



# VALLEYVIEW SANITARY SEWER IMPROVEMENTS

WASTEWATER COLLECTION AND  
TREATMENT SYSTEM IMPROVEMENTS  
PHASE 4C

WATER POLLUTION CONTROL DIVISION  
CITY OF WHEELING, WV

APRIL 2024



**BID**  
 your trusted advisor  
 consultants  
 engineers  
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 planners

**OWNER**

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UTILITY COMPANIES		
NOTE: UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED ON FIELD MARKINGS (BY OTHERS) AND AVAILABLE RECORDS, AND AS SUCH, SHOULD BE FIELD VERIFIED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY - <b>CALL BEFORE YOU DIG!</b>		
<b>SEWERS:</b> WATER POLLUTION CONTROL DIVISION 2516 MAIN STREET WHEELING, WV 26003 (304) 234-3874 BOB WEISNER	<b>WATER:</b> WHEELING WATER DEPT. 9 ARMORY DRIVE WHEELING, WV 26003 (304) 234-3849 CHRIS BEISWANGER	<b>ELECTRIC:</b> AEP 1-800-852-6942 CHRISTINA HARPO (304) 234-3106
<b>STREETLIGHTS:</b> APPALACHIAN POWER (304) 234-3106	<b>GAS:</b> MOUNTAINEER GAS 19TH AND WOOD STREET WHEELING, WV 26003 1-888-420-4427 x 85202 RON TROWBRIDGE (304) 276-2520	<b>GAS:</b> TC ENERGY CLAYTON COSS (724) 809-3239
<b>TELECOMMUNICATIONS</b> FRONTIER 995 MT DECHANTAL ROAD WHEELING, WV 26003 (304) 234-6392 KEITH WESTLAKE (304) 559-9020	<b>TELECOMMUNICATIONS:</b> COMCAST CABLE COMMUNICATIONS INC. RICHARD KOPANIC (412) 327-3122	



**INDEX MAP**

300' 0' 300'

SCALE: 1" = 300'

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**CONSTRUCTION PLAN APPROVALS:**

*Robert Morrison* 4-17-2024  
 ROBERT MORRISON, CITY MANAGER DATE

APPROVAL OF THESE PLANS DOES NOT CONSTITUTE ASSURANCE TO OPERATE AS INTENDED. THE REVIEWER DOES NOT ACCEPT RESPONSIBILITY FOR THE INTEGRITY OF THE PLANS.

**DESIGN ENGINEER:**

*Dan Barr*  
 DAN BARR, WV P.E. NO. 25451  
 4/17/2024 DATE

DATE	REVISION	NO	ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
				4/18/2024	AS SHOWN	LAS	LAS	DAB

**COVER SHEET**  
 WATER POLLUTION CONTROL DIVISION  
 WASTEWATER COLLECTION AND TREATMENT  
 SYSTEM IMPROVEMENTS  
 PHASE 4C

PROJECT NO.	220991 4C
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**GENERAL**

- ALL ITEMS FOR THIS PROJECT SHALL CONFORM TO THE 2023 EDITION OF THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS (WV DOH) STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES SHALL GOVERN THIS IMPROVEMENT, EXCEPT WHERE NOTED. ALL REFERENCES TO SECTION NUMBERS IN THE FOLLOWING ITEMS REFER TO THE AFOREMENTIONED STANDARD SPECIFICATIONS.
- PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS NECESSARY TO COORDINATE FULL-TIME INSPECTION SERVICE FOR THE PROPOSED WORK.
- THE CONTRACTOR SHALL PROVIDE WRITTEN NOTIFICATION TO ENGINEER AT LEAST SEVEN (7) DAYS PRIOR TO ANY CONSTRUCTION.
- TWENTY-FOUR (24) HOUR ADVANCE NOTIFICATION IS REQUIRED FOR ALL WORK REQUIRING INSPECTION, TESTING, OR APPROVAL BY THE ENGINEER.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE AND VERIFY THE EXTENT OF THE WORK TO BE PERFORMED PRIOR TO MAKING HIS BID, INCLUDING BUT NOT LIMITED TO THE REMOVAL OF ANY AND ALL ITEMS.
- THE CONTRACTOR AND SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR OR SUBCONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR AND SUBCONTRACTOR SHALL ALSO ABIDE BY ALL CITY ORDINANCES AND STATE/FEDERAL LAWS. THE CONTRACTORS AND ALL SUBCONTRACTORS SHALL SUBMIT THEIR SAFETY PLANS PRIOR TO CONSTRUCTION. A COMPLETE SET OF PLANS, SPECIFICATIONS AND SAFETY PLAN MUST BE ON THE JOB SITE AT ALL TIMES AND AVAILABLE FOR VIEWING.
- IF THE CONTRACTOR ENCOUNTERS CONTAMINATED SOILS OR NOXIOUS FUMES, OPERATIONS SHOULD BE CEASED IMMEDIATELY AND THE ENGINEER SHALL BE NOTIFIED.

**EXISTING UTILITIES**

- THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL CLEARANCES EXIST PER THE APPROVED PLANS. THE CONTRACTOR SHALL CALL, TOLL FREE, THE WEST VIRGINIA 811 OR 1-800-245-4848 (WEB SITE WWW.WV811.COM) FORTY-EIGHT (48) HOURS PRIOR TO CONSTRUCTION AND SHALL NOTIFY ALL UTILITY COMPANIES AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO WORK IN THE VICINITY OF THEIR UNDERGROUND LINES.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON THE RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CITY AND/OR ENGINEER OF RECORD (EOR) ASSUME NO RESPONSIBILITY AS TO THE ACCURACY OF THE LOCATIONS OR DEPTHS OF THE UNDERGROUND FACILITIES AS SHOWN ON THE PLANS. CONTRACTOR MUST GIVE ADEQUATE NOTICE TO THE APPROPRIATE UTILITY COMPANY BEFORE ANY EXCAVATION NEAR A KNOWN UTILITY PER STATE LAW. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE RELOCATION OF ANY UTILITIES AS REQUIRED BY THE PLAN WITH THE OWNER OF THE AFFECTED UTILITY.
- WHERE POTENTIAL CONFLICTS MIGHT OCCUR WITH EXISTING UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO UNCOVER SUCH UTILITIES SUFFICIENTLY IN ADVANCE OF LAYING PIPE OR DUCT FOR THE EOR TO DETERMINE THE EXACT ELEVATION AND MAKE ANY NECESSARY ADJUSTMENTS. COST OF THE ABOVE SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS IN THE CONTRACT.
- THE CONTRACTOR SHALL REPAIR OR REPLACE ANY AND ALL EXISTING WORK DAMAGED DURING OR DUE TO THE EXECUTION OF THIS CONTRACT TO EQUAL OR BETTER CONDITION PRIOR TO THE DAMAGE, AT THE CONTRACTOR'S OWN EXPENSE. ALL SAID WORK TO BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER. ANY DAMAGE TO OTHER UTILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE APPROPRIATE UTILITY COMPANY AT THE CONTRACTOR'S EXPENSE.
- ANY EXISTING UTILITY (GAS, ELECTRIC, CABLE TELEVISION, TELEPHONE, WATER LINE, STORM OR SANITARY APPURTENANCE, ETC.) IN OR OUTSIDE THE CONSTRUCTION LIMITS DAMAGED DURING THE CONSTRUCTION OF THE PROPOSED PROJECT, WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE UTILITY.
- TEMPORARY RELOCATION OF ELECTRICAL UTILITIES, INCLUDING RESTRAINT OF POLES, RELOCATION OF POLES, AND RUBBER COVERING OF ENERGIZED CONDUCTORS MAY BE REQUIRED. THE COORDINATION AND COST OF THESE SERVICES IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR MAY RESTRAIN POLES IF THE METHOD OF SUPPORT HAS BEEN SUBMITTED TO AND APPROVED BY THE UTILITY COMPANY.
- THE UTILITY WILL ONLY LOCATE AND MARK MAIN LINE SEWERS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATIONS ALL SERVICE LATERALS WHETHER SHOWN ON PLANS OR NOT.

**EXISTING CONDITIONS**

- THE CONTRACTOR SHALL CAREFULLY PRESERVE BENCH MARKS, PROPERTY CORNERS, REFERENCE POINTS AND STAKES AND IN CASE OF WILLFUL OR CARELESS DESTRUCTION, HE SHALL BE CHARGED WITH THE RESULTING EXPENSE OF REPLACEMENT AND SHALL BE RESPONSIBLE FOR ANY MISTAKES THAT MAY BE CAUSED BY HIS UNNECESSARY LOSS OR DISTURBANCE. ANY EXISTING PROPERTY CORNER PINS OR MONUMENTS DAMAGED OR DESTROYED BY CONSTRUCTION SHALL BE RESET BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE UPON COMPLETION OF THE PROJECT PRIOR TO FINAL PAYMENT. A CERTIFICATE OF CORRECTION SHALL BE FURNISHED BY A CITY REGISTERED SURVEYOR, STATING THAT SAID DAMAGES HAVE BEEN RESTORED. THE CONTRACTOR SHALL PROVIDE SITE EROSION CONTROL TO PREVENT RUNOFF WATER FROM THE SITE FROM CARRYING SAND, SILT, DIRT, ETC. ONTO PRIVATE PROPERTY, OR INTO ANY STORM SEWER OR DRAINAGE CHANNEL. EROSION CONTROL SHALL CONFORM WITH THE REQUIREMENTS OF SPECIFICATIONS AND DRAWINGS.
- CARE SHALL BE EXERCISED WHEN WORKING THE AREA AROUND EXISTING TREES AND SHRUBS. ANY TREES OR SHRUBS NOT MARKED FOR REMOVAL THAT ARE DAMAGED BY THE CONTRACTOR WILL HAVE TO BE REPLACED BY THE CONTRACTOR, AT HIS EXPENSE AND TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR SHALL MAINTAIN THE FLOOD BERM DURING INSTALLATION. TEMPORARY FLOOD PROTECTION SHALL BE APPROVED BY ENGINEER. ANY DISTURBED FLOOD BERM SHALL BE RECONSTRUCTED PRIOR TO COMPLETION OF THE PROJECT. FILL FOR FLOOD BERM SHALL BE COMPACTED TO 95% AND APPROVED BY THE ENGINEER PRIOR TO RECONSTRUCTION. COST TO BE INCLUDED IN VARIOUS SANITARY BID ITEMS.
- EXISTING SANITARY FLOWS SHALL BE MAINTAINED AND PROPERLY BYPASSED ACCORDING TO PROJECT SPECIFICATIONS.

**DISPOSAL OF MATERIALS**

- THE CONTRACTOR IS RESPONSIBLE FOR PROPER DISPOSAL OF ALL CONSTRUCTION DEBRIS INCLUDING BUT NOT LIMITED TO EXCESS SOIL, ROCK, OR ANY OTHER TYPE MATERIALS. REMOVED PIPE SHALL BE DISPOSED OF AT A PROPER LANDFILL. THE CONTRACTOR SHALL NOT FILL ANY WETLANDS, LOW LANDS, FLOOD PLAINS, OR DRAINAGE WAYS WITH SAID DEBRIS WITHOUT OBTAINING PROPER APPROVALS, PERMITS, LICENSES, ETC. FROM LOCAL, STATE, OR FEDERAL AGENCIES.
- THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF MATERIALS TAKEN FROM EXCAVATIONS.
- THE OPEN BURNING OF SITE CLEARING DEBRIS, TRASH, ETC. IS PROHIBITED IN THE CITY.

**RESTORATION**

- ALL MAIL BOXES AND TRAFFIC CONTROL SIGNS ENCOUNTERED DURING CONSTRUCTION SHALL BE REPLACED IMMEDIATELY AFTER THE SEWER HAS BEEN INSTALLED AND BACKFILLED. PROVIDE TEMPORARY MAIL BOXES FOR DISRUPTIONS GREATER THAN 24 HOURS.
- RESTORATION IN MOST CASES SHALL BE PERFORMED ACCORDING TO THE CITY OF WHEELING TRENCH DETAILS AS SHOWN ON THE DETAIL SHEET. ANY EXCEPTIONS TO THIS RESTORATION METHOD ARE PRESENTED IN THE PLAN SHEETS ON A CASE BY CASE BASIS.

**ADDITIONAL CLARIFYING NOTES**

- THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH PROPERTY OWNERS.

**TREE CLEARING AND GRUBBING**

- ITEM SHALL CONFORM TO SECTION 201 OF THE WVDOT SPECIFICATION MANUAL. ITEM SHALL BE PAID ON LUMP SUM (LS) BASIS.
- NO CLEARING SHALL TAKE PLACE OUTSIDE OF THE DESIGNATED WORK LIMITS.
- TREE CLEARING SHALL BE BASED ON QUANTITY SHOWN ON THE BID FORM. AFTER THE PROJECTS IS AWARDED, A SELECTIVE TREE CLEARING WALKTHROUGH SHALL BE SCHEDULED WITH THE CONTRACTOR, ENGINEER, AND OWNER, AND SPECIFIC TREES WILL BE MARKED FOR CLEARING. ONLY THOSE TREES THAT ARE MARKED FOR CLEARING SHALL BE CUT DOWN. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPLACEMENT OR PAYMENT FOR TREES THAT ARE CUT THAT WERE NOT MARKED AS PART OF THE SELECTIVE TREE CLEARING WALK THROUGH, AT A PRICE DETERMINED BY THE OWNER AND THE ENGINEER.

**CONSTRUCTION LAYOUT STAKES**

- ITEM SHALL CONFORM TO SECTION 639 OF THE WVDOT SPECIFICATION MANUAL. ITEM SHALL BE PAID ON A LUMP SUM (LS) BASIS.

**PAVEMENT SECTION**

- ITEM 408002 TACK COAT SHALL CONFORM TO SECTION 408 OF THE WVDOT SPECIFICATION MANUAL. THE UNIT OF MEASURE SHALL BE GALLONS (GAL).
- ITEM 501001- 8" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT. THE CONTRACTOR SHALL FURNISH ALL LABOR, TOOLS, MATERIAL AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL THIS ITEM TO CONFORM TO SECTION 501 OF THE WVDOT SPECIFICATIONS MANUAL. THIS ITEM SHALL INCLUDE SAW CUTTING PAVEMENT FULL DEPTH PRIOR TO EXCAVATION. THE PAY LIMIT WIDTH OF REPLACEMENT IS ESTABLISHED IN THE STANDARD DETAIL DRAWING FOR THE VARIOUS SIZE PIPES. MAXIMUM WIDTH IS PAVED AREA DISTURBED. THE UNIT OF MEASURE SHALL BE SQUARE YARDS (SY) INSTALLED AS SHOWN ON THE STANDARD DETAIL DRAWINGS, MEASURED IN PLACE.
- ITEM 307001- 6" CLASS 1 AGGREGATE BASE COURSE, THIS ITEM SHALL CONFORM TO SECTION 307 OF THE WVDOT SPECIFICATION MANUAL. ALL WORK, LABOR, MATERIAL, DISPOSAL, EQUIPMENT, AGGREGATE, AND EXCAVATION NECESSARY TO COMPLETE WORK SHALL BE INCLUDED IN THIS ITEM. THE UNIT OF MEASURE SHALL BE TONS (TON) INSTALLED AS SHOWN ON THE STANDARD DETAIL DRAWINGS, MEASURED IN PLACE.
- ITEM 401002- 2" WEARING COURSE TYPE 4. THE CONTRACTOR SHALL FURNISH ALL LABOR, TOOLS, MATERIAL AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL WEARING COURSE. THIS ITEM SHALL INCLUDE PLACEMENT OF WEARING COURSE TYPE 4 AS SHOWN ON THE STANDARD DETAIL DRAWINGS AND PER THE CONTRACT DOCUMENTS. THE PAY LIMIT WIDTH OF REPLACEMENT IS ESTABLISHED IN THE STANDARD DETAIL DRAWING FOR THE VARIOUS SIZE PIPES. MAXIMUM WIDTH IS PAVED AREA DISTURBED. ALL WORK NECESSARY TO COMPLETE THE ITEM IN ACCORDANCE WITH THE WVDOT SPECIFICATIONS (TABLE 401.4.2A) AND THE NOTES OUTLINED IN THESE PLANS. THE UNIT OF MEASURE SHALL BE TONS (TON) INSTALLED AS SHOWN ON THE STANDARD DETAIL DRAWINGS, MEASURED IN PLACE.

**SANITARY SEWER**

- SANITARY SEWER PIPE - PIPE SIZES 6" TO 15" SHALL BE PVC SDR 35 (ASTM D3034). PIPE SIZES 18" TO 36" SHALL BE PVC PS 46 (ASTM F-679). POLYVINYL CHLORIDE PIPE SHALL CONFORM TO SECTION 604 AND SUBSECTION 714.22 OF THE WVDOT SPECIFICATION MANUAL. ITEM SHALL BE PAID ON A LINEAR FOOT (LF) BASIS AND SHALL INCLUDE THE PIPE MATERIAL, BEDDING MATERIAL, INSTALLATION, AND SUITABLE MATERIAL TO BE REUSED FOR TRENCH PLACEMENT. CITY OF WHEELING IS TO PROVIDE ALL 12" PIPE.
- ALL MANHOLES SHALL BE WVDOT TYPE A MANHOLES ACCORDING TO DETAILS AND DRAWINGS. ITEM SHALL BE PAID ON AN EACH (EA) BASIS AND IS TO INCLUDE ALL EQUIPMENT, MATERIAL, INSTALLATION, AND LABOR.
- ITEM SPECIAL - WINGWALL CSOW-43R (36" PIPE) CONTRACTOR TO INSTALL WINGWALL FOR 36" PIPE IN ACCORDANCE WITH THE DRAWINGS AND STANDARD DETAIL SHEET DR2 IN THE WVDOT STANDARD DETAILS VOLUME 1 ISSUED MAY 2016. ALL WORK NECESSARY TO COMPLETE THIS ITEM. ALL WORK, LABOR, MATERIAL, DISPOSAL, EQUIPMENT, AGGREGATE, AND EXCAVATION NECESSARY TO COMPLETE WORK SHALL BE INCLUDED IN THIS ITEM. ITEM SHALL BE PAID FOR ON A LUMP SUM (LS) BASIS.
- CONTRACTOR TO INSTALL 4" STEEL MARKING POSTS NEXT TO ALL MANHOLES ALONG WHEELING CREEK. (CITY TO PROVIDE MARKING POSTS). ITEM TO BE INCLUDED IN COST OF MANHOLES.
- ALL TRENCH WORK IS TO STAY IN ONE LANE UNLESS OTHERWISE SHOWN IN THE PLANS OR WHERE CROSSINGS ARE SHOWN.
- COST OF ALL LABOR, MATERIALS, AND EQUIPMENT TO COMPLETE TRENCH WORK TO THE SURFACE OF THE EXISTING GROUND OR BOTTOM OF THE AGGREGATE BASE COURSE IN ACCORDANCE OF THE DETAILS IN THE PLANS SHALL BE INCLUDED IN THE UNIT PRICE OF THE PIPE.

**MOBILIZATION**

- ITEM SHALL CONFORM TO SECTION 204 OF THE WVDOT SPECIFICATION MANUAL. THIS ITEM SHALL INCLUDE PERFORMANCE OF CONSTRUCTION PREPARATORY OPERATIONS, INCLUDING THE MOVEMENT OF PERSONNEL AND EQUIPMENT TO THE PROJECT SITE, PERMITS, BONDING AND INSURANCE. MAXIMUM PAYMENT FOR THIS ITEM WILL BE 50% ON FIRST PAY REQUEST AND BALANCE WILL BE PAID ON FINAL PAY REQUEST. ITEM SHALL BE PAID IN LUMP SUM (LS) BASIS.

**MAINTENANCE OF TRAFFIC**

- ITEM SHALL CONFORM TO SECTION 636 OF WVDOT SPECIFICATION MANUAL AND DETAILS ON THE CONSTRUCTION PLAN SET. ITEM SHALL BE LUMP SUM (LS) BASIS. ANY IMPACTS TO ACCESS MUST BE COORDINATED WITH PROPERTY OWNERS A MINIMUM OF 24 HOURS IN ADVANCE. THE CONTRACTOR SHALL PROVIDE UPDATES TO THE CITY WITH TRAFFIC IMPACTS SEVEN DAYS PRIOR TO MAKING CHANGES. CHANGES TO THE MAINTENANCE OF TRAFFIC PLAN, CLOSURES, AND WEEKLY UPDATES SHALL BE SENT TO THE ENGINEER AND OWNER. TRAFFIC CONTROL SHALL BE COORDINATED WITH THE CITY OF WHEELING POLICE AND WVDOT. PARKING CHANGES MUST BE POSTED ALONG THE STREET IMPACTED A MINIMUM OF 24-HOURS IN ADVANCE.
- TRAFFIC IS TO BE MAINTAINED AT ALL TIMES BY THE USE OF APPROPRIATE TRAFFIC CONTROL DEVICES. USE OF METAL PLATES WITH SUFFICIENT RIGIDITY TO SPAN TYPE A TRENCH IS REQUIRED TO PREVENT WHEEL LOADS FROM BEING TRANSMITTED TO THE CLSM. THE PLATES ARE TO BE SECURELY ANCHORED TO PREVENT MOVEMENT CAUSED BY TRAFFIC. THE PLATES ARE TO BE LEFT IN PLACE UNTIL THE CLSM ATTAINS 50% OF ITS COMPRESSIVE STRENGTH. COST OF SUCH PLATES ARE TO BE INCLUDED IN THE UNIT PRICE FOR PIPE.
- ROADWAYS SHALL ONLY BE CLOSED ONE LANE AT A TIME. PROVIDE A SIGNED PEDESTRIAN DETOUR, ROADWAY CLOSED AHEAD SIGNS, AND PEDESTRIAN BARRICADES.
- THE CONTRACTOR SHALL COORDINATE INDIVIDUALLY WITH BUSINESS AND HOME OWNERS ALONG THE ALIGNMENT TO ENSURE THAT TRUCK AND SHIFT TRAFFIC WILL NOT BE IMPEDED BY CONSTRUCTION. A SCHEDULE SHALL BE DEVELOPED THAT IS AGREED UPON BETWEEN THE BUSINESS OWNER AND CONTRACTOR.
- TEMPORARY LIGHTING MAY BE USED IN LIEU OF FLAGMEN, IN ACCORDANCE WITH THE WVDOT MANUAL ON TEMPORARY TRAFFIC CONTROL FOR STREETS AND HIGHWAYS, 2008 EDITION, SPECIFICALLY DESCRIBED IN SECTION F.75 THROUGH F. OF THE MANUAL. IN ALL CASES THE MAINTENANCE OF TRAFFIC PLAN SHALL BE APPLIED AND ADHERED TO.

**SPECIAL ITEMS**

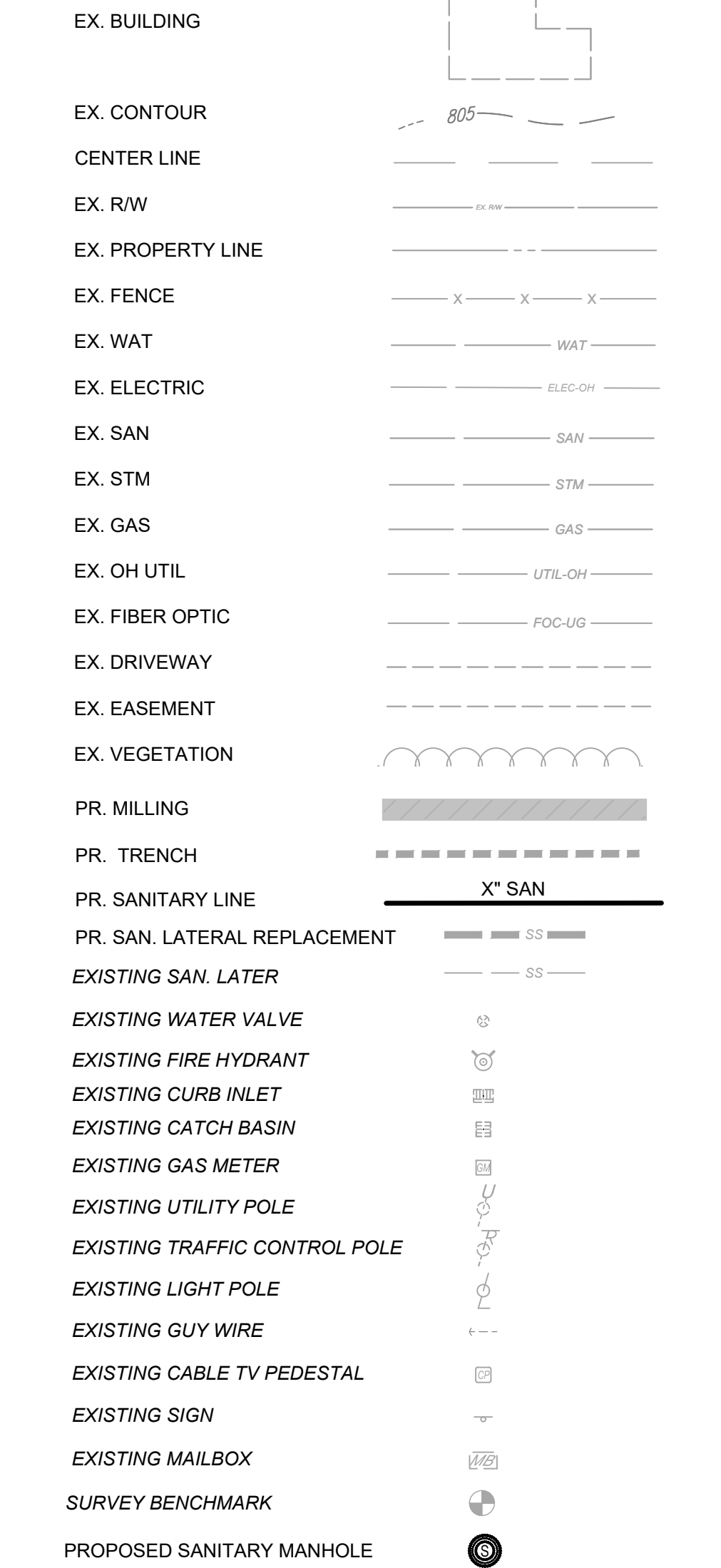
- ITEM SPECIAL - OVERFLOW MANHOLE ALL WORK, LABOR, MATERIAL, EQUIPMENT, AND EXCAVATION REQUIRED TO FACILITATE THE CONSTRUCTION OF EACH OVERFLOW MANHOLE INCLUDING THE OVERFLOW WEIR AS SHOWN ON THE DRAWINGS FOR EACH OVERFLOW MANHOLE SHALL BE INCLUDED IN THIS PAY ITEM. CSO SIGNS SHALL BE INSTALLED UPON COMPLETION OF EACH CSO. SIGN IS TO BE PROVIDED BY CITY. WORK IS TO BE PAID FOR ON AN EACH (EA) BASIS.
- ITEM SPECIAL - WEIR MODIFICATION (W-47) ALL WORK, LABOR, MATERIAL, EQUIPMENT, AND EXCAVATION REQUIRED TO FACILITATE THE ADJUSTMENT OF THE EXISTING WEIR AS SHOWN ON THE DRAWINGS SHALL BE INCLUDED IN THIS PAY ITEM. WORK IS TO BE PAID FOR ON A LUMP SUM (LS) BASIS.
- ITEM SPECIAL - LATERAL REPLACEMENT LATERAL LOCATIONS SHOWN ON PLANS ARE APPROXIMATE BASED ON STATIONING PROVIDED FROM SEWER INSPECTION AND CITY MAPPING. CONTRACTOR SHALL FIELD LOCATE EACH LATERAL DURING CONSTRUCTION. ANY ENCOUNTERED PRIVATE LATERALS SHALL BE CONNECTED TO THE SANITARY SEWER PER THE SEWER LATERAL DETAIL. LATERALS SHALL BE CONSTRUCTED TO THE RIGHT-OF-WAY LINE. IN CASES WHERE EXISTING LATERALS ARE DIRECTLY CONNECTED TO MANHOLES, THE LATERALS SHALL BE CONNECTED TO THE NEW MANHOLES WITH AN INSIDE DROP. THIS ITEM SHALL INCLUDE ALL COMPONENTS SHOWN ON THE LATERAL DETAIL AND IS TO BE PAID ON A LINEAR FOOT (LF) BASIS.
- ITEM SPECIAL - UNSUITABLE BACKFILL CONTINGENCY THE CONTRACTOR SHALL PROVIDE SUITABLE BACKFILL MATERIAL IN THE CASE THAT THE EXISTING MATERIAL IS UNSUITABLE FOR CONSTRUCTION. SUITABILITY FOR CONSTRUCTION SHALL BE AS DESCRIBED IN SECTIONS 207 AND 716 OF THE WVDOT SPECIFICATIONS MANUAL. HOWEVER, THE ENGINEER RESERVES THE RIGHT TO DETERMINE THE SUITABILITY OF BACKFILL MATERIAL. AN ESTIMATE FOR THE REQUIRED AMOUNT OF SUITABLE BACKFILL MATERIAL HAS BEEN INCLUDED IN THE TABLE OF ESTIMATED QUANTITIES, AND SHALL BE PAID ON A CUBIC YARD (CY) BASIS.
- ITEM SPECIAL - SEWER PIPE REMOVAL ALL WORK, LABOR, MATERIAL, EQUIPMENT, AND EXCAVATION REQUIRED TO SEAL THE EXISTING CONNECTION SHALL BE INCLUDED WITH THIS PAY ITEM. PIPE SHALL NOT BE USED AS BACKFILL AND MUST BE DISPOSED OF AT AN ACCEPTING LANDFILL. SEWER PIPE ITEM SHALL BE PAID ON A LINEAR FOOT (LF) BASIS.
- ITEM SPECIAL - MANHOLE REMOVAL ALL WORK, LABOR, MATERIAL, EQUIPMENT, AND EXCAVATION REQUIRED TO SEAL THE EXISTING CONNECTION SHALL BE INCLUDED WITH THIS PAY ITEM. MANHOLE DEBRIS SHALL NOT BE USED AS BACKFILL OR RIP-RAP AND MUST BE DISPOSED OF AT AN ACCEPTING LANDFILL. ITEM SHALL BE PAID ON AN EACH (EA) BASIS.
- ITEM SPECIAL - ABANDON MANHOLE CONTRACTOR SHALL FILL MANHOLE AND POUR CONCRETE CAP TO ABANDON MANHOLE. ALL WORK, LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO SEAL THE MANHOLE SHALL BE INCLUDED WITH THIS PAY ITEM. ITEM SHALL BE PAID ON AN EACH (EA) BASIS.
- ITEM SPECIAL - BULKHEAD FOR SEWER THE CONTRACTOR SHALL FURNISH ALL LABOR, TOOLS, MATERIALS, AND EQUIPMENT NECESSARY TO CONSTRUCT A SEWER ADJUSTMENT AS SHOWN ON THE CONSTRUCTION DRAWINGS AS DETAILS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE AT HIS OWN EXPENSE THAT OCCURS TO THE ADJACENT MANHOLE AS A RESULT OF THE BULKHEAD CONSTRUCTION. ITEM SHALL BE PAID ON AN EACH (EA) BASIS.
- ITEM SPECIAL - SHIFT EX STORM LINE CONTRACTOR SHALL FURNISH ALL LABOR, TOOLS, MATERIALS, AND EQUIPMENT NECESSARY TO SHIFT EXISTING 6" STORM LINE NEAR PROPOSED MH IP-6 TO FACILITATE CONSTRUCTION OF MH IP-6. ITEM SHALL BE PAID ON A LUMP SUM (LS) BASIS.

- ITEM SPECIAL- SEWER FLOW CONTROL SEWER FLOW CONTROL WORK IS TO BE PERFORMED IN ACCORDANCE WITH SPECIFICATION. ITEM SHALL BE PAID ON A LUMP SUM (LS) BASIS.
- ITEM SPECIAL-CONNECT EX SANITARY TO PROPOSED MANHOLE ALL WORK, LABOR, MATERIAL, BACKFILL, EQUIPMENT, AND EXCAVATION REQUIRED TO CONNECT NEW MANHOLE TO AN EXISTING SEWER SHALL BE INCLUDED WITH THIS PAY ITEM. CONNECTION SHALL BE WATERTIGHT, PER DETAIL. WORK IS TO BE PAID FOR ON AN EACH (EA) BASIS.
- ITEM SPECIAL-CONNECT PROPOSED OVERFLOW TO EXISTING HEADWALL ALL WORK, LABOR, MATERIAL, BACKFILL, EQUIPMENT, AND EXCAVATION REQUIRED TO CONNECT PROPOSED OVERFLOW PIPE TO EXISTING HEADWALL SEWER SHALL BE INCLUDED WITH THIS PAY ITEM. CONNECTION SHALL BE WATERTIGHT PER DETAIL. WORK IS TO BE PAID FOR ON AN EACH (EA) BASIS.
- ITEM SPECIAL- 8" CURED IN PLACE (CIPP) PIPE LINING CURED IN PLACE LINING SHALL CONFORM TO SECTION 330130.72 OF THE SPECIFICATIONS. ITEM SHALL BE PAID ON A LINEAR FOOT (LF) BASIS AND SHALL INCLUDE PRE-CLEANING, MATERIAL, INSTALLATION, INSPECTION, AND LABOR TO COMPLETE THE LINING.
- ITEM SPECIAL - EROSION CONTROL THE CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES IN ACCORDANCE WITH THE EROSION AND SEDIMENT CONTROL SHEETS AND WVDOP EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICE MANUAL WITH LAST REVISION DATE OF AUGUST 29, 2016. A DETAILED SWPPP WILL BE PROVIDED, ANY FINES INCURRED BY THE CITY FROM WVDOP RESULTING FROM CONTRACTOR NEGLIGENCE SHALL RESULT IN DEDUCTION FROM SUBSEQUENT PAY APPLICATION. DAMAGE TO PROPERTY AS A RESULT OF INADEQUATE EROSION CONTROL MEASURES SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. ITEM SHALL BE PAID ON A LUMP SUM (LS) BASIS.

