

06-11-2021 LETTING ITEM 132

STATE OF ILLINOIS  
**WINNEBAGO COUNTY HIGHWAY DEPARTMENT**  
 PLANS FOR PROPOSED ITEP IMPROVEMENT

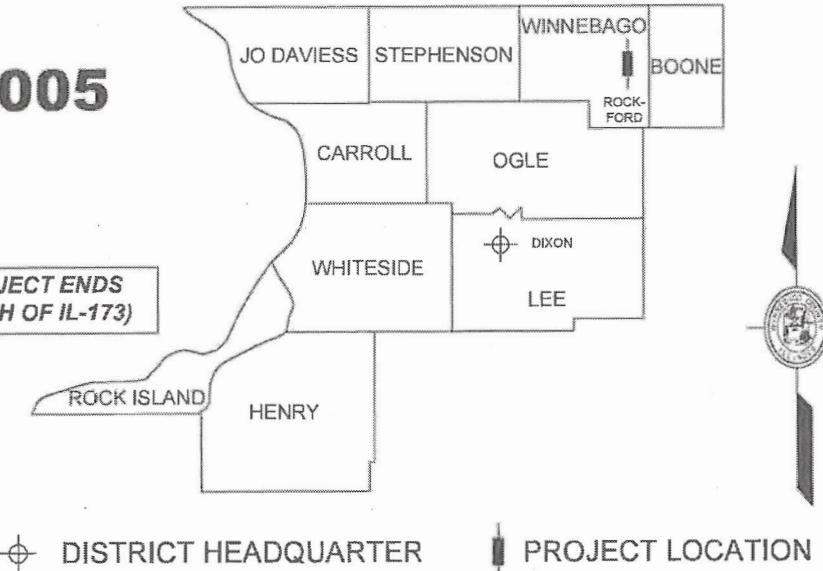


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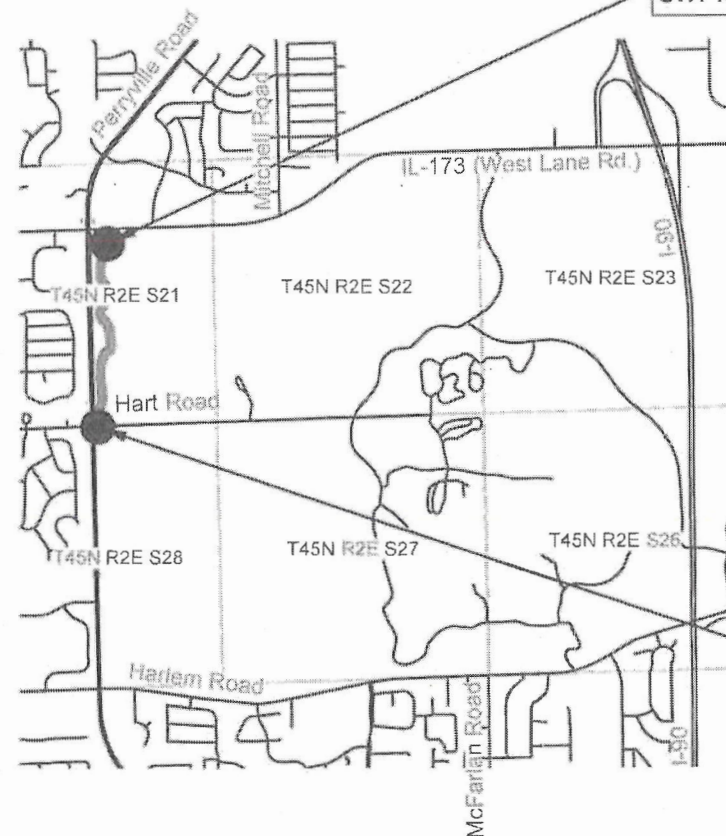
**PERRYVILLE BIKE PATH EXTENSION**  
**SECTION: 16-00633-00-BT**  
**PROJECT NO.: U1Q2(357) ITEP # 241005**

PERRYVILLE BIKE PATH EXTENSION (HART ROAD TO IL-173)  
 JOB NO.: C-92-067-20  
 CONTRACT NO.: 85706



**STANDARD DRAWINGS**

- 001001-02 AREAS OF REINFORCEMENT BARS
- 280001-07 TEMPORARY EROSION CONTROL SYSTEMS
- 285001-02 FABRIC FORMED CONCRETE REVETMENT MATS
- 424001-11 PERPENDICULAR CURB RAMPS FOR SIDEWALKS
- 482001-02 HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
- 542301-03 PRECAST REINFORCED CONCRETE FLARED END SECTION
- 542306-03 PRECAST REINFORCED CONCRETE ELLIPTICAL FLARED END SECTION
- 542401-04 METAL FLARED END SECTION FOR PIPE CULVERTS
- 542406-04 METAL FLARED END SECTION FOR PIPE ARCHES
- 601001-05 PIPE UNDERDRAINS
- 601101-02 CONCRETE HEADWALL FOR PIPE UNDERDRAINS
- 602306-03 INLET - TYPE B
- 602701-02 MANHOLE STEPS
- 604021-04 BASE, FRAME AND LIDS TYPE S
- 606001-07 CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
- 606006-04 OUTLETS FOR CONCRETE CURB AND GUTTER TYPE B-6 24
- 635001-02 DELINEATORS
- 701001-02 OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15'
- 701006-05 OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701011-04 OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
- 701101-05 OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701106-02 OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY
- 701201-05 LANE CLOSURE, 2L, 2W, DAY ONLY FOR SPEEDS >= 45 MPH
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701422-10 LANE CLOSURE, MULTILANE, FOR SPEEDS >= 45 MPH TO 55 MPH
- 701701-10 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701801-06 SIDEWALK, CORNER OR CROSSWALK CLOSURE
- 701901-08 TRAFFIC CONTROL DEVICES
- 720001-01 SIGN PANEL MOUNTING DETAILS
- 720006-04 SIGN PANEL ERECTION DETAILS
- 720011-01 METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
- 725001-01 OBJECT AND TERMINAL MARKERS
- 728001-01 TELESCOPING STEEL SIGN SUPPORT
- 729001-01 APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
- 731001-01 BASE FOR TELESCOPING STEEL SIGN SUPPORT
- 780001-05 TYPICAL PAVEMENT MARKINGS



16-00633-00-BT PROJECT ENDS  
 STA 40+01.24 (SOUTH OF IL-173)

16-00633-00-BT PROJECT BEGINS  
 STA 0+00.00 (HART ROAD)

PERRYVILLE PATH: 4,001.24 FT = 0.757 MILES  
 PATH ALONG HART ROAD & TRAIL HEAD: 344.86 FT = 0.065 MILES  
 TOTAL LENGTH OF IMPROVEMENTS = 4,346.10 FT = 0.823 MILES

SCALES:	
<b>CROSS-SECTIONS</b>	<b>PLAN &amp; PROFILE</b>
FULL SIZE	FULL SIZE
HORIZONTAL: 1" = 20'	HORIZONTAL: 1" = 50'
VERTICAL: 1" = 10'	VERTICAL: 1" = 10'
1/4 SIZE	1/4 SIZE
HORIZONTAL: 1" = 40'	HORIZONTAL: 1" = 100'
VERTICAL: 1" = 20'	VERTICAL: 1" = 20'

**CALL J.U.L.I.E.**  
 BEFORE YOU DIG  
 1-800-892-0123  
 HARLEM TWP (T45N-R2E)  
 SEC. - 21

**JAMES MATTHEW FOX**  
 062-068166  
 LICENSED PROFESSIONAL ENGINEER  
 STATE OF ILLINOIS

THESE PLANS PREPARED BY  
 WINNEBAGO COUNTY HIGHWAY DEPARTMENT

APPROVED Mar 11 2021  
*[Signature]*  
 WINNEBAGO COUNTY ENGINEER

PASSED 3/17 2021  
*[Signature]*  
 DISTRICT 2 ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID  
 BASED ON LIMITED REVIEW  
3/17 2021  
*[Signature]*  
 DEPUTY DIRECTOR OF HIGHWAYS, REGION 2 ENGINEER





# GENERAL NOTES

## GENERAL NOTES AND CONDITIONS

The scale shown on the drawings applies only to the full size plans and not reduced size plans.

The Contractor shall field verify the elevations of the benchmarks prior to commencing work. The Contractor shall also field verify location, elevation and size of existing work. The contractor shall field verify horizontal control by referencing shown coordinates to known property lines. Notify the Engineer of discrepancies in either vertical or horizontal control prior to proceeding with work.

CAD data will be available to Contractors and Consultants working on this project. This information will be provided upon request as AutoDesk Civil 3D CAD files **ONLY**. If data is required in other formats it will be your responsibility to make these conversions. If any discrepancy or inconsistency arises between the electronic data and the information on the hard copy, the information on the hard copy should be used. Contact the Project Engineer to request these files.

Where section or subsection monuments are encountered, the Engineer shall be notified before such monuments are removed. The Contract shall protect and carefully preserve all property .....  
.....  
referenced their location.

## UTILITIES

Exact horizontal and vertical locations of existing utilities shall be determined by the Contractor at no additional cost to the contract. Locations and depths shown on these plans are only schematic representation.

Abandoned underground utilities that conflict with construction or have the potential for creating future problems shall be disposed of outside the limits of the right-of-way according to Article 202.03 of the standard specifications and as directed by the Engineer. This work will not be paid for separately but shall be considered incidental. No additional compensation will be allowed.

It shall be the Contractor's responsibility to contact the utility owner to determine approved methods of utility structure adjustment. Utility structures may include, but are not limited to, manholes, water valves, handholes, etc. All materials and work necessary to complete adjustments per municipality requirements shall be considered included in the cost of the associated adjustment pay item.

The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.39 of the Standard Specifications. The phone number for J.U.L.I.E. is 800-892-0123. The utilities located within the project limits or immediately adjacent to the project construction limits are members of J.U.L.I.E.

<b>AT&amp;T</b> c/o Hector Garcia 2408 8th Avenue Rockford, IL 61108 (815) 394-7297	<b>City of Loves Park</b> c/o Nathan Bruck 100 Heart Boulevard Loves Park, IL 61111 (815) 378-5750	<b>Metro Fibernet, LCC</b> c/o Korie Nellis (812) 213-1378
<b>Commonwealth Edison</b> c/o Nora Fernandez 123 Energy Avenue Rockford, IL 61109 (815) 490-2335	<b>Nicor Gas</b> c/o Bruce Koppang 1844 Ferry Road Naperville, IL 60563 (630) 388-3046	
<b>Comcast</b> c/o Mike Owens 4450 Kishwaukee Street Rockford, IL 61109 (815) 395-8977	<b>North Park Public Water</b> c/o Ed Rice 1350 Turret Drive Machesney Park, IL 61115 (815) 633-5478	
<b>Windstream KDL / McLeod USA</b> (800) 289-1901	<b>Rock River Water Reclamation</b> 3333 Kishwaukee Street P.O. Box 7480 Rockford, IL 61109 (815) 387-7400	

## GRADING, EARTH EXCAVATION, & EMBANKMENT NOTES

All Borrow/Waste/Use sites must be approved by the Department prior to removing any material from the project or initiating any earthmoving activities, including temporary stockpiling outside the limits of construction.

The final top four inches of soil in any right-of-way area disturbed by the Contractor must be a cohesive soil capable of supporting vegetation.

## GRADING, EARTH EXCAVATION, & EMBANKMENT NOTES CONT.)

The Contractor shall use care in grading or excavating near any and all existing items which are not indicated to be removed. Any damage done to existing items by the Contractor's operations shall be repaired at no additional expense to the owner.

Special attention is brought to article 202.03 of the standard specification. The contractor shall conduct the earth excavation operation in such a way as to minimize the mixing of clean soil with construction debris. If the contractor chooses to dispose of excess soil, construction and demolition debris, or waste at an IEPA regulated facility, the contractor shall be responsible to perform all necessary testing, documentation, and correspondence to comply with all IEPA requirements. The cost of complying with IEPA requirements shall not be paid for separately, but shall be considered incidental to the contract. IEPA form LPC 663 (Uncontaminated Soil Certification for P.E.) is in the proposal; based on this certification, no contaminated soil is expected.

## PAVING AND DRAINAGE NOTES

The Contractor is responsible for maintaining positive drainage at the conclusion of each working day.

All drainage structures within the project limits shall be delivered to the County without silt, debris or other such obstructions at the time of final inspection. The need for additional cleaning of the structures shall be at the direction of the Engineer. This work shall not be paid for separately, but shall be considered incidental to the contract.

Culvert & bridge flows must be maintained throughout the project. Normal flow shall be allowed to pass at the rate it enters the jobsite. High flows shall be allowed to pass without causing damage to upstream properties.

Connecting bands for corrugated metal pipes shall be metal and shall be coated with the same material as the pipe sections. The connecting bands shall be a minimum of 18" wide.

The cost of making storm sewer connections to existing drainage structures shall be included in the various contract unit prices for STORM SEWER.

All gutter outlets shall be extended to ditch flow as directed by the Engineer.

Delineators shall be installed as shown in Standard 635001, except that the post shall be rotated 180 and only metal-backed delineators shall be permitted. Delineators shall be placed at the ends of approach guardrail terminal sections, and at each headwall or end section of AR Culverts. This work will be paid for at the contract unit price each for DELINEATORS.

The area to be primed shall be limited to that which can be covered with HMA the same day, unless otherwise permitted by the Engineer.

All Type A Disabled Ramps must have barrier curbs on the sides of the ramps as shown on Highway Standard 424001. The barrier curbs shall be constructed according to the detail of side curb on Highway Standard 424001.

The Contractor shall place temporary hot-mix asphalt tapers along all sides of the utility structures protruding above the milled surface. The temporary tapers shall extend 2' outside of the castings, except for the approach side to traffic shall have a 4' taper length. Hot-mix asphalt meeting the approval of the Engineer shall be used, no cold millings will be allowed. The cost of the material, placement, maintenance, removal and disposal of said work will be included in the Pay Item for Hot-Mix Asphalt Surface Removal.

Where proposed construction abuts existing appurtenances, a saw cut shall be made to achieve a neat butt joint. Saw cutting shall be done in accordance with the applicable portions of Section 442 of the Standard Specifications and as directed by the Engineer. All saw cutting, including but not limited to, saw cuts for removals, patching, butt joints, and construction staging shall not be paid for separately, but shall be considered as included in the various items for removal.

## PAVING AND DRAINAGE NOTES CONT.)

The Contractor shall construct all private driveways and field entrances in accordance with the plans. The Contractor is responsible to maintain access to all existing driveways during all stages of construction.

The Contractor, at his own expense, shall relocate and replace to the satisfaction of the Engineer, all mailboxes in accordance with Article 107.20 of the Standard Specifications. Emergency access, garbage pick-up, and mail service shall be maintained at all times. It will be the contractor's responsibility to notify residents when access to their driveways will be temporarily closed due to curb and gutter and / or driveway replacement. The Contractor shall distribute notices provided by the County to residents. Every effort shall be made to accommodate access to these properties including knocking on doors when driveways are about to be closed.

The Contractor shall be responsible for collecting and maintaining an electronic log of all stakeout survey that is performed on the job, either by him / her or any sub-contractor performing the stakeout. Upon request, all logs shall be submitted to the County. No additional compensation will be allowed for this work, but shall be considered included in the cost for CONSTRUCTION LAYOUT.

## TREE PLANTING NOTES

Tree planting layout shall be performed under the direction of the Engineer. The Contractor shall provide lath at locations identified in the tree schedule and the Engineer shall adjust locations as necessary. Mulch shall be placed 4" thick and to the diameter around the tree as shown on District Standard 92.1. The mulch shall be hardwood wood chips placed on weed barrier fabric. This work shall be included in the cost of the tree.

## LEGEND

EXISTING	PROPOSED	DESCRIPTION
		TREE
		UTILITY POLE
		UNDERGROUND ELECTRIC LINE
		OVERHEAD UTILITY LINE
		ELECTRIC PEDESTAL
		GAS LINE
		GAS VALVE
		TELEPHONE LINE
		TELEPHONE PEDESTAL
		TELEPHONE VAULT
		WATER LINE
		WATER VALVE
		FIRE HYDRANT
		SANITARY MANHOLE
		SANITARY SEWER
		STORM SEWER INLET SPECIAL, 1
		STORM SEWER INLET SPECIAL, 2
		STORM SEWER MANHOLE
		GUARD RAIL
		CONCRETE END SECTION
		METAL END SECTION
		PROPERTY LINE
		RIGHT-OF-WAY
		DITCH FLOW
		INLET PROTECTION
		PERIMETER EROSION BARRIER
		TEMPORARY DITCH CHECK
		TEMPORARY ROCK DITCH CHECK
		SIGN
		LUMINAIRE
		SIGNAL POST
		MAST ARM
		HANDHOLE
		HEAVY DUTY HANDHOLE
		DOUBLE HANDHOLE
		SIGNAL CONTROLLER



# SUMMARY OF QUANTITIES

CONSTRUCTION CODE: 0028

SPECIAL PROVISION	ITEM NO.	PAY CODE NUMBER	ITEMS	UNIT	QUANTITIES
Δ	N	1	20100110 TREE REMOVAL (6 TO 15 UNITS DIAMETER)	UNIT	362.50
Δ	N	2	20100210 TREE REMOVAL (OVER 15 UNITS DIAMETER)	UNIT	100.00
Δ	N	3	20100500 TREE REMOVAL, ACRES	ACRE	1.69
Δ	N	4	20101700 SUPPLEMENTAL WATERING	UNIT	24.00
	Y	5	20200100 EARTH EXCAVATION	CY	12,081.00
	N	6	20201200 REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CY	1,000.00
	N	7	20800150 TRENCH BACKFILL	CY	109.00
	N	8	20900110 POROUS GRANULAR BACKFILL	CY	60.00
	N	9	21001000 GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SY	3,000.00
Δ	N	10	25000400 NITROGEN FERTILIZER NUTRIENT	LBS	381.00
Δ	N	11	25000500 PHOSPHORUS FERTILIZER NUTRIENT	LBS	381.00
Δ	N	12	25000600 POTASSIUM FERTILIZER NUTRIENT	LBS	381.00
Δ	N	13	25100115 MULCH, METHOD 2	AC	4.23
Δ	N	14	25100630 EROSION CONTROL BLANKET	SY	1,350.00
Δ	N	15	25100635 HEAVY DUTY EROSION CONTROL BLANKET	SY	2,132.00
	N	16	28000200 EARTH EXCAVATION FOR EROSION CONTROL	CY	100.00
	N	17	28000250 TEMPORARY EROSION CONTROL SEEDING	LB	525.00
	N	18	28000305 TEMPORARY DITCH CHECKS	FT	1,025.00
	N	19	28000315 AGGREGATE DITCH CHECKS	TON	30.00
	N	20	28000400 PERIMETER EROSION BARRIER	FT	4,000.00
	N	21	28000500 INLET AND PIPE PROTECTION	EA	25.00
	N	22	28100105 STONE RIPRAP, CLASS A3	SY	2,016.00
	N	23	28200200 FILTER FABRIC	SY	2,016.00
	N	24	35101600 AGGREGATE BASE COURSE, TYPE B 4"	SY	7,475.90
	N	25	35102400 AGGREGATE BASE COURSE, TYPE B 12"	SY	157.90
	N	26	40600275 BITUMINOUS MATERIALS (PRIME COAT)	LBS	18,400.00
	N	27	40600290 BITUMINOUS MATERIALS (TACK COAT)	LBS	1,000.00
	N	28	40603415 HOT-MIX ASPHALT SURFACE COURSE, IL-9.5FG, N50	TON	803.70
	N	29	42400200 PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SF	380.00
	N	30	42400800 DETECTABLE WARNINGS	SF	60.00
	N	31	44000157 HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SY	30.00
	N	32	44213200 SAW CUTS	FT	20.00
	N	33	48203029 HOT-MIX ASPHALT SHOULDERS, 8"	SY	88.60
	N	34	52200800 SEGMENTAL CONCRETE BLOCK WALL	SF	4,020.00
	Y	35	54001001 BOX CULVERT END SECTIONS, CULVERT NO. 1	EA	2.00
	N	36	54011005 PRECAST CONCRETE BOX CULVERTS 10' X 5'	FT	30.00
	N	37	54213660 PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EA	6.00
	N	38	54214503 PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 18"	EA	2.00
	N	39	54214509 PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 24"	EA	2.00
	N	40	54214515 PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 30"	EA	2.00
	N	41	542A0220 PIPE CULVERTS, CLASS A, TYPE 1 15"	FT	168.00
	N	42	542A5473 PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 18"	FT	24.00
	N	43	542A5479 PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 24"	FT	40.00
	N	44	542A5485 PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 30"	FT	32.00
	N	45	54262715 METAL FLARED END SECTIONS 15"	EA	1.00
	N	46	54262718 METAL FLARED END SECTIONS 18"	EA	1.00
	N	47	54262721 METAL FLARED END SECTIONS 21"	EA	1.00
	N	48	550B0050 STORM SEWERS, CLASS B, TYPE 1 12"	FT	653.80
	N	49	550B0070 STORM SEWERS, CLASS B, TYPE 1 15"	FT	20.60
	N	50	550B0090 STORM SEWERS, CLASS B, TYPE 1 18"	FT	50.30
	N	51	60100060 CONCRETE HEADWALLS FOR PIPE DRAINS	EA	12.00
	N	52	60240230 INLETS, TYPE B, TYPE 5 FRAME, OPEN LID	EA	4.00
	N	53	60608582 COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.24	FT	828.00
	N	54	63500105 DELINEATORS	EA	12.00
	N	55	67100100 MOBILIZATION	LSUM	1.00
Δ	N	56	72000100 SIGN PANEL - TYPE 1	SF	55.30
Δ	N	57	72900100 METAL POST - TYPE A	FT	110.00
Δ	N	58	72900200 METAL POST - TYPE B	FT	77.00
Δ	N	59	78000100 THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SF	3.10
Δ	N	60	78000200 THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FT	1,550.00
Δ	N	61	78000600 THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FT	25.00
Δ	N	62	78000650 THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FT	19.00
Δ	N	63	78001100 PAINT PAVEMENT MARKING - LETTERS AND SYMBOLS	SF	41.60
Δ	N	64	78001110 PAINT PAVEMENT MARKING - LINE 4"	FT	75.00
Δ	N	65	78001130 PAINT PAVEMENT MARKING - LINE 6"	FT	75.00
Δ	N	66	78001150 PAINT PAVEMENT MARKING - LINE 12"	FT	183.00

SPECIAL PROVISION	ITEM NO.	PAY CODE NUMBER	ITEMS	UNIT	QUANTITIES
Δ	N	67	78001180 PAINT PAVEMENT MARKING - LINE 24"	FT	24.50
	N	68	78300201 PAVEMENT MARKING REMOVAL - GRINDING	SF	200.00
Δ	N	69	A2001724 TREE, ACER SACCHARUM (SUGAR MAPLE), 3" CALIPER, BALLED AND BURLAPPED	EA	25.00
Δ	N	70	A2002616 TREE, CARYA CORDIFORMIS (BITTERNUT HICKORY), 2" CALIPER, BALLED AND BURLAPPED	EA	25.00
Δ	N	71	A2002720 TREE, CARYA OVATA (SHAGBARK HICKORY), 2-1/2" CALIPER, BALLED AND BURLAPPED	EA	25.00
Δ	N	72	A2006420 TREE, QUERCUS ALBA (WHITE OAK), 2-1/2" CALIPER, BALLED AND BURLAPPED	EA	25.00
Δ	N	73	A2006516 TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED	EA	25.00
Δ	N	74	A2006716 TREE, QUERCUS MACROCARPA (BUR OAK), 2" CALIPER, BALLED AND BURLAPPED	EA	25.00
Δ	N	75	A2006916 TREE, QUERCUS PALUSTRIS (PIN OAK), 2" CALIPER, BALLED AND BURLAPPED	EA	25.00
Δ	N	76	A2007116 TREE, QUERCUS RUBRA (RED OAK), 2" CALIPER, BALLED AND BURLAPPED	EA	25.00
Δ	Y	77	K1004572 PRAIRIE SEEDING (SPECIAL)	ACRE	4.20
	Y	78	X2111100 TOPSOIL EXCAVATION AND PLACEMENT, SPECIAL	CY	2,272.20
	Y	79	X3112900 SUBBASE GRANULAR MATERIAL (SPECIAL)	CY	2,493.20
Δ	Y	80	X5091725 BICYCLE RAILING, SPECIAL	FT	56.00
	Y	81	X6013600 PIPE UNDERDRAINS 4" (MODIFIED)	FT	1,420.00
	Y	82	X6024242 INLETS, SPECIAL, NO. 1	EA	6.00
	Y	83	X7010216 TRAFFIC CONTROL & PROTECTION SPECIAL	LSUM	1.00
	Y	84	XZ054505 ROCK FILL (SPECIAL)	TON	300.00
	Y	85	Z0013798 CONSTRUCTION LAYOUT	LSUM	1.00

Δ SPECIALTY ITEMS

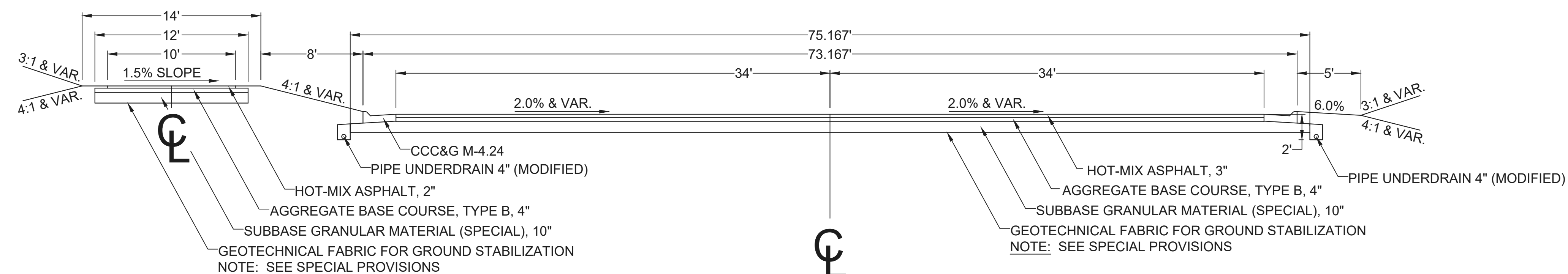
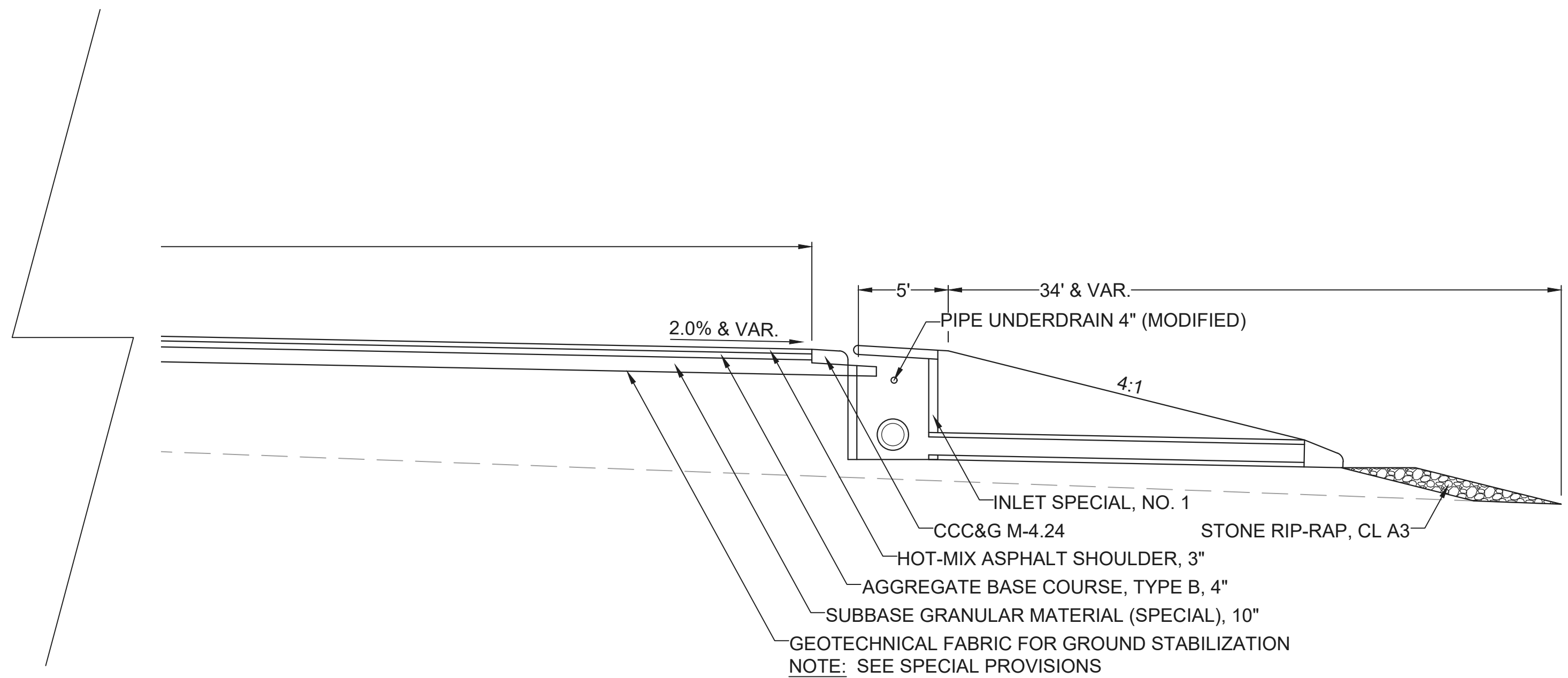
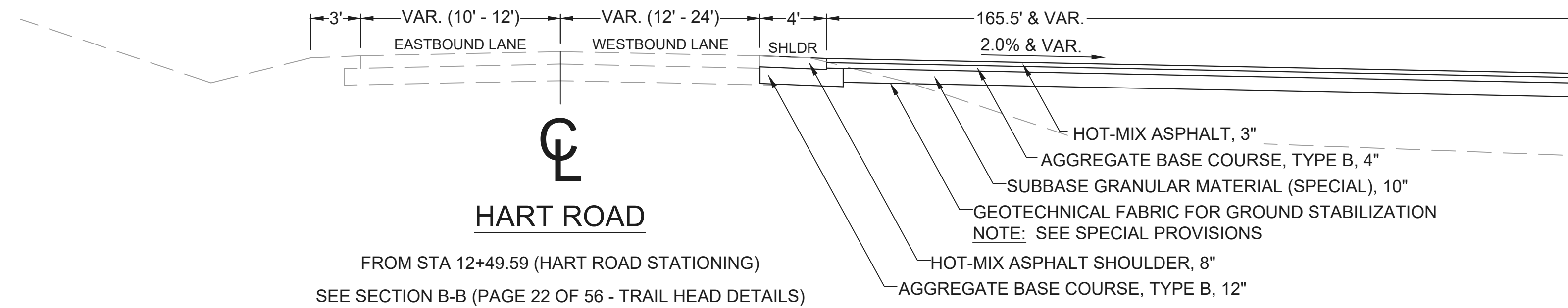
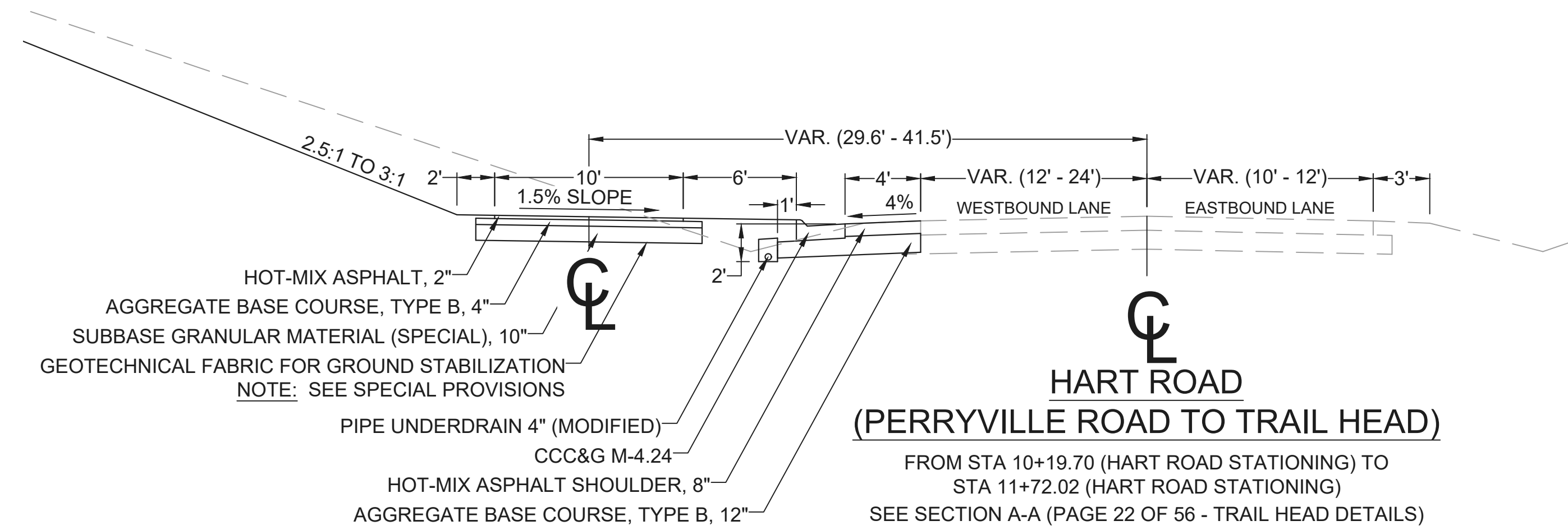


# HMA MIXTURE CHART (MAINLINE)

MIXTURE USE (S):	BIKE PATH SURFACE	SHOULDER SURFACE	SHOULDER BINDER
LIFT THICKNESS RANGE:	1.25" - 2.5"	1.5" - 2.5"	2.5" - 4"
PG:	PG 58-28	PG 58-22	PG 58-28
DESIGN AIR VOIDS:	4.0% @ N50	4.0% @ N50	4.0% @ N50
MIXTURE COMPOSITION (GRADATION MIXTURE):	IL-9.5FG	IL-9.5	IL-19.0
FRICTION AGGREGATE:	MIX C	MIX C	N/A
20 YEAR ESAL:	N/A	N/A	N/A
MIX UNIT WEIGHT:	112 LBS / SY / IN	112 LBS / SY / IN	112 LBS / SY / IN

NOTE: THE FINAL TOP FOUR INCHES OF SOIL IN ANY AREA DISTURBED BY THE CONTRACTOR MUST BE A COHESIVE SOIL CAPABLE OF SUPPORTING VEGETATION. SEE SPECIAL PROVISIONS FOR TOPSOIL EXCAVATION AND PLACEMENT, SPECIAL.

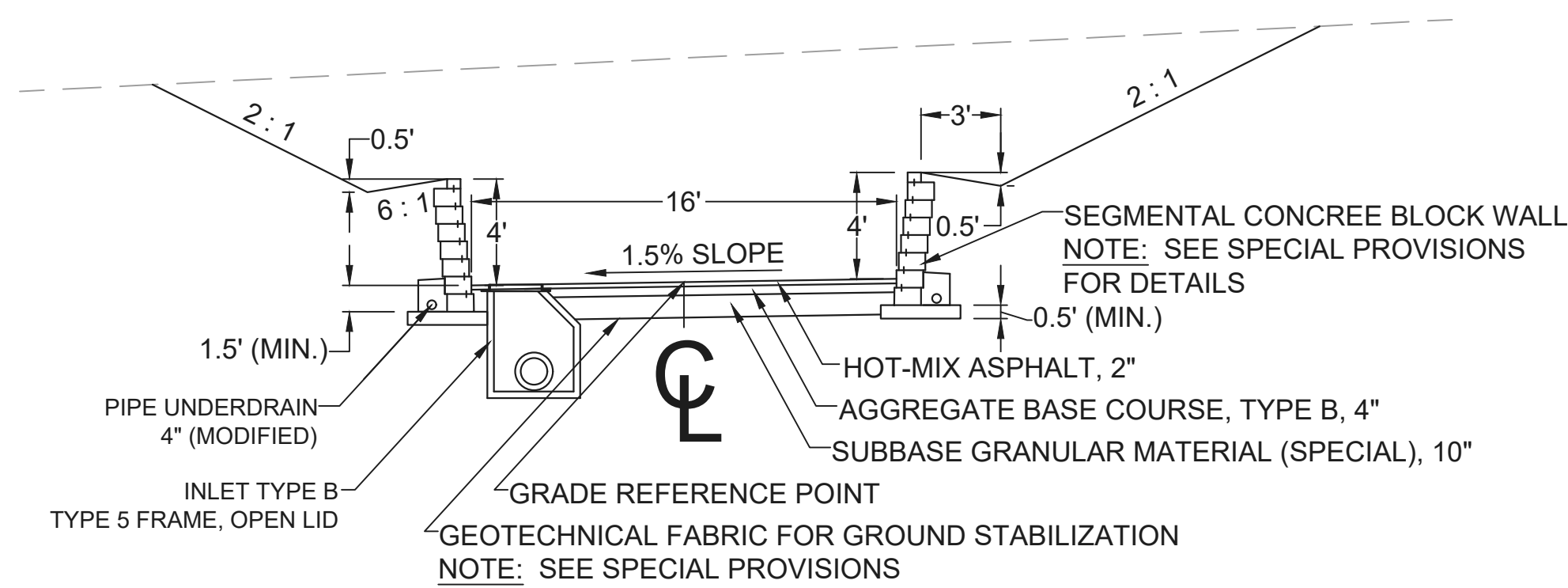
NOTE: THE ENGINEER RESERVES THE RIGHT TO ELIMINATE SOME OR ALL OF THE PLAN QUANTITY FOR GEOTECHNICAL FABRIC IF SOIL CONDITIONS WARRANT IN THE FIELD.



