

# SITE DEVELOPMENT PLANS STREET, SEWER AND WATER IMPROVEMENTS TO SERVE STONE LAKE ADDITION 3B SALINA, KANSAS

CITY OF SALINA PROJECT NO. 24014  
MARCH 2024

**GENERAL NOTES:**

- CONSTRUCTION METHODS AND MATERIALS USED IN THE CONSTRUCTION OF THE WATER AND SANITARY IMPROVEMENTS SHALL BE IN ACCORDANCE WITH THE STANDARD TECHNICAL SPECIFICATION ON FILE WITH THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT, REFERENCE NUMBERS PW007826 FOR WATER 23121 FOR SANITARY SEWER. ALL OTHER CONSTRUCTION ITEMS SHALL BE IN ACCORDANCE WITH THE STANDARD TECHNICAL SPECIFICATIONS AND ADDENDUM'S TO THE (STS) ON FILE IN THE OFFICE OF THE CITY ENGINEER, CITY OF SALINA, KANSAS.
- THE LOCATION OF ALL UNDERGROUND UTILITIES MAY VARY FROM WHAT IS INDICATED IN THESE PLANS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH THE UTILITY OWNER TO LOCATE AND FLAG ALL UNDERGROUND UTILITIES WHETHER INDICATED OR NOT. NO EXCAVATION SHALL BE PERMITTED IN THE AREA OF UNDERGROUND UTILITIES UNTIL ALL SUCH UTILITIES HAVE BEEN LOCATED AND IDENTIFIED TO THE SATISFACTION OF ALL PARTIES. ANY DAMAGE TO THE UTILITY SHALL BE REPAIRED OR REPLACED BY THE UTILITY OWNER AT THE CONTRACTOR'S EXPENSE.
- ALL RADII AND DIMENSIONS ARE MEASURED TO BACK OF CURB UNLESS OTHERWISE NOTED ON PLAN.
- ALL PROPERTY PINS DISTURBED BY CONSTRUCTION SHALL BE REPLACED BY A LICENSED ENGINEER OR LAND SURVEYOR. THIS WORK SHALL BE SUBSIDIARY TO OTHER ITEMS OF THE CONTRACT.
- FULL DEPTH SAW CUTS SHALL BE USED TO REMOVE A PORTION OF PAVEMENT OR CURB AND GUTTER. ALL SAW CUTS SHALL BE FULL DEPTH AND SHALL BE SUBSIDIARY TO OTHER BID ITEMS. THEN CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE EXISTING SURFACING ON STREETS NEEDED TO BE TRAVELED UPON BY EQUIPMENT DURING CONSTRUCTION, AND IF DAMAGED, THE CONTRACTOR SHALL REPLACE THE SURFACING AND REPAIR THE STREET TO THE ORIGINAL CONDITION. NO TYPE OF EARTH MOVING EQUIPMENT WILL BE PERMITTED TO HAUL ON OR OVER ANY EXISTING STREET.
- ALL ITEMS TO BE REMOVED INCLUDING TREES, PAVEMENT, SIDEWALK, CURB & GUTTER AND OTHER STRUCTURES SHALL BE SUBSIDIARY TO OTHER BID ITEMS UNLESS OTHERWISE NOTED ON THE PLAN, AND LISTED AS A PAY ITEM ON THE BID FORM.
- ANY WORK WHICH REQUIRES TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CITY'S STANDARD DETAILS.
- ALL STREET CROSSINGS FOR SANITARY SEWER AND WATER MAINS WILL REQUIRE 95% COMPACTION OF TRENCH BACKFILL FULL DEPTH.
- ALL WHEEL CHAIR RAMPS FOR FUTURE SIDEWALKS TO BE PROVIDED WITH LAYDOWN CURB AT AREAS SHOWN IN THESE PLANS. LAYDOWN CURB SHALL BE SUBSIDIARY TO CURB AND GUTTER CONSTRUCTION
- JOINT SPACING FOR CONCRETE PAVEMENT WILL BE MODIFIED TO MEET THE CONTRACTOR'S CONSTRUCTION EQUIPMENT AND METHOD OF POURING. ALL CONSTRUCTION JOINTS WILL REQUIRE KEYWAYS, SAWED CONTRACTING JOINTS WILL BE REQUIRED ON MAXIMUM 12'-0" CENTERS.
- STORM SEWER DRAINAGE PIPE SHALL BE CLASS III REINFORCED CONCRETE PIPE OR POLYPROPYLENE DUAL WALL PIPE.

THE COORDINATES PROVIDED IN THESE PLANS ARE FOR INFORMATION AND CHECKING PURPOSES ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALCULATE CONSTRUCTION STAKING COORDINATES ACCORDING TO THE DIMENSIONS SHOWN ON THESE PLANS. CONTRACTOR SHALL VERIFY THE ACCURACY OF THE COORDINATES SHOWN IN THE TABLE HEREON BEFORE CONSTRUCTION.

**CAUTION - NOTICE TO CONTRACTOR**

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

**THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.**

**SAFETY NOTICE TO CONTRACTOR**

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

**WARRANTY / DISCLAIMER**

THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE KAW VALLEY ENGINEERING PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

**UTILITY STATEMENT:**

THE UNDERGROUND UTILITIES SHOWN HEREON ARE FROM FIELD SURVEY INFORMATION OF ONE-CALL LOCATED UTILITIES, FIELD SURVEY INFORMATION OF ABOVE GROUND OBSERVABLE EVIDENCE, AND/OR THE SCALING AND PLOTTING OF EXISTING UTILITY MAPS AND DRAWINGS AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHERMORE, THE SURVEYOR DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES BY EXCAVATION UNLESS OTHERWISE NOTED ON THIS SURVEY. KANSAS ONE-CALL TICKET # 21635968, AND CITY UTILITY MAPS ACCESSED ON-LINE JUNE 06, 2022.

**UTILITY CONTACTS**

**NATURAL GAS SERVICE**  
KANSAS GAS SERVICE  
1001 EDISON PLACE  
SALINA, KANSAS 67401  
CONTACT: MATT PATON  
PHONE: 785-376-7657  
EMAIL: matthew.paton@onegas.com

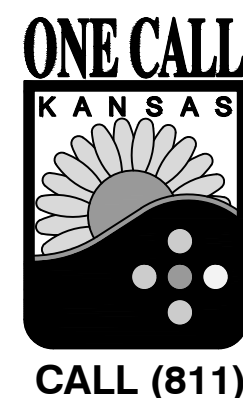
**ELECTRIC SERVICE**  
EVERGY  
1001 EDISON PLACE  
SALINA, KANSAS 67401  
CONTACT: GARRETT MORTIMER  
PHONE: 785-508-2351 OFFICE  
785-201-7435 CELL  
EMAIL: garrett.mortimer@evergy.com

**TELEPHONE, INTERNET & TELEVISION SERVICE**  
AT&T  
154 N. BROADWAY, ROOM 210  
WICHITA, KANSAS 67202-2104  
CONTACT: SCOTT DUNLAP  
PHONE: 316-268-2194  
EMAIL: sd3971@att.com

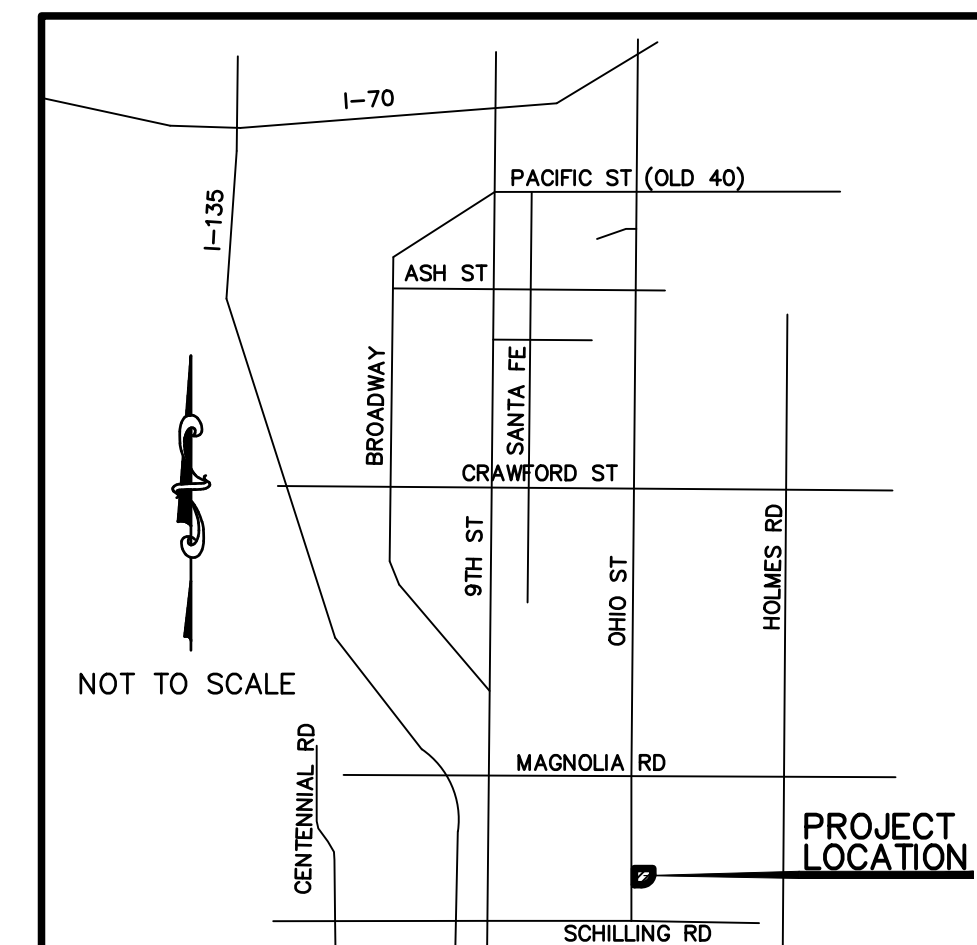
**COX COMMUNICATION**  
2950 S. 9TH STREET SUITE A  
SALINA, KANSAS 67401  
PHONE: 785-404-6299  
WEBSITE: www.cox.com

**ZAYO GROUP**  
BOULDER, COLORADO  
PHONE: 866-364-6033  
WEBSITE: www.zayo.com

**WATER, SANITARY, & STORM SERVICE**  
CITY OF SALINA  
300 W. ASH STREET  
SALINA, KANSAS 67401  
PHONE: 785-826-7305



LEGEND	
△	SECTION CORNER FOUND
○	MONUMENT FOUND
●	1/2"x24" REBAR W/ "KVE CLS-20" CAP SET
(P)	PLATTED BEARING AND DISTANCE PER STONE LAKE ADDITION
(M)	MEASURED BEARING & DISTANCE
(C)	CALCULATED MEASUREMENT
L=	LENGTH OF CURVE
↔	STREET SIGN
□	UTILITY POLE
□	UTILITY POLE W/ TRANSFORMER
←	DEADMAN ANCHOR
(S) —OU—	OVERHEAD UTILITY - (# LINES)
—E—	SIGN, UNDERGROUND ELECTRIC
□	ELECTRIC METER
GTS	GAS CATHODIC METER
—G—	GAS LINE
—W—	WATER LINE
⊗	WATER LINE GATE VALVE
□	WATER METER
⊕	FIRE HYDRANT
WS	WATER SPIGOT
⊙	WELL
⊙	SANITARY SEWER MANHOLE
—S—	SANITARY SEWER LINE
⊕	GATE POST
- - - - -	BARBED WIRE FENCE
- - - - -	1' CONTOUR INTERVAL
///	RESTRICTED ACCESS



**PROPOSED LEGEND**

⊙	SANITARY SEWER MANHOLE
—S—	SEWER LINE
⊕	FIRE HYDRANT
⊙	WATER VALVE
—W—	WATER LINE
→	DRAINAGE FLOW ARROW

**SHEET INDEX**

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24	WATER LINE 'A'
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30	SALINA STANDAR
31	CRYSTAL LAKE D
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33	CRYSTAL LAKE D
34	CRYSTAL LAKE P

*Matthew Paton*  
3/11/24

**BASIS OF BEARINGS:**

THE BASIS OF BEARINGS NORTH LINE OF THE STOK KANSAS.

**DATUM BENCHMARK:**

THE ELEVATION DATUM F

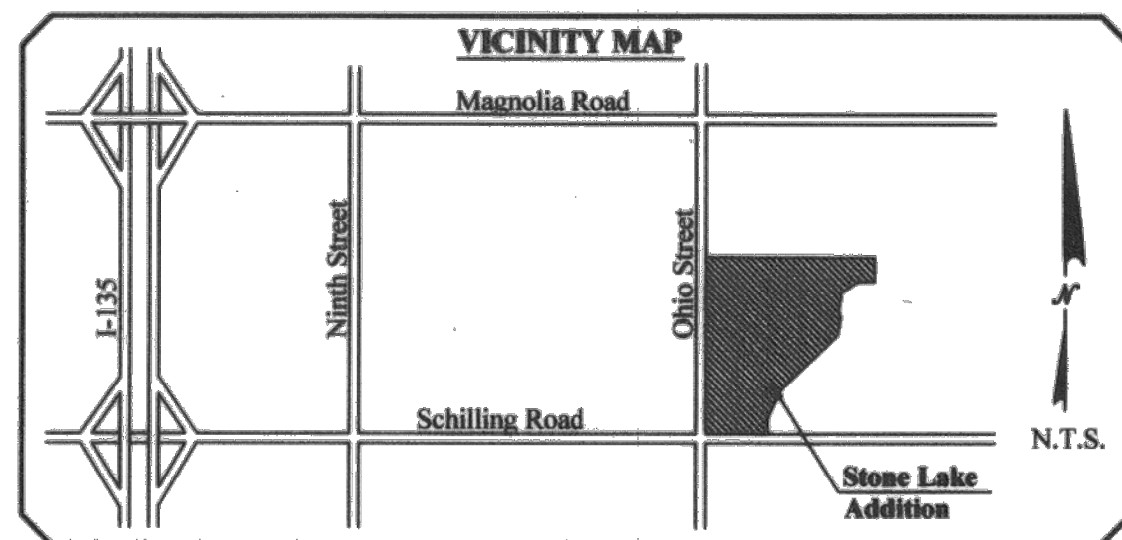
**BENCHMARKS:**

BM #1: GAS CATHODIC P RIGHT-OF-WAY LOCATED THE CENTERLINES OF SHI

BM#2: GUY ANCHOR LO

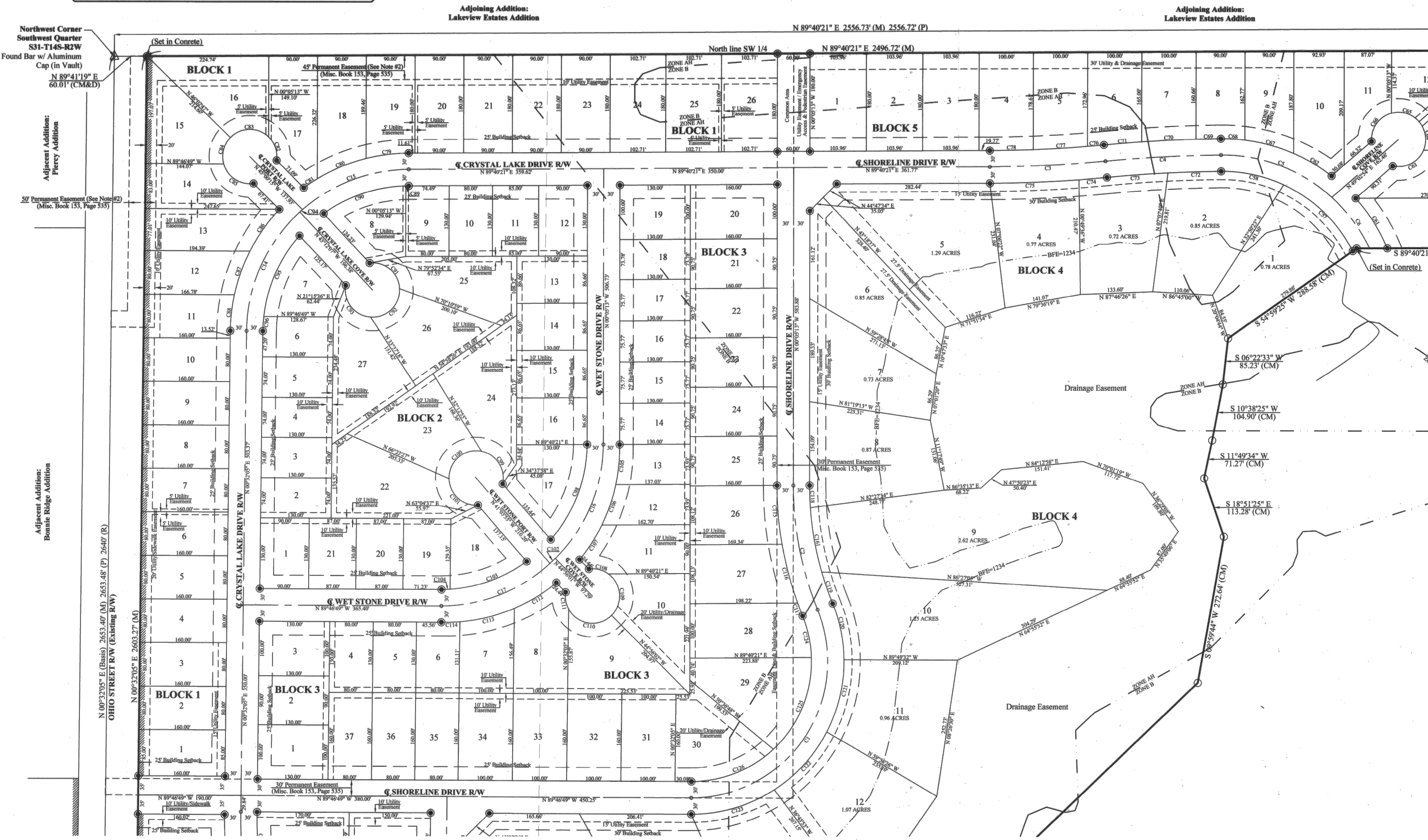
BM#3: 2.5" ALUMINUM SHILLING ROAD AND OHIO

CITY OF SALINA, KANSAS	
DEPARTMENT OF PUBLIC WORKS - ENGINEERING DIVISION	
RELEASED FOR CONSTRUCTION	
_____ CITY ENGINEER	_____ DATE
ATTEST:	
_____ CITY CLERK	_____ DATE



# The Final Plat of Stone Lake Addition

to the City of Salina, Saline County, Kansas  
A parcel of land located in the Southwest Quarter of Section 31, Township 14 South, Range 2 West  
of the 6th Principal Meridian



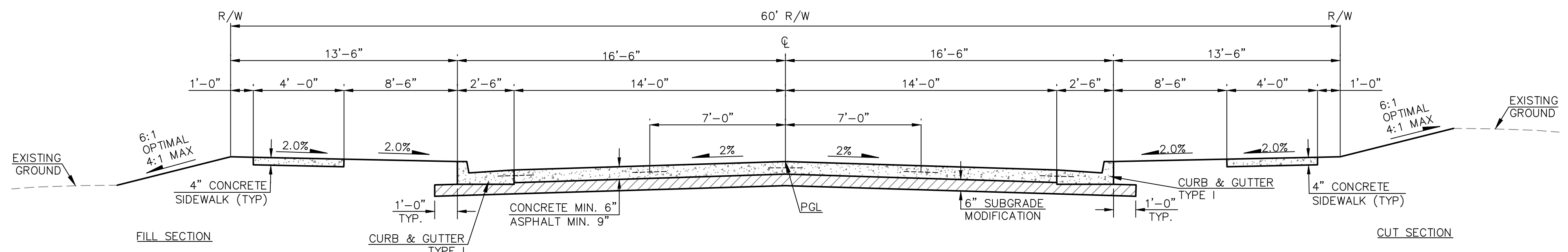
CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	250.00'	491.68'	416.18'	S 33°52'43" W
C2	600.00'	234.33'	232.85'	N 11°16'32" W
C3	2340.99'	213.39'	213.32'	S 87°03'40" W
C4	2483.06'	213.27'	213.20'	N 86°54'37" E
C5	300.00'	223.63'	218.49'	S 69°16'25" E
C6	300.00'	117.57'	116.82'	S 36°41'29" E
C8	1000.00'	302.61'	301.46'	S 09°17'54" E
C45	970.00'	83.68'	83.65'	S 23°11'31" E
C51	970.00'	42.24'	42.24'	N 01°52'35" W
C55	1030.00'	33.76'	33.76'	N 01°34'04" W
C57	270.00'	179.38'	176.10'	S 46°20'13" E
C58	270.00'	119.03'	118.07'	S 77°59'59" E
C61	330.00'	109.53'	109.03'	S 32°33'08" E
C62	330.00'	81.12'	80.91'	S 59°35'57" E
C63	50.00'	69.04'	63.69'	S 62°37'07" W
C64	50.00'	55.86'	53.00'	S 08°56'47" E
C65	50.00'	55.99'	53.11'	S 73°01'46" E
C66	50.00'	68.92'	63.59'	N 33°27'09" E
C67	330.00'	93.63'	93.31'	S 74°46'10" E
C68	330.00'	44.53'	44.50'	S 86°45'48" E

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C69	2513.06'	45.59'	45.59'	N 88°51'05" E
C70	2513.06'	100.12'	100.11'	N 87°11'25" E
C71	2513.06'	70.14'	70.14'	N 85°14'58" E
C72	2353.06'	98.03'	98.02'	N 88°16'56" E
C73	2353.06'	112.67'	112.66'	N 85°43'01" E
C74	2370.99'	51.66'	51.66'	S 85°04'26" W
C75	2370.99'	164.47'	164.44'	S 87°41'07" W
C76	2310.99'	30.21'	30.21'	S 84°49'28" W
C77	2310.99'	100.19'	100.18'	S 86°26'27" W
C78	2310.99'	80.25'	80.25'	S 89°40'40" W
C79	330.00'	79.19'	79.00'	N 82°47'48" E
C80	330.00'	97.76'	97.40'	N 67°26'10" E
C81	330.00'	30.06'	30.05'	N 56°20'23" E
C82	50.00'	47.33'	45.58'	S 18°59'26" E
C83	50.00'	78.21'	70.48'	N 89°04'46" E
C84	50.00'	52.58'	50.19'	N 14°08'28" E
C85	50.00'	71.69'	65.70'	N 57°03'33" W
C86	330.00'	94.19'	93.87'	N 35°06'06" E
C87	330.00'	85.01'	84.78'	N 19°32'42" E
C88	330.00'	66.98'	66.86'	N 06°21'02" E

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C89	270.00'	5.51'	5.51'	N 89°05'10" E
C90	270.00'	162.22'	159.79'	N 71°17'23" E
C91	50.00'	81.41'	72.71'	S 49°41'23" E
C92	50.00'	84.91'	75.07'	S 45°36'12" W
C93	50.00'	83.49'	74.12'	N 73°43'20" W
C94	300.00'	6.48'	6.48'	S 85°04'26" W
C95	270.00'	165.32'	162.73'	N 33°46'33" E
C96	270.00'	26.85'	26.84'	N 03°23'08" E
C97	270.00'	34.98'	34.96'	S 04°18'06" W
C98	270.00'	191.01'	187.05'	S 20°51'24" W
C99	50.00'	79.58'	71.44'	S 33°19'30" E
C100	50.00'	89.66'	78.12'	N 49°42'33" E
C101	50.00'	80.57'	72.13'	N 87°20'31" W
C102	300.00'	13.56'	13.55'	S 46°21'39" W
C103	270.00'	152.24'	150.24'	S 70°02'22" W
C104	270.00'	15.78'	15.78'	S 87°52'04" W
C105	320.00'	74.46'	74.29'	S 05°20'25" W
C106	320.00'	78.56'	78.36'	S 19°02'22" W
C107	320.00'	76.04'	75.86'	S 32°52'47" W
C108	50.00'	38.23'	37.30'	S 76°09'40" E

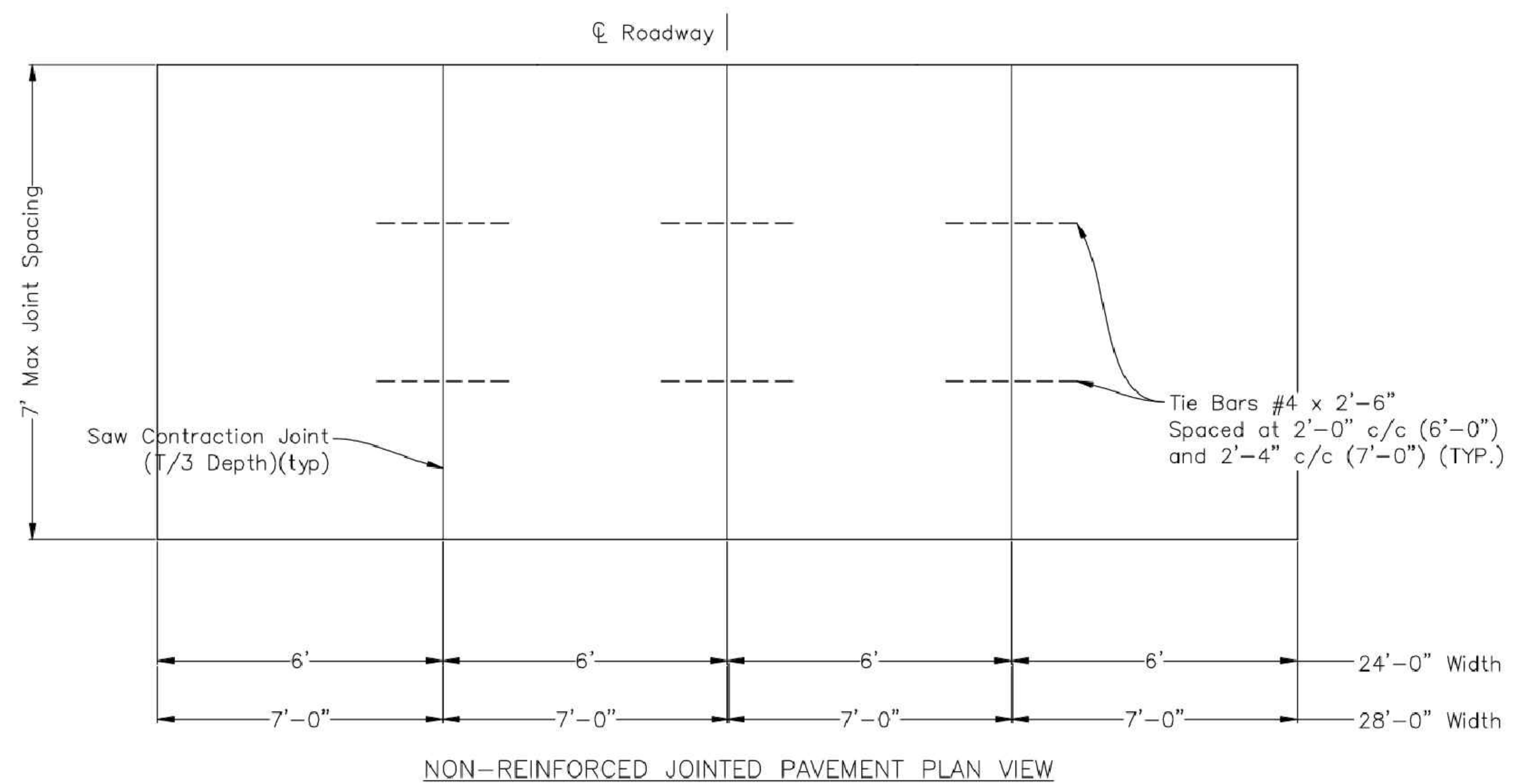
CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C109	50.00'	86.68'	76.22'	S 04°35'46" E
C110	50.00'	92.99'	80.16'	N 81°39'18" W
C111	50.00'	31.92'	31.38'	N 10°05'24" W
C112	320.00'	90.82'	90.51'	S 58°34'34" W
C113	320.00'	103.76'	103.31'	S 75°59'44" W
C114	320.00'	34.48'	34.46'	S 88°22'18" W
C115	630.00'	108.62'	108.48'	N 05°01'29" W
C116	630.00'	111.95'	111.80'	N 15°03'17" W
C117	630.00'	25.48'	25.48'	N 21°18'15" W
C118	570.00'	41.11'	41.10'	N 02°09'07" W
C119	570.00'	61.30'	61.27'	N 19°22'57" W
C120	280.00'	105.93'	105.30'	S 11°37'31" E
C121	280.00'	137.93'	136.54'	S 13°19'28" W
C122	280.00'	144.88'	143.27'	S 42°15'35" W
C123	280.00'	161.94'	159.69'	S 73°39'06" W
C124	220.00'	78.31'	77.89'	S 12°15'59" E
C125	220.00'	188.11'	182.43'	S 22°25'31" W
C126	220.00'	166.26'	162.33'	S 68°34'13" W
C161	570.00'	120.21'	119.99'	N 10°15'36" W



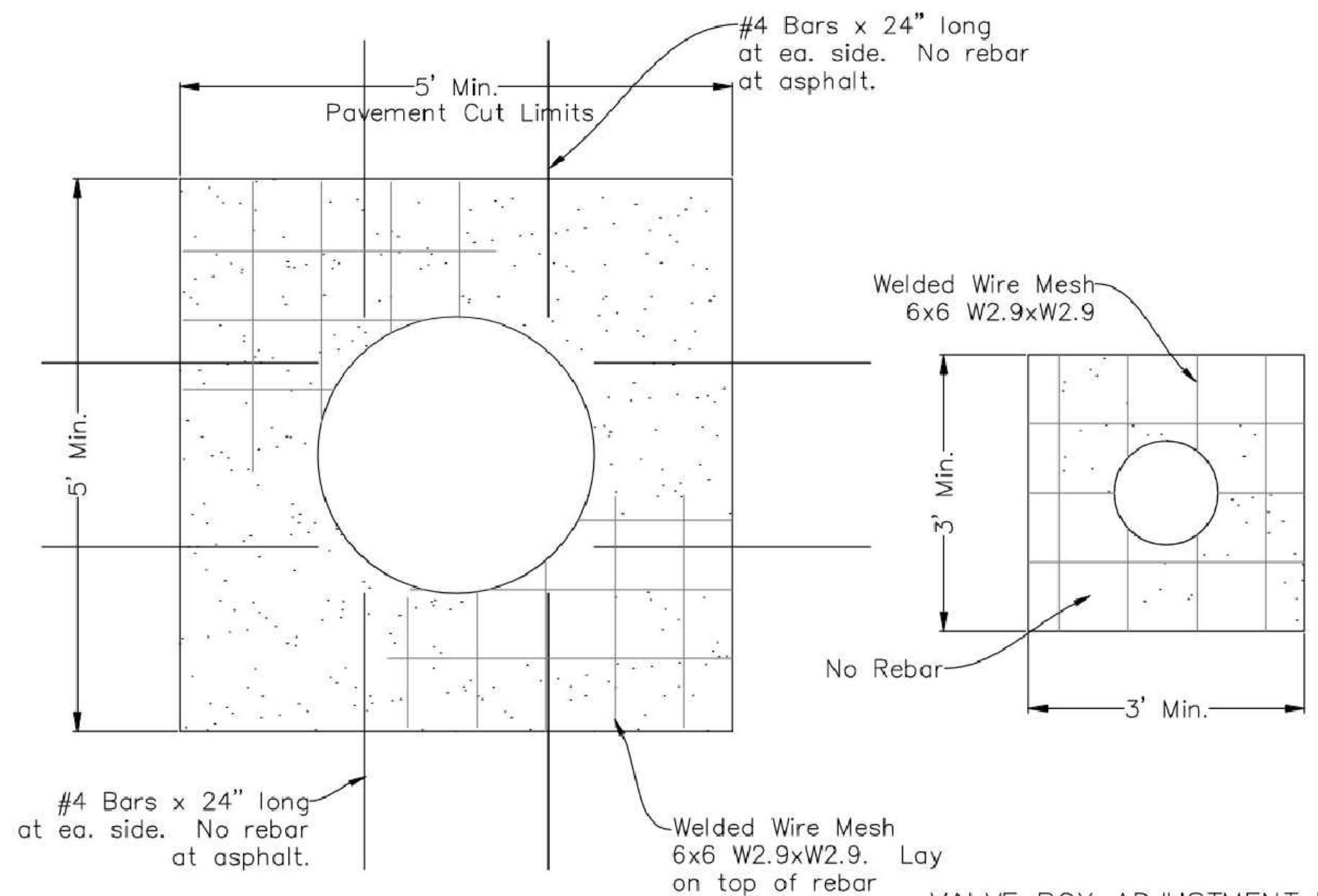


**TYPICAL SECTION**  
 CONCRETE MIN 6" THICKNESS N.T.S.  
 ASPHALT MIN 9" THICKNESS

- NOTES:**
1. EARTHWORK QUANTITIES BASED ON CONCRETE TYPICAL SECTION.
  2. BACK OF CURB IS 0.07' HIGHER THAN CENTERLINE GRADE WHEN TYPICAL ROADWAY SECTION IS USED.

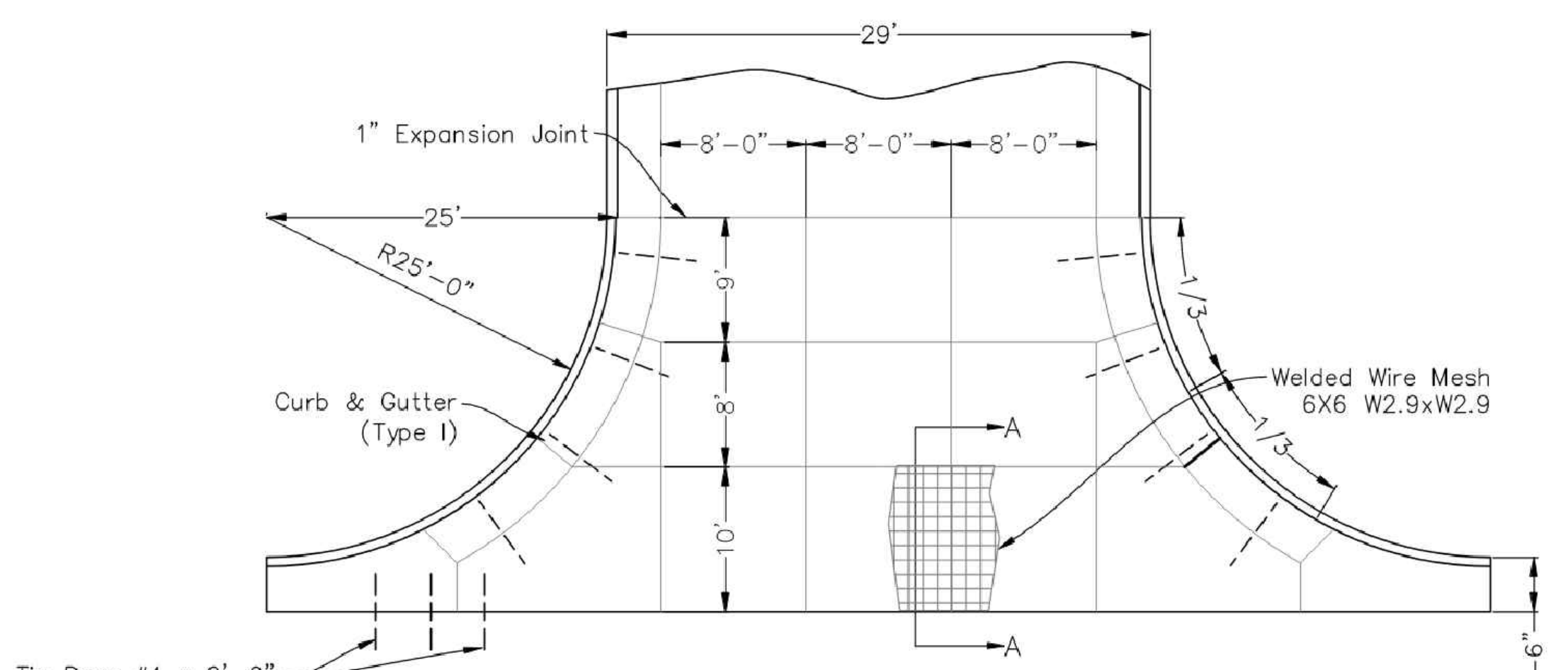


**NON-REINFORCED JOINTED PAVEMENT PLAN VIEW**

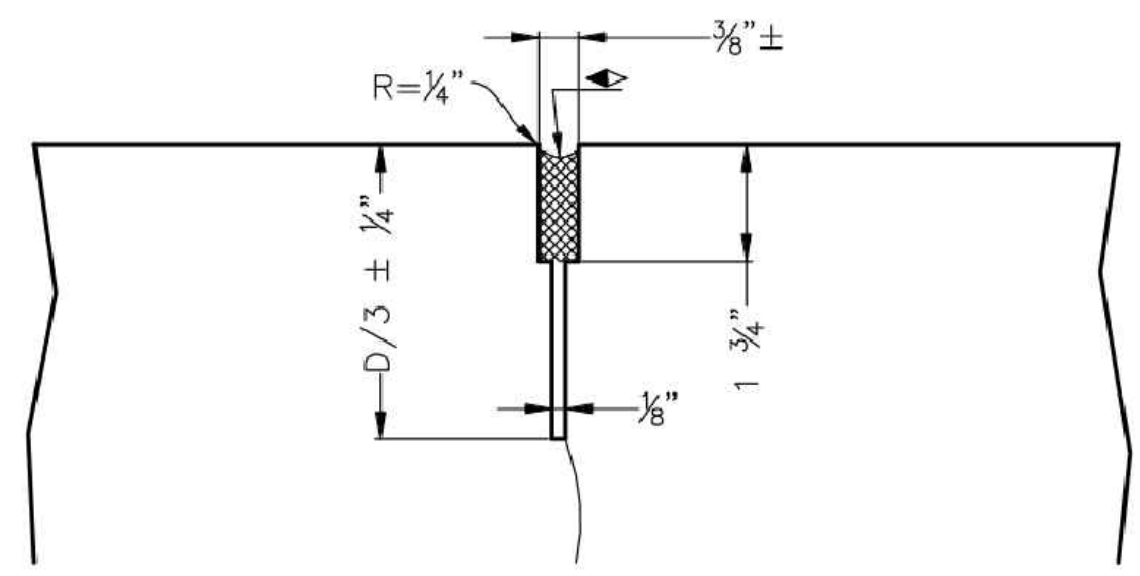


**MANHOLE ADJUSTMENT DETAIL**

**VALVE BOX ADJUSTMENT DETAIL**



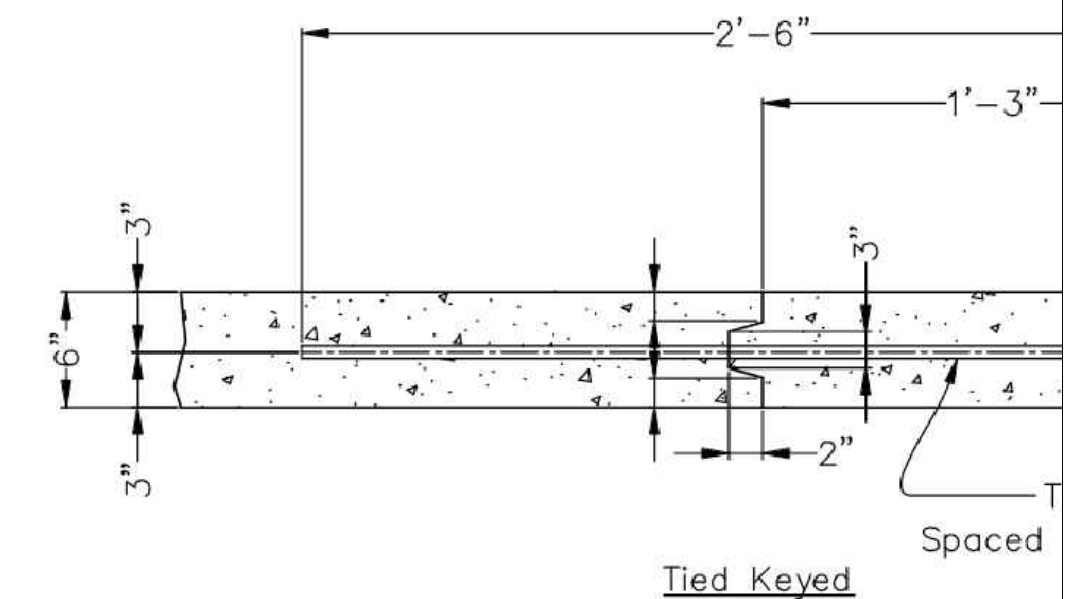
**REINFORCED CONCRETE VALLEY GUTTER PLAN**  
 Scale: N.T.S.



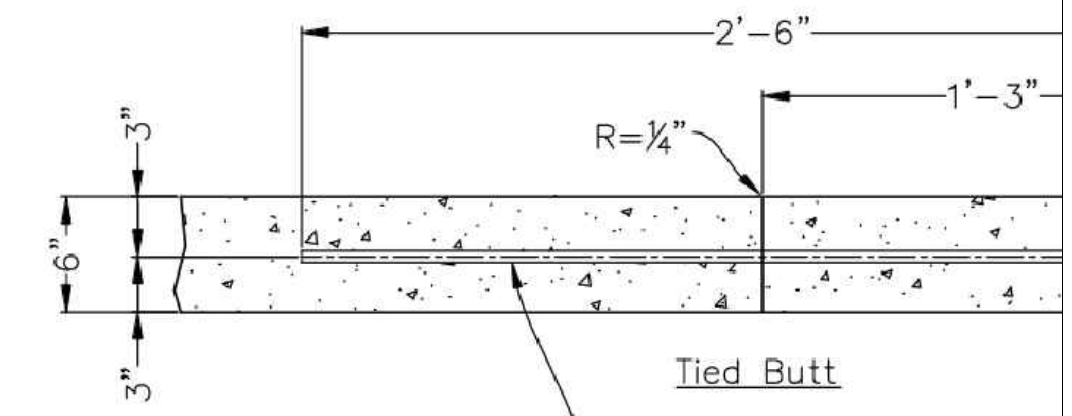
**SAW CUT CONTRACTION JOINT DETAIL**  
 Scale: N.T.S.

Make the initial 1/8" saw cut D/3 ± 1/4" depth; the second 1/8" saw cut is a separate operation after concrete has gained sufficient strength to avoid spalling as determined by the Engineer.

◀ All sawed joints on this project shall be filled in accordance with the Standard Specifications.

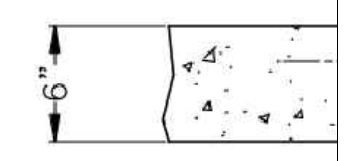


**Tied Keyed**



**Tied Butt**

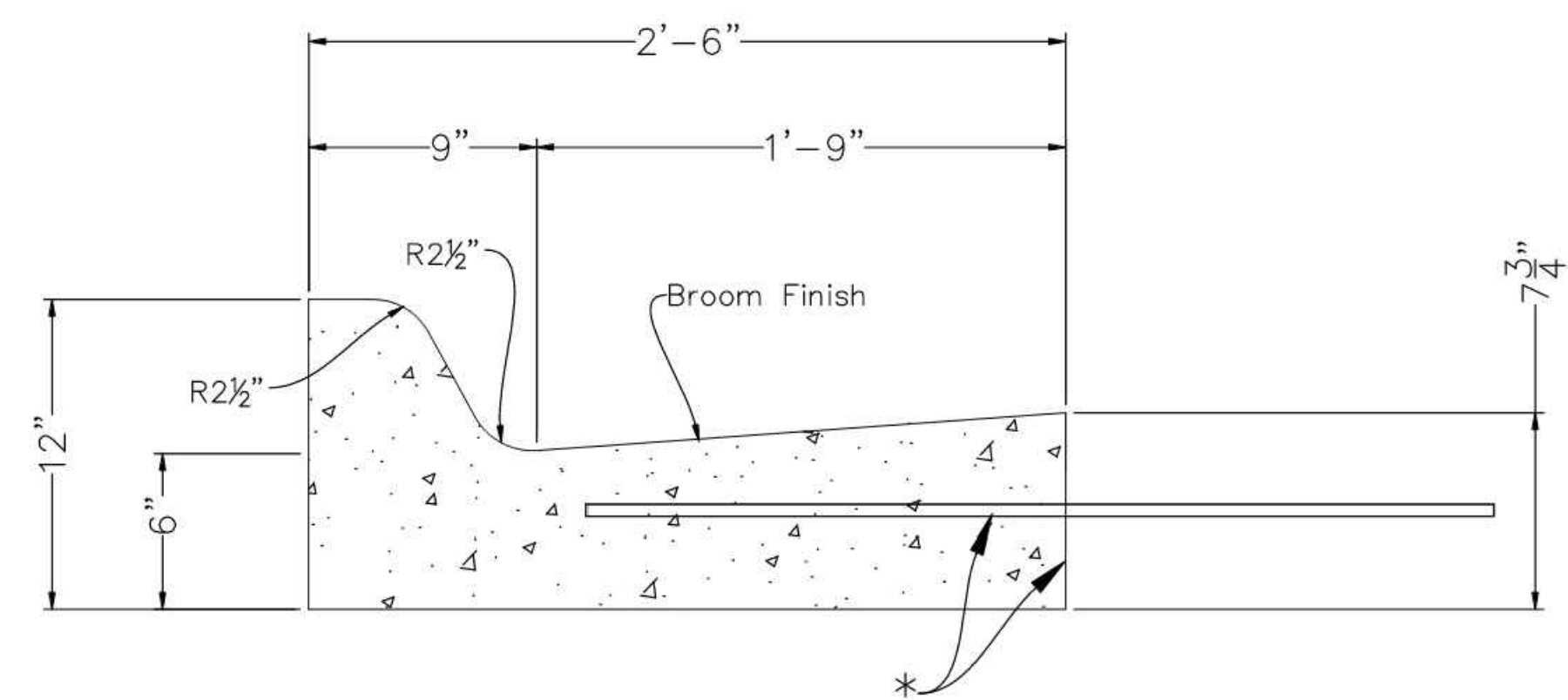
**JOINT DETAIL**  
 Scale: N.T.S.



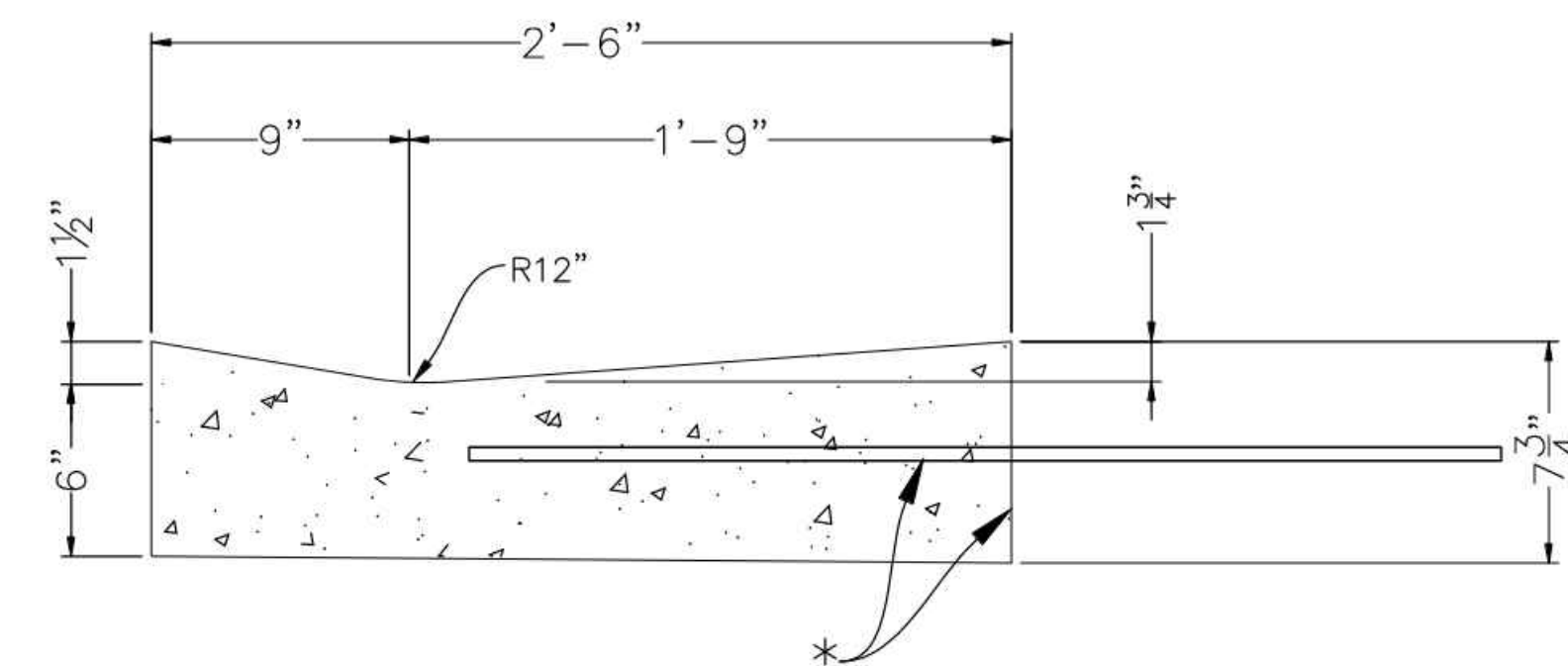
Smooth Dowell Bars #4  
 Spaced at 2'-6" c/c  
 (TYP)

*Handwritten signature*  
 3/11/24

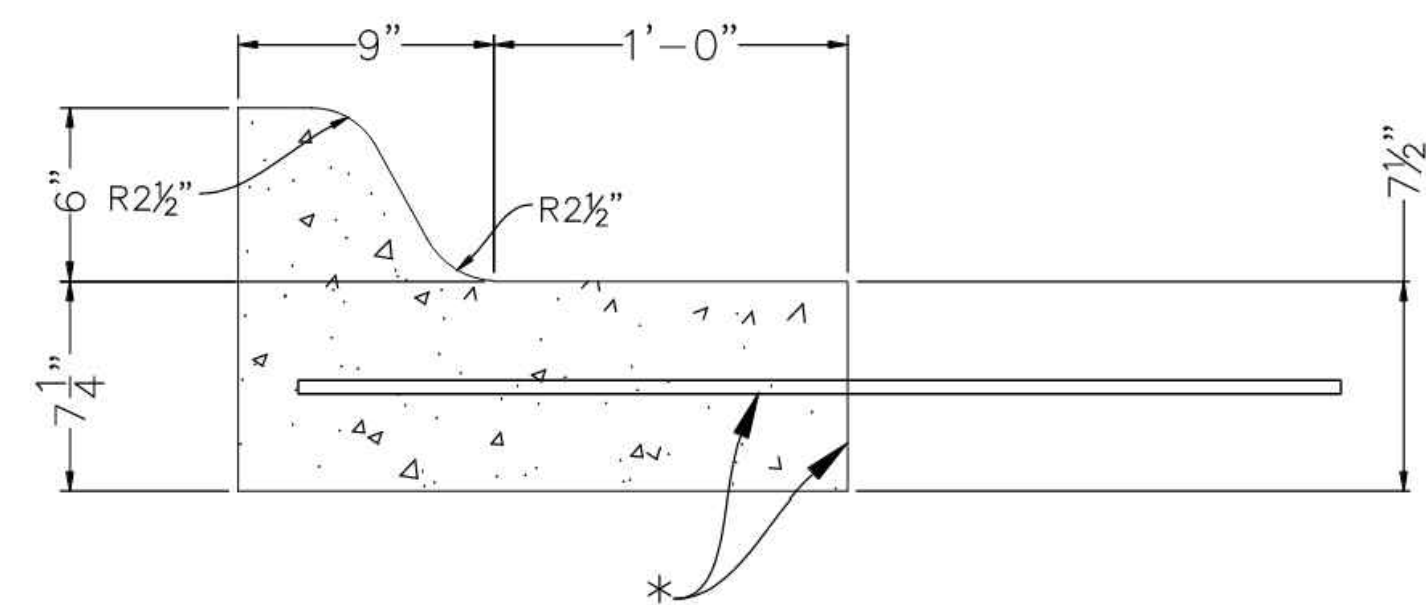




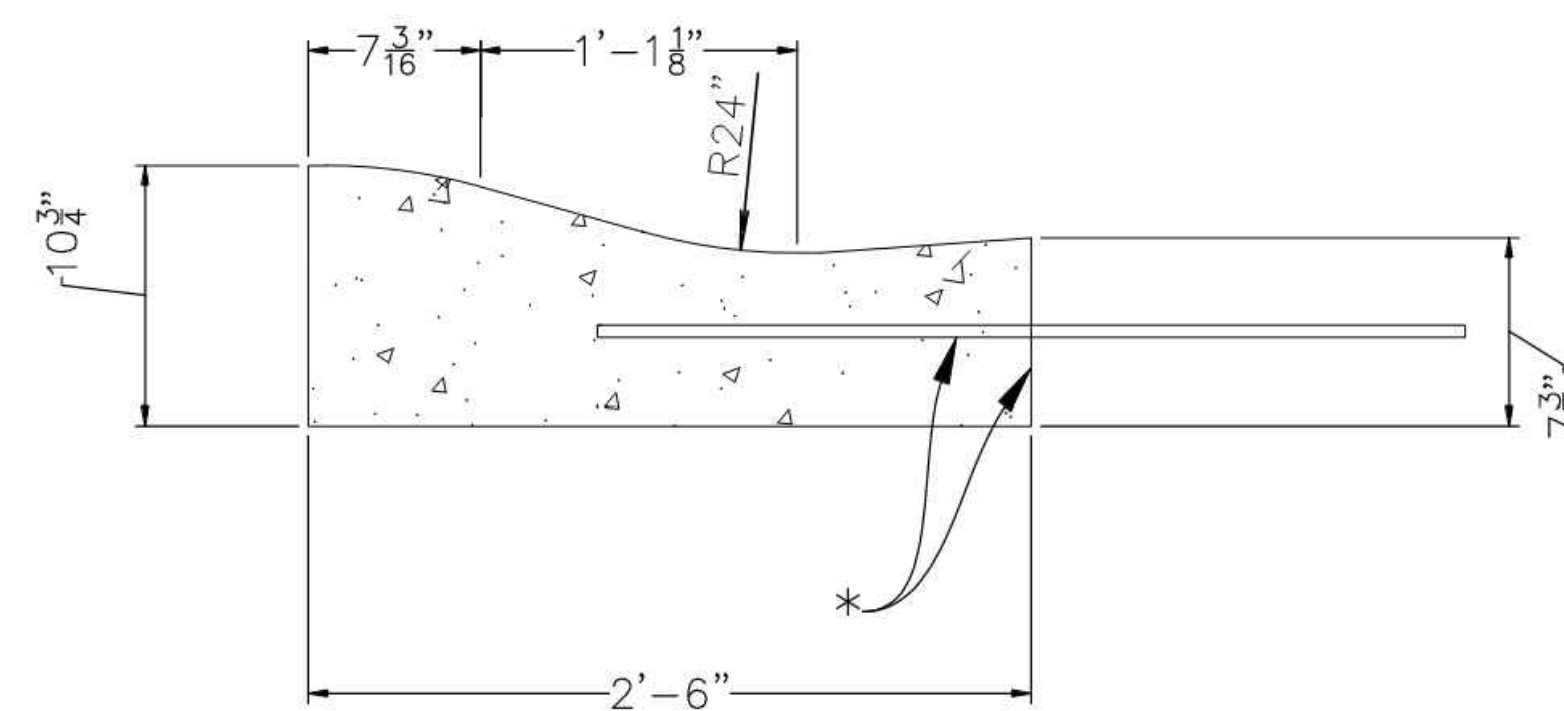
COMBINED CURB & GUTTER (TYPE I)  
Scale: N.T.S.



