AMENDMENT TO THE JOINT AGREEMENT TO IMPROVE MAJOR SUBDIVISION (COUNTY OF SAN DIEGO TRACT NO. 5505-1, FINAL MAP 16562)
(PDS2021-LDPIIP-60114 OFFSITE)

This Amendment to the Joint Agreement to Improve Major Subdivision ("Amendment"), is entered into this 25 day of JUNE, 2025, among the County of San Diego, California ("County"), the San Diego County Sanitation District, an independent sewer district formed and operating under Health & Safety Code section 4700, et seq. ("District") and CH REALTY X-ELC I OTAY MESA BUSINESS PARK L.P., A DELAWARE LIMITED PARTNERSHIP ("Owner"), with respect to the following:

RECITALS

A. On April 4, 2023 (CR# 43), the Director of Planning and Development Services ("Director") approved the Final Map for Tract No. 5505-1 (Final Map No. 16562) ("Final Map"), consisting of nine (9) commercial/industrial lots, one (1) public street lot, and one (1) sewer pump station lot on a total of 121.19 acres. At the time the Final Map No. 16562 was approved, County, District, and Owner entered into an agreement entitled "Joint Agreement to Improve Major Subdivision County of San Diego Tract No. 5505-1" ("Improvement Agreement") to guarantee the construction of private and public improvements as a condition of approval of the subdivision.

B. The Improvement Agreement requires the Owner to perform certain acts, and at his or her own cost and expense, to furnish all labor, equipment and material, and within two (2) years from the date of approval of Agreement, to perform and complete in a good, workmanlike manner, according to the plans and specifications attached thereto and made a part of the Improvement Agreement, the subdivision improvements specified therein ("Subdivision Improvements").

C. On March 24, 2025, the Director extended the time for performance under the Improvement Agreement to April 4, 2027.

D. The Improvement Agreement requires the Owner to complete certain offsite Improvements ("Offsite Improvements"), as shown in Exhibit A, upon the property adjacent to Siempre Viva Road (the "Property"), as further described in Exhibit B, which Property is currently owned by the State of California Department of Transportation ("CalTrans"). The Offsite Improvements are included in the Subdivision Improvements.

E. The Owner has made good faith efforts to obtain sufficient title or interest in the Property to complete the Offsite Improvements but has been unable to obtain such title or interest from CalTrans.

F. CalTrans is willing to enter into negotiations to sell the Property directly to the County. The County is willing to enter into good faith negotiations with Caltrans to purchase the Property in order to allow the Owner to complete the Offsite Improvements in accordance with the terms of the Improvement Agreement, as amended herein.

G. The parties to this Amendment (the "Parties") desire to amend the Improvement Agreement to allow the Parties to facilitate the acquisition of the Property and the completion of the Offsite Improvements in accordance with the terms of the Improvement Agreement, as amended herein.

AGREEMENT

1. The above recitals are hereby incorporated into this Amendment by reference.

2. Paragraph SIXTEENTH is hereby added to the Improvement Agreement:

SIXTEENTH: OFFSITE IMPROVEMENTS: The County shall make good faith efforts to acquire sufficient title or interest in the Property to allow the Offsite Improvements to be made in accordance with the terms of the Improvement Agreement, as amended herein; provided that the Owner shall first enter into the Agreement to Pay Acquisition Costs, in substantially the same form as attached Exhibit C (the "Reimbursement Agreement") and the County of San Diego License for Use of County Facilities and Property, in substantially the same form as Exhibit D. (the "License Agreement").

3. Paragraph SEVENTEENTH is hereby added to the Improvement Agreement:

SEVENTEENTH: PREVAILING WAGE Work to be performed pursuant to the Improvement Agreement may be a "public work" under Labor Code section 1720, et seq. and may be subject to compliance monitoring and enforcement by the California Department of Industrial Relations. It is the sole responsibility of the Owner to ensure that all workers who perform work pursuant to this Agreement are paid in accordance with applicable law. Owner waives and releases any rights it may have under Labor Code section 1726 and 1781 to seek recovery of costs from the County. Further, the County shall not be liable for, and the Owner shall defend and indemnify the County and the employees and agents of County (collectively "County Parties"), against any and all claims, demands, liability, judgments, awards, fines, mechanics' liens or other liens, labor disputes, losses, damages, expenses, charges or costs of any kind or character, including attorneys' fees and court costs (hereinafter collectively referred to as "Claims") arising from the Owner's failure to comply with Labor Code requirements, including without limitation failure to pay prevailing wage when due. This Amendment shall be governed by and construed according to the laws of the State of California without regard to choice of law principles. Venue for any litigation shall be brought only in the state courts of California or in the federal courts located in San Diego County, California. Owner consents to personal jurisdiction in such courts and hereby waives any defense of lack of personal jurisdictio

4. Paragraph EIGHTEENTH is hereby added to the Improvement Agreement:

EIGHTEENTH: ACQUISITION PERIOD: If the County has not acquired the Property and provided the Owner with written permission to enter upon the Property to construct the Offsite Improvements by April 4, 2027 (the "Acquisition Period"), the Owner shall not be required to construct the Offsite Improvements, provided that:

a. The Owner shall provide the County with substitute security in the form of cash, meeting the requirements of San Diego County Code of Regulatory Ordinances section

81.408(a)(2), updated to reflect current cost estimates as of the date such substitute security is provided;

b. The County shall be permitted to use the security to finance the construction of the Offsite Improvements;

c. The Owner shall pay the County any funds due pursuant to the Reimbursement Agreement; and

d. The County shall be permitted to use all funds provided pursuant to the Reimbursement Agreement in accordance with the terms of the Reimbursement Agreement.

5. Paragraph NINETEENTH is hereby added to the Improvement Agreement:

ACQUISITION PERIOD EXTENSION: Notwithstanding anything in Paragraph EIGHTEENTH, ACQUISITION PERIOD, to the contrary, if, at the expiration of the Acquisition Period, the County can demonstrate that it is reasonably likely to acquire the Property within the next six months, the Acquisition Period shall be extended by six months ("Extended Acquisition Period"). If the County fails to acquire the Property by the expiration of the Extended Acquisition Period, the Owner shall not be required to construct the Offsite Improvements, provided all of the conditions of Paragraph EIGHTEENTH are met.

6. Paragraph TWENTIETH is hereby added to the Improvement Agreement:

RETURN OF FUNDS; EXONERATION OF SECURITY; TERMINATIONS OF AGREEMENTS: At the earlier of: (a) the date that is five (5) years after the expiration of the Acquisition Period, or if extended, the Extended Acquisition Period; or (b) the County's notice to the Owner that negotiations to acquire the Property have irrevocably ceased: (i) the Owner shall automatically be relieved of any and all obligation to construct the Offsite Improvements; (ii) the County shall return to the Owner all unused funds in County Trust Account No. 2208766-D-09233; (iii) the County shall refund to the Owner all unused security posted by the Owner pursuant to the Improvement Agreement, this Amendment, the Reimbursement Agreement, and the License Agreement; and (iv) the Improvement Agreement, this Amendment, the Reimbursement Agreement, and the License Agreement shall automatically be terminated.

7. Notwithstanding any provisions in this Amendment to the contrary, no release, termination or substitution of Parties authorized herein shall relieve a party of liability for any loss, claim or damage sustained by another party as a result of any breach by such party of the terms and conditions of the Improvement Agreement.

8. This Amendment may be executed in counterparts, each of which shall be fully effective as an original, and all of which together shall constitute one and the same instrument.

9. Except as modified herein, all other terms and conditions of the Improvement Agreement shall remain unchanged and in full force and effect.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of the date first above written.

[*Remainder of page intentionally left blank; signatures continue on following page.*]

COUNTY OF SAN DIEGO

By: _____
Clerk of the Board of Supervisors

APPROVED AS TO FORM AND LEGALITY
COUNTY COUNSEL

By: Thomas L. Bosworth
Senior Deputy

SAN DIEGO COUNTY SANITATION DISTRICT

By: _____
Clerk, Board of Directors

CERTIFICATE OF ACKNOWLEDGEMENT OF NOTARY PUBLIC

A NOTARY PUBLIC OR OTHER OFFICER COMPLETING THIS CERTIFICATE VERIFIES ONLY THE IDENTITY OF THE INDIVIDUAL WHO SIGNED THE DOCUMENT TO WHICH THIS CERTIFICATE IS ATTACHED, AND NOT THE TRUTHFULNESS, ACCURACY, OR VALIDITY OF THAT DOCUMENT.

STATE OF California)
COUNTY OF San Diego)
ON June 27 ~~[illegible]~~ 6th, 20 25 BEFORE ME, Janely E. Valdivia ——,
NOTARY PUBLIC, PERSONALLY APPEARED Andrew James Potter ——,
WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THIS INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND AND OFFICIAL SEAL

SIGNATURE _____
PLEASE PRINT NAME: Janely E. Valdivia
MY PRINCIPAL PLACE OF BUSINESS IS IN San Diego COUNTY.

MY COMMISSION NUMBER IS #2426053

MY COMMISSION EXPIRES December 6, 2026

JANELY E. VALDIVIA
Notary Public - California
San Diego County
Commission # 2426053
My Comm. Expires Dec 6, 2026

OWNER

CH REALTY X-ELC I OTAY MESA BUSINESS PARK L.P., A DELAWARE LIMITED PARTNERSHIP, as Owner

By: ELC OTAY BUSINESS PARK GP, LLC., A DELAWARE LIMITED LIABILTY COMPANY, ITS GENERAL PARTNER

By:_____

Brig Black, Managing Member

CERTIFICATE OF ACKNOWLEDGEMENT OF NOTARY PUBLIC

A NOTARY PUBLIC OR OTHER OFFICER COMPLETING THIS CERTIFICATE VERIFIES ONLY THE IDENTITY OF THE INDIVIDUAL WHO SIGNED THE DOCUMENT TO WHICH THIS CERTIFICATE IS ATTACHED, AND NOT THE TRUTHFULNESS, ACCURACY, OR VALIDITY OF THAT DOCUMENT.

STATE OF California)

COUNTY OF San Diego)

ON March 27, 2025 BEFORE ME, Michelle Baker,

A NOTARY PUBLIC, PERSONALLY APPEARED Brig Black, WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/~~ARE~~ SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/~~SHE/THEY~~ EXECUTED THE SAME IN HIS/~~HER/THEIR~~ AUTHORIZED CAPACITY(~~IES~~), AND THAT BY HIS/~~HER/THEIR~~ SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THIS INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND AND OFFICIAL SEAL

MICHELLE BAKER
COMM. # 2481557
NOTARY PUBLIC - CALIFORNIA
SAN DIEGO COUNTY
MY COMM. EXP. MAR. 10, 2028

SIGNATURE Michelle Baker

PLEASE PRINT NAME: Michelle Baker

MY PRINCIPAL PLACE OF BUSINESS IS IN County of San Diego

MY COMMISSION EXPIRES March 10, 2028

MY COMMISSION NO. IS 2481557

Exhibit A

Improvement Plans

ALTA ROAD & SIEMPRE VIVA ROAD

GRADING AND IMPROVEMENT PLAN FOR OTAY BUSINESS PARK & HAWANO SUBDIVISION

COUNTY OF SAN DIEGO TRACTS 5505 & 5566

GENERAL NOTES (IMPROVEMENT)

NOTICE:
THE ISSUANCE OF THIS PERMIT/APPROVAL BY THE COUNTY OF SAN DIEGO DOES NOT AUTHORIZE THE APPLICANT FOR SAID PERMIT/APPROVAL TO VIOLATE ANY FEDERAL, STATE, OR COUNTY LAWS, ORDINANCES, REGULATIONS, OR POLICIES INCLUDING, BUT NOT LIMITED TO, THOSE FEDERAL ENDANGERED SPECIES ACT AND ANY AMENDMENTS THERETO.

1. A PERMIT SHALL BE OBTAINED FROM THE COUNTY DEPARTMENT OF PUBLIC WORKS FOR ANY WORK WITHIN THE STREET RIGHT-OF-WAY.
2. THE STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH SAN DIEGO COUNTY STANDARDS AND AS APPROVED BY THE MATERIALS LABORATORY.
3. APPROVAL OF THESE IMPROVEMENT PLANS AS SHOWN DOES NOT CONSTITUTE APPROVAL OF ANY CONSTRUCTION OUTSIDE THE PROJECT BOUNDARY, OR LIMIT OF IMPROVEMENTS SHOWN HEREON.
4. ALL UNDERGROUND UTILITIES WITHIN THE STREET RIGHT-OF-WAY SHALL BE CONSTRUCTED, CONNECTED, AND TESTED PRIOR TO CONSTRUCTION OF BOWL, CURB, CROSS GUTTER, AND PAVING.
5. THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO OTHER EXISTING FACILITIES EXCEPT AS SHOWN ON THESE PLANS. HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING FACILITY SHOWN HEREON AND ANY OTHER WHICH IS NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND STANDARDS AT THE EXPENSE OF THE CONTRACTOR.
6. LOCATION AND ELEVATION OF IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK. CONTRACTOR WILL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES. SHOULD CONFLICTS EXIST - NOTIFY ENGINEER OF WORK AT LEAST 14 WORKING DAYS PRIOR TO START OF CONSTRUCTION, TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES.
7. THE CONTRACTOR SHALL NOTIFY THE SAN DIEGO GAS AND ELECTRIC COMPANY PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES. NOTICE: ALL ELECTRICAL AND GAS SERVICES WITHIN THIS PROJECT ARE "UNDERGROUND INSTALLATIONS." FOR LOCATIONS OF ELECTRICAL CABLES AND GAS PIPING AND APPURTENANCES CONTACT THE SAN DIEGO GAS AND ELECTRIC COMPANY. TELEPHONE:
8. THE CONTRACTOR SHALL NOTIFY AT&T PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES. NOTICE: ALL TELEPHONE SERVICES WITHIN THIS PROJECT BOUNDARY ARE "UNDERGROUND INSTALLATIONS" FOR LOCATION OF CABLES AND APPURTENANCES CONTACT AT&T TELEPHONE. (858) 888-1935.
9. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO CONTACT THE UTILITY AGENCIES, ADVISE THEM OF THE PROPOSED IMPROVEMENTS, AND BEAR THE COST OF RELOCATIONS, IF NEEDED.
10. ALL TELEVISION SERVICES WITHIN THIS PROJECT ARE "UNDERGROUND INSTALLATIONS." FOR LOCATION OF CABLES AND APPURTENANCES CONTACT COX CABLE (619) 298-1181 TELEPHONE: (619) 293-0569.
11. ALL TELEPHONE SERVICES WITHIN THIS PROJECT BOUNDARY ARE "UNDERGROUND INSTALLATIONS". FOR LOCATION OF CABLES AND APPURTENANCES CONTACT THE APPROPRIATE TELEPHONE COMPANY.
12. POWER SOURCES AND RUNS SERVING STREET LIGHTS SHALL BE SHOWN ON THE "AS-BUILT" IMPROVEMENT DRAWINGS. ALL SOURCES SHALL BE LOCATED WITHIN THE DEDICATED RIGHT-OF-WAY, OR WITHIN EASEMENTS DEDICATED TO THE COUNTY OF SAN DIEGO.
13. NO PAVING SHALL BE DONE UNTIL EXISTING POWER POLES ARE RELOCATED OUTSIDE THE AREAS TO BE PAVED.
14. PRIVATE ROAD IMPROVEMENTS SHOWN HEREON ARE FOR INFORMATION ONLY. COUNTY OFFICIALS SIGNATURE HEREON DOES NOT CONSTITUTE APPROVAL OR RESPONSIBILITY OF ANY KIND FOR THE DESIGN OR CONSTRUCTION OF THESE PRIVATE IMPROVEMENTS. (IF APPLICABLE)
15. ALL CATCH BASINS AND CURB INLETS COLLECTING RUNOFF FROM VEHICULAR ACCESS AREAS WILL REQUIRE IMPRINTING BY A CONCRETE STAMP STATING "NO DUMPING - LIVE DOWNSTREAM". THEREFORE, ANY DRAIN INLETS AND CATCH BASINS INSTALLED PER SAN DIEGO AREA REGIONAL STANDARD DRAWINGS D-01, D-02, D-03, D-03B, D-07, D-08 AND D-09 SHALL BE IMPRINTED.
   THE STAMP SHALL BE IMPRINTED ON THE INLET ROOF OR IN THE SIDEWALK BEHIND THE INLET OR NEXT TO THE INLET GRATE. EXTRA CONCRETE MAY BE REQUIRED NEXT TO THE GRATE TO CONVEY THE 31" BY 15" STAMP DIMENSIONS.
16. CONSTRUCT A PUBLIC STREET LIGHT SYSTEM CONFORMING TO SAN DIEGO COUNTY STANDARDS AND STREET LIGHT SPECIFICATIONS. POWER SOURCES AND RUNS SHALL BE SHOWN ON THE "AS-BUILT" IMPROVEMENT DRAWINGS. ALL POWER SOURCES SHALL BE LOCATED WITH THE DEDICATED RIGHT-OF-WAY.
17. ALL SIGNS TO BE ALUMINUM WITH HIGH INTENSITY PRISMATIC TYPE REFLECTIVE FACE.
18. ASPHALT CONCRETE SURFACING MATERIAL SHALL BE HAND-RAKED AND COMPACTED TO FORM SMOOTH TAPERED CONNECTIONS ALONG ALL EDGES INCLUDING THOSE EDGES ADJACENT TO SOIL. THE EDGES OF ASPHALT CONCRETE SHALL BE HAND-RAKED AT 45 DEGREES OR FLATTER, SO AS TO PROVIDE A SMOOTH TRANSITION NEXT TO EXISTING SOIL, INCLUDING THOSE AREAS SCHEDULED FOR SHOULDER BACKING. THE ABOVE SHALL BE DONE TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS.
19. CONTRACTOR SHALL APPLY FOR A TRAFFIC CONTROL PERMIT EIGHT WEEKS PRIOR TO COMMENCEMENT OF WORK NO WORK SHALL COMMENCE UNTIL ISSUANCE OF SAID PERMIT. FOR INFORMATION CALL (858) 694-3863. THE TRAFFIC CONTROL PERMIT SHALL REQUIRE SPECIFICATIONS FOR THE INFORMATIONAL SIGNS.
20. STREET IMPROVEMENTS AND DRAINAGE STRUCTURES SHALL BE CONSTRUCTED ACCORDING TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND THE COUNTY OF SAN DIEGO SPECIAL PROVISIONS AND SPECIFICATIONS FOR THE IMPROVEMENT OF NEW STREETS.
21. CONTRACTOR WILL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY STRIPING, PAVEMENT MARKERS, OR LEGENDS OBLITERATED BY THE CONSTRUCTION OF THIS PROJECT.
22. ALL CUT AND FILL SLOPES THREE FEET (3') CREATED BY GRADING FOR STREETS AND DRIVEWAYS SHALL BE HYDROSEEDED WITH SAN DIEGO COUNTY APPROVED HYDROSEED MIXTURE. HYDROSEEDED SLOPES SHALL BE IRRIGATED BY WATER TRUCK UNTIL THE MIXTURE ESTABLISHES AND GROWTH IS ESTABLISHED.
23. THE CONSTRUCTION OF ONE PCC STANDARD DRIVEWAY PER LOT, LOCATION TO BE DETERMINED IN THE FIELD BY THE ENGINEER OF WORK. PCC SURFACING OF DRIVEWAY TO EXTEND FROM CURB TO PROPERTY LINE. USE STANDARD DRAWINGS G-14, G-15, G-16.
24. ALL WIRES WITHIN THE COUNTY RIGHT-OF-WAY TO BE REMOVED.
25. COUNTY FIELD OPERATIONS ARE RESPONSIBLE FOR MAINTENANCE WITHIN PUBLIC RIGHT-OF-WAY AND ACCEPTED DRAINAGE EASEMENTS FOR SPECIFIC LOCATIONS AS NOTED ON THE PLANS. STORM DRAIN PIPES SHOWN AS PRIVATE OR WITHIN PRIVATE DRAINAGE EASEMENTS SHOULD BE THE RESPONSIBILITY OF THE DEVELOPER AND LANDOWNER EITHER THROUGH A STORMWATER MAINTENANCE ASSESSMENT DISTRICT OR COMMUNITY FACILITIES DISTRICT (CFD).
26. TELEVISED STORM DRAIN FINAL ACCEPTANCE OF THE PUBLICLY MAINTAINED STORM DRAIN LINES WILL BE SUBJECT TO INTERNAL CLOSED CIRCUIT TELEVISION (CCTV) INSPECTION BY A CCTV CONTRACTOR. THE PERMITTEE/CONTRACTOR WILL BE RESPONSIBLE TO SCHEDULE AND PAY FOR THE COST OF INSPECTION. ONCE CCTV INSPECTION IS COMPLETE, IT SHALL BE SUBMITTED TO DPW INSPECTOR FOR REVIEW AND FINAL APPROVAL. CCTV INSPECTION SHALL MEET THE REQUIREMENTS SET FORTH IN DL-D-04.

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr. Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

GENERAL NOTES (GRADING)

1. IMPORT MATERIAL SHALL BE OBTAINED FROM A LEGAL SITE.
2. A CONSTRUCTION, EXCAVATION OR ENCROACHMENT PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS WILL BE REQUIRED FOR ANY WORK IN THE COUNTY RIGHT-OF-WAY.
3. ALL SLOPES OVER THREE FEET IN HEIGHT WILL BE PLANTED IN ACCORDANCE WITH SAN DIEGO COUNTY SPECIFICATIONS, OR AS REQUIRED BY LANDSCAPE AND IRRIGATION PLANS.
4. THE CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK. NOTICE OF PROPOSED WORK SHALL BE GIVEN TO THE FOLLOWING AGENCIES:

SAN DIEGO GAS & ELECTRIC:	1-800-422-4133
AT&T (TEL):	1-800-422-4133
CATV:	1-800-422-4133
SEWER:	1-619-670-2222
WATER:	1-619-670-2222

5. APPROVAL OF THESE PLANS BY THE DIRECTOR OF PUBLIC WORKS DOES NOT AUTHORIZE ANY WORK ON GRADING TO BE PERFORMED UNTIL THE PROPERTY OWNER'S PERMISSION HAS BEEN OBTAINED AND VALID GRADING PERMIT HAS BEEN ISSUED.
6. ALL OPERATIONS CONDUCTED ON THE PREMISES, INCLUDING THE WARMING UP, REPAIR, ARRIVAL, DEPARTURE OR RUNNING OF TRUCKS, EARTHMOVING EQUIPMENT, CONSTRUCTION EQUIPMENT AND ANY OTHER ASSOCIATED GRADING EQUIPMENT SHALL BE LIMITED TO THE PERIOD BETWEEN 7:00 AM AND 6:00 PM EACH DAY, MONDAY THRU SATURDAY, AND NO EARTHMOVING OR GRADING OPERATIONS SHALL BE CONDUCTED ON THE PREMISES ON SUNDAYS OR HOLIDAYS.
7. ALL MAJOR SLOPES SHALL BE ROUNDED INTO EXISTING TERRAIN TO PRODUCE A CONTOUR TRANSITION FROM CUT OR FILL FACES TO NATURAL GROUND AND ADJUSTING CUT OR FILL SURFACES.
8. NOTWITHSTANDING THE MINIMUM STANDARDS SET FORTH IN THE GRADING ORDINANCE AND NOTWITHSTANDING THE APPROVAL OF THESE GRADING PLANS, THE PERMITTEE IS RESPONSIBLE FOR THE PREVENTION OF DAMAGE TO ADJACENT PROPERTY. NO PERSON SHALL EXCAVATE ON LAND SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY SUCH PROPERTY FROM SETTLING, CRACKING, EROSION SILTING, SCOUR OR OTHER DAMAGE WHICH MIGHT RESULT FROM THE GRADING DESCRIBED ON THIS PLAN. THE COUNTY WILL HOLD THE PERMITTEE RESPONSIBLE FOR CORRECTION OF NON-DEDICATED IMPROVEMENTS WHICH DAMAGE ADJACENT PROPERTY.
9. SLOPE RATIOS: GRADING VOLUMES (CY):
   CUT: 1.5:1 MAX, FILL: 2:1 MAX. CUT: 30,000 FILL: 180,000 CY IMPORT: 150,000 CY
   *NOTE: A SEPARATE VALID PERMIT MUST EXIST FOR EITHER WASTE OR IMPORT AREAS.
10. SPECIAL CONDITION IF ANY ARCHEOLOGICAL RESOURCES ARE DISCOVERED ON THE SITE OF THIS GRADING OPERATIONS, SUCH OPERATIONS WILL CEASE IMMEDIATELY, AND THE PERMITTEE WILL NOTIFY THE DIRECTOR OF PUBLIC WORKS OF THE DISCOVERY. GRADING OPERATIONS WILL NOT RECOMMENCE UNTIL THE PERMITTEE HAS RECEIVED WRITTEN AUTHORITY FROM THE DIRECTOR OF PUBLIC WORKS TO DO SO.
11. PERMANENT POST-CONSTRUCTION BMP DEVICES SHOWN ON PLANS SHALL NOT BE REMOVED OR MODIFIED WITHOUT THE APPROVAL FROM THE DEPARTMENT OF PUBLIC WORKS.
12. ALL GRADING DETAILS WILL BE IN ACCORDANCE WITH SAN DIEGO COUNTY STANDARD DRAWINGS D5-8, D5-10, D5-11, AND D-75.
13. FINISHED GRADING SHALL BE CERTIFIED BY A REGISTERED CIVIL ENGINEER AND INSPECTED BY THE COUNTY ENGINEER FOR DRAINAGE CLEARANCE (APPROVAL OF ROUGH GRADING DOES NOT CERTIFY FINISH GRADING BECAUSE OF POTENTIAL SURFACE DRAINAGE PROBLEMS THAT MAY BE CREATED BY LANDSCAPING ACCOMPLISHED AFTER ROUGH GRADING CERTIFICATION).
14. COUNTY FIELD OPERATIONS ARE RESPONSIBLE FOR MAINTENANCE WITHIN PUBLIC RIGHT-OF-WAY AND ACCEPTED DRAINAGE EASEMENTS FOR SPECIFIC LOCATIONS AS NOTED ON THE PLANS. STORM DRAIN PIPES SHOWN IN THE PRIVATE DRAINAGE EASEMENTS SHOULD BE THE RESPONSIBILITY OF THE DEVELOPER AND LANDOWNER EITHER THROUGH A STORMWATER MAINTENANCE ASSESSMENT DISTRICT OR COMMUNITY FACILITIES DISTRICT (CFD).
15. FINAL ACCEPTANCE OF THE TO-BE PUBLICLY MAINTAINED STORM DRAIN LINES WILL BE SUBJECT TO INTERNAL CLOSED CIRCUIT TELEVISION (CCTV) INSPECTION BY A CCTV CONTRACTOR. THE PERMITTEE/CONTRACTOR WILL BE RESPONSIBLE TO SCHEDULE AND PAY FOR THE COST OF INSPECTION. ONCE CCTV INSPECTION IS COMPLETE, IT SHALL BE SUBMITTED TO DPW INSPECTOR FOR REVIEW AND FINAL APPROVAL. CCTV INSPECTION SHALL MEET THE REQUIREMENTS SET FORTH IN DL-D-04.

SURVEY MONUMENTS

1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF REPLACING/RESTORING ANY MONUMENTATION, INCLUDING THE COST OF PREPARING AND FILING THE CORNER RECORD OR RECORD OF SURVEY (AS APPLICABLE), WHICH WILL BE DISTURBED OR DESTROYED BY CONSTRUCTION. A LAND SURVEYOR OR REGISTERED CIVIL ENGINEER LICENSED TO PRACTICE LAND SURVEYING, MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO DEMOLITION OR CONSTRUCTION. IF DESTROYED, SUCH MONUMENTS SHALL BE REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEYOR OR A REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED BY THE LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AS REQUIRED BY THE LAND SURVEYOR'S ACT.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPLACING ANY VERTICAL CONTROL BENCH MARKS DESTROYED BY THE CONSTRUCTION. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE COUNTY OF SAN DIEGO FIELD SURVEY SECTION MUST BE NOTIFIED, IN WRITING, AT LEAST 3 DAYS PRIOR TO THE DEMOLITION OR CONSTRUCTION.

RECORD PLAN

DECLARATION OF RESPONSIBLE CHARGE OF RECORD ENGINEER

I HEREBY DECLARE THAT AS THE ENGINEER IN RESPONSIBLE CHARGE OF THE RECORD PLANS FOR THIS PROJECT, I HAVE OBSERVED THE COMPLETED CONSTRUCTION OF THE ENGINEERING WORK AS SHOWN ON THE RECORD PLANS AND REVIEWED THE CONTRACTOR'S RECORDS OF ANY CHANGES MADE DURING CONSTRUCTION. BASED ON MY OBSERVATIONS AND REVIEW, IT IS MY OPINION THAT THE COMPLETED CONSTRUCTION IS IN SUBSTANTIAL CONFORMANCE WITH THE RECORD PLANS.

I CERTIFY THAT ALL CHANGES AND/OR ADDITIONS MADE DURING CONSTRUCTION, AS DOCUMENTED BY THE CONTRACTORS RECORDS, HAVE BEEN INCORPORATED IN THE RECORDS PLANS

ROBERT R. GOHRKE — DATE
R.C.E. 45717

REGISTERED PROFESSIONAL ENGINEER — ROBERT R. GOHRKE — No. 45717 — CIVIL — STATE OF CALIFORNIA

TR. PG. 1252, GRID C3
VICINITY MAP
SCALE: 1" = 2000'

EARTHWORK QUANTITIES

ESTIMATED GRADING QUANTITIES

DISTURBED AREA:	4.86 ACRES
GRADING AREA:	4.06 ACRES
* CUT QUANTITIES:	30,000 CYD
FILL QUANTITIES:	180,000 CYD
IMPORT:	150,000 CYD

* QUANTITIES USED GEOTECH RECOMMENDATIONS FOR BULKING/SHRINKAGE FACTOR ESTIMATES

DISTURBED AREA

DISTURBED AREA: 4.86± AC

"DISTURBED" AREA IS DEFINED BY 5 FEET BEYOND THE GRADING DAYLIGHT.

GEODETIC AND VERTICAL DATUM CONVERSIONS

PER R.O.S. 14841 GEODETIC CONTROL NETWORK: POINTS 4022 & 5109
ALL DIMENSIONAL DATA ON THESE PLANS IS IN IMPERIAL UNITS (FT.) AND ELEVATIONS REFERENCED USE NGVD'29. FOR USE WITH CALTRANS PLANS USING NAVD'88 ELEVATIONS USE THE FOLLOWING CONVERSIONS:

NGVD'29 ELEV. + 2.14 FT. = NAVD'88 ELEV. (FT.)

BASIS OF BEARING

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CCS 83, ZONE 6, (EPOCH 1991.35), GRID BEARING BETWEEN STATION 5108 AND STATION 4022 (BOTH HAVING A CALIFORNIA COORDINATE VALUE OF FIRST ORDER ACCURACY OR BETTER) AS SAID STATIONS ARE PUBLISHED IN THE SAN DIEGO COUNTY HORIZONTAL CONTROL BOOK
I.E. N 27°33'15" E

QUOTED BEARINGS FROM REFERENCE MAPS OR DEEDS MAY OR MAY NOT BE IN TERMS OF SAID SYSTEM.

THE COMBINED SCALE FACTOR AT STATION 5108 IS 1.0000036 CONVERGENCE ANGLE AT STATION 5108 IS -02°27'01.88"
GRID DISTANCE = GROUND DISTANCE X COMBINED SCALE FACTOR

ENGINEER'S NOTE

UNAUTHORIZED CHANGES & USES: THE ENGINEER OF WORK PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

GRADING PERMITS REQUIRED/EXCEPTIONS INFORMATION

PLEASE REFER TO GRADING ORDINANCE SECTION 87.201 PERMIT REQUIRED - EXCEPTIONS

GEOTECHNICAL CONFORMANCE/SOILS REPORT

THESE PLANS HAVE BEEN REVIEWED BY THE UNDERSIGNED AND FOUND TO BE IN CONFORMANCE WITH THE RECOMMENDATIONS AND SPECIFICATIONS AS OUTLINED IN THE UPDATED GEOTECHNICAL INVESTIGATIONS PREPARED FOR THIS DEVELOPMENT ENTITLED:
"UPDATE GEOTECHNICAL INVESTIGATION OTAY BUSINESS PARK COUNTY OF SAN DIEGO TRACT 5505 ALTA ROAD SAN DIEGO COUNTY, CALIFORNIA", DATED: APRIL 4, 2022, PROJECT NO. 07403-42-02 AND "UPDATE GEOTECHNICAL REPORT HAWANO SUBDIVISION COUNTY OF SAN DIEGO TRACT 5566 ALTA ROAD SAN DIEGO COUNTY, CALIFORNIA" DATED: MARCH 17, 2022, PROJECT NO. GT123-42-03 AND ANY UPDATES, ADDENDUMS AND REVISIONS THERETO.

SOILS ENGINEER'S CERTIFICATE

THESE PLANS HAVE BEEN REVIEWED BY THE UNDERSIGNED AND FOUND TO BE IN CONFORMANCE WITH THE RECOMMENDATIONS AND SPECIFICATIONS AS OUTLINED IN THE UPDATED GEOTECHNICAL INVESTIGATIONS PREPARED FOR THIS DEVELOPMENT ENTITLED:
"UPDATE GEOTECHNICAL INVESTIGATION OTAY BUSINESS PARK COUNTY OF SAN DIEGO TRACT 5505 ALTA ROAD SAN DIEGO COUNTY, CALIFORNIA", DATED: APRIL 4, 2022, PROJECT NO. 07403-42-02 AND "UPDATE GEOTECHNICAL REPORT HAWANO SUBDIVISION COUNTY OF SAN DIEGO TRACT 5566 ALTA ROAD SAN DIEGO COUNTY, CALIFORNIA" DATED: MARCH 17, 2022, PROJECT NO. GT123-42-03 AND ANY UPDATES, ADDENDUMS AND REVISIONS THERETO.

12/7/22
DATE

BRIO BLACK
CH REALTY X-LC | OTAY BUSINESS PARK, L.P.
11622 EL CAMINO REAL, SUITE 100
SAN DIEGO, CA 92130 (858) 683-1080

PROFESSIONAL GEOLOGIST — GARRY WELLS — Certificate No. 2291 — CERTIFIED ENGINEERING GEOLOGIST — STATE OF CALIFORNIA

12-8-22
GARRY CAMPION — DATE
CEG-2201

REGISTERED PROFESSIONAL ENGINEER — RAUL R. GARCIA — No. 2842 — GEOTECHNICAL — STATE OF CALIFORNIA

12/8/2022
RAUL R. GARCIA — DATE
GE 2842
GEOCON INCORPORATED
6960 FLANDERS DRIVE
SAN DIEGO, CA 92121-2974
TEL. 858.558.6900
FAX 858.558.6159

SHEET INDEX

NO.	DESCRIPTION	NO.	DESCRIPTION
1	TITLE SHEET, LEGEND AND NOTES	37	UTILITY CORRIDOR
2	KEY MAP AND EASEMENT LIST	38	FUTURE HAWANO DRIVE SOUTH
3	TYPICAL STREET SECTIONS	39	AIRWAY ROAD
4	WATER NOTES & DETAILS	40	AIRWAY ROAD
5	SEWER NOTES & DETAILS	41	STORM DRAIN PROFILES
6	NOTES, DETAILS & ABBREVIATIONS	42	STRUCTURAL NOTES
7-10	GRADING PLAN NOTES	43	STRUCTURAL DETAILS
11	TYPICAL SECTIONS-PHASE 1 & 2	44	STRUCTURAL DETAILS
12	WATER DEMOLITION PLAN - PHASE 1	45	STRUCTURAL DETAILS
13	ALTA ROAD - PHASE 1 WATER MAIN	46	BASIN BF1 (HAWANO SUBDIVISION)
14	ALTA ROAD - PHASE 1 WATER MAIN	47	BASIN BF1 (OTAY BUSINESS PARK)
15	ALTA ROAD - PHASE 1 WATER MAIN	48	EROSION CONTROL NOTES
16	WATER DEMOLITION PLAN - PHASE 2	49	EROSION CONTROL DETAILS
17	ALTA ROAD - PHASE 2 GRADING	50	EROSION CONTROL PLAN
18	ALTA ROAD - PHASE 2 GRADING	51	EROSION CONTROL PLAN
19	ALTA ROAD - PHASE 2 GRADING	52	EROSION CONTROL PLAN
20	STEEL WATER MAIN DETAILS	53	STORM WATER BMP PLAN
21	STEEL WATER MAIN SPECS	54	TRAFFIC SIGNAL MODIFICATION PLAN
22	STEEL WATER MAIN SPECS	55	TRAFFIC SIGNAL PLANS
23	STEEL WATER MAIN SPECS	56	TRAFFIC SIGNAL CONDUIT PLAN
24	STEEL WATER MAIN SPECS	57	TRAFFIC SIGNAL PLANS
25	STEEL WATER MAIN SPECS	58	TRAFFIC SIGNAL CONDUIT PLAN
26	CATHODIC PROTECTION DETAILS	59	TRAFFIC SIGNAL INTERCONNECT DETAIL
27	CATHODIC PROTECTION DETAILS	60	SIGNING AND STRIPING PLAN
28	CATHODIC PROTECTION SPECS	61	SIGNING AND STRIPING PLAN
29	ALTA ROAD	62	SIGNING AND STRIPING PLAN
30	ALTA ROAD		
31	ALTA ROAD		
32	ENTERPRISE ROAD		
33	STORM DRAINS & SEWER WET WELL		
34	SIEMPRE VIVA ROAD		
35	SIEMPRE VIVA ROAD		
36	SIEMPRE VIVA ROAD		

SITE ADDRESS

INTERSECTION OF ALTA ROAD AND SIEMPRE VIVA ROAD.

REFERENCE DRAWINGS

COUNTY OF SAN DIEGO
CC-4288 (AIRWAY TRUCK PARKING & STORAGE)
PDS2018-LDNUP-50044 (TM 5405 UNIT 3)
PDS2019-LDPMP-00017 (TRUNK SEWER)
PDS2021-LDNUP-50084 (TM 5398)
PDS2021-LDNUP-50085 (TM 5505)
OTAY WATER DISTRICT
100-7 (AIRWAY RD)
13-7 (SWD 6737)
18-7 (ALVARA WATER SERVICE)

TOPOGRAPHIC SOURCE

AERIAL PHOTOGRAMMETRY DATA COMPILED BY PHOTO GEODETIC CORPORATION.
DATE OF PHOTOGRAPHY: FEBRUARY 26, 2021

APN

648-070-44, 648-070-17

LEGAL DESCRIPTION

PORTIONS OF THE SOUTHWEST & SOUTHEAST QUARTER OF SECTION 31, TOWNSHIP 18 SOUTH, RANGE 1 EAST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO THE OFFICIAL PLAT THEREOF.

OWNER'S CERTIFICATE (PERMITTEE)

IT IS AGREED THAT FIELD CONDITIONS MAY REQUIRE CHANGES TO THESE PLANS.

IT IS FURTHER AGREED THAT THE DEVELOPER SHALL HAVE A REGISTERED CIVIL ENGINEER MAKE SUCH CHANGES, ALTERATIONS, OR ADDITIONS TO THESE PLANS WHICH THE DIRECTOR OF PUBLIC WORKS DETERMINES TO BE NECESSARY AND DESIRABLE FOR THE PROPER COMPLETION OF THE IMPROVEMENTS.

I FURTHER AGREE TO COMMENCE WORK ON ANY IMPROVEMENTS SHOWN ON THESE PLANS WITHIN EXISTING COUNTY RIGHT-OF-WAY WITHIN 60 DAYS AFTER ISSUANCE OF THE CONSTRUCTION PERMIT AND TO PURSUE SUCH WORK ACTIVELY ON EVERY NORMAL WORKING DAY UNTIL COMPLETED, IRRESPECTIVE AND INDEPENDENT OF ANY OTHER WORK ASSOCIATED WITH THIS PROJECT OR UNDER MY CONTROL.

12/12/22
DATE

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE COUNTY OF SAN DIEGO AND OTAY WATER DISTRICT IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

REGISTERED PROFESSIONAL ENGINEER — ROBERT R. GOHRKE — No. 45717 — CIVIL — STATE OF CALIFORNIA

12/12/22
ROBERT R. GOHRKE — DATE
R.C.E. 45717

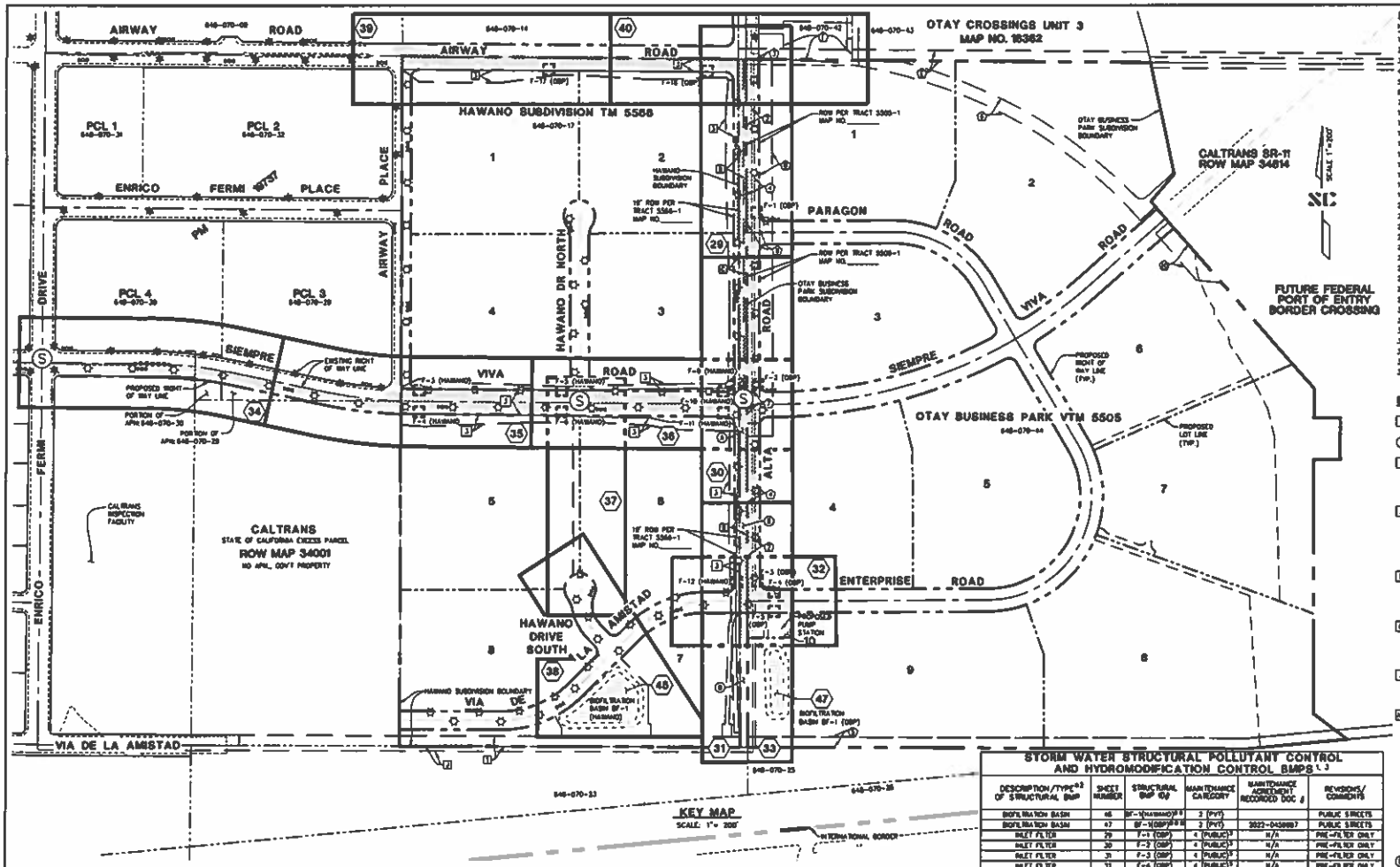
WORK TO BE DONE

IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS, THE CURRENT STANDARD SPECIFICATIONS, AND SPECIAL PROVISIONS AND STANDARD REFERENCE DRAWINGS FOR THE SAN DIEGO COUNTY DEPARTMENT OF PUBLIC WORKS, SAN DIEGO COUNTY SANITATION DISTRICT AND THE OTAY WATER DISTRICT.
STANDARD SPECIFICATIONS:
1. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION "GREEN BOOK" (2021 EDITION), INCLUDING THE REGIONAL SUPPLEMENT AMENDMENT "WHITE BOOK" (2018 EDITION).
2. STANDARD SPECIFICATIONS FOR STORM DRAIN CONSTRUCTION OF THE COUNTY OF SAN DIEGO.
3. WATER AGENCIES' STANDARD - STANDARD SPECIFICATIONS FOR POTABLE WATER, RECYCLED WATER AND SEWER FACILITIES (2019 EDITION).
4. STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS (2018 EDITION).

STANDARD DRAWINGS:
SAN DIEGO COUNTY DESIGN STANDARDS (OCTOBER 2012) (DS).
SAN DIEGO AREA REGIONAL STANDARD DRAWINGS (2018) (RSD)
WATER AGENCIES' STANDARDS - STANDARD DRAWINGS (2019 EDITION) (WAS).
STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD PLAN (2018)(CT).

LEGEND

ITEM	STD. DWG.	DTL.	SYMBOL
SUBDIVISION BOUNDARY			
PROPOSED RIGHT-OF-WAY (R/W)			
ASPHALT PAVING	PER SOILS REPORT AND APPROVED BY MATL LAB SEE GENERAL NOTE 2		
6" THICK CEMENT TREATED BASE (CTB) (SEE PLAN FOR SPECIFICATIONS)			
GRAND/OVERLAY ZONE			
ELEVATION CONTOUR			550
FINISH GRADE (FG) SPOT ELEVATION (U.N.O.)			502.2
EXCAVATION/EMBANKMENT SLOPE (1:1 MAX.)			
GRADING LIMIT LINE/DAYLIGHT			
DIRECTION OF SURFACE FLOW			
8" CURB & GUTTER (TYPE PER PLAN)	G-2, G-8, G-10		
TYPE "A" AC BERM	G-5 (TYPE A)		
TRENCH RESURFACING TYPE R	G-24 (TYPE B)		
4" P.C.C. SIDEWALK	G-7, G-8, G-10, G-11		
CURB RAMP	D5-21A (N.W.C.)		
CONCRETE DRIVEWAY	G-14A, G-14B		
CROSS GUTTER	G-12		
MIDWEST GUARDRAIL SYSTEM (CALTRANS REVISED STD (DIG)	A77A1, A77M3, A77M4, A77P2 (TYPE 110)		
STREET SURVEY MONUMENT	W-10, W-13		
STREET NAME SIGN	D5-13A 9WU D5-13G TYPE II	D5H-3 OR CMT-3 SIGN



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35	SIEMPRE VIVA ROAD		
36	SIEMPRE VIVA ROAD		

EXISTING EASEMENT LIST

- ☐ DENOTES EASEMENTS WITHIN HAWANO SUBDIVISION BOUNDARY
- ○ DENOTES NON-ROW REFERENCE ONLY
- 1 40' WIDE EASEMENT FOR AERIAL AND UNDERGROUND UTILITIES AND APPURTENANCES GRANTED TO SDG&E DOC. NO. 99-0205277, O.R. REC. MARCH 26, 1999
- 2 19' EASEMENT FOR COUNTY HIGHWAY TOGETHER WITH EASEMENTS FOR HIGHWAY EXCAVATION, EMBANKMENT SLOPES, AND DRAINAGE STRUCTURES GRANTED TO THE COUNTY OF SAN DIEGO DOC. NO. 2012-0040244, O.R. REC. SEP. 07, 2012
- B 30' WIDE EASEMENT FOR INGRESS AND EGRESS GRANTED TO ASPHALT CO., A NETHERLANDS JAPTLE CORPORATION. DOC. NO. 85-136871, O.R. REC. APRIL 22, 1985
- C 15' WIDE EASEMENT FOR SEWER LINES AND APPURTENANCES GRANTED TO SAN DIEGO COUNTY SANITATION DISTRICT. DOC. NO. 2010-0126436, O.R. REC. APRIL 6, 2010
- J 30' PUBLIC UTILITY EASEMENT TO OTAY MUNICIPAL WATER DISTRICT PER DOC. NO. 83014 O.R. REC. JUNE 3, 1968
- AM EASEMENT FOR COUNTY HIGHWAY WITH RIGHT TO EXTEND DRAINAGE STRUCTURES AND EXCAVATION AND EMBANKMENT SLOPES PER DOC. NO. 2002-0063813 REC. 8/1/02 O.R.
- ⑥ GRANED IN FEE BY BY OTAY WATER DISTRICT PER DOC. NO. 309434 REC. NOV. 17, 1972 APN: 648-070-37
- ⬠ DENOTES EASEMENTS WITHIN OTAY BUSINESS PARK SUBDIVISION BOUNDARY
- ⑪ 30' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT FOR PIPELINES DOC. NO. 83012, O.R. REC. JUNE 3, 1968
- ⑫ 20' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT FOR PIPELINES DOC. NO. 30333, O.R. REC. JANUARY 6, 1970
- ⑬ 30' WIDE EASEMENT TO OTAY MUNICIPAL WATER DISTRICT FOR PIPELINES DOC. NO. 74-051081, O.R. REC. FEBRUARY 28, 1974
- ⑭ 40' WIDE EASEMENT TO SDG&E FOR PUBLIC UTILITIES. DOC. NO. 1999-0199143, O.R. REC. MARCH 24, 1999
- ⑮ 40' WIDE I.O.D. TO THE COUNTY OF SAN DIEGO FOR PUBLIC HIGHWAY (AIRWAY ROAD AND SIEMPRE VIVA ROAD) DOC. NO. 2011-0402241, O.R. REC. SEPTEMBER 22, 2011 TO BE VACATED PER FINAL MAP
- ⑯ 30' WIDE I.O.D. TO THE COUNTY OF SAN DIEGO FOR SEWER PURPOSES DOC. NO 2011-0402242, O.R. REC. SEPTEMBER 22, 2011
- ⑰ 40' WIDE I.O.D. TO THE COUNTY OF SAN DIEGO FOR PUBLIC HIGHWAY (ALTA ROAD) DOC. NO. 2013-0332936, O.R. REC. JUNE 26, 2013
- ⑱ 50' WIDE I.O.D. TO THE COUNTY OF SAN DIEGO FOR SLOPES, DRAINAGE, EXCAVATION & EMBANKMENT DOC NO 2013-0332936, O.R. REC. JUNE 26, 2013
- ⑲ DRAINAGE EASEMENT TO THE STATE OF CALIFORNIA AND RELINQUISHMENT OF ACCESS RIGHTS DOC. NO. 2020-0445796, O.R. REC. AUGUST 11, 2020
- ⑳ 30' WIDE EASEMENT FOR UNDERGROUND PIPELINES AND APPURTENANCES GRANTED TO THE OTAY WATER DISTRICT DOC. NO. 2018-0066133, O.R. REC. MAR. 12, 2018
- ㉑ 40' SEWER EASEMENT GRANTED TO THE COUNTY OF SAN DIEGO SANITATION DISTRICT DOC. NO. 2019-7000355, O.R REC. SEP. 11, 2019
- ㉒ PRIVATE DRAINAGE EASEMENT RESERVATION AS SHOWN ON MAP NO. 16362. DOC. NO. 2019-7000355, O.R. REC. SEP. 11, 2019

STORM WATER STRUCTURAL POLLUTANT CONTROL AND HYDROMODIFICATION CONTROL BMPS[1, 3]

DESCRIPTION/TYPE[2] OF STRUCTURAL BMP	SHEET NUMBER	STRUCTURAL BMP ID#	MAINTENANCE CATEGORY	MAINTENANCE AGREEMENT RECORDED DOC #	REVISIONS/ COMMENTS
BIOFILTRATION BASIN	46	BF-1(HAWANO)[4,5,6]	2 (PVT)		PUBLIC STREETS
BIOFILTRATION BASIN	47	BF-1(OBP)[4,5,6]	2 (PVT)	2022-0436887	PUBLIC STREETS
INLET FILTER	29	F-1 (OBP)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY
INLET FILTER	30	F-2 (OBP)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY
INLET FILTER	31	F-3 (OBP)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY
INLET FILTER	32	F-4 (OBP)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY
INLET FILTER	32	F-5 (OBP)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY
INLET FILTER	35	F-3 (HAWANO)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY
INLET FILTER	35	F-4 (HAWANO)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY
INLET FILTER	38	F-5 (HAWANO)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY
INLET FILTER	38	F-6 (HAWANO)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY
INLET FILTER	38	F-9 (HAWANO)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY
INLET FILTER	38	F-10 (HAWANO)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY
INLET FILTER	38	F-11 (HAWANO)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY
INLET FILTER	39	F-12 (HAWANO)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY
INLET FILTER	40	F-16 (OBP)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY
INLET FILTER	38	F-17 (OBP)	4 (PUBLIC)[5]	N/A	PRE-FILTER ONLY

TREATMENT BMP NOTES:
1. REFER TO PROJECT "KEYMAP" (THIS SHEET) FOR TREATMENT BMP LOCATIONS.
2. BMP'S APPROVED AS PART OF STORM WATER QUALITY MANAGEMENT PLAN (SWMP) DATED TBD ON FILE WITH DPW. ANY CHANGES TO THE ABOVE BMP'S WILL REQUIRE SWQMP REVISION AND PLAN CHANGE APPROVALS.
3. SEE TO GENERAL NOTE 25 ON SHEET 1 FOR MAINTENANCE RESPONSIBILITY.
4. SWMA RECORDED AS DOC _____ ON
5. PUBLIC MAINTENANCE TO BE PERFORMED BY ROADS DEPARTMENT.
6. SWMA RECORDED AS DOC 2022-0436887 ON DECEMBER 6, 2022.

KEY MAP LEGEND

- 1 LOT NUMBER
- SUBDIVISION BOUNDARY
- PROPOSED RIGHT-OF-WAY
- PROPOSED LOT LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT
- PROPOSED STREET IMPROVEMENTS (PAVEMENT)
- PROPOSED FIRE HYDRANT
- EXIST. FIRE HYDRANT
- PROPOSED STREET LIGHT
- EXIST. STREET LIGHT
- (X) PLAN AND PROFILE SHEET COVERAGE

STORM WATER FACILITIES MAINTENANCE AGREEMENT BMPs:
- F-1 INLET FILTER (⑥ TREATMENT DESIGNATOR PER PLAN)
- BF-1 BIOFILTRATION BASIN: HAWANO/OBP

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.8660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. GEHRKE RCE 45717 DATE	SIGNATURE DATE; PRINTED NAME ROBERT R. GEHRKE; LICENSE NO. 45717; REGISTRATION EXPIRATION; CIVIL DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.Z. 871; REVIEWED BY; DATE 12/13/2023	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CONTAINING WELL MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 34' TO TOP OF HILL; RECORD FROM: R.O.S. 14841, PT. NO. 4022; ELEVATION: 878.99; DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 2	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

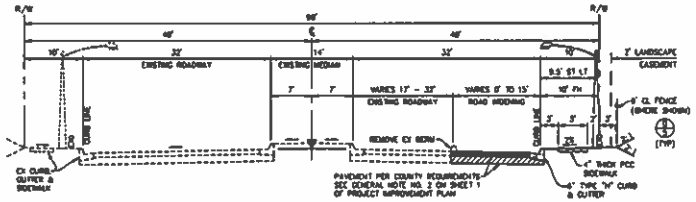
KEY MAP AND EASEMENT LIST FOR:

ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5556

CALIFORNIA COORDINATE INDEX 138-1781

RECOMMENDED FOR APPROVAL — DEPUTY DIRECTOR — DATE 12/13/23
APPROVED FOR PUBLIC WORKS — DIRECTOR — DATE 12/14/23
DEPUTY DIRECTOR — DATE; DIRECTOR — DATE
PDS2021-LDPMP-60114

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009

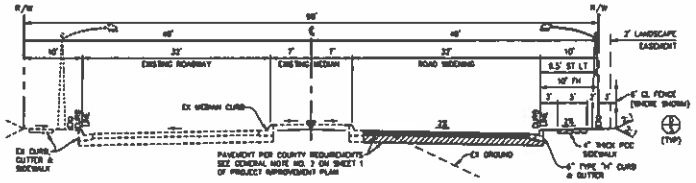


4 LANE MAJOR ROAD
TYPICAL SECTION
SIEMPRE VIVA ROAD (PUBLIC) (WEST OF AIRWAY PLACE)
STA 10+89 TO 15+25

▼ = ELEVATION PER PROFILE

NO SCALE

(A) 3

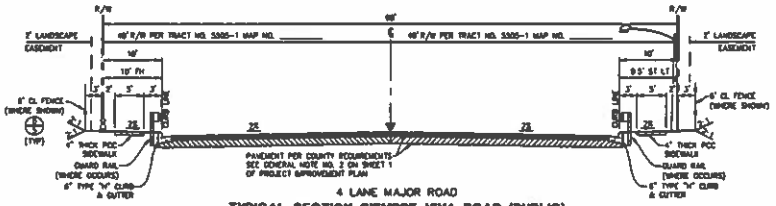


4 LANE MAJOR ROAD
TYPICAL SECTION
SIEMPRE VIVA ROAD (PUBLIC) (WEST OF AIRWAY PLACE)
STA 15+25 TO 23+96

▼ = ELEVATION PER PROFILE

NO SCALE

(B) 3

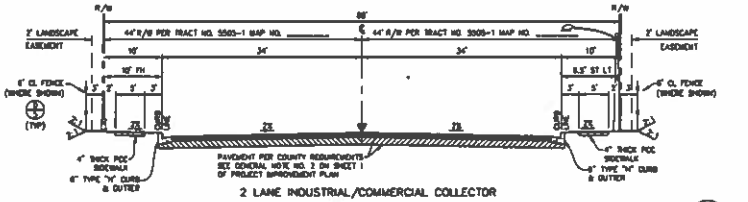


4 LANE MAJOR ROAD
TYPICAL SECTION SIEMPRE VIVA ROAD (PUBLIC)
STA 23+96 TO 55+53

▼ = ELEVATION PER PROFILE

NO SCALE

(C) 3

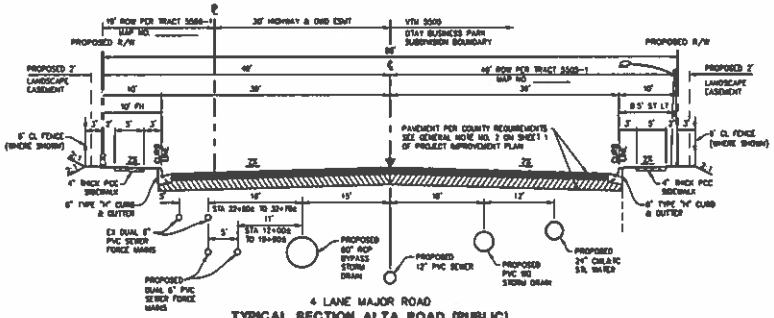


2 LANE INDUSTRIAL/COMMERCIAL COLLECTOR

▼ = ELEVATION PER PROFILE TYPICAL SECTION ENTERPRISE & PARAGON ROAD (PUBLIC)

NO SCALE

(D) 3

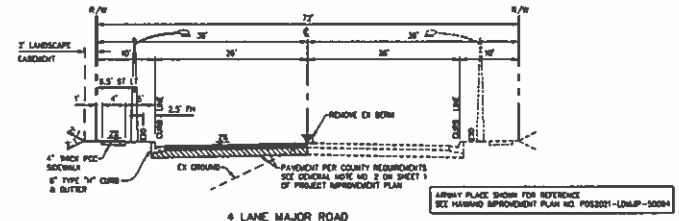


4 LANE MAJOR ROAD
TYPICAL SECTION ALTA ROAD (PUBLIC)
STA: 13+00 TO 32+35

▼ = ELEVATION PER PROFILE

NO SCALE

(E) 3

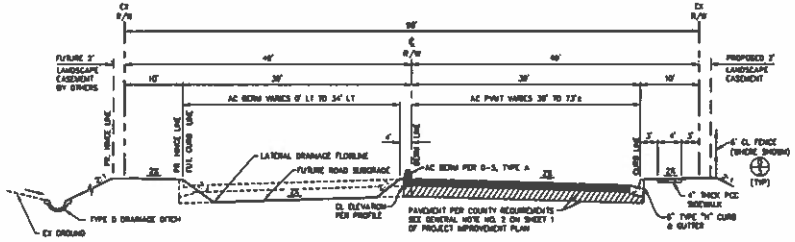


4 LANE MAJOR ROAD
TYPICAL SECTION AIRWAY PLACE (PUBLIC)

▼ = ELEVATION PER PROFILE

NO SCALE

(F) 3



4 LANE MAJOR ROAD
TYPICAL SECTION AIRWAY ROAD (PUBLIC)

▼ = ELEVATION PER PROFILE

NO SCALE

(G) 3

REGISTERED PROFESSIONAL ENGINEER ROBERT R. GEHRKE No. 45717 CIVIL STATE OF CALIFORNIA

PRIVATE CONTRACT

SHEET 3	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	63 SHEETS

TYPICAL STREET SECTIONS FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5506
CALIFORNIA COORDINATE INDEX 136-1791

RECOMMENDED FOR APPROVAL: APPROVED FOR COUNTY OF SAN DIEGO PUBLIC WORKS PROGRAM: 1/4/23

DESIGNED BY: RRG CHECKED BY: RRG

IMPROVEMENT PLAN NO. POS2021-LDPIP-60114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. GEHRKE — DATE RCE 45717	SIGNATURE — DATE ROBERT R. GEHRKE — 45717 PRINTED NAME — LICENSE NO. REGISTRATION EXPIRATION — CIVIL DISCIPLINE	PROJECT NO. D1132-090574 PERMIT NO. DEV-22-009 — P.E. 871 REVIEWED BY — DATE 10/27/2023	NO. — DESCRIPTION — APPROVED BY — DATE	NO. — DESCRIPTION — APPROVED BY — DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT LOCATION: NORTHERLY END OF ALTA ROAD, 0.3 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 36' TO TOP OF HILL RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION: 870.89 — DATUM: NGVD '29

OWD PROJECT: D1132-090574
OWD PERMIT: DEV-22-009

WATER NOTES (OTAY WATER DISTRICT - OWD)

1. WATER MAINS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS AND THE CURRENT APPROVED WATER AGENCIES' STANDARDS.
2. OTAY DISTRICT INSPECTION SHALL RECEIVE THE CONSTRUCTION SCHEDULE AT LEAST FIVE (5) WORKING DAYS IN ADVANCE OF THE START OF CONSTRUCTION. WORK DONE WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REMOVAL AT THE CONTRACTOR'S EXPENSE. THE TELEPHONE NUMBER OF OTAY WATER DISTRICT INSPECTION IS (619) 670-2244.
3. CONSTRUCTION SHALL NOT START UNTIL THE SUBDIVISION AGREEMENT HAS BEEN EXECUTED BETWEEN THE OTAY WATER DISTRICT AND THE DEVELOPER AND A PRE-CONSTRUCTION MEETING HAS BEEN HELD WITH THE OTAY WATER DISTRICT'S INSPECTION DEPARTMENT.
4. THE CONTRACTOR SHALL POTHOLE ALL TIE-IN LOCATIONS BEFORE PIPE INSTALLATION TO DETERMINE PIPE SIZE AND MATERIAL, ELEVATION, AND IF TIE-IN CAN BE MADE AT THE LOCATION INDICATED. THE CONTRACTOR SHALL ALSO POTHOLE ALL EXISTING UTILITIES THAT MAY INTERFERE WITH THE TIE-IN LOCATION AND EXPOSE PIPE A MINIMUM OF 3-FEET ON EACH SIDE OF THE CONNECTION POINT TO ASSURE THAT NO CONLARS ARE IN THE TAP AREA. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OTAY WATER DISTRICT'S ENGINEERING DEPARTMENT, PUBLIC SERVICES PRIOR TO PROCEEDING.
5. WATER PRESSURE REGULATORS WILL BE REQUIRED. THE INSTALLATION AND MAINTENANCE OF REGULATORS SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.
6. APPROVAL OF THE PLANS BY THE OTAY WATER DISTRICT DOES NOT CONSTITUTE RESPONSIBILITY FOR ACCURACY OF INFORMATION NOR LOCATIONS OF EXISTING FACILITIES.
7. THE DEVELOPER/CUSTOMER AGREES THAT IF IT, IT'S EMPLOYEES, AGENTS, OR ANY INDEPENDENT CONTRACTORS OR SUBCONTRACTORS SHOULD MAKE AN UNAUTHORIZED CONNECTION TO THE DISTRICT WATER SYSTEM, CUSTOMER IS SUBJECT TO THE FINES SET FORTH IN SECTION 73 OF THE DISTRICT'S CODE OF ORDINANCES INCLUDING, BUT NOT LIMITED TO, SECTION 73.03 "CERTAIN SPECIFIC OPERATIONAL VIOLATIONS". CUSTOMER ACKNOWLEDGES AND AGREES THAT PAYMENT OF FINES MAY BE DEDUCTED FROM ANY DEPOSITS CUSTOMER HAS WITH THE DISTRICT.
8. NO PERSON, OTHER THAN AN EMPLOYEE OR AGENT OF THE DISTRICT, SHALL HAVE ANY RIGHT TO OPERATE ANY PART OF A DISTRICT WATER DISTRIBUTION SYSTEM. ANY PERSON WHO TAMPERS OR INTERFERES WITH ANY PART OR COMPONENT OF SAID SYSTEM, OR CAUSES OR PERMITS ANY ACT OF TAMPERING OR INTERFERING WITH THE SYSTEM, SHALL BE LIABLE FOR ANY INJURY OR DAMAGE CAUSED THEREBY OR RESULTING THEREFROM. IN ADDITION, THE FINES SET FORTH IN SECTION 73 OF THE DISTRICT'S CODE OF ORDINANCE INCLUDING, BUT NOT LIMITED TO, SECTION 73.03 "CERTAIN SPECIFIC OPERATIONAL VIOLATIONS", WILL BE IMPOSED ON ANY PERSON OR COMPANY WHO OPERATES ANY PART OF THE DISTRICT WATER SYSTEM WITHOUT PROPER AUTHORIZATION.
9. NO MORE THAN 79 EQUIVALENT DWELLING UNITS CAN BE ON AN UNLOOPED SYSTEM.
10. NO MORE THAN 1,320 FEET OF MAIN SHALL BE IN USE WITHOUT LOOPING TO A SECOND SOURCE. THE WATER MAIN SHALL BE DESIGNED AND INSTALLED SO THAT IT TERMINATES AT A LOT LINE AND NOT WITHIN A LOT OR OTHERWISE APPROVED BY THE OTAY WATER DISTRICT.
11. THRUST BLOCK SIZING ASSUMES A SOIL BEARING CAPACITY OF 1,500 PSF. SHOULD FIELD CONDITIONS INDICATE A LESSER SOIL BEARING CAPACITY, NOTIFY THE OTAY WATER DISTRICT'S ENGINEERING DEPARTMENT, PUBLIC SERVICES.
12. THE TOP OF POTABLE WATER MAINS 12-INCHES IN DIAMETER AND SMALLER MUST BE 3.5 FEET BELOW FINISHED GRADE. THE TOP OF RECYCLED WATER MAINS 12-INCHES IN DIAMETER AND SMALLER MUST BE AT LEAST 4.5 FEET BELOW FINISHED GRADE. ALL WATER MAINS 16-INCHES IN DIAMETER AND LARGER MUST HAVE AN ADDITIONAL 1-FOOT OF COVER. THE TOP OF PIPE ELEVATIONS SHALL BE PROVIDED ON THE PROFILE EVERY 100 FEET. PIPELINES MUST BE THE CLASS AS SHOWN AND CONSTRUCTED ACCORDING TO THE APPROVED PLANS WITH A HORIZONTAL TOLERANCE OF 0.10 FEET AND A VERTICAL TOLERANCE OF 0.10 FEET.
13. EVERY RESIDENTIAL LOT MUST BE SERVED BY A 1-INCH COPPER SERVICE (WAS DWG WS-01). ALL OTHER LOTS MUST BE SERVED WITH A MINIMUM 2-INCH COPPER SERVICE (WAS DWG WS-02). CATHODIC PROTECTION WILL BE REQUIRED ON ALL NEW COPPER SERVICES AND COPPER APPURTENANCES PER WAS STANDARD DRAWING WC-17. ALL SACRIFICIAL ANODES SHALL BE CONNECTED TO THE COPPER APPURTENANCES AT THE TIME OF INSTALLATION. ANODES SHALL BE TESTED FOR OPERATION WITH A REPORT ISSUED BY THE DEVELOPER'S CORROSION ENGINEER STATING THE ACCEPTABILITY OF THE INSTALLATIONS AND STATING THAT THE ANODES ARE PROVIDING ADEQUATE PROTECTION. SERVICE SADDLES SHALL BE A MINIMUM 2.0 FEET AWAY FROM OTHER SADDLES AND OR JOINTS. MULTIPLE SADDLES ON THE SAME PIPE LENGTH SHALL BE ALTERNATELY STAGGERED 10 TO 20 DEGREES TO PREVENT A WEAK PLANE IN THE PIPE.
14. FOR CONNECTIONS TO EXISTING WATER MAINS, ALL WET TAP CONNECTIONS TO EXISTING PIPELINES, WHETHER FOR MAINLINE, EXTENSION OR SERVICE LATERALS, SHALL BE PERFORMED BY THE DISTRICT. THE CONTRACTOR SHALL FURNISH THE TAPPING SLEEVE OF TEE, VALVES AND ALL OTHER MATERIALS AS CALLED FOR IN THE WATER AGENCY'S STANDARDS, http://www.sdwcd.com/ STANDARD SPECIFICATIONS SECTION, IN ACCORDANCE WITH THE APPROVED MATERIALS LIST. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, LABOR AND TRAFFIC CONTROL REQUIRED FOR THE EXCAVATION AND INSTALLATION OF THE CONNECTION INCLUDING BUT NOT LIMITED TO EXCAVATION BY HAND OR MACHINE, POURING OF THRUST AND ANCHOR BLOCKS, INSTALLATION OF GATE, CASING, PAINTING AND WRAPPING OF FITTINGS, BACKFILL AND COMPACTION OF TRENCH AREA AND PAVEMENT REPLACEMENT.
15. A MINIMUM OF 24-INCHES OF PERMANENT BACKFILL SHALL BE INSTALLED OVER THE WATER MAIN PRIOR TO ANY TESTING.
16. ALL NEW GATE AND BUTTERFLY VALVES SHALL HAVE FLANGED ENDS UNLESS OTHERWISE APPROVED BY THE DISTRICT ENGINEER.

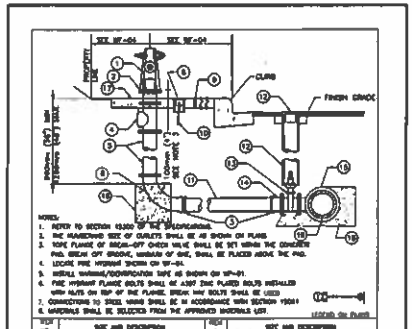
JOINT RESTRAINT SYSTEMS NOTES

JOINT RESTRAINT SYSTEMS SHALL BE INSTALLED AS SHOWN ON THE APPROVED DRAWINGS, IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS AND AS DESCRIBED BELOW:

1. A MINIMUM PRESSURE RATING OF 230PSI IS REQUIRED FOR ALL ENGINEERED RESTRAINT SYSTEMS.
2. A SAFETY FACTOR OF 1.5:1 SHALL BE REQUIRED FOR THE DESIGN OF ALL RESTRAINT SYSTEMS. ALL PRODUCTS USED SHALL COMPLY WITH THE SAN DIEGO WATER AGENCY STANDARDS APPROVED MATERIALS LIST.
3. SPLIT RING JOINT RESTRAINT SYSTEMS FOR BELL AND SPIGOT JOINTS SHALL BE DUCTILE-IRON AND SHALL CONSIST OF TWO SPLIT-RING RESTRAINTS WITH MACHINED (NOT CAST) SERRATIONS ON THE INSIDE DIAMETER AND CONNECTING BOLTS, AND SHALL BE SELECTED FROM THE SAN DIEGO WATER AGENCY STANDARDS APPROVED MATERIALS LIST. ONE CLAMPING RING SHALL BE INSTALLED ON THE SPIGOT PIPE, AND WITH THE NECESSARY RESTRAINING RODS AND NUTS, CONNECTED TO A SECOND CLAMPING RING LOCATED ON THE PIPE BARREL IMMEDIATELY BEHIND THE GASKET BELL. RESTRAINT DEVICES MAY BE INSTALLED PRIOR TO LOWERING PIPE INTO THE TRENCH ONLY WITH THE APPROVAL OF THE DISTRICT ENGINEER. ALL JOINT RESTRAINT DEVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS' INSTRUCTIONS.
4. SPLIT RING STYLE JOINT RESTRAINT RODS AND NUTS SHALL BE 304 STAINLESS STEEL FOR ALL APPLICATIONS IN ACCORDANCE WITH AWWA/ANSI C111/A21.11 AND PROVIDE A MINIMUM 45,000 PSI YIELD AND 80,000 PSI TENSILE STRENGTH OR UNLESS APPROVED BY THE DISTRICT ENGINEER UNLESS OTHERWISE APPROVED. ALL PARTS AND HARDWARE FOR THE JOINT RESTRAINT SYSTEMS ARE TO BE SUPPLIED BY THE RESTRAINT MANUFACTURER. CLAMPING RING SHALL BE MANUFACTURED OF HIGH STRENGTH DUCTILE IRON IN ACCORDANCE WITH ASTM A536, GRADE 65-45-12.
5. GLAND STYLE JOINT RESTRAINT RINGS AND ITS SEGMENT COMPONENTS SHALL BE CONSTRUCTED OF DUCTILE IRON CONFORMING TO ASTM A 536, GRADE 65-45-12. THE WEDGES SHALL BE DUCTILE IRON, HEAT-TREATED TO A MINIMUM HARDNESS OF 370 - 470 BHN. DIMENSIONS OF THE GLAND SHALL BE SUCH THAT IT CAN BE USED WITH MECHANICAL JOINT BELLS CONFORMING TO AWWA C111 AND AWWA C153. THE DESIGN SHALL USE TORQUE LIMITING TWIST-OFF NUTS TO PROVIDE ACTUATION OF THE RESTRAINING WEDGES. MECHANICAL JOINT RESTRAINTS SHALL BE FROM THE SAN DIEGO WATER AGENCY STANDARDS APPROVED MATERIALS LIST.
6. GLAND STYLE RESTRAINING MECHANISMS FOR MECHANICAL JOINTS SHALL CONSIST OF A FOLLOWER GLAND HAVING A SEAL GASKET AND INDIVIDUALLY ACTUATED WEDGES THAT INCREASE THEIR RESISTANCE TO PULLOUT AS PRESSURE OR EXTERNAL FORCES INCREASE. THE SYSTEM FOR THE MANUFACTURER SHALL PROVIDE ALL THE COMPONENTS (FOLLOWER RING, WEDGES, AND GASKETS) FOR THE RESTRAINING DEVICE. GLAND STYLE RESTRAINTS SHALL BE INSTALLED AT ALL DUCTILE IRON FITTINGS OR VALVES, EXCLUDING FIRE HYDRANT SLIPS OLS, WHICH WILL REQUIRE SPLIT RING RESTRAINTS AS SHOWN ON THE APPROVED PLANS. THE DEVICE SHALL BE CAPABLE OF FULL MECHANICAL JOINT DEFLECTION DURING ASSEMBLY AND THE FLEXIBILITY OF THE JOINT SHALL BE MAINTAINED AFTER BURIAL.

WATER NOTES

1. 24" MINIMUM OF FLAT CLEARANCE SHALL BE MAINTAINED ALL AROUND PAD WHEN INSTALLED WITH OR BY A WALL OR OTHER OBSTRUCTIONS. RETAINING WALL PER SDRWAS WM-63 WILL BE REQUIRED AT AREAS WHERE 24" MINIMUM CLEARANCE CANNOT BE MAINTAINED (THIS PERTAINS TO FIRE HYDRANT SPLASH PADS, AIR VAC SPLASH PADS, BLOW OFF'S AND WATER SERVICE METER BOXES)
2. ALL DEFLECTIONS (HORIZONTAL AND VERTICAL) SHALL BE MADE BY USE OF HIGH DEFLECTION COUPLINGS WITH 4 DEGREES MAXIMUM DEFLECTION PER COUPLING (2 DEGREES PER JOINT). NO BENDING (CURVING) OF PIPE SHALL BE PERMITTED.
3. ALL FIRE HYDRANTS SHALL BE COMMERCIAL UNLESS OTHERWISE NOTED.
4. ALL STEEL AND/OR DI TAPPING SADDLES SHALL BE PETROLATUM WAX TAPE COATED IN ACCORDANCE WITH THE WATER AGENCIES STANDARDS (WAS) SECTION 13110 AND AWWA C217-99 USING MATERIALS SELECTED FROM THE WAS APPROVED MATERIALS LIST.
5. SUPPORT BLOCKS ARE REQUIRED FOR ALL RECL GATE VALVES, CROSSES AND BUTTERFLY VALVES.



KEY NO.	SIZE AND DESCRIPTION	KEY NO.	SIZE AND DESCRIPTION
1	150mm (6") FIRE HYDRANT, SEE NOTE 2	9	COLD JOINT [illegible]
2	BOLTS, SEE NOTE 8	10	SHACKLE SEE PER WF-01
3	EAGLE LOCK 999 OR EQUIVALENT RESTRAINT JOINT	11	150mm (6") C-900 PVC PIPE
4	FLANGELESS 7 HYDRANT CHECK VALVE SERIES 2400	12	300mm (12") GATE VALVE WITH CIS, SEE WV-01 AND WV-02
5	150mm (6") FLANGE BY SPIGOTS (MINIMUM OF 2 SPIGOTS AND GROWTH)	13	150mm (6") FLG x MJ/PO/FLG RISER
6	150mm x 450mm (6" x 18") LONG RADIUS	14	150mm (6") FLG x MJ/PO ADAPTER OF REQUIRED
7	FLG x MJ/PO SHORT ELL	15	SIZE x 150mm (6") MJ/PO/FLG TEE
8	WATER SIDE SADDLE PIPE 150mm (6") x 300mm (12") LONG SDR-35 SEWER PIPE WITH CAP, SET FLUSH WITH PAD	16	WATER MAIN
		17	1,200mm x 1,200mm x 300mm THICK (6' x 4' x 6" THICK) CONCRETE SPLASH PAD
		18	CONCRETE SUPPORT BLOCK 36"x36"x12"
150mm (6") FIRE HYDRANT INSTALLATION WITH BREAK-OFF CHECK VALVE		NOT TO SCALE MODIFIED WF-02	

MODIFIED WF-02 DETAIL (A/4)

NO SCALE

REGISTERED PROFESSIONAL ENGINEER — No. 43717 — CIVIL — STATE OF CALIFORNIA

PRIVATE CONTRACT

SHEET 4	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	67 PSETS

WATER NOTES & DETAILS FOR:

ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAVANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5809 & 5860

CALIFORNIA COORDINATE INDEX 136-1791

APPROVED FOR APPROVAL — DATE 1/9/23

PDS2021-LDPWP-60114

STEVENS CRESTO ENGINEERS
9655 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. GEHRKE — DATE — RCE 43717	SIGNATURE — DATE; ROBERT R. GEHRKE — 43717; PRINTED NAME — LICENSE NO.; REGISTRATION EXPIRATION — CIVIL DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.2. 671; REVIEWED BY — DATE 10/11/2022	NO. / DESCRIPTION / APPROVED BY / DATE	NO. / DESCRIPTION / APPROVED BY / DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE SEAL MONUMENT. LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 30' TO TOP OF HILL. RECORD FROM: R.O.S. 14841, PT. NO. 4022. ELEVATION: 620.00 DATUM: NGVD 29

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009

SEWER NOTES

UNLESS OTHERWISE INDICATED HEREIN, ALL WORK SHALL BE DONE IN ACCORDANCE WITH

A. THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC) LATEST APPROVED EDITION ("GREEN BOOK")
B. THE REGIONAL SUPPLEMENTAL AMENDMENTS TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION
C. THE SAN DIEGO REGIONAL STANDARD DRAWINGS (SDRSD), LATEST APPROVED EDITION

AND THE FOLLOWING SPECIAL PROVISIONS.

1 TRENCH WIDTH SHALL BE PER SDRSD NO. SP-02. FOR PIPE UP TO 15 INCHES, UNLESS OTHERWISE NOTED. FOR PIPE 15 INCHES AND OVER, TRENCH WIDTH SHALL BE PER SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 306-3
2 PIPE AND BEDDING CONDITIONS INCLUDING THE FIBER FABRIC WRAP "SUPERTO WRAP" WITH 12 INCH AN OVERLAP, SHALL BE PER SDRSD SP-02. FOR PIPE UP TO 15 INCHES. FOR PIPE 18 INCHES AND ABOVE, REFER TO SSPWC SECTION 306-1.7 WHENEVER THE EXCAVATED MATERIAL IS NOT SUITABLE FOR BACKFILL, THE CONTRACTOR SHALL REMOVE THIS MATERIAL AND ARRANGE FOR AND PURCHASE SUITABLE IMPORTED BACKFILL MATERIAL WHICH IS CAPABLE OF ATTAINING THE REQUIRED RELATIVE DENSITY. IMPORTED BACKFILL MATERIAL OR OTHER BACKFILL MATERIAL SHALL BE APPROVED BY THE ENGINEER, AND PER SECTION 306-1.3.6 OF THE "GREEN BOOK" STANDARD SPECIFICATIONS
3 PVC PIPE BEDDING FROM THE BOTTOM OF PIPE TO 12 INCHES MINIMUM ABOVE THE PIPE SHALL BE 3/4 -INCH CRUSHED ROCK. FILTER FABRIC WRAP "SUPERTO WRAP 48 REQUIRED WHERE CRUSHED ROCK PIPE DIP IS USED
4 AFTER COMPLETION OF PIPE LAYING, ALL MAIN LINE SEWERS, BE RIGHT LATERALS AND STRUCTURES SHALL BE TESTED IN THE PRESENCE OF THE INSPECTOR. AIR PRESSURE TEST PER SSPWC SECTION 306-7.6.2.4, AND MANDREL TEST, PER SECTION 306-7.6.2.2 SHALL BE USED UNLESS OTHERWISE DIRECTED BY THE COUNTY INSPECTOR

FINAL ACCEPTANCE OF SEWER LINES WILL BE SUBJECT TO INTERNAL CLOSED CIRCUIT TELEVISION (CCTV) INSPECTION. IT WILL BE THE PERMITTEE'S RESPONSIBILITY TO PAY FOR THE COST OF THIS WORK.

A. CCTV INSPECTION PROCEDURES
1 VIDEO INSPECTION SHALL SHOW WITH HIGH RESOLUTION OPERATIONAL AND STRUCTURAL DEFECTS (E.G., INFLOWS, SADDLE OFFSET JOINTS, CRACKS, ROUGHNESS, "FINE" OR FOLDS IN THE PIPELINES, COMPLETE WITH AUDIO COMMENTARY AND INSPECTION LOG
2 THE SANITATION DISTRICT ENGINEER AND COUNTY INSPECTOR SHALL BE NOTIFIED A MINIMUM OF TWO WORKING DAYS IN ADVANCE OF VIDEO INSPECTING
3 VIDEO INSPECTION SHALL BE PERFORMED ONE PIPE REACH (E.G., MANHOLE TO MANHOLE) AT A TIME.
4 THE CONTRACTOR SHALL VIDEO INSPECT THE PIPELINE WITH MAXIMUM FLOW DIVERTED (IF REQUIRED) FROM THE PIPELINE. THE PIPE REACH BEING INSPECTED SHALL BE ISOLATED FROM THE REMAINDER OF THE PIPELINES WITH THE UPSTREAM SEWAGE FLOW BYPASSED (IF REQUIRED). IN THE EVENT THAT THE EXISTING FLOW IS INTERFERING WITH THE VIDEO OPERATION, A BYPASS SHALL BE PERFORMED BY THE CONTRACTOR TO LOWER THE FLOW VOLUME SUFFICIENTLY TO ALLOW FOR A CLEAR VIDEO PICTURE. SUFFICIENT WATER SHALL BE SUPPLIED TO THE ISOLATED SECTION TO CAUSE DRAINAGE REACHING THE DOWNSTREAM MANHOLE PRIOR TO VIDEO INSPECTING. IF EXISTING FLOW CAN NOT, PRE-CONSTRUCTION VIDEO INSPECTION CAN BE DONE WITH PARTIAL FLOW. DEPTH OF THE FLOW SHALL NOT EXCEED:
   1 PIPES 8" - 18": 30% OF THE PIPE DIAMETER
   2 PIPES 18" - 24": 20% OF THE PIPE DIAMETER
   3 PIPES 27" AND UP - 30% OF THE PIPE DIAMETER
5 THE CAMERA SHALL BE MOVED THROUGH THE PIPELINE IN A DOWNSTREAM DIRECTION AT A UNIFORM RATE BY MEANS OF POWER CABLE WINCHES OR BELT PROPELLED TRACTORS AT EACH MANHOLE, STOPPING AND ROTATING THE CAMERA HEAD AT EACH LATERAL CONNECTION OBJECT, OR BOTH TO ALLOW FOR ADEQUATE EVALUATION. THE CONTRACTOR SHALL STOP WHEN NECESSARY TO ENSURE PROPER DOCUMENTATION OF THE PIPE CONDITION, BUT IN NO CASE SHALL THE CAMERA BE PULLED AT A SPEED GREATER THAN 30 FEET/MINUTE. A CLEAR PICTURE SHALL BE PROVIDED LOOKING INTO EACH SERVICE CONNECTION. BOTH PRE AND POST VIDEO INSPECTIONS SHALL BE SUBMITTED TO THE ENGINEER.
6. MEASUREMENT FOR LOCATION OF DEFECTS SHALL BE ABOVE GROUND BY MEANS OF A MEASURING DEVICE. FOOTAGES SHOWN IN THE DIGITAL FILES SHALL COINCIDE WITH HORIZONTAL LENGTHS FROM STATIONING AS SHOWN ON THE PLANS. FOOTAGE MEASUREMENTS SHALL BEGIN AT THE CENTERLINE OF THE UPSTREAM MANHOLE OF STORM DRAIN ACCESS POINT, UNLESS PERMISSION IS GIVEN BY THE ENGINEER TO DO OTHERWISE
7 THE CONTRACTOR SHALL CLEAN THE SEWER MAINS PRIOR TO VIDEO INSPECTING AS NECESSARY TO ADEQUATELY PERFORM THE VIDEO RECORDING OPERATIONS. IF THE CAMERA WILL NOT PASS THROUGH THE ENTIRE PIPELINE SECTION, THE CONTRACTOR SHALL REMOVE THE EQUIPMENT AT THE DOWNSTREAM MANHOLE AND ATTEMPT TO INSPECT THE SECTION OF PIPE FROM THE OPPOSITE DIRECTION. IF THE CAMERA FAILS TO PASS THROUGH THE ENTIRE SECTION, IT SHALL BE ASSUMED THAT AN OBSTRUCTION EXISTS. EFFORTS TO VIDEO RECORD THAT SECTION OF PIPE SHALL BE TEMPORARILY SUSPENDED AND THE CONTRACTOR SHALL NOTIFY THE ENGINEER UPON REMOVAL OF THE OBSTRUCTION. THE CONTRACTOR SHALL COMPLETE THE INSPECTION
8. IF AN OBSTRUCTION IS ENCOUNTERED DURING THE POST-CONSTRUCTION VIDEO INSPECTION, THE CONTRACTOR SHALL REMOVE THE OBSTRUCTION BY EXCAVATION, REPAIR, OR OTHER MEANS APPROVED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE, IN ORDER THAT VIDEO INSPECTION MAY CONTINUE
9. THE SYSTEM USED TO MOVE THE CAMERA THROUGH THE PIPE SHALL NOT OBSTRUCT THE CAMERA'S VIEW. THE CONTRACTOR SHALL CALIBRATE THE MEASURING DEVICE EACH DAY WITH A KNOWN DISTANCE TO THE SATISFACTION OF THE ENGINEER PRIOR TO STARTING THE INSPECTION AND VIDEO RECORDING PROCESS
10. THE CONTRACTOR SHALL OBTAIN THE ENGINEER'S APPROVAL FOR ANY ADDITIONAL POINT REPAIRS

B. TOLERANCES ENCOUNTERED FOLLOWING INSPECTION SHALL BE ADDRESSED AS FOLLOWS
1 FOR NEW UNDERGROUND SEWER INSTALLATIONS, THE MAXIMUM OPERATIONAL TOLERANCE FOR SAG SHALL BE 1/8" WHEN VIDEO RECORDED INSPECTION IS USED TO CHECK FOR SAG. A CALIBRATED 36" DIAMETER STEEL BAR "SAG GAGE" OR APPROVED EQUAL DEVICE, MOUNTED IN FRONT OF THE CAMERA, SHALL BE USED TO MEASURE THE DEPTH OF SAG
2 IF THE ENGINEER DETERMINES THAT THE DEFICIENCIES OR SAGS ARE NON-REPAIRABLE IN PLACE, THE AFFECTED PORTION(S) SHALL BE RECONSTRUCTED

3 THE CONSTRUCTION OF PCC SEWER MAINTENANCE HOLE PER SDRSD SM-01 OR SM-02 POURED-IN-PLACE MAINTENANCE HOLE BASES SHALL BE A MONOLITHIC POUR FINISHED COMPLETE AT TIME OF POUR. EACH NEW MAINTENANCE HOLE SHALL BE VACUUM TESTED PRIOR TO BACK FILLING. THE TEST SHALL BE CONDUCTED IMMEDIATELY AFTER PLACEMENT OF PRE-CAST UNITS WITH POLYMER MORTAR/BUTYL SEALANT. ALL PIPES IN THE MAINTENANCE HOLE SHALL BE SECURELY PLUGGED. THE TEST HEAD SHALL BE PLACED AT THE INSIDE OF THE TOP PRE-CAST UNIT PRIOR TO THE INSTALLATION OF THE GRADE RING, AND THE SEAL INFLATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

A VACUUM OF 10 IN. HG SHALL BE DRAWN AND THE VACUUM PUMP SHUT OFF WITH THE VALVE CLOSED. THE TIME SHALL BE MEASURED FOR THE VACUUM TO DROP 8 IN. HG. THE MAINTENANCE HOLE SHALL PASS IF THE TIME IS GREATER THAN 75 SECONDS FOR SDRSD SM-02 AND 60 SECONDS FOR SDRSD SM-01 MANHOLE. IF THE MAINTENANCE HOLE FAILS THE INITIAL TEST, NECESSARY REPAIRS SHALL BE MADE WITH NO SHRINK GROUT WHILE VACUUM IS STILL BEING DRAWN. RETESTING SHALL PROCEED UNTIL A SATISFACTORY TEST IS OBTAINED

4 THE CONSTRUCTION OF 4-INCH SEWER LATERAL S SHALL BE PER SDRSD SS-01 AND SS-02. SEWER LATERAL S SHALL NOT DISCHARGE DIRECTLY INTO MAINTENANCE HOLES. A SEWER CLEANOUT SHALL BE INSTALLED APPROXIMATELY 2 FEET INSIDE THE PROPERTY LINE.
7 THE CONSTRUCTION OF CUT OFF WALLS SHALL BE PER SDRSD NO. SP-07 ON ALL SEGMENTS HAVING A SLOPE OF 20% TO 35%. CONSTRUCTION OF SLOPE PROTECTION WALLS SHALL BE PER SP-05
8 ALL SEWER MAINS AND LATERALS SHALL BE CONSTRUCTED WITH 48 INCHES MINIMUM COVER, PROVIDED THAT THE INVERT OF THE SEWER LATERAL AT THE PROPERTY LINE IS ABOVE THE INVERT OF THE SEWER MAIN.
9 THE FINAL LOCATION AND ELEVATION OF SEWER MAIN AND SEWER LATERALS SHALL BE SHOWN ON ORIGINAL PLANS. PRIOR TO ACCEPTANCE FOR PUBLIC USE
10 ALL DESIGN CHANGES OF SEWER MAINS SHALL BE APPROVED BY THE DISTRICT ENGINEER IN WRITING, PRIOR TO ACCEPTANCE OF WORK
11 FILL AREAS MUST BE COMPACTED TO 90% PRIOR TO PIPE INSTALLATION
12 THE CONTRACTOR SHALL NOTIFY THE PRIVATE DEVELOPMENT CONSTRUCTION INSPECTION SECTION OF SAN DIEGO COUNTY SANITATION DISTRICT (P/CS) 48 HOURS IN ADVANCE OF BEGINNING WORK TO ARRANGE FOR INSPECTION OF THE PROJECT
13. THE CONTRACTOR SHALL PURCHASE A PERMIT FROM THE COUNTY DEPARTMENT OF PUBLIC WORKS FOR ANY EXCAVATION WITHIN EXISTING COUNTY RIGHTS-OF-WAY
14 CONTRACT RECORD DRAWINGS MUST BE SUBMITTED PRIOR TO FINAL ACCEPTANCE OF THE WORK. THEY MUST REFLECT POST CONSTRUCTION VERIFICATION OF PIPE LENGTHS AND INVERT ELEVATIONS
15 THE CONTRACTOR SHALL GUARANTEE ALL WORK FOR A PERIOD OF 1 YEAR AFTER THE DATE OF ACCEPTANCE OF THE WORK BY THE OWNER AND SHALL REPAIR OR REPLACE ANY OR ALL SUCH WORK TOGETHER WITH ANY OTHER WORK THAT MAY BE DISPLACED IN DOING THAT MAY PROVE DEFECTIVE IN WORKMANSHIP AND/OR MATERIALS WITHIN THE 1-YEAR PERIOD FROM DATE OF ACCEPTANCE WITHOUT EXPENSE WHATSOEVER TO THE OWNER ORDINARY WEAR AND TEAR, UNUSUAL ABUSE OR NEGLECT EXCEPTED
16 THE CONTRACTOR SHALL FURNISH AND INSTALL PER SPECIFICATIONS, THE APPROPRIATE BURIED UTILITY WARNING AND IDENTIFICATION TAPE ABOVE ALL PUBLIC SEWER LINES, INCLUDING SEWER LATERALS, LOCATED IN THE PUBLIC RIGHT-OF-WAY
17 THE CONTRACTOR MUST CALL "DIG-ALERT" OF SOUTHERN CALIFORNIA TO HAVE UNDERGROUND SERVICES MARKED LOCATED PRIOR TO CONSTRUCTION. THE CALL WILL BE MADE AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION 1-800-422-4133
18 AT ALL MAINTENANCE HOLES, THE MINIMUM FALL ACROSS MANHOLE SHALL BE 0.1 FEET. AT ANGLES LARGER THAN 45 DEGREES ALLOW 0.2 FEET FALL.

SEWER NOTES (CONTINUED)

19 JOINT BEVELAND EXTERIOR WATER PROOFING (WHERE SPECIFIED)
POLYMER MORTAR SHALL BE USED TO JOIN PRE-CAST COMPONENTS OR ON ALL MAINTENANCE HOLES TO CREATE WATERTIGHT JOINTS TO REPAIR MPA TRATION THE MORTAR SHALL BE MIXED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, AND SHALL NOT EXCEED FIVE PARTS SAND TO ONE PART POLYMER. ACCEPTABLE JOINT SEALANT PRODUCTS SHALL BE SIKADUR 31 AND 32 HI-MOD GEL MANUFACTURED BY SIKA CORPORATION, 450 EPOXY PUTTY AND 488 UNDERWATER EPOXY PUTTY MANUFACTURED BY EMBARD CONTINGS, AND CS 102 BUTYL GASKETS (NOPE FORM) MANUFACTURED BY CONCRETE SEALANTS OR APPROVED EQUAL

THE CONCRETE OR OTHER SURFACES THAT ARE TO ADHERE TO POLYMER MORTAR SHALL BE FREE FROM DUST, LOOSE AGGREGATES, OIL, GREASE OR OTHER CONTAMINANTS

ON ALL MAINTENANCE HOLES, CONTRACTOR SHALL APPLY WATERPROOFING AGENT CONSISTING OF A DAMP PROOF AND WATERPROOF COATING ON ALL EXTERIOR SURFACES. THE COATING SHALL BE COAT MASTERS CMTROF, OR APPROVED EQUAL. THE COATING SHALL BE APPLIED IN NO LESS THAN TWO COATS TO ACHIEVE A TOTAL DRY THICKNESS OF 25 MILS MINIMUM. THE FITTINGS COATINGS SHALL BE APPLIED PRIOR TO DELIVERY TO THE JOBSITE. IN ADDITION, A BITUMASTIC BAND 6 INCHES WIDE SHALL BE APPLIED AT ALL JOINTS ON EXTERIOR OF SUCH MANHOLES THAT SHALL BE WATERPROOFED. FULL COMPENSATION FOR THE WATERPROOFING OF MANHOLES SHALL BE AWARDED.

WHEN COMPLETED, ALL MAINTENANCE HOLES SHALL BE WATERTIGHT WITH ZERO INFILTRATION OF GROUNDWATER.

20 EPOXY LINING COATING (ORIGINAL SPECIFIED)
SM-01 OR SM-02 CONSTRUCTED MAINTENANCE HOLES AS IDENTIFIED ON EACH PROPOSED SEWER MAIN PROFILE THE ENTIRE INTERIOR OF THE SEWER MAINTENANCE HOLE INCLUDING THE MAINTENANCE HOLE BOTTOM SHALL BE LINED WITH EPOXY. THE EPOXY PRODUCT SHALL BE RAVEN 405 MANUFACTURED BY RAVEN LINING SYSTEMS OR APPROVED EQUAL

THE PRIMER MATERIAL SHALL BE 100% SOLIDS, MOISTURE TOLERANT EPOXY CAPABLE OF SPRAY APPLICATION TO 5 MILS THICKNESS IN ONE CONTINUOUS COAT

THE LINING MATERIAL SHALL BE 100% SOLID, HIGH BUILD EPOXY CAPABLE OF SPRAY APPLICATION TO 125 MILS THICKNESS IN ONE CONTINUOUS COAT. THE MATERIAL SHALL MEET THE REQUIREMENT OF THE SSPWC SECTION 210-2.3.3, "CHEMICAL RESISTANCE TEST", AND THE SSPWC SECTION 500-2.4.10, "APPLICABLE STANDARDS"

ONLY WORKERS TRAINED BY AND QUALIFIED AS INSTALLERS BY THE MANUFACTURER, SHALL BE USED ON THIS WORK. CONTRACTOR SHALL PROVIDE MANUFACTURER'S CERTIFICATIONS

THE EPOXY LINING SHALL BE CONTINUOUS WITHOUT SEAMS, UNIFORM IN COLOR, FULLY CURED AND FREE OF PINHOLES, SURFACE IMPERFECTIONS, AND BLISTERS. THE LINING MUST COMPLETELY BOND TO THE CONCRETE. THE COLOR SHALL BE LIGHT BLUE.

TESTING OF MAINTENANCE HOLE
THE CURED EPOXY LINING SHALL BE SPARK TESTED FOR PINHOLES AT 15,000 VOLTS MINIMUM. ALL PINHOLES SHALL BE REPAIRED AS SPECIFIED IN SECTION 306-2.4.9 "REPAIR METHODS" OF THE SSPWC (GREENBOOK)

21 LOCKING MAINTENANCE HOLE COVERS WHERE OCCUR PER PLAN SHALL BE A NON-LOCKING DEVICE MAINTENANCE HOLE FRAME & COVER

22 PROPOSED PRIVATE SEWER COLLECTION FACILITIES AND LATERALS SHALL BE REVIEWED, PERMITTED AND INSPECTED BY THE PLANNING & DEVELOPMENT SERVICES (PDS) BUILDING PERMIT DIVISION. PDS BUILDING PERMIT NO. _____

SEWER FORCE MAIN NOTES

1. SEWER FORCE MAINS AND APPURTENANCES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THESE PLANS AND THE SAN DIEGO COUNTY SANITATION DISTRICT STANDARDS.
2. SAN DIEGO COUNTY SANITATION DISTRICT INSPECTION SHALL RECEIVE THE CONSTRUCTION SCHEDULE AT LEAST FIVE (5) WORKING DAYS IN ADVANCE OF THE START OF CONSTRUCTION. DONE WITHOUT BENEFIT OF INSPECTION SHALL BE SUBJECT TO REMOVAL AT THE CONTRACTOR'S EXPENSE. THE TELEPHONE NUMBER OF SAN DIEGO COUNTY SANITATION DISTRICT INSPECTION IS (858) 694-2647.
3. THE TOP OF SEWER FORCE MAINS 12-INCHES IN DIAMETER AND SMALLER MUST BE 3 FEET BELOW INTERIM FINISHED GRADE.
4. A MINIMUM OF 24-INCHES OF PERMANENT BACKFILL SHALL BE INSTALLED OVER THE SEWER FORCE MAIN PRIOR TO ANY TESTING. TESTING OF VALVES AND APPURTENANCES PER GREENBOOK "2015" SECTION 306-6.6.3.
5. ALL DEFLECTIONS (HORIZONTAL AND VERTICAL) SHALL BE MADE BY USE OF MECHANICAL JOINT COUPLINGS WITH 4 DEGREES MAXIMUM DEFLECTION PER COUPLING (2 DEGREES PER JOINT). NO BENDING (CURVING) OF PIPE SHALL BE PERMITTED. CCTV OF FORCEMAIN IS REQUIRED.
6. SEWER FORCE MAIN SHALL BE HYDROSTATIC PRESSURE TESTED PER GREENBOOK "2015" SECTION 306-6.9.2.
7. ALL DUCTILE IRON FITTINGS NEED TO BE COATED BY MANUFACTURE WITH CERAMIC EPOXY INTERIOR LININGS AS DESCRIBED IN GREENBOOK 2015 STANDARDS SECTION 208.1.1.2-MATERIALS AND SECTION 212. ALL FITTINGS REQUIRE STAINLESS STEEL HARDWARE AS PER SECTION 212. POLYETHYLENE ENCASEMENT IS REQUIRED PER 208-1.1.2 AND 212-12.1.1.

