



COUNTY OF IMPERIAL

MAGGIO ROAD AND ROOD ROAD DRAINAGE CONNECTION STORM DRAIN PIPELINE IMPROVEMENTS COUNTY PROJECT No.7004GTW

GENERAL NOTES

- STREET IMPROVEMENT GENERAL NOTES**
- COUNTY ENCROACHMENT PERMIT CONDITIONS AND PROVISIONS SHALL TAKE PRECEDENCE OVER THE APPROVED PLANS AND SPECIFICATIONS FOR ANY CONFLICTS.
 - THE STRUCTURAL SECTIONS SHALL BE IN ACCORDANCE WITH IMPERIAL COUNTY STANDARDS (OR CALTRANS IF IN STATE ROW) AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR (OR CALTRANS).
 - APPROVAL OF THESE IMPROVEMENT PLANS AS SHOWN DOES NOT CONSTITUTE APPROVAL OF ANY CONSTRUCTION OUTSIDE THE PROJECT BOUNDARY.
 - ALL UNDERGROUND UTILITIES WITHIN THE STREET RIGHT-OF-WAY SHALL BE CONSTRUCTED, CONNECTED AND TESTED PRIOR TO CONSTRUCTION OF BERM, CURB, CROSS-CUTTER AND PAVING.
 - 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.
 - LOCATION AND ELEVATIONS 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 SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISION ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES.
 - UTILITIES COORDINATION
NO LESS THAN 3 WORKING DAYS PRIOR TO ANY EXCAVATION OR TRENCHING, EACH CONTRACTOR DOING SUCH WORK SHALL CONTACT THE FOLLOWING AGENCIES SO THAT EXISTING UNDERGROUND UTILITIES MAY BE LOCATED. THE AGENCY MAY REQUIRE AN INSPECTOR TO BE PRESENT.

1. APPROPRIATE WATER/SEWER UTILITY	(442)	265-1818
2. IMPERIAL IRRIGATION DISTRICT (POWER)	(760)	339-9280
3. IMPERIAL IRRIGATION DISTRICT (WATER)	(760)	339-9263
4. AT&T	(800)	422-4133
5. THE GAS CO.	811	
6. THE CABLE COMPANY	(760)	312-6512

EXISTING UNDERGROUND UTILITIES
BEFORE EXCAVATING FOR THIS CONTRACT, VERIFY LOCATION OF UNDERGROUND UTILITIES. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS HAS BEEN OBTAINED FROM AVAILABLE RECORDS ONLY AND MAY NOT REFLECT ALL EXISTING UTILITIES. LOCATION OF ALL EXISTING UTILITIES SHALL BE CONFIRMED BY FIELD MEASUREMENTS BY CONTRACTOR PRIOR TO CONSTRUCTION OF WORK.
CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
ACCURATE VERIFICATIONS AS TO SIZE, LOCATION AND DEPTH OF EXISTING UNDERGROUND SERVICES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL NOTIFY THE SOUTHERN CALIFORNIA GAS COMPANY, SBC, IMPERIAL IRRIGATION DISTRICT AND ANY OTHER AFFECTED UTILITY AGENCIES PRIOR TO STARTING HIS WORK NEAR SUCH UTILITY FACILITIES AND SHALL COORDINATE HIS WORK WITH UTILITY REPRESENTATIVES. FOR LOCATION OF UNDERGROUND UTILITIES AND APPURTENANCES, CONTACT "UNDERGROUND SERVICE ALERT" AT 811.
 - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE UTILITY AGENCIES, ADVISE THEM OF THE PROPOSED IMPROVEMENTS AND BEAR THE COST OF RELOCATIONS, IF NEEDED.
 - CONSTRUCT A PUBLIC STREET LIGHT SYSTEM CONFORMING TO APPROPRIATE STANDARDS AND STREET LIGHT SPECIFICATIONS. POWER SOURCES AND RUNS SHALL BE SHOWN ON THE "AS-BUILT" IMPROVEMENT DRAWINGS. ALL POWER SOURCES SHALL BE LOCATED WITHIN THE DESIGNATED RIGHT-OF-WAY OR EASEMENT.
 - NO PAVING SHALL BE DONE UNTIL EXISTING POWER POLES ARE RELOCATED OUTSIDE THE AREAS TO BE PAVED.
 - 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.
 - ALL SIGNS TO BE ALUMINUM WITH 3M HIGH INTENSITY TYPE REFLECTIVE FACE OR EQUIVALENT.
 - CONTRACTOR WILL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY STRIPING, PAVEMENT MARKERS, OR LEGENDS OBLITERATED BY THE CONSTRUCTION OF THIS PROJECT.
 - THE CONTRACTOR SHALL DO ALL NEW STRIPING AND SANDBLASTING OF REDUNDANT STRIPING.
 - THE CONSTRUCTION OF ONE PGB STANDARD DRIVEWAY PER LOT, LOCATION TO BE DETERMINED IN THE FIELD BY THE ENGINEER OF WORK. PGB SURFACING OF DRIVEWAY TO EXTEND FROM CURB TO PROPERTY LINE UNLESS OTHERWISE SHOWN.
 - THE CONTRACTOR SHALL BE RESPONSIBLE TO SECURE AN ENCROACHMENT PERMIT FROM THE COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS FOR ANY EXCAVATION OR CONSTRUCTION WITHIN COUNTY ROAD RIGHT-OF-WAY. FOR INSPECTIONS, 48 HOUR MINIMUM NOTICE IS REQUIRED. (442) 265-1818. ADDITIONALLY, UNDERGROUND SERVICE ALERT (USA) MUST BE CALLED TWO WORKING DAYS BEFORE THE CONTRACTOR MAY EXCAVATE. THEIR CONTACT NUMBER IS 811. ALL WORK AND MATERIALS ARE SUBJECT TO THE INSPECTION AND APPROVAL FROM THE COUNTY DEPARTMENT OF PUBLIC WORKS OR THEIR REPRESENTATIVE.

- NO REVISIONS OF ANY KIND SHALL BE MADE TO THESE PLANS WITHOUT THE PRIOR WRITTEN APPROVAL OF BOTH THE COUNTY ENGINEER (OR HIS REPRESENTATIVE) AND THE ENGINEER OF RECORD. A REPRODUCIBLE AS-BUILT PLAN SET WILL BE PROVIDED TO THE PUBLIC WORKS DEPARTMENT AS A CONDITION OF SUBSTANTIAL CONSTRUCTION COMPLETION AND PRIOR TO ACCEPTANCE.
- ALL WORK AND MATERIALS SHALL CONFORM TO THESE PLANS AND SPECIFICATIONS, THE IMPERIAL COUNTY DEPARTMENT OF PUBLIC WORKS STANDARDS AND ENCROACHMENT PERMIT CONDITIONS, ANY REFERENCED STANDARDS AND SPECIFICATIONS AND THE REQUIREMENTS OF THE AGENCIES REFERRED TO HEREIN. ALL WORK SHOWN OR INDICATED BY THESE PLANS SHALL BE COMPLETED IN ACCORDANCE WITH THE STANDARDS, POLICIES AND REGULATIONS OF IMPERIAL COUNTY. WHERE, OR IF, CONFLICTS OCCUR, THEN THE IMPERIAL COUNTY REQUIREMENTS SHALL GOVERN.
- UNLESS SPECIFICALLY INDICATED OTHERWISE METHODS EMPLOYED AND MATERIAL USED IN THE CONSTRUCTION OF ALL OFFSITE IMPROVEMENTS SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE "STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED MAY 2006". ALL WORK IS SUBJECT TO INSPECTION AND APPROVAL AS REQUIRED.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AN EXCAVATION PERMIT FROM THE STATE OF CALIFORNIA DIVISION OF SAFETY AND TO ADHERE TO ALL PROVISIONS OF THE STATE CONSTRUCTION SAFETY ORDERS AND STANDARDS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ADHERE FULLY WITH THE GENERAL CONSTRUCTION ACTIVITY STORM WATER PERMIT FROM THE STATE WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY. CONTACT "STATE WATER RESOURCES CONTROL BOARD, DIVISION OF WATER QUALITY, ATTENTION: STORM WATER PERMIT UNIT, P.O. BOX 19777, SACRAMENTO, CALIFORNIA, 95812".
- CONSTRUCTION PROJECTS DISTURBING MORE THAN ONE ACRE MUST OBTAIN A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT. OWNER/DEVELOPERS ARE REQUIRED TO FILE A NOTICE OF INTENT (NOI) WITH THE STATE WATER RESOURCES CONTROL BOARD, PREPARE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND MONITORING PLAN FOR THE SITE.
- AS DETERMINED BY THE COUNTY PUBLIC WORKS DIRECTOR/ROAD COMMISSIONER, THE DEVELOPER IS RESPONSIBLE, AS A MINIMUM, FOR ROAD IMPROVEMENTS TO CENTERLINE, AND MAY BE REQUIRED TO RECONSTRUCT EXISTING PAVEMENT, INCLUDING BASES AND MATCHING OVERLAY REQUIRED TO MEET THE STRUCTURAL STANDARDS FOR THE CURRENT ASSIGNED TRAFFIC INDEX.
- EXISTING STORM DRAIN PIPES/CULVERTS WHETHER TO BE CONNECTED TO, EXTENDED, ADJUSTED, DRAINED TO, OR JUST IN PROJECT VICINITY SHALL BE REPAIRED AND/OR CLEANED TO MAKE THEM FUNCTIONAL AND ACCEPTABLE AS DIRECTED BY THE PUBLIC WORKS DIRECTOR.
- TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CURRENT WORK AREA TRAFFIC CONTROL HANDBOOK OR AS DIRECTED BY THE IMPERIAL COUNTY TRAFFIC ENGINEER.
- ANY EXISTING SURVEY MONUMENTS OR COUNTY RECOGNIZED BENCHMARKS SHALL BE PROTECTED BY THE CONTRACTOR AT ALL TIMES PRIOR TO COMMENCEMENT DURING CONSTRUCTION ACTIVITIES. SHOULD ANY SUCH MONUMENTS OR BENCHMARKS BE REMOVED, DAMAGED, OBLITERATED OR ALTERED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER RESETTING OF THE SAME AS PER THE SUBDIVISION MAP ACT, THE PROFESSIONAL LAND SURVEYORS ACT AND TO THE SATISFACTION OF THE COUNTY SURVEYOR/DIRECTOR OF PUBLIC WORKS. SUCH POINTS SHALL BE REFERENCED AND 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 TO THE COUNTY SURVEYOR'S OFFICE BY THE LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER.
- DUST SHALL BE CONTROLLED BY THE CONTRACTOR IN ACCORDANCE WITH ALL IMPERIAL COUNTY AIR POLLUTION CONTROL DISTRICT (APCD) FUGITIVE DUST CONTROL RULES AND REGULATIONS AND SHALL COMPLY WITH THEIR PERMITTING REQUIREMENTS, IF APPLICABLE.
THE NOTES LISTED ABOVE ARE A MINIMUM LIST. THIS DOES NOT RELIEVE THE ENGINEER FROM COMPILING ADDITIONAL NOTES THAT MAY BE REQUIRED FOR THE PROJECT.

SCOPE OF WORK

THE DESIGN OF A TIE IN POINT OF A NEW STORM DRAIN SYSTEM, ORIGINALLY SERVING TRACT 941, UNITS 5 & 6 TO AN EXISTING STORM DRAIN SYSTEM DISCHARGING TO AN EXISTING SMALL RETENTION BASIN LOCATED AT END OF MAGGIO RD, JUST EAST OF ROOD RD INTERSECTION. THE SCOPE INDICATES THE NEED DUE TO RECENT STORM EVENT(S) SINCE THE STORM WATER DISCHARGE AT THE EAST END OF THE INTERSECTION EXCEEDED THE SMALL BASIN CAPACITY, AND BACKED UP INTO THE EXISTING STORM DRAIN CATCH BASIN NEARBY WEST ALONG MAGGIO RD ADDITIONALLY THE SCOPE WILL UPSIZE PORTION OF THE STORM DRAIN SYSTEM FOR TRACT 941 UNITS 5 & 6 TO A 48" DIAMETER FROM THE NORTH SIDE TOWARDS THE EXISTING 48" DISCHARGE STORM WATER PIPELINE JUST NORTH OF THE INTERSECTION OF CARR RD AND LOS ALAMOS RD THIS DISCHARGES TO AN EXISTING SMALL RETENTION BASIN JUST SOUTH OF THE GATEWAY WTRP FROM THERE IT CONNECTS VIA AN EXISTING PIPELINE TO OUTLET TO THE ALAMO RIVER.

THE SCOPE OF WORK HAD EXCLUSIONS INCLUDING NO REGIONAL HYDROLOGY STUDY, NO DESIGN OF EXISTING BASIN, NO GEOTECHNICAL SERVICES, NO CONSTRUCTION STAKING, SURVEYING FOR ROW OR EASEMENT OR CM/INSPECTION DURING CONSTRUCTION IT DID INCLUDE SURVEY ENGINEERING DESIGN OF PIPELINE INCLUDING SPECIFICATIONS (TECHNICAL) AND CONSTRUCTION BID SUPPORT.

SOILS ENGINEER CERTIFICATE

THESE PLANS HAVE BEEN REVIEWED BY THE UNDERSIGNED RELATIVE TO GEOTECHNICAL ASPECTS OF THE PLANS AND HAVE BEEN FOUND TO BE IN CONFORMANCE WITH INTENTIONS OF THE FINDINGS AND RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT BY LANDMARK CONSULTANTS, INC LCI PROJECT NO. LE22078 DATED MAY 03 2022

BY: *Atzar* DATE: 06/21/2023
 PETER E LABRUCHERIE, P.E.
 R.C.E. NO. 84812
 LANDMARK CONSULTANTS, INC
 780 N. 4TH STREET
 EL CENTRO CA 92243
 760 370-3000

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF THE WORK OF THE PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION OF 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS. I UNDERSTAND THAT THE CHECK OF THE PROJECT DRAWINGS AND SPECIFICATIONS BY THE COUNTY OF IMPERIAL IS CONFINED TO REVIEW ONLY AND DOES NOT RELIEVE ME AS ENGINEER OF WORK OF MY RESPONSIBILITY FOR PROJECT DESIGN

BY: *Carlos Corrales* DATE: 6/22/2023
 CARLOS CORRALES
 R.C.E. NO. 55432

DIGALERT

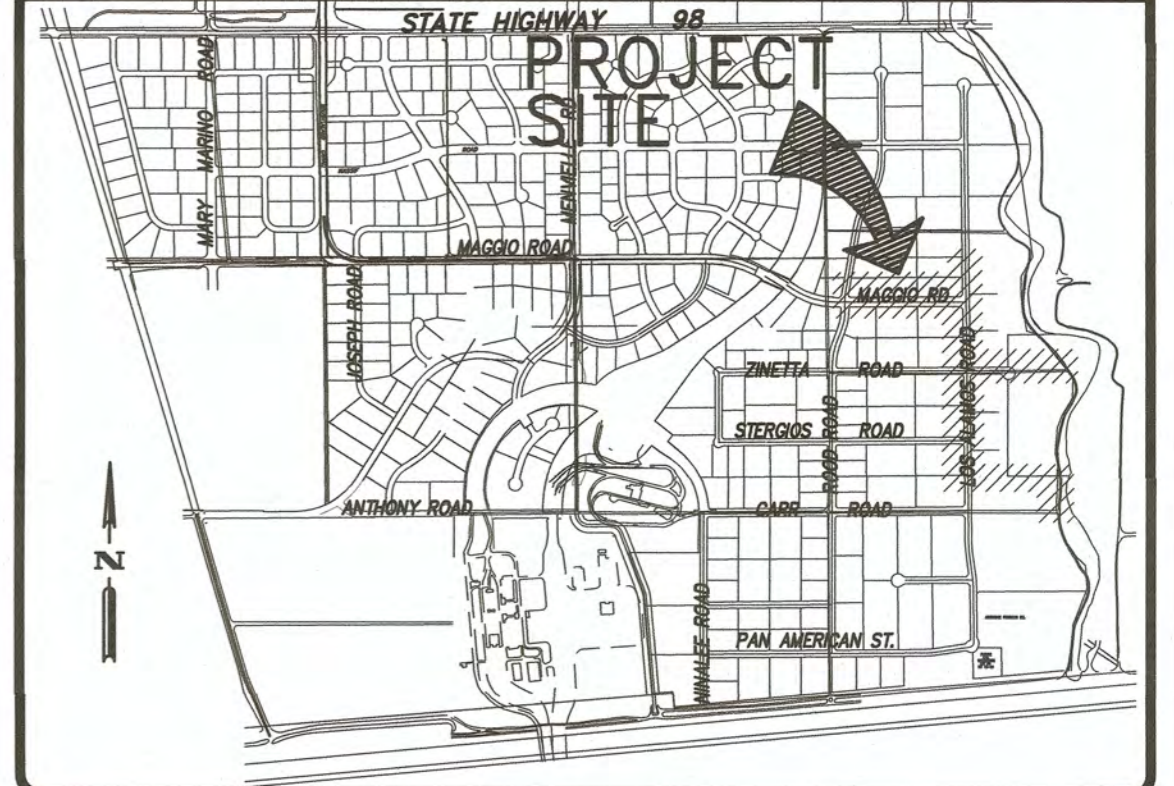
DIAL BEFORE YOU DIG TWO WORKING DAYS BEFORE YOU DIG

TOLL FREE 811 A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

SYMBOLS

ITEM NO.	ITEM	SYMBOL
1.	EDGE OF EXISTING PAVEMENT	---
2.	CENTERLINE/BASELINE	---
3.	RIGHT OF WAY	R/W
4.	FENCE	x x x x x x x
5.	OVERHEAD ELECTRICAL LINES	OHE
6.	POWER POLE OR TELEPHONE POLE	⊙
7.	SIGN	⊙
8.	EXISTING TREES	⊙
9.	EXISTING A.C. PAVEMENT	▨
10.	NEW A.C. PAVEMENT	▨
11.	NEW CLASS 2 BASE	▨
12.	EXISTING SPOT ELEVATION	x 895.9
13.	EXISTING AC MATCH ELEVATION	(853.75)
14.	PROPOSED ELEVATION	884.00
15.	EXISTING MANHOLE	⊙
16.	PROPOSED SAWCUT LINE	---
17.	APPROXIMATE PROPERTY LINE	---
18.	EXISTING WATER LINE	-w-w-
19.	EXISTING WATER METER	⊙
20.	EXISTING SEWER LINE	-s-s-
21.	EXISTING GAS LINE	-g-g-
22.	EXISTING TELEPHONE LINE	-t-t-
23.	EXISTING WATER VALVE	⊙
24.	EXISTING POWER POLE	⊙
25.	EXISTING SURVEY MONUMENT	⊙

VICINITY MAP



SHEET INDEX

SHEET NUMBER	DRAWING DESCRIPTION
1	TITLE SHEET
2	KEY SHEET
3	PLAN & PROFILE MAGGIO ROAD STA:0+00 TO STA:6+50
4	PLAN & PROFILE MAGGIO ROAD STA:6+50 TO STA:13+22
5	PLAN & PROFILE LOS ALAMOS ROAD STA:41+90 TO STA:49+48
6	PLAN & PROFILE LOS ALAMOS ROAD STA:34+50 TO STA:41+90
7	PLAN & PROFILE LOS ALAMOS ROAD STA:27+00 TO STA:34+50
8	PLAN & PROFILE DIRT ROAD STA:0+00 TO STA:8+00
9	EXIST RETENTION BASIN NEAR ALAMO RIVER
10	PLAN & PROFILE ZINETTA ROAD STA:14+00 TO STA:19+00
11	PLAN & PROFILE ZINETTA ROAD STA:17+52.03 TO STA:24+66.04
12	SPECIFICATIONS
13	DETAIL SHEET AND STORM WATER PUMP STATION
14	EROSION CONTROL PLAN

ABBREVIATIONS

A.C.	ASPHALT CONCRETE	MH	MAN HOLE
APP.L.	APPROXIMATE LOCATION	N.T.S.	NOT TO SCALE
B.C.	BEGINNING OF CURVE RADIUS	OHE	OVERHEAD ELECTRICAL LINE
B.L.D.G.	BUILDING	%	PERCENT
C	CENTERLINE	P.P.	POWER POLE
DIA.	DIAMETER	P.C.R.	POINT OF CURB RETURN
D.W.Y.	DRIVEWAY	PRW	PRESCRIPTIVE RIGHT-OF-WAY
Δ	DELTA	R.	RADIUS
E.P.	EDGE OF PAVEMENT	R & R	REMOVE AND RELOCATE
EL.	ELEVATION	R/W	RIGHT-OF-WAY
E.C.	END OF CURVE RADIUS	SD	STORM DRAIN
E	FLOWLINE	TOP	TOP OF PIPE
FF	FINISH FLOOR	TC	TOP OF CURB
FS	FINISH SURFACE	T.P.	TOP OF PAVEMENT

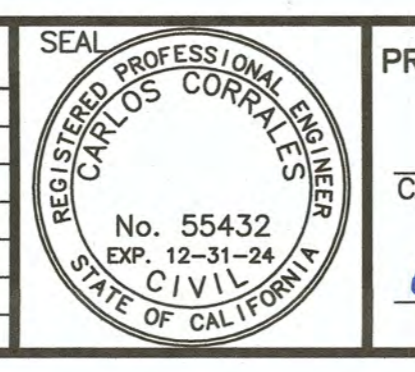
CONSTRUCTION BASELINE

THE BASIS OF BEARINGS FOR THIS SURVEY IS N00°29'01"W BEING THE BEARING OF THE WEST LINE OF THE SW QUARTER OF SECTION 7, T17S, R16E, AS SHOWN ON FM 19-10 OF MAPS, FILED IN THE COUNTY RECORDER'S OFFICE OF IMPERIAL COUNTY.

BENCHMARK

EXISTING GEODETIC SURVEY MONUMENT CONSISTING OF A BENCHMARK DISK STAMPED "CO A 51 RESET 1980" ON TOP OF THE EAST END OF THE SOUTH ABUTMENT OF CONCRETE BRIDGE OVER THE ALAMO RIVER AT ITS CROSSING WITH STATE HIGHWAY 98, AS PUBLISHED ON NGS DATA SHEET WITH PID "DB1132" EL= 25.61' (NAVD 1988) + 1000.00 = 1025.61'

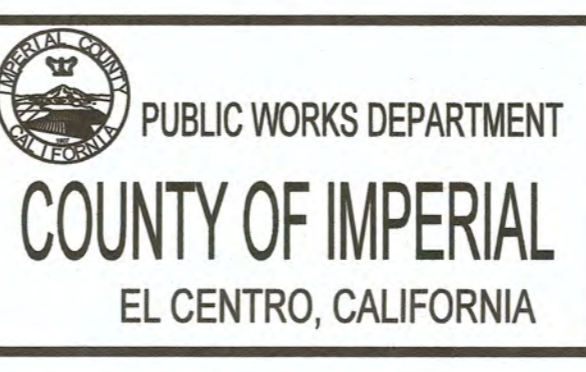
REVISION	DATE	COMMENTS
1	4/20/2023	PER COUNTY OF IMPERIAL PCK LETTER DATED 03/23/2023
2	6/6/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/02/2023
3	6/9/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/08/2023
4	6/21/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/20/2023



PREPARED UNDER THE DIRECT SUPERVISION OF:
Carlos Corrales
 CARLOS CORRALES, P.E.
 55432 R.C.E. No.
 6/22/2023 DATE
 12/31/24 REG. EXP.



