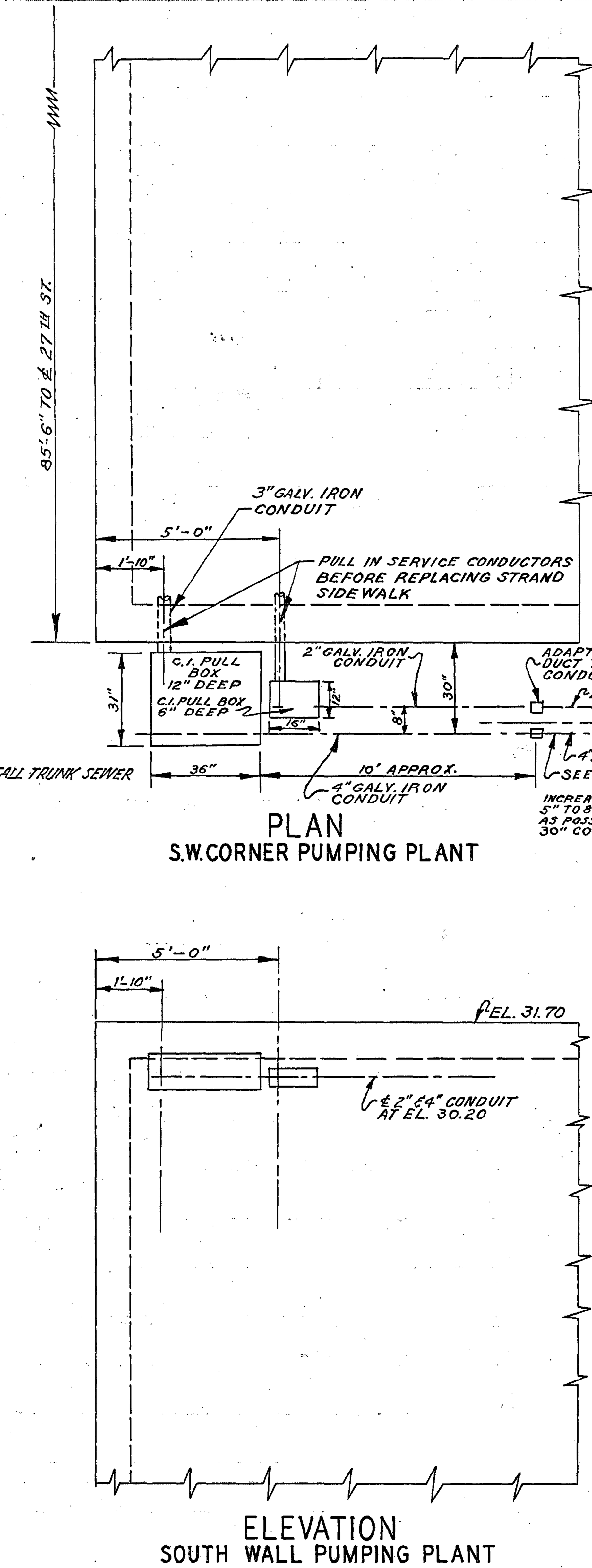
S.B.C. MAIN PUMPING PLANT & FORCE MAIN

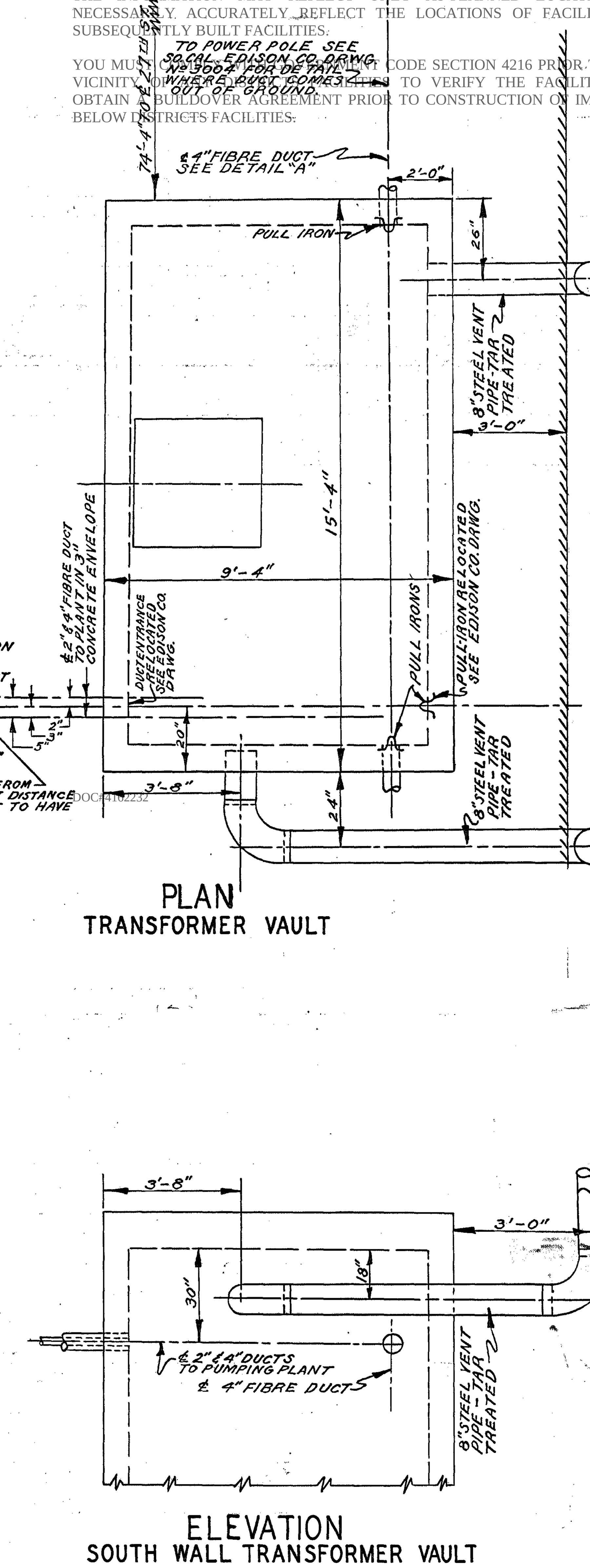
LOCATION PLAN

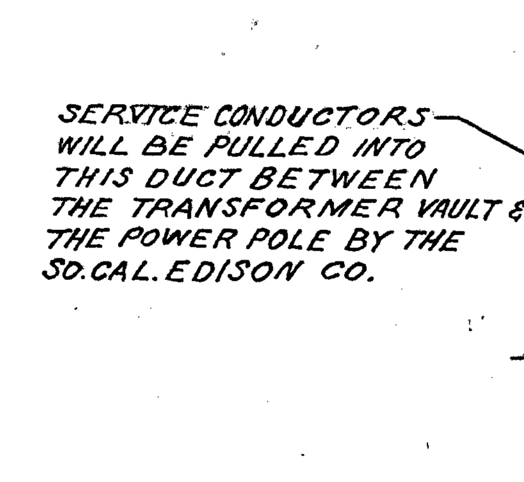
SUBMITTED _____ OFFICE ENGINEER DATED OCT. 13 1948
RECOMMENDED _____ ASST. CHIEF ENGINEER DATED OCT. 18 1948
APPROVED _____ CHIEF ENGINEER DATED OCT. 18 1948

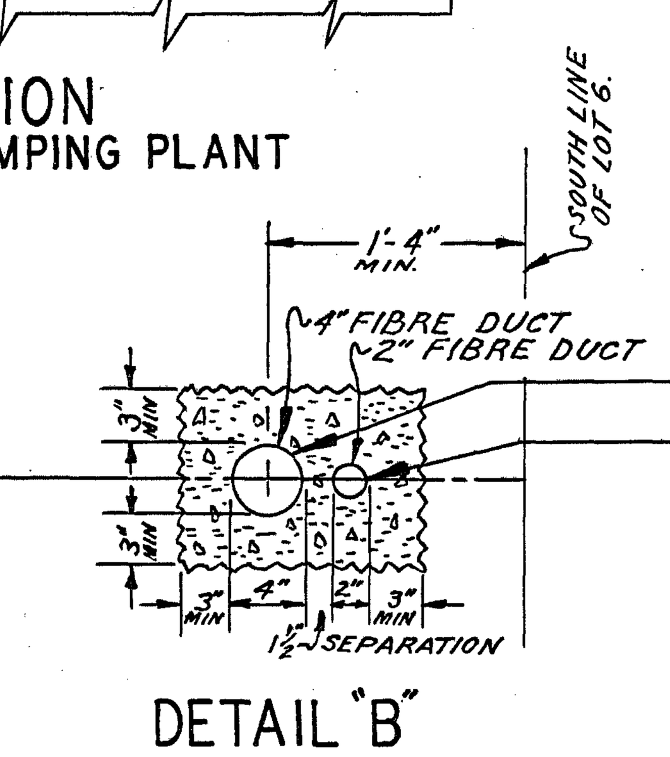
△ MARCH 23, 1949 △ Revised Nov. 23, 1948 △ Revised DEC. 10, 1948 △ DEC. 27, 1948 △ JAN. 20, 1949











PULL 3 Nº 4/0 TYPE R.L. (LEAD COVERED) SINGLE CONDUCTOR CABLES INTO 4" DUCT BETWEEN TRANSFORMER VAULT AND SWITCH BOARD. CONSULT SO. CAL. EDISON CO. FIELD ENGINEER FOR LENGTH OF WIRE REQUIRED WITHIN VAULT FOR CONNECTION.

PULL 3 Nº 8 SWG TYPE R.L. (LEAD COVERED) SINGLE CONDUCTOR CABLES INTO 2" CONDUIT BETWEEN TRANSFORMER VAULT AND SWITCH BOARD. CONSULT SO. CAL. EDISON CO. FIELD ENGINEER FOR LENGTH OF WIRE REQUIRED WITHIN VAULT FOR CONNECTION.

NOTE:
SEE SO. CAL. EDISON CO. DRWG'S. NO'S. 3004, 23274-5, 112806-0 & 110311-0 FOR CONSTRUCTION DETAILS.
CONSULT EDISON CO. FIELD ENGINEER FOR EXACT LOCATION OF CONDUITS NEAR POWER POLES.

SUBMITTED [illegible] ACTING OFFICE ENGINEER	DATED Oct. 18, 1948	COUNTY SANITATION DISTRICT S.B.C. OF LOS ANGELES COUNTY, CALIF.
RECOMMENDED [illegible] ASST. CHIEF ENGINEER	DATED Oct. 18, 1948	S.B.C. FORCE MAIN
APPROVED [illegible] CHIEF ENGINEER	DATED Oct. 18, 1948	DWG. Nº S.B.-g-29 SHEET Nº 4A OF 4 SHEETS

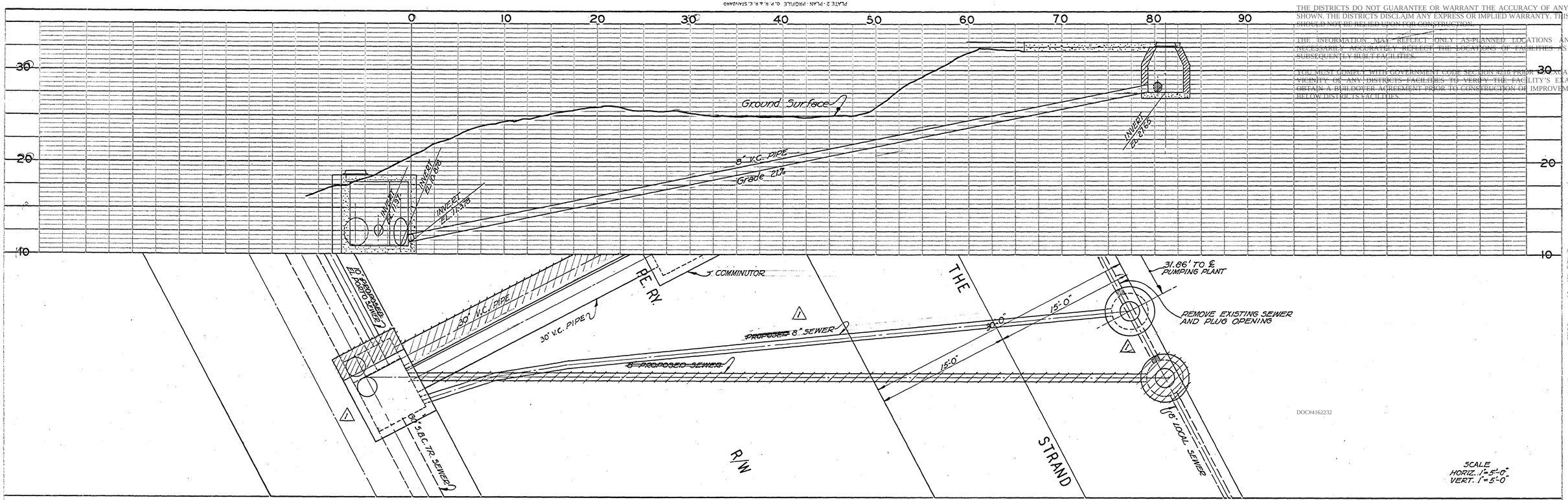
	BY	DATE
SURVEYED	J.F. KENMIR	JUNE 1948
SUBSTRUCTURES	C. FRAHM	OCT. "
DESIGNED	E.P. BENNETT	"
DRAWN	C.W. LAPERRUQUE	"
CHECKED	H.E. WHITECOTTON	"
R/W CHECKED	H. TEALL	"
FINAL CHECK	H.W. JORGENSEN	"

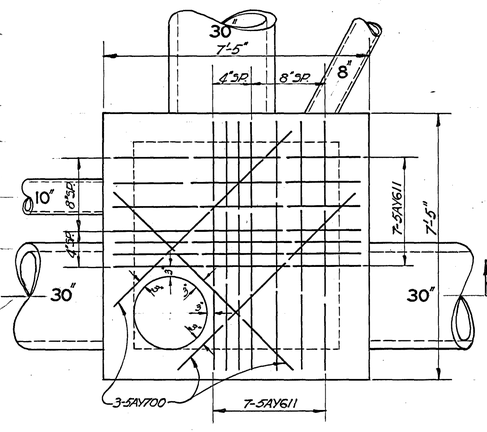
PLAN & PROFILE
FIELD BOOK NO. 680

SUPERSEDES SHEET Nº 4

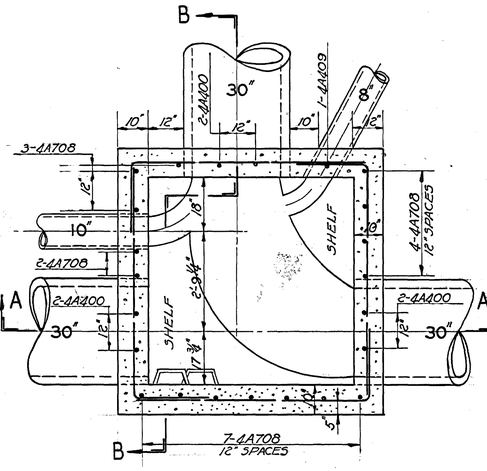
1 WATER LINES ADDED 2-2-49
2 ADDED VAULT & POWER DUCTS 2-4-49
3 CONC. ENC. TYPE IA MISC. DWG. 30-660-00

PLATE 2-PLAN, PROFILE, O. P. & P. E. STANDARD
KUPFEL & ESSER CO., NEW YORK.
K & E CO. NO 346-32

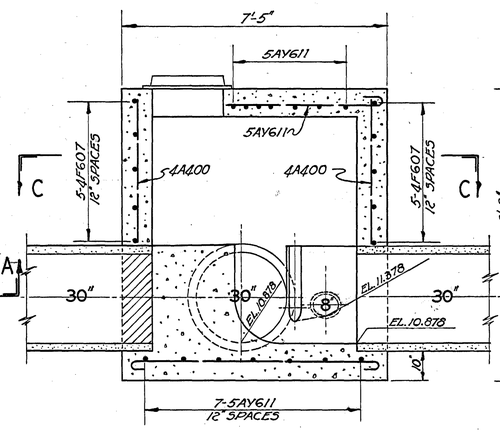




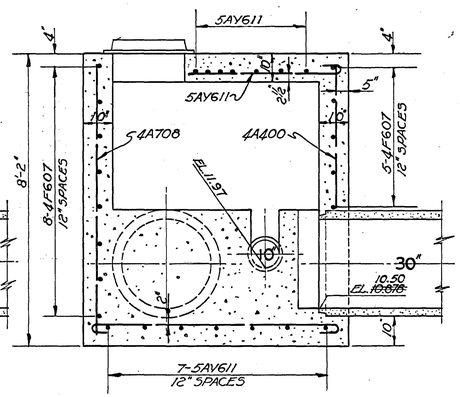
ROOF PLAN



PLAN SECTION C-C



SECTION A-A



SECTION B-B

STEEL SCHEDULE

TYPE	MARK	SIZE	No REQ	a	b	LENGTH
A (LENGTH)	4A400	½"ø	6			4'-0"
	4A409	½"ø	1			4'-9"
	4A708	½"ø	16			7'-8"
AY (a)	5AY611	⅝"ø	28	6'-11"		8'-1"
	5AY700	⅝"ø	3	7'-0"		8'-2"
F (b, a)	4F607	½"ø	23	6'-7"	2'-0"	8'-7"

SCALE: ½"=1'-0"

SUBMITTED	[signature]	DATED NOV. 30 1948	
	CHIEF OFFICE ENGINEER		
RECOMMENDED	[signature]	DATED NOV. 30 1948	
	ASST. CHIEF ENGINEER		
APPROVED	[signature]	DATED NOV. 30 1948	
	CHIEF ENGINEER		

COUNTY SANITATION DISTRICT Nº S.B.C.
OF LOS ANGELES COUNTY, CALIF.
S.B.C. MAIN PUMPING PLANT & FORCE MAIN
SPECIAL J.C. & 8" CONNECTING LINE
DWG. Nº S.B.-9-29 SHEET Nº 7 OF 7 SHEETS

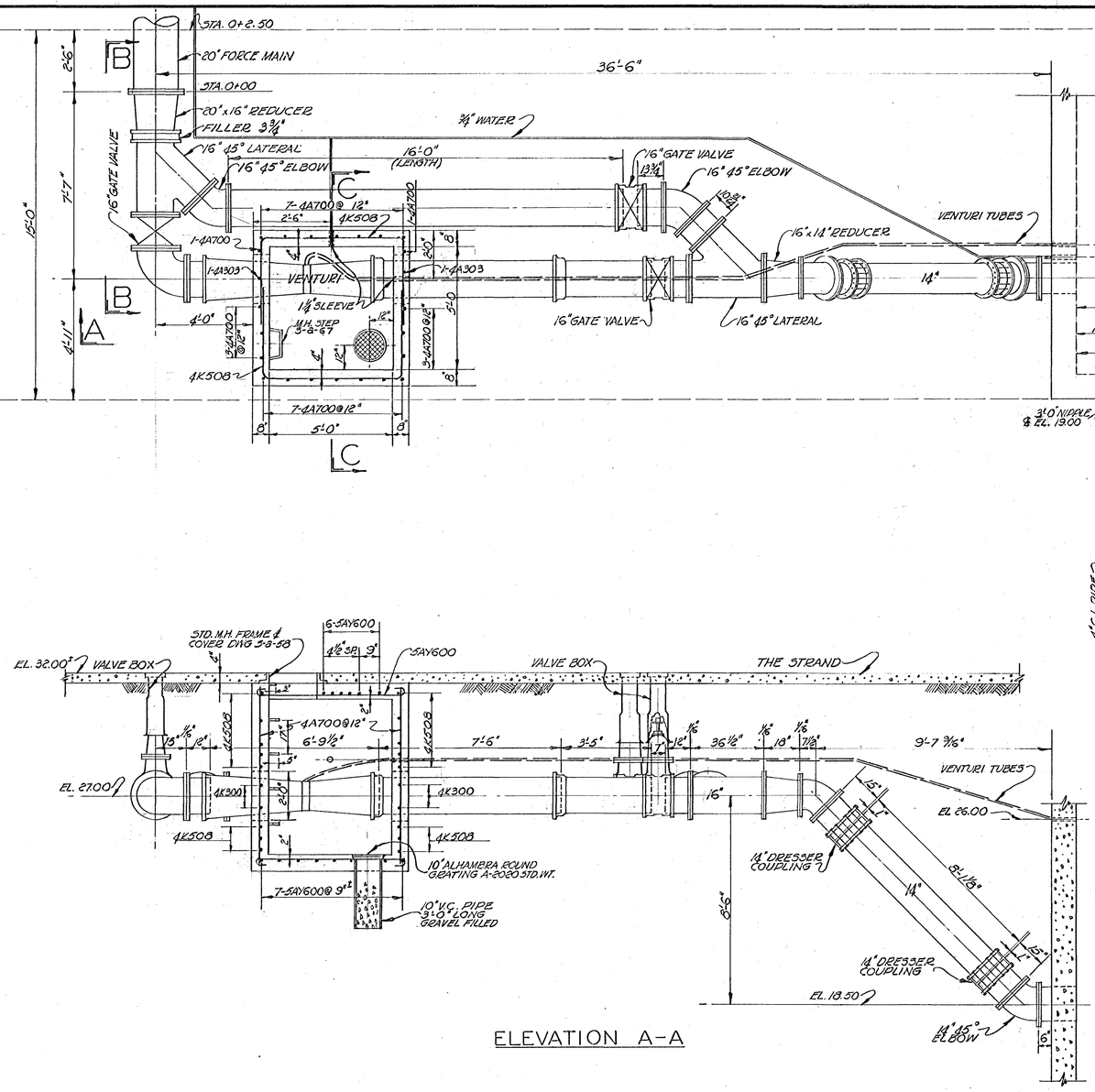
⚠ REVISED JAN. 20, 1949

PLAN & PROFILE
FIELD BOOK NO. 680

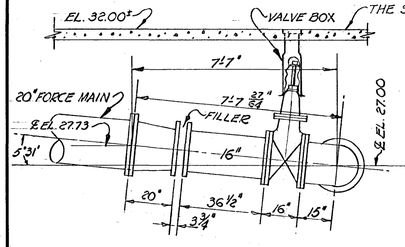
	BY	DATE
SURVEYED	J.F. LEMMON	NOV. 1948
SUBSTRUCTURES	C.F. BOSTWICK	
DESIGNED	P.O. ALLEN	
DRAWN	H.G. MCCOTTOY	
CHECKED	H.G. MCCOTTOY	
PLANS APPROVED	H.W. DORENKEY	
FINAL CHECK		

DOC#4162232

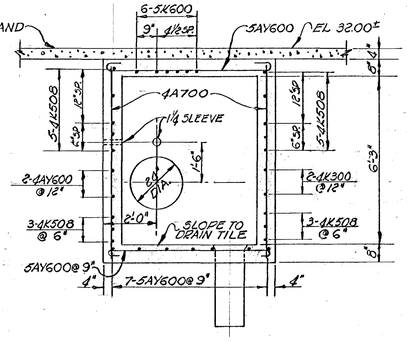
4852-9279-0090.1



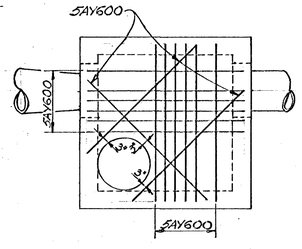
ELEVATION A-A



ELEVATION B-B

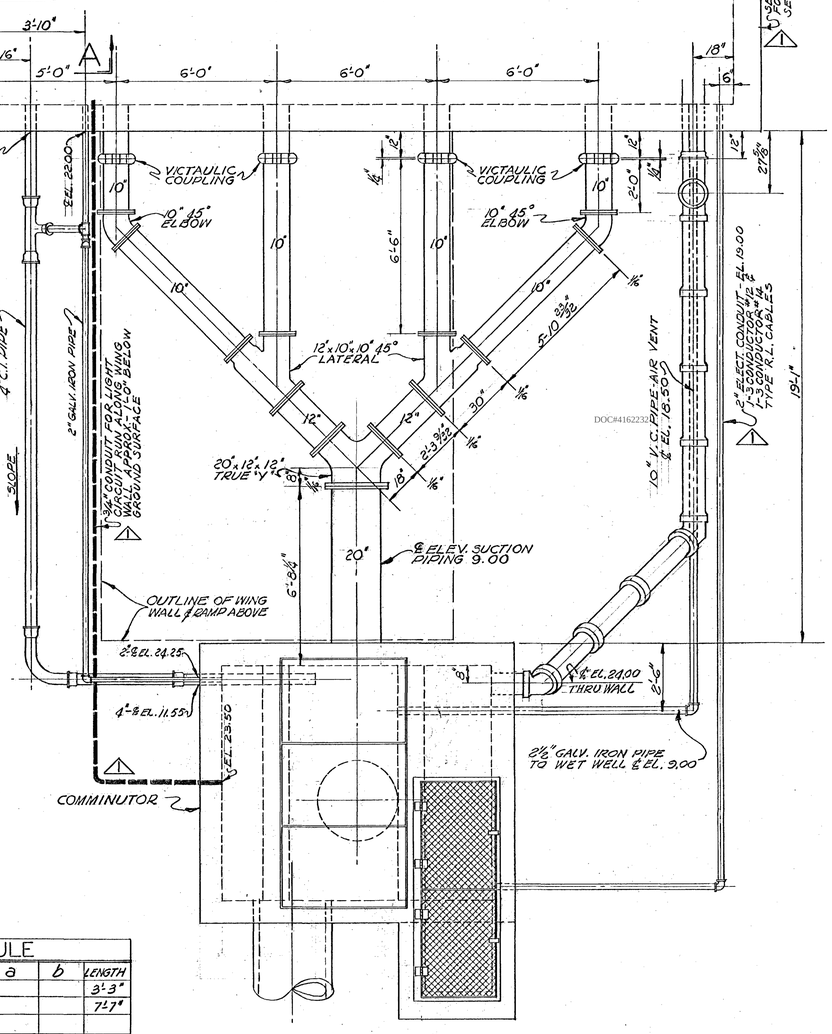


ELEVATION C-C



PLAN

BAR SCHEDULE							
TYPE	MARK	SIZE	NO. REQ'D	a	b	LENGTH
A LENGTH	1A303	½"ø	2			3'-3"
	1A707	½"ø	22			7'-7"
AY a	1AY600	½"ø	2	6'-0"		6'-11"
	5AY600	⅝"ø	29	6'-0"		7'-2"
K a	1K508	½"ø	16	5'-8"	3'-8"	13'-0"
	1K300	½"ø	2	5'-8"	3'-0"	11'-8"



PLAN

SCALE: 3/8"=1'-0"

S. B.-9-29
SHEET No. 10
OF SHEETS

NO.	REVISION	DATE	INITIAL
1	ADDED POWER & LIGHT CKTS. & NOTES	MAY. 31, 1949	WS

DESIGNED	N. ANDERSON	5-6-49
DRAWN	E. ALLEN	5-6-49
TRACED		
CHECKED	H. JORGENSEN	5-6-49

COUNTY SANITATION DISTRICT No. S.B.C.
OF LOS ANGELES COUNTY, CALIF.
OFFICE OF CHIEF ENGINEER

S.B.C. MAIN PUMPING PLANT & FORCE MAIN

EXTERIOR PIPING

SUBMITTED	OFFICE ENGINEER	DATED MAY 9 1949
RECOMMENDED	C. R. Compton ASST. CHIEF ENGINEER	DATED MAY 9 1949
APPROVED	CHIEF ENGINEER	DATED MAY 9 1949

COUNTY SANITATION DISTRICT Nº S. B. C.

OF LOS ANGELES COUNTY, CALIF.