COMBINED CURB & GUTTER (TYPE II)  
Scale: N.T.S.



COMBINED CURB & GUTTER (TYPE III)  
Scale: N.T.S.



ROLLED CURB

\* Longitudinal construction joint and #4 x 3'-0" bars @2'-6" centers. Not necessary for monolithic construction.

**GENERAL**

Combined curb and gutter or gutter only, at the contractor's option, be constructed either the mix used in the concrete pavement. The combined curb and gutter or gutter shown on the plans. If constructed monolithic, dowel bars shall be omitted from the gutter. Pavement Joints shall be continued through the curb and gutter. Planes of weakness will be required. Joints in the curb and gutter are to be filled with the same material as the pavement.

Expansion joints in the combined curb and gutter shall be constructed in the gutter and expansion joints in the pavement.

Where combined curb and gutter or gutter only is used on concrete or concrete base course, omit tie bars. Use Joint Filler (Type B) cut to the dimension of the curb and gutter, at a spacing not to exceed 250'. Planes of weakness shall be constructed in the gutter.

A 4' length of transition from normal section shall be used at the ends of gutter abuts a curb, such as at the abutment, so as not to fall within this transition.

Where pressure relief joint is placed in the curb and gutter is continued on for more than 10' installed with bonding adhesive through the curb and gutter. See Std. Drawing RD-100 for combined curb and gutter or gutter only at abutment - see bridge drawings.

Longitudinal joints shall be sawed and finished to meet Specifications. If constructed monolithic construction is required.

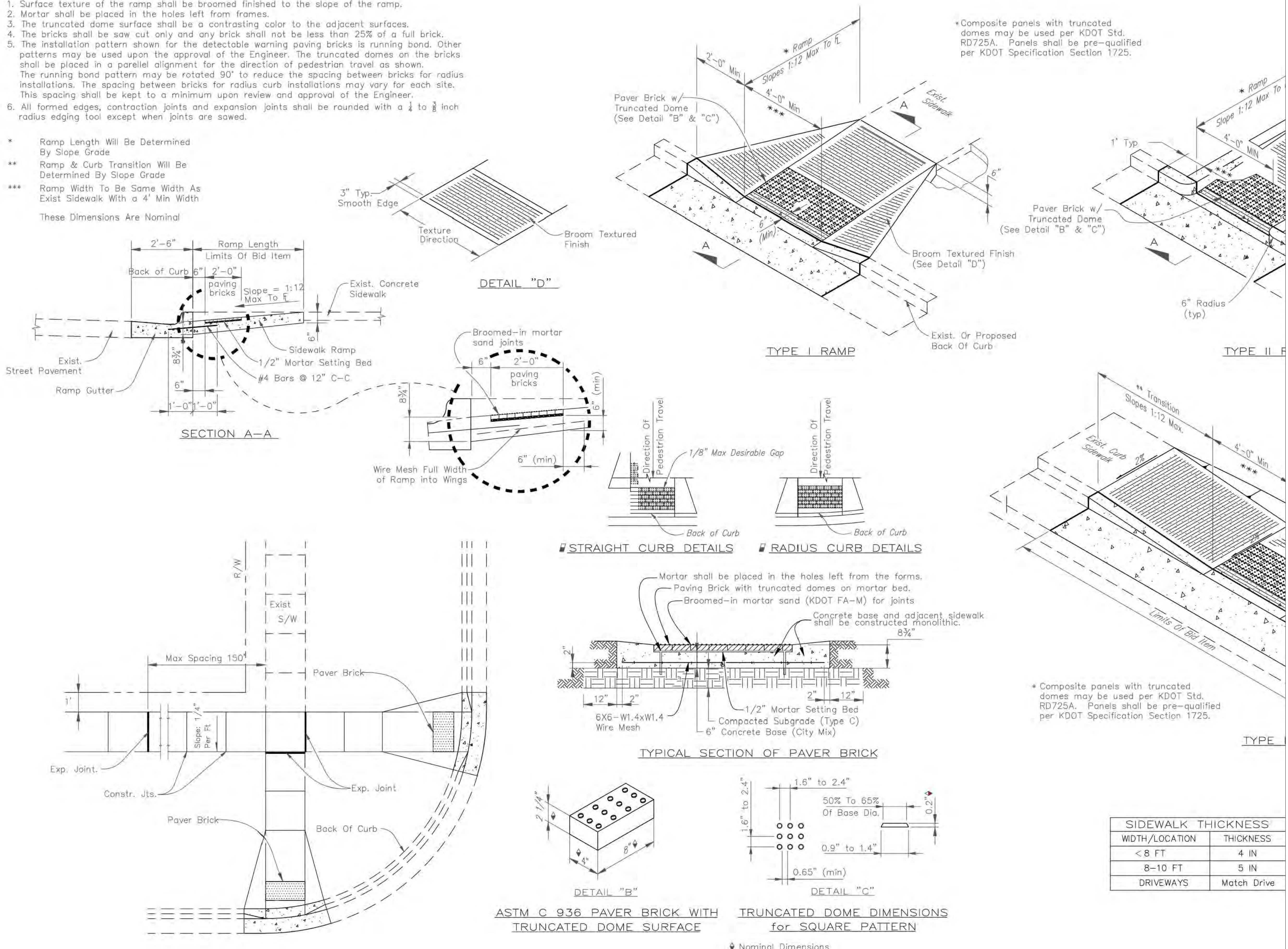
Note: All exposed edges shall be finished with an edging tool. Place a 1" Preformed Expansion Joint Filler (Nonextruding, Type B) at a spacing not to exceed 250'.

*Mark P...*  
3/11/24

**GENERAL NOTES:**

1. Surface texture of the ramp shall be broomed finished to the slope of the ramp.
2. Mortar shall be placed in the holes left from frames.
3. The truncated dome surface shall be a contrasting color to the adjacent surfaces.
4. The bricks shall be saw cut only and any brick shall not be less than 25% of a full brick.
5. The installation pattern shown for the detectable warning paving bricks is running bond. Other patterns may be used upon the approval of the Engineer. The truncated domes on the bricks shall be placed in a parallel alignment for the direction of pedestrian travel as shown. The running bond pattern may be rotated 90° to reduce the spacing between bricks for radius curb installations. The spacing between bricks for radius curb installations may vary for each site. This spacing shall be kept to a minimum upon review and approval of the Engineer.
6. All formed edges, contraction joints and expansion joints shall be rounded with a ¼ to ⅜ inch radius edging tool except when joints are sawed.

- \* Ramp Length Will Be Determined By Slope Grade
  - \*\* Ramp & Curb Transition Will Be Determined By Slope Grade
  - \*\*\* Ramp Width To Be Same Width As Exist Sidewalk With a 4' Min Width
- These Dimensions Are Nominal

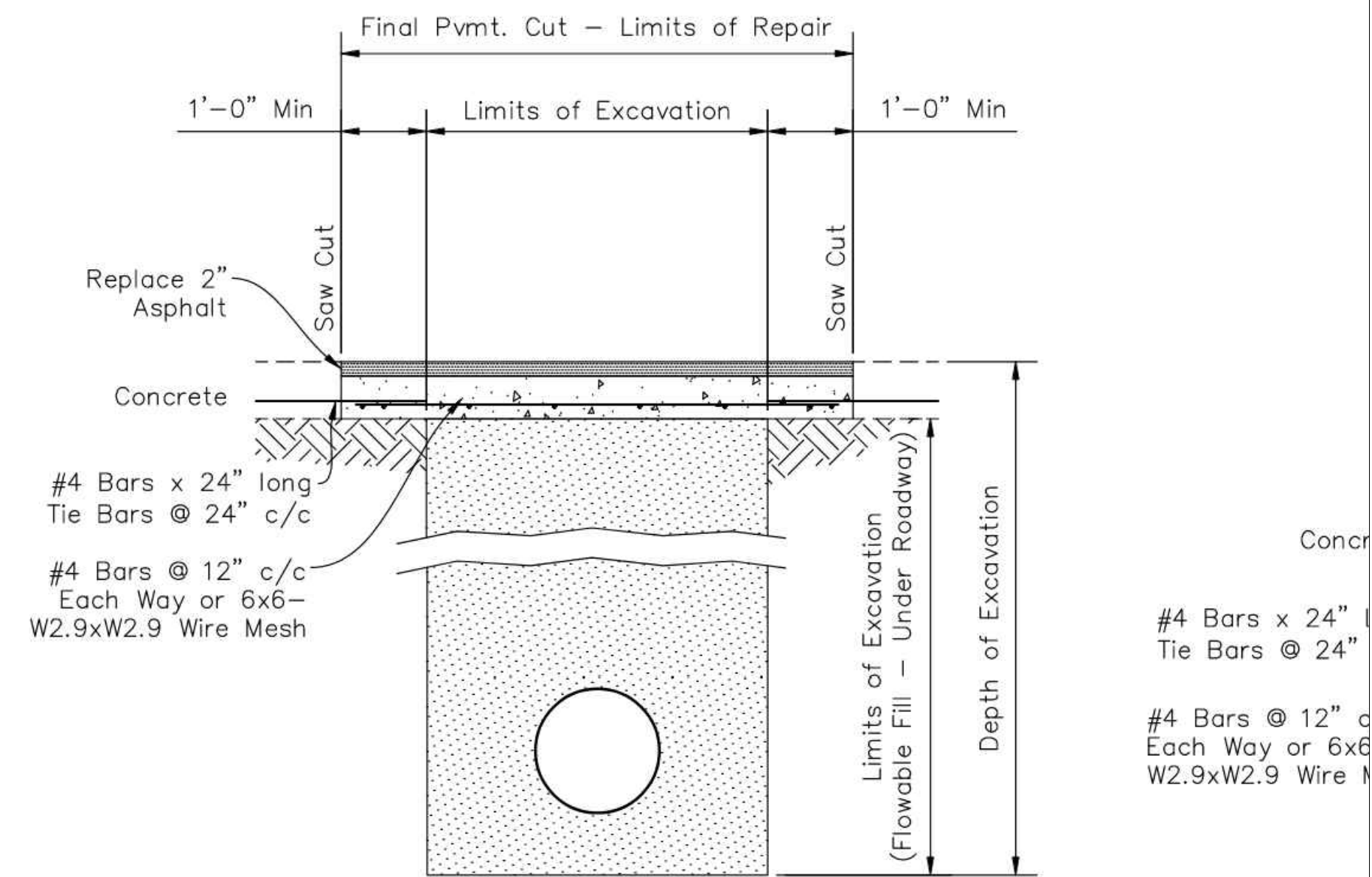
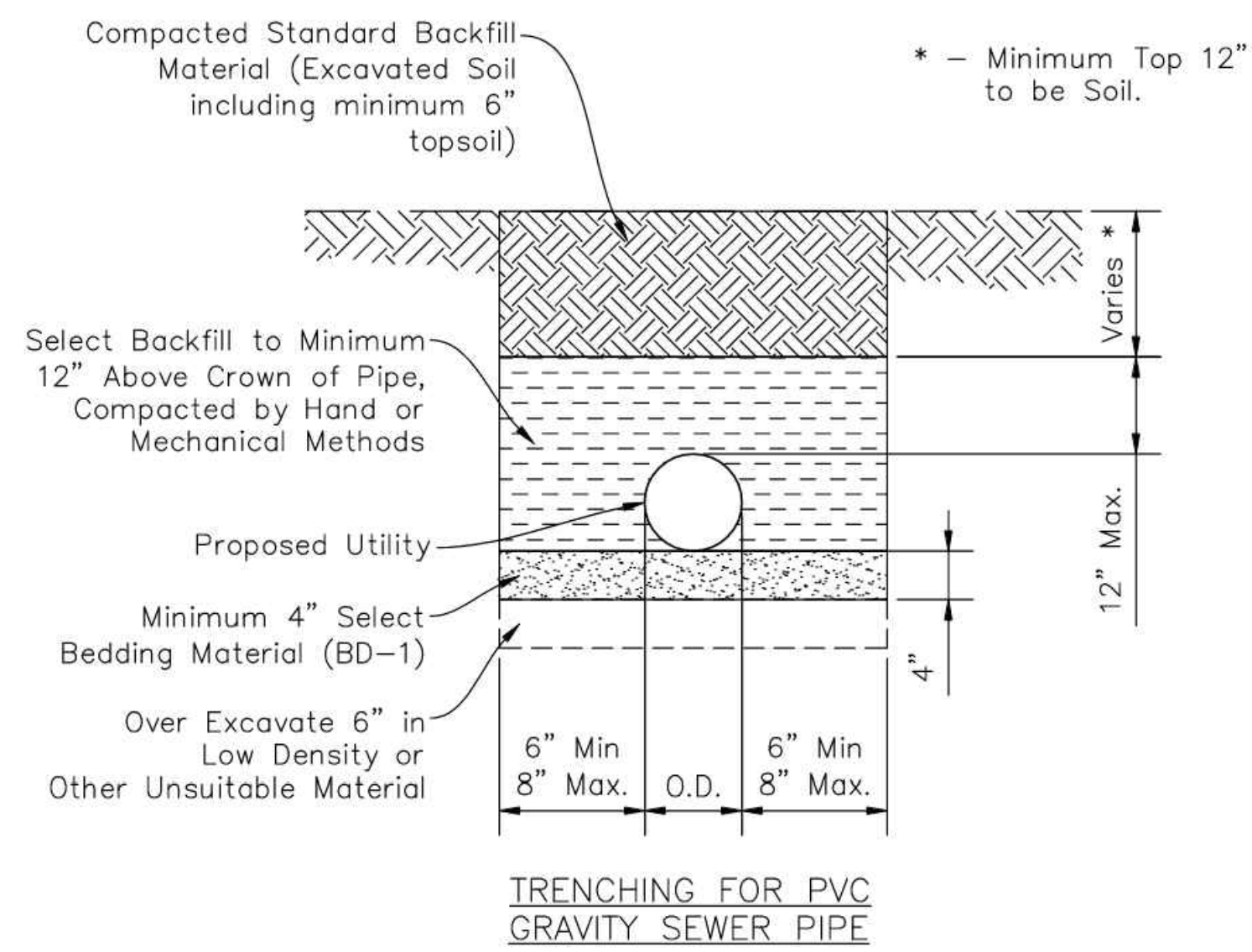
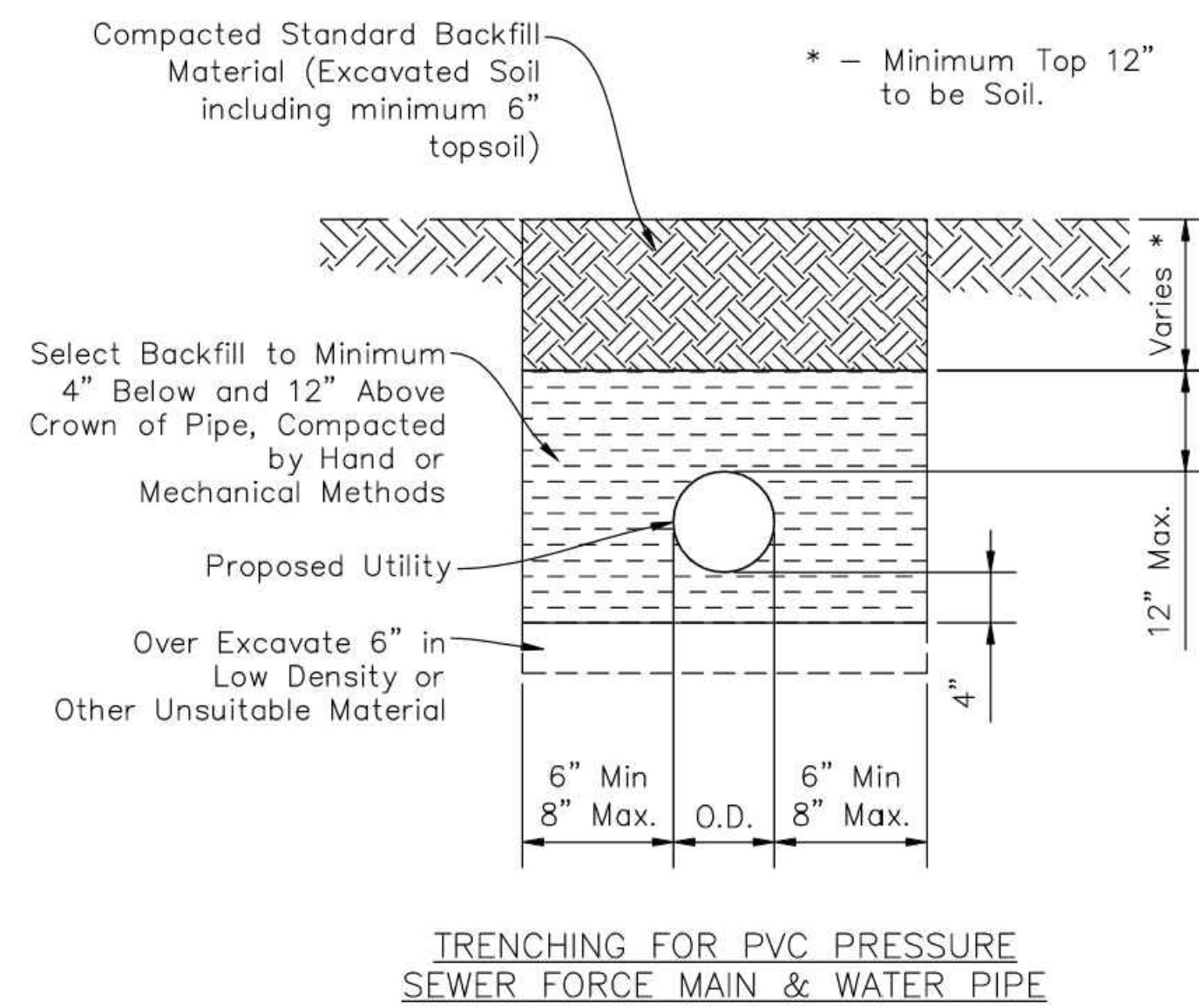


\* Composite panels with truncated domes may be used per KDOT Std. RD725A. Panels shall be pre-qualified per KDOT Specification Section 1725.

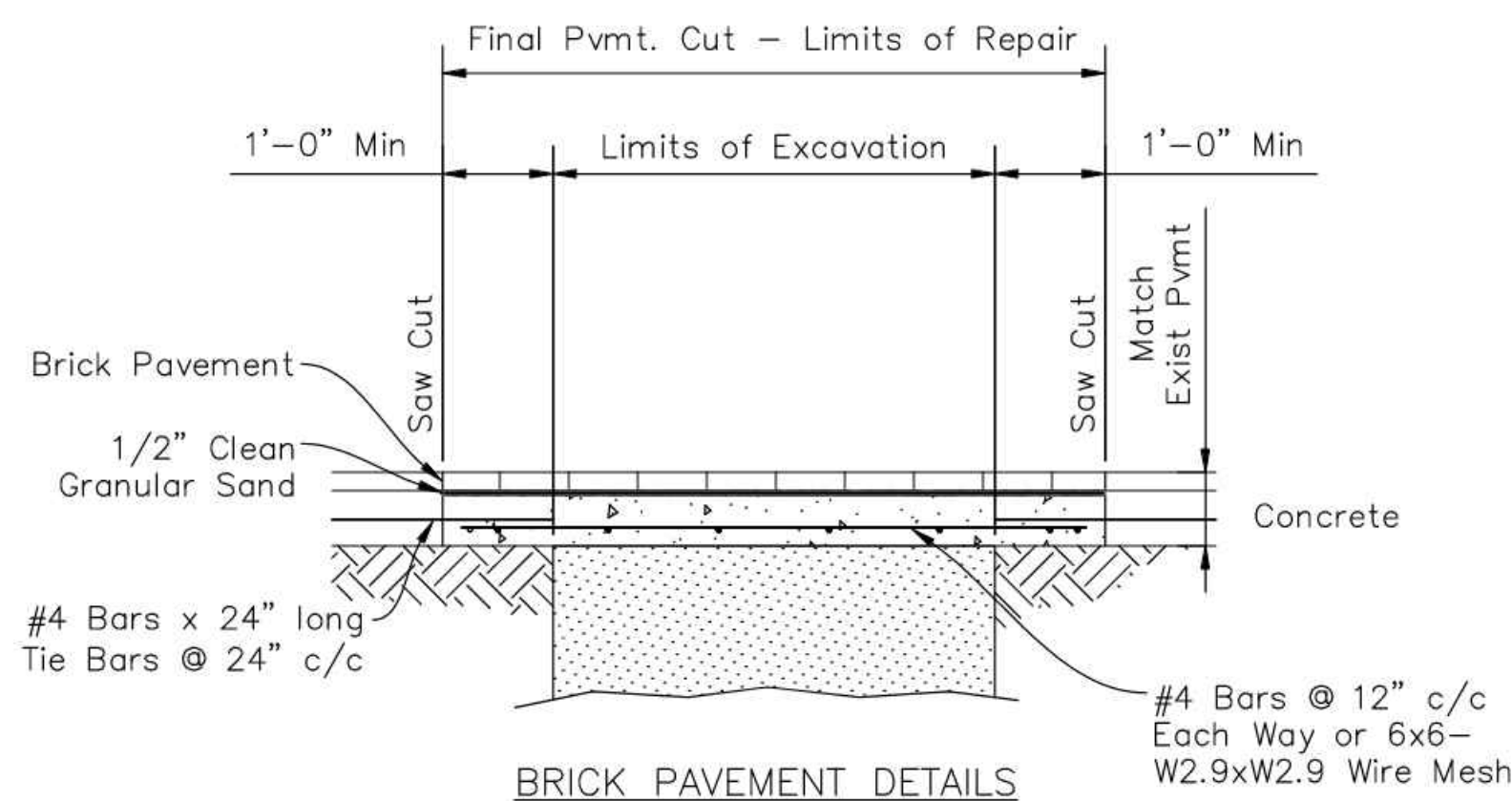
\* Composite panels with truncated domes may be used per KDOT Std. RD725A. Panels shall be pre-qualified per KDOT Specification Section 1725.

SIDEWALK THICKNESS	
WIDTH/LOCATION	THICKNESS
< 8 FT	4 IN
8-10 FT	5 IN
DRIVEWAYS	Match Drive

*M. P. ...*  
3/11/24

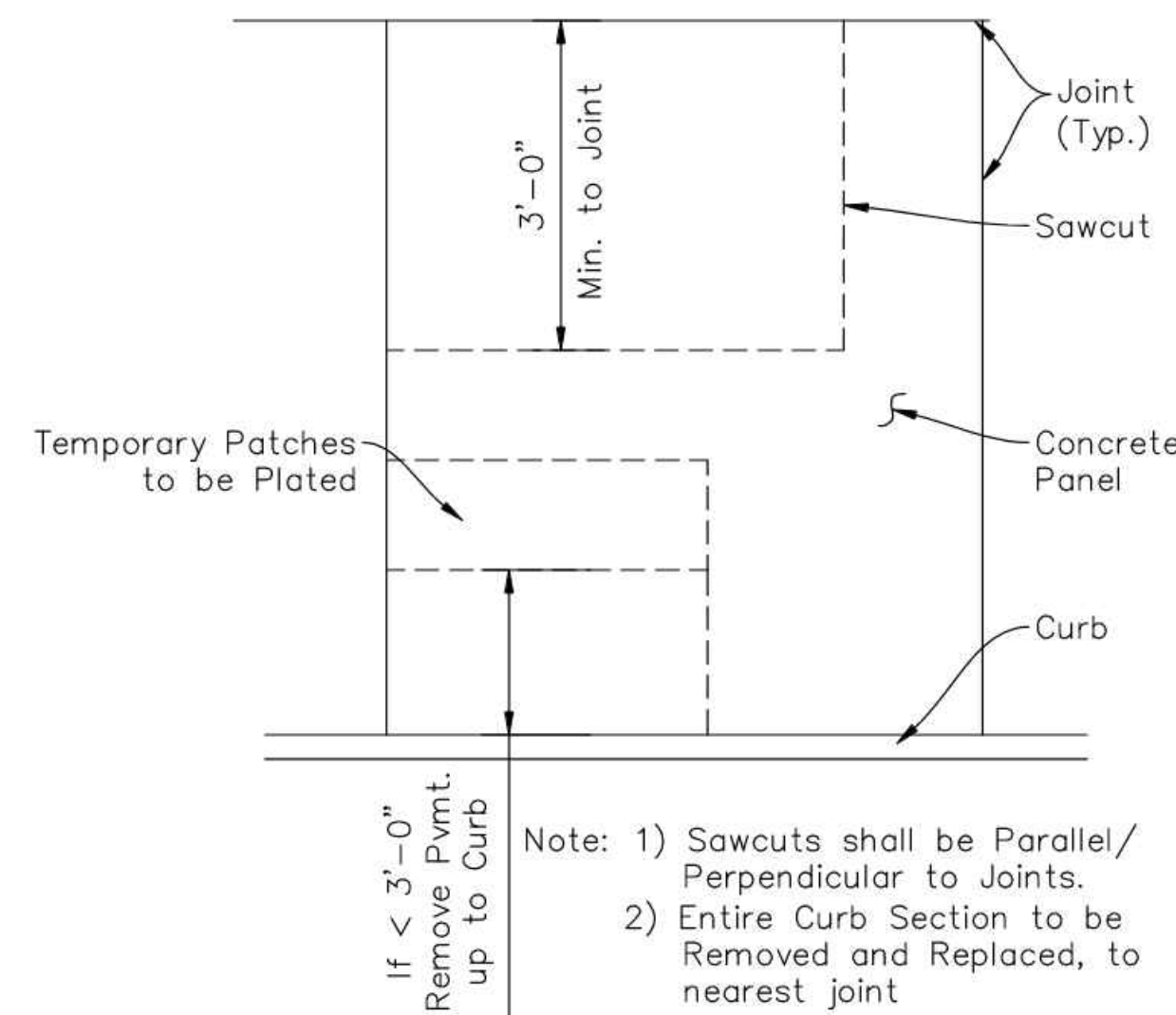
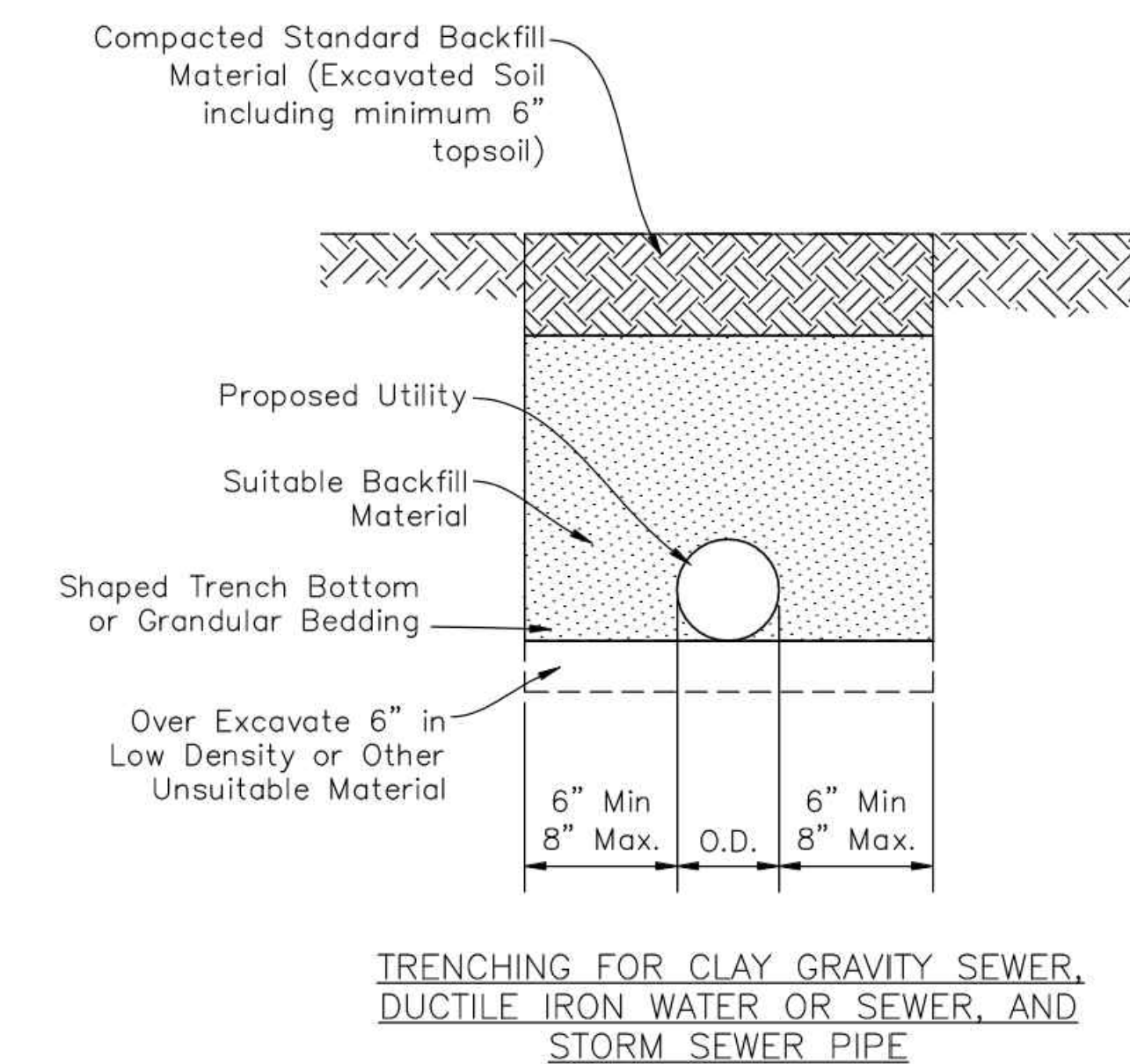


ASPHALT PAVEMENT DETAILS



BRICK PAVEMENT DETAILS

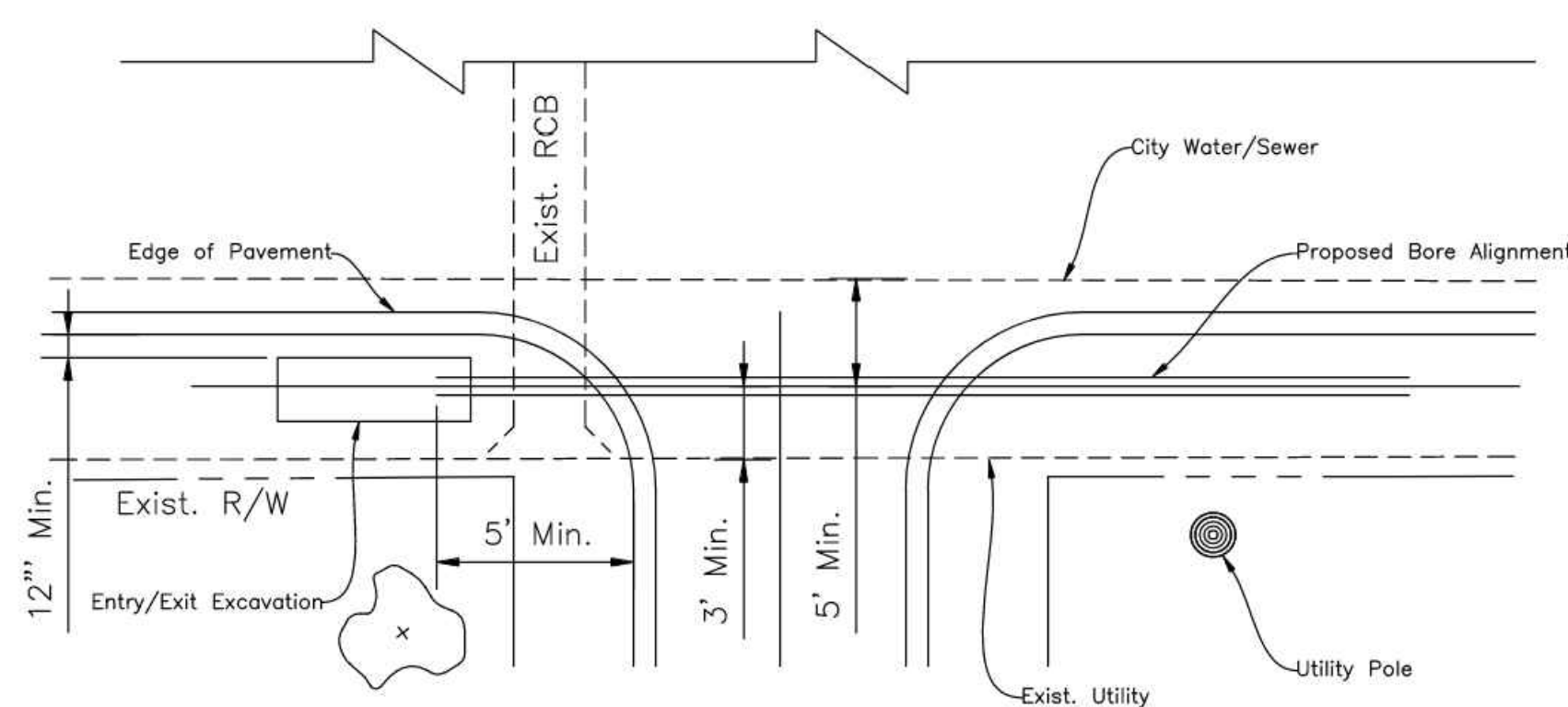
UTILITY PATCH DETAILS



CONCRETE SAW-CUTTING DETAIL

TYPICAL TRENCHING DETAILS

NOT UNDER PAVEMENT



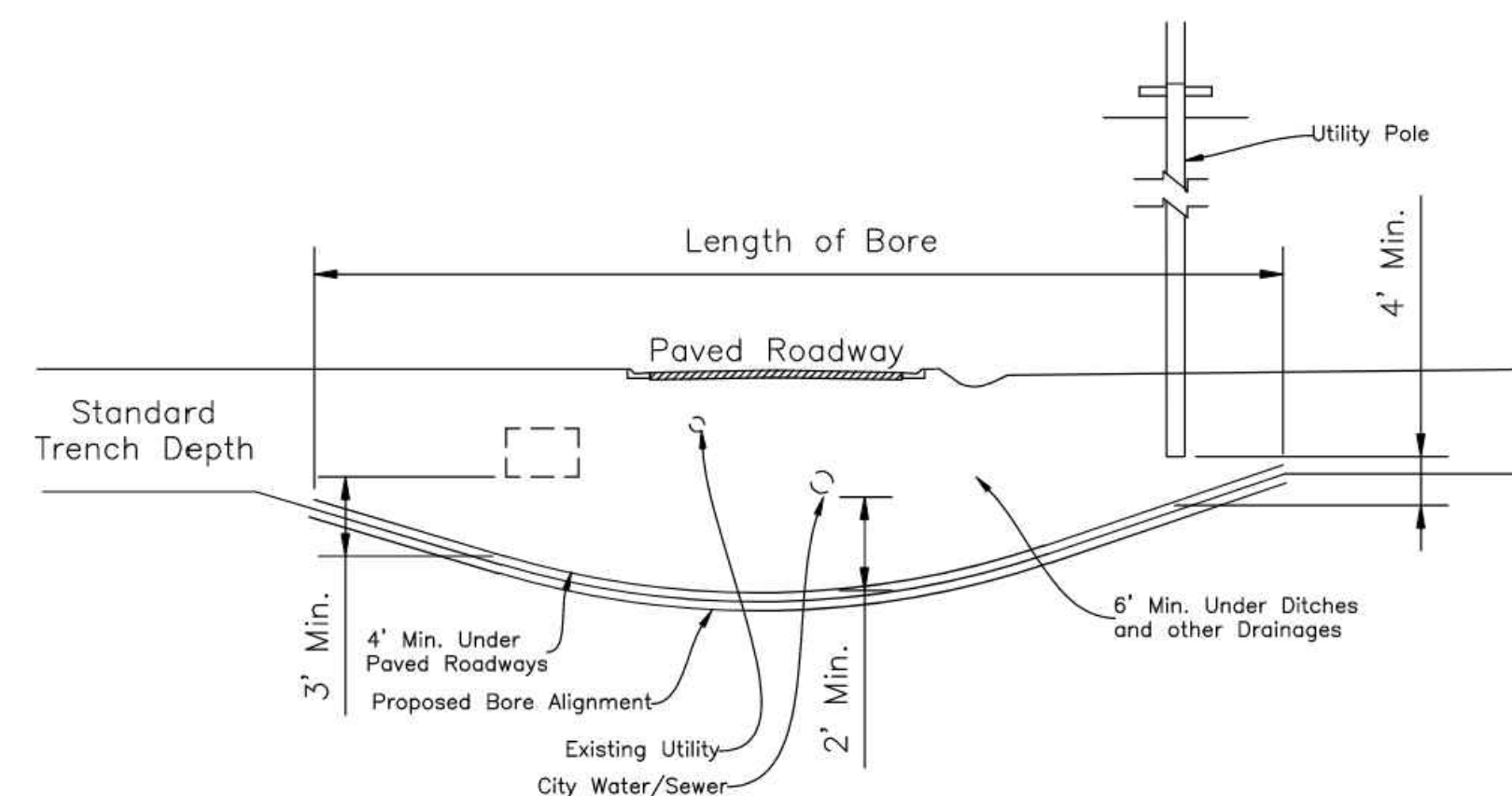
HORIZONTAL MINIMUM CLEARANCE

Not to Scale

HDD Installation Notes:

1. City of Salina Code, Engineering Standards and Specifications are incorporated except as otherwise directed.
2. The permittee shall be responsible for notification of one-call services and coordination of all utilities prior to construction.
3. Drilling fluids shall be contained and removed immediately upon bore completion.
4. All construction materials shall be removed from the site prior to restoration of disturbed areas.
5. All restoration shall be maintained for 24 months following its completion.
6. Excavations under paved surfaces shall be restored in compliance with City of Salina standard details for utility patches.

HORIZONTAL DIRECTIONAL DRILLING DETAILS



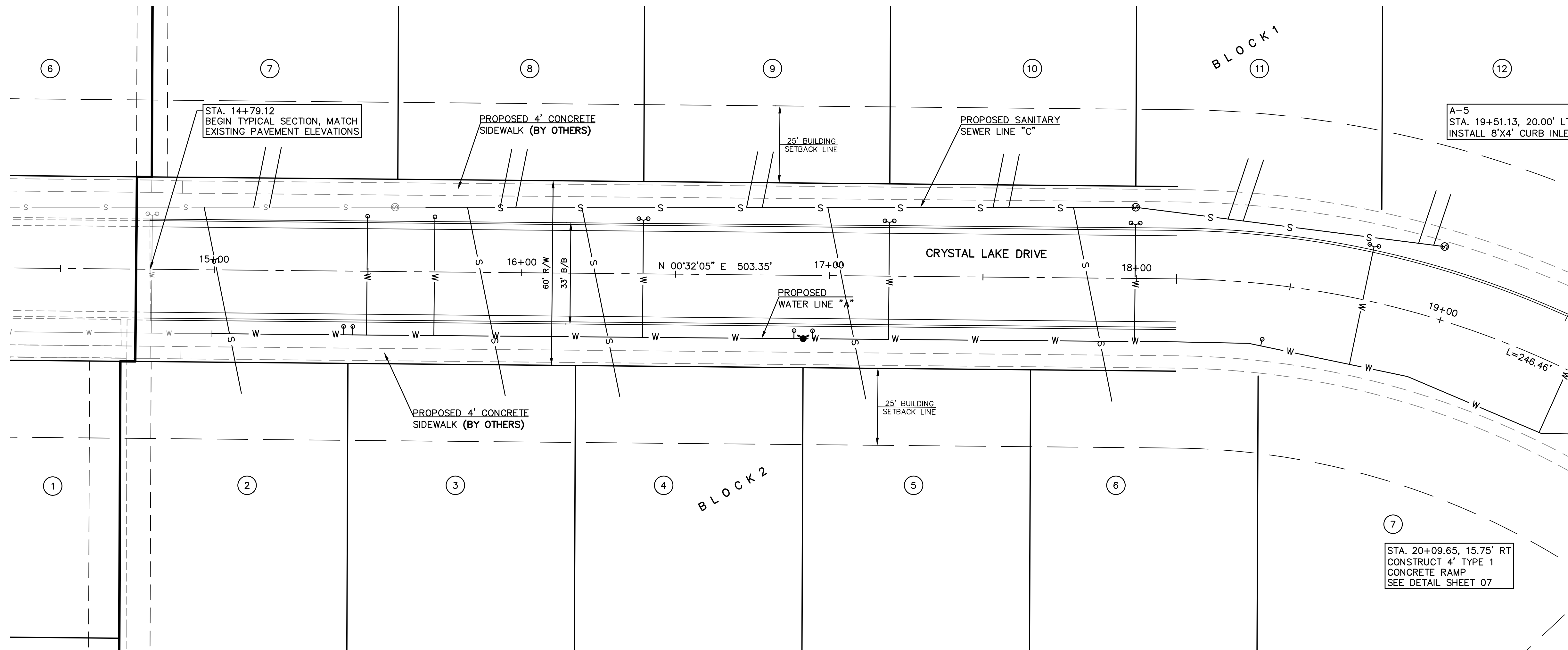
VERTICAL MINIMUM CLEARANCES

Not to Scale

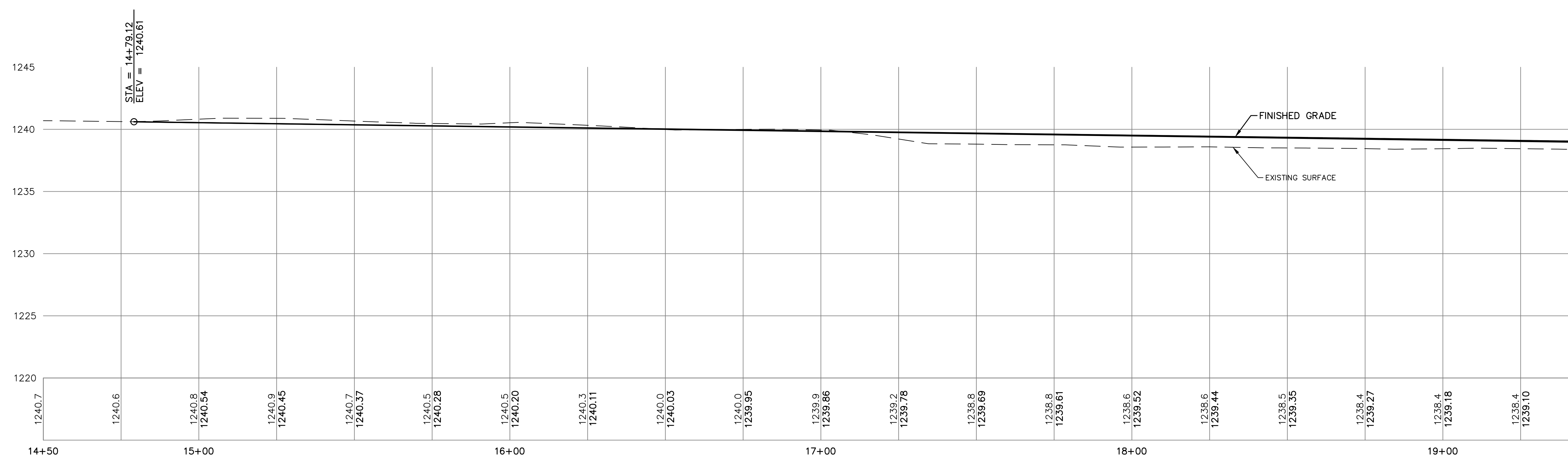
*John P...*  
3/11/24

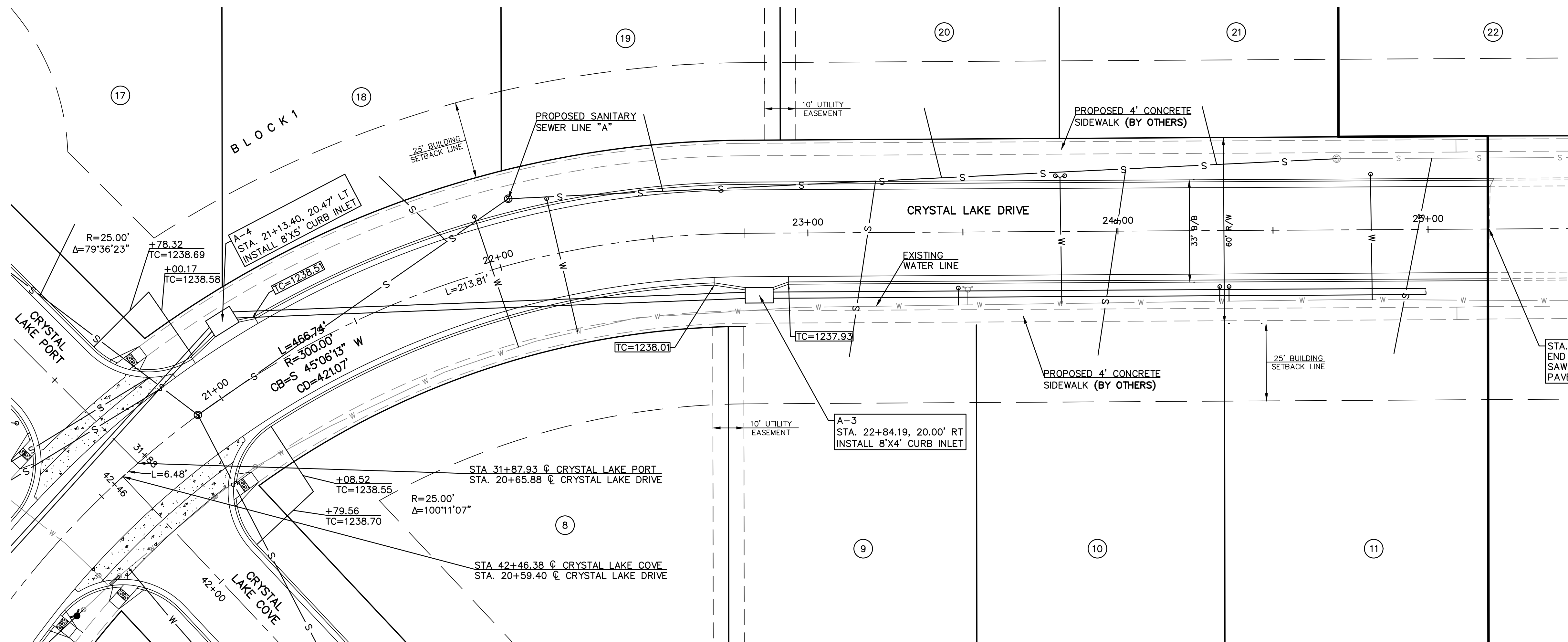
SCALE:  
 PLAN: 1"=20'  
 PROFILE: 1"=20' HORIZ.  
 1"=5' VERT.

NOTE:  
 STREET STATION AND  
 OFFSET ARE REFERENCED  
 TO CENTER OF STRUCTURE.