SAN DIEGO COUNTY SANITATION DISTRICT CONSTRUCTION NOTES

1. MODIFY EXISTING MANHOLE:
   A. MODIFICATION OF EXISTING MANHOLES SHALL CONFORM TO SSPWC SECTION 306-2 MANHOLE AND STRUCTURE REHABILITATION. THE INTERIOR SURFACES OF EXISTING MANHOLES THAT ARE NOT PVC LINED SHALL BE LINED WITH EPOXY. THE EPOXY PRODUCT SHALL BE RAVEN 405 MANUFACTURED BY RAVEN LINING SYSTEMS AND INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. COATING SHALL COVER ALL EXPOSED CONCRETE SURFACES, INCLUDING BASE, CHANNEL, AND SHELF. ANY MODIFICATIONS TO EXISTING CONCRETE BASES SHALL REQUIRE THAT THE BASE AND CHANNEL BE RE-COATED WITH RAVEN 405 EXISTING COATING.
   B. THE PRIMER MATERIAL SHALL BE 100% SOLID, MOISTURE TOLERANT EPOXY CAPABLE OF SPRAY APPLICATION TO 5 MILS THICKNESS IN ONE CONTINUOUS COAT.
   C. THE LINING MATERIAL SHALL BE 100% SOLID, HIGH BUILD EPOXY CAPABLE OF SPRAY APPLICATION TO 125 MILS THICKNESS IN ONE CONTINUOUS COAT. THE MATERIAL SHALL MEET THE REQUIREMENT OF THE SSPWC SECTION 210-2.3.3, "CHEMICAL RESISTANCE TEST" AND THE SSPWC SECTION 500-2.4.10.
   D. ONLY WORKERS TRAINED BY, AND QUALIFIED AS INSTALLERS BY MANUFACTURER, SHALL BE USED IN THIS WORK. CONTRACTOR SHALL PROVIDE MANUFACTURER CERTIFICATIONS.
   E. THE EPOXY LINING SHALL BE CONTINUOUS WITHOUT SEAMS, UNIFORM IN COLOR, FULLY CURED, AND FREE OF PINHOLES, SURFACE IMPERFECTIONS, AND BLISTERS. THE LINING MUST COMPLETELY BOND TO THE CONCRETE. THE COLOR SHALL BE LIGHT BLUE.
   F. THE CONTRACTOR SHALL INSPECT ALL SURFACES TO BE COATED. ALL CONCRETE THAT IS NOT SOUND OR IS DAMAGED SHALL BE REPAIRED. ALL VOIDS IN WALLS GREATER THAN 1/8 INCH DEEP AND ALL EXPOSED AGGREGATE SHALL BE MORTAR COATED TO FORM A SMOOTH SURFACE. THE MORTAR LINER SHALL BE HIGH EARLY STRENGTH, HIGH BUILD, PORTLAND CEMENT BASED NON-SHRINK MORTAR THAT CAN BE TROWELED OR SPRAYED. MATERIAL SHALL BE DELIVERED IN FACTORY PREPARED PACKAGING SUITABLE FOR MIXING WITH JUST THE ADDITION OF CLEAN WATER. NO ADDITIVE SHALL BE ADDED. THE MATERIAL THICKNESS SHALL BE PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL SUBMIT THE MANUFACTURER'S PRODUCT DATA SHOWING THE PRODUCT IS SUITABLE FOR THE REPAIR AND MEET THE STRENGTH REQUIREMENTS AND METHOD OF PREPARATION FOR APPROVAL.
   G. AREAS WHERE STRUCTURAL STEEL HAS BEEN EXPOSED OR REMOVED SHALL BE REPAIRED OR REPLACED WITH NEW REBAR TO MATCH EXISTING. ALL NEW REBAR WILL BE EMBEDDED IN 1-1/2 INCH OF EPOXY MASTIC.
   H. THE REPAIR MATERIALS SHALL BE FULLY CURED PRIOR MANUFACTURERS RECOMMENDATIONS AND BE INSPECTED BY THE ENGINEER PRIOR TO APPLYING THE PRIMER AND EPOXY LINING.
   I. THE CURED EPOXY LINING SHALL BE SPARK TESTED FOR PINHOLES AT 15,000 VOLTS MINIMUM. ALL PINHOLES SHALL BE REPAIRED AS SPECIFIED IN SECTION 306-2.4.9, "REPAIR METHODS" OF THE "GREENBOOK" STANDARD.
2. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL AND STATE REGULATIONS FOR CONFINED SPACE ENTRY. WHEN INSIDE CONFINED SPACES, AS DEFINED BY THE APPLICABLE REGULATIONS, SHALL NOT BE UNDERTAKEN UNTIL ALL TESTS AND SAFETY PROVISIONS OF THE CODE OF FEDERAL REGULATIONS 1910.146 AND THE GENERAL INDUSTRY SAFETY ORDERS OF THE CALIFORNIA CODE OF REGULATIONS, TITLE 8, SECTION 5158, FOR CONFINED SPACE ENTRY HAVE BEEN PERFORMED AND THE AREA IS VERIFIED AS SAFE TO ENTER. DISTRICT POLICY PROHIBITS ENTRY INTO ANY CONFINED SPACE WITH BARGINALLY DANGEROUS TO LIFE AND HEALTH (IDLH) CONDITIONS, EXCEPT BY TRAINED EMERGENCY RESCUE PERSONNEL.
3. IN ORDER TO PREVENT ACCIDENTAL USE OF THE NEW SEWER BEFORE COMPLETION AND ACCEPTANCE, THE NEW INLET TO EXISTING MH (MANHOLE(S)) AND THE OUTLET OF THE FIRST NEW UPSTREAM MANHOLE(S) SHALL BE SEALED WITH EXPANDABLE PLUGS. PLUGS SHALL BE REMOVED AT THE TIME OF FINAL INSPECTION OR AS DIRECTED BY THE DISTRICT'S REPRESENTATIVE. DEPARTMENT OF PUBLIC WORKS INSPECTOR REMOVAL OF ALL CONSTRUCTION DEBRIS AND WATER SHALL BE COMPLETED PRIOR TO REMOVAL OF PLUGS.
4. NEW CONNECTIONS TO EXISTING MANHOLES, WHERE STUBS HAVE NOT BEEN PROVIDED, SHALL BE MADE BY CORE DRILLING THROUGH THE WALLS OR BASE AS DIRECTED BY THE DISTRICT ENGINEER. FLEXIBLE SEALS SELECTED FROM THE MAJOR AGENCY STANDARDS (MAS) APPROVED MATERIALS LIST AND INSTALLED IN ACCORDANCE WITH THE STANDARD DRAWINGS SHALL BE USED FOR PIPE PENETRATION. APPLY A PROTECTIVE EPOXY COATING TO THE CORED CONCRETE AND THE ENDS OF ANY REINFORCING STEEL EXPOSED IN ACCORDANCE WITH SECTION 63000 OF THE MAS SPECIFICATIONS.
5. THE WORK BOTTOMS OF THE MANHOLE(S) SHALL BE SHAPED TO PROVIDE CHANNELS CONFORMING TO THE SIZE AND SHAPE OF THE LOWER PORTION OF THE INLET AND OUTLET PIPES. WHERE THE INLET AND OUTLET PIPES ARE DIFFERENT SIZES, THE CHANNELS SHALL VARY UNIFORMLY IN SIZE AND SHAPE FROM INLET TO OUTLET. SHELVES SHALL SLOPE TO DRAIN INTO THE CHANNEL.
6. THE CHANNEL(S) SHALL BE SMOOTH, UNIFORM AND TRUE TO LINE AND GRADE. THE CHANNEL WIDTH SHALL NOT EXCEED THE WIDTH OF THE LARGEST PIPE IN THE MANHOLE. THE SIDE OF WALLS OF THE CHANNEL SHALL BE VERTICAL FROM SPRING LINE TO THE EDGE OF SHELVES. ALL CHIPPED OR CHISELED SURFACES AND SPONGING SHALL BE PACKED AND FINISHED WITH NON-SHRINK EPOXY MORTAR, SIKADUR 43, MANUFACTURED BY SIKA CORPORATION OR APPROVED EQUAL.
7. THE MINIMUM HEIGHT OF THE SHELVES SHALL BE EVEN WITH THE TOP OF THE PIPE.

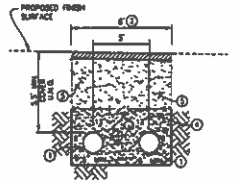
SPECIFIC SAN DIEGO COUNTY SANITATION DISTRICT CONSTRUCTION NOTES

1. CONTRACTOR SHALL FURNISH A FLOW CONTAINMENT/CONTROL PLAN (CONNECTION POINTS OF EXISTING PIPE TO NEW PIPE) TO THE SAN DIEGO COUNTY SANITATION DISTRICT FOR REVIEW AND APPROVAL. CONTACT DAVID WILLIAMS AT (858) 694-2678.
2. STANDBY IS REQUIRED BY THE SAN DIEGO COUNTY SANITATION DISTRICT OFFICE. CONTACT THE DISTRICT FIELD OFFICE FIVE (5) DAYS IN ADVANCE, TUESDAY - FRIDAY, AT (858) 694-2647.
3. THE DEVELOPER IS RESPONSIBLE FOR ANY AND ALL SEWER SPILLS THAT MAY OCCUR AS A RESULT OF THE SEWER MAIN INSTALLATION AND/OR STATION PUMPING, AND IS RESPONSIBLE FOR ANY FINES IMPOSED BY THE REGULATORY AGENCIES THAT OCCUR AS A RESULT OF THE SEWER SPILLS.

COMMERCIAL PRIVATE SEWER LATERAL CONSTRUCTION NOTES

1. THE APPLICANT/OWNER PROPOSING TO CONNECT TO SAN DIEGO COUNTY SANITATION DISTRICT (DISTRICT) SEWER SYSTEM SHALL OBTAIN A RESIDENTIAL INSPECTION REQUEST FROM THE DEPARTMENT OF PUBLIC WORKS. THE APPLICANT/OWNER SHALL MAKE A WRITTEN APPLICATION TO WASTEWATER MANAGEMENT THROUGH DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES (DPDS), BUILDING PERMIT COUNTER. FOR INFORMATION, CONTACT THE DPW/DPDS INTAKE COUNTER AT 858-495-5717.

   THE CONNECTION (SADDLE ONLY) TO THE DISTRICT SEWER SHALL BE INSTALLED BY DISTRICT PERSONNEL ONLY. FOR FIELD COORDINATION, PHONE THE DISTRICT FIELD OFFICE (5) DAYS IN ADVANCE (TUESDAY-FRIDAY) AT 619-466-7110. ALL COST ASSOCIATED WITH PERMITS AND CONSTRUCTION OF THE SEWER LATERAL SHALL BE BORNE BY THE PROPERTY OWNER.
2. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE TO EACH PROPERTY SUBJECT OF INTERRUPTION OF SERVICE.
3. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THAT NO PRIVATE RESIDENCES ARE SUBJECT TO A SEWAGE BACKUP OR SPILL DURING SEWER LATERAL CONNECTION.
4. THE CONTRACTOR SHALL BE LIABLE FOR ALL CLEANUP, DAMAGES, AND RESULTANT FINES IN THE EVENT OF A SEWAGE SPILL.
5. ALL SEWER LATERAL RELATED WORK SHALL CONFORM TO SAN DIEGO REGIONAL STANDARD DRAWINGS SP-01, SS-01 OR SS-02, SS-03, SS-04 AND SC-01 (TYPE B).
6. THE ONSITE PRIVATE SEWER LATERAL AND CLEANOUT AT THE PROPERTY LINE IS TO BE APPROVED, PERMITTED, AND INSPECTED BY THE DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES BUILDING DIVISION. THE CLEANOUT SHALL BE INSTALLED APPROXIMATELY 2 FEET INSIDE THE PROPERTY LINE.
7. EACH LOT WILL BE SERVED BY A FOUR (4) INCH DIAMETER MINIMUM SIZE PVC SEWER LATERAL. LOCATION OF SEWER LATERAL SHALL BE AS SHOWN ON THESE PLANS. "AS CONSTRUCTED" LOCATIONS WITH STATIONS SHALL BE SHOWN ON THESE PLANS BY ENGINEER OF WORK PRIOR TO NOTICE OF COMPLETION BY THE DISTRICT.
8. THE LETTER "S" SHALL BE STAMPED IN THE CURB AT ALL SEWER LATERAL LOCATIONS. THE LETTER "S" SHALL BE STAMPED IN THE GUTTER WHERE THERE IS NO TYPE "G" CURB.

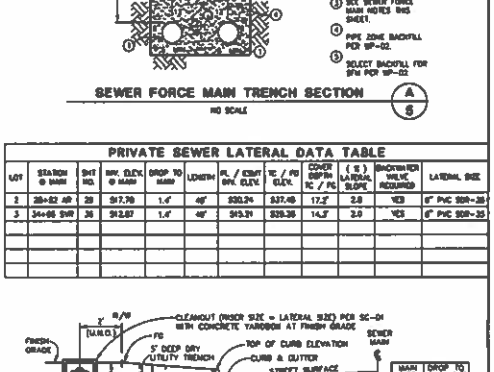


NOTES:
1. 6" PVC C900 DR-14 SEWER FORCE MAIN PIPE.
2. TRENCH WIDTH PER SDSD SP-02.
3. SCE SEWER FORCE MAIN NOTES SHEET.
4. PIPE ZONE BACKFILL PER SP-02.
5. SELECT BACKFILL FOR 3/4 PER SP-02.

SEWER FORCE MAIN TRENCH SECTION (A/S)
NO SCALE

PRIVATE SEWER LATERAL DATA TABLE

LOT	STATION @ MAIN	SHT NO.	INV. ELEV. @ MAIN	DROP TO MAIN	LENGTH	FL / ESMT INV. ELEV.	TC / FG ELEV.	COVER DEPTH TC / FG	(S) LATERAL SLOPE	SHOCKWATER VALVE REQUIRED	LATERAL SIZE
2	28+52 AB	28	517.70	1.4'	40'	530.24	537.48	17.3'	2.0	YES	6" PVC SDR-35
3	34+66 SWR	36	512.07	1.4'	40'	513.21	528.36	14.3'	2.0	YES	6" PVC SDR-35



MAIN SIZE	DROP TO MAIN (X')
6"	1.2'
10"	1.3'
12"	1.4'

FOR OTHER DETAILS SEE SDRSD SS-01, SS-02, SS-03 AND SS-04

PRIVATE SEWER LATERAL DETAIL (B/S)
NO SCALE

AIR QUALITY NOTES

A. ALL HAUL/DUMP TRUCKS ENTERING OR LEAVING THE SITE WITH SOIL FOR FILL MATERIAL MUST MAINTAIN AT LEAST 2 FEET OF FREEBOARD OR COVER LOADS OF ALL HAUL/DUMP TRUCKS SECURELY (UNMARKED DESIGN BEARING).

B. DUST CONTROL MEASURES OF THE GRADING ORDINANCE SHALL BE ENHANCED WITH A MINIMUM OF THREE (3) DAILY APPLICATIONS OF WATER TO THE CONSTRUCTION AREAS, BETWEEN HOUSE/SCRAPER PASSES AND ON ANY UNPAVED ROADS WITHIN THE PROJECT LIMITS.

C. GRADING IS TO BE TERMINATED IN WINDS EXCEEDING 25 MPH.

D. SWEEPERS AND WATER TRUCKS SHALL BE USED TO CONTROL DUST AND DEBRIS AT PUBLIC STREET ACCESS POINTS.

E. DIRT STORAGE PILES SHALL BE STABILIZED BY CHEMICAL BINDERS, TARPS, FENCING OR OTHER SUPPRESSION MEASURES.

F. INTERNAL CONSTRUCTION-ROADWAYS SHALL BE STABILIZED BY PAVING, CHIP SEALING OR CHEMICALS AFTER ROUGH GRADING.

STREET LIGHT NOTES

CONSTRUCT A LIGHT SYSTEM CONFORMING TO SAN DIEGO COUNTY STANDARDS AT NO COST TO THE PUBLIC SUBJECT TO THE FOLLOWING:

1. CUT OFF LUMINAIRES SHALL BE INSTALLED SUCH THAT PROVIDE THE 90 DEGREES CUTOFF AND PREVENT PROJECTION OF LIGHT ABOVE THE HORIZONTAL FROM THE LOWEST POINT OF THE LAMP OR LIGHT EMITTING REFRACTOR OR DEVICE.
2. ALL FIXTURES SHALL USE A CLEAR, LIGHT EMITTING DIODE (LED) LIGHT SOURCE.
3. NO MERCURY VAPOR, QUARTZ METAL HALIDE LAMPS SHALL BE INSTALLED.

BMP STENCIL PLACEMENT NOTES

TO DISCOURAGE ILLEGAL DUMPING, ALL CATCH BASINS AND CURB INLETS WILL REQUIRE IMPRINTING BY A CONCRETE STAMP STATING "NO DUMPING I LIVE DOWNSTREAM". THEREFORE, ANY BASIN INLETS AND CATCH BASINS INSTALLED FOR COUNTY OF SAN DIEGO AREA REGIONAL STANDARD DRAWINGS D-1, D-2, D-3, D-4, D-7, D-8 AND D-20 SHALL BE IMPRINTED. THE STAMP SHALL BE IMPRINTED ON THE INLET ROOF OR IN THE SIDEWALL BEHIND THE INLET OR NEXT TO THE INLET GRATE. EXTRA CONCRETE MAY BE REQUIRED NEXT TO THE GRATE TO COVER THE 31" BY 8.5" STAMP DIMENSIONS.

SIGNS AND PROHIBITIVE LANGUAGE AND/OR GRAPHICAL ICONS, WHICH PROHIBIT ILLEGAL DUMPING, MUST BE POSTED AT PUBLIC ACCESS POINTS ALONG CHANNELS AND CREEKS WITHIN THE PROJECT AREA.

LEGIBILITY OF STENCILS, TILES AND SIGNS MUST BE MAINTAINED AND THEY MUST BE PLACED FLUSH WITH THE TOP OF CONCRETE TO REDUCE TRIPPING BY PEDESTRIANS.

DETECTABLE WARNING SURFACE AT CURB RAMPS

1. CURB RAMPS SHALL BE FITTED WITH A DETECTABLE WARNING SURFACE IN CONFORMANCE WITH SAN DIEGO COUNTY STANDARD DRAWINGS DS-29E, DS-29F AND THESE SPECIAL PROVISIONS.
2. DETECTABLE WARNING SURFACE SHALL HAVE THREE FEET BY FOUR FEET (3' x 4') CAST IN PLACE PREFABRICATED DETECTABLE WARNING SURFACE COMPOSED OF VITRIFIED POLYMER INCLUDING MINIMUM DIRT, SOUND AMPLIFYING AND SHALL BE "ARMOR-TILE CAST-IN-PLACE TACTILE PANELS" OR APPROVED EQUAL.
3. THE CONTRACTOR SHALL SUBMIT PRODUCT INFORMATION, INSTALLATION INSTRUCTIONS AND TWO (2) TILE SAMPLES, MINIMUM SIZE 6" X 6" EACH, DETECTABLE WARNING SURFACE SHALL BE DARK GRAY CONTRASTING IN COLOR FROM THE WHITE CONCRETE CURB RAMP. THE CONTRAST SHOULD BE AT LEAST 70%. THE CONTRAST PERCENT IS DETERMINED BY:

   CONTRAST = (B1-B2)/B1 X 100

   WHERE B1 = LIGHT REFLECTANCE VALUE (LRV) OF THE WHITER AREA

   B2 = LIGHT REFLECTANCE VALUE (LRV) OF THE DARKER AREA

   NOTE THAT IN ANY APPLICATION BOTH WHITE AND BLACK ARE NEVER ABSOLUTE, THUS BY NEVER EQUALS 100 AND B2 IS ALWAYS GREATER THAN ZERO.
4. DETECTABLE WARNING SURFACE SHALL BE APPROVED IN WRITING BY THE COUNTY ENGINEER PRIOR TO ORDERING.
5. A CERTIFICATE OF COMPLIANCE SHALL BE FURNISHED AS SPECIFIED IN SECTION 6-1.07, "CERTIFICATES OF COMPLIANCE," OF THE STANDARD SPECIFICATIONS OF DETECTABLE WARNING SURFACE. SAID CERTIFICATE SHALL CERTIFY THAT THE DETECTABLE WARNING SURFACE CONFORM TO THE AMERICANS WITH DISABILITY ACT ACCESSIBILITY GUIDELINES (ADAAG) AND REQUIREMENTS. CERTIFICATE OF COMPLIANCE SHALL INCLUDE A FIVE (5) YEAR WRITTEN MANUFACTURER'S WARRANTY.

CONTRACTOR'S NOTES

1. THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND THE DESIGN ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE DESIGN ENGINEER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL SLOPES, STREETS, UTILITIES, AND STORM DRAINS ARE BUILT IN ACCORDANCE WITH THESE PLANS. IF THERE IS ANY QUESTION REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING THE ENGINEER OF WORK AT (858) 694-5660. THE CONTRACTOR SHALL ALSO TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM HIS OPERATIONS BY APPROPRIATE MEANS (SAND BAGS, HAY BALES, TEMPORARY DESILTING BASINS, DIKES, SHORING, ETC.) UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY SUBSEQUENT OWNER, AGENCY OR ASSOCIATION WHICH IS TO BE ULTIMATELY RESPONSIBLE FOR THE MAINTENANCE.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL STRUCTURES TO REMAIN AS SHOWN ON THESE PLANS BEFORE COMMENCING WORK AND PROTECT THEM FROM DAMAGE. THE EXPENSE OF REPAIR OR REPLACEMENT OF SAID STRUCTURES SHALL BE BORNE BY THE CONTRACTOR.
4. IF ANY UNFORESEEN SUBSURFACE STRUCTURES ARE ENCOUNTERED DURING CONSTRUCTION, THEY SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE SOILS ENGINEER AND THE COUNTY INSPECTOR BEFORE PROCEEDING FURTHER.
5. CONTRACTOR SHALL GRADE TO CONFORM TO NEW GRADES AND CONTOURS AS SHOWN, REGARDLESS OF INTERIM CONDITIONS AT SITE. ANY ADDITIONAL WORK RESULTING FROM EXISTING SITE CONDITIONS WHICH MAY VARY FROM THESE PLANS SHALL BE CONSIDERED PART OF THE CONTRACT. DUST SHALL BE CONTROLLED BY WATERING OF OTHER APPROVED METHOD THROUGHOUT THE GRADING AND BUILDING CONSTRUCTION OPERATIONS.
6. ANY TRENCH EXCAVATIONS OVER FIVE (5) FEET SHALL REQUIRE A TRENCH EXCAVATION PERMIT ISSUED BY THE STATE OF CALIFORNIA (CAL OSHA).
7. ALL ELEVATIONS SHOWN ARE FINISH GRADE ELEVATIONS, UNLESS OTHERWISE SHOWN.
8. ALL RETAINING WALLS SHALL HAVE A PERMIT FROM THE BUILDING DEPARTMENT PER THE UNIFORM BUILDING CODE.
9. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF WORK AND THE COUNTY ENGINEER PRIOR TO PERFORMING ROCK REMOVAL OPERATIONS.
10. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE.

GRADING NOTES

ALL GRADING AND DRAINAGE IMPROVEMENTS SHALL BE COMPLETED IN ACCORDANCE WITH THE COUNTY GRADING ORDINANCE, THE CURRENT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION WITH SAN DIEGO SUPPLEMENTS, THE SAN DIEGO AREA REGIONAL STANDARD DRAWINGS, ANY SPECIAL REQUIREMENTS OF THE PERMIT, AND ANY EARTHWORK SPECIFICATIONS AS OUTLINED IN THE PROJECT'S GEOTECHNICAL INVESTIGATION.

1. NO GRADING SHALL BE PERFORMED UNTIL A VALID GRADING PERMIT HAS BEEN ISSUED BY THE COUNTY. A PRE-GRADING MEETING AT THE SITE IS REQUIRED BEFORE START OF GRADING WITH THE FOLLOWING PEOPLE PRESENT: OWNER, GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, SOILS ENGINEER, COUNTY GRADING INSPECTORS, OR THEIR REPRESENTATIVES.
   a. INITIAL INSPECTION: WHEN THE PERMITTEE IS READY TO BEGIN WORK, BUT NOT LESS THAN TWO DAYS BEFORE ANY GRADING OR BRUSHING IS STARTED.
   b. TOE INSPECTION: AFTER NATURAL GROUND OR BEDROCK IS EXPOSED AND PREPARED TO RECEIVE FILL, BUT BEFORE FILL IS PLACED.
   c. EXCAVATION INSPECTION: AFTER THE EXCAVATION IS STARTED, BUT BEFORE THE VERTICAL DEPTH OF THE EXCAVATION EXCEEDS 10 FEET.
   d. FILL INSPECTION: AFTER THE FILL PLACEMENT IS STARTED, BUT BEFORE THE VERTICAL HEIGHT OF THE FILL EXCEEDS 10 FEET.
   e. DRAINAGE DEVICE INSPECTION: AFTER FORMING OF TERRACE DRAINS, DOWNDRAINS OR PLACEMENT OF PIPE IN SUBDRAINS, BUT BEFORE ANY CONCRETE OR FILTER MATERIAL IS PLACED.
   f. ROUGH GRADING: WHEN ALL ROUGH GRADING HAS BEEN COMPLETED. THIS INSPECTION MAY BE CALLED FOR AT THE COMPLETION OF ROUGH GRADING WITHOUT THE NECESSITY OF THE COUNTY ENGINEER HAVING PREVIOUSLY REVIEWED AND APPROVED THE REPORTS.
   g. FINAL: WHEN ALL WORK, INCLUDING INSTALLATION OF ALL DRAINAGE STRUCTURES AND OTHER PROTECTIVE DEVICES HAS BEEN COMPLETED AND THE AS-GRADED PLAN, PROFESSIONAL APPROVALS, AND THE REQUIRED REPORTS HAVE BEEN SUBMITTED.
2. DAILY INSPECTION, TESTING REPORTS SHALL BE PREPARED BY THE SOILS ENGINEER AND/OR ENGINEERING GEOLOGIST. THE REPORTS SHALL BE IMMEDIATELY AVAILABLE TO THE COUNTY INSPECTOR ON REQUEST.
3. THE COUNTY ENGINEER MAY REQUIRE A SECOND SOILS ENGINEER TO VERIFY TESTS PREPARED BY THE PROJECT SOILS ENGINEER WHERE GOOD CAUSE EXISTS.
4. A REPRESENTATIVE FOR THE COUNTY ENGINEER MAY ISSUE A STOP WORK NOTICE IF ANY VIOLATION OF THE GRADING ORDINANCE IS NOTED. CONTINUATION OF GRADING WORK AFTER SUCH A NOTICE HAS BEEN ISSUED IS A VIOLATION OF THE GRADING ORDINANCE.
5. ALL GRADING IS TO BE PERFORMED ONLY WITHIN THE AREAS SHOWN ON THE APPROVED GRADING PLAN. GRADING OUTSIDE OF THOSE AREAS OR TO GRADES NOT SHOWN ON THE APPROVED GRADING PLAN IS A VIOLATION OF THE GRADING ORDINANCE.
6. TOPSOIL TO BE REMOVED AND STOCKPILED PRIOR TO GRADING. STOCKPILED TOPSOIL CAN THEN BE PLACED ON THE COMPACTED AREAS. IF REMOVED TOPSOIL IS DISCARDED FROM THE SITE, IMPORT NEW TOPSOIL TO BE PLACED ON THE COMPACTED AREAS.

POLYPROPYLENE STORM DRAIN PIPE (PPSDI NOTES

1. PIPE WILL BE BACKFILLED WITH CRUSHED ROCK IN ACCORDANCE WITH SAN DIEGO REGIONAL STANDARD DRAWING SP-02. FOR PIPE DIAMETERS 36 INCH AND GREATER DISTANCE BETWEEN PIPE OD AND TRENCH WALL SHALL BE 12 INCH MINIMUM.
2. THE BOUNDARY OF THE TRENCH WILL BE BACKFILLED WITH THE SPECIFIED BACKFILL COMPACTED TO 90 PERCENT RELATIVE COMPACTION PER CALIFORNIA TEST METHOD 216 AS MODIFIED BY THE COUNTY OF SAN DIEGO OR ASTM D1557 (LATEST EDITION) EXCEPT FOR THE PORTION IN THE PAVEMENT SUBGRADE WHICH SHALL BE COMPACTED TO 95 PERCENT RELATIVE COMPACTION.
3. PPSD PIPE WITH LESS THAN 2 FEET OF COVER TO BOTTOM OF FLEXIBLE PAVEMENT UNDER HIGHWAY LOADING SHALL BE ENCASED IN PORTLAND CEMENT CONCRETE (PCC) IN ACCORDANCE WITH REGIONAL STANDARD DRAWING SP-03. THE PORTION ABOVE THE ENCASEMENT SHALL BE BACKFILLED AND COMPACTED IN ACCORDANCE WITH THE ABOVE PARAGRAPH.
4. MAXIMUM PPSD PIPE COVER SHALL NOT EXCEED 25 FEET FOR 12 INCH DIAMETER TO 30 INCH DIAMETER AND 20 FEET FOR 36 INCH DIAMETER TO 60 INCH DIAMETER AS SPECIFIED IN THE CALTRANS POLYPROPYLENE APPROVAL.
5. PPSD PIPE SHALL CONFORM TO CURRENT AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) DESIGNATION M-330. FOR SIZES 12 INCH DIAMETER THROUGH 60 INCH DIAMETER. JOINT SHALL BE WATERTIGHT PER ASTM D3212.
6. THE LAST 10 FEET (2 SECTIONS TYPICALLY) OF CULVERT AT EACH EXPOSED END IS REQUIRED TO BE RCP. THIS WILL NECESSITATE A CONCRETE COLLAR FOR THE PPSD/RCP TRANSITION.
7. DEPTH OF COVER SHOULD BE CONSISTENT WITH CALTRANS TABLE 855.5 OF THE HIGHWAY DESIGN MANUAL - IF LESS COVER IS PROPOSED, PROVIDE CONCRETE ENCASEMENT. IF CALTRANS HAS A HIGHER UPDATE, COUNTY WILL REVIEW AND COMPLY.
8. AREAS OF HIGH GROUND WATER TABLE SHOULD BE AVOIDED. A SPECIAL STUDY AND REVIEW BY COUNTY MATERIAL LAB IS REQUIRED FOR AFFECTED PIPES.

PPSD 3RD PARTY INSPECTION NOTES

OWNER TO PROVIDE SPECIAL INSPECTION FOR THE INSTALLATION OF THE PPSD PIPE IN THE PUBLIC ROW. INSPECTION SHALL INCLUDE PIPE BEDDING, FILTER FABRIC INSTALLATION, ASSEMBLING PIPE JOINTS, AND BACKFILL. INSPECTION REPORTS SHALL BE SUBMITTED TO FIELD OPERATIONS FOR COUNTY RECORDS.

THE SPECIAL INSPECTIONS ARE REQUIRED AS FOLLOWS:

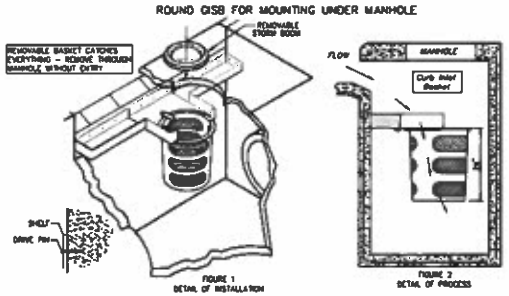
1. INSPECT THE SPECIFIED THICKNESS OF PIPE BEDDING MATERIAL AND CONFIRM ITS MAKE-UP OVER THE FULL WIDTH OF TRENCH AND THE SPECIFIED RELATIVE COMPACTION. GRADE THE TOP OF THE PIPE BEDDING AHEAD OF THE PIPE LAYING TO PROVIDE FIRM, CONTINUOUS, UNIFORM SUPPORT ALONG THE FULL LENGTH OF THE TRENCH FOR THE PIPE.
2. INSPECT THE PLACING OF THE PIPE INTO THE TRENCH. PARTICULAR CARE SHALL BE USED IN PLACING MATERIAL ON THE UNDERSIDE OF THE PIPE TO PREVENT LATERAL MOVEMENT DURING SUBSEQUENT BACKFILLING. PIPE PLACEMENT SHALL NOT CAUSE ANY DEFORMITY TO THE PIP (E.G. DROPPING SHARP, HEAVY PIECES OF MATERIAL DIRECTLY ONTO THE PIPE OR THE TAMPED MATERIAL AROUND THE PIPE) OR ASSOCIATED JOINTS.
3. AT THE LOCATION OF EACH JOINT, INSPECT FOR BELL HOLES IN THE BOTTOM OF THE TRENCH TO PERMIT PROPER ASSEMBLY AND INSPECTION OF THE ENTIRE JOINT. FILL AND COMPACT THE AREA EXCAVATED FOR THE JOINTS WITH THE PIPE BEDDING MATERIAL.
4. INSPECT THE SPIGOT AND INTERNAL BELL TO BE DRY FREE AND SLIDE TOGETHER COMPLETELY WITHOUT DISPLACING THE RUBBER RING GASKET. LAY THE PIPE SECTION WITH THE INTERNAL BELL FACING THE DIRECTION OF LAYING.
5. INSPECT THE GASKET INTO THE GROOVE OF THE BELL PRIOR TO INSTALLATION. OBSERVE THE CORRECT INSERTION OF THE SHAPED GASKET. VERIFY FEEL THAT THE GASKET IS COMPLETELY AND EVENLY SEATED IN THE GROOVE.
6. INSPECT THE MARK OF THE FULL INSERTION DEPTH ON THE SPIGOT END OF THE PIPE. THIS MARK INDICATES WHERE THE PIPE IS FULLY INSERTED INTO THE BELL.
7. CHECK THAT THE RUBBER RING GASKET HAS NOT LEFT THE GROOVE DURING ASSEMBLY BY PASSING A FEELER GAGE AROUND THE COMPLETED JOINT.
8. PROVIDE PERIODIC PHOTOS OF THE INSTALLATION INDICATIVE OF THE REQUIREMENTS NOTED ABOVE AT THE BEGINNING, MIDDLE, AND END OF THE DAY, OR AS NECESSARY TO SHOW A PROPERLY INSTALLED PIPE FOR THE DURATION OF THE PROJECT.

SPECIAL NOTES

THE FOLLOWING NOTES ARE PROVIDED TO GIVE DIRECTIONS TO THE CONTRACTOR BY THE ENGINEER OF WORK.

THE COUNTY ENGINEER'S SIGNATURE ON THESE PLANS DOES NOT CONSTITUTE APPROVAL OF ANY OF THESE NOTES AND THE COUNTY WILL NOT BE HELD RESPONSIBLE FOR THEIR ENFORCEMENT.

1. NEITHER THE OWNER NOR THE ENGINEER OF WORK WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
2. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY, AND HOLD DESIGN PROFESSIONAL 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 DESIGN PROFESSIONAL.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL SLOPES, STREETS, UTILITIES, AND STORM DRAINS ARE BUILT IN ACCORDANCE WITH THESE PLANS. IF THERE IS ANY QUESTION REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK BY CALLING THE ENGINEER OF WORK AT (858) 694-5660. THE CONTRACTOR SHALL ALSO TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM HIS OPERATIONS BY APPROPRIATE MEANS (SAND BAGS, HAY BALES, TEMPORARY DESILTING BASINS, DIKES, SHORING, ETC.) UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY SUBSEQUENT OWNER, AGENCY OR ASSOCIATION WHICH IS TO BE ULTIMATELY RESPONSIBLE FOR THE MAINTENANCE.
4. IN THE EVENT THAT CONSTRUCTION STAKING, BASED UPON THE CONSULTANT'S PLANS, DRAWINGS AND OTHER DOCUMENTS IS ACCOMPLISHED BY ANYONE OTHER THAN THE CONSULTANT, THE CLIENT AGREES TO HOLD THE CONSULTANT HARMLESS AND TO RELEASE THE CONSULTANT FROM ALL LIABILITY ARISING FROM THE USE OF SAID PLANS, DRAWINGS AND OTHER DOCUMENTS.
5. ALL UTILITY SERVICES WITHIN THIS DEVELOPMENT ARE UNDERGROUND INSTALLATIONS. THE CONTRACTOR SHALL NOTIFY THE SAN DIEGO GAS & ELECTRIC COMPANY AND AT&T PRIOR TO STARTING WORK NEAR THEIR FACILITIES, AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES. FOR UTILITY MARK-OUT SERVICE, CALL (800) 422-4133.
6. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO OTHER EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND STANDARDS AT THE EXPENSE OF THE CONTRACTOR.
7. LOCATION AND ELEVATION OF EXISTING IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK.
8. WHERE TRENCHES ARE WITHIN 10 FEET OF FUTURE BUILDING SITES, SOILS REPORTS SHALL BE SUBMITTED TO THE ENGINEER OF WORK BY A QUALIFIED SOILS ENGINEER WHICH INDICATE THAT TRENCH BACKFILL WAS COMPACTED UNDER THE OBSERVATION OF THE SOILS ENGINEER IN ACCORDANCE WITH THE ON-SITE EARTHWORK SPECIFICATIONS.
9. THE CONTRACTOR SHALL NOTIFY THE COUNTY FIELD ENGINEERING DIVISION AT (858) 627-3200 AT LEAST 24 HOURS IN ADVANCE OF ANY WORK TO ARRANGE FOR INSPECTION.
10. ALL WORK NEEDING MATERIALS TESTING, SUCH AS BUT NOT LIMITED TO: PAVEMENT SUBGRADE, PAVEMENT BASE, ASPHALT CONCRETE, AND PORTLAND CEMENT CONCRETE, REQUIRES THAT THE CONTRACTOR CONTACT COUNTY INSPECTION AT (858) 627-3200 BY NOON OF THE DAY BEFORE THE WORK TO ARRANGE FOR TESTING.
11. ANY WORK DONE WITHOUT INSPECTION OR MATERIALS TESTING IS SUBJECT FOR REMOVAL OR CORRECTION.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY DAMAGE TO THE EXISTING IMPROVEMENTS AND REPLACEMENT TO THE SATISFACTION OF THE FIELD ENGINEER.
13. AN ENCROACHMENT PERMIT WILL BE REQUIRED FOR ALL PRIVATE IMPROVEMENTS WITHIN THE PUBLIC RIGHT-OF-WAY & EASEMENTS.
14. UNAUTHORIZED CHANGES AND USE: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THESE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.
15. THE CONTRACTOR SHALL AND HEREBY DOES GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR AFTER THE DATE OF ACCEPTANCE OF THE WORK BY THE OWNER AND SHALL REPAIR OR REPLACE ANY OF ALL SUCH WORK, TOGETHER WITH ANY OTHER WORK WHICH MAY BE DISPLACED IN SO DOING, THAT MAY PROVE DEFECTIVE IN WORKMANSHIP AND/OR MATERIALS WITHIN THE ONE YEAR PERIOD FROM DATE OF ACCEPTANCE WITHOUT EXPENSE WHATSOEVER TO THE OWNER, ORDINARY WEAR AND TEAR, UNUSUAL ABUSE OR NEGLECT EXCEPTED.
16. TOPSOIL TO BE REMOVED AND STOCKPILED PRIOR TO GRADING. STOCKPILED TOPSOIL CAN THEN BE PLACED ON THE COMPACTED AREAS. IF REMOVED TOPSOIL IS DISCARDED FROM THE SITE, IMPORT NEW TOPSOIL TO BE PLACED ON THE COMPACTED AREAS.



FLOW RATES PER BASKET (NO MEDIA PACK)				
$Q=SC=C_d*A\sqrt{2*g*h}$			C_d = Coefficient of discharge = 0.67	
	SD	A(ft²)	h (ft)	Q (ft³/s)
TOP BOX	1	136.22	5.50	3.43
CENTER BOX	.67	136.36	11.3	2.85
BOTTOM BOX	.36	125.30	17.30	2.17
BOTTOM	.88	63.14	20.81	2.11
TOTAL				11.55

NOTES:

1. SHELF SYSTEM PROVIDES FOR DIRECT COVERAGE OF INLET OPENING SO TO SHORT ALL FLOW TO BASKET.
2. SHELF SYSTEM MANUFACTURED FROM MARINE GRADE FIBERGLASS, GEL COATED FOR UV PROTECTION.
3. SHELF SYSTEM ATTACHED TO CATCH BASIN WITH NON CORROSIVE HARDWARE.
4. FILTRATION BASKET STRUCTURE MANUFACTURED OF MARINE GRADE FIBERGLASS, GEL COATED FOR UV PROTECTION.
5. FILTRATION BASKET FINE SCREEN AND COARSE CONTAINMENT SCREEN MANUFACTURED FROM STAINLESS STEEL.
6. FILTRATION BASKET HOLDS BOOM OF ABSORBENT MEDIA TO CAPTURE HYDROCARBONS. BOOM IS EASILY REPLACED WITHOUT REMOVING MOUNTING HARDWARE.
7. FILTRATION BASKET LOCATION IS DIRECTLY UNDER MANHOLE ACCESS FOR EASY MAINTENANCE.

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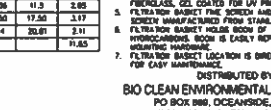
THE CALIFORNIA CURB SHELF BASKET WATER CLEANSING SYSTEM (A/6)

NO SCALE



PAVEMENT CONFORM DETAIL (C/6)

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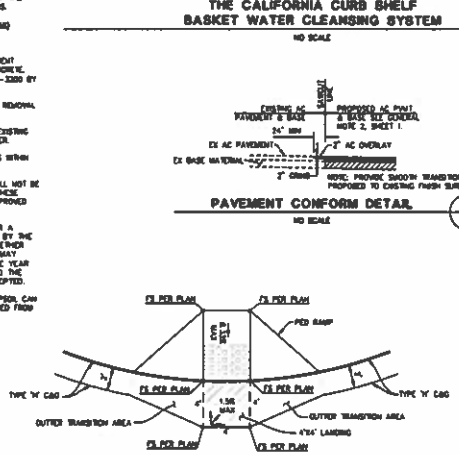


CURB RAMP NOTES:

1. PED RAMP PER RSD G-27.
2. 4'X4' LANDING TO BE 1.5% MAX SLOPE IN ANY DIRECTION. CONTRACTOR TO RAMP GUTTER AND GUTTER PAN ACCORDINGLY.
3. GUTTER TRANSITION TO EXTEND EVENLY FROM LANDING TO TYPE 'W' CGO.

TYPICAL CURB RAMP DETAIL (D/6)

NO SCALE

REGISTERED PROFESSIONAL ENGINEER ROBERT S. CORNIE No. 43717 CIVIL STATE OF CALIFORNIA

STANDARD ABBREVIATIONS

AC	ASPHALT CONCRETE
ACP	ASBESTOS CEMENT PIPE
ANG	ANGLE POINT
AP	ANGLE POINT
ASSY	ASSEMBLY
BC	BEGINNING OF CURVE
BFV	BUTTERFLY VALVE
BM	BENCH MARK
BOP	BOTTOM OF PIPE
BP	BARRIER
BVC	BEGINNING OF VERTICAL CURVE
CAB	CRUSHED AGGREGATE BASE
CB	CATCH BASIN
CF	CURB FACE
CF	CUBIC FOOT
CGC	CURB & GUTTER
CI	CURB INLET
CIP	CAST IRON PIPE
CL	CENTERLINE
CLR	CLEARANCE
CMB	CRUSHED MISCELLANEOUS BASE
CMLATC	CEMENT LINED & TAPE COATED STEEL PIPE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CSP	CORRUGATED STEEL PIPE
CTR	CENTER
CY	CUBIC YARD
DA	DIAMETER
DWG	DRAWING
DWY	DRIVEWAY
EA	EACH
EC	END OF CURVE
CL	CLEVIS
EJ	EXPANSION JOINT
EP	EDGE OF PAVEMENT
ES	EXISTING SURFACE
ESMT	EASEMENT
EVC	END OF VERTICAL CURVE
EX	EXISTING
EXIST	EXISTING
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLOW LINE - GUTTER
FLG	FLANGE
FS	FINISH SURFACE
GB	GRADE BREAK
GV	GATE VALVE
HGT	HIGH OR HEIGHT
HDWL	HEADWALL
HGL	HYDRAULIC GRADE LINE
HPT	HIGH POINT
IE	INVERT ELEVATION - SEWER
IOD	IRREVOCABLE OFFER OF DEDICATION
IRR	IRRIGATION
L	LENGTH
LF	LINEAR FOOT
LPT	LOW POINT
MAX	MAXIMUM
MIN	MINIMUM
MOD	MODIFICATION
OWD	OTAY WATER DISTRICT
PB	PULL BOX
PCC	PORTLAND CEMENT CONCRETE
PCC	POINT OF COMPOUND CURVE
PCR	POINT OF CURB RETURN
PCRP	PERFORATED
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PCC	POINT OF CONNECTION
POC	POINT ON CURVE
PP	POWER POLE
PPSD	POLYPROPYLENE STORM DRAIN
PRC	POINT OF REVERSE CURVE
PRVC	POINT OF REVERSE VERTICAL CURVE
PT	POINT
PUB	PUBLIC
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF INTERSECTION
PVMT	PAVEMENT
PVT	PRIVATE
R	RADIUS
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
REC	RECORDED
RL	INDEX LINE
RSD	REGIONAL STANDARD DRAWINGS
R/W	RIGHT-OF-WAY
RWDV	RESILIENT WEDGE GATE VALVE
RWHD	REDWOOD HEADER
S	SLOPE
SD	STORM DRAIN
SF	SQUARE FEET
SMH	SEWER MANHOLE
SP	SERVICE POINT
SSPWC	STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION
STA	STATION
STD	STANDARD

OTAY BUSINESS PARK GRADING PLAN NOTES

PRE-CONSTRUCTION MEETING: PRIOR TO ANY CLEARING, GRUBBING, TRENCHING, GRADING, OR ANY LAND DISTURBANCES HAPPENS AFTER THE GRADING PERMIT HAS BEEN ISSUED AND THE APPLICANT IS READY FOR GROUND DISTURBING ACTIVITY. PRE-CON IS A MEETING IN WHICH THE PDCI INSPECTOR MEETS WITH THE EOW, CONTRACTORS, MONITORS, PDS STAFF, CONSULTANTS AND THE OWNER TO DISCUSS RESPONSIBILITIES AND EXPECTATIONS

GP1. BIOLOGICAL MONITORING
INTENT: IN ORDER TO PREVENT INADVERTENT DISTURBANCE TO BURROWING OWLS, SENSITIVE PLANTS TO BE SALVAGED, VERNAL POOL SOIL TO BE SALVAGED, AND OTHER SENSITIVE SPECIES, ALL GRADING SHALL BE MONITORED BY A BIOLOGICAL MONITOR. DESCRIPTION OF REQUIREMENT: A COUNTY APPROVED BIOLOGIST SHALL PERFORM BIOLOGICAL MONITORING DURING ALL GRADING, CLEARING, GRUBBING, TRENCHING, AND CONSTRUCTION ACTIVITIES. "THE PROJECT BIOLOGIST SHALL ALSO PERFORM THE FOLLOWING DUTIES BEFORE CONSTRUCTION TO COMPLY WITH THE CONDITIONS OF THIS GRADING PLAN AND TENTATIVE MAP".

1. SUPERVISE AND VERIFY PLACEMENT OF TEMPORARY FENCING AROUND THE APPROVED LIMITS OF CONSTRUCTION, INCLUDING PROTECTION OF OCCUPIED OWL BURROWS. THE PLACEMENT OF SUCH FENCING SHALL BE APPROVED BY THE PDS, PERMIT COMPLIANCE SECTION

2. THE BIOLOGIST SHALL ATTEND THE PRECONSTRUCTION MEETINGS AND OTHER MEETINGS TO DISCUSS CONSTRUCTION REQUIREMENTS. SUCH MEETING SHALL INCLUDE THE PDS PERMIT COMPLIANCE SECTION

DOCUMENTATION: THE BIOLOGICAL MONITOR SHALL PREPARE WRITTEN DOCUMENTATION THAT CERTIFIES THAT THE TEMPORARY FENCING HAS BEEN INSTALLED AND THAT ALL CONSTRUCTION STAFF HAS BEEN TRAINED ON THE SITE SENSITIVE BIOLOGICAL RESOURCES THAT ARE TO BE AVOIDED TIMING: PRIOR TO PRECONSTRUCTION CONFERENCE, AND PRIOR TO ANY CLEARING, GRUBBING, TRENCHING, GRADING, OR ANY LAND DISTURBANCES. THIS CONDITION SHALL BE COMPLETED MONITORING: THE [DPW, PDC] SHALL INVITE THE [PDS, PCC] TO THE PRECONSTRUCTION CONFERENCE TO COORDINATE THE BIOLOGICAL MONITORING REQUIREMENTS OF THIS CONDITION. THE [PDS, PCC] SHALL ATTEND THE PRECONSTRUCTION CONFERENCE AND VERIFY THE INSTALLATION OF THE TEMPORARY FENCING AND APPROVE THE TRAINING DOCUMENTATION PREPARED BY THE BIOLOGIST.

GP2. BREEDING SEASON BRUSHING, GRADING, AND CLEARING RESTRICTIONS
INTENT: IN ORDER TO AVOID IMPACTS TO BREEDING OR NESTING BIRDS, INCLUDING RAPTORS AND THE BURROWING OWL, THAT COULD OCCUR DURING BRUSHING, GRADING, AND CLEARING ACTIVITIES. DESCRIPTION OF REQUIREMENT: IF CLEARING AND GRADING ARE TO OCCUR WITHIN THE BREEDING SEASON (FEBRUARY 1 - AUGUST 31), THEN PRE-CONSTRUCTION SURVEYS FOR BURROWING OWLS AND OTHER BREEDING BIRDS MUST OCCUR BEFORE CLEARING AND GRADING BEGINS AND BE COMPLETED NO MORE THAN 30 DAYS BEFORE INITIAL BRUSHING, CLEARING, GRUBBING, OR GRADING AND APPROPRIATE MEASURES TAKEN AS FOLLOWS

a. MONITORING AND MITIGATION FOR BURROWING OWLS SHALL BE IN ACCORDANCE WITH SECTION 3.1 OF THE COUNTY'S ADOPTED STRATEGY FOR MITIGATING IMPACTS TO BURROWING OWLS IN THE UNINCORPORATED COUNTY

b. IF NO BURROWING OWLS ARE DETECTED DURING THE SURVEY, THE SITE MUST BE MONITORED FOR NEW BURROWS EACH WEEK UNTIL GRADING IS COMPLETE

c. IF THE SURVEYS ARE POSITIVE, THEN CLEARING AND GRADING WOULD BE RESTRICTED FROM WITHIN THE APPROPRIATE BUFFER AREAS AS DEFINED IN THE STRATEGY AND BELOW

1) DIRECT IMPACTS TO NESTS, AS WELL AS OCCUPIED BURROWING OWL BURROWS (INCLUDING BURROWS AND/OR MAN-MADE FEATURES SUCH AS PIPES, ETC.) SHOULD BE AVOIDED

2) DISTURBANCE MUST NOT OCCUR WITHIN 300 FEET OF OCCUPIED OWL BURROWS OR MIGRATORY BIRD NESTS OR 900 FEET FROM NORTHERN HARRIER NESTS WITHOUT CONCURRENCE FROM THE COUNTY AND WILDLIFE AGENCIES THAT CONSTRUCTION ACTIVITIES MAY PROCEED

3) BIO-FENCING SHOULD BE PLACED AND MAINTAINED AROUND ALL OCCUPIED BURROWS DURING CONSTRUCTION

DOCUMENTATION: THE RESULTS OF THE PRE-CONSTRUCTION SURVEY MUST BE IMMEDIATELY PROVIDED TO THE COUNTY MITIGATION MONITORING COORDINATOR, CDFW, AND USFWS PRIOR TO GRADING, AND MUST BE PROVIDED IN WRITING. A WRITTEN AND SIGNED PRE-CONSTRUCTION SURVEY REPORT MUST FOLLOW WITHIN 14 DAYS OF THE SURVEY OR BURROWING OWL EVICTION AND INCLUDE MAPS OF THE PROJECT SITE AND BURROWING OWL LOCATIONS ON AERIAL PHOTOS IN THE FORMAT DESCRIBED IN THE COUNTY'S MAPPING GUIDELINES IF OWLS ARE DETERMINED TO BE PRESENT WITHIN THE BURROWS, THE APPLICANT SHALL SUBMIT WILDLIFE AGENCY CONCURRENCE FOR EVICTION. A WRITTEN REPORT OF THE PASSIVE RELOCATION MEASURES UNDERTAKEN TO PRE-CLUDE DIRECT IMPACTS TO BURROWING OWL INDIVIDUALS AND THE PROJECT BIOLOGIST SHALL CERTIFY THAT ALL OWLS HAVE VACATED ANY OCCUPIED BURROWS. TIMING: A PRE-CONSTRUCTION SURVEY SHALL OCCUR NO MORE THAN 30 DAYS PRIOR TO COMMENCEMENT OF BRUSHING, GRADING, OR CLEARING ACTIVITIES TO DETERMINE THE PRESENCE OR ABSENCE OF BURROWING OWLS. WITH WEEKLY MONITORING THEREAFTER. SURVEY RESULTS MUST BE REPORTED IMMEDIATELY IN WRITING, AND CONCURRENCE MUST BE OBTAINED PRIOR TO ANY EVICTION/PASSIVE RELOCATION. THE WRITTEN REPORT MUST FOLLOW WITHIN 14 DAYS OF THE SURVEY OR BURROWING OWL EVICTION. MONITORING: THE [DPW, PDC] SHALL NOT ALLOW ANY GRADING UNLESS A CONCURRENCE FROM THE [PDS, PCC] IS RECEIVED. THE PDS SHALL REVIEW THE PRE- CONSTRUCTION SURVEY RESULTS, ALONG WITH EVIDENCE OF ANY PASSIVE RELOCATION MEASURES, TO ENSURE COMPLIANCE WITH THESE REQUIREMENTS

GP4. BREEDING SEASON CONSTRUCTION NOISE RESTRICTIONS
INTENT: IN ORDER TO MITIGATE FOR POTENTIAL INDIRECT IMPACTS TO BREEDING OR NESTING BIRDS, INCLUDING RAPTORS AND THE BURROWING OWL THAT COULD BE IMPACTED BY CONSTRUCTION ACTIVITIES. DESCRIPTION OF REQUIREMENT: CONSTRUCTION NOISE MAY NOT EXCEED 60 DB L_{EQ} AT ANY ACTIVE RAPTOR OR BURROWING OWL NEST SITE IF CONSTRUCTION OCCURS DURING THE BREEDING SEASON (FEBRUARY 1 - AUGUST 31). A PRE-CONSTRUCTION SURVEY SHALL BE CONDUCTED BY A COUNTY- APPROVED BIOLOGIST TO DETERMINE WHETHER CONSTRUCTION ACTIVITIES ARE LOCATED WITHIN 300 FEET OF BURROWING OWL BURROWS OR WITHIN 900 FEET OF GROUND DWELLING RAPTOR NESTS. CONSTRUCTION ACTIVITIES MAY NOT PROCEED WITHIN 300 FEET OF ACTIVE BURROWING OWL BURROWS OR WITHIN 900 FEET OF ACTIVE GROUND DWELLING RAPTOR NESTS. THIS LIMITATION MAY ONLY BE WAIVED BY THE DIRECTOR OF PDS IF A NOISE REPORT BY A COUNTY- APPROVED NOISE CONSULTANT CERTIFIES THAT NOISE LEVELS WOULD NOT EXCEED 60 DB L_{EQ} AT THE NEST SITE. IF THE NOISE REPORT DETERMINES THAT NOISE MITIGATION MEASURES SUCH AS NOISE BARRIERS ARE NECESSARY TO BRING NOISE LEVELS TO BELOW 60 DB L_{EQ} AT THE NEST SITE(S), THEY SHALL BE INSTALLED PRIOR TO STARTING CONSTRUCTION. DOCUMENTATION: THE DPW SHALL ENSURE THAT IMPROVEMENT PLANS INCLUDE A NOTE DOCUMENTING THESE REQUIREMENTS. THE APPLICANT SHALL PREPARE A PRE-CONSTRUCTION SURVEY NO MORE THAN 30 DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO DETERMINE WHETHER CONSTRUCTION ACTIVITIES ARE PROPOSED WITHIN 300 FEET OF BURROWING OWL BURROWS OR 900 FEET OF GROUND DWELLING RAPTOR NESTS. IF CONSTRUCTION ACTIVITIES ARE PROPOSED WITHIN 300 FEET OF BURROWING OWL BURROWS OR 900 FEET OF GROUND DWELLING RAPTOR NESTS, THE APPLICANT SHALL PROVIDE A NOISE REPORT PREPARED BY A COUNTY-APPROVED NOISE CONSULTANT SPECIFYING WHAT MITIGATION MEASURES IF ANY, ARE REQUIRED TO BRING THE NOISE LEVEL AT THE NEST SITE(S) BELOW 60 DB L_{EQ}. IF NOISE MITIGATION MEASURES ARE REQUIRED, THE APPLICANT SHALL PROVIDE EVIDENCE (E.G., PHOTOS) THAT DEMONSTRATES THAT THE MEASURES HAVE BEEN UNDERTAKEN IN ACCORDANCE WITH THE NOISE REPORT. TIMING: THESE RESTRICTIONS SHALL BE DOCUMENTED ON ALL PROJECT IMPROVEMENT PLANS PRIOR TO FINAL MAP APPROVAL. PRE-CONSTRUCTION SURVEYS SHALL OCCUR NO MORE THAN 30 DAYS PRIOR TO CONSTRUCTION ACTIVITIES IF NOISE BARRIERS OR OTHER NOISE MITIGATION MEASURES ARE REQUIRED. SUCH MEASURES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES WHICH OCCUR WITHIN 300 FEET OF BURROWING OWL BURROWS OR 900 FEET OF GROUND DWELLING RAPTOR NESTS. MONITORING: THE DPW SHALL REVIEW IMPROVEMENT PLANS TO ENSURE THAT THE REQUIRED NOTES HAVE BEEN INCLUDED ON THE PLANS. THE PDS SHALL REVIEW THE PRE-CONSTRUCTION SURVEY, NOISE REPORT, AND EVIDENCE THAT NOISE MINIMIZATION MEASURES HAVE BEEN UNDERTAKEN TO ENSURE THAT THE REQUIREMENTS SPECIFIED BY THIS MEASURE HAVE BEEN SATISFIED

GP5. TEMPORARY FENCING FOR ERRANT CONSTRUCTION IMPACTS
INTENT: IN ORDER TO PREVENT ERRANT GRADING OR CLEARING BEYOND THE PROPOSED CONSTRUCTION LIMITS THAT COULD IMPACT SENSITIVE VEGETATION COMMUNITIES OR SPECIES INTENDED FOR PRESERVATION. DESCRIPTION OF REQUIREMENT: ORANGE CONSTRUCTION FENCING SHALL BE INSTALLED AROUND THE APPROVED LIMITS OF IMPACTS TO DEFINE THE GRADING BOUNDARIES AND PREVENT UNINTENDED IMPACTS. DOCUMENTATION: THE APPLICANT SHALL PROVIDE EVIDENCE THAT THE FENCING HAS BEEN INSTALLED AND HAVE THE BIOLOGICAL MONITOR CERTIFY THAT THE FENCING IS LOCATED ON THE BOUNDARY OF SENSITIVE AREAS. THE APPLICANT SHALL SUBMIT PHOTOS OF THE FENCING ALONG WITH THE CERTIFICATION LETTER TO THE [PDS, PCC] FOR APPROVAL. TIMING: PRIOR TO ANY CLEARING, GRUBBING, TRENCHING, GRADING, OR ANY LAND DISTURBANCES. THE FENCING SHALL BE INSTALLED AND SHALL REMAIN FOR THE DURATION OF THE GRADING AND CLEARING. MONITORING: THE [PDS, PCC] SHALL EITHER ATTEND THE PRECONSTRUCTION CONFERENCE AND APPROVE THE INSTALLATION OF THE TEMPORARY FENCING, OR REVIEW THE CERTIFICATION AND PICTURES PROVIDED BY THE APPLICANT

GP6. ARCHAEOLOGICAL MONITORING
INTENT: IN ORDER TO COMPLY WITH MITIGATION MONITORING AND REPORTING PROGRAM PURSUANT TO 1345808. A CULTURAL RESOURCE GRADING MONITORING PROGRAM SHALL BE IMPLEMENTED. DESCRIPTION OF REQUIREMENT: THE COUNTY APPROVED PROJECT ARCHAEOLOGIST, NATIVE AMERICAN MONITOR, AND THE PDS PERMIT COMPLIANCE COORDINATOR (PCC) SHALL ATTEND THE PRE-CONSTRUCTION MEETING WITH THE CONTRACTORS TO EXPLAIN AND COORDINATE THE REQUIREMENTS OF THE GRADING MONITORING PROGRAM. THE PROJECT ARCHAEOLOGIST AND NATIVE AMERICAN MONITOR, IF CONTRACTED, SHALL MONITOR ORIGINAL CUTTING OF PREVIOUSLY UNDISTURBED DEPOSITS IN ALL AREAS IDENTIFIED FOR DEVELOPMENT INCLUDING OFF-SITE IMPROVEMENTS. THE GRADING MONITORING PROGRAM SHALL COMPLY WITH THE COUNTY OF SAN DIEGO GUIDELINES FOR DETERMINING SIGNIFICANCE AND REPORT FORMAT AND CONTENT REQUIREMENTS FOR ARCHEOLOGICAL AND HISTORIC RESOURCES. DOCUMENTATION: THE APPLICANT SHALL HAVE THE CONTRACTED PROJECT ARCHEOLOGIST AND NATIVE AMERICAN ATTEND THE PRECONSTRUCTION MEETING TO EXPLAIN THE MONITORING REQUIREMENTS. TIMING: PRIOR TO PRECONSTRUCTION CONFERENCE, AND PRIOR TO ANY CLEARING, GRUBBING, TRENCHING, GRADING, OR ANY LAND DISTURBANCES. THIS CONDITION SHALL BE COMPLETED. MONITORING: THE [DPW, PDC] SHALL INVITE THE [PDS, PCC] TO THE PRECONSTRUCTION CONFERENCE TO COORDINATE THE CULTURAL RESOURCE MONITORING REQUIREMENTS OF THIS CONDITION. THE [PDS, PCC] SHALL ATTEND THE PRECONSTRUCTION CONFERENCE AND CONFIRM THE ATTENDANCE OF THE APPROVED PROJECT ARCHEOLOGIST.

DURING CONSTRUCTION: THE FOLLOWING ACTIONS SHALL OCCUR THROUGHOUT THE DURATION OF THE GRADING CONSTRUCTION. A GUIDE FOR PDCI INSPECTORS ON THE ACTIONS AND REPORTS REQUIRED DURING GRADING OPERATIONS

GP7. DPW RECYCLING - GRADING MATERIAL DIVERSION:
INTENT: IN ORDER TO COMPLY WITH THE GRADING MATERIAL DIVERSION PROGRAM, PROJECT RECYCLING AND DIVERSION IS DESIGNED TO INCREASE DIVERSION OF GRADING, LAND CLEARING AND BRUSHING MATERIALS FROM LANDFILLS, EXTEND THE USEFUL LIFE OF LOCAL LANDFILLS, AND SUPPORT CONSTRUCTION AND DEMOLITION PROJECT COMPLIANCE WITH STATE WASTE DIVERSION REQUIREMENTS. DESCRIPTION OF REQUIREMENT: FOR ALL GRADING PROJECTS >5,000 CUBIC YARDS, A DAILY LOG OF ALL GRADING, LAND CLEARING AND BRUSHING MATERIAL THAT IS EXPORTED OR REUSED/REPURPOSED MUST BE RETAINED ONSITE. THE DAILY LOG MUST INCLUDE ALL EXPORT RECEIPTS OR OTHER VENDOR OR DISPOSAL OR TRANSFER STATION FACILITY INFORMATION THAT ACCEPTED GRADING MATERIAL FROM THE APPROVED GRADING PROJECT. DOCUMENTATION: DAILY LOGS SHALL BE PREPARED AND KEPT ON-SITE FOR INSPECTION AND INCLUDE THE FOLLOWING

a. IDENTIFY THE PROJECT LOCATION

b. LOG DATE THAT MATERIAL WAS TRANSPORTED OFF THE SITE.

c. LOG TYPE OF GRADING OR CLEARING MATERIAL

d. WEIGHT OF THE MATERIAL OR ITS APPROXIMATE TONNAGE OR CUBIC YARDS

e. NAME OF THE PARTY TRANSPORTING THE MATERIALS

f. NAME OF THE RECEIVING FACILITY OR EXPORTER, AND WHETHER THE MATERIAL WAS DISPOSED OF IN A LANDFILL, SALVAGED FOR FUTURE USE OFF-SITE, OR RECYCLED

g. EACH LOG ENTRY SHALL CORRESPOND WITH A RECEIPT ISSUED BY THE PARTY THAT TRANSPORTED THE MATERIAL OFF-SITE OR BY FACILITY THAT ACCEPTED THE MATERIALS IF THE MATERIALS WERE HAULED BY THE GRADING CONTRACTOR. EXPORT RECEIPTS SHALL BE COMPILED WITHIN 60 DAYS OF THE DATE OF THE LOG ENTRY

h. THE DAILY LOG SHALL INCLUDE SEPARATE ENTRIES FOR EACH OCCURRENCE OF MATERIALS REUSED ON-SITE

i. THE DAILY LOG AND ALL RECEIPTS SHALL BE MAINTAINED AT THE PROJECT SITE AND MADE AVAILABLE TO ANY COUNTY INSPECTOR RESPONSIBLE TO ENSURE COMPLIANCE WITH THIS REQUIREMENT

TIMING: THE FOLLOWING ACTIONS AND LOGS SHALL OCCUR THROUGHOUT THE DURATION OF THE EARTH DISTURBING ACTIVITIES. MONITORING: THE [DPW, PDC] SHALL ENSURE THAT THE GRADING CONTRACTOR IS PREPARING AND MAINTAINING THE DAILY LOGS ON-SITE. THE [DPW, PDC] SHALL CONTACT THE [DPW, CO] IF THE GRADING CONTRACTOR OR APPLICANT FAILS TO COMPLY WITH THIS CONDITION

GP8. FUGITIVE DUST
INTENT: IN ORDER TO MITIGATE FOR INDIRECT IMPACTS TO LOCAL WILDLIFE DUE TO FUGITIVE DUST, WATERING OF UNPAVED SURFACES SHALL OCCUR DURING GRADING ACTIVITIES. DESCRIPTION OF REQUIREMENT: POTENTIAL INDIRECT IMPACTS TO LOCAL WILDLIFE CAUSED BY FUGITIVE DUST SHALL BE MITIGATED BY REQUIRING THAT ACTIVE CONSTRUCTION AREAS AND UNPAVED SURFACES BE WATERED PER COUNTY STANDARDS TO REDUCE POTENTIAL INDIRECT IMPACTS CAUSED BY FUGITIVE DUST. DOCUMENTATION: INCLUDE A NOTE ON PROJECT GRADING PLANS INDICATING A REQUIREMENT TO WATER UNPAVED SURFACES IN ACCORDANCE WITH COUNTY STANDARDS. TIMING: COMPLIANCE WITH THIS CONDITION IS REQUIRED THROUGHOUT THE DURATION OF GRADING AND CONSTRUCTION MONITORING: THE PERMIT COMPLIANCE ENGINEER (AS DEFINED IN SECTION 87.429 OF THE COUNTY GRADING ORDINANCE) SHALL PROVIDE DOCUMENTATION/ EVIDENCE OF COMPLIANCE WITH EACH NOTE IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE. THE [DPW, PDC] SHALL MAKE SURE THAT THE GRADING CONTRACTOR COMPLIES WITH THE AIR QUALITY REQUIREMENTS OF THIS CONDITION. THE [DPW, PDC] SHALL CONTACT THE [PDS, PCC] IF THE APPLICANT FAILS TO COMPLY WITH THIS CONDITION

GP9. TEMPORARY NOISE IMPACTS
INTENT: IN ORDER TO COMPLY WITH THE COUNTY OF SAN DIEGO NOISE ORDINANCE 36.409 AND TO PRECLUDE POTENTIAL NOISE IMPACTS DURING CONSTRUCTION ACTIVITIES. THE FOLLOWING NOISE ATTENUATION MEASURES SHALL BE IMPLEMENTED TO REDUCE THE SOUND LEVEL GENERATED FROM PROJECT CONSTRUCTION. DESCRIPTION OF REQUIREMENT: THE DEPARTMENT OF PUBLIC WORKS SHALL DETERMINE WHAT PROJECT GRADING OPERATIONS WILL OCCUR SIMULTANEOUSLY WITH GRADING OPERATIONS FOR ADJACENT PROPERTIES. NON- PROJECT RELATED GRADING OPERATIONS OCCURRING WITHIN 180 FEET OF THE PROPOSED PROJECT SITE SIMULTANEOUSLY WITH PROJECT GRADING ACTIVITIES WOULD REQUIRE ON-SITE PROJECT GRADING OPERATIONS NOT TO OCCUR WITHIN 225 FEET OF THE AFFECTED SHARED PROJECT PROPERTY LINE. THIS NOISE MITIGATION MEASURE IS DESIGNED AND PLACED TO REDUCE CUMULATIVE CONSTRUCTION NOISE IMPACTS AT THE PROPERTY LINE WHERE AN EXISTING OCCUPIED STRUCTURE IS LOCATED

a. IF NON-PROJECT RELATED GRADING OPERATIONS OCCUR 180 FEET FROM THE AFFECTED PROPERTY LINE, ON-SITE PROJECT RELATED GRADING ACTIVITIES ADJACENT TO THE SAID PROPERTY LINE SHALL OCCUR AT A MINIMUM SETBACK DISTANCE OF 225 FEET FROM THIS SHARED PROPERTY LINE.

b. THE PERMIT COMPLIANCE ENGINEER (PCC) (AS DEFINED IN SECTION 87.420 OF THE COUNTY GRADING ORDINANCE) SHALL DEMONSTRATE COMPLIANCE WITH THIS REQUIREMENT IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY GRADING ORDINANCE. THE REGULAR REPORTS SHALL IDENTIFY ANY DAYS WHERE GRADING ACTIVITIES WERE RESTRICTED ON-SITE OR ON ADJACENT PROPERTIES IN ORDER TO ENSURE THE MINIMUM SETBACK DISTANCE OF 225 FEET FOR ON-SITE PROJECT RELATED GRADING ACTIVITIES

DOCUMENTATION: THE APPLICANT SHALL MAINTAIN THE CONSTRUCTION NOISE MITIGATION MEASURE AS INDICATED ABOVE UNTIL ALL GRADING ACTIVITIES HAVE BEEN COMPLETED. THE APPLICANT IS RESPONSIBLE FOR IMPLEMENTING THE REQUIRED SETBACK FOR GRADING OPERATIONS TO REMAIN IN COMPLIANCE WITH THIS CONDITION. TIMING: THE ABOVE ACTIONS SHALL OCCUR THROUGHOUT THE DURATION OF THE GRADING AND CONSTRUCTION MONITORING: THE [DPW, PDC] SHALL ENSURE THAT THE CONSTRUCTION NOISE ATTENUATION MEASURES REMAIN IN PLACE AS INDICATED ON THIS PLAN.

GP10. AIR QUALITY
INTENT: IN ORDER TO MITIGATE FOR FUGITIVE DUST CONSTRUCTION ACTIVITIES. DESCRIPTION OF REQUIREMENT: THE PROJECT APPLICANT OR DESIGNEE SHALL COMPLY WITH THE SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT (SDCPCD) RULE 55 AND SECTION 87.428 "DUST CONTROL MEASURES" OF THE COUNTY'S GRADING ORDINANCE

a. ALL HAULOUMP TRUCKS ENTERING OR LEAVING THE SITE WITH SOIL OR FILL MATERIAL MUST MAINTAIN AT LEAST 2 FEET OF FREEBOARD OR COVER LOADS OF ALL HAULOUMP TRUCKS SECURELY (UNHUMBERED DESIGN MEASURE).

b. SWEEPERS AND WATER TRUCKS SHALL BE USED TO CONTROL DUST AND DEBRIS AT PUBLIC STREET ACCESS POINTS

c. DIRT STORAGE PILES WILL BE STABILIZED BY CHEMICAL BINDERS, TARPS, FENCING OR OTHER SUPPRESSION MEASURES

d. INTERNAL CONSTRUCTION-ROADWAYS WILL BE STABILIZED BY PAVING, CHIP SEALING OR CHEMICALS AFTER ROUGH GRADING

e. DURING GRADING AND GROUND DISTURBING CONSTRUCTION ACTIVITIES, THE PERMIT COMPLIANCE ENGINEER SHALL ASSURE THAT WATER TRUCKS OR SPRINKLER SYSTEMS APPLY WATER TO AREAS UNDERGOING ACTIVE GROUND DISTURBANCE, AND UNPAVED ROADS, A MINIMUM OF THREE (3) TIMES DAILY (3.2 HOUR WATERING INTERVAL). ALL AREAS OF DISTURBED SOILS SHALL BE KEPT DAMP ENOUGH TO PREVENT AIRBORNE DUST FROM DISPERSING BEYOND THE BOUNDARIES OF THE SITE. THE PERMIT COMPLIANCE ENGINEER SHALL ORDER INCREASED WATERING FREQUENCY WHEN AIRBORNE DUST IS VISIBLE. A LOG OF ALL SITE WATERING ACTIVITIES SHALL BE MAINTAINED BY THE PERMIT COMPLIANCE ENGINEER, AND THIS LOG SHALL BE MADE AVAILABLE TO THE COUNTY UPON REQUEST

f. THE PERMIT COMPLIANCE ENGINEER SHALL ASSURE THAT TEMPORARY SIGNS INDICATING A MAXIMUM 15 MILES PER HOUR (MPH) SPEED LIMIT ARE PLACED ALONG ALL UNPAVED ROADS AND/OR UNPAVED HAUL ROUTES ON THE PROJECT SITE. BEFORE CONSTRUCTION ACTIVITIES COMMENCE. SIGNS SHALL BE SPACED NO MORE THAN 1,000 LINEAR FEET APART. THE PERMIT COMPLIANCE ENGINEER ALSO SHALL BE RESPONSIBLE FOR ASSURING RADAR ENFORCEMENT OF THE 15 MPH SPEED LIMIT THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES

g. A GRAVEL APRON MEASURING AT LEAST 25 FEET LONG BY ROAD WIDTH SHALL BE PROVIDED AT ALL UNPAVED ENTRANCES INTO THE CONSTRUCTION SITE AND SHALL BE MAINTAINED UNTIL THE ENTRANCE IS REMOVED. PAVED OR NO LONGER IN USE BY CONSTRUCTION VEHICLES AND EQUIPMENT

h. THE PERMIT COMPLIANCE ENGINEER SHALL ENSURE THAT ALL GRADING, EARTHMOVING, AND GROUND-DISTURBING CONSTRUCTION ACTIVITIES ARE TEMPORARILY HALTED WHEN SUSTAINED WIND SPEEDS EXCEED 25 MPH

i. THE PERMIT COMPLIANCE ENGINEER SHALL ENSURE THAT STREET SWEEPING OF ADJACENT PUBLIC ROADS OCCURS AT THE END OF EACH WORK DAY THAT VISIBLE SOIL MATERIAL IS CARRIED ONTO PAVED ROADS AND AT LEAST ONCE EVERY TWO WEEKS. A LOG OF ALL STREET SWEEPING ACTIVITIES SHALL BE MAINTAINED BY THE PERMIT COMPLIANCE ENGINEER AND SHALL BE MADE AVAILABLE TO THE COUNTY UPON REQUEST

j. THE PERMIT COMPLIANCE ENGINEER SHALL ENSURE THAT CHEMICAL DUST SUPPRESSANTS ARE APPLIED AT LEAST ONCE PER YEAR TO ALL DESIGNATED UNPAVED PARKING AREAS USED BY CONSTRUCTION WORKERS AND/OR CONSTRUCTION EQUIPMENT

k. THE PERMIT COMPLIANCE ENGINEER SHALL ENSURE THAT ROUGH GRADING ACTIVITIES AND DEMOLITION ACTIVITIES DO NOT OVERLAP WITH EACH OTHER AND WITH OTHER PHASES OF CONSTRUCTION (I.E. TRENCHING, UNDERGROUND BUILDING, AND ARCHITECTURAL COATINGS). A SCHEDULE OF SUCH ACTIVITIES SHALL BE MAINTAINED BY THE PERMIT COMPLIANCE ENGINEER, AND SHALL BE MADE AVAILABLE TO THE COUNTY UPON REQUEST

DOCUMENTATION: THE PERMIT COMPLIANCE ENGINEER SHALL PROVIDE THE DEPARTMENT OF PUBLIC WORKS WITH EVIDENCE OF COMPLIANCE WITH THIS MITIGATION MEASURE IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE, AND SHALL MAKE SUCH EVIDENCE AVAILABLE WHEN REQUESTED BY THE COUNTY. TIMING: THE LISTED ACTIONS SHALL OCCUR THROUGHOUT THE DURATION OF THE GRADING CONSTRUCTION MONITORING: THE [DPW, PDC] SHALL MAKE SURE THAT THE GRADING CONTRACTOR COMPLIES WITH THE AIR QUALITY REQUIREMENTS OF THIS CONDITION. THE [DPW, PDC] SHALL CONTACT THE [PDS, PCC] IF THE APPLICANT FAILS TO COMPLY WITH THIS CONDITION

GP11. AIR QUALITY
INTENT: IN ORDER TO LOWER CONSTRUCTION EMISSIONS OF OXIDES OF NITROGEN (NOX) TO BELOW THE COUNTY'S ESTABLISHED SCREENING LEVEL THRESHOLDS (SLTS) FOR CONSTRUCTION ACTIVITIES. EMISSION REDUCTION ACTIVITIES SHALL OCCUR. DESCRIPTION OF REQUIREMENT: THE FOLLOWING EMISSION REDUCTION ACTIVITIES SHALL BE UNDERTAKEN DURING CONSTRUCTION ACTIVITIES TO REDUCE CONSTRUCTION VEHICLE AND EQUIPMENT EMISSIONS OF NOX.

a. THE PERMIT COMPLIANCE ENGINEER SHALL VERIFY THAT ALL CONSTRUCTION EQUIPMENT AND VEHICLES ARE PROPERLY TUNED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS, TO ENSURE PROPER TIMING AND TUNING OF ENGINES

b. THE PERMIT COMPLIANCE ENGINEER SHALL INSTRUCT ALL DIESEL-FUELED CONSTRUCTION VEHICLE AND EQUIPMENT OPERATORS TO RESTRICT IDLING TIMES TO FIVE MINUTES AND TO TURN OFF ENGINES WHEN VEHICLES AND EQUIPMENT ARE NOT IN USE. THE PERMIT COMPLIANCE ENGINEER SHALL BE RESPONSIBLE FOR ENFORCING THIS REQUIREMENT DURING ALL CONSTRUCTION ACTIVITIES

DOCUMENTATION: THE APPLICANT SHALL COMPLY WITH THE AIR QUALITY REQUIREMENTS OF THIS CONDITION. TIMING: THE LISTED ACTIONS SHALL OCCUR THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES. MONITORING: THE [DPW, PDC] SHALL MAKE SURE THAT THE GRADING CONTRACTOR COMPLIES WITH THE AIR QUALITY REQUIREMENTS OF THIS CONDITION. THE [DPW, PDC] SHALL CONTACT THE [PDS, PCC] IF THE APPLICANT FAILS TO COMPLY WITH THIS CONDITION

GP12. CLIMATE CHANGE
INTENT: CONSTRUCTION EQUIPMENT SHALL UTILIZE BIODIESEL FUELS, WHEN FEASIBLE, TO REDUCE GREENHOUSE GAS EMISSIONS (GHG) EMISSIONS THAT WOULD OCCUR DURING CONSTRUCTION. DESCRIPTION OF REQUIREMENT: CONSTRUCTION EQUIPMENT SHALL UTILIZE BIODIESEL FUELS, WHEN FEASIBLE, AS FOLLOWS.

"WITH THE EXCEPTION OF EQUIPMENT USED FOR ASPHALT PAVING, TRENCHING, AND OFF-SITE IMPROVEMENTS, ALL DIESEL-POWERED CONSTRUCTION EQUIPMENT SHALL USE B20 BIODIESEL FUEL (COMPRISING A MINIMUM OF 20% BIODIESEL) FOR THE DURATION OF CONSTRUCTION. ANY CONSTRUCTION EQUIPMENT WHOSE WARRANTY WOULD BE VOIDED UPON THE USE OF B20 BIODIESEL FUEL SHALL BE EXEMPT FROM THIS REQUIREMENT. THE COUNTY PDS MAY EXEMPT ADDITIONAL PIECES OF EQUIPMENT FROM THIS REQUIREMENT UPON WRITTEN REQUEST FROM THE PERMIT COMPLIANCE ENGINEER DOCUMENTING A VALID TECHNICAL, ECONOMIC, OR PHYSICAL REASON WHY THE USE OF B20 BIODIESEL FUEL CANNOT BE USED. THIS REQUIREMENT SHALL ONLY APPLY IF B20 BIODIESEL FUEL IS AVAILABLE WITHIN 15 ROADWAY MILES FROM THE PROPOSED PROJECT SITE AT THE TIME CONSTRUCTION ACTIVITIES COMMENCE."

DOCUMENTATION: THE PERMIT COMPLIANCE ENGINEER SHALL INCLUDE EVIDENCE OF THE USE OF B20 BIODIESEL FUEL IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE, OR SHALL PROVIDE EVIDENCE THAT B20 BIODIESEL FUEL IS NOT AVAILABLE WITHIN 15 ROADWAY MILES OF THE PROPOSED PROJECT SITE. TIMING: THE LISTED ACTIONS SHALL OCCUR THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES. MONITORING: THE [DPW, PDC] SHALL MAKE SURE THAT THE GRADING CONTRACTOR COMPLIES WITH THE CLIMATE CHANGE REQUIREMENTS OF THIS CONDITION. THE [DPW, PDC] SHALL CONTACT THE [PDS, PCC] IF THE APPLICANT FAILS TO COMPLY WITH THIS CONDITION

GP13. GEOTECHNICAL STUDIES
INTENT: IN ORDER TO ENSURE SPECIFIC MITIGATION MEASURES FOR GEOLOGIC HAZARDS ARE IMPLEMENTED INTO THE GRADING PLANS. DESCRIPTION OF REQUIREMENT: ALL RECOMMENDATIONS PRESENTED IN SECTION 8 FROM GEOTECHNICAL INVESTIGATION, 158-ACRE PROPERTY, ALTA ROAD AND AIRWAY ROAD, SAN DIEGO COUNTY, CALIFORNIA PREPARED BY GEOCON, INC. DATED FEBRUARY 26, 2005 SHALL BE INCORPORATED INTO THE GRADING P

GP14. ARCHAEOLOGICAL MONITORING

INTENT: IN ORDER TO COMPLY WITH THE MITIGATION MONITORING AND REPORTING PROGRAM PURSUANT TO TM5505, AND THE COUNTY OF SAN DIEGO GUIDELINES FOR DETERMINING SIGNIFICANCE AND REPORT FORMAT AND CONTENT REQUIREMENTS FOR ARCHEOLOGICAL AND HISTORIC RESOURCES, CULTURAL RESOURCE GRADING MONITORING PROGRAM SHALL BE IMPLEMENTED. DESCRIPTION OF REQUIREMENT: THE PROJECT ARCHAEOLOGIST (AND NATIVE AMERICAN MONITOR, IF CONTRACTED) SHALL MONITOR ORIGINAL CUTTING OF PREVIOUSLY UNDISTURBED DEPOSITS IN ALL AREAS IDENTIFIED FOR DEVELOPMENT INCLUDING OFF-SITE IMPROVEMENTS. THE GRADING MONITORING PROGRAM SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS DURING GRADING:

a. "DURING THE ORIGINAL CUTTING OF PREVIOUSLY UNDISTURBED DEPOSITS, THE PROJECT ARCHAEOLOGIST AND NATIVE AMERICAN MONITOR SHALL BE ON-SITE AS DETERMINED NECESSARY BY THE PROJECT ARCHAEOLOGIST. INSPECTIONS WILL VARY BASED ON THE RATE OF EXCAVATION, THE MATERIALS EXCAVATED, AND THE PRESENCE AND ABUNDANCE OF ARTIFACTS AND FEATURES. THE FREQUENCY AND LOCATION OF INSPECTIONS WILL BE DETERMINED BY THE PROJECT ARCHAEOLOGIST IN CONSULTATION WITH THE NATIVE AMERICAN MONITOR. MONITORING OF CUTTING OF PREVIOUSLY DISTURBED DEPOSITS WILL BE DETERMINED BY THE PROJECT ARCHAEOLOGIST."

b. "IN THE EVENT THAT PREVIOUSLY UNIDENTIFIED POTENTIALLY SIGNIFICANT CULTURAL RESOURCES ARE DISCOVERED, THE PROJECT ARCHAEOLOGIST IN CONSULTATION WITH THE NATIVE AMERICAN MONITOR, SHALL HAVE THE AUTHORITY TO DIVERT OR TEMPORARILY HALT GROUND DISTURBANCE OPERATIONS IN THE AREA OF DISCOVERY TO ALLOW EVALUATION OF POTENTIALLY SIGNIFICANT CULTURAL RESOURCES. AT THE TIME OF DISCOVERY, THE PROJECT ARCHAEOLOGIST SHALL CONTACT THE PDS STAFF ARCHAEOLOGIST. THE PROJECT ARCHAEOLOGIST, IN CONSULTATION WITH THE PDS STAFF ARCHAEOLOGIST, SHALL DETERMINE THE SIGNIFICANCE OF THE DISCOVERED RESOURCES. CONSTRUCTION ACTIVITIES WILL BE ALLOWED TO RESUME IN THE AFFECTED AREA ONLY AFTER THE PDS STAFF ARCHAEOLOGIST HAS CONCURRED WITH THE EVALUATION. FOR SIGNIFICANT CULTURAL RESOURCES, A RESEARCH DESIGN AND DATA RECOVERY PROGRAM TO MITIGATE IMPACTS SHALL BE PREPARED BY THE PROJECT ARCHAEOLOGIST AND APPROVED BY THE STAFF ARCHAEOLOGIST, THEN CARRIED OUT USING PROFESSIONAL ARCHAEOLOGICAL METHODS."

c. "IF ANY HUMAN BONES ARE DISCOVERED, THE PROJECT ARCHAEOLOGIST SHALL CONTACT THE COUNTY CORONER AND THE PDS STAFF ARCHAEOLOGIST. IF THE REMAINS ARE DETERMINED TO BE OF NATIVE AMERICAN ORIGIN, THE MOST LIKELY DESCENDANT, AS IDENTIFIED BY THE NATIVE AMERICAN HERITAGE COMMISSION, SHALL BE CONTACTED BY THE PROJECT ARCHAEOLOGIST IN ORDER TO DETERMINE PROPER TREATMENT AND DISPOSITION OF THE REMAINS."

d. "IF THE GRADING WILL TAKE MORE THAN 1 MONTH, THE PROJECT ARCHAEOLOGIST SHALL SUBMIT MONTHLY STATUS REPORTS TO THE DIRECTOR OF PLANNING & DEVELOPMENT SERVICES STARTING FROM THE DATE OF THE NOTICE TO PROCEED TO TERMINATION OF IMPLEMENTATION OF THE GRADING MONITORING PROGRAM. THE REPORTS SHALL BRIEFLY SUMMARIZE ALL ACTIVITIES DURING THE PERIOD AND THE STATUS OF PROGRESS ON OVERALL PLAN IMPLEMENTATION. UPON COMPLETION OF THE IMPLEMENTATION PHASE, A FINAL REPORT SHALL BE SUBMITTED DESCRIBING THE PLAN COMPLIANCE PROCEDURES AND SITE CONDITIONS BEFORE AND AFTER CONSTRUCTION."

DOCUMENTATION: THE APPLICANT SHALL IMPLEMENT THE GRADING MONITORING PROGRAM PURSUANT TO THIS CONDITION. TIMING: THE FOLLOWING ACTIONS SHALL OCCUR THROUGHOUT THE DURATION OF THE GRADING CONSTRUCTION. MONITORING: THE [DPW, PDC] SHALL MAKE SURE THAT THE PROJECT ARCHEOLOGIST IS ON-SITE PERFORMING THE MONITORING DUTIES OF THIS CONDITION. THE [DPW, PDC] SHALL CONTACT THE [PDS, PCC] IF THE PROJECT ARCHEOLOGIST OR APPLICANT FAILS TO COMPLY WITH THIS CONDITION

GP15. BIOLOGICAL MONITORING

INTENT: IN ORDER TO PREVENT INADVERTENT DISTURBANCE TO BURROWING OWLS, SENSITIVE PLANTS TO BE SALVAGED, VERNAL POOL SOIL TO BE SALVAGED, AND OTHER SENSITIVE SPECIES, ALL GRADING SHALL BE MONITORED BY A BIOLOGICAL MONITOR. DESCRIPTION OF REQUIREMENT: A COUNTY APPROVED BIOLOGIST SHALL PERFORM BIOLOGICAL MONITORING DURING ALL GRADING, CLEARING, GRUBBING, TRENCHING, AND CONSTRUCTION ACTIVITIES. THE PROJECT BIOLOGIST SHALL SUPERVISE AND MONITOR GRADING ACTIVITIES TO ENSURE AGAINST DAMAGE TO BIOLOGICAL RESOURCES THAT ARE INTENDED TO BE PROTECTED AND PRESERVED. THE MONITOR(S) SHALL BE ON SITE DURING ALL GRADING AND CLEARING ACTIVITIES THAT ARE IN OR ADJACENT TO ANY BIOLOGICAL OPEN SPACE AREAS OR SENSITIVE HABITATS. IF THERE ARE DISTURBANCES TO SENSITIVE SPECIES, THE MONITOR MUST REPORT THEM IMMEDIATELY TO THE [PDS/ PCC]. ADDITIONALLY, THE BIOLOGIST SHALL PERFORM THE FOLLOWING DUTIES:

a. PERFORM WEEKLY INSPECTION OF FENCING AND EROSION CONTROL MEASURES (DAILY DURING RAIN EVENTS) NEAR PROPOSED PRESERVATION AREAS AND REPORT DEFICIENCIES IMMEDIATELY TO THE DPW CONSTRUCTION INSPECTOR;

b. PERIODICALLY MONITOR THE WORK AREA FOR EXCESSIVE DUST GENERATION IN COMPLIANCE WITH THE COUNTY GRADING ORDINANCE AND REPORT DEFICIENCIES IMMEDIATELY TO THE DPW CONSTRUCTION INSPECTOR;

c. CONDUCT TRAINING FOR CONTRACTORS AND CONSTRUCTION PERSONNEL, INCLUDING THE PURPOSE FOR RESOURCE PROTECTION, A DESCRIPTION OF THE BURROWING OWL AND ITS HABITAT, AND THE CONSERVATION MEASURES THAT SHOULD BE IMPLEMENTED DURING PROJECT CONSTRUCTION;

d. MONITOR CONSTRUCTION LIGHTING PERIODICALLY TO ENSURE LIGHTING IS THE LOWEST ILLUMINATION POSSIBLE ALLOWED FOR SAFETY, SELECTIVELY PLACED, SHIELDED, AND DIRECTED AWAY FROM PRESERVED HABITAT;

e. MONITOR EQUIPMENT MAINTENANCE, STAGING, AND FUEL DISPENSING AREAS TO ENSURE THERE IS NO RUNOFF TO WATERS OF THE US;

f. STOP OR DIVERT ALL WORK WHEN DEFICIENCIES REQUIRE MEDIATION AND NOTIFY DPW CONSTRUCTION INSPECTOR AND PDS PERMIT COMPLIANCE SECTION WITHIN 24 HOURS; (II) PRODUCE PERIODIC (MONTHLY DURING GRADING) MONITORING REPORTS AND SUBMIT TO THE WILDLIFE AGENCIES AND THE PDS (FINAL REPORT WILL RELEASE BOND);

g. CONFER WITH THE WILDLIFE AGENCIES AND PDS PERMIT COMPLIANCE COORDINATOR WITHIN 24 HOURS ANY TIME PROTECTED HABITAT OR SPECIES ARE BEING AFFECTED BY CONSTRUCTION;

h. ATTEND PRE-CONSTRUCTION, CONSTRUCTION MEETINGS, AND OTHER MEETINGS AS NECESSARY.

DOCUMENTATION: THE PROJECT BIOLOGIST SHALL PREPARE AND SUBMIT MONITORING REPORTS TO THE SATISFACTION OF THE [PDS, PCC], WHICH INDICATE THAT THE MONITORING HAS OCCURRED AS INDICATED ABOVE. TIMING: THESE SHALL OCCUR THROUGHOUT THE DURATION OF THE GRADING CONSTRUCTION. MONITORING: THE [DPW, PDC] SHALL ASSURE THAT THE PROJECT BIOLOGIST IS ON-SITE PERFORMING THE MONITORING DUTIES OF THIS CONDITION DURING ALL APPLICABLE GRADING ACTIVITIES AS DETERMINED BY THE BIOLOGIST. THE [DPW, PDC] SHALL CONTACT THE [PDS, PCC] IF THE PROJECT BIOLOGIST OR APPLICANT FAILS TO COMPLY WITH THIS CONDITION. THE [PDS, PCC] SHALL REVIEW AND APPROVE THE MONITORING REPORTS FOR COMPLIANCE WITH THIS CONDITION

ROUGH GRADING: PRIOR TO ROUGH GRADING APPROVAL AND ISSUANCE OF ANY BUILDING PERMIT, AT THIS POINT IN THE PROCESS, THE GRADING IS TYPICALLY 90% COMPLETE. ROUGH GRADE APPROVAL INCLUDES THE PAD CERTIFICATION(S) WHICH IS REQUIRED FOR A BUILDING PERMIT TO BE ISSUED

GP16. DEBRIS MANAGEMENT REPORT

INTENT: IN ORDER TO COMPLY WITH THE GRADING MATERIAL DIVERSION PROGRAM, PROJECT RECYCLING AND DIVERSION IS DESIGNED TO INCREASE DIVERSION OF GRADING, LAND CLEARING, AND BRUSHING MATERIALS FROM LANDFILLS, EXTEND THE USEFUL LIFE OF LOCAL LANDFILLS, AND SUPPORT CONSTRUCTION AND DEMOLITION PROJECT COMPLIANCE WITH STATE WASTE DIVERSION REQUIREMENTS. THIS INCLUDES GRADING, CLEARING AND BRUSHING MATERIAL FOR GRADING PROJECTS OVER 5,000 CUBIC YARDS. FOR ADDITIONAL QUESTIONS PLEASE CALL (858) 694-2463 OR EMAIL CORECYCLING@SDCOUNTY.CA.GOV. DESCRIPTION OF REQUIREMENT: PRIOR TO ROUGH GRADE INSPECTION AND RELEASE, AND PRIOR TO ISSUANCE OF ANY BUILDING PERMIT, A FINAL DEBRIS MANAGEMENT REPORT MUST BE SUBMITTED FOR REVIEW AND APPROVAL BY THE DPW RECYCLING COMPLIANCE OFFICIAL. THE REPORT SHALL INCLUDE

- PROJECT NAME
- LIST OF TOTAL WEIGHT, TONNAGE, OR CUBIC YARDS OF MATERIALS, BY TYPE, WHICH WAS RECYCLED, SALVAGED, OR DISPOSED OF IN A LANDFILL
- PROVIDE COPIES OF RECEIPTS FOR EXPORT FACILITIES, HAULERS, OR MATERIALS REUSED ON SITE.
- SIGNED SELF-CERTIFICATION LETTER (SEE TEMPLATE)

DOCUMENTATION: PRIOR TO ROUGH GRADE RELEASE AND PRIOR TO ISSUANCE OF ANY BUILDING PERMIT, A FINAL REPORT SHALL BE PREPARED AND SUBMITTED FOR REVIEW AND APPROVAL TO THE DPW RECYCLING COMPLIANCE OFFICIAL. FOR ADDITIONAL QUESTIONS, PLEASE CALL (858) 694-2463 OR EMAIL CORECYCLING@SDCOUNTY.CA.GOV. TEMPLATES FOR ALL FORMS REQUIRED ARE AVAILABLE AT:
HTTPS://WWW.SANDIEGOCOUNTY.GOV/CONTENT/SDC/DPW/RECYCLING/NEWCD_GRADING.HTML. TIMING: PRIOR TO BUILDING PERMIT ISSUANCE, AND ROUGH GRADING RELEASE. THE DEBRIS MANAGEMENT FINAL REPORT SHALL BE PREPARED AND SUBMITTED TO DPW RECYCLING OFFICIAL [DPW CO] FOR REVIEW AND APPROVAL. MONITORING: THE [DPW, CO] SHALL REVIEW AND APPROVE THE DMR DOCUMENTS FOR THE PROJECT. THE [DPW, CO] SHALL FORWARD THE APPROVAL OF THE DMR TO [DPW, PDC] AND [PDS, BUILDING PCC] FOR COMPLIANCE WITH THIS CONDITION

GP17. BIOLOGICAL MONITORING REPORT

INTENT: IN ORDER TO PREVENT INADVERTENT DISTURBANCE TO BURROWING OWLS, SENSITIVE PLANTS TO BE SALVAGED, VERNAL POOL SOIL TO BE SALVAGED, AND OTHER SENSITIVE SPECIES, A GRADING MONITORING PROGRAM SHALL BE IMPLEMENTED IN ACCORDANCE WITH THE COUNTY OF SAN DIEGO GUIDELINES FOR DETERMINING SIGNIFICANCE AND REPORT FORMAT AND CONTENT REQUIREMENTS FOR BIOLOGICAL RESOURCES. DESCRIPTION OF REQUIREMENT: THE PROJECT BIOLOGIST SHALL PREPARE AND SUBMIT A FINAL LETTER REPORT SUBSTANTIATING HIS/HER SUPERVISION OF THE GRADING ACTIVITIES AND SUBSTANTIATING THAT GRADING DID NOT IMPACT ADDITIONAL BURROWING OWLS, PLANTS TO BE SALVAGED, OR OTHER SENSITIVE BIOLOGICAL RESOURCES. THE REPORT SHALL CONFORM TO THE COUNTY OF SAN DIEGO REPORT FORMAT GUIDELINES FOR BIOLOGICAL RESOURCES. IT SHALL ALSO INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING ITEMS:

a. PHOTOS OF THE TEMPORARY FENCING THAT WAS INSTALLED DURING THE TRENCHING, GRADING, OR CLEARING ACTIVITIES.

b. MONITORING LOGS SHOWING THE DATE AND TIME THAT THE MONITOR WAS ON SITE.

c. PHOTOS OF THE SITE AFTER THE GRADING AND CLEARING ACTIVITIES

DOCUMENTATION: THE APPLICANT SHALL SUBMIT THE FINAL BIOLOGICAL MONITORING REPORT TO THE [PDS, PCC] FOR REVIEW AND APPROVAL. TIMING: UPON COMPLETION OF ALL GRADING ACTIVITIES, AND PRIOR TO ROUGH GRADING FINAL INSPECTION (GRADING ORDINANCE SEC 87.421.A.3). THE FINAL REPORT SHALL BE COMPLETED. MONITORING: THE [PDS, PCC] SHALL REVIEW THE FINAL REPORT FOR COMPLIANCE WITH THE PROJECT MMRP, AND INFORM [DPW, PDC] THAT THE REQUIREMENT IS COMPLETED

GP18. ARCHAEOLOGICAL MONITORING REPORT

INTENT: IN ORDER TO COMPLY WITH THE ADOPTED MITIGATION MONITORING AND REPORTING PROGRAM (MMRP) PURSUANT TO TM 5505 AND THE COUNTY OF SAN DIEGO GUIDELINES FOR DETERMINING SIGNIFICANCE AND REPORT FORMAT AND CONTENT REQUIREMENTS FOR ARCHAEOLOGICAL RESOURCES, A GRADING MONITORING PROGRAM SHALL BE IMPLEMENTED. DESCRIPTION OF REQUIREMENT: THE PROJECT ARCHAEOLOGIST SHALL PREPARE ONE OF THE FOLLOWING REPORTS UPON COMPLETION OF THE GRADING ACTIVITIES THAT REQUIRE MONITORING:

a. *IF NO ARCHAEOLOGICAL RESOURCES ARE ENCOUNTERED* DURING GRADING, THEN SUBMIT A FINAL NEGATIVE MONITORING REPORT SUBSTANTIATING THAT GRADING ACTIVITIES ARE COMPLETED AND NO CULTURAL RESOURCES WERE ENCOUNTERED. MONITORING LOGS SHOWING THE DATE AND TIME THAT THE MONITOR WAS ON SITE MUST BE INCLUDED IN THE NEGATIVE MONITORING REPORT.

b. *IF ARCHAEOLOGICAL RESOURCES WERE ENCOUNTERED* DURING GRADING, THE PROJECT ARCHAEOLOGIST SHALL PROVIDE A MONITORING REPORT STATING THAT THE FIELD GRADING MONITORING ACTIVITIES HAS BEEN COMPLETED, AND THAT RESOURCES HAVE BEEN ENCOUNTERED. THE REPORT SHALL DETAIL ALL CULTURAL ARTIFACTS AND DEPOSITS DISCOVERED DURING MONITORING AND THE ANTICIPATED TIME SCHEDULE FOR COMPLETION OF THE CURATION PHASE OF THE MONITORING.

DOCUMENTATION: THE APPLICANT SHALL SUBMIT THE MONITORING REPORT TO THE [PDS, PCC] FOR REVIEW AND APPROVAL. TIMING: UPON COMPLETION OF ALL GRADING ACTIVITIES, AND PRIOR TO ROUGH GRADING FINAL INSPECTION (GRADING ORDINANCE SEC 87.421.A.3). THE REPORT SHALL BE COMPLETED. MONITORING: THE [PDS, PCC] SHALL REVIEW THE REPORT OR FIELD MONITORING MEMO FOR COMPLIANCE WITH THE PROJECT MMRP, AND INFORM [DPW, PDC] THAT THE REQUIREMENT IS COMPLETED.

FINAL GRADING RELEASE: PRIOR TO ANY OCCUPANCY, FINAL GRADING RELEASE, OR USE OF THE PREMISES IN RELIANCE OF THIS PERMIT FINAL RELEASE COINCIDES WITH THE OCCUPANCY MILESTONE OF THE DISCRETIONARY PERMIT CONDITIONING.

GP19. VERIFICATION OF STRUCTURAL BMPS

INTENT: IN ORDER TO PROMOTE ORDERLY DEVELOPMENT AND TO COMPLY WITH THE COUNTY WATERSHED PROTECTION ORDINANCE (WPO) NO 10410, COUNTY CODE SECTION 67.801 ET SEQ. VERIFICATION OF STRUCTURAL BMPS SHALL BE COMPLETED. DESCRIPTION OF REQUIREMENT: COMPLETE A STRUCTURAL BMP VERIFICATION FORM AS SHOWN IN ATTACHMENT 10 OF THE PDP SWQMP. DOCUMENTATION: THE APPLICANT SHALL PROCESS THE STRUCTURAL BMP VERIFICATION FORMS WITH [DPW, PDCA] OR [PDS, BLDG]. TIMING: PRIOR TO ANY OCCUPANCY, FINAL GRADING RELEASE, OR USE OF THE PREMISES IN RELIANCE OF THIS PERMIT, EXECUTION OF THE STRUCTURAL BMP VERIFICATION FORM SHALL BE COMPLETED. MONITORING: THE [PDS, LDR] AND [DPW, WPP] SHALL REVIEW THE STRUCTURAL BMP VERIFICATION FORMS FOR CONSISTENCY WITH THE CONDITION AND COUNTY STANDARDS.

GP20. STORMWATER SELF-VERIFICATION OPERATION AND MAINTENANCE LETTER

INTENT: IN ORDER TO PROMOTE ORDERLY DEVELOPMENT AND TO COMPLY WITH THE COUNTY WATERSHED PROTECTION ORDINANCE (WPO) NO 10410, COUNTY CODE SECTION 67.801 ET SEQ. AN OPERATION AND MAINTENANCE VERIFICATION FORM FOR EACH STRUCTURAL BMPS SHALL BE COMPLETED. DESCRIPTION OF REQUIREMENT: EVERY YEAR THE PROPERTY OWNER SHALL RECEIVE FROM THE COUNTY A BMP VERIFICATION FORM TO BE COMPLETED FOR EACH PRIVATELY OWNED STRUCTURAL BMP. DOCUMENTATION: EVERY YEAR THE PROPERTY OWNER SHALL FILE WITH THE COUNTY THE COMPLETED STRUCTURAL BMP VERIFICATION FORM STATING THE MAINTENANCE PERFORMED DURING THE REPORTING PERIOD FOR EACH PRIVATELY OWNED STRUCTURAL BMP WITH [DPW, WPP]. TIMING: UPON ESTABLISHMENT OF THE USE, THIS CONDITION SHALL APPLY FOR THE DURATION OF THE TERM OF THIS PERMIT. MONITORING: THE [DPW, WPP] IS RESPONSIBLE FOR COMPLIANCE OF THIS PERMIT.

GP21. PROVISION OF STORMWATER DOCUMENTATION TO PROPERTY OWNER

INTENT: IN ORDER TO PROMOTE ORDERLY DEVELOPMENT AND TO COMPLY WITH THE COUNTY WATERSHED PROTECTION ORDINANCE (WPO) NO 10410, COUNTY CODE SECTION 67.801 ET SEQ. STORMWATER DOCUMENTATION SHALL BE PROVIDED TO PROPERTY OWNER. DESCRIPTION OF REQUIREMENT: DEMONSTRATE THAT COPIES OF THE FOLLOWING DOCUMENTS ARE PROVIDED TO THE PROPERTY OWNER AND INITIAL OCCUPANTS:

a. A COPY OF THE PROJECT'S APPROVED SWQMP (WITH ATTACHED OPERATION & MAINTENANCE PLAN).

b. A COPY OF PROJECT'S RECORDED MAINTENANCE NOTIFICATION AGREEMENT AND/OR STORMWATER FACILITIES MAINTENANCE AGREEMENT AND/OR PRIVATE ROAD MAINTENANCE AGREEMENT SHOWING THE STRUCTURAL BMPS PERTAINING TO THE PROPERTY

c. SAMPLE COPIES OF THE FOLLOWING

a. A LETTER FOR PRIVATELY OWNED STORMWATER TREATMENT CONTROL BEST MANAGEMENT PRACTICES OPERATION AND MAINTENANCE VERIFICATION

b. ONE OPERATION AND MAINTENANCE VERIFICATION FORM FOR EACH TYPE OF PRIVATE TREATMENT CONTROL BMP

DOCUMENTATION: THE APPLICANT SHALL SUBMIT A LETTER STATING THAT THE ABOVE DOCUMENTATION HAS BEEN SUBMITTED TO THE PROPERTY OWNER AND INITIAL OCCUPANTS. TIMING: PRIOR TO ANY OCCUPANCY, FINAL GRADING RELEASE, OR USE OF THE PREMISES IN RELIANCE OF THIS PERMIT. PROVISION OF STORMWATER DOCUMENTS SHALL BE COMPLETED. MONITORING: THE [PDS, LDR] AND [DPW, WPP] SHALL REVIEW THE LETTER PROVIDED BY THE APPLICANT FOR CONSISTENCY WITH THE CONDITION AND COUNTY STANDARDS

GP22. ARCHAEOLOGICAL MONITORING FINAL REPORT

INTENT: IN ORDER TO COMPLY WITH THE ADOPTED MITIGATION MONITORING AND REPORTING PROGRAM (MMRP) PURSUANT TO TM 5505 AND THE COUNTY OF SAN DIEGO GUIDELINES FOR DETERMINING SIGNIFICANCE AND REPORT FORMAT AND CONTENT REQUIREMENTS FOR ARCHAEOLOGICAL RESOURCES, A GRADING MONITORING PROGRAM SHALL BE IMPLEMENTED. DESCRIPTION OF REQUIREMENT: THE PROJECT ARCHAEOLOGIST SHALL PREPARE A FINAL REPORT THAT DOCUMENTS THE RESULTS, ANALYSIS, AND CONCLUSIONS OF ALL PHASES OF THE ARCHAEOLOGICAL MONITORING PROGRAM IF CULTURAL RESOURCES WERE ENCOUNTERED DURING GRADING. THE REPORT SHALL INCLUDE THE FOLLOWING:

a. DEPARTMENT OF PARKS AND RECREATION PRIMARY AND ARCHAEOLOGICAL SITE FORMS.

b. DAILY MONITORING LOGS

c. EVIDENCE THAT ALL CULTURAL RESOURCES COLLECTED DURING THE GRADING MONITORING PROGRAM HAVE BEEN SUBMITTED TO A BONA FIDE CURATION FACILITY THAT MEETS FEDERAL STANDARDS PER 36 CFR PART 79, AND, THEREFORE, WOULD BE PROFESSIONALLY CURATED AND MADE AVAILABLE TO OTHER ARCHAEOLOGISTS/RESEARCHERS FOR FURTHER STUDY. THE COLLECTIONS AND ASSOCIATED RECORDS, INCLUDING TITLE, SHALL BE TRANSFERRED TO THE SAN DIEGO CURATION FACILITY AND SHALL BE ACCOMPANIED BY PAYMENT OF THE FEES NECESSARY FOR PERMANENT CURATION. EVIDENCE SHALL BE IN THE FORM OF A LETTER FROM THE CURATION FACILITY STATING THAT ARCHAEOLOGICAL MATERIALS HAVE BEEN RECEIVED AND THAT ALL FEES HAVE BEEN PAID

d. IF NO CULTURAL RESOURCES ARE DISCOVERED, A BRIEF LETTER TO THAT EFFECT MUST BE SUBMITTED STATING THAT THE GRADING MONITORING ACTIVITIES HAVE BEEN COMPLETED. DAILY MONITORING LOGS MUST BE SUBMITTED WITH THE NEGATIVE MONITORING REPORT.