NO	ITEM	DESCRIPTION	QUAN	UNIT
1	639001	CONSTRUCTION LAYOUT AND STAKES	1	LS
2	204001	MOBILIZATION	1	LS
3	636001	MAINTENANCE OF TRAFFIC	1	LS
4	408002	TACK COAT	36	GAL
5	501001	8" REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT	362	SY
6	401002	2" WEARING COURSE TYPE 4	4	TON
7	307001	6" CLASS 1 AGGREGATE COURSE BASE	13	TON
8	675007	36" PLASTIC SEWER PIPE (TYPE A TRENCH)	66	LF
9	675007	36" PLASTIC SEWER PIPE (TYPE D TRENCH)	76	LF
10	675007	27" PLASTIC SEWER PIPE (TYPE A TRENCH)	223	LF
11	675007	27" PLASTIC SEWER PIPE (TYPE D TRENCH)	145	LF
12	675007	24" PLASTIC SEWER PIPE (TYPE A TRENCH)	250	LF
13	675007	24" PLASTIC SEWER PIPE (TYPE D TRENCH)	801	LF
14	675007	18" PLASTIC SEWER PIPE (TYPE D TRENCH)	281	LF
15	675007	15" PLASTIC SEWER PIPE (TYPE A TRENCH)	52	LF
16	675007	15" PLASTIC SEWER PIPE (TYPE D TRENCH)	244	LF
17	675007	12" PLASTIC SEWER PIPE (TYPE A TRENCH INSTALLATION ONLY)	38	LF
18	675007	12" PLASTIC SEWER PIPE (TYPE D TRENCH INSTALLATION ONLY)	511	LF
19	675007	8" CIPP LINER	244	LF
20	605001	MANHOLE TYPE A (72" DIAMETER BASE)	1	EA
21	605001	MANHOLE TYPE A (60" DIAMETER BASE)	6	EA
22	605001	MANHOLE TYPE A (48" DIAMETER BASE)	10	EA
23	SPEC	OVERFLOW MANHOLE - W-43R COMPLETE INCLUDING CASTING (84" BASE)	1	EA
24	SPEC	OVERFLOW MANHOLE - W-45R COMPLETE INCLUDING CASTING (72" BASE)	1	EA
25	SPEC	OVERFLOW MANHOLE - W-47R COMPLETE INCLUDING CASTING (72" BASE)	1	EA
26	SPEC	OVERFLOW MANHOLE - W-48R COMPLETE INCLUDING CASTING (72" BASE)	1	EA
27	SPEC	WEIR MODIFICATION (W-47)	1	EA
28	SPEC	WINGWALL 36" PIPE	1	EA
29	SPEC	CONNECT EXISTING SANITARY TO PROPOSED MANHOLE	15	EA
30	SPEC	CONNECT OVERFLOW LINE TO EX HEADWALL	3	EA
31	SPEC	SEWER PIPE REMOVAL	1566	LF
32	SPEC	REMOVE EX MANHOLE	16	EA
33	SPEC	ABANDON MANHOLE	1	EA
34	SPEC	BULKHEAD FOR SEWER	8	EA
35	SPEC	SHIFT EX STORM LINE	1	LS
36	SPEC	UNSUITABLE BACKFILL CONTINGENCY	2250	CY
38	SPEC	TREE CLEARING AND GRUBBING	1	LS
39	SPEC	SEEDING AND MULCHING	6864	SY
40	SPEC	REMOVE AND REPLACE FENCE IN KIND	1	LS
41	SPEC	EROSION CONTROL	1	LS
42	SPEC	DOCUMENTATION OF SITE	1	LS

- ITEM SPECIAL- SEEDING AND MULCHING (WHEELING) THE CONTRACTOR SHALL FURNISH ALL LABOR, TOOLS, MATERIAL AND EQUIPMENT NECESSARY TO FURNISH AND INSTALL SURFACE COVERING. THIS ITEM SHALL INCLUDE ALL NECESSARY GRADING, TOPSOIL, FERTILIZER, WATER, SEED AND MULCH TO REPLACE THE DISTURBED OR DAMAGED AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND SPECIFICATIONS. THE ITEM SHALL INCLUDE ALL WORK NECESSARY TO COMPLETE THE ITEM IN ACCORDANCE WITH WVDOT SPECIFICATIONS AND THE NOTES OUTLINED IN THESE PLANS. THE UNIT OF MEASURE SHALL BE SQUARE YARDS (SY), COMPUTED BY MULTIPLYING THE LENGTH OF THE DISTURBED AREA AS MEASURED ALONG THE CENTERLINE OF THE PIPE, TIMES THE WIDTH OF THE DISTURBED AREA, BUT IN NO CASE SHALL THE LIMITS OF PAYMENT ON EITHER SIDE OF THE PIPE BE MORE THAN THE WORK LIMITS SHOWN ON THE DRAWINGS. DAMAGED AREAS OUTSIDE OF THE LIMITS WILL BE SEEDED AND MULCHED AT THE CONTRACTOR'S EXPENSE.
- ITEM SPECIAL - LANDSCAPE RESTORATION THE CONTRACTOR SHALL RESTORE ANY EXISTING LANDSCAPING IN KIND THAT WAS DISTURBED DURING CONSTRUCTION OF THE THE PROJECT. ITEM INCLUDES BUT IS NOT LIMITED TO REPAIR OR REPLACEMENT OF ANY EXISTING PATIO, ORNAMENTAL TREES, BUSHES, OR SHRUBS AS DIRECTED BY OWNER AND ENGINEER. ITEM SHALL BE PAID ON A LUMP SUM (LS) BASIS. THE INTENT OF THIS ITEM IS TO NOT REPLACE ANY LARGE TREES (E.G. PINE TREES, DECIDUOUS TREES, ETC) WITHIN THE PERMANENT SANITARY SEWER EASEMENT.
- ITEM SPECIAL- DOCUMENTATION OF SITE THE CONTRACTOR SHALL VIDEO RECORD THE PROJECT SITE PRIOR TO START OF ACTIVITIES IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. THIS VIDEO DOCUMENTATION IS TO INCLUDE ALL PROPOSED WORK ALONG THE ALIGNMENT FROM ALICE. THE CONTRACTOR SHALL PROVIDE ONE COPY OF VIDEO TO ENGINEER AND OWNER IN ELECTRONIC FORM ON USB MEMORY DEVICE. ITEM SHALL BE PAID ON A LUMP SUM (LS) BASIS.

**LEGEND**



CONTRACTOR(S) SHALL CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CONTRACTOR IS DIRECTED TO VERIFY ALL QUANTITIES PRIOR TO PREPARING AND SUBMITTING THEIR BID. ANY ITEMS OF WORK CALLED FOR ON THE PLANS FOR WHICH NO SPECIFIC METHOD OF PAYMENT IS INDICATED SHALL BE PERFORMED BY THE CONTRACTOR AND THE COST OF WORK SHALL BE INCLUDED IN THE UNIT PRICE FOR THE VARIOUS BID ITEMS.

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**consultants**  
 engineers  
 architects  
 planners

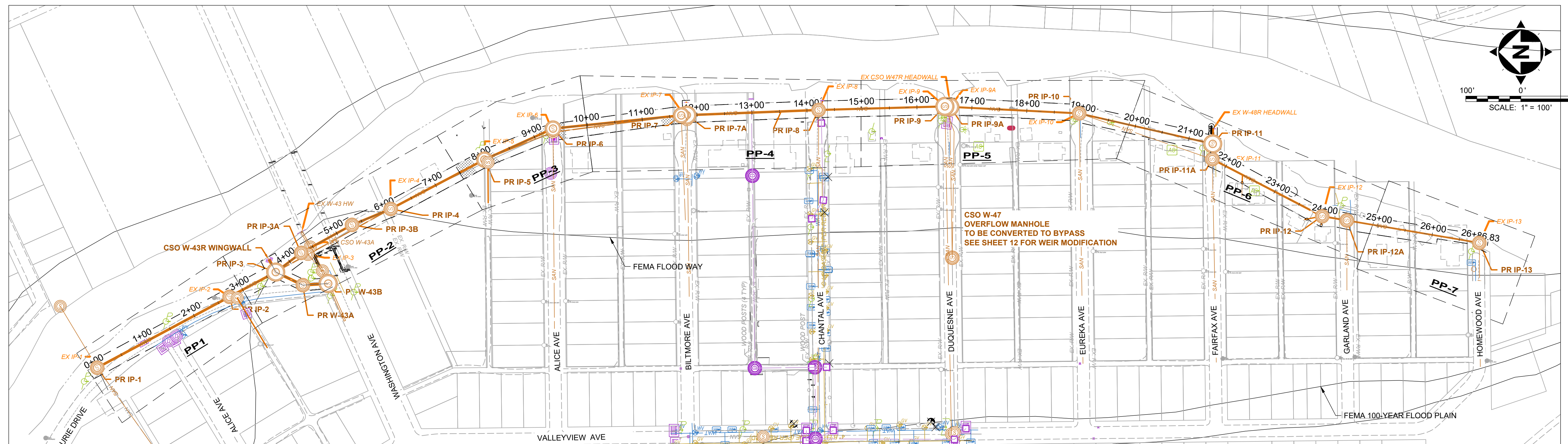
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REVIEW	4/18/2024	AS SHOWN	LAS	LAS	DAB

**WATER POLLUTION CONTROL DIVISION**  
**WASTEWATER COLLECTION AND TREATMENT**  
**VALLEYVIEW SANITARY IMPROVEMENTS**

**GENERAL NOTES, LEGEND, AND QUANTITIES**

PROJECT NO.	220991 4C
DISCIPLINE	CIVIL
SHEET NAME	GN-1
SHEET	OF
<b>2</b>	<b>19</b>



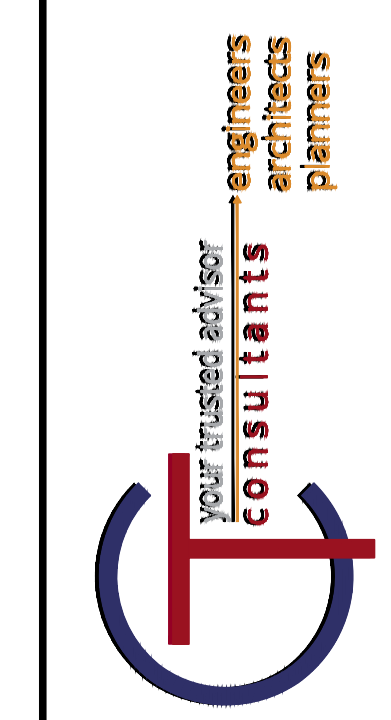


**DATUM**  
 HORIZONTAL: NAD83 WV SPCS NORTH ZONE  
 VERTICAL: NGVD29

POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
5	574180.3965	1637246.0263	653.92	Iron Pin (Set)
6	575064.9815	1636663.4845	660.79	Iron Pin (Set)
7	574758.5240	1636918.5996	661.97	Iron Pin (Set)
8	574515.7694	1636975.4057	669.03	Iron Pin (Set)
9	574291.3349	1637104.8571	665.26	Iron Pin (Set)
10	573309.7890	1637262.4637	659.09	Iron Pin (Set)
11	572953.7984	1637192.7921	661.44	Iron Pin (Set)
12	572925.6333	1636808.1426	664.87	Iron Pin (Set)
13	572685.5417	1636810.7830	665.80	Iron Pin (Set)
14	572445.3283	1636804.0961	664.97	Iron Pin (Set)
32	574120.2862	1636912.7230	663.12	Iron Pin (Fnd) 3/4IN
33	574160.6668	1636911.7136	662.72	Iron Pin (Fnd) 1/2IN BENT
34	574159.4008	1636832.3141	663.13	Iron Pin (Fnd) 3/4IN
35	573921.8818	1637034.8356	662.09	Iron Pin (Fnd) 1/2IN
36	573887.5325	1637077.1538	661.39	Iron Pipe (Fnd) 3/4IN
37	573919.8049	1636874.8052	662.89	Iron Pin (Fnd) 1/2IN
38	573396.5819	1637195.1800	663.01	Iron Pipe (Fnd) 2IN
39	573403.2455	1637160.5753	662.89	Iron Pin (Fnd) 5/8IN CAPPED "CHADAN 1210"
40	573442.9311	1637119.9501	662.71	Iron Pin (Fnd) 1/2IN X 1/2IN BENT
41	573442.4380	1637080.0030	663.04	Iron Pin (Fnd) 1/2IN X 1/2IN
42	573201.7176	1637042.7798	663.15	Spike (Fnd) 10-D NAIL
43	573161.3774	1637003.1947	663.41	Iron Pin (Fnd) 5/8IN
44	572961.0390	1637007.5853	663.00	Iron Pin (Fnd) 3/4IN

POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
45	572920.9097	1636965.9378	663.12	Iron Pin (Fnd) 3/4IN BENT
46	572960.6878	1636967.6136	663.42	Iron Pin (Fnd) 1/2IN
47	572721.7733	1637018.1418	665.12	Iron Pin (Fnd) 3/4IN
48	572479.6367	1636850.9678	664.34	Iron Pipe (Fnd) 3/4IN
49	573437.5309	1636788.2569	663.73	Post, Conc 4IN DIA
50	572717.6494	1636809.3924	665.87	Post, Conc 4IN DIA BENT
51	574675.0568	1636834.7722	658.87	Iron Pipe (Fnd) 3/4"

SANITARY STRUCTURE TABLE			
STRUCTURE NAME:	NORTHING (PER PLAN)	EASTING (PER PLAN)	RIM ELEVATION
CSO W-43R HEADWALL	574658.50	1636987.47	652.17
PR IP-1	574971.32	1636791.39	660.39
PR IP-2	574730.80	1636920.36	660.10
PR IP-3	574646.89	1636965.38	657.03
PR IP-3A	574600.65	1637000.34	659.33
PR IP-3B	574508.23	1637051.20	668.52
PR IP-4	574437.87	1637080.21	667.67
PR IP-5	574267.58	1637169.96	659.14
PR IP-6	574142.88	1637226.40	657.93
PR IP-7	573909.80	1637250.48	655.67
PR IP-7A	573899.69	1637250.88	656.14
PR IP-8	573660.12	1637260.26	657.68
PR IP-9	573430.55	1637266.79	657.33
PR IP-9A	573421.84	1637265.99	657.37
PR IP-10	573186.47	1637254.05	659.86
PR IP-11	572943.84	1637198.59	660.02
PR IP-11A	572944.62	1637170.72	659.36
PR IP-12	572744.79	1637066.97	663.16
PR IP-12A	572700.05	1637059.38	662.78
PR IP-13	572459.28	1637018.54	658.90
PR W-43A	574597.56	1636941.57	667.07
PR W-43B	574551.51	1636944.53	668.92

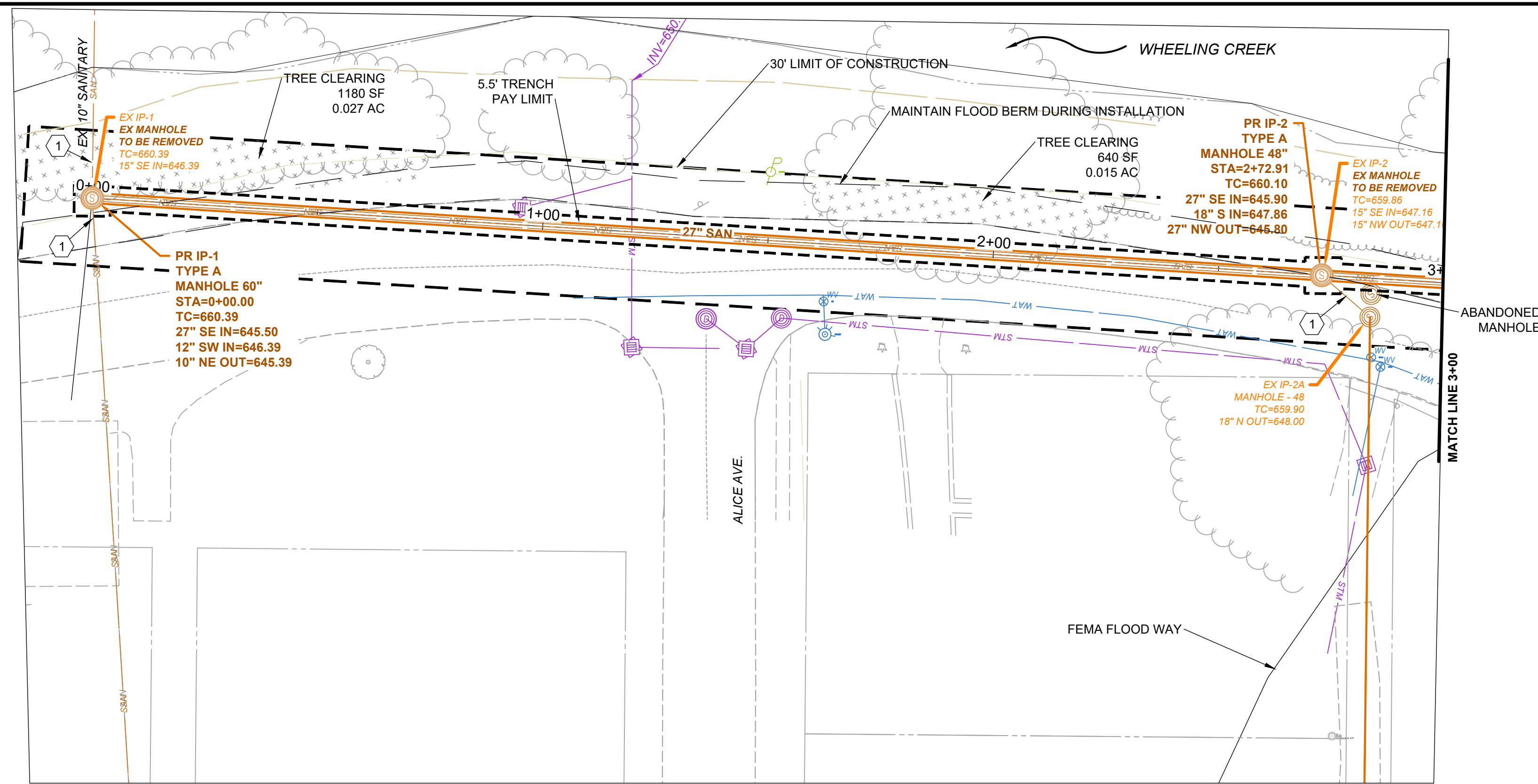


ISSUED FOR:	REVISION	NO	DATE
WATER POLLUTION CONTROL DIVISION WASTEWATER COLLECTION AND TREATMENT VALLEYVIEW SANITARY IMPROVEMENTS			

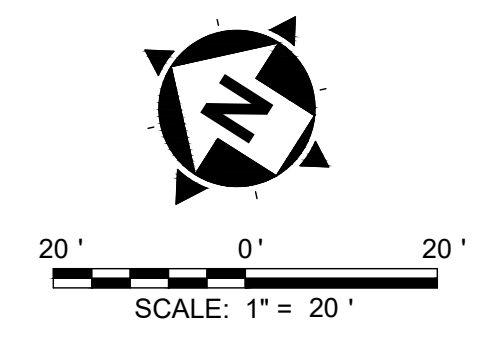
DESIGNED BY:	DRAWN BY:	CHECKED BY:
LAS	LAS	DAB

PROJECT NO. <b>220991 4C</b>	
DISCIPLINE <b>CIVIL</b>	
SHEET NAME <b>INDEX</b>	
SHEET <b>3</b>	OF <b>19</b>



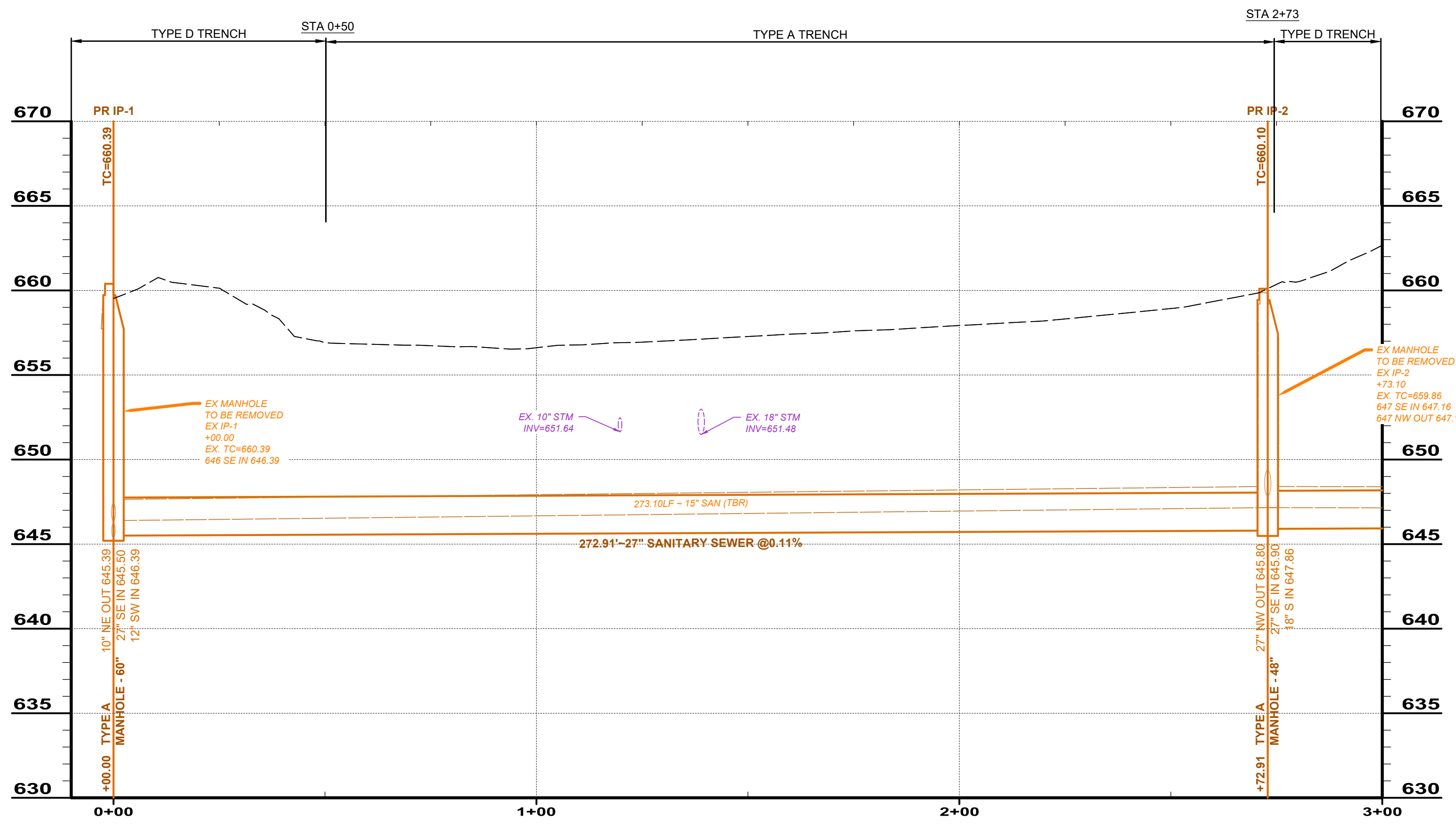


**VALLEYVIEW**  
**PLAN VIEW STA 0+00 TO 3+00**



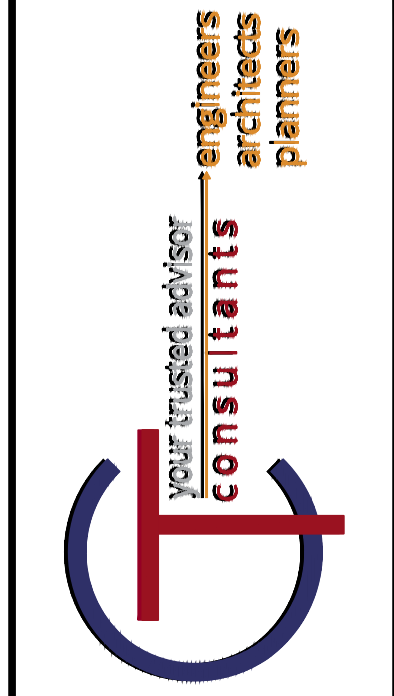
**NOTES**

- FROM STA. 0+00 TO STA. 3+00 EXISTING SANITARY LINES SHALL BE REMOVED AND ARE A DIRECT REPLACEMENT.
- 1 CONNECT EXISTING SANITARY SEWER AT ELEVATIONS SHOWN



**VALLEYVIEW SANITARY - PROFILE STA 0+00 TO 5+00 (1)**

SANITARY SEWER PROFILE  
 HORZ: 1" = 20'  
 VERT: 1" = 5'



NO	REVISION	DATE

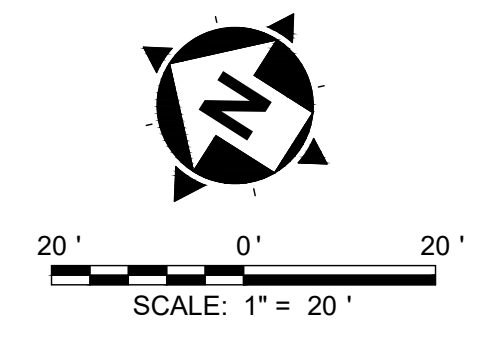
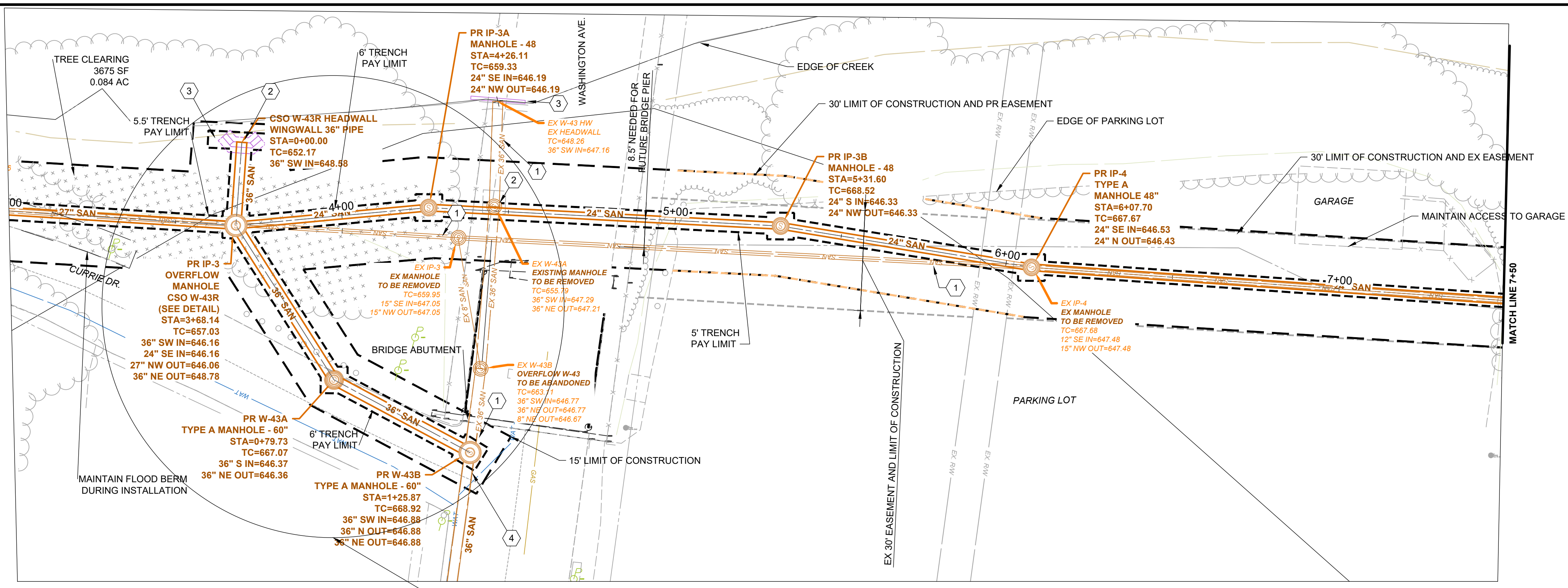
ISSUED FOR:	REVIEW	DATE
ISSUE DATE:	4/18/2024	
SCALE:	AS SHOWN	
DESIGNED BY:	LAS	
DRAWN BY:	LAS	
CHECKED BY:	DAB	

**WATER POLLUTION CONTROL DIVISION**  
**WASTEWATER COLLECTION AND TREATMENT**  
**VALLEYVIEW SANITARY IMPROVEMENTS**

**SANITARY SEWER PLAN & PROFILE**

PROJECT NO.	220991 4C
DISCIPLINE	CIVIL
SHEET NAME	PP-1
SHEET	OF
4	19

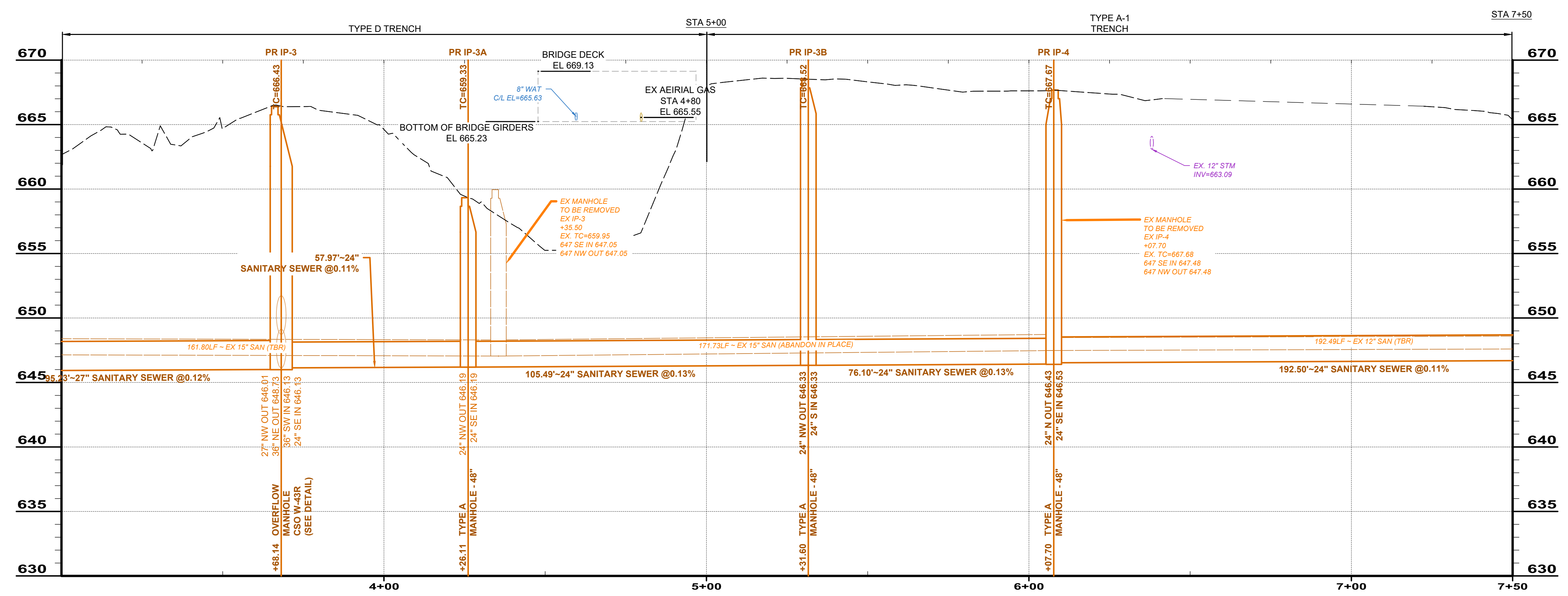




- ### NOTES
- FROM STA. 3+00 TO STA. 4+00 AND 6+08 TO 7+50 EXISTING SANITARY LINES SHALL BE REMOVED AND ARE A DIRECT REPLACEMENT.
  - FROM STA. 4+00 TO 6+08 PROPOSED SANITARY LINE SHALL BE INSTALLED TO SHIFT SANITARY SEWER AWAY FROM FUTURE BRIDGE PIER
- BULKHEAD EXISTING SEWER
  - REMOVE EXISTING 36" FLAP GATE FROM W-43A AND PLACE ON CSO W-43R HEADWALL
  - REMOVE EXISTING CSO W-43R SIGN AND PLACE NEXT TO CSO W-43R HEADWALL
  - CONNECT EXISTING SANITARY LINE TO PROPOSED MANHOLE AT ELEVATIONS SHOWN

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architects  
planners

NO	REVISION	DATE



**VALLEYVIEW SANITARY - PROFILE STA 0+00 TO 7+50 (1) (1)**

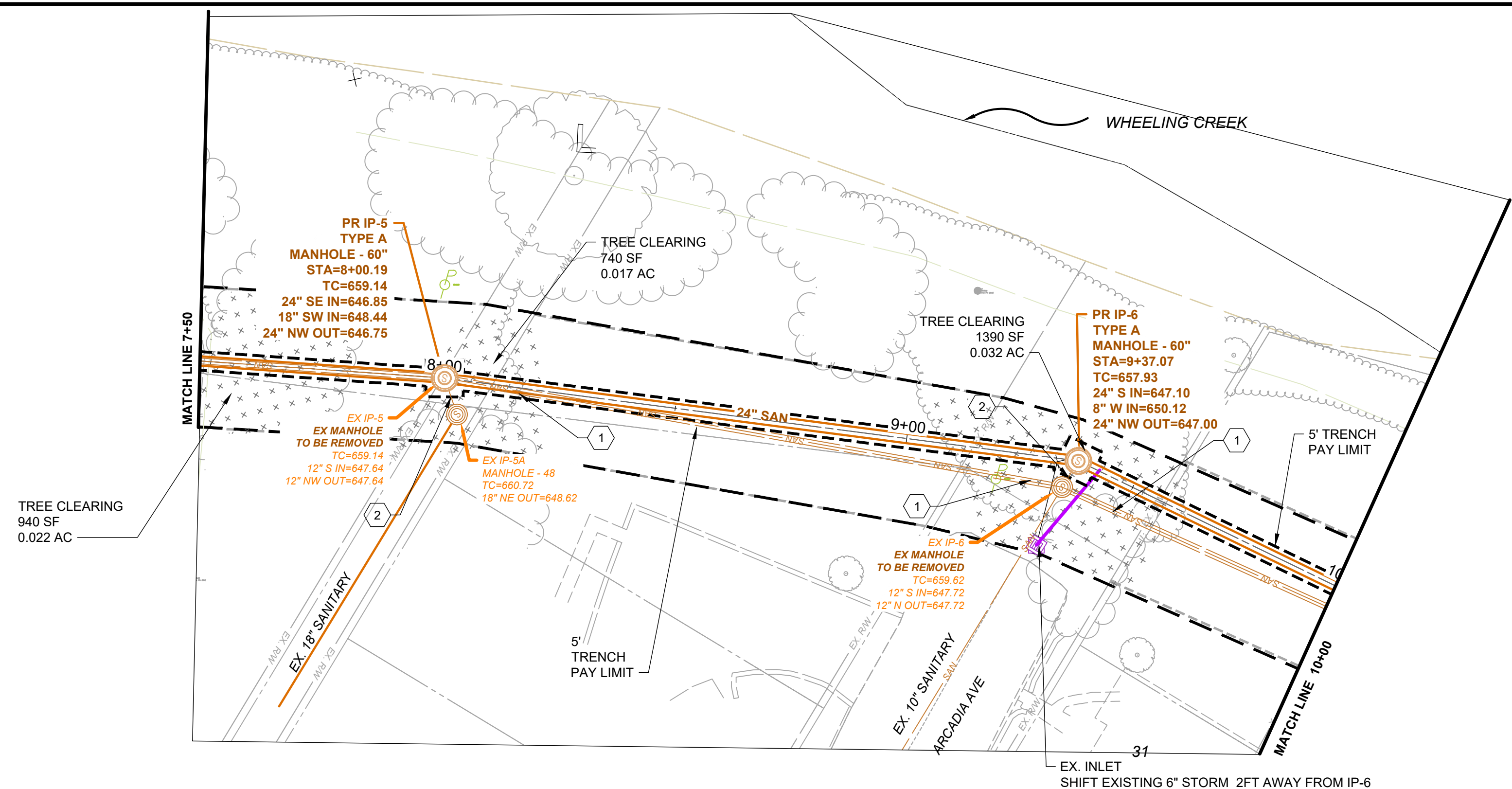
SANITARY SEWER PROFILE  
HORIZ: 1" = 20'  
VERT: 1" = 5'

**WATER POLLUTION CONTROL DIVISION  
WASTEWATER COLLECTION AND TREATMENT  
VALLEYVIEW SANITARY IMPROVEMENTS**

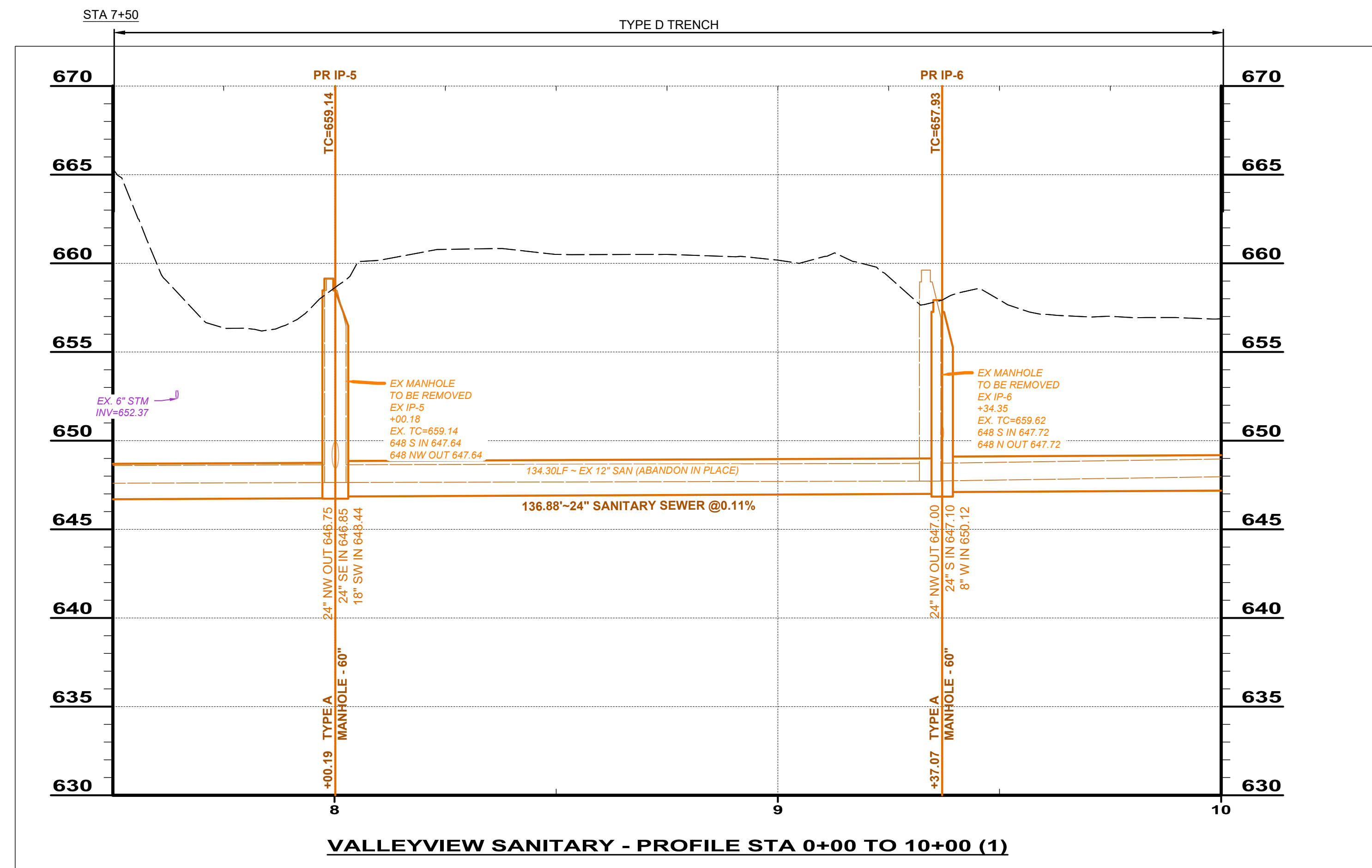
**SANITARY SEWER PLAN & PROFILE**

PROJECT NO.	220991 4C
DISCIPLINE	CIVIL
SHEET NAME	PP-2
SHEET	OF
5	19





**VALLEYVIEW**  
**PLAN VIEW STA 5+00 TO 10+00**



**VALLEYVIEW SANITARY - PROFILE STA 0+00 TO 10+00 (1)**

SANITARY SEWER PROFILE  
HORZ: 1" = 20'  
VERT: 1" = 5'



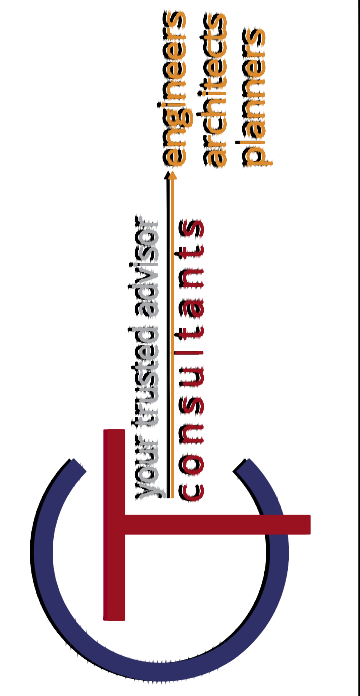
SCALE: 1" = 20'

**NOTES**

FROM STA. 7+50 TO STA. 10+00 EXISTING SANITARY LINES SHALL BE REMOVED AND ARE A DIRECT REPLACEMENT.

