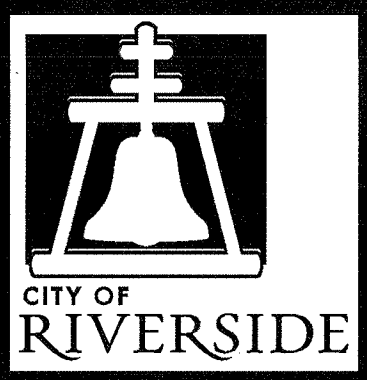


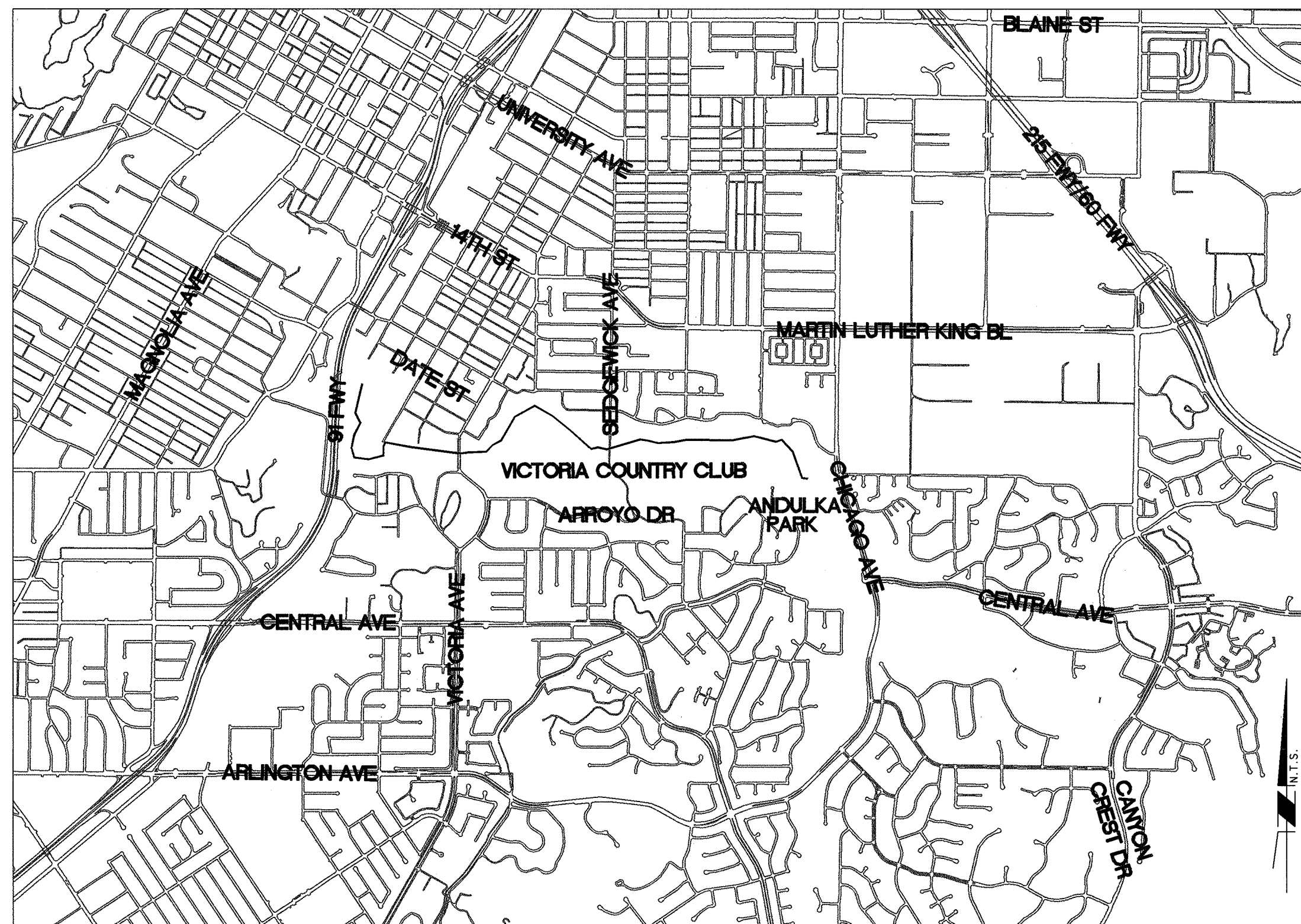
RIVERSIDE CALIFORNIA



PUBLIC WORKS DEPARTMENT TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB

GENERAL CONSTRUCTION NOTES:

- 1) PRIME CONTRACTOR BIDDING THIS WORK SHALL HAVE A CLASS "A" CONTRACTOR'S LICENSE.
- 2) THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC AS INDICATED IN THE ASSOCIATED PROJECT SPECIAL PROVISIONS.
- 3) CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RIVERSIDE STANDARD DRAWINGS AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2012 EDITION.
- 4) EXISTING UTILITIES SHOWN ON THIS PLAN ARE PLOTTED FROM PUBLIC RECORDS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO LOCATE AND PROTECT ALL UTILITIES WHETHER OR NOT SHOWN ON THIS PLAN WITHIN THE CONSTRUCTION WORK AREAS.
- 5) THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) 1-800-227-2600, MINIMUM TWO WORKING DAYS PRIOR TO DIGGING. CONSTRUCTION SHALL NOT TAKE PLACE UNLESS ALL UNDERGROUND UTILITIES HAVE BEEN MARKED AND CONTRACTOR HAS BEEN PROVIDED WITH AN INQUIRY IDENTIFICATION NUMBER.
- 6) CONTRACTOR SHALL POTHOLE AND VERIFY ALL LOCATIONS AND ELEVATIONS OF UTILITIES PRIOR TO START OF CONSTRUCTION AND NOTIFY THE CITY ENGINEER FOR RESOLUTION PRIOR TO START OF CONSTRUCTION.
- 7) EXISTING IRRIGATIONS SHALL BE PROTECTED OR MODIFIED AS NECESSARY SO THE IRRIGATION SYSTEM IS OPERABLE WHILE THE PROPOSED IMPROVEMENTS ARE BEING CONSTRUCTED.
- 8) EXISTING HARDSCAPE AND/OR LANDSCAPE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AND/OR REPLACED IN KIND OR BETTER BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY ENGINEER.
- 9) ALL ELEVATIONS SHOWN ON THE PLANS SHALL BE STAKED IN THE FIELD.
- 10) TRENCHES SHALL EITHER BE BACKFILLED AND COMPACTED PER STANDARD DRAWING 453 OR COVERED WITH TRAFFIC RATED STEEL PLATES AT THE END OF EACH WORK DAY OR AS SPECIFIED IN THE SPECIFICATIONS.
- 11) WATER VALVES ENCOUNTERED DURING PIPELINE CONSTRUCTION OR DURING RESTORATION OF SURFACE IMPROVEMENTS SHALL BE PROTECTED IN PLACE, RESTORED TO PRE-CONSTRUCTION CONDITION AND/OR ADJUSTED TO GRADE.
- 12) CONTRACTOR SHALL PERFORM A PRE AND POST CONSTRUCTION VIDEO OF THE SEWER MAIN LINES, CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VIDEOING ALL SEWER LATERALS FROM THE MAINLINE TO THE PROPERTY LINE.
- 13) PIPE BEDDING SHALL BE PER STD. DWG. 452 AND CASE SHALL BE AS SPECIFIED ON THE PLANS.
- 14) ANY WORK THAT WILL CAUSE DAMAGE TO THE DETECTOR LOOPS SHALL NOT BE PERFORMED UNTIL TRAFFIC SIGNAL MAINTENANCE PERSONNEL HAVE BEEN NOTIFIED AND THE NECESSARY TIMING ADJUSTMENTS ARE MADE TO MAINTAIN SIGNAL OPERATION.
- 15) CONTRACTOR SHALL REPLACE ALL EXISTING TRAFFIC DETECTOR LOOPS AFFECTED BY CONSTRUCTION.
- 16) CONTRACTOR SHALL RELOCATE ALL TRAFFIC SIGNS, REMOVED DUE TO CONSTRUCTION, PER CITY STANDARDS. ALL TRAFFIC SIGNS SHALL BE INSTALLED PRIOR TO OPENING THE STREETS TO TRAFFIC.
- 17) REPLACE STRIPPING AND PAVEMENT MARKERS REMOVED OR DAMAGED BY CONSTRUCTION ACTIVITIES. STRIPING SHALL BE THERMOPLASTIC.
- 18) CONTRACTOR SHALL MAINTAIN ACTIVE SEWER FLOW IN EXISTING MAINS AS NECESSARY THROUGHOUT THE CONSTRUCTION PROCESS EXCEPT WHERE NOTED OTHERWISE UNTIL THE NEW SEWER MAIN HAS BEEN APPROVED AND ACCEPTED BY THE CITY ENGINEER.



Project Completion As-Builts

Contractor: Steve P. Rados


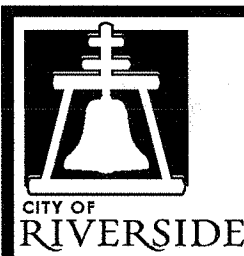
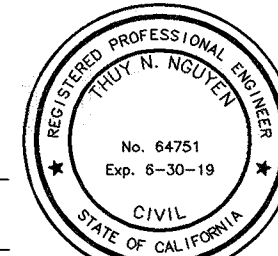
Prepared By: Brad Holmes

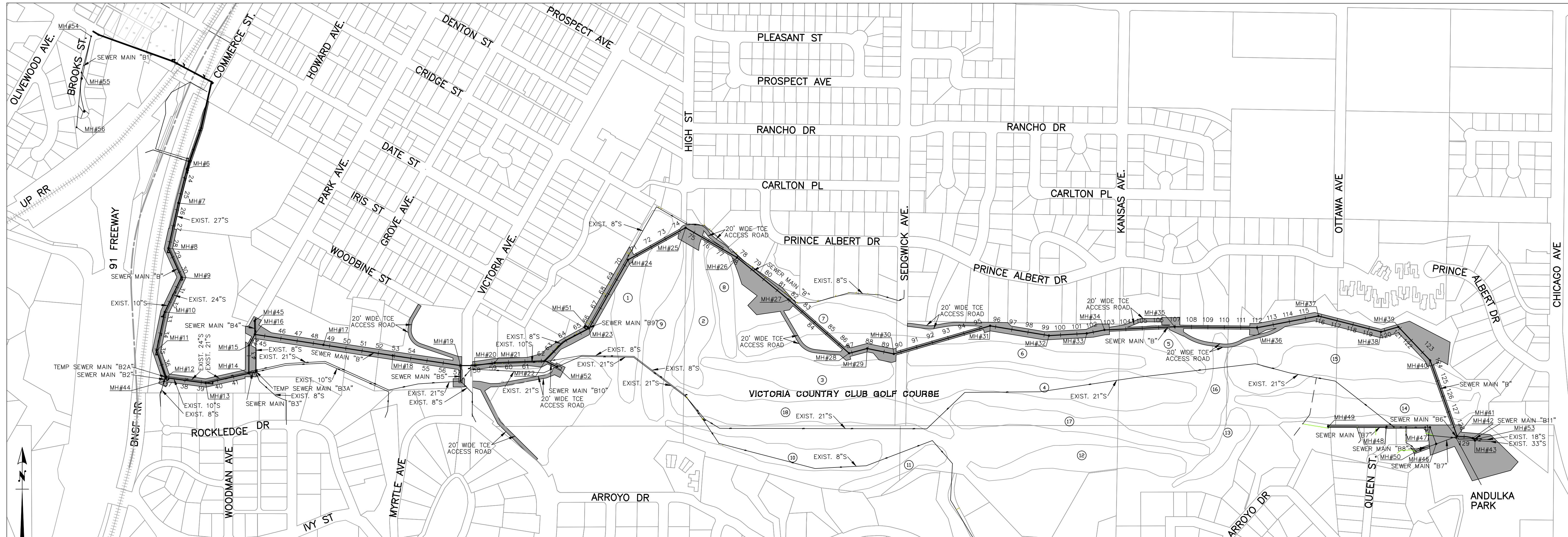
LEGEND:

SANITARY SEWER ----- 8" S -----	RAILROAD ++++++
WATER LINE ----- 12" W -----	TOPOGRAPHICAL CONTOUR ----- 760 -----
STORM DRAIN ----- 10" SD -----	GUARD RAIL -----
FIBER OPTIC ----- FO -----	PAVEMENT EDGE -----
RCC COMMUNICATIONS ----- RCC COM -----	CURB FACE -----
UNDERGROUND TELEVISION ----- UGTV -----	FENCING ----- X -----
UNDERGROUND TELEPHONE ----- UGT -----	RETAINING WALL -----
TELEPHONE ----- T -----	STREAM CHANNEL -----
ELECTRICAL CONDUIT ----- E -----	R/W AND PARCEL LINES -----
GAS LINE ----- 3" G -----	TRAFFIC SIGNAL BOX ♂
OVERHEAD ELECTRICAL ----- OHE -----	GAS MANHOLE ♂
UNDERGROUND ELECTRICAL ----- UGE -----	TELECOM MANHOLE ♂
OVERHEAD TELEPHONE ----- OHTV -----	TRAFFIC SIGNAL ♂
SUSPENDED/HANGING TELEPHONE ----- HGNT -----	TELEPHONE BOX ♂
SUSPENDED/HANGING GAS ----- 3" G(GNT) -----	POWER POLES ♂
	MONUMENT +
	STORM DRAIN INLET □
	EDGE OF PAVEMENT //
	PALMS 🌴
	STREET SIGN ♀
	STORM DRAIN MH ⊕
	PROPOSED SEWER MH ⊕
	EXISTING SEWER MH ⊕
	STREET LIGHT ♂
	WATER VALVE ♂
	MISC MANHOLE ♂
	PULL BOX □
	FIRE HYDRANT ♂
	TREES AND SHRUBS 🌳
	PARKING LOT LIGHTING ♂

SHEET INDEX:

SHEET	DESCRIPTION
1	TITLE SHEET AND NOTES
2	CONSTRUCTION SEQUENCE PHASING PLAN
3	SHEET INDEX AND CONSTRUCTION NOTES
4	SEWER MAIN B - FROM STATION 23+43.40 TO STATION 28+00.00
5	SEWER MAIN B - FROM STATION 28+00.00 TO STATION 37+50.00, SEWER MAIN B2A
6	SEWER MAIN B - FROM STATION 37+50.00 TO STATION 45+50.00, SEWER MAIN B3A
7	SEWER MAIN B - FROM STATION 45+50.00 TO STATION 54+00.00
8	SEWER MAIN B - FROM STATION 54+00.00 TO STATION 61+50.00, SEWER MAIN B5
9	SEWER MAIN B - FROM STATION 61+50.00 TO STATION 70+00.00
10	SEWER MAIN B - FROM STATION 70+00.00 TO STATION 79+00.00
11	SEWER MAIN B - FROM STATION 79+00.00 TO STATION 87+50.00
12	SEWER MAIN B - FROM STATION 87+50.00 TO STATION 96+50.00
13	SEWER MAIN B - FROM STATION 96+50.00 TO STATION 105+00.00
14	SEWER MAIN B - FROM STATION 105+00.00 TO STATION 114+00.00
15	SEWER MAIN B - FROM STATION 114+00.00 TO STATION 123+00.00
16	SEWER MAIN B - FROM STATION 123+00.00 TO STATION 129+73.99, SEWER MAIN B11
17	SEWER MAIN B1 - BROOKS STREET
18	SEWER MAINS B2, B3, AND B4 - TEQUESQUITE ARROYO AND PARK AVENUE
19	SEWER MAINS B6, B7, B8 - QUEEN STREET
20	SEWER MAINS B9, B10
21	CONSTRUCTION DETAILS - JUNCTION BOX (SEWER MH #42)
22	FRPM MANHOLE DETAILS
23	FRPM PIPE TRENCHING AND BACKFILL DETAILS
24	DEMO AND REHAB PLAN - SHEET INDEX MAP
25	DEMO AND REHAB PLAN
26	DEMO AND REHAB PLAN
27	DEMO AND REHAB PLAN
28	DEMO AND REHAB PLAN
TR-1	TRUCK HAUL ROUTE MAP

BENCHMARK GPS-57 CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE. DATUM: 1929 ELEVATION: 952.990	 Under Ground Service Alert of Southern California Call: TOLL FREE 1-800-227-2600 TWO WORKING DAYS BEFORE YOU DIG	 ENGINEER IN RESPONSIBLE CHARGE Thuy Nguyen R.C.E. No. 64751 EXPIRES: 6-30-19 DATE: 8/20/17		CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS APPROVED BY: <i>S.L.</i> DATE: 10/18/17 CONSTRUCTION ADMIN. <i>DC</i> DATE: 7-12-17 TRAFFIC DIVISION <i>NM</i> DATE: 10-18-17 SURVEY <i>CS</i> DATE: 10-18-17 DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: TN	SEWER REPLACEMENT TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB TITLE SHEET AND NOTES HORIZ. SCALE: NA VERT. SCALE: NA	DESIGN WORK ORDER NO.: 0501812 CONSTR. WORK ORDER NO.: 1609524 S-2108 SHEET 1 OF 28 FILE NAME: S2108-01.DWG
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CONSTRUCTION SEQUENCE "A"

FROM MH#6 (23+42.27) TO MH#19 (57+06.41). SEE SHEETS 4 TO 8, AND SHEET 18. ANTICIPATED DURATION: 60 WORKING DAYS.

- 1) CCTV ALL EXISTING PIPES WEST OF VICTORIA AVENUE AND RECORD LOCATION OF ALL LATERALS PRIOR TO START OF CONSTRUCTION.
- 2) INSTALL TEMPORARY 8" SEWER MAIN "B2A" AND MODIFY EXISTING MANHOLES (SHEET 5) TO DIVERT FLOW FROM THE EXISTING 8" MAIN AND 10" MAIN INTO THE EXISTING 24" MAIN.
- 3) INSTALL 36" SEWER MAIN "B" FROM MH#6 (23+42.27) TO DOWNSTREAM OF MH#12 (36+82.49), INCLUDING ALL MANHOLES IN BETWEEN. REMOVE AND ABANDON INTERFERING PORTIONS OF EXISTING 10" PIPE AS NECESSARY.
- 4) INSTALL TEMPORARY 10" SEWER MAIN "B3A" AND MODIFY EXISTING MANHOLES (SHEET 6) TO DIVERT FLOW FROM THE EXISTING 10" INTO THE EXISTING 21" MAIN.
- 5) BYPASS THE EXISTING 8" SEWER TO THE NEW 36" SEWER MAIN "B" AT DOWNSTREAM OF MH #12 (36+82.49).
- 6) INSTALL TEMPORARY 24" SEWER PIPE TO BYPASS EXISTING MANHOLE ON THE EXISTING 24" MAIN LINE AT PROPOSED MH #12 (36+82.49) (SHEET 5). REMOVE THIS EXISTING MANHOLE.
- 7) REMOVE TEMPORARY 8" SEWER MAIN "B2A" AND CONSTRUCT MH#12.
- 8) INSTALL 8" SEWER MAIN "B2" AND CONSTRUCT "B2" MH#2 (SHEET 18). REMOVE BYPASS LINE TO RELEASE FLOW FROM EXISTING 8" MAIN (ROCKLEDGE DRIVE) TO 8" SEWER MAIN "B2" TO 36" SEWER MAIN "B."
- 9) INSTALL 36" SEWER MAIN "B" FROM MH#12 (36+82.49) TO MH#14 (41+93.47) AHEAD, 41+91.14 (BACK). INCLUDING ALL MANHOLES IN BETWEEN. REMOVE AND ABANDON INTERFERING PORTIONS OF THE EXISTING 10" PIPE AS NECESSARY.
- 10) INSTALL 10" SEWER MAIN "B3" RECHANNEL THE EXISTING MANHOLE, AND ABANDON THE TEMPORARY 10" SEWER MAIN "B3A" CONNECTION (SHEET 18). RELEASE FLOW FROM THE EXISTING 8" PIPE AND 10" PIPE INTO 10" SEWER MAIN "B3" TO 36" SEWER MAIN "B."
- 11) INSTALL 36" SEWER MAIN "B" FROM MH#14 (46+63.49) TO MH#15 (43+63.49).
- 12) JACK AND BORE 36" SEWER MAIN "B" BETWEEN MH#15 (43+63.49) AND MH#16 (44+39.21).
- 13) CONSTRUCT MH#15 (43+63.49) AND MH#16 (44+39.21).
- 14) INSTALL 8" SEWER MAIN "B4" FROM MH#16 (44+39.21) TO EXISTING 8" SEWER MAIN MANHOLE, INCLUDING THE CONSTRUCTION OF SEWER MH B4#2 (SHEET 18). RECHANNEL THE EXISTING 8" SEWER MANHOLE TO RELEASE FLOW FROM THE EXISTING 8" SEWER MAIN INTO SEWER MAIN "B4" TO 36" SEWER MAIN "B."
- 15) INSTALL 36" SEWER MAIN "B" FROM MH#16 (44+39.21) TO MH#19 (57+06.41), INCLUDING ALL MANHOLES IN BETWEEN. INSTALL 8" STUB OUT FROM MH#19 FOR FUTURE SEWER MAIN "B5" JACK AND BORE CONNECTION.

CONSTRUCTION SEQUENCE "B"

ALL WORK SHALL BE COMPLETED FOR SEQUENCE "A" BEFORE COMMENCING WORK ON SEQUENCE "B" FROM MH#19 (57+06.41) TO MH#30 (89+61.67) BACK, 89+55.35 (AHEAD). SEE SHEETS 8 TO 12 AND SHEET 20. ANTICIPATED DURATION: 60 WORKING DAYS.

- 15) CCTV ALL EXISTING PIPES BETWEEN VICTORIA AVENUE AND SEDGWICK AVENUE. RECORD LOCATION OF ALL LATERALS PRIOR TO START OF CONSTRUCTION.
- 16) INSTALL 36" SEWER MAIN "B" FROM MH#19 (57+06.41) TO MH#23 (65+58.50), INCLUDING ALL MANHOLES IN BETWEEN. INSTALL 12" STUB OUT FROM MH#22 (62+22.44) FOR FUTURE SEWER MAIN "B10" JACK AND BORE CONNECTION.
- 17) CONSTRUCT MH #51 (SHEET 20).
- 18) INSTALL 8" SEWER MAIN "B9" (SHEET 20). RELEASE FLOW FROM EXISTING 8" SEWER MAIN INTO 8" SEWER MAIN "B9" TO 36" SEWER MAIN "B."
- 19) BYPASS EXISTING 21" SEWER MAIN TO JACK AND BORE 12" SEWER MAIN "B10" (SHEET 20).
- 20) JACK AND BORE 12" SEWER MAIN "B10."
- 21) CONSTRUCT MH #52. RELEASE FLOW FROM EXISTING 21" SEWER MAIN INTO 12" SEWER MAIN "B10" TO 36" SEWER MAIN "B."
- 22) BYPASS EXISTING 8" SEWER MAIN INTO EXISTING 21" SEWER MAIN AT END OF MAIN "B5."
- 23) JACK AND BORE SEWER MAIN "B5" (SHEET 8).
- 24) MODIFY EXISTING MH AT END OF MAIN "B5" TO RELEASE FLOW FROM EXISTING 8" SEWER MAIN INTO 8" SEWER MAIN "B5" TO 36" SEWER MAIN "B."
- 25) INSTALL 36" SEWER MAIN "B" FROM MH#23 (65+58.50) TO MH#24 (70+38.90).
- 26) JACK AND BORE 36" SEWER MAIN "B" FROM MH#24 (70+38.90) TO MH#25 (74+40.29).
- 27) JACK AND BORE 36" SEWER MAIN "B" FROM MH#25 (74+40.29) TO MH#26 (78+02.80).
- 28) INSTALL 36" SEWER MAIN "B" FROM MH#26 (78+02.80) TO MH#27 (81+89.38).
- 29) JACK AND BORE 36" SEWER MAIN "B" FROM MH#27 (81+89.38) TO MH#28 (86+82.56).
- 30) INSTALL 36" SEWER MAIN "B" FROM MH#28 (86+82.56) TO MH#30 (89+61.67) BACK, 89+55.35 (AHEAD), INCLUDING ALL MANHOLES IN BETWEEN.

CONSTRUCTION SEQUENCE "C"

ALL WORK SHALL BE COMPLETED FOR SEQUENCE "B" BEFORE COMMENCE WORK ON SEQUENCE "C" FROM MH#29 (89+61.67) BACK, 89+55.35 (AHEAD) TO MH#43 (129+73.99). SEE SHEETS 12 TO 16 AND SHEET 19. ANTICIPATED DURATION: 80 WORKING DAYS.

- 32) CCTV ALL EXISTING PIPES BETWEEN SEDGWICK AVENUE AND QUEENS STREET. RECORD LOCATION OF ALL LATERALS PRIOR TO START OF CONSTRUCTION.
- 33) JACK AND BORE SEWER MAIN "B" FROM MH#30 (89+61.67) BACK, 89+55.35 (AHEAD) TO MH#31 (95+66.56).
- 34) INSTALL 36" SEWER MAIN "B" FROM MH#30 (95+61.48) TO MH#33 (102+77.07), INCLUDING ALL MANHOLES IN BETWEEN.
- 35) JACK AND BORE 36" SEWER MAIN "B" FROM MH#33 (102+77.07) TO MH#34 (106+97.61).
- 36) JACK AND BORE 36" SEWER MAIN "B" FROM MH#34 (106+97.61) TO MH#35 (112+00.00).
- 37) INSTALL SEWER MAIN "B" FROM MH#35 (112+00.00) TO MH#40 (123+68.21), INCLUDING ALL MANHOLES IN BETWEEN.
- 38) JACK AND BORE 36" SEWER MAIN LINE "B" FROM MH#40 (123+68.21) TO MH#41 (128+52.44). STUB OUT INLETS FOR 8" SEWER MAIN "B6" (SHEET 19) AND 8" SEWER MAIN "B7" (SHEET 19).
- 39) INSTALL 36" SEWER MAIN "B" FROM MH#41 (128+52.44) TO DOWNSTREAM OF MH#42 (129+54.71).
- 40) CONSTRUCT MH #53 (MAINLINE B11) (SHEET 16).
- 41) BYPASS EXISTING 18" SEWER MAIN INTO DOWNSTREAM OF MH#42 (129+54.71).
- 42) CONSTRUCT MH#42 (129+54.71), STUB OUT INLET FOR 18" SEWER MAIN "B11" (SHEET 16).
- 43) INSTALL 18" SEWER MAIN "B8" FROM MH#42 TO MH B11 #53 (SHEET 16). REMOVE INTERFERING PORTIONS OF THE EXISTING 18" SEWER MAIN AS NECESSARY FOR THE INSTALLATION OF SEWER MAIN "B11." RELEASE FLOW FROM THE EXISTING 18" INTO 18" SEWER MAIN "B11" TO THE 36" SEWER MAIN "B."
- 44) INSTALL 36" SEWER MAIN FROM MH#42 TO MH#43 (129+73.99). RELEASE FLOW FROM EXISTING 33" SEWER MAIN INTO MH#43.
- 45) INSTALL 8" SEWER MAIN "B6" FROM MH#41 TO THE EXISTING 8" SEWER MAIN MANHOLE (SHEET 19).
- 46) BYPASS FLOW FROM THE EXISTING 8" SEWER MAIN INTO SEWER MAIN "B6." REMODEL THE EXISTING MANHOLE TO RELEASE FLOW FROM THE EXISTING 8" SEWER MAIN INTO 8" SEWER MAIN "B6" TO 36" SEWER MAIN "B" (SHEET 19).
- 47) INSTALL 8" SEWER MAIN "B7" FROM MH#41 TO MH #47 (MAINLINE B7) (SHEET 19).
- 48) INSTALL 18" SEWER MAIN "B8" FROM MH #46 (MAINLINE B7) TO QUEENS STREET EXISTING MANHOLE, INCLUDING ALL MANHOLES IN BETWEEN. MODIFY EXISTING QUEENS STREET MANHOLE TO RELEASE FLOW FROM EXISTING 8" SEWER MAIN TO 8" SEWER MAIN "B8" TO 36" SEWER MAIN "B" (SHEET 19).
- 49) INSTALL BYPASS SYSTEM TO BYPASS EXISTING FLOW FROM THE 18" PIPE TO MH #47. REMOVE THE INTERFERING PORTION OF THE EXISTING 18" PIPE AND ASSOCIATED MANHOLES AS NECESSARY TO INSTALL 8" SEWER MAIN FROM MH #47 (MAINLINE B7) TO MH #49 (MAINLINE B7). CONNECT ALL EXISTING LATERALS TO 8" SEWER MAIN "B7" (SHEET 19).

CONSTRUCTION SEQUENCE "D"

ALL WORK SHALL BE COMPLETED FOR SEQUENCE "C" BEFORE COMMENCE WORK ON SEQUENCE "D" FROM SHEETS 23 TO 27. ANTICIPATED DURATION: 50 WORKING DAYS.

- 46) ABANDON EXISTING 27", 24", 21" SEWER MAIN FROM DOWNSTREAM END AT STATION 23+42.27 TO STATION SEWER MAIN "B5" NEAR MH#19 (57+06.41), INCLUDING ALL MANHOLES IN BETWEEN.
- 47) PLUG THE EXISTING 8" OUTLET ON THE EXISTING 8" SEWER MAIN ON PARK AVENUE.
- 48) ABANDON EXISTING 8" SEWER MAIN FROM PARK AVENUE TO THE EXISTING 21" SEWER MAIN.
- 49) PLUG 24" INLET AND 21" OUTLET OF EXISTING MANHOLE AT THE UPSTREAM END OF 8" SEWER MAIN "B5."
- 50) ABANDON EXISTING 10" SEWER MAIN AND 24" SEWER MAIN INCLUDING ALL MANHOLES UNDERNEATH THE VICTORIA BRIDGE.
- 51) PLUG THE EXISTING 21" OUTLET OF THE EXISTING 21" SEWER MAIN AT MH #52 (MAINLINE B10).
- 52) ABANDON THE EXISTING 21" SEWER MAIN DOWNSTREAM OF MH #52 (MAINLINE B10).
- 53) PLUG THE EXISTING 8" OUTLET ON MH #51 (MAINLINE B9).
- 54) ABANDON THE EXISTING 8" AND 10" SEWER MAIN DOWNSTREAM OF MH #51 (MAINLINE B9), INCLUDING ALL MANHOLES.
- 55) PLUG THE EXISTING 21" INLET AND 8" OUTLET AT THE EXISTING MANHOLE PER DETAIL "A" ON SHEET 25.
- 56) ABANDON THE EXISTING 8" SEWER MAIN FROM NEAR MH#22 HEADING UPSTREAM TO THE EXISTING MANHOLE PER DETAIL "A" ON SHEET 25.
- 57) PLUG THE EXISTING 8" INLET AT THE MANHOLE PER DETAIL "A" SHEET 26.
- 58) ABANDON THE EXISTING 21" SEWER MAIN FROM THE MANHOLE PER DETAIL "A" ON SHEET 25 TO NORTH OF THE EXISTING MANHOLE PER DETAIL "A" SHEET 26.
- 59) ABANDON THE EXISTING 21" TO 18" SEWER MAIN FROM THE MANHOLE NORTH OF MANHOLE PER DETAIL "A" SHEET 26 TO MH #48 (MAINLINE B7), INCLUDING ALL MANHOLES IN BETWEEN.
- 60) ABANDON THE EXISTING 8" SEWER MAIN BEHIND PRIVATE PROPERTIES ON QUEENS STREET, INCLUDING ALL EXISTING MANHOLES.
- 61) ABANDON THE EXISTING 18" AND 33" SEWER MAINS DOWNSTREAM OF MH #54 AND MH#43.

CONSTRUCTION SEQUENCE "E"

ALL WORK SHALL BE COMPLETED FOR SEQUENCE "D" BEFORE COMMENCE WORK ON SEQUENCE "E" ON SHEET 17. ANTICIPATED DURATION: 10 DAYS.

- 62) CCTV THE EXISTING 24" MAIN "B1" ON BROOKS STREET AND RECORD LOCATION OF ALL EXISTING LATERALS PRIOR TO START OF CONSTRUCTION.
- 63) REHABILITATE THE EXISTING 24" PIPE WITH CURED-IN-PLACE PIPE (CIPP) LINER.
- 64) REHABILITATE THE EXISTING MH #55, MH #56, AND MH #57 WITH FIBER-REINFORCED CEMENTITIOUS LINER.
- 65) PLUG THE EXISTING 24" INLET AT MH #57.

BENCHMARK GPS-57
 CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
 DATUM: 1929 ELEVATION: 952.990



ENGINEER IN RESPONSIBLE CHARGE
 Thuy Nguyen
 R.C.E. No. 64751 EXPIRES: 6-30-19

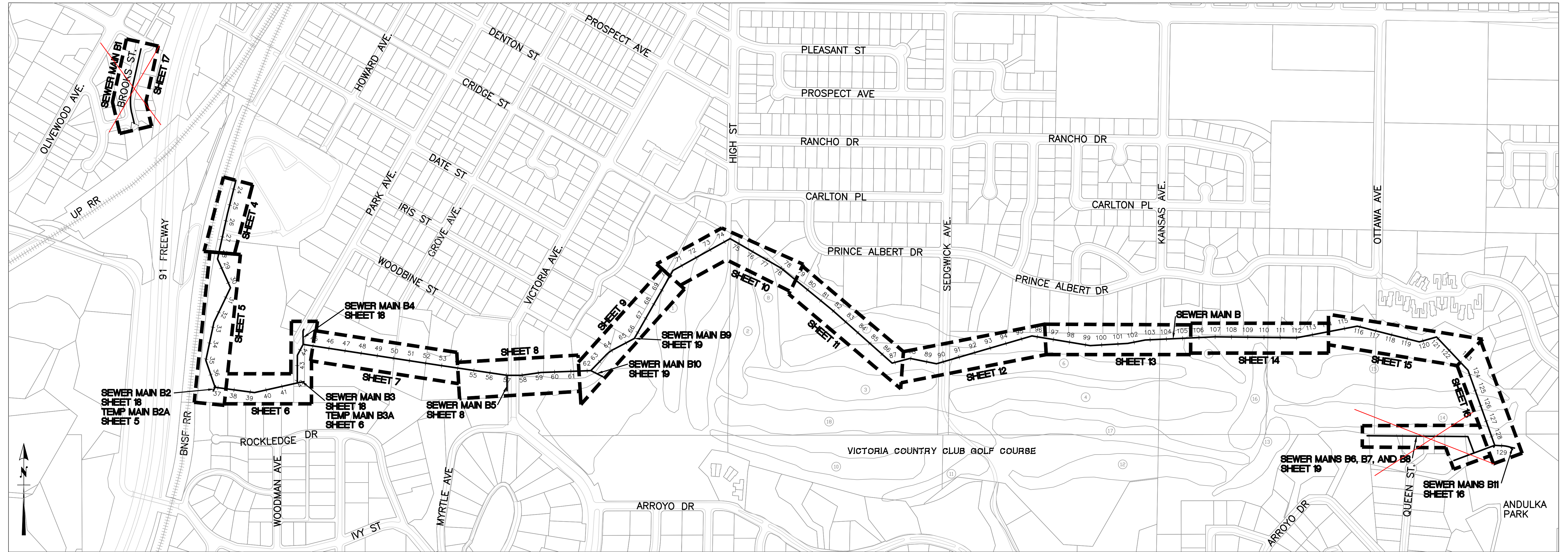


MARK	REVISIONS	APPR.	DATE

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
 REVIEWED BY THE ENGINEERING MANAGER, CONSTRUCTION CONTRACT ADMINISTRATOR, TRAFFIC ENGINEER, CITY SURVEYOR, AND STREET DIVISION PER INITIALS ON THE TITLE SHEET
 APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
CONSTRUCTION SEQUENCE PHASING PLAN
 HORIZ. SCALE: 1"=300' VERT. SCALE: N/A

DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524
S-2108
 SHEET **2** OF **28**
 FILE NAME:



SHEET INDEX MAP

SCALE: 1"=300'

CONSTRUCTION NOTES

NUMBERS ABOVE 100 IN A HEXAGON ON THE PLAN REFER TO THE RESPECTIVE STANDARD DRAWING AND SHALL BE CONSTRUCTED ACCORDINGLY. ANY NOTE SHOWN BELOW THE STANDARD DRAWING NUMBER INDICATES THE SPECIFIC TYPE, ACTION, OR MODIFICATION TO BE CONSTRUCTED. DIMENSIONS OF NEW FACILITY SHALL BE MODIFIED AS NECESSARY.

- 1 EXISTING SEWER MAIN TO REMAIN IN SERVICE.
- 2 PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR TO VERIFY LOCATION. PROTECT WATER UTILITY IN PLACE. IF RELOCATION IS REQUIRED CONTRACTOR IS TO NOTIFY THE WATER UTILITY ENGINEER. THE WATER UTILITY SHALL HAVE 30 BUSINESS DAYS TO RELOCATE THE INTERFERING FACILITIES.
- 3 PROTECT AND MAINTAIN EXISTING SEWER SERVICE DURING CONSTRUCTION.
- 4 MODIFY EXISTING MANHOLE PER INDICATED MANHOLE SCHEMATIC DETAIL.
- 5 CONSTRUCT MANHOLE PER INDICATED MANHOLE SCHEMATIC DETAIL (BID ALTERNATE 1)
- 6 PROTECT AND SUPPORT EXISTING UTILITY IN PLACE. VERIFY LOCATION PRIOR TO CONSTRUCTION.
- 7 REPLACE REMOVED OR DAMAGED FENCING IN KIND.
- 8 PROTECT EXISTING RETAINING WALL IN PLACE.
- 9 PROTECT EXISTING FENCE IN PLACE
- 10 INSTALL 36" FRPM PER TRENCH DETAILS ON SHEET 23.
- 11 DEMOLISH SEWER MAIN AND MANHOLES PER PLANS AND DEMOLITION SPECIFICATIONS PRIOR TO CONSTRUCTING 36" MAIN.
- 12 PROTECT STREAM BED AND BANKS FROM DAMAGE DURING CONSTRUCTION PER CONSTRUCTION SPECIFICATIONS.
- 13 PAVE EXISTING ROADWAY AS SHOWN IN THE HATCHED AREA WITH 4" ASPHALT CONCRETE (AC) OVER 6" AGGREGATE BASE (AB).

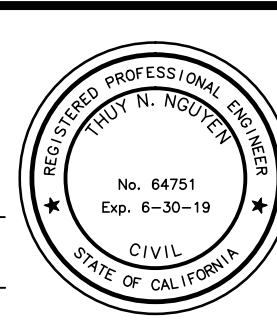
- 14 PROTECT EXISTING STRUCTURE IN PLACE.
- 15 RECONNECT EXISTING LATERALS TO THE MAIN LINE PER MAINLINE PIPE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO FIELD VERIFY LATERAL LOCATION AND CONNECTION VIA CCTV PRIOR TO CONSTRUCTION.
- 16 REMODEL EXISTING MANHOLE BY CONSTRUCTING NEW BOTTOM, CHANNELS AND SHELVES OVER THE EXISTING. REMOVE TOP 3" OF EXISTING BOTTOM PRIOR TO CONSTRUCTING NEW BOTTOM.
- 17 PROTECT EXISTING BRIDGE FOOTING IN PLACE.
- 18 EXISTING IRRIGATION SYSTEM BE REROUTED PRIOR TO CONSTRUCTION AND REINSTALLED AFTER CONSTRUCTION BY THE VICTORIA COUNTRY CLUB GOLF COURSE.
- 19 PROTECT EXISTING TREE IN PLACE.
- 20 MINIMIZE DAMAGES TO THE EXISTING CART PATH TO THE MAXIMUM PRACTICAL EXTENT POSSIBLE. CART PATH WILL BE RECONSTRUCTED BY THE VICTORIA COUNTRY CLUB.
- 21 PROTECT EXISTING STRUCTURE AND FENCE IN PLACE.
- 22 CONSTRUCT JUNCTION BOX PER DETAILS ON SHEET 21 (BID ALTERNATE 1) OR INSTALL PRECAST POLYMER JUNCTION BOX BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2)
- 23 INSTALL 8" PVC SDR-35 WITH TRENCH BEDDING PER STD. DWG. 452, CASE III.
- 24 ABANDON EXISTING SEWER LATERAL PER DEMOLITION PLANS.
- 25 PROTECT EXISTING WATER PIPELINE IN PLACE TO ENSURE CONTINUOUS OPERATIONAL OF THIS PIPE AT ALL TIMES.
- 26 INSTALL 10" PVC SDR-35 WITH TRENCH BEDDING PER STD. DWG. 452, CASE III.
- 27 REMOVE INTERFERING PORTION OF EXISTING SEWER PIPE, MANHOLE, AND/OR LATERAL AND BYPASS EXISTING FLOW AS NECESSARY. PLUG ENDS AND ABANDON REMAINING PIPE PER DEMOLITION SPECIFICATIONS.
- 28 ~~JACK AND BORE 8" VCP PER SPECIFICATIONS AND SPECIAL PROVISIONS.~~
- 29 ~~MICROTUNNEL-36" FRPM PER SPECIFICATIONS AND SPECIAL PROVISIONS~~
- 30 ~~INSTALL 10" PVC SDR-35 WITH TRENCH BEDDING PER STD. DWG. 452, CASE III.~~
- 31 INSTALL FRPM MANHOLE PER DETAIL ON SHEET 22 (BID ALTERNATE 1)
- 32 DEMOLISH SEWER MAIN AND MANHOLES PER PLANS AND DEMOLITION SPECIFICATIONS PRIOR TO CONSTRUCTING 36" MAIN. PROVIDE CONTINUED SERVICE TO AFFECTED BRANCH MAINS PER PLAN DETAIL AND PROFILE ON THIS SHEET.
- 33 PLUG EXISTING 10" INLET AND OUTLET PER DEMOLITION SPECIFICATIONS.
- 34 PLUG EXISTING 10" OUTLET AND REBUILD 8" INLET AS A TEMPORARY BYPASS OUTLET PER NOTE 35.
- 35 DEMOLISH INTERFERING SECTION OF EXISTING 8" SEWER MAIN AND PLUG EXISTING 8" OUTLET PER DEMOLITION SPECIFICATIONS.
- 36 AFTER COMPLETION OF SEWER MAIN "B2" DEMOLISH EXISTING 8" SEWER BYPASS AND PLUG 8" INLET TO EXISTING 27" SEWER MAIN PER DEMOLITION SPECIFICATIONS.
- 37 PLUG EXISTING 8" OUTLET AFTER ACTIVATION OF PROPOSED SEWER MAIN "B" PER DEMOLITION SPECIFICATIONS.
- 38 AFTER COMPLETION OF SEWER MAIN "B3" DEMOLISH TEMPORARY 10" SEWER. PLUG TEMPORARY 10" INLET AND EXISTING 10" OUTLET FROM EXISTING 10" SEWER MAIN PER DEMOLITION SPECIFICATIONS.
- 39 ABANDON EXISTING 8" SEWER MAIN PER DEMOLITION SPECIFICATIONS.
- 40 ~~MICROTUNNEL-12" VCP PER SPECIFICATIONS AND SPECIAL PROVISIONS.~~
- 41 PLUG EXISTING 33" INLET AND OUTLET PER DEMOLITION SPECIFICATIONS.
- 42 PLUG EXISTING 18" INLET AND OUTLET AND DEMOLISH INTERFERING SECTION OF EXISTING PIPE PER DEMOLITION SPECIFICATIONS.
- 43 PLUG EXISTING SEWER WYE (24" SIDE) WITH MORTAR ONCE THE NEW 36" PIPE IS READY TO ACCEPT FLOW.
- 44 INSTALL 36" ID VCP TO 36" ID FRPM ADAPTER. ENCASE ADAPTER IN 2-SACK CONCRETE SLURRY.
- 45 REMOVE EXISTING MANHOLE STEPS AND REHABILITATE THE MANHOLE WITH A MINIMUM OF 2" THICK FIBER-REINFORCED CEMENTITIOUS LINER.

- 46 ~~LINE EXISTING 24" VCP WITH CURED-IN-PLACE PIPE (CIPP) LINER.~~
- 47 RE-ESTABLISH LATERAL CONNECTION WITH MAIN LINE AFTER THE LINING PROCESS.
- 48 REPLACE EXISTING LATERAL AND INSTALL NEW CLEANOUT PER STD. DWG. 560 AND 562. FIELD VERIFY LATERAL LOCATION AND CONNECTION. LENGTHS SHOWN ARE FROM THE APPROXIMATE CENTER OF THE HOUSE FOOTPRINT.
- 49 INSTALL PRECAST POLYMER MANHOLE - 48" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).
- 50 INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).
- 51 JOIN EXISTING SEWER LATERAL. VERIFY INVERT PRIOR TO CONSTRUCTION. CAP AND PLUG DOWNSTREAM OF EXISTING LATERAL.