**SECTION THROUGH TRAIL HEAD**

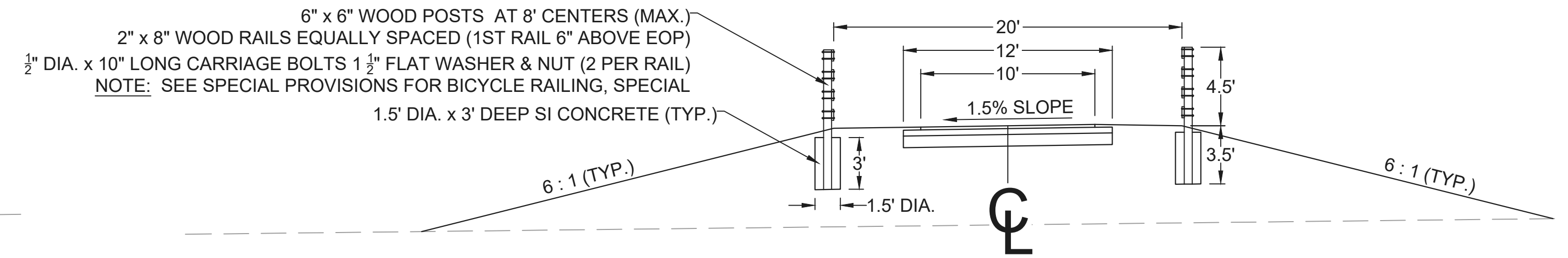
SEE SECTION C-C (PAGE 22 OF 56 - TRAIL HEAD DETAILS)





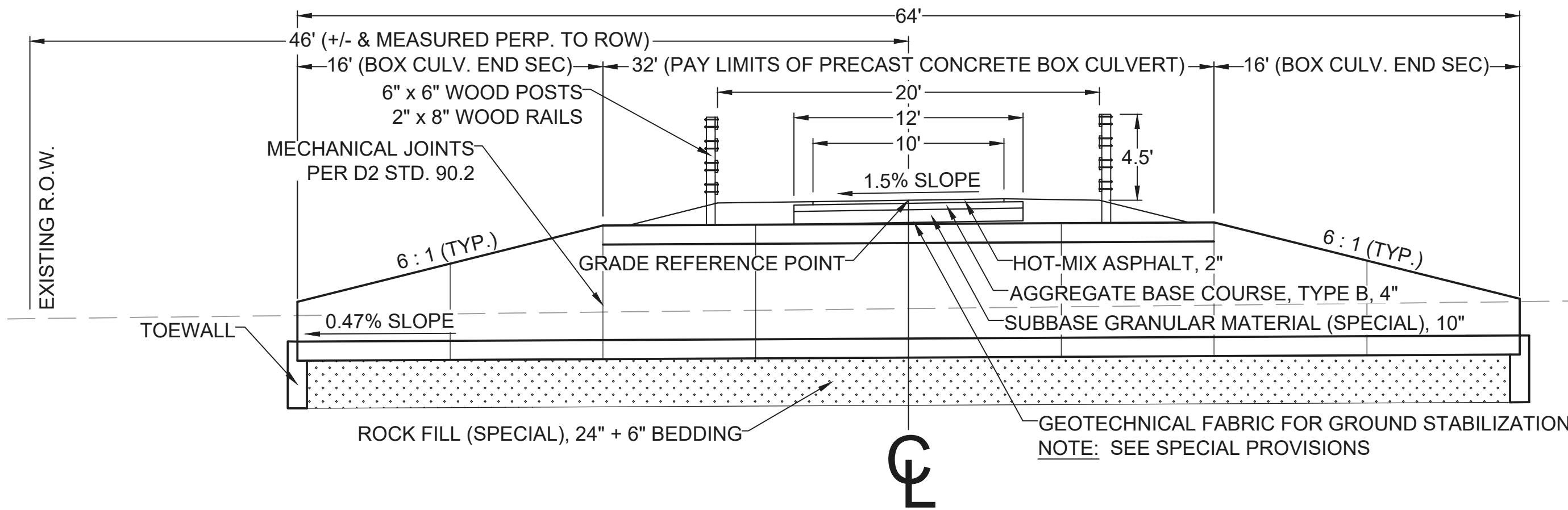
**PERRYVILLE BIKE PATH EXTENSION**

SEGMENTAL BLOCK WALL SECTION FROM STA 22+25 TO STA 26+24  
 NOTE: A 25' RADIUS WILL BE PROVIDED AT THE BEGINNING AND END OF EACH WALL TO ALLOW FOR A GRADING TRANSITION FROM THE WALL SECTION TO A DITCH SECTION



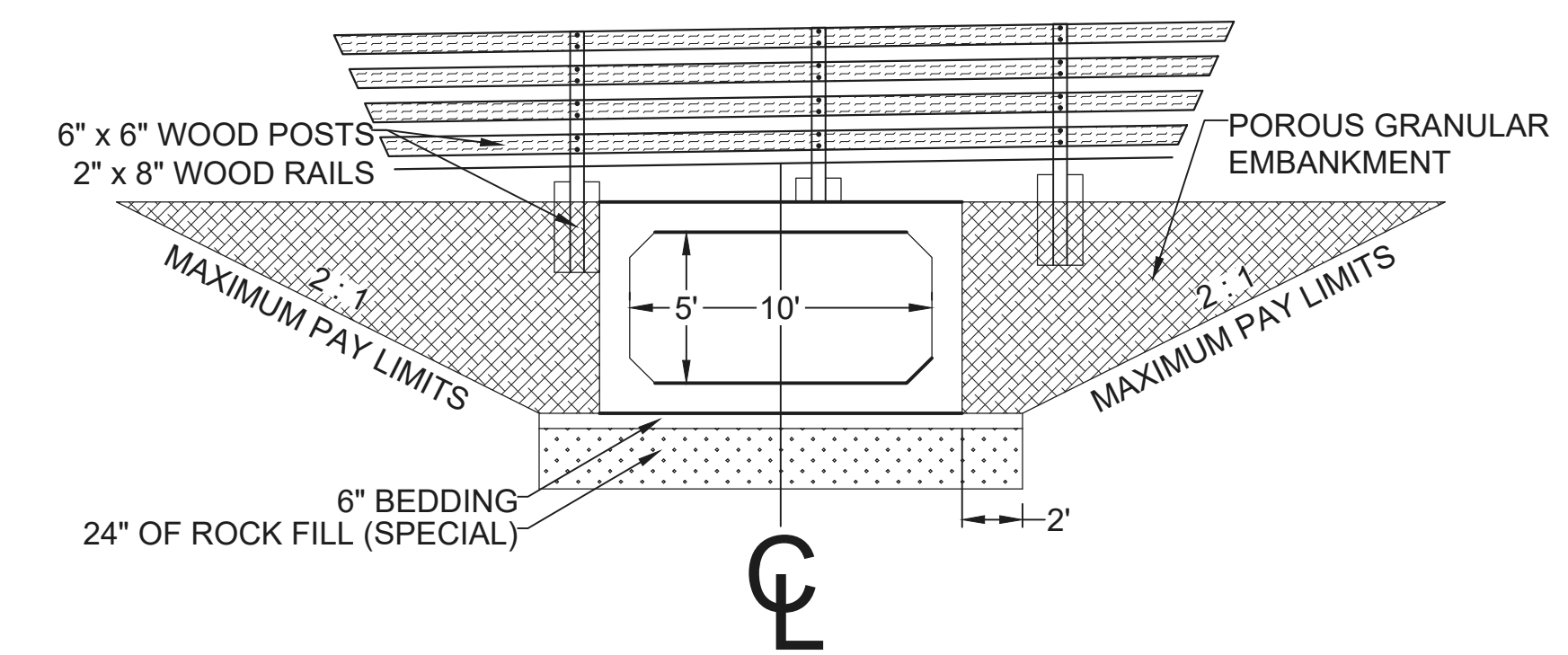
**PERRYVILLE BIKE PATH EXTENSION**

BICYCLE RAILING, SPECIAL



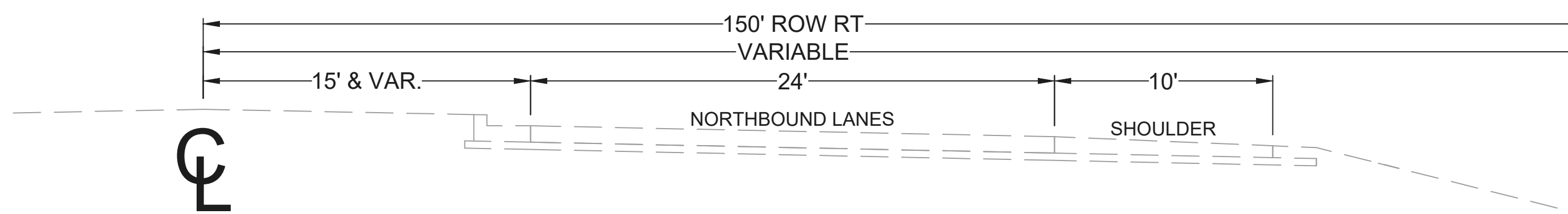
**PERRYVILLE BIKE PATH EXTENSION**

STA 7+05.00 (THROUGH 10' SPAN x 5' RISE PRECAST CONCRETE BOX CULVERT & END SECTION)



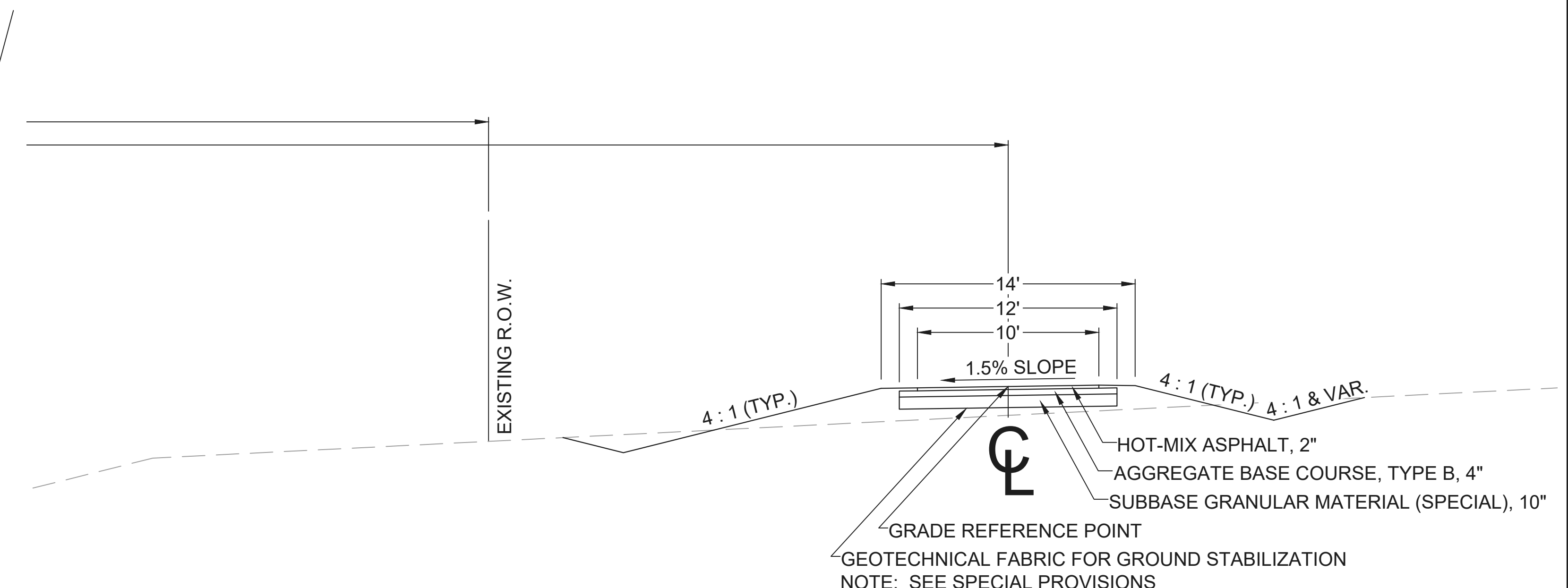
**PERRYVILLE BIKE PATH EXTENSION**

STA 7+05.00 (THROUGH 10' SPAN x 5' RISE PRECAST CONCRETE BOX CULVERT & END SECTION)



**PERRYVILLE ROAD (HART ROAD TO IL-173 (WEST LANE ROAD))**

30' & VARIABLE MEDIAN  
 FROM STA. 481+77.02 TO 521+00



**PERRYVILLE BIKE PATH EXTENSION**

FROM STA 0+00 TO STA 40+01.24 (ROCK CUT STATE PARK)

NOTE: THE FINAL TOP FOUR INCHES OF SOIL IN ANY AREA DISTURBED BY THE CONTRACTOR MUST BE A COHESIVE SOIL CAPABLE OF SUPPORTING VEGETATION. SEE SPECIAL PROVISIONS FOR TOPSOIL EXCAVATION AND PLACEMENT, SPECIAL.

NOTE: THE ENGINEER RESERVES THE RIGHT TO ELIMINATE SOME OR ALL OF THE PLAN QUANTITY FOR GEOTECHNICAL FABRIC IF SOIL CONDITIONS WARRANT IN THE FIELD.









# SCHEDULE OF QUANTITIES

**BOX CULVERT END SECTIONS, CULVERT NO. 1**

PERRYVILLE PATH

STA	O/S	BOX CUL END SEC C1 (EA)
7+05	Lt	1.0
7+05	Rt	1.0
<b>Total</b>		<b>2.0</b>

**PRECAST CONCRETE BOX CULVERTS 10' X 5'**

PERRYVILLE PATH

STA	O/S	PCBC 10 X 5 (FT)
7+05	Both	30.0
<b>Total</b>		<b>30.0</b>

**PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"**

PERRYVILLE PATH

STA	O/S	PRC FLAR END SEC 15 (EA)
11+57	Rt	1.0
11+59	Rt	1.0
11+61	Rt	1.0
11+97	Lt	1.0
12+00	Lt	1.0
12+02	Lt	1.0
<b>Total</b>		<b>6.0</b>

**PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 18"**

PERRYVILLE PATH

STA	O/S	PRC FL END S EQ RS 18 (EA)
39+77	Lt	1.0
39+89	Rt	1.0
<b>Total</b>		<b>2.0</b>

**PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 24"**

PERRYVILLE PATH

STA	O/S	PRCF END S EL EQRS 24 (EA)
33+50	Lt	1.0
33+50	Rt	1.0
<b>Total</b>		<b>2.0</b>

**PRECAST REINFORCED CONCRETE FLARED END SECTIONS, EQUIVALENT ROUND-SIZE 30"**

PERRYVILLE PATH

STA	O/S	PRCF END S EL EQRS 30 (EA)
28+00	Lt	1.0
28+00	Rt	1.0
<b>Total</b>		<b>2.0</b>

**PIPE CULVERTS, CLASS A, TYPE 1 15"**

PERRYVILLE PATH

STA	O/S	P CUL CL A 1 15 (FT)
11+76	Both	56.0
11+79	Both	56.0
11+82	Both	56.0
<b>Total</b>		<b>168.0</b>

**PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 18"**

PERRYVILLE PATH

STA	O/S	P CUL CL A 1 EQRS 18 (FT)
39+83	Both	24
<b>Total</b>		<b>24.0</b>

**PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 24"**

PERRYVILLE PATH

STA	O/S	P CUL CL A 1 EQRS 24 (FT)
33+50	Both	40.0
<b>TOTAL</b>		<b>40.0</b>

**PIPE CULVERTS, CLASS A, TYPE 1 EQUIVALENT ROUND-SIZE 30"**

PERRYVILLE PATH

STA	O/S	P CUL CL A 1 EQRS 30 (FT)
28+00	Both	32.0
<b>Total</b>		<b>32.0</b>

**METAL END SECTIONS 15"**

PERRYVILLE PATH

STA	O/S	MET END SEC 15 (EA)
0+92	Lt	1.0
<b>Total</b>		<b>1.0</b>

**METAL END SECTIONS 18"**

PERRYVILLE PATH

STA	O/S	MET END SEC 18 (EA)
26+20	Lt	1.0
<b>Total</b>		<b>1.0</b>

**METAL END SECTIONS 21"**

PERRYVILLE PATH

STA	O/S	MET END SEC 21 (EA)
Trail Head Parking Lot (Rock Cut - Hart Road) 12+73 (Hart Road Stationing)	Lt	1.0
<b>Total</b>		<b>1.0</b>

**STORM SEWERS, CLASS B, TYPE 1 12"**

PERRYVILLE PATH

STA	O/S	STORM SEW CL B 1 12 (FT)
0+49.90 to 0+92.32	Both	77.0
23+50 to 24+65	Both	116.3
24+65 to 25+75	Both	111.5
Trail Head Parking Lot (Rock Cut - Hart Road) 11+85 to 12+30 (Hart Road Stationing)	Lt	52.7
12+30 to 12+68 (Hart Road Stationing)	Lt	38.4
12+68 to 12+72 (Hart Road Stationing)	Lt	112.9
12+27 to 12+72 (Hart Road Stationing)	Lt	45.0
Contingency		100.0
<b>Total</b>		<b>653.8</b>

**STORM SEWERS, CLASS B, TYPE 1 15"**

PERRYVILLE PATH

STA	O/S	STORM SEW CL B 1 15 (FT)
25+75 to 26+00	Lt	25.1
26+00 to 26+20	Lt	20.6
<b>Total</b>		<b>20.6</b>

**STORM SEWERS, CLASS B, TYPE 1 18"**

PERRYVILLE PATH

STA	O/S	STORM SEW CL B 1 18 (FT)
Trail Head Parking Lot (Rock Cut - Hart Road) 12+72 to 12+73 (Hart Road Stationing)	Lt	50.3
<b>Total</b>		<b>50.3</b>

**INLETS, TYPE B, TYPE S FRAME, OPEN LID**

PERRYVILLE PATH

STA	O/S	INLETS TB TSF OL (EA)
23+50	Lt	1.0
24+65	Lt	1.0
25+75	Lt	1.0
26+00	Lt	1.0
<b>Total</b>		<b>4.0</b>

**INLETS, SPECIAL, NO. 1**

PERRYVILLE PATH

STA	O/S	INLETS SPL N1 (EA)
0+49.90	Rt	1.0
Trail Head Parking Lot (Rock Cut - Hart Road) 11+85 (Hart Road Stationing)	Lt	1.0
12+27 (Hart Road Stationing)	Lt	1.0
12+30 (Hart Road Stationing)	Lt	1.0
12+68 (Hart Road Stationing)	Lt	1.0
12+72 (Hart Road Stationing)	Lt	1.0
<b>Total</b>		<b>6.0</b>

**COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.24**

PERRYVILLE PATH

STA	O/S	CCC&G TM4.24 (FT)
10+20 to 12+07 (Hart Road Stationing)	Lt	187.5
12+07 to 13+07 (Trail Head - Hart Road)	Lt	640.5
<b>Total</b>		<b>828.0</b>

**TOPSOIL EXCAVATION AND PLACEMENT, SPECIAL**

PERRYVILLE PATH

STA	O/S	TOPSOIL EXC & PLAC SP (CY)
0+00 to 40+00	Both	2,048.4
Trail Head Parking Lot (Rock Cut - Hart Road)		223.9
<b>Total</b>		<b>2,272.2</b>

Note: TOPSOIL EXCAVATION AND PLACEMENT, SPECIAL has

**BICYCLE RAILING, SPECIAL**

PERRYVILLE PATH

STA	OFFSET	BICYCLE RAILING SPL (FT)
6+91 to 7+19	Rt	28.00
6+91 to 7+19	Lt	28.00
<b>Total</b>		<b>56.00</b>

Note: A quantity of 56 feet has been provided for BICYCLE RAILING, SPECIAL for installation at the box culvert at STA 7+05. See the typical section and special provisions for

Note: A contingency quantity of 1,420 Feet of PIPE UNDERDRAINS 4" (MODIFIED) has been provided for locations with combination concrete curb and gutter, see typical sections for details.

Note: A contingency quantity of 12 each of CONCRETE HEADWALL FOR PIPE DRAINS has been provided for locations at each of the across path drainage crossing and at vertical sags. See the special provision and district standard 37.2.

**SIGN PANELS & POSTS**

PERRYVILLE PATH

STA	O/S	SIGN PANEL	SIGN PANEL T1 (SF)	METAL POST TY A (CY)	METAL POST TY B (CY)
0+50.30	Rt	R1-5b (36" x 36") - Stop Here for Peds	9	22	
0+52.11	Lt	R1-1 (18" x 18") - Stop	2.25	11	
0+56.07	Rt	R1-1 (30" x 30") - Stop	6.25		11
0+58.40	Rt	D1-1 (24" x 18") - Bkce Route (plaque)	3		11
0+58.40	Rt	M6-4 (12" x 9") - Bicycle Route Arrow Sign	0.75		
0+64.71	Rt	R1-1 (18" x 18") - Stop	2.25	11	
1+25.48	Rt	R5-3 (24" x 24") - No Motor Vehicles	4		11
1+25.48	Lt	D1-1 (24" x 18") - Bkce Route (plaque)	3		11
1+25.48	Lt	M6-4 (12" x 9") - Bicycle Route Arrow Sign	0.75		
2+82.15	Rt	R1-1 (18" x 18") - Stop	2.25	11	
21+91.28	Lt	W7-5 (18" x 18") - Hill	2.25	11	
21+91.28	Rt	W7-5 (18" x 18") - Hill	2.25	11	
34+29.34	Rt	W7-5 (18" x 18") - Hill	2.25	11	
39+01.24	Rt	D1-1 (24" x 18") - Bkce Route (plaque)	3		11
39+01.24	Rt	M6-4 (12" x 9") - Bicycle Route Arrow Sign	0.75		
39+71.76	Lt	D1-1 (24" x 18") - Bkce Route (plaque)	3		11
	Lt	M6-4 (12" x 9") - Bicycle Route Arrow Sign	0.75		
39+81.98	Rt	R1-1 (18" x 18") - Stop	2.25	11	
Unknown	Rt	D1-1 (24" x 18") - Bkce Route (plaque)	3		11
	Rt	M6-4 (12" x 9") - Bicycle Route Arrow Sign	0.75		
Trail Head		R7-8 (12" x 18") - Handic. Reserv. Parking Sign	1.50	11	
<b>Total</b>			<b>55.3</b>	<b>110.0</b>	<b>77.0</b>



# SCHEDULE OF QUANTITIES



## TREE PLANTING SCHEDULE

PERRYVILLE PATH									
STA	O/S	T-ACER SACR 3 (EA)	T-CARYA CORD 2 (EA)	T-CARYA OVATA 2-1/2 (EA)	T-QUERCUS ALBA 2-1/2 (EA)	T-QUERCUS BICOL 2 (EA)	T-QUERCUS MACR 2 (EA)	T-QUERCUS PALUS 2 (EA)	T-QUERCUS RUBRA 2 (EA)
Trail Head (Hart Road Stationing)									
11+13.3	150.7' Lt			1					
11+23.7	203.0' Lt			1					
11+53.3	150.7' Lt		1						
11+53.4	247.2' Lt			1					
11+60.7	187.6' Lt		1						
11+81.6	218.9' Lt		1						
11+97.7	276.8' Lt			1					
12+13.0	239.8' Lt		1						
12+50.0	247.1' Lt		1						
12+50.0	287.1' Lt			1					
12+86.9	239.7' Lt		1						
13+02.3	276.7' Lt			1					
13+18.2	218.7' Lt		1						
13+39.1	187.4' Lt		1						
13+46.4	150.4' Lt		1						
13+46.6	247.0' Lt			1					
13+76.1	202.6' Lt			1					
13+86.4	150.4' Lt			1					
Perryville Path Stationing									
2+43.4	40.0' Rt					1			
2+90.8	40.0' Rt					1			
3+39.6	40.0' Rt					1			
3+77.2	40.0' Lt			1					
3+82.2	40.0' Rt				1				
4+16.2	40.0' Rt				1				
4+26.0	40.0' Lt			1					
4+50.2	40.0' Rt				1				
4+74.7	40.0' Lt			1					
4+84.2	40.0' Rt				1				
4+92.4	63.1' Lt			1					
5+18.2	40.0' Rt				1				
5+23.4	40.0' Lt			1					
5+47.9	65.8' Lt			1					
5+52.1	40.0' Rt				1				
5+72.2	40.0' Lt			1					
5+86.1	40.0' Rt				1				
6+03.3	63.0' Lt			1					
6+20.1	40.0' Rt				1				
6+20.9	40.0' Lt			1					
6+56.9	40.0' Rt				1				
6+56.9	80.0' Rt				1				
6+56.9	120.0' Rt				1				
6+56.9	160.0' Rt				1				
6+64.0	40.0' Lt			1					
7+48.3	60.0' Rt				1				
7+48.3	100.0' Rt				1				
7+48.3	140.0' Rt				1				
11+52.5	45.0' Rt							1	
11+72.5	75.0' Rt						1		
11+92.5	45.0' Rt					1			
12+12.5	75.0' Rt							1	
12+32.5	45.0' Rt						1		
12+52.5	75.0' Rt					1			
12+72.8	45.0' Rt							1	
12+97.9	75.0' Rt						1		
13+19.9	45.0' Rt					1			
13+39.2	75.0' Rt							1	
13+43.8	40.0' Lt			1					
13+67.0	45.0' Rt				1				
13+79.1	40.0' Lt			1					
13+89.3	75.0' Rt				1				
14+13.6	45.0' Rt							1	
14+14.9	40.0' Lt			1					
14+33.6	75.0' Rt						1		
14+53.6	45.0' Rt					1			
14+54.9	40.0' Lt			1					
14+93.6	45.0' Rt							1	
14+94.9	40.0' Lt			1					
15+38.7	45.0' Rt					1			
15+88.8	45.0' Rt					1			
16+10.5	40.0' Lt			1					
16+12.7	75.0' Rt							1	
16+29.3	45.0' Rt						1		
16+46.0	75.0' Rt					1			
16+59.2	40.0' Lt			1					
16+62.7	45.0' Rt							1	
16+79.4	75.0' Rt						1		
16+96.1	45.0' Rt					1			
17+08.0	40.0' Lt			1					
18+28.5	40.0' Lt	1							
18+48.5	65.0' Lt							1	
18+68.5	40.0' Lt	1							
18+88.5	65.0' Lt							1	
19+08.5	40.0' Lt	1							
19+28.5	65.0' Lt					1			
19+48.5	40.0' Lt	1							
19+68.5	65.0' Lt							1	
19+88.5	40.0' Lt	1							

## TREE PLANTING SCHEDULE

PERRYVILLE PATH									
STA	O/S	T-ACER SACR 3 (EA)	T-CARYA CORD 2 (EA)	T-CARYA OVATA 2-1/2 (EA)	T-QUERCUS ALBA 2-1/2 (EA)	T-QUERCUS BICOL 2 (EA)	T-QUERCUS MACR 2 (EA)	T-QUERCUS PALUS 2 (EA)	T-QUERCUS RUBRA 2 (EA)
20+08.5	65.0' Lt								1
20+28.5	40.0' Lt	1							
20+52.4	65.0' Lt							1	
20+73.0	40.0' Lt	1							
21+00.2	65.0' Lt								1
21+17.4	40.0' Lt	1							
21+48.0	65.0' Lt							1	
21+61.9	40.0' Lt	1							
21+76.2	30.0' Rt							1	
21+95.8	65.0' Lt							1	
22+06.4	40.0' Lt	1							
22+13.4	30.0' Rt								1
22+40.9	25.0' Lt							1	
22+43.6	65.0' Lt	1							
22+50.7	30.0' Rt							1	
22+83.6	25.0' Lt							1	
22+87.9	30.0' Rt							1	
22+91.3	65.0' Lt	1							
23+25.1	30.0' Rt								1
23+26.3	25.0' Lt								1
23+37.7	65.0' Lt	1							
23+64.4	25.0' Lt				1				
23+68.1	30.0' Rt							1	
23+98.7	25.0' Lt		1						
24+18.3	30.0' Rt							1	
24+33.1	25.0' Lt			1					
24+67.5	25.0' Lt	1							
24+68.6	30.0' Rt								1
25+01.8	25.0' Lt							1	
25+18.8	30.0' Rt							1	
25+36.2	25.0' Lt							1	
25+69.0	30.0' Rt							1	
25+70.6	25.0' Lt								1
26+10.0	25.0' Lt				1				
26+10.0	30.0' Rt								1
26+50.0	25.0' Lt		1						
26+50.0	30.0' Rt							1	
26+90.0	25.0' Lt			1					
26+90.0	30.0' Rt							1	
27+28.8	30.0' Rt								1
27+31.2	25.0' Lt	1							
27+65.2	30.0' Rt							1	
27+74.9	30.0' Lt							1	
28+00.0	39.7' Rt							1	
28+11.2	55.3' Lt							1	
28+34.8	30.0' Rt							1	
29+74.0	25.0' Rt		1						
29+74.0	30.0' Lt			1					
30+10.9	25.0' Rt			1					
30+18.5	30.0' Lt								1
30+47.9	25.0' Rt								1
30+62.9	30.0' Lt							1	
30+84.8	25.0' Rt							1	
31+05.6	30.0' Lt							1	
31+24.4	25.0' Rt							1	
31+45.6	30.0' Lt		1						
31+64.4	25.0' Rt							1	
31+85.6	30.0' Lt			1					
32+04.4	25.0' Rt							1	
32+25.6	30.0' Lt								1
32+44.4	25.0' Rt		1						
32+61.4	30.0' Lt							1	
32+92.3	30.0' Lt							1	
32+99.0	30.0' Rt			1					
33+28.3	30.0' Lt		1						
33+40.7	35.0' Rt								1
33+68.3	30.0' Lt			1					
33+80.7	35.0' Rt							1	
34+08.3	30.0' Lt								1
34+20.4	30.0' Rt							1	
34+46.7	25.0' Lt			1					
34+62.2	25.0' Rt		1						
34+84.8	25.0' Lt		1						
35+04.3	25.0' Rt			1					
35+22.4	30.0' Lt			1					
35+46.4	25.0' Rt		1						
35+60.2	30.0' Lt		1						
35+86.1	25.0' Rt			1					
36+05.3	30.0' Lt			1					
36+19.8	30.0' Rt		1						
36+53.2	30.0' Rt			1					
36+55.8	40.0' Lt		1						
36+90.3	40.0' Lt			1					
36+98.1	35.0' Rt		1						
37+24.8	40.0' Lt		1						
37+44.7	35.0' Rt	1							
37+59.3	40.0' Lt	1							
37+91.2	35.0' Rt	1							
37+93.8	40.0' Lt	1							
38+28.3	40.0' Lt	1							





# SCHEDULE OF QUANTITIES

<b>TREE PLANTING SCHEDULE</b>									
<b>PERRYVILLE PATH</b>									
STA	O/S	T-ACER SACR 3 (EA)	T-CARYA CORD 2 (EA)	T-CARYA OVATA 2-1/2 (EA)	T-QUERCUS ALBA 2-1/2 (EA)	T-QUERCUS BICOL 2 (EA)	T-QUERCUS MACR 2 (EA)	T-QUERCUS PALUS 2 (EA)	T-QUERCUS RUBRA 2 (EA)
38+37.8	35.0' Rt	1							
38+62.8	40.0' Lt	1							
38+83.9	35.0' Rt	1							
39+00.0	40.0' Lt	1							
39+22.6	25.0' Rt	1							
Contingency			2	2	5	3	2	2	2
<b>Total</b>		<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>

TREE PLANTING NOTE: TREE PLANTING LAYOUT SHALL BE PERFORMED UNDER THE DIRECTION OF THE ENGINEER. THE CONTRACTOR SHALL PROVIDE LATH AT LOCATIONS IDENTIFIED IN THE TREE SCHEDULE AND THE ENGINEER SHALL APPROVE ALL LOCATIONS PRIOR TO BEGINNING ANY TREE PLANTING. MULCH SHALL BE PLACED 4" THICK AND TO THE DIAMETER AROUND THE TREE AS SHOWN ON DISTRICT STANDARD 92.1. THE MULCH SHALL BE HARDWOOD WOOD CHIPS PLACED ON WEED BARRIER FABRIC. THIS WORK SHALL BE INCLUDED IN THE COST OF THE TREE.



Line Table: Perryville Road Path Centerline Alignment  
(Harlem Road to Swanson Road)

Line #	Begin STA	End STA	Length	Direction	Start Point	End Point
PERRYVILLE ROAD CL LINE1	429+00.00	481+77.02	5,277.02	N1° 31' 11.58"W	(2,609,692.05, 2,068,714.14)	(2,609,552.08, 2,073,989.30)
PERRYVILLE ROAD CL LINE2	481+77.02	525+23.97	4,346.95	N1° 20' 43.56"W	(2,609,552.08, 2,073,989.30)	(2,609,450.01, 2,078,335.05)
PERRYVILLE ROAD CL LINE3	538+56.41	580+57.65	4,201.24	N38° 37' 40.07"E	(2,609,867.33, 2,079,572.14)	(2,612,489.99, 2,082,854.22)
PERRYVILLE ROAD CL LINE4	604+57.21	627+45.81	2,288.60	N1° 17' 31.74"W	(2,613,242.60, 2,085,081.84)	(2,613,190.99, 2,087,369.86)

Curve Table: Perryville Road Centerline Alignment  
(Harlem Road to Swanson Road)

Curve #	PC STA	PT STA	PI STA	Delta Angle	Radius	Length	Tangent	Chord Direction	Start Point	End Point
PERRYVILLE ROAD CL CURVE1	525+23.97	538+56.41	532+18.60	39°58'24"	1,909.86	1,332.44	694.627	N18° 38' 28.26"E	(2,609,450.01, 2,078,335.05)	(2,609,867.33, 2,079,572.14)
PERRYVILLE ROAD CL CURVE2	580+57.65	604+57.21	593+08.44	39°55'12"	3,444.01	2,399.56	1,250.794	N18° 40' 04.16"E	(2,612,489.99, 2,082,854.22)	(2,613,242.60, 2,085,081.84)

Line Table: Perryville Path Centerline Alignment  
(Hart Road to IL-173)

Line #	Begin STA	End STA	Length	Direction	Start Point	End Point
PERRYVILLE PATH CL LINE1	0+00.00	0+45.46	45.46	N0° 25' 04.73"E	(2,609,656.01, 2,073,979.08)	(2,609,656.34, 2,074,024.54)
PERRYVILLE PATH CL LINE2	0+45.46	1+07.76	19.95	N15° 45' 16.75"W	(2,609,650.71, 2,074,066.37)	(2,609,645.30, 2,074,085.57)
PERRYVILLE PATH CL LINE3	1+07.76	2+49.39	63.49	N14° 05' 31.41"E	(2,609,644.17, 2,074,162.82)	(2,609,659.63, 2,074,224.40)
PERRYVILLE PATH CL LINE4	2+49.39	7+48.29	110.00	N24° 27' 31.42"W	(2,609,760.79, 2,074,577.25)	(2,609,715.25, 2,074,677.38)
PERRYVILLE PATH CL LINE5	7+48.29	12+70.83	118.36	N1° 20' 43.48"W	(2,609,760.61, 2,075,076.12)	(2,609,703.83, 2,075,194.45)
PERRYVILLE PATH CL LINE6	12+70.83	15+13.29	102.68	N25° 21' 03.80"E	(2,609,732.63, 2,075,329.95)	(2,609,776.60, 2,075,422.74)
PERRYVILLE PATH CL LINE7	15+13.29	20+28.19	199.74	N5° 24' 36.72"W	(2,609,915.26, 2,075,692.83)	(2,609,896.43, 2,075,891.68)
PERRYVILLE PATH CL LINE8	20+28.19	23+30.60	20.56	N48° 43' 41.23"W	(2,609,762.07, 2,076,154.60)	(2,609,746.61, 2,076,168.16)
PERRYVILLE PATH CL LINE9	23+30.60	25+73.82	143.02	N36° 19' 09.49"E	(2,609,724.70, 2,076,369.74)	(2,609,809.41, 2,076,484.98)
PERRYVILLE PATH CL LINE10	25+73.82	30+89.36	157.71	N34° 49' 34.54"W	(2,609,813.96, 2,076,833.99)	(2,609,723.89, 2,076,963.45)
PERRYVILLE PATH CL LINE11	30+89.36	33+05.51	117.16	N1° 20' 43.56"W	(2,609,706.00, 2,077,018.22)	(2,609,703.25, 2,077,135.34)
PERRYVILLE PATH CL LINE12	33+05.51	38+80.65	131.09	N37° 23' 44.60"E	(2,609,767.87, 2,077,578.53)	(2,609,847.48, 2,077,682.68)

Curve Table: Perryville Path Centerline Alignment  
(Hart Road to IL-173)

Curve #	PC STA	PT STA	PI STA	Delta Angle	Radius	Length	Tangent	Chord Direction	Start Point	End Point
PERRYVILLE PATH CL CURVE1	0+45.46	0+87.80	0+66.77	16°10'21"	150.00	42.34	21.312	N7° 40' 06.01"W	(2,609,656.34, 2,074,024.54)	(2,609,650.71, 2,074,066.37)
PERRYVILLE PATH CL CURVE2	1+07.76	1+85.89	1+47.73	29°50'48"	150.00	78.14	39.977	N0° 49' 52.67"W	(2,609,645.30, 2,074,085.57)	(2,609,644.17, 2,074,162.82)
PERRYVILLE PATH CL CURVE3	2+49.39	3+68.15	3+10.19	30°14'30"	225.00	118.76	60.797	N29° 12' 46.20"E	(2,609,659.63, 2,074,224.40)	(2,609,716.92, 2,074,326.86)
PERRYVILLE PATH CL CURVE4	3+68.15	6+38.29	5+22.19	68°47'32"	225.00	270.15	154.039	N9° 56' 14.78"E	(2,609,716.92, 2,074,326.86)	(2,609,760.79, 2,074,577.25)
PERRYVILLE PATH CL CURVE5	6+38.29	8+93.44	8+23.49	36°57'39"	225.00	145.15	75.199	N5° 58' 41.72"E	(2,609,715.25, 2,074,677.38)	(2,609,700.39, 2,074,819.25)
PERRYVILLE PATH CL CURVE6	8+93.44	9+92.66	9+43.87	25°15'55"	225.00	99.22	50.428	N0° 07' 49.76"W	(2,609,700.39, 2,074,819.25)	(2,609,700.17, 2,074,917.66)
PERRYVILLE PATH CL CURVE7	9+92.66	10+94.98	10+44.72	26°03'23"	225.00	102.32	52.062	N0° 15' 54.09"E	(2,609,700.17, 2,074,917.66)	(2,609,700.64, 2,075,019.11)
PERRYVILLE PATH CL CURVE8	10+94.98	11+52.47	11+23.88	14°38'19"	225.00	57.49	28.900	N5° 58' 26.10"E	(2,609,700.64, 2,075,019.11)	(2,609,706.61, 2,075,076.12)
PERRYVILLE PATH CL CURVE9	11+52.47	14+10.61	13+42.01	26°41'47"	300.00	139.78	71.184	N12° 00' 10.16"E	(2,609,703.83, 2,075,194.45)	(2,609,732.63, 2,075,329.95)
PERRYVILLE PATH CL CURVE10	14+10.61	16+10.47	15+62.65	24°44'49"	225.00	97.18	49.361	N37° 43' 28.54"E	(2,609,776.60, 2,075,422.74)	(2,609,835.60, 2,075,499.01)

Curve Table: Perryville Path Centerline Alignment  
(Hart Road to IL-173)

Curve #	PC STA	PT STA	PI STA	Delta Angle	Radius	Length	Tangent	Chord Direction	Start Point	End Point
PERRYVILLE PATH CL CURVE11	16+10.47	18+28.45	17+28.87	55°30'30"	225.00	217.98	118.399	N22° 20' 38.28"E	(2,609,835.60, 2,075,499.01)	(2,609,915.26, 2,075,692.83)
PERRYVILLE PATH CL CURVE12	20+28.19	23+30.60	21+87.04	43°19'05"	400.00	302.42	158.848	N27° 04' 08.97"W	(2,609,896.43, 2,075,891.68)	(2,609,762.07, 2,076,154.60)
PERRYVILLE PATH CL CURVE13	23+30.60	25+73.82	24+88.73	85°02'51"	150.00	222.65	137.564	N6° 12' 15.87"W	(2,609,746.61, 2,076,168.16)	(2,609,724.70, 2,076,369.74)
PERRYVILLE PATH CL CURVE14	25+73.82	30+89.36	29+31.41	71°08'44"	300.00	372.52	214.563	N0° 44' 47.48"E	(2,609,809.41, 2,076,484.98)	(2,609,813.96, 2,076,833.99)
PERRYVILLE PATH CL CURVE15	30+89.36	33+05.51	32+77.15	33°28'51"	100.00	58.44	30.078	N18° 05' 09.05"W	(2,609,723.89, 2,076,963.45)	(2,609,706.00, 2,077,018.22)
PERRYVILLE PATH CL CURVE16	33+05.51	35+75.51	34+99.69	17°30'55"	500.00	152.85	77.025	N7° 24' 43.84"E	(2,609,703.25, 2,077,135.34)	(2,609,722.90, 2,077,286.32)
PERRYVILLE PATH CL CURVE17	35+75.51	36+55.21	36+16.32	30°26'28"	150.00	79.69	40.812	N0° 56' 57.23"E	(2,609,722.90, 2,077,286.32)	(2,609,724.20, 2,077,365.07)
PERRYVILLE PATH CL CURVE18	36+55.21	38+80.65	37+76.24	51°40'01"	250.00	225.44	121.035	N11° 33' 43.91"E	(2,609,724.20, 2,077,365.07)	(2,609,767.87, 2,077,578.53)

Line Table: Hart Road Path Centerline Alignment  
(Perryville Path to Trail Head)

Line #	Begin STA	End STA	Length	Direction	Start Point	End Point
HART PATH CL LINE24	100+00.00	100+42.90	42.90	N87° 24' 27.08"E	(2,609,655.90, 2,074,037.18)	(2,609,698.76, 2,074,039.12)
HART PATH CL LINE25	100+42.90	100+43.49	0.59	S89° 38' 27.29"E	(2,609,698.76, 2,074,039.12)	(2,609,699.35, 2,074,039.12)
HART PATH CL LINE26	100+43.49	100+43.79	0.30	S89° 38' 27.29"E	(2,609,699.35, 2,074,039.12)	(2,609,699.65, 2,074,039.12)
HART PATH CL LINE27	100+43.79	100+52.79	8.99	S89° 38' 27.29"E	(2,609,699.65, 2,074,039.12)	(2,609,708.65, 2,074,039.06)
HART PATH CL LINE28	100+52.79	100+72.00	19.22	S89° 38' 27.29"E	(2,609,708.65, 2,074,039.06)	(2,609,727.86, 2,074,038.94)
HART PATH CL LINE29	100+72.00	100+72.22	0.22	S89° 38' 27.29"E	(2,609,727.86, 2,074,038.94)	(2,609,728.08, 2,074,038.94)
HART PATH CL LINE30	100+72.22	100+95.63	23.42	S89° 44' 29.05"E	(2,609,728.08, 2,074,038.94)	(2,609,751.49, 2,074,038.83)
HART PATH CL LINE31	100+95.63	101+38.09	42.46	S89° 55' 42.23"E	(2,609,751.49, 2,074,038.83)	(2,609,793.95, 2,074,038.78)
HART PATH CL LINE32	101+38.09	101+57.41	19.32	S89° 24' 45.96"E	(2,609,793.95, 2,074,038.78)	(2,609,813.27, 2,074,038.58)
HART PATH CL LINE33	101+57.41	102+94.52	96.73	N1° 56' 16.74"W	(2,609,838.51, 2,074,064.43)	(2,609,835.24, 2,074,161.10)
HART PATH CL LINE34	102+94.52	103+44.86	18.92	N88° 03' 43.26"E	(2,609,854.55, 2,074,181.77)	(2,609,873.47, 2,074,182.41)

Curve Table: Hart Road Path Centerline Alignment  
(Perryville Road to Trail Head)

Curve #	PC STA	PT STA	PI STA	Delta Angle	Radius	Length	Tangent	Chord Direction	Start Point	End Point
HART PATH CL CURVE34	101+57.41	101+97.79	101+83.54	92°31'31"	25.00	40.37	26.127	N44° 19' 28.65"E	(2,609,813.27, 2,074,038.58)	(2,609,838.51, 2,074,064.43)
HART PATH CL CURVE35	102+94.52	103+25.93	103+14.52	90°00'00"	20.00	31.42	20.000	N43° 03' 43.26"E	(2,609,835.24, 2,074,161.10)	(2,609,854.55, 2,074,181.77)

**Note:** The centerline alignment for the proposed path along Hart Road is based on a 17.583' offset of the existing Hart Road North edge of pavement (EOP) or an 11.00' offset of the proposed back of curb (BOC).