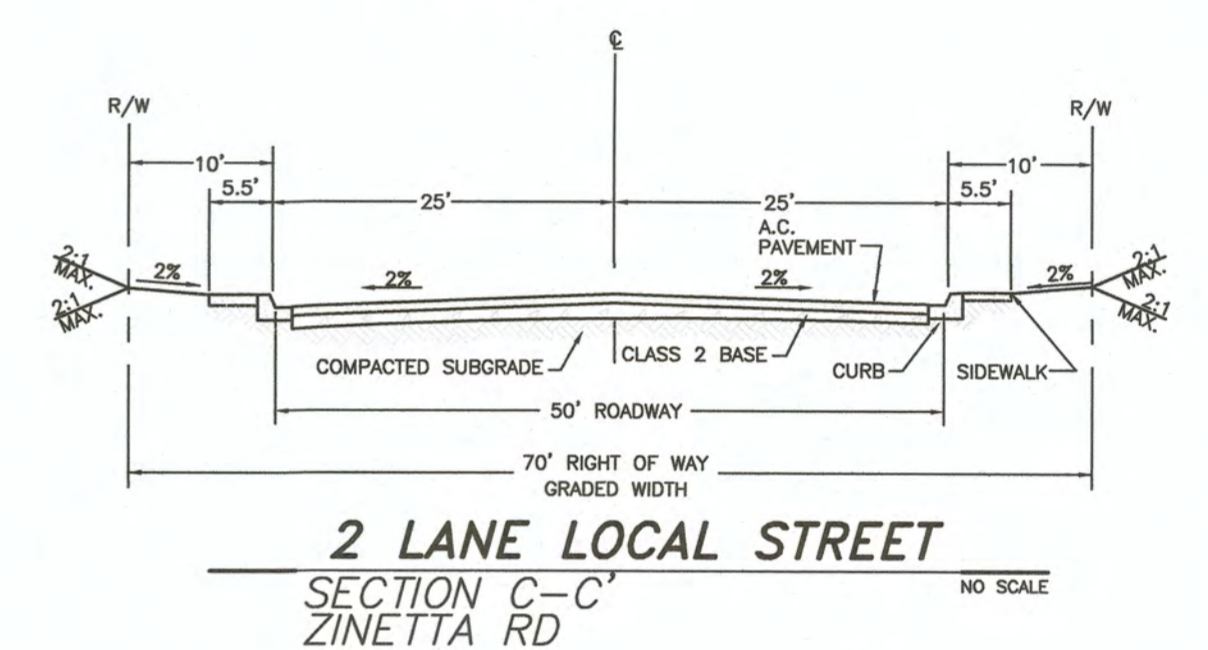
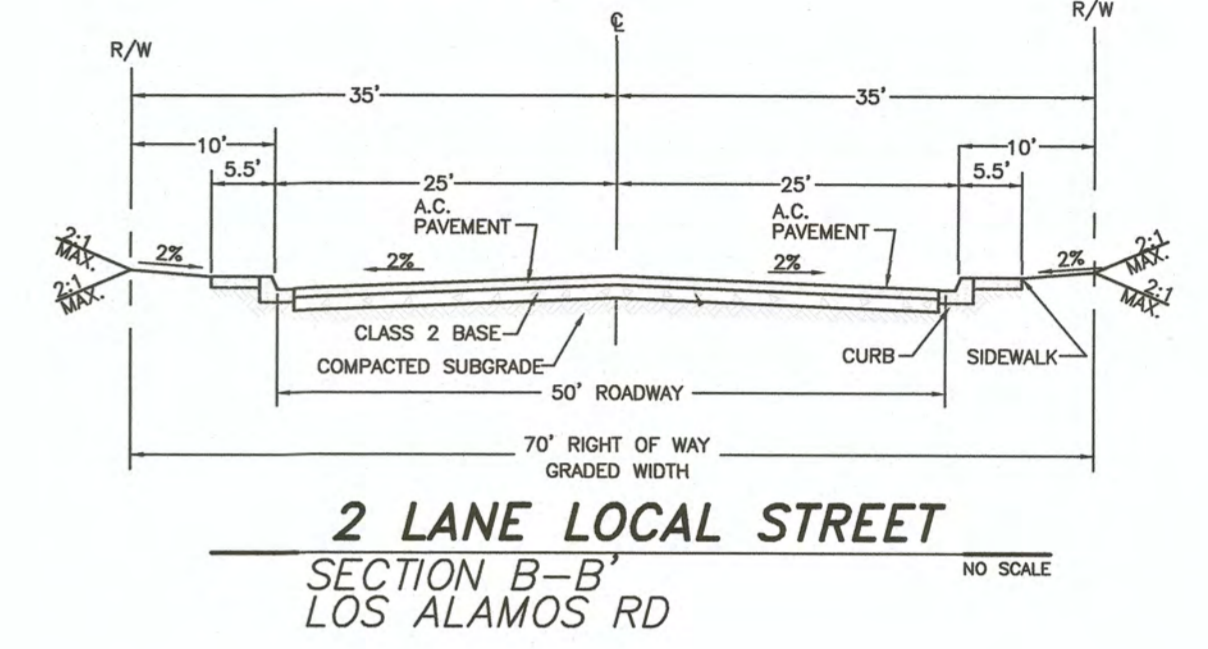
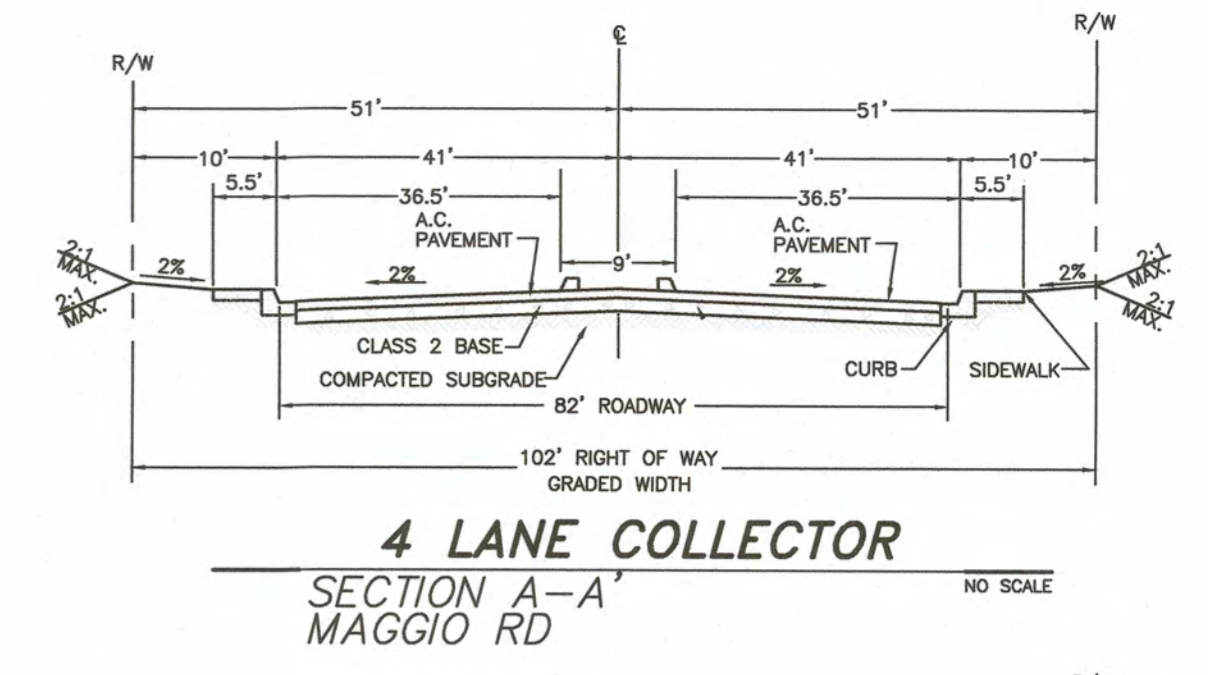
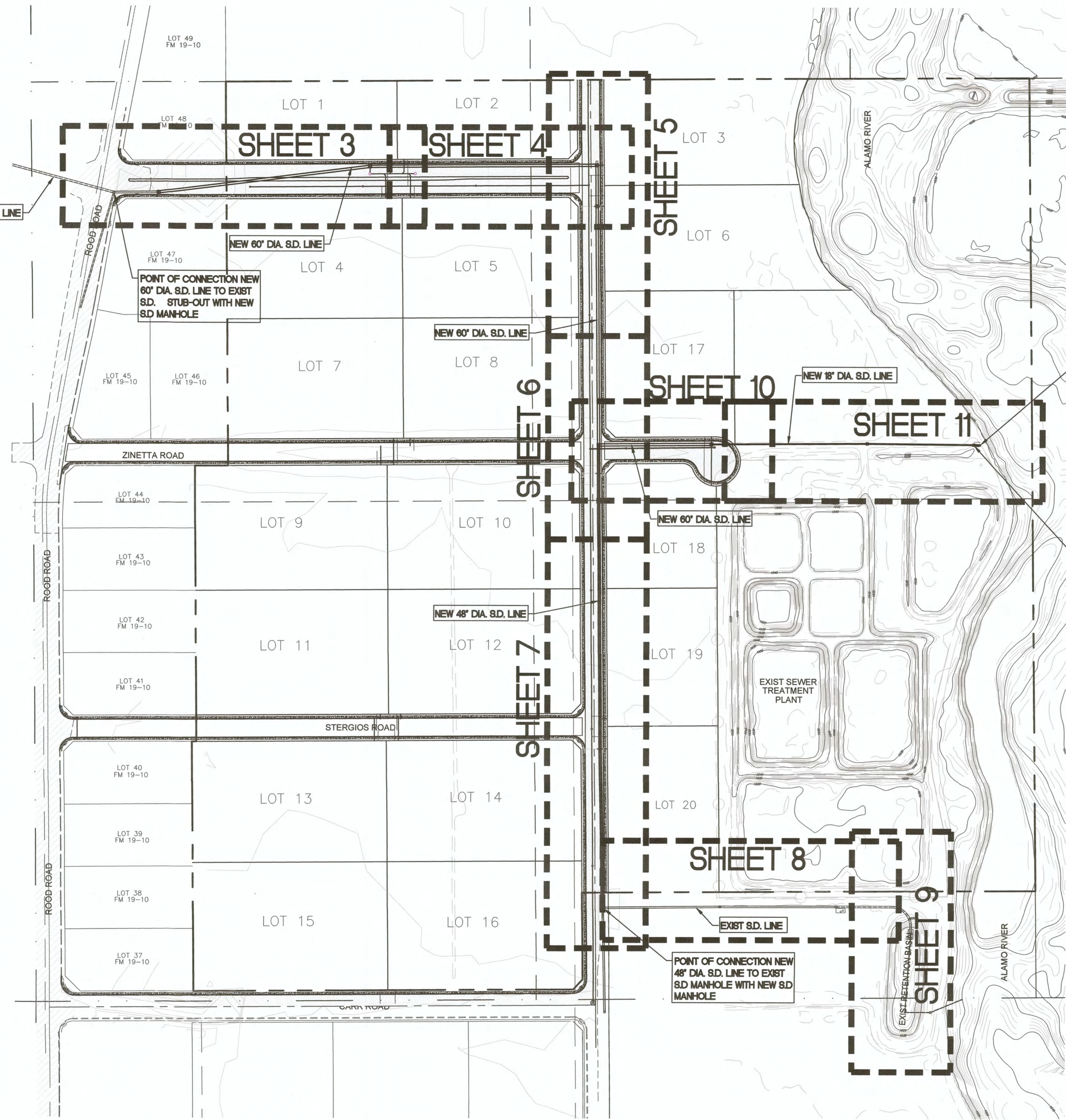
COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:
John A. Gay
 JOHN A. GAY, P.E.
 DIRECTOR OF PUBLIC WORKS
 6/29/23 DATE
 62028 R.C.E. No.
 9/30/23 REG. EXP.



DATE 06/21/23
 DRAWN STAFF
 SCALE N/A
 CHECKED C. CORRALES

PROJECT TITLE
**MAGGIO ROAD AND ROOD ROAD
 DRAINAGE CONNECTION STORM
 DRAIN PIPELINE IMPROVEMENTS**

TITLE SHEET	
PROJECT NO. 7004GTW	SHEET OF 1 14



POINT OF CONNECTION NEW 18" DIA. S.D. LINE TO EXIST S.D. MANHOLE

NEW STORM WATER PUMP STATION (TO BE BUILT BY OTHERS UNDER A SEPARATE CONTRACT) AS NEEDED TEMPORARY PORTABLE PUMP DURING AND AFTER STORM EVENTS ARE TO BE ADDRESSED BY GATEWAY CSA

POINT OF CONNECTION NEW 48" DIA. S.D. LINE TO EXIST S.D. MANHOLE WITH NEW S.D. MANHOLE

NOTE:
1. - NEW ROADS ARE PROPOSED BY OTHERS. (NOT IN CONTRACT) THE PROPOSED CROSS SECTIONS WERE INCLUDED FOR INFORMATION PURPOSES ONLY.

REVISION	DATE	COMMENTS
1	4/20/2023	PER COUNTY OF IMPERIAL PCK LETTER DATED 03/23/2023
2	6/6/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/02/2023
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PREPARED UNDER THE DIRECT SUPERVISION OF:
Carlos Corrales
CARLOS CORRALES, P.E.
DATE: 6/22/2023

55432 R.C.E. No.
12/31/24 REG. EXP.



COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
John A. Gay
JOHN A. GAY, P.E.
DIRECTOR OF PUBLIC WORKS
DATE: 6/28/23

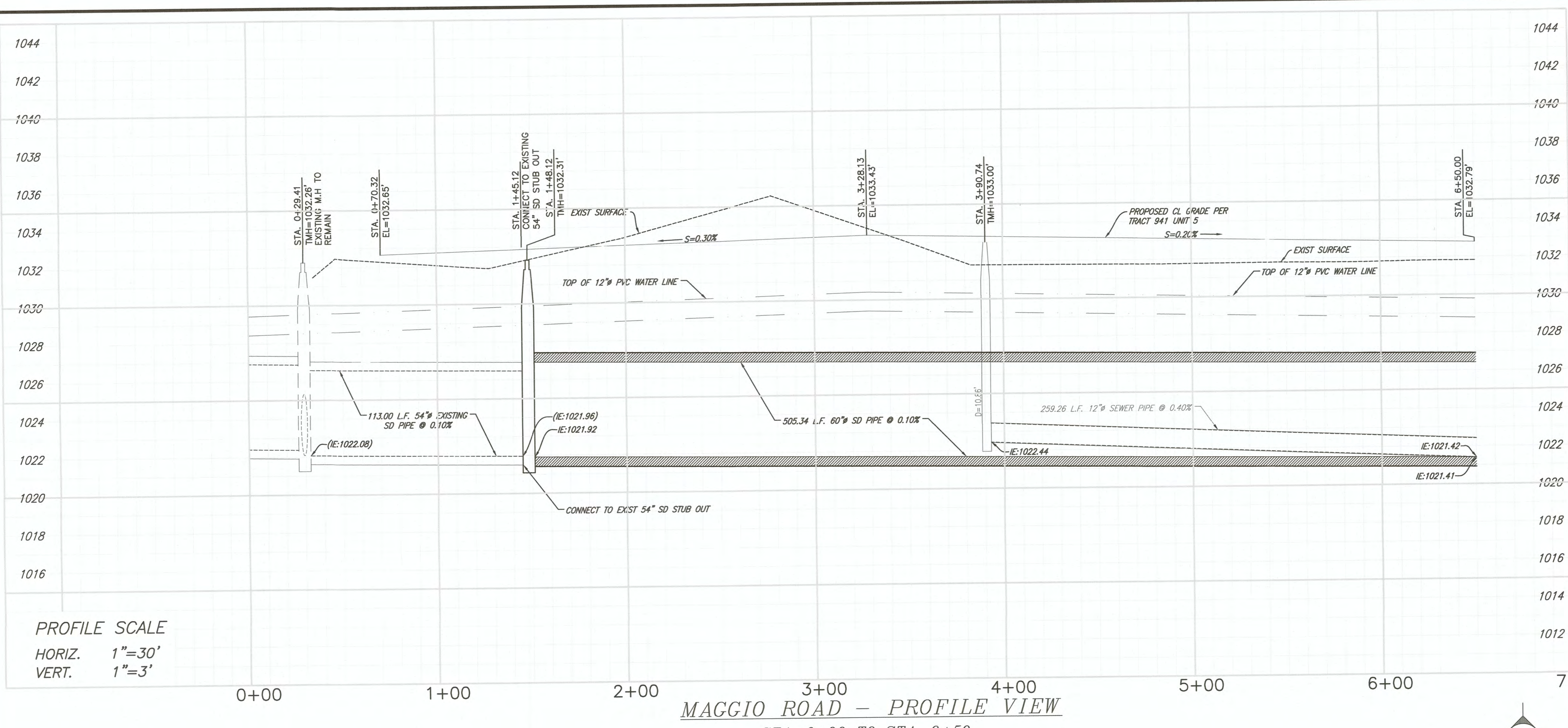
62028 R.C.E. No.
9/30/23 REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE: 06/21/23
DRAWN: STAFF
SCALE: N/A
CHECKED: C. CORRALES

PROJECT TITLE
MAGGIO ROAD AND ROOD ROAD DRAINAGE CONNECTION STORM DRAIN PIPELINE IMPROVEMENTS

KEY SHEET	
PROJECT NO. 7004GTW	SHEET OF 2 14



PROFILE SCALE
 HORIZ. 1"=30'
 VERT. 1"=3'

MAGGIO ROAD - PROFILE VIEW
 STA. 0+00 TO STA. 6+50

- (*) FUTURE UTILITY CONSTRUCTION NOTES PER "TRACT 941, UNIT No.5-IMPROVEMENTS PLANS"
- 1) INSTALL NEW 12-INCH AWWA C-900, CLASS 150 PVC WATER PIPELINE
 - 2) INSTALL 12" WATER VALVE PER DETAIL
 - 3) INSTALL NEW FIRE HYDRANT ASSEMBLY PER DETAIL
 - 4) INSTALL 6" FIRE SERVICE CONNECTED TO A 12"x12"x6" TEE PER PER DETAIL
 - 5) INSTALL 2" WATER SERVICE PER PER DETAIL
 - 6) CONNECT TO EXISTING WATER MAIN
 - 7) INSTALL NEW 12-INCH SDR 35 SANITARY SEWER PIPE LINE
 - 8) INSTALL NEW 48-INCH DIA. SANITARY SEWER MANHOLE PER DETAIL
 - 9) CONNECT NEW 12" SEWER MAIN TO EXISTING SEWER
 - 10) ADJUST EXIST. MANHOLE COVER TO MATCH NEW PAVEMENT
 - 11) INSTALL NEW 6-INCH SDR 35 SANITARY SEWER SERVICE PER DETAIL
 - 12) INSTALL NEW CURB INLET CATCH BASIN PER DETAIL

- (*) FUTURE LEGEND & CONSTRUCTION NOTES PER "TRACT 941, UNIT No.5-IMPROVEMENTS PLANS"
- 1) NEW 4" OF AC PAVEMENT OVER 18" OF CLASS 2 BASE
 - 2) NEW 4.5" OF AC PAVEMENT OVER 26" OF CLASS 2 BASE
 - 3) NEW 6" PCC CURB & GUTTER
 - 4) NEW 4" PCC SIDEWALK
 - 5) NEW STREET LIGHT

- UTILITY STORM DRAIN CONSTRUCTION KEY NOTES:
- 1) INSTALL 6'x4' STORM DRAIN JUNCTION BOX PER DETAIL E.1 ON SHT 13.
 - 2) INSTALL NEW 60" ADS-HDPE OR APPROVED EQUAL STORM WATER PIPELINE PER TRENCH DETAIL C.1 ON SHT 13.
 - 3) INSTALL NEW 48" ADS-HDPE OR APPROVED EQUAL STORM WATER PIPELINE PER TRENCH DETAIL C.1 ON SHT 13.
 - 4) INSTALL NEW 6" ADS-HDPE OR APPROVED EQUAL SD SERVICE PER VERTICAL CROSSING DETAIL B.1 ON SHT 13.
 - 5) INSTALL 5' LONG SD PIPE STUB-OUT.
 - 6) INSTALL NEW 18" ADS-HDPE OR APPROVED EQUAL STORM WATER PIPELINE PER TRENCH DETAIL C.1 ON SHT 13.
 - 7) NEW STORM WATER PUMP STATION PER DETAIL D.1 ON SHT 13 TO BE BUILT BY OTHERS UNDER A SEPARATE CONTRACT.
 - 8) INSTALL 8'x8' STORM DRAIN JUNCTION BOX PER DETAIL E.1 ON SHT 13.
 - 9) INSTALL NEW 48" SD MANHOLE PER DETAIL A.1 ON SHEET 13.

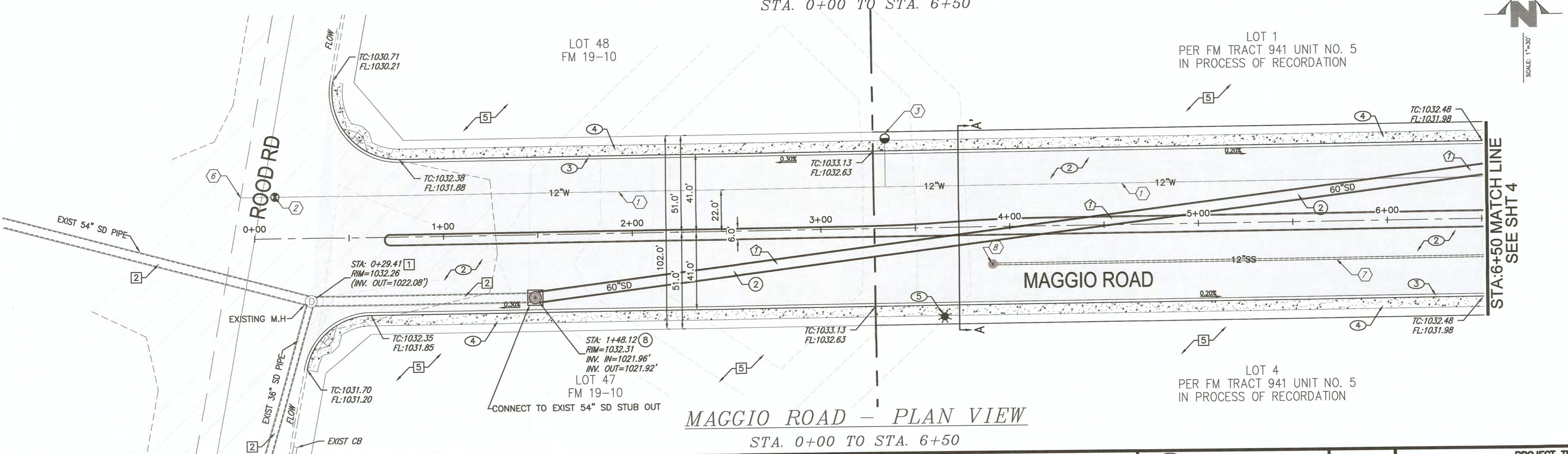
- EXISTING KEY NOTES
- 1) EXISTING STORM DRAIN MANHOLE
 - 2) EXISTING STORM DRAIN PIPE
 - 3) EXISTING SEWER MANHOLE
 - 4) EXISTING SEWER PIPELINE
 - 5) EXISTING SURFACE

STORM DRAIN DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	N 82°53'54" E		505.34'	60" #
2				
3				
4				

(*) SYMBOLS

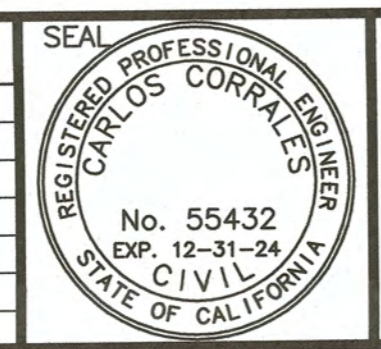
ITEM NO.	ITEM	SYMBOL
1.	TC=TOP OF CURB ELEVATION	TC:1030.71
2.	FL=FLOW LINE ELEVATION	FL:1030.21
3.	FLOW LINE SLOPE	0.20%

NOTE:
 (*) 1.- SHOWN FOR INFORMATION PURPOSES ONLY AND TO AVOID CONFLICTS, TO BE BUILT SEPARATELY PER TRACT 941, UNIT NO. 5 IMPROVEMENTS PLANS, BY OTHERS. (NOT IN CONTRACT)
 2.- 10' LONG CLAY PLUG AT EACH STRUCTURE (EACH SIDE), AND/OR 500' MINIMUM SPACING.



MAGGIO ROAD - PLAN VIEW
 STA. 0+00 TO STA. 6+50

REVISION	DATE	COMMENTS
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 CARLOS CORRALES, P.E.
 DATE: 6/22/2023

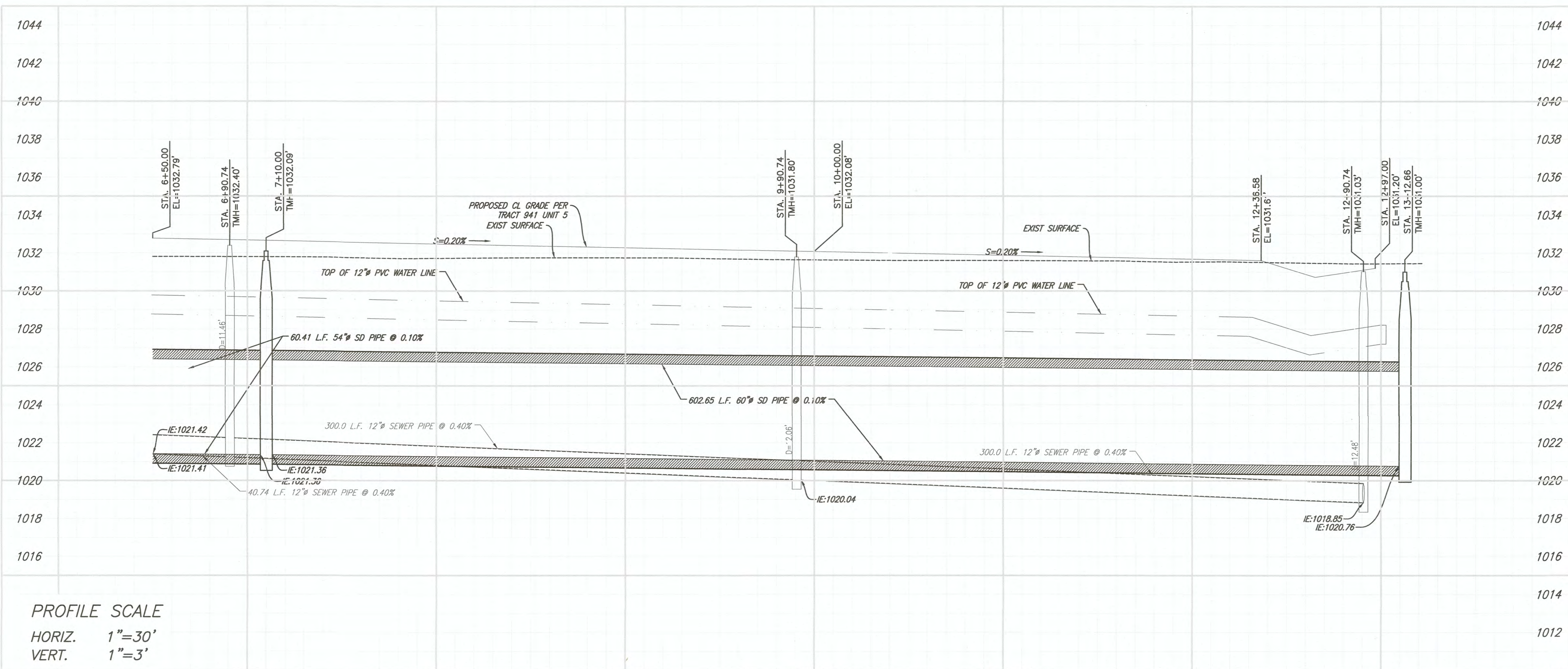


COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:
 JOHN A. GAY, P.E.
 DIRECTOR OF PUBLIC WORKS
 DATE: 6/28/23

COUNTY OF IMPERIAL
 EL CENTRO, CALIFORNIA

PROJECT TITLE
MAGGIO ROAD AND ROOD ROAD DRAINAGE CONNECTION STORM DRAIN PIPELINE IMPROVEMENTS

PLAN & PROFILE
MAGGIO ROAD
 PROJECT NO. 7004GTW
 SHEET 3 OF 14



PROFILE SCALE
 HORIZ. 1"=30'
 VERT. 1"=3'

MAGGIO ROAD - PROFILE VIEW
 STA. 6+50 TO STA. 13+22

- (* FUTURE UTILITY CONSTRUCTION NOTES PER TRACT 941, UNIT No.5-IMPROVEMENTS PLANS")
- INSTALL NEW 12-INCH AWWA C-900, CLASS 150 PVC WATER PIPELINE
 - INSTALL 12" WATER VALVE PER DETAIL
 - INSTALL NEW FIRE HYDRANT ASSEMBLY PER DETAIL
 - INSTALL 6" FIRE SERVICE CONNECTED TO A 12"x12"x6" TEE PER PER DETAIL
 - INSTALL 2" WATER SERVICE PER PER DETAIL
 - CONNECT TO EXISTING WATER MAIN
 - INSTALL NEW 12-INCH SDR 35 SANITARY SEWER PIPE LINE PER DETAIL
 - INSTALL NEW 48-INCH DIA. SANITARY SEWER MANHOLE PER DETAIL
 - CONNECT NEW 12" SEWER MAIN TO EXISTING SEWER
 - ADJUST EXIST. MANHOLE COVER TO MATCH NEW PAVEMENT PER DETAIL
 - INSTALL NEW 6-INCH SDR 35 SANITARY SEWER SERVICE PER DETAIL
 - INSTALL NEW CURB INLET CATCH BASIN PER DETAIL

- (* FUTURE LEGEND & CONSTRUCTION NOTES PER TRACT 941, UNIT No.5-IMPROVEMENTS PLANS")
- NEW 4" OF AC PAVEMENT OVER 18" OF CLASS 2 BASE
 - NEW 4.5" OF AC PAVEMENT OVER 26" OF CLASS 2 BASE
 - NEW 6" PCC CURB & GUTTER
 - NEW 4" PCC SIDEWALK
 - NEW STREET LIGHT

- UTILITY STORM DRAIN CONSTRUCTION KEY NOTES:
- INSTALL 6"x4" STORM DRAIN JUNCTION BOX PER DETAIL E.1 ON SHT 13.
 - INSTALL NEW 60" ADS-HDPE OR APPROVED EQUAL STORM WATER PIPELINE PER TRENCH DETAIL C.1 ON SHT 13.
 - INSTALL NEW 48" ADS-HDPE OR APPROVED EQUAL STORM WATER PIPELINE PER TRENCH DETAIL C.1 ON SHT 13.
 - INSTALL NEW 6" ADS-HDPE OR APPROVED EQUAL SD SERVICE PER VERTICAL CROSSING DETAIL B.1 ON SHT 13.
 - INSTALL 5' LONG SD PIPE STUB-OUT.
 - INSTALL NEW 18" ADS-HDPE OR APPROVED EQUAL STORM WATER PIPELINE PER TRENCH DETAIL C.1 ON SHT 13.
 - NEW STORM WATER PUMP STATION PER DETAIL D.1 ON SHT 13 TO BE BUILT BY OTHERS UNDER A SEPARATE CONTRACT.
 - INSTALL 8"x8" STORM DRAIN JUNCTION BOX PER DETAIL E.1 ON SHT 13.
 - INSTALL NEW 48" SD MANHOLE PER DETAIL A.1 ON SHEET 13.
 - INSTALL NEW 12" ADS-HDPE OR APPROVED EQUAL STORM WATER PIPELINE PER TRENCH DETAIL C.1 ON SHT 13.