OFFICE OF CHIEF ENGINEER

CONTRACT DRAWINGS

SOUTH BAY CITIES MAIN PUMPING PLANT REVISIONS

SUBMITTED G. Portemus — OFFICE ENGINEER — DATED JUNE 9, 1971

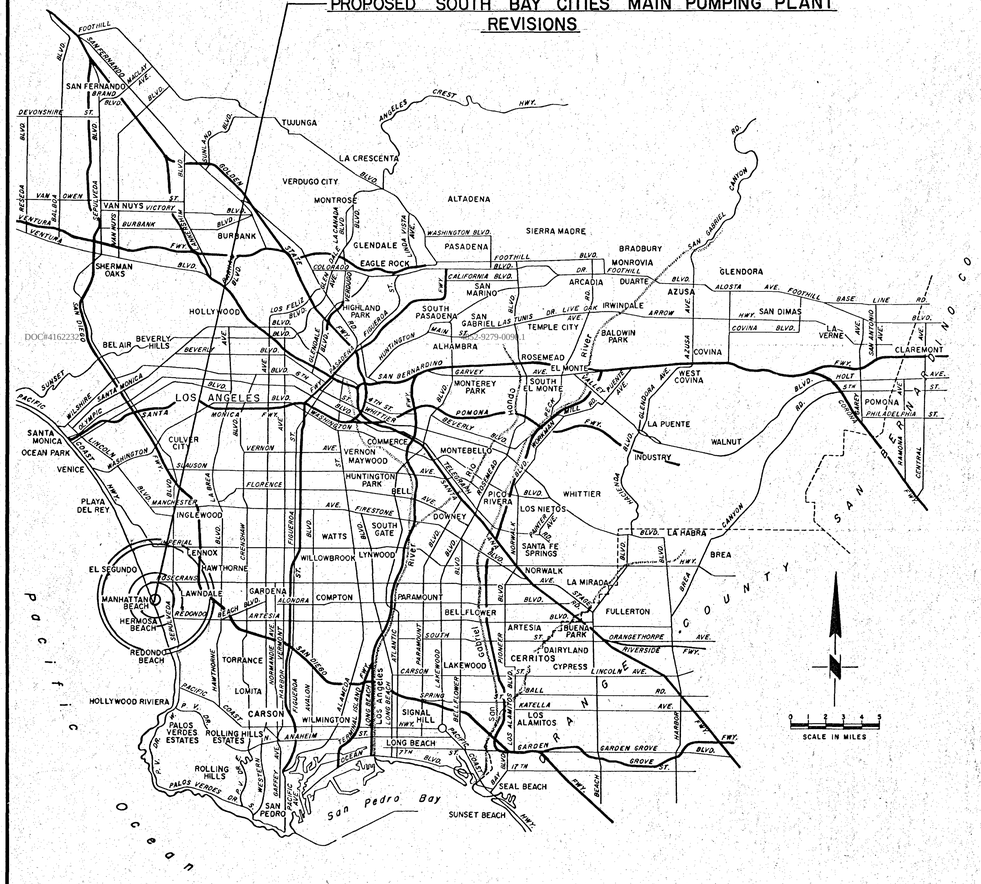
RECOMMENDED W E Harrison — ASST. CHIEF ENGINEER — DATED JUNE 9, 1971

APPROVED John A. Gallucci — CHIEF ENGINEER — DATED JUNE 9, 1971

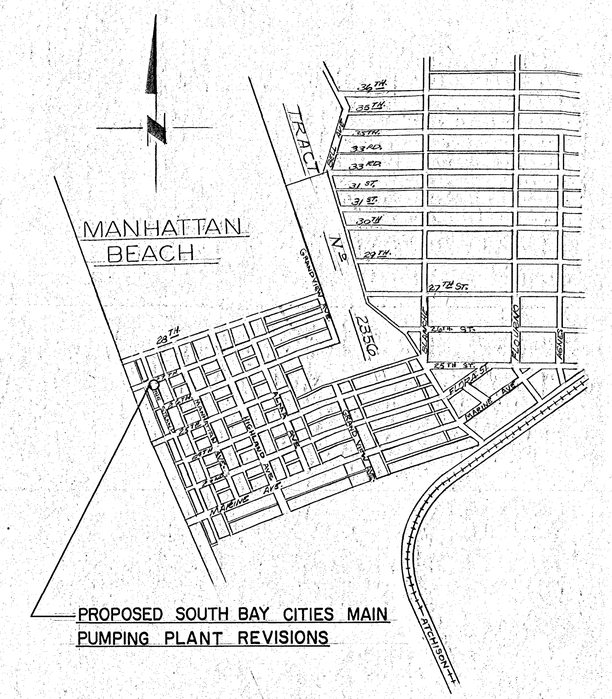
SHEET INDEX

SHEET NO.	CLASSIFICATION	TITLE
1		COVER SHEET
2	MECHANICAL	EXISTING YARD PIPING & REMOVAL
3	"	PROPOSED YARD PIPING
4	"	EXISTING PLANT PIPING & REMOVAL
5	"	PROPOSED PLANT PIPING I
6	"	PROPOSED PLANT PIPING II
7	"	PIPING PROFILES & MISC. DETAILS
8	STRUCTURAL	CONSTRUCTION NOTES & STANDARD DETAILS
9	"	EXISTING STRUCTURE REMOVAL DETAILS
10	"	TOP PLAIN & FIRST FLOOR PLAN
11	"	SECTIONS AT WET WELL
12	"	SECTIONS AT WET WELL & ENTRANCE
13	"	MISCELLANEOUS CONCRETE DETAILS
14	"	MISCELLANEOUS STELL DETAILS SHT. I
15	"	MISCELLANEOUS STELL DETAILS SHT. II
16	"	HANDRAILS
17	"	JUNCTION STRUCTURE & VALVE VAULT
18	ELECTRICAL	PLOT PLAN & MISCELLANEOUS DETAILS
19	"	EXISTING EQUIPMENT TO BE REMOVED
20	"	POWER & LIGHTING DETAILS
21	"	SWITCHBOARD WIRING DIAGRAM & SCHEDULE

PROPOSED SOUTH BAY CITIES MAIN PUMPING PLANT REVISIONS



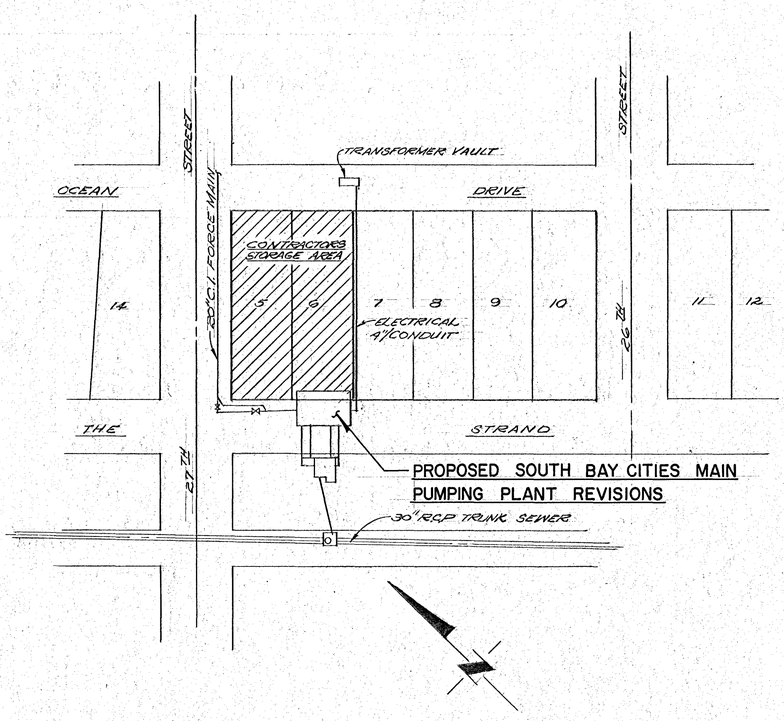
GENERAL LOCATION



PROPOSED SOUTH BAY CITIES MAIN PUMPING PLANT REVISIONS

VICINITY – MAP

SCALE: 1" = 600'



PLOT PLAN

SCALE: 1"=40'

Nº	SHEET	REVISION	INITIAL	DATE
1	10	NOTE 3 REPLACED AS PER ADDENDUM No1	TCS MP	8-4-71

S.B.-g-50
SHEET Nº 1
OF 21 SHEETS

DISCLAIMER – FOR GENERAL INFORMATION – NOT FOR CONSTRUCTION

THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY.

THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN. THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTIES. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION.

THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF FACILITIES AS BUILT OR OF SUBSEQUENTLY BUILT FACILITIES.

YOU MUST COMPLY WITH GOVERNMENT CODE SECTION 4216 PRIOR TO EXCAVATING IN THE VICINITY OF ANY DISTRICTS FACILITIES TO VERIFY THE FACILITY'S EXACT LOCATION. OBTAIN A BUILDOVER AGREEMENT PRIOR TO CONSTRUCTION OF IMPROVEMENTS OVER OR BELOW DISTRICTS FACILITIES.

DOC#4162232

4852-5279-0090.1

6" LOCAL SEWER
20" FORCE MAIN
¾" WATER LINE
1" TELEPHONE CONDUIT
18" WIDE CONC. ENCASEMENT (PUMPING PLANT ELEC. SUPPLY)
LOT 5
LOT 6
STA. 0+00 BEGIN SURVEY
STA. 0+27.2 ℄ SURVEY
19'-11"± PAVEMENT
10'-0"±
9'-11"±
20'-0"
20'-0"
19'-11½"±
2½"±
33.34' (LOT 5)
33.33' (LOT 6)
55'-7½"±
30'-0"
28'-0" (INSIDE PUMPING PLANT)
9" BEAM PROJ., TYP.
12"
12"
UNDERGROUND BRICK VAULT
CATCH BASIN
℄
CURB
7'-6"
UNDERGROUND T.V. CABLE APPROX. LOCATION
℄ SURVEY LINE
THE
STA. 0+32.00 ℄ PT. SURVEY
UNDERGROUND ELEC. CABLE FOR "STRAND" LIGHTS (APPROX. LOCATION)
LIGHT STANDARD
8" LOCAL SEWER
16" FORCE MAIN
16" FORCE MAIN BY-PASS
¾" WATER LINE
S.B.C. MAIN PUMPING PLANT (UNDER STRAND)
INSIDE PUMPING PLANT 19'-0"
17'-0"
5'-0"
SUCTION PUMP N31
SUCTION PUMP N32
SUCTION PUMP N33
SUCTION PUMP N34
6'-0"
6'-0"
6'-0"
5'-0"
VENTURI TUBES
VENTURI METER CONCRETE VAULT
4'-0"±
6'-4"±
STRAND
7'-6"
15'-0" 4" THICK CONC. SIDEWALK
8" SEWER
2" ELEC. CONDUIT
10" V.C. PIPE AIR VENT
OUTLINE OF BEACH & PUMPING PLANT ACCESS ABOVE, FOR DETAILS SEE SHT. 9
4" C.I. DRAIN PIPE
2" GALV. STL. PIPE
10" C.I.
12" C.I.
20" C.I.
11'-9"±
2½" GALV. STL. PIPE
2-24" CORRUGATED STEEL STORM DRAIN PIPES
SEWER MANHOLE STA. 0+76.9 12.8' RT.
STA. 0+88.80
10'-5"
8'-0"±
COMMINUTOR STRUCTURE (WET WELL)
3'-5½"±
4'-5"±
CARBON FILTER BEDS
8" VENT PIPE
30" R.C.P. INFLUENT SEWER
4" C.I. DRAIN PIPE
SEWER MANHOLE STA. 0+60.4 71' RT.
10" EL PORTO TRUNK SEWER
STA. 1+07.89 67.86 RT.
30" R.C.P. - S.B.C. TRUNK SEWER
6'-3½"
ABANDONED 30" R.C.P. TRUNK SEWER
STA. 1+02.12 74.13 RT.
5'-9"±
INFLUENT SEWER JUNCTION STRUCTURE

PIPING LEGEND

- FIRST STAGE REMOVAL OF PIPING - FOR DETAILS SEE STRUCTURAL DRAWINGS & THE SPECIAL PROVISIONS.
- SECOND STAGE REMOVAL OF PIPING - FOR DETAILS SEE STRUCTURAL DRAWINGS & THE SPECIAL PROVISIONS.
- REMOVE ANYTIME TO SUIT CONDITIONS.
- HOLES LEFT IN CONC. WALLS, BECAUSE OF REMOVED PIPING, SHALL BE DRYPACKED THE FULL DEPTH.
- PLUG ENDS OF PIPE WITH MIN. OF 4" OF CONC.
- REMOVE 16"-90° ELBOW WHEN CONNECTING PROP. 16" FORCE MAIN
- INSTALL BLIND FLANGE, 125# C.I.
- G.E. 32.0 — EXISTING GROUND ELEVATION
- S.W. 32.0 — EXISTING ELEVATION TOP OF SIDEWALK
- T.C. 32.0 — EXISTING ELEVATION TOP OF CURB

NO.	REVISIONS	INITIALS	DATE

COUNTY SANITATION DISTRICT NO. S.B.C.
OF LOS ANGELES COUNTY, CALIF.

SUBMITTED		JUNE 9 1971
RECOMMENDED	R. E. ECKER, CHIEF ENGINEER	JUNE 9 1971
APPROVED	ASST. CHIEF ENGINEER	JUNE 9 1971
	CHIEF ENGINEER	DATE

DESIGNED — APRIL '71
DRAWN — R. ECKER — APRIL '71
CHECKED — APRIL '71
FIELD BOOK NO.

SOUTH BAY CITIES MAIN PUMPING PLANT REVISIONS

MECHANICAL

EXIST. YARD PIPING & REMOVAL

SCALE: 1" = 5'-0"
SHEET NO. 2
OF 21 SHEETS
DWG. NO. S.B.-g-50

DISCLAIMER – FOR GENERAL INFORMATION ONLY

THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY.

THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN. THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTIES. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION.

THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF FACILITIES AS BUILT OR OF SUBSEQUENTLY BUILT FACILITIES.

YOU MUST COMPLY WITH GOVERNMENT CODE SECTION 4216 PRIOR TO EXCAVATION IN THE VICINITY OF ANY DISTRICTS FACILITIES TO VERIFY THE FACILITY LOCATION. OBTAIN A BUILDOVER AGREEMENT PRIOR TO CONSTRUCTION OF IMPROVEMENTS OVER OR BELOW DISTRICTS FACILITIES.

DOC#4162232

48S2-9879-0090.1

6" LOCAL SEWER
20" FORCE MAIN
¾" WATER LINE
1" TELEPHONE CONDUIT
18' WIDE CONC. ENCASEMENT (PUMPING PLANT ELEC. SUPPLY)
LOT 5
LOT 6
33.34' (LOT 5)
33.33' (LOT 6)
53'-7½"±
30'-0"
2'-0"
28'-0" (INSIDE PUMPING PLANT)
BEAM PROJ., TYP.
STA. 0+00 BEGIN SURVEY
19'-11½"±ASPHALT PAVEMENT
10'-0"±
9'-11"±
20'-0"
20'-0"
19'-2⅞"±
℄ SURVEY
STA. 0+27.74
CATCH BASIN
UNDERGROUND BRICK VAULT
THRUST BLOCK NOT SHOWN, SEE DETAILS SHT. 10
STA. 0+87.63
16" FORCE MAIN
16" FORCE MAIN BY-PASS
PROP. VALVE VAULT SEE DETAILS SHT. 17
VENTURI METER CONCRETE VAULT
¾" WATER LINE
S.B.C. MAIN PUMPING PLANT (UNDER STRAND)
INSIDE PUMPING PLANT
22'-6" (WET WELL)
20'-0"
STRAND
4" ± THICK CONC. SIDEWALK
VENTURI TUBES ABANDON
UNDERGROUND T.V. CABLE APPROX. LOCATION
THE
℄ SURVEY LINE
STA. 0+32.00 ℄ PT. SURVEY
UNDERGROUND ELEC. CABLE FOR "STRAND" LIGHTS (APPROX. LOCATION)
LIGHT STANDARD
CURB
8" LOCAL SEWER
8" SEWER
M.J.
THIS M.J. SHALL BE LOCATED AT THE EDGE OF THE WET WELL EXCAVATION
PROP. 16" C.I.M.J. FORCE MAIN
34'-5"±
4'-3"±
SEE THRUST BLOCK DETAIL DETAIL THIS SHT.
SEWER MANHOLE STA. 0+46.9 12.8 RT.
INSTALL 23½" O.D. BLIND FLANGE
CONNECT PROP. 16" C.I. FORCE MAIN TO THE EXIST. 16" FLANGED GATE VALVE ℄ EL. 27.00±
16"-90° ELBOW C.I.M.J. THRUST BLOCK NOT SHOWN SEE DETAIL SHT. 10
2-24" CORRUGATED STEEL STORM DRAIN PIPES
PROP. PUMPING PLANT ℄ BEACH ACCESS SEE DETAILS SHT. 10, 11, & 12
WET WELL
STA. 1+08.67 28.5' RT.
COMMINUTOR STRUCTURE (WET WELL) TO BE REVISED PER NOTES & DETAILS SHT. 9
PROP. 30" R.G.R.C.P. INFLUENT SEWER
STA. 0+39.03
8" VENT PIPE, REMOVE AS REQ'D & ABANDON REMAINDER
30" R.C.P. INFLUENT SEWER, ABANDON IN PLACE.
SEWER MANHOLE STA. 0+60.4 71' RT.
PROP. INFLUENT SEWER JUNCTION STRUCTURE, SEE DETAILS SHT. 17
10" EL PORTO TRUNK SEWER
STA. 0+92.47
STA. 1+07.89 67.84' RT.
INFLUENT SEWER JUNCTION STRUCTURE. MODIFY PER DETAILS SHT. 17
STA. 1+07.89 71.13' RT.
30" R.C.P. - S.B.C. TRUNK SEWER
ABANDONED 30" R.C.P. TRUNK SEWER
STA. 0+88.80
STA. 1+02.12
STA. 1+07.89
74.13' RT.

8"
5"
16" FORCE MAIN
A
A
PLAN
SECTION A-A
THRUST BLOCK DETAIL
SCALE: ½" = 1'-0"

LEGEND

- PROPOSED PIPING
- PROPOSED PIPING
- PROPOSED CONSTRUCTION
- EXISTING PIPING (SINGLE & DOUBLE LINE)
- EXISTING PIPING (SINGLE & DOUBLE LINE)
- EXISTING FEATURES
- EXISTING GROUND ELEVATION
- EXISTING ELEVATION TOP OF SIDEWALK
- EXISTING ELEVATION TOP OF CURB

NO.	REVISIONS	INITIALS	DATE

COUNTY SANITATION DISTRICT NO. SBC
OF LOS ANGELES COUNTY, CALIF.

DESIGNED	APRIL '71	SUBMITTED	JUNE 9, 1971 DATE
DRAWN	R. ECKER	RECOMMENDED	JUNE 9, 1971 DATE
CHECKED	APRIL '71	APPROVED	JUNE 9, 1971 DATE
FIELD BOOK NO.			

SOUTH BAY CITIES MAIN PUMPING PLANT REVISIONS

MECHANICAL

PROPOSED YARD PIPING

SCALE: 1" = 5'-0"
SHEET NO. 3
OF 21 SHEETS
DWG. NO. S.B.-g-50

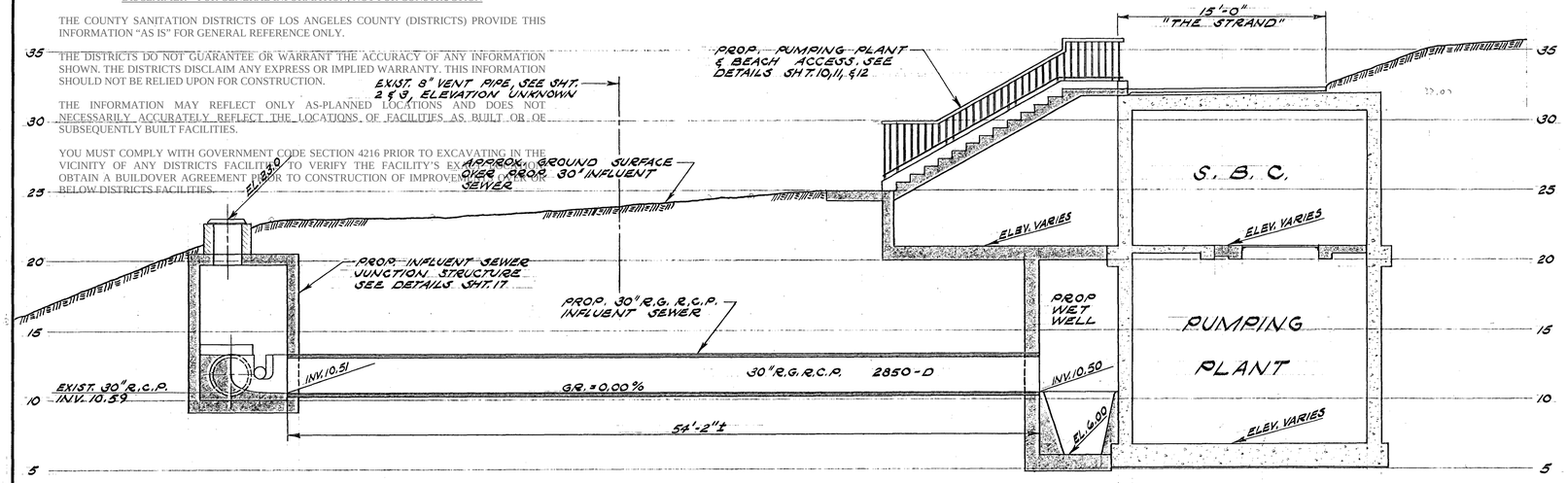
DISCLAIMER – FOR GENERAL INFORMATION, NOT FOR CONSTRUCTION

THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY.

THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN. THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION.

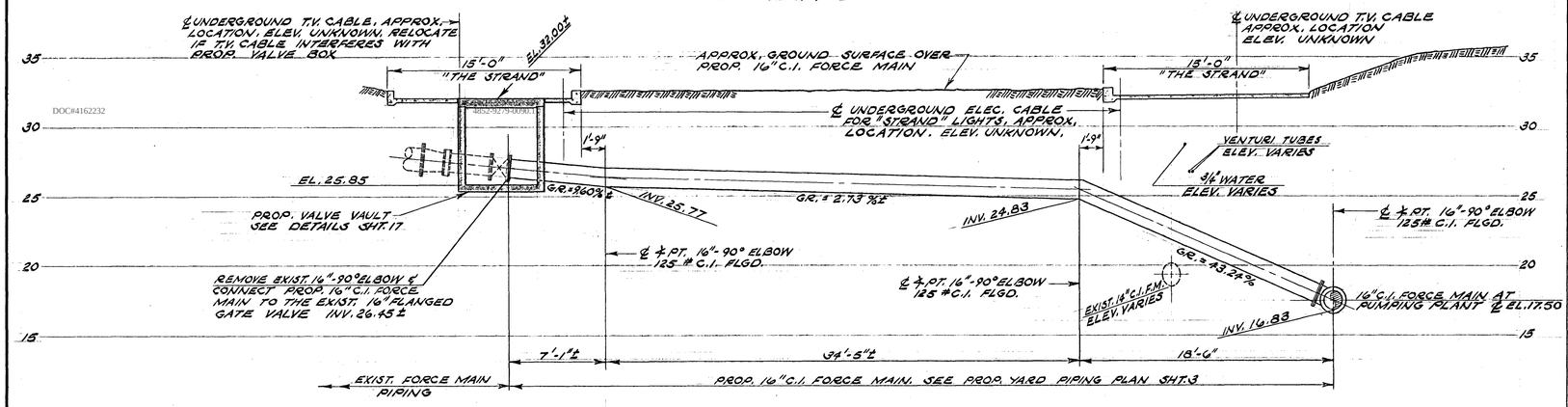
THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF FACILITIES AS BUILT OR OF SUBSEQUENTLY BUILT FACILITIES.

YOU MUST COMPLY WITH GOVERNMENT CODE SECTION 4216 PRIOR TO EXCAVATING IN THE VICINITY OF ANY DISTRICTS FACILITIES TO VERIFY THE FACILITY'S EXACT LOCATION. YOU MAY OBTAIN A BUILDOVER AGREEMENT PRIOR TO CONSTRUCTION OF IMPROVEMENTS PLANNED BELOW DISTRICTS FACILITIES.