**CODED NOTES**

- ① BULKHEAD EXISTING SEWER
- ② RECONNECT EX SANITARY SEWER AT ELEVATIONS SHOWN

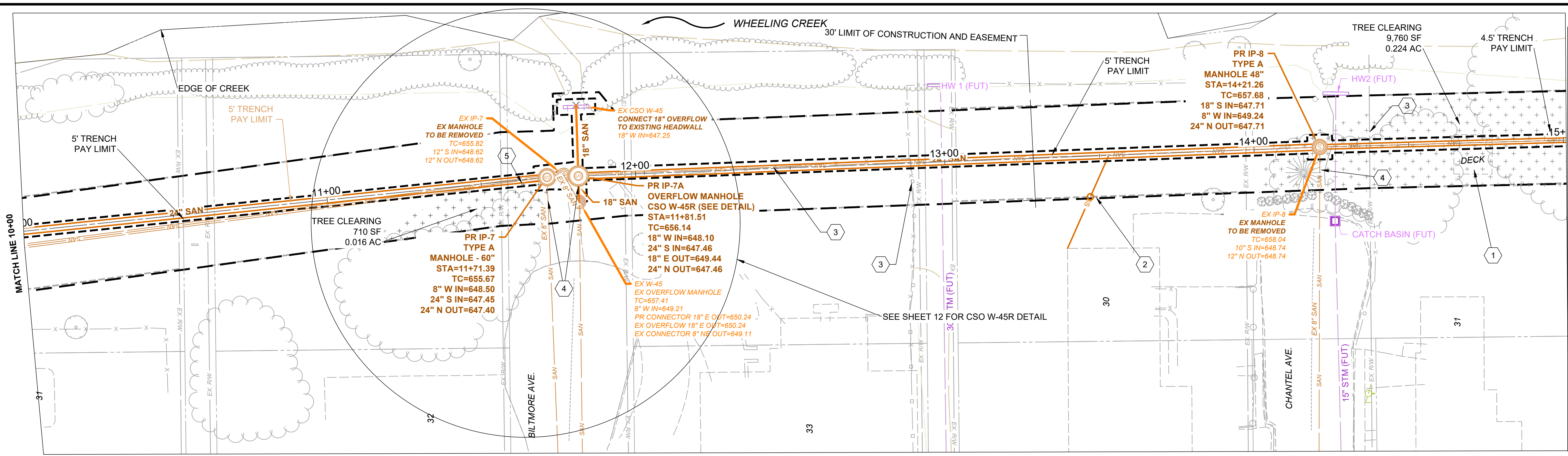


NO	REVISION	DATE

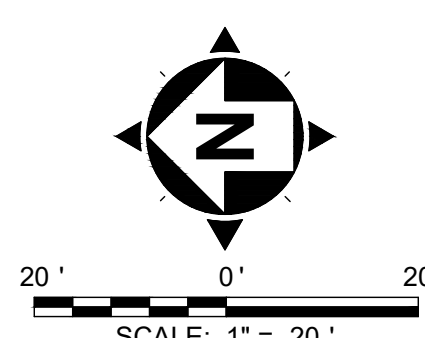
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 SCALE: AS SHOWN  
 DESIGNED BY: LAS  
 DRAWN BY: LAS  
 CHECKED BY: DAB

PROJECT NO. <b>220991 4C</b>	
DISCIPLINE <b>CIVIL</b>	
SHEET NAME <b>PP-3</b>	
SHEET <b>6</b>	OF <b>19</b>





**VALLEYVIEW**  
**PLAN VIEW STA 10+00 TO 15+00**

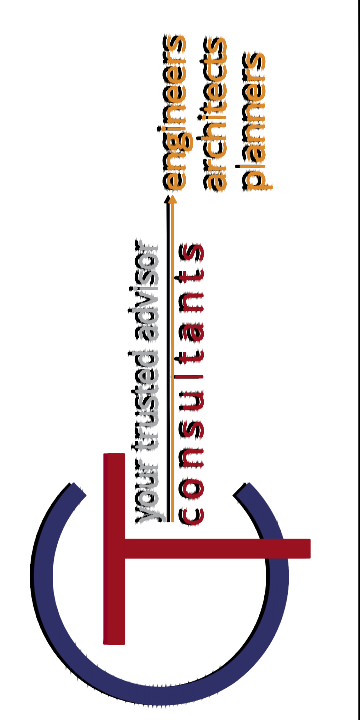


**NOTES**

FROM STA. 10+00 TO STA. 15+00 EXISTING SANITARY LINES SHALL BE REMOVED AND ARE A DIRECT REPLACEMENT.

**CODED NOTES**

- 1 EXISTING DECK TO BE REMOVED BY PROPERTY OWNER. CONTRACTOR TO COORDINATE
- 2 FIELD LOCATE AND CONNECT SANITARY LATERAL. INSTALL CLEANOUT (SEE DETAIL) WITH CLEANCHECK BACKFLOW PREVENTOR
- 3 REMOVE AND REPLACE FENCE IN KIND
- 4 RECONNECT EX SANITARY SEWER AT ELEVATIONS SHOWN
- 5 BULKHEAD EX SEWER



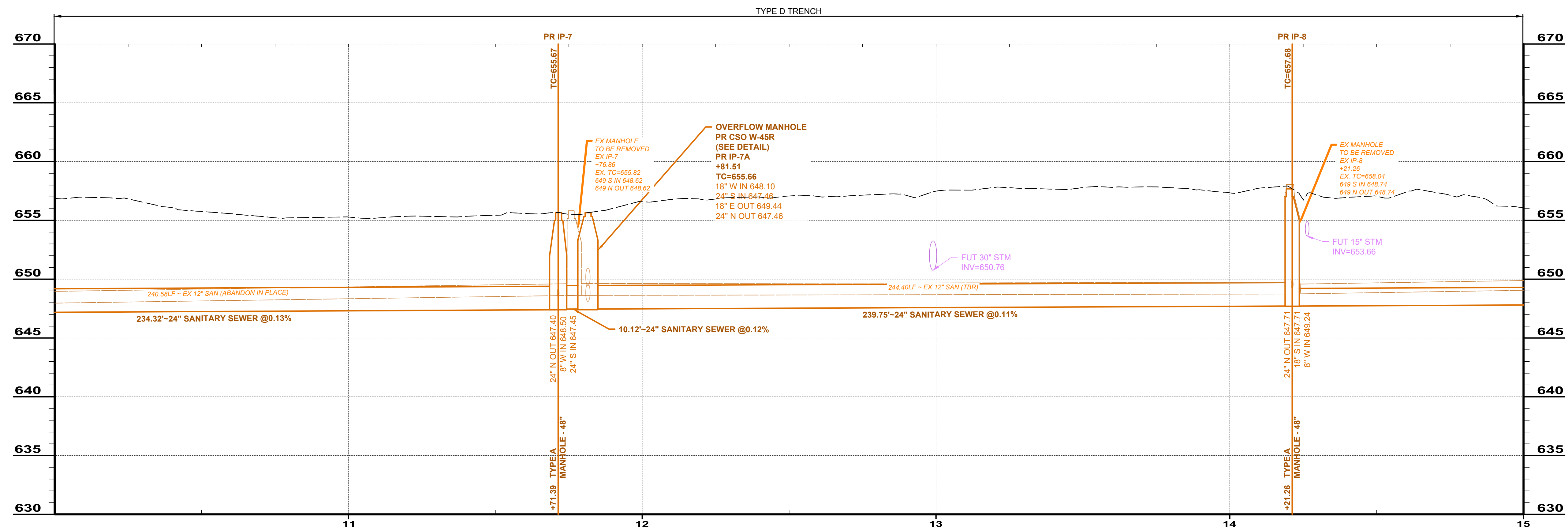
NO	REVISION	DATE

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ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
4/18/2024	AS SHOWN	LAS	LAS	DAB



**VALLEYVIEW SANITARY - PROFILE STA 10+00 TO 15+00 (1)**

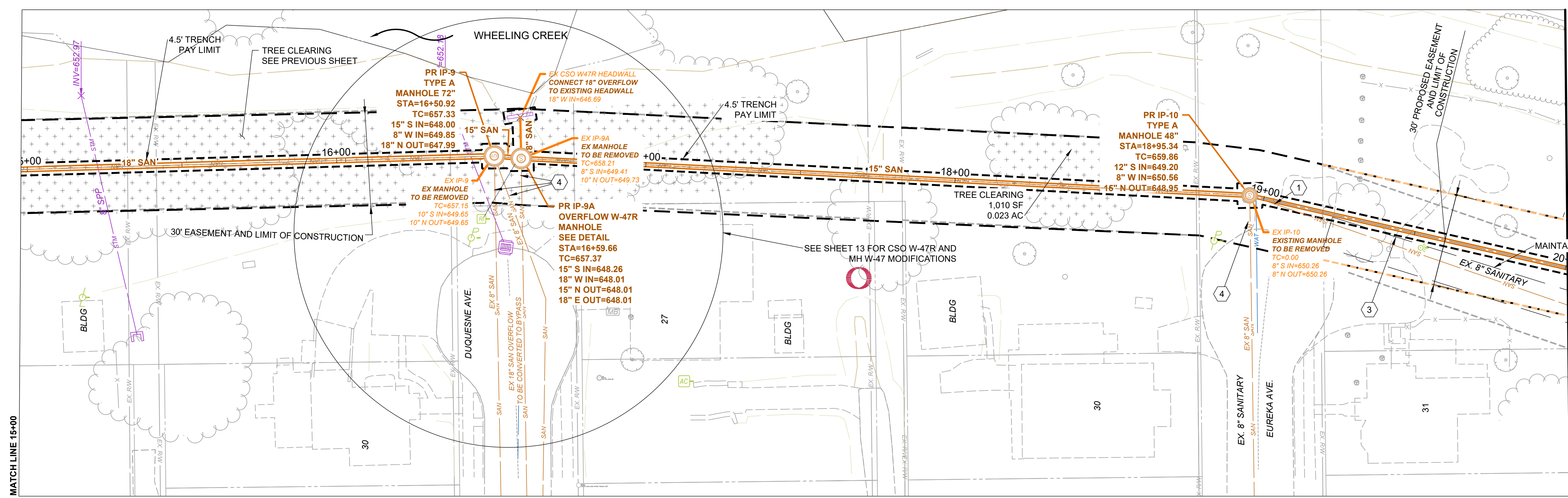
SANITARY SEWER PROFILE  
 HORZ: 1" = 20'  
 VERT: 1" = 5'

**WATER POLLUTION CONTROL DIVISION**  
**WASTEWATER COLLECTION AND TREATMENT**  
**VALLEYVIEW SANITARY IMPROVEMENTS**

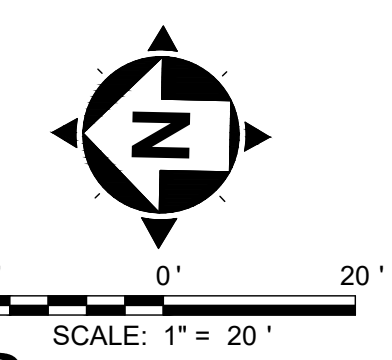
**SANITARY SEWER PLAN & PROFILE**

PROJECT NO.	220991 4C
DISCIPLINE	CIVIL
SHEET NAME	PP-4
SHEET	7
OF	19





**VALLEYVIEW**  
**PLAN VIEW STA 15+00 TO 20+00**

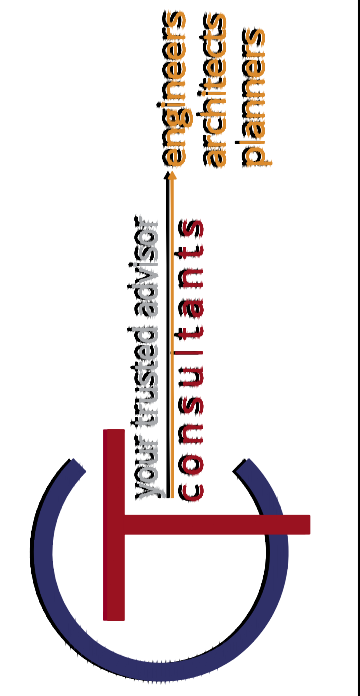


**NOTES**

- FROM STA. 15+00 TO STA. 18+94 EXISTING SANITARY LINES SHALL BE REMOVED AND ARE A DIRECT REPLACEMENT.
- FROM STA. 18+94 TO STA. 20+00 NEW SANITARY LINE TO BE PLACED AND EXISTING LINE SHALL BE ABANDONED IN PLACE

**CODED NOTES**

- ① BULKHEAD EX SAN SEWER
- ② FIELD LOCATE AND CONNECT SANITARY LATERAL. INSTALL CLEANOUT (SEE DETAIL) WITH CLEANCHECK BACKFLOW PREVENTOR
- ③ REPAIR LANDSCAPING IN KIND
- ④ CONNECT EXISTING SANITARY TO PROPOSED MANHOLE AT ELEVATIONS SHOWN



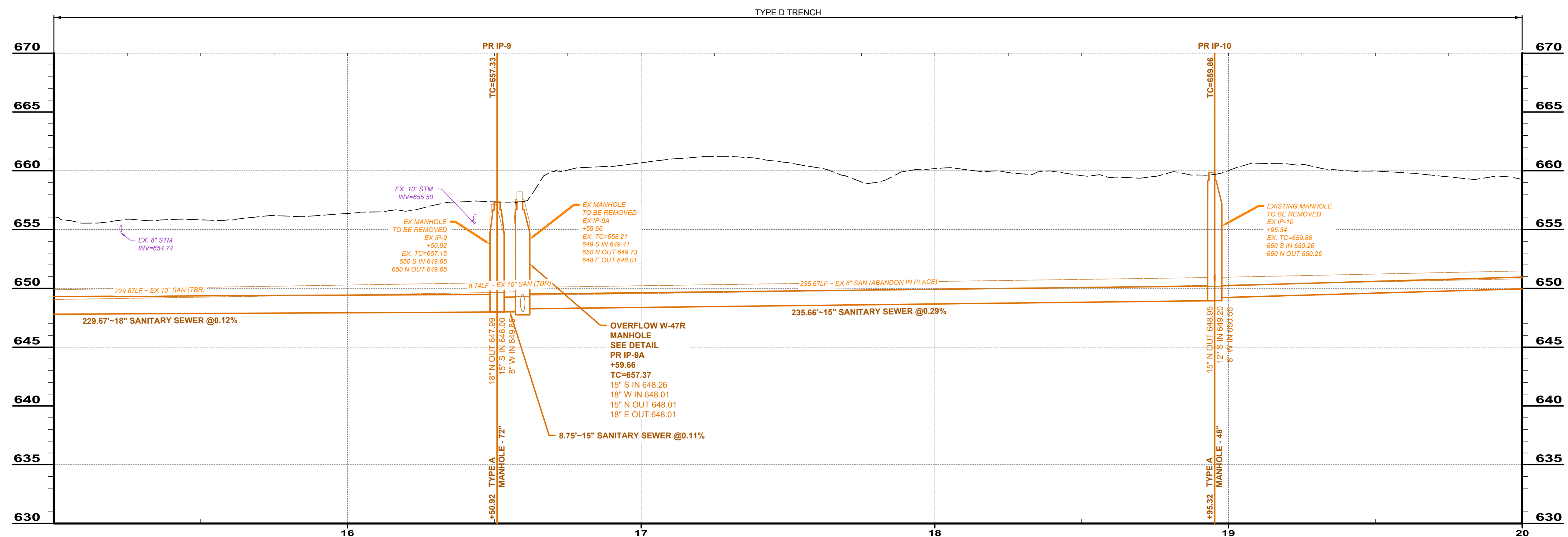
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ISSUED FOR:	REVIEW	NO

ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
4/18/2024	AS SHOWN	LAS	LAS	DAB



**VALLEYVIEW SANITARY - PROFILE STA 15+00 TO 20+00 (1)**

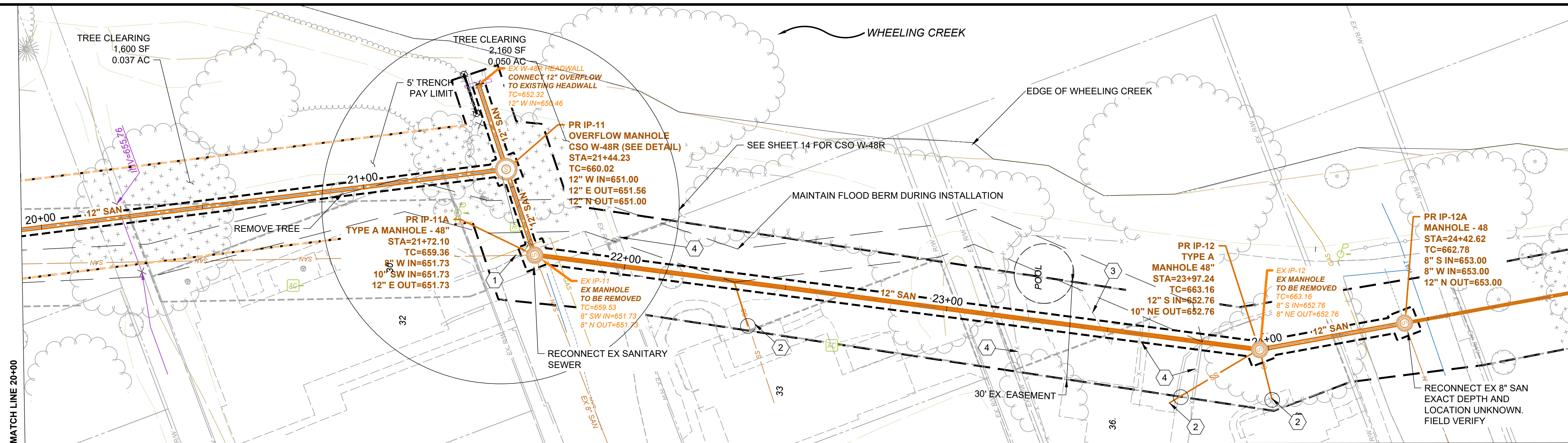
SANITARY SEWER PROFILE  
HORZ: 1" = 20'  
VERT: 1" = 5'

**WATER POLLUTION CONTROL DIVISION**  
**WASTEWATER COLLECTION AND TREATMENT**  
**VALLEYVIEW SANITARY IMPROVEMENTS**

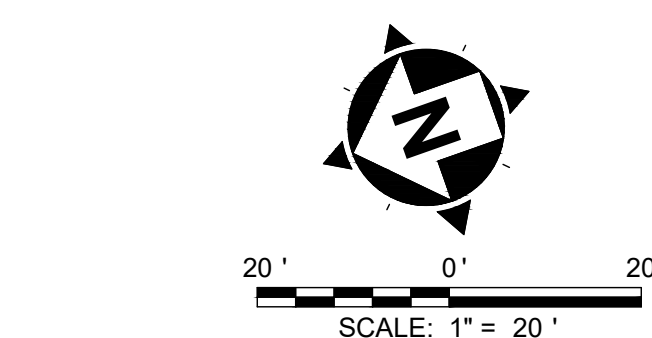
**SANITARY SEWER PLAN & PROFILE**

PROJECT NO.	220991 4C
DISCIPLINE	CIVIL
SHEET NAME	PP-5
SHEET	8
OF	19



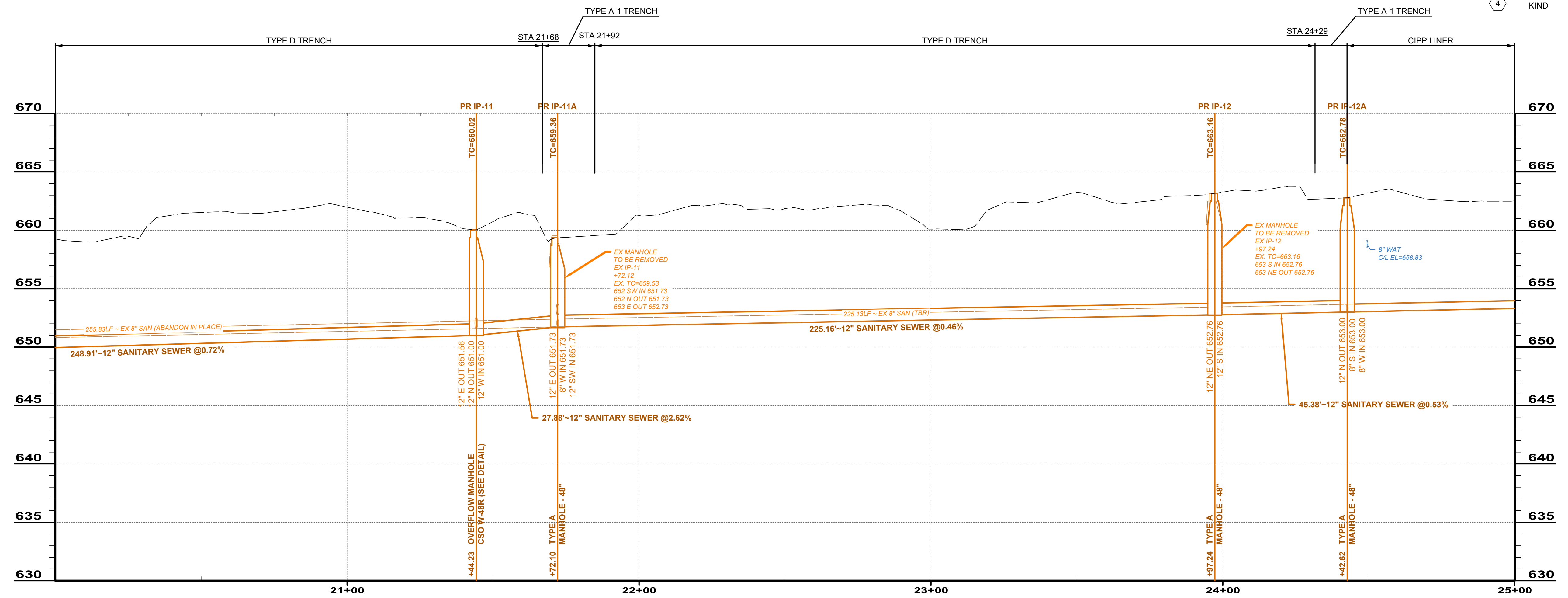


**VALLEYVIEW  
PLAN VIEW STA 20+00 TO 25+00**



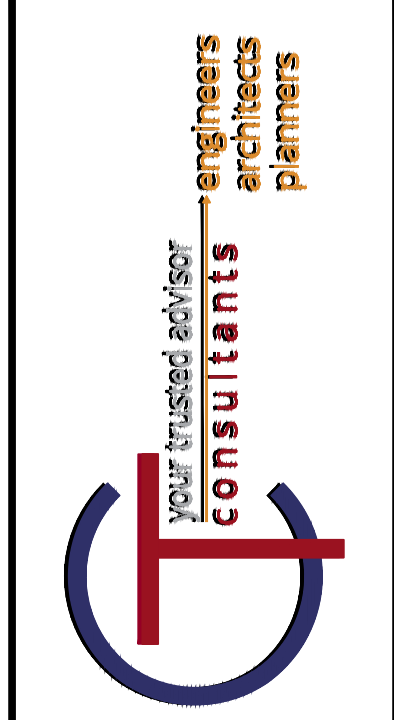
- NOTES**
- FROM STA. 20+00 TO STA. 21+43 NEW SANITARY LINE TO BE PLACED AND EXISTING LINE TO BE ABANDONED IN PLACE
  - FROM STA. 21+43 TO STA. 21+71 NEW SANITARY LINE TO BE PLACED AND EXISTING OVERFLOW LINE SHALL BE REMOVED
  - FROM STA. 21+71 TO 24+41 NEW SANITARY LINE SHALL BE PLACED AND EXISTING SANITARY LINE SHALL BE REMOVED.
  - FROM STA 24+41 TO STA 25+00 EXISTING SANITARY SHALL BE LINED WITH CIPP LINER.

- CODED NOTES**
- 1 BULKHEAD EX SANITARY SEWER
  - 2 FIELD LOCATE AND CONNECT SANITARY LATERAL. INSTALL CLEANOUT (SEE DETAIL) WITH CLEANCHECK BACKFLOW PREVENTOR
  - 3 DECK TO BE REMOVED BY HOMEOWNER. CONTRACTOR TO CAREFULLY WORK AROUND POOL.
  - 4 REMOVE AND REPLACE FENCE IN KIND



**VALLEYVIEW SANITARY - PROFILE STA 20+00 TO 25+00 (1)**

SANITARY SEWER PROFILE  
HORIZ: 1" = 20'  
VERT: 1" = 5'



NO	REVISION	DATE

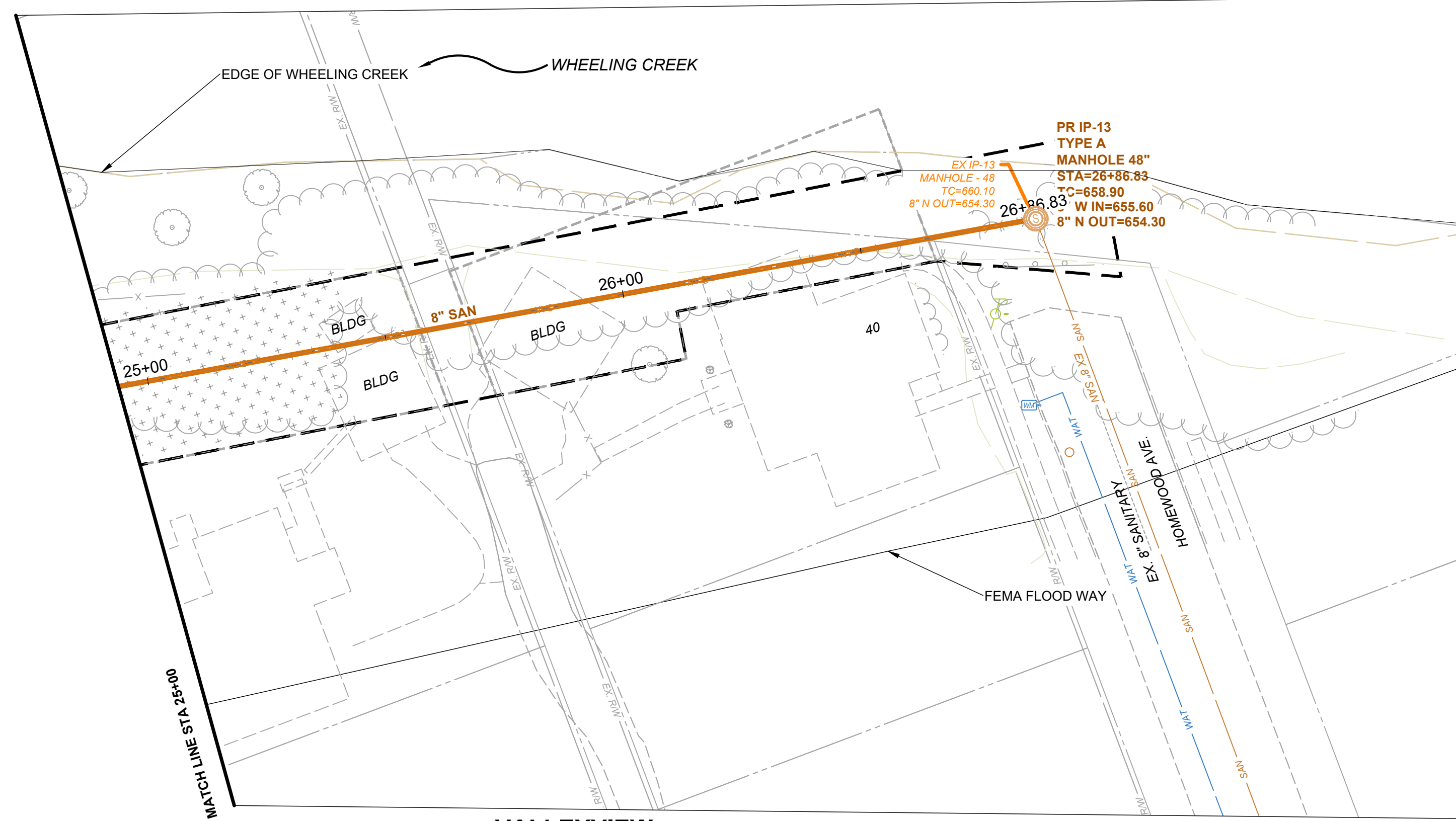
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**WATER POLLUTION CONTROL DIVISION  
WASTEWATER COLLECTION AND TREATMENT  
VALLEYVIEW SANITARY IMPROVEMENTS**

**SANITARY SEWER PLAN & PROFILE**

PROJECT NO.	220991 4C
DISCIPLINE	CIVIL
SHEET NAME	PP-6
SHEET	OF
9	19

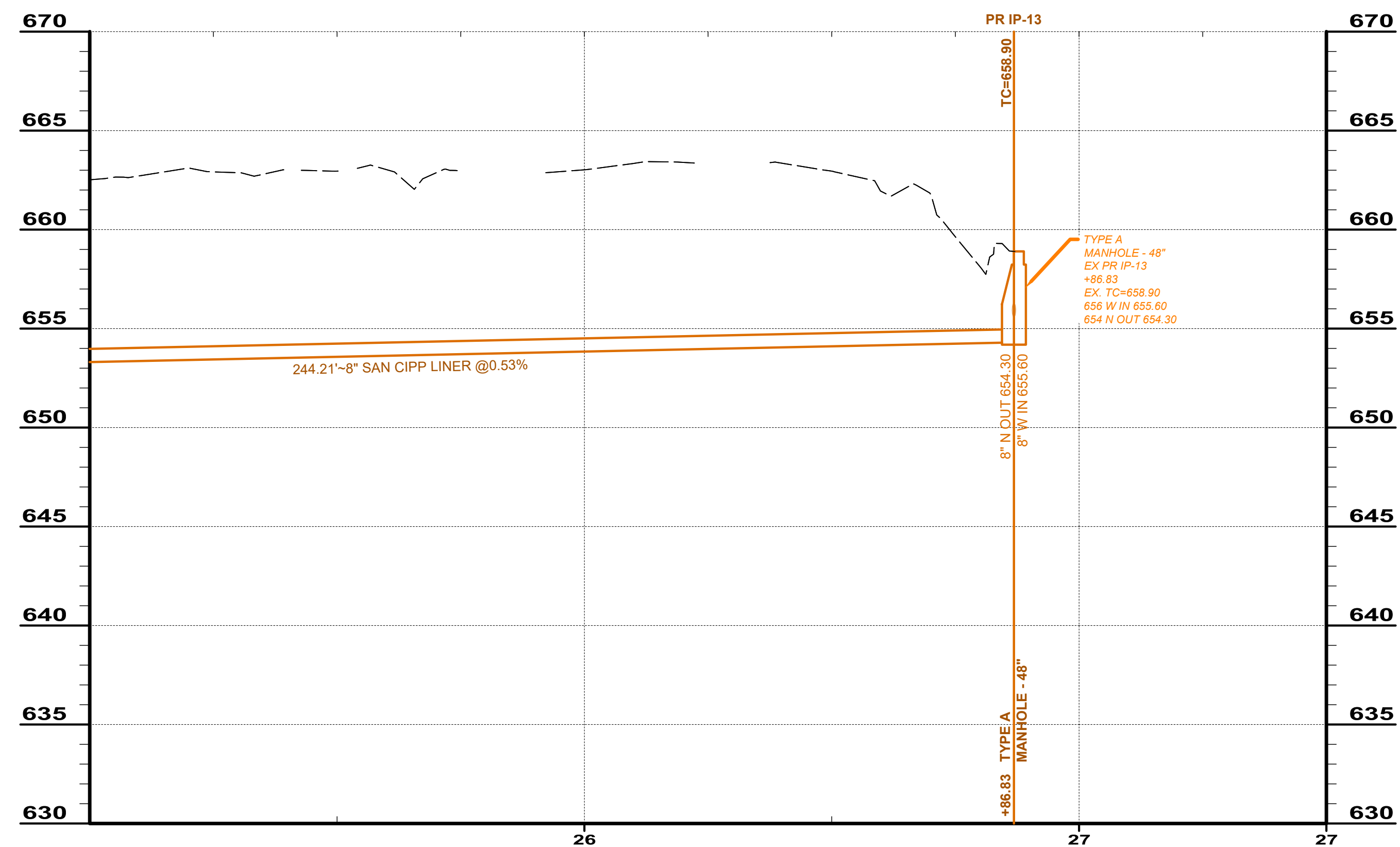
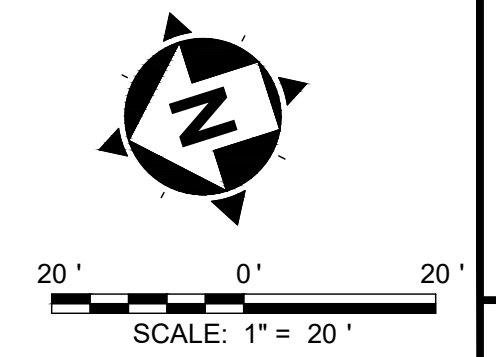




**VALLEYVIEW**  
**PLAN VIEW STA 25+00 TO END**

**NOTES**

FROM STA. 25+00 TO STA. 26+84  
 SANITARY LINE TO BE LINED WITH CIPP  
 LINER.