- EXISTING KEY NOTES
- EXISTING STORM DRAIN MANHOLE
 - EXISTING STORM DRAIN PIPE
 - EXISTING SEWER MANHOLE
 - EXISTING SEWER PIPELINE
 - EXISTING SURFACE

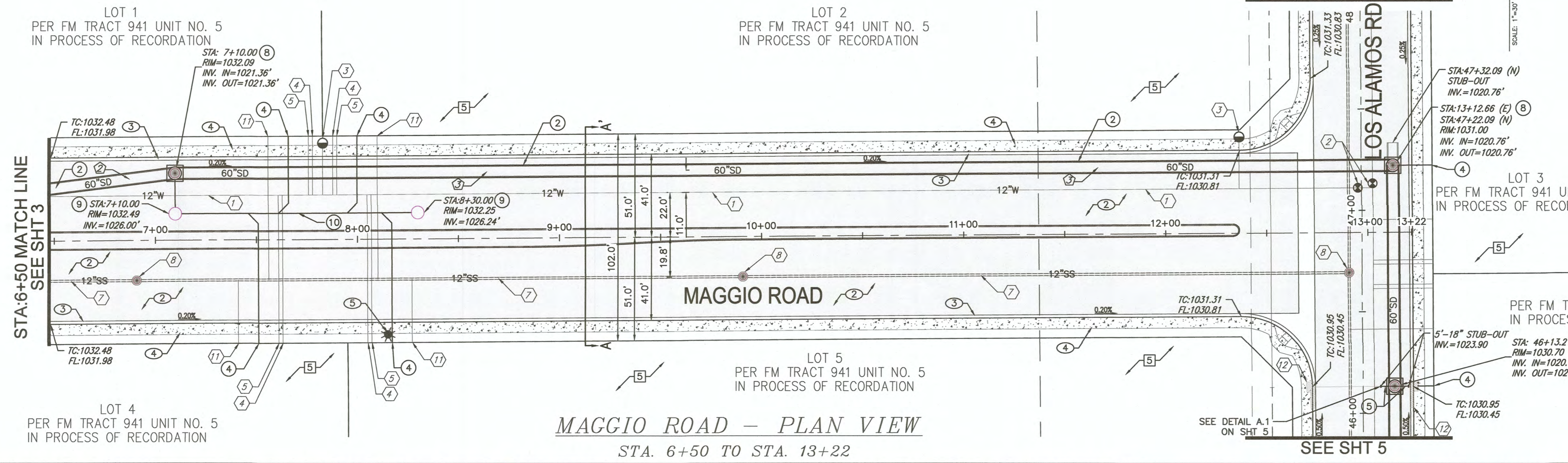
(* SYMBOLS)

ITEM NO.	ITEM	SYMBOL
1.	TC=TOP OF CURB ELEVATION	TC:1030.71
2.	FL=FLOW LINE ELEVATION	FL:1030.21
3.	FLOW LINE SLOPE	0.20%

NOTE:
 (*) 1.- SHOWN FOR INFORMATION PURPOSES ONLY AND TO AVOID CONFLICTS, TO BE BUILT SEPARATELY PER TRACT 941, UNIT No. 5 IMPROVEMENTS PLANS, BY OTHERS. (NOT IN CONTRACT)
 2.- 10' LONG CLAY PLUG AT EACH STRUCTURE (EACH SIDE), AND/OR 500' MINIMUM SPACING.

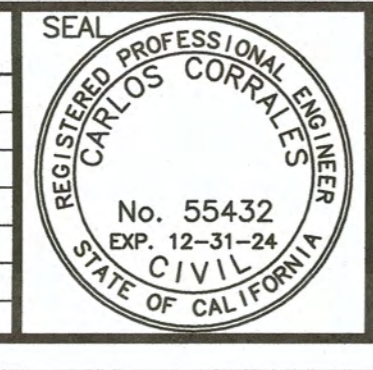
STORM DRAIN DATA

NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	N 82°33'54" E	60.41'	60'	
2	N 89°36'41" E	602.65'	60'	
3				
4				
5				



MAGGIO ROAD - PLAN VIEW
 STA. 6+50 TO STA. 13+22

REVISION	DATE	COMMENTS
1	4/20/2023	PER COUNTY OF IMPERIAL PCK LETTER DATED 03/23/2023
2	6/6/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/02/2023
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4	6/21/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/20/2023



PREPARED UNDER THE DIRECT SUPERVISION OF:
 CARLOS CORRALES, P.E.
 DATE: 6/22/2023
 R.C.E. No. 55432
 REG. EXP. 12/31/24

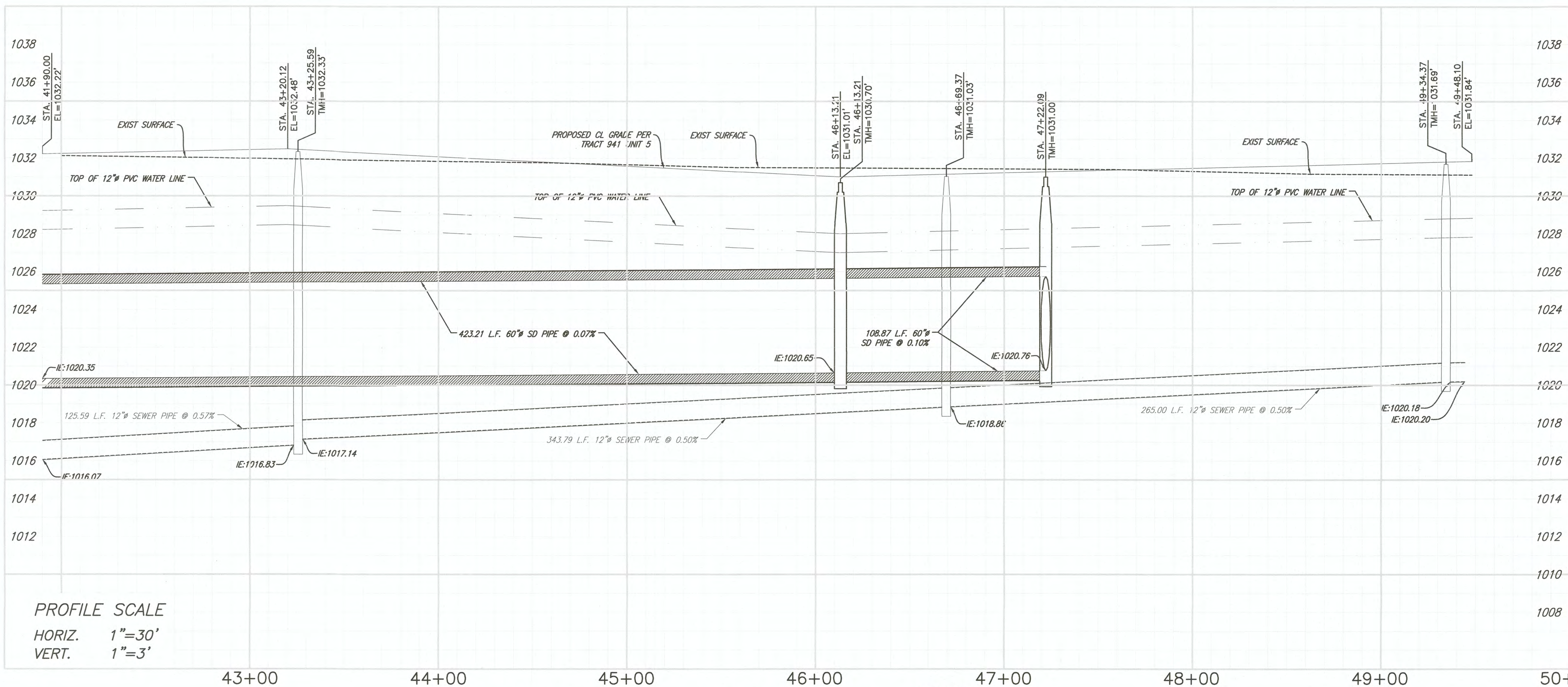


COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:
 JOHN A. GAY, P.E.
 DIRECTOR OF PUBLIC WORKS
 DATE: 6/26/23
 R.C.E. No. 62028
 REG. EXP. 9/30/23

PUBLIC WORKS DEPARTMENT
 COUNTY OF IMPERIAL
 EL CENTRO, CALIFORNIA

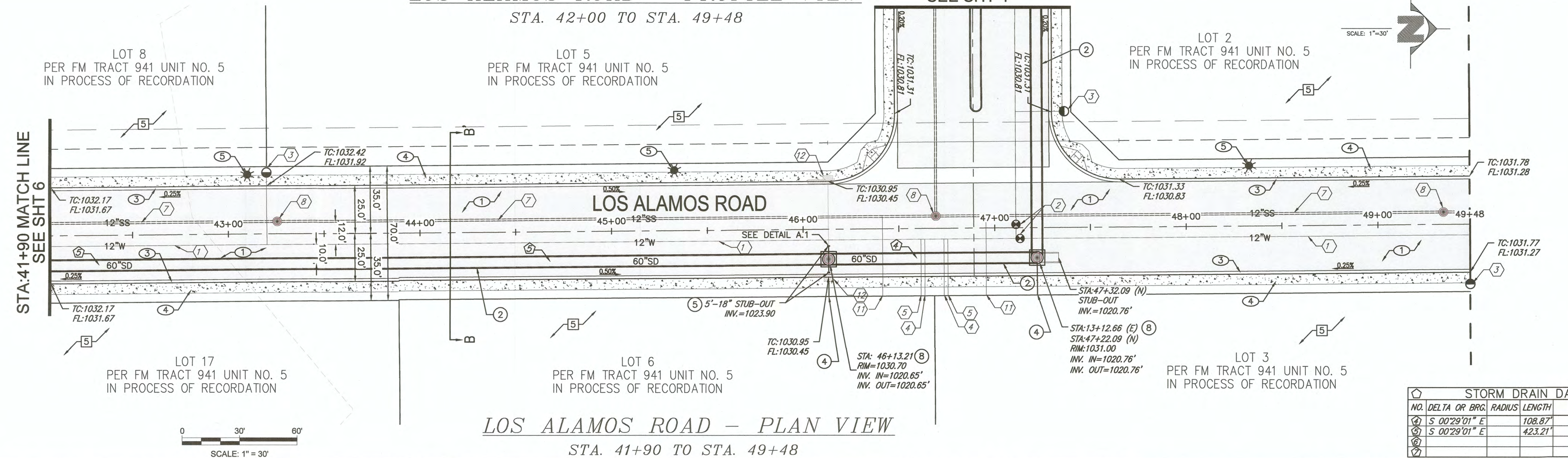
DATE: 06/21/23
 DRAWN: STAFF
 SCALE: N/A
 CHECKED: C. CORRALES
 PROJECT TITLE: MAGGIO ROAD AND ROAD ROAD DRAINAGE CONNECTION STORM DRAIN PIPELINE IMPROVEMENTS

PLAN & PROFILE
 MAGGIO ROAD
 PROJECT NO. 7004GTW
 SHEET 4 OF 14



PROFILE SCALE
 HORIZ. 1"=30'
 VERT. 1"=3'

LOS ALAMOS ROAD - PROFILE VIEW
 STA. 42+00 TO STA. 49+48



LOS ALAMOS ROAD - PLAN VIEW
 STA. 41+90 TO STA. 49+48

- (*) FUTURE UTILITY CONSTRUCTION NOTES PER "TRACT 941, UNIT No.5-IMPROVEMENTS PLANS"
- INSTALL NEW 12-INCH AWWA C-900, CLASS 150 PVC WATER PIPELINE
 - INSTALL 12" WATER VALVE PER DETAIL
 - INSTALL NEW FIRE HYDRANT ASSEMBLY PER DETAIL
 - INSTALL 6" FIRE SERVICE CONNECTED TO A 12"x12"x6" TEE PER PER DETAIL
 - INSTALL 2" WATER SERVICE PER PER DETAIL
 - CONNECT TO EXISTING WATER MAIN
 - INSTALL NEW 12-INCH SDR 35 SANITARY SEWER PIPE LINE PER DETAIL
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 - NEW 4.5" OF AC PAVEMENT OVER 26" OF CLASS 2 BASE
 - NEW 6" PCC CURB & GUTTER
 - NEW 4" PCC SIDEWALK
 - NEW STREET LIGHT

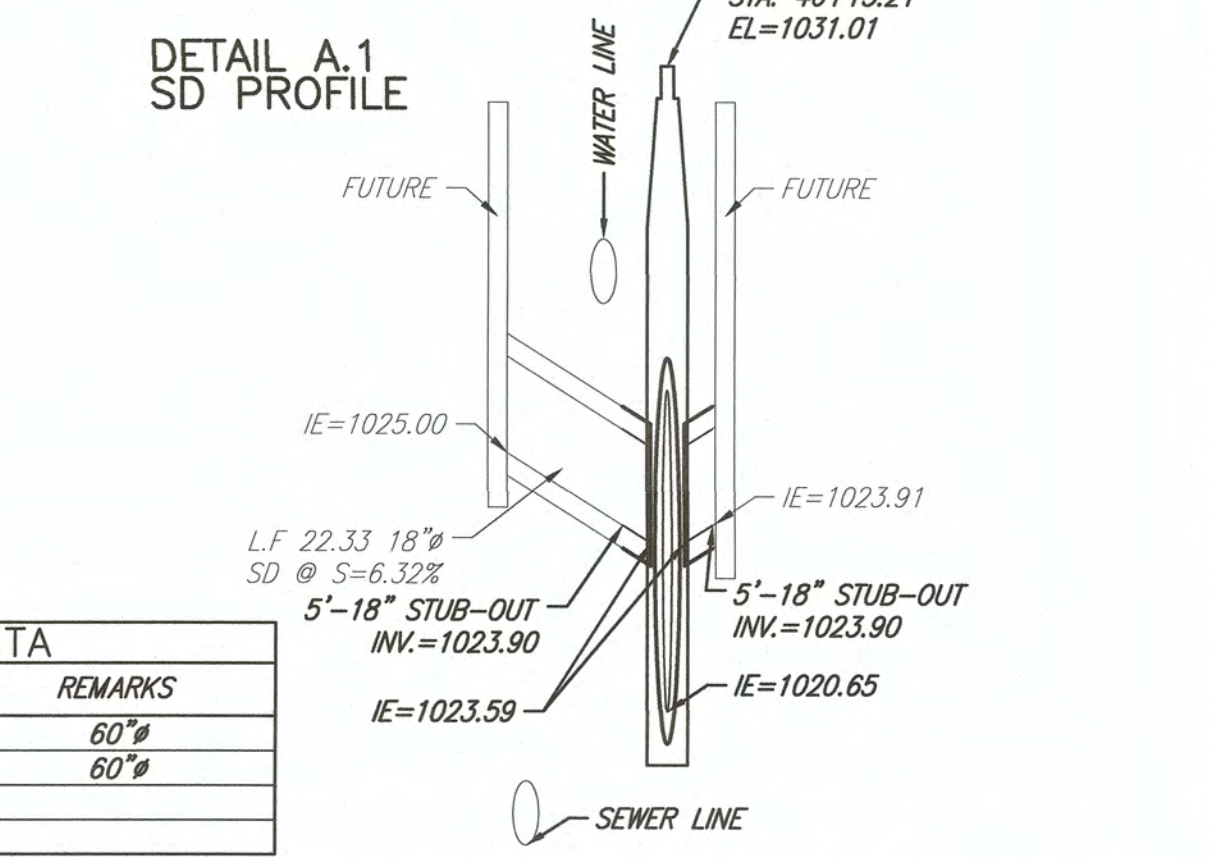
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 - INSTALL 8"x6" STORM DRAIN JUNCTION BOX PER DETAIL E.1 ON SHT 13.
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- EXISTING KEY NOTES
- EXISTING STORM DRAIN MANHOLE
 - EXISTING STORM DRAIN PIPE
 - EXISTING SEWER MANHOLE
 - EXISTING SEWER PIPELINE
 - EXISTING SURFACE

(*) SYMBOLS

ITEM NO.	ITEM	SYMBOL
1.	TC=TOP OF CURB ELEVATION	TC:1030.71
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3.	FLOW LINE SLOPE	0.20%

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 2.- 10' LONG CLAY PLUG AT EACH STRUCTURE (EACH SIDE), AND/OR 500' MINIMUM SPACING.



NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	S	00°29'01" E	108.87'	60" SD
2	S	00°29'01" E	423.21'	60" SD

REVISION	DATE	COMMENTS
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SEAL
 REGISTERED PROFESSIONAL ENGINEER
 CARLOS CORRALES
 No. 55432
 EXP. 12-31-24
 CIVIL
 STATE OF CALIFORNIA

PREPARED UNDER THE DIRECT SUPERVISION OF:
 CARLOS CORRALES, P.E.
 55432 R.C.E. No.
 12/31/24 REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:
 JOHN A. GAY, P.E.
 DIRECTOR OF PUBLIC WORKS
 62028 R.C.E. No.
 9/30/23 REG. EXP.

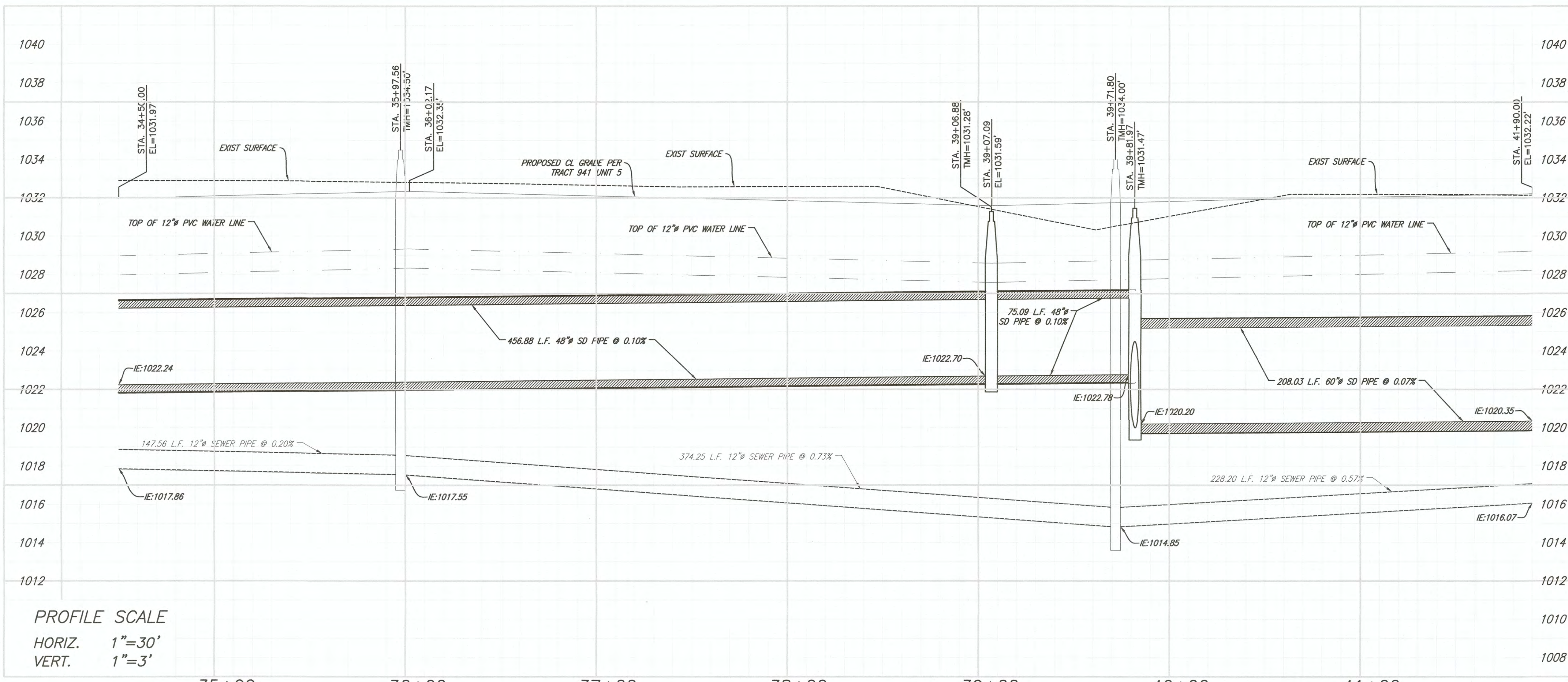
DATE 06/21/23
 DRAWN STAFF
 SCALE N/A
 CHECKED C. CORRALES

PROJECT TITLE
 MAGGIO ROAD AND ROOD ROAD
 DRAINAGE CONNECTION STORM
 DRAIN PIPELINE IMPROVEMENTS

PLAN & PROFILE
 LOS ALAMOS ROAD

PROJECT NO.
 7004GTW

SHEET 5 OF 14

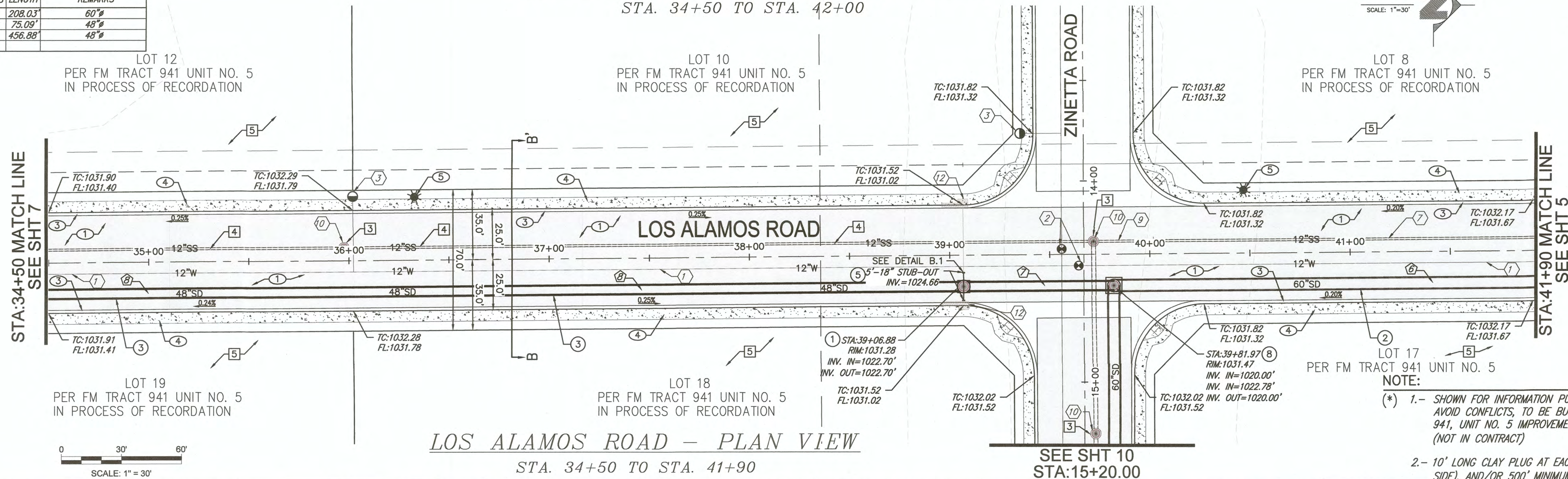


PROFILE SCALE
 HORIZ. 1"=30'
 VERT. 1"=3'