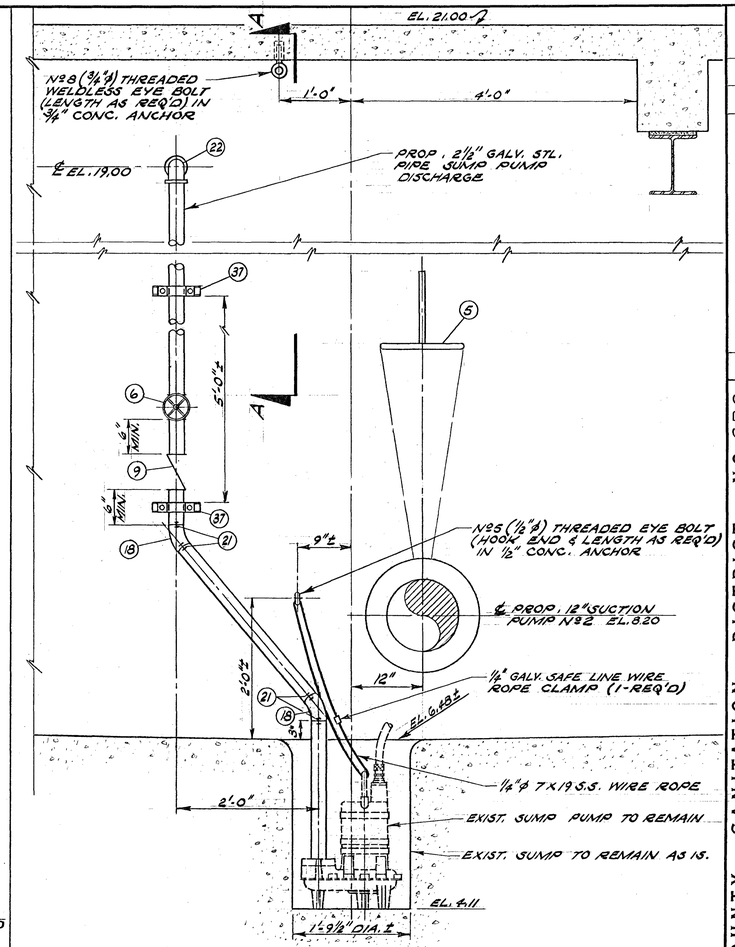
PROFILE - PROP. 30"ϕ INFLUENT SEWER

SCALE: HORIZ. 1"=5'
VERT. 1"=5'



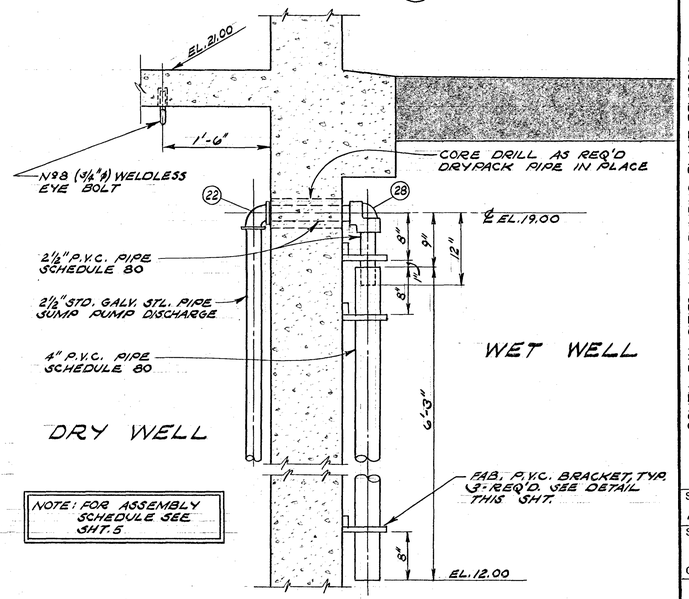
PROFILE - PROP. 16"ϕ FORCE MAIN

SCALE: HORIZ. 1"=5'
VERT. 1"=5'



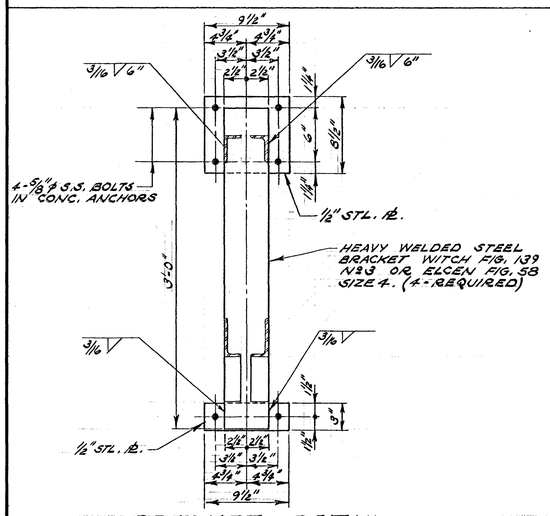
SECTION 5|7 A

SCALE: 1"=1'-0"



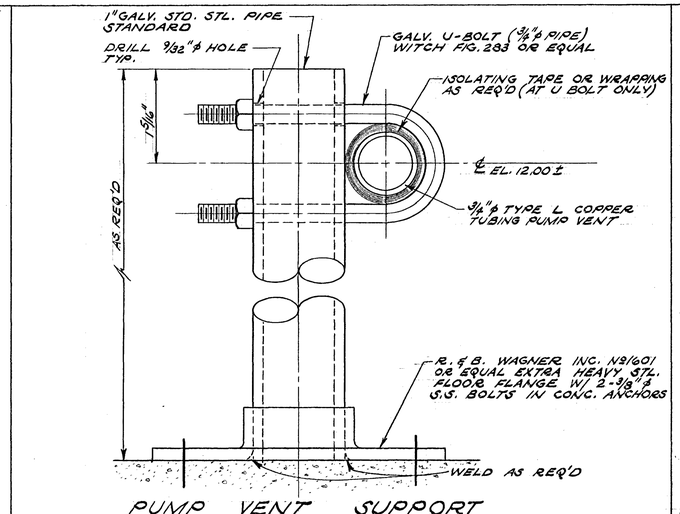
SECTION A-A

SCALE: 1"=1'-0"



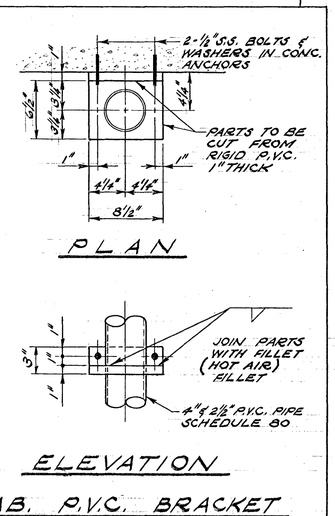
BRACKET DETAIL

SCALE: 1½"=1'-0"



PUMP VENT SUPPORT

FULL SIZE
(6-REQUIRED)



PLAN

ELEVATION

FAB. P.V.C. BRACKET

SCALE: 1½"=1'-0"
(3-REQUIRED)

NO.	REVISIONS	INITIALS	DATE

COUNTY SANITATION DISTRICT NO. S.B.C. OF LOS ANGELES COUNTY, CALIF.

	INITIALS	DATE
SUBMITTED		JUNE 9, 1971
RECOMMENDED	ASST. CHIEF ENGINEER	JUNE 9, 1971
APPROVED	CHIEF ENGINEER	JUNE 9, 1971

DESIGNED		APRIL '71
DRAWN	R. EICKER	APRIL '71
CHECKED	O.D.	APRIL '71
FIELD BOOK NO.		

SOUTH BAY CITIES MAIN PUMPING PLANT REVISIONS

PIPING PROFILES & MISC. DETAILS

MECHANICAL

SCALE: AS SHOWN
SHEET NO. 7
OF 21 SHEETS
DWG. NO. S.B.-g-50

DISCLAIMER – FOR GENERAL INFORMATION, NOT FOR CONSTRUCTION

THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY.

THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN. THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION.

THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND MAY NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF FACILITIES AS BUILT OR OF SUBSEQUENTLY BUILT FACILITIES.

YOU MUST COMPLY WITH GOVERNMENT CODE SECTION 4216 PRIOR TO EXCAVATING IN THE VICINITY OF ANY DISTRICTS FACILITIES TO VERIFY THE FACILITY'S EXACT LOCATION. OBTAIN A BUILDOVER AGREEMENT PRIOR TO CONSTRUCTION OF IMPROVEMENTS OVER OR BELOW DISTRICTS FACILITIES.

SOUTH BAY CITIES SANITATION DISTRICT

OF LOS ANGELES COUNTY, CALIFORNIA

OFFICE OF CHIEF ENGINEER

CONTRACT DRAWINGS

SOUTH BAY CITIES MAIN PUMPING PLANT FORCE MAINS NO. 2 AND NO. 3

SUBMITTED _____ DATED AUGUST 15, 2007
OFFICE ENGINEER
C.E. No. 30537

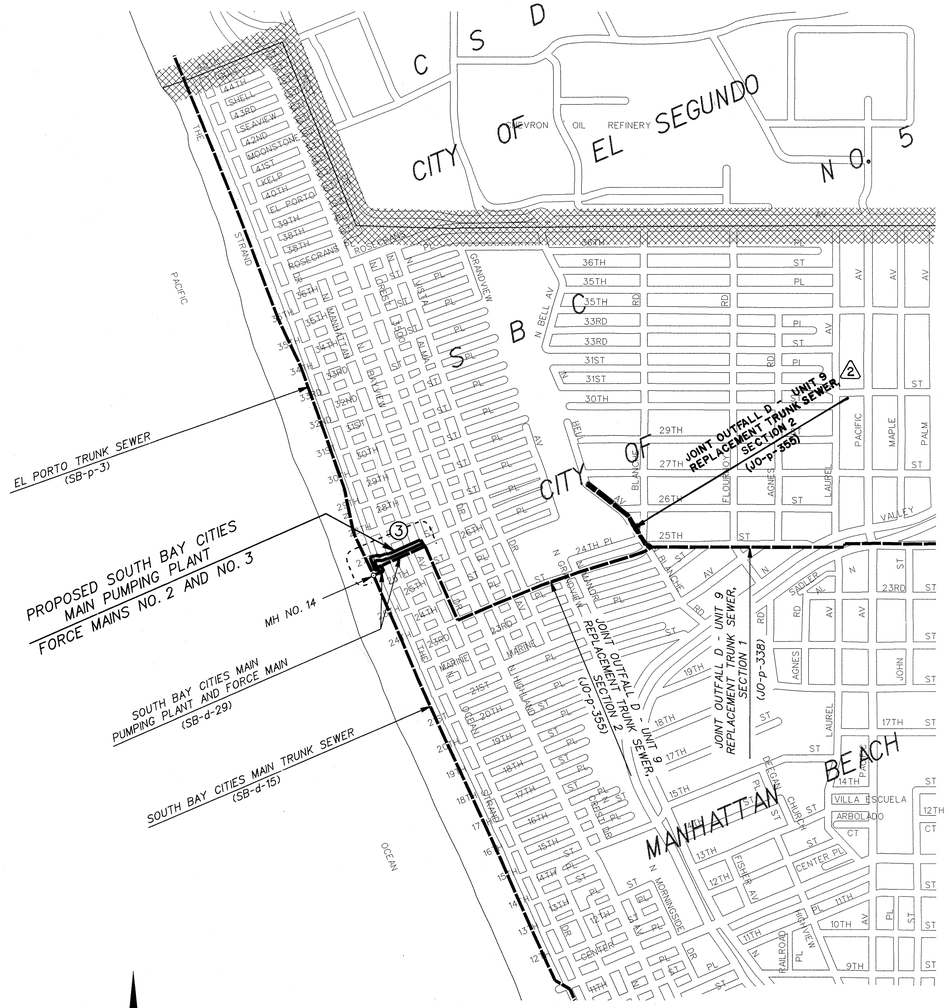
RECOMMENDED _____ DATED AUGUST 15, 2007
ASST. CHIEF ENGINEER
C.E. No. 26390

APPROVED _____ DATED AUGUST 15, 2007
CHIEF ENGINEER
C.E. No. 23089

DOC#4162232

4852-5279-0090.1

GENERAL LOCATION



VICINITY MAP

SCALE- 1"=600'
TG- 732

NO.	SHEET	REVISION	INITIAL	DATE
5	2-5,7,8, 10-12,17, 17C,17G, 19 & 19A	REVISED PER AS-BUILT AND FINAL SURVEY.	TN	9y	11/16/13
4	2,19A,19B	ADDED SHEETS 19A & 19B.	MT	MT	11-18-08
3	2,17A-17G	ADDED SHEETS 17A-17G.	MT	MT	11-18-08
2	1,7,8	ADDED SEWER, MODIFIED GUARD RAIL.	MT	MT	10/24/08
1	2,3,5,20 23 & 24	REVISED PER ADDENDUM NO. 1 AND REVISED ALIGN.	MT	MT	11-01-07

RECORD DRAWING 5

REGISTERED PROFESSIONAL ENGINEER
MICHAEL E. TANNER
No. C 62775
EXP. 6-30-08
CIVIL
STATE OF CALIFORNIA

SB - p - 21
SHEET NO. 1
OF 26 SHEETS

2

20-AUG-2007 12:29

c:\dgn\sbp\21\sh01.dgn

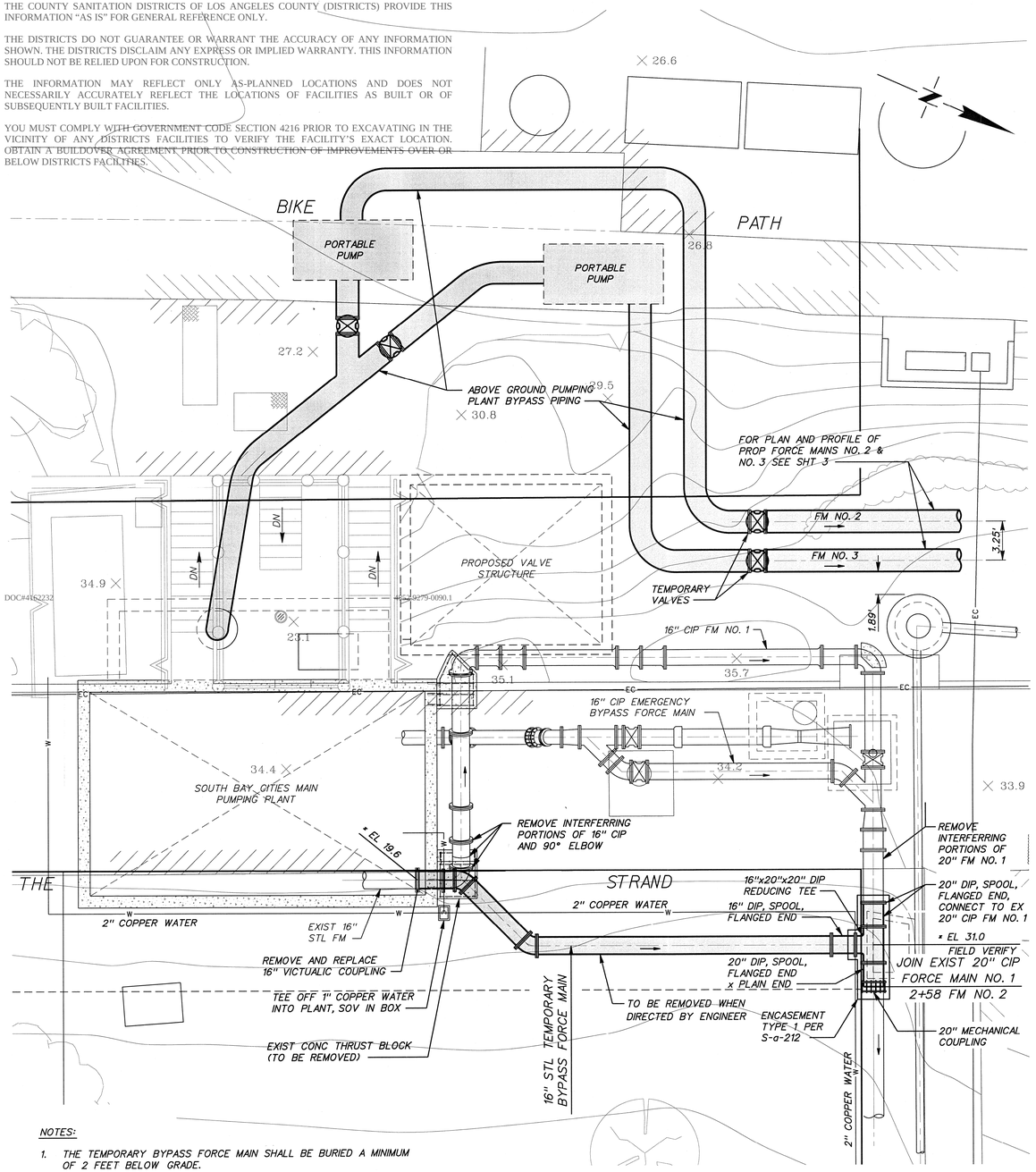
DISCLAIMER – FOR GENERAL INFORMATION, NOT FOR CONSTRUCTION

THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY (DISTRICTS) PROVIDE THIS INFORMATION "AS IS" FOR GENERAL REFERENCE ONLY.

THE DISTRICTS DO NOT GUARANTEE OR WARRANT THE ACCURACY OF ANY INFORMATION SHOWN. THE DISTRICTS DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY. THIS INFORMATION SHOULD NOT BE RELIED UPON FOR CONSTRUCTION.

THE INFORMATION MAY REFLECT ONLY AS-PLANNED LOCATIONS AND DOES NOT NECESSARILY ACCURATELY REFLECT THE LOCATIONS OF FACILITIES AS BUILT OR OF SUBSEQUENTLY BUILT FACILITIES.

YOU MUST COMPLY WITH GOVERNMENT CODE SECTION 4216 PRIOR TO EXCAVATING IN THE VICINITY OF ANY DISTRICTS FACILITIES TO VERIFY THE FACILITY'S EXACT LOCATION. OBTAIN A BUILDOVER AGREEMENT PRIOR TO CONSTRUCTION OF IMPROVEMENTS OVER OR BELOW DISTRICTS FACILITIES.



NOTES:

1. THE TEMPORARY BYPASS FORCE MAIN SHALL BE BURIED A MINIMUM OF 2 FEET BELOW GRADE.
2. IMMEDIATELY AFTER CONSTRUCTING THE TEMPORARY BYPASS FORCE MAIN, THE GROUND ABOVE IT SHALL BE RESTORED WITH TEMPORARY BACK FILL.
3. EXCAVATION UNDER THE STRAND SHALL BE BACK FILLED w/ SPOILS AND ON TOP OF SPOILS w/ 1-SACK CEMENT/SAND SLURRY TO EXISTING GRADE.
4. ALL STATIONING IS ALONG CENTERLINE OF FORCE MAIN NO. 2.
5. THE LOCATION OF PORTABLE PUMPS AND ABOVE GROUND BYPASS PIPING IS FOR ILLUSTRATION PURPOSES AND MAY BE MODIFIED, AS APPROVED BY THE ENGINEER.
6. SOUTHERN STAIRWAY SHALL BE OPEN FOR PUBLIC ACCESS AT ALL TIMES.
7. FLOW BY-PASS SHALL BE PER SPECIAL PROVISIONS, SECTION 3.6.2.

FLOW BYPASS PLAN

NTS

STANDARD DRAWINGS

THE 2006 EDITION OF THE DISTRICTS' STANDARD DRAWINGS FOR CONSTRUCTION, LISTED BELOW, ARE HEREBY MADE A PART OF THE PLANS FOR THE WORK. COPIES ARE AVAILABLE AT THE DISTRICTS' JOINT ADMINISTRATION OFFICE, 1955 WORKMAN MILL ROAD, WHITTIER, CA 90601 AND CAN BE DOWNLOADED FROM THE DISTRICTS' WEB SITE (WWW.LACSD.ORG).

DRAWING NO.	TITLE
S-a-79	STANDARD METHOD OF INSTALLING SADDLES
S-a-86	STANDARD METHOD FOR CONNECTION TO PIPES AND STRUCTURES
S-a-201	STANDARD MANHOLE, TYPE "A"
S-a-202	STANDARD MANHOLE, TYPE "B"
S-a-203	STANDARD MANHOLE, TYPE "C"
S-a-204	STANDARD MANHOLE, TYPE "D"
S-a-205	STANDARD DROP MANHOLE
S-a-206	STANDARD MANHOLE, TYPE "E"
S-a-207	STANDARD 24" LOCKING MANHOLE FRAME AND COVER
S-a-208	STANDARD 24" PRESSURE MANHOLE FRAME AND COVER
S-a-209	STANDARD MANHOLE STEP
S-a-210	STANDARD TRAP MANHOLE BASE
S-a-211	STANDARD TRAP CASTING
S-a-212	STANDARD CONCRETE CRADLES AND ENCASEMENTS
S-a-213	STANDARD "T" FOUNDATION
S-a-214	STANDARD CHIMNEY PIPE
S-a-215	STANDARD 36" MANHOLE FRAME AND COVER
S-a-216	STANDARD HOUSE CONNECTION GAS TRAP
S-a-217	STANDARD CONCRETE PIPE SUPPORT
S-a-218	STANDARD ABANDONMENT OF EXISTING MANHOLES TYPE "A" OR "D"
S-a-219	STANDARD RECONSTRUCTION OF BRICK MANHOLES
S-a-220	STANDARD PULL RING
S-a-221	STANDARD PROJECT SIGN
S-a-222	STANDARD TEMPORARY PIPE SUPPORT
S-a-223	STANDARD 30" MANHOLE FRAME AND COVER
S-a-224	STANDARD PIPE BARREL
S-a-225	STANDARD CONCRETE COLLAR
S-a-226	STANDARD 36" MANHOLE FRAME WITH 30" COVER
S-a-227	STANDARD CONCRETE BEAM FOR HOUSE CONNECTIONS
S-a-228	STANDARD 24" TRAFFIC MANHOLE FRAME AND COVER
S-a-229	STANDARD 36" PRESSURE MANHOLE FRAME AND COVER
S-a-230	STANDARD LIFTING EYE

SHEET INDEX

SHEET NO.	STRUCTURAL/ ELECTRICAL SHEET NO.	TITLE
1		COVER SHEET
2		LEGEND, STANDARD DRAWINGS, FLOW BYPASS PLAN AND SHEET INDEX
3		PLAN AND PROFILE - STA 1+ 00 FM NO. 2 TO STA 6+23.62 FM NO. 2
4		JUNCTION STRUCTURES 1 AND 2 AND MISCELLANEOUS DETAILS
5		SITE DEMOLITION, SITE IMPROVEMENT, PUMPING PLANT AND PIPING LAYOUT
6	S-1	GENERAL NOTES AND TYPICAL DETAILS
7	S-2	VALVE STRUCTURE - PLAN AND SECTIONS
8	S-3	VALVE STRUCTURE - SECTIONS
9	S-4	VALVE STRUCTURE - DEMOLITION PLAN AND SECTION AND DETAILS
10	S-5	VALVE STRUCTURE - DEMOLITION PLANS AND SECTIONS
11	S-6	JUNCTION STRUCTURE 1 - PLAN AND SECTIONS
12	S-7	JUNCTION STRUCTURE 2 AND SS STOPLOG NOTCH AND SS STOPLOG DETAILS
13	S-8	MISCELLANEOUS DRAWINGS - PLASTIC LINER DETAILS I
14	S-9	MISCELLANEOUS DRAWINGS - PLASTIC LINER DETAILS II
15	S-10	MANHOLE NO. 14 MODIFICATIONS - DEMOLITION PLAN AND SECTIONS
16	S-11	MANHOLE NO. 14 MODIFICATIONS - PLAN AND SECTIONS I
17	S-12	MANHOLE NO. 14 MODIFICATIONS - PLAN AND SECTIONS II
17A	S-13	DOOR AND COMMINUTOR MODIFICATIONS CONSTRUCTION NOTES AND INDEX OF DRAWINGS
17B	S-14	DOOR AND COMMINUTOR MODIFICATIONS CONSTRUCTION NOTES
17C	S-15	STRUCTURE MODIFICATIONS - PLAN, ELEVATION AND SECTION
17D	S-16	DOOR MODIFICATIONS - DEMOLITION PLAN AND SECTIONS
17E	S-17	DOOR MODIFICATIONS - PLAN, SECTIONS AND DETAILS
17F	S-18	DOOR MODIFICATIONS - PLAN AND SECTIONS
17G	S-19	COMMINUTOR MODIFICATIONS - DEMOLITION, PLAN AND SECTIONS
18	E-1	ELECTRICAL SYMBOLS, NOTES AND PANEL SCHEDULE
19	E-2	ELECTRICAL PLAN
19A	A-1	PLANS AND ELEVATIONS
19B	A-2	SECTIONS AND DETAILS
20		SPECIAL PROVISIONS
21		SPECIAL PROVISIONS
22		SPECIAL PROVISIONS
23		SPECIAL PROVISIONS
24		SPECIAL PROVISIONS
25		SPECIAL PROVISIONS
26		SPECIAL PROVISIONS

LEGEND

	PROPOSED TRUNK SEWER	TP ●---------● DM	EXISTING TELEPHONE POLE AND DEAD MAN
	PROPOSED TRUNK SEWER REHABILITATION	PP ●---------● DM	" POWER POLE AND DEAD MAN
	EXISTING TRUNK SEWER	FH ⊠	" FIRE HYDRANT
	FUTURE OR UNDER CONSTRUCTION	GP ●	" GUY POLE
EC	EXISTING ELECTRICAL CONDUIT	LP ✣	" LIGHT POLE
G	" GAS LINE	TS ●	" TRAFFIC SIGNAL
GASO	" GASOLINE LINE	WV ⊠ GV ⊠	" WATER AND GAS VALVE
HC	" HOUSE CONNECTION	WM ⊙ GM ⊙	" WATER AND GAS METER
IRR	" IRRIGATION LINE	×—×—×	" FENCE
S	" LOCAL SEWER		" AC PAVEMENT
O	" OIL LINE		" CONCRETE
P	" PIPE LINE		" CSD BOUNDARY
SD	" STORM DRAIN		" CITY BOUNDARY
TC	" TELEPHONE CONDUIT		RIGHT-OF-WAY
TS	" TRAFFIC SIGNAL		EASEMENT/ OCCUPATIONAL RIGHT-OF-WAY
TV	" TV CABLE		BENCH MARK
W	" WATER LINE		TEST HOLE
	PLAN AND PROFILE SHEET INDEX		

RECORD DRAWING 5

				12/4/13	DATE
				JW	INITIALS
				7	NO.
				REVISED PER AS-BUILT AND FINAL SURVEY.	REVISIONS
				11/18/08	DATE
				MT	INITIALS
				6	NO.
				ADDED SHEETS, 19A & 19B.	REVISIONS
				11/18/08	DATE
				MT	INITIALS
				5	NO.
				ADDED SHEETS, 17A-17C.	REVISIONS
				11/01/07	DATE
				MT	INITIALS
				4	NO.
				REVISED PER ADDENDUM NO. 1.	REVISIONS

SOUTH BAY CITIES SANITATION DISTRICT
OF LOS ANGELES COUNTY, CALIFORNIA

		REFERENCE DWG. NO.	FIELD BOOK NO.
DESIGNED	T. NIKONOVA	AUG. 2007	S-357
DRAWN	R. ESPARZA	AUG. 2007	
CHECKED	M. TREMBLAY	AUG. 2007	
REVIEWED	T. SUNG	AUG. 2007	

SOUTH BAY CITIES MAIN PUMPING PLANT
FORCE MAINS NO. 2 AND NO. 3

LEGEND, STANDARD DRAWINGS, FLOW BYPASS PLAN AND SHEET INDEX

SCALE : AS SHOWN

SHEET NO. 2

OF 26 SHEETS

DWG. NO. SB - p - 21

12-DEC-2013 12:27 resparza

Y:\District-SBC\SBp0021\cs\sh02.dgn -- MODEL= Default

TYPICAL SECTION
1+47 TO 2+07
NTS

TYPICAL SECTION
2+07 TO 6+14.32
NTS
(SEE NOTE 3 & NOTE 5)

NOTES:
1. ALL STATIONING IS FOR FORCE MAIN NO. 2.
2. FORCE MAIN NO. 2 AND FORCE MAIN NO. 3 SHALL BE CONSTRUCTED IN ONE TRENCH.
3. REINFORCED CONCRETE ENCASEMENT FROM STA 1+47 TO STA 2+70 AND FROM STA 5+25 TO STA 6+13 PER DETAIL ON THIS SHEET AND SHEET S-5. FROM STA 2+70 TO STA 5+25 AND FROM STA 6+20 TO STA 6+23, USE 2-SACK CEMENT/ SAND SLURRY.
4. SIZE AND LOCATION OF UTILITY LINES SHALL BE VERIFIED IN THE FIELD.
5. THE DISTANCE BETWEEN THE HDPE FORCE MAINS VARIES FROM 9" AT STA 5+91.66 TO 17" AT STA 6+14.32.
6. ASPHALT PAVEMENT REPLACED WITH CONCRETE PAVEMENT FROM STA 2+35 TO STA 3+42.

SCALES
HORIZ. 1" - 20'
VERT. 1" - 5'

RECORD DRAWING

WARNING 1" IF THIS LINE IS NOT 1" LONG, THEN DWG IS NOT TO SCALE.

NO.	REVISIONS	INITIALS	DATE
3	REVISED PER AS-BUILT AND FINAL SURVEY.	JV	12/6/13
2	REVISED LOCATION OF JUNCTION STRUCTURE NO. 1.	MT	11/19/08
1	REVISED PER ADDENDUM NO. 1 AND REVISED ALIGNMENT PER CALIFORNIA DEPT. OF PUBLIC HEALTH.	MT	11/01/07

SOUTH BAY CITIES SANITATION DISTRICT
OF LOS ANGELES COUNTY, CALIFORNIA

REFERENCE DWG. NO. S-357

FIELD BOOK NO.