BENCHMARK GPS-57
 CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
 DATUM: 1929 ELEVATION: 952.990



ENGINEER IN RESPONSIBLE CHARGE
 Thuy Nguyen
 R.C.E. No. 64751 EXPIRES: 6-30-19



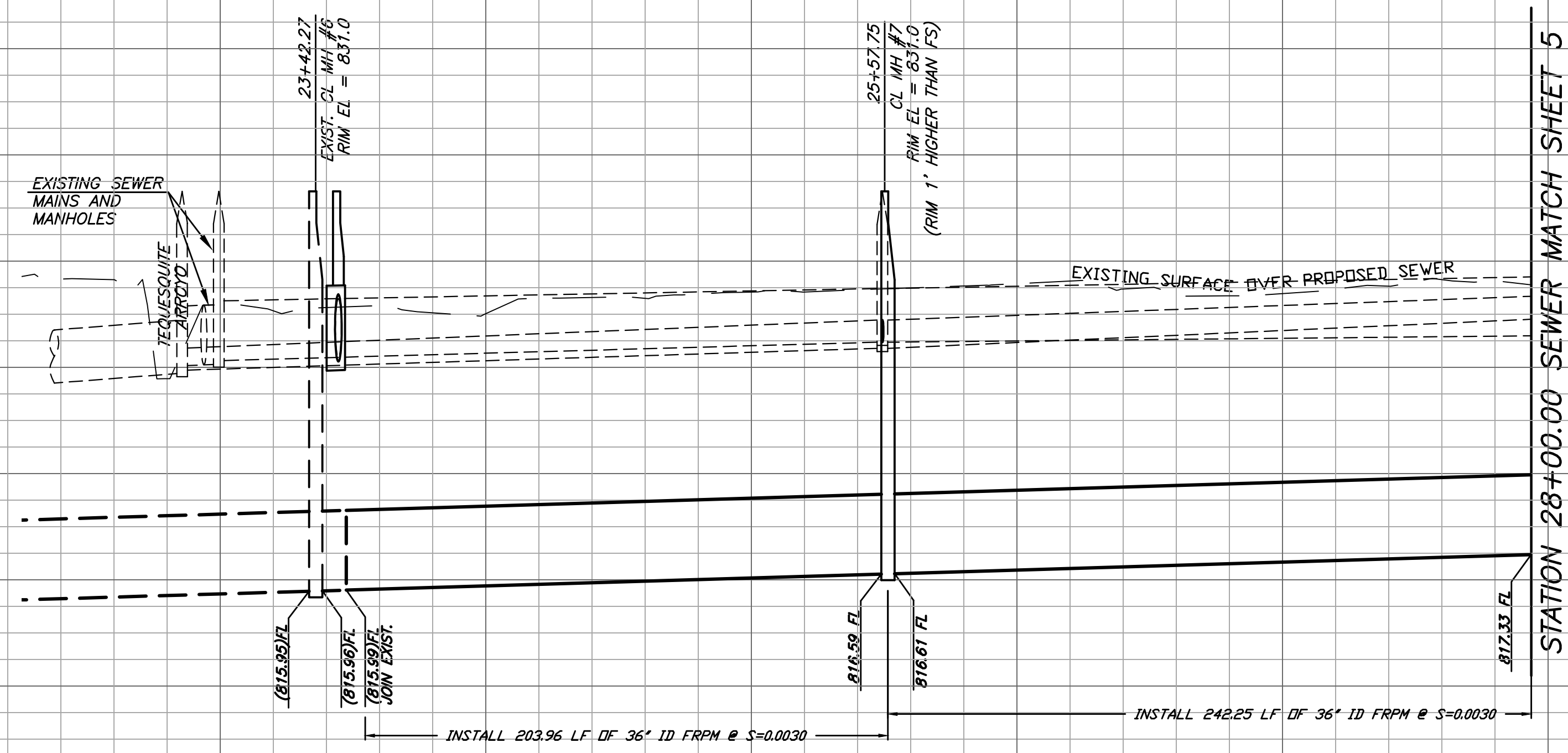
MARK	REVISIONS	APPR.	DATE
DESIGNED BY	DRAWN BY	CHECKED BY	TN

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
 REVIEWED BY THE ENGINEERING MANAGER, CONSTRUCTION CONTRACT ADMINISTRATOR, TRAFFIC ENGINEER, CITY SURVEYOR, AND STREET DIVISION PER INITIALS ON THE TITLE SHEET
 APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
SHEET INDEX MAP AND CONSTRUCTION NOTES
 HORIZ. SCALE: VERT. SCALE:

DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524
S-2108
 SHEET **3** OF **28**
 FILE NAME:

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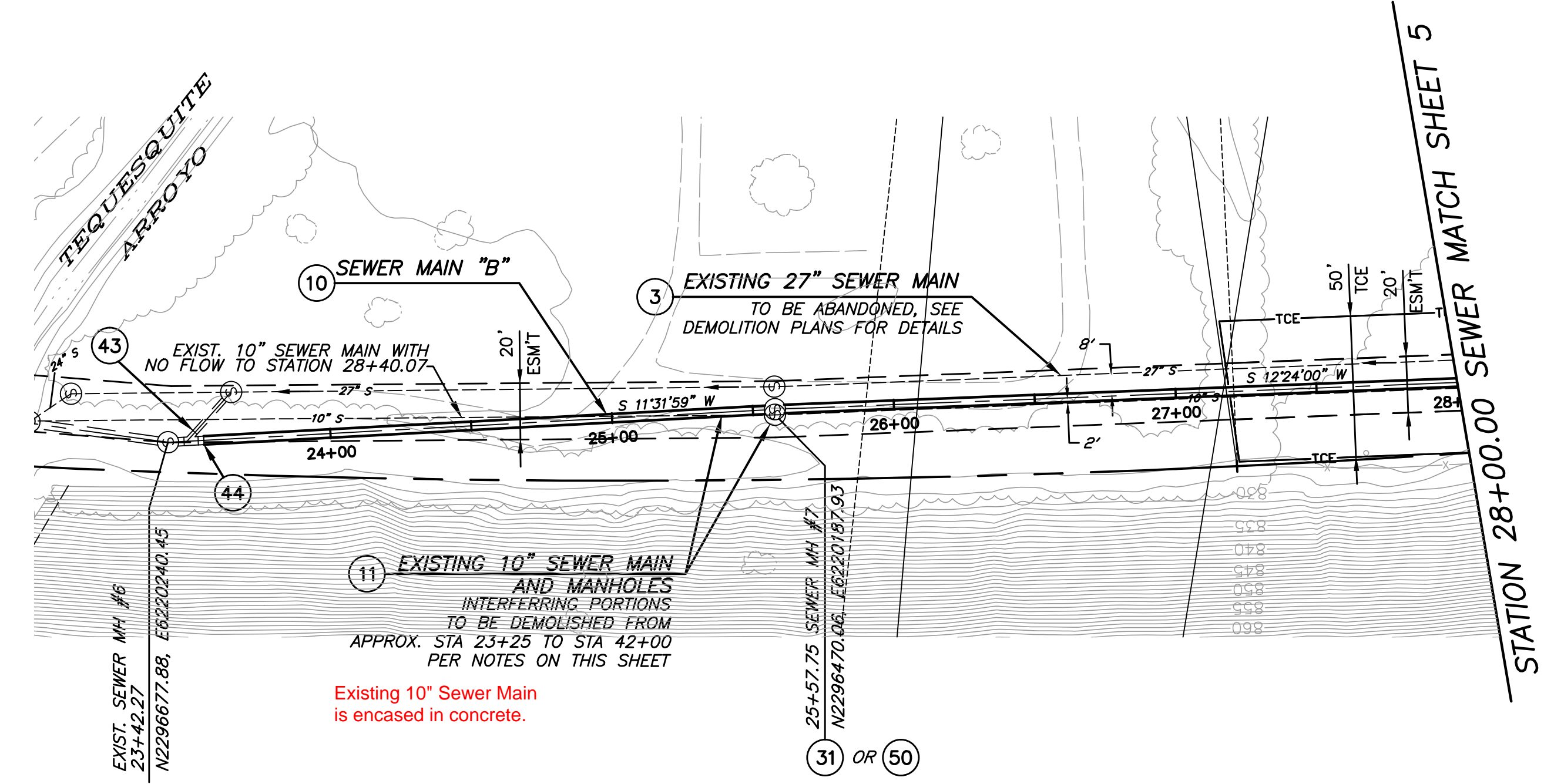
PROFILE SCALE
HORIZ. 1" = 40'
VERT. 1" = 4'

19 20 21 22 23 24 25 26 27 28

SEWER MAIN "B"

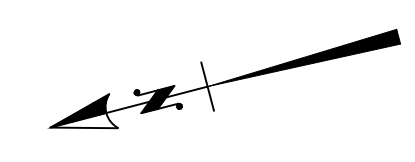
STATION 28+00.00 SEWER MATCH SHEET 5

Revised Stationing, Alignment, Elevations and Manholes are on sheets 30-38.



CONSTRUCTION NOTES

- 3 PROTECT AND MAINTAIN EXISTING SEWER SERVICE DURING CONSTRUCTION.
- 10 INSTALL 36" FRPM PER TRENCH DETAILS ON SHEET 23.
- 11 DEMOLISH SEWER MAIN AND MANHOLES PER PLANS AND DEMOLITION SPECIFICATIONS PRIOR TO CONSTRUCTING 36" SEWER MAIN.
- 31 INSTALL NEW FRPM MANHOLE PER DETAIL ON SHEET 22 (BID ALTERNATE 1).
- 43 PLUG EXISTING SEWER WYE (24" SIDE) WITH MORTAR ONCE NEW 36" PIPE IS READY TO ACCEPT FLOW.
- 44 INSTALL 36" ID VCP TO 36" ID FRPM ADAPTER. ENCASE ADAPTER IN 2-SACK CONCRETE SLURRY.
- 50 INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).



BENCHMARK GPS-57
CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
DATUM: 1929 ELEVATION: 952.990

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ENGINEER IN RESPONSIBLE CHARGE
Thuy Nguyen
R.C.E. No. 64751 EXPIRES: 6-30-19



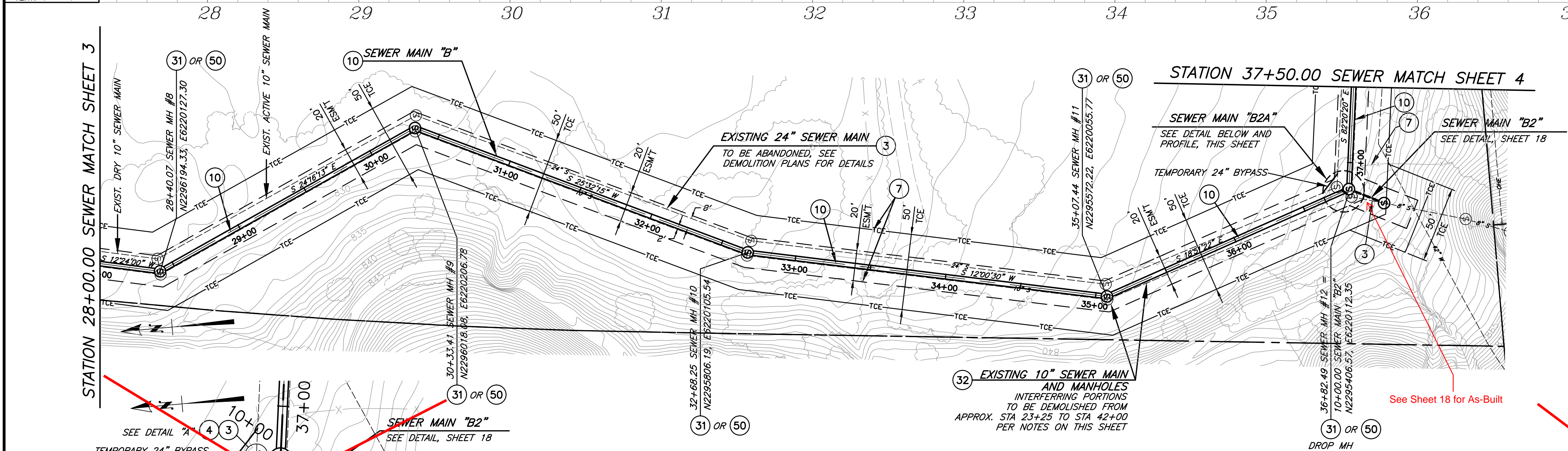
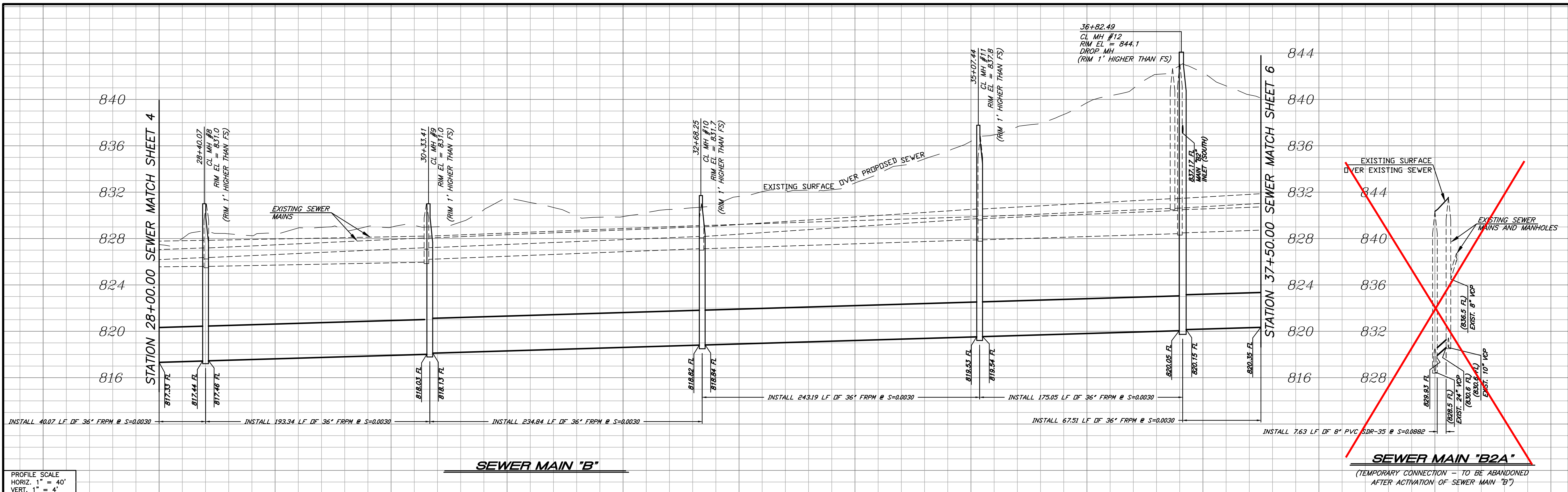
MARK	REVISIONS	APPR.	DATE

CITY OF RIVERSIDE, CALIFORNIA
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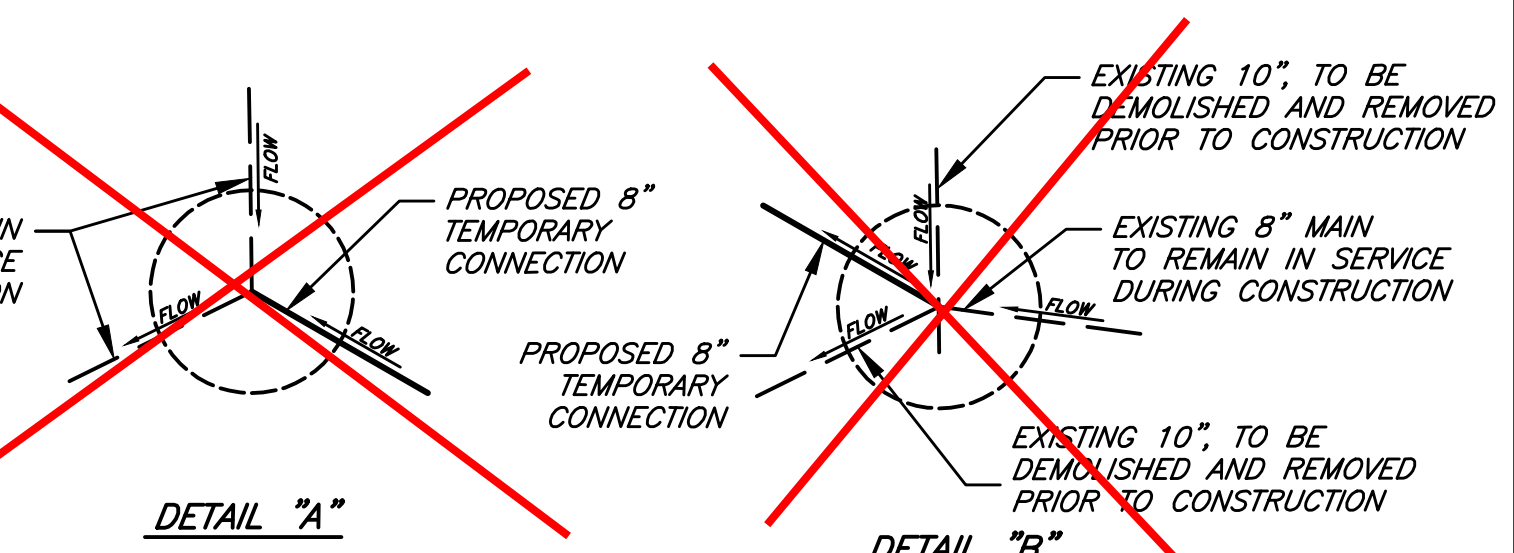
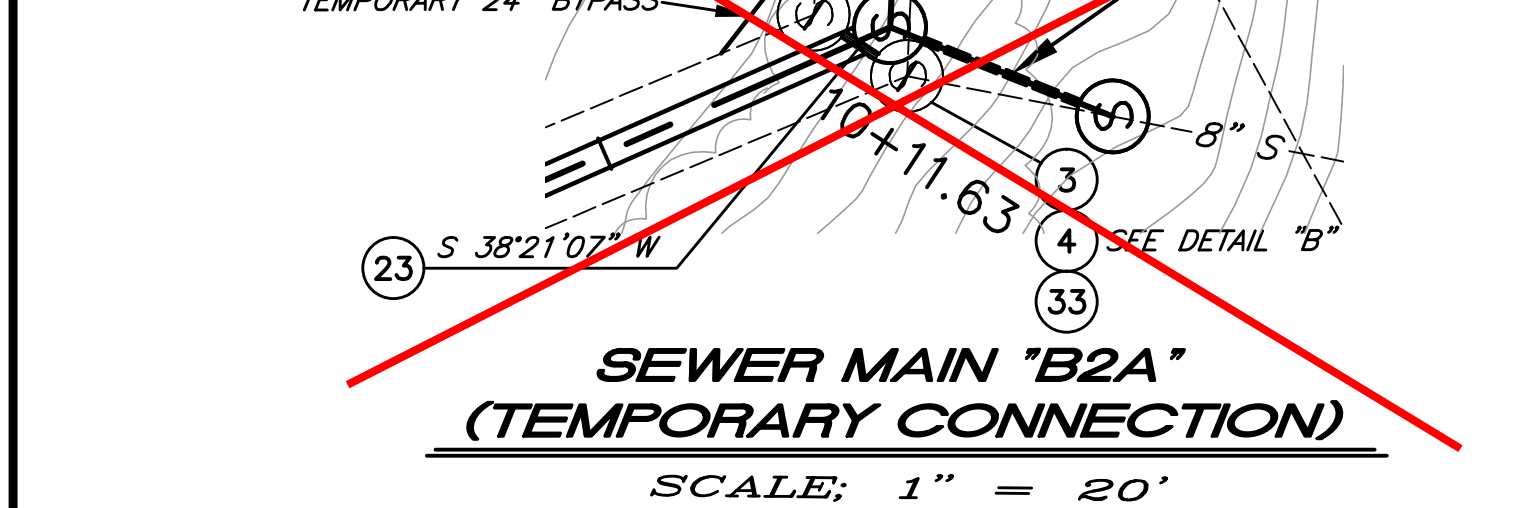
APPROVED BY THE CITY ENGINEER
PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT
TEQUESQUITE ARROYO
TRUNK SEWER REPLACEMENT
PHASE IIB
SEWER MAIN "B"
FROM STATION 23+42.30 TO
STATION 28+00.00
HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'

DESIGN WORK ORDER NO.: 0501812
CONSTR. WORK ORDER NO.: 1609524
S-2108
SHEET **4** OF **28**
FILE NAME:



- CONSTRUCTION NOTES**
- 3 PROTECT AND MAINTAIN EXISTING SEWER SERVICE DURING CONSTRUCTION.
 - 4 MODIFY EXISTING MANHOLE PER INDICATED MANHOLE SCHEMATIC DETAIL.
 - 7 REPLACE REMOVED OR DAMAGED FENCE IN KIND.
 - 9 PROTECT EXISTING FENCE IN PLACE
 - 10 INSTALL 36" FRPM PER TRENCH DETAILS ON SHEET 23.
 - 23 INSTALL 8" PVC SDR-35 WITH TRENCH BEDDING PER STD. DWG. 452 CASE III.
 - 31 INSTALL NEW FRPM MANHOLE PER DETAIL ON SHEET 22 (BID ALTERNATIVE 1).
 - 32 DEMOLISH SEWER MAIN AND MANHOLES PER PLANS AND DEMOLITION SPECIFICATIONS PRIOR TO CONSTRUCTING 36" MAIN. PROVIDE CONTINUED SERVICE TO AFFECTED BRANCH MAINS PER PLAN DETAIL AND PROFILE ON THIS SHEET.
 - 33 PLUG EXISTING 10" INLET AND OUTLET PER DEMOLITION SPECIFICATIONS.
 - 50 INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).



Revised Stationing, Alignment, Elevations and Manholes are on sheets 30-38.

MANHOLE SCHEMATIC
 NOT TO SCALE

BENCHMARK GPS-57 CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE. DATUM: 1929 ELEVATION: 952.990	<p>Under Ground Service Alert of Southern California Call: TOLL FREE 1-800-227-2600 TWO WORKING DAYS BEFORE YOU DIG</p>	<p>ENGINEER IN RESPONSIBLE CHARGE Chuy Nguyen R.C.E. No. 64751 EXPIRES: 6-30-19</p>	CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS	SEWER REPLACEMENT TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB	DESIGN WORK ORDER NO.: 0501812 CONSTR. WORK ORDER NO.: 1609524
				SEWER MAIN "B" FROM STATION 28+00.00 TO STATION 37+50.00 HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'	S-2108 SHEET 5 OF 28 FILE NAME:

STATION 37+50.00 SEWER MATCH SHEET 5

844
840
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832
828
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820
816

INSTALL 176.74 LF OF 36" FRPM @ S=0.0030
INSTALL 269.40 LF OF 36" FRPM @ S=0.0030
INSTALL 170.02 LF OF 36" FRPM @ S=0.0051
INSTALL 75.72 LF OF 36" FRPM MICROTUNNEL PIPE @ S=0.0054 PER SPECIFICATIONS AND SPECIAL PROVISIONS

EXISTING SURFACE OVER PROPOSED SEWER
EXISTING SEWER MAINS AND MANHOLES
TEQUESQUITE ARROYO
INSTALL 110.79 LF OF 36" FRPM @ S=0.0052

39+26.74 CL MH #13 RIM EL = 840.0 (RIM 1" HIGHER THAN FS)
STA. EON: 41+96.14 BACK RIM EL = 41+83.47 AHEAD RIM EL = 838.2 (RIM 1" HIGHER THAN FS)
43+63.49 CL MH #15 RIM EL = 836.2 (RIM 1" HIGHER THAN FS)
44+39.21 CL MH #16 RIM EL = 839.3

820.35 FL
820.87 FL
820.89 FL
821.87 FL
821.77 FL
822.60 FL
822.63 FL
823.01 FL
823.11 FL
823.67 FL

STATION 45+50.00 SEWER MATCH SHEET 7

840
836
832
828
824
820
816

INSTALL 6.26± LF OF 10" PVC SDR-35 @ S=0.133

EXISTING SURFACE OVER PROPOSED SEWER
EXISTING SEWER MAINS AND MANHOLES
INSTALL 6.26± LF OF 10" PVC SDR-35 @ S=0.133

832.46 FL
831.4 FL
833.3 FL
836.1 FL
836.5 FL

SEWER MAIN "B3"
(TEMPORARY CONNECTION TO BE ABANDONED AFTER ACTIVATION OF SEWER MAIN "B")

SEWER MAIN "B"

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

38 39 40 41 42 43 44 45 10

STATION 37+50.00 SEWER MATCH SHEET 5

EXISTING 21" SEWER MAIN TO BE ABANDONED, SEE DEMOLITION PLANS FOR DETAILS
EXISTING 10" SEWER MAIN AND MANHOLES INTERFERING PORTIONS TO BE DEMOLISHED FROM APPROX. STA 23+25 TO STA 42+00 PER NOTES ON THIS SHEET
EXISTING 8" MAIN TO BE REMOVED
PROPOSED 10" MAIN (SEE DETAIL ON SHT 18)
EXISTING 10" TO BE ABANDONED
EXISTING 8" TO REMAIN IN SERVICE
PROPOSED 10" MAIN (SEE DETAIL ON SHT 18)
EXISTING 10" TO REMAIN IN SERVICE
EXISTING 10" SEWER MAIN TO BE ABANDONED, SEE DEMOLITION PLANS FOR DETAILS
EXISTING 10" SEWER MAIN TO BE ABANDONED, SEE DEMOLITION PLANS FOR DETAILS
SEWER MAIN "B3A" (TEMPORARY CONNECTION)
SCALE: 1" = 20'

STATION 42+50.00 SEWER MATCH AT RIGHT

SEWER MAIN "B3" SEE DETAIL, SHEET 18
SEWER MAIN "B3A" SEE DETAIL BELOW AND PROFILE THIS SHEET
EXISTING 8" SEWER MAIN TO BE ABANDONED, SEE DEMOLITION PLANS FOR DETAILS

STATION 45+50.00 SEWER MATCH AT LEFT

SEWER MAIN "B4" SEE DETAIL, SHEET 18
SEWER MAIN "B" SEE SHEET 18 FOR AS-BUILT
EXISTING 8" MAIN TO BE REMOVED
EXISTING 21" TO REMAIN SERVICE DURING CONSTRUCTION
EXISTING 21" TO REMAIN SERVICE DURING CONSTRUCTION
EXISTING 8" MAIN TO BE REMOVED
PROPOSED 10" TEMPORARY CONNECTION
DETAIL "B"

CONSTRUCTION NOTES

31 OR 50
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EXISTING SEWER MAIN TO REMAIN IN SERVICE.
PROTECT AND MAINTAIN EXISTING SEWER SERVICE DURING CONSTRUCTION.
MODIFY EXISTING MANHOLE PER INDICATED MANHOLE SCHEMATIC DETAIL.
REPLACE REMOVED OR DAMAGED FENCING IN KIND.
INSTALL 36" FRPM WITH TRENCH BEDDING PER DETAILS ON SHEET 23.
PROTECT STREAM BED AND BANKS FROM DAMAGE DURING CONSTRUCTION PER CONSTRUCTION SPECIFICATIONS.
INSTALL 10" PVC SDR-35 WITH TRENCH BEDDING PER STD. DWG. 452, CASE III.
MICROTUNNEL 36" FRPM PER SPECIFICATIONS AND SPECIAL PROVISIONS.
INSTALL NEW FRPM MANHOLE PER DETAIL ON SHEET 22 (BID ALTERNATE 1).
DEMOLISH SEWER MAIN AND MANHOLES PER DEMOLITION PLANS AND SPECIFICATIONS PRIOR TO CONSTRUCTING 36" MAIN. PROVIDE CONTINUED SERVICE TO AFFECTED BRANCH MAINS PER PLAN DETAIL AND PROFILE ON THIS SHEET.
PLUG EXISTING 10" OUTLET AND REBUILD 8" INLET AS A TEMPORARY BYPASS OUTLET PER NOTE 35.
DEMOLISH INTERFERING SECTION OF EXISTING 8" SEWER MAIN AND PLUG EXISTING 8" OUTLET PER DEMOLITION SPECIFICATIONS.
INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).

Revised Stationing, Alignment, Elevations and Manholes are on sheets 30-38.

MANHOLE SCHEMATIC (CONT.)

BENCHMARK GPS-57
CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
DATUM: 1929 ELEVATION: 952.990

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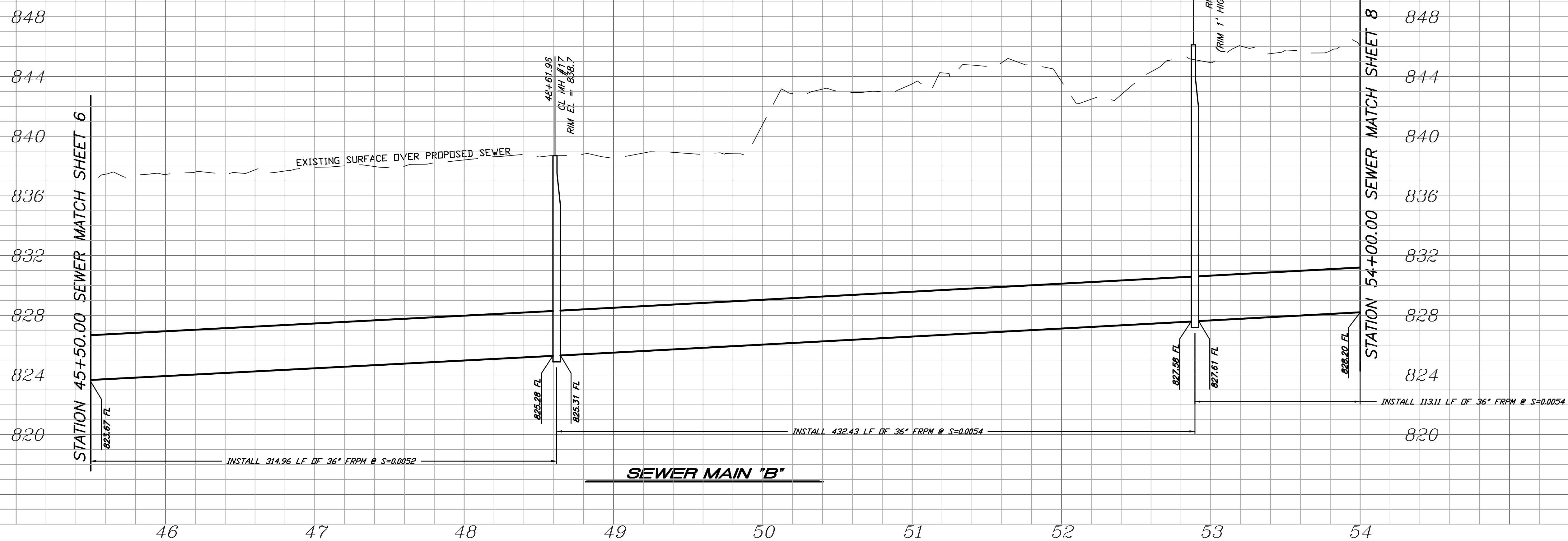
ENGINEER IN RESPONSIBLE CHARGE
Thuy Nguyen
R.C.E. No. 64751 EXPIRES: 6-30-19

DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: TN

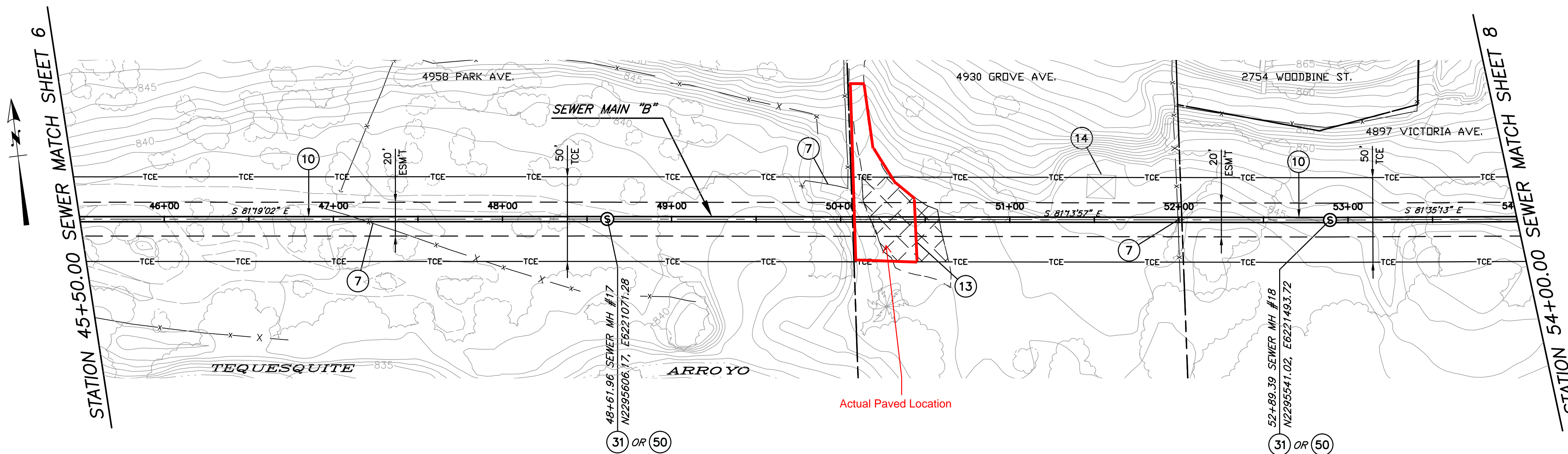
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DEPARTMENT OF PUBLIC WORKS
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APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
SEWER MAIN "B" FROM STATION 37+50.00 TO STATION 45+50.00
HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'

DESIGN WORK ORDER NO.: 0501812
CONSTR. WORK ORDER NO.: 1609524
S-2108
SHEET 6 OF 28
FILE NAME:



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



CONSTRUCTION NOTES

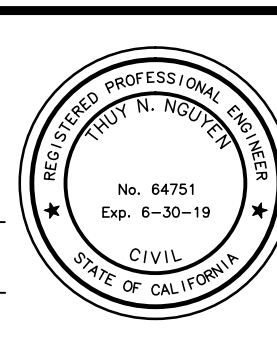
- (7) REPLACE REMOVED OR DAMAGED FENCING IN KIND.
- (10) INSTALL 36" FRPM WITH TRENCH BEDDING PER DETAILS ON SHEET 23.
- (13) PAVE EXISTING ROADWAY AS SHOWN IN THE HATCHED AREA WITH 4" ASPHALT CONCRETE (AC) OVER 6" AGGREGATE BASE (AB).
- (14) PROTECT EXISTING STRUCTURE IN PLACE.
- (31) INSTALL NEW FRPM MANHOLE PER DETAIL ON SHEET 22 (BID ALTERNATE 1).
- (50) INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).

Revised Stationing, Alignment, Elevations and Manholes are on sheets 30-38.

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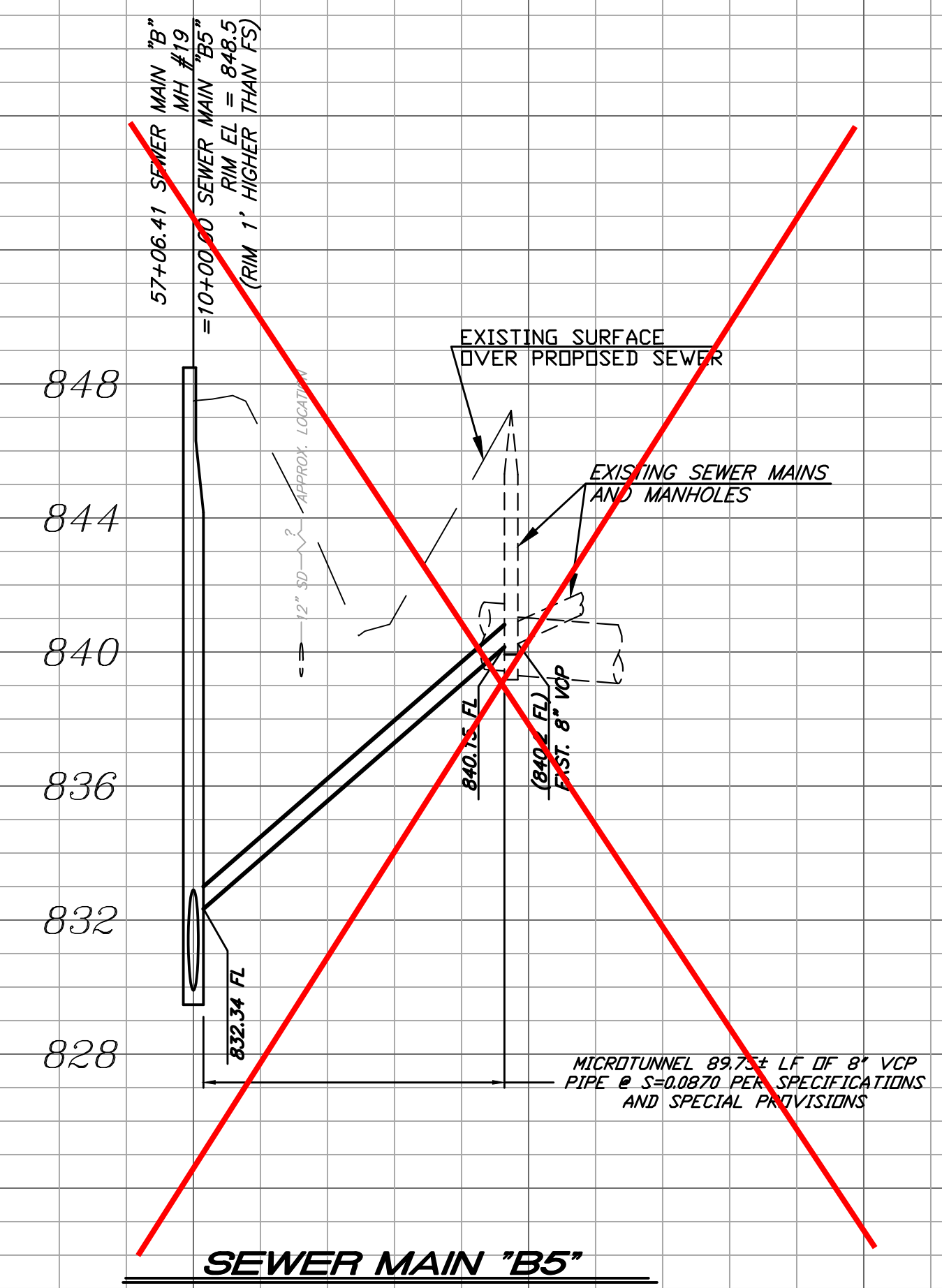
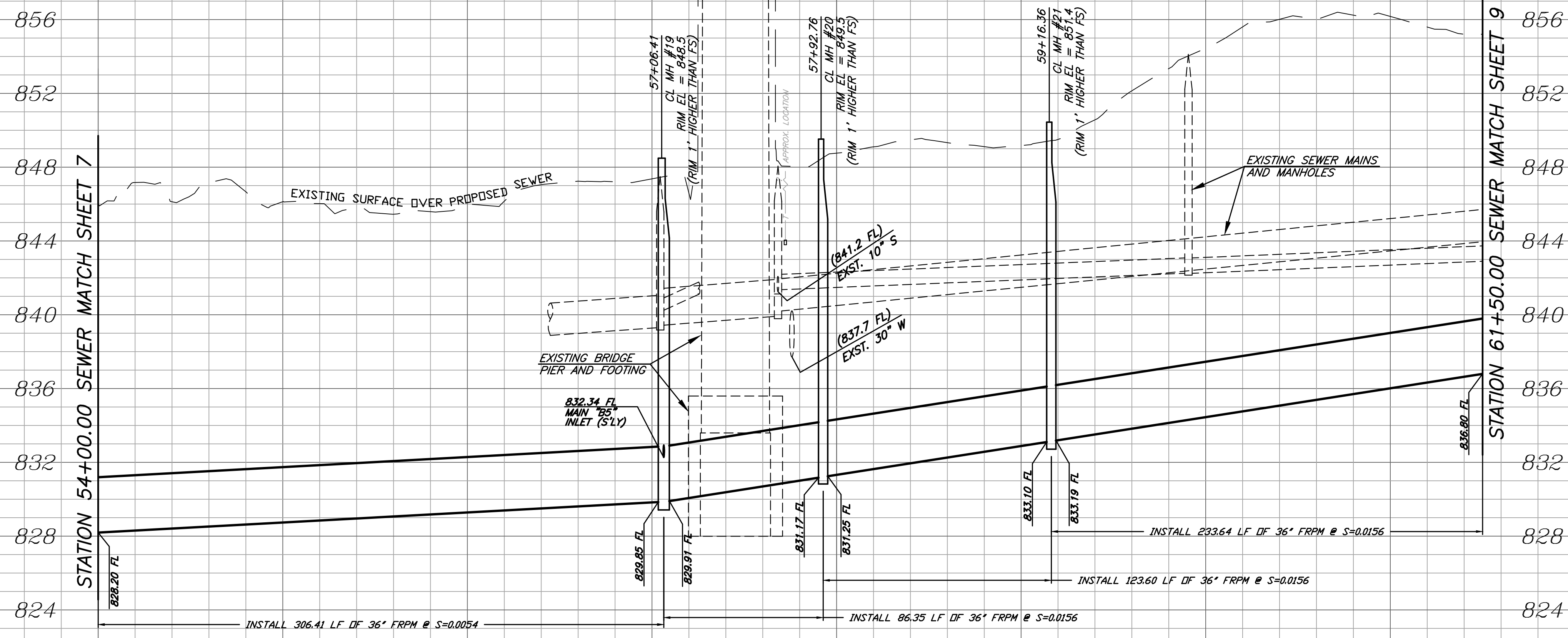
ENGINEER IN RESPONSIBLE CHARGE
 Tuy Nguyen
 R.C.E. No. 64751 EXPIRES: 6-30-19



MARK	REVISIONS	APPR.	DATE

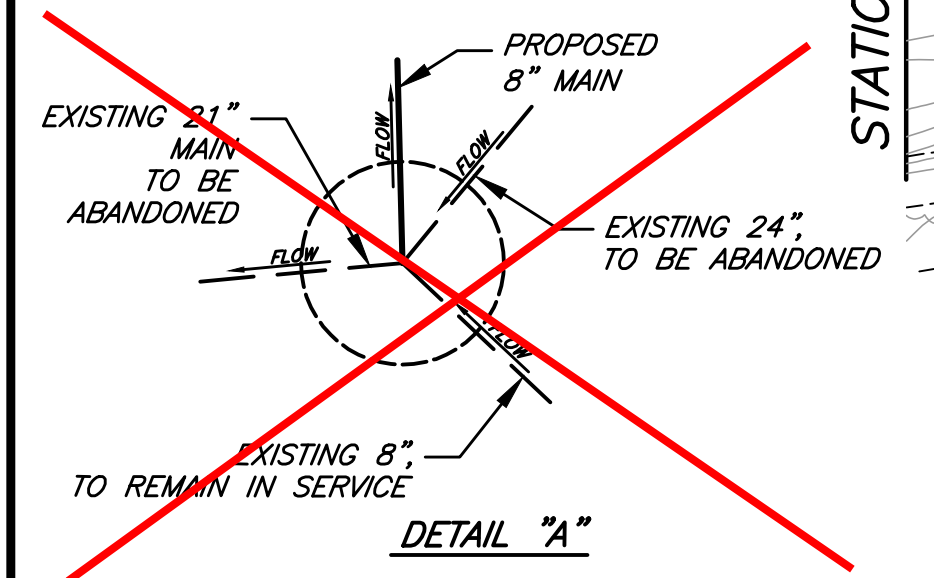
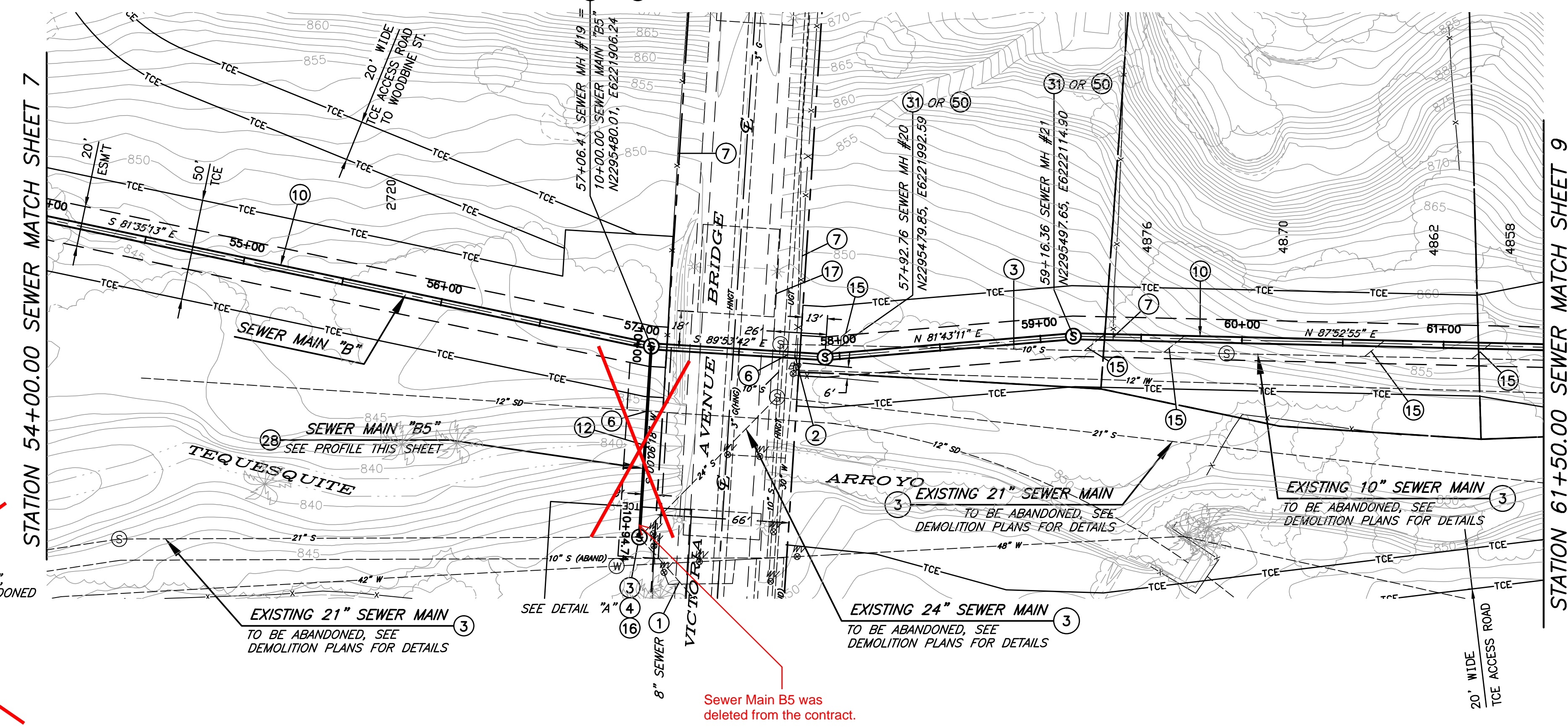
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DESIGN WORK ORDER NO.: 0501812 CONSTR. WORK ORDER NO.: 1609524	S-2108
SEWER REPLACEMENT TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB	SHEET 7 OF 28
SEWER MAIN "B" FROM STATION 45+50.00 TO STATION 54+00.00	FILE NAME:
HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'	



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

54 55 56 57 58 59 60 61 10 11



CONSTRUCTION NOTES

- 1 EXISTING SEWER MAIN TO REMAIN IN SERVICE.
- 2 PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR TO VERIFY LOCATION. PROTECT WATER UTILITY IN PLACE. IF RELOCATION IS REQUIRED CONTRACTOR IS TO NOTIFY THE WATER UTILITY ENGINEER. THE WATER UTILITY SHALL HAVE 30 BUSINESS DAYS TO RELOCATE THE INTERFERING FACILITIES.
- 3 PROTECT AND MAINTAIN EXISTING SEWER SERVICE DURING CONSTRUCTION.
- 4 MODIFY EXISTING MANHOLE PER INDICATED MANHOLE SCHEMATIC DETAIL.
- 6 PROTECT AND SUPPORT EXISTING UTILITY IN PLACE. VERIFY LOCATION PRIOR TO CONSTRUCTION.
- 7 REPLACE REMOVED OR DAMAGED FENCING IN KIND.
- 10 INSTALL 36" FRPM WITH TRENCH BEDDING PER DETAILS ON SHEET 23.
- 12 PROTECT STREAM BED AND BANKS FROM DAMAGE DURING CONSTRUCTION PER CONSTRUCTION SPECIFICATIONS.
- 15 RECONNECT EXISTING LATERALS TO THE MAIN LINE PER MAINLINE PIPE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO FIELD VERIFY LATERAL LOCATION AND CONNECTION VIA CCTV PRIOR TO CONSTRUCTION.
- 16 REMODEL EXISTING MANHOLE BY CONSTRUCTING NEW BOTTOM, CHANNELS AND SHELVES OVER THE EXISTING. REMOVE TOP 3" OF EXISTING BOTTOM PRIOR TO CONSTRUCTING NEW BOTTOM.
- 17 PROTECT EXISTING BRIDGE IN PLACE.
- 28 JACK AND BORE 8" VCP PER SPECIFICATIONS AND SPECIAL PROVISIONS. FILL ANNULAR SPACE WITH CLSM.
- 31 INSTALL NEW FRPM MANHOLE PER DETAIL ON SHEET 22 (BID ALTERNATE 1).
- 50 INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).

