

FOUR RIVERS SANITATION AUTHORITY

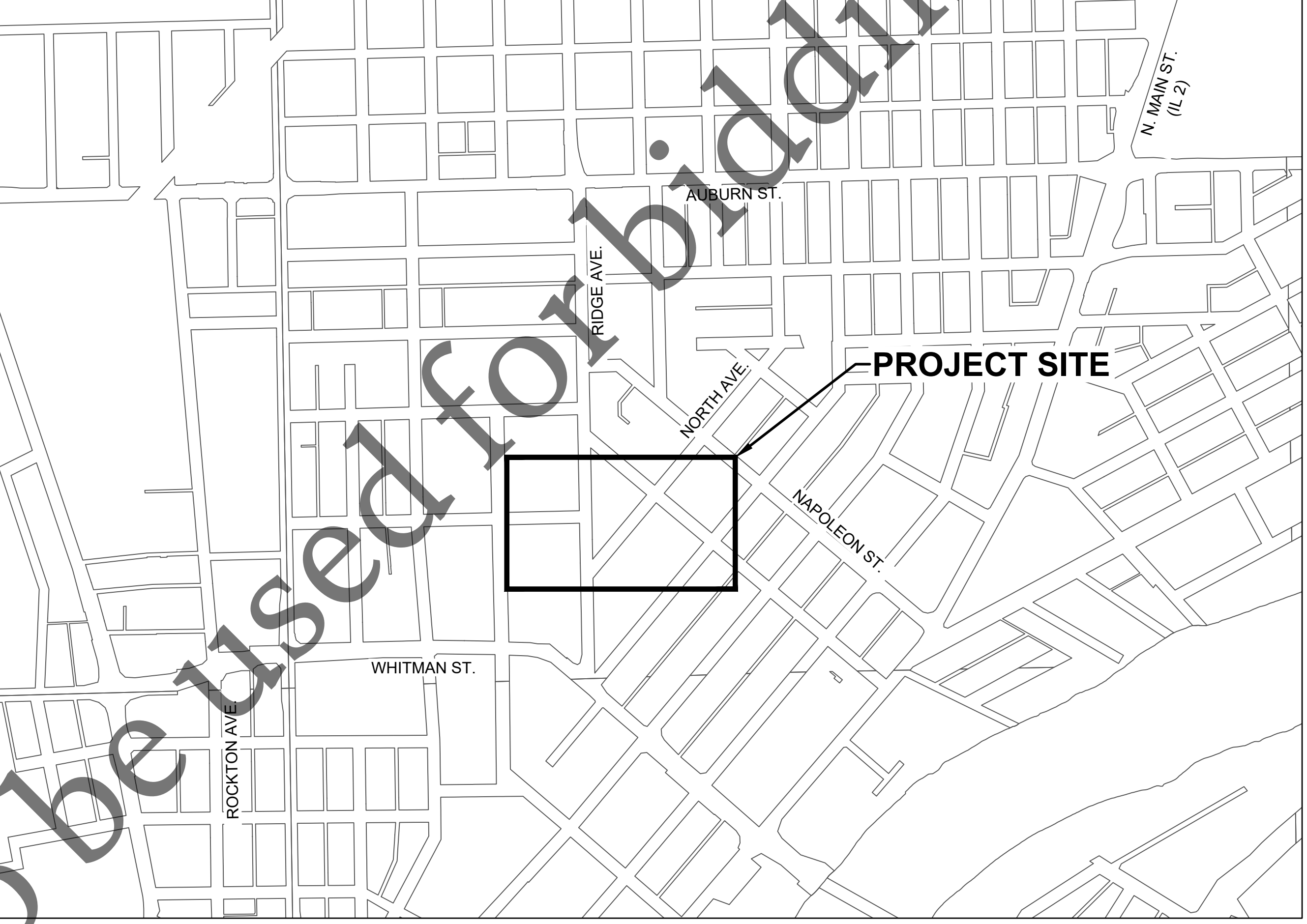
NORTH AVE. & NAPOLEON ST. CAPITAL PROJECT #2564 2025

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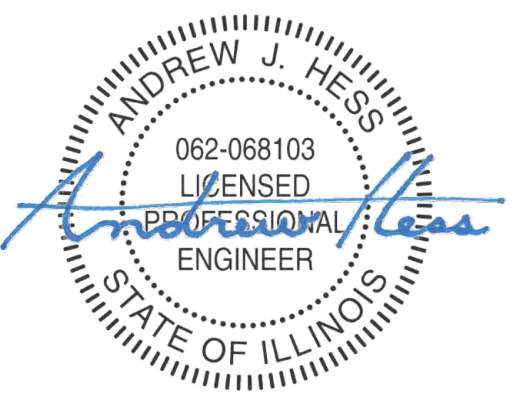
CHRISTOPHER T. BAER, PE	EXECUTIVE DIRECTOR
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WINNEBAGO COUNTY, ILLINOIS

INDEX OF SHEETS

- 1 COVER
- 2 LEGEND GENERAL NOTES & SUM OF QTYS
- 3 ALIGNMENT TIES & BENCHMARKS
- 4 PLAN & PROFILE - STA 100+00 TO STA 105+50
- 5 PLAN & PROFILE - STA 105+50 TO STA 109+00
- 6 NORTH AVE ROADWAY REPLACEMENT
- 7 CROSS SECTIONS - RIDGE AVE
- 8 CROSS SECTIONS - NORTH AVE - 1
- 9 CROSS SECTIONS - NORTH AVE - 2
- 10 CROSS SECTIONS - NORTH AVE - 3
- 11 CROSS SECTIONS - NORTH AVE - 4
- 12 CROSS SECTIONS - NORTH AVE - 5
- 13 CROSS SECTIONS - NORTH AVE - 6
- 14 TEMPORARY EROSION CONTROL DETAILS
- 15 PROJECT DETAILS
- 16 FRSA STANDARD DETAILS rev. 05-01-2023



SIGNED: AUGUST 5, 2025
EXPIRES: NOVEMBER 30, 2025

FOR BID

plot date: 8/5/2025
file: I:\District Projects\North Avenue and Napoleon Street 2664\01 Design\Drawings (Working Folder)\2564 North Ave-Standard Sheets.dwg
sheet set: NORTH AVE NAPOLEON ST

file: I:\District Projects\North Avenue and Napoleon Street 2664\01 Design\Drawings (Working Folder)\2564 North Ave-Standard Sheets.dwg

LEGEND			LEGEND			GENERAL NOTES			SUMMARY OF QUANTITIES																																																																																																																																																																																												
EXISTING	PROPOSED		EXISTING	PROPOSED		1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE EXECUTION OF WORK TO THE LINES AND GRADES SHOWN ON THE PLANS. CONSTRUCTION SHALL NOT VARY FROM THE PLANS WITHOUT PRIOR APPROVAL FROM THE FOUR RIVERS SANITATION AUTHORITY (FRSA). 2. THE CONTRACTOR SHALL NOTIFY THE FRSA, MUNICIPAL AGENCIES, JURISDICTIONAL ROADWAY AUTHORITIES AND ALL AFFECTED PROPERTY OWNERS A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION. 3. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN THE STATE OF ILLINOIS, LATEST EDITION, AND THE REQUIREMENTS OF THE FOUR RIVERS SANITATION AUTHORITY. 4. THE CONTRACTOR SHALL IDENTIFY ALL UTILITY LOCATIONS IN THE FIELD BY CONTACTING J.U.L.I.E. AT 811, AND ALL UTILITIES NOT ON THE J.U.L.I.E. NETWORK, 72 HOURS, MINIMUM, PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL PROTECT UTILITES AND SHALL CONTACT THE UTILITY FOR PROCEDURE AND SCHEDULE COORDINATION. ALL COSTS ASSOCIATED WITH PROTECTION OF UTILITIES (INCLUDING TUNNELING, RESTRAINT, BRACING, SUPPORTING, SHEATHING, ETC.) WHETHER BY THE CONTRACTOR OR UTILITY COMPANY SHALL BE AT NO ADDITIONAL COST TO THE FRSA. 5. ALL ROADWAY CONSTRUCTION SHALL BE COMPLETED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ROADWAY AUTHORITY, THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, AND THE FOUR RIVERS SANITATION AUTHORITY. 6. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE IEPA NPDES PERMIT AND THE ILLINOIS URBAN MANUAL FOR SOIL EROSION AND SEDIMENT CONTROL. 7. PROTECTION OF WATER SUPPLIES SHALL BE IN ACCORDANCE WITH TITLE 35, § SECTION 370.350 OF THE ILLINOIS RECOMMENDED STANDARDS FOR SEWAGE WORKS. SPECIAL CONSIDERATIONS 1. THE CONTRACTOR SHALL OBTAIN A CITY OF ROCKFORD RIGHT-OF-WAY PERMIT PRIOR TO STARTING ANY WORK. THE CONTRACTOR SHALL PAY ALL ASSOCIATED FEES AND SUBMIT ALL REQUIRED BOND AND INSURANCE INFORMATION TO THE CITY FOR APPROVAL. COPIES OF ALL CITY PERMITS, INCLUDING PROOF OF INSURANCE AND BOND, SHALL BE SUBMITTED TO THE FRSA UPON RECEIPT BY THE CONTRACTOR. ALL COSTS ASSOCIATED WITH CITY OF ROCKFORD PERMITS SHALL BE AT NO ADDITIONAL COST TO THE FRSA. 2. TRAFFIC CONTROL SHALL BE COORDINATED WITH THE CITY OF ROCKFORD WHITMAN STREET PROJECT WHICH WILL OCCUR CONCURRENTLY. CONTACT THE CITY OF ROCKFORD PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION (779-348-7300). RESIDENTS LOCATED ON RIDGE AVENUE BETWEEN WHITMAN STREET AND NORTH AVENUE WILL ONLY HAVE ACCESS THROUGH THE RIDGE AVENUE & NORTH AVENUE INTERSECTION THROUGHOUT THE WHITMAN STREET RECONSTRUCTION PROJECT. CONSTRUCTION SHALL BE STAGED TO MAINTAIN ACCESS FOR RIDGE AVENUE RESIDENTS.	HOT-MIX ASPHALT MIXTURE REQUIREMENTS <table><thead><tr><th>MIXTURE USE(S)</th><th>SURFACE COURSE</th><th>BINDER COURSE</th></tr></thead><tbody><tr><td>PG:</td><td>PG 64-22</td><td>PG 64-22</td></tr><tr><td>DESIGN AIR VOIDS</td><td>4.0 @ N50</td><td>4.0 @ N50</td></tr><tr><td>MIXTURE COMPOSITION (GRADATION MIXTURE)</td><td>IL 9.5</td><td>IL 19.0</td></tr><tr><td>FRICTION AGGREGATE</td><td>MIX "D"</td><td>N/A</td></tr><tr><td>MIX UNIT WEIGHT</td><td>112 lbs/sy/in</td><td>112 lbs/sy/in</td></tr><tr><td>QUALITY MGMT PROGRAM</td><td>QC/QA</td><td>QC/QA</td></tr></tbody></table> THESE MIXTURE REQUIREMENTS ARE APPLICABLE FOR THIS PROJECT	MIXTURE USE(S)	SURFACE COURSE	BINDER COURSE	PG:	PG 64-22	PG 64-22	DESIGN AIR VOIDS	4.0 @ N50	4.0 @ N50	MIXTURE COMPOSITION (GRADATION MIXTURE)	IL 9.5	IL 19.0	FRICTION AGGREGATE	MIX "D"	N/A	MIX UNIT WEIGHT	112 lbs/sy/in	112 lbs/sy/in	QUALITY MGMT PROGRAM	QC/QA	QC/QA	ABBREVIATIONS <table><tbody><tr><td>ABD</td><td>ABANDON(ED)</td><td>EROS</td><td>EROSION</td><td>REC</td><td>RECONSTRUCT(ED)</td><td>T1F CL</td><td>TYPE 1 FRAME CLOSED LID</td></tr><tr><td>ADJ</td><td>ADJUST(ED)</td><td>EX</td><td>EXISTING</td><td>RCP</td><td>REINFORCED CONCRETE PIPE</td><td>T1F OL</td><td>TYPE 1 FRAME OPEN LID</td></tr><tr><td>AGG</td><td>AGGREGATE</td><td>FES</td><td>FLARED END SECTION</td><td>REM</td><td>REMOVE(D)</td><td>TYP</td><td>TYPICAL</td></tr><tr><td>BDR</td><td>BINDER</td><td>FM</td><td>FORCE MAIN</td><td>REPL</td><td>REPLACE(D)</td><td>UNK</td><td>UNKNOWN</td></tr><tr><td>BSE</td><td>BASE</td><td>FRSA</td><td>FOUR RIVERS SANITATION AUTHORITY</td><td>R/R</td><td>REMOVE & REPLACE</td><td>UPSTM</td><td>UPSTREAM</td></tr><tr><td>CI</td><td>CAST IRON</td><td>FT</td><td>FEET</td><td>ROW</td><td>RIGHT-OF-WAY</td><td>VCP</td><td>VITRIFIED CLAY PIPE</td></tr><tr><td>COMB</td><td>COMBINATION</td><td>RT</td><td>RIGHT</td><td>SAN</td><td>SANITARY</td><td>WM</td><td>WATER MAIN</td></tr><tr><td>CMP</td><td>CORRUGATED METAL PIPE</td><td>F&P</td><td>FURNISH & PLACE</td><td>SVC</td><td>SERVICE</td><td>WMQ</td><td>WATER MAIN QUALITY</td></tr><tr><td>CSE</td><td>COURSE</td><td>INV</td><td>INVERT</td><td>SEW</td><td>SEWER</td><td>W</td><td>WITH</td></tr><tr><td>CL</td><td>CLASS</td><td>LT</td><td>LEFT</td><td>SPL</td><td>SPECIAL</td><td>VV</td><td>VALVE VAULT</td></tr><tr><td>CO</td><td>CLEAN OUT</td><td>LF</td><td>LINEAR FEET</td><td>SQ FT</td><td>SQUARE FEET</td><td></td><td></td></tr><tr><td>CONC</td><td>CONCRETE</td><td>LINCIPP</td><td>LINED WITH CURED IN PLACE PIPE</td><td>SQ YD</td><td>SQUARE YARD(S)</td><td></td><td></td></tr><tr><td>CTRL</td><td>CONTROL</td><td>L SUM</td><td>LUMP SUM</td><td>STA</td><td>STATION</td><td></td><td></td></tr><tr><td>CU YD</td><td>CUBIC YARD(S)</td><td>MH</td><td>MANHOLE</td><td>STR</td><td>STRUCTURE</td><td></td><td></td></tr><tr><td>CULV</td><td>CULVERT</td><td>O/S</td><td>OFFSET</td><td>SRF</td><td>SURFACE</td><td></td><td></td></tr><tr><td>CC&G</td><td>CONCRETE CURB & GUTTER</td><td>PVMT</td><td>PAVEMENT</td><td>TEMP</td><td>TEMPORARY</td><td></td><td></td></tr><tr><td>DEP</td><td>DEPRESSED</td><td>PRC</td><td>PRECAST REINFORCED CONCRETE</td><td>TC</td><td>TOP OF CURB</td><td></td><td></td></tr><tr><td>DNSTM</td><td>DOWNSTREAM</td><td>PL</td><td>PROPERTY LINE</td><td>TP</td><td>TOP OF PAVEMENT</td><td></td><td></td></tr><tr><td>DI</td><td>DUCTILE IRON</td><td>PR</td><td>PROPOSED</td><td>TW</td><td>TOP OF WALK</td><td></td><td></td></tr><tr><td>EA</td><td>EACH</td><td>PROT</td><td>PROTECT(ION)</td><td>TY</td><td>TYPE</td><td></td><td></td></tr><tr><td>EL</td><td>ELEVATION</td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>	ABD	ABANDON(ED)	EROS	EROSION	REC	RECONSTRUCT(ED)	T1F CL	TYPE 1 FRAME CLOSED LID	ADJ	ADJUST(ED)	EX	EXISTING	RCP	REINFORCED CONCRETE PIPE	T1F OL	TYPE 1 FRAME OPEN LID	AGG	AGGREGATE	FES	FLARED END SECTION	REM	REMOVE(D)	TYP	TYPICAL	BDR	BINDER	FM	FORCE MAIN	REPL	REPLACE(D)	UNK	UNKNOWN	BSE	BASE	FRSA	FOUR RIVERS SANITATION AUTHORITY	R/R	REMOVE & REPLACE	UPSTM	UPSTREAM	CI	CAST IRON	FT	FEET	ROW	RIGHT-OF-WAY	VCP	VITRIFIED CLAY PIPE	COMB	COMBINATION	RT	RIGHT	SAN	SANITARY	WM	WATER MAIN	CMP	CORRUGATED METAL PIPE	F&P	FURNISH & PLACE	SVC	SERVICE	WMQ	WATER MAIN QUALITY	CSE	COURSE	INV	INVERT	SEW	SEWER	W	WITH	CL	CLASS	LT	LEFT	SPL	SPECIAL	VV	VALVE VAULT	CO	CLEAN OUT	LF	LINEAR FEET	SQ FT	SQUARE FEET			CONC	CONCRETE	LINCIPP	LINED WITH CURED IN PLACE PIPE	SQ YD	SQUARE YARD(S)			CTRL	CONTROL	L SUM	LUMP SUM	STA	STATION			CU YD	CUBIC YARD(S)	MH	MANHOLE	STR	STRUCTURE			CULV	CULVERT	O/S	OFFSET	SRF	SURFACE			CC&G	CONCRETE CURB & GUTTER	PVMT	PAVEMENT	TEMP	TEMPORARY			DEP	DEPRESSED	PRC	PRECAST REINFORCED CONCRETE	TC	TOP OF CURB			DNSTM	DOWNSTREAM	PL	PROPERTY LINE	TP	TOP OF PAVEMENT			DI	DUCTILE IRON	PR	PROPOSED	TW	TOP OF WALK			EA	EACH	PROT	PROTECT(ION)	TY	TYPE			EL	ELEVATION						
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LEGEND

- (A) PAVEMENT REMOVAL (FULL WIDTH)
- (B) AGGREGATE BASE COURSE, TY. B 12" (6" CA-02, 6" CA-06) (EXTEND 1.0' BEYOND BACK OF CURB)
- (C) HMA BINDER COURSE, IL-19.0, N50, 2.5"
- (D) HMA SURFACE COURSE, MIX 'C', N50, 1.5"
- (E) COMBINATION CURB & GUTTER TY. M6.18MOD (WHERE SHOWN ON PLANS)
- (F) TOPSOIL FURNISH & PLACE, 4" SEEDING CLASS 1 & FERTILIZING MULCH METHOD 2 (WHERE SHOWN ON PLANS) (MATCH EX EL AT LIMITS SHOWN ON PLANS)
- (G) AGGREGATE SUBGRADE IMPROVEMENT, AT LOCATIONS & DEPTHS TO BE DETERMINED BY THE ENGINEER.

NORTH AVE TYPICAL SECTION

ALIGNMENT LINE TABLE				
LINE #	LENGTH (FT)	DIRECTION BEARING	START STATION	END STATION
L1	964.87	N39° 53' 41.90"E	STA. 200+00.00 N: 2047398.40 E: 2587708.59	STA. 209+64.87 N: 2048138.67 E: 2588327.44
L2	300.00	N00° 59' 55.05"W	STA. 500+00.00 N: 2047319.41 E: 2587726.35	STA. 503+00.00 N: 2047619.36 E: 2587721.12

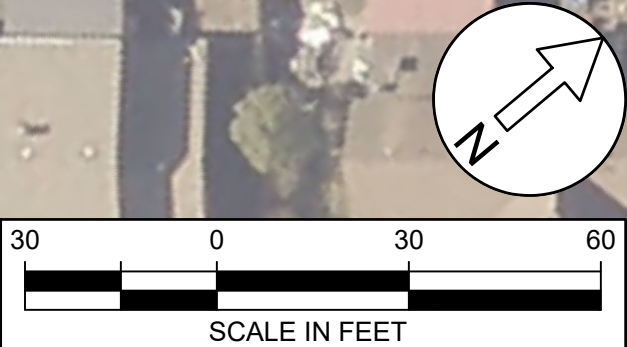
BENCHMARK TABLE				
BM#	ELEVATION	NORTHING	EASTING	DESCRIPTION
10	759.69	2047632	2587880	BM RR SPK

HORIZONTAL DATUM IS BASED ON THE ILLINOIS STATE PLANE COORDINATE SYSTEM, NAD 1983, WEST ZONE. VERTICAL DATUM IS BASED ON NAVD 1988. FIELD PROCEDURES UTILIZE THE WinGIS CONTROL NETWORK AND CORS STATION RRW1 AS BLUE BOOKED WITH NG5.

CONTROL POINT TABLE				
CP#	ELEVATION	NORTHING	EASTING	DESCRIPTION
1	750.90	2047506.76	2587756.23	CP 1
2	757.63	2047655.58	2587961.00	CP 2 CUT X
3	755.33	2047849.28	2588042.57	CP 3
4	758.22	2048026.69	2588197.50	CP 4 CUT X

MANHOLE TABLE						
MH #	STATION	O/S	NORTHING	EASTING	DIA	PR RIM INV OUT
NEW 061-065	100+25.00	0.00'	2047478.41	2587723.99	4'	750.1 742.77
1	100+86.14	0.00'	2047488.88	2587784.23	4'	750.3 743.21
2	104+72.72	0.00'	2047785.47	2588032.17	4'	754.7 746.36
3	207+99.11	0.00'	2048011.50	2588221.13	4'	757.7 747.43

PIPE TABLE					
PIPE NUMBER	DNSTM MH	UPSTM MH	LENGTH (CENTER MH - CENTER MH)	SLOPE (OUTSIDE MH - OUTSIDE MH)	INSIDE DIA
1	NEW 061-065	1	61 FT	0.43%	8 IN
2	1	2	387 FT	0.80%	8 IN
3	061-034	3	206 FT	1.00%	8 IN



No.	DATE	REVISION	INT.

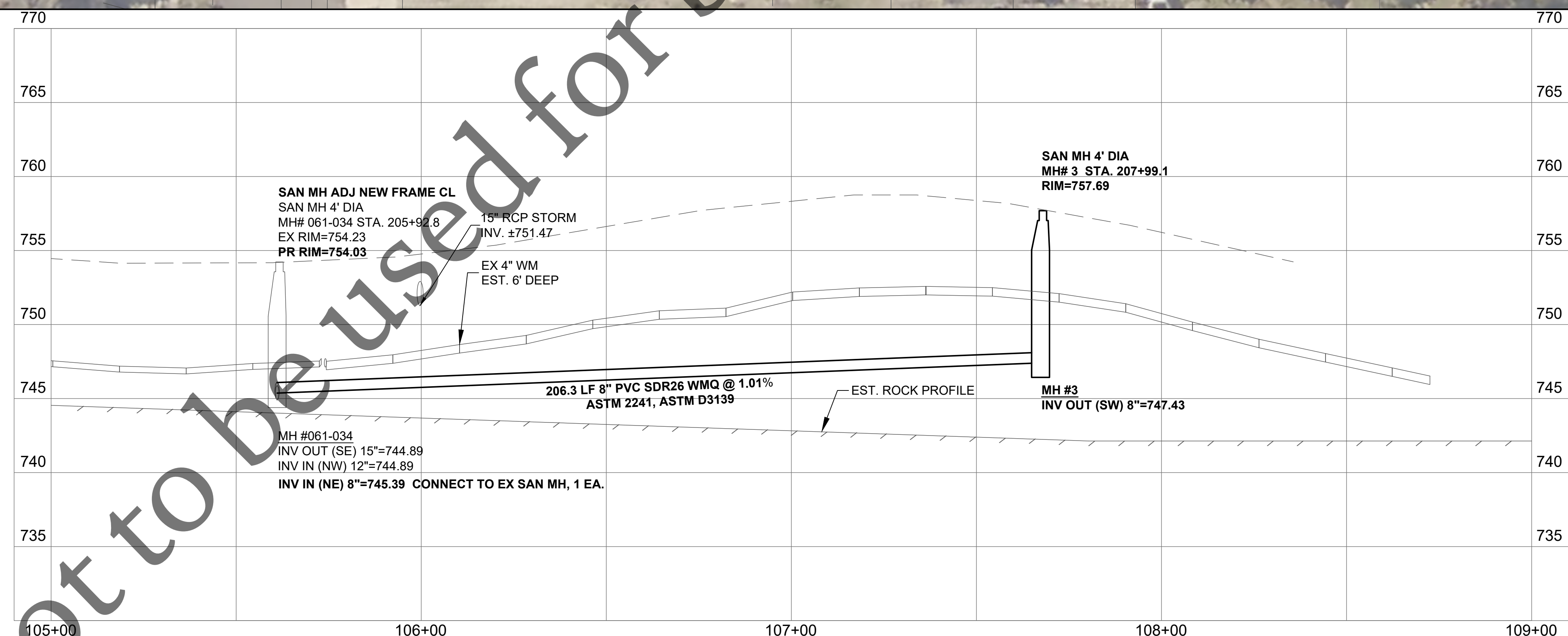
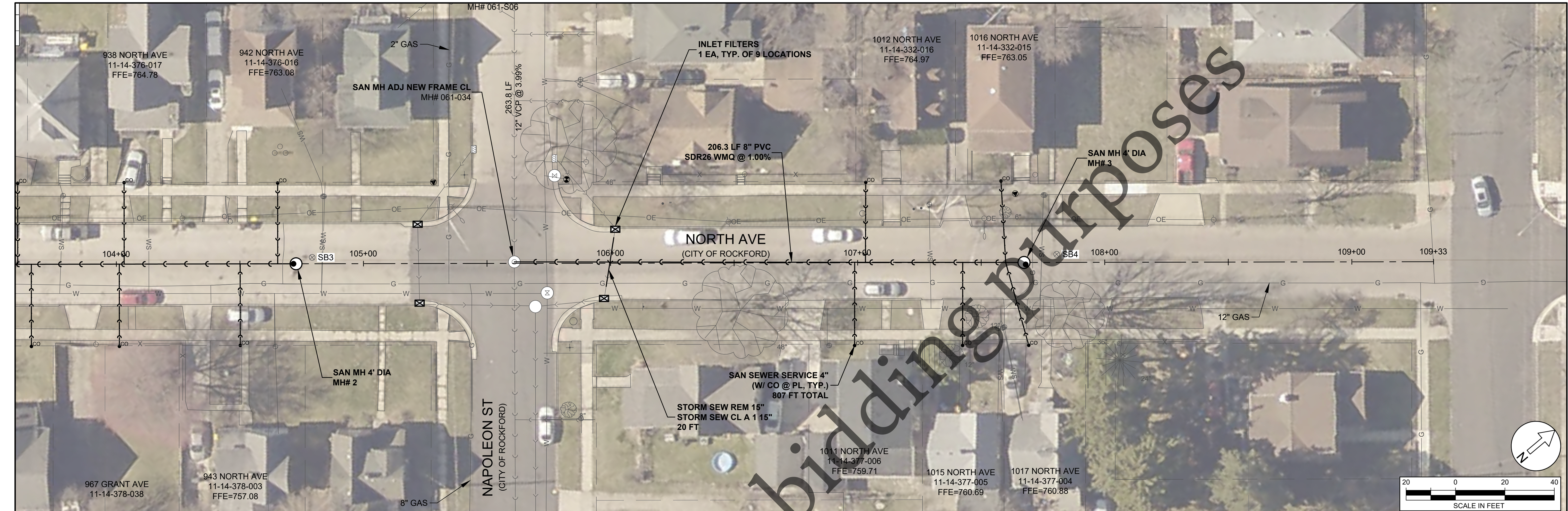
NORTH AVE. & NAPOLEON ST.
CAPITAL PROJECT #2564

ALIGNMENT TIES & BENCHMARKS

FOR BID

Sheet No.
3 of 16

Date:
8/5/2025



NORTH AVE PROPOSED SANITARY PROFILE



No.	DATE	REVISION	INT.