**Note:** The centerline alignment for the proposed path along the west side of the proposed trail head is based on a 15.00' offset of the proposed trail head BOC or a 17.583' offset of the EOP of the proposed trail head.

**Note:** The IDNR (Rock Cut State Park) recently improved Hart Road (east of Perryville Road). Proposed elevations shown for the improvements along Hart Road (Hart Road Path and Trail Head) in this plan may need to be adjusted in the field to account for existing .....

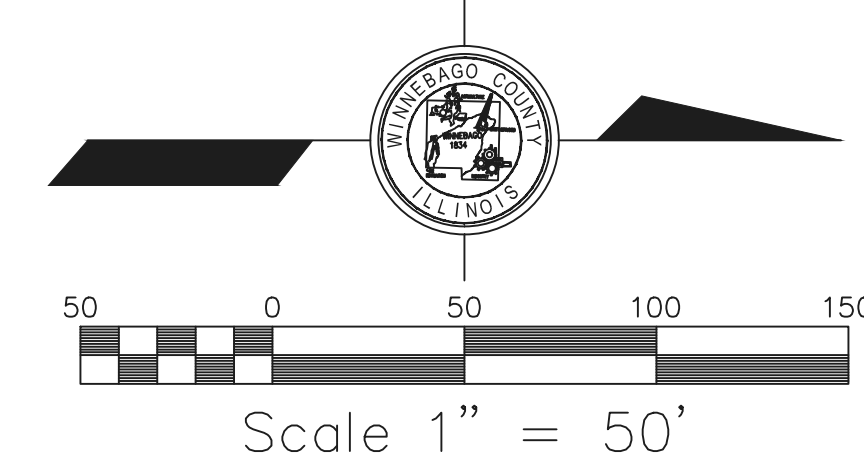




Point #	Elevation	Northing	Easting	Description
460	826.95	2,094,231.13	2,613,240.41	CP cp spike
461	820.85	2,091,032.49	2,613,065.40	BM BM 3/4" CAPPED IRON PIN
462	815.62	2,091,468.12	2,613,015.50	BM BM 3/4" CAPPED IRON PIN
463	812.78	2,091,696.36	2,612,999.20	BM BM 3/4" CAPPED IRON PIN
464	816.00	2,092,070.51	2,612,998.92	BM BM 3/4" CAPPED IRON PIN
465	813.14	2,092,337.91	2,612,986.28	BM BM 3/4" CAPPED IRON PIN
466	819.65	2,092,597.34	2,612,982.03	BM BM 3/4" CAPPED IRON PIN
467	820.94	2,092,797.61	2,612,992.64	BM BM 3/4" CAPPED IRON PIN
468	816.70	2,093,131.17	2,612,982.62	BM BM 3/4" CAPPED IRON PIN
469	813.53	2,093,332.98	2,612,973.12	BM BM 3/4" CAPPED IRON PIN

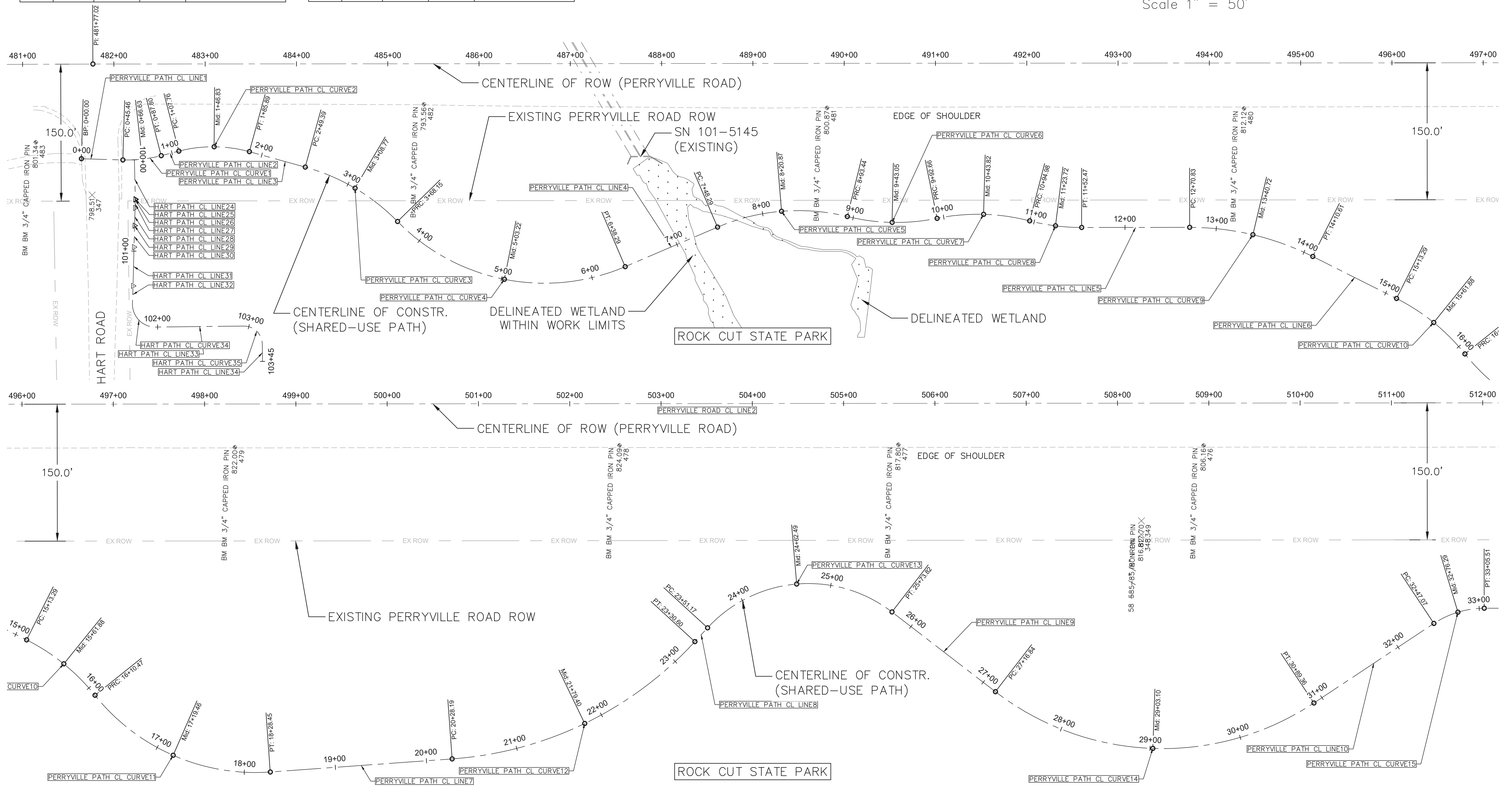
Point #	Elevation	Northing	Easting	Description
470	820.09	2,093,618.95	2,612,968.47	BM BM 3/4" CAPPED IRON PIN
471	821.70	2,093,964.46	2,612,957.99	BM BM 3/4" CAPPED IRON PIN
472	823.31	2,094,335.10	2,612,446.31	BM BM 3/4" CAPPED IRON PIN
473	825.34	2,094,161.02	2,613,336.96	BM BM 3/4" CAPPED IRON PIN
474	780.31	2,077,417.68	2,609,517.43	BM BM 3/4" CAPPED IRON PIN
475	793.74	2,077,048.62	2,609,526.55	BM BM 3/4" CAPPED IRON PIN
476	806.16	2,076,706.84	2,609,534.70	BM BM 3/4" CAPPED IRON PIN
477	817.80	2,076,372.61	2,609,541.35	BM BM 3/4" CAPPED IRON PIN
478	824.09	2,076,067.19	2,609,549.03	BM BM 3/4" CAPPED IRON PIN
479	822.00	2,075,646.11	2,609,560.61	BM BM 3/4" CAPPED IRON PIN

Point #	Elevation	Northing	Easting	Description
480	812.12	2,075,250.93	2,609,572.36	BM BM 3/4" CAPPED IRON PIN
481	800.87	2,074,794.38	2,609,581.94	BM BM 3/4" CAPPED IRON PIN
482	793.56	2,074,352.80	2,609,588.11	BM BM 3/4" CAPPED IRON PIN
483	801.34	2,073,928.66	2,609,639.14	BM BM 3/4" CAPPED IRON PIN



SEE PAGE 10 OF 56 FOR EXISTING CENTERLINE OF ROW ALIGNMENT TABLES

SEE PAGE 10 OF 56 FOR PROPOSED PATH CENTERLINE ALIGNMENT TABLES





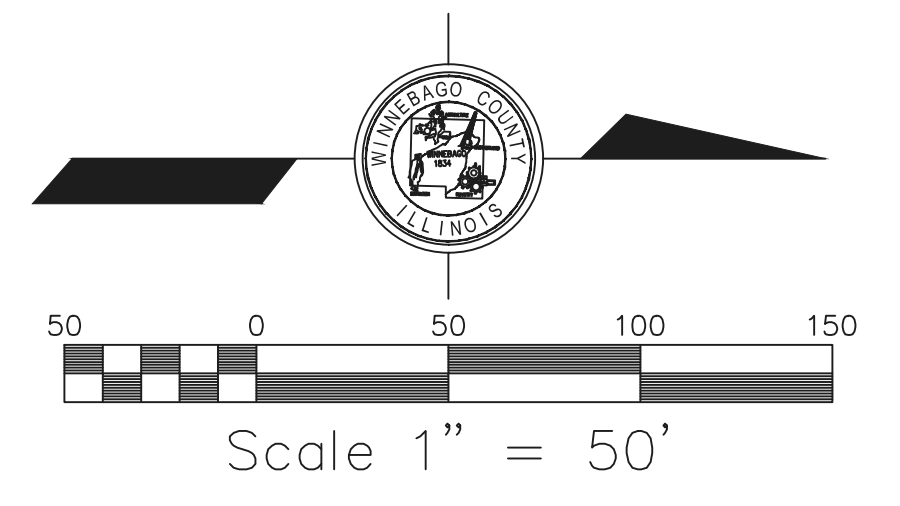
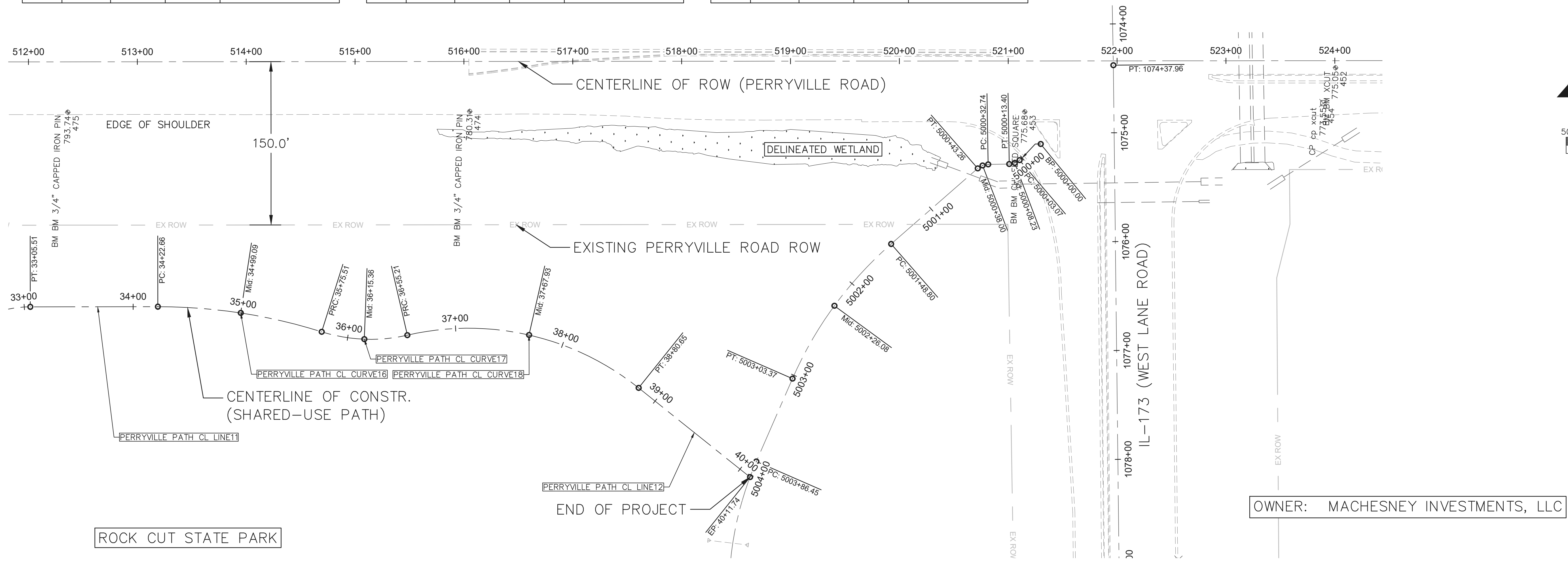
Point #	Elevation	Northing	Easting	Description
420	832.22	2,081,762.93	2,611,632.23	BM BM XCUT
421	823.18	2,082,108.71	2,611,906.66	BM BM 3/4" CAPPED IRON PIN
422	819.33	2,082,459.06	2,612,186.48	BM BM 3/4" CAPPED IRON PIN
423	823.76	2,082,822.21	2,612,476.56	BM BM 3/4" CAPPED IRON PIN
424	834.59	2,083,157.04	2,612,716.41	BM BM 3/4" CAPPED IRON PIN
425	847.04	2,083,548.20	2,612,929.13	BM BM 3/4" CAPPED IRON PIN
426	843.23	2,083,987.07	2,613,095.92	BM BM 3/4" CAPPED IRON PIN
427	834.23	2,084,224.66	2,613,191.11	BM BM 3/4" CAPPED IRON PIN
428	821.61	2,084,651.65	2,613,292.02	BM BM CHISELED SQUARE
429	810.67	2,084,962.49	2,613,261.54	BM BM 3/4" CAPPED IRON PIN

Point #	Elevation	Northing	Easting	Description
430	801.93	2,085,355.82	2,613,246.07	BM BM 3/4" CAPPED IRON PIN
431	793.55	2,085,815.42	2,613,235.44	BM BM 3/4" CAPPED IRON PIN
432	782.39	2,086,175.52	2,613,227.32	BM BM 3/4" CAPPED IRON PIN
433	772.34	2,086,528.98	2,613,219.54	BM BM 3/4" CAPPED IRON PIN
434	770.00	2,086,679.31	2,613,247.51	BM BM FH TOP BOLT BY O
435	764.73	2,086,972.88	2,613,221.05	BM BM CHISELED SQUARE
436	761.81	2,087,470.61	2,613,241.78	BM BM RAILROAD SPIKE
437	760.62	2,087,806.58	2,613,229.38	BM BM RAILROAD SPIKE
438	761.24	2,088,161.00	2,613,147.51	BM BM CHISELED SQUARE
439	763.14	2,088,564.25	2,613,211.78	BM BM RAILROAD SPIKE

Point #	Elevation	Northing	Easting	Description
440	827.54	2,079,439.72	2,609,687.83	CP CP XCUT
441	775.75	2,089,108.94	2,613,126.25	BM BM 3/4" CAPPED IRON PIN
442	788.30	2,089,344.84	2,613,121.79	BM BM 3/4" CAPPED IRON PIN
443	799.72	2,089,617.00	2,613,116.79	BM BM 3/4" CAPPED IRON PIN
444	805.58	2,090,136.17	2,613,092.06	BM BM 3/4" CAPPED IRON PIN
445	810.92	2,090,402.97	2,613,062.50	BM BM 3/4" CAPPED IRON PIN
446	834.84	2,079,598.14	2,609,901.94	BM BM XCUT
447	825.75	2,079,351.24	2,609,808.43	BM BM CHISELED SQUARE
448	817.70	2,079,205.39	2,609,692.09	BM BM XCUT
449	805.19	2,078,940.25	2,609,630.36	BM BM FH TOP BOLT

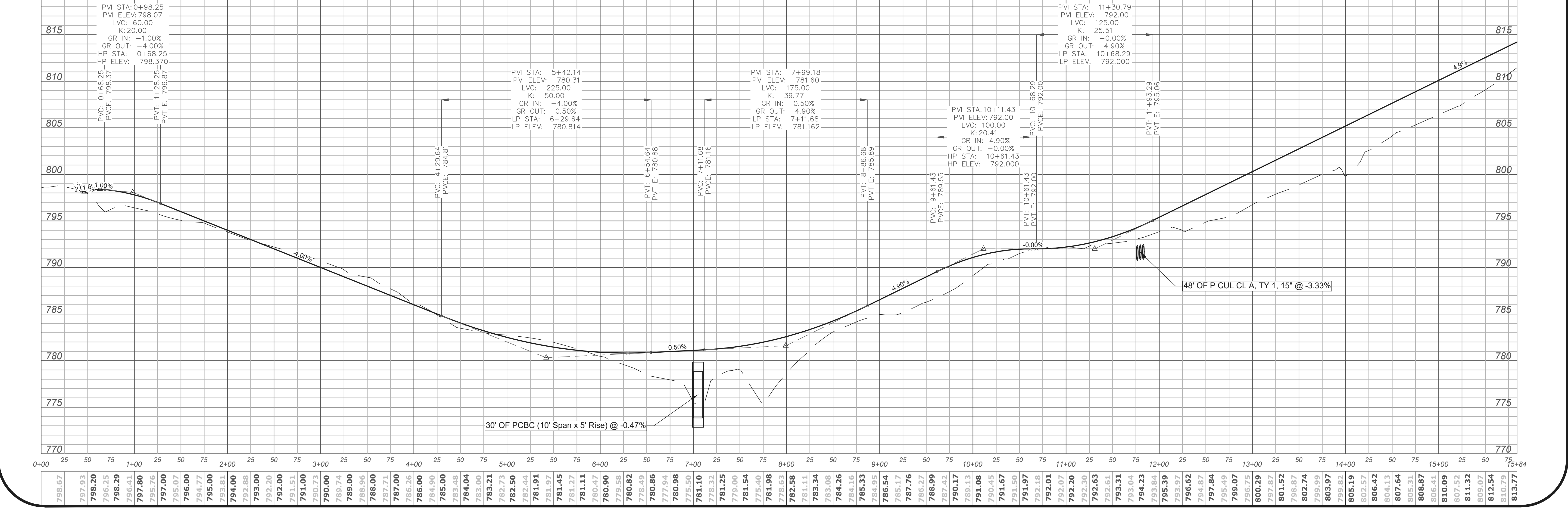
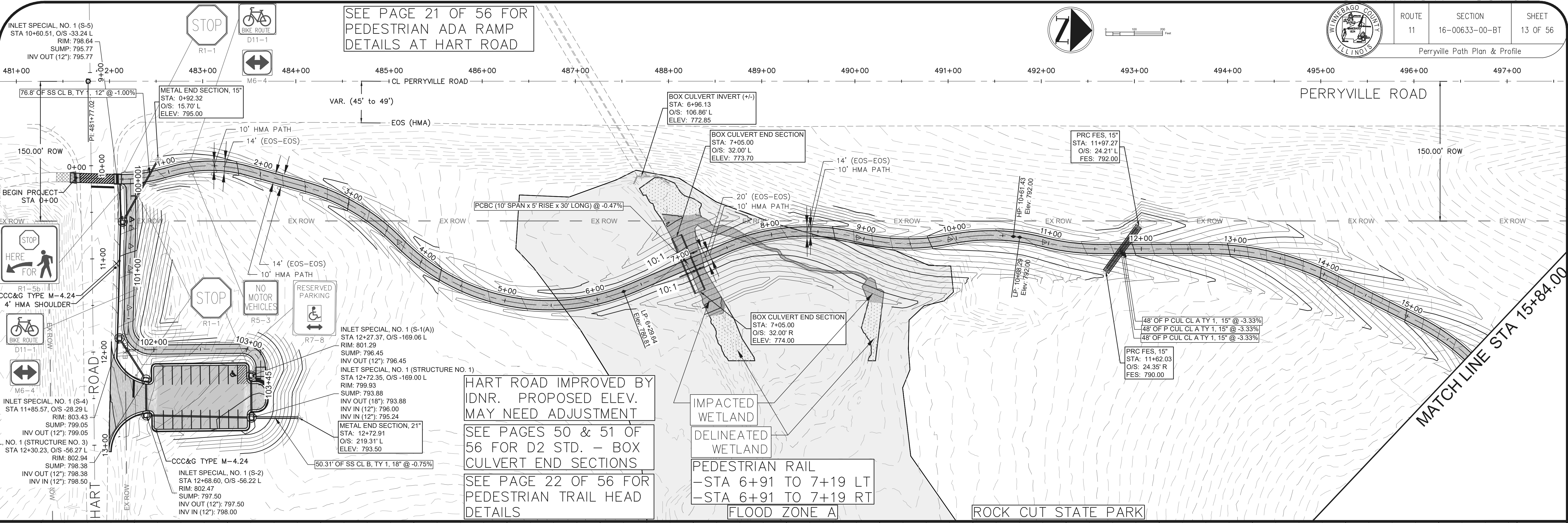
SEE PAGE 10 OF 56 FOR EXISTING CENTERLINE OF ROW ALIGNMENT TABLES

SEE PAGE 10 OF 56 FOR PROPOSED PATH CENTERLINE ALIGNMENT TABLES

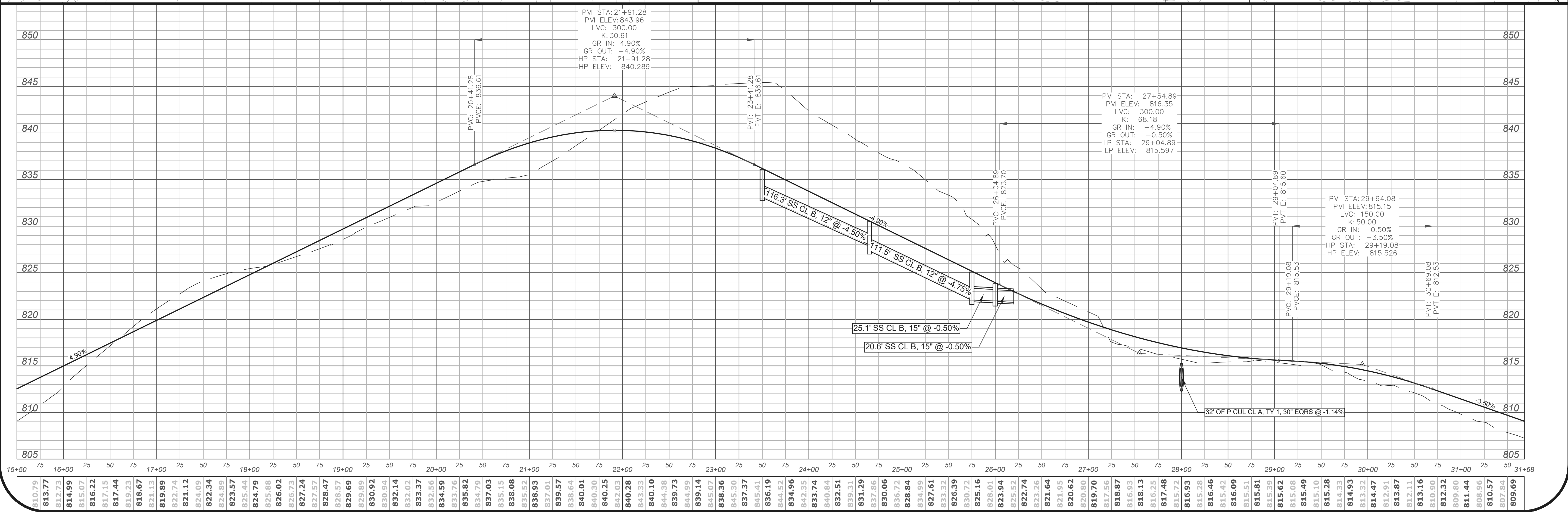
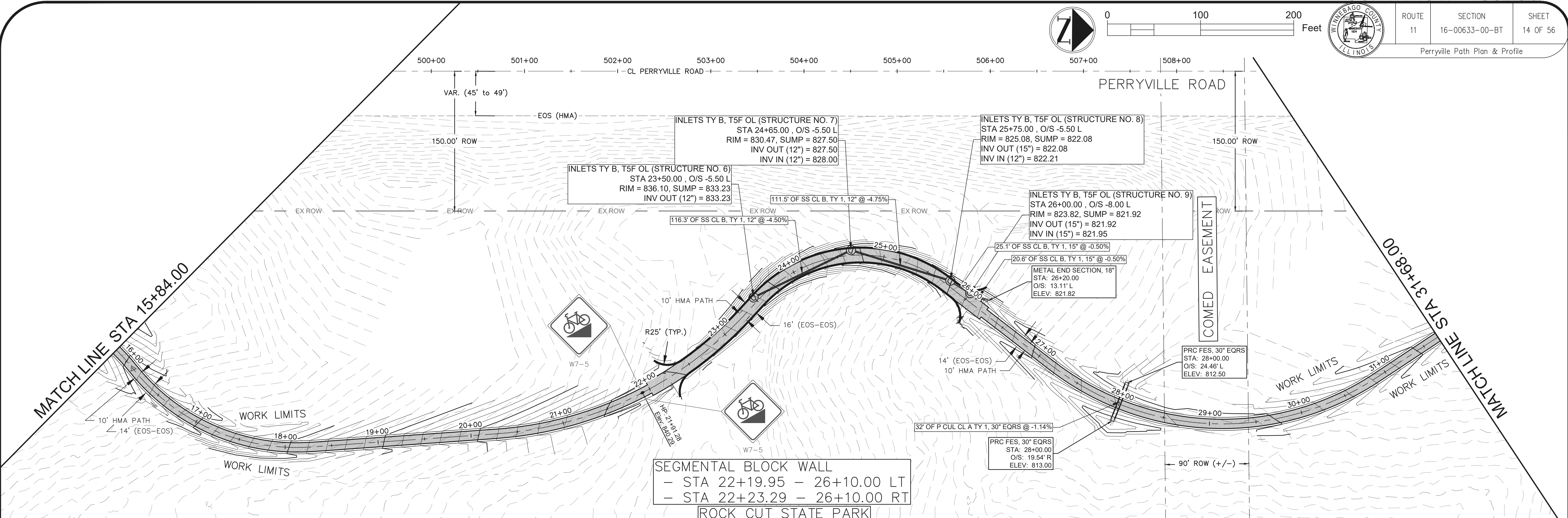
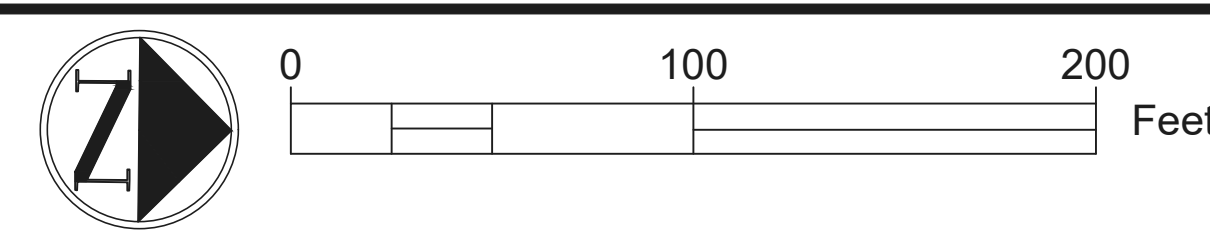


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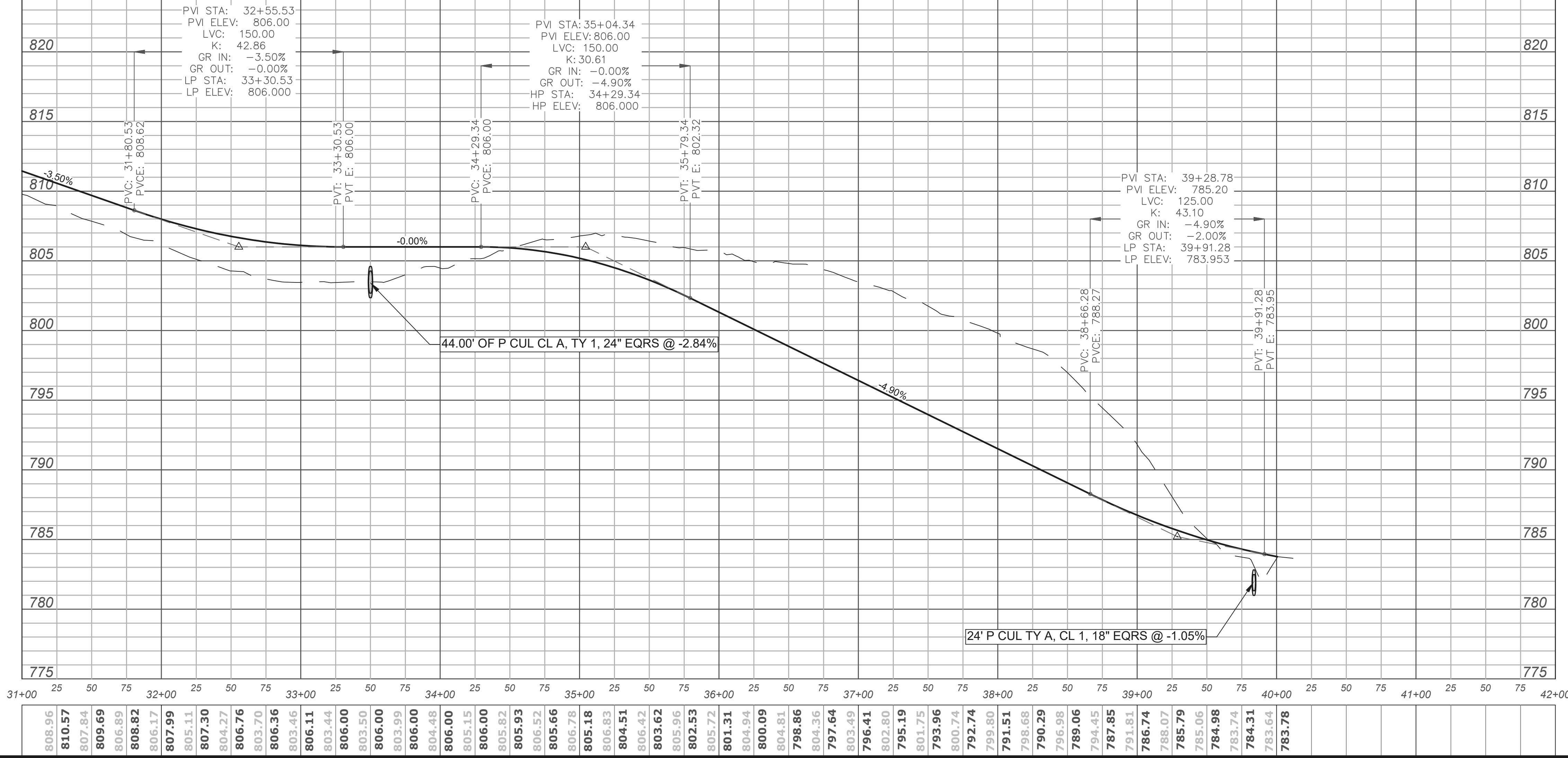
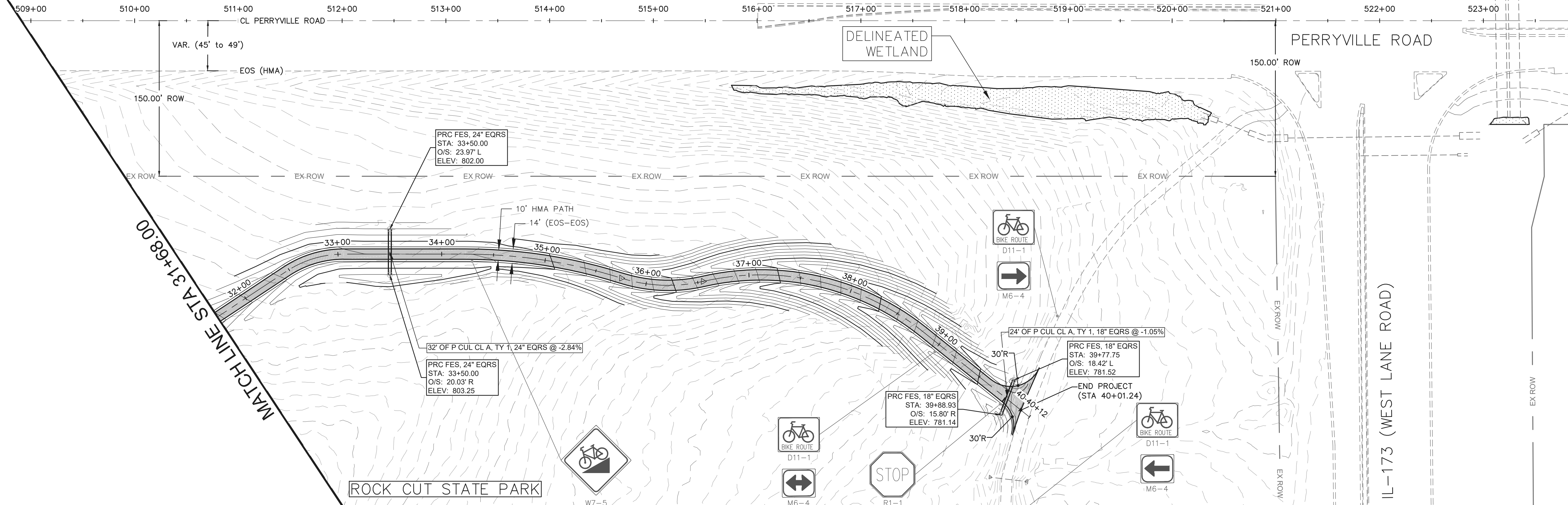
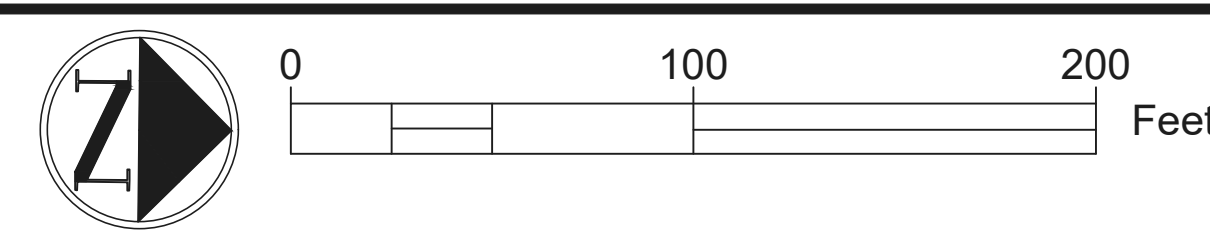




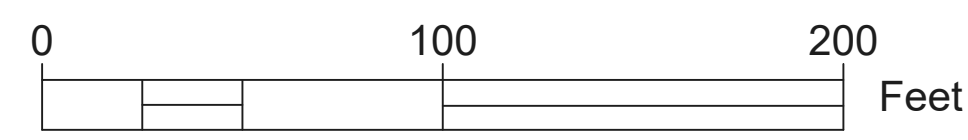
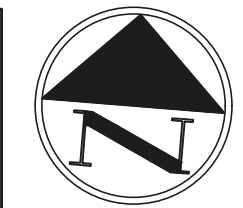




