

## **CALIFORNIA COASTAL COMMISSION**

SOUTH COAST DISTRICT OFFICE  
301 E. OCEAN BLVD., SUITE 300  
LONG BEACH, CA 90802-4830  
(562) 590-5071



# **F15a**

**5-23-0193 (SoCalGas)**

**November 17, 2023**

### **EXHIBITS**

Exhibit 1 – Vicinity Map and Project Site

Exhibit 2 – Project Plans

Exhibit 3 – Project Rendering

Exhibit 4 – Avoidance and Minimization Measures

Exhibit 5 – Construction Staging Areas

Exhibit 6 – Tract Map 20362 and Historic Aerials/Documents



**Ballona Wetlands  
Ecological  
Reserve (BWER)**

**Pacific Ocean**

**Project  
Site**







Elliott 1 Well

McAdams 1 Well

Cabora Dr.

Project Site



GENERAL SPECIFICATIONS FOR GRADING:

PERMIT NO. XXXXXX JOB ADDRESS: PLAYA DEL REY STORAGE FIELD

- SPECIFICATIONS SHALL HAVE PRECEDENCE OVER DRAWINGS.
- THE STAMPED SET OF PLANS SHALL BE ON THE JOB SITE AT ALL TIMES.
- NO WORK WHATSOEVER SHALL BE STARTED IN OR ABOUT A GRADING PROJECT WITHOUT FIRST NOTIFYING THE GRADING INSPECTOR.
- GRADING (INCLUDING THE EXPORT OR IMPORT OF EARTH MATERIAL) SHALL NOT BE CONDUCTED BETWEEN THE HOURS OF 6:00 P.M. AND 8:00 A.M. ON ANY DAY, NOR ON SUNDAY AT ANY TIME, EXCEPT IN EMERGENCIES AS PROVIDED IN 97.7001(F).
- OWNER SHALL KEEP THE CONSTRUCTION AREA MOISTURE CONDITIONED TO CONTROL DUST CAUSED BY GRADING AND CONSTRUCTION. OWNER SHALL, AT ALL TIMES, PROVIDE REASONABLE CONTROL OF DUST CAUSED BY WIND.
- IF A GRADING JOB EXTENDS OVER A PERIOD OF TIME EXCEEDING SIX CALENDAR MONTHS, THE DEPARTMENT MAY REQUIRE PLANTING OF THOSE PORTIONS OF THE JOB WHERE ALL OTHER GRADING REQUIREMENTS HAVE BEEN MET IN ORDER TO PREVENT DUST AND EROSION.
- HIGHWAY EQUIPMENT SHALL BE KEPT IN GOOD OPERATING CONDITION AND MUFFLED AS REQUIRED BY LAW.
- CONTRACTOR SHALL CONTROL NOISE RESULTING FROM REPAIR OF HEAVY EQUIPMENT AFTER NORMAL WORKING HOURS BY LOCATING SUCH ACTIVITIES AS FAR AS PRACTICABLE FROM ADJACENT INHABITED AREAS AND SO THAT SUCH ACTIVITIES DO NOT CONSTITUTE A PUBLIC NUISANCE OR DISTURB THE PEACE.
- THE TRAFFIC BUREAU OF THE LOS ANGELES POLICE DEPARTMENT SHALL BE NOTIFIED PRIOR TO THE START OF HAULING. (213) 485-3106.
- A HAUL ROUTE SATISFACTORY TO THE GRADING DIVISION SHALL BE DETAILED ON THE PLANS.
- THE EXPORT OR IMPORT OF THE FILL MATERIAL SHALL BE COMPLETED WITHIN THE MAXIMUM TIME LIMIT OF \_\_\_\_h/\_\_\_\_m FROM THE START.
- THE FILL MATERIAL IN EACH TRUCKLOAD SHALL BE KEPT LOU ENOUGH TO PREVENT SPILLAGE AND SHALL BE SUFFICIENTLY WET DOWN TO PREVENT DUST.
- NO PERSON SHALL, WHEN HAULING ANY EARTH, SAND GRAVEL, ROCK, STONE, DEBRIS, PAPER OR OTHER SUBSTANCE OVER ANY PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE, ALLOW SUCH MATERIALS TO BLOW OR SPILL OVER AND UPON THE PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE OR ADJACENT PRIVATE PROPERTY.
- NO PERSON SHALL, WHEN EXCAVATING, COMPACTING, HAULING, OR MOVING EARTH, SAND, GRAVEL, ROCK, STONE, DEBRIS, OR ANY OTHER SIMILAR SUBSTANCE, CAUSE, ALLOW OR PERMIT ANY MUD, EARTH, SAND, GRAVEL, ROCK, STONE, DEBRIS OR OTHER SUBSTANCE TO DROP, BE DEPOSITED, OR FALL FROM THE BODY, TIRES, OR WHEELS OF ANY VEHICLE SO USED UPON ANY PUBLIC STREET OR ALLEY WITHOUT IMMEDIATELY AND PERMANENTLY REMOVING THE SAME THEREFROM.
- PERMISSION SHALL BE SECURED FROM THE DEPARTMENT OF PUBLIC WORKS IF THE TRUCKS ARE LOADED IN THE STREET.
- THE LOCATION FOR DUMPING EXCESS SOIL SHALL BE APPROVED BY THE GRADING INSPECTOR PRIOR TO STARTING EXCAVATION.
- BRUSHING AND SCARIFYING OF SLOPES SHALL PROCEED ONLY AS FAR AS PERIODICALLY CLEARED BY THE GRADING INSPECTOR.
- SLOPES SHALL BE CLEARED AND GRUBBED AND BRUSHED PRIOR TO PLACING FILL.
- LOOSE MATERIAL SHALL NOT EXCEED 3" IN DEPTH ON A FILLED SLOPE.
- ALL DEBRIS AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE SITE.
- ALL LOOSE FILL SHALL BE REMOVED AND COMPACTED.
- BUILDINGS SHALL BE LOCATED CLEAR OF THE TOE OF ALL SLOPES WHICH EXCEED A SLOPE OF TWO HORIZONTAL TO ONE VERTICAL ACCORDING TO THE FOLLOWING:
  - A MINIMUM OF THREE FEET, PROVIDED THE SLOPE DOES NOT EXCEED SIX FEET IN VERTICAL HEIGHT.
  - ONE-HALF THE VERTICAL HEIGHT WITH A MAXIMUM OF 15 FEET FOR SLOPES EXCEEDING SIX FEET.
- TOPS OF CUT SLOPES SHALL NOT BE MADE NEARER TO A PROPERTY LINE THAN ONE FOOT, PLUS ONE-FOURTH THE HEIGHT OF THE CUT, BUT NEED NOT EXCEED A HORIZONTAL DISTANCE OF TEN FEET.
- DRIVEWAY GRADES EXCEEDING 10 PERCENT SHALL BE PAVED.
- IF, AT ANY STAGE OF WORK ON AN EXCAVATION OR FILL, THE LADBS (LOS ANGELES DEPARTMENT OF BUILDING AND SAFETY) DETERMINES BY INSPECTING THAT FURTHER WORK AS AUTHORIZED BY AN EXISTING PERMIT IS LIKELY TO ENDANGER ANY PROPERTY OR PUBLIC WAY, THE DEPARTMENT MAY REQUIRE AS A CONDITION TO ALLOW THE WORK TO CONTINUE THAT PLANS FOR SUCH WORK BE AMENDED TO INCLUDE ADEQUATE SAFETY PRECAUTIONS.
- SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE FROM BEGINNING TO COMPLETION OF GRADING OPERATIONS.
- ALL RECOMMENDATIONS AND CONDITIONS OF THE SOILS REPORT BY GEOSYNTEC CONSULTANTS, INC. DATED 3/27/2020, SHALL BE A PART OF THE PLANS.
- THE SOILS ENGINEER AND CIVIL ENGINEER SHALL COMPLY WITH RGA-4-67 AND 5-67 AND SHALL PROVIDE THE DEPARTMENT WITH A GRADING CERTIFICATION UPON COMPLETION OF THE JOB.
- AN AS-GRADED PLAN AT A SCALE OF 1"=40' PREPARED BY THE TRACT CIVIL ENGINEER SHALL BE SUBMITTED WITH THE REQUIRED GRADING CERTIFICATIONS TO THE DEPARTMENT UPON JOB COMPLETION.
- THE PERMITTEE SHALL PROVIDE SUPERVISORY CONTROL DURING THE CONSTRUCTION.
- GRADING IN OR ADJACENT TO THE PUBLIC PROPERTY REQUIRES DEPARTMENT OF PUBLIC WORKS' APPROVAL.
- ALL GRADING SLOPES SHALL BE PLANTED AND SPRINKLERED (7012.1).
- NO FILL TO BE PLACED, UNTIL THE CITY INSPECTOR HAS INSPECTED AND APPROVED THE BOTTOM EXCAVATION.
- STANDARD 12 INCH BERM IS REQUIRED AT TOP OF ALL GRADED SLOPES (7103.3).
- MAN-MADE FILLS SHALL BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF

- 90% MAX DRY DENSITY WITHIN 40 FT BELOW FINISH GRADE AND 93% OF MAX DRY DENSITY DEEPER THAN 40 FT BELOW FINISH GRADE PER ASTM D1557, UNLESS A LOWER RELATIVE COMPACTION (NOT LESS THAN 90% OF MAX DRY DENSITY) IS JUSTIFIED BY THE SOILS ENGINEER.
- FILLS AND BACKFILLS SHOULD BE PLACED IN LOOSE LIFTS NOT EXCEEDING ABOUT 6-8 INCHES IN THICKNESS, BROUGHT TO NEAR-OPTIMUM MOISTURE CONTENT IN-PLACE, AND COMPACTED TO AT LEAST 90% OF THE MAX DRY DENSITY PER ASTM D-1557 USING MECHANICAL COMPACTION EQUIPMENT.
  - TEMPORARY EROSION CONTROL TO BE INSTALLED BETWEEN OCTOBER 1 AND APRIL 15. OBTAIN GRADING INSPECTOR'S AND DEPARTMENT OF PUBLIC WORKS APPROVAL OF PROPOSED PROCEDURES (>200 CFT (7007.1)).

INSPECTION OF EXCAVATION AND FILLS:

THE CONTRACTOR OR HIS AGENT SHALL NOTIFY THE SUPERINTENDENT WHEN THE GRADING OPERATION IS READY FOR EACH OF THE FOLLOWING INSPECTIONS:

- INITIAL INSPECTION: WHEN THE CONTRACTOR IS READY TO BEGIN WORK, BUT BEFORE ANY GRADING OR BRUSHING IS STARTED.
- TOE INSPECTION: AFTER THE NATURAL GROUND IS EXPOSED AND PREPARED TO RECEIVE FILL, BUT BEFORE ANY FILL IS PLACED.
- EXCAVATION INSPECTION: AFTER THE EXCAVATION IS STARTED, BUT BEFORE THE VERTICAL DEPTH OF THE EXCAVATION EXCEEDS TEN FT.
- FILL INSPECTION: AFTER THE FILL PLACEMENT IS STARTED, BUT BEFORE THE VERTICAL HEIGHT OF THE LIFTS EXCEEDS TEN FT.
- DRAINAGE DEVICE INSPECTION: AFTER FORMS AND PIPE ARE IN PLACE, BUT BEFORE ANY CONCRETE IS PLACED.
- ROUGH GRADING: WHEN ALL ROUGH GRADING HAS BEEN COMPLETED. THIS INSPECTION MAY BE CALLED FOR AT THE COMPLETION OF THE ROUGH GRADING WITHOUT THE NECESSITY OF THE DEPARTMENT HAVING PREVIOUSLY REVIEWED AND APPROVED THE REPORTS.
- FINAL: WHEN ALL WORK, INCLUDING INSTALLATION OF ALL DRAINAGE STRUCTURES AND OTHER PROTECTIVE DEVICES, HAS BEEN COMPLETED AND THE AS-GRADED PLAN AND REQUIRED REPORTS HAVE BEEN SUBMITTED.