NORTH AVE. & NAPOLEON ST.
CAPITAL PROJECT #2564

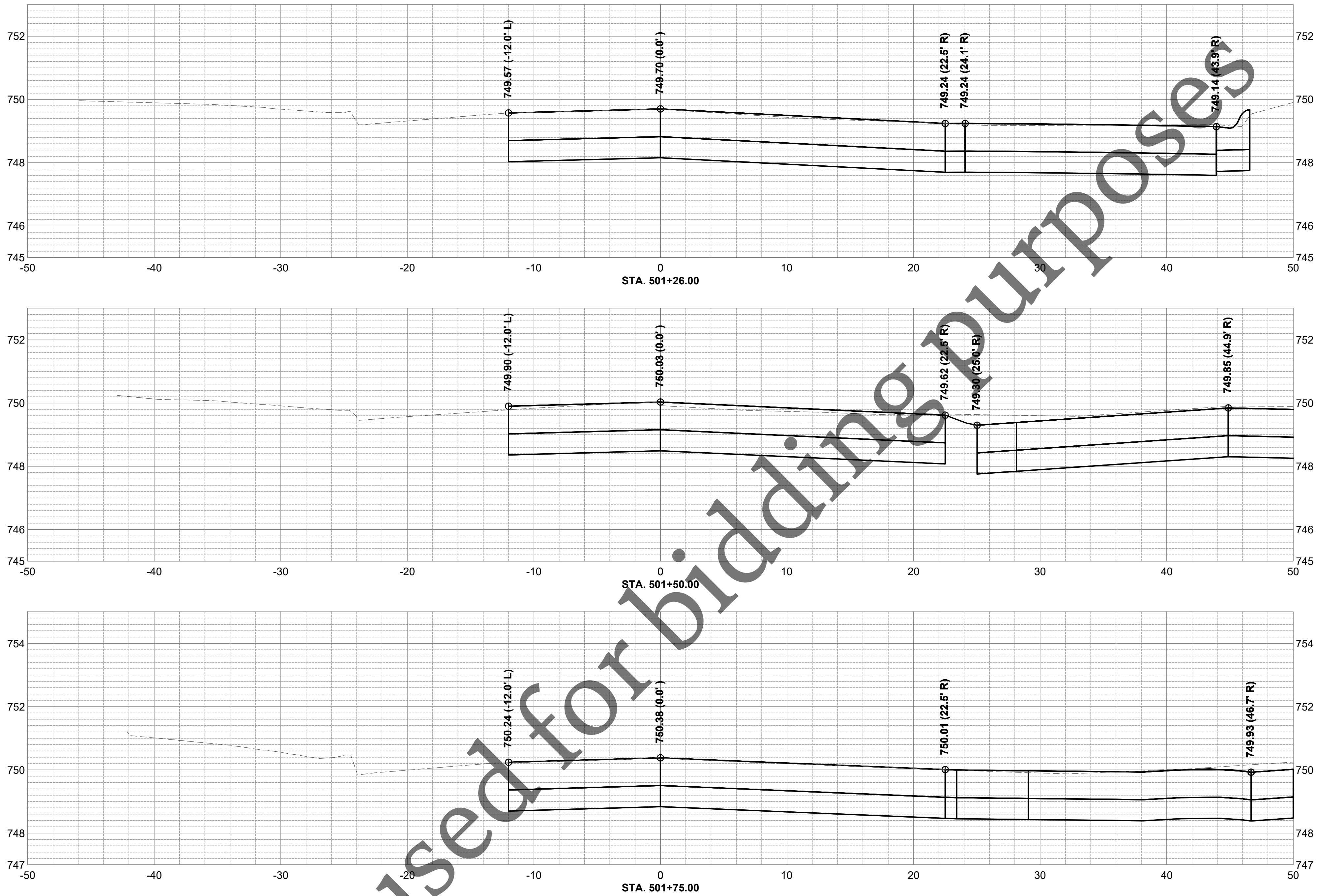
PLAN & PROFILE - STA 105+50 TO STA 109+00

FOR BID

Sheet No.
5 of 16

Date:
8/5/2025

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No.	DATE	REVISION	INT.

NORTH AVE. & NAPOLEON ST.
CAPITAL PROJECT #2564

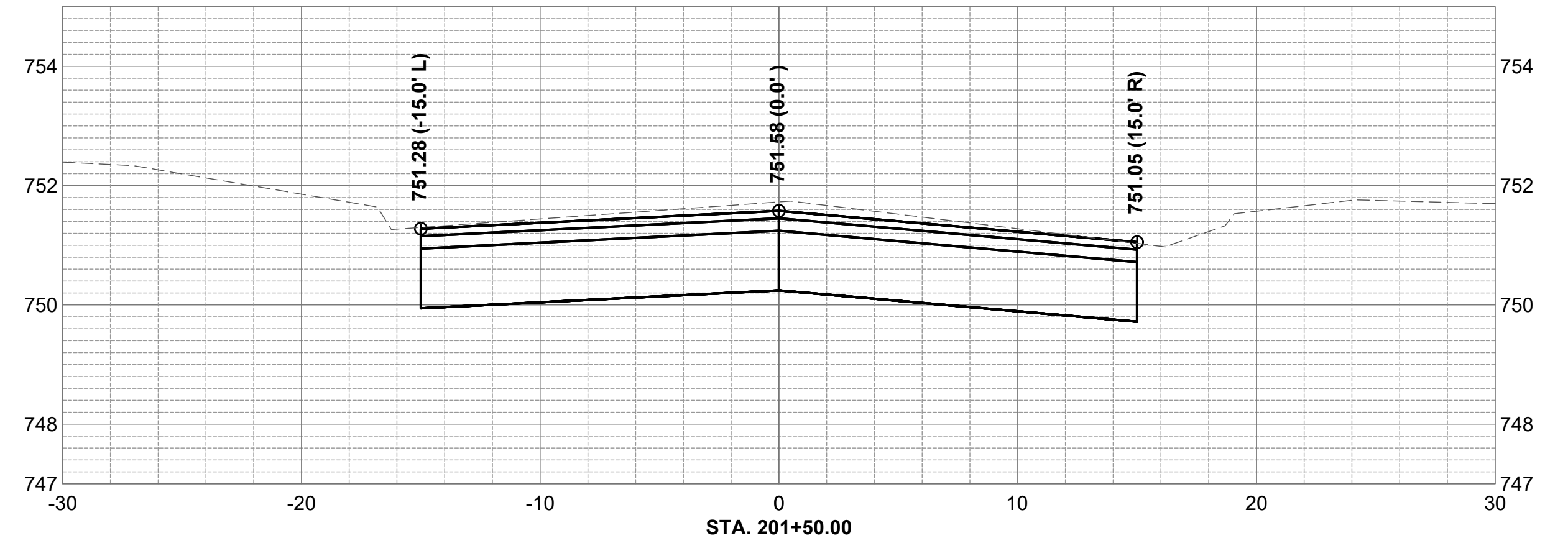
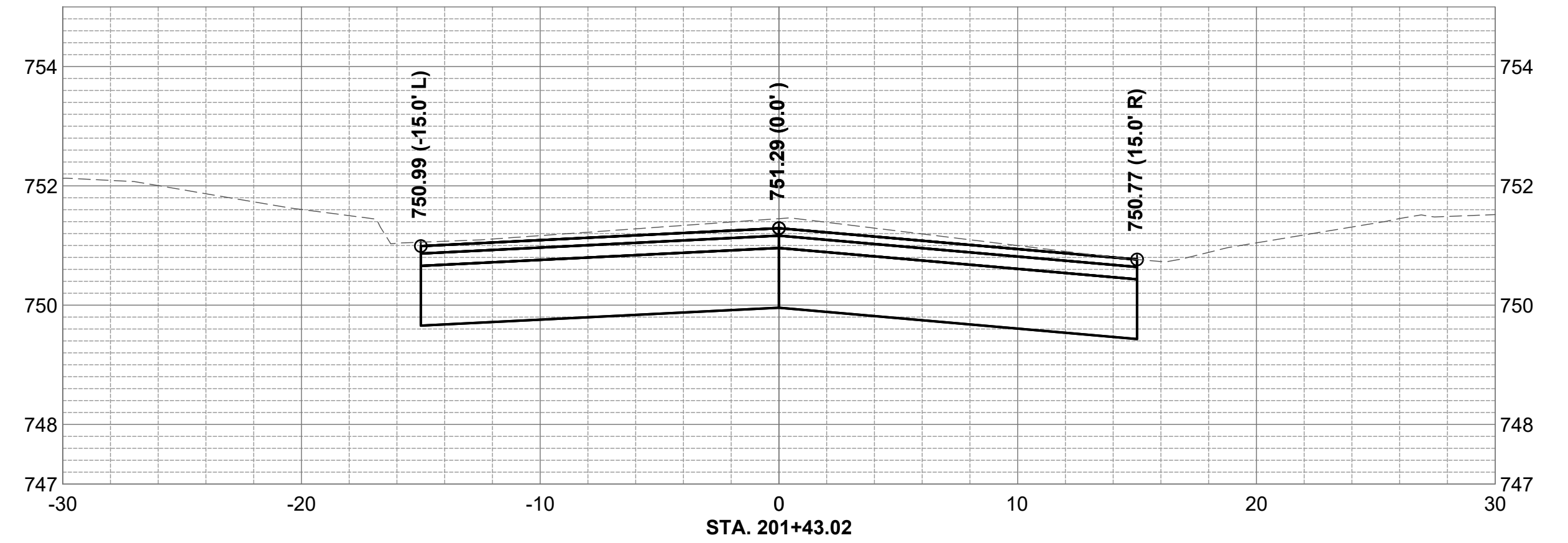
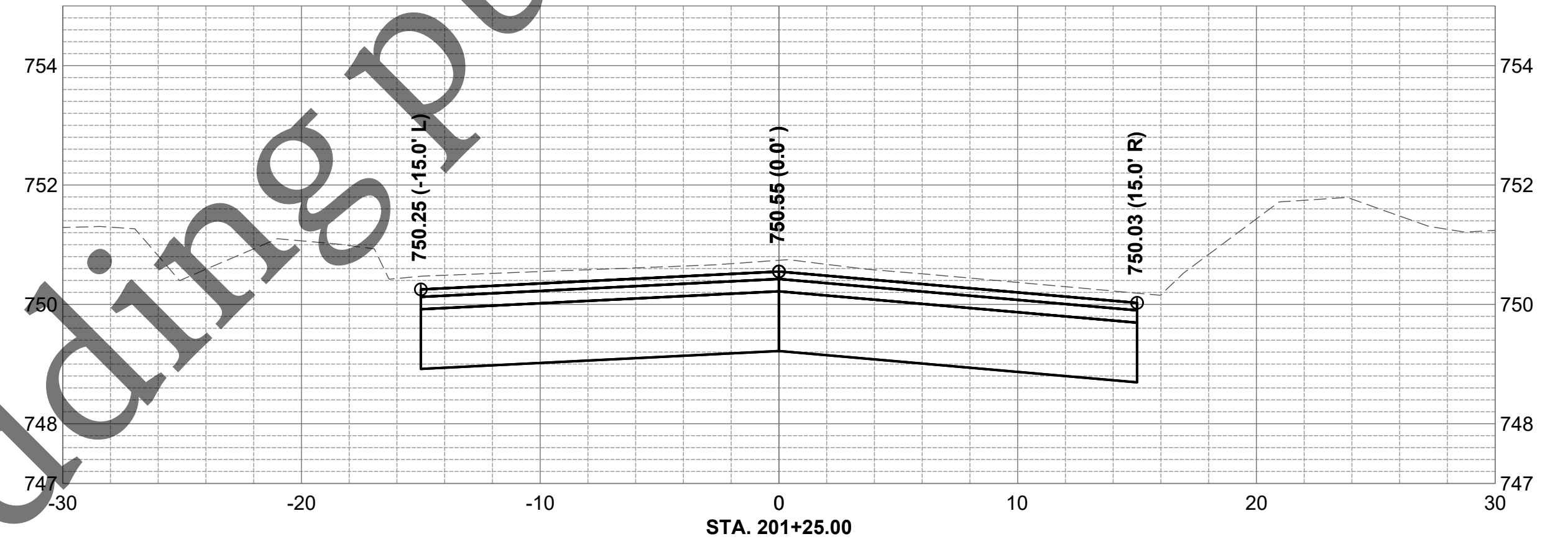
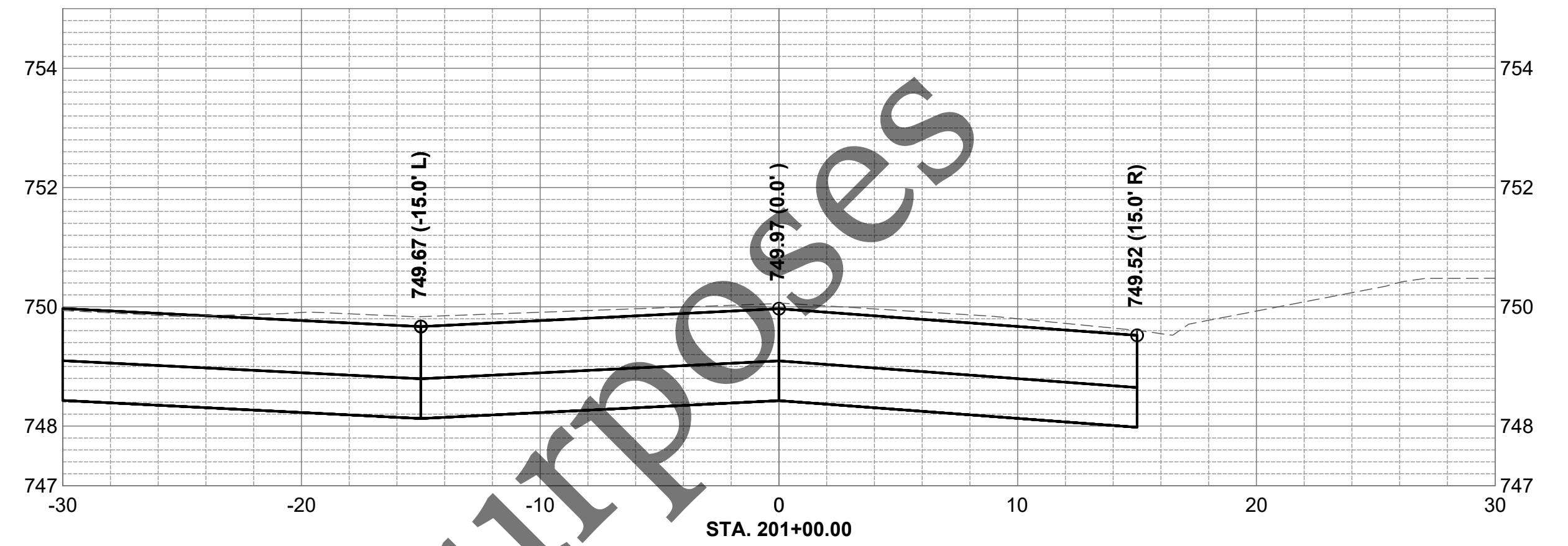
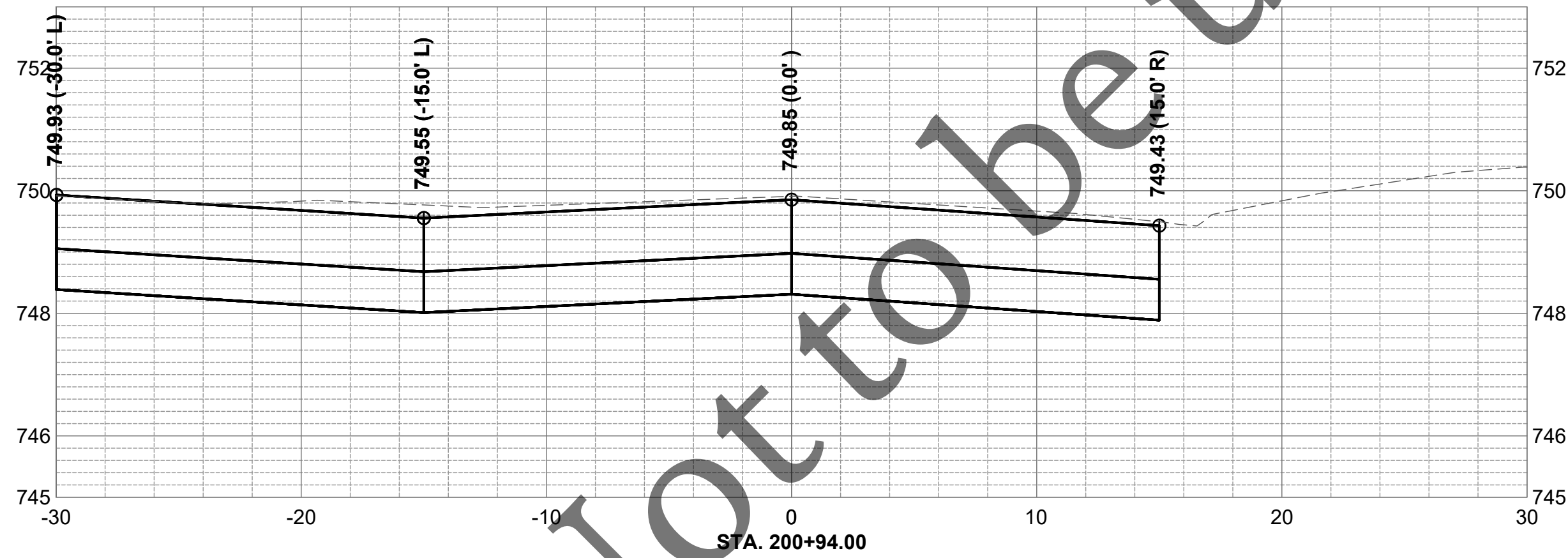
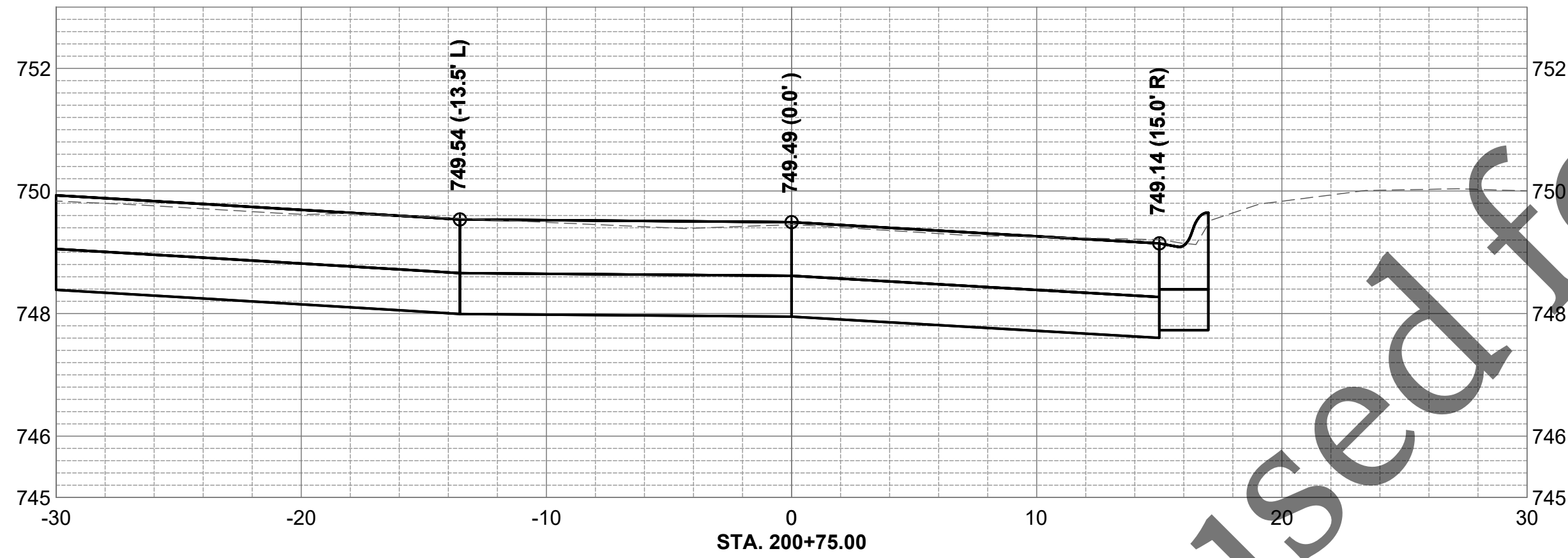
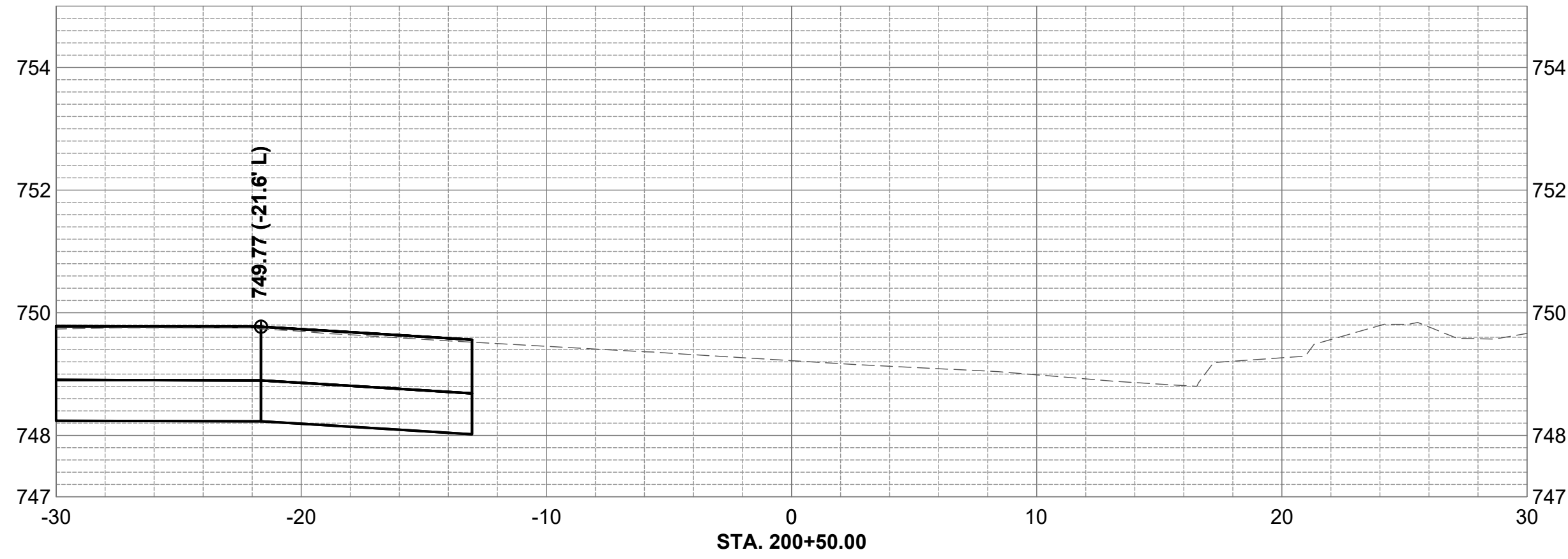
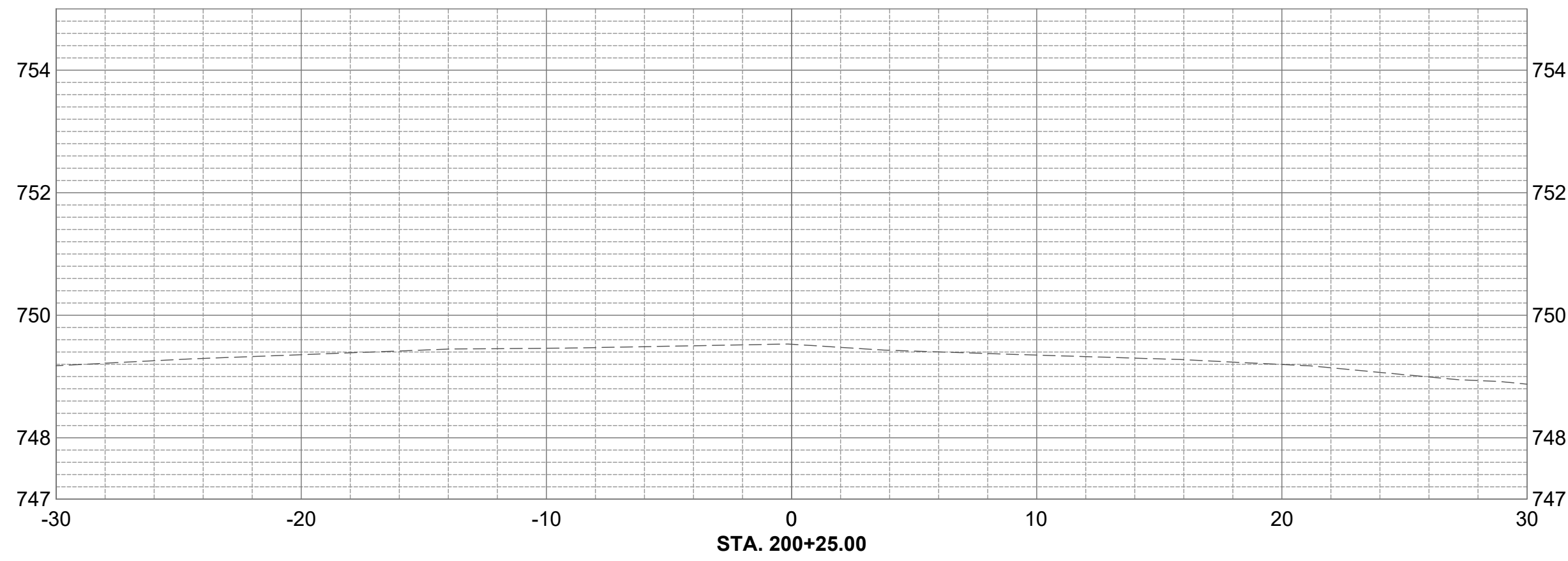
CROSS SECTIONS - RIDGE AVE

Sheet No.
7 of 16

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Date:
8/5/2025

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NORTH AVE. & NAPOLEON ST.
CAPITAL PROJECT #2564