15+50	810.79	16+00	813.77	16+25	814.99	16+50	816.22	16+75	817.44	17+00	818.67	17+25	819.89	17+50	821.12	17+75	822.34	18+00	823.57	18+25	824.79	18+50	826.02	18+75	827.24	19+00	828.47	19+25	829.69	19+50	830.92	19+75	832.14	20+00	833.37	20+25	834.59	20+50	835.82	20+75	837.03	21+00	838.25	21+25	839.47	21+50	840.70	21+75	841.93	22+00	843.16	22+25	844.39	22+50	845.62	22+75	846.85	23+00	848.29	23+25	849.52	23+50	850.75	23+75	851.98	24+00	853.42	24+25	854.65	24+50	855.88	24+75	857.11	25+00	858.34	25+25	859.57	25+50	860.80	25+75	862.03	26+00	863.26	26+25	864.49	26+50	865.72	26+75	866.95	27+00	868.39	27+25	869.62	27+50	870.85	27+75	872.08	28+00	873.31	28+25	874.54	28+50	875.77	28+75	877.00	29+00	878.23	29+25	879.46	29+50	880.69	29+75	881.92	30+00	883.15	30+25	884.38	30+50	885.61	30+75	886.84	31+00	888.07	31+25	889.30	31+50	890.53	31+75	891.76	31+68	892.99
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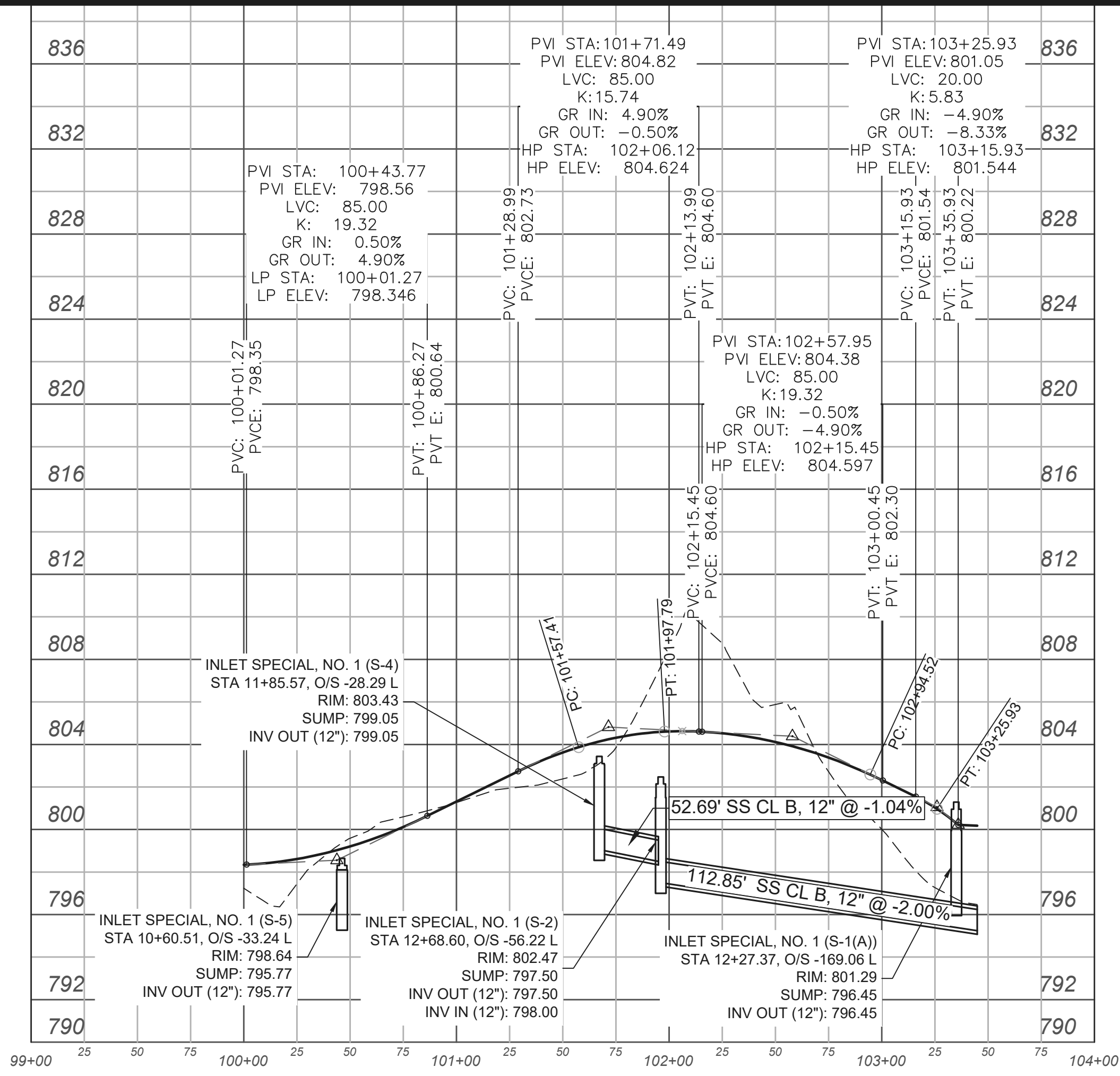
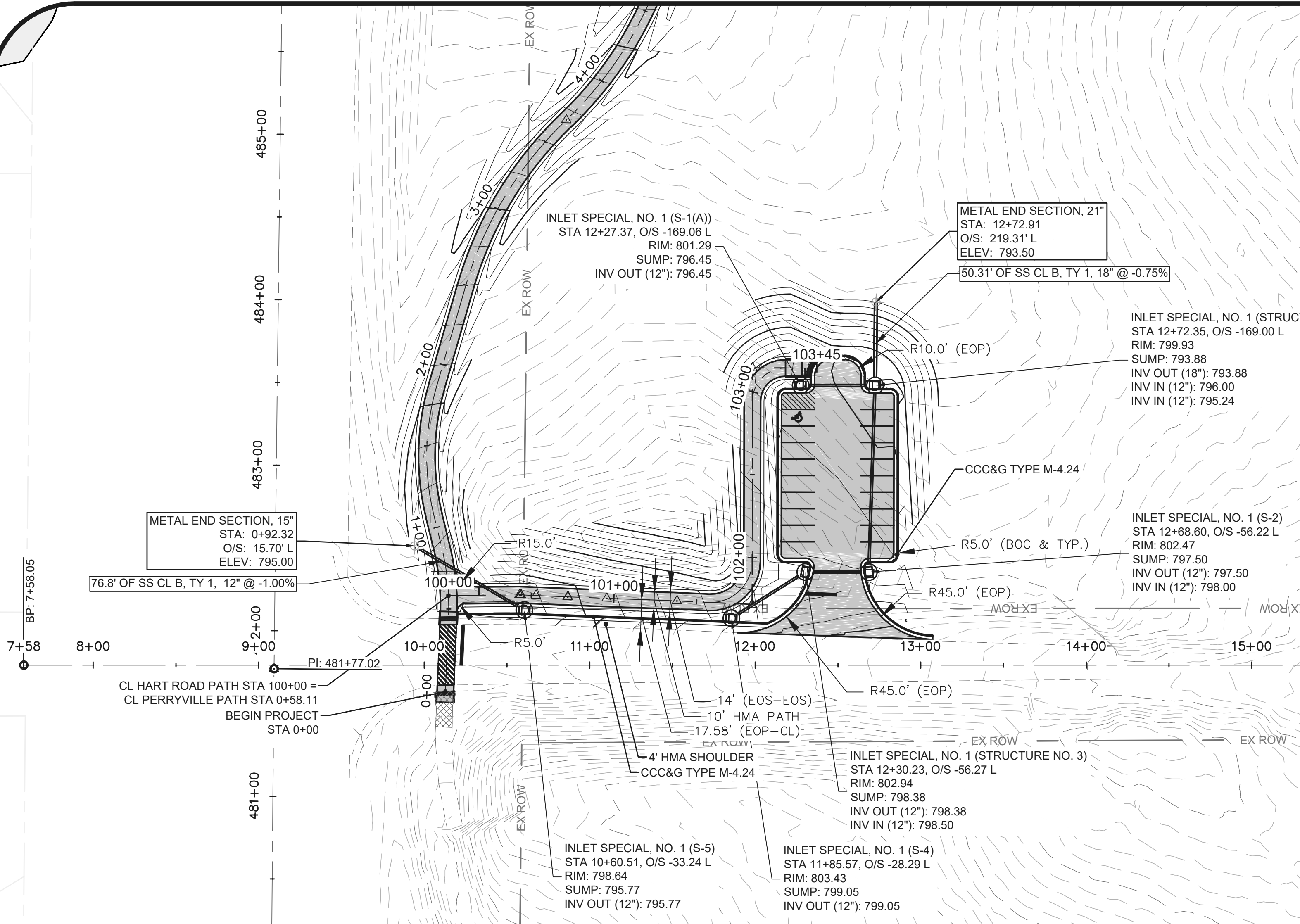


A QUANTITY FOR PIPE UNDERDRAIN, 4" (MODIFIED) HAS BEEN INCLUDED FOR PLACEMENT BEHIND THE BACK OF CURB. SEE TYPICAL SECTIONS FOR DETAILS. AN OPENING WILL BE CAST INTO THE PRECAST INLET BOXES TO RECEIVE THE UNDERDRAIN.

SEE PAGE 21 OF 56 FOR PEDESTRIAN ADA RAMP DETAILS AT HART ROAD

SEE PAGE 22 OF 56 FOR PEDESTRIAN TRAIL HEAD DETAILS

HART ROAD RECENTLY IMPROVED BY IDNR. PROPOSED ELEVATIONS MAY NEED TO BE ADJUSTED TO MATCH FIELD CONDITIONS

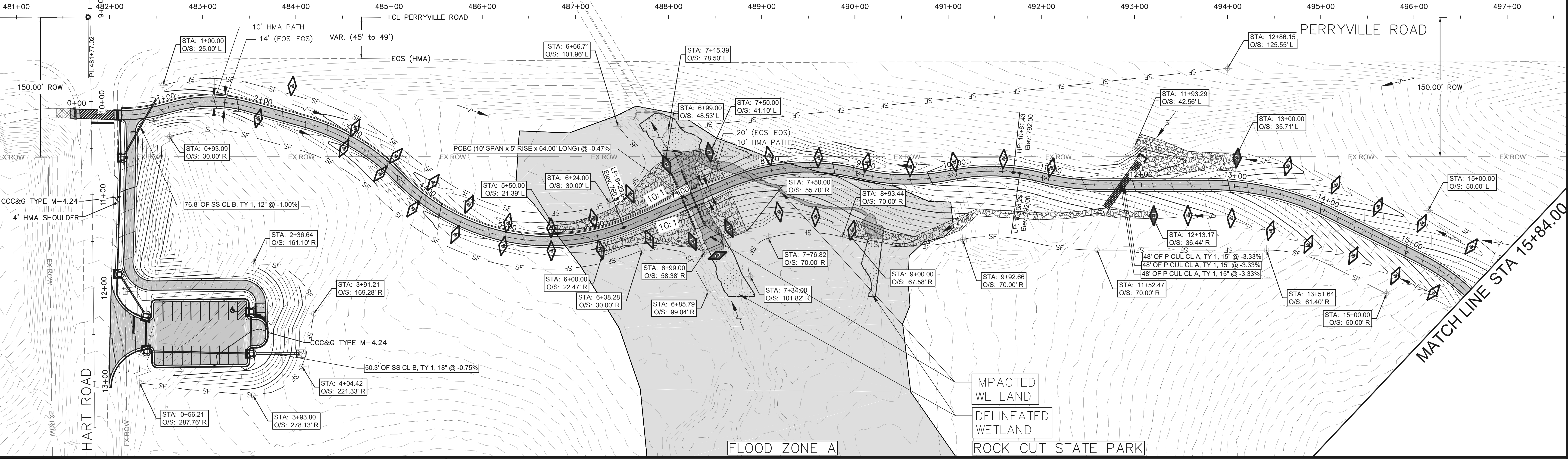
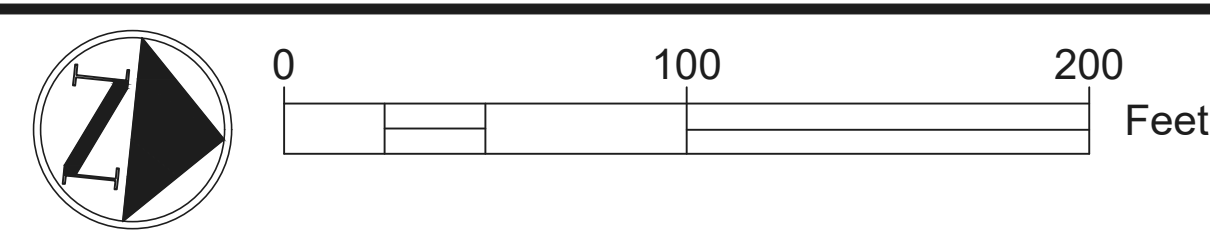


797.24	798.34	798.61	799.59	800.60	801.27	801.31	801.94	802.38	803.62	803.85	804.46	804.61	808.75	804.53	805.88	804.12	802.71	803.38	800.00	802.32	797.27	801.03
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NOTE: TEMPORARY DITCH CHECKS SHALL BE PLACED AT 50' SPACING CENTERED IN THE 2' DITCH BOTTOM & AS DIRECTED BY ENGINEER



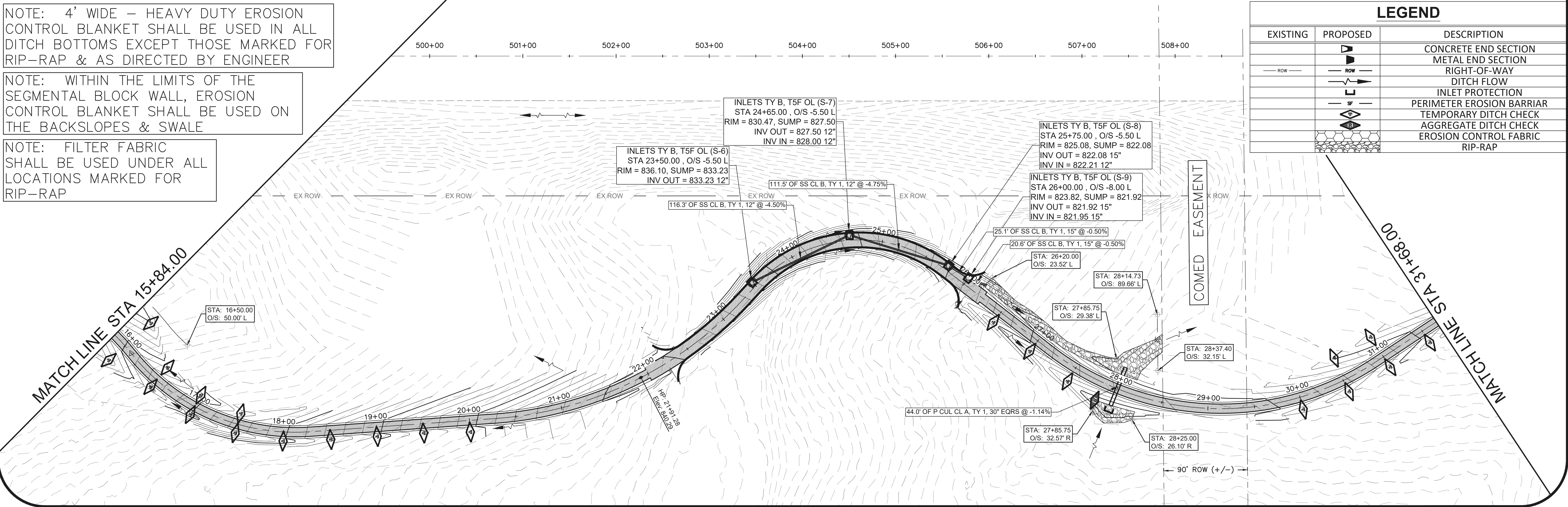
NOTE: 4' WIDE - HEAVY DUTY EROSION CONTROL BLANKET SHALL BE USED IN ALL DITCH BOTTOMS EXCEPT THOSE MARKED FOR RIP-RAP & AS DIRECTED BY ENGINEER

NOTE: WITHIN THE LIMITS OF THE SEGMENTAL BLOCK WALL, EROSION CONTROL BLANKET SHALL BE USED ON THE BACKSLOPES & SWALE

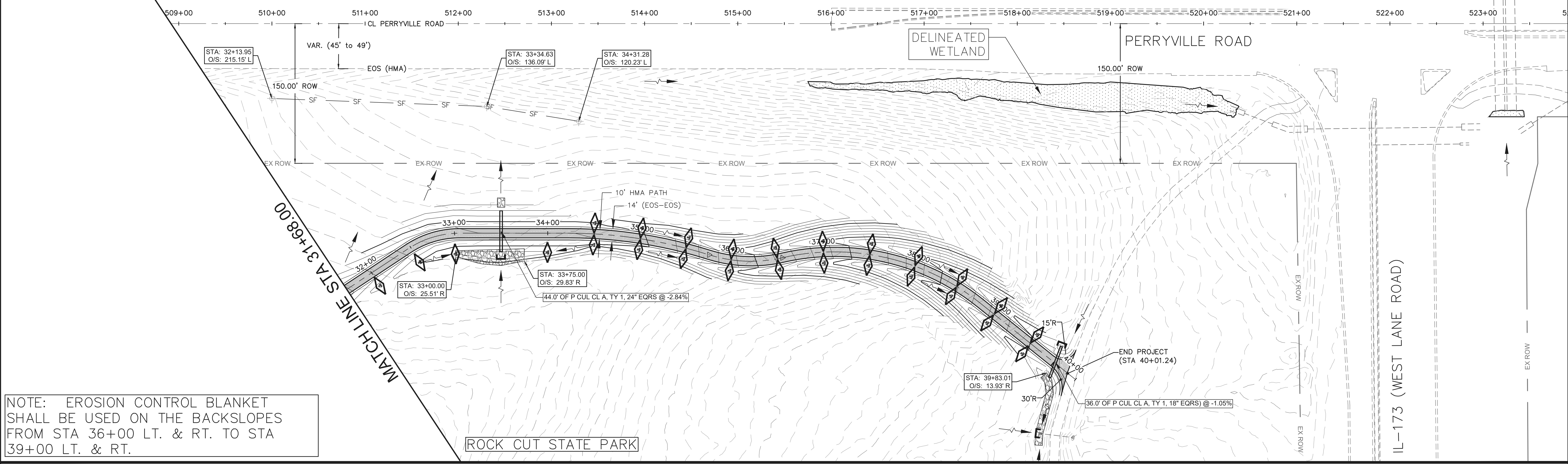
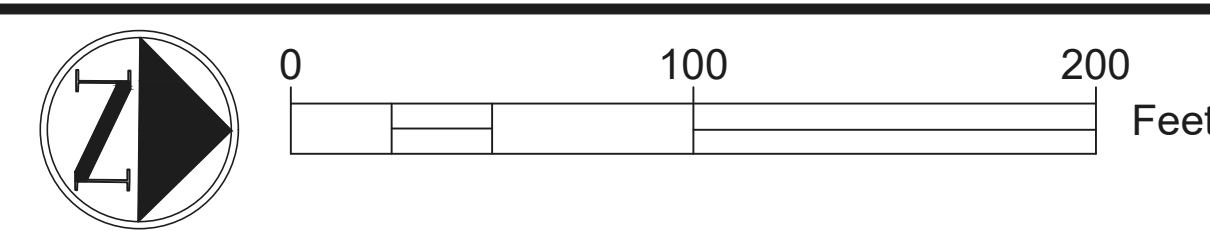
NOTE: FILTER FABRIC SHALL BE USED UNDER ALL LOCATIONS MARKED FOR RIP-RAP

500+00 501+00 502+00 503+00 504+00 505+00 506+00 507+00 508+00

LEGEND		
EXISTING	PROPOSED	DESCRIPTION
		CONCRETE END SECTION
		METAL END SECTION
		RIGHT-OF-WAY
		DITCH FLOW
		INLET PROTECTION
		PERIMETER EROSION BARRIER
		TEMPORARY DITCH CHECK
		AGGREGATE DITCH CHECK
		EROSION CONTROL FABRIC
		RIP-RAP



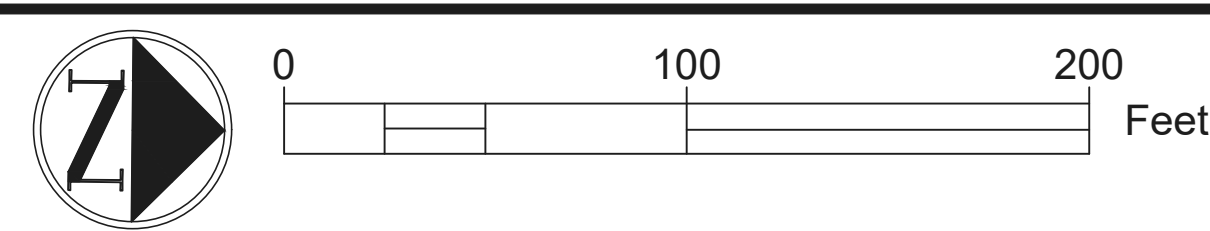




NOTE: EROSION CONTROL BLANKET SHALL BE USED ON THE BACKSLOPES FROM STA 36+00 LT. & RT. TO STA 39+00 LT. & RT.

LEGEND		
EXISTING	PROPOSED	DESCRIPTION
		CONCRETE END SECTION
		METAL END SECTION
		RIGHT-OF-WAY
		DITCH FLOW
		INLET PROTECTION
		PERIMETER EROSION BARRIAR
		TEMPORARY DITCH CHECK
		AGGREGATE DITCH CHECK
		EROSION CONTROL FABRIC
		RIP-RAP





TREE PLANTING NOTE: TREE PLANTING LAYOUT SHALL BE PERFORMED BY THE CONTRACTOR AND SHALL BE APPROVED BY A REPRESENTATIVE OF ROCK CUT STATE PARK OR THE ENGINEER PRIOR TO PLANTING ANY TREE. MULCH SHALL BE PLACED 4" THICK AND TO THE DIAMETER AROUND THE TREE AS SHOWN ON DISTRICT STANDARD 92.1. THE MULCH SHALL BE HARDWOOD WOOD CHIPS PLACED ON WEED BARRIER FABRIC. THIS WORK SHALL BE INCLUDED IN THE COST OF THE TREE.

NOTE: IDNR REQUIRES TREE REPLACEMENT AT A RATIO OF 1:1. THE ENGINEER SHALL RECORD THE COUNT OF ALL TREES REMOVED OVER 6" DIA.

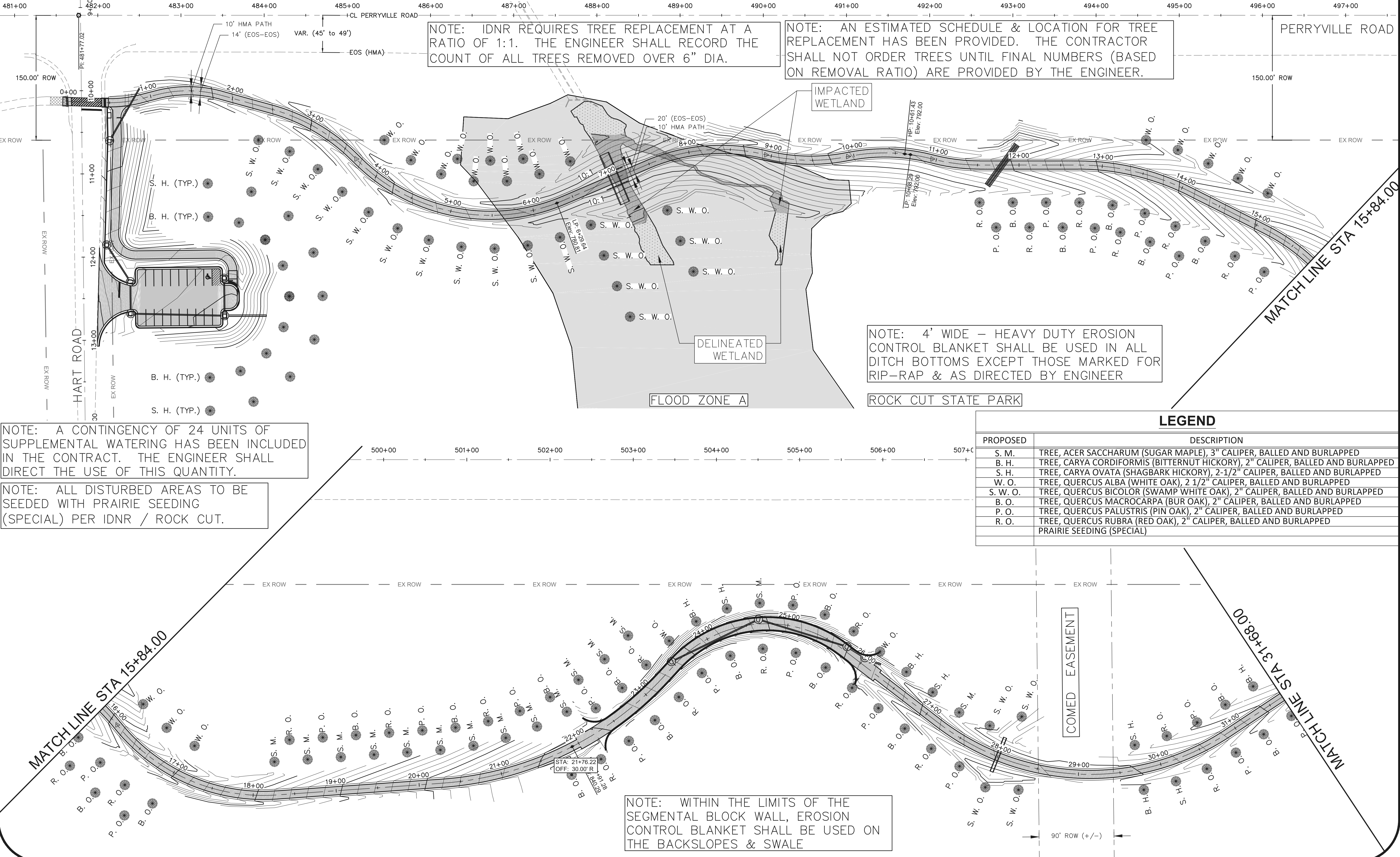
NOTE: AN ESTIMATED SCHEDULE & LOCATION FOR TREE REPLACEMENT HAS BEEN PROVIDED. THE CONTRACTOR SHALL NOT ORDER TREES UNTIL FINAL NUMBERS (BASED ON REMOVAL RATIO) ARE PROVIDED BY THE ENGINEER.

NOTE: 4' WIDE - HEAVY DUTY EROSION CONTROL BLANKET SHALL BE USED IN ALL DITCH BOTTOMS EXCEPT THOSE MARKED FOR RIP-RAP & AS DIRECTED BY ENGINEER

NOTE: A CONTINGENCY OF 24 UNITS OF SUPPLEMENTAL WATERING HAS BEEN INCLUDED IN THE CONTRACT. THE ENGINEER SHALL DIRECT THE USE OF THIS QUANTITY.

NOTE: ALL DISTURBED AREAS TO BE SEEDED WITH PRAIRIE SEEDING (SPECIAL) PER IDNR / ROCK CUT.

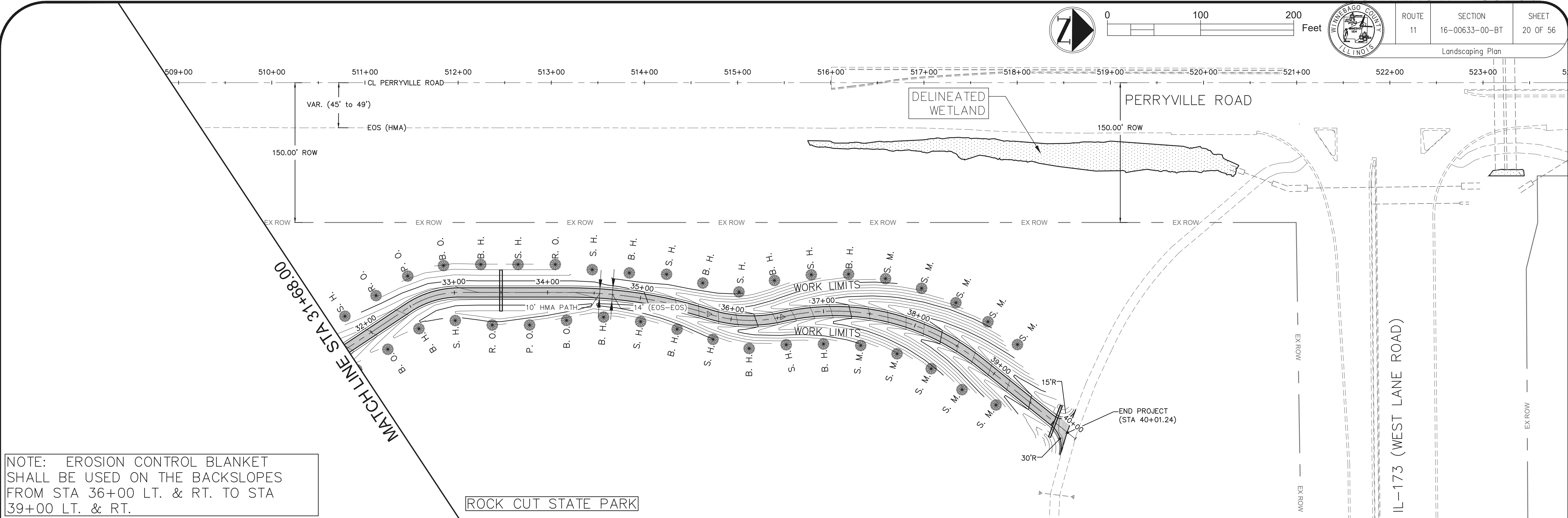
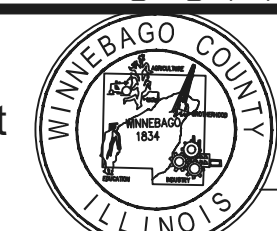
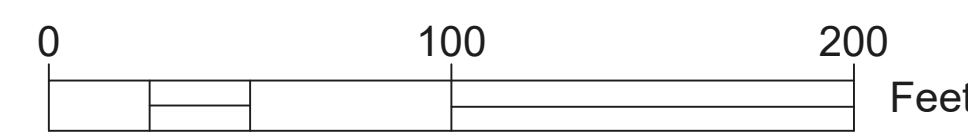
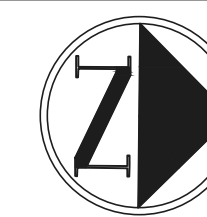
NOTE: WITHIN THE LIMITS OF THE SEGMENTAL BLOCK WALL, EROSION CONTROL BLANKET SHALL BE USED ON THE BACKSLOPES & SWALE



**LEGEND**

PROPOSED	DESCRIPTION
S. M.	TREE, ACER SACCHARUM (SUGAR MAPLE), 3" CALIPER, BALLED AND BURLAPPED
B. H.	TREE, CARYA CORDIFORMIS (BITTERNUT HICKORY), 2" CALIPER, BALLED AND BURLAPPED
S. H.	TREE, CARYA OVATA (SHAGBARK HICKORY), 2-1/2" CALIPER, BALLED AND BURLAPPED
W. O.	TREE, QUERCUS ALBA (WHITE OAK), 2 1/2" CALIPER, BALLED AND BURLAPPED
S. W. O.	TREE, QUERCUS BICOLOR (SWAMP WHITE OAK), 2" CALIPER, BALLED AND BURLAPPED
B. O.	TREE, QUERCUS MACROCARPA (BUR OAK), 2" CALIPER, BALLED AND BURLAPPED
P. O.	TREE, QUERCUS PALUSTRIS (PIN OAK), 2" CALIPER, BALLED AND BURLAPPED
R. O.	TREE, QUERCUS RUBRA (RED OAK), 2" CALIPER, BALLED AND BURLAPPED
	PRAIRIE SEEDING (SPECIAL)





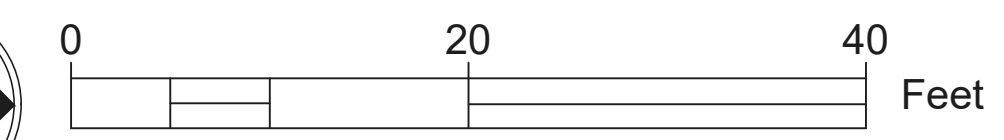
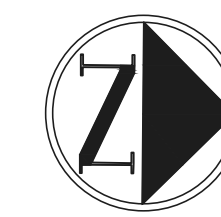
NOTE: EROSION CONTROL BLANKET SHALL BE USED ON THE BACKSLOPES FROM STA 36+00 LT. & RT. TO STA 39+00 LT. & RT.

ROCK CUT STATE PARK

**LEGEND**

PROPOSED	DESCRIPTION
S. M.	TREE, ACER SACCHARUM (SUGAR MAPLE), 3" CALIPER, BALLED AND BURLAPPED
B. H.	TREE, CARYA CORDIFORMIS (BITTERNUT HICKORY), 2" CALIPER, BALLED AND BURLAPPED
S. H.	TREE, CARYA OVATA (SHAGBARK HICKORY), 2-1/2" CALIPER, BALLED AND BURLAPPED
W. O.	TREE, QUERCUS ALBA (WHITE OAK), 2 1/2" CALIPER, BALLED AND BURLAPPED
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B. O.	TREE, QUERCUS MACROCARPA (BUR OAK), 2" CALIPER, BALLED AND BURLAPPED
P. O.	TREE, QUERCUS PALUSTRIS (PIN OAK), 2" CALIPER, BALLED AND BURLAPPED
R. O.	TREE, QUERCUS RUBRA (RED OAK), 2" CALIPER, BALLED AND BURLAPPED
	PRAIRIE SEEDING (SPECIAL)

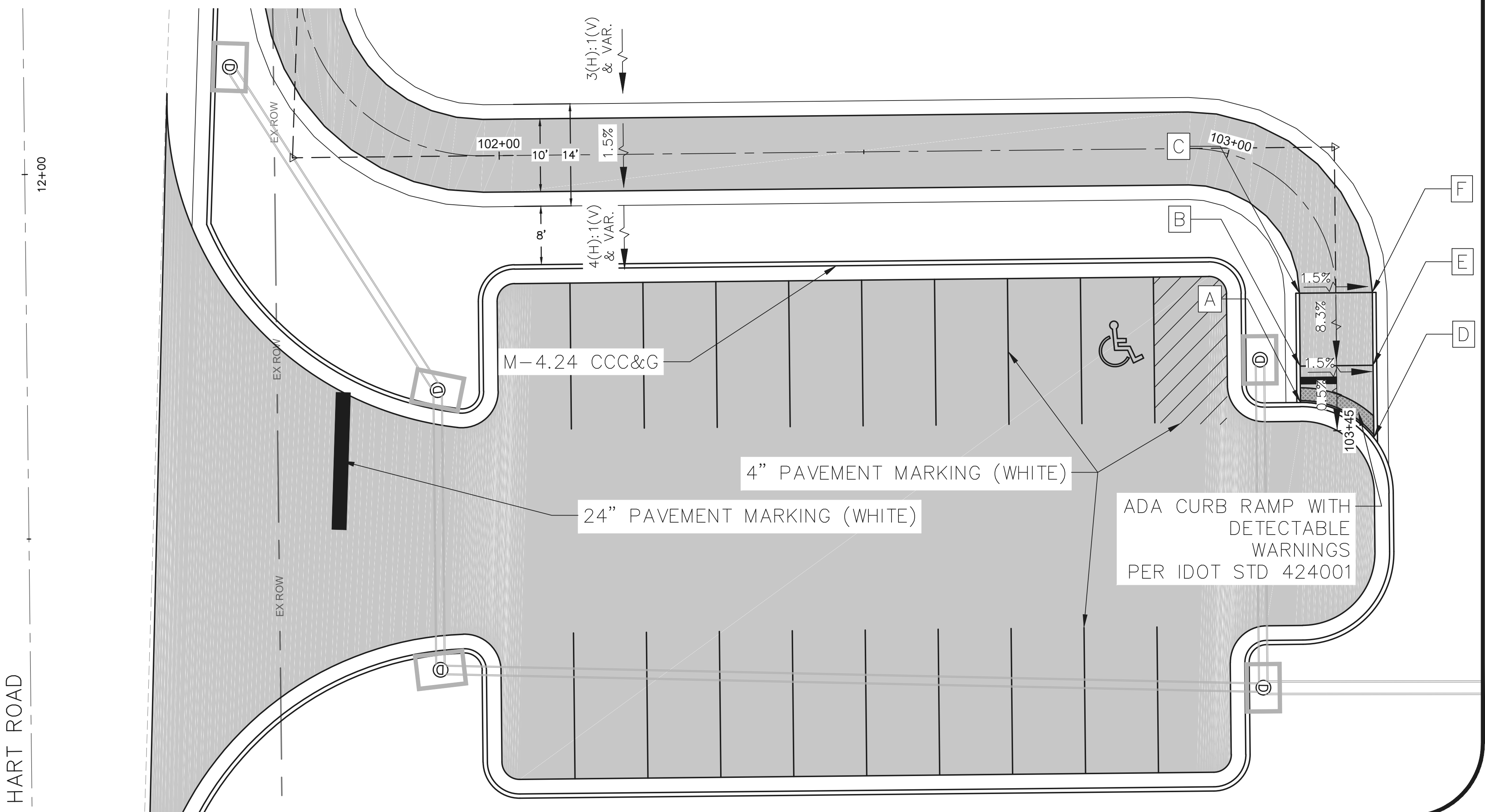
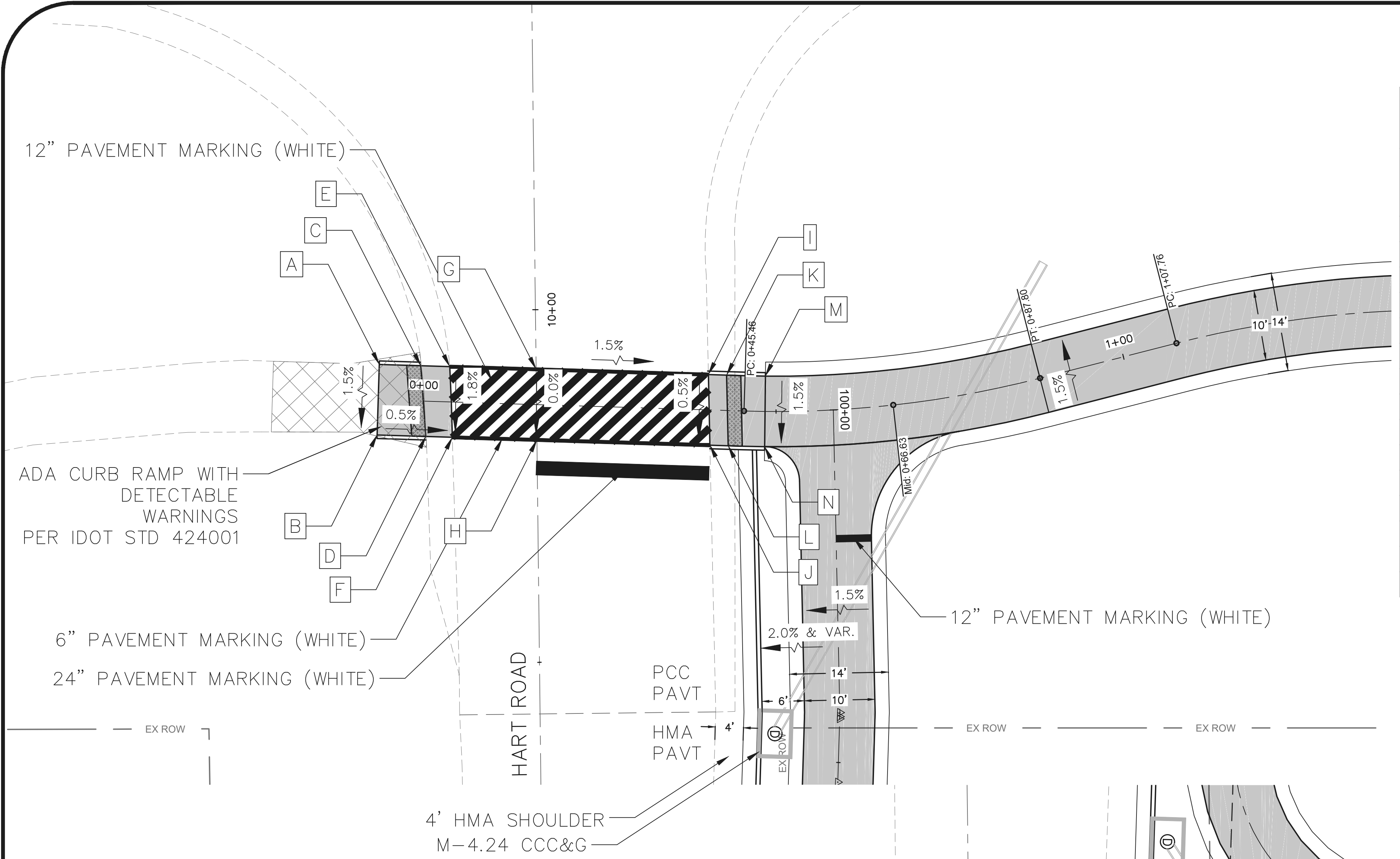