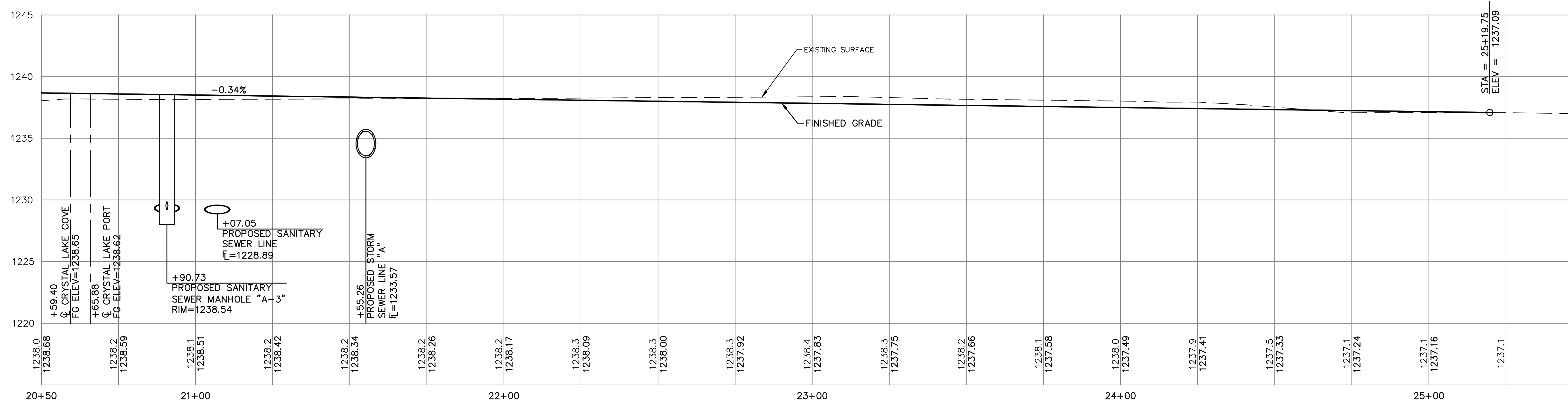


*John Paul*  
 3/11/24

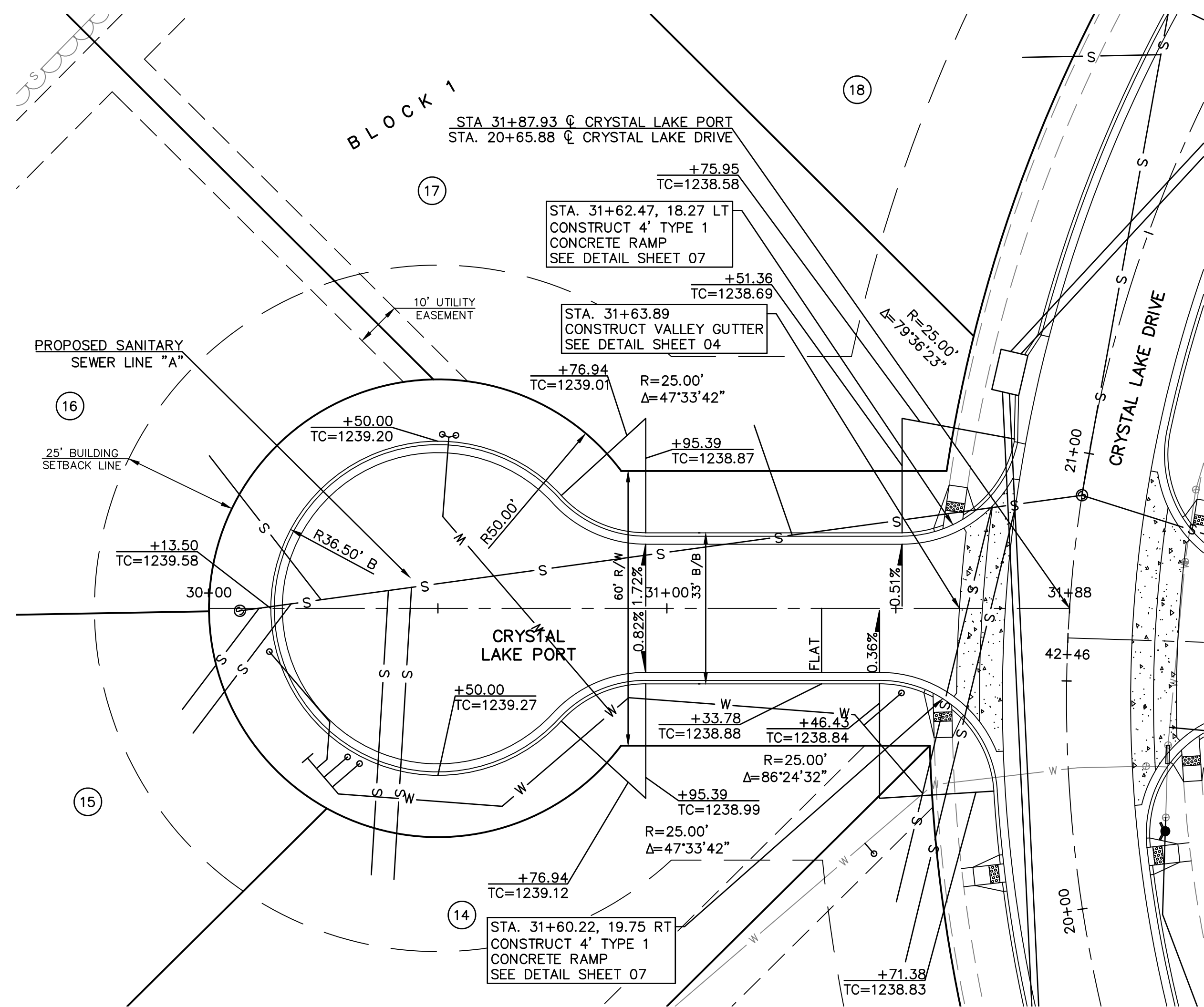




*John P. [Signature]*  
3/11/24

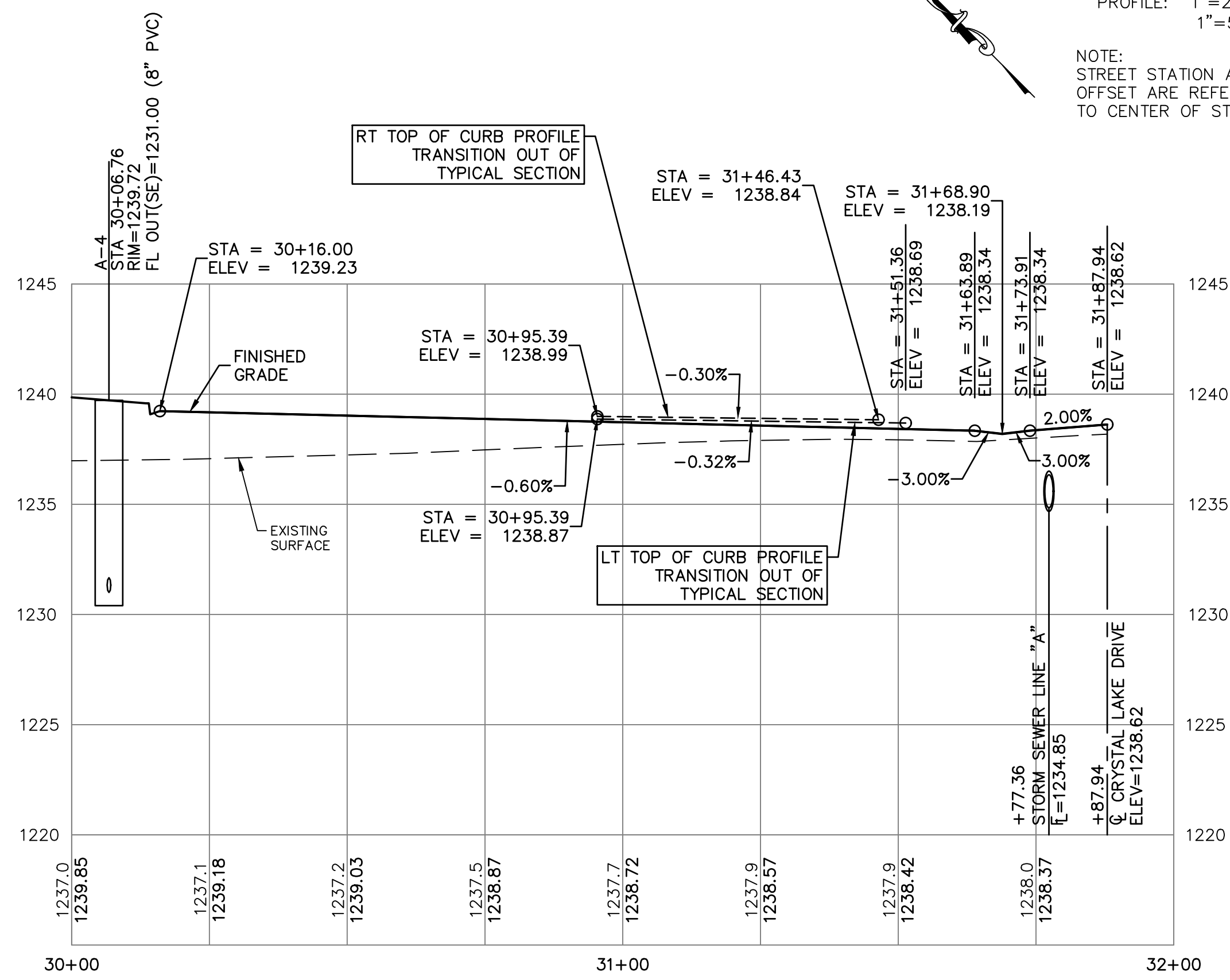


CRYSTAL LAKE PORT

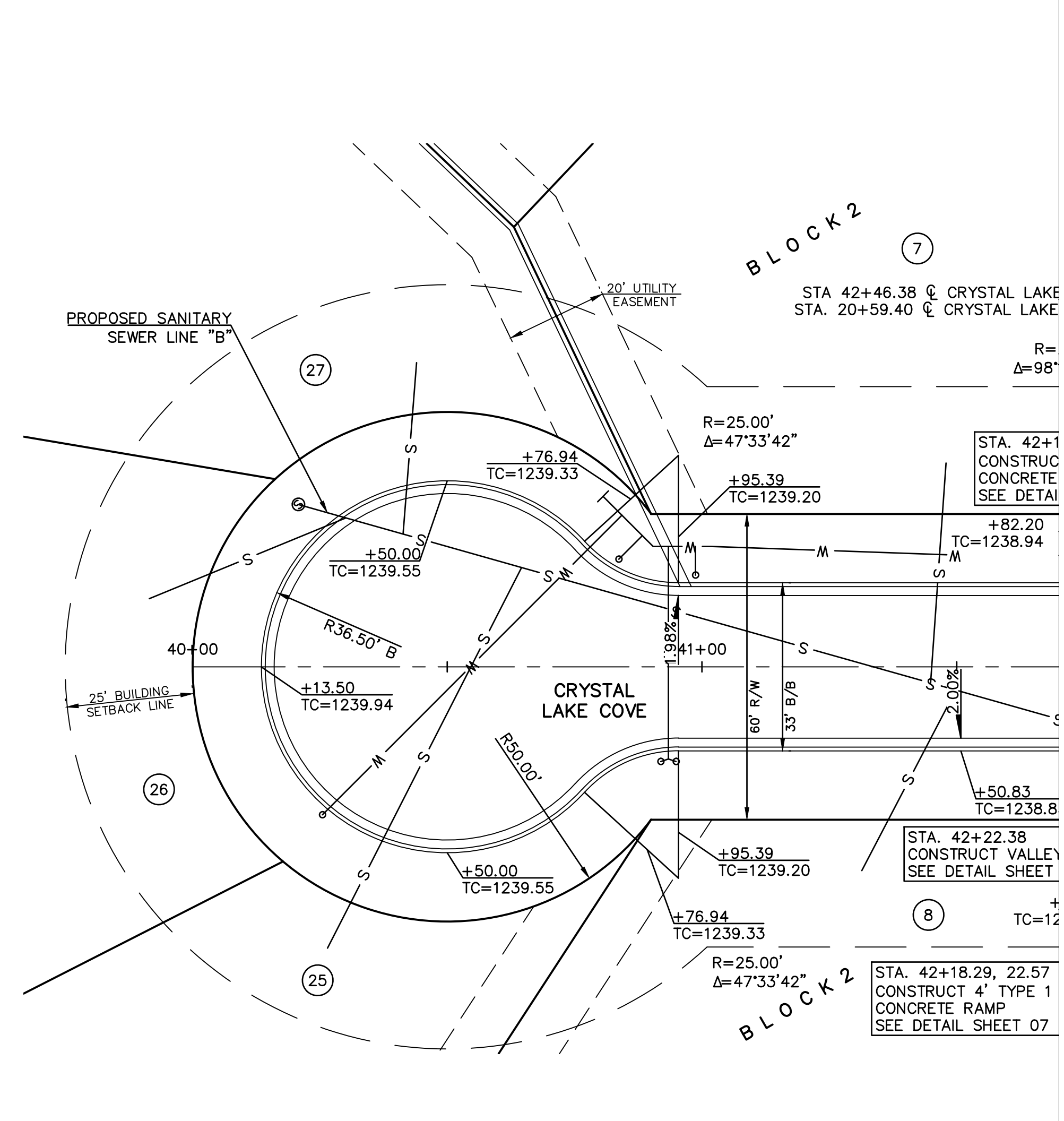


SCALE:  
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 PROFILE: 1"=20' HORIZ.  
 1"=5' VERT.

NOTE:  
 STREET STATION AND  
 OFFSET ARE REFERENCED  
 TO CENTER OF STRUCTURE.

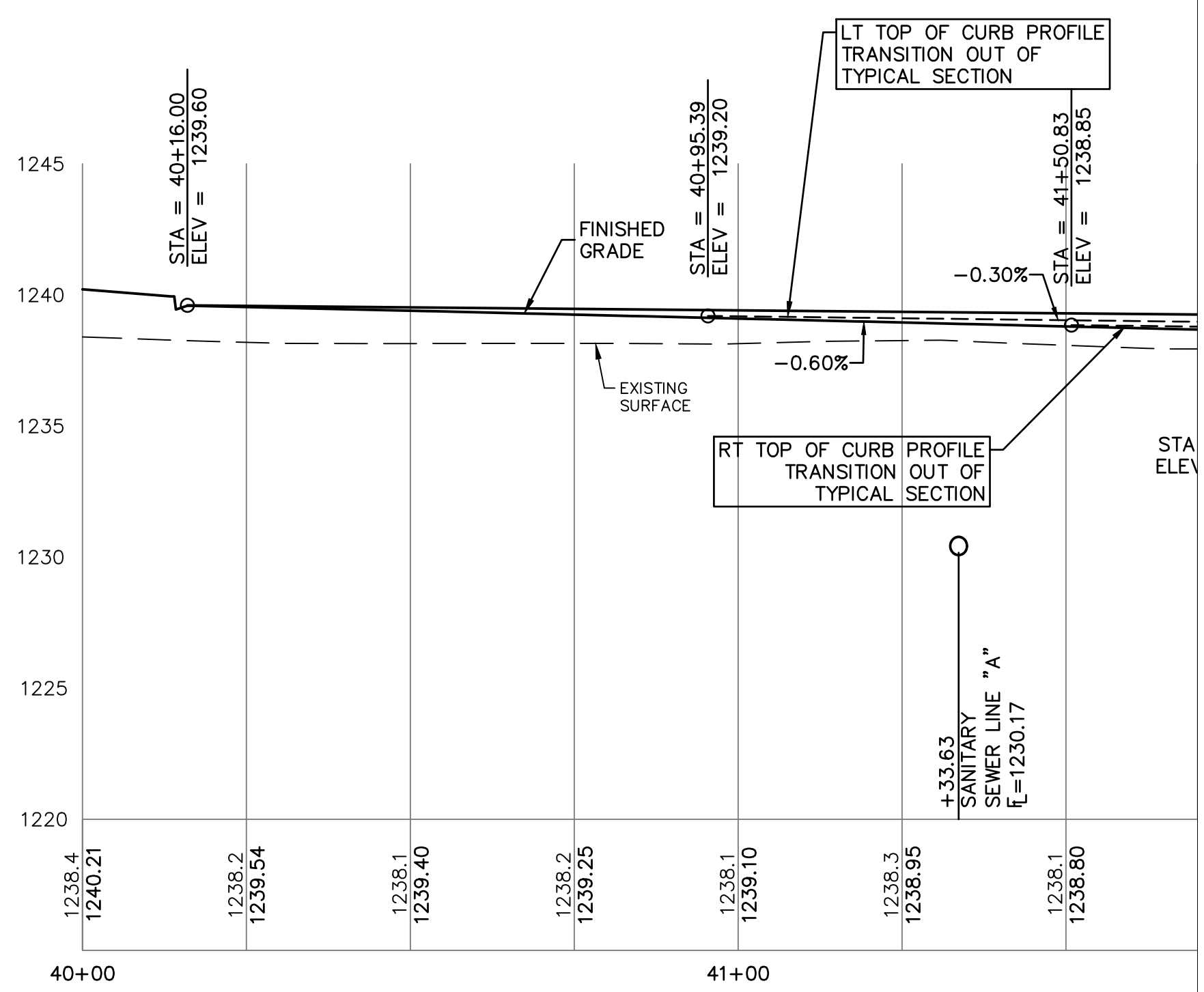


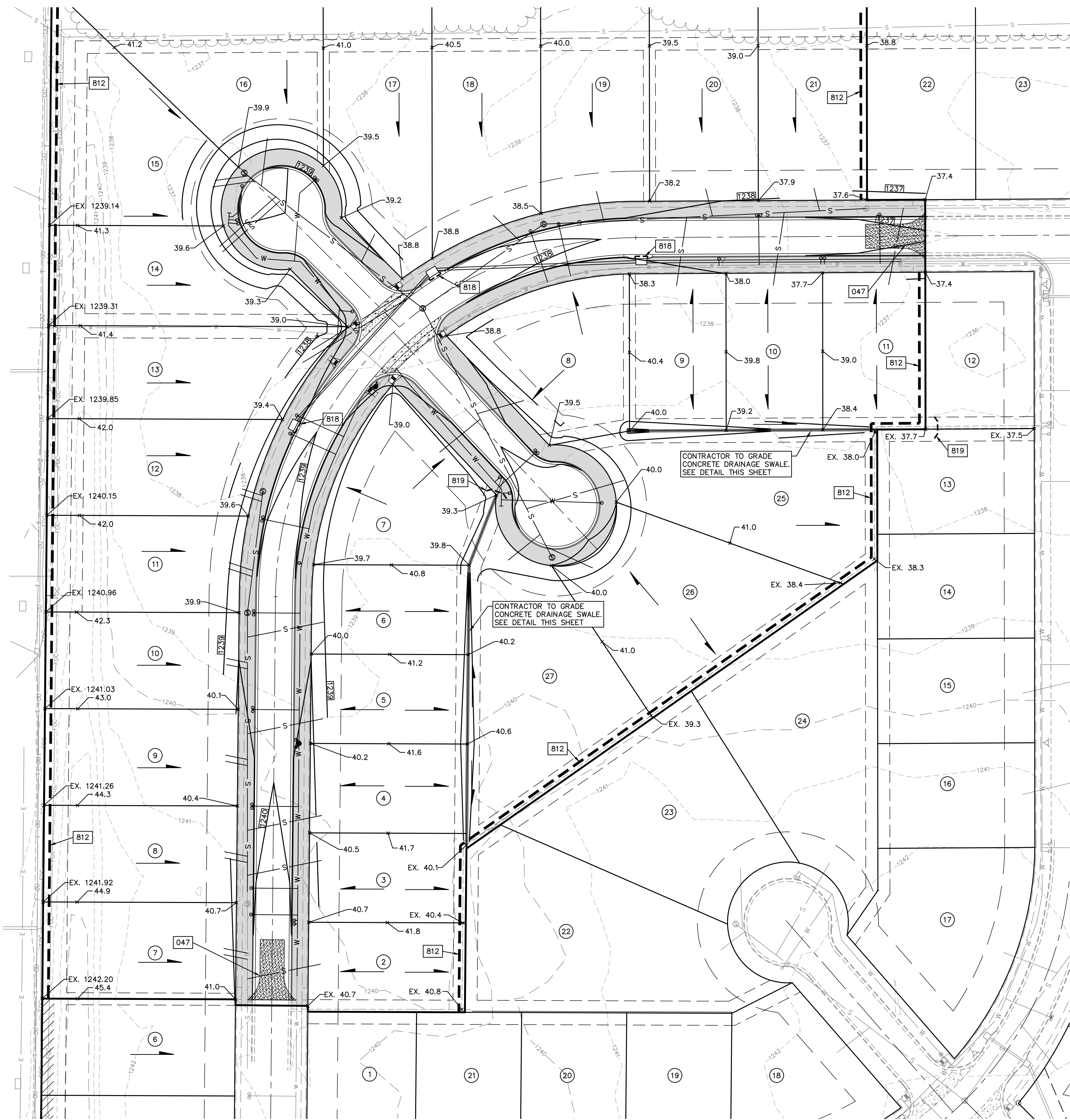
CRYSTAL LAKE COVE



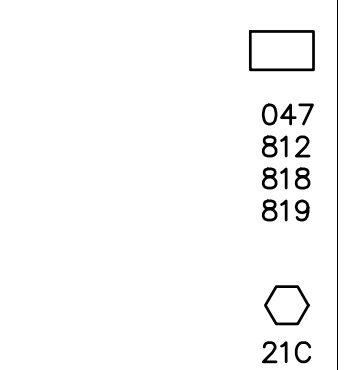
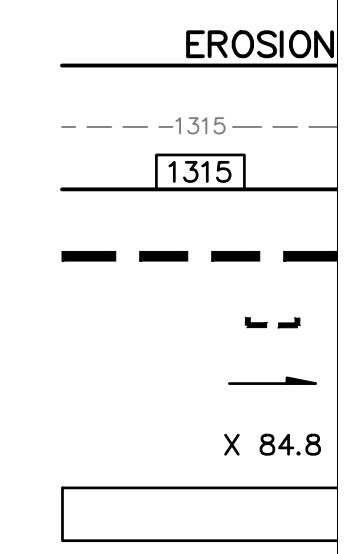
SCALE:  
 PLAN: 1"=20'  
 PROFILE: 1"=20' HORIZ.  
 1"=5' VERT.

NOTE:  
 STREET STATION AND  
 OFFSET ARE REFERENCED  
 TO CENTER OF STRUCTURE.





- NOTES:
1. CONTRACTOR LINES WITH T COMPLETED
  2. CONTRACTOR SANITARY AT RIGHT OF WA



MATCH EXISTING 6:1

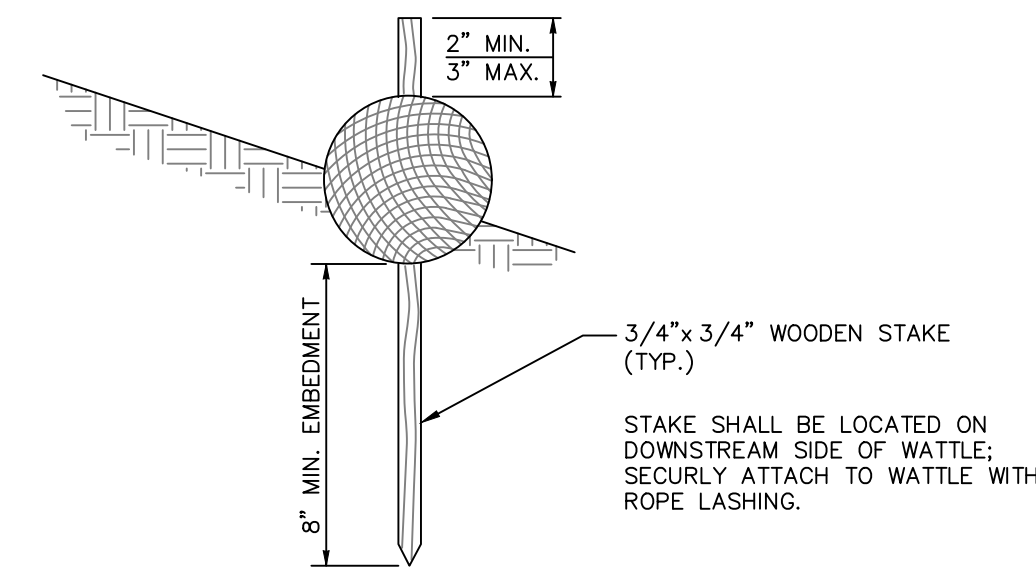
CON

\*TYPICAL SLOPE IS 6:1.

*John Paul*  
3/11/24

**EROSION CONTROL NOTES:**

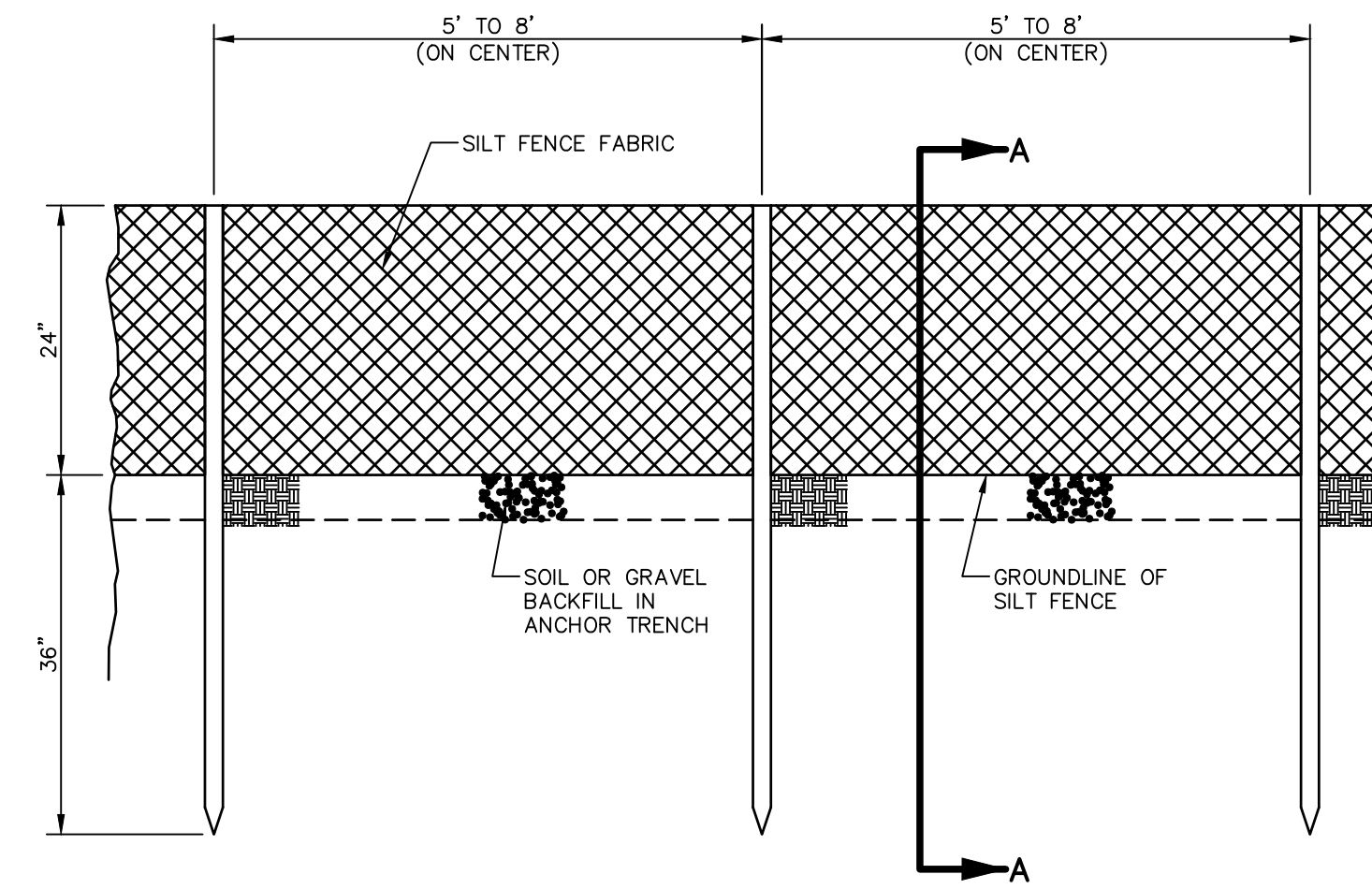
- ALL CONSTRUCTION ACTIVITIES SHALL COMPLY WITH CITY AND STATE REGULATIONS REGARDING STORMWATER POLLUTION PREVENTION.
- DEVELOPER SHALL BE RESPONSIBLE FOR IMPLEMENTATION, INSTALLATION, INSPECTION, AND MAINTENANCE OF ALL BEST MANAGEMENT PRACTICES (BMPs) AS SHOWN ON THE APPROVED STORMWATER POLLUTION PREVENTION PLAN (SWP3). ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION TO PREVENT SOIL LOSS FROM THE CONSTRUCTION AREA. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE METHODS UTILIZED ARE ADEQUATE AND COMPLY WITH REQUIREMENTS OF THE SPECIFICATIONS AND DETAILS OF THE GOVERNMENTAL AGENCIES HAVING JURISDICTION.
- SUBSEQUENT OWNERS OF INDIVIDUAL LOTS ARE RESPONSIBLE FOR CONTINUED IMPLEMENTATION, INSPECTION, AND MAINTENANCE OF ALL BMPs WITHIN THE LOT AS SHOWN ON THE APPROVED SWP3.
- DEVELOPER SHALL PROVIDE A COPY OF THE APPROVED SWP3 TO ALL SUBCONTRACTORS, UTILITIES, AND SUBSEQUENT OWNERS OF INDIVIDUAL LOTS PRIOR TO ANY WORK WITHIN THE SUBDIVISION.
- CONTRACTORS WILL BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF SOIL TRACKED ONTO PAVED STREETS.
- INSPECTION OF BMPs SHALL OCCUR AT LEAST ONCE EVERY 14 DAYS AND WITHIN THE NEXT BUSINESS DAY AFTER A RAINFALL OF ONE HALF OF AN INCH OR MORE AS MEASURED AT THE SITE.
- INSPECTION AND MAINTENANCE OF BMPs SHALL INCLUDE NECESSARY REPAIRS, REMOVAL OF SEDIMENT, AND ANY NECESSARY MODIFICATIONS TO BMPs AS AUTHORIZED BY CITY OF SALINA AND SHALL BE ON GOING THROUGHOUT THE LIFE OF INFRASTRUCTURE AND BUILDING CONSTRUCTION TO KEEP THE DEVICES IN OPERABLE CONDITION AT ALL TIMES. MAINTENANCE OF ALL BMPs WILL BE REQUIRED UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED BY PAVEMENT, VEGETATION, SOO, OR OTHER GROUND STABILIZATION MEANS. ALTHOUGH EXTENSIVE EFFORT IS PUT INTO THE DESIGN OF THE EROSION CONTROL PLAN BY THE ENGINEER, IT IS THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER TO ENSURE THAT ANY ADDITIONAL REQUIRED EROSION CONTROL MEASURES ARE INSTALLED AND MAINTAINED AT NO ADDITIONAL COST.
- CONTRACTOR WILL BE RESPONSIBLE FOR MARKING ALL LIMITS OF DISTURBANCE (LOD) AND WILL NOT DISTURB VEGETATIVE COVER OUTSIDE OF THESE LIMITS. THE CONTRACTOR SHALL MINIMIZE THE AMOUNT OF SURFACE AREA THAT IS EXPOSED AT ONE TIME, LEAVE GRADED AREAS WITH A ROUGH TEXTURE, CONSTRUCT TEMPORARY TERRACES DURING GRADING OPERATIONS, AND LIMIT UNNECESSARY VEHICLE TRAFFIC IN GRADED AREAS.
- TEMPORARY CURB INLET SEDIMENT BARRIERS MUST BE INSTALLED IMMEDIATELY AFTER STRUCTURE PLACEMENT AND ONLY REMOVED JUST PRIOR TO PLACEMENT OF CURB AND GUTTER. APPROPRIATE INLET SEDIMENT BARRIERS WILL BE INSTALLED AFTER ROAD CONSTRUCTION IS COMPLETE. STRAW/HAY BALES WILL NOT BE ALLOWED ON CONCRETE OR ASPHALT PAVING.
- SEDIMENT ACCUMULATIONS RETAINED BY SEDIMENT BARRIERS OR DEPOSITED OUTSIDE OF THE CONTROLLED AREA SHALL BE REMOVED AND SPREAD ON THE CONSTRUCTION SITE OR OTHERWISE APPLIED TO LAND SO AS TO NOT POSE A SIGNIFICANT POLLUTION POTENTIAL. STREETS SHALL BE CLEANED OF MUD AND DEBRIS ON A REGULAR BASIS SO AS TO NOT POSE A SIGNIFICANT POLLUTION POTENTIAL OR PRESENT A TRAFFIC HAZARD.
- SEDIMENTATION BARRIERS ARE TO BE INSTALLED AS SHOWN AND AT ANY ADDITIONAL AREAS OF CONCENTRATED FLOWS NOT SHOWN ON THE PLANS.
- ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED PER THE STANDARD SPECIFICATIONS. ANY DISTURBED AREA THAT WILL REMAIN EXPOSED 14 DAYS OR MORE SHALL BE STABILIZED WITH A TEMPORARY COVER OF ANNUAL RYE OR ANNUAL WHEAT, OR UTILIZING SEDIMENT CONTROL MEASURES TO PREVENT SOIL FROM LEAVING THE AREA.
- ALL SILT FENCE SHALL BE INSTALLED PER DETAIL. END TERMINAL OF SILT FENCE SHALL BE TURNED UPGRADIENT AT ENDS. PERIMETER SILT FENCE SHALL BE TURNED UP SLOPE ON 2 FOOT VERTICAL INTERVALS WITH FENCE LENGTH BETWEEN TURNED-UP SECTIONS NOT EXCEEDING 400' ALONG CONTOURS AND 50' ALONG SLOPED RUNS.
- ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE SEDIMENTATION BARRIERS MAINTAINED AS NEEDED TO PREVENT SEDIMENTATION BYPASS OF THE BARRIER.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY ADDITIONAL EROSION CONTROL AS HE/SHE DEEMS NECESSARY TO PREVENT SEDIMENT FROM ENTERING STORM DRAINS, STREETS, AND WATERWAYS.
- TEMPORARY SEDIMENT FENCE EROSION CONTROL MEASURES TO REMAIN UNTIL ADEQUATE VEGETATION IS ESTABLISHED, ON PROJECTS THAT ARE NOT EXPECTING IMMEDIATE DEVELOPMENT (I.E. INTERCEPT SEWERS, OFFSITE IMPROVEMENTS, ETC.) EROSION CONTROL MEASURES ARE TO BE REMOVED BY CONTRACTOR AS SOON AS ADEQUATE VEGETATION IS ESTABLISHED.
- INSTALL AND MAINTAIN CONSTRUCTION ENTRANCE(S) AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING THE SITE AND AS SHOWN ON PLANS.
- AT COMPLETION OF SITE GRADING AND OTHER RELATED CONSTRUCTION ACTIVITIES, ALL DISTURBED AREAS WITHIN THE PROJECT SITE SHALL BE SEEDED, SODDED, OR LANDSCAPED. A MINIMUM OF 4" OF TOPSOIL IS TO BE PLACED IN AREAS TO BE SEEDED, SODDED, OR LANDSCAPED THAT ARE UNSUITABLE FOR VEGETATIVE GROWTH.
- STRIP TOPSOIL PRIOR TO EXCAVATION, STOCKPILE AND SPREAD ONTO DISKED SUBGRADE (4" MIN) A THICKNESS OF 4 INCHES.
- ROCK LINING (RIPRAP) SHALL BE DURABLE STONE CONTAINING A COMBINED TOTAL OF NOT MORE THAN 10 PERCENT OF EARTH, SAND, SHALE AND NON-DURABLE ROCK. AT LEAST 60 PERCENT OF THE MASS SHALL BE OF PIECES HAVING A MINIMUM WEIGHT OF 150 POUNDS OR MORE PER CUBIC FOOT.
- THE CONTRACTOR/BUILDER/DEVELOPER SHALL HAVE THE RESPONSIBILITY FOR RESOLVING COMPLAINTS IN THE EVENT THAT COMPLAINTS OR DAMAGE CLAIMS ARE FILED DUE TO DAMAGES OCCURRING, ADJACENT TO OR DOWNSTREAM FROM PROPERTY, BY SEDIMENT RESULTING FROM EROSION ON THE PROJECT SITE.
- GOOD HOUSEKEEPING PRACTICES SHALL BE MAINTAINED ON SITE TO KEEP SOLID WASTE FROM ENTRY INTO WATERS.
- ALL FUELING FACILITIES PRESENT ON SITE SHALL ADHERE TO APPLICABLE FEDERAL AND STATE REQUIREMENTS CONCERNING UNDERGROUND STORAGE, ABOVE GROUND STORAGE AND DISPENSERS, INCLUDING SPILL PREVENTION, CONTROL AND COUNTER MEASURES.
- MINIMAL WASHING OF CONCRETE EQUIPMENT ALLOWED (CHUTE, TOOLS, ETC.) AT A CONTRACTOR DEFINED LOCATION. CONCRETE WASHOUT OF THE DRUM IS NOT ALLOWED. ANY PIT/WASHOUT AREA NEEDS TO BE MAINTAINED IN A NON-DISCHARGING MANNER AND ANY WASTE RESIDUE WILL NEED TO BE CLEANED OUT AND REMOVED AT THE END OF PROJECT.
- BMP'S MUST BE INSTALLED AND MAINTAINED TO CONTROL RUNOFF DURING LOT DEVELOPMENT.
- THE LOT OWNER SHALL IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES ON ANY INDIVIDUAL LOT(S) FOR WHICH KOHE NOTIFIES THE DEVELOPER, CONTRACTOR OR LOT OWNER OF WATER QUALITY VIOLATIONS DUE TO CONDITIONS AT SAID LOT(S). IN THE EVENT THE LOT OWNER IS UNABLE OR UNWILLING TO TAKE ACTION, THE DEVELOPER SHALL IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES ON SAID LOT(S) IN ACCORDANCE WITH THE APPROVED SWP3.



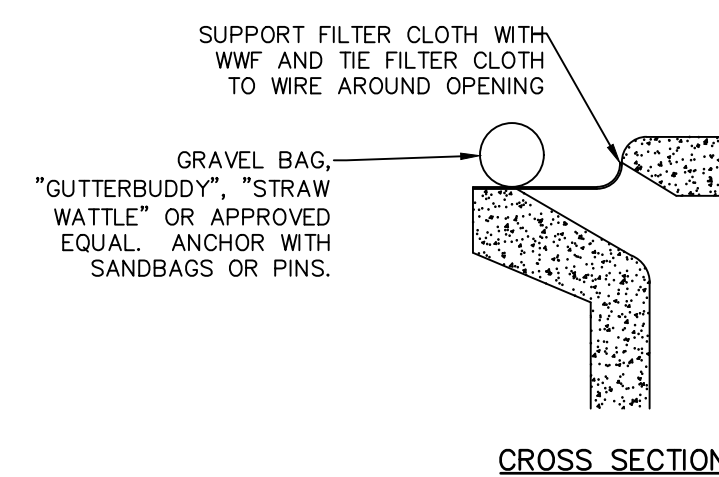
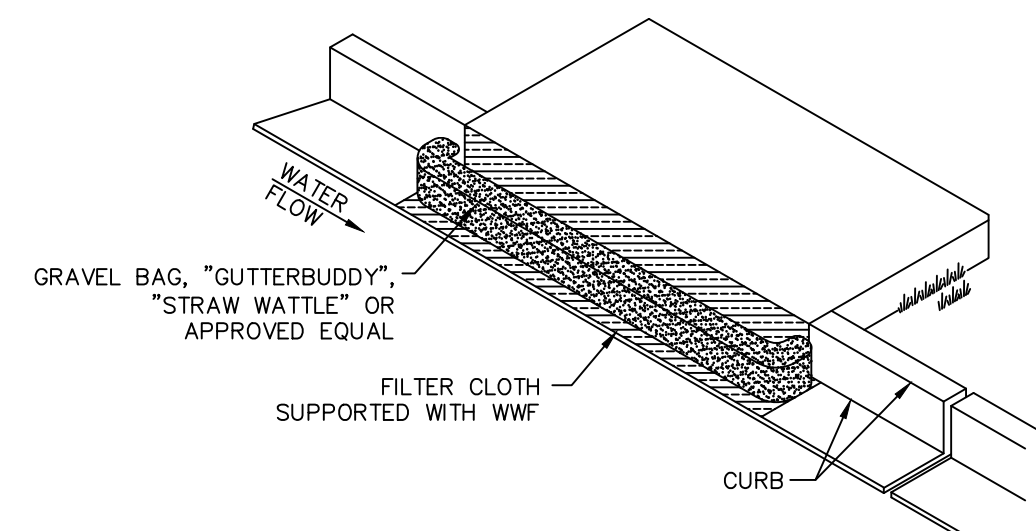
**WATTLE NOTES:**

- FIBER LOGS MAY BE USED
- THE DIAMETER OF WATTLE
- WATTLES OR FIBER LOGS MAY BE USED FOR FIBER SHALL BE USED FOR
- THE WATTLES OR FIBER LOGS SHALL BE USED FOR PART OF THE BARRIER NEEDS ANY REPAIR
- SEDIMENT DEPOSITS SHALL BE REMOVED 1/2 OF THE WATTLE OR FIBER
- INSTALL WATTLES OR FIBER LOGS TIGHTLY, END TO END
- STAKES SHALL BE INSTALLED ENTIRE LENGTH.
- PROVIDE MULTIPLE WATTLES
- WATER FROM TRENCH DEWATERED.

**WATTLE INSTALLATION** 819  
N.T.S.

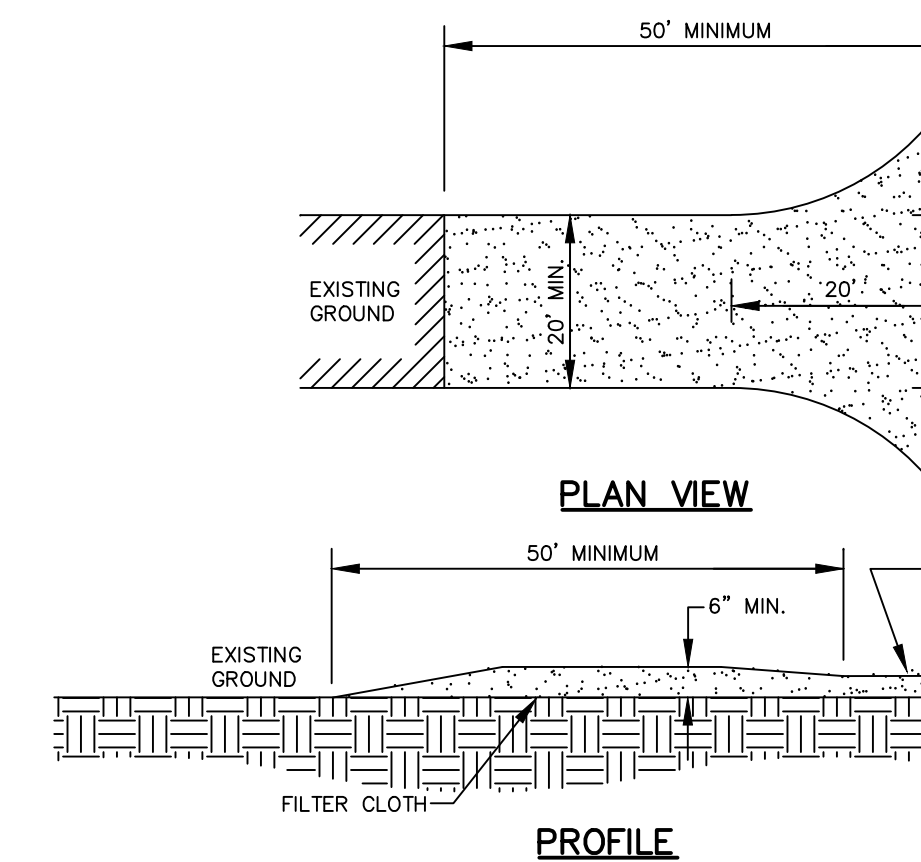


**SEDIMENTATION FENCE**  
N.T.S.



- NOTE:**
- SUBMIT FILTER PLAN AND TYPE FOR APPROVAL.
  - UPON CONSTRUCTION OF INLET FILTER PROTECTION WILL BE PROVIDED. HAY BALES NO LONGER APPROVED.
  - INLET FILTER PROTECTION TO BE LEFT IN PLACE AFTER CONSTRUCTION OF THIS PROJECT. DEVELOPER-OWNER TO DIRECT LOT BUILDER TO MAINTAIN EROSION CONTROL WHILE CONSTRUCTING HOMES OR MAINTAIN THEMSELVES.
  - INLET FILTER TO REMAIN IN PLACE UNTIL 90% OF DRAINAGE AREA IS SODDED OR SEEDED.

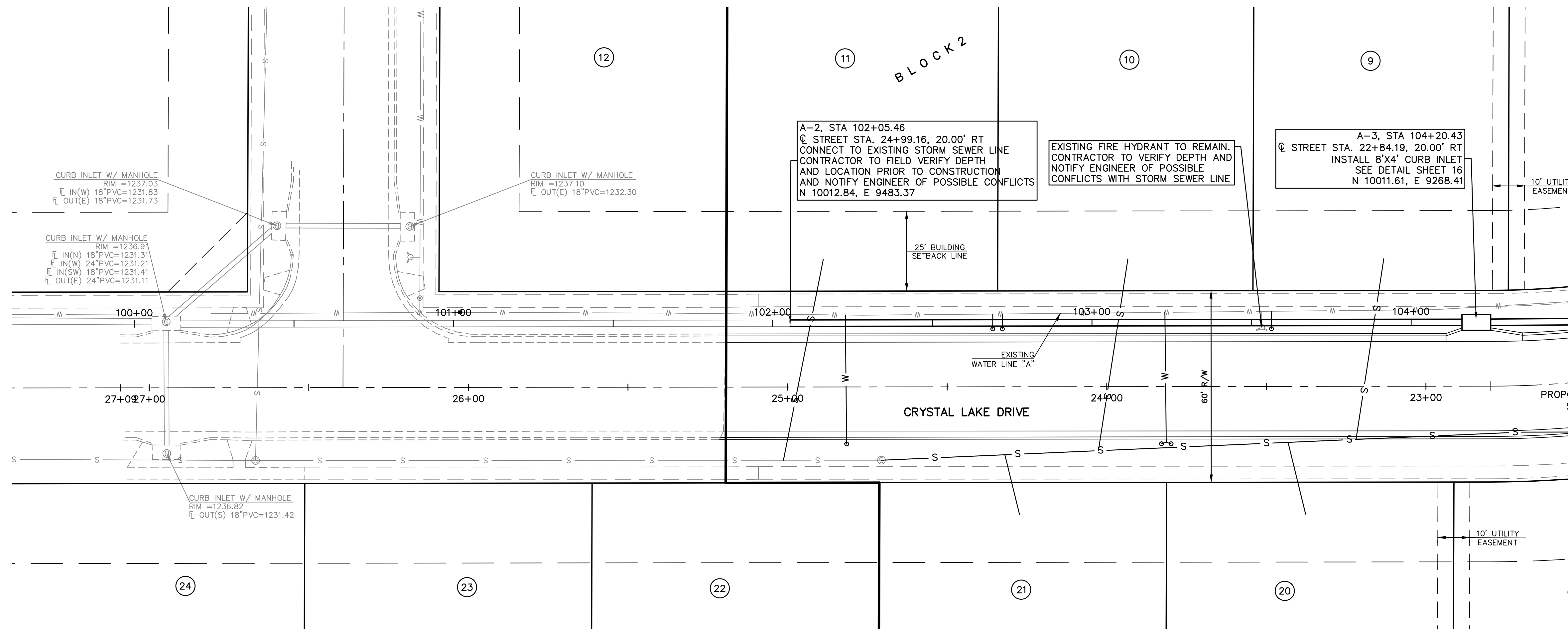
**INLET FILTER PROTECTION** 818  
N.T.S.



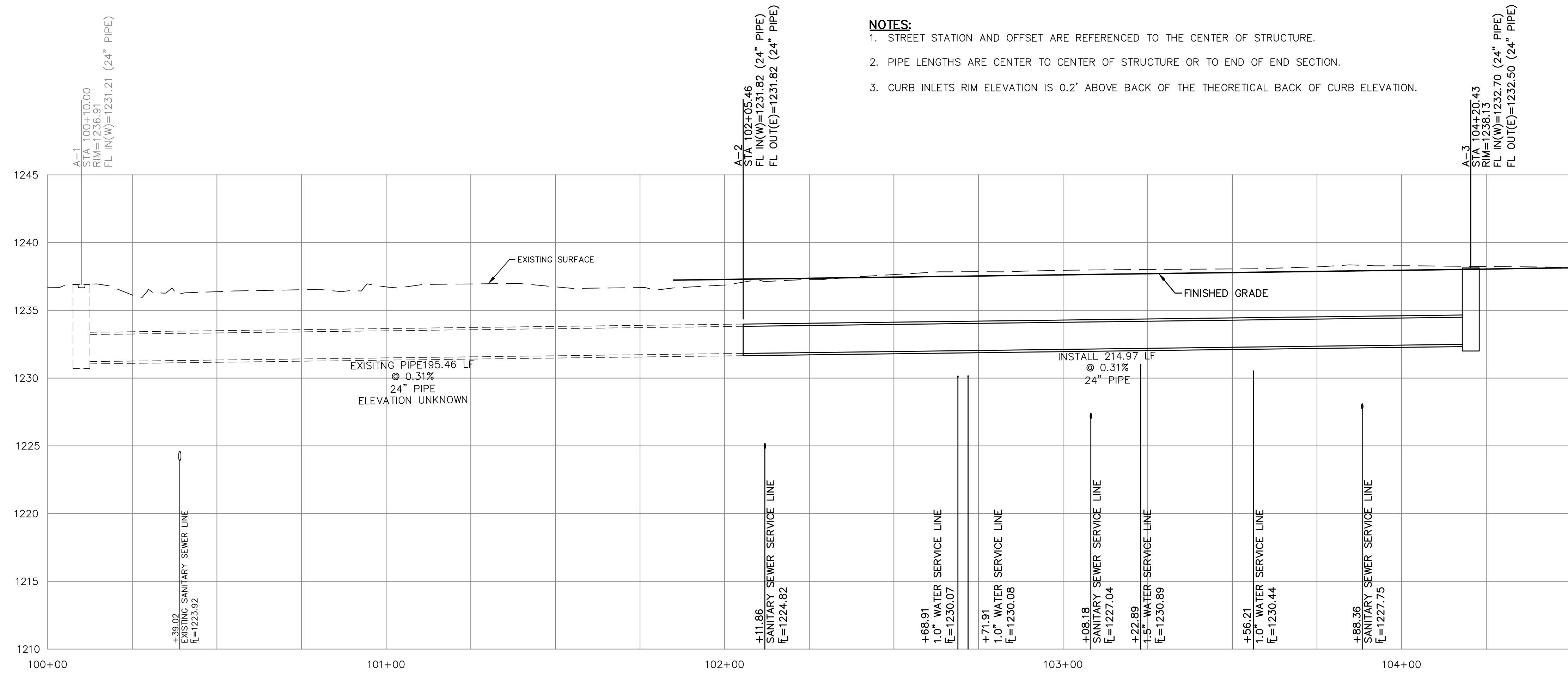
**CONSTRUCTION ENTRANCE NOTES:**

- STONE SIZE - USE 2" STONE OR RECLAIMED OR RECYCLED EQUIVALENT
- LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET.
- THICKNESS - NOT LESS THAN (6) INCHES.
- WIDTH - TWENTY (20) FOOT MINIMUM, BUT NOT LESS THAN THE FULL INGRESS OR EGRESS OCCURS.
- FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO F
- SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MINIMUM SLOPE WILL BE PERMITTED.
- MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, PUBLIC RIGHTS-OF WAY MUST BE REMOVED IMMEDIATELY.
- WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A PAVED SURFACE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.

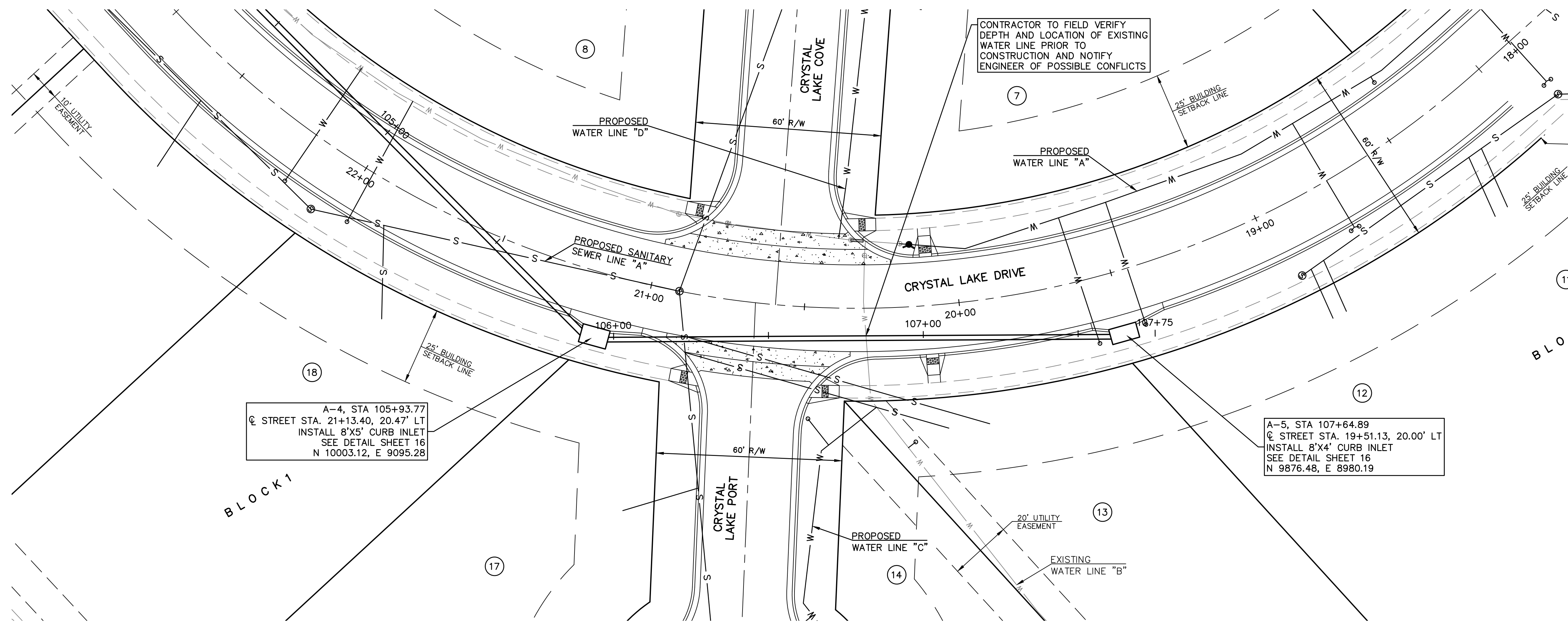
**CONSTRUCTION ENTRANCE**  
DETAIL



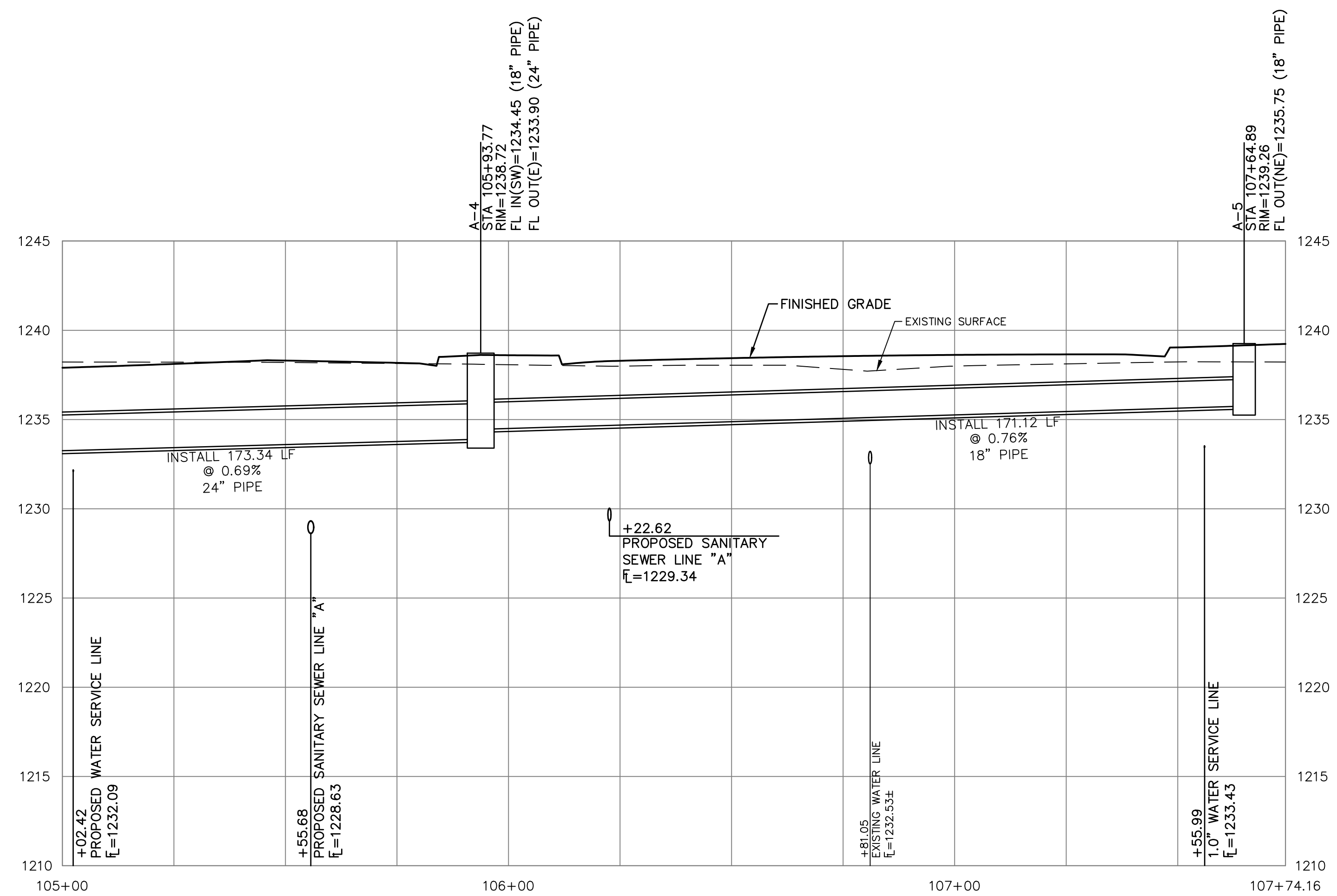
*Handwritten signature*  
3/11/24



- NOTES:**
1. STREET STATION AND OFFSET ARE REFERENCED TO THE CENTER OF STRUCTURE.
  2. PIPE LENGTHS ARE CENTER TO CENTER OF STRUCTURE OR TO END OF END SECTION.
  3. CURB INLETS RIM ELEVATION IS 0.2' ABOVE BACK OF THE THEORETICAL BACK OF CURB ELEVATION.