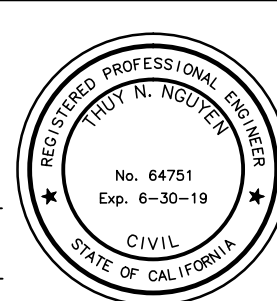
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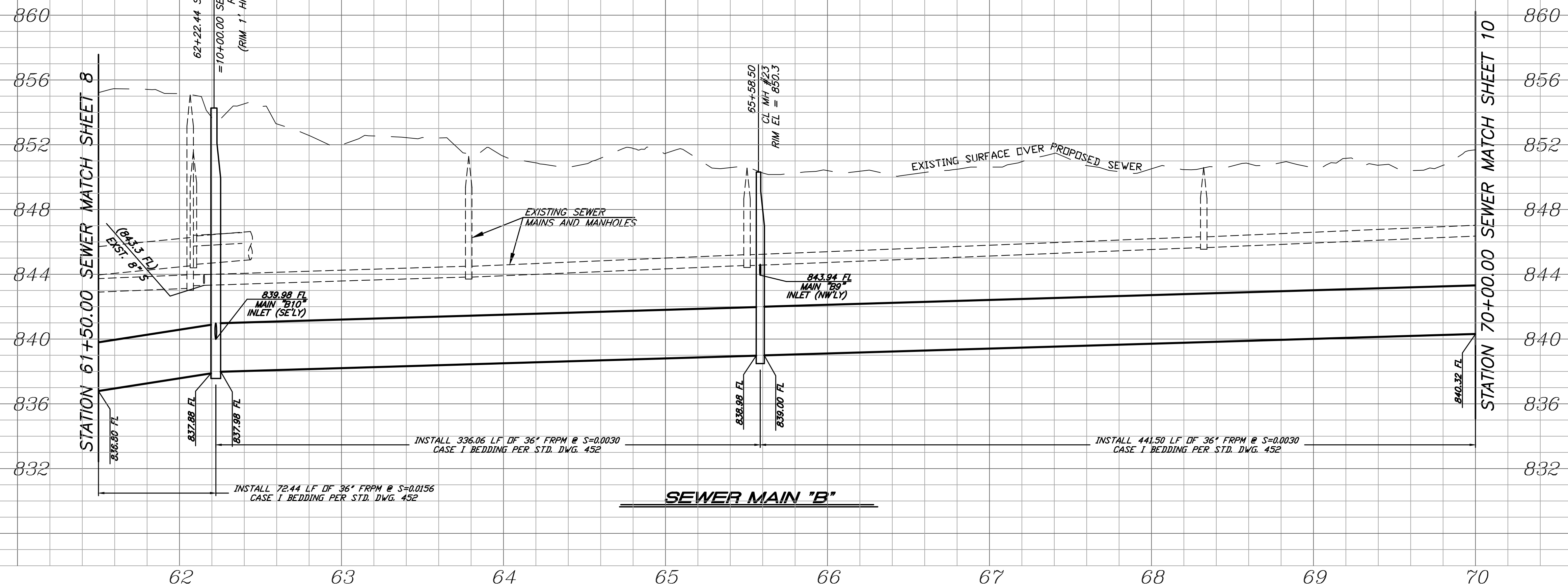


MARK	REVISIONS	APPR.	DATE

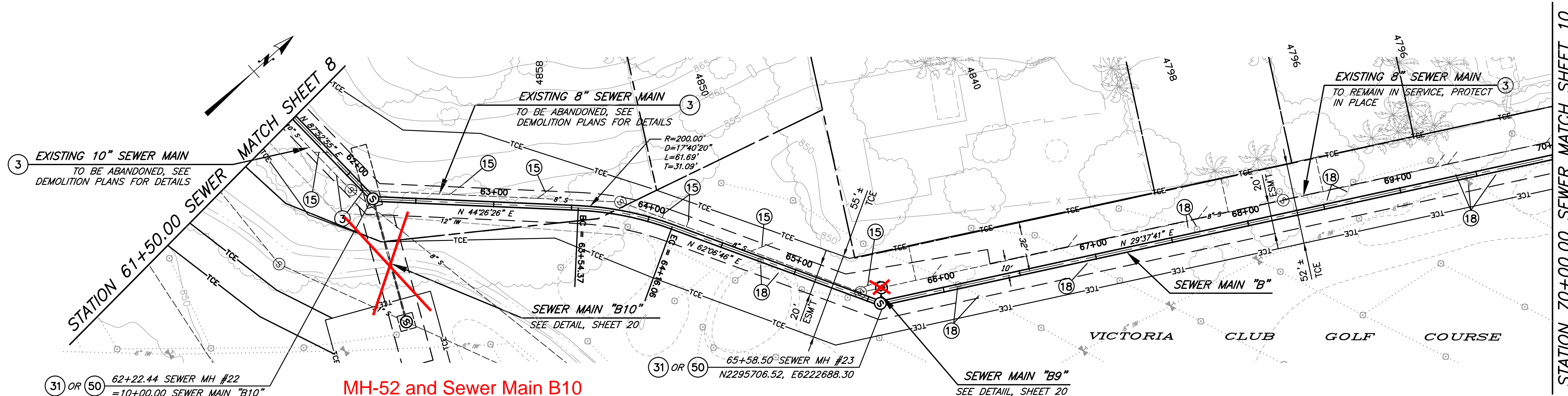
CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
 REVIEWED BY THE ENGINEERING MANAGER, CONSTRUCTION CONTRACT ADMINISTRATOR, TRAFFIC ENGINEER, CITY SURVEYOR, AND STREET DIVISION PER INITIALS ON THE TITLE SHEET
 APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
SEWER MAIN "B"
FROM STATION 54+00.00 TO STATION 61+50.00
 HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'

DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524
S-2108
 SHEET **8** OF **28**
 FILE NAME:



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



3 EXISTING 10" SEWER MAIN
 TO BE ABANDONED, SEE
 DEMOLITION PLANS FOR DETAILS

EXISTING 8" SEWER MAIN
 TO BE ABANDONED, SEE
 DEMOLITION PLANS FOR DETAILS

EXISTING 8" SEWER MAIN
 TO REMAIN IN SERVICE, PROTECT
 IN PLACE

31) OR 50) 62+22.44 SEWER MH #22
 = 10+00.00 SEWER MAIN "B10"
 N2295508.96, E6222420.78

MH-52 and Sewer Main B10
 were deleted from the contract
 and were not installed.

MH-51 was not installed and
 the existing Sewer Main B was
 tied directly into MH-26

CONSTRUCTION NOTES

- 3) PROTECT AND MAINTAIN EXISTING SEWER SERVICE DURING CONSTRUCTION.
- 15) RECONNECT LATERALS PER STD. DWG. 554 OR REPLACE PER STD. DWG. 562 AND PER SPECIFICATIONS. CONTRACTOR TO FIELD VERIFY LATERAL LOCATION AND CONNECTION.
- 18) EXISTING IRRIGATION SYSTEM TO BE REROUTED PRIOR TO CONSTRUCTION AND REINSTALLED AFTER CONSTRUCTION BY THE VICTORIA CLUB GOLF COURSE.
- 31) INSTALL NEW FRPM MANHOLE PER DETAIL ON SHEET 22 (BID ALTERNATE 1).
- 50) INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).

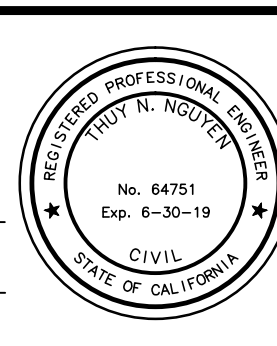
**Revised Stationing, Alignment,
 Elevations and Manholes are
 on sheets 30-38.**

BENCHMARK GPS-57
 CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A
 WELL MONUMENT AT THE CENTERLINE INTERSECTION OF
 KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT
 IS 0.75 FEET BELOW A.C. SURFACE.
 DATUM: 1929 ELEVATION: 952.920

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ENGINEER IN RESPONSIBLE CHARGE
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 R.C.E. No. 64751 EXPIRES: 6-30-19



MARK	REVISIONS	APPR.	DATE

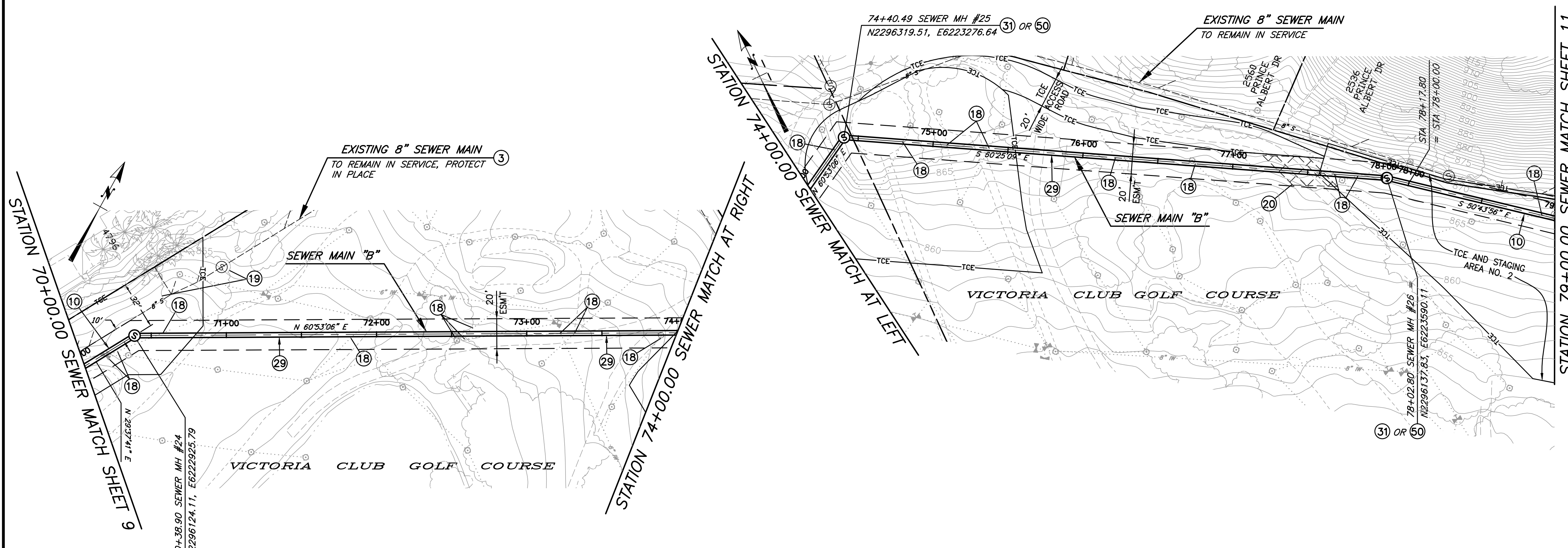
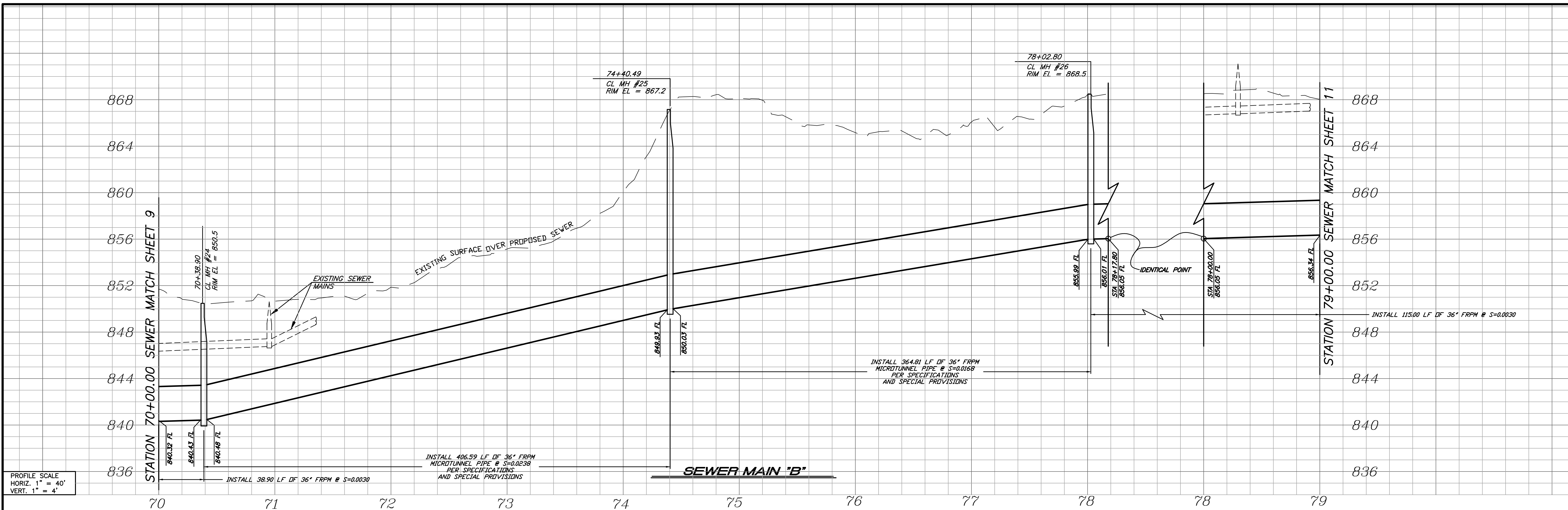
**CITY OF RIVERSIDE, CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS**

REVIEWED BY THE ENGINEERING MANAGER,
 CONSTRUCTION CONTRACT ADMINISTRATOR, TRAFFIC
 ENGINEER, CITY SURVEYOR, AND STREET DIVISION PER
 INITIALS ON THE TITLE SHEET

APPROVED BY THE CITY ENGINEER
 PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT
TEQUESQUITE ARROYO
TRUNK SEWER REPLACEMENT
PHASE IIB
SEWER MAIN "B"
FROM STATION 6H-50.00 TO
STATION 70+00.00
 HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'

DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524
S-2108
 SHEET **9** OF **28**
 FILE NAME:



- CONSTRUCTION NOTES**
- (3) PROTECT AND MAINTAIN EXISTING SEWER SERVICE DURING CONSTRUCTION.
 - (10) INSTALL 36" FRPM PER TRENCH DETAILS ON SHEET 23.
 - (18) EXISTING IRRIGATION SYSTEM TO BE REROUTED PRIOR TO CONSTRUCTION AND REINSTALLED AFTER CONSTRUCTION BY THE VICTORIA CLUB GOLF COURSE.
 - (19) PROTECT EXISTING TREE IN PLACE.
 - (20) MINIMIZE DAMAGES TO THE EXISTING CART PATH TO THE MAXIMUM PRACTICAL EXTENT POSSIBLE. CART PATH WILL BE RECONSTRUCTED BY THE VICTORIA COUNTRY CLUB.
 - (29) MICROTUNNEL 36" FRPM PER SPECIFICATIONS AND SPECIAL PROVISIONS.
 - (31) INSTALL NEW FRPM MANHOLE PER DETAIL ON SHEET 22 (BID ALTERNATE 1).
 - (50) INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).

Revised Stationing, Alignment, Elevations and Manholes are on sheets 30-38.

BENCHMARK GPS-57
CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.

DATUM: 1929 ELEVATION: 952.990

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DESIGNED BY: _____ DRAWN BY: _____ CHECKED BY: TN

CITY OF RIVERSIDE, CALIFORNIA
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APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB

SEWER MAIN "B"
FROM STATION 70+00.00 TO STATION 79+00.00

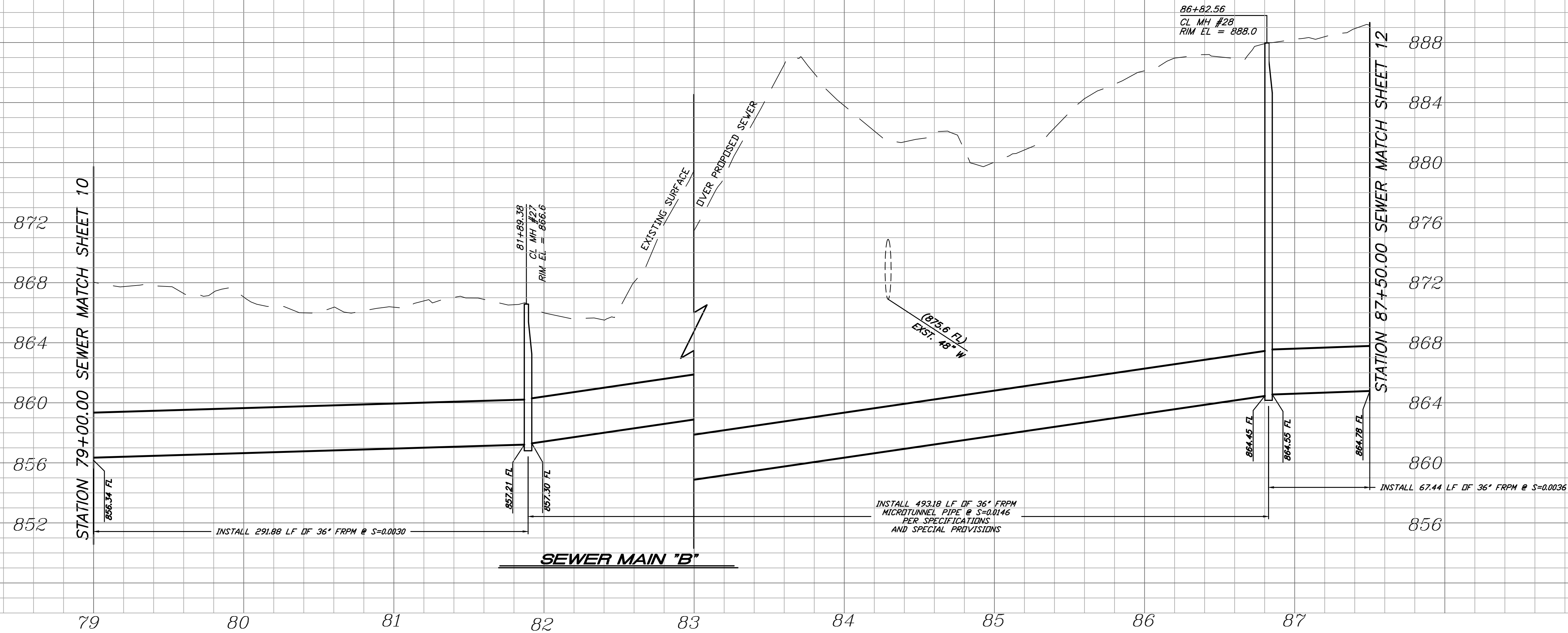
HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'

DESIGN WORK ORDER NO.: 0501812
CONSTR. WORK ORDER NO.: 1609524

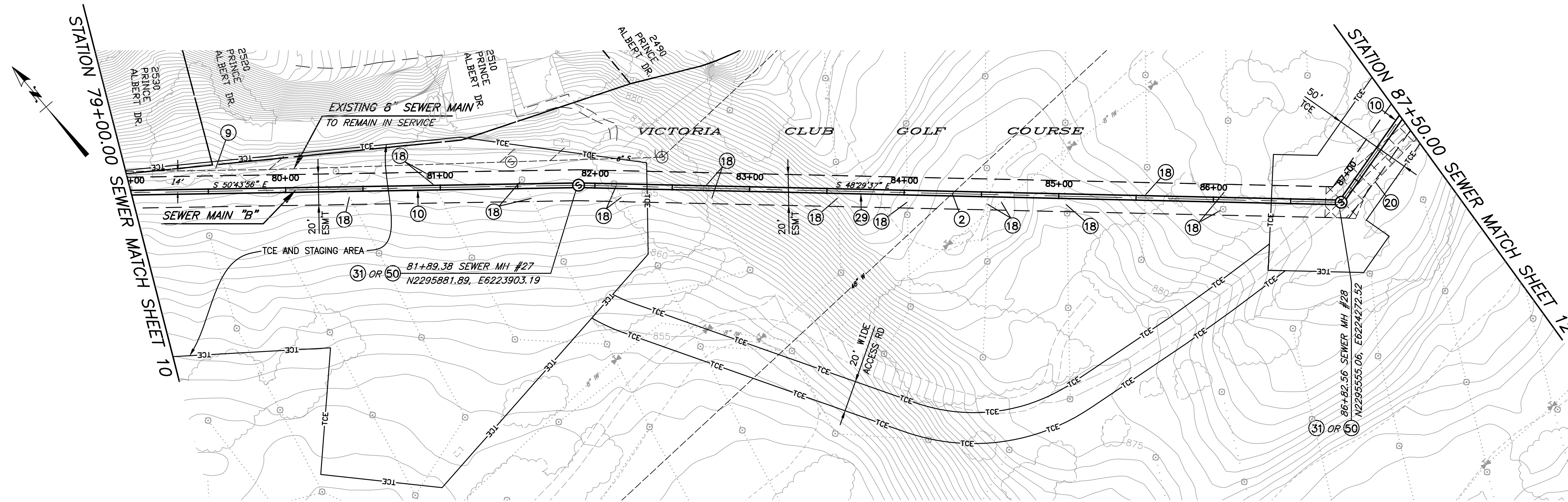
S-2108

SHEET **10** OF **28**

FILE NAME:



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



CONSTRUCTION NOTES

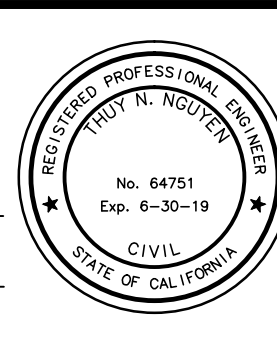
- 2) PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR TO VERIFY LOCATION. PROTECT WATER UTILITY IN PLACE. IF RELOCATION IS REQUIRED CONTRACTOR IS TO NOTIFY THE WATER UTILITY ENGINEER. THE WATER UTILITY SHALL HAVE 30 BUSINESS DAYS TO RELOCATE THE INTERFERING FACILITIES.
- 9) PROTECT EXISTING FENCE IN PLACE
- 10) INSTALL 36" FRPM PER TRENCH DETAILS ON SHEET 23.
- 18) EXISTING IRRIGATION SYSTEM TO BE REROUTED PRIOR TO CONSTRUCTION AND REINSTALLED AFTER CONSTRUCTION BY THE VICTORIA CLUB GOLF COURSE.
- 20) MINIMIZE DAMAGES TO THE EXISTING CART PATH TO THE MAXIMUM PRACTICAL EXTENT POSSIBLE. CART PATH WILL BE RECONSTRUCTED BY THE VICTORIA COUNTRY CLUB.
- 29) ~~MICROTUNNEL 36" FRPM PER SPECIFICATIONS AND SPECIAL PROVISIONS.~~
- 31) INSTALL NEW FRPM MANHOLE PER DETAIL ON SHEET 22 (BID ALTERNATE 1).
- 50) INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).

Revised Stationing, Alignment, Elevations and Manholes are on sheets 30-38.

BENCHMARK GPS-57
 CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
 DATUM: 1929 ELEVATION: 952.990

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DESIGNED BY _____ DRAWN BY _____ CHECKED BY _____ TN

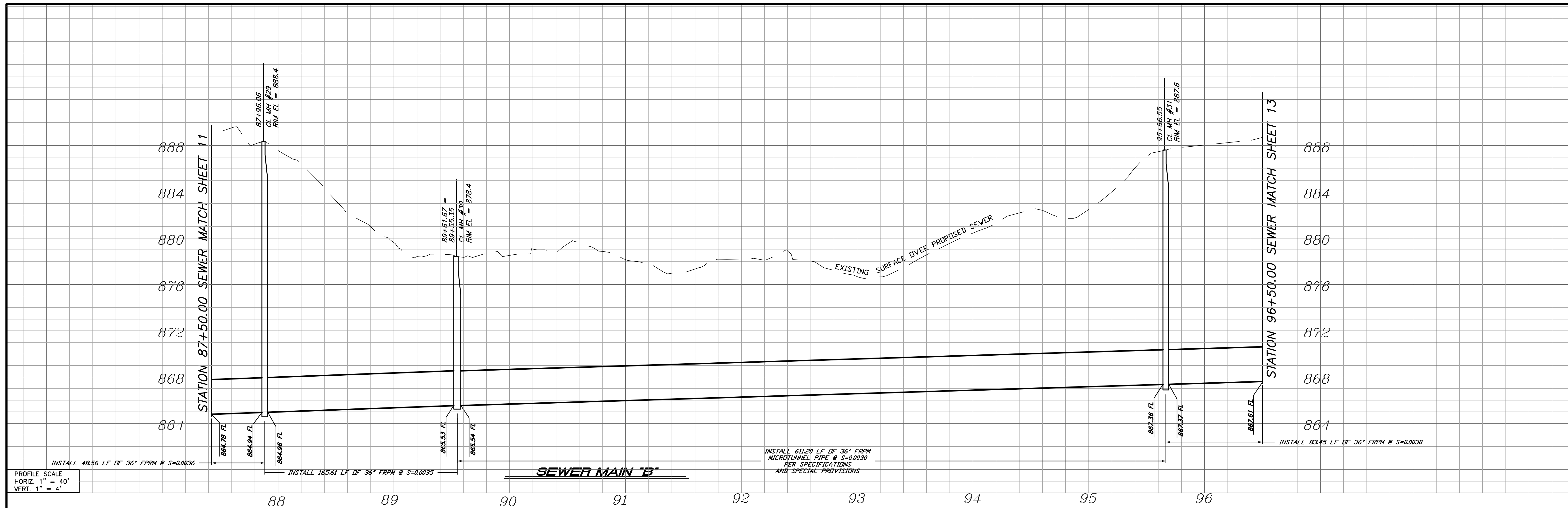
CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

REVIEWED BY THE ENGINEERING MANAGER, CONSTRUCTION CONTRACT ADMINISTRATOR, TRAFFIC ENGINEER, CITY SURVEYOR, AND STREET DIVISION PER INITIALS ON THE TITLE SHEET

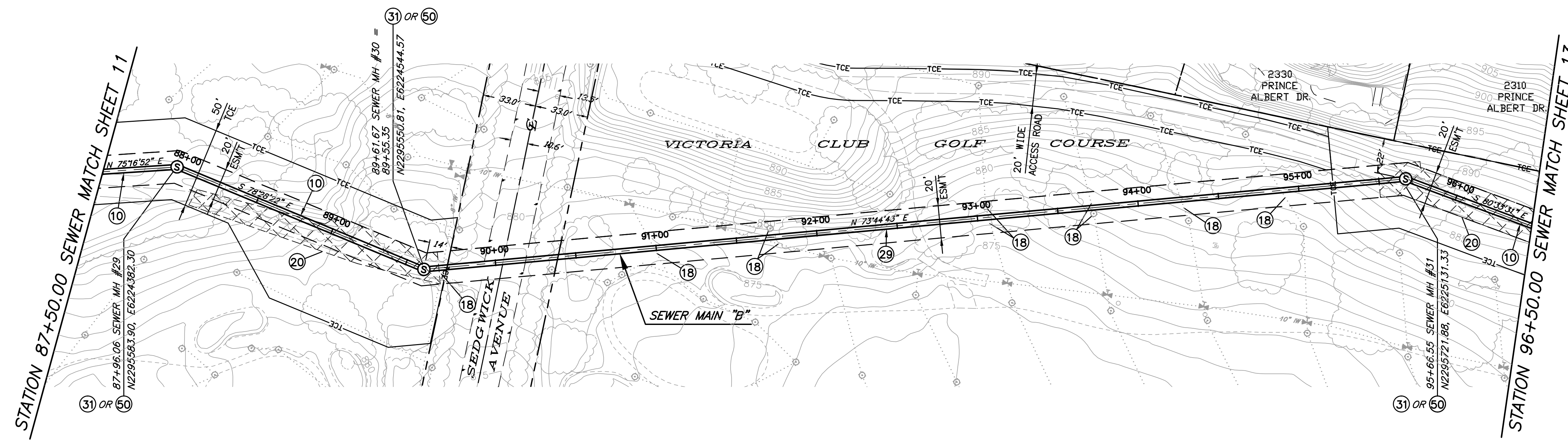
APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
SEWER MAIN "B" FROM STATION 79+00.00 TO STATION 87+50.00
 HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'

DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524
S-2108
 SHEET **11** OF **28**
 FILE NAME:



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



CONSTRUCTION NOTES

- (10) INSTALL 36" FRPM PER TRENCH DETAILS ON SHEET 23.
- (18) EXISTING IRRIGATION SYSTEM TO BE REROUTED PRIOR TO CONSTRUCTION AND REINSTALLED AFTER CONSTRUCTION BY THE VICTORIA CLUB GOLF COURSE.
- (20) MINIMIZE DAMAGES TO THE EXISTING CART PATH TO THE MAXIMUM PRACTICAL EXTENT POSSIBLE. CART PATH WILL BE RECONSTRUCTED BY THE VICTORIA COUNTRY CLUB.
- (29) ~~MICROTUNNEL-36" FRPM PER SPECIFICATIONS AND SPECIAL PROVISIONS.~~
- (31) INSTALL NEW FRPM MANHOLE PER DETAIL ON SHEET 22 (BID ALTERNATE 1).
- (50) INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).

Revised Stationing, Alignment, Elevations and Manholes are on sheets 30-38.

BENCHMARK GPS-57
 CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
 DATUM: 1929 ELEVATION: 952.990

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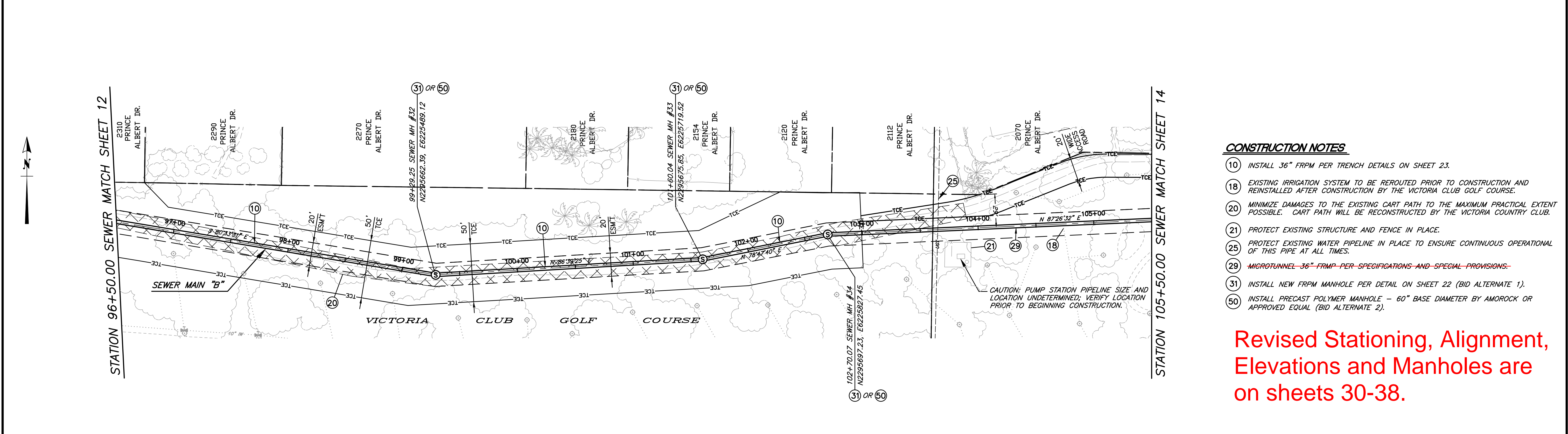
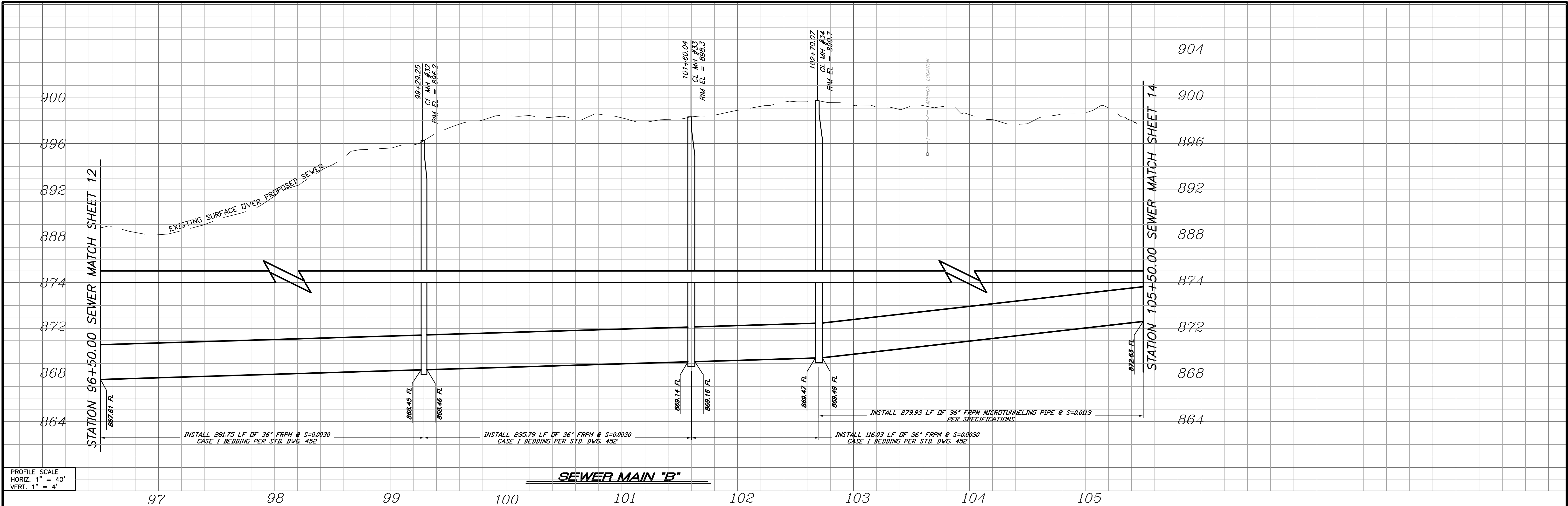
ENGINEER IN RESPONSIBLE CHARGE
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 APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
SEWER MAIN "B" FROM STATION 87+50.00 TO STATION 96+50.00
 HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'

DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524
S-2108
 SHEET **12** OF **28**
 FILE NAME:

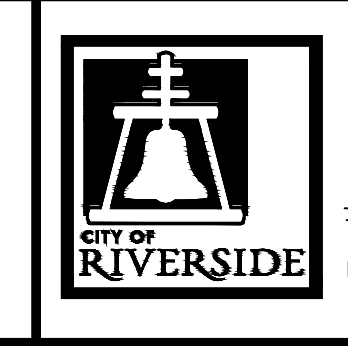


- CONSTRUCTION NOTES**
- 10 INSTALL 36" FRPM PER TRENCH DETAILS ON SHEET 23.
 - 18 EXISTING IRRIGATION SYSTEM TO BE REROUTED PRIOR TO CONSTRUCTION AND REINSTALLED AFTER CONSTRUCTION BY THE VICTORIA CLUB GOLF COURSE.
 - 20 MINIMIZE DAMAGES TO THE EXISTING CART PATH TO THE MAXIMUM PRACTICAL EXTENT POSSIBLE. CART PATH WILL BE RECONSTRUCTED BY THE VICTORIA COUNTRY CLUB.
 - 21 PROTECT EXISTING STRUCTURE AND FENCE IN PLACE.
 - 25 PROTECT EXISTING WATER PIPELINE IN PLACE TO ENSURE CONTINUOUS OPERATIONAL OF THIS PIPE AT ALL TIMES.
 - 29 ~~MICROTUNNEL 36" FRPM PER SPECIFICATIONS AND SPECIAL PROVISIONS.~~
 - 31 INSTALL NEW FRPM MANHOLE PER DETAIL ON SHEET 22 (BID ALTERNATE 1).
 - 50 INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).

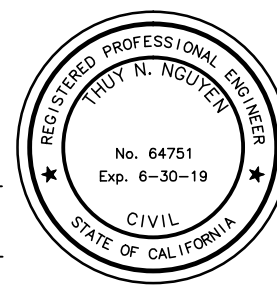
BENCHMARK GPS-57
 CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.

DATUM: 1929 ELEVATION: 952.990

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 Thuy Nguyen
 R.C.E. No. 64751 EXPIRES: 6-30-19



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DESIGNED BY	DRAWN BY	CHECKED BY	TN

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SEWER REPLACEMENT
 TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB

SEWER MAIN "B"
 FROM STATION 96+50.00 TO STATION 105+50.00

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

DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524

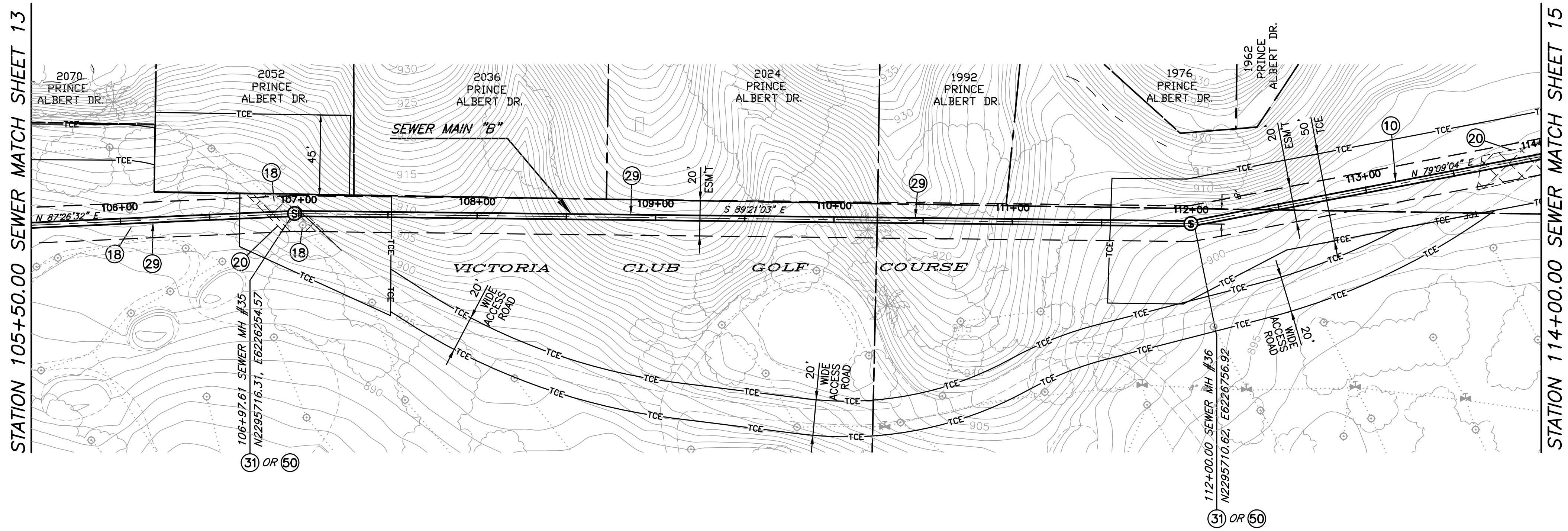
S-2108

SHEET **13** OF **28**

FILE NAME:



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



CONSTRUCTION NOTES

- (10) INSTALL 36" FRPM PER TRENCH DETAILS ON SHEET 23.
- (18) EXISTING IRRIGATION SYSTEM TO BE REROUTED PRIOR TO CONSTRUCTION AND REINSTALLED AFTER CONSTRUCTION BY THE VICTORIA CLUB GOLF COURSE.
- (20) MINIMIZE DAMAGES TO THE EXISTING CART PATH TO THE MAXIMUM PRACTICAL EXTENT POSSIBLE. CART PATH WILL BE RECONSTRUCTED BY THE VICTORIA COUNTRY CLUB.
- (29) MICROTUNNEL 6" FRPM PER SPECIFICATIONS AND SPECIAL PROVISIONS.
- (31) INSTALL NEW FRPM MANHOLE PER DETAIL ON SHEET 22.
- (50) INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).

Revised Stationing, Alignment, Elevations and Manholes are on sheets 30-38.

BENCHMARK GPS-57
CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
DATUM: 1929 ELEVATION: 952.990

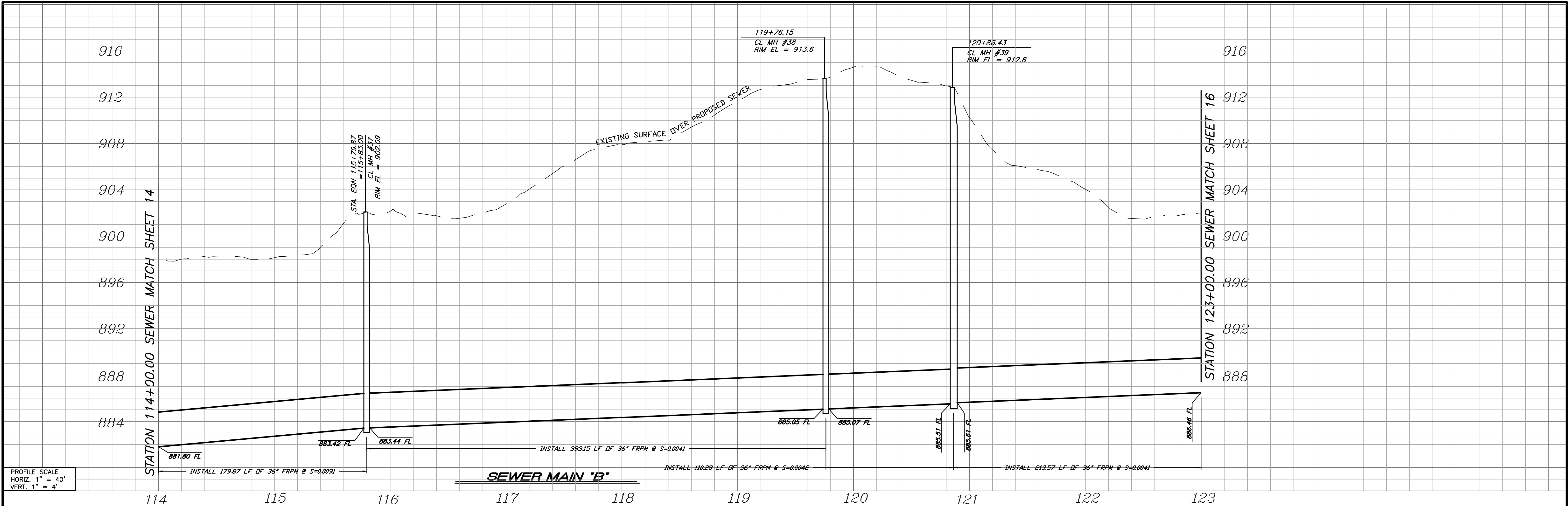
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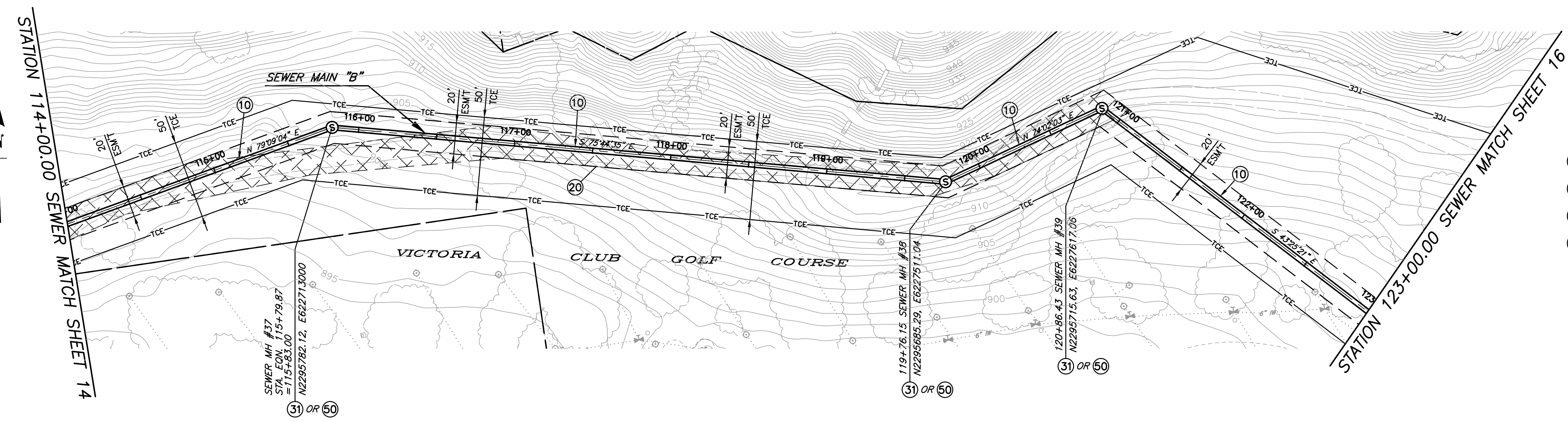
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APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT		DESIGN WORK ORDER NO.: 0501812
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB		CONSTR. WORK ORDER NO.: 1609524
SEWER MAIN "B" FROM STATION 105+50.00 TO STATION 114+00.00		S-2108
HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'		SHEET 14 OF 28
FILE NAME:		



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



CONSTRUCTION NOTES

- (10) INSTALL 36" FRPM PER TRENCH DETAILS ON SHEET 23.
- (20) MINIMIZE DAMAGES TO THE EXISTING CART PATH TO THE MAXIMUM PRACTICAL EXTENT POSSIBLE. CART PATH WILL BE RECONSTRUCTED BY THE VICTORIA COUNTRY CLUB.
- (31) INSTALL NEW FRPM MANHOLE PER DETAIL ON SHEET 22 (BID ALTERNATE 1).
- (50) INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).

Revised Stationing, Alignment, Elevations and Manholes are on sheets 30-38.