SEE PAGE 13 OF 56 FOR  
PLAN & PROFILE DETAILS  
NORTH OF HART ROAD

ADA Ramps at Intersection of Perryville  
Road & Hart Drive

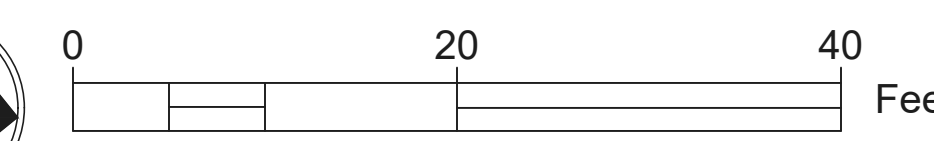
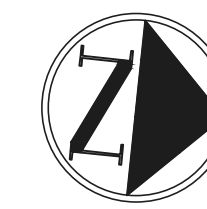
Point Number	STA	O/S	Elevation	Existing or Proposed
A	0+06.40	5.00 Lt	798.80	Proposed
B	0+06.40	5.00 Rt	798.65	Proposed
C	0+00.52	5.00 Lt	798.63	Proposed
D	0+00.52	5.00 Rt	798.60	Proposed
E	0+03.60	5.00 Lt	798.75	Existing
F	0+04.60	5.00 Rt	798.57	Existing
G	0+15.83	5.00 Lt	798.74	Existing
H	0+16.26	5.00 Rt	798.74	Existing
I	0+40.26	5.00 Lt	798.37	Existing
J	0+40.78	5.00 Rt	798.32	Existing
K	0+42.84	5.00 Lt	798.38	Proposed
L	0+43.37	5.00 Rt	798.33	Proposed
M	0+48.44	5.00 Lt	798.65	Proposed
N	0+48.44	5.00 Rt	798.50	Proposed



ADA Ramp at Perryville Path Trailhead

Point Number	STA	O/S	Elevation	Existing or Proposed
A	103+40.93	5.00 Rt	800.28	Proposed
B	103+35.93	5.00 Rt	800.31	Proposed
C	103+25.93	5.00 Rt	801.14	Proposed
D	103+45.88	5.00 Lt	800.12	Proposed
E	103+35.93	5.00 Lt	800.17	Proposed
F	103+25.93	5.00 Lt	801.00	Proposed

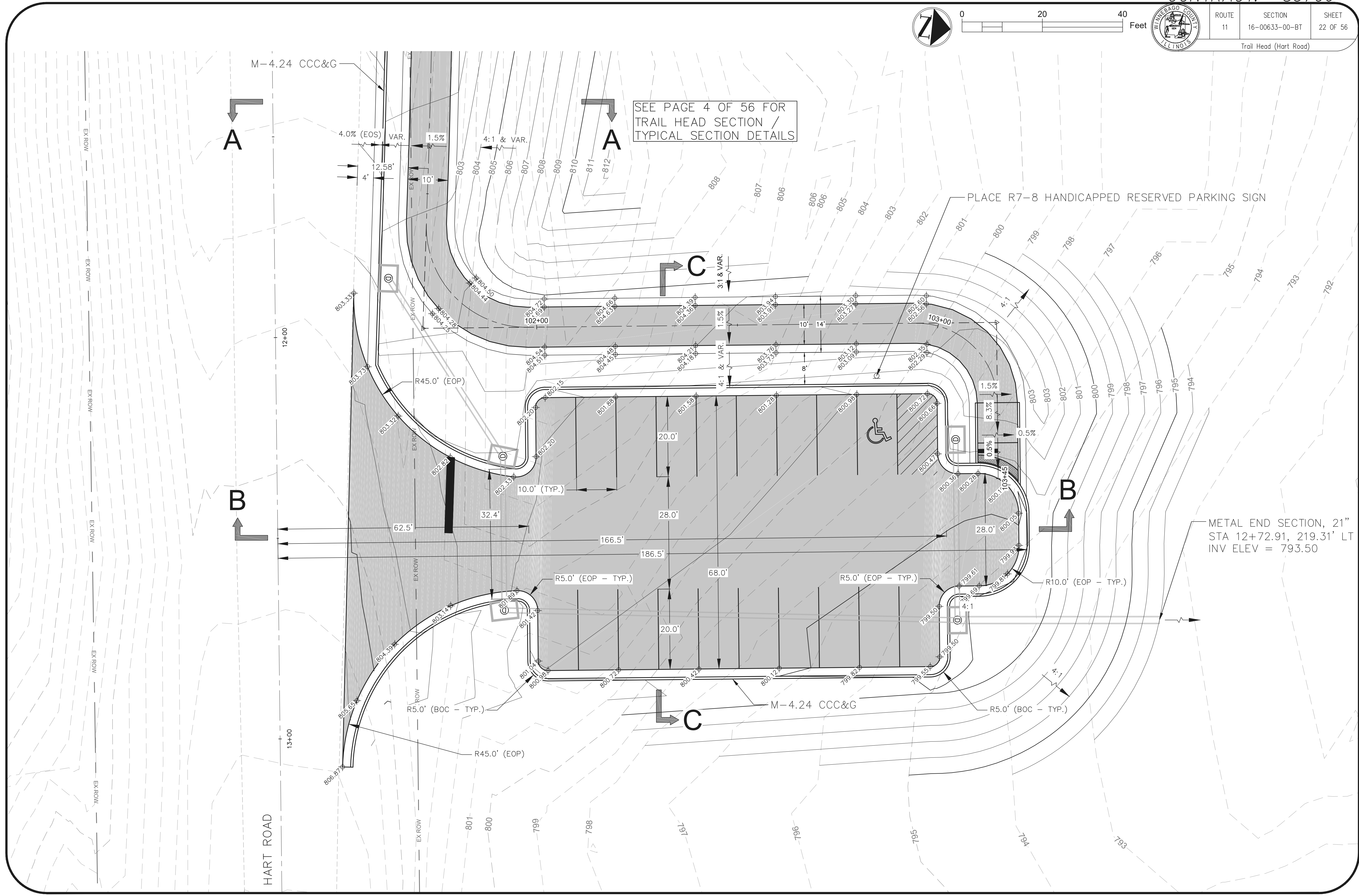




SEE PAGE 4 OF 56 FOR  
TRAIL HEAD SECTION /  
TYPICAL SECTION DETAILS

PLACE R7-8 HANDICAPPED RESERVED PARKING SIGN

METAL END SECTION, 21"  
STA 12+72.91, 219.31' LT  
INV ELEV = 793.50







Cross-Section-Earthwork Summary (Perryville Path)

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
0+00.00	0.00	0.00	0.00	0.00	0	0
0+45.46	0.00	0.00	0.00	0.00	0	0
0+50.00	4.86	10.76	0.45	0.90	0	1
0+66.63	27.35	0.00	10.24	3.31	11	4
0+75.00	22.10	0.26	7.65	0.04	18	4
0+87.80	16.10	9.54	8.71	2.48	27	7
1+00.00	19.08	12.71	7.95	5.03	35	12
1+07.76	17.07	11.50	5.19	3.48	40	15
1+25.00	18.79	11.45	12.19	6.81	52	22
1+46.83	12.96	8.89	13.69	7.70	66	30
1+50.00	11.88	9.54	1.56	1.03	68	31
1+75.00	5.70	16.39	8.66	11.59	76	42
1+85.89	4.31	16.98	2.14	6.55	78	49
2+00.00	3.20	18.04	1.96	9.15	80	58
2+49.39	0.14	19.94	3.05	34.73	83	93
2+50.00	0.13	20.07	0.00	0.45	83	93
2+75.00	0.00	43.71	0.06	29.27	83	123
3+00.00	0.00	52.80	0.00	44.47	83	167
3+08.77	0.00	54.73	0.00	17.46	83	184
3+25.00	0.00	58.15	0.00	34.05	83	219

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
3+50.00	0.00	61.81	0.00	55.77	83	274
3+68.15	0.00	52.66	0.00	38.57	83	313
3+75.00	0.00	50.27	0.00	13.03	83	326
4+00.00	0.00	39.04	0.00	40.89	83	367
4+25.00	0.38	33.86	0.17	32.97	84	400
4+50.00	3.53	26.43	1.80	27.05	85	427
4+75.00	0.67	31.64	1.94	26.09	87	453
5+00.00	0.00	37.65	0.30	31.53	88	484
5+03.22	0.00	38.78	0.00	4.56	88	489
5+25.00	0.00	44.30	0.00	33.13	88	522
5+50.00	0.00	44.93	0.00	40.83	88	563
5+75.00	0.00	31.77	0.00	35.17	88	598
6+00.00	2.41	23.63	1.10	25.69	89	624
6+25.00	13.39	5.62	7.20	13.72	96	638
6+29.64	18.06	5.60	2.66	0.98	99	639
6+38.29	30.11	4.89	7.60	1.71	106	640
6+50.00	53.88	5.24	18.21	2.20	124	642
7+00.00	288.83	21.92	317.33	25.15	442	668
7+48.29	122.20	54.12	367.60	68.01	809	736
7+50.00	125.84	54.09	7.83	3.42	817	739

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
7+75.00	159.80	59.52	135.44	43.03	953	782
8+00.00	142.91	23.83	137.49	31.68	1,090	814
8+20.87	127.61	13.40	98.40	12.00	1,189	826
8+25.00	127.20	21.43	17.99	2.42	1,207	828
8+50.00	121.50	31.96	104.34	24.41	1,311	853
8+75.00	144.54	34.27	109.06	30.98	1,420	883
8+93.44	175.20	33.82	95.67	23.00	1,516	906
9+00.00	187.06	25.35	49.62	7.22	1,565	914
9+25.00	202.71	3.61	202.05	13.25	1,767	927
9+43.05	159.73	12.43	134.27	6.58	1,902	934
9+50.00	123.45	6.13	40.07	2.99	1,942	937
9+75.00	123.37	1.50	125.40	4.34	2,067	941
9+92.66	97.94	3.52	79.33	1.97	2,146	943
10+00.00	68.03	2.70	20.71	0.69	2,167	944
10+25.00	23.16	19.03	39.34	8.88	2,206	952
10+43.82	14.56	22.77	12.46	13.34	2,219	966
10+50.00	11.94	30.12	2.88	5.69	2,222	971
10+75.00	3.36	52.78	6.74	36.10	2,229	1,008
10+94.98	8.12	30.84	4.03	29.69	2,233	1,037
11+00.00	17.48	23.51	2.57	5.03	2,235	1,042

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
37+50.00	0.00	413.49	0.00	379.36	5,294	7,642
37+67.93	0.00	426.61	0.00	281.15	5,294	7,923
37+75.00	0.00	431.65	0.00	113.30	5,294	8,037
38+00.00	0.00	448.95	0.00	411.28	5,294	8,448
38+25.00	0.00	457.23	0.00	423.18	5,294	8,871
38+50.00	0.00	438.21	0.00	417.33	5,294	9,288
38+75.00	0.00	357.15	0.00	370.21	5,294	9,659
38+80.65	0.00	335.08	0.00	72.76	5,294	9,731
39+00.00	0.00	234.39	0.00	204.10	5,294	9,936
39+50.00	2.03	25.23	1.88	240.39	5,296	10,176
39+81.71	4.13	9.40	3.62	20.33	5,299	10,196
39+83.77	10.47	17.76	0.56	1.04	5,300	10,197
40+00.00	19.30	12.05	8.94	8.96	5,309	10,206

NOTE: A SHRINKAGE FACTOR HAS NOT BEEN APPLIED TO THE EARTHWORK QUANTITY TABLES.

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
11+23.72	12.61	30.68	14.20	24.08	2,249	1,066
11+25.00	11.46	31.04	0.57	1.46	2,250	1,068
11+50.00	8.74	24.85	9.79	26.77	2,260	1,095
11+52.47	8.86	24.06	0.80	2.23	2,260	1,097
11+59.22	9.56	22.80	2.30	5.86	2,263	1,103
11+79.70	19.33	137.49	10.96	60.78	2,274	1,163
12+00.00	30.21	118.29	18.63	96.16	2,292	1,260
12+50.00	85.35	15.29	107.00	123.69	2,399	1,383
12+70.83	100.62	8.10	71.72	9.02	2,471	1,392
12+75.00	103.24	8.04	15.75	1.25	2,487	1,394
13+00.00	110.33	7.21	98.28	7.39	2,585	1,401
13+25.00	117.97	9.81	105.06	8.07	2,690	1,409
13+40.72	126.50	6.70	70.62	5.00	2,761	1,414
13+50.00	131.46	9.70	43.91	2.96	2,805	1,417
13+75.00	143.30	11.41	125.44	10.10	2,930	1,427
14+00.00	188.60	15.42	151.06	12.97	3,081	1,440
14+10.61	145.87	9.56	64.65	5.12	3,146	1,445
14+50.00	94.08	7.71	175.04	12.60	3,321	1,458
15+00.00	117.10	12.42	195.53	18.64	3,516	1,476
15+13.29	117.48	12.48	57.73	6.13	3,574	1,483

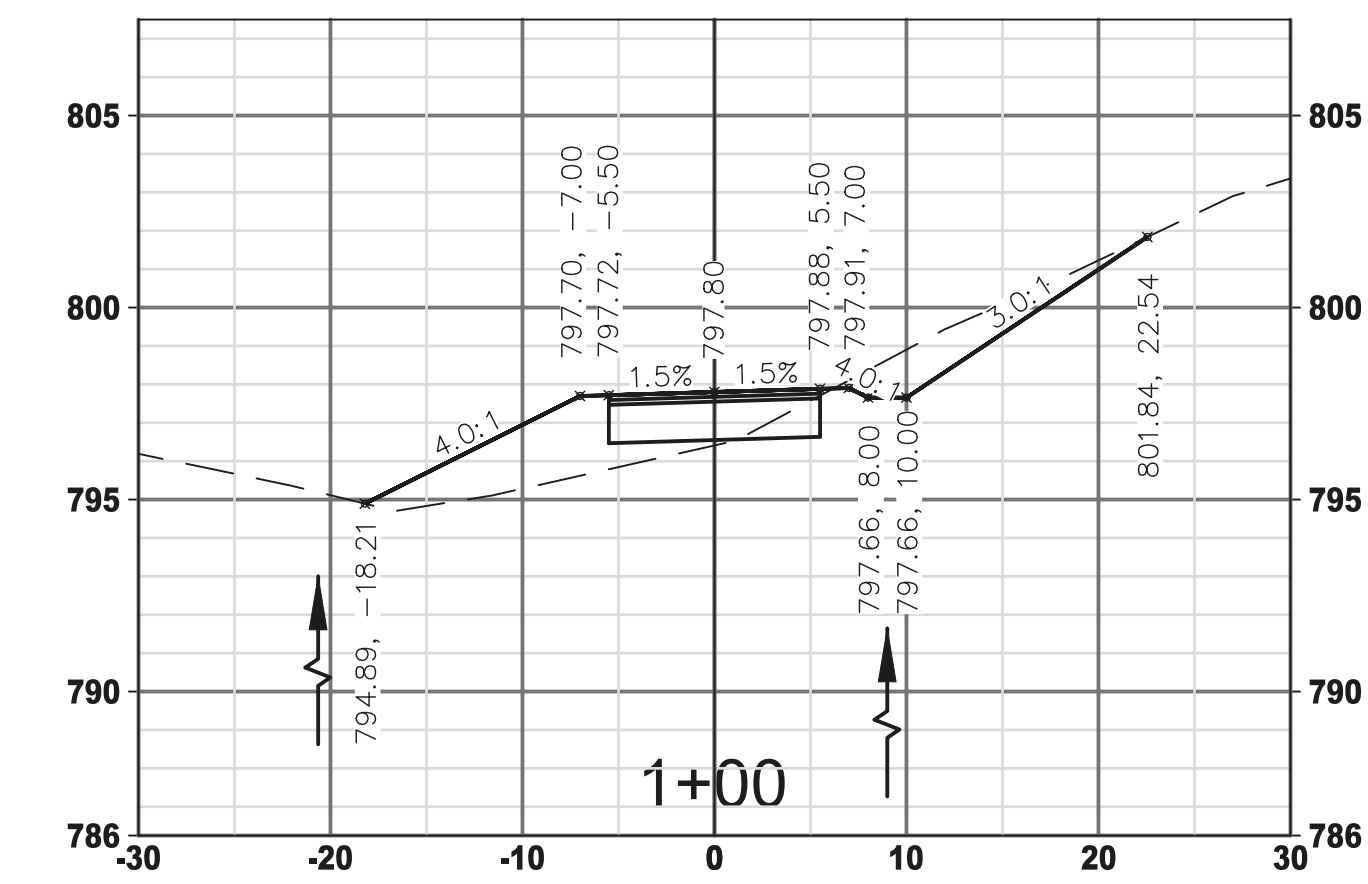
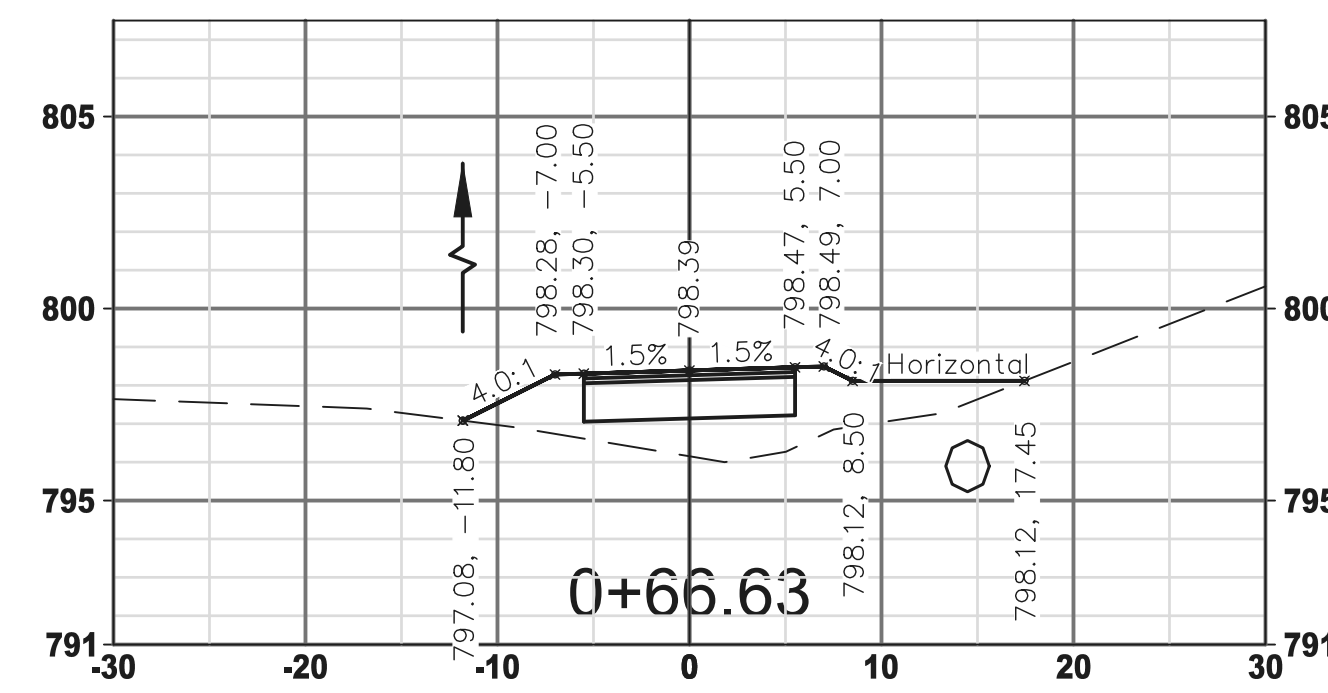
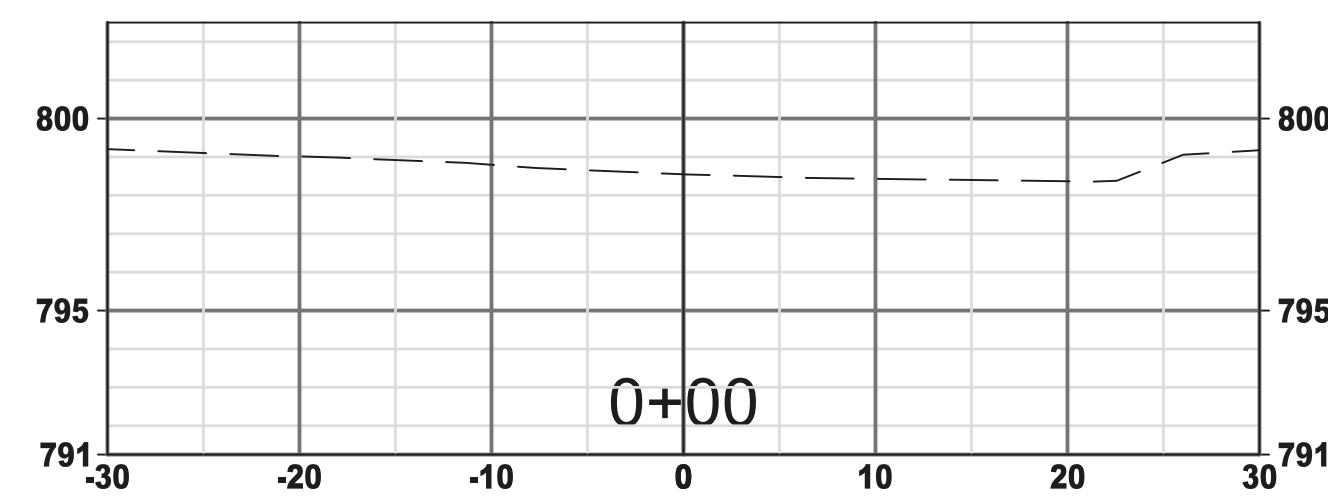
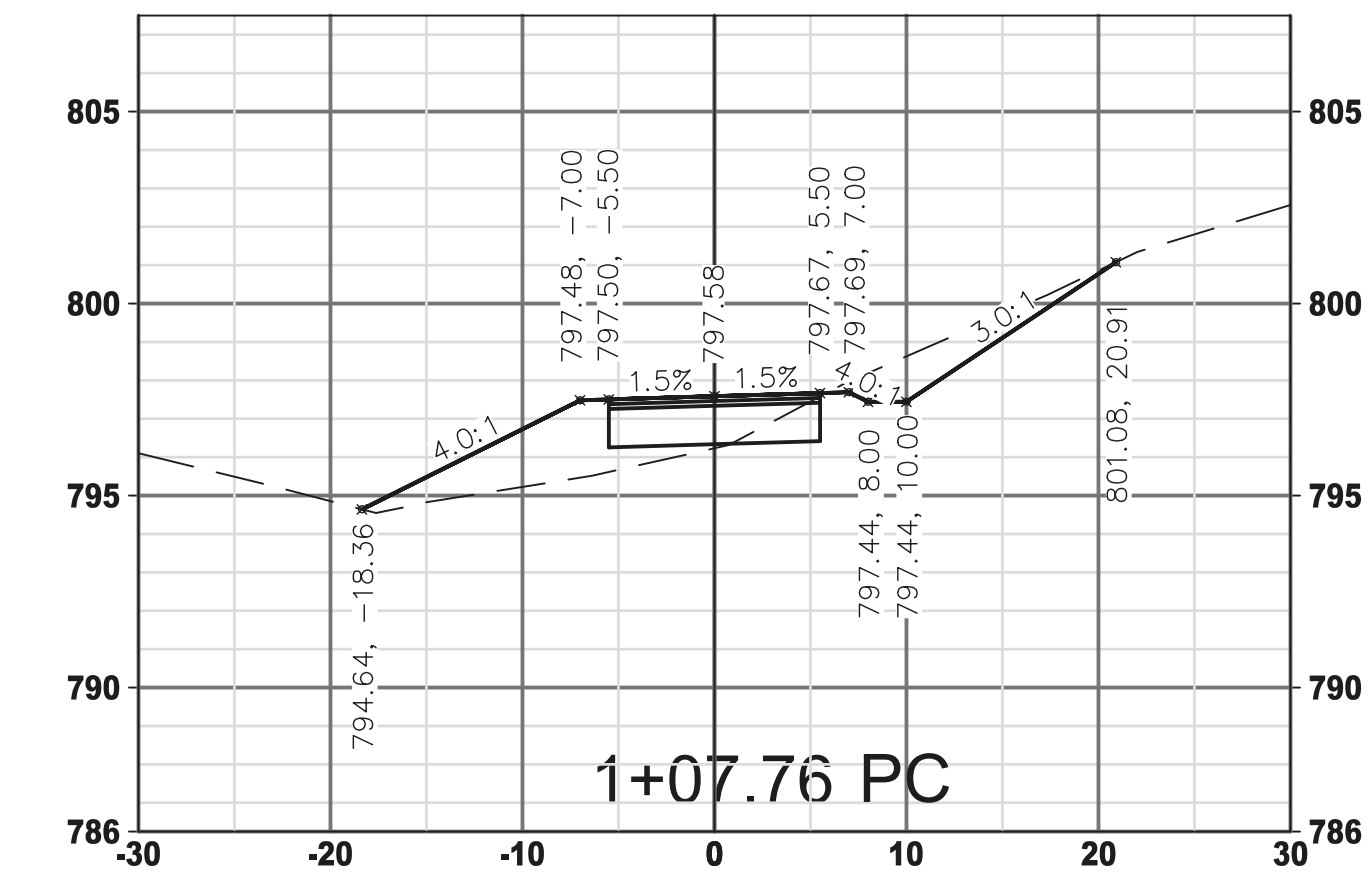
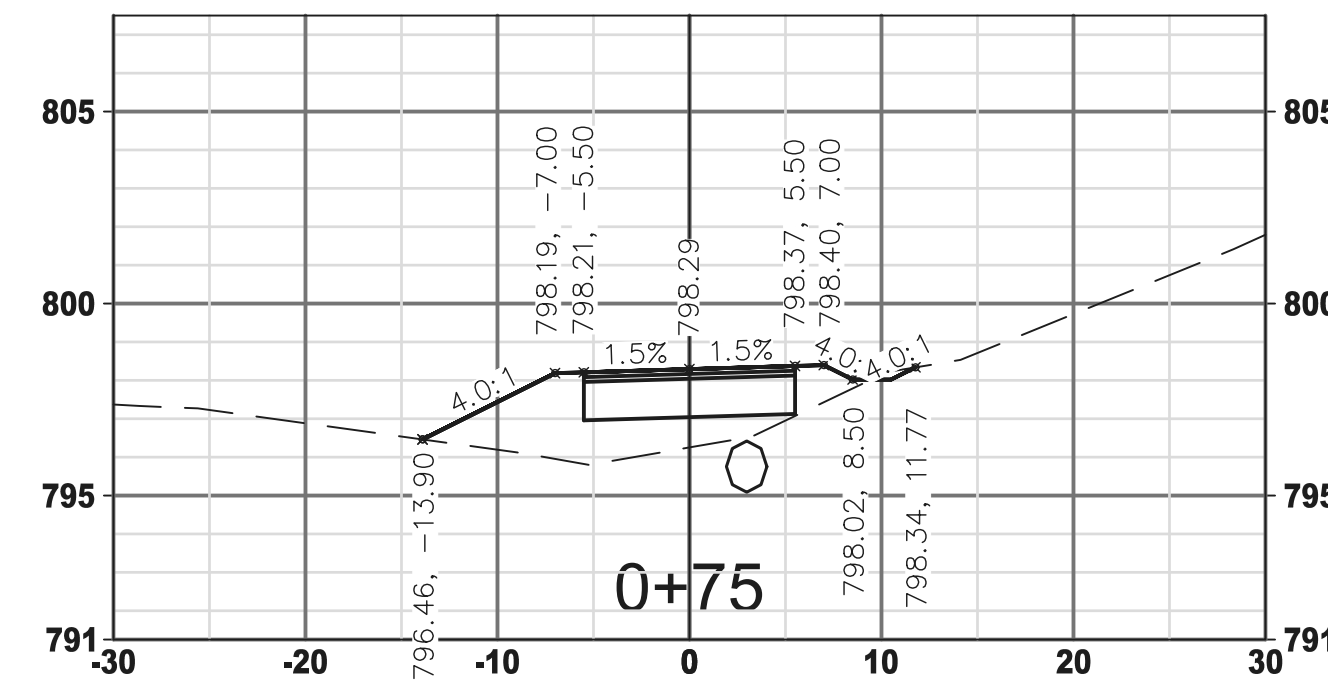
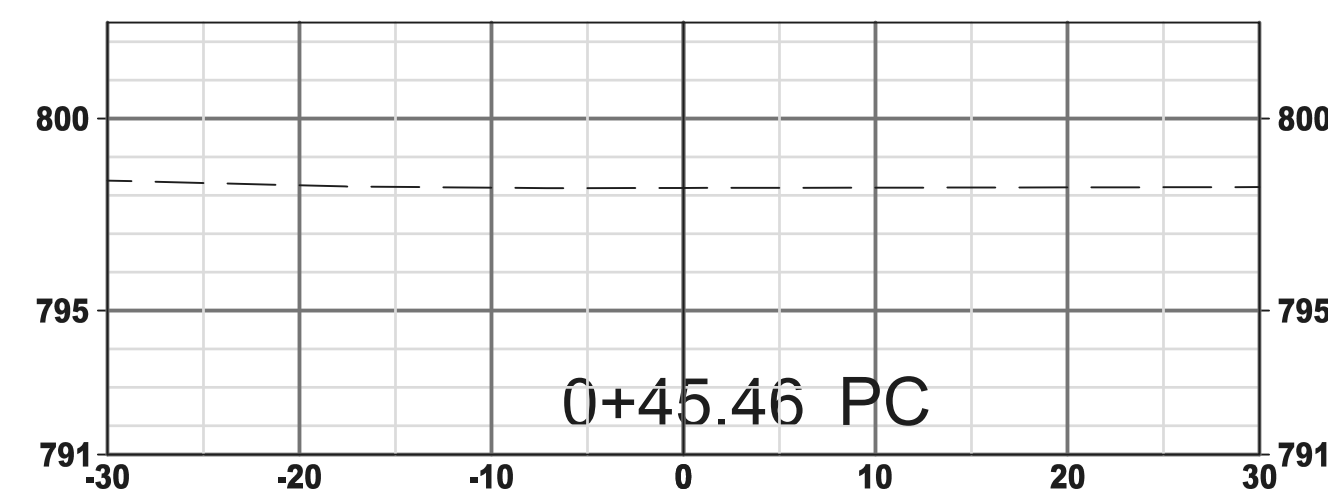
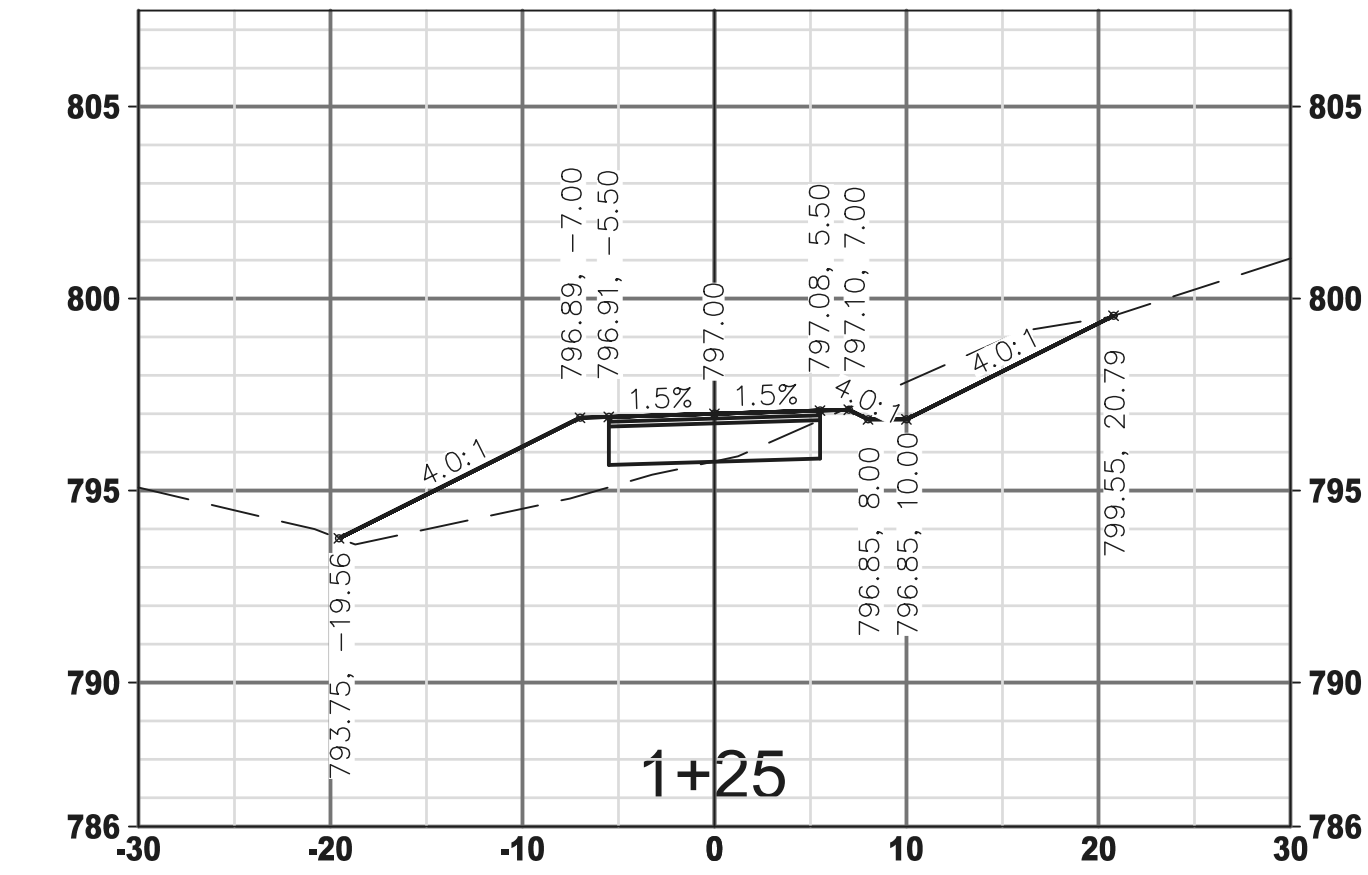
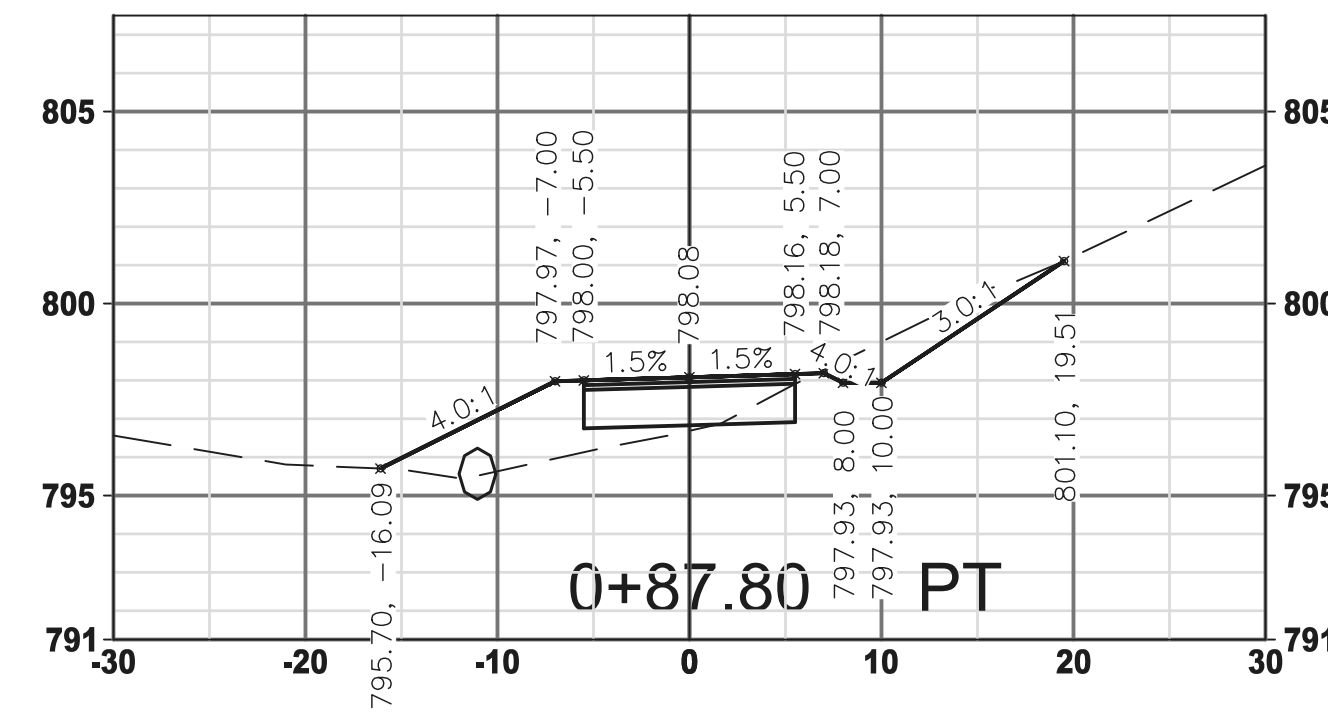
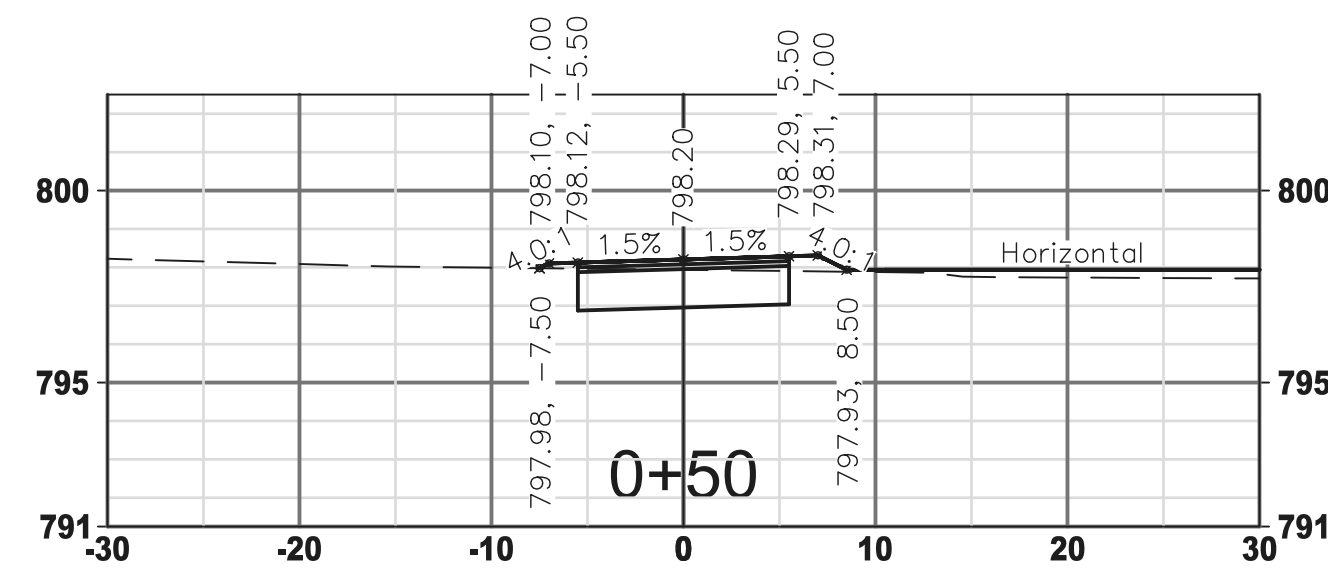
Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
15+25.00	118.31	11.55	51.91	5.61	3,626	1,488
15+50.00	120.08	10.12	113.27	10.74	3,739	1,499
15+61.88	113.70	6.26	53.34	3.65	3,793	1,503
15+75.00	98.72	8.57	53.61	3.37	3,846	1,506
16+00.00	52.30	26.73	72.31	16.49	3,919	1,522
16+10.47	30.41	21.45	16.46	9.57	3,935	1,532
16+25.00	13.32	22.27	11.46	11.65	3,947	1,544
16+50.00	2.39	17.19	7.07	18.25	3,954	1,562
16+75.00	0.00	42.65	1.07	27.62	3,955	1,590
17+00.00	0.00	57.59	0.00	46.32	3,955	1,636
17+19.46	0.00	71.05	0.00	46.48	3,955	1,682
17+25.00	0.00	74.97	0.00	15.04	3,955	1,697
17+50.00	0.00	72.11	0.00	68.48	3,955	1,766
17+75.00	0.00	62.63	0.00	62.71	3,955	1,829
18+00.00	0.00	45.77	0.00	50.20	3,955	1,879
18+25.00	3.48	23.48	1.55	31.96	3,956	1,911
18+28.45	4.23	21.38	0.49	2.87	3,957	1,914
18+50.00	9.23	11.23	5.37	13.01	3,962	1,927
19+00.00	20.69	3.04	27.70	13.22	3,990	1,940
19+50.00	22.75	1.61	40.22	4.31	4,030	1,944

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
20+00.00	55.90	0.00	72.83	1.49	4,103	1,946
20+28.19	59.26	0.00	60.11	0.00	4,163	1,946
20+50.00	71.24	0.00	51.46	0.00	4,214	1,946
20+75.00	106.50	0.00	80.78	0.00	4,295	1,946
21+00.00	127.38	0.00	106.83	0.00	4,402	1,946
21+25.00	80.07	0.00	94.79	0.00	4,497	1,946
21+50.00	21.92	0.17	46.49	0.08	4,543	1,946
21+75.00	0.69	21.98	10.29	10.34	4,554	1,956
21+79.40	0.00	29.36	0.06	4.18	4,554	1,960
21+91.28	0.00	49.94	0.00	17.53	4,554	1,978
22+00.00	0.00	66.83	0.00	18.90	4,554	1,997
22+25.00	10.22	131.19	4.48	92.13	4,558	2,089
22+50.00	0.00	92.53	4.48	104.01	4,563	2,193
22+75.00	0.00	117.30	0.00	97.20	4,563	2,290
23+00.00	0.00	144.44	0.00	121.16	4,563	2,411
23+25.00	0.00	180.58	0.00	150.31	4,563	2,561
23+30.60	0.00	189.08	0.00	38.36	4,563	2,600
23+50.00	0.00	220.90	0.00	147.26	4,563	2,747
23+51.17	0.00	222.71	0.00	9.59	4,563	2,757
23+75.00	0.00	248.13	0.00	209.48	4,563	2,966

NOTE: EARTHWORK QUANTITIES FOR THE HART ROAD PATH AND TRAIL HEAD HAVE BEEN ESTIMATED USING CAD SURFACE MODEL VOLUMETRIC TOOLS AND NOT FROM END AREAS DETERMINED FROM CROSS-SECTIONS. IN ADDITION TO THE EARTHWORK QUANTITIES ABOVE, IT IS ESTIMATED THAT THE HART ROAD PATH & TRAIL HEAD EARTHWORK ADDS 1,875 CY OF CUT AND ADDS 1,370 CY OF FILL.