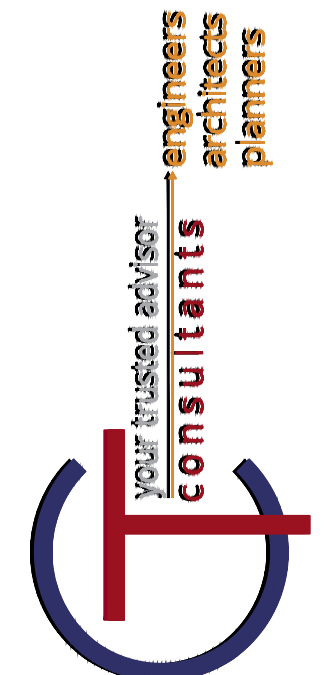
**VALLEYVIEW SANITARY - PROFILE STA 25+00 TO 26+92.11 (1)**

SANITARY SEWER PROFILE  
 HORZ: 1" = 20'  
 VERT: 1" = 5'

NO	REVISION	DATE

ISSUED FOR: REVIEW  
 ISSUE DATE: 4/18/2024  
 SCALE: AS SHOWN  
 DESIGNED BY: LAS  
 DRAWN BY: LAS  
 CHECKED BY: DAB

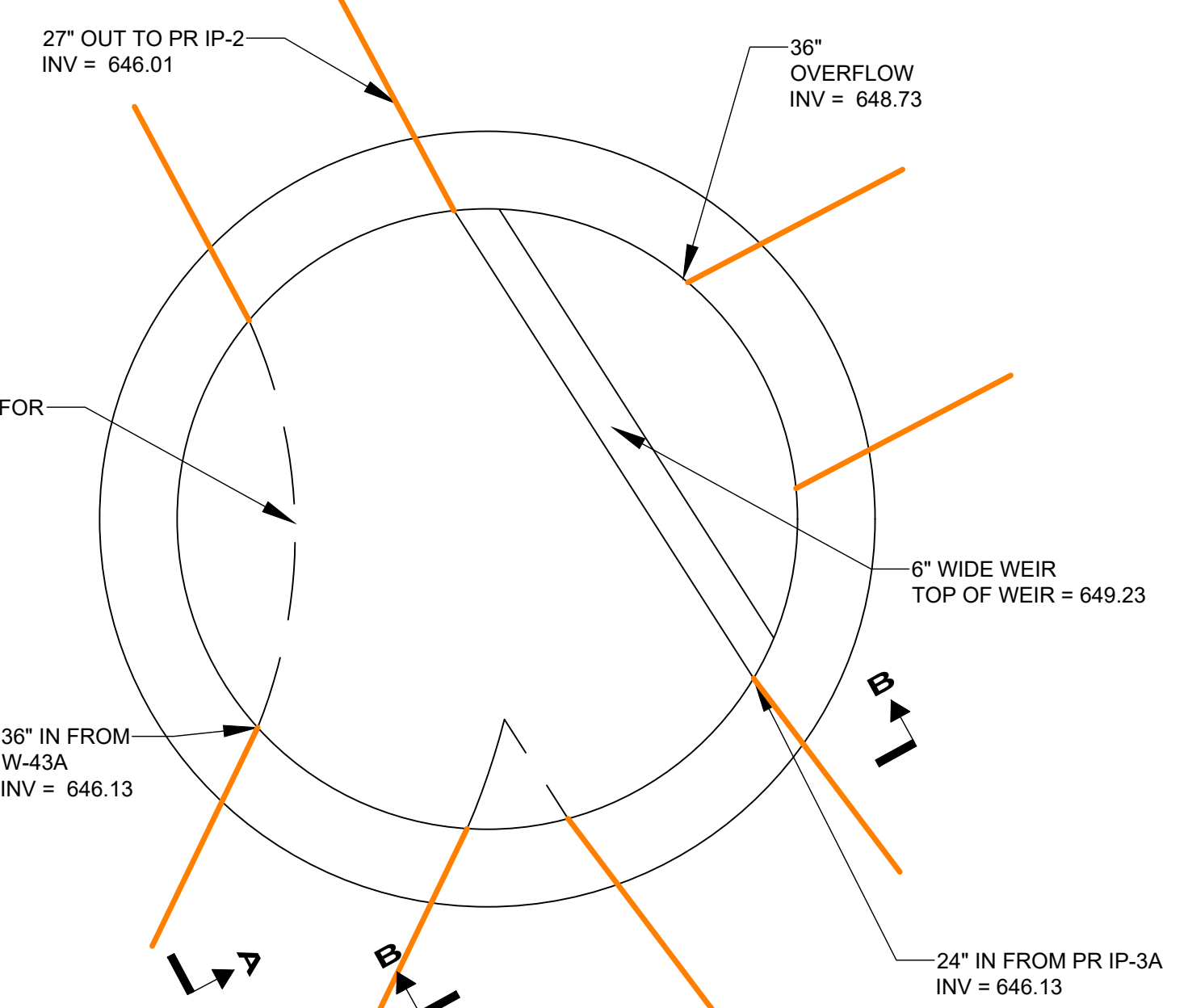
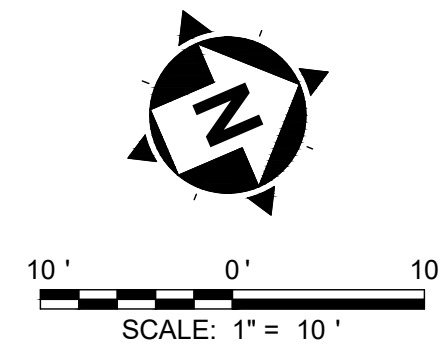
PROJECT NO.	
220991 4C	
DISCIPLINE	
CIVIL	
SHEET NAME	
PP-7	
SHEET	OF
10	19



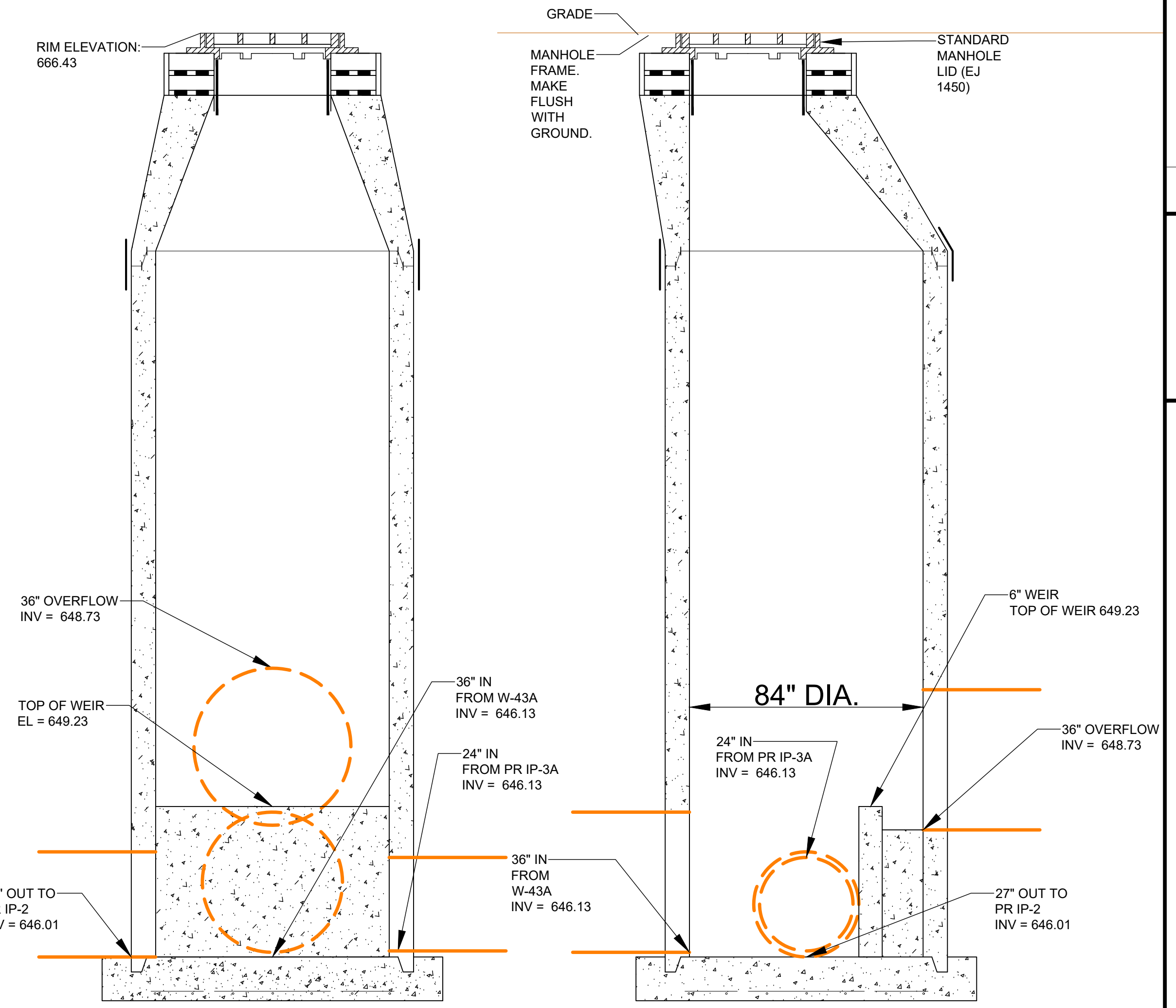


**CODED NOTES**

- ① BULKHEAD EXISTING SANITARY SEWER
- ② REMOVE EX. MANHOLE
- ③ CONNECT EX. 36" CLAY PIPE AT EXISTING ELEVATIONS. FIELD VERIFY

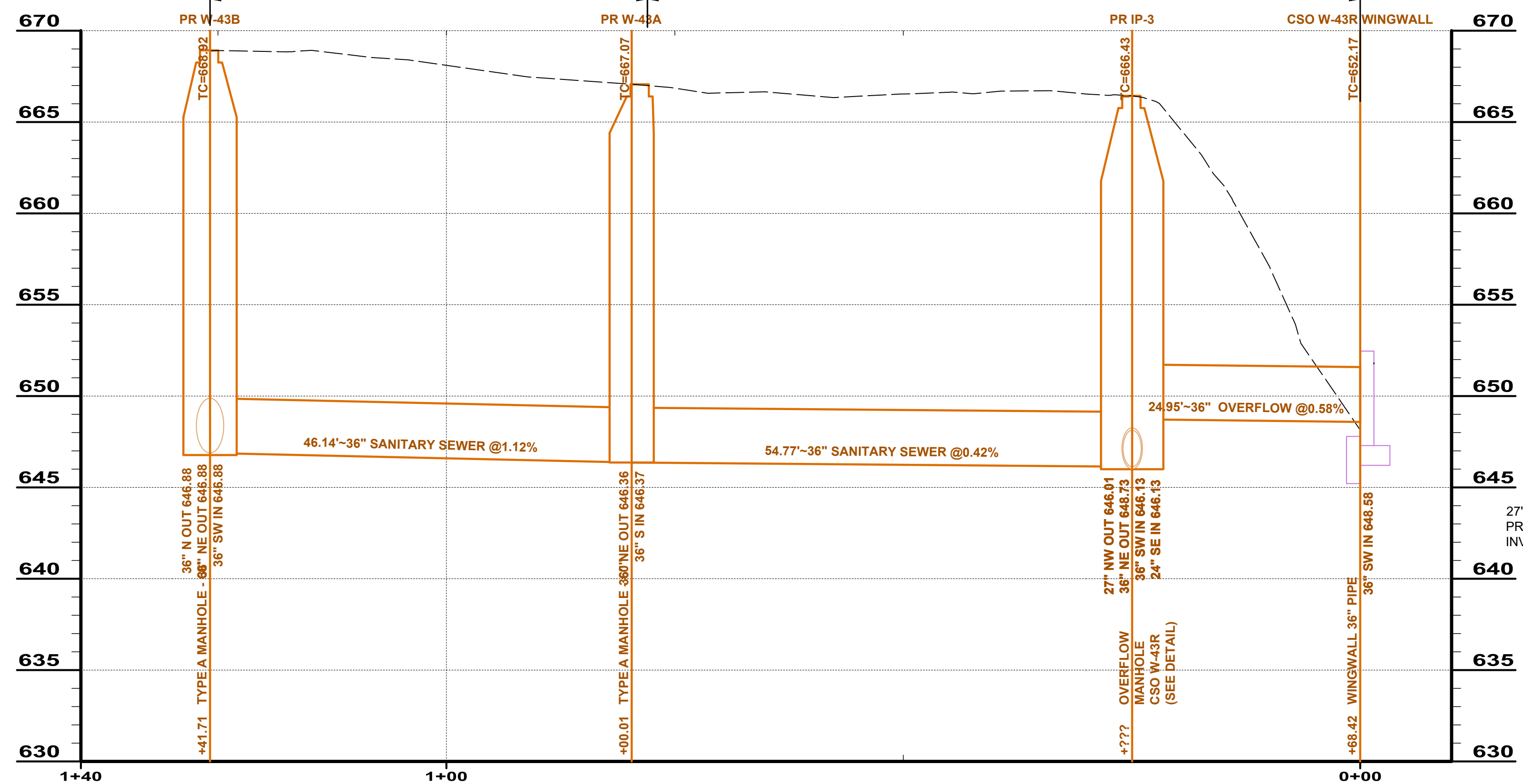
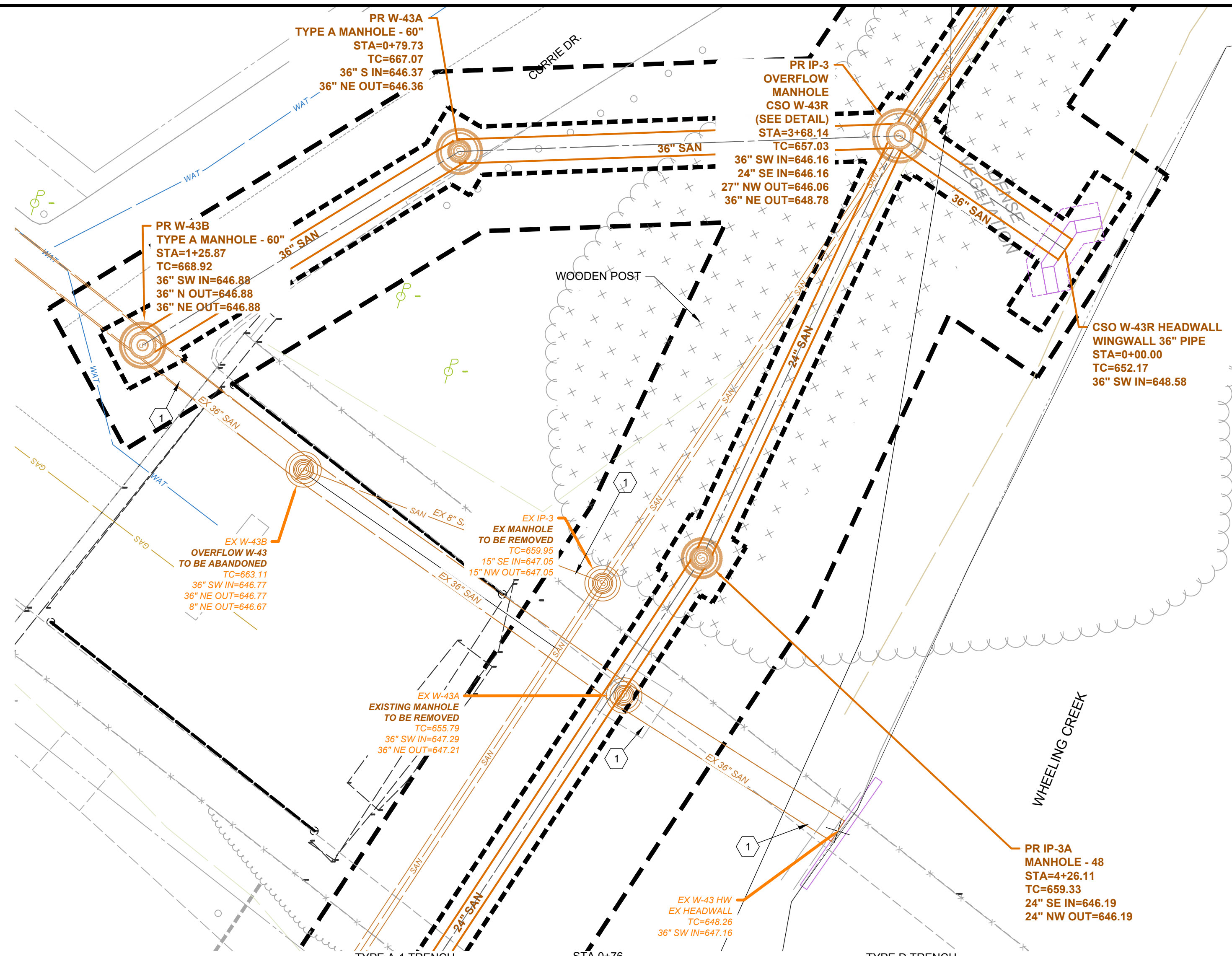


**MH IP-13 PLAN VIEW  
(CSO W-43R)**



**MH IP-13 SECTION A**

**MH IP-13 SECTION B**



**PROFILE: MH W-43B TO HW W-43R**

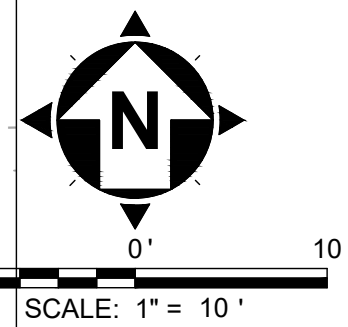
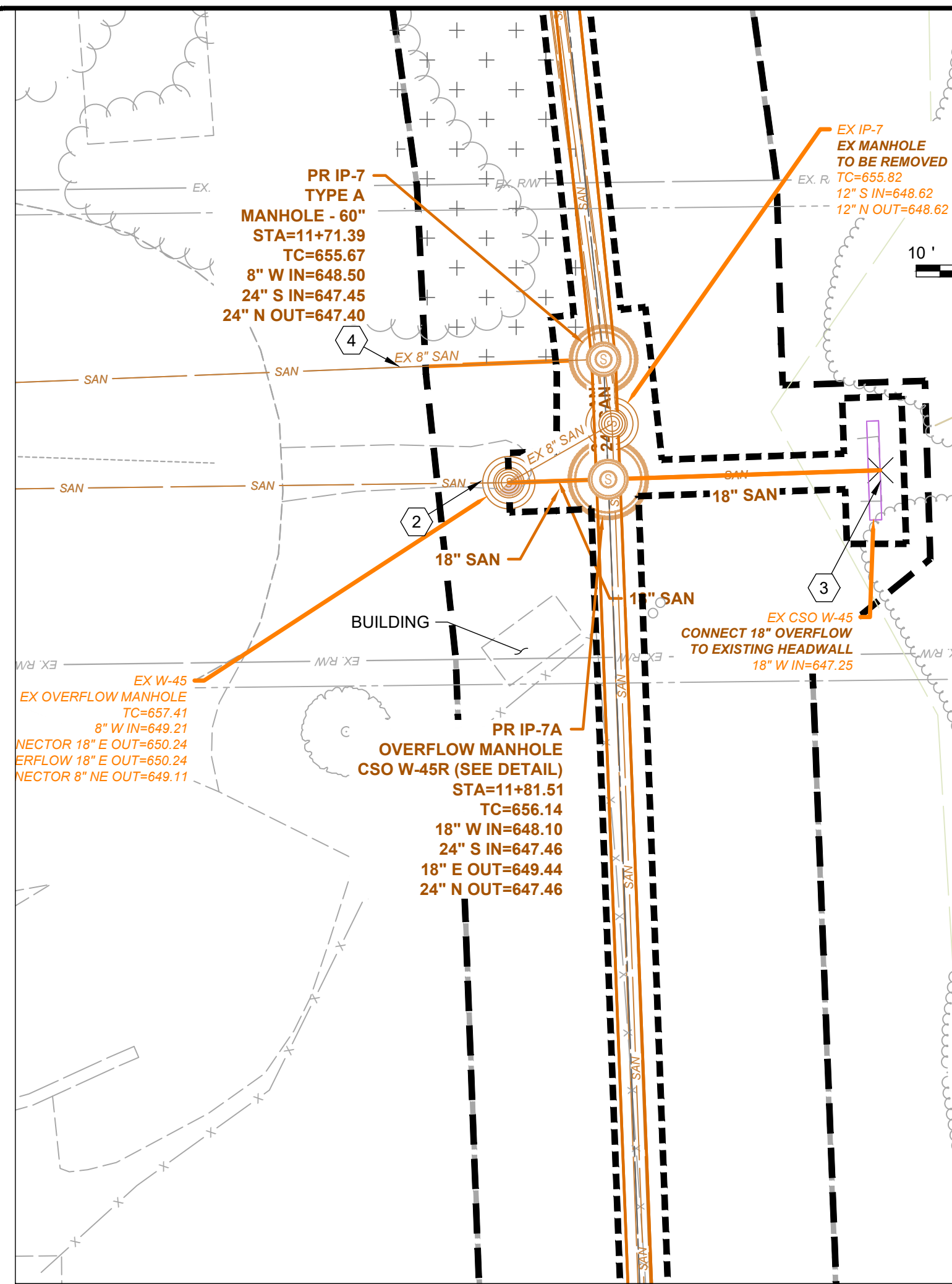
DATE	REVISION	NO	REVIEW	ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
			4/18/2024	AS SHOWN			LAS	LAS	DAB

**WATER POLLUTION CONTROL DIVISION  
WASTEWATER COLLECTION AND TREATMENT  
VALLEYVIEW SANITARY IMPROVEMENTS**

**CSO W-43R DETAIL SHEET**

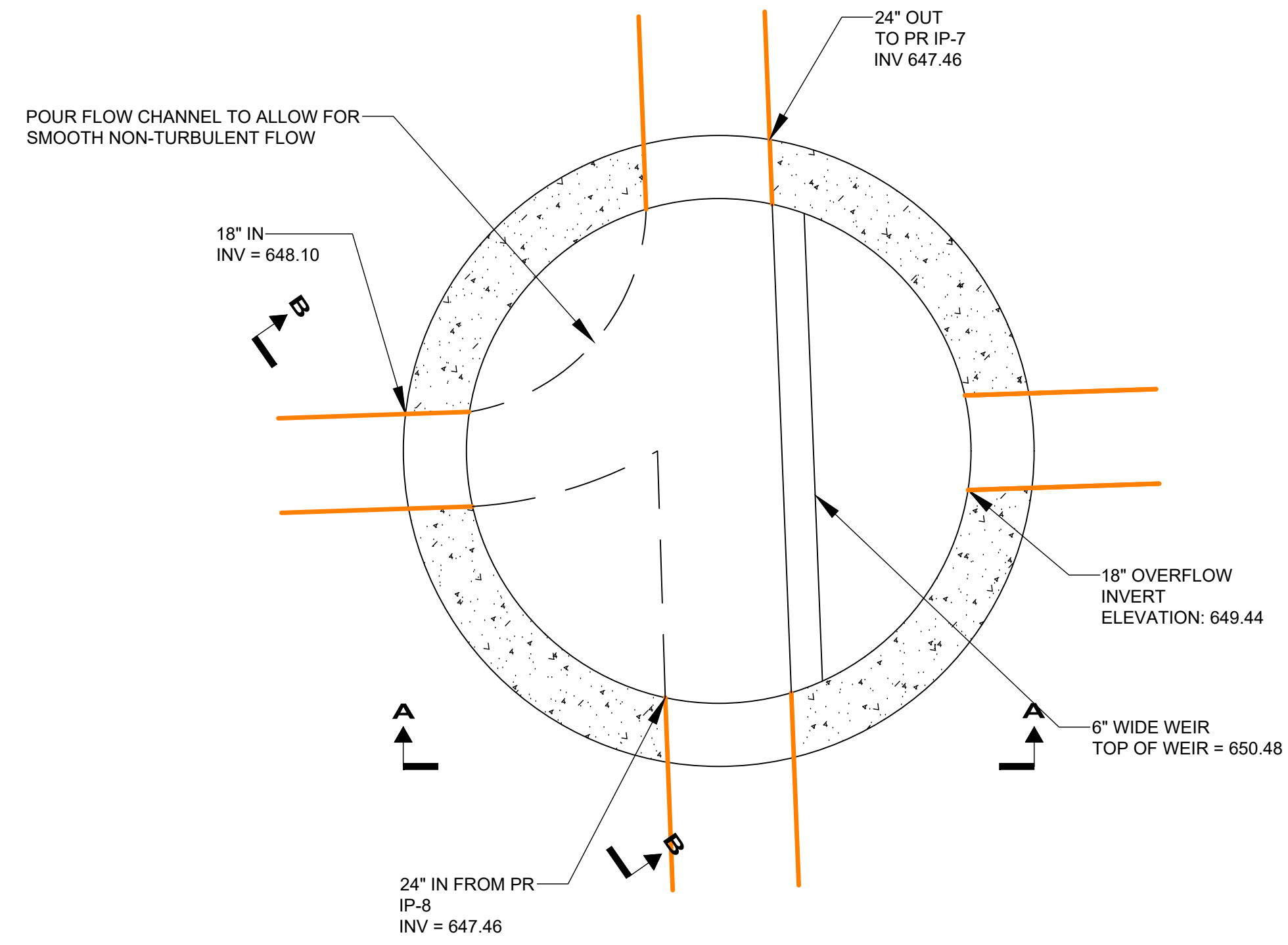
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DISCIPLINE	<b>CIVIL</b>
SHEET NAME	<b>CSO W-43R</b>
SHEET	<b>11</b>
OF	<b>19</b>



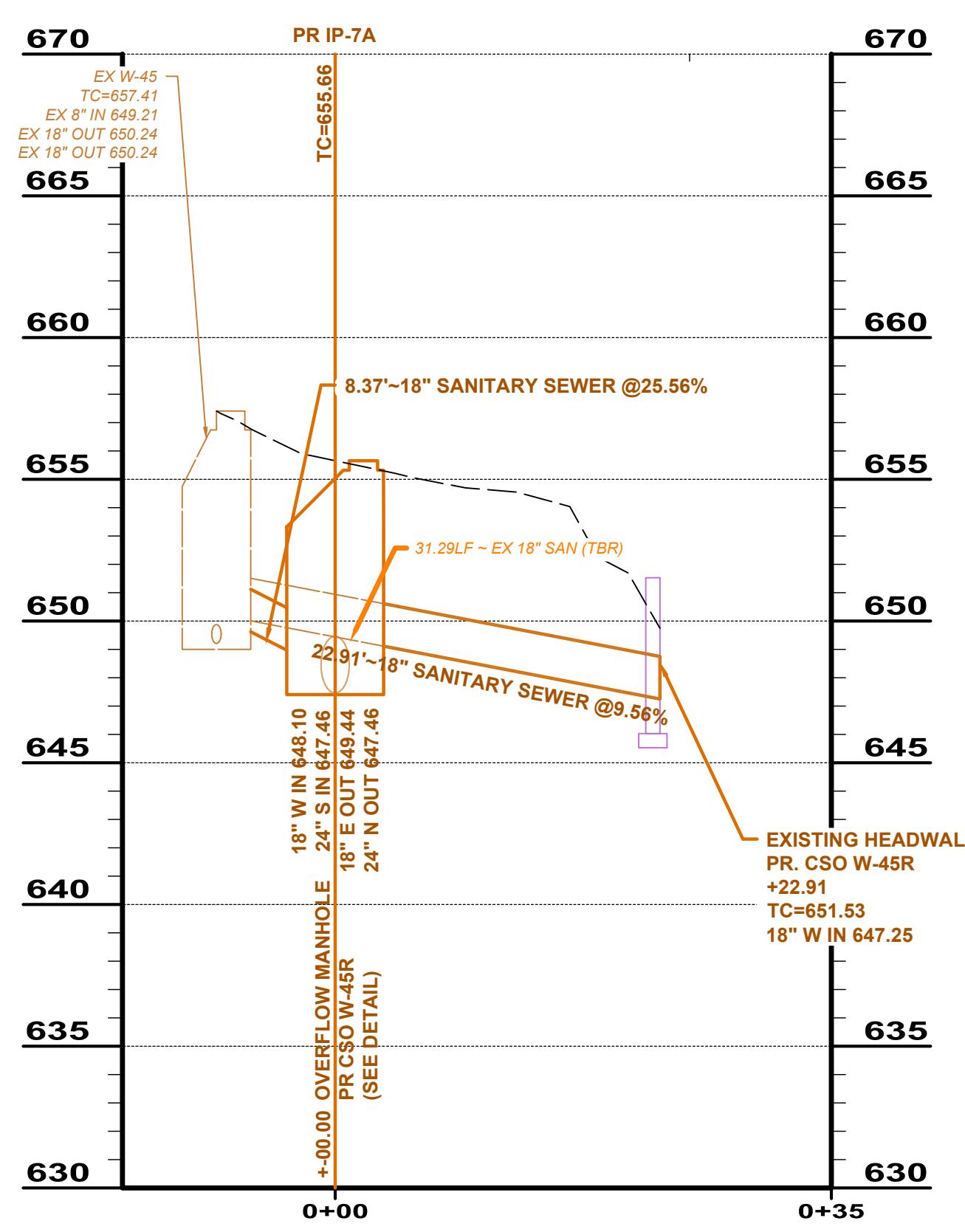


**CODED NOTES**

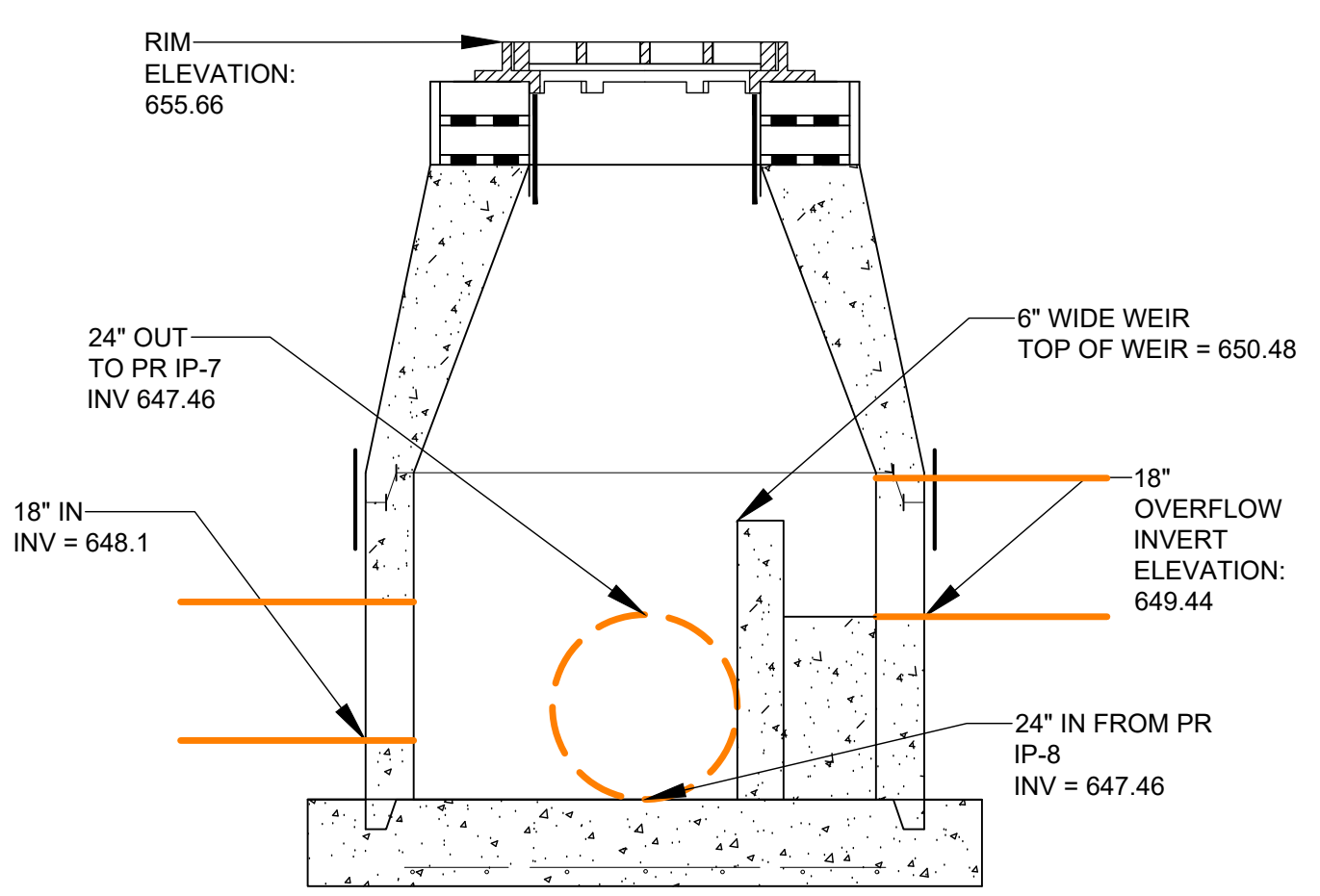
- 1 BULKHEAD EXISTING SANITARY SEWER
- 2 CONNECT EXISTING SANITARY SEWER AT ELEVATIONS SHOWN TO NEW MANHOLE PR-IP-7A.
- 3 REMOVE EXISTING HEADWALL AND REPLACE WITH PROPOSED HEADWALL. TIDAL GATE TO BE SAVED AND REINSTALLED ON NEW HEADWALL.
- 4 CONNECT EXISTING SANITARY SEWER AT ELEVATIONS SHOWN TO NEW MANHOLE PR-IP-7.