DESIGNED	T. NIKONOVA	AUG. 2007
DRAWN	R. ESPARZA	AUG. 2007
CHECKED	M. TATALOVICH	AUG. 2007
REVIEWED	M. TREMBLAY	AUG. 2007

SOUTH BAY CITIES MAIN PUMPING PLANT
FORCE MAINS NO. 2 AND NO. 3

PLAN AND PROFILE

SHEET NO. 3
OF 26 SHEETS

DWG. NO. SB - p - 21

From: Jason Kung
To: Danielle Clendening
Cc: Jinho Kang; Frank Fuchs
Subject: RE: Title 5 Information Request for a School Site in Manhattan Beach, CA
Date: Tuesday, January 15, 2019 2:31:07 PM
Attachments: image001.png
image002.png

Danielle,

We currently only have one 16" Recycled Water pipeline greater than 12" in diameter. Please see the attached drawings (link) for further detail. In addition we also have a 6" RW Pipeline following Blanch Rd/Bell Ave leading up to Sand Dune Park. Please let me know if you require more information.

https://www.dropbox.com/s/dq6qsq9r1iy4g1z/R-7.pdf?dl=0

Thanks,

Jason Kung
Operations Analyst
Office: 310.660.6298
Mobile: 310.616.6067
jasonk@westbasin.org

West Basin Municipal Water District
17140 S. Avalon Blvd., Carson, CA 90746
www.westbasin.org

From: Frank Fuchs
Sent: Monday, January 14, 2019 4:01 PM
To: Jason Kung
Cc: Jinho Kang
Subject: FW: Title 5 Information Request for a School Site in Manhattan Beach, CA

Jason,
Please see utility request below for lines 12-inch or greater.
Thanks
Frank

From: Danielle Clendening [mailto:dbclendening@placeworks.com]
Sent: Monday, January 14, 2019 1:54 PM
To: Frank Fuchs
Subject: Title 5 Information Request for a School Site in Manhattan Beach, CA

Good afternoon,

Manhattan Beach 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 located within a 1,500-foot radius of Grand View Elementary School. The address for the site is 455 24th Street Manhattan Beach, CA.

I have attached a pdf of 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 pipelines 12-inches in diameter or greater operated by West Basin Municipal Water District located within a 1,500-foot radius of the site.

If there are no water pipelines 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!

Best regards

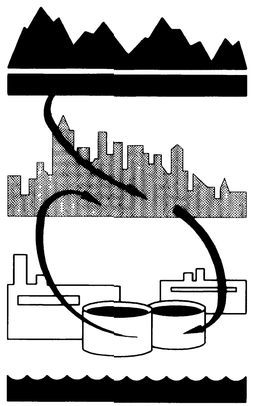
DANIELLE CLENDENING
Intern

http://www.placeworks.com/" style='position:absolute;margin-left:0;margin-top:127.85pt;width:108pt;height:21.55pt;z-index:251659264;visibility:visible;mso-wrap-style:square;mso-width-percent:0;mso-height-percent:0;mso-wrap-distance-left:0;mso-wrap-distance-top:0;mso-wrap-distance-right:9.35pt;mso-wrap-distance-bottom:0;mso-position-horizontal:left;mso-position-horizontal-relative:text;mso-position-vertical:absolute;mso-position-vertical-relative:text;mso-width-percent:0;mso-height-percent:0;mso-width-relative:page;mso-height-relative:page' o:button="t">>

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

WEST BASIN
MUNICIPAL WATER DISTRICT

WEST BASIN WATER RECLAMATION PROGRAM
PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM
CONTRACT R7 - SCHEDULE 3



OCTOBER 1993

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

CITY OF MANHATTAN BEACH

APPROVED : _____ DATE

CITY OF HERMOSA BEACH

APPROVED : _____ DATE

CITY OF REDONDO BEACH

APPROVED : Don Gray 12-17-93 DATE

DESCRIPTION	DATE	NO.

REVISIONS

ASL Consultants, Inc.

STEVE TEDESCO, PROJECT MANAGER RCE 39261
ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

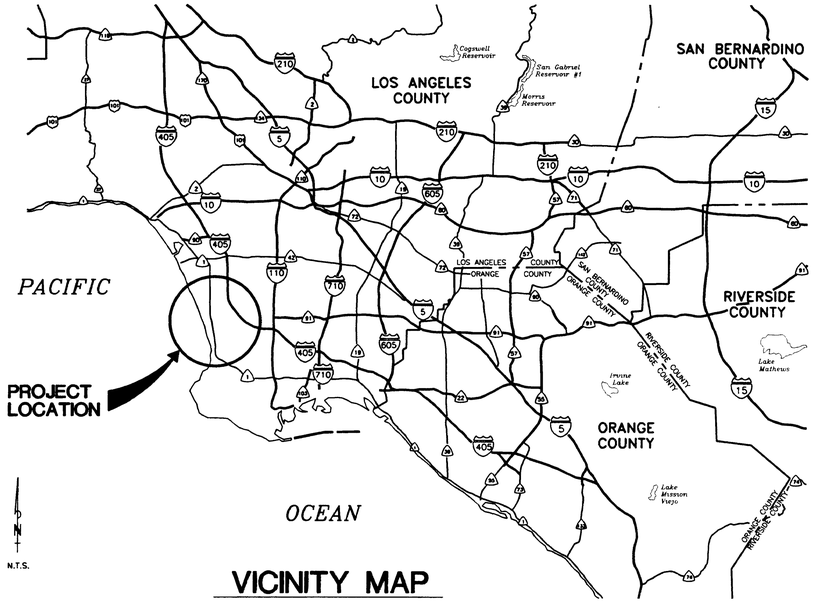
REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. 39261 Exp. 12-31-93 STATE OF CALIFORNIA

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA. 90746-1218
(213) 217-2411

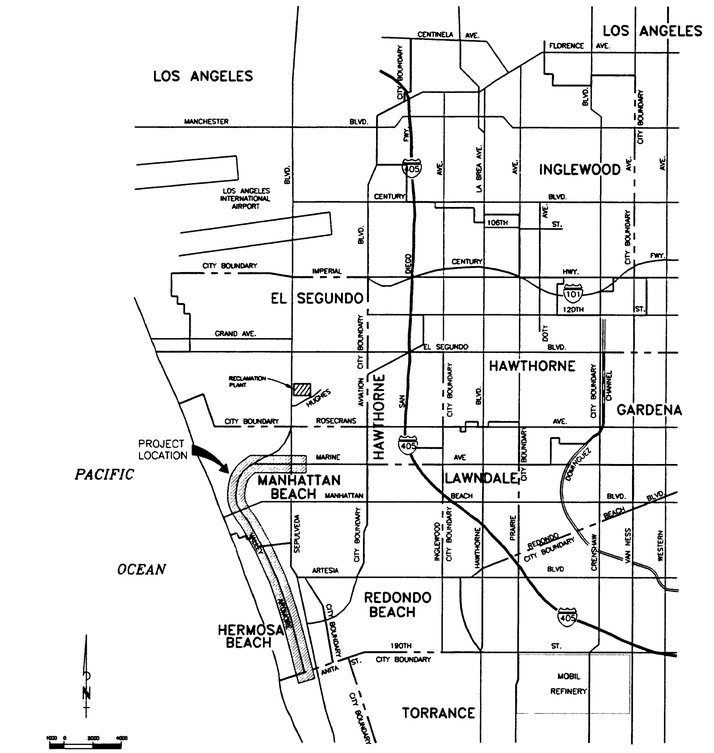
APPROVED : Thomas A. Love 10/20/93
WBMWD DISTRICT ENGINEER DATE

RECOMMENDED : Michael D. Hoover 10/20/93
WBMWD PROGRAM MANAGER DATE

H:\WBMWD\WBS01



VICINITY MAP



LOCATION MAP

GENERAL NOTES

1. UNLESS OTHERWISE SHOWN ON PLANS, INDICATED IN SPECIFICATIONS, OR CONTAINED IN ANY PERMITS, THE CONTRACTOR SHALL REPLACE IN KIND ALL SERVICE LATERALS, PAVEMENT, SIDEWALKS, CURBS, BERMS, TRAFFIC SENSORS, TRAFFIC LOOPS, DRAINAGE DITCHES, AND ALL OTHER EXISTING FACILITIES, ABOVE OR BELOW GROUND, WHICH ARE REMOVED OR DAMAGED DURING CONSTRUCTION.

2. CONTRACTOR SHALL VERIFY THE LOCATIONS OF EXISTING PIPES TO BE JOINED BY THE NEW PIPE PRIOR TO SUBMITTING SHOP DRAWINGS.

3. CONTRACTOR SHALL OBTAIN ALL CONSTRUCTION PERMITS AND PAY ALL FEES. SEE SPECIFICATION.

4. STATIONS, COORDINATES, AND RADII REFER TO THE CENTERLINE OF PIPE. STATIONS SHOWN ARE VERTICAL PROJECTIONS ALONG CENTERLINE OF PIPE. ELEVATIONS REFER TO THE INVERT OF PIPE OR INVERT AT POINTS OF INTERSECTIONS OF SLOPE CHANGES AND ARE BASED ON U.S.G.S. MEAN SEA LEVEL (MSL).

5. CONTRACTOR SHALL POTHOLE ALL UTILITIES PRIOR TO THE START OF ANY PIPELINE CONSTRUCTION. REPRESENTATIVES FROM THE RESPECTIVE UTILITIES MUST BE NOTIFIED 48 HOURS PRIOR TO FIELD VERIFICATION. (UNDERGROUND SERVICE ALERT – (800) 422–4133). ALL UTILITIES SHALL BE EXPOSED AT LEAST 1000 FEET AHEAD OF PIPE EXCAVATION OPERATIONS.

6. EXISTING OR FINISHED GRADE SHOWN ON PROFILE IS OVER CENTERLINE OF PIPE.

7. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER, ASL CONSULTING ENGINEERS AND THEIR AGENTS HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER, ASL CONSULTING ENGINEERS AND THEIR AGENTS AS SPECIFIED IN THE GENERAL CONDITIONS.

8. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SUPPORT OF ALL EXISTING UTILITIES CROSSING TRENCH. CONCRETE SUPPORT PER DETAIL (4 / D3-01) IS REQUIRED FOR ALL EXIST. UTILITIES 18" IN DIA. OR LARGER WITH 4' OR LESS CLEARANCE. ALL EXISTING PIPES LESS THAN 18" IN DIA. WITH 2' OR LESS CLEARANCE REQUIRE 1 SACK SLURRY FROM TOP OF RECLAIMED WATER PIPELINE TO BOTTOM OF EXISTING UTILITY.

9. CONTRACTOR SHALL VERIFY WITH CONSTRUCTION PHASING OF TRAFFIC CONTROL PLANS (TC SHEETS) PRIOR TO FINAL SUBMITTAL OF PIPE LAYING DIAGRAMS.

10. GAS, WATER AND SEWER SERVICES ARE NOT SHOWN ON THE PLAN, CONTRACTOR SHALL FIELD VERIFY LOCATION AND PROTECT IN PLACE.

11. CONTRACTOR SHALL POST ADVANCE WARNING SIGNS AT LEAST THIRTY (30) DAYS IN ADVANCE OF CONSTRUCTION AS DESCRIBED IN THE SPECIFICATIONS.

12. D.I.P. MAY BE USED AS AN ALTERNATE AT ALL LOCATIONS SHOWN TO BE P.V.C.

DIGALERT
DIAL TOLL FREE
1-800-422-4133
AT LEAST TWO DAYS BEFORE YOU D'G
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

DRAWING LIST

DWG. NO.	DESCRIPTION OR TITLE	SHEET NO.
	GENERAL	
1	TITLE SHEET	G-1
2	VICINITY MAP, LOCATION MAP, GENERAL NOTES AND DRAWING LIST	G-2
3	ABBREVIATIONS, AGENCY INDEX, AND LEGEND	G-3
	HORIZONTAL CONTROL	
4	HORIZONTAL CONTROL PLAN VALLEY–ARDMORE	HC-5
5	HORIZONTAL CONTROL PLAN VALLEY–ARDMORE	HC-6
	PLAN AND PROFILE	
	VALLEY–ARDMORE	
6	PLAN AND PROFILE – STA. 4+55.02 TO STA. 10+00.00	C3-01
7	PLAN AND PROFILE – STA. 10+00.00 TO STA. 20+00.00	C3-02
8	PLAN AND PROFILE – STA. 20+00.00 TO STA. 30+00.00	C3-03
9	PLAN AND PROFILE – STA. 30+00.00 TO STA. 40+00.00	C3-04
10	PLAN AND PROFILE – STA. 40+00.00 TO STA. 50+00.00	C3-05
11	PLAN AND PROFILE – STA. 50+00.00 TO STA. 60+00.00	C3-06
12	PLAN AND PROFILE – STA. 60+00.00 TO STA. 70+00.00	C3-07
13	PLAN AND PROFILE – STA. 70+00.00 TO STA. 80+00.00	C3-08
14	PLAN AND PROFILE – STA. 80+00.00 TO STA. 90+00.00	C3-09
15	PLAN AND PROFILE – STA. 90+00.00 TO STA. 100+00.00	C3-10
16	PLAN AND PROFILE – STA. 100+00.00 TO STA. 110+00.00	C3-11
17	PLAN AND PROFILE – STA. 110+00.00 TO STA. 120+00.00	C3-12
18	PLAN AND PROFILE – STA. 120+00.00 TO STA. 130+00.00	C3-13
19	PLAN AND PROFILE – STA. 130+00.00 TO STA. 140+00.00	C3-14
20	PLAN AND PROFILE – STA. 140+00.00 TO STA. 150+00.00	C3-15
21	PLAN AND PROFILE – STA. 150+00.00 TO STA. 160+00.00	C3-16
22	PLAN AND PROFILE – STA. 160+00.00 TO STA. 170+00.00	C3-17
23	PLAN AND PROFILE – STA. 170+00.00 TO STA. 180+00.00	C3-18
	MARINE AVE.	
24	PLAN AND PROFILE – STA. 180+00.00 TO STA. 180+47.62 – STA. 3+70.38 TO STA. 11+00.00	C3-19
25	PLAN AND PROFILE – STA. 11+00.00 TO STA. 21+00.00	C3-20
26	PLAN AND PROFILE – STA. 21+00.00 TO STA. 31+00.00	C3-21
27	PLAN AND PROFILE – STA. 31+00.00 TO STA. 32+51.61	C3-22
	HERONDO AVE. (ANITA AVE)	
28	PLAN AND PROFILE – STA. 100+00.00 TO STA. 110+20.00	C3-23
	33rd STREET (FRANCISCO ST.)	
29	PLAN AND PROFILE – STA. 10+00.00 TO STA. 13+55.00	C3-24
	TRAFFIC CONTROL PLAN	
30	VALLEY DRIVE AT GOULD AVE.	TC3-01
31	VALLEY DRIVE AT 2nd. STREET	TC3-02
32	VALLEY DRIVE AT 6th. STREET	TC3-03
33	VALLEY DRIVE AT MANHATTAN BEACH BLVD.	TC3-04
34	VALLEY DRIVE AT PACIFIC AVENUE	TC3-05
35	VALLEY DRIVE AT PACIFIC AVENUE	TC3-06
36	MARINE AVENUE AT SEPULVEDA AVENUE	TC3-07
37	MARINE AVENUE – SEPULVEDA TO AVIATION	TC3-08
38	MARINE AVENUE – SEPULVEDA TO AVIATION	TC3-09
	DETAILS	
39	TRENCH SECTION AND REPAVING DETAILS	
40	MISCELLANEOUS DETAILS	

RECORD DRAWING
These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

DESCRIPTION	DATE	NO.
REVISIONS		

REGISTERED PROFESSIONAL ENGINEER — SILVEN D. IACOBO — No. 003261 — Exp. 12-31-93 — CIVIL — STATE OF CALIFORNIA

ASL Consultants, Inc.
ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCHO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY: S.A.B.
DRAWN BY: S.A.B.
CHECKED BY: S.D.T.

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

SCHEDULE 3
VICINITY MAP, LOCATION MAP, GENERAL NOTES, AND DRAWING LIST

SHEET NO. G-2
PROJECT NO.
DWG. NO. 2 OF 40

ASL PROJECT NO. 1915.001
H:\1915\001\WB302 1

AGENCY AND UTILITY INDEX

ALL INFORMATION RELATIVE TO THE LOCATION, TYPE, AND OPERATIONAL STATUE OF UTILITIES AND/OR IMPROVEMENTS WHICH APPEAR ON THESE PLANS WAS PROVIDED BY THE FOLLOWING RESPECTIVE OWNER OR AGENCIES

NAME AND ADDRESS	PHONE
AMERICAN CABLE SYSTEMS 5731 BUCKING PARKWAY CULVER CITY, CA 90230 JOE LEAL	(213) 645-5716
ATLANTIC RICHFIELD CO. POST OFFICE BOX 147 BAKERSFIELD, CA 93302 TED SPALDING	(805) 321-4108
CALIFORNIA WATER SERVICE 1211 S. PACIFIC COAST HIGHWAY REDONDO BEACH, CA 90277 TERRY TANDLE	(310) 540-1033
CENTURY CABLE 2925 WEST 182ND STREET REDONDO BEACH, CA 90278 CARL BEERS	(310) 371-7768
CHEVRON PIPELINE CO. 16301 TROJAN WAY LA MIRADA, CA 90638 FRED ADAMS	(213) 694-7659
CHEVRON U. S. A., INC. POST OFFICE BOX 97 EL SEGUNDO, CA 90245	(310) 615-4094
CITY OF EL SEGUNDO 350 MAIN STREET EL SEGUNDO, CA 90245	(310) 322-4670
CITY OF LOS ANGELES 200 NORTH SPRING STREET LOS ANGELES, CA 90012	(213) 485-2411
CITY OF LOS ANGELES WEST L.A. DISTRICT W.L.A. MUNICIPAL BUILDING 1645 CORINTH AVENUE, ROOM 109 WEST LOS ANGELES, CA 90025 BRIAN GRIFFITH	(213) 312-8381
CONTINENTAL CABLE VISION 2900 CRENSHAW BOULEVARD LOS ANGELES, CA 90061 SHYMAL P. DHARMASENA	(213) 730-9543
DEPARTMENT OF TELECOM (L.A.) 120 SOUTH CENTRAL PEDRO LOS ANGELES, CA 90012 CAL BROWN	(213) 485-7969
DEPARTMENT OF WATER AND POWER CITY OF LOS ANGELES, ROOM 1068 111 NORTH HOPE STREET LOS ANGELES, CA 90051 ANIL DESAI	(213) 481-5361
DOMINQUEZ WATER CORP. 21718 S. ALAMEDA ST. LONG BEACH, CA 90051 RICK TERRY	(310) 834-2625
GENERAL TELEPHONE CO. 2909 EXPOSITION BOULEVARD SANTA MONICA, CA 90404 WAYNE HARBER	(213) 394-4300
GTE CALIFORNIA POST OFFICE BOX 1277 TORRANCE, CA 90505	(310) 485-2411
HYPERION WASTE WATER TREATMENT PLANT CITY OF LOS ANGELES BUREAU OF SANITATION 12000 VISTA DEL MAR PLAYA DEL REY, CA 90293	(310) 648-5200
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS 900 SOUTH FREMONT AVENUE ALHAMBRA, CA 91803	(818) 458-4145
L.A. COUNTY FLOOD CONTROL DIST. 900 SOUTH FREEMONT STREET ALHAMBRA, CA JACK WANG	(818) 458-7108

NAME AND ADDRESS	PHONE
L.A. COUNTY SANITATION DIST. COUNTY SANITATION DISTRICT OF LA CO. 1955 WORKMAN MILL ROAD WHITTER, CA 90607 JOHN REDNER	(310) 638-1161
MOBIL OIL CO. 799 SOUTH SEASIDE TERMINAL ISLAND, CA 90731-7397 NORM PETERSON	(310) 832-2602
MULTIVISION CABLE 3041 MIRALOMA AVENUE ANAHEIM, CA 92806 BERT BRAMLEY	(714) 632-9222
PACIFIC BELL 19310 PACIFIC GATEWAY DRIVE TORRANCE, CA 90502	(310) 515-4430
PARAGON CABLE 1730 GARDENA BOULEVARD GARDENA, CA 90247	(213) 768-0400
SCATTERGOOD STEAM PLANT CITY OF LOS ANGELES DEPARTMENT OF WATER AND POWER 12700 VISTA DEL MAR PLAYA DEL REY, CA 90293	(310) 322-0665
SHELL OIL COMPANY 511 NORTH BROOKHURST ANAHEIM, CA 92801 SHIELA MCWILLIAMS	(714) 520-3751
SOUTHERN CALIFORNIA GAS COMPANY SO. COASTAL DIVISION 2325 CRENSHAW BOULEVARD TORRANCE, CA 90501-3335 JIM JORDAN	(310) 781-8403
SOUTHERN CALIFORNIA GAS TRANSMISSION DEPARTMENT SO. BASIN DIVISION 2424 EAST OLYMPIC BOULEVARD M.L. 8284 BOX 3249 LOS ANGELES, CA 90051-1249 ALBERT R. STONE	(310) 689-7263
SOUTHERN CALIFORNIA GAS COMPANY POST OFFICE BOX 2815 TORRANCE, CA 90509-2815	(310) 781-8403
SOUTHERN CALIFORNIA EDISON POST OFFICE BOX 2944 TORRANCE, CA 90509	(310) 417-3355
SOUTHERN CALIFORNIA EDISON 2500 EAST VICTORIA STREET COMPTON, CA 90220 LAMBROS DIMITRI	(310) 608-5216
SOUTHERN CALIFORNIA EDISON REAL PROPERTIES DIVISION LAND SERVICES POST OFFICE BOX 410 LONG BEACH, CA 90801 RICH BRICHTER	(310) 491-2679
UNDERGROUND SERVICE ALERT	(800) 422-4133
UNION OIL COMPANY 9653 SNATA FE SPRINGS ROAD SANTA FE SPRINGS, CA 90670 BILL ORR	(310) 326-8777
UTI/LOCATOR FOR GTE 17 2874 COLORADO AVENUE, UINT 14 SANTA MONICA, CA 90403 ALEX VALKOFF	(213) 482-7586
WEST BASIN MUNICIPAL WATER DISTRICT 17140 S. AVALON BLVD, SUITE 210 CARSON, CA 90746-1218	(310) 217-2411

ABBREVIATIONS

AB OR AGG	AGGREGATE BASE
ABD, ABAN OR ABAND	ABANDONED UTILTY
AC	ASPHALT CONCRETE
ACP	ASBESTOS CEMENT PIPE
AH	AHEAD
ANCH	ANCHORED
AR	AIR RELEASE (VALVE)
ASME	AMERICAN SOCIETY OF MECANICAL ENGINEERS
ASPH	ASPHALT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AV	AIR VACCUUM (VALVE)
AVE	AVENUE
AWG	AMERICAN WIRE GAGE
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BEGINNING OF CURVE
BCR	BEGINNING OF CURVE RETURN
BFV	BUTTERFLY VALVE
BFY	BUTTERFLY
BK	BACK
BL	BRINE LINE OR BOULEVARD
BLVD	BOULEVARD
BO	BLOW OFF
BOT	BOTTOM
BUR CBL	BURIED CABLE
BWR	BACKWASH WATER RETURN (LINE)
C	CONDUIT
CATV	CABLE TELEVISION
CB	CATCH BASIN
CCP	CONCRETE CYLINDER PIPE (PRETENSIONED)
CF	CURB FACE
CIP	CAST IRON PIPE
℄	CENTERLINE
CL	CLASS
CLR	CLEARANCE
CMLCSP	CEMENT MOTAR LINED & COATED STEEL PIPE
CMP	CORRUGATED METAL PIPE
CP	CATHODIC PROTECTION
CPLG	COUPLING
CO	CLEAN OUT
CONC	CONCRETE
COND	CONDUIT
CONN	CONNECTION
CONST OR CONSTR	CONSTRUCT
CSD	CONTAMINATED STORM DRAIN
CTS	CATHODIC TEST STATION
CULV	CULVERT
DEFL	DEFLECTION
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGRAM
DIP	DUCTILE IRON PIPE
DU	DUCT
DWG	DRAWING
E	EAST OR ELECTRICAL (LINE)
EA	EACH
EC	END OF CURVE
ECWS	EFFLUENT CCOLING WATER SUPPLY (LINE)
EL OR ELEV	ELEVATION
ELEC	ELECTRICAL
ENC	ENCASED
EQ	EQUATION
EAM'T	EASEMENT
EXIST	EXISTING
FH	FIRE HYDRANT
FL	FLOW LINE
FLG	FLANGE
FO	FIBER OPTIC (LINE)
FM	FORCE MAIN
FPW	FIRE PROTECTION WATER (LINE)
FRWY	FREEWAY
FS	FINISHED SURFACE
FUT	FUTURE
FW	FRESH WATER (LINE)
FWD	FORWARD
G	GAS (LINE)
GA	GUAGE
GALV	GALVANIZED
GR	GRADE
H	HORIZONTAL
HDPE	HIGH DENSITY POLYETHYLENE (PIPE)
HDWL	HEADWALL
HMW/PE	HIGH MOLECULAR WEIGHT POLYETHYLENE
HP	HIGH PRESSURE
HPE	HIGH PRESSURE EFFLUENT (LINE)
HPW	HIGH PRESSURE WATER
HORIZ	HORIZONTAL
ICW	INDUSTRIAL COLD WATER (LINE)
ID	INSIDE DIAMETER
INT	INTERSECTION
INV	INVERT
IP	IRON PIPE
IRR	IRRIGATION WATER LINE
JTS	JOINTS (OF PIPE)
L	LENGTH
LAM	LAMINATED
LBS	POUNDS
LF	LINEAR FEET
LRT	LIGHT RAIL TRANSIT
LT	LEFT
MAX	MAXIMUM
MH	MANHOLE
MIL	MILIMETER
MIN	MINIMUM
MW	MANWAY
N	NORTHERLY
NO	NORTH
NOM	NOMINAL
NTS	NOT TO SCALE
O	OIL
OC	ON CENTERED
OD	OUTSIDE DIAMETER
PC	PLASTIC CONDUIT
PCC	POINT OF COMPOUND CURVATURE
PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
PE	POLYETHYLENE OR PLAIN END
PI	POINT OF INTERSECTION
PL	PLATE OR PLACE
PLS	PLACES
P	PROPERTY LINE
PLRCPP	PLASTIC LINED REINFORCED CONCRETE PRESSURE PIPE
PP	POWER POLE
PRC	POINT OF REVERSE CURVATURE
PRV	PRESSURE RELIEF VALVE
PROP	PROPOSED
PT	POINT
PVC	POLYVINYL CHLORIDE (PIPE)
PVMT	PAVEMENT
PWS	PROTECTED WRAPPED STEEL (PIPE)
R	RADIUS
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RCPP	REINFORCED CONCRETE PRESSURE PIPE
RECT	RECTANGULAR
REL	RELATIVE
REQ'D	REQUIRED
RESTR	RESTRAINED
RR	RAILROAD
RT	RIGHT
RW	RECLAIMED WATER (LINE)
RWGV	RESILIENT WEDGE GATE VALVE
R/W OR ROW	RIGHT OF WAY
S	SANITARY SEWER OR SLOPE (FEET/FOOT) OR SOUTH
SCE	SOUTHERN CALIFORNIA EDISON
SCH OR SCHED	SCHEDULE
SCS	SOMASTIC COATED STEEL (PIPE)
SD	STORM DRAIN (LINE)
SED	SEWER EJECTOR DISCHARGE (LINE)
SEFM	SECONDARY EFFLUENT FORCE MAIN
SEG	SEGMENT
SHT	SHEET
SO	SOUTH
SPEC'S	SPECIFICATIONS
SQ	SQUARE
SS	SANITARY SEWER
SST	STAINLESS STEEL
ST	STREET
STA	STATION
STD	STANDARD
STL	STEEL
STRND	STRANDED
SW	SEA WATER (LINE)
SWR	SEWER
T	TANGENT LENGTH
T, TEL OR TELE	TELEPHONE
TEMP	TEMPORARY
TF	TURBINE FUEL
THK	THICK
TS	TRAFFIC SIGNAL
TYP	TYPICAL
V	VERTICAL OR VALVE
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
VPI	VERTICAL POINT OF INTERSECTION
VW	VAPOR WELL
W	WATER (LINE) OR WEST
W/	WITH
WSP	WELDED STEEL PIPE
WT	WEIGHT
WTR	WATER
WW	WASTEWATER (LINE)
WWM	WIRE WOVEN MESH
WWR	WASTEWATER RETURN (LINE)
WWT	WASTEWATER TREATMENT

LEGENDS

---CATV---	CABLE TELEVISION
--- C ---	TRAFFIC SIGNALS CONDUIT
--- E ---	ELECTRICAL
---FMS---	EXISTING FORCE MAIN SEWER
---3" G---	EXISTING GAS LINE (SIZE AS INDICATED)
---8" S---	EXISTING SANITARY SEWER PIPE (SIZE AS INDICATED)
---18" SD---	EXISTING STORM DRAIN (SIZE AS INDICATED)
--- T ---	EXISTING TELEPHONE CABLE/DUCT
---4" W---	EXISTING WATER LINE (SIZE AS INDICATED)
	EXISTING MANHOLE
	EXISTING VAULT
	EXISTING WATER/GAS VALVE
	EXISTING FENCE (TYPE AS INDICATED)
	EXISTING CURB & GUTTER
	EXISTING RAILROAD
	EXISTING GROUND
	EXISTING PAVEMENT
	EDGE OF PAVEMENT
	ENCASED PIPELINE
	TEMPORARY EASEMENT LINE
	PERMANENT EASEMENT LINE
	RIGHT OF WAY LINE (R/W)
	CITY AND COUNTY BOUNDARY
	CENTERLINE PIPELINE, STREET
	AERIAL CONTROL POINT
	FIRE HYDRANT (F.H.)
	LIGHT STANDARD (L.S.)
	POWER POLE/TELEPHONE POLE (P.P./T.P.)
	TRAFFIC CONTROL BOX (T.C.B.)
	WATER METER (W.M.)
	GAS METER (G.M.)
	TRAFFIC SIGNAL
	TRAFFIC SIGNAL AND LIGHT STANDARD COMBINATION
	TELEPHONE JUNCTION BOX (T.J.B.)
	SURVEY MONUMENT
	TRAFFIC SENSOR LOOPS
1/2	DENOTES DETAIL NUMBER DENOTES DRAWING NUMBER
	CENTRAL ANGLE
	UTILITY BASED ON POTHOLE INFORMATION
ø	DIAMETER
&	AND
	THRUST BLOCK
	CATHODIC TEST STATION
B-	SOIL BORING
105	POT HOLING

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

BASIS OF BEARINGS

THE COORDINATE GRID FOR THIS PROJECT IS THE NORTH AMERICAN DATUM 1983 CALIFORNIA ZONE 6 GRID.