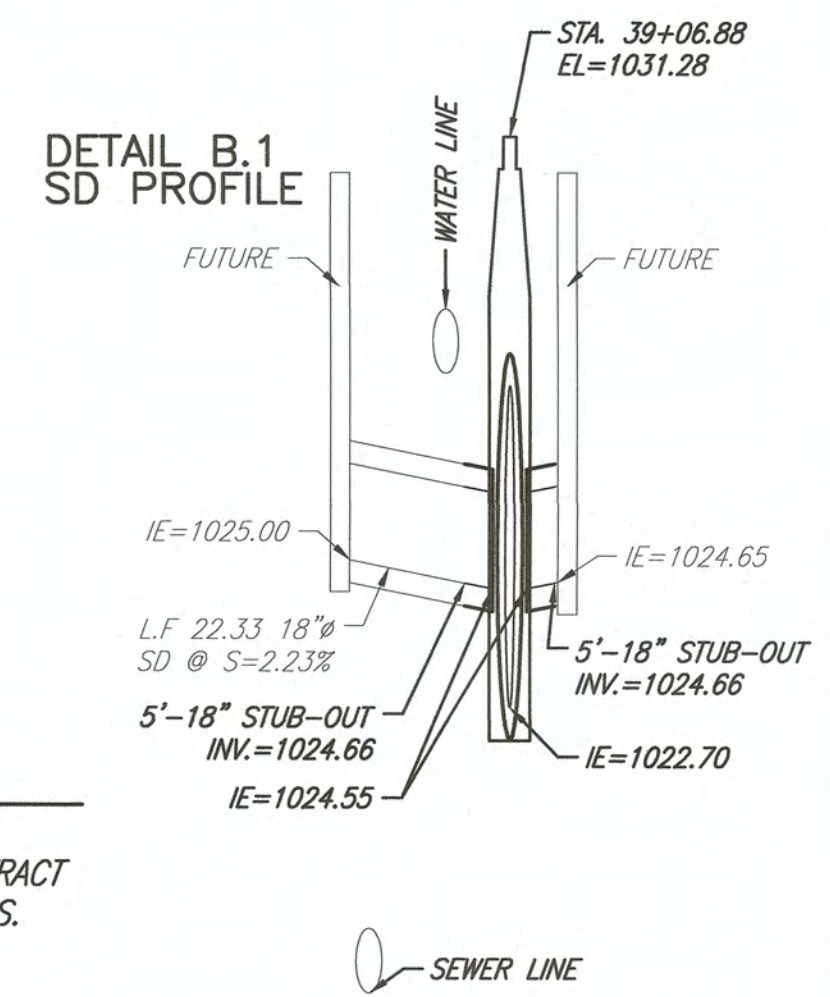
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	S 00°29'01" E		208.03'	60" SD
2	S 00°29'01" E		75.09'	48" SD
3	S 00°28'56" E		456.88'	48" SD

- (* FUTURE UTILITY CONSTRUCTION NOTES PER TRACT 941, UNIT No.5-IMPROVEMENTS PLANS
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 - EXISTING SURFACE
- (* SYMBOLS
- | ITEM NO. | ITEM | SYMBOL |
|----------|--------------------------|------------|
| 1. | TC=TOP OF CURB ELEVATION | TC:1030.71 |
| 2. | FL=FLOW LINE ELEVATION | FL:1030.21 |
| 3. | FLOW LINE SLOPE | 0.20% |

LOS ALAMOS ROAD - PROFILE VIEW
 STA. 34+50 TO STA. 42+00

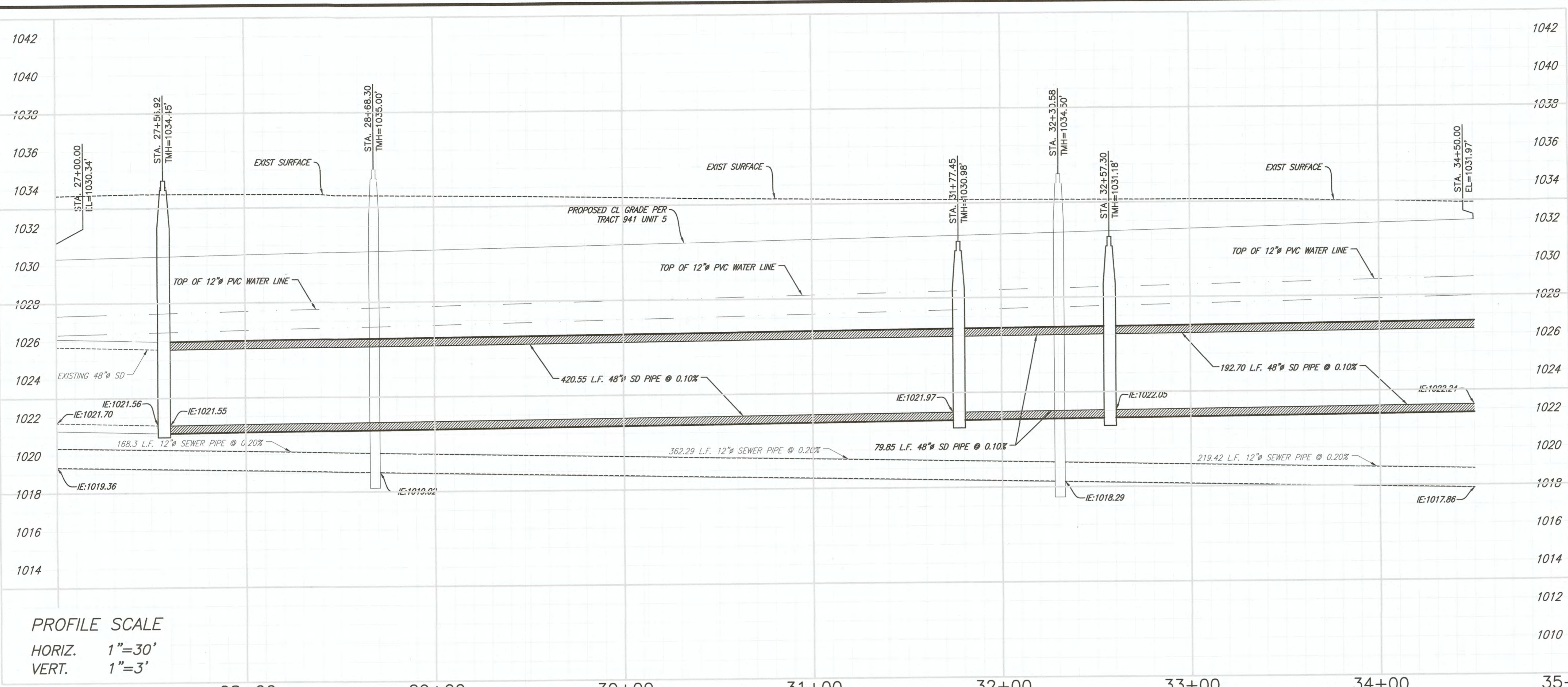


LOS ALAMOS ROAD - PLAN VIEW
 STA. 34+50 TO STA. 41+90



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<table border="1"> <thead> <tr> <th>REVISION</th> <th>DATE</th> <th>COMMENTS</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>4/26/2023</td> <td>PER COUNTY OF IMPERIAL PCK LETTER DATED 03/23/2023</td> </tr> <tr> <td>2</td> <td>6/6/2023</td> <td>PER COUNTY OF IMPERIAL EMAIL DATED 06/02/2023</td> </tr> <tr> <td>3</td> <td>6/9/2023</td> <td>PER COUNTY OF IMPERIAL EMAIL DATED 06/08/2023</td> </tr> <tr> <td>4</td> <td>6/21/2023</td> <td>PER COUNTY OF IMPERIAL EMAIL DATED 06/20/2023</td> </tr> </tbody> </table>	REVISION	DATE	COMMENTS	1	4/26/2023	PER COUNTY OF IMPERIAL PCK LETTER DATED 03/23/2023	2	6/6/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/02/2023	3	6/9/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/08/2023	4	6/21/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/20/2023	<p>SEAL REGISTERED PROFESSIONAL ENGINEER CARLOS CORRALES No. 55432 EXP. 12-31-24 CIVIL STATE OF CALIFORNIA</p>	<p>PREPARED UNDER THE DIRECT SUPERVISION OF: CARLOS CORRALES, P.E. DATE: 6/22/2023</p>	<p>SEAL REGISTERED PROFESSIONAL ENGINEER JOHN A. GAY C 62028 EXP. 08-30-23 CIVIL STATE OF CALIFORNIA</p>	<p>COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT APPROVED FOR CONSTRUCTION BY: JOHN A. GAY, P.E. DIRECTOR OF PUBLIC WORKS DATE: 6/28/23</p>	<p>COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT EL CENTRO, CALIFORNIA</p>	<p>DATE: 06/21/23 DRAWN: STAFF SCALE: N/A CHECKED: C.CORRALES</p>	<p>PROJECT TITLE MAGGIO ROAD AND ROAD ROAD DRAINAGE CONNECTION STORM DRAIN PIPELINE IMPROVEMENTS</p>	<p>PLAN & PROFILE LOS ALAMOS ROAD</p>
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<p>PROJECT NO. 7004GTW</p>		<p>SHEET OF 6 14</p>																					



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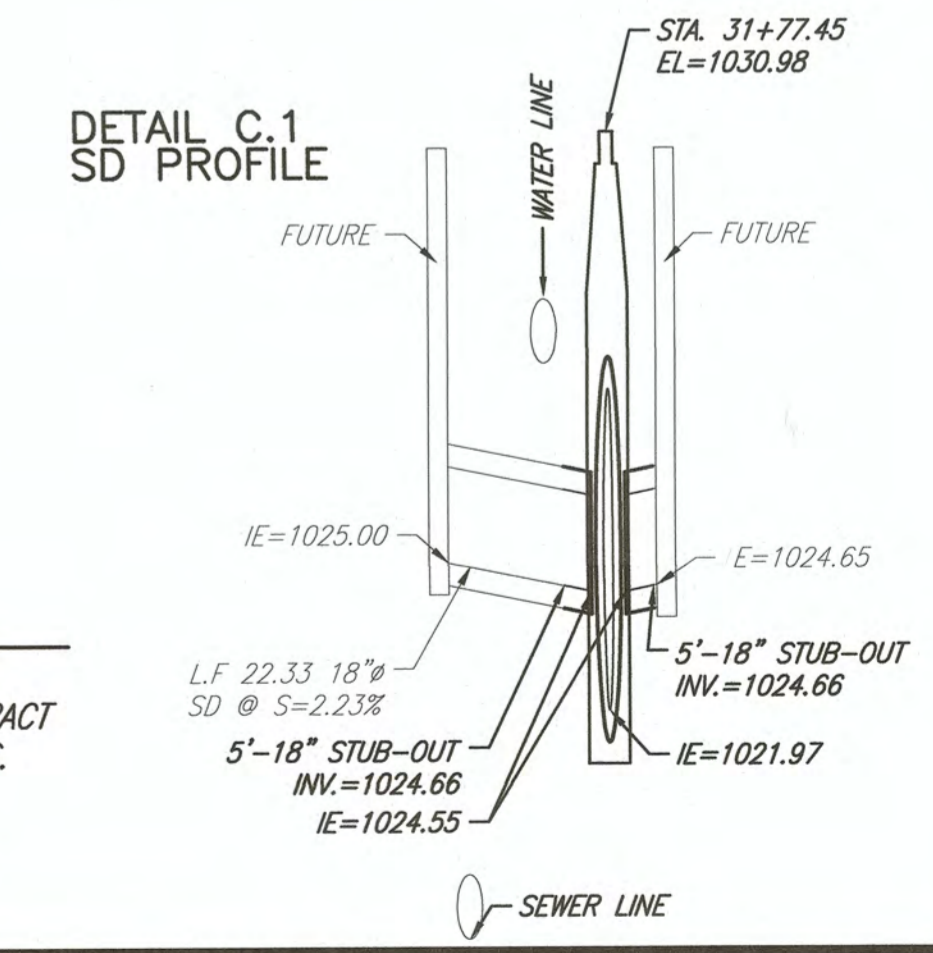
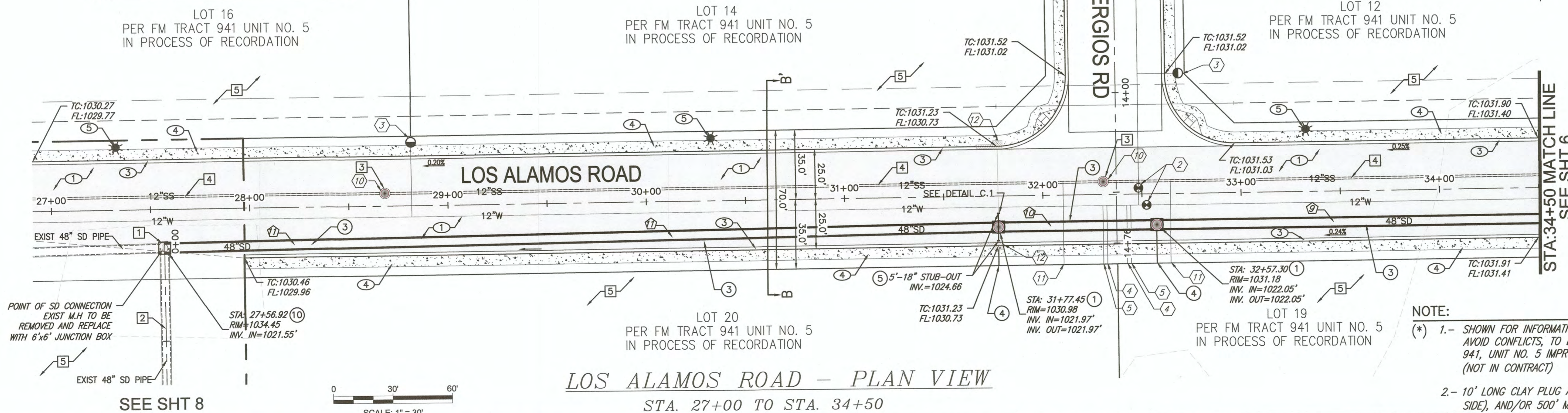
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1.	TC=TOP OF CURB ELEVATION	TC:1030.71
2.	FL=FLOW LINE ELEVATION	FL:1030.21
3.	FLOW LINE SLOPE	0.20%

STORM DRAIN DATA

NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
10	S 00°28'56" E		192.70'	48" SD
11	S 00°29'45" E		79.85'	48" SD
12	S 01°00'18" E		420.55'	48" SD

LOS ALAMOS ROAD - PROFILE VIEW
STA. 27+00 TO STA. 34+50



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LOS ALAMOS ROAD - PLAN VIEW
STA. 27+00 TO STA. 34+50

REVISION	DATE	COMMENTS
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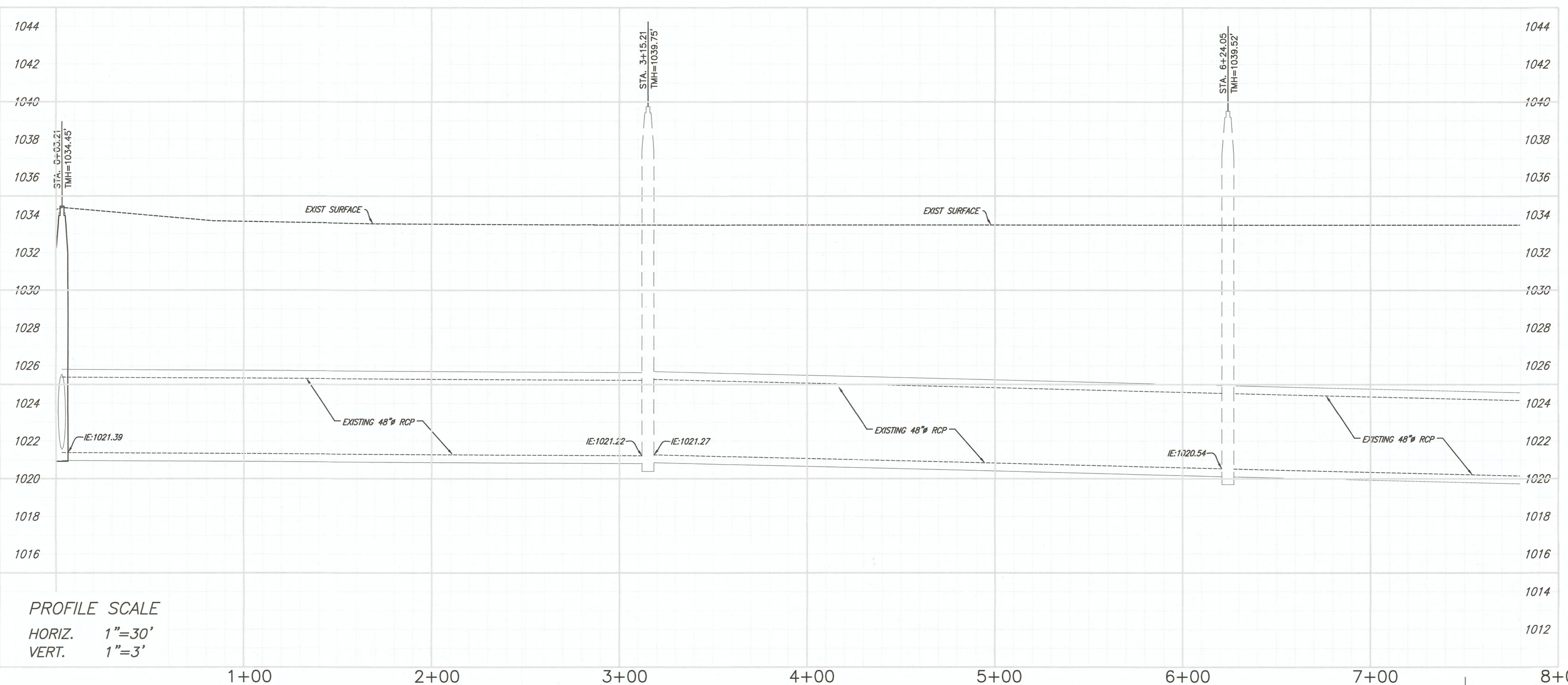
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R.C.E. No. 62028
REG. EXP. 9/30/23



DATE: 06/21/23
DRAWN: STAFF
SCALE: N/A
CHECKED: C. CORRALES

PROJECT TITLE
MAGGIO ROAD AND ROOD ROAD
DRAINAGE CONNECTION STORM
DRAIN PIPELINE IMPROVEMENTS

PLAN & PROFILE
LOS ALAMOS ROAD
PROJECT NO. 7004GTW
SHEET 7 OF 14



PROFILE SCALE
 HORIZ. 1"=30'
 VERT. 1"=3'

DIRT ROAD PROFILE VIEW
 STA. 0+00 TO STA. 8+00

(* FUTURE UTILITY CONSTRUCTION NOTES PER TRACT 941, UNIT No.5-IMPROVEMENTS PLANS")

- 1) INSTALL NEW 12-INCH AWWA C-900, CLASS 150 PVC WATER PIPELINE
- 2) INSTALL 12" WATER VALVE PER DETAIL
- 3) INSTALL NEW FIRE HYDRANT ASSEMBLY PER DETAIL
- 4) INSTALL 6" FIRE SERVICE CONNECTED TO A 12"x12"x6" TEE PER PER DETAIL
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- 9) CONNECT NEW 12" SEWER MAIN TO EXISTING SEWER
- 10) ADJUST EXIST. MANHOLE COVER TO MATCH NEW PAVEMENT PER DETAIL
- 11) INSTALL NEW 6-INCH SDR 35 SANITARY SEWER SERVICE PER DETAIL
- 12) INSTALL NEW CURB INLET CATCH BASIN PER DETAIL

(* FUTURE LEGEND & CONSTRUCTION NOTES PER TRACT 941, UNIT No.5-IMPROVEMENTS PLANS")

- 1) NEW 4" OF AC PAVEMENT OVER 18" OF CLASS 2 BASE
- 2) NEW 4.5" OF AC PAVEMENT OVER 26" OF CLASS 2 BASE
- 3) NEW 6" PCC CURB & GUTTER
- 4) NEW 4" PCC SIDEWALK
- 5) NEW STREET LIGHT

UTILITY STORM DRAIN CONSTRUCTION KEY NOTES:

- 1) INSTALL 6'x4' STORM DRAIN JUNCTION BOX PER DETAIL E.1 ON SHT 13.
- 2) INSTALL NEW 60" ADS-HDPE OR APPROVED EQUAL STORM WATER PIPELINE PER TRENCH DETAIL C.1 ON SHT 13.
- 3) INSTALL NEW 48" ADS-HDPE OR APPROVED EQUAL STORM WATER PIPELINE PER TRENCH DETAIL C.1 ON SHT 13.
- 4) INSTALL NEW 6" ADS-HDPE OR APPROVED EQUAL SD SERVICE PER VERTICAL CROSSING DETAIL B.1 ON SHT 13.
- 5) INSTALL 5' LONG SD PIPE STUB-OUT.
- 6) INSTALL NEW 18" ADS-HDPE OR APPROVED EQUAL STORM WATER PIPELINE PER TRENCH DETAIL C.1 ON SHT 13.
- 7) NEW STORM WATER PUMP STATION PER DETAIL D.1 ON SHT 13 TO BE BUILT BY OTHERS UNDER A SEPARATE CONTRACT.
- 8) INSTALL 8'x8' STORM DRAIN JUNCTION BOX PER DETAIL E.1 ON SHT 13.
- 9) INSTALL NEW 48" SD MANHOLE PER DETAIL A.1 ON SHEET 13.
- 10) INSTALL 6'x6' STORM DRAIN JUNCTION BOX PER DETAIL E.1 ON SHT 13.

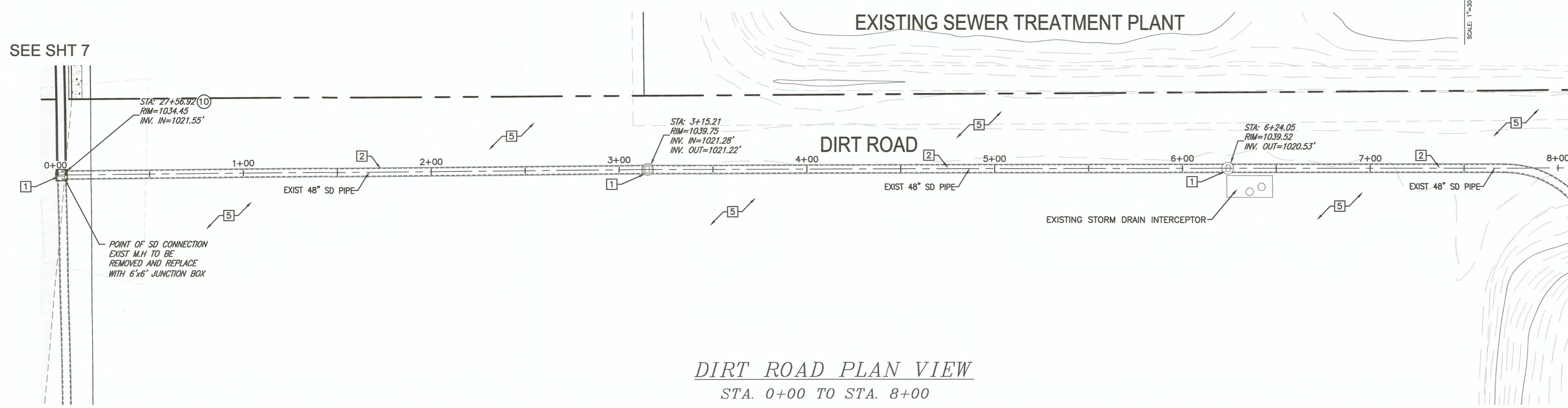
EXISTING KEY NOTES

- 1) EXISTING STORM DRAIN MANHOLE
- 2) EXISTING STORM DRAIN PIPE
- 3) EXISTING SEWER MANHOLE
- 4) EXISTING SEWER PIPELINE
- 5) EXISTING SURFACE

(* SYMBOLS

ITEM NO.	ITEM	SYMBOL
1.	TC=TOP OF CURB ELEVATION	TC:1030.71
2.	FL=FLOW LINE ELEVATION	FL:1030.21
3.	FLOW LINE SLOPE	0.20%

- NOTE:
- 1.- SHOWN FOR INFORMATION PURPOSES ONLY AND TO AVOID CONFLICTS, TO BE BUILT SEPARATELY PER TRACT 941, UNIT NO. 5 IMPROVEMENTS PLANS, BY OTHERS. (NOT IN CONTRACT)
 - 2.- 10' LONG CLAY PLUG AT EACH STRUCTURE (EACH SIDE), AND/OR 500' MINIMUM SPACING.