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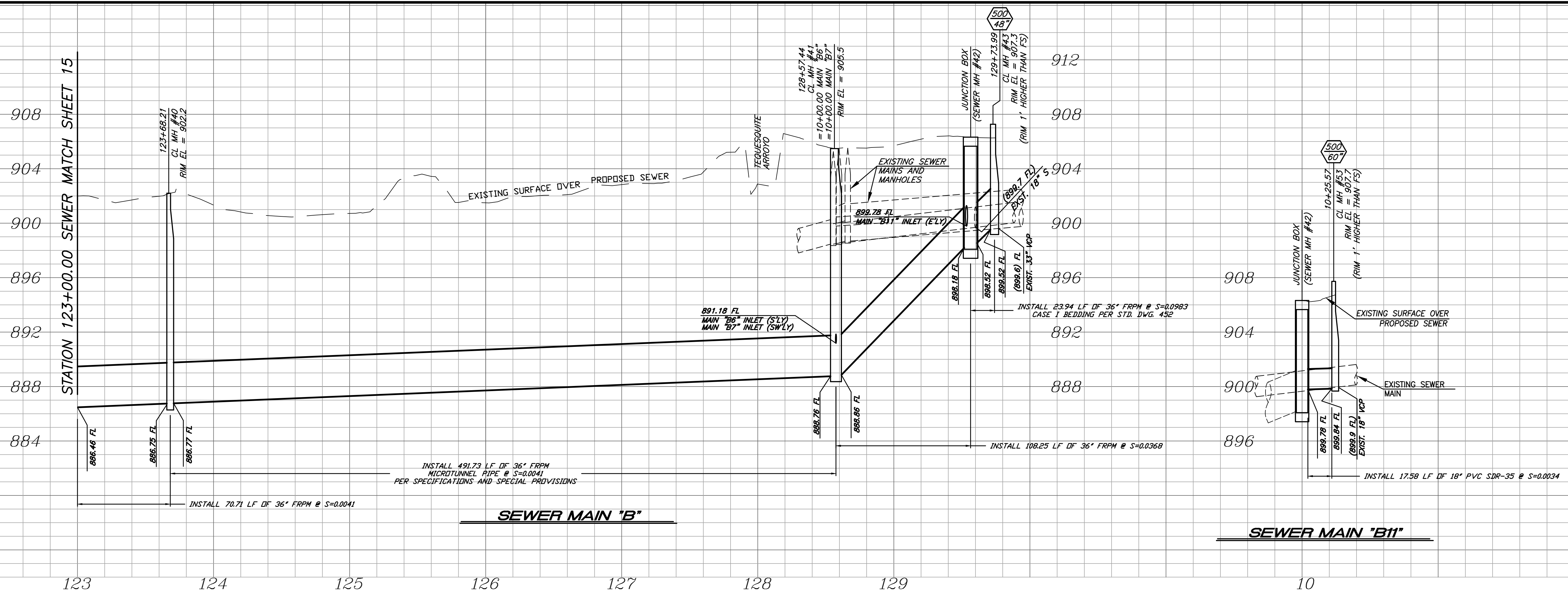
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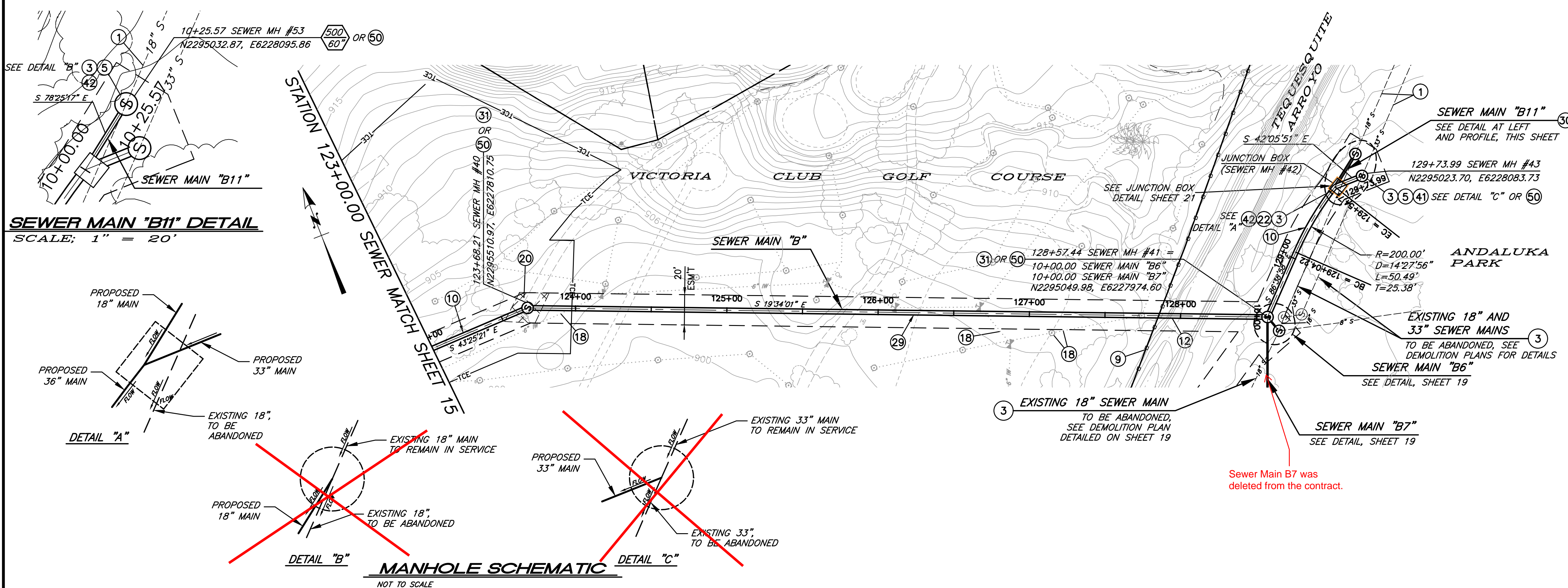
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SEWER REPLACEMENT
 TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
 SEWER MAIN "B" FROM STATION 114+00.00 TO STATION 123+00.00
 HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'

DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524
S-2108
 SHEET **15** OF **28**
 FILE NAME:



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



SEWER MAIN "B11" DETAIL
SCALE: 1" = 20'

MANHOLE SCHEMATIC
NOT TO SCALE

CONSTRUCTION NOTES

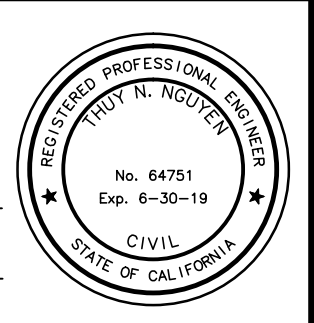
- 1 EXISTING SEWER MAIN TO REMAIN IN SERVICE.
- 3 PROTECT AND MAINTAIN EXISTING SEWER SERVICE DURING CONSTRUCTION.
- 5 CONSTRUCT MANHOLE PER INDICATED MANHOLE SCHEMATIC DETAIL.
- 9 PROTECT EXISTING FENCE IN PLACE
- 10 INSTALL 36" FRPM WITH TRENCH DETAILS PER SHEET 23.
- 12 PROTECT STREAM BED AND BANKS FROM DAMAGE DURING CONSTRUCTION PER CONSTRUCTION SPECIFICATIONS.
- 18 EXISTING IRRIGATION SYSTEM TO BE REROUTED PRIOR TO CONSTRUCTION AND REINSTALLED AFTER CONSTRUCTION BY THE VICTORIA CLUB GOLF COURSE.
- 20 MINIMIZE DAMAGES TO THE EXISTING CART PATH TO THE MAXIMUM PRACTICAL EXTENT POSSIBLE. CART PATH WILL BE RECONSTRUCTED BY THE VICTORIA COUNTRY CLUB.
- 22 ~~CONSTRUCT JUNCTION BOX PER DETAILS ON SHEET 21 (BID ALTERNATE 1) OR INSTALL PRECAST POLYMER JUNCTION BOX BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).~~
- 29 ~~MICROTUNNEL 36" FRPM PER SPECIFICATIONS AND SPECIAL PROVISIONS.~~
- 30 INSTALL 18" PVC SDR-35 WITH TRENCH BEDDING PER STD. DWG. 452, CASE III.
- 31 INSTALL NEW FRPM MANHOLE PER DETAIL ON SHEET 22 (BID ALTERNATE 1).
- 41 PLUG EXISTING 33" INLET AND OUTLET PER DEMOLITION SPECIFICATIONS.
- 42 PLUG EXISTING 18" INLET AND OUTLET AND DEMOLISH INTERFERING SECTION OF EXISTING PIPE PER DEMOLITION SPECIFICATIONS.
- 50 INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).

Revised Stationing, Alignment, Elevations and Manholes are on sheets 30-38.

BENCHMARK GPS-57
CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
DATUM: 1929 ELEVATION: 952.990

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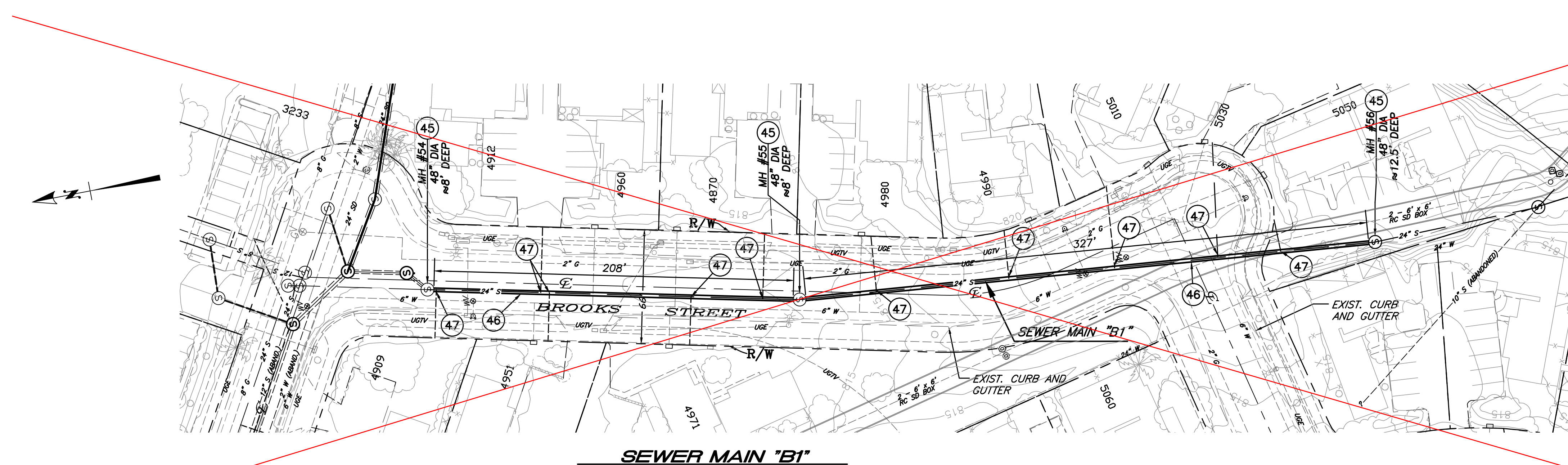


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SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
SEWER MAIN "B" FROM STATION 123+00 TO STATION 129+73.99
HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'

DESIGN WORK ORDER NO.: 0501812
CONSTR. WORK ORDER NO.: 1609524
S-2108
SHEET **16** OF **28**
FILE NAME:

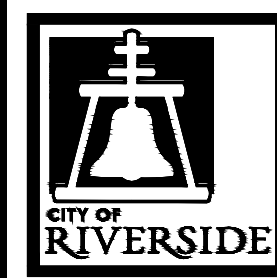


- CONSTRUCTION NOTES**
- (45) REMOVE EXISTING MANHOLE STEPS AND REHABILITATE THE MANHOLE POLYURETHANE AND EPOXY LINING SYSTEM.
 - (46) LINE EXISTING 24" VCP WITH CURED-IN-PLACE PIPE (CIPP) LINER
 - (47) RE-ESTABLISH LATERAL CONNECTION WITH MAIN LINE AFTER THE LINING PROCESS

This work was deleted from the contract.

BENCHMARK GPS-57
 CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
 DATUM: 1929 ELEVATION: 952.990

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 TWO WORKING DAYS BEFORE YOU DIG

 **ENGINEER IN RESPONSIBLE CHARGE**
Thuy Nguyen
 Thuy Nguyen
 R.C.E. No. 64751 EXPIRES: 6-30-19



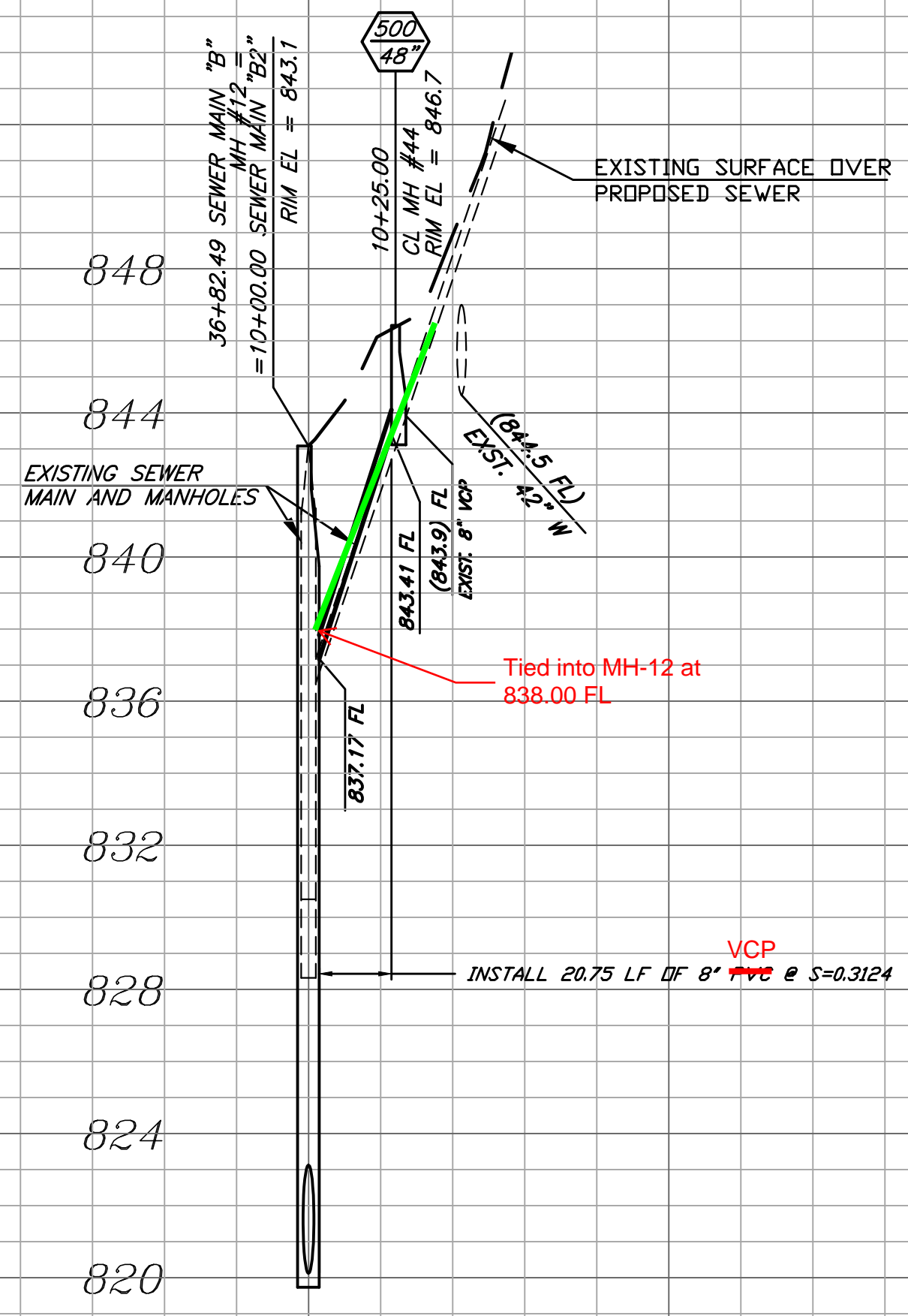
MARK	REVISIONS	APPR.	DATE
DESIGNED BY	DRAWN BY	CHECKED BY	TN

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
 REVIEWED BY THE ENGINEERING MANAGER, CONSTRUCTION CONTRACT ADMINISTRATOR, TRAFFIC ENGINEER, CITY SURVEYOR, AND STREET DIVISION PER INITIALS ON THE TITLE SHEET

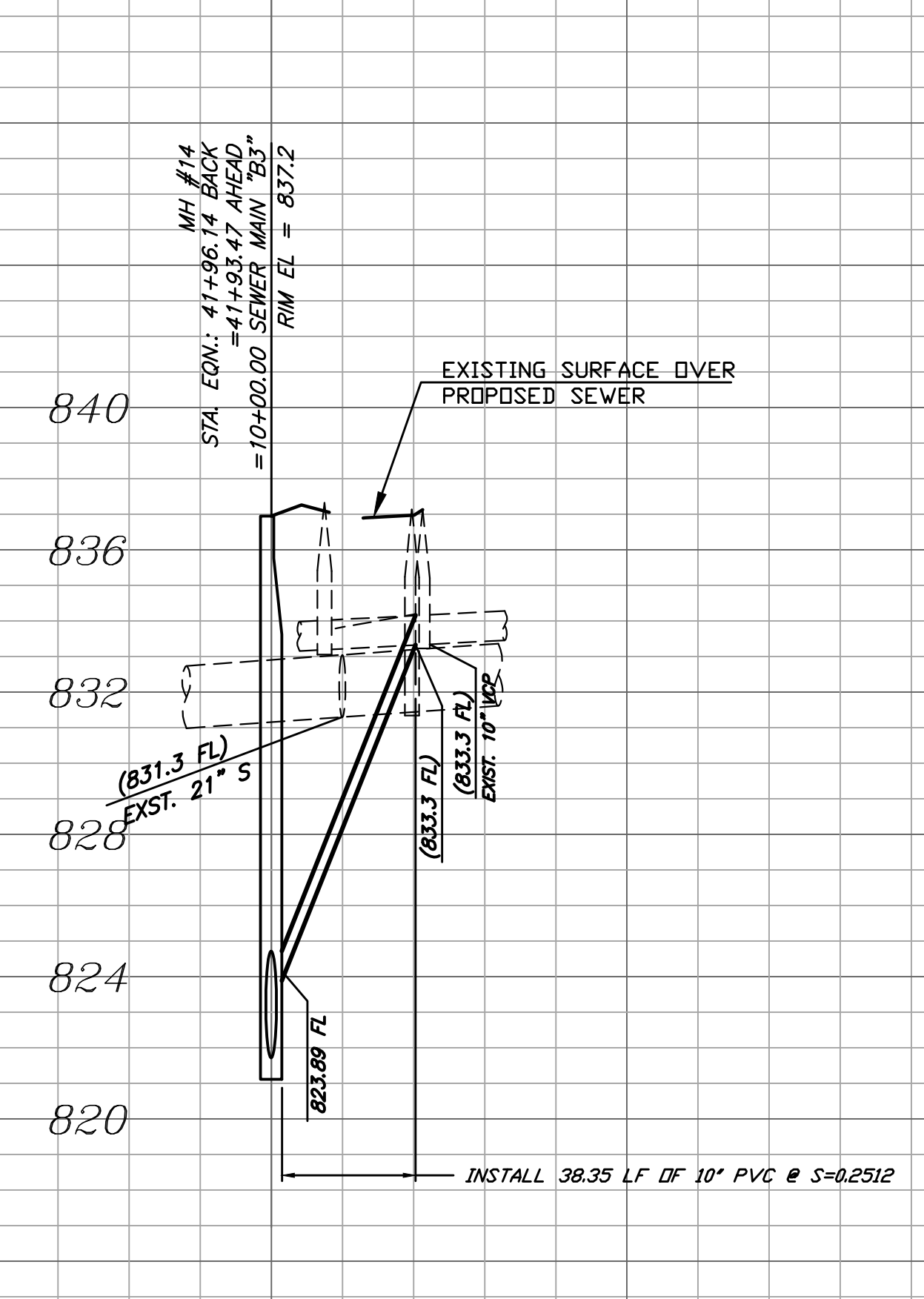
APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
BROOKS STREET SEWER MAIN 'B-1'
 HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'

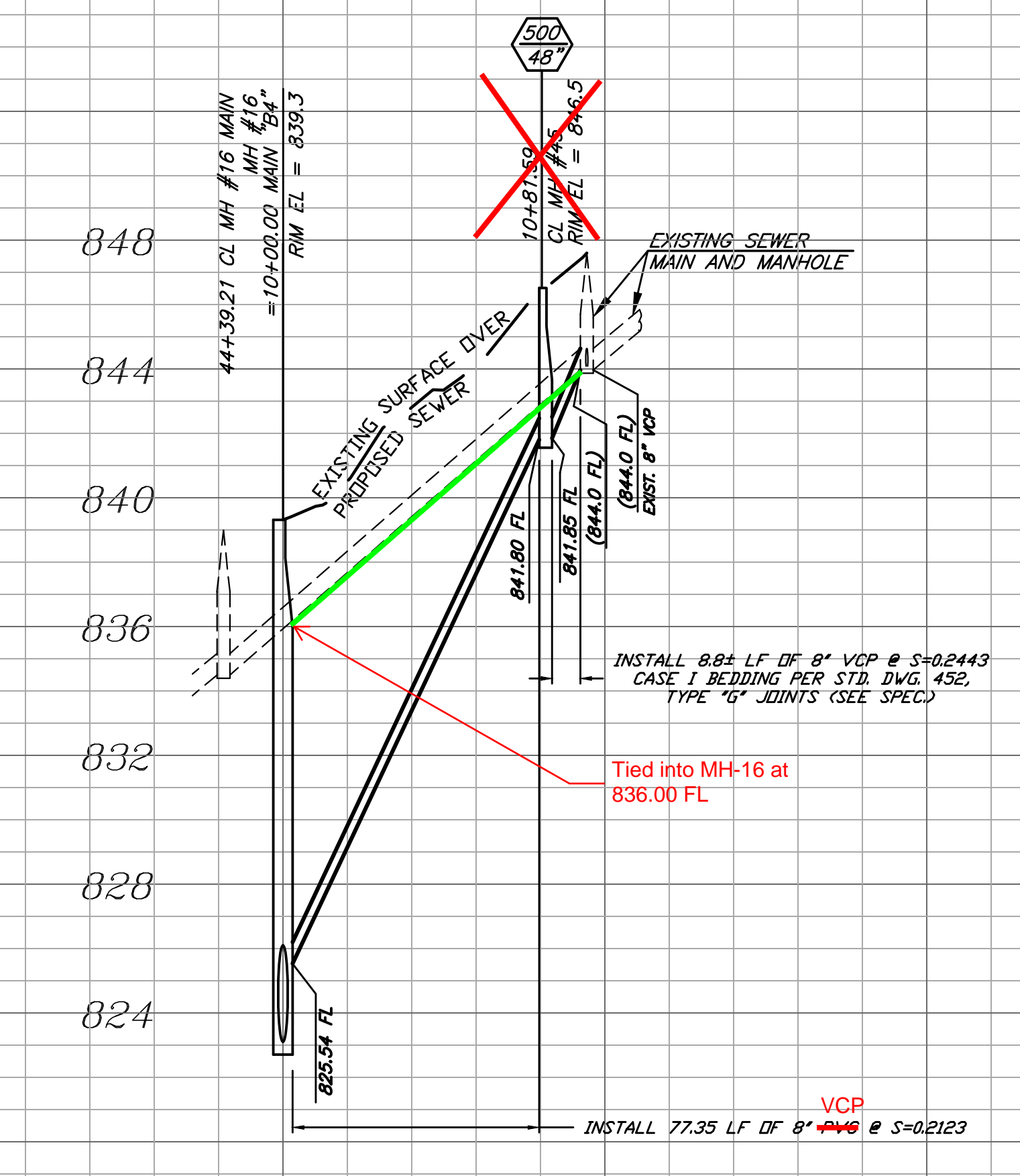
DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524
S-2108
 SHEET **17** OF **28**
 FILE NAME:



SEWER MAIN "B2"



SEWER MAIN "B3"



SEWER MAIN "B4"

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

10

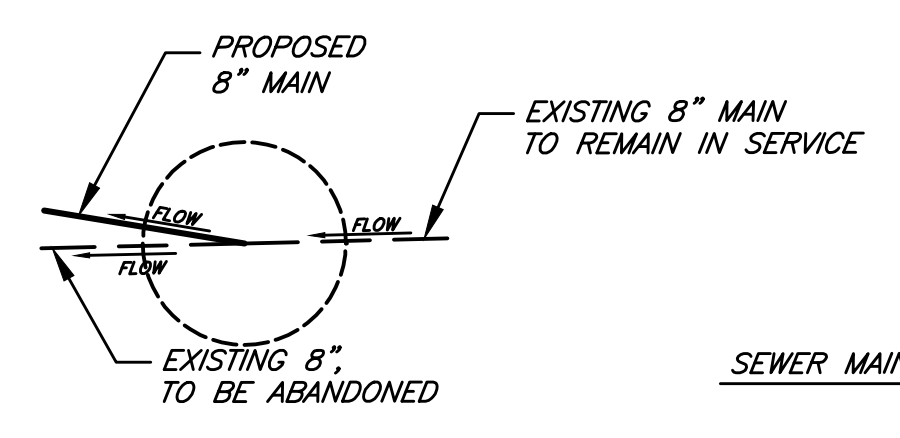
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10

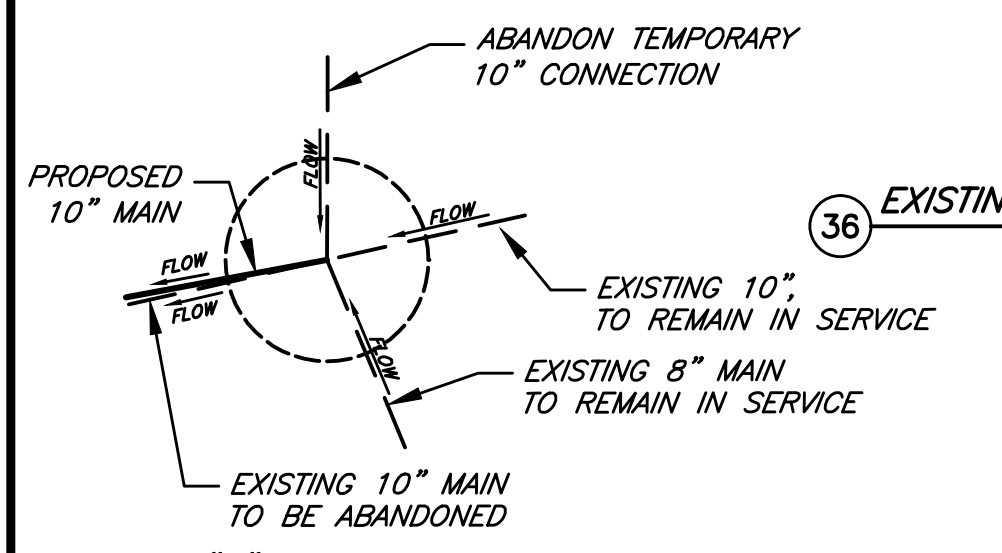
11

SPECIFIC CONSTRUCTION NOTES

- 1 EXISTING SEWER MAIN TO REMAIN IN SERVICE.
- 3 PROTECT AND MAINTAIN EXISTING SEWER SERVICE DURING CONSTRUCTION.
- 4 MODIFY EXISTING MANHOLE PER INDICATED MANHOLE SCHEMATIC DETAIL.
- 5 CONSTRUCT MANHOLE PER INDICATED MANHOLE SCHEMATIC DETAIL.
- 7 REPLACE REMOVED OR DAMAGED FENCING IN KIND.
- 23 ~~INSTALL 8" PVC SDR-35 WITH TRENCH BEDDING PER STD. DWG. 452, CASE III.~~
- 26 ~~INSTALL 10" PVC SDR-35 WITH TRENCH BEDDING PER STD. DWG. 452, CASE III.~~
- 36 AFTER COMPLETION OF SEWER MAIN "B2," DEMOLISH EXISTING 8" SEWER BYPASS AND PLUG 8" INLET TO EXISTING 27" SEWER MAIN PER DEMOLITION SPECIFICATIONS.
- 37 PLUG EXISTING 8" OUTLET AFTER ACTIVATION OF PROPOSED SEWER MAIN "B" PER DEMOLITION SPECIFICATIONS.
- 38 AFTER COMPLETION OF SEWER MAIN "B3" DEMOLISH TEMPORARY 10" SEWER. PLUG TEMPORARY 10" INLET AND EXISTING 10" OUTLET FROM EXISTING 10" SEWER MAIN PER DEMOLITION SPECIFICATIONS.
- 39 ABANDON EXISTING 8" SEWER MAIN PER DEMOLITION SPECIFICATIONS.
- 49 INSTALL PRECAST POLYMER MANHOLE - 48" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).
- 50 INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).

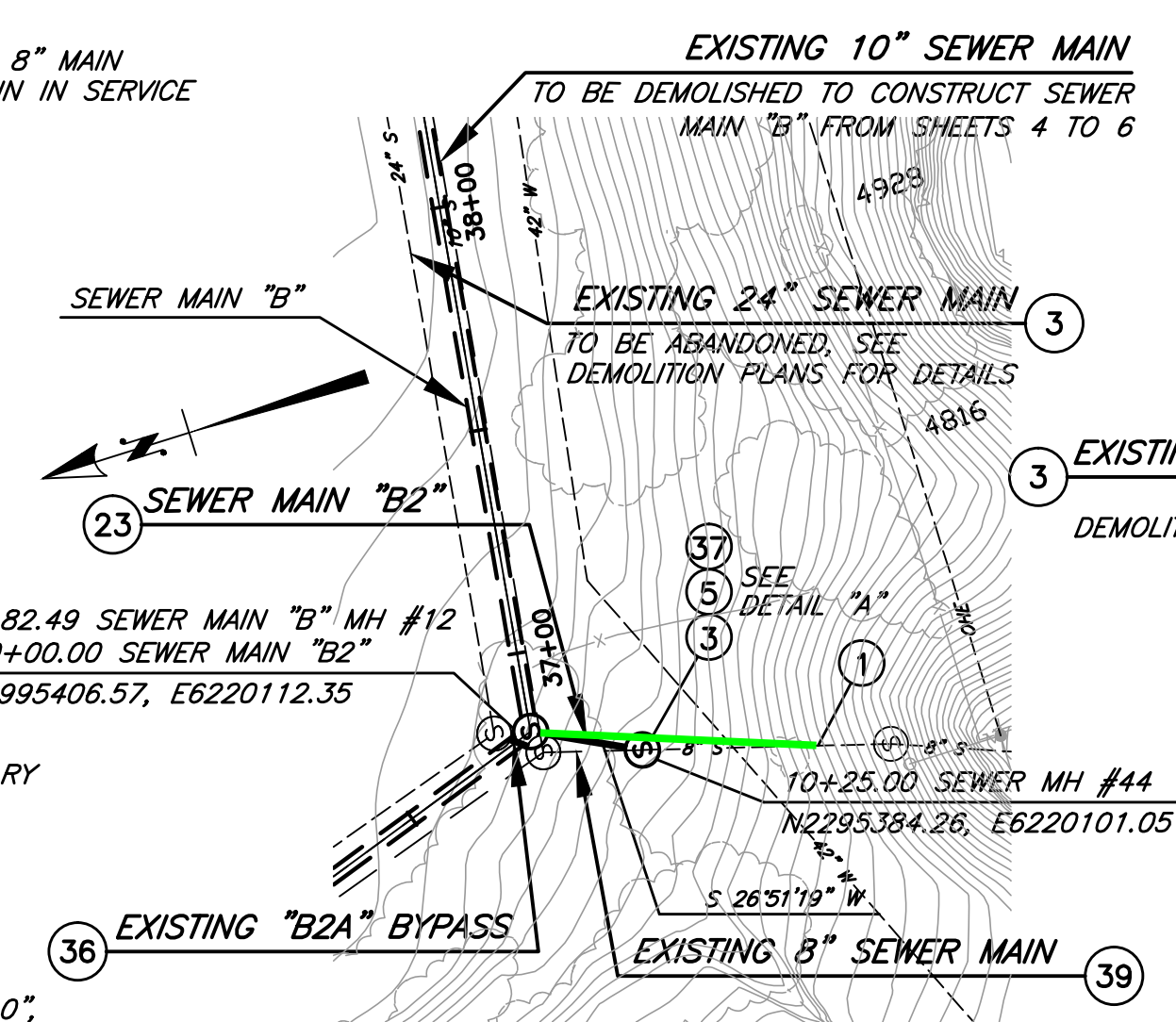


DETAIL "A"



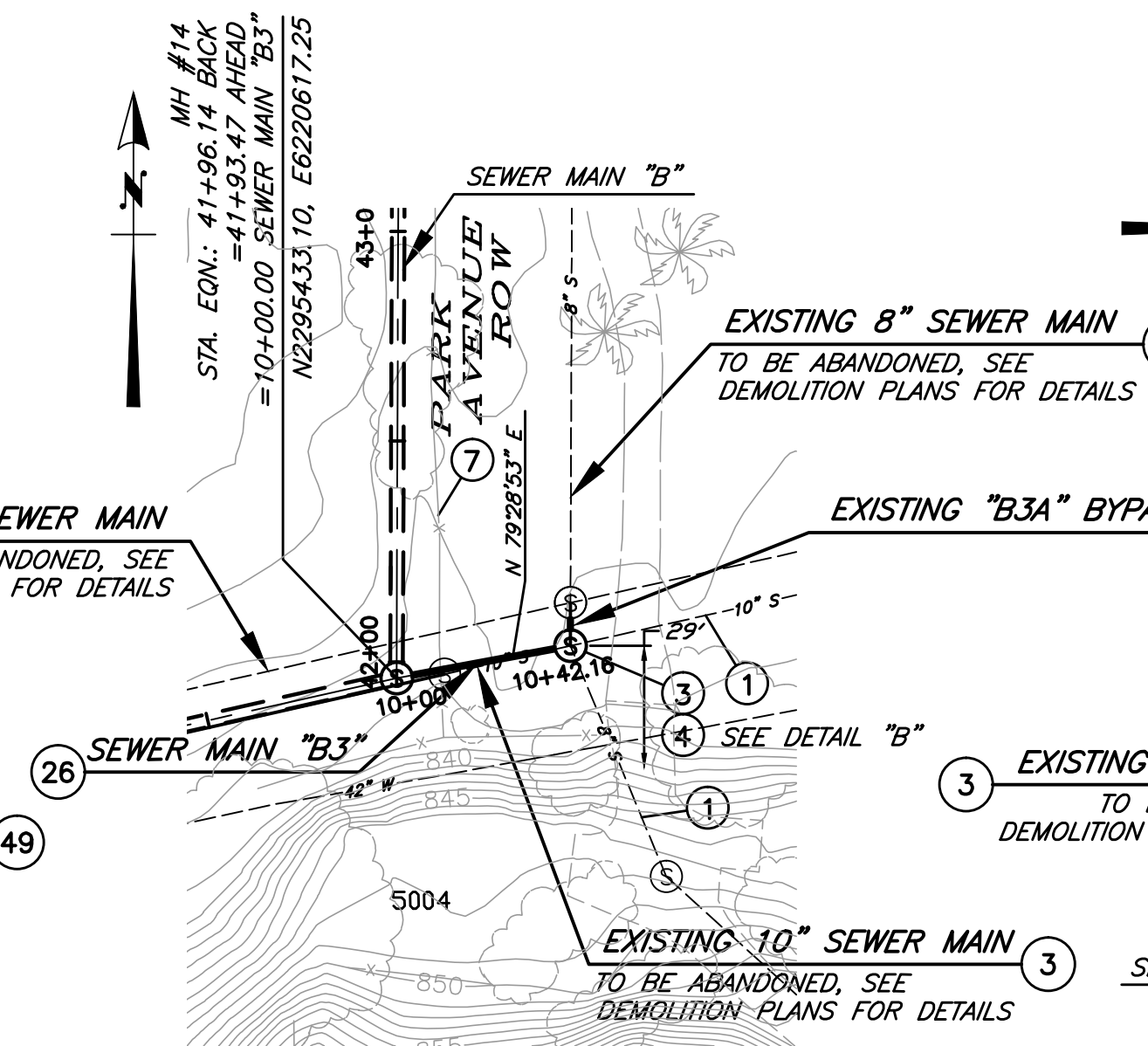
DETAIL "B"

MANHOLE SCHEMATIC
NOT TO SCALE

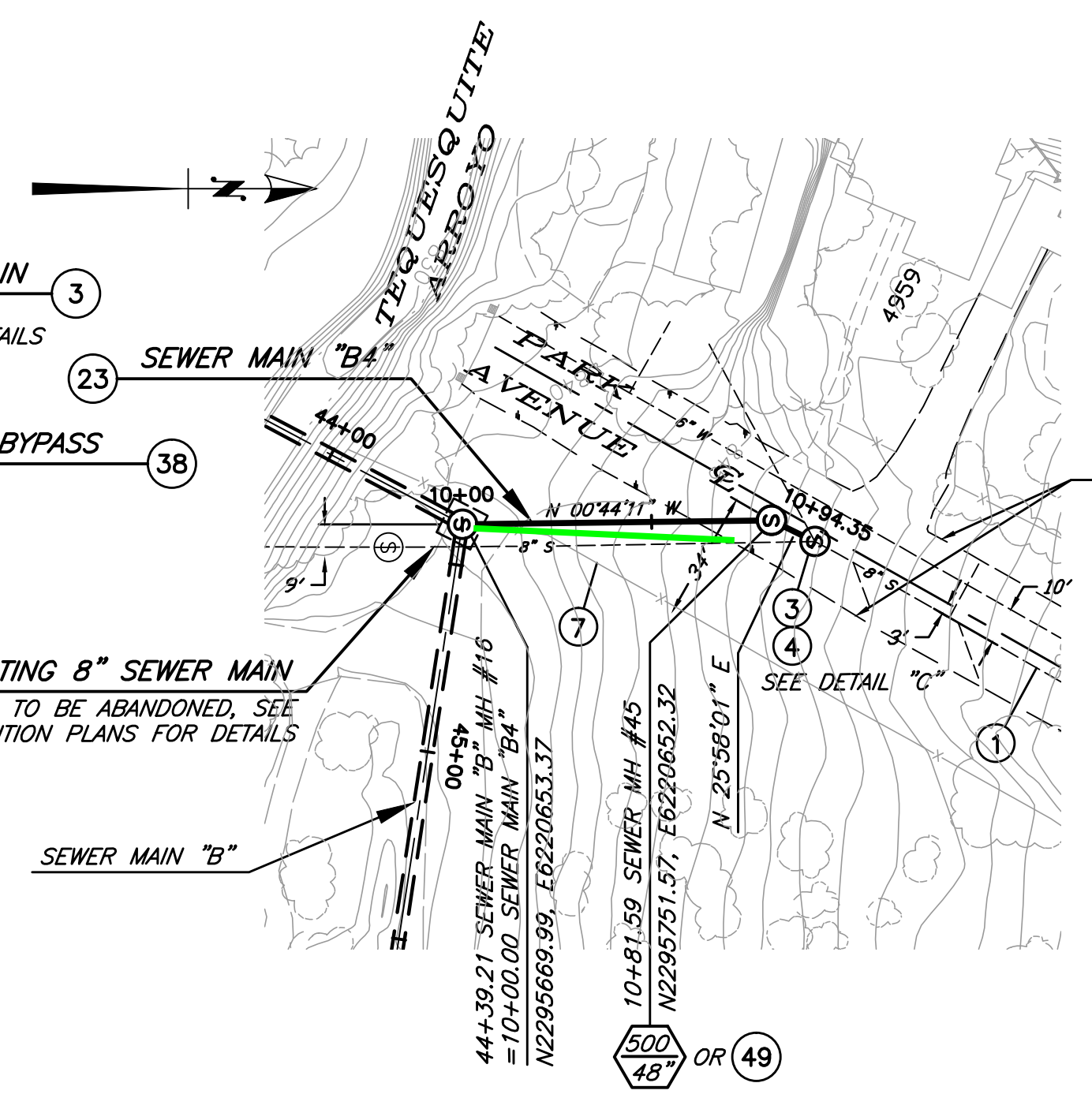


SEWER MAIN "B2"

MH-44 was not installed. The existing 8" VCP pipe was tied directly into MH-12.

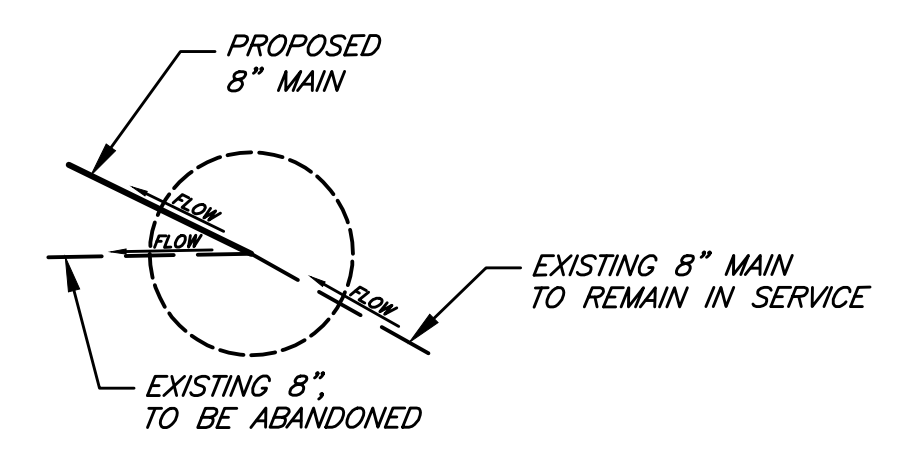


SEWER MAIN "B3"



SEWER MAIN "B4"

MH-45 was not installed. The existing 8" VCP pipe was tied directly into MH-16.

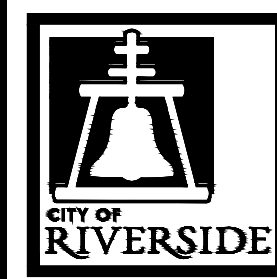


DETAIL "C"

MANHOLE SCHEMATIC
NOT TO SCALE

BENCHMARK GPS-57
CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
DATUM: 1929 ELEVATION: 952.990

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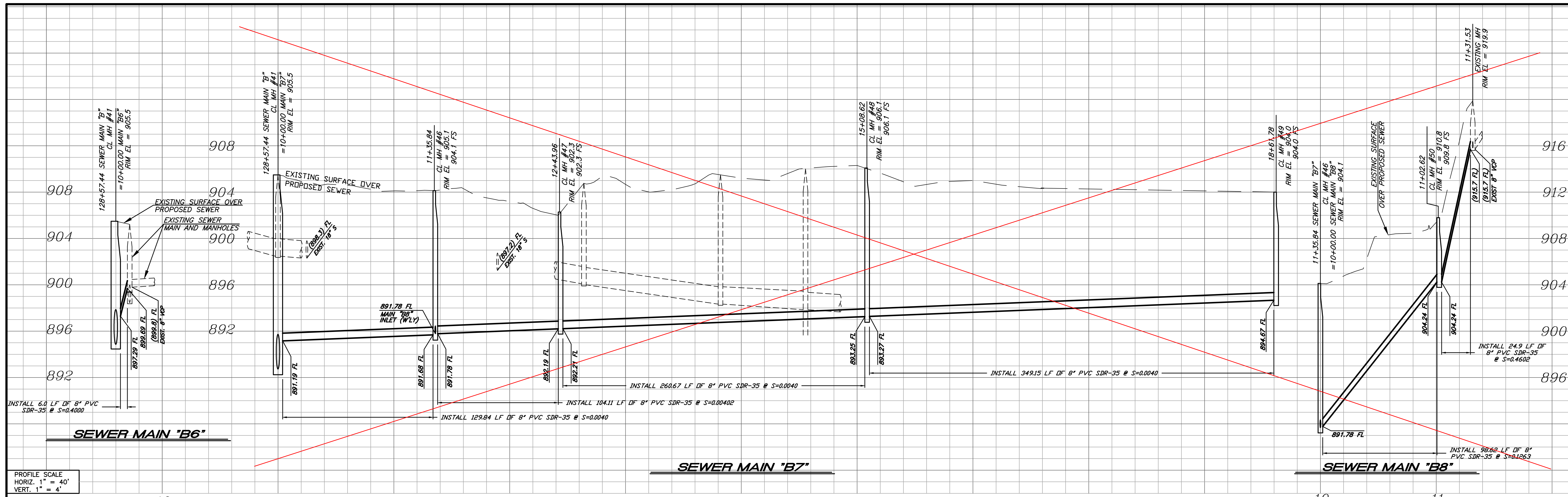
ENGINEER IN RESPONSIBLE CHARGE
Thuy Nguyen
R.C.E. No. 64751 EXPIRES: 6-30-19



DESIGNED BY	DRAWN BY	CHECKED BY	TN
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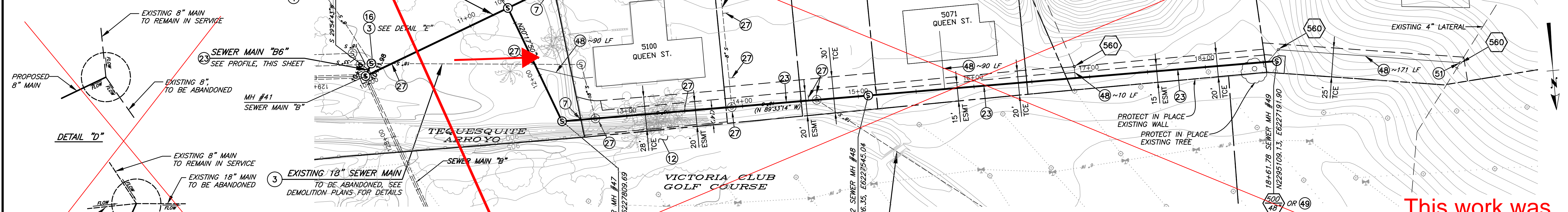
CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
REVIEWED BY THE ENGINEERING MANAGER, CONSTRUCTION CONTRACT ADMINISTRATOR, TRAFFIC ENGINEER, CITY SURVEYOR, AND STREET DIVISION PER INITIALS ON THE TITLE SHEET
APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB	DESIGN WORK ORDER NO.: 0501812 CONSTR. WORK ORDER NO.: 1609524
TEQUESQUITE ARROYO AND PARK AVENUE SEWER MAINS B2, B3, AND B4	SHEET 18 OF 28
HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'	FILE NAME:



CONSTRUCTION NOTES

- 1 EXISTING SEWER MAIN TO REMAIN IN SERVICE.
- 3 PROTECT AND MAINTAIN EXISTING SEWER SERVICE DURING CONSTRUCTION.
- 4 MODIFY EXISTING MANHOLE PER INDICATED MANHOLE SCHEMATIC DETAIL.
- 7 REPLACE REMOVED OR DAMAGED FENCING IN KIND.
- 12 PROTECT STREAM BED AND BANKS FROM DAMAGE DURING CONSTRUCTION PER CONSTRUCTION SPECIFICATIONS.
- 13 PAVE EXISTING ROADWAY AS SHOWN IN THE HATCHED AREA WITH 4" ASPHALT CONCRETE (AC) OVER 6" AGGREGATE BASE (AB).
- 16 REMODEL EXISTING MANHOLE BY CONSTRUCTING NEW BOTTOM, CHANNELS AND SHELVES OVER THE EXISTING. REMOVE TOP 3" OF EXISTING BOTTOM PRIOR TO CONSTRUCTING NEW BOTTOM.



CONSTRUCTION NOTES (CONT.)

- 23 INSTALL 8" PVC SDR-35 WITH TRENCH BEDDING PER STD. DWG. 452, CASE III.
- 27 REMOVE INTERFERING PORTION OF EXISTING SEWER PIPE, MANHOLE, AND/OR LATERAL AND BYPASS EXISTING FLOW AS NECESSARY. PLUG ENDS AND ABANDON REMAINING PIPE PER DEMOLITION SPECIFICATIONS.
- 48 REPLACE EXISTING LATERAL AND INSTALL NEW CLEANOUT PER STD. DWG. 560 AND 562. FIELD VERIFY LATERAL LOCATION AND CONNECTION. LENGTHS SHOWN ARE FROM THE APPROXIMATE CENTER OF THE HOUSE FOOTPRINT.

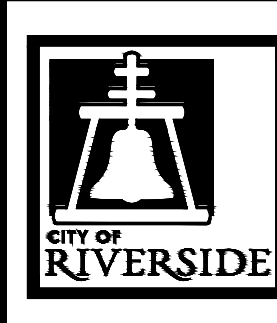
CONSTRUCTION NOTES (CONT.)

- 49 INSTALL PRECAST POLYMER MANHOLE - 48" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).
- 50 INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).
- 51 JOIN EXISTING SEWER LATERAL. VERIFY INVERT PRIOR TO CONSTRUCTION. CAP AND PLUG DOWNSTREAM OF EXISTING LATERAL.

This work was deleted from the contract

BENCHMARK GPS-57
 CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.