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
24+00.00	0.00	212.45	0.00	215.06	4,563	3,181
24+25.00	0.00	195.51	0.00	189.60	4,563	3,371
24+50.00	0.00	184.51	0.00	175.98	4,563	3,547
24+65.00	0.00	181.17	0.00	101.47	4,563	3,648
24+75.00	0.00	178.26	0.00	66.48	4,563	3,715
25+00.00	0.00	179.58	0.00	165.74	4,563	3,880
25+25.00	0.00	168.63	0.00	161.73	4,563	4,042
25+50.00	0.00	154.42	0.00	150.26	4,563	4,192
25+75.00	0.00	117.12	0.00	126.19	4,563	4,319
26+00.00	0.24	114.19	0.11	107.08	4,563	4,426
26+50.00	0.00	84.71	0.22	184.16	4,563	4,610
27+00.00	0.68	84.04	0.63	156.25	4,564	4,766
27+16.84	3.16					



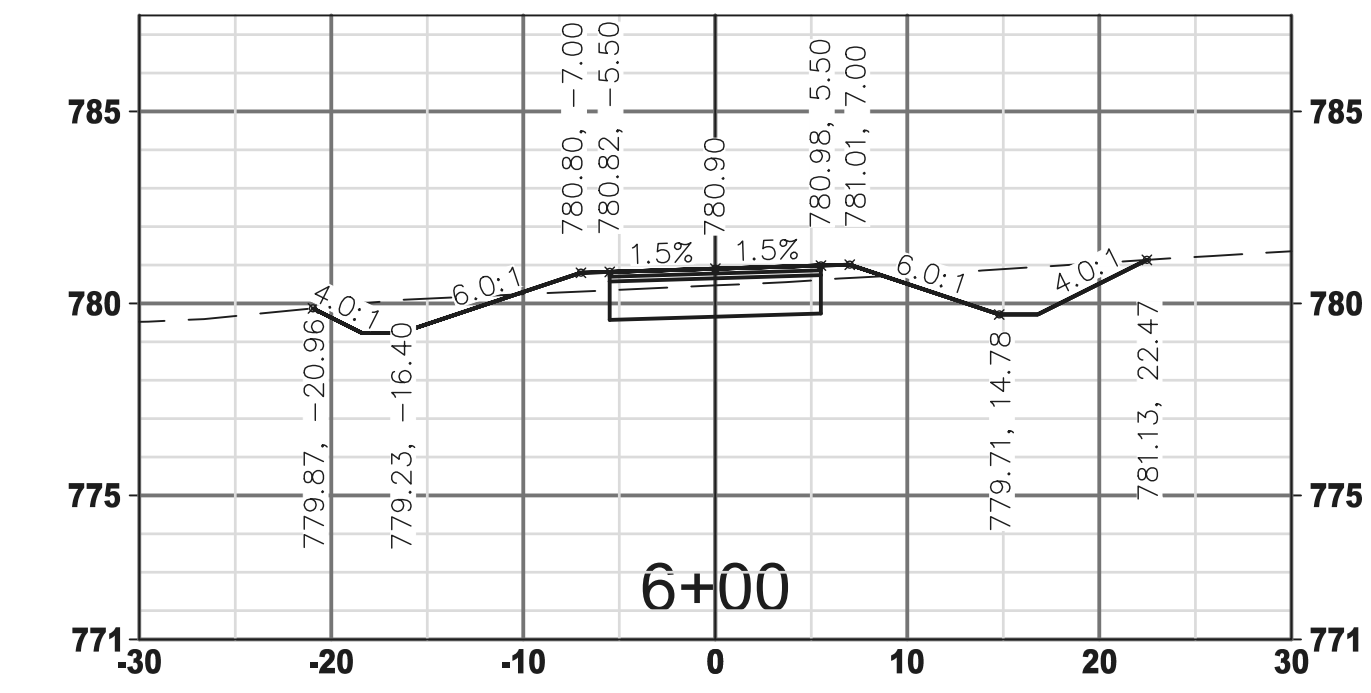
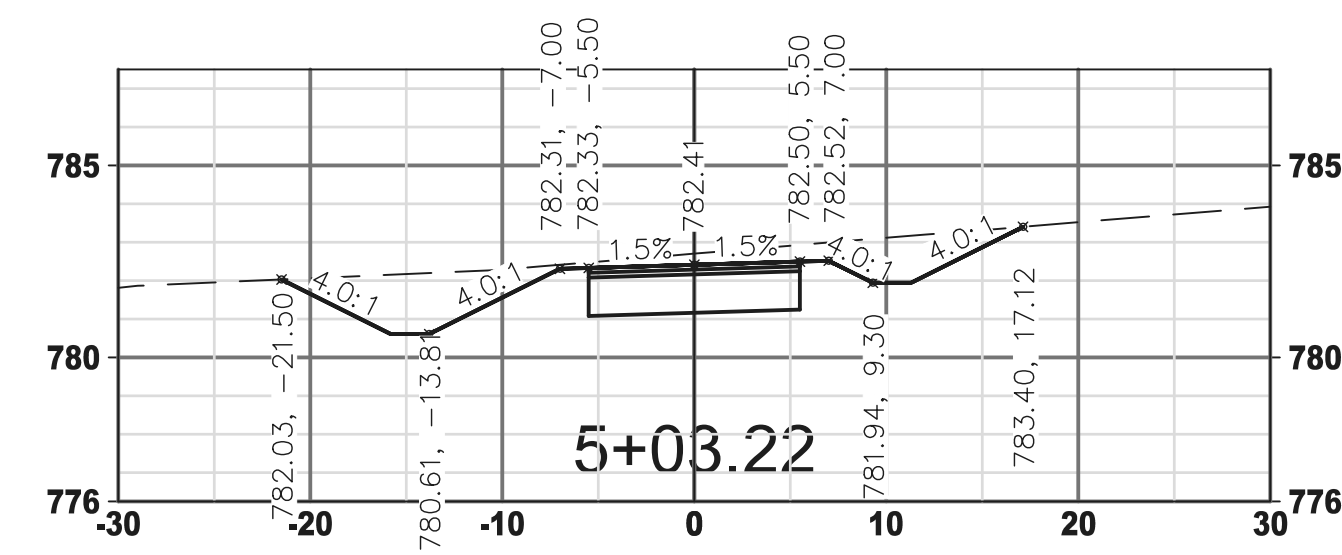
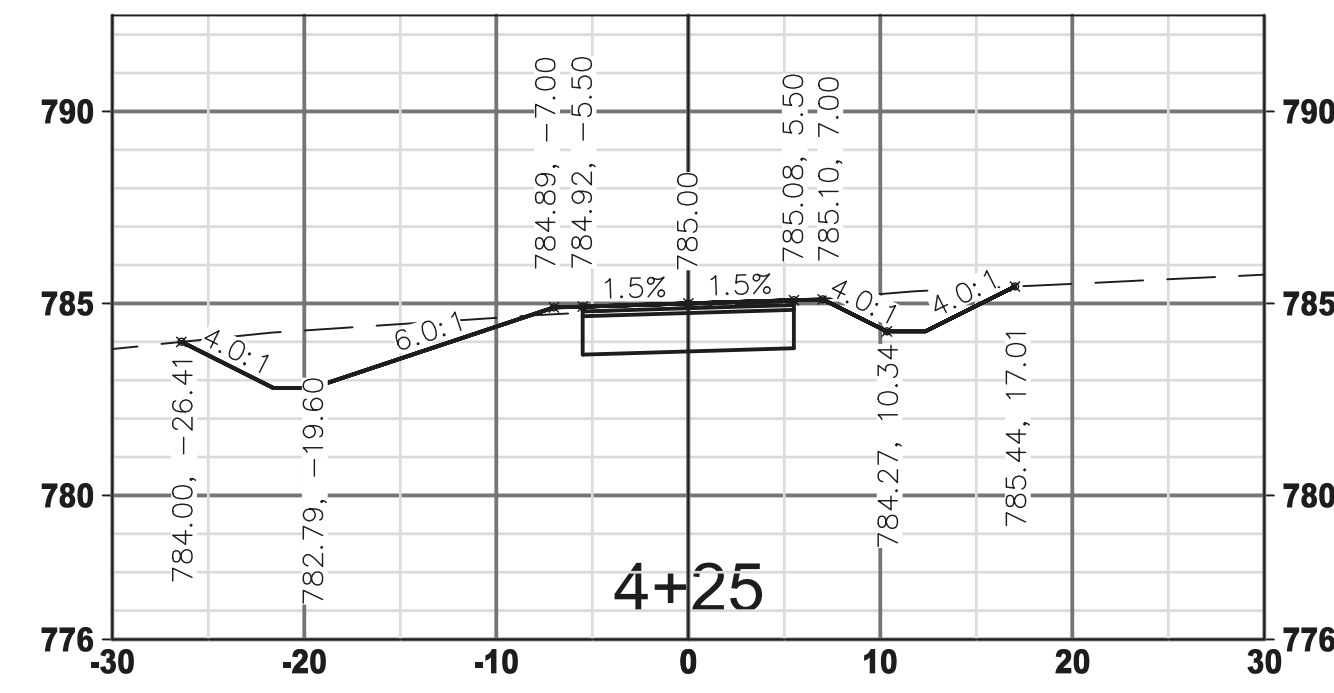


CURVE MIDPOINT

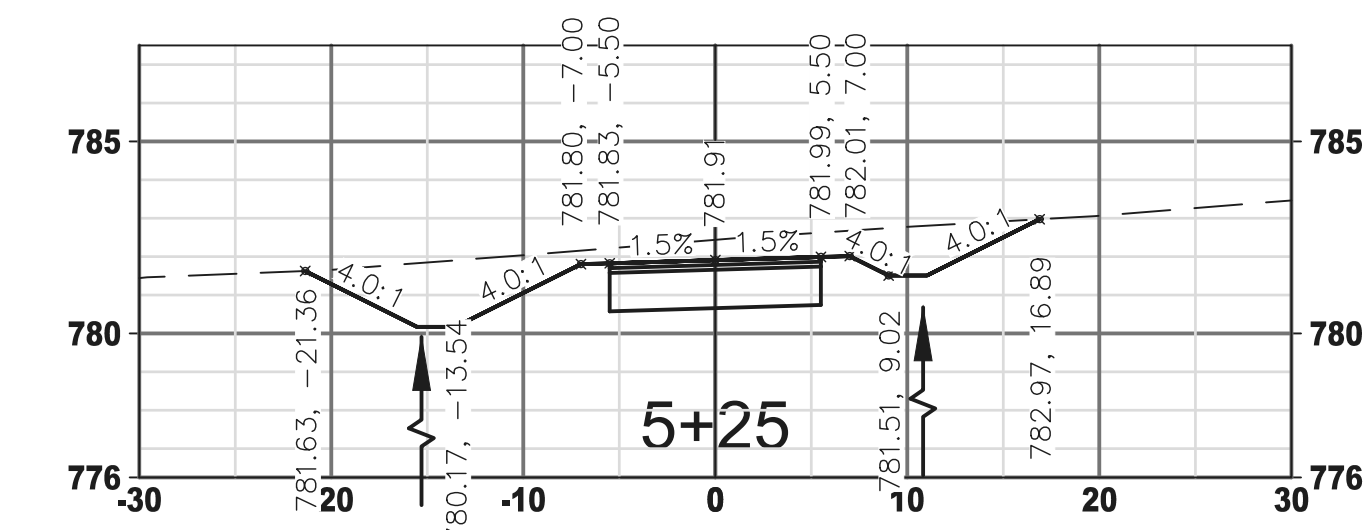
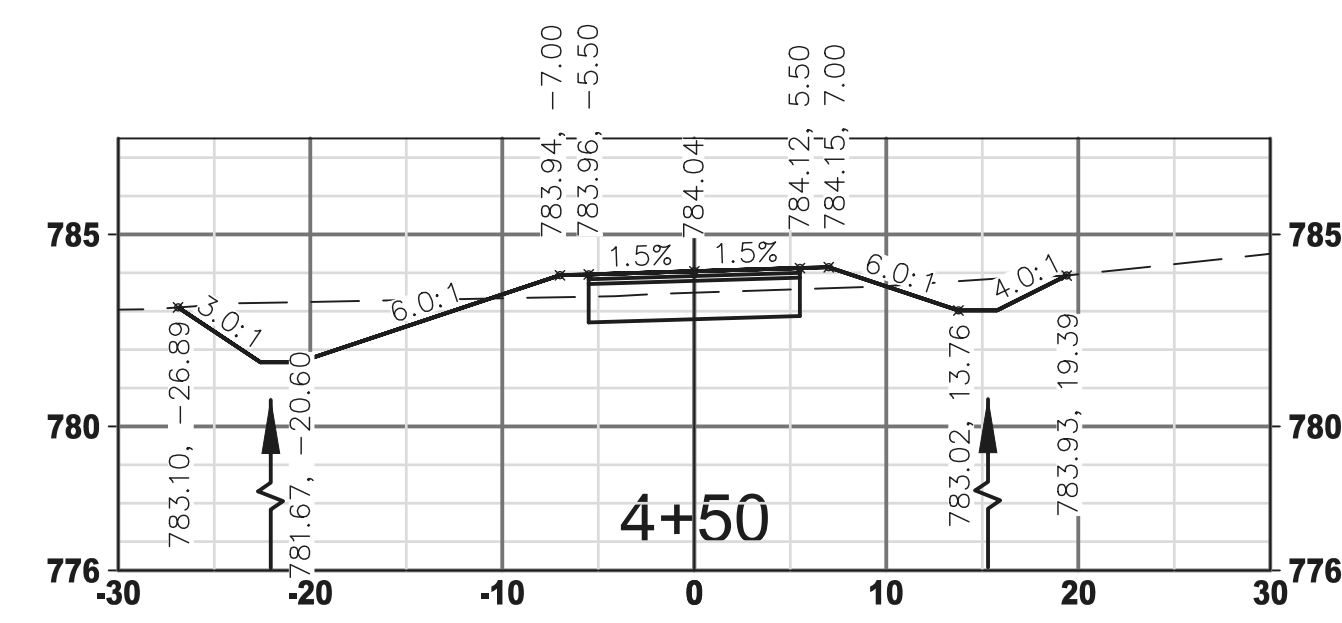
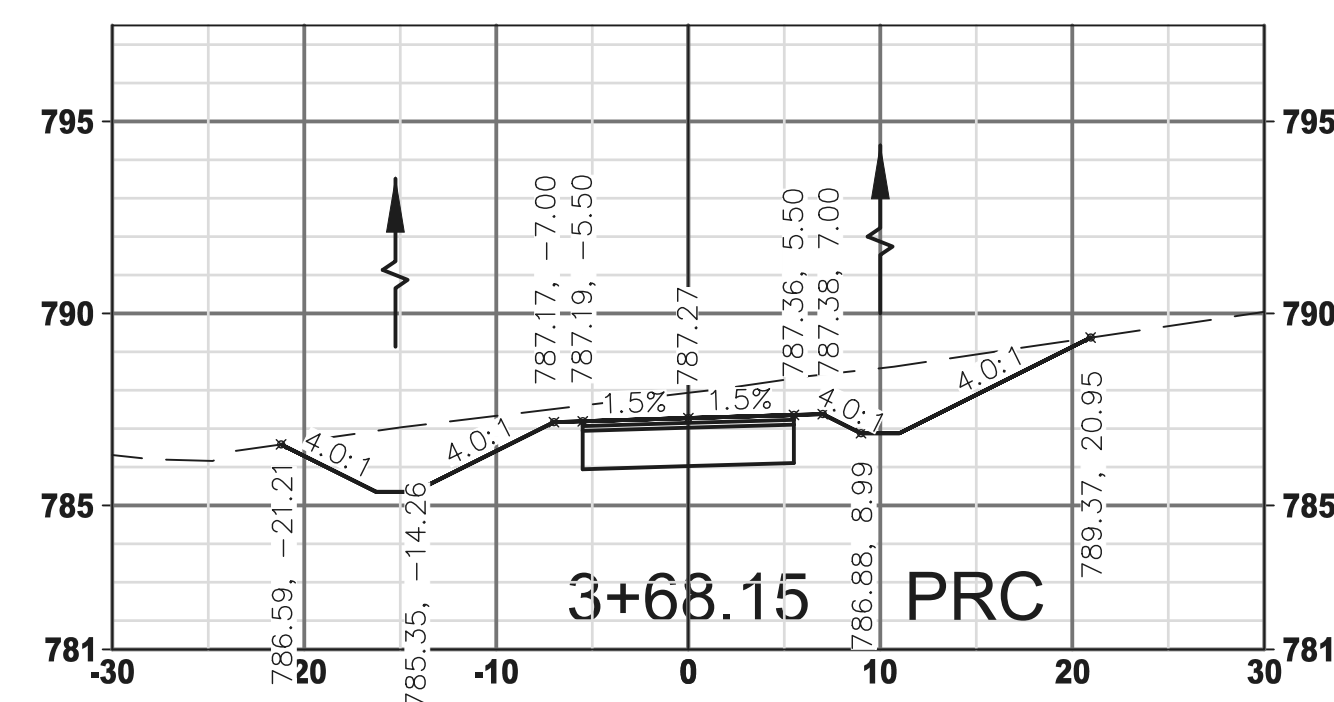
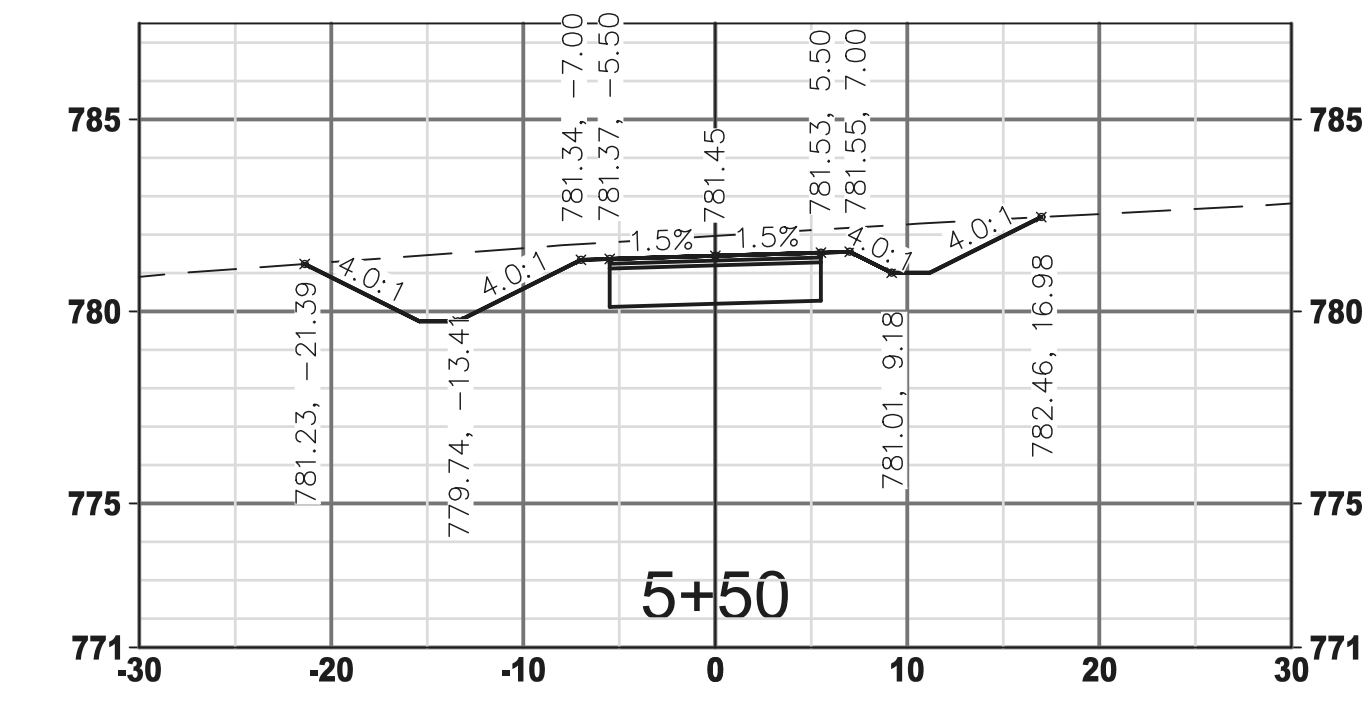
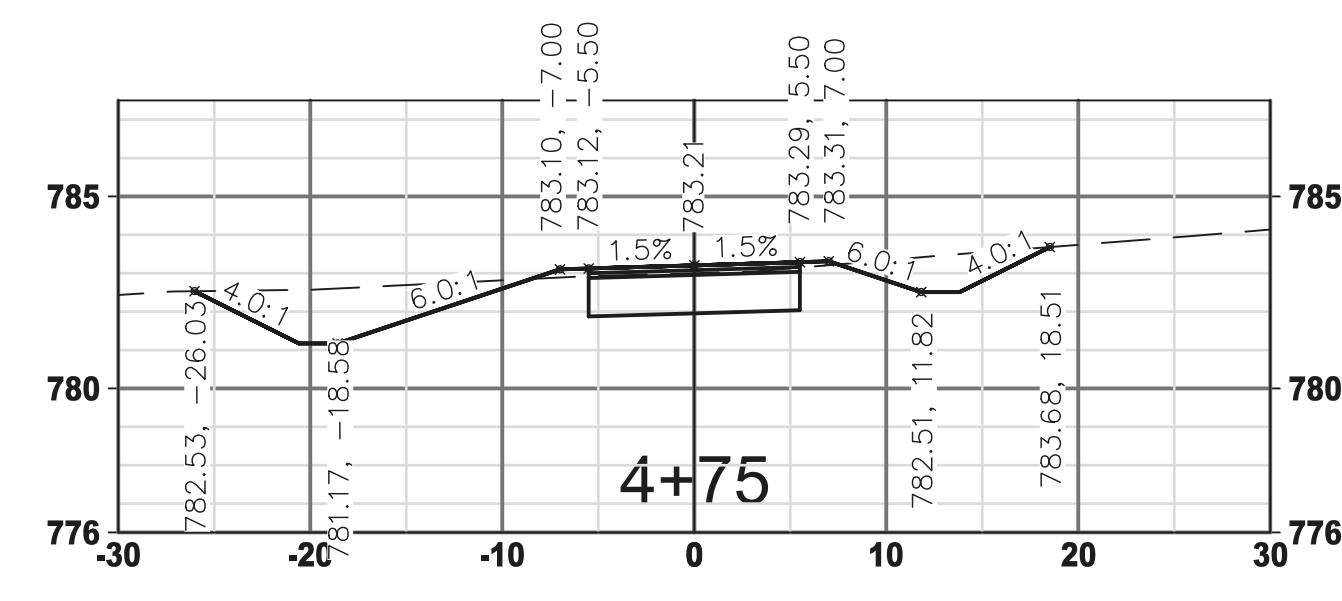
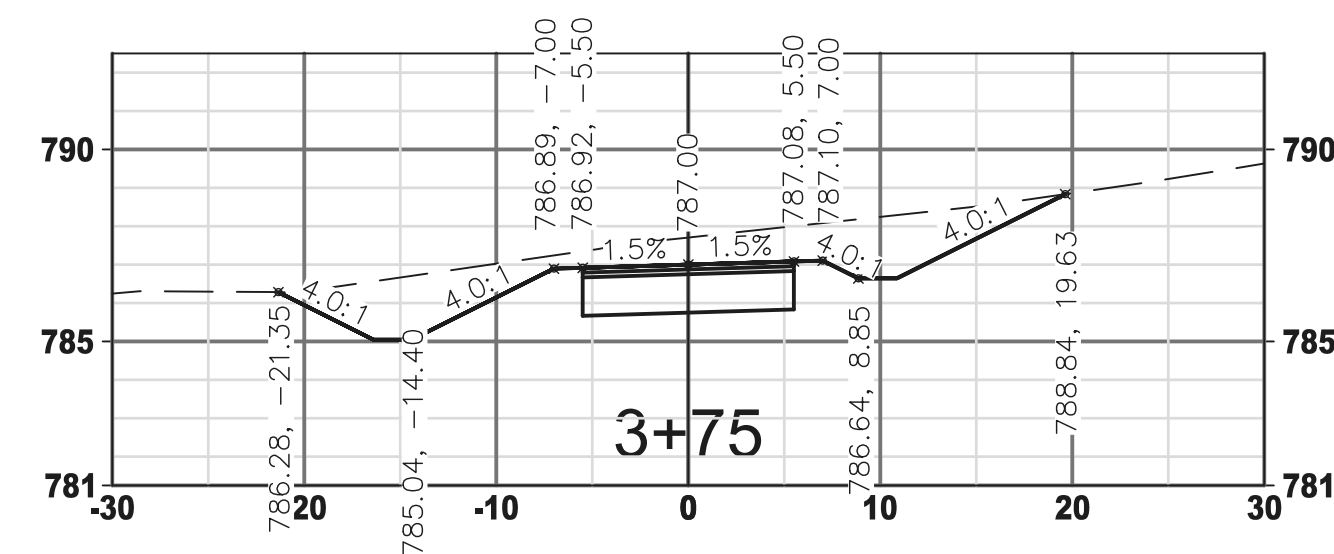
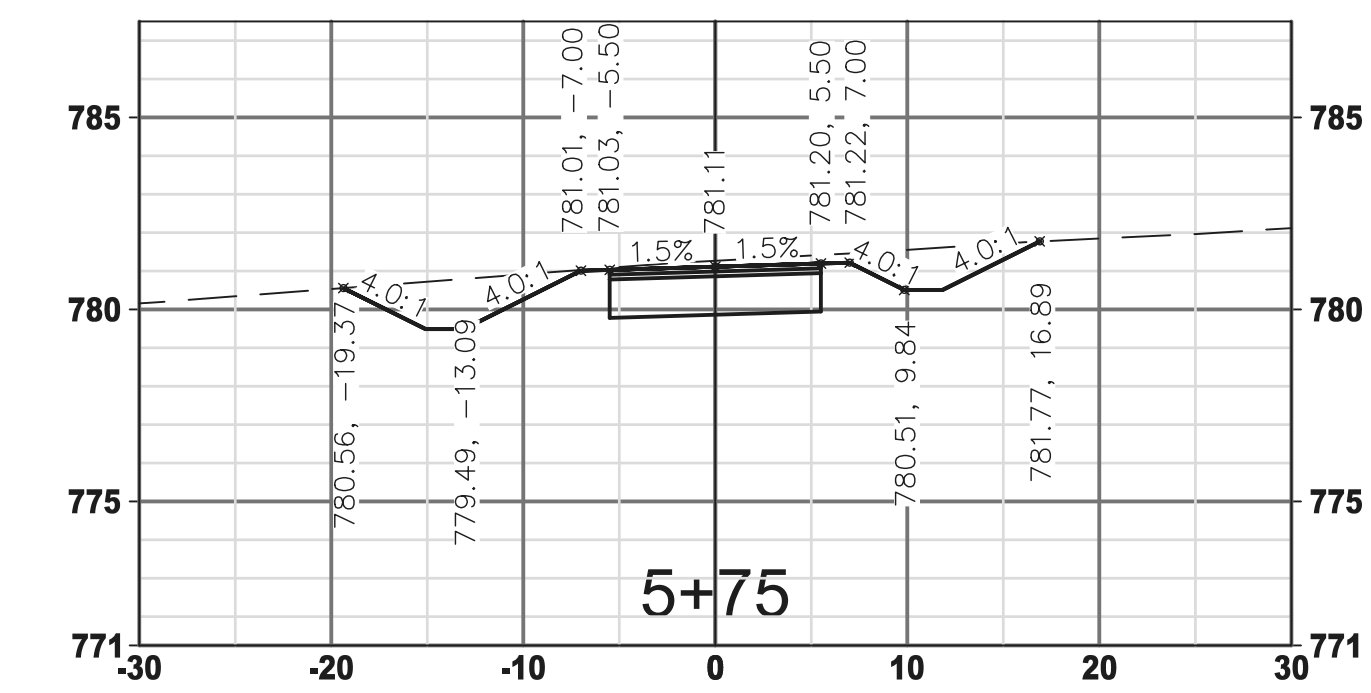
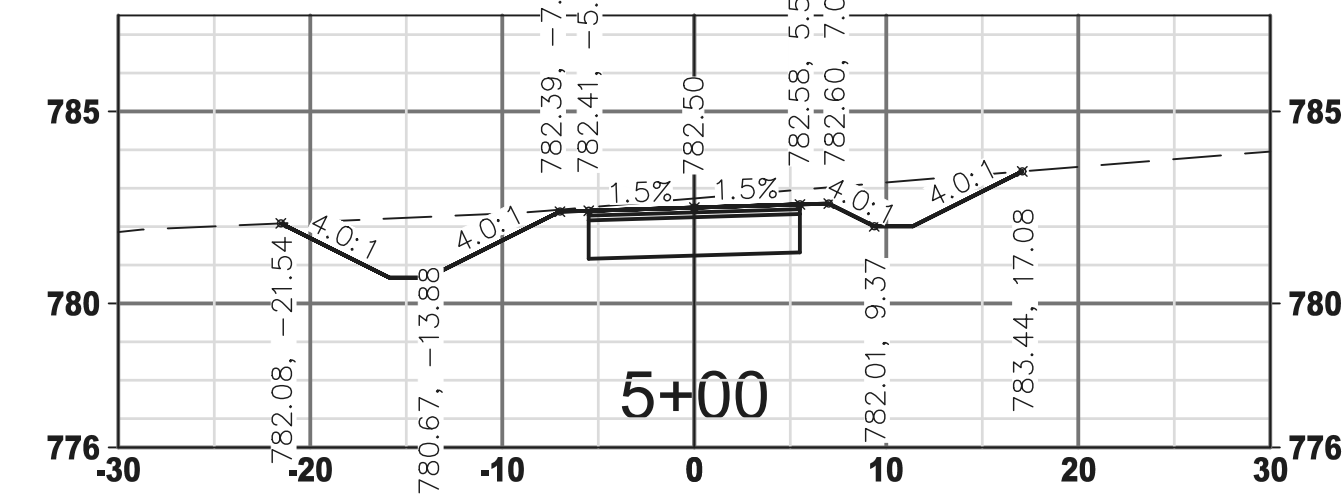
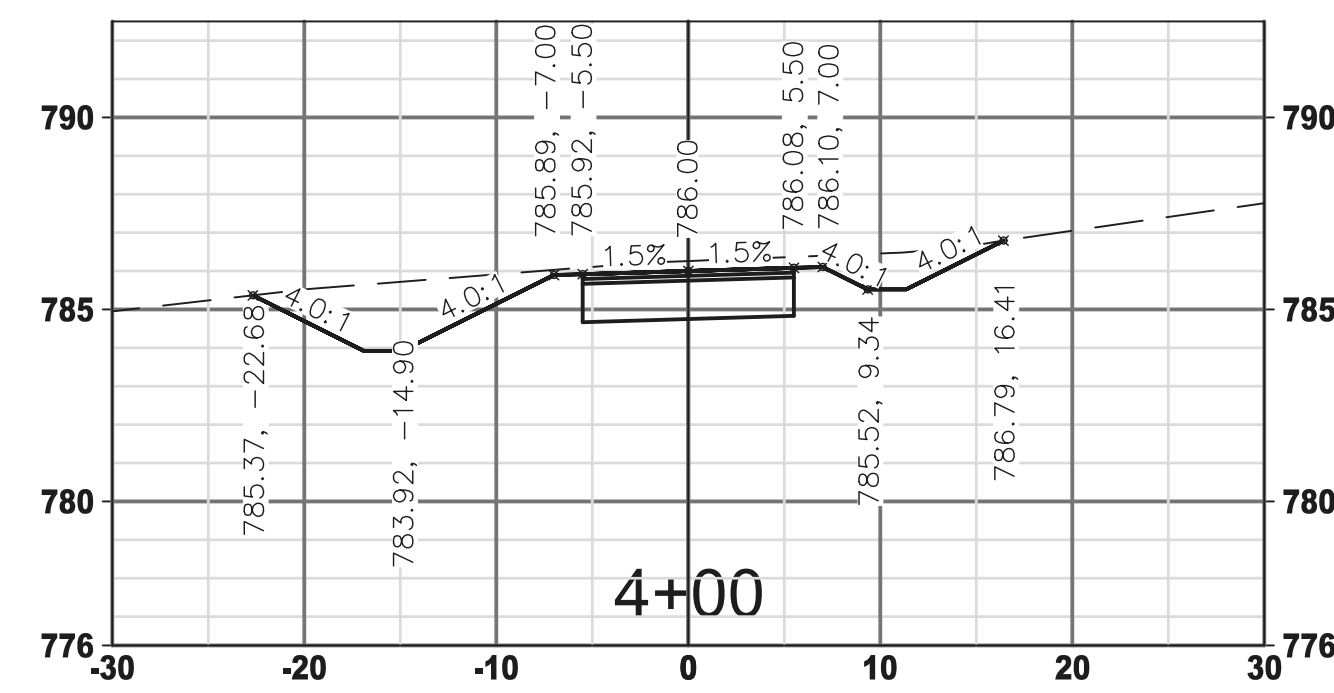