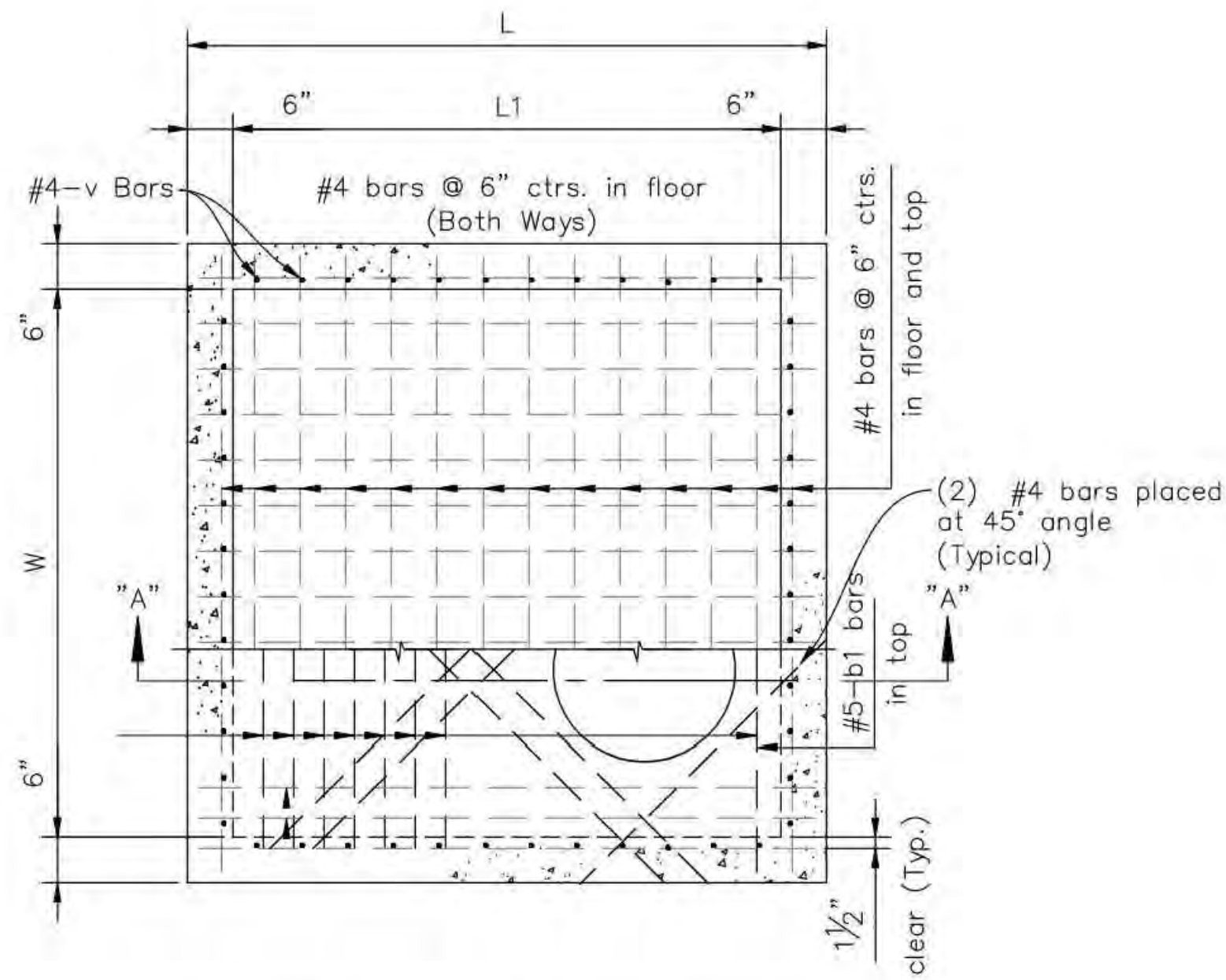


*John P. [Signature]*  
 3/11/24

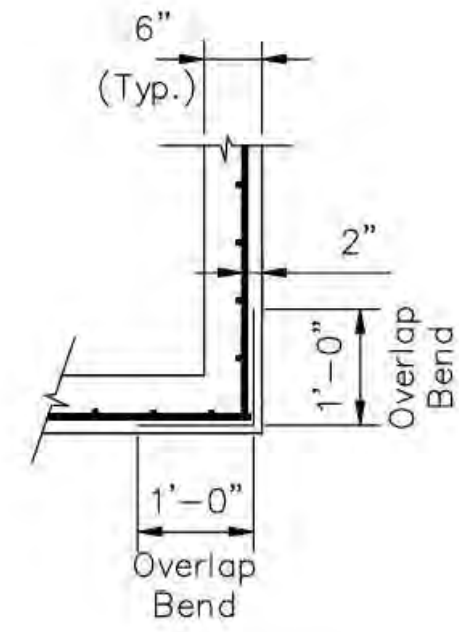


- NOTES:**
1. STREET STATION AND OFFSET ARE REF
  2. PIPE LENGTHS ARE CENTER TO CENTER
  3. CURB INLETS RIM ELEVATION IS 0.2' A

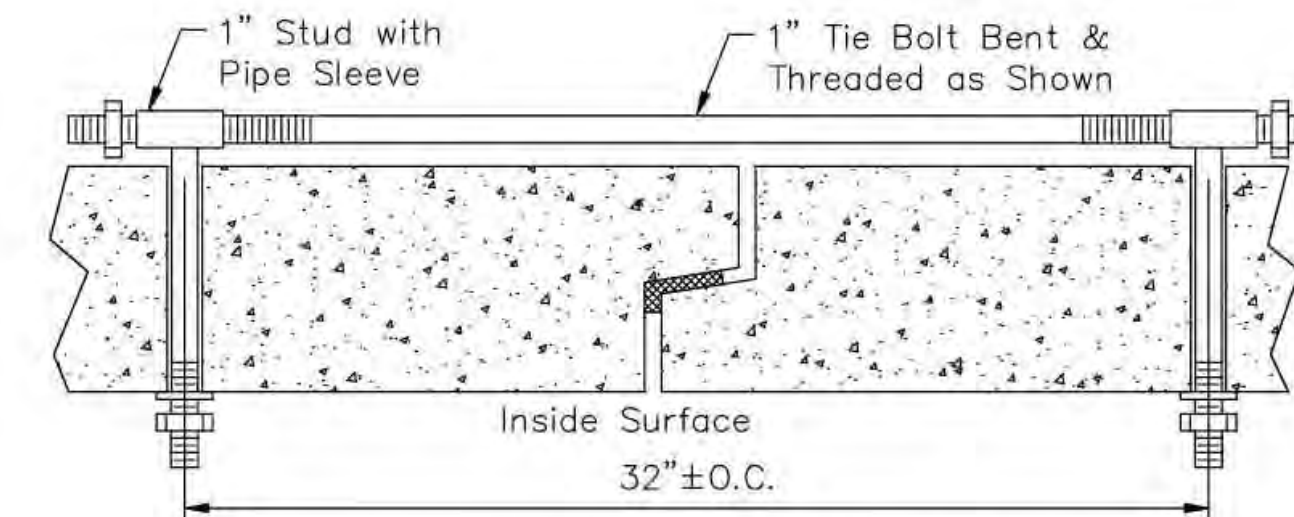




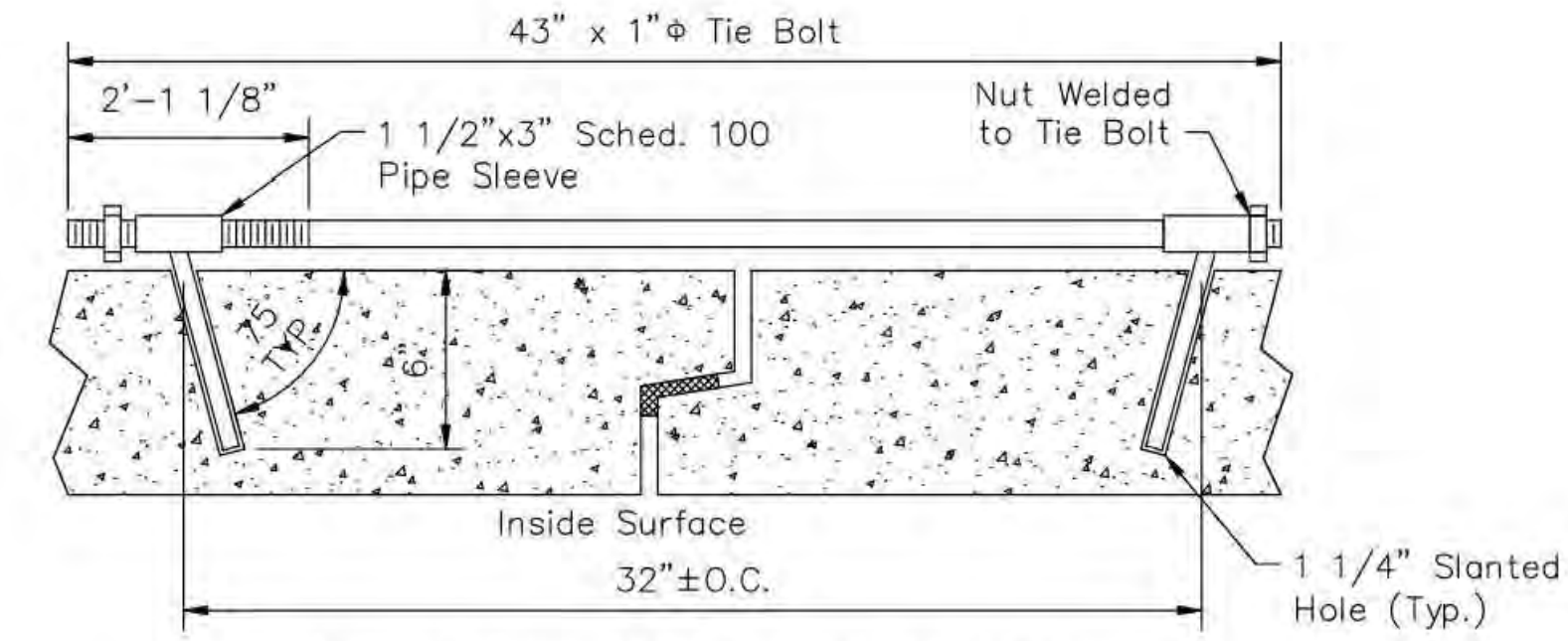
PLAN (Showing top and floor reinforcing)  
Not to Scale



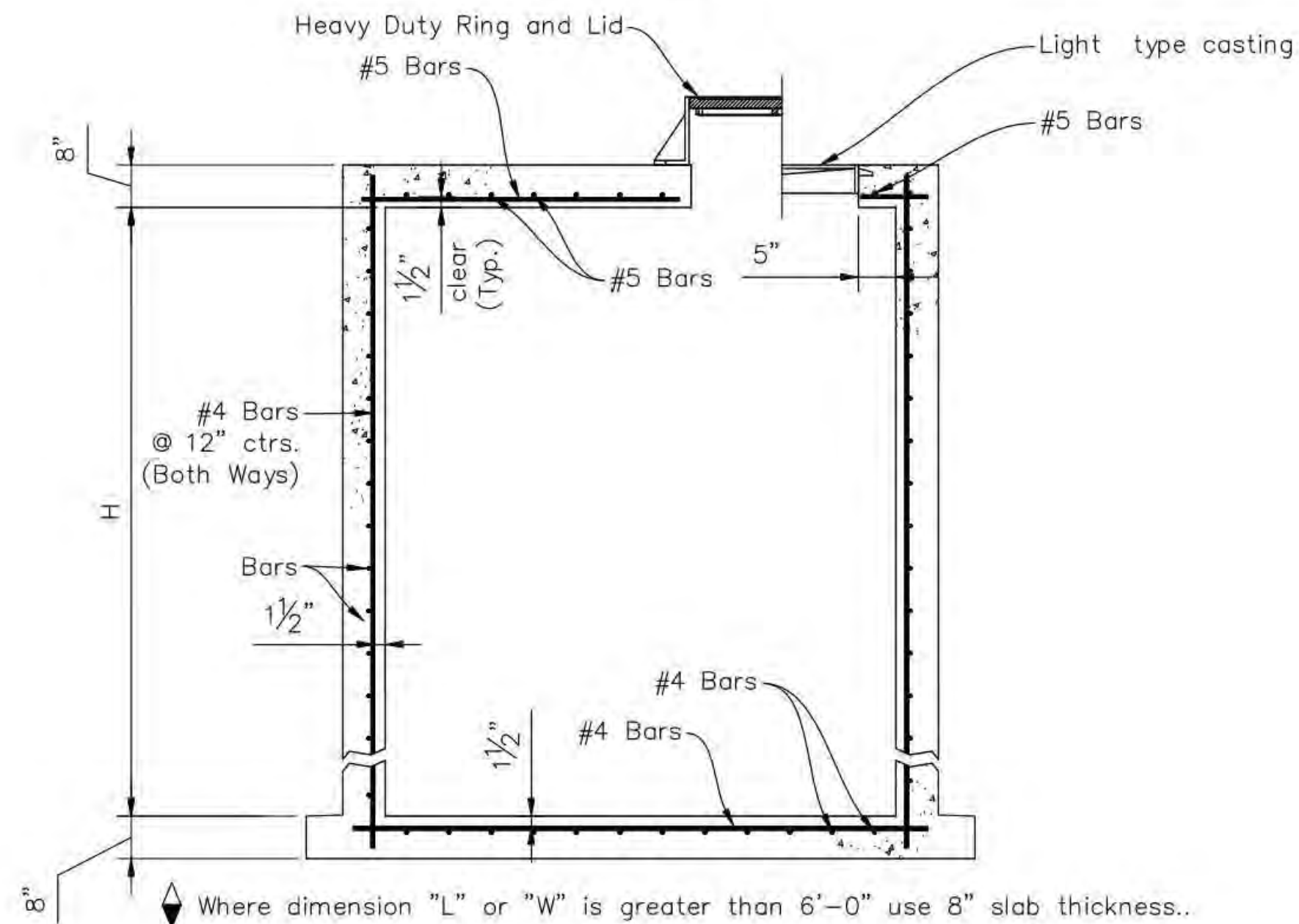
CORNER DETAIL  
Not to Scale



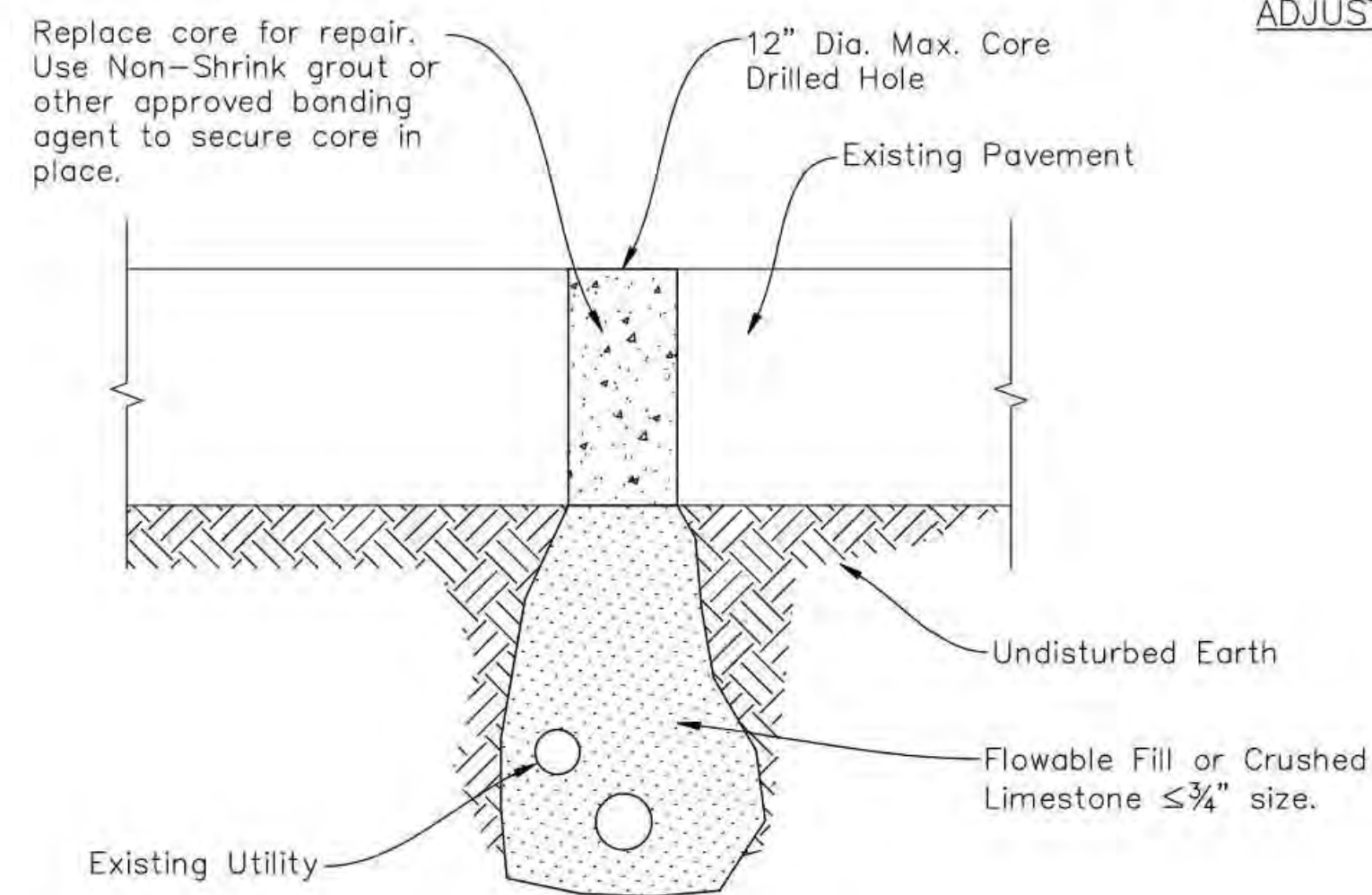
THROUGH HOLE TIE BOLT DETAIL  
Not to Scale



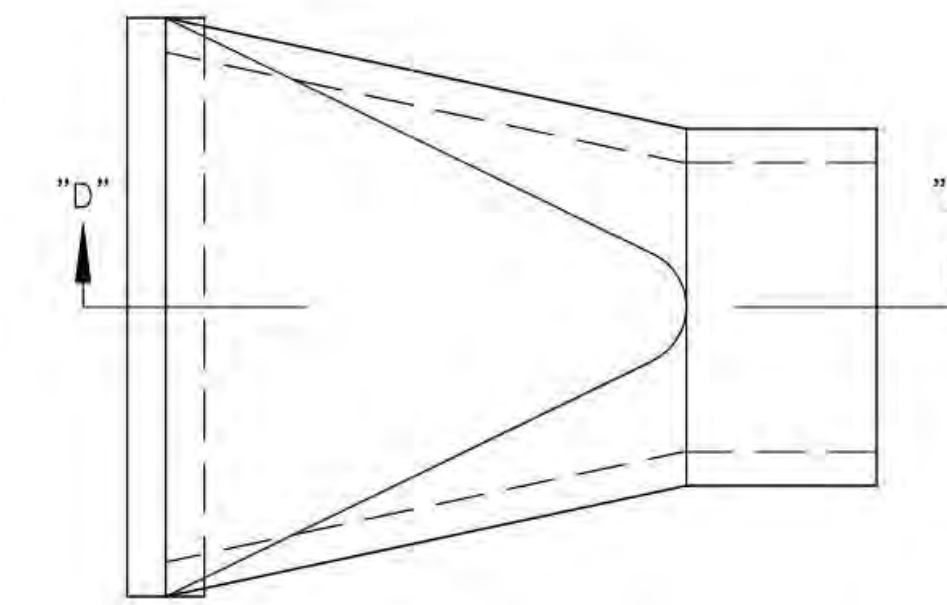
ADJUSTABLE HIDDEN TIE BOLT DETAIL  
Not to Scale



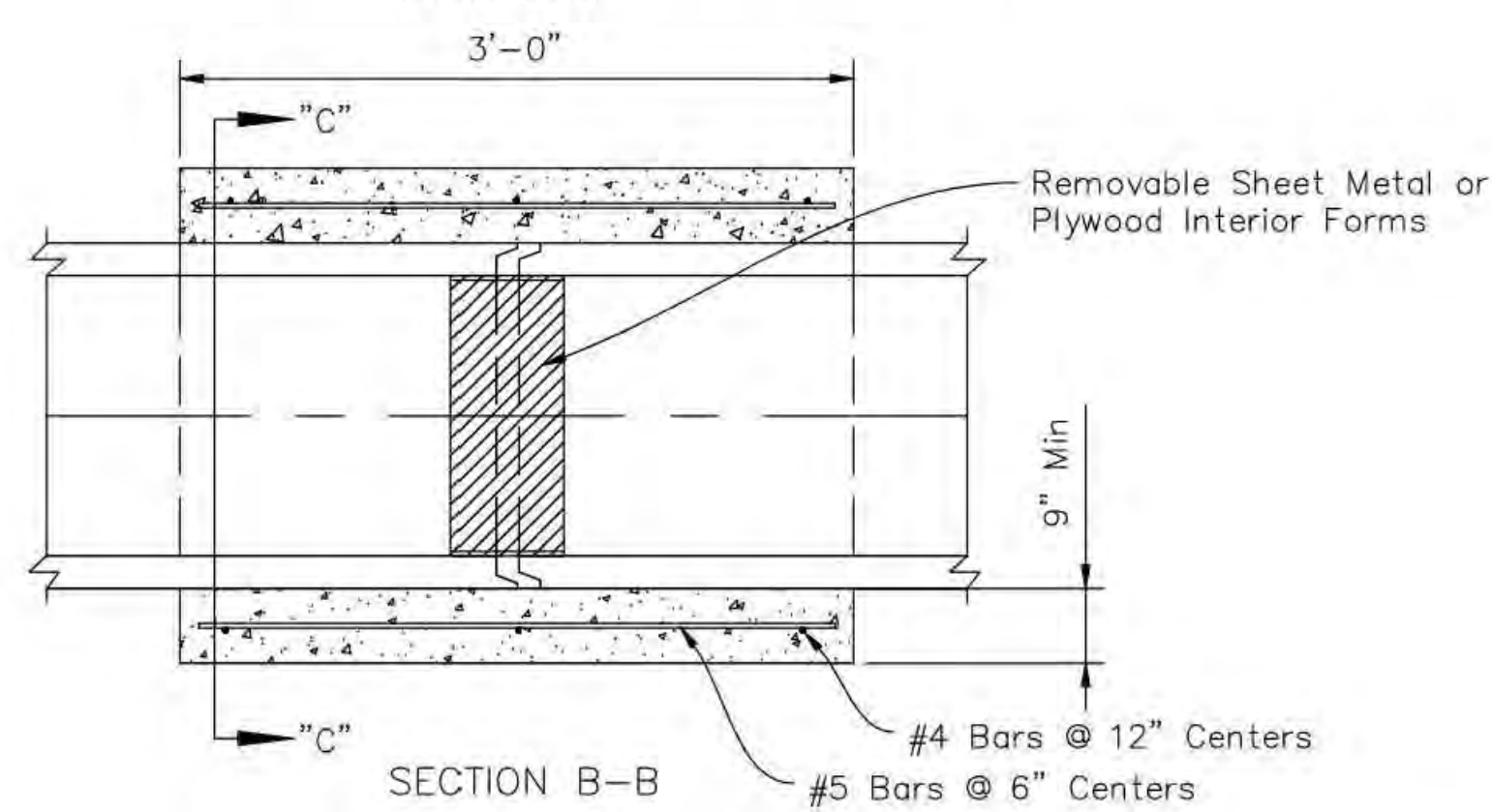
SECTION A-A (Exclusive of floor shaping)  
JUNCTION BOX  
Not to Scale



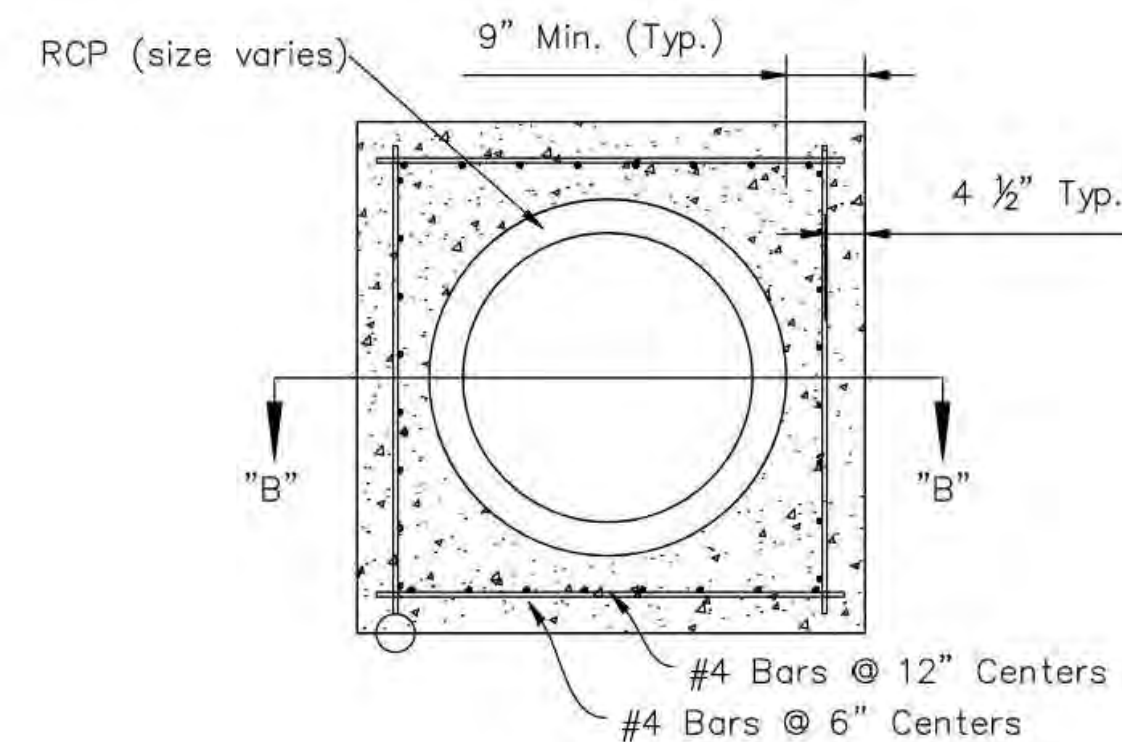
POT HOLE / CORE DRILL HOLE REPAIR  
Not to Scale



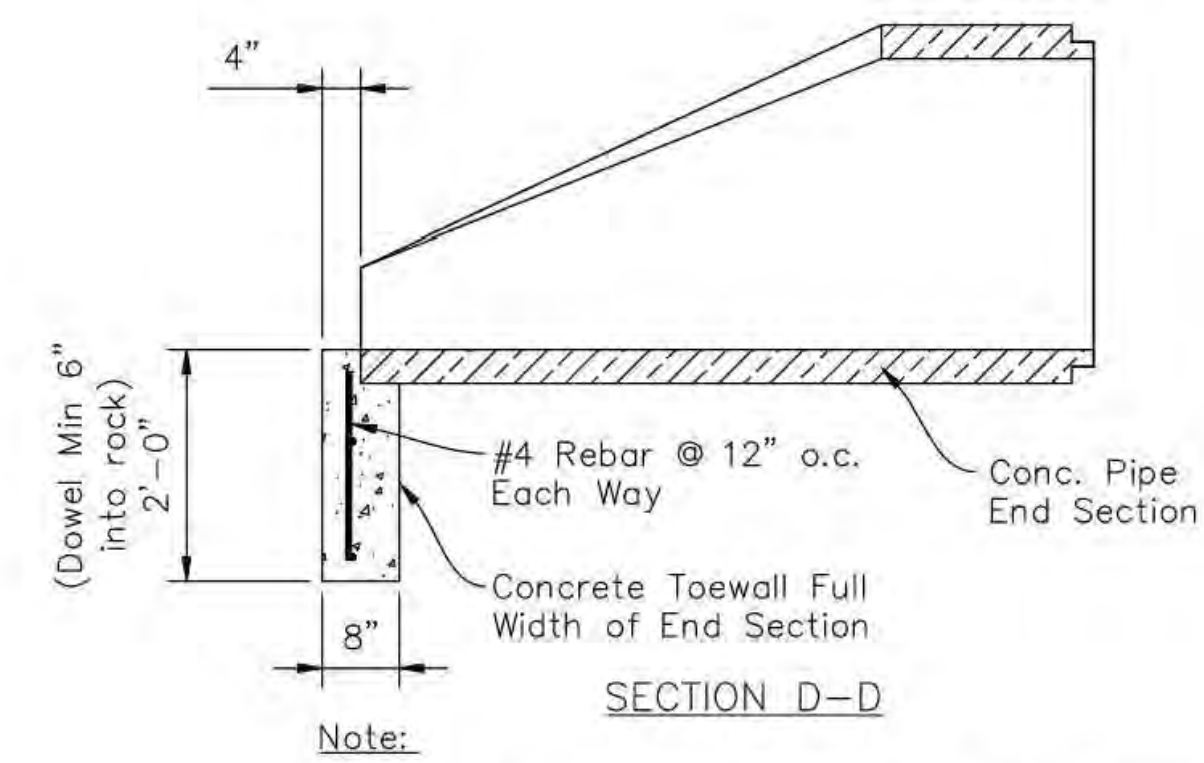
PLAN VIEW



SECTION B-B  
CONCRETE COLLAR  
Not to Scale



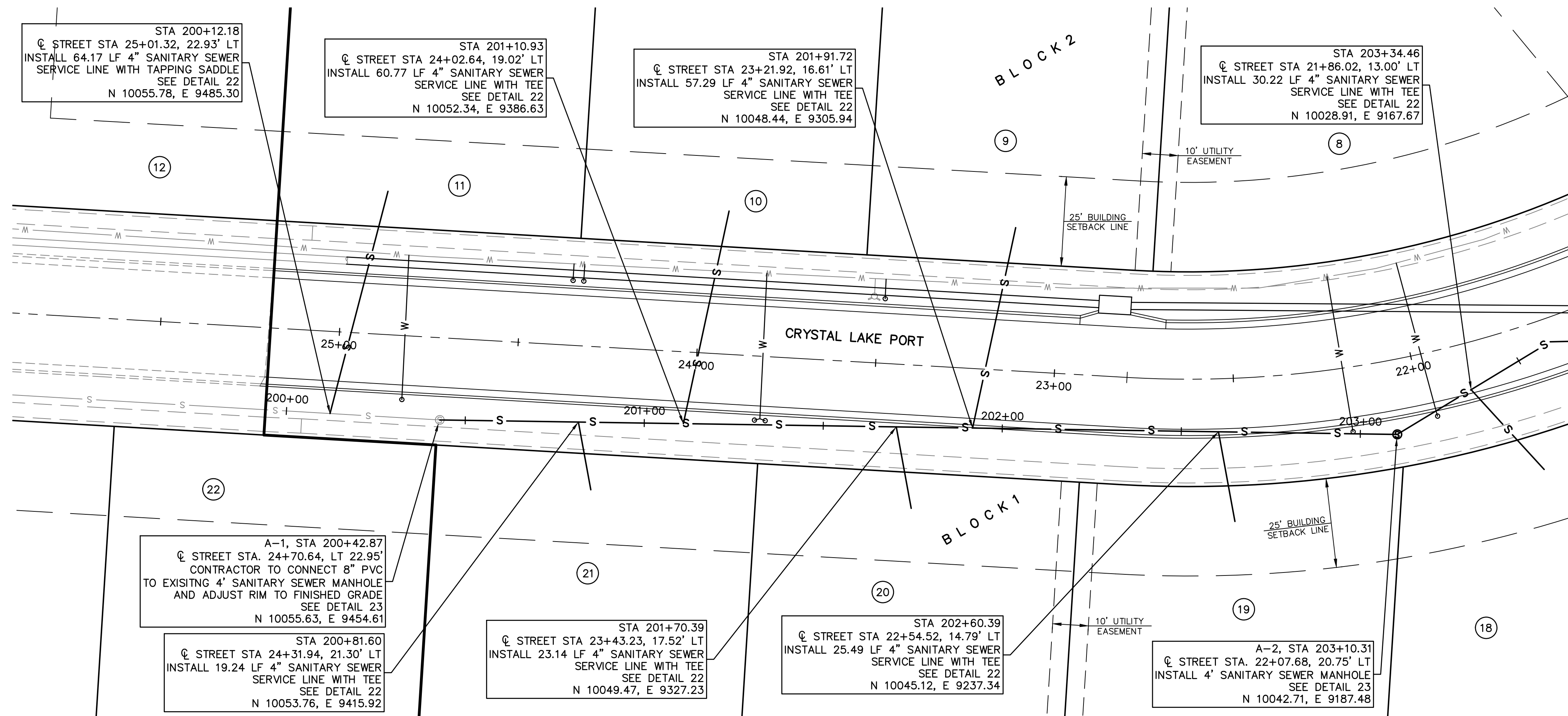
SECTION C-C



SECTION D-D  
END SECTION TOEWALL  
Not to Scale

Note:  
The last three joints of RCP, including the end section, shall be mechanically restrained where discharging into unimproved systems

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3/11/24



*M. P. [Signature]*  
3/11/24

**SEPARATION OF WATER MAINS AND SANITARY SEWERS:**

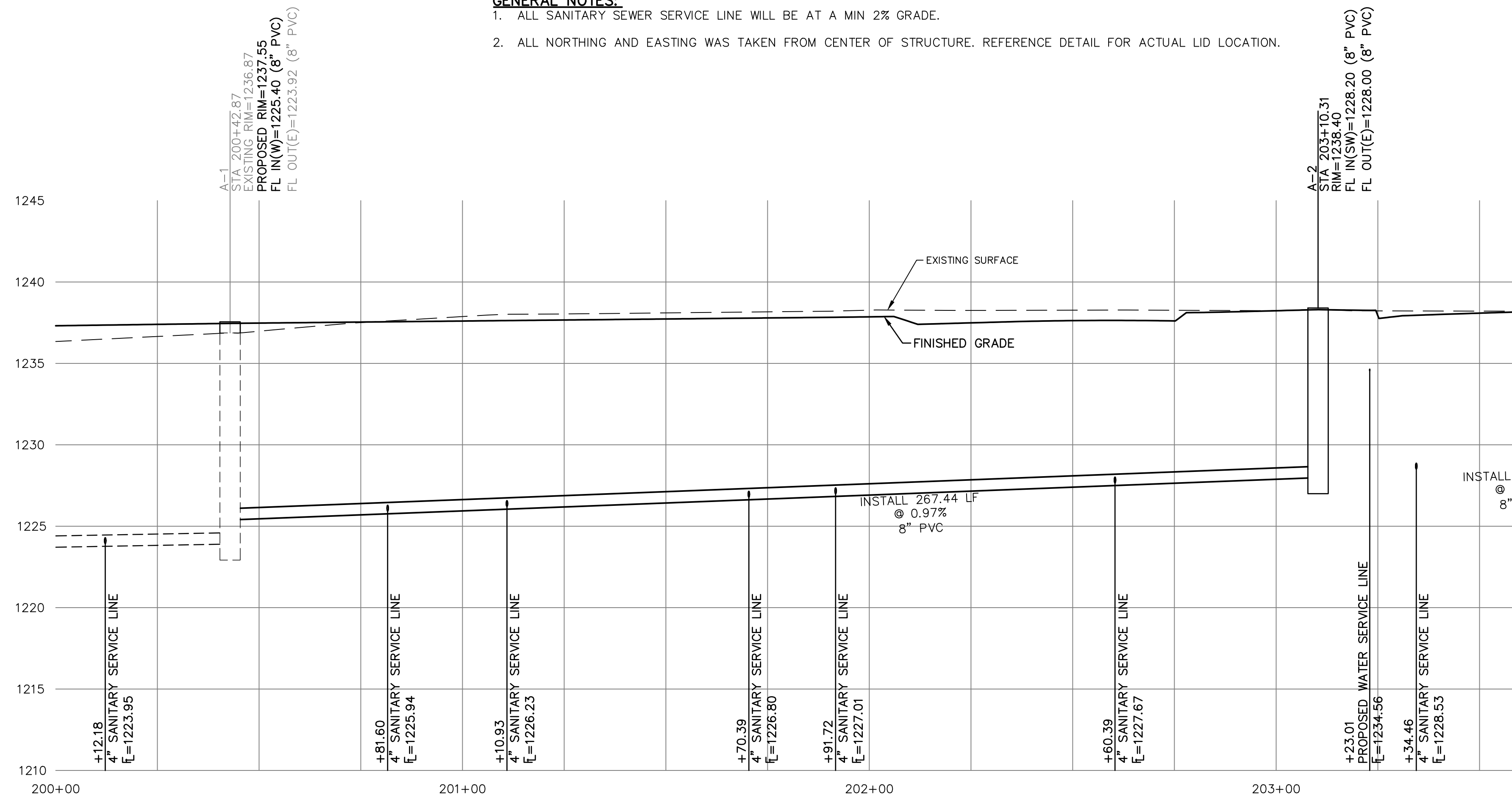
1. A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER (MAINS AND SERVICE) AND SANITARY SEWER (MAINS AND SERVICE) LINES.
2. WHERE A WATER MAIN MUST CROSS A SEWER LINE, MAINTAIN 2 FEET VERTICAL SEPARATION WITH THE WATER MAIN ABOVE THE SEWER.
3. BUILDERS TO MAINTAIN MINIMUM 10' SEPARATION FROM THE OUTSIDE EDGE OF SANITARY SEWER MANHOLES TO THE OUTSIDE EDGE OF WATER SERVICE LINES WHEN RUNNING SERVICE LINES TO HOUSE.

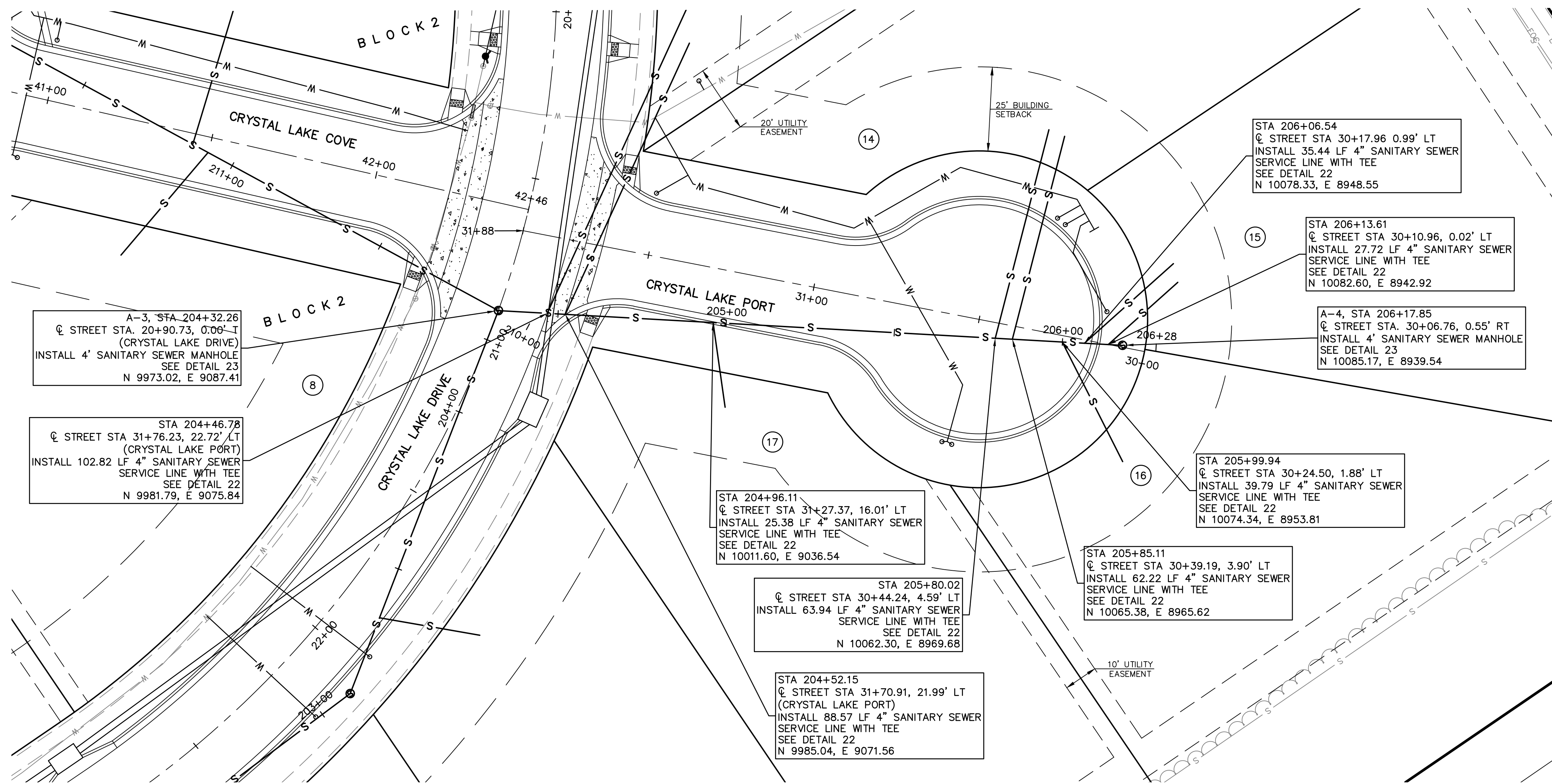
**GENERAL NOTES:**

1. ALL SANITARY SEWER SERVICE LINE WILL BE AT A MIN 2% GRADE.
2. ALL NORTHING AND EASTING WAS TAKEN FROM CENTER OF STRUCTURE. REFERENCE DETAIL FOR ACTUAL LID LOCATION.

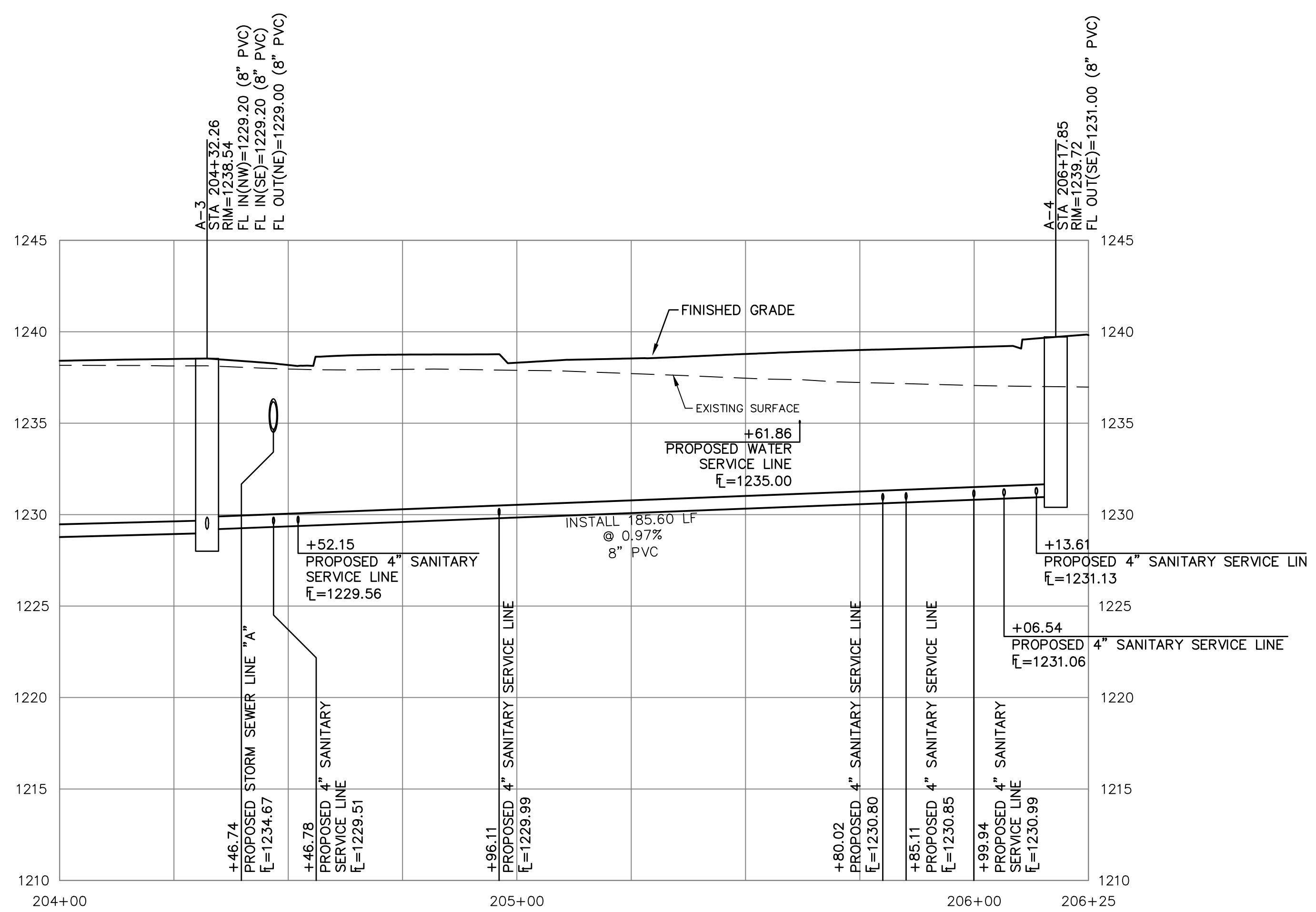
SCALE:  
PLAN: 1"=20'  
PROFILE: 1"=20' HORIZ.  
1"=5' VERT.

NOTE:  
STREET STATION AND OFFSET ARE REFERENCED TO CENTER OF STRUCTURE.





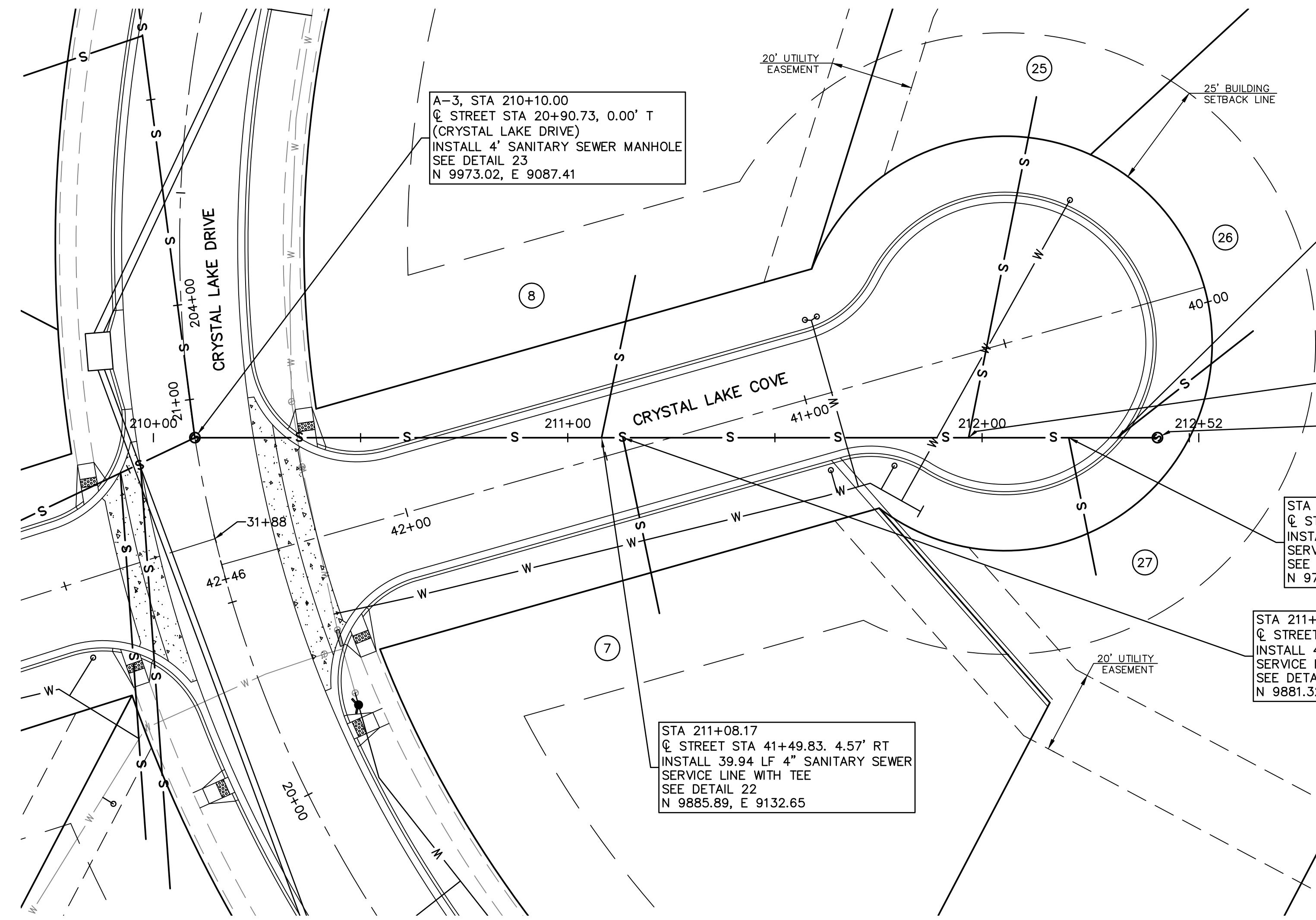
*John P. [Signature]*  
3/11/24



- SEPARATION OF WATER MAINS AND SANITARY SEWERS**
- A MINIMUM HORIZONTAL DISTANCE OF 10 FEET SHALL BE MAINTAINED BETWEEN WATER MAINS AND SANITARY SEWERS (MAINS AND SERVICE) LINES.
  - WHERE A WATER MAIN MUST CROSS A SANITARY SEWER SERVICE LINE, THE WATER MAIN SHALL CROSS ABOVE THE SEWER.
  - BUILDERS TO MAINTAIN MINIMUM 10' SEPARATION BETWEEN THE OUTSIDE EDGE OF WATER SERVICE LINES AND SANITARY SEWER SERVICE LINES.
- GENERAL NOTES:**
- ALL SANITARY SEWER SERVICE LINE WILL BE INSTALLED WITH TEE CONNECTIONS.
  - ALL NORTHING AND EASTING WAS TAKEN FROM THE 2008 DATUM.

SCALE:  
 PLAN: 1"=20'  
 PROFILE: 1"=20' HORIZ.  
 1"=5' VERT.