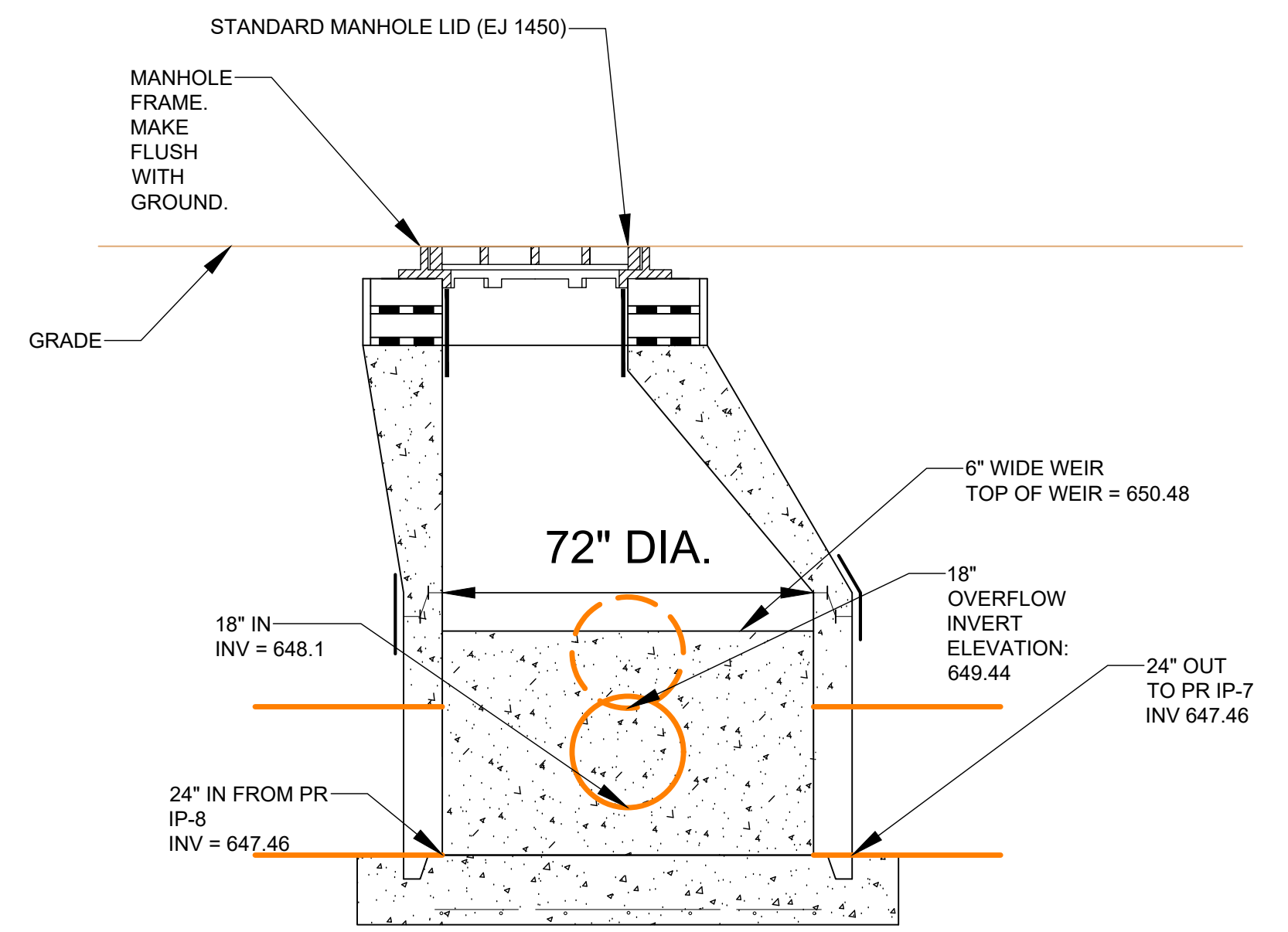
**MH IP-7A PLAN VIEW  
(CSO W-45R)**



**PROFILE: IP-7A TO CSO W-45R HW**

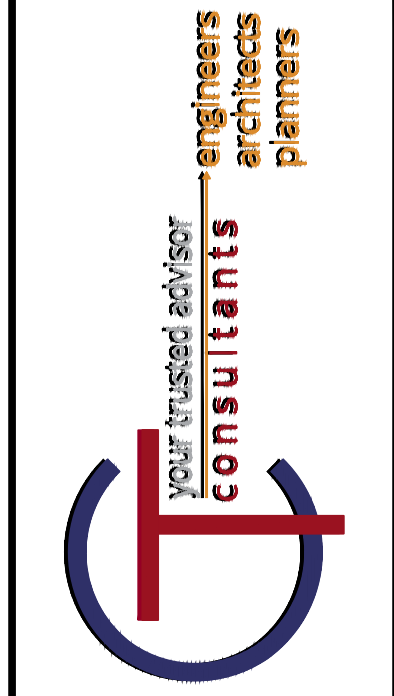


**MH IP-7A SECTION A**



**MH IP-7A SECTION B**

SANITARY SEWER PROFILE  
HORZ: 1" = 20'  
VERT: 1" = 5'



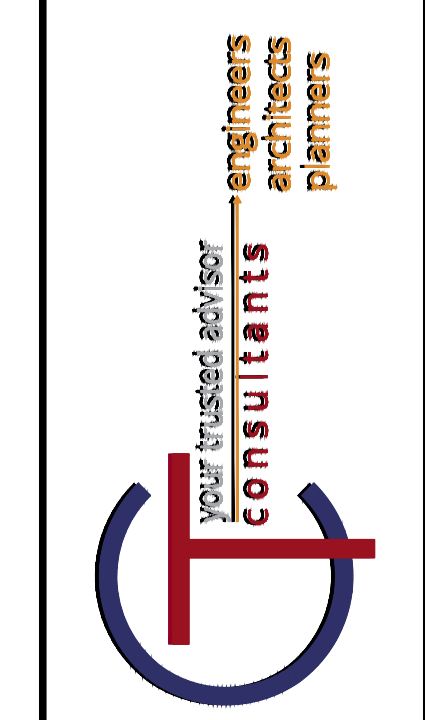
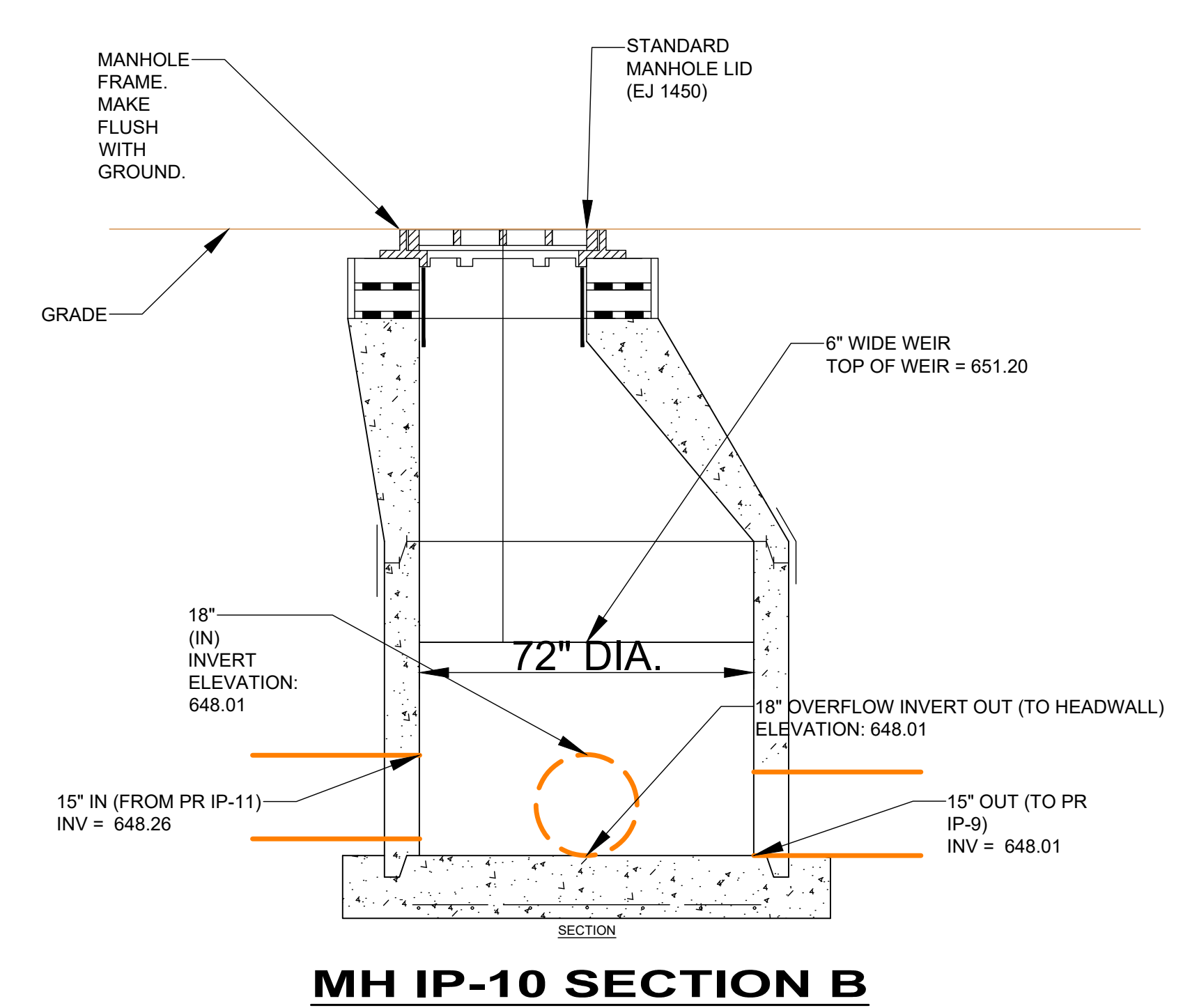
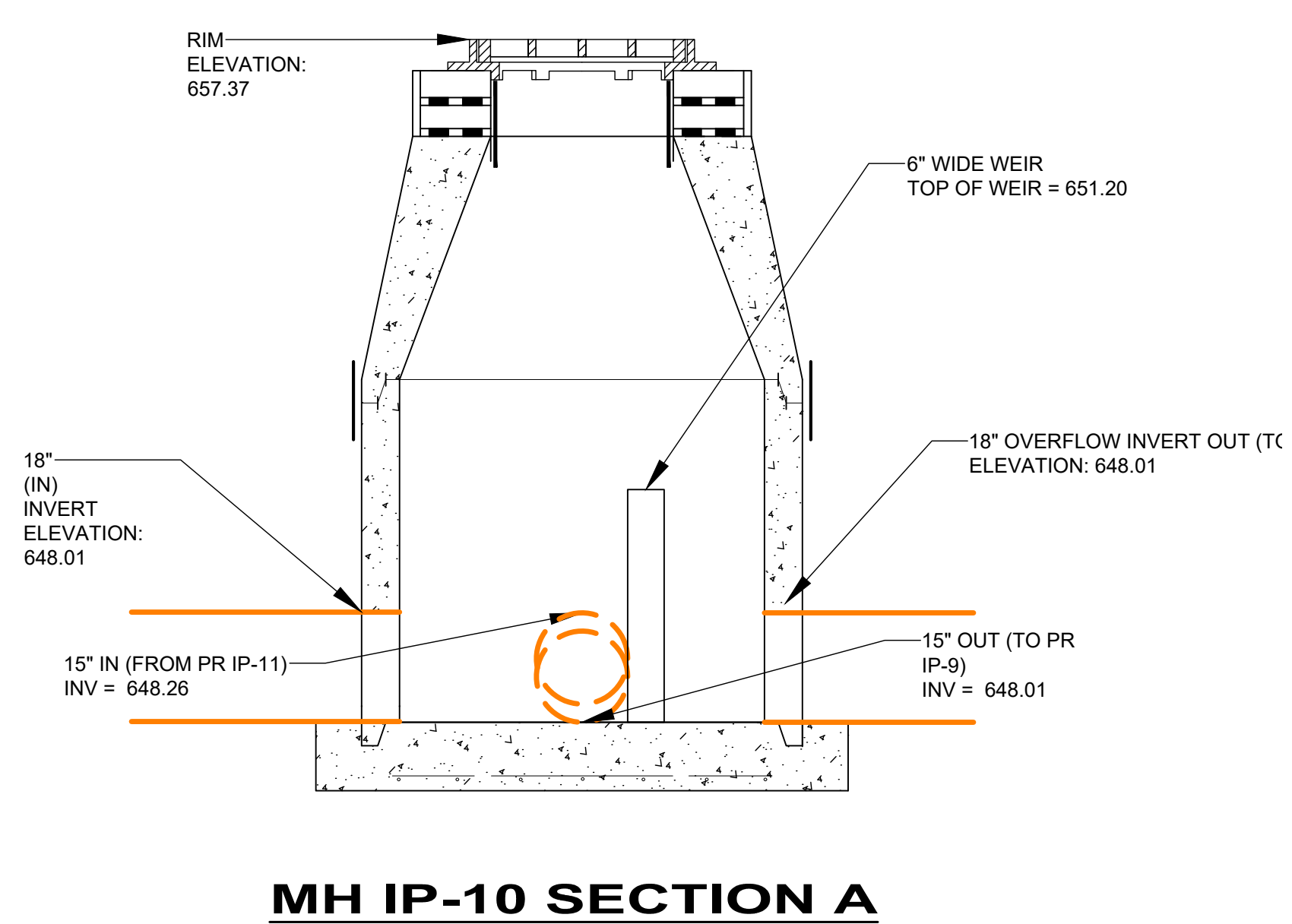
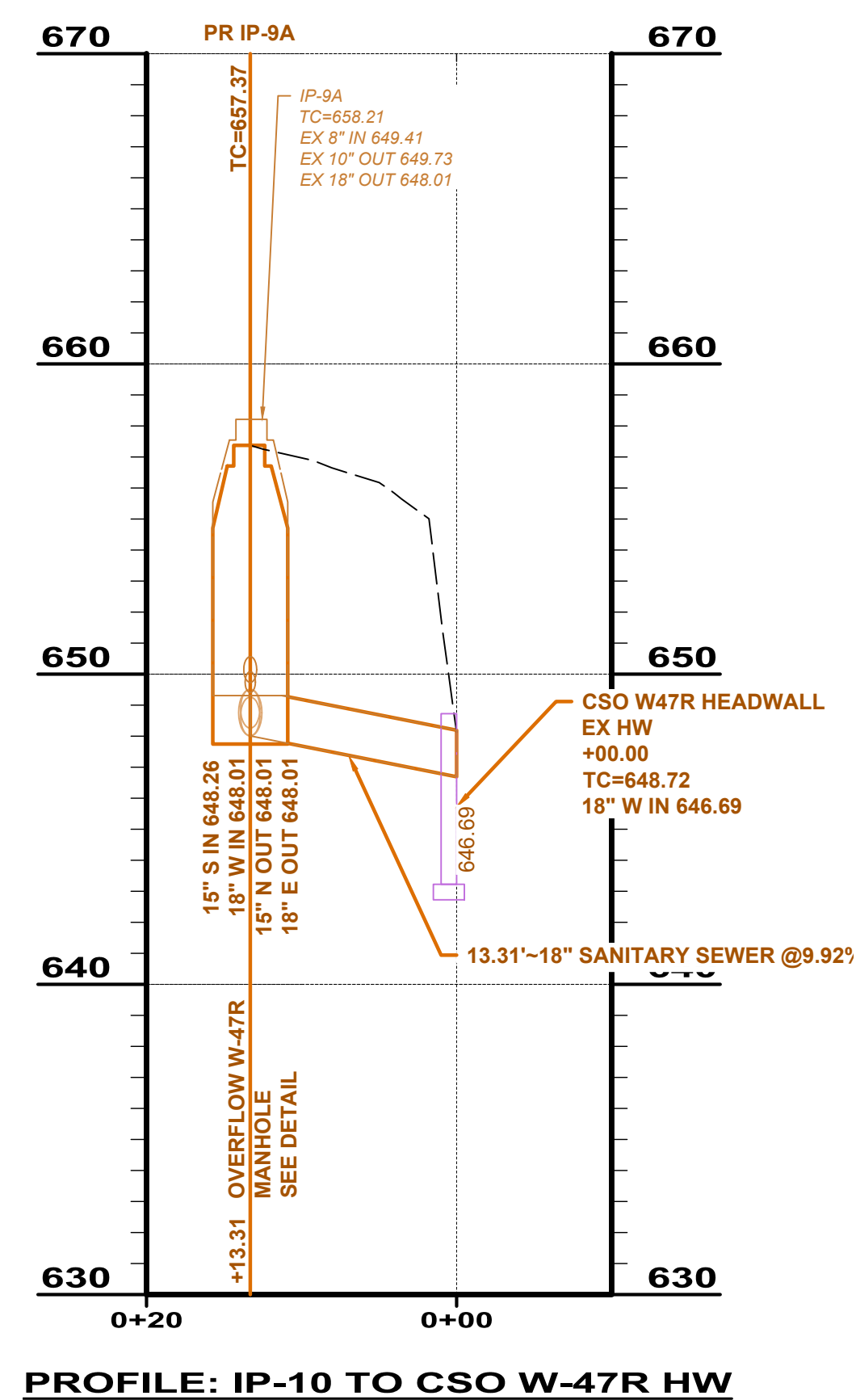
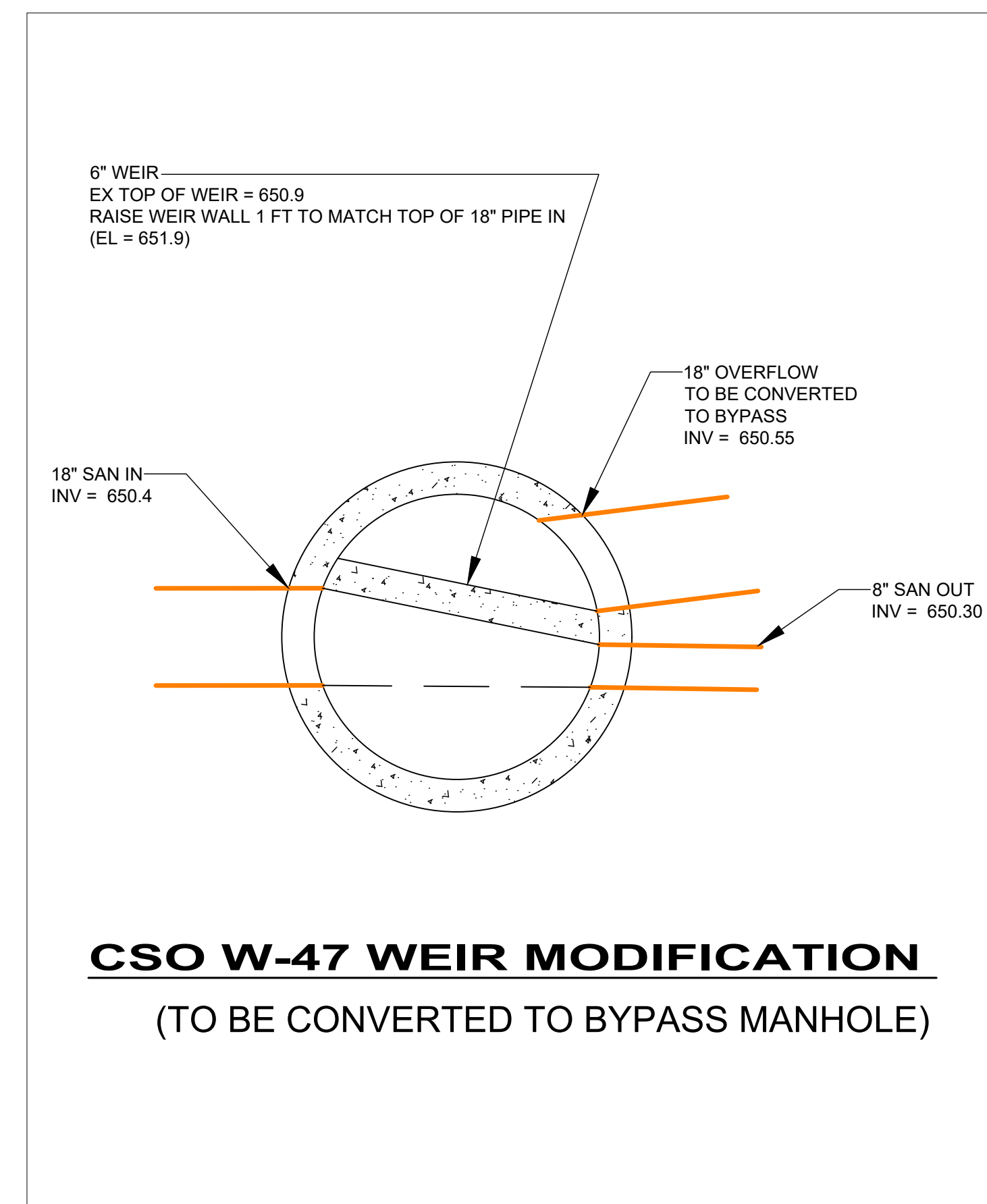
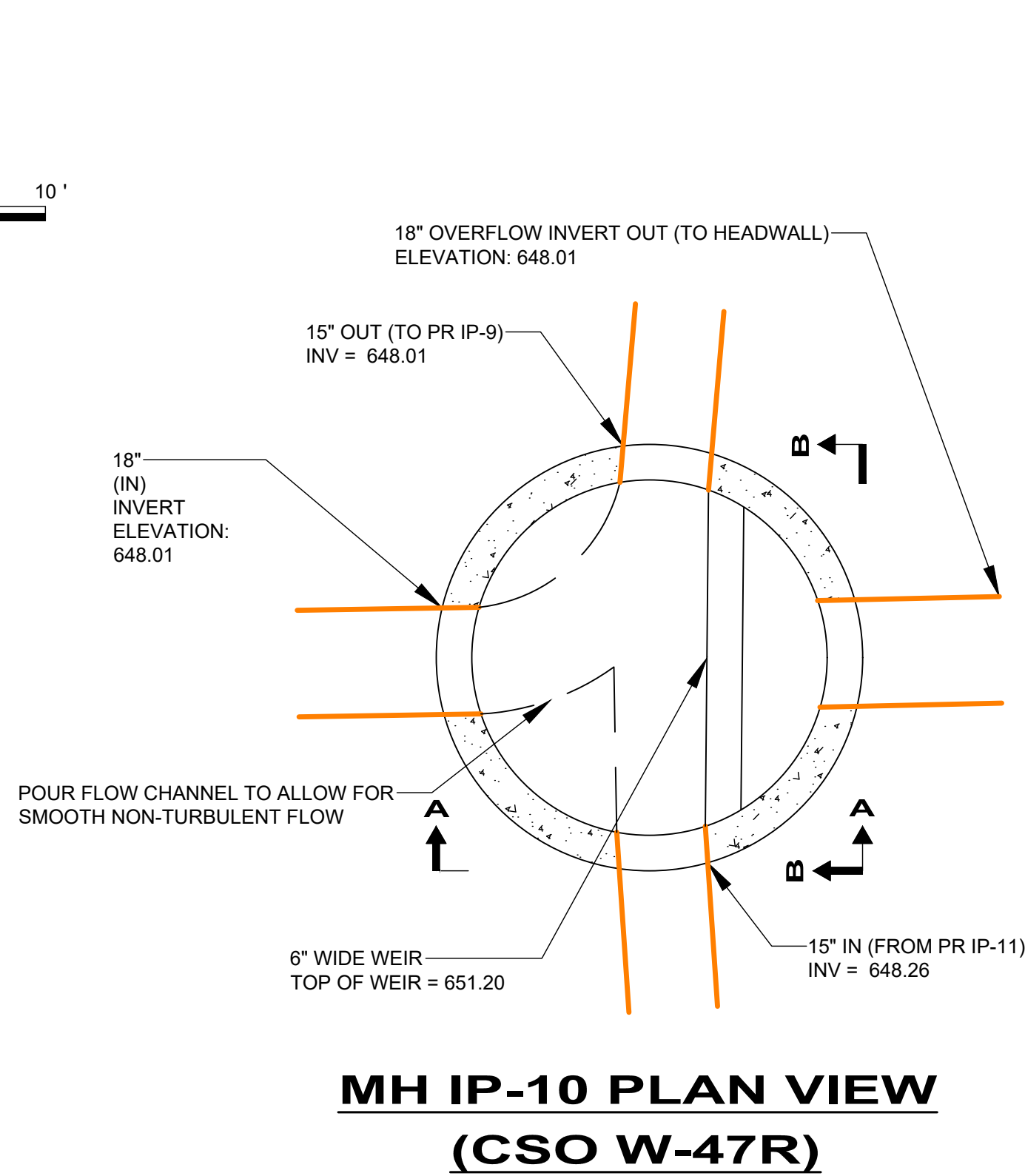
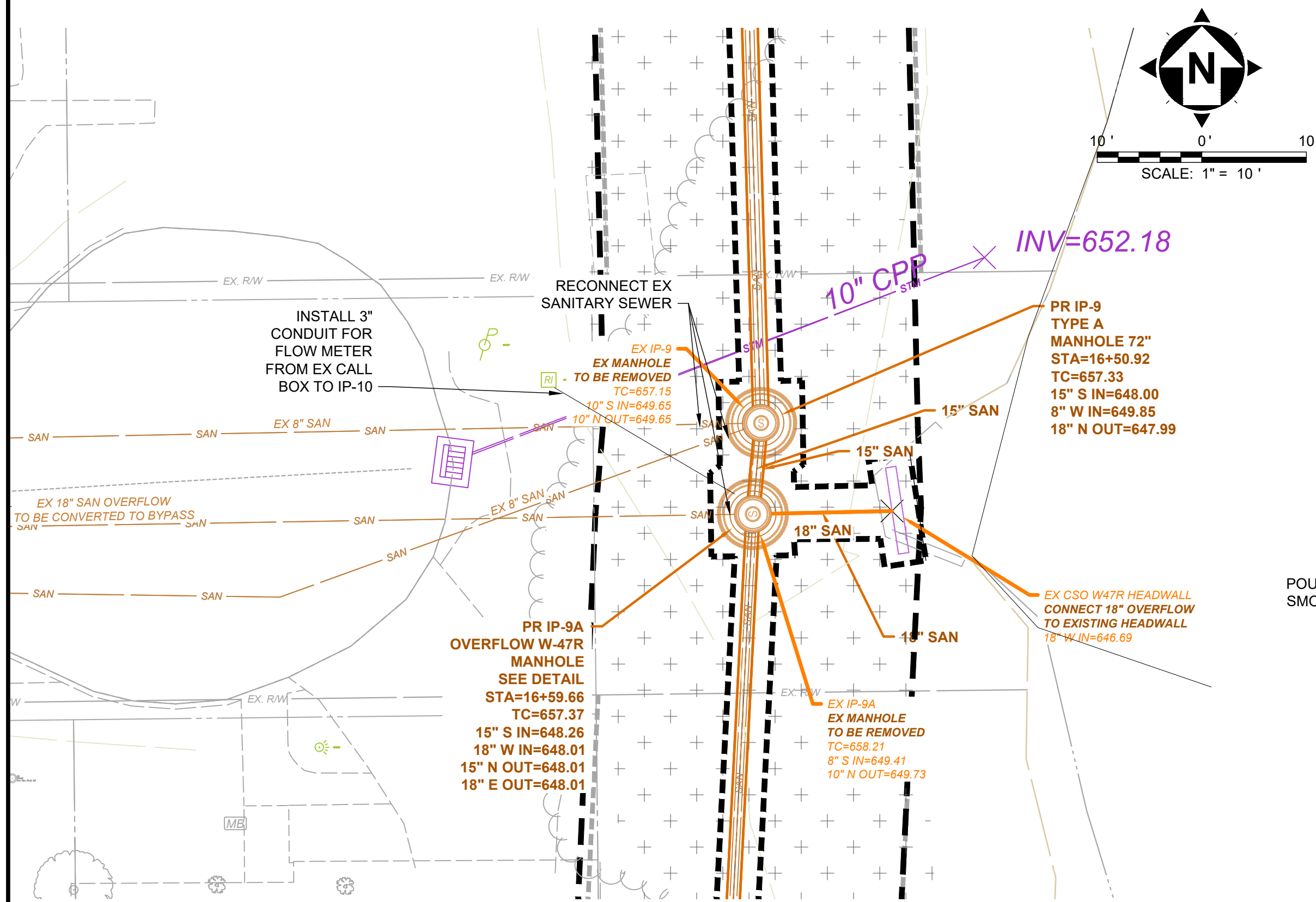
ISSUED FOR:	REVIEW	NO	DATE
4/18/2024	AS SHOWN		
SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
LAS	LAS	LAS	DAB

**WATER POLLUTION CONTROL DIVISION  
WASTEWATER COLLECTION AND TREATMENT  
VALLEYVIEW SANITARY IMPROVEMENTS**

**CSO W-45R DETAIL SHEET**

PROJECT NO.	220991 4C
DISCIPLINE	CIVIL
SHEET NAME	CSO W-45R
SHEET	OF
12	19





NO	REVISION	DATE

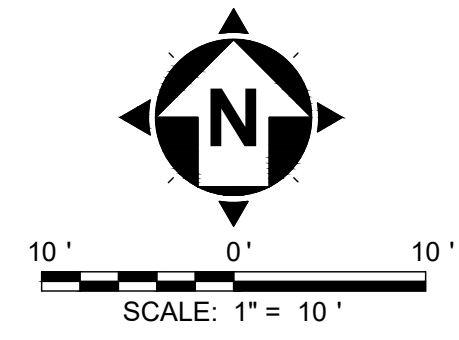
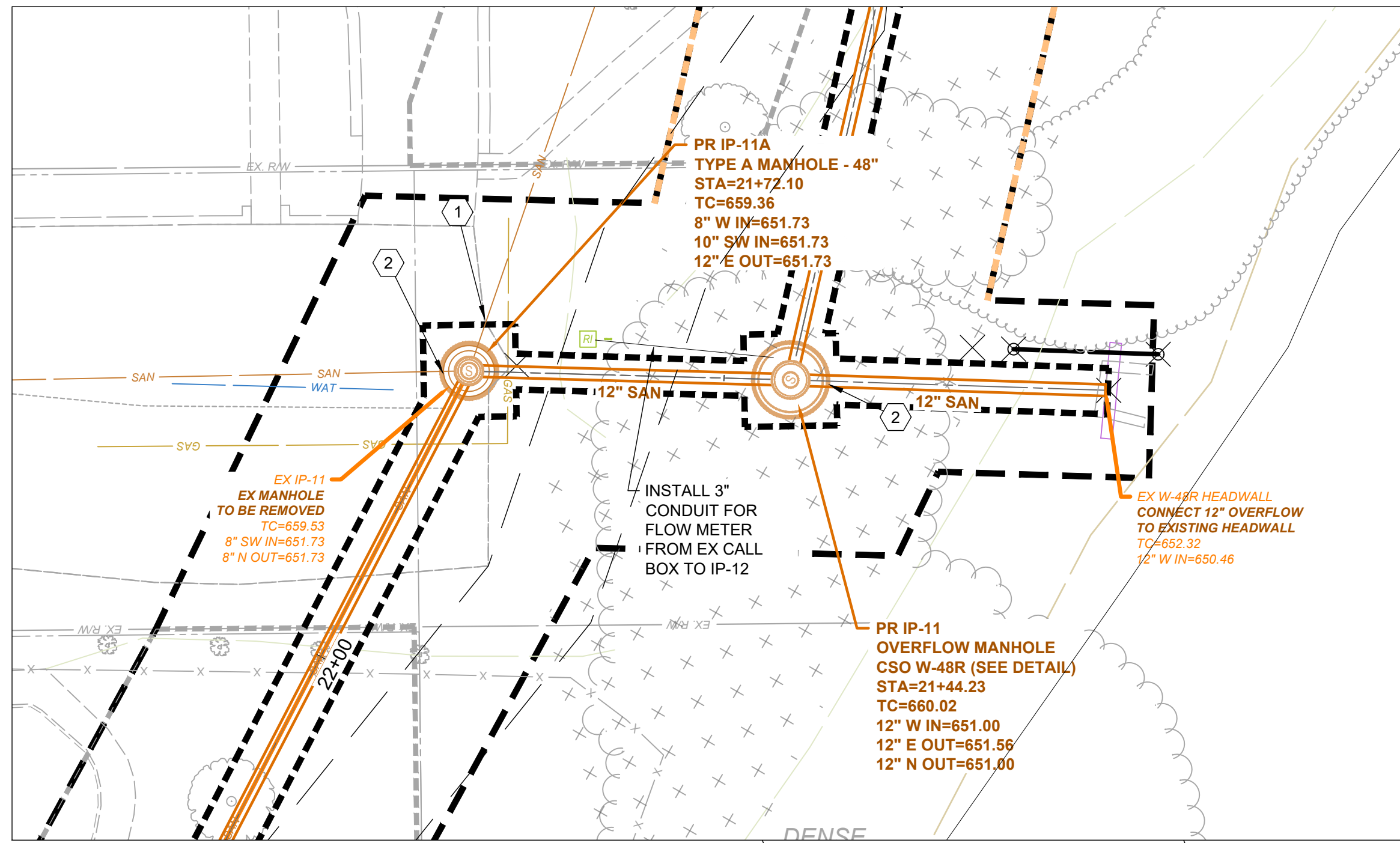
ISSUED FOR:	REVIEW:	DATE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:

**WATER POLLUTION CONTROL DIVISION  
WASTEWATER COLLECTION AND TREATMENT  
VALLEYVIEW SANITARY IMPROVEMENTS**

**CSO W-47R DETAIL SHEET**

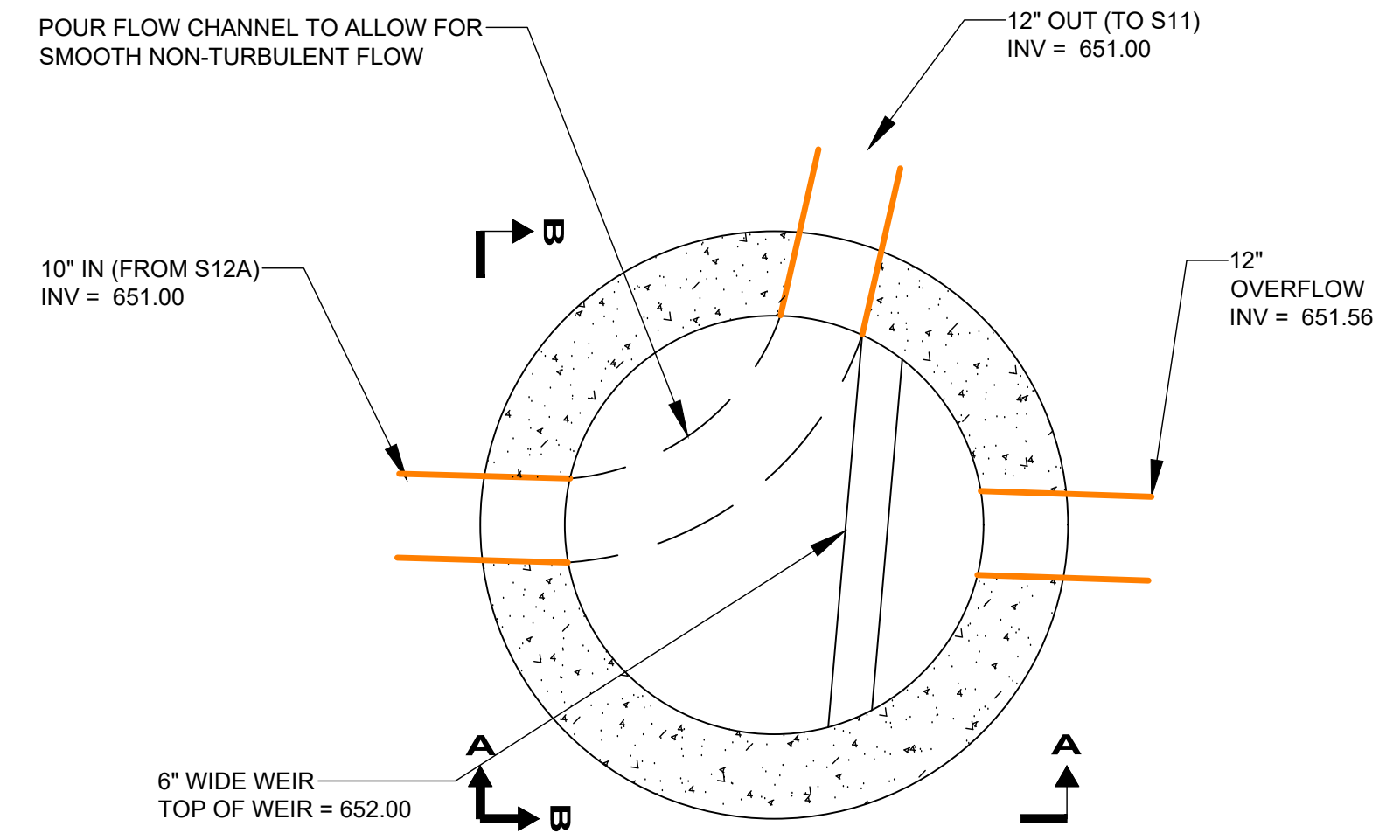
PROJECT NO.	220991 4C
DISCIPLINE	CIVIL
SHEET NAME	CSO W-47R
SHEET	OF
13	19



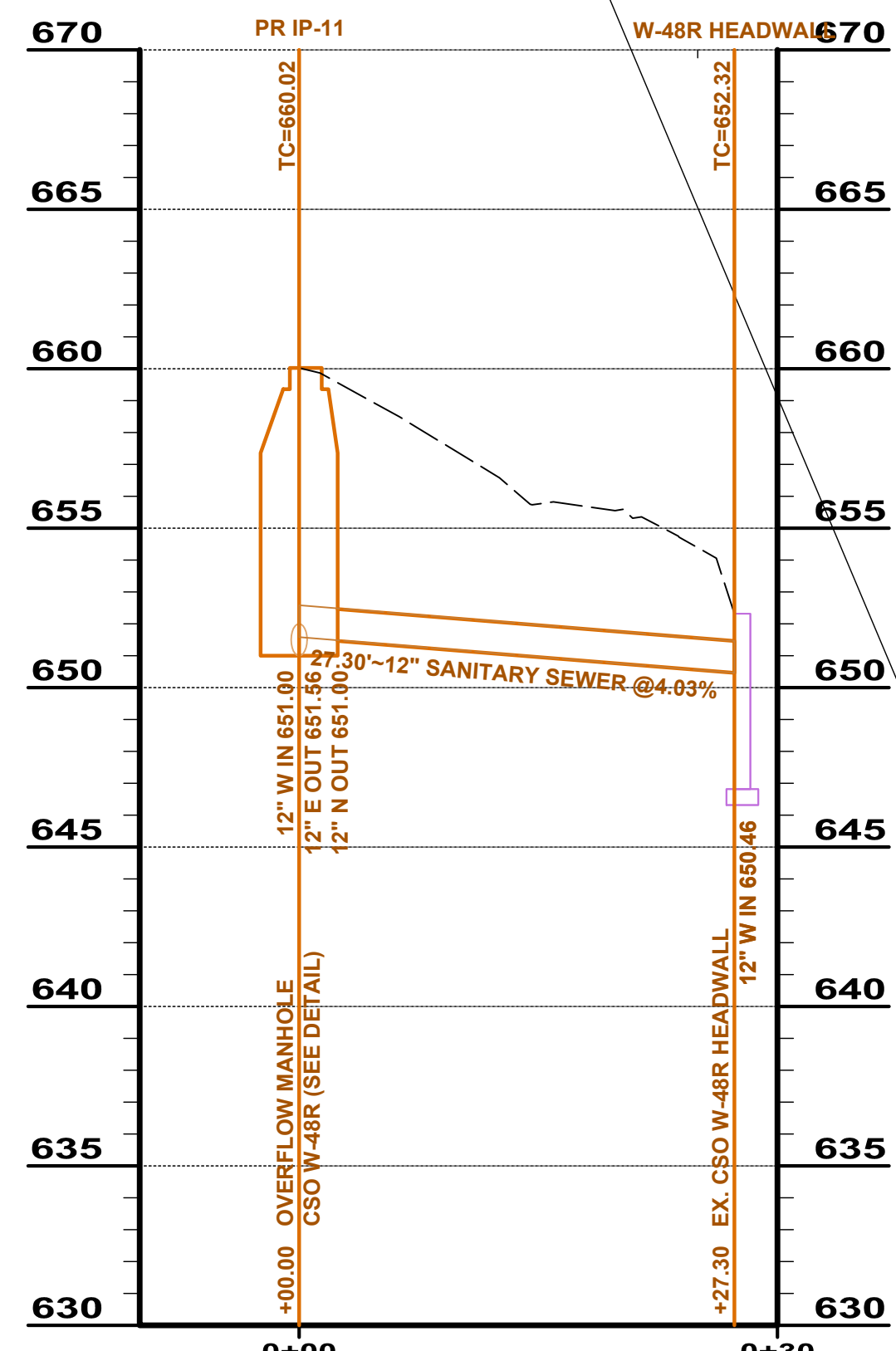


**CODED NOTES**

- ① BULKHEAD EXISTING SANITARY SEWER AT MANHOLE. LINE TO REMAIN ACTIVE TO SERVICE HOUSES BETWEEN FAIRFAX AVE AND EUREKA AVE
- ② CONNECT EXISTING SANITARY SEWER AT ELEVATIONS SHOWN