DIRT ROAD PLAN VIEW
 STA. 0+00 TO STA. 8+00

REVISION	DATE	COMMENTS
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SEAL REGISTERED PROFESSIONAL ENGINEER CARLOS CORRALES No. 55432 EXP. 12-31-24 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECT SUPERVISION OF: CARLOS CORRALES, P.E. DATE: 6/22/2023

55432 R.C.E. No. 12/31/24 REG. EXP.

SEAL REGISTERED PROFESSIONAL ENGINEER JOHN A. GAY No. C 62028 EXP. 08-30-23 CIVIL STATE OF CALIFORNIA

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT APPROVED FOR CONSTRUCTION BY: JOHN A. GAY, P.E. DIRECTOR OF PUBLIC WORKS DATE: 6/20/23

62028 R.C.E. No. 9/30/23 REG. EXP.

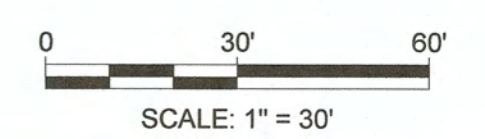
COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT EL CENTRO, CALIFORNIA

DATE: 06/21/23
 DRAWN: STAFF
 SCALE: N/A
 CHECKED: C.CORRALES

PROJECT TITLE: MAGGIO ROAD AND ROAD ROAD DRAINAGE CONNECTION STORM DRAIN PIPELINE IMPROVEMENTS

PLAN & PROFILE DIRT ROAD

PROJECT NO. 7004GTW SHEET 8 OF 14



(*) FUTURE UTILITY CONSTRUCTION NOTES PER "TRACT 941, UNIT No.5-IMPROVEMENTS PLANS"

- 1) INSTALL NEW 12-INCH AWWA C-900, CLASS 150 PVC WATER PIPELINE
- 2) INSTALL 12" WATER VALVE PER DETAIL
- 3) INSTALL NEW FIRE HYDRANT ASSEMBLY PER DETAIL
- 4) INSTALL 6" FIRE SERVICE CONNECTED TO A 12"x12"x6" TEE PER PER DETAIL
- 5) INSTALL 2" WATER SERVICE PER PER DETAIL
- 6) CONNECT TO EXISTING WATER MAIN
- 7) INSTALL NEW 12-INCH SDR 35 SANITARY SEWER PIPE LINE
- 8) INSTALL NEW 48-INCH DIA. SANITARY SEWER MANHOLE PER DETAIL
- 9) CONNECT NEW 12" SEWER MAIN TO EXISTING SEWER
- 10) ADJUST EXIST. MANHOLE COVER TO MATCH NEW PAVEMENT PER DETAIL
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EXISTING KEY NOTES

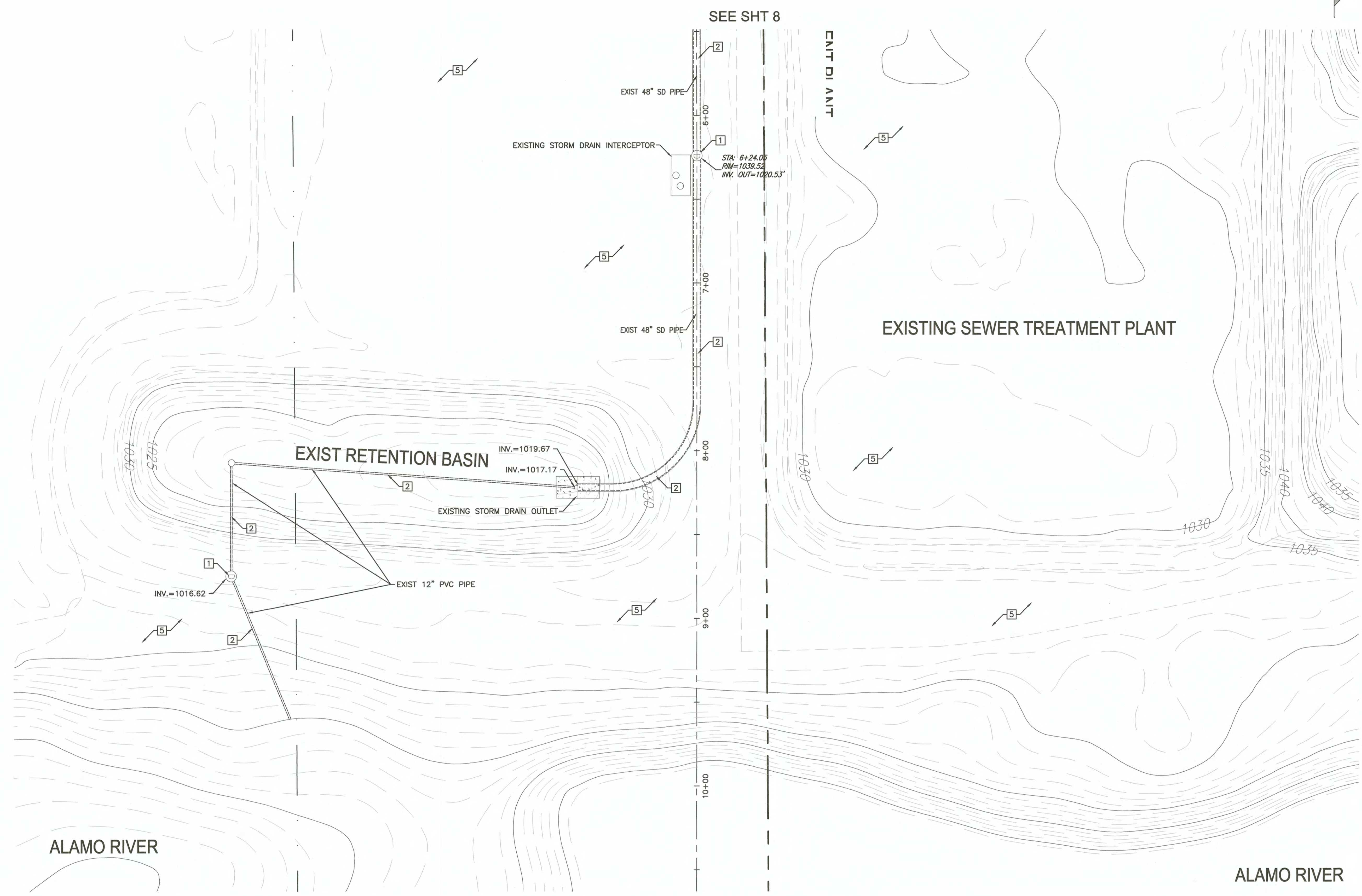
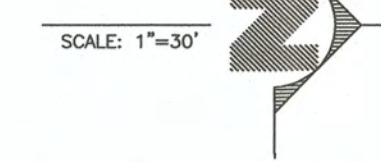
- 1) EXISTING STORM DRAIN MANHOLE
- 2) EXISTING STORM DRAIN PIPE
- 3) EXISTING SEWER MANHOLE
- 4) EXISTING SEWER PIPELINE
- 5) EXISTING SURFACE

(*) SYMBOLS

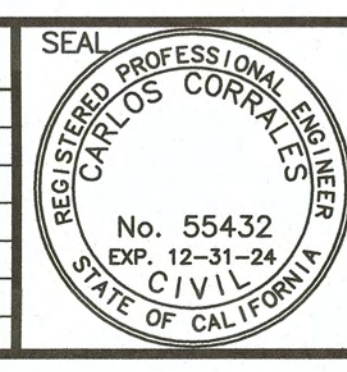
ITEM NO.	ITEM	SYMBOL
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2.	FL=FLOW LINE ELEVATION	FL:1030.21
3.	FLOW LINE SLOPE	0.20%

NOTE:

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PREPARED UNDER THE DIRECT SUPERVISION OF:

Carlos Corrales
CARLOS CORRALES, P.E.
DATE: 6/22/2023

55432
R.C.E. No.
12/31/24
REG. EXP.



COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:

John A. Gay
JOHN A. GAY, P.E.
DIRECTOR OF PUBLIC WORKS
DATE: 6/28/23

62028
R.C.E. No.
9/30/23
REG. EXP.

COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

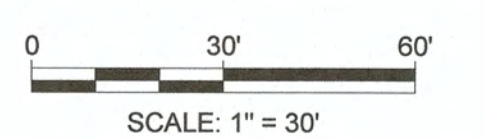
DATE: 06/21/23
DRAWN: STAFF
SCALE: N/A
CHECKED: C.CORRALES

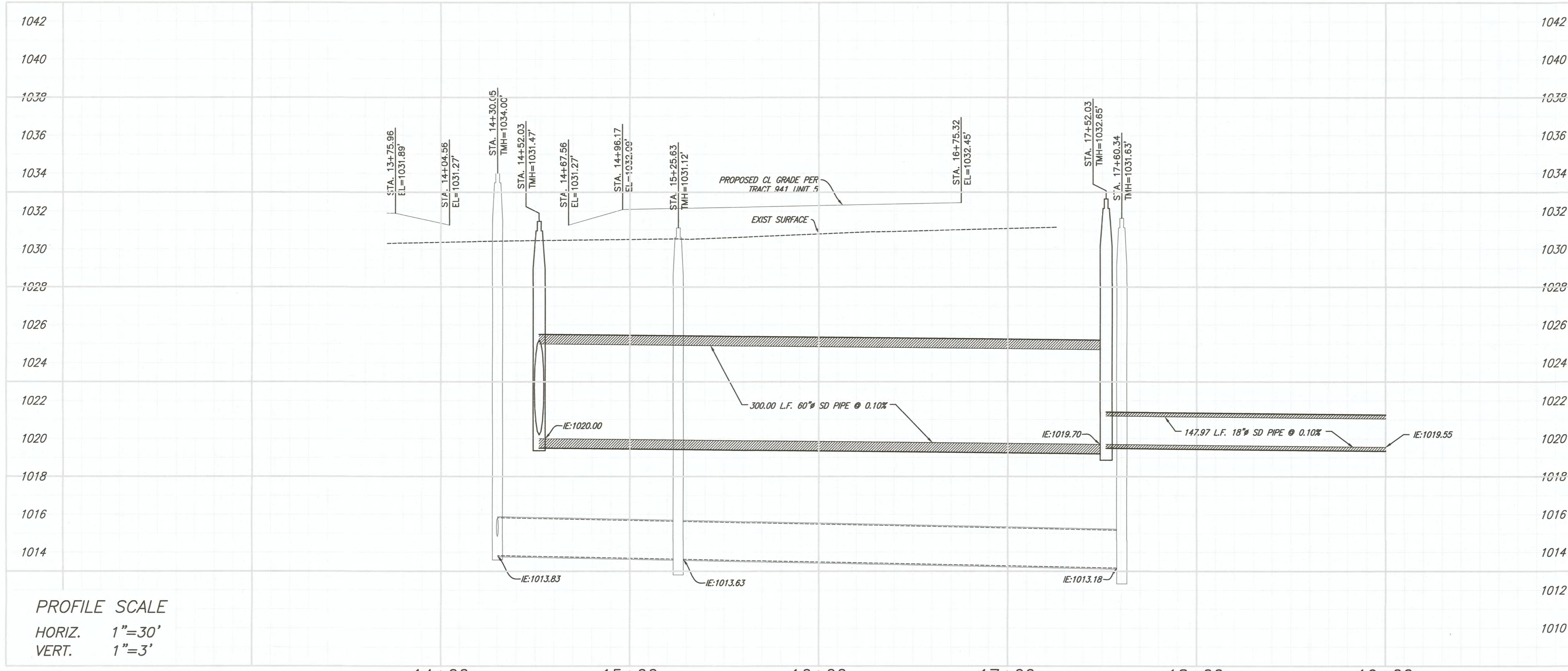
PROJECT TITLE
MAGGIO ROAD AND ROAD ROAD
DRAINAGE CONNECTION STORM
DRAIN PIPELINE IMPROVEMENTS

PLAN VIEW

PROJECT NO.
7004GTW

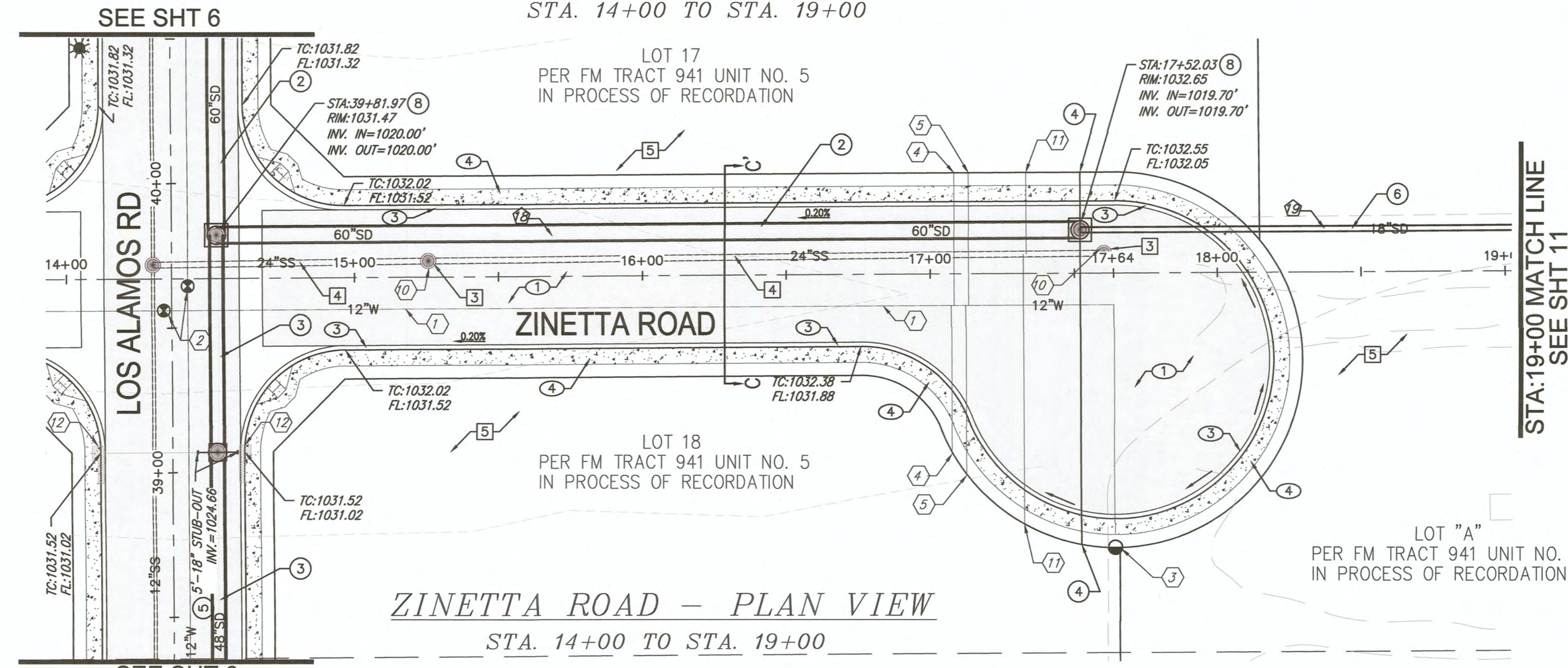
SHEET 9 OF 14





PROFILE SCALE
 HORIZ. 1"=30'
 VERT. 1"=3'

14+00 15+00 16+00 17+00 18+00 19+00
ZINETTA ROAD - PROFILE VIEW
 STA. 14+00 TO STA. 19+00



ZINETTA ROAD - PLAN VIEW
 STA. 14+00 TO STA. 19+00

- (*) FUTURE UTILITY CONSTRUCTION NOTES PER "TRACT 941, UNIT No.5-IMPROVEMENTS PLANS"
- ① INSTALL NEW 12-INCH AWWA C-900, CLASS 150 PVC WATER PIPELINE
 - ② INSTALL 12" WATER VALVE PER DETAIL
 - ③ INSTALL NEW FIRE HYDRANT ASSEMBLY PER DETAIL
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 - ⑥ CONNECT TO EXISTING WATER MAIN
 - ⑦ INSTALL NEW 12-INCH SDR 35 SANITARY SEWER PIPE LINE
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- EXISTING KEY NOTES**
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 - ② EXISTING STORM DRAIN PIPE
 - ③ EXISTING SEWER MANHOLE
 - ④ EXISTING SEWER PIPELINE
 - ⑤ EXISTING SURFACE

(*) SYMBOLS

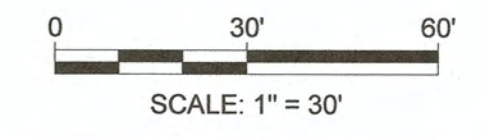
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NOTE:

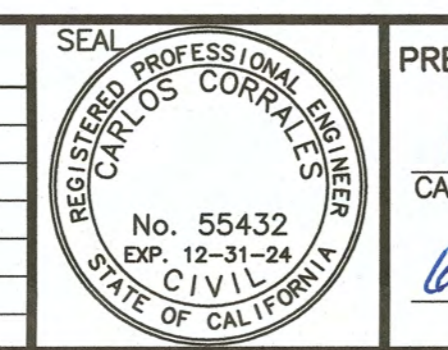
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2.- 10' LONG CLAY PLUG AT EACH STRUCTURE (EACH SIDE), AND/OR 500' MINIMUM SPACING.

STORM DRAIN DATA			
NO.	DELTA OR BRG.	RADIUS	LENGTH
18	N 89°37'38" E		300.00'
19	N 89°37'38" E		147.97'
20			



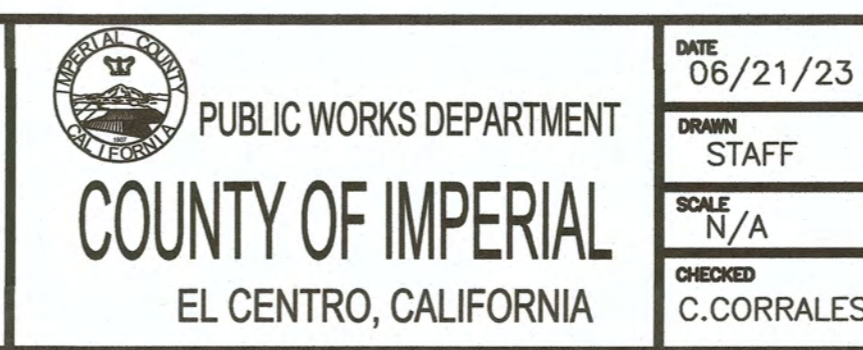
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PREPARED UNDER THE DIRECT SUPERVISION OF:
 CARLOS CORRALES, P.E.
 DATE: 6/22/2023
 R.C.E. No. 55432
 REG. EXP. 12/31/24

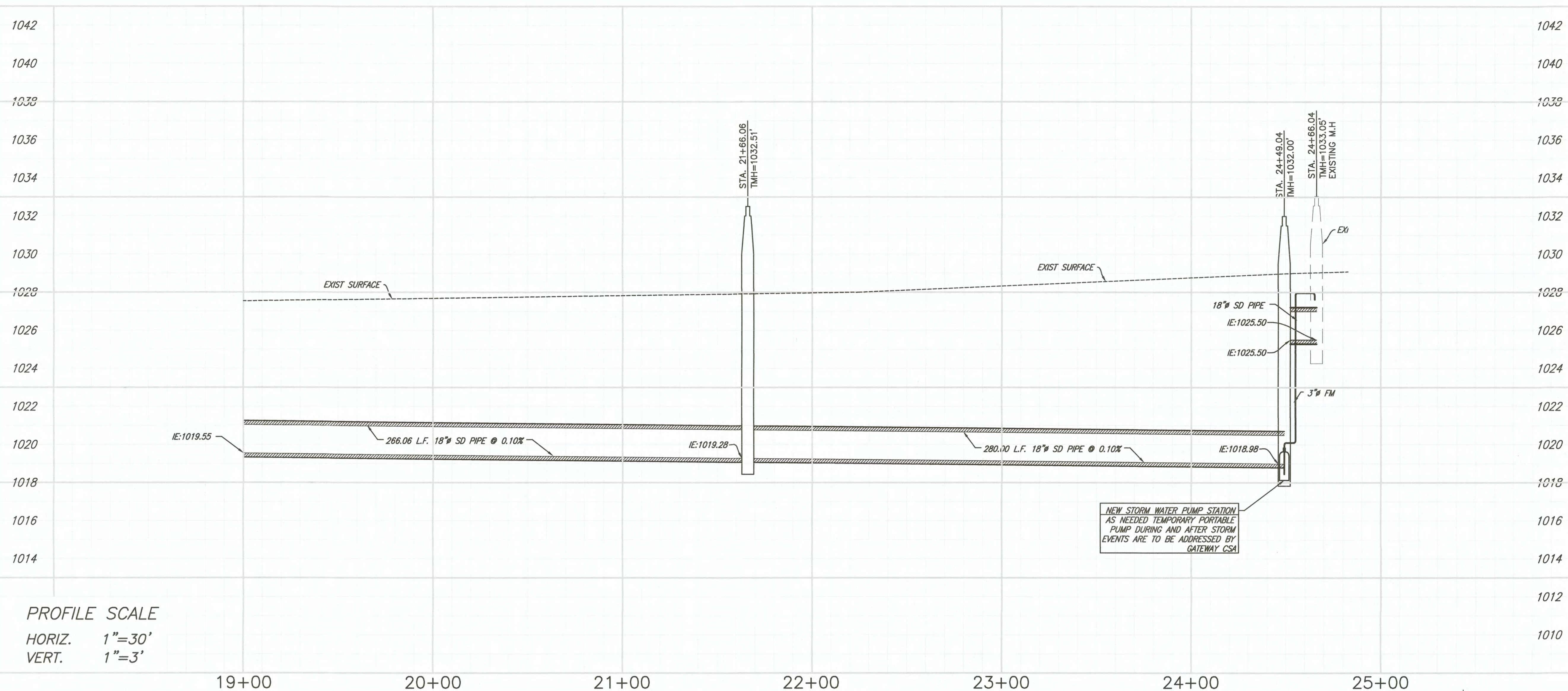


COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:
 JOHN A. GAY, P.E.
 DIRECTOR OF PUBLIC WORKS
 DATE: 6/28/23
 R.C.E. No. 62028
 REG. EXP. 9/30/23



DATE: 06/21/23
 DRAWN: STAFF
 SCALE: N/A
 CHECKED: C. CORRALES
 PROJECT TITLE: MAGGIO ROAD AND ROAD ROAD DRAINAGE CONNECTION STORM DRAIN PIPELINE IMPROVEMENTS

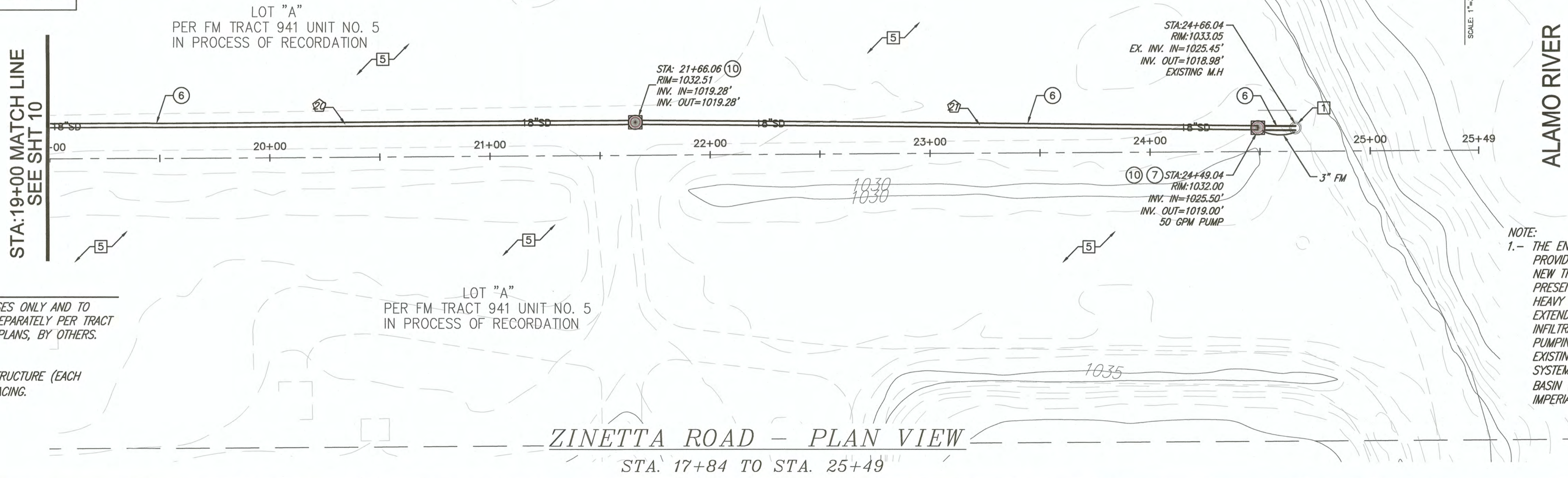
PLAN & PROFILE ZINETTA ROAD
 PROJECT NO. 7004GTW
 SHEET 10 OF 14



PROFILE SCALE
 HORIZ. 1"=30'
 VERT. 1"=3'

STORM DRAIN DATA				
NO.	DELTA OR BRG.	RADIUS	LENGTH	REMARKS
1	N 89°37'38" E		266.06'	18" #
2	S 89°31'37" E		300.01'	18" #

ZINETTA ROAD - PROFILE VIEW
 STA. 17+84 TO STA. 25+49



ZINETTA ROAD - PLAN VIEW
 STA. 17+84 TO STA. 25+49

- (*) FUTURE UTILITY CONSTRUCTION NOTES PER "TRACT 941, UNIT No.5-IMPROVEMENTS PLANS"
- INSTALL NEW 12-INCH AWWA C-900, CLASS 150 PVC WATER PIPELINE
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 - INSTALL NEW 8"x8" INDIAN WELLS JUNCTION BOX PER DETAIL F.1 ON SHEET 13

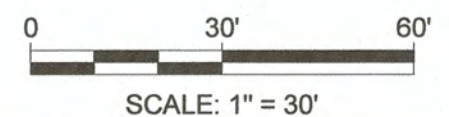
- EXISTING KEY NOTES
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 - EXISTING STORM DRAIN PIPE
 - EXISTING SEWER MANHOLE
 - EXISTING SEWER PIPELINE
 - EXISTING SURFACE

(*) SYMBOLS

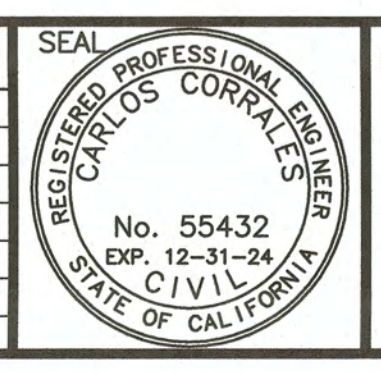
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 - 10' LONG CLAY PLUG AT EACH STRUCTURE (EACH SIDE), AND/OR 500' MINIMUM SPACING.

NOTE:
 1.- THE ENGINEERING DESIGN PRESENTED ON THESE PLANS ARE A TEMPORARY MEASURE TO PROVIDE MEANS OF CONNECTION TO AN EXISTING STORM DRAIN SYSTEM TO WHICH THE NEW TRACT 941 UNITS 5 AND 6 WILL CONNECT TO THE NEW STORM DRAIN SYSTEM PRESENTED ON THESE PLANS WILL ALSO PROVIDE STORM WATER STORAGE DURING THE HEAVY STORM EVENTS, AND THIS NEW EXTENSION ALIGNMENT OF THE NEW SYSTEM WILL EXTEND ALONG ZINETTA ROAD TO PROVIDE A NEW TEMPORARY DISCHARGE POINT VIA INFILTRATION INTO THE SOIL, AND A SUMP POINT AT THE END OF THE SYSTEM TO ALLOW PUMPING ON THE STORM WATER DURING THE HEAVY EXTRAORDINARY EVENT TO THE EXISTING STAND UP OUTFALL DISCHARGE STRUCTURE AT THE END OF ZINETTA ROAD. THE SYSTEM PRESENTED HEREIN WILL BE CONSIDERED TEMPORARY UNTIL A NEW DETENTION BASIN (PART OF THE REGIONAL DETENTION SYSTEM) IS PROVIDED BY THE COUNTY OF IMPERIAL TO CONNECT THIS SYSTEM TO DISCHARGE INTO.