ISSUANCE OF CERTIFICATE: IF, UPON INSPECTION OF ANY EXCAVATION OR FILL, IT IS FOUND THAT THE WORK AUTHORIZED BY THE GRADING PERMIT HAS BEEN SATISFACTORILY COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THIS CODE, A GRADING CERTIFICATE COVERING SUCH WORK SHALL BE ISSUED TO THE OWNER BY THE SUPERINTENDENT OF BUILDING. ON THE OWNER'S REQUEST A SEPARATE CERTIFICATE WILL BE ISSUED FOR EACH LOT FOR WHICH BUILDING PERMITS HAVE BEEN ISSUED OR APPLIED FOR PRIOR TO THE COMPLETION OF GRADING. THIS PLAN SET IS NOT FOR CONSTRUCTION UNLESS IT INCLUDES CITY APPROVALS.

LEGAL DESCRIPTION

SITE ADDRESS: 8141 SOUTH GULIANA AVE, PLAYA DEL REY, CALIFORNIA  
TRACT--20362, LOT--L11, BLOCK--NONE, GRANT DEED--NONE, BOOK--MB 633--44/45

APPLICANT:

GEOSYNTEC CONSULTANTS INC.  
1031 S BROADWAY  
SUITE 300  
LOS ANGELES, CALIFORNIA, 90015  
PH: 310-957-6100

OWNER/DEVELOPER:

MS. KARINEH GREGORIAN, SENIOR GAS ENGINEER  
SOUTHERN CALIFORNIA GAS COMPANY  
555 W 5TH STREET  
LOS ANGELES, CALIFORNIA, 90013

CIVIL/GEOTECHNICAL ENGINEER:

GEOSYNTEC CONSULTANTS INC.  
1031 S BROADWAY  
SUITE 300  
LOS ANGELES, CALIFORNIA, 90015  
PH: 310-957-6100

CIVIL REPRESENTATIVE:

DANIEL LEE, P.E.  
RICHARD GONZALEZ, P.E.  
BORA BATURAY, P.E., G.E.  
SAVERIO SICILIANO, P.G., C.E.G.

DESCRIPTION OF WORK

CONSTRUCTION OF RETAINING WALLS AND PERMANENT DRAINAGE. REFER TO EARTHWORK QUANTITIES HEREON.

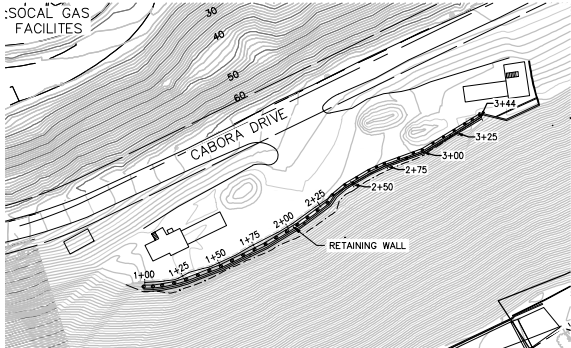
PLAYA DEL REY STORAGE FIELD

CABORA DRIVE SLOPE REPAIR  
PLAYA DEL REY, LOS ANGELES COUNTY, CA

JULY 2023

DRAWING INDEX

SHEET NO.	DRAWING NO.	DRAWING TITLE
1	8001	TITLE SHEET
2	8002	GENERAL NOTES
3	8003	EXISTING SITE CONDITIONS
4	8004	SOLDIER BEAM AND LAGGING WALL
5	8005	SOLDIER BEAM & LAGGING WALL (CONT)
6	8006	RETAINING WALL CROSS SECTIONS
7	8007	GUTTER DETAIL
8	8008	GRADING PREINSPECTION REPORT
9	8009	SOILS AND GEOLOGY REPORT AND APPROVAL LETTER



SITE MAP:

SCALE 1" = 40'

ESTIMATED EARTHWORK QUANTITIES

RAW CUT (DRILLING): 55 CY  
RAW CUT (EARTHWORK): 20 CY  
NET IMPORT (EARTHWORK): 40 CY  
NET EXPORT (EARTHWORK): 0 CY  
FILL (CONCRETE): 55 CY  
BULK FILL (EARTHWORK): 60 CY  
NET EXPORT (EARTHWORK): 0 CY  
THE ABOVE LISTED QUANTITIES REFLECT THE ENGINEER'S ESTIMATE OF THE EARTHWORK VOLUMES. THESE QUANTITIES ARE FOR DESIGN AND BONDING PURPOSES ONLY, AND NOT FOR CONTRACT PURPOSES.  
THE CONTRACTOR IS RESPONSIBLE FOR COMPUTING HIS OWN QUANTITIES.

GEOTECHNICAL APPROVAL

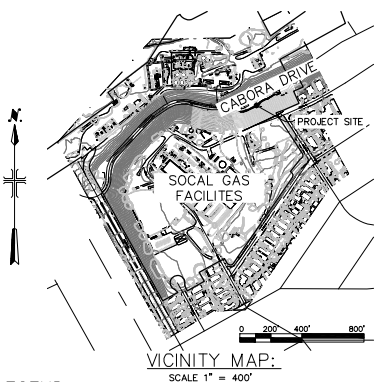
THIS PLAN HAS BEEN REVIEWED AND CONFORMS TO RECOMMENDATIONS OF SOILS ENGINEERING/GEOLOGIC REPORT DATED 03/27/2020 BY GEOSYNTEC CONSULTANTS, INC.

SOILS ENGINEER  
BORA BATURAY, P.E., G.E.

DATE: 07-07-2023

ENGINEERING GEOLOGIST  
SAVERIO SICILIANO, P.G., C.E.G.

DATE: 08-24-2020



LEGEND:

---	RIGHT-OF-WAY
---	EASEMENT LINE
---	STREET CENTERLINE
---	PROPOSED RETAINING WALL ALIGNMENT
---	COLLECTOR PIPE OUTLET DRAIN
---	GUTTER FLOW LINE
---	DAYLIGHT LINE
---	EXISTING SANITARY SEWER
---	EXISTING NATURAL GAS PIPE
---	MINOR CONTOUR
---	MAJOR CONTOUR

ABBREVIATIONS

ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
BOW	BOTTOM OF WALL
FC	SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE
FG	FINISHED GRADE
FL	FLOWLINE
FT	FOOT/FEET
Fy	REINFORCING BAR YIELD STRESS
G	GAS LINE
GR	GRADE
HP	HIGH POINT
INC	INCORPORATED
INV	INVERT ELEVATION
MAX	MAXIMUM
MIN	MINIMUM
MISC	MISCELLANEOUS
PSI	POUNDS PER SQUARE INCH
SCH	SOUTHERN CALIFORNIA GAS COMPANY
SCH	SCHEDULE
SD	STORM DRAIN
SF	SQUARE FOOT/FEET
SS	SANITARY SEWER
SSPWIC	STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION
STA	STATION
TOW	TOP OF WALL
TYP	TYPICAL

BENCH MARK

ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) ESTABLISHED BY A GPS SURVEY TIED TO NATIONAL GEODETIC SURVEY (NGS) BENCHMARK NO. "TIDAL 2" ELEVATION: "17.57" AND USING A HIGH RESOLUTION GEOID MODEL (GEOID 12A).

AKA LA CITY BM 17-11700, NGVD 1929, ELEV 15,226

USCGS BM DISC "STMPD TIDAL NO.2 1967" IN FIJI WAY IN CTR OF CURB RETURN N END OF MEDIAN; 28 FT OF CTR LINE OF N DRWY ENTRANCE TO ADMINISTRATION PARKING LOT; 0.69MI W/O ADMIRALTY WAY

BASIS OF BEARINGS

BEARINGS, DISTANCES AND COORDINATES SHOWN HEREON ARE GRID, BASED ON THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, NAD83, ZONE 5 (EPOCH 2010.000) ESTABLISHED BY A GPS SURVEY TIED TO CSRS CORS STATIONS "UCLP" & "SPK"



1031 S BROADWAY  
SUITE 300  
LOS ANGELES, CA 90015  
TEL: (310) 957-6100




REVISION	DATE	BY	DESCRIPTION
1	6/22/2020	SO	BL
2	7/7/2023	RG	BB

BY	DATE
DESIGNED: B. LANTHER	04/24/2020
DRAWN: R. GONZALEZ	04/24/2020
CHECKED: B. LANTHER	04/24/2020



PDR STORAGE FIELD  
CABORA WELLS RETAINING WALL  
PLAYA DEL REY  
TITLE SHEET  
8141 GULIANA AVE, PLAYA DEL REY, CA 90261

1. GRADING SHALL CONFORM TO DEPARTMENT OF BUILDING AND SAFETY GENERAL SPECIFICATIONS FOR GRADING PLANS, FORM B-164, WHICH SHALL BE CONSIDERED A PART OF THESE PLANS.
2. ALL RECOMMENDATIONS OF THE HEREIN MENTIONED SOILS REPORT AND ADDENDUMS SHALL BE MADE A PART OF THESE PLANS.
3. NO WORK SHALL COMMENCE UNTIL A GRADING PERMIT IS ISSUED BY THE DEPARTMENT OF BUILDING AND SAFETY.
4. ALL CONCENTRATED DRAINAGE MUST BE CONDUCTED TO THE STREET IN APPROVED NON-EROSIVE DEVICES.
5. MATERIAL IN, OR ADJACENT TO, AREAS UNDER THE JURISDICTION OF THE BOARD OF