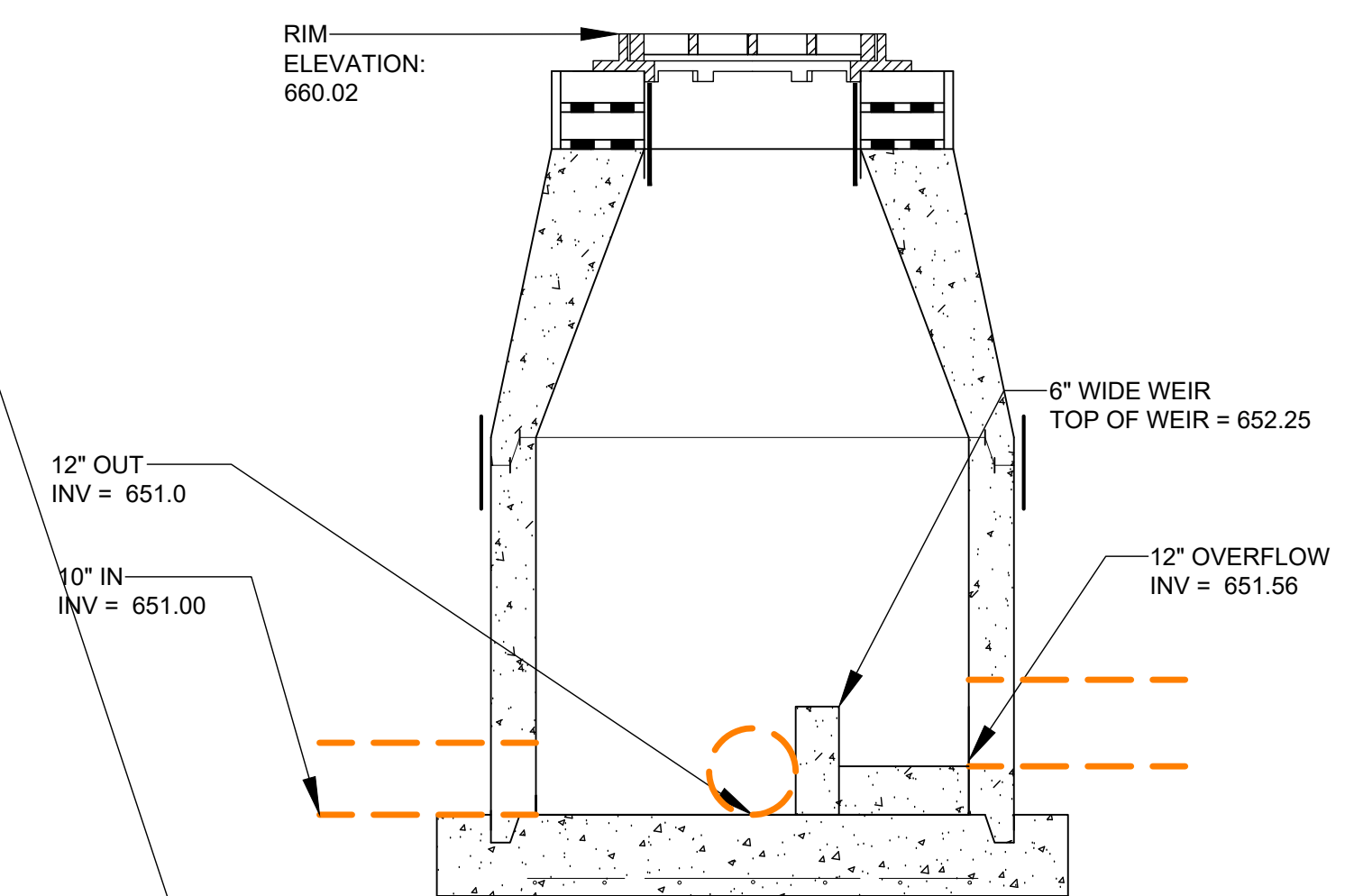


**MH IP-12 PLAN VIEW  
(CSO W-48R)**

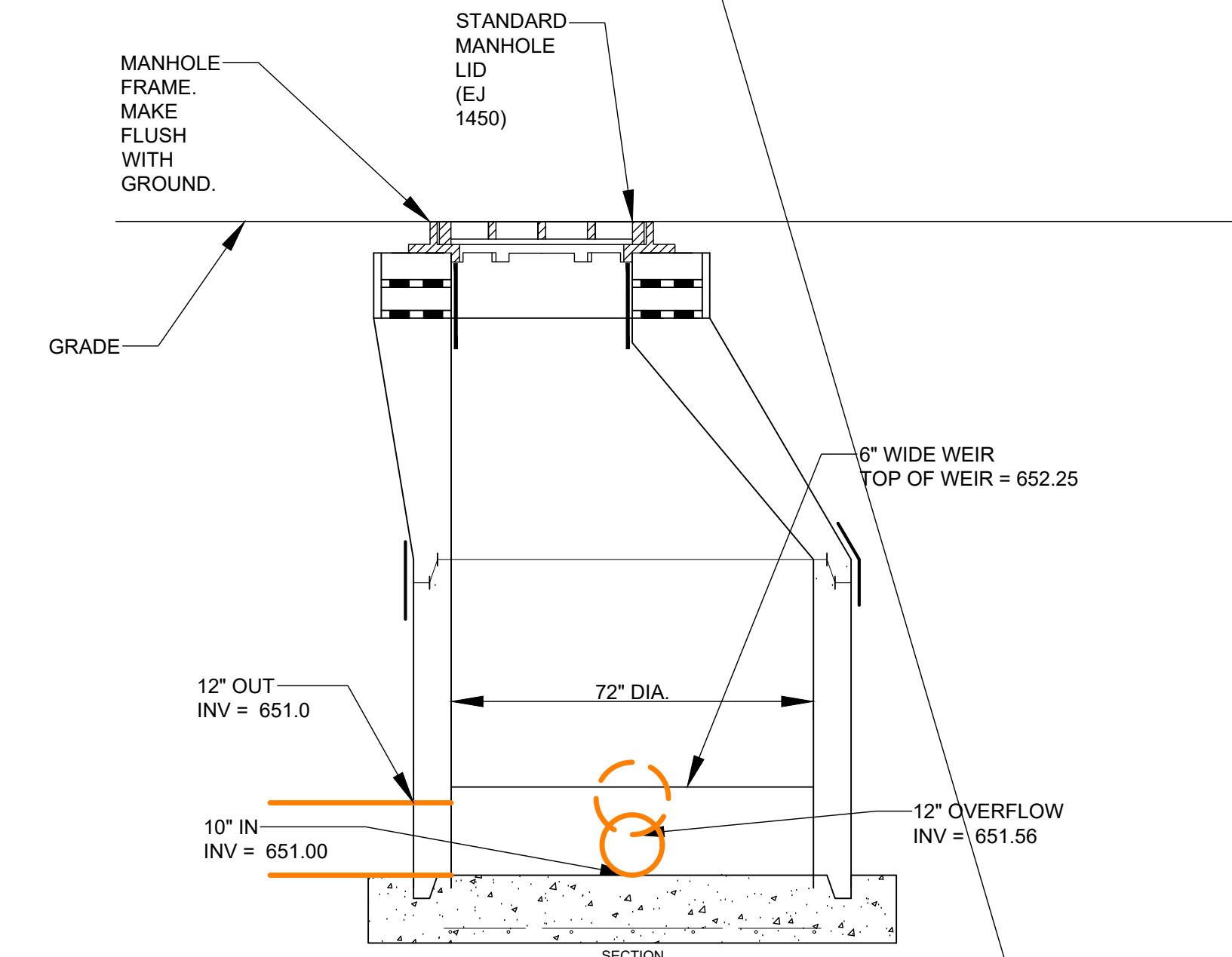


**PROFILE: IP-12 TO CSO W-48R HW**

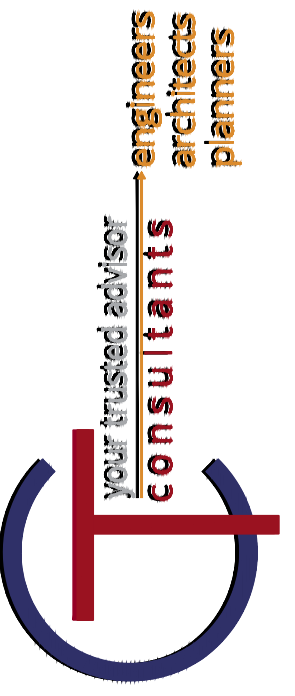
HORZ: 1" = 10'  
VERT: 1" = 5'



**MH IP-12 SECTION A**



**MH IP-12 SECTION B**



NO	REVISION	DATE

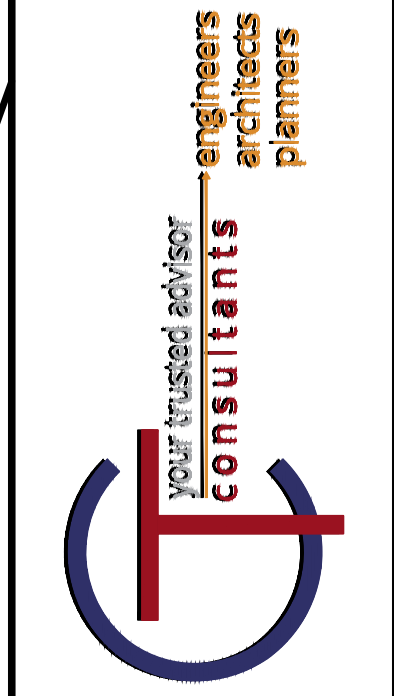
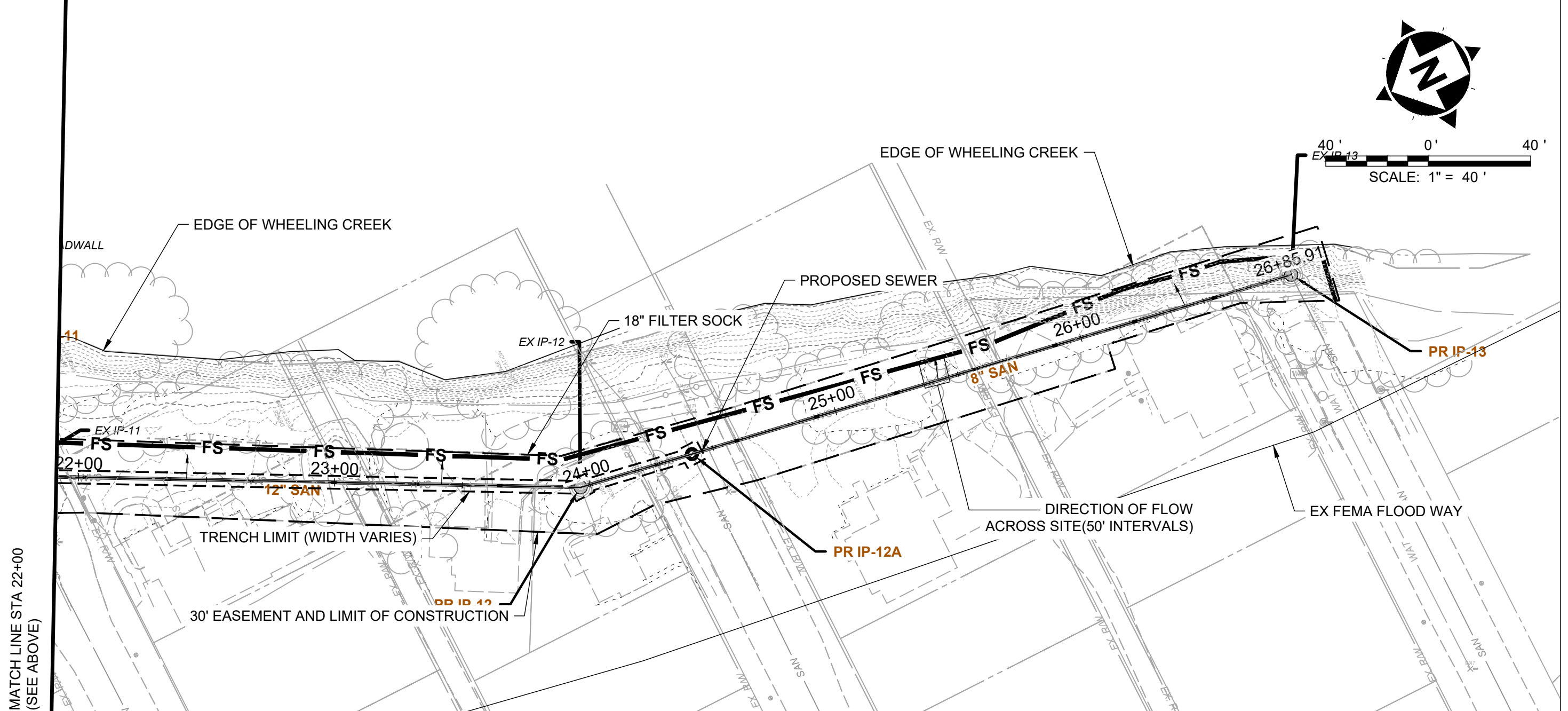
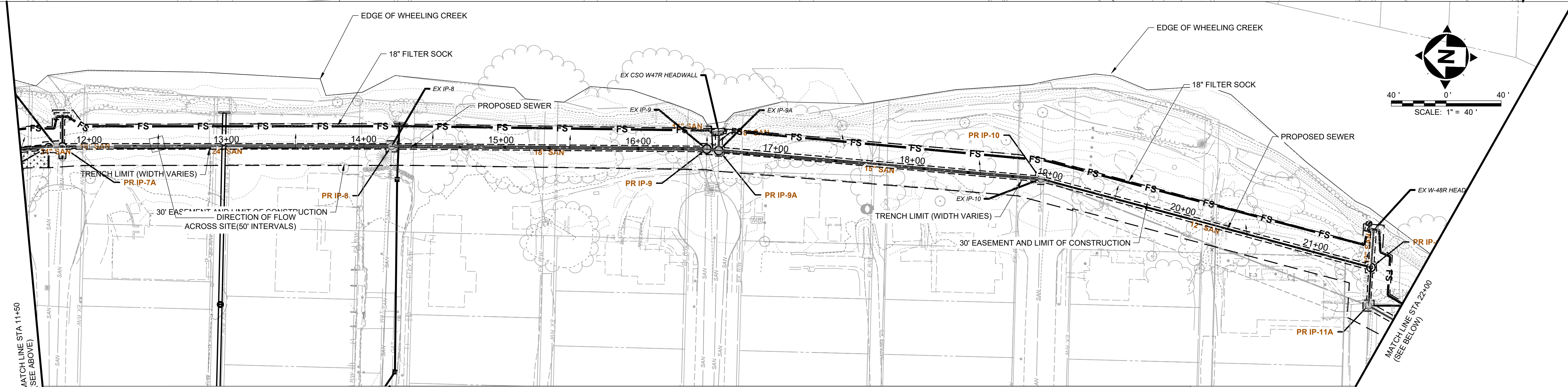
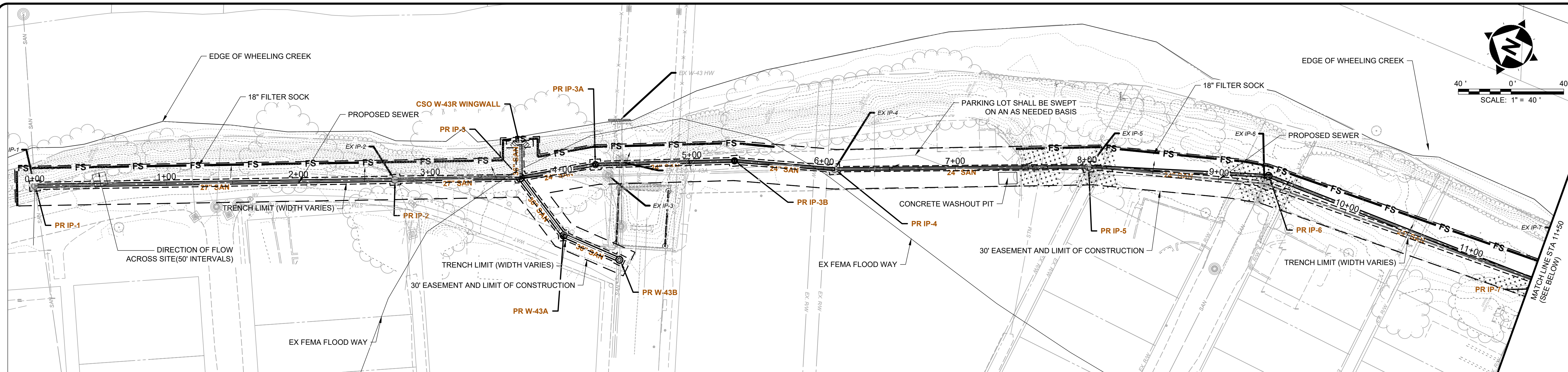
ISSUED FOR:	REVIEW:	DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
		4/18/2024	AS SHOWN	LAS	LAS	DAB

**WATER POLLUTION CONTROL DIVISION  
WASTEWATER COLLECTION AND TREATMENT  
VALLEYVIEW SANITARY IMPROVEMENTS**

**CSO W-48R DETAIL SHEET**

PROJECT NO.	220991 4C
DISCIPLINE	CIVIL
SHEET NAME	CSO W-48R
SHEET	OF
14	19





NO	REVISION	DATE

ISSUED FOR:	REVIEW:	NO
ISSUE DATE:	4/18/2024	
SCALE:	AS SHOWN	
DESIGNED BY:	LAS	
DRAWN BY:	LAS	
CHECKED BY:	DAB	

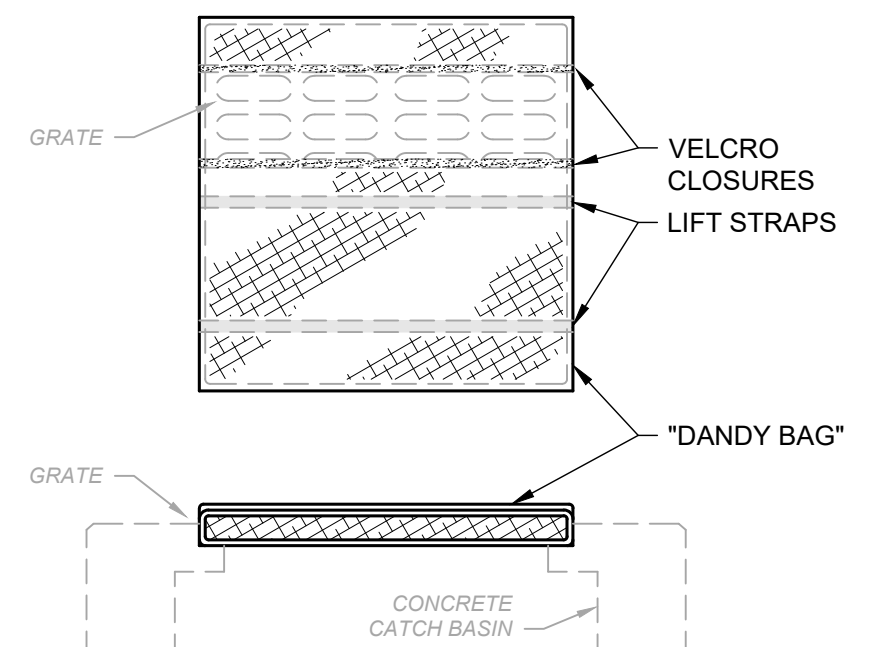
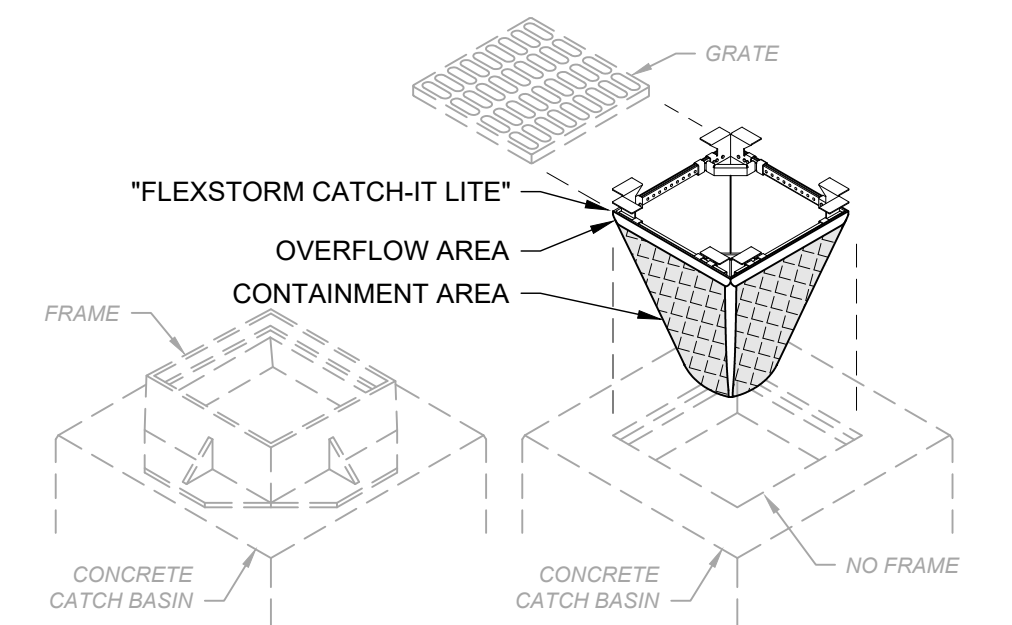
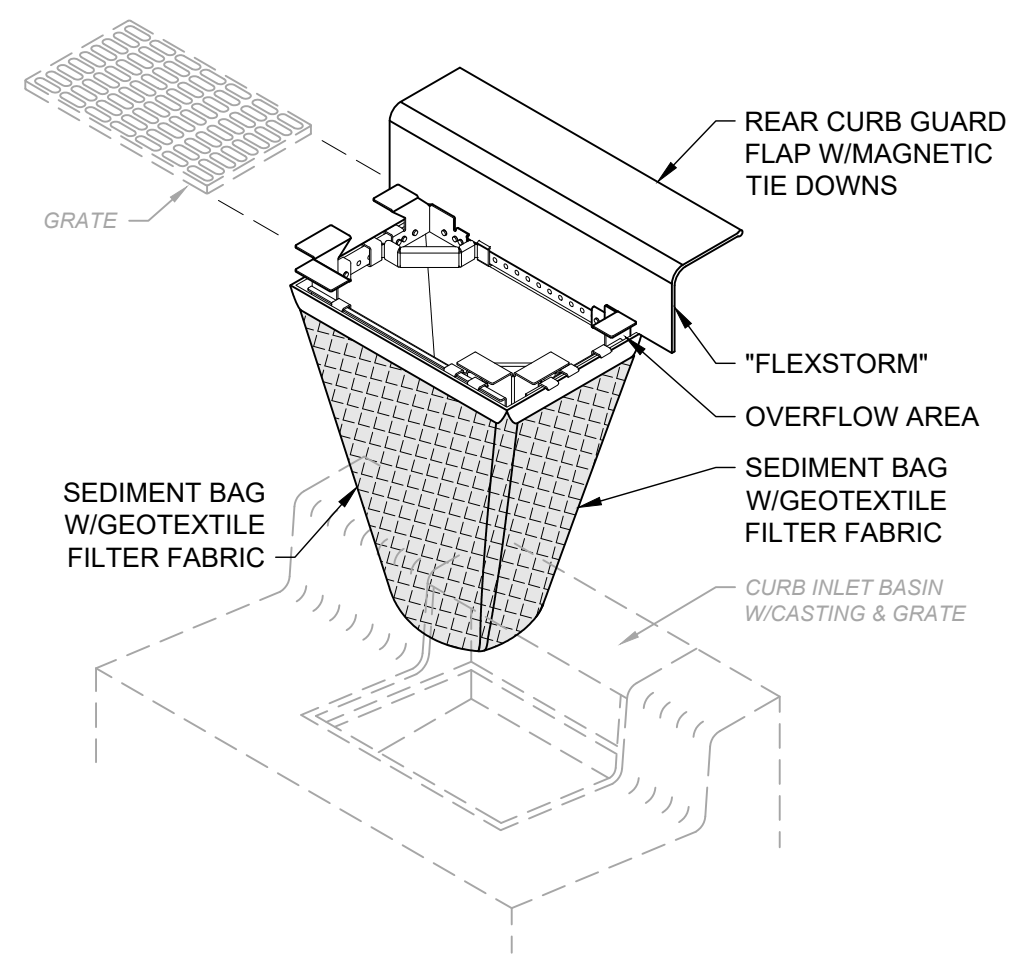
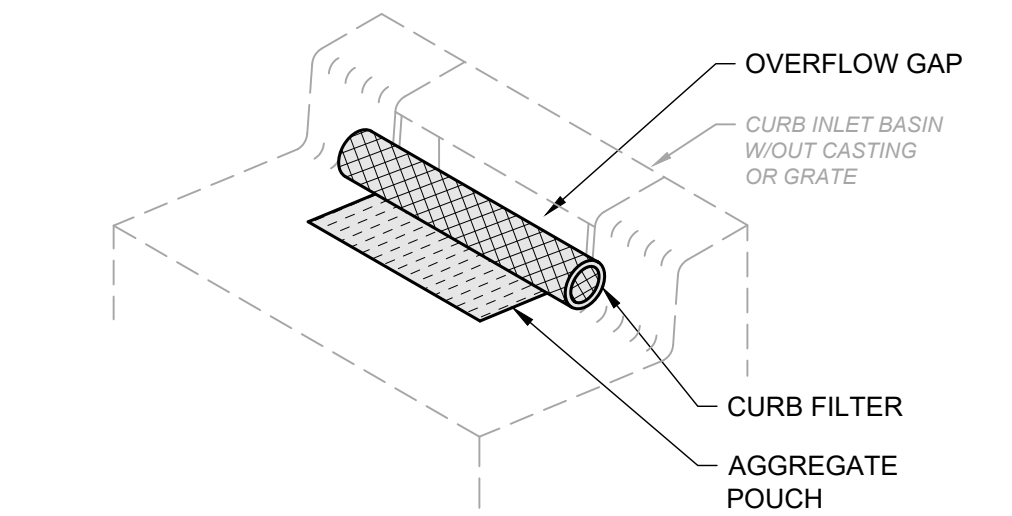
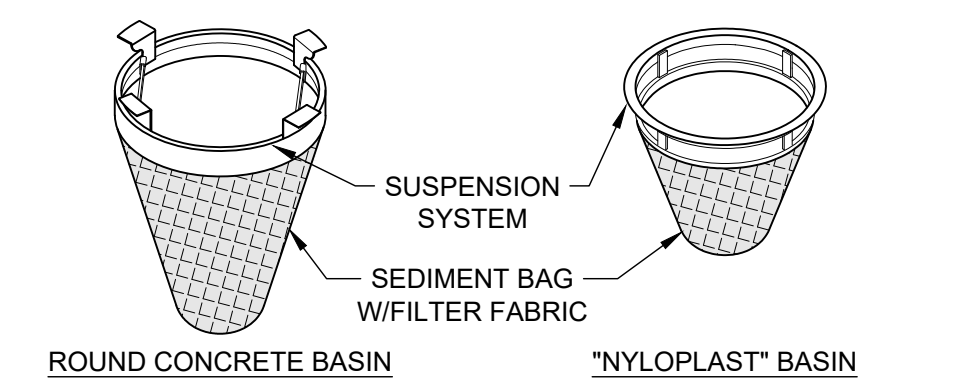
**WATER POLLUTION CONTROL DIVISION  
WASTEWATER COLLECTION AND TREATMENT  
VALLEYVIEW SANITARY IMPROVEMENTS**

**EROSION AND SEDIMENT CONTROL PLAN**

PROJECT NO.	220991 4C
DISCIPLINE	CIVIL
SHEET NAME	E&S PLAN
SHEET	15
OF	19

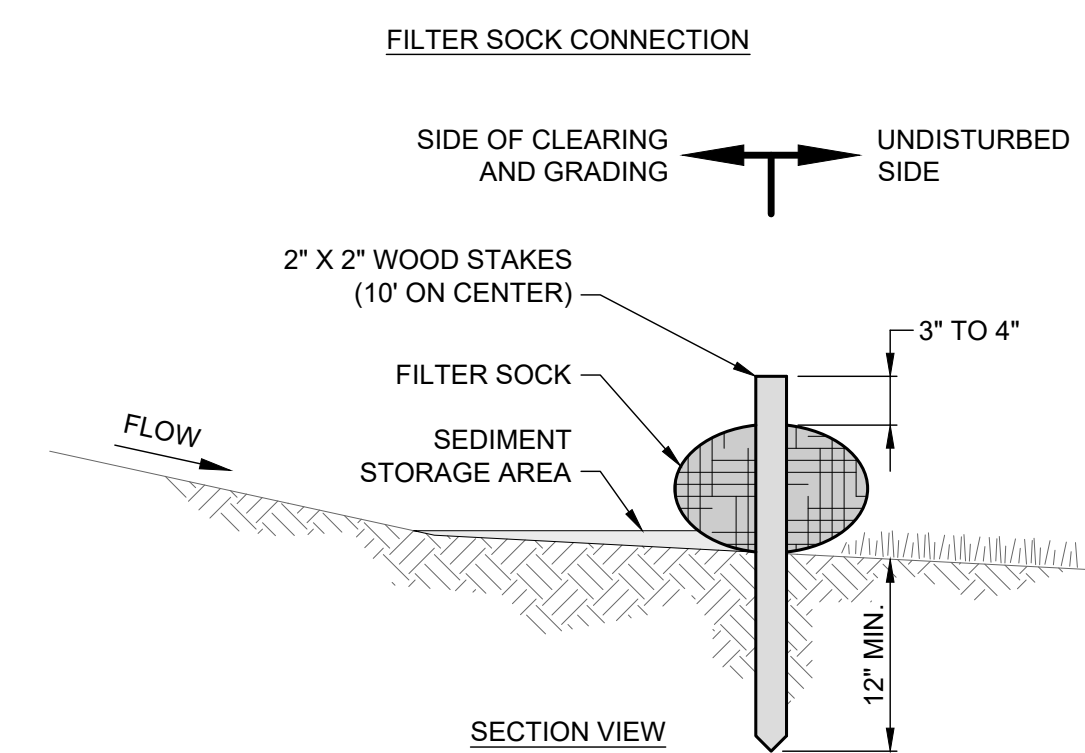
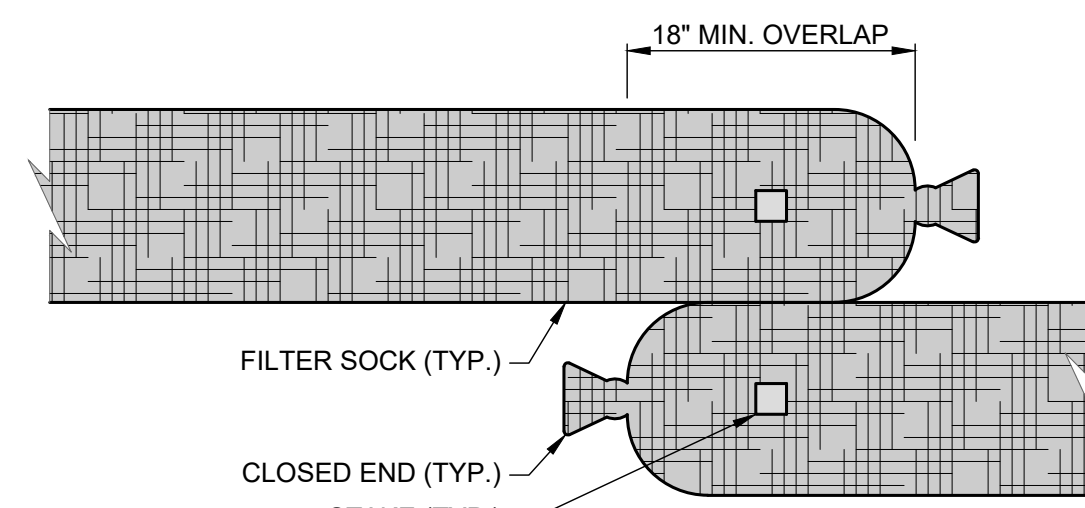
H:\2021\150950\DWG\30 VALLEY VIEW IMPROVEMENTS\SHETS\C\_21095-30 E&S SHEETS.DWG - E&S DETAILS - 4/17/2024 7:11:41 PM - LUCAS SKELLY





- NOTES:**
- ALL NEW AND EXISTING STORM INLET BASINS WITHIN THE WORK LIMITS SHALL HAVE INLET PROTECTION INSTALLED.
  - INLET PROTECTION SHALL BE INSTALLED AS EACH STORM INLET IS CONSTRUCTED.
  - NOT ALL ITEMS SHOWN MAY APPLY OR DIFFERENT TYPES OR CONFIGURATIONS MAY BE REQUIRED. THE CONTRACTOR SHALL MEASURE EACH INLET TO CONFIGURE AND ASSEMBLE CUSTOMIZED INLET FILTERS.