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ENGINEER IN RESPONSIBLE CHARGE
 Chuy Nguyen
 R.C.E. No. 64751 EXPIRES: 6-30-19



MARK	REVISIONS	APPR.	DATE

CITY OF RIVERSIDE, CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS

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APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT
 TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB

QUEEN STREET SEWER MAINS B6, B7, AND B8

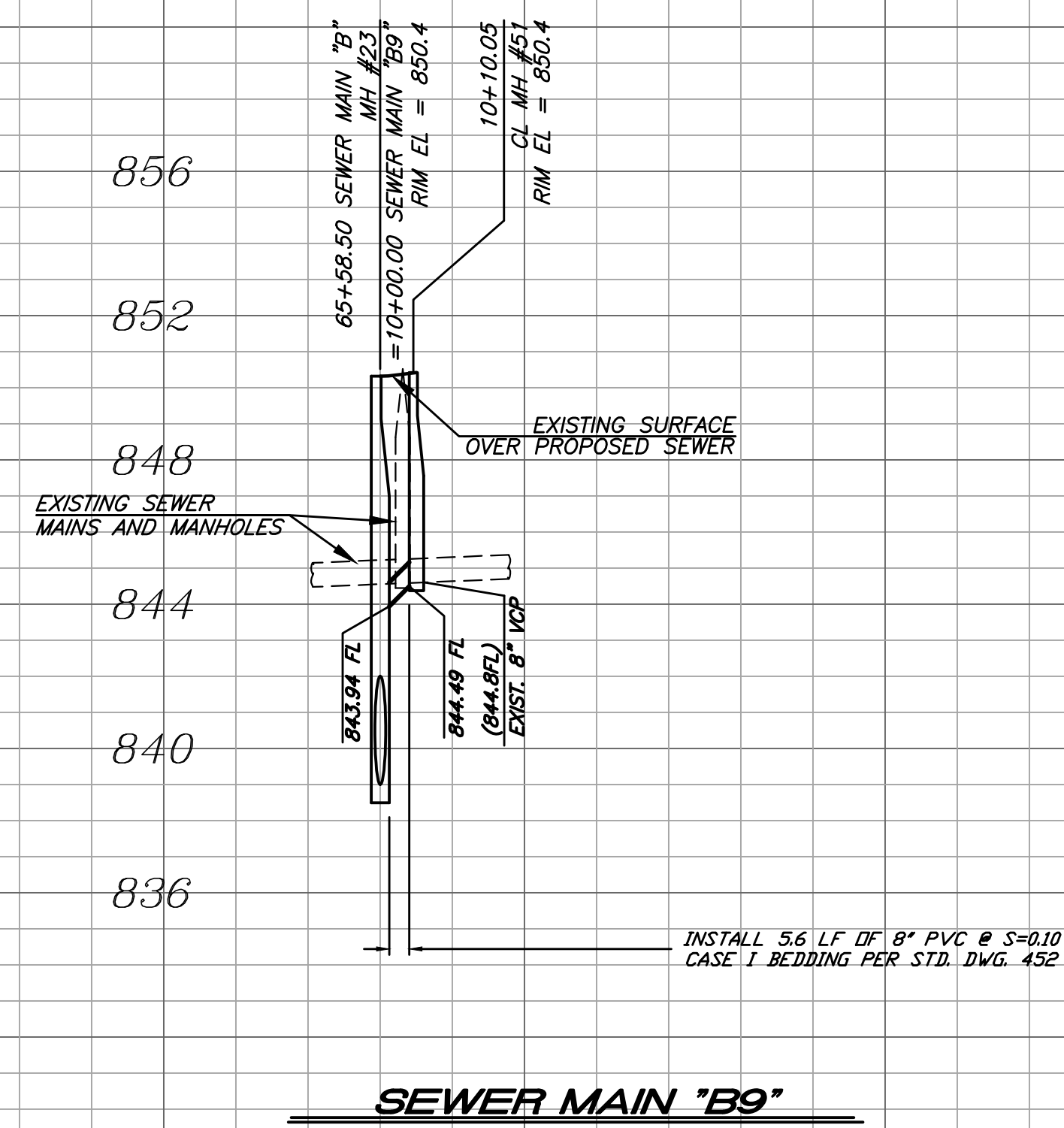
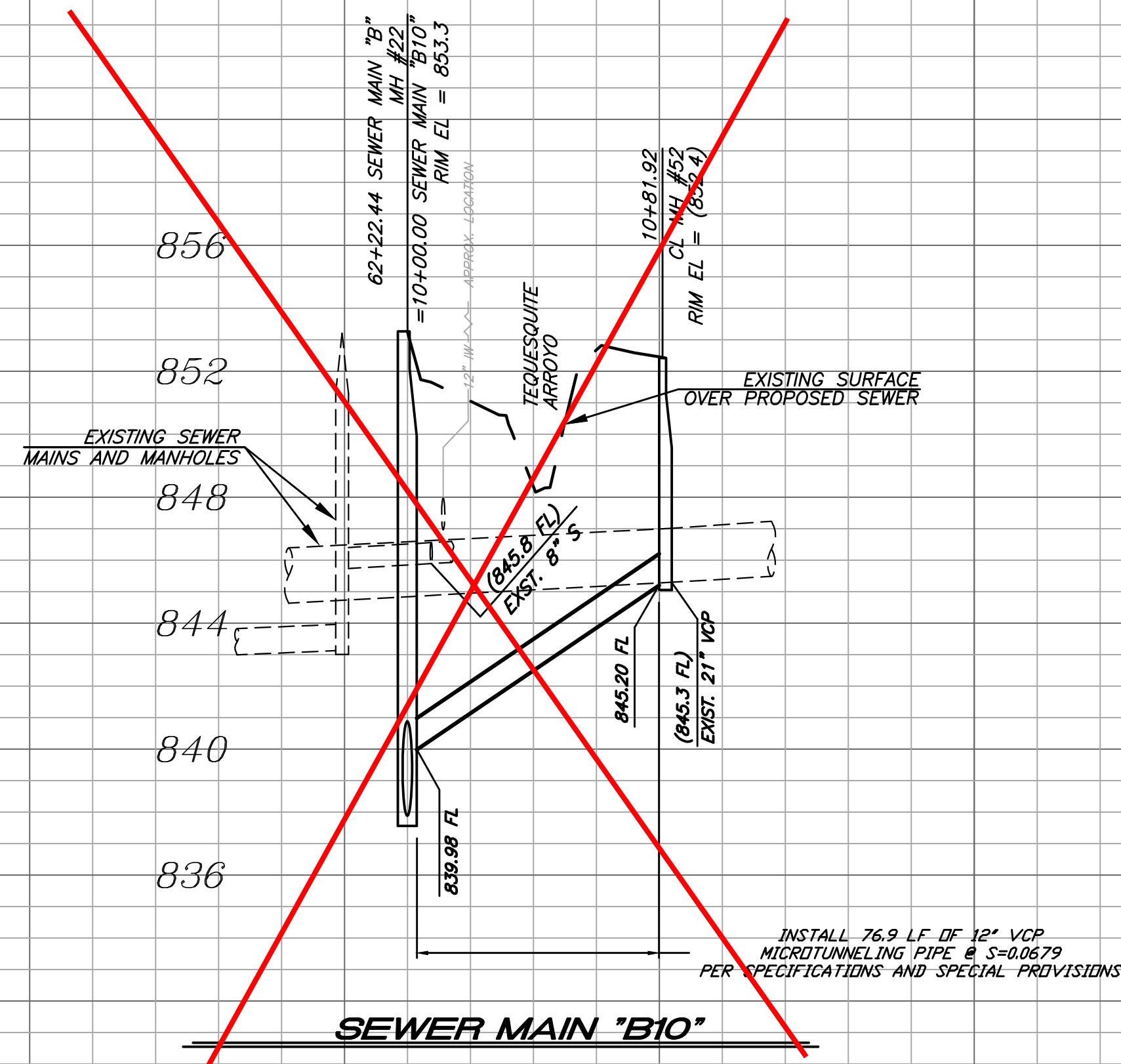
HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'

DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524

S-2108

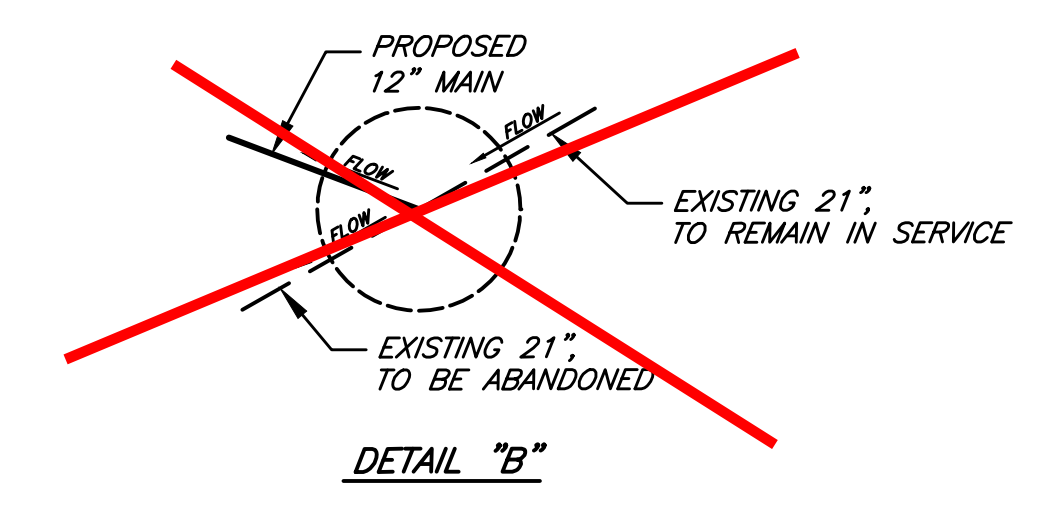
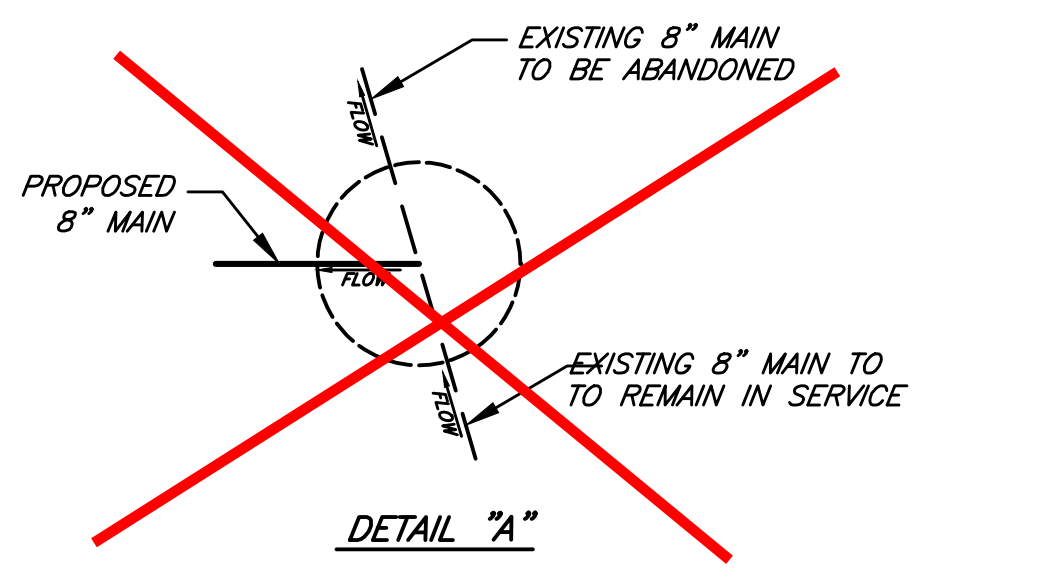
SHEET **19** OF **28**

FILE NAME:

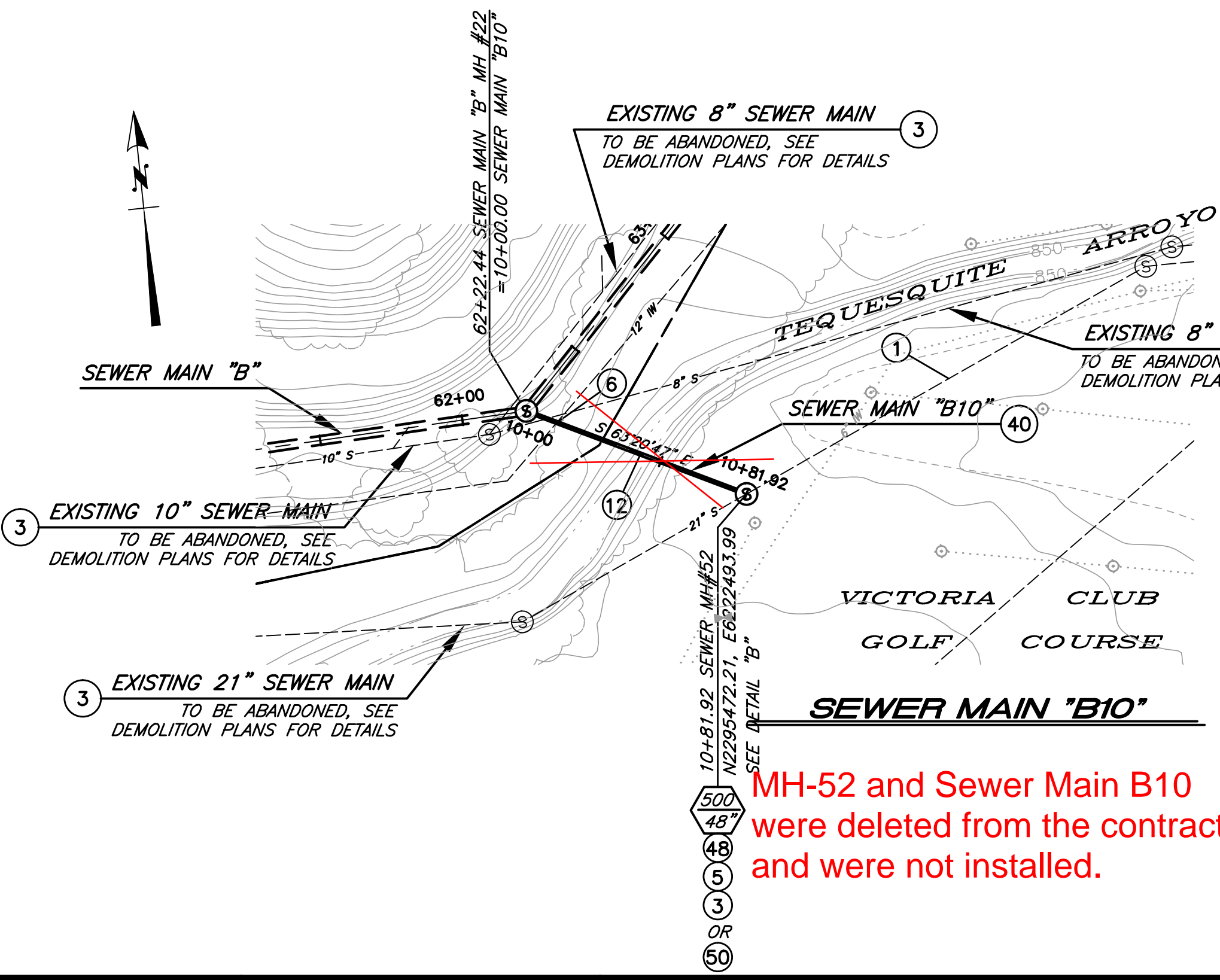


PROFILE SCALE
HORIZ. 1" = 40'
VERT. 1" = 4'

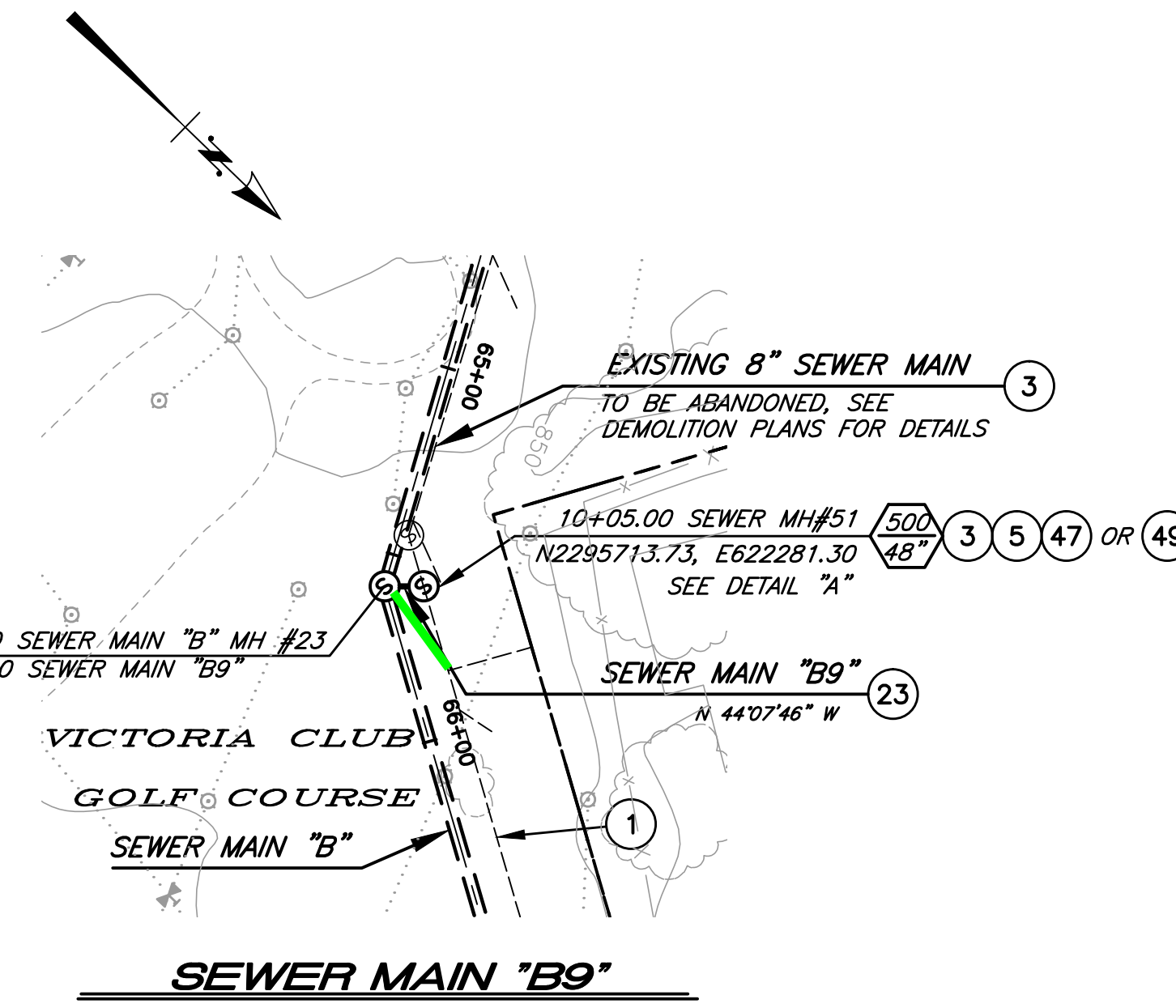
10 11 10 11



MANHOLE SCHEMATIC
NOT TO SCALE



MH-52 and Sewer Main B10 were deleted from the contract and were not installed.



MH-51 was not installed and the existing Sewer Main B was tied directly into MH-26

SPECIFIC CONSTRUCTION NOTES

- 1 EXISTING SEWER MAIN TO REMAIN IN SERVICE.
- 3 PROTECT AND MAINTAIN EXISTING SEWER SERVICE DURING CONSTRUCTION.
- 5 CONSTRUCT MANHOLE PER INDICATED MANHOLE SCHEMATIC DETAIL.
- 6 PROTECT AND SUPPORT EXISTING UTILITY IN PLACE. VERIFY LOCATION PRIOR TO CONSTRUCTION.
- 12 PROTECT STREAM BED AND BANKS FROM DAMAGE DURING CONSTRUCTION PER CONSTRUCTION SPECIFICATIONS.
- 23 INSTALL 8" PVC SDR-35 WITH TRENCH BEDDING PER STD. DWG. 452, CASE III.
- 40 MICROTUNNEL - 12" VCP PER SPECIFICATIONS AND SPECIAL PROVISIONS.
- 47 PLUG EXISTING 8" OUTLET AFTER ACTIVATION OF PROPOSED SEWER MAIN "B9" PER DEMOLITION SPECIFICATIONS.
- 48 PLUG EXISTING 21" OUTLET AFTER ACTIVATION OF PROPOSED SEWER MAIN "B10" PER DEMOLITION SPECIFICATIONS.
- 49 INSTALL PRECAST POLYMER MANHOLE - 48" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).
- 50 INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL (BID ALTERNATE 2).

BENCHMARK GPS-57
CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
DATUM: 1929 ELEVATION: 952.990

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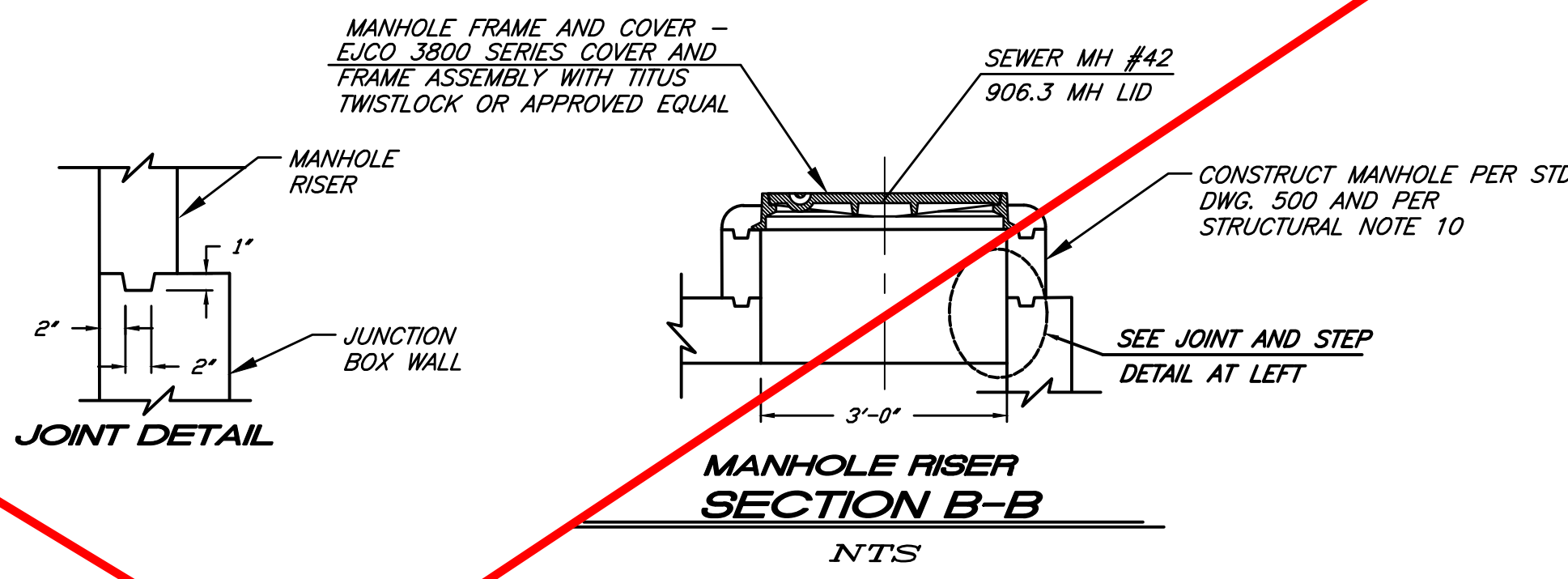
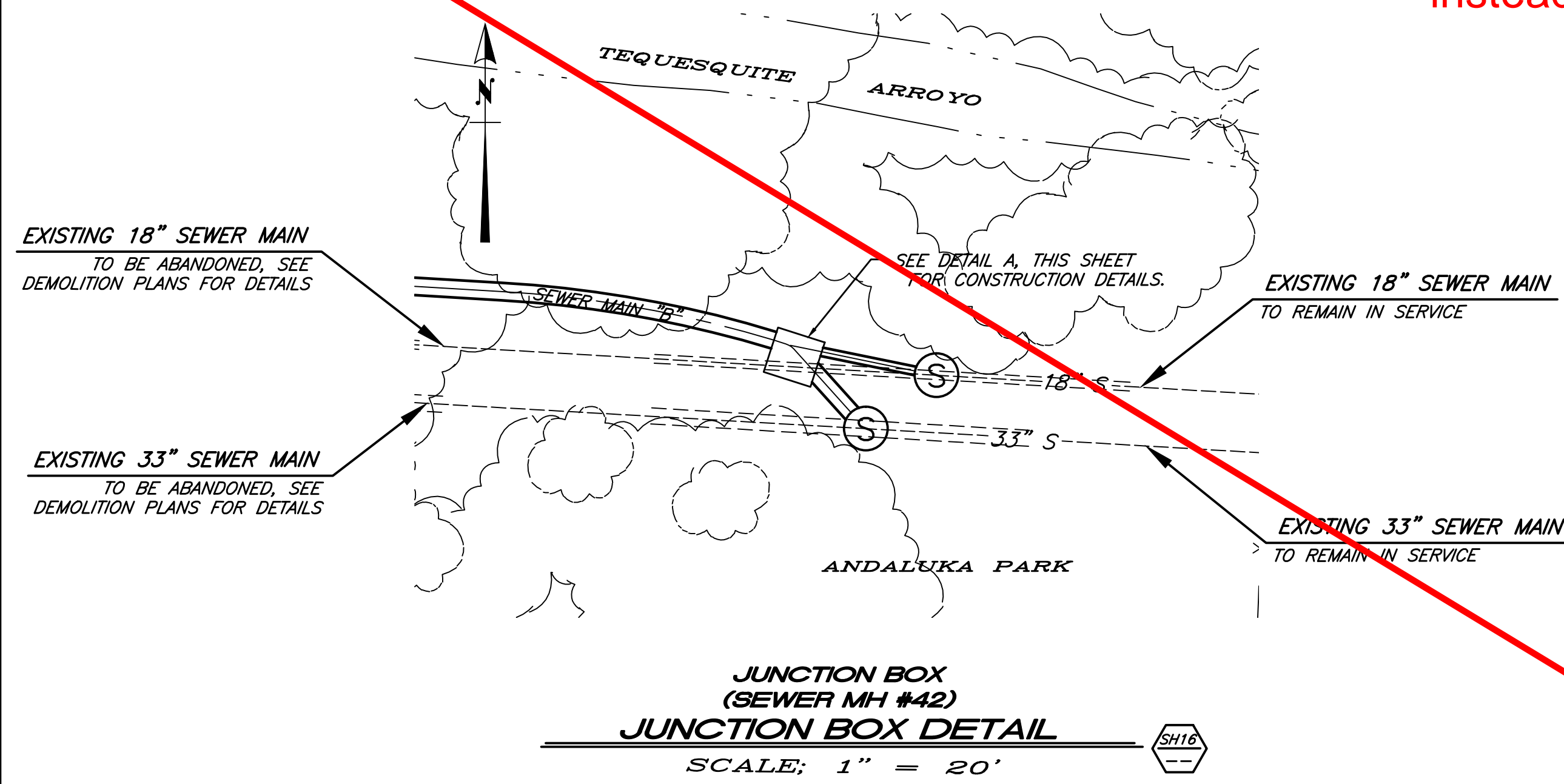
ENGINEER IN RESPONSIBLE CHARGE
Thuy Nguyen
R.C.E. No. 64751 EXPIRES: 6-30-19

MARK	REVISIONS	APPR.	DATE
DESIGNED BY	DRAWN BY	CHECKED BY	TN

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
REVIEWED BY THE ENGINEERING MANAGER, CONSTRUCTION CONTRACT ADMINISTRATOR, TRAFFIC ENGINEER, CITY SURVEYOR, AND STREET DIVISION PER INITIALS ON THE TITLE SHEET
APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB	DESIGN WORK ORDER NO.: 0501812 CONSTR. WORK ORDER NO.: 1609524
ARROYO / SEDGWICK CONNECTOR SEWER MAINS B9 AND B10	S-2108
HORIZ. SCALE: 1"=40' VERT. SCALE: 1"=4'	SHEET 20 OF 28
FILE NAME:	

A Manhole was installed instead of a Junction Box



STRUCTURAL NOTES

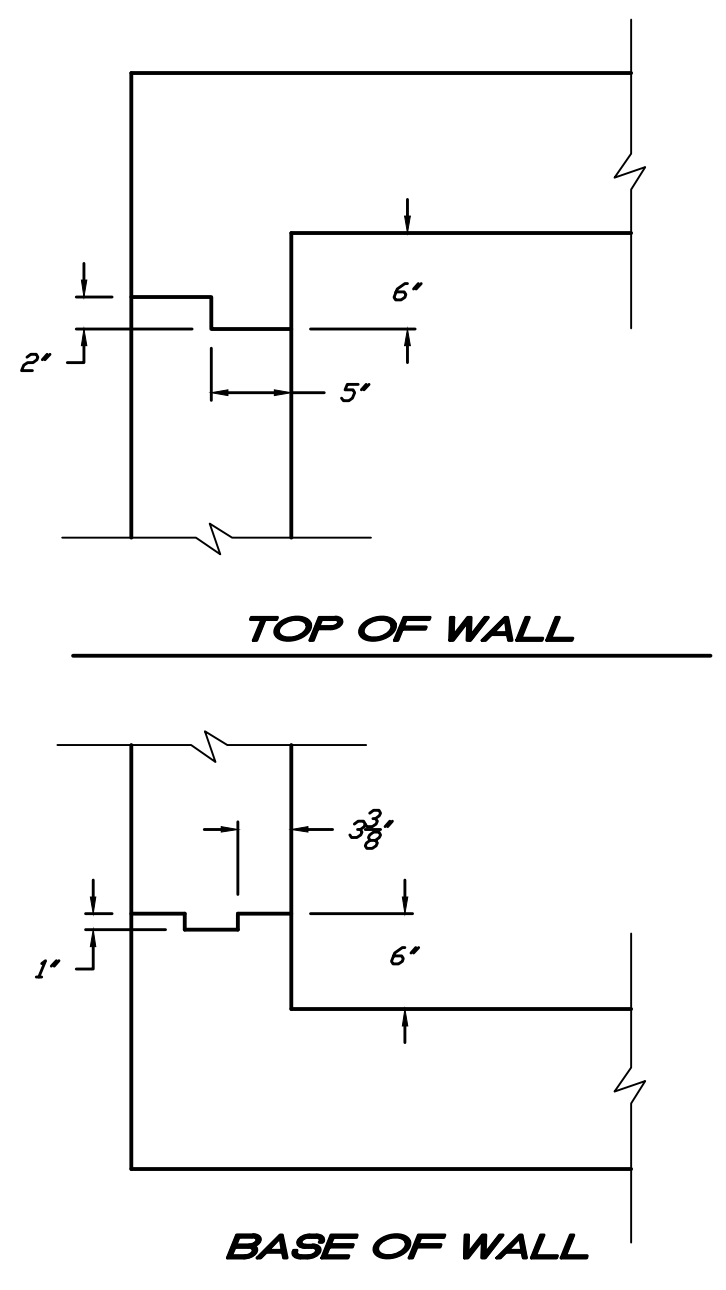
LIVE LOAD
HS20-44 UNLESS OTHERWISE SHOWN

DEAD LOAD
EARTH LOAD: = 35 pcf
INTEGRAL WATER PRESSURE: 62.4 psf PER FEET OF DEPTH
WEIGHT OF CONCRETE: 150 pcf

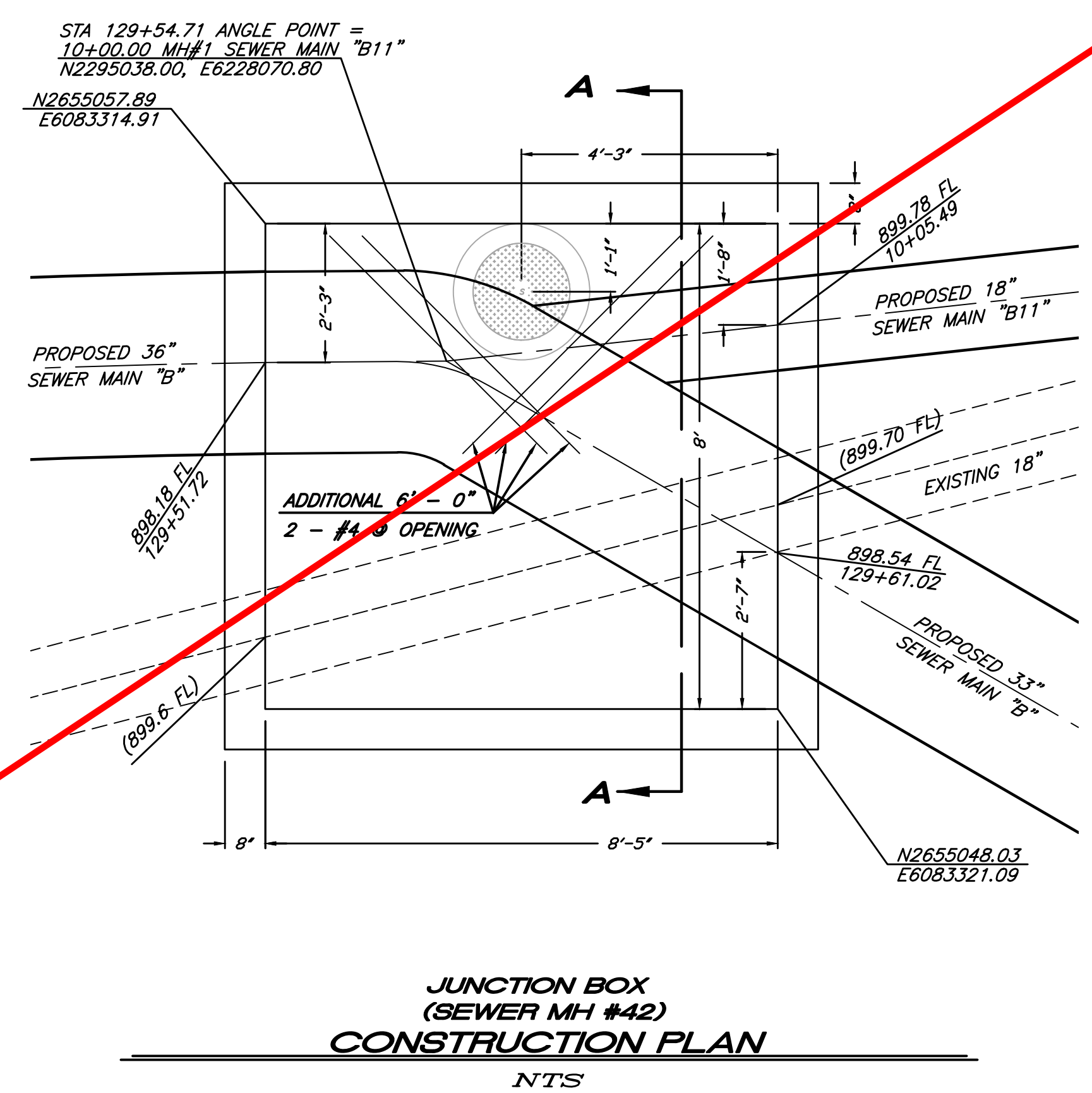
ALL DESIGN STRESSES
f_c = 4,000 psi OR 28 DAYS
f_c' = 1,800 psi
f_y = 60,000 psi
f_s = 24,000 psi
n = 8
SHEAR STRESSES PER LATEST A.C.I. BUILDING CODE

STRUCTURAL NOTES

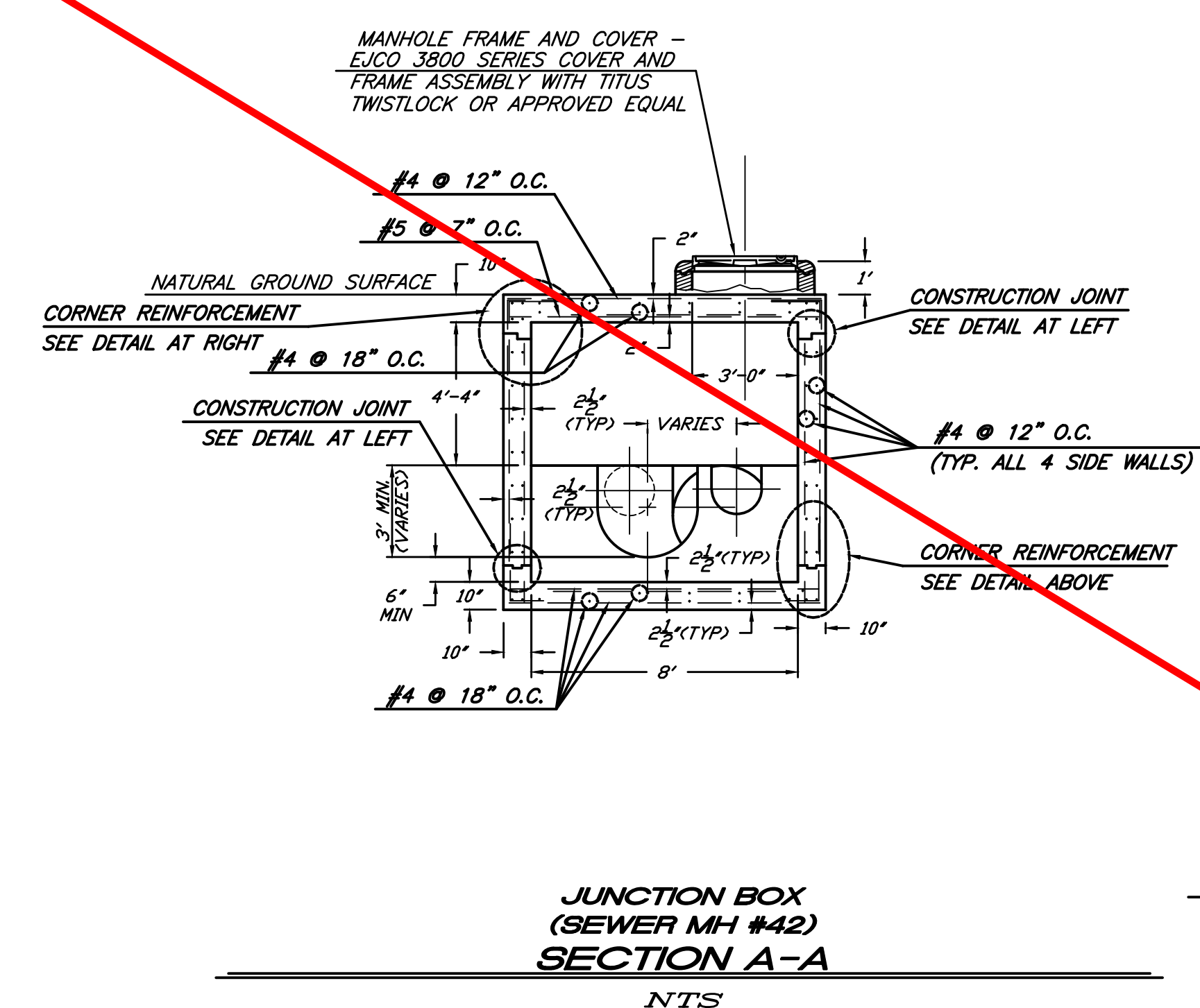
1. ALL BAR BENDS AND HOOKS SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", LATEST EDITION.
2. PLACING OF REINFORCEMENT SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", LATEST EDITION.
3. TRANSVERSE CONSTRUCTION JOINTS SHALL NOT BE PLACED WITHIN 10 INCHES OF MANHOLE OR JUNCTION STRUCTURE OPENINGS.
4. TRANSVERSE CONSTRUCTION JOINTS IN WALLS AND SLABS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED. TRANSVERSE CONSTRUCTION JOINTS SHALL BE NORMAL OR RADIAL TO THE CENTERLINE OF CONSTRUCTION.
5. THE TRANSVERSE REINFORCING STEEL SHALL TERMINATE ONE AND ONE-HALF INCHES FROM THE CONCRETE SURFACES UNLESS OTHERWISE SHOWN ON THE STRUCTURAL DETAILS.
6. NO SPLICES IN TRANSVERSE STEEL REINFORCEMENT WILL BE PERMITTED OTHER THAN SHOWN ON THE DRAWINGS WITHOUT APPROVAL OF THE ENGINEER. NO MORE THAN TWO SPLICES WILL BE PERMITTED IN ANY LONGITUDINAL BAR BETWEEN TRANSVERSE JOINTS. SPLICES SHALL BE STAGGERED.
7. LONGITUDINAL STEEL SHALL BE LAPPED 20 BAR DIAMETERS AT SPLICES. TRANSVERSE STEEL SHALL BE LAPPED 10 BAR DIAMETERS AT SPLICES.
8. LONGITUDINAL STEEL SHALL BE CONTINUOUS AND EXTEND THROUGH ALL CONSTRUCTION JOINTS.
9. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, TRANSVERSE CONSTRUCTION JOINTS IN BOTH SLABS AND WALLS SHALL BE PLACED AT THE END OF EACH POUR, BUT THE SPACING THEREOF SHALL NOT EXCEED 50 FEET OR BE LESS THAN 10 FEET.
10. NOTE 5 FROM CITY OF RIVERSIDE STD. DWG. 500 SHALL BE REPLACED AS FOLLOWS: "THE LOWER PORTION OF THE MANHOLE SHALL BE CONSTRUCTED AS DESIGNATED ON THIS SHEET. THE FRAME AND COVER SHALL BE SIZED AND SPECIFIED PER THE DETAILS ON THIS SHEET. A 1' MINIMUM SHELF SHALL BE MAINTAINED." ALL OTHER NOTES ON STD. DWG. 500 APPLY AS SPECIFIED ON THAT DRAWING.



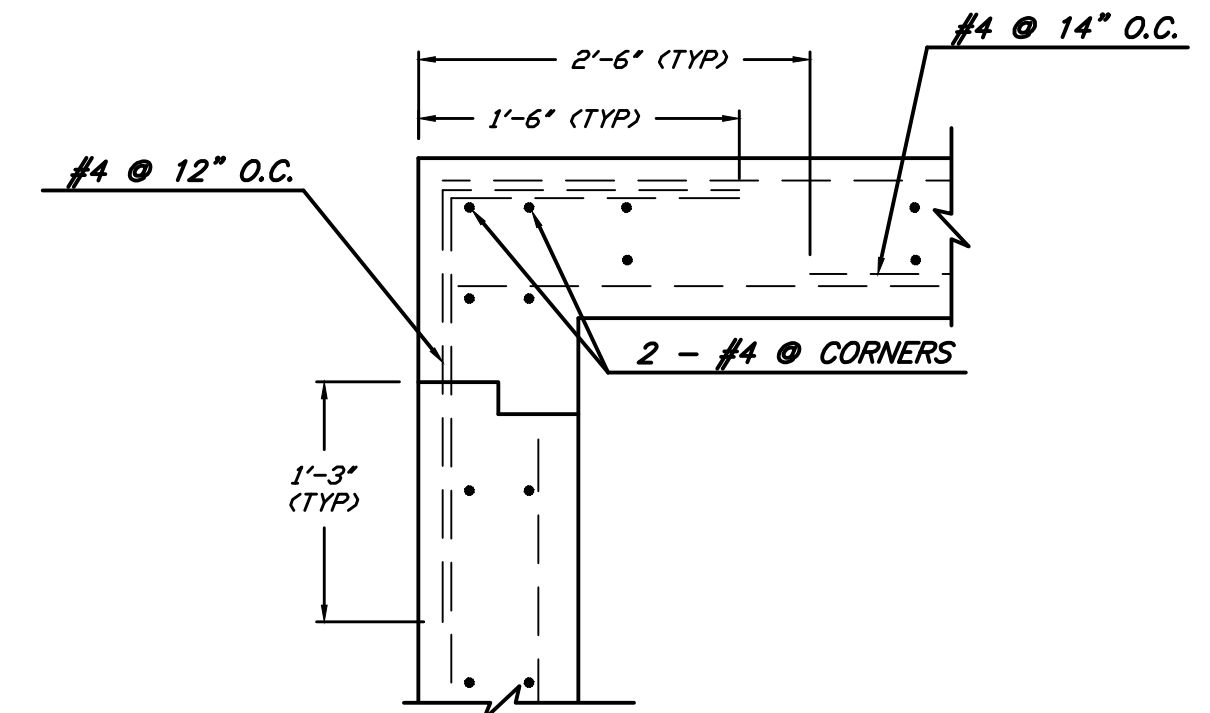
CONSTRUCTION JOINT DETAILS
NTS



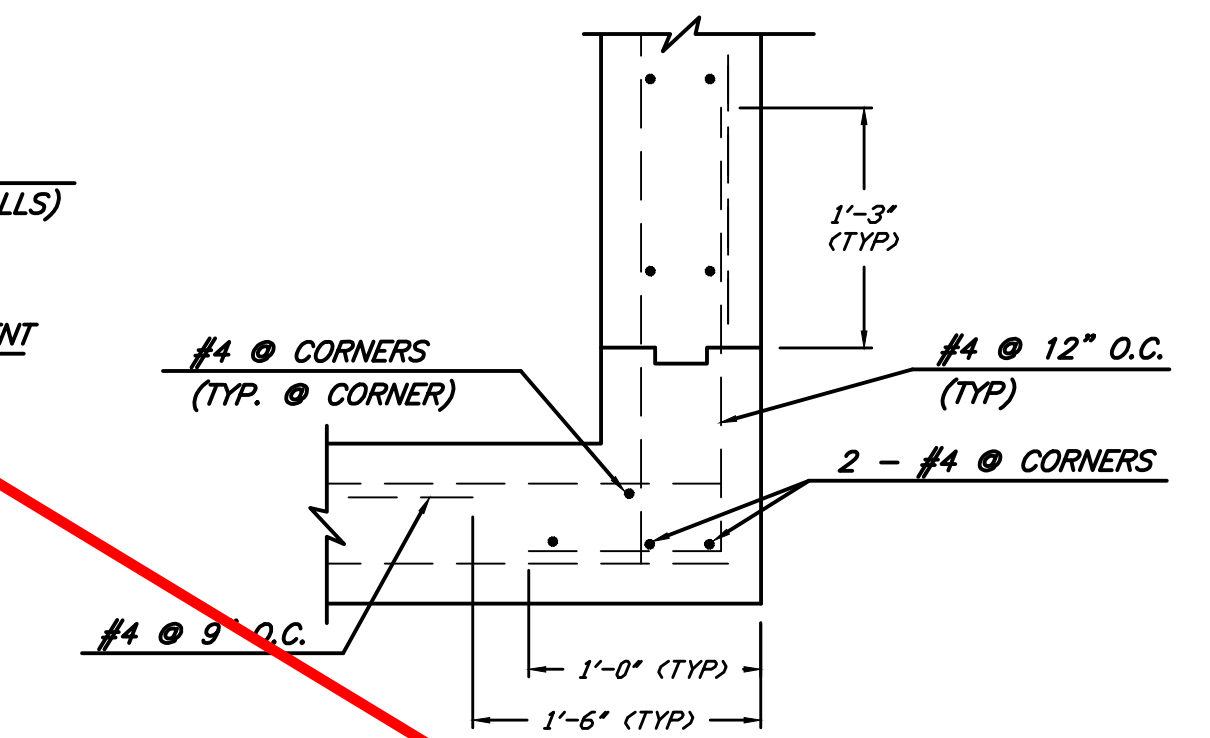
JUNCTION BOX (SEWER MH #42) CONSTRUCTION PLAN
NTS



JUNCTION BOX (SEWER MH #42) SECTION A-A
NTS



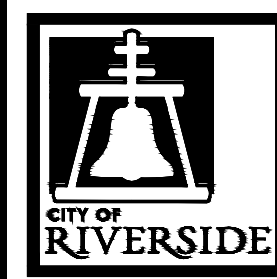
TOP CORNER REINFORCEMENT DETAIL
TYPICAL CONSTRUCTION AT TOP CORNERS



BOTTOM CORNER REINFORCEMENT DETAIL
TYPICAL CONSTRUCTION AT BOTTOM CORNERS

BENCHMARK GPS-57
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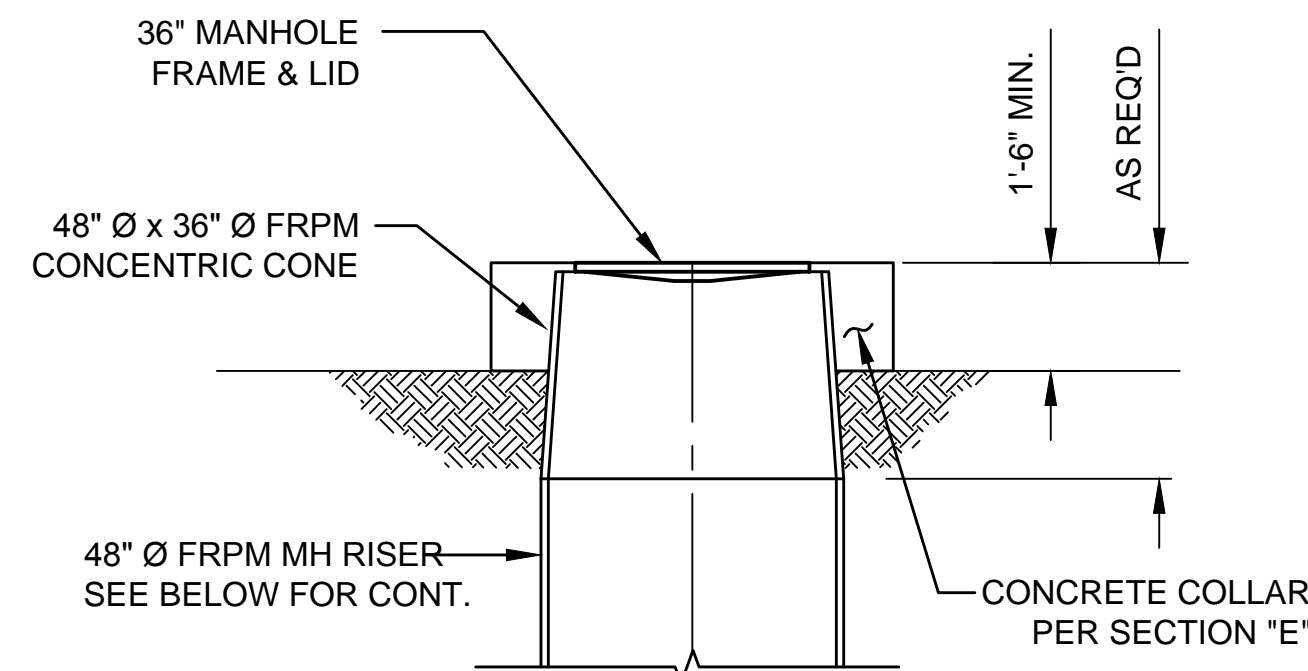