NOTE:  
 STREET STATION AND OFFSET  
 ARE REFERENCED TO CENTER  
 OF STRUCTURE.



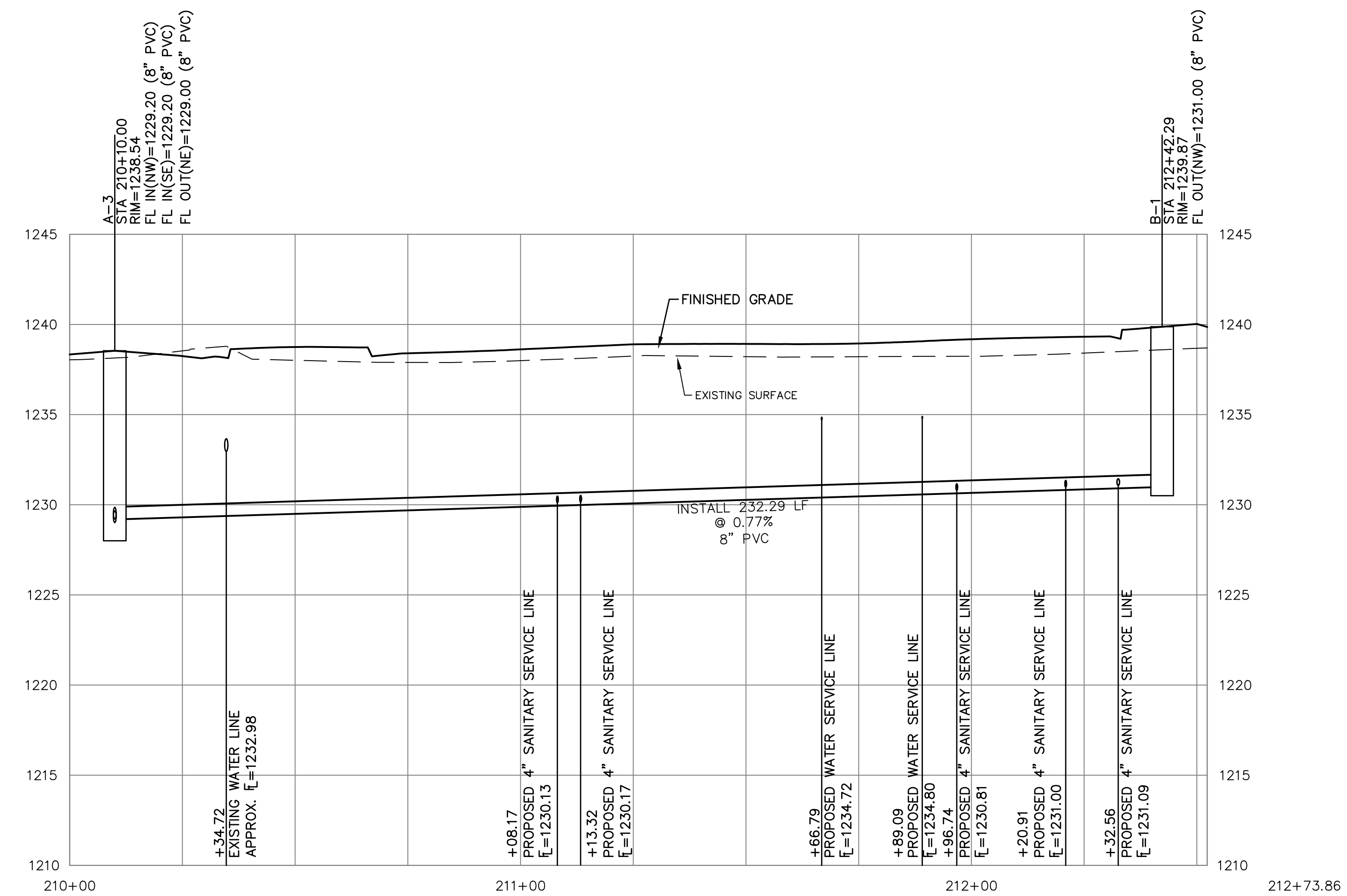
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 3/11/24

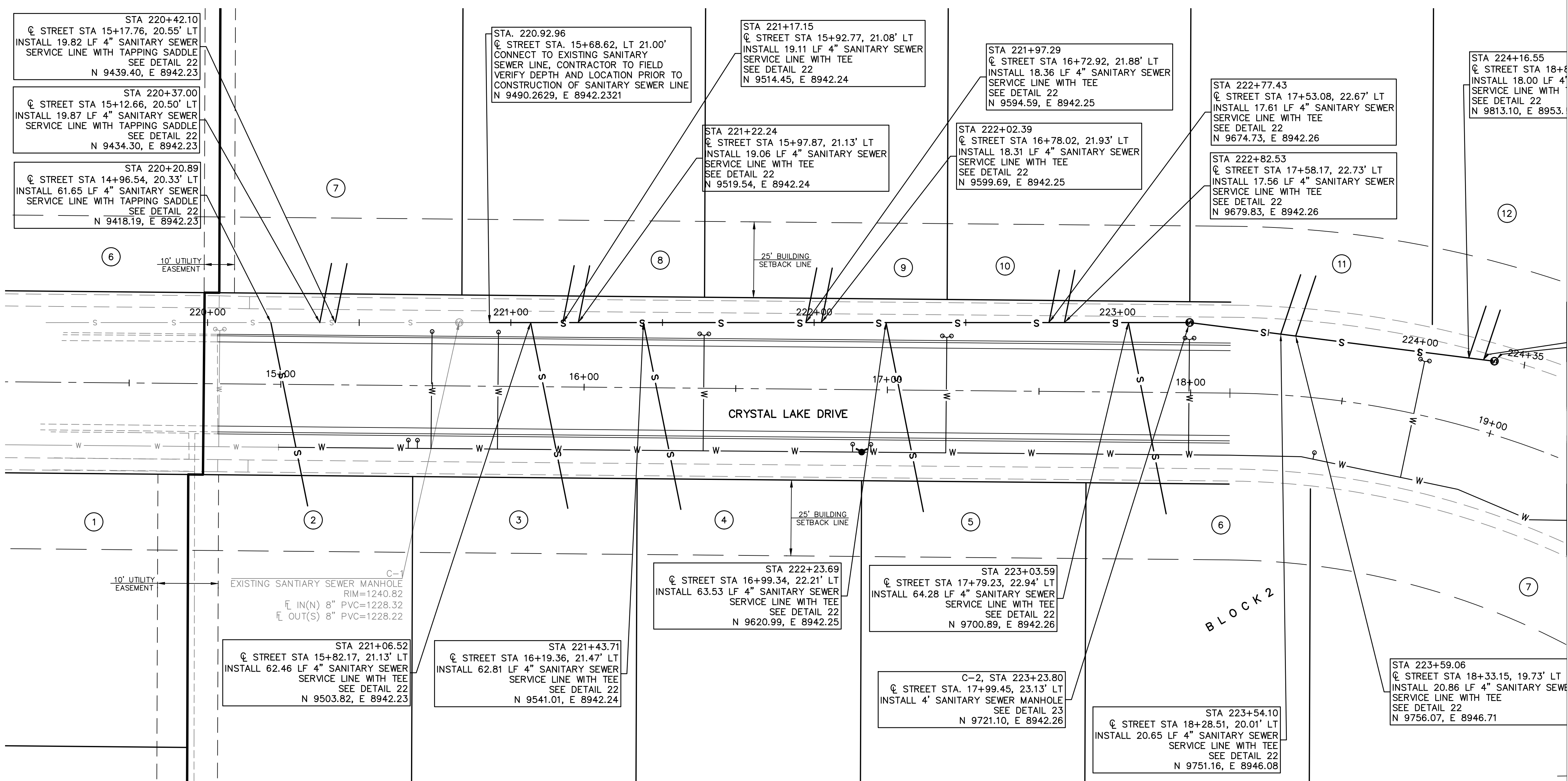
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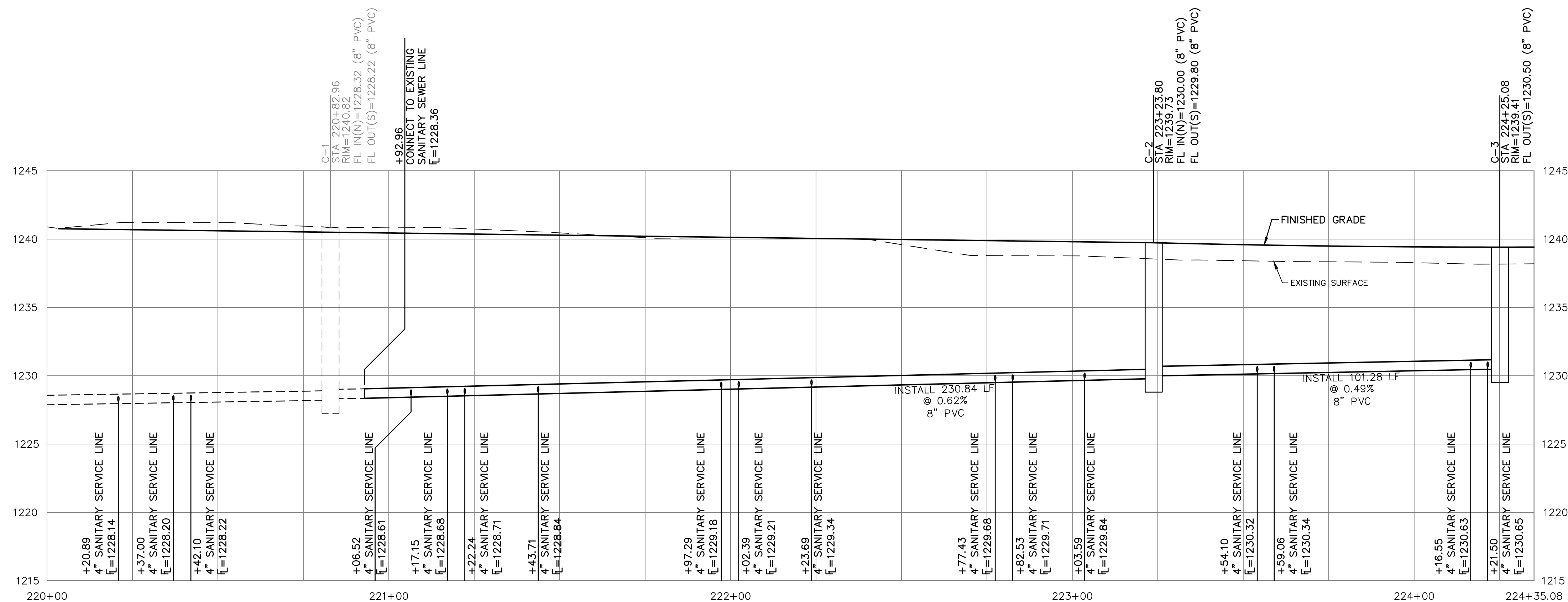
**GENERAL NOTES:**

1. ALL SANITARY SEWER SERVICE LINE WILL BE AT A MIN 2% GRADE.
2. ALL NORTHING AND EASTING WAS TAKEN FROM CENTER OF STRUCTURE. REFERENCE DETAIL FOR ACTUAL LID LOCATION.

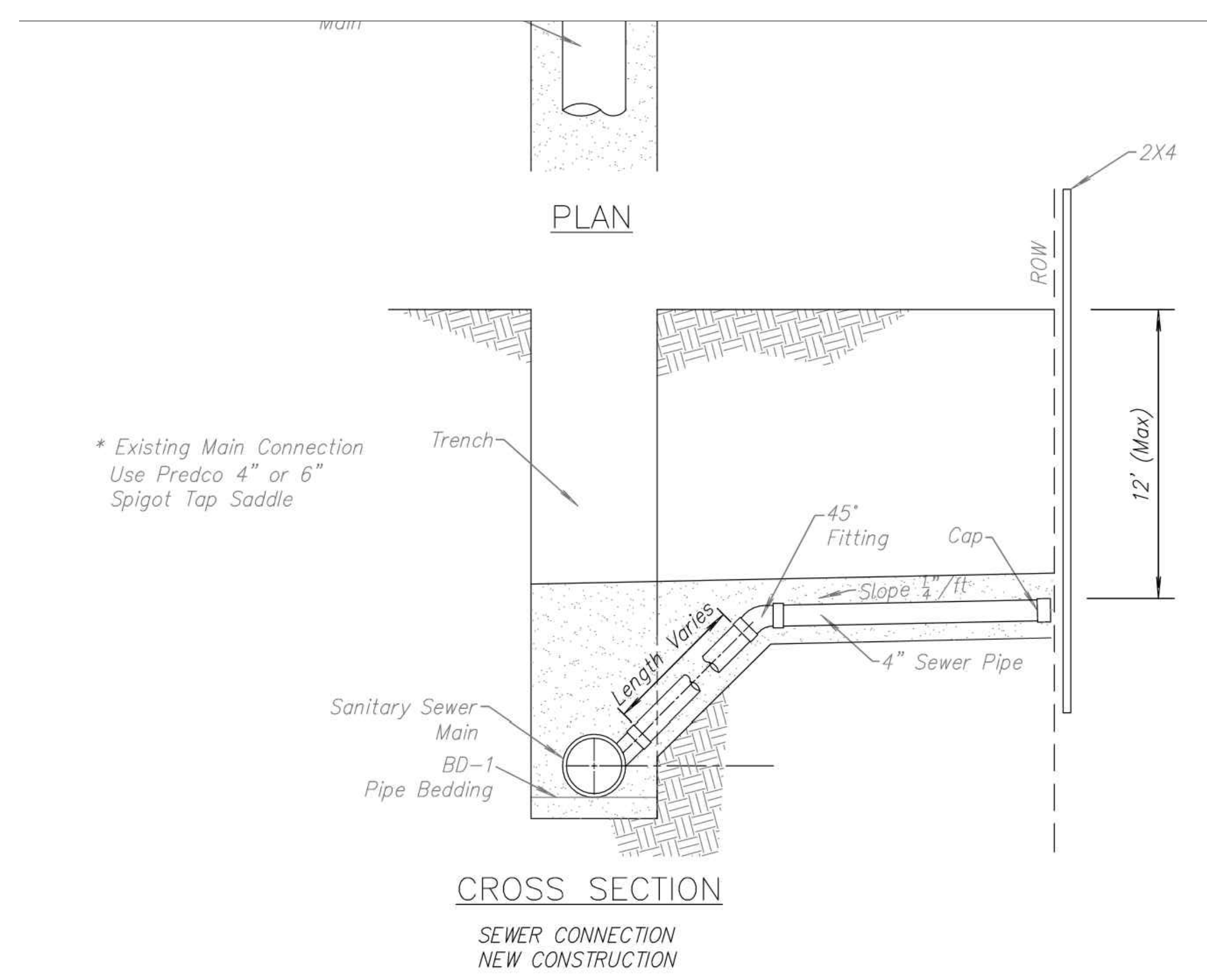




*John P. ...*  
3/11/24



*Mark Paul*  
3/18/24



\* Existing Main Connection  
Use Predco 4" or 6"  
Spigot Tap Saddle

CROSS SECTION  
SEWER CONNECTION  
NEW CONSTRUCTION

CITY OF SALINA, KANSAS PUBLIC WORKS - ENGINEERING - UTILITIES		
STANDARD DETAILS SANITARY SEWER		
PROJ. NO.:	DATE: 3-16-2017	SHEET: 27
FILENAME: 27_Sanitary Sewer Wye.1705_KFU.dwg	BY:	

1627 SUNFLOWER LANE  
SALINA, KANSAS 67401  
PH. (785) 823-3400 | FAX (785) 823-3411  
kawvalleyeng.com | www.kawvalleyeng.com

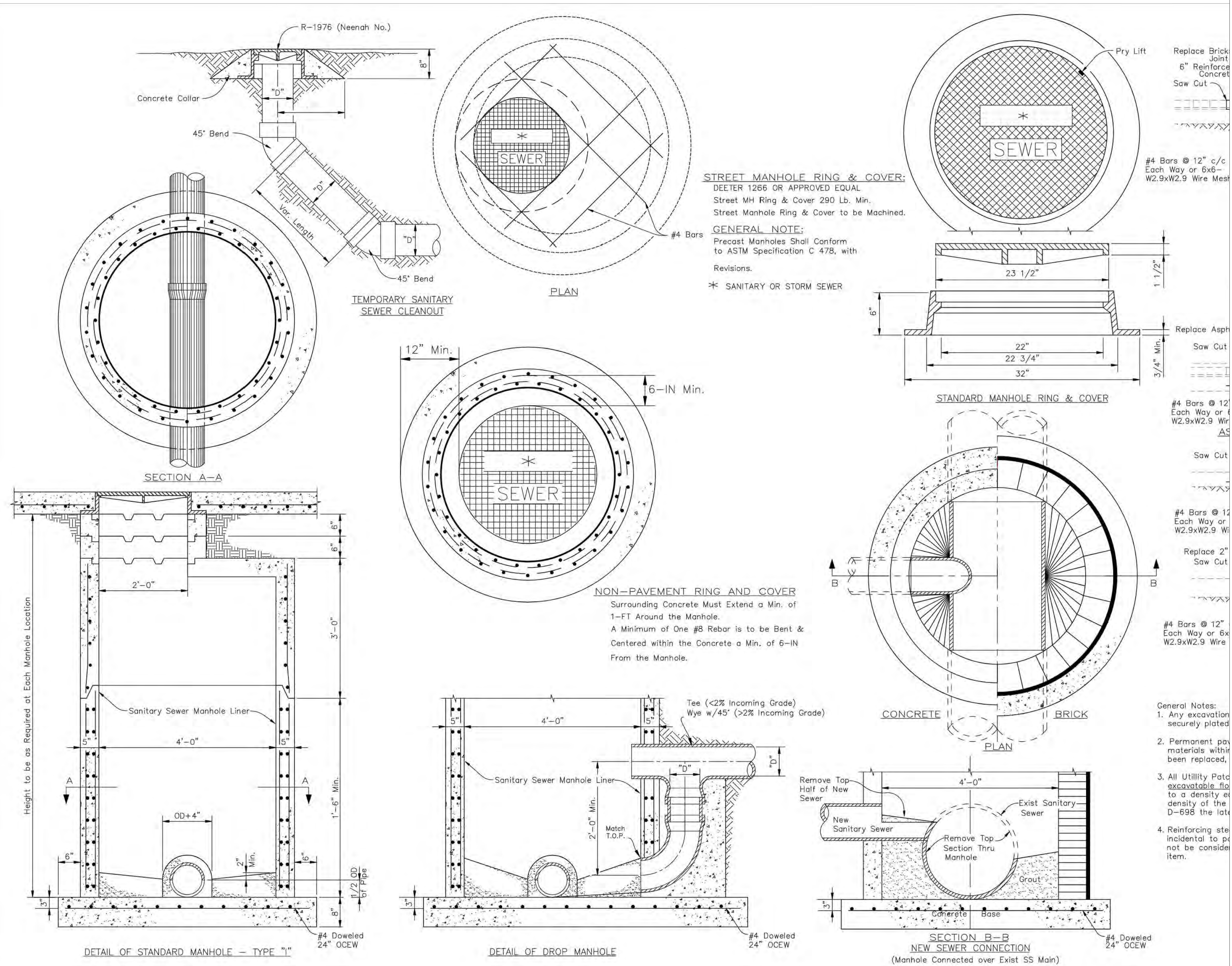
**KAW VALLEY ENGINEERING**

KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY KANSAS STATE CERTIFICATE OF AUTHORIZATION # E-113. EXPIRES 12/31/24.

**STONE LAKE ADDITION 3B**  
**SCHILLING ROAD AND OHIO STREET**  
**SALINA, KANSAS**

**SALINA STANDARD DETAIL (SANITARY SEWER)**

PROJ. NO. E21D3083	DESIGNER MJR	DRAWN BY ZEK
CFN 3083TYP	SHEET 22	REV 1



Replace Brick Joint  
6" Reinforce  
Concrete  
Saw Cut

#4 Bars @ 12" c/c  
Each Way or 6x6-  
W2.9xW2.9 Wire Mesh

Replace Asph  
Saw Cut

#4 Bars @ 12"  
Each Way or  
W2.9xW2.9 Wire  
AS

Saw Cut

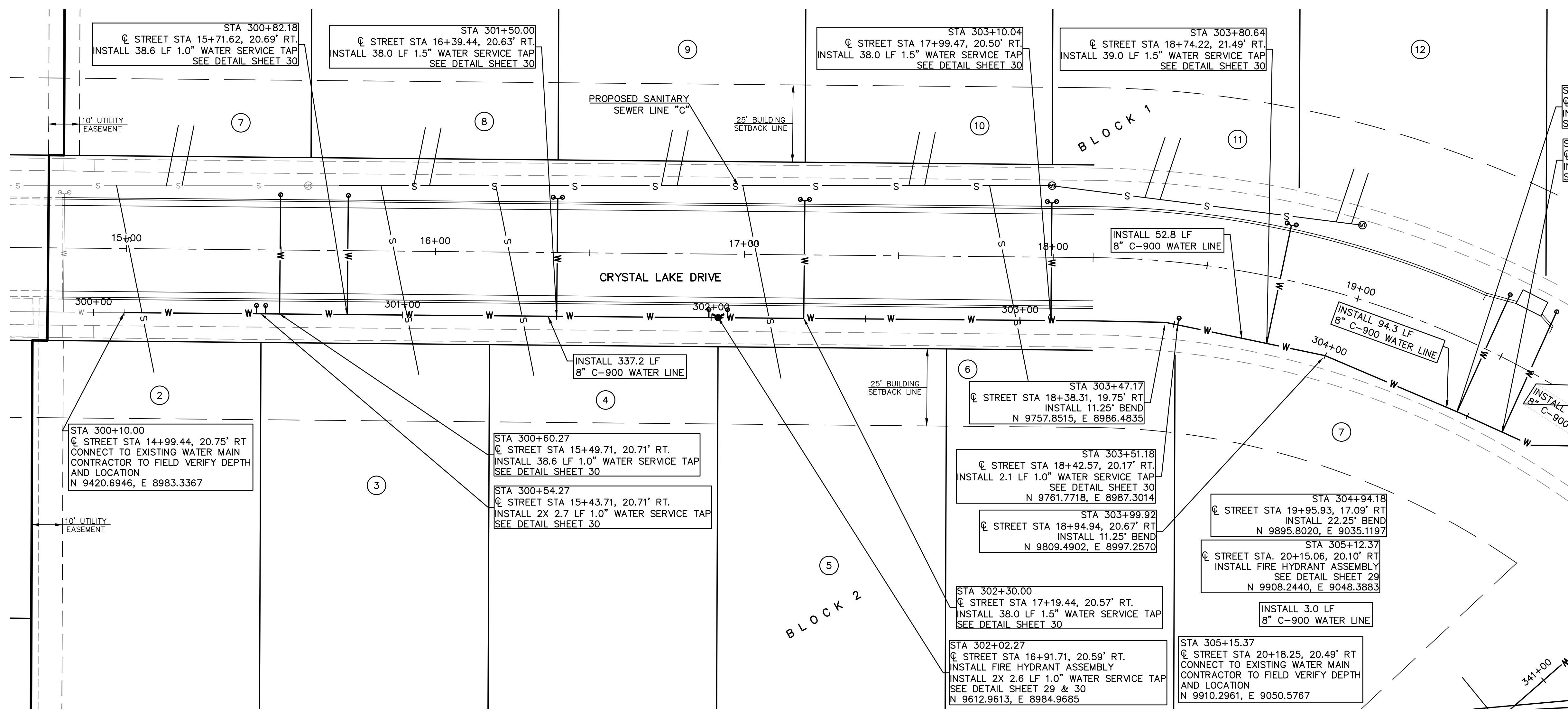
#4 Bars @ 12"  
Each Way or  
W2.9xW2.9 Wire

Replace 2"  
Saw Cut

#4 Bars @ 12"  
Each Way or 6x  
W2.9xW2.9 Wire

- General Notes:
1. Any excavation securely plated
  2. Permanent pavement materials within 6" of manhole shall be replaced.
  3. All Utility Patches excavatable floor to a density of 95% of the density of the D-695 the latest edition.
  4. Reinforcing steel incidental to pavement shall not be considered an item.

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3/11/24



**SEPARATION OF WATER MAINS AND SANITARY SEWERS:**

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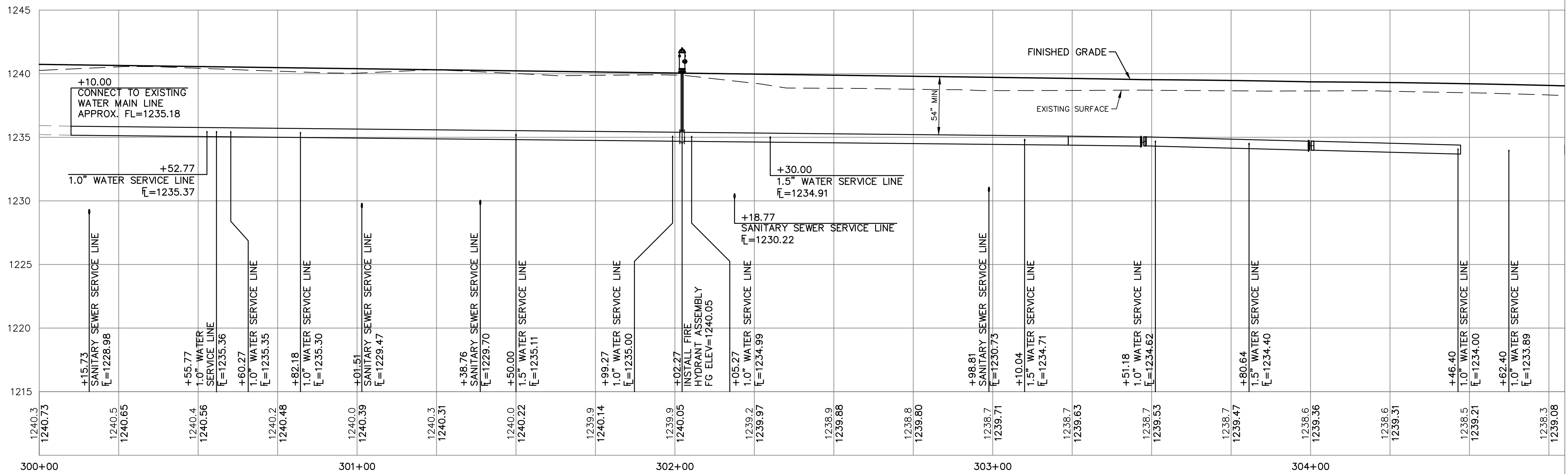
**GENERAL NOTES:**

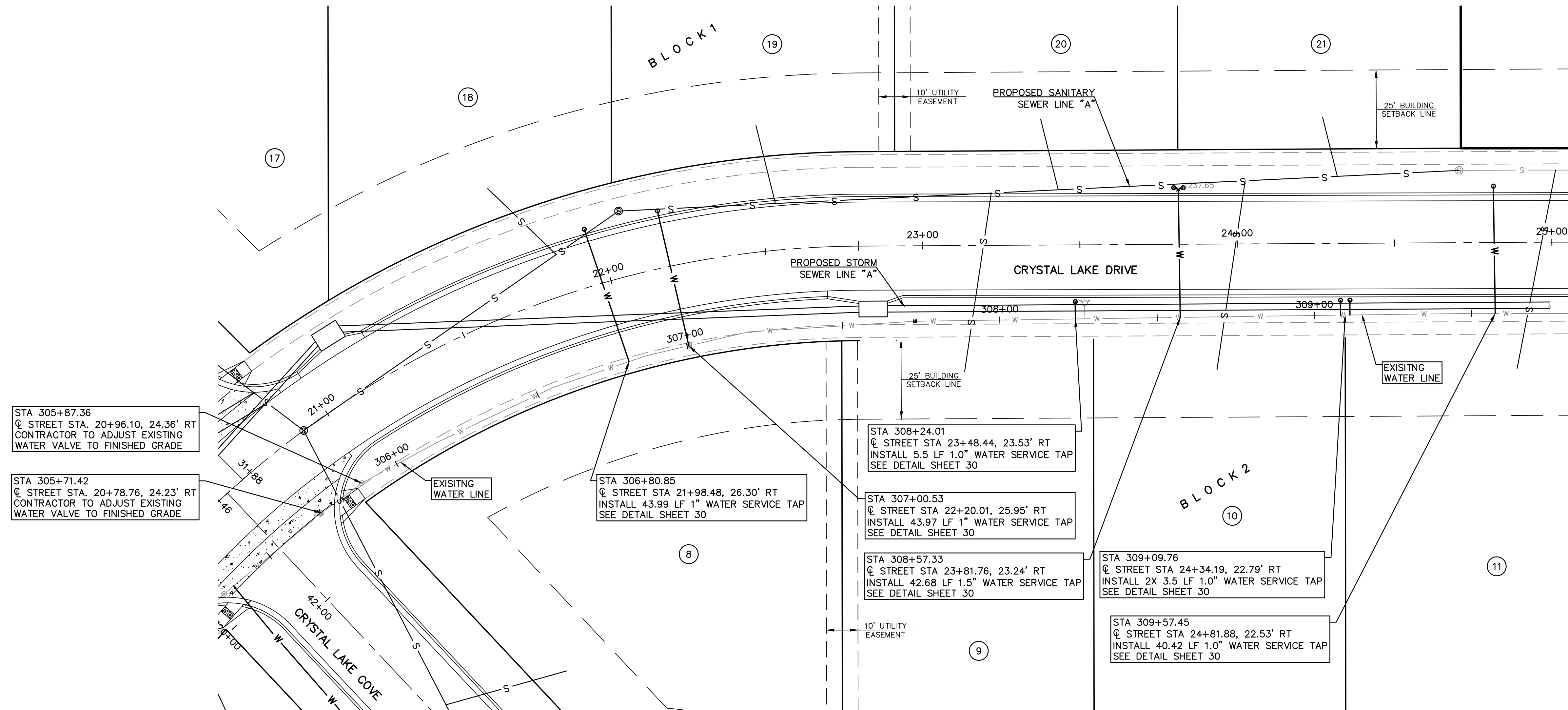
1. ALL SANITARY SEWER SERVICE LINE WILL BE AT A MIN 2% GRADE.
2. ALL NORTHING AND EASTING WAS TAKEN FROM CENTER OF STRUCTURE. REFERENCE DETAIL FOR ACTUAL LID LOCATION.

**NOTE:**

EXISTING WATER MAIN DEPTH UNKNOWN. CONTRACTOR TO FIELD VERIFY LOCATION & DEPTH PRIOR TO SERVICE LINE CONSTRUCTION. CONTACT ENGINEER WITH ANY CONFLICT OR ISSUES

STA 305+31.15  
 @ STREET STA. 20+35.16, 22.00  
 CONTRACTOR TO ADJUST EXISTING WATER VALVE TO FINISHED GRADE





STA 305+87.36  
 @ STREET STA. 20+96.10, 24.36' RT  
 CONTRACTOR TO ADJUST EXISTING  
 WATER VALVE TO FINISHED GRADE

STA 305+71.42  
 @ STREET STA. 20+78.76, 24.23' RT  
 CONTRACTOR TO ADJUST EXISTING  
 WATER VALVE TO FINISHED GRADE

EXISTING  
 WATER LINE

STA 306+80.85  
 @ STREET STA 21+98.48, 26.30' RT  
 INSTALL 43.99 LF 1" WATER SERVICE TAP  
 SEE DETAIL SHEET 30

STA 308+24.01  
 @ STREET STA 23+48.44, 23.53' RT  
 INSTALL 5.5 LF 1.0" WATER SERVICE TAP  
 SEE DETAIL SHEET 30

STA 307+00.53  
 @ STREET STA 22+20.01, 25.95' RT  
 INSTALL 43.97 LF 1" WATER SERVICE TAP  
 SEE DETAIL SHEET 30

STA 308+57.33  
 @ STREET STA 23+81.76, 23.24' RT  
 INSTALL 42.68 LF 1.5" WATER SERVICE TAP  
 SEE DETAIL SHEET 30

STA 309+09.76  
 @ STREET STA 24+34.19, 22.79' RT  
 INSTALL 2X 3.5 LF 1.0" WATER SERVICE TAP  
 SEE DETAIL SHEET 30

STA 309+57.45  
 @ STREET STA 24+81.88, 22.53' RT  
 INSTALL 40.42 LF 1.0" WATER SERVICE TAP  
 SEE DETAIL SHEET 30

**SEPARATION OF WATER MAINS AND SANITARY SEWERS:**

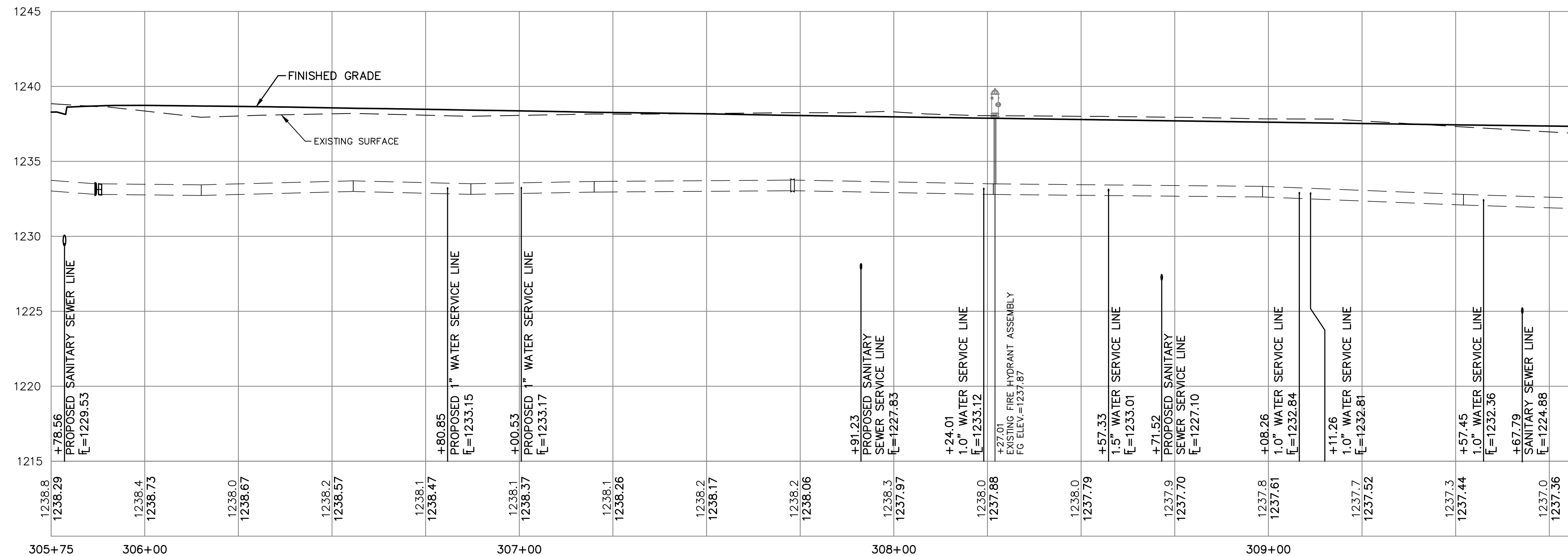
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**GENERAL NOTES:**

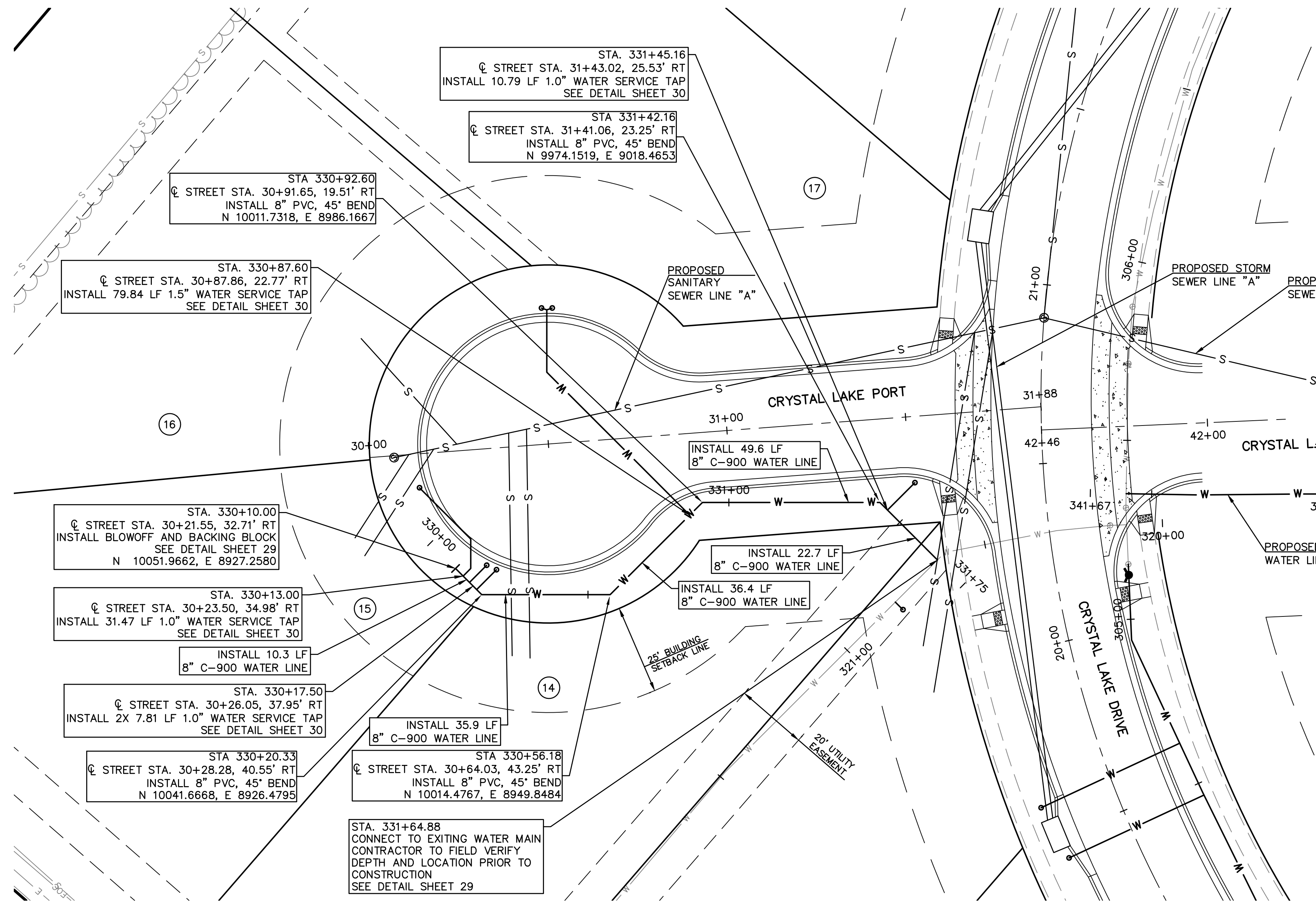
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**NOTE:**

EXISTING WATER MAIN DEPTH UNKNOWN CONTRACTOR TO FIELD VERIFY LOCATION & DEPTH PRIOR TO SERVICE LINE CONSTRUCTION. CONTACT ENGINEER WITH ANY CONFLICT OR ISSUES







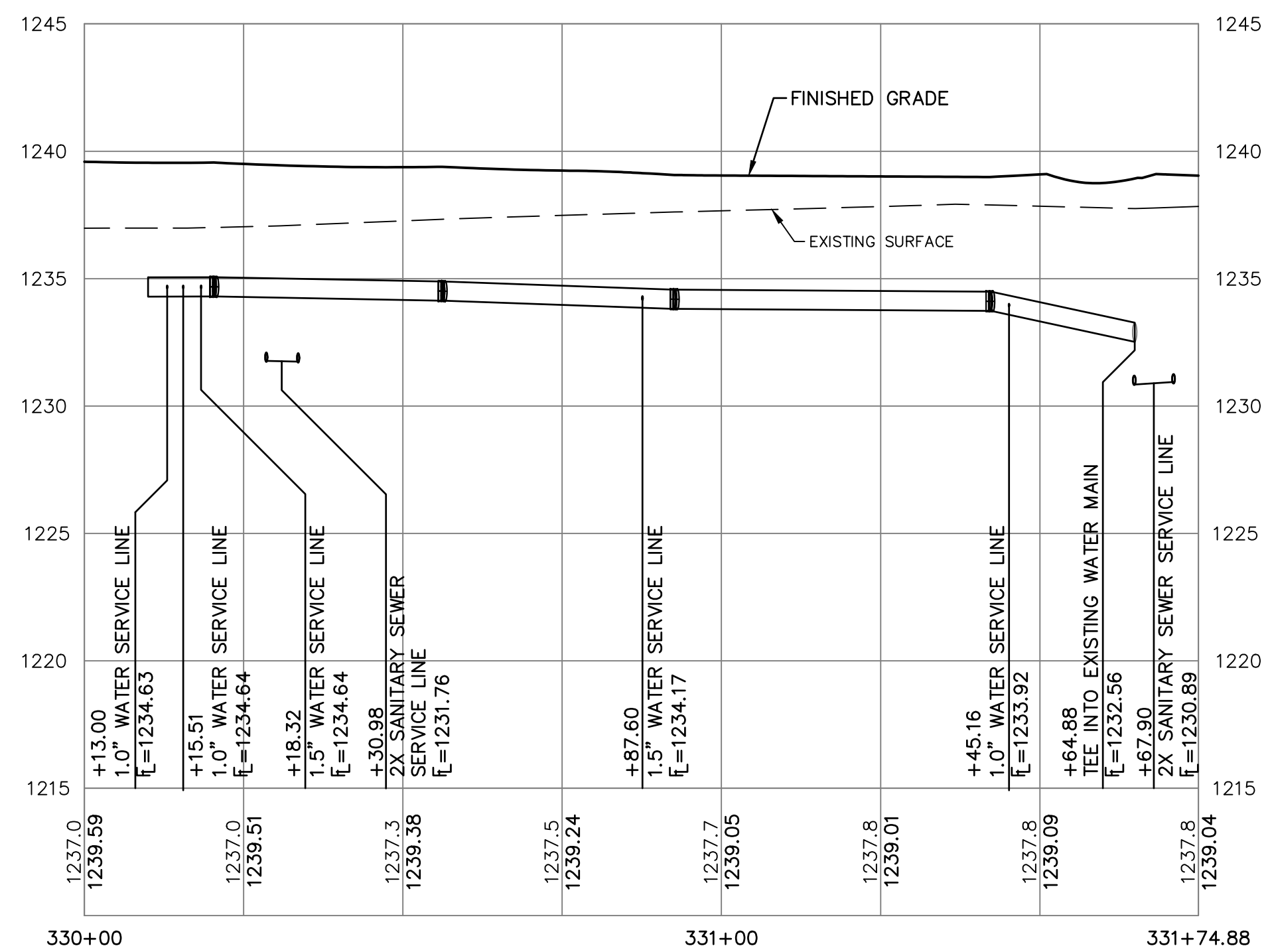
*John P. ...*  
3/11/24

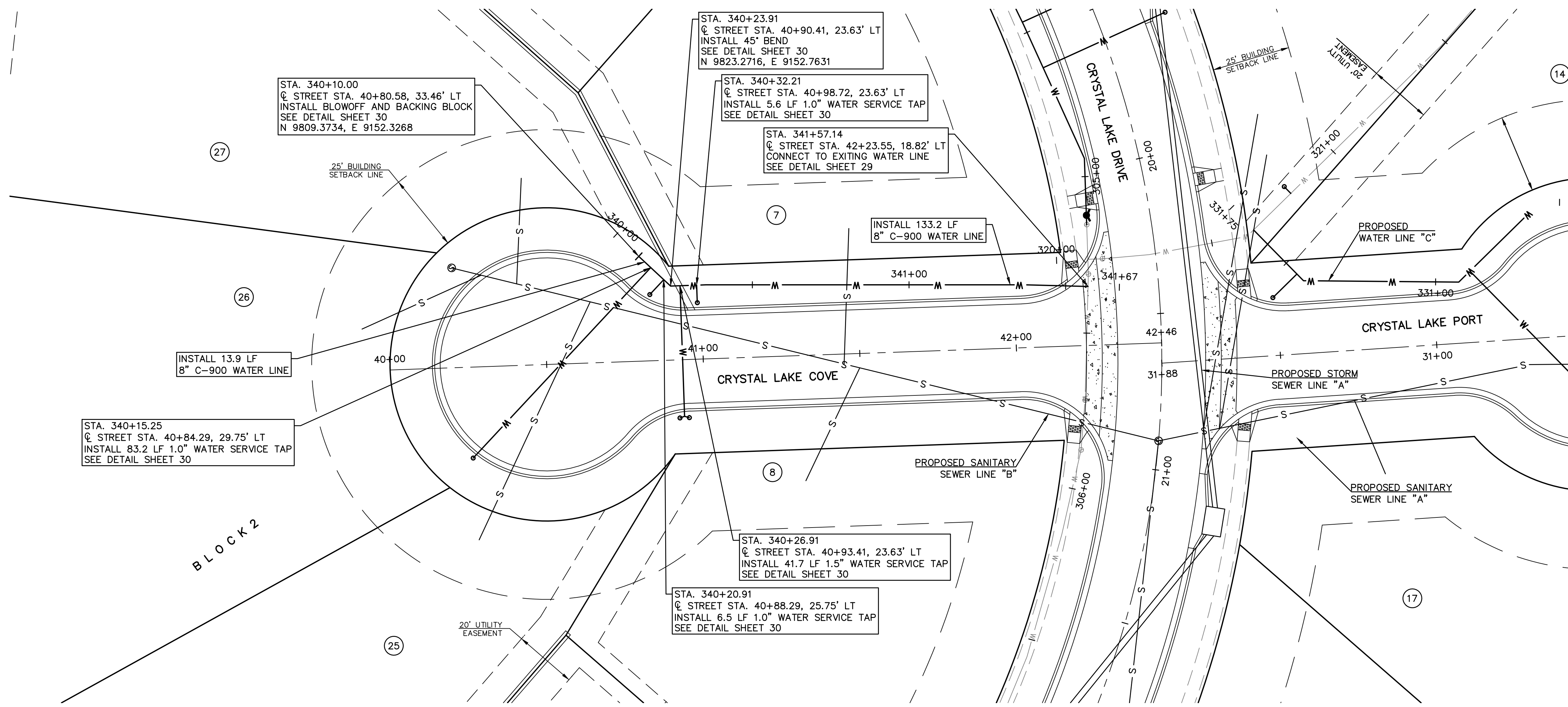
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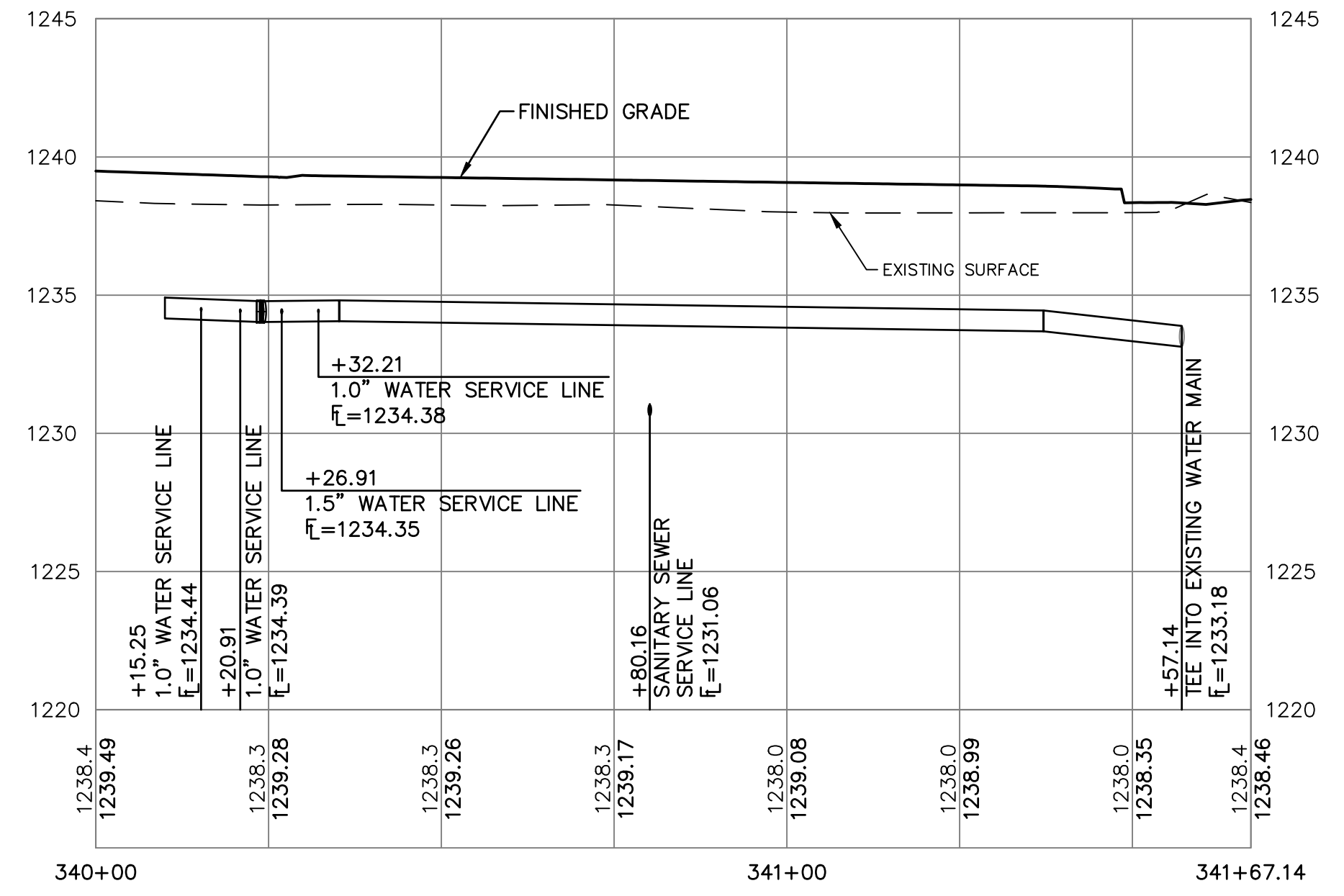
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*John P. [Signature]*  
3/11/24

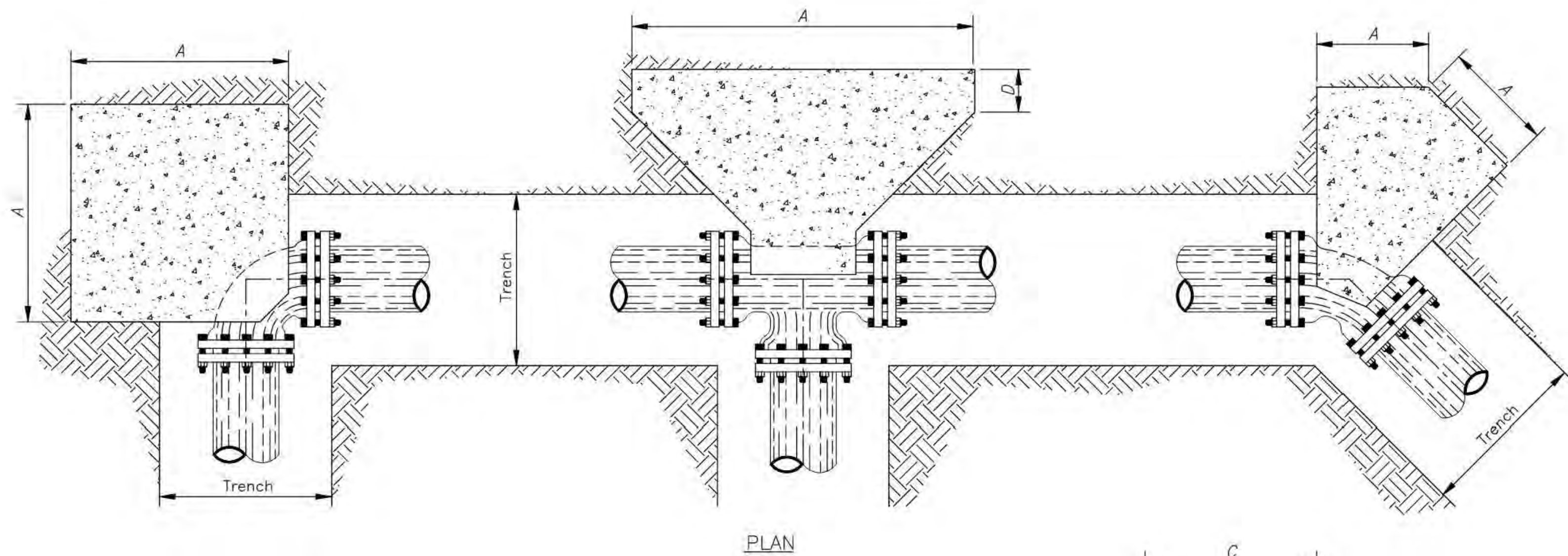


**SEPARATION OF WATER MAINS AND SANITARY SEWER LINES**

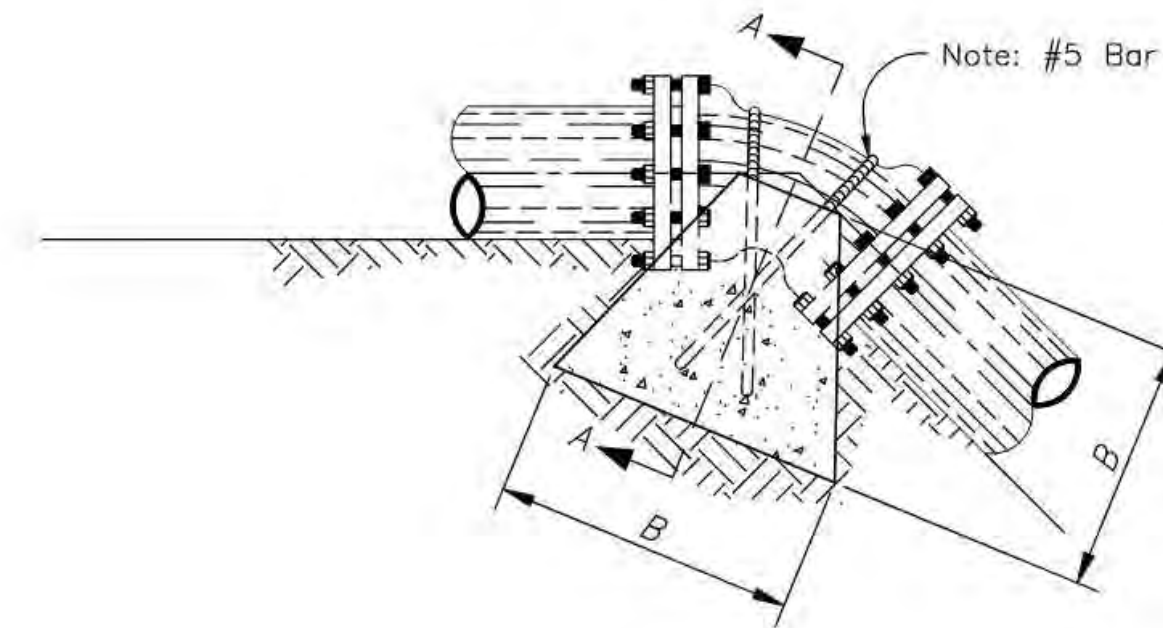
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2. WHERE A WATER MAIN MUST CROSS A SEWER LINE, THE WATER MAIN SHALL CROSS ABOVE THE SEWER LINE.
3. BUILDERS TO MAINTAIN MINIMUM 10' SEPARATION BETWEEN WATER MAINS AND SANITARY SEWER SERVICE LINES OUTSIDE EDGE OF WATER SERVICE LINES WHEN THEY CROSS.