DOCUMENTATION: THE APPLICANT SHALL SUBMIT THE REPORT TO THE [PDS, PCC] FOR REVIEW AND APPROVAL. TIMING: PRIOR TO THE OCCUPANCY OF ANY STRUCTURE OR USE OF THE PREMISES IN RELIANCE OF TM 5505R2, AND PRIOR TO FINAL GRADING RELEASE (GRADING ORDINANCE SEC. 87.421.A.3). FOR THE FINAL REPORT SHALL BE COMPLETED. MONITORING: THE [PDS, PCC] SHALL REVIEW THE FINAL REPORT FOR COMPLIANCE WITH THE PROJECT MMRP, AND INFORM [DPW, PDC] THAT THE REQUIREMENT IS COMPLETED.

GP23. PALEONTOLOGICAL MITIGATION FINAL REPORT

INTENT: IN ORDER TO MITIGATE POTENTIAL IMPACTS TO PREVIOUSLY UNKNOWN PALEONTOLOGICAL RESOURCES DURING PROJECT GRADING AND EXCAVATION ACTIVITIES, A MITIGATION AND MONITORING PROGRAM SHALL BE ESTABLISHED. DESCRIPTION OF REQUIREMENT: THE IMPACTS WILL BE MITIGATED BY IMPLEMENTING THE MITIGATION AND MONITORING PROGRAM DETAILED IN THE COUNTY'S GUIDELINES FOR DETERMINING SIGNIFICANCE – PALEONTOLOGICAL RESOURCES (COUNTY OF SAN DIEGO 2005). INITIAL CUTTING, GRADING, OR EXCAVATION OF UNDISTURBED SUBSTRATUM IN AREAS OF HIGH AND MODERATE SENSITIVITY WILL BE MONITORED BY A PROJECT PALEONTOLOGIST OR A PALEONTOLOGICAL RESOURCES MONITOR UNDER THE SUPERVISION OF THE PROJECT PALEONTOLOGIST.

IF PALEONTOLOGICAL RESOURCES ARE UNEARTHED, THE QUALIFIED PALEONTOLOGIST OR PALEONTOLOGICAL MONITOR SHALL DIRECT, DIVERT, OR HALT ANY GRADING OR EXCAVATION ACTIVITY UNTIL SUCH TIME THAT THE SENSITIVITY OF THE RESOURCE CAN BE DETERMINED AND THE APPROPRIATE RECOVERY IMPLEMENTED. IF FOUND, SIGNIFICANT PALEONTOLOGICAL RESOURCES WILL BE SALVAGED, CLEANED, CURATED, AND TRANSFERRED TO AN ACCREDITED MUSEUM OR UNIVERSITY IN CALIFORNIA. MITIGATION SHALL BE CONSIDERED COMPLETE WHEN THE COUNTY'S PERMIT COMPLIANCE COORDINATOR, ON BEHALF OF THE DIRECTOR OF PLANNING & DEVELOPMENT SERVICES, RECEIVES A FINAL REPORT PREPARED BY THE PROJECT PALEONTOLOGIST, AND A LETTER FROM THE ACCREDITED INSTITUTION STATING THAT THE PALEONTOLOGICAL RESOURCES HAVE BEEN RECEIVED AND ACCEPTED. DOCUMENTATION: THE APPLICANT SHALL PREPARE A FINAL REPORT DOCUMENTING THE FINDINGS AND ANALYSIS OF FIELD WORK. THE FINAL REPORT SHALL BE SUBMITTED TO THE DEPARTMENT OF PLANNING & DEVELOPMENT SERVICES. TIMING: FIELDWORK AND ANALYSIS SHALL BE COMPLETED PRIOR TO FINAL GRADING INSPECTION. MONITORING: THE DEPARTMENT OF PLANNING & DEVELOPMENT SERVICES SHALL REVIEW THE FINAL PALEONTOLOGICAL REPORT IN CONFORMANCE WITH THIS MITIGATION MEASURE AND THE SAN DIEGO COUNTY PALEONTOLOGICAL GUIDELINES FOR DETERMINING SIGNIFICANCE.

IT IS FURTHER RESOLVED, THEREFORE, THAT THE PLANNING COMMISSION OF THE COUNTY OF SAN DIEGO HEREBY MAKES THE FOLLOWING FINDINGS AS SUPPORTED BY THE MINUTES, MAPS, EXHIBITS, AND DOCUMENTATION OF SAID TENTATIVE MAP ALL OF WHICH ARE HEREIN INCORPORATED BY REFERENCE.

1. THE TENTATIVE MAP IS CONSISTENT WITH ALL ELEMENTS OF THE SAN DIEGO COUNTY GENERAL PLAN AND WITH THE SPECIFIC PLAN AREA LAND USE DESIGNATION OF THE OTAY SUBREGIONAL PLAN BECAUSE IT PROPOSES A MIXED INDUSTRIAL USE TYPE CONSISTENT WITH THE MIXED INDUSTRIAL DESIGNATION OF THE EAST OTAY MESA SPECIFIC PLAN AND COMPLIES WITH THE PROVISIONS OF THE STATE SUBDIVISION MAP ACT AND THE SUBDIVISION ORDINANCE OF THE SAN DIEGO COUNTY CODE.

2. THE TENTATIVE MAP IS CONSISTENT WITH THE ZONING ORDINANCE BECAUSE IT PROPOSES AN INDUSTRIAL USE TYPE WITH A MINIMUM NET LOT SIZE OF 30,000 SF IN THE S88 USE REGULATION.

3. THE DESIGN AND IMPROVEMENTS OF THE PROPOSED SUBDIVISION ARE CONSISTENT WITH ALL ELEMENTS OF THE SAN DIEGO COUNTY GENERAL PLAN AND WITH THE OTAY SUBREGIONAL PLAN, AND COMPLY WITH THE PROVISIONS OF THE STATE SUBDIVISION ACT AND THE SUBDIVISION ORDINANCE OF THE SAN DIEGO COUNTY CODE.

4. THE SITE IS PHYSICALLY SUITABLE FOR THE INDUSTRIAL TYPE OF DEVELOPMENT BECAUSE IT IS GENERALLY FLAT VACANT LAND THAT LIES ADJACENT TO THE UNITED STATES/MEXICO BORDER AND HAS BEEN DESIGNATED FOR INDUSTRIAL DEVELOPMENT.

5. THE SITE IS PHYSICALLY SUITABLE FOR THE PROPOSED DENSITY OF DEVELOPMENT BECAUSE THE AREA IS DESIGNATED FOR INDUSTRIAL DEVELOPMENT INCLUDING STATE ROUTE 11 AND THE FUTURE PORT OF ENTRY

6. THE DESIGN OF THE SUBDIVISION AND THE TYPE OF IMPROVEMENTS WILL NOT CAUSE PUBLIC HEALTH PROBLEMS BECAUSE ADEQUATE WATER SUPPLY AND SEWAGE DISPOSAL SERVICES HAVE BEEN FOUND TO BE AVAILABLE OR CAN BE PROVIDED CONCURRENT WITH NEED.

7. THE DESIGN OF THE SUBDIVISION OR THE PROPOSED IMPROVEMENTS ARE NOT LIKELY TO CAUSE SUBSTANTIAL ENVIRONMENTAL DAMAGE OR SUBSTANTIALLY AND AVOIDABLY INJURE FISH OR WILDLIFE OR THEIR HABITAT BASED UPON THE FINDINGS OF AN ENVIRONMENTAL IMPACT REPORT DATED OCTOBER 2011.

8. THE DESIGN OF THE SUBDIVISION OR THE TYPE OF IMPROVEMENTS DO NOT CONFLICT WITH EASEMENTS, ACQUIRED BY THE PUBLIC AT LARGE, FOR ACCESS THROUGH, OR USE OF PROPERTY WITHIN THE PROPOSED SUBDIVISION. AS DEFINED UNDER SECTION 66474 OF THE GOVERNMENT CODE, STATE OF CALIFORNIA; AND

9. THE DIVISION AND DEVELOPMENT OF THE PROPERTY IN THE MANNER SET FORTH ON THE APPROVED TENTATIVE MAP WILL NOT UNREASONABLY INTERFERE WITH THE FREE AND COMPLETE EXERCISE OF THE PUBLIC ENTITY OR PUBLIC UTILITY RIGHT-OF-WAY OR EASEMENT.

10. THE DISCHARGE OF SEWAGE WASTE FROM THE SUBDIVISION INTO THE SAN DIEGO COUNTY SANITATION DISTRICT SEWER SYSTEM WILL NOT RESULT IN VIOLATION OF EXISTING REQUIREMENTS PRESCRIBED BY THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD PURSUANT TO DIVISION 7 (COMMENCING WITH SECTION 13000) OF THE WATER CODE, AS SPECIFIED BY GOVERNMENT CODE SECTION 66474.6;

MITIGATION MONITORING OR REPORTING PROGRAM (MMRP): PUBLIC RESOURCES CODE SECTION 21081.6 REQUIRES THE COUNTY TO ADOPT A MITIGATION MONITORING OR REPORTING PROGRAM FOR ANY PROJECT APPROVED WITH THE ADOPTION OF A MITIGATED NEGATIVE DECLARATION OR WITH THE CERTIFICATION OF AN ENVIRONMENTAL IMPACT REPORT, FOR WHICH CHANGES IN THE PROJECT ARE REQUIRED IN ORDER TO AVOID SIGNIFICANT IMPACTS.

SECTION 21081.6(A)(1) STATES, IMPART:

THE PUBLIC AGENCY SHALL ADOPT A REPORTING OR MONITORING PROGRAM FOR THE CHANGES MADE TO THE PROJECT OR CONDITIONS OF PROJECT APPROVAL, ADOPTED IN ORDER TO MITIGATE OR AVOID SIGNIFICANT EFFECTS ON THE ENVIRONMENT. THE REPORTING OR MONITORING PROGRAM SHALL BE DESIGNED TO ENSURE COMPLIANCE DURING PROJECT IMPLEMENTATION.

SECTION 21081(B) FURTHER STATES

A PUBLIC AGENCY SHALL PROVIDE (THAT) THE MEASURES TO MITIGATE OR AVOID SIGNIFICANT EFFECTS ON THE ENVIRONMENT ARE FULLY ENFORCEABLE THROUGH PERMIT CONDITIONS, AGREEMENTS, OR OTHER MEASURES.

AS INDICATED ABOVE, A MITIGATION MONITORING OR REPORTING PROGRAM IS REQUIRED TO ASSURE THAT A PROJECT IS IMPLEMENTED IN COMPLIANCE WITH ALL REQUIRED MITIGATION MEASURES. THE MITIGATION MONITORING OR REPORTING PROGRAM (MMRP) FOR THIS PROJECT IS INCORPORATED INTO THE MITIGATION MEASURES AS ADOPTED AS PROJECT CONDITIONS OF APPROVAL. EACH MITIGATION MEASURE ADOPTED AS A CONDITION OF APPROVAL (COA) INCLUDES THE FOLLOWING FIVE COMPONENTS.

INTENT: AN EXPLANATION OF WHY THE MITIGATION MEASURE (MM) WAS IMPOSED ON THE PROJECT.
DESCRIPTION: A DETAILED DESCRIPTION OF THE SPECIFIC ACTION(S) THAT MUST BE TAKEN TO MITIGATE OR AVOID IMPACT

HAWANO GRADING PLAN NOTES

NOTICE: IF THE GRADING PROJECT IS NOT A SINGLE LOT, CONFORMANCE TO THE CONDITIONS OF APPROVAL ARE REQUIRED ON A LOT-BY-LOT BASIS FOR SUBDIVISIONS. PAD-BY-PAD BASIS FOR MULTIPLE BUILDING PADS (NOTE: THE FOLLOWING GRADING AND/OR IMPROVEMENT PLAN NOTES SHALL BE PLACED ON THE GRADING PLAN (GP) AND MADE CONDITIONS OF THE ISSUANCE OF SAID PERMITS.)

GP1. PAVEMENT CUT POLICY

INTENT: IN ORDER TO PROHIBIT TRENCH CUTS FOR UNDERGROUNDING OF UTILITIES IN ALL NEW, RECONSTRUCTED, OR RESURFACED PAVED COUNTY-MAINTAINED ROADS FOR A PERIOD OF THREE YEARS FOLLOWING PROJECT PAVEMENT TREATMENT, AND TO COMPLY WITH COUNTY POLICY RO-7 ADJACENT PROPERTY OWNERS SHALL BE NOTIFIED AND SOLICITED FOR THEIR PARTICIPATION IN THE EXTENSION OF UTILITIES. DESCRIPTION OF REQUIREMENT: ALL ADJACENT PROPERTY OWNERS SHALL BE NOTIFIED WHO MAY BE AFFECTED BY THIS POLICY AND ARE CONSIDERING DEVELOPMENT OF APPLICABLE PROPERTIES. THIS INCLUDES REQUESTING THEIR PARTICIPATION IN THE EXTENSION OF UTILITIES TO COMPLY WITH THIS POLICY. NO TRENCH CUTS FOR UNDERGROUNDING OF UTILITIES IN ALL NEW, RECONSTRUCTED, OR RESURFACED PAVED COUNTY-MAINTAINED ROADS FOR A PERIOD OF THREE YEARS FOLLOWING PROJECT SURFACE

DOCUMENTATION: THE APPLICANT SHALL SIGN A STATEMENT THAT THEY ARE AWARE OF THE COUNTY OF SAN DIEGO PAVEMENT CUT POLICY AND SUBMIT IT TO THE (PDS (DPR) FOR REVIEW. TIMING: PRIOR TO APPROVAL OF ANY GRADING OR IMPROVEMENT PLAN AND PRIOR TO ISSUANCE OF ANY GRADING OR CONSTRUCTION PERMIT, AND PRIOR TO USE OF THE PROPERTY. IN RELIANCE OF THIS PERMIT, THE ACKNOWLEDGEMENT OF DEPARTMENT OF PUBLIC WORKS PAVEMENT CUT POLICY SHALL BE SUBMITTED FOR APPROVAL. MONITORING: (PDS, LDR) SHALL REVIEW THE ACKNOWLEDGEMENT LETTER TO DETERMINE COMPLIANCE WITH THE CONDITION

GP2. GEOHY-GEOLOGIC HAZARDS: (PDS, LDR) (GP)

INTENT: IN ORDER TO ENSURE APPROPRIATE ENGINEERING DESIGN MEASURES AND CONSTRUCTION PRACTICES ARE IMPLEMENTED TO MITIGATE THE POTENTIAL FOR DEEP-SEATED STABILITY OF SLOPES TO ESTABLISHED STANDARDS OF SAFETY. DESCRIPTION OF REQUIREMENT: WITHIN THE PRELIMINARY GEOTECHNICAL INVESTIGATION, HAWANO EAST OTAY PROPERTY, SAN DIEGO COUNTY, CALIFORNIA, BY GEOCON, INC. DATED JULY 7, 2010, PROPOSED CUT SLOPES THAT EXPOSE THE OTAY FORMATION AT THE SITE WERE IDENTIFIED AS REQUIRING SLOPE STABILIZATION. ALL MITIGATION MEASURES REGARDING SLOPE STABILIZATION CONTAINED WITHIN THE GRADING SECTION OF THE REPORT SHALL BE INCORPORATED INTO THE GRADING PLANS.

DOCUMENTATION: THE APPLICANT SHALL PREPARE THE FINAL GRADING PLANS TO INCLUDE SLOPE STABILIZATION MEASURES TO MEET ESTABLISHED STANDARDS OF SAFETY FOR APPROVAL BY THE (PDS, LDR) THE PRELIMINARY GEOTECHNICAL INVESTIGATION, HAWANO EAST OTAY PROPERTY, SAN DIEGO COUNTY, CALIFORNIA, BY GEOCON, INC. DATED JULY 7, 2010 SHALL BE SUBMITTED ALONG WITH THE FINAL GRADING PLANS. TIMING: PRIOR TO THE APPROVAL OF ANY GRADING PLANS OR FINAL MAP. THE SLOPE STABILIZATION MEASURES SHALL REQUIRED TO BE INCLUDED MONITORING: THE (PDS, LDR) SHALL ENSURE THAT SLOPE STABILIZATION MEASURES FOR PROPOSED CUT SLOPES THAT EXPOSE THE OTAY FORMATION ARE INCORPORATED INTO THE GRADING PLANS FOR THE PROJECT.

GP3. AIR04-AIR QUALITY: (DPW, PDCI)

INTENT: TO MITIGATE FOR POTENTIAL AIR QUALITY EFFECTS THAT MAY BE CAUSED BY GRADING ACTIVITIES DURING CONSTRUCTION. DESCRIPTION OF REQUIREMENT: THE PROJECT SHALL COMPLY WITH THE FOLLOWING AIR QUALITY MEASURES

a. ALL HAULOUT TRUCKS ENTERING OR LEAVING THE SITE WITH SOIL OR FILL MATERIAL MUST MAINTAIN AT LEAST 2 FEET OF FREEBOARD OR COVER LOADS OF ALL HAULOUT TRUCKS SECURELY

b. DUST CONTROL MEASURES OF THE GRADING ORDINANCE WILL BE ENHANCED WITH A MINIMUM OF THREE (3) DAILY APPLICATIONS OF WATER TO THE CONSTRUCTION AREAS, BETWEEN DOZER/SCRAPER PASSES AND ON ANY UNPAVED ROADS WITHIN THE PROJECT LIMITS

c. GRADING IS TO BE TERMINATED IF WINDS EXCEED 25 MPH

d. SWEEPERS AND WATER TRUCKS SHALL BE USED TO CONTROL DUST AND DEBRIS AT PUBLIC STREET ACCESS POINTS

e. DIRT STORAGE PILES WILL BE STABILIZED BY CHEMICAL BINDERS, TARPS, FENCING OR OTHER SUPPRESSION MEASURES

f. INTERNAL CONSTRUCTION ROADWAYS WILL BE STABILIZED BY PAVING, CHIP SEALING OR CHEMICALS AFTER ROUGH GRADING

g. A MINIMUM OF 5 - 15 MPH SIGNS SHALL BE POSTED AND ENFORCED ON UNPAVED AREAS DURING CONSTRUCTION

h. DISTURBED AREAS SHALL BE REPLANTED AS SOON AS PRACTICAL

i. WHEEL WASHERS AND STREET SWEEPERS SHALL BE PROVIDED TO PREVENT ONSITE DIRT FROM GETTING ON THE PAVED ROADWAYS. ACCESS ROADWAYS SHALL BE SWEPT REGULARLY TO PREVENT DUST TRACK-OUT

DOCUMENTATION: THE APPLICANT SHALL COMPLY WITH THE AIR QUALITY REQUIREMENTS OF THIS CONDITION. TIMING: THE FOLLOWING ACTIONS SHALL OCCUR THROUGHOUT THE DURATION OF THE GRADING CONSTRUCTION. MONITORING: THE (DPW, PDCI) SHALL MAKE SURE THAT THE GRADING CONTRACTOR COMPLIES WITH THE AIR QUALITY REQUIREMENTS OF THIS CONDITION. THE (DPW, PDCI) SHALL CONTACT THE (PDS, PCC) IF THE APPLICANT FAILS TO COMPLY WITH THIS CONDITION

GP4. AIR05-AIR QUALITY: (DPW, PDCI)

INTENT: IN ORDER TO LOWER CONSTRUCTION EMISSIONS OF PM_{10} AND $PM_{2.5}$ TO BELOW THE COUNTY'S ESTABLISHED SCREENING LEVEL THRESHOLDS (SLTs) FOR CONSTRUCTION ACTIVITIES. GRADING MONITORING AND EMISSION REDUCTION ACTIVITIES SHALL OCCUR

DESCRIPTION OF REQUIREMENT: GRADING PLANS SHALL BE PREPARED, WHICH CLEARLY DESCRIBE THE GRADING MONITORING AND EMISSION REDUCTION ACTIVITIES THAT SHALL BE UNDERTAKEN DURING EARTHMOVING ACTIVITIES TO IMPLEMENT SECTION 87.428 "DUST CONTROL MEASURES" OF THE COUNTY'S GRADING ORDINANCE. THE GRADING PLANS SHALL INCLUDE THE FOLLOWING

a. THE PERMIT COMPLIANCE ENGINEER (AS DEFINED IN SECTION 87.420 OF THE COUNTY GRADING ORDINANCE) SHALL PROVIDE DOCUMENTATION/EVIDENCE OF COMPLIANCE WITH EACH NOTE IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE

b. DURING GRADING AND GROUND-DISTURBING CONSTRUCTION ACTIVITIES, THE PERMIT COMPLIANCE ENGINEER SHALL ENSURE THAT WATER TRUCKS OR SPRINKLER SYSTEMS APPLY WATER TO AREAS UNDERGOING ACTIVE GROUND DISTURBANCE A MINIMUM OF THREE (3) TIMES DAILY (3.2 HOUR WATERING INTERVAL) TO ENSURE A MINIMUM SOIL MOISTURE OF 12%. ALL AREAS OF DISTURBED SOILS SHALL BE KEPT DAMP ENOUGH TO PREVENT AIRBORNE DUST FROM DISPERSING BEYOND THE BOUNDARIES OF THE SITE. THE PERMIT COMPLIANCE ENGINEER SHALL ORDER INCREASED WATERING FREQUENCY WHEN AIRBORNE DUST IS VISIBLE. A LOG OF ALL SITE WATERING ACTIVITIES SHALL BE MAINTAINED BY THE PERMIT COMPLIANCE ENGINEER, AND THIS LOG SHALL BE MADE AVAILABLE TO THE COUNTY UPON REQUEST

REPORTING: THE PERMIT COMPLIANCE ENGINEER SHALL MAINTAIN A LOG OF DAILY SITE WATERING ACTIVITIES, AND SHALL BE PROVIDED TO THE COUNTY UPON REQUEST. THE SITE WATERING LOG ALSO SHALL BE PROVIDED IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE

c. THE PERMIT COMPLIANCE ENGINEER SHALL ASSURE THAT TEMPORARY SIGNS INDICATING A MAXIMUM 15 MPH SPEED LIMIT ARE PLACED ALONG ALL UNPAVED ROADS AND/OR UNPAVED HAUL ROUTES ON THE PROJECT SITE. BEFORE CONSTRUCTION ACTIVITIES COMMENCE, SIGNS SHALL BE SPACED NO MORE THAN 1,000 LINEAR FEET APART. THE PERMIT COMPLIANCE ENGINEER ALSO SHALL BE RESPONSIBLE FOR ASSURING RADAR ENFORCEMENT OF THE 15 MPH SPEED LIMIT THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

REPORTING: THE PERMIT COMPLIANCE ENGINEER SHALL PROVIDE EVIDENCE OF SIGN INSTALLATION BY INCLUDING PHOTOGRAPHS OF THE INSTALLED SIGNS AND A SCALED DIAGRAM OR COPY OF THE GRADING PLAN IDENTIFYING THE LOCATION OF EACH SIGN, IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE.

d. THE PERMIT COMPLIANCE ENGINEER SHALL ASSURE THAT TEMPORARY SIGNS INDICATING THAT ALL CONSTRUCTION EQUIPMENT ON-SITE SHALL NOT IDLE FOR MORE THAN FIVE (5) MINUTES ARE PLACED AT ALL LOADING, UNLOADING, AND EQUIPMENT STAGING AREAS. BEFORE CONSTRUCTION ACTIVITIES COMMENCE, THE PERMIT COMPLIANCE ENGINEER ALSO SHALL BE RESPONSIBLE FOR ASSURING ENFORCEMENT OF THE FIVE (5) MINUTE IDLING LIMIT THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES

REPORTING: THE PERMIT COMPLIANCE ENGINEER SHALL PROVIDE EVIDENCE OF SIGN INSTALLATION BY INCLUDING PHOTOGRAPHS OF THE INSTALLED SIGNS AND A SCALED DIAGRAM OR COPY OF THE GRADING PLAN IDENTIFYING THE LOCATION OF EACH SIGN, IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE

e. A GRAVEL APRON MEASURING AT LEAST 25 FEET LONG BY ROAD WIDTH SHALL BE PROVIDED AT ALL UNPAVED ENTRANCES INTO THE CONSTRUCTION SITE AND SHALL BE MAINTAINED UNTIL THE ENTRANCE IS REMOVED, PAVED, OR NO LONGER IN USE BY CONSTRUCTION VEHICLES AND EQUIPMENT

REPORTING: THE PERMIT COMPLIANCE ENGINEER SHALL INCLUDE PHOTOGRAPHS OF ALL CONSTRUCTED GRAVEL APRONS IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE

f. THE PERMIT COMPLIANCE ENGINEER SHALL ENSURE THAT ALL GRADING, EARTHMOVING, AND GROUND-DISTURBING CONSTRUCTION ACTIVITIES ARE TEMPORARILY HALTED WHEN SUSTAINED WIND SPEEDS EXCEED 25 MPH

REPORTING: THE PERMIT COMPLIANCE ENGINEER SHALL MAINTAIN A LOG OF ALL WORK DATES AND TIME DURATIONS WHEN GRADING, EARTHMOVING, AND GROUND-DISTURBING CONSTRUCTION ACTIVITIES WERE TEMPORARILY HALTED DUE TO SUSTAINED WIND SPEEDS EXCEEDING 25 MPH. THE LOG SHALL BE PROVIDED IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE.

g. THE PERMIT COMPLIANCE ENGINEER SHALL ENSURE THAT STREET SWEEPING OF ADJACENT PUBLIC ROADS OCCURS AT THE END OF EACH WORK DAY THAT VISIBLE SOIL MATERIAL IS CARRIED ONTO PAVED ROADS AND AT LEAST ONCE EVERY TWO WEEKS. A LOG OF ALL STREET SWEEPING ACTIVITIES SHALL BE MAINTAINED BY THE PERMIT COMPLIANCE ENGINEER AND SHALL BE MADE AVAILABLE TO THE COUNTY UPON REQUEST

REPORTING: THE PERMIT COMPLIANCE ENGINEER SHALL MAINTAIN A LOG OF ALL STREET SWEEPING ACTIVITIES AND SHALL BE PROVIDED TO THE COUNTY UPON REQUEST. THE LOG ALSO SHALL BE PROVIDED IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE.

h. THE PERMIT COMPLIANCE ENGINEER SHALL ASSURE THAT CHEMICAL DUST SUPPRESSANTS ARE APPLIED AT LEAST ONCE PER YEAR TO ALL DESIGNATED UNPAVED PARKING AREAS USED BY CONSTRUCTION WORKERS AND/OR CONSTRUCTION EQUIPMENT

REPORTING: THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE SHALL INCLUDE A MAP DEPICTING THE LOCATIONS OF ALL DESIGNATED CONSTRUCTION PARKING AREAS, A DESCRIPTION OF THE CHEMICAL SUPPRESSANTS UTILIZED, AND THE DATE(S) OF APPLICATION

i. THE PERMIT COMPLIANCE ENGINEER SHALL ENSURE THAT ROUGH GRADING ACTIVITIES DO NOT OVERLAP WITH OTHER PHASES OF CONSTRUCTION (I.E. PAVING, UNDERGROUND, BUILDING, AND ARCHITECTURAL COATINGS). A SCHEDULE OF SUCH ACTIVITIES SHALL BE MAINTAINED BY THE PERMIT COMPLIANCE ENGINEER, AND SHALL BE MADE AVAILABLE TO THE COUNTY UPON REQUEST

REPORTING: A COPY OF THE CONSTRUCTION SCHEDULE SHALL BE INCLUDED IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE. CONSTRUCTION SCHEDULES ALSO SHALL BE PROVIDED TO THE COUNTY FOR REVIEW UPON REQUEST

DOCUMENTATION: THE APPLICANT SHALL PREPARE THE GRADING PLAN PURSUANT TO THIS MITIGATION MEASURE AND THEN SHALL SUBMIT IT TO THE DEPARTMENT OF PUBLIC WORKS ALONG WITH PAYMENT OF ALL APPLICABLE REVIEW FEES AND DEPOSITS. IN ADDITION, THE PERMIT COMPLIANCE ENGINEER SHALL PROVIDE THE DEPARTMENT OF PUBLIC WORKS WITH EVIDENCE OF COMPLIANCE WITH THIS MITIGATION MEASURE IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE AND SHALL MAKE SUCH EVIDENCE AVAILABLE WHEN REQUESTED BY THE COUNTY. TIMING: PRIOR TO THE APPROVAL OF EACH GRADING PERMIT. MONITORING: THE DEPARTMENT OF PUBLIC WORKS SHALL REVIEW THE GRADING PLAN FOR CONFORMANCE WITH THIS MITIGATION MEASURE UPON APPROVAL OF EACH GRADING PLAN. A DECISION OF APPROVAL AND A GRADING PERMIT SHALL BE ISSUED TO THE APPLICANT.

GP5. LNDSCP#3-LANDSCAPE DOCUMENTATION PACKAGE: (PDS, PPD) (DPR, TC, PP) (GP, IP, MA)

INTENT: IN ORDER TO PROVIDE ADEQUATE LANDSCAPING THAT COMPLIES WITH THE COUNTY OF SAN DIEGO'S WATER EFFICIENT LANDSCAPE DESIGN MANUAL, THE COUNTY'S WATER CONSERVATION IN LANDSCAPING ORDINANCE, AND THE LANDSCAPE REQUIREMENTS IDENTIFIED WITHIN THE EAST OTAY MESA SPECIFIC PLAN, AND TO PREVENT INTRUSION OF INVASIVE PLANT SPECIES INTO ADJACENT OPEN SPACE AREAS. A LANDSCAPE PLAN SHALL BE PREPARED. DESCRIPTION OF REQUIREMENT: THE LANDSCAPE DOCUMENTATION PACKAGE SHALL BE PREPARED BY A CALIFORNIA LICENSED LANDSCAPE ARCHITECT, ARCHITECT, OR CIVIL ENGINEER AND INCLUDE THE FOLLOWING INFORMATION AS APPLICABLE:

a. INDICATION OF THE PROPOSED WIDTH OF ANY ADJACENT PUBLIC RIGHT-OF-WAY AND THE LOCATIONS OF ANY REQUIRED IMPROVEMENTS INCLUDING ALL PARKWAY AND MEDIAN PLANTING AS REQUIRED BY THE PUBLIC LANDSCAPING SECTION WITHIN CHAPTER 2 OF THE EAST OTAY MESA SPECIFIC PLAN AND ANY PROPOSED PLANT MATERIALS TO BE INSTALLED OR PLANTED THEREIN. THE APPLICANT SHALL ALSO OBTAIN A PERMIT FROM (PDS, LDR) APPROVING THE VARIETY, LOCATION AND SPACING OF ALL TREES PROPOSED TO BE PLANTED WITHIN SAID RIGHT(S)-OF-WAY. A COPY OF THIS PERMIT AND A LETTER STATING THAT ALL LANDSCAPING WITHIN THE SAID RIGHT(S)-OF-WAY SHALL BE MAINTAINED BY THE LANDOWNER(S) SHALL BE SUBMITTED TO THE DEPARTMENT OF PLANNING & DEVELOPMENT SERVICES. ALL STREETSCAPE AND MAJOR INTERSECTION PLANTINGS SHALL BE PER APPENDIX 1, STREETSCAPE PLANT LIST, WITHIN THE EAST OTAY MESA SPECIFIC PLAN. CLEARANCE ZONES AND THE USE OF ROOT BARRIERS SHALL ALSO BE ESTABLISHED AS IDENTIFIED WITHIN THE PUBLIC LANDSCAPING SECTION

b. A COMPLETE PLANTING PLAN INCLUDING THE NAMES, SIZES AND LOCATIONS OF ALL PLANT MATERIALS, INCLUDING TREES, SHRUBS, AND GROUNDCOVER WHEREVER APPROPRIATE, GIVEN FIRE SAFETY RESTRICTIONS. NATIVE OR NATURALIZING PLANT MATERIALS SHALL BE USED, WHICH CAN THRIVE ON NATURAL MOISTURE, AND SHALL ADHERE TO THE REQUIREMENTS OF THE MSCP ADJACENCY GUIDELINES AND SHALL NOT INCLUDE ANY OF THE INVASIVE PLANT SPECIES INCLUDED ON THE CAL-IPC LIST A. THESE PLANTS SHALL BE IRRIGATED ONLY TO ESTABLISH THE PLANTINGS. ALL APPLICABLE LANDSCAPING STANDARDS AS REQUIRED WITHIN CHAPTER 3 OF THE EAST OTAY MESA SPECIFIC PLAN, INCLUDING BUILDING SETBACK LANDSCAPING FOR THE CIRCULATION ELEMENT AND SPECIFIC PLAN ROADS SHALL BE ADDRESSED WITHIN THE LANDSCAPE DOCUMENTATION PACKAGE.

c. AN IRRIGATION PLAN, INCLUDING THE LOCATION, SIZE, AND TYPE OF ALL BACKFLOW PREVENTION DEVICES, PRESSURE, AND NON-PRESSURE WATER LINES, VALVES, AND SPRINKLER HEADS IN THOSE AREAS REQUIRING A PERMANENT AND/OR TEMPORARY IRRIGATION SYSTEM PURSUANT TO SECTION 86.725 (A) OF THE WATER CONSERVATION IN LANDSCAPING ORDINANCE, SECTION A-5.4 (RECLAIMED WATER) WITHIN APPENDIX 5 OF THE EAST OTAY MESA SPECIFIC PLAN REQUIRES THE INSTALLATION OF A DUAL WATER DISTRIBUTION SYSTEM THROUGHOUT THE DEVELOPMENT

d. SPOT ELEVATIONS OF THE HARDSCAPE, BUILDING AND PROPOSED FINE GRADING OF THE INSTALLED LANDSCAPE.

e. THE LOCATION AND DETAIL OF ALL WALLS, FENCES, AND WALKWAYS SHALL BE SHOWN ON THE PLANS, INCLUDING HEIGHT FROM GRADE AND TYPE OF MATERIAL. A LIGHTING PLAN AND LIGHT STANDARD DETAILS SHALL BE INCLUDED IN THE PLANS (IF APPLICABLE) AND SHALL BE IN COMPLIANCE WITH THE COUNTY'S LIGHT POLLUTION CODE

f. NO LANDSCAPING MATERIAL OR IRRIGATION OR OTHER INFRASTRUCTURE SHALL BE LOCATED WITHIN A PROPOSED TRAIL EASEMENT OR DESIGNATED PATHWAY

g. ADDITIONALLY, THE FOLLOWING ITEMS SHALL BE ADDRESSED AS PART OF THE LANDSCAPE PLAN. ALL SLOPES 3' IN VERTICAL HEIGHT AND ABOVE, INCLUDING SLOPES ASSOCIATED WITH DETENTION BASINS, SHALL BE LANDSCAPED TO PREVENT SOIL EROSION AND TO COMPLY WITH THE MANUFACTURED SLOPES PORTION OF THE LANDSCAPE STANDARDS CONTAINED WITHIN THE EAST OTAY SPECIFIC PLAN

DOCUMENTATION: THE APPLICANT SHALL PREPARE THE LANDSCAPE PLANS USING THE LANDSCAPE DOCUMENTATION PACKAGE CHECKLIST (PDS FORM #404). SUBMIT THEM TO THE (PDS, ZONING), AND PAY ALL APPLICABLE REVIEW FEES. TIMING: PRIOR TO THE APPROVAL OF ANY GRADING PLAN, IMPROVEMENT PLAN, ISSUANCE OF BUILDING PERMIT. THE LANDSCAPE PLANS SHALL BE PREPARED AND APPROVED. MONITORING: THE (PDS, LANDSCAPE ARCHITECT) AND (DPR, TC, PP) SHALL REVIEW THE LANDSCAPE PLANS FOR COMPLIANCE WITH THIS CONDITION

GP6. GEOH2-GRADING PLAN CONFORMANCE (DPW, ESU) (GP, IP,) (DPR, TC, PP)

INTENT: IN ORDER TO IMPLEMENT THE REQUIRED MITIGATION MEASURES FOR THE PROJECT. THE REQUIRED GRADING PLANS SHALL CONFORM TO THE APPROVED CONCEPTUAL GRADING AND DEVELOPMENT PLAN PURSUANT TO SECTION 87.207 OF THE COUNTY GRADING ORDINANCE. DESCRIPTION OF REQUIREMENT: THE GRADING PLANS SHALL CONFORM TO THE APPROVED CONCEPTUAL GRADING AND DEVELOPMENT PLAN, WHICH INCLUDES ALL OF THE FOLLOWING MITIGATION MEASURES: BIOLOGY, CULTURAL RESOURCES, PALEONTOLOGICAL NOISE, AIR QUALITY, AND AVOIDANCE AREAS. ALL CONDITIONS REQUIREMENTS, MITIGATION MEASURES AND INFORMATION STATED ON THE SHEETS OF THE PLANS SHALL BE MADE CONDITIONS OF THE PERMIT'S ISSUANCE AND SHALL BE IMPLEMENTED PURSUANT TO THE ADOPTED MITIGATION MONITORING AND REPORTING PROGRAM (MMRP) OF THIS PERMIT. NO DEVIATION OF THE REQUIREMENTS CAN BE MADE WITHOUT MODIFICATION OF THIS PERMIT

DOCUMENTATION: THE APPLICANT SHALL SUBMIT THE GRADING PLANS AND IMPROVEMENT PLANS, WHICH CONFORM TO THE CONCEPTUAL DEVELOPMENT PLAN FOR THE PROJECT. TIMING: PRIOR TO APPROVAL OF ANY GRADING OR IMPROVEMENT PLAN AND PRIOR TO ISSUANCE OF ANY GRADING OR CONSTRUCTION PERMIT. THE NOTES AND ITEMS SHALL BE PLACED ON THE PLANS AS REQUIRED. MONITORING: THE (DPW, ENVIRONMENTAL SERVICES UNIT DIVISION (DPR, TC, OR PDS BUILDING DIVISION FOR MINOR GRADING) SHALL VERIFY THAT THE GRADING AND OR IMPROVEMENT PLAN REQUIREMENTS HAVE BEEN IMPLEMENTED ON THE FINAL GRADING AND OR IMPROVEMENT PLANS (IF APPLICABLE). THE ENVIRONMENTAL MITIGATION NOTES SHALL BE MADE CONDITIONS OF THE ISSUANCE OF SAID GRADING OR CONSTRUCTION PERMIT

PRE-CONSTRUCTION MEETING: (PRIOR TO PRECONSTRUCTION CONFERENCE, AND PRIOR TO ANY CLEARING, GRUBBING, TRENCHING, GRADING, OR ANY LAND DISTURBANCES.)

(CULTURAL RESOURCES)

GP7. CULT06-ARCHAEOLOGICAL MONITORING: (DPW, PDCI) (PDS, PCC) (PC) (PDS, FEE X2)

INTENT: IN ORDER TO COMPLY WITH MITIGATION MONITORING AND REPORTING PROGRAM PURSUANT TO 3100 5500 (TM) A CULTURAL RESOURCE GRADING MONITORING PROGRAM SHALL BE IMPLEMENTED. DESCRIPTION OF REQUIREMENT: THE COUNTY APPROVED PROJECT ARCHAEOLOGIST, NATIVE AMERICAN MONITOR, AND THE PDS PERMIT COMPLIANCE COORDINATOR (PCC) SHALL ATTEND THE PRE-CONSTRUCTION MEETING WITH THE CONTRACTORS TO EXPLAIN AND COORDINATE THE REQUIREMENTS OF THE GRADING MONITORING PROGRAM. THE PROJECT ARCHAEOLOGIST (AND NATIVE AMERICAN MONITOR, IF CONTRACTED) SHALL MONITOR ORIGINAL CUTTING OF PREVIOUSLY UNDISTURBED DEPOSITS IN ALL AREAS IDENTIFIED FOR DEVELOPMENT INCLUDING OFF-SITE IMPROVEMENTS. THE GRADING MONITORING PROGRAM SHALL COMPLY WITH THE COUNTY OF SAN DIEGO GUIDELINES FOR DETERMINING SIGNIFICANCE AND REPORT FORMAT AND CONTENT REQUIREMENTS FOR ARCHAEOLOGICAL AND HISTORIC RESOURCES.

DOCUMENTATION: THE APPLICANT SHALL HAVE THE CONTRACTED PROJECT ARCHEOLOGIST AND NATIVE AMERICAN ATTEND THE PRECONSTRUCTION MEETING TO EXPLAIN THE MONITORING REQUIREMENTS. TIMING: PRIOR TO PRECONSTRUCTION CONFERENCE, AND PRIOR TO ANY CLEARING, GRUBBING, TRENCHING, GRADING, OR ANY LAND DISTURBANCES. THIS CONDITION SHALL BE COMPLETED. MONITORING: THE (DPW, PDCI) SHALL INVITE THE (PDS, PCC) TO THE PRECONSTRUCTION CONFERENCE TO COORDINATE THE CULTURAL RESOURCE MONITORING REQUIREMENTS OF THIS CONDITION. THE (PDS, PCC) SHALL ATTEND THE PRECONSTRUCTION CONFERENCE AND CONFIRM THE ATTENDANCE OF THE APPROVED PROJECT ARCHEOLOGIST

(PALEONTOLOGICAL RESOURCES)

GP8. PALEO03-PALEONTOLOGICAL MONITORING: (DPW, PDCI) (PDS, PCC) (PC) (PDS, FEE X2)

INTENT: IN ORDER TO COMPLY WITH MITIGATION MONITORING AND REPORTING PROGRAM PURSUANT TO TM 5889 A PALEONTOLOGICAL RESOURCE GRADING MONITORING PROGRAM SHALL BE IMPLEMENTED. DESCRIPTION OF REQUIREMENT: THE COUNTY APPROVED PROJECT PALEONTOLOGIST, AND THE PDS PERMIT COMPLIANCE COORDINATOR (PCC) SHALL ATTEND THE PRE-CONSTRUCTION MEETING WITH THE CONTRACTORS TO EXPLAIN AND COORDINATE THE REQUIREMENTS OF THE GRADING MONITORING PROGRAM. THE PROJECT PALEONTOLOGIST SHALL MONITOR DURING THE ORIGINAL CUTTING OF PREVIOUSLY UNDISTURBED DEPOSITS FOR THE PROJECT, BOTH ON AND OFF SITE. THE QUALIFIED PALEONTOLOGICAL RESOURCES MONITOR SHALL BE ON-SITE TO MONITOR AS DETERMINED NECESSARY BY THE QUALIFIED PALEONTOLOGIST. THE GRADING MONITORING PROGRAM SHALL COMPLY WITH THE COUNTY OF SAN DIEGO GUIDELINES FOR DETERMINING SIGNIFICANCE AND REPORT FORMAT AND CONTENT REQUIREMENTS FOR PALEONTOLOGICAL RESOURCES

DOCUMENTATION: THE APPLICANT SHALL HAVE THE CONTRACTED PROJECT PALEONTOLOGIST ATTEND THE PRECONSTRUCTION MEETING TO EXPLAIN THE MONITORING REQUIREMENTS. TIMING: PRIOR TO PRECONSTRUCTION CONFERENCE, AND PRIOR TO ANY CLEARING, GRUBBING, TRENCHING, GRADING, OR ANY LAND DISTURBANCES. THIS CONDITION SHALL BE COMPLETED. MONITORING: THE (DPW, PDCI) SHALL INVITE THE (PDS, PCC) TO THE PRECONSTRUCTION CONFERENCE TO COORDINATE THE PALEONTOLOGICAL RESOURCE MONITORING REQUIREMENTS OF THIS CONDITION. THE (PDS, PCC) SHALL ATTEND THE PRECONSTRUCTION CONFERENCE AND CONFIRM THE ATTENDANCE OF THE APPROVED PROJECT PALEONTOLOGIST.

(AIR QUALITY)

GP9. AIR05-AIR QUALITY: (DPW, PDCI)

INTENT: IN ORDER TO LOWER CONSTRUCTION EMISSIONS OF PM_{10} AND $PM_{2.5}$ TO BELOW THE COUNTY'S ESTABLISHED SCREENING LEVEL THRESHOLDS (SLTs) FOR CONSTRUCTION ACTIVITIES. GRADING MONITORING AND EMISSION REDUCTION ACTIVITIES SHALL OCCUR. DESCRIPTION OF REQUIREMENT: GRADING PLANS SHALL BE PREPARED, WHICH CLEARLY DESCRIBE THE GRADING MONITORING AND EMISSION REDUCTION ACTIVITIES THAT SHALL BE UNDERTAKEN DURING EARTHMOVING ACTIVITIES TO IMPLEMENT SECTION 87.428 "DUST CONTROL MEASURES" OF THE COUNTY'S GRADING ORDINANCE. THE GRADING PLANS SHALL INCLUDE THE FOLLOWING

a. THE PERMIT COMPLIANCE ENGINEER (AS DEFINED IN SECTION 87.420 OF THE COUNTY GRADING ORDINANCE) SHALL PROVIDE DOCUMENTATION/EVIDENCE OF COMPLIANCE WITH EACH NOTE IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE

b. DURING GRADING AND GROUND-DISTURBING CONSTRUCTION ACTIVITIES, THE PERMIT COMPLIANCE ENGINEER SHALL ENSURE THAT WATER TRUCKS OR SPRINKLER SYSTEMS APPLY WATER TO AREAS UNDERGOING ACTIVE GROUND DISTURBANCE A MINIMUM OF THREE (3) TIMES DAILY (3.2 HOUR WATERING INTERVAL) TO ENSURE A MINIMUM SOIL MOISTURE OF 12%. ALL AREAS OF DISTURBED SOILS SHALL BE KEPT DAMP ENOUGH TO PREVENT AIRBORNE DUST FROM DISPERSING BEYOND THE BOUNDARIES OF THE SITE. THE PERMIT COMPLIANCE ENGINEER SHALL ORDER INCREASED WATERING FREQUENCY WHEN AIRBORNE DUST IS VISIBLE. A LOG OF ALL SITE WATERING ACTIVITIES SHALL BE MAINTAINED BY THE PERMIT COMPLIANCE ENGINEER, AND THIS LOG SHALL BE MADE AVAILABLE TO THE COUNTY UPON REQUEST

REPORTING: THE PERMIT COMPLIANCE ENGINEER SHALL MAINTAIN A LOG OF DAILY SITE WATERING ACTIVITIES AND SHALL BE PROVIDED TO THE COUNTY UPON REQUEST. THE SITE WATERING LOG ALSO SHALL BE PROVIDED IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE.

c. THE PERMIT COMPLIANCE ENGINEER SHALL ASSURE THAT TEMPORARY SIGNS INDICATING A MAXIMUM 15 MPH SPEED LIMIT ARE PLACED ALONG ALL UNPAVED ROADS AND/OR UNPAVED HAUL ROUTES ON THE PROJECT SITE. BEFORE CONSTRUCTION ACTIVITIES COMMENCE, SIGNS SHALL BE SPACED NO MORE THAN 1,000 LINEAR FEET APART. THE PERMIT COMPLIANCE ENGINEER ALSO SHALL BE RESPONSIBLE FOR ASSURING RADAR ENFORCEMENT OF THE 15 MPH SPEED LIMIT THROUGHOUT THE DURATION OF CONSTRUCTION ACTIVITIES.

REPORTING: THE PERMIT COMPLIANCE ENGINEER SHALL PROVIDE EVIDENCE OF SIGN INSTALLATION BY INCLUDING PHOTOGRAPHS OF THE INSTALLED SIGNS AND A SCALED DIAGRAM OR COPY OF THE GRADING PLAN IDENTIFYING THE LOCATION OF EACH SIGN, IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE

d. THE PERMIT COMPLIANCE ENGINEER SHALL ASSURE THAT TEMPORARY SIGNS INDICATING THAT ALL CONSTRUCTION EQUIPMENT ON-SITE SHALL NOT IDLE FOR MORE THAN FIVE (5) MINUTES ARE PLACED AT ALL LOADING, UNLOADING, AND EQUIPMENT STAGING A

DURING CONSTRUCTION: (THE FOLLOWING ACTIONS SHALL OCCUR THROUGHOUT THE DURATION OF THE GRADING CONSTRUCTION).

GP14. DPW RECYCLING – GRADING MATERIAL DIVERSION:
INTENT: IN ORDER TO COMPLY WITH THE GRADING MATERIAL DIVERSION PROGRAM, PROJECT RECYCLING AND DIVERSION IS DESIGNED TO INCREASE DIVERSION OF GRADING, LAND CLEARING, AND BRUSHING MATERIALS FROM LANDFILLS, EXTEND THE USEFUL LIFE OF LOCAL LANDFILLS, AND SUPPORT CONSTRUCTION AND DEMOLITION PROJECT COMPLIANCE WITH STATE WASTE DIVERSION REQUIREMENTS

DESCRIPTION OF REQUIREMENT: FOR ALL GRADING PROJECTS >5,000 CUBIC YARDS A DAILY LOG OF ALL GRADING, LAND CLEARING, AND BRUSHING MATERIAL THAT IS EXPORTED OR RECYCLED/REPURPOSED MUST BE RETAINED ONSITE. THE DAILY LOG MUST INCLUDE ALL EXPORT RECEIPTS OR OTHER VENDOR OR DISPOSAL OR TRANSFER STATION FACILITY INFORMATION THAT ACCEPTED GRADING MATERIAL FROM THE APPROVED GRADING PROJECT.

DOCUMENTATION: DAILY LOGS SHALL BE PREPARED AND KEPT ON-SITE FOR INSPECTION AND INCLUDE THE FOLLOWING:

A. IDENTIFY THE PROJECT LOCATION

B. LOG DATE THAT MATERIAL WAS TRANSPORTED OFF THE SITE

C. LOG TYPE OF GRADING OR CLEARING MATERIAL

D. WEIGHT OF THE MATERIAL OR ITS APPROXIMATE TONNAGE OR CUBIC YARDS

E. NAME OF THE PARTY TRANSPORTING THE MATERIALS

F. NAME OF THE RECEIVING FACILITY OR EXPORTER AND WHETHER THE MATERIAL WAS DISPOSED OF IN A LANDFILL, SALVAGED FOR FUTURE USE OFF-SITE, OR RECYCLED

G. EACH LOG ENTRY SHALL CORRESPOND WITH A RECEIPT ISSUED BY THE PARTY THAT TRANSPORTED THE MATERIAL OFF-SITE OR BY FACILITY THAT ACCEPTED THE MATERIALS. IF THE MATERIALS WERE HAULED BY THE GRADING CONTRACTOR, EXPORT RECEIPTS SHALL BE COMPILED WITHIN 60 DAYS OF THE DATE OF THE LOG ENTRY

H. THE DAILY LOG SHALL INCLUDE SEPARATE ENTRIES FOR EACH OCCURRENCE OF MATERIALS REUSED ON-SITE.

I. THE DAILY LOG AND ALL RECEIPTS SHALL BE MAINTAINED AT THE PROJECT SITE AND MADE AVAILABLE TO ANY COUNTY INSPECTOR RESPONSIBLE TO ENSURE COMPLIANCE WITH THIS REQUIREMENT

TIMING: THE FOLLOWING ACTIONS AND LOGS SHALL OCCUR THROUGHOUT THE DURATION OF THE EARTH DISTURBING ACTIVITIES. MONITORING: THE (DPW, PDCI) SHALL ENSURE THAT THE GRADING CONTRACTOR IS PREPARING AND MAINTAINING THE DAILY LOGS ON-SITE. THE (DPW, PDCI) SHALL CONTACT THE (DPW, CQ) IF THE GRADING CONTRACTOR OR APPLICANT FAILS TO COMPLY WITH THIS CONDITION

(BIOLOGICAL RESOURCES)

GP11. BIO(M)-BREEDING SEASON AVOIDANCE
INTENT: IN ORDER TO AVOID IMPACTS TO BREEDING OR NESTING BIRDS, INCLUDING RAPTORS AND THE BURROWING OWL, THAT COULD OCCUR DURING BRUSHING, GRADING AND CLEARING ACTIVITIES. DESCRIPTION OF REQUIREMENT: IF CLEARING AND GRADING ARE TO OCCUR WITHIN THE BREEDING SEASON (FEBRUARY 1 – AUGUST 31), THEN PRE-CONSTRUCTION SURVEYS FOR BURROWING OWLS AND OTHER BREEDING BIRDS MUST OCCUR BEFORE CLEARING AND GRADING BEGINS AND BE COMPLETED NO MORE THAN 30 DAYS BEFORE INITIAL BRUSHING, CLEARING, GRUBBING, OR GRADING. AND APPROPRIATE MEASURES TAKEN AS FOLLOWS

a. MONITORING AND MITIGATION FOR BURROWING OWLS SHALL BE IN ACCORDANCE WITH SECTION 3.9 OF THE COUNTY'S ADOPTED STRATEGY FOR MITIGATING IMPACTS TO BURROWING OWLS IN THE UNINCORPORATED COUNTY

b. IF NO BURROWING OWLS ARE DETECTED DURING THE SURVEY, THE SITE MUST BE MONITORED FOR NEW BURROWS EACH WEEK UNTIL GRADING IS COMPLETE

c. IF THE SURVEYS ARE POSITIVE THEN CLEARING AND GRADING WOULD BE RESTRICTED FROM WITHIN THE APPROPRIATE BUFFER AREAS AS DEFINED IN THE STRATEGY AND BELOW

1) DIRECT IMPACTS TO NESTS, AS WELL AS OCCUPIED BURROWING OWL BURROWS (INCLUDING BURROWS AND/OR MAN-MADE FEATURES SUCH AS PIPES, ETC.) SHOULD BE AVOIDED

2) DISTURBANCE MUST NOT OCCUR WITHIN 300 FEET OF OCCUPIED OWL BURROWS OR MIGRATORY BIRD NESTS OR 500 FEET FROM NORTHERN HARRIER NESTS WITHOUT CONCURRENCE FROM THE COUNTY AND WILDLIFE AGENCIES THAT CONSTRUCTION ACTIVITIES MAY PROCEED

3) BIO-FENCING SHOULD BE PLACED AND MAINTAINED AROUND ALL OCCUPIED BURROWS DURING CONSTRUCTION

DOCUMENTATION: THE RESULTS OF THE PRE-CONSTRUCTION SURVEY MUST BE IMMEDIATELY PROVIDED TO THE COUNTY MITIGATION MONITORING COORDINATOR, CDFW, AND USFWS PRIOR TO GRADING. AND MUST BE PROVIDED IN WRITING A WRITTEN AND SIGNED PRE-CONSTRUCTION SURVEY REPORT MUST FOLLOW WITHIN 14 DAYS OF THE SURVEY AND INCLUDE MAPS OF THE PROJECT SITE AND BURROWING OWL LOCATIONS ON AERIAL PHOTOS IN THE FORMAT DESCRIBED IN THE COUNTY'S MAPPING GUIDELINES IN THE STRATEGY FOR MITIGATING IMPACTS TO BURROWING OWLS IN THE UNINCORPORATED COUNTY TIMING: PRE-GRADING SURVEYS MUST BE COMPLETED NO MORE THAN 30 DAYS BEFORE INITIAL BRUSHING, CLEARING, GRUBBING, OR GRADING OF THE PROJECT SITE. THROUGHOUT THE DURATION OF THE GRADING AND CONSTRUCTION. WEEKLY MONITORING IS REQUIRED. COMPLIANCE WITH THIS CONDITION IS MANDATORY UNLESS THE REQUIREMENT IS WAIVED BY THE COUNTY UPON RECEIPT OF CONCURRENCE FROM THE WILDLIFE AGENCIES. MONITORING: THE (DPW, PDCI) SHALL NOT ALLOW ANY GRADING UNLESS A CONCURRENCE FROM THE (PDS, PCC) IS RECEIVED. THE (PDS, PCC) SHALL REVIEW THE PRE-CONSTRUCTION SURVEY RESULTS AND WILDLIFE AGENCY CONCURRENCE TO ENSURE COMPLIANCE WITH THESE REQUIREMENTS. IF OWLS ARE NOT FOUND DURING THE PRE-CONSTRUCTION SURVEY THE SITE MUST BE MONITORED FOR NEW BURROWS EACH WEEK UNTIL GRADING IS COMPLETE

GP12. BIO(M)-NON-BREEDING SEASON AVOIDANCE
INTENT: IN ORDER TO MITIGATE FOR POTENTIAL IMPACTS TO THE BURROWING OWL THAT COULD OCCUR DURING BRUSHING, GRADING, AND CLEARING ACTIVITIES. DESCRIPTION OF REQUIREMENT: FOR BRUSHING, CLEARING AND GRADING ACTIVITIES THAT TAKE PLACE OUTSIDE OF THE BURROWING OWL BREEDING SEASON (I.E., BETWEEN SEPTEMBER 1 AND JANUARY 31), A PRE-CONSTRUCTION SURVEY SHALL BE CONDUCTED NO MORE THAN 30 DAYS BEFORE INITIAL BRUSHING, CLEARING, GRUBBING, OR GRADING, AND APPROPRIATE MEASURES TAKEN (INACCORDANCE WITH SECTION 3.9 OF THE COUNTY'S ADOPTED STRATEGY FOR MITIGATING IMPACTS TO BURROWING OWLS IN THE UNINCORPORATED COUNTY WEED REMOVAL (BY WHACKING BUSH HOGGING, OR MOWING) SHALL BE CONDUCTED AS PART OF THE PRE-CONSTRUCTION SURVEY. UNDER THE GUIDANCE OF A QUALIFIED BIOLOGICAL MONITOR, TO MAKE ALL POTENTIAL BURROWS MORE VISIBLE AND TO AVOID INJURING OWLS BY BURROW COLLAPSE, AS A COMPONENT OF THIS NON-BREEDING SEASON SURVEY, CAMERAS SHALL BE USED TO VERIFY WHETHER BURROWS ARE OCCUPIED BY BURROWING OWLS

a. IF NO BURROWING OWLS ARE DETECTED DURING THE SURVEY THE SITE MUST BE MONITORED FOR NEW BURROWS EACH WEEK UNTIL GRADING IS COMPLETE

b. IF OWLS ARE PRESENT IN THE BURROWS

1. A QUALIFIED BIOLOGIST SHALL IMPLEMENT PASSIVE RELOCATION MEASURES (INSTALLATION OF ONE-WAY DOORS) IN ACCORDANCE WITH CDFW REGULATIONS (CDFG 1995) AND THE COUNTY'S STRATEGY FOR MITIGATING IMPACTS TO BURROWING OWLS IN THE UNINCORPORATED COUNTY

2. ANY EVICTION OR PASSIVE RELOCATION MUST BE SPECIFICALLY APPROVED BY THE WILDLIFE AGENCIES AND SHALL OCCUR OUTSIDE OF THE BURROWING OWL BREEDING SEASON

3. THE APPLICANT SHALL CONTACT THE (PDS, PCC) TO COORDINATE THE ATTAINMENT OF WILDLIFE AGENCY CONCURRENCE.

4. ONCE ALL OWLS HAVE VACATED THE BURROWS (AT LEAST 48 HOURS), A QUALIFIED BIOLOGIST SHALL OVERSEE THE EXCAVATION AND FILLING OF THE BURROWS

5. IN ORDER TO ASSURE THAT BURROWING OWL BURROWS DO NOT BECOME REOCCUPIED, CONSTRUCTION EQUIPMENT AND MATERIALS (E.G. PIPES, RUBBLE PILES, ETC.) SHALL BE CLOSED OFF TO PREVENT BURROWING OWLS FROM REOCCUPYING THE SITE

DOCUMENTATION: THE RESULTS OF THE PRE-CONSTRUCTION SURVEY MUST BE IMMEDIATELY PROVIDED TO THE COUNTY MITIGATION MONITORING COORDINATOR, CDFW, AND USFWS PRIOR TO GRADING. AND MUST BE PROVIDED IN WRITING A WRITTEN AND SIGNED PRE-CONSTRUCTION SURVEY REPORT MUST FOLLOW WITHIN 14 DAYS OF THE SURVEY OR BURROWING OWL EVICTION AND INCLUDE MAPS OF THE PROJECT SITE AND BURROWING OWL LOCATIONS ON AERIAL PHOTOS IN THE FORMAT DESCRIBED IN THE COUNTY'S MAPPING GUIDELINES IF OWLS ARE DETERMINED TO BE PRESENT WITHIN THE BURROWS, THE APPLICANT SHALL SUBMIT WILDLIFE AGENCY CONCURRENCE FOR EVICTION. A WRITTEN REPORT OF THE PASSIVE RELOCATION MEASURES UNDERTAKEN TO PRECLUDE DIRECT IMPACTS TO BURROWING OWL INDIVIDUALS AND THE PROJECT BIOLOGIST SHALL CERTIFY THAT ALL OWLS HAVE VACATED ANY OCCUPIED BURROWS. TIMING: A PRE-CONSTRUCTION SURVEY SHALL OCCUR NO MORE THAN 30 DAYS PRIOR TO COMMENCEMENT OF GRUBBING, GRADING OR CLEARING ACTIVITY TO DETERMINE THE PRESENCE OR ABSENCE OF BURROWING OWLS. WITH WEEKLY MONITORING THEREAFTER. SURVEY RESULTS MUST BE REPORTED IMMEDIATELY IN WRITING, AND CONCURRENCE MUST BE OBTAINED PRIOR TO ANY EVICTION/PASSIVE RELOCATION. THE WRITTEN REPORT MUST FOLLOW WITHIN 14 DAYS OF THE SURVEY OR BURROWING OWL EVICTION MONITORING: THE (DPW, PDCI) SHALL NOT ALLOW ANY GRADING UNLESS A CONCURRENCE FROM THE (PDS, PCC) IS RECEIVED. THE PDS SHALL REVIEW THE PRE-CONSTRUCTION SURVEY RESULTS ALONG WITH EVIDENCE OF ANY PASSIVE RELOCATION MEASURES, TO ENSURE COMPLIANCE WITH THESE REQUIREMENTS.

GP13. BIO(M)T-BIOLOGICAL MONITORING: (PDS, PCC) [DPW, PDCI] [PC] [PDS, FEE X3].
INTENT: IN ORDER TO PREVENT INADVERTENT DISTURBANCE TO BURROWING OWLS AND OTHER SENSITIVE SPECIES, ALL GRADING SHALL BE MONITORED BY A BIOLOGICAL MONITOR. DESCRIPTION OF REQUIREMENT: A COUNTY APPROVED BIOLOGIST SHALL PERFORM BIOLOGICAL MONITORING DURING ALL GRADING, CLEARING, GRUBBING, TRENCHING, AND CONSTRUCTION ACTIVITIES. THE PROJECT BIOLOGIST SHALL ALSO PERFORM THE FOLLOWING DUTIES BEFORE CONSTRUCTION TO COMPLY WITH THE CONDITIONS OF THIS GRADING PLAN AND MITIGATION MEASURE 39.

a. COMPLETE ALL REQUIRED BURROWING OWL SURVEYS, MONITORING AND FOLLOW-UP ACCORDING TO THE BURROWING OWL STRATEGY.

b. SUPERVISE AND VERIFY PLACEMENT OF TEMPORARY FENCING OF IMPACT LIMITS. THE PLACEMENT OF SUCH FENCING SHALL BE APPROVED BY THE PDS, PERMIT COMPLIANCE SECTION

c. THE BIOLOGIST SHALL ATTEND THE PRECONSTRUCTION MEETINGS AND OTHER MEETINGS TO DISCUSS BURROWING OWL AVOIDANCE REQUIREMENTS. SUCH MEETING SHALL INCLUDE THE PDS PERMIT COMPLIANCE SECTION

DOCUMENTATION: THE BIOLOGICAL MONITOR SHALL PREPARE WRITTEN DOCUMENTATION THAT CERTIFIES THAT THE TEMPORARY FENCING HAS BEEN INSTALLED AND THAT ALL CONSTRUCTION STAFF HAS BEEN TRAINED ON THE SITE SENSITIVE BIOLOGICAL RESOURCES THAT ARE TO BE AVOIDED. TIMING: PRIOR TO PRECONSTRUCTION CONFERENCE, AND PRIOR TO ANY CLEARING, GRUBBING, TRENCHING, GRADING, OR ANY LAND DISTURBANCES. THIS CONDITION SHALL BE COMPLETED. MONITORING: THE (DPW, PDCI) SHALL INVITE THE (PDS, PCC) TO THE PRECONSTRUCTION CONFERENCE TO COORDINATE THE BIOLOGICAL MONITORING REQUIREMENTS OF THIS CONDITION. THE (PDS, PCC) SHALL ATTEND THE PRECONSTRUCTION CONFERENCE AND VERIFY THE INSTALLATION OF THE TEMPORARY FENCING AND APPROVE THE TRAINING DOCUMENTATION PREPARED BY THE BIOLOGIST

BREEDING SEASON CONSTRUCTION

GP14. BIO(M)-TEMPORARY FENCING FOR ERRANT CONSTRUCTION IMPACTS (PDS) [GRADING PERMIT]
INTENT: IN ORDER TO PREVENT ERRANT GRADING OR CLEARING BEYOND THE PROPOSED CONSTRUCTION LIMITS THAT COULD IMPACT SENSITIVE VEGETATION COMMUNITIES OR SPECIES INTENDED FOR PRESERVATION. DESCRIPTION OF REQUIREMENT: ORANGE CONSTRUCTION FENCING SHALL BE INSTALLED AROUND THE APPROVED OF IMPACTS TO DEFINE THE GRADING BOUNDARIES AND PREVENT UNINTENDED IMPACTS

DOCUMENTATION: GRADING PLANS SHALL INCLUDE A NOTE DOCUMENTING THIS REQUIREMENT. TIMING: PRIOR TO ANY CLEARING, GRUBBING, TRENCHING, GRADING, OR ANY LAND DISTURBANCES. THE FENCING SHALL BE INSTALLED, AND SHALL REMAIN FOR THE DURATION OF THE GRADING AND CLEARING. MONITORING: THE PERMIT COMPLIANCE ENGINEER (AS DEFINED IN SECTION 87.420 OF THE COUNTY GRADING ORDINANCE) SHALL PROVIDE DOCUMENTATION/EVIDENCE OF COMPLIANCE WITH EACH NOTE IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE

GP15. NOISE RESTRICTIONS
INTENT: IN ORDER TO MITIGATE FOR POTENTIAL INDIRECT IMPACTS TO BREEDING OR NESTING BIRDS, INCLUDING RAPTORS AND THE BURROWING OWL THAT COULDN BE IMPACTED BY CONSTRUCTION ACTIVITIES. DESCRIPTION OF REQUIREMENT: CONSTRUCTION NOISE MAY NOT EXCEED 60 DB(A) AT ANY ACTIVE RAPTOR OR BURROWING OWL NEST SITE IF CONSTRUCTION OCCURS DURING THE BREEDING SEASON (FEBRUARY 1 – AUGUST 31) A PRE-CONSTRUCTION SURVEY SHALL BE CONDUCTED BY A COUNTY-APPROVED BIOLOGIST TO DETERMINE WHETHER CONSTRUCTION ACTIVITIES ARE LOCATED WITHIN 300 FEET OF BURROWING OWL BURROWS OR WITHIN 500 FEET OF GROUND DWELLING RAPTOR NESTS. CONSTRUCTION ACTIVITIES MAY NOT PROCEED WITHIN 300 FEET OF ACTIVE BURROWING OWL BURROWS OR WITHIN 500 FEET OF ACTIVE GROUND DWELLING RAPTOR NESTS THIS LIMITATION MAY ONLY BE WAIVED BY THE DIRECTOR OF PDS IF A NOISE REPORT BY A COUNTY-APPROVED NOISE CONSULTANT CERTIFIES THAT NOISE LEVELS WOULD NOT EXCEED 60 DB(A) AT THE NEST SITE. IF THE NOISE REPORT DETERMINES THAT NOISE MITIGATION MEASURES SUCH AS NOISE BARRIERS ARE NECESSARY TO BRING NOISE LEVELS TO BELOW 60 DB(A) AT THE NEST SITE(S), THEY SHALL BE INSTALLED PRIOR TO STARTING CONSTRUCTION

DOCUMENTATION: THE DPW SHALL ENSURE THAT IMPROVEMENT PLANS INCLUDE A NOTE DOCUMENTING THESE REQUIREMENTS. THE APPLICANT SHALL PREPARE A PRE-CONSTRUCTION SURVEY NO MORE THAN 3 DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO DETERMINE WHETHER CONSTRUCTION ACTIVITIES ARE PROPOSED WITHIN 300 FEET OF BURROWING OWL BURROWS OR GROUND DWELLING RAPTOR NESTS. IF CONSTRUCTION ACTIVITIES ARE PROPOSED WITHIN 300 FEET OF BURROWING OWL BURROWS OR GROUND DWELLING RAPTOR NESTS, THE APPLICANT SHALL PROVIDE A NOISE REPORT PREPARED BY A COUNTY-APPROVED NOISE CONSULTANT SPECIFYING WHAT NOISE MEASURES, IF ANY, ARE REQUIRED TO BRING THE NOISE LEVEL AT THE NEST SITE(S) BELOW 60 DB(A). IF NOISE MITIGATION MEASURES ARE REQUIRED, THE APPLICANT SHALL PROVIDE EVIDENCE (E.G. PHOTOS) THAT DEMONSTRATES THAT THE MEASURES HAVE BEEN UNDERTAKEN IN ACCORDANCE WITH THE NOISE REPORT. TIMING: THESE RESTRICTIONS SHALL BE DOCUMENTED ON ALL PROJECT IMPROVEMENT PLANS, IMPROVEMENT PLANS AND BUILDING PERMITS. PRE-CONSTRUCTION SURVEYS SHALL OCCUR NO MORE THAN 3 DAYS PRIOR TO CONSTRUCTION ACTIVITIES. IF NOISE BARRIERS OR OTHER NOISE MITIGATION MEASURES ARE REQUIRED, SUCH MEASURES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES WHICH OCCUR WITHIN 300 FEET OF BURROWING OWL BURROWS OR GROUND DWELLING RAPTOR NESTS. MONITORING: THE DPW SHALL REVIEW IMPROVEMENT PLANS TO ENSURE THAT THE REQUIRED NOTES HAVE BEEN INCLUDED ON THE PLANS. THE PDS SHALL REVIEW THE PRE-CONSTRUCTION SURVEY, NOISE REPORT AND EVIDENCE THAT NOISE MINIMIZATION MEASURES HAVE BEEN UNDERTAKEN TO ENSURE THAT THE REQUIREMENTS SPECIFIED BY THIS MEASURE HAVE BEEN SATISFIED

GP16. BIO(M)-FUGITIVE DUST
INTENT: IN ORDER TO MITIGATE FOR INDIRECT IMPACTS TO LOCAL WILDLIFE DUE TO FUGITIVE DUST. WATERING OF UNPAVED SURFACES SHALL OCCUR DURING GRADING ACTIVITIES. DESCRIPTION OF REQUIREMENT: POTENTIAL INDIRECT IMPACTS TO LOCAL WILDLIFE CAUSED BY FUGITIVE DUST SHALL BE MITIGATED BY REQUIRING THAT ACTIVE CONSTRUCTION AREAS AND UNPAVED SURFACES BE WATERED PER COUNTY STANDARDS TO REDUCE POTENTIAL INDIRECT IMPACTS CAUSED BY FUGITIVE DUST

DOCUMENTATION: THE GRADING PERMIT SHALL INCLUDE A NOTE INDICATING A REQUIREMENT TO WATER UNPAVED SURFACES IN ACCORDANCE WITH COUNTY STANDARDS. TIMING: THIS CONDITION APPLIES THROUGHOUT THE DURATION OF THE CLEARING AND GRADING MONITORING: THE PERMIT COMPLIANCE ENGINEER (AS DEFINED IN SECTION 87.420 OF THE COUNTY GRADING ORDINANCE) SHALL PROVIDE DOCUMENTATION/EVIDENCE OF COMPLIANCE WITH EACH NOTE IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE. TIMING: COMPLIANCE WITH THIS CONDITION IS REQUIRED THROUGHOUT THE DURATION OF GRADING AND CONSTRUCTION MONITORING: THE PERMIT COMPLIANCE ENGINEER (AS DEFINED IN SECTION 87.420 OF THE COUNTY GRADING ORDINANCE) SHALL PROVIDE DOCUMENTATION/EVIDENCE OF COMPLIANCE WITH EACH NOTE IN THE REGULAR REPORTS REQUIRED PURSUANT TO SECTION 87.420(A) OF THE COUNTY'S GRADING ORDINANCE

(CULTURAL RESOURCES)

GP17. CUL(T)R-ARCHAEOLOGICAL MONITORING: [DPW, PDCI] [PDS, PCC] [PDS, FEE X2]
INTENT: IN ORDER TO COMPLY WITH MITIGATION MONITORING AND REPORTING PROGRAM PURSUANT TO 3100.5888 (TM), AND THE COUNTY OF SAN DIEGO GUIDELINES FOR DETERMINING SIGNIFICANCE AND REPORT FORMAT AND CONTENT REQUIREMENTS FOR ARCHAEOLOGICAL AND HISTORIC RESOURCES CULTURAL RESOURCE GRADING MONITORING PROGRAM SHALL BE IMPLEMENTED. DESCRIPTION OF REQUIREMENT: THE PROJECT ARCHAEOLOGIST (AND NATIVE AMERICAN MONITOR, IF CONTRACTED) SHALL MONITOR ORIGINAL CUTTING OF PREVIOUSLY UNDISTURBED DEPOSITS IN ALL AREAS IDENTIFIED FOR DEVELOPMENT INCLUDING OFF-SITE IMPROVEMENTS. THE GRADING MONITORING PROGRAM SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS DURING GRADING

a. DURING THE ORIGINAL CUTTING OF PREVIOUSLY UNDISTURBED DEPOSITS, THE PROJECT ARCHAEOLOGIST AND NATIVE AMERICAN MONITOR SHALL BE ONSITE AS DETERMINED NECESSARY BY THE PROJECT ARCHAEOLOGIST INSPECTIONS WILL VARY BASED ON THE RATE OF EXCAVATION, THE MATERIALS EXCAVATED, AND THE PRESENCE AND ABUNDANCE OF ARTIFACTS AND FEATURES. THE FREQUENCY AND LOCATION OF INSPECTIONS WILL BE DETERMINED BY THE PROJECT ARCHAEOLOGIST IN CONSULTATION WITH THE NATIVE AMERICAN MONITOR. MONITORING OF CUTTING OF PREVIOUSLY DISTURBED DEPOSITS WILL BE DETERMINED BY THE PROJECT ARCHAEOLOGIST

b. IN THE EVENT THAT PREVIOUSLY UNIDENTIFIED POTENTIALLY SIGNIFICANT CULTURAL RESOURCES ARE DISCOVERED, THE PROJECT ARCHAEOLOGIST, IN CONSULTATION WITH THE NATIVE AMERICAN MONITOR, SHALL HAVE THE AUTHORITY TO DIVERT OR TEMPORARILY HALT GROUND DISTURBANCE OPERATIONS IN THE AREA OF DISCOVERY TO ALLOW EVALUATION OF POTENTIALLY SIGNIFICANT CULTURAL RESOURCES AT THE TIME OF DISCOVERY. THE PROJECT ARCHAEOLOGIST SHALL CONTACT THE PDS STAFF ARCHAEOLOGIST. THE PROJECT ARCHAEOLOGIST IN CONSULTATION WITH THE PDS STAFF ARCHAEOLOGIST SHALL DETERMINE THE SIGNIFICANCE OF THE DISCOVERED RESOURCES. CONSTRUCTION ACTIVITIES WILL BE ALLOWED TO RESUME IN THE AFFECTED AREA ONLY AFTER THE PDS STAFF ARCHAEOLOGIST HAS CONCURRED WITH THE EVALUATION. FOR SIGNIFICANT CULTURAL RESOURCES, A RESEARCH DESIGN AND DATA RECOVERY PROGRAM TO MITIGATE IMPACTS SHALL BE PREPARED BY THE PROJECT ARCHAEOLOGIST AND APPROVED BY THE STAFF ARCHAEOLOGIST. THEN CARRIED OUT USING PROFESSIONAL ARCHAEOLOGICAL METHODS

c. IF ANY HUMAN BONES ARE DISCOVERED, THE PROJECT ARCHAEOLOGIST SHALL CONTACT THE COUNTY CORONER AND THE PDS STAFF ARCHAEOLOGIST. IF THE REMAINS ARE DETERMINED TO BE OF NATIVE AMERICAN ORIGIN, THE MOST LIKELY DESCENDANT, AS IDENTIFIED BY THE NATIVE AMERICAN HERITAGE COMMISSION, SHALL BE CONTACTED BY THE PROJECT ARCHAEOLOGIST IN ORDER TO DETERMINE PROPER TREATMENT AND DISPOSITION OF THE REMAINS

d. THE PROJECT ARCHAEOLOGIST SHALL SUBMIT MONTHLY STATUS REPORTS TO THE DIRECTOR OF PLANNING & DEVELOPMENT SERVICES STARTING FROM THE DATE OF THE NOTICE TO PROCEED TO TERMINATION OF IMPLEMENTATION OF THE GRADING MONITORING PROGRAM. THE REPORTS SHALL BRIEFLY SUMMARIZE ALL ACTIVITIES DURING THE PERIOD AND THE STATUS OF PROGRESS ON OVERALL PLAN IMPLEMENTATION. UPON COMPLETION OF THE IMPLEMENTATION PHASE, A FINAL REPORT SHALL BE SUBMITTED DESCRIBING THE PLAN COMPLIANCE PROCEDURES AND SITE CONDITIONS BEFORE AND AFTER CONSTRUCTION

DOCUMENTATION: THE APPLICANT SHALL IMPLEMENT THE GRADING MONITORING PROGRAM PURSUANT TO THIS CONDITION. TIMING: THE FOLLOWING ACTIONS SHALL OCCUR THROUGHOUT THE DURATION OF THE GRADING CONSTRUCTION MONITORING: THE (DPW, PDCI) SHALL MAKE SURE THAT THE PROJECT ARCHAEOLOGIST IS ON-SITE PERFORMING THE MONITORING DUTIES OF THIS CONDITION. THE (DPW, PDCI) SHALL CONTACT THE (PDS, PCC) IF THE PROJECT ARCHAEOLOGIST OR APPLICANT FAILS TO COMPLY WITH THIS CONDITION

(NOISE)

GP18. NOISE(P)- TEMPORARY NOISE IMPACTS: (PDS, PCC) [DPW, PDCI] [PDS, FEE X1].
INTENT: IN ORDER TO COMPLY WITH THE COUNTY OF SAN DIEGO NOISE ORDINANCE 36.409. THE FOLLOWING NOISE ATTENUATION MEASURES SHALL BE IMPLEMENTED TO REDUCE THE CUMULATIVE SOUND LEVELS GENERATED FROM PROJECT GRADING OPERATIONS. DESCRIPTION OF REQUIREMENT: IF CUMULATIVE GRADING OPERATIONS ARE SIMULTANEOUSLY OCCURRING AT A SHARED PROPERTY LINE WHERE ONE OCCUPIED STRUCTURE IS LOCATED, CONSTRUCTION EQUIPMENT OPERATIONS SHALL BE RELOCATED TO A DISTANCE OF 225 FEET FROM THE SHARED PROPERTY LINE.

DOCUMENTATION: THE APPLICANT SHALL PROVIDE A LETTER OF AGREEMENT TO THIS CONDITION. TIMING: THE FOLLOWING ACTIONS SHALL OCCUR THROUGHOUT THE DURATION OF THE GRADING OPERATIONS. MONITORING: THE (PDS, PCC) SHALL REVIEW THE LETTER OF AGREEMENT OF THIS CONDITION TO DEMONSTRATE COMPLIANCE WITH COUNTY CONSTRUCTION NOISE STANDARDS (NOISE ORDINANCE, SECTION 36.409)

(PALEONTOLOGICAL RESOURCES)

GP19. PALEO(R)-PALEONTOLOGICAL MONITORING: [DPW, PDCI] [PDS, PCC] [PC] [PDS, FEE X2]
INTENT: IN ORDER TO COMPLY WITH MITIGATION MONITORING AND REPORTING PROGRAM PURSUANT TO TM 5588 AND THE COUNTY OF SAN DIEGO GUIDELINES FOR DETERMINING SIGNIFICANCE AND REPORT FORMAT AND CONTENT REQUIREMENTS FOR PALEONTOLOGICAL RESOURCES, A GRADING MONITORING PROGRAM SHALL BE IMPLEMENTED. DESCRIPTION OF REQUIREMENT: THE PROJECT PALEONTOLOGIST SHALL MONITOR DURING THE ORIGINAL CUTTING OF PREVIOUSLY UNDISTURBED DEPOSITS FOR THE PROJECT, BOTH ON AND OFF SITE. THE QUALIFIED PALEONTOLOGICAL RESOURCES MONITOR SHALL BE ON-SITE TO MONITOR AS DETERMINED NECESSARY BY THE QUALIFIED PALEONTOLOGIST. THE GRADING MONITORING PROGRAM SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS DURING GRADING

a. IF PALEONTOLOGICAL RESOURCES ARE ENCOUNTERED DURING GRADING/EXCAVATION, THE FOLLOWING SHALL BE COMPLETED

1) THE QUALIFIED PALEONTOLOGICAL RESOURCES MONITOR SHALL HAVE THE AUTHORITY TO DIRECT, DIVERT OR HALT ANY GRADING/EXCAVATION ACTIVITY UNTIL SUCH TIME THAT THE SENSITIVITY OF THE RESOURCE CAN BE DETERMINED AND THE APPROPRIATE SALVAGE IMPLEMENTED

2) THE QUALIFIED MONITOR SHALL IMMEDIATELY CONTACT THE QUALIFIED PALEONTOLOGIST.

3) THE QUALIFIED PALEONTOLOGIST SHALL CONTACT THE COUNTY'S PERMIT COMPLIANCE COORDINATOR IMMEDIATELY.

4) THE QUALIFIED PALEONTOLOGIST SHALL DETERMINE IF THE DISCOVERED RESOURCE IS SIGNIFICANT. IF IT IS NOT SIGNIFICANT, GRADING/EXCAVATION SHALL RESUME

b. IF THE PALEONTOLOGICAL RESOURCE IS SIGNIFICANT OR POTENTIALLY SIGNIFICANT. THE QUALIFIED PALEONTOLOGIST OR QUALIFIED PALEONTOLOGICAL RESOURCES MONITOR UNDER THE SUPERVISION OF THE QUALIFIED PALEONTOLOGIST, SHALL COMPLETE THE FOLLOWING TASKS IN THE FIELD

1) SALVAGE UNEARTHED FOSSIL REMAINS, INCLUDING SIMPLE EXCAVATION OF EXPOSED SPECIMENS OR IF NECESSARY, PLASTER JACKETING OF LARGE AND/OR FRAGILE SPECIMENS OR MORE ELABORATE QUARRY EXCAVATIONS OF ROCKY FOSSILIFEROUS DEPOSITS

2) RECORD STRATIGRAPHIC AND OCEOLOGIC DATA TO PROVIDE A CONTEXT FOR THE RECOVERED FOSSIL REMAINS. TYPICALLY INCLUDING A DETAILED DESCRIPTION OF ALL PALEONTOLOGICAL LOCALITIES WITHIN THE PROJECT SITE AS WELL AS THE LITHOLOGY OF FOSSIL-BEARING STRATA WITHIN THE MEASURED STRATIGRAPHIC SECTION. IF FEASIBLE, AND PHOTOGRAPHIC DOCUMENTATION OF THE GEOLOGIC SETTING AND

3) TRANSPORT THE COLLECTED SPECIMENS TO A LABORATORY FOR PROCESSING (CLEANING, CURATION CATALOGING ETC.)

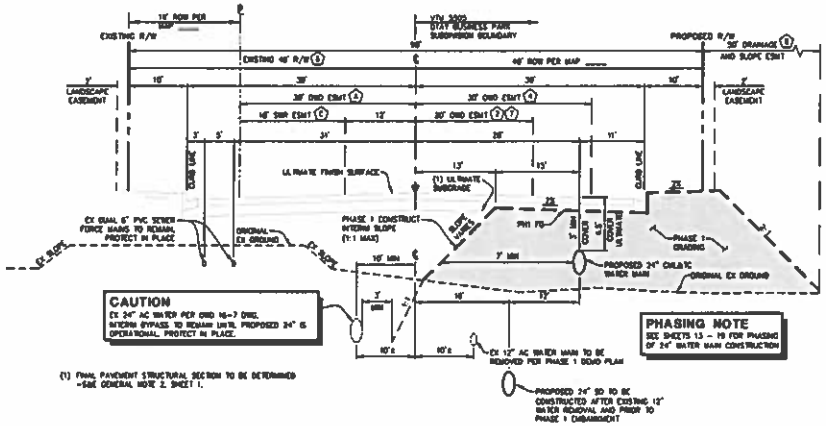
DOCUMENTATION: THE APPLICANT SHALL IMPLEMENT THE GRADING MONITORING PROGRAM PURSUANT TO THIS CONDITION. TIMING: THE FOLLOWING ACTIONS SHALL OCCUR THROUGHOUT THE DURATION OF THE GRADING CONSTRUCTION MONITORING: THE (DPW, PDCI) SHALL MAKE SURE THAT THE PROJECT ARCHAEOLOGIST IS ON-SITE PERFORMING THE MONITORING DUTIES OF THIS CONDITION. THE (DPW, PDCI) SHALL CONTACT THE (PDS, PCC) IF THE PROJECT PALEONTOLOGIST OR APPLICANT FAILS TO COMPLY WITH THIS CONDITION

ROUGH GRADING: (PRIOR TO ROUGH GRADING APPROVAL AND ISSUANCE OF ANY BUILDING PERMIT)

(PALEONTOLOGICAL RESOURCES)

GP20. PALEO(M)-PALEONTOLOGICAL MONITORING: [PDS, PCC] [PC, BP] [PDS, FEE].
INTENT: IN ORDER TO COMPLY WITH THE ADOPTED MITIGATION MONITORING AND REPORTING PROGRAM (MMRP) PURSUANT TO 3100.5888 (TM), AND THE COUNTY OF SAN DIEGO GUIDELINES FOR DETERMINING SIGNIFICANCE AND REPORT FORMAT AND CONTENT REQUIREMENTS FOR PALEONTOLOGICAL RESOURCES. A GRADING MONITORING PROGRAM SHALL BE IMPLEMENTED. DESCRIPTION OF REQUIREMENT: THE PROJECT PALEONTOLOGIST SHALL PREPARE ONE OF THE FOLLOWING LETTERS UPON COMPLETION OF THE GRADING ACTIVITIES THAT REQUIRE MONITORING.

a. IF NO PALEONTOLOGICAL RESOURCES WERE DISCOVERED SUBMIT A "NO FOSSILS FOUND" LETTER FROM THE GRADING CONTRACTOR TO THE (PDS, PCC) STATING THAT THE MONITORING HAS BEEN COMPLETED AND THAT NO FOSSILS WERE DISCOVERED AND INCLUDING THE NAMES AND SIGNATURES FROM THE F

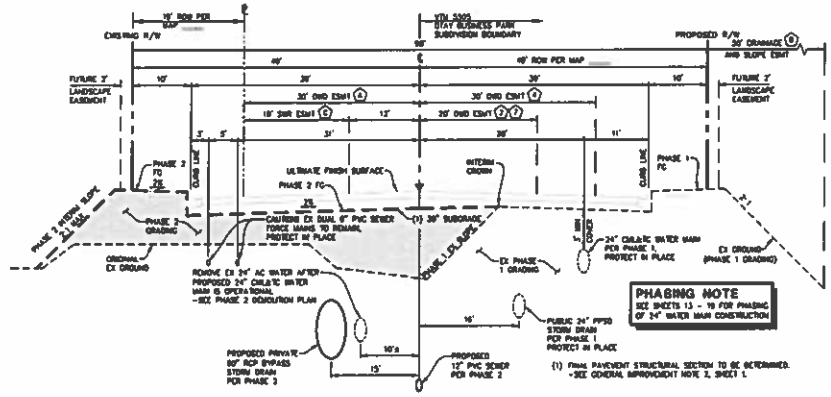


ALTA ROAD - PHASE 1
PROPOSED 24" CML&TC WATER MAIN CONSTRUCTION
EAST HALF - ROAD GRADING
STA. 20+00.00 TO 33+00.00

▼ = ULTIMATE CL ELEVATION PER PROFILE

NO SCALE

A / 11

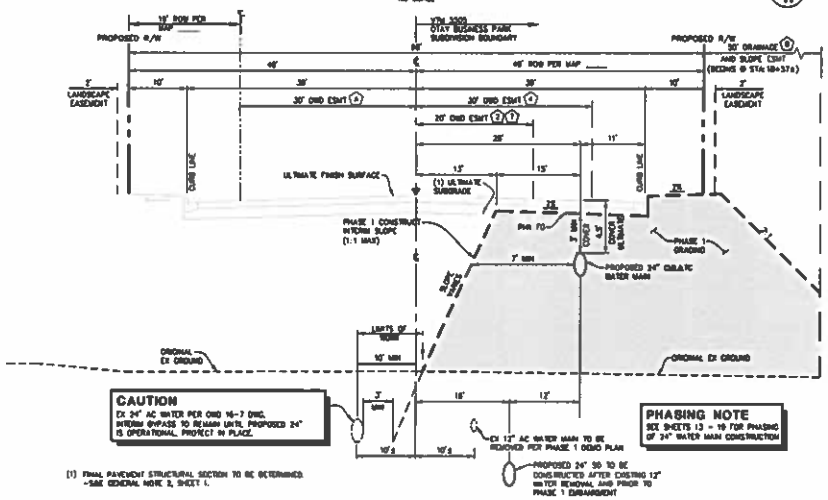


ALTA ROAD - PHASE 2
EX 24" AC WATER MAIN REMOVAL
PROPOSED SEWER & STORM DRAIN CONSTRUCTION
WEST HALF - ROAD GRADING
STA. 20+00.00 TO 33+00.00

▼ = ULTIMATE CL ELEVATION PER PROFILE

NO SCALE

D / 11

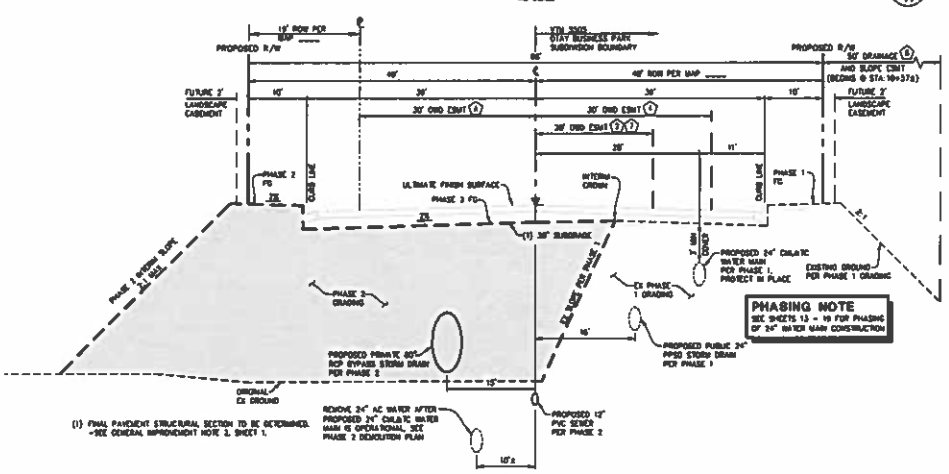


ALTA ROAD - PHASE 1
PROPOSED 24" CML&TC WATER MAIN CONSTRUCTION
EAST HALF - ROAD GRADING
STA. 13+00.00 TO 20+00.00

▼ = ULTIMATE CL ELEVATION PER PROFILE

NO SCALE

B / 11



ALTA ROAD - PHASE 2
EX 24" AC WATER MAIN REMOVAL
PROPOSED SEWER & STORM DRAIN CONSTRUCTION
WEST HALF - ROAD GRADING
STA. 13+00.00 TO 20+00.00

▼ = ULTIMATE CL ELEVATION PER PROFILE

NO SCALE

E / 11

REGISTERED PROFESSIONAL ENGINEER ROBERT R. GEHRKE No. 45717 CIVIL STATE OF CALIFORNIA

PRIVATE CONTRACT

SHEET 11	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	63 SHEETS

TYPICAL SECTIONS-PHASE 1 & 2 FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWAHI SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5506
CALIFORNIA COORDINATE INDEX 138-1791

DISCRETIONARY FOR APPROVAL | APPROVED FOR PUBLIC HEARING | 1/1/23

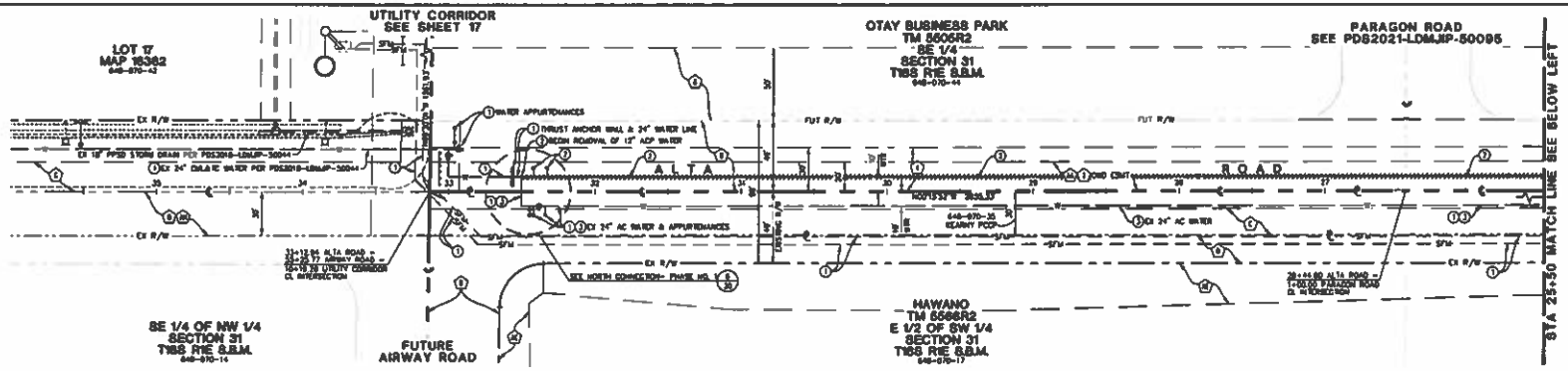
PDS2021-LDPIP-60114

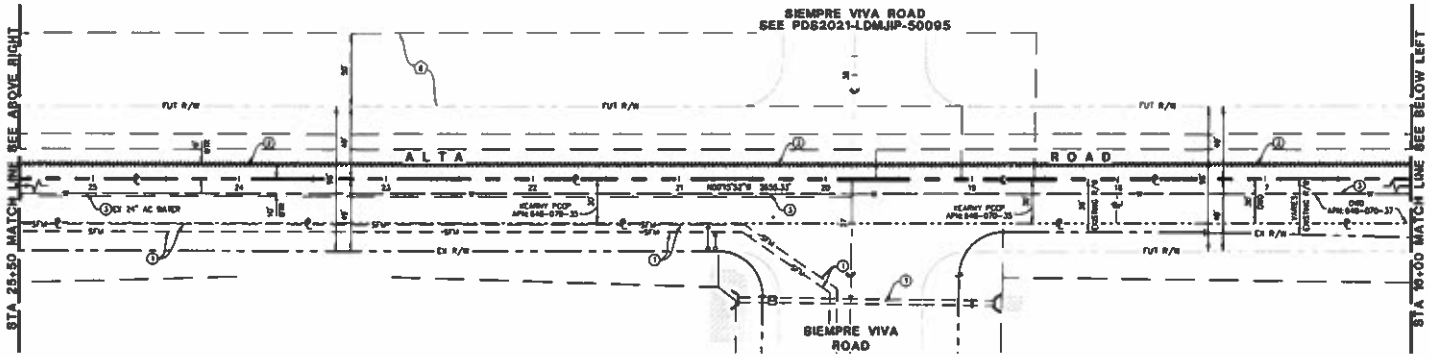
STEVENS CRIESTO ENGINEERS
9665 Chesapeake Dr. Ste 200
San Diego, CA 92123
858.694.5660 stevenscriesto.com

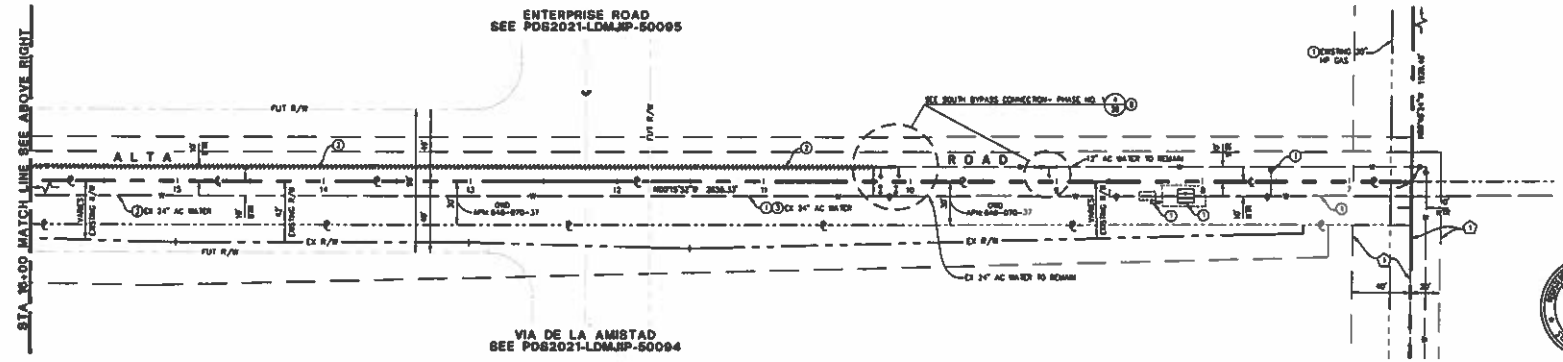
RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. GEHRKE RCE 45717 DATE	SIGNATURE DATE; ROBERT R. GEHRKE; PRINTED NAME; REGISTRATION EXPIRATION; 45717 LICENSE NO. CIVIL DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.E. 871; REVIEWED BY; 10/11/2022 DATE	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CONTERLINE WELL MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 50' TO TOP OF HILL; RECORD FROM: R.O.S. 14841, PT. NO. 6023; ELEVATION: 678.89; DATUM: NGVD '29

E:\WORKSPACE\CAD\DWG\ALTA RD\PHASE-2\ PLOTTED DATE: 12/12/2022 4:30 PM USER: CGD

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009







SHUTDOWN NOTE

SHUT DOWN DURING TIE-IN. NOTE THAT THERE IS A MAXIMUM 4 DAY WINDOW FOR THE SHUT DOWN DURATION FOR THE DISCONNECTION OF THE EXISTING BYPASS WATER LINE AND PERMANENT 24" WATER CONNECTION. ADVANCED NOTICE IS REQUIRED PRIOR TO PULLING WATER THROUGH THE NEW CONNECTION.

EXISTING EASEMENT NOTES

1. SEE SHEET 2 FOR EXISTING EASEMENT NOTES

GENERAL DEMOLITION

1. CONTRACTOR SHALL POTHOLE ALL P.O.C.'s PRIOR TO CONSTRUCTION & FABRICATION OF STEEL PIPE. CONTRACTOR TO DETERMINE WHERE EXISTING JOINTS ARE LOCATED. IF P.O.C. IS DIFFERENT THAN SHOWN ON PLAN, NOTIFY ENGINEER OF WORK.
2. CONTRACTOR SHALL MAINTAIN WATER SERVICE AT ALL TIMES. HIGH LINE OR BYPASS EXISTING WATER SHALL BE PROVIDED TO DISTRICT PRIOR TO CONSTRUCTION.

PHASE 1 DEMOLITION SEQUENCING

1. CONSTRUCT BYPASS CONNECTION (SEE DETAIL 4, SHEET 20) TO INTERCONNECT 12" & 24" AC WATER.
2. BEND 12" AC WATER & APPURTENANCES NORTH OF STATION 10+11.82 ONCE PHA 1 IS COMPLETE AND ACCEPTED BY OWD.

DEMOLITION NOTES

1. PROTECT IN PLACE.
2. DIST. 12" ACP WATER MAIN AND APPURTENANCES PER OWD 16-4-7, TO BE REMOVED.
3. DIST. 24" ACP WATER PER OWD. 16-3-7, TO BE USED AS BYPASS DURING CONSTRUCTION OF NEW 24" DIA.X.C. STEEL WATER MAIN. ONCE NEW WATER MAIN IS OPERATIONAL, CONTRACTOR TO BEGIN PHASE 2 WATER DEMOLITION PER SHEET 18
4. CONTRACTOR TO POTHOLE AND LOCATE THE WATER PIPE JOINTS ON BOTH SIDES OF THE WATER POC LOCATION. CONTRACTOR SHALL SURVEY HORIZONTAL AND VERTICAL LOCATIONS OF THE WATER PIPE JOINTS AT THE TOP OF PIPE. CONTRACTOR SHALL PROVIDE PHOTOGRAPH(S) AND HAND SKETCH SHOWING LOCATION OF PIPE AND SURVEY RESULTS TO THE ENGINEER OF WORK PRIOR TO CONSTRUCTION.

SCALE: 1"=40'

PRIVATE CONTRACT

SHEET 12	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

WATER DEMOLITION PLAN – PHASE 1 FOR

ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5566

CALIFORNIA COORDINATE INDEX 136-1791

RECOMMENDED FOR APPROVAL

APPROVED FOR PUBLIC WORKS
DPW 1/9/23

PREPARED BY

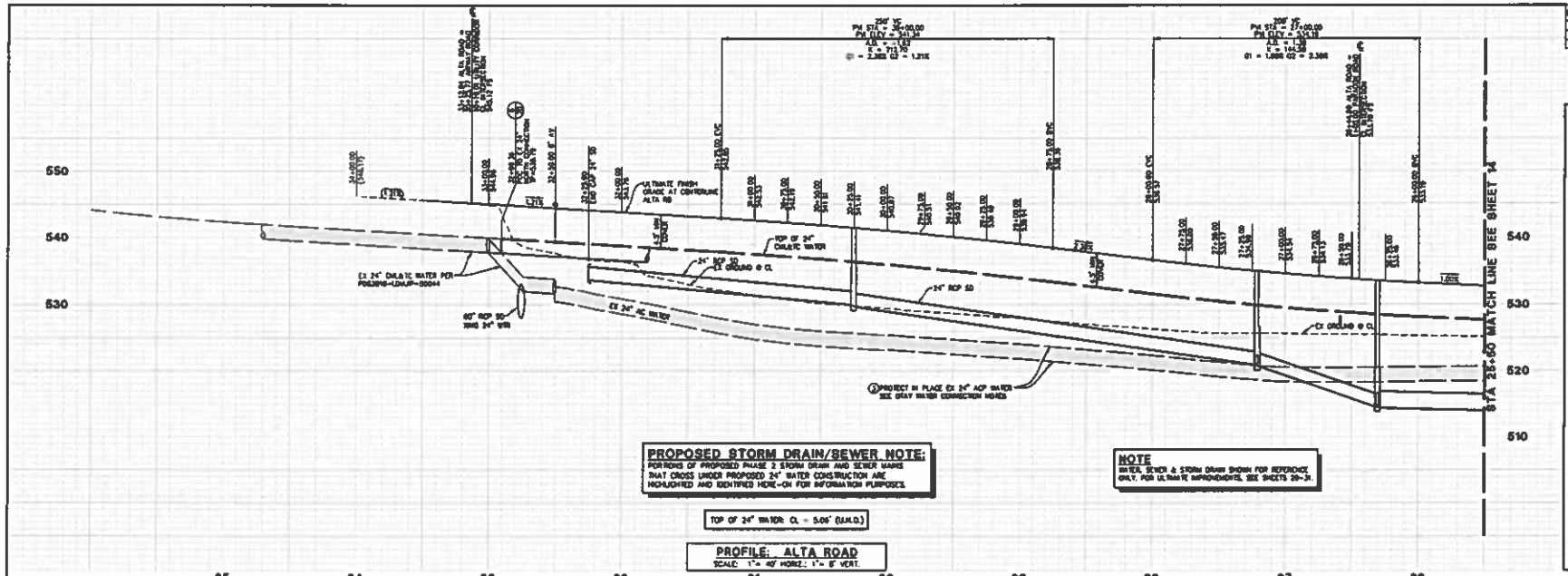
APPROVED FOR
PDS2021-LDPMP-50114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr. Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. CEDERNE RCE 45717 DATE	SIGNATURE DATE; ROBERT R. CEDERNE 45717; PRINTED NAME; LICENSE NO. CIVIL; REGISTRATION EXPIRATION; DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.Z. 871; REVIEWED BY; DATE 12/14/2022	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STRICT CENTERLINE REAL MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 M NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 34' TO TOP OF HILL; RECORD FROM: R.O.S. 14841, PG. NO. 4022; ELEVATION: 578.89; DATUM: NGVD '29

NOT FOR CONSTRUCTION

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009



PROPOSED STORM DRAIN/SEWER NOTE:
PORTIONS OF PROPOSED PHASE 2 STORM DRAIN AND SEWER MAINS THAT CROSS UNDER PROPOSED 24" WATER CONSTRUCTION ARE HIGHLIGHTED AND IDENTIFIED HERE-ON FOR INFORMATION PURPOSES.

NOTE
WATER, SEWER & STORM DRAIN SHOWN FOR REFERENCE ONLY. FOR ULTIMATE IMPROVEMENTS, SEE SHEETS 29-31.

TOP OF 24" WATER: CL = 5.06' (U.N.O.)

PROFILE: ALTA ROAD
SCALE: 1"= 40' HORIZ.; 1"= 8' VERT.

CENTERLINE DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'30"E	—	107.00'	PA, ALTA ROAD
2	N00°13'30"E	—	79.84'	PA, ALTA ROAD

EXISTING EASEMENT NOTES

1. SEE SHEET 2 FOR EXISTING EASEMENT NOTES.

PHASE 1 WATER MAIN SEQUENCING

1. CONSTRUCT PORTION OF 96" STORM DRAIN, SEE SHEETS 29-31.
2. CONSTRUCT 18", 24" AND 30" STORM DRAIN SYSTEM, SEE SHEETS 29-31.
3. PERFORM PHASE 1 GRADING.
4. CONSTRUCT 24" STEEL WATER MAIN, SEE SHEETS 29-31.