MARK	REVISIONS	APPR.	DATE

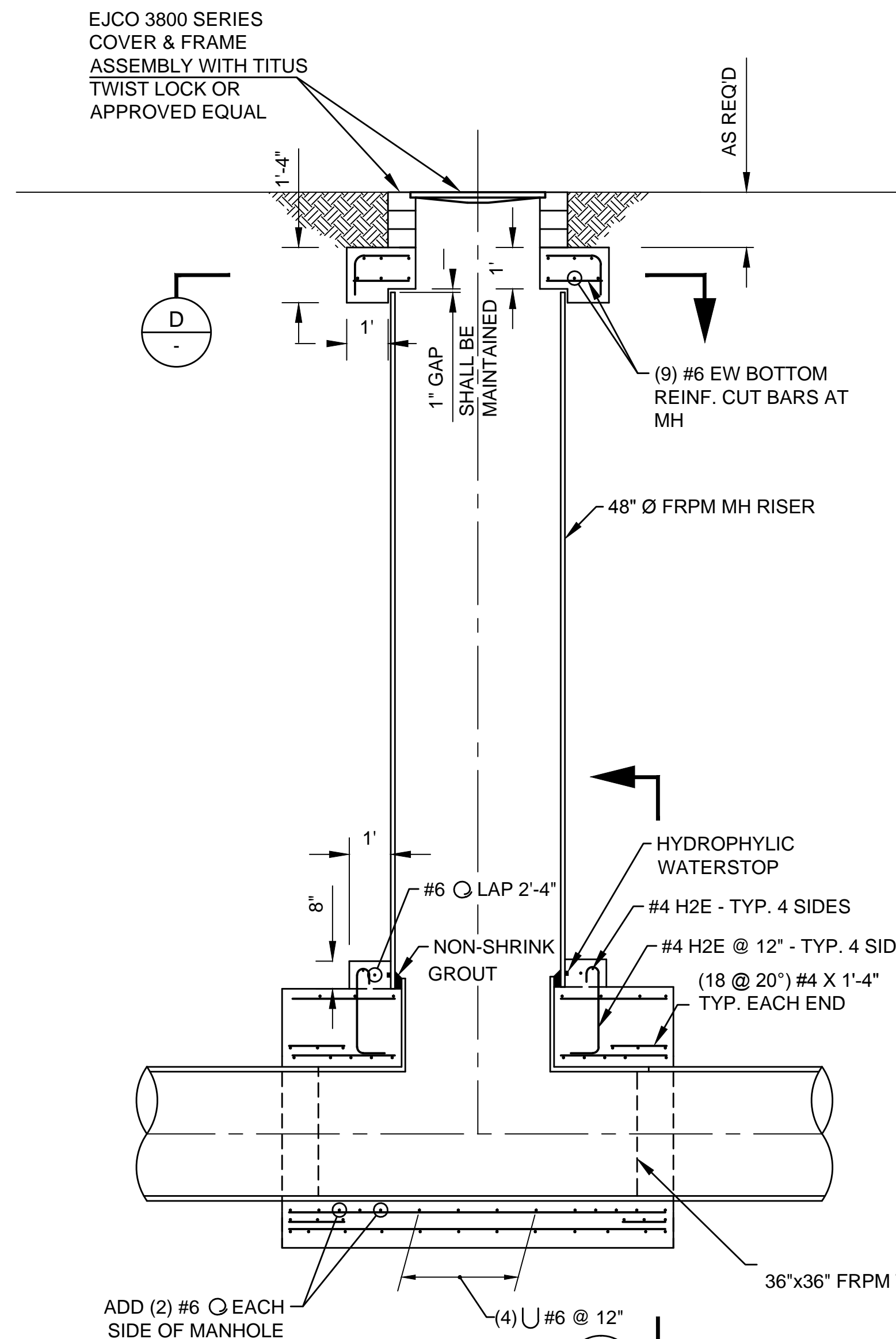
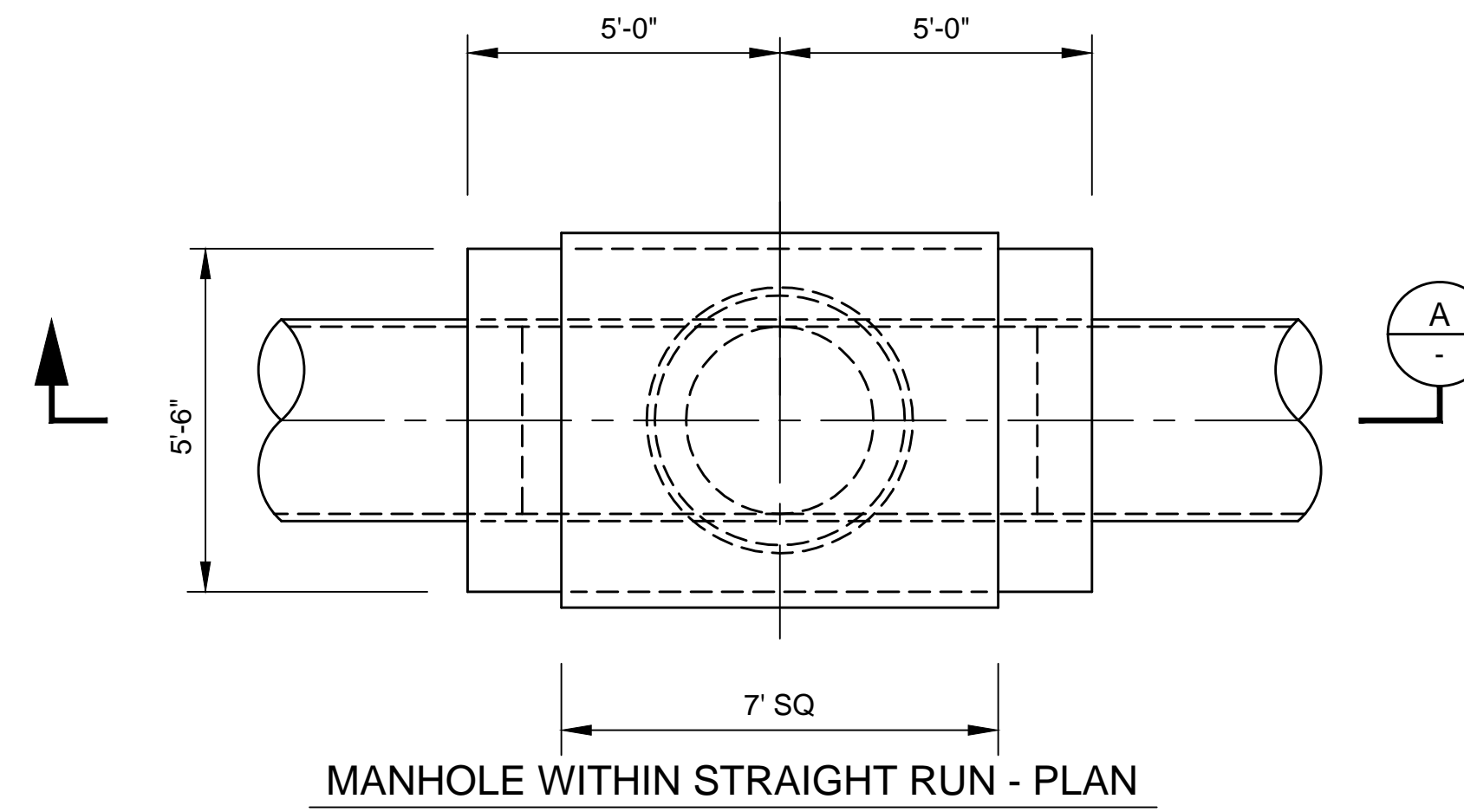
CITY OF RIVERSIDE, CALIFORNIA
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SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
CONSTRUCTION DETAILS
JUNCTION BOX MANHOLE #42
HORIZ. SCALE: VERT. SCALE:

DESIGN WORK ORDER NO.: 0501812
CONSTR. WORK ORDER NO.: 1609524
S-2108
SHEET **21** OF **28**
FILE NAME:

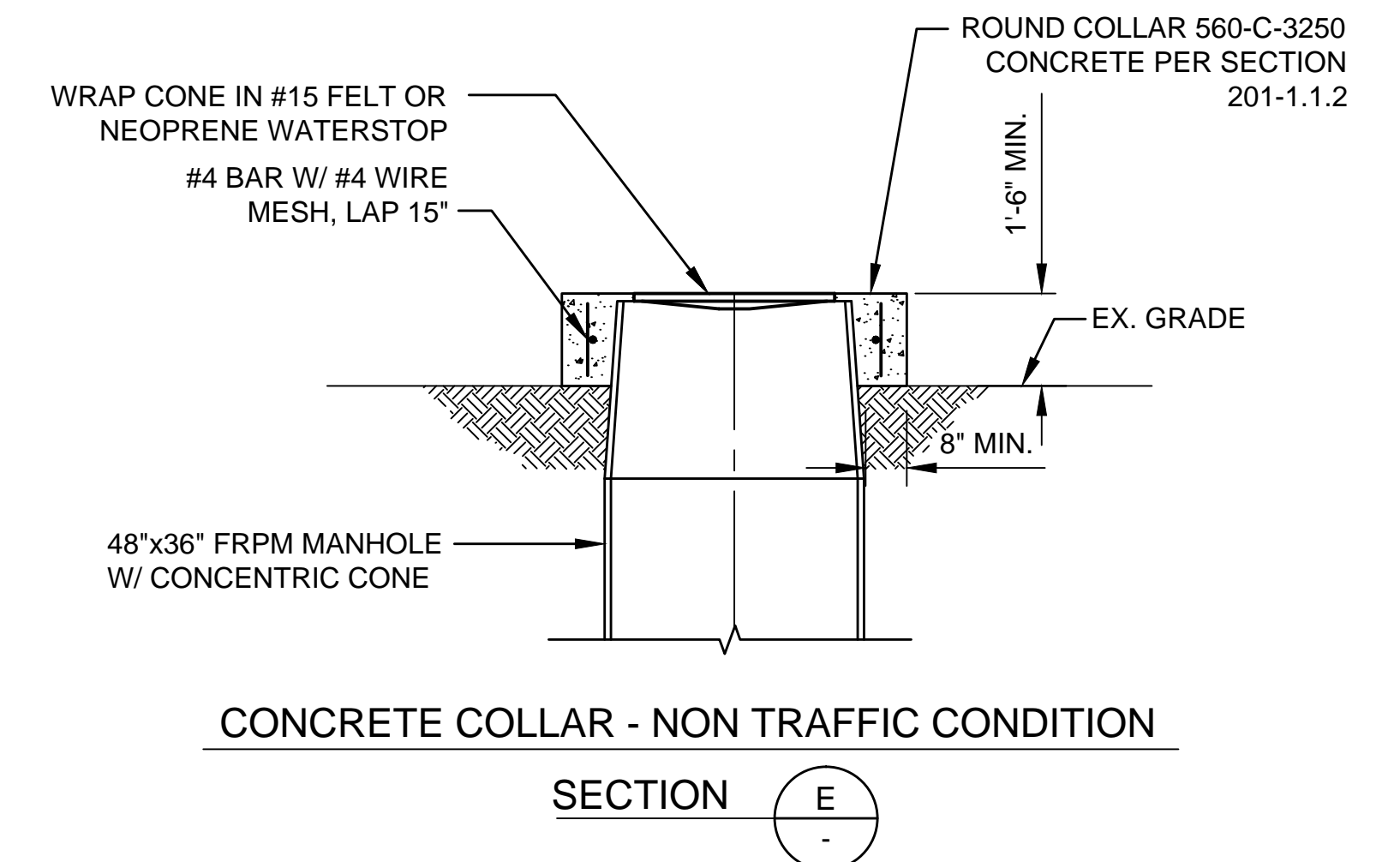
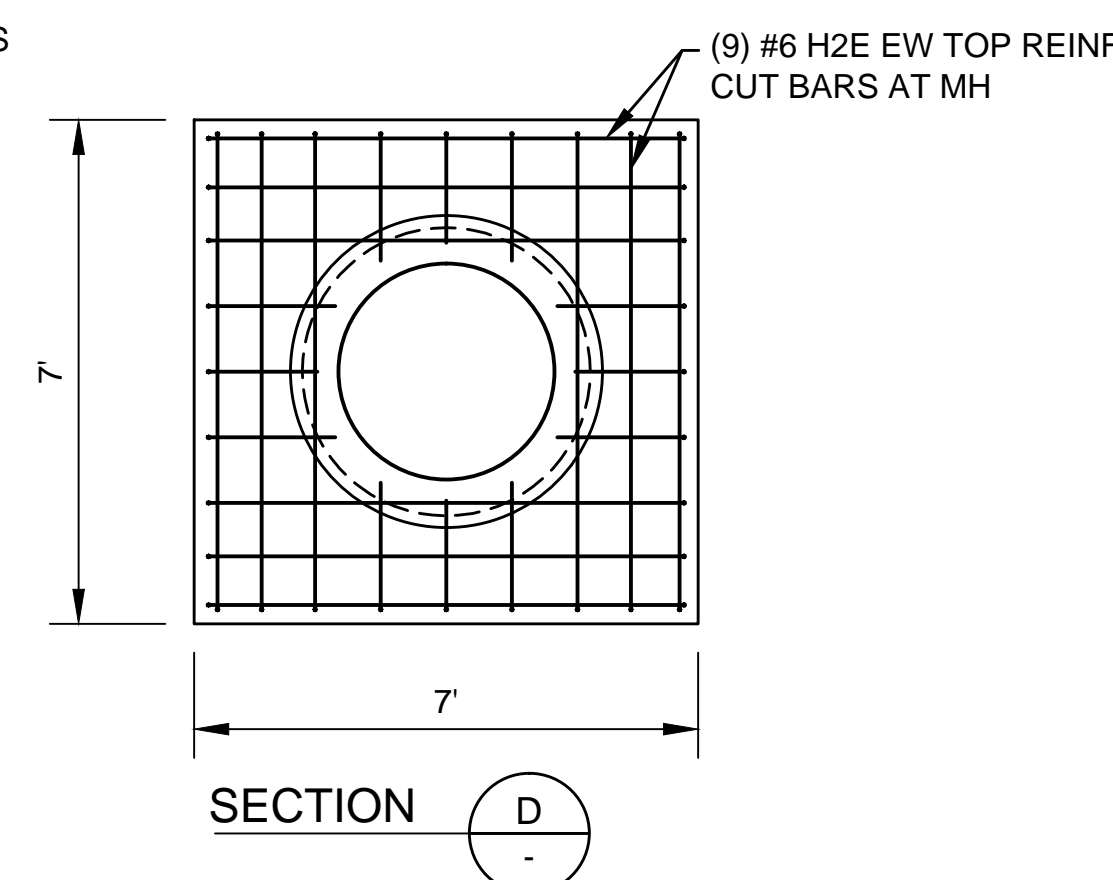
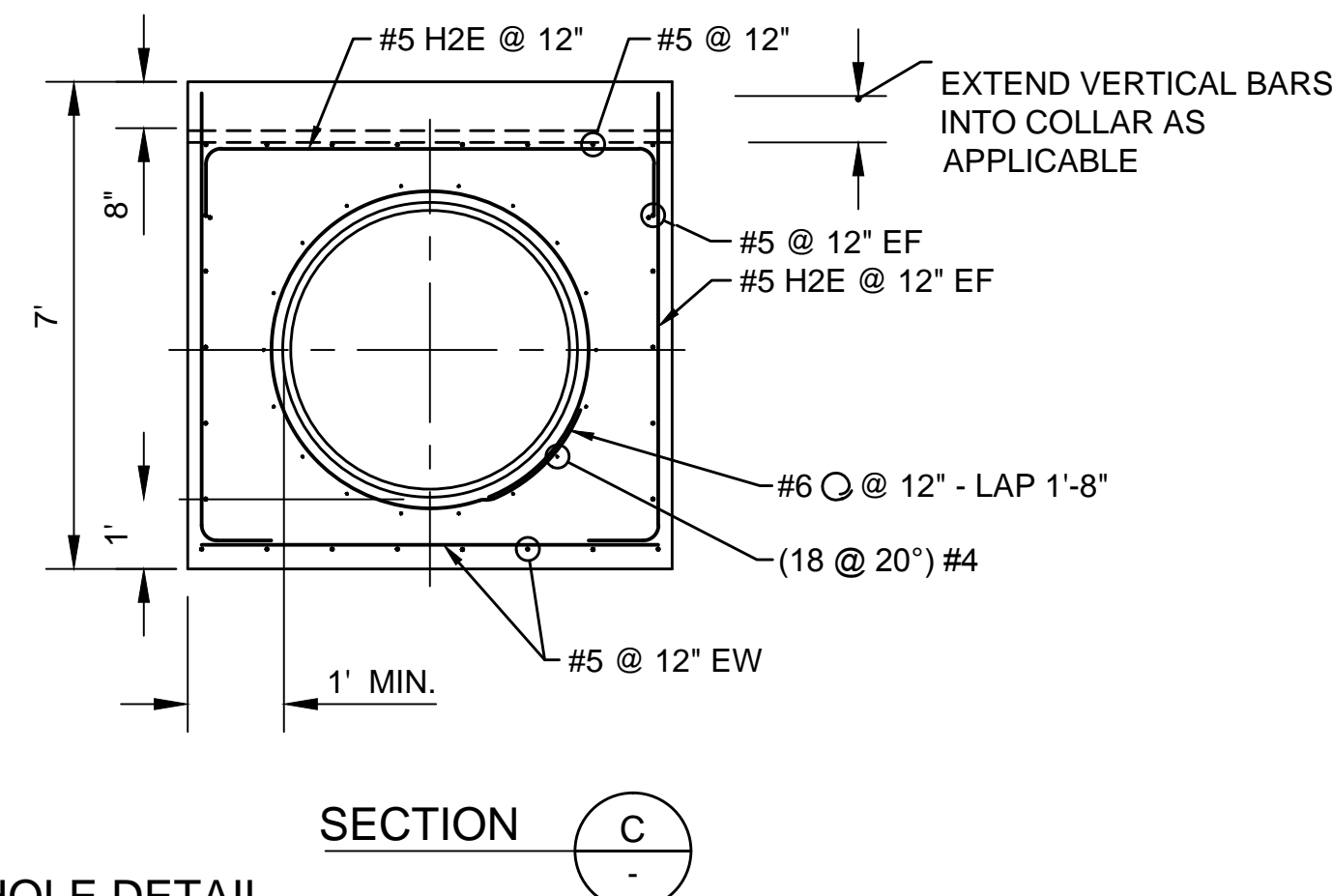
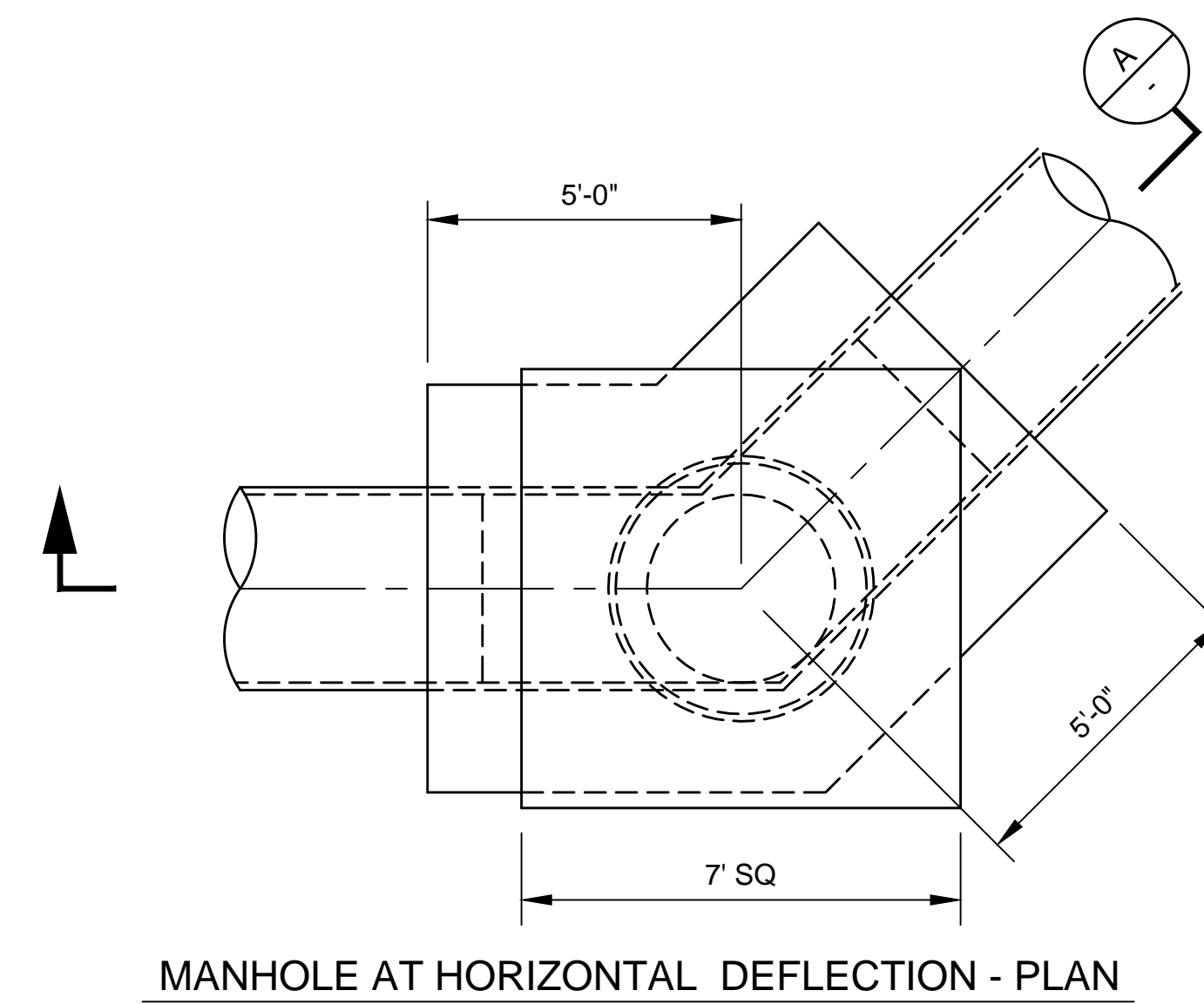


NON - TRAFFIC CONDITION
(SEE PLAN & PROFILES FOR LOCATIONS)



SECTION (TRAFFIC CONDITION)
(SEE PLAN & PROFILES FOR LOCATIONS)

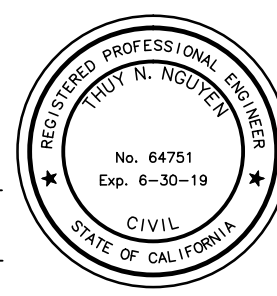
TYP. CCFRPM MANHOLE DETAIL
SCALE: 3/8" = 1'-0"



BENCHMARK GPS-57
CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
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Thuy Nguyen
R.C.E. No. 64751 EXPIRES: 6-30-19



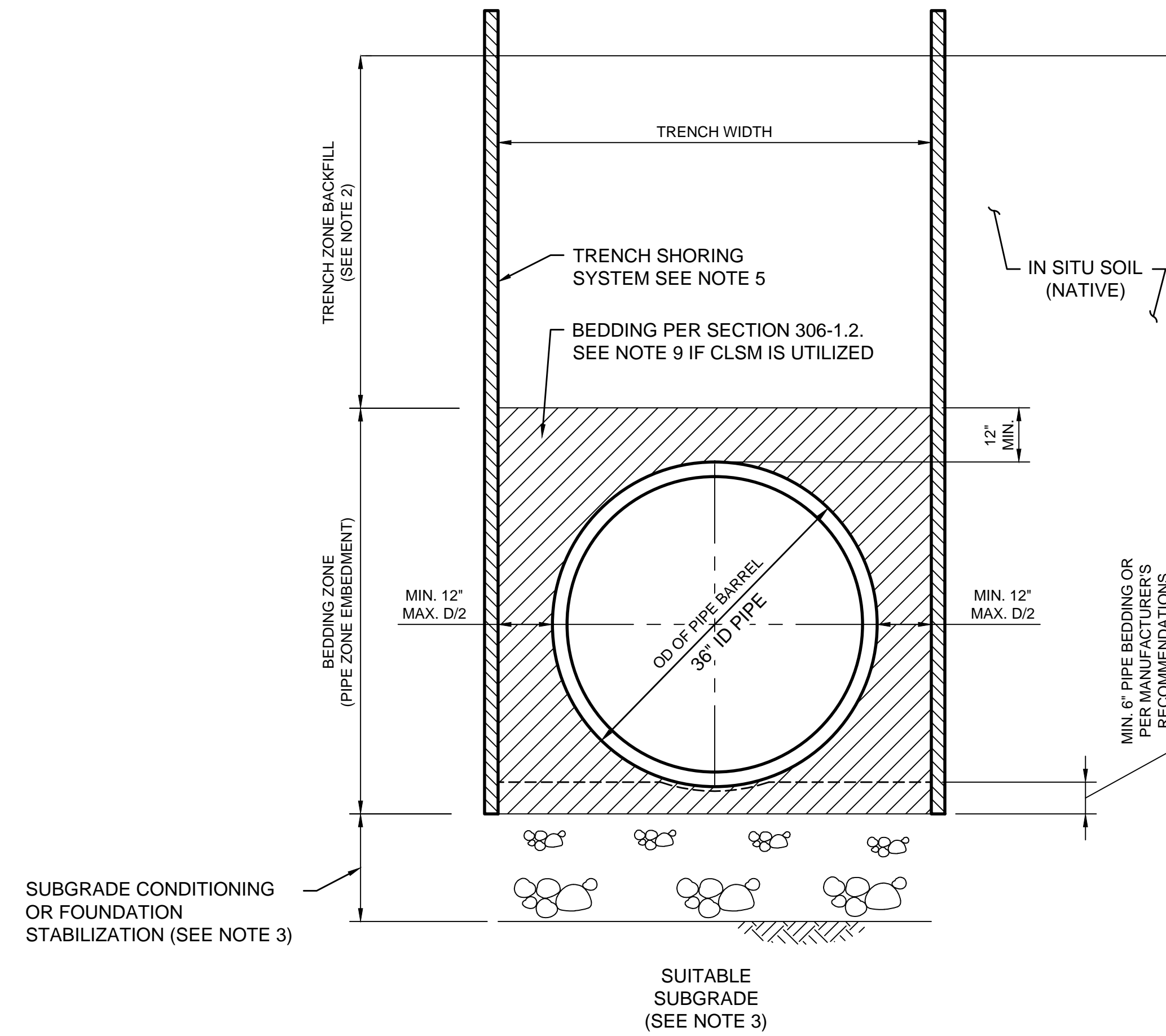
MARK	REVISIONS	APPR.	DATE

DESIGNED BY _____ DRAWN BY _____ CHECKED BY _____ TN

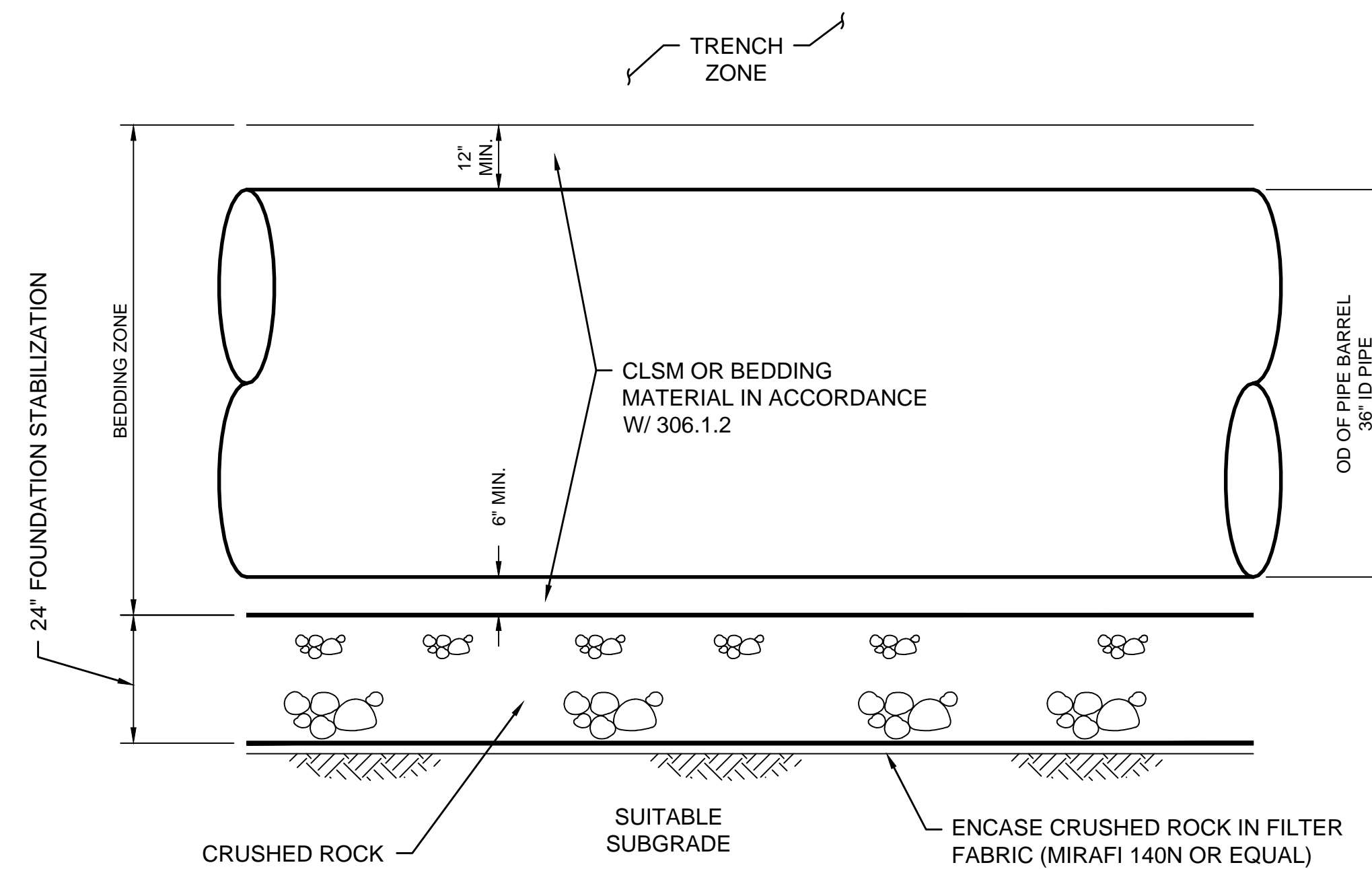
CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
REVIEWED BY THE ENGINEERING MANAGER, CONSTRUCTION CONTRACT ADMINISTRATOR, TRAFFIC ENGINEER, CITY SURVEYOR, AND STREET DIVISION PER INITIALS ON THE TITLE SHEET
APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
CONSTRUCTION DETAILS
FRPM MANHOLE DETAILS
HORIZ. SCALE: _____ VERT. SCALE: _____

DESIGN WORK ORDER NO.: 0501812
CONSTR. WORK ORDER NO.: 1609524
S-2108
SHEET **22** OF **28**
FILE NAME: _____



OPEN CUT TRENCH SECTION
SCALE: NONE



DETAIL 1

TRENCH NOTES:

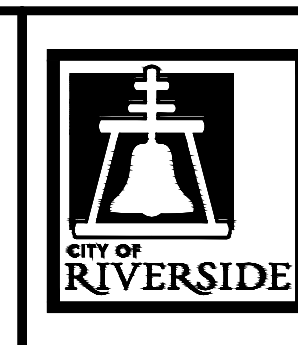
1. NOT USED.
2. BEDDING AND BACKFILL SHALL CONFORM TO SECTION 306 UNDERGROUND CONDUIT CONSTRUCTION AND AS MODIFIED BY THE SPECIAL PROVISIONS.
3. IF GROUNDWATER IS ENCOUNTERED, REMOVE GROUNDWATER TO A MINIMUM LEVEL TWO (2) FEET BELOW THE PIPE INVERT. THE TRENCH SUBGRADE SHALL BE OBSERVED AND TESTED TO DETERMINE ITS SUITABILITY FOR PLACEMENT OF THE BEDDING MATERIAL.

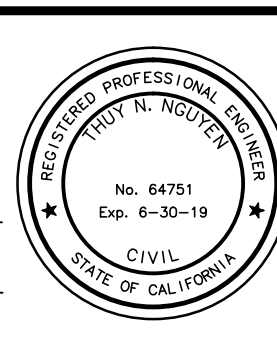
IF SO DIRECTED, THE SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF 6-8 INCHES BELOW THE BEDDING ZONE. THE MATERIAL SHALL BE CONDITIONED TO 2% OF OPTIMAL MOISTURE CONTENT AND MECHANICALLY COMPACTED TO A MINIMUM 90% OF MAXIMUM DRY DENSITY (ASTM D1557).

IF SO DIRECTED, THE SUBGRADE SHALL BE REMOVED BY OVER EXCAVATING 24 INCHES BELOW THE BEDDING ZONE. THE OVER EXCAVATED AREA SHALL BE LINED WITH A FILTER FABRIC AS SHOWN IN DETAIL 1 AND CRUSHED ROCK SHALL BE PLACED AND MECHANICALLY COMPACTED AND FULLY ENCAPSULATED IN FILTER FABRIC. CRUSHED ROCK SHALL CONFORM TO THE REQUIREMENTS OF SECTION 200-1.2 AND TABLE 306-1.2.1.3 (B).
4. PROTECT IN PLACE EXISTING SEWER MAINS. ALIGNMENT AND OFFSET VARIES (NOT SHOWN).
5. THE MINIMUM LATERAL EARTH PRESSURE TO BE USED FOR THE DESIGN OF ALL TRENCH SHORING SYSTEMS SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY C.H.J. INCORPORATED, DATED OCTOBER 22, 2012, JOB NO. 10356-3.
6. CONTRACTOR SHALL USE MECHANICAL COMPACTION METHODS. JETTING SHALL NOT BE USED TO DENSIFY BEDDING OR BACKFILL MATERIALS.
7. NOT USED
8. NOT USED
9. CLSM SHALL BE POURED AGAINST UNDISTURBED NATIVE MATERIAL OR CONTRACTOR SHALL PROVIDE AN AGENCY APPROVED BOND BREAKER BETWEEN TRENCH SUPPORT AND CLSM MATERIALS.
10. CONTRACTOR SHALL SUBMIT A DETAILED PLAN FOR PLACEMENT OF BEDDING AND REMOVAL OF TRENCH SUPPORT TO BACKFILL VOID SPACES DUE TO TRENCH SUPPORT REMOVAL.

BENCHMARK GPS-57
CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
DATUM: 1929 ELEVATION: 952.990


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ENGINEER IN RESPONSIBLE CHARGE
Thuy Nguyen
R.C.E. No. 64751 EXPIRES: 6-30-19



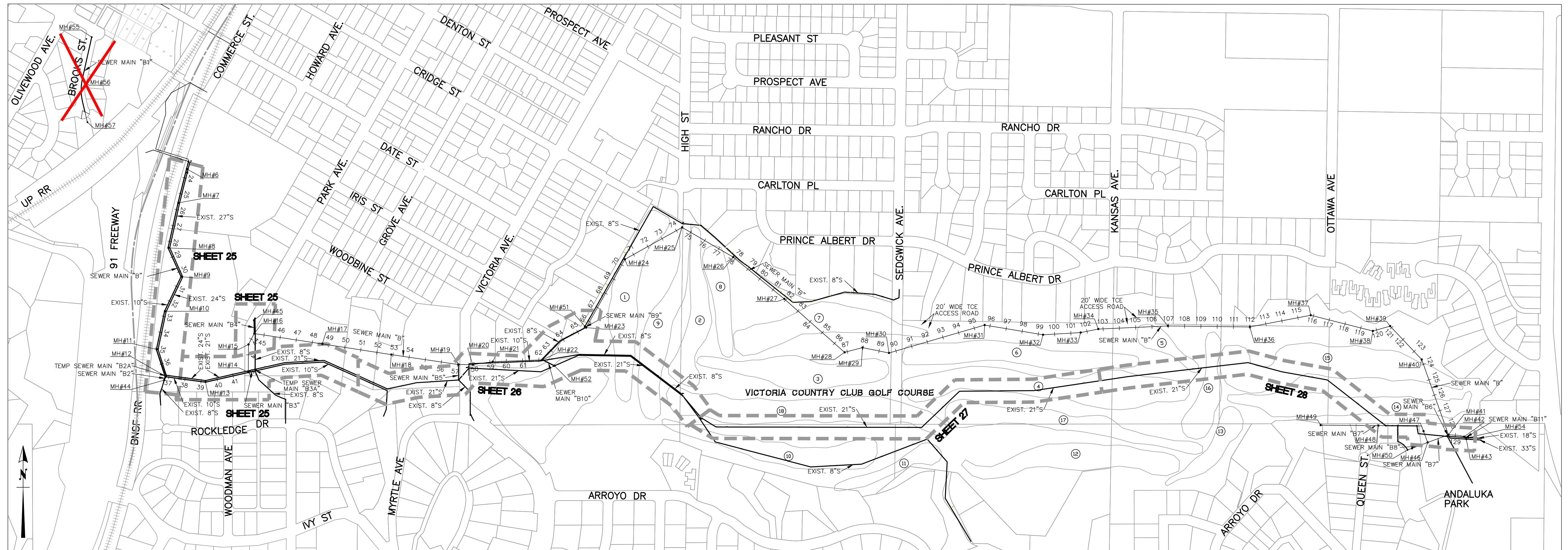
MARK	REVISIONS	APPR.	DATE

DESIGNED BY _____ DRAWN BY _____ CHECKED BY TN

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
REVIEWED BY THE ENGINEERING MANAGER, CONSTRUCTION CONTRACT ADMINISTRATOR, TRAFFIC ENGINEER, CITY SURVEYOR, AND STREET DIVISION PER INITIALS ON THE TITLE SHEET
APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
CONSTRUCTION DETAILS
FRPM PIPE TRENCH AND BACKFILL
HORIZ. SCALE: _____ VERT. SCALE: _____

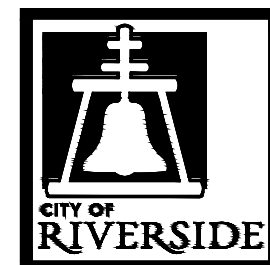
DESIGN WORK ORDER NO.: 0501812
CONSTR. WORK ORDER NO.: 1609524
S-2108
SHEET **23** OF **28**
FILE NAME: _____



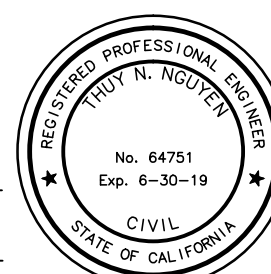
GENERAL DEMOLITION NOTES:

- 1) DEMOLITION SHALL NOT PROCEED UNTIL NEW THE SEWER MAIN, LATERALS, AND MANHOLES HAVE BEEN APPROVED AND ACCEPTED BY THE CITY ENGINEER.
- 2) CONTRACTOR SHALL VERIFY EACH MANHOLE AND MAIN IDENTIFIED FOR MODIFICATION, DESTRUCTION OR ABANDONMENT PRIOR TO BEGINNING DEMOLITION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY VARIATION IN PLACEMENT / PLAN OR FLOW DIRECTION (INCLUDING BUT NOT LIMITED TO ADDITIONAL INLETS OR OUTLETS) OF MANHOLES AND MAINS (INCLUDING BUT NOT LIMITED TO PURPORTED ABANDONED MAINS THAT APPEAR TO BE INADEQUATELY OR IMPROPERLY ABANDONED).
- 3) ABANDONMENT OF DESIGNATED MANHOLES SHALL BE ACCOMPLISHED PER THE DEMOLITION SPECIFICATION AND UNDER THE APPROVAL OF THE CITY ENGINEER.
- 4) ABANDONMENT OF DESIGNATED SEWER PIPES SHALL BE ACCOMPLISHED BY FILLING THE PIPES WITH SAND OR CLSM PER THE DEMOLITION SPECIFICATION AND UNDER THE APPROVAL OF THE CITY ENGINEER, UNLESS DIRECTED OTHERWISE.
- 5) CONTRACTOR SHALL PROTECT OR REPAIR ANY LANDSCAPING, FENCING, OR OTHER HARDSCAPE DAMAGED AS A RESULT OF DEMOLITION ACTIVITIES UNLESS DIRECTED OTHERWISE.
- 6) REMOVAL OF DESIGNATED MANHOLES AND SEWER PIPES SHALL BE ACCOMPLISHED PER THE DEMOLITION SPECIFICATIONS UNDER THE APPROVAL OF THE CITY ENGINEER.
- 7) ALL FACILITIES TO BE DEMOLISHED SHALL FOLLOW THE "GREENBOOK," THE CITY STANDARDS, AND THE SPECIAL PROVISIONS.

BENCHMARK GPS-57
 CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
 DATUM: 1929 ELEVATION: 952.990



ENGINEER IN RESPONSIBLE CHARGE
 Thuy Nguyen
 R.C.E. No. 64751 EXPIRES: 6-30-19



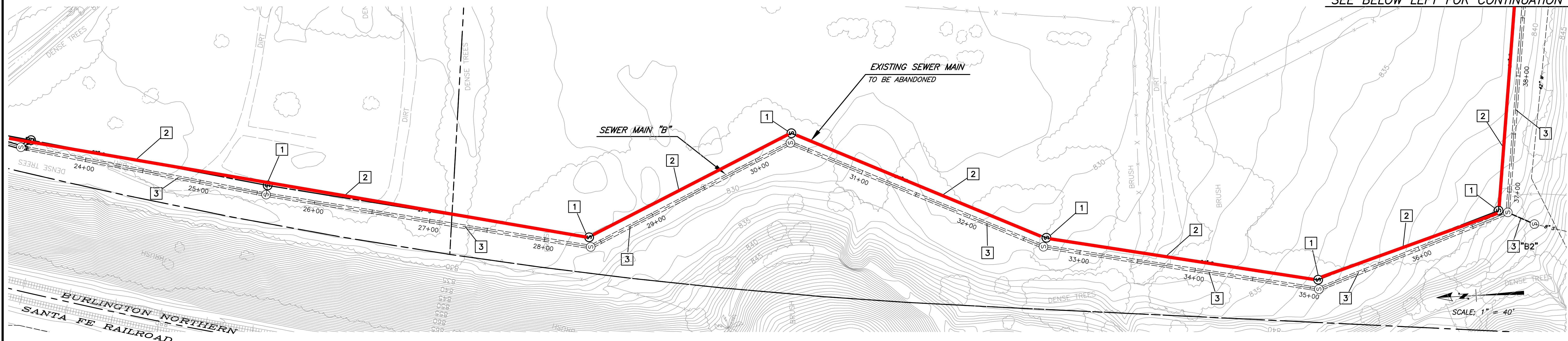
MARK	REVISIONS	APPR.	DATE
DESIGNED BY	DRAWN BY	CHECKED BY	TN

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
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 APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

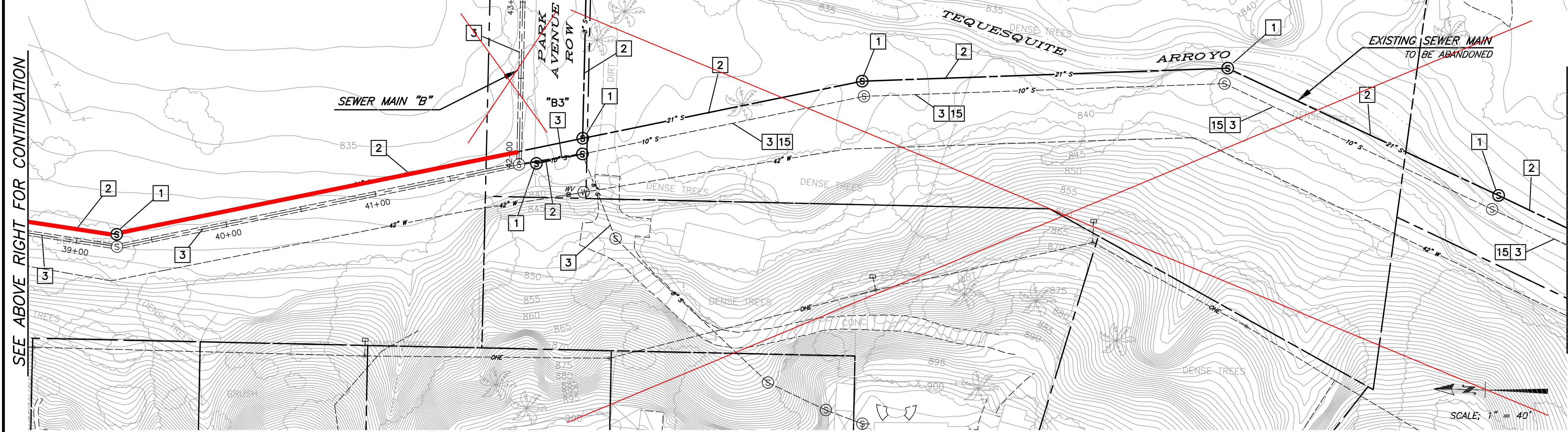
SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
SEWER ABANDONMENT PLAN SHEET INDEX
 HORIZ. SCALE: 1"=300' VERT. SCALE: N/A

DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524
S-2108
 SHEET **24** OF **28**
 FILE NAME:

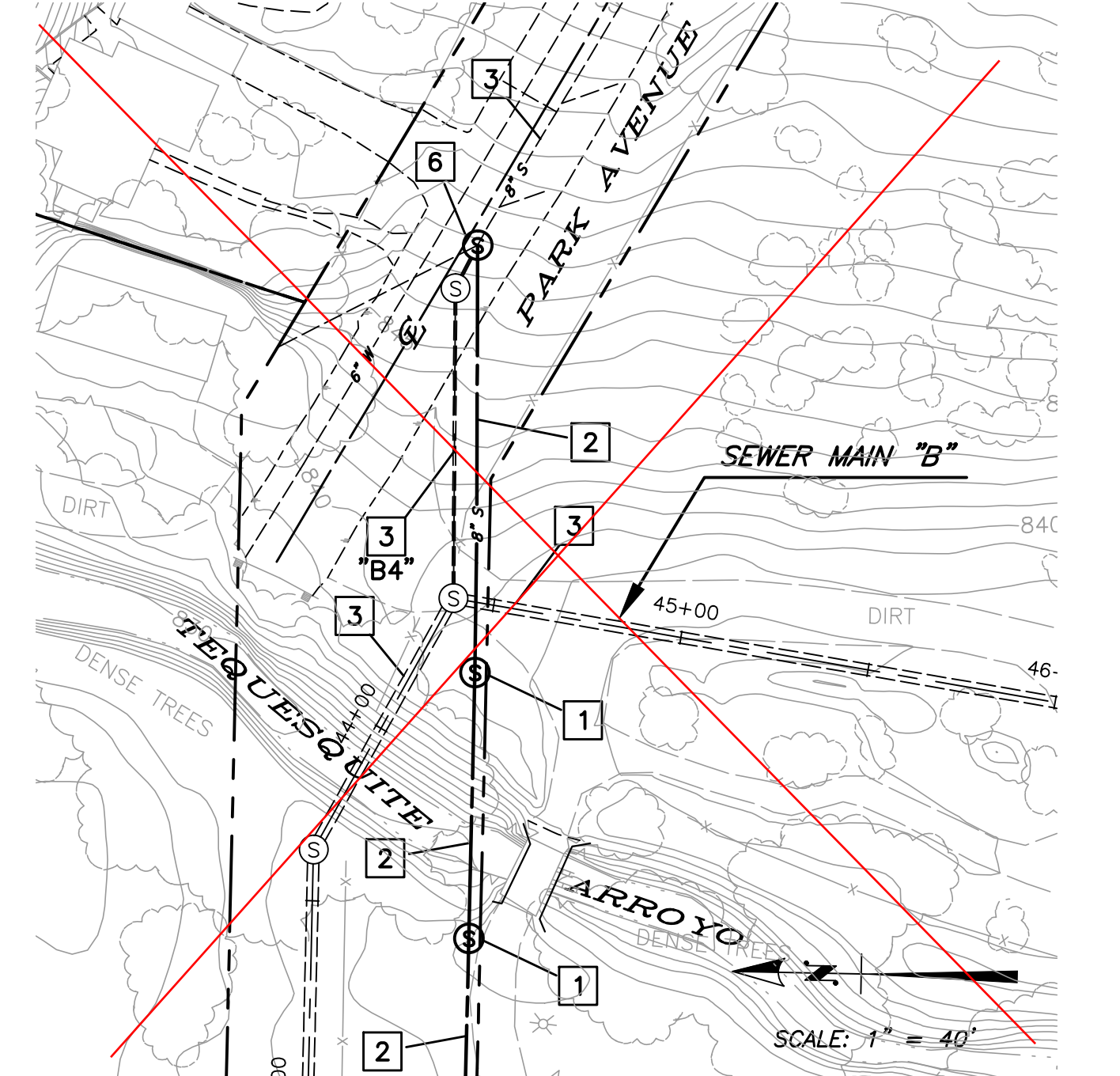
SEE BELOW LEFT FOR CONTINUATION



SEE RIGHT FOR CONTINUATION



SEE SHT 26 FOR CONTINUATION



SEE LEFT FOR CONTINUATION

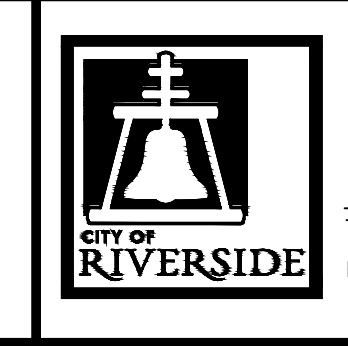
DEMOLITION AND REHABILITATION NOTES

- 1 ABANDON EXISTING SEWER MANHOLE PER DEMOLITION SPECIFICATIONS.
- 2 ABANDON EXISTING SEWER MAIN IN PLACE PER DEMOLITION SPECIFICATIONS.
- 3 SEWER MAIN IN SERVICE.
- 6 PLUG EXISTING 8" SEWER MAIN OUTLET PER DEMOLITION SPECIFICATIONS. SEE PLAN SHOWN IN MANHOLE SCHEMATIC, DETAIL C, SHEET 18.
- 15 LINE EXISTING 10" VCP SEWER WITH CURED-IN-PLACE PIPE (CIPP) LINER.