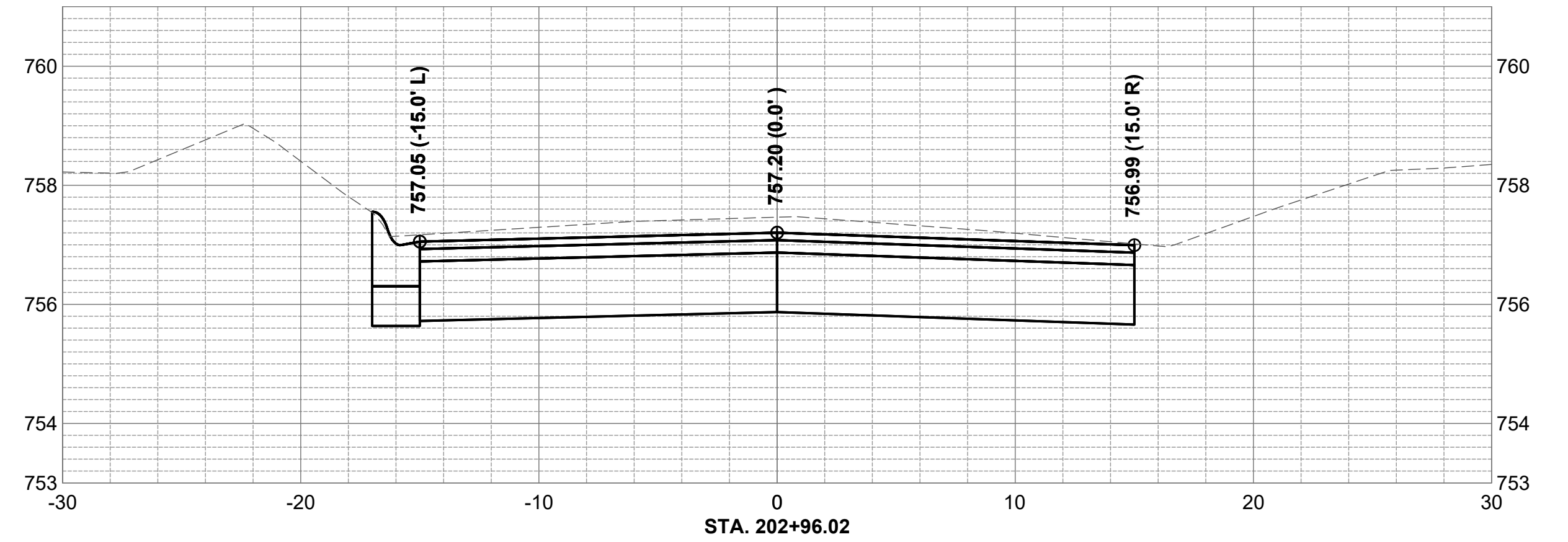
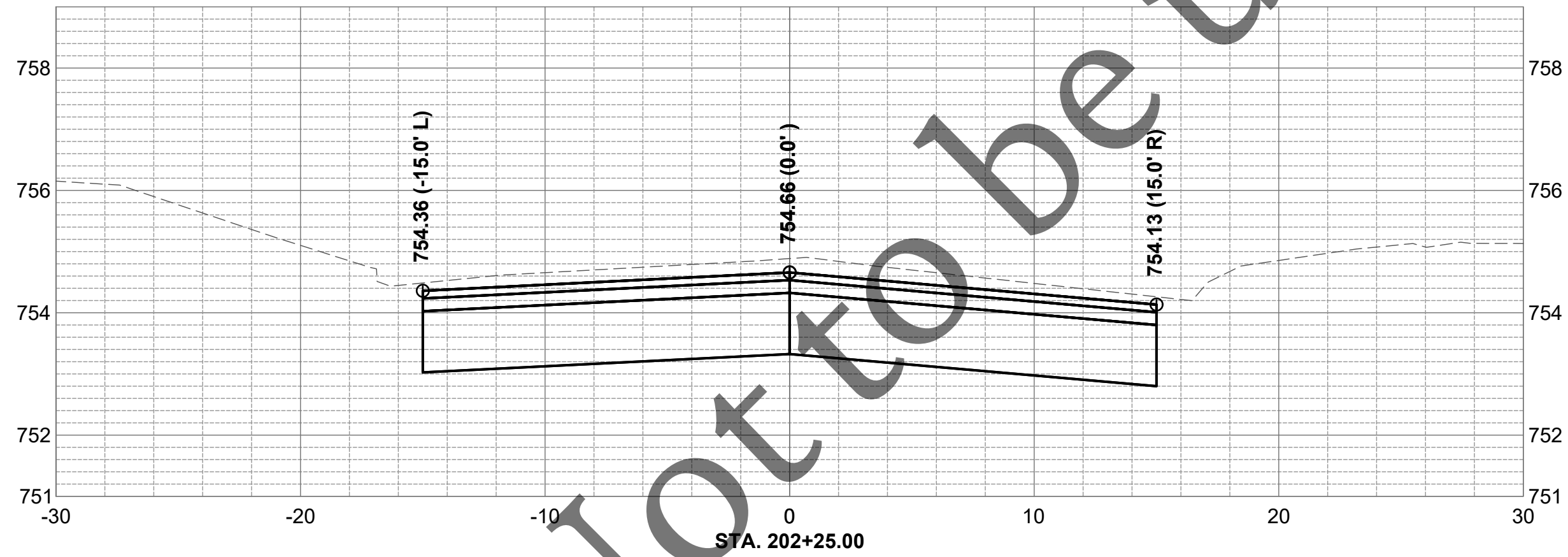
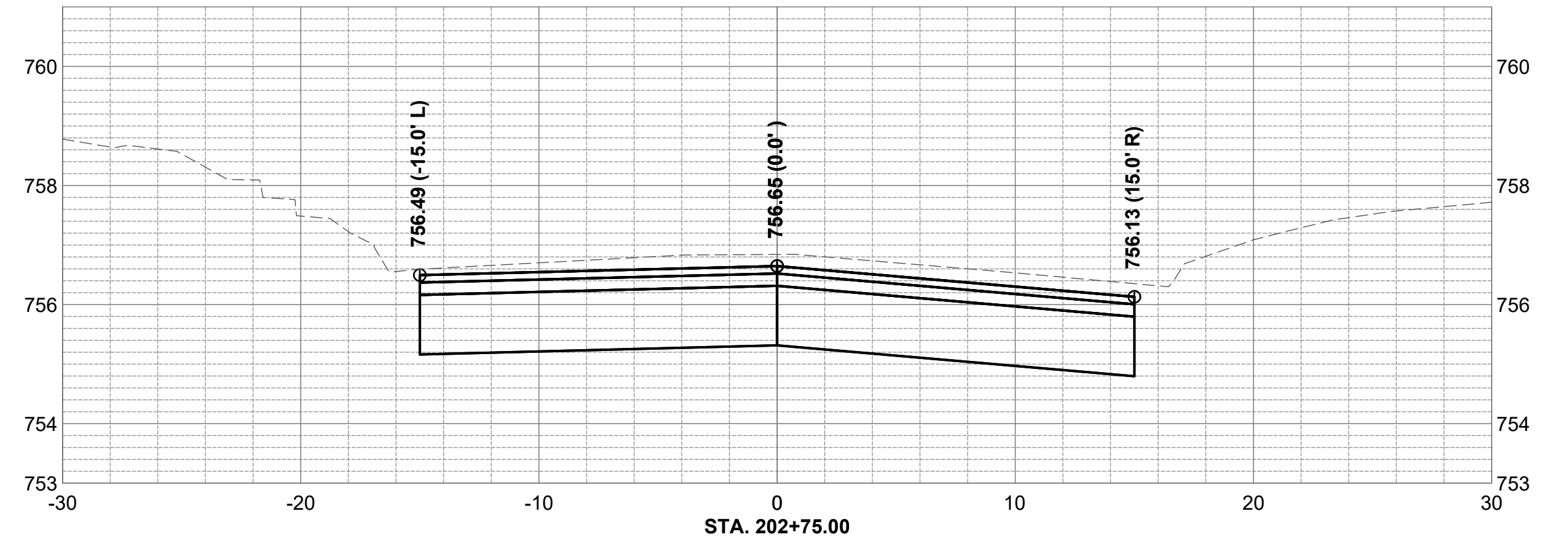
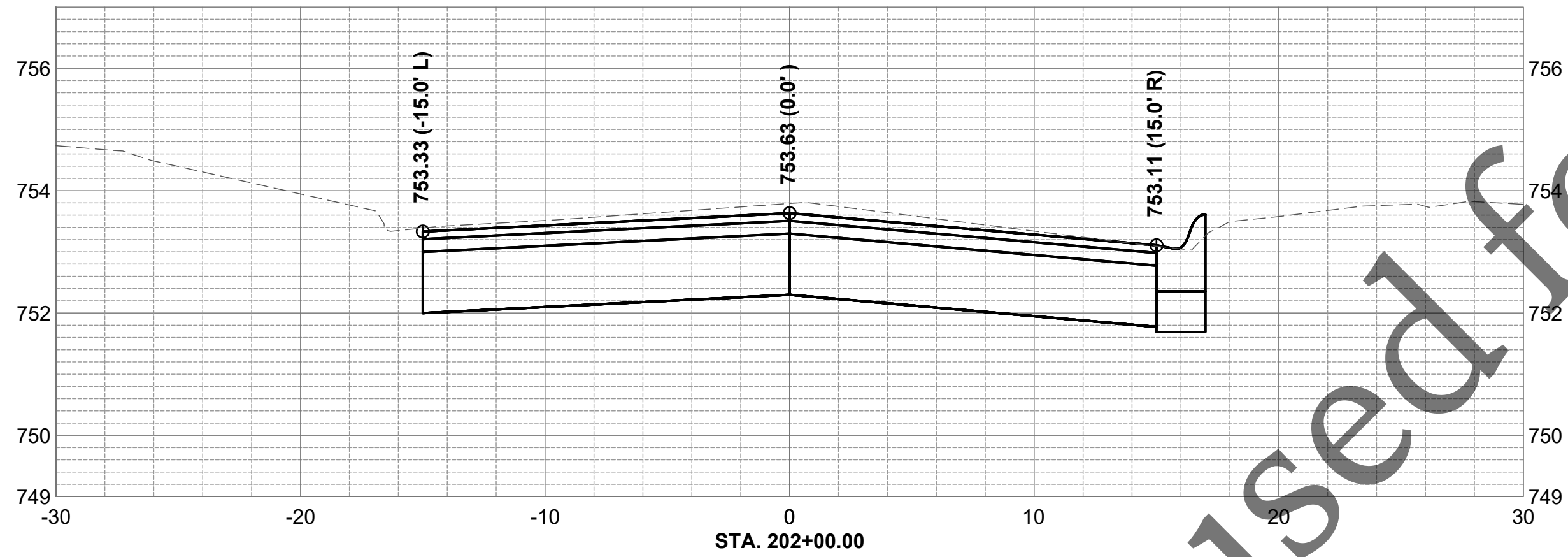
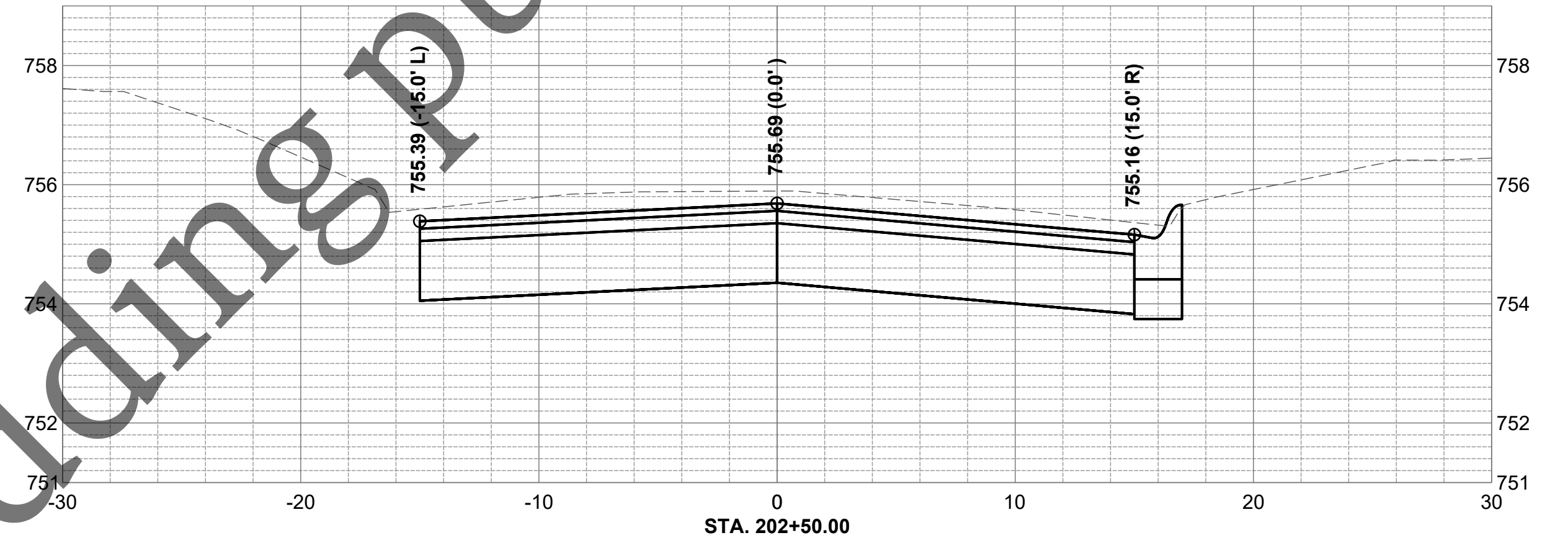
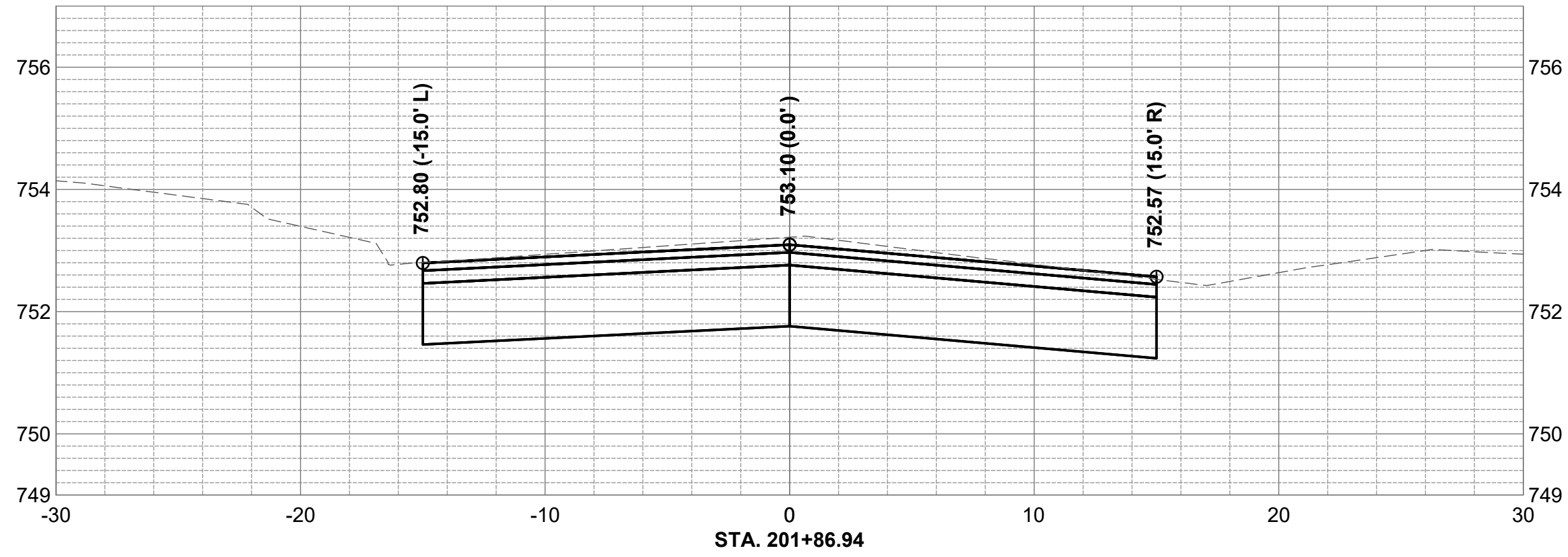
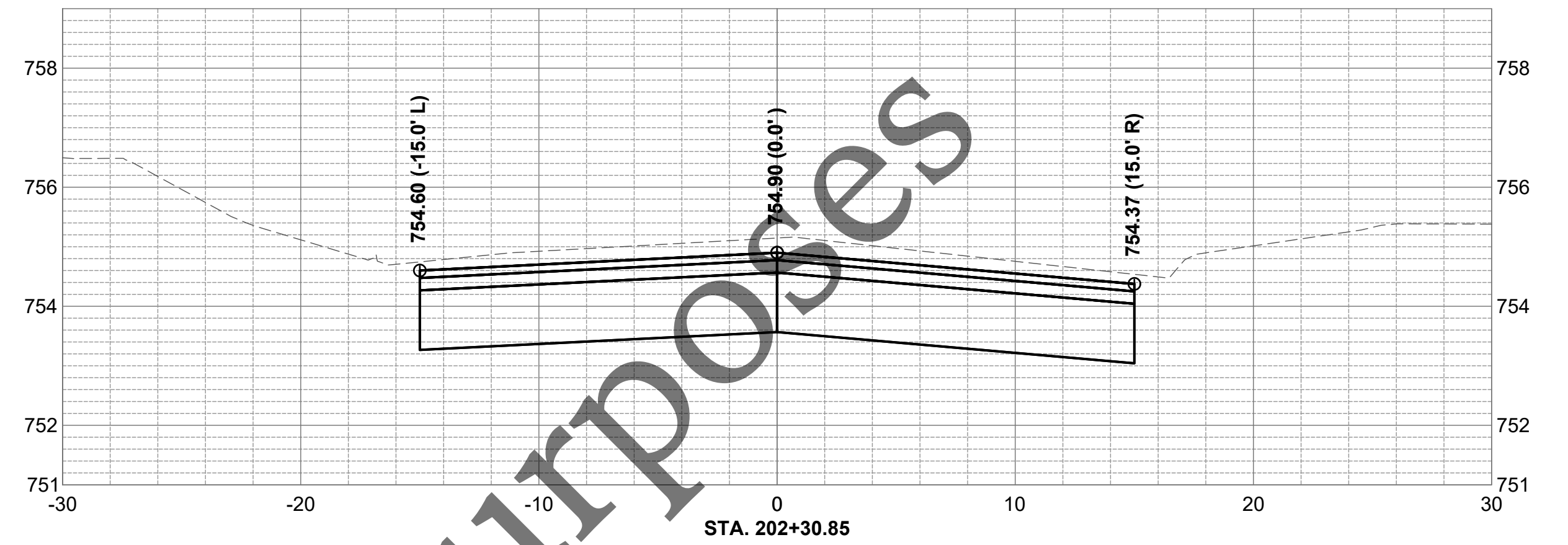
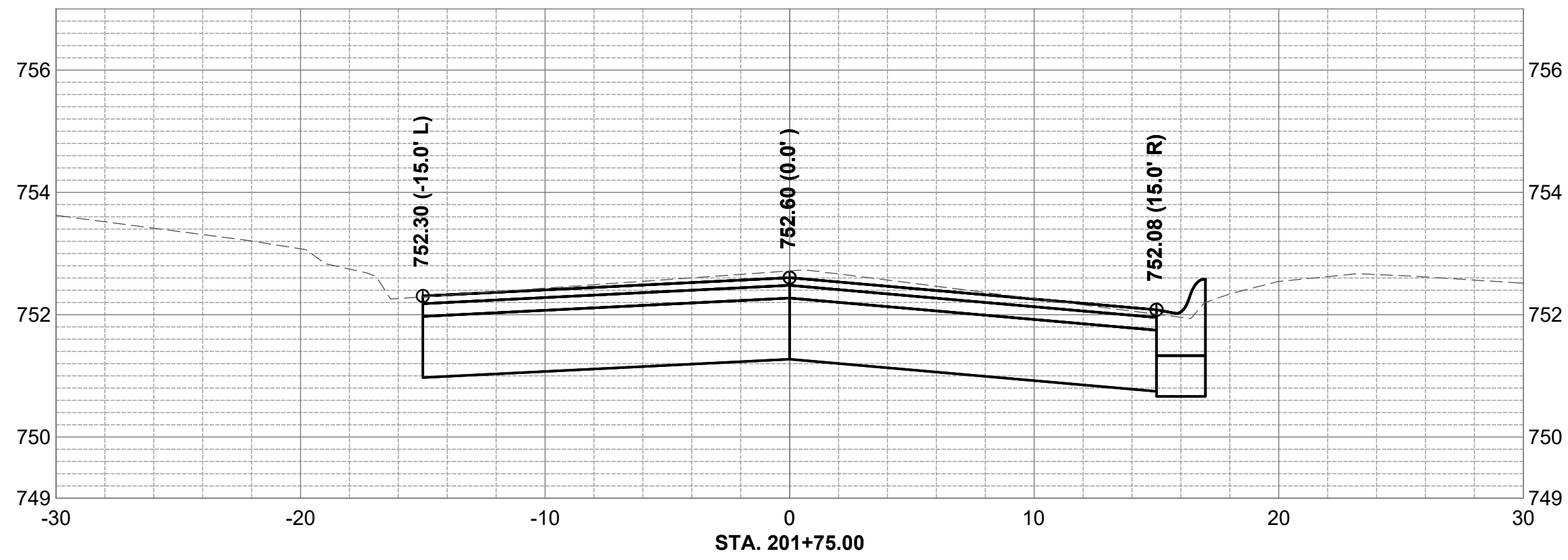
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Sheet No.
8 of 16

Date:
8/5/2025

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No.	DATE	REVISION	INT.