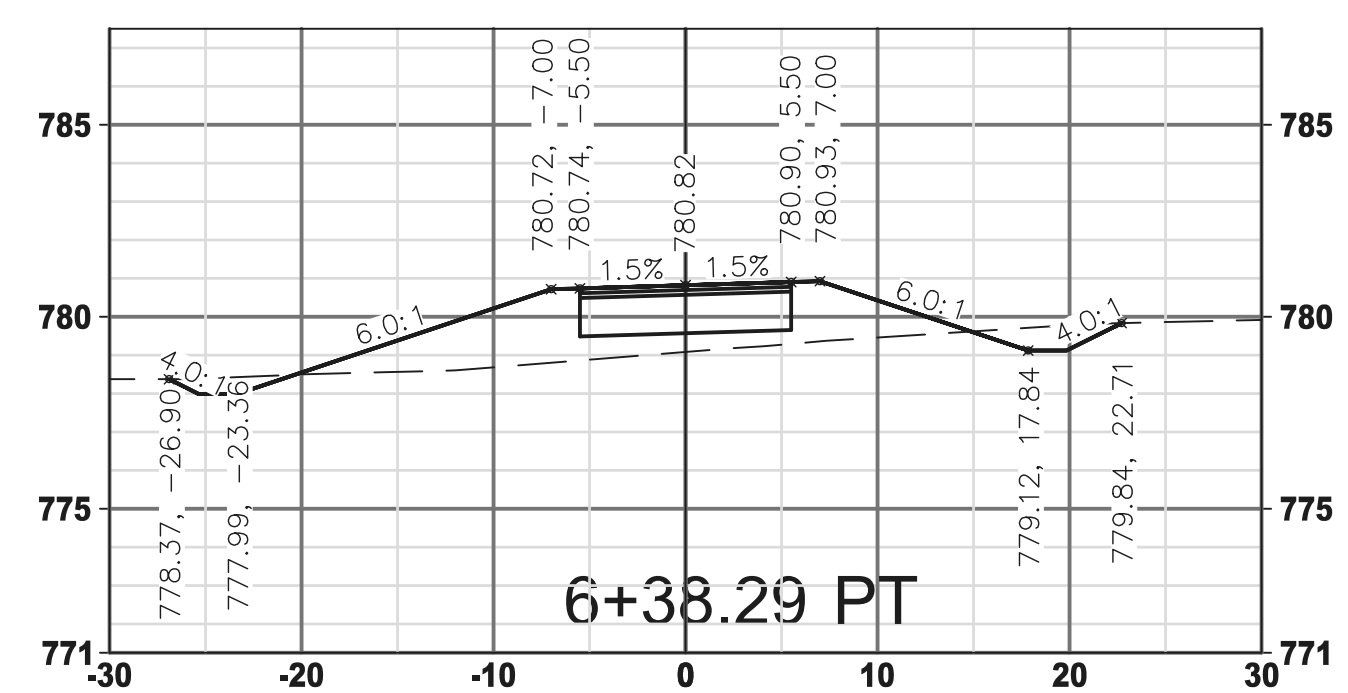
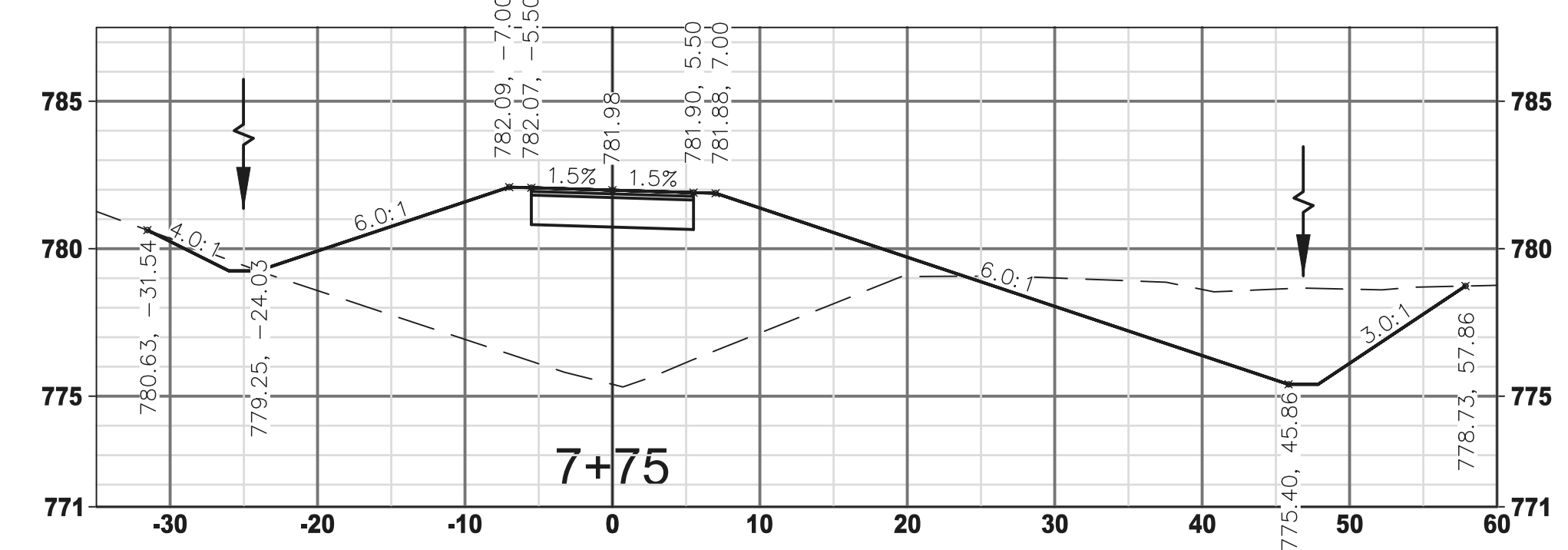
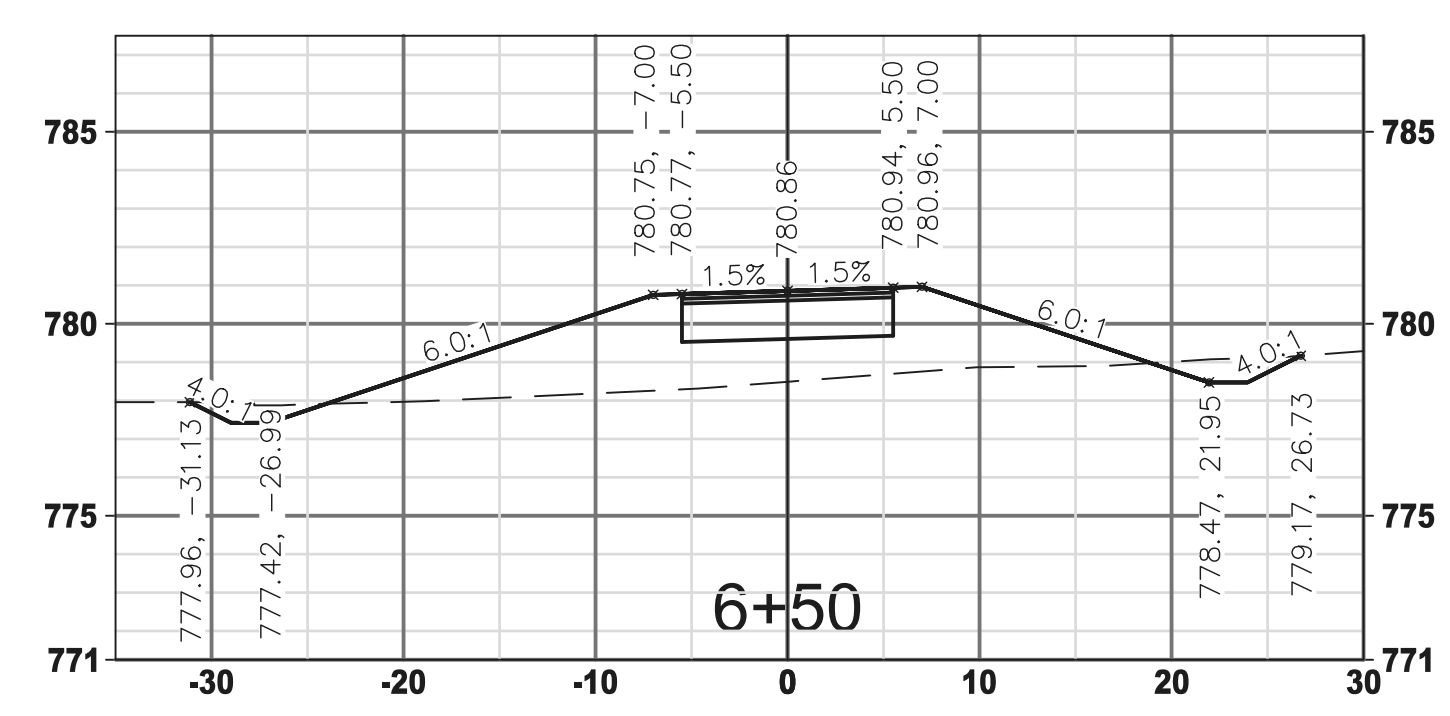




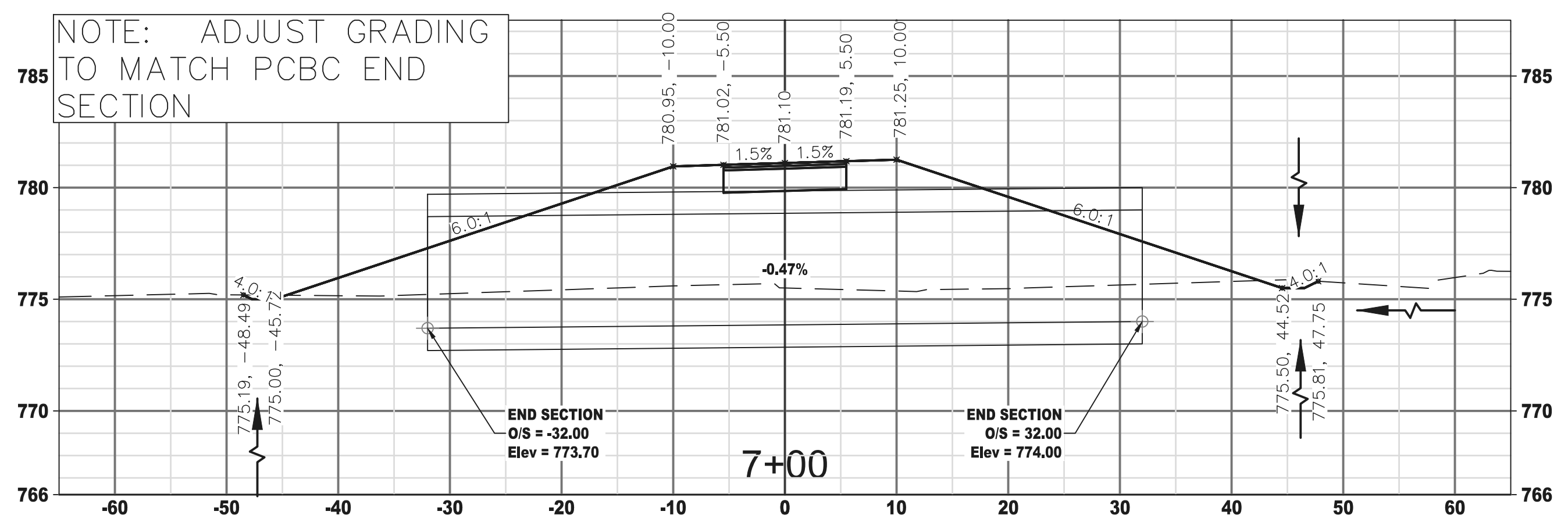
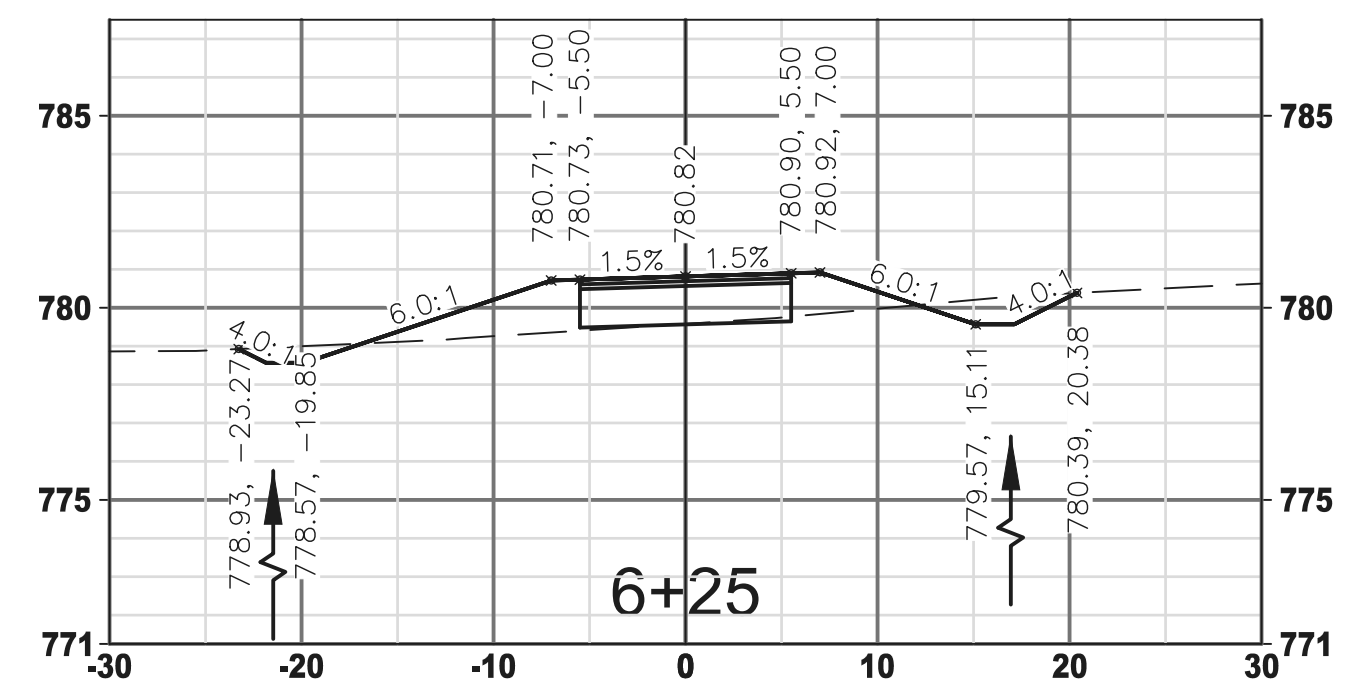
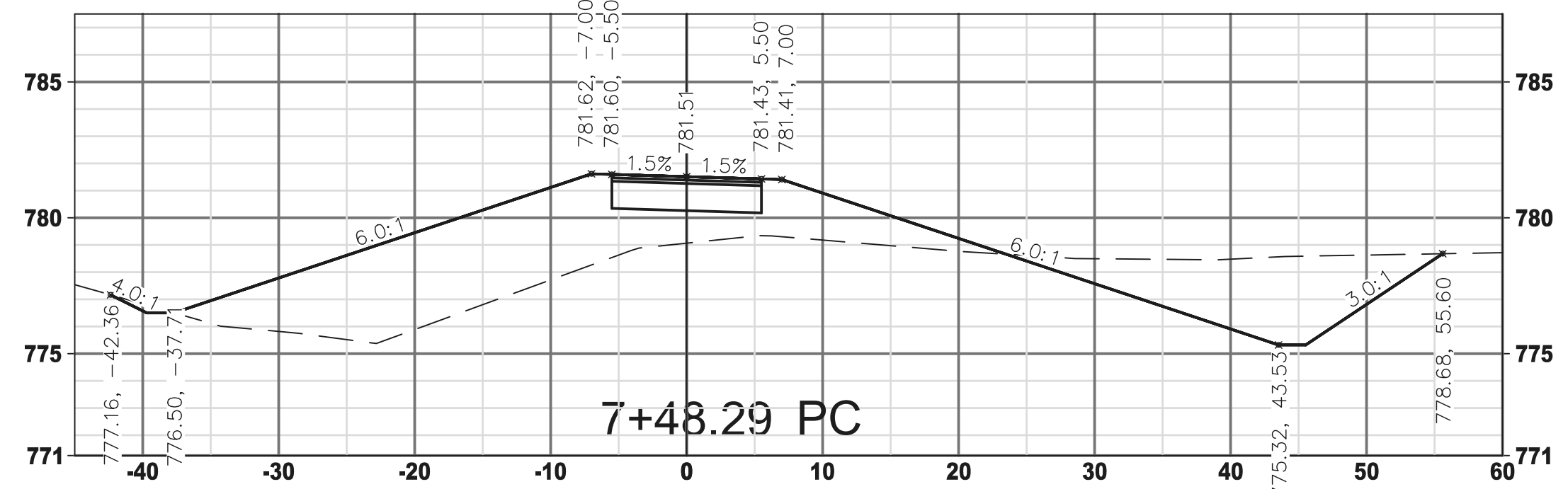
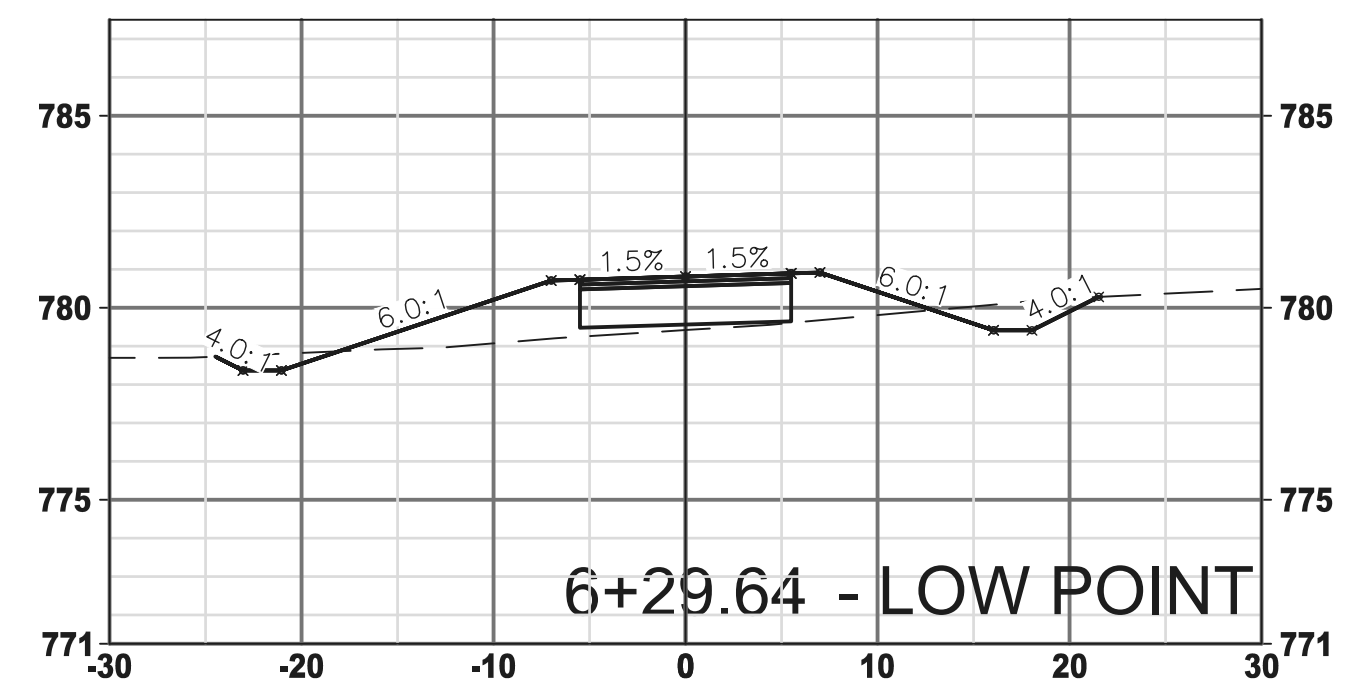
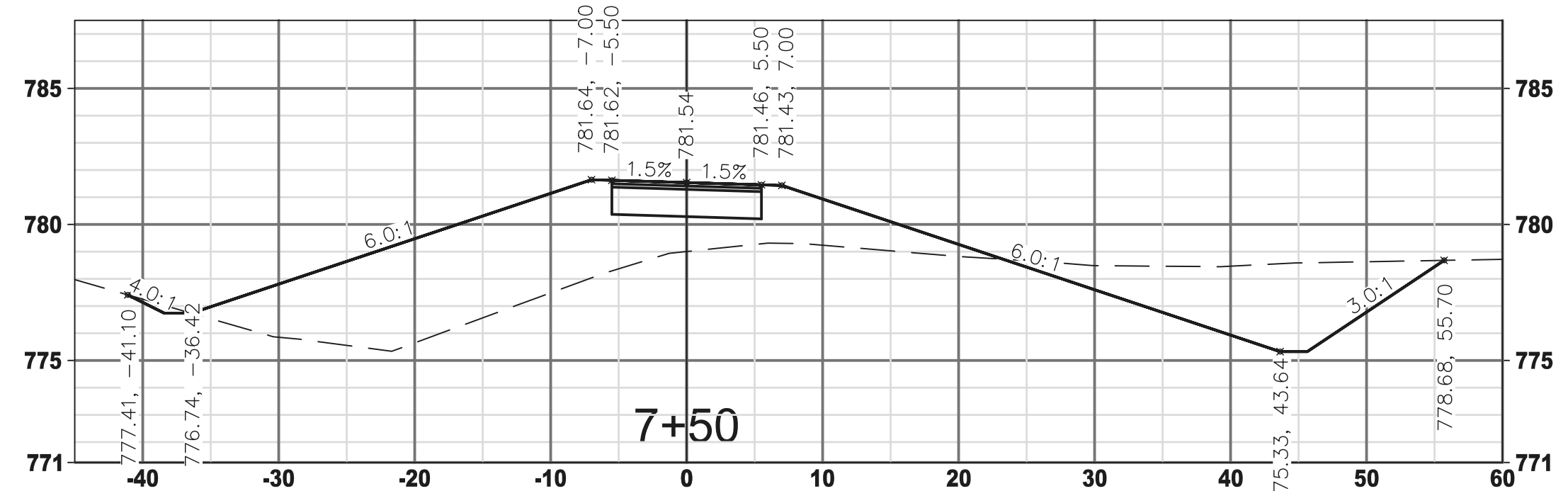
CURVE MIDPOINT







CURVE MIDPOINT

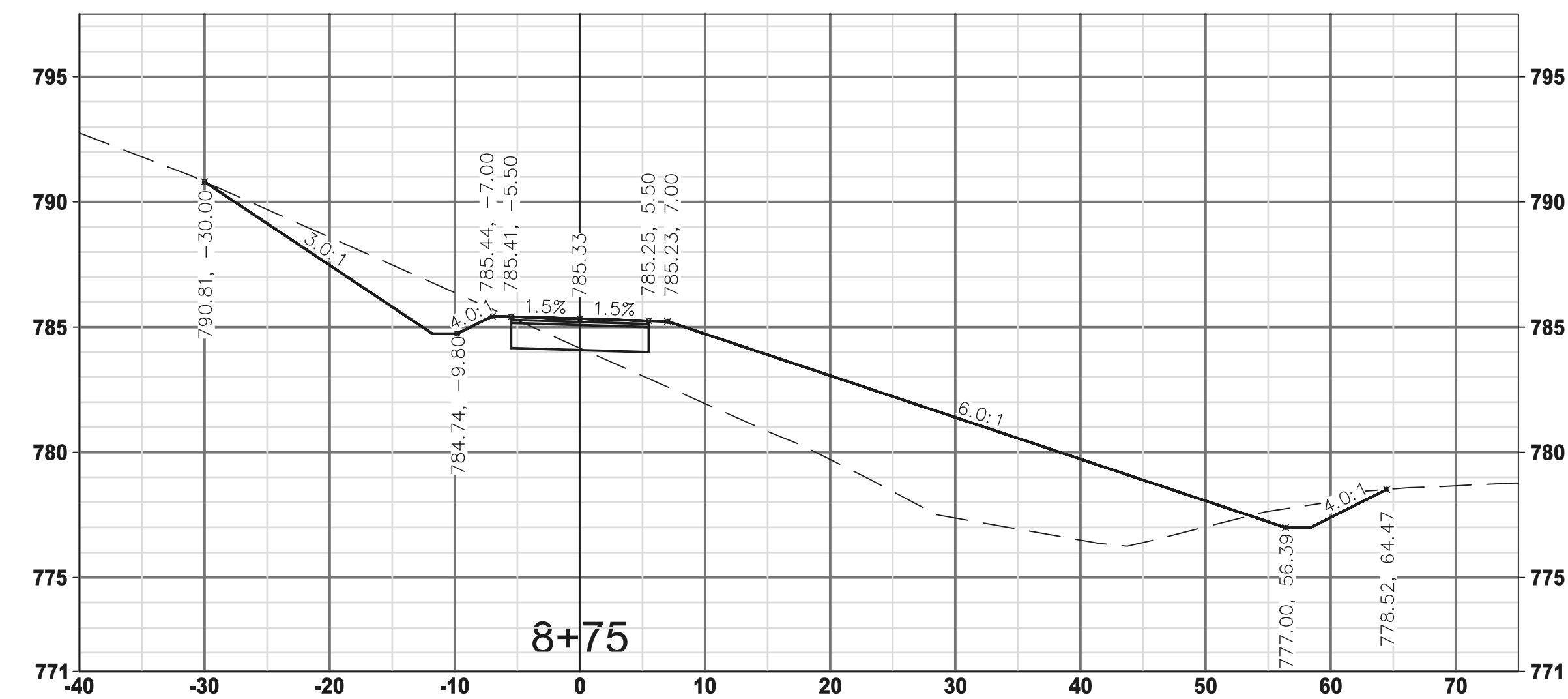
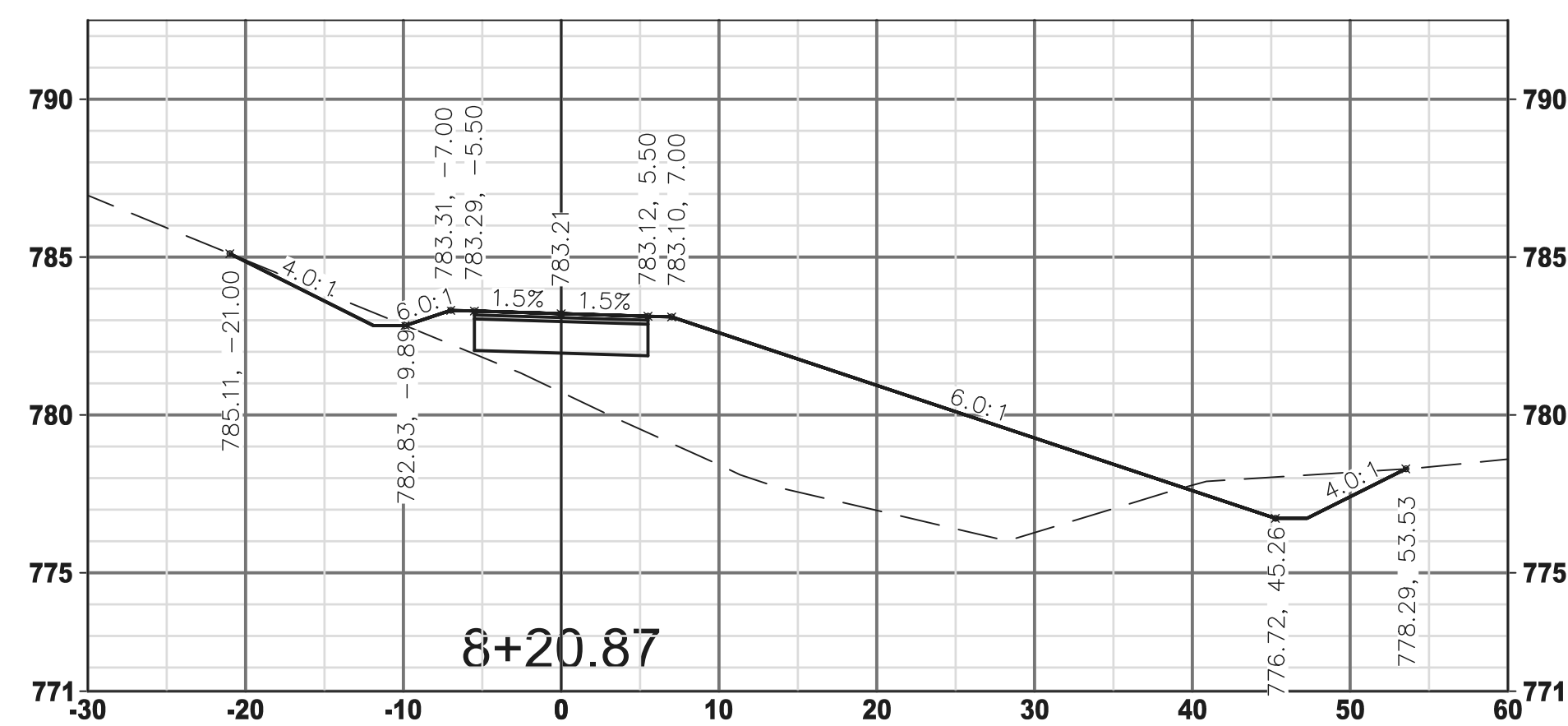
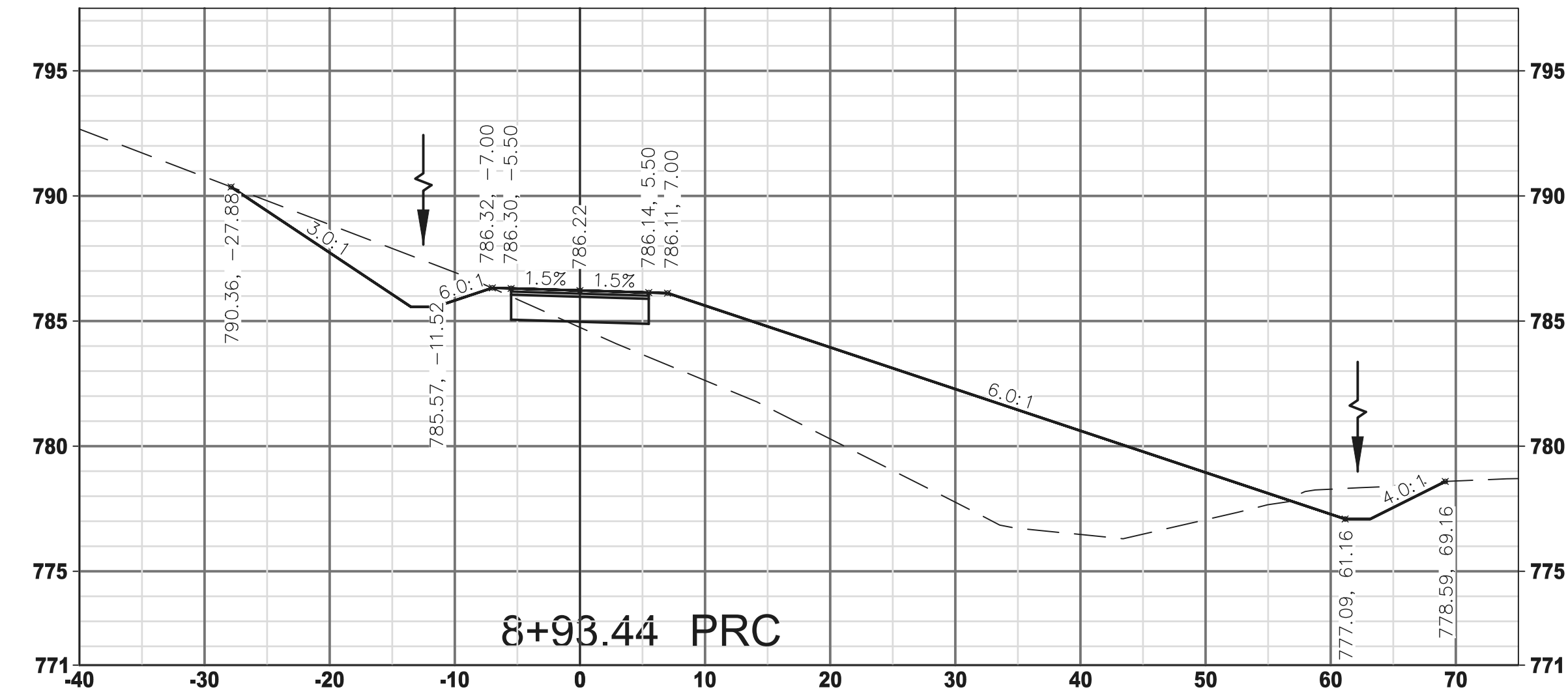
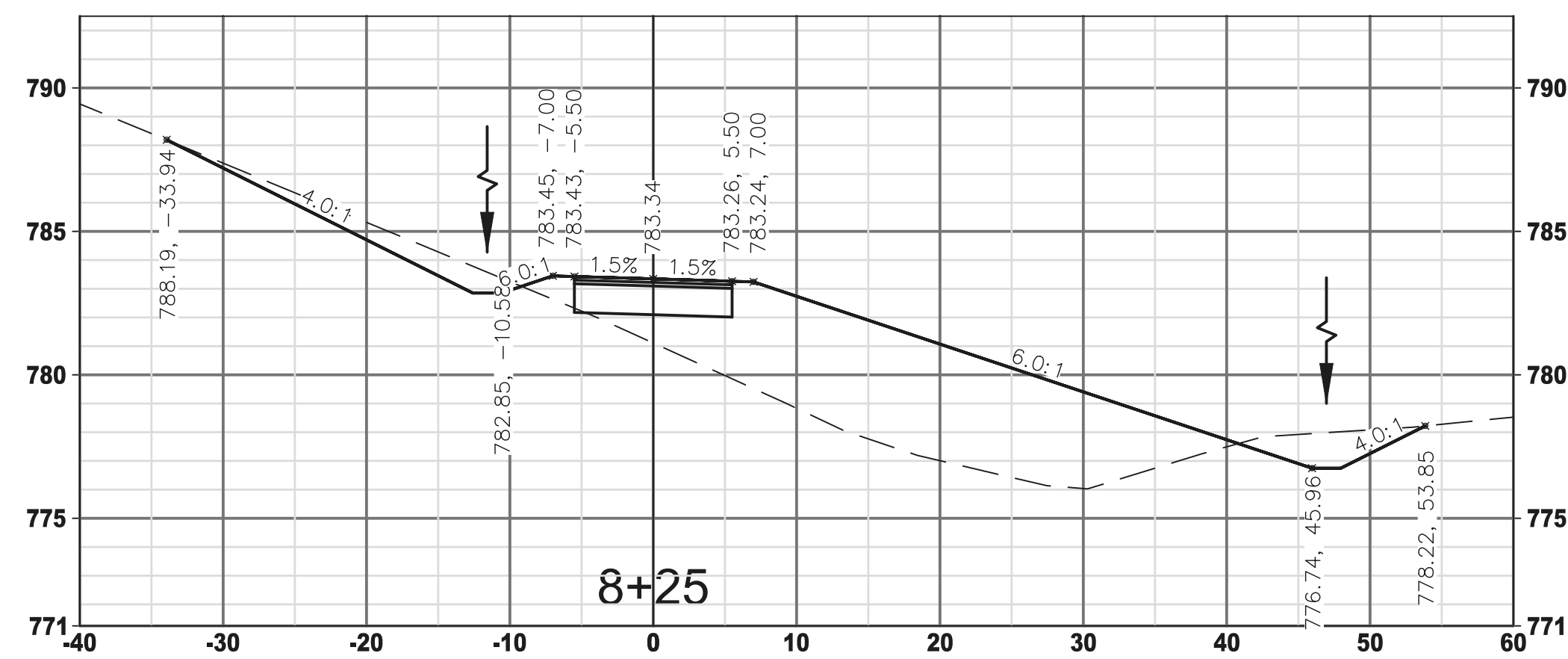


NOTE: ADJUST GRADING TO MATCH PCBC END SECTION

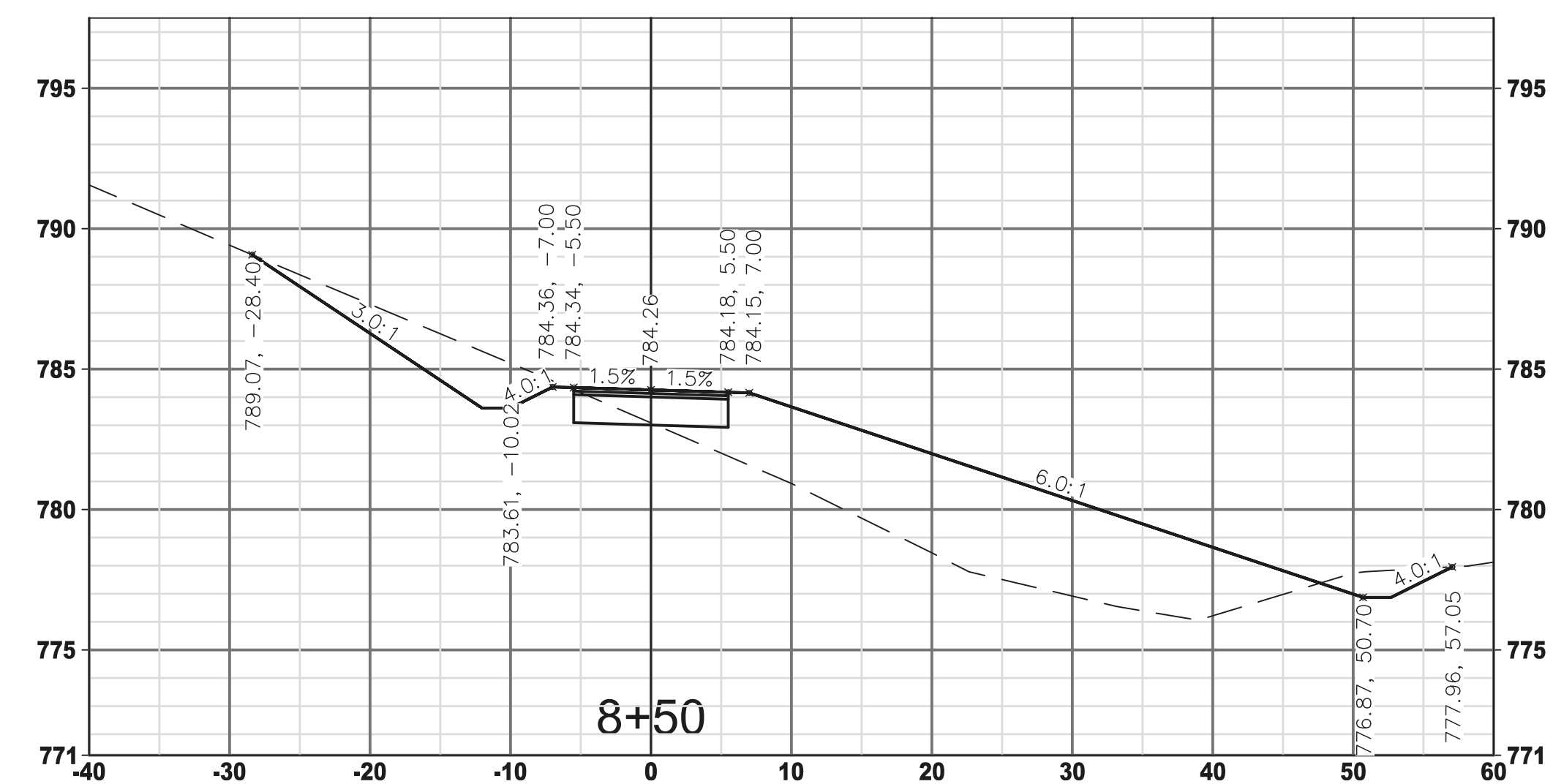
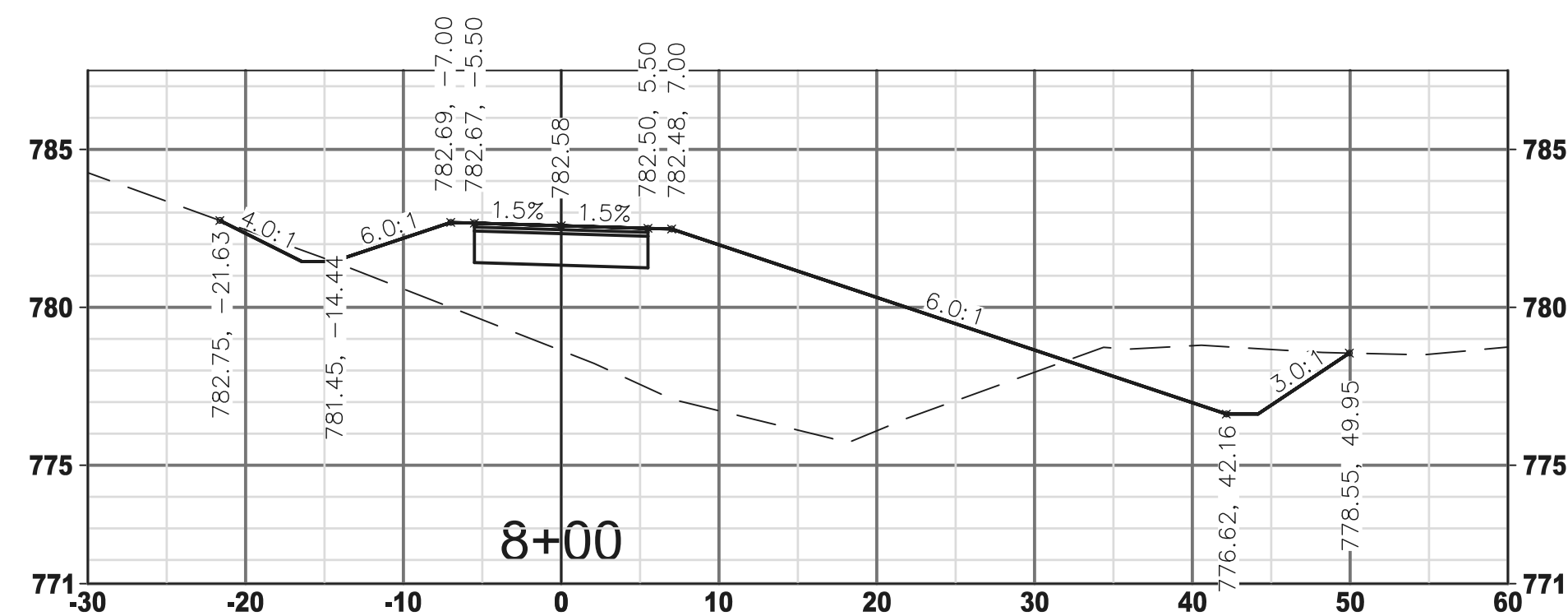
END SECTION  
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Elev = 773.70