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  4. ALL CONCENTRATED DRAINAGE MUST BE CONDUCTED TO THE STREET IN APPROVED NON-EROSIVE DEVICES.
  5. MATERIAL IN, OR ADJACENT TO, AREAS UNDER THE JURISDICTION OF THE BOARD OF PUBLIC WORKS, WHICH, IN A NATURAL POSITION, IS UNSTABLE AND CONSTITUTES A POTENTIAL SLIDE, SHALL BE BROUGHT TO THE ATTENTION OF THE CITY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS.
  6. ALL PROPOSED ELEVATIONS SHOWN ON THE ROUGH GRADING PLAN ARE TO FINISHED SURFACE, THE CONTRACTOR SHOULD DEDUCT THE THICKNESS OF THE PAVEMENT STRUCTURE SECTION FOR TOP OF SUBGRADE ELEVATIONS.
  7. WHERE THERE IS AN EXISTING DRAINAGE SYSTEM, DRAINAGE DEVICES FROM THE SLOPES SHALL BE CONNECTED TO THE STORM DRAIN.
  8. IF AT ANY TIME DURING GRADING OPERATIONS, ANY UNFAVORABLE GEOLOGICAL CONDITIONS ARE ENCOUNTERED, GRADING IN THAT AREA WILL STOP UNTIL APPROVED CONSULTING MEASUREMENTS ARE OBTAINED FROM THE SOILS ENGINEER/ENGINEERING GEOLOGIST OR HIS REPRESENTATIVE.
  9. ALL GRADED SLOPES SHALL BE PLANTED.
  10. STRAIGHT GRADE SHALL BE MAINTAINED BETWEEN CONTOUR LINES AND SPOT ELEVATIONS UNLESS OTHERWISE SHOWN ON THE PLANS.
  11. FILLS AND BACKFILLS SHOULD BE PLACED IN LOOSE LIFTS NOT EXCEEDING ABOUT 18 INCHES IN THICKNESS AND TO BE COMPACTED TO THE MOISTURE CONTENT IN-PLACE, AND COMPACTED TO AT LEAST 90% OF THE MAX DRY DENSITY PER ASTM D-1557 USING MECHANICAL COMPACTION EQUIPMENT.
  12. ALL AREA TO RECEIVE FILL SHALL BE INSPECTED BY THE SOILS ENGINEER/ENGINEERING GEOLOGIST OR HIS REPRESENTATIVE OF THE SOILS ENGINEER/ENGINEERING GEOLOGIST PRIOR TO PLACING OF FILL MATERIALS.
  13. PRIOR TO CONSTRUCTION OF ANY IMPROVEMENTS, THE PRIVATE ENGINEER MUST CERTIFY, IN WRITING, TO THE DISTRICT ENGINEER THAT GRADING IN AND ADJACENT TO HIGHWAYS OR RIGHT-OF-WAY IS ESSENTIALLY COMPLETE AND IN ACCORDANCE WITH THE APPROVED PLANS. CERTIFICATION MAY BE IN PHASES TO FACILITATE CONSTRUCTION.
  14. THE CONTRACTOR IS REMINDED TO GIVE REASONABLE NOTICE TO ADJACENT OWNERS OF THE PROJECT AND TO THE DEPARTMENT OF PUBLIC WORKS FRONTING THEIR PROPERTY PER SECTION 7-9 OF THE STANDARD SPECIFICATIONS.
  15. ALL WORK DETAILED ON THESE PLANS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS.
  16. THE GRADING SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATION BY THE CITY OF LOS ANGELES.
  17. THE SOILS ENGINEER OR HIS REPRESENTATIVE IS TO APPROVE THE KEY OR BOTTOM OF EXCAVATION AND LEAVE A CERTIFICATE ON THE SITE FOR THE GRADING.
  18. THE GRADING SHALL BE INSPECTED AND NOTIFIED BEFORE ANY GRADING BEGINS AND, FOR BOTTOM INSPECTION, BEFORE ANY FILL IS PLACED. FILL MAY NOT BE PLACED WITHOUT APPROVAL OF THE GRADING INSPECTOR.
  19. DOCUMENTS: PLANS, SPECIFICATIONS, CONDITIONS, SURVEY, CITY PLANNING LETTERS SHALL BE ON SITE FOR INSPECTION. THE PROJECT SUPERVISING GRADING DEPARTMENT AND SOILS ENGINEER OR HIS REPRESENTATIVE SHALL BE PRESENT.
  20. ALL EARTHWORK SHALL BE PERFORMED UNDER CONTINUOUS OBSERVATION AND THE PROJECT SUPERVISING GRADING DEPARTMENT OR THE REPRESENTATIVE OF THE SOILS ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SCHEDULE THE RELATED SERVICES AT LEAST 24 HOURS IN ADVANCE.
  21. LATERAL SLOPE SHALL NOT BE REMOVED FROM ADJACENT PROPERTIES, STRUCTURES OR PUBLIC HIGHWAYS.
  22. REGISTERED DEPTH GRADING SPECTOR IS REQUIRED ON GRADING AND FOUNDATION EARTHWORK WHERE:
    - \* CUT OR FILL SLOPES EXCEED 2:1
- 

SHORING WORK INCLUDING SOIL CUTS

1. PLANS FOR TEMPORARY EROSION CONTROL SHALL COMPLY WITH ORDINANCE NO. 135,199 WHICH BECAME EFFECTIVE SEPTEMBER 15, 1967, AMENDING SECTION 91.3002, SECTION 62.111, AND ADDING SECTION 61.02 TO THE LOS ANGELES MUNICIPAL CODE.
2. DESILTING BASINS REQUIRED FOR TEMPORARY EROSION CONTROL WILL NOT BE PERMITTED IN THE STREET AREAS UNLESS SPECIFICALLY AUTHORIZED BY THE DISTRICT ENGINEER.

LIMITS OF WORK SHOWN ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE SITE, AND EVALUATING AND DETERMINING EQUIPMENT AND EFFORT TO BE USED FOR THE WORK. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS FOR GRADING, DRAINAGE AND UNDERGROUND FACILITIES, INCLUDING LOCATION AND ELEVATION OF EXISTING UNDERGROUND UTILITIES. IF ANY CHANGED CONDITIONS ARE DISCOVERED, THE CONTRACTOR SHALL DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE OWNER AND SHALL NOT BEGIN CONSTRUCTION UNTIL THE CHANGED CONDITIONS HAVE BEEN EVALUATED.

THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITY SHALL BE SHOWN IN THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AVAILABLE RECORD DATA. NO REPRESENTATION IS MADE AS TO THE ACCURACY OF THE RECORD DATA. IF THE CONTRACTOR HAS ANY DOUBTS AS TO THE COMPLETENESS OF SAID UTILITY INFORMATION, THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER UTILITY RECORD INFORMATION.

3. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY TO ALL PERSONNEL, AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT.
4. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PLANS, THE SOILS AND/OR GEOLOGY REPORTS, AND THE SITE CONDITIONS PRIOR TO COMMENCING WORK.
5. SHOULD CONFLICTING INFORMATION BE FOUND ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER BEFORE PROCEEDING WITH THE WORK IN QUESTION.

1. ALL WORK DETAILED ON THESE PLANS UNDER THE JURISDICTION OF THE BOARD OF PUBLIC WORKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND IN THE PRESENCE OF AN INSPECTOR APPOINTED BY THE BOARD OF PUBLIC WORKS.
2. THIS GRADING PLAN WHEN APPROVED BY THE DISTRICT ENGINEER, AS WELL AS PERMITS FOR WORK WITHIN STATE OR COUNTY RIGHTS-OF-WAY, SHALL BE ON THE SITE OF WORK AT ALL TIMES.
3. IF AT ANY TIME DURING GRADING OPERATIONS, ANY UNFAVORABLE GEOLOGICAL CONDITIONS ARE ENCOUNTERED, GRADING IN THAT AREA WILL STOP UNTIL APPROVED CORRECTIVE MEASURES ARE OBTAINED.
4. DEPARTMENT OF PUBLIC WORKS, BUREAU OF ENGINEERING, GEOLOGY AND SOILS CONSTRUCTION DIVISION SHALL BE REQUIRED PRIOR TO COMMENCING GRADING OPERATIONS. ALL FILLS SHALL BE COMPACTED TO 90% RELATIVE COMPACTION UNLESS OTHERWISE RECOMMENDED BY THE GEOTECHNICAL SECTION, CONSTRUCTION DIVISION AND APPROVED BY THE DISTRICT ENGINEER.
5. DRAINAGE FROM ALL LOTS SHALL BE CARRIED TO THE IMPROVED STREET GUTTER.
6. ALL SLOPES IN PRIVATE PROPERTY ADJOINING STREETS, DRAINAGE CANALS, OR OTHER PUBLIC FACILITIES SHALL BE GRADED NOT STEEPER THAN 2:1 FOR CUT AND FILL.
7. AN APPROVED SURFACE DRAINAGE PLAN IS REQUIRED PRIOR TO START OF CONSTRUCTION.

1. NO PHYSICAL WORK WHICH CAUSES NOISE SHALL BEGIN BEFORE 8 AM UNLESS OTHERWISE DIRECTED BY GAS COMPANY SUPERVISION.
2. ALL EQUIPMENT AND DELIVERABLES SHALL BE RECEIVED AFTER 8 AM WITH NO EXCEPTIONS. THE CONTRACTOR SHALL COORDINATE ALL SUCH ACTIVITIES AND ASSUMES ALL RESPONSIBILITY FOR THIS ACTIVITY.
3. PERSONAL VEHICLES AND SERVICE TRUCKS WITH A GVW OF OVER 10,000 LBS ARE NOT PERMITTED ON THE PROPERTY BEFORE 8 AM. THE DRIVER OF THE VEHICLE WILL BE RESPONSIBLE FOR THEIR DESIGN AND OPERATION. NO NOISE OR MAKING ANY LOUD NOISE OR CREATING ANY KIND OF DISTURBANCE BEFORE 8 AM.
4. IDLING AT THE FRONT GATE OR PARKING IN THE RESIDENTIAL NEIGHBORHOOD IS PROHIBITED.
5. EVERY EFFORT WILL BE MADE BY THE CONTRACTOR TO ELIMINATE ANY NOISE BEFORE 8 AM WHICH COULD BE DISRUPTIVE TO THE NEIGHBORHOOD. EXAMPLES INCLUDE BUT ARE NOT LIMITED TO LOUD MUSIC AND TALKING, BACK UP FOR MONITORING AND STOPPING EMPLOYEES OR OTHERS WITH ANY SUBCONTRACTORS TO ASSURE COMPLIANCE WITH THESE REQUIREMENTS.

1. **MATERIALS** -- UNLESS OTHERWISE NOTED ON THE DESIGN DRAWINGS, MATERIALS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
  - 1.1. STRUCTURAL STEEL SHAPES, FOR SOLDER PILES: ASTM A572, GRADE 50
  - 1.2. STRUCTURAL STEEL PILES: ASTM A-53 GRADE 3.
  - 1.3. MISC STRUCTURAL STEEL PLATES AND BARS: ASTM A36
  - 1.4. HIGH STRENGTH BOLTS, NUTS AND WASHERS: ASTM A325
  - 1.5. WELDING ELECTRODES: AWS A5.1 SERIES E70 OR F70
  - 1.6. GALVANIZING OF SOLDER PILES: ASTM A-123 CLASS G 185 COATING (2.25 OUNCES/SF)

- 2.1. UNLESS OTHERWISE NOTED ON THE DESIGN DRAWINGS, ALL SHOP CONNECTIONS SHALL BE WELDED AND ALL FIELD CONNECTIONS SHALL BE MADE WITH HIGH STRENGTH BOLTS DESIGNED AS "BEARING TYPE WITH TRENDS IN SHEAR PLATES (A325-N)-N". FABRICATOR IS TO SUBSTITUTE EQUIVALENT FIELD WELDED CONNECTIONS SUBJECT TO APPROVAL.
- 2.2. ALL BOLTED CONNECTIONS SHALL BE MADE WITH A MINIMUM OF TWO (2) BOLTS.
3. **PAINTING**
  - 3.1. CONTACT SURFACES OF STEEL TO BE EMBEDDED IN CONCRETE, GROUTED, OR FIELD WELDED SHALL NOT BE PAINTED EXCEPT SOLDER PILES WHICH SHALL BE GALVANIZED.
  - 3.2. SURFACES WITHIN TWO INCHES OF FIELD WELDS SHALL BE FREE OF PAINT AND OTHER MATERIALS THAT WOULD PREVENT PROPER WELDING OR PRODUCE OBJECTIONABLE FUMES DURING WELDING.