NORTH AVE. & NAPOLEON ST.
CAPITAL PROJECT #2564

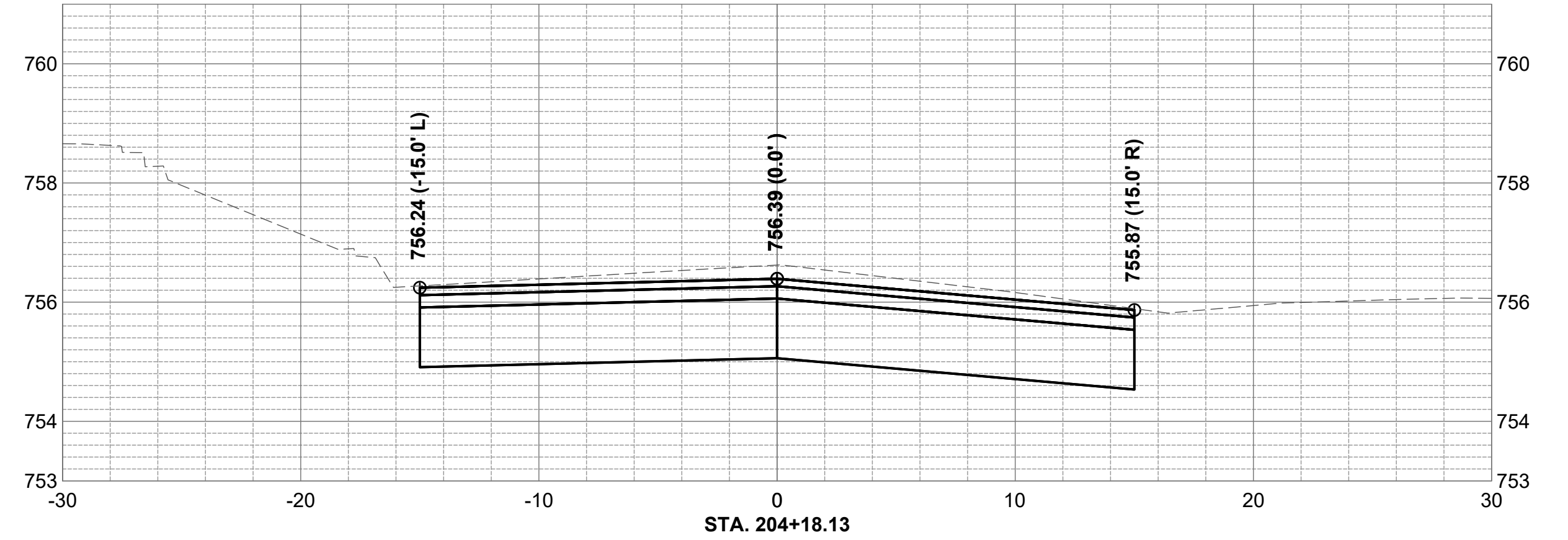
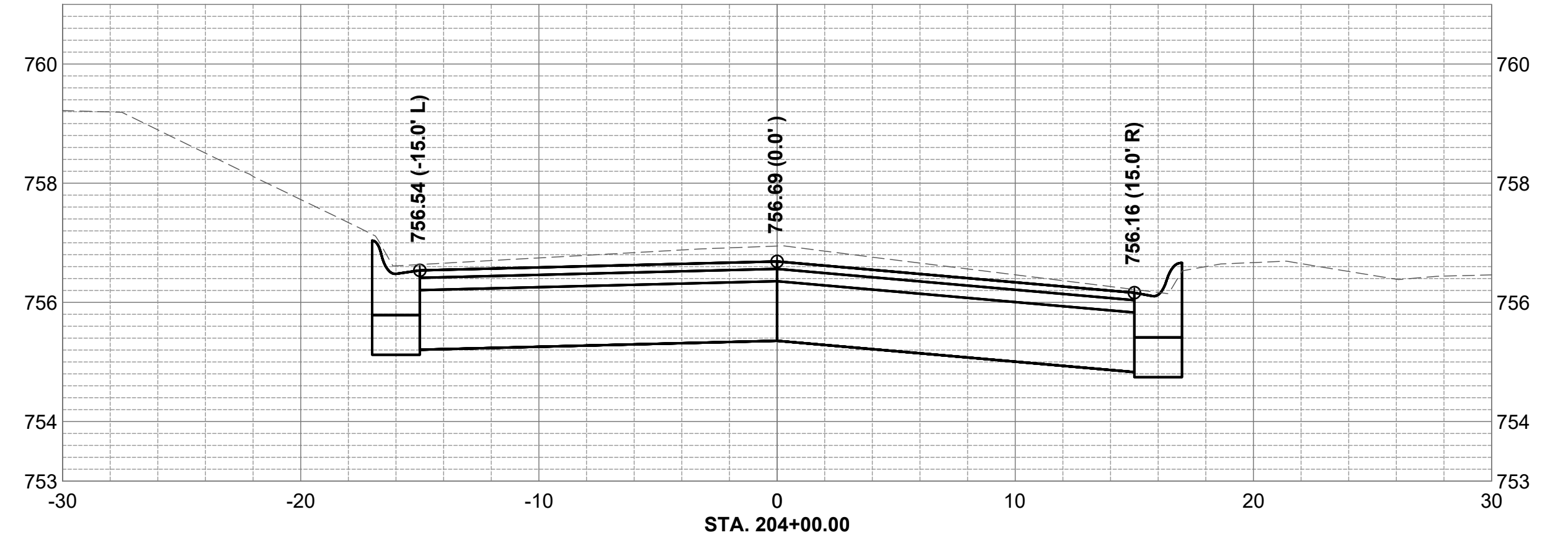
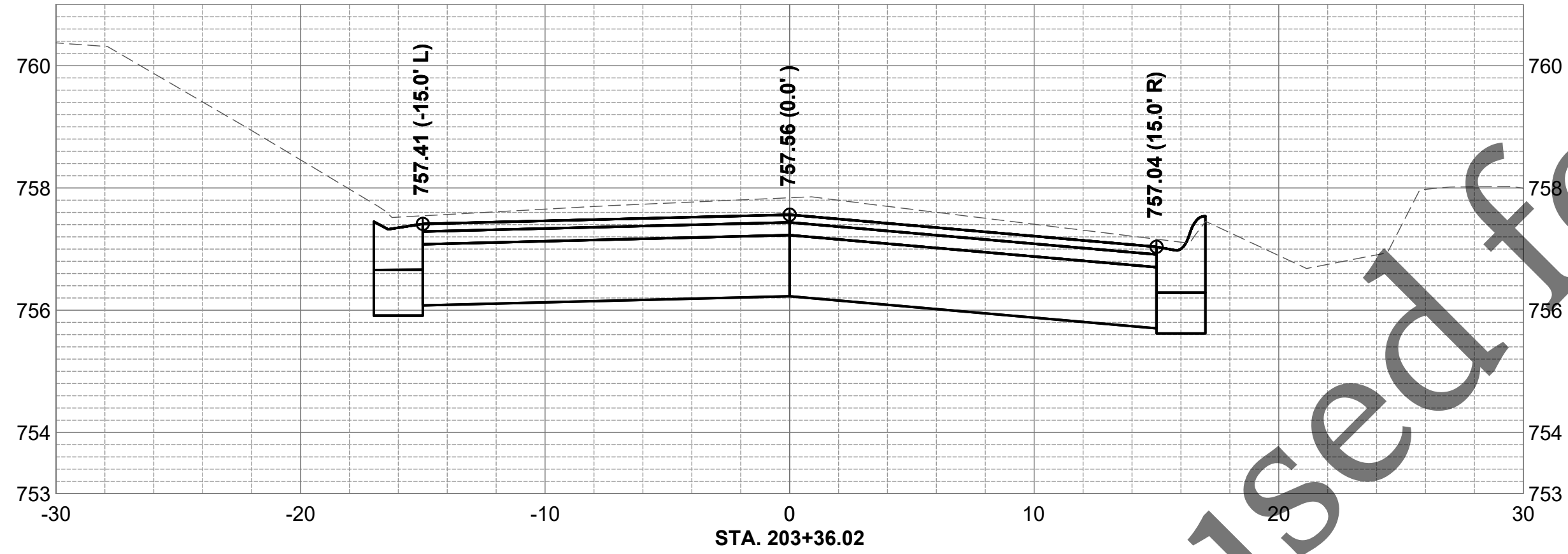
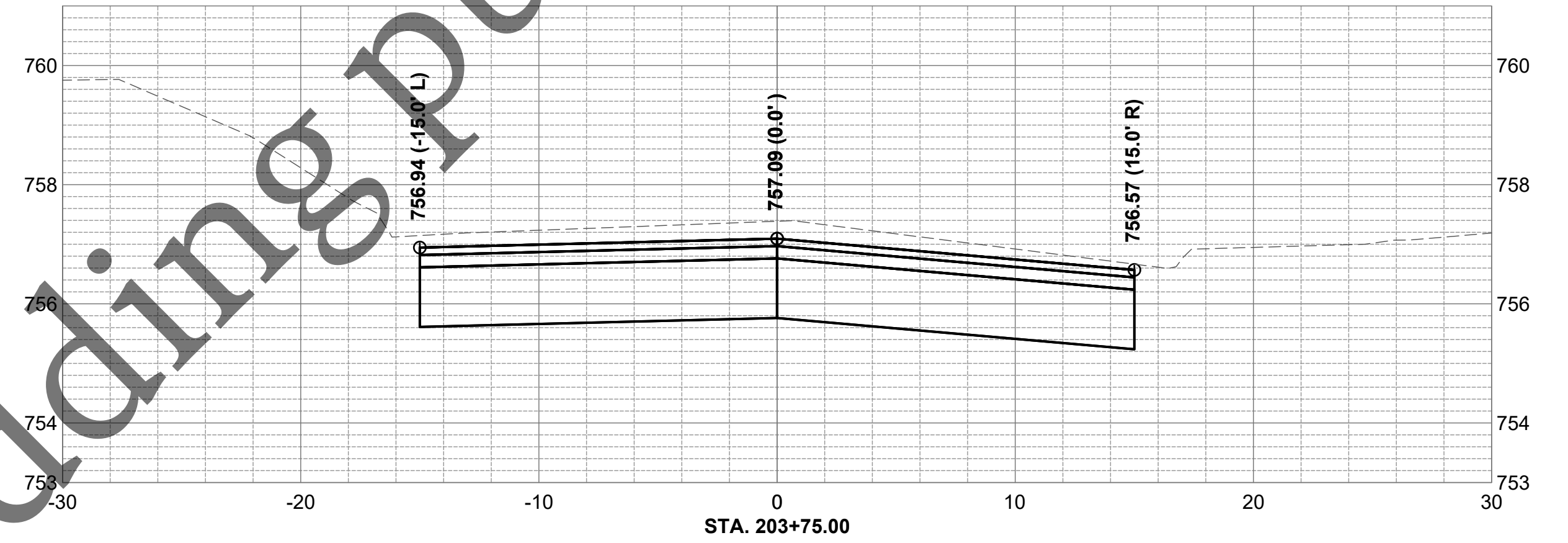
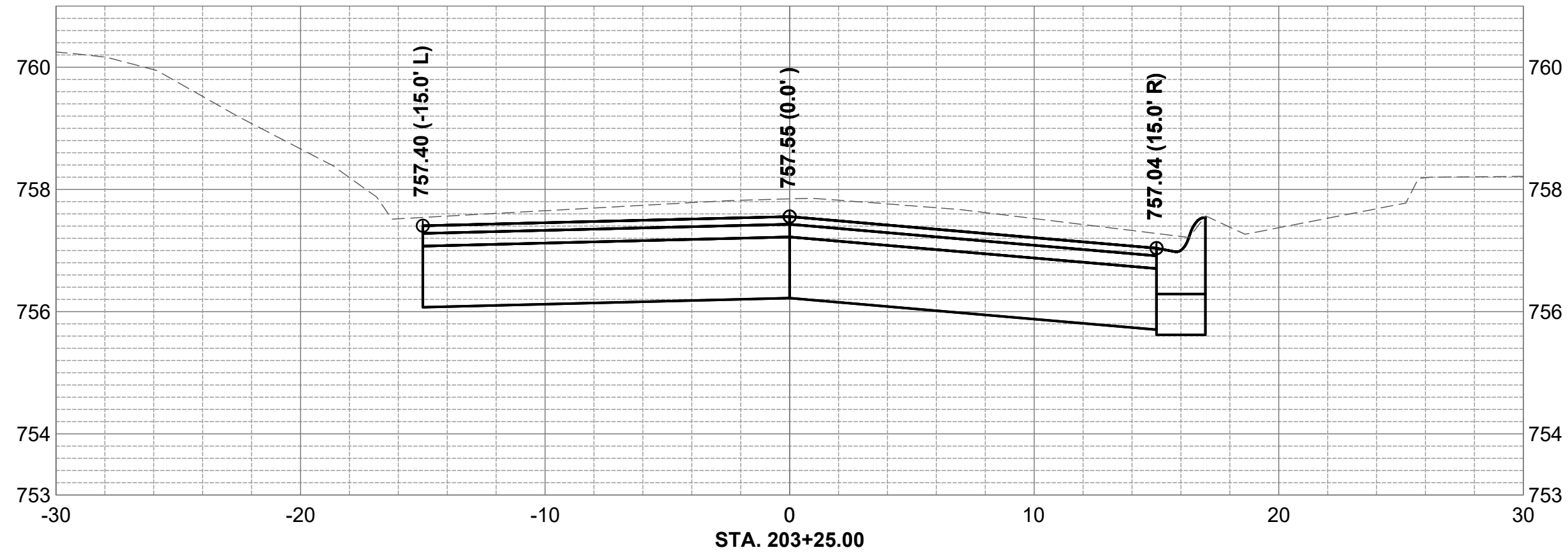
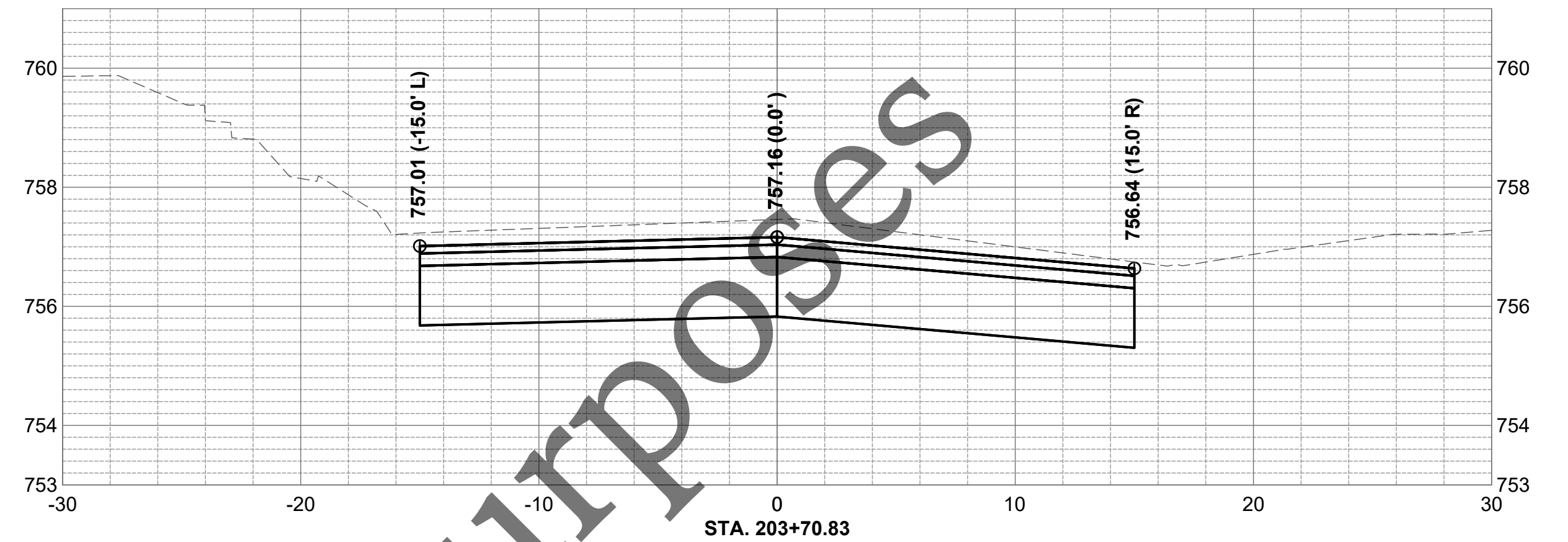
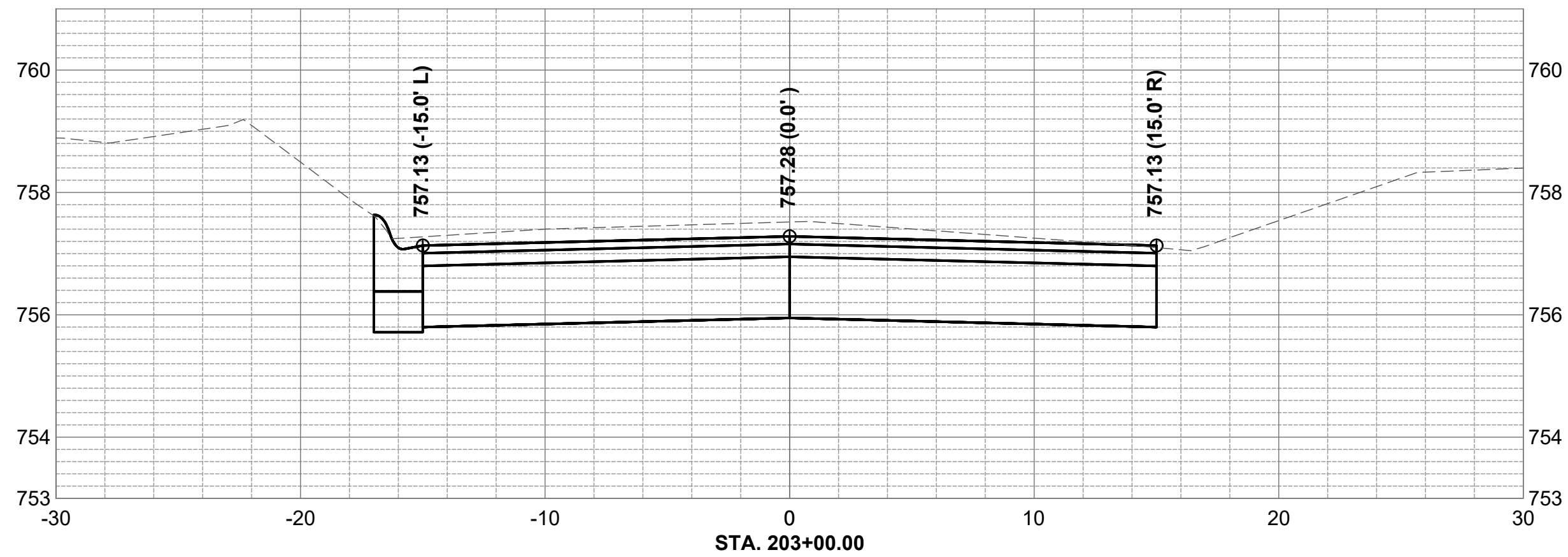
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Sheet No.
9 of 16

FOR BID

Date:
8/5/2025

file: I:\District Projects\North Avenue and Napoleon Street 2664\01 Design\Drawings (Working Folder)\2564 North Ave-Sections.dwg



No.	DATE	REVISION	INT.

NORTH AVE. & NAPOLEON ST.
CAPITAL PROJECT #2564

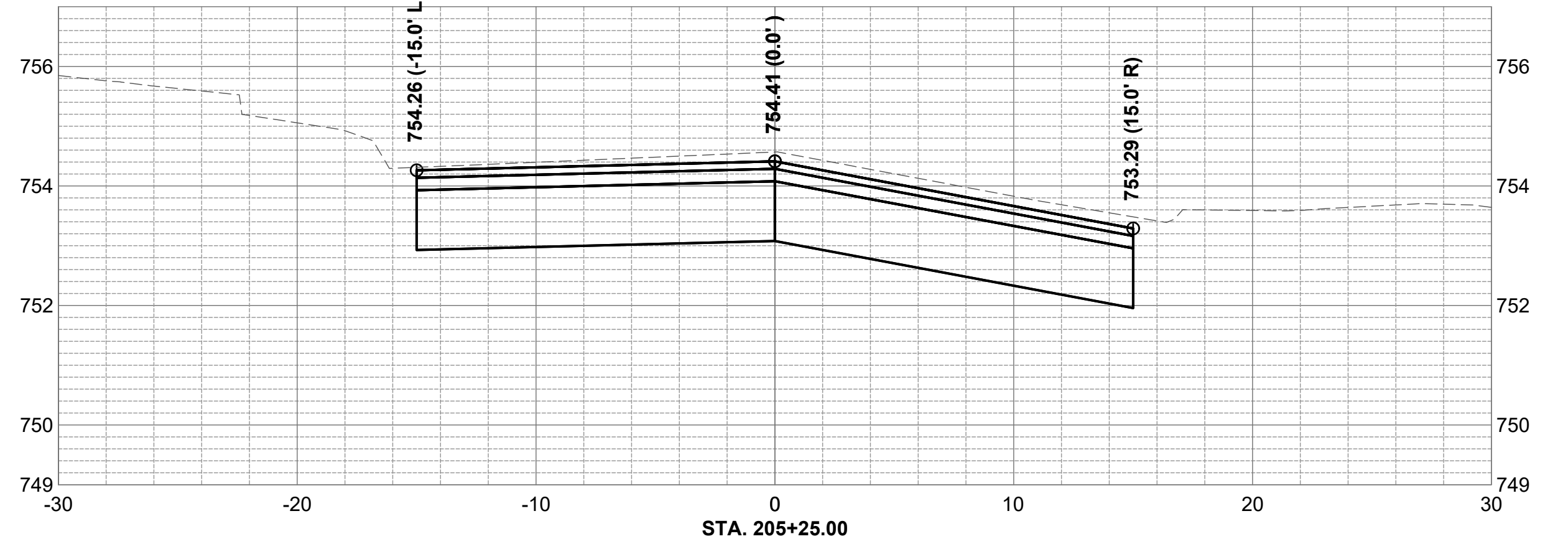
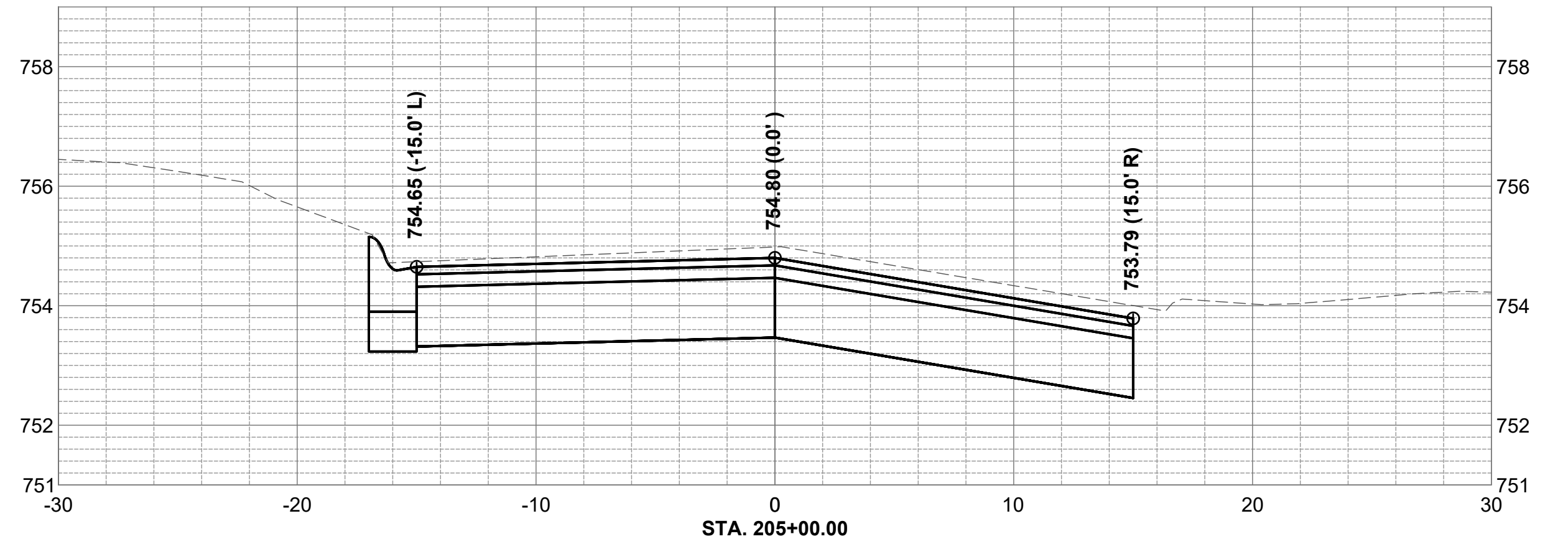
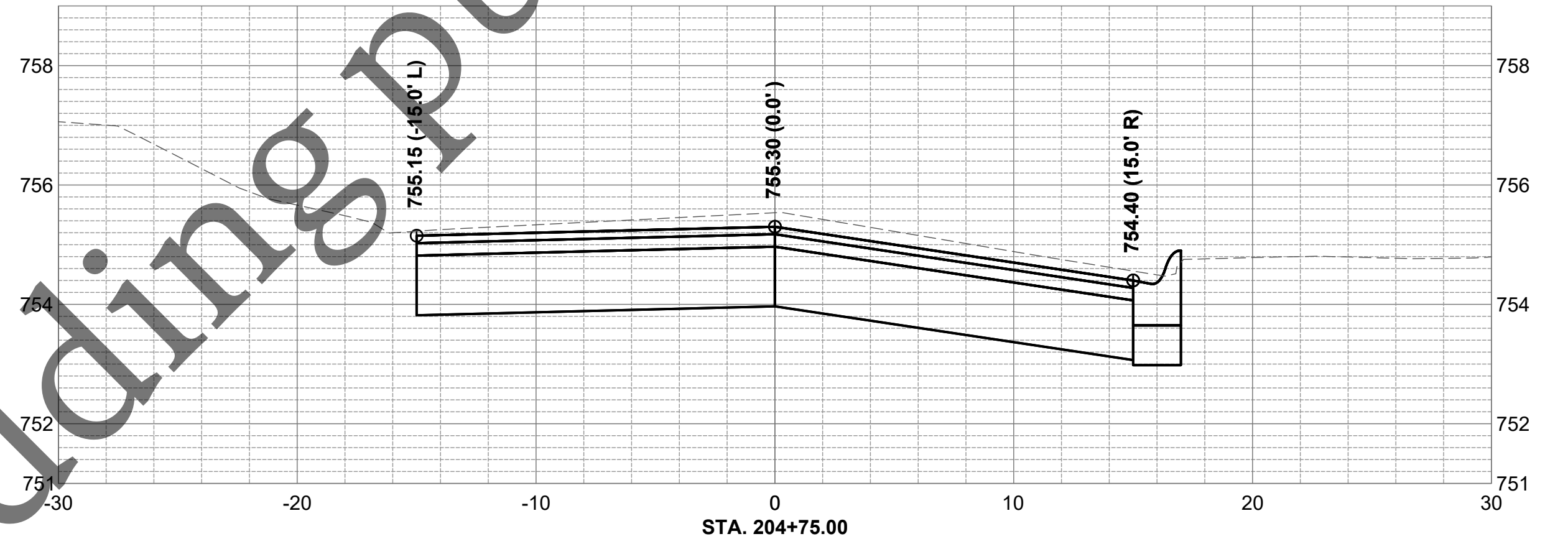
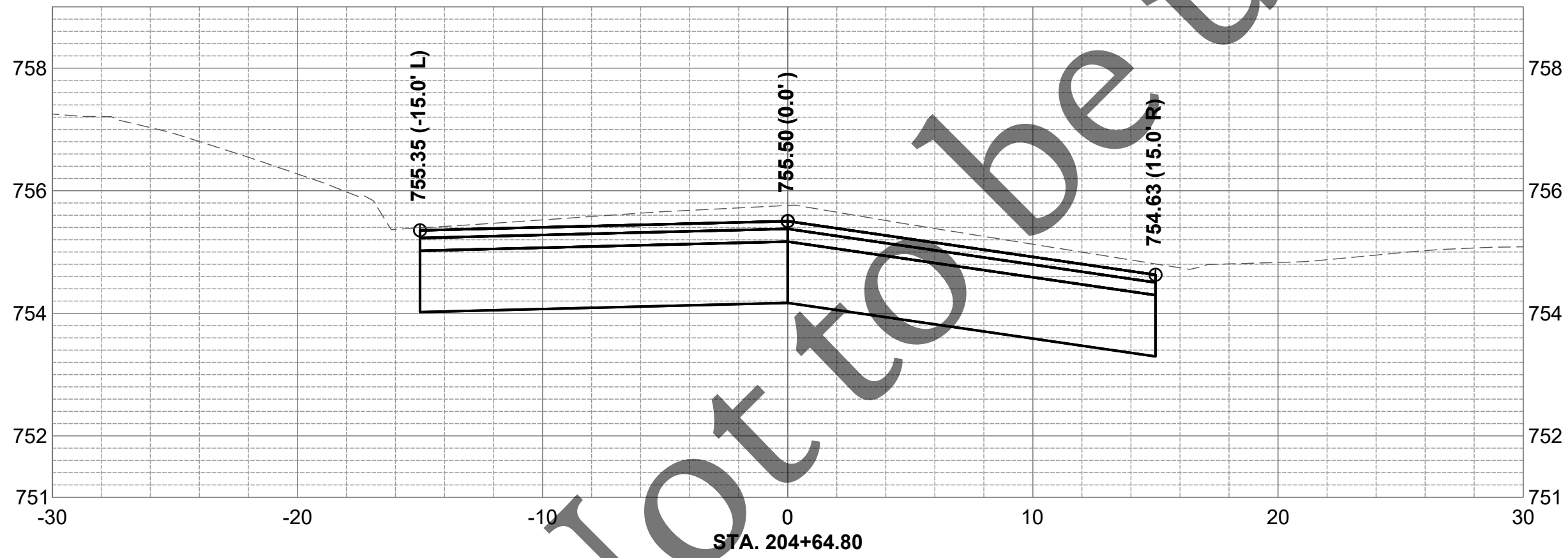
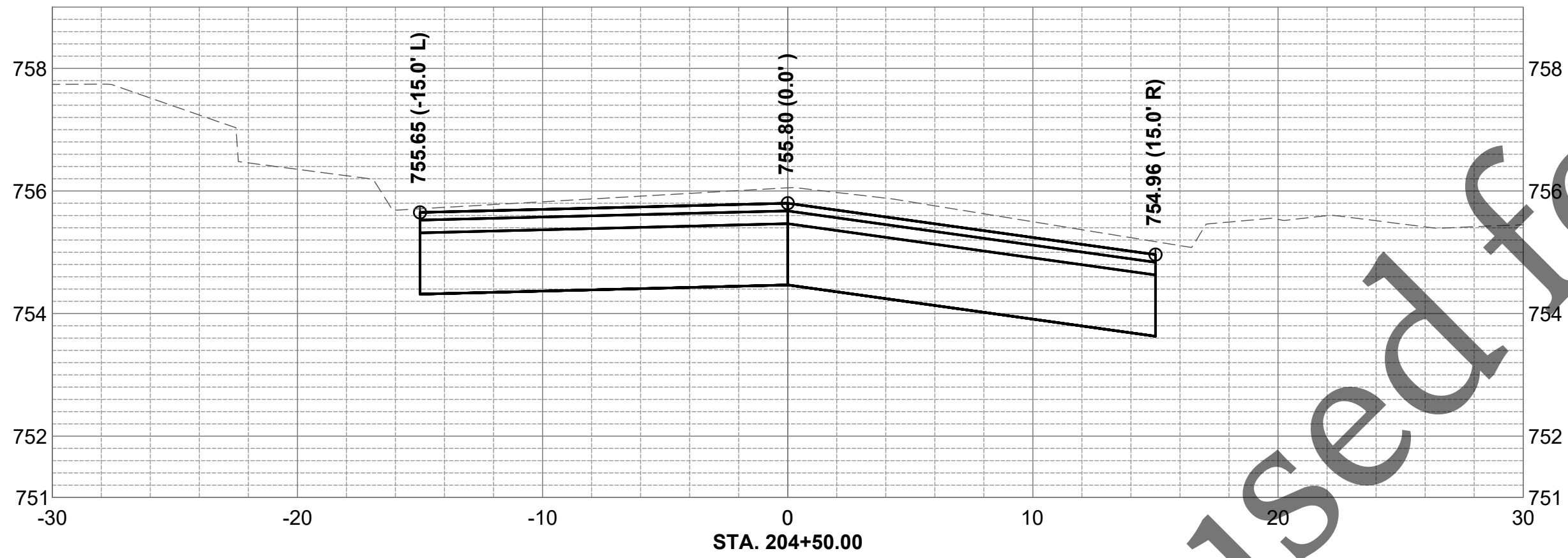
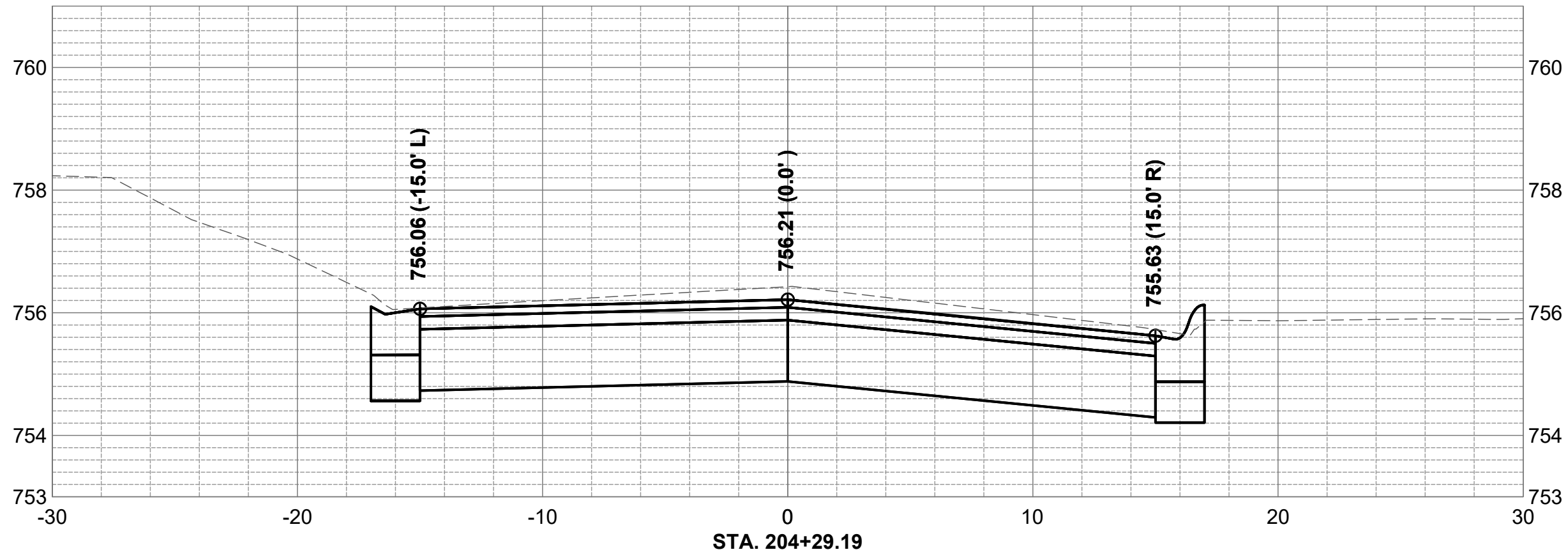
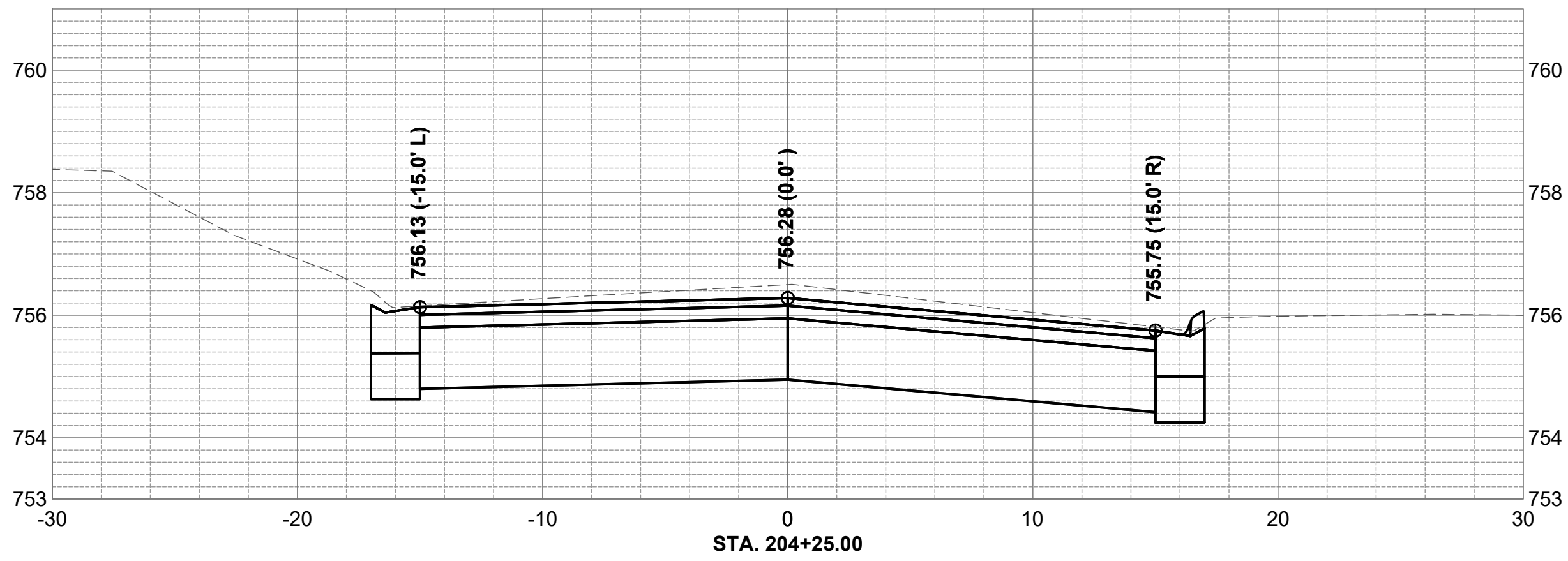
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Sheet No.
10 of 16

Date:
8/5/2025

FOR BID

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No.	DATE	REVISION	INT.