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PREPARED UNDER THE DIRECT SUPERVISION OF:
 CARLOS CORRALES, P.E.
 DATE: 6/22/2023
 R.C.E. No. 55432
 REG. EXP. 12/31/24



COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:
 JOHN A. GAY, P.E.
 DIRECTOR OF PUBLIC WORKS
 DATE: 6/28/23
 R.C.E. No. 62028
 REG. EXP. 9/30/23

PUBLIC WORKS DEPARTMENT
 COUNTY OF IMPERIAL
 EL CENTRO, CALIFORNIA
 DATE: 06/21/23
 DRAWN: STAFF
 SCALE: N/A
 CHECKED: C. CORRALES

PROJECT TITLE
 MAGGIO ROAD AND ROOD ROAD
 DRAINAGE CONNECTION STORM
 DRAIN PIPELINE IMPROVEMENTS
 PROJECT NO. 7004GTW
 SHEET 11 OF 14

PLAN & PROFILE
 ZINETTA RD & DIRT RD
 PROJECT NO. 7004GTW
 SHEET 11 OF 14

1. GENERAL REQUIREMENTS FOR MATERIALS AND CONSTRUCTION

1.01 STANDARD SPECIFICATIONS – WHEN IN THIS SECTION 1 OF THESE SPECIAL PROVISIONS THE TERM STANDARD SPECIFICATIONS IS USED, IT SHALL BE INTERPRETED TO MEAN THOSE STANDARD SPECIFICATION 2018 EDITION ISSUED BY THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS), AVAILABLE FROM THE PUBLIC DISTRIBUTION UNIT OF SAID AGENCY, 1900 ROYAL OAKS DRIVE, SACRAMENTO, CA 95819, TELEPHONE (916) 445-3520.

1.02 WORK TO BE DONE – ALL THE IMPROVEMENTS SHOWN OR CALLED FOR IN THESE DRAWINGS SHALL BE CONSTRUCTED BY CONTRACTOR COMPLETE IN EVERY RESPECT AND READY FOR USE. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SUPPLIES, SERVICES, SUPERVISION AND INCIDENTALS THERETO REQUIRED FOR SAID COMPLETION. WHERE THE PLANS, SPECIFICATIONS OR DETAILS DO NOT PROVIDE ALL OF THE INFORMATION REQUIRED TO COMPLETE THE WORK, THE CONTRACTOR SHALL, NEVERTHELESS, WITHOUT ADDITIONAL COMPENSATION AND SUBJECT TO THE ENGINEER'S APPROVAL, PROVIDE THAT LABOR, MATERIAL AND EQUIPMENT REQUIRED TO COMPLETE THE WORK ACCORDING TO GENERALLY ACCEPTED STANDARDS OF THE TRADE INVOLVED.

1.03 SUBMITTALS AND MIX DESIGNS – CONTRACTOR SHALL SUBMIT TO THE ENGINEER NO LESS THAN 10 DAYS PRIOR TO ORDERING HIS MATERIALS OR EQUIPMENT, 3 SETS OF DESCRIPTIONS OF ALL PRODUCTS THAT HE PROPOSES TO INCORPORATE INTO THE PROJECT. SAID DESCRIPTIONS SHALL INCLUDE SUFFICIENT INFORMATION TO SHOW THAT EACH PRODUCT COMPLIES WITH EVERY PROVISION OF THESE CONTRACT DOCUMENTS WHICH IS APPLICABLE THERETO. SHOULD THERE BE ANY DEFICIENCY WHATSOEVER, THE CONTRACTOR SHALL POINT THAT DEFICIENCY OUT IN HIS LETTER OF TRANSMITTAL REQUIRED FOR EACH PRODUCT. SAID LETTER SHALL OTHERWISE INDICATE THAT THE CONTRACTOR HAS REVIEWED THE PRODUCT INFORMATION AND THAT THE PRODUCT PROPOSED CONFORMS FULLY WITH THE CONTRACT DOCUMENTS. PRODUCT INFORMATION INCLUDES, BUT IS NOT LIMITED TO: MANUFACTURER'S SPECIFICATIONS FOR PRODUCT; PRODUCT TESTING RESULTS FROM AN INDEPENDENT TESTING FIRM; SHOP DRAWINGS, DIAGRAMS AND DETAILS; OR, A MIX DESIGN BY A REGISTERED CIVIL ENGINEER. THE ENGINEER WILL DETERMINE THOSE ITEMS FOR WHICH SUBMITTALS WILL BE REQUIRED. SUBMITTALS WILL AT LEAST BE REQUIRED FOR THE FOLLOWING:

- A. AGGREGATE BASE (TEST RESULTS);
- B. PORTLAND CEMENT CONCRETE (MIX DESIGNS);
- C. ASPHALT CONCRETE (MIX DESIGN);
- D. PAINT FOR PAVEMENT STRIPES & MARKINGS (SPECIFICATIONS);
- E. WATER AND STORM DRAIN PIPE (SPECIFICATIONS);
- F. PIPELINE FITTINGS, VALVES AND HYDRANTS (SPECIFICATIONS);
- G. GRANULAR BEDDING AND PIPE ZONE BACKFILL (TEST RESULTS);
- H. MANHOLE SECTIONS, FRAMES AND COVERS (SPECIFICATIONS);
- I. WATER SERVICE FITTINGS AND VALVES (SPECIFICATIONS);
- J. COATING SYSTEMS (SPECIFICATIONS);

1.04 INSPECTION, TESTING AND QUALITY CONTROL – THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL MATERIALS AND WORKMANSHIP INCORPORATED INTO THE PROJECT MEET OR EXCEED THE REQUIREMENTS OF THESE DRAWINGS. HE SHALL PROVIDE ALL INSPECTIONS AND PERFORM ALL TESTING REQUIRED FOR THAT ASSURANCE IN ACCORDANCE WITH SECTION 6-3.02 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE, ARRANGE AND PAY FOR ALL TESTING SPECIFICALLY CALLED FOR IN THESE DRAWINGS. MATERIAL OR WORKMANSHIP FOUND NOT IN CONFORMANCE WITH THESE DRAWINGS SHALL BE REMOVED FROM PROJECT. NO MATERIAL OF WORKMANSHIP SHALL BE COVERED OR OTHERWISE CONCEALED UNTIL SUCH HAS BEEN INSPECTED AND APPROVED BY THE ENGINEER.

1.05 EARTH IMPORT, BARRROW AND DISPOSAL – ALL EARTH REQUIRED TO COMPLETE THE WORK CALLED FOR IN THESE DRAWINGS SHALL BE OBTAINED FROM THE SITE OF WORK. ALL SURPLUS EARTH GENERATED BY SAID WORK SHALL BE DISPOSED OF ON THE SITE OF WORK OUTSIDE OF BUT CONTIGUOUS TO THE CONSTRUCTED IMPROVEMENT AS DIRECTED BY THE ENGINEER. AS BEST HE CAN, THE CONTRACTOR SHALL KEEP SURPLUS EARTH CLOSE TO THAT LOCATION WHERE WAS EXCAVATED. ALSO, CONTRACTOR SHALL BARRROW EARTH CLOSE TO THAT LOCATION WHERE IT IS REQUIRED. IN NO CASE SHALL SURPLUS EARTH OR BARRROWED EARTH BE TRANSPORTED ACROSS HIGHWAY SR-7, MAGGIO ROAD OR MENMELLE ROAD. SURPLUS EARTH EXCAVATED FROM THE PROJECT SITE SHALL BE PLACED IN NEAT, ORDERLY MOUNDINGS APPROXIMATELY 10 FEET WIDE AND 3 FEET HIGH, ADJACENT TO BUT OUTSIDE OF THE ROADWAY EXCAVATION OR EMBANKMENT.

1.06 CONFLICTS – WHERE IN THESE DRAWINGS CONFLICTS OCCUR BETWEEN REQUIREMENTS AND PROVISIONS APPLICABLE TO QUALITY OF MATERIALS OR WORKMANSHIP, THE MOST STRINGENT REQUIREMENT OR PROVISION SHALL GOVERN. WHERE STRINGENCY IS NOT INVOLVED, THEN THE ORDER OF PRECEDENCE SHALL BE AS FOLLOWS, WITH THAT DOCUMENT LISTED FIRST BEING OF THE HIGHEST PRIORITY.

- A. IMPERIAL COUNTY CODES AND REGULATIONS
- B. MANUFACTURER'S WRITTEN RECOMMENDATIONS
- C. SPECIAL PROVISIONS
- D. PLANS AND TYPICAL DETAILS
- E. REFERENCED STANDARD SPECIFICATIONS

1.07 OR EQUAL PRODUCTS – WHERE IN THESE DRAWINGS CERTAIN MANUFACTURERS ARE CALLED OUT ALONG WITH A PRODUCT OR MODEL NUMBER, THE CONTRACTOR SHALL HAVE THE OPTION OF USING THE PRODUCTS OF ANOTHER MANUFACTURER PROVIDED THE ENGINEER DETERMINES THAT THE PROPOSED OTHER PRODUCT IS EQUAL TO OR BETTER THAN THAT OF THE MANUFACTURER CALLED OUT AND CONFORMS FULLY TO THESE CONTRACT DOCUMENTS. THE DETERMINATION OF THE ENGINEER IS FINAL; THEREFORE, IF THE CONTRACTOR WANTS TO INCLUDE IN HIS BID PRICES THE LOWER PRICE OF ANOTHER PRODUCT, HE IS ADVISED TO OBTAIN APPROVAL OF THE OTHER PRODUCT PRIOR TO SUBMITTING HIS BID. THE CONTRACTOR SHALL ALLOW NO LESS THAN TEN (10) CALENDAR DAYS FOR ENGINEER TO MAKE HIS DETERMINATION BASED ON THE CONTRACTOR'S SUBMITTAL OF FULL DETAILS ABOUT THE PRODUCT. DETAILS INSUFFICIENT TO SHOW CONFORMANCE TO THESE CONTRACT DOCUMENTS AND EQUIVALENCY MAY BE CAUSE FOR ENGINEER'S DISAPPROVAL.

1.08 PRODUCT UNIFORMITY – PRODUCTS INCORPORATED INTO THE WORK AND IMPROVEMENTS CALLED FOR IN THESE DRAWINGS SHALL BE THOSE THAT ARE THE MANUFACTURER'S CURRENT LINE OF PRODUCTS. ALL SIZES OF EACH OF THE FOLLOWING PRODUCTS SHALL BE OF THE SAME MANUFACTURER THROUGHOUT THE PROJECT:

- A. MANHOLE FRAMES AND COVERS (SEWER AND STORM DRAIN);
- B. WATER PIPE (C-900 AND C-905 POLYVINYL CHLORIDE);
- C. WATER PIPE GATE VALVES;
- D. WATER PIPE BUTTERFLY VALVES;
- E. FIRE HYDRANTS;
- F. WATER SERVICE SADDLES;
- G. WATER SERVICE VALVES AND CORPORATION STOPS;
- H. WATER PIPE AIR RELEASE DEVICES;

1.09 AS-BUILT RECORDS AND DRAWINGS – THE CONTRACTOR SHALL, AS A CONDITION TO ACHIEVING SUBSTANTIAL COMPLETION OF THE PROJECT, PROVIDE NO LESS THAN ONE (1) COMPLETE SETS OF AS-BUILT DRAWING PRINTS. AS-BUILT DRAWINGS SHALL INCLUDE NO LESS THAN A RECORD OF THE EXACT LOCATION OF ALL WATER AND SEWER SERVICES AND THE ENDS OF ALL PIPE PROVIDED FOR FUTURE CONNECTIONS.

1.10 SITE SAFETY AND TRAFFIC CONTROL – THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE SAFETY OF ALL PERSONS, INCLUDING EMPLOYEES, PROPERTY OCCUPYING OR TRAVERSING HIS AREAS OF WORK, DAY AND NIGHT, DURING BOTH WORKING AND NON-WORKING HOURS; AND, SHALL PROVIDE ALL BARRICADES, SHORING, DEMATERING, SIGNS, LIGHTING AND OTHER DEVICES REQUIRED THEREFORE IN ACCORDANCE TO CAL OSHA, SECTION 1504, 1539-1543 AND OTHER SECTIONS AS REQUIRED BY THE ENGINEER. THE CONTRACTOR SHALL ALSO PROVIDE A PLAN FOR, AND FURNISH AND INSTALL THE SIGNS, FLAGMEN, LIGHTS AND OTHER DEVICES NECESSARY TO, CONTROL TRAFFIC THROUGH THE PROJECT WORK SITE, TO PROTECT HIS EMPLOYEES AND TO PROTECT VEHICULAR AND PEDESTRIAN TRAFFIC PASSING THROUGH OR NEAR HIS AREAS OF WORK. TRAFFIC CONTROL WITHIN TRAVELWAYS SHALL CONFORM TO THE "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES" AVAILABLE FROM CALTRANS, CENTRAL PUBLICATION DISTRIBUTION, 6002 FOLSOM BLVD., SACRAMENTO, CA 95819.

1.11 PERMITS – THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS REQUIRED FOR THE WORK TO CONSTRUCT THE IMPROVEMENTS CALLED FOR IN THESE CONTRACT DOCUMENTS AND SHALL DELIVER NO LESS THAN ONE (1) COPY OF EACH TO THE ENGINEER BEFORE COMMENCING ANY WORK GOVERNED BY THE PERMITS. HE SHALL ALSO ARRANGE AND PAY FOR ALL INSPECTIONS AND TESTING REQUIRED BY SAID PERMITS. PERMITS REQUIRED OF THE CONTRACTOR INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

- A. EXCAVATION PERMIT FROM THE STATE OF CALIFORNIA, DIVISION OF INDUSTRIAL SAFETY, FOR TRENCH EXCAVATIONS EXCEEDING 5 FOOT DEEP;

B. ENCROACHMENT PERMIT FROM THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION (CALTRANS), FOR WORKING WITHIN HIGHWAY RIGHTS-OF-WAY.

C. CONSTRUCTION ACTIVITY STORM WATER PERMIT FROM THE STATE OF CALIFORNIA, WATER RESOURCES CONTROL BOARD, TO CONTROL POLLUTION CAUSED BY WORK SITE DRAINAGE.

D. ENCROACHMENT PERMIT FROM THE IMPERIAL COUNTY DEPARTMENT OF PUBLIC WORKS, FOR WORKING WITHIN COUNTY ROAD RIGHTS-OF-WAY.

1.12 SOILS REPORT – IN ORDER TO PREPARE THESE DRAWINGS, LANDMARK CONSULTANTS, INC WAS RETAINED TO PERFORM A GEOTECHNICAL INVESTIGATION OVER THE PROJECT SITE AREA AND TO PREPARE A REPORT OF THEIR FINDINGS AND MAKE RECOMMENDATIONS RELATIVE THERETO. THE REPORT IS ENTITLED "PAVEMENT STRUCTURAL SECTION AND INFRASTRUCTURE DEVELOPMENT NEC ROOD ROAD AND CARR ROAD", LCI PROJECT NO. E22078 PREPARED FOR MATERIA FARMING COMPANY, LLC. BIDDERS AND THE CONTRACTOR MAY REVIEW THAT REPORT AT THE OFFICES OF THE IMPERIAL COUNTY, DEPARTMENT OF PUBLIC WORKS, 155 SOUTH 11TH STREET, EL CENTRO, CA 92243; OR, PURCHASE A COPY OF SAME FROM THE CONSULTANTS. THE REPORT CONTAINS INFORMATION THAT WILL BE USEFUL TO BIDDERS ESTIMATING THE COST OF CONSTRUCTING THE IMPROVEMENTS CALLED FOR IN THESE DRAWINGS; HOWEVER NEITHER THE COUNTY NOR THE ENGINEER WARRANTS OR GUARANTEES THE ACCURACY THEREOF. THE BIDDERS SHALL OBTAIN THEIR OWN GEOTECHNICAL ESTIMATES TO OBTAIN THAT INFORMATION ABOUT THE PROJECT SITE SOILS THAT IS CRUCIAL TO ESTIMATING THE COST OF THE WORK AND PREPARING THEIR BIDS.

1.13 CONSTRUCTION SURVEYING AND STAKING – THE CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION SURVEYING AND STAKING REQUIRED FOR COMPLETION OF THE WORK CALLED FOR IN THESE DRAWINGS. COPIES OF THE SURVEYOR'S NOTES AND CUT SHEETS SHALL BE PROVIDED TO THE ENGINEER. NO LESS THAN TWO BENCH MARKS SHALL BE REFERENCED FOR ALL SEGMENTS OF THE WORK. THE CENTERLINE OF ROADWAYS SHALL BE STAKED BEFORE COMMENCEMENT OF CONTRACTOR'S WORK. SAID CENTERLINES SHALL BE MAINTAINED DURING THE COURSE OF THE WORK.

2. ROADWAY AND DRAINAGE SYSTEMS SPECIFICATIONS

A. PLASTIC PIPE: 64--1 THRU 64--2. PLASTIC PIPE SHALL BE POLYPROPYLENE DUAL WALL PIPE WITH GASKETED, BELL AND SPIGOT JOINTS (PERMA-LOC OR AN APPROVED EQUAL, THIS PIPE MUST COMPLY WITH CURRENT COUNTY STANDARDS OF SCHEDULE 40 PVC THICKNESS SDR VALUES) PROVIDING THE SAME FLEXIBILITY AND WATERTIGHTNESS CALLED FOR IN SECTIONS 65-1.06 AND 65-1.08 FOR REINFORCED CONCRETE SIPHON AND PRESSURE PIPE.

B. REINFORCED CONCRETE PIPE: 65-1.01 THRU 65-1.10. ALL JOINTS SHALL BE RUBBER GASKETED AND ALL PIPE SHALL BE INSTALLED TO MEET THE FLEXIBILITY AND WATERTIGHTNESS REQUIREMENTS SET OUT FOR SIPHON AND PRESSURE PIPE.

C. MISCELLANEOUS FACILITIES: 51-1.01 THRU 51-1.23; 53-1.01 THRU 53-1.08; AND, 70-1.01 THRU 70-1.04, WITH THE FOLLOWING EXCEPTIONS. PAYMENT FOR ALL EARTHWORK, FORMWORK, CONCRETE, REINFORCING AND MISCELLANEOUS IRON AND STEEL REQUIRED TO CONSTRUCT INLETS, JUNCTION BOXES AND SIMILAR STRUCTURES, SHALL BE CONSIDERED INCLUDED IN THE PRICES PAID PER EACH SUCH STRUCTURE; AND, ALL CONCRETE INCORPORATED INTO SUCH STRUCTURES SHALL CONTAIN NO LESS THAN 6 SACKS OF TYPE V PORTLAND CEMENT PER CUBIC YARD, SHALL CONTAIN 4% (1% OF ENTRAINED AIR, SHALL REACH A 28 DAY COMPRESSIVE STRENGTH OF NO LESS THAN 4500 PSI AND SHALL HAVE A WATER CEMENT RATIO NOT EXCEEDING 0.45 BY WEIGHT.

D. PIPE BEDDING AND BACKFILL: GRANULAR MATERIAL FOR PIPE BEDDING AND PIPE ZONE BACKFILL TO NO LESS THAN 12 INCHES ABOVE TOP OF PIPE, SHALL CONSIST OF 3/4" MAXIMUM, CLASS 2 AGGREGATE BASE CONFORMING TO SECTION 26-1.02 OF THE STANDARD SPECIFICATIONS, COMPACTED TO A RELATIVE DENSITY OF NO LESS THAN 95% OF MAXIMUM. THE REQUIREMENT FOR A MINIMUM R-VALUE WILL BE WAIVED WHEN THE MATERIAL HAS A SAND EQUIVALENT OF NO LESS THAN 35.

E. COMPACTION TESTING: TESTING OF TRENCH BACKFILL FOR DENSITY SHALL BE NO LESS OFTEN THAN ONCE IN THE PIPE ZONE AND ONCE FOR EACH 12 INCHES OF DEPTH AT SPACINGS NOT TO EXCEED 150 FT. FAILING TESTINGS SHALL BE RETESTED AFTER RECOMPACTION. RETESTING SHALL INCLUDE TWO ADDITIONAL TESTS, ONE EACH LOCATED 50 FT. BOTH WAYS FROM THE FAILING TEST LOCATION UNTIL ALL TESTS SHOW CONFORMING DENSITIES.

3. GENERAL REQUIREMENTS FOR DRAINAGE IMPROVEMENTS

1. ALL DRAINAGE DESIGN AND REQUIREMENTS ARE RECOMMENDED TO BE IN ACCORDANCE WITH THE IMPERIAL IRRIGATION DISTRICT (IID) "DRAFT" HYDROLOGY MANUAL OR OTHER RECOGNIZED SOURCE WITH APPROVAL BY THE COUNTY ENGINEER AND BASED ON FULL DEVELOPMENT OF UPSTREAM TRIBUTARY BASINS. ANOTHER SOURCE IS THE CALTRANS I-D-F CURVES FOR THE IMPERIAL VALLEY.

2. PUBLIC DRAINAGE FACILITIES SHALL BE DESIGNED TO CARRY THE TEN-YEAR SIX-HOUR STORM UNDERGROUND, THE 25-YEAR STORM BETWEEN THE TOP OF CURBS PROVIDED TWO 12" MINIMUM WID DRY LANES EXIST AND THE 100-YEAR FREQUENCY STORM BETWEEN THE RIGHT OF WAY LINES WITH AT LEAST ONE 12" MINIMUM DRY LANE OPEN TO TRAFFIC. ALL CULVERTS SHALL BE DESIGNED TO ACCOMMODATE THE FLOW FROM A 100-YEAR FREQUENCY STORM.

3. PERMANENT DRAINAGE FACILITIES AND RIGHT OF WAY, INCLUDING ACCESS, SHALL BE PROVIDED FROM DEVELOPMENT TO POINT OF SATISFACTORY DISPOSAL.

4. RETENTION VOLUME ON RETENTION OR DETENTION BASINS SHOULD HAVE A TOTAL VOLUME CAPACITY FOR A THREE (3) INCH MINIMUM PRECIPITATION COVERING THE ENTIRE SITE WITH NO C REDUCTION FACTORS. VOLUME CAN BE CONSIDERED BY A COMBINATION OF BASIN SIZE AND VOLUME CONSIDERED WITHIN PARKING AND/OR LANDSCAPING AREAS. THERE IS NO GUARANTEE THAT A DETENTION BASIN OUTLETTING TO AN IID FACILITY OR OTHER STORM DRAIN SYSTEM WILL NOT BACK UP SHOULD THE FACILITY BE FULL AND UNABLE TO ACCEPT THE PROJECT RUNOFF. THIS PROVIDES THE SAFETY FACTOR FROM FLOODING BY ENSURING EACH DEVELOPMENT CAN HANDLE A MINIMUM 3-INCH PRECIPITATION OVER THE PROJECT SITE.

5. RETENTION BASINS SHOULD EMPTY WITHIN 72 HOURS AND NO SOONER THAN 24 HOURS IN ORDER TO PROVIDE MOSQUITO ABATEMENT. DRAINING, EVAPORATION OR INFILTRATION, OR ANY COMBINATION THEREOF CAN ACCOMPLISH THIS. IF THIS IS NOT POSSIBLE THEN THE OWNER SHOULD BE MADE AWARE OF A POTENTIAL NEED TO ADDRESS MOSQUITO ABATEMENT TO THE SATISFACTION OF THE ENVIRONMENTAL HEALTH SERVICES (EHS) DEPARTMENT. ADDITIONALLY, IF IT IS NOT POSSIBLE TO EMPTY THE BASIN WITHIN 72 HOURS, THE BASIN SHOULD BE DESIGNED FOR 5 INCHES, NOT 3 INCHES AS MENTIONED IN ITEM #4 ABOVE. THIS WOULD ALLOW FOR A SATURATION CONDITION OF THE SOIL DUE TO A 5" STORM TRACK. EHS MUST REVIEW AND APPROVE ALL RETENTION BASIN DESIGNS PRIOR TO COUNTY PUBLIC WORKS APPROVAL. NUISANCE WATER MUST NOT BE ALLOWED TO ACCUMULATE IN RETENTION BASINS. EHS MAY REQUIRE A NUISANCE WATER ABATEMENT PLAN IF THIS OCCURS.

6. THE MINIMUM FINISH FLOOR ELEVATION SHALL BE 12" ABOVE TOP OF FRONTING STREET CURB UNLESS PROPERTY IS BELOW STREET LEVEL AND/OR 6" ABOVE THE 100-YEAR FREQUENCY STORM EVENT OR STORM TRACK. A LOCAL ENGINEERING PRACTICE IS TO USE A 5" PRECIPITATION EVENT AS A STORM TRACK IN THE ABSENCE OF DETAILED FLOOD INFORMATION. THE 100-YEAR FREQUENCY STORM WOULD BE REQUIRED FOR DETENTION CALCULATIONS.

7. FINISH PAD ELEVATIONS SHOULD BE INDICATED ON THE PLANS, WHICH ARE AT OR ABOVE THE 100-YEAR FREQUENCY FLOOD ELEVATION IDENTIFIED BY THE ENGINEER FOR THE PARCEL. FINISH FLOOR ELEVATIONS SHOULD BE SET AT LEAST 6 INCHES ABOVE THE 100-YEAR FLOOD ELEVATION.

8. THE DEVELOPER SHALL SUBMIT A DRAINAGE STUDY AND SPECIFICATIONS FOR IMPROVEMENTS OF ALL DRAINAGE EASEMENTS, CULVERTS, DRAINAGE STRUCTURES, AND DRAINAGE CHANNELS TO THE DEPARTMENT OF PUBLIC WORKS FOR APPROVAL, UNLESS SPECIFICALLY WAIVED HEREIN. DRAINAGE PLANS AND SPECIFICATIONS SHALL PROVIDE A DRAINAGE SYSTEM CAPABLE OF HANDLING AND DISPOSING OF ALL SURFACE WATERS ORIGINATING WITHIN THE SUBDIVISION AND ALL SURFACE WATERS THAT MAY FLOW ONTO THE SUBDIVISION FROM ADJACENT LANDS. SAID DRAINAGE SYSTEM SHALL INCLUDE ANY EASEMENTS AND STRUCTURES REQUIRED BY THE DEPARTMENT OF PUBLIC WORKS OR THE AFFECTED UTILITY AGENCY TO PROPERLY HANDLE THE DRAINAGE ON-SITE AND OFF-SITE. THE REPORT SHOULD DETAIL ANY VEGETATION AND TRASH/DEBRIS REMOVAL AS WELL AS ADDRESS ANY STANDING WATER.

9. AN AIRTIGHT OR SCREENED OIL/WATER SEPARATOR OR EQUIVALENT IS REQUIRED PRIOR TO PERMITTING ONSITE LOT DRAINAGE FROM ENTERING ANY STREET RIGHT OF WAY OR PUBLIC STORM DRAIN SYSTEM FOR ALL INDUSTRIAL/COMMERCIAL OR MULTI RESIDENTIAL USES. A MAXIMUM 6" DRAIN LATERAL CAN BE USED TO TIE INTO EXISTING ADJACENT STREET CURB INLETS WITH SOME EXCEPTIONS. APPROVAL FROM THE DIRECTOR OF PUBLIC WORKS IS REQUIRED.