**MATERIALS** - UNLESS OTHERWISE NOTED ON THE DESIGN DRAWINGS, MATERIALS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:

- 1.1. REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A-615, GRADE 60.
- 1.2. UNLESS OTHERWISE NOTED ON THE DRAWINGS, COMPRESSIVE STRENGTH AT 28 DAYS SHALL NOT BE LESS THAN THE FOLLOWING:
  - 1.2.1. STRUCTURAL MEMBERS, FOUNDATIONS, WALLS, SUSPENDED SLABS AND PRECAST PLANKS: 4000 PSI
  - 1.2.2. LEAN CONCRETE: 2000 PSI
  - 1.3. ANCHOR BOLTS AND MISC EMBEDDED STEEL: ASTM A36

**2. CONSTRUCTION**

- 2.1. MINIMUM CONCRETE PROTECTION FOR REINFORCING STEEL IN CAST-IN-PLACE CONCRETE SHALL BE AT LEAST EQUAL TO THE BAR DIAMETER, BUT NOT LESS THAN THE FOLLOWING:
  - 2.1.1. CONCRETE DEPOSITED AGAINST THE GROUND: 3 INCHES
  - 2.1.2. SURFACES EXPOSED TO WEATHER OR IN CONTACT WITH GROUND AFTER REMOVAL OF FORMS:
    - 2.1.2.1. FOR BARS LARGER THAN #5: 3 INCHES
    - 2.1.2.2. FOR #5 BARS OR SMALLER: 3 INCHES
  - 2.1.2.3. SURFACES IN CONTACT WITH FRESH WATER: 3 INCHES
  - 2.1.2.4. PREFABRICATED CONCRETE PANELS: 3 INCHES
- 2.2. LAP SPICES OF REINFORCING BARS SHALL BE 40 X BAR DIAMETER MIN. LAPPED SPICES USED WHERE REINFORCING BARS ARE TO BE SO MADE THAT THE LENGTH OF THE OVERLAP MEASURED BETWEEN THE OUTERMOST CROSS WIRES OF EACH FABRIC SHEET IS NOT LESS THAN THE CROSS WIRE SPACING PLUS 2 INCHES.
- 2.3. LOCATION OF CONSTRUCTION AND OTHER JOINTS SHALL BE AS SHOWN ON THE DRAWINGS. ADDITIONAL JOINTS AND/OR CHANGES IN JOINT LOCATIONS SHALL BE AS APPROVED BY ARCHITECT/ENGINEER.
- 2.4. CONSTRUCTION JOINTS SHALL BE PROVIDED WITH KEYS WHERE SHOWN, OR THE CONSTRUCTION SURFACES SHALL BE ROUGHENED. SLABS AND BEAMS SHALL HAVE NO HORIZONTAL CONSTRUCTION JOINTS.

1. ALL MATERIALS TO BE WORKMANSHIP TO BE IN ACCORDANCE WITH THESE SPECIFICATIONS AND THE 2016 EDITION OF THE CALIFORNIA BUILDING CODE, WHERE CONFLICTS OCCUR, THESE SPECIFICATIONS SHALL PREVAIL.
2. THE SOLDIER PILE ANALYSIS WAS COMPLETED USING THE COMPUTER PROGRAM "Ct-SHORING" PUBLISHED BY CIVIL TECH.
3. REFERENCE MATERIALS:
  - 3.1. "INVESTIGATION REPORT, CABORA WELLS RETAINING WALL, PLAYA DEL REY, LOS ANGELES, CA" BY GEOSYNTEC CONSULTANTS, INC. DATED 03/27/2020
4. SOLDIER PILE WALL DESIGN PARAMETERS WERE PROVIDED IN SECTION 6.5 OF THE ABOVE REFERENCED GEOTECHNICAL REPORT.
5. LATERAL DISPLACEMENT REFERENCE POINTS SHALL BE ESTABLISHED AND MONITORED BY THE GENERAL CONTRACTOR OR AS REQUIRED BY THE OWNER.
6. SOLDIER PILE SYSTEM INSTALLATION SHALL BE CONSISTENT WITH THE DESIGN CRITERIA, REQUIREMENTS AND INSTALLATION RESTRICTIONS SPECIFIED HEREIN.
7. SOLDIER PILES SHALL BE ASTM A572 GRADE 50.
8. MISC. SUPPORT STEEL SHALL BE A36 ( $F_y = 36$  KSI) MIN.
9. CONCRETE MIX SHALL CONSIST OF  $f' = 4000$  PSI MIN.
10. LEAN MIX SHALL CONSIST OF 2 SACK MINIMUM SAND SLURRY WITH  $f' = 200$  PSI MIN.
11. ALL WELDS TO BE ELECTRIC ARC WITH E70XX ELECTRODES.
12. TENSION PILES FROM THOSE SHOWN ON THE PLANS MAY BE USED PROVIDED THEY HAVE AN EQUAL OR GREATER SECTION MODULUS AND MOMENT OF INERTIA.
13. SOLDIER BEAM WALL PARAMETERS:

1. EXCAVATION SHOULD BE PERFORMED AT THE LOCATIONS AND TO THE GRADES SHOWN ON THE PLANS
2. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING ALL UTILITIES INCLUDING POTHOLING TO MAINTAIN DRILL HOLES AWAY FROM SANITARY SEWER LINES.
3. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR SURVEY CONTROL.

1. **MATERIALS** - UNLESS OTHERWISE NOTED ON THE DESIGN DRAWINGS, MATERIALS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:

- 1.1. NONWOVEN GEOTEXTILE FABRIC SHALL MEET THE REQUIREMENTS CLASS 3 CONSTRUCTION SURVIVABILITY IN ACCORDANCE WITH AASHTO M288.
- 1.2. NONWOVEN GEOTEXTILE PRODUCTS SHALL BE MIRAFI 140N OR APPROVED EQUIVALENT.

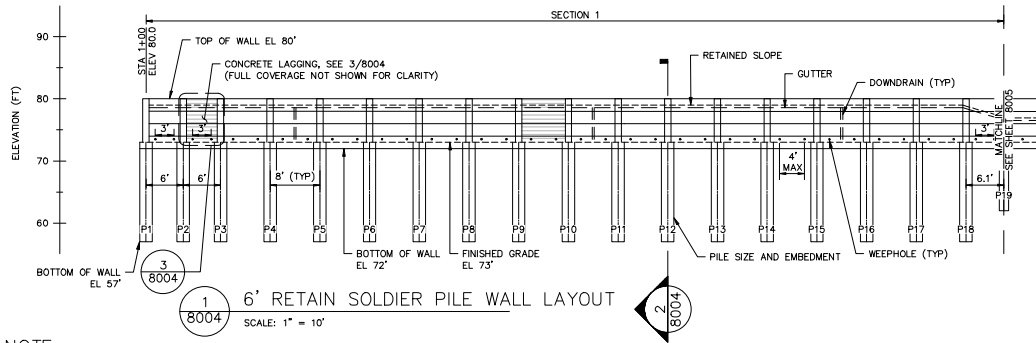
1. **MATERIALS** - UNLESS OTHERWISE NOTED ON THE DESIGN DRAWINGS, MATERIALS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
  - 1.1. DRAINAGE COLLECTION PIPE SHALL BE A 4" DIAMETER HDPE PIPE WITH A MINIMUM PIPE STIFFNESS OF 22 PSI PER ASTM D2412.
  - 1.2. THE DRAINAGE PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM D1248 FOR HDPE PIPE AND FITTINGS.
  - 1.3. IF PERFORATIONS ARE SPECIFIED ON THE DESIGN DRAWINGS, THEN THE 3-HOLE PERFORATION PATTERN SHALL BE USED.

LATERAL EARTH PRESSURES			
LATERAL FORCE	SOIL PROFILE	COEFFICIENT OF LATERAL PRESSURE	PRESSURE (LB/FT <sup>3</sup> /FT DEPTH)
ACTIVE PRESSURE	1.3H+V	-	62
	1H+V	-	80
PASSIVE RESISTANCE	ACTIVE PRESSURE	$k_p=4.85$	530

[illegible]







**PAINT NOTES:**

1. CONTRACTOR TO APPLY AT LEAST 1 COAT OF PRIMER FOLLOWED BY AT LEAST 2 COATS OF PAINT ONTO BOTH THE EXISTING RETAINING WALL AND THE EXPOSED FACE OF THE CONCRETE FINISHED SURFACE OF THE PROPOSED WALL AFTER CONCRETE HAS PROPERLY CURED, AND THE EXPOSED FACE OF THE STEEL PILE SOLDIER BEAM FINISHED SURFACE.
2. THE PROPOSED WALL HAS BEEN DESIGNED TO BE SHAPED AND CONTOURED TO MATCH THE ADJACENT LANDFORMS. PAINT COLOR TO BE SIMILAR TO SURROUNDING VEGETATION COLOR (2816 ROCKWOOD DARK GREEN BY SHERWIN-WILLIAMS, OR SIMILAR) WITH TEXTURED FINISH SIMILAR TO ADJACENT LANDFORMS AND COORDINATED WITH OWNER.
3. APPLICATION TO FOLLOW MANUFACTURER'S RECOMMENDED SPECIFICATIONS.

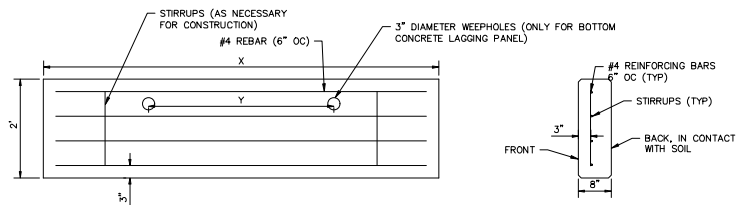
**NOTE:**  
1. CONTRACTOR SHALL BACKFILL DRILL HOLES IMMEDIATELY AFTER PLACEMENT OF SOLDIER PILES AND SHALL NOT HAVE MORE THAN 3 HOLES OPEN AT ANY TIME BEFORE BACKFILLING

CONCRETE LAGGING SPACING

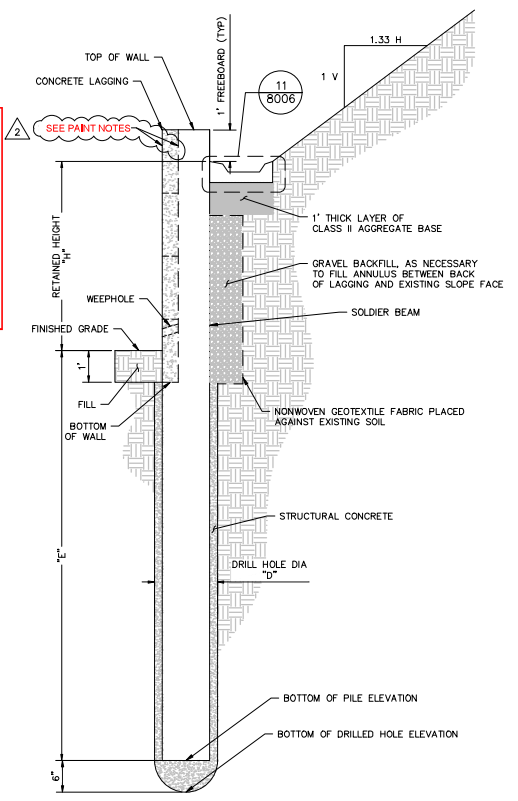
CENTER TO CENTER SPACING (FT)	"X" (IN)	"Y" (FT)
6	68	3
6.1	69.2	3
8	92	4