NORTH AVE. & NAPOLEON ST.
CAPITAL PROJECT #2564

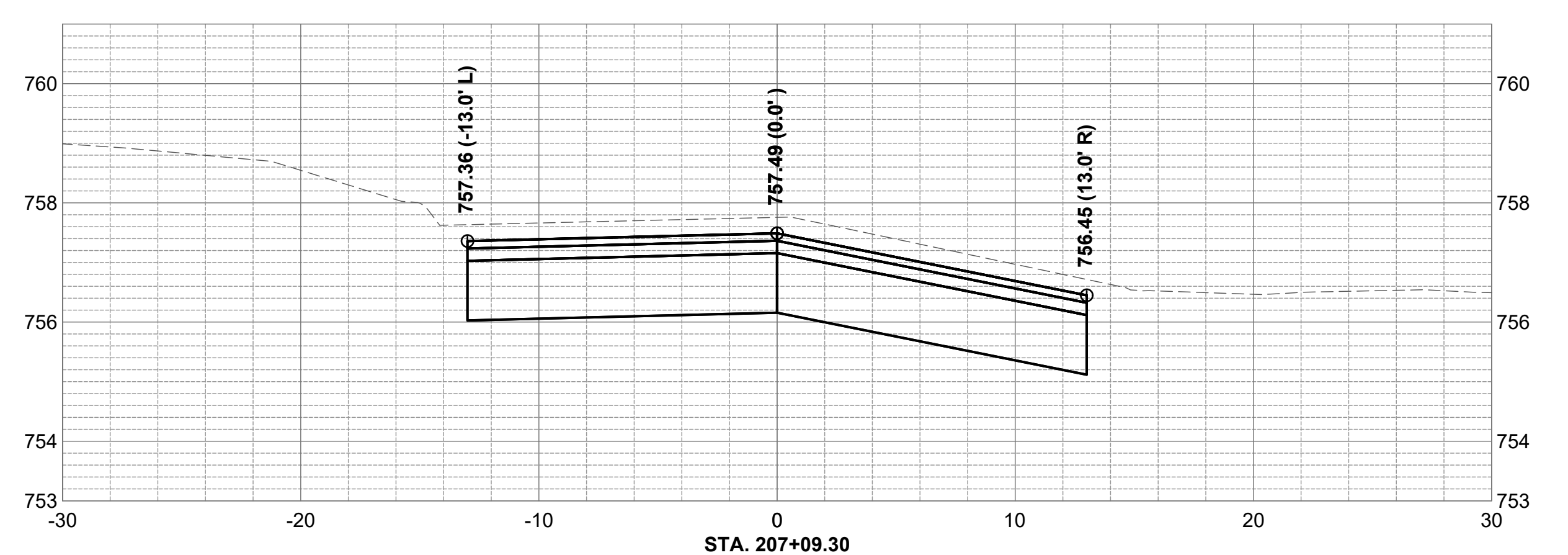
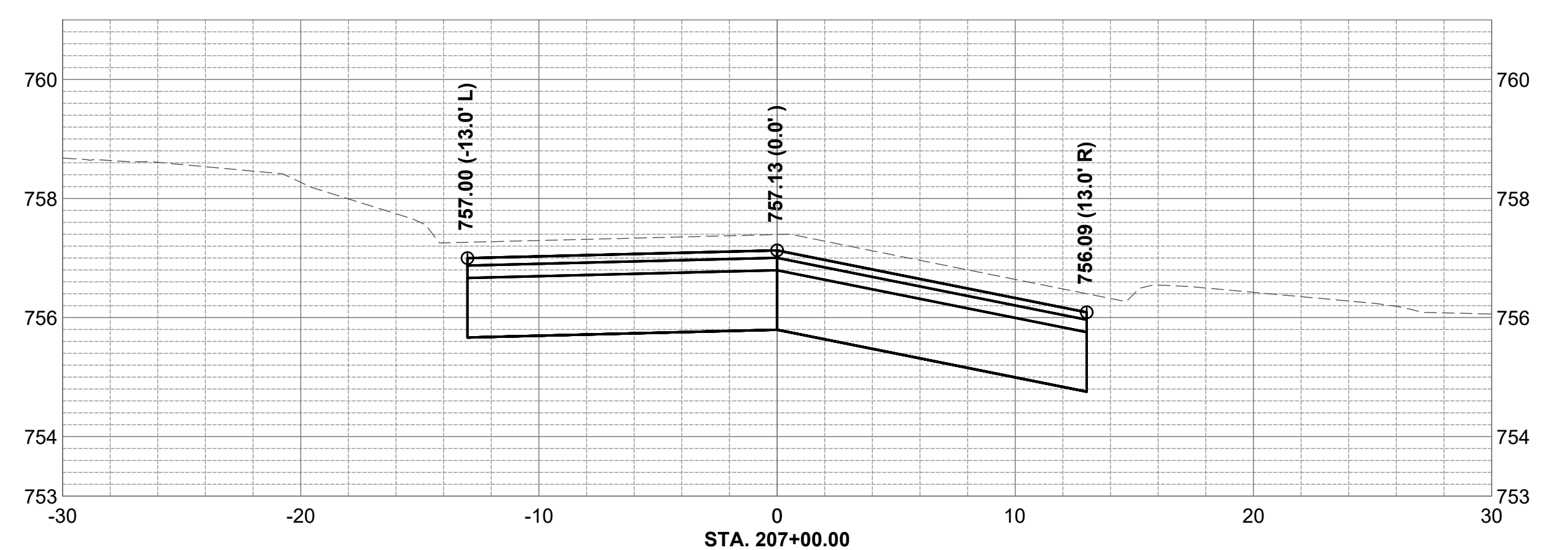
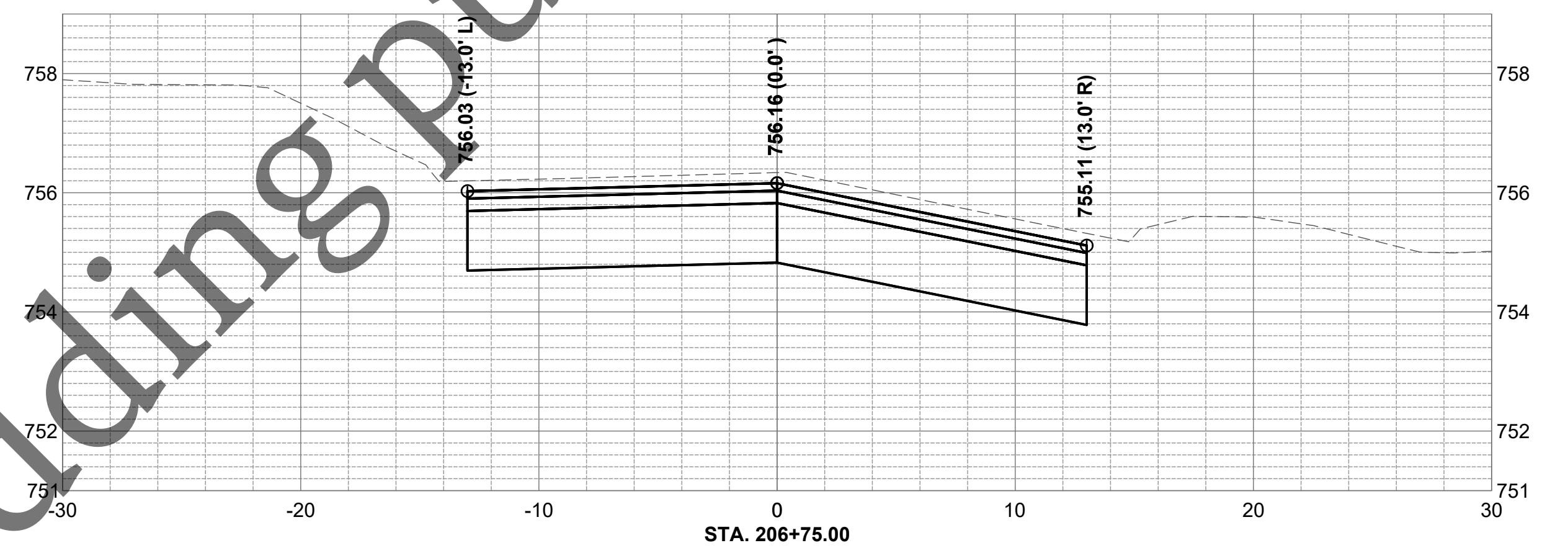
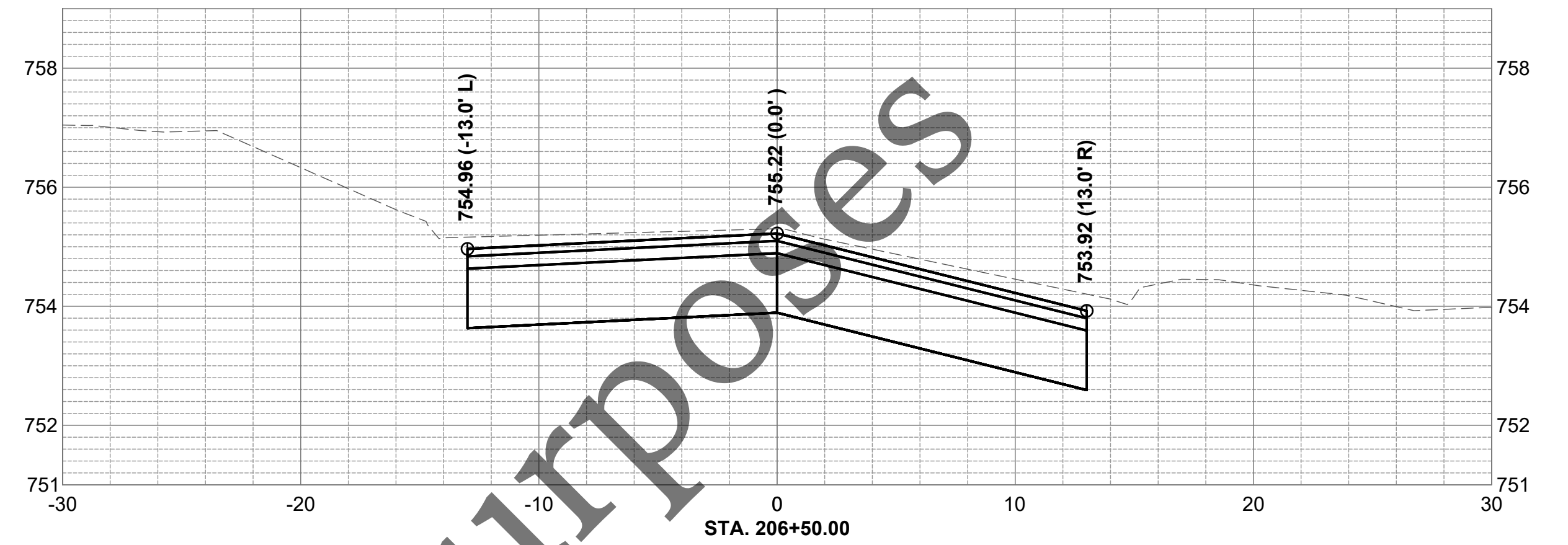
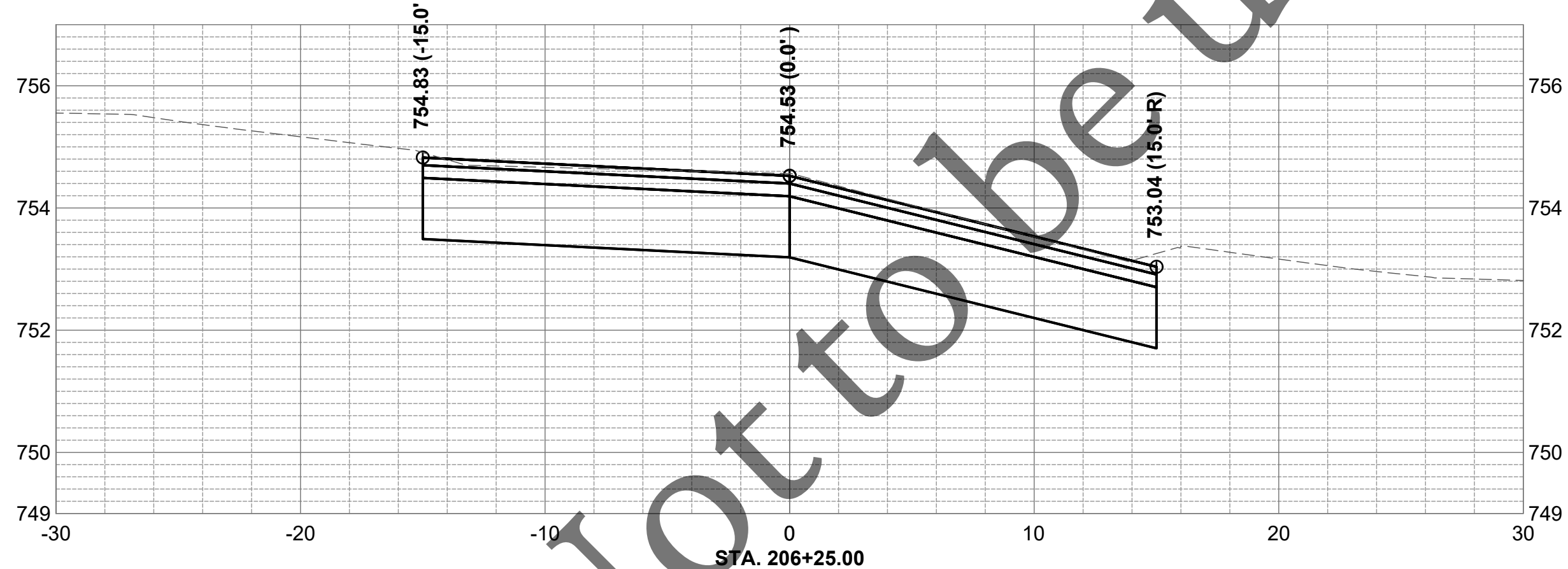
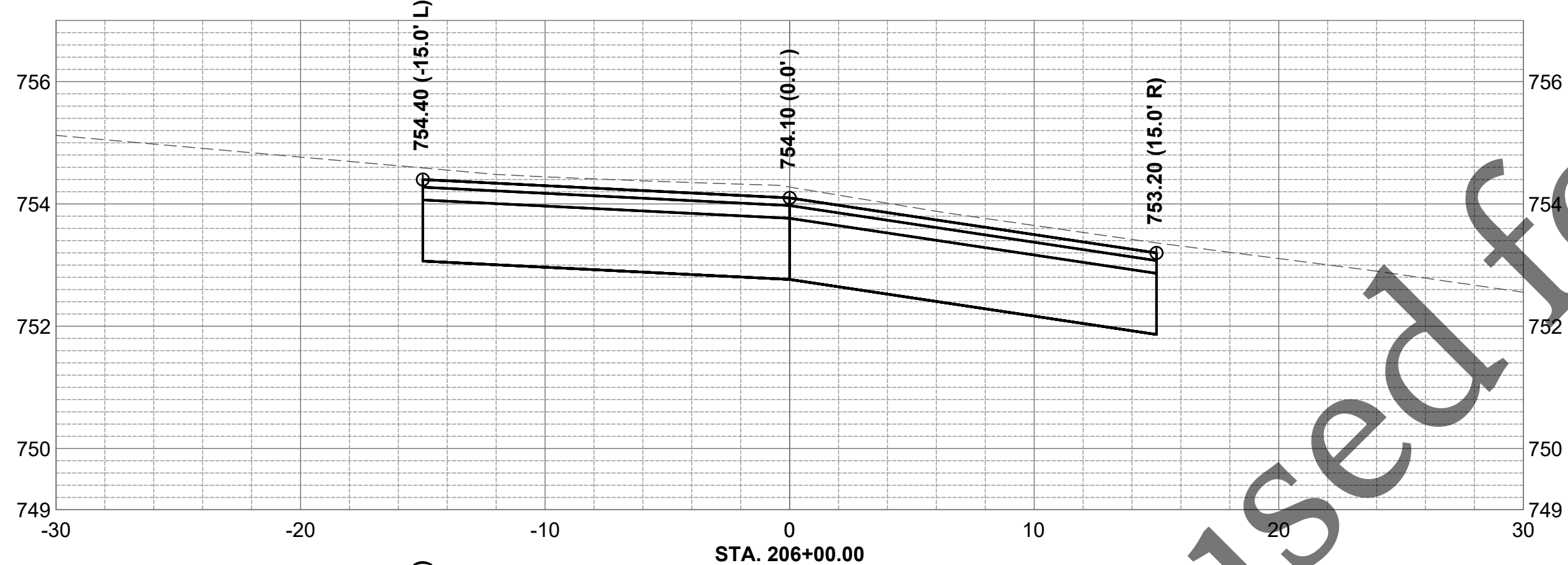
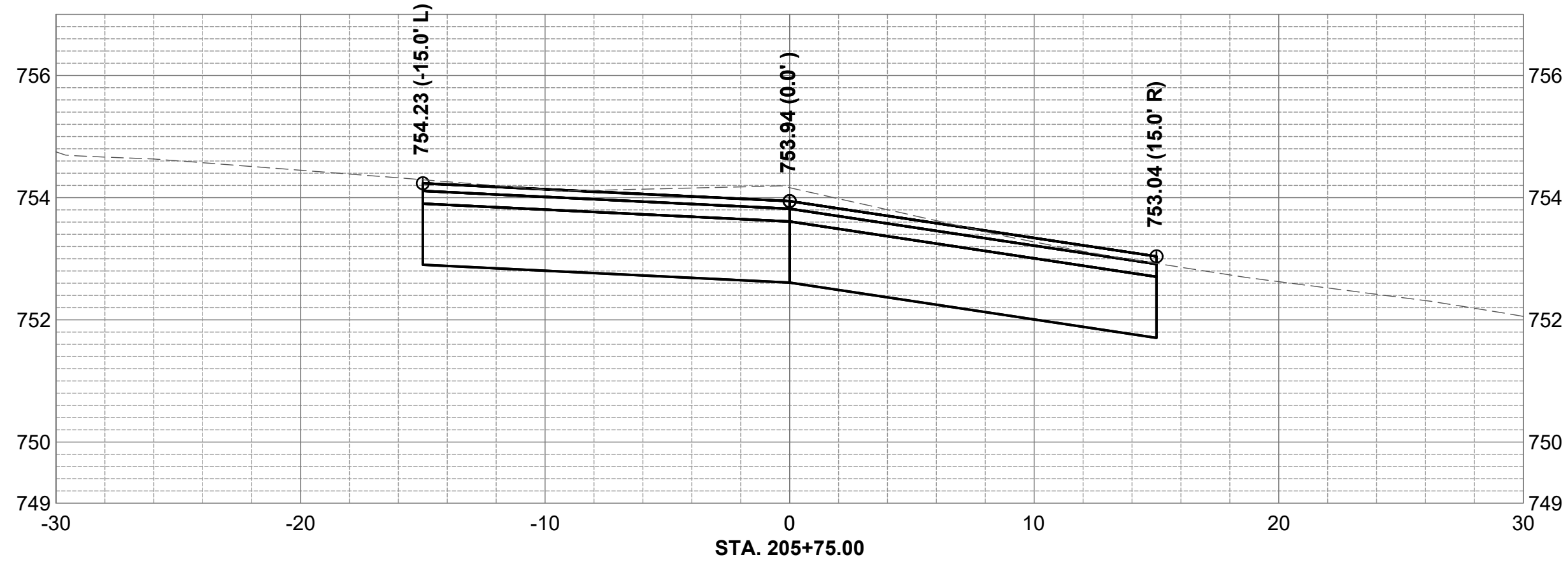
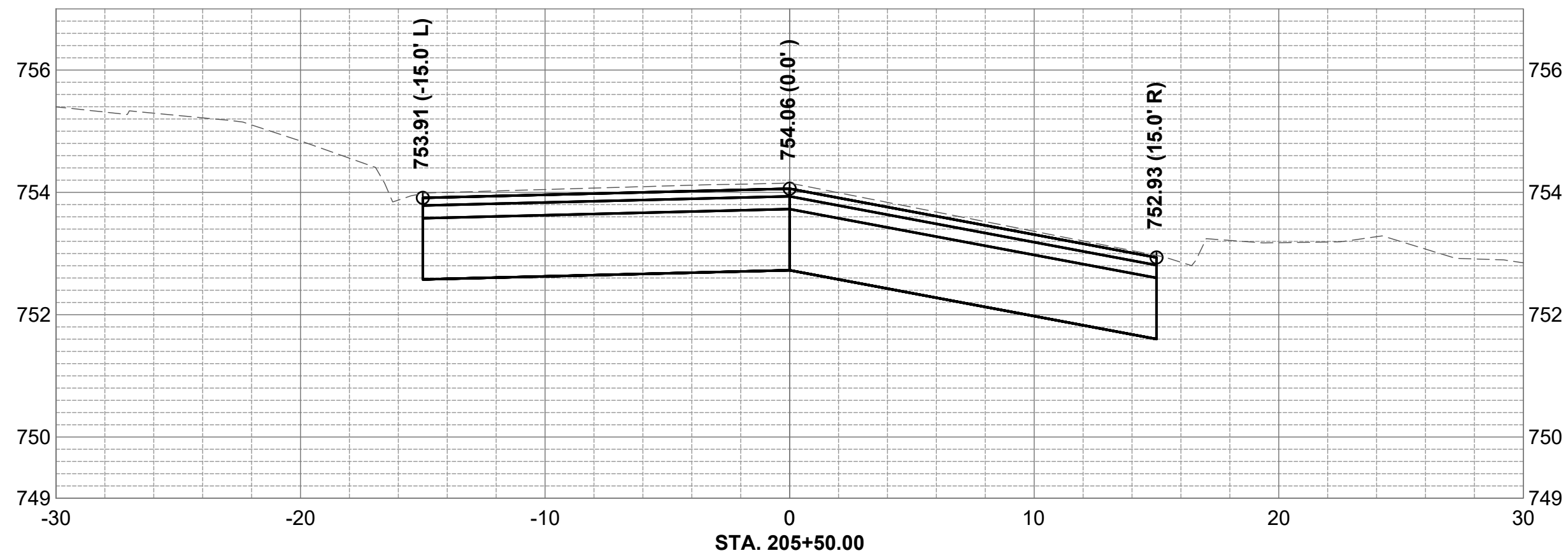
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Sheet No.
11 of 16

Date:
8/5/2025

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No.	DATE	REVISION	INT.