CONSTRUCTION NOTES

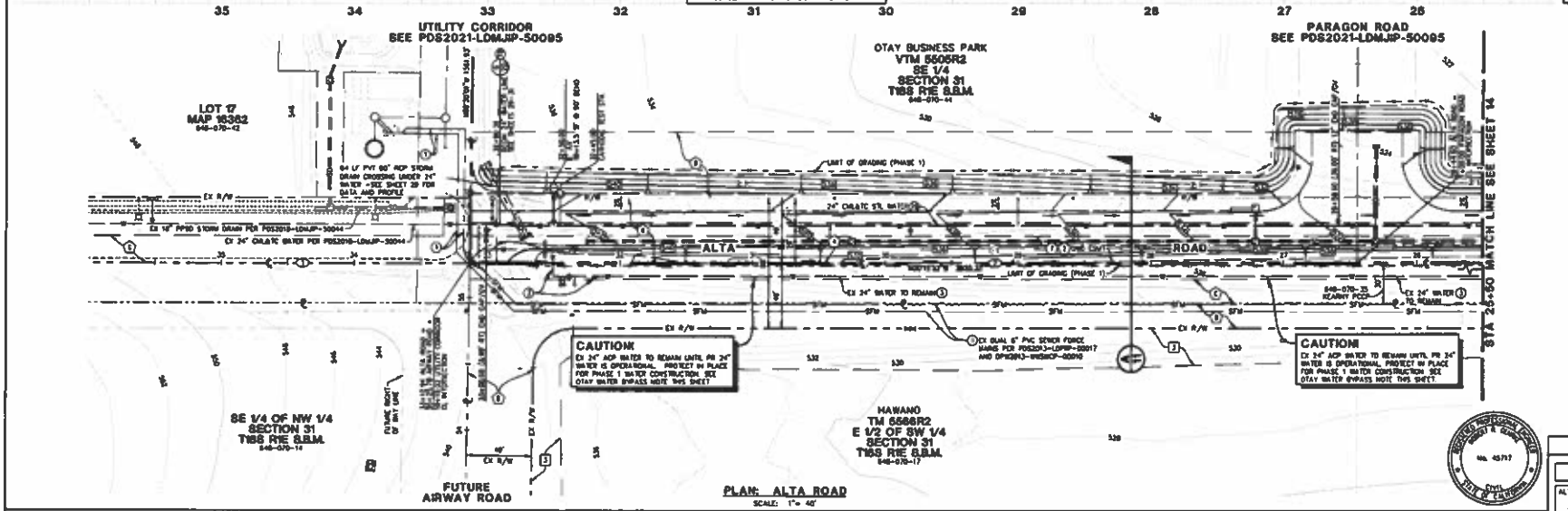
1. PROTECT IN PLACE, REPAIR OR REPLACE ANY IMPROVEMENT TO REMAIN TO THE SATISFACTION OF THE COUNTY ENGINEER.
2. EXISTING 24" ACP WATER PER DWG 16-3-7 TO BE USED AS BYPASS DURING CONSTRUCTION OF NEW 24" CMLATC STEEL WATER MAIN. ONCE NEW WATER MAIN IS OPERATIONAL, CONTRACTOR TO REMOVE 24" ACP WATER TO LIMITS SHOWN ON WATER DEMO SHEET. SEE WATER NOTE 8 SHEET 4
3. CONSTRUCT 24" CMLATC WATER LINE. SEE SHEETS 29-31.

OTAY WATER DISTRICT CONNECTION NOTES:

A. CONTRACTOR TO PERFORM ALL WORK AND PROCEED WITH TIE-IN WORK AS IS ORDERED. CONTRACTOR TO COMPLETE EACH TIE-IN TO RESTORE SERVICE BEFORE PROCEEDING TO NEXT TIE-IN OR SEVERING EXISTING PIPING. OTAY WATER DISTRICT TO DO NO WORK.
B. SEE NORTH WATER CONNECTION DETAIL 6, SHEET 30 FOR PROPOSED 24" CMLATC CONNECTION TO EXISTING 24" STEEL AT STATION 32+83.36.
C. CATHODIC PROTECTION AS PER SHEETS 28-36

SHUTDOWN NOTE

SHUT DOWN DURING TIE-IN. NOTE THAT THERE IS A MAXIMUM 4 DAY WINDOW FOR THE SHUT DOWN DURATION FOR THE DISCONNECTION OF THE EXISTING BYPASS WATER LINE AND PERMANENT 24" WATER CONNECTION. ADVANCED NOTICE IS REQUIRED PRIOR TO PULLING WATER THROUGH THE NEW CONNECTION.



PLAN: ALTA ROAD
SCALE: 1"= 40'

SCALE: 1"=40'

PRIVATE CONTRACT

SHEET 13	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

ALTA ROAD – PHASE 1 WATER MAIN FOR:

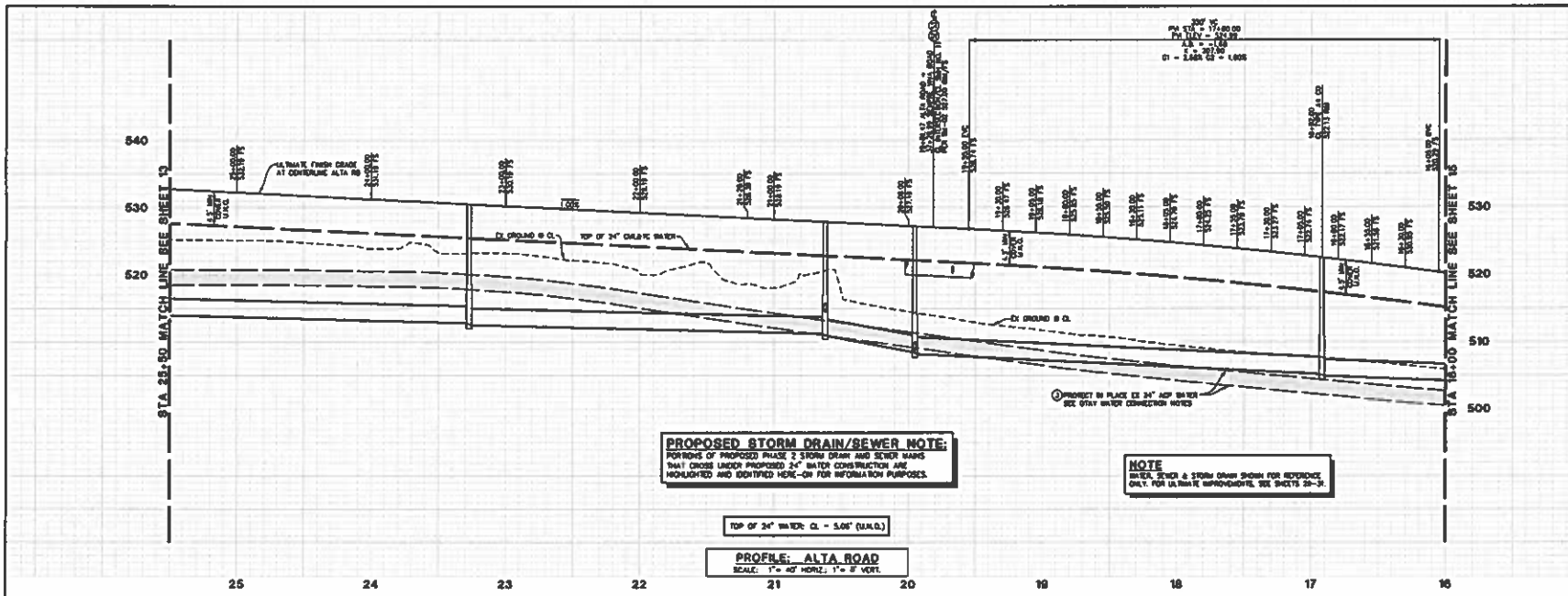
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5598
CALIFORNIA COORDINATE INDEX 138-1781

PDS2021-LDPIP-60114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.484.5660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. DEHNKE RCE 43717 DATE	SIGNATURE DATE; ROBERT R. DEHNKE 43717; PRINTED NAME; LICENSE NO. CIVIL; REGISTRATION EXPIRATION; DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.2 871; REVIEWED BY; 10/14/2022 DATE	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STRICT CENTERLINE MON. MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 50' TO TOP OF HILL; RECORD FROM: R.O.S. 14841, PT. NO. 4022; ELEVATION: 570.89 DATUM: NGVD '29

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009

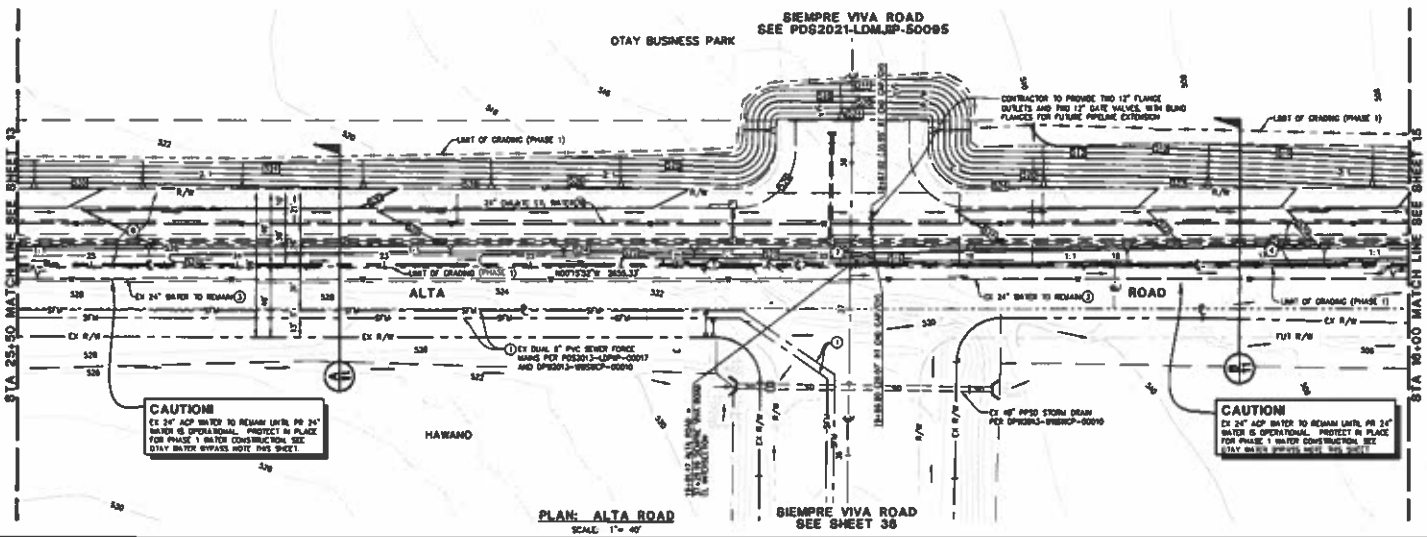


PROPOSED STORM DRAIN/SEWER NOTE:
PORTIONS OF PROPOSED PHASE 2 STORM DRAIN AND SEWER MAINS THAT CROSS UNDER PROPOSED 24" WATER CONSTRUCTION ARE HIGHLIGHTED AND IDENTIFIED HERE-ON FOR INFORMATION PURPOSES.

NOTE
WATER, SEWER & STORM DRAIN SHOWN FOR REFERENCE ONLY. FOR ULTIMATE IMPROVEMENTS, SEE SHEETS 29-31.

TOP OF 24" WATER: CL = 5.06' (U.N.O.)

PROFILE: ALTA ROAD
SCALE: 1"= 40' HORIZ., 1"= 8' VERT.



CAUTION!
EX 24" ACP WATER TO REMAIN UNTIL PR 24" WATER IS OPERATIONAL. PROTECT IN PLACE FOR PHASE 1 WATER CONSTRUCTION. SEE OTAY WATER BYPASS NOTE THIS SHEET.

CAUTION!
EX 24" ACP WATER TO REMAIN UNTIL PR 24" WATER IS OPERATIONAL. PROTECT IN PLACE FOR PHASE 1 WATER CONSTRUCTION. SEE OTAY WATER BYPASS NOTE THIS SHEET.

PLAN: ALTA ROAD
SCALE: 1"= 40'

CENTERLINE DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°15'38"W	--	858.60'	RD. ALTA ROAD

EXISTING EASEMENT NOTES
1. SEE SHEET 3 FOR EXISTING EASEMENT NOTES.

PHASE 1 WATER MAIN SEQUENCING
1. CONSTRUCT PORTION OF 60" STORM DRAIN. SEE SHEETS 29-31.
2. CONSTRUCT 18", 24" AND 30" STORM DRAIN SYSTEM. SEE SHEETS 29-31.
3. PERFORM PHASE 1 GRADING
4. CONSTRUCT 24" STEEL WATER MAIN. SEE SHEETS 29-31.

CONSTRUCTION NOTES
1. PROTECT IN PLACE, REPAIR OR REPLACE ANY IMPROVEMENT TO REMAIN TO THE SATISFACTION OF THE COUNTY ENGINEER.
3. EXISTING 24" ACP WATER PER DWG 16-3-7 TO BE USED AS BYPASS DURING CONSTRUCTION OF NEW 24" CMLC/IC STEEL WATER MAIN. ONCE NEW WATER MAIN IS OPERATIONAL, CONTRACTOR TO REMOVE 24" ACP WATER TO LIMITS SHOWN ON WATER BOND SHEET. SEE WATER NOTE 8 SHEET 4.
19. CONSTRUCT 24" CMLC/IC WATER LINE. SEE SHEETS 29-31.

OTAY WATER DISTRICT CONNECTION NOTES:
A. CONTRACTOR TO PERFORM ALL WORK AND PROCEED WITH TIE-IN WORK AS IS ORDERED. CONTRACTOR TO COMPLETE EACH TIE-IN TO RESTORE SERVICE BEFORE PROCEEDING TO NEXT TIE-IN OR REMOVING EXISTING PIPING. OTAY WATER DISTRICT TO DO NO WORK.
B. CATHODIC PROTECTION AS PER SHEETS 29-35.

SHUTDOWN NOTE
SHUT DOWN DURING TIE-IN. NOTE THAT THERE IS A MAXIMUM 4 DAY WINDOW FOR THE SHUT DOWN DURATION FOR THE DISCONNECTION OF THE EXISTING BYPASS WATER LINE AND PERMANENT 24" WATER CONNECTION. ADVANCED NOTICE IS REQUIRED PRIOR TO PULLING WATER THROUGH THE NEW CONNECTION.

SCALE: 1"=40'

PRIVATE CONTRACT

SHEET 14	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	82 SHEETS

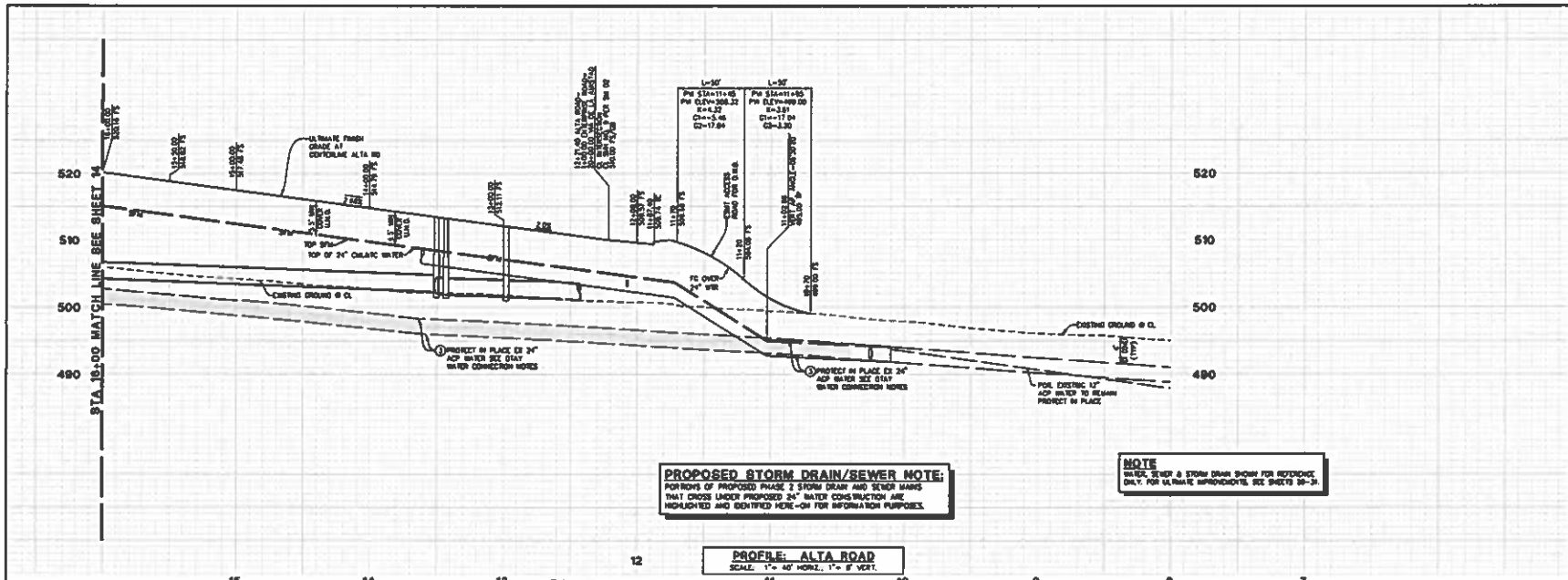
ALTA ROAD - PHASE 1 WATER MAIN FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5500 & 5500
CALIFORNIA COORDINATE INDEX 138-1791

APPROVED FOR APPROVAL — APPROVED FOR TRACKING MAPPING — 1/4/23
ENGINEER OF WORK — APPROVED PLAN NO. PDS2021-LDPIP-60114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. ODHIKE RCE 45717 DATE	SIGNATURE DATE; ROBERT R. ODHIKE 45717; PRINTED NAME; LICENSE NO. CIVIL; REGISTRATION EXPIRATION; DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. OEV-22-009; P.E. 871; REVIEWED BY; 12/14/2022 DATE	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT. LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CHURCH ARROW 50' TO TOP OF HILL. RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION: 576.99 DATUM: NGVD '29

OWD PROJECT: 01132-090574
OWD PERMIT: OEV-22-009



PROPOSED STORM DRAIN/SEWER NOTE:

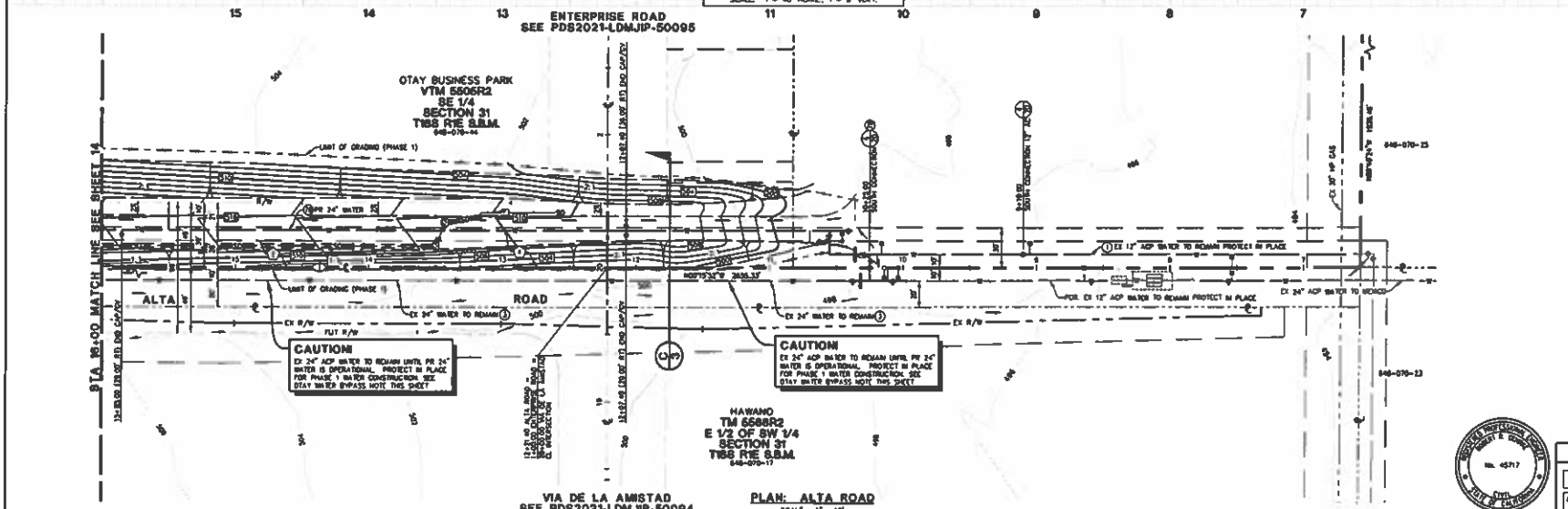
PORTIONS OF PROPOSED PHASE 2 STORM DRAIN AND SEWER MAINS THAT CROSS UNDER PROPOSED 24" WATER CONSTRUCTION ARE HIGHLIGHTED AND IDENTIFIED HERE-ON FOR INFORMATION PURPOSES.

NOTE

WATER, SEWER & STORM DRAIN SHOWN FOR REFERENCE ONLY. FOR ULTIMATE IMPROVEMENTS, SEE SHEETS 29-31.

PROFILE: ALTA ROAD

SCALE: 1"= 40' HORIZ., 1"= 8' VERT.



PLAN: ALTA ROAD

SCALE: 1"= 40'

CENTERLINE DATA

NO.	BEARING	DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'31"E		--	2476.87'	TO ALTA ROAD

EXISTING EASEMENT NOTES

(1) SEE SHEET 2 FOR EXISTING EASEMENT NOTES.

PHASE 1 WATER MAIN SEQUENCING

1. CONSTRUCT PORTION OF 60" STORM DRAIN, SEE SHEETS 29-31.
2. CONSTRUCT 18", 24" AND 30" STORM DRAIN SYSTEM, SEE SHEETS 29-31.
3. PERFORM PHASE 1 GRADING.
4. CONSTRUCT 24" STEEL WATER MAIN, SEE SHEETS 29-31.

CONSTRUCTION NOTES

(1) PROTECT IN PLACE, REPAIR OR REPLACE ANY IMPROVEMENT TO REMAIN TO THE SATISFACTION OF THE COUNTY ENGINEER.

(2) EXISTING 24" ACP WATER PER OWD 16-3-7 TO BE USED AS BYPASS DURING CONSTRUCTION OF NEW 24" CMLA/C STEEL WATER MAIN. ONCE NEW WATER MAIN IS OPERATIONAL, CONTRACTOR TO REMOVE 24" ACP WATER TO LIMITS SHOWN ON WATER DEMO SHEET. SEE WATER NOTE 8 SHEET 4.

(3) CONSTRUCT 24" CMLA/C WATER LINE. SEE SHEETS 29-34.

OTAY WATER DISTRICT CONNECTION NOTES:

A. CONTRACTOR TO PERFORM ALL WORK AND PROCEED WITH RE-IN WORK AS IS ORDERED. CONTRACTOR TO COMPLETE EACH RE-IN TO ACTIONS SERVICE ROTONE PROCEEDING TO NEXT RE-IN OR SEVERING EXISTING PIPING. OTAY WATER DISTRICT TO [redacted] NO WORK.
B. SEE 30W/34 WATER CONNECTION PHASE 1 DETAIL 4, SHEET 28 FOR PROPOSED 24" CMLA/C RECONNECT TO EXISTING 24" ACP AT STATION 9+07.5 & 10+48.00
C. CATHODIC PROTECTION AS PER SHEETS 28-28.

SHUTDOWN NOTE

SHUT DOWN DURING RE-IN. NOTE THAT THERE IS A MAXIMUM 4 DAY WINDOW FOR THE SHUT DOWN DURATION FOR THE DISCONNECTION OF THE EXISTING BYPASS WATER LINE AND PERMANENT 24" WATER CONNECTION. ADVANCED NOTICE IS REQUIRED PRIOR TO PULLING WATER THROUGH THE NEW CONNECTION.

0 20 40 80 120
SCALE: 1"=40'

PRIVATE CONTRACT

SHEET 13	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	67 SHEETS

ALTA ROAD - PHASE 1 WATER MAIN FOR:

ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5606 & 5588

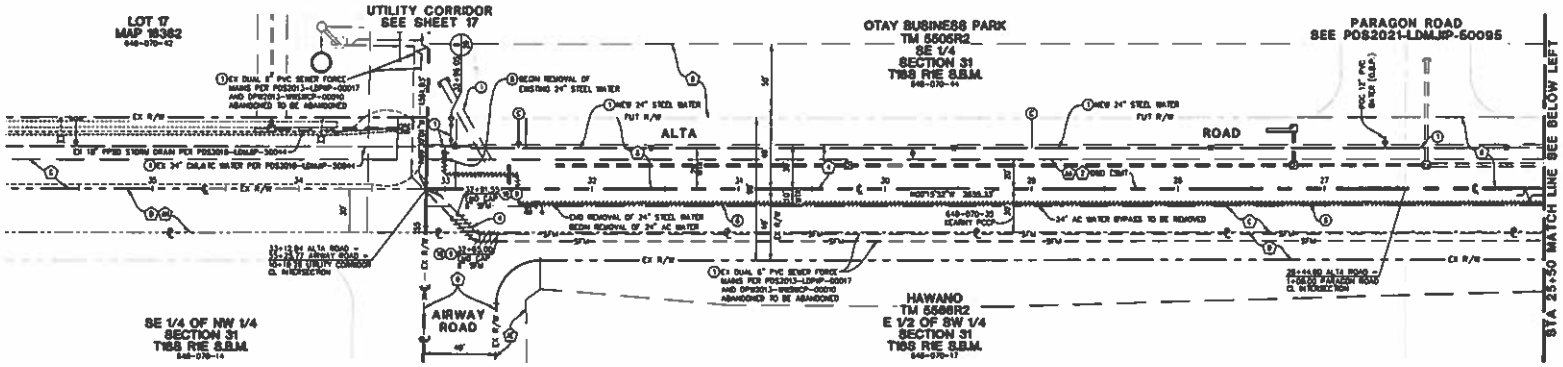
CALIFORNIA COORDINATE INDEX 138-1791

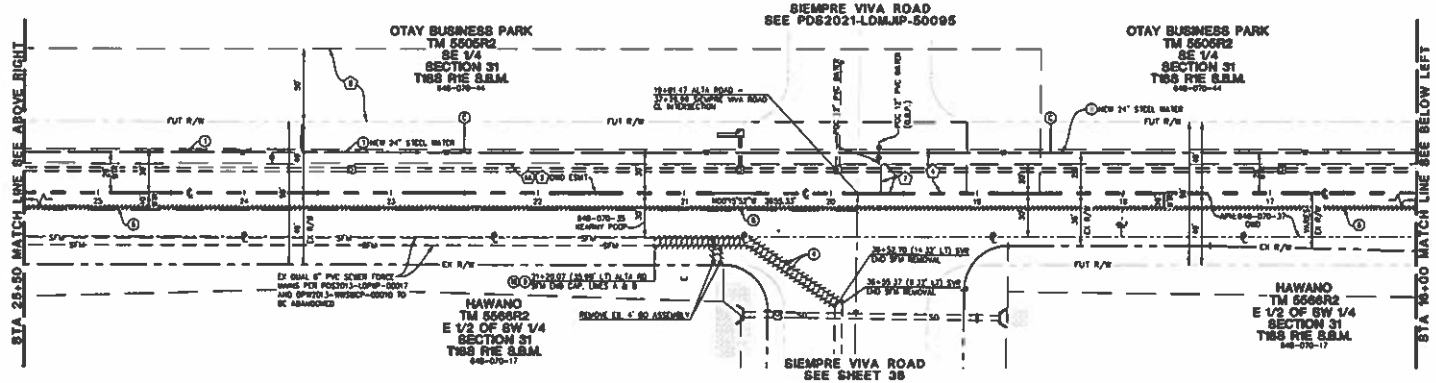
PDS2021-LDPIP-60114

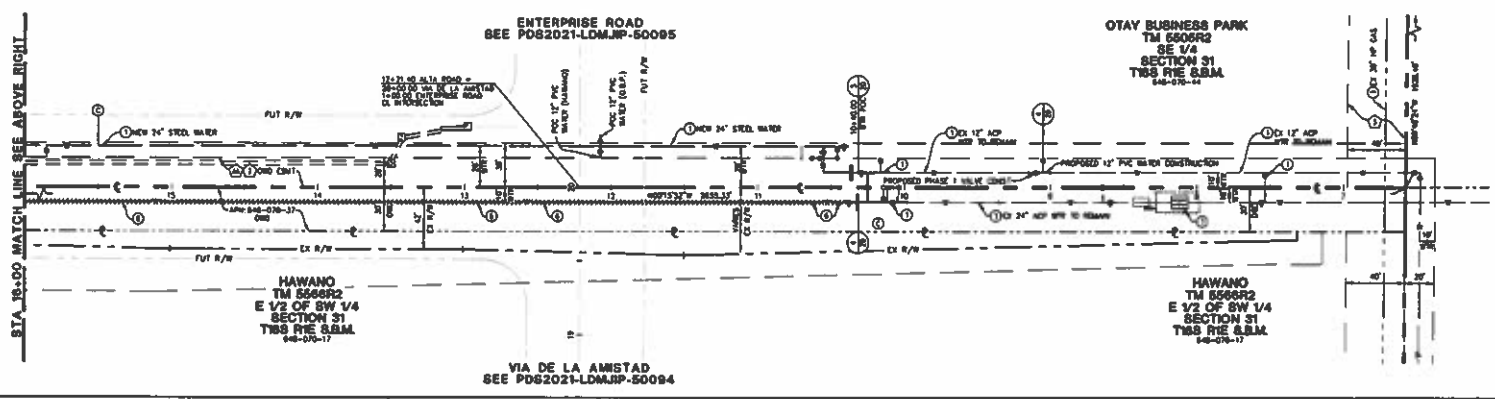
STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr. Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. OEHNKE RCE 45717 DATE	SIGNATURE DATE; ROBERT R. OEHNKE 45717; PRINTED NAME; LICENSE NO. CIVIL; REGISTRATION EXPIRATION; DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.E. 871; REVIEWED BY; 10/12/2022 DATE	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 16' TO TOP OF HILL; RECORD FROM: R.O.S. 14841, PT. NO. 4022; ELEVATION: 670.09 DATUM: NGVD '29

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009







SHUTDOWN NOTE

SHUT DOWN DURING RE-AL NOTE THAT THERE IS A MAXIMUM 4 DAY WINDOW FOR THE SHUT DOWN DURATION FOR THE DISCONNECTION OF THE EXISTING BYPASS WATER LINE AND PERMANENT 24" WATER CONNECTION. ADVANCED NOTICE IS REQUIRED PRIOR TO PULLING WATER THROUGH THE NEW CONNECTION.

EXISTING EASEMENT NOTES

1. SEE SHEET 2 FOR EXISTING EASEMENT NOTES.

GENERAL DEMOLITION

1. CONTRACTOR SHALL POTHOLE ALL P.O.C.'s PRIOR TO CONSTRUCTION & DETERMINE WHERE EXISTING JOINTS ARE LOCATED. IF P.O.C. IS DIFFERENT THAN SHOWN ON PLAN, NOTIFY ENGINEER OF WORK.
2. CONTRACTOR SHALL MAINTAIN WATER SERVICE AT ALL TIMES. HIGH LINE EXISTING WATER SHALL BE PROVIDED TO DISTRICT PRIOR TO CONSTRUCTION.

PHASE 2 DEMOLITION SEQUENCING

1. STEEL WATER MAIN REQUIRES ACCEPTANCE BY OWD PRIOR TO DEMO OF 24" AC WATER BYPASS.
2. CONSTRUCT SOUTH CONNECTIONS PHASE 1 WATER CONNECTION PER DETAIL 4 ON SHEET 20
3. CONSTRUCT PHASE 2 WATER CONNECTIONS PER DETAILS 5 AND 6 ON SHEET 20
4. CONSTRUCT NEW 24" CML & TC WATER
5. ONCE NEW 24" CML & TC WATER IS OPERATIONAL, THEN PROCEED WITH DEMO OF EXISTING 24" AC BYPASS WATER AND APPURTENANCES.
6. DEMO EXISTING 24" STEEL WATER & APPURTENANCES PER PDS2018-LDMJIP-50044 SHOWN SOUTH OF STATION 33+00.00

DEMOLITION NOTES

1. PROTECT IN PLACE.
2. INTERFERING PORTIONS OF EXIST. SFW TO BE REMOVED. ABANDONED IN PLACE REMAINING SFW, NO SLURRY FILL, CAP ENDS.
3. CONTRACTOR TO REMOVE 24" ACP WATER TO LIMITS SHOWN ON PHASE 2 WATER DEMOLITION SHEET. SEE WATER NOTE 8, SHEET 2.
4. CONTRACTOR TO POTHOLE AND LOCATE THE WATER PIPE JOINTS ON BOTH SIDES OF THE WATER POC. LOCATION. CONTRACTOR SHALL SURVEY HORIZONTAL AND VERTICAL LOCATIONS OF THE WATER PIPE JOINTS AT THE TOP OF PIPE. CONTRACTOR SHALL PROVIDE PHOTOGRAPH(S) AND HAND SKETCH SHOWING LOCATION OF PIPE AND SURVEY RESULTS TO THE ENGINEER OF WORK PRIOR TO CONSTRUCTION.
5. SEWER FORCE MAIN TO BE ABANDONED. CAP ENDS. NO SLURRY FILL.
6. [illegible] AND REMOVE EXISTING FORCE MAINS (SFM). WHERE SHOWN CAP ENDS OF EX SFM TO REMAIN. IF SFM ARE OPERATIONAL, CONTRACTOR TO PROVIDE A PLAN TO HANDLE THE SEWAGE DURING CONSTRUCTION. PLAN WILL BE SUBMITTED & APPROVED BY OWD & COUNTY SANITATION 30 DAYS PRIOR TO COMMENCING WORK.

SCALE: 1"=40'

PRIVATE CONTRACT

SHEET 18	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

WATER DEMOLITION PLAN - PHASE 2 FOR:

ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5506 & 5566
CALIFORNIA COORDINATE INDEX 138-1791

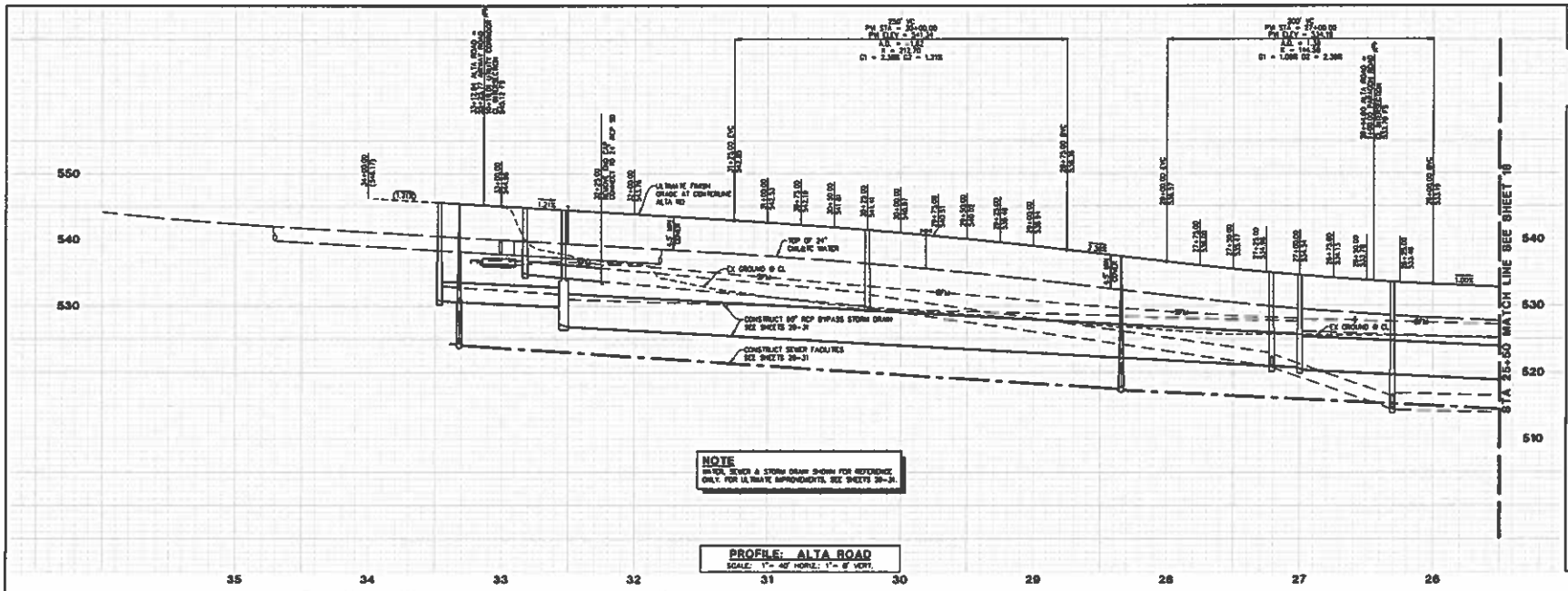
RECOMMENDED FOR APPROVAL | APPROVED FOR PUBLIC WORKS | DATE 1/9/23

APPROVED BY | DATE | APPROVED PLAN NO. PDS2021-LDPMP-50114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. GEHRKE RCE 45717 DATE	SIGNATURE DATE; ROBERT R. GEHRKE 45717; PRINTED NAME; REGISTRATION EXPIRATION; LICENSE NO. CIVIL; DISCIPLINE	PROJECT NO. D1132-090574; PERMIT NO. DEV-22-008; P.2 871; REVIEWED BY; 12/8/2022 DATE	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.3 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 50' TO TOP OF HILL; RECORD FROM: R.O.S. 14841, PT. NO. 4022; ELEVATION: 870.89 DATUM: NGVD '29

OWD PROJECT: D1132-090574
OWD PERMIT: DEV-22-008



PROFILE: ALTA ROAD
SCALE: 1"= 40' HORIZ.; 1"= 8' VERT.

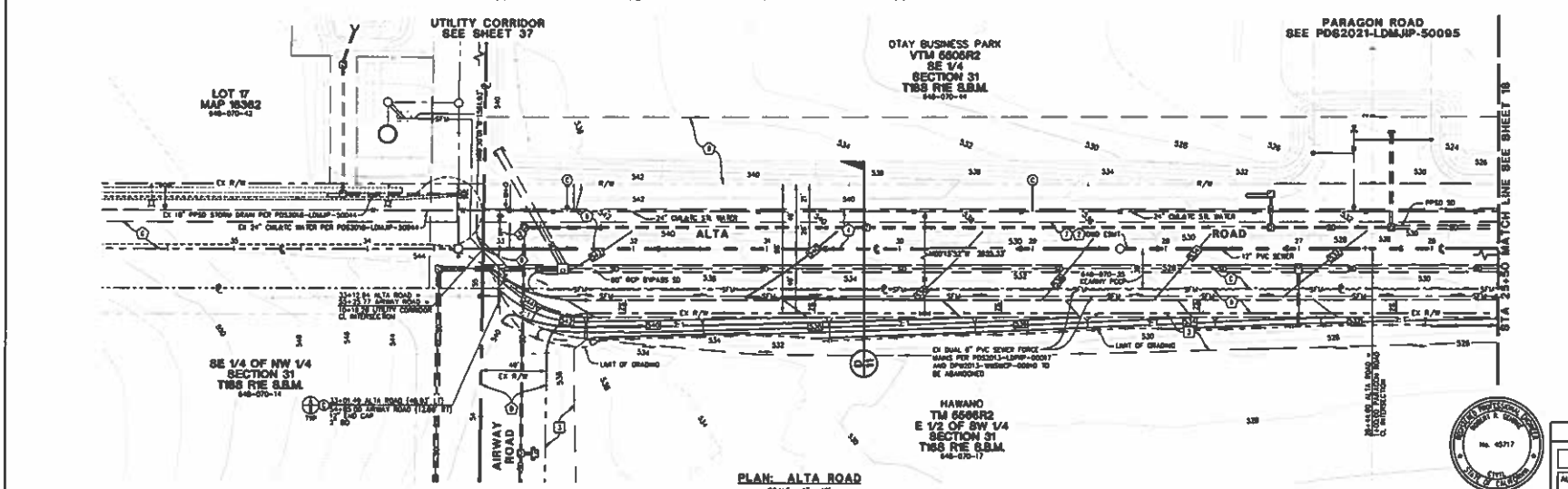
CENTERLINE DATA				
NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	NORTH 30°W	--	--	ON ALTA ROAD
2	NORTH 32°W	--	753.64'	ON ALTA ROAD

EXISTING EASEMENT NOTES

1. SEE SHEET 3 FOR EXISTING EASEMENT NOTES.

PHASE 2 GRADING SEQUENCING

1. CONSTRUCT 60" BYPASS STORM DRAIN, SEE SHEETS 29-31.
2. CONSTRUCT SEWER, SEE SHEETS 29-31.
3. PERFORM PHASE 2 GRADING.



PLAN: ALTA ROAD
SCALE: 1"= 40'

SCALE: 1"=40'

PRIVATE CONTRACT

SHEET 17	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	82 SHEETS

ALTA ROAD – PHASE 2 GRADING FOR:

ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5606 & 5566
CALIFORNIA COORDINATE INDEX 138-1791

RECOMMENDED FOR APPROVAL: 1/9/23

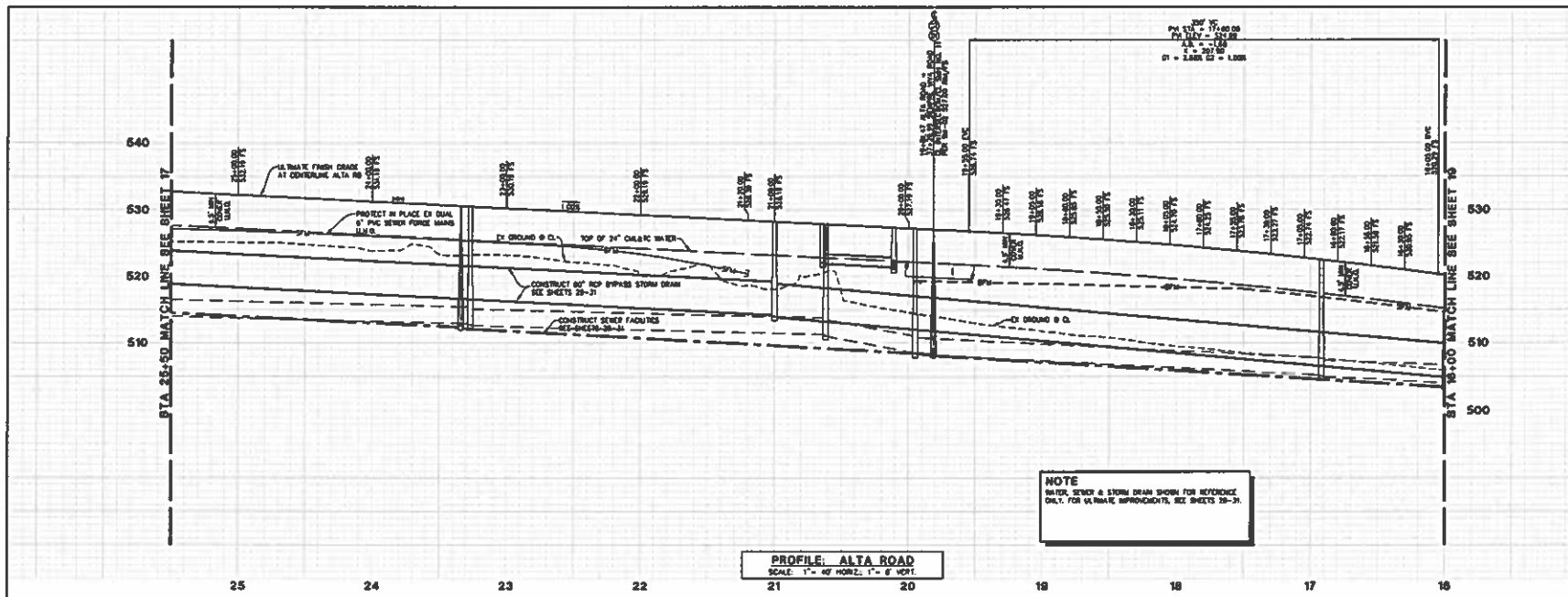
APPROVED AS TO FORM & LEGAL EFFECT: 1/9/23

APPROVED PLAN NO. POS2021-LDPIP-50114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.1440 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. GEDWINZ RCE 45717 DATE	SIGNATURE DATE; ROBERT R. GEDWINZ 45717; PRINTED NAME; LICENSE NO. CIVIL; REGISTRATION EXPIRATION; DISCIPLINE	PROJECT NO. D1132-090574; PERMIT NO. DEV-22-009; P.E. 871; REVIEWED BY; 10/31/2022 DATE	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT; LOCATION: APPROXIMATELY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 50' TO TOP OF WALL; RECORD FROM: R.O.S. 14841, PT. NO. 4622; ELEVATION: 570.99; DATUM: NGVD '29

OWD PROJECT: D1132-090574
OWD PERMIT: DEV-22-009



PROFILE: ALTA ROAD
SCALE: 1" = 40' HORIZ.; 1" = 8' VERT.

NOTE
WATER, SEWER & STORM DRAIN SHOWN FOR REFERENCE ONLY. FOR ULTIMATE IMPROVEMENTS, SEE SHEETS 29-31.

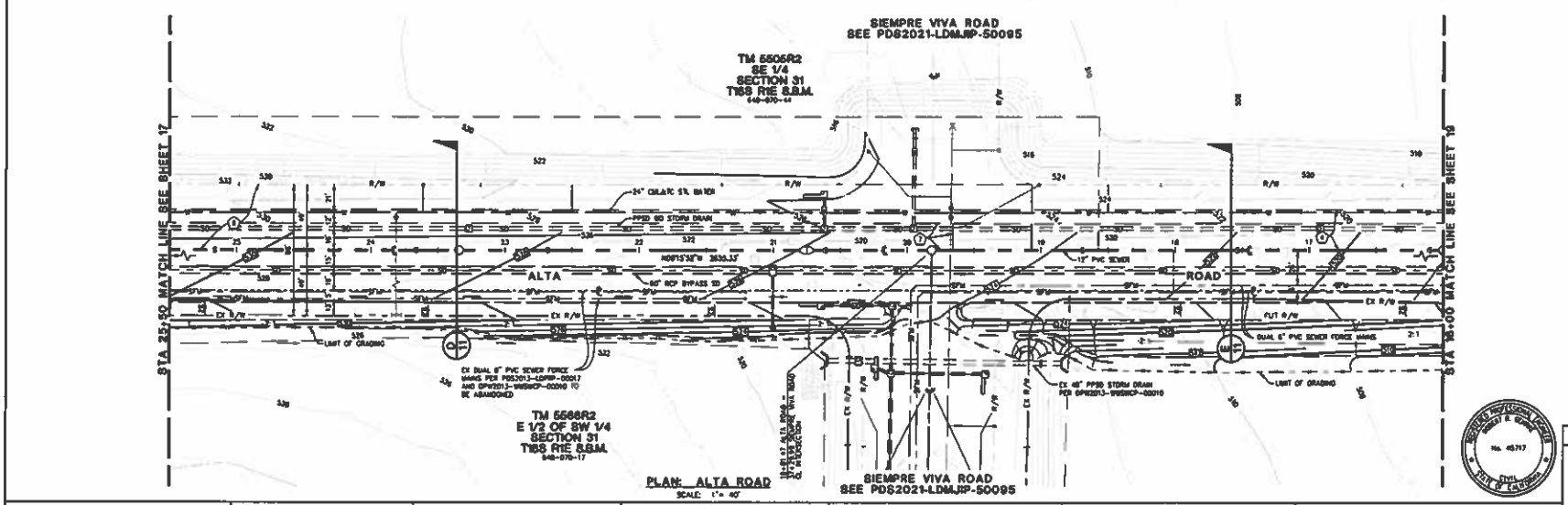
CENTERLINE DATA			
NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'30"E	—	—	ALIGN. OF ALTA ROAD

EXISTING EASEMENT NOTES

1. SEE SHEET 2 FOR EXISTING EASEMENT NOTES.

PHASE 2 GRADING SEQUENCING

1. CONSTRUCT 60" STORM DRAIN, SEE SHEETS 29-31.
2. CONSTRUCT SEWER, SEE SHEETS 29-31.
3. PERFORM PHASE 3 GRADING.



PLAN: ALTA ROAD
SCALE: 1" = 40'

SCALE: 1"=40'

PRIVATE CONTRACT

SHEET 18	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

ALTA ROAD - PHASE 2 GRADING FOR:

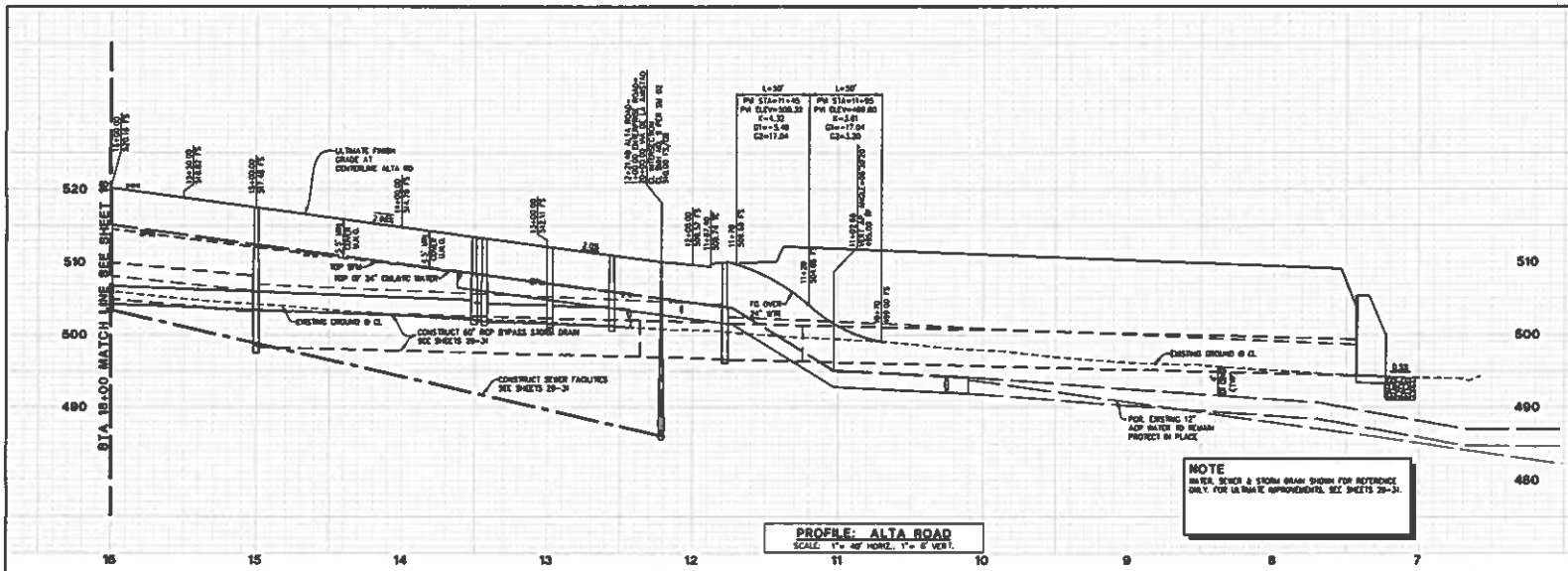
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5566
CALIFORNIA COORDINATE INDEX 138-1791

PDS2021-LDRP-60114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. GOMEZ RCE 45717 DATE	SIGNATURE DATE; ROBERT R. GOMEZ 45717; PRINTED NAME; LICENSE NO. CIVIL; REGISTRATION EXPIRATION; DISCIPLINE	PROJECT NO. D1132-090574; PERMIT NO. DEV-22-008; P.Z. 871; REVIEWED BY; DATE 10/31/2022	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE MON. MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE ARRAY OF 10 TOP OF HILL; RECORD FROM: R.O.S. 14841, PG. NO. 4022; ELEVATION: 679.89; DATUM: NGVD '29

OWD PROJECT: D1132-090574
OWD PERMIT: DEV-22-008



PROFILE: ALTA ROAD
SCALE: 1"= 40' HORIZ., 1"= 8' VERT.

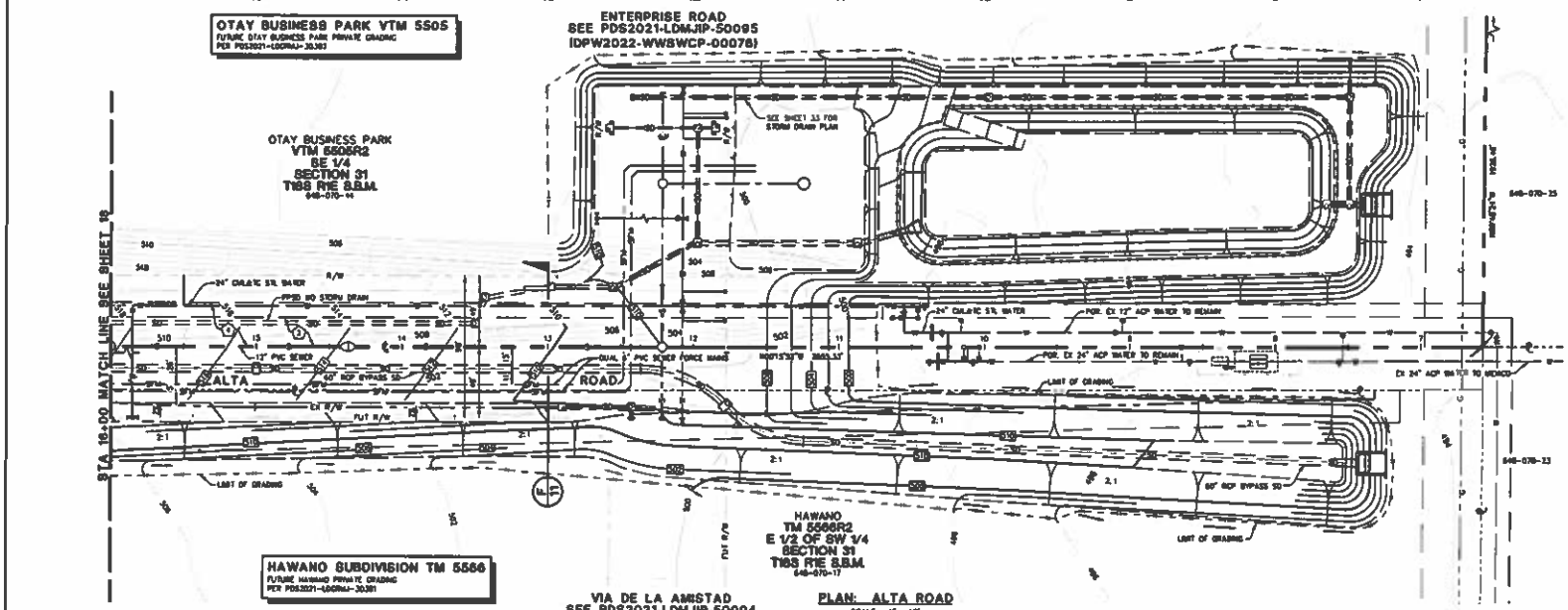
CENTERLINE DATA				
NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'53"W	—	276.69'	ON ALTA ROAD

EXISTING EASEMENT NOTES

1. SEE SHEET 3 FOR EXISTING EASEMENT NOTES.

PHASE 2 GRADING SEQUENCING

1. CONSTRUCT 60" STORM DRAIN, SEE SHEETS 29-31.
2. CONSTRUCT SEWER, SEE SHEETS 29-31.
3. PERFORM PHASE 2 GRADING



PLAN: ALTA ROAD
SCALE: 1"= 40'

SCALE: 1"=40'

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. CEHRKE RCE 45717 DATE	SIGNATURE DATE; ROBERT R. CEHRKE; PRINTED NAME; 45717 LICENSE NO.; CIVIL DISCIPLINE; REGISTRATION EXPIRATION	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.2. 87; REVIEWED BY; 10/31/2022 DATE	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 8.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 36" TO TOP OF WELL; RECORD FROM: R.O.S. 14841, PT. NO. 4022; ELEVATION: 579.98; DATUM: NGVD '29

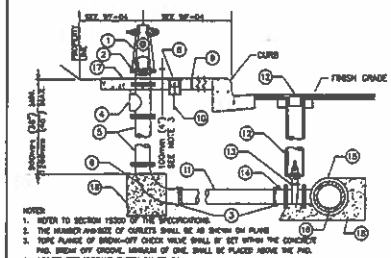
PRIVATE CONTRACT

SHEET 19	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	82 SHEETS

ALTA ROAD - PHASE 2 GRADING FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5566
CALIFORNIA COORDINATE INDEX 136-1791

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER
ACCEPTED FOR PUBLIC WORKS — DPW — DATE 1/9/23
DEPARTMENT PLAN NO. PDS2021-LDPIP-60114

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009



ITEM NO.	SIZE AND DESCRIPTION	ITEM NO.	SIZE AND DESCRIPTION
1	150mm (6") FIRE HYDRANT, SEE NOTE 2	9	COLD JOINT STRIP
2	BOLTS, SEE NOTE 8	10	TRACER WIRE PER WF-01
3	EAGLE LOCK 900 OR EQUIVALENT RESTRAINT JOINT	11	150mm (6") C-900 PVC PIPE
4	FLOWGUARD II HYDRANT CHECK VALVE SERIES 2-909	12	300mm (12") GATE VALVE WITH LOCK, SEE WV-01 AND WV-02
5	150mm (6") FLANGE 31 SPOOLES (MAXIMUM OF 2 SPOOLS) NO GROOVES	13	150mm (6") FLG x MJ/PO/FLG RWW
6	150mm x 400mm (6" x 16") LONG RADIUS FLG x MJ/PO BURY ELL	14	150mm (6") FLG x MJ/PO ADAPTER (IF REQUIRED)
7	150mm (6") LONG SCR-20 SCHED 40 PIPE WITH CAP, SET FLUSH WITH PAD	15	SIZE = 150mm (6") MJ/PE/FLG RCX
8	WATER TIGHT ACCESS PORT, 100mm (4") x 300mm (12") LONG SCR-20 SCHED 40 PIPE WITH CAP, SET FLUSH WITH PAD	16	WATER MAIN
		17	1200mm x 1200mm x 200mm THICK (4' x 4' x 8" THICK) CONCRETE SPLASH PAD
		18	CONCRETE SUPPORT BLOCK 30"x30"x12"

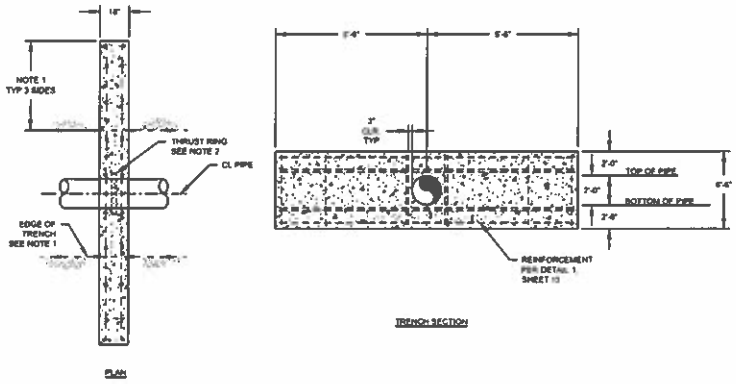
150mm (6") FIRE HYDRANT INSTALLATION WITH BREAK-OFF CHECK VALVE

NOT TO SCALE

MODIFIED WF-02

DETAIL 1/20

NO SCALE

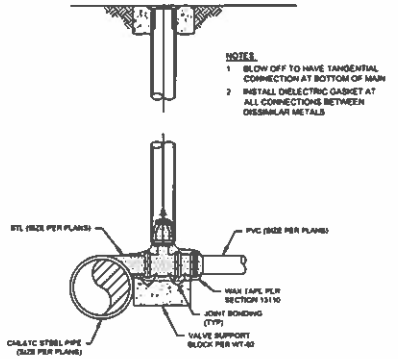


NOTES:

1. EXTENSION BEYOND EDGE OF TRENCH REQUIRED ON SIDES AND BOTTOM OF TRENCH. POUR CONCRETE FOR EXTENSIONS NEAT AGAINST UNDISTURBED EARTH
2. INSTALL MIN 300 PSI RATED MANUFACTURERED SUPPLIED STEEL SPOOL WITH THRUST COLLAR, 0.65" MIN THICK BH. THRUST RING O.D. 6" LARGER THAN PIPE OD.
3. THRUST RESTRAINT BASED ON DESIGN PRESSURE OF 250 PSI AND SOIL BEARING STRENGTH OF 1,500 PSF

THRUST COLLAR DETAIL 2/20

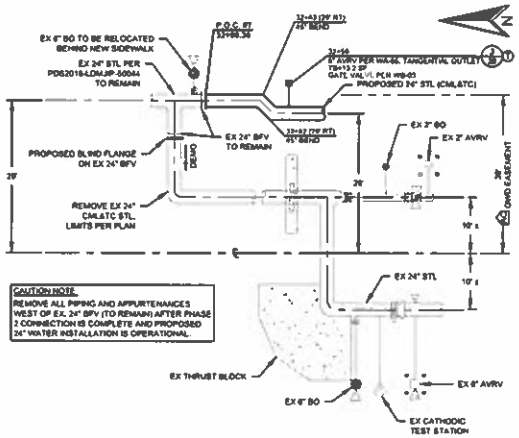
NO SCALE



TANGENTIAL OUTLET

DETAIL 3/20

NO SCALE

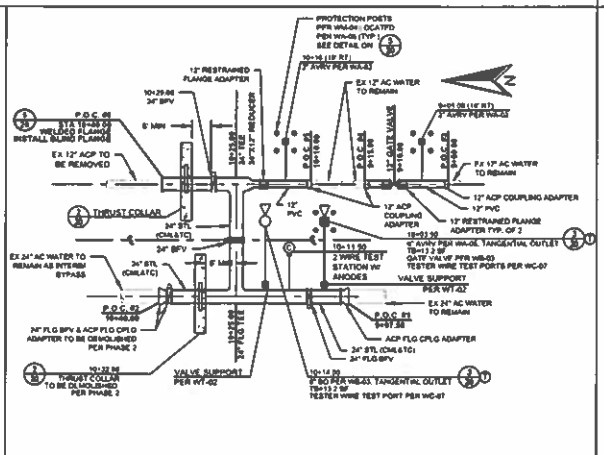


NORTH CONNECTION

DETAIL 6/20

NO SCALE

ROAD CL STA 44+52.59

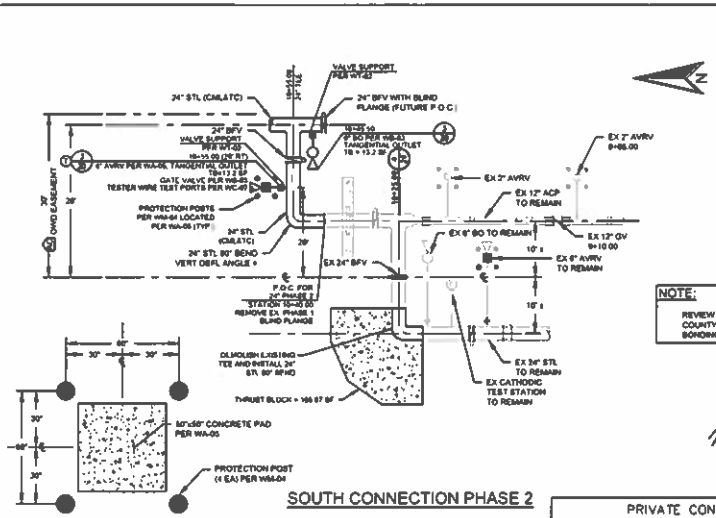


SOUTH CONNECTION PHASE 1

DETAIL 4/20

NO SCALE

ROAD CL STA 10+25.80



NOTE:

REVIEW OF THESE PLANS BY THE COUNTY OF SAN DIEGO IS FOR BONDING PURPOSES ONLY

PROTECTION POST DETAIL

NO SCALE

SOUTH CONNECTION PHASE 2

DETAIL 5/20

NO SCALE

ROAD CL STA 10+55.00

IMPORTANT NOTICE

CALL TOLL FREE TWO WORKING DAYS BEFORE YOU DIG UNDERGROUND SERVICE ALERT

1-800-227-2600

PRIVATE CONTRACT		
SHEET 20	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 (-63)

STEEL WATER MAIN DETAILS FOR:

ALTA ROAD & SIEMPRE VIVA ROAD

OTAY BUSINESS PARK & HAWANO SUBDIVISION

COUNTY OF SAN DIEGO TRACTS 5606 & 5656

CALIFORNIA COORDINATE INDEX 138-1791

RECOMMENDED FOR APPROVAL

APPROVED FOR PUBLIC WORKS

APPROVED FOR PLAN

PDS2021-LDPMP-50114

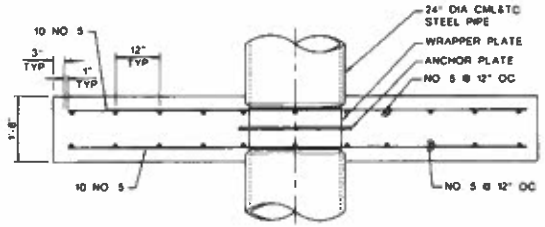
ENGINEER'S NAME: CH2M

ch2m

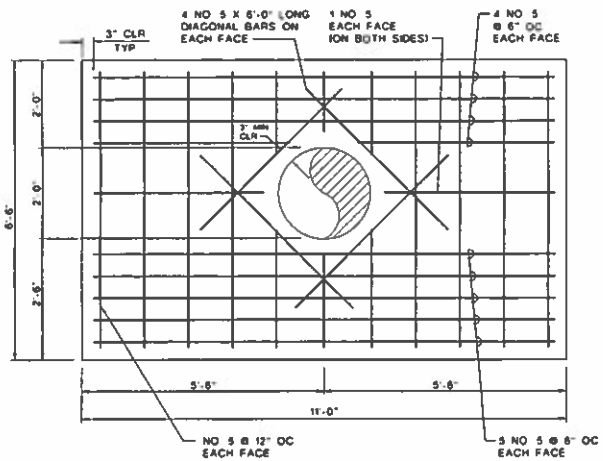
RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
MARK B. ELLIOTT RCE 42084 DATE	SIGNATURE DATE; PRINTED NAME; LICENSE NO.; REGISTRATION EXPIRATION; DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.2 871; REVIEWED BY; DATE 10/04/2022	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 34' TO TOP OF WELL; RECORD FROM: R.O.S. 14841, PT. NO. 4023; ELEVATION: 878.99; DATUM: NGVD '29

OWD PROJECT: 01132-090574

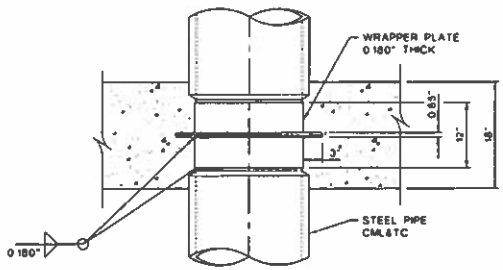
OWD PERMIT: DEV-22-009



PLAN



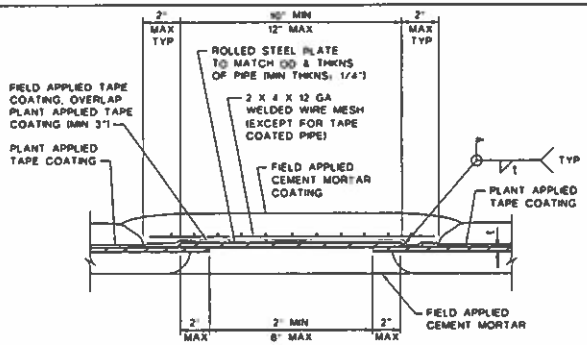
SECTION



ANCHOR PLATE DETAIL

THRUST ANCHOR

DETAIL 1 / 21
NO SCALE



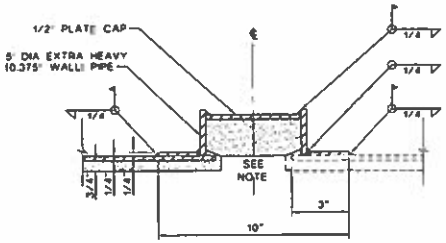
SECTION

NOTES:

1. TWO HANDHOLES WILL BE REQUIRED AT FINAL BUTTSTRAP CLOSURE FOR LINING REPAIR SEE DETAIL 3 THIS SHEET LOCATE HANDHOLE AT 10 O'CLOCK AND 2 O'CLOCK
2. LINING FOR ALL BUTTSTRAPS, EXCEPT FOR FINAL CLOSURE PIECE DESCRIBED IN NOTE 1 ABOVE, SHALL BE INSTALLED WITHOUT THE USE OF HANDHOLES.
3. ALL UNCOATED SURFACES INCLUDING BOLTS AND NUTS SHALL BE WAX TAPE COATED PER AWWA C-217

BUTTSTRAP CLOSURE

DETAIL 2 / 21
NO SCALE

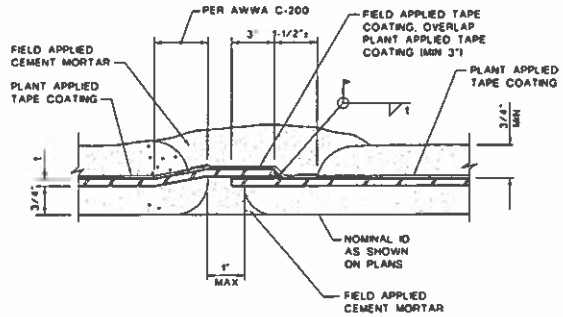


BUTT STRAP CLOSURE NOTES:

1. TACK WIRE TO UNDERSIDE OF CAP FOR MORTAR CONNECTION AND CUT INTERFERING PIPE PRIOR TO FIELD APPLYING MORTAR LINING AT UNDERSIDE OF CAP.
2. WELD PLATE CAP AFTER INSPECTION AND MORTAR LINING AFTER WRAPPER INSTALLATION AND REPAIR EPOXY COATING
3. BUTT STRAPS W/ PIPE DIAMETERS 16" AND GREATER SHALL HAVE TWO HANDHOLES AT 10 AND 2 O'CLOCK.

HANDHOLE FOR BUTTSTRAP CLOSURE

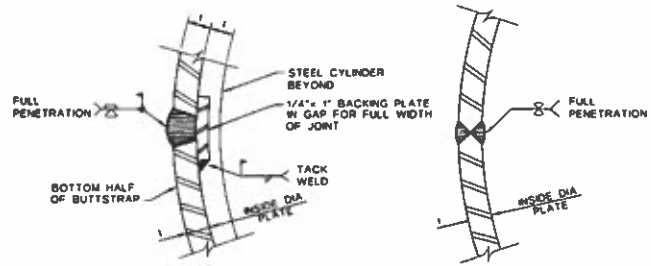
DETAIL 3 / 21
NO SCALE



SECTION

LAP WELDED SLIP JOINT

DETAIL 4 / 21
NO SCALE



BUTTSTRAP SPLICE

SHOP WELD

BUTTSTRAP SPLICE & SHOP WELD

DETAIL 5 / 21
NO SCALE

NOTE:
REVIEW OF THESE PLANS BY THE COUNTY OF SAN DIEGO IS FOR BONDING PURPOSES ONLY.

PRIVATE CONTRACT

SHEET 21	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

STEEL WATER MAIN DETAILS FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5906 & 5966
CALIFORNIA COORDINATE INDEX 136-1781

PDS2021-LDPRP-60114

ENGINEER'S NAME: CH2M

ch2m

RECORD PLAN	O.W.D. "RECORD PLAN"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
MARK S. ELLIOTT RCE 42064 DATE	SIGNATURE DATE PRINTED NAME LICENSE NO. REGISTRATION EXPIRATION DISCIPLINE	PROJECT NO. 01132-090574 PERMIT NO. DEV-22-009 P.2 #71 REVIEWED BY 10/31/2022 DATE	NO. DESCRIPTION APPD BY DATE	NO. DESCRIPTION APPD BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE MON MONUMENT LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE BRIDGE 50' TO TOP OF HILL RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION 670.99 DATUM NGVD '29

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009

PART 1 - GENERAL

11 WORK OF THIS SECTION

The Work of this Section shall include, but not be limited to, furnishing all labor, materials, tools and equipment and performing all Work required for materials, design, fabrication, and installation of cement-mortar lined and tape coated with a mortar over-coat steel pipe and specials as shown in the Approved Plans and described in the Contract Documents

12 REFERENCES, SPECIFICATIONS, CODES AND STANDARDS

The publications listed below form part of this specification to the extent referenced and are referred to in the text by the basic designation only. Reference shall be made to the latest edition of said standards unless otherwise called for

AWWA C200 _____ Steel Water Pipe
AWWA C205 _____ Cement-Mortar Lining and Coating for Steel Water Pipe 100mm 4"
AWWA C206 _____ Field Welding of Steel Water Pipe
AWWA C207 _____ Steel Pipe Flanges for Waterworks Service 100mm 4"
AWWA C208 _____ Dimensions for Fabricated Steel Pipe Fittings
AWWA 214 _____ Tape Coating Systems for the Exterior of Steel Water Pipelines
AWWA 216 _____ Heat Shrinkable Cross-Linked Polyolefin Coatings for the Exterior of Special Sections, Connections, and Fittings for Steel Water Pipelines
AWWA C217 _____ Cold-applied Petroleum Tape Coatings
AWWA C606 _____ Grooved and Shouldered Joints
AWWA M 1 _____ Steel Pipe-Guide for Design and Installation
ASTM A 47/A 47M _____ Standard Specification for Ferritic Malleable Iron Castings
ASTM A 36/A 36M _____ Standard Specification for Carbon Structural Steel
ASTM A 53 _____ Standard Specification for Pipe, Steel, Black & Hot Dipped, Zinc- Coated, Welded, and Seamless
ASTM A 105 _____ Standard Specification for Carbon Steel Forgings for Piping Applications
ASTM A1011/A1011M _____ Standard Specification for Steel, Sheet, and Strip, Hot Rolled, Carbon, Structural, High-Strength Low-Alloy and High Strength Low Alloy with improved formability _____ improved formability
ASTM A 163 _____ Standard Specification for Carbon Steel Track Bolts and Nuts
ASTM A 216 _____ Standard Specification for Steel Castings, Carbon, Suitable for Fusion Welding for High Temperature Service
ASTM A 283/A 283M _____ Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates
ASTM A 307 _____ Standard Specification for Carbon Steel Bolts and Studs
ASTM A 536 _____ Standard Specification for Ductile Iron Castings
ASTM A 568/A 568M _____ Standard Specification for Steel, Sheet and Strip, Carbon, Hot- Rolled, Structural Quality and Cold Rolled
ASTM D 2000 _____ Standard Classification System for Rubber Products
ANSI B1.1 _____ Unified Inch Screw Threads
ANSI B1.2 _____ Gages and Gaging for Unified Inch Screw Threads
ANSI B1.20.1 _____ Pipe Threads, General Purpose (inch)

13 RELATED WORK SPECIFIED ELSEWHERE

WAS Standard Drawings
Sections 02223, 03305, 09810, 09910, 09820, 13110, 15000, 15041 and 15044

14 NOT USED

15 QUALIFICATION OF MANUFACTURERS

Factory applied pipe lining and coating is an element of the completed pipe. Only manufacturers who provide a completed lined and coated pipe can be published for the work. The Work requires that one pipe manufacturer accept responsibility for furnishing the complete coated and lined pipe without altering or modifying the Contractor's responsibilities under the Contract Documents. All pipe components, including but not limited to, manufacturing of steel cylinders, fittings, and applying the linings and coatings (tape wrap, mortar, etc) for the main pipeline shall be the product of one manufacturer that has been manufacturing steel pipe for municipal water pipelines for at least five years and has completed at least three similar projects of 24" diameter or larger

16 SPECIALS

A special is defined as any piece of pipe other than a normal full length of straight pipe. This includes, but is not limited to, elbows, short pieces, reducers, tees, crosses, spools, sections with outlets, beveled sections and manholes

17 DESIGN REQUIREMENTS

A. All steel used for pipe or specials shall have a 36,000 psi minimum yield point unless otherwise shown on the Approved Plans or as directed by the District's Representative. See material information concerning steel designation below

B. Design stress in steel cylinders shall not exceed 50% of the specified minimum yield strength of the steel used. The internal operating pressure used for design shall be a 50psi OR minimum of 300 psi above the operating pressure or as shown on the Approved Plans, whichever is greater. No allowance shall be made for the tensile strength of the cement mortar lining and coating

C. Specials shall be designed per AWWA M11 and as a minimum shall conform to the pressure rating, grade of steel and cylinder thickness of the adjoining standard pipe sections. Fitting dimensions shall conform to AWWA C208. Reinforcing collars, wrappers, crotch plates, and anchor rings shall be designed and fabricated per AWWA M11

1. Outlets may be built into the wall of the pipe or may be fabricated as steel plate specials. Outlets of size 2" and smaller in piping 4" and larger shall be of the threaded type or shall be extra-heavy half couplings to fit the pipe in accordance with AWWA M11. Outlets shall be 3,000 lb WOG forged steel per ASTM A105. Threads shall comply with ANSI B1.20.1. Outlets larger than 2" shall use a tee or nozzle with a flanged outlet. All outlets larger than 2" steel reinforcing collars, wrapper plates, or crotch plates per AWWA M11. At the option of the manufacturer, wrappers may be used in place of collars, and crotch plates may be used in place of collars or wrappers. Pipe couplings shall not be used for outlets

2. On 2" and smaller outlets where nylon insulation bushings are to be used, the outlet shall be increased in size to accept the bushing

3. Tees, wyes, and crosses shall be dimensioned in accordance with AWWA C208, Table 1, or as modified on the Approved Plans. in diameter shall be provided with

4. Bends shall have a minimum centerline radius of not less than 2.5 times the pipe diameter and provide the number of pieces as tabulated below, unless otherwise shown on the Approved Plans

Deflection Angle	Number of Pieces
0 to 22 degrees	2
Greater than 22 to 45 degrees	3
Greater than 45 to 67 degrees	4
Greater than 67 to 90 degrees	5

5. All specials shall be marked at both ends of the fitting with "Field Top" indicators

D. Minimum cylinder thickness for pipe shall be 6.35mm (0.250" or 1/4" or as directed by the District Engineer.

The wall thickness tolerances for steel pipe 300mm (12") diameter and larger shall be governed by the requirements of the ASTM specifications to which the plates or sheets are ordered, but in no case shall the thickness be less than 6.35mm (0.250" or 1/4") or as directed by the District Engineer.

E. Standard pipe sections shall not be less than 20' nor more than 40' in length, except where shorter lengths are required to fit horizontal and vertical alignment or are otherwise shown on the Approved Plans

F. Pipe ends shall be as follows

1. Lap Welded Joints: Use expanded bell with matching spigot end

2. Flanges: Flanges for use in construction of Steel Pipe shall be as described below

a. AWWA C207, Class E flanges (matching ANSI/ASME B16.1, Class 125 flanges for bolt hole size and drilling) shall be used for pressures between 1.03 MPa and 1.72 MPa (150 psi and 250 psi)

b. AWWA C207, Class F flanges (matching ANSI/ASME 616.1, Class 250 flanges for bolt hole size and drilling) shall be used for pressures between 1.72 MPa and 2.07 MPa (250 psi and 300 psi) or when Class 250 butterfly valves or other appurtenances using flanges corresponding to AWWA C207 Class F are required

c. Flanges shall be flat-faced type only. Segmented flanges shall not be used

3. Butt Straps: Use two-piece rolled steel straps with a minimum thickness of 6.35mm (1/4"), and a minimum width of 250mm (10"). Straps shall be fabricated to snugly fit over the plain pipe ends, and shall be centered over the ends of the pipe sections to be joined. Weld one or more standard 125mm (5"), 136kg (3000 lb) threaded half-couplings to the butt strap section as shown on the Approved Plans. Provide a threaded steel plug for each half-coupling

4. Flexible Pipe Couplings: Use plain-end pipe with flexible pipe couplings per AWWA C200. Provide joint harnesses per AWWA M11 where indicated on the Approved Plans

5. Bell ends shall be formed by an expanding press or by the pipe being moved axially over a die in such a manner as to stretch the steel plate beyond its elastic limit to form a truly round bell of suitable diameter and shape. The ends shall not be rolled. No welded rings will be allowed as substitution for expanded bells. Flaring surfaces of the bell and spigot shall be essentially parallel, but in no case shall be bell slope very more than 2 degrees from the longitudinal axis of the pipe.

G. Angles or Curves in Alignment: Minor changes of direction in the grade or alignment may be made by a deflection in the joint up to a maximum of 3/4-inch on one side of the joint. For greater angular deflections, pipe with ends beveled up to a maximum of 5 degrees measured from a plane perpendicular to the pipe's axis may be used. The short point on the bevel shall be so marked on the pipe. Pipe length shorter than 20' may be used on curves. Where curves that have a shorter radius than can be accommodated by beveled pipe is required, or where indicated on the Approved Plans, special short-radius bends shall be provided

H. Interior Lining of Pipe

1. Cement Mortar Lining: Use linings conforming to AWWA C205, except as noted below. All interior metal surfaces intended for direct buried service shall be coated. Minimum Lining Thickness shall be as follows

Lining Thickness	Tolerance	
3/4" -1/16",	+1/8	PER 15061 1-06 H2

I. Exterior Coating of Pipe

1. Exterior Coating of Exposed Piping: The exterior surfaces of pipe which will be exposed to the atmosphere inside structures or above ground shall be thoroughly cleaned and then given a shop coat of rust-inhibitive primer and then finish coated in conformance to the requirements of Section 09910

2. The exterior coating of the buried steel piping shall be polyethylene tape-coat with a 3/4" mortar overcoat

3. Prefabricated polyethylene tape coating shall be in conformance with Section 09810 and shall include a cement mortar over-coat as follows. Except as otherwise required, exterior surfaces of all steel pipe, fittings, and specials shall be cleaned and coated over the polyethylene wrap in the shop with reinforced cement-mortar coating applied in conformity with ANSI/AWWA C205. During the operation and thereafter, the pipe shall be maintained in a round condition by suitable bracing or stringing. The coating machines shall be of a type that has been used successfully for similar work. Every precaution shall be taken to prevent damage to the coating. If coating is damaged or found faulty at delivery site, the damaged or unsatisfactory portions shall be replaced with coating conforming to these Specifications at no additional cost of the Owner

a. The minimum coating thickness shall be a 3/4-inch thickness, with a tolerance of plus 25 percent.

b. The pipe shall be left with a three-inch holdback from the end of the plastic tape to the cement mortar coating at each pipe end or where field joints occur. Ends of the coating shall be left square and uniform. Feathered or uneven edges will not be permitted

c. Defective coatings, as determined by the Construction Manager, shall be removed from the pipe wall and shall be replaced to the full thickness required. Defective coatings shall be cut back to a square shoulder in order to avoid feather-edged joints

d. The progress of the application of mortar coatings shall be regulated in order that all hand work, including the repair of defective areas is cured in accordance with the provisions of ANSI/AWWA C205. Cement-mortar for patching shall be the same materials as the mortar for machine coating, except that a finer grading of sand and mortar richer in cement shall be used with field inspection indicates that such mix will improve the finished coating of the pipe

J. The exterior surfaces of areas of exposed pipes and fittings that are not polyethylene tape coated with a mortar over coat, such as flanges, grooved ends, or plain ends for butt straps or flexible couplings, shall be sandblasted in accordance with SSPC-SP10 - Near White Blast Cleaning, and coated in accordance with Specification

Sections 09910 and 15000

K. The exterior surfaces of areas of buried pipes and fittings that are not polyethylene tape coated with a mortar over coat, such as flanges, grooved ends, or plain ends for butt straps or flexible couplings, shall be wax tape coated in accordance with Specification Section 13110

L. The term "diameter of pipe" as used in these specifications or as shown on, the Approved Plans shall mean the net inside diameter of the mortar lining

NOTE:
REVIEW OF THESE PLANS BY THE COUNTY OF SAN DIEGO IS FOR BONDING PURPOSES ONLY.

PRIVATE CONTRACT

SHEET 22	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	52 SHEETS

STDL. SWR MAIN SPECS FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & MAWAHI SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5506
CALIFORNIA COORDINATE INDEX 138-1781

PDS2021-LDPIIP-80114

ENGINEER'S NAME: CH2M

ch2m

RECORD PLAN	O.W.D. "RECORD PLAN"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
MARK B. ELLIOTT RCE 42084 DATE	SIGNATURE DATE; PRINTED NAME LICENSE NO.; REGISTRATION EXPIRATION DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.Z. 871; REVIEWED BY; DATE 10/19/2022	NO. DESCRIPTION APPD BY DATE	NO. DESCRIPTION APPD BY DATE	DESCRIPTION: BRASS DISC IN STREET CONTRUNE WELL MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 53 M NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 30' TO TOP OF WELL; RECORD FROM: R.O.S. 14641, PT. NO. 4023; ELEVATION 879.99 DATUM NGVD '29

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009

18 QUALITY ASSURANCE

A Cement-mortar lined and tape coated with mortar overcoat steel pipe shall be inspected at the supplier's manufacturing plant by the District's Representative. The Contractor shall be responsible for District Representative's expenses, including travel, time, meals and overnight accommodations. Overnight accommodations and air travel may be required, at the discretion of the District's Representative, if the manufacturing plant is more than 200-miles from the District Representative's office.

B In addition to the shop hydrostatic testing performed on pipe cylinders required per AWWA C200, all welds of specials and attachments (i.e. joint rings and nozzles) shall be tested by a dye-penetrant process. Certification of such testing shall be submitted to the District's Representative.

C Field welders shall be certified under Section IX, Part A of the ASME Boiler and Pressure Vessel Code or in accordance with AWWA C206, Section 3. Welders shall present a copy of their certification to the District's Representative prior to performing any field welding. Certifications shall be dated within three (3) years of the job to be performed.

D Plainly mark each length of straight pipe and each special at the bell end to identify the proper location of the pipe item by reference to the layout schedule.

E The top of all pipe and specials shall be clearly identified by marking the top with "TOP" for easy identification in the field.

19 DELIVERY, STORAGE, AND HANDLING

Delivery, storage, and handling of the pipe and specials shall be as follows.

A Pipe and fittings shall be carefully handled and shall be protected against damage to linings and coatings due to impact shocks. Pipe shall not be placed directly on rough ground but shall be supported in a manner which will protect the pipe against damage whenever stored at the site or elsewhere. Pipe shall be handled and stored per these requirements and in accordance with the manufacturer's recommendations.

B Temporary internal bracing shall be installed in all pipe 16" and larger prior to shipment to the job site. Temporary internal bracing shall be 2" x 4" wooden struts installed in both the horizontal and vertical directions. Each set of struts shall be nailed together as a unit. Wooden wedges may be used to maintain the proper tight fit of the internal bracing. The bracing shall be located 12" in from each end of the pipe section for all pipe, and additionally at the mid-point for piping 24" and larger. Maintain internal bracing as specified under Pipe Installation.

C Transport pipe to the job site on padded bunks with nylon tie-down straps or padded bonding to protect the pipe.

D Pipes and specials shall only be handled with appropriate spreader bars and wide nylon slings. Chains or wire rope slings shall not be used. Under no circumstances shall pipe or specials be pushed or dragged along the ground. All pipe sections over 20' in length shall be lifted at the quarter points from each end.

E Store pipe on earth berms or timber cradles adjacent to the trench in the numerical order of installation. Place the supports at about the one-quarter point from the pipe ends.

F Maintain plastic end caps on all pipe and specials in good condition until the pipe is ready to be installed in the trench. Periodically open the plastic end caps and spray potable water inside the pipe for moisture control.

110 CONTRACTOR SUBMITTALS

The following shall be submitted in compliance with Section 01300 Submittals:

A. An affidavit of compliance with AWWA C200 and C205.

B. Certificate stating that all materials in contact with potable water system are NSF approved for use with potable water.

C. Submit detailed shop drawings for the pipe and specials showing:

1. Order of installation and closures with designation by piece number for each steel pipe and fabricated special to be furnished and installed.

2. Pipe station and invert elevation (IE) at each change of grade and horizontal alignment.

3. Elements of curves and bends, both in horizontal and vertical alignment including elements of the resultant true angular deflections in case of combined curvature.

4. Pipe outside and internal diameter, wall thickness, location of welded seams, and internal design pressure.

5. Locations of bulkheads for field hydrostatic testing of pipeline. Hydrostatic testing against valves shall not be permitted.

6. Locations of closures, including cut-to-fit allowances, for length adjustment and for construction convenience.

7. Locations of valves, flanges, manholes, appurtenances and other mechanical equipment.

8. Limits of concrete encasement.

9. Call out weld sizes and dimensions of thrust ring collars, grooved end collars, flanges, reinforcing collars, wrapper plates, and crotch plates.

D. Submit joint details.

E. Details of all specials and of the pipe lining and coating.

F. Calculations supporting the sizing of reinforcing collar plates, wrapper plates or crotch plates.

G. Calculations supporting selected wall thickness of pipe and specials.

H. Calculations supporting welded joint design and joint welding details.

I. Current shop welder and field welder certifications. Submit welding procedure specifications (WPS) and procedure qualification records (PQR) for each welding process.

J. Certification of dye-penetrant shop-weld testing.

K. Cathodic Protection design and installation details.

L. Drawings of butt straps, couplings, and flanges.

M. Details of bulkheads and of their method of attachment to the pipeline.

N. Certificate that cement complies with ASTM C150, designating type.

O. Shop drawings of all pipes and specials shall be submitted for review. Shop drawings shall be complete in all respects. If the shop drawings show any deviations from the requirements of the Approved Drawings and Specifications due to standard shop practices or other reasons, the deviations shall be noted along with the reason for the deviation in the Shop Drawing Submittal Form.

P. Submit fabricator's quality control program results in one complete binder including all inspection reports, tests conducted, certified mill tests reports, weld test coupon reports, welder qualification records, hydrostatic testing reports, shop testing reports, final fabrication checklists for each special, and affidavit of compliance. The quality control program results shall document all phases of the fabrication process and be delivered prior to substantial completion of the project.

111 NOT USED

112 WAX TAPE

Wax tape shall be installed in accordance with Section 13110 as shown on the Approved Plans or as directed by the District's Representative.

113 TRACER WIRE

Tracer wire shall be installed on all potable and recycled water mains in accordance with Section 15000.

114 WARNING/IDENTIFICATION TAPE

Warning/Identification Tape shall be installed on all potable and recycled water mains in accordance with Section 15000.

PART 2 - MATERIALS

21 STEEL PIPE AND SPECIALS

Steel pipe and specials shall conform to the requirements of the AWWA C200 and C205, and AWWA M11, except as modified herein.

A Steel for fabricated cylinders shall conform to ASTM A36/A36M, ASTM A1011/A1011M, Grade 36, or ASTM A1018/A1018M, Grade 36. Other steel grades may be used only upon approval of the District's Representative.

22 POLYETHYLENE TAPE COATING WITH MORTAR OVERCOAT (ROCK SHIELD)

Polyethylene tape coating with mortar overcoat shall be in accordance with Section 09810. Cement mortar over-coating shall be reinforced in accordance with AWWA C205. Holiday testing shall be calculated from:

$$V = 1250\sqrt{T}$$

where

V = Test voltage, volts

T = Total tape coating system thickness, mils

23 MORTAR LINING AND OVER-COAT

A. Cement used in mortar lining and over-coating shall be Portland cement per ASTM C 150, Type V for coating and Type II or Type V for lining.

B. Cement-mortar over-coating shall be reinforced in accordance with AWWA C205.

C. Cement mortar grout for field joints shall consist of a mixture of 1 1/2 to 2 parts sand to 1 part Type II or Type V Portland Cement with enough clean, potable water to permit packing and troweling without crumbling. The sand shall be washed, well-graded sand such that all will pass a No. 8 sieve. The quantity of water to be used in the preparation of grout shall be the minimum required to produce a mixture sufficiently workable for the purpose intended. Grout shall attain a minimum compressive strength of 12.4 MPa (1,800 psi) in 28 days.

D. In certain circumstances, rapid-setting mortar may be required. Acceleration admixtures may be used in the mix as permitted by the District Engineer. Calcium chloride shall not be used in the mix.

24 PAINTING AND COATING

A. Paint and coating products for exterior surfaces of all pipe and appurtenances not otherwise coated shall be in accordance with Section 09910 and the Approved Materials List.

B. Paint and coating products for areas in contact with potable water such plain ends of pipe, grooved and shouldered ends of pipe and exposed inside surfaces of threaded outlets and blind flanges shall be in accordance with Section 15000 and selected from the Approved Materials List.

25 BOLTS AND NUTS FOR FLANGES

Bolts and nuts shall be in accordance with W.A.S. Specification Section 15080 and the Approved Materials List.

26 GASKETS

A. Flange gaskets shall comply with AWWA C207. Flange gaskets shall be 1/8" thick acrylic or aramid fibers bound with nitrile for all sizes of pipe. Gaskets shall be full-face type with pre-punched holes or ring-type extending to the inner edge of the bolt circumference of the flange.

B. In the event of encountering organic solvents or petroleum products during the course of the work, alternate gasket materials or joint treatment will be required as directed by the District's Representative.

27 JOINT BONDING AND CATHODIC PROTECTION

Joint bonding, flange insulation kits, internal epoxy linings, and cathodic protection materials shall be provided as indicated on the Approved Plans and in accordance with Section 13110 and the Approved Materials List.

28 TRENCHING, EXCAVATION, BACKFILLING AND COMPACTION

Trenching, excavation, backfilling, and compaction shall be performed in accordance with Section 02223.

NOTE:
REVIEW OF THESE PLANS BY THE COUNTY OF SAN DIEGO IS FOR BONDING PURPOSES ONLY

PRIVATE CONTRACT

SHEET 23	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	42 SHEETS

STEEL WATER MAIN SPECS FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWAIIAN SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5806 & 5806
CALIFORNIA COORDINATE INDEX 138-1791

PDS2021-LDPIP-60114

RECORD PLAN	O.W.D. "RECORD PLAN"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
MARK B. ELLIOTT, RCE 42084, DATE	SIGNATURE, DATE, PRINTED NAME, LICENSE NO., REGISTRATION EXPIRATION, DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.E. 871; REVIEWED BY; DATE 10/01/2022	NO. / DESCRIPTION / APPD BY / DATE	NO. / DESCRIPTION / APPD BY / DATE	DESCRIPTION: BRASS DISC IN STREET CONTAINING WELL MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.3 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE ARCH 30' TO SOUTH OF HILL; RECORD FROM: R.O.S. 14841, PT. NO. 4022; ELEVATION: 578.99; DATUM: NGVD '29

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009

PLANNING & DEVELOPMENT

2.10 CONCRETE

Concrete used for thrust and anchor blocks shall be in accordance with Section 03000

2.11 WAX TAPE

Wax tape materials shall be in accordance with Section 13110 and the Approved Materials List

2.12 POLYETHYLENE TAPE COATING

Tape coatings shall be in accordance with Section 09810

2.13 TRACER WIRE

Tracer wire materials shall be in accordance with Section 15000 and the Approved Materials List

2.14 WARNING/IDENTIFICATION TAPE

Warning/identification Tape materials shall be in accordance with Section 15000 and the Approved Materials List

NOTE:

REVIEW OF THESE PLANS BY THE COUNTY OF SAN DIEGO IS FOR BONDING PURPOSES ONLY

PART 3 - EXECUTION

3.1 GENERAL

A At all times when the work of installing pipe is not in progress, including worker break times, the ends of the pipe shall be closed with a vermin-proof and child-proof cap or plug. Do not permit trench water to enter the pipe. Do not place tools, clothing, or other materials in the pipe. The Contractor shall maintain the interior of the pipe in a sanitary condition free from foreign materials

B There shall be absolutely no backfilling, excavation, or compaction activities being performed during welding, inspection, or while anyone is inside the pipe or in the pipe trench. The Contractor is fully responsible for safety during the entire project duration

3.2 TRENCHING, EXCAVATION, BACKFILLING AND COMPACTION

A Trenching, backfilling and compaction shall be performed in accordance with Section 02223

3.3 DEWATERING

The Contractor shall provide, and maintain at all times during construction, ample means and devices to promptly remove and dispose of all water from any source entering trench excavations or other parts of the work. Any damage caused by flooding of the trench shall be the Contractors responsibility

Dewatering shall be performed by methods that will maintain a dry excavation, preservation of the final lines and grades and protection of all utilities. If flooding of the trench does occur, the Contractor shall immediately dewater and restore the trench. Damaged or altered pipeline appurtenances shall be repaired or replaced as directed by the District's Representative

3.4 PIPE INSTALLATION

When the work requires and the size of the pipe allows entry of personnel into the pipe, the Contractor shall comply with all Federal and State regulations for confined space entry. Work inside pipelines shall not be undertaken until all the tests and safety provisions of the Code of Federal Regulations 1910.146, and the General Industry Safety Orders of the California Code of Regulations, Title 8, Section 5159 for confined space entry have been performed and the area is verified as safe, to enter. Generally, the aforementioned safety provisions apply to pipe 24" and larger. Note that for pipe less than 24" diameter, more stringent safety procedures apply

The Contractor shall furnish and install all pipe, specials, fittings, closure pieces, valves, supports, bolts, nuts, gaskets, jointing materials, and all other appurtenances as shown on the Approved Plans and as required to provide a complete and workable installation

Pipe installation shall be as shown on the Approved Plans and Shop Drawings in accordance with the following

A No pipe shall be installed where the linings or coatings show cracks detrimental to the pipe coating system in accordance with AWWA C200, and as determined by the District's Representative. Such damaged linings and coatings shall be repaired, or new, undamaged pipe sections shall be provided at no additional cost to the District

B. Pipe damaged prior to Substantial Completion shall be repaired or replaced by the Contractor.

C. The Contractor shall inspect each pipe and fitting to insure that there are no damaged portions of the pipe. The Contractor shall remove or smooth out any burrs, gouges, weld spatter, or other small defects prior to laying the pipe. The District's Representative shall determine if pipe to be installed is acceptable

D Before placement of pipe in the trench, each pipe or fitting shall be thoroughly cleaned of any foreign substance which may have collected thereon and shall be kept clean at all times thereafter. For this purpose, the openings of all pipes and fittings in the trench shall be closed during any interruption to the work as noted above

E Pipe shall be laid directly on the bedding material. No blocking will be permitted, and the bedding shall be such that it forms a continuous, solid bearing for the full length of the pipe. Excavations shall be made as needed to facilitate removal of handling devices after the pipe is laid. Bell holes shall be formed at the ends of the pipe to prevent point loading at the bells or couplings and to permit visual inspection of the joint. Excavation shall be made as needed outside the normal trench section at field joints to permit adequate access to the joints for field connection operations and for application of coatings on field joints

F. Installation Tolerances. Each section of pipe shall be laid in the order and position shown on the approved layout schedule to the proper lines and grades in accordance with the following

1 Each section of pipe having a nominal diameter less than 48" shall be laid not to vary more than 2" horizontally or 1" vertically from the alignment and elevations shown on the Approved Plans

2. Each section of pipe having nominal diameter 48" and larger shall be laid not to vary more than five percent (5%) of the pipe diameter horizontally or two and one half percent (2.5%) of the pipe diameter vertically

3 In addition to the horizontal and vertical tolerances above, lay the pipe so that no high or low points occur along the pipeline other than those shown on the approved layout schedule

G Where necessary to raise or lower the pipe due to unforeseen obstructions or other causes, the District's Representative may change the alignment and/or the grades. Such change shall be made by the deflection of joints, by the use of bevel adapters, or by the use of additional fittings. However, in no case shall the deflection in the joint exceed seventy five percent (75%) of the maximum deflection recommended, by the pipe manufacturer. No joint shall be deflected any amount that will be detrimental to the strength and water tightness of the finished joint. In all cases the joint opening, before finishing with the protective mortar inside the pipe, shall be the controlling factor

H Pipes shall be laid uphill on grades exceeding 10 percent. Pipe that is laid on a downhill grade shall be blocked and held in place until the following pipe section has been installed to provide sufficient support to prevent movement

I Temporary internal pipe bracing shall be left in place in pipe sizes larger than 24" until pipe zone compaction has have been completed. Bracing in pipe smaller than 24" may be removed immediately after the pipe has been laid into the trench. The Contractor shall employ a laboratory to monitor pipe deflection by measuring pipe inside diameter before bracing is removed and 24 hours after struts are removed. Pipe deflection shall not exceed 3 percent in 24 hours after the bracing has been removed. After the backfill has been placed, the struts shall be removed

J Cold Weather Protection. No pipe shall be installed upon a foundation onto which frost has penetrated or at any time that there is a danger of the formation of ice or penetration of frost at the bottom of the excavation. No pipe shall be laid unless it can be established that the trench will be backfilled prior to formation of ice and frost

K. Pipe and Specials Protection. The openings of all pipe and specials where the pipe and specials have been mortar-lined in the shop shall be protected with suitable bulkheads to maintain a moist atmosphere and to prevent unauthorized access by persons, animals, water, or any undesirable substance. The bulkheads shall be designed to prevent drying out of the interior of the pipe. The Contractor shall introduce water into the pipe to keep the mortar moist where moisture has been lost due to damaged bulkheads.

3.5 FIELD WELDED JOINTS

A Welded joints shall be completed in the trench per AWWA C206

B. Both the bell and spigot ends shall be cleaned of foreign matter prior to welding.

C For pipe diameters less than 24" the exterior of the joint shall be welded. For pipe diameter 24" and larger, the joint shall be welded in accordance with the approved submittal. All welded joints shall remain exposed until inspection has been performed

D. Welding electrodes shall be approved by the district, and recommended by the manufacturer. Electrodes shall be E6010 for root passes and E7018 for additional passes unless otherwise approved. Do not ps Do deposit more than 1/8" of throat thickness per pass.

E Weld material shall be deposited in successive layers. Complete and clean each pass around the entire circumference of the pipe before commencing the next pass

F The minimum number of passes in the completed weld shall be as follows

Steel Cylinder Thickness (inches)	Fillet Weld Minimum Number of Passes
0.2500 or 1/4" or less	2
Greater than 0.2500 or 1/4"	3

G To minimize longitudinal stresses due to temperature variations, it is necessary to leave unwelded one joint per each 400' of pipeline. This joint shall be left unwelded until all the joints on both sides of it are welded, and it shall be welded at the coolest time of the working day. The District's Representative shall decide if and when this procedure is warranted

H Tack-welding the joint may be permitted to hold the pipe in place. If the joint is to be circumferentially welded, sufficient time shall elapse to allow for an initial set of interior joint lining prior to proceeding with joint welding. Rapid-setting mortar may be used in accordance with this Section. In some cases, the District's Representative may require hand holes

I. Field welders shall be certified in accordance with ASME Section 9 (pipe welders) or AWS D11 (plate welders). Welders shall be qualified in the 6g position, within three years of the date of the project to be performed and shall have a minimum of 3 years experience. Welders shall submit a copy of their certification to the District's Representative prior to performing any field welding.

J. Prior to butt-strap welding, the pipe and pipe joint shall be properly positioned in the trench using line-up clamps so that, in the finished joint, the abutting pipe sections shall not be misaligned by more than 1/16"

K. The pipe ends shall be cut straight on joints where butt straps are used for realignment, adjustment, or deflection, and fillet welds shall be made as indicated

L Inspection of Field Welded Joints

1 The Contractor shall retain and pay for the services of a weld inspection firm to perform weld inspection on all welded joints. Firm qualifications: active AWS QC1, and NDT Level 2 or higher. Inspection of welds shall take place in process and following completion of the welds, and in no case shall welding proceed further than 100 feet in front of the inspection. All welds shall be visually inspected by the Contractor. The Contractor shall test 50 percent of all field lap welds by the Standard Method for Liquid Penetrant Examination in accordance with ASTM E 165-02. The Contractor shall perform visual inspection and dye-penetrant inspection on all welds appurtenance connections. The Contractor and their testing firm shall provide reports of welding inspections to the District's Representative for approval

2 The Contractor shall coordinate and supply ventilation, lighting, and other equipment deemed necessary for inspection. The Contractor shall be responsible for providing safe entry into and out of the trench, safety of inspection personal, traffic control and other safety precautions deemed necessary for the inspections

3.7 INTERIOR JOINT FINISH - PIPE LESS THAN 24"

Complete interior mortar joints for pipe sizes less than 24" by drawing through a tight fitting swab or squeegee. Coat the face of the cement mortar lining at the bell with a sufficient amount of stiff cement mortar to fill the gap. Immediately after joining the pipes, draw the swab through the pipe to remove all excess mortar and expel it from the open pipe end. Do not move the pipe after the swab has been pulled past the joint. See requirements under "Field Welded Joints" for these joints requiring welding

3.8 INTERIOR JOINT FINISH - PIPE 24" AND LARGER

A. Complete interior mortar joints for pipe sizes 24" and larger by the trowel method. Prior to applying interior mortar at the joints all backfill in the area shall be completed. After cleaning the interior joint, pack cement mortar into each joint. Finish the surface with a steel trowel to a smooth finish and equal the adjoining pipe mortar.