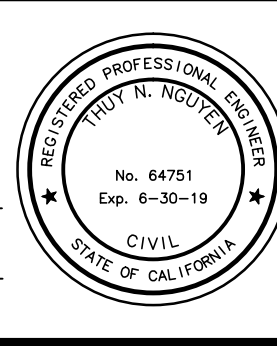
Only the lines in red were abandoned. The remaining line was left in service.

BENCHMARK GPS-57
 CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
 DATUM: 1929 ELEVATION: 952.990

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ENGINEER IN RESPONSIBLE CHARGE
 Thuy Nguyen
 R.C.E. No. 64751 EXPIRES: 6-30-19



MARK	REVISIONS	APPR.	DATE

DESIGNED BY _____ DRAWN BY _____ CHECKED BY _____ TN

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

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APPROVED BY THE CITY ENGINEER PER SIGNATURE ON TITLE SHEET

SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
DEMO AND REHAB PLAN

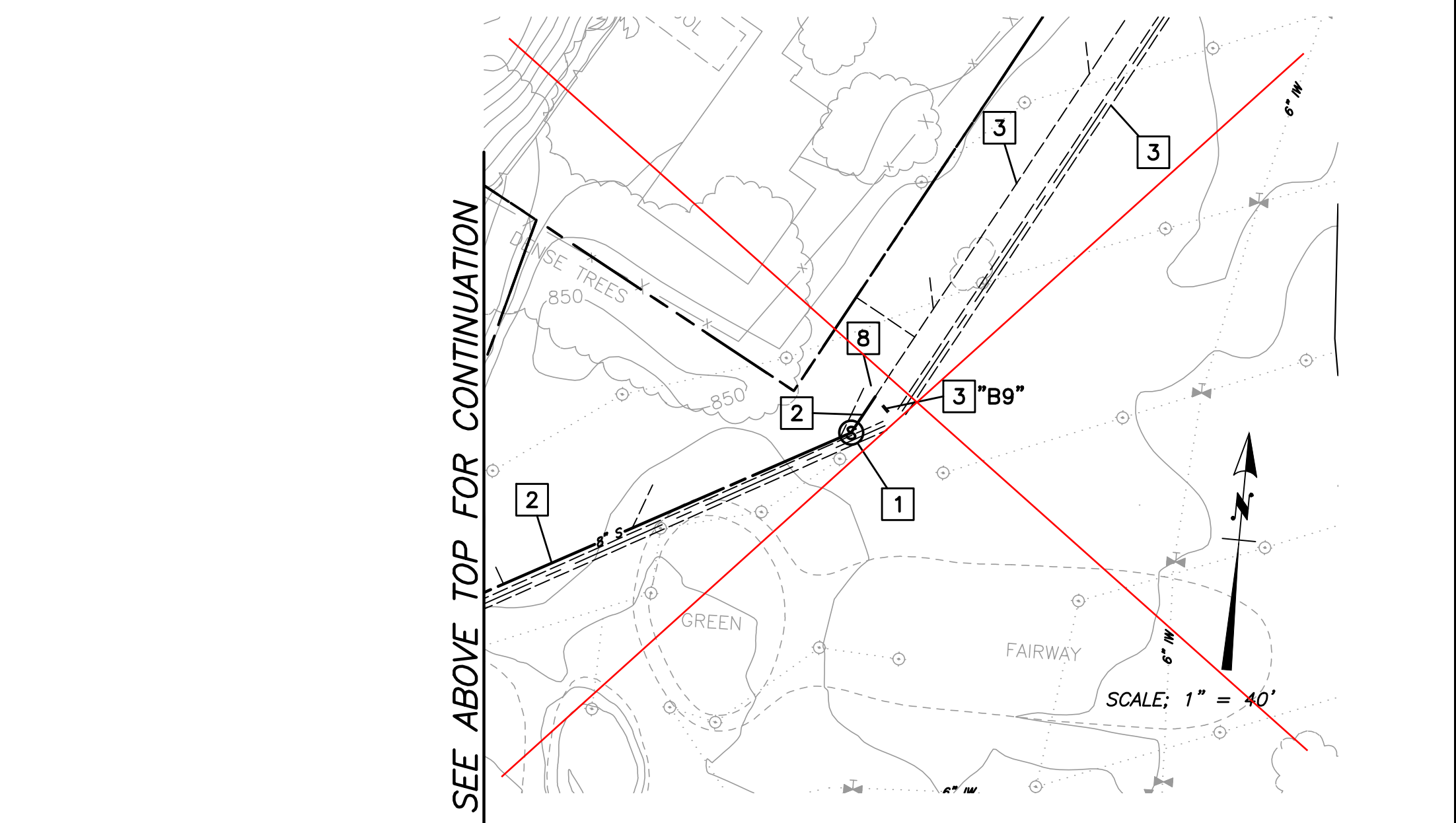
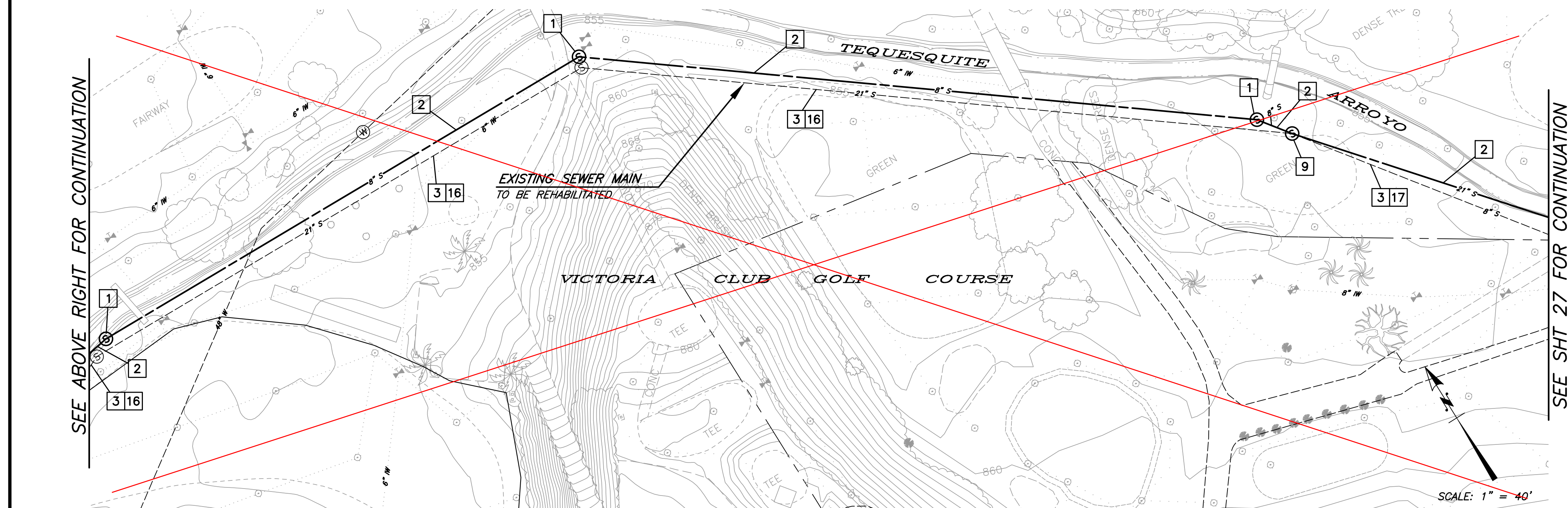
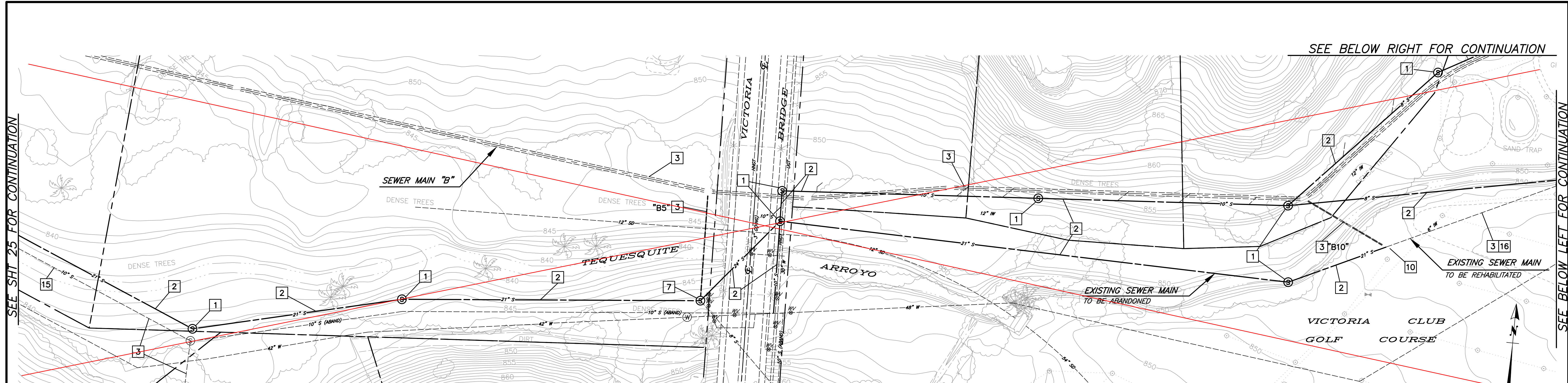
HORIZ. SCALE: 1"=40' VERT. SCALE:

DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524

S-2108

SHEET **25** OF **28**

FILE NAME:

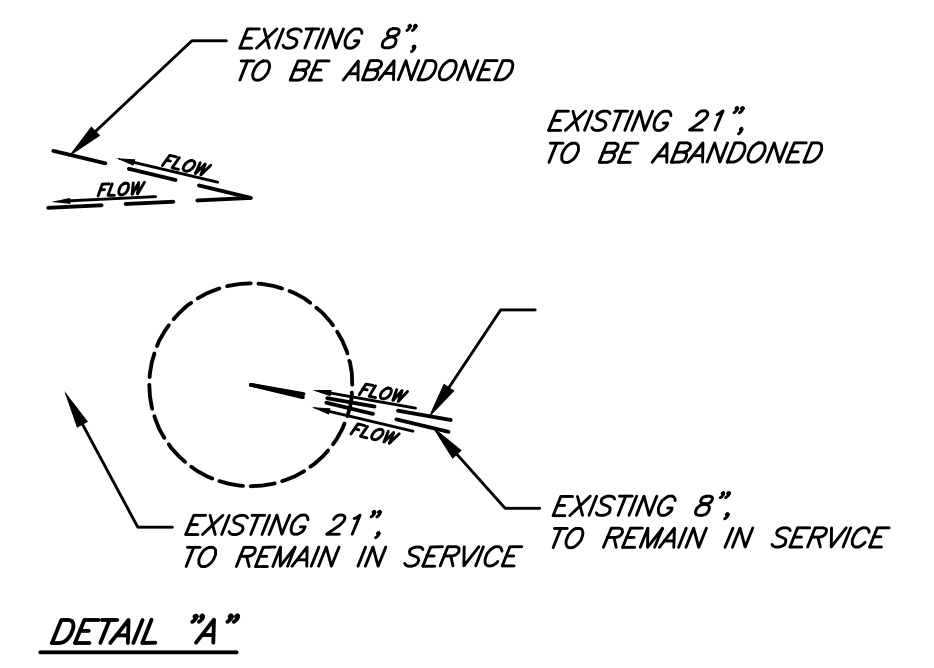


DEMOLITION AND REHABILITATION NOTES

- 1 ABANDON EXISTING SEWER MANHOLE PER DEMOLITIONS SPECIFICATIONS.
- 2 ABANDON EXISTING SEWER MAIN IN PLACE PER DEMOLITION SPECIFICATIONS.
- 3 SEWER MAIN IN SERVICE.
- 7 PLUG EXISTING 21" SEWER MAIN OUTLET AND 24" SEWER MAIN INLET PER DEMOLITION SPECIFICATIONS. SEE PLAN SHOWN IN MANHOLE SCHEMATIC, DETAIL A, SHEET 8.
- 8 PLUG EXISTING 8" SEWER MAIN OUTLET PER DEMOLITION SPECIFICATIONS. SEE PLAN SHOWN ON MANHOLE SCHEMATIC, DETAIL A, SHEET 20.
- 9 PLUG EXISTING 21" SEWER MAIN INLET AND 8" OUTLET PER DEMOLITION SPECIFICATIONS. SEE PLAN SHOWN IN MANHOLE SCHEMATIC, DETAIL A, AT RIGHT.
- 10 PLUG EXISTING 21" SEWER MAIN OUTLET PER DEMOLITION SPECIFICATIONS. SEE PLAN SHOWN ON MANHOLE SCHEMATIC, DETAIL B, SHEET 20.
- 15 LINE EXISTING 10" VCP SEWER WITH CURED-IN-PLACE PIPE (CIPP) LINER.
- 16 LINE EXISTING 21" VCP SEWER WITH CURED-IN-PLACE PIPE (CIPP) LINER.
- 17 LINE EXISTING 8" VCP SEWER WITH CURED-IN-PLACE PIPE (CIPP) LINER.

Only the lines in red were abandoned. The remaining line was left in service.

Please see sheet 39 for the only CIPP Lining that took place.



BENCHMARK GPS-57
 CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
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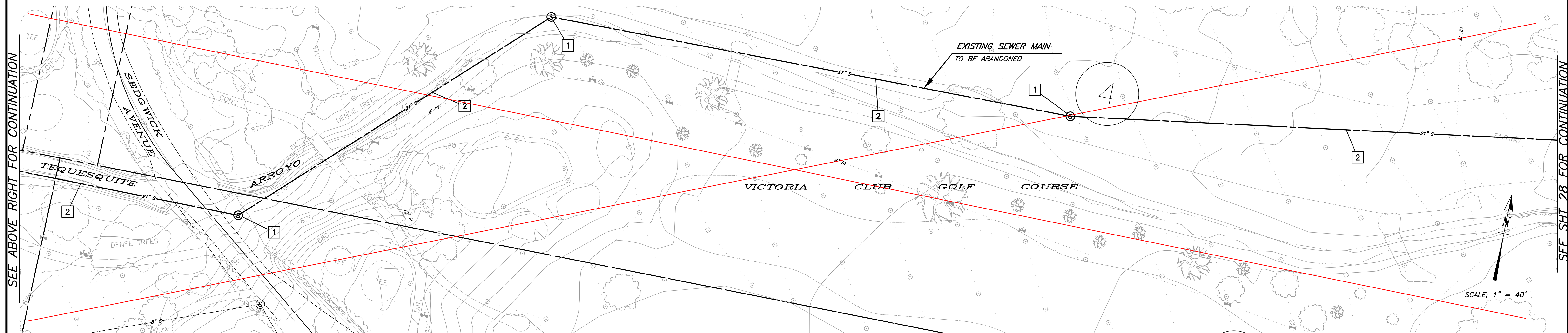
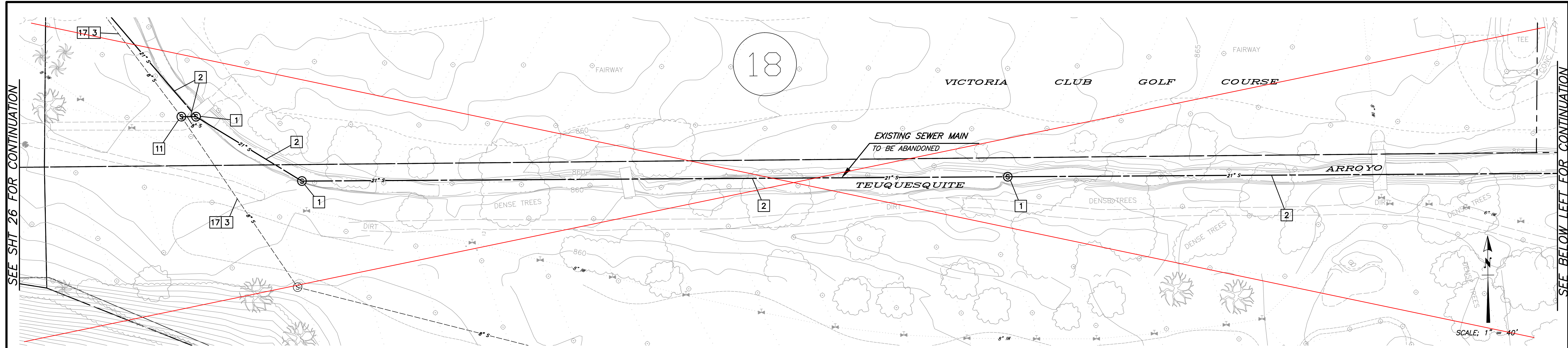


MARK	REVISIONS	APPR.	DATE

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SEWER REPLACEMENT
 TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
 DEMO AND REHAB PLAN
 HORIZ. SCALE: 1"=40' VERT. SCALE:

DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524
S-2108
 SHEET **26** OF **28**
 FILE NAME:

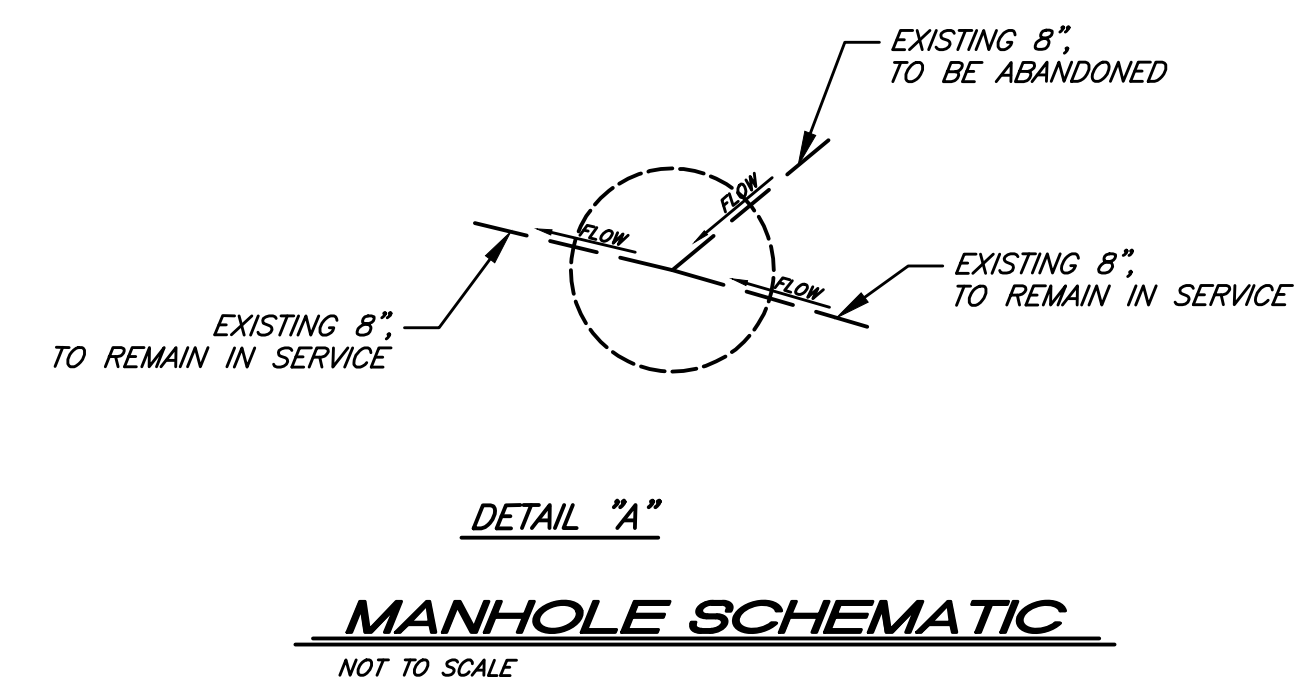


Only the lines in red were abandoned. The remaining line was left in service.

SPECIFIC DEMOLITION NOTES

- 1 ABANDON EXISTING SEWER MANHOLE PER DEMOLITION SPECIFICATIONS.
- 2 ABANDON EXISTING SEWER MAIN IN PLACE PER DEMOLITION SPECIFICATIONS.
- 3 SEWER MAIN IN SERVICE.
- 11 PLUG EXISTING 8" SEWER MAIN INLET PER DEMOLITION SPECIFICATIONS. SEE PLAN SHOWN IN MANHOLE SCHEMATIC, DETAIL A, AT RIGHT.
- 17 LINE EXISTING 8" VCP SEWER WITH CURED-IN-PLACE PIPE (CIPP) LINER.

Please see sheet 39 for the only CIPP Lining that took place.



BENCHMARK GPS-57
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CITY OF RIVERSIDE, CALIFORNIA
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SEWER REPLACEMENT
TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB

SEWER ABANDONMENT PLAN

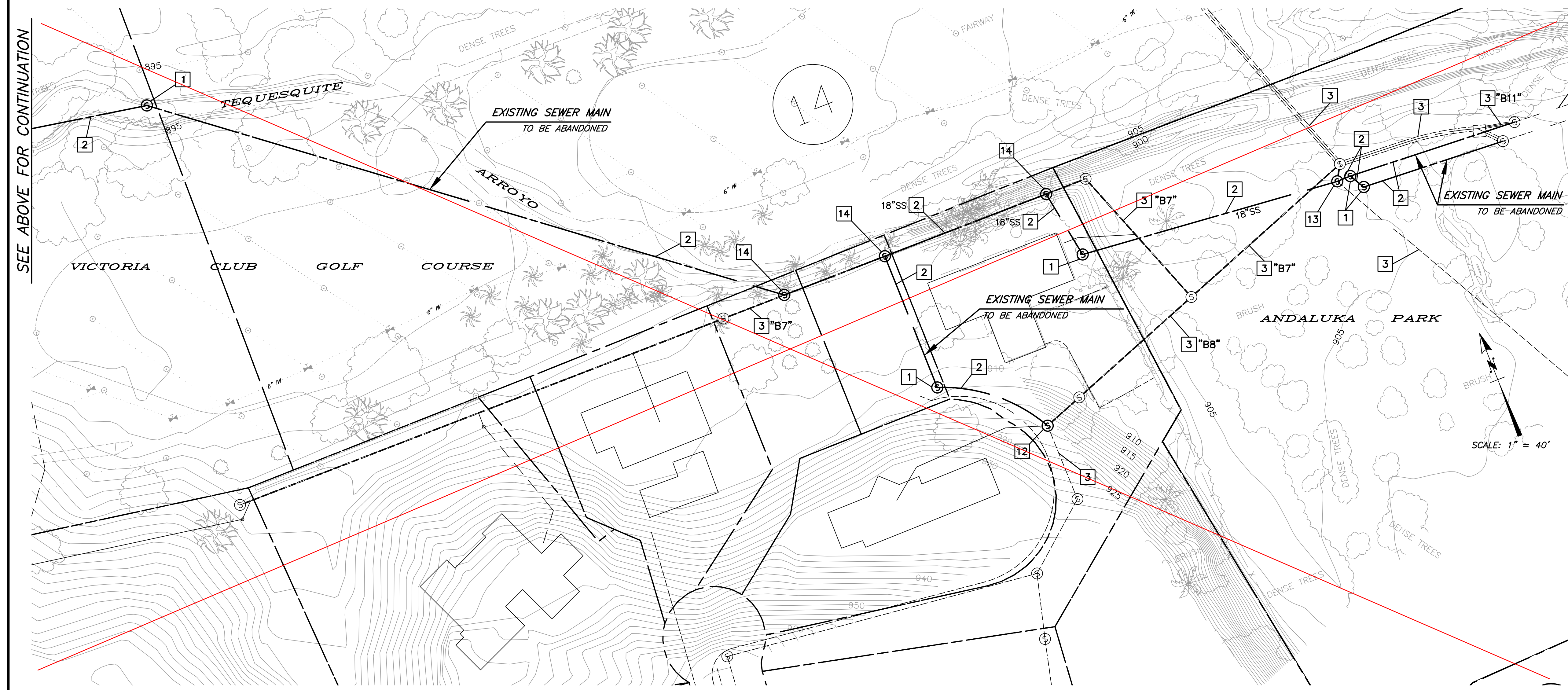
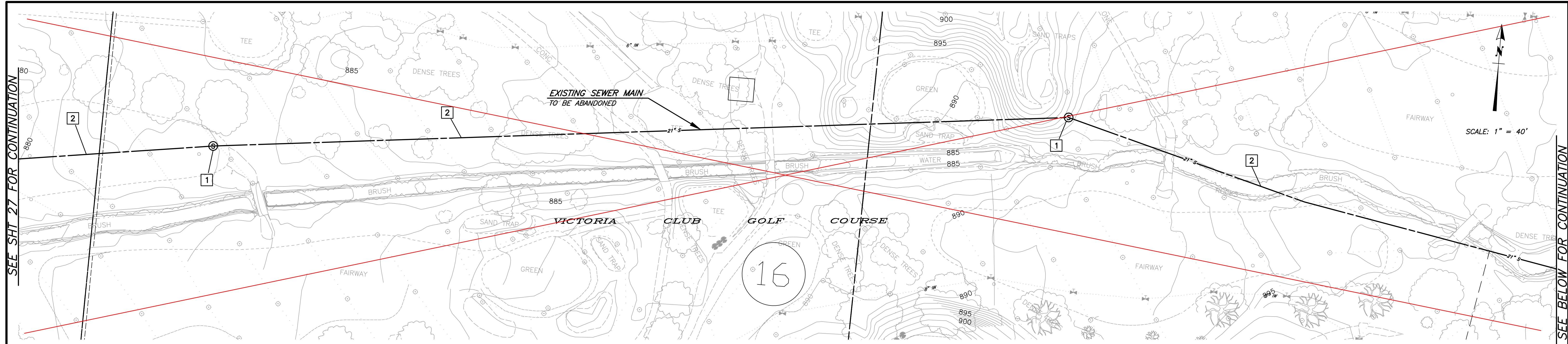
HORIZ. SCALE: 1"=40' VERT. SCALE:

DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524

S-2108

SHEET **27** OF **28**

FILE NAME:



- SPECIFIC DEMOLITION NOTES**
- 1 ABANDON EXISTING SEWER MANHOLE PER DEMOLITION SPECIFICATIONS.
 - 2 ABANDON EXISTING SEWER MAIN IN PLACE PER DEMOLITION SPECIFICATIONS.
 - 3 SEWER MAIN IN SERVICE.
 - 12 PLUG EXISTING 8" SEWER MAIN OUTLET PER DEMOLITION SPECIFICATIONS. SEE PLAN SHOWN IN MANHOLE SCHEMATIC, DETAIL D, SHEET 19.
 - 13 PLUG EXISTING 18" SEWER MAIN INLET PER DEMOLITION SPECIFICATIONS. SEE PLAN SHOWN IN MANHOLE SCHEMATIC, DETAIL E, SHEET 19.
 - 14 REMOVED MANHOLE PER CONSTRUCTION PLAN AND PROFILE ON SHEET 19.

Only the lines in red were abandoned. The remaining line was left in service.

BENCHMARK GPS-57
 CITY OF RIVERSIDE BRASS CAP STAMPED H7-E IN A WELL MONUMENT AT THE CENTERLINE INTERSECTION OF KANSAS AVENUE AND PRINCE ALBERT DRIVE. MONUMENT IS 0.75 FEET BELOW A.C. SURFACE.
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TEQUESQUITE ARROYO TRUNK SEWER REPLACEMENT PHASE IIB
SEWER ABANDONMENT PLAN
 HORIZ. SCALE: 1"=40' VERT. SCALE:

DESIGN WORK ORDER NO.: 0501812
 CONSTR. WORK ORDER NO.: 1609524
S-2108
 SHEET **28** OF **28**
 FILE NAME:

TRUCK ROUTES TOWARD SITE:

- (A) NORTHBOUND SR-91
EXIST 14TH STREET AND TRAVEL EASTBOUND. USE PARK AVENUE, VICTORIA AVENUE, OR SEDGWICK AVENUE TO TRAVEL SOUTHBOUND TOWARDS PROJECT SITE.
- (B) NORTHBOUND I-215
EXIST MARTIN LUTHER KING BOULEVARD AND TRAVEL WESTBOUND. USE PARK AVENUE, VICTORIA AVENUE, OR SEDGWICK AVENUE TO TRAVEL SOUTHBOUND TOWARDS PROJECT SITE.
- (B) EASTBOUND SR-60 OR SOUTHBOUND I-215
TRAVEL ON I-215 EASTBOUND AND EXIT THIRD STREET. TRAVEL WESTBOUND TOWARDS CHICAGO AVENUE AND TURN LEFT ONTO SOUTHBOUND CHICAGO AVENUE. TURN RIGHT ONTO WESTBOUND MARTIN LUTHER KING BOULEVARD AND USE PARK AVENUE, VICTORIA AVENUE, OR SEDGWICK AVENUE TO TRAVEL SOUTHBOUND TOWARDS PROJECT SITE.




TRUCK ROUTES AWAY FROM THE SITE:

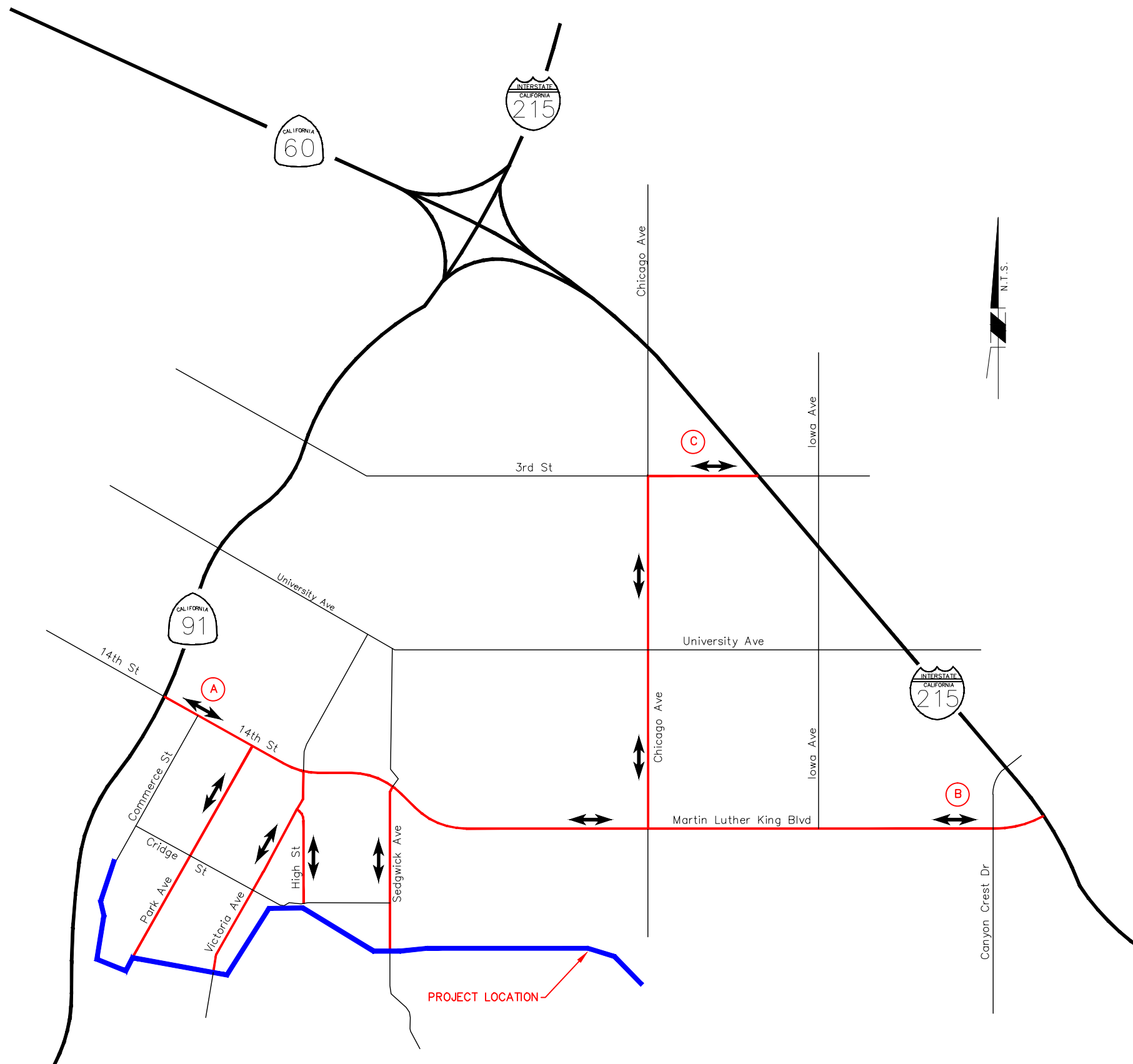
- (A) SOUTHBOUND SR-91
USE PARK AVENUE, VICTORIA AVENUE, OR SEDGWICK AVENUE TO TRAVEL WESTBOUND ONTO 14TH STREET TOWARDS SR-91.
- (B) SOUTHBOUND I-215
USE PARK AVENUE, VICTORIA AVENUE, OR SEDGWICK AVENUE TO TRAVEL ONTO EASTBOUND 14TH STREET. CONTINUE EASTBOUND ON 14TH STREET WHICH CONVERTS TO MARTIN LUTHER KING BOULEVARD TO ACCESS I-215.
- (B) WESTBOUND SR-60 OR NORTHBOUND I-215
USE PARK AVENUE, VICTORIA AVENUE, OR SEDGWICK AVENUE TO TRAVEL WESTBOUND ONTO 14TH STREET TOWARDS EASTBOUND SR-91.

NOTES:

1. ANY VEHICLE THAT EXCEEDS ANY OF THE FOLLOWING SPECIFICATIONS IS REQUIRED TO OBTAIN A PERMIT PRIOR TO TRAVEL:
 - a. HEIGHT - 14 FEET
 - b. WIDTH - 8 FEET 6 INCHES
 - c. LENGTH - 65 FEET
 - d. WEIGHT - 20,000 LB PER AXLE
2. CONTRACTOR SHALL COORDINATE AND RECEIVE CITY APPROVAL ON OTHER TRUCK ROUTES, IF APPLICABLE, NOT SHOWN ON PLAN.

LEGEND:

-  DIRECTION OF TRAVEL
-  TRUCK ROUTE
-  PROJECT ALIGNMENT



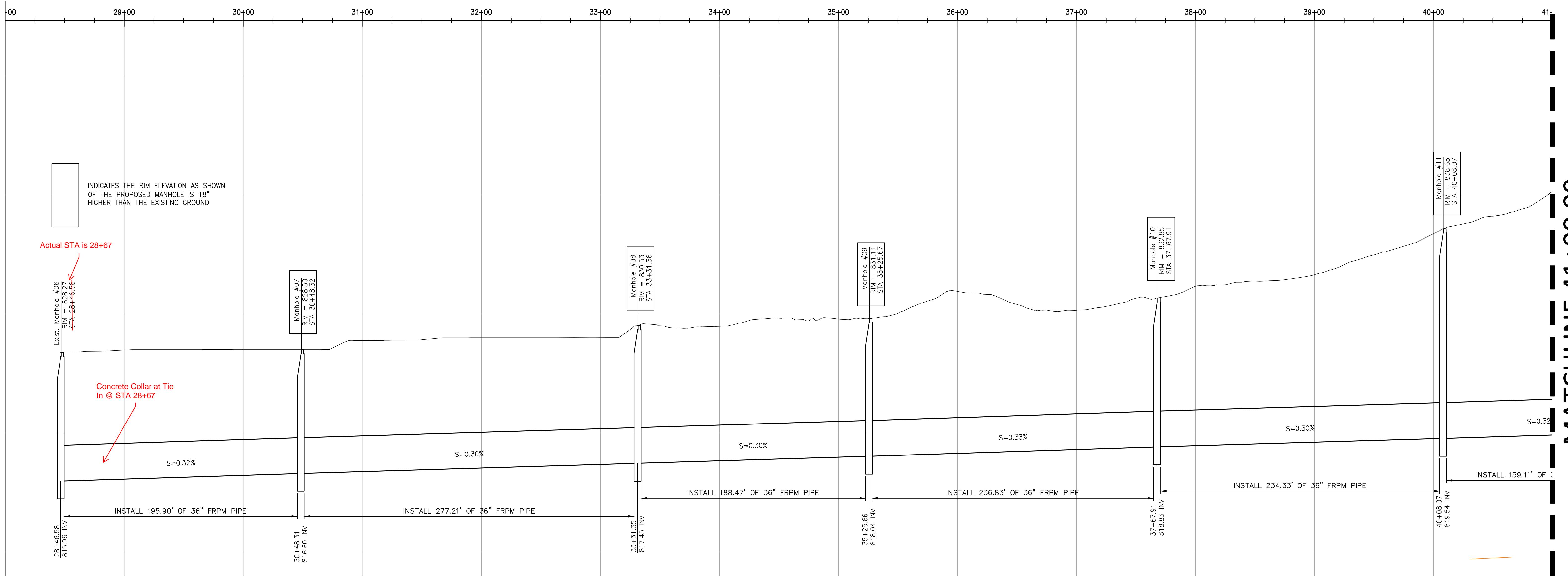
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MARK	REVISIONS	APPR.	DATE
DESIGNED BY	GMH	DRAWN BY	GMH
CHECKED BY			

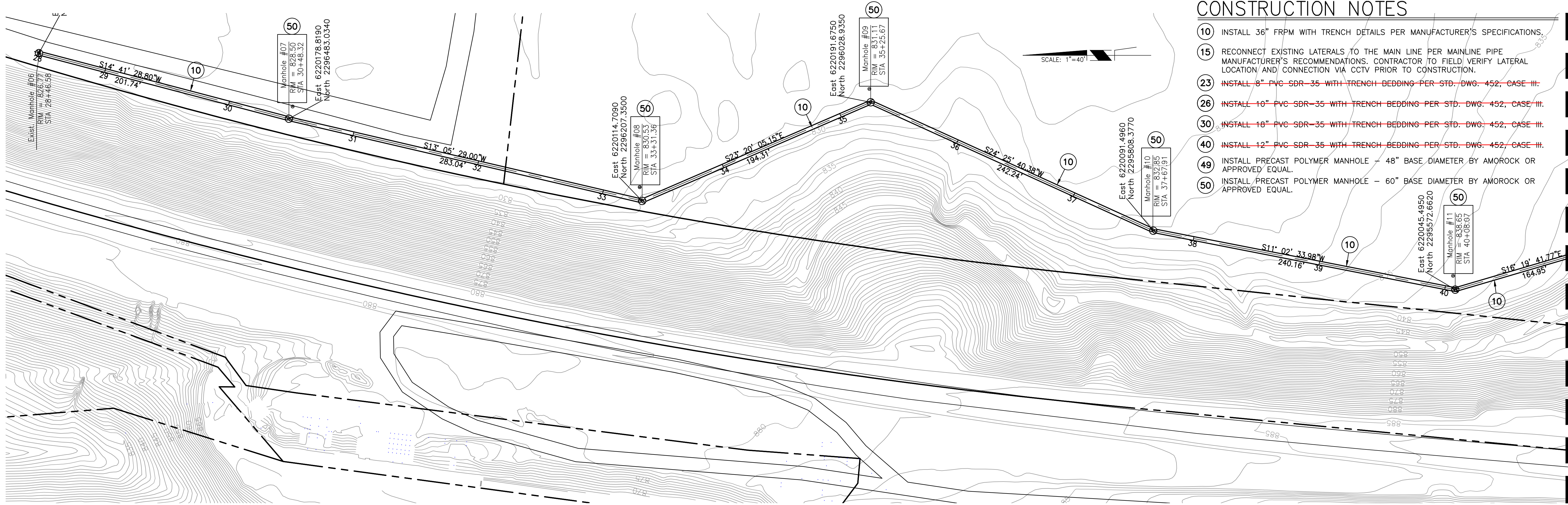
CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
APPROVED BY	BY	DATE	APPROVED BY
ENGINEERING MANAGER			CITY ENGINEER
PRINCIPAL ENGINEER			
CONSTRUCTION ADMIN.			
			DATE:

TRUCK HAUL ROUTE MAP
TEQUESQUITE ARROYO
TRUNK SEWER REPLACEMENT
PHASE IIB
NOT TO SCALE

TR-1
SHEET 1 OF 1
FILE NAME: TR-1.DWG



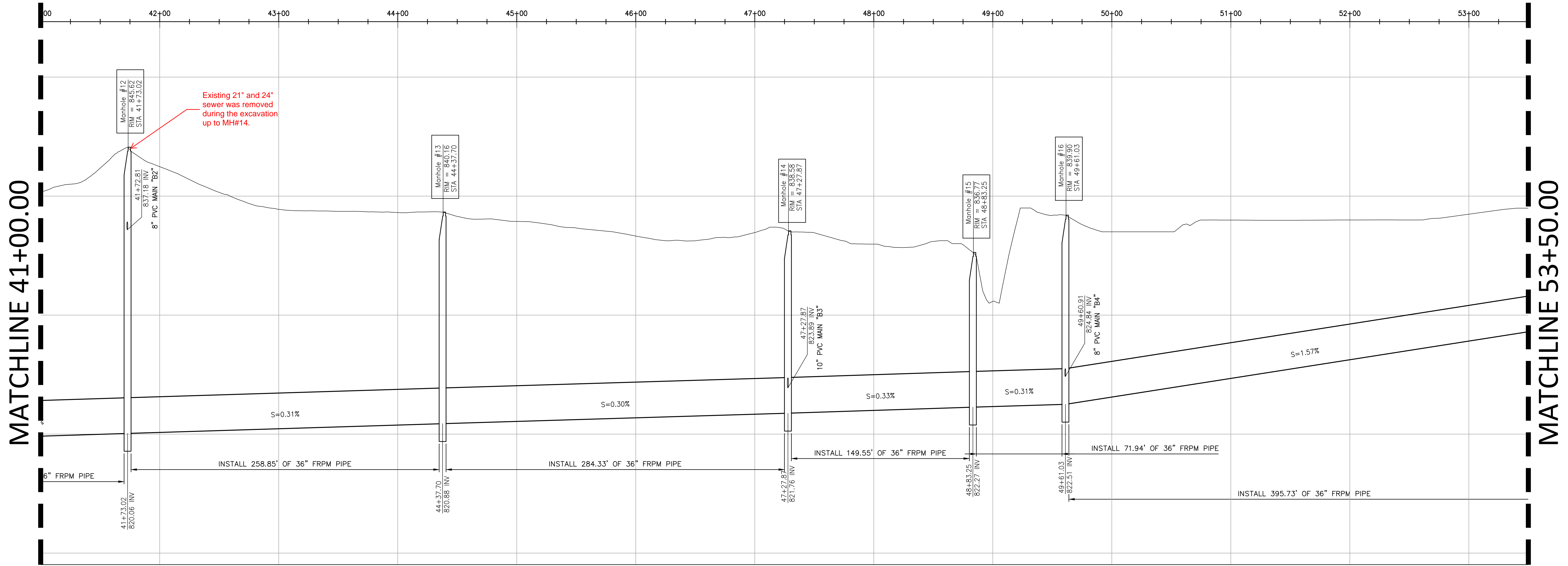
MATCHLINE 41+00.00



MATCHLINE 41+00.00

CONSTRUCTION NOTES

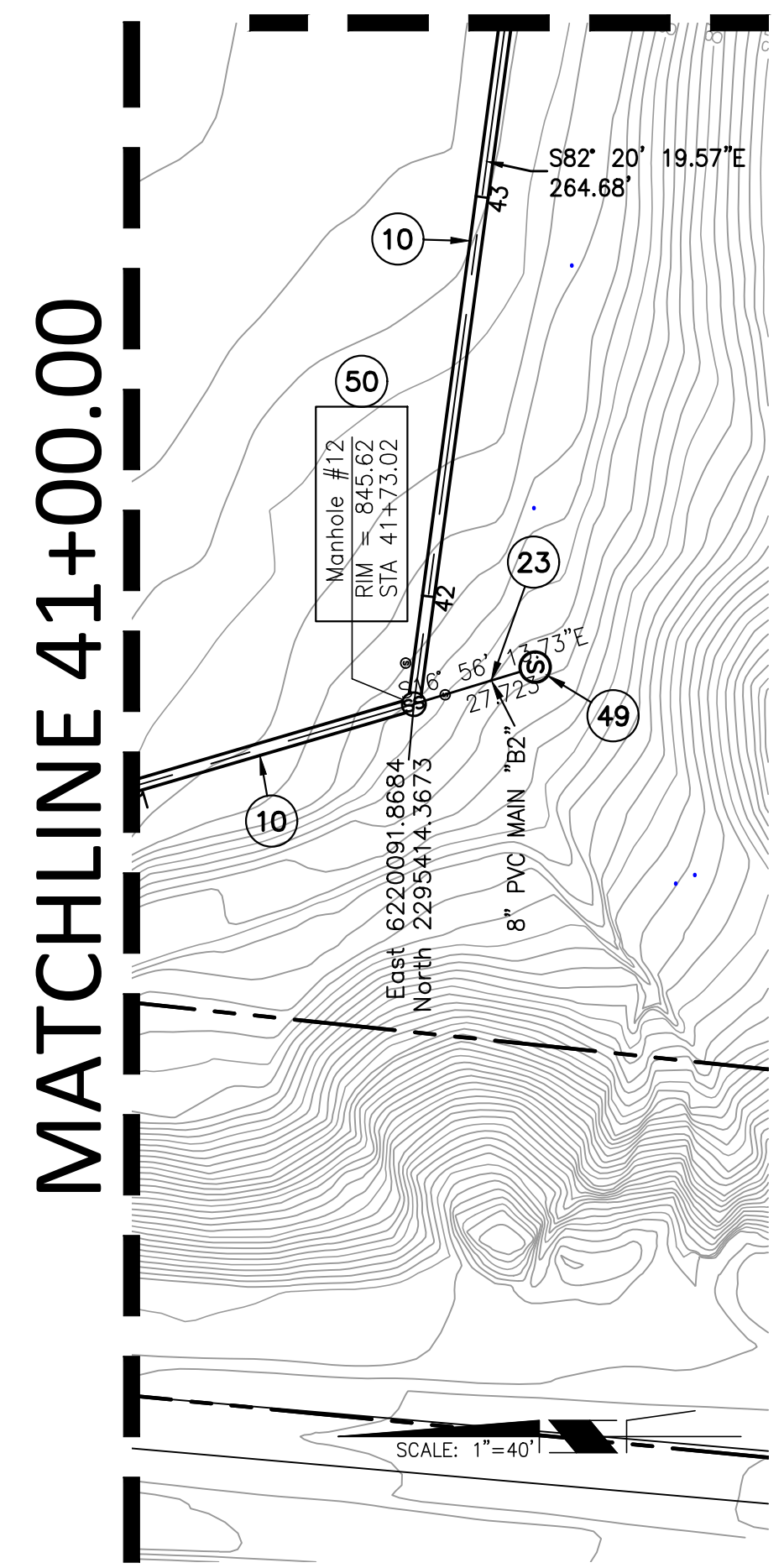
- 10 INSTALL 36" FRPM WITH TRENCH DETAILS PER MANUFACTURER'S SPECIFICATIONS.
- 15 RECONNECT EXISTING LATERALS TO THE MAIN LINE PER MAINLINE PIPE MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO FIELD VERIFY LATERAL LOCATION AND CONNECTION VIA CCTV PRIOR TO CONSTRUCTION.
- 23 ~~INSTALL 8" PVC SDR-35 WITH TRENCH BEDDING PER STD. DWG. 452, CASE III.~~
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- 50 INSTALL PRECAST POLYMER MANHOLE - 60" BASE DIAMETER BY AMOROCK OR APPROVED EQUAL.