NORTH AVE. & NAPOLEON ST.
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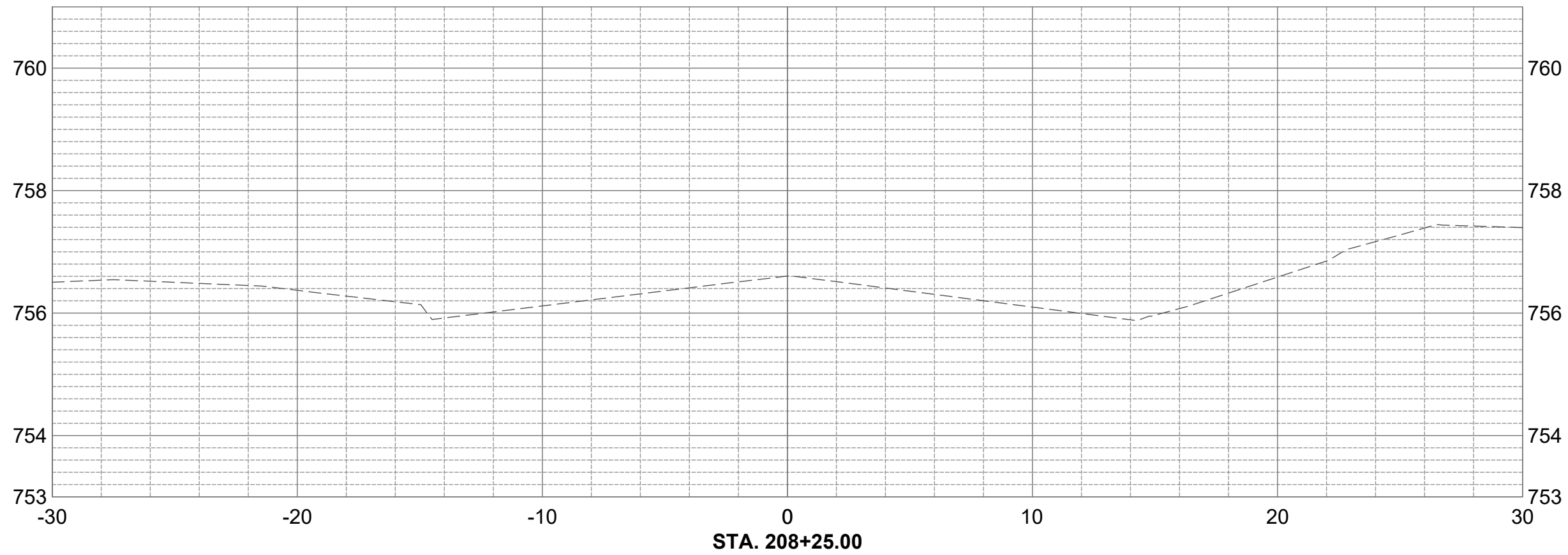
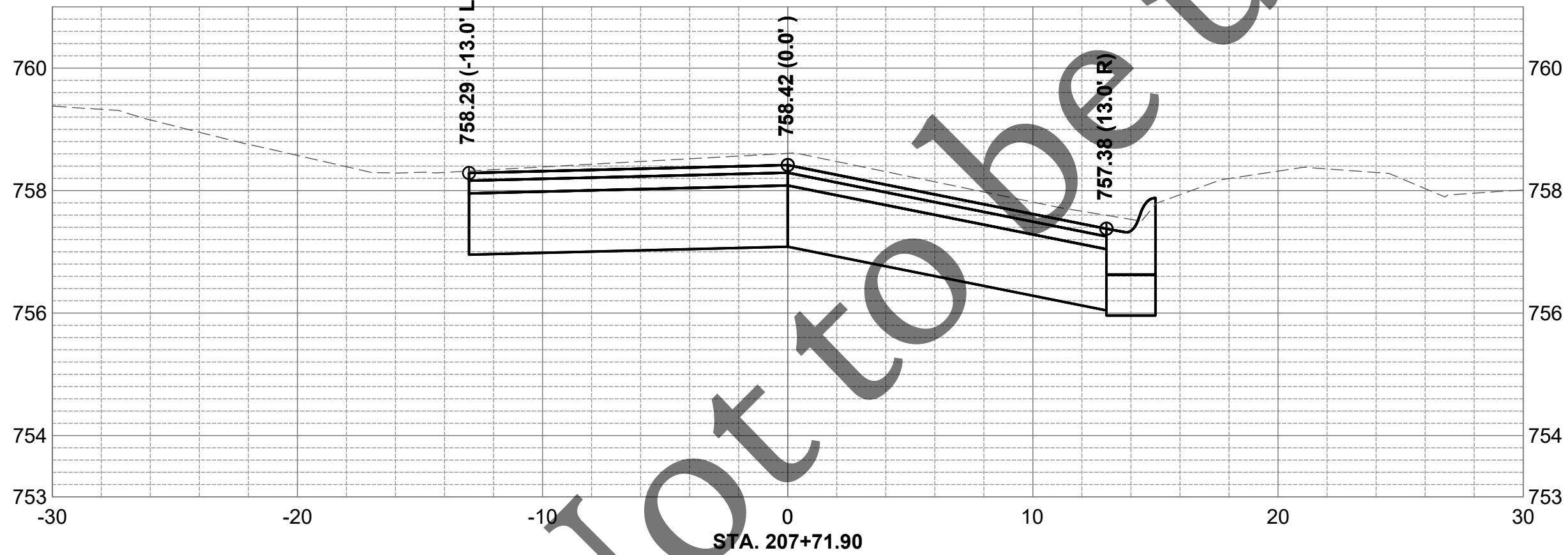
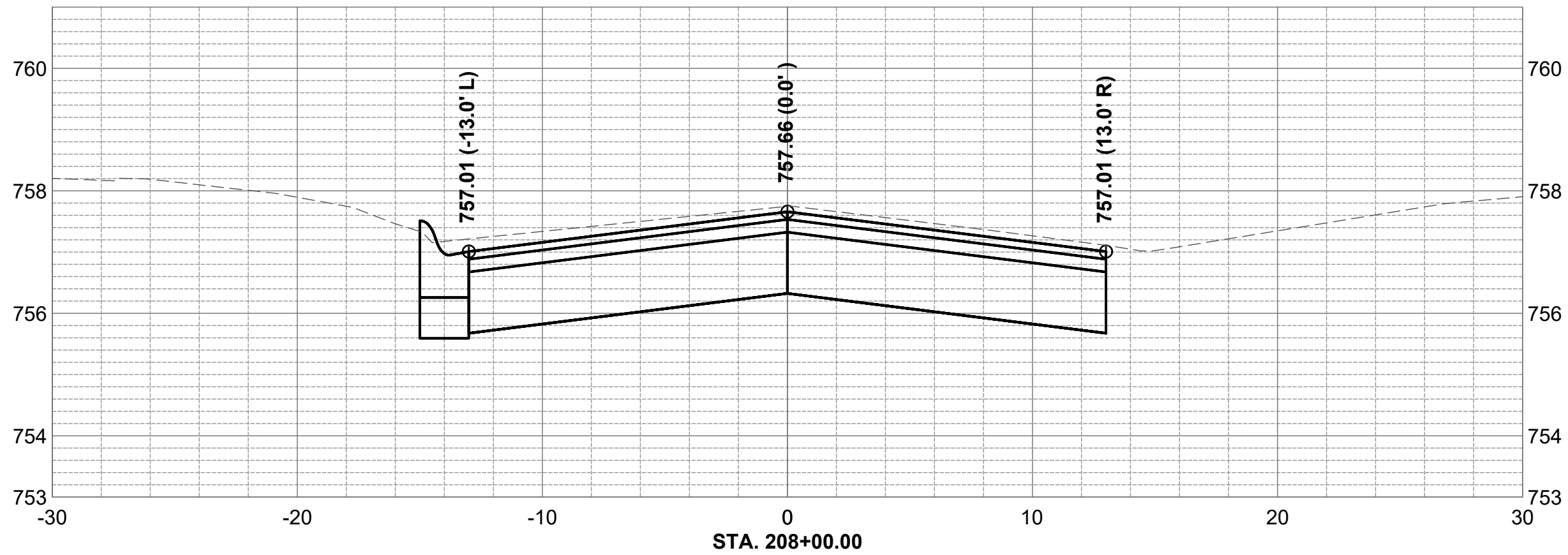
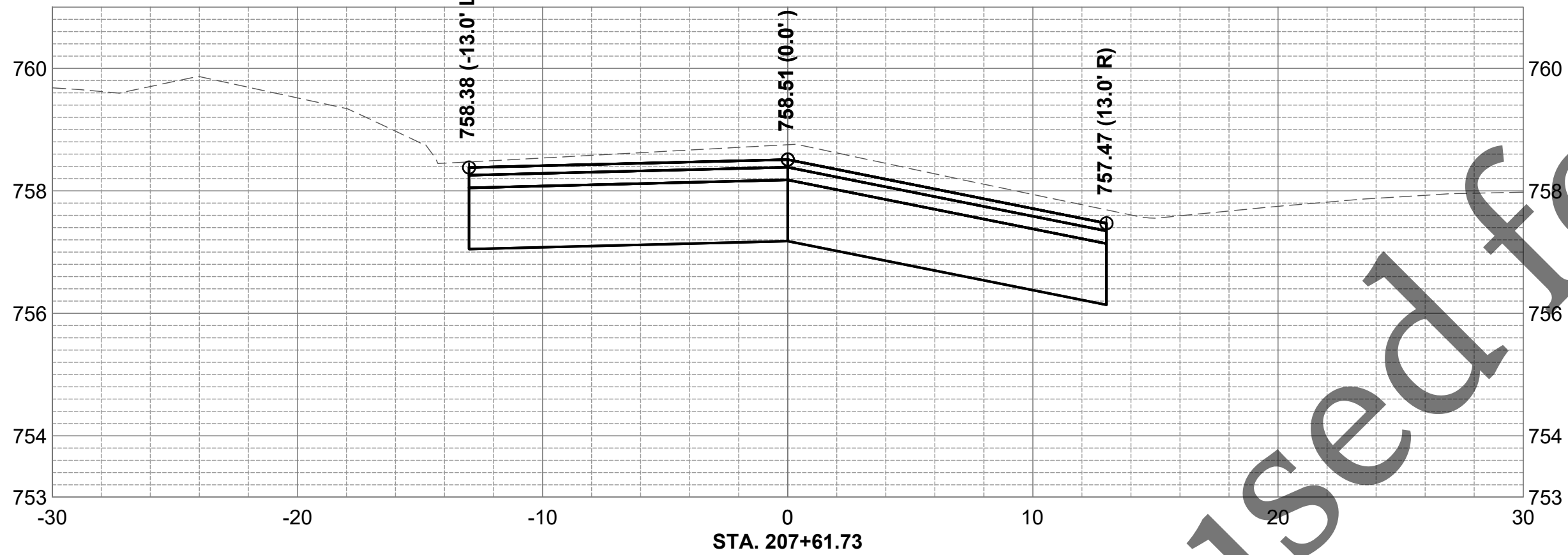
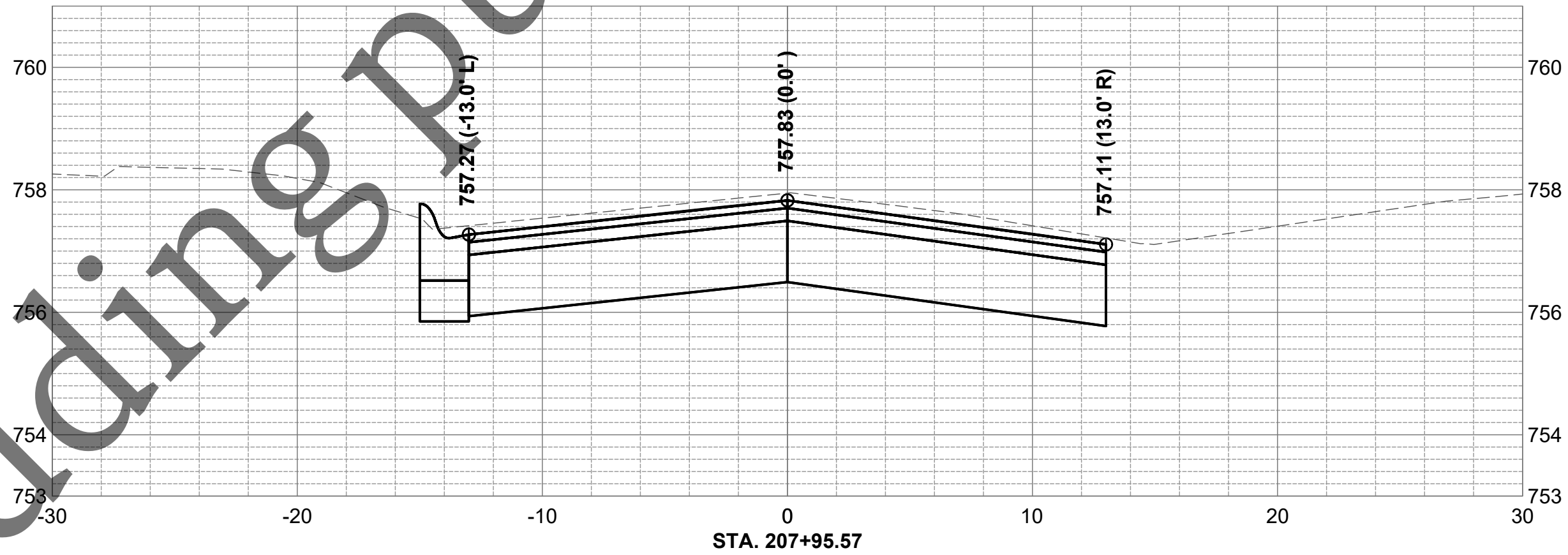
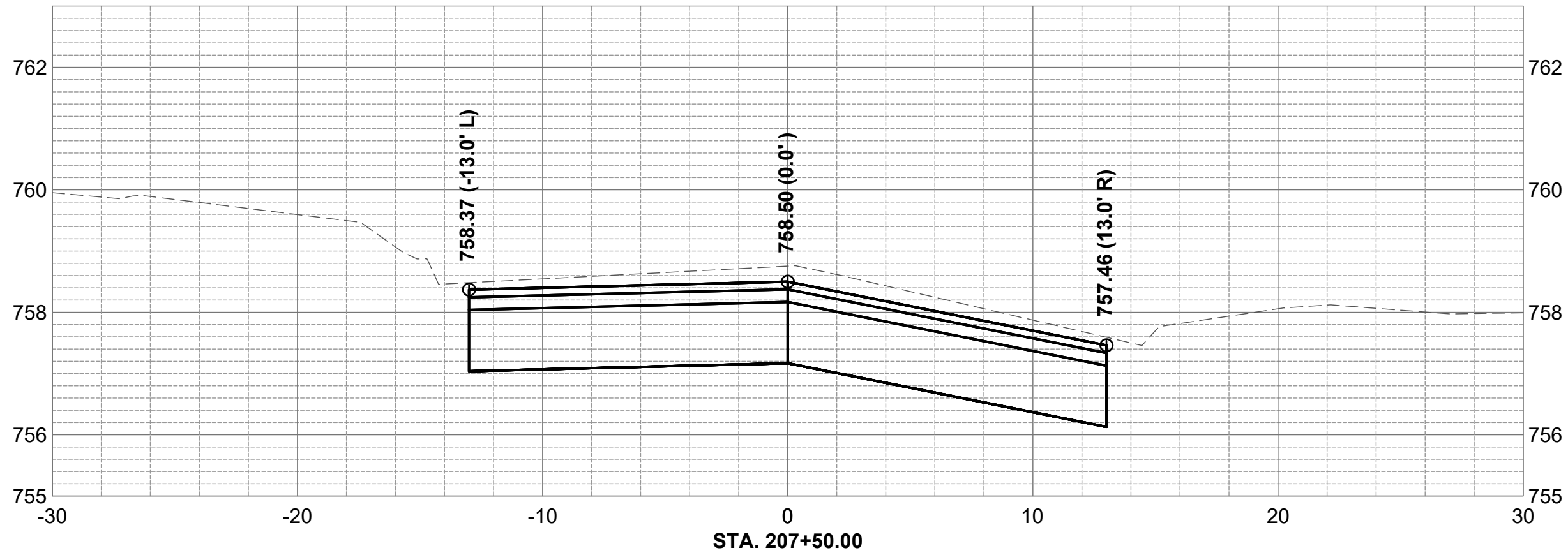
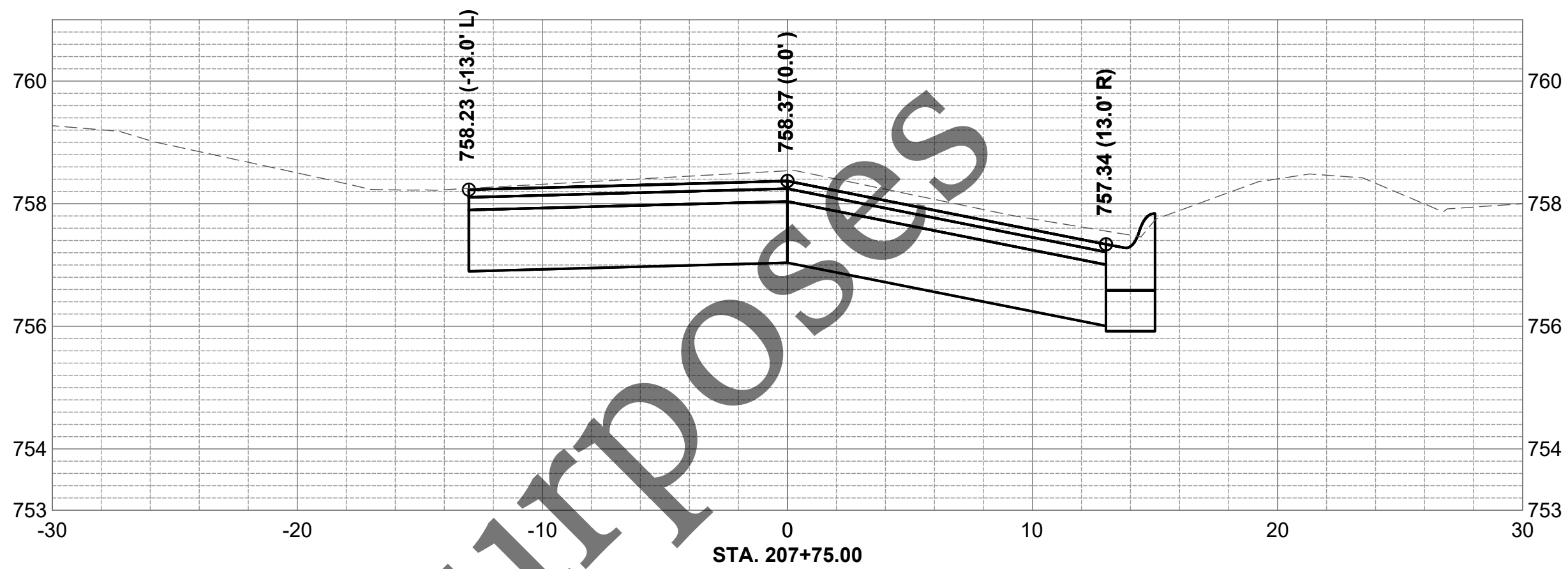
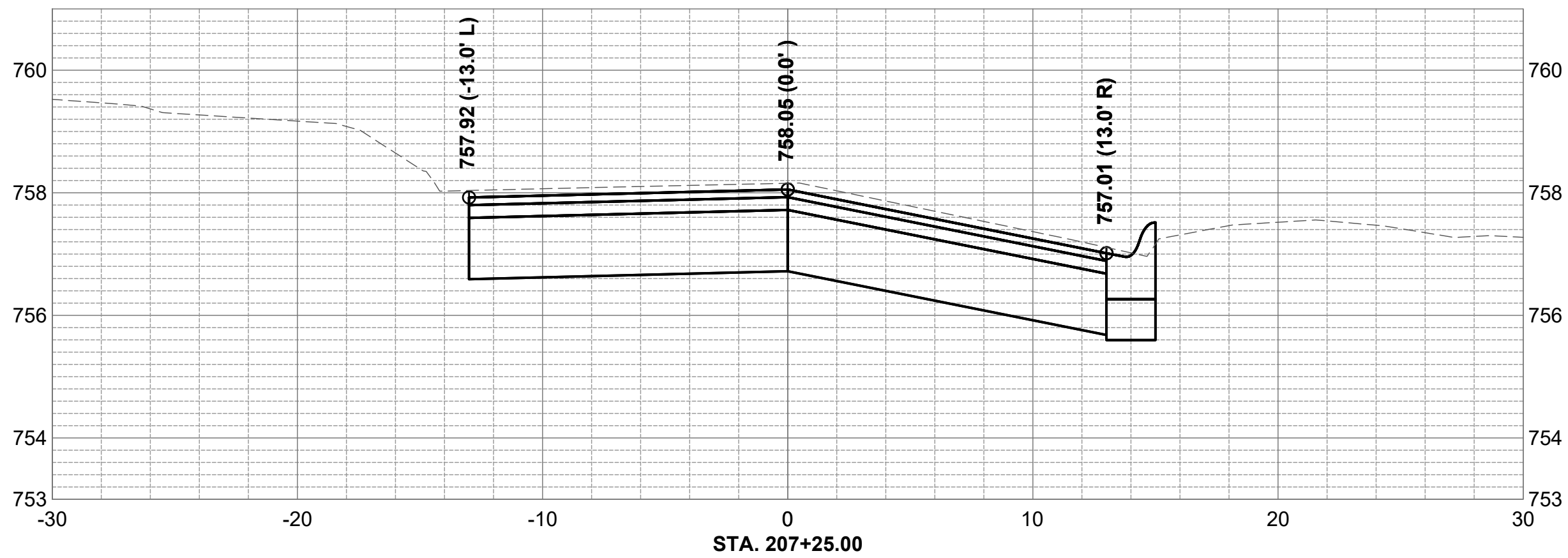
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FOR BID

Sheet No.
12 of 16

Date:
8/5/2025

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No.	DATE	REVISION	INT.

NORTH AVE. & NAPOLEON ST.
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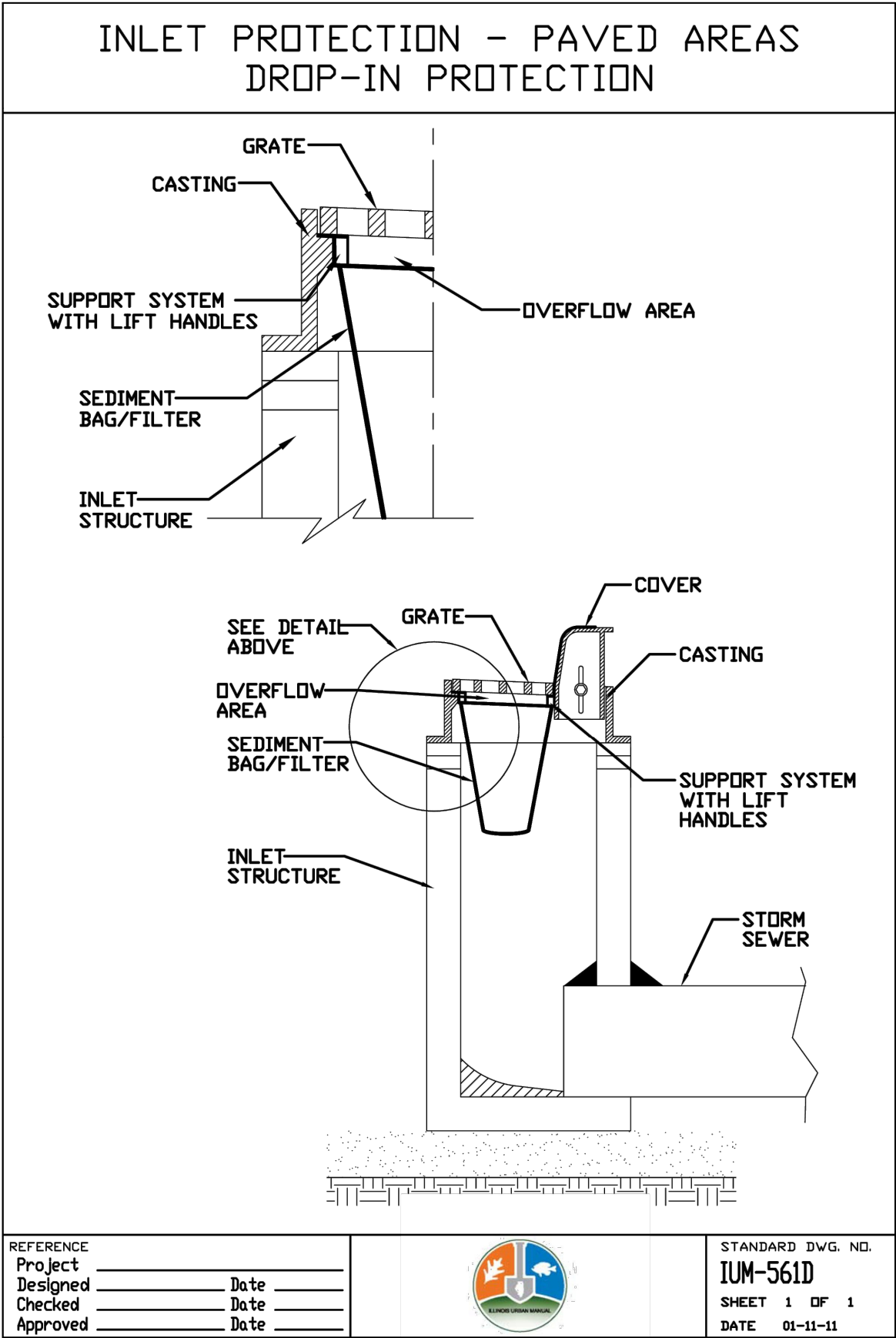
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Sheet No.
13 of 16

FOR BID

Date:
8/5/2025

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S.W.P.P. NOTES

GENERAL NOTES

THE ESTIMATED AREA OF DISTURBANCE FOR THIS PROJECT EXCEEDS 1 ACRE. A NOTICE OF INTENT (NOI) WILL BE FILED. A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED FOR THIS PROJECT. THE CONTRACTOR SHALL INSTALL A SWPPP MAILBOX IN AN ACCESSIBLE LOCATION ONSITE THAT SHALL CONTAIN THE SWPPP PLAN, ANY CHANGES TO THE SWPPP PLAN, INSPECTION REPORTS, AND ALL OTHER RELEVANT DOCUMENTS. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE ILLINOIS URBAN MANUAL, CURRENT EDITION, IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION, THE FOUR RIVERS SANITATION AUTHORITY (FRSA), AND THE PROJECT SPECIFICATIONS AND DETAILS.

THE EROSION CONTROL DEVICES, MATERIALS AND PROCEDURES SHOWN IN THESE PLANS ARE TO BE CONSIDERED A MINIMUM. ADDITIONAL DEVICES OR MATERIALS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS, AT THE DIRECTION OF THE ENGINEER. ANY DEVICES, MATERIALS, OR PROCEDURES REQUIRED BY THE ENGINEER DUE TO THE CONTRACTOR'S ACTIONS OR NEGLIGENCE WILL BE AT NO ADDITIONAL COST TO THE FRSA.

ALL DISTURBED AREAS SHALL BE SEEDED UNLESS AGRICULTURAL OR OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR IS RESTRICTED TO WORK IN TEMPORARY EASEMENTS OR WORK AREAS DELINEATED ON PLANS. THE CONTRACTOR SHALL TAKE WHATEVER ACTIONS AND MEASURES ARE DEEMED NECESSARY BY THE FRSA OR AUTHORIZED AGENCY TO ELIMINATE EXCESSIVE SILTATION OR EROSION AND TO STABILIZE THE PROJECT AREA. DISCHARGE OF HAZARDOUS SUBSTANCES INTO STORM WATER IS SUBJECT TO IEPA REPORTING AND CLEANUP REQUIREMENTS.

CONTROL MEASURES

- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE BEFORE CONSTRUCTION IN EACH AREA, AS DETERMINED BY THE ENGINEER, AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. CONSTRUCTION ACTIVITIES SHALL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE PRACTICAL. THE FOLLOWING CONTROLS WILL BE PROVIDED AS A MINIMUM FOR THE DURATION OF THIS PROJECT:
- SEDIMENT CONTROL SHALL BE PROVIDED DOWNSLOPE OF ALL STOCKPILE AREAS.
 - STABILIZED CONSTRUCTION ENTRANCES MUST BE INSTALLED AS DETAILED AND WHERE REQUIRED BY THE ROADWAY AUTHORITY OR FRSA.
 - INLET PROTECTION MUST BE INSTALLED FOR ALL INLETS THAT COULD BE SUBJECT TO SILTATION, AS DETERMINED BY THE ENGINEER.
 - ALL ROADWAYS SHALL BE KEPT CLEAN OF DEBRIS, MUD, SOIL, AND CONSTRUCTION MATERIALS AND SHALL BE INSPECTED AT THE END OF EACH DAY AND CLEANED AS NECESSARY.
 - ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 7 DAYS IF THEY ARE TO REMAIN DISTURBED FOR MORE THAN 14 DAYS.

INSPECTIONS

INSPECTIONS MUST BE COMPLETED BY A QUALIFIED PERSON EVERY 7 DAYS AND WITHIN 24 HOURS OF EACH RAIN EVENT WITH OVER 0.5" OF RAIN OR SNOWFALL EQUIVALENT. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REPAIRED AND MODIFIED AS NEEDED TO BE EFFECTIVE AND TO PREVENT EROSION AND POLLUTANTS FROM DISCHARGING FROM SITE. A REPORT SHALL BE COMPLETED WITH EACH INSPECTION, AND SHALL BE KEPT ACCESSIBLE ONSITE WITH THE S.W.P.P.P.