BENCHMARK

ELEVATIONS SHOWN ON THESE PLANS ARE BASED ON THE COUNTY OF LOS ANGELES BENCHMARK DATA.

DESCRIPTION	DATE	NO.
REVISIONS		

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. C039261 Exp. 12-31-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY: X.X.X.
DRAWN BY: T.S.K.
CHECKED BY: S.D.T.

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

SCHEDULE 3

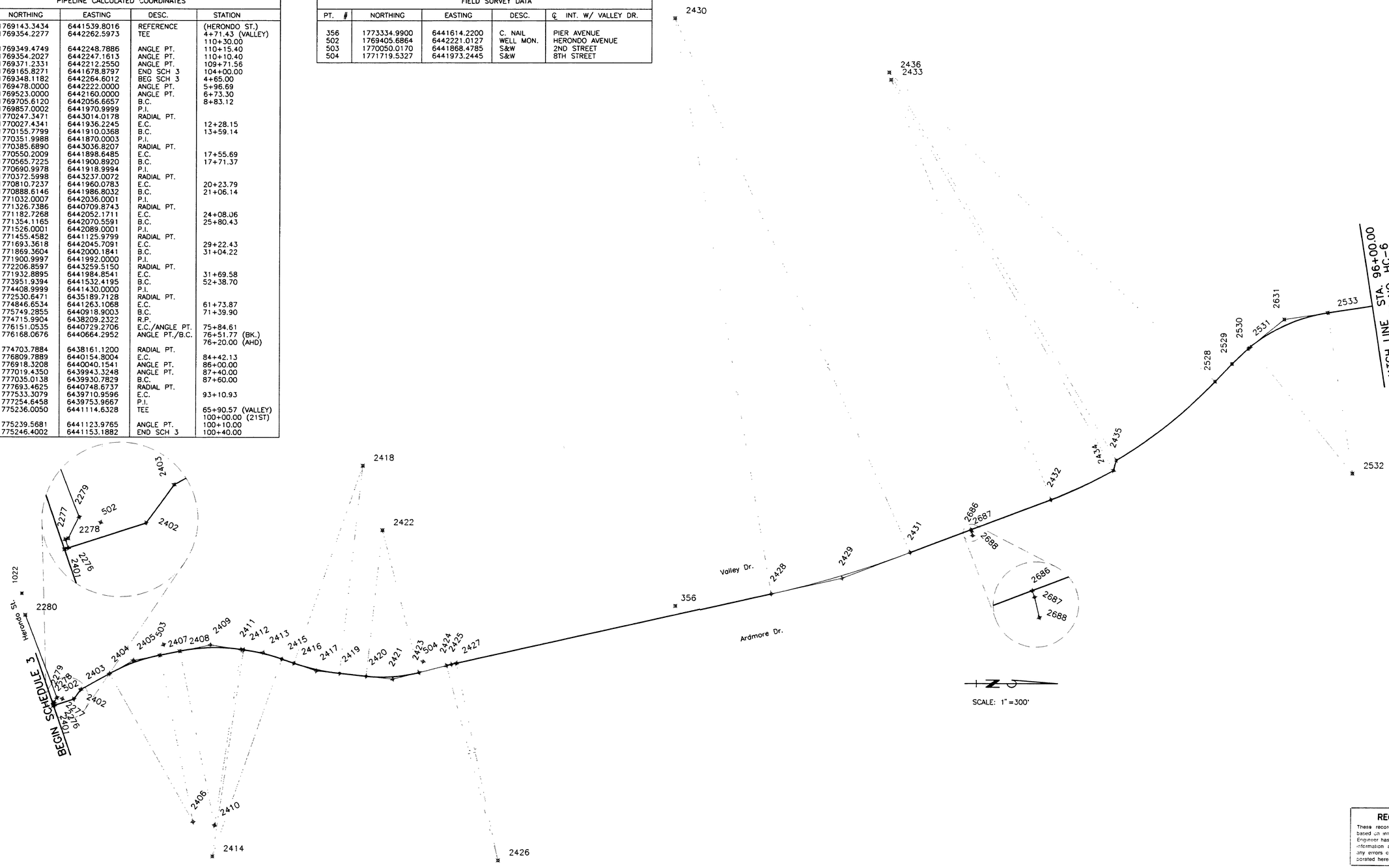
ABBREVIATIONS, AGENCY INDEX, AND LEGEND

SHEET NO. G-3
PROJECT NO.
DWG. NO. 3 OF 40

ASL PROJECT NO. 1915.001
H:\1915\001\W8303 1

HORIZONTAL CONTROL COORDINATES PIPELINE CALCULATED COORDINATES				
PT. #	NORTHING	EASTING	DESC.	STATION
1022	1769143.3434	6441539.8016	REFERENCE	(HERONDO ST.)
2276	1769354.2277	6442262.5973	TEE	4+71.43 (VALLEY) 110+30.00
2277	1769349.4749	6442248.7886	ANGLE PT.	110+15.40
2278	1769354.2027	6442247.1613	ANGLE PT.	110+10.40
2279	1769371.2331	6442212.2550	ANGLE PT.	109+71.56
2280	1769165.8271	6441678.8797	END SCH 3	104+00.00
2401	1769348.1182	6442264.6012	BEG SCH 3	4+65.00
2402	1769478.0000	6442222.0000	ANGLE PT.	5+96.69
2403	1769523.0000	6442160.0000	ANGLE PT.	6+73.30
2404	1769705.6120	6442056.6657	B.C.	8+83.12
2405	1769857.0002	6441970.9999	P.I.	
2406	1770247.3471	6443014.0178	RADIAL PT.	
2407	1770027.4341	6441936.2245	E.C.	12+28.15
2408	1770155.7799	6441910.0368	B.C.	13+59.14
2409	1770351.9988	6441870.0003	P.I.	
2410	1770385.6890	6443036.8207	RADIAL PT.	
2411	1770550.2009	6441898.6485	E.C.	17+55.69
2412	1770565.7225	6441900.8920	B.C.	17+71.37
2413	1770690.9978	6441918.9994	P.I.	
2414	1770372.5998	6443237.0072	RADIAL PT.	
2415	1770810.7237	6441960.0783	E.C.	20+23.79
2416	1770888.6146	6441986.8032	B.C.	21+06.14
2417	1771032.0007	6442036.0001	P.I.	
2418	1771326.7386	6440709.8743	RADIAL PT.	
2419	1771182.7268	6442052.1711	E.C.	24+08.06
2420	1771354.1165	6442070.5591	B.C.	25+80.43
2421	1771526.0001	6442089.0001	P.I.	
2422	1771455.4582	6441125.9799	RADIAL PT.	
2423	1771693.3618	6442045.7091	E.C.	29+22.43
2424	1771869.3604	6442000.1841	B.C.	31+04.22
2425	1771900.9997	6441992.0000	P.I.	
2426	1772206.8597	6443259.5150	RADIAL PT.	
2427	1771932.8895	6441984.8541	E.C.	31+69.58
2428	1773951.9394	6441532.4195	B.C.	52+38.70
2429	1774408.9999	6441430.0000	P.I.	
2430	1772530.6471	6435189.7128	RADIAL PT.	
2431	1774846.6534	6441263.1068	E.C.	61+73.87
2432	1775749.2855	6440918.9003	B.C.	71+39.90
2433	1774715.9904	6438209.2322	R.P.	
2434	1776151.0535	6440729.2706	E.C./ANGLE PT.	75+84.61
2435	1776168.0676	6440664.2952	ANGLE PT./B.C.	76+51.77 (BK.) 76+20.00 (AHD)
2436	1774703.7884	6438161.1200	RADIAL PT.	
2528	1776809.7889	6440154.8004	E.C.	84+42.13
2529	1776918.3208	6440040.1541	ANGLE PT.	86+00.00
2530	1777019.4350	6439943.3248	ANGLE PT.	87+40.00
2531	1777035.0138	6439930.7829	B.C.	87+60.00
2532	1777693.4625	6440748.6737	RADIAL PT.	
2533	1777533.3079	6439710.9596	E.C.	93+10.93
2631	1777254.6458	6439753.9667	P.I.	
2686	1775236.0050	6441114.6328	TEE	65+90.57 (VALLEY) 100+00.00 (21ST)
2687	1775239.5681	6441123.9765	ANGLE PT.	100+10.00
2688	1775246.4002	6441153.1882	END SCH 3	100+40.00

HORIZONTAL CONTROL COORDINATES FIELD SURVEY DATA				
PT. #	NORTHING	EASTING	DESC.	℄ INT. W/ VALLEY DR.
356	1773334.9900	6441614.2200	C. NAIL	PIER AVENUE
502	1769405.6864	6442221.0127	WELL MON.	HERONDO AVENUE
503	1770050.0170	6441868.4785	S&W	2ND STREET
504	1771719.5327	6441973.2445	S&W	8TH STREET



RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

NOTE: IF ANY DISCREPANCY OCCURS BETWEEN THE HORIZONTAL CONTROL COORDINATES AND THE DISTANCE AND BEARING SHOWN ON THE PLANS, THE COORDINATES ON HORIZONTAL CONTROL PLANS HAVE PRECEDENCE.

DESCRIPTION	DATE	NO.
REVISIONS		

REGISTERED PROFESSIONAL ENGINEER
STEVEN D. TERRELL
No. C031261
Exp. 12-31-93
CIVIL
STATE OF CALIFORNIA

ASL Consultants, Inc.
ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCHO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY: J.I.G./J.H.B.
DRAWN BY: J.I.G./J.H.B.
CHECKED BY: S.D.T.

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

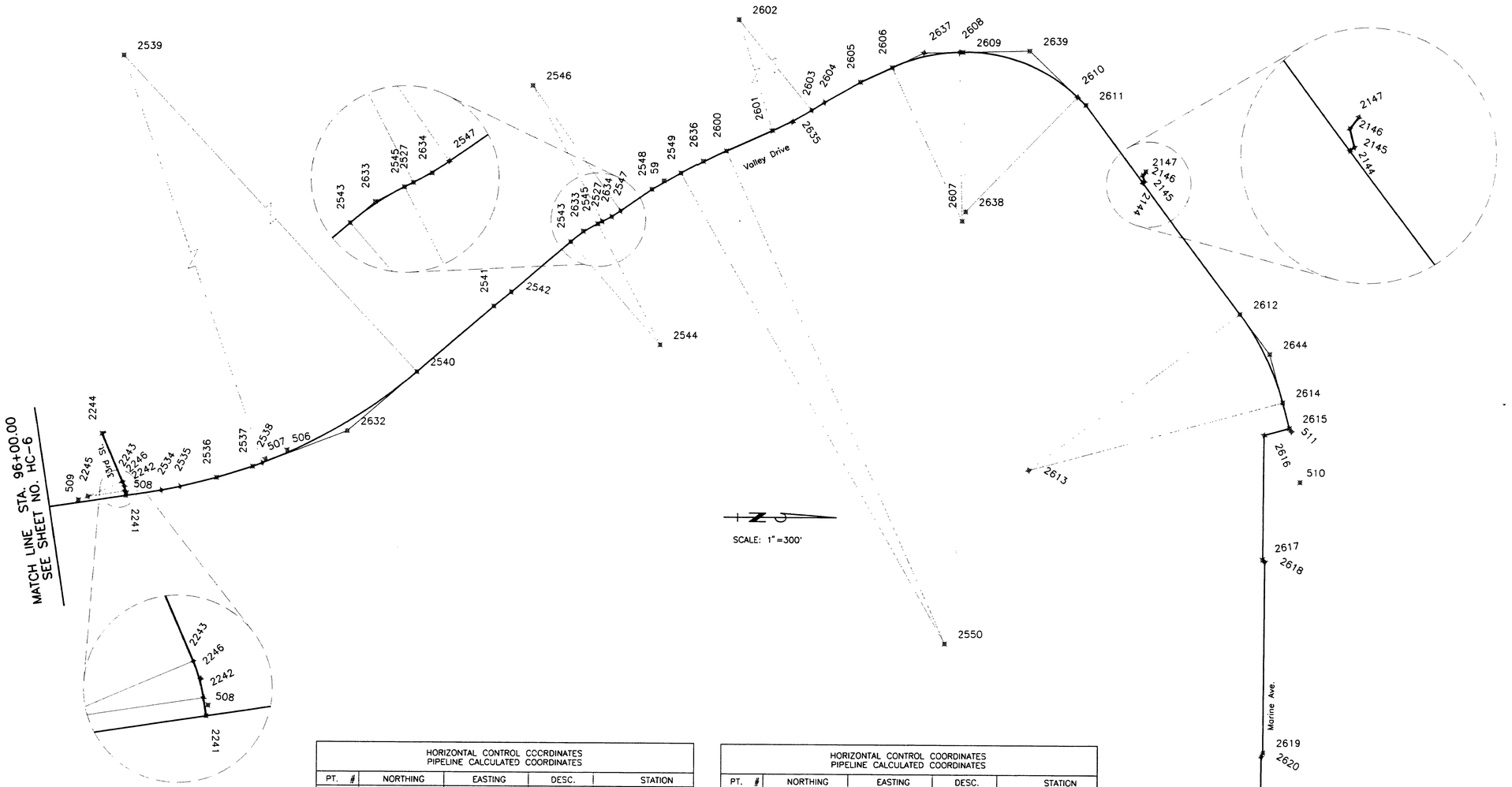
WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

SCHEDULE 3
HORIZONTAL CONTROL

SHEET NO. HC-5
PROJECT NO.
DWG. NO. 4 OF 40

ASL PROJECT NO. 1915.001
H:\1915\001\003\WEBHOR205 300



HORIZONTAL CONTROL COORDINATES
FIELD SURVEY DATA

PT. #	NORTHING	EASTING	DESC.	℄ INT. W/ VALLEY DR.
59	1781064.7060	6437908.7740	WELL MON.	MANHATTAN BEACH BLVD.
506	1779077.0287	6439355.6472	P.K. NAIL	2ND PLACE
507	1778961.9572	6439404.6185	P.K. NAIL	2ND STREET
508	1778226.7481	6439589.9857	SPK.	FRANCISCO STREET
509	1777972.6778	6439629.2292	SPK.	LONG FELLOW AVENUE
510	1784461.0716	6439497.0203	S&W	MAPLE AVENUE
511	1784412.8964	6439224.9831	WELL MON.	PACIFIC AVENUE

HORIZONTAL CONTROL COORDINATES
PIPELINE CALCULATED COORDINATES

PT. #	NORTHING	EASTING	DESC.	STATION
2144	1783611.5062	6437901.8220	TEE	163+65.00 (VALLEY) 10+00.00 (BLANCHE)
2145	1783619.5116	6437895.8291	ANGLE PT.	10+10.00
2146	1783611.1672	6437863.1373	ANGLE PT.	10+43.74
2147	1783627.3887	6437842.4866	END SCH 2	10+70.00
2241	1778224.1982	6439604.3318	TEE	13+55.00 33rd = 100+10.00 Valley
2242	1778220.4480	6439580.0323	E.C.	13+30.41
2243	1778206.5141	6439531.5139	B.C.	12+79.80
2244	1778095.9614	6439274.4860	TEE	10+00.00
2245	1778022.7882	6439610.5379	RADIAL PT.	
2246	1778216.5672	6439554.8868	P.I.	
2527	1780740.5648	6438127.3526	B.C.	129+82.72
2534	1778411.9751	6439575.3514	ANGLE PT.	102+00.00
2535	1778509.8712	6439554.9471	ANGLE PT.	103+00.00
2536	1778703.6972	6439505.6371	ANGLE PT.	105+00.00
2537	1778893.9651	6439444.0079	ANGLE PT.	107+00.00
2538	1778943.7947	6439424.9324	B.C.	107+53.36
2539	1777960.6346	6436856.6848	RADIAL PT.	
2540	1779761.5015	6438934.9962	E.C.	117+11.45
2541	1780168.5099	6438582.3214	ANGLE PT.	122+50.00
2542	1780261.1940	6438506.1003	ANGLE PT.	123+70.00
2543	1780574.3995	6438235.6421	B.C.	127+83.82
2544	1781048.5044	6438784.6814	RADIAL PT.	
2545	1780717.2257	6438139.3334	E.C.	129+56.49
2546	1780368.8290	6437403.1921	RADIAL PT.	
2547	1780835.6274	6438070.0469	E.C.	130+93.81
2548	1781000.0542	6437954.9481	ANGLE PT.	132+94.52
2549	1781154.4085	6437867.3110	B.C.	134+72.02
2550	1782573.8988	6440367.4455	RADIAL PT.	
2600	1781397.5459	6437744.1234	E.C.	137+44.69
2601	1781641.4972	6437634.7305	B.C.	140+12.05
2602	1780937.0030	6436063.6753	RADIAL PT.	
2603	1781847.1834	6437525.2150	E.C.	142+45.25

HORIZONTAL CONTROL COORDINATES
PIPELINE CALCULATED COORDINATES

PT. #	NORTHING	EASTING	DESC.	STATION
2604	1781914.8795	6437483.0569	ANGLE PT.	143+25.00
2605	1782105.5723	6437373.3471	ANGLE PT.	145+45.00
2606	1782273.3356	6437295.3951	B.C.	147+29.99
2607	1782652.5836	6438111.5880	RADIAL PT.	
2608	1782631.1190	6437211.8440	E.C.	151+00.00
2609	1782650.3412	6437211.3854	B.C.	151+19.23
2610	1783258.4403	6437447.1733	E.C.	157+88.61
2611	1783303.3243	6437490.1461	ANGLE PT.	158+50.75
2612	1784134.6418	6438600.6374	B.C.	172+37.93
2613	1783013.8909	6439439.6352	RADIAL PT.	
2614	1784364.6381	6439071.5566	E.C.	177+65.12
2615	1784401.9375	6439208.4349	ANGLE PT.	179+06.99
2616	1784266.2511	6439245.4466	ANGLE PT.	3+70.41 AHD. = 180+47.57 BK.
2617	1784264.0477	6439909.0000	ANGLE PT.	10+33.97
2618	1784275.0111	6439920.0365	ANGLE PT.	10+49.53
2619	1784271.6233	6440940.2997	ANGLE PT.	20+69.80
2620	1784262.5511	6440961.9976	ANGLE PT.	20+93.92
2621	1784261.4732	6441286.6269	ANGLE PT.	24+17.95
2622	1784292.2245	6441361.5701	ANGLE PT.	24+98.96
2623	1784291.0921	6441702.6082	ANGLE PT.	28+40.00
2624	1784308.9477	6441746.1236	ANGLE PT.	28+87.04
2625	1784308.1608	6441983.0823	ANGLE PT.	31+24.00
2626	1784290.0166	6442026.4781	ANGLE PT.	31+71.04
2632	1779395.7579	6439251.9148	P.I.	
2633	1780640.0542	6438178.9481	P.I.	
2634	1780790.0542	6438101.9481	P.I.	
2635	1781748.0542	6437586.9481	P.I.	
2636	1781273.0542	6437799.9481	P.I.	
2637	1782443.5168	6437216.3195	P.I.	
2638	1782670.6134	6438061.1436	RADIAL PT.	
2639	1783003.3692	6437202.9634	P.I.	
2644	1784294.5044	6438814.1852	P.I.	
2911	1784289.7279	6442113.4291	END SCH 3	32+57.99

RECORD DRAWING
These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

NOTE: IF ANY DISCREPANCY OCCURS BETWEEN THE HORIZONTAL CONTROL COORDINATES AND THE DISTANCE AND BEARING SHOWN ON THE PLANS, THE COORDINATES ON HORIZONTAL CONTROL PLANS HAVE PRECEDENCE.

DESCRIPTION	DATE	NO.
REVISIONS		

STEVEN D. TEDESCO — No. CD39261 Exp. 12-31-93 — REGISTERED PROFESSIONAL ENGINEER — CIVIL — STATE OF CALIFORNIA

ASL Consultants, Inc.
ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

☐ ARCADIA
■ IRVINE
☐ PALM SPRINGS
☐ CAMARILLO
☐ RANCHO CUCAMONGA
☐ SAN DIEGO

DESIGNED BY: J.I.G./J.H.B.
DRAWN BY: J.I.G./J.H.B.
CHECKED BY: S.D.T.

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

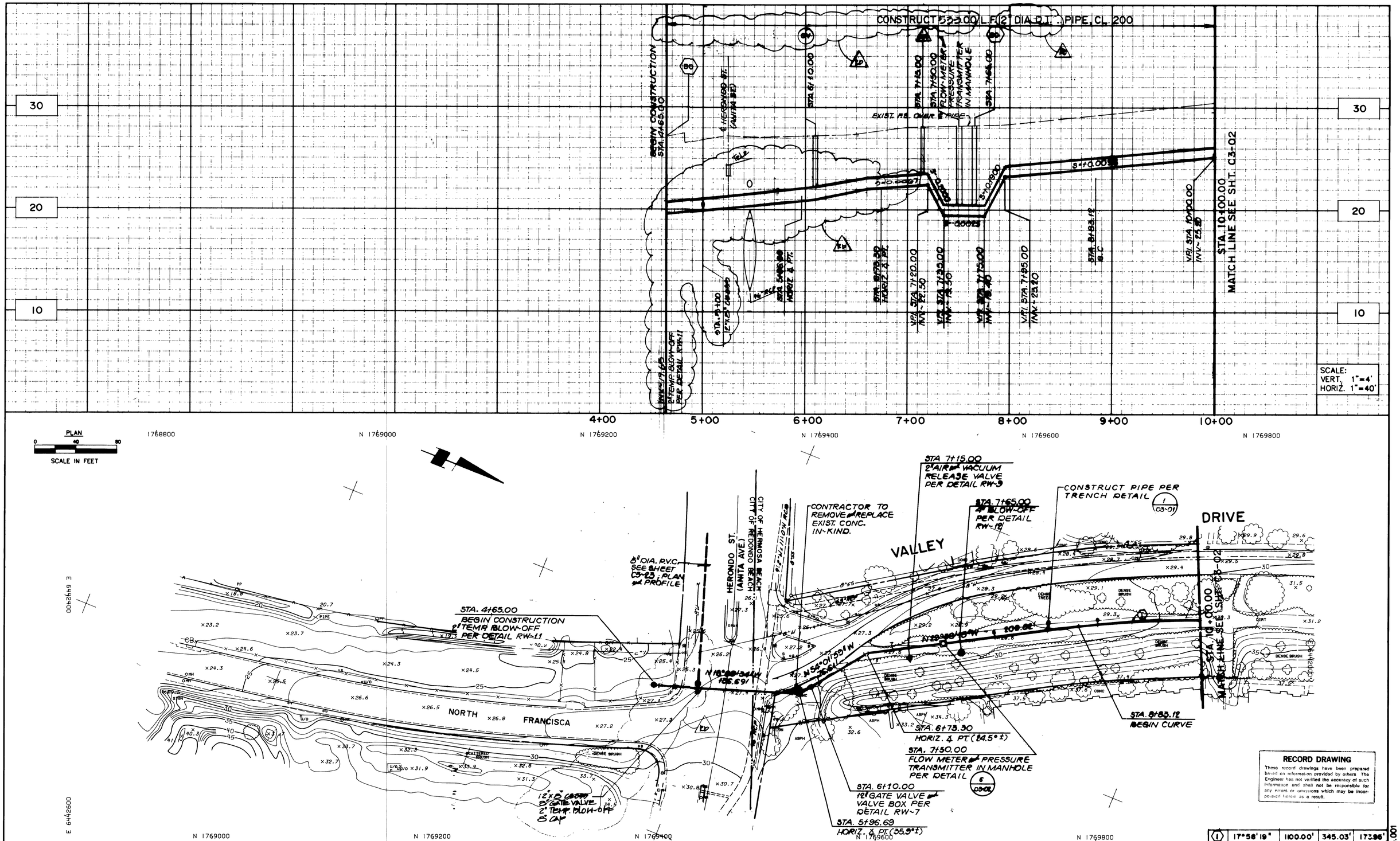
WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

SCHEDULE 3
HORIZONTAL CONTROL

SHEET NO. HC-6
PROJECT NO.
DWG. NO. 5 OF 40

ASL PROJECT NO. 1915.001
H:\1915\001\000\WB9R206 300



RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

	Δ	R	L	T
1	17°58'19"	1100.00'	345.03'	173.95'

DESCRIPTION	DATE	BY
RECORD DRAWING	11/94	A.E.

REVISIONS

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. 36261 Exp. 12-31-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCHO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT

17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE SCHEDULE 3

VALLEY / ARDMORE

STA. 4+55.02 TO STA. 10+00.00

C3-01
PROJECT NO.
DWG. NO. 6 OF 40

ASL PROJECT NO. 1915.001

CONSTRUCT 245.00 L.F. OF 12" DIA. PVC. PIPE, CL. 200

CONSTRUCT 700.00 L.F. OF 12" DIA. P.I. PIPE, CL. 200

BORE & JACK 55.00 L.F. OF 24" DIA. CASING "A" PL. W/ 12" DIA. P.V.C. CARRIER PIPE, CL. 200 WITH RESTRAINED JOINTS

MATCH LINE SEE SHT. C3-01 STA. 10+00.00

MATCH LINE SEE SHT. C3-03 STA. 20+00.00

EXIST. FS. OVER ℄ OF PIPE

S=+0.0026

S=+0.0189

S=+0.0050

S=+0.0063

S=0.0025

STA. 12+45.00 BEGIN BORE and JACK

STA. 12+28.15 E.C.