B. Where more than a 4" joint strip of mortar is required, place galvanized welded wire mesh reinforcement in 2" x 4" pattern of No. 13 gauge over the exposed steel. Install the mesh so that the wires on the 2" spacing direction run circumferentially around the pipe. Crimp the wires on the 4" spacing thickness to match to support the mesh 3/8" from the metal surface. Steel-trowel finish the interior mortar to match adjoining mortar-lined pipe sections

C. Closed circuit television (CCTV) inspection of the pipe interior shall be performed on all steel pipe in the presence of the District's Representative. Videos of inspections shall be in DVD format with footage counter shall be provided to the District's Representative

3.9 EXTERIOR JOINT FINISH

A Tape wrapped mortar over coal steel pipe field joints shall be coated with polyethylene tape or heat shrinkable sleeves and mortar over-coat and shall conform to the requirements of Section 09810

ch2m	RECORD PLAN	O.W.D. "RECORD PLAN"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
	MARK B. CLUCH RCE 42084 DATE	SIGNATURE DATE; PRINTED NAME LICENSE NO.; REGISTRATION EXPIRATION DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009 P.E. 671; REVIEWED BY 10/14/2022 DATE	NO. DESCRIPTION APPD BY DATE	NO. DESCRIPTION APPD BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONDOMIC ARBOR 54' TO SOP OF WALL; RECORD FROM: R.O.S. 14641, PT. NO. 4022; ELEVATION: 676.69 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 24	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

STEEL WATER MAIN SPECS FOR:

ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWAIIAN SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5600 & 5600

CALIFORNIA COORDINATE INDEX 136-1791

PDS2021-LDPIP-60114

ENGINEER'S NAME: CH2M

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009

B. The outside annular space between pipe sections shall be completely filled with grout formed by the use of polyethylene foam-lined fabric bands after the joint is coated with polyethylene tape or heat shrinkable sleeves. The grout space shall be flushed with water prior to filling so that the surfaces of the joint to be in contact with the grout will be thoroughly moistened when the grout is poured. The joint shall be filled with grout by pouring from one side only. Grout shall be rodded with a wire or other flexible rod or vibrated so that the grout completely fills the joint recess by moving down one side of the pipe, around the bottom of the pipe and up the opposite side. Pouring and rodding the grout shall be continued to allow completion of the filling of the entire joint recess in one operation. Care shall be taken to leave no unfilled space. Grouting of the outside joint spaces shall be kept as close behind the laying of the pipe as possible except that in no case shall grouting be closer than three joints of the pipe being laid.

C. The grout bands or heavy-duty dippers shall be polyethylene foam-lined fabric with steel strapping of sufficient strength to hold the fresh mortar, resist rodding of the mortar, and allow excess water to escape. The foam plastic shall be 100 percent closed cell, chemically inert, insoluble in water and resistant to acids, alkalis and solvents. Foam Plastic shall be Dow Chemical Company, Ethafoam 222, or District approved equal.

The fabric backing shall be cut and sewn into 9" wide strips with slots for the steel strapping on the outer edges. The polyethylene foam shall be cut into strips 16" wide and slit to a thickness of 1/4" that will expose a hollow or open-cell surface on one side. The foam liner shall be attached to the fabric backing with the open or hollow cells facing towards the pipe. The foam strip shall cover the full interior circumference of the grout band with sufficient length to permit an 8" overlap at the foam at or near the top of the pipe joint. Splices to provide continuity of the material will be permitted. The polyethylene foam material shall be protected from direct sunlight.

The polyethylene foam-lined grout band shall be centered over the joint space with approximately equal widths extending over each pipe end and securely attached to the pipe with the steel straps. After filling the exterior joint space with grout, the flaps shall be closed and overlapped in a manner that fully encloses the grout with polyethylene foam. The grout band shall remain in position on the pipe joint.

3.10 COATING REPAIRS

A. Coating repair for polyethylene tape coated and mortar over-coated pipe shall conform to the requirements of Section 09810 and this Section. When visual inspection shows, or seems to indicate that a portion of the coating system has sustained physical damage, as determined by the Construction Manager, the damaged area shall be subjected to an electrical holiday test of 6,000 to 7,000 volts. If the holiday test indicates failure of the coating system, the coating shall be repaired and re-tested at the option of the Construction Manager.

B. Following repair of the damaged area if the holiday test indicates a holiday still exists, the inner wrap of the taped joint shall be exposed and the exposed area shall be wiped clean with xylol solvent, or equal, and the area coated with tape primer. A patch of 35-mil thick cold applied tape of sufficient size to cover the damaged area, plus a minimum lap of 2 inches in all directions, shall then be applied. The patched area shall again be tested for holidays. If none are detected, a second layer of 35-mil thick tape shall then be applied over the first patch. The second layer of tape shall overlap the first layer a minimum of 2.5 inches in all directions. For polyurethane coated joints, the joint repair process shall be repeated.

C. When the area tests show no holiday, a notation shall be applied to the area indicating the test is satisfactory.

3.11 BUTT STRAP JOINTS

Butt strap closure joints shall be installed where shown on the Approved Plans in accordance with AWWA C206.

A. Butt straps shall be field welded to the outside plain end of the pipe along both edges with a full circumferential weld. A minimum of two weld passes shall be used.

B. The interior of the joints shall be filled with a rapid-set mortar and finished off smoothly to match the pipe interior diameter.

C. Clean the butt strap with wire brush and apply a cement and water wash coat prior to applying cement mortar.

D. Galvanized wire mesh, 2"x4" x No. 13 gauge shall be installed to the exterior of the joint prior to applying the mortar coating.

E. Coat the exterior of the closure assemblies with tape coating in accordance to Section 09810.

F. Seal weld the steel plug to the hand hole after the interior of the joint has been inspected and approved by the District's Representative.

3.12 FLANGED CONNECTIONS

Flanged connections shall be installed where indicated on the Approved Plans.

A. Bolt holes shall straddle the horizontal and vertical centerlines.

B. The bolts, nuts and flange faces shall be thoroughly cleaned by wire brush prior to assembly.

C. Bolts and nuts shall be lubricated with a District-approved anti-seize compound.

D. Nuts shall be tightened in an alternating "star" pattern to the manufacturer's recommended torque.

E. Slip-on type flanges intended for field fit-up and welding shall be welded inside and outside in accordance with AWWA C207.

F. Coat the exterior of exposed flanges, bolts and nuts in accordance with Section 09910.

3.13 FLANGED COUPLING ADAPTERS

Flanged coupling adapters shall be installed in accordance with the manufacturer's recommendations. Bolts shall be tightened with a torque wrench in the presence of the District's Representative to the torque recommended by the manufacturer.

3.14 JOINT BONDING/CATHODIC PROTECTION INSULATION

Bonding of joints to provide continuity, flange insulation kits, internal epoxy linings, and other cathodic protection items and materials shall be installed where shown on the Approved Plans in accordance with the Standard Drawings and Section 13110.

3.15 WAX TAPE

Wax tape shall be installed as shown on the Approved Plans or as directed by the District's Representative in accordance with Section 13110 and the Standard Drawings.

3.16 CONCRETE

Where required, concrete thrust and anchor blocks shall be installed in accordance with Section 03000 and as shown on the Approved Plans. Prior to filling the pipeline with water, refer to Section 03000 for the minimum concrete curing time required.

3.17 TRACER WIRE

Tracer Wire shall be installed in accordance with Section 15000 and the Standard Drawings.

3.18 WARNING/IDENTIFICATION TAPE

Warning/Identification Tape shall be installed in accordance with Section 15000 and the Standard Drawings.

3.19 DISINFECTION AND BACTERIOLOGICAL TESTING

Disinfection, bacteriological testing, and flushing of potable water lines shall be performed in accordance with Section 15041.

3.20 HYDROSTATIC TESTING

Field hydrostatic testing shall be performed in accordance with Section 15044.

3.21 FIELD PAINTING AND COATING

A. Exterior surfaces of all exposed pipe and appurtenances not otherwise polyethylene tape coated with a mortar over-coat shall be field painted in accordance with Section 09910.

B. The exterior surfaces of areas of buried pipes and fittings that are not polyethylene tape coated with a mortar over coat, such as flanges, grooved ends, or plain ends for butt-straps or flexible couplings, shall be wax tape coated in accordance with Specification Section 13110. Areas in contact with potable water such plain ends of pipe, grooved and shouldered ends of pipe and exposed inside surfaces of threaded outlets and blind flanges shall be coated in accordance with Section 15000.

NOTE:
REVIEW OF THESE PLANS BY THE COUNTY OF SAN DIEGO IS FOR BONDING PURPOSES ONLY.

PRIVATE CONTRACT

SHEET 23	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

STEEL WATER MAIN PLANS FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWARD SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5806 & 5806
CALIFORNIA COORDINATE INDEX 138-1781

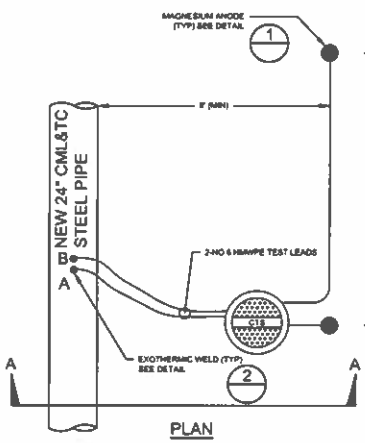
PDS2021-LDPTIP-60114

ENGINEER'S NAME: O-2M

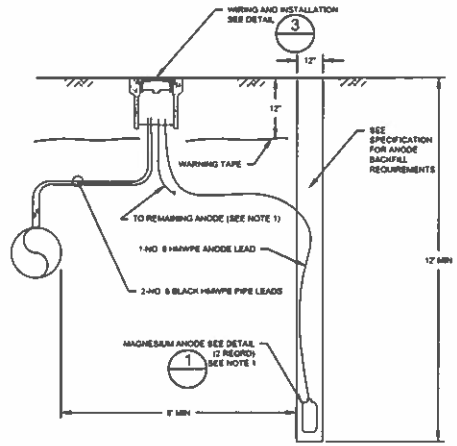
ch2m

RECORD PLAN	O.W.D. "RECORD PLAN"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
MARK B. ELLIOTT DATE RCE 42064	SIGNATURE DATE PRINTED NAME LICENSE NO. REGISTRATION EXPIRATION DISCIPLINE	PROJECT NO. 01132-090574 PERMIT NO. DEV-22-009 P.Z. 87 REVIEWED BY 10/17/2022 DATE	NO. DESCRIPTION APPD BY DATE	NO. DESCRIPTION APPD BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT LOCATION: NORTHERLY END OF ALTA ROAD, 0.3 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 30' ED TOP OF HILL RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION: 570.99 DATUM: NGVD '29

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009



PLAN

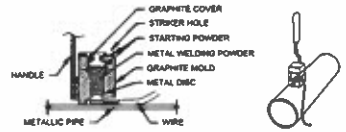


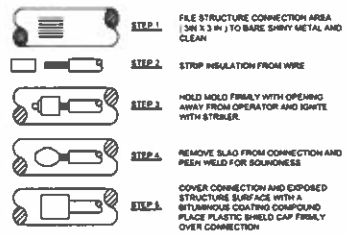
NOTES:

1. 1 ANODE SHOWN, 2 ARE REQUIRED. ANODES TO BE INSTALLED PARALLEL TO THE PIPE, 15 FEET APART IN AUGERED HOLES 12' DEEP. ANODE LEADS TO BE TRENCHED TO CTS AT A DEPTH OF 36". NO WIRE SPLICES ALLOWED.
2. INSTALL ANODES 5' MIN (OFFSET) FROM NEW 24" CML&TC STEEL PIPELINE

2-WIRE TEST STATION WITH ANODES (1/26)

SCALE: NONE





STEP 1 FILE STRUCTURE CONNECTION AREA (3IN X 3 IN) TO BARE SHINY METAL AND CLEAN

STEP 2 STRIP INSULATION FROM WIRE

STEP 3 HOLD MOLD FIRMLY WITH OPENING AWAY FROM OPERATOR AND IGNITE WITH STRIKER.

STEP 4 REMOVE SLAG FROM CONNECTION AND PEEN WELD FOR SOUNDNESS

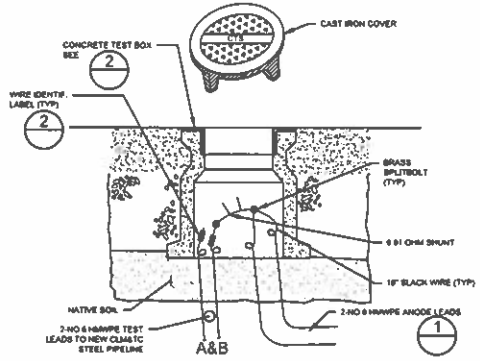
STEP 5 COVER CONNECTION AND EXPOSED STRUCTURE SURFACE WITH A BITUMINOUS COATING COMPOUND. PLACE PLASTIC SHIELD CAP FIRMLY OVER CONNECTION

EXOTHERMIC WELD NOTES:

1. ONE WELD SHALL BE USED FOR EACH.
2. CLEAN ONLY OR GREASE CABLE WITH A RAPID-DRYING SOLVENT. REMOVE ONLY ENOUGH INSULATION FROM HE CABLE TO ALLOW THE EXOTHERMIC WELD CONNECTION TO BE MADE.
3. REMOVE ALL COATING, DIRT, GRIME, AND GREASE FROM THE METAL STRUCTURE AT WELD LOCATIONS BY WIRE BRUSHING AND/OR USE OF SUITABLE SAFE SOLVENTS. CLEAN THE STRUCTURE TO A BRIGHT, SHINY SURFACE FREE OF ALL SERIOUS PITS AND FLAWS. THE AREA OF THE STRUCTURE WHERE THE ATTACHMENT IS TO MADE MUST BE DRY
4. OPEN WELD MOLD AND PLACE METAL DISC INSIDE AT BOTTOM OF MOLD. POUR METAL WELDING POWDER INTO MOLD AND ON TOP OF METAL DISK. STARTING POWDER IS CARED AT THE BOTTOM OF THE WELD CHARGE CONTAINER. TAP WELD CHARGE CONTAINER AND POUR HALF OF STARTING POWDER INTO WELD MOLD. CLOSE THE TOP OF WELD MOLD AND POUR THE REMAINING STARTING POWDER IN STRIKING HOLD. THE WELD MOLD IS NOW LOADED AND READY FOR USE.
5. THE LEAD WIRE IS TO BE HELD AT AN ANGLE TO THE SURFACE WHEN WELDING. ONLY ONE WIRE SHALL BE ATTACHED WITH EACH WELD. HOLD LOADED WELD MOLD FIRMLY ON PIPE AND WIRE. IGNITE STARTING POWDER IN STRIKING HOLE USING A STRIKER. HOLD WELD MOLD FIRMLY AGAINST PIPE FOR 5 SECONDS TO ALLOW FOR WELD PROCESS.
6. WELDS SHALL BE TESTED BY STRIKING THE WELD NUGGET WITH A TWO POUND HAMMER WHILE PULLING FIRMLY ON THE WIRE. ALL UNSOUND WELDS SHALL BE REMOVED. THE SURFACES RECLEANED, REWELDED, AND RETESTED. WELD SLAG SHALL BE REMOVED
7. APPLY PRIMER AND ELECTROMETRIC WELD CAP TO THE WELD AND APPLY A BITUMASTIC COATING MATERIAL TO ALL EXPOSED AREAS AROUND THE CAP AND WIRES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE COATING SHALL OVERLAP THE STRUCTURE COATING A MINIMUM OF 3 INCHES

EXOTHERMIC WELD (2/26)

SCALE: NONE

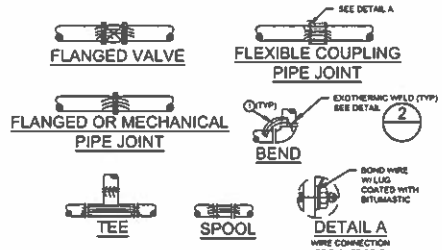


WIRE I.D. LEGEND

WIRE	SIZE	LABEL INSCRIPTION
A&B	NO 6 HMWPE	24" CML&TC STL

ANODE TEST BOX WIRING (3/26)

SCALE: NONE



NOTES:

1. ALL BOND CABLE SHALL BE INSTALLED AT MINIMUM LENGTH
2. BOND CABLES SHALL NOT BE INSTALLED ACROSS INSULATING JOINTS
3. ONLY AT THE APPROVAL OF THE CORROSION ENGINEER

JOINT BONDING (4/26)

SCALE: NONE

GENERAL CATHODIC PROTECTION NOTES:

1. ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THESE DRAWINGS AND TECHNICAL SPECIFICATIONS
2. UNLESS OTHERWISE NOTED DRAWINGS ARE NOT SHOWN TO SCALE.
3. ALL TEST STATIONS SHALL BE THE CIRCULAR, CONCRETE, AT-GRADE TYPE WITH A METAL LID AND H-20 TRAFFIC RATED
   3 A. PROVIDE 24" SLACK WIRE AT WELD TO PIPE AND COILED IN TEST BOX.
   3 B. BOTTOM OF TEST BOX SHALL BE NATIVE SOIL.
   3 C. A REINFORCED CONCRETE PAD (24" SQUARE X 6" THICK PER WAS SD WC-14) IS REQUIRED AROUND TEST BOXES LOCATION IN UNPAVED AREAS.
   3 D. IDENTIFY ALL WIRES WITH WIRE ID TAGS OR WITH BRASS TAGS PER THE SPECIFICATIONS WITH APPROVAL FROM THE ENGINEER.
4. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ADJACENT STRUCTURES AND UTILITIES AND FOR AVOIDING DAMAGE TO AND CONFLICT WITH THESE STRUCTURES OR UTILITIES.
5. THE CONTRACTOR SHALL DOCUMENT ALL CHANGES FROM THESE DRAWINGS AND SUBMIT 'AS-BUILT' DRAWINGS TO THE ENGINEER PRIOR TO COMPLETION OF THE WORK.
6. NO WIRE OF CABLE SPLICES ARE PERMITTED
7. BOND ALL BURIED NON WELDED PIPE JOINTS AND ALL BURIED NON-INSULATING METALLIC FLANGES, FLANGED JOINTS, VALVES, COUPLINGS, AND ADAPTERS PER DETAIL 4, THIS SHEET.

SCHEDULE OF TEST STATIONS STA 10+17 TO 32+45

STATION NUMBER	No OF TEST LEADS	No OF ANODES	REF DETAIL	COMMENTS
10+11.5	2-WIRE	2	1/26	2 WIRE CTS WITH ANODE
10+70	2-WIRE	2	1/26	2 WIRE CTS WITH ANODE
15+50	2-WIRE	2	1/26	2 WIRE CTS WITH ANODE
18 + 50	2-WIRE	2	1/26	2 WIRE CTS WITH ANODE
22+50	2-WIRE	2	1/26	2 WIRE CTS WITH ANODE
29 + 00	2-WIRE	2	1/26	2 WIRE CTS WITH ANODE
32+45	2-WIRE	2	1/26	2 WIRE CTS WITH ANODE

NOTE:

REVIEW OF THESE PLANS BY THE COUNTY OF SAN DIEGO IS FOR BONDING PURPOSES ONLY

IMPORTANT NOTICE

CALL TOLL FREE TWO WORKING DAYS BEFORE YOU DIG UNDERGROUND SERVICE ALERT 1-800-227-2600

ch2m

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
MARK B. ELLIOTT RCE 42064 DATE	SIGNATURE DATE PRINTED NAME LICENSE NO. REGISTRATION EXPIRATION DISCIPLINE	PROJECT NO. 01132-090574 PERMIT NO. DEV-22-009 P.E. 671 REVIEWED BY 10/31/2022 DATE	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET, CENTERLINE SOIL MONUMENT LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 34' TO TOP OF HILL RECORD FROM: R.O.S. 14841, PT. NO. 4077 ELEVATION: 836.98 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 26	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

CATHODIC PROTECTION DETAILS FOR:

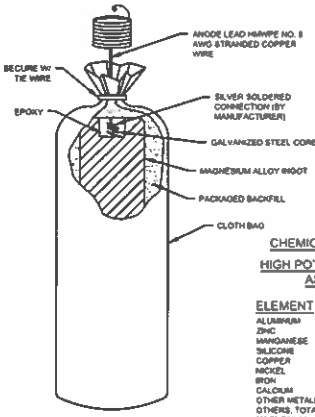
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5605 & 5606

CALIFORNIA COORDINATE INDEX 138-1791

PDS2021-LDPIIP-60114

ENGINEER'S NAME: CH2M

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009



MAGNESIUM INGOT DIMENSIONS
5" X 8" X 32" LONG
INGOT WEIGHT 48 LBS
PKGD WEIGHT 100 LBS (APPROX.)

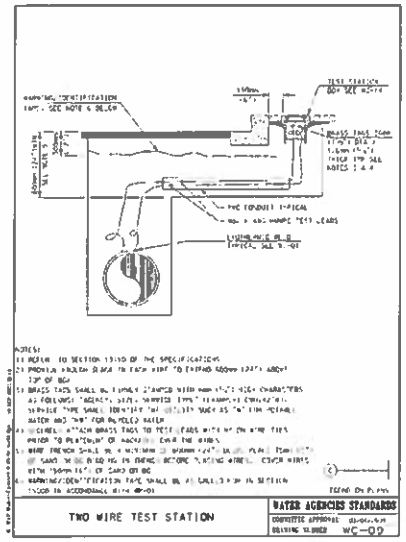
CHEMICAL COMPOSITION

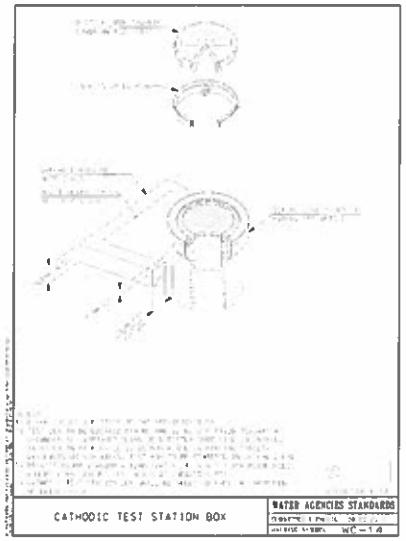
HIGH POTENTIAL MG ANODE
ASTM B843-93

ELEMENT	CONTENT %
ALUMINUM	0.010
ZINC	-
MANGANESE	0.50 TO 1.30
SILICONE	0.05
COPPER	0.02
NICKEL	0.001
IRON	0.03
CALCIUM	-
OTHER METALLIC	0.05
OTHERS, TOTAL	0.30
MAGNESIUM	REMAINDER

PACKAGED BACKFILL
75% GYPSUM
20% BENTONITE
5% SODIUM SULFATE

MAGNESIUM ANODE (1/27)
SCALE: NONE





CATHODIC TEST STATION (2/27)
SCALE: NONE

NOTE:
REVIEW OF THESE PLANS BY THE COUNTY OF SAN DIEGO IS FOR BONDING PURPOSES ONLY

IMPORTANT NOTICE
CALL TOLL FREE
UNDERGROUND SERVICE ALERT
1-800-227-2600

ch2m

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
MARK B. ELLIOTT RCE 42064 DATE	SIGNATURE DATE PRINTED NAME LICENSE NO. REGISTRATION EXPIRATION DISCIPLINE	PROJECT NO. D1132-090574 PERMIT NO. DEV-22-009 P.E. 471 REVIEWED BY 10/31/2022 DATE	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 50' TO TOP OF HILL RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION: 678.99 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 27 | COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS | 62 SHEETS

CATHODIC PROTECTION DETAILS FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWARD SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5808 & 5809
CALIFORNIA COORDINATE INDEX 138-1791

PDS2021-LDPIIP-80114

ENGINEER'S NAME: CH2M

OWD PROJECT: D1132-090574
OWD PERMIT: DEV-22-009

PART 1 - GENERAL:

1.1 WORK OF THIS SECTION

A. FURNISH ALL LABOR, MATERIALS, TOOLS AND INCIDENTALS TO INSTALL A GALVANIC ANODE CATHODIC PROTECTION SYSTEM FOR THE OTAY WATER DISTRICT'S (DISTRICT) OTAY CROSSINGS ALTA ROAD CEMENT MORTAR LINED AND TAPE COATED (CMLATC) STEEL PIPELINES. CATHODIC PROTECTION INSTALLATION, INSPECTION, AND TESTING ARE REQUIRED FOR A COMPLETE AND WORKABLE SYSTEM

B. THIS SPECIFICATION (SECTION 13110) COVERS THE MATERIALS, INSTALLATION, AND TESTING OF THE CATHODIC PROTECTION SYSTEM. ALL DETAILS AND SPECIFICATIONS FOR 2-WIRE TEST STATIONS FOR THIS PROJECT, ARE PROVIDED IN THE WATER AGENCY STANDARDS (WAS).

C. THE CONTRACTOR SHALL RETAIN A QUALIFIED CORROSION ENGINEER TO DIRECT THE CONSTRUCTION OF FACILITIES SPECIFIED HEREIN. THE CORROSION ENGINEER SHALL TEST AND CERTIFY THAT THE CORROSION CONTROL FACILITIES FOR THIS PROJECT ARE CONSTRUCTED PROPERLY, AS SPECIFIED, AND ARE FULLY FUNCTIONAL

1.2 DEFINITIONS

A. CONTRACTOR: THE LICENSED PRIME INSTALLER SELECTED BY THE OWNER TO INSTALL THE PIPELINE.

B. OWNER: THE OTAY WATER DISTRICT.

C. CORROSION ENGINEER: A QUALIFIED CORROSION ENGINEER RETAINED BY THE CONTRACTOR WHO IS EITHER A REGISTERED PROFESSIONAL CORROSION ENGINEER OR A NACE-INTERNATIONAL CERTIFIED CATHODIC PROTECTION SPECIALIST

D. ENGINEER: THE DISTRICT'S RESIDENT ENGINEER OR DESIGNATED REPRESENTATIVE.

1.3 CONTRACTOR QUALIFICATIONS

A. ALL WORK MUST BE CONDUCTED BY QUALIFIED, EXPERIENCED PERSONNEL WORKING UNDER CONTINUOUS, COMPETENT SUPERVISION. QUALIFIED CONTRACTOR'S MUST DEMONSTRATE AT LEAST FIVE YEARS OF EXPERIENCE WITH CATHODIC PROTECTION INSTALLATIONS. CATHODIC PROTECTION INSTALLATION AND TESTING SHALL BE DONE UNDER THE DIRECT SUPERVISION OF THE CONTRACTOR'S CORROSION ENGINEER. THE CONTRACTOR DOING THE ELECTRICAL INSTALLATIONS SHALL HAVE PROPER VALID STATE OF CALIFORNIA LICENSES

1.4 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
C94 READY-MIXED CONCRETE
D-2220 POLYVINYL CHLORIDE INSULATION FOR WIRE AND CABLE
D-1248 POLYETHYLENE PLASTICS MOLDING AND EXTRUSION MATERIALS
B3 SOFT OR ANNEALED COPPER WIRE
B8 CONCENTRIC-LAY STRANDED COPPER CONDUCTORS

B. FEDERAL SPECIFICATIONS (FS)
MILITARY SPECIFICATIONS (MIL SPEC)
MIL-C-18480B COATING COMPOUND, BITUMINOUS, SOLVENT, COAL TAR BASE

C. UNDERWRITER'S LABORATORIES, INC (UL) PUBLICATIONS:
83-80 THERMOPLASTIC-INSULATED WIRES
486-76 WIRE CONNECTORS AND SOLDERING LUGS FOR USE WITH COPPER CONDUCTORS

D. NATIONAL ASSOCIATION OF CORROSION ENGINEERS (NACE INT'L)
RP0169 RECOMMENDED PRACTICE, CONTROL OF EXTERNAL CORROSION ON UNDERGROUND OR SUBMERGED METALLIC PIPING SYSTEMS

1.5 CONTRACTOR SUBMITTALS

THE CONTRACTOR SHALL FURNISH THE FOLLOWING DOCUMENTS TO THE ENGINEER. THE CATALOG CUTS SHALL BE ACCEPTED PRIOR TO INSTALLATION.

A. CATALOG CUTS (5 COPIES)
1 HIGH POTENTIAL MAGNESIUM ANODE
2 AT-GRADE, TRAFFIC RATED CONCRETE TEST BOX WITH CAST IRON LID
3 SHUNTS
4 WIRE AND CABLE
5 EXOTHERMIC WELD KITS
6. WELD CAPS
7. WELD COATING
8 PLASTIC WARNING TAPE
9 WAX TAPE COATING SYSTEM

B. AS-BUILT DRAWINGS
THE CONTRACTOR SHALL MAINTAIN AS-BUILT DRAWINGS SHOWING EXACT LOCATIONS OF ANODES, INSULATORS, TEST STATIONS, AND WIRE TRENCHING RUNS. LOCATION CHANGES FROM THE DESIGN SHALL BE CLEARLY MARKED IN RED ON A BLUE LINE COPY OF THE DESIGN DRAWINGS. THE AS-BUILT DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AT THE END OF THE PROJECT. THE PROJECT IS NOT CONSIDERED COMPLETE UNTIL AS-BUILT DRAWINGS ARE SUBMITTED

C. THE CONTRACTOR SHALL SUBMIT A FINAL SYSTEM CHECKOUT REPORT (SEE PART 4 OF THIS SPECIFICATION) TO INCLUDE ALL TEST DATA, OBSERVATIONS, CONCLUSIONS, RECOMMENDATIONS, AN LOCATIONS OF ALL CORROSION TEST STATIONS ETC.

PART 2 - PRODUCTS:

2.1 GENERAL
MATERIALS AND EQUIPMENT SHALL BE NEW AND THE STANDARD PRODUCT OF MANUFACTURER'S REGULARLY ENGAGED IN THE MANUFACTURING OF SUCH PRODUCTS. ALL MATERIALS AND EQUIPMENT SHALL BEAR EVIDENCE OF SAFE OPERATION APPROVAL FROM A NATIONALLY RECOGNIZED TESTING LABORATORY

2.2 HIGH POTENTIAL MAGNESIUM ANODES

A. CAPACITY: HIGH POTENTIAL MAGNESIUM ANODES SHALL HAVE A THEORETICAL ENERGY CONTECT OF 1000 AMPERE-HOURS PER POUND AND HAVE A MINIMUM USEFUL OUTPUT OF 500 AMPERE-HOURS PER POUND

B. CHEMICAL COMPOSITION (HIGH POTENTIAL MAGNESIUM) ASTM B843

ALUMINUM	0.01 PERCENT
MANGANESE	0.5 TO 1.30 PERCENT
ZINC	-
COPPER	0.02 PERCENT
NICKEL	0.001 PERCENT
IRON	0.03 PERCENT
SILICON	0.05 PERCENT
CALCIUM	-
OTHER METALLIC	0.05 PERCENT
OTHERS, TOTAL	0.30 PERCENT
MAGNESIUM	REMAINDER

C. OPEN CIRCUIT POTENTIAL: THE OPEN CIRCUIT POTENTIAL OF ALL ANODES BURIED IN THE SOIL, SHALL BE BETWEEN 1.65 AND 1.75 VOLTS DC VERSUS A COPPER-COPPER SULFATE REFERENCE ELECTRODE

D. INGOT SIZE AND WEIGHT: ANODES SHALL BE 48-POUND INGOT PRE-PACKAGED, HIGH POTENTIAL INGOTS WITH A TRAPEZOIDAL CROSS SECTION. INGOT LENGTH SHALL BE 30 125 INCHES LONG. THE TOTAL PACKAGED WEIGHT SHALL BE 180 LBS.

E. ANODE CONSTRUCTION: ANODES SHALL BE CAST MAGNESIUM WITH A GALVANIZED STEEL CORE ROD RECESSED ON ONE END TO PROVIDE ACCESS TO THE ROD FOR CONNECTION OF THE LEAD WIRE. SILVER GRADE THE LEAD WIRE TO THE ROD AND MAKE THE CONNECTION MECHANICALLY SECURE. INSULATE THE CONNECTION TO A 600 VOLT RATING BY FILLING HE RECESS WITH EPOXY AND COVERING ANY EXPOSED BARE STEEL CORE OR WIRE WITH HEAT SHRINKABLE TUBING. THE INSULATING TUBING SHALL EXTEND OVER THE LEAD WIRE INSULATION BY NOT LESS THAN 2 INCH. THE ANODE LEAD WIRE SHALL BE STRANDED COPPER AND SHALL BE CONNECTED DIRECTLY TO THE ANODE STEEL CORE AS DESCRIBED ABOVE. THERE SHALL BE NO WIRE SPLICES BETWEEN THE ANODE STEEL CORE ADN THE TAG END AT THE TEST STATION

F. ANODE PRE-PACKAGED BACKFILL MATERIAL: THE ANODES SHALL BE COMPLETELY ENCASED AND CENTERED WITHIN A PERMEABLE CLOTH BAG IN A SPECIAL LOW RESISTIVITY BACKFILL MIX WITH THE FOLLOWING COMPOSITION

GYPSUM	75%
POWDERED BENTONITE	20%
ANHYDROUS SODIUM SULFATE	5%

G. BACKFILL GRAINS SHALL BE SUCH THAT 100 PERCENT IS CAPABLE OF PASSING THROUGH A SCREEN OF 100 MESH. BACKFILL SHALL BE FIRMLY PACKED AROUND THE ANODE SUCH THAT THE INGOT IS APPROXIMATELY IN THE CENTER OF THE BACKFILL. THE RESISTIVITY OF THE BACKFILL SHALL BE NO GREATER THAN 50 OHM-CM WHEN TESTED WET IN A SOIL BOX. TOTAL PREPACKAGED WEIGHT SHALL BE APPROXIMATELY 100 POUNDS.

2.3 AT-GRADE TEST STATIONS

A. AT-GRADE (FLUSH) MOUNTED
1. TEST BOX: CONCRETE BOX OF DIMENSIONS AS SHOWN ON THE DRAWINGS. AT-GRADE TEST BOXES SHALL BE ROUND, PRE-CAST CONCRETE, AASHTO H-20 TRAFFIC RATED, WITH A CAST IRON LID. THE LID SHALL BE CAST WITH THE LEGEND "CTS". USE CHRISTY BOX OR APPROVED EQUAL
2. IDENTIFICATION TAGS: BRASS TAGS (1-1/2" X 3/4" THICK) SHALL BE USED FOR WIRE IDENTIFICATION. STAMP THE BRASS TAGS PER THE WIRE IDENTIFICATION LEGEND ON THE DETAIL DRAWINGS. THE BRASS TAGS SHALL BE STAMPED TO INCLUDE: SIZE PIPE - COATING TYPE - PIPE MATERIAL - SERVICE TYPE. FOR EXAMPLE, 24" CMLATC STEEL WATER

2.4 SHUNTS

A. HOLLOWAY TYPE RS, 0.01 OHM, 6 AMPERE CAPACITY

2.5 WIRES

A. GENERAL: CONFORM TO APPLICABLE REQUIREMENTS OF NEMA WC 5 AND WC 7. ALL WIRES SHALL BE SINGLE CONDUCTOR, UNLESS OTHERWISE SPECIFIED. ALL WIRES SHALL BE SINGLE CONDUCTOR, STRANDED COPPER WIRE WITH 600-VOLT HMWPE INSULATION, UNLESS OTHERWISE SPECIFIED

B. MECHANICAL JOINT (NON-WELDED PIPE JOINT) BOND: TWO NO. 6 AWG HMWPE.

C. PIPELINE TEST LEADS: TWO NO. 6 AWG HMWPE

D. ANODE WIRES: NO. 6 AWG HMWPE

2.6 CONCRETE

A. REINFORCING STEEL: ASTM A 615, GRADE 60 DEFORMED BARS AND WELDED WIRE FABRIC

B. WELDED WIRE FABRIC: ASTM A 497

C. FORMWORK: PLYWOOD. EARTH CUTS MAY BE USED

D. CONCRETE DESIGN FOR MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS

2.7 ANCILLARY MATERIALS

A. ELECTRICAL TAPE: LINERLESS RUBBER HIGH-VOLTAGE SPLICING TAPE AND VINYL ELECTRICAL TAPE SUITABLE FOR MOIST AND WET ENVIRONMENTS. USE SCOTCH 130C AND SCOTCH 88 AS MANUFACTURED BY 3M PRODUCTS.

B. WIRE CONNECTORS: ONE-PIECE, TIN-PLATED CRIMP ON LUG CONNECTOR AS MANUFACTURED BY BURNDY CO. THOMAS AND BETTS

C. INSULATING RESIN: AT CONTRACTOR'S OPTION, BITUMASTIC COATING (HOPPERS 50 OR APPROVED EQUAL) MAY BE USED IF ALLOWED TO DRY COMPLETELY BEFORE COVERING

2.8 MARKING TAPE

A. INERT POLYETHYLENE, IMPERVIOUS TO KNOWN ALKALIS, ACIDS, CHEMICAL REAGENTS, AND SOLVENTS LIKELY TO BE ENCOUNTERED IN SOIL.

B. THICKNESS: MINIMUM 4-MILS

C. WIDTH: 6-INCHES

D. IDENTIFYING LETTERS: MINIMUM 1-INCH HIGH, PERMANENT BLACK LETTERING IMPRINTED CONTINUOUSLY OVER ENTIRE LENGTH

E. COLOR: RED WITH BLACK LETTERING AS FOLLOWS: "CAUTION CATHODIC PROTECTION CABLES BURIED BELOW "

2.9 EXOTHERMIC WELDS

A. GENERAL: WIRE SLEEVES, WELDERS AND WELD CARTRIDGES ACCORDING TO THE WELD MANUFACTURER'S RECOMMENDATIONS FOR EACH WIRE SIZE AND PIPE OR FITTING SIZE AND MATERIAL. WELDING MATERIALS AND EQUIPMENT SHALL BE THE PRODUCT OF A SINGLE MANUFACTURER. INTERCHANGING MATERIALS OF DIFFERENT MANUFACTURERS WILL NOT BE ACCEPTED

B. WELD CAPS: EXOTHERMIC WELDS SHALL BE SEALED WITH A PRE-FABRICATED PLASTIC CAP FILLED WITH FORMABLE MASTIC COMPOUND ON A BASE OF BLASTOMERIC TAPE. USE ROYSTON HANDY CAP OR APPROVED EQUIVALENT. PRIMER FOR WELD CAPS SHALL BE ROYSTON ROYBOND PRIMER 747 OR APPROVAL EQUIVALENT

C. WELD COATING: EXOTHERMIC WELDS AND WELD CAPS SHALL BE COATED WITH A COLD-APPLIED, FAST-DRYING MASTIC CONSISTING OF BITUMINOUS RESIN AND SOLVENTS PER MIL-C-18480. USE CARBOLINE BITUMASTIC 50, THEMEC 46-H-413, TAPE-COAT MASTIC OR 3M SCOTCH CLAD 244, OR APPROVED EQUAL. THE MINIMUM COATING THICKNESS SHALL BE 25 MILS (0.025 INCH).

2.10 EXTERNAL COATING FOR BURIED SURFACES

A. ALL BURIED PIPE SECTIONS, SPECIALS, VALVES, FLANGES, AND OTHER FITTING SURFACES THAT ARE NOT TAPE WRAPPED OR EPOXY COATED SHALL BE WRAPPED WITH A PETROLATUM WAX TAPE COATING PER AWWA C217 WITH PLASTIC OUTER WRAP. NO BARE METALLIC SURFACES SHALL BE BURIED. BACKFILLED, OR IN CONTACT WITH THE SOIL

B. PRIMER: ALL BURIED SURFACES SHALL BE PRIME COATED WITH A BLEND OF PETROLATUM, PLASTICIZER, INERT FILLERS, AND CORROSION INHIBITORS HAVING PASTE-LIKE CONSISTENCY

C. WAX TAPE: COVERING MATERIAL SHALL BE A SYNTHETIC FELT TAPE, SATURATED WITH A BLEND OF PETROLATUM, PLASTICIZERS, AND CORROSION INHIBITORS THAT IS FORMABLE OVER IRREGULAR SURFACES

D. PLASTIC OUTER WRAP: THE PRIMED AND WAX TAPED SURFACE SHALL BE COVERED WITH A PLASTIC OUTER WRAP CONSISTING OF THREE LAYERS OF 50-GAUGE (10 MIL) POLYVINYLIDENE CHLORIDE (PVC), HIGH CLING MEMBRANE WOUND TOGETHER

PART 3 - EXECUTION:

3.1 GENERAL

A. STANDARD WORK NOT SPECIFICALLY DESCRIBED HEREIN SHALL CONFORM TO NACE SP0169 AND DISTRICT STANDARDS.

B. CONTRACTOR QUALIFICATIONS: ALL WORK SHALL BE PERFORMED BY QUALIFIED, EXPERIENCED PERSONNEL WORKING UNDER CONTINUOUS, COMPETENT SUPERVISION. QUALIFIED CONTRACTORS MUST DEMONSTRATE AT LEAST FIVE YEARS OF EXPERIENCE WITH CATHODIC PROTECTION INSTALLATIONS

C. TEST RESULTS: THE CONTRACTOR SHALL SUBMIT A CORROSION ENGINEER'S REPORT INCLUDING ALL TEST DATA, CONCLUSIONS, REPAIRS, AND CATHODIC PROTECTION SYSTEM PERFORMANCE.

D. NOTIFICATION FOR TESTING: THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST SEVEN DAYS IN ADVANCE OF THE ANODES, INSULATORS, AND TEST STATION INSTALLATIONS. THE ENGINEER OR THE OWNER'S REPRESENTATIVE SHALL, AT THEIR DISCRETION, WITNESS THE INSTALLATION OF ALL ANODES AND CATHODIC PROTECTION FACILITIES. TESTING SHALL BE AS DESCRIBED IN THIS SPECIFICATION SECTION

3.2 MAGNESIUM ANODES

A. INSPECTION: ALL LEAD WIRES SHALL BE INSPECTED TO ENSURE THAT THE LEAD WIRE IS SECURELY CONNECTED TO THE ANODE CORE AND THAT NO DAMAGE HAS OCCURRED TO THE LEAD WIRE. LEAD WIRE FAILURES SHALL REQUIRE REPLACEMENT OF THE COMPLETE ANODE AND LEAD WIRE

B. PRE-PACKAGED ANODE INSPECTION: EACH ANODE SHALL BE INSPECTED TO ENSURE THAT THE BACKFILL MATERIAL COMPLETELY SURROUNDS THE ANODE AND THAT THE CLOTH BAG CONTAINING THE ANODE AND BACKFILL MATERIAL IS INTACT. IF THE PREPACKAGED ANODES ARE SUPPLIED IN A WATERPROOF CONTAINER OR COVERING, THAT CONTAINER OR COVERING SHALL BE REMOVED BEFORE INSTALLATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST SEVEN DAYS IN ADVANCE OF INSTALLING THE ANODES

C. LOCATION: ANODES ARE TO BE INSTALLED IN AUGERED HOLES AS SHOWN IN THE DRAWINGS. ANODE POSITIONS CAN BE ADJUSTED SLIGHTLY TO AVOID INTERFERENCE WITH EXISTING STRUCTURES. ALTERNATE ANODE POSITIONS MUST BE APPROVED BY THE ENGINEER.

D. HANDLING: CARE SHALL BE TAKEN TO ENSURE THAT THE ANODE IS NEVER LIFTED, SUPPORTED, TRANSPORTED, OR HANDLED BY THE LEAD WIRE. ALL ANODES SHALL BE LOWERED INTO THE HOLE USING A SLING OR A ROPE

E. ANODE HOLE SIZE AND DEPTH: ANODES SHALL BE PLACED VERTICALLY AT THE BOTTOM OF A 12 FEET DEEP AUGURED HOLE, 12 INCHES IN DIAMETER (MINIMUM).

F. SOAKING REQUIREMENTS, PRE-PACKAGED ANODES: ONCE THE PREPACKAGED ANODES ARE IN THE HOLE, WATER SHALL BE POURED INTO THE HOLE SO THAT THE ANODES ARE COMPLETELY COVERED WITH WATER. ALLOW THE ANODES TO SOAK FOR A MINIMUM OF 30 MINUTES BEFORE ANY SOIL BACKFILL IS ADDED

G. SOIL BACKFILL: AFTER THE PRE-PACKAGED ANODES ARE SOAKED, THE HOLE IS BACKFILLED WITH STONE-FREE NATIVE SOIL. NO VOIDS SHALL EXIST AROUND THE ANODE BAGS AND THE ANODE LEAD WIRE SHALL NOT BE DAMAGED. THE BACKFILL SHALL BE TAMPED AND COMPACTED IN 18-INCH LIFTS ABOVE THE ANODE TAKING CARE NOT TO DAMAGE THE ANODE LEAD WIRE.

3.3 AT-GRADE TEST STATIONS

A. LOCATION: AT-GRADE CORROSION MONITORING TEST BOXES SHALL BE LOCATED BEHIND THE CURB OR SIDEWALK AND NOT IN TRAFFIC LANES OR GUTTERS UNLESS SPECIFIED IN THE DETAIL DRAWINGS. ALL TEST BOX LOCATIONS SHALL BE APPROVED BY THE ENGINEER

B. TEST BOX BOTTOM: TEST BOXES SHALL BE SET IN NATIVE SOIL

C. TEST LEAD ATTACHMENT: TEST LEADS SHALL BE ATTACHED TO THE PIPE USING THE EXOTHERMIC WELD PROCESS. AN 18-INCH LENGTH OF BLACK WIRE SHALL BE COILED AT EACH WELD AND INSIDE EACH TEST BOX.

D. CONCRETE PAD: A 24-INCH SQUARE BY 6-INCH THICK REINFORCED CONCRETE PAD IS REQUIRED AROUND EACH AT-GRADE TEST STATION. TEST BOXES AND CONCRETE PAD SHALL BE FLUSH WITH THE TOP OF THE MEDIAN CURB.

3.4 WIRE AND CABLE

A. TEST LEAD TRENCH: HORIZONTAL TEST OR ANODE LEAD RUNS SHALL BE PLACED IN A 36-INCH TRENCH

B. WIRE HANDLING: WIRE LEADS SHALL NOT BE STRETCHED OR KINKED. CARE SHALL BE TAKEN WHEN INSTALLING WIRE AND BACKFILLING. IF WIRE INSULATION IS DAMAGED DURING INSTALLATION, IT SHALL BE REJECTED AND REPLACED COMPLETELY AT THE CONTRACTOR'S EXPENSE. ALL REJECTED WIRE SHALL BE REMOVED FROM THE JOB SITE AT THE CLOSE OF EACH WORKDAY.

C. PLASTIC WARNING TAPE: PLASTIC WARNING TAPE SHALL BE INSTALLED IN ALL WIRE TRENCHES AND 12 INCHES BELOW FINISHED GRADE

D. SPLICING: WIRE SPLICES ARE NOT PERMITTED

3.5 WIRE-TO-PIPE CONNECTIONS

A. ALL CONNECTIONS OF COPPER WIRES TO THE PIPE SHALL BE MADE BY THE EXOTHERMIC WELD METHOD.

B. WELD CHARGE SIZE: IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE MANUFACTURER'S RECOMMENDED WELD CHARGE SIZE IS USED.

C. PREPARATION OF WIRE: DO NOT DEFORM CABLE. REMOVE ONLY ENOUGH INSULATION FROM THE CABLE TO ALLOW FOR THE EXOTHERMIC WELD.

D. PREPARATION OF METAL: REMOVE ALL COATING, DIRT, GRIME, AND GREASE FROM THE METAL STRUCTURE BY WIRE BRUSHING. CLEAN THE STRUCTURE TO A BRIGHT, SHINY SURFACE FREE OF ALL SERIOUS PITS AND FLAWS BY USING FILE. THE SURFACE AREA OF THE STRUCTURE MUST BE ABSOLUTELY DRY.

E. WIRE POSITION: THE WIRE IS TO BE HELD AT A 30-DEGREE ANGLE TO THE SURFACE WHEN WELDING. ONLY ONE WIRE SHALL BE ATTACHED WITH EACH WELD

F. TESTING OF ALL COMPLETED WELDS: AFTER THE WELD HAS COOLED, THE WELD SHALL BE TESTED BY STRIKING THE WELD WITH A 2-LB HAMMER WHILE PULLING FIRMLY ON THE WIRE. ALL UNSOUND WELDS SHALL BE CLEANED, RE-WELDED, AND RE-TESTED. ALL WELD SLAG SHALL BE REMOVED

G. COATING OF WELDS: THE AREA TO BE COATED SHALL BE CLEAN AND COMPLETELY DRY. APPLY A PRIMER SPECIFICALLY INTENDED FOR USE WITH AN EXOTHERMIC WELD CAP. APPLY THE WELD CAP AND A BITUMINOUS MASTIC COATING MATERIAL TO ALL EXPOSED AREAS AROUND THE CAP IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE COATING SHALL OVERLAP THE STRUCTURE COATING BY A MINIMUM OF 3 INCHES. ALL COATINGS MUST BE ABLE TO CURE PER MANUFACTURER'S RECOMMENDATIONS BEFORE BACKFILLING OR PUTTING INTO SERVICE.

H. COATING REPAIRS: COATINGS SHALL BE REPAIRED IN THE FIELD PER THE COATING MANUFACTURER'S RECOMMENDATIONS. ALL COATING REPAIRS MUST BE APPROVED BY THE ENGINEER

3.6 BOND WIRES

A. NON-WELDED JOINT BOND WIRES: TWO NO. 6 HMWPE BOND WIRES ARE REQUIRED ACROSS EACH NON-INSULTING, IN-LINE VALVE; A THIRD NO. 6 HMWPE BOND WIRE IS REQUIRED FROM THE VALVE TO ONE OUTER FLANGE AS SHOWN IN THE DRAWINGS. ADDITIONALLY, ALL NON-WELDED PIPE JOINTS AND ALL NON-INSULATING FLANGES, COUPLINGS, ADAPTERS, AND SPECIALS SHALL HAVE BOND WIRES INSTALLED. THE BOND WIRES SHALL BE ATTACHED USING THE EXOTHERMIC WELD PROCESS. BOND WIRES SHALL HAVE SOME SLACK WIRE AT EACH WELD TO ALLOW FOR CREEP WHEN BACKFILLING

3.7 EXTERNAL COATING

A. ALL INSULATING FLANGES SHALL BE COVERED WITH A 3-LAYER WAX TAPE COATING SYSTEM PER AWWA C217 WITH PLASTIC OUTER WRAP. ADDITIONALLY, ALL IN-LINE VALVES, FLANGES, COUPLINGS, AND ADAPTERS THAT ARE NOT COATED WITH A BONDED DIELECTRIC COATING SHALL BE WAX TAPE COATED PER AWWA C217 WITH PLASTIC OUTER WRAP

B. PRIMER: SURFACES MUST BE CLEANED OF ALL DIRT, GRIME, AND DUST BY USING A WIRE BRUSH AND CLEAN CLOTH. THE SURFACE SHALL BE DRY. APPLY THE PRIMER BY HAND OR BRUSH. A THIN COATING OF PRIMER SHALL BE APPLIED TO ALL SURFACES AND WORKED INTO ALL CREVICES. THE PRIMER SHALL BE APPLIED GENEROUSLY AROUND BOLTS, NUTS, AND THREADS, AND SHALL FULLY COVER ALL EXPOSED AREAS. THE PRIMER SHOULD OVERLAP THE PIPE COATING BY A MINIMUM OF 3-INCHES

C. PETROLATUM SATURATED TAPE: THE WAX TAPE CAN BE APPLIED IMMEDIATELY AFTER THE PRIMER. SHORT LENGTHS OF TAPE SHALL BE CUT AND CAREFULLY MOLDED AROUND EACH INDIVIDUAL BOLT, NUT, AND STUD END. FOR LONG BOLTS (SUCH AS IN COUPLINGS), SHORT LENGTHS OF TAPE SHALL BE CUT AND CIRCUMFERENTIALLY WRAPPED AROUND EACH INDIVIDUAL BOLT. AFTER THE BOLTS ARE COVERED, THE TAPE SHALL BE CIRCUMFERENTIALLY WRAPPED AROUND THE FLANGE WITH SUFFICIENT TENSION TO PROVIDE CONTINUOUS ADHESION WITHOUT STRETCHING THE TAPE. THE TAPE SHALL BE FORMED, BY HAND, INTO ALL VOIDS AND SPACES. THERE SHALL BE NO VOIDS OR GAPS UNDER THE TAPE. THE TAPE SHALL BE APPLIED WITH A 1-INCH MIN OVERLAP

D. OUTER COVERING: A PLASTIC OUTER COVER SHALL BE APPLIED OVER THE PETROLATUM-SATURATED TAPE. THE PLASTIC SHALL BE A MINIMUM 50-GAUGE (10 MILS) AND SHALL HAVE TWO LAYERS APPLIED.

PART 4 - TESTING AND INSPECTION:

A. THE CONTRACTOR'S CORROSION ENGINEER SHALL SUBMIT HIS PROPOSED TEST PROCEDURES TO THE ENGINEER AT LEAST FIVE DAYS IN ADVANCE OF THE TIME THAT THE CATHODIC PROTECTION SYSTEM TESTING IS SCHEDULED. THE ENGINEER OR THE OWNER'S REPRESENTATIVE SHALL WITNESS ALL TESTING AT THEIR DISCRETION. ALL TEST DATA SHALL BE SUBMITTED TO THE ENGINEER WITHIN SEVEN DAYS OF THE COMPLETION OF THE TESTING. ALL TESTING SHALL BE CONDUCTED UNDER THE SUPERVISION OF A QUALIFIED CORROSION ENGINEER WHO IS RETAINED BY THE CONTRACTOR. ALL DEFICIENCIES FOUND TO BE DUE TO FAULTY MATERIALS OR WORKMANSHIP SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AND AT HIS/HER EXPENSE

4.1 TEST LEADS

A. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TEST ALL TEST LEADS.

B. TEST METHOD: ALL COMPLETED WIRE CONNECTION WELDS SHALL BE TESTING BY STRIKING THE WELD WITH A 2-LB HAMMER WHILE PULLING FIRMLY ON THE WIRE WELDS FAILING THIS TEST SHALL BE RE-WELDED AND RE-TESTED. WIRE WELDS SHALL BE SPOT TESTED BY THE ENGINEER. AFTER BACKFILLING THE PIPE, ALL TEST LEAD PAIRS SHALL BE TESTING USING A STANDARD OHMETER

C. ACCEPTANCE: THE RESISTANCE BETWEEN EACH PAIR OF TEST LEADS SHALL NOT EXCEED 150% OF THE TOTAL WIRE RESISTANCE AS DETERMINED FROM PUBLISHED WIRE DATA.

4.2 ANODE INSTALLATIONS

A. THE CONTRACTOR SHALL ENSURE THAT THE ANODE PRE-PACKED BACKFILL OR SACK IS NOT DAMAGED AND THAT THE ANODE LEAD WIRE IS PROPERLY ATTACHED. THE CONTRACTOR'S CORROSION ENGINEER SHALL INSPECT EACH ANODE BAG AND ANODE LEAD WIRE FOR INTEGRITY BEFORE THE ANODE IS INSTALLED IN THE ANODE HOLE. ADDITIONALLY, THE CORROSION ENGINEER SHALL VERIFY ANODE HOLE DEPTHS. THE ENGINEER OR THE OWNER'S REPRESENTATIVE SHALL INSPECT AND TEST THE ANODE INSTALLATIONS AT THEIR DISCREPANCY.

B. TEST METHOD: A VISUAL INSPECTION OF ANODE LEAD WIRES, ANODE PRE-PACKED BACKFILL, AND ANODE HOLE DEPTHS (USING TAPE MEASURE). OBTAIN OPEN CIRCUIT ANODE POTENTIALS USING A HIGH IMPEDANCE VOLT METER AND COPPER/COPPER SULFATE REFERENCE ELECTRODE.

C. ACCEPTANCE: ALL ANODE LEADS ARE PROPERLY ATTACHED (WITH NO SPLICES), ANODE HOLE DEPTHS VERIFIED, AND OPEN CIRCUIT ANODE POTENTIALS ARE IN COMPLIANCE WITH THIS SPECIFICATION. DAMAGED TEST LEADS AND DAMAGED PRE-PACKED ANODE BACKFILL BAGS SHALL BE REJECTED AND REMOVED FROM THE PROJECT SITE

4.3 TEST LEAD TRENCHING

A. THE ENGINEER, AT HIS/HER DISCRETION, SHALL INSPECT WIRE TRENCHES AND BACKFILL MATERIAL AND METHODS.

B. TEST METHOD: THE DEPTH, TRENCH BOTTOM, PADDING, AND BACKFILL MATERIAL SHALL BE VISUALLY INSPECTED PRIOR TO BACKFILLING.

C. ACCEPTANCE: CONFORMANCE WITH SPECIFICATIONS.

4.4 PIPELINE CONTINUITY THROUGH IN-LINE APPURTENANCES AND PIPE JOINTS

A. THE CONTRACTOR'S CORROSION ENGINEER SHALL MEASURE THE LINEAR RESISTANCE OF SECTIONS OF PIPE IN WHICH IN-LINE VALVES, NON-WELDED PIPE JOINTS, OR OTHER FLANGED MECHANICAL JOINTS HAVE BEEN INSTALLED. ALL TESTING SHALL BE DONE BY THE CORROSION ENGINEER IN THE PRESENCE OF THE ENGINEER.

B. TEST METHOD: RESISTANCE SHALL BE MEASURED BY THE LINEAR RESISTANCE METHOD. A DIRECT CURRENT SHALL BE IMPRESSED FROM ONE END OF THE TEST SECTION TO THE OTHER (TEST STATION TO TEST STATION). A VOLTAGE DROP IS MEASURED FOR A GIVEN CURRENT LEVEL. THE MEASURED RESISTANCE (R) IS CALCULATED USING THE EQUATION R=DV/I, WHERE DV IS THE VOLTAGE DROP BETWEEN THE TEST SPAN AND I IS THE CORRESPONDING CURRENT. THE RESISTANCE SHALL BE MEASURE FOR AT LEAST THREE TIMES FOR ACCURACY.

C. ACCEPTANCE: ACCEPTANCE IS A COMPARISON BETWEEN THE MEASURED RESISTANCE (FROM THE FIELD TEST DATA) AND THE THEORETICAL RESISTANCE. THE THEORETICAL RESISTANCE MUST CONSIDER THE PIPE (LENGTH AND WALL THICKNESS) AND THE RESISTANCE OF THE BOND WIRES. THE MEASURED RESISTANCE SHALL NOT EXCEED THE THEORETICAL RESISTANCE BY MORE THAN 130% TO DETERMINE ELECTRICAL CONTINUITY. THE CONTRACTOR'S CORROSION ENGINEER SHALL SUBMIT, WITHIN SEVEN DAYS OF THE COMPLETION OF THE TESTING, AND IN A REPORT FORMAT, TO THE ENGINEER, ALL CALCULATIONS OF THE THEORETICAL RESISTANCE AND MEASURED PIPE RESISTANCE FOR EACH SECTION TESTED

4.5 CATHODIC PROTECTION PERFORMANCE

A. THE CATHODIC PROTECTION SYSTEM SHALL BE ACTIVATED AND TESTED BY THE CONTRACTOR'S CORROSION ENGINEER IN THE PRESENCE OF THE ENGINEER

B. TEST METHOD: THE INSTALLED CATHODIC PROTECTION SYSTEM TESTING SHALL INCLUDE: NATIVE (STATIC) PIPE-TO-SOIL POTENTIALS, OPEN CIRCUIT ANODE POTENTIALS, ACTIVATED PIPE-TO-SOIL POTENTIALS, TEST LEAD TO TEST LEAD RESISTANCE MEASUREMENTS, AND ANODE CURRENT OUTPUT MEASUREMENTS.

C. ACCEPTANCE: SHALL BE BASED ON ACHIEVING THE -850MV POLARIZED POTENTIAL CRITERION AS OUTLINED IN NACE SP0169. ALL DATA SHALL BE SUBMITTED, IN A TYPE 8 1/2 X 11 INCH REPORT TO THE ENGINEER FOR ACCEPTANCE BEFORE THE PROJECT IS CONSIDERED COMPLETE.

4.6 COMPLIANCE WITH SPECIFICATIONS.

A. DEFICIENCIES OR OMISSIONS IN MATERIALS OR WORKMANSHIP FOUND BY THESE TESTS SHALL BE RECTIFIED AT THE CONTRACTOR'S EXPENSE. DEFICIENCIES SHALL INCLUDE BUT ARE NOT LIMITED TO: BROKEN LEADS, IMPROPER OR UNCLEAN TRENCHES, LACK OF 18-INCH OR BLACK WIRE IN TEST BOXES, IMPROPERLY MOUNTED TEST BOXES, IMPROPER ANODE INSTALLATIONS (INCLUDING SOAKING), AND OTHER DEFICIENCIES ASSOCIATED WITH THE WORKMANSHIP, INSTALLATION, AND NON-FUNCTIONING EQUIPMENT.

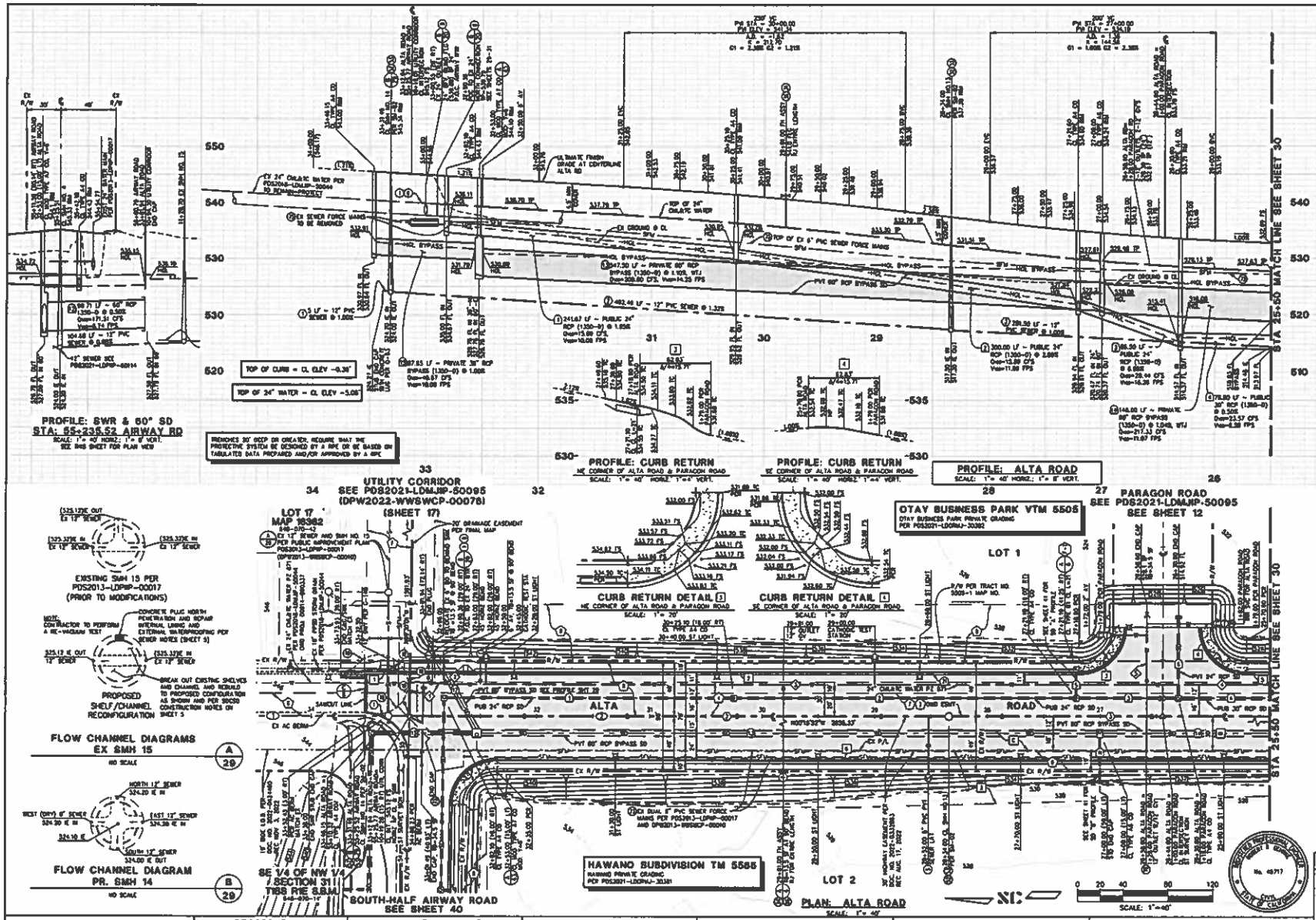
"END OF SECTION"

NOTE:
REVIEW OF THESE PLANS BY THE COUNTY OF SAN DIEGO IS FOR BONDING PURPOSES ONLY.

IMPORTANT NOTICE
CALL TOLL FREE
TWO WORKING DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT
1-800-227-2600

ch2m

| RECORD PLAN | O.W.D. "AS-BUILT" | OTAY WATER DISTRICT | OTA



CENTERLINE DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	BEARING
1	N00°13'30"W	--	--	ON ALTA ROAD
2	N00°13'30"W	--	763.64'	ON ALTA ROAD

CURB DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	BEARING
1	N00°13'30"W	--	50.00'	6" TYPE "A" CURB
2	N00°13'30"W	--	17.17'	6" TYPE "A" CURB
3	N00°13'30"W	--	17.17'	6" TYPE "A" CURB
4	C-R00°00'00"	40.00'	63.83'	6" TYPE "A" CURB
5	C-R00°00'00"	40.00'	63.83'	6" TYPE "A" CURB
6	N00°13'30"W	--	50.00'	6" TYPE "A" CURB
7	N00°13'30"W	--	20.00'	6" TYPE "A" CURB
8	N00°13'30"W	--	155.00'	6" TYPE "A" CURB

WATER DATA

PZ 871

NO.	BEARING-DELTA	RADIUS	LENGTH	BEARING
1	N00°13'30"W	--	7.00'	24" CMLAC W/ 3/4" CL 52
2	N00°13'30"W	--	17.17'	24" CMLAC W/ 3/4" CL 52
3	N00°13'30"W	--	17.17'	24" CMLAC W/ 3/4" CL 52
4	N00°13'30"W	--	155.00'	24" CMLAC W/ 3/4" CL 52
5	N00°13'30"W	--	61.00'	12" PVC C900 DR18

ALL STEEL JOINTS TO BE WELDED. SEE CONSTRUCTION NOTE 63.
SEE CONSTRUCTION DETAILS, SHEETS 30-31.
-ALL CURVES, HORIZONTAL AND VERTICAL, SHALL USE HIGH DEFLECTION COUPLING PER SWA STANDARD SPECIFICATION 13064-1.03.C
-SUPPORTS BLOCKS ARE REQUIRED FOR ALL TEES, CROSSED AND OVS

OTAY WATER DISTRICT CONNECTION NOTES:

A. CONTRACTOR TO PERFORM ALL WORK AND PROCEED WITH RE-IN WORK AS IS GROUND. CONTRACTOR TO COMPLETE EACH TIE-IN TO RESTORE SERVICE BEFORE PROCEEDING TO NEXT TIE-IN OR SEVERING EXISTING PIPING. OTAY WATER DISTRICT TO DO NO WORK. SEE SHEET 30 FOR CONNECTION DETAIL 4, SHEET 30 FOR PROPOSED 24" CMLAC CONNECTION TO EXISTING 24" STEEL AT STA 30+93.30
C. CATHODIC PROTECTION AS PER SHEETS 26-28.

PUBLIC STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	BEARING
1	N00°13'30"W	--	53.00'	24" RCP (1350-0)
2	N00°13'30"W	--	300.00'	24" RCP (1350-0)
3	N00°13'30"W	--	34.00'	24" RCP (1350-0)
4	N00°13'30"W	--	78.00'	30" RCP (1350-0)
5	N00°13'30"W	--	31.00'	18" RCP (1350-0)

PRIVATE STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	BEARING
8	N00°13'30"W	--	71.00'	24" RCP (1350-0)
9	N00°13'30"W	--	41.00'	24" RCP (1350-0)
10	N00°13'30"W	--	71.00'	24" RCP (1350-0)
11	N00°13'30"W	--	41.00'	24" RCP (1350-0)
12	N00°13'30"W	--	57.00'	48" RCP (1350-0)
13	N00°13'30"W	--	148.00'	48" RCP (1350-0)
14	N00°13'30"W	--	148.00'	48" RCP (1350-0)
15	N00°13'30"W	--	17.00'	36" RCP (1350-0)

SEE DATA ---------- FOR PRIVATE STORM DRAIN IN PUBLIC R/W

SEWER GRAVITY MAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	BEARING
1	N00°13'30"W	--	5.00'	12" PVC SDR-35
2	N00°13'30"W	--	103.41'	12" PVC SDR-35
3	N00°13'30"W	--	103.41'	12" PVC SDR-35
4	N00°13'30"W	--	103.41'	12" PVC SDR-35

-ALL PVC SEWER PIPE SHALL CONFORM TO SDGMO PER REGIONAL STD. DWG. SP-402.
-SEE SEWER NOTES ON SHEET 3

EXISTING EASEMENT NOTES

(1) SEE SHEET 2 FOR EXISTING EASEMENT NOTES.

CONSTRUCTION NOTES

(1) PROTECT IN PLACE, REPAIR OR REPLACE ANY IMPROVEMENT TO REMAIN TO THE SATISFACTION OF THE COUNTY ENGINEER
(2) CONTRACTOR TO POTHOLE AND LOCATE THE WATER JOINTS ON BOTH SIDES OF THE WATER PIPE. LOCATION SHALL CONSIST OF SURVEY HORIZONTAL & VERTICAL LOCATIONS OF THE WATER PIPE JOINTS AT THE TOP OF PIPE. CONTRACTOR SHALL PROVIDE PHOTOGRAPH & HAND SKETCH SHOWING LOCATION OF PIPE & SURVEY.
(3) REMOVE EXISTING BARRICADE.
(4) REMOVE EXISTING TYPE 1 CB AND ABANDONED IN PLACE 85+/- LF OF EXISTING 18" PVSD STORM DRAIN PER GRADEBOOK SPECS.
(5) REMOVE ALL INTERFERING PORTIONS OF EXISTING TEMPORARY TURNAROUND, AC BERM AND PAVEMENT. LIMIT OF EXISTING AC PAVEMENT/BASE REMOVAL WILL BE DETERMINED BY WIDTH OF TRENCH EXCAVATION NECESSARY FOR SEWER AND SEWER MANHOLE CONSTRUCTION. PROVIDE SMOOTH TRANSITION TO EXISTING PAVEMENT - SEE DETAIL C, SHEET 8.
(6) 6" TYPE "A" CURB AND GUTTER PER D-2.
(7) ALL FIRE HYDRANT INSTALLATIONS SHALL CONFORM TO ITEM 16 "CONCRETE SUPPORT BLOCK", SHOWN ON DETAIL A, SHEET 4.
(8) EXTERIOR WATER PROOFING PER SEWER NOTE 19 ON SHEET 3 AND SDG30 NOTES ON SHEET 3.
(9) MANHOLE INTERIOR COATING AND LINING SYSTEM PER RSD SM-07 (MODIFIED) -SEE SEWER NOTE 20 ON SHEET 3.
(10) INSTALL RESTRAINED JOINTS ENTIRE LENGTH OF SERVICE SHOWN NOTED.
(11) SEWER FORCE MAIN TO BE ABANDONED. CAP ENDS AND BLURRY FILL.
(12) CUT AND REMOVE EXISTING FORCE MAINS WHERE SHOWN. CAP ENDS OF EX SFM TO REMAIN. IF FORCE MAINS ARE OPERATIONAL, CONTRACTOR TO PROVIDE A PLAN TO HANDLE THE SEWAGE DURING CONSTRUCTION. PLAN WILL PROVIDE TEMP HIGH LINE AND OR HAULING OF SEWAGE. PLAN TO BE SUBMITTED & APPROVED BY CDW & COUNTY SANITATION 30 DAYS PRIOR TO COMMENCING WORK.
(13) SUPPORT BLOCKS ARE REQUIRED FOR ALL TEES, CROSSES, DATE VALVES & BFVs.

PRIVATE CONTRACT

SHEET	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS
29		

ALTA ROAD IMPROVEMENT PLAN FOR:

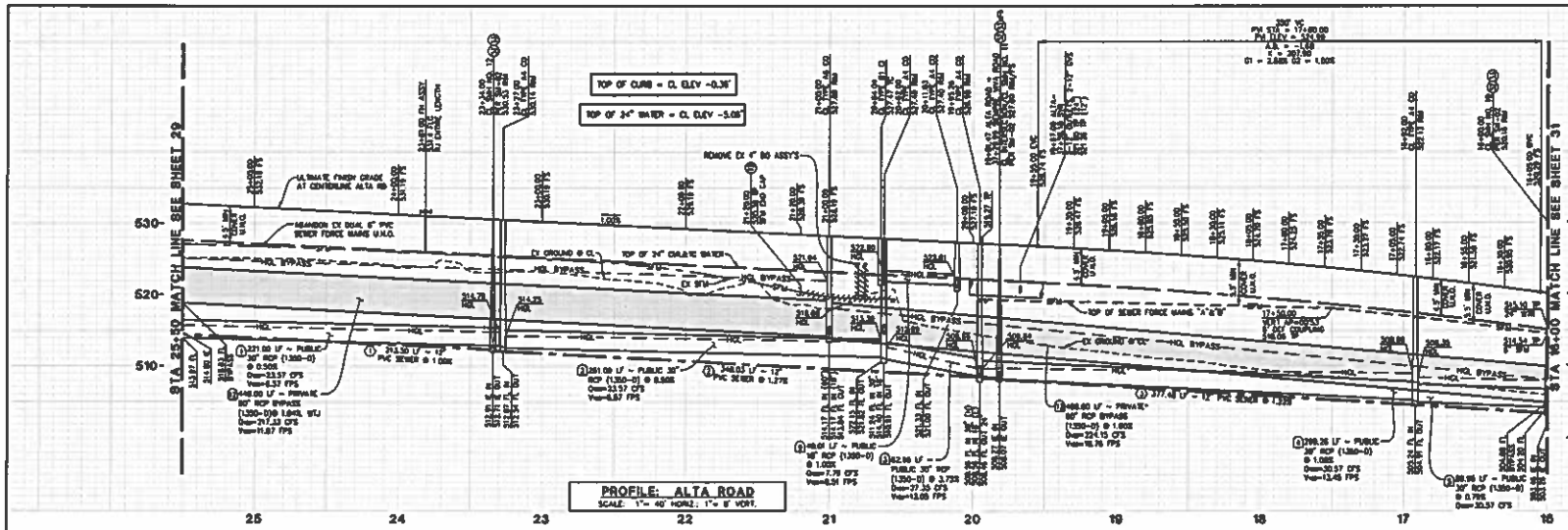
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5585
CALIFORNIA COORDINATE INDEX 138-1791

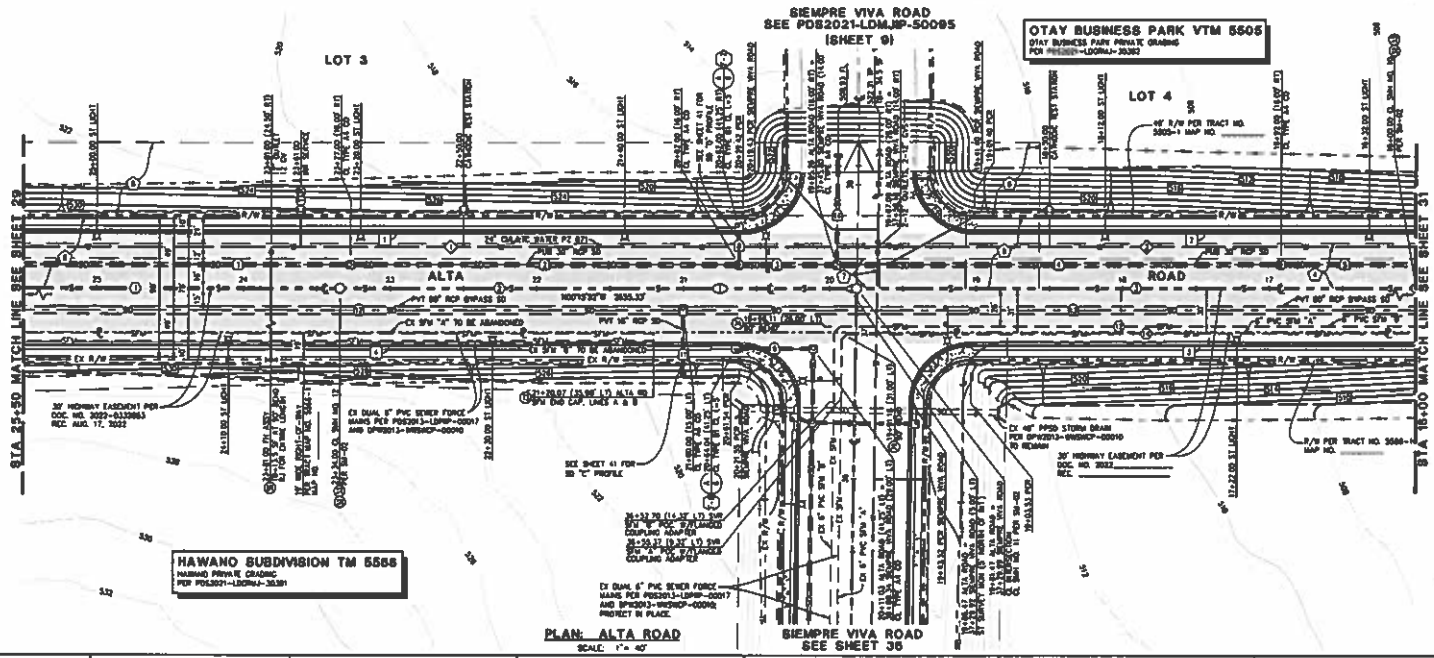
APPROVED FOR PUBLIC WORKS — DATE 1/9/23
IMPROVEMENT PLAN NO. PDS2021-LDPMP-60114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr. Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. GEHRKE RCE 45717 DATE	SIGNATURE DATE; ROBERT R. GEHRKE; PRINTED NAME; LICENSE NO. 45717; REGISTRATION EXPIRATION; CIVIL; DISCIPLINE	PROJECT NO. 0113Z-090574; PERMIT NO. DEV-22-009; P.I. 621; REVIEWED BY; DATE 12/8/2022	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CENTERLINE AIRWAY RD 30 SOUTH OF ABL; RECORD FROM: R.O.S. 14841, P.I. NO. 4022; ELEVATION: 670.69; DATUM: NGVD '29

OWD PROJECT: 0113Z-090574
OWD PERMIT: DEV-22-009





CENTERLINE DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'53"W	--	[illegible]	FROM NO. ALTA ROAD

CURB DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'53"W	--	[illegible]	[illegible]
2	N00°13'53"W	--	[illegible]	[illegible]
3	N00°13'53"W	--	[illegible]	[illegible]
4	N00°13'53"W	--	[illegible]	[illegible]
5	N00°13'53"W	--	[illegible]	[illegible]

WATER DATA PZ 871

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'53"W	--	[illegible]	[illegible]
2	N00°13'53"W	--	[illegible]	[illegible]
3	N00°13'53"W	--	[illegible]	[illegible]

ALL STEEL JOINTS TO BE WELDED. SEE CONSTRUCTION NOTE 63.
SEE CONSTRUCTION DETAILS, SHEETS 30-38.

OTAY WATER DISTRICT CONNECTION NOTES:

A. CONTRACTOR TO PERFORM ALL WORK AND PROCEED WITH TIE-IN WORK AS IS ENGINEER, CONTRACTOR TO COMPLETE EACH TIE-IN TO RESTORE SERVICE BEFORE PROCEEDING TO NEXT TIE-IN OR REMOVING EXISTING PIPING. OTAY WATER DISTRICT TO DO NO WORK.
B. CATHODIC PROTECTION AS PER SHEETS 35-38.

PUBLIC STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'53"W	--	[illegible]	[illegible]
2	N00°13'53"W	--	[illegible]	[illegible]
3	N00°13'53"W	--	[illegible]	[illegible]
4	N00°13'53"W	--	[illegible]	[illegible]
5	N00°13'53"W	--	[illegible]	[illegible]
6	N00°13'53"W	--	[illegible]	[illegible]
7	N00°13'53"W	--	[illegible]	[illegible]
8	N00°13'53"W	--	[illegible]	[illegible]
9	N00°13'53"W	--	[illegible]	[illegible]

PRIVATE STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
11	N00°13'53"W	--	[illegible]	[illegible]
12	N00°13'53"W	--	[illegible]	[illegible]
13	N00°13'53"W	--	[illegible]	[illegible]
14	N00°13'53"W	--	[illegible]	[illegible]

SIZE DIRA _____ FOR PRIVATE STORM DRAIN IN PUBLIC R/W

SEWER GRAVITY MAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'53"W	--	[illegible]	[illegible]
2	N00°13'53"W	--	[illegible]	[illegible]
3	N00°13'53"W	--	[illegible]	[illegible]

- ALL PVC SEWER PIPE SHALL CONFORM TO BEDDING PER REGIONAL STD. DWG. SP-02
- SEE SEWER NOTES ON SHEET 3

SEWER FORCE MAIN DATA C900

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
12	N00°13'53"W	--	[illegible]	[illegible]
13	N00°13'53"W	--	[illegible]	[illegible]

- ALL PVC SEWER PIPE SHALL CONFORM TO BEDDING PER REGIONAL STD. DWG. SP-02 (U.N.O.)
- SEE SEWER FORCE MAIN NOTES ON SHEETS 3

EXISTING EASEMENT NOTES

(1) SEE SHEET 2 FOR EXISTING EASEMENT NOTES.

CONSTRUCTION NOTES

(3) EXTERIOR WATER PROOFING PER SEWER NOTE 10 ON SHEET 3 AND SEC30 NOTES ON SHEET 3.
(5) MANHOLE INTERIOR COATING AND LINING SYSTEM PER RSD SM-07 (MODIFIED) - SEE SEWER NOTE 20 ON SHEET 3
(6) INSTALL RESTRAINED JOINTS ENTIRE LENGTH OF SERVICE WHERE NOTED.
(7) SEWER FORCE MAIN TO BE ABANDONED. CAP ENDS AND SLURRY FILL.
(8) 24" RESTRAINED JOINTS, 12' FRONT AND BACK. STAINLESS STEEL HARDWARE REQUIRED FOR ALL RESTRAINED JOINTS ON STM. SEE SEWER FORCE MAIN NOTES ON SHEET 3.

0 20 40 80 120
SCALE: 1"=40'

PRIVATE CONTRACT

SHEET 30	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

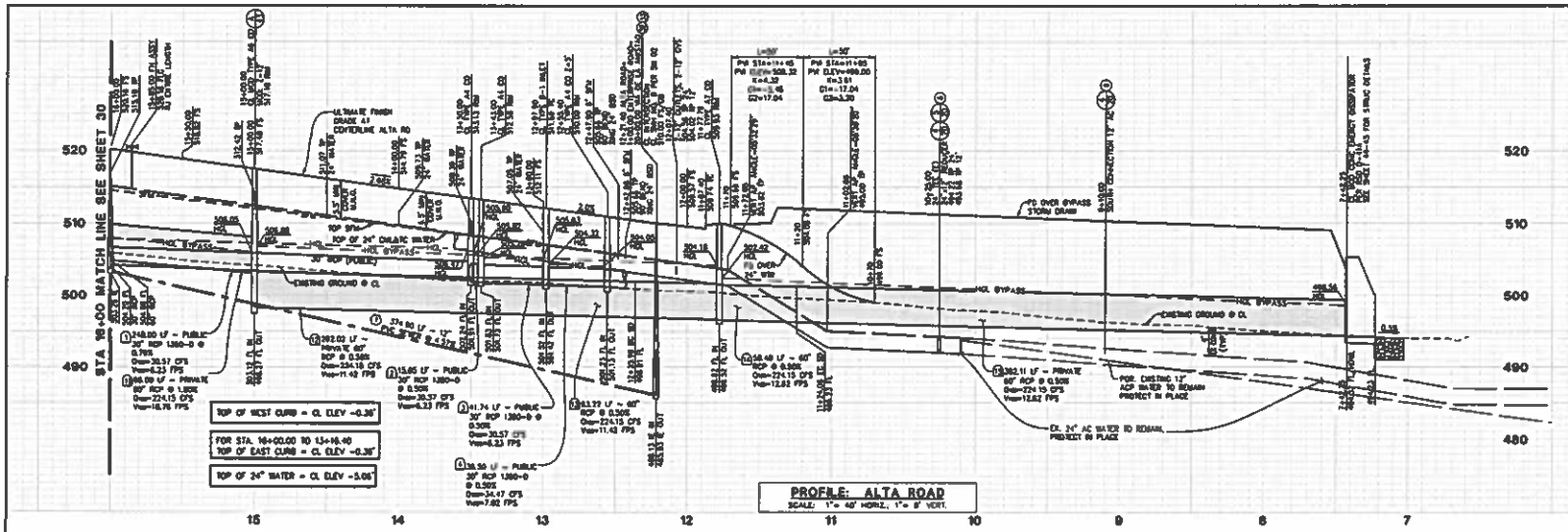
ALTA ROAD IMPROVEMENT PLAN FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5588
CALIFORNIA COORDINATE INDEX 136-1791

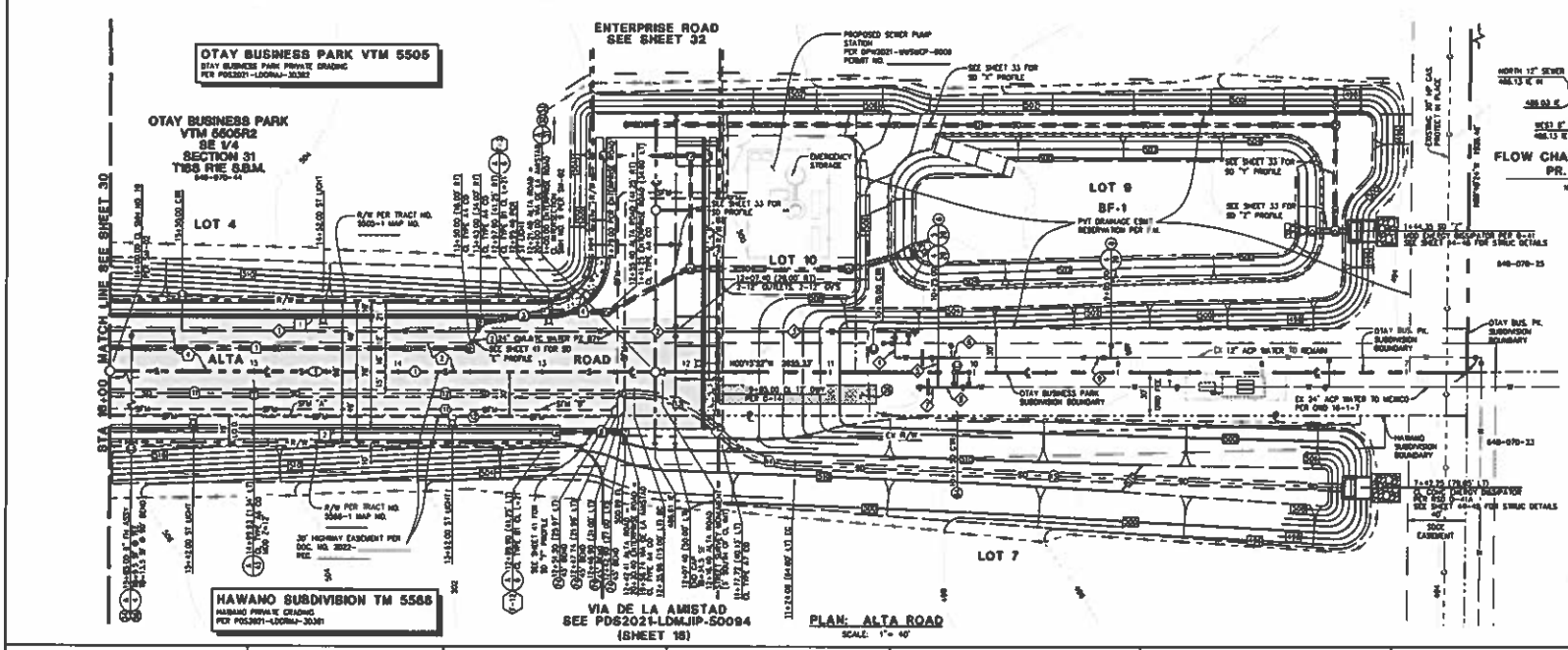
RECOMMENDED FOR APPROVAL: _____ DATE 10/6/23
APPROVED FOR PUBLIC WORKS: _____ DATE 10/6/23
DESIGNED BY: _____ PROJECT ENGINEER: _____
IMPROVEMENT PLAN NO. PDS2021-LDMIP-50114

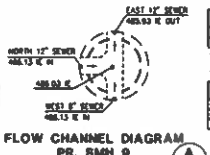
STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr. Ste 200
San Diego, CA 92123
858.694.5860 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT G. GEHRKE DATE RCE 45717	SIGNATURE DATE; PRINTED NAME ROBERT G. GEHRKE; REGISTRATION EXPIRATION; LICENSE NO. 45717 CIVIL DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.I. 871; REVIEWED BY; 10/6/2023 DATE	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE MON. MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI. NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 50' TO TOP OF HILL; RECORD FROM: R.O.S. 14841, PT. NO. 4022; ELEVATION: 676.89; DATUM: NGVD '29

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009







CENTERLINE DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'32"W	---	379.69'	ON ALTA ROAD

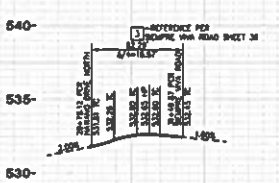
CURB DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'32"W	---	304.69'	6" TYPE "A" CURB
2	N00°13'32"W	---	313.69'	6" TYPE "A" CURB

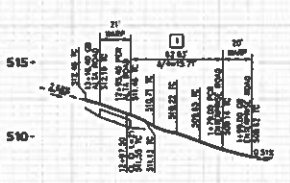
WATER DATA PZ 671

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'32"W	---	32.50'	24" CMLS&C, 3.5, 1=0.25°
2	N00°13'32"W	---	157.50'	24" CMLS&C, 3.5, 1=0.25°
3	N00°13'32"W	---	32.50'	24" CMLS&C, 3.5, 1=0.25°
4	N00°13'32"W	---	32.50'	24" CMLS&C, 3.5, 1=0.25°
5	N00°13'32"W	---	32.50'	24" CMLS&C, 3.5, 1=0.25°

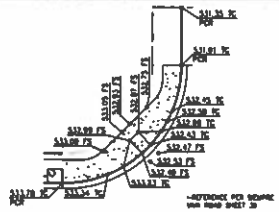
PROFILE: CURB RETURN
NW CORNER OF SIEMPRE VIVA ROAD & HAWANO DRIVE NORTH
SCALE: 1"= 40' HORIZ. 1"=4' VERT.



PROFILE: CURB RETURN
NE CORNER OF SIEMPRE VIVA ROAD & HAWANO DRIVE NORTH
SCALE: 1"= 40' HORIZ. 1"=4' VERT.

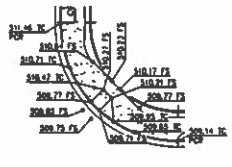


PROFILE: CURB RETURN
NE CORNER OF ENTERPRISE ROAD & ALTA ROAD
SCALE: 1"= 40' HORIZ. 1"=4' VERT.

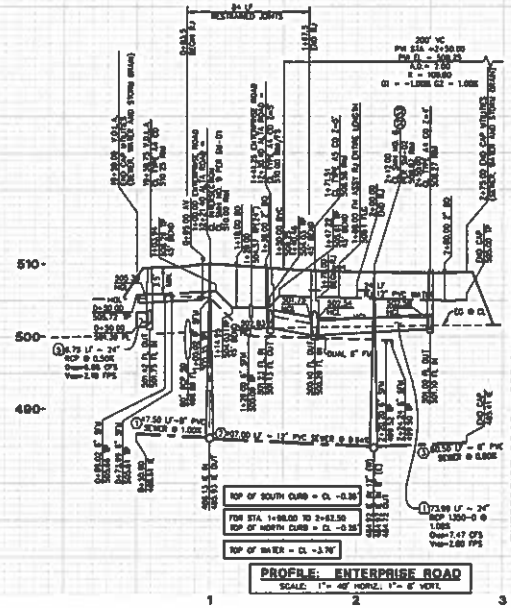


CURB RETURN DETAIL 2
NW CORNER OF SIEMPRE VIVA ROAD & HAWANO DRIVE NORTH
SCALE: 1"= 20'

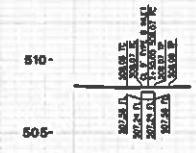
CURB RETURN DETAIL 3
NE CORNER OF SIEMPRE VIVA ROAD & HAWANO DRIVE NORTH
SCALE: 1"= 20'



CURB RETURN DETAIL 1
NE CORNER OF ENTERPRISE ROAD & ALTA ROAD
SCALE: 1"= 20'



PROFILE: ENTERPRISE ROAD
SCALE: 1"= 40' HORIZ. 1"= 8' VERT.



PROFILE: CURB INLET
NORTH AND SOUTH 2+50.00 ENTERPRISE ROAD
SCALE: 1"= 40' HORIZ. 1"=4' VERT.

CENTERLINE DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°41'00"E	--	1100.00'	CL ENTERPRISE ROAD

CURB DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	0-90°00'00"	40.00'	62.83'	18" PCP, 24" CMP
2	N89°41'00"E	--	33.00'	18" PCP, 24" CMP
3	N89°41'00"E	--	33.00'	18" PCP, 24" CMP
4	N89°41'00"E	--	200.00'	18" PCP, 24" CMP

WATER DATA CL-305 D900 D914 P2 B70

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°41'00"E	--	76.00'	12" PVC
2	N89°41'00"E	--	117.00'	12" PVC

PUBLIC STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°41'00"E	--	31.00'	24" RCP 1350-D
2	N89°41'00"E	--	34.00'	18" RCP 1350-D
3	N89°41'00"E	--	8.00'	18" RCP 1350-D

SEWER DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°41'00"E	--	47.00'	8" PVC SDR-35
2	N89°41'00"E	--	107.00'	8" PVC SDR-35
3	N89°41'00"E	--	50.00'	8" PVC SDR-35

-ALL PVC SEWER PIPE SHALL HAVE BEDDING PER REGIONAL STD. DWG. SP-02.
-SEE SEWER NOTES ON SHEET 5.

SEWER FORCE MAIN DATA D900 D914

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
12	N89°41'00"E	--	150.01'	6" PVC, LINE B
13	N00°13'20"W	--	60.01'	6" PVC, LINE B
14	N89°44'00"E	--	151.31'	6" PVC, LINE A
15	N00°13'20"W	--	90.00'	6" PVC, LINE A

-ALL PVC SEWER PIPE SHALL CONFORM TO REGIONAL STD. DWG. WP-02 (U.N.O.).
-SEE SEWER FORCE MAIN NOTES ON SHEETS 5

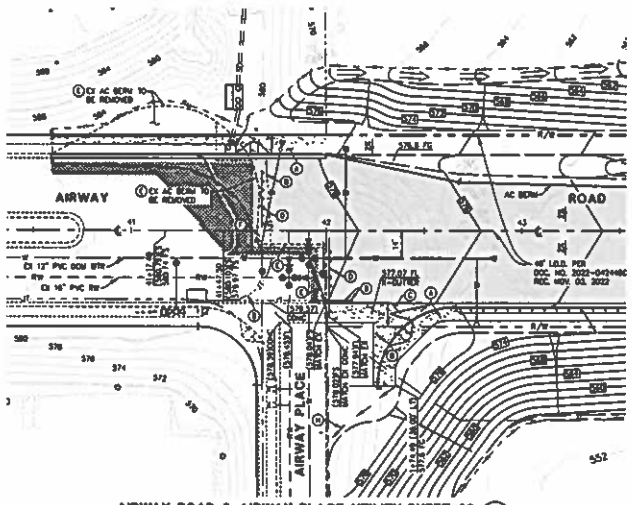
EXISTING EASEMENT NOTES

1. SEE SHEET 3 FOR EXISTING EASEMENT NOTES

CONSTRUCTION NOTES

1. EXTERIOR WATER PROOFING FOR SEWER MOVE 10 ON SHEET 3 AND 100.00 NOTES ON SHEET 3.
2. MANHOLE INTERIOR COATING AND LINING SYSTEM PER 400 SW-07 (MODIFIED) -SEE SEWER MOVE 20 ON SHEET 5.
3. INSTALL RESTRAINED JOINTS ENTIRE LENGTH OF SERVICE WHERE NOTED.
4. 24" RESTRAINED JOINTS, 12" FRONT AND BACK. STAINLESS STEEL HARDWARE REQUIRED FOR ALL RESTRAINED JOINTS ON SPM. SEE SEWER FORCE MAIN NOTES ON SHEET 5.

HAWANO SUBDIVISION TM 5566
HAWANO PUBLIC IMPROVEMENTS PER PDS2021-LDMJP-50094

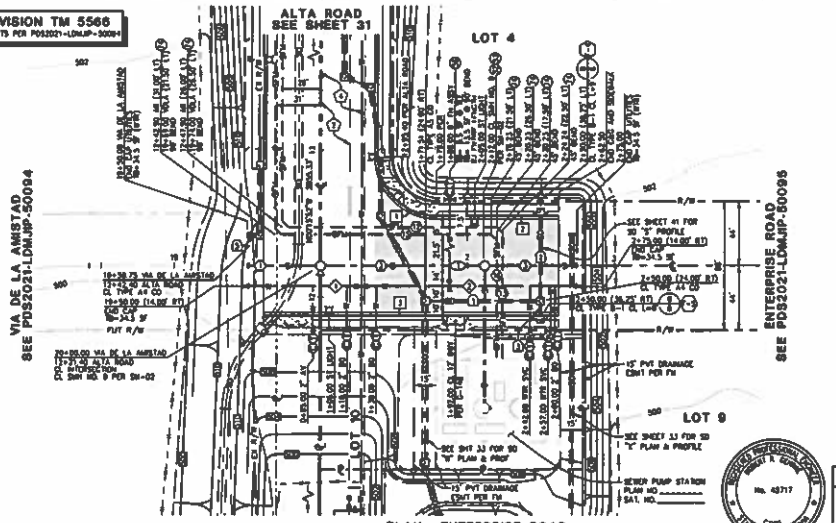


AIRWAY ROAD & AIRWAY PLACE UTILITY-SHEET 39 (A 32)
NO SCALE

DETAIL NOTES

A. REMOVE INTERFERING CONCRETE DITCH
B. CAUTION: USE ELECTRIC, HP GAS AND FLUID CONDUITS. LOCATION SHOWN APPROXIMATELY ONLY. ANY FACILITIES DAMAGED RELOCATION WILL BE BY OTHERS
C. CROSS GUTTER PER G-12, MATCH EX. FT. CL OF AIRWAY PLACE, PROVIDE SMOOTH TRANSITION TO EX.
D. REMOVE EX. BARRIER AND POST
E. SAWCUT AND REMOVE EX. AC BERM, DAMAGED/UNSUITABLE AND PAVEMENT AS NEEDED TO CONSTRUCT PROPOSED IMPROVEMENT LIMITS OF PAVEMENT REMOVAL ARE APPROXIMATE. REMOVE, GRIND EX. PAVEMENT AS REQUIRED TO PROVIDE SMOOTH TRANSITION TO EX.
F. REMOVE EX. DG SB AV AND CONNECT PROPOSED COPER SB/AV EXTENSION
G. REMOVE EX. DIG CAP, SO AND 18. P.O.C. FOR 12" PVC STUB
H. GRADE TO DRAIN TO STREET, EX. PROVIDE 3' WIDE PLANGE CUT IN EX. AC BERM AS REQUIRED.

SCALE: 1"=20'



PLAN: ENTERPRISE ROAD
SCALE: 1"= 40'

SCALE: 1"=40'

PRIVATE CONTRACT

SHEET 32	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	52 SHEETS

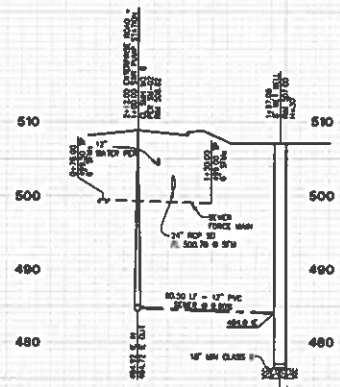
ENTERPRISE ROAD IMPROVEMENT PLAN FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5566
CALIFORNIA COORDINATE INDEX 138-1791

PDS2021-LDPMP-60114

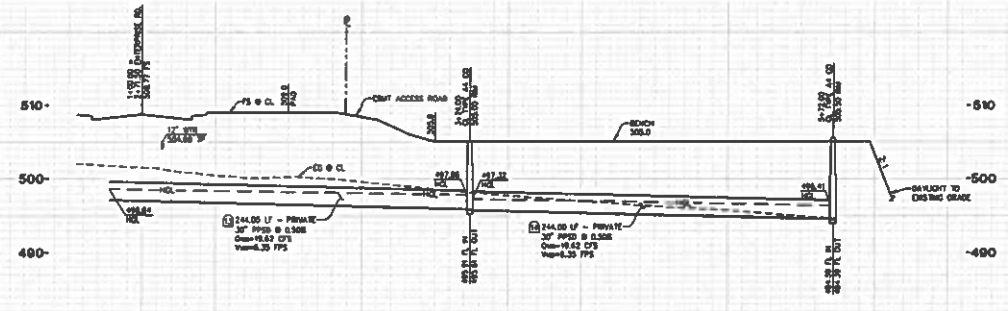
STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr. Ste 200
San Diego, CA 92123
858.694.9440 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. CEHRKE RCE 43717 DATE	SIGNATURE / PRINTED NAME ROBERT R. CEHRKE / REGISTRATION EXPIRATION 43717 / LICENSE NO. CIVIL / DISCIPLINE	PROJECT NO. 01132-090574 PERMIT NO. DEV-22-009 P.2 B70 REVIEWED BY / DATE 12/12/2022	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 58' TO TOP OF HILL RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION: 570.99 DATUM: NGVD '29

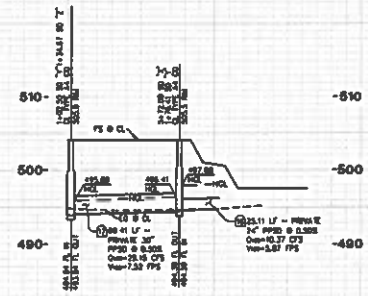
OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009



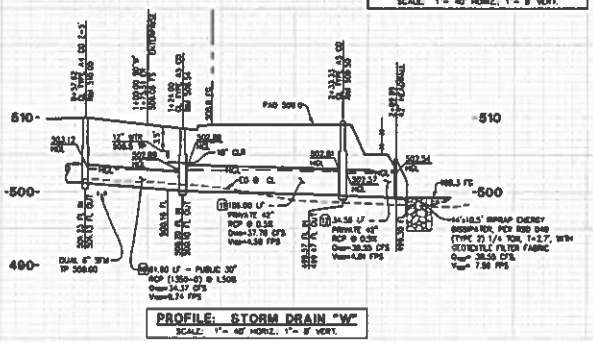
PROFILE: SEWER PUMP STATION
SCALE: 1"= 40' HORIZ.; 1"= 8' VERT.



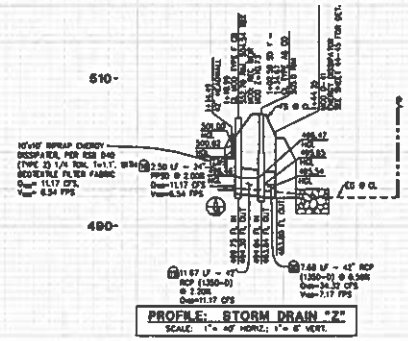
PROFILE: STORM DRAIN "X"
SCALE: 1"= 40' HORIZ.; 1"= 8' VERT.



PROFILE: STORM DRAIN "Y"
SCALE: 1"= 40' HORIZ.; 1"= 8' VERT.



PROFILE: STORM DRAIN "W"
SCALE: 1"= 40' HORIZ.; 1"= 8' VERT.



PROFILE: STORM DRAIN "Z"
SCALE: 1"= 40' HORIZ.; 1"= 8' VERT.

PRIVATE STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
11	S00°13'53"W	--	105.00'	12" RCP
12	N10°13'53"W	--	34.98'	12" RCP
13	S00°13'53"W	--	244.00'	30" PPSD
14	S00°13'53"W	--	244.00'	30" PPSD
15	S00°13'53"W	--	23.11'	12" PPSD
17	N00°44'08"E	--	69.41'	30" PPSD
18	N00°11'37"E	--	3.58'	12" PPSD
19	N00°11'38"E	--	11.27'	12" RCP (1350-0)
20	N00°11'38"E	--	7.68'	12" RCP (1350-0)

PUBLIC STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
10	S13°34'48"W	--	81.90'	30" RCP (1350-0)

-PPSD PIPE SHALL HAVE GASKET TIGHT JOINTS.
-SEE PPSD NOTES ON SHEET 6.
⊕ SEE EXHIBIT _____ FOR PRIVATE STORM DRAIN IN PUBLIC R/W

SEWER DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'53"W	--	95.50'	12" PVC SDR-26

-ALL PVC SEWER PIPE SHALL CONFORM WITH SCODING PER REGIONAL STD. DWG. SP-02.
-SEE SHEET 3 FOR SEWER NOTES

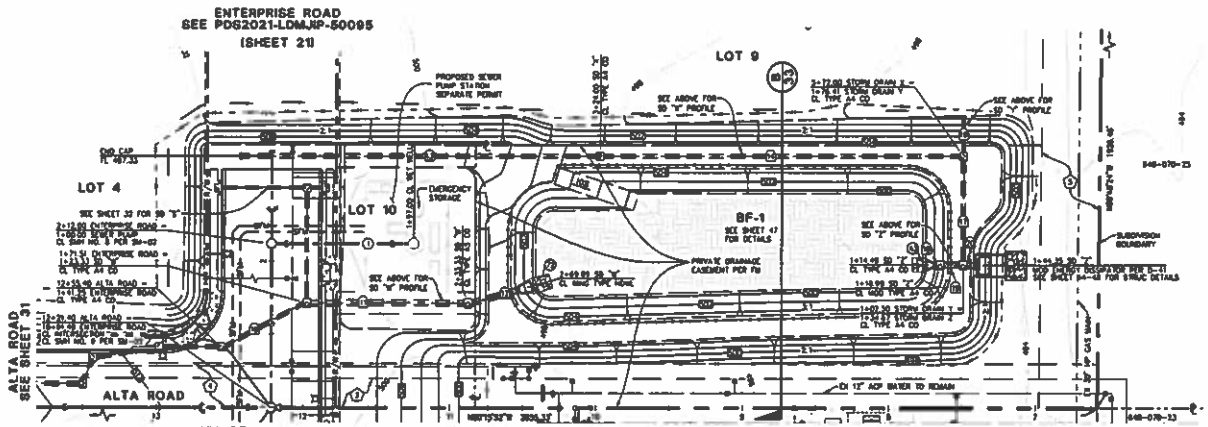
EXISTING EASEMENT NOTES

(1) SEE SHEET 2 FOR EXISTING EASEMENT NOTES.

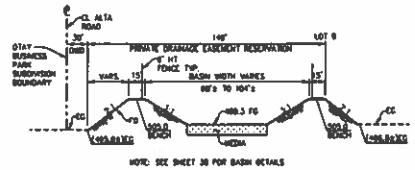
CONSTRUCTION NOTES

(6) 30' x 10' RIP RAP ENERGY DISSIPATER PER RSD D-40 (TYPE 2) NO. 2 BACKING CLASS. 1 = 1.1 FT., WITH GEOTEXTILE FILTER FABRIC BLANKET. SET TOP OF RIP RAP AT DITCH FLOW LINE.

(7) 14' X 18.5' RIP RAP ENERGY DISSIPATER PER RSD D-40 (TYPE 2) 1/4 TON CLASS. T=2.7', WITH GEOTEXTILE FILTER FABRIC BLANKET



PLAN: STORM DRAINS "W" "X" "Y" "Z"
SCALE: 1"= 40'



BASIN SECTION
NO SCALE
(B 33)

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.3660 stevenscresto.com

RECORD PLAN
ROBERT R. GEHRKE DATE
RCE 45717

COUNTY APPROVED CHANGES

NO.	DESCRIPTION	APPROVED BY	DATE

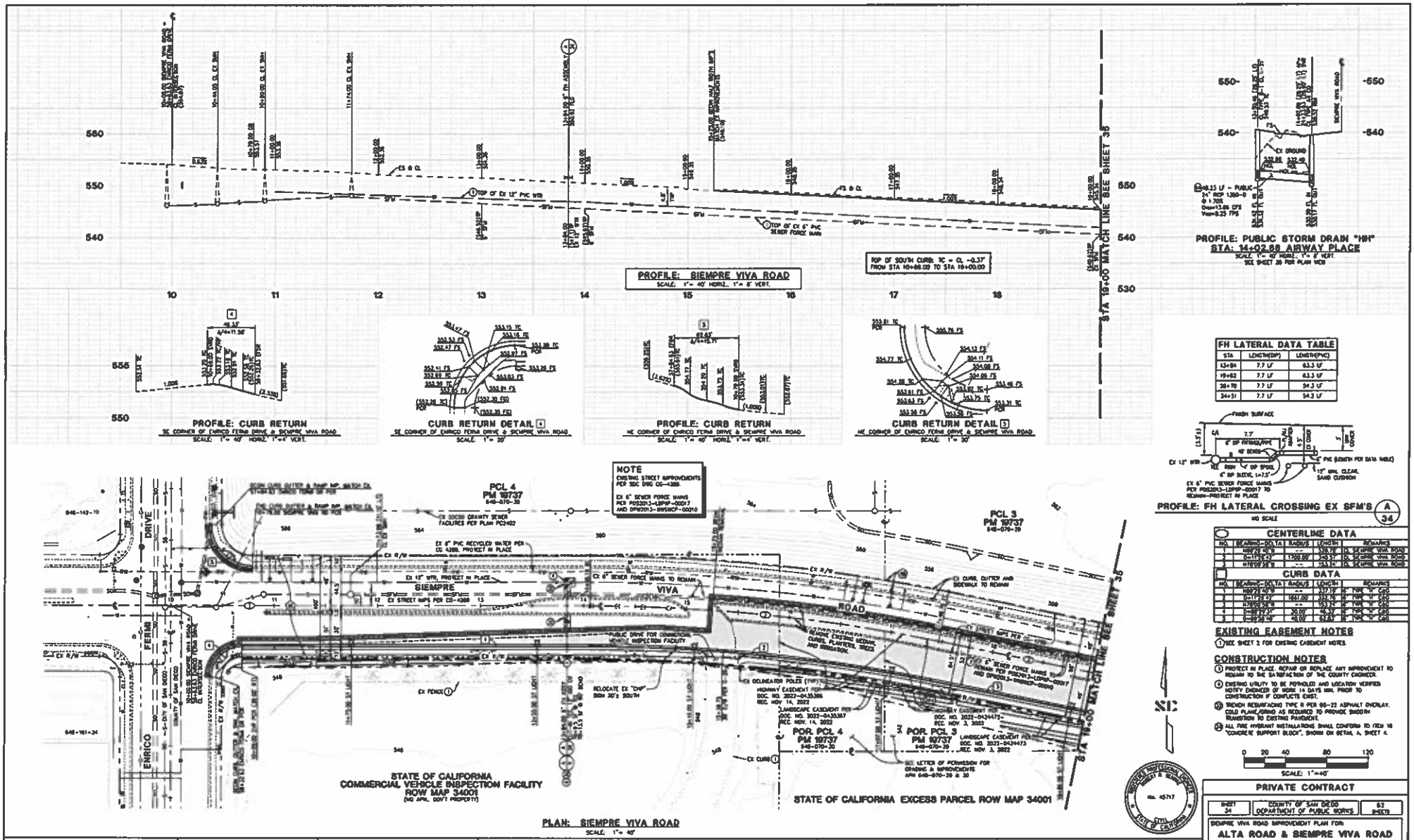
BENCH MARK
DESCRIPTION: BRASS DISC IN STREET CONCRETE MON MONUMENT
LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 M NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 50' TO TOP OF HILL
RECORD FROM: R.O.S. 14841, PT. NO. 4022
ELEVATION: 670.99 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	OF SHEETS
33		82

STORM DRAIN PROFILES & SEWER WET WELL FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & NAVANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5806 & 5808
CALIFORNIA COORDINATE INDEX 139-1791

RECOMMENDED FOR APPROVAL
APPROVED FOR TRACT 5 MONTHS
1/9/23
DEPARTMENT PLAN NO.
PDS2021-LDPMP-60114



FH LATERAL DATA TABLE		
STA	LONGTH(DIP)	LONGTH(PVC)
13+84	7.7 LF	63.3 LF
19+62	7.7 LF	63.3 LF
26+70	7.7 LF	54.3 LF
34+51	7.7 LF	54.3 LF

PROFILE: FH LATERAL CROSSING EX SFM'S (A 34)
NO SCALE

CENTERLINE DATA				
NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°29'42"E	--	332.16'	CL SIEMPRE VIVA ROAD
2	0°14'18"E	1700.00'	7.08'	CL SIEMPRE VIVA ROAD
3	N89°29'42"E	--	334.24'	CL SIEMPRE VIVA ROAD

CURB DATA				
NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°29'42"E	--	332.16'	CL PVMT, 0.37' CURB
2	90°00'00"	30.00'	47.12'	CL PVMT, 0.37' CURB
3	N89°29'42"E	--	334.24'	CL PVMT, 0.37' CURB
4	90°00'00"	30.00'	47.12'	CL PVMT, 0.37' CURB
5	S89°29'42"W	--	332.16'	CL PVMT, 0.37' CURB
6	90°00'00"	30.00'	47.12'	CL PVMT, 0.37' CURB
7	S89°29'42"W	--	334.24'	CL PVMT, 0.37' CURB
8	90°00'00"	30.00'	47.12'	CL PVMT, 0.37' CURB

EXISTING EASEMENT NOTES

(1) SEE SHEET 2 FOR EXISTING EASEMENT NOTES.

CONSTRUCTION NOTES

(2) PROTECT IN PLACE, REPAIR OR REPLACE ANY IMPROVEMENT TO REMAIN TO THE SATISFACTION OF THE COUNTY ENGINEER.

(4) EXISTING UTILITY TO BE POTHOLED AND LOCATION VERIFIED. NOTIFY ENGINEER OF WORK 14 DAYS MIN. PRIOR TO CONSTRUCTION IF CONFLICTS EXIST.

(13) TRENCH RESURFACING TYPE R PER 09-22 ASPHALT OVERLAY. COLD PLANE/GRIND AS REQUIRED TO PROVIDE SMOOTH TRANSITION TO EXISTING PAVEMENT.

(24) ALL FIRE HYDRANT INSTALLATIONS SHALL CONFORM TO ITEM 18 "CONCRETE SUPPORT BLOCK", SHOWN ON DETAIL A, SHEET 4.

0 20 40 80 120
SCALE: 1"=40'

PRIVATE CONTRACT

SHEET 34	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	52 SHEETS

SIEMPRE VIVA ROAD IMPROVEMENT PLAN FOR:

ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5806 & 5866
CALIFORNIA COORDINATE INDEX 136-1791

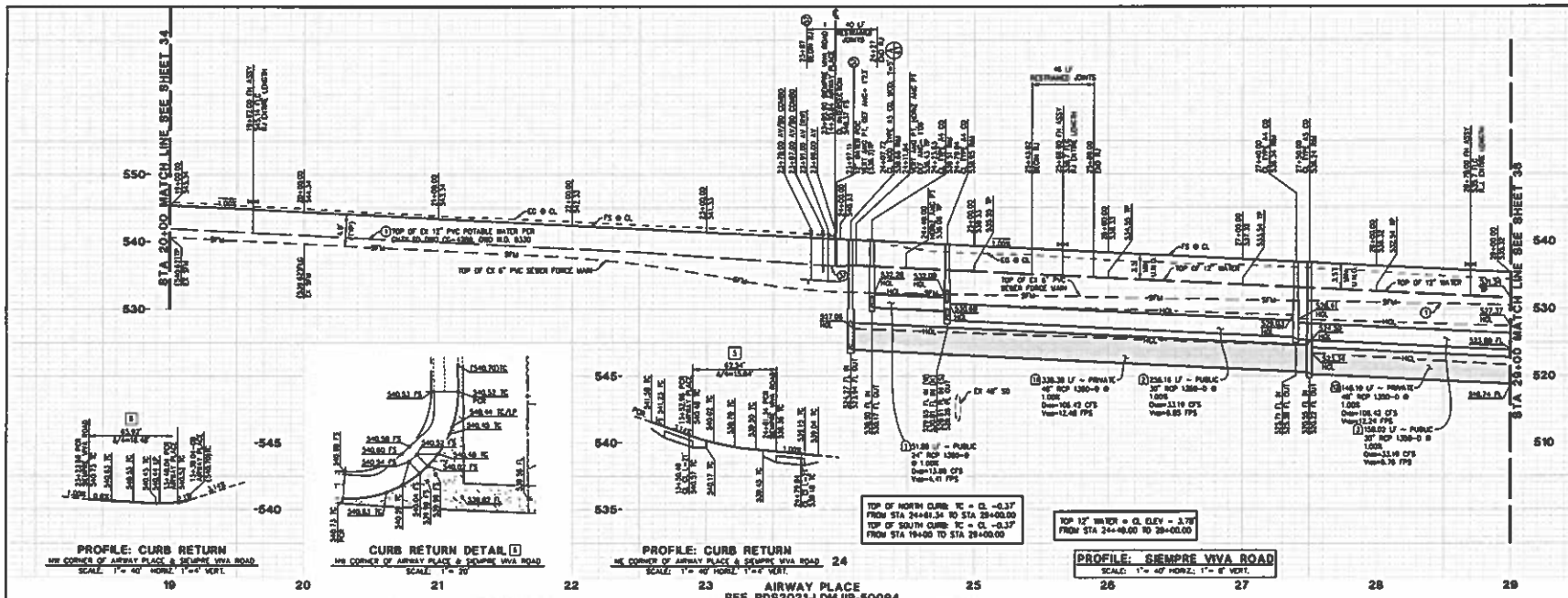
PDS2021-LDPMP-60114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES
ROBERT R. ODHNER DATE RCE 45717	SIGNATURE DATE; PRINTED NAME ROBERT R. ODHNER 45717; REGISTRATION EXPIRATION LICENSE NO. CIVIL DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.Z. 371; REVIEWED BY; DATE 10/4/2022	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE

BENCH MARK
DESCRIPTION: BRASS DISC IN STREET CENTERLINE MON. MONUMENT
LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 50' TO TOP OF HILL
RECORD FROM: R.O.S. 14841, PT. NO. 4022
ELEVATION: 570.89 DATUM: NGVD '29

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009



CENTERLINE DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N78°00'30"W	---	438.68'	CL SIEMPRE VIVA ROAD
2	N78°00'30"W	---	101.67'	CL SIEMPRE VIVA ROAD
3	D=11°18'38"	1700.00'	335.57'	CL SIEMPRE VIVA ROAD
4	N66°41'52"W	---	457.81'	CL SIEMPRE VIVA ROAD

CURB DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N78°00'30"W	---	438.68'	6" TWA 4" CURB
2	N78°00'30"W	---	101.67'	6" TWA 4" CURB
3	D=11°18'38"	1700.00'	335.57'	6" TWA 4" CURB
4	N66°41'52"W	---	457.81'	6" TWA 4" CURB
5	D=90°00'00"	40.00'	62.83'	6" TWA 4" CURB
6	D=90°00'00"	40.00'	62.83'	6" TWA 4" CURB
7	D=90°00'00"	40.00'	62.83'	6" TWA 4" CURB
8	D=90°00'00"	40.00'	62.83'	6" TWA 4" CURB
9	N66°41'52"W	---	38.00'	6" TWA 4" CURB

WATER DATA

CL-300 C900 DR14 PZ 871

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N66°41'52"W	---	16.41'	12" PVC
2	N66°41'52"W	---	33.95'	12" PVC
3	N66°41'52"W	---	451.07'	12" PVC

PUBLIC STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N66°41'52"W	---	31.00'	24" RCP 1350-0
2	N66°41'52"W	---	216.16'	30" RCP 1350-0
3	N66°41'52"W	---	104.67'	30" RCP 1350-0
4	N66°41'52"W	---	8.00'	24" RCP 1350-0
5	N66°41'52"W	---	86.00'	24" RCP 1350-0
6	N66°41'52"W	---	48.83'	24" RCP 1350-0

PRIVATE STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
11	N66°41'52"W	---	138.00'	48" RCP 1350-0
12	N66°41'52"W	---	140.00'	48" RCP 1350-0
13	N66°41'52"W	---	108.00'	48" RCP 1350-0

SEE CURA _____ FOR PRIVATE STORM DRAIN IN PUBLIC R/W.

EXISTING EASEMENT NOTES

1. SEE SHEET 2 FOR EXISTING EASEMENT NOTES.

CONSTRUCTION NOTES

1. PROTECT IN PLACE, REPAIR OR REPLACE ANY IMPROVEMENT TO REMAIN TO THE SATISFACTION OF THE COUNTY ENGINEER.
2. EXISTING UTILITY TO BE POTHOLED AND LOCATION VERIFIED. NOTIFY ENGINEER OF WORK 14 DAYS MIN. PRIOR TO CONSTRUCTION IF CONFLICTS EXIST.
3. TRENCH RESURFACING TYPE 2 PER DS-22 ASPHALT OVERLAY. COLD PLANE/GRIND AS REQUIRED TO PROVIDE SMOOTH TRANSITION TO EXISTING PAVEMENT.
4. REMOVE AND SALVAGE EXISTING AV'S AND BO'S AND RELOCATE TO NEW LOCATIONS SHOWN ON PLAN.
5. ALL FIRE HYDRANT INSTALLATIONS SHALL CONFORM TO ITEM 19 "CONCRETE SUPPORT BLOCK", SHOWN ON DETAIL A, SHEET 4.
6. INSTALL RESTRAINED JOINTS ENTIRE LENGTH OF SERVICE WHERE NOTED.
7. REMOVE & REPLACE PORTION OF EXISTING 12" WATER MAIN NECESSARY TO INSTALL RESTRAINT JOINTS WHERE NOTED. RECONNECT TO NEW WATER MAIN PORTION USING STRAIGHT IN COUPLING CONNECTORS.

PRIVATE CONTRACT

SHEET 35	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

SIEMPRE VIVA ROAD IMPROVEMENT PLAN FOR:

ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5566 & 5566

CALIFORNIA COORDINATE INDEX 138-1791

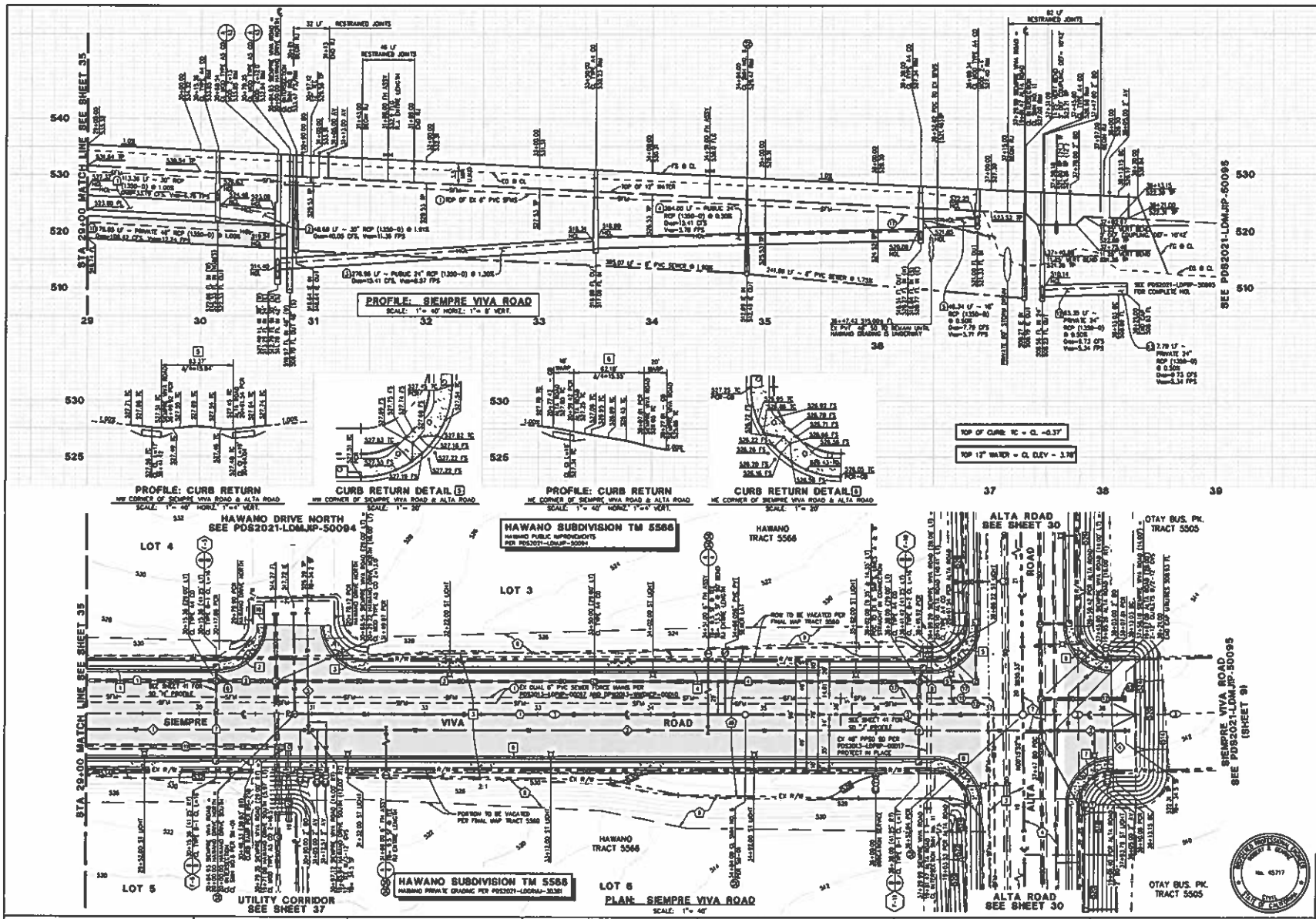
RECOMMENDED FOR APPROVAL | APPROVED FOR TRACTS 5566 & 5566 | 4/9/23

DESIGNED BY | PDS2021-LDPMP-60114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858-694-9660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. CEHRNE RCE 45717 DATE	SIGNATURE DATE; ROBERT R. CEHRNE 45717; PRINTED NAME; LICENSE NO. CIVIL; REGISTRATION EXPIRATION; DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.Z. 871; REVIEWED BY; DATE 10/31/2022	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CONCRETE WELL MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 50' TO TOP OF HILL; RECORD FROM: R.O.S. 14841, PT. NO. 4022; ELEVATION: 870.69; DATUM: NGVD '29

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009



CENTERLINE DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°27'30"W	--	326.07'	OL SIEMPRE VIVA ROAD
2	N89°27'30"W	--	53.16'	OL SIEMPRE VIVA ROAD
3	S-00°41'52"	1850.00'	90.80'	OL SIEMPRE VIVA ROAD

CURB DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°27'30"W	--	117.00'	6" PVC
2	S-90°00'00"	40.00'	63.17'	6" PVC
3	S-90°00'00"	40.00'	63.17'	6" PVC
4	S-90°01'24"	40.00'	63.19'	6" PVC
5	N89°27'30"W	--	208.00'	6" PVC
6	S-90°00'00"	40.00'	63.17'	6" PVC
7	S-90°00'00"	40.00'	63.17'	6" PVC
8	S-90°00'00"	40.00'	63.17'	6" PVC
9	S-90°00'00"	40.00'	63.17'	6" PVC
10	N89°27'30"W	--	33.00'	6" PVC

*SEE SHEET 32 FOR CURB RETURN PROFILE AND DETAIL.
*SEE SHEET 37 FOR CURB RETURN PROFILE AND DETAIL.

WATER DATA

CL-305 DWG DR14 PZ. 671

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°27'30"W	--	117.00'	12" PVC
2	N89°27'30"W	--	53.00'	12" PVC
3	N89°27'30"W	--	48.07'	12" PVC
4	S-00°01'30"	1851.00'	7.00'	12" PVC

-ALL CURVES, HORIZONTAL AND VERTICAL, SHALL USE HIGH DEFLECTION COUPLING PER SWA STANDARD SPECIFICATION 13864-1.05.C
-SUPPORTS BLOCKS ARE REQUIRED FOR ALL TEES, CROSSES AND DV'S

PUBLIC STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°27'30"W	--	113.00'	30" RCP (1350-0)
2	N89°27'30"W	--	48.07'	30" RCP (1350-0)
3	N89°27'30"W	--	176.00'	30" RCP (1350-0)
4	N89°27'30"W	--	104.00'	24" RCP (1350-0)
5	N89°27'30"W	--	48.07'	24" RCP (1350-0)
6	N89°27'30"W	--	8.00'	18" RCP (1350-0)
7	N89°27'30"W	--	54.15'	18" RCP (1350-0)
8	N89°27'30"W	--	8.00'	18" RCP (1350-0)
9	N89°27'30"W	--	54.15'	18" RCP (1350-0)

PRIVATE STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
11	N89°27'30"W	--	176.00'	48" RCP (1350-0)
12	N89°27'30"W	--	53.00'	12" RCP (1350-0)
13	S-00°01'30"	1851.00'	7.00'	12" RCP (1350-0)

SEE DWG ____ FOR PRIVATE STORM DRAIN IN PUBLIC R/W.

SEWER DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°27'30"W	--	326.07'	8" PVC SDR-35
2	N89°27'30"W	--	241.99'	8" PVC SDR-35

-ALL PVC SEWER PIPE SHALL CONFORM TO DESIGNS PER REGIONAL STD. DWG. SP-02
-SEE SEWER NOTES ON SHEET 3

SEWER FORCE MAIN DATA

DR14 DWG

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
11	N89°27'30"W	--	101.07'	8" PVC
12	N89°27'30"W	--	86.00'	8" PVC

-ALL PVC SEWER PIPE SHALL CONFORM TO DESIGNS PER REGIONAL STD. DWG. SP-02 (U.N.O.).
-SEE SEWER FORCE MAIN NOTES ON SHEETS 3

EXISTING EASEMENT NOTES

1. SEE SHEET 2 FOR EXISTING EASEMENT NOTES.

CONSTRUCTION NOTES

1. PROTECT IN PLACE, REPAIR OR REPLACE ANY IMPROVEMENT TO REMAIN TO THE SATISFACTION OF THE COUNTY ENGINEER.
2. REMOVE EXISTING SEWER FORCE MAIN AND APPURTENCES WHERE NOTED.
3. ALL FIRE HYDRANT INSTALLATIONS SHALL CONFORM TO ITEM 16 "CONCRETE SUPPORT BLOCK", SHOWN ON DETAIL A, SHEET 4.
4. EXTERIOR WATER PROOFING FOR SEWER MORE 10 ON SHEET 5 AND SEWER NOTES ON SHEET 3.
5. INSTALL RESTRAINED JOINTS ENTIRE LENGTH OF SERVICE WHERE NOTED.

SCALE: 1"=40'

PRIVATE CONTRACT

SHEET 36	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	82 SHEETS

SIEMPRE VIVA ROAD IMPROVEMENT PLAN FOR:

ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5506 & 5566

CALIFORNIA COORDINATE INDEX 136-1791

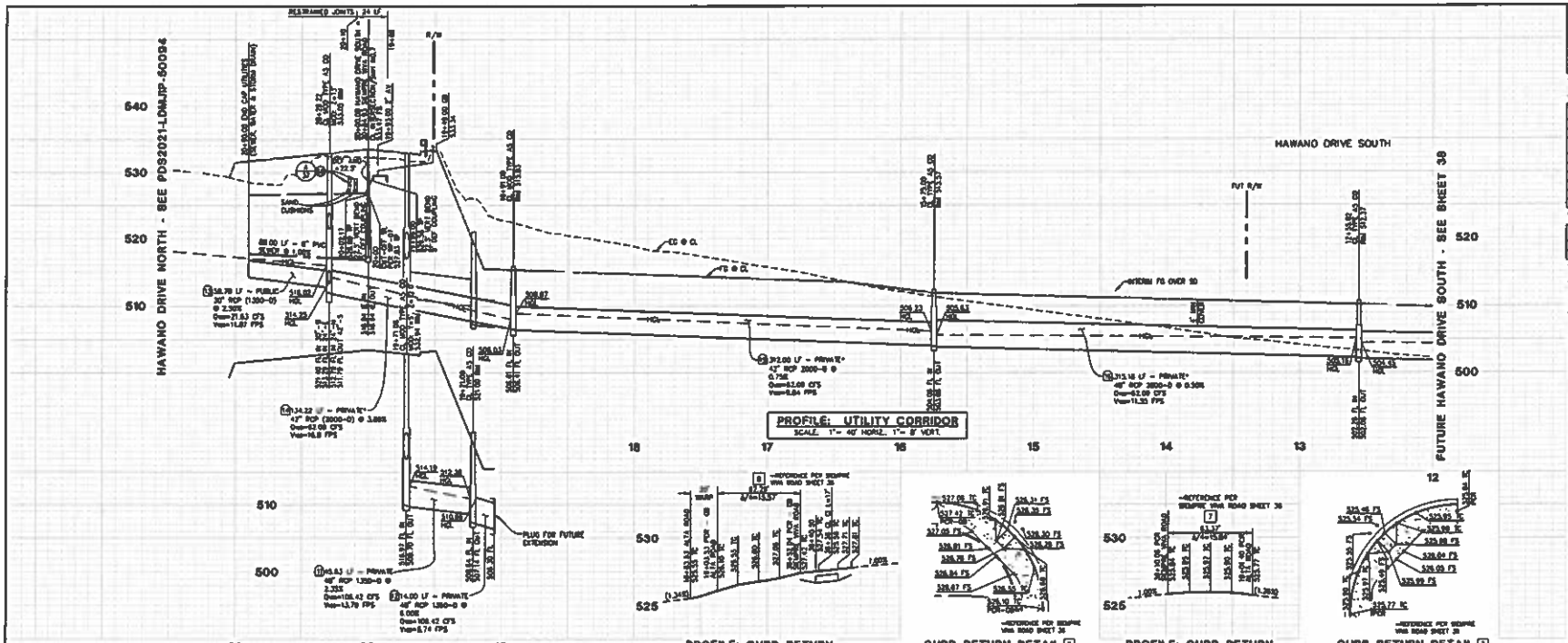
RECOMMENDED FOR APPROVAL: 1/9/23
APPROVED FOR PUBLIC WORKS: 1/9/23

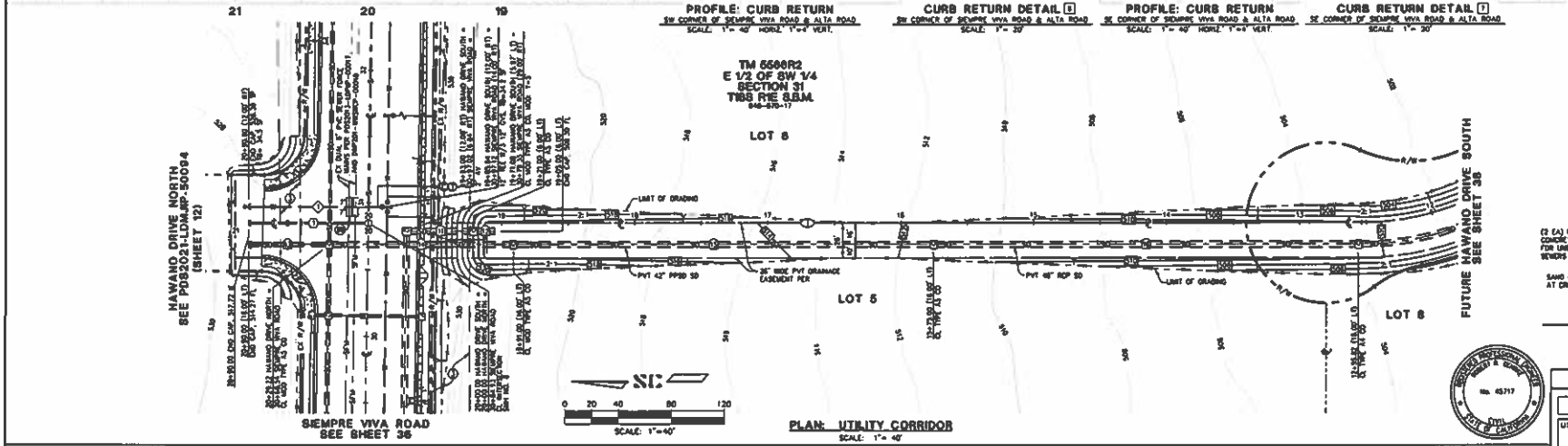
DESIGNED BY: Rick Gehlke
IMPROVEMENT PLAN NO. POS2021-LDPIP-60114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. GOHNKE RCE 45717 DATE	SIGNATURE DATE; ROBERT R. GOHNKE PRINTED NAME; 45717 LICENSE NO.; REGISTRATION EXPIRATION; CIVIL DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.I. 87; REVIEWED BY; 12/14/2022 DATE	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STEEL CONTAINING RDA MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 M NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 50' TO TOP OF HILL; RECORD FROM: R.O.S. 14941, PT. NO. 4022; ELEVATION: 370.89; DATUM: NGVD '29

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009





CONSTRUCTION CENTERLINE DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'53"W	---	115.97	CL UTILITY CORRIDOR

WATER DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°13'53"W	---	124.16	12" PVC

- ALL CURVES, HORIZONTAL AND VERTICAL, SHALL USE HIGH DEFLECTION COUPLING PER WAS STANDARD SPECIFICATION 15064-1.03.C
- SUPPORTS BLOCKS ARE REQUIRED FOR ALL TEES, CROSSED, AND BVS

PUBLIC STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
13	N00°13'53"W	---	38.78	18" RCP 1350-D

PRIVATE STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
11	N00°13'53"W	---	45.13	48" RCP 1350-D
12	N00°13'53"W	---	14.00	48" RCP 1350-D
14	N00°13'53"W	---	134.72	42" RCP 2000-D
15	N00°13'53"W	---	317.00	42" RCP 2000-D
16	N00°13'53"W	---	134.16	42" RCP 2000-D

SEE CHART _____ FOR PRIVATE STORM DRAIN IN PUBLIC R/W

SEWER DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
	N00°13'53"W	---	88.00	8" PVC SDR-26

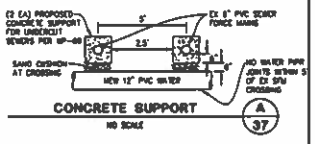
- ALL PVC SEWER PIPE SHALL CONFORM TO SEWERS PER REGIONAL STD. DWG. SP-02
- SEE SEWER NOTES ON SHEET 5

EXISTING EASEMENT NOTES

(1) SEE SHEET 2 FOR EXISTING EASEMENT NOTES.

CONSTRUCTION NOTES

(8) PIPE SUPPORT FOR UNDERCUT SEWER MAINS PER SP-08. SEE DETAIL A, SHEET 37.



CONCRETE SUPPORT (A/37)
NO SCALE

PRIVATE CONTRACT

SHEET	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS
37		

UTILITY CORRIDOR IMPROVEMENT PLAN FOR:

ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5566 & 5566

CALIFORNIA COORDINATE INDEX 136-1791

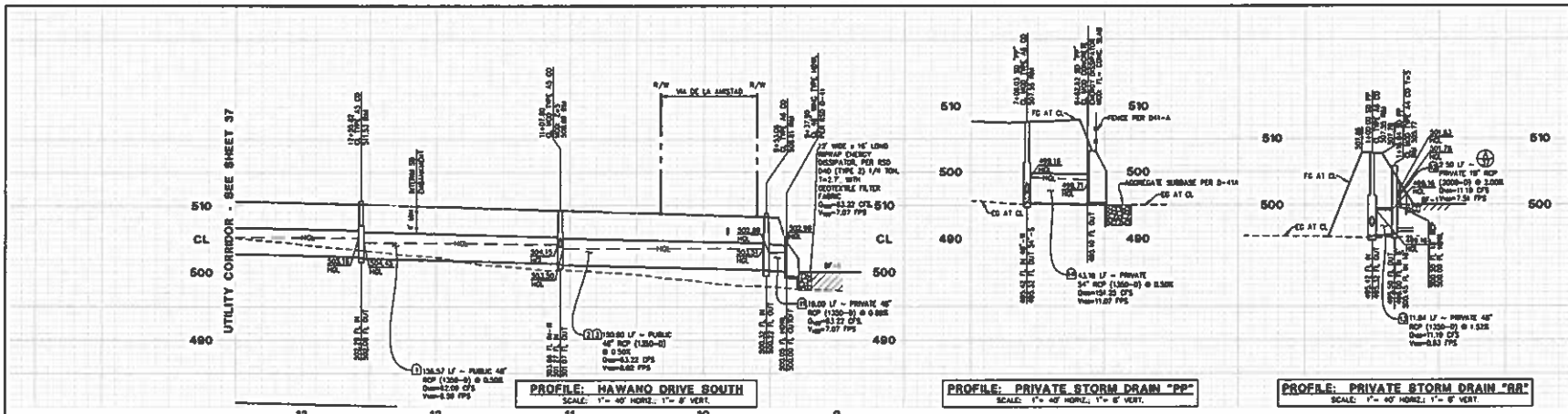
RECOMMENDED FOR APPROVAL | ACCEPTED FOR PUBLIC WORKS 1/4/23

DESIGNED BY Rob Gehrke | IMPROVEMENT PLAN NO. PDS2021-LDPMP-60114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. GEHRKE RCE 45717 DATE	SIGNATURE DATE; PRINTED NAME ROBERT R. GEHRKE; REGISTRATION EXPIRATION 45717; LICENSE NO. CIVIL; DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.Z. 871; REVIEWED BY; DATE 12/14/2022	NO. / DESCRIPTION / APPROVED BY / DATE	NO. / DESCRIPTION / APPROVED BY / DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE MON. MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 50' TO TOP OF HILL; RECORD FROM: R.O.S. 14841, PT. NO. 4022; ELEVATION: 670.89; DATUM: NGVD '29

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009



CENTERLINE DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N00°01'33"E	--	18.00'	CL HAWANO DRIVE SOUTH
2	D=14°37'27"	300.00'	153.38'	CL HAWANO DRIVE SOUTH
3	N44°00'18"E	--	103.44'	CL HAWANO DRIVE SOUTH

PUBLIC STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	D=41°15'12"	216.00'	155.57'	48" RCP 1350-0
2	D=25°30'34"	216.00'	1.07'	48" RCP 1350-0
3	N44°00'18"E	--	143.43'	48" RCP 1350-0

PRIVATE STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
10	N00°01'33"E	--	43.18'	54" RCP 1350-0
11	N00°01'33"E	--	18.00'	48" RCP 1350-0
12	N00°01'33"E	--	2.50'	18" RCP 1350-0
13	N00°01'33"E	--	11.84'	48" RCP 1350-0

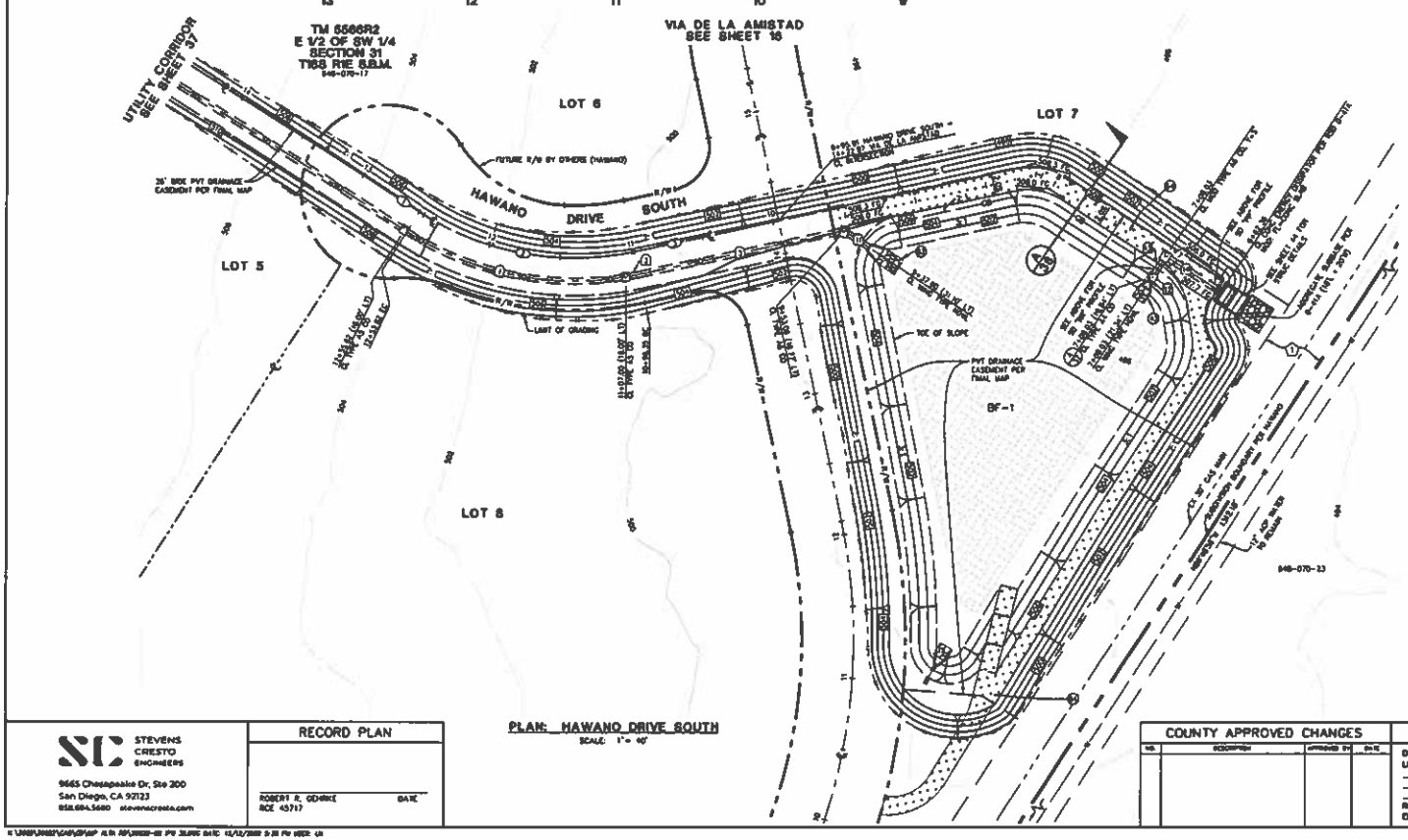
SEE CURVA _____ FOR PRIVATE STORM DRAIN on PUBLIC R/W

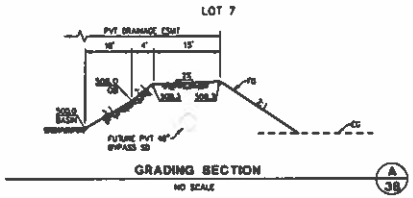
EXISTING EASEMENT NOTES

1. SEE SHEET 2 FOR EXISTING EASEMENT NOTES.

CONSTRUCTION NOTES

4. 10' x 10' RIP RAP ENERGY DISPATER PER RSD D-40 (TYPE 2) NO. 2 BACKING CLASS. 1=1.7, WITH GEOTEXTIL FILTER FABRIC BLANKET, SET TOP OF RIP RAP AT DITCH FLOW LINE
5. 16' LONG X 12' WIDE RIP RAP ENERGY DISPATER PER RSD D-40 TYPE 2 BACKING 1/4 TON CLASS. T=2.7 WITH GEOTEXTILE FILTER FABRIC BLANKET.
6. 6" THICK CEMENT TREATED BASE (CTB) PER CALTRANS STANDARDS SPECIFICATIONS 2006 EDITION, SECTION 37, RECOMPACT SUBGRADE TO MINIMUM 95% MAXIMUM DRY DENSITY AND OPTIMUM MOISTURE CONTENT PER ASTM D-1557





SCALE: 1"=40'

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5680 stevenscresto.com

RECORD PLAN

ROBERT R. GOHRKE RCE 45717 DATE

COUNTY APPROVED CHANGES			
NO.	DESCRIPTION	APPROVED BY	DATE

BENCH MARK

DESCRIPTION: BRASS DISC IN STRICKY CONCRETE NEW MONUMENT
LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 30' IN TOP OF HILL
RECORD FROM: R.O.S. 14841, PT. NO. 6032
ELEVATION: 575.99 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 38 | COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS | 82 SHEETS

FUTURE HAWANO DRIVE SOUTH IMPROVEMENT PLAN FOR:

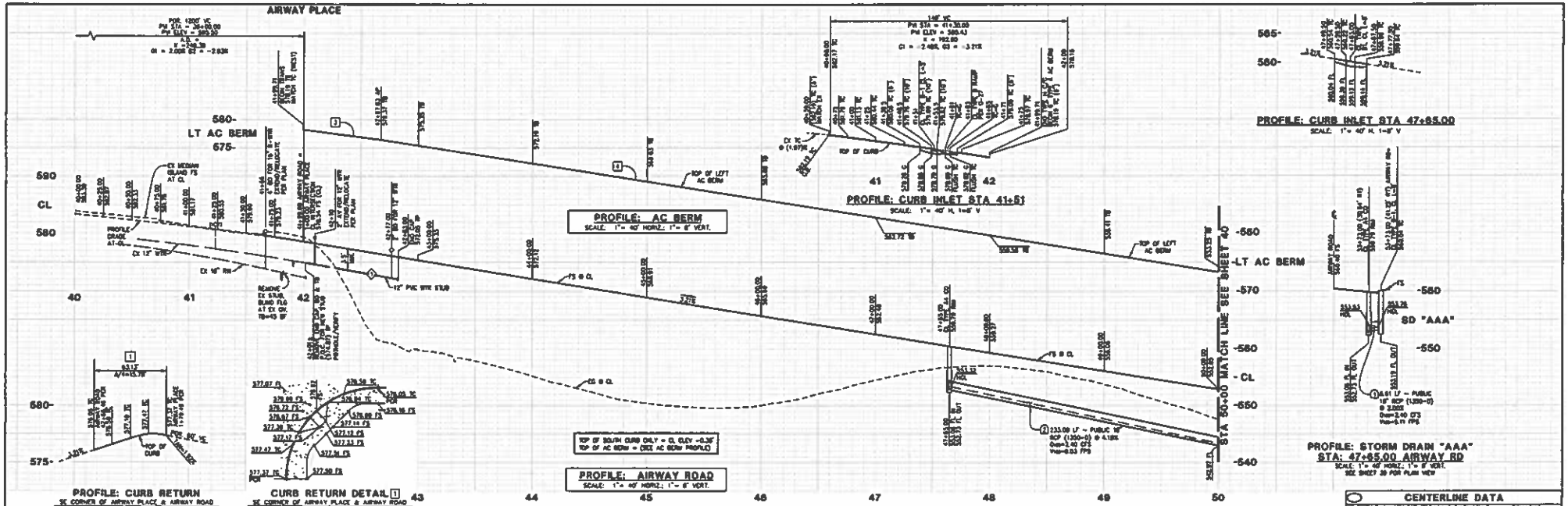
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5566 & 5566

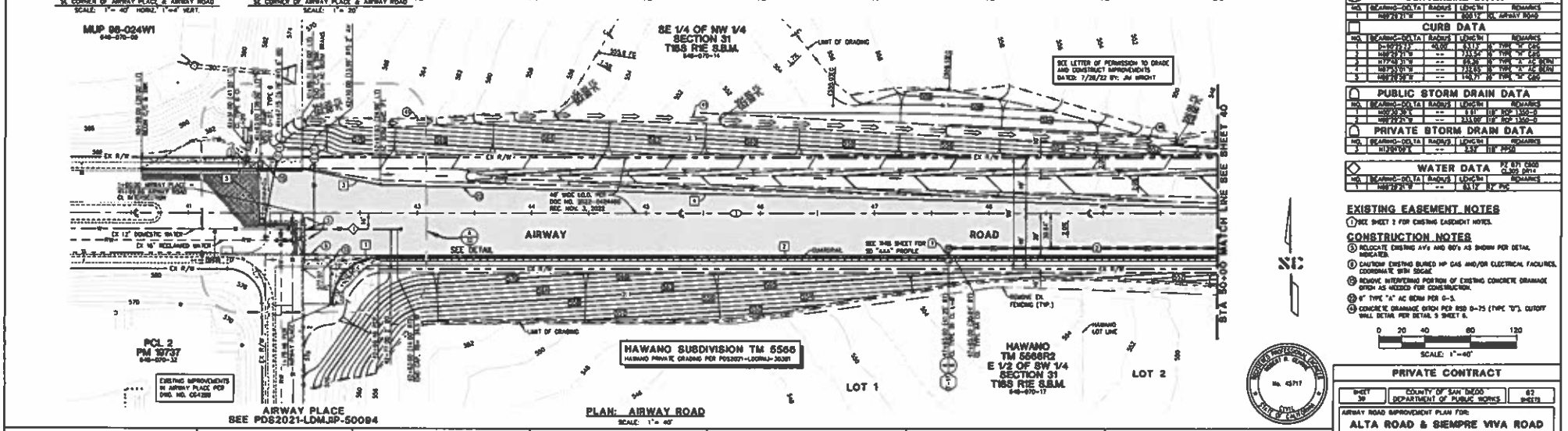
CALIFORNIA COORDINATE INDEX 136-1791

RECOMMENDED FOR APPROVAL

APPROVED FOR TRACT 5566 HAWANO
DPW 1/4/23

IMPROVEMENT PLAN NO.
PDS2021-LDPMP-60114





CENTERLINE DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°29'21"W	--	508.12'	EL AIRWAY ROAD

CURB DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	D=90°00'00"	40.00'	63.17'	B TYPE "A" CURB
2	N89°29'21"W	--	233.54'	B TYPE "A" CURB
3	N17°43'31"W	--	69.38'	B TYPE "A" AC BERM
4	N89°29'21"W	--	110.65'	B TYPE "A" AC BERM
5	N89°29'21"W	--	114.77'	B TYPE "A" CURB

PUBLIC STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°29'21"W	--	6.61'	18" RCP (1350-D)
2	N89°29'21"W	--	233.00'	18" RCP (1350-D)

PRIVATE STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
3	N17°43'31"W	--	2.5'	18" PPSD

WATER DATA

PZ 871 CMOD
CL 305 DP14

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°29'21"W	--	53.17'	12" PVC

EXISTING EASEMENT NOTES

(1) SEE SHEET 2 FOR EXISTING EASEMENT NOTES.

CONSTRUCTION NOTES

(5) RELOCATE EXISTING AV's AND 60's AS SHOWN PER DETAIL INDICATED.

(6) CAUTION: EXISTING BURIED HP GAS AND/OR ELECTRICAL FACILITIES. COORDINATE WITH SDGAE

(8) REMOVE INTERVENING PORTION OF EXISTING CONCRETE DRAINAGE DITCH AS NEEDED FOR CONSTRUCTION.

(9) 6" TYPE "A" AC BERM PER G-5.

(10) CONCRETE DRAINAGE DITCH PER RSD D-75 (TYPE "D"). CUTOFF WALL DETAIL PER DETAIL 5 SHEET 6.

0 20 40 80 120
SCALE: 1"=40'

PRIVATE CONTRACT

SHEET 39 | COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS | 62 SHEETS

AIRWAY ROAD IMPROVEMENT PLAN FOR:

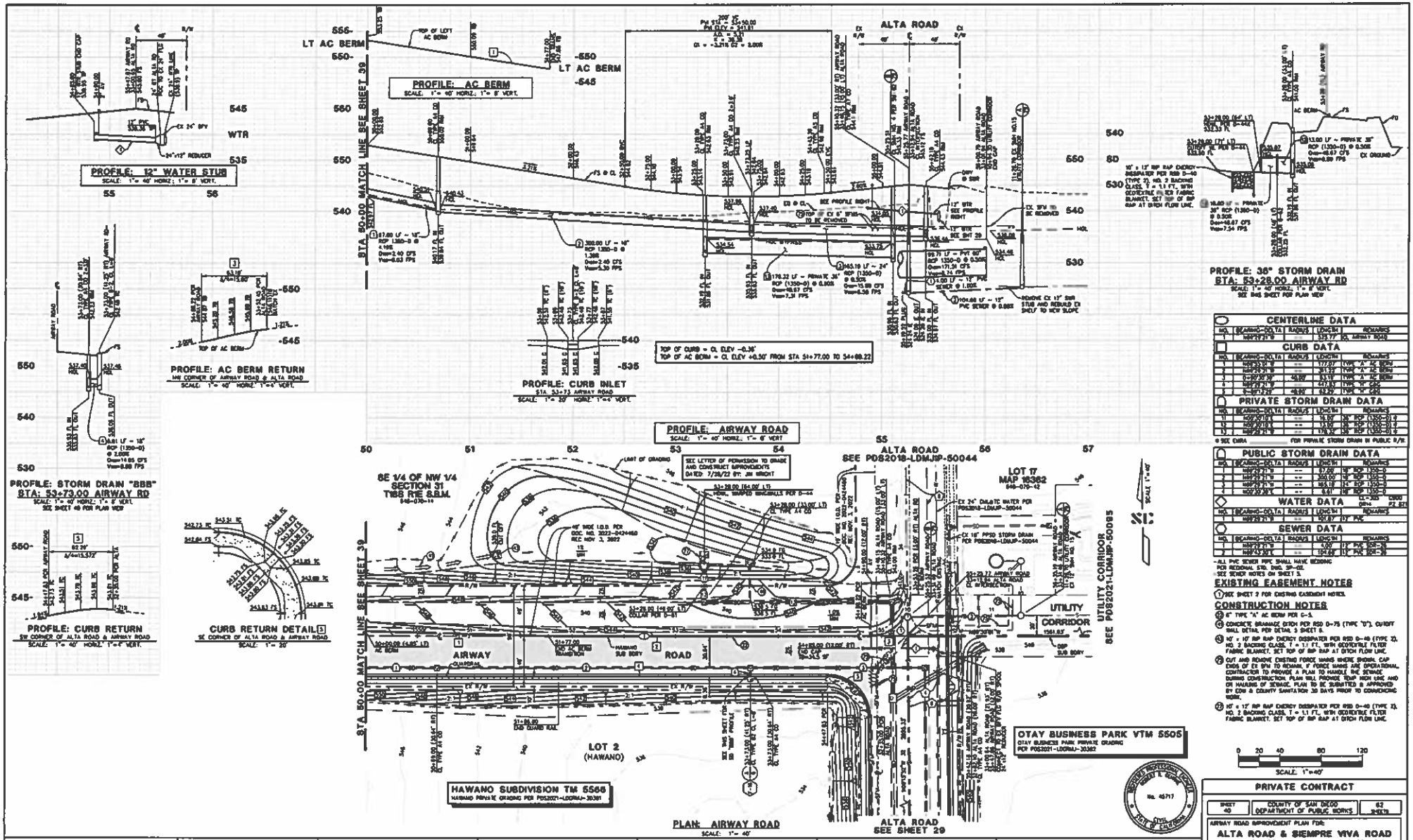
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5566 & 5566
CALIFORNIA COORDINATE INDEX 138-1791

APPROVED FOR PUBLIC WORKS
DATE 4/1/23
PDS2021-LDPMP-60114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858-694-5460 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. GOHRKE RCE 45717 DATE	SIGNATURE DATE; ROBERT R. GOHRKE; PRINTED NAME; REGISTRATION EXPIRATION; 45717 LICENSE NO. CIVIL DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; PZ 871; REVIEWED BY; DATE	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE MON. MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 M NORTHERLY OF FIAT VIVA ROAD, PAST CONCRETE APRON 16' TO TOP OF HILL; RECORD FROM: R.O.S. 14641, PG. NO. 4022; ELEVATION: 670.69; DATUM: NGVD '29

OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009



CENTERLINE DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°59'21"W	---	375.77'	EL. AIRWAY ROAD

CURB DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°59'21"W	---	127.07'	TYPE "A" AC BERM
2	N89°59'21"W	---	201.27'	TYPE "A" AC BERM
3	0-00'00"W	45.00'	53.13'	TYPE "A" AC BERM
4	N89°59'21"W	---	247.13'	TYPE "A" CURB
5	S-90°17'27"	45.00'	53.22'	TYPE "A" CURB

PRIVATE STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
11	N89°59'21"W	---	16.50'	36" RCP (1350-D) ⊕
12	N89°59'21"W	---	13.00'	36" RCP (1350-D) ⊕
13	N89°59'21"W	---	179.32'	36" RCP (1350-D) ⊕

⊕ SEE EXHIBIT _____ FOR PRIVATE STORM DRAIN IN PUBLIC R/W

PUBLIC STORM DRAIN DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°59'21"W	---	51.00'	18" RCP (1350-D)
2	N89°59'21"W	---	200.00'	18" RCP (1350-D)
3	N89°59'21"W	---	165.18'	24" RCP (1350-D)
4	N89°59'21"W	---	8.01'	60" RCP (1350-D)

WATER DATA

CL-305 DWG P2 871

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°59'21"W	---	90.87'	12" PVC

SEWER DATA

NO.	BEARING-DELTA	RADIUS	LENGTH	REMARKS
1	N89°59'21"W	---	4.00'	12" PVC SDR-26
2	N89°59'21"W	---	104.88'	12" PVC SDR-26

-ALL PVC SEWER PIPE SHALL HAVE BEDDING PER REGIONAL STD. DWG. SP-02.
SEE SEWER NOTES ON SHEET 3.

EXISTING EASEMENT NOTES

1. SEE SHEET 2 FOR EXISTING EASEMENT NOTES.

CONSTRUCTION NOTES

1. 6" TYPE "A" AC BERM PER G-5.
2. CONCRETE DRAINAGE DITCH PER RSD D-75 (TYPE "D"). CURBFF WALL DETAIL PER DETAIL 3 SHEET 8.
3. 10' x 10' RIP RAP ENERGY DISSIPATER PER RSD D-40 (TYPE 2), NO. 2 BACKING CLASS. T = 1.1 FT., WITH GEOTEXTILE FILTER FABRIC BLANKET. SET TOP OF RIP RAP AT DITCH FLOW LINE.
4. CUT AND REMOVE EXISTING FORCE MAIN WHERE SHOWN. CAP ENDS OF EX 8" SEW TO REMAIN. 8" FORCE MAIN ARE OPERATIONAL. CONTRACTOR TO PROVIDE A PLAN TO HANDLE THE SEWAGE DURING CONSTRUCTION. PLAN WILL PROVIDE TEMP HIGH LINE AND OR HAULING OF SEWAGE. PLAN TO BE SUBMITTED & APPROVED BY EDW & COUNTY SANITATION 30 DAYS PRIOR TO COMMENCING WORK.
5. 10' x 12' RIP RAP ENERGY DISSIPATER PER RSD D-40 (TYPE 2), NO. 2 BACKING CLASS. T = 1.1 FT., WITH GEOTEXTILE FILTER FABRIC BLANKET. SET TOP OF RIP RAP AT DITCH FLOW LINE.

PRIVATE CONTRACT

SHEET 40	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

AIRWAY ROAD IMPROVEMENT PLAN FOR:

ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5566
CALIFORNIA COORDINATE INDEX 139-1791

RECOMMENDED FOR APPROVAL

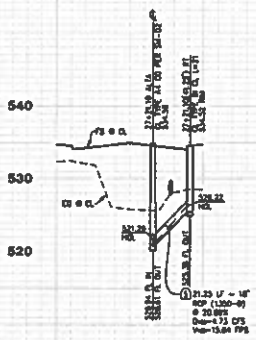
APPROVED AS TO PUBLIC WORKS: 1/9/23

APPROVED PLAN NO. PDS2021-LDPMP-60114

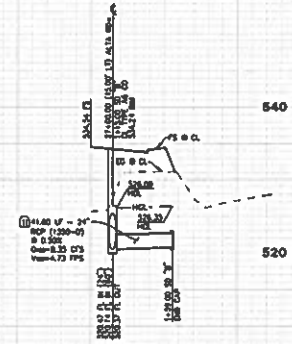
STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr. Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	O.W.D. "AS-BUILT"	OTAY WATER DISTRICT	OTAY WATER DISTRICT REVISIONS	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. GEDRIKE RCE 45717 DATE	SIGNATURE DATE; ROBERT R. GEDRIKE; PRINTED NAME; 45717 LICENSE NO.; REGISTRATION EXPIRATION; CIVIL DISCIPLINE	PROJECT NO. 01132-090574; PERMIT NO. DEV-22-009; P.E. 871; REVIEWED BY; 12/13/2022 DATE	NO. DESCRIPTION APPROVED BY DATE	NO. DESCRIPTION APPROVED BY DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT; LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 50' TO TOP OF HILL; RECORD FROM: R.O.S. 14841, PT. NO. 4032; ELEVATION: 620.69; DATUM: NGVD '29

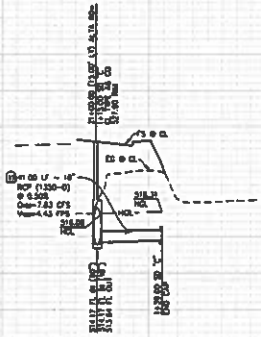
OWD PROJECT: 01132-090574
OWD PERMIT: DEV-22-009



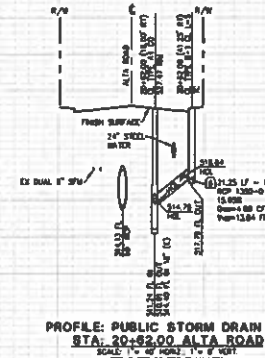
PROFILE: PUBLIC STORM DRAIN "A"
STA: 27+21.10 ALTA ROAD
SCALE: 1"= 40' HORIZ.; 1"= 6' VERT.
SEE SHEET 28 FOR PLAN VIEW



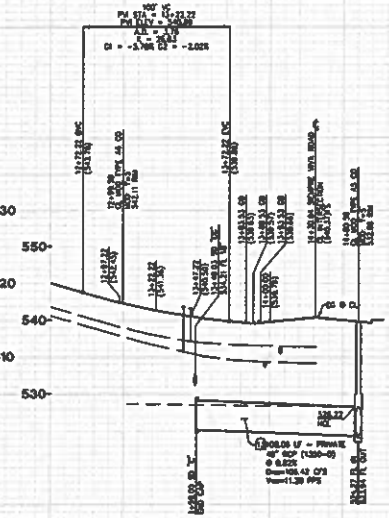
PROFILE: PRIVATE STORM DRAIN "B"
STA: 27+00.00 ALTA ROAD
SCALE: 1"= 40' HORIZ.; 1"= 6' VERT.
SEE SHEET 28 FOR PLAN VIEW



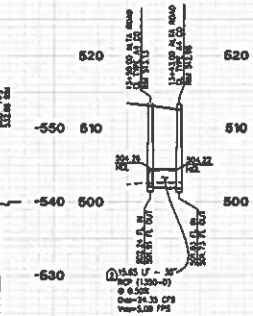
PROFILE: PRIVATE STORM DRAIN "C"
STA: 21+00.00 ALTA ROAD
SCALE: 1"= 40' HORIZ.; 1"= 6' VERT.
SEE SHEET 30 FOR PLAN VIEW



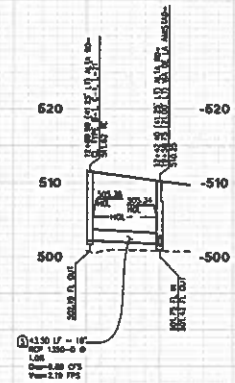
PROFILE: PUBLIC STORM DRAIN "D"
STA: 20+92.00 ALTA ROAD
SCALE: 1"= 40' HORIZ.; 1"= 6' VERT.
SEE SHEET 30 FOR PLAN VIEW



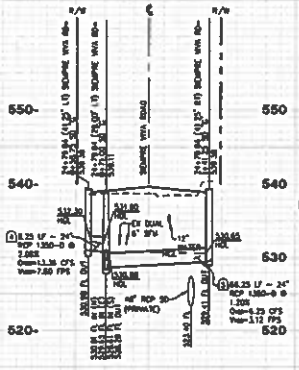
PROFILE: PRIVATE STORM DRAIN
STA: 14+60.56 AIRWAY PLACE
SCALE: 1"= 40' HORIZ.; 1"= 6' VERT.
SEE SHEET 30 FOR PLAN VIEW



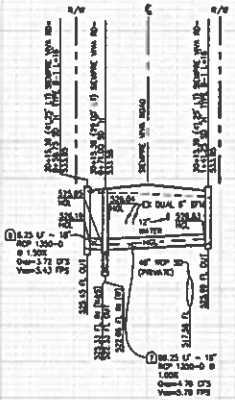
PROFILE: PUBLIC STORM DRAIN "E"
STA: 13+50.00 ALTA ROAD
SCALE: 1"= 40' HORIZ.; 1"= 6' VERT.
SEE SHEET 31 FOR PLAN VIEW



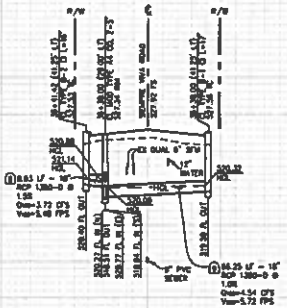
PROFILE: PUBLIC STORM DRAIN "F"
STA: 12+89.00 ALTA ROAD
SCALE: 1"= 40' HORIZ.; 1"= 6' VERT.
SEE SHEET 31 FOR PLAN VIEW



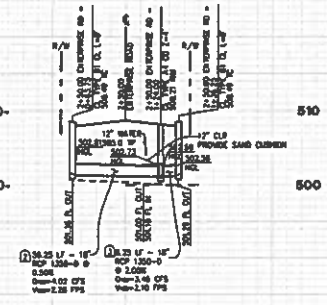
PROFILE: PUBLIC STORM DRAIN "G"
STA: 24+79.84 SIEMPRE VIVA ROAD
SCALE: 1"= 40' HORIZ.; 1"= 6' VERT.
SEE SHEET 35 FOR PLAN VIEW



PROFILE: PUBLIC STORM DRAIN "H"
STA: 30+15.38 SIEMPRE VIVA ROAD
SCALE: 1"= 40' HORIZ.; 1"= 6' VERT.
SEE SHEET 35 FOR PLAN VIEW



PROFILE: PUBLIC STORM DRAIN "J"
STA: 36+38.00 SIEMPRE VIVA ROAD
SCALE: 1"= 40' HORIZ.; 1"= 6' VERT.
SEE SHEET 35 FOR PLAN VIEW



PROFILE: PUBLIC STORM DRAIN "S"
STA: 2+50.00 ENTERPRISE ROAD
SCALE: 1"= 40' HORIZ.; 1"= 6' VERT.
SEE SHEET 36 FOR PLAN VIEW

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5440 stevenscresto.com

RECORD PLAN	COUNTY APPROVED CHANGES				BENCH MARK
ROBERT R. DOHRKE DATE RCE 45717	NO.	DESCRIPTION	APPROVED BY	DATE	DESCRIPTION: BRASS DISC IN STREET CONTAINS NGS MONUMENT LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 M NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 14' TO TOP OF HILL RECORD FROM: R.O.S. 14841, PT. NO. 4922 ELEVATION: 519.99 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 41	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

STORM DRAIN PROFILES FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5606 & 5666
CALIFORNIA COORDINATE INDEX 136-1791

RECOMMENDED FOR APPROVAL | APPROVED FOR PUBLIC WORKS 1/4/23

ENGINEER OF WORK | PDS2021-LDPMP-60114

STATE OF CALIFORNIA
No. 45717

GENERAL STRUCTURAL NOTES

GENERAL

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING WORK. THE OWNERS REPRESENTATIVE SHALL BE NOTIFIED OF ANY DISCREPANCIES FOUND.
2. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE ERECTION, SHORING AND BRACING AS REQUIRED FOR STABILITY OF ALL STRUCTURES AND EMBANKMENTS DURING ALL PHASES OF CONSTRUCTION.
3. IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS OR DETAILS ON THE DRAWINGS.
4. BEFORE COMMENCING EXCAVATION, THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES, VALVE PITS OR VAULTS AND SHALL NOT PERFORM WORK THAT WILL DAMAGE THEM OR INTERFERE WITH THEIR SERVICE.
5. STRUCTURAL DIMENSIONS CONTROLLED BY OR RELATED TO CIVIL STRUCTURES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
6. THE CONTRACT STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT EXISTING AND NEW STRUCTURES DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING, ET CETERA FOR ALL CONSTRUCTION PHASE LOADS.

REINFORCED CONCRETE

1. CONCRETE SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH AT 28 DAYS OF 3,250 PSI.
2. MIX DESIGN REQUIREMENTS: SATISFY THE REQUIREMENTS OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION "GREENBOOK" FOR A CLASS MD-C-3250 CONCRETE MIX DESIGN. WATER/CEMENT RATIO SHALL NOT EXCEED 0.45.
3. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
4. PROVIDE A 3/4" CHAMFER ON ALL EXPOSED CORNERS UNLESS OTHERWISE NOTED ON THE DRAWINGS.
5. ALL COLD JOINTS SHALL BE ROUGHENED AND CLEANED PRIOR TO PLACING NEW CONCRETE. ALL LATANCE SHALL BE REMOVED AND THE EXISTING SURFACE SHALL BE WETTED IMMEDIATELY PRIOR TO PLACING CONCRETE. STANDING WATER SHALL BE REMOVED.
6. CONSTRUCTION JOINTS IN CONCRETE INDICATED WITH A ROUGH, CLEAN SURFACE SHALL HAVE A 1/4" MINIMUM AMPLITUDE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
7. CONSTRUCTION JOINTS SHALL ONLY BE PERMITTED WHERE SHOWN ON THESE DRAWINGS, UNLESS PRIOR WRITTEN APPROVAL IS GRANTED BY THE STRUCTURAL ENGINEER OF RECORD.

REINFORCING STEEL

1. NON-WELDED STEEL BAR REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60. WELDED STEEL BAR REINFORCING SHALL CONFORM TO ASTM A706, GRADE 60.
2. BAR LAP SPLICE LENGTHS FOR BARS INSTALLED IN CONCRETE SHALL BE 40 BAR DIAMETERS UNLESS OTHERWISE NOTED ON THE DRAWINGS.
3. MINIMUM CONCRETE COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE DRAWINGS:

CONCRETE CAST AGAINST EARTH	3"
FORMED CONCRETE EXPOSED TO EARTH	2"
CONCRETE EXPOSED TO WEATHER	2"
ALL OTHER	2"

4. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF ACI 315, DETAILS AND DETAILING OF CONCRETE REINFORCEMENT.

WATERSTOPS

1. PROVIDE FLAT-STRIP TYPE BORATED PVC WATERSTOP AS MANUFACTURED BY SIKA GREENSTREAK PVC WATERSTOP (OR APPROVED ALTERNATE).
2. THE PVC WATERSTOP SHALL BE EXTRUDED FROM AN ELASTOMERIC PLASTIC MATERIAL, OF WHICH THE BASIC RESIN IS A PRIME VIRGIN POLYVINYL CHLORIDE. THE PVC COMPOUND SHALL NOT CONTAIN ANY SCRAPPED OR RECLAIMED MATERIAL OR PIGMENT WHATSOEVER.
3. PROVIDE HOLLOW RINGS OR GROMMETS SPACED AT 12" ON CENTER ALONG LENGTH OF WATERSTOP.
4. ALL FIELD SPLICES SHALL BE STRAIGHT, BUTT JOINT SPLICES AND SHALL BE HEAT FUSED WELDED USING A TEFLON COATED THERMOSTATICALLY CONTROLLED WATERSTOP SPLICING IRON AT APPROXIMATELY 350 DEGREES F PER THE MANUFACTURERS SPECIFICATIONS. ALL ELLS, TEES, CORNERS, INTERSECTIONS, ETC. SHALL BE FACTORY MADE JOINTS.
5. CONTRACTOR SHALL PROVIDE PRODUCT DATA TO STRUCTURAL ENGINEER OF RECORD FOR APPROVAL PRIOR TO INSTALLATION.

FOUNDATION

UPDATE GEOTECHNICAL INVESTIGATION, OTAY BUSINESS PARK, COUNTY OF SAN DIEGO TRACT 5505, ALTA ROAD, SAN DIEGO COUNTY, CALIFORNIA, PROVIDED BY GEOCON, INC. PROJECT NUMBER G1463-42-02, DATED APRIL 4, 2022.

1. ALLOWABLE SOIL BEARING PRESSURE	2000 PSF
2. ALLOWABLE PASSIVE SOIL PRESSURE	350 PCF
3. RESTRAINED SOIL PRESSURE (LEVEL BACKFILL, HEIGHT < 8 FT)	40 PCF (TRIANGULAR) + 7 PCF (UNIFORM)
4. RESTRAINED SOIL PRESSURE (LEVEL BACKFILL, HEIGHT > 8 FT)	40 PCF (TRIANGULAR) + 13 PCF (UNIFORM)
5. RESTRAINED SOIL PRESSURE (2:1 SLOPED BACKFILL, HEIGHT < 8FT)	55 PCF (TRIANGULAR) + 7 PCF (UNIFORM)
6. RESTRAINED SOIL PRESSURE (2:1 SLOPED BACKFILL, HEIGHT > 8FT)	55 PCF (TRIANGULAR) + 13 PCF (UNIFORM)

DESIGN CRITERIA

1. DESIGN BUILDING CODES:	2019 CALIFORNIA BUILDING CODE
2. OCCUPANCY CATEGORY:	II

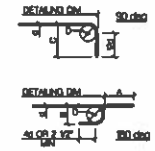
STATEMENT OF SPECIAL INSPECTIONS

CBC REF	DESCRIPTION OF TYPE OF INSPECTION REQUIRED, LOCATION, REMARKS, ET CETERA	DESIGN STRENGTH
1705.3	**CONCRETE CONSTRUCTION** CONTINUOUS INSPECTIONS: INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE. INSPECTION OF CONCRETE FOR PROPER APPLICATION TECHNIQUES. PERIODIC INSPECTIONS: INSPECTION OF REINFORCING STEEL AND PLACEMENT; VERIFICATION OF USE OF REQUIRED DESIGN MIX; INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES; INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	f_c = 3250 PSI

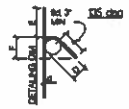
STRUCTURAL ABBREVIATIONS

&	AND	EJ	EXPANSION JOINT	OPNG	OPENING
@	AT	EL	ELEVATION	PERP	PERPENDICULAR
#	POUNDS, NUMBER	ELEV	ELEVATION	PLF	POUNDS PER LINEAL FOOT
ABV	ABOVE	EMBED	EMBEDMENT		
ADDL	ADDITIONAL	EQ	EQUAL	PSF	POUNDS PER SQUARE FOOT
ALT	ALTERNATE	EW	EACH WAY		
ANCH	ANCHOR	EXP	EXPANSION	PSI	POUNDS PER SQUARE INCH
APPROX	APPROXIMATELY	EXT	EXTERIOR		
AR	ANCHOR ROD	FG	FINISH GRADE	R	RADIUS
BEL	BELOW	FIN	FINISH	RAD	RADIUS
BOT	BOTTOM	FND	FOUNDATION	REINF	REINFORCED, REINFORCING
BOTT	BOTTOM	FOC	FACE OF CONCRETE		
BRG	BEARING	FT	FOOT	REQD	REQUIRED
BTWN	BETWEEN	FTG	FOOTING	RET	RETAINING
CBC	CALIFORNIA BUILDING CODE	FV	FIELD VERIFY	SC	SCALE
		GR	GRADE	SCHED	SCHEDULE
CIP	CAST-IN-PLACE	HK	HOOK	SHT	SHEET
CJ	CONSTRUCTION JOINT	HORIZ	HORIZONTAL	SIM	SIMILAR
CL	CENTER LINE	HT	HEIGHT	SP	SPECIAL
CLR	CLEAR	ID	INSIDE DIAMETER	SPCG	SPACING
COL	COLUMN	JT	JOINT	SPEC	SPECIFICATION
CONC	CONCRETE	LB	POUND	SQ	SQUARE
CONN	CONNECTION	LBS	POUNDS	STRUC	STRUCTURAL
CONST	CONSTRUCTION	LONG	LONGITUDINAL	SYMM	SYMMETRICAL
CONT	CONTINUOUS	MATL	MATERIAL	T&B	TOP AND BOTTOM
CTR	CENTER	MAX	MAXIMUM	THK	THICKNESS
DET	DETAIL	MFR	MANUFACTURER	THRU	THROUGH
DIA	DIAMETER	MIN	MINIMUM	TRANSV	TRANSVERSE
DIAG	DIAGONAL	MISC	MISCELLANEOUS	TYP	TYPICAL
DIM	DIMENSION	NO	NUMBER	UON	UNLESS OTHERWISE NOTED
DO	DITTO	NTS	NOT TO SCALE		
DWG	DRAWING	OC	ON CENTER	VERT	VERTICAL
DWL	DOWEL	OD	OUTSIDE DIAMETER	VF	VERIFY IN FIELD
EA	EACH	OH	OPPOSITE HAND	W/	WITH
EF	EACH FACE	OPN	OPEN	WT	WEIGHT

DIMENSION TABLE FOR 90 deg AND 180 deg HOOKS				
BAR SIZE	A IN	B IN	C IN	D IN
#3	5	3	4	2 1/4
#4	6	4	6	3
#5	7	5	10	3 3/4
#6	9	6	12	4 1/2
#7	10	7	14	5 1/4
#8	11	8	16	6
#9	15	9 3/4	19	7 1/2
#10	17	10 3/4	22	8 3/4
#11	19	11 3/4	24	10



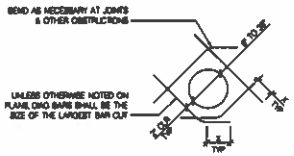
DIMENSION TABLE FOR 135 deg HOOKS			
BAR SIZE	D IN	E IN	F IN
#3	1 1/2	4 3/4	2 1/2
#4	2	6 1/2	3
#5	2 1/2	8 1/2	3 3/4
#6	4 1/2	9	4 1/2



NOTE:
UNLESS OTHERWISE NOTED, THESE DIMENSIONS SHALL BE USED FOR ALL INDICATED HOOKS.

TYPICAL REINFORCING BAR HOOKS AND BENDS DETAIL (1/42)

SCALE: NONE



PLACE DIAG BARS AS FOLLOWS:
1. AT CENTER OF WALLS FOR ONE LAYER OF REINFORCING.
2. AT EACH FACE FOR TWO LAYERS OF REINFORCING.

BAR SIZE	X
#4	12
#5	15
#6	19
#7	24
#8	30

ADDITIONAL REINFORCING AT WALL PENETRATION DETAIL (2/42)

SCALE: NONE

aark architects

RECORD PLAN	COUNTY APPROVED CHANGES	BENCH MARK
MARK VAN GEBBER RCE 5314 DATE	NO. / DESCRIPTION / APPROVED BY / DATE	DESCRIPTION: BRASS DISC IN SINGLE CONCRETE MILE MONUMENT LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 50' TO TOP OF HILL RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION: 576.98 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 42	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	52 SHEETS

STRUCTURAL NOTES AND DETAILS FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5506
CALIFORNIA COORDINATE INDEX 138-1791

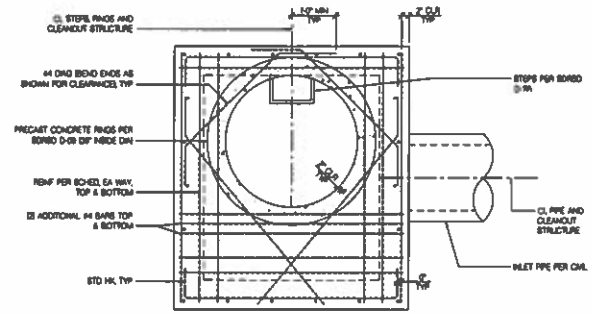
RECOMMENDED FOR APPROVAL: Mark Van Gebber
APPROVED FOR ENGINEERING: 1/4/23
APPROVED PLAN NO.: POS2021-LDPIP-60114

STORM DRAIN CLEANOUT STRUCTURE GEOMETRY

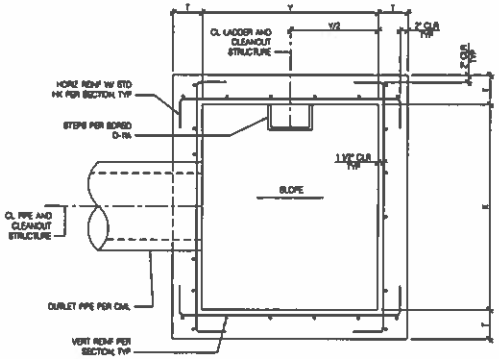
STATION	TYPE	DEPTH "Z"	DEPTH "Y"	WALL THICKNESS "T"	TOP SLAB THICKNESS "TT"	BASE SLAB THICKNESS "BT"	STRUCTURE WIDTH "X"	STRUCTURE WIDTH "Y"
32+53.00	A7	7'	9'04"	10"	10"	10"	84"	72"
5+00.00	A6	6'	10'01"	10"	10"	10"	72"	48"
24+07.72	A5	6'	10'72"	8"	10"	10"	60"	60"
30+69.54	A5	10'	21'28"	8"	10"	10"	60"	48"
30+78.35	A5	12'	21'87"	8"	10"	10"	60"	48"

STORM DRAIN CLEANOUT STRUCTURE REINFORCING

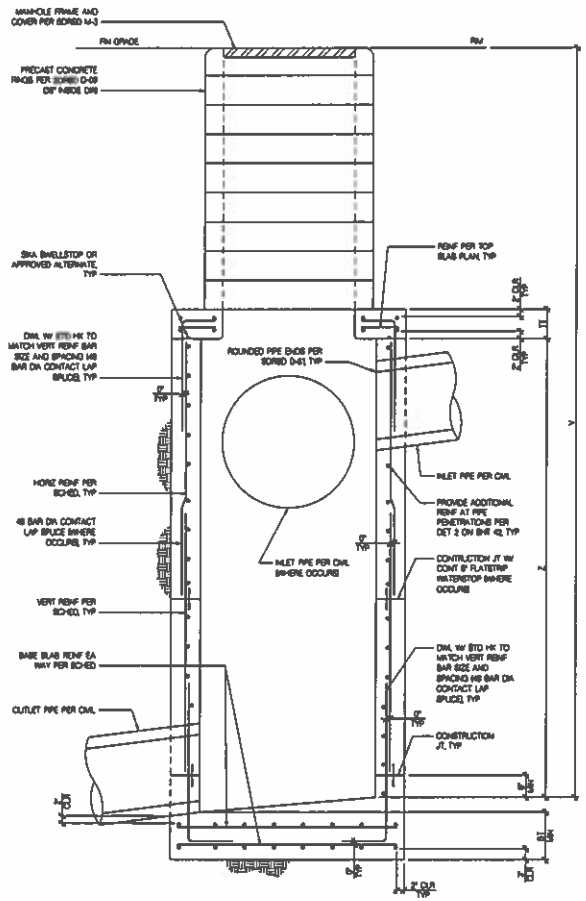
STATION	TYPE	DEPTH "Z"	DEPTH "Y"	WALL HORIZ REINF	WALL VERT REINF	TOP SLAB REINF	BASE SLAB REINF
32+53.00	A7	7'	9'04"	#5 @ 8" OC	#5 @ 12" OC	#5 @ 8" OC	#5 @ 8" OC
5+00.00	A6	6'	10'01"	#5 @ 8" OC	#5 @ 12" OC	#5 @ 8" OC	#5 @ 8" OC
24+07.72	A5	6'	10'72"	#4 @ 8" OC	#4 @ 12" OC	#4 @ 8" OC	#4 @ 8" OC
30+69.54	A5	10'	21'28"	#4 @ 8" OC	#4 @ 12" OC	#4 @ 8" OC	#4 @ 8" OC
30+78.35	A5	12'	21'87"	#4 @ 8" OC	#4 @ 12" OC	#4 @ 8" OC	#4 @ 8" OC



TOP SLAB PLAN



BASE SLAB PLAN



SECTION

NOTES:
1. SEE SAN DIEGO REGIONAL STANDARD DRAWING SDRSD D-09 FOR ITEMS SHOWN BUT NOT SPECIFIED.
2. SEE CIVIL PLAN FOR RIM, INLET PIPES AND OUTLET PIPE ELEVATIONS.
3. ALL JOINTS SHALL BE SET IN CLASS C MORTAR.

MODIFIED STORM DRAIN CLEANOUT STRUCTURES PLANS AND SECTION

SCALE: NONE

A
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aark engineering inc
1970 Cordell Court, Suite 102
El Cajon, CA 92020
tel 619 312 6236
www.aarkengineering.com

RECORD PLAN	COUNTY APPROVED CHANGES				BENCH MARK
MARK VAN SIEBER RCE 53114 DATE	NO.	DESCRIPTION	APPROVED BY	DATE	DESCRIPTION: BRASS DOC IN STREET CENTERLINE WELL MONUMENT. LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF STAY MESA ROAD, EAST CONCRETE APRON 50' TO TOP OF HILL. RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION: 526.98 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 43	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

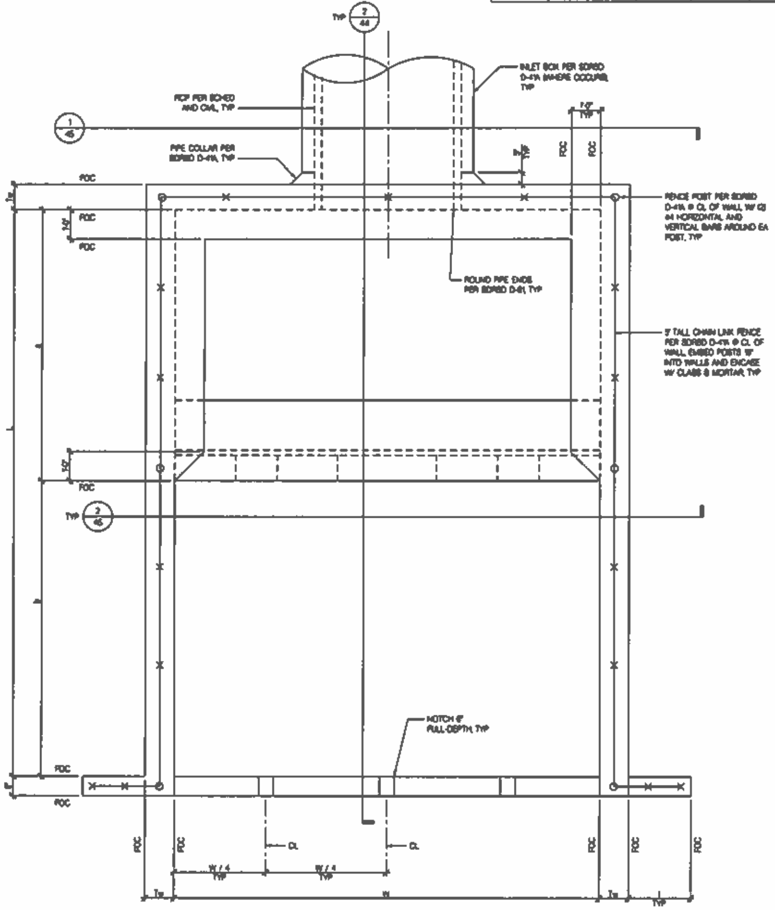
STRUCTURAL NOTES AND DETAILS FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
STAY BUSINESS PARK & HAVANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5506
CALIFORNIA COORDINATE INDEX 136-1791

RECOMMENDED FOR APPROVAL: 1/4/23
APPROVED FOR, WITH OR WITHOUT CHANGES: 1/4/23
DEPARTMENT PLAN NO. PDS2021-LDPIP-60114

P:\22046 - SIEMPRE VIVA\22046.000 - STAY BUSINESS PARK - HAVANO\DRAWINGS\STRUCTURAL\22046-42.DWG PLOT LAYOUT DATE: 10/20/2022 3:00 PM USER: aark

CONCRETE ENERGY DISSIPATER STRUCTURE GEOMETRY

PIPE DIAMETER	WIDTH "W"	RETURN "Y"	LENGTH "L"	DISTANCE "a"	DISTANCE "b"	WALL THICKNESS "Tw"
42"	10'-6"	3'-0"	14'-0"	8'-0"	6'-0"	8 1/2"
54"	12'-0"	3'-0"	17'-4"	7'-4"	10'-0"	10 1/2"
60"	14'-3"	3'-0"	18'-0"	8'-0"	11'-0"	10 1/2"



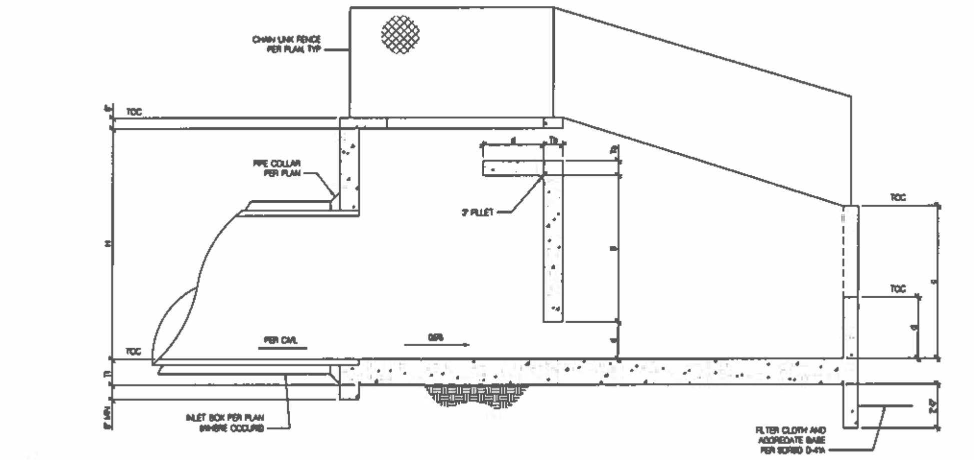
NOTES:
1. SEE SAN DIEGO REGIONAL STANDARD DRAWING (SDRSD) D-41A FOR NOTES AND ITEMS SHOWN BUT NOT SPECIFIED.
2. SEE CIVIL FOR ALL ELEVATIONS.
3. ALL JOINTS SHALL BE SET IN CLASS C MORTAR.

MODIFIED CONCRETE ENERGY DISSIPATER STRUCTURE PLAN (1/44)

SCALE: 1/2" = 1'-0"

CONCRETE ENERGY DISSIPATER STRUCTURE GEOMETRY

PIPE DIAMETER	HEIGHT "H"	BASE "Tf"	DISTANCE "c"	DISTANCE "d"	DISTANCE "e"	THICKNESS "Tx"	THICKNESS "Tb"
42"	8'-0"	10"	4'-6"	1'-9"	3'-11"	8"	8 1/2"
54"	9'-6"	12"	3'-6"	2'-2"	4'-11"	8"	10 1/2"
60"	10'-6"	12"	3'-11"	2'-6"	5'-4"	8"	10 1/2"



NOTES:
1. SEE SAN DIEGO REGIONAL STANDARD DRAWING (SDRSD) D-41A FOR ITEMS NOT SHOWN AND ITEMS SHOWN BUT NOT SPECIFIED.
2. SEE SECTION 3 ON SHEET 45 FOR REINFORCING.

MODIFIED ENERGY DISSIPATER STRUCTURE SECTION (2/44)

SCALE: NONE

aark engineering inc.
1970 Cordial Court, Suite 707
El Cajon, CA 92020
tel 619 312 6336
aarkengineering.com

RECORD PLAN

MARK VAN BIBBER DATE
RCE 53714

COUNTY APPROVED CHANGES

NO.	DESCRIPTION	APPROVED BY	DATE

BENCH MARK

DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT
LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 50' TO TOP OF HILL
RECORD FROM: R.O.S. 14841, PT. NO. 4022
ELEVATION: 570.99 DATUM: NGVD '29

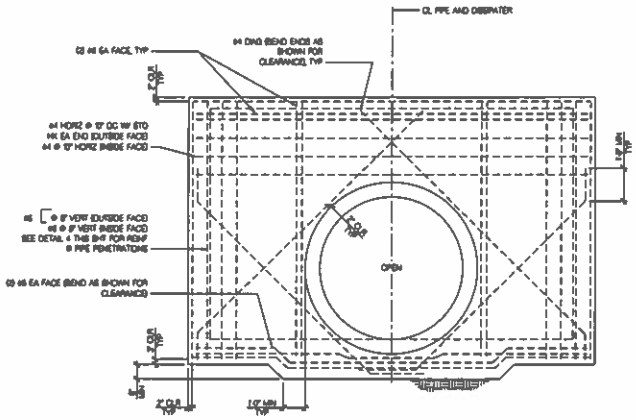
PRIVATE CONTRACT

SHEET 44 | COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS | 62 SHEETS

STRUCTURAL NOTES AND DETAILS FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5566
CALIFORNIA COORDINATE INDEX 138-1791

1/4/23

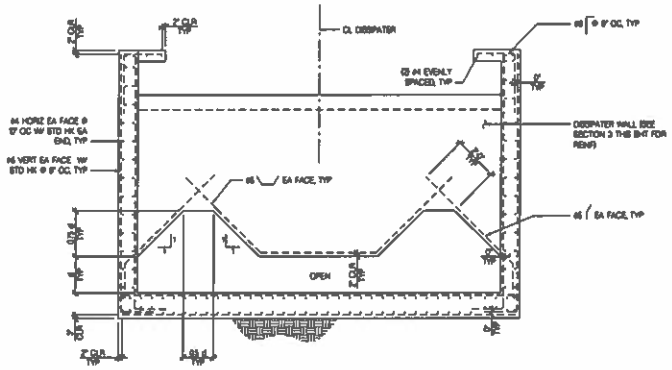
PDS2021-LDPUP-60114



NOTES:
1. SEE SAN DIEGO REGIONAL STANDARD DRAWING (SDRSD) D-43A FOR ITEMS NOT SHOWN AND FOR ITEMS SHOWN BUT NOT SPECIFIED.
2. CHAIN LINK FENCE NOT SHOWN FOR CLARITY.

MODIFIED ENERGY DISSIPATER STRUCTURE SECTION (1/4)

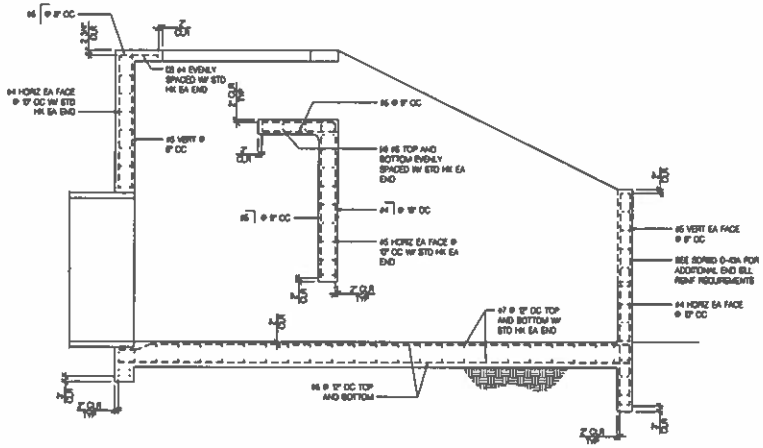
SCALE: NONE



NOTES:
1. SEE SAN DIEGO REGIONAL STANDARD DRAWING (SDRSD) D-43B FOR ITEMS NOT SHOWN AND FOR ITEMS SHOWN BUT NOT SPECIFIED.
2. CHAIN LINK FENCE NOT SHOWN FOR CLARITY.

MODIFIED ENERGY DISSIPATER STRUCTURE SECTION (2/4)

SCALE: NONE



NOTES:
1. SEE SAN DIEGO REGIONAL STANDARD DRAWING (SDRSD) D-43B FOR ITEMS NOT SHOWN AND FOR ITEMS SHOWN BUT NOT SPECIFIED.
2. CHAIN LINK FENCE NOT SHOWN FOR CLARITY.

MODIFIED ENERGY DISSIPATER STRUCTURE SECTION (3/4)

SCALE: NONE

aark engineering
1970 Cordell Court, Suite 210
El Cajon, CA 92020
tel 619 312 9339
aark@aarkeng.com

RECORD PLAN	COUNTY APPROVED CHANGES				BENCH MARK
MARK VAN BIBBER RCE 53314 DATE	NO.	DESCRIPTION	APPROVED BY	DATE	DESCRIPTION: BRASS DISC IN STREET CONCRETE WALL MONUMENT LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 50' TO TOP OF HILL RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION: 820.99 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 43	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

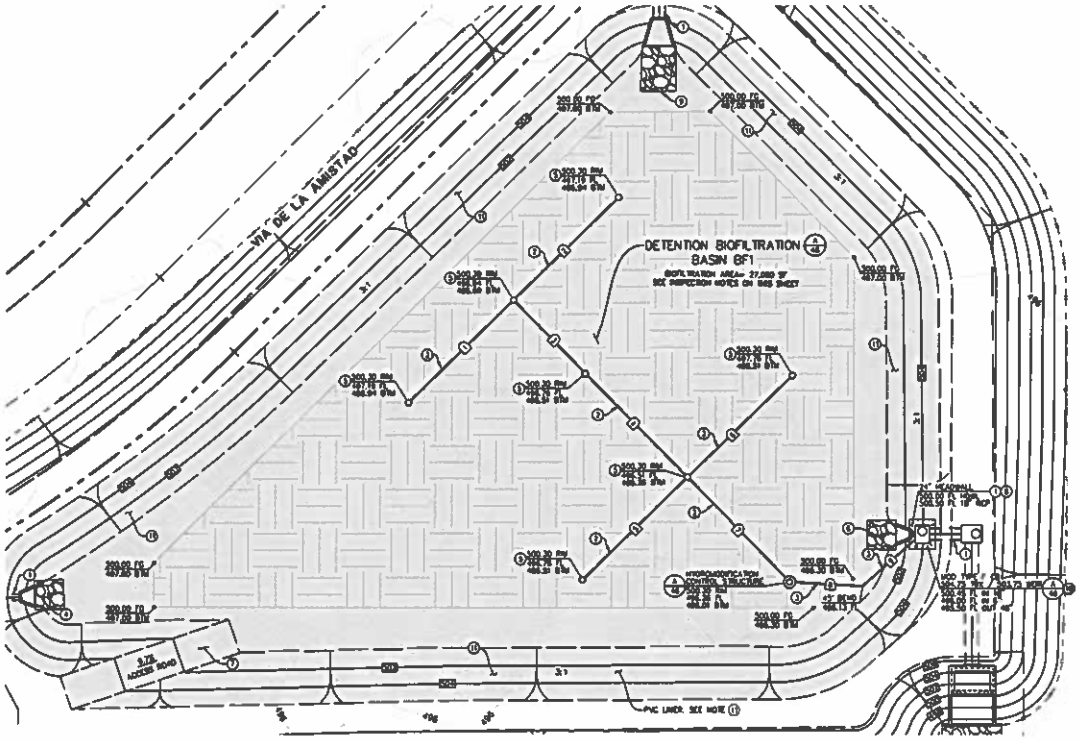
STRUCTURAL NOTES AND DETAILS FOR:

ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & NAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5506

CALIFORNIA COORDINATE INDEX 136-1791

RECOMMENDED FOR APPROVAL: 7/9/23

PDS2021-LDPMP-60114



DRAINAGE CONSTRUCTION NOTES

1. SEE IMPROVEMENT PLAN FOR STORM DRAIN PROFILES.
2. 6" PVC PERFORATED PIPE (PERFORATIONS DOWN).
3. 6" PVC SOLID UNDERDRAIN.
4. 10'(H)' RIP RAP ENERGY DISSIPATOR PER RSD D-40 (TYPE 2), 1/4 TON CLASS, T = 2.7 FT., WITH GEOTEXTILE FILTER FABRIC BLANKET.
5. PVT STORM DRAIN CLEANOUT PER RSD SC-01 WITH SMOOTH CONCRETE COVER IN LANDSCAPE; IN BIOFILTRATION PLANTERS, SET RIM AT 0.3 ABOVE FINISH GRADE
6. 10'(H)' RIP RAP ENERGY DISSIPATOR PER RSD D-40 (TYPE 2), NO. 2 BACKING CLASS, T = 1.1 FT., WITH GEOTEXTILE FILTER FABRIC BLANKET.
7. 12' WIDE MAINTENANCE ACCESS ROAD, 6" THICK RECYCLED BASE. PREPARE SUBGRADE PER GEOTECHNICAL INVESTIGATION.
8. MODIFIED WING TYPE HEADWALL PER RSD D-34, D=24" MOD: F=4.5', L=4.5', D=18"
9. 15' LONG X 13' WIDE RIP RAP ENERGY DISSIPATOR PER RSD D-40 (TYPE 2), 1/4 TON CLASS, T = 2.7 FT., WITH GEOTEXTILE FILTER FABRIC BLANKET.
10. 5' WIDE CONCRETE APRON AROUND TYPE 'F' CATCH BASIN. CONCRETE SHALL BE 6" THICK 560-C-3250 CLASS WITH 6" x 6"-W1.4 x W1.4 WWF REINFORCEMENT AND 8" THICK DEEPENED EDGES.
11. LINER TO EXTEND 1.0' ABOVE WATER SURFACE ELEVATION. SEE

STORM DRAIN DATA (PVT.)

NO.	LENGTH	SLOPE	SIZE	REMARKS
1	50.00'	0.50%	6"	PVC (NOW/DRAIN) PVT
2	50.00'	0.50%	6"	PVC (NOW/DRAIN) PVT
3	50.00'	0.50%	6"	PVC (NOW/DRAIN) PVT
4	50.00'	0.50%	6"	PVC (NOW/DRAIN) PVT
5	50.00'	0.50%	6"	PVC (NOW/DRAIN) PVT
6	50.00'	0.50%	6"	PVC (NOW/DRAIN) PVT
7	50.00'	0.50%	6"	PVC (NOW/DRAIN) PVT
8	73.00'	0.50%	6"	PVC PVT
9	73.00'	0.50%	6"	PVC PVT

-PIPE LENGTHS SHOWN ARE TO INSIDE FACE OF STRUCTURE FOR CAST IN PLACE STRUCTURES AND TO CENTER OF PRECAST CATCH BASINS.
-ALL PVC STORM DRAIN PIPE SHALL CONFORM TO SDR-35 WITH BEDDING PER RSD SP-02

INSPECTION NOTES FOR WATER QUALITY CERTIFICATION

AS A PRIORITY DEVELOPMENT PROJECT SUBJECT TO THE REQUIREMENTS OF REGIONAL WATER QUALITY CONTROL BOARD ORDER NO. R9-2013-0001, AND ITS SUBSEQUENT AMENDMENTS, THE ENGINEER OF WORK IS REQUIRED TO CERTIFY THAT EACH STRUCTURAL BMP, "HAS BEEN CONSTRUCTED AND IS OPERATING IN COMPLIANCE WITH ALL OF ITS SPECIFICATIONS, PLANS, PERMITS, ORDINANCES, AND THE REQUIREMENTS OF THE MS4 PERMIT" IN ORDER FOR THE ENGINEER OF WORK TO PROVIDE THIS CERTIFICATION, AS REQUIRED BY THE COUNTY OF SAN DIEGO AT PERMIT CLOSE-OUT, THE FOLLOWING REQUIREMENTS MUST BE SATISFIED. ANY WORK COMPLETED WITHOUT THE REQUIRED INSPECTIONS BY THE ENGINEER OF WORK IS SUBJECT TO REMOVAL.

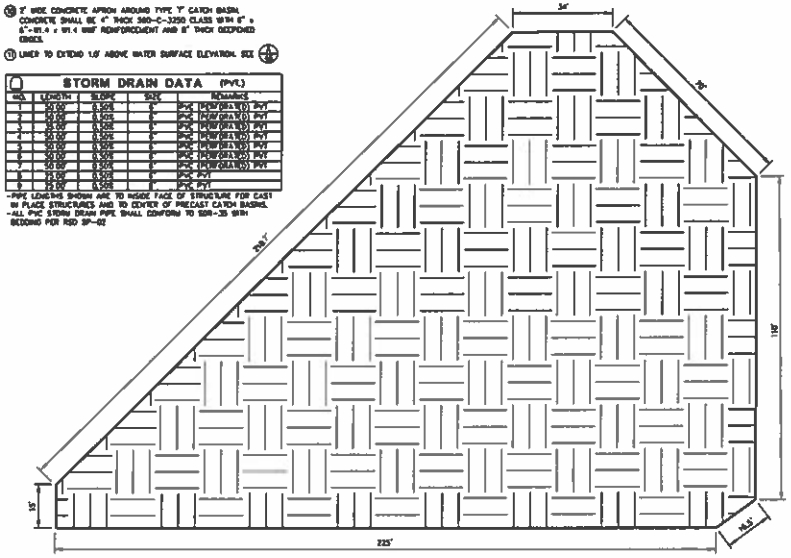
- PROVIDE ENGINEER OF WORK WITH A MATERIALS SUBMITTAL FOR LINER, GEOTEXTILES, STRUCTURES, AND ALL BIOFILTRATION MEDIA.
- CONTACT ENGINEER OF WORK, WITH A MINIMUM OF 2 WORKING DAYS NOTICE, FOR INSPECTION AT THE FOLLOWING MILESTONES:

BIOFILTRATION BASINS

- ROUGH GRADE CERTIFICATION – PRIOR TO LINER PLACEMENT WITHIN MEDIA ZONE SHOWN IN PLAN VIEW
- PLACEMENT OF IMPERMEABLE LINER, PRIOR TO PLACEMENT OF MEDIA
- INSTALLATION OF SUBDRAIN SYSTEMS, PRIOR TO BEING COVERED BY MEDIA.
- ENGINEER OF WORK SHALL OBSERVE PLACEMENT OF BIOFILTRATION MEDIA LIFTS AND WATERING DOWN OF MEDIA TO ENSURE SETTLEMENT.
- FINAL INSTALLATION, INCLUDING PLANTING AND MULCH.

MAINTENANCE NOTE:

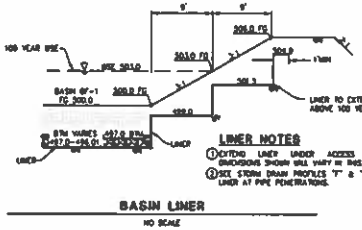
PRIMARY MAINTENANCE OF BIOFILTRATION BASINS INCLUDING STORM DRAIN PIPING, LANDSCAPE AND ANY OTHER STRUCTURAL CONTROL BMPS SHALL BE THE RESPONSIBILITY OF THE OWNER.



PLAN: BIOFILTRATION BASIN BF1

SCALE: 1" = 20'

NOTE
BIOFILTRATION BASINS ARE NOT INTENDED TO RECEIVE SEDIMENTS OR CONSTRUCTION DEBRIS, EITHER DIRECTLY OR WITHIN STORM WATER RUNOFF. UPON COMPLETION, PLANTERS MUST BE PROTECTED, AS APPROPRIATE, TO PREVENT CONTAMINATION. IF BIOFILTRATION MEDIA IS CONTAMINATED, REPLACEMENT MAY BE REQUIRED

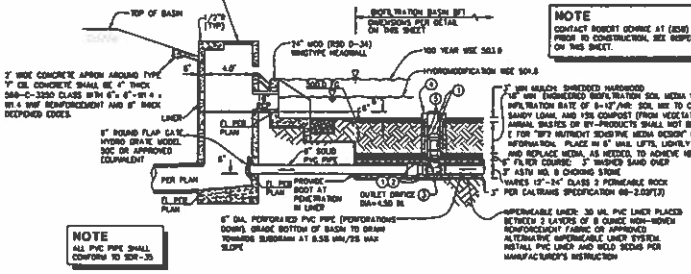


LINER NOTES

1. DITCH LINER UNDER ACCESS RAMP. DIMENSIONS SHOWN WILL VARY IN THIS AREA.
2. SEE STORM DRAIN PROFILES "F" & "J" FOR LINER AT PIPE PENETRATIONS.

BASIN LINER

NO SCALE



NOTE
CONTACT ROBERT GOHANE AT (858) 694-3660 PRIOR TO CONSTRUCTION. SEE INSPECTION NOTES ON THIS SHEET.

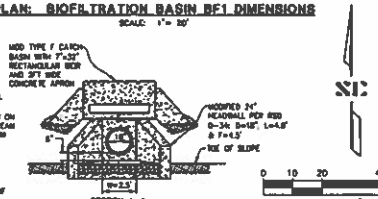
NOTE
STRICT CONSTRUCTION TOLERANCES NEEDED FOR DIMENSIONS SHOWN

NOTES

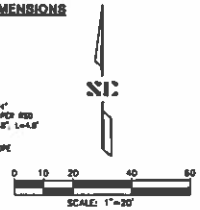
1. 6" PVC RECTORSEAL CLEAN CHECK EXTENDABLE BACKWATER VALVE, OR COUNTY APPROVED EQUIVALENT (HYDROMODIFICATION OUTLET CONTROL STRUCTURE).
2. INSTALL VALVE BODY "BACKWARDS"; FLOW ARROW ON SIDE OF VALVE BODY WILL POINT TOWARDS UPSTREAM PIPE SO FLAPPER SEATS WHEN FLOW DIVERTS FROM SUBDRAIN SYSTEM.
3. USE HOLE SAW TO CREATE OUTLET ORIFICE IN MIDDLE OF FLAPPER.
4. 18" DIA. CONCRETE COLLAR. USE SONOTUBE TO CREATE SMOOTH SURFACE. CONCRETE SHALL BE 560-C-3250 CLASS WITH 6"x 6"-W1.4 x W1.4 WWF REINFORCEMENT. PAINT "STORM WATER CONTROL DEVICE" ON TOP OF COLLAR, USING STENCIL WITH BLACK PAINT.
5. PER MANUFACTURER'S INSTALLATION INSTRUCTIONS, PROVIDE A NOTCH AND REFERENCE MARK IN OUTER RISER, TO ALIGN WITH V-NOTCH ON INNER RISER.

PLAN: BIOFILTRATION BASIN BF1 DIMENSIONS

SCALE: 1" = 20'



SECTION A-A
NO SCALE



SCALE: 1"=20'

BIOFILTRATION BASIN BF1 (PVT)

NOT TO SCALE

A
46

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.3660 stevenscresto.com

RECORD PLAN	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. GOHANE DATE RCE 45717	NO. / DESCRIPTION / APPROVED BY / DATE	DESCRIPTION: BRASS DISC IN STREET CONTAINING WELL MONUMENT LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 50' TO TOP OF HILL RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION: 576.99 DATUM: NGVD '29

PRIVATE CONTRACT

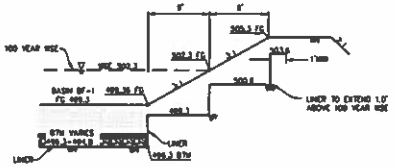
SHEET 46	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

BASIN BF1 (HAWANO SUBDIVISION) FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5500 & 5900
CALIFORNIA COORDINATE INDEX 138-1791

RECOMMENDED FOR APPROVAL: Robert Gohane
APPROVED FOR PUBLIC WORKS: 1/4/23
IMPROVEMENT PLAN NO. PDS2021-LDPMP-60114

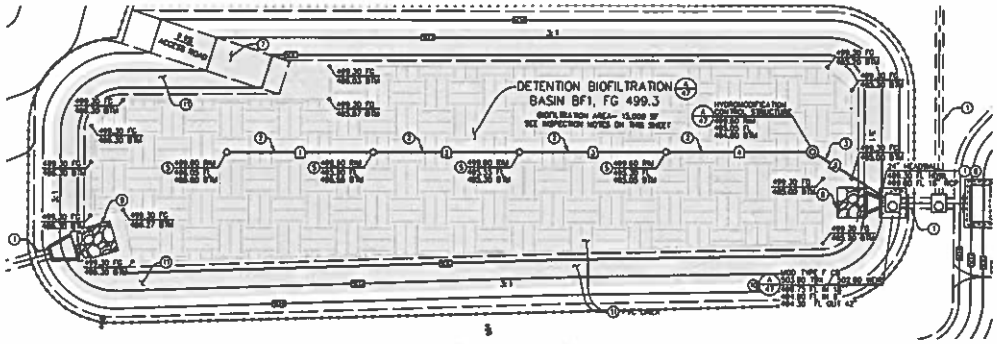
LINER NOTES

1. EXTEND LINER UNDER ACCESS RAMP DIMENSIONS SHOWN WILL VARY IN THIS AREA.
2. SEE STORM DRAIN PROFILES "F" & "J" FOR LINER AT PIPE PENETRATIONS.



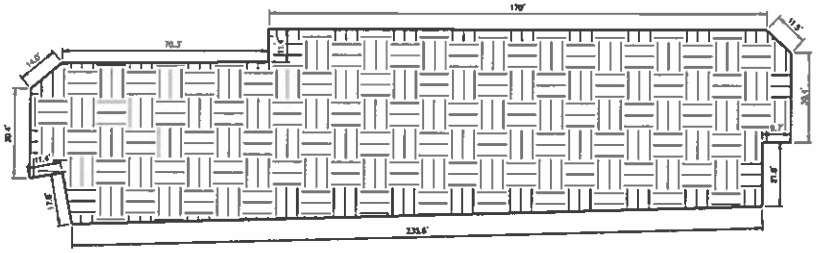
BASIN LINER

NO SCALE



PLAN: BIOFILTRATION BASIN BF1

SCALE: 1" = 20'



PLAN: BIOFILTRATION BASIN BF1 DIMENSIONS

SCALE: 1" = 20'

DRAINAGE CONSTRUCTION NOTES

1. SEE IMPROVEMENT PLAN FOR STORM DRAIN PROFILES.
2. 6" PVC PERFORATED PIPE (PERFORATIONS DOWN).
3. 6" PVC SOLID UNDERDRAIN.
5. PVT STORM DRAIN CLEANOUT PER RSD SC-01 WITH SMOOTH CONCRETE COVER IN LANDSCAPE, IN BIOFILTRATION PLANTERS, SET RIM AT 0.3 ABOVE FINISH GRADE.
6. 10'W/10' RIP RAP ENERGY DISSIPATER PER RSD D-40 (TYPE 3), NO. 2 BACKING CLASS. T = 1.1 FT., WITH GEOTEXTILE FILTER FABRIC BLANKET.
7. 12' WIDE MAINTENANCE ACCESS ROAD, 6" THICK RECYCLED BASE. PREPARE SUBGRADE PER GEOTECHNICAL INVESTIGATION.
8. MODIFIED WING TYPE HEADWALL PER RSD D-34, D=24" MOD: F=4.5', L=4.8', D=18"
9. 10'W/6.5' RIP RAP ENERGY DISSIPATER PER RSD D-40 (TYPE 2), 1/4 TON CLASS, T = 2.7 FT., WITH GEOTEXTILE FILTER FABRIC BLANKET.
10. 3' WIDE CONCRETE APRON AROUND TYPE 'F' CATCH BASIN. CONCRETE SHALL BE 4" THICK 560-C-3250 CLASS WITH 6" x 6"-W1.4 x W1.4 WWF REINFORCEMENT AND 8" THICK DEEPENED EDGES.
11. LINER TO EXTEND 1.0' ABOVE WATER SURFACE ELEVATION.

STORM DRAIN DATA (PVT.)

NO.	LENGTH	SLOPE	SIZE	REMARKS
1	50.00'	0.50%	6"	PVC (PERFORATED) PVT
2	50.00'	0.50%	6"	PVC (PERFORATED) PVT
3	50.00'	0.50%	6"	PVC (PERFORATED) PVT
4	50.00'	0.50%	6"	PVC (PERFORATED) PVT
5	50.00'	0.50%	6"	PVC (PERFORATED) PVT
6	50.00'	0.50%	6"	PVC PVT

-PIPE LENGTHS SHOWN ARE TO INSIDE FACE OF STRUCTURE FOR CAST IN PLACE STRUCTURES AND TO CENTER OF PRECAST CATCH BASINS.
-ALL PVC STORM DRAIN PIPE SHALL CONFORM TO SDR-35 WITH BEDDING PER RSD SP-02

INSPECTION NOTES FOR WATER QUALITY CERTIFICATION

AS A PRIORITY DEVELOPMENT PROJECT SUBJECT TO THE REQUIREMENTS OF REGIONAL WATER QUALITY CONTROL BOARD ORDER NO. R9-2013-0001, AND ITS SUBSEQUENT AMENDMENTS, THE ENGINEER OF WORK IS REQUIRED TO CERTIFY THAT EACH STRUCTURAL BMP, "HAS BEEN CONSTRUCTED AND IS OPERATING IN COMPLIANCE WITH ALL OF ITS SPECIFICATIONS, PLANS, PERMITS, ORDINANCES, AND THE REQUIREMENTS OF THE NPDES PERMIT." IN ORDER FOR THE ENGINEER OF WORK TO PROVIDE THIS CERTIFICATION, AS REQUIRED BY THE COUNTY OF SAN DIEGO AT PERMIT CLOSE-OUT, THE FOLLOWING REQUIREMENTS MUST BE SATISFIED. ANY WORK COMPLETED WITHOUT THE REQUIRED INSPECTIONS BY THE ENGINEER OF WORK IS SUBJECT TO REMOVAL.

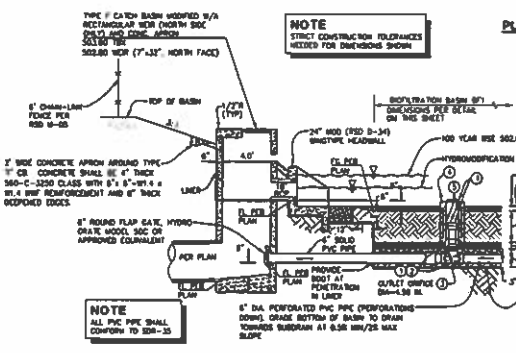
- PROVIDE ENGINEER OF WORK WITH A MATERIALS SUBMITTAL FOR LINER, GEOTEXTILES, STRUCTURES, AND ALL BIOFILTRATION MEDIA.
- CONTACT ENGINEER OF WORK, WITH A MINIMUM OF 2 WORKING DAYS NOTICE, FOR INSPECTION AT THE FOLLOWING MILESTONES:

BIOFILTRATION BASINS

- ROUGH GRADE CERTIFICATION - PRIOR TO LINER PLACEMENT WITHIN MEDIA ZONE SHOWN IN PLAN VIEW
- PLACEMENT OF IMPERMEABLE LINER, PRIOR TO PLACEMENT OF MEDIA.
- INSTALLATION OF SUBDRAIN SYSTEMS, PRIOR TO BEING CONCRETE BY MEDIA.
- ENGINEER OF WORK SHALL OBSERVE PLACEMENT OF BIOFILTRATION MEDIA LIFTS AND WATERING DOWN OF MEDIA TO ENSURE SETTLEMENT.
- FINAL INSTALLATION, INCLUDING PLANTING AND MULCH.

MAINTENANCE NOTE:

PRIMARY MAINTENANCE OF BIOFILTRATION BASINS INCLUDING STORM DRAIN PIPING, LANDSCAPE AND ANY OTHER STRUCTURAL CONTROL BMPS SHALL BE THE RESPONSIBILITY OF THE OWNER.



NOTE

STRICT CONSTRUCTION TOLERANCES NEEDED FOR DIMENSIONS SHOWN

NOTE

CONTACT ROBERT DEHNKE OR BRYAN HILL AT (858) 694-3460 PRIOR TO CONSTRUCTION. SEE INSPECTION NOTES ON THIS SHEET.

NOTE

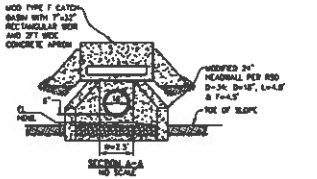
ALL PVC PIPE SHALL CONFORM TO SDR-35

NOTE

BIOFILTRATION PLANTERS ARE NOT INTENDED TO RECEIVE SEDIMENTS OR CONSTRUCTION DEBRIS, EITHER DIRECTLY OR WITHIN STORM WATER RUNOFF. UPON COMPLETION, PLANTERS MUST BE PROTECTED, AS APPROPRIATE, TO PREVENT CONTAMINATION. IF BIOFILTRATION MEDIA IS CONTAMINATED, REPLACEMENT MAY BE REQUIRED.

NOTES

1. 6" PVC RECTORISEAL CLEAN CHECK EXTENDABLE BACKWATER VALVE, OR COUNTY APPROVED EQUIVALENT (HYDROMODIFICATION OUTLET CONTROL STRUCTURE).
2. INSTALL VALVE BODY "BACKWARDS". FLOW ARROW ON SIDE OF VALVE BODY WILL POINT TOWARDS UPSTREAM PIPE. RO FLAPPER SEATS WHEN FLOW ENTERS FROM SUBDRAIN SYSTEM.
3. USE HOLE SAW TO CREATE OUTLET ORIFICE IN MIDDLE OF FLAPPER.
4. 18" DIA. CONCRETE COLLAR. USE SONOTUBE TO CREATE SMOOTH SURFACE. CONCRETE SHALL BE 560-C-3250 CLASS WITH 6" x 6"-W1.4 x W1.4 WWF REINFORCEMENT. PAINT "STORM WATER CONTROL DEVICE" ON TOP OF COLLAR, USING STENCIL WITH BLACK PAINT.
5. PER MANUFACTURER'S INSTALLATION INSTRUCTIONS, PROVIDE A NOTCH AND REFERENCE MARK IN OUTER RISER, TO ALIGN WITH V-NOTCH ON INNER RISER.



BIOFILTRATION BASIN BF1 (PVT)

NOT TO SCALE

SCALE: 1"=20'

A/47

STATE OF CALIFORNIA — REGISTERED PROFESSIONAL ENGINEER — ROBERT R. DEHNKE — No. 45717 — EXP. 12/31

PRIVATE CONTRACT

SHEET	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS
47		

BASIN BF1 (OTAY BUSINESS PARK) FOR:

ALTA ROAD & SIEMPRE VIVA ROAD

OTAY BUSINESS PARK & HAWANO SUBDIVISION

COUNTY OF SAN DIEGO TRACTS 5806 & 5886

CALIFORNIA COORDINATE INDEX 138-1791

RECOMMENDED FOR APPROVAL — APPROVED FOR ISSUANCE — 1/4/23

APPROVED PLAN NO. POS2021-LDPIP-60114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.9460 stevenscresto.com

RECORD PLAN	COUNTY APPROVED CHANGES				BENCH MARK
ROBERT R. DEHNKE RCE 45717 DATE	ON	DESCRIPTION	APPROVED BY	DATE	DESCRIPTION: BRASS DISC IN STREET CONTAINING MEDA MONUMENT. LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 54' TO TOP OF HILL. RECORD FROM: R.O.S. 14641, PT. NO. 4022 ELEVATION: 870.89 DATUM: NGVD '29

EROSION AND SEDIMENT CONTROL NOTES

1. IN CASE EMERGENCY WORK IS REQUIRED, CONTACT: BING BLACK FROM OH REALTY X-ELC | OTAY BUSINESS PARK, LP, AT 858-663-1089.
2. EROSION CONTROL MEASURES SHOWN ON PLANS SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE PUBLIC WORKS INSPECTOR.
3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PLACING AND MAINTAINING ALL EROSION CONTROL DEVICES IN WORKING ORDER TO THE SATISFACTION OF THE COUNTY OF SAN DIEGO ENGINEER THROUGHOUT THE CONSTRUCTION PHASE OF THE PROJECT AND UNTIL PERMANENT GROUND COVER AND LANDSCAPING IS ESTABLISHED.
4. THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL MEASURES AS MAY BE REQUIRED BY THE COUNTY OF SAN DIEGO ENGINEER DUE TO COMPLETED GRADING OPERATIONS OR UNFORESEEN CIRCUMSTANCES WHICH MAY ARISE.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATERS CREATE HAZARDOUS CONDITION.
6. GRADED AREAS AROUND THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
7. ALL GRAVEL BAGS SHALL HAVE 3/4 INCH MINIMUM AGGREGATE (NO SANDBAGS AND NO BURLAP TYPE BAGS ALLOWED).
8. EXISTING STREETS SHALL BE KEPT FREE OF DIRT AND DEBRIS, AND SHALL BE MAINTAINED IN GOOD CONDITION. DUST SHALL BE CONTROLLED SO THAT IT IS NOT A NUISANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY STREET OR PROPERTY DAMAGE, PUBLIC OR PRIVATE, AS A RESULT OF THE WORK.
9. THE PLAN SHALL PROVIDE THAT NO SAND, SILT, OR DEBRIS SHALL BE ALLOWED TO ENTER THE STORM DRAIN SYSTEM INCLUDING PUBLIC STREETS.
10. THE OWNER AND/OR THE OWNER'S CONTRACTOR SHALL IMPLEMENT THE PLAN AND TAKE REMEDIAL AND PREVENTIVE ACTION IMMEDIATELY WHEN POLLUTANT DISCHARGE OCCURS AND/OR THE COUNTY OF SAN DIEGO ENGINEER OR THE BUILDING DIVISION DIRECTS.
11. THE ABOVE SHALL APPLY STARTING THE 1ST DAY GRADING AND/OR CONSTRUCTION AND SHALL REMAIN IN EFFECT UNTIL ALL GRADING AND/OR CONSTRUCTION WORK HAS BEEN COMPLETED AND 70% OF THE DISTURBED LAND HAS BEEN STABILIZED BY APPROVED VEGETATION, MULCH, GRAVEL, ETC.
12. AN IRRIGATION SYSTEM TO BE INSTALLED NOT LATER THAN MAY 15TH, FOLLOWING THE PLANTING OF SLOPES.

SILTATION AND SEDIMENT CONTROL MEASURES NOTES:

1. SEDIMENT BASINS, IF UTILIZED, SHALL BE DESIGNED IN CONFORMANCE WITH CASQA FACT SHEET SC-2. SEDIMENT BASIN. THE BASIN SHALL BE MAINTAINED AND CLEANED TO DESIGN CONTOURS AFTER EVERY RUNOFF PRODUCING STORM. THE BASIN SHOULD BE A SEMI-PERMANENT STRUCTURE THAT WILL REMAIN UNTIL SOIL STABILIZING VEGETATION HAS BECOME WELL ESTABLISHED ON ALL CONTRIBUTE SLOPES.
2. UTILITY TRENCHES THAT ARE CUT THROUGH BASIN DIKES OR BASIN INLET DIKES SHALL BE PLUGGED WITH GRAVEL BAGS FROM TOP OF PIPE TO TOP OF DIKE.
3. DISCHARGERS SHALL APPLY LINEAR SEDIMENT CONTROL ALONG THE TOE OF THE SLOPE, FACE OF THE SLOPE, AND AT THE GRADE BREAKS OF EXPOSED SLOPES TO COMPLY WITH SHEET FLOW LENGTHS IN ACCORDANCE WITH THE TABLE BELOW (TAKEN FROM THE CCP):

SLOPE PERCENTAGE	SHEET FLOW LENGTH NOT TO EXCEED
0-25%	30 FEET
25-50%	15 FEET
OVER 50%	10 FEET

4. AFTER UTILITY TRENCHES ARE BACK FILLED AND COMPACTED, THE SURFACES OVER SUCH TRENCHES SHALL BE MOUNDED SLIGHT TO PREVENT CHANNELING OF WATER IN THE TRENCH AREA. CARE SHOULD BE EXERCISED TO PROVIDE FOR CROSS FLOW AT FREQUENT INTERVALS WHERE TRENCHES ARE NOT ON THE CONTOUR, OF A GROOVED STREET.
5. ALL BUILDING PADS SHOULD BE SLOPED TOWARDS THE SEDIMENTATION BASIN, IF APPLICABLE, AND VELOCITY CHECK DAMS PROVIDED.
6. PROVIDE A GRAVEL BAG SILT BASIN OR FILTER FABRIC TRAP BY EVERY STORM DRAIN INLET TO PREVENT SEDIMENT FROM ENTERING THE STORM DRAIN SYSTEM.
7. GRAVEL, BAGS AND FILL MATERIAL SHALL BE STOCKPILED AT INTERVALS, READY FOR USE WHEN REQUIRED.
8. ALL EROSION CONTROL DEVICES WITHIN THE DEVELOPMENT SHOULD BE MAINTAINED DURING AND AFTER EVERY RUNOFF PRODUCING STORM IF POSSIBLE. MAINTENANCE CREWS WOULD BE REQUIRED TO HAVE ACCESS TO ALL AREAS.
9. ANY PROPOSED ALTERNATE CONTROL MEASURES MUST BE APPROVED IN ADVANCE BY THE COUNTY OF SAN DIEGO ENGINEERING DIVISION.
10. VEGETATION STABILIZING USING HYDROSEED (SC-4) OR ACCEPTABLE LANDSCAPING MAY BE USED ONLY MAY 1 TO AUGUST 15. VEGETATION PROPOSED TO STABILIZE SLOPES MUST BE INSTALLED BY AUGUST 15, WATERED AND ESTABLISHED PRIOR TO OCTOBER 1. THE PROPERTY OWNER OR AUTHORIZED AGENT SHALL SHOW ON THE PLAN A CONTINGENCY PHYSICAL BMP TO BE INSTALLED BY OCTOBER 1 IF HYDROSEED ESTABLISHMENT DOES NOT OCCUR BY THAT DATE. IF LANDSCAPING IS PROPOSED, EROSION CONTROL MEASURES MUST ALSO BE USED WHILE LANDSCAPING IS BEING ESTABLISHED. ESTABLISHED VEGETATION SHALL HAVE A SUBSURFACE MAT OF INTERTWINED MATURE ROOTS WITH A UNIFORM VEGETATIVE COVERAGE OF 70 PERCENT OF THE NATURAL VEGETATIVE COVERAGE OR MORE ON ALL DISTURBED AREAS.
11. AREAS OF GRADED PADS THAT HAVE ACTIVE STRUCTURE CONSTRUCTION UNDERWAY MAY BE PROTECTED BY ROLLED PLASTIC AS PART OF A REAP UNTIL THE STRUCTURE'S ROOF HAS BEEN COMPLETED. THE REMAINDER OF THE PAD AREA MUST CONTINUE TO BE PROTECTED USING EROSION CONTROL MEASURES IDENTIFIED ABOVE.
12. GRASS LINED SWALES TO RECEIVE TEMPORARY IRRIGATION AND VEGETATION ESTABLISHMENT UNTIL FINAL PLANTING AND IRRIGATION PLANS ARE IMPLEMENTED WITH THE BUILDING PERMIT (TO THE SATISFACTION OF THE COUNTY OF SAN DIEGO ENGINEERING DIVISION).
13. ALL SLOPES (OTHER THAN TEMPORARY) GREATER THAN 3 FEET IN HEIGHT SHALL BE PLANTED AND IRRIGATED.

EMERGENCY EROSION CONTROL MEASURES NOTES:

1. ALL BUILDING PADS TO BE DIKED AND THE DIKES MAINTAINED TO PREVENT WATER FROM FLOWING FROM THE PAD UNTIL THE PARKING AREAS AND DRIVE AISLES ARE PAVED AND WATER CAN FLOW FROM THE PADS WITHOUT CAUSING EROSION, OR CONSTRUCT DRAINAGE FACILITIES TO THE SATISFACTION OF THE COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS THAT WILL ALLOW WATER TO DRAIN FROM THE PAD WITHOUT CAUSING EROSION.
2. TOPS OF ALL SLOPES TO BE DIKED OR MEDIMOED TO PREVENT WATER FROM FLOWING OVER THE CREST OF SLOPES.
3. MANUFACTURED SLOPES AND PADS SHALL BE ROUNDED VERTICAL AND HORIZONTALLY AS APPROPRIATE TO BLEND WITH THE SURROUNDING OFF-SITE TOPOGRAPHY.
4. AS SOON AS CUTS OR EMBANKMENTS ARE COMPLETED, BUT NOT LATER THAN OCTOBER 1 ALL CUT AND FILL SLOPES SHALL BE STABILIZED WITH A HYDROMULCH MIXTURE OR AN EQUAL TREATMENT APPROVED BY THE COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS. APPROVED SLOPE PROTECTION MEASURES SHALL PROCEED IMMEDIATELY BEHIND THE EXPOSURE OF CUT SLOPES AND/OR THE CREATION OF EMBANKMENT SLOPES.
5. EROSION CONTROL MEASURES ARE TO BE IMPLEMENTED TO CONTROL SOIL MOVEMENT SATISFACTORY TO THE COUNTY DEPARTMENT OF PUBLIC WORKS IN EVENT THE SITE IS EXPOSED TO EROSION. EROSION CONTROL MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO, SLOPE PROTECTION, INSTALLATION OF J/TC WATERS, OR APPROVED EQUIVALENT, DESILTING BASINS, ENERGY DISSIPATORS, SILT CONTROL, SAND BAGGING AND STORM DRAINS.
6. GRAVEL BAG CHECK DAMS TO BE PLACED IN A MANNER APPROVED BY THE COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS IN UNPAVED DRIVE AISLES AND DIRECT GRADED OR EXCAVATED AREAS AS REQUIRED BY THE COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS.
7. THE DEVELOPER TO MAINTAIN THE PLANTING AND EROSION CONTROL MEASURES DESCRIBED ABOVE UNTIL RELIEVED OF SAME BY THE COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS. THE DEVELOPER TO REMOVE ALL SOIL INTERCEPTED BY THE GRAVEL BAGS, CATCH BASINS AND DESILTING BASINS AND KEEP THESE FACILITIES CLEAN AND FREE OF SILT AND SAND AS DIRECTED BY THE COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS. THE DEVELOPER SHALL REPAIR ANY ERODED SLOPES AS DIRECTED BY THE COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS.

STORM WATER MANAGEMENT NOTES

1. DURING THE RAINY SEASON THE AMOUNT OF EXPOSED SOIL ALLOWED AT ONE TIME SHALL NOT EXCEED THAT WHICH CAN BE ADEQUATELY PROTECTED BY THE PROPERTY OWNER IN THE EVENT OF A RAINSTORM. 125% SHALL BE RETAINED ON THE JOB SITE IN A MANNER THAT ALLOWS FULL DEPLOYMENT AND COMPLETE INSTALLATION IN 48 HOURS OR LESS OF A FORECAST RAIN.
2. NO AREA BEING DISTURBED SHALL EXCEED 30 ACRES AT ANY ONCH TIME WITHOUT DEMONSTRATING TO THE SAN DIEGO COUNTY D.P.W. DIRECTOR'S SATISFACTION THAT ADEQUATE EROSION AND SEDIMENT CONTROL CAN BE MAINTAINED. ANY DISTURBED AREA THAT IS NOT ACTIVELY GRADED FOR 15 DAYS MUST BE FULLY PROTECTED FROM EROSION. UNTIL ADEQUATE LONG-TERM PROTECTIONS ARE INSTALLED. THE DISTURBED AREA SHALL BE INCLUDED WHEN CALCULATING THE ACTIVE DISTURBANCE AREA. ALL EROSION CONTROL MEASURES SHALL REMAIN INSTALLED AND MAINTAINED DURING ANY INACTIVE PERIOD.
3. THE PROPERTY OWNER IS OBLIGATED TO INSURE COMPLIANCE WITH ALL APPLICABLE STORM WATER REGULATIONS AT ALL TIMES. THE BMPS (BEST MANAGEMENT PRACTICES) THAT HAVE BEEN INCORPORATED INTO THIS PLAN SHALL BE IMPLEMENTED AND MAINTAINED TO EFFECTIVELY PREVENT THE POTENTIALLY NEGATIVE IMPACTS OF THIS PROJECT'S CONSTRUCTION ACTIVITIES ON STORM WATER QUALITY. THE MAINTENANCE OF THE BMPS IS THE PERMITTEE'S RESPONSIBILITY, AND FAILURE TO PROPERLY INSTALL OR MAINTAIN THE BMPS MAY RESULT IN ENFORCEMENT ACTION BY THE COUNTY OF SAN DIEGO OR OTHERS. IF INSTALLED BMPS FAIL, THEY MUST BE REPAIRED OR REPLACED WITHIN AN ACCEPTABLE ALTERNATIVE WITHIN 24 HOURS, OR AS SOON AS SAFE TO DO SO.
4. ON PROJECTS OF GREATER THAN ONE ACRE AND THE FOLLOWING WORK: A NOTICE OF INTENT (NOI) HAS BEEN, OR WILL BE FILED WITH THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) AND THAT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN OR WILL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF CALIFORNIA GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (PERMIT NO. CAS000002) FOR ALL OPERATIONS ASSOCIATED WITH THESE PLANS. THE NOI NUMBER ASSIGNED BY SWRCB FOR THIS PROJECT IS _____
5. COUNTY FIELD OPERATIONS ARE RESPONSIBLE FOR MAINTENANCE WITHIN PUBLIC RIGHT-OF-WAY AND ACCEPTED DRAINAGE EASEMENTS FOR SPECIFIC LOCATIONS AS NOTED ON THE PLANS. STORM DRAIN PIPES SHOWN IN THE PRIVATE DRAINAGE EASEMENTS SHOULD BE THE RESPONSIBILITY OF THE DEVELOPER AND LANDOWNER EITHER THROUGH A STORMWATER MAINTENANCE ASSESSMENT DISTRICT OR COMMUNITY FACILITIES DISTRICT (CFD).

EROSION CONTROL HYDROSEEDING, PLANTING AND IRRIGATION

1. ALL PERMANENT AND TEMPORARY EROSION CONTROL PLANTING AND IRRIGATION SHALL BE INSTALLED AND MAINTAINED PER CASQA FACT SHEET SC-4, HYDROSEEDING, APPLICABLE COUNTY OF SAN DIEGO REQUIREMENTS AND THE FOLLOWING:
   A. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PLACING HYDROSEED/BFM & ENSURING HYDROSEED ESTABLISHMENT. HYDROSEEDING SHALL BE APPLIED TO ALL AREAS INDICATED ON THE EROSION CONTROL PLAN OR PROJECT LANDSCAPE PLAN AND APPLIED AT LEAST 24 HOURS BEFORE A RAINFALL EVENT, AND NO SOONER THAN 24 HOURS AFTER A RAINFALL EVENT DURING THE RAINY SEASON, OCTOBER 15TH – APRIL 15TH. IF CONTRACTOR PLANS PLACEMENT OF HYDROSEED OUTSIDE OF THE RAINY SEASON, THEN CONTRACTOR TO PROVIDE A PLAN SHOWING TEMP IRRIGATION TO BE PROVIDED TO ENSURE GROWTH. SAID PLAN TO BE PREPARED BY A QUALIFIED EROSION CONTROL EXPERT AND SUBMITTED TO ENGINEER OF WORK AND LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO APPLICATION.
   B. TEMPORARY OFF-SITE SLOPES: IF DURING CONSTRUCTION, THESE SLOPES BEGIN TO SHOW SIGNS OF SIGNIFICANT EROSION OR THAT VEGETATION IS NOT ESTABLISHING ITSELF, AT THE DISCRETION OF THE COUNTY OFFICIAL, ADDITIONAL APPLICATIONS OF THE BFM/SEED MIX SHALL BE APPLIED (COUNTY INSPECTION CONFIRMATION REQUIRED). USING GENTLE SPRAY NOZZLES, DUST CONTROL SPRAY ONTO SLOPE STABILIZATION MAY SUPPORT ESTABLISHMENT OF SEED MIX AND ACHIEVE 70% VEGETATED COVER PRIOR TO RELEASE OF BONDS).
   C. HYDROSEEDING MIX SHALL CONSIST OF ALL OF THE FOLLOWING:

SEED MIX
NOTE: MIX IS TO BE APPLIED WITH 2,994 LBS/AC FERTILIZER "4.8-4-8-3.7" MARSH AG. SERVICE INC. CUSTOM BLEND #38319, OR OWNER APPROVED EQUIVALENT. PROVIDE MATERIAL SUBMITTAL FOR SEED MIX, STABILIZER, AND FERTILIZER TO ENGINEER OF WORK AND LANDSCAPE ARCHITECT.

SCIENTIFIC NAME	COMMON NAME	LBS/ACRE
BROMUS CARINATUS	CALIFORNIA BROME	1.0
LOTUS SCOPARIUS	DEERWEED	2.0
HORDEUM BRACHYANTHERUM	NEVAHI BARLEY	3.0
PLANTAGO ERECTA	CALIFORNIA PLANTAIN	3.4
VULPIA MICROSTACHYS	THREE WEEK FESCUE	3.4
PRUNUS ILICIFOLIA	HOLLYLEAF CHERRY	20.0
HEMIZONIA FASCICULATA	FASCICLED TARWEED	6.3
ESCHSCHOLZIA CALIFORNICA	CALIFORNIA POPPY	1.0
	TOTAL:	38.5

**HYDROSEEDING MUST BE PLACED IN CONJUNCTION WITH BONDED FIBER MATRIX (BFM), OR OWNER APPROVED ALTERNATIVE STABILIZER, PER NOTES BELOW

NOTE
CONTRACTOR TO PROVIDE A HYDROSEED/BFM APPLICATION PLAN INDICATING PLACEMENT DATES AND METHOD OF IRRIGATION. PLAN SHOULD BE PREPARED BY A QUALIFIED EROSION CONTROL EXPERT AND SUBMITTED TO ENGINEER OF WORK AND LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO APPLICATION.

   D. AREAS TO BE HYDROSEEDED SHALL BE PREPARED PRIOR TO HYDROSEEDING BY:
      1. ROUGHENING THE SURFACE TO BE PLANTED BY ANY OR A COMBINATION OF:
         1.a. TRACK WALKING SLOPES STEEPER THAN 3:1
         1.b. HARROWING AREAS 6:1 OR FLATTER THAT ARE SUFFICIENTLY TILLABLE.
         1.c. RIPPING AREAS THAT WILL NOT BREAK UP USING ITEMS a OR b ABOVE.
      2. CONDITIONING THE SOILS SO THAT IT IS SUITABLE FOR PLANTING BY:
         2.a. ADJUSTING THE SURFACE SOIL MOISTURE TO PROVIDE A DAMP BUT NOT SATURATED SEED BED.
         2.b. THE ADDITION OF SOIL AMENDMENTS, PH ADJUSTMENT, LEACHING OR COVERING SALINE SOILS TO PROVIDED VIABLE CONDITIONS FOR GROWTH.
   E. HYDROSEEDED AREAS SHALL BE MAINTAINED TO PROVIDE A VIGOROUS GROWTH UNTIL THE PROJECT IS PERMANENTLY LANDSCAPED OR, FOR AREAS WHERE HYDROSEEDING IS THE PERMANENT LANDSCAPING, UNTIL THE PROJECT IS COMPLETED AND ALL BONDS RELEASED. IF HYDROSEED FAILS TO PROVIDE ADEQUATE COVERAGE IT IS THE CONTRACTOR'S RESPONSIBILITY TO RE-APPLY HYDROSEED TO THE SATISFACTION OF THE COUNTY OF SAN DIEGO.
2. SHOULD GERMINATION OF HYDROSEEDED SLOPES FAIL TO PROVIDE EFFICIENT COVERAGE OF GRADED SLOPES (90% COVERAGE) PRIOR TO OCTOBER 1, THE SLOPES SHALL BE STABILIZED BY AN APPROPRIATE EROSION CONTROL MATTING MATERIAL APPROVED BY THE PUBLIC WORKS INSPECTOR.
3. LANDSCAPING SHALL BE ACCOMPLISHED ON ALL SLOPES AND PADS AS REQUIRED BY THE COUNTY OF SAN DIEGO LANDSCAPE MANUAL, THE LANDSCAPING PLANS FOR THIS PROJECT, LANDSCAPE PLAN NO. PDS2022-LP-22-001, PDS2022-LP-22-002, AND/OR AS DIRECTED BY THE COUNTY OF SAN DIEGO ENGINEER OR PLANNING DIRECTOR
4. THE OWNER/APPLICANT SHALL ENSURE THAT ALL CONTRACTORS SHALL COORDINATE THE WORK OF THIS CONSTRUCTION SWPPP WITH THAT SHOWN ON ANY GRADING PLANS, LANDSCAPE AND IRRIGATION PLANS AND IMPROVEMENT PLANS AS REQUIRED FOR THIS PROJECT WORK.
5. ALL DISTURBED AREAS OF THE CONSTRUCTION SITE MUST BE STABILIZED. PRIOR TO PERMIT CLOSE-OUT, AND WHEN FILING THE NOTICE OF TERMINATION (NOT) FOR COVERAGE UNDER THE CONSTRUCTION GENERAL PERMIT, THE PROJECT MUST DEMONSTRATE THAT ALL VEGETATED AREAS HAVE UNIFORM COVERAGE OF 70% OR MORE. FOR AREAS COVERED BY NON-IRRIGATED HYDROSEED, SUPPLEMENTAL WATERING OR TEMPORARY IRRIGATION MAY BE REQUIRED IN ORDER TO ACHIEVE ADEQUATE COVERAGE.

BONDED FIBER MATRIX (BFM)

THE USE OF BFM IS SUBJECT TO THE FOLLOWING LIMITATIONS AND RESTRICTIONS:

1. APPLICATION RATES SHALL BE 3,500 POUNDS PER ACRE MINIMUM FOR 2:1 OR SHALLOWER SLOPES AND 4,000 POUNDS PER ACRE FOR SLOPES STEEPER THAN 2:1.
2. BFM SHALL BE APPLIED AT LEAST 24 HOURS BEFORE A RAINFALL EVENT, AND NO SOONER THAN 24 HOURS AFTER A RAINFALL EVENT DURING THE RAINY SEASON, OCTOBER 15TH – APRIL 15TH. IF CONTRACTOR PLANS PLACEMENT OF HYDROSEED OUTSIDE OF THE RAINY SEASON, THEN CONTRACTOR TO PROVIDE A PLAN SHOWING TEMP IRRIGATION TO BE PROVIDED TO ENSURE GROWTH. SAID PLAN TO BE PREPARED BY A QUALIFIED EROSION CONTROL EXPERT AND SUBMITTED TO ENGINEER OF WORK AND LANDSCAPE ARCHITECT FOR REVIEW PRIOR TO APPLICATION.
3. THE SITE MUST BE PROTECTED WITH BROW DITCHES AND/OR DIVERSION BERMS AT THE TOP OF SLOPES TO DIVERT FLOW FROM THE FACE OF THE SLOPE.
4. BFM SHALL BE APPLIED TO PROVIDE 100% COVERAGE (I.E. APPLICATION FROM MULTIPLE ANGLES).
5. FOR PERMANENT EROSION CONTROL PURPOSES, BFM MUST BE INSTALLED IN CONJUNCTION WITH SEEDED EROSION CONTROL VEGETATION.
6. A LETTER FROM THE HYDROSEED CONTRACTOR CERTIFYING THAT THE BFM HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED APPLICATION RATES AND COVERAGE REQUIREMENTS SHALL BE SUBMITTED TO THE COUNTY OF SAN DIEGO ENGINEERING DIVISION INSPECTOR FOR APPROVAL.
7. ALL SLOPES (OTHER THAN TEMPORARY) GREATER THAN 3 FEET HIGH SHALL BE PLANTED AND IRRIGATED.
8. ADDITIONAL RE-APPLICATION MAY BE REQUIRED BY THE CONTRACTOR AS SPECIFIED BY COUNTY OF SAN DIEGO RESIDENT ENGINEER.

DRY SEASON SITE MANAGEMENT REQUIREMENTS (MAY 1 – SEPTEMBER 30)

1. ALL EXPOSED DISTURBED AREAS MUST HAVE EROSION PREVENTION CONTROLS PROPERLY INSTALLED INCLUDING BUILDING PADS, UNFINISHED ROADS AND SLOPES. SLOPES LESS THAN 33.33% OR 1:3 (VERTICAL VS HORIZONTAL) MAY USE PROPERLY DESIGNED AND INSTALLED SC-5/SLOPE BASINS AT ALL DISCHARGE POINTS IN LIEU OF THIS REQUIREMENT.
2. ADEQUATE PERIMETER PROTECTION BMPS MUST BE INSTALLED AND MAINTAINED.
3. ADEQUATE SEDIMENT CONTROL BMPS MUST BE INSTALLED AND MAINTAINED.
4. ADEQUATE BMPS DESIGNED TO CONTROL OFF-SITE SEDIMENT TRACKING MUST BE INSTALLED AND MAINTAINED.
5. AT A MINIMUM, 125% OF THE MATERIALS NEEDED TO INSTALL STANDBY BMPS NECESSARY TO COMPLETELY PROTECT EXPOSED PORTIONS OF THE SITE FROM EROSION AND PREVENT SEDIMENT DISCHARGES MUST BE STORED ON THE SITE.
6. AN APPROVED "WEATHER PROCEEDED" RESPONSE PLAN IS MANDATED FOR IMPLEMENTATION IN THE EVENT THAT A PREDICTED STORM EVENT HAS AT LEAST A 50% CHANCE OF RAIN. THE PROPONENT MUST HAVE THE CAPACITY TO DEPLOY THE STANDBY BMPS WITHIN 48 HOURS OF THE PREDICTED STORM EVENT.
7. ALL SLOPES MUST BE EQUIPPED WITH EROSION PREVENTION BMPS AS SOON AS SLOPES ARE COMPLETED FOR ANY PORTION OF THE SITE.
8. CLEARED OR GRADED AREAS LEFT EXPOSED AT ANY GIVEN TIME ARE LIMITED TO THE AMOUNT OF ACREAGE THAT THE PROJECT PROPONENT CAN ADEQUATELY PROTECT PRIOR TO A PREDICTED STORM EVENT.

WET SEASON SITE MANAGEMENT REQUIREMENTS (OCTOBER 1 – APRIL 30)

THE FOLLOWING RAINY SEASON SITE MANAGEMENT REQUIREMENTS SHALL BE ADHERED TO THROUGHOUT THE RAINY SEASON DEFINED AS BEGINNING ON OCTOBER 1 OF ANY YEAR AND EXTENDING THROUGH APRIL 30TH OF THE FOLLOWING YEAR.

1. EROSION CONTROL, PERIMETER PROTECTION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MEASURES MUST BE UPGRADED IF NECESSARY TO PROVIDE SUFFICIENT PROTECTION FOR STORMS LIKELY TO OCCUR DURING THE RAINY SEASON.
2. EQUIPMENT AND BORROWS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. ALL NECESSARY MATERIALS SHALL BE STOCKPILED ON SITE AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
3. ADEQUATE PHYSICAL OR VEGETATION EROSION CONTROL BEST MANAGEMENT PRACTICE MEASURES MUST BE INSTALLED AND ESTABLISHED FOR ALL COMPLETED SLOPES PRIOR TO THE START OF THE RAINY SEASON. THESE BEST MANAGEMENT PRACTICE MEASURES MUST BE MAINTAINED THROUGHOUT THE RAINY SEASON. IF A SELECTED BEST MANAGEMENT PRACTICE MEASURE FAILS, IT MUST BE REPAIRED AND IMPROVED, OR REPLACED WITH AN ACCEPTABLE ALTERNATE AS SOON AS IT IS SAFE TO DO SO. THE FAILURE OF A BEST MANAGEMENT PRACTICE MEASURE INDICATES IT WAS NOT ADEQUATE FOR THE CIRCUMSTANCES IN WHICH IT WAS USED. REPAIRS OR REPLACEMENTS MUST THEREFORE PUT A MORE ROBUST BEST MANAGEMENT PRACTICE MEASURE IN PLACE.
4. ALL VEGETATION EROSION CONTROL MUST BE ESTABLISHED PRIOR TO THE RAINY SEASON TO BE CONSIDERED AS A BEST MANAGEMENT PRACTICE MEASURE.
5. THE AMOUNT OF EXPOSED SOIL ALLOWED AT ONE TIME SHALL NOT EXCEED THAT WHICH CAN BE ADEQUATELY PROTECTED BY DEPLOYING STANDBY EROSION CONTROL AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MEASURES PRIOR TO A PREDICTED RAINSTORM.
6. A DISTURBED AREA THAT IS NOT COMPLETED BUT IS NOT BEING ACTIVELY GRADED MUST BE FULLY PROTECTED FROM EROSION IF LEFT FOR 10 OR MORE DAYS. THE ABILITY TO DEPLOY STANDBY BEST MANAGEMENT PRACTICE MEASURE MATERIALS IS NOT SUFFICIENT FOR THESE AREAS. BEST MANAGEMENT PRACTICE MEASURES MUST ACTUALLY BE DEPLOYED.

REFERENCES

1. COUNTY OF SAN DIEGO GRADING ORDINANCE: SECTIONS 87.101 – 87.717 OF SAN DIEGO COUNTY CODE OF REGULATORY ORDINANCES.
2. STORM WATER ORDINANCE: SECTIONS 67.801 THROUGH 67.811 OF SAN DIEGO COUNTY CODE OF REGULATORY ORDINANCES.
3. STATEWIDE GENERAL CONSTRUCTION STORMWATER PERMIT, ORDER NO. 2009-0009-DWQ, WQ. CAS000002.
4. CALTRANS CONSTRUCTION SITE BMP MANUAL DATED MAY 2017.
5. CALIFORNIA STORMWATER QUALITY ASSOCIATION (CASQA) 2012 CONSTRUCTION BMP HANDBOOK / ON-LINE PORTAL.

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5440 stevenscresto.com

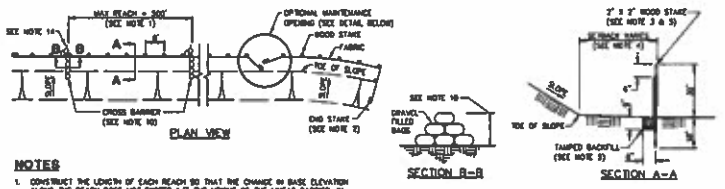
RECORD PLAN	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. CERNINE DATE RCE 45717	NO. / DESCRIPTION / APPROVED BY / DATE	DESCRIPTION: BRASS DISC IN STREET CONTAINING NGS MONUMENT LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 30' TO TOP OF HILL RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION: 429.88 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 46 | COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS | 62 SHEETS

EROSION CONTROL NOTES FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5606 & 5608
CALIFORNIA COORDINATE INDEX 138-1791

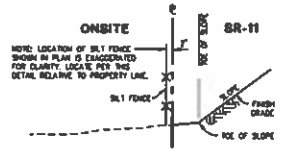
RECOMMENDED FOR APPROVAL: _____
APPROVED PWL TRACTS ENGINEER: 1/9/23
DESIGNED BY PROF. ENGR.: _____ APPROVAL PLAN NO. PDS2021-LDPIP-60114



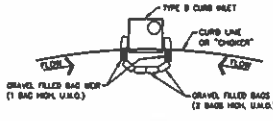
NOTES

1. CONSTRUCT THE LENGTH OF EACH REACH SO THAT THE CHANGE IN BASE ELEVATION ALONG THE REACH DOES NOT EXCEED 1/3 THE HEIGHT OF THE LINEAR BARRIER, IN NO CASE SHALL THE REACH LENGTH EXCEED 300'.
2. THE LAST 8'-0" OF FENCE SHALL BE TURNED UP SLOPE.
3. STAKE DIMENSIONS ARE NOMINAL.
4. DIMENSION MAY VARY TO FIT FIELD CONDITION.
5. STAKES SHALL BE SPACED AT 6'-0" MAXIMUM AND SHALL BE POSITIONED ON DOWNSTREAM SIDE OF FENCE. EXCAVATE A 6"x6" TRENCH UPSLOPE FROM AND ALONG THE LINE OF STAKES. EXTEND SILT FENCE INTO TRENCH AND BACKFILL AS SHOWN IN SECTION A-A.
6. STAKES TO OVERLAP AND FENCE FABRIC TO FOLD AROUND EACH STAKE ONE FULL TURN. SECURE FABRIC TO STAKE WITH 4 STAPLES.
7. STAKES SHALL BE DRIVEN TIGHTLY TOGETHER TO PREVENT POTENTIAL FLOW-THROUGH OF SEDIMENT AT JOINT. THE TOPS OF THE STAKES SHALL BE SECURED WITH WIRE.
8. FOR END STAKE, FENCE FABRIC SHALL BE FOLDED AROUND TWO STAKES ONE FULL TURN AND SECURED WITH 4 STAPLES.
9. MINIMUM 4 STAPLES PER STAKE. STAPLES SHALL BE 1" WIDE X 1/2" (1/16" DIA.).
10. CROSS BARRIERS SHALL BE A MINIMUM OF 1/3 AND A MAXIMUM OF 1/2 THE HEIGHT OF THE LINEAR BARRIER.
11. MAINTENANCE OPENINGS SHALL BE CONSTRUCTED IN A MANNER TO ENSURE SEDIMENT REMAINS BEHIND SILT FENCE (SEE DETAIL).
12. JOINING SECTIONS SHALL NOT BE PLACED AT SUMP LOCATIONS.
13. GRAVEL FILLED BAG ROWS AND LAYERS SHALL BE OFFSET TO ELIMINATE GAPS.
14. ADD 3-4 BAGS TO CROSS BARRIER ON DOWNGRADIENT SIDE OF SILT FENCE AS NEEDED TO PREVENT BYPASS OR UNDERMINING AND AS ALLOWABLE BASED ON SITE LIMITS OF DISTURBANCE.

SILT FENCE — NO SCALE — A / 49

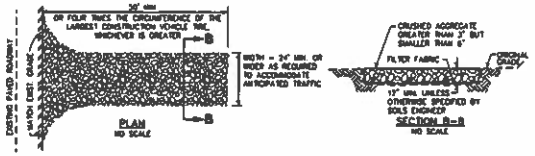


DETAIL — NO SCALE — B / 49

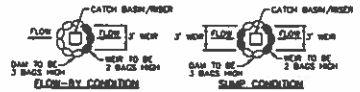


(CASQA SC-10 (TYPE 3), MODIFIED FOR CURB INLET)

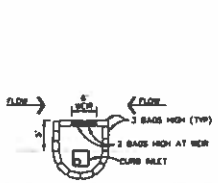
GRAVEL BAG INLET PROTECTION — NO SCALE — C / 49



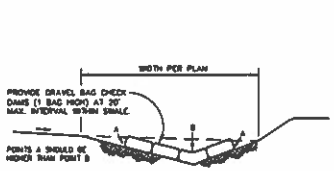
STABILIZED CONSTRUCTION ENTRANCE/EXIT (TYPE 1) — NO SCALE — D / 49



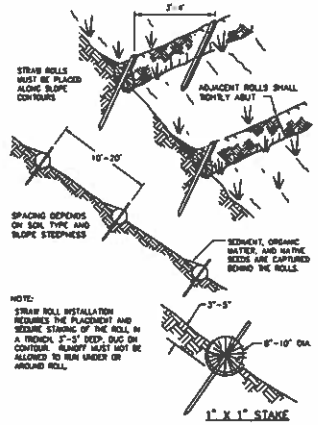
DESILTING BASINS FOR STORM DRAIN CATCH BASINS/RISERS — NO SCALE — E / 49



DESILTING BASIN AT SUMP — NO SCALE — G / 49

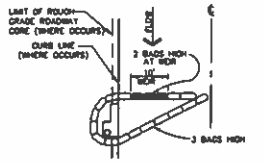


BLADED SWALE CHECK DAM — NO SCALE — H / 49

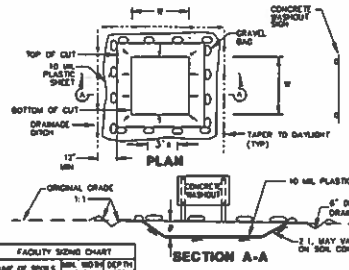


NOTE:
STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 3"-5" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.

FIBER ROLLS — NO SCALE — J / 49

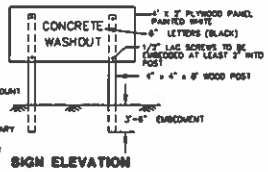


DESILTING BASIN AT "FLOW-BY" CURB INLET — NO SCALE — K / 49

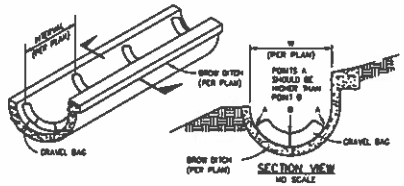


FACILITY SIZING CHART		
VOLUME OF SPOILS	MIN. WIDTH (W)	DEPTH (D)
5 CY OR LESS	3'	1.0'
5 TO 20 CY	10'	1.0'
20 CY OR MORE	15'	1.5'

NOTES:
1. ULTIMATE WASHOUT SIZE DETERMINED BY AMOUNT OF CONCRETE REQUIRED FOR PROJECT AREA AND/OR POUR LOCATION.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FEET OF THE TEMPORARY CONCRETE WASHOUT AREA.
3. SEE CALIFORNIA BMP HANDBOOK, WM-8, FOR ADDITIONAL DETAIL.



TEMPORARY CONCRETE WASHOUT FACILITY — NO SCALE — L / 49



BROW DITCH CHECK DAM — NO SCALE — M / 49

LEGEND

ITEM	SYMBOL	DETAIL
PROJECT BOUNDARY		
PROPOSED STORM DRAIN		
EXISTING STORM DRAIN		
DIRECTION OF FLOW ON GRADE (TYP.).	AND	
TEMPORARY CONCRETE WASHOUT FACILITY (CA STORMWATER BMP HANDBOOK WM-8)		
STABILIZED CONSTRUCTION ENTRANCE (CA STORMWATER BMP HANDBOOK TC-1)		
GRAVELBAG INLET PROTECTION MEASURES (TYP.) (CA STORMWATER BMP HANDBOOK SE-6, SE-10)		
FIBER ROLL/STRAW BALES (CA STORMWATER BMP HANDBOOK SE-5)		
GRAVELBAG CHECK DAM MEASURES (TYP.) (CA STORMWATER BMP HANDBOOK SE-4, SE-6, SE-10)		
SILT FENCE (CA STORMWATER BMP HANDBOOK SE-1)		
HYDROSEED AREAS W/BFM - MIX PER TABLE ON SHT 48 (CA STORMWATER BMP HANDBOOK EC-3, EC-4)		
ENERGY DISSIPATOR OUTLET PROTECTION (SS-10) SEE RDAMAGER OF PLAN SET FOR SIZING		
MATERIAL DELIVERY, STORAGE AND STAGING AREA (CA STORMWATER BMP HANDBOOK WM-1) MIX: APPROX. SIZE AND LOCATION SHOWN. IF CHANGE IS REQUIRED, CONTRACTOR TO DETERMINE SIZE AND LOCATION AND OBTAIN APPROVAL FROM THE COUNTY OF SAN DIEGO	M.S.S.	

NOTES:

1. SEE SHEET 48 FOR EROSION CONTROL NOTES.
2. SEE SHEET 48 FOR HYDROSEED MIX TABLE(S).

ADDITIONAL CONSTRUCTION BMPS TO BE IMPLEMENTED

PRESERVATION OF EXISTING VEGETATION (EC-2): IMPACT TO ADJACENT VEGETATION SHALL BE MINIMIZED. APPROPRIATE LOCATIONS OF CONCERN IDENTIFIED HERE.

DETERITILES PLASTIC COVERS AND EROSION CONTROL BLANKETS (EC-7): WILL BE USED AS NEEDED FOR STOCKPILING PURPOSES ONLY.

STREET SWEEPING AND VACUUMING (SE-7): AS NEEDED ON ADJACENT ROADS.

SPILL PREVENTION AND CONTROL (WM-4): AS NEEDED THROUGHOUT SITE.

SOLID WASTE MANAGEMENT (WM-5): AS NEEDED THROUGHOUT SITE.

SANITARY WASTE MANAGEMENT (WM-9): AS NEEDED THROUGHOUT SITE.

STATE OF CALIFORNIA — REGISTERED PROFESSIONAL ENGINEER — ROBERT R. GOHMAN — No. 45717 — CIVIL

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr. Ste 200
San Diego, CA 92123
858.694.9660 www.cresto.com

RECORD PLAN	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. GOHMAN RCE 45717 DATE	NO. / DESCRIPTION / APPROVED BY / DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT. LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 M NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 34' TO TOP OF HILL. RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION: 579.99 DATUM: NGVD 29

PRIVATE CONTRACT

SHEET 49	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

EROSION CONTROL DETAILS FOR:

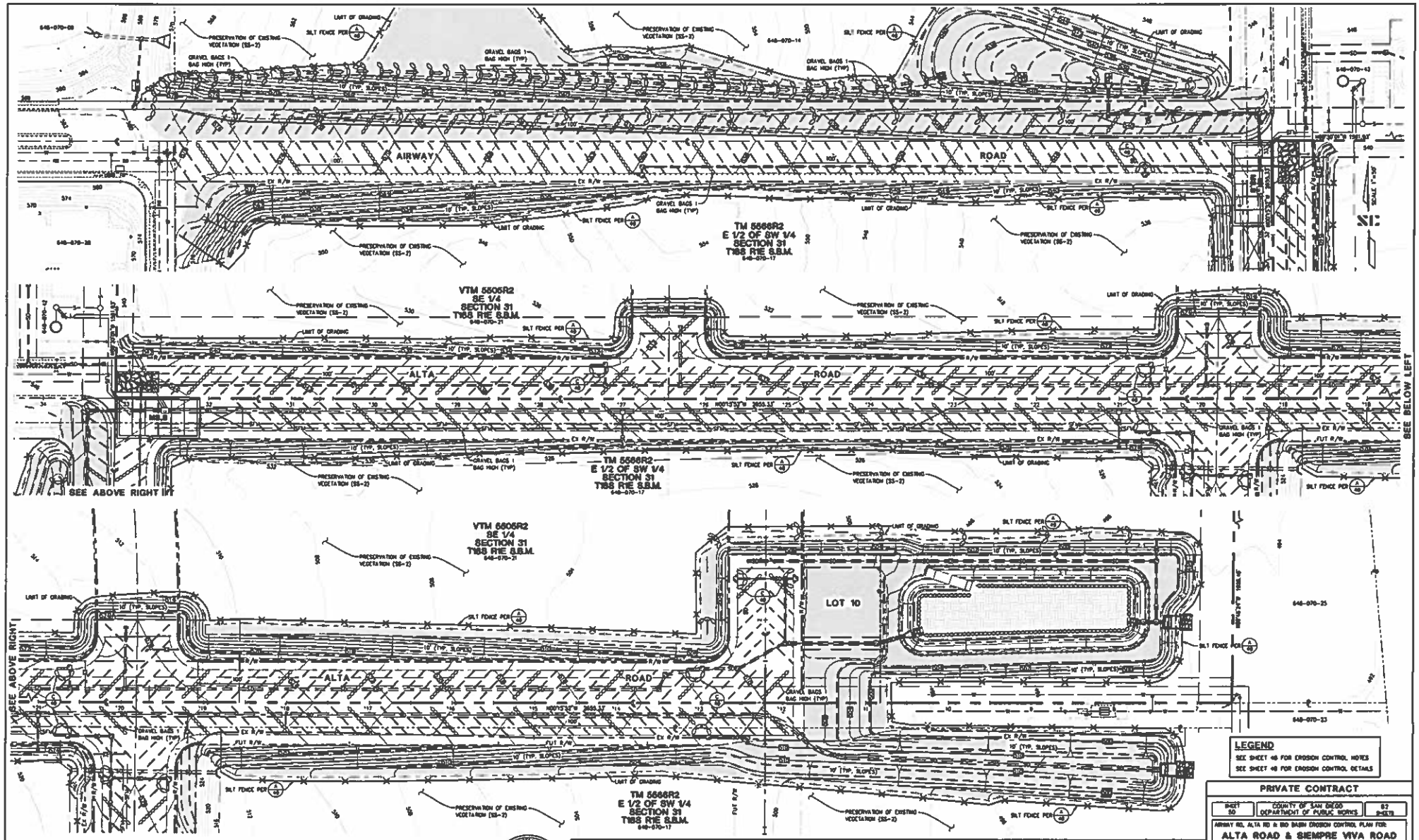
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5506 & 5508
CALIFORNIA COORDINATE INDEX 138-1791

RECOMMENDED FOR APPROVAL — DEPUTY DIRECTOR — DATE 1/9/23

THOMAS M. SMITH — DEPUTY DIRECTOR — DPW

APPROVED PLAN NO. PDS2021-LDPMP-60114

E:\2020\2020\LDP\LDPMP ALTA RD\2020-10 PV ALTA RD 12/6/2022 11:07 AM RRG



LEGEND

SEE SHEET 48 FOR EROSION CONTROL NOTES

SEE SHEET 48 FOR EROSION CONTROL DETAILS

PRIVATE CONTRACT

SHEET 50	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	52 SHEETS

AIRWAY RD, ALTA RD & BIO BASIN EROSION CONTROL PLAN FOR:

ALTA ROAD & SIEMPRE VIVA ROAD

OTAY BUSINESS PARK & HAWANO SUBDIVISION

COUNTY OF SAN DIEGO TRACTS 5505 & 5566

CALIFORNIA COORDINATE INDEX 138-1791

DESIGNED FOR APPROVAL | APPROVED FOR PUBLIC WORKS 1/9/23

DESIGNED BY JERRY | DATE

APPROVED PLAN NO. PDS2021-LDPWP-60114

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5460 stevenscresto.com

ROBERT R. GOHRKE
RCE 45717
DATE

RECORD PLAN	COUNTY APPROVED CHANGES			
	NO.	DESCRIPTION	APPROVED BY	DATE

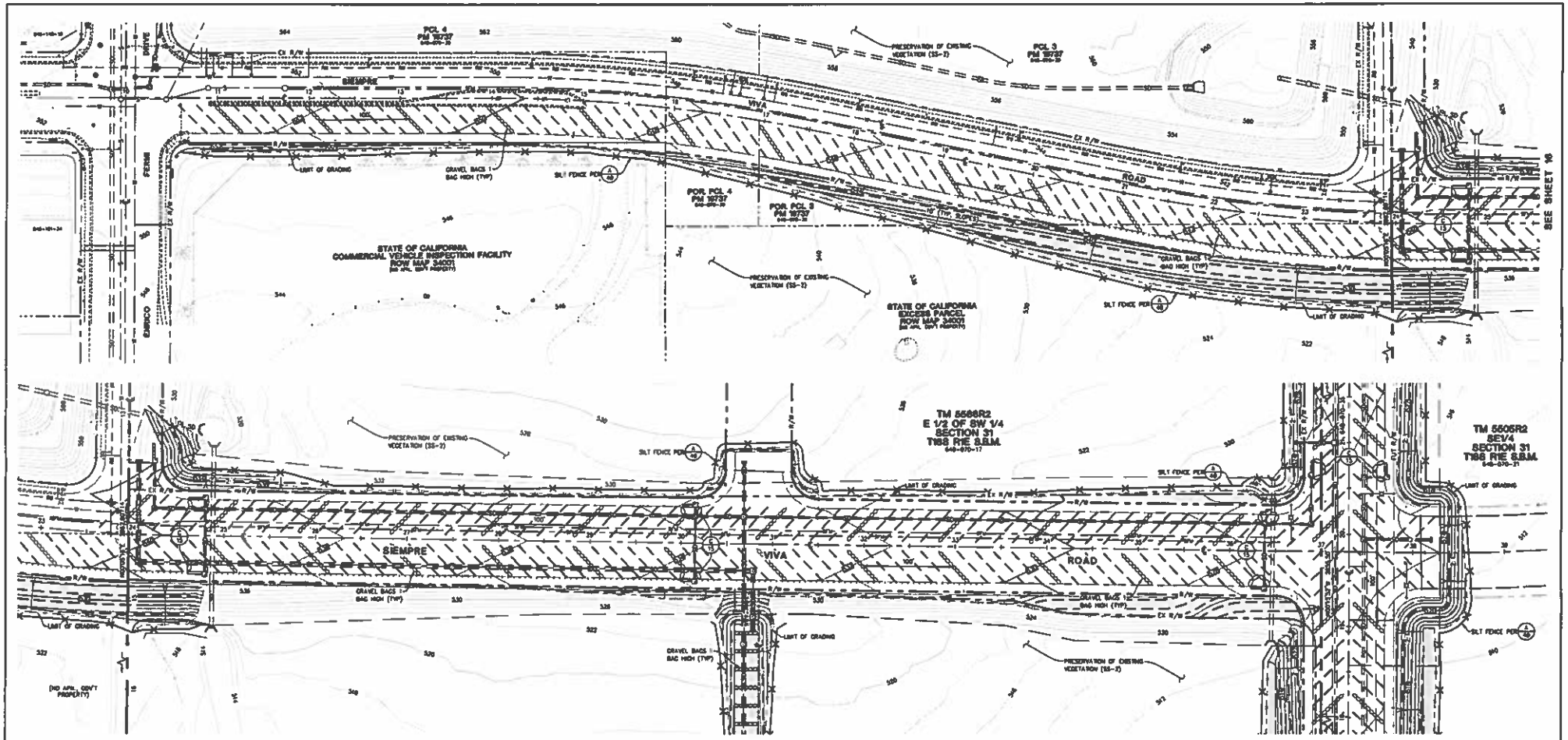
BENCH MARK

DESCRIPTION: BRASS DISC IN STREET CONTAINING NGS MONUMENT

LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 50' TO TOP OF HILL

RECORD FROM: N.G.S. 14841, PT. NO. 4022

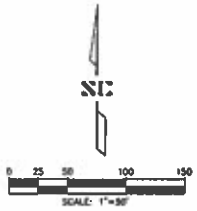
ELEVATION: 670.88 DATUM: NGVD '29



LEGEND

SEE SHEET 46 FOR EROSION CONTROL NOTES

SEE SHEET 49 FOR EROSION CONTROL DETAILS



STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	COUNTY APPROVED CHANGES				BENCH MARK
ROBERT R. GEHRKE RCE 45717 DATE	NO.	DESCRIPTION	APPROVED BY	DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 50' TO RIM OF MH RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION: 570.99 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 51	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

SIEMPRE VIVA ROAD EROSION CONTROL PLAN FOR:

ALTA ROAD & SIEMPRE VIVA ROAD

OTAY BUSINESS PARK & HAWANO SUBDIVISION

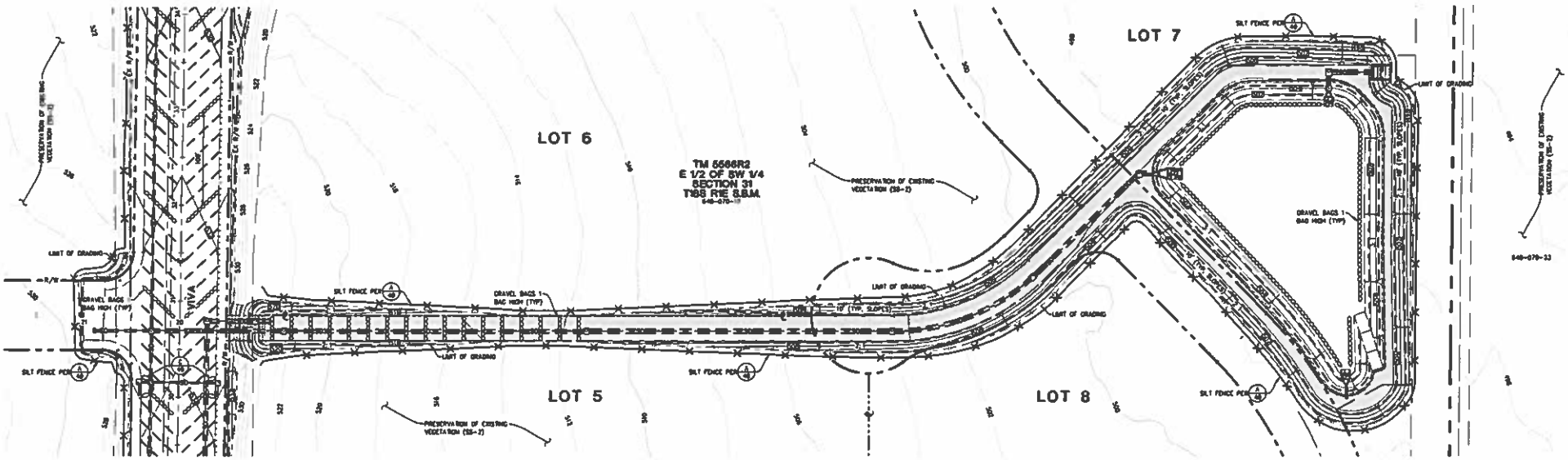
COUNTY OF SAN DIEGO TRACTS 5505 & 5566

CALIFORNIA COORDINATE INDEX 138-1781

RECOMMENDED FOR APPROVAL: Rod Gaskill

APPROVED FOR PUBLIC WORKS: 1/9/23

PDS2021-LDPIP-60114



LEGEND

SEE SHEET 48 FOR EROSION CONTROL NOTES

SEE SHEET 49 FOR EROSION CONTROL DETAILS

SCALE: 1"=30'

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5460 stevenscresto.com

RECORD PLAN	COUNTY APPROVED CHANGES				BENCH MARK
ROBERT R. OSHIRO RCE 45717 DATE	NO.	DESCRIPTION	APPROVED BY	DATE	DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 50' TO TOP OF HILL RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION: 579.99 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 52	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	82 SHEETS

UTILITY CORRIDOR & BIO BASIN EROSION CONTROL PLAN FOR:

ALTA ROAD & SIEMPRE VIVA ROAD

OTAY BUSINESS PARK & NAVANO SUBDIVISION

COUNTY OF SAN DIEGO TRACTS 5505 & 5506

CALIFORNIA COORDINATE INDEX 138-1781

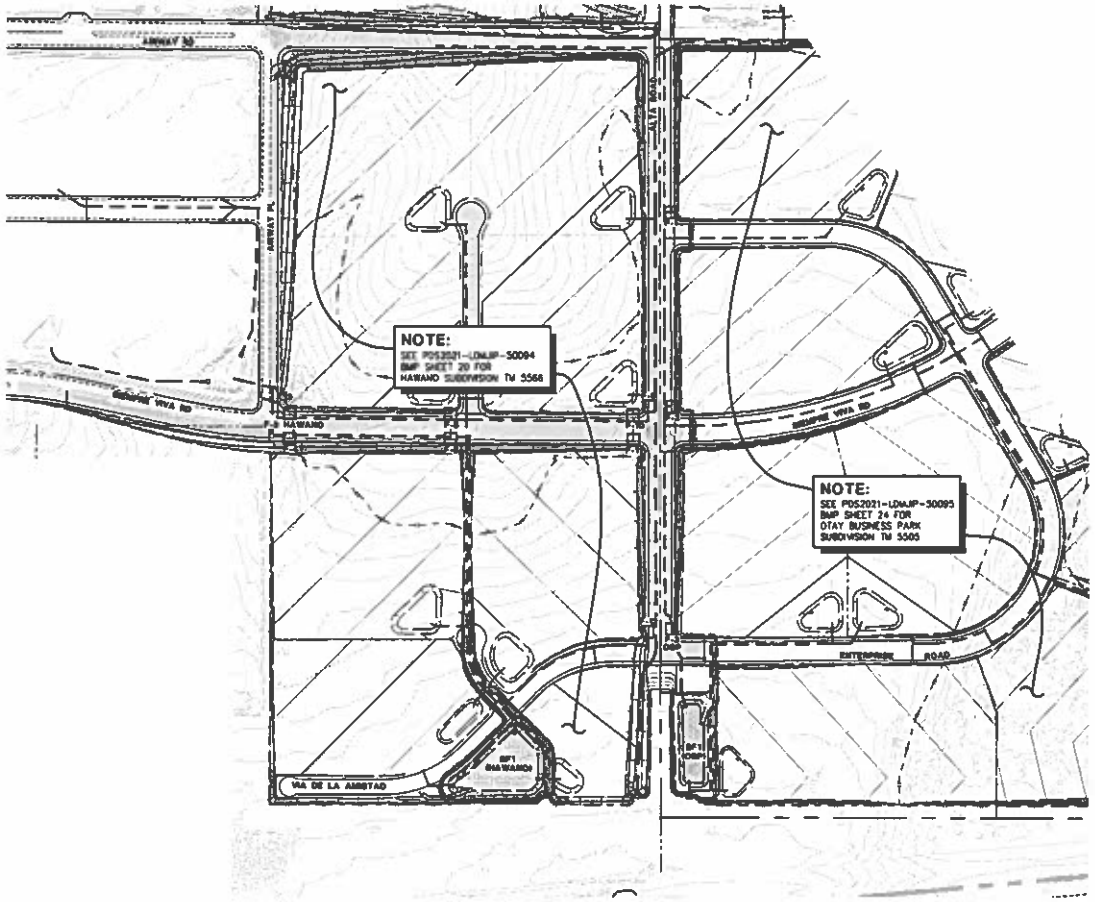
REVIEWED FOR APPROVAL

APPROVED FOR PUBLIC WORKS

DATE 1/4/23

DESIGNED BY DATE

MINIMUM PLAN NO. POS2021-LDPMP-60114



LEGEND

SUBDIVISION BOUNDARY
PROPOSED LOT LINE
PROPOSED RIGHT-OF-WAY
EXISTING CONTOUR
PROPOSED CONTOUR
PROPOSED STORM DRAIN
PROPOSED STREET

STRUCTURAL BMPS:

INFILTRATION/STORM WATER DETENTION FACILITY (FACILITIES WILL CONTAIN PLANTS TOLERANT OF SATURATED SOIL CONDITIONS) — BF-1 OBP

CURB INLET FILTERS (PREFILTER) (SO STENCILING AND POSTING OF SIGNAGE) — F-1

CRITICAL COURSE SEDIMENT YIELD AREAS

NO AREAS IDENTIFIED UPSTREAM, DOWNSTREAM, OR ON SITE CONTAIN CRITICAL COURSE SEDIMENT YIELD AREAS.

UNDERLYING HYDROLOGIC SOIL GROUP

PER THE SAN DIEGO COUNTY HYDROLOGY MANUAL HYDROLOGIC SOIL GROUPS MAP, THE SITE IS DOMINATED BY HYDROLOGIC SOIL GROUP D. GROUP D SOILS HAVE VERY SLOW INFILTRATION RATES WHEN THOROUGHLY WETTED. AS SUCH, INFILTRATION BMPS ARE NOT PROPOSED FOR USE AT THE SITE.

APPROXIMATE DEPTH TO GROUNDWATER

GREATER THAN 30 FEET

MAINTENANCE INFORMATION

ACCESS: PUBLIC ROADS AND DG ACCESS ROADS
EQUIPMENT: PRUNING SHEARS, SHOVELS, A TRUCK FOR ACCESS AND HAULING DEBRIS. NO SPECIAL EQUIPMENT IS ANTICIPATED
THRESHOLD: INFILTRATION AND DETENTION FACILITIES ARE NOT INTENDED TO PROVIDE DESILTATION. ALL IDENTIFIABLE DEPOSITS OF SEDIMENTS AND DEBRIS SHALL BE REMOVED. ENSURE THAT OUTLET STRUCTURES ARE NOT IMPEDED BY DEBRIS. ALL SEDIMENT AND DEBRIS SHALL BE REMOVED FROM INLET FILTERS
REQUIREMENTS: SEE PROJECT GROUP AND MAINTENANCE AGREEMENT FOR ADDITIONAL DETAILS.

SOURCE CONTROL AND SITE DESIGN BMP NOTES

1. PROJECT WILL IMPLEMENT SOURCE CONTROL BMPS TO PREVENT ILLICIT DISCHARGES INTO THE MS4. SIGNAGE WILL BE PROVIDED FOR ALL STORM DRAIN SYSTEM INLETS WITHIN THE PROJECT AREA TO PREVENT WASTE DUMPING. (SEE CURB INLET FILTER LOCATIONS: F-1, F-2, F-3 HAWANO, F-3 OBP, F-4, F-5, F-6, F-9, F-10, F-11, F-12)
2. ON-SITE STORM DRAIN INLETS WILL BE UTILIZED TO COLLECT STORM WATER RUNOFF THROUGHOUT THE SITE. INLETS WILL BE MAINTAINED AND MARKINGS WILL BE PERIODICALLY REPAINTED OR REPLACED.
3. PROJECT WILL UTILIZE NATIVE AND DROUGHT TOLERANT PLANTS TO MINIMIZE THE USE OF FERTILIZERS AND PESTICIDES THAT CAN CONTRIBUTE TO STORM WATER POLLUTION. THE IRRIGATION SYSTEM HAS BEEN DESIGNED TO MINIMIZE WATER USE AND RUNOFF. SEE LANDSCAPE PLAN FOR PLANT SELECTION AND DETAILS.
4. THE PROJECT CONSERVES NATURAL AREAS BY MINIMIZING IMPACT BEYOND OTAY BUSINESS PARK.
5. THE PROJECT MINIMIZES IMPERVIOUS AREAS BY CONSTRUCTING ROADS AND SIDEWALKS TO MINIMUM REQUIRED WIDTHS.
6. THE PROJECT MINIMIZES SOILS COMPACTION BY RIPPING AND LOOSENING THE TOP 12 INCHES OF SOILS IN ALL LANDSCAPED AREAS. SOIL AMENDMENTS WILL BE ADDED PER THE LANDSCAPE PLAN.

SCALE: 1"=200'

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN
ROBERT R. SCHINK — DATE
RCE 45717

COUNTY APPROVED CHANGES

NO.	DESCRIPTION	APPROVED BY	DATE

BENCH MARK
DESCRIPTION: BRASS DISC IN STREET CONTAINING WELL MONUMENT
LOCATION: IMMEDIATELY EAST OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 54' TO TOP OF HILL
RECORD FROM: R.O.S. 14841, PT. NO. 4072
ELEVATION: 679.99 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 53 | COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS | 62 SHEETS

STORM WATER BMP PLAN FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5506 & 5566
CALIFORNIA COORDINATE INDEX 138-1791

RECOMMENDED FOR APPROVAL
APPROVED FOR PUBLIC WORKS
DATE 1/9/23
APPROVED PLAN NO. PDS2021-LDPMP-60114

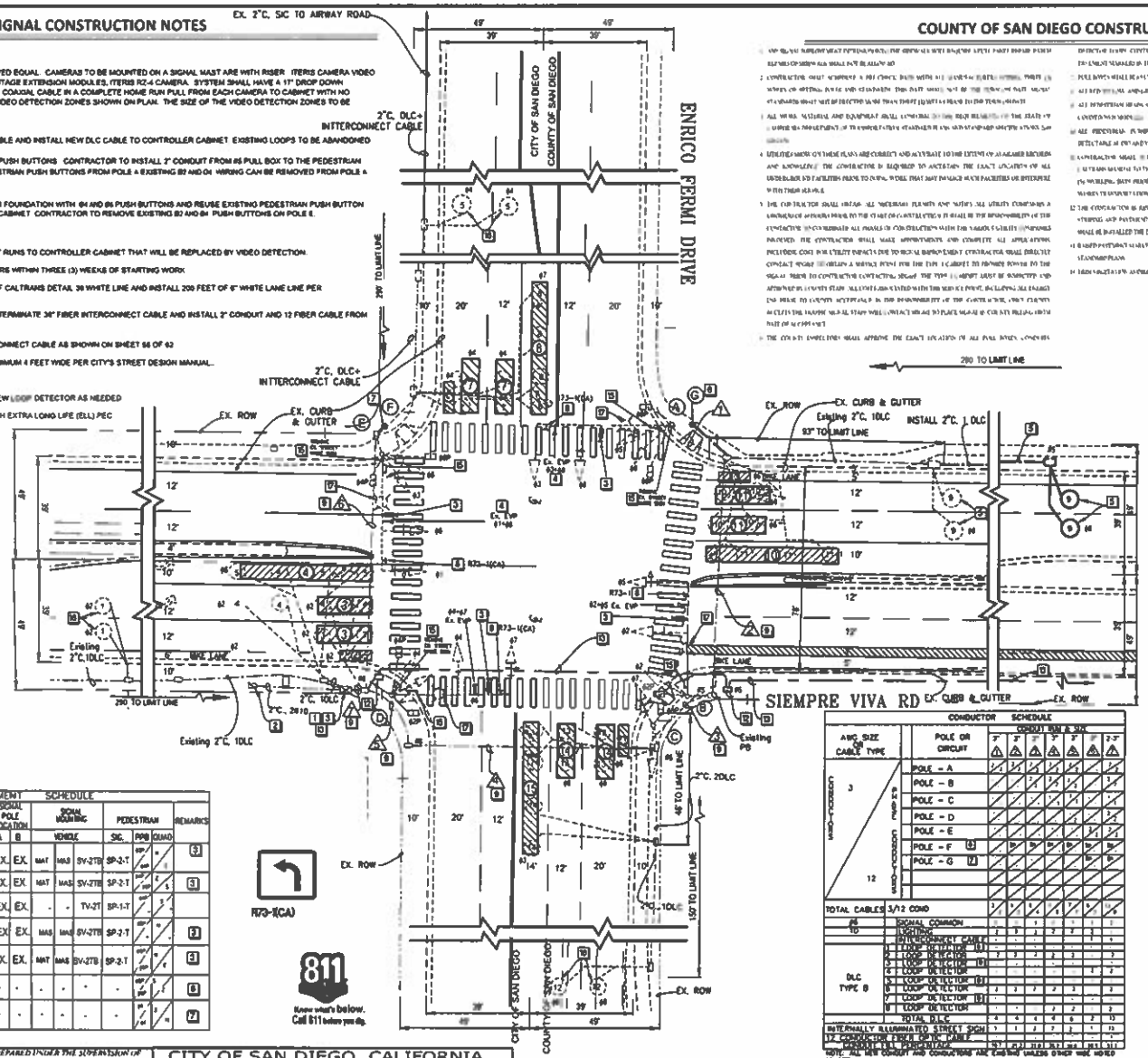
No. 45717 — CIVIL — STATE OF CALIFORNIA

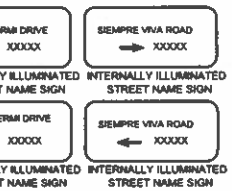
CITY OF SAN DIEGO TRAFFIC SIGNAL CONSTRUCTION NOTES

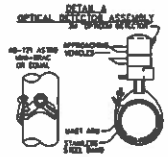
1. EXISTING 170 CONTROLLER.
2. EXISTING TYPE III METERED SERVICE
3. FURNISH AND INSTALL ITERIS VIDEO DETECTION CAMERA SYSTEM OR APPROVED EQUAL. CAMERAS TO BE MOUNTED ON A SIGNAL MAST ARE WITH RISER. ITERIS CAMERA VIDEO DETECTION SYSTEM SHALL CONSIST OF A VANTAGE EDGE 2 PROCESSOR, VANTAGE EXTENSION MODULES, ITERIS RZ-4 CAMERA. SYSTEM SHALL HAVE A 17" DROP DOWN MONITOR. CONTRACTOR SHALL PULL A 3#18 POWER CABLE AND BOLDEN 6281 COAXIAL CABLE IN A COMPLETE HOME RUN PULL FROM EACH CAMERA TO CABINET WITH NO SPLICES. CONTRACTOR TO PROGRAM VIDEO CAMERA SYSTEM TO PROVIDE VIDEO DETECTION ZONES SHOWN ON PLAN. THE SIZE OF THE VIDEO DETECTION ZONES TO BE APPROVED BY THE COUNTY OF SAN DIEGO ENGINEER
4. EXISTING (EVP) EMERGENCY VEHICLE DETECTION SYSTEM.
5. INSTALL TYPE (E) LOOPS AND EXTEND 2" CONDUIT. REMOVE EXISTING DLC CABLE AND INSTALL NEW DLC CABLE TO CONTROLLER CABINET. EXISTING LOOPS TO BE ABANDONED
6. CONTRACTOR TO INSTALL PEDESTRIAN PUSH BUTTON POLE G WITH #4 AND #8 PUSH BUTTONS. CONTRACTOR TO INSTALL 2" CONDUIT FROM #6 PULL BOX TO THE PEDESTRIAN PUSH BUTTON POLE FOR PROPOSED LOCATION AND REMOVE EXISTING PEDESTRIAN PUSH BUTTONS FROM POLE A (EXISTING #2 AND #4. WIRING CAN BE REMOVED FROM POLE A AND RELOCATE TO POLE G
7. CONTRACTOR TO INSTALL PEDESTRIAN PUSH BUTTON ON POLE F ON EXISTING FOUNDATION WITH #4 AND #6 PUSH BUTTONS AND REUSE EXISTING PEDESTRIAN PUSH BUTTON WIRING AT POLE E OR INSTALL NEW PUSH BUTTON WIRING TO CONTROLLER CABINET. CONTRACTOR TO REMOVE EXISTING #2 AND #4 PUSH BUTTONS ON POLE E.
8. CONTRACTOR TO INSTALL R73-1(CA) SIGN AND REMOVE EXISTING SIGN.
9. CONTRACTOR TO REMOVE EXISTING LOOP DETECTOR CABLES FROM CONDUIT RUNS TO CONTROLLER CABINET THAT WILL BE REPLACED BY VIDEO DETECTION.
10. CONTRACTOR SHALL SCHEDULE A PRE-CHECK DATE WITH ALL MANUFACTURERS WITHIN THREE (3) WEEKS OF STARTING WORK
11. REMOVE THREE (3) EXISTING LEFT TURN PAVEMENT ARROWS AND 200 FEET OF CALTRANS DETAIL 38 WHITE LINE AND INSTALL 200 FEET OF 6" WHITE LANE LINE PER CALTRANS DETAIL 13.
12. INSTALL DOUBLE STACK #6 PULL BOX PER INTERCONNECT PLAN SHEET 58 TO TERMINATE 36" FIBER INTERCONNECT CABLE AND INSTALL 2" CONDUIT AND 12 FIBER CABLE FROM PULL BOX TO CONTROLLER CABINET AS SHOWN ON SHEET 69
13. CONTRACTOR TO INSTALL 3" INTERCONNECT CONDUIT AND 36" FIBER INTERCONNECT CABLE AS SHOWN ON SHEET 58 OF 62
14. ALL ABOVE GRADE INFRASTRUCTURE SHALL ALLOW PEDESTRIAN PATH OF MINIMUM 4 FEET WIDE PER CITY'S STREET DESIGN MANUAL.
15. CONTRACTOR TO INSTALL INTERNALLY ILLUMINATED STREET SIGN NAME
16. CONTRACTOR TO TEST EXISTING ADVANCE LOOP DETECTORS AND INSTALL NEW LOOP DETECTOR AS NEEDED
17. FURNISH AND INSTALL GE EVOLVE 96 WATT LED ERLH-0-11B3-A-GRAY-SUN TECH EXTRA LONG LIFE (ELL) PEC

COUNTY OF SAN DIEGO CONSTRUCTION GENERAL NOTES

[illegible]







EXISTING PHASE DIAGRAM

#1	#2	#3	#4
#5	#6	#7	#8

PROPOSED PHASE DIAGRAM

#1	#2	#3	#4
#5	#6	#7	#8

FLASHING OPERATION SHALL BE ALL RED.

POLE & EQUIPMENT SCHEDULE

POLE	TYPE	HL	SIG M.A.	LUM M.A.	LUMINAIRE CO-HPS	SIGNAL POLE LOCATION A	SIGNAL POLE LOCATION B	SIGNAL MOUNTING VEHICLE			PEDESTRIAN SIG.	PEDESTRIAN PPB	PEDESTRIAN QUAD	REMARKS
A	26-3-70	30'	45'	15'	250W	EX.	EX.	MAT	MAS	SV-2TB	SP-2-T			3
B	26-3-70	30'	45'	15'	250W	EX.	EX.	MAT	MAS	SV-2TB	SP-2-T			3
C	1A	10'	-	-	-	EX.	EX.	-	-	TV-2T	SP-1-T			
D	26-3-70	30'	45'	15'	250W	EX.	EX.	MAS	MAS	SV-2TB	SP-2-T			3
E	26-3-70	30'	45'	15'	250W	EX.	EX.	MAT	MAS	SV-2TB	SP-2-T			3
F	PPB	4'.7"	-	-	-	-	-	-	-	-	-			6
G	PPB	4'.7"	-	-	-	-	-	-	-	-	-			7

DESIGN SPEED	
ENRICO FERMI DRIVE	55 MPH
SIEMPRE VIVA ROAD	35 MPH

CONDUCTOR SCHEDULE

AWG SIZE OF CABLE TYPE		POLE OR CIRCUIT	CONDUIT SIZE & TYPE 3"	3"	3"	3"	3"	3"	2-3"
3	MIRO-FIBER CONDUCTOR	POLE - A							
		POLE - B							
		POLE - C							
		POLE - D							
		POLE - E							
		POLE - F (3)							
		POLE - G (7)							
12	MIRO-FIBER CONDUCTOR								
TOTAL CABLES		3/12 COND							
#6		SIGNAL COMMON							
#10		LIGHTING							
		INTERCONNECT CABLE							
DLC TYPE B		1 LOOP DETECTOR (5)							
		2 LOOP DETECTOR							
		3 LOOP DETECTOR (5)							
		4 LOOP DETECTOR							
		5 LOOP DETECTOR (5)							
		6 LOOP DETECTOR							
		7 LOOP DETECTOR (5)							
		8 LOOP DETECTOR							
		TOTAL DLC							
INTERNALLY ILLUMINATED STREET SIGN									
12 CONDUCTOR FIBER OPTIC CABLE									
MODEM TELL PERSONNEL									

NOTE: ALL NEW CONDUIT AND CONDUCTORS ARE EXISTING UNLESS OTHER WISE NOTED

DETECTOR ASSIGNMENTS

SIEMPRE VIVA ROAD AT ENRICO FERMI DRIVE

NO.	PHASE	SLOT	FIELD TERMINAL
1	#2	I2U	T2-5&6
2	#2	I2L	T2-7&8
3	#2	I3U	T2-9&10
4	#3	J8U	T3-1&2
5	#4	I6L	T1-9&10
6	#4	I6U	T4-9&10
7	#4	I7U	T6-1&2
8	#7	J5L	T5-7&8
9	#6	J2U	T1-5&6
10	#6	J2L	T1-7&8
11	#6	J3U	T1-9&10
12	#1	I1L	T2-5&6
13	#8	J6U	T5-9&10
14	#8	J6L	T5-11&12
15	#8	I7U	T7-1&2
16	#3	I5L	T4-7&8
PPB	#2	I12U	T8-4 & COM6
PPB	#4	I12L	T8-5 & COM6
PPB	#6	I13U	T8-7 & COM9
PPB	#8	I13L	T8-8 & COM9
EVA	#2+#5	J12U	T9-4 & COM6
EVB	#4+#7	J13U	T9-7 & COM9
EVC	#1+#6	J12L	T9-5 & COM6
EVD	#3+#8	J13L	T9-8 & COM9
FLASH	-	I14U	T8-10& COM12

SCALE: 1" = 20'

10 20 30 40

ENGINEERS STAMP

PLANS PREPARED UNDER THE SUPERVISION OF

BILLY EVERETTE DARNELL
DESIGN ENGINEER R.C.E. No. 22358
DATE 12/06/22

Darnell & ASSOCIATES, INC.
4411 MERCURY STREET, SUITE 208
SAN DIEGO, CA 92111
(619) 233-6373

DWG 210901 - NEW DWG | DATE 12/06/22 | BY JAM

CITY OF SAN DIEGO, CALIFORNIA

PUBLIC WORKS DEPARTMENT

APPROVED BY	BY	DATE	APPROVED BY
PRINCIPAL ENGINEER			
ENGINEERING MANAGER			
TRAFFIC DIVISION			CITY ENGINEER
			DATE

RECORD PLAN

NAME:

R.C.E.

DATE:

COUNTY APPROVED CHANGES

NO.	DESCRIPTION	APPROVED BY	DATE

BENCH MARK

DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT
LOCATION: NORTHERLY END OF ALTA ROAD, 0.3 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 50' TO TOP OF HILL
RECORD FROM: R.O.S. 13841, PT. NO. 4022
ELEVATION: 670.99 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 34	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

TRAFFIC SIGNAL MODIFICATION PLAN FOR:

SIEMPRE VIVA RD & ENRICO FERMI DR
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5606 & 5606

CALIFORNIA COORDINATE INDEX 138-1791

RECOMMENDED FOR APPROVAL

DESIGNED BY DATE 12/06/22

APPROVED FOR THE COUNTY OF SAN DIEGO

1/6/23

APPROVED FOR THE CITY OF SAN DIEGO

POS2021-LDP1P-60114

210902 – HAWANO TRAFFIC SIGNAL PLAN
ENGINEER'S NAME: BILL E. DARNELL

COUNTY OF SAN DIEGO TRAFFIC SIGNAL CONSTRUCTION NOTES

1. FURNISH AND INSTALL FLEX CONTROLLER WITH OMNI SOFTWARE AND ALL NECESSARY APPURTENANCES IN A 350 ATC CABINET PER SIGNAL OPERATIONS ON THIS PLAN AND WIRED FOR FUTURE 8 PHASE OPERATION
2. FURNISH AND INSTALL TWO ZINC BLUE2 BBS (8 BATTERY SYSTEM), AND ALL NECESSARY APPURTENANCES IN A 350I ATC CABINET WITH MINIMUM 24 HOUR RUN CAPACITY.
3. FURNISH AND INSTALL TYPE III BF ALUMINUM SIGNAL AND LIGHTING METERED SERVICE ENCLOSURE PER SDG&E REQUIREMENTS. PROVIDE 100A-2P MAIN BREAKER, 50A-1P SIGNALS (P E U 1), 30A-1P BATTERY BACKUP SYSTEM (BBS), 20A-1P BBS, 30A-1P SAFETY LIGHTING, 15A-1P INTERNALLY ILLUMINATED STREET NAME SIGN, AND 15A-1P LIGHTING CONTROL METERED CIRCUIT BREAKERS. SERVICE CABINET SHALL BE FABRICATED FROM ANODIZED ALUMINUM SHEET PER CALTRANS SPECIFICATIONS. CONTRACTOR SHALL MAKE AN APPOINTMENT WITH SDG&E AND PAY ALL ASSOCIATED FEES FOR SERVICE.
4. INSTALL INTERSECTION MONITORING TRAFFIC SIGNAL SYSTEM (IMTSS) IN 350I CABINET. SYSTEM IS APPLIED INFORMATION AI-500-085-02 SERIES GLANCE PREEMPT AND PRIORITY. UNIT HAS 4 PORT ETHERNET SWITCH, CELLULAR MODEM, GPS AND 900 MHZ RADIO WITH CAPABILITY TO SEND PRIORITY REQUESTS DIRECTLY TO TRAFFIC CONTROLLER USING ETHERNET COMMUNICATIONS.
5. FURNISH AND INSTALL GE EVOLVE 90 WATT LED ERJN-01-11-83-A GRAY AND SUN TECH EXTRA LONG LIFE SERIES (ELL) PEC.
6. FURNISH AND INSTALL ITERIS VIDEO DETECTION CAMERA SYSTEM OR APPROVED EQUAL. CAMERAS TO BE MOUNTED ON A SIGNAL MAST ARE WITH RISER. ITERIS CAMERA VIDEO DETECTION SYSTEM SHALL CONSIST OF A VANTAGE EDGE 2 PROCESSOR, VANTAGE EXTENSION MODULES, ITERIS RZ-4 CAMERA. SYSTEM SHALL HAVE A 17" CRCP DOWN MONITOR. CONTRACTOR SHALL PULL A 3#18 POWER CABLE AND BELDEN 9281 COAXIAL CABLE IN A COMPLETE HOME RUN PULL FROM EACH CAMERA TO CABINET WITH NO SPLICES. CONTRACTOR TO PROGRAM VIDEO CAMERA SYSTEM TO PROVIDE VIDEO DETECTION ZONES SHOWN ON PLAN. THE SIZE OF THE VIDEO DETECTION ZONES TO BE APPROVED BY THE COUNTY OF SAN DIEGO ENGINEER.
7. FURNISH AND INSTALL EVP SINGLE CHANNEL DUAL DETECTION EMERGENCY VEHICLE PRE-EMPTION EQUIPMENT (3M OPTICOM MODEL 721 WITH GPS). MOUNTING HARDWARE AND CABLE SHALL BE FURNISHED BY THE CONTRACTOR
8. INSTALL TYPE E LOOPS.
9. INSTALL R73-2 (CA) SIGN
10. FURNISH AND INSTALL INTERNALLY ILLUMINATED STREET NAME SIGN
11. INSTALL 2" CONDUIT AND THREE #6 CONDUCTORS TO SERVICE POINT PER SDG&E REQUIREMENTS. TWO #10 FOR LIGHTING AND ONE #8 FOR GROUND.
12. ALL TRAFFIC SIGNAL POLE FOUNDATIONS SHALL HAVE A 2" CONDUIT INSTALLED TO THE ADJACENT PULL BOX. THE CONTROLLER FOUNDATION SHALL HAVE A SPARE 3" CONDUIT STUBBED OUT TO THE ADJACENT #6 PULL BOX FOR FUTURE USE.
13. CONTRACTOR SHALL SCHEDULE A PRE-CHECK DATE WITH ALL MANUFACTURERS WITHIN THREE (3) WEEKS OF SETTING POLES AND STANDARDS. THIS DATE SHALL NOT BE THE TURN ON DATE. SIGNAL STANDARDS SHALL NOT BE ERECTED MORE THAN THREE (3) WEEKS PRIOR TO THE TURN-ON DATE.
14. INSTALL 2" C AND 12 CONDUCTOR INTERCONNECT FIBER OPTIC CABLE FROM THE #6 DOUBLE STACK PULL BOX, AS SHOWN ON SHEET 5A TO THE CONTROLLER CABINET.
15. INSTALL R81-19(CA) SIGN
16. INSTALL R3-4(CA) SIGN.

POLE & EQUIPMENT SCHEDULE

POLE	STD TYPE MT SA LA	LUMINAIRE SIZE TYPE MTS MT	VEH SIG MOUNTING	VEH SIG HEADS	SIGNAL POLE LOCATION A	B	PED MOUNTING (2)	PPB LOC (2)	RSWS LEGEND (1)	REMARKS
(A)	19-3-100 25' 15'	90W LED 34'-3"	12" MAS SV-1-TB	• •	5'	7'	SP-1-T #4	-	SIEMPRE VIVA RD ← XXX	6 5 12 7 15 10
(B)	26A-4-100 30' 40' 15'	90W LED 34'-3"	12" MAS 12" MAS SV-2-TB	• • •	5'	7'	-	-	HAWANO DR ← XXXX	8 5 12 7 9 10
(C)	TYPE 1A 10'	90W LED	TV-1-TB	•	5'	3'	SP-1-T	N		
(D)	TYPE 15TS 30' 15'	90W LED	-	•	5'	7'	SP-1-T	S		
(E)	TYPE TP-1 7'	-	-	•	5'	7'	SP-1-T #4P	S #4P		
(F)	19-3-100 30' 40' 15'	90W LED 34'-3"	12" MAS SV-1-TB	• •	5'	7'	SP-1-T #4P	E #4P	HAWANO DR XXXX →	6 4 7 5 10

INTERNATIONAL SYMBOL

1. INSTALL FLEX CONTROLLER WITH OMNI SOFTWARE, ALPHA BATTERY BACK UP SYSTEM (1 ROW-4 BATTERIES), AND 350I ATC CABINET (SEE CONSTRUCTION NOTE 1 & 16)

1. INTERNALLY ILLUMINATED STREET NAME SIGN WITH 6" UC & 4 1/2" LC LETTERS PER COUNTY OF SAN DIEGO STANDARD. CONTRACTOR TO CONFIRM ADDRESS ON SIGN WITH COUNTY ENGINEER.
2. INTERNATIONAL SYMBOL
3. FIXTURE (ERJN-01-11-83-A-GRAY DE EVOLVE) PHOTO CONTROL ELECTRONIC NODE (SUN TECH E11 EXTRA LONG LIFE SERIES)

LEGEND: • - RYG • - RYG ARROW

CONDUCTOR SCHEDULE

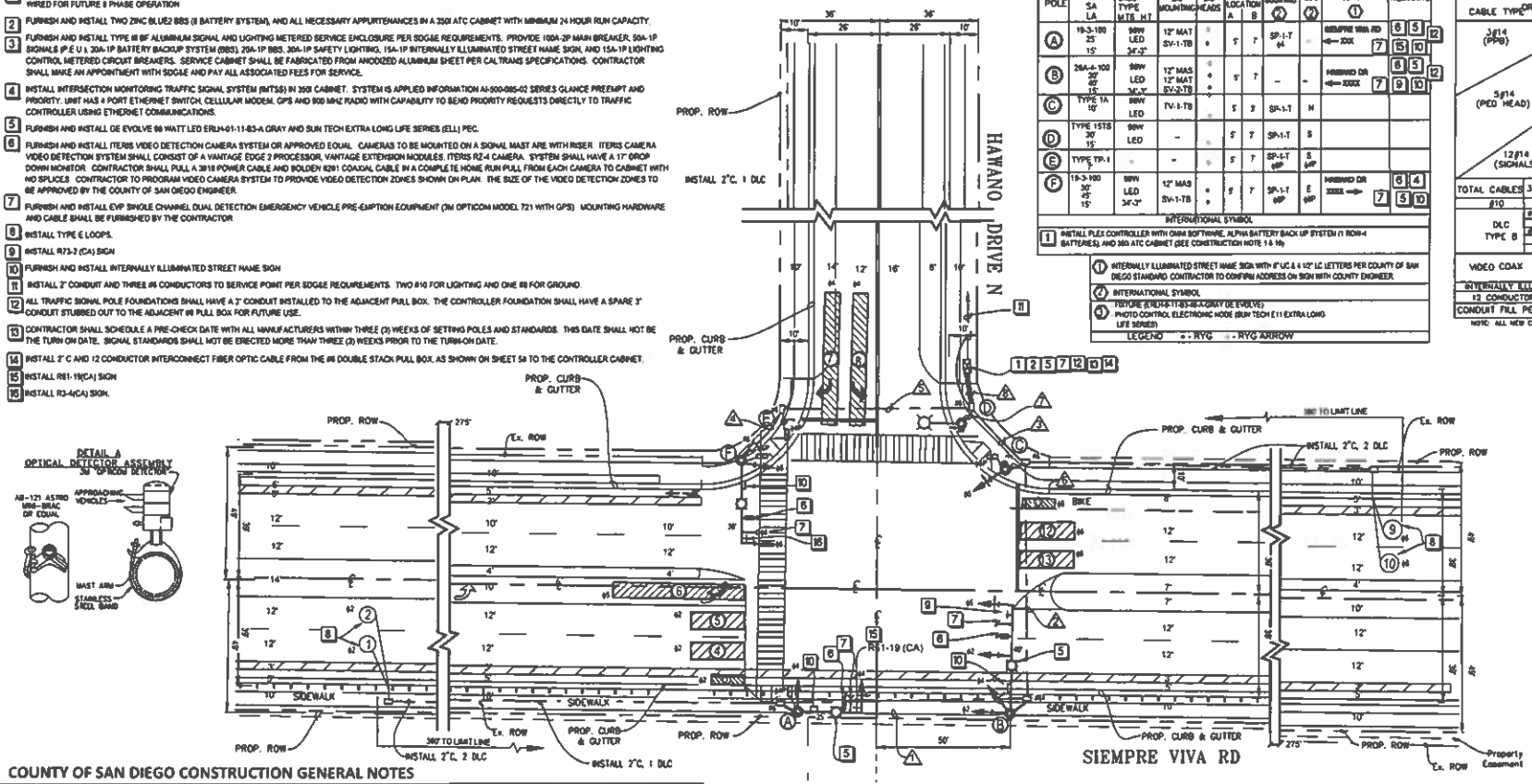
CABLE TYPE	POLE OR CIRCUIT	CONDUIT RUN & SIZE 4" (1)	4" (2)	4" (3)	4" (4)	4" (5)	4" (6)	4" (7)	2-4" (8)
3/14 (PPB)	POLE - A								
	B								
	C								
5/14 (PED HEAD)	D								
	E								
	F								
12/14 (SIGNALS)									
TOTAL CABLES	3 COND/5 COND/12 COND								
#10	LUMINAIRE	2	2	2	2	2			
DLC TYPE B	#2 LOOP, DLC	2	2	4					2
	#8								2
	TOTAL DLC	2	2	7					4
VIDEO COAX	VIDEO	1	2	2	1	1			2
INTERNALLY ILLUMINATED STREET SIGN		2	2	2	2	2			2
12 CONDUCTOR FIBER OPTIC CABLE									1
CONDUIT FILL PERCENTAGE		5.8	17.8	31.1	4.5	14.4	3.8		13.1

NOTE: ALL NEW CONDUIT AND CONDUCTORS ARE "END FEED" UNLESS OTHERWISE NOTED

DETECTOR ASSIGNMENTS

SIEMPRE VIVA ROAD AT HAWANO DRIVE NORTH

NO.	PHASE	ASSMB	FIT	CH
1	#2	ASSMB-1	FIT-2	CH 3
2	#2	ASSMB-1	FIT-2	CH 4
3	#2	ASSMB-1	FIT-4	CH 5
4	#2	ASSMB-1	FIT-4	CH 6
5	#2	ASSMB-1	FIT-4	CH 7
6	#5	ASSMB-2	FIT-1	CH 1
7	#4	ASSMB-1	FIT-8	CH 13
8	#4	ASSMB-1	FIT-8	CH 14
9	#6	ASSMB-2	FIT-2	CH 3
10	#6	ASSMB-2	FIT-2	CH 4
11	#6	ASSMB-2	FIT-2	CH 5
12	#6	ASSMB-2	FIT-2	CH 6
13	#6	ASSMB-2	FIT-2	CH 7
PPB	#2	ASSMB-1	FIT-10	CH 19
PPB	#4	ASSMB-1	FIT-10	CH 20
PPB	#6	ASSMB-1	FIT-11	CH 21
PPB	#8	ASSMB-1	FIT-11	CH 33
EVP	#2+#5	ASSMB-2	FIT-10	CH 19
EVP	#1+#6	ASSMB-2	FIT-10	CH 20
EVP	#4+#7	ASSMB-2	FIT-11	CH 21
EVP	#3+#8	ASSMB-2	FIT-11	CH 22



COUNTY OF SAN DIEGO CONSTRUCTION GENERAL NOTES

1. WHEN IMPROVEMENTS OCCUR AT EXISTING SIGNALIZED INTERSECTION INVOLVING INSTALLATION OF VIDEO DETECTION ALL EXISTING INOPERABLE UNUSED LOOP CABLE SHALL BE REMOVED
2. ALL WORK, MATERIAL AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, STANDARD PLANS AND STANDARD SPECIFICATIONS 2018 EDITION
3. UTILITIES SHOWN ON THESE PLANS ARE CORRECT AND ACCURATE TO THE EXTENT OF AVAILABLE RECORDS AND KNOWLEDGE. THE CONTRACTOR IS REQUIRED TO ASCERTAIN THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO DOING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE
4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND NOTIFY ALL UTILITY COMPANIES A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL PHASES OF CONSTRUCTION WITH THE VARIOUS UTILITY COMPANIES INVOLVED. THE CONTRACTOR SHALL MAKE APPOINTMENTS AND COMPLETE ALL APPLICATIONS, INCLUDING COST, FOR UTILITY IMPACTS DUE TO SIGNAL IMPROVEMENT. CONTRACTOR SHALL DIRECTLY CONTACT SDG&E TO OBTAIN A SERVICE POINT FOR THE TYPE 3 CABINET TO PROVIDE POWER TO THE SIGNAL. PRIOR TO CONTRACTOR CONTACTING SDG&E, THE TYPE 3 CABINET MUST BE INSPECTED AND APPROVED BY COUNTY STAFF. ALL COSTS ASSOCIATED WITH THE SERVICE POINT, INCLUDING ALL ENERGY USE PRIOR TO COUNTY ACCEPTANCE, IS THE RESPONSIBILITY OF THE CONTRACTOR. ONCE COUNTY ACCEPTS THE TRAFFIC SIGNAL, STAFF WILL CONTACT SDG&E TO PLACE SIGNAL IN COUNTY BILLING FROM DATE OF ACCEPTANCE
5. THE COUNTY INSPECTORS SHALL APPROVE THE EXACT LOCATION OF ALL PULL BOXES, CONDUITS, DETECTOR LOOPS, CONTROLLER, POLE, STANDARDS, STRIPING, PAVEMENT MARKINGS, AND ALL RAISED PAVEMENT MARKERS IN THE FIELD
6. PULL BOXES SHALL BE #5 UNLESS OTHERWISE NOTED. PULL BOXES AT SIGNALIZED CORNERS SHALL BE #6
7. ALL RED, YELLOW, AND GREEN SIGNAL INDICATIONS SIGNAL INDICATIONS SHALL BE OE L E D
8. ALL PEDESTRIAN HEADS SHALL BE INTERNATIONAL SYMBOLS AND L E D PEDESTRIANS SHALL BE TYPE O COUNTDOWN MODULES
9. ALL PEDESTRIAN PUSHBUTTONS SHALL BE NO POLARA ACCESSIBLE PEDESTRIAN SYSTEM WITH DETECTABLE AUDIO AND VIBRO TACTILE BUTTON AND IDETECT TOUCHLESS ACTUATION
10. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR TRAFFIC SIGNAL INSTALLATION PER CALTRANS MANUAL TO THE COUNTY OF SAN DIEGO TRAFFIC ENGINEERING SECTION A MINIMUM OF EIGHT (8) WEEKS PRIOR TO CONSTRUCTION. FOR INFORMATION CALL THE DEPARTMENT OF PUBLIC WORKS TRANSPORTATION AT (858) 694-3900
11. THE CONTRACTOR IS RESPONSIBLE FOR ALL NEW STRIPING AND THE REMOVAL OF ALL CONFLICTING STRIPING AND PAVEMENT MARKINGS BY SANDBLASTING. ALL LIMIT LINE AND CROSSWALKS MARKINGS SHALL BE INSTALLED THE DAY OF SIGNAL TURN ON. PRIOR INSTALLATION IS NOT ALLOWED
12. RAISED PAVEMENT MARKERS SHALL BE ON ALL NEW CENTERLINE AND LANE LINE STRIPING PER CALTRANS STANDARD PLANS
13. TRIM VEGETATION AS DIRECTED PER THE ENGINEER

PHASE DIAGRAM

NOT USED		NOT USED	
#1	#2	#3	#4
		NOT USED	NOT USED
#5	#6	#7	#8

FLASHING OPERATION SHALL BE ALL RED.

R73-2 (CA)

R3-4

R81-19 (CA)

HAWANO DRIVE NORTH → XXXXX — INTERNALLY ILLUMINATED STREET NAME SIGN

SIEMPRE VIVA ROAD → XXXXX — INTERNALLY ILLUMINATED STREET NAME SIGN

DESIGN SPEED	
SIEMPRE VIVA ROAD	50 MPH
HAWANO DRIVE	30 MPH

SCALE: 1" = 20'

811 Know what's below. Call 811 before you dig.

POLE PLACEMENT DETAIL

TYPICAL FOR INTERSECTION PEDESTRIAN RAMPS WITH TWO SIGNAL POLE'S (MAINTAIN 4 FOOT CLEAR BETWEEN EDGE OF RAMP AND SIGNAL POLE BASE PLATE AT ALL TIMES).

SCALE: 1" = 20'

NOTE: A = 5'
NOTE: B = 1'-6" TO 6' MAX.
NOTE: C = 10' MIN.

ENGINEERS STAMP — REGISTERED PROFESSIONAL ENGINEER BILLY EVERETTE DARNELL No. 22330 CIVIL STATE OF CALIFORNIA

PLANS PREPARED UNDER THE SUPERVISION OF: BILLY EVERETTE DARNELL, DESIGN ENGINEER R.C.E. No. 22330, EXPIRES 12/31/2023 — DATE 12/06/22

Darnell & ASSOCIATES
4411 MERCURY STREET, SUITE 200
SAN DIEGO, CA 92111
(619) 233-8373

DWN: J. FISHER CHK: BEDARNELL DATE: 12/06/22 BY: JASH

RECORD PLAN
NAME:
R.C.E.
DATE:

COUNTY APPROVED CHANGES			
NO.	DESCRIPTION	APPROVED BY	DATE

BENCH MARK

DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT
LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 M NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 50' TO TOP OF HILL
RECORD FROM: R.O.S. 14841, PT. NO. 4023
ELEVATION: 820.99 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 50	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	63 SHEETS

TRAFFIC SIGNAL PLAN FOR:
SIEMPRE VIVA RD AT HAWANO DR NORTH
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5506 & 5505
CALIFORNIA COORDINATE INDEX 138-1791

RECOMMENDED FOR APPROVAL: PLAN & ESTIMATE DIVISION — DATE 12/06/22
RECOMMENDED FOR APPROVAL: DESIGN DIVISION — DATE 1/4/23
APPROVED AS TO FORM: COUNTY COUNSEL — DATE 12/06/22
APPROVED BY THE BOARD OF SUPERVISORS — DATE
IMPROVEMENT PLAN NO. PDS2021-LDPIIP-60114

310031 - HAWANO DR. NORTH AT SVR CONDUIT PLAN
ENGINEER'S NAME: BILL E. DARNELL

COUNTY OF SAN DIEGO CONSTRUCTION GENERAL NOTES

1. WHEN IMPROVEMENTS OCCUR AT EXISTING SIGNALIZED INTERSECTION INVOLVING INSTALLATION OF VIDEO DETECTION ALL EXISTING INOPERABLE UNUSED LOOP CABLE SHALL BE REMOVED
2. ALL WORK, MATERIAL AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND STANDARD SPECIFICATIONS 2018 EDITION
3. UTILITIES SHOW ON THESE PLANS ARE CORRECT AND ACCURATE TO THE EXTENT OF AVAILABLE RECORDS AND KNOWLEDGE THE CONTRACTOR IS REQUIRED TO ASCERTAIN THE EXACT LOCATION OF ALL UNDERGROUND FACILITIES PRIOR TO DOING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE
4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND NOTIFY ALL UTILITY COMPANIES A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL PHASES OF CONSTRUCTION WITH THE VARIOUS UTILITY COMPANIES INVOLVED THE CONTRACTOR SHALL MAKE APPOINTMENTS AND COMPLETE ALL APPLICATIONS, INCLUDING COST, FOR UTILITY IMPACTS DUE TO SIGNAL IMPROVEMENT CONTRACTOR SHALL DIRECTLY CONTACT SDG&E TO OBTAIN A SERVICE POINT FOR THE TYPE 3 CABINET TO PROVIDE POWER TO THE SIGNAL PRIOR TO CONTRACTOR CONTACTING SDG&E, THE TYPE 3 CABINET MUST BE INSPECTED AND APPROVED BY COUNTY STAFF, ALL COSTS ASSOCIATED WITH THE SERVICE POINT, INCLUDING ALL ENERGY USE PRIOR TO COUNTY ACCEPTANCE, IS THE RESPONSIBILITY OF THE CONTRACTOR ONCE COUNTY ACCEPTS THE TRAFFIC SIGNAL, STAFF WILL CONTACT SDG&E TO PLACE SIGNAL IN COUNTY BILLING FROM DATE OF ACCEPTANCE.
5. THE COUNTY INSPECTORS SHALL APPROVE THE EXACT LOCATION OF ALL PULL BOXES, CONDUITS DETECTOR LOOPS, CONTROLLER, POLE, STANDARDS, STRIPING, PAVEMENT MARKINGS, AND ALL RAISED PAVEMENT MARKERS IN THE FIELD
6. PULL BOXES SHALL BE #5 UNLESS OTHERWISE NOTED PULL BOXES AT SIGNALIZED CORNERS SHALL BE #6.
7. ALL RED, YELLOW, AND GREEN SIGNAL INDICATIONS SIGNAL INDICATIONS SHALL BE OE L E.D.
8. ALL PEDESTRIAN HEADS SHALL BE INTERNATIONAL SYMBOLS AND L.E.D PEDESTRIANS SHALL BE TYPE O COUNTDOWN MODULES
9. ALL PEDESTRIAN PUSHBUTTONS SHALL BE IND POLARIS ACCESSIBLE PEDESTRIAN SYSTEM WITH DETECTABLE AUDIO AND VIBRO TACTILE BUTTON AND DETECT TOUCHLESS ACTUATION
10. CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN FOR TRAFFIC SIGNAL INSTALLATION PER CALTRANS MANUAL TO THE COUNTY OF SAN DIEGO TRAFFIC ENGINEERING SECTION A MINIMUM OF EIGHT (8) WEEKS PRIOR TO CONSTRUCTION FOR INFORMATION CALL THE DEPARTMENT OF PUBLIC WORKS TRANSPORTATION AT (858) 694-3699
11. THE CONTRACTOR IS RESPONSIBLE FOR ALL NEW STRIPING AND THE REMOVAL OF ALL CONFLICTING STRIPING AND PAVEMENT MARKINGS BY SANDBLASTING ALL LIMIT LINE AND CROSSWALKS MARKINGS SHALL BE INSTALLED THE DAY OF SIGNAL TURN ON. PRIOR INSTALLATION IS NOT ALLOWED.
12. RAISED PAVEMENT MARKERS SHALL BE ON ALL NEW CENTERLINE AND LANE LINE STRIPING PER CALTRANS STANDARD PLANS.
13. TRIM VEGETATION AS DIRECTED PER THE ENGINEER.
14. ANY SIGNAL IMPROVEMENT INTRUSION INTO THE SIDEWALK WILL REQUIRE A FULL PANEL REPAIR. PATCH REPAIRS OF SIDEWALK SHALL NOT BE ALLOWED

COUNTY OF SAN DIEGO TRAFFIC SIGNAL CONSTRUCTION NOTES

1 - INSTALL 3" CONDUIT WITH PULL ROPE IN CONDUITS 1, 2, 3, 4, 5 AND #6 PULL BOXES. CONDUITS ARE TO BE PLACED 36" INCHES BELOW FINISHED GRADE OF ROADWAYS AND SIDEWALKS. (TOTAL 320 FEET)

2 - INSTALL 2" CONDUIT WITH PULL ROPE WITH #5 PULL BOXES SPACED 250' FEET. CONDUITS ARE TO BE PLACED 36" BELOW GRADE OF SIDEWALK. (TOTAL 780FEET)

3 - PROPOSED TRAFFIC SIGNAL POLE FOUNDATION LOCATIONS SHOWN ON SHEET 55 OF SHEET 61 ARE PROVIDED FOR PLACEMENT OF THE #6 PULL BOXES TO ACCOMMODATE THE INSTALLATION OF EMPTY CONDUITS FOR THE FUTURE TRAFFIC SIGNALS.

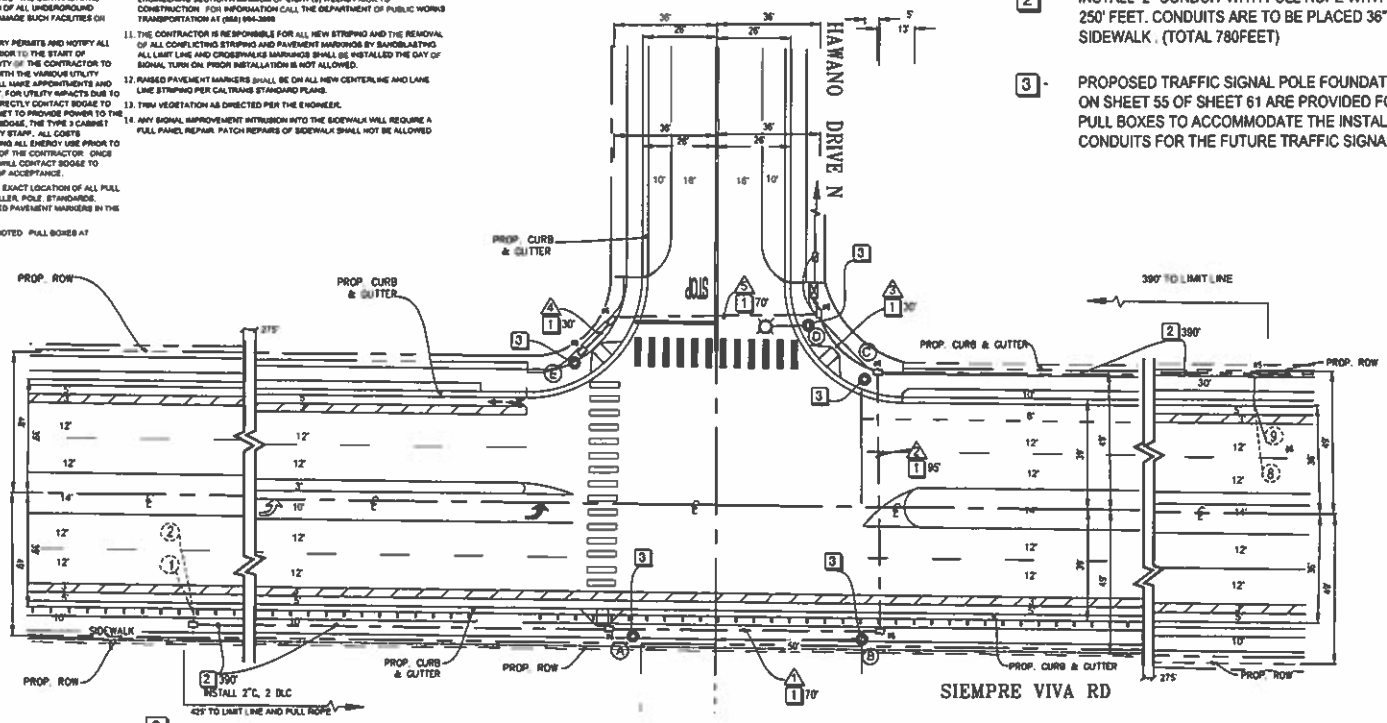
LEGEND

A = CONDUIT RUN #

B = CONSTRUCTION NOTE 1

C= FEET OF CONDUIT AND PULL ROPE

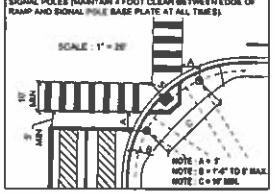
= FUTURE SIGNAL POLE LOCATIONS SEE SIGNAL PLAN SHEET 55.



POLE PLACEMENT DIMENSIONS			
POLE	STD TYPE HT SA LA	SIGNAL POLE LOCATION A	B
A	19-3-100 20' 15'	5'	7'
B	25-4-100 30' 40' 15'	5'	3'
C	TYPE 1A 10' -	5'	7'
D	TYPE 1STS 30' 15'	5'	3'
E	19-3-100 30' 45' 15'	5'	7'

3 POLE PLACEMENT DETAIL

TYPICAL FOR INTERSECTION PEDESTRIAN RAMPS WITH TWO SIGNAL POLES (MAINTAIN 4 FOOT CLEAR BETWEEN EDGE OF RAMP AND SIGNAL POLE BASE PLATE AT ALL TIMES).



SCALE: 1" = 20'

10 20 30 40

811 Know what's below. Call 811 before you dig.

ENGINEERS STAMP

PLANS PREPARED UNDER THE SUPERVISION OF

Bill E. Darnell 12/06/2022

BILLY EVERETTE DARNELL DATE

DESIGN ENGINEER R.C.E. No 22338

EXPIRES 12/31/2023

Darnell & ASSOCIATES

6411 MERCURY STREET, SUITE 200

SAN DIEGO, CA 92111

(619) 233-8373

RECORD PLAN
NAME:
R.C.E.
DATE:

COUNTY APPROVED CHANGES			
NO.	DESCRIPTION	APPROVED BY	DATE

BENCH MARK

DESCRIPTION: BRASS DISC IN STREET CENTERLINE WELL MONUMENT

LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE ARROW 40' TO ROP OF HILL

RECORD FROM: R.O.S. 14841, P.T. NO. 4022

ELEVATION: 670.89 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 56 | COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS | 62 SHEETS

TRAFFIC SIGNAL CONDUIT INSTALLATION PLAN FOR:

SIEMPRE VIVA RD AT HAWANO DR NORTH

OTAY BUSINESS PARK & HAWANO SUBDIVISION

COUNTY OF SAN DIEGO TRACTS 5806 & 5806

CALIFORNIA COORDINATE INDEX 138-1791

APPROVED FOR APPROVAL | APPROVED FOR THE COUNTY OF SAN DIEGO 1/4/23

OWNER OF WORK | DATE 12/06/2022 | DATE

PDS2021-LDPIP-60114

210901 - HAWANO: HAWANO DR. NORTH AT SVR CONDUIT PLAN

ENGINEER'S NAME: BILL E. DARNELL

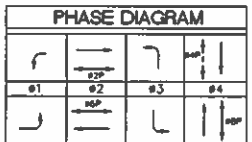
COUNTY OF SAN DIEGO TRAFFIC SIGNAL CONSTRUCTION NOTES

1. FURNISH AND INSTALL FLEX CONTROLLER WITH OMNI SOFTWARE AND ALL NECESSARY APPURTENANCES IN A 170 ATC CABINET PER SIGNAL OPERATIONS ON THIS PLAN AND WIRED FOR FUTURE 8 PHASE OPERATION
2. FURNISH AND INSTALL TWO 2INC BLUE 2 BBS (8 BATTERY SYSTEM) AND ALL NECESSARY APPURTENANCES IN A 170 ATC CABINET WITH MINIMUM 24 HOUR RUN CAPACITY
3. FURNISH AND INSTALL TYPE III BF ALL MINOR SIGNAL AND LIGHTING METERED SERVICE EQUIPMENT PER SDG&E REQUIREMENTS PROVIDE 100A 1P MAIN BREAKER, 30A 1P SIGNALS (P.S.U.), 30A 1P BATTERY BACKUP SYSTEM (BBS), 20A 1P BBS, 30A 1P SAFETY LIGHTING, 15A 1P INTERNALLY ILLUMINATED STREET NAME SIGN, AND 15A 1P LIGHTING CONTROL METERED CIRCUIT BREAKERS. SERVICE CABINET SHALL BE FABRICATED FROM ANODIZED ALUMINUM SHEET PER CALTRANS SPECIFICATIONS. CONTRACTOR SHALL MAKE AN APPOINTMENT WITH SDG&E AND PAY ALL ASSOCIATED FEES FOR SERVICE.
4. FURNISH AND INSTALL GE EVOLVE 64 WATT LED ERLH-0 @ 0A GRAY SUN TECH EXTRA LONG LIFE (ELL) PEC
5. FURNISH AND INSTALL ITERIS VIDEO DETECTION CAMERA SYSTEM OR APPROVED EQUAL. CAMERAS TO BE MOUNTED ON A SIGNAL MAST ARE WITH RISER. ITERIS CAMERA VIDEO DETECTION SYSTEM SHALL CONSIST OF A VANTAGE EDGE 2 PROCESSOR, VANTAGE EXTENSION MODULES, ITERIS RIZ 4 CAMERA. SYSTEM SHALL HAVE A 17" DROP DOWN MONITOR. CONTRACTOR SHALL PULL A 1616 POWER CABLE AND BOLDEN #828 COAXIAL CABLE IN A COMPLETE HOME RUN PULL FROM EACH CAMERA TO CABINET WITHOUT SPLICES. CONTRACTOR TO PROGRAM VIDEO CAMERA SYSTEM TO PROVIDE VIDEO DETECTION ZONES SHOWN ON PLAN. THE SIZE OF THE VIDEO DETECTION ZONES TO BE APPROVED BY THE COUNTY OF SAN DIEGO ENGINEER. WHEN IMPROVEMENTS OCCUR AT EXISTING SIGNALIZED INTERSECTIONS INVOLVING INSTALLATION OF VIDEO DETECTION, ALL EXISTING INOPERABLE/UNUSED LOOP CABLE SHALL BE REMOVED.
6. FURNISH AND INSTALL 3M P SINGLE CHANNEL DUAL DETECTION EMERGENCY VEHICLE PRE EMPTION EQUIPMENT (3M OPTICOM MODEL 722 WITH GPS) MOUNTING HARDWARE AND CABLE SHALL BE FURNISHED BY THE CONTRACTOR.
7. INSTALL TYPE E LOOP
8. FURNISH AND INSTALL INTERNALLY ILLUMINATED STREET NAME SIGN
9. INSTALL 1" CONDUIT AND THREE #6 CONDUCTORS TO SERVICE POINT PER SDG&E REQUIREMENTS AND TWO #6 FOR LIGHTING AND ONE #4 FOR GROUND.
10. ALL TRAFFIC SIGNAL POLE FOUNDATIONS SHALL HAVE A 1" CONDUIT INSTALLED TO THE ADJACENT PULL BOX. THE CONTROLLER FOUNDATION SHALL HAVE A SPARE 1" CONDUIT STUBBED OUT TO THE ADJACENT #6 PULL BOX FOR FUTURE USE
11. INSTALL INTERSECTION MONITORING TRAFFIC SIGNAL SYSTEM (ITS) IN 170 CABINET. SYSTEM IS APPLIED INFORMATION AT 500 OF 5.0 SERIES GLANC L PREEMPT AND PRIORITY. UNIT HAS 4 PORT ETHERNET SWITCH CELLULAR MODEM, GPS AND 900 MHZ RADIO WITH CAPABILITY TO SEND PRIORITY REQUESTS DIRECTLY TO TRAFFIC CONTROLLER USING ETHERNET COMMUNICATIONS
12. INSTALL R73-2(CA) SIGN
13. INSTALL 2"C, 2 #6 TO CONTROLLER CABINET.
14. CONTRACTOR TO INSTALL 3 CONDUIT AND 96" FIBER INTERCONNECT CABLE PER SHEET 50 AND 51
15. CONTRACTOR TO INSTALL 2 CONDUIT AND 12" FIBER OPTIC BRANCH INTERCONNECT CABLE TO THE POLE STACK #6 PULL BOX AND 96" FIBER INTERCONNECT CABLE

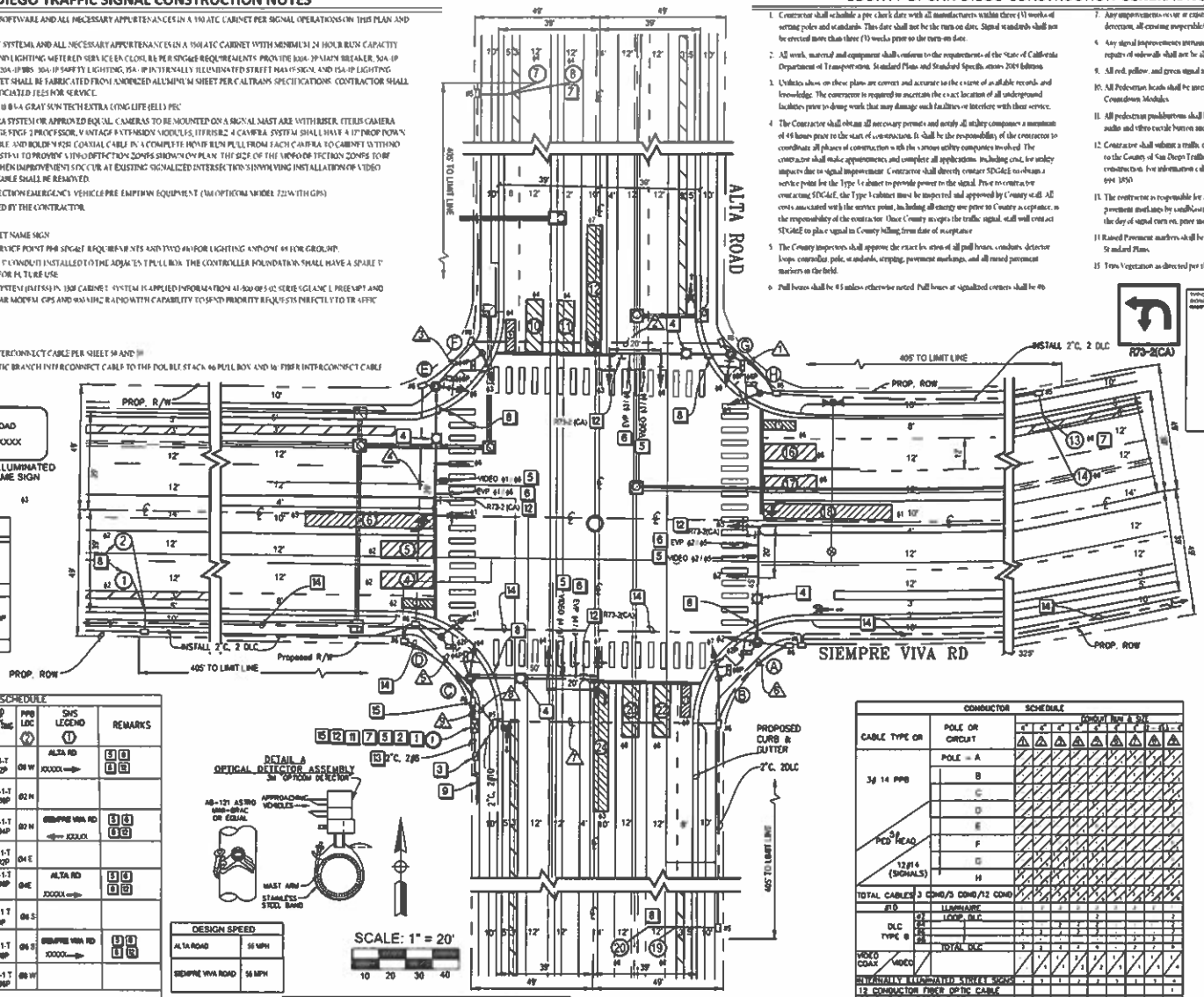
SIEMPRE VIVA ROAD → XXXXX — INTERNALLY ILLUMINATED STREET NAME SIGN

ALTA ROAD → XXXXX — INTERNALLY ILLUMINATED STREET NAME SIGN

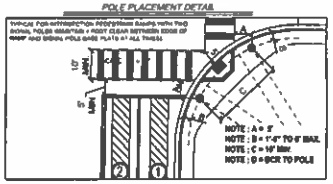
PHASE DIAGRAM



FLASHING OPERATION SHALL BE ALL RED.



POLE PLACEMENT DETAIL



DETECTOR ASSIGNMENTS

SIEMPRE VIVA ROAD AT ALTA ROAD

NO.	PHASE	ASSMB	FIT	CH
1	ø2	ASSMB-1	FIT-2	CH-3
2	ø2	ASSMB-1	FIT-2	CH-4
3	ø2	ASSMB-1	FIT-4	CH-5
4	ø2	ASSMB-1	FIT-4	CH-6
5	ø2	ASSMB-1	FIT-4	CH-7
6	ø5	ASSMB-2	FIT-1	CH-1
7	ø4	ASSMB-1	FIT-6	CH-11
8	ø4	ASSMB-1	FIT-6	CH-12
9	ø4	ASSMB-1	FIT-8	CH-13
10	ø4	ASSMB-1	FIT-8	CH-14
11	ø4	ASSMB-1	FIT-8	CH-15
12	ø7	ASSMB-2	FIT-5	CH-9
13	ø6	ASSMB-2	FIT-2	CH-3
14	ø6	ASSMB-2	FIT-2	CH-4
15	ø6	ASSMB-2	FIT-4	CH-5
16	ø6	ASSMB-2	FIT-4	CH-6
17	ø6	ASSMB-2	FIT-4	CH-7
18	ø1	ASSMB-1	FIT-1	CH-1
19	ø8	ASSMB-2	FIT-6	CH-11
20	ø8	ASSMB-2	FIT-6	CH-12
21	ø8	ASSMB-2	FIT-8	CH-13
22	ø8	ASSMB-2	FIT-8	CH-14
23	ø8	ASSMB-2	FIT-8	CH-15
24	ø3	ASSMB-1	FIT-5	CH-9
PPB	ø2	ASSMB-1	FIT-11	CH-21
PPB	ø4	ASSMB-1	FIT-11	CH-22
PPB	ø6	ASSMB-1	FIT-12	CH-23
PPB	ø8	ASSMB-1	FIT-12	CH-24
EVP	ø2+ø5	ASSMB-2	FIT-10	CH-19
EVP	ø1+ø6	ASSMB-2	FIT-10	CH-20
EVP	ø4+ø7	ASSMB-2	FIT-11	CH-21
EVP	ø3+ø8	ASSMB-2	FIT-11	CH-22

POLE & EQUIPMENT SCHEDULE

POLE	STD TYPE HT SA LA	LUMINAIRE SIZE TYPE (1) MTG HT	VDH SIG MOUNTING	VDH SIG HEADS	SIGNAL POLE LOCATION A	SIGNAL POLE LOCATION B	PED SIG MOUNTING 2	PPB LOC (2)	SNS LEGEND (1)	REMARKS
(A)	26-6-100 30' 50' 15'	98W LED 34'-3"	12" MAT 12" MAS SV-1-TB	◊ ◊ ◊	5'	7'	SP-1-T 02P	08 W	ALTA RD XXXXX →	5 8 6 12
(B)	TYPE 1A 10'	- - -	- - SV-1-T		5'	7'	SP-1-T 08P	02 N		
(C)	26-6-100 30' 50' 15'	98W LED 34'-3"	12" MAT 12" MAS SV-1-TB	◊ ◊ ◊	5'	7'	SP-1-T 04P	02 N	SIEMPRE VIVA RD ← XXXXX	5 8 6 12
(D)	TYPE 1A 10'	- - -	- - SV-1-T	◊	5'	7'	SP-1-T 02P	04 E		
(E)	26-6-100 30' 50' 15'	98W LED 34'-3"	12" MAT 12" MAS SV-1-TB	◊ ◊ ◊	5'	7'	SP-1-T 08P	04E	ALTA RD XXXXX →	5 8 6 12
(F)	TYPE 1A 10'	- - -	- - SV-1-T	◊	5'	7'	SP-1-T 04P	06 S		
(G)	26-6-100 30' 50' 15'	98W LED 34'-3"	12" MAT 12" MAS SV-1-TB	◊ ◊ ◊	5'	7'	SP-1-T 08P	06 S	SIEMPRE VIVA RD XXXXX →	5 8 6 12
(H)	TYPE 1A 10'	- - -	- - SV-1-T	◊	5'	7'	SP-1-T 08P	08 W		

(1) INSTALL FLEX CONTROLLER WITH OMNI SOFTWARE. SEE CONSTRUCTION NOTES : 1 2 5 7 8 12

(1) INTERNALLY ILLUMINATED STREET NAME SIGN WITH 8" UC & 4 1/2" LC LETTERS PER COUNTY OF SAN DIEGO STANDARD. CONTRACTOR TO CONFIRM ADDRESS ON SIGN WITH COUNTY ENGINEER.

(2) INTERNATIONAL SYMBOL

(3) - FIXTURE (ERLH-6-11-83-40-A-GRAY GE EVOLVE)
- PHOTO CONTROL (ELECTRONIC NODE (SUN TECH E11 EXTRA LONG LIFE SERIES) SEE CONSTRUCTION NOTE (3)

LEGEND • - RYG • - RYG ARROW

DESIGN SPEED

ALTA ROAD	55 MPH
SIEMPRE VIVA ROAD	55 MPH

811 Know what's below. Call 811 before you dig.

ENGINEERS STAMP — REGISTERED PROFESSIONAL ENGINEER BILLY EVERETTE DARNELL No. 72338 CIVIL STATE OF CALIFORNIA

PLANS PREPARED UNDER THE SUPERVISION OF: BILLY EVERETTE DARNELL DESIGN ENGINEER R.C.E. No. 72338 EXPIRES: 12/31/2023 DATE

Darnell & ASSOCIATES
4411 MERCURY STREET, SUITE 200
SAN DIEGO, CA 92111
(619) 230-0373

DWG. 2 SHEETS ADDITIONAL DWGS. 54 DATE 12/06/22 BY JAM

COUNTY OF SAN DIEGO CONSTRUCTION GENERAL NOTES

1. Contractor shall schedule a pre check date with all manufacturers within three (3) weeks of setting poles and standards. This date shall not be the turn on date. Signal standards shall not be erected more than three (3) weeks prior to the turn-on date.
2. All work, material and equipment shall conform to the requirements of the State of California Department of Transportation, Standard Plans and Standard Specifications 2004 Edition.
3. Utilities shown on these plans are correct and accurate to the extent of available records and knowledge. The contractor is required to ascertain the exact location of all underground facilities prior to doing work that may damage such facilities or interfere with their service.
4. The Contractor shall obtain all necessary permits and notify all utility companies a minimum of 48 hours prior to the start of construction. It shall be the responsibility of the contractor to coordinate all phases of construction with the various utility companies involved. The contractor shall make appointments and complete all applications, including cost, for utility impacts due to signal improvement. Contractor shall directly contact SDG&E to obtain a service point for the Type 4 cabinet to provide power to the signal. Prior to contacting or contacting SDG&E, the Type 4 cabinet must be inspected and approved by County staff. All costs associated with the service point, including all energy use prior to County acceptance, is the responsibility of the contractor. Once County accepts the traffic signal, staff will contact SDG&E to place signal in County billing, from date of acceptance.
5. The County inspectors shall approve the exact location of all pull boxes, conduits, detector loops, controller, pole, or standards, striping, pavement markings, and all raised pavement markers in the field.
6. Pull boxes shall be #5 unless otherwise noted. Pull boxes at signalized corners shall be #6.
7. Any improvements to or existing signalized intersection involving installation of video detectors, all existing inoperable/unused loop cable shall be removed.
8. Any signal improvements increase into the side walk will require a full panel repair. Patch repairs of sidewalk shall not be allowed.
9. All red, yellow, and green signal indication signal indications shall be GE LED
10. All Pedestrian heads shall be international symbols and LED Pedestrians shall be Type G Countdown Modules.
11. All pedestrian pushbuttons shall be ADA Polara Accessible Pedestrian System with detectable audio and vibro tactile button and iDirect touchless actuation.
12. Contractor shall submit a traffic control plan for traffic signal installation per Caltrans manual to the County of San Diego Traffic Engineering Section a minimum of eight (8) weeks prior to construction. For information call the Department of Public Works Transportation at (858) 694-3850
13. The contractor is responsible for all new striping and the removal of all conflicting striping and pavement markings by sandblasting. All lane line and crosswalk markings shall be installed the day of signal turn on, paint installation is not allowed.
14. Raised Pavement markers shall be on all new centerline and lane line striping per Caltrans Standard Plans.
15. Trim Vegetation as directed per the Engineer

CONDUCTOR SCHEDULE

CABLE TYPE OR	POLE OR CIRCUIT	CONDUIT RUN A SIZE									
		4"	4"	4"	4"	4"	4"	4"	4"	4"	4"
3@14 PPB	POLE = A										
	B										
	C										
	D										
	E										
PED 3@ HEAD	F										
	G										
12@14 (SIGNALS)	H										
TOTAL CABLES	3 COND/3 COND/12 COND										
#10	LUMINAIRE										
DLC TYPE B	LOOP, DLC				2						
	ø2	2	2	2	2	2	2	2	2	2	2
	ø4	2	2	2	2	2	2	2	2	2	2
	ø6	2	2	2	2	2	2	2	2	2	2
	ø8	2	2	2	2	2	2	2	2	2	2
	TOTAL DLC	8	8	8	12	8	8	8	8	8	8
VIDEO COAX / VIDEO		1	1	1	1	1	1	1	1	1	1
INTERNALLY ILLUMINATED STREET SIGNS		-	1	1	1	1	1	1	1	1	1
12 CONDUCTOR FIBER OPTIC CABLE											1
CONDUIT FILL PERCENTAGE		36	11.6	17.3	30.6	30.6	9.7	21.9	21.9	22.7	

RECORD PLAN

NAME: _____
R.C.E. _____
DATE: _____

COUNTY APPROVED CHANGES

NO.	DESCRIPTION	APPROVED BY	DATE

BENCH MARK

DESCRIPTION: BRASS DISC IN SWEET CONCRETE WALL MONUMENT
LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 30' TO TOP OF HILL
RECORD FROM: B.O.S. 14841, PT. NO. 4022
ELEVATION: 670.89 DATUM NGVD '29

PRIVATE CONTRACT

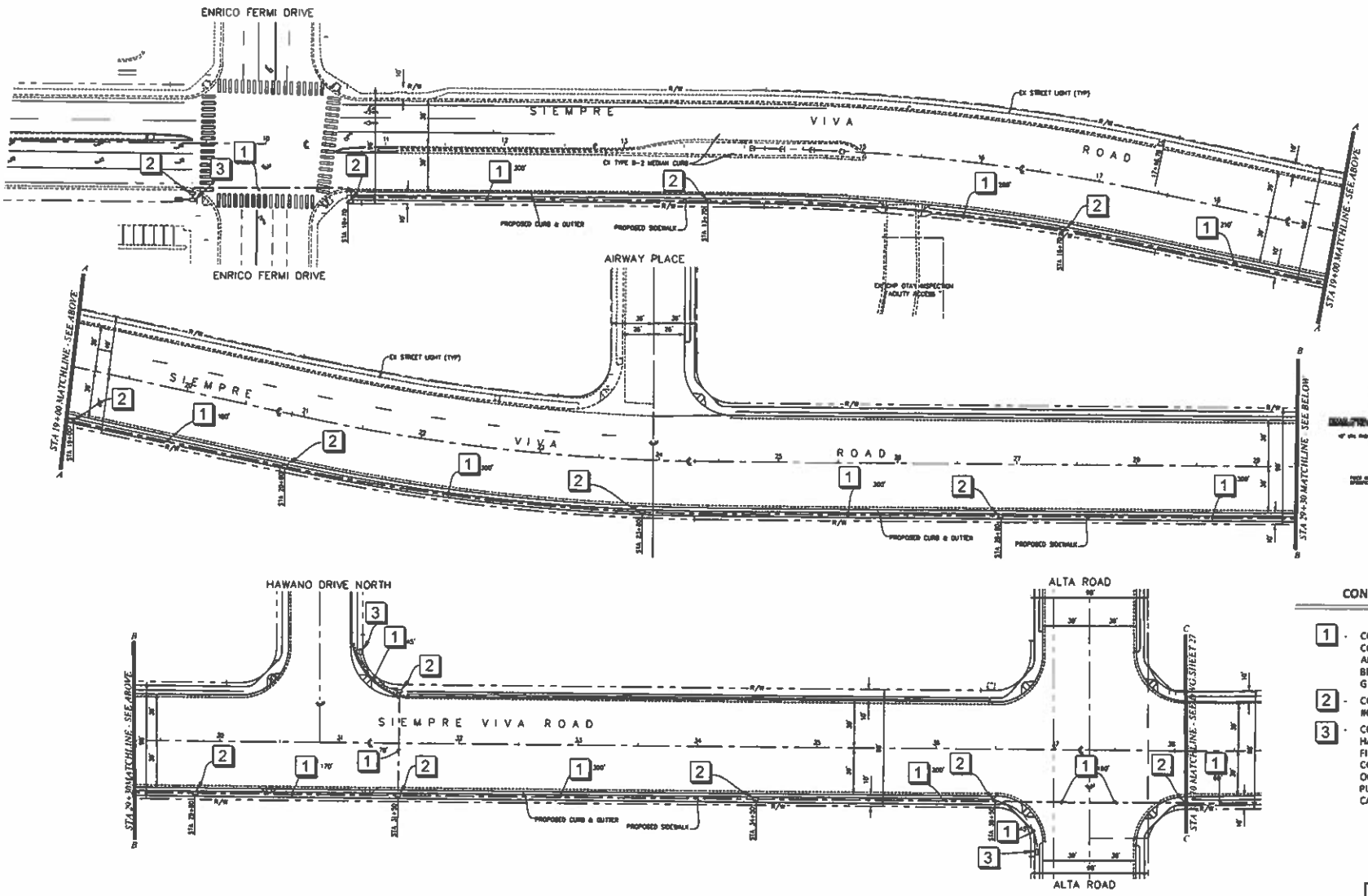
SHEET 57	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

TRAFFIC SIGNAL PLAN FOR:

SIEMPRE VIVA ROAD AT ALTA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5506 & 5508
CALIFORNIA COORDINATE INDEX 138-1791

RECOMMENDED FOR APPROVAL: _____ DATE: _____
APPROVED FOR PUBLIC WORKS: 1/9/23
ENGINEER OF WORK: BILLY E. DARNELL R.C.E. 72338 DATE 12/06/22
APPROVED FOR: POS2021-LDPIP-60114

210001 - HAWANO DR. NORTH AT SVR CONDUIT PLAN
ENGINEER'S NAME: BILL E. DARNELL



CONSTRUCTION NOTES

1. CONTRACTOR TO INSTALL THREE (3") INCH CONDUIT WITH TRACE WIRE, PULL ROPE AND 36 FIBER OPTIC CABLE. CONDUIT TO BE PLACED 36" INCHES BELOW FINISH GRADE OF STREET AND SIDEWALK.
2. CONTRACTOR TO INSTALL DOUBLE STACK #6 PULL BOX PER DETAIL A.
3. CONTRACTOR TO INSTALL INTERCONNECT HAND HOLD FOR TERMINATION OF 36 FIBER INTERCONNECT CABLE AND CONDUIT FOR INSTALLATION OF 12 FIBER OPTIC BRANCH CABLE TO DOUBLE STACK PULL BOX TO INTERSECTION CONTROLLER CABINET.

ENGINEER'S STAMP

PLANS PREPARED UNDER THE SUPERVISION OF
BILLY EVERETTE DARNELL — DATE 12/05/2022
DESIGN ENGINEER R.C.E. No. 22336
EXPIRE. 12-31-2023
Darnell & ASSOCIATES
6411 MERCURY STREET, SUITE 206
SAN DIEGO, CA 92111
(619) 233-5373
DWG 210901 DWG SH 1 DATE 12/05/2022 BY JAM

RECORD PLAN	COUNTY APPROVED CHANGES			
NAME:	NO.	DESCRIPTION	APPROVED BY	DATE
R.C.E.				
DATE:				

BENCH MARK
DESCRIPTION: BRASS DISC IN STRICT CENTERLINE WELL MONUMENT
LOCATION: NORTHERLY END OF ALTA ROAD, 8.5 M NORTHERLY OF OTAY WETA ROAD, EAST CONCRETE APRON 50' TO TOP OF HILL
RECORD FROM: R.O.S. 14841, PT. NO. 4022
ELEVATION: 570.99 DATUM: NGVD '29

PRIVATE CONTRACT

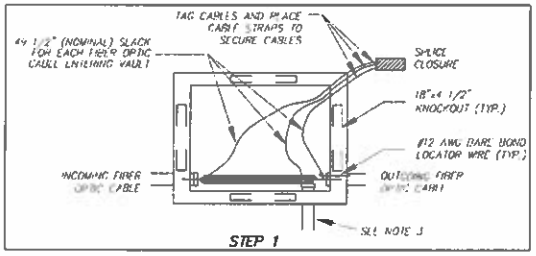
SHEET 36	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

TRAFFIC INTERCONNECT SIGNAL CONDUIT PLAN FOR:
SIEMPRE VIVA ROAD
ENRICO FERMI DRIVE TO ALTA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5506 & 5685
CALIFORNIA COORDINATE INDEX 138-1791

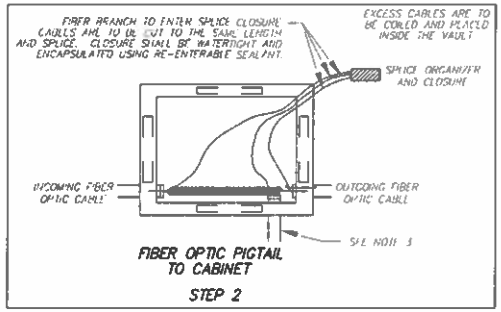
APPROVED FOR APPROVAL — DATE 1/4/23
DESIGNED BY — DATE 12/05/2022
DEPARTMENT PLAN NO. PDS2021-LDPRP-60114

210901 - HAWANO SUBDIVISION CONDUIT PLAN
ENGINEER'S NAME: BILL E. DARNELL

FIBER OPTIC SPLICE PROCEDURE (TOP VIEW)

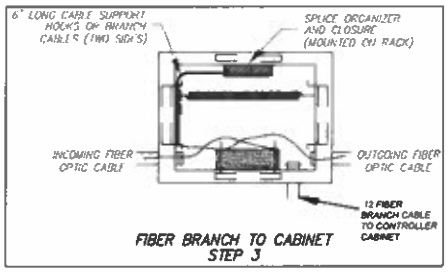


STEP 1



FIBER OPTIC PIGTAIL TO CABINET

STEP 2



FIBER BRANCH TO CABINET
STEP 3

SPLICE CLOSURE (TYPE) NOTES

NOTES:

1. CONDUIT FROM THE TYPICAL TRENCH SECTION SHALL NOT DEFLECT BY MORE THAN 1" / 12" FROM THE ALIGNMENT PRECEDING OR FOLLOWING THE PULL BOX.
2. BOTTOM OF CONDUITS SHALL BE LOCATED AT 30" BELOW EXISTING GROUND. CONDUITS AT PULL BOXES SHALL DEFLECT NO MORE THAN 1" / 12" TO ENTER PULL BOX. CONDUITS SHALL BE FLUSH WITH INSIDE OF PULL BOX.
3. LATERAL CONDUITS AS REQUIRED.
4. ALL NEW PULL BOXES SHALL BE FURNISHED WITH RACKS AND HOOKS INSTALLED.
5. RACKS AND HOOKS SHALL BE INSTALLED IN ALL SPLICE VAULTS.
6. PROVIDE 100' OF SLACK FOR THE SINGLE MODE TRUNK CABLE SHALL BE PROVIDED AT ALL SPLICE VAULTS WITHOUT SPLICES.
7. BACKFILL WITH DESIGNATED SIZE NO. 57 AGGREGATE BELOW PULLBOX. BACKFILL AROUND SIDES OF PULL BOX WITH SELECT EXCAVATED MATERIAL AND THOROUGHLY COMPACT.

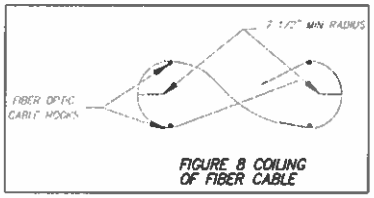
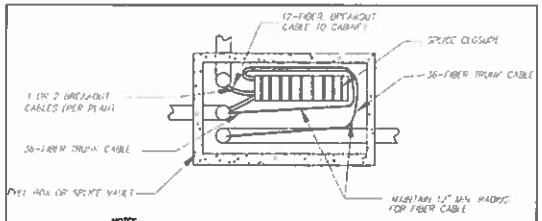


FIGURE 8 COILING OF FIBER CABLE



NOTES:

1. CONTRACTOR SHALL SPLICE ONLY BLUE SUB-CABLES. REMAINING SUB-CABLES SHALL BE RETAINED IN PRISTINE CONDITION.
2. THE COST FOR FURNISHING AND INSTALLING THE PROPOSED 12 FIBER OPTICS BREAKOUT CABLE IN THE SPLICE CLOSURE SHALL BE INCLUDED AS PART OF THE FIBER OPTIC CABLE INSTALLATION.

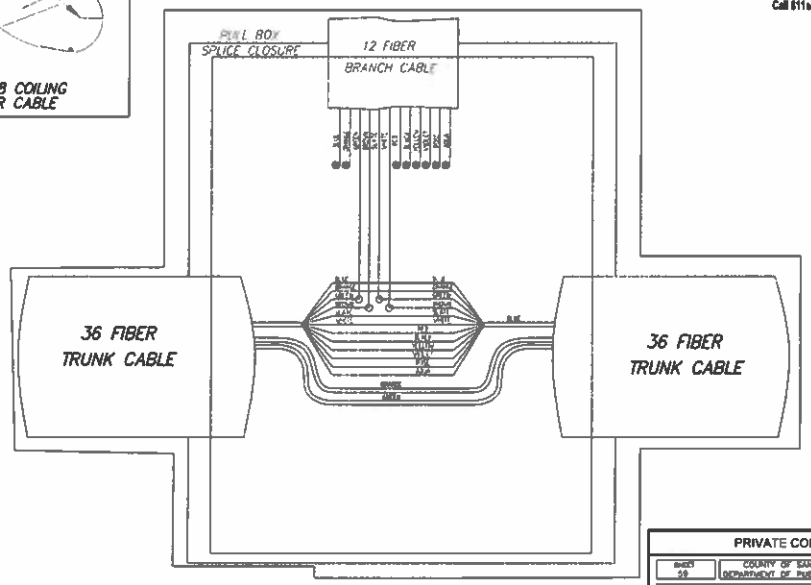
SPLICE CLOSURE (TYP.)
NTS

NOTES:

1. CONTRACTOR SHALL SPLICE ONLY BLUE SUB-CABLES. REMAINING SUB-CABLES SHALL BE RETAINED IN PRISTINE CONDITION.
2. THE COST FOR FURNISHING AND INSTALLING THE PROPOSED 12 FIBER OPTICS BREAKOUT CABLE IN THE SPLICE CLOSURE SHALL BE INCLUDED AS PART OF THE FIBER OPTIC CABLE INSTALLATION.
3. CONTRACTOR TO COIL 10 FEET OF 12 FIBER CABLE IN PULL BOX.

UTILITY NOTES:

ALL EXISTING UTILITIES SHOWN ON THESE PLANS ARE PLOTTED FROM RECORD DRAWINGS AT THEIR APPROXIMATE LOCATIONS. UNDERGROUND FACILITIES MAY EXIST WHICH HAVE NOT BEEN REPORTED OR ARE NOT OF RECORD. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL PERTINENT UTILITIES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.



811 Know what's below. Call 811 before you dig.

ENGINEER'S STAMP

PLANS PREPARED UNDER THE SUPERVISION OF: BILLY EVERETTE DARNELL, DESIGN ENGINEER R.C.E. No. 22338, DATE 12/08/2022

Darnell & ASSOCIATES, INC.
4411 MERCURY STREET, SUITE 200
SAN DIEGO, CA 92111
(619) 233-9373

DWG 210901 HAVANO, 1M | DATE 12-08-2022 | BY JAM

RECORD PLAN	COUNTY APPROVED CHANGES				BENCH MARK
NAME:	NO.	DESCRIPTION	APPROVED BY	DATE	DESCRIPTION: BRASS DISC IN STREET CONTROLINE WELL MONUMENT NORTHERLY END OF ALTA ROAD, 0.5 M NORTHERLY OF
R.C.E.					LOCATION: OTAY MESA ROAD, PAST CONCRETE APRON 30' TO TOP OF HILL
DATE:					RECORD FROM: R.O.S. 14841, PT. NO. 4022
					ELEVATION: 570.99 DATUM: NAVD '29

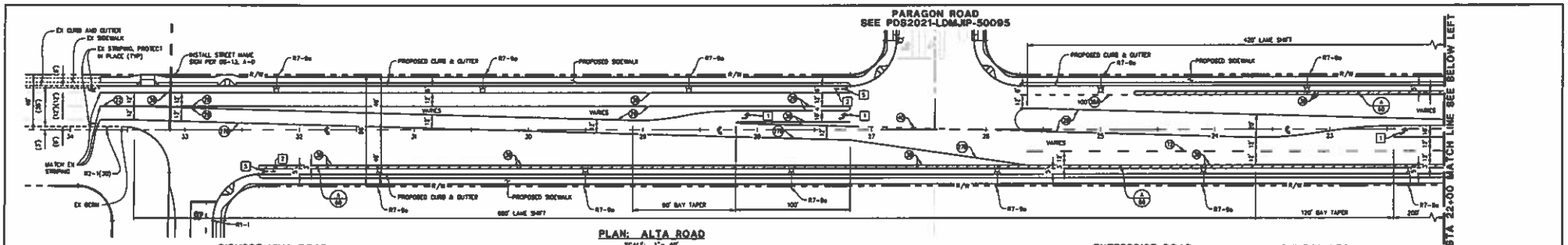
PRIVATE CONTRACT

SHEET 59	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

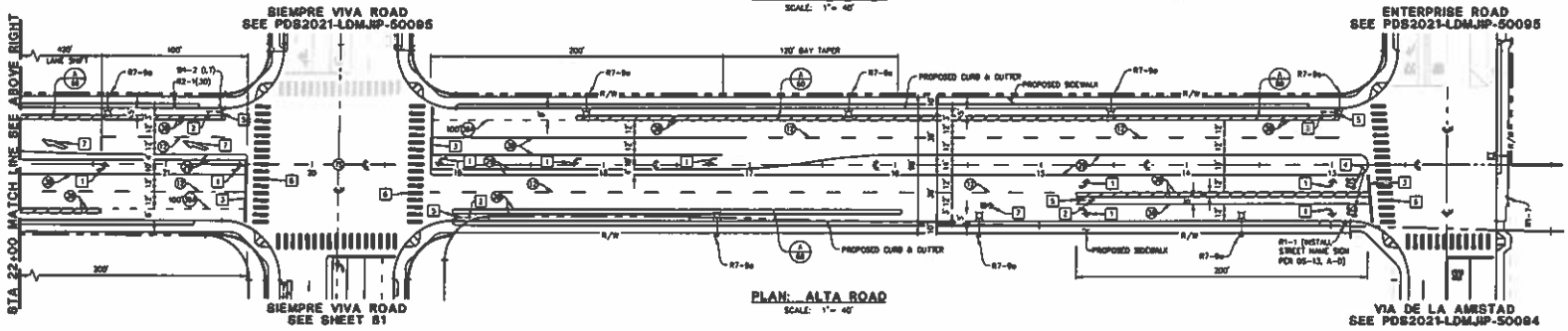
TRAFFIC SIGNAL INTERCONNECT DETAIL PLAN FOR:
SWEETWATER VISTA ROAD
SUNCO FERM DRIVE TO ALTA ROAD
OTAY BUSINESS PARK & HAVANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5606 & 5608
CALIFORNIA COORDINATE INDEX 130-1791

RECOMMENDED FOR APPROVAL: 1/9/23
APPROVED FOR SIGNATURE: 1/9/23
PDS2021-LDPIIP-60114

210901 – HAVANO CONDUIT DETAIL PLAN
ENGINEER'S NAME: BILL E. DARNELL
PHONE NO. (619) 233-9373



PLAN: ALTA ROAD
SCALE: 1" = 40'



PLAN: ALTA ROAD
SCALE: 1" = 40'

SYMBOL LEGEND

- (70) = TRAFFIC SIGNAL
- = TYPE IV (LT or RT) ARROW PER CALTRANS STANDARD PLAN A24A.
- = TYPE VI LANE DROP ARROW PER CALTRANS STANDARD PLAN A24A.
- = BIKE LANE SYMBOL WITH PERSON PER CALTRANS STANDARD PLAN A24C.
- = SOLID STRIPING, SEE DETAIL CALLOUTS.
- = SOLID OIL STRIPING, SEE DETAIL CALLOUTS.
- = 8" BROKEN WHITE LINE, CALTRANS STANDARD PLAN A20D.
- = 8" BROKEN WHITE STRIPE PER CALTRANS STANDARD PLAN A20A.

TRAFFIC CONTROL NOTES:

TRAFFIC CONTROL PLANS SHALL BE PROVIDED BY THE COUNTY OF SAN DIEGO. CONTRACTOR SHALL APPLY FOR A TRAFFIC CONTROL PERMIT EIGHT WEEKS PRIOR TO COMMENCEMENT OF WORK. NO WORK SHALL COMMENCE UNTIL ISSUANCE OF SAID PERMIT. FOR INFORMATION CALL (858) 694-3653. THE TRAFFIC CONTROL PERMIT SHALL REQUIRE SPECIFICATIONS FOR THE INFORMATIONAL SIGNS.

STRIPING AND SIGNAGE NOTES

1. TYPE IV (L) OR (R) ARROW PER CALTRANS STANDARD PLAN A24A (DIRECTION PER PLAN).
2. BIKE LANE ARROW PER CALTRANS PLAN A24A.
3. 12" SOLID WHITE LINE (LANE LINE) PER CALTRANS STANDARD PLAN A24E.
4. PAVEMENT MARKING PER CALTRANS STANDARD PLAN A24D.
5. BIKE LANE SYMBOL WITH PERSON PER CALTRANS STANDARD PLAN A24C.
6. CONTINENTAL CROSSWALK (MARK) PER COUNTY STANDARD REQUIREMENTS (SEE DETAILS HEREON).
7. TYPE VI ARROW PER CALTRANS STANDARD PLAN A24A LANE DROP ARROW.

DETAIL NUMBER

- (DS) SAND BLAST/GRIND CONFLICTING STRIPING OR MARKINGS (SEE NOTES).
- (12) 8" BROKEN WHITE LINE, CALTRANS STANDARD PLAN A20A.
- (22) 8" DOUBLE YELLOW LINE W/PAVEMENT MARKERS TYPE "D", CALTRANS STANDARD PLAN A20A.
- (25) 8" YELLOW STRIPE WITH TYPE H PAVEMENT MARKERS PER CALTRANS STANDARD PLAN A20B.
- (27) 8" WHITE LINE, CALTRANS STANDARD PLAN A20B.
- (27C) 6" BROKEN WHITE STRIPE THROUGH PUBLIC INTERSECTIONS, PER CALTRANS STANDARD PLAN A20B.
- (29) 6" DOUBLE-DOUBLE YELLOW LINES WITH RPMS (MEDIAN ISLAND STRIPING), CALTRANS STANDARD PLAN A20B.
- (32) TWO WAY LEFT TURN LANE LINES, PER CALTRANS STANDARD PLAN A20B.
- (36) 8" WHITE LINE, CALTRANS STANDARD PLAN A20B.
- (38) 8" WHITE LINE (BIKE LANE LINE), CALTRANS STANDARD PLAN A20D.
- (38A) 8" BROKEN WHITE LINE (BIKE LANE INTERSECTION LINE), CALTRANS STANDARD PLAN A20D.
- (40) 8" WHITE LINE (DASHED) THROUGH INTERSECTION PER STANDARD PLAN A20D.

STRIPING NOTES

THERMOPLASTIC TRAFFIC STRIPES, THERMOPLASTIC PAVEMENT MARKINGS, AND PAVEMENT MARKERS

CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ALL TRAFFIC STRIPES, PAVEMENT MARKINGS, AND PAVEMENT MARKERS OBLITERATED BY THE CONSTRUCTION OF THIS PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONFLICTING AND REDUNDANT TRAFFIC STRIPES, PAVEMENT MARKINGS, AND PAVEMENT MARKERS IN THIS PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL NEW TRAFFIC STRIPES, PAVEMENT MARKINGS, AND PAVEMENT MARKERS FOR THIS PROJECT.

INSTALLATION OF THERMOPLASTIC TRAFFIC STRIPES AND THERMOPLASTIC PAVEMENT MARKINGS SHALL CONFORM TO SECTION 84-1, "GENERAL" AND 84-2, "TRAFFIC STRIPES AND PAVEMENT MARKINGS", OF THE MOST CURRENT CALTRANS STANDARD SPECIFICATIONS AND THE FOLLOWING:

CONTROL OF THE ALIGNMENT AND LAYOUT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SUBJECT TO APPROVAL BY THE ENGINEER. TRAFFIC STRIPES SHALL BE REMOVED BY SANDBLASTING / GRINDING AND THEN SAND SEALED. CONTRACTOR TO PROVIDE AND INSTALL PAVEMENT MARKERS.

SECTION 84-2.02, "MATERIALS", OF THE STANDARD SPECIFICATIONS IS AMENDED TO READ:

THERMOPLASTIC MATERIAL SHALL BE FREE OF LEAD AND CHROMIUM, AND SHALL CONFORM TO THE REQUIREMENTS IN STATE SPECIFICATION PTM-922SPRAY, PTM-02HYDRO, OR PTM-02ALKYD.

FOR EACH BATCH OF THERMOPLASTIC MATERIAL FOR TRAFFIC STRIPES AND PAVEMENT MARKINGS, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER:

1. CERTIFICATE OF COMPLIANCE UNDER SECTION 6-1.02C, "CERTIFICATES OF COMPLIANCE," OF THE STANDARD SPECIFICATIONS
2. DEPARTMENT'S MATERIALS ENGINEERING AND TESTING SERVICES MODIFICATION LETTER STATING THAT THE MATERIAL IS APPROVED FOR USE
3. MATERIAL SAFETY DATA SHEET

GLASS BEADS MAYBE APPLIED BY HAND ON THERMOPLASTIC PAVEMENT MARKINGS.

THERMOPLASTIC TRAFFIC STRIPES AND PAVEMENT MARKINGS SHALL BE FREE OF RUNS, BUBBLES, CRACKING, DRAG MARKS, STRETCH MARKS, AND DEBRIS.

THE SURFACE OF THE THERMOPLASTIC MATERIAL UPON APPLICATION SHALL PROVIDE A MINIMUM SKID RESISTANCE VALUE OF 60 BPN WHEN TESTED ACCORDING TO ASTM E 303. DOCUMENTATION DETAILING MANUFACTURER'S MINIMUM SKID RESISTANCE FOR PERFORMED THERMOPLASTIC MATERIAL SHALL BE PROVIDED TO THE ENGINEER PRIOR TO COMMENCEMENT OF TRAFFIC STRIPES AND PAVEMENT MARKING OPERATIONS.

PAVEMENT MARKER SHALL CONFORM TO SECTION 81-3, "PAVEMENT MARKERS," OF THE MOST CURRENT CALTRANS STANDARD SPECIFICATIONS, AND THE FOLLOWING PROVISIONS:

PAVEMENT MARKER HEIGHT SHALL BE 0.70-INCH MINIMUM. "LOW PROFILE" TYPE MARKERS WILL NOT BE ACCEPTABLE.

SIGN NOTES

ALL SIGNS SHALL BE MADE WITH ALUMINUM SIGN PANELS WITH TYPE IV OR BETTER (AT LEAST HIGH INTENSITY PRISMATIC) RETROREFLECTIVE SHEETING IN CONFORMANCE WITH SECTION 82, "SIGNS AND MARKINGS" OF THE MOST CURRENT CALTRANS STANDARD SPECIFICATIONS WITH THE EXCEPTION OF SECTION 82-2.02A, PART 1.

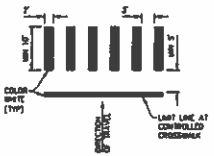
UNLESS SPECIFICALLY NOTED ON THE PLAN, ALL SIGNS SHALL BE MOUNTED SO THAT THE BOTTOM OF THE SIGN IS 7' ABOVE THE SURROUNDING GROUND SURFACE. ROADSIDE SIGNS SHALL NOT HANG OVER THE ROADWAY. SIGN PLACEMENT SHALL COMPLY WITH RS1 OF THE MOST CURRENT CALTRANS STANDARD PLANS.

SIGN POSTS SHALL BE 4" X 4" TREATED WOOD PER SECTION 82-1, "ROADSIDE SIGNS" OF THE MOST CURRENT CALTRANS STANDARD SPECIFICATIONS. SIGN POSTS SHALL BE PLACED SO THAT THEY COMPLY WITH ADA (FACILITY ACCESSIBILITY) REQUIREMENTS. SIGN POSTS SHALL BE PLACED IN COMPACTED NATIVE SOIL PER RS1 OF THE MOST CURRENT CALTRANS STANDARD PLANS. IT IS PREFERRED THAT SIGNS BE INSTALLED BEHIND SIDEWALKS, BUT IF SIGN POSTS ARE TO BE INSTALLED IN CONCRETE SIDEWALKS, THEN A 1' X 1' SQUARE, 1/2-INCH DEEP JOINT OR SAWCUT SHALL BE PLACED AROUND THE SIGN POST IN THE SIDEWALK. SIGNS SHALL BE MOUNTED ON SIGN POSTS USING SIGN PANEL FASTENING HARDWARE PER RS2 OF THE MOST CURRENT CALTRANS STANDARD PLANS, SECTION 82-1, "ROADSIDE SIGNS" OF THE MOST CURRENT CALTRANS STANDARD SPECIFICATIONS, AND AS SPECIFIED BY THE SIGN FILM MANUFACTURER.

SIGNS TO BE INSTALLED ON COUNTY OF SAN DIEGO - MAINTAINED STREET LIGHT POLES, TRAFFIC SIGNAL POLES, AND FLASHERS SHALL BE INSTALLED AS APPROVED BY THE RESIDENT ENGINEER PER THE PLAN OR WITH APPROVED STAINLESS STEEL BAND CLAMPS OR OTHER APPROVED HARDWARE THAT IS APPROPRIATE FOR THE WIND LOADING.

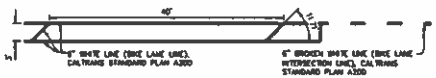
STREET NAME SIGNS SHALL BE INSTALLED PER THE MOST CURRENT COUNTY OF SAN DIEGO DESIGN STANDARD DRAWINGS DS-13A THROUGH DS-13D.

THE RESIDENT ENGINEER SHALL APPROVE ALL SIGN INSTALLATION LOCATIONS PRIOR TO THE CONTRACTOR INSTALLING THE SIGNS. ALL TRAFFIC SIGNS SHALL BE READILY VISIBLE TO ALL MOTORISTS DRIVING AT THE PREVAILING SPEED AS WELL AS ALL OTHER ROADWAY USERS (BICYCLISTS, EQUESTRIANS, AND PEDESTRIANS). IF THE VISIBILITY OF THE TRAFFIC SIGN IS BLOCKED, THEN THE CONTRACTOR WITH THE RESIDENT ENGINEER'S APPROVAL SHALL EITHER RELOCATE THE SIGN OR REMOVE THE OBSTRUCTIONS (SUCH AS VEGETATION, ROCKS, PRIVATE SIGNS, AND MINOR EMBANKMENTS THROUGH MINOR GRADING) THAT BLOCK THE VISIBILITY OF THE SIGN.



TYPICAL CONTINENTAL CROSSWALK MARKINGS
(PER COUNTY STANDARD REQUIREMENTS)
NO SCALE

TYPICAL TRAFFIC SIGNS



TYPICAL DIAGONAL BUFFER HATCHING AND END MARKING DETAIL
NO SCALE

A
60

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

RECORD PLAN	
ROBERT R. ODHNE	DATE
RCE 45717	

COUNTY APPROVED CHANGES			
NO	DESCRIPTION	APPROVED BY	DATE

BENCH MARK
DESCRIPTION: BRASS DISC IN STREET CONCRETE WELL MONUMENT
LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 14' TO TOP OF HILL
RECORD FROM: R.O.S. 14841, PT. NO. 4022
ELEVATION: 576.69 DATUM: NGVD '29

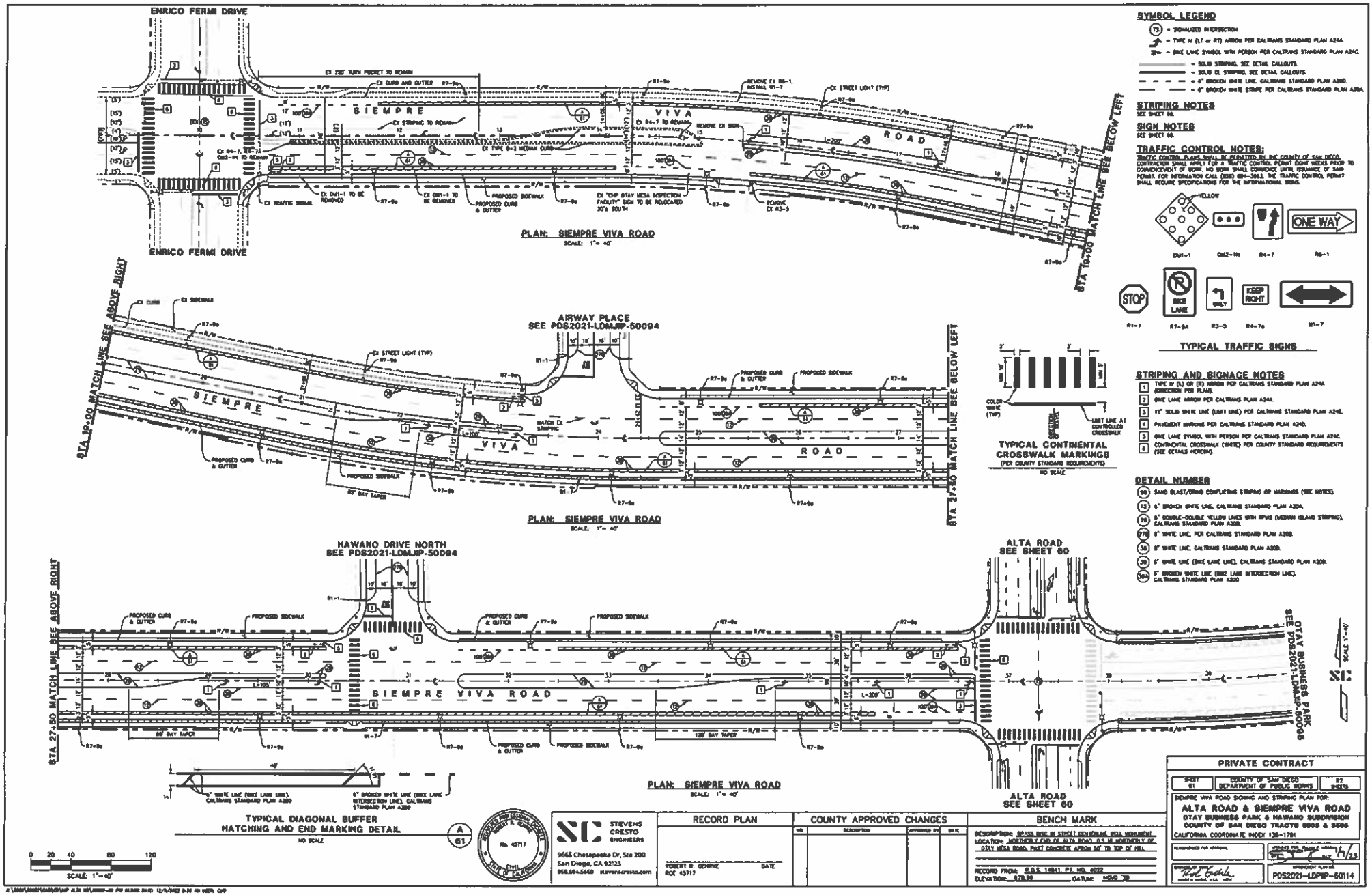
PRIVATE CONTRACT

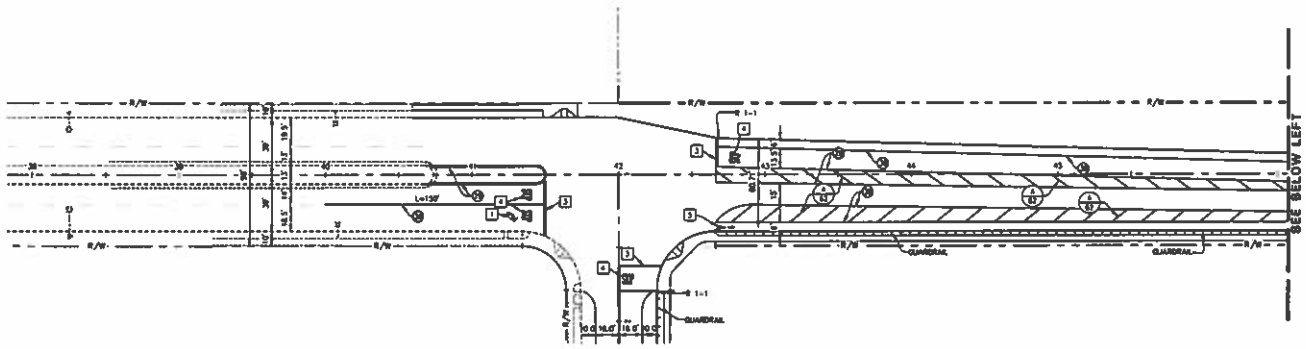
SHEET 60	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	67 SHEETS

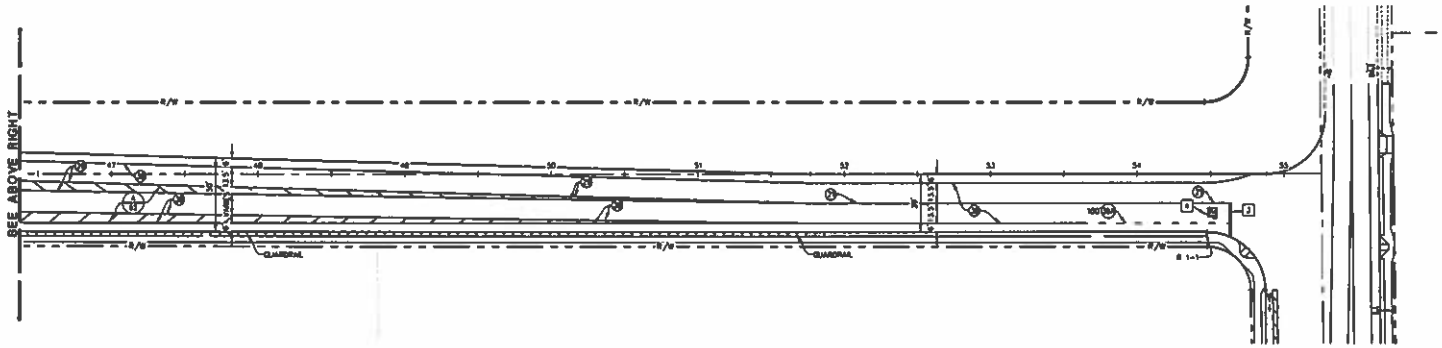
ALTA ROAD SIGNING AND STRIPING PLAN FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5806 & 5808
CALIFORNIA COORDINATE INDEX 138-1791

RECOMMENDED FOR APPROVAL: DATE
APPROVED FOR TRACT 5806: DATE 1/9/23
APPROVED FOR TRACT 5808: DATE
ENGINEER OF WORK: ROBERT R. ODHNE, RCE 45717
APPROVED PLAN NO. PDS2021-LDPMP-60114

STATE OF CALIFORNIA — ROBERT R. ODHNE — No. 45717 — CIVIL


ENRICO FERMI DRIVE
SIEMPRE
VIVA
ROAD
STA 19+00 MATCH LINE SEE ABOVE RIGHT
STA 19+00 MATCH LINE SEE BELOW LEFT
PLAN: SIEMPRE VIVA ROAD
SCALE: 1"= 40'
AIRWAY PLACE
SEE PDS2021-LDMJP-50094
STA 27+50 MATCH LINE SEE BELOW LEFT
PLAN: SIEMPRE VIVA ROAD
SCALE: 1"= 40'
HAWANO DRIVE NORTH
SEE PDS2021-LDMJP-50094
ALTA ROAD
SEE SHEET 60
STA 27+50 MATCH LINE SEE ABOVE RIGHT
SIEMPRE VIVA ROAD
OTAY BUSINESS PARK
SEE PDS2021-LDMJP-50095
PLAN: SIEMPRE VIVA ROAD
SCALE: 1"= 40'
TYPICAL DIAGONAL BUFFER
MATCHING AND END MARKING DETAIL
NO SCALE
SCALE: 1"=40'
SYMBOL LEGEND
STRIPING NOTES
SEE SHEET 60
SIGN NOTES
SEE SHEET 60
TRAFFIC CONTROL NOTES:
TYPICAL TRAFFIC SIGNS
STRIPING AND SIGNAGE NOTES
TYPICAL CONTINENTAL CROSSWALK MARKINGS
(PER COUNTY STANDARD REQUIREMENTS)
NO SCALE
DETAIL NUMBER
PRIVATE CONTRACT
SHEET 61
COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS
82 SHEETS
SIEMPRE VIVA ROAD SIGNING AND STRIPING PLAN FOR:
ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5905 & 5906
CALIFORNIA COORDINATE INDEX 138-1781
PDS2021-LDPMP-60114
STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com
RECORD PLAN
ROBERT R. GEHRKE
RCE 43717
DATE
COUNTY APPROVED CHANGES
BENCH MARK
DESCRIPTION: BRASS DISC IN STREET CONCRETE, REAL MONUMENT
LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 M NORTHERLY OF OTAY MESA ROAD, PAST CONCRETE APRON 30' TO TOP OF HILL
RECORD FROM: R.O.S. 14841, PT. NO. 6022
ELEVATION: 470.198
DATUM: NGVD '29





PLAN: AIRWAY ROAD
SCALE: 1"= 40'

ALTA ROAD
SEE SHEET 60

SYMBOL LEGEND

- (15) = SIGNALIZED INTERSECTION
- = TYPE IV (LT or RT) ARROW PER CALTRANS STANDARD PLAN A24A.
- = BIKE LANE SYMBOL WITH PERSON PER CALTRANS STANDARD PLAN A24C.
- = SOLID STRIPING. SEE DETAIL CALLOUTS.
- = SOLID CL STRIPING. SEE DETAIL CALLOUTS.
- = 6" BROKEN WHITE LINE. CALTRANS STANDARD PLAN A20D.
- = 6" BROKEN WHITE STRIPE PER CALTRANS STANDARD PLAN A20A.

R1-1

TYPICAL TRAFFIC SIGNS

STRIPING NOTES

SEE SHEET 60

SIGN NOTES

SEE SHEET 60.

TRAFFIC CONTROL NOTES:

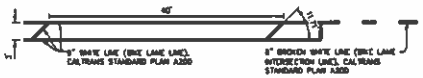
TRAFFIC CONTROL PLANS SHALL BE PREPARED BY THE COUNTY OF SAN DIEGO. CONTRACTOR SHALL APPLY FOR A TRAFFIC CONTROL PERMIT EIGHT WEEKS PRIOR TO COMMENCEMENT OF WORK. NO WORK SHALL COMMENCE UNTIL ISSUANCE OF SAID PERMIT. FOR INFORMATION CALL (858) 694-3863. THE TRAFFIC CONTROL PERMIT SHALL REQUIRE SPECIFICATIONS FOR THE INFORMATIONAL SIGNS.

STRIPING AND SIGNAGE NOTES

1. TYPE IV (L) OR (R) ARROW PER CALTRANS STANDARD PLAN A24A (DIRECTION PER PLAN).
2. BIKE LANE ARROW PER CALTRANS PLAN A24A.
3. 12" SOLID WHITE LINE (LIMIT LINE) PER CALTRANS STANDARD PLAN A24E.
4. PAVEMENT MARKING PER CALTRANS STANDARD PLAN A24D.
5. BIKE LANE SYMBOL WITH PERSON PER CALTRANS STANDARD PLAN A24C.
6. CONTINENTAL CROSSWALK (WHITE) PER COUNTY STANDARD REQUIREMENTS (SEE DETAILS HEREON).

DETAIL NUMBER

- (50) SAND BLAST/GRIND CONFLICTING STRIPING OR MARKINGS (SEE NOTES).
- (12) 6" BROKEN WHITE LINE, CALTRANS STANDARD PLAN A20A.
- (31) 6" DOUBLE YELLOW LINE PER CALTRANS STANDARD PLAN A20B
- (29) 6" DOUBLE-DOUBLE YELLOW LINES WITH OPNS (MEDIAN ISLAND STRIPING). CALTRANS STANDARD PLAN A20B.
- (38) 6" WHITE LINE, CALTRANS STANDARD PLAN A20D.
- (38) 6" WHITE LINE (BIKE LANE LINE), CALTRANS STANDARD PLAN A20D
- (38A) 6" BROKEN WHITE LINE (BIKE LANE INTERSECTION LINE), CALTRANS STANDARD PLAN A20D.



TYPICAL DIAGONAL BUFFER HATCHING AND END MARKING DETAIL

NO SCALE

A 62

0 20 40 80 120
SCALE: 1"=40'

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr. Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

REGISTERED PROFESSIONAL ENGINEER — ROBERT R. DOHRE — No. 45717 — CIVIL — STATE OF CALIFORNIA

RECORD PLAN	COUNTY APPROVED CHANGES	BENCH MARK
ROBERT R. DOHRE DATE RCE 45717	NO. / DESCRIPTION / APPROVED BY / DATE	DESCRIPTION: BRASS DISC IN STRICT CONTROL WELL MONUMENT LOCATION: NORTHERLY END OF ALTA ROAD, 0.5 MI NORTHERLY OF OTAY MESA ROAD, EAST CONCRETE APRON 50' TO TOP OF HILL RECORD FROM: R.O.S. 14841, PT. NO. 4022 ELEVATION: 870.99 DATUM: NGVD '29

PRIVATE CONTRACT

SHEET 63	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	62 SHEETS

AIRWAY ROAD SIGNING AND STRIPING PLAN FOR:

ALTA ROAD & SIEMPRE VIVA ROAD
OTAY BUSINESS PARK & HAWANO SUBDIVISION
COUNTY OF SAN DIEGO TRACTS 5505 & 5506

CALIFORNIA COORDINATE INDEX 130-1791

RECOMMENDED FOR APPROVAL — APPROVED FOR TRACT 2 — 1/9/23

DESIGNED BY — DRAWN BY — CHECKED BY — DATE — DEPARTMENT PLAN NO. PDS2021-LDPRP-60114

Exhibit B

Legal Description of the Property with Plat

EXHIBIT B

EXHIBIT "A"
LEGAL DESCRIPTION

PARCEL "B" (DD30306-01-02)

That portion of Government Lot 4 conveyed to the State of California by deed recorded February 26, 1996 as Document No. 1996-0091184 in the office of the County Recorder of San Diego County in Section 31, Township 18 South, Range 1 East, San Bernardino Meridian, in the County of San Diego, State of California, according to United States Government Survey approved September 11, 1879, lying within a 51.00 foot wide strip of land, the Northerly line of said strip being the centerline of Siempre Viva Road per Easement for County Highway recorded July 01, 2002 as Document No. 2002-0553015 of Official Records [hereinafter R1], more particularly described as follows:

COMMENCING at the Southwest Corner of Government Lot 3 in said Section 31 being on the centerline of Enrico Fermi Drive;

Thence North 00°30'09" East 142.36 feet [North 00°30'12" East 142.31 feet per R1] along the Westerly line of said Lot 3 and centerline of Enrico Fermi Drive to the intersection with the centerline of Siempre Viva Road and the **TRUE POINT OF BEGINNING**;

Thence leaving said Westerly line South 89°29'40" East 406.19 feet [South 89°29'58" East 406.25 feet per R1] to the beginning of a tangent 1700.00 foot radius curve, concave Southerly;

Thence Easterly along said curve through a central angle of 11°28'42", a distance of 340.57 feet;

Thence South 78°00'58" East 355.11 feet [South 78°01'16" East 355.04 feet per R1] to the beginning of a tangent 1700.00 foot radius curve, concave Northerly;

Thence Easterly along said curve through a central angle of 09°54'35" [09°54'33" per R1], a distance of 294.03 feet [294.01 feet per R1] to the Easterly line of said Lot 3 and the **POINT OF TERMINUS**.

The Southerly sideline of said strip shall be prolonged or shortened so as to terminate in the North line of said Lot 4 and continued or shortened so as to terminate in the East line of said Lot 4.

Contains 11,770 Square Feet or 0.27 Acres, more or less.

PARCEL "C"

That portion of Government Lot 4 conveyed to the State of California by deed recorded February 26, 1996 as Document No. 1996-0091184 in the office of the County Recorder of San Diego County in Section 31, Township 18 South, Range 1 East, San Bernardino Meridian, in the County of San Diego, State of California, according to United States Government Survey approved September 11, 1879, lying Northerly and Northeasterly of the following described line:

COMMENCING at the Southwest Corner of Government Lot 3 in said Section 31 being on the centerline of Enrico Fermi Drive;

Thence South 89°38'35" East 846.76 feet along the Southerly line of said Lot 3 to the **TRUE POINT OF BEGINNING**;

Thence leaving said Southerly line South 74°38'15" East 248.39 feet;

Thence South 80°12'19" East 150.20 feet;

Thence South 84°32'06" East 150.49 feet to the Easterly line of said Lot 4 and the **POINT OF TERMINUS**.

Excepting therefrom that portion of said Lot 4 as described in the hereinabove **PARCEL "B"**.

Contains 21,608 Square Feet or 0.50 Acres, more or less.

9/12/2022

Joseph G. Cresto — Date
PLS 8050

LICENSED LAND SURVEYOR
JOSEPH G. CRESTO
NO. 8050
STATE OF CALIFORNIA

END OF LEGAL DESCRIPTION

EXHIBIT "B"

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

EXCESS PARCEL MAP KEY MAP

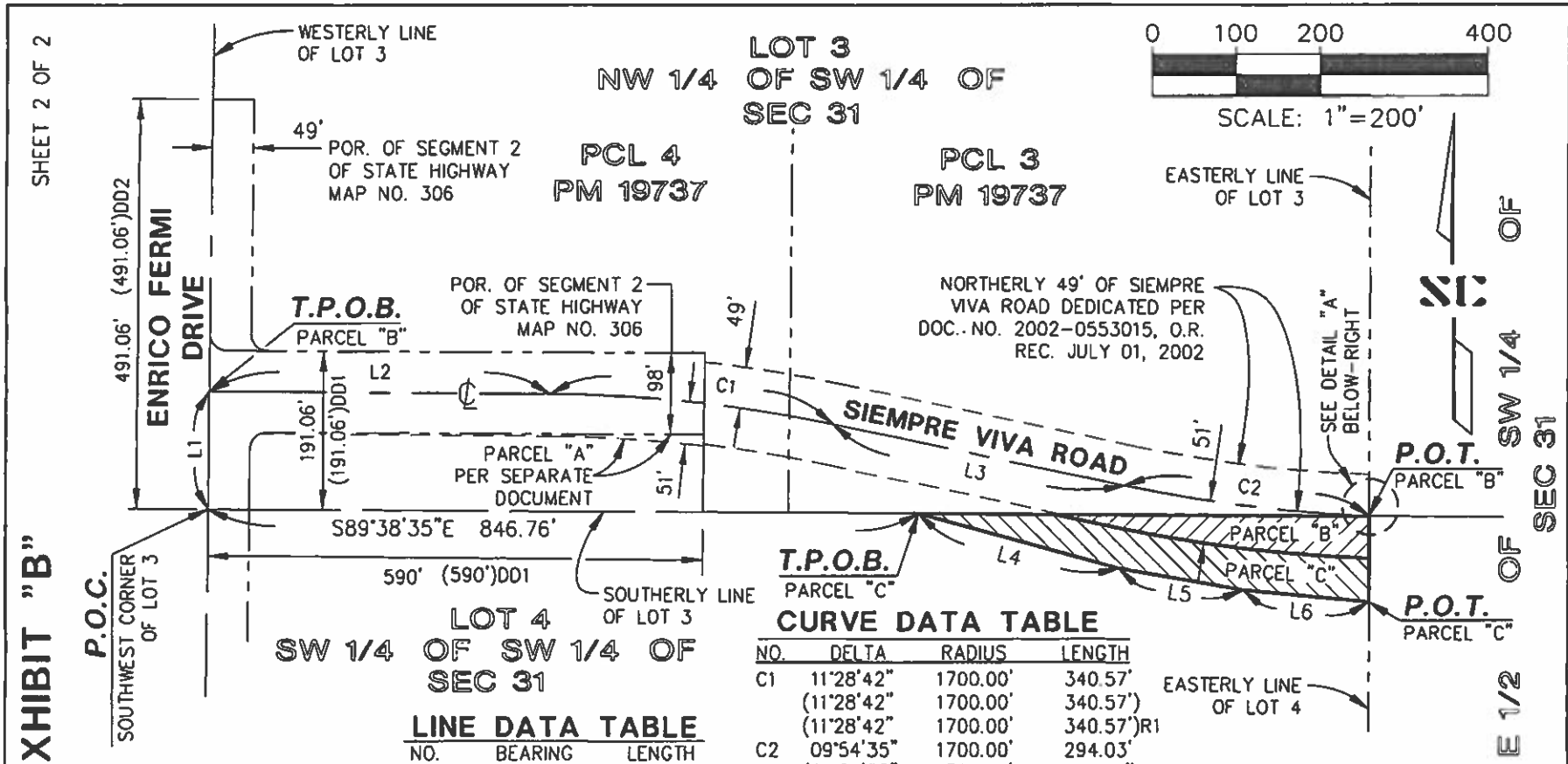
DD30306-01-02

PORTION OF WEST 1/2 OF SOUTHWEST 1/4 OF SECTION 31
T 18 S, R 1 E, S.B.M., COUNTY OF SAN DIEGO

SCE NO. 20022.04	DATE: 2022 09 12	DWG: 20022 SVR CALTRANS - PCL B&C 01	DRAWN BY: AAH	CHECKED BY: JGC

SHEET 2 OF 2

EXHIBIT "B"

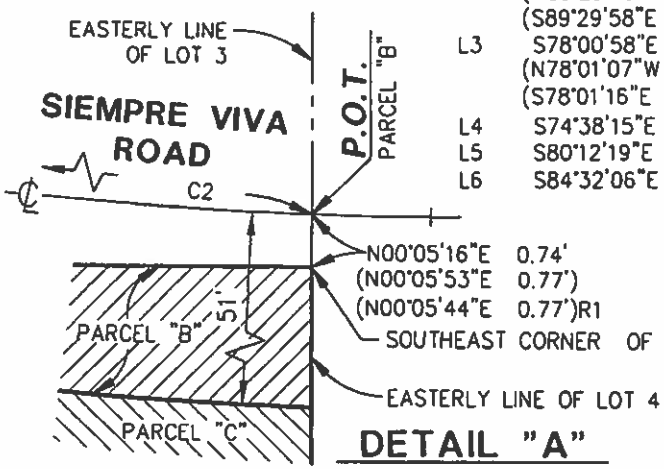


CURVE DATA TABLE

NO.	DELTA	RADIUS	LENGTH
C1	11°28'42"	1700.00'	340.57'
	(11°28'42"	1700.00'	340.57')
	(11°28'42"	1700.00'	340.57')R1
C2	09°54'35"	1700.00'	294.03'
	(09°54'33"	1700.00'	294.01')
	(09°54'33"	1700.00'	294.01')R1

LINE DATA TABLE

NO.	BEARING	LENGTH
L1	N00°30'09"E	142.36'
	(N00°30'21"E	142.31')
	(N00°30'12"E	142.31')R1
L2	S89°29'40"E	406.19'
	(N89°29'49"W	406.25')
	(S89°29'58"E	406.25')R1
L3	S78°00'58"E	355.11'
	(N78°01'07"W	355.04')
	(S78°01'16"E	355.04')R1
L4	S74°38'15"E	248.39'
L5	S80°12'19"E	150.20'
L6	S84°32'06"E	150.49'



DETAIL "A"

NOT TO SCALE

LEGEND

	INDICATES EXCESS PARCEL "B" (DD30306-01-02) CONTAINS 11,770 SQ.FT. OR 0.27 ACRES, MORE OR LESS
	INDICATES EXCESS PARCEL "C" (DD_____) CONTAINS 21,608 SQ.FT. OR 0.50 ACRES, MORE OR LESS
( )	INDICATES RECORD DATA PER PARCEL MAP 19737.
( )R1	INDICATES RECORD DATA PER EASEMENT DOC. NO. 2002-0553015, O.R. REC. JULY 01, 2002
( )DD1	INDICATES RECORD DATA PER DEED DOC. NO. 1995-0309146, O.R. REC. JULY 20, 1995
( )DD2	INDICATES RECORD DATA PER DEED DOC. NO. 1995-0309147, O.R. REC. JULY 20, 1995
P.O.C.	INDICATES POINT OF COMMENCEMENT
P.O.T.	INDICATES POINT OF TERMINUS
T.P.O.B.	INDICATES TRUE POINT OF BEGINNING

LICENSED LAND SURVEYOR
JOSEPH G. CRESTO
No. 8050
STATE OF CALIFORNIA

9/12/2022

EXCESS PARCEL MAP

DD30306-01-02

PORTION OF WEST 1/2 OF SOUTHWEST 1/4 OF SECTION 31
T 18 S, R 1 E, S.B.M., COUNTY OF SAN DIEGO

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

SCE NO. 20022.04	DATE: 2022 09 12	DWG: 21022 SVR CALTRANS 01	DRAWN BY: AAH	CHECKED BY: JGC

EXHIBIT "A"
LEGAL DESCRIPTION

PARCEL "A" (DD30305-01-01)

That portion of Government Lot 3 conveyed to the State of California by deed recorded July 20, 1995 as Document No. 1995-0309146 in the office of the County Recorder of San Diego County, in Section 31, Township 18 South, Range 1 East, San Bernardino Meridian, in the County of San Diego, State of California, according to United States Government Survey approved September 11, 1879, lying within a 51.00 foot wide strip of land, the Northerly line of said strip being the centerline of Siempre Viva Road per Easement for County Highway recorded July 01, 2002 as Document No. 2002-0553015 of Official Records [hereinafter R1], more particularly described as follows:

COMMENCING at the Southwest Corner of said Lot 3 being on the centerline of Enrico Fermi Drive;

Thence North 00°30'09" East 142.36 feet [North 00°30'12" East 142.31 feet per R1] along the Westerly line of said Lot 3 and centerline of Enrico Fermi Drive to the intersection with the centerline of Siempre Viva Road and the **TRUE POINT OF BEGINNING**;

Thence leaving said Westerly line South 89°29'40" East 406.19 feet [South 89°29'58" East 406.25 feet per R1] to the beginning of a tangent 1700.00 foot radius curve, concave Southerly;

Thence Easterly along said curve through a central angle of 11°28'42", a distance of 340.57 feet;

Thence South 78°00'58" East 355.11 feet [South 78°01'16" East 355.04 feet per R1] to the beginning of a tangent 1700.00 foot radius curve, concave Northerly;

Thence Easterly along said curve through a central angle of 09°54'35" [09°54'33" per R1], a distance of 294.03 feet [294.01 feet per R1] to the Easterly line of said Lot 3 and the **POINT OF TERMINUS**.

Excepting therefrom, that portion lying within SEGMENT 2 of State Highway Map No. 306, Relinquishment No. R27226, as relinquished per document recorded March 13, 2001 as Document No. 2001-0142719 of Official Records.

The Southerly sideline of said strip shall be prolonged or shortened so as to terminate in the Southerly line of said SEGMENT 2 and continued or shortened so as to terminate in the East line of said lands conveyed to the State of California.

Contains 1,972 Square Feet or 0.05 Acres, more or less.

9/12/2022

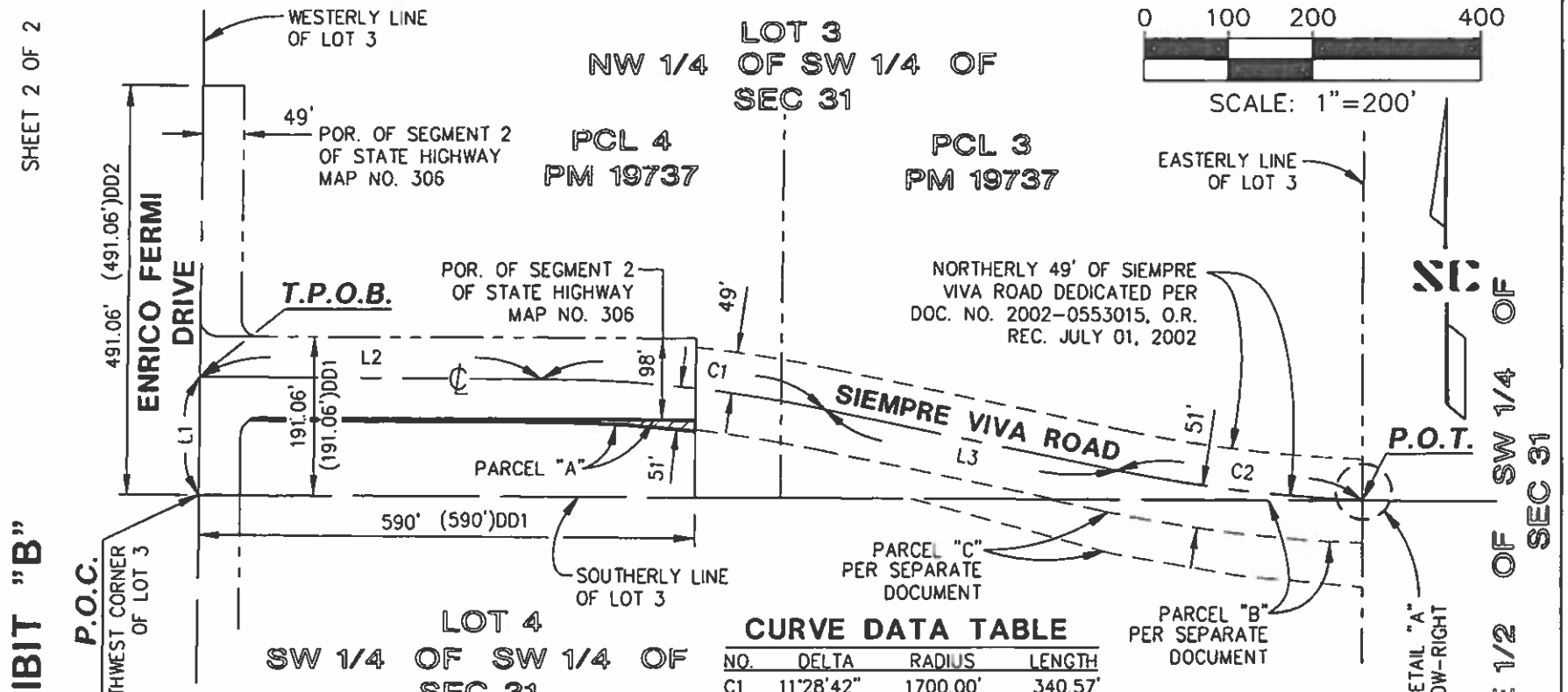
Joseph G. Cresto
PLS 8050

Date

LICENSED LAND SURVEYOR
JOSEPH G. CRESTO
NO. 8050
STATE OF CALIFORNIA

END OF LEGAL DESCRIPTION

EXHIBIT "B"



CURVE DATA TABLE

NO.	DELTA	RADIUS	LENGTH
C1	11°28'42"	1700.00'	340.57'
	(11°28'42"	1700.00'	340.57')
	(11°28'42"	1700.00'	340.57')R1
C2	09°54'35"	1700.00'	294.03'
	(09°54'33"	1700.00'	294.01')
	(09°54'33"	1700.00'	294.01')R1

LINE DATA TABLE

NO.	BEARING	LENGTH
L1	N00°30'09"E	142.36'
	(N00°30'21"E	142.31')
	(N00°30'12"E	142.31')R1
L2	S89°29'40"E	406.19'
	(N89°29'49"W	406.25')
	(S89°29'58"E	406.25')R1
L3	S78°00'58"E	355.11'
	(N78°01'07"W	355.04')
	(S78°01'16"E	355.04')R1

LEGEND

(hatched)	INDICATES EXCESS PARCEL "A" (DD30305-01-01) CONTAINS 1,972 SQ.FT. OR 0.05 ACRES, MORE OR LESS
( )	INDICATES RECORD DATA PER PARCEL MAP 19737.
( )R1	INDICATES RECORD DATA PER EASEMENT DOC. NO. 2002-0553015, O.R. REC. JULY 01, 2002
( )DD1	INDICATES RECORD DATA PER DEED DOC. NO. 1995-0309146, O.R. REC. JULY 20, 1995
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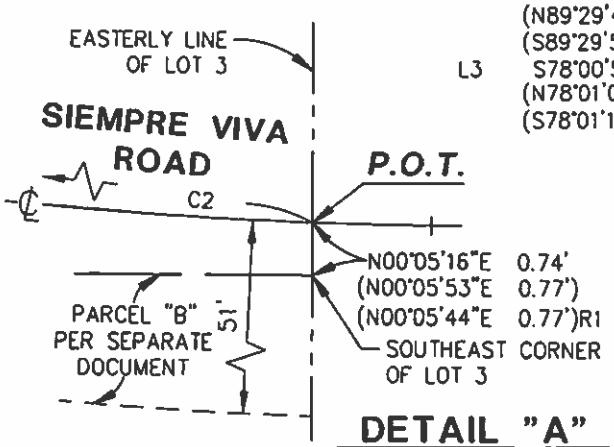


DETAIL "A"

NOT TO SCALE

LICENSED LAND SURVEYOR JOSEPH G. CRESTO No. 8050 STATE OF CALIFORNIA

9/12/2022

EXCESS PARCEL MAP

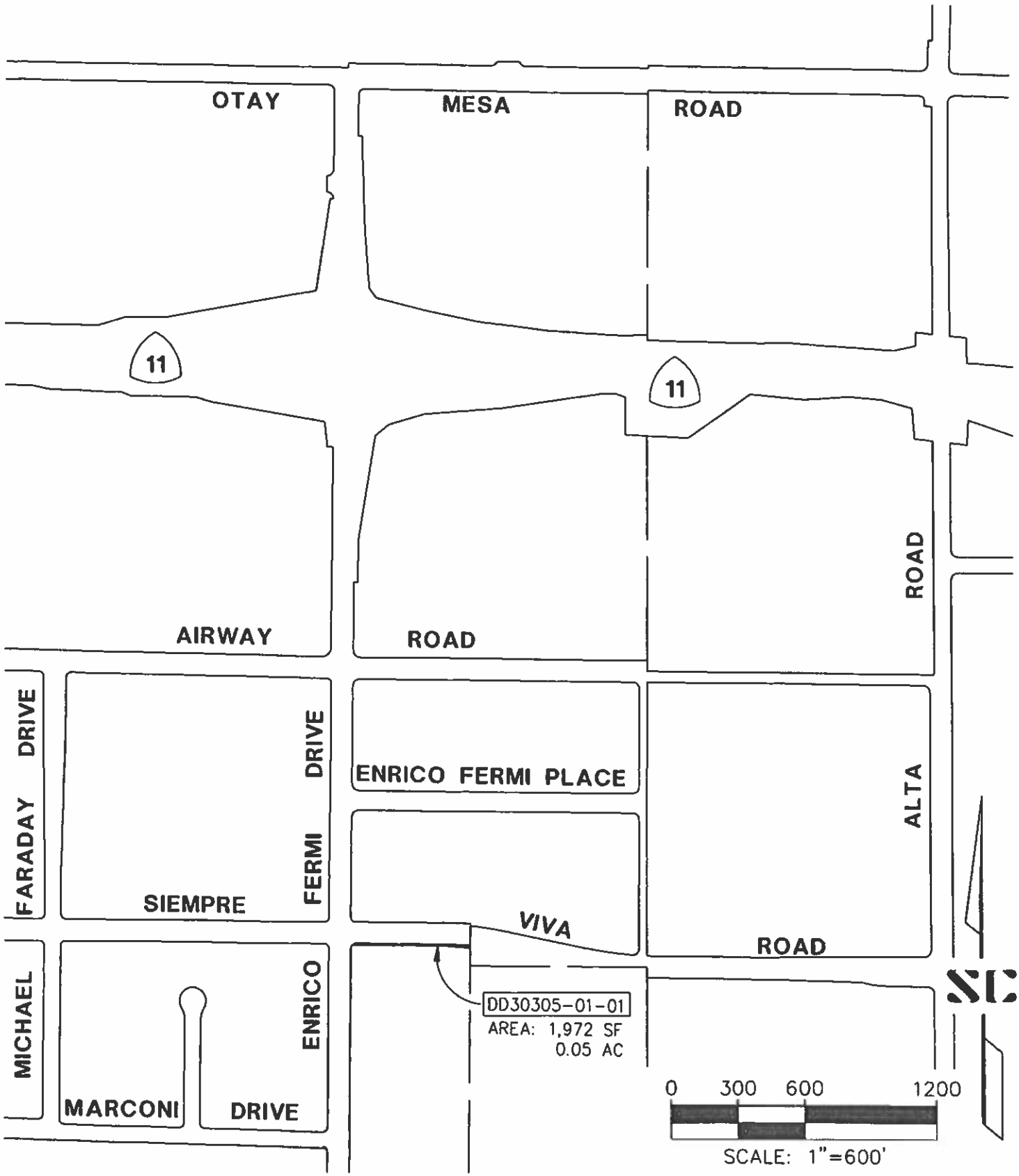
DD30305-01-01

PORTION OF WEST 1/2 OF SOUTHWEST 1/4 OF SECTION 31
T 18 S, R 1 E, S.B.M., COUNTY OF SAN DIEGO

STEVENS CRESTO ENGINEERS
9665 Chesapeake Dr, Ste 200
San Diego, CA 92123
858.694.5660 stevenscresto.com

SCE NO. 20022.04	DATE: 2022 09 12	DWG: 21022 SVR CALTRANS - PCL A	DRAWN BY: AAH	CHECKED BY: JGC

EXHIBIT "B"



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EXCESS PARCEL MAP KEY MAP

DD30305-01-01

PORTION OF WEST 1/2 OF SOUTHWEST 1/4 OF SECTION 31
T 18 S, R 1 E, S.B.M., COUNTY OF SAN DIEGO

SCE NO. 20022.04	DATE: 2022 09 12	DWG: 20022 SVR CALTRANS – PCL A 01	DRAWN BY: AAH	CHECKED BY: JGC

Exhibit C

Agreement to Pay Acquisition Costs

Exhibit D

County of San Diego License for Use of County Facilities and Property