MAINTENANCE

CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR OF ALL EROSION AND SEDIMENT CONTROL DEVICES AND PROTECTIVE MEASURES AS REQUIRED TO MAINTAIN THE INTENDED FUNCTION. SEDIMENT COLLECTED FROM THE CONSTRUCTION SITE SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS AS NEEDED. ANY DEBRIS OR SILT DEPOSITED IN THE FLOW LINE OF DRAINAGE STRUCTURES, DITCHES, ETC., THAT COULD OBSTRUCT FLOW SHALL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. ALL DRAINAGE STRUCTURES SHALL BE FREE OF DIRT AND DEBRIS. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES WITHIN 30 DAYS OF FINAL SITE STABILIZATION APPROVAL BY THE FRSA. THE SITE SHALL HAVE A MIN. OF 70% VEGETATIVE COVER TO BE CONSIDERED STABILIZED.

OTHER DISCHARGES

NON STORM WATER DISCHARGES INCLUDING WASHING OF VEHICLES, CONCRETE WASH-OUT, WATER FOR DUST CONTROL, AND TRENCH DEWATERING DISCHARGES SHALL BE DIRECTED AWAY FROM UNPROTECTED, BARE, OR UNSTABILIZED SOIL AND APPROPRIATE MEASURES SHALL BE IMPLEMENTED TO PREVENT EROSION OR RUNOFF FROM THE SITE. DEWATERING DISCHARGE MUST BE INTO SILT CONTAINMENT BAGS WITH PROPERLY ENGINEERED ANIONIC POLYMER AND FABRIC PORE SIZE. UNDER NO CIRCUMSTANCE SHALL DEWATERING DISCHARGE BE ALLOWED TO FLOW DIRECTLY INTO WATERWAYS. A DEWATERING DISCHARGE PLAN SHALL BE SUBMITTED TO THE FRSA FOR APPROVAL.



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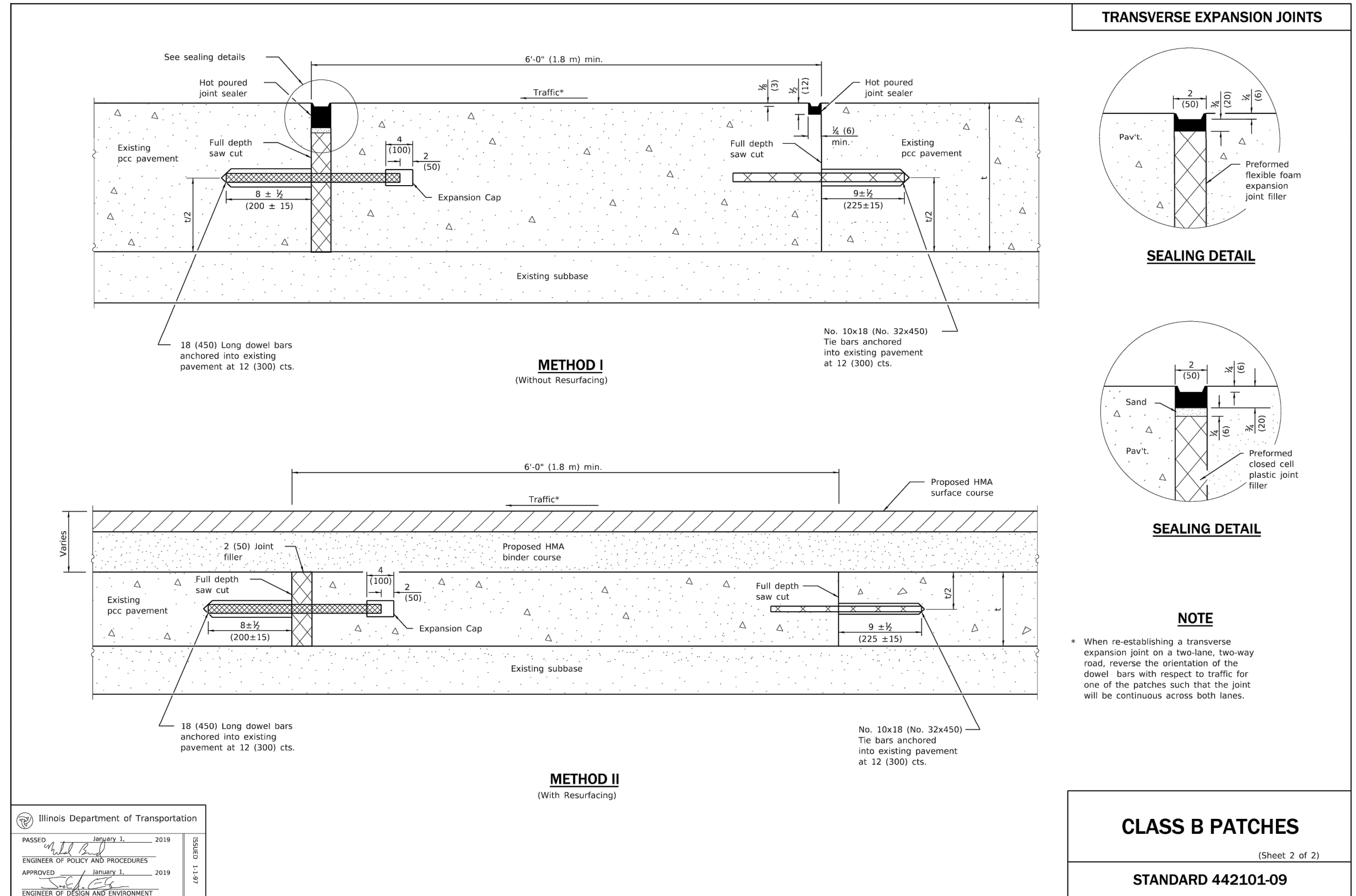
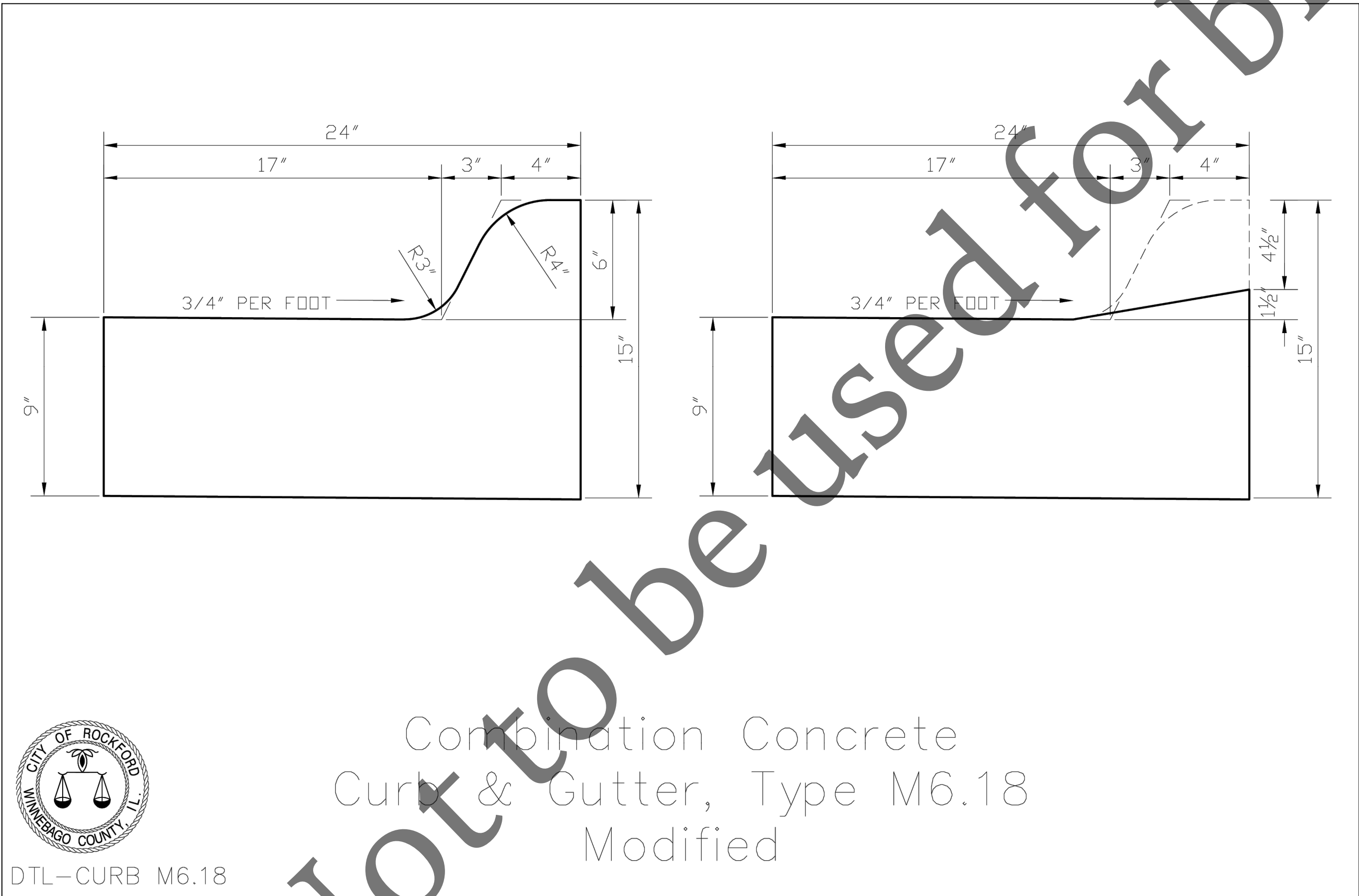
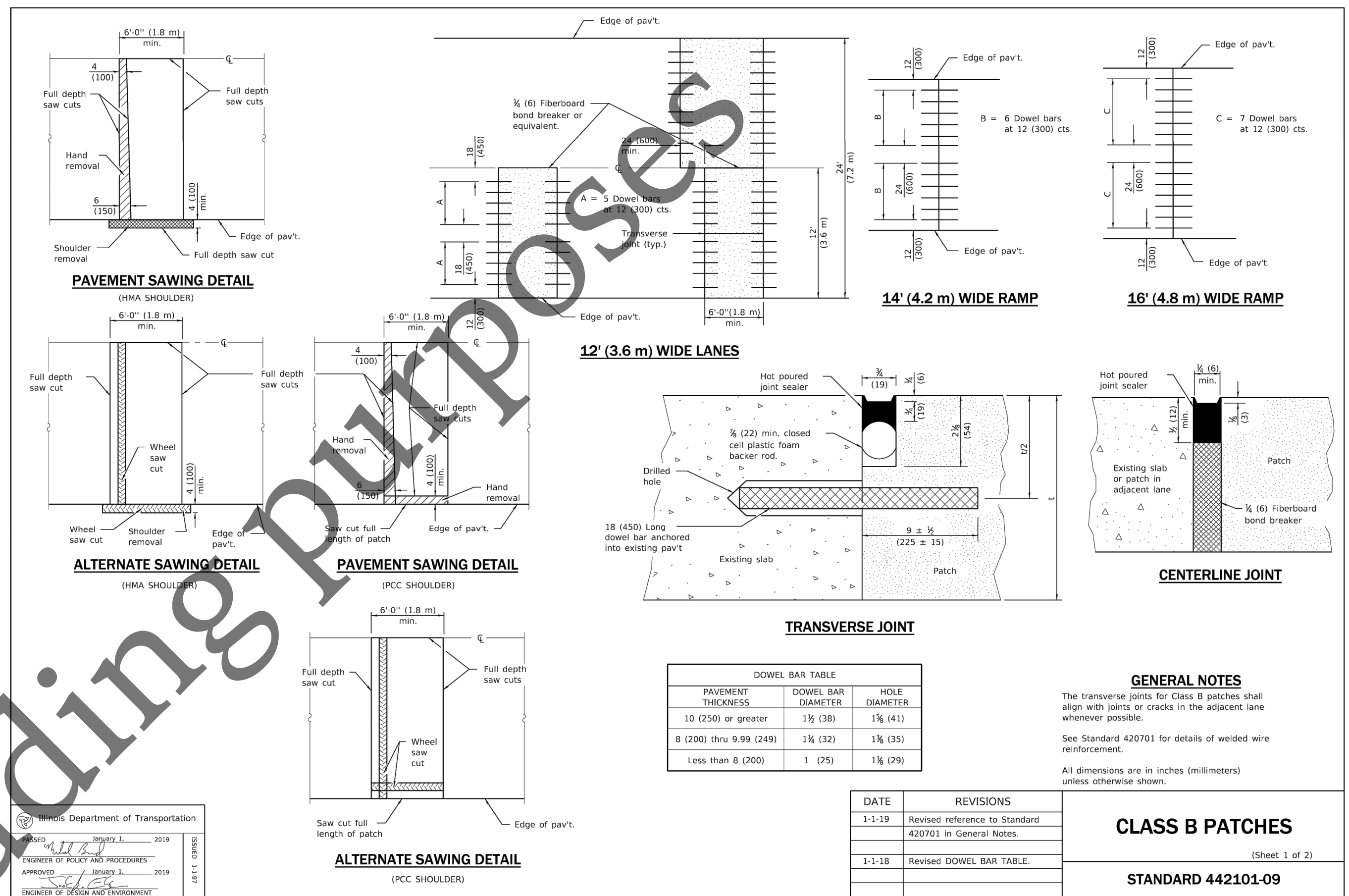
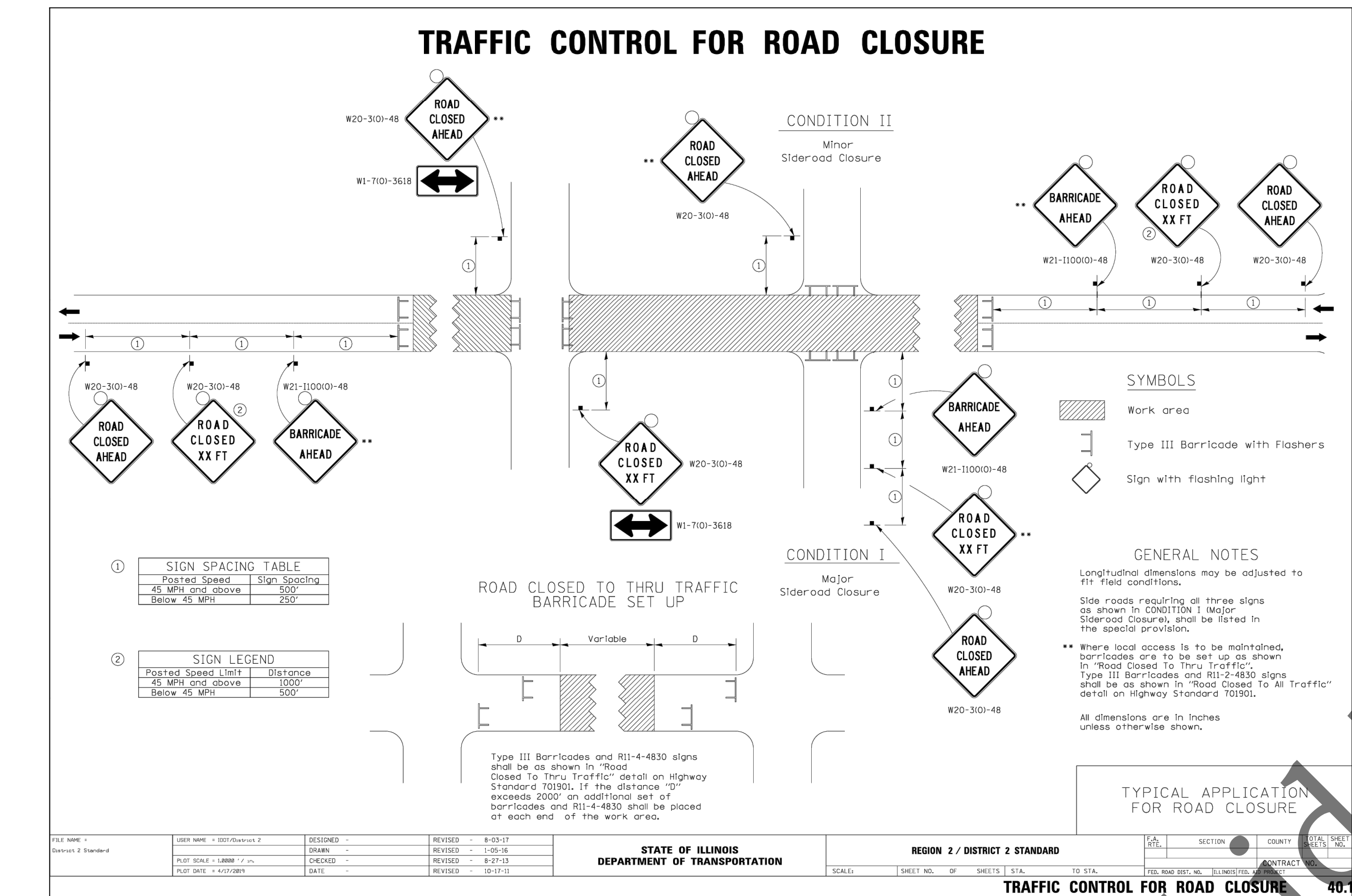
NORTH AVE. & NAPOLEON ST.
CAPITAL PROJECT #2564

TEMPORARY EROSION CONTROL DETAILS

Sheet No.
14 of 16

FOR BID

Date:
8/5/2025



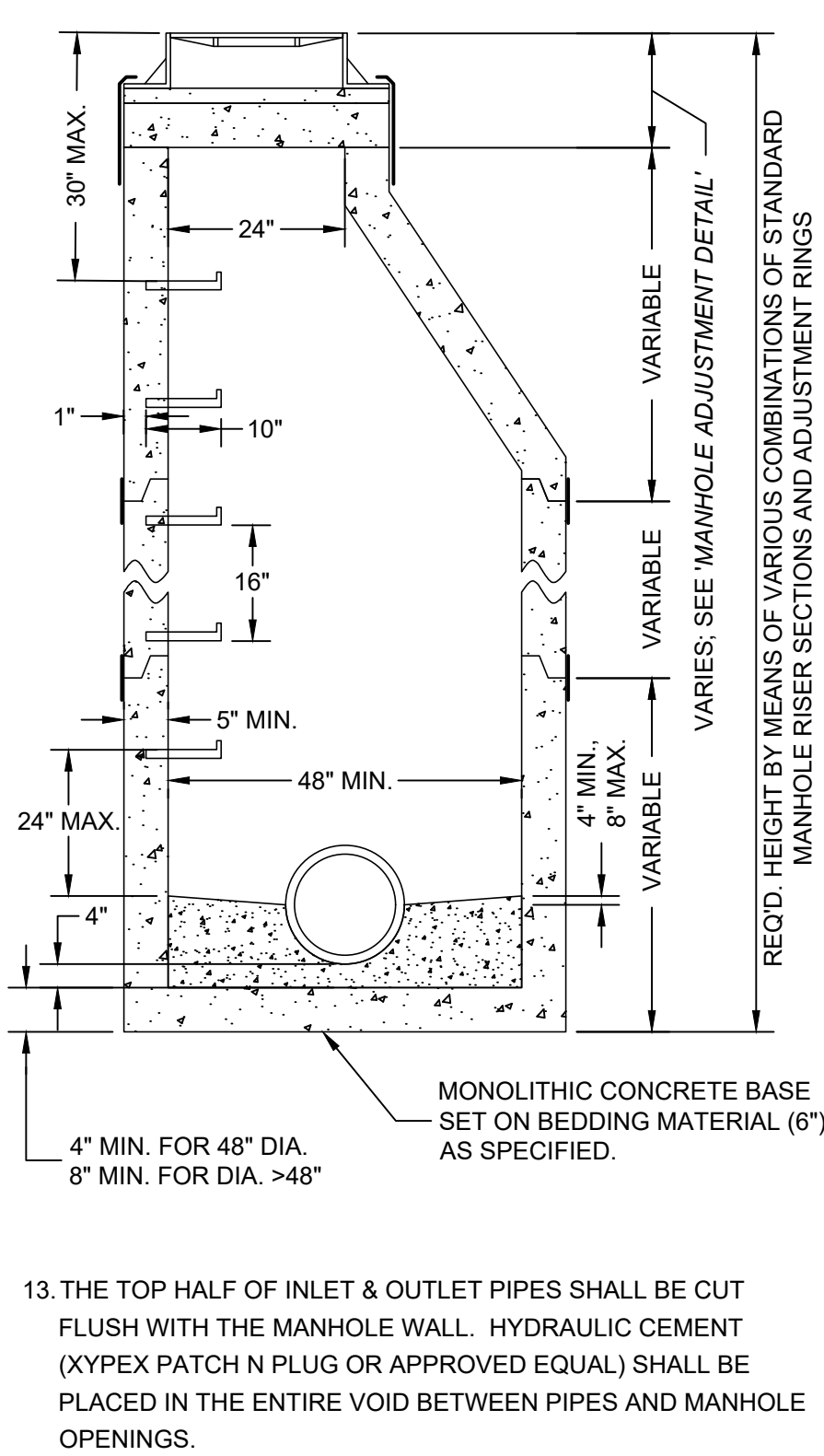
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01/01/2021 Revisions:
Manhole Adjustment Detail: Revised notes 1 & 2 with acceptable frames & lids. Modified notes 3, 5, & 7. Added note 8.
Revised Rock River Reclamation District to 'Four Rivers Sanitation Authority'.
Revised Drop Connection Detail: Revised note 6 & 7. Added note 6.
Service Cleanout Casting Detail: Revised note 8.

- NOTES:
1. THE MAX. DROP FROM THE INVERT OF ANY PIPE TO THE CONCRETE CHANNEL UNDER THAT PIPE SHALL BE 8".
 2. MANHOLES LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE MARKED WITH A STEEL FENCE POST AS DIRECTED.
 3. ALL NEW MANHOLES SHALL BE VACUUM TESTED PER A.S.T.M. C-1244 PRIOR TO ACCEPTANCE.
 4. ALL BARREL JOINTS SHALL BE SEALED WITH 3 1/2" x 3/8" PRE-FORMED RUBBER BUTYL JOINT SEALANT ON THE LOWER SHIPLAP.
 5. ALL BARREL JOINTS SHALL BE SEALED WITH AN EXTERNAL BARREL SEAL CENTERED ON THE JOINT (MAR MAC MACWRAP, OR APPROVED EQUAL).
 6. MANHOLE STRUCTURE SHALL BE CONSTRUCTED OF PRECAST REINFORCED CONCRETE MANHOLE RISER SECTIONS IN ACCORDANCE WITH A.S.T.M. C478-90 OR THE LATEST DESIGNATION.
 7. PRECAST FLAT TOPS ARE NOT APPROVED FOR USE.
 8. SEE 'MANHOLE ADJUSTMENT DETAIL' FOR ADJUSTMENT REQUIREMENTS.
 9. PIPE CONNECTIONS TO NEW MANHOLES SHALL BE MADE BY MEANS OF EITHER RUBBER GASKET SEAL (A-LOK OR APPROVED EQUAL) CONFORMING TO ASTM C-923 CAST INTEGRALLY IN MANHOLE WALL, OR RUBBER GASKET SEAL AND STAINLESS STEEL CLAMP (PSX SERIES SIX OR APPROVED EQUAL) CONFORMING TO ASTM C-923. FOR PIPE CONNECTIONS WITH A DEPTH OF >20 FT., A RUBBER GASKET SEAL (A-LOK OR APPROVED EQUAL) CONFORMING TO ASTM C-923 CAST INTEGRALLY IN MANHOLE WALL SHALL BE USED.
 10. PIPE CONNECTIONS TO EXISTING MANHOLES SHALL BE MADE BY MEANS OF CORE DRILLING MANHOLE WALL AND INSTALLING RUBBER GASKET SEAL AND STAINLESS STEEL CLAMP (PSX SERIES SIX OR APPROVED EQUAL) CONFORMING TO ASTM C-923.
 11. THE MAXIMUM DISTANCE FROM ANY INLET PIPE INVERT TO THE OUTLET PIPE INVERT SHALL BE 2'. DISTANCES GREATER THAN 2' WILL REQUIRE AN INSIDE DROP CONNECTION PER 'INSIDE DROP CONNECTION DETAIL'.
 12. MANHOLE STEPS SHALL BE NEENAH R-1982-F OR M.A. IND. PS-1 OR APPROVED EQUAL INSTALLED AT 16" CENTERS, ORIENTED ABOVE THE OUTLET PIPE UNLESS OTHERWISE SPECIFIED. FOR MANHOLES WITH INSIDE DROP ASSEMBLIES, STEPS IN THE MANHOLE BASE SECTION SHALL BE INSTALLED IN THE FIELD AND NOT CAST IN PLACE. IN THIS CASE, THE ORIENTATION OF THE CONE SHALL BE AS DIRECTED BY FRSA.

STANDARD MANHOLE DETAIL

('MANHOLE ADJUSTMENT DETAIL' SHALL APPLY)



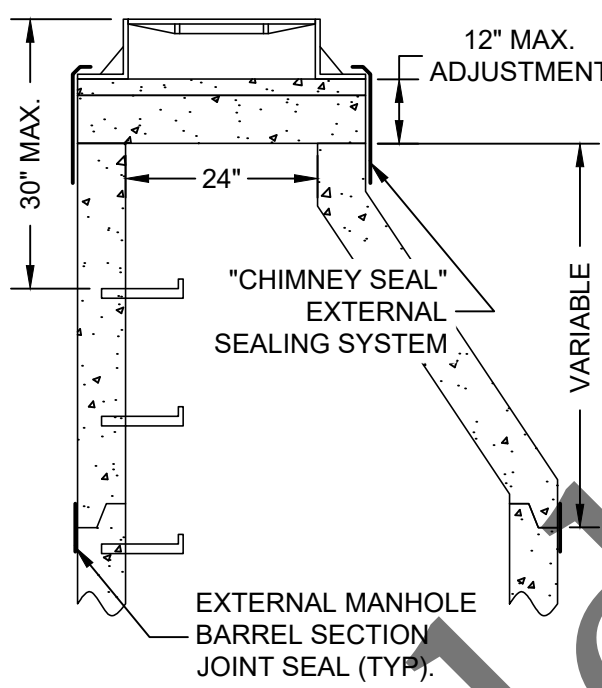
rev. 5/1/23

- NOTES:
1. MANHOLE FRAMES & LIDS SHALL BE PER THE TABLE BELOW.
 2. FOR MANHOLES CONNECTED TO MAINS 18" DIAMETER OR LARGER, OR FOR MANHOLES LOCATED IN FLOOD PRONE AREAS, FRAMES & LIDS SHALL BE THE BOLT DOWN TYPE.
 3. ALLOWABLE TYPES OF ADJUSTING RINGS INCLUDE PRECAST CONCRETE (4" HEIGHT MIN.), & EXPANDED POLYPROPYLENE (EPP). THESE CAN BE USED IN CONJUNCTION WITH EACH OTHER, EXCEPT THAT A PRECAST RING SHALL NOT BE PLACED OVER AN EPP RING.
 4. FOR PRECAST ADJUSTING RINGS, ALL ADJUSTING RING JOINTS AS WELL AS THE FRAME TO ADJUSTING RING JOINT SHALL BE SEALED WITH TWO 1" BEADS OF PRE-FORMED RUBBER BUTYL JOINT SEALANT. WHEN A FRAME REQUIRES PITCHING, EPP TAPER RINGS SHALL BE USED PER NOTE 5.
 5. FOR EPP ADJUSTING RINGS, RINGS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S INSTRUCTIONS. WHEN A FRAME REQUIRES PITCHING, THE TOP RING SHALL BE A TAPERED ADJUSTMENT RING PER MANUFACTURER'S INSTRUCTIONS.
 6. NO TARRING OR GROUTING IS ALLOWED ON THE INSIDE OF MANHOLE OR ADJUSTMENT JOINTS.
 7. MAXIMUM MANHOLE ADJUSTMENT IS 12". MINIMUM ADJUSTMENT IS 4" UNLESS OFF-ROAD OR IN CURB & GUTTER ROADWAY.
 8. MANHOLE FRAMES SHALL BE SET 1/4" MIN. TO 3/8" MAX. BELOW PAVED SURFACES, AND AT FINAL GRADE IN TURF AREAS.
 9. WHEN ADJUSTING EXISTING MANHOLES, THE ENTIRE EXISTING ADJUSTMENT SHALL BE REMOVED AND REPLACED.
 10. THE COMBINATION OF NEW ADJUSTING RINGS

MANHOLE ADJUSTMENT DETAIL

(FOR ADJUSTMENT OF BOTH NEW & EXISTING MANHOLES)

TYPE	APPROVED FRAME & LID TABLE			
	NEENAH FRAME	NEENAH LID	EAST JORDAN FRAME	EAST JORDAN LID
REGULAR	1670-2004	R-1670-0358	00111711	00111732
LOW PROFILE	1670-2008	R-1670-0358	---	---
BOLT DOWN	1915JT08			



rev. 5/1/23

- SHALL BE SUCH THAT THE MINIMUM NUMBER OF RINGS POSSIBLE ARE USED.
11. FLAT-TOPS ARE NOT PERMITTED ON 4' OR 5' DIA. MANHOLES.
 12. REPLACEMENT OF EXISTING BARREL SECTIONS MAY BE REQUIRED TO MEET THE ABOVE REQUIREMENTS.
 13. MANHOLE ADJUSTMENT INSERT RISER RINGS ARE NOT APPROVED FOR USE.