STA. 13+59.14 B.C.

STA. 13+00.00 END BORE and JACK

STA. 17+55.69 END CURVE

STA. 17+71.37 BEGIN CURVE

VAL. STA. 10+00.00 INV.= 25.20

VAL. STA. 14+00.00 INV.= 22.70

VAL. STA. 18+00.00 INV.= 28.70

VAL. STA. 20+00.00 INV.= 31.20

STA. 12+13 2" NE ✦ VACUUM RELEASE VALVE PER DETAIL 8W9

STA. 12+10.00 2" SERVICE CONNECTION PER DETAIL 8W9

STA. 18+90 2" SERVICE CONNECTION PER DETAIL 8W9

STA. 19+06 2" SERVICE CONNECTION PER DETAIL 8W9

2ND STREET

DRIVE

VALLEY

N 08°13'29"E ~ 15.68'

CONSTRUCT PIPE PER TRENCH DETAIL 1 / 03-01

BORE and JACK CASING W/CARRIER PIPE PER DETAIL 5 / 03-02

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

③	10°42'46"	1350.00'	252.42'	126.56'
②	19°45'25"	1150.00'	396.55'	200.26'
①	17°58'19"	1100.00'	345.03'	173.96'
⬡	△	R	L	T

SCALE: VERT. 1"=4' HORIZ. 1"=40'

PLAN 0 40 80 SCALE IN FEET

N 1769800 N 1770000 N 1770200 N 1770400 N 1770600 N 1770800

E 6441800 E 6442000

	DESCRIPTION	DATE	BY
12	RECORD DRAWING	11/94	A.B.

REVISIONS

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. C026261 EXP. 12-31-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

☐ ARCADIA
■ IRVINE
☐ PALM SPRINGS
☐ CAMARILLO
☐ RANCHO CUCAMONGA
☐ SAN DIEGO

DESIGNED BY :

DRAWN BY :

CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT

17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE SCHEDULE 3

VALLEY / ARDMORE

STA. 10+00.00 TO STA. 20+00.00

C3-02

PROJECT NO.

DWG. NO. 7 OF 40

ASL PROJECT NO. 1915.001

CONSTRUCT 1000.00 L.F. OF 12" DIA. D.I. PIPE, CL. 200

MATCH LINE SEE C3-02
STA. 20+00.00

EXIST. FS OVER ℄ of PIPE

S=+0.0116

S=+0.0108

VPI STA. 20+00.00
INV.=31.80
STA. 20+23.79
E.C.

STA. 21+06.14
B.C.

VPI STA. 22+00.00
INV.=33.50

STA. 24+08.06
E.C.

STA. 25+80.43
B.C.

VPI STA. 30+00.00
INV.=

STA. 30+00.00
MATCH LINE SEE C3-04

50
40
30

20+00 21+00 22+00 23+00 24+00 25+00 26+00 27+00 28+00 29+00 30+00

N 1770800 N 1771000 N 1771200 N 1771400 N 1771600 N 1771800

SCALE:
VERT. 1"=4'
HORIZ. 1"=40'

PLAN
0 40 80
SCALE IN FEET

STA. 23+10.00
12" SERVICE CONNECTION PER DETAIL BW3

CONSTRUCT PIPE PER TRENCH DETAIL 1/C3-01

STA. 26+80
12" SERVICE CONNECTION PER DETAIL BW3

VALLEY DRIVE

6TH ST.

5TH ST.

7TH ST.

ARDMORE AVENUE

MATCH LINE SEE SHT. OF-OP
STA. 20+00.00

MATCH LINE SEE C3-04
STA. 30+00.00

N18°56'45"E
82.35'

N05°37'25"E
178.37'

N14°39'
181.15'

STA. 20+23.79
END CURVE

STA. 21+06.14
BEGIN CURVE

STA. 24+08.06
END CURVE

STA. 25+80.43
BEGIN CURVE

STA. 29+82.43
END CURVE

E 6442000

N 1770800 N 1771000 N 1771200 N 1771400 N 1771600

RECORD DRAWING
These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

⑤	20°37'35"	950.00'	342.00'	172.87'
⑥	12°48'50"	1350.00'	301.92'	151.59'
⑦	10°42'46"	1350.00'	252.42'	126.98'
⬡	Δ	R	L	T

A	RECORD DRAWING	11/94	AE
	DESCRIPTION	DATE	BY
	REVISIONS		

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. 22926 Exp. 12-31-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.
ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

☐ ARCADIA
■ IRVINE
☐ PALM SPRINGS
☐ CAMARILLO
☐ RANCHO CUCAMONGA
☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
VALLEY/ARDMORE
STA. 20+00.00 TO STA. 30+00.00

C3-03
PROJECT NO.

DWG. NO. 8 OF 40

ASL PROJECT NO. 1915.001

CONSTRUCT 1000.00 L.F. OF 12" DIA. DI. PIPE, CL. 200

EXIST. A.S. OVER ℄ PIPE

MATCH LINE SEE C3-03
STA. 30+00.00

STA. 31+04.82
B.C.

STA. 31+68.58
E.C.

STA. 33+40.00
2" SERVICE CONNECTION

VEL. STA. 34+00.00
INV.~ 53.75

STA. 37+46.00
CAP 4" PVC

VEL. STA. 40+00.00
INV.~ 47.55

MATCH LINE SEE C3-05
STA. 40+00.00

S=+0.0044

S=+0.0030

50
40
30

30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00 40+00

N 1771800 N 1772000 N 1772200 N 1772400 N 1772600 N 1772800

E 6441600

SCALE:
VERT. 1"=4'
HORIZ. 1"=40'

PLAN
0 40 80
SCALE IN FEET

CONSTRUCT PIPE PER TRENCH DETAIL 01 / 09-01

VALLEY DRIVE

ARDMORE AVENUE

8TH PL.

9TH ST.

10TH ST.

11TH ST.

STA. 31+04.82
BEGIN CURVE

STA. 31+68.58
END CURVE

N14°30'10"W 131.79'

N 77°37'43"W ~ 2063.16'

STA. 33+40.00
2" SERVICE CONNECTION
PER DETAIL RW-3
(GREEN BELT)

STA. 37+46.00
12"x4" TEE
4" GATE VALVE W/VALVE BOX
75± L.F. - 4" PVC, CL. 200
4" SERVICE METER W/
METER BOX PER DETAIL
RW-4A (CLARK STADIUM)
CONTRACTOR SHALL BORE
SERVICE UNDER VALLEY DRIVE

E 6442000 E 6441800

N 1771800 N 1772000 N 1772200 N 1772400 N 1772600

⑥	01°52'20"	2000.00'	65.36'	32.68'
	△	R	L	T

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

NO.	DESCRIPTION	DATE	BY
6	RECORD DRAWING	11/94	A.E.

REVISIONS

REGISTERED PROFESSIONAL ENGINEER
STEVEN D. TEDESCO
No. 12431
Exp. 12-31-95
CIVIL
STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

☐ ARCADIA
■ IRVINE
☐ PALM SPRINGS
☐ CAMARILLO
☐ RANCHO CUCAMONGA
☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT

17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
VALLEY/ARDMORE
STA. 30+00.00 TO STA. 40+00.00

C3-04
PROJECT NO.

DWG. NO. 9 OF 40

ASL PROJECT NO. 1915.001

CONSTRUCT 540.00 L.F. OF 12" DIA. D.I. PIPE, CL. 200

CONSTRUCT 32.00 L.F. OF 12" D.I.P. CL. 200

BORE & JACK 90.00 L.F. OF 24" DIA. CASING, ¼" PL. W/ 12 DIA. D.I.P. CARRIER PIPE, CL. 200 W/ RESTRAINED JOINTS

CONSTRUCT 276.00 L.F. OF 16" DIA. DI. PIPE CL. 200

CONSTRUCT 62.00 L.F. OF 12" D.I.P. CL. 200

MATCH LINE SEE C3-04 STA. 40+00.00

MATCH LINE SEE C3.06 STA. 50+00.00

S=+0.0145 S=+0.0065 S=+0.0060 S=-0.0150 S=-0.0050 S=-0.0274

V.P.I. STA. 40+00.00 INV.~41.55

V.P.I. STA. 41+00.00 INV.~43.00

V.P.I. STA. 43+00.00 INV.~44.30

STA. 43+80.00 2" SERVICE CONNECTION

STA. 44+10.00 12"X4" TEE

STA. 45+30.00 12"X4" TEE

V.P.I. STA. 45+40.00 INV.~45.75

V.P.I. STA. 45+60.00 INV.~37.45

V.P.I. STA. 46+70.00 INV.~38.00

STA. 47+05.00 INV.~46.33

STA. 47+21 16"X12" ECC. INV.~49.15

STA. 49+30.00 2" SERVICE CONNECTION

INV.~47.61

SCALE: VERT. 1"=4' HORIZ. 1"=40'

40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00

N 1772800 N 1773400 N 1773600

PLAN 0 40 80 SCALE IN FEET

CONSTRUCT PIPE PER TRENCH DETAIL 1 / 03-01

STA. 45+65.00 4" BLOW-OFF PER DETAIL RW-12

STA. 45+30.00 12"x4" TEE 4" GATE VALVE W/VALVE BOX 250± L.F. 4" P.V.C., CL-200 4" SERVICE METER W/METER BOX PER DETAIL RW-4A (COMMUNITY CENTER)

STA. 45+25.00 12" GATE VALVE & VALVE BOX PER DETAIL RW-7

N 12° 37' 49" W

STA. 45+35.00 4" AIR & VACUUM RELEASE VALVE PER DETAIL RW-9

STA. 45+72.00 BEGIN BORE & JACK

BORE & JACK CASING W/ CARRIER PIPE PER DETAIL 5 / 03-02

STA. 46+62.00 END BORE & JACK

206.12'

4" SERVICE

4" SERVICE METER

CONSTRUCT PIPE PER TRENCH DETAIL 1 / 03-01

STA. 49+30.00 2" SERVICE CONNECTION PER DETAIL RW-3 (GREEN BELT)

STA. 43+80.00 2" SERVICE CONNECTION PER DETAIL RW-3 (GREENBELT)

STA. 44+10.00 12"X4" TEE 4" GATE VALVE W/VALVE BOX 75± L.F.~4" PVC, CL. 200 4" SERVICE METER W/METER BOX PER DETAIL RW-4A (CITY HALL)

11TH PL.

VALLEY

ARDMORE

AVE.

PIER

DRIVE

AVENUE

MATCH LINE SEE C3-04 STA. 40+00.00

MATCH LINE SEE C3.06 STA. 50+00.00

E 6442000 E 6442600

N 1772800 N 1773000 N 1773200 N 1773400 N 1773600 N 1773800

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

NO.	DESCRIPTION	DATE	BY
1	REVISED ELEVATIONS	11/94	A.F.

REVISIONS

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEETERS No. C038581 Exp. 12-01-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

☐ ARCADIA
■ IRVINE
☐ PALM SPRINGS
☐ CAMARILLO
☐ RANCHO CUCAMONGA
☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE SCHEDULE 3

VALLEY/ARDMORE
STA. 40+00.00 TO STA. 50+00.00

C3-05 PROJECT NO.

DWG. NO. 10 OF 40

ASL PROJECT NO. 1915.001

F-1-5

CONSTRUCT 1000.00 L.F. OF 16" DIA. DI PIPE, CL. 200

MATCH LINE SEE C3-05 STA. 50+00.00

STA. 60+00.00 MATCH LINE SEE C3-07

S=0.0185

S=0.0212

54+00.00M

IRRIGATION LINE

0.8-2"CATV.

3" UNT 16TH ST.

V.P.I. STA. 54+40.00 INV.= 49.00

STA. 54+38.70 B.C.

STA. 54+40.00 16"x4" TEE

V.P.I. STA. 55+00.00 INV.= 48.75

V.P.I. STA. 58+00.00 INV.= 53.17

STA. 57+85.00 4" SERVICE CONNECTION

INV.= 54.35

SCALE: VERT. 1"=4' HORIZ. 1"=40'

50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00

N 1773800 N 1774000 N 1774200 N 1774400 N 1774600

PLAN

0 40 80

SCALE IN FEET

STA. 57+85.00
4" SERVICE CONNECTION PER DETAIL RW-3 (GREEN BELT)

CONSTRUCT PIPE PER TRENCH DETAIL 1/C3-01

STA. 52+38.70
BEGIN CURVE

VALLEY DRIVE

16TH ST.

MATCH LINE SEE C3-05 STA. 50+00.00

MATCH LINE SEE C3-07 STA. 60+00.00

N 37°40'41"W 2068.42'

ARDMORE AVENUE

STA. 54+40.00
16"x4" TEE
4" GATE VALVE W/ VALVE BOX
75' L.F.-4" P.V.C., CL. 200
4" SERVICE METER W/ METER BOX PER DETAIL RW-4A (HERMOSA VALLEY SCHOOL)
CONTRACTOR SHALL BORE SERVICE UNDER VALLEY DRIVE

E 644200

E 644100

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result

	08° 14' 36"	6500.00'	935.17'	466.40'
	Δ	R	L	T

REVISIONS			
DESCRIPTION	DATE	BY	
RECORD DRAWING.	11/94	A.P.	

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. C057261 EXP. 12-31-93 STATE OF CALIFORNIA CIVIL

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

☐ ARCADIA
■ IRVINE
☐ PALM SPRINGS
☐ CAMARILLO
☐ RANCHO CUCAMONGA
☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE SCHEDULE 3

VALLEY/ARDMORE
STA. 50+00.00 TO STA. 60+00.00

C3-06 PROJECT NO.

DWG. NO. 11 OF 40

ASL PROJECT NO. 1915.001

C-69

C3-6

CONSTRUCT 1000.00 L.F. OF 16" DIA. D.I. PIPE, CL. 200

70 / 60 / 50

MATCH LINE SEE C3-06 STA. 60+00.00

EXIST. FS. OVER ℄ of PIPE

EXIST. IRRIGATION

6" WM.

8" WTR.

1-4" TELE. DUCTS

TELE. CONDUIT

RECYCLED W.

STA. 70+00.00 MATCH LINE SEE C3-08

INV.= 56.69

VRT. STA. 61+00.00 INV.= 56.00

STA. 61+73.87 E.C.

VRT. STA. 64+50.00 INV.= 58.48

STA. 65+50.00 2" SERVICE CONNECTION

STA. 65+90.57 12"x6" TEE

VRT. STA. 69+50.00 INV.= 59.35

VRT. STA. 70+00.00 INV.= 63.50

SCALE: VERT. 1"=4' HORIZ. 1"=40'

60+00 | 61+00 | 62+00 | 63+00 | 64+00 | 65+00 | 66+00 | 67+00 | 68+00 | 69+00 | 70+00

N 1775800 N 1776000 N 1776200 N 1776400 N 1776600

PLAN
0 40 80
SCALE IN FEET

CONSTRUCT PIPE PER TRENCH DETAIL 1/C8-01

STATION EQUATION
STA. 65+90.57 (VALLEY) =
STA. 100+00.00 (21ST ST.)

12"x6" TEE (INV.@ TEE=58.66
6" GATE VALVE W/ VALVE BOX

VALLEY DRIVE

20TH ST. | 21ST ST. | 24TH ST.

MATCH LINE SEE C3-06 STA. 60+00.00

MATCH LINE SEE C3-08 STA. 70+00.00

E 6449800

DENSE TREES | DENSE BRUSH | SHADOW | ASPH | CONC | CATV | S MH | W MH | OHW | PP | 8"W | 6"A.C. | 8"A.C. | 6"A.C. WATER SUPPLY PIPELINE

N 29°51'25"W 966.03'

STA. 100+00.00
PROJECT "A" (SEE SHEET C5.00)
PERM. P.I.
16"x6" TEE (INV.@ TEE=59.00')
16"x6" REDUCER
STA. 100+30.00
2" TEMP. BLOW-OFF PER DETAIL RW-11

STA. 61+73.87 END CURVE

STA. 65+50.00 2" SERVICE CONNECTION PER DETAIL RW-3 (GREENBELT)

ARDMORE AVENUE

21ST ST.

6" DIA. P.V.C. PIPE (UNDER SEPERATE CONTRACT)

N 1774800 N 1775000 N 1775200 N 1775400 N 1775600

E 6449800

RECORD DRAWING
These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

7	8°14'36"	6550.00'	935.17'	468.40'
	Δ	R	L	T

REVISIONS		
DESCRIPTION	DATE	BY
2ND SUBM.	11/94	JE

REGISTERED PROFESSIONAL ENGINEER STEVEN D. YEATES No. C045281 EXP. 12-31-95 STATE OF CALIFORNIA CIVIL

ASL Consultants, Inc.
ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

☐ ARCADIA
■ IRVINE
☐ PALM SPRINGS
☐ CAMARILLO
☐ RANCHO CUCAMONGA
☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
VALLEY/ARDMORE
STA. 60+00.00 TO STA. 70+00.00

C3-07
PROJECT NO.

DWG. NO. 12 OF 40

ASL PROJECT NO. 1915.001

F2-7

CONSTRUCT 1031.77 L.F. OF 16" DIA. D.I. PIPE, CL. 200

STA. 75+80.00

STA. 76+40.00

EXIST. F.G. OVER 8" PIPE

EXIST. F.G. OVER 8" PIPE

MATCHLINE SEE C3-07
STA. 70+00.00

STA. 80+00.00
MATCHLINE SEE C3-09

V.P.I. STA. 70+00.00
INV. 63.60

STA. 71+39.90
B.C.

STA. 74+74.00
2" SERVICE CONNECTION

V.P.I. STA. 75+84.61
(INV.=67.30, HORIZ. & PT.

V.P.I. STA. 76+13.00
INV.= 59.50

V.P.I. STA. 76+06.00
INV.=59.00

STATION EQUATION
STA. 76+51.77 (BK.)
STA. 76+20.00 (FWD.)
HORIZ. & PT.

STATION EQUATION
STA. 76+51.77 (BK.)
STA. 76+40.00 (FWD.)
HORIZ. & PT.

IDENTICAL POINT

V.P.I. STA. 79+39.00
INV.=64.00

INV.=64.50

SCALE:
VERT. 1"=4'
HORIZ. 1"=40'

70+00 71+00 72+00 73+00 74+00 75+00 76+00 76+00 77+00 78+00 79+00 80+00

0 40 80
SCALE IN FEET

N 1775600 N 1775800 N 1776000 N 1776200 N 1776400

STA. 76+40.00
2" BLOW-OFF PER
DETAIL RW-12

STATION EQUATION:
STA. 76+51.77 (BK.) =
STA. 76+20.00 (FWD.)
45° HORIZ. BEND

STA. 79+41.00
16" BUTTERFLY VALVE &
VALVE BOX PER
DETAIL RW-7

CONSTRUCT PIPE PER
TRENCH DETAIL 1 D3-01

STA. 74+75.00
2" SERVICE CONNECTION
PER DETAIL RW-3
(GREEN BELT)

STA. 71+39.90
BEGIN CURVE

VALLEY DRIVE

24TH PL.

25TH ST.

ARDMORE AVENUE

PORTER LN.

MATCHLINE SEE C3-07
STA. 70+00.00

MATCHLINE SEE C3-09
STA. 80+00.00

14" A.C. SUPPLY PIPELINE (LOCATED BY OTHERS)

STA. 75+80.00
2" AIR and VACUUM
RELEASE VALVE
PER DETAIL RW-9

STA. 75+84.61
END CURVE, HORIZ. & PT. (44.3°)
& VERT. & PT.

RECORD DRAWING
These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

⑨	16°14'35"	2900.00'	822.13'	413.84'
⑧	08°47'10"	2900.00'	444.74'	222.79'
⬡	△	R	L	T

1	RECORD DRAWING.	11/94 A.E.
	DESCRIPTION	DATE BY

REVISIONS

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. 24238 Exp. 12-31-95 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCHO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT

17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
VALLEY/ARDMORE
STA. 70+00.00 TO STA. 80+00.00

C3-08
PROJECT NO.

DWG. NO. 13 OF 40

ASL PROJECT NO. 1915.001

F2-8

CONSTRUCT 1000.00 L.F. OF 16" DIA. D.I. PIPE, CL.200

MATCH LINE SEE C3-08 STA. 80+00.00

MATCH LINE SEE C3-10 STA. 90+00.00

80

70

60

EXIST. F.S. OVER E PIPE

STA. 80+30.00 V.P.I. INV.~64.43

INV.~64.30

STA. 82+40.00 2" SERVICE CONNECTION

STA. 83+70.00 V.P.I. INV.~63.80

STA. 84+42.15 P.C.

STA. 84+72.00 INV.~68.00

STA. 85+89.00 V.P.I. INV.~72.10

STA. 86+00.00 HORIZ. & P.F.

STA. 86+05.00 16"x4" TEE

STA. 87+40.00 HORIZ. & P.F.

STA. 87+60.00 V.P.I. INV.~71.56 P.C.

STA. 89+20.00 V.P.I. INV.~69.80

INV.~70.05

S=-0.0043

S=-0.8019

S=-0.0373

S=-0.0045

S=-0.0100

S=-0.0155

0.4% SLOPE

24" R.C.P.

24" CMP

INTERSECTION (ARTESIA & VIA)

80+00 81+00 82+00 83+00 84+00 85+00 86+00 87+00 88+00 89+00 90+00

SCALE: VERT. 1"=4' HORIZ. 1"=40'

PLAN

0 40 80

SCALE IN FEET

N 1776400 N 1776600 N 1776800 N 1777000 N 1777200 N 1777400

STA. 80+35.00 AIR & VACUUM RELEASE VALVE PER DETAIL RW-9

STA. 82+40.00 2" SERVICE CONNECTION PER DETAIL RW-3 (GREEN BELT)

4 / 09-01 CONC. SUPPORT 36" R.C.P. S.D.

CONSTRUCT PIPE PER TRENCH DETAIL 1 / 09-01

STA. 84+42.15 P.C.

STA. 84+72.00 4" BLOW-OFF PER DETAIL RW-12

STA. 86+64.00 AIR & VACUUM RELEASE VALVE PER DETAIL RW-9

STA. 87+40.00 4 PT., DEFL. 4.9°

STA. 87+60.00 B.C. & VERT. & PT.

STA. 88+08.00 BLOW-OFF PER DETAIL RW-12

STA. 88+50.00 P.T., DEFL. 90.00°

STA. 88+00.00 P.T., DEFL. 4.8°

N 46°34'10"W 1283.87'

VALLEY DRIVE

ARTESIA BLVD.

AVENUE

ARDMORE

GOULD AVE.

MATCH LINE SEE C3-10

MATCH LINE SEE C3-08

12" A.C. SUPPLY PIPELINE (A.C.O.W.D.)

16" A.C. GRAVITY PIPELINE (A.C.O.W.D.)

CONSTRUCT PIPE PER TRENCH DETAIL 1 / 09-01

STA. 86+05.00 16"x4" TEE 4" GATE VALVE W/VALVE BOX 20±L.F.-4" P.V.C., CL.200 4" SERVICE METER W/METER BOX PER DETAIL RW-4A (VALLEY PARK)

⑩	30°03'45"	1050.00'	550.93'	281.96'
⑨	16°14'35"	2300.00'	822.15'	419.84'
	Δ	R	L	T

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

REVISIONS			
	DESCRIPTION	DATE	BY
A	RECORD DRAWING.	11/84	A.E.

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEATER No. 12-31-83 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCHO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY :

DRAWN BY :

CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT

17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
VALLEY/ARDMORE
STA. 80+00.00 TO STA. 90+00.00

C3-09

PROJECT NO.

DWG. NO. 14 OF 40

ASL PROJECT NO. 1915.001

CONSTRUCT 1000.00 L.F. OF 16" DIA. DI. PIPE, CL. 200

MATCH LINE SEE C3-08
STA. 90+00.00

STA. 100+00.00
MATCH LINE SEE C3-11

EXIST. E.S. OVER E. PIPE

5=+0.0025

5=-0.0076

5=-0.0065

5=-0.0018

5=+0.0039

V.P.I. STA. 91+45.00
INV. = 72.41

STA. 92+10.00
2" SERVICE CONNECTION

V.P.I. STA. 92+46.25
INV. = 74.00 (max)
E.C.

V.P.I. STA. 94+30.00
INV. 78.76

STA. 95+00.00
2" SERVICE CONNECTION

V.P.I. STA. 96+00.00
INV. = 82.39

V.P.I. STA. 98+11.00
INV. = 90.40

V.P.I. STA. 100+00.00
INV. 92.00

INV. 72.25

SCALE:
VERT. 1"=4'
HORIZ. 1"=40'

90+00 91+00 92+00 93+00 94+00 95+00 96+00 97+00 98+00 99+00 100+00

N 1777200 N 1777400 N 1777600 N 1777800 N 1778000 N 1778200

PLAN
0 40 80
SCALE IN FEET

STA. 92+10.00
2" SERVICE CONNECTION
PER DETAIL RW-3
(GREEN BELT)

STA. 93+10.93
E.C. VERT. & PT.

CONSTRUCT PIPE PER TRENCH DETAIL 1/03-01

CONSTRUCT PIPE PER TRENCH DETAIL 1/03-01

STA. 98+07.00
BLOW-OFF
PER DETAIL
RW-12

STA. 93+15.00
AIR & VACUUM
RELEASE VALVE
PER DETAIL
RW-9

STA. 95+00.00
2" SERVICE CONNECTION
PER DETAIL RW-3
(GREEN BELT)

NEW SUPPLY PIPELINE (E.A.C.DPW)

W/AIR-VACUUM PIPELINE (E.A.C.DPW)

MAIN LINE SEWER

30TH ST.

31ST ST.

VALLEY DRIVE

LONGFELLOW AVE.

ARDMORE AVENUE

CITY LIMITS LINE

BOUNDARY

CITY OF NEWPORT BEACH

FRANCISCO ST.

DUNCAN AVE.

10	30°03'45"	1050.00'	550.93'	291.96'
	Δ	R	L	T

RECORD DRAWING
These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

RECORD DRAWING	11/94	A.E.
DESCRIPTION	DATE	BY

REVISIONS

STEVEN D. TEDESCO — No. 15808 — Exp. 12-31-95 — REGISTERED PROFESSIONAL ENGINEER — CIVIL — STATE OF CALIFORNIA

ASL Consultants, Inc.
ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCHO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
VALLEY/ARDMORE
STA. 90+00.00 TO STA. 100+00.00

C3-10
PROJECT NO.

DWG. NO. 15 OF 40

ASL PROJECT NO. 1915.001

FLY 13 W 10

CONSTRUCT 1000.00 L.F. OF 16" DIA. DI. PIPE, CL. 200

MATCH LINE SEE C3-10 STA. 100+00.00

MATCH LINE SEE C3-12 STA. 110+00.00

SCALE:
VERT. 1"=4'
HORIZ. 1"=40'

PLAN
0 40 80
SCALE IN FEET

6" DIA. PVC. PIPE FOR PLAN & PROFILE SEE SHEET C3-24

STATION EQUATION:
STA. 100+10.00 (VALLEY) =
STA. 13+55.00 (FRANCISCO)
12" x 6" TEE;
6" GATE VALVE & VALVE BOX

CONSTRUCT PIPE PER TRENCH DETAIL 1 / D5-01

STA. 102+92.00
4" BLOW-OFF PER DETAIL RW-12

(11)	19°57'42"	2750.00'	958.09'	489.95'
	Δ	R	L	T

RECORD DRAWING
These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

DESCRIPTION	DATE	BY
RECORD DRAWING.	11-94	A.E.