MATCHLINE 41+00.00

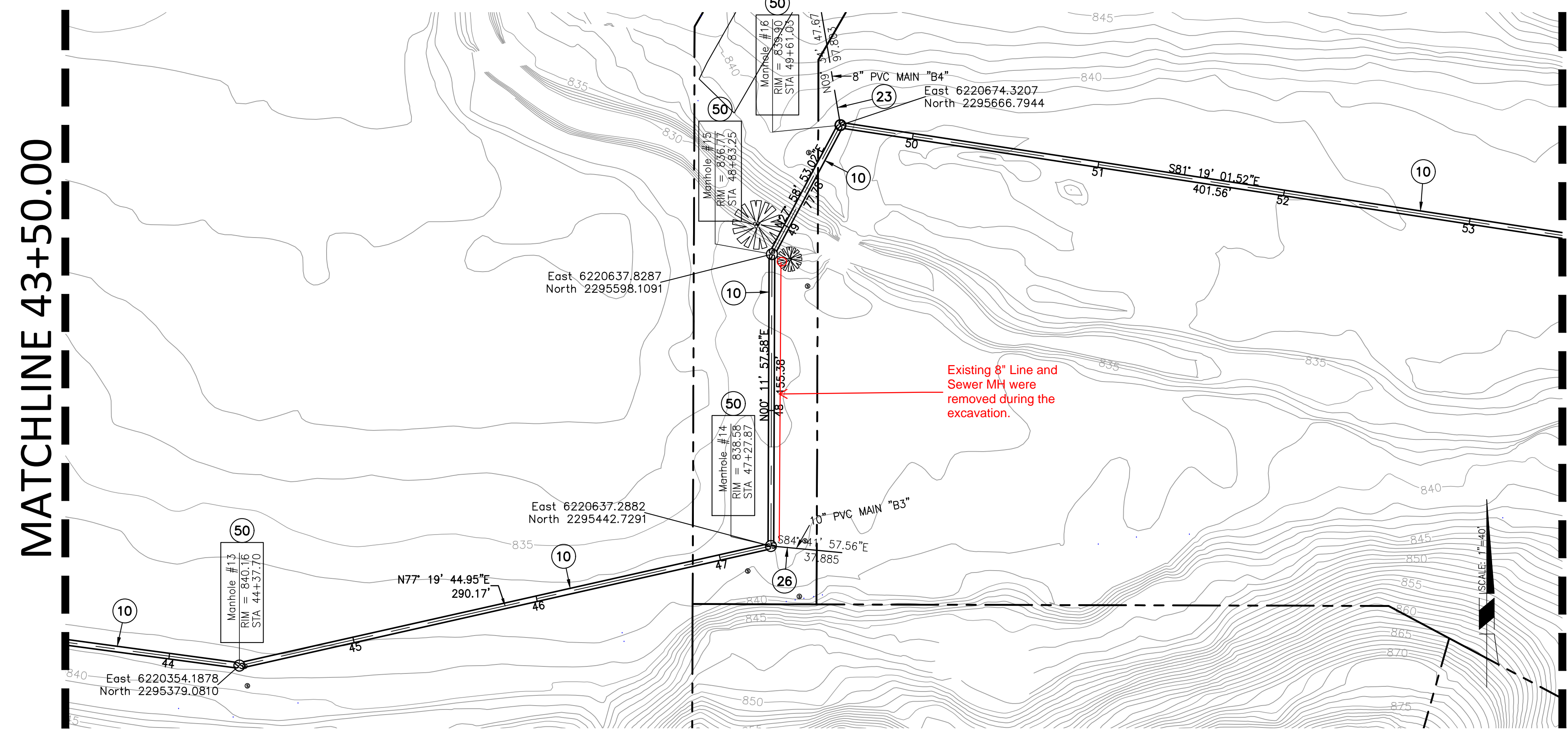
MATCHLINE 53+00.00

MATCHLINE 43+50.00



MATCHLINE 41+00.00

MATCHLINE 43+50.00

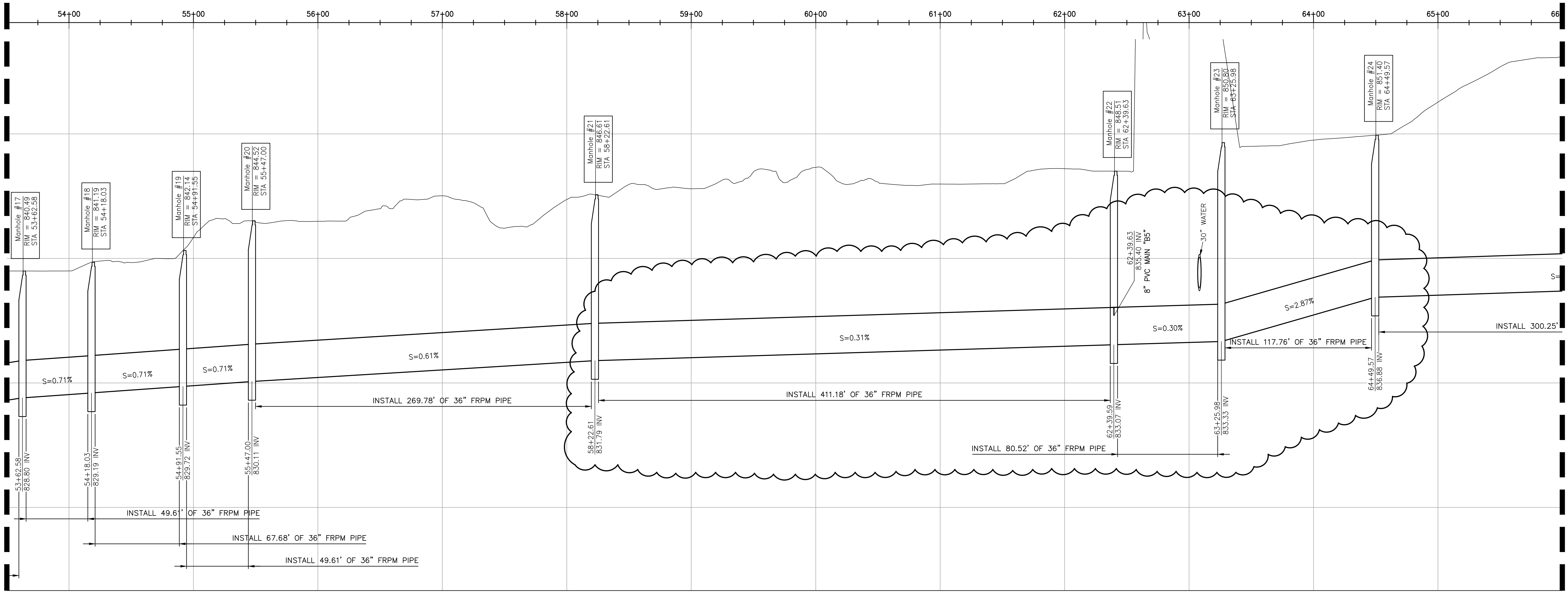


MATCHLINE 53+00.00

CONSTRUCTION NOTES

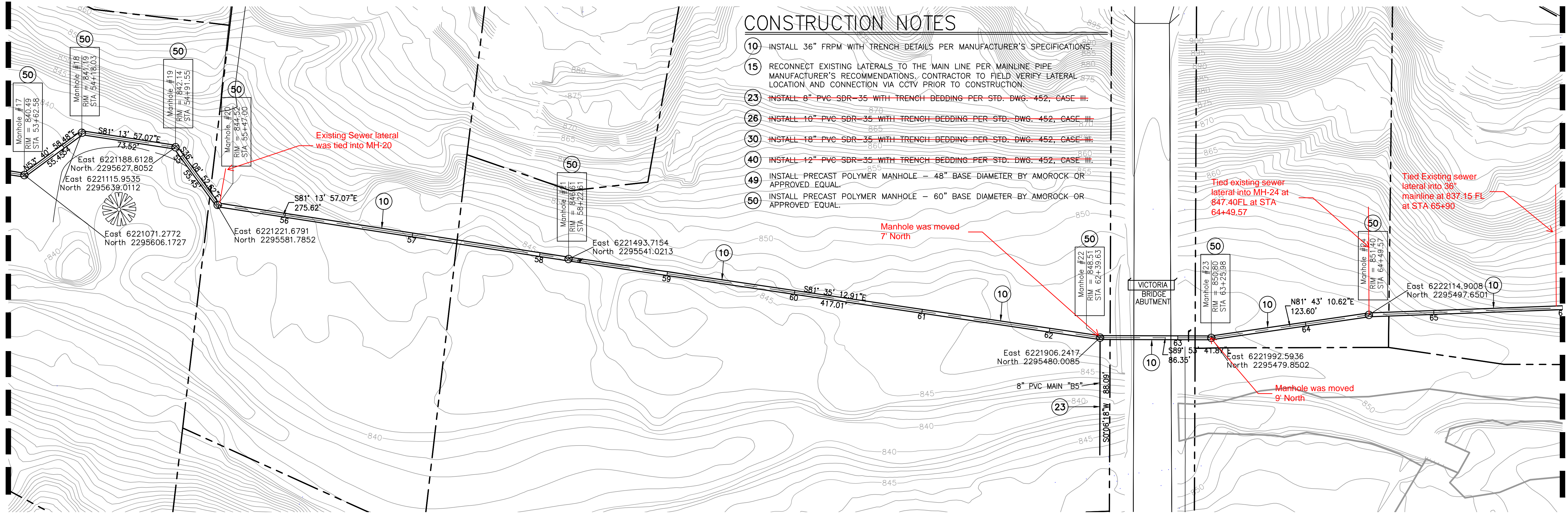
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MATCHLINE 53+50.00



MATCHLINE 66+00.00

MATCHLINE 53+50.00



MATCHLINE 66+00.00

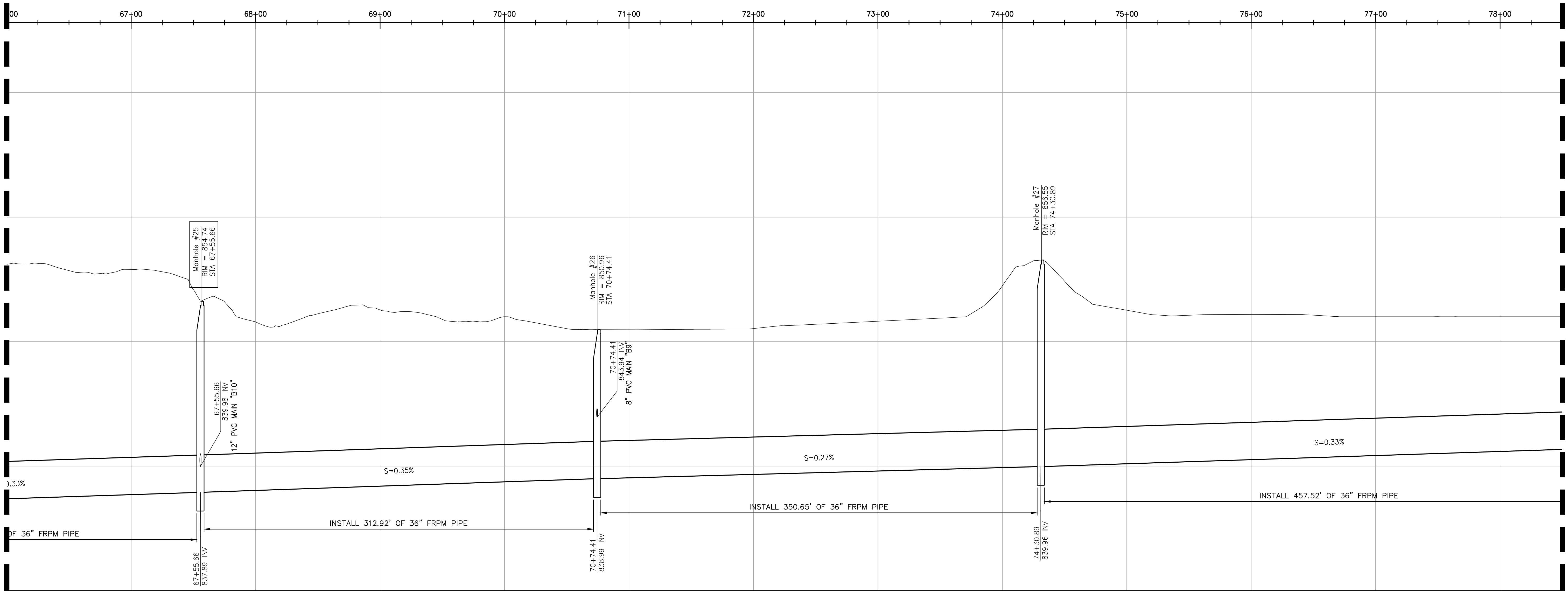
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SCALE: 1"=40'

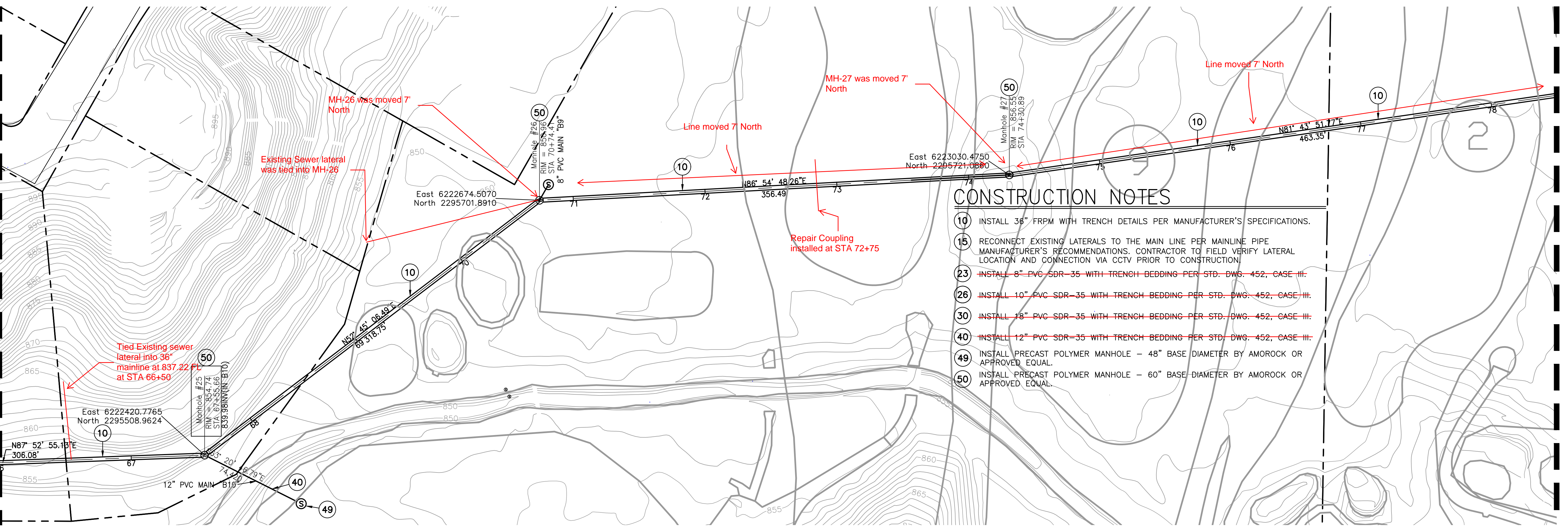
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MATCHLINE 66+00.00



MATCHLINE 78+50.00

MATCHLINE 66+00.00



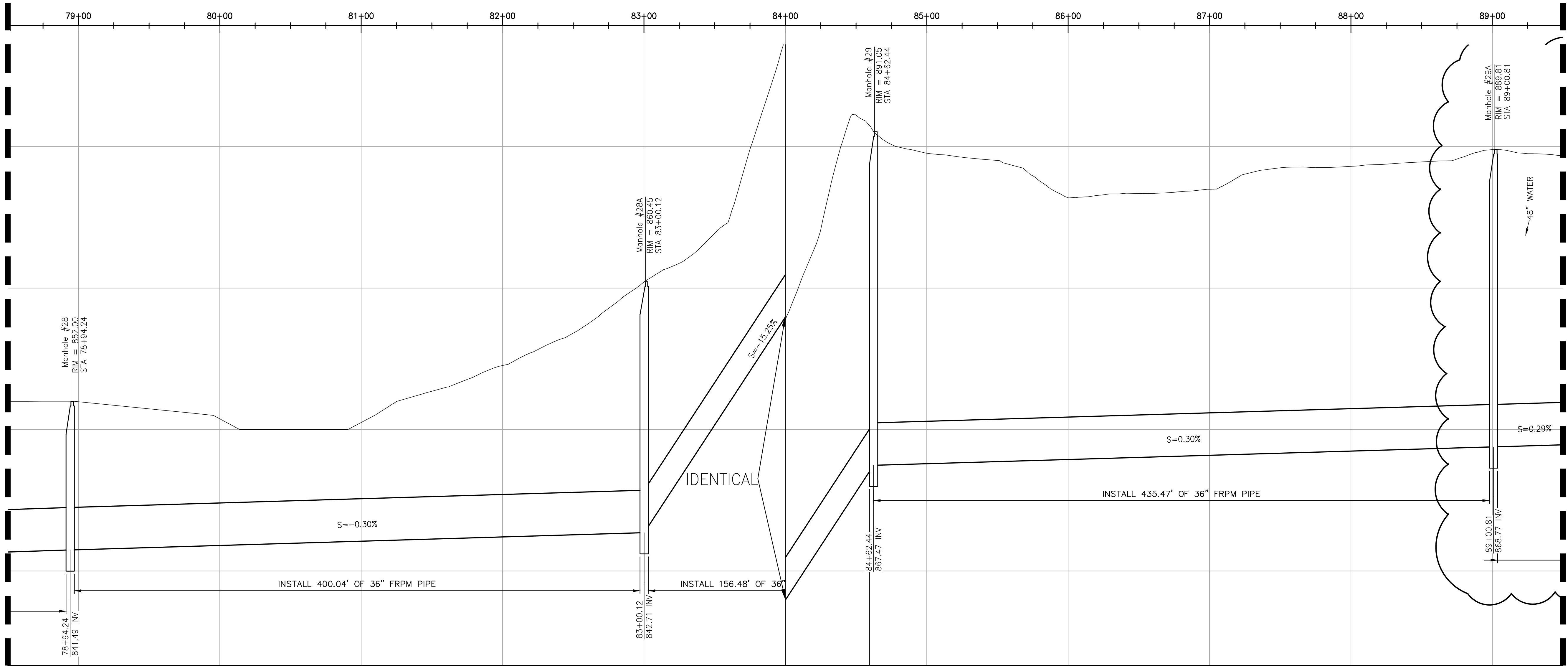
MATCHLINE 78+50.00

- CONSTRUCTION NOTES**
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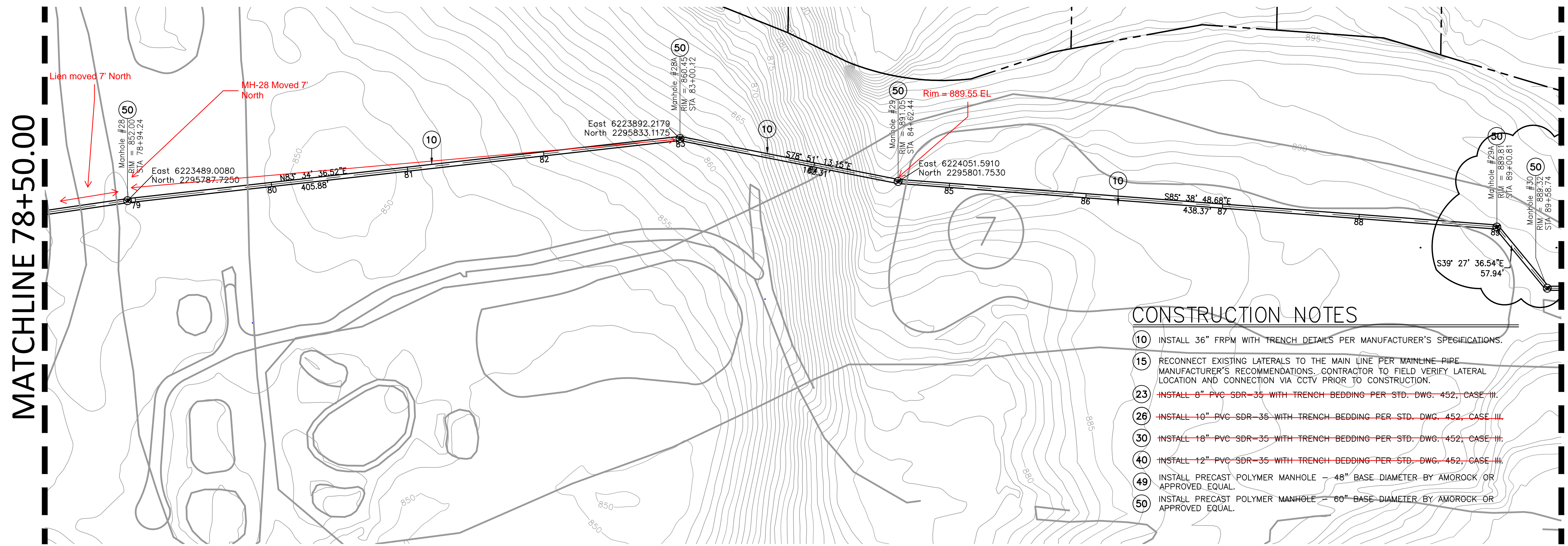
SCALE: 1"=40'

4

MATCHLINE 78+50.00



MATCHLINE 89+50.00

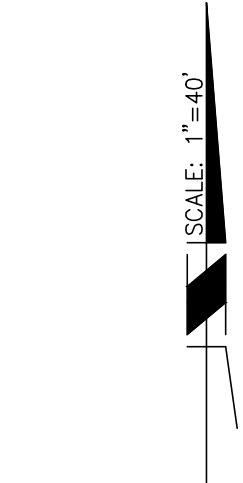


MATCHLINE 78+50.00

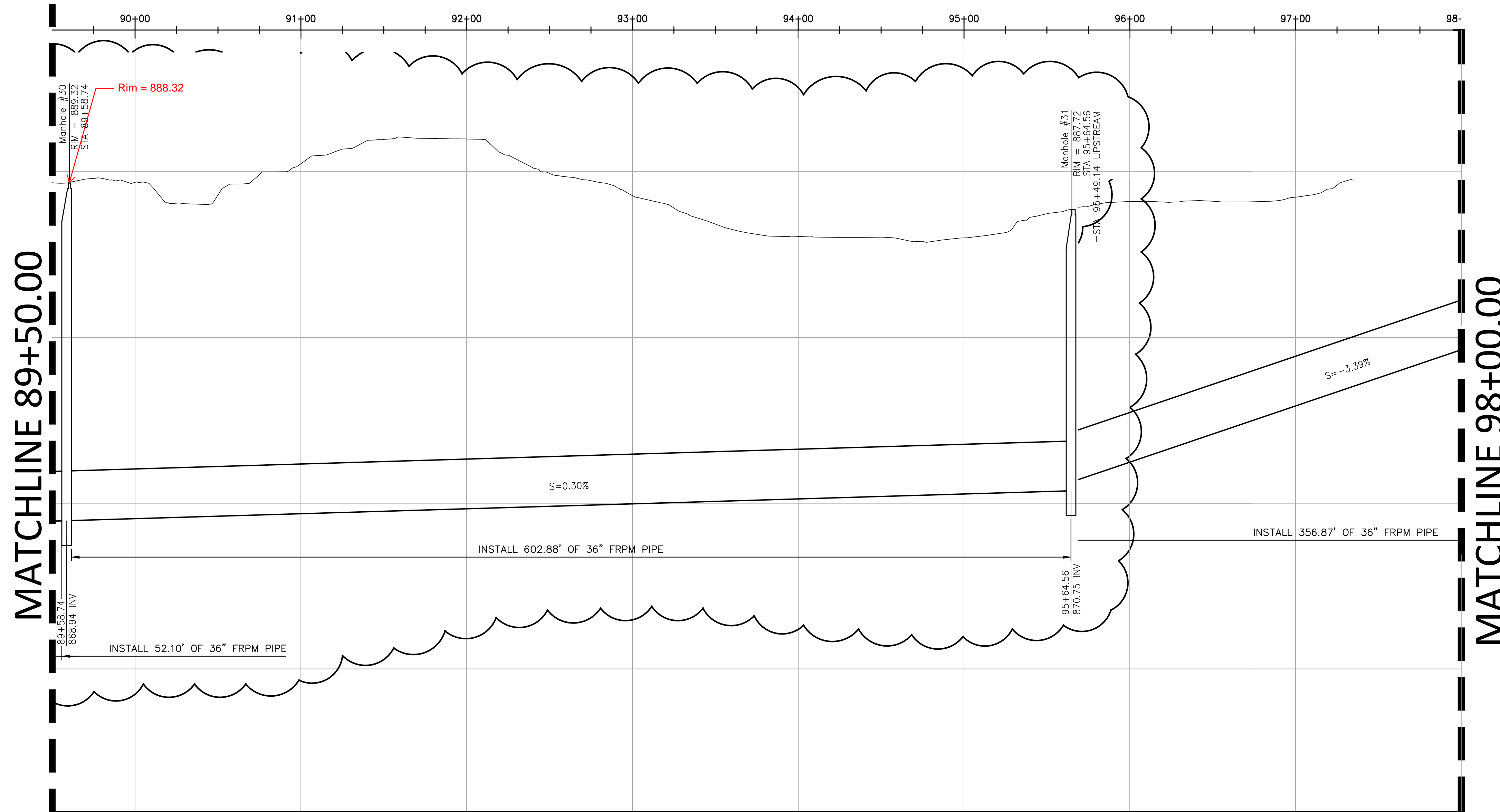
MATCHLINE 89+50.00

CONSTRUCTION NOTES

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5



MATCHLINE 89+50.00

MATCHLINE 98+00.00



MATCHLINE 89+50.00

MATCHLINE 98+00.00

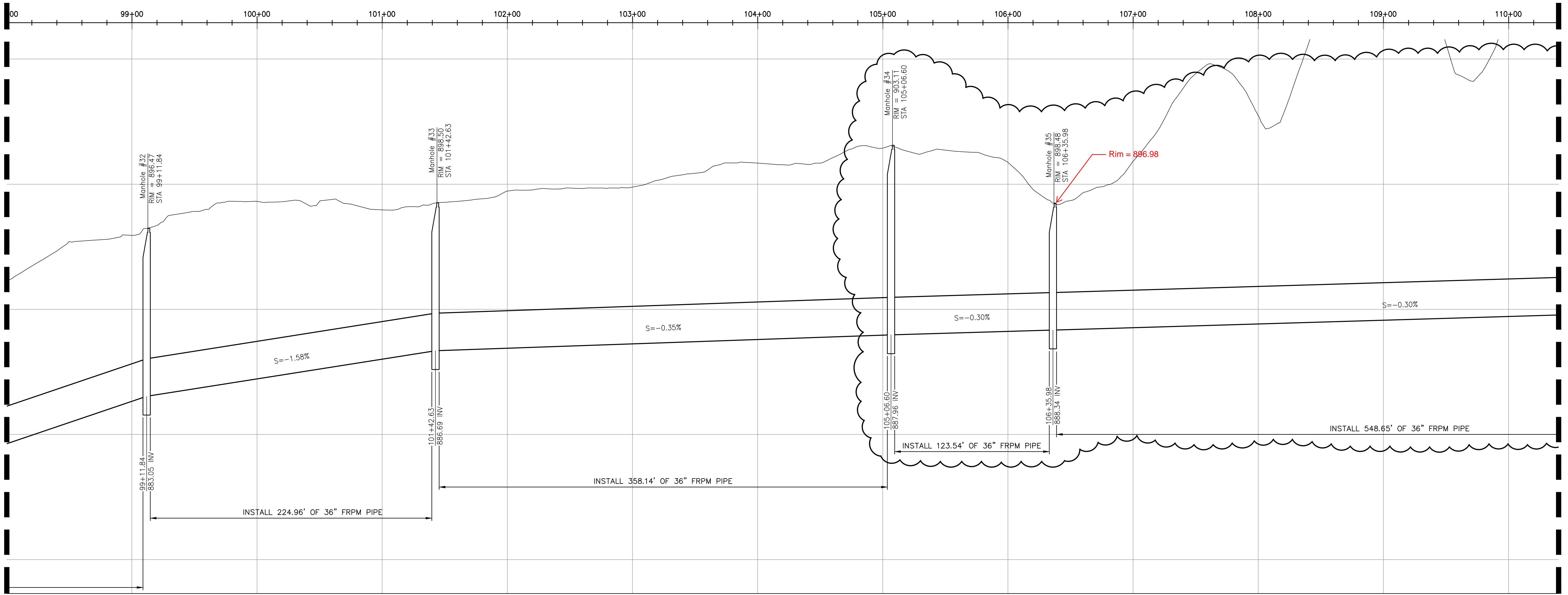
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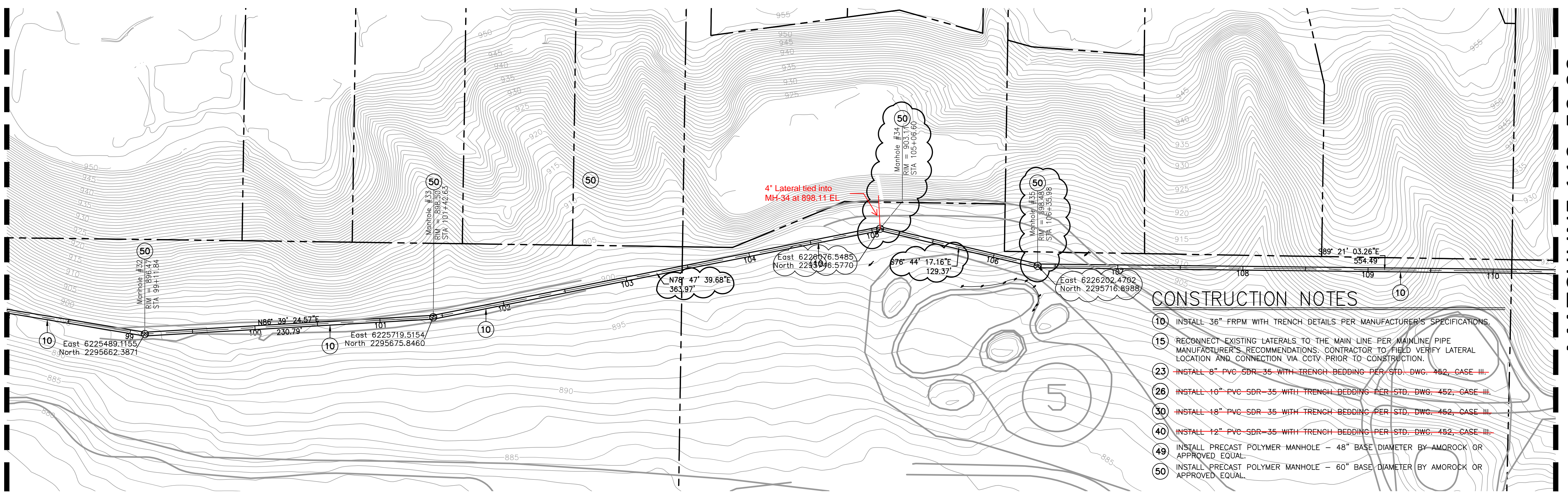
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MATCHLINE 98+00.00



MATCHLINE 110+50.00

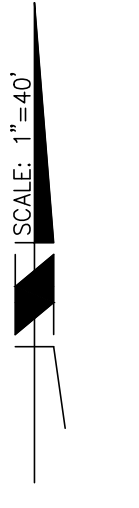
MATCHLINE 98+00.00



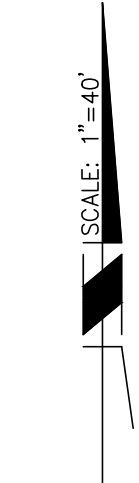
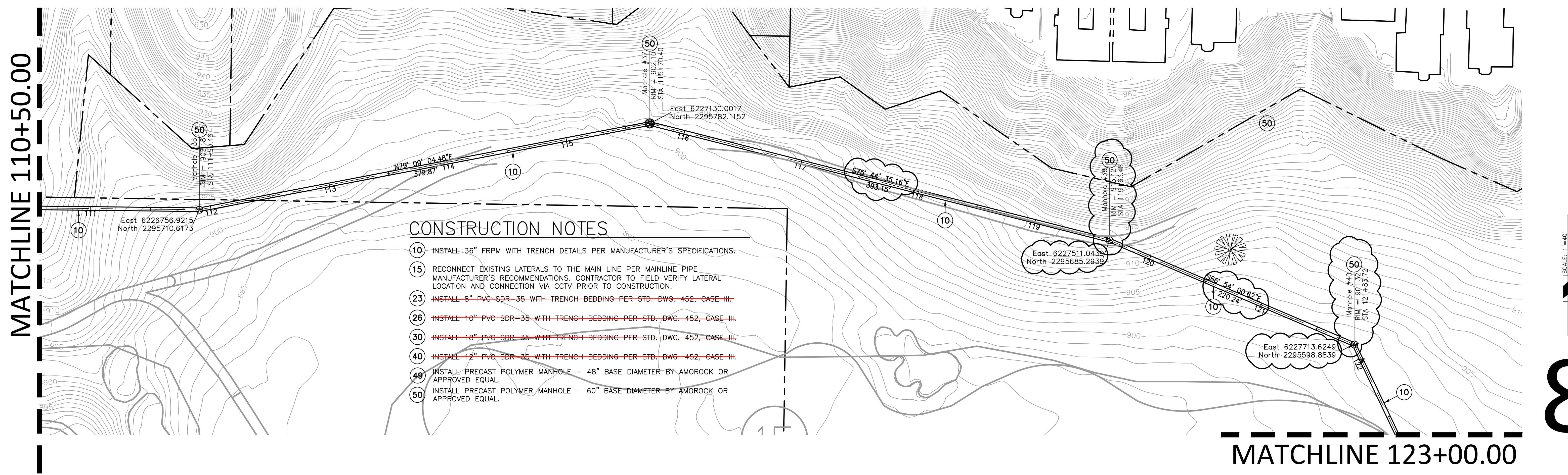
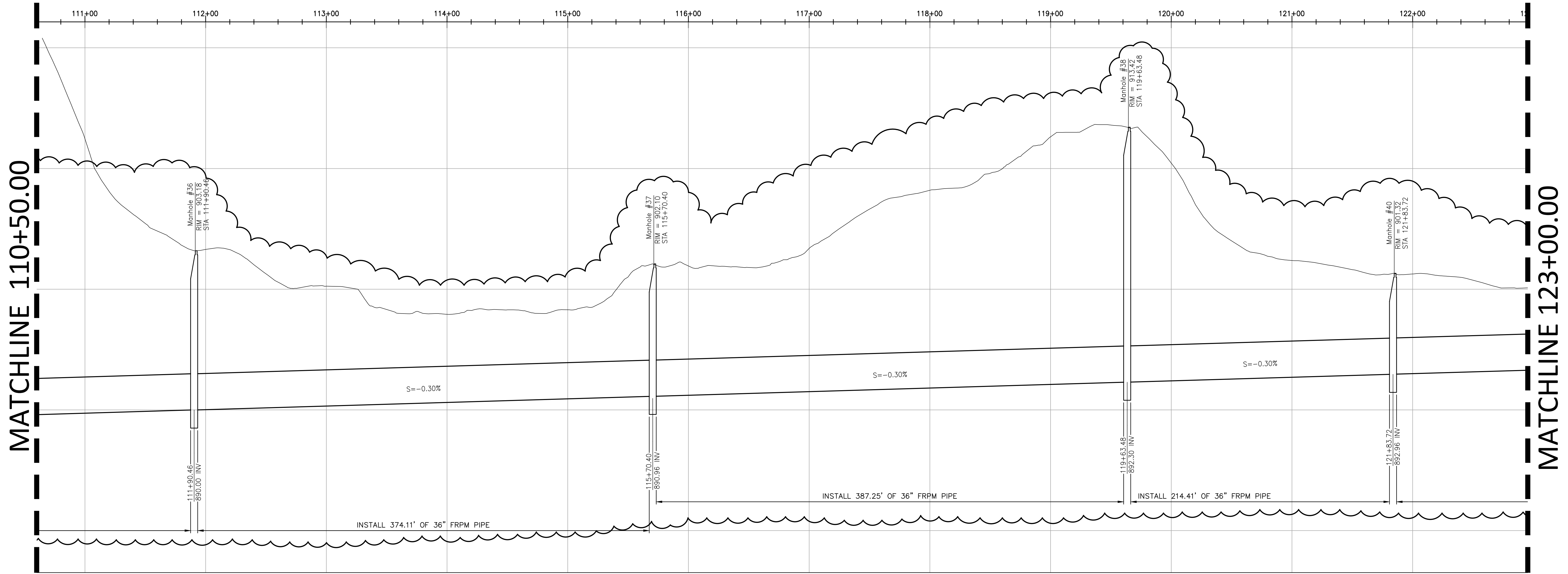
MATCHLINE 110+50.00

CONSTRUCTION NOTES

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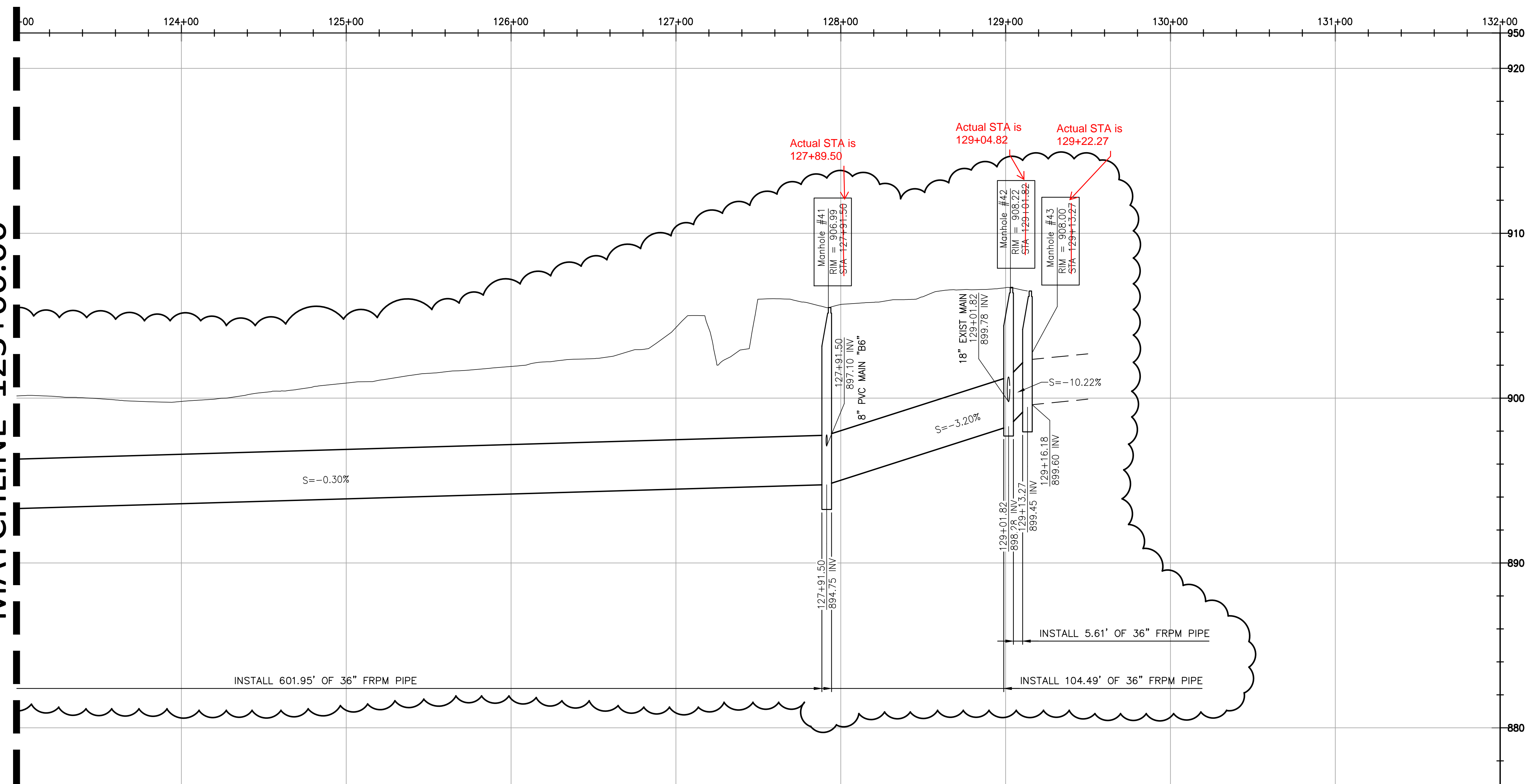


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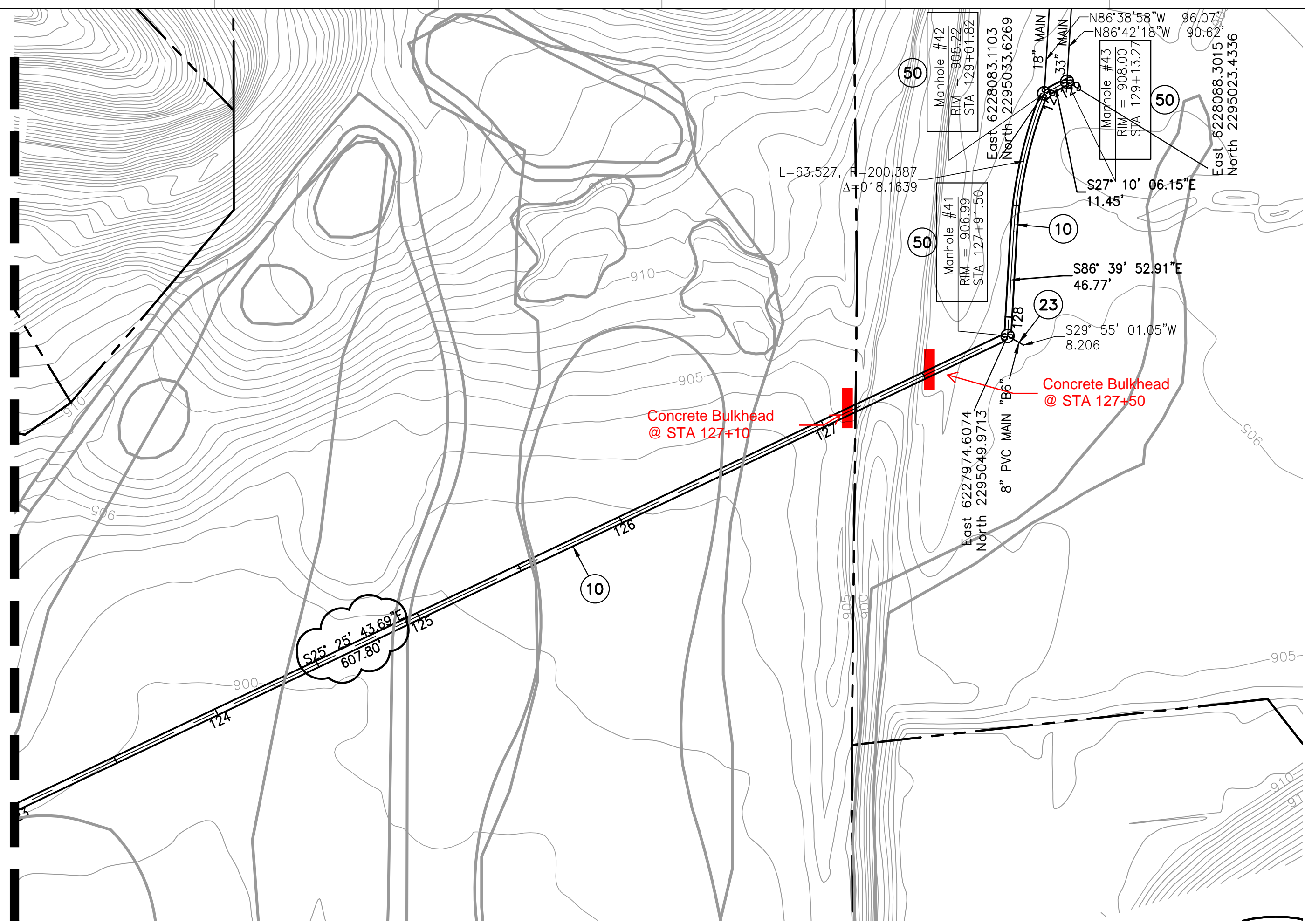


8

MATCHLINE 123+00.00



MATCHLINE 123+00.00



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SCALE: 1"=40'



The only CIPP was the line that is Royal Blue. The other CIPP was deleted from the contract

LINING EXHIBIT

As-Builts BMH 10-3-19 SPR

QUANTITIES
CIPP: 2,040 LF
REHAB MH: 4 EA