DROP BOWL & DROP PIPE SIZING TABLE

INLET PIPE DIA.	DROP PIPE DIA. (MIN.)
4-6 INCH	4 INCH
8 INCH	6 INCH
10 INCH	8 INCH
>10 INCH	*

* PER MFG. OR AS DIRECTED BY FRSA

SEE 'STANDARD MANHOLE DETAIL' FOR MANHOLE REQUIREMENTS

RELINER INSIDE DROP ROUND BACK BOWL SECURED WITH 4 STAINLESS STEEL BOLTS (OR APPROVED EQUAL)

MANHOLE PIPE CONNECTION BY MEANS OF RUBBER GASKET SEAL & STAINLESS STEEL CLAMP IN ACCORDANCE WITH A.S.T.M. C-923. (PSX SERIES SIX OR EQUAL)

FLEXIBLE COUPLING WITH SS BANDS

RELINER 1 1/2" WIDE STAINLESS STEEL BRACKETS ATTACHED TO MH WALL WITH 2 STAINLESS STEEL BOLTS AT 3' INTERVALS (MIN. OF 2 PER DROP)

GLUED ELBOW FITTING EMBEDDED IN CONCRETE AT 45° TO SEWER FLOW OR AS DIRECTED.

DROP PIPE INVERT ELEV. SHALL MATCH SPRINGLINE OF EXIT PIPE

INSIDE DROP CONNECTION DETAIL

('STANDARD MANHOLE DETAIL' SHALL APPLY)

- NOTES:
1. INSIDE DROP TYPE MANHOLES SHALL BE 5' MIN. INSIDE DIA.
 2. ALL INSIDE DROP CONNECTIONS FOR SERVICES AND COLLECTOR SEWERS SHALL USE THE DROP AS MFG. BY RELINER-DURAN INC., OR EQUAL.
 3. SEE TABLE FOR DROP BOWL AND DROP PIPE SIZES.
 4. ALL INSIDE DROP PIPING SHALL BE PVC SDR35 ASTM-D3034.
 5. ATTACH THE ROUND BACK DROP BOWL AND EACH CLAMPING BRACKET TO THE MANHOLE WALL WITH 3/8" x 1" MIN. STAINLESS STEEL BOLTS AND EPOXY IMPREGNATED LUGS PER MFR.'S RECOMMENDATIONS.
 6. THE DROP BOWL SHALL BE PLACED AT A HEIGHT SO THAT THE FLOW LINE OF THE BOWL IS 2 INCHES BELOW THE INVERT OF THE INCOMING PIPE.
 7. CUT A 1" DEEP BY 3" WIDE "V" NOTCH IN INVERT OF INLET PIPE.
 8. CUT THE TOP HALF OF THE INLET PIPE FLUSH WITH THE INSIDE OF THE MANHOLE WALL.
 9. ALTERNATE INSIDE DROP SYSTEMS MAY BE CONSIDERED FOR APPROVAL.

RELINER INSIDE DROP ROUND BACK BOWL SECURED WITH 4 STAINLESS STEEL BOLTS (OR APPROVED EQUAL)

MANHOLE PIPE CONNECTION BY MEANS OF RUBBER GASKET SEAL & STAINLESS STEEL CLAMP IN ACCORDANCE WITH A.S.T.M. C-923. (PSX SERIES SIX OR EQUAL)

FLEXIBLE COUPLING WITH SS BANDS

RELINER 1 1/2" WIDE STAINLESS STEEL BRACKETS ATTACHED TO MH WALL WITH 2 STAINLESS STEEL BOLTS AT 3' INTERVALS (MIN. OF 2 PER DROP)

GLUED ELBOW FITTING EMBEDDED IN CONCRETE AT 45° TO SEWER FLOW OR AS DIRECTED.

DROP PIPE INVERT ELEV. SHALL MATCH SPRINGLINE OF EXIT PIPE

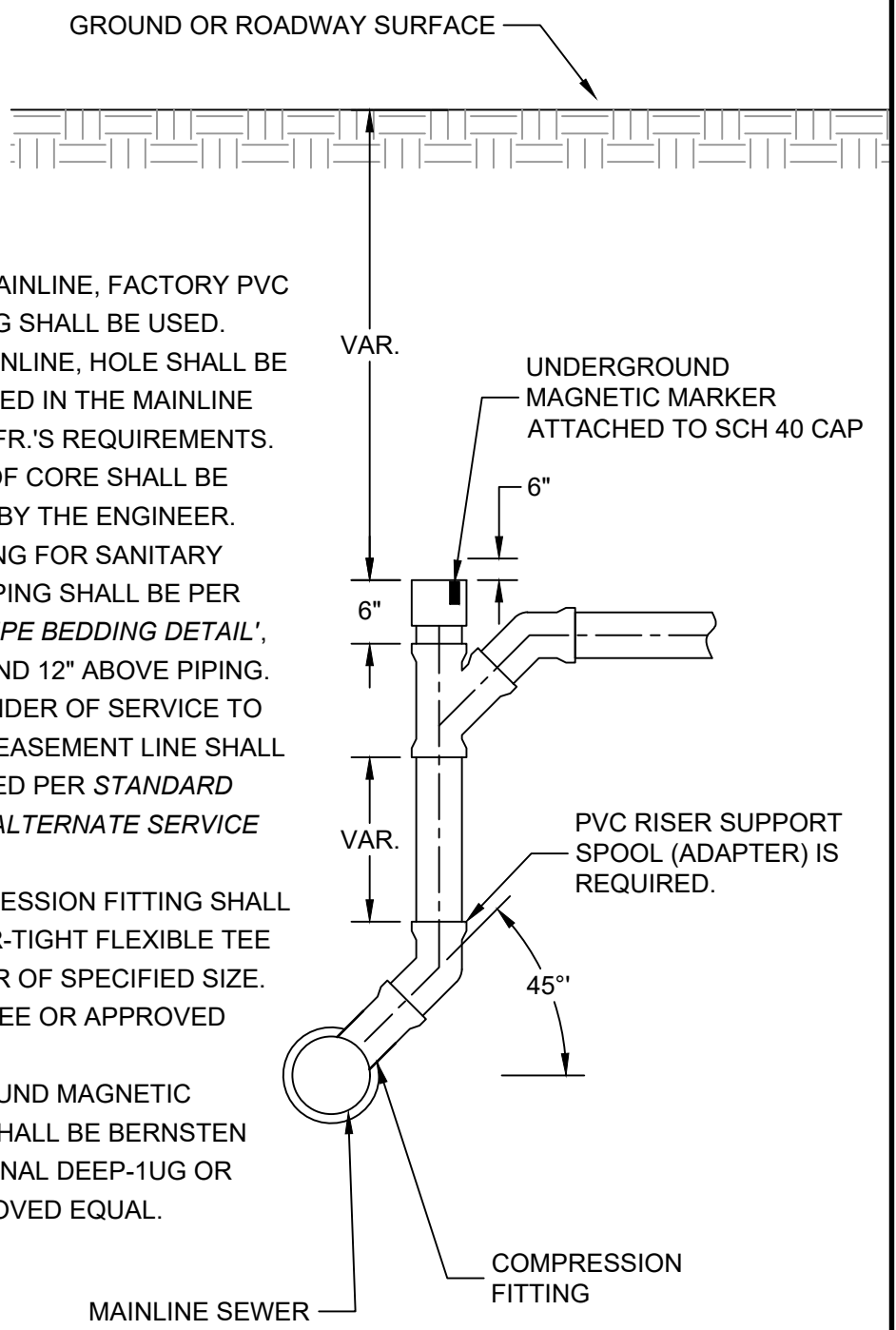
rev. 5/1/23

NOTES:

1. FOR NEW MAINLINE, FACTORY PVC WYE FITTING SHALL BE USED.
2. FOR EX. MAINLINE, HOLE SHALL BE CORE DRILLED IN THE MAINLINE PIPE PER MFR.'S REQUIREMENTS. LOCATION OF CORE SHALL BE APPROVED BY THE ENGINEER.
3. PIPE BEDDING FOR SANITARY SERVICE PIPING SHALL BE PER 'FLEXIBLE PIPE BEDDING DETAIL', 6" BELOW AND 12" ABOVE PIPING.
4. THE REMAINDER OF SERVICE TO PROPERTY/EASEMENT LINE SHALL BE INSTALLED PER STANDARD SERVICE & ALTERNATE SERVICE DETAIL.
5. THE COMPRESSION FITTING SHALL BE A WATER-TIGHT FLEXIBLE TEE CONNECTOR OF SPECIFIED SIZE. (INSERT-A-TEE OR APPROVED EQUAL).
6. UNDERGROUND MAGNETIC MARKERS SHALL BE BERNSTEN INTERNATIONAL DEEP-1UG OR FRSA APPROVED EQUAL.

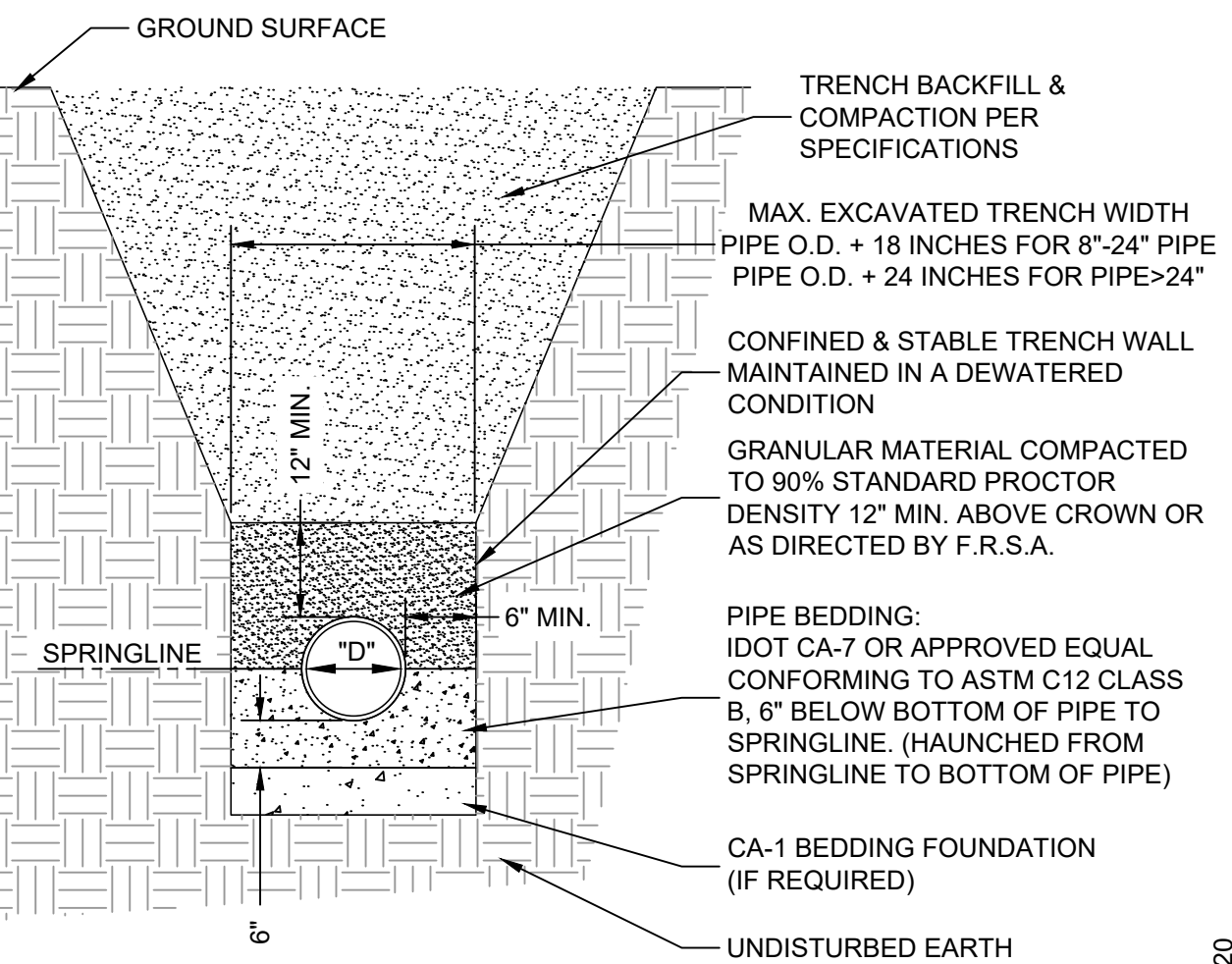
VERTICAL SERVICE RISER DETAIL

(FOR MAINLINE DIA. 8" - 18"; CONNECTION TO >18" MAIN PROHIBITED)



rev. 5/1/23

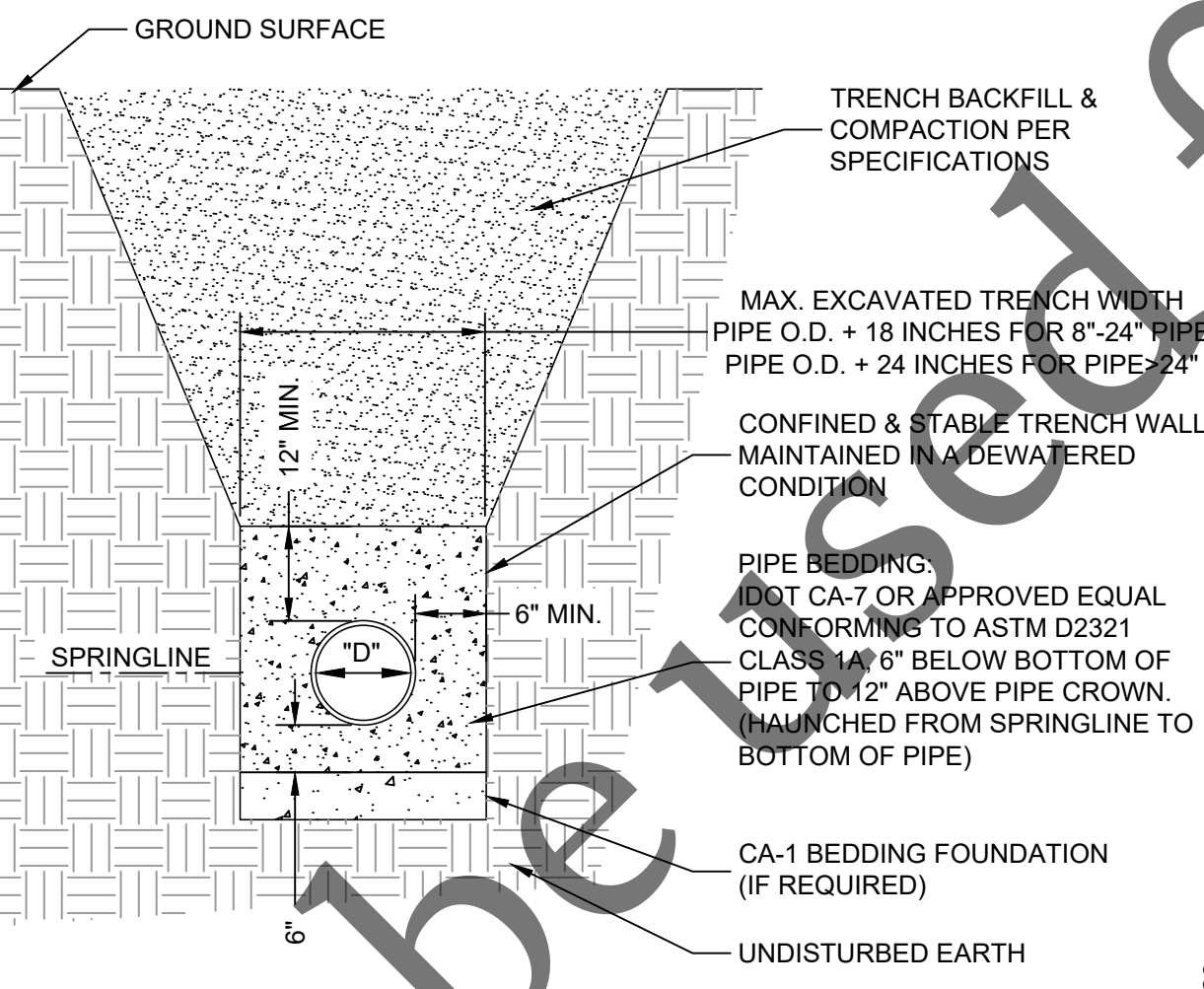
- NOTES:
1. REASONABLE CARE SHALL BE USED WHEN BACKFILLING OVER SEWER. NO MATERIALS SUCH AS ROCKS OR BOULDERS SHALL BE PLACED WITHIN 24" OF THE CROWN OF THE PIPE. NO MATERIAL LARGER THAN 8" DIA. SHALL BE USED IN THE BACKFILL.
 2. LOOSE MATERIAL SHALL BE REMOVED OR COMPACTED PRIOR TO PLACING PIPE BEDDING.
 3. BEDDING SHALL BE WELL HAUNCHED ALONG PIPE TO ENSURE VOIDS ARE ELIMINATED.



RIGID PIPE BEDDING DETAIL

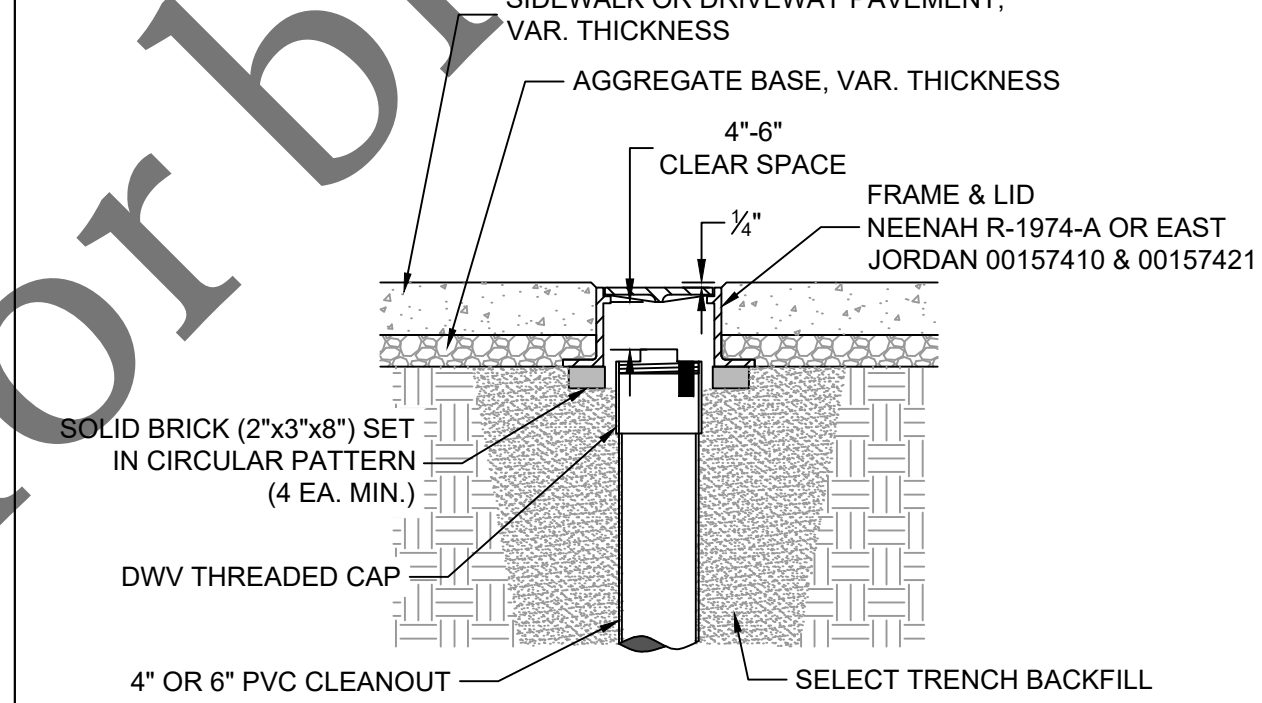
rev. 3/11/20

- NOTES:
1. REASONABLE CARE SHALL BE USED WHEN BACKFILLING OVER SEWER. NO MATERIALS SUCH AS ROCKS OR BOULDERS SHALL BE PLACED WITHIN 24" OF THE CROWN OF THE PIPE. NO MATERIAL LARGER THAN 8" DIA. SHALL BE USED IN THE BACKFILL.
 2. LOOSE MATERIAL TO BE REMOVED OR COMPACTED PRIOR TO PLACING PIPE BEDDING.
 3. BEDDING SHALL BE WELL HAUNCHED ALONG PIPE TO ENSURE VOIDS ARE ELIMINATED.



FLEXIBLE PIPE BEDDING DETAIL

rev. 3/11/20

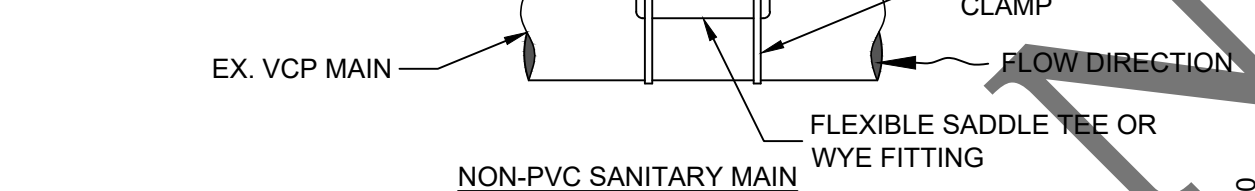


- NOTES:
1. SERVICE CLEANOUT CASTINGS ARE REQUIRED FOR ALL CLEANOUTS LOCATED IN PAVED AREAS, DRIVEWAYS, OR SIDEWALKS.
 2. THE LOCATION OF THE CLEANOUT SHALL BE APPROVED BY FOUR RIVERS SANITATION AUTHORITY (FRSA).
 3. THE FRAME SHALL BE SET ON BRICKS THAT ARE PLACED IN A CIRCULAR PATTERN THE ENTIRE CIRCUMFERENCE OF THE FRAME. THE BRICKS SHALL BE SET ON COMPACTED TRENCH BACKFILL.
 4. THE FRAME SHALL BE SET TO AN ELEVATION THAT PROVIDES 4"-6" CLEAR SPACE BETWEEN THE TOP OF THE CLEANOUT CAP AND THE BOTTOM OF THE CASTING LID.
 5. THE CONTRACTOR SHALL ENSURE THAT THE CLEANOUT CAP CAN BE UNSCREWED AND REMOVED AND REPLACED WITHOUT HINDRANCE.
 6. THE FRAME SHALL BE SET 1/4" MIN. TO 3/8" MAX. BELOW FINAL PAVEMENT ELEVATION.

SERVICE CLEANOUT CASTING DETAIL

rev. 6/1/22

- NOTES:
1. SADDLE TEE OR SADDLE WYE ARE BOTH ACCEPTABLE FOR VCP MAIN.
 2. CORE DRILL HOLE IN MAIN OR MODIFY EX. VCP FITTING FOR SADDLE DIMENSIONS.
 3. APPLY 2 BEADS OF SILICONE CAULK TO UNDERSIDE OF SADDLE AROUND OPENING.



FLEXIBLE SADDLE CONNECTION DETAIL

(FOR SERVICE CONNECTIONS TO NON-PVC SANITARY MAINS LESS THAN 18" DIA.)

rev. 3/11/20

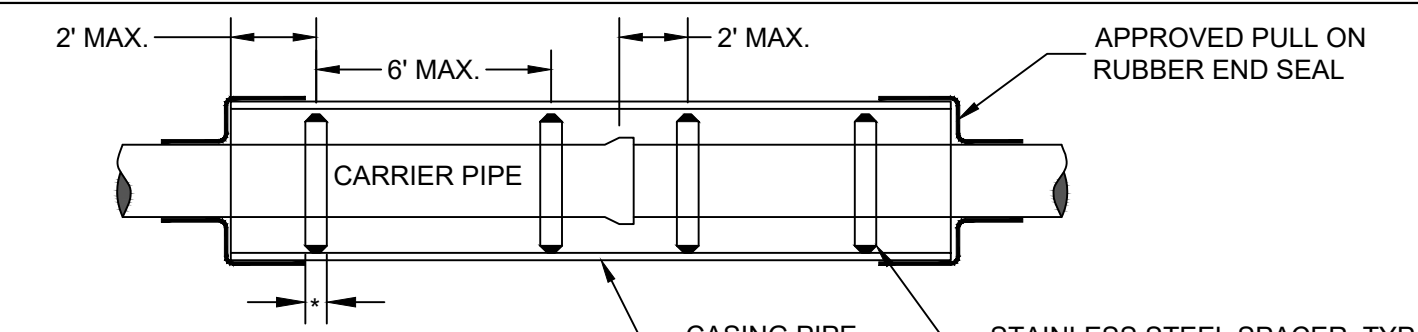
- NOTES:
1. ONLY A SADDLE WYE IS ACCEPTABLE FOR A PVC MAIN.
 2. CORE DRILL HOLE IN MAIN FOR SADDLE DIMENSIONS.
 3. APPLY 2 BEADS OF SILICONE CAULK TO UNDERSIDE OF SADDLE AROUND OPENING.



FLEXIBLE SADDLE CONNECTION DETAIL

(FOR SERVICE CONNECTIONS TO PVC SANITARY MAINS LESS THAN 18" DIA.)

rev. 3/11/20



* 8" MIN. WIDTH FOR CARRIER PIPE < 48" DIA.
12" MIN. WIDTH FOR CARRIER PIPE ≥ 48" DIA.

- NOTES:
1. CASING END SEALS & SPACERS SHALL BE AS MFD. BY CASCADE MFG., OR APPROVED EQUAL.
 2. FOR FLEXIBLE CARRIER PIPE, SPACING OF SPACERS TO BE AS SHOWN, OR PER MFR.'S RECOMMENDATION.
 3. FOR RIGID CARRIER PIPE, SPACING SHALL BE PER MFR.'S RECOMMENDATION.

CASING & SPACER DETAIL

rev. 5/15/18