**INLET PROTECTION DETAIL**  
SCALE: NONE



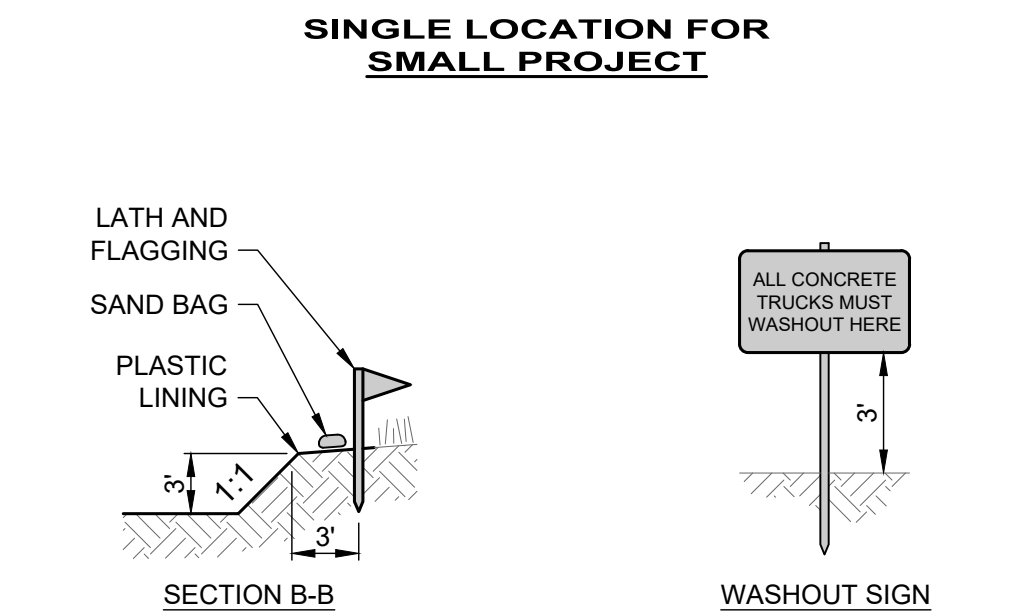
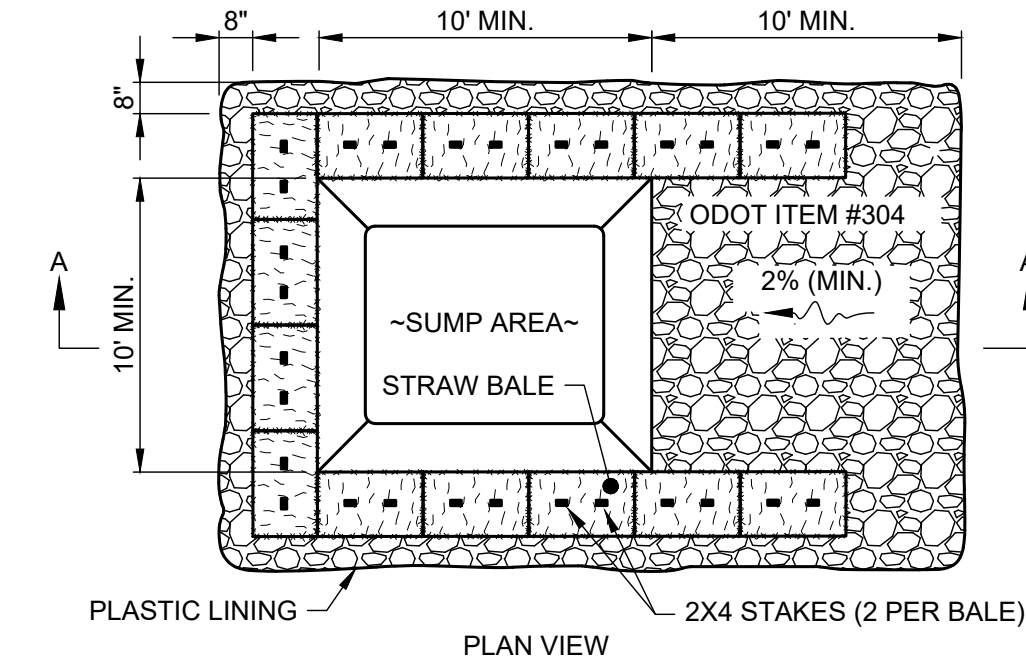
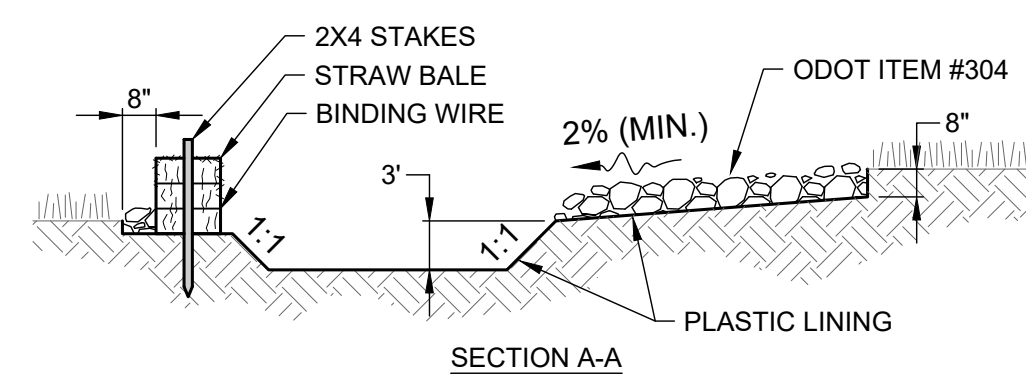
- NOTES:**
- FILTER SOCKS SHALL BE CONTINUOUS, TUBULAR, HDPE KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST.
  - COMPOST SHALL BE WEED, PATHOGEN AND INSECT FREE, FREE OF REFUSE, CONTAMINANTS OR MATERIALS TOXIC TO PLANT GROWTH, BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER, AND CONSIST OF PARTICLES RANGING FROM 3/8" TO 2".
  - DUE TO ENHANCED BMP'S FOR WHEELING CREEK, 18" FILTER SOCK IS REQUIRED
  - FILTER SOCKS SHALL BE PLACED ON A LEVEL LINE ACROSS SLOPES PARALLEL TO THE BASE OF THE SLOPE. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND MID-SLOPE.
  - THE FLAT DIMENSION OF THE SOCK SHALL BE AT LEAST 1.5 TIMES THE NOMINAL DIAMETER.
  - FILTER SOCKS SHALL BE PLACED AT LEAST 5' FROM THE TOE OF SLOPE FOR SEDIMENT DEPOSIT.
  - TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
  - BUILT UP SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED 1/3 THE FILTER SOCK HEIGHT.
  - BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
  - WHEN A FILTER SOCK IS NO LONGER REQUIRED, IT SHALL BE DISPERSED ON-SITE.
  - THE MAXIMUM DRAINAGE AREA PER 100 FEET OF FILTER SOCK IS 1/2 ACRE AND IS DEPENDENT ON THE SLOPE FOLLOWING EITHER THE MANUFACTURER RECOMMENDATION OR THE GUIDANCE CHART BELOW:

MAX. SLOPE LENGTH ABOVE FILTER SOCK					
SLOPE	RATIO (H:V)	8'	12'	18'	24'
0% - 2%	0 - 50:1	125'	250'	300'	350'
2% - 10%	50:1 - 10:1	100'	125'	200'	250'
10% - 20%	10:1 - 5:1	75'	100'	150'	200'
20% - 50%	5:1 - 2:1	N/A	50'	75'	100'
≥ 50%	≥ 2:1	N/A	25'	50'	75'

**FILTER SOCK DETAIL**  
SCALE: NONE

- TEMPORARY SEEDING SHALL BE PLACED WHEN AREA OF DISTURBANCE IS EXPECTED TO BE DORMANT FOR MORE THAN 21 DAYS, PER THE WV E&S MANUAL
- THE SEED BED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION.
- SOIL AMENDMENTS MAY BE REQUIRED TO ESTABLISH VEGETATION. PERFORM SOIL TESTS TO PREDICT THE NEED FOR LIME OR FERTILIZER. IN LIEU OF A SOIL TEST, APPLY LIME AT 2 TONS/AC. OR FERTILIZER AT 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS
- APPLY SEED UNIFORMLY. COVER BROADCASTED SEED BY RAKING OR DRAGGING, AND LIGHTLY TAMPING INTO PLACE.
- MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
- INSPECT FOR SOIL EROSION OR VEGETATION LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED AND RE-MULCH AS NEEDED.

**TEMPORARY SEEDING NOTES**



- NOTES:**
- CONCRETE WASHOUT SHALL NOT BE PLACED WITHIN 50 FEET OF A WATER WAY OR WITHIN AN AREA THAT IMPEDES LOCAL TRAFFIC
  - CONCRETE WASHOUT AREA SHALL BE LOCATED A MINIMUM OF 100' FROM STORM SEWER INLETS, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS.
  - IF CONCRETE WASHOUT AREA IS LOCATED AWAY FROM A PAVED SURFACE, CONSTRUCT A GRAVEL ACCESS ROUTE EQUAL IN COMPOSITION TO A CONSTRUCTION ENTRANCE.
  - CONCRETE WASHOUT AREA SHALL BE SUFFICIENT SIZE TO CONTAIN CONCRETE WASTE GENERATED. LARGE SITES MAY REQUIRE MULTIPLE CONCRETE WASHOUT AREAS.
  - PLASTIC LINING SHALL BE DOUBLE-LINED, CONTINUOUS 10-ML POLYETHYLENE SHEETING FREE OF HOLES, TEARS OR OTHER DEFECTS INSTALLED ON A SMOOTH, LEVEL SURFACE, FREE OF LARGE ROCKS AND DEBRIS.
  - CONCRETE WASHOUT SIGNAGE SHALL BE CLEARLY VISIBLE AND LOCATED WITHIN 30 FEET OF EACH WASHOUT AREA.
  - CONCRETE WASHOUT AREA SHALL BE COVERED DURING INCLEMENT WEATHER TO PREVENT OVERFLOW.
  - PREFABRICATED, PORTABLE AND RE-USABLE CONCRETE WASHOUT CONTAINERS ARE ACCEPTABLE.
  - CONCRETE WASHOUT AREA SHALL BE INSPECTED DAILY TO CHECK FOR DAMAGE AND DETERMINE IF IT NEEDS CLEANED OR REPLACED. ANY DAMAGE TO THE SIDEWALLS OR PLASTIC LINING SHALL BE REPAIRED IMMEDIATELY. REPLACE THE ENTIRE CONCRETE WASHOUT AREA WHEN IT IS 75% FULL.

**CONCRETE WASHOUT DETAIL**  
SCALE: NONE

TEMPORARY SEEDING SPECIES SELECTION				
DATES	SPECIES	LB/1,000 SF	LB/AC.	
MARCH 1 - AUGUST 15	OATS	3	128	
	TALL FESCUE	1	40	
	PERENNIAL RYEGRASS	1	40	
AUGUST 16 - OCTOBER 31	PERENNIAL RYEGRASS	2	40	
	TALL FESCUE	1	40	
	WHEAT	3	120	
NOVEMBER 1 - FEBRUARY 28	TALL FESCUE	1	40	
	PERENNIAL RYEGRASS	1	40	
	PERENNIAL RYEGRASS	2	40	
	TALL FESCUE	1	40	

ONLY MULCH OR DORMANT SEEDING.

- SUBSOILING SHALL OCCUR WHEN SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING IS NOT PERMITTED ON SLIP-PRONE AREAS.
- THE SEED BED SHALL BE PREPARED BY APPLYING AGRICULTURAL GROUND LIMESTONE OR FERTILIZER AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY LIME AT 2 TONS/AC. OR FERTILIZER AT 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS. LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL TO A DEPTH OF 3".
- APPLY SEED UNIFORMLY ON FIRM, MOIST SEED BED BETWEEN MARCH 1 AND MAY 31 OR AUGUST 1 AND SEPTEMBER 30. TILLAGE FOR SEEDBED PREPARATION SHALL OCCUR WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. SEEDING SHOULD NOT BE APPLIED BETWEEN OCTOBER 1 AND NOVEMBER 20 BECAUSE SEEDS MAY GERMINATE, BUT WILL NOT SURVIVE THE WINTER. IF SEEDING MUST OCCUR, INCREASE THE SEEDING RATE BY 50% AND ANCHOR. APPLY ADDITIONAL MULCH AND IRRIGATION AS REQUIRED TO ENSURE GERMINATION.
- MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
- SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY OR HOT WEATHER OR ON ADVERSE SITE CONDITIONS.
- SEEDING SHALL NOT BE CONSIDERED ESTABLISHED FOR AT LEAST 1 FULL YEAR FROM THE TIME OF SEEDING. DURING THIS PERIOD INSPECT FOR SOIL EROSION OR VEGETATION LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED AND RE-MULCH AS NEEDED.
- ADEQUATE PERMANENT VEGETATION SHALL BE GROUND COVER DENSE ENOUGH TO COVER 80% OF THE SOIL SURFACE BASED ON VISUAL INSPECTION.

**PERMANENT SEEDING NOTES**

SIGN MUST BE POSTED AT PROJECT LOCATION WITHIN 72 HOURS OF APPLICATION MINIMUM DIMENSIONS OF TWO (2') BY TWO (2') WITH HEIGHT OFF THE GROUND OF THREE (3') REFER TO WV0115924 (GENERAL PERMIT) SECTION II.B. APPLICABLE REGULATION

**For Info on NPDES Storm Water Permit**

To comment on Sediment Control Plan:  
Call: **800-654-5227**  
or  
plan@wvdep.gov  
DEP 601 57th Street, SE  
Charleston WV 25304  
Application date:

WVDEP PERMIT No. WVR\*\*\*\*\*  
WHEELING WATER POLLUTION CONTROL FACILITY  
(304)-234-3874

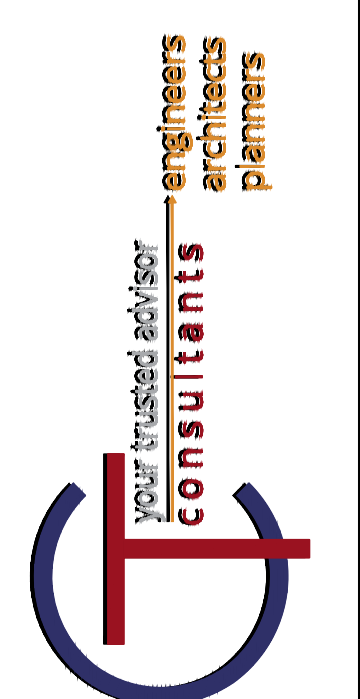
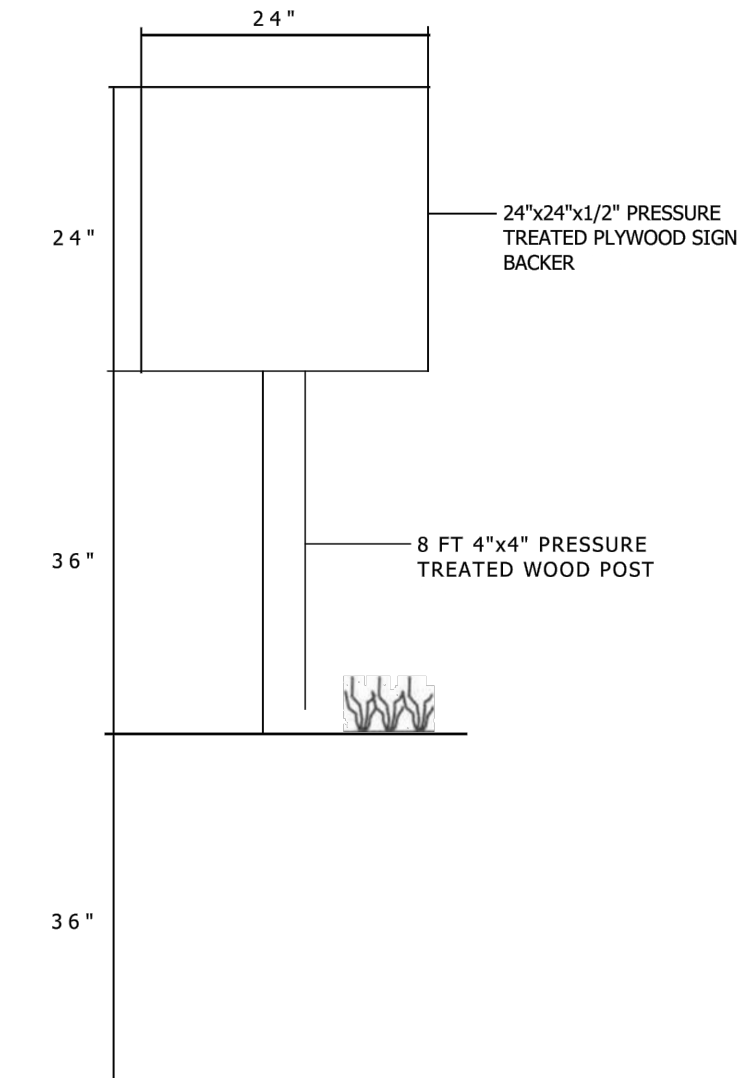
- CONTRACTOR SHALL INSTALL SIGN. SIGN SHALL BE FABRICATED FROM WEATHERPROOF MATERIAL OR LAMINATED TO PROTECT FROM THE ELEMENTS. SIGN MUST BE INSTALLED PRIOR TO MOBILIZATION.
- CONTRACTOR TO MAINTAIN SIGN AT ALL TIME DURING CONSTRUCTION. SIGN MAY BE RELOCATED TO ACCOMMODATE CONSTRUCTION BUT THE SIGN MUST REMAIN PROMINENTLY DISPLAYED AT ALL TIMES.

**PUBLIC NOTICE SIGN**  
NOT TO SCALE

SIGN DETAIL PROVIDED ONLY AS A TYPICAL EXAMPLE, REFER TO ILB. OF GENERAL PERMIT FOR SPECIFICS.

PERMANENT SEEDING FERTILIZATION AND MOWING CHART				
MIXTURE	FORMULA	LB/ AC.	TIME	MOW
CREeping RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	10-10-10	500	FALL, YEARLY, OR AS NEEDED	≥3"
TALL FESCUE	10-10-10	500		≥4"
TURF-TYPE FESCUE	10-10-10	500		
CROWN VETCH FESCUE	0-20-20	400	SPRING, AND YEARLY AFTER ESTABLISHED	DO NOT MOW
FLAT PEA FESCUE	0-20-20	400		

PERMANENT SEEDING SPECIES SELECTION		
SEED MIX	SEED RATE LB/AC.	NOTES:
GENERAL USE		
CREeping RED FESCUE DOMESTIC RYEGRASS KENTUCKY BLUEGRASS	20 - 40 10 - 20 20 - 40	FOR CLOSE MOWING AND WATERWAYS WITH <2.0 FT./SEC. VELOCITY
TALL FESCUE	40 - 50	
TURF-TYPE FESCUE	90	
STEEP BANKS OR CUT SLOPES		
TALL FESCUE	40 - 50	
CROWN VETCH TALL FESCUE	10 - 20 20 - 30	DO NOT SEED LATER THAN AUGUST
FLAT PEA TALL FESCUE	20 - 25 20 - 30	DO NOT SEED LATER THAN AUGUST
ROAD DITCHES AND SWALES		
TALL FESCUE	40 - 50	
TURF-TYPE FESCUE KENTUCKY BLUEGRASS	90 5	
LAWN		
KENTUCKY BLUEGRASS PERENNIAL RYEGRASS	100 - 120 100 - 120	
KENTUCKY BLUEGRASS CREeping RED FESCUE	100 - 120 100 - 120	FOR SHADED AREAS



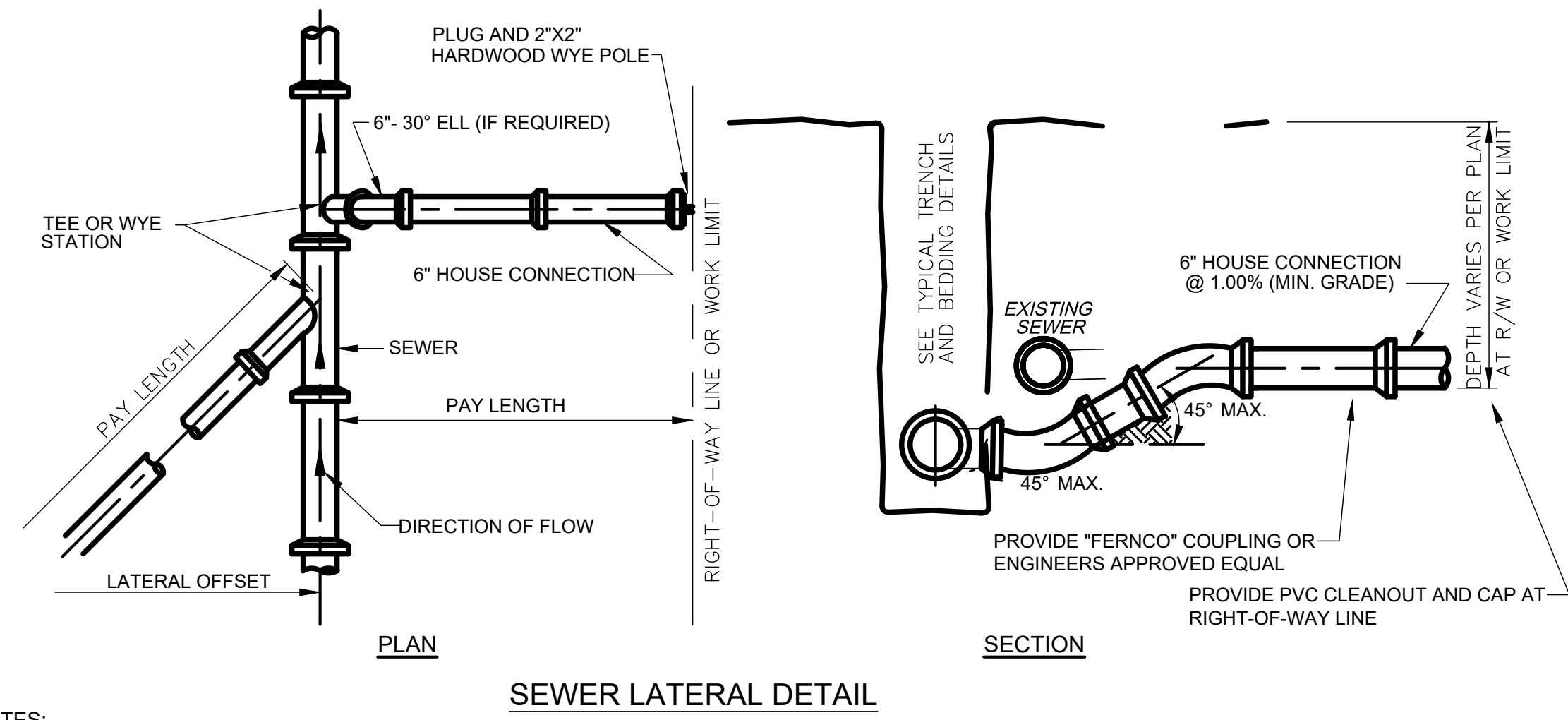
NO	REVISION	DATE

**WATER POLLUTION CONTROL DIVISION  
WASTEWATER COLLECTION AND TREATMENT  
VALLEYVIEW SANITARY IMPROVEMENTS**

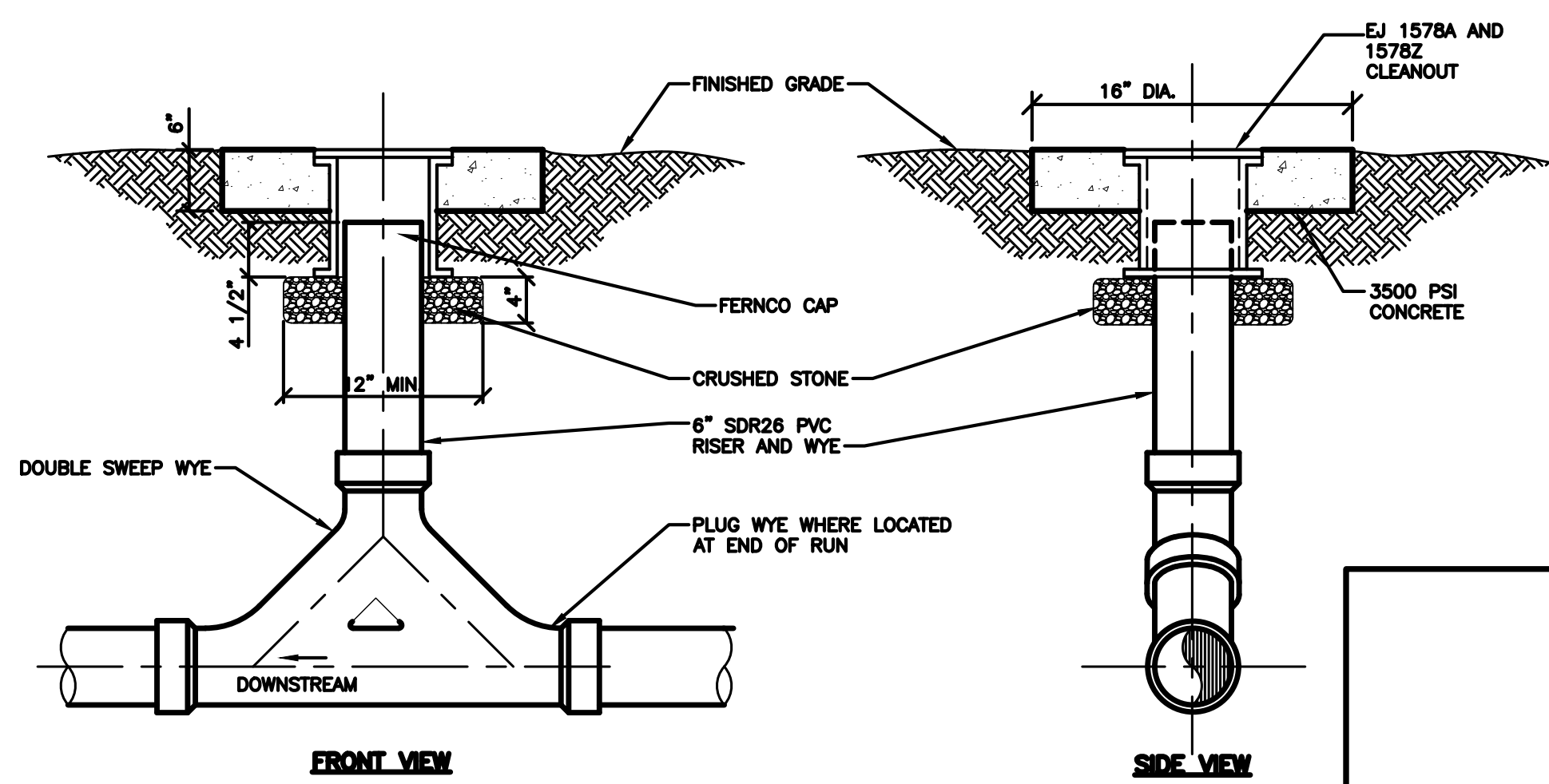
**EROSION AND SEDIMENT CONTROL DETAILS**

PROJECT NO.	<b>220991 4C</b>
DISCIPLINE	<b>CIVIL</b>
SHEET NAME	<b>E&amp;S DETAILS</b>
SHEET	OF
<b>16</b>	<b>19</b>

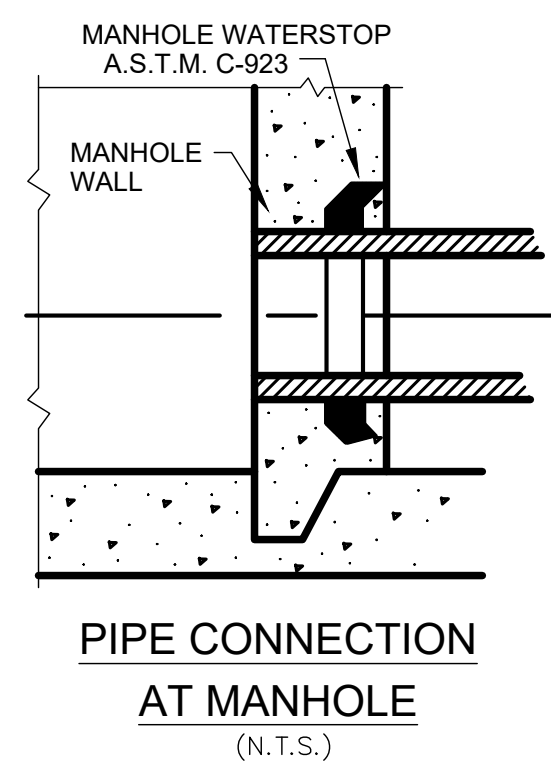




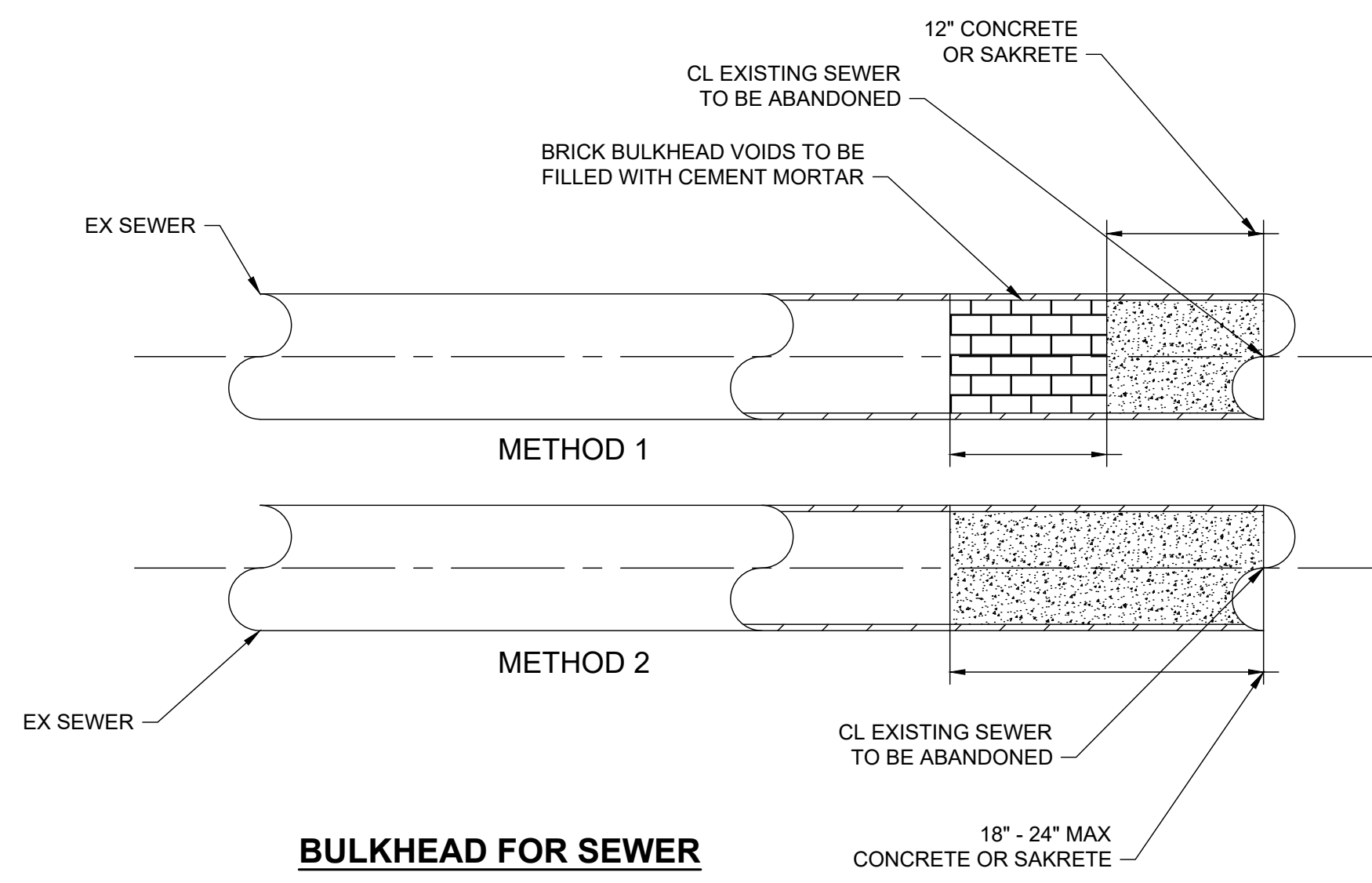
- NOTES:**
- WHERE EXISTING LATERALS CONNECT INTO MANHOLES, THEY SHALL BE RECONNECTED TO ALL NEWLY CONSTRUCTED MANHOLES, AS DIRECTED.
  - IF A LATERAL IS ENCOUNTERED THAT IS CONNECTED TO THE EXISTING SEWER LINE, IT SHALL BE RECONNECTED IN ACCORDANCE WITH THIS DETAIL, AS DIRECTED.
  - LATERALS SHALL BE CONSTRUCTED TO THE RIGHT-OF-WAY LINE AND A STANDARD PVC CAPPED CLEANOUT SHALL BE PLACED AT THIS LOCATION FOR EACH LATERAL.
  - NEW CLEANOUTS SHALL NOT BE PLACED IN DRIVEWAYS.
  - ONE ADDITIONAL 22.5 OR 45 DEGREE FITTING HAS BEEN ADDED AS A PAY ITEM.



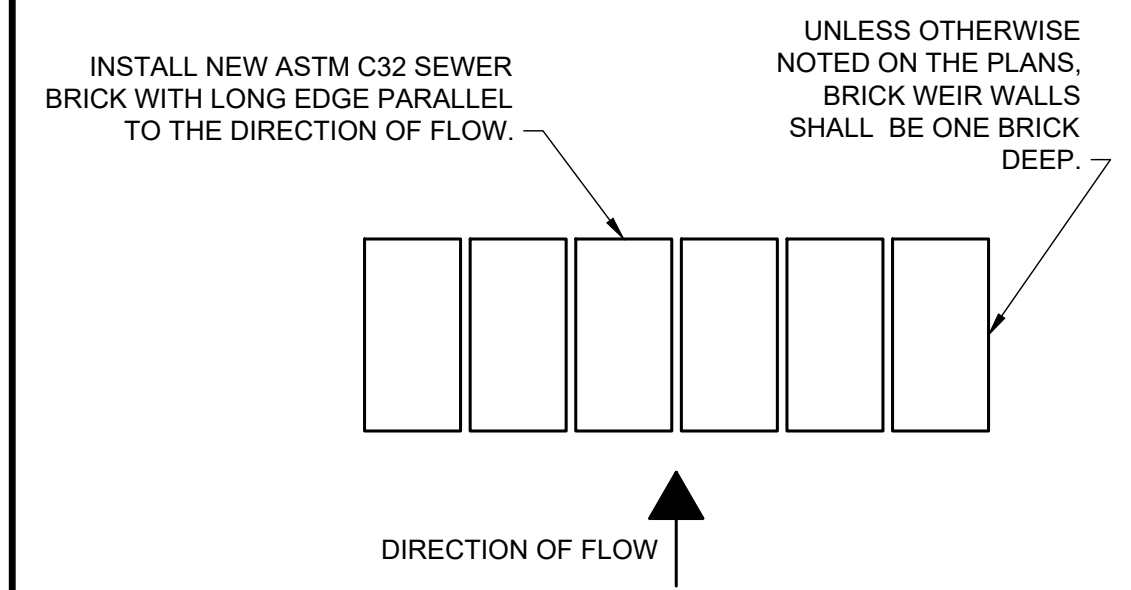
**SEWER CLEANOUT DETAIL**



**PIPE CONNECTION AT MANHOLE (N.T.S.)**

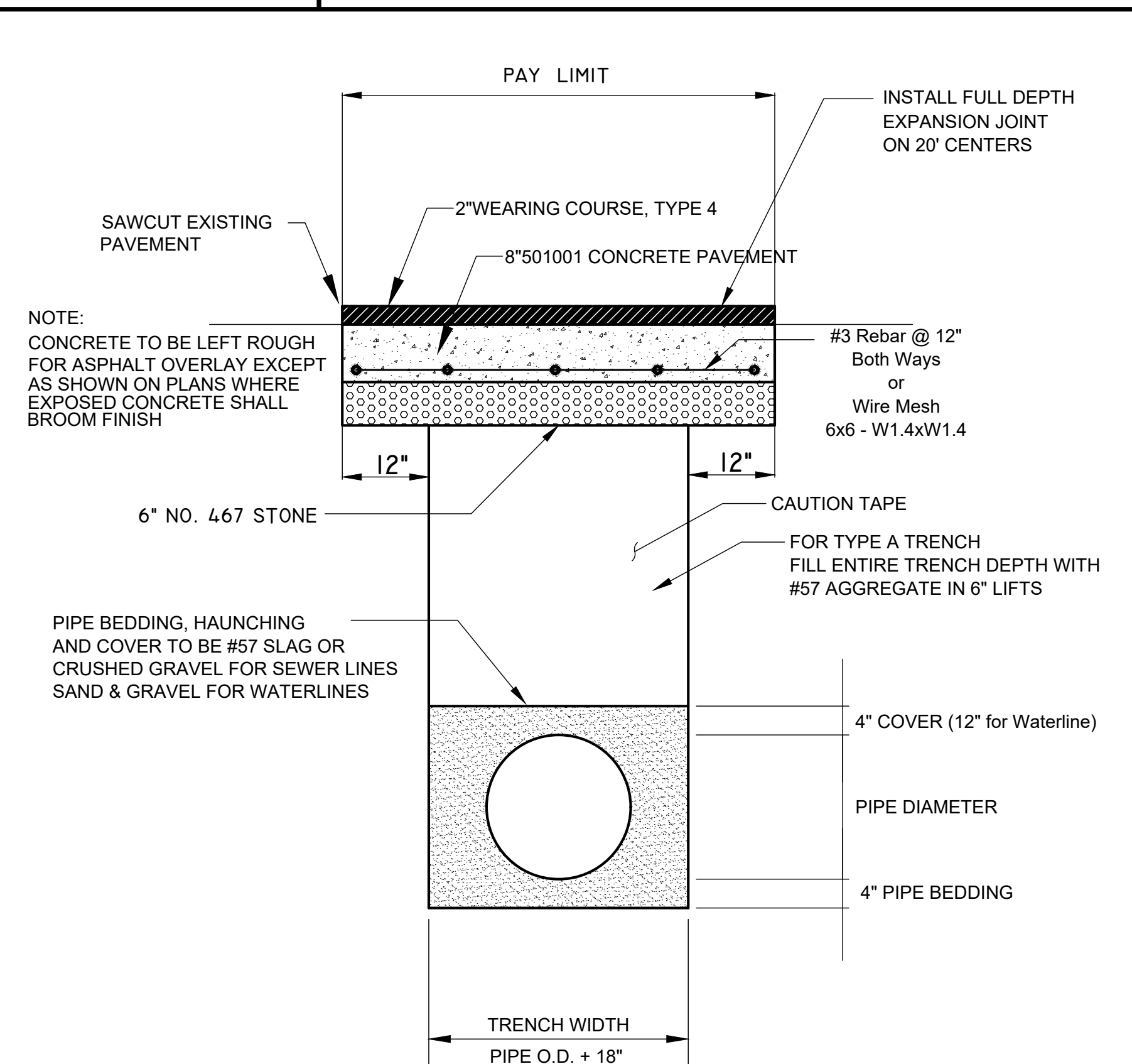


**BULKHEAD FOR SEWER**

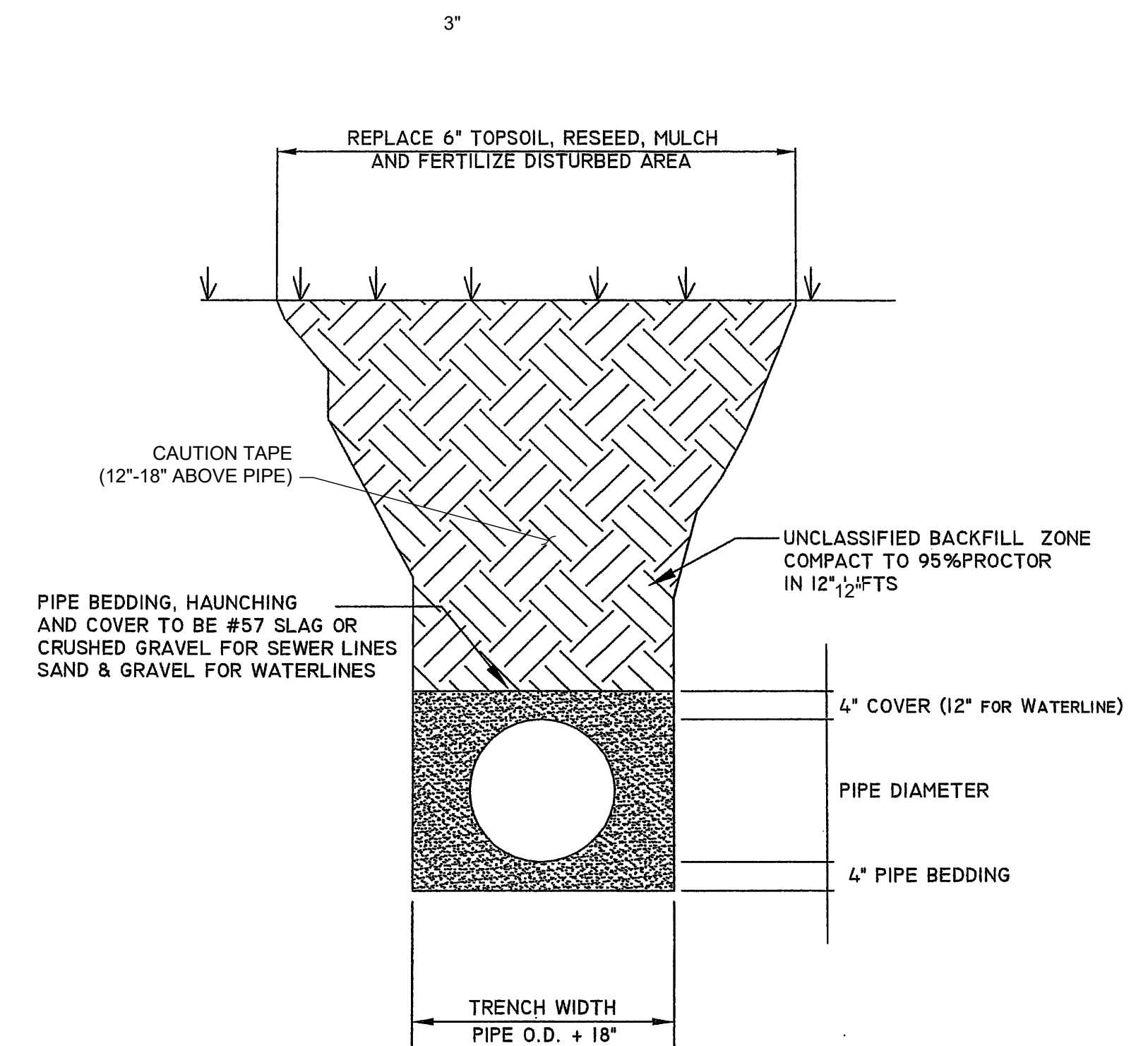


**SEWER BRICK WEIR WALL DETAIL**  
NOT TO SCALE

- NOTE:**
- SURFACE OF WEIR WALL INSTALLATION SHALL BE THOROUGHLY CLEANED AND TREATED WITH BONDING AGENT BEFORE LAYING MASONRY AND GROUT TO ENSURE PROPER ADHESION.