PILE SCHEDULE

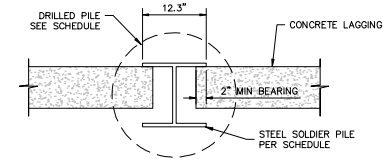
PILE NUMBER	HOLE DIAMETER "D" (FT)	FINISHED GRADE ELEV (FT)	EMBEDMENT "E" (FT)	TOP OF PILE ELEV (FT)	BOTTOM OF PILE ELEV (FT)	BOTTOM OF DRILLED HOLE ELEV (FT)	TOTAL PILE LENGTH (FT)	RETAINED HEIGHT "H" (FT)	STEEL PILES SIZE	WT/FT
1	2	73	16	80	57	56.5	23	6	HP12	84
2	2	73	16	80	57	56.5	23	6	HP12	84
3	2	73	16	80	57	56.5	23	6	HP12	84
4	2	73	16	80	57	56.5	23	6	HP12	84
5	2	73	16	80	57	56.5	23	6	HP12	84
6	2	73	16	80	57	56.5	23	6	HP12	84
7	2	73	16	80	57	56.5	23	6	HP12	84
8	2	73	16	80	57	56.5	23	6	HP12	84
9	2	73	16	80	57	56.5	23	6	HP12	84
10	2	73	16	80	57	56.5	23	6	HP12	84
11	2	73	16	80	57	56.5	23	6	HP12	84
12	2	73	16	80	57	56.5	23	6	HP12	84
13	2	73	16	80	57	56.5	23	6	HP12	84
14	2	73	16	80	57	56.5	23	6	HP12	84
15	2	73	16	80	57	56.5	23	6	HP12	84
16	2	73	16	80	57	56.5	23	6	HP12	84
17	2	73	16	80	57	56.5	23	6	HP12	84
18	2	73	16	80	57	56.5	23	6	HP12	84



3 8004 CONCRETE LAGGING DETAILS  
NOT TO SCALE



2 8004 SOLDIER BEAM & CONCRETE LAGGING SECTION  
NOT TO SCALE



4 8004 SOLDIER PILE CONNECTION DETAILS  
NOT TO SCALE

1031 S BROADWAY  
SUITE 300  
LOS ANGELES, CA 90015  
TEL: (310) 957-6100

INITIAL PIPE WITH AT LEAST 12" OF COVER BELOW GRADE	DATE WORKED ON:	NOA	ISSUED BY:	NUMBER	1 6/22/2020	SO	BL	RC	BB
COUNTY: LOS ANGELES	DATE WORKED ON:				2 7/7/2023				
DISTRICT:	DATE WORKED ON:								
STRIP MAP NO.:	DATE OF OPERATION:								
ROAD WALL:	CONCRETE CHAIN FORWARD:								
DOT EL:	CONCRETE CHAIN FORWARD:								
CHANGINGLY PROTECTED:	RECORD:								
YEAR C.P. INSTALLED:	OPERATED AT:	PSIG							

BY:	DATE:
DESIGNED: B. LANTHER	04/24/2020
DRAWN: R. GONZALEZ	04/24/2020
CHECKED: B. LANTHER	04/24/2020
FILED: B. LANTHER	
FILED: B. LANTHER	

PDR STORAGE FIELD  
CABORA WELLS RETAINING WALL  
PLAYA DEL REY  
SOLDIER BEAM & LAGGING WALL  
8141 GILMAN AVE. PLAYA DEL REY, CA 90295  
2023











**Geosyntec**  
consultants  
engineers | scientists | innovators

1031 S BROADWAY  
SUITE 300  
LOS ANGELES, CA 90015  
TEL: (310) 957-6100

[illegible]

		BY	DATE
		DESIGNED: B. LANTHIER	04/24/2020
		DRAWING: R. GONZALEZ	04/24/2020
		CHECKED: B. LANTHIER	04/24/2020
		PROJ. APP:	
		SGC ENG APP:	
		STAMP:	



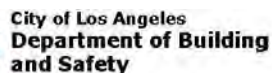
PDR STORAGE FIELD  
CABORA WELLS RETAINING WALL  
PLAYA DEL REY  
GUTTER DETAIL SHEET  
8141 GULANA AVE, PLAYA DEL REY, CA 90293

**California Coastal Commission**

**5-23-0193**

## Exhibit 2

Page 7 of 9



## Version: 1

**GPI & POSTING FOR TOE OF SLOPE/BLUFF REPAIR WITH NEW RETAINING WALLS & DRAINAGE**

Property Posted: **Yes** Posting Date: **05/21/2020** Posting Fees Paid? **Yes**  
Tract: **TR 20362**  
Block: Lot(s): **LT 1** ARB: County Ref No: **M B 633-44/45**

Approved Graded Lot: <b>No</b>	Bearing Value:
Fill Over 100 Feet: <b>No</b>	Buttress Fill: <b>No</b>
Slope of Surface: <b>Ascending</b>	Natural Soil Classification 1804.2: <b>PER REPORT</b>
	Cut: degrees Height: ft in
Fill: degrees Height: ft in	
Natural: <b>33+1.1</b> degrees Height: <b>80ft</b> in	Slide Area: <b>No</b>
Sewer Available: <b>N/A</b>	PSDS Sized Per Code: <b>N/A</b>
Site is <b>Above</b> Street	Roof Gutters: <b>No</b>
Condition of Street for Drainage Purposes <b>paved</b>	Recommended Termination of Drainage <b>To street or approved location</b>
Driveway Grade: <b>0%</b>	Maximum Rough Grade Allowed: <b>0%</b>

**GRADING APPROVAL TO ISSUE PERMIT(S)**  
OK TO ISSUE. SEE BELOW FOR COMMENTS.

**X DO NOT ISSUE UNTIL BELOW REQUIREMENTS HAVE BEEN SATISFIED**

- X 1. A grading permit is required for **excavation and backfill** .
- X 2. A retaining wall permit is required. .
- X 3. OSHA permit required for **vertical cuts 5 feet or over**.
- X 4. All footings shall be founded in undisturbed natural soil per Code.
- X 5. Design for expansive soil or submit a soils report to the grading division per information bulletin P/B/C 2008-116 and 91.1805.8.
- X 6. In the event excavations reveal unfavorable conditions, the services of a soils engineer and/or geologist may be required.
- X 7. **Geological and Soils** reports (s) are required. Submit three copies (1 original and 2 copies), with appropriate fees, to the Grading Section for review and approval.
- X 8. Incorporate all recommendations of the approved **Geological and Soils** report(s) and Department letters dated 01/07/2020 into the plans. **Geologist and Soils Engineer** to sign plans.
- X 9. Site is subject to mudflow. Comply with provisions of Section 91.7014.3. Geological and soils report required.
- X 10. Buildings shall be located clear of the toe of all slopes which exceed a gradient of 3 horizontal to 1 vertical as per Section 91.1805.3.1.
- X 11. Footings shall be set back from the descending slope surface exceeding 3 horizontal to 1 vertical as per Section 91.1805.3.7.
- X 12. Swimming pools and spas shall be set back from descending and ascending slopes as per Section 91.1805.3.3.
- X 13. Department approval is required for construction of . on or over slopes steeper than 2 horizontal to 1 vertical.
- X 14. Provide complete details of engineered temporary shoring or slot cutting procedures on plans. Call for inspection before excavation begins.
- X 15. All concentrated drainage, including roof water, shall be conducted, via gravity, to the street or an approved location at a 2% minimum. Drainage to be shown on the plans.
- X 16. A Registered Deputy Inspector is required.
- X 17. All fill or backfill shall be compacted by mechanical means to a minimum 90% relative compaction as determined by ASTM method D-1557. Subdrains shall be provided where required by Code.
- X 18. Specify on plans: "The soils engineer is to approve the key or bottom level and leave a certificate on the site for the grading inspector. The grading inspector is to be notified before any grading begins and, for bottom inspection, before fill is placed. Fill may not be placed without approval of the grading inspector."
- X 19. Existing non-conforming slopes shall be cut back at 2:1 (26 degrees) or retained. All concentrated drainage, including roof water, shall be conducted, via gravity, to the street or an approved location at a 2% minimum. Drainage to be shown on the plans.
- X 20. All cut or fill slopes shall be no steeper the 2:1 (26 degrees).
- X 21. Stake and flag the property lines in accordance with a licensed survey map .
- X 22. Approval required by the Department for ,
- X 23. Approval required by the Department of Public Works, Urban Forestry Division, for native tree protected ORD. 177,040. Phone # (213) 847-3077
- X 24. This is a preliminary pre-inspection only - based on limited information. When complete plans (and possibly calculations and/or required reports) are submitted for a permit, a new pre-inspection and fee will be required.

Construction of new occupied buildings or major additions to buildings on sites located in any of the Seismic Hazard Zones (liquefaction, Landslide or Alquist-Priolo Fault Zone) will require a geology and/or soil engineering report. For questions call (213) 482-0480.

Page 3 of 3

Page 1 of 3

Page 2 of 3



1031 S BROADWAY  
SUITE 300  
LOS ANGELES, CA 90015  
TEL: (310) 957-6100

[illegible]