END SECTION  
O/S = 32.00  
Elev = 774.00

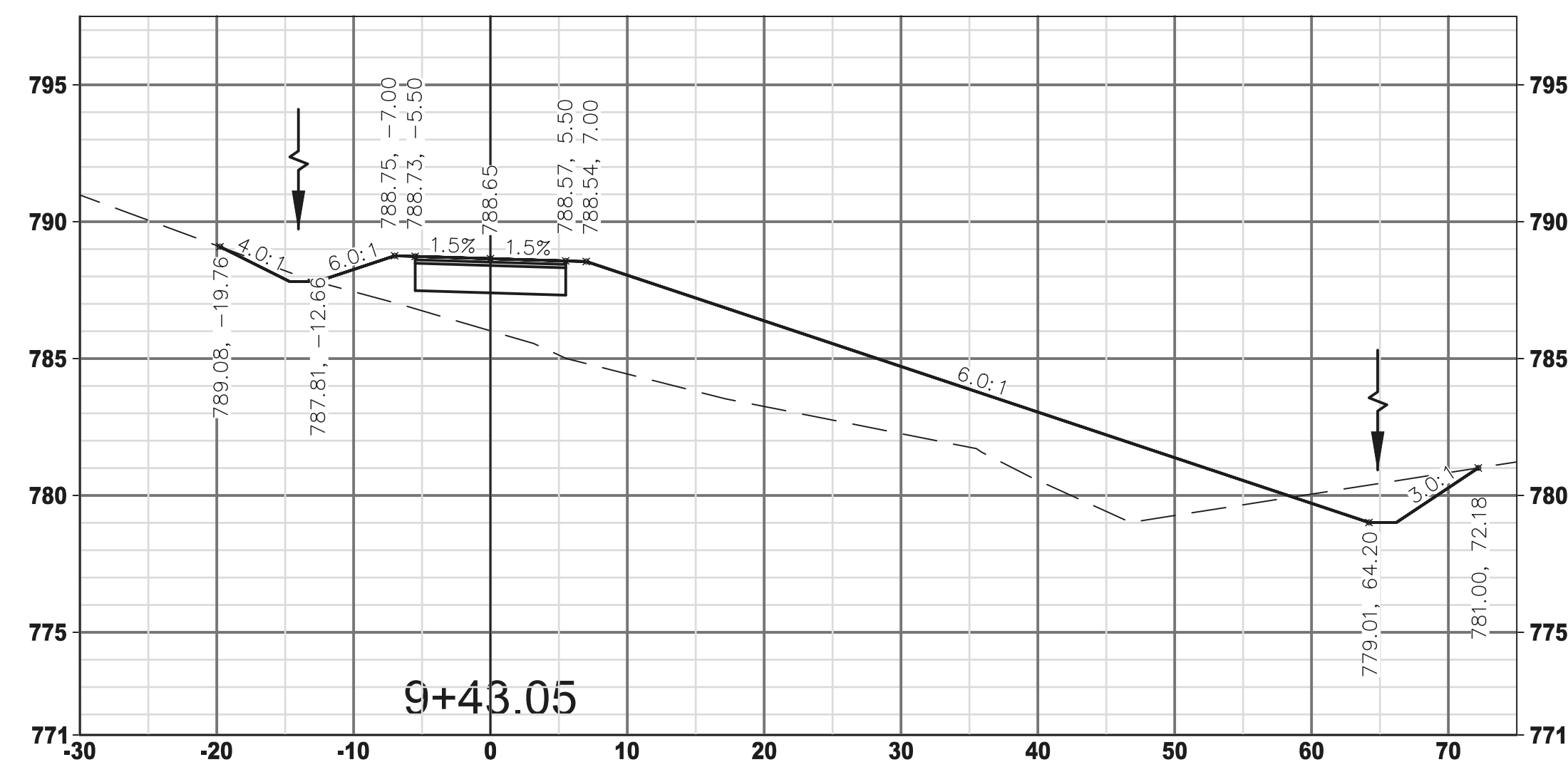




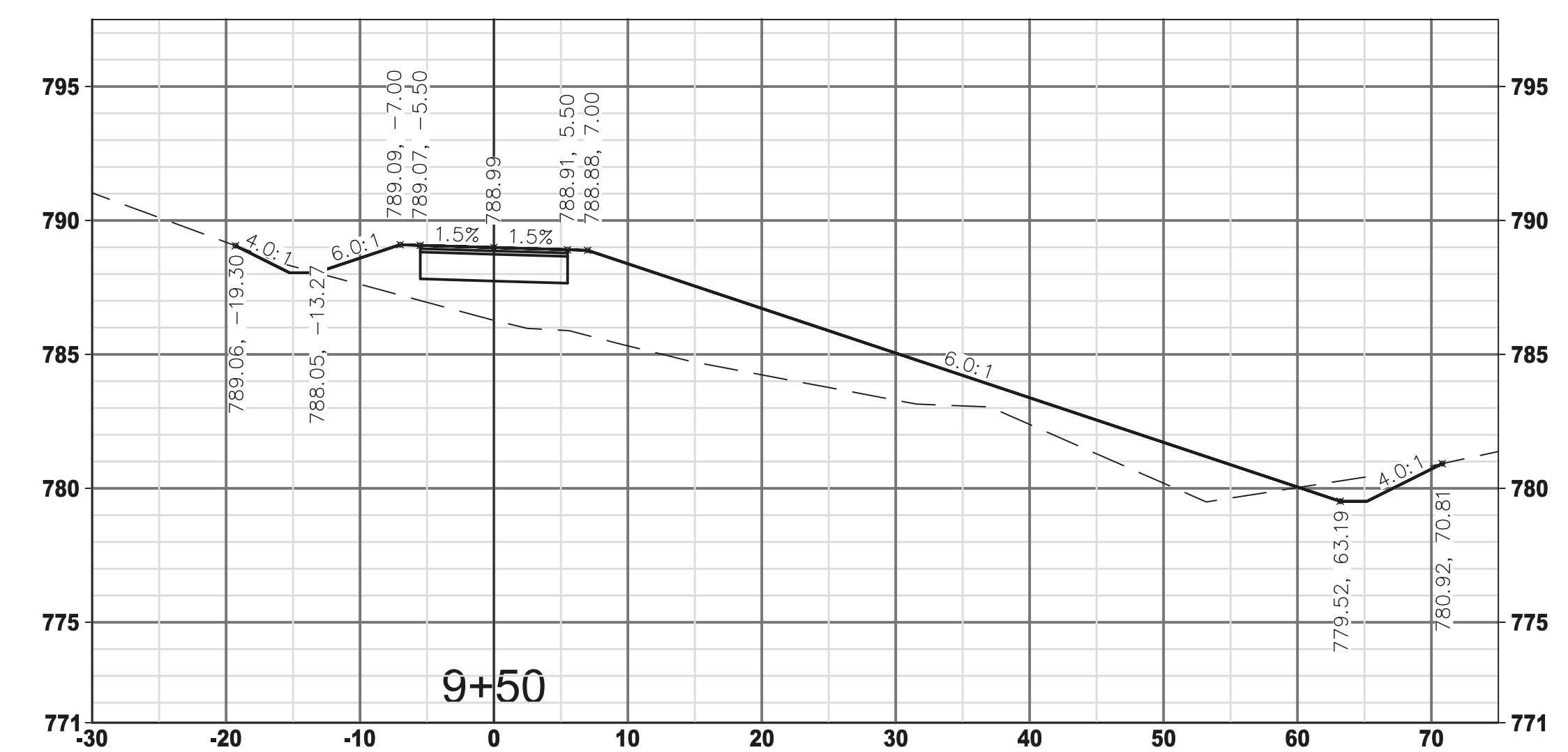
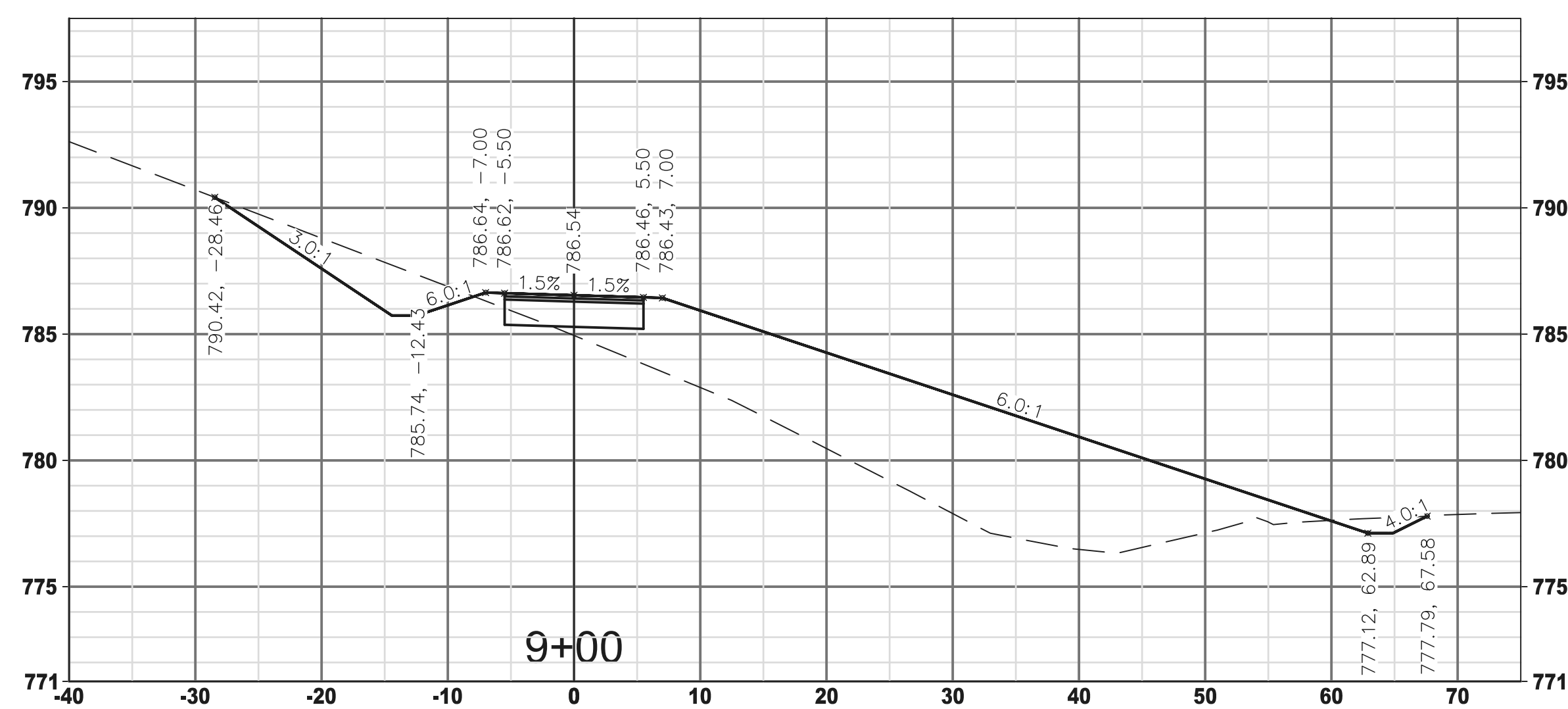
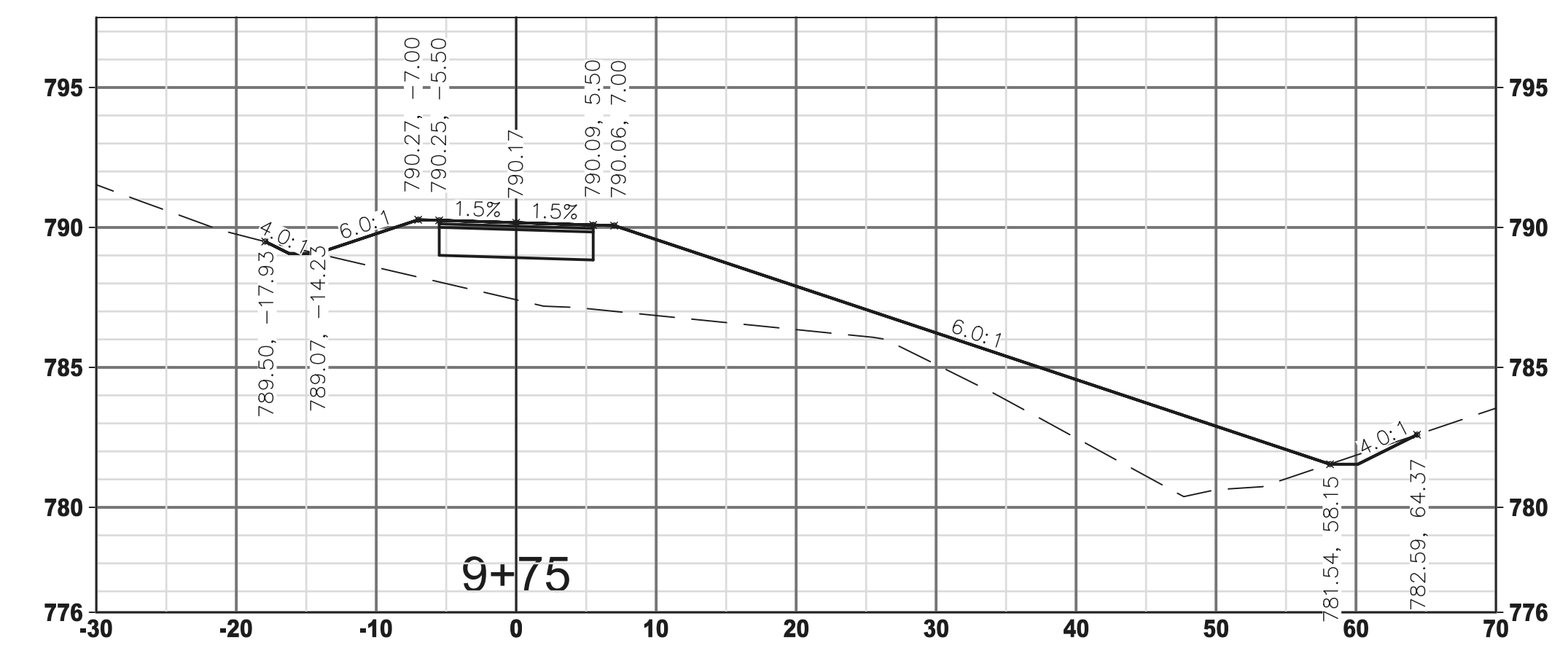
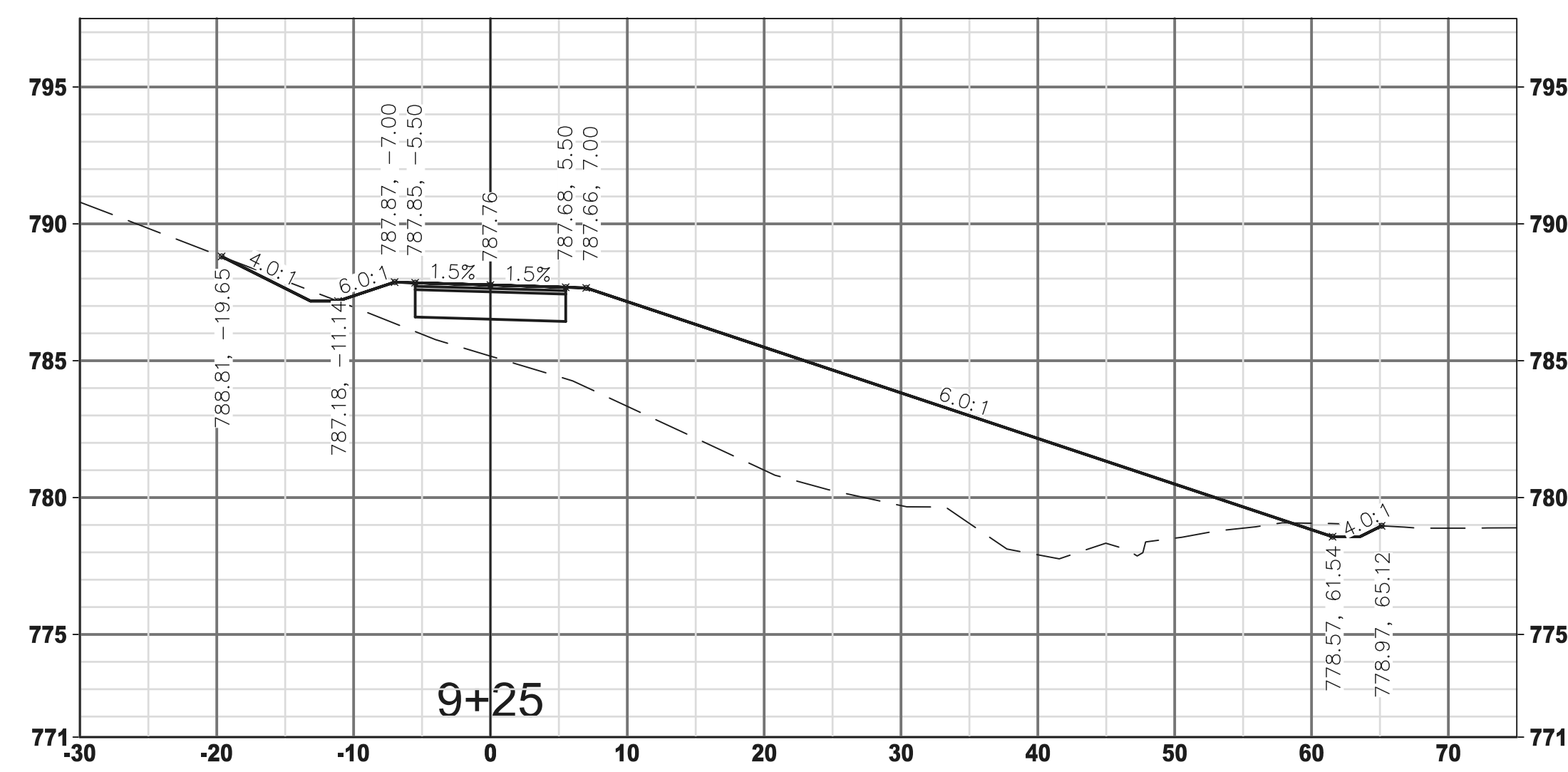
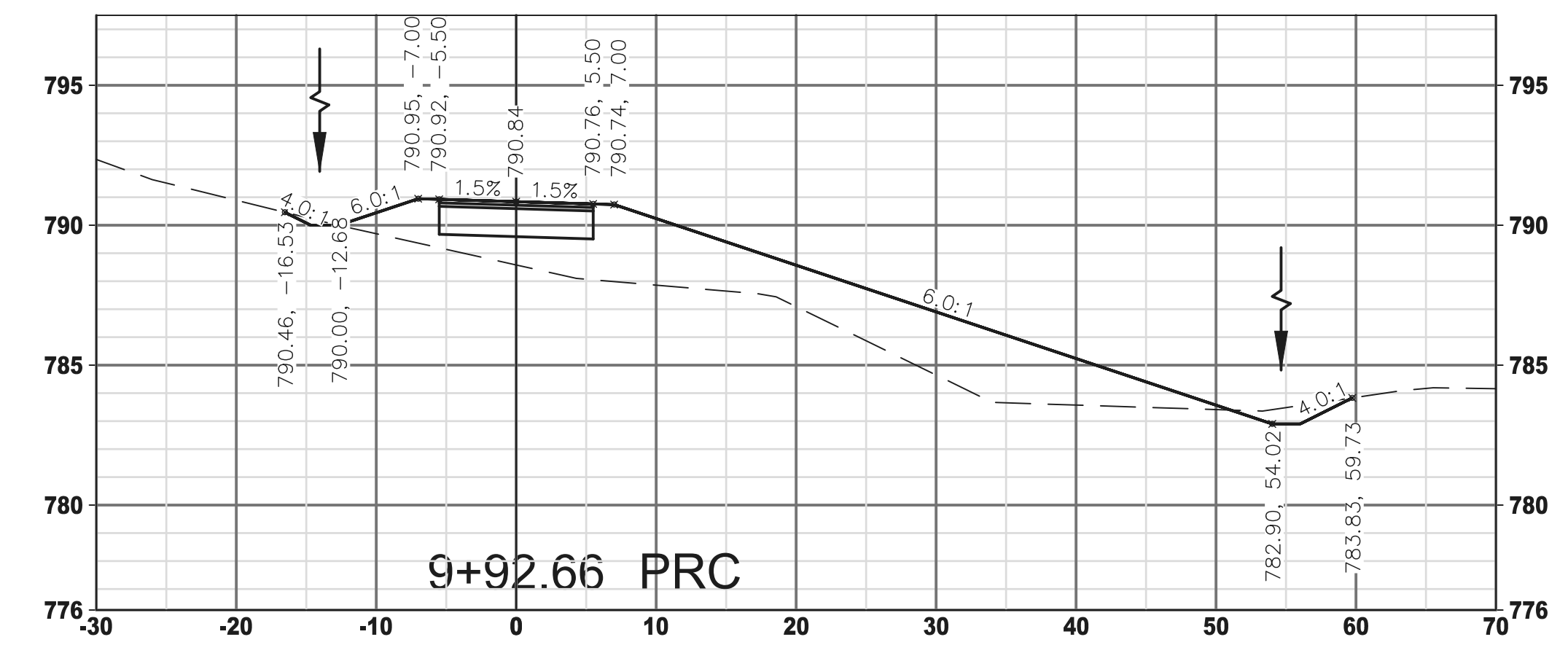
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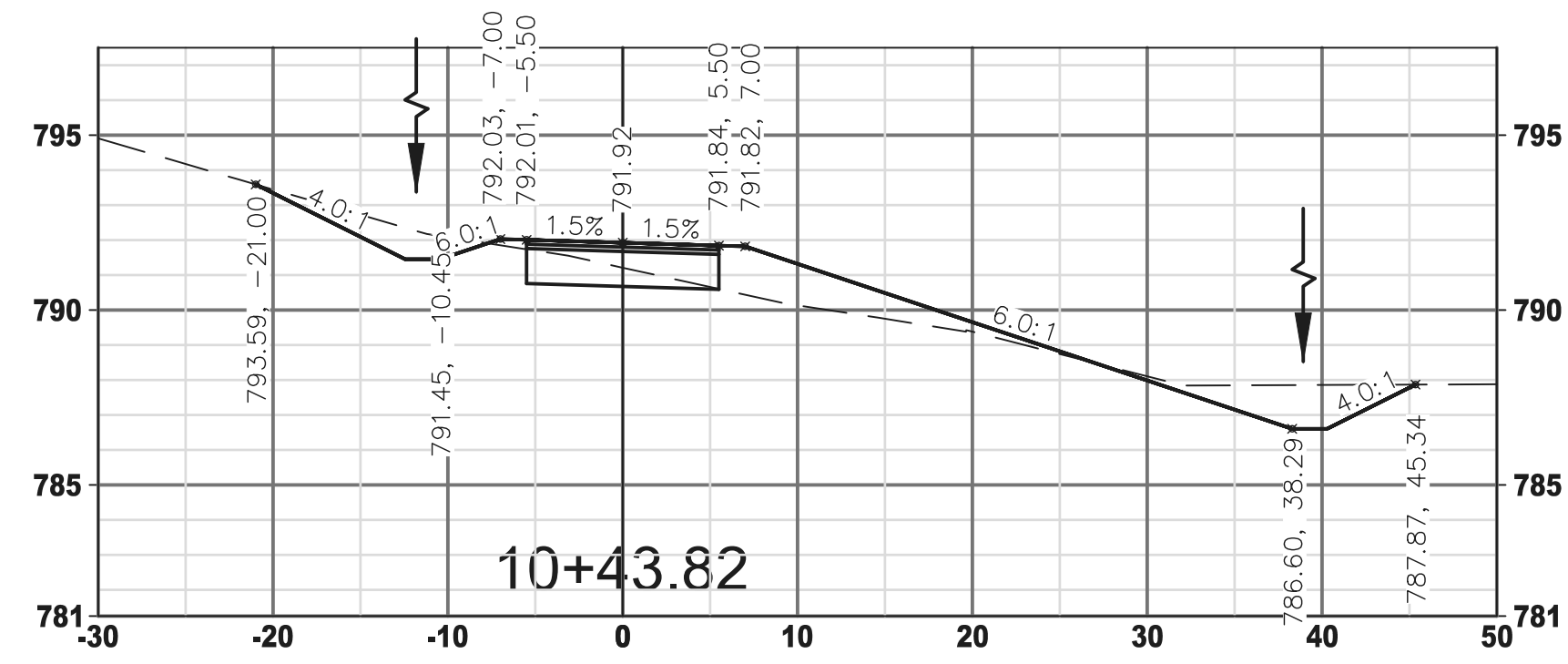




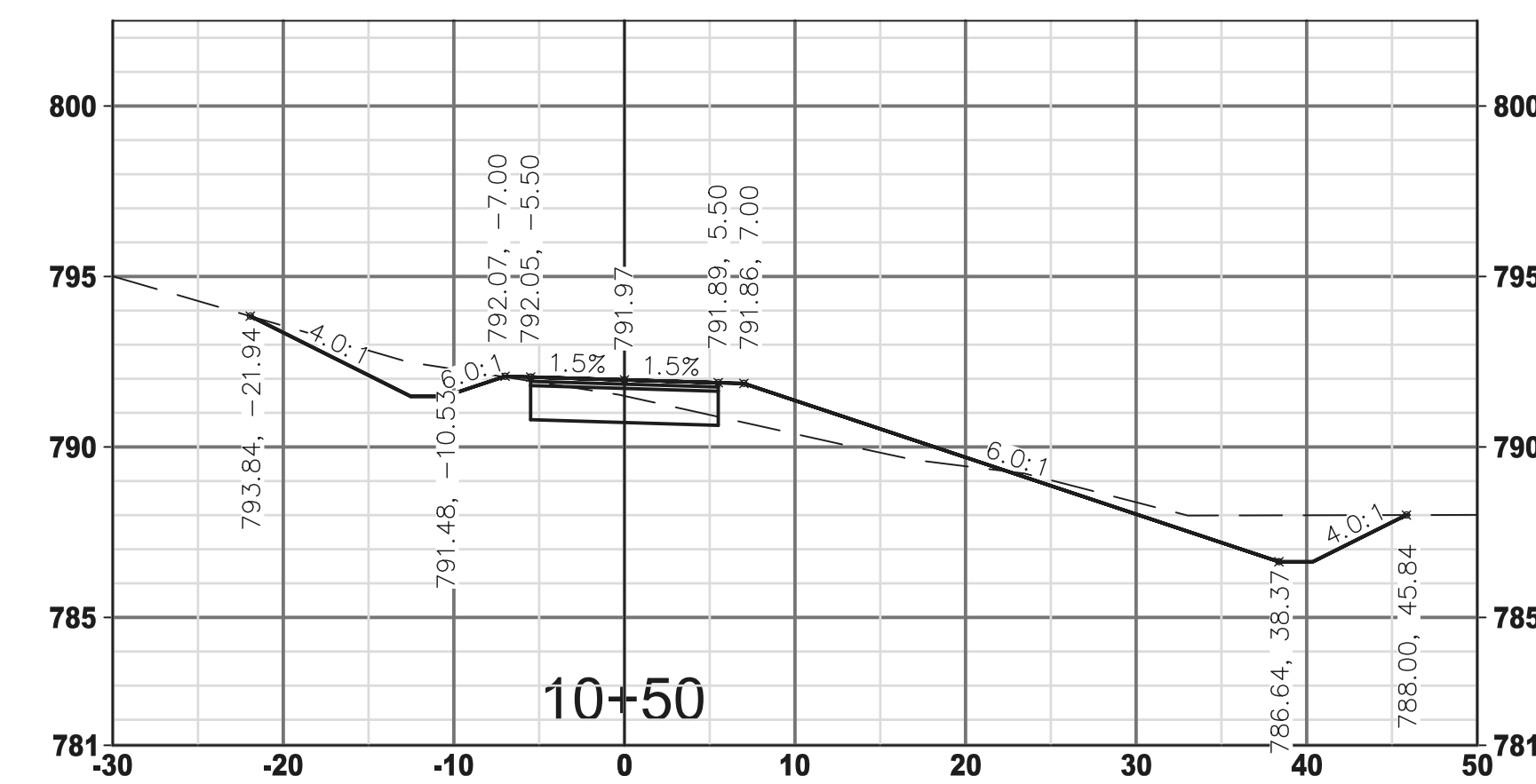
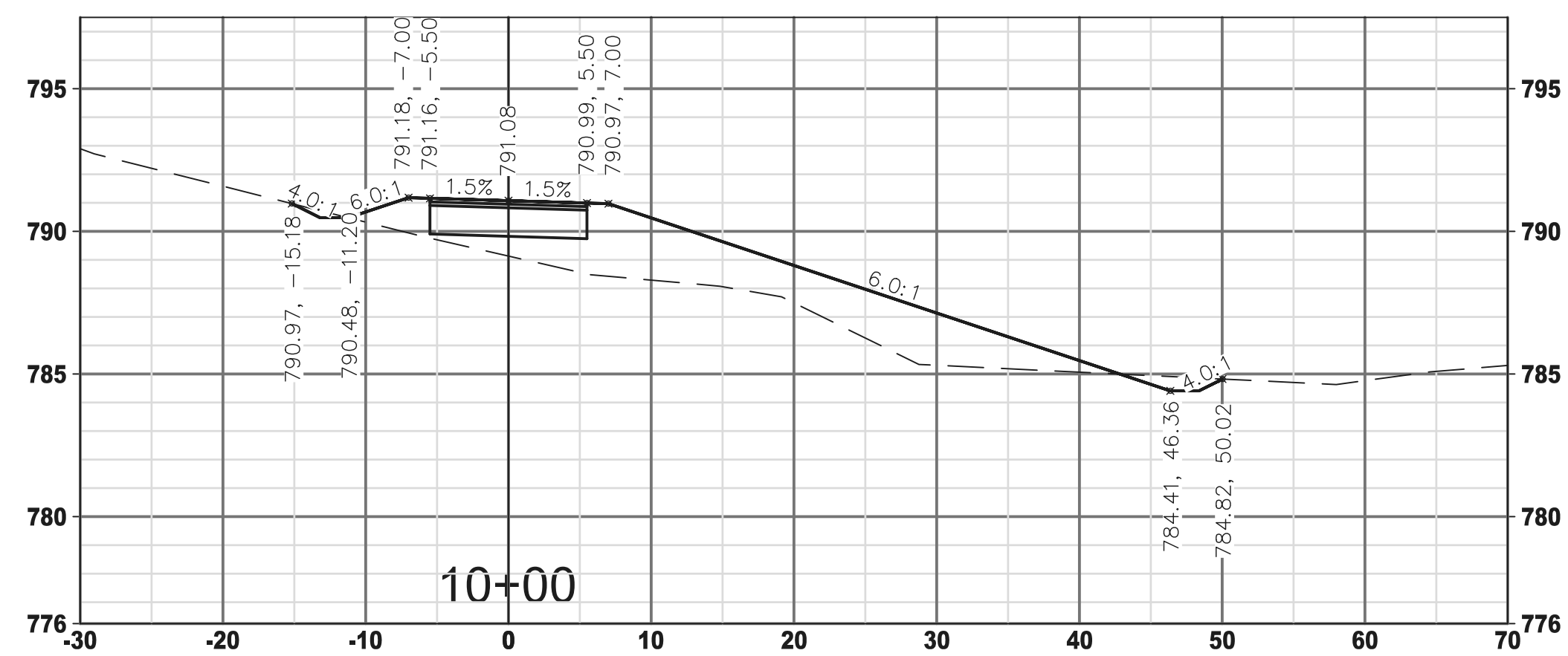
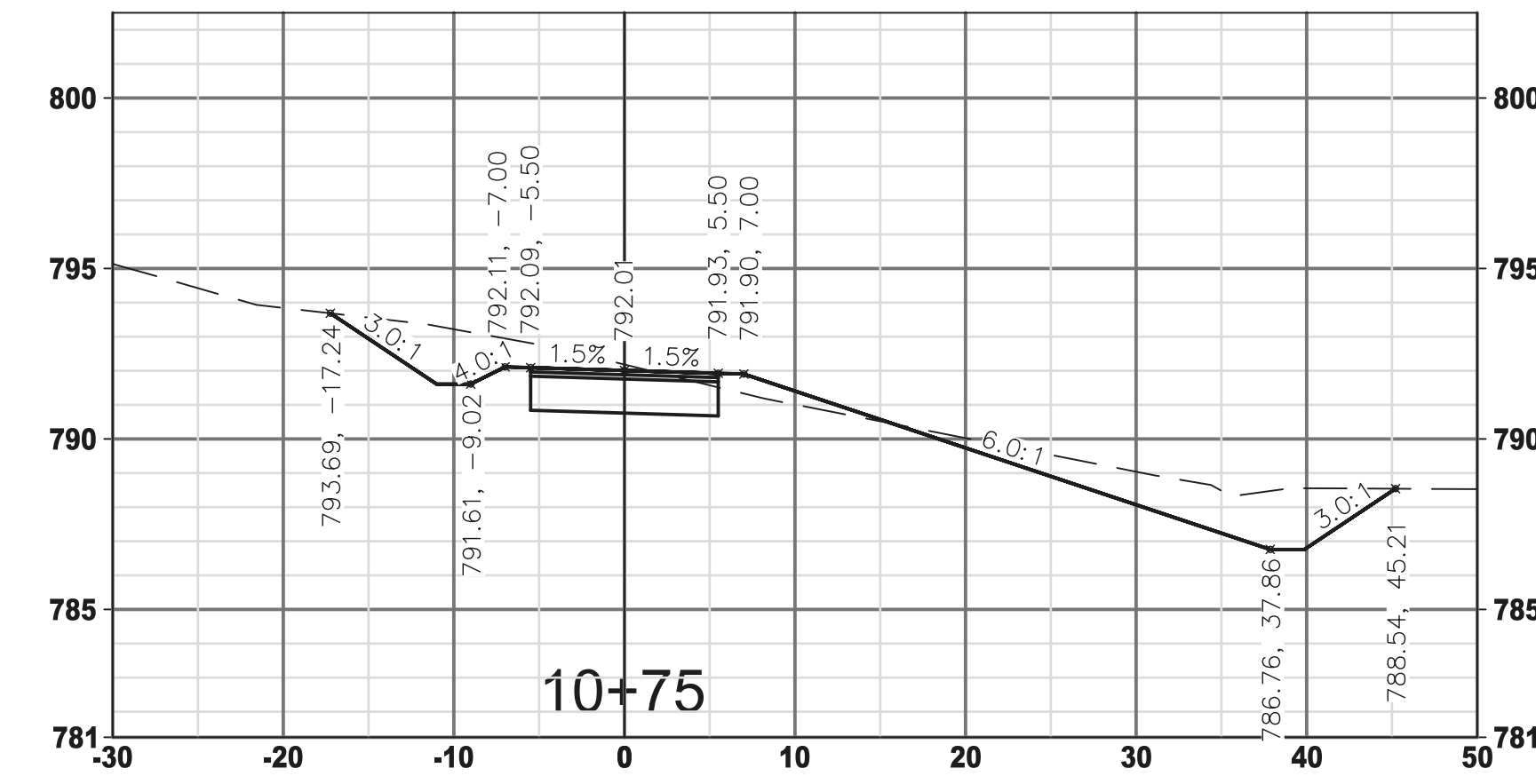
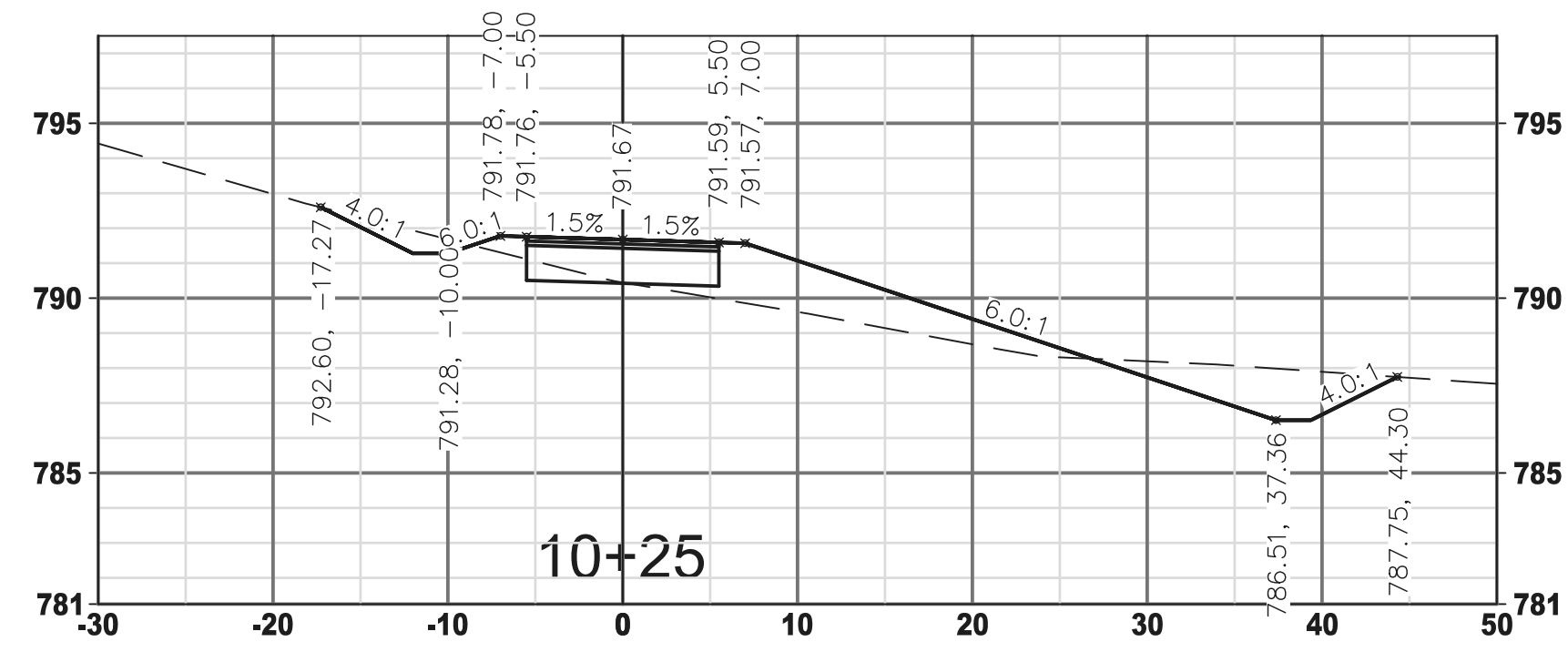