**GENERAL NOTES:**

1. ALL SANITARY SEWER SERVICE LINE WILL BE AT 1.0% GRADE.
2. ALL NORTHING AND EASTING WAS TAKEN FROM THE PROJECT DATUM.

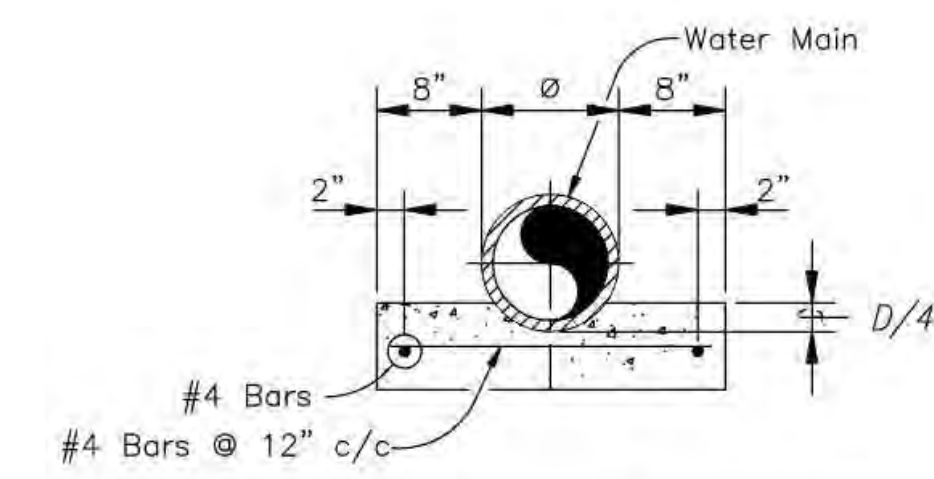


PLAN



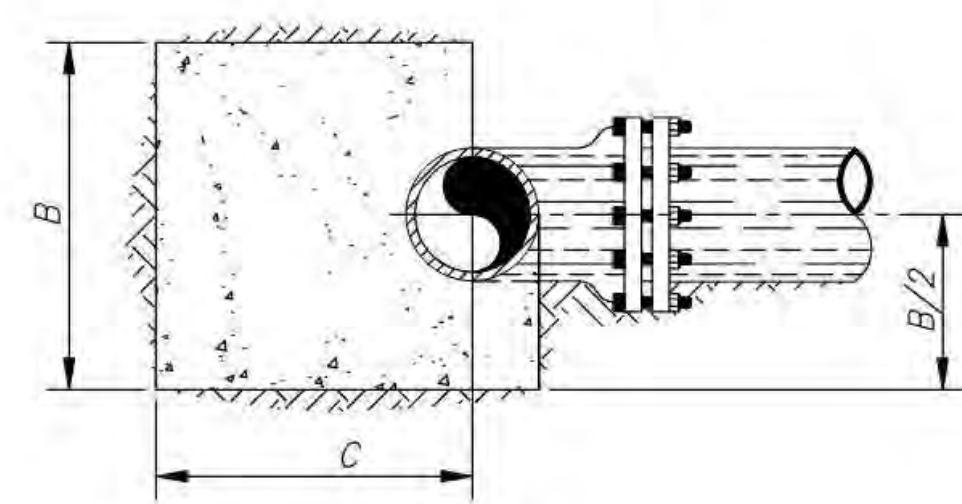
ELEVATION

VERTICAL



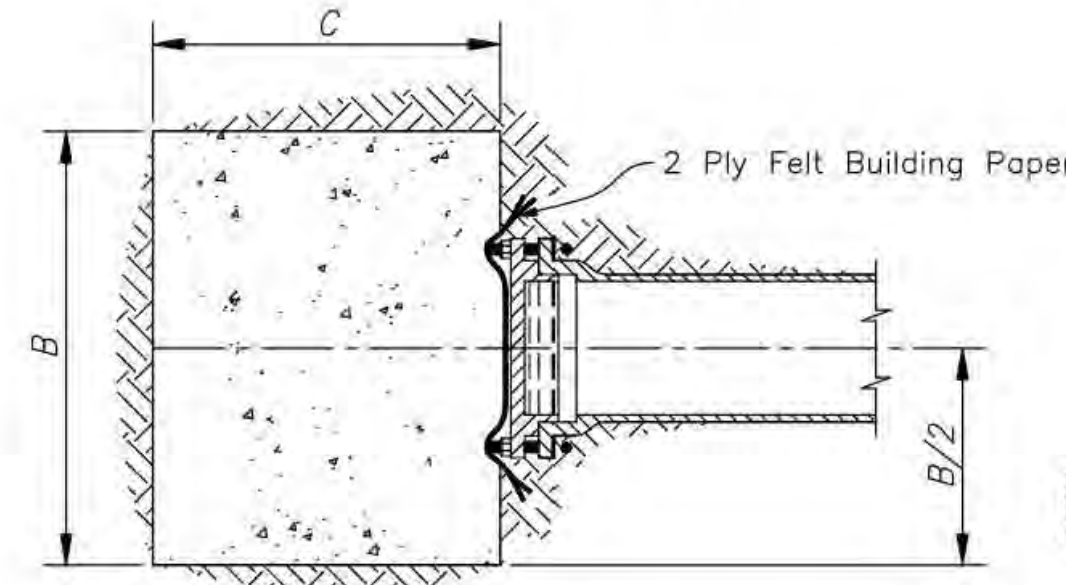
Note: All Dimensions Are Minimum.

TYPICAL CONCRETE PIPE CRADLE

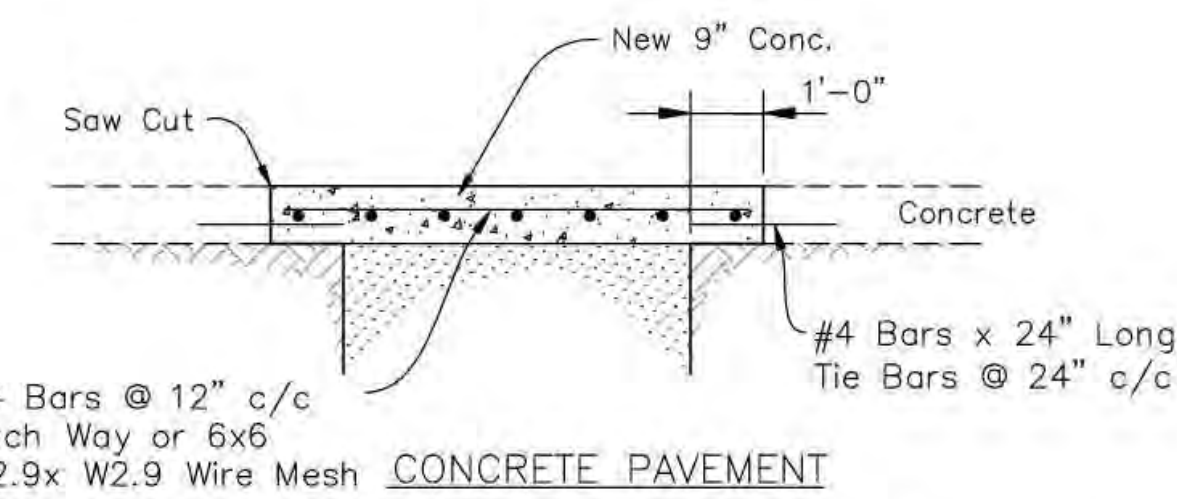


SECTION

TYPICAL BLOCKING DETAILS

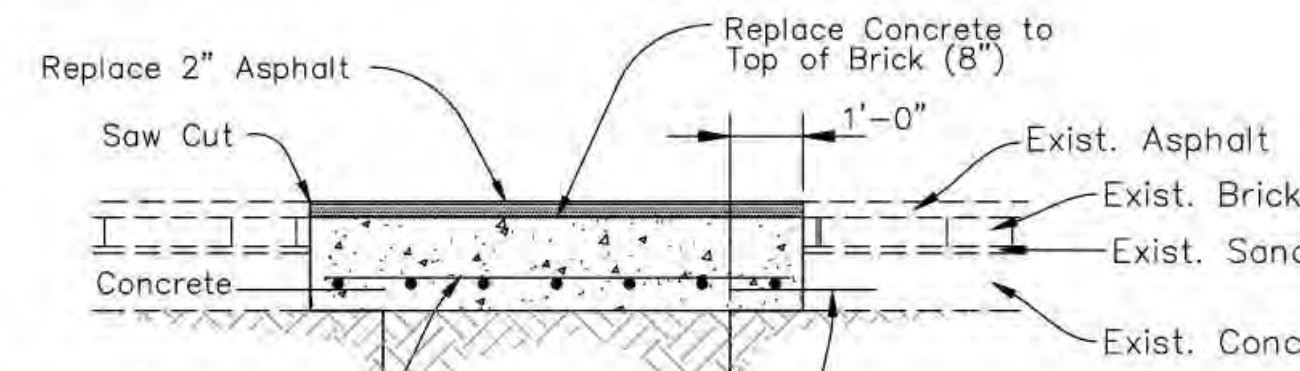


TYPICAL BLOCKING FOR DUCTILE IRON PLUG



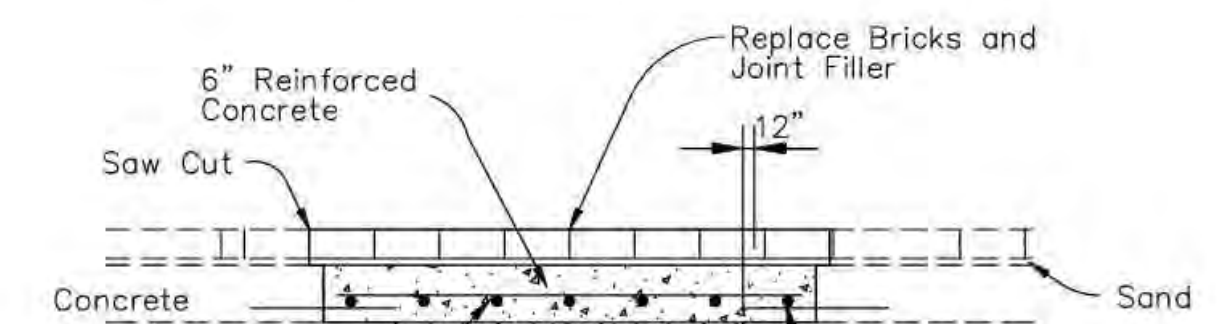
#4 Bars @ 12" c/c Each Way or 6x6 W2.9xW2.9 Wire Mesh

CONCRETE PAVEMENT



#4 Bars @ 12" c/c Each Way or 6x6 W2.9xW2.9 Wire Mesh

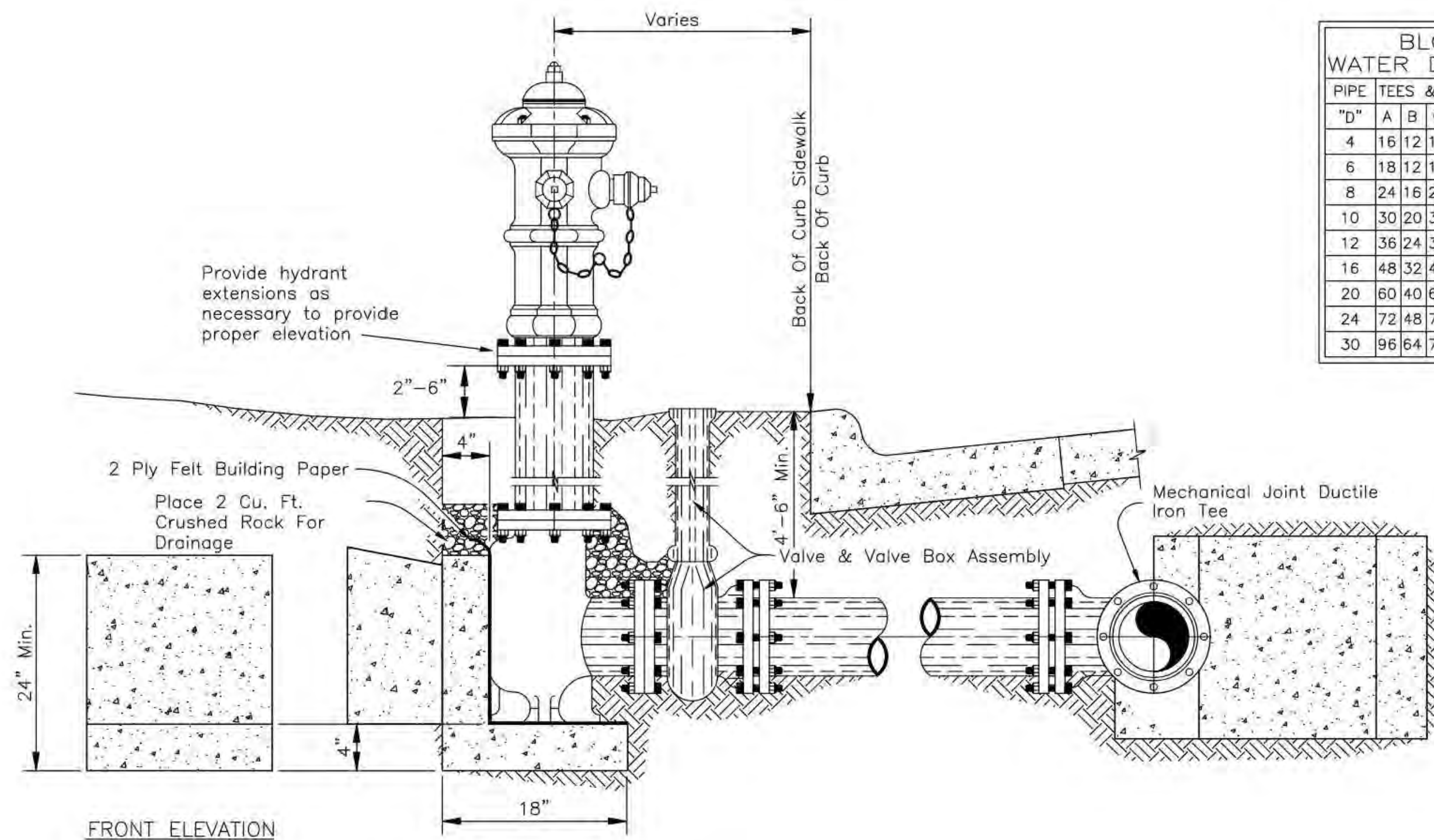
ASPHALT OVER BRICK PAVEMENT



#4 Bars @ 12" c/c Each Way or 6x6 W2.9xW2.9 Wire Mesh

BRICK PAVEMENT

PAVEMENT CUTTING DETAILS

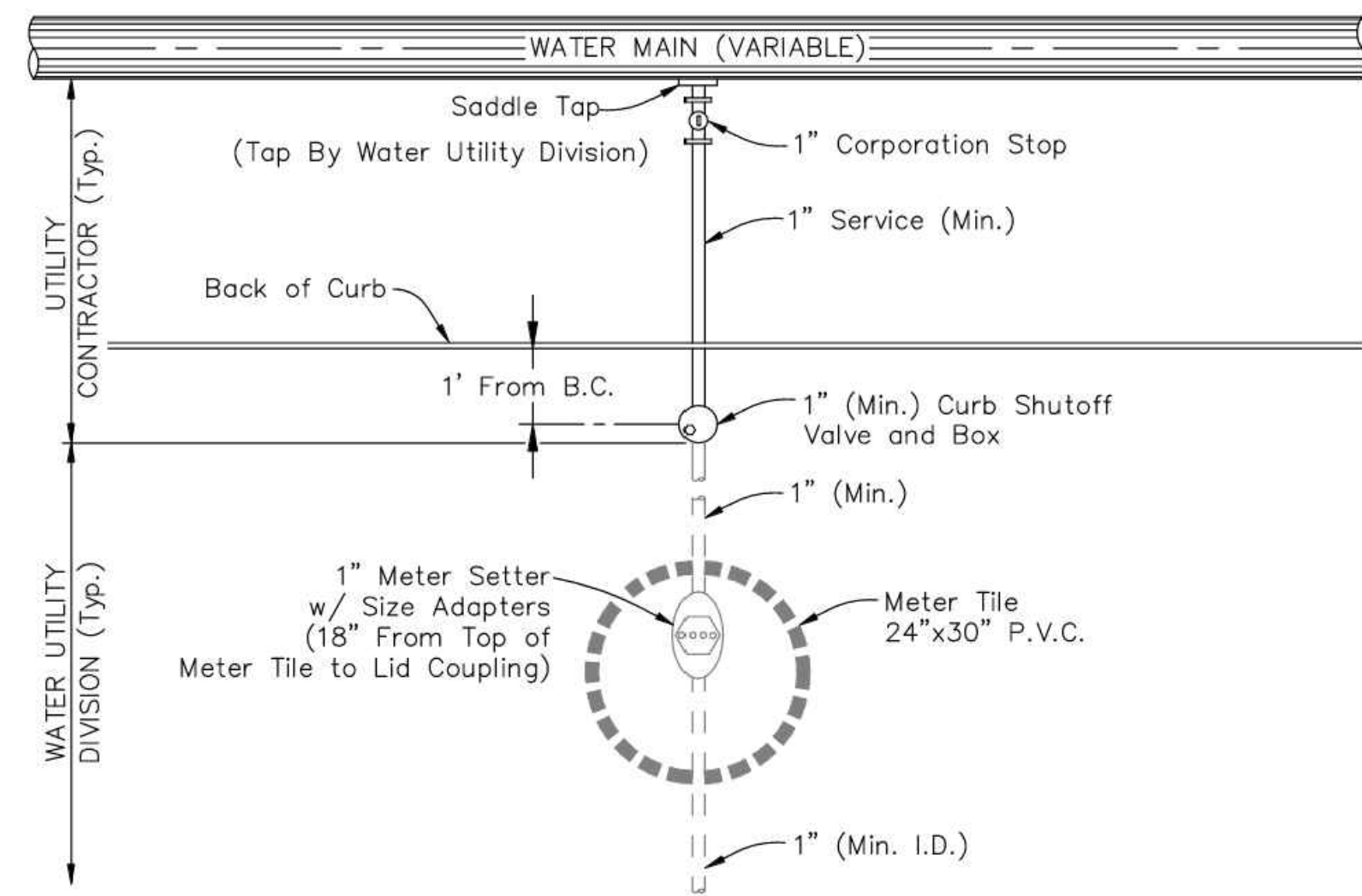


FRONT ELEVATION

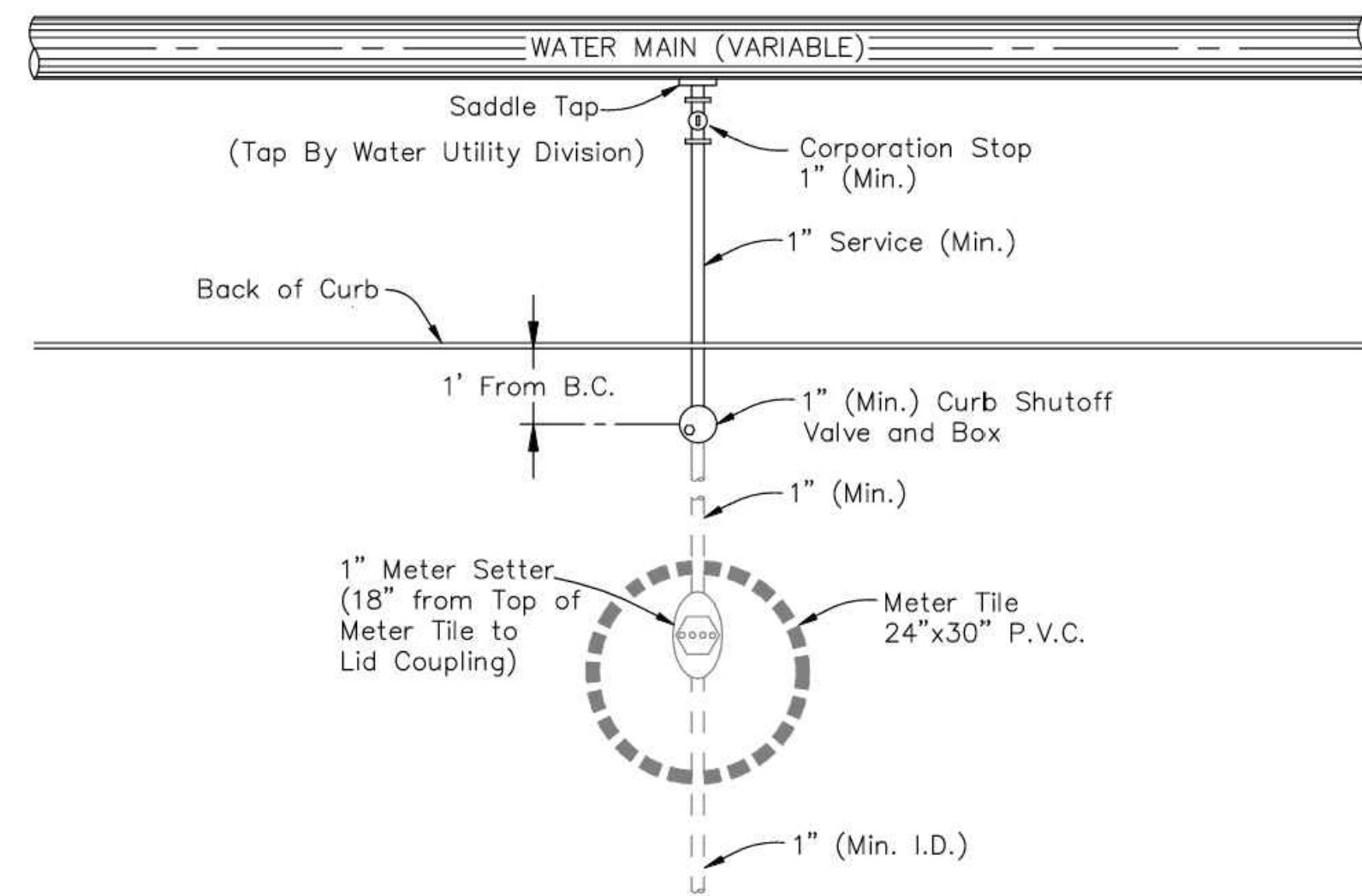
FIRE HYDRANT SETTING DETAILS

BLOCKING SCHEDULE WATER DISTRIBUTION FITTINGS												
PIPE "D"	TEES & PLUGS			90°			45°			22.5°		
	A	B	C	A	B	C	A	B	C	A	B	C
4	16	12	16	12	16	12	16	12	16	12	16	12
6	18	12	18	16	18	12	18	18	12	18	18	12
8	24	16	24	16	24	16	24	16	24	16	24	16
10	30	20	30	16	30	20	30	30	20	30	20	30
12	36	24	36	18	36	24	36	24	36	24	36	24
16	48	32	48	18	48	32	48	32	48	32	48	32
20	60	40	60	18	60	40	60	40	60	40	60	40
24	72	48	72	18	72	48	72	48	72	48	72	48
30	96	64	96	18	96	64	96	64	96	64	96	64

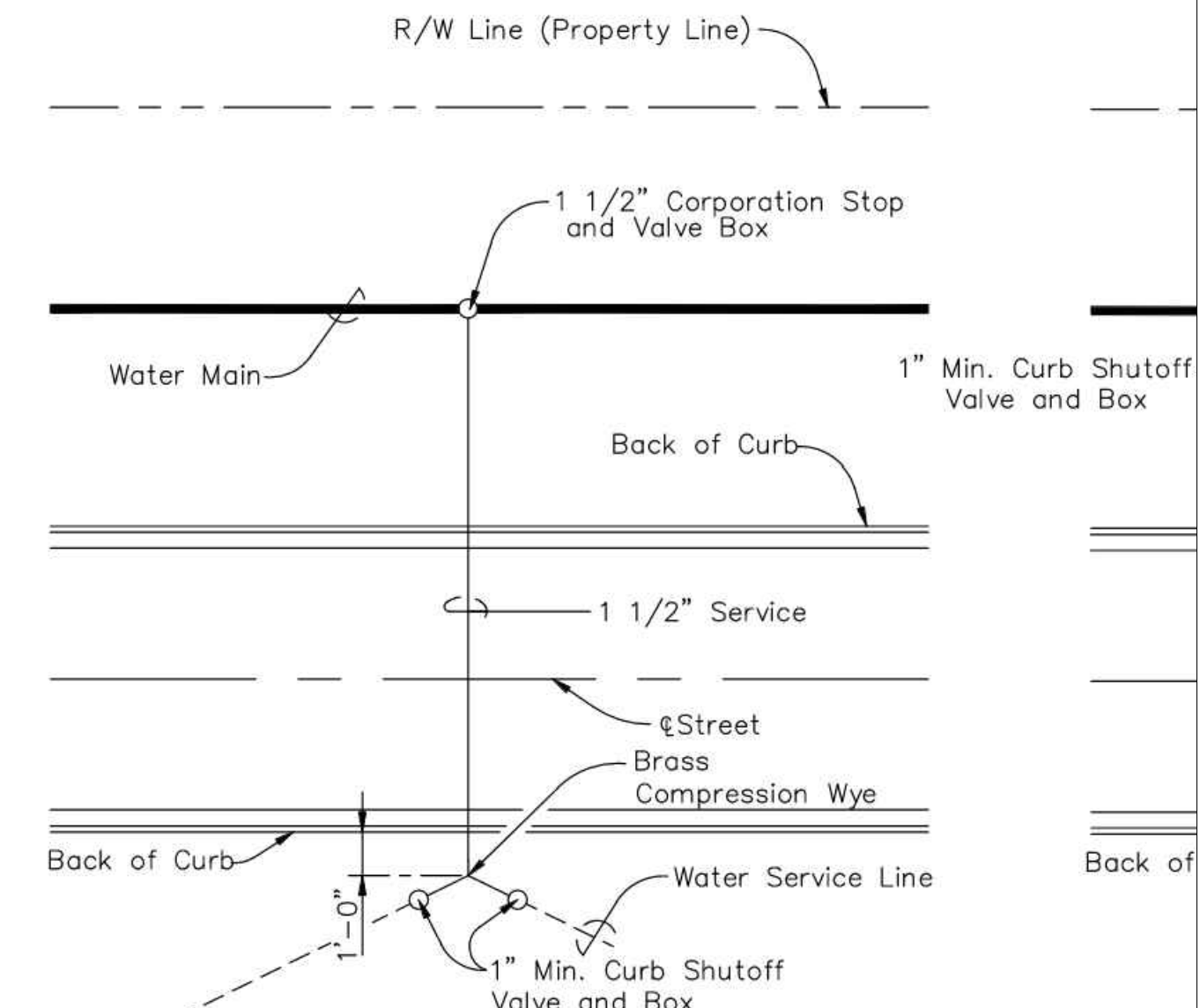
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3/11/24



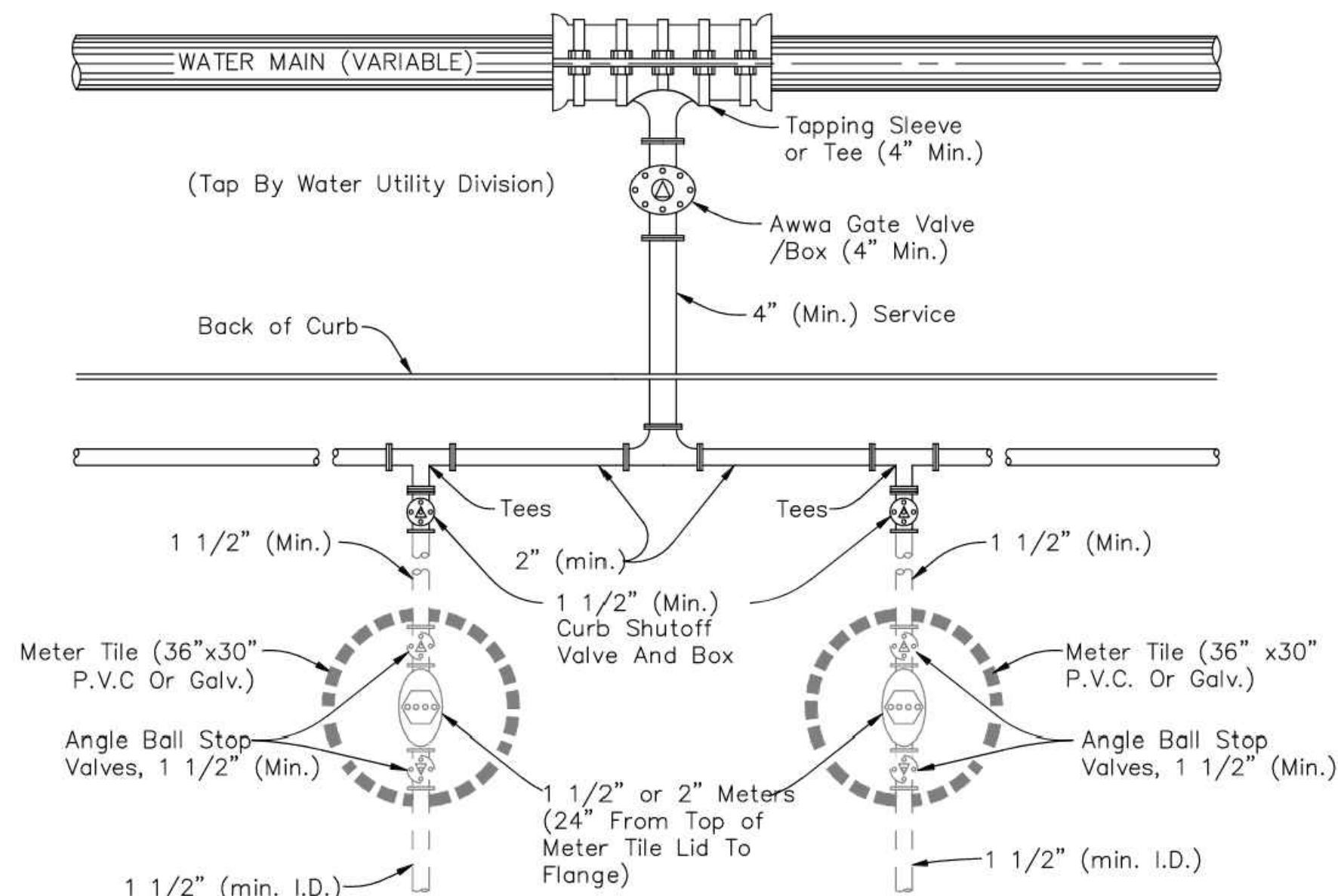
STANDARD FOR 5/8" & 3/4" METER SETTINGS  
Not to Scale



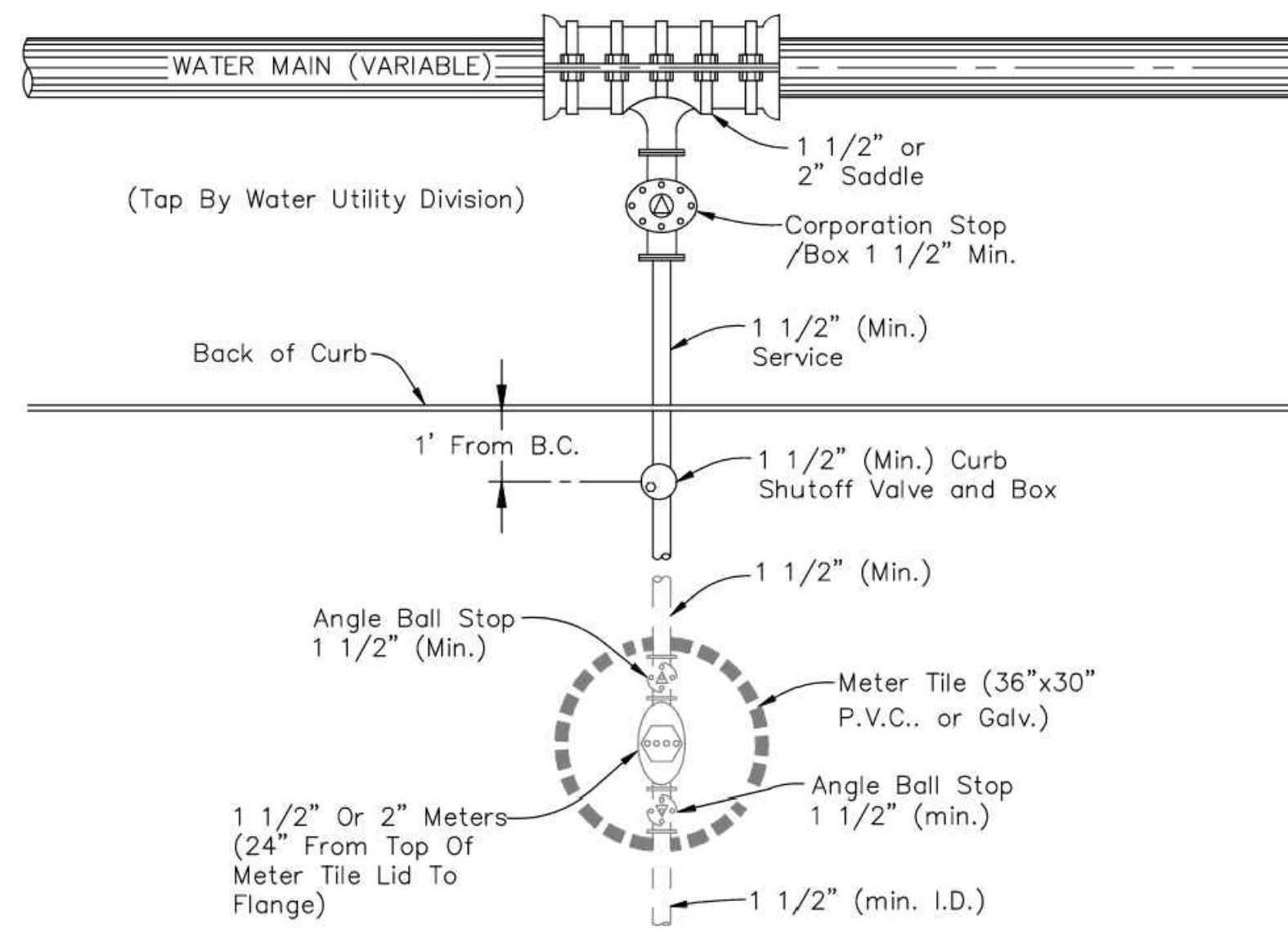
STANDARD FOR 1" METER SETTINGS  
Not to Scale



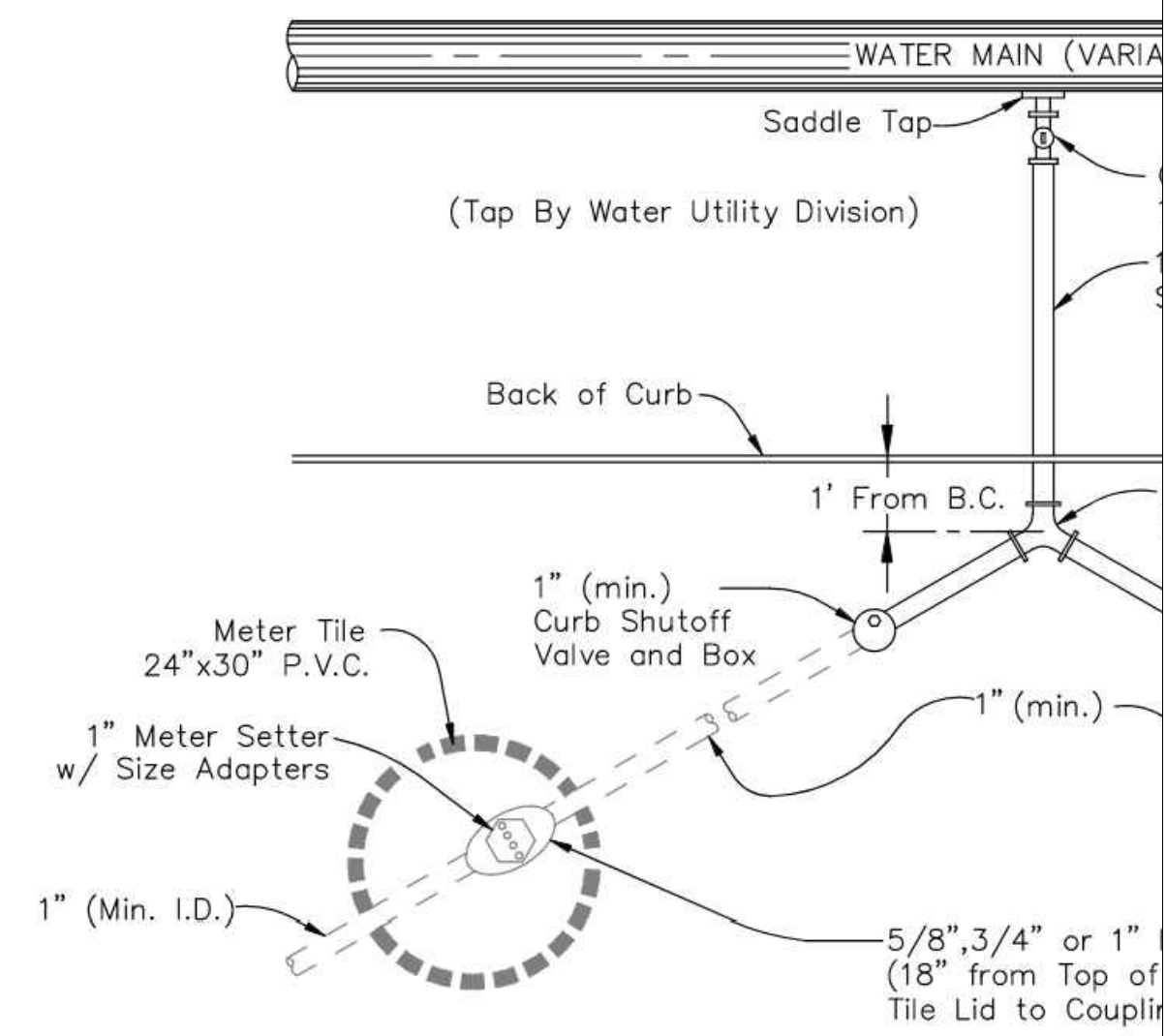
TYPICAL 1 1/2" WATER SERVICE  
Not to Scale