PDR STORAGE FIELD  
CABORA WELLS RETAINING WALL  
PLAYA DEL REY  
GRADING PREINSPECTION REPORT

8141 GULANA AVE, PLAYA DEL REY, CA 90295  
DRAWING NUMBER 2864-9086

**California Coastal Commission**

**5-23-0193**

## Exhibit 2

Page 8 of 9



**Page 9 of 9**

**Attachment G - Cabora Wells Retaining Wall Project  
Rendering / Photo Log**

**Client:** Southern California Gas Company

**Project:** Proposed Retaining Wall

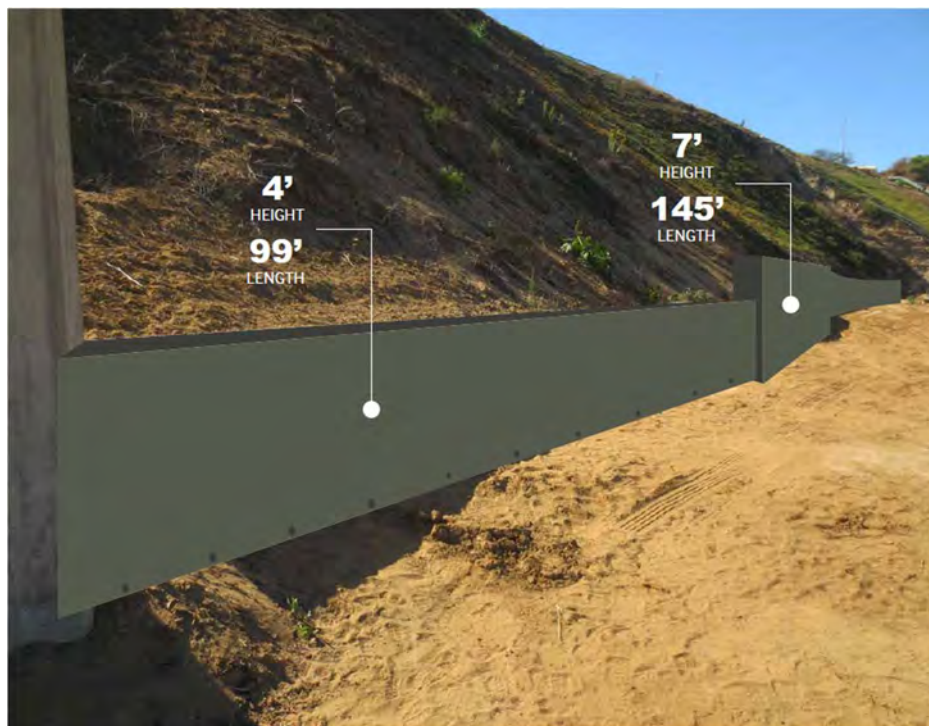
**Site Name:** Playa del Rey Facility

**Site Location:** 8141 Gulana Ave, Playa del Rey, CA 90293

**Rendering 1**

**Direction:** West-Southwest

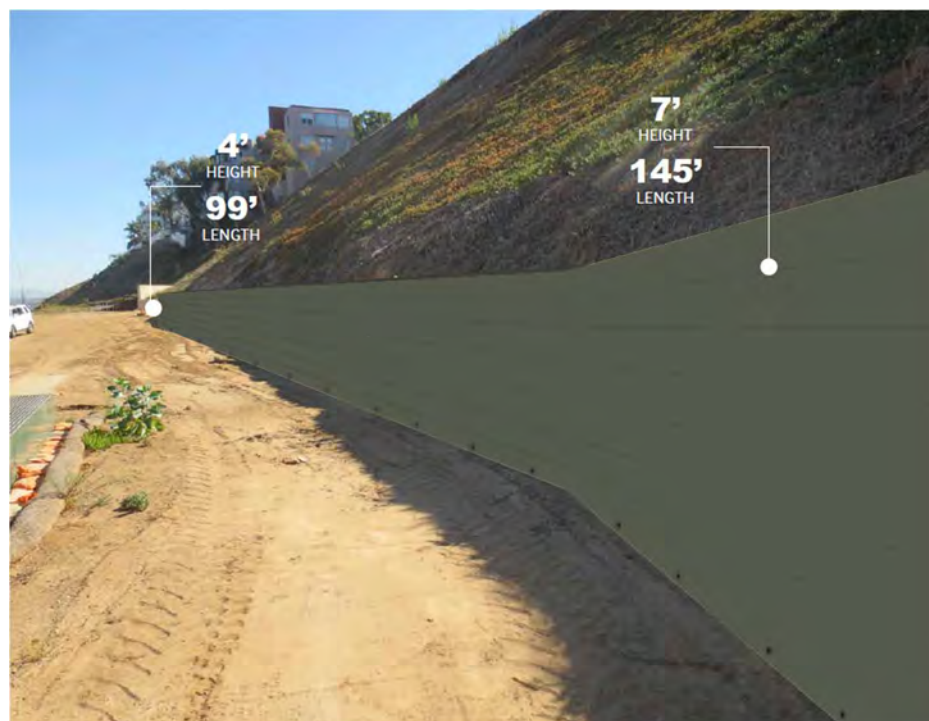
**Comments:** Rendering of proposed retaining wall. The wall will be painted to blend with the background vegetation and existing painted pipes and equipment.



**Rendering 2**

**Direction:** East-Southeast

**Comments:** Rendering of proposed retaining wall. The wall will be painted to blend with the background vegetation and existing painted pipes and equipment.



## 7.0 PROPOSED AVOIDANCE AND MINIMIZATION MEASURES

As discussed, the Project site is located in previously-graded Bare Ground, previously-developed, and existing non-native habitats. All appropriate BMPs should be used during construction. The list below includes the known or potential biological constraints for the Project:

- Adjacent Special-Status Habitats
- Bird Species Protected by the MBTA
- Western Burrowing Owl Habitat
- Adjacent Raptor Nesting Habitat

### 7.1 Adjacent Special-Status Habitats

There are coastal brackish marsh/wetlands located adjacent to the Project site within the Ballona Wetlands. As discussed above, this area will not be directly impacted by the Project. The following avoidance and minimization measures are proposed to minimize potential impacts.

#### Avoidance and Minimization Measure 1

During construction within 100 feet of any special status habitat, a biological monitor will be present. The monitor will identify potential special status species in the area and enforce the use of BMPs. If special status species are identified within the vicinity of construction, construction will be halted until the wildlife has left the vicinity.

#### Avoidance and Minimization Measure 2

Appropriate construction BMPs must be used during construction to ensure avoidance of any indirect temporary impacts to adjacent special status habitats. BMPs may include but are not limited to:

- The owner or contractor shall keep the construction area sufficiently dampened to control dust caused by grading and hauling, and at all times provide reasonable control of dust caused by wind.
- All loads shall be secured by trimming, watering or other appropriate means to prevent spillage and dust.
- All materials transported off-site shall be either sufficiently watered or securely covered to prevent excessive amount of dust.
- All clearing, grading, earth moving, or excavation activities shall be discontinued during periods of high winds (i.e., greater than 15 mph), if needed, to prevent excessive amounts of dust.



- General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions.
- Construction and demolition activities shall be scheduled so as to avoid operating several pieces of equipment simultaneously, which causes high noise levels.
- The project contractor shall use power construction equipment with state-of-the-art noise shielding and muffling devices.
- All waste shall be disposed of properly. Use appropriately labeled recycling bins to recycle construction materials including solvents, water-based paints, vehicle fluids, broken asphalt and concrete; wood, and vegetation. Non-recyclable materials/wastes shall be taken to an appropriate landfill. Toxic wastes shall be discarded at a licensed regulated disposal site.
- Leaks, drips and spills shall be cleaned up immediately to prevent contaminated soil on paved surfaces that can be washed away into the storm drains.
- Pavement shall not be hosed down at material spills. Dry cleanup methods shall be used whenever possible.
- Dumpsters shall be covered and maintained. Place uncovered dumpsters under a roof or cover with tarps or plastic sheeting.
- Excavation and grading activities shall be scheduled during dry weather periods.
- Appropriate erosion control and drainage devices shall be employed to ensure runoff will not impact adjacent habitats.

## 7.2 Bird Species Protected by the MBTA

There is suitable nesting habitat for a number of common and special-status birds protected by the MBTA adjacent to the site. As discussed, the MBTA prohibits the taking of migratory birds.

### Avoidance and Minimization Measure 3

Construction should be conducted between September 1 and January 31 avoiding the nesting bird season, if feasible. Construction during this period would not require a pre-disturbance nesting bird survey and would prevent impacts to nesting birds or unfledged young. If construction activity will occur during the typical avian nesting season (February 1-August 31), a pre-disturbance survey shall be performed to determine if active nests are present within or up to 500 feet away from Project disturbance areas. The survey shall be conducted by a qualified Biologist no more than one weeks prior to the onset of construction activities. If active nests are found on the site or adjacent to the site, disturbance or removal of the nest shall be avoided until the young have fledged and the nest is no longer active. Extensive buffers, such as those recommended for nesting raptors, are not necessary for nesting avian species protected solely by the MBTA. However, depending on the species, site conditions, and the proposed construction activities near the active nest, a buffer may be prescribed and work may be allowed to continue, as determined by the Biologist.

### 7.3 Western Burrowing Owl

Although burrowing owls were not observed during the field surveys, the Project site contains marginally suitable habitat for burrowing owl in areas within small mammal burrows that occur immediately adjacent to the southwest side of the Project area in Disturbed Ruderal/Non-Native Grassland habitat and along the edges of the existing concrete pads where mammal burrows have a high potential to occur. The following avoidance and minimization measure will minimize potential impacts to this species.

#### Avoidance and Minimization Measure 4

No more than 30 days prior to the onset of construction-related activities, a burrowing owl survey may be conducted to determine the presence or absence of the species. Burrowing owls can be present during all times of the year in California, so this survey shall be performed regardless of the time construction-related activities occur. If active owl burrows are located during the pre-activity survey, a 250-foot buffer zone may be established around each burrow with an active nest until the young have fledged and are able to exit the burrow. Work may be allowed to continue with adaptive measures in place if determined by the Biologist to be appropriate, such as shelter-in-place hay bale placement or biological monitoring during work activities.

### 7.4 Adjacent Raptor Nesting Habitat

There is potential raptor nesting habitat in the form of eucalyptus trees located adjacent to the Project site approximately 120 feet to the east and 300 feet to the north. As discussed above, this area will not be directly impacted by the Project. The following avoidance and minimization measure is proposed to minimize indirect temporary impacts.

#### Avoidance and Minimization Measure 5

If Project construction activities are initiated during the raptor nesting season, (February 1 to August 31), a nesting raptor survey shall be conducted. Seven days prior to the onset of construction activities, a qualified Biologist shall survey within the limits of the Project disturbance area for the presence of any active raptor nests (common or special status). If no active nests are found, no further avoidance or minimization measures would be required. If nesting activity is present, the active site shall be protected until nesting activity has ended to ensure compliance with Section 3503.5 of the CDFW Code. To protect any nest site, the following restrictions on construction are recommended between February 1 and August 31 (or until nests are no longer active, as determined by a qualified Biologist): (1) Construction limits should be established a minimum of 300 feet in any direction from any occupied nest and (2) access and surveying shall be restricted within 200 feet of any occupied nest. Any encroachment, except for vehicular traffic on existing roads, into the 300- and/or 200-foot buffer area(s) around the known nest shall only be allowed if a qualified Biologist determines that the proposed activity shall not disturb the nest occupants.





**Legend**

- Retaining Wall
- Laydown Yard
- Ballona Wetlands
- LAX Boundary
- Property Boundary
- Project Location
- City Boundary
- Facility Boundary

**Geosyntec**  
consultants  
engineers | scientists | innovators

**Vicinity Map**

SoCalGas - Cabora Wells Retaining Wall Project  
8141 Gulana Ave, Playa del Rey, California

Project: SC0766

April 2023

**Figure**

**1**

**California Coastal Commission**  
**5-23-0193**

**Exhibit 5**

**Page 1 of 2**





## PARKING AREAS AND EQUIPMENT LAYDOWN LOCATIONS

SoCalGas – Cobra Wells Retaining Wall Project  
8141 Gulana Ave, Playa del Rey, California

Project: SC0766

August 28, 2023

Figure

1



# TRACT No 20362

IN THE CITY OF LOS ANGELES

CONSISTING OF TWO SHEETS

BEING A SUBDIVISION OF A PORTION OF BLOCK 13, LOTS 17 & 18 INC. AND LOTS 48 TO 56 INC. IN BLOCK No 9167 AS PER MAP RECORDED IN MAP BOOK 172 PAGES 45 TO 49 INC. OF MAPS, RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, AND ALL OF GULFANA WALK AND CARBON WALK AND THOSE CERTAIN PORTIONS OF CARBON DRIVE, GULFANA AVENUE, VERAQUA DRIVE AND REES STREET, FORMERLY REES AVENUE, IS CONDEMNED BY UNITED STATES DISTRICT COURT, SOUTHERN DISTRICT OF CALIFORNIA, CENTRAL DIVISION CASE No 2454 H.W. CIVIL;

AND LOTS 1 TO 16 INC. BLOCK No 26; LOTS 6 TO 20 INC. IN BLOCK No 10; LOTS 1 TO 31 INC. IN BLOCK No 25; LOTS 1 TO 25 INC. IN BLOCK No 24; LOTS 1 TO 4 INC. AND LOTS 17 TO 21 INC. IN BLOCK No 28; LOTS 15 TO 25 INC. AND CERTAIN PORTIONS OF LOTS 13, 14, 26 AND 27 IN BLOCK No 27; AND LOTS 1 TO 31 INC. BLOCK No 10 IN TRACT No 3809 AS PER MAP RECORDED IN MAP BOOK 145 PAGES 91 TO 96 INC. OF MAPS, RECORDS OF LOS ANGELES COUNTY, CALIFORNIA, AND THE PORTIONS OF REES STREET, SUNNYSIDE DRIVE, VERAQUA DRIVE, REES WALK, CARBON WALK AND GULFANA AVENUE VACATED BY ORDINANCE No 111,744 OF THE CITY OF LOS ANGELES, STATE OF CALIFORNIA

SCALE 1"=100'

KARL F TUTTLE ENGINEERING CO. INCORPORATED

SEPTEMBER 1958

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF OR ARE INTERESTED IN THE LAND INCLUDED WITHIN THE SUBDIVISION SHOWN ON THE ANNEXED MAP AND WE CONSENT TO THE PREPARATION AND RECORDED OF SAID MAP AND SUBDIVISION AS SHOWN WITHIN THE COLORED BORDER LINES. AND WE HEREBY DEDICATE TO THE PUBLIC USE THE AVENUE AND DRIVE SHOWN ON SAID MAP WITHIN SAID SUBDIVISION. AND WE ALSO GRANT AND DEDICATE TO THE CITY OF LOS ANGELES EASEMENTS FOR SANITARY SEWER, DRAINAGE, SLOPE AND ACCESS PURPOSES OVER THE STRIPS OF LAND SO DESIGNATED ON SAID MAP.