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — STEVEN D. TEETER — No. CE 28261 — EXP. 12-31-93 — CIVIL — STATE OF CALIFORNIA

ASL Consultants, Inc.
ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCHO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
VALLEY/ARDMORE
STA. 100+00.00 TO STA. 110+00.00

C3-11
PROJECT NO.

DWG. NO. 16 OF 30

ASL PROJECT NO. 1915.001

FLT 13 # 11

CONSTRUCT 1000.00 L.F. OF 16" DIA. DI. PIPE, CL. 200

EXIST F.S. OVER ℄ PIPE

MATCH LINE SEE C3-11 STA. 110+00.00

STA. 120+00.00 MATCH LINE SEE C3-13

INV.-73.20

INV.-82.10

V.P.I. STA. 111+80.00 INV.-75.19

V.P.I. STA. 116+40.00 INV.-82.99

STA. 117+11.45 E.C.

STA. 117+70.00 INV.=86.22

V.P.I. STA. 119+32.00 INV.=89.26

S=-0.0120

S=-0.0188

S=-0.0046

S=-0.0154

℄ 3rd St.

℄ 3rd Pl.

℄ 4th St.

℄ 4th Pl.

℄ 5th St.

℄ 5th Pl.

℄ 6th St.

℄ 6th Pl.

SCALE: VERT. 1"=4' HORIZ. 1"=40'

110+00 111+00 112+00 113+00 114+00 115+00 116+00 117+00 118+00 119+00 120+00

N 1779200 N 1779400 N 1779600 N 1779800

PLAN

0 40 80

SCALE IN FEET

STA. 117+11.45 E.C. PROPOSED 24" R.C.P.

3RD ST. 3RD PL. 4TH ST. 4TH PL. VALLEY DRIVE 5TH ST. 5TH PL. 6TH ST. 6TH PL.

MATCH LINE STA. 110+00.00 SEE C3-11

STA. 120+00.00 MATCH LINE SEE C3-13

WELL #GG02

WELL #GF

80" A.C. DISPOSAL PIPELINE

80" A.C.

48" A.C. SUPPLY PIPELINE

ARDMORE AVENUE 5TH ST.

CONSTRUCT PIPE PER TRENCH DETAIL 1 / D8-01

CONSTRUCT PIPE PER TRENCH DETAIL 1 / D3-01

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

	Δ	R	L	T
11	19°57'42"	3750.00'	958.09'	485.95'

	DESCRIPTION	DATE	BY
1	RECORD DRAWING	11/94	AB

REVISIONS

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. CO38261 Exp. 12-31-03 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCHO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT

17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
VALLEY/ARDMORE
STA. 110+00.00 TO STA. 120+00.00

C3-12
PROJECT NO.

DWG. NO. 17 OF 40

ASL PROJECT NO. 1915.001

CONSTRUCT 1000.00 L.F. OF 16" DIA. D.I. PIPE, CL. 200

MATCH LINE SEE C3-12 STA. 120+00.00

STA. 130+00.00 MATCH LINE SEE C3-14

110 / 100 / 90

EXIST. F.S. OVER 6" PIPE

E. INT. 7TH ST.

E. INT. 8TH ST.

E. INT. 8TH PL.

E. INT. 9TH ST.

E. INT. 9TH PL.

E. INT. 10TH ST.

E. INT. 10TH PL.

S=+0.0139

S=+0.0199

S=+0.0178

INV. 90.70

V.P.I. STA. 120+50.00 INV. = 90.59

STA. 122+45.00 2" SERVICE CONNECTION PER DETAIL RW-3 (GREEN BELT).

STA. 122+50.00 HORIZ. ℄ PT.

V.P.I. STA. 124+00.00 INV. = 91.51

STA. 125+70.00 V.P.I. INV. 101.00

STA. 126+05.00 8" AIR RELEASE VALVE PER DETAIL RW-7

STA. 126+83.82 B.C.

STA. 127+05.00 2" SERVICE CONNECTION PER DETAIL RW-3 (GREEN BELT).

STA. 127+83.82 B.C.

STA. 129+56.49 E.C.

STA. 129+82.72 B.C.

INV. 111.44

SCALE: VERT. 1"=4' HORIZ. 1"=40'

120+00 / 121+00 / 122+00 / 123+00 / 124+00 / 125+00 / 126+00 / 127+00 / 128+00 / 129+00 / 130+00

N 1780000 / N 1780200 / N 1780400 / N 1780600

PLAN

0 40 80

SCALE IN FEET

CONSTRUCT PIPE PER TRENCH DETAIL 1/D3-08

STA. 123+70.00 ℄ PT., DEFL. 14°

STA. 122+50.00 ℄ PT., DEFL. 1.5°

7TH ST. / 7TH PL. / 8TH ST. / 8TH PL. / 9TH ST. / 9TH PL. / 10TH ST. / 10TH PL.

VALLEY DRIVE

ARDMORE AVENUE

PROPOSED 12" W.L.

EXISTING 12" W.L.

MATCH LINE SEE C3-12 STA. 120+00.00

MATCH LINE SEE C3-14 STA. 130+00.00

N 40°54'23"W 538.55'

N 39°25'55"W 123.00'

N 40°48'40"W 419.82'

N 39°25'55"W 26.25'

20" A.C. (ABAND.)

14" A.C.

8" A.C. (ABAND.)

111.2 14" SPIRALITE SPECIAL (C.A.S. DPW)

E. 6439000

E. 6439800

E. 6440600

N 1780200 / N 1780400 / N 1780600 / N 1780800

13	7°49'09"	814.00'	111.09'	55.63'
12	13°38'18"	725.41'	172.67'	86.75'
	△	R	L	T

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

DESCRIPTION	DATE	BY
RECORD DRAWING	11/94	A.E.

REVISIONS

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. 12-31-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

☐ ARCADIA
■ IRVINE
☐ PALM SPRINGS
☐ CAMARILLO
☐ RANCHO CUCAMONGA
☐ SAN DIEGO

DESIGNED BY :

DRAWN BY :

CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT

17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
VALLEY/ARDMORE
STA. 120+00.00 TO STA. 130+00.00

C3-13 PROJECT NO.

DWG. NO. 18 OF 40

ASL PROJECT NO. 1915.001

CONSTRUCT 305.00 L.F. OF 16" DIA. D.I. PIPE, CL. 200

BORE & JACK 120.00 L.F. OF 30" DIA. CASING 5/16" PL. W/ 16" DIA. DIP CARRIER PIPE, CL. 200

CONSTRUCT 575.00 L.F. OF 16" DIA. D.I. PIPE, CL. 200

MATCH LINE SEE C3-13 STA. 130+00.00

STA. 140+00.00 MATCHLINE SEE C3-15

EXIST. F.D. OVER 8" PIPE

SCALE: VERT. 1"=4' HORIZ. 1"=40'

PLAN
0 40 80
SCALE IN FEET

VALLEY

ARDMORE

DRIVE

AVENUE

10 TH PL.

11 TH ST.

12 TH ST.

13 TH ST.

MANHATTAN BEACH BLVD.

STA. 130+93.81 E.C.

CORE & JACK CASING W/ CARRIER PIPE PER DETAIL 5 / 08-02

STA. 133+05.00 BEGIN BORE & JACK

STA. 134+25.00 END CORE & JACK

STA. 134+33.00 4" BLOW-OFF SEE DETAIL EW-12

STA. 134+72.02 B.C.

CONSTRUCT PIPE PER TRENCH DETAIL 1 / 08-01

STA. 137+44.69 E.C.

STA. 135+60.00 16" BUTTERFLY VALVE and VALVE BOX PER DETAIL RW-7

CONSTRUCT PIPE PER TRENCH DETAIL 1 / 08-01

STA. 132+94.52 A PT, DEFL. 5.4°

"CONTRACTOR TO MAINTAIN EITHER A PLATED OR PLATED ACCESS, SUFFICIENT TO ALLOW ACCESS, INGRESS AND EGRESS TO THE PARKING AREA AT ALL TIMES"

NOTE: CONTRACTOR SHALL PROVIDE EXTRA CARE IN WORKING AROUND THE COLORED TILE PAVING TO PREVENT DAMAGE THERETO.

RECHARGE WELL #5B

12" SUPPLY PIPELINE

80" A.C.

14" A.C.

12" A.C.

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

M	05°26'08"	887.00	272.07	132.44
13	01°45'08"	614.00	11.00	55.03
⬡	△	R	L	T

NO.	DESCRIPTION	DATE	BY
A	RECORD DRAWING	11/94	A.E.

REVISIONS

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. C039261 Exp. 12-31-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

☐ ARCADIA
■ IRVINE
☐ PALM SPRINGS
☐ CAMARILLO
☐ RANCHO CUCAMONGA
☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
VALLEY/ARDMORE
STA. 130+00.00 TO STA. 140+00.00

C3-14
PROJECT NO.

DWG. NO. 19 OF 40

ASL PROJECT NO. 1915.001

1-12-94

CONSTRUCT 1000.00 L.F. OF 16" DIA. D.I. PIPE, CL. 200

MATCH LINE SEE C3-14 STA. 140+00.00

STA. 150+00.00 MATCH LINE SEE C3-16

EXIST. E.S. OVER 8" PIPE

S=+0.0038

S=+0.0127

S=+0.0072

S=-0.0081

24" R.C.P.

℄ INT. 15TH ST

VPI STA. 140+12.05
INV.= 108.76
B.C.

VPI STA. 142+45.25
INV.= 111.72
E.C.

STA. 143+25.00
HORIZ. ℄ PT.

VPI STA. 144+00.00
INV.= 113.55

STA. 145+45.00
HORIZ. ℄ PT.

STA. 147+29.99
B.C.

INV.= 114.80

INV.= 106.71

SCALE:
VERT. 1"=4'
HORIZ. 1"=40'

140+00 141+00 142+00 143+00 144+00 145+00 146+00 147+00 148+00 149+00 150+00

N 1781600 N 1781800 N 1782000 N 1782200 N 1782400

PLAN
0 40 80
SCALE IN FEET

E 6437600

E 6437200

STA. 141+26.00 TO STA. 141+99.00
24" R.C.P.

STA. 143+25.00
℄ PT., DEFL. 2.0°

STA. 145+45.00
℄ PT., DEFL. 5.0°

STA. 147+29.99
B.C.

CONSTRUCT PIPE PER TRENCH DETAIL 1/03-01

CONTRACTOR TO MAINTAIN EITHER A PAVED OR PLATED ACCESS SUFFICIENT TO ALLOW AUTOS INGRESS AND EGRESS TO THIS WORKING AREA AT ALL TIMES.

VALLEY DRIVE

ARDMORE AVENUE

13 TH ST.

14 TH ST.

15 TH ST.

17 TH ST.

MATCH LINE SEE C3-14 STA. 140+00.00

MATCH LINE SEE C3-16 STA. 150+00.00

N 24°55'20" W

N 29°55'46" W

N 24°09'09" W

N 31°52'

200.00'

12" A.C. SUPPLY MAIN (CALCDFW)

12" A.C.

12" A.C.

CONSTRUCT PIPE PER TRENCH DETAIL 1/03-01

STA. 140+12.05
B.C. ℄ VERT. ℄ PT.

STA. 142+45.25
E.C. ℄ VERT. ℄ PT.

RECORD DRAWING
These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

℘	23°33'20"	900.00'	370.01'	187.66'
℘	07°45'37"	1721.78'	233.80'	116.78'
	△	R	L	T

1	RECORD DRAWING.	11/94	A.M.
	DESCRIPTION	DATE	BY

REVISIONS

STEVEN D. TEDESCO — No. 22531 — Exp. 12-31-95 — REGISTERED PROFESSIONAL ENGINEER — CIVIL — STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCHO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT

17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
VALLEY/ARDMORE
STA. 140+00.00 TO STA. 150+00.00

C3-15
PROJECT NO.

DWG. NO. 20 OF 40

ASL PROJECT NO. 1915.001

F12-15

CONSTRUCT 1000.00 L.F. OF 16" DIA. D.I. PIPE, CL. 200

MATCH LINE SEE C3-15
STA. 150+00.00

STA. 160+00.00
MATCH LINE SEE C3-17

EXIST. F.S. OVER 8" PIPE

SCALE:
VERT. 1"=4'
HORIZ. 1"=40'

PLAN
0 40 80
SCALE IN FEET

VALLEY DRIVE

ARDMORE AVENUE

STA. 150+50.00
6" AIR & VACUUM RELEASE VALVE PER DETAIL RW-9.

STA. 151+19.23
B.C.

STA. 151+00.00
E.C.

STA. 157+88.61
E.C.

STA. 158+50.75
4 PT., DEFL. 9.4°

RECHARGE WELL #5Y

TEST WELL #5YTHS

CONSTRUCT PIPE PER TRENCH DETAIL 1 (RB-01)

STA. 153+10.00
16"x4" TEE
4" GATE VALVE W/ VALVE BOX
34± L.F. ~ 4" P.V.C., CL. 200
4" SERVICE METER W/ METER BOX PER DETAIL RW-4A
(LIVE OAK PARK)

17	45°07'14"	350.00'	649.38'	353.13'
16	23°33'20"	900.00'	370.01'	187.66'
	Δ	R	L	T

RECORD DRAWING
These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

REVISIONS			
DESCRIPTION	DATE	BY	
RECORD DRAWING	11/94	A.E.	

REGISTERED PROFESSIONAL ENGINEER — STEVEN B. TEDESCO — No. 18326 — Exp. 12-31-83 — CIVIL — STATE OF CALIFORNIA

ASL Consultants, Inc.
ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCHO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
VALLEY / ARDMORE
STA. 150+00.00 TO STA. 160+00.00

C3-16
PROJECT NO.

DWG. NO. 21 OF 40

ASL PROJECT NO. 1915.001

CONSTRUCT 1000.00 L.F. OF 16" DIA. DI. PIPE, CL. 200

MATCH LINE SEE C3-16 STA. 160+00.00

MATCH LINE SEE C3-18 STA. 170+00.00

EXIST. F.S. OVER E. PIPE

-S=-0.0136

S=+0.0075

S=-0.0099

S=-0.0148

S=-0.0180

-S=-0.0100

E. INT. 21 ST ST.

CONC. SUPPORT 18"RCP S.D.

E. INT. BLANCHE RD. STA. 163+30.00

STA. 163+68.00

STA. 165+65.00

E. INT. FLOURNOY RD. STA. 169+15.00

STA. 169+15.00 4" BLOW-OFF PER DETAIL RW-12

V.P.I. STA. 163+00.00 INV. 102.52

V.P.I. STA. 163+15.00 INV. 99.60

V.P.I. STA. 163+40.00 INV. 99.29

V.P.I. STA. 163+66.00 INV. 102.25

STA. 163+65.00 16"x6" TEE

V.P.I. STA. 165+60.00 INV. ~103.79

V.P.I. STA. 166+20.00 INV. ~102.50

V.P.I. STA. 167+20.00 INV. ~101.00

21.42+ INV. ~99.12

INV. ~101.20

INV. ~102.70

110 / 100 / 90

160+00 161+00 162+00 163+00 164+00 165+00 166+00 167+00 168+00 169+00 170+00

SCALE: VERT. 1"=4' HORIZ. 1"=40'

PLAN

0 40 80

SCALE IN FEET

E 6437600 E 6437800 E 6438000 E 6438200 E 6438400

STA. 10+70.00 2" TEMP. BLOW-OFF PER DETAIL RW-11

CONSTRUCT PIPE PER TRENCH DETAIL 1 / 03-01

N51°50'59"W ~ 26.26'

STA. 10+42.74 HORIZ. DEFL. Δ (53°)

SEE PROFILE SHT. C3-20

STA. 10+10.00 HORIZ. DEFL. Δ (67.5°)

N 36°49'07"W ~ 40.00'

6" DIA. PVC. PIPE (UNDER SEPERATE CONTRACT)

4 / 03-01 CONC. SUPPORT 18"RCP S.D.

BLANCHE

21 ST. STREET

VALLEY DRIVE

ARDMORE AVENUE

FLOURNOY ROAD

STA. 165+65.00 2" AIR & VACUUM RELEASE VALVE PER DETAIL RW-9

STA. 169+15.00 BLOW-OFF PER DETAIL RW-12

STA. 163+30.00 4" BLOW-OFF PER DETAIL RW-12

N 75°20'16"W ~ 35.71'

16" A.C. DISPOSAL PIPELINE (A.C.P.D.W.)

16" A.C. WATER SUPPLY PIPELINE (A.C.P.D.W.)

STA. 163+50.00 16" BUTTERFLY VALVE and VALVE BOX PER DETAIL RW-7

STATION EQUATION
STA. 163+65.00 (VALLEY) =
STA. 10+00.00 (BLANCHE)

16" x 6" TEE
6" GATE VALVE W/VALVE BOX

CONSTRUCT PIPE PER TRENCH DETAIL 1 / 03-01

MATCH LINE SEE C3-16 STA. 160+00.00

MATCH LINE SEE C3-18 STA. 170+00.00

N 1763400 N 1762200

E 6437800 E 6438000 E 6438200 E 6438400 E 6438600

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

REVISIONS			
	DESCRIPTION	DATE	BY
2	RECORD DRAWING	12-31-93	A.E.

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TERTEL No. 22826 EXP. 12-31-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

☐ ARCADIA
■ IRVINE
☐ PALM SPRINGS
☐ CAMARILLO
☐ RANCHO CUCAMONGA
☐ SAN DIEGO

DESIGNED BY :

DRAWN BY :

CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT

17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
VALLEY/ARDMORE
STA. 160+00.00 TO STA. 170+00.00

C3-17
PROJECT NO.

DWG. NO. 22 OF 40

ASL PROJECT NO. 1915.001

F 12-13

CONSTRUCT 1000.00 L.F. OF 16" DIA. D.I. PIPE, CL. 200

MATCH LINE SEE C3-17 STA. 170+00.00

STA. 180+00.00 MATCH LINE SEE C3-19

EXIST. F.S. OVER Ø PIPE

EXIST. F.S. UNDER Ø PIPE

IDENTICAL PAINT

S=-0.0458

S=-0.0535

S=-0.0057

S=-0.0535

S=-0.0222

INV.=147.10

V.P.I. STA. 171+49.40 INV.=137.45

STA. 172+37.93 B.C.

V.P.I. STA. 175+90.00 INV.=130.89

V.P.I. STA. 175+01.00 INV.=135.30

V.P.I. STA. 176+56.60 INV.=135.11

STA. 177+05.16 E.C.

V.P.I. STA. 178+49.00 INV.=120.00

V.P.I. STA. 179+49.00 INV.=112.50

STA. 179+06.55 HORIZ. P.I.

INV.=112.50

CONCRETE PAVEMENT

SEE DETAIL

16" WTR.

12" WTR.

2" GAS

8" T.W.L.

8" SEW.

SCALE: VERT. 1"=4' HORIZ. 1"=40'

PLAN

0 40 80

SCALE IN FEET

VALLEY DRIVE

MARINE AVE.

LAUREL AVE.

PACIFIC AVE.

10" W AVE.

STA. 177+65.12 END CURVE

STA. 179+06.55 30° DEFL.

LIMITS of CONC. PVMT.

STA. 172+37.93 B.C.

CONCRETE

CONCRETE PIPE (C.A.C.P.I.P.)

12" WATER SUPPLY LINE (C.A.C.P.I.P.)

N 39°18'39" E 172.13'

10" A.C.

STA. 175+16.00 8" AIR & VACUUM RELEASE VALVE PER DETAIL RW-9

ARDMORE AVENUE

CONSTRUCT PIPE PER TRENCH DETAIL 1/03-01

STA. 179+10.00 8" BLOW-OFF PER DETAIL RW-12

STA. 180+00.00 MATCH LINE SEE C3-19

DENSE TREES

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

18	21°34'32"	1400.00'	527.19'	266.76'
	Δ	R	L	T

REVISIONS			
DESCRIPTION	DATE	BY	
A RECORD DRAWING.	0/94	A.E.	

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO C039261 12-31-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCHO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT

17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
VALLEY/ARDMORE
STA. 170+00.00 TO STA. 180+00.00

C3-18
PROJECT NO.

DWG. NO. 23 OF 40

ASL PROJECT NO. 1915.001

F 12-19

CONSTRUCT 777.15 L.F. OF 16" DIA. DI. PIPE, CL. 200

MATCH LINE SEE SHT. C3-18 STA. 180+00.00

STA. 11+00.00 MATCH LINE SEE C3-20

STATION EQUATION STA. 3+70.41 (AHD)* STA. 180+47.57 (BK.) HORIZ. & PT. (76.6°±)

EXIST. P.G. OVER ℄ PIPE

4 CONC. SUPPORT (DB-1) 18" C.M.P. S.D.

STA. 3+70.00 2" AIR & VACUUM PER DETAIL RW-9

STA. 3+88.00 16" BUTTERFLY VALVE AND VALVE BOX PER DETAIL RW-7

STA. 4+52.00 U' SERVICE.

CONSTRUCT PIPE PER TRENCH DETAIL 1 / DB-01

STA. 9+55.00 2" AIR & VACUUM RELEASE VALVE PER DETAIL RW-9

N45°11'25"E 15.56'

STA. 10+49.53 45° BEND

N 89°48'35"W 1020.27'

STA. 10+33.97 45° BEND

SCALE: VERT. 1"=4' HORIZ. 1"=40'

PLAN 0 40 80 SCALE IN FEET

E 6439000 E 6439200 E 6439400 E 6439600 E 6439800 E 6440000

N 178444 N 178600 N 178800 N 179000 N 179200

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

REVISIONS			
DESCRIPTION	DATE	BY	
RECORD DRAWING	11/94	A.E.	

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. 39261 Exp. 12-31-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

☐ ARCADIA
■ IRVINE
☐ PALM SPRINGS
☐ CAMARILLO
☐ RANCHO CUCAMONGA
☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
MARINE AVENUE
STA. 180+00.00 TO STA. 180+47.62
STA. 3+70.38 TO STA. 11+00.00

C3-19 PROJECT NO.

DWG. NO. 24 OF 40

ASL PROJECT NO. 1915.001

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

RECORD DRAWING.	11/94	
DESCRIPTION	DATE	BY

REVISIONS

REGISTERED PROFESSIONAL ENGINEER — STEVEN D. TEDESCO — No. C039261 — Exp. 12-31-93 — CIVIL — STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCHO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
MARINE AVENUE
STA. 11+00.00 TO STA. 21+00.00

C3-20
PROJECT NO.
DWG. NO. 25 OF 40

ASL PROJECT NO. 1915.001

RECORD DRAWING

These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

RD RECORD DRAWING.	11/94	A.F.
DESCRIPTION	DATE	BY

REVISIONS

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. C059261 Exp. 12-31-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCHO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT

17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
MARINE AVENUE
STA. 21+00.00 TO STA. 31+00.00

C3-21
PROJECT NO.
DWG. NO. 26 OF 40

ASL PROJECT NO. 1915.001

SHEET 11 / FLT. 14

CONSTRUCT 157.99 L.F. OF 16" DIA. D.I. PIPE CL. 200

CONSTRUCT 40.00 L.F. 6" DIA. D.I. PIPE, CL. 200

CONSTRUCT 70.00 L.F. 6" DIA. D.I. PIPE CL. 200

(EXIST. F.S. OVER 8" PIPE)

MATCH LINE SEE C3-21 STA. 31+00.00

INV.-150.50'

V.P.I. STA. 32+10.00 INV.-146.00

V.P.I. STA. 32+20.00 INV.-136.00

INV.-135.6'± 2" TEMP. BLOW-OFF PER DETAIL BW-11

STA. 100+00.00 (32+57.99) STA. 65+90.57 (VALLEY)

STA. 100+00.00 (32+37.99) STA. 65+90.57 (VALLEY)

STA. 100+40.00 END CONSTRUCTION

V.P.I. STA. 100+10.00 INV.-58.75± HORIZ. & PT.

6" DIA. PVC. PIPE (INV.-56.99)

6"x6" TEE

6" GATE VALVE W/VALVE BOX

INV.-66.00 2" TEMP. BLOW-OFF PER DETAIL BW-11

STA. 100+00.00 HORIZ. & PT.

STA. 101+93.74 HORIZ. & PT.

V.P.I. STA. 101+50.00 INV.-101.50

6" DIA. PIPE (INV.-102.33)

6" GATE VALVE W/VALVE BOX

INV.-102.58

INV.-101.50 2" TEMP. BLOW-OFF PER DETAIL BW-11

SCALE: VERT. 1"=4' HORIZ. 1"=40'

31+00 32+00 33+00 100+00 101+00 10+00 11+00

E 6442000 E 6442200 E 6442400 E 6442600 E 6442800 E 6443000

PLAN 0 40 80 SCALE IN FEET

PROFILE "A"
SEE SHT. C3-07 FOR PLAN VIEW

PROFILE "B"
SEE SHT. C3-17 FOR PLAN VIEW

N 178400

N 178200

STA. 31+24.00 22½° HORIZ. BEND N67°18'35"W 47.04'

STA. 31+71.04 22½° HORIZ. BEND

N89°48'35"W 236.96'

N89°48'35"W 86.95'

MANHATTAN BEACH VILLAGE SHOPPING CENTER

16" DIA. D.I. PIPE (SCH. 4) UNDER SEPERATE CONTRACT

16" BUTTERFLY VALVE REDUCERS & TEE UNDER SEPERATE CONTRACT

MARINE AVENUE

48" DIA. PIPE (SCHEDULE 4) UNDER SEPERATE CONTRACT

MATCH LINE SEE C3-21 STA. 31+00.00

MAGNOLIA AVENUE

MEADOWS AVENUE

SOUTH WAY

STATION EQUATION:
STA. 32+57.99 (BK.) = STA. 32+52.32 (AHD.)
STA. 193+18.66 (MANHATTAN)

CONSTRUCT PIPE PER TRENCH DETAIL 1/03-01

STA. 32+40.00 END SCH. 3 2" TEMP. BLOW-OFF PER DETAIL BW-11

RECORD DRAWING
These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

REVISIONS	DATE	BY
RECORD DRAWING.	11/94	A.E.

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. C037201 Exp. 12-31-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.
ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

☐ ARCADIA
■ IRVINE
☐ PALM SPRINGS
☐ CAMARILLO
☐ RANCHO CUCAMONGA
☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE
SCHEDULE 3
MARINE AVENUE
STA. 31+00.00 TO STA. 32+51.60

C3-22
PROJECT NO.

DWG. NO. 27 OF 40

ASL PROJECT NO. 1915.001

SHEET # 2 FLT. 14

CONSTRUCT 530.00 L.F. 8" DIA. D.I. PIPE, CL. 200

BEGIN CONSTRUCTION STA. 104+00.00

END CONSTRUCTION STA. 110+30.00

EXIST. F.S. OVER ℄ OF PIPE

S=0.0016

STA. 104+15.00
8"x8" TEE

STA. 107+95.00
INV. 20.85

INV. 19.02

INV.~21.03 (8"R/W)
INV.~21.83 (12"R/W)

SCALE:
VERT. 1"=4'
HORIZ. 1"=40'

PLAN
0 40 80
SCALE IN FEET

STA. 104+15.00
8"x8" TEE
8" GATE VALVE W/ VALVE BOX
131 L.F. ~ 8" P.V.C., CL. 200
8" PLUG
(SCE)

MONTEREY BLVD.

HERONDO ST.

CITY OF HERMOSA BEACH
CITY OF REDONDO BEACH

N 68° 56' 17" E 571.56'

STA. 104+00.00
8" TEMPORARY BLOW-OFF PER DETAIL RW-11

CONSTRUCT PIPE PER TRENCH DETAIL 1 / C3-01

CONTRACTOR TO REMOVE & REPLACE EXIST. SIDEWALKS CURB & GUTTER IN-KIND

12" DIA. PIPE SCHEDULE 3 SEE SHEET C3-01.