STANDARD FOR 1 1/2" AND 2" MULTIPLE METER SETTINGS  
Not to Scale

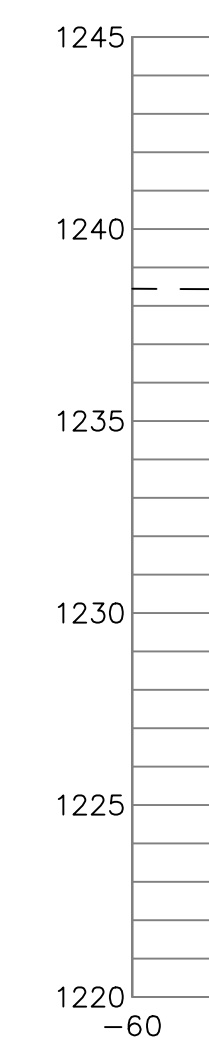
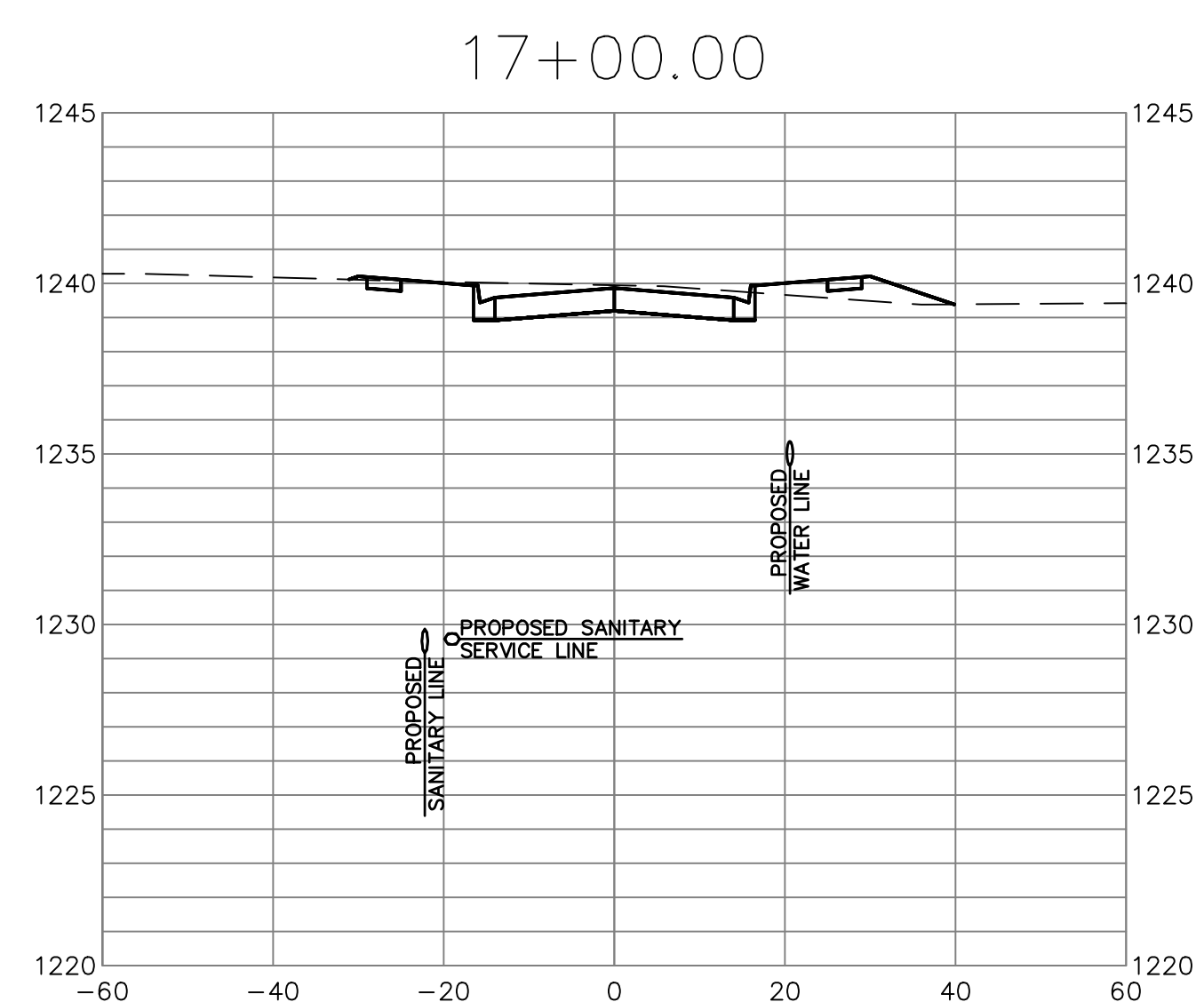
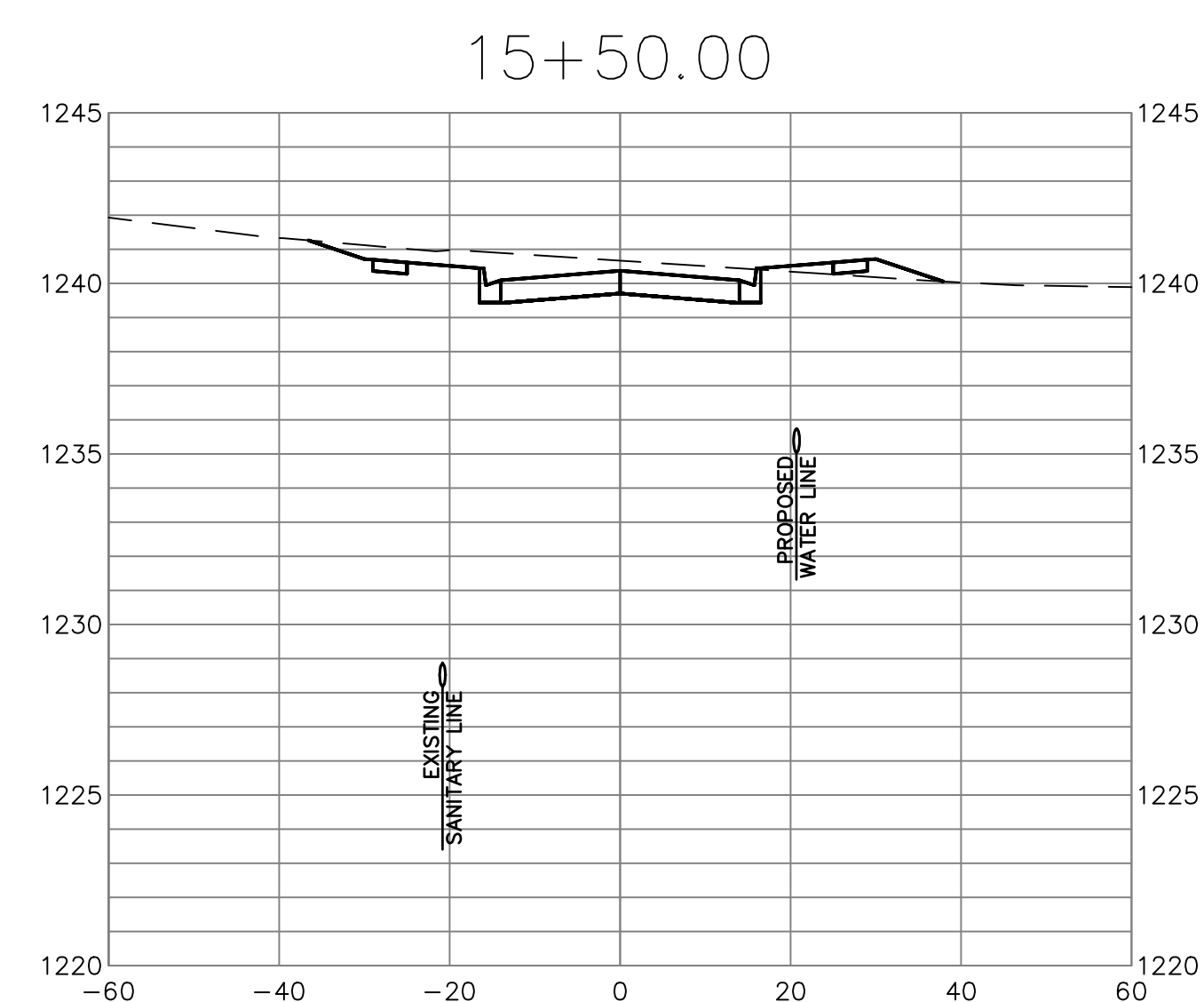
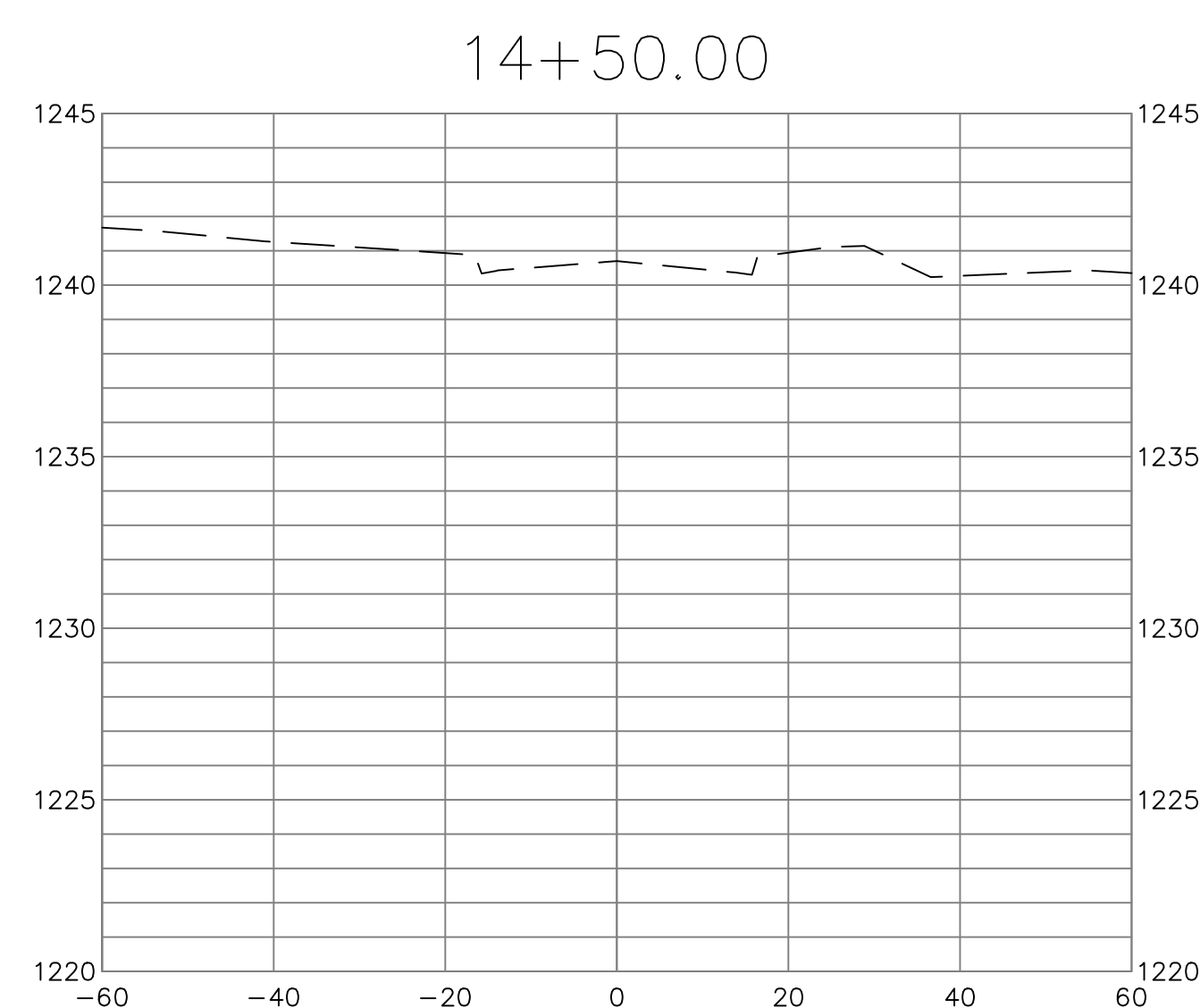
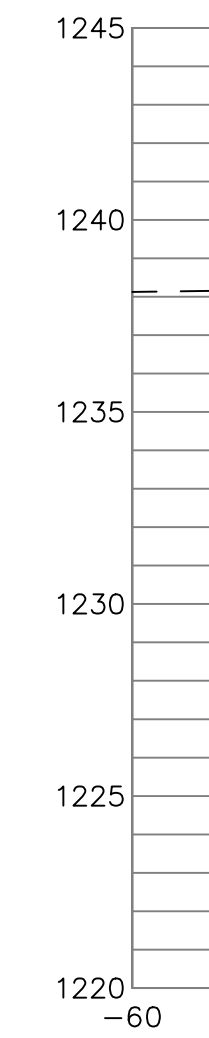
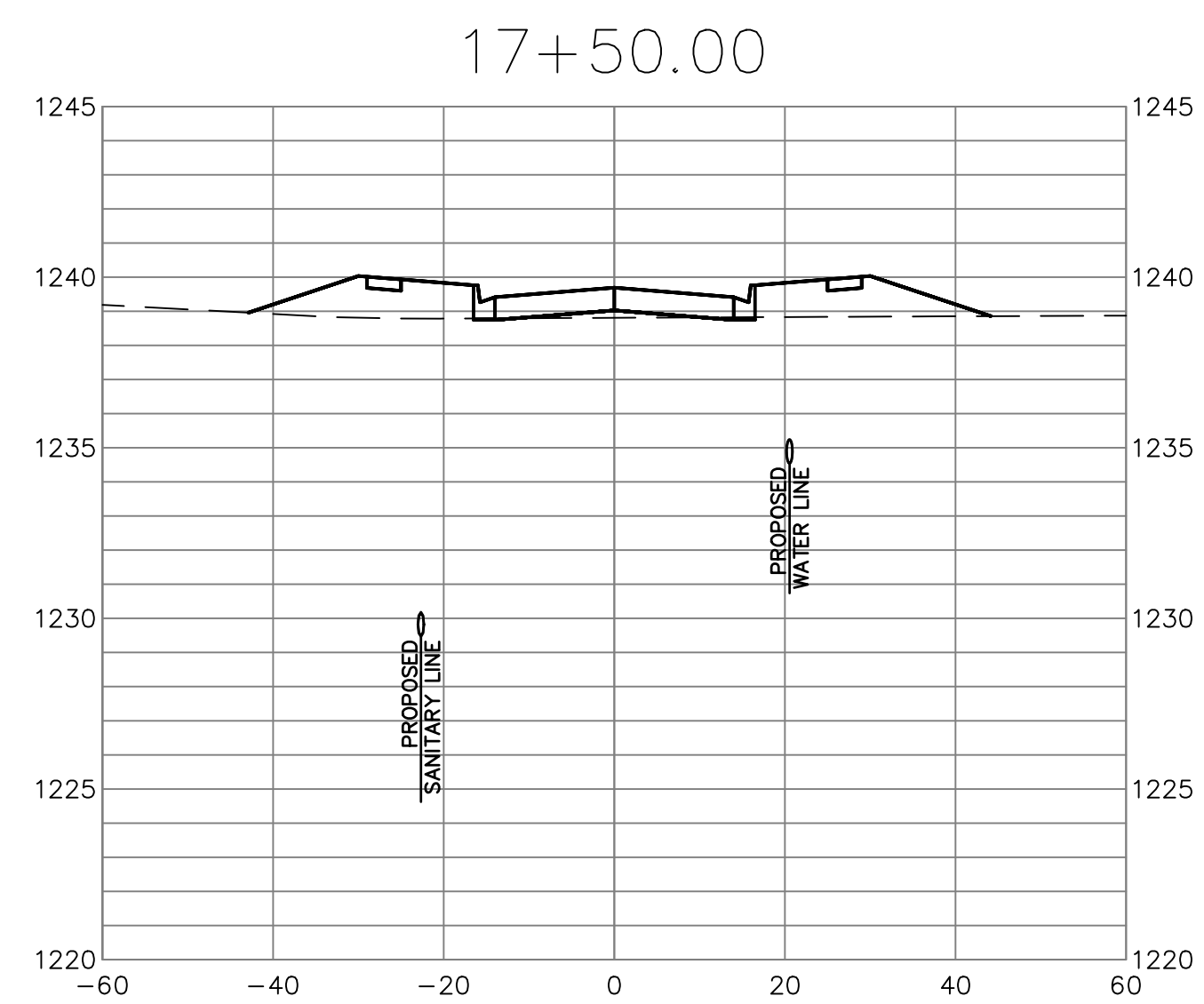
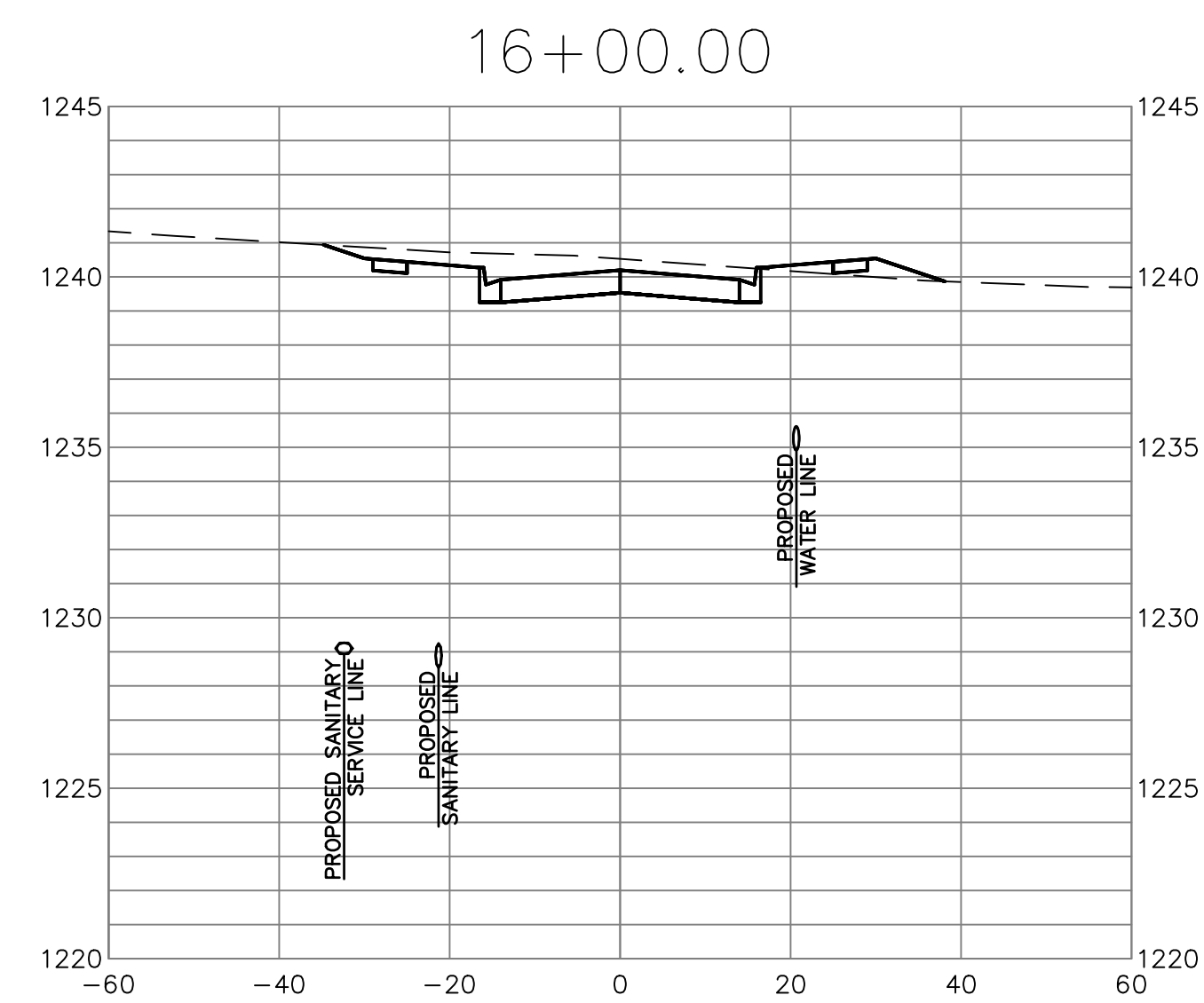
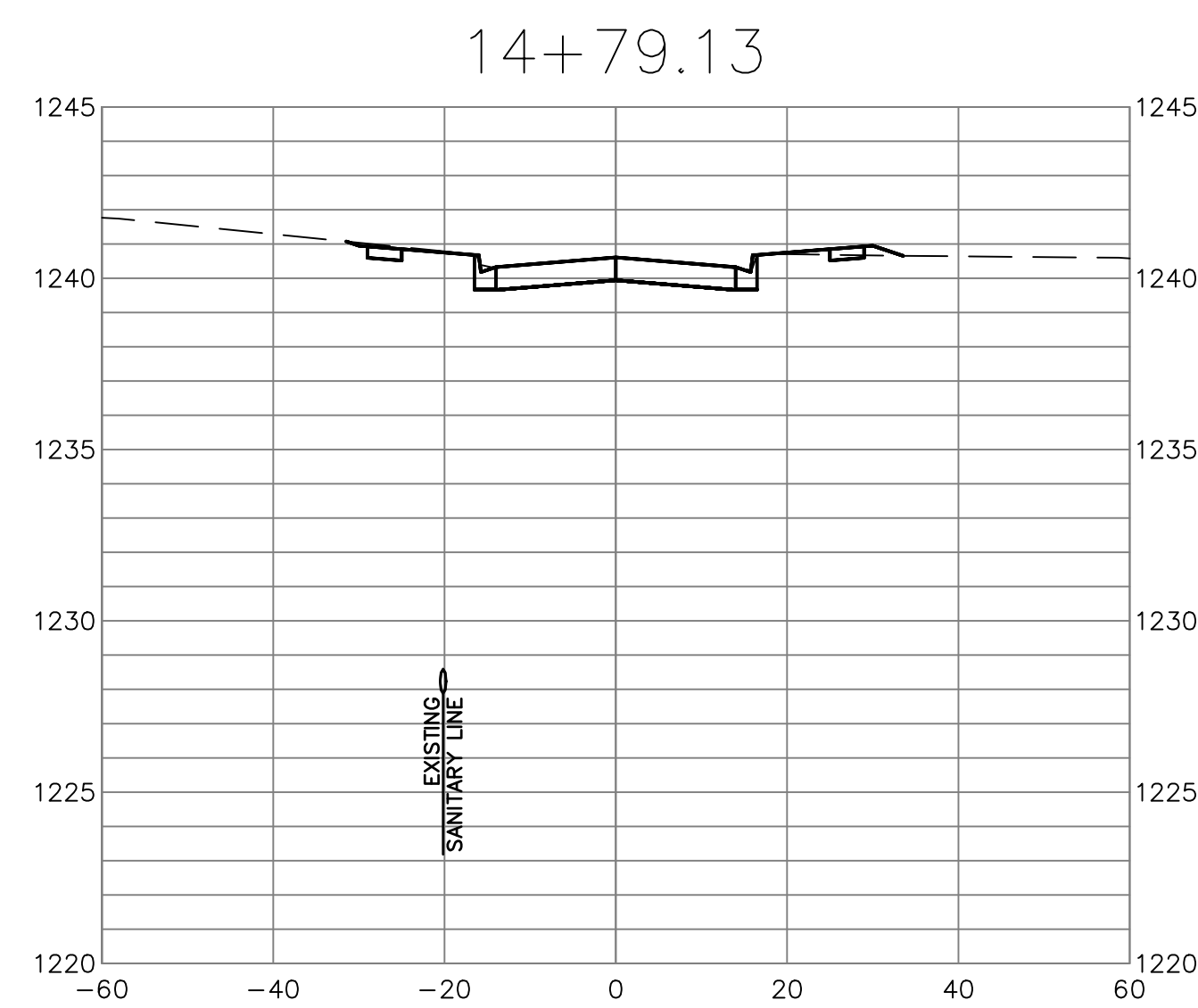
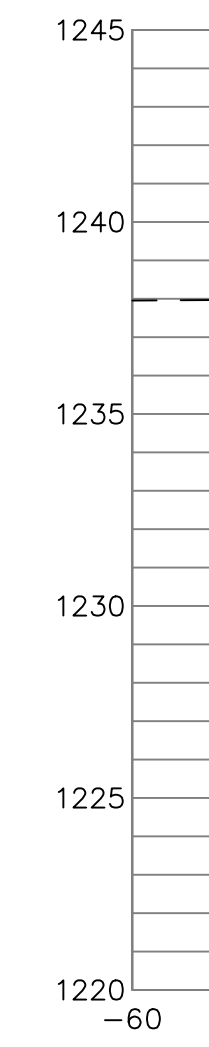
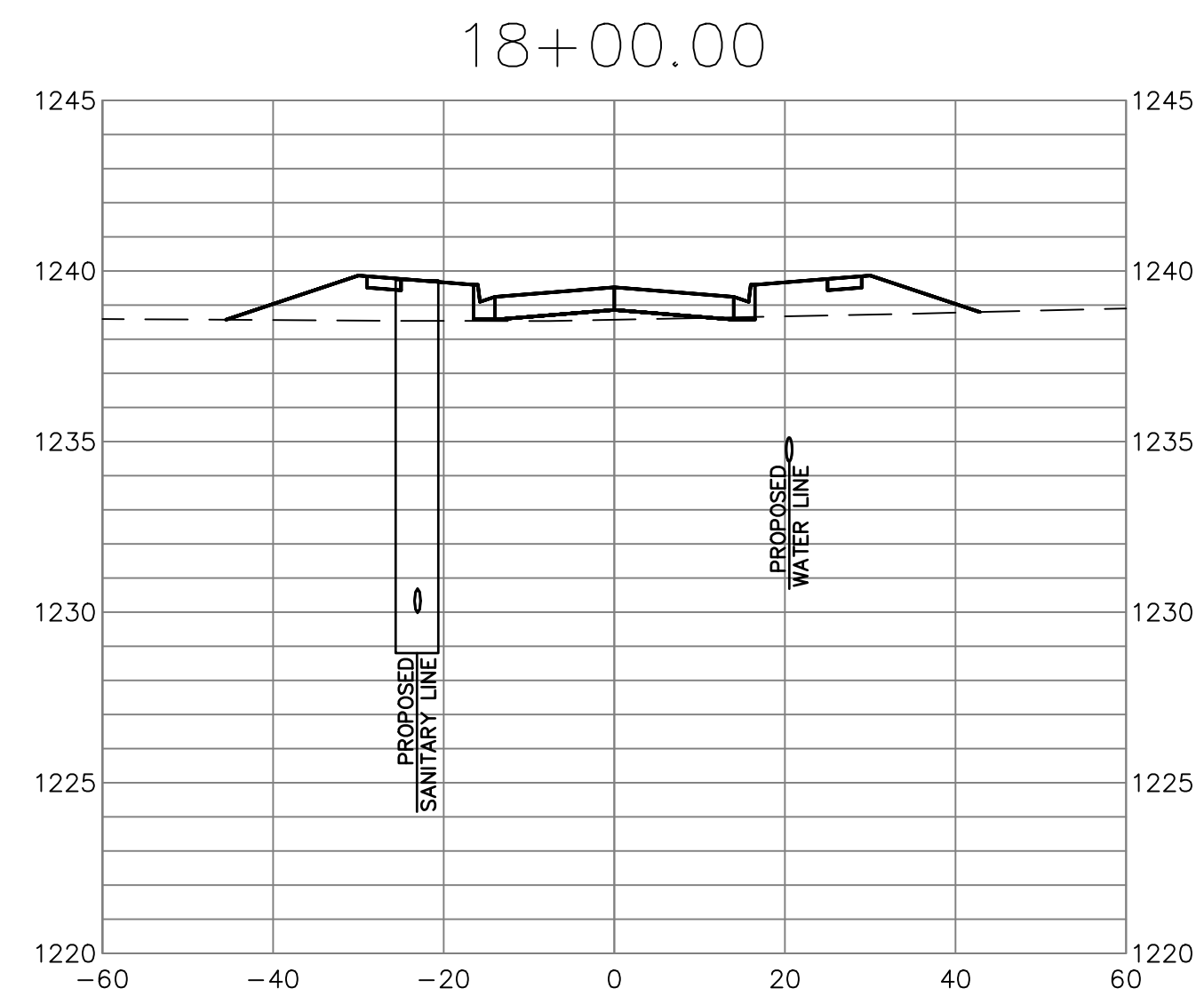
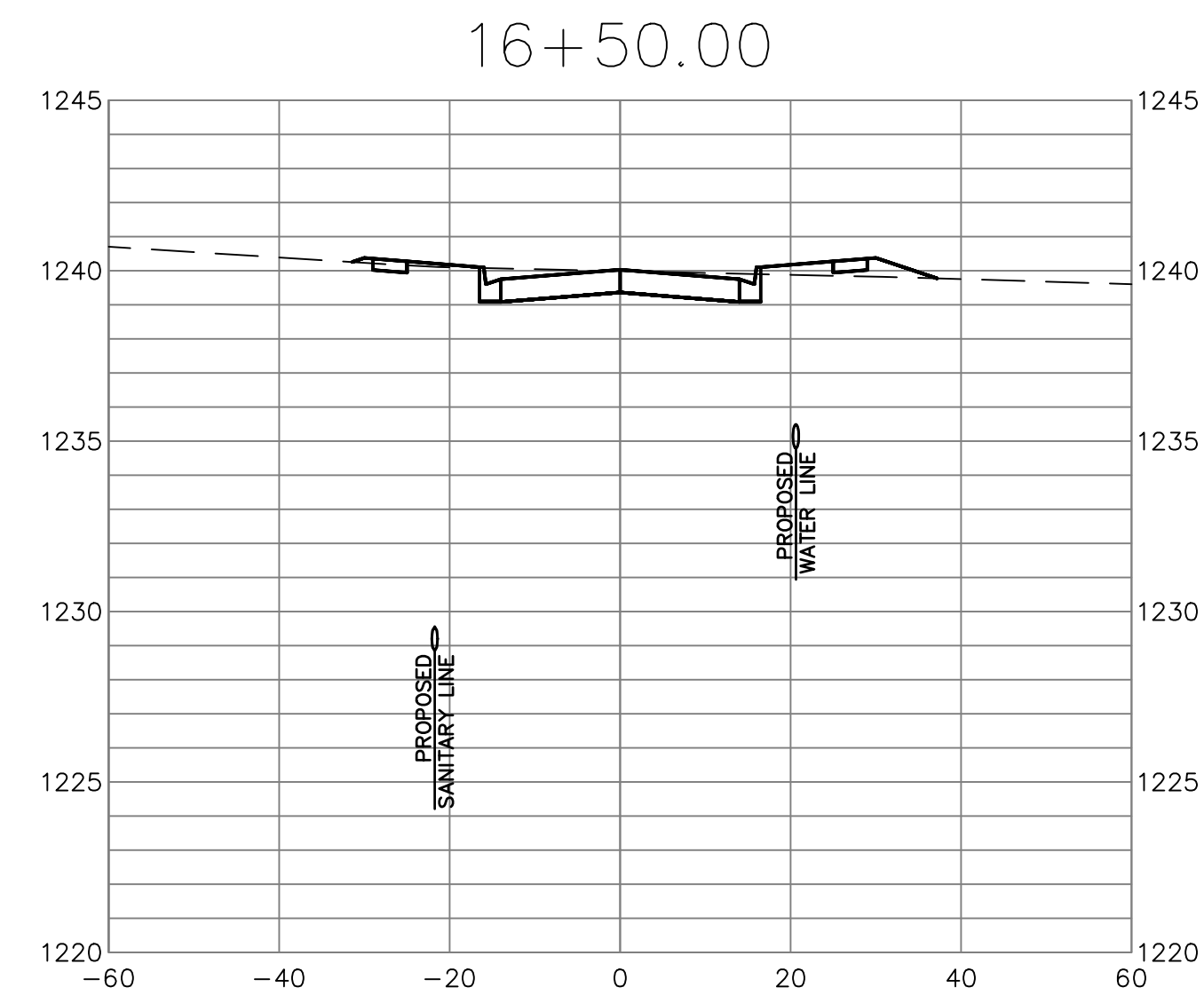
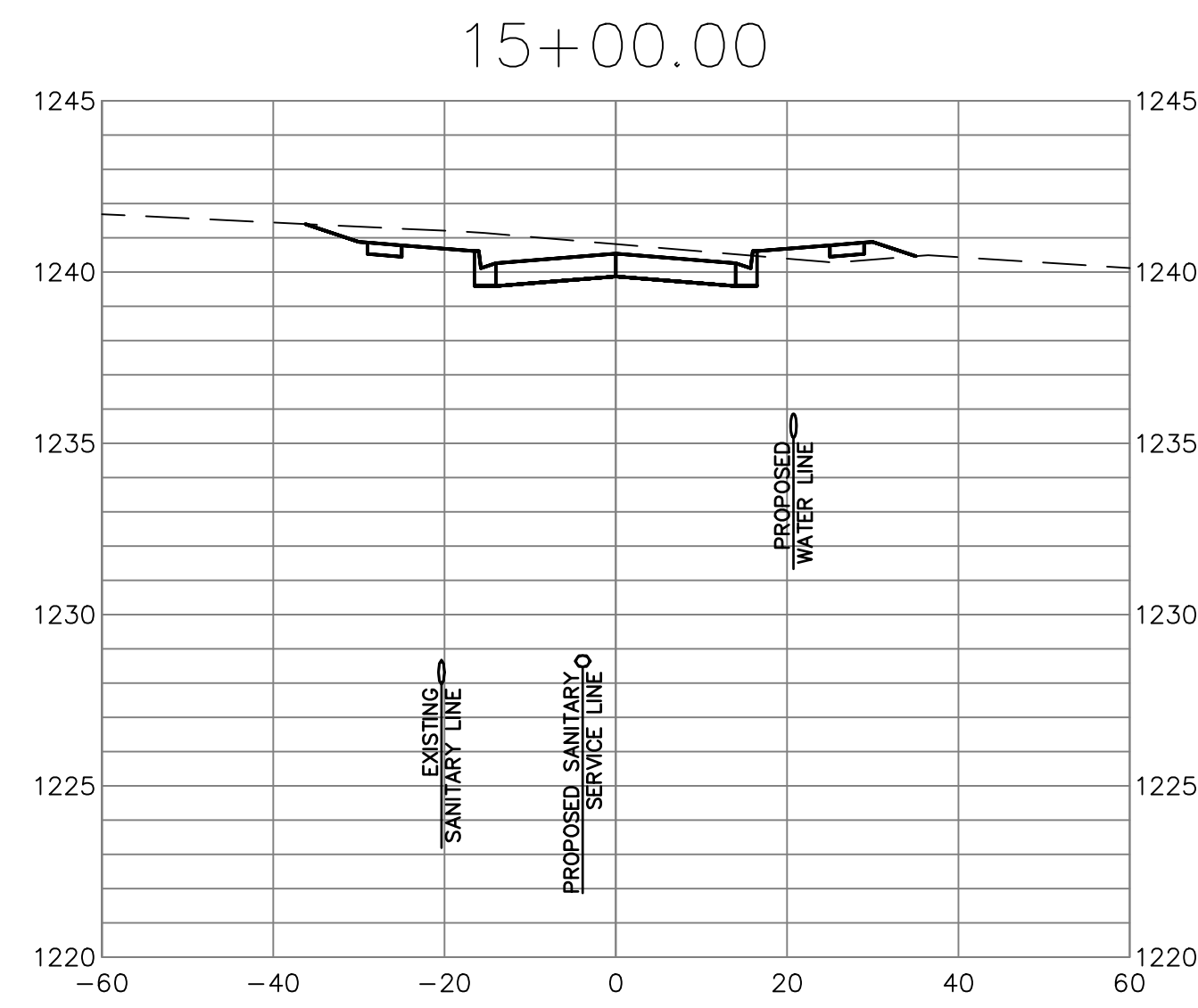


STANDARD FOR 1 1/2" AND 2" METER SETTINGS  
Not to Scale

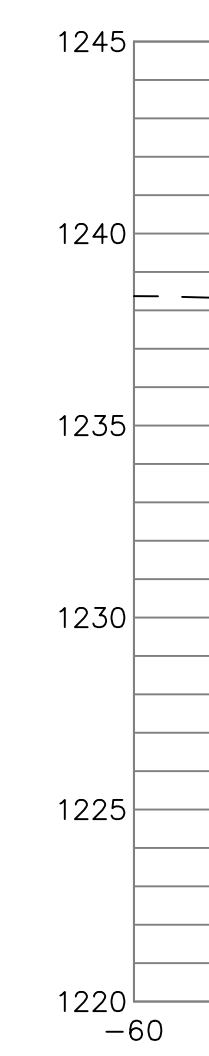
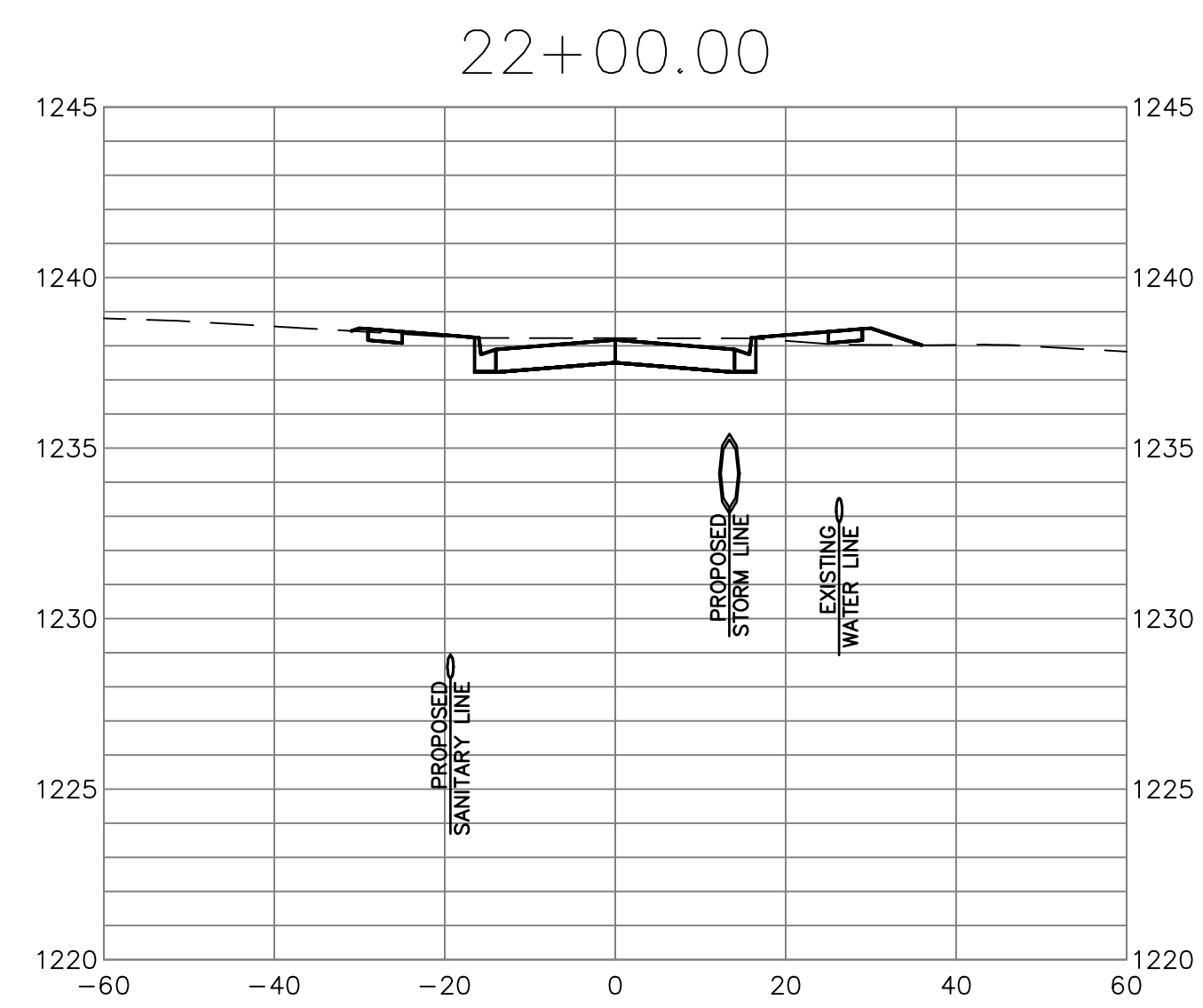
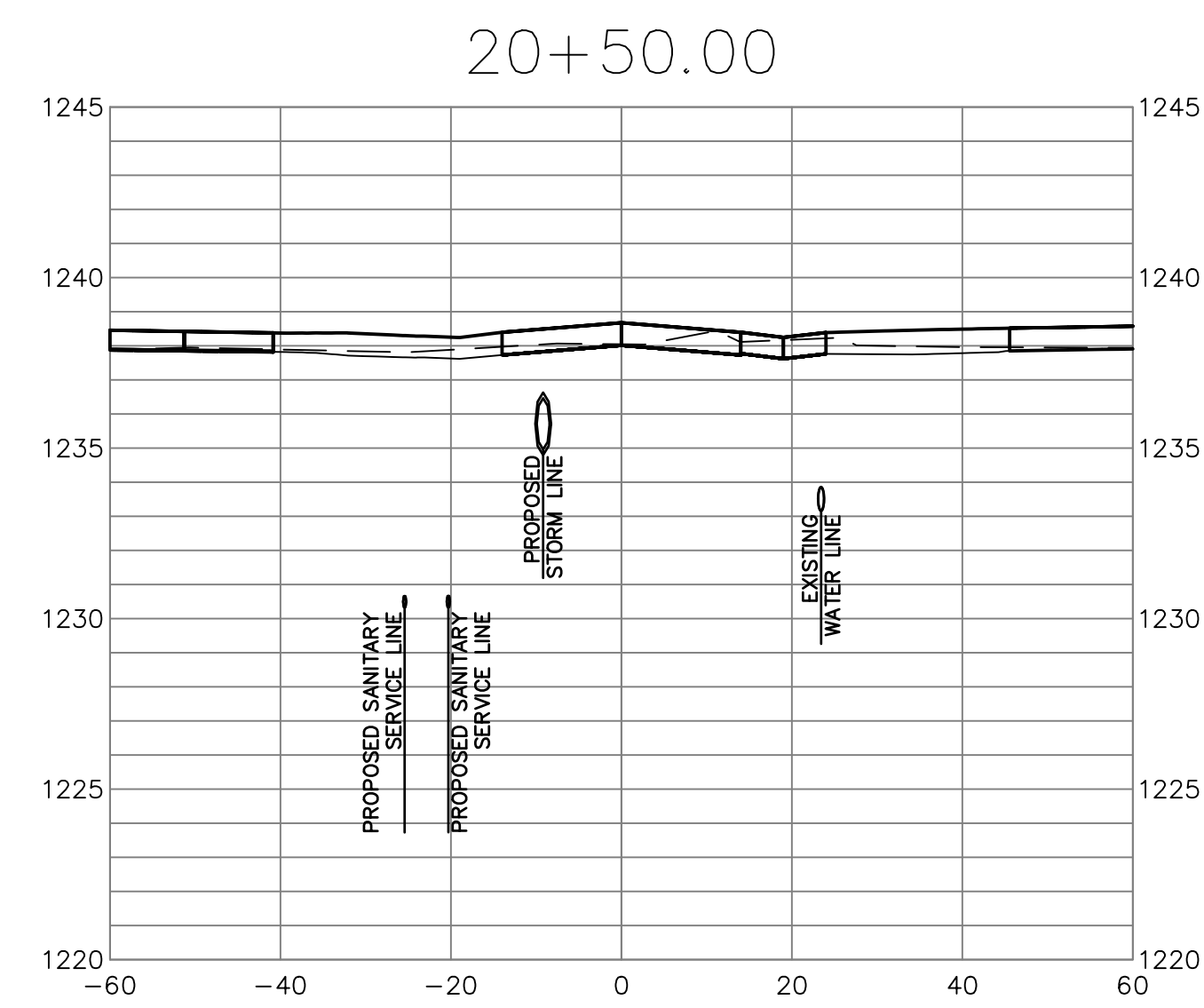
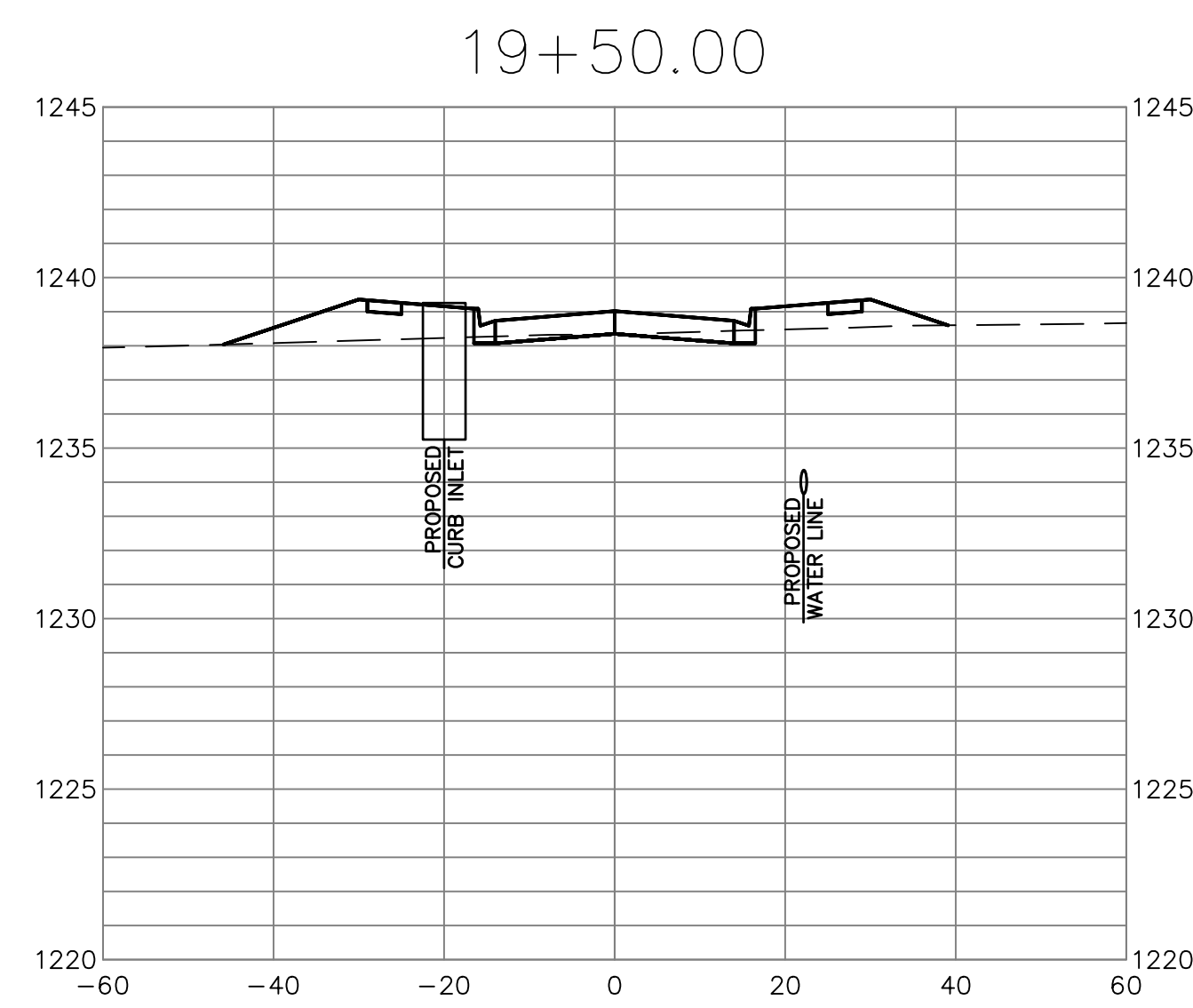
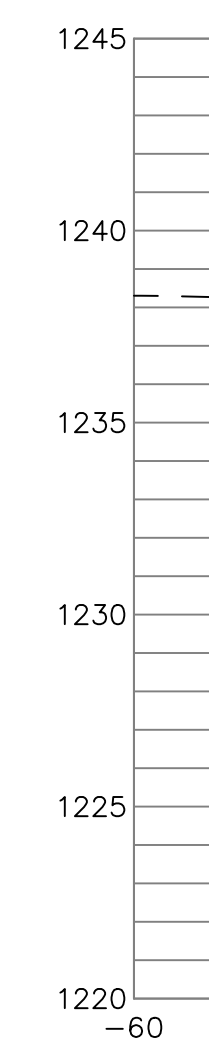
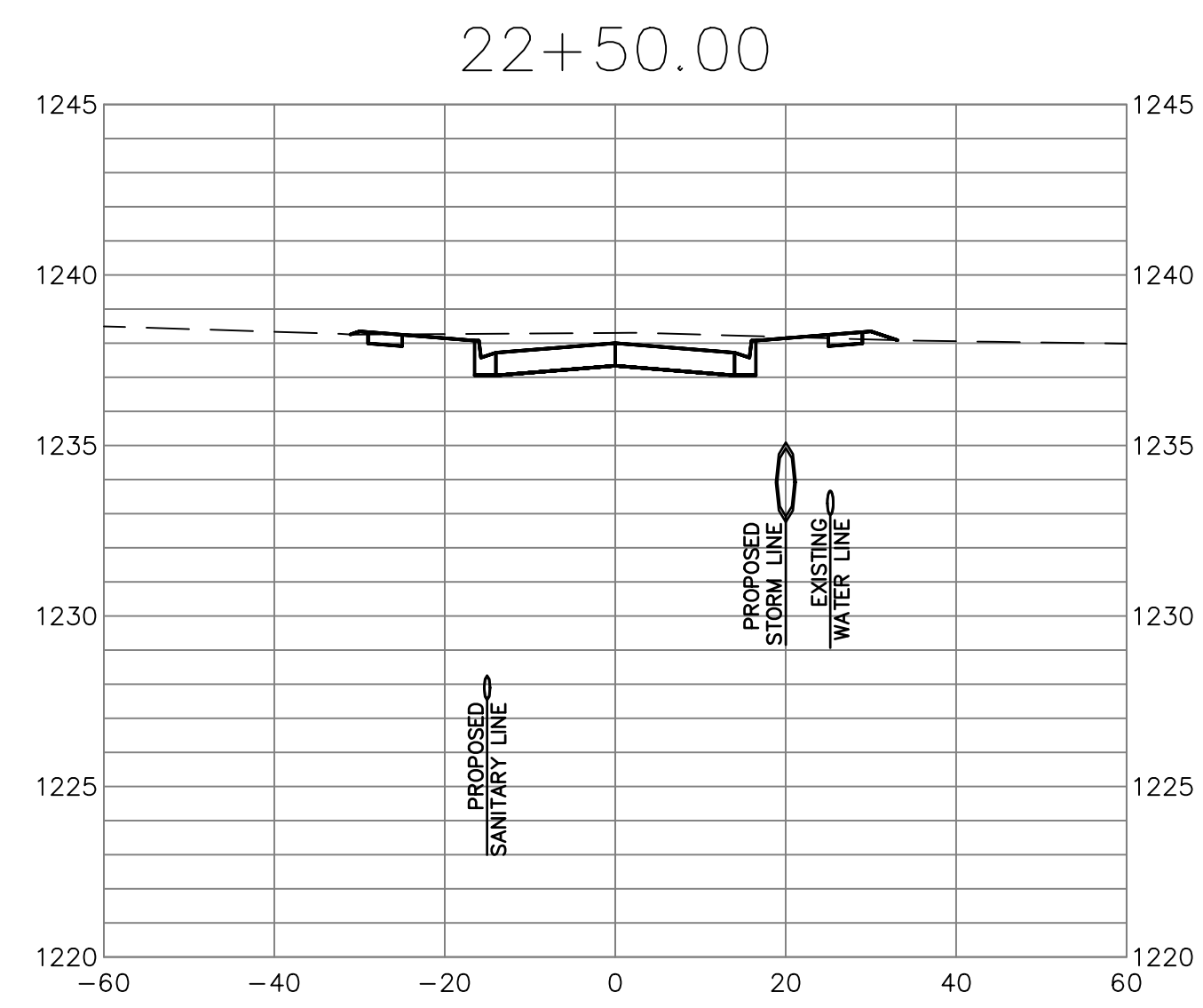
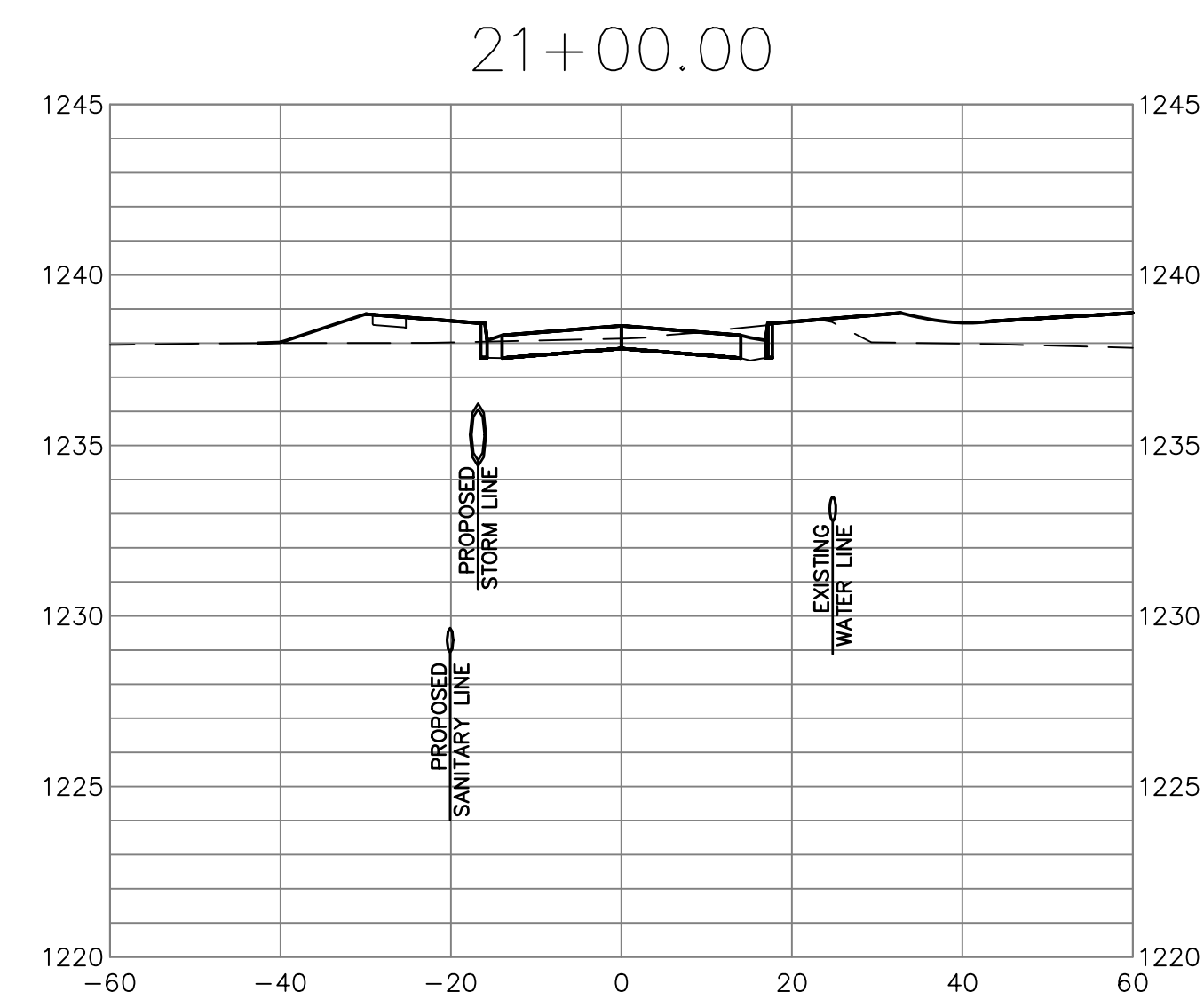
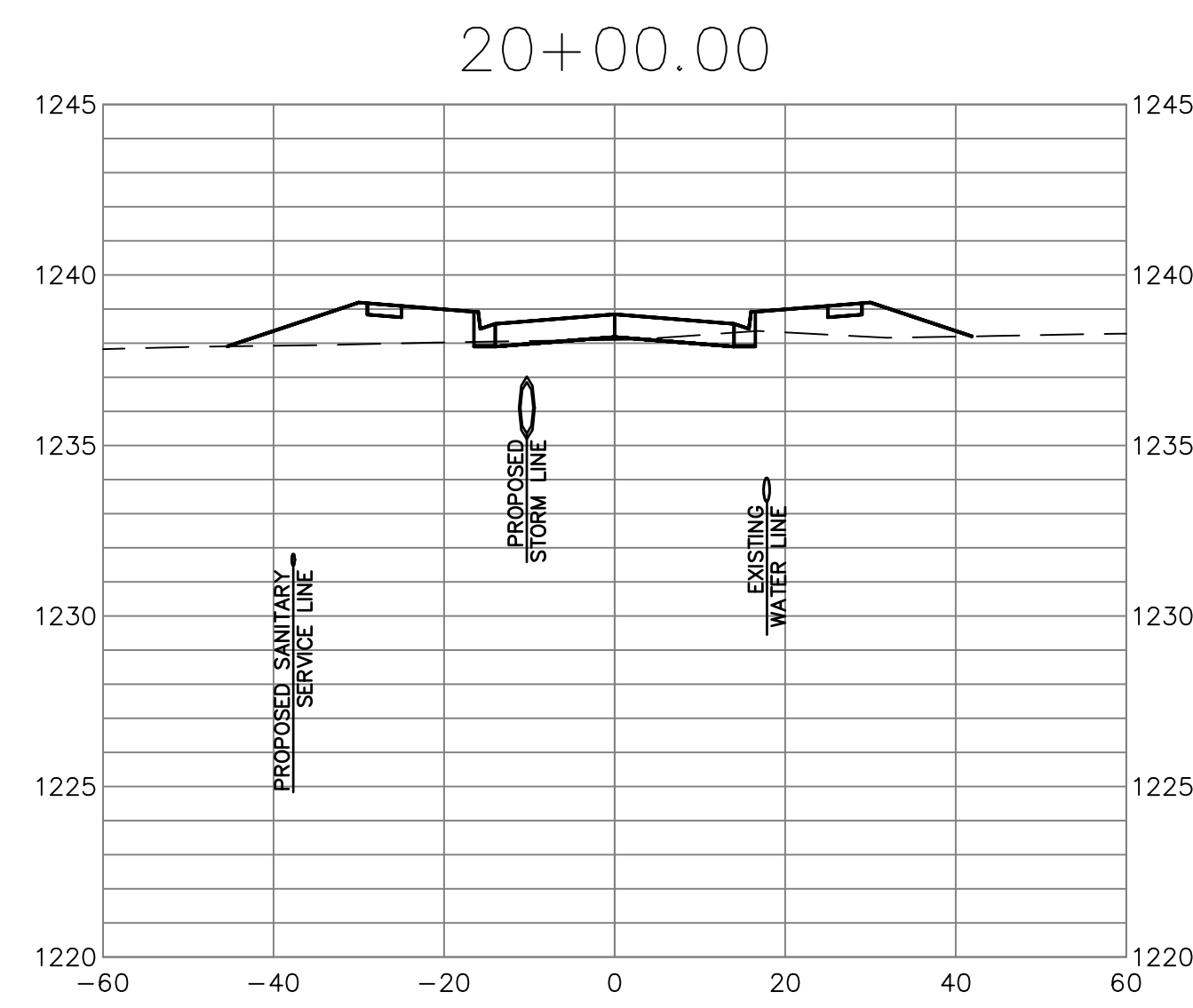
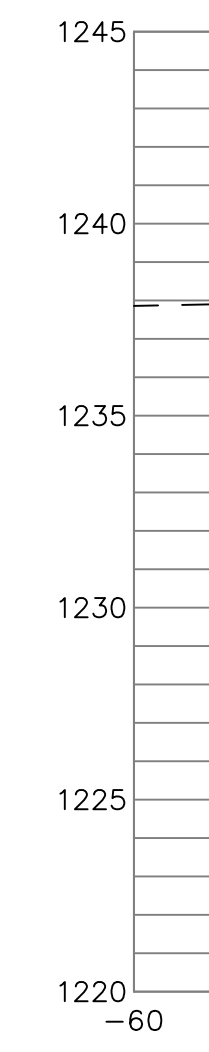
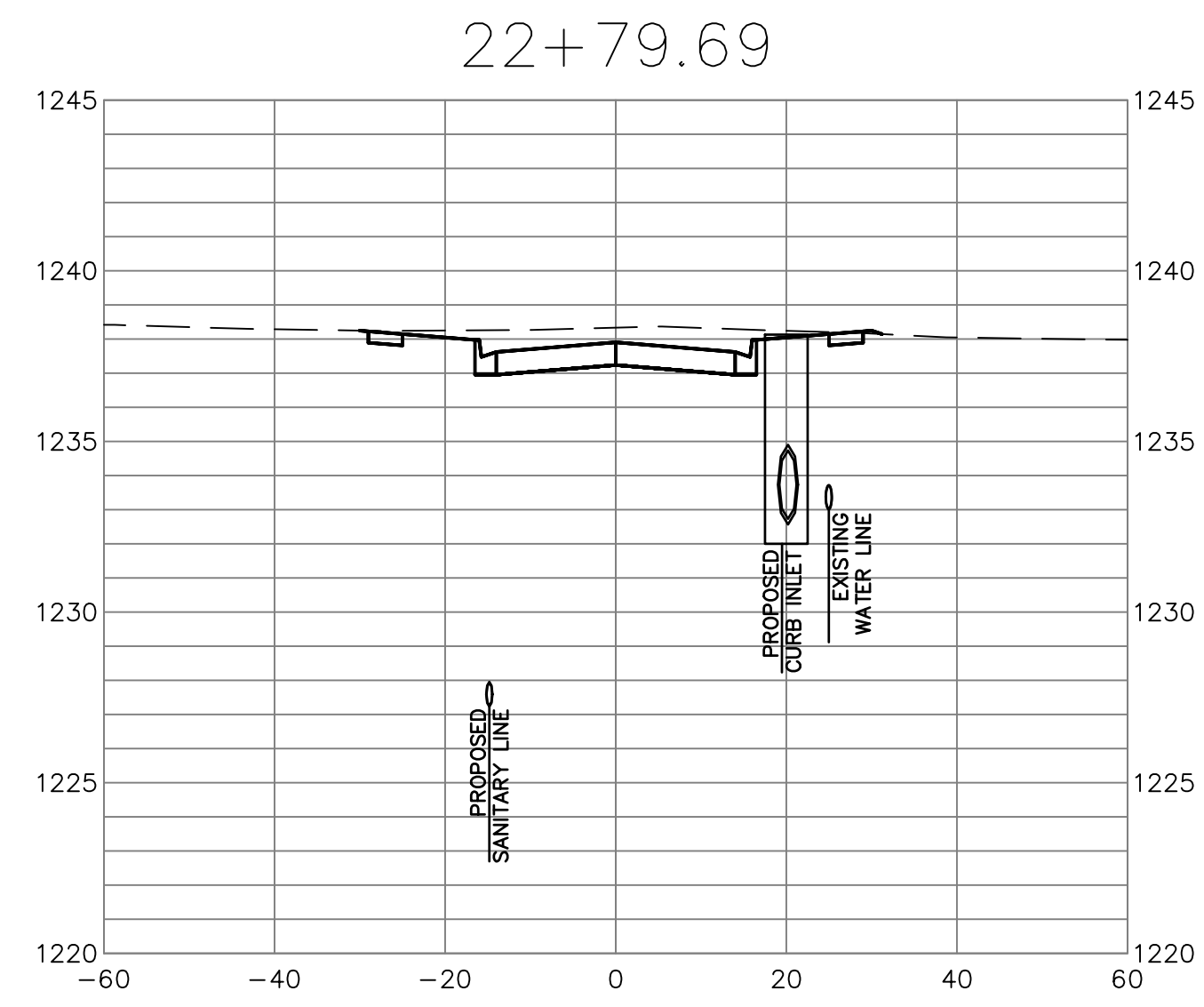
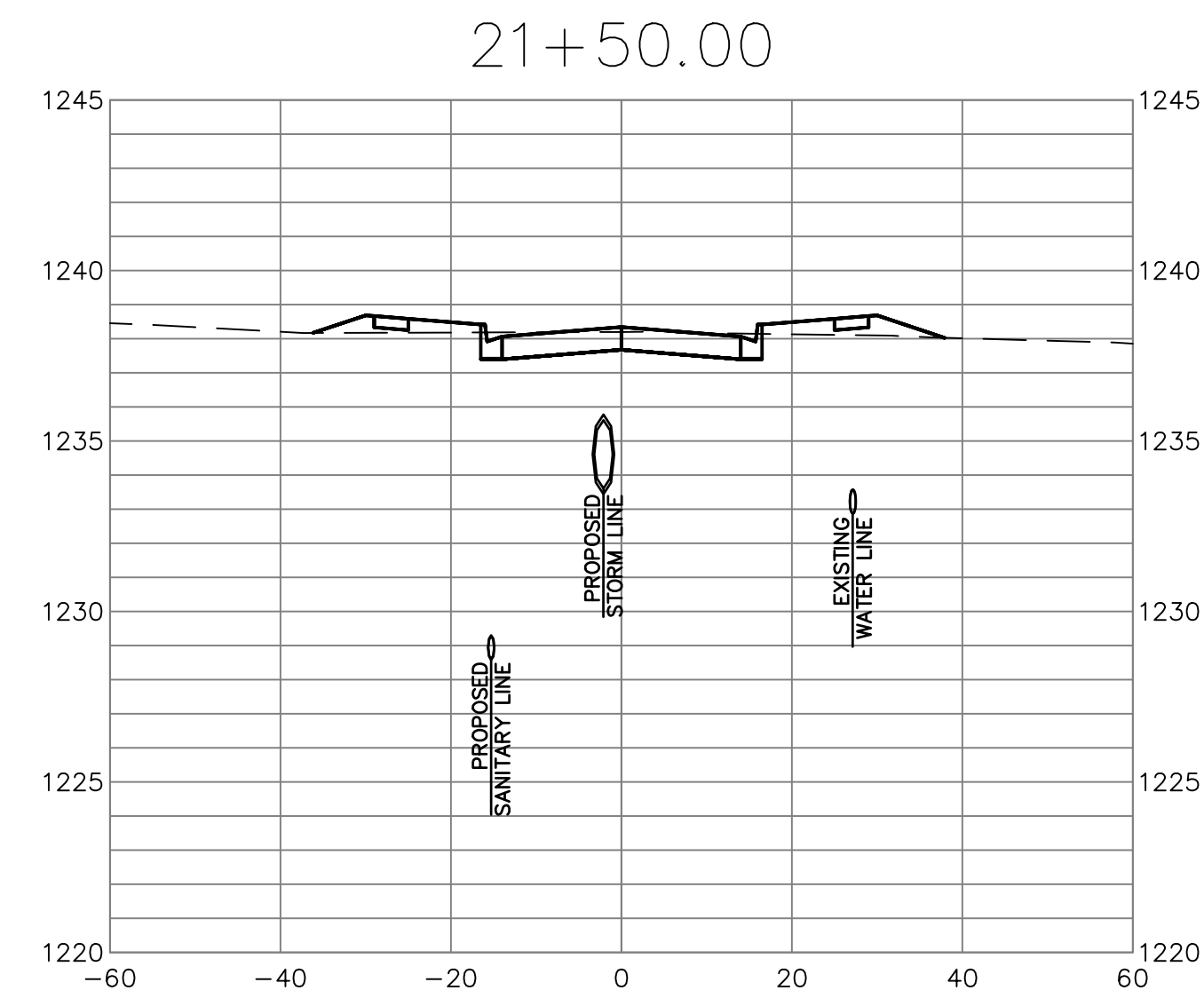
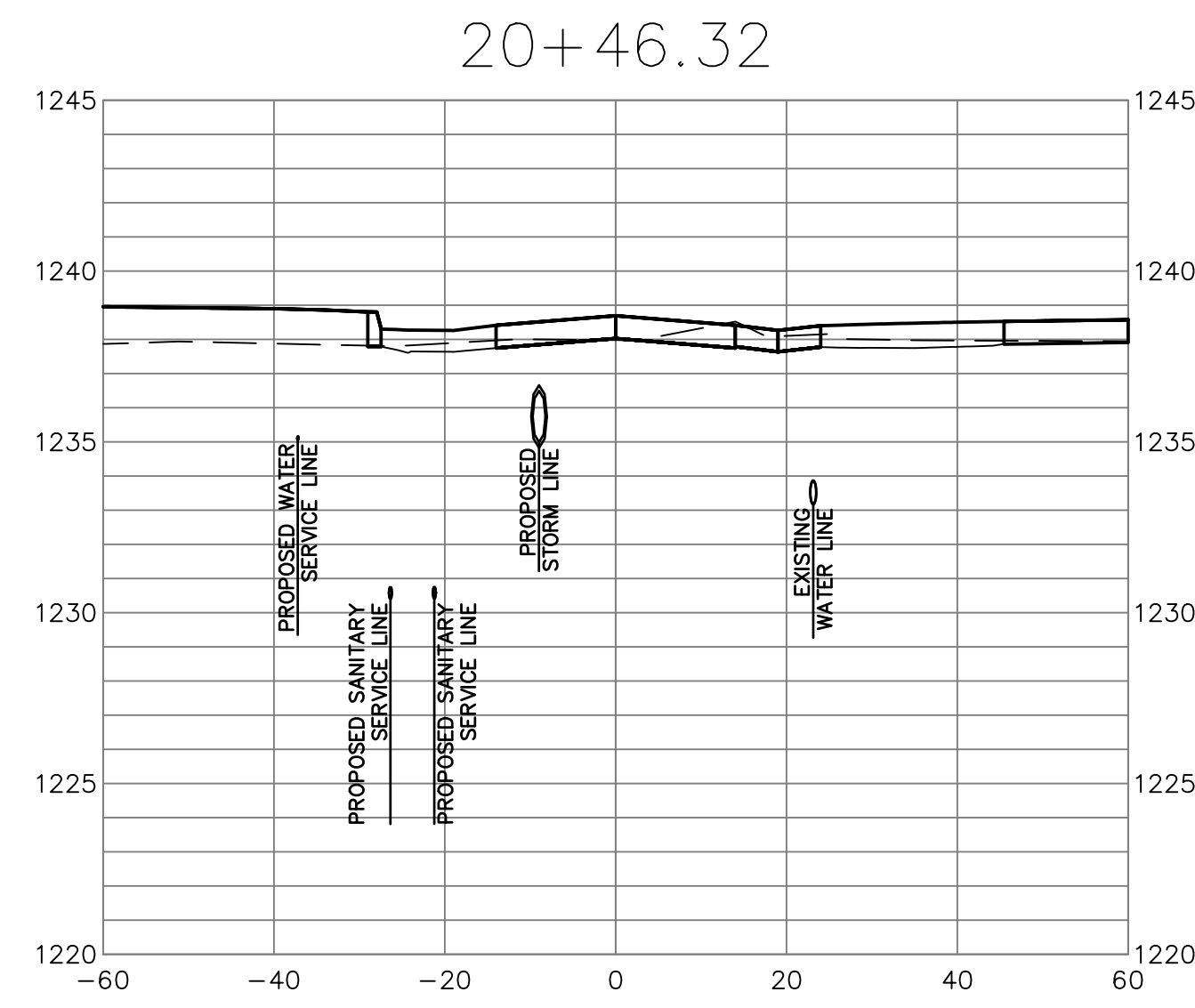