AND WE HEREBY DEDICATE IN FEE TO THE CITY OF LOS ANGELES THE STRIP OF LAND DESIGNATED AS LOT 3 ON SAID MAP, SUBJECT TO AND RESERVING EASEMENTS FOR OIL, GAS AND WATER PIPE LINES, AND FOR ELECTRIC CONDUITS UNDER, ACROSS AND ALONG SAID LOT 3, WITH THE USE OF SAID EASEMENTS FOR OIL, GAS AND WATER PIPE LINES AND ELECTRIC CONDUITS BEING SUBJECT TO THE APPROVAL OF THE CITY OF LOS ANGELES BECAUSE OF SAID CITY'S PRIOR RIGHTS FOR THE OPERATION, CONSTRUCTION, REPAIR, MAINTENANCE, REMOVAL AND REPLACEMENT, AT ANY TIME, FROM TIME TO TIME OF THE NORTH OUTFALL SEWER AND OF ALL APPENDAGES, STRUCTURES AND EQUIPMENT NECESSARY OR CONVENIENT THERETO, ALL LOCATED IN SAID LOT 3; ALSO, RESERVING TO OURSELVES AN EASEMENT FOR INGRESS AND EGRESS OVER, ALONG AND ACROSS SAID LOT 3 FOR LOADS NOT IN EXCESS OF 15-15 A.A.S.N.O., ESTABLISHED 1904.

SOUTHERN CALIFORNIA GAS COMPANY, A CORPORATION

*R.R. Blackburn*  
VICE PRESIDENT

SECRETARY

AMERICAN TRUST COMPANY, a corporation trustee under bond indenture recorded in books 17896 pg. 1, 184705 pg. 262, 27,100 pg. 301, 33,334 pg. 192, 51,271 pg. 346 all of Official Records of the County of Los Angeles.

*J.G. Hatfield*  
Vice President

*B.B. Brown*  
Secretary

State of California )  
County of Los Angeles ) ss.

On this 30th Day of September 1958, before me MARY R. BOND, Notary Public in and for said County and State, personally appeared R.R. BLACKBURN known to me to be a Vice President and S.W. BINKLEY known to me to be the Secretary of the Southern California Gas Company, a Corporation, the Corporation that executed the within instrument and known to me to be the persons who executed the within instrument on behalf of the Corporation, them named and acknowledged to me that such Corporation executed the Same.

*Mary R. Bond*  
Notary Public  
My Commission Expires April 16, 1957

I, John A. Alford, hereby certify that I am a Registered Civil Engineer of the State of California, and that this map consisting of two (2) sheets correctly represents a survey made under my supervision in September 1958, and that the survey is true and complete as shown and that all of the monuments shown hereon actually exist or will be in place not later than September 30, 1959; that their positions and character are correctly shown and that said monuments are sufficient to enable the survey to be retraced.

*John A. Alford*  
R.E. No 2638

STATE OF CALIFORNIA )  
County of Los Angeles ) ss.  
City and County of Los Angeles )

On this 3rd Day of October 1957, before me Harold E. Thompson, a Notary Public in and for said County and State, personally appeared J.G. Hatfield known to me to be a Vice President and B.B. Brown known to me to be the Secretary of the American Trust Company, a Corporation, the Corporation that executed the within instrument, and known to me to be the persons who executed the within instrument on behalf of the Corporation, them named and acknowledged to me that such Corporation executed the Same.

*Harold E. Thompson*  
Notary Public  
My Commission Expires October 14, 1958.

The signatures of the City of Los Angeles and the Department of Water and Power of the City of Los Angeles owners of easements, by dedication on the map of Tract No. 9167 as per map recorded in book 172 page 46 et seq. of Maps, and on the map of Tract No. 3809 as per map recorded in book 145 page 91 et seq. of Maps; by deeds recorded in book 3080 page 289 and in book 7305 page 274 both in Official Records; and by decree of condemnation had in Los Angeles County Superior Court Case No. 460283, a certified copy of said decree being recorded in book 18309 page 187 Official Records of Los Angeles County, have been omitted under the provisions of Section 11587, Subsection (a), of the Subdivision Map Act, their interest is such that it cannot ripen into a fee title and said signatures are not required by the Los Angeles City Council.

The signatures of the owners of easements for pole lines, conduits, pipe lines and incidental purposes, as reserved by Title Guarantee and Trust Company, Del. Rey Realty Company, United States Building and Loan Association, and Associated Land Owners, Inc., as reserved in various deeds of record, one of them being recorded in book 13242 page 170, Official Records of Los Angeles County have been omitted under the provisions of Section 11587, Subsection (a), of the Subdivision Map Act, inasmuch as the ownership of said easements is impractical to determine.

Approved: July 30, 1958  
*JOHN A. LARSEN* County Engineer  
*Paul R. Loomis* Deputy

I HEREBY CERTIFY THAT ALL SPECIAL ASSESSMENTS OF WHICH I AM IN CHARGE, TO WHICH THE LAND INCLUDED IN THIS WITHIN SUBDIVISION OR ANY PART THEREOF IS SUBJECT AND WHICH MAY BE PAID IN FULL, HAVE BEEN PAID IN FULL.  
DIRECTOR, BUREAU OF ASSESSMENTS, ROBERT G. MARY

Date APR. 30, 1958 *Robert G. Mary*

I HEREBY CERTIFY THAT I HAVE EXAMINED THIS MAP AND THAT THE SUBDIVISION AS SHOWN HEREON IS SUBSTANTIALLY THE SAME AS IT APPEARED ON THE TENTATIVE MAP AND ANY APPROVED ALTERATIONS THEREOF, THAT ALL PROVISIONS OF CHAPTER 122 STATUTES OF 1949 AS AMENDED STATE OF CALIFORNIA AND OF ALL LOCAL ORDINANCES APPLICABLE AND IN EFFECT AT THE TIME OF THE APPROVAL OF THE TENTATIVE MAP HAVE BEEN COMPLIED WITH AND I AM SATISFIED THAT THIS MAP IS TECHNICALLY CORRECT.

CITY ENGINEER *Lyall A. Fordee*  
DATE July 29 1958 *Charles S. Lohman* Deputy

I HEREBY CERTIFY THAT THERE IS ON FILE IN THE OFFICE OF THE CITY ENGINEER OF THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, A CERTIFICATE MADE BY THE THE Insurance and Trust Company OF SAID CITY, ORDER NO. 434132 DATED May 15, 1958 CERTIFYING THAT IT APPEARS FROM THE RECORDS OF SAID CITY AND COUNTY THAT THE THE Insurance and Trust Company IS A CORP. INCORPORATED IN THE STATE OF CALIFORNIA.

THE ONLY PERSONS WHOSE CONSENT IS REQUIRED FOR THE RECORDING OF THIS MAP BY LAW, CITY ENGINEER *Lyall A. Fordee*  
DATE July 29 1958 *Charles S. Lohman* Deputy

I HEREBY CERTIFY THAT THE CITY COUNCIL OF THE CITY OF LOS ANGELES APPROVED THE ATTACHED MAP AND ACCEPTED ON BEHALF OF THE PHOENIX THE STREETS, ROADS, ALLEYS, HIGHWAYS, AND EASEMENTS SHOWN ON SAID MAP AND THEREIN OFFERED FOR DEDICATION TO THE CITY OF LOS ANGELES, AND THAT THE CITY ENGINEER HAS ACCEPTED OF ANY IMPROVEMENTS OR EASEMENTS SHOWN ON SAID MAP.

DATE July 29 1958 CITY CLERK *Walter J. Peterson*  
By *Charles S. Lohman* Deputy

California Coastal Commission  
5-23-0193  
Exhibit 6  
Page 1 of 5





# TRACT No 20362

IN THE CITY OF LOS ANGELES

SCALE 1"=100' KARL F TUTTLE ENGINEERING CO. INC. September 1956

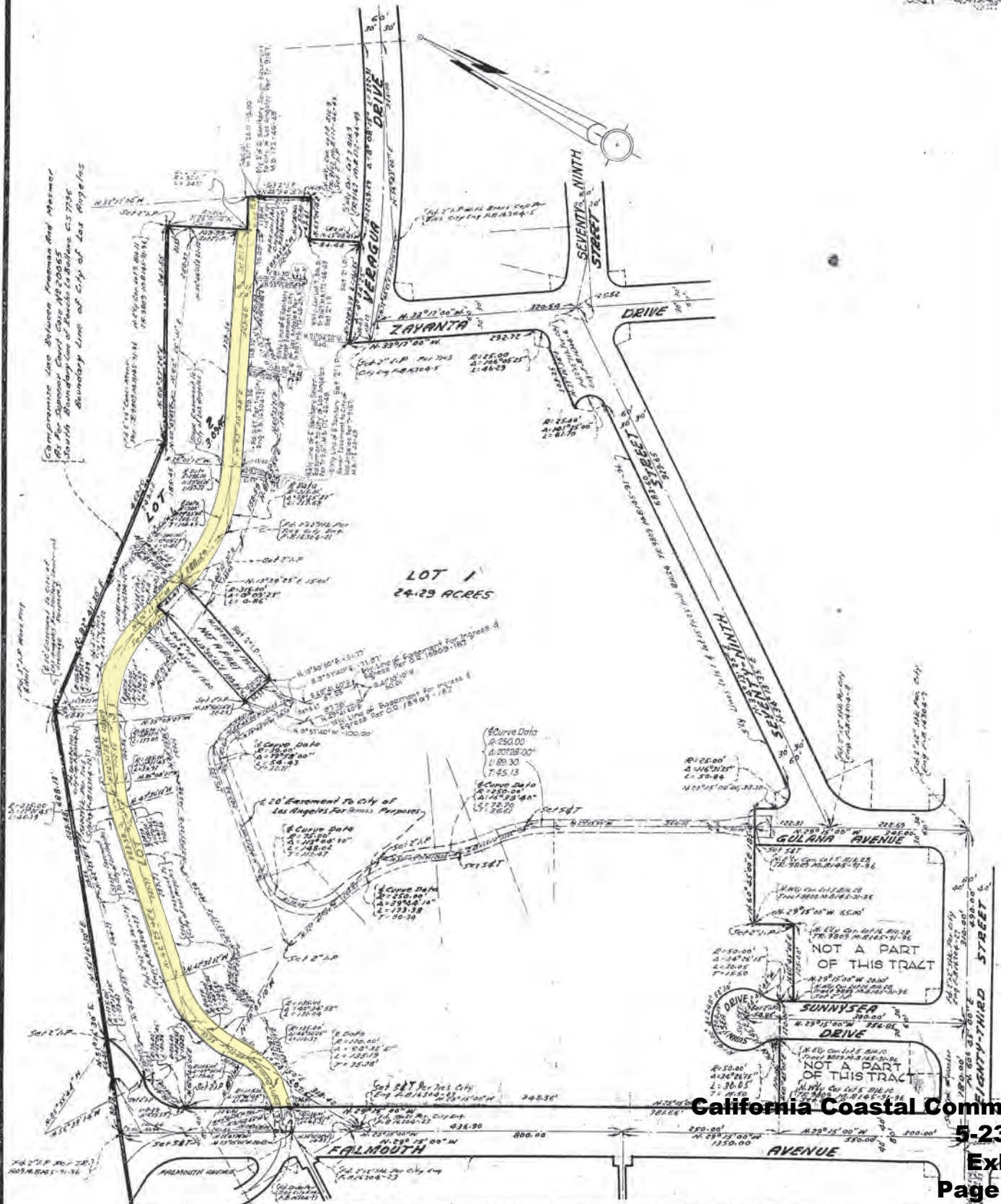
SHEET NO. 2  
OF 2 SHEETS  
633-45

NOTE: All 2" inch Iron Pipes Shown To Be Set At  
To Be Set 6 Inches Below Finish Surface