8" GATE VALVE & VALVE BOX

FRANCISCA AVE.

VALLEY DR.

RECORD DRAWING
These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

REVISIONS			
DESCRIPTION	DATE	BY	
RECORD DRAWINGS.	11/99	A.E.	

REGISTERED PROFESSIONAL ENGINEER — STEVEN D. TEDESCO — No. C039281 Exp. 12-31-93 — CIVIL — STATE OF CALIFORNIA

ASL Consultants, Inc.
ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCHO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

PLAN AND PROFILE SCHEDULE 3

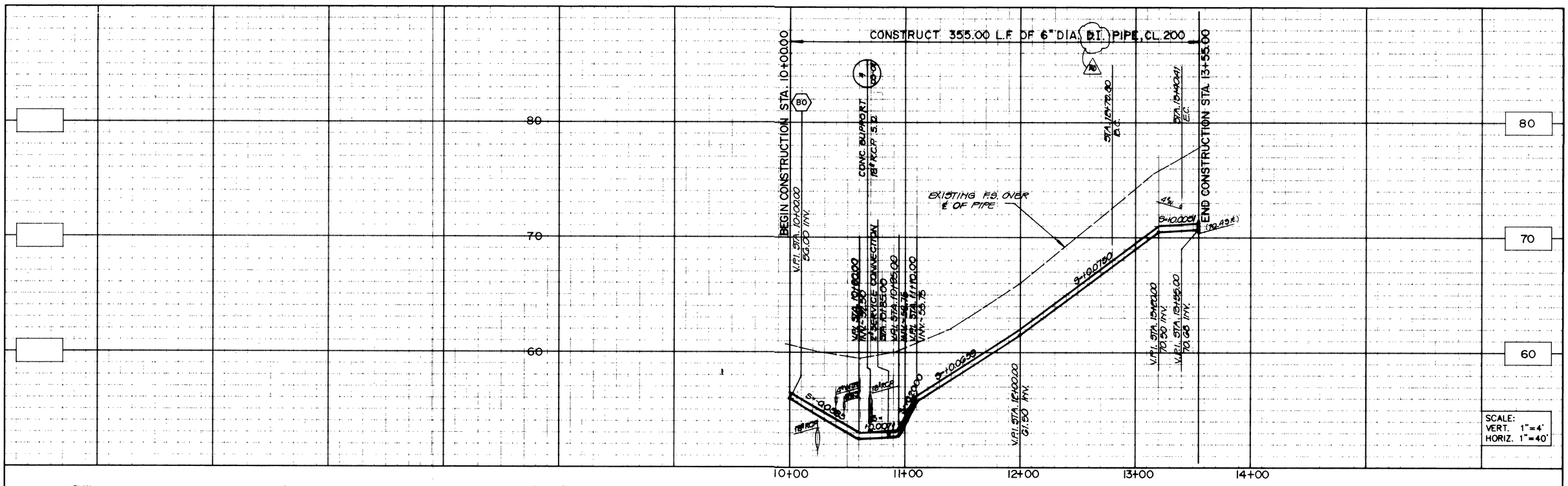
HERONDO STREET
STA. 100+00.00 TO STA. 110+20.00

C3-23
PROJECT NO.

DWG. NO. 28 OF 40

ASL PROJECT NO. 1915.001

SHEET # 1 FLT A



DESCRIPTION	DATE	NO.
REVISIONS		

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. C039261 12-31-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.

ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

☐ ARCADIA
■ IRVINE
☐ PALM SPRINGS
☐ CAMARILLO
☐ RANCHO CUCAMONGA
☐ SAN DIEGO

DESIGNED BY :
DRAWN BY :
CHECKED BY :

WEST BASIN MUNICIPAL WATER DISTRICT

17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

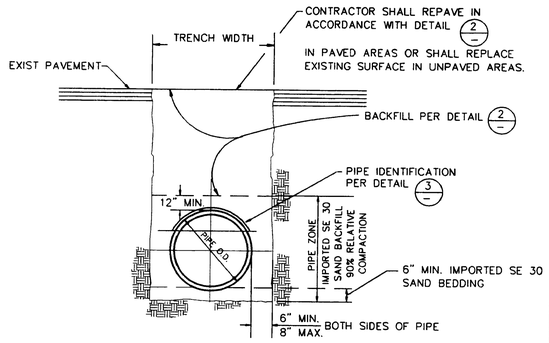
PLAN AND PROFILE
SCHEDULE 3
33RD STREET
STA. 10+00.00 TO STA. 13+55.00

C3-24
PROJECT NO.

DWG. NO. 29 OF 40

ASL PROJECT NO. 1915.001

SHEET 12 FLT 13



NOTES:

1. A. FOR DEPTHS UP TO 5 FEET, NO TRENCH SUPPORT IS REQUIRED.
   B. FOR DEPTHS EXCEEDING 5 FEET, SHORING OR SOLID SHEATHING IS REQUIRED. DESIGN CALCULATIONS BY A REGISTERED CIVIL ENGINEER SHALL BE SUBMITTED.
   C. IN UNPAVED AREAS, SLOPE TRENCH WALLS PER CAL OSHA WILL BE ALLOWED. VERTICAL TRENCH WALLS WILL BE REQUIRED IN THE TRENCH ZONE.
2. WHERE WET, UNSTABLE OR RUNNING SOIL IS ENCOUNTERED, SOLID SHEATHING IS REQUIRED FOR ALL VERTICAL TRENCH WALLS.
3. MINIMUM RELATIVE COMPACTION REQUIREMENTS SHALL CONFORM TO ALL PERMIT REQUIREMENTS AND SHALL AT NO TIME BE LESS THAN 90%.
4. TRENCH SECTIONS SHOWN DO NOT DESIGNATE PAY LINES.

TYPICAL TRENCH SECTION 1
N.T.S.

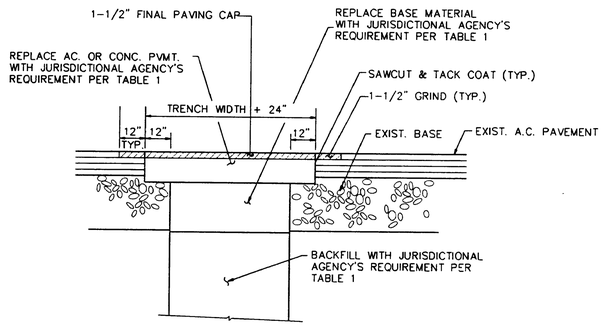


TABLE 1			
AGENCY	PAVEMENT THICKNESS	BASE THICKNESS	BACKFILL
CITY OF REDONDO BEACH (SEE NOTE 4)	EXIST. AC PLUS 1"	EXISTING	NATIVE OR 3/4" ROCK 90% REL. COMPACTION
CITY OF MANHATTAN BEACH (SEE NOTE 5)	EXIST. AC PLUS 1"	EXISTING PLUS 1"	NATIVE. 90% REL. COMPACTION
CITY OF HERMOSA BEACH (SEE NOTE 6)	EXIST. AC PLUS 1"	EXISTING	NATIVE PER SECTION 301, STD. SPEC. FOR PUBLIC WORKS CONSTR., LATEST EDITION
CALTRANS	EXIST. AC PLUS 1", REPLACE PCC PVMT. IN KIND.	CLASS II AGG. BASE, 90% REL. COMPACTION OR 1 SACK SAND/CEMENT SLURRY	CLASS II AGG. BASE, 90% REL. COMPACTION OR 1 SACK SAND/CEMENT SLURRY

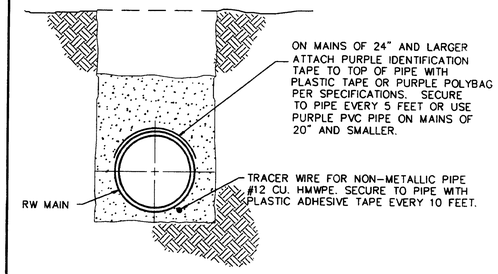
NOTES:

1. WHERE THE EDGE LINE OF THE PAVEMENT REMOVED FOR THE PIPELINE TRENCH EXCAVATION COMES WITHIN THREE (3) FEET OF THE OUTER EDGE OF THE PAVEMENT AGAINST GUTTER LINE OR CURB FACE, THE EXISTING PAVING SHALL BE REMOVED TO THE GUTTER LINE OR CURB FACE AND THE PERMANENT PAVEMENT LAID TO THE GUTTER LINE OR CURB FACE.

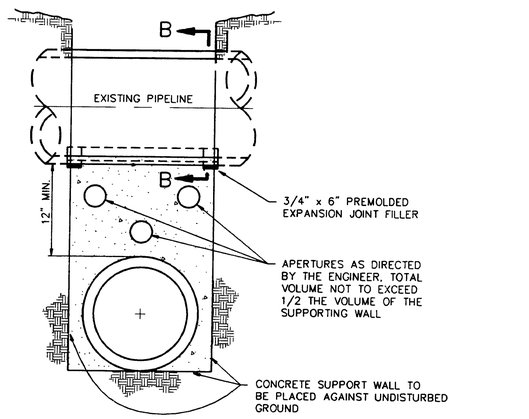
   WHERE THE EDGE LINE OF THE PAVEMENT REMOVED FOR THE PIPELINE TRENCH EXCAVATION IS MORE THAN THREE (3) FEET FROM THE GUTTER LINE OR CURB FACE, THE CONTRACTOR IS TO SAW CUT THE EXISTING PAVING TWELVE (12) INCHES BACK FROM THE EDGE OF THE TRENCH AND REMOVE THAT EXISTING PAVEMENT BEFORE PLACEMENT OF PERMANENT PAVING (INCLUDING BASE MATERIAL).

   IN ADDITION THE EXISTING PAVING IS TO BE MECHANICALLY GROUND DOWN A MINIMUM OF 1-1/2" BY AN ADDITIONAL 12" WIDTH. THE PERMANENT PAVING SHALL THEN BE EXTENDED AS AN OVERLAY INTO THIS AREA. ALL EXISTING PAVEMENT EDGES ARE TO BE TACK COATED BEFORE APPLICATION OF PERMANENT PAVEMENT. IF THERE IS LESS THAN TWO (2) INCHES OF PAVEMENT AFTER GRINDING, THEN THE GROUND AREA SHALL BE REMOVED BY SAW CUTTING AND PERMANENT PAVEMENT PLACED.
2. IN AREAS OF CONCRETE REPLACEMENT,
   A. ALL CONCRETE SHALL BE SAW CUT
   B. DRILL 24" DOWELS 12" INTO EXISTING CONCRETE. SET DOWEL 12" INTO EXISTING CONCRETE WITH EPOXY, ASPHALT DIP THE EXPOSED 12" AND SPACE AT 24" O.C.
   C. CONSTRUCTION JOINTS SHALL BE SPACED AS EXISTING JOINTS.
   D. CONTROL JOINTS SHALL SPACED MIDWAY BETWEEN CONSTRUCTION JOINTS.
3. DEPTH OF EXISTING PAVEMENT AND BASE SHALL BE AS SHOWN IN THE SPECIFICATIONS.
4. SLURRY SEAL & RESTRIPING OF HALF STREET WIDTH IS REQUIRED ON ALL PAVED STREETS.

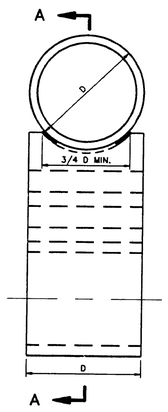
REPAVING DETAIL 2
N.T.S.



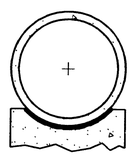
PIPE IDENTIFICATION 3
N.T.S.



SECTION A-A



CROSS SECTION



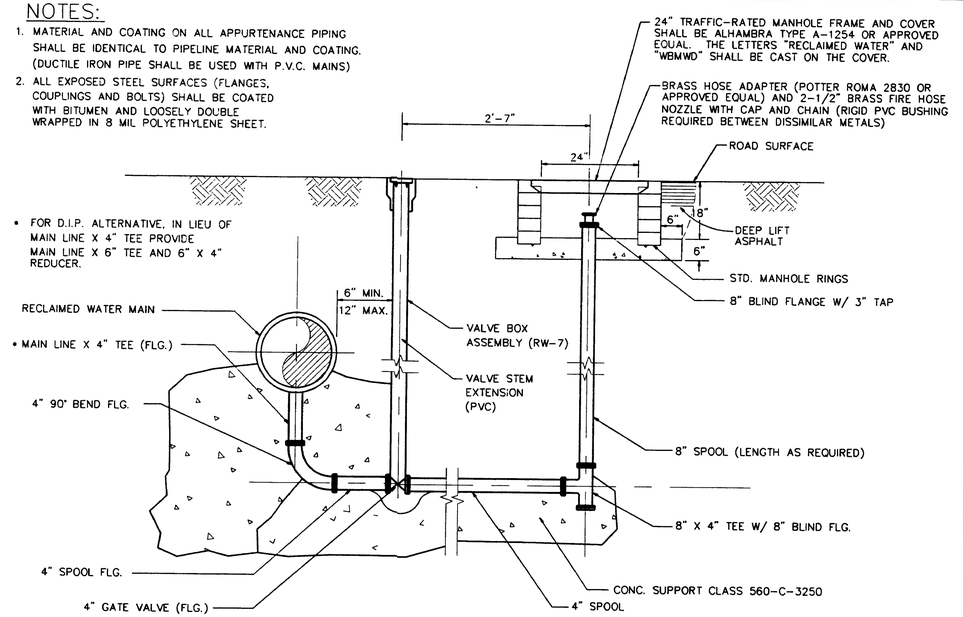
SECTION B-B

1. SUPPORTING WALL SHALL HAVE A FIRM BEARING ON THE SUBGRADE AND AGAINST THE SIDE OF THE EXCAVATION
2. PREMOLDED EXPANSION JOINT FILLER PER ASTM D-1751-73 TO BE USED IN SUPPORT FOR STEEL PIPE ONLY
3. IF TRENCH WIDTH IS 4 FEET OR GREATER, MEASURED ALONG CENTERLINE OF EXISTING PIPE, CONCRETE SUPPORT MUST BE CONSTRUCTED
4. L.A. COUNTY SANITATION DISTRICT STD. S-a-222 SHALL TAKE PRECEDENCE OVER THIS DETAIL FOR ALL CONSTRUCTION CROSSING EXISTING L.A. COUNTY SANITATION DISTRICT SUBSTRUCTURE

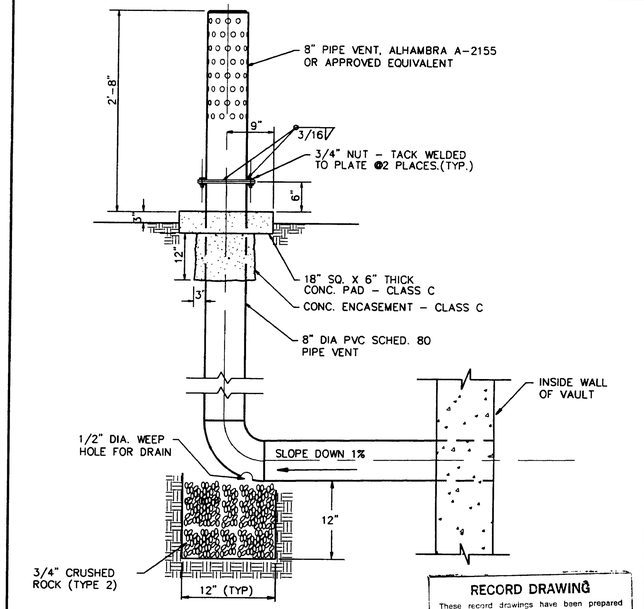
PIPE SUPPORT DETAIL 4
N.T.S.

NOTES:

1. MATERIAL AND COATING ON ALL APPURTENANCE PIPING SHALL BE IDENTICAL TO PIPELINE MATERIAL AND COATING. (DUCTILE IRON PIPE SHALL BE USED WITH P.V.C. MAINS)
2. ALL EXPOSED STEEL SURFACES (FLANGES, COUPLINGS AND BOLTS) SHALL BE COATED WITH BITUMEN AND LOOSELY DOUBLE WRAPPED IN 8 MIL POLYETHYLENE SHEET.



4" NON-ACCESS BLOW OFF DETAIL 5
N.T.S.



RECORD DRAWING
These record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be incorporated herein as a result.

AIR VENT DETAIL 6
N.T.S.

DESCRIPTION	DATE	NO.
REVISIONS		

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. 19261 Exp. 12-31-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.
ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY: S.E.C.
DRAWN BY: S.A.B.
CHECKED BY: S.D.T.

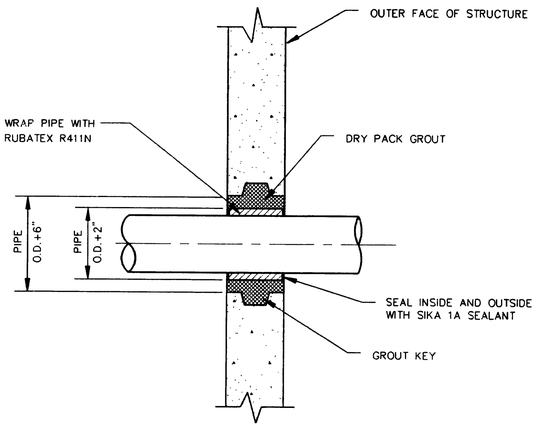
WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

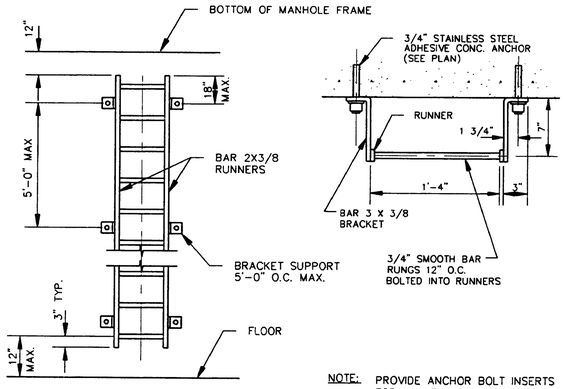
PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

SCHEDULE 3
TRENCH SECTION AND REPAVING DETAILS

SHEET NO. D3-01
PROJECT NO.
DWG. NO. 39 OF 4



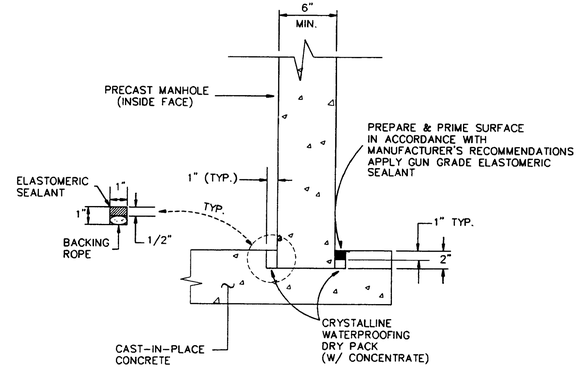
WALL PENETRATION DETAIL (1) N.T.S.



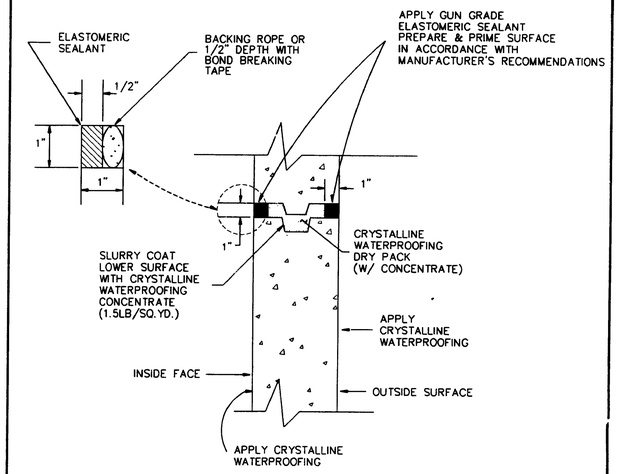
NOTE: PROVIDE ANCHOR BOLT INSERTS FOR VAULT AND MANHOLE WALLS.

TOP OF LADDER RUNG IS TO BE 12" BELOW THE BOTTOM OF THE MANHOLE FRAME.

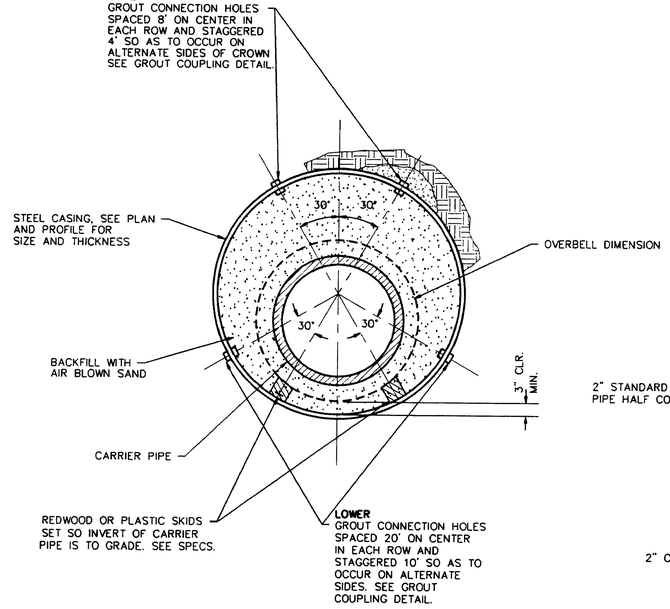
ALUMINUM LADDER DETAIL (2) N.T.S.



MANHOLE TO C.I.P. CONCRETE BASE (3) N.T.S.

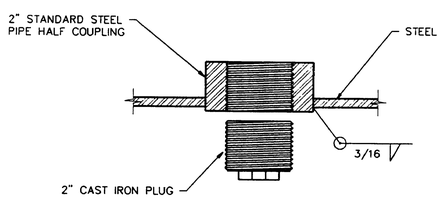


PRECAST MANHOLE SHAFT JOINT (4) N.T.S.



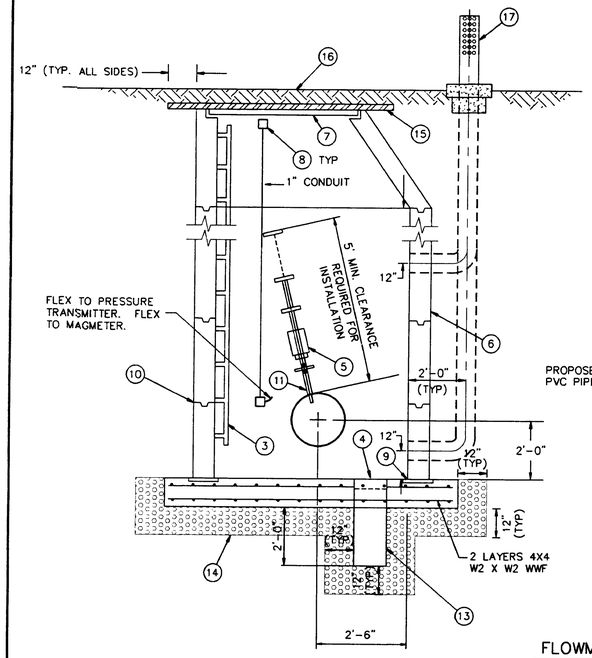
NOTES:

1. CASING SHALL BE INSTALLED BY THE BORE, JACK AND/OR TUNNEL METHOD.
2. SKIDS SHALL BE PROVIDED AS PER DETAIL SHOWN.
3. SIZE & THICKNESS OF CASING SHALL BE AS SHOWN ON PLAN AND PROFILE.
4. ALL CASING SHALL BE JOINED BY CONTINUOUS WELD.
5. EACH END OF CASING SHALL BE SEALED WITH A FLEXIBLE SEALER.
6. ALL PIPE JOINTS WITHIN THE CASING SHALL BE WELDED OR RESTRAINED.
7. ELECTRICAL OR METALLIC INSULLATION BETWEEN THE CASING AND CARRIER PIPE SHALL BE MAINTAINED (AS APPLICABLE – D.I.P.).
8. 2" STAINLESS STEEL BANDS SHALL BE USED TO SECURE SKIDS TO PIPE.
9. CASINGS SHALL BE BORED AND JACKED TO A TOLERANCE OF 6" HORIZONTAL AND 3" VERTICAL ALIGNMENT.



GROUT COUPLING N.T.S.

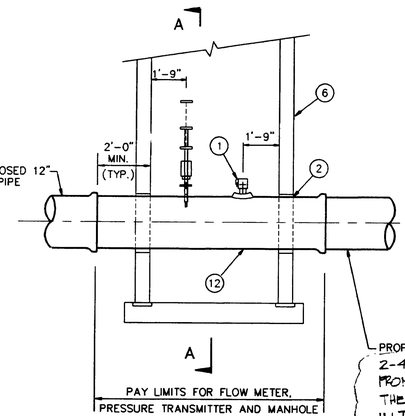
JACKED CASING DETAIL (5) N.T.S.



SECTION A–A N.T.S.

LIST OF MATERIALS

1. 1" BRONZE BALL VALVE PRESSURE TRANSMITTER (SEE SPECS)
2. WALL PENETRATION PER DETAIL (1)
3. ALUMINUM LADDER PER DETAIL (2)
4. 12" DIA. FLOOR DRAIN GRATE, ALHAMBRA A-2020 OR APPROVED EQUIVALENT
5. FLOWMETER WITH HOT TAP VALVE AND HOLDER (SEE SPECS)
6. 72" DIA. PRECAST CONCRETE MANHOLE WITH ECCENTRIC CONE
7. 36" MANHOLE FRAME AND COVER (H-20 LOADING)
8. JUNCTION BOX
9. MANHOLE TO C.I.P. CONCRETE BASE (3)
10. PRECAST MANHOLE SHAFT JOINT (4)
11. 3" BOSS OUTLET
12. 12" D.I.P. SPOOL
13. 12" PERFORATED P.V.C. PIPE
14. 3/4" CRUSHED GRAVEL BASE
15. 1/2" STEEL PLATE
16. 6" NATIVE SOIL
17. AIR VENTS PER DETAIL (6) (TO BE LOCATED OUT-SIDE OF EXIST. TRAIL) DS-01



FLOWMETER & PRESSURE TRANSMITTER DETAIL (6) N.T.S.

RECORD DRAWING
Phase 1 record drawings have been prepared based on information provided by others. The Engineer has not verified the accuracy of such information and shall not be responsible for any errors or omissions which may be contained therein.
Signed SHEET NO. 03-02

DESCRIPTION	DATE	BY
RECORD DRAWING	11/94	AE

REVISIONS

REGISTERED PROFESSIONAL ENGINEER STEVEN D. TEDESCO No. C039261 Exp. 12-31-93 CIVIL STATE OF CALIFORNIA

ASL Consultants, Inc.
ONE JENNER STREET, SUITE 200
IRVINE, CA. 92718
(714) 727-7099

- ☐ ARCADIA
- ■ IRVINE
- ☐ PALM SPRINGS
- ☐ CAMARILLO
- ☐ RANCO CUCAMONGA
- ☐ SAN DIEGO

DESIGNED BY: S.E.C.
DRAWN BY: K.N.K.
CHECKED BY: S.D.T.

WEST BASIN MUNICIPAL WATER DISTRICT
17140 S. AVALON BLVD., SUITE 210
CARSON, CA 90746-1218
TEL: 213-217-2411

WEST BASIN WATER RECLAMATION PROGRAM

PHASE 1 RECLAIMED WATER DISTRIBUTION SYSTEM

SCHEDULE 3
MISCELLANEOUS DETAILS

PROJECT NO.

DWG. NO. 40 OF 40

TL PROJECT NO. - 1915\00\WB302