STANDARD FOR "Y" BRANCH 5/8", 3/4", & 1"  
Not to Scale

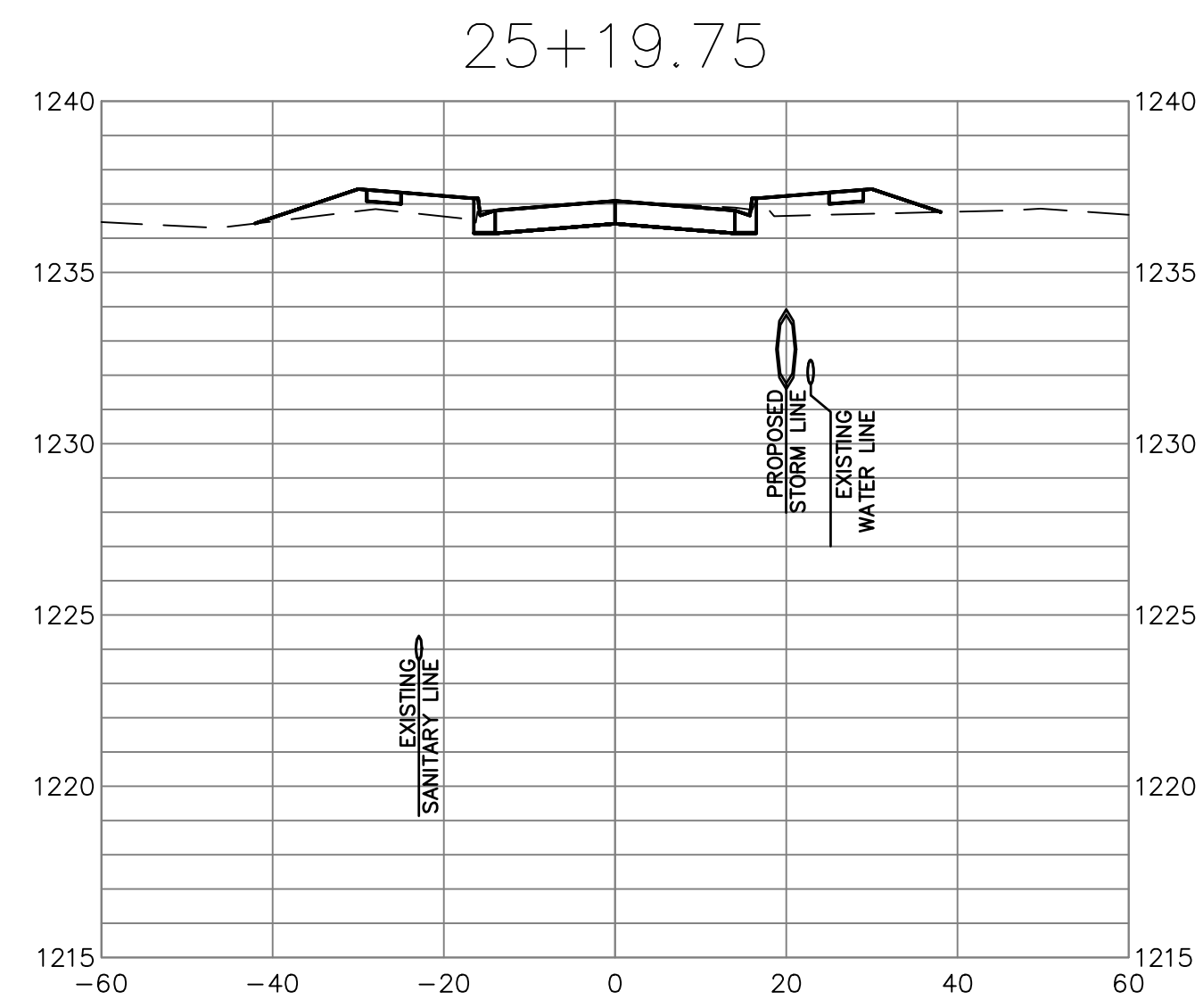
*Handwritten signature*  
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*Mark Paul*  
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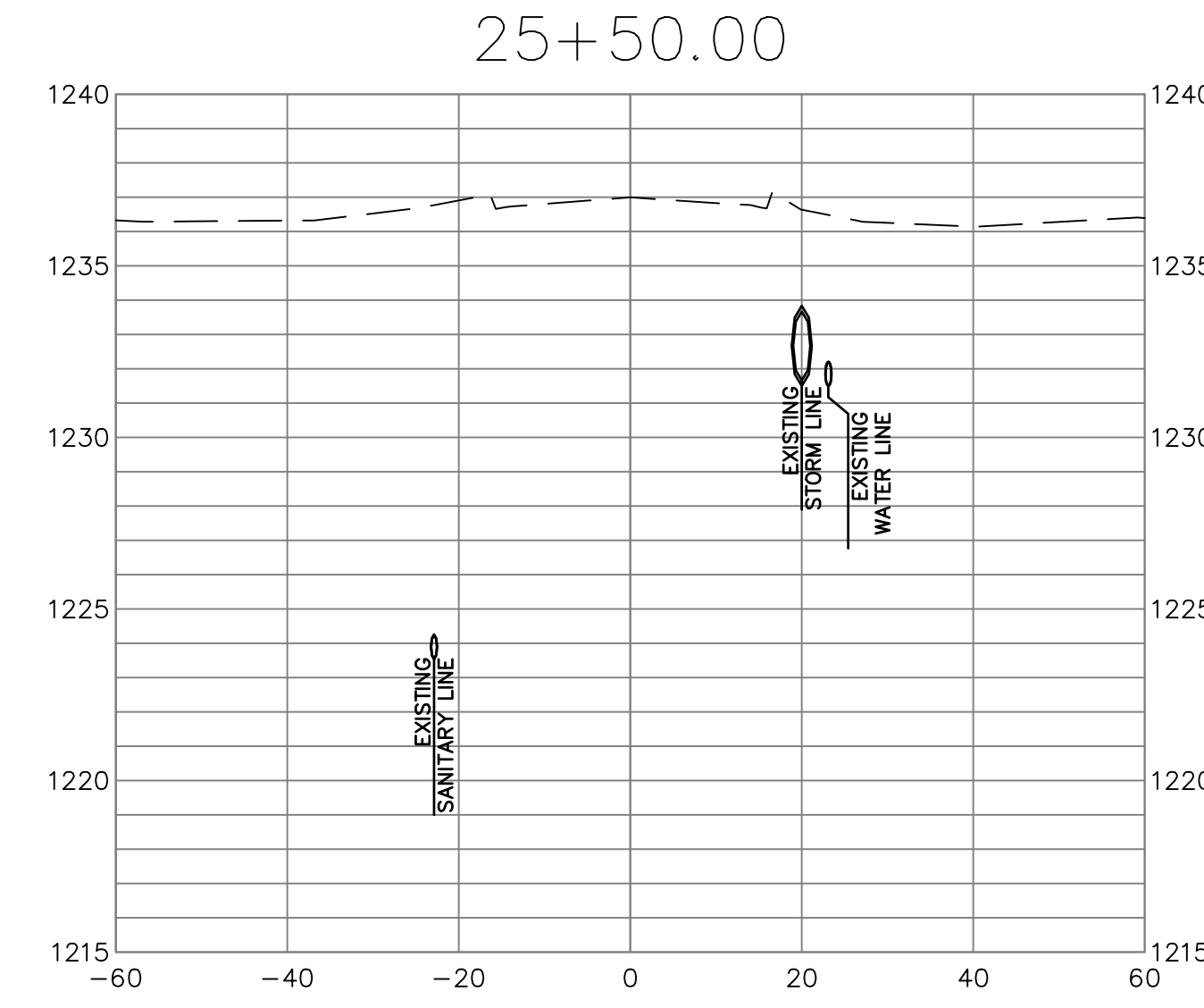
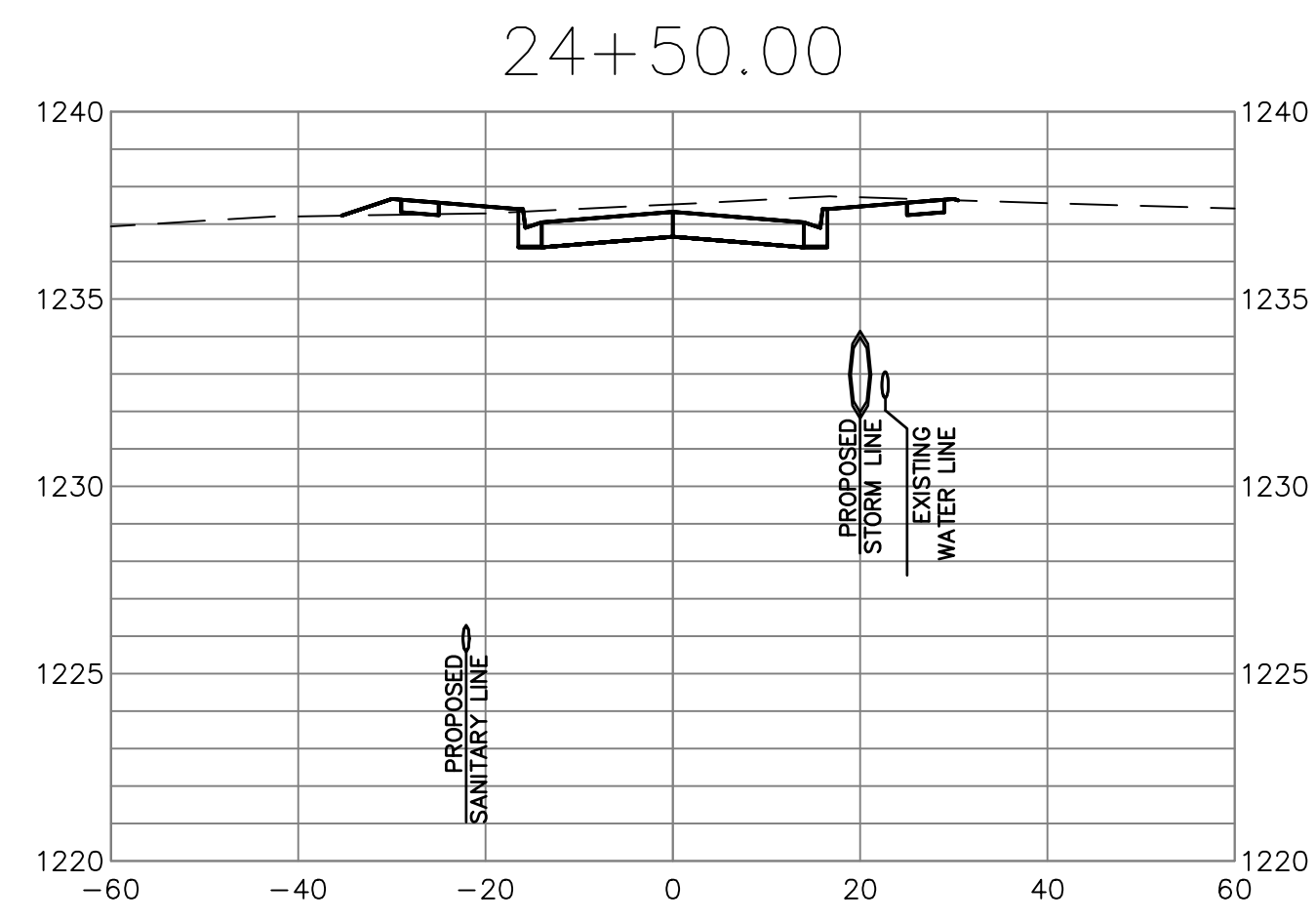
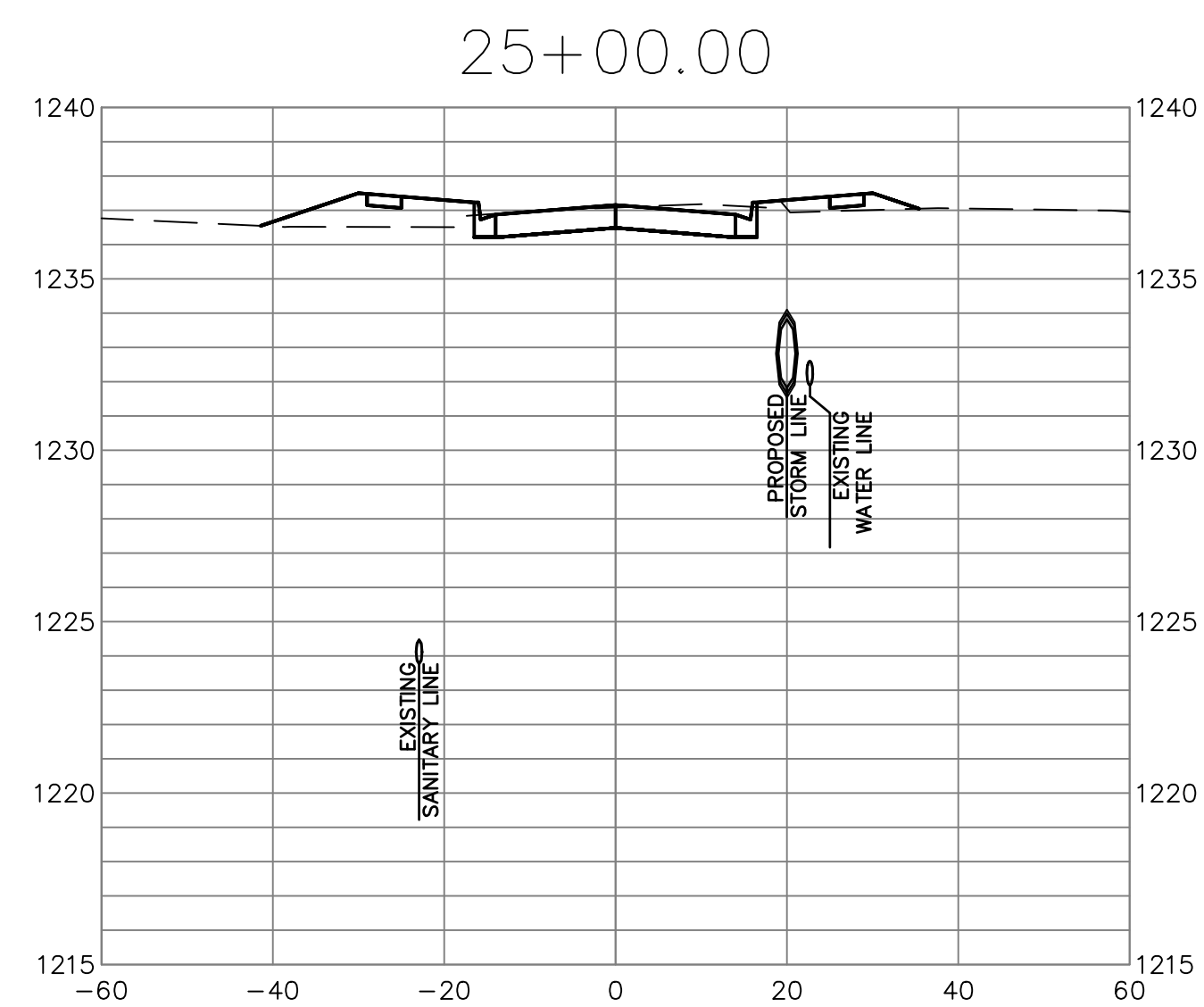


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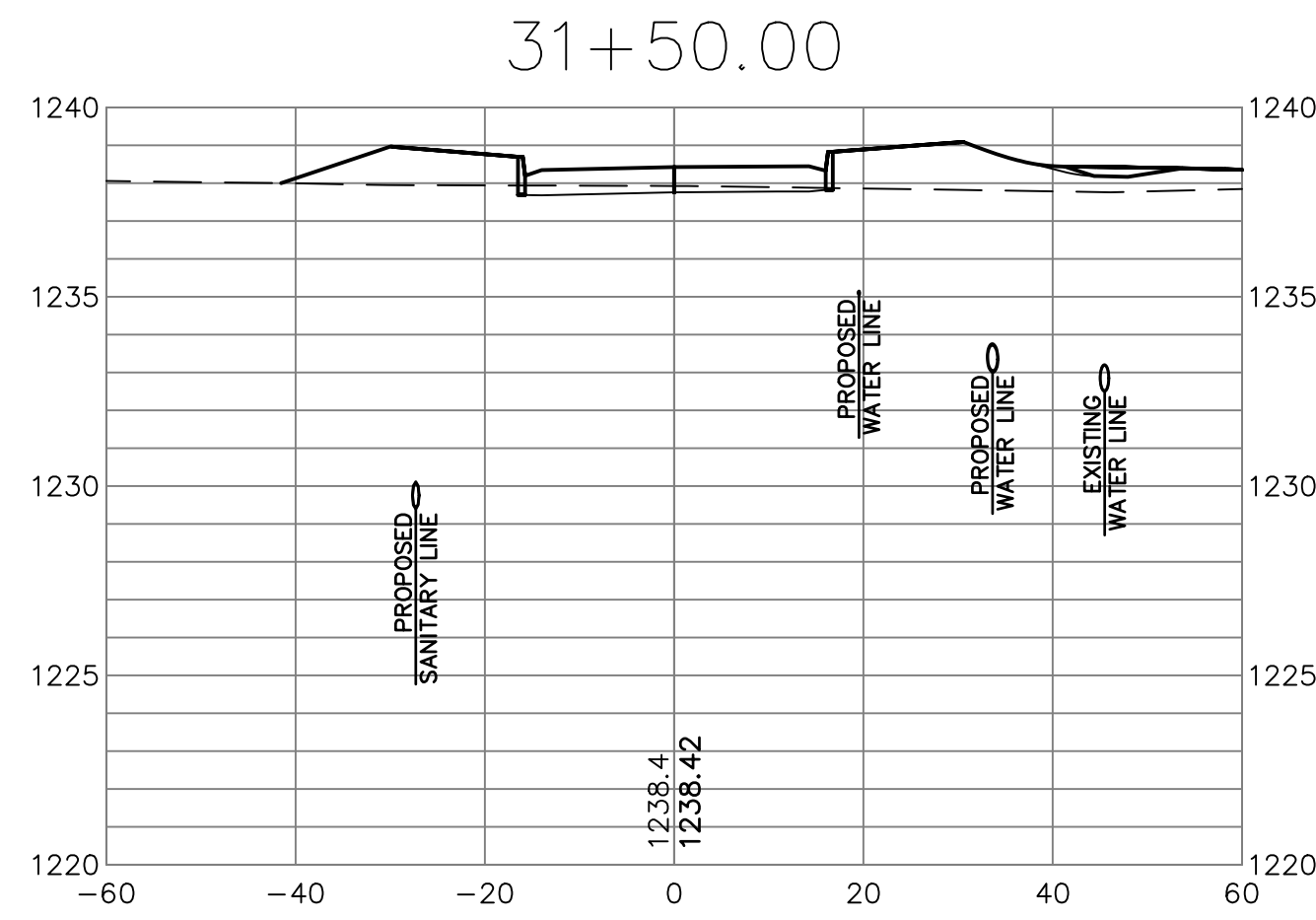
**Total Volume Table**

Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
14+50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
14+79.13	1.35	24.34	0.73	13.13	0.73	13.13	-12.40
15+00.00	5.25	45.97	2.55	27.18	3.28	40.30	-37.02
15+50.00	4.67	45.52	9.19	84.72	12.48	125.03	-112.55
16+00.00	4.92	44.57	8.88	83.42	21.36	208.45	-187.09
16+50.00	6.64	26.79	10.70	66.07	32.06	274.52	-242.46
17+00.00	8.94	30.66	14.42	53.19	46.48	327.72	-281.23
17+50.00	45.44	0.53	50.34	28.88	96.83	356.60	-259.77
18+00.00	49.30	0.26	87.72	0.73	184.55	357.33	-172.79
18+12.94	48.95	0.57	23.55	0.20	208.10	357.53	-149.43
18+50.00	46.39	1.39	67.13	1.28	275.23	358.82	-83.59
19+00.00	41.24	3.19	84.15	4.09	359.38	362.91	-3.52
19+50.00	34.02	5.40	72.22	7.81	431.61	370.71	60.89
20+00.00	38.08	4.31	68.36	8.85	499.97	379.57	120.40
20+46.32	31.65	19.32	64.42	19.39	564.39	398.96	165.43
20+50.00	0.00	23.65	2.16	2.93	566.55	401.89	164.66
21+00.00	39.18	18.18	33.74	38.03	600.29	439.91	160.37
21+50.00	12.08	22.10	44.79	37.12	645.08	477.03	168.05
22+00.00	4.50	30.09	14.93	48.43	660.01	525.46	134.55
22+50.00	0.92	39.47	4.68	64.59	664.69	590.05	74.64
22+79.69	0.12	46.67	0.53	47.42	665.22	637.47	27.75
23+00.00	0.00	52.39	0.05	37.26	665.27	674.73	-9.46
23+50.00	0.00	51.89	0.00	96.55	665.27	771.28	-106.02
24+00.00	0.00	54.72	0.00	98.71	665.27	869.99	-204.73
24+50.00	3.36	37.39	3.11	85.29	668.38	955.28	-286.90
25+00.00	20.05	24.15	21.67	56.98	690.05	1012.27	-322.21
25+19.75	19.80	22.80	14.57	17.17	704.62	1029.44	-324.81
25+50.00	0.00	0.00	11.09	12.77	715.71	1042.21	-326.49

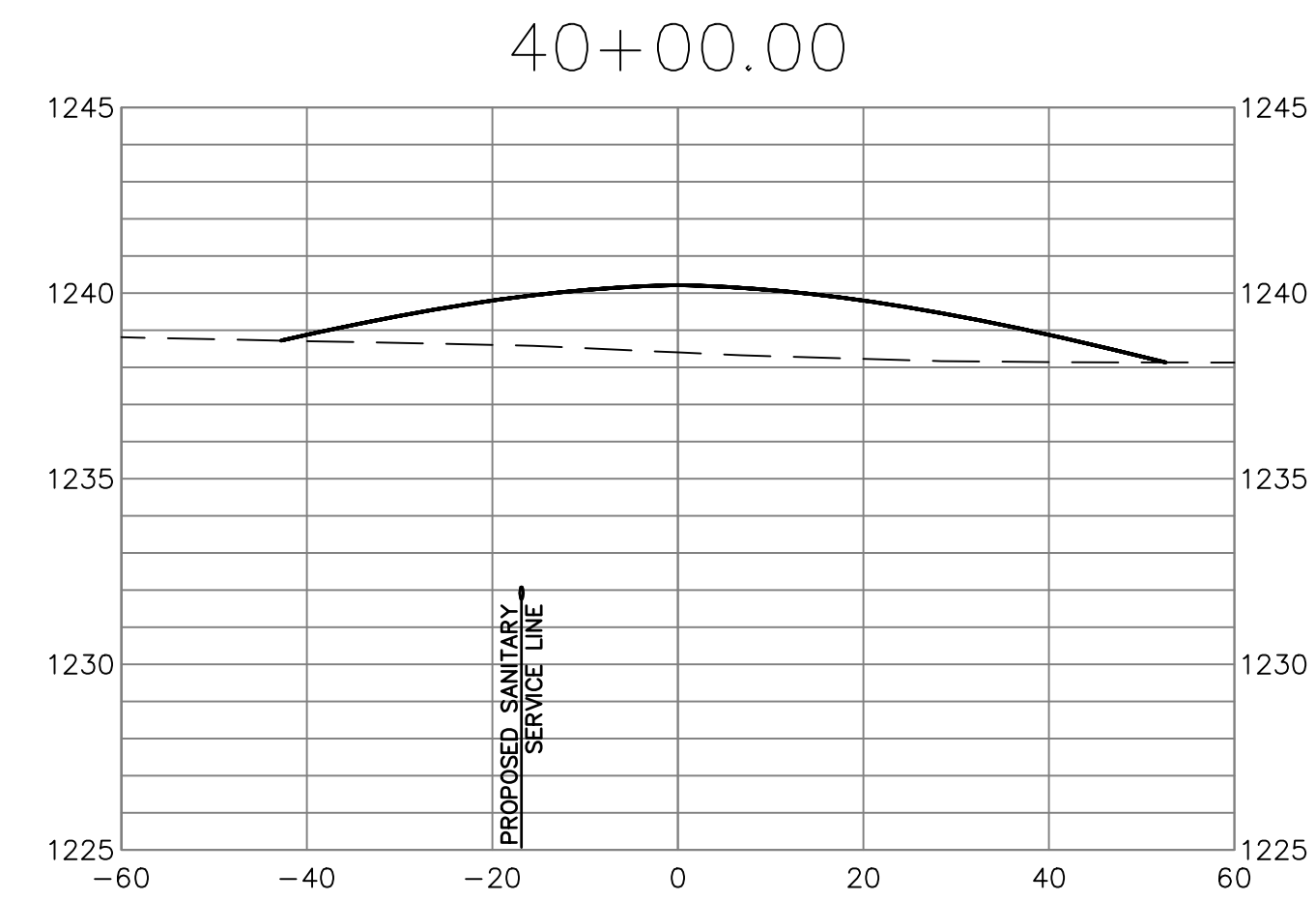
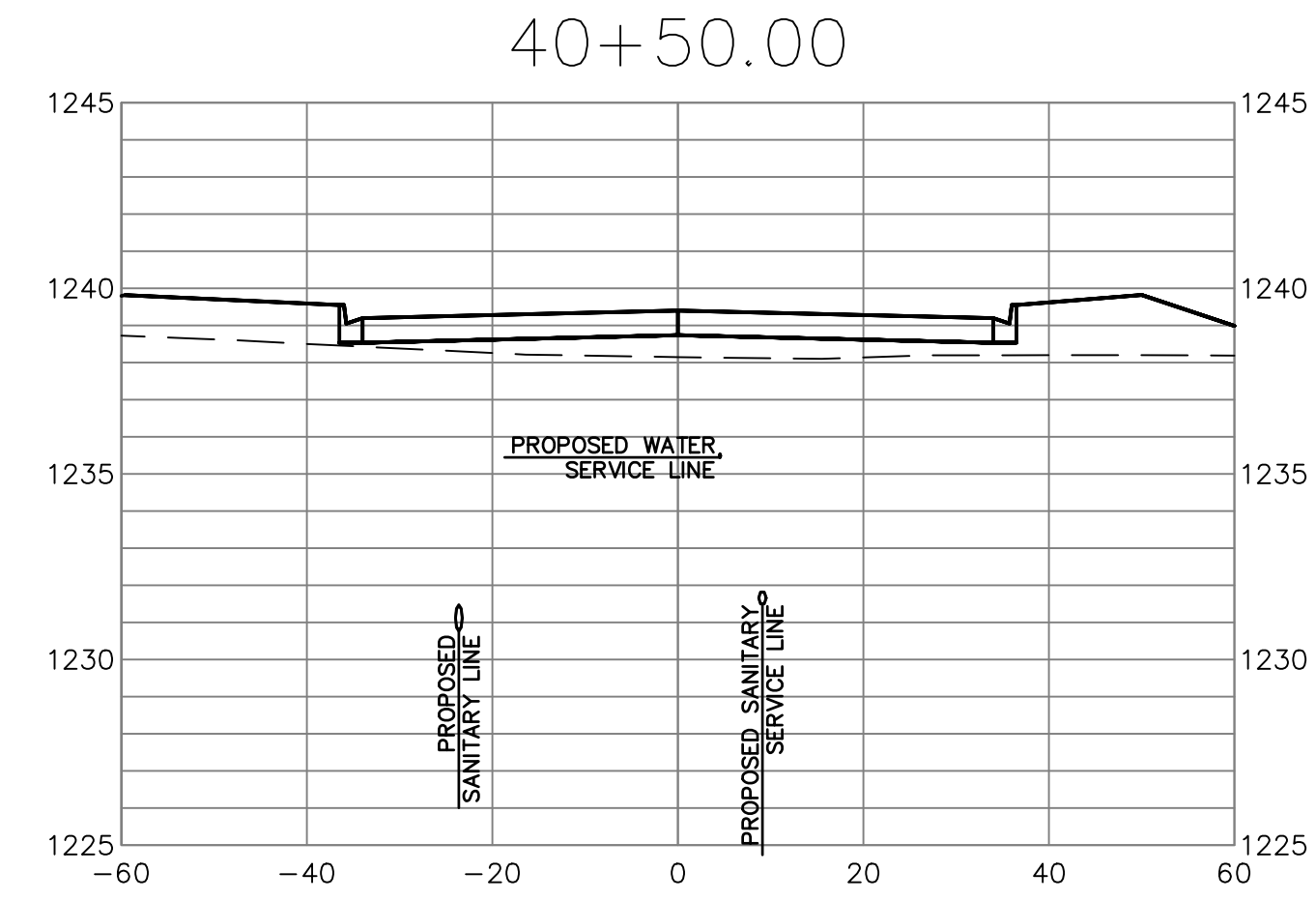
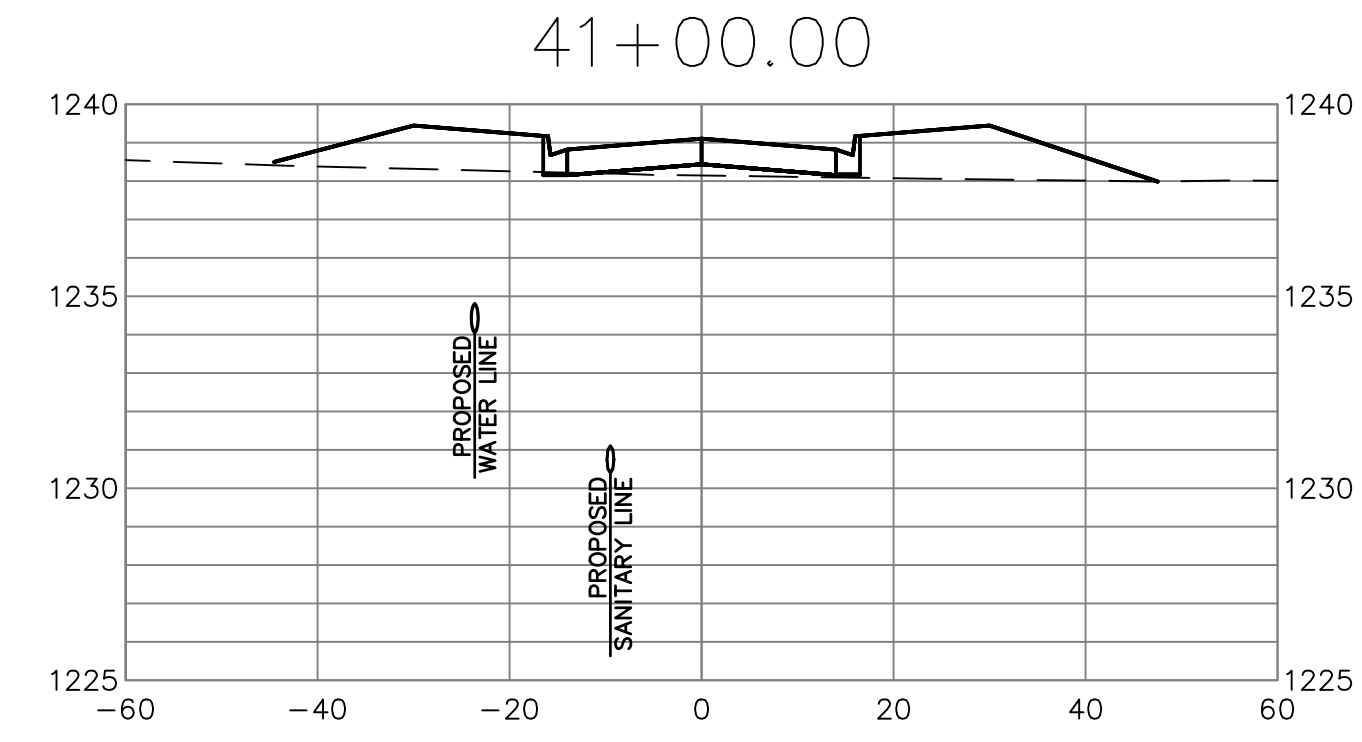
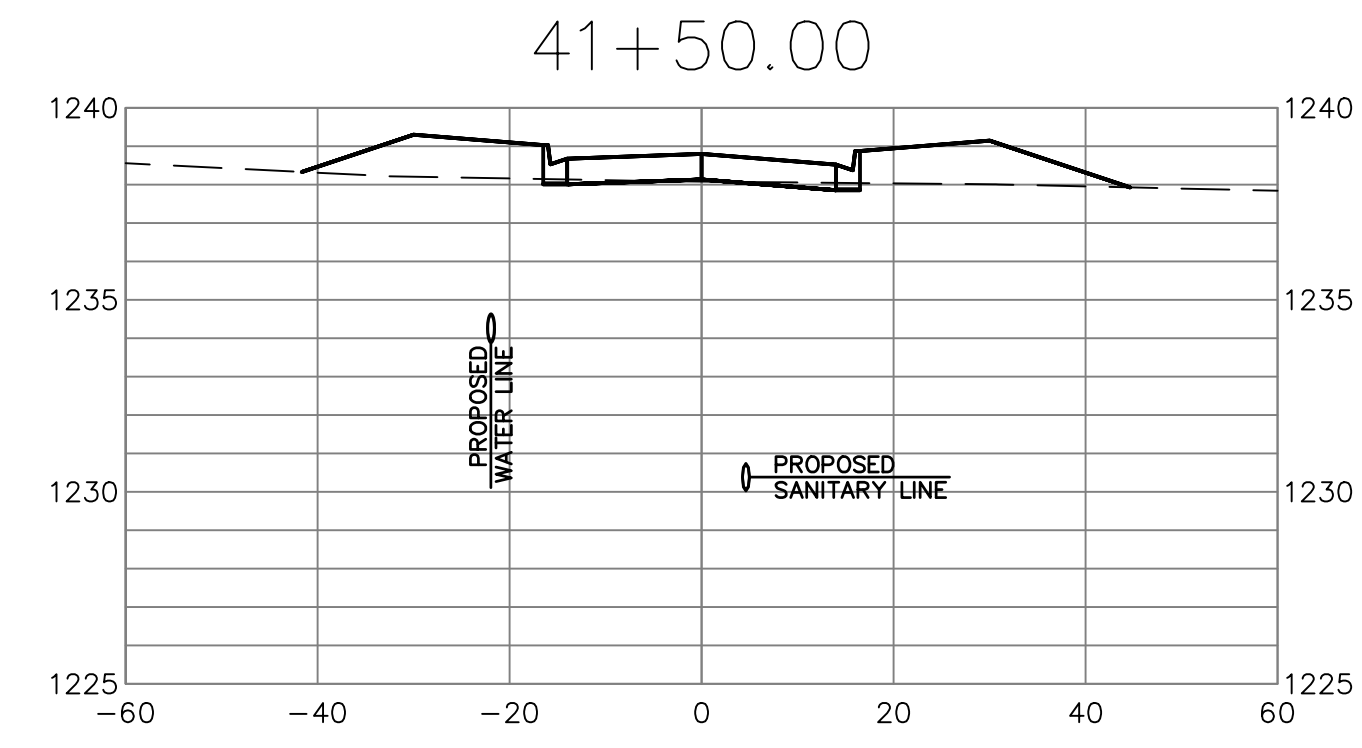
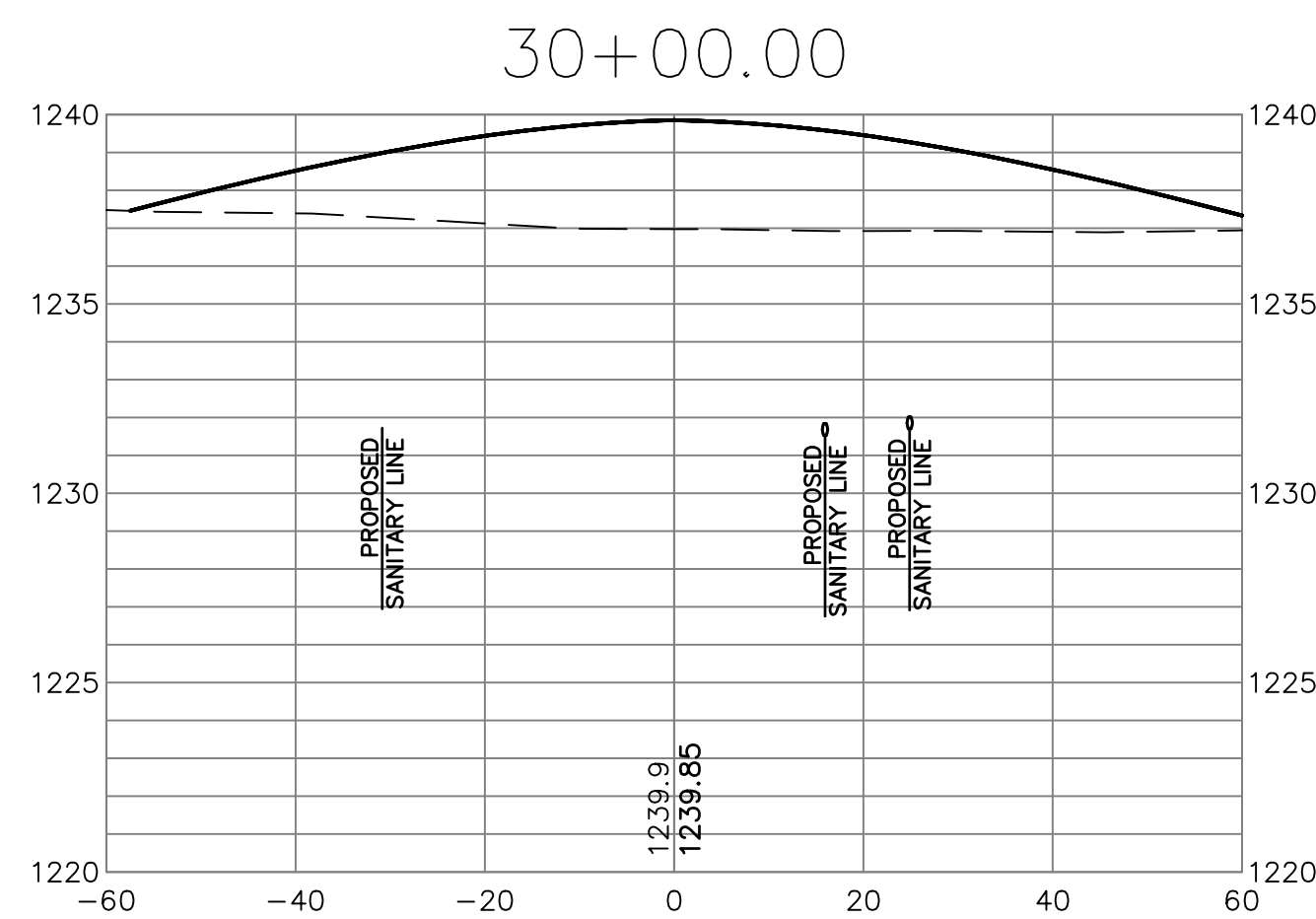
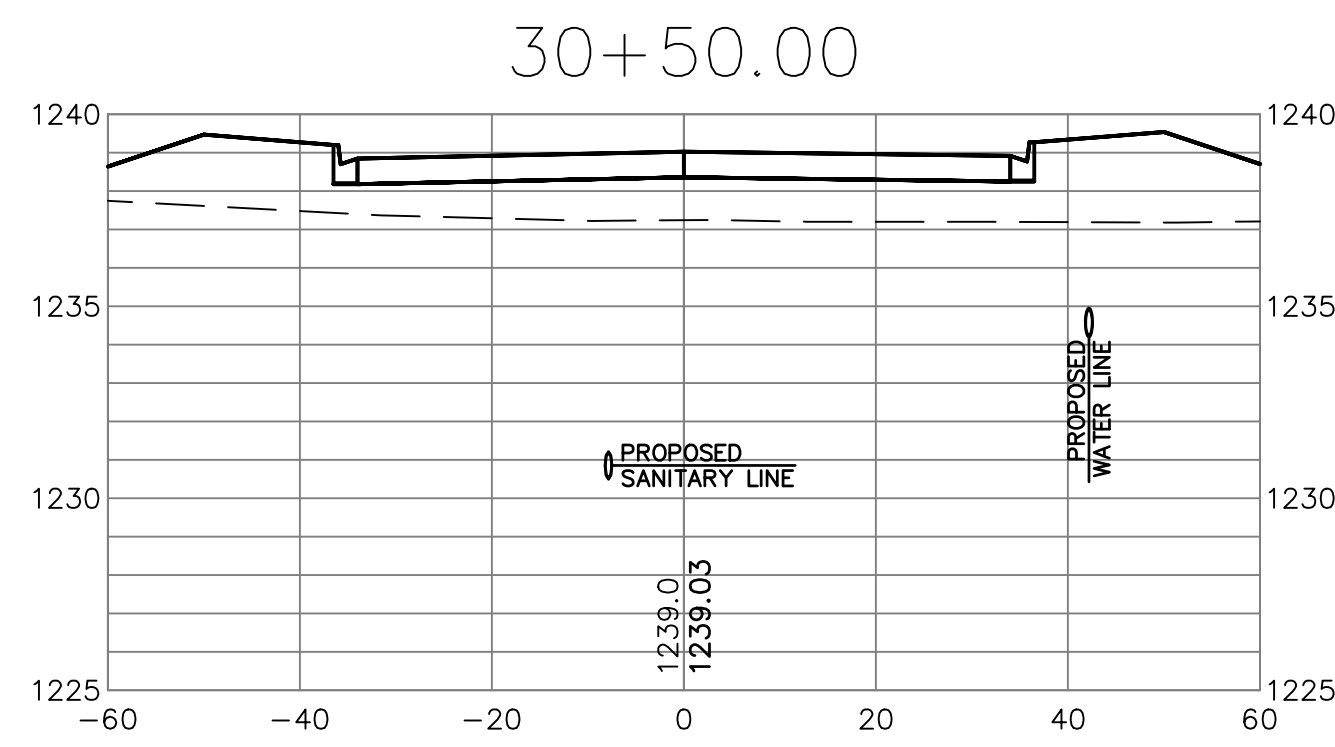
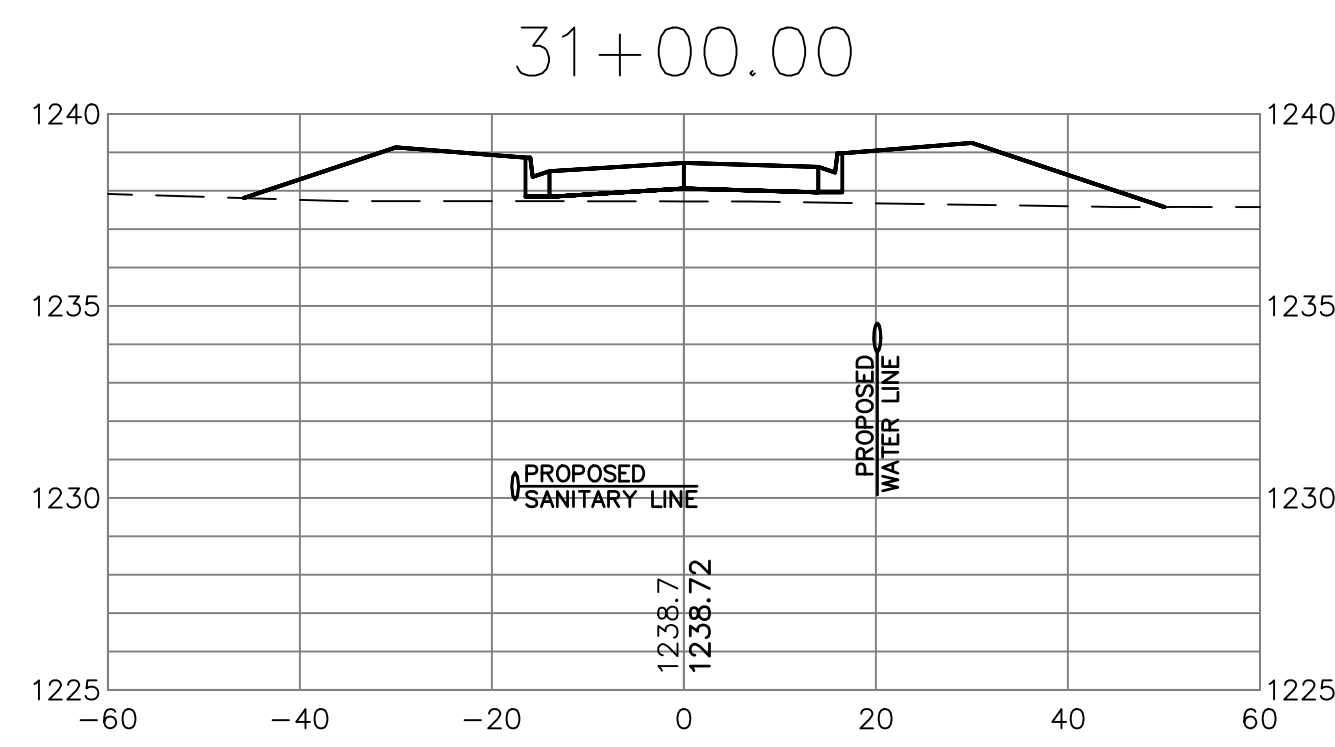


*M. P. [Signature]*  
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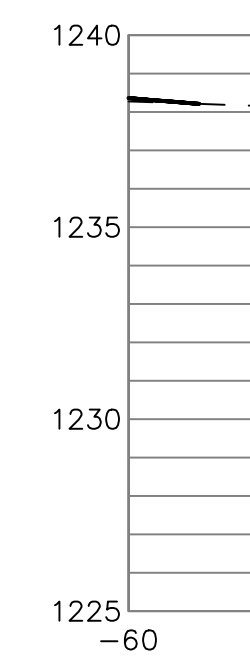
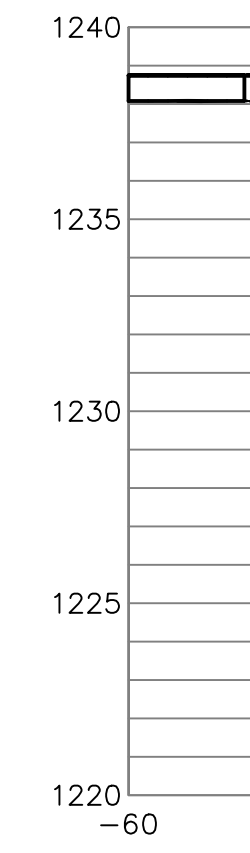
CRYSTAL LAKE PORT



Total Volume Table							
Station	Cut Area	Fill Area	Cut Vol	Fill Vol	Cum Cut Vol	Cum Fill Vol	Net Vol
30+00.00	217.87	0.00	0.00	0.00	0.00	0.00	0.00
30+50.00	180.02	0.00	368.42	0.00	368.42	0.00	368.42
31+00.00	72.57	0.00	233.88	0.00	602.30	0.00	602.30
31+50.00	51.53	5.71	114.91	5.29	717.20	5.29	711.92



Station	Cut
40+00.00	0
40+50.00	0
41+00.00	0
41+50.00	0
42+00.00	0
42+46.38	1



*Mark Paul*  
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