10. THE COUNTY IS IMPLEMENTING A STORM WATER QUALITY PROGRAM AS REQUIRED BY THE STATE WATER RESOURCES CONTROL BOARD, WHICH MAY MODIFY OR ADD TO THE REQUIREMENTS AND GUIDELINES PRESENTED ELSEWHERE IN THIS DOCUMENT. THIS CAN INCLUDE ONGOING MONITORING OF WATER QUALITY OF STORM DRAIN RUNOFF. IMPLEMENTATION OF BEST MANAGEMENT PRACTICES (BMPs) TO REDUCE STORM WATER QUALITY IMPACTS DOWNSTREAM OR ALONG ADJACENT PROPERTIES, ATTENTION IS DIRECTED TO THE NEED TO REDUCE ANY POTENTIAL OF VECTORS, MOSQUITOS OR STANDING WATER.

11. A DRAINAGE REPORT IS REQUIRED FOR ALL DEVELOPMENTS IN THE COUNTY. IT SHALL INCLUDE A PROJECT DESCRIPTION, PROJECT SETTING INCLUDING DISCUSSIONS OF EXISTING AND PROPOSED CONDITIONS, ANY DRAINAGE ISSUES RELATED TO THE SITE, SUMMARY OF THE FINDINGS OR CONCLUSIONS, OFFSITE HYDROLOGY, ONSITE HYDROLOGY, HYDRAULIC CALCULATIONS AND A HYDROLOGY MAP.

12. SPECIFIC TO SMALL PARCEL MAP DEVELOPMENTS:

- A. FOR INDIVIDUAL LOTS, SUFFICIENT STORAGE VOLUME MUST BE AVAILABLE ON A PORTION OF THE PROPOSED PARCEL TO ACCOMMODATE A THREE (3) INCH PRECIPITATION MINIMUM COVERING THE ENTIRE AREA. THE RESULTING STORAGE VOLUME SHOULD BE ACCOMMODATED IN A SINGLE RETENTION BASIN. HOWEVER, THIS OFFICE WILL CONSIDER A COMBINATION OF RETENTION BASINS AND ON-LOT STORAGE.
- B. REMAINING PORTIONS OF THE PARCEL OR AGRICULTURAL PARCELS THAT ARE NOT BEING DEVELOPED SHOULD ALSO PROVIDE FOR ONSITE RETENTION OR ASSURANCES THAT THE RESULTING STORM RUNOFF DOES NOT IMPACT ADJACENT PARCELS.
- C. FINISH PAD ELEVATIONS SHOULD BE INDICATED ON THE PLANS, WHICH ARE AT OR ABOVE THE 100-YEAR FREQUENCY FLOOD ELEVATION IDENTIFIED BY THE ENGINEER FOR THE PARCEL. FINISH FLOOR ELEVATIONS SHOULD BE SET AT LEAST 6 INCHES ABOVE THE 100-YEAR FLOOD ELEVATION.
- D. ONSITE DRIVEWAYS SHOULD BE DESIGNED AND CONSTRUCTED SUCH THAT THEY ARE AT LEAST 3 INCHES ABOVE THE 100-YEAR FREQUENCY FLOOD ELEVATION IDENTIFIED FOR THE PARCEL.
- E. SEPTIC SYSTEM MANHOLE ACCESS, WATER SYSTEMS AND OTHER ASSOCIATED ELECTRICAL APPURTENANCES SHOULD ALSO HAVE FINISH ELEVATIONS INDICATED ON THE PLANS THAT ARE AT LEAST 6" ABOVE THE 100 YEAR FREQUENCY FLOOD ELEVATION IDENTIFIED FOR THE PARCEL.
- F. RETENTION BASINS SHOULD EMPTY WITHIN 72 HOURS IN ORDER TO PROVIDE MOSQUITO ABATEMENT. THIS CAN BE ACCOMPLISHED BY EITHER DRAINING, EVAPORATION OR INFILTRATION, OR ANY COMBINATION THEREOF. IF THIS IS NOT POSSIBLE, THEN THE OWNER SHOULD BE MADE AWARE OF A POTENTIAL NEED TO ADDRESS MOSQUITO ABATEMENT TO THE SATISFACTION OF THE ENVIRONMENTAL HEALTH SERVICES DEPARTMENT. ADDITIONALLY, IF IT IS NOT POSSIBLE TO EMPTY THE BASIN WITHIN 72 HOURS, THE BASIN SHOULD BE DESIGNED FOR 5 INCHES, NOT 3 INCHES AS MENTIONED IN ITEM #4 ABOVE. THIS WOULD ALLOW FOR A SATURATION CONDITION OF THE SOIL DUE TO A 5" STORM TRACK.

DETENTION BASIN DESIGN AND MAINTENANCE GUIDELINE NOTE:

THE IMPERIAL COUNTY DIVISION OF ENVIRONMENTAL HEALTH SERVICES VECTOR CONTROL PROGRAM IS RESPONSIBLE FOR VECTOR AND MOSQUITO CONTROL THROUGH A VARIETY OF MEANS. POORLY DESIGNED AND ILL-MAINTAINED DETENTION BASINS ARE CAPABLE OF BREEDING LARGE NUMBERS OF VECTORS OR MOSQUITOS AND OFFER EXCELLENT HARBORAGE FOR ADULT MOSQUITOES FROM OTHER SOURCES. BECAUSE DETENTION BASINS ARE OFTEN SITUATED IN RESIDENTIAL NEIGHBORHOODS AND OTHER POPULATED AREAS, THEY PRESENT A SIGNIFICANT HEALTH RISK AND POSE A CHALLENGING PESTICIDE APPLICATION SITUATION. THE CALIFORNIA HEALTH AND SAFETY CODES PROVIDE FOR PUBLIC NUISANCE ABATEMENT AND PREVENTION. EHS HAS GUIDELINES AVAILABLE AND THEY WILL REVIEW ALL STORM RETENTION BASIN SYSTEMS PRIOR TO PUBLIC WORKS APPROVAL.

4. PIPELINE EXCAVATION & DEWATERING NOTES

1. EXCAVATIONS FOR SEWER/STORM WATER PIPELINE

SHALLOW, TEMPORARY EXCAVATIONS, LESS THAN FOUR FEET DEEP, IN NATIVE CLAY SOILS SHOULD STAND NEARLY VERTICAL FOR SHORT DURATION. ALL TEMPORARY EXCAVATIONS OVER FOUR FEET IN DEPTH WILL REQUIRE SHORING OR SLOPE INCLINATIONS IN CONFORMANCE TO CAL OSHA STANDARDS FOR TYPE C SOILS. THESE TEMPORARY DEEP EXCAVATIONS WILL REQUIRE SLOPE INCLINATIONS NO STEEPER THAN 1:1 VERTICAL HEIGHT TO HORIZONTAL LENGTH UNLESS TRENCH SHORING IS USED.

STABLE EXCAVATION SLOPES ASSUMES MINIMAL EQUIPMENT VIBRATION AND ADEQUATE SETBACK OF EXCAVATED MATERIAL AND CONSTRUCTION EQUIPMENT FROM THE TOP OF THE EXCAVATION. IT IS RECOMMENDED THAT THE MINIMUM SETBACK DISTANCE BE EQUAL TO THE DEPTH OF EXCAVATION AND AT LEAST 5 FEET FROM THE CROWN OF THE SLOPE. IF EXCAVATED MATERIALS ARE STOCKPILED ON THE EXCAVATION, THE WEIGHT OF THE MATERIAL SHOULD BE CONSIDERED AS A SURCHARGE LOAD FOR SLOPE STABILITY.

ALL EXCAVATIONS SHALL BE CONSTRUCTED IN CONFORMANCE TO THE CAL OSHA REQUIREMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBILITY FOR THE SAFETY OF HIS PERSONNEL.

THE EXCAVATIONS FOR THE PIPELINE MAY ENCOUNTER GROUNDWATER. THEREFORE, SEEPAGE AND PUMPING SUBGRADE CONDITIONS MAY BE ANTICIPATED IF THE GROUNDWATER DEPTH IS KNOWN PRIOR TO CONSTRUCTION. AN ADEQUATELY DESIGNED DEWATERING SYSTEM, SUCH AS WELL POINTS WILL BE REQUIRED TO CONTROL GROUNDWATER SEEPAGE AND PREVENT RUNNING GROUND WATER CONDITIONS IN THE EVENT TRENCH EXCAVATIONS OCCURE AT A DEPTH BELOW THE GROUND WATER TABLE. GROUNDWATER SHOULD BE LOWERED TO AT LEAST 2.0 FEET BELOW THE MAXIMUM DEPTH OF EXCAVATION (BOTTOM OF PIPELINE BEDDING OR MANHOLE BASE UNDERLAYMENT).

MANHOLES WITH FOUNDATION BASES LOCATED BELOW GROUNDWATER SHOULD BE UNDERLAIN BY MINIMUM OF 24 INCHES OF CALTRANS CLASS II AGGREGATE BASE MATERIAL COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY PER ASTM D-1557.

2. BEDDING AND BACKFILL OF PIPELINE

IF GROUND WATER IS ENCOUNTERED THE FOLLOWING BEDDING PROVIDING LATERAL AND BEARING SUPPORT TO THE PIPE SHALL APPLY. THE BEDDING AND THE BACKFILL AND THEIR DENSIFICATION SHOULD CONFORM TO THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" SECTIONS 306-1.2.1 AND 306-1.3.1 THROUGH 306-1.3.5 OR OTHER ACCEPTABLE STANDARD METHODS OR AS OTHERWISE NOTED BY THE SPECIFICATIONS WITHIN THIS DOCUMENT. AT LEAST 12 INCHES OF BEDDING MATERIAL SHOULD UNDERLIE THE PIPE. THE BEDDING MAY BE CRUSHER FINES, GRANULAR SAND OR CALTRANS CLASS II AGGREGATE BASE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY PER ASTM D-1557 OR MAY BE OPEN GRADED CRUSHED ROCK CONTAINED IN A GEOTEXTILE FILTER FABRIC. CRUSHED ROCK SHOULD BE MANUALLY DENSIFIED BELOW THE PIPE HAUNCHES AND TO THE SIDES OF THE PIPE.

ENGINEERED BACKFILL: THE NATIVE SOILS ARE SUITABLE FOR USE AS ENGINEERED FILL AND PIPELINE TRENCH BACKFILL ABOVE THE PIPE ZONE WHEN UNIFORMLY MOISTURE CONDITIONED TO 0 TO 10% ABOVE OPTIMUM MOISTURE CONTENT (CLAYS) OR 0 TO 6% ABOVE OPTIMUM (SILTS), AND RECOMPACTED TO A MINIMUM OF 90% RELATIVE COMPACTION (CLAYS) OR 90% (SILTS) IN ACCORDANCE WITH ASTM D1557 METHODS. TRENCH BACKFILL WITHIN 2 FEET OF GROUND SURFACE SHOULD BE COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY PER ASTM D-1557.

REVISION	DATE	COMMENTS
1	4/20/2023	PER COUNTY OF IMPERIAL PCK LETTER DATED 03/23/2023
2	6/6/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/02/2023
3	6/9/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/08/2023
4	6/21/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/20/2023



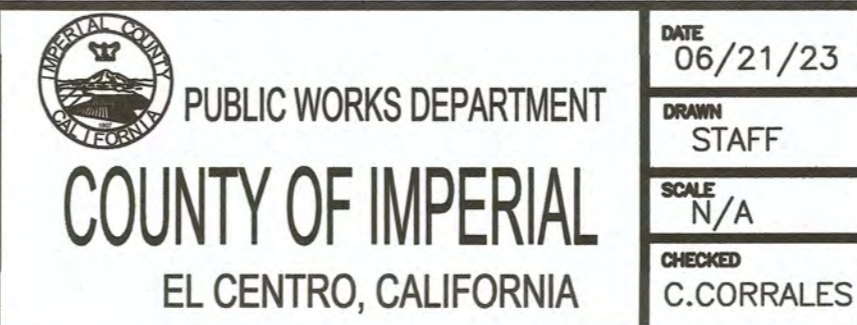
PREPARED UNDER THE DIRECT SUPERVISION OF:

 CARLOS CORRALES, P.E.
 55432 R.C.E. No.
 6/22/2023 DATE
 12/31/24 REG. EXP.



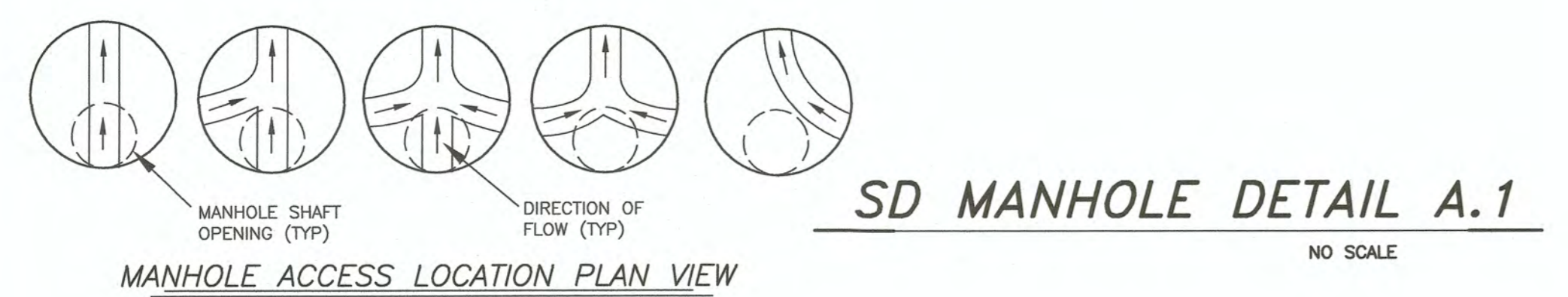
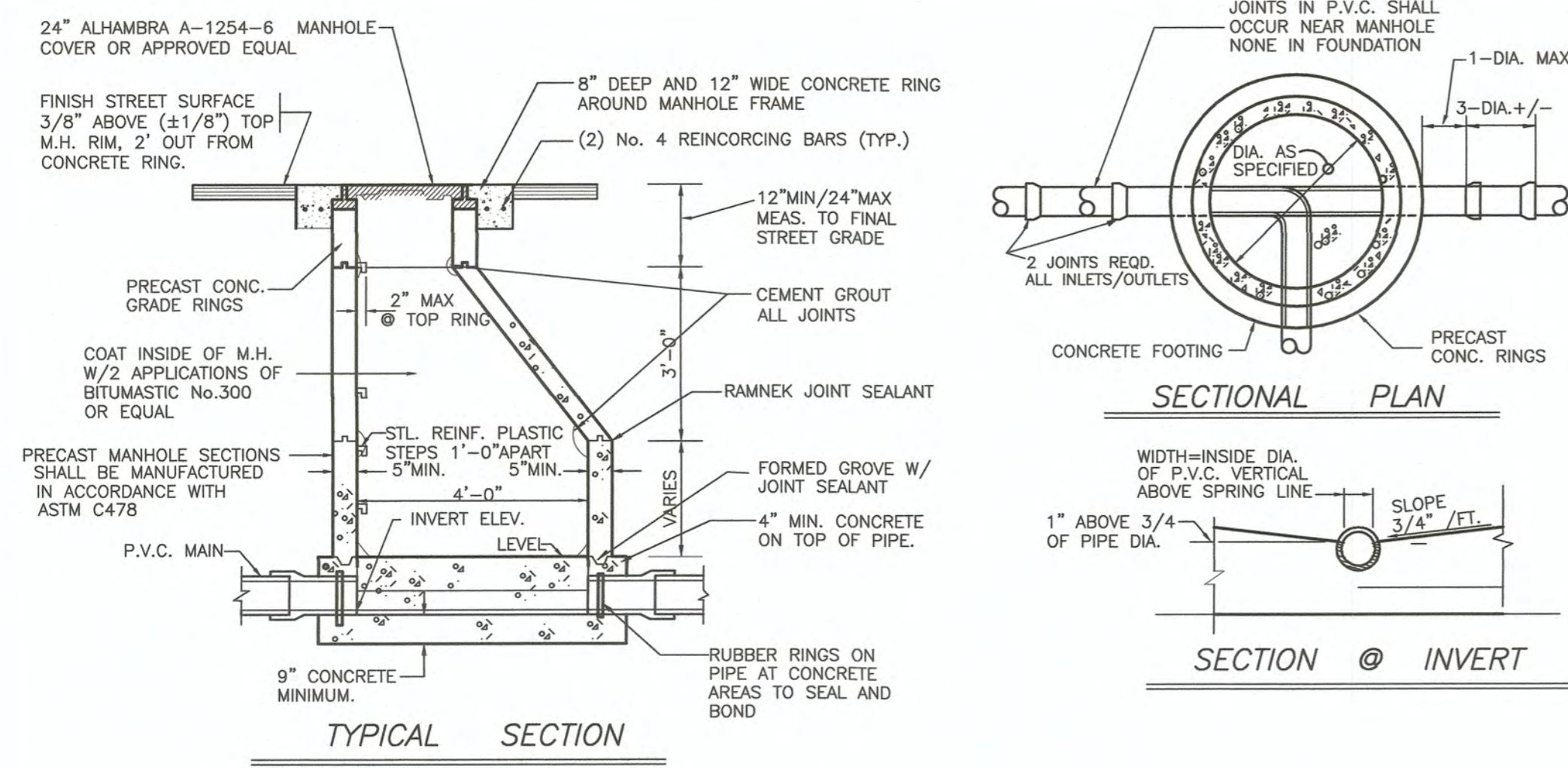
COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:

 JOHN A. GAY, P.E.
 DIRECTOR OF PUBLIC WORKS
 6/28/23 DATE
 62028 R.C.E. No.
 9/30/23 REG. EXP.

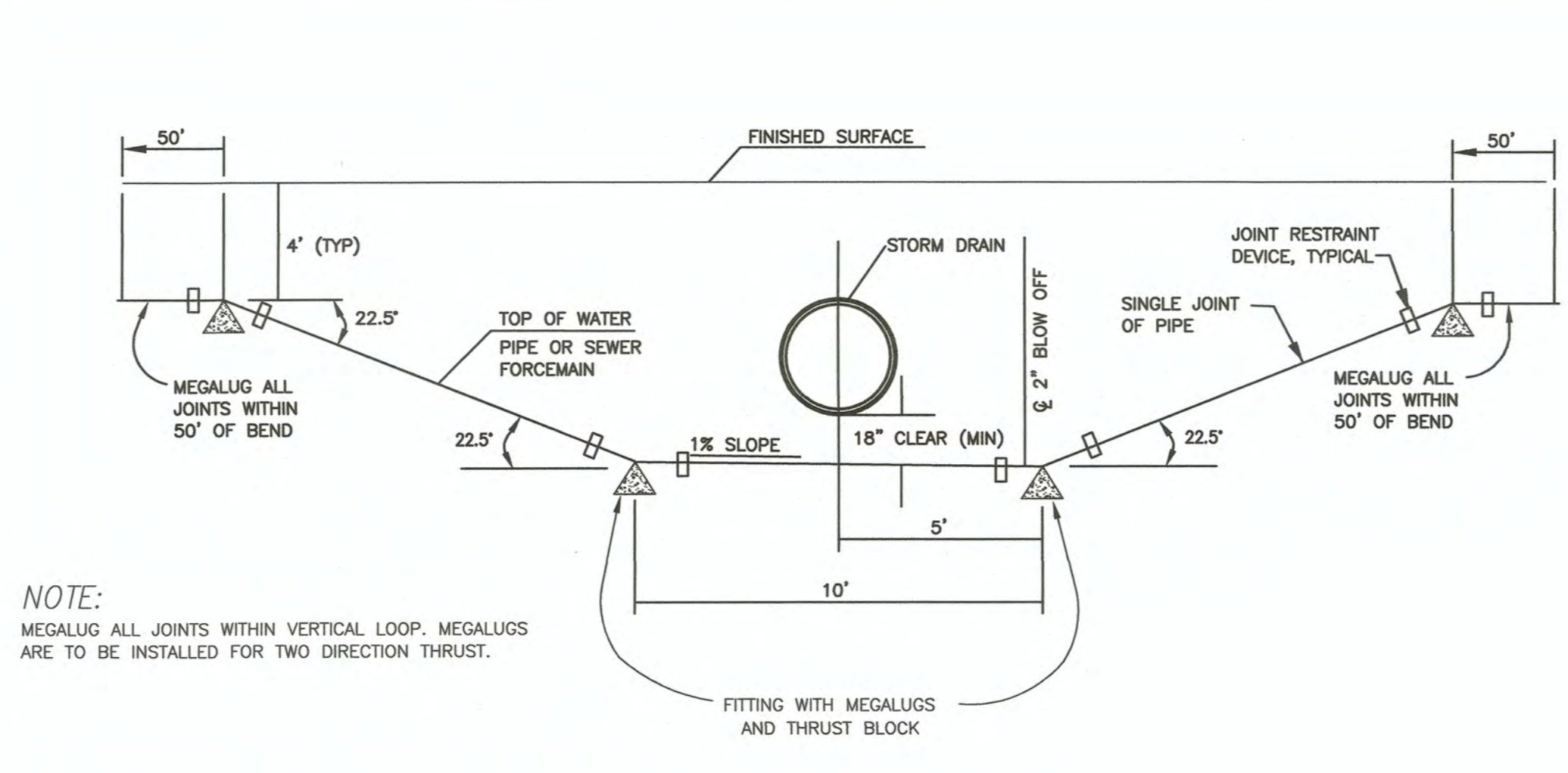


PROJECT TITLE	
MAGGIO ROAD AND ROOD ROAD DRAINAGE CONNECTION STORM DRAIN PIPELINE IMPROVEMENTS	
PROJECT NO. 7004GTW	SHEET OF 12 14

SPECIFICATIONS	
PROJECT NO. 7004GTW	SHEET OF 12 14

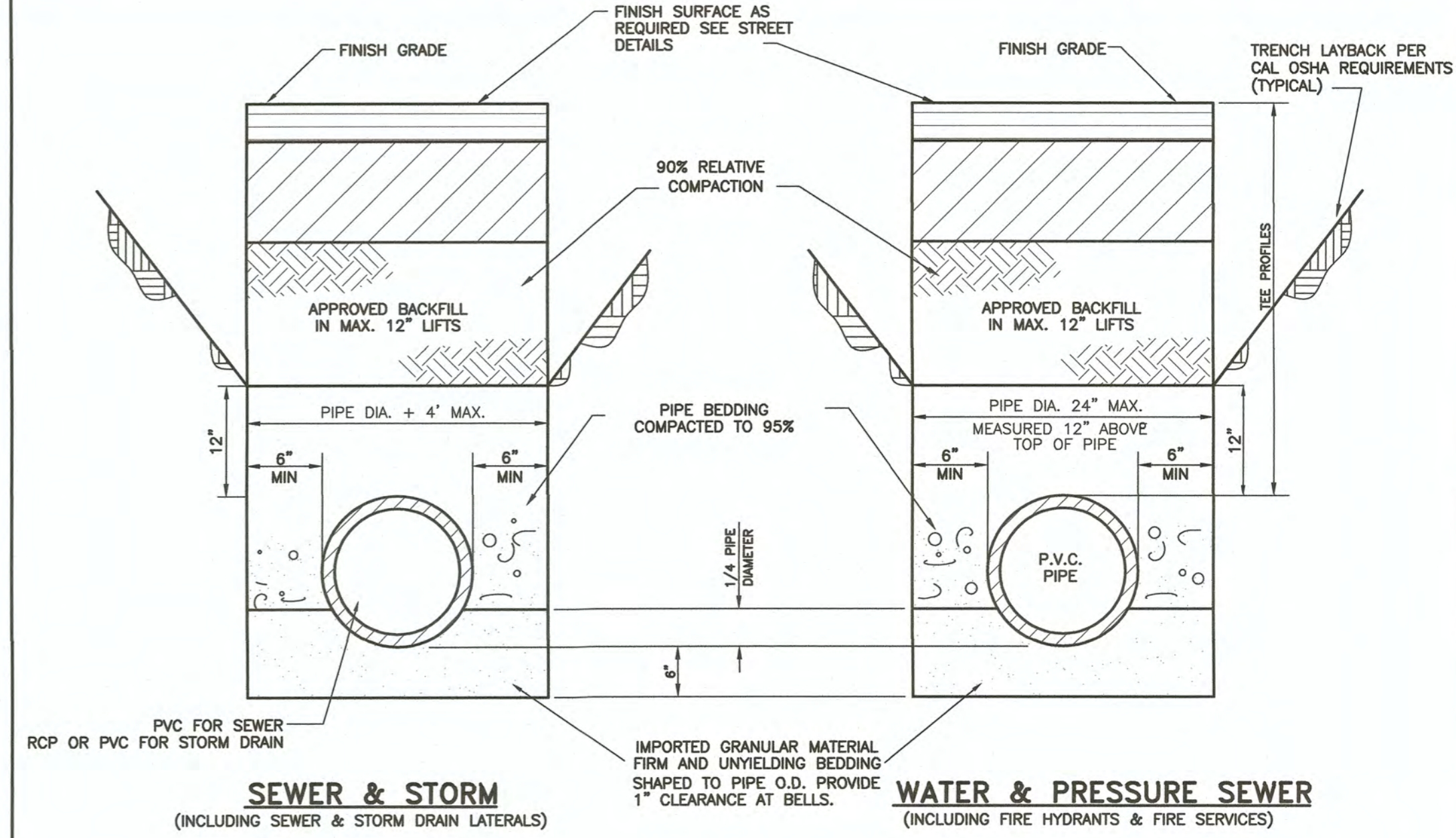


SD MANHOLE DETAIL A.1
NO SCALE



NOTE:
MEGALUG ALL JOINTS WITHIN VERTICAL LOOP. MEGALUGS ARE TO BE INSTALLED FOR TWO DIRECTION THRUST.