**TYPE A-1 TRENCH/PAVEMENT REPLACEMENT (WHEELING)**



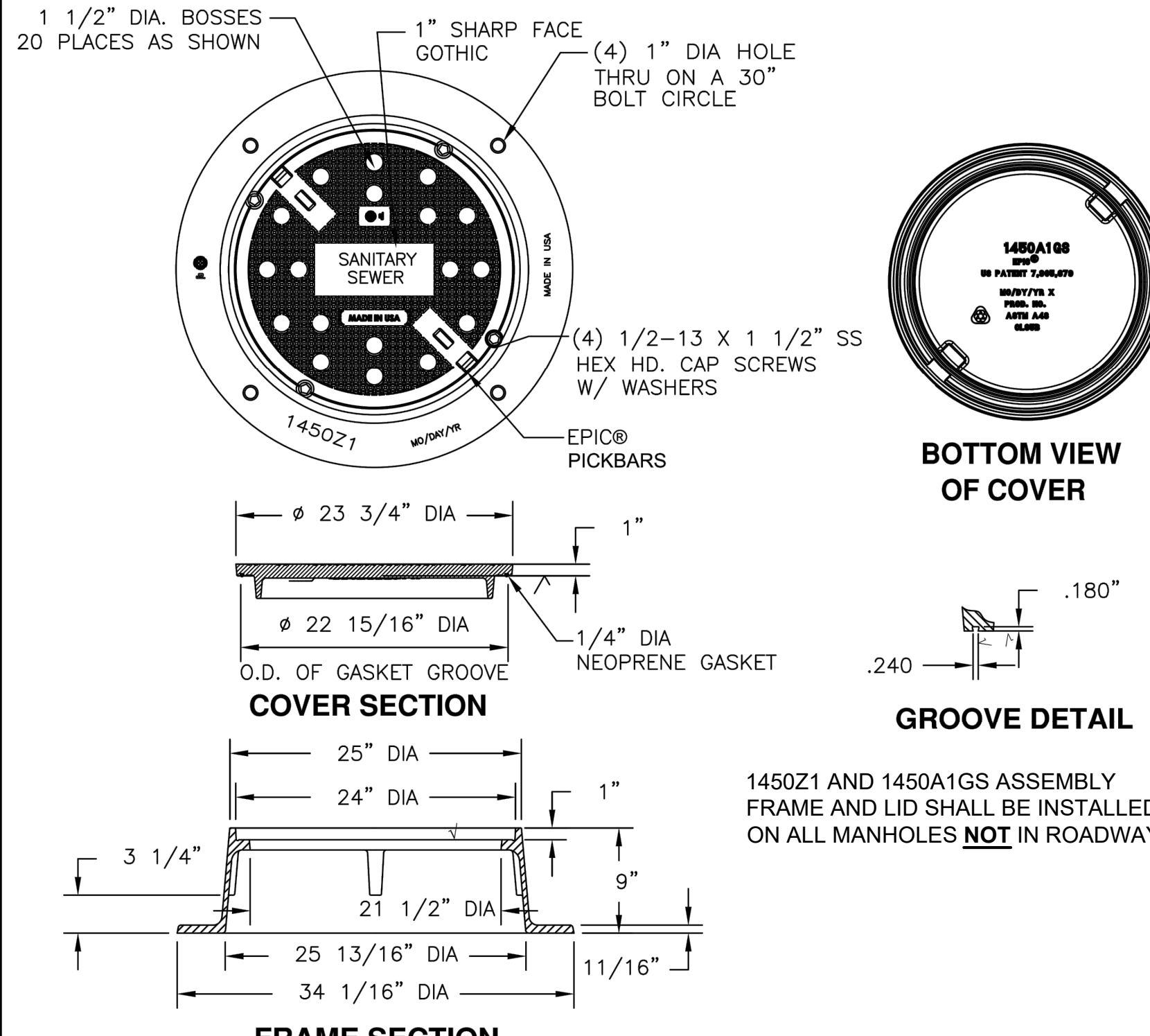
**TYPE D TRENCH (WHEELING)**

DATE	REVISION	NO	ISSUED FOR	ISSUE DATE	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
				4/18/2024	AS SHOWN	LAS	LAS	DAB

PROJECT NO.	220991 4C
DISCIPLINE	CIVIL
SHEET NAME	SD-1
SHEET	OF
17	19



# 1450Z1 1450A1GS Assembly



**Product Number**  
00145006

**Design Features**  
-Materials  
Frame  
Gray Iron (CL35B)  
Cover  
Gray Iron (CL35B)

**Certification**  
-ASTM A48  
-Country of Origin: USA

**Major Components**  
00145014  
00145061

**Drawing Revision**  
05/06/2000 Designer: DEW  
4/12/2023 Revised By: DJH

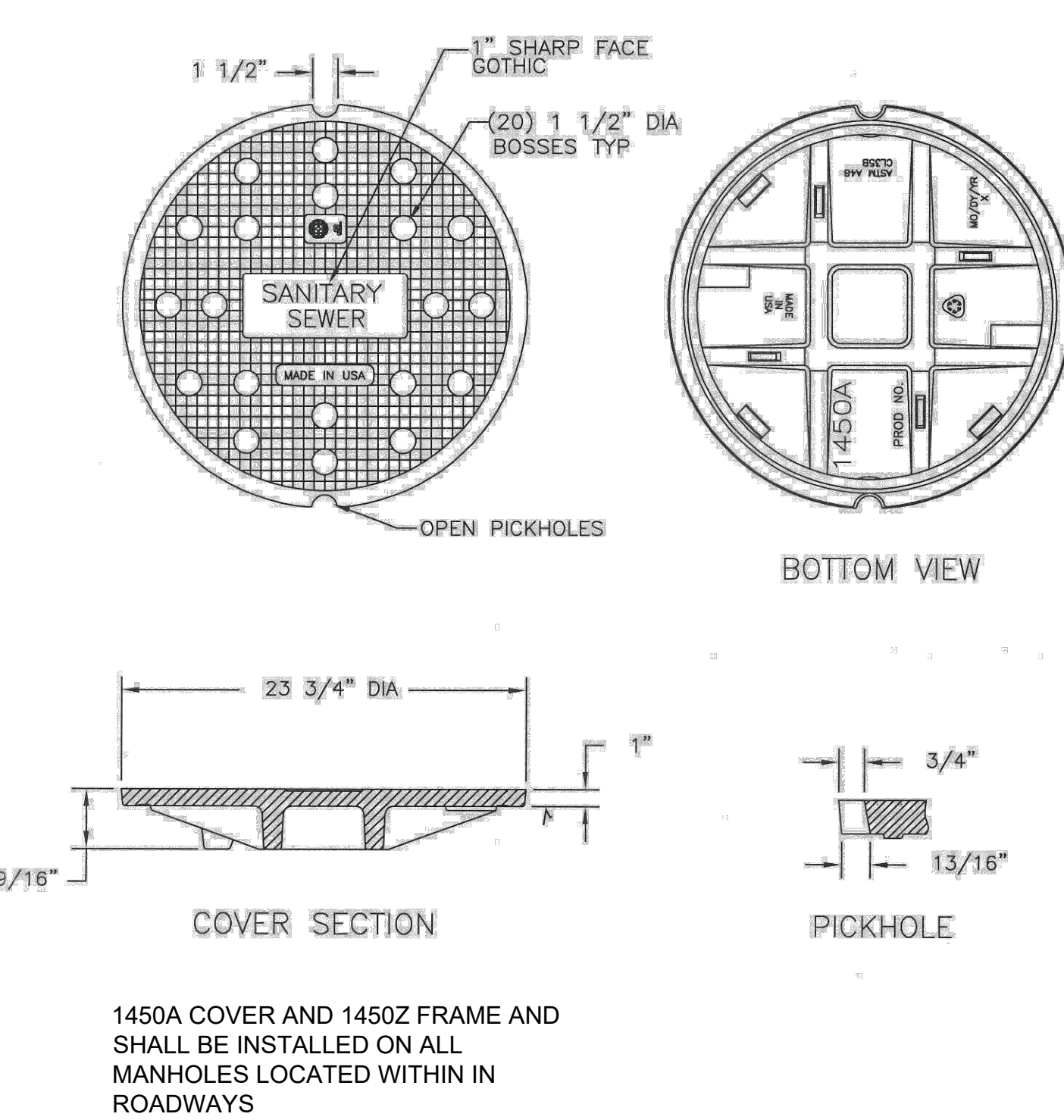
**Disclaimer**  
Weights (lbs/kg) dimensions (inches/mm) and drawings provided for your guidance. We reserve the right to modify specifications without prior notice.

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800 626 4653  
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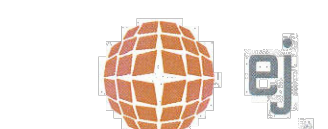
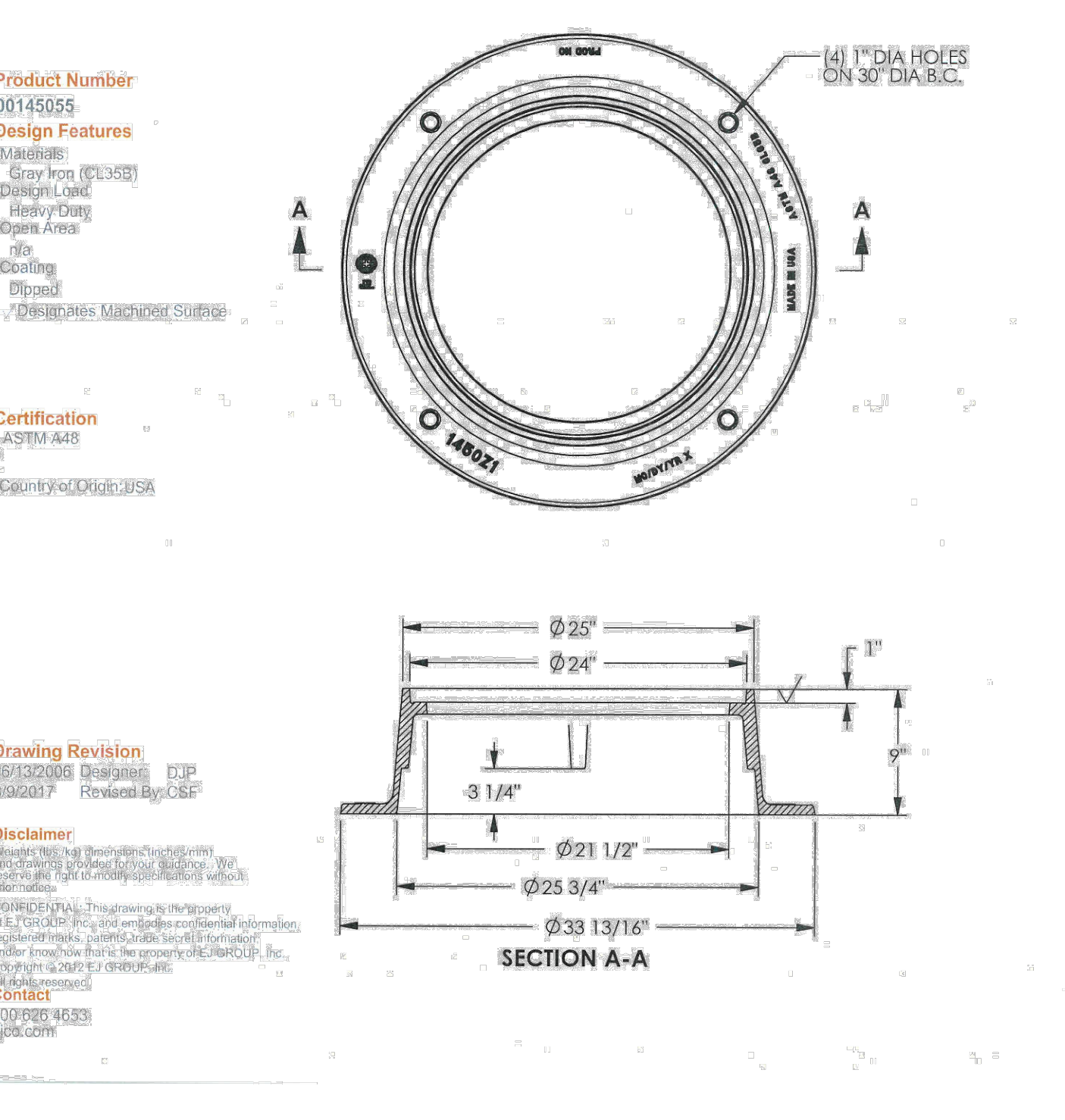
1450Z1 AND 1450A1GS ASSEMBLY FRAME AND LID SHALL BE INSTALLED ON ALL MANHOLES **NOT** IN ROADWAYS

## EAST JORDAN 1450A/Z BOLT DOWN MANHOLE LID AND FRAME

# 1450A Cover



# 1450Z1 Frame



**Product Number**  
00145013

**Design Features**  
-Materials  
Gray Iron (CL35B)  
-Design Load  
Heavy Duty  
-Open Area  
n/a  
-Coating  
Dipped  
-Designates Machined Surface

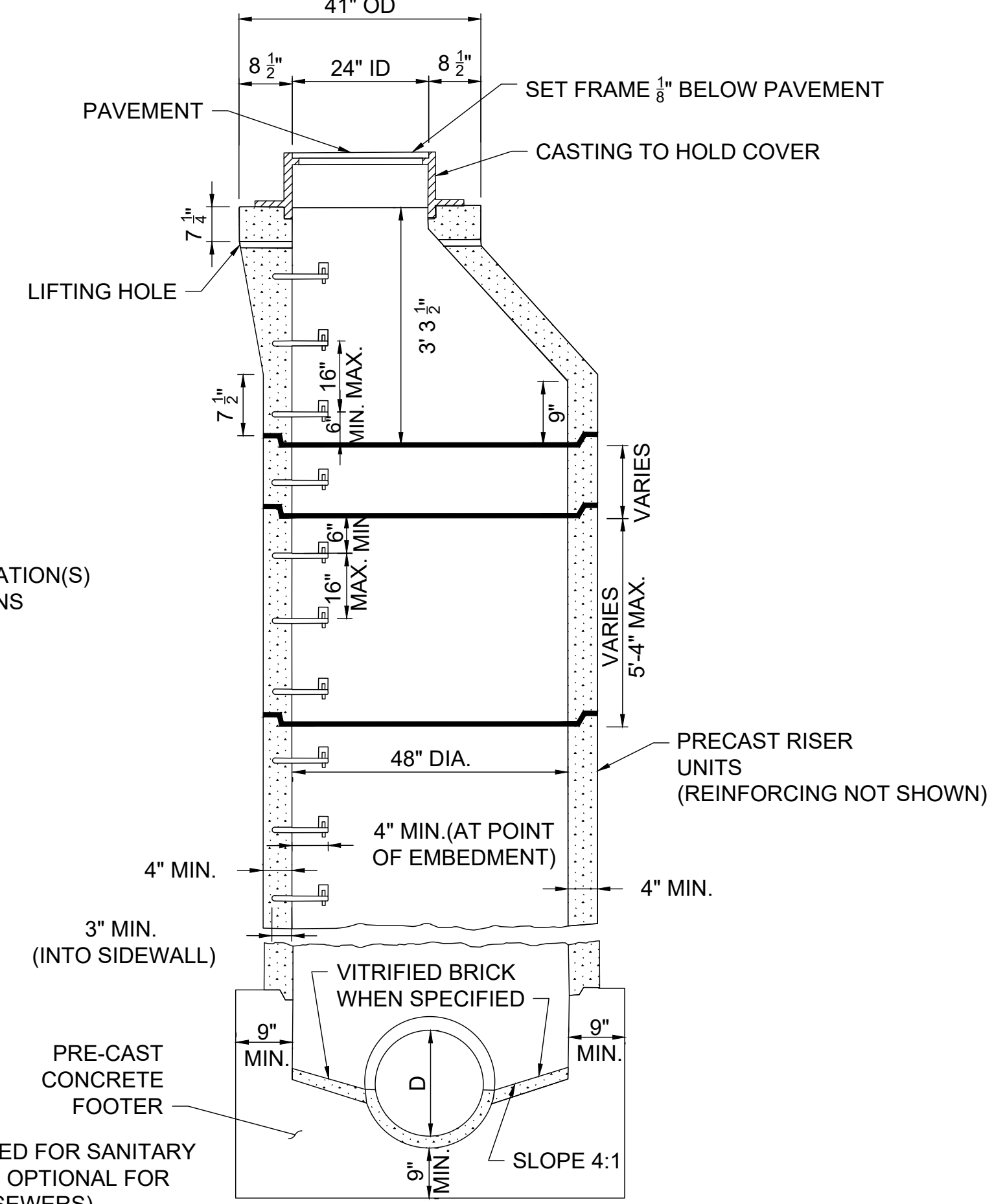
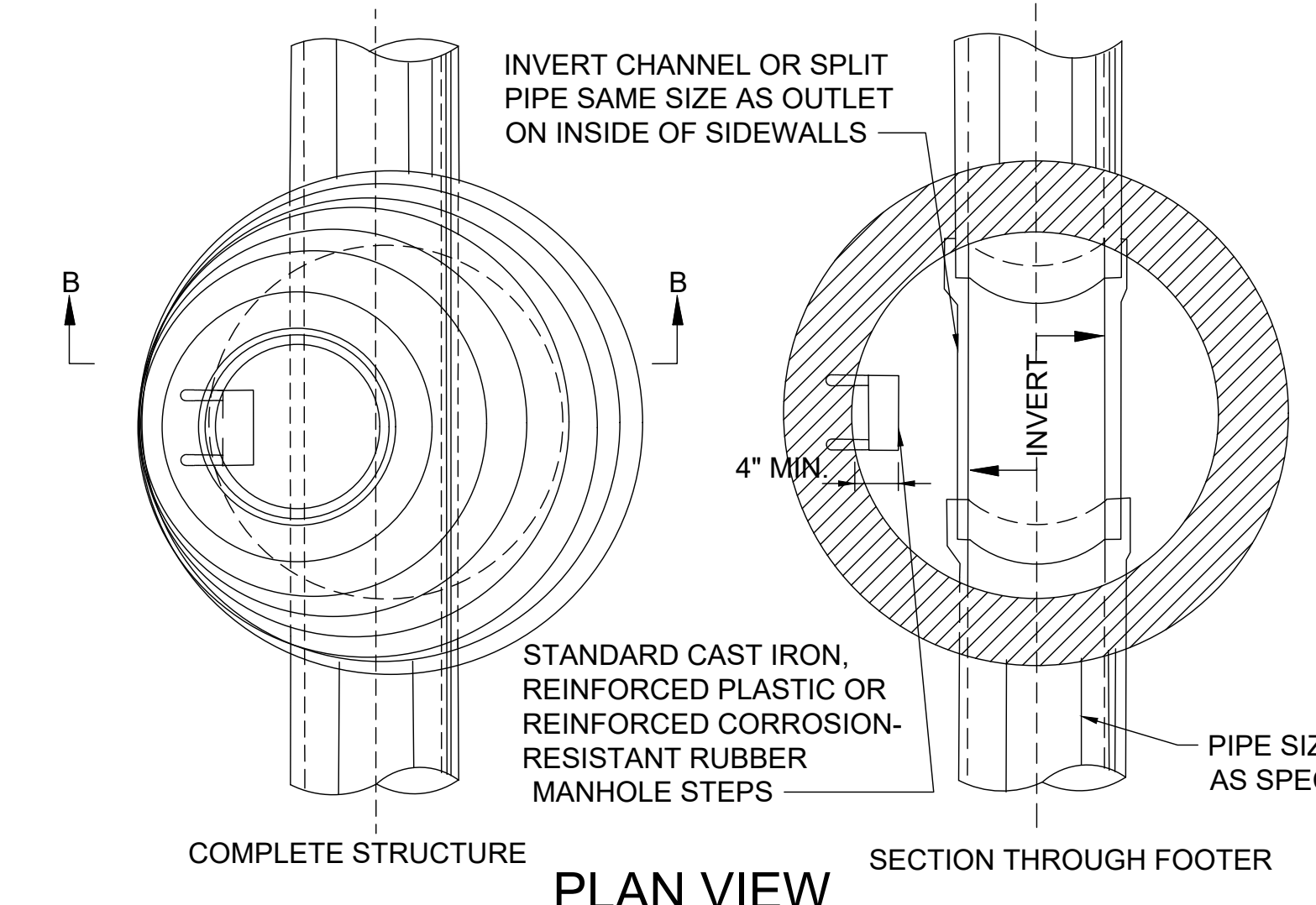
**Certification**  
-ASTM A48  
-Country of Origin: USA

**Drawing Revision**  
5/13/2004 Designer: DEW  
5/17/2015 Revised By: M/H

**Disclaimer**  
Weights (lbs/kg) dimensions (inches/mm) and drawings provided for your guidance. We reserve the right to modify specifications without prior notice.

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## EAST JORDAN 1450 A/Z COVER (FOR ROADWAY)



**NOTES:**

TYPE A MANHOLES, WHEN SPECIFIED ON THE PLANS, MAY BE CONSTRUCTED IN EITHER METHOD (CAST-IN-PLACE OR PRE-CAST OPTION) AS SHOWN HEREIN.

STEPS, FRAMES, AND COVERS SHALL BE AS SHOWN ON WVDOT STANDARD SHEET DR7-X. "KEYED" OR "DOWELED" TYPE CONSTRUCTION JOINTS, ACCEPTABLE TO THE ENGINEER, MAY BE USED IN THE CONSTRUCTION OF THE CONCRETE MANHOLES.

IF THE CAST-IN-PLACE MANHOLE IS OVER TWELVE FEET (12') IN DEPTH, THE SIDEWALLS BELOW THAT DEPTH WILL BE DOUBLE IN THICKNESS.

PIPE AT ELEVATION OTHER THAN SHOWN MAY BE JOINED TO THE MANHOLE BY CUTTING A HOLE THE SIZE OF THE CONNECTING PIPE IN THE MANHOLE, INSERTING THE PIPE THE THICKNESS OF THE MANHOLE SHELL AND CLOSING ALL OPENINGS AROUND THE CONNECTING PIPE WITH JOINT MORTAR.

DRAWING SHOWS PIPE ENTERING AND LEAVING MANHOLE IN A STRAIGHT LINE. HOWEVER, THE PIPES MAY ENTER OR LEAVE AT AN ANGLE OR PLACE AS CALLED FOR OR SHOWN ON THE PLANS.

MINIMUM HEIGHT OF BENCH WALL ABOVE FLOWLINE OF THE PIPE IS 25% OF THE DIAMETER OF THE PIPES.

THE USE OF BRICK FOR MANHOLE CONSTRUCTION WILL NOT BE ALLOWED WHEN A MANHOLE IS LOCATED IN THE ROADWAY.

THE FOLLOWING ADDITIONAL NOTES ARE APPLICABLE FOR PRE-CAST MANHOLES:

MANHOLE STEPS SHALL BE PLACED INTO PLASTIC CONCRETE WALL DURING MANUFACTURE OR MORTARED INTO HOLES AFTER THE CONCRETE HAS SET.

SIDEWALL SECTIONS MAY BE USED IN ANY COMBINATION TO PRODUCE A MANHOLE OF DESIRE DEPTH, EXCEPT THE TAPERED TOP SECTION SHALL BE RETAINED AS SHOWN.

THE TAPERED TOP SECTION SHALL BE MANUFACTURED AND MEET THE SAME REQUIREMENTS AS THE MANHOLE'S SIDEWALLS, BUT SHALL CONFORM TO THE DIMENSIONS DETAILED HEREIN.

LIFTING HOLES IN THE TAPERED TOP SECTION AND THE CIRCUMFERENTIAL NOTCHES IN THE MANHOLE COVER ARE FOR HANDLING PURPOSES ONLY.

THE PRE-CAST SIDEWALL UNITS SHALL BE SET IN JOINT MORTAR OR SEALED WITH O-RING GASKETS.

PRE-CAST CONCRETE MANHOLES SHALL CONFORM TO WVDOT SPECIFICATION SECTION 715.19.

**WHEELING NOTES:**

- ALL MANHOLE STEPS MUST BE REMOVED PRIOR TO ACCEPTANCE BY WPCD. THE STRUCTURES MAY EITHER BE CONSTRUCTED WITHOUT STEPS, OR THEY MUST BE CUT AND FINISHED FLUSH TO THE INSIDE MANHOLE FACE FOLLOWING INSTALLATION OF THE MANHOLES.
- ALL MANHOLES SHALL CONFORM TO WV DOH PAY ITEM 675015. MANHOLE FRAMES AND LIDS SHALL BE EAST JORDAN (NO ALTERNATIVES).

FRAME: EJIW 1450Z (SEE DETAIL ABOVE)

MH CASTING: EJIW 1450A - MARKED "SANITARY" (SEE DETAIL ABOVE)

## WVDOT TYPE A MANHOLE

PROJECT NO.		220991 4C	
DISCIPLINE		CIVIL	
SHEET NAME		SD-2	
SHEET	OF	18	19

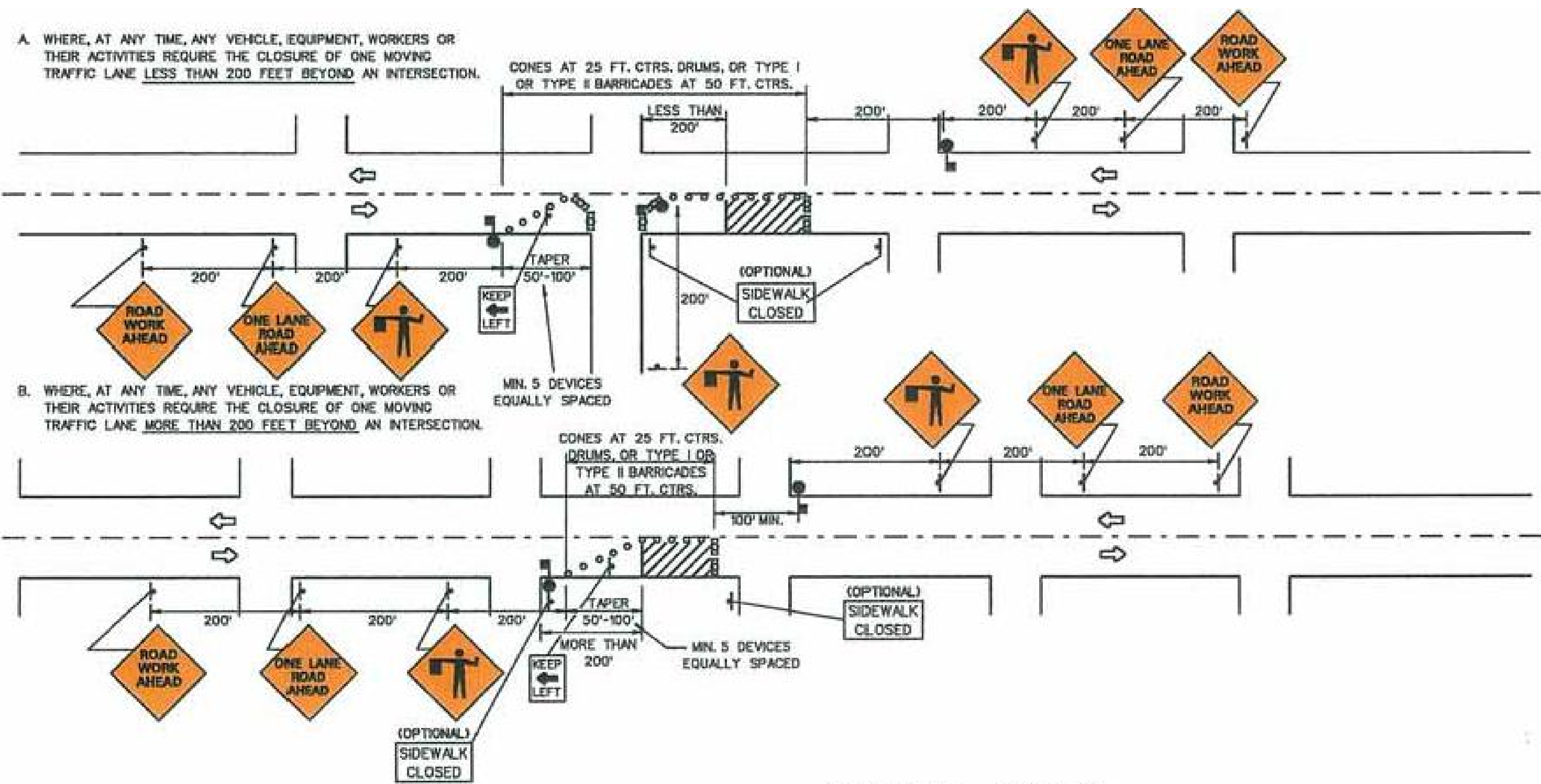
ISSUED FOR:	REVIEW	NO	DATE
ISSUE DATE:	4/18/2024		
SCALE:	AS SHOWN		
DESIGNED BY:	LAS		
DRAWN BY:	LAS		
CHECKED BY:	DAB		

your trusted advisor  
**consultants**  
engineers  
architects  
planners

### WATER POLLUTION CONTROL DIVISION WASTEWATER COLLECTION AND TREATMENT VALLEYVIEW SANITARY IMPROVEMENTS

### STANDARD DETAILS





**SYMBOLS**

- TYPE I OR TYPE II BARRICADES WITH FLASHING LIGHT (TYPE "A").
- WORK AREA.
- SIGN
- CONES OR DRUMS (TYPE II BARRICADES OPTIONAL).
- SIGN ON PORTABLE OR PERMANENT SUPPORT.
- FLAGGER WITH PADDLE.

**GENERAL NOTES**

1. DRUMS OR TYPE II BARRICADES SHALL BE USED IN LIEU OF CONES FOR NIGHT OPERATIONS.
2. IF THE WORK OPERATION PERFORMED DOES NOT EXCEED 15 MINUTES, SIGNING SHALL BE IN CONFORMANCE WITH CASE A6.
3. WHERE THE WORK AREA EXTENDS THROUGH THE INTERSECTION, BARRICADES AND/OR ADEQUATE WARNING SIGNS SHALL BE ERECTED ON THE CROSS STREET.
4. IF THE WORK AREA IS IN THE PARKING LANE A ROAD WORK AHEAD SIGN SHALL BE INSTALLED 200 FT. IN ADVANCE OF THE WORK AREA AND THE WORK AREA PROTECTED WITH CONES, DRUMS OR BARRICADES.
5. CONSTRUCTION OPERATIONS SHALL BE CONFINED TO ONE TRAFFIC LANE, LEAVING THE OPPOSITE LANE OPEN TO TRAFFIC. AT LEAST 500 FT. OF BOTH TRAFFIC LANES SHALL BE AVAILABLE FOR TRAFFIC MOVEMENT AT INTERVALS NOT GREATER THAN 1,000 FT.
6. THE FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES.
7. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS THREE DAYS.
8. FLASHING WARNING LIGHTS AND/OR FLAGS MAY BE USED TO CALL ATTENTION TO THE ABOVE WARNING SIGNS, AS NEEDED ON THE PLANS, AND/OR AS DIRECTED BY THE ENGINEER.
9. ALL VEHICLES, EQUIPMENT, WORKERS (EXCEPT FLAGGERS) AND THEIR ACTIVITIES ARE RESTRICTED AT ALL TIMES TO ONE SIDE OF THE PAVEMENT UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.

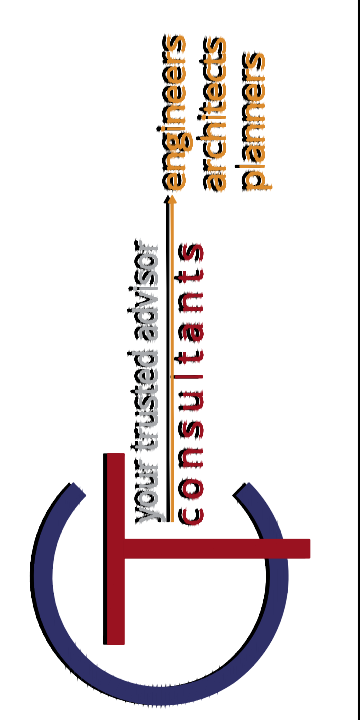
**CASE B1**

TWO-LANE, TWO-WAY TRAFFIC UNDIVIDED, URBAN, LOW-VOLUME, LOW-SPEED DAY OR NIGHT OPERATIONS

WHERE, AT ANY TIME, ANY VEHICLE EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCRDACH ON THE PAVEMENT REQUIRING THE CLOSURE OF ONE TRAFFIC LANE.

**NOTES:**

1. DURING DAYTIME OPERATION, CONTRACTOR SHALL MAINTAIN TWO-WAY TRAFFIC.
2. DURING NIGHTTIME OPERATION, CONTRACTOR SHALL MAINTAIN EITHER TWO-WAY TRAFFIC (PREFERABLE) OR SHALL MAINTAIN ONE LANE WITH FLAGGERS BETWEEN THE TIMES OF 9 P.M. TO 6 A.M.
3. AT NO TIME SHALL THE ROADWAY BE CLOSED DURING DAYTIME OPERATION, AND NOT MORE THAN A 30 MINUTE DURATION DURING NIGHTTIME HOURS.
4. CONTRACTOR SHALL COORDINATE WITH INDIVIDUAL BUSINESSES TO MAINTAIN TRUCK AND SHIFT TRAFFIC.



NO	REVISION	DATE

**WATER POLLUTION CONTROL DIVISION  
WASTEWATER COLLECTION AND TREATMENT  
VALLEYVIEW SANITARY IMPROVEMENTS**

**MAINTENANCE OF TRAFFIC**

PROJECT NO.	220991 4C
DISCIPLINE	CIVIL
SHEET NAME	MOT
SHEET	OF
19	19