The Bearing N. 29° 15' 00" W. of Fairmount  
Revised By Station Co. Maps of Tract No  
0803 M.B. 165-31-36 Was Used As The  
Basis of Bearing for This Map

July 30 1958  
58 3 PM  
633  
45

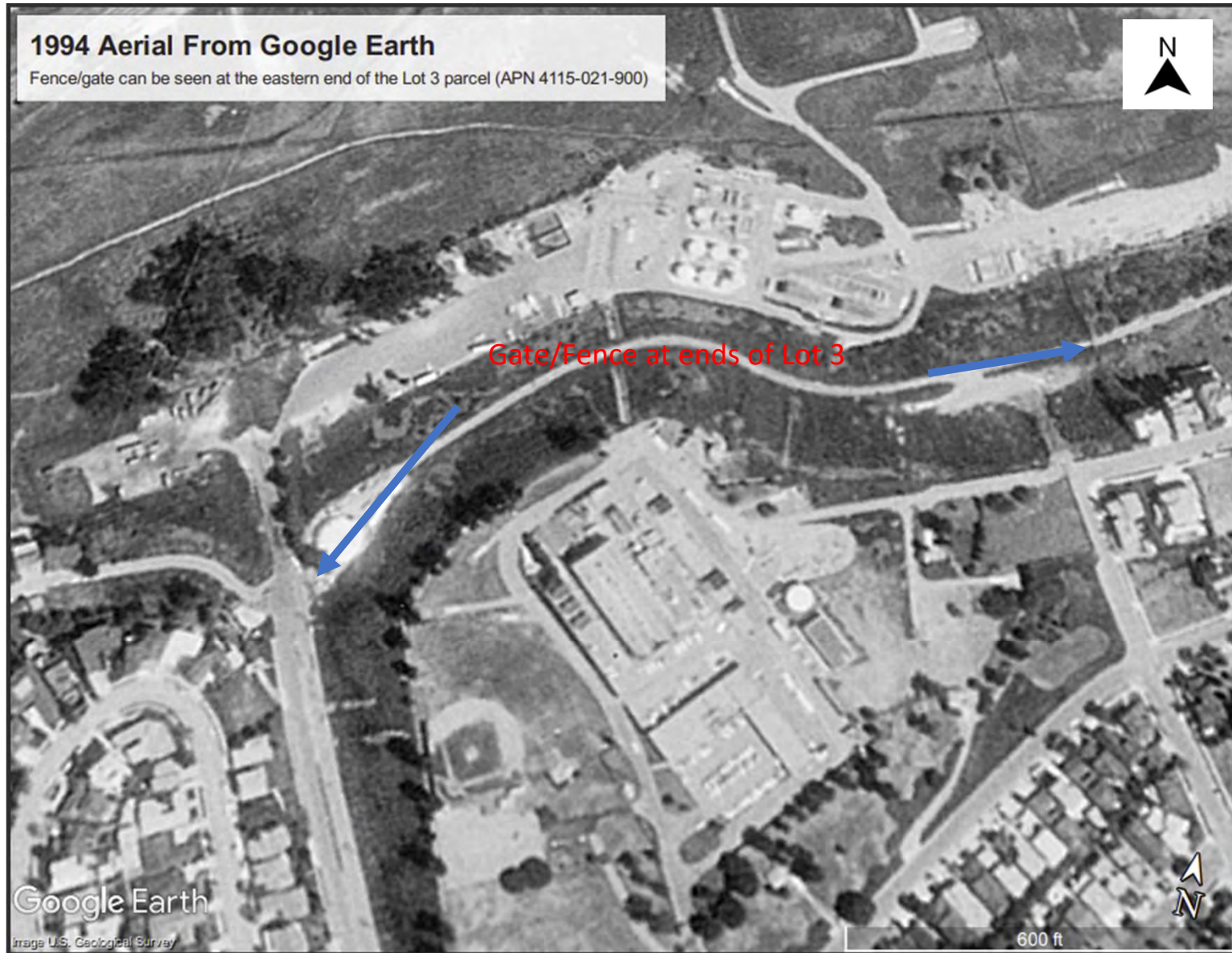
*Drustian*



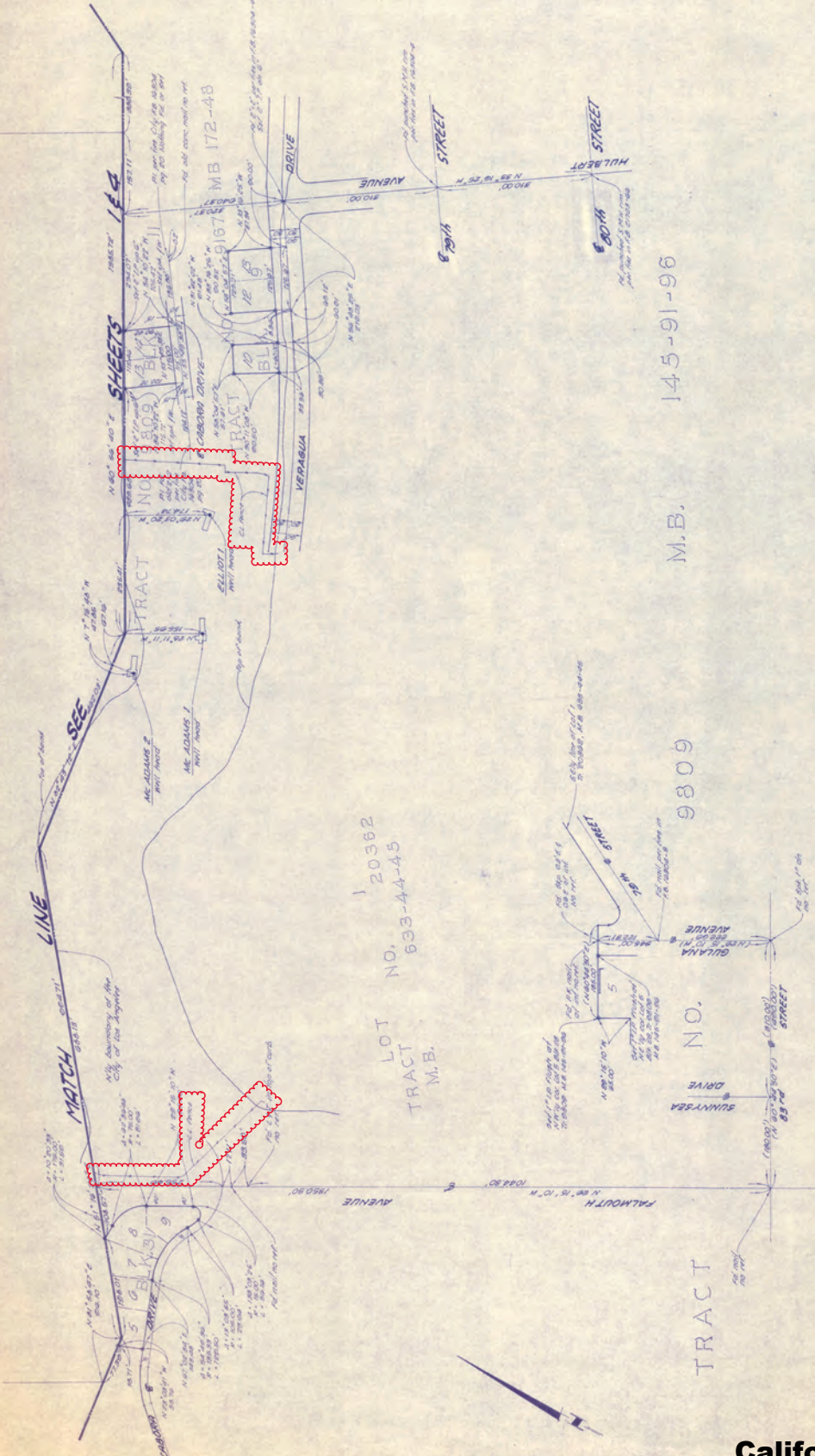












DETAIL "A"  
NOT SCALE

\* All dimensions are in feet and inches, rounded to the nearest inch.

This drawing is subject to the provisions of the California Subdivided Lands Act.

<b>H. M. Scott &amp; Associates, Inc.</b> MASTER PLANNING - ENGINEERING 3380 FLAIR DRIVE SUITE 228 EL MONTE, CALIFORNIA 91731 (213) 671-6853 (213) 284-8155		<b>WELLS AND OWNERSHIPS</b> ALAYIA DEL REY GAS STORAGE RESERVOIR SOUTHERN CALIFORNIA GAS COMPANY 12778 DRAWING NUMBER 12778-1-1 12778-1-2 12778-1-3 12778-1-4 12778-1-5 12778-1-6 12778-1-7 12778-1-8 12778-1-9 12778-1-10 12778-1-11 12778-1-12 12778-1-13 12778-1-14 12778-1-15 12778-1-16 12778-1-17 12778-1-18 12778-1-19 12778-1-20 12778-1-21 12778-1-22 12778-1-23 12778-1-24 12778-1-25 12778-1-26 12778-1-27 12778-1-28 12778-1-29 12778-1-30 12778-1-31 12778-1-32 12778-1-33 12778-1-34 12778-1-35 12778-1-36 12778-1-37 12778-1-38 12778-1-39 12778-1-40 12778-1-41 12778-1-42 12778-1-43 12778-1-44 12778-1-45 12778-1-46 12778-1-47 12778-1-48 12778-1-49 12778-1-50 12778-1-51 12778-1-52 12778-1-53 12778-1-54 12778-1-55 12778-1-56 12778-1-57 12778-1-58 12778-1-59 12778-1-60 12778-1-61 12778-1-62 12778-1-63 12778-1-64 12778-1-65 12778-1-66 12778-1-67 12778-1-68 12778-1-69 12778-1-70 12778-1-71 12778-1-72 12778-1-73 12778-1-74 12778-1-75 12778-1-76 12778-1-77 12778-1-78 12778-1-79 12778-1-80 12778-1-81 12778-1-82 12778-1-83 12778-1-84 12778-1-85 12778-1-86 12778-1-87 12778-1-88 12778-1-89 12778-1-90 12778-1-91 12778-1-92 12778-1-93 12778-1-94 12778-1-95 12778-1-96 12778-1-97 12778-1-98 12778-1-99 12778-1-100	
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