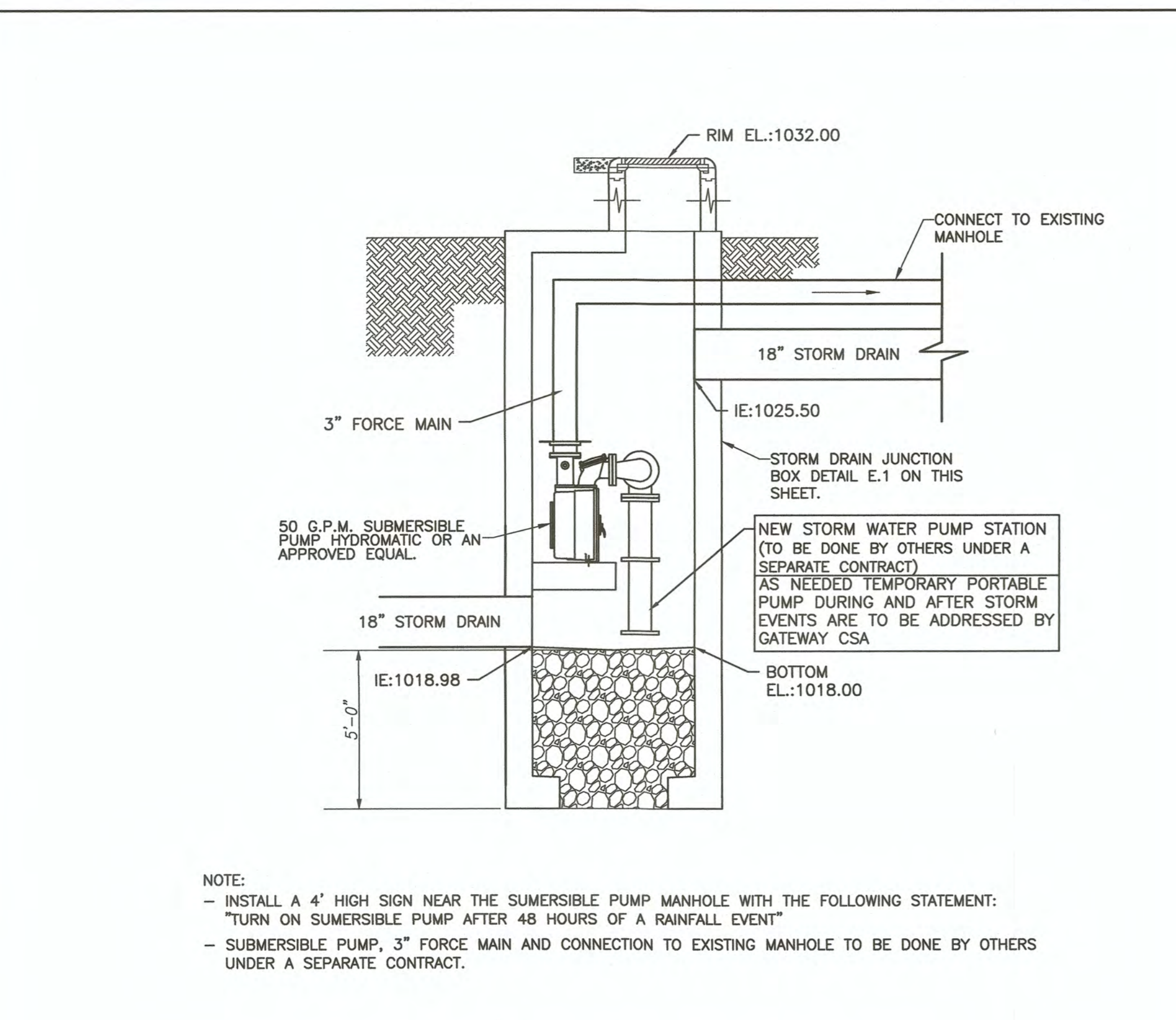
VERTICAL STORM LINE CROSSING B.1
NO SCALE



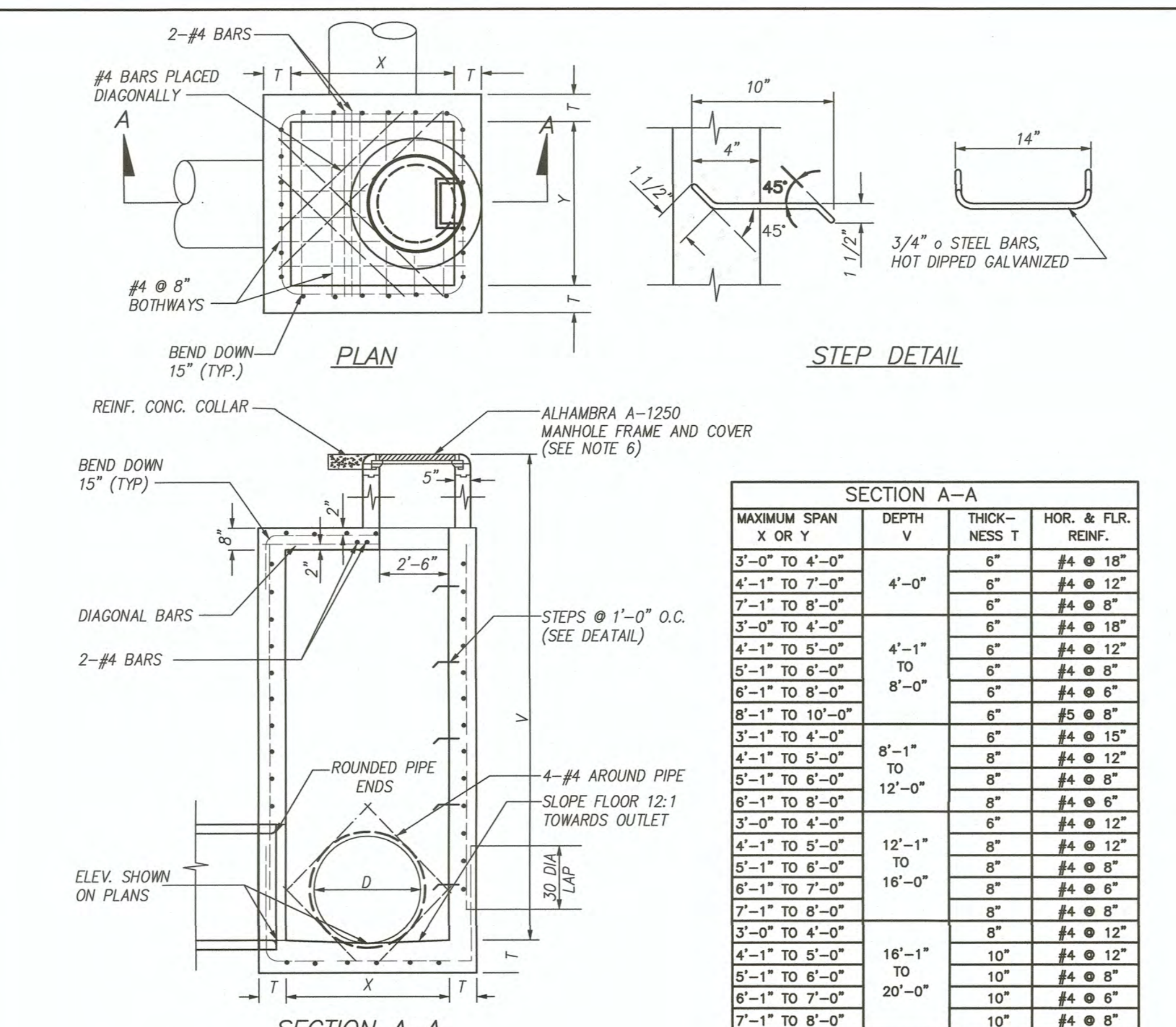
SEWER & STORM
(INCLUDING SEWER & STORM DRAIN LATERALS)

WATER & PRESSURE SEWER
(INCLUDING FIRE HYDRANTS & FIRE SERVICES)

TRENCH DETAILS C.1
NO SCALE



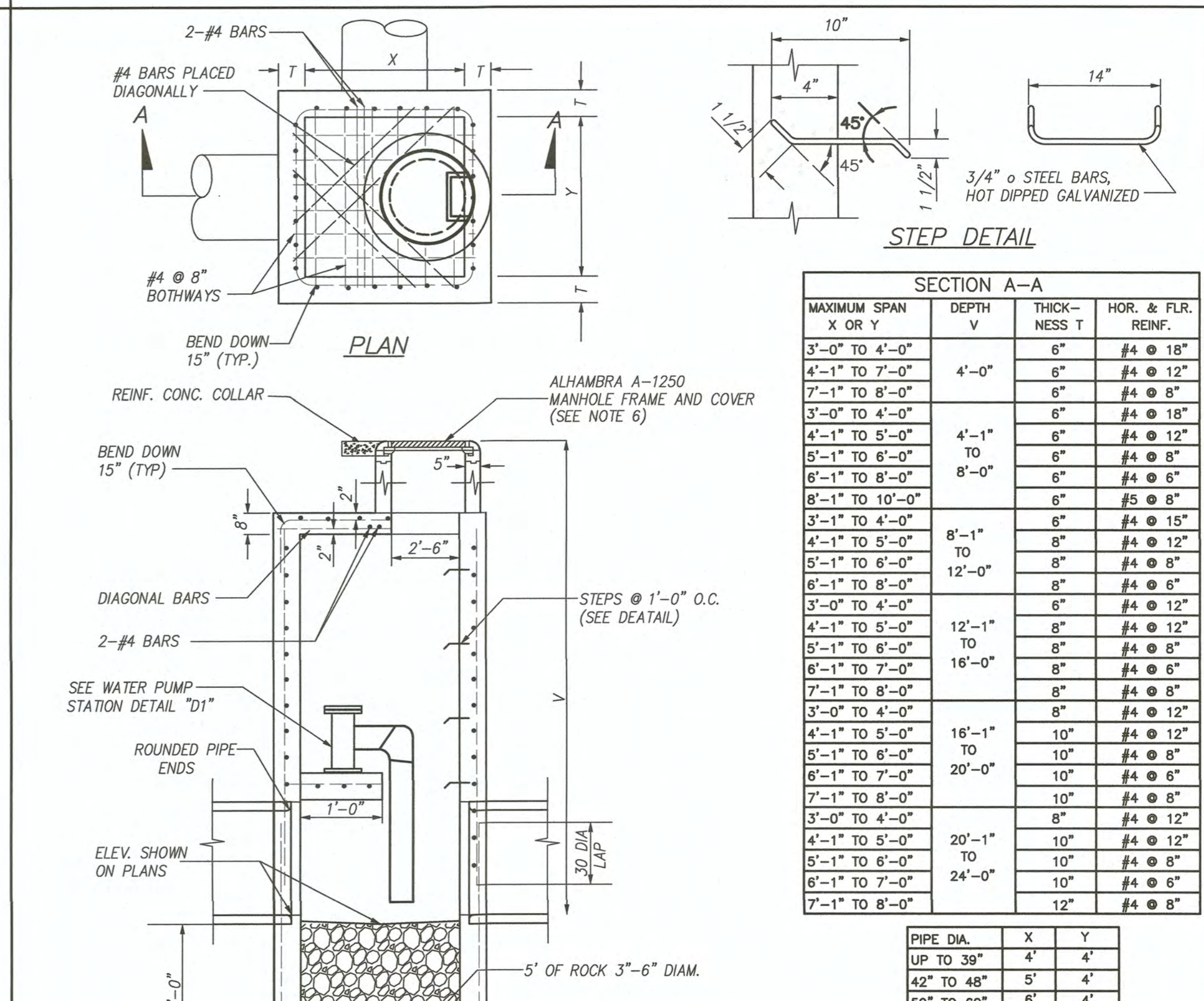
STORM WATER PUMP STATION D.1
NO SCALE



NOTES

- CONCRETE SHALL BE 6000 PSI.
- ALL PRECAST COMPONENTS SHALL BE REINFORCED WITH 1/4" DIAMETER STEEL, WOULD SPIRALLY ON 4" CENTERS.
- ALL JOINTS SHALL BE SET IN CLASS C MORTAR.
- MAINTAIN 3" MIN. CLEAR SPACING BETWEEN REINFORCING AND SURFACE UNLESS OTHERWISE NOTED.
- EXPOSED EDGES OF CONCRETE SHALL BE ROUNDED WITH A RADIUS OF 1/2".
- ALHAMBRA A-1252 OPEN GRATING SHALL BE USED IN LIEU OF SOLID COVER IN THE RETENTION BASIN INLET.

STORM DRAIN JUNCTION BOX E.1
NO SCALE

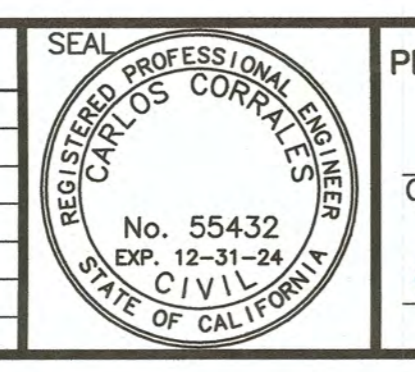


NOTES

- CONCRETE SHALL BE 6000 PSI.
- ALL PRECAST COMPONENTS SHALL BE REINFORCED WITH 1/4" DIAMETER STEEL, WOULD SPIRALLY ON 4" CENTERS.
- ALL JOINTS SHALL BE SET IN CLASS C MORTAR.
- MAINTAIN 3" MIN. CLEAR SPACING BETWEEN REINFORCING AND SURFACE UNLESS OTHERWISE NOTED.
- EXPOSED EDGES OF CONCRETE SHALL BE ROUNDED WITH A RADIUS OF 1/2".
- ALHAMBRA A-1252 OPEN GRATING SHALL BE USED IN LIEU OF SOLID COVER IN THE RETENTION BASIN INLET.

STORM DRAIN INDIAN WELLS JUNCTION BOX F.1
NO SCALE

REVISION	DATE	COMMENTS
1	4/20/2023	PER COUNTY OF IMPERIAL PCK LETTER DATED 03/23/2023
2	6/6/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/02/2023
3	6/9/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/08/2023
4	6/21/2023	PER COUNTY OF IMPERIAL EMAIL DATED 06/20/2023



PREPARED UNDER THE DIRECT SUPERVISION OF:
Carlos Corrales, P.E.
 DATE: 6/22/2023

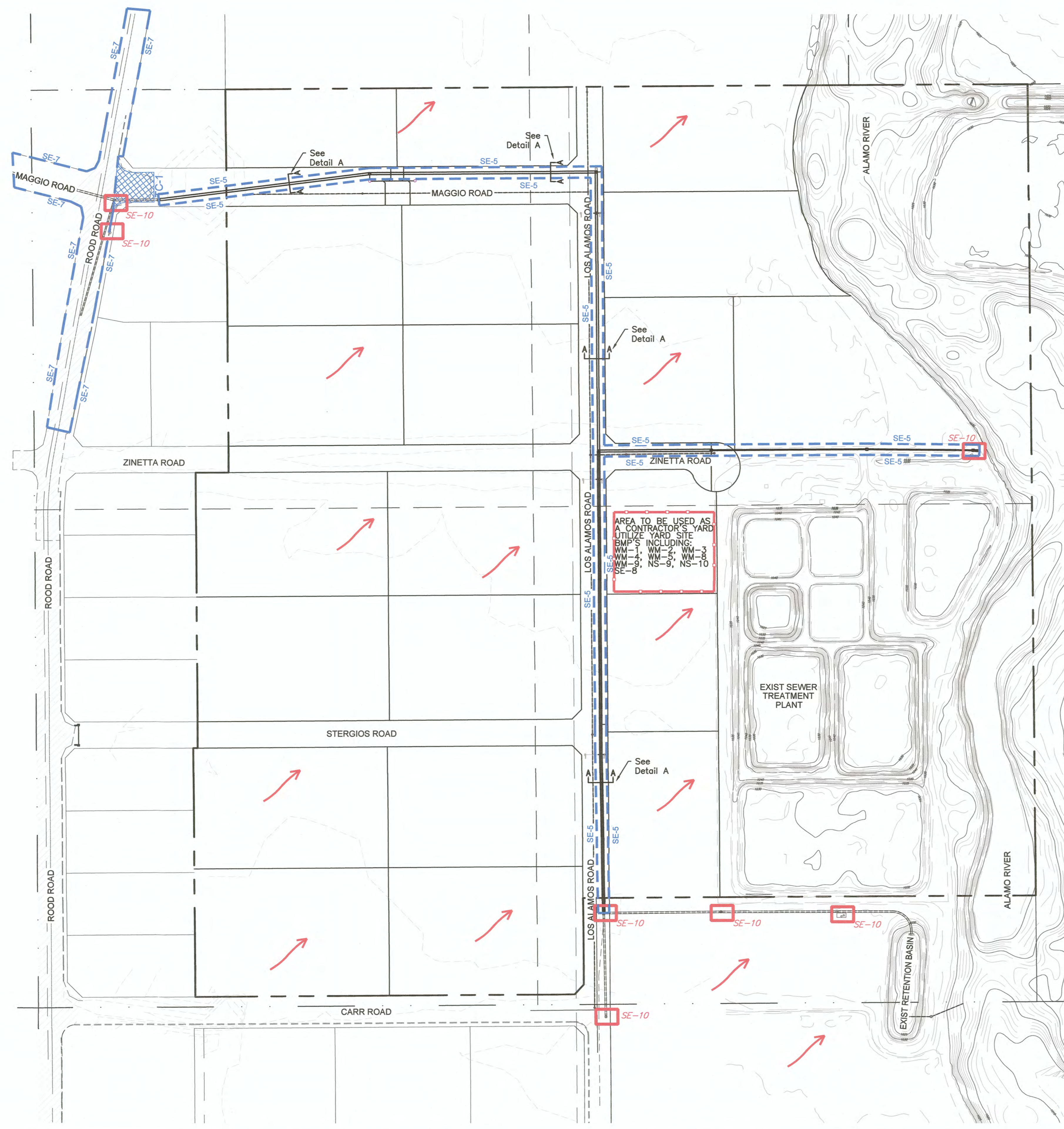


COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:
John Gay
 JOHN A. GAY, P.E.
 DIRECTOR OF PUBLIC WORKS
 DATE: 6/20/23

COUNTY OF IMPERIAL
 EL CENTRO, CALIFORNIA

DATE: 06/21/23
 PROJECT TITLE:
MAGGIO ROAD AND ROOD ROAD DRAINAGE CONNECTION STORM DRAIN PIPELINE IMPROVEMENTS

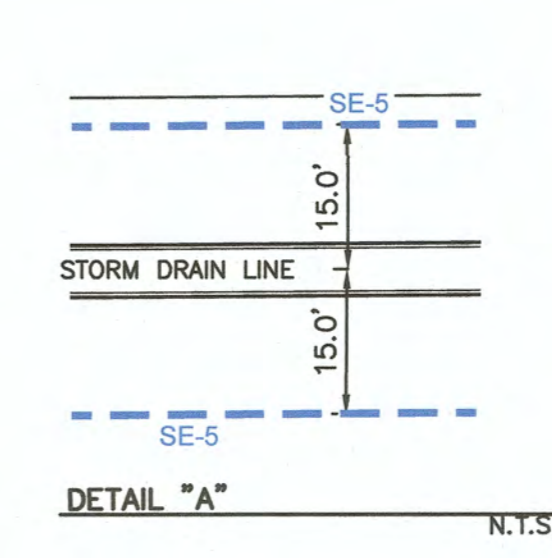
DETAIL SHEET
 PROJECT NO.: 7004GTW
 SHEET 13 OF 14



AREA TO BE USED AS A CONTRACTOR'S YARD UTILIZE YARD SITE BMP'S INCLUDING:
 WM-1, WM-2, WM-3, WM-4, WM-5, WM-6, WM-7, WM-8, WM-9, WM-10, NS-1, NS-2, NS-3, NS-4, NS-5, NS-6, NS-7, NS-8, NS-9, NS-10

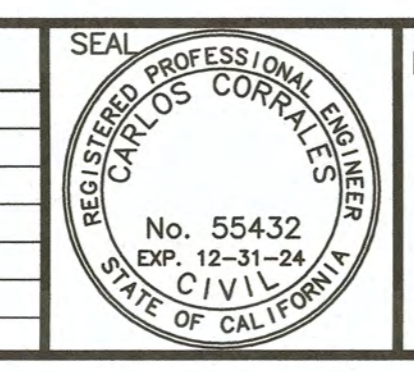
- STORM WATER POLLUTION CONTROL CONSTRUCTION NOTES:**
- 1.- INSTALL SILT FENCE FOR PERIMETER CONTROL DURING MASS GRADING AND UTILITIES INSTALLATION. SEE SE-1 FOR INSTALLATION INSTRUCTIONS.
 - 2.- INSTALL SANDBAG BARRIER FOR PERIMETRAL CONTROL, ACROSS CONCENTRATED FLOW PATHS, AT DRAINAGE INLETS AND AROUND TEMPORARY STOCKPILES AND SPOILS. SEE SE-8 FOR INSTALLATION INSTRUCTIONS.
 - 3.- STABILIZED CONSTRUCTION ENTRANCE/EXIT. SEE TC-1 FOR INSTALLATION INSTRUCTIONS.
 - 4.- STREET SWEEPING AND VACUUMING TO BE PERFORMED ON EXISTING STREETS AND ROADS, AND ON NEW STREETS ONCE CONSTRUCTED. SEE SE-7 FOR IMPLEMENTATION INSTRUCTIONS.
 - 5.- APPLY HYDRAULIC MULCH FOR TEMPORARY EROSION CONTROL TO RETENTION BASINS ONCE THEY ARE GRADED AND AREAS TO BE LANDSCAPED. SEE EC-3 FOR INSTALLATION INSTRUCTIONS.
 - 6.- APPLY PERMANENT SEEDING AND PLANTING TO FINISHED AREAS THAT WERE DESIGNATED FOR PERMANENT VEGETATION. SEE EC-4 FOR INSTALLATION INSTRUCTIONS.
 - 7.- APPLY SOIL BINDER IN AREAS WITHOUT CONSTRUCTION ACTIVITIES OF 21 DAYS OR MORE, AND TO STOCKPILES. SEE EC-5 FOR INSTALLATION INSTRUCTIONS.
 - 8.- INSTALL STORM DRAIN INLET PROTECTION ON DROP INLET STRUCTURES AND CATCH BASINS. APPROXIMATE LOCATIONS ARE SHOWN ON THE DRAWINGS. SEE SE-10 FOR INSTALLATION INSTRUCTIONS.
 - 9.- APPLY WIND EROSION CONTROL THROUGHOUT THE CONSTRUCTION SITE. SEE WE-1 FOR IMPLEMENTATION INSTRUCTIONS.
 - 10.- COMBINED VEHICLE CLEANING, FUELING AND MAINTENANCE STORAGE AREA. SEE NS-8, NS-9, AND NS-10 FOR INSTALLATION INSTRUCTIONS.
 - 11.- INSTALL CONCRETE WASTE MANAGEMENT CONTROL. SEE WM-8 FOR INSTALLATION INSTRUCTIONS.
 - 12.- PAVING AND GRINDING OPERATIONS. SEE NS-3.

- GENERAL WATER POLLUTION CONTROL NOTES:**
- 1.- THE INFORMATION IN THESE DRAWINGS ARE ACCURATE FOR WATER POLLUTION CONTROL PURPOSES ONLY.
 - 2.- THE INFORMATION ON THIS PLAN IS INTENDED TO BE USED AS A GUIDELINE FOR THE CONTRACTOR AND SUBCONTRACTORS TO INSTALL WATER POLLUTION CONTROL DEVICES AT GENERAL LOCATIONS THROUGHOUT THE SITE. THESE DRAWINGS ARE TO BE USED IN CONJUNCTION WITH THE NARRATIVE SECTION OF THE STORM WATER POLLUTION PREVENTION PLAN.
 - 3.- FIELD CONDITION MAY NECESSITATE MODIFICATIONS TO THESE DRAWINGS.
 - 4.- PERMANENT EROSION CONTROL WILL BE INSTALLED AS AREAS ARE DETERMINED TO BE SUBSTANTIALLY COMPLETE.
 - 5.- ALL DRAINAGE INLETS RECEIVING RUNOFF FROM DISTURBED AREAS WILL BE PROTECTED WITH A SEDIMENT TRAP INLET PROTECTION.
 - 6.- ALL NECESSARY WORK FOR EROSION CONTROL MEASURES SHALL BE DONE ACCORDING TO THE STATE OF CALIFORNIA CONSTRUCTION SITE BMP FIELD MANUAL AND TROUBLESHOOTING GUIDE AS ADOPTED JANUARY 2003 OR THE LATEST EDITION THEREOF, AND CALIFORNIA STORMWATER QUALITY ASSOCIATION CONSTRUCTION HANDBOOK AS ADOPTED JANUARY 2003 OR THE LATEST EDITION THEREOF.
 - 7.- NO WATER POLLUTION CONTROL DEVICES SHALL BE PLACED IN CITY, COUNTY, OR IID RIGHT OF WAY OR EASEMENTS PRIOR TO APPROVED ENCROACHMENT PERMITS FOR EACH AGENCY.
 - 8.- CONTRACTORS SHALL PROVIDE ADEQUATE DUST SUPPRESSION TO MEET ALL CITY OF CALIPATRIA/COUNTY OF IMPERIAL AIR POLLUTION CONTROL DISTRICT REQUIREMENTS.



- LEGEND:**
- SE-1 SILT FENCE
 - SE-10 STORM DRAIN INLET PROTECTION (ON ADJACENT AREAS, EXISTING ROADS AND AS SHOWN)
 - EC-3 HYDRAULIC MULCH
 - SE-5 FIBER ROLLS
 - TC-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT
 - SE-7 STREET SWEEPING AND VACUUMING (ON EXISTING ROADS AND ON NEW STREETS ONCE CONSTRUCTED)
 - SE-8 SANDBAG BARRIER (ACROSS UNPAVED DITCHES AND STREAMS AND AS SHOWN)
 - EC-5 SOIL BINDERS
 - NATURAL FLOW PATH
 - PROJECT SURFACE FLOW DIRECTION
 - EC-9 EARTH DIKES AND DRAINAGE SWALES
 - WM-10 LIQUID WASTE MANAGEMENT

REVISION	DATE	COMMENTS
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PREPARED UNDER THE DIRECT SUPERVISION OF:
 CARLOS CORRALES, P.E.
 DATE: 6/22/2023
 R.C.E. No. 55432
 REG. EXP. 12/31/24



COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:
 JOHN A. GAY, P.E.
 DIRECTOR OF PUBLIC WORKS
 DATE: 6/28/23
 R.C.E. No. 62028
 REG. EXP. 9/30/23

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
 EL CENTRO, CALIFORNIA

DATE: 06/21/23
 DRAWN: STAFF
 SCALE: N/A
 CHECKED: C. CORRALES

PROJECT TITLE
 MAGGIO ROAD AND ROOD ROAD
 DRAINAGE CONNECTION STORM
 DRAIN PIPELINE IMPROVEMENTS

EROSION CONTROL PLAN

PROJECT NO. 7004GTW
 SHEET 14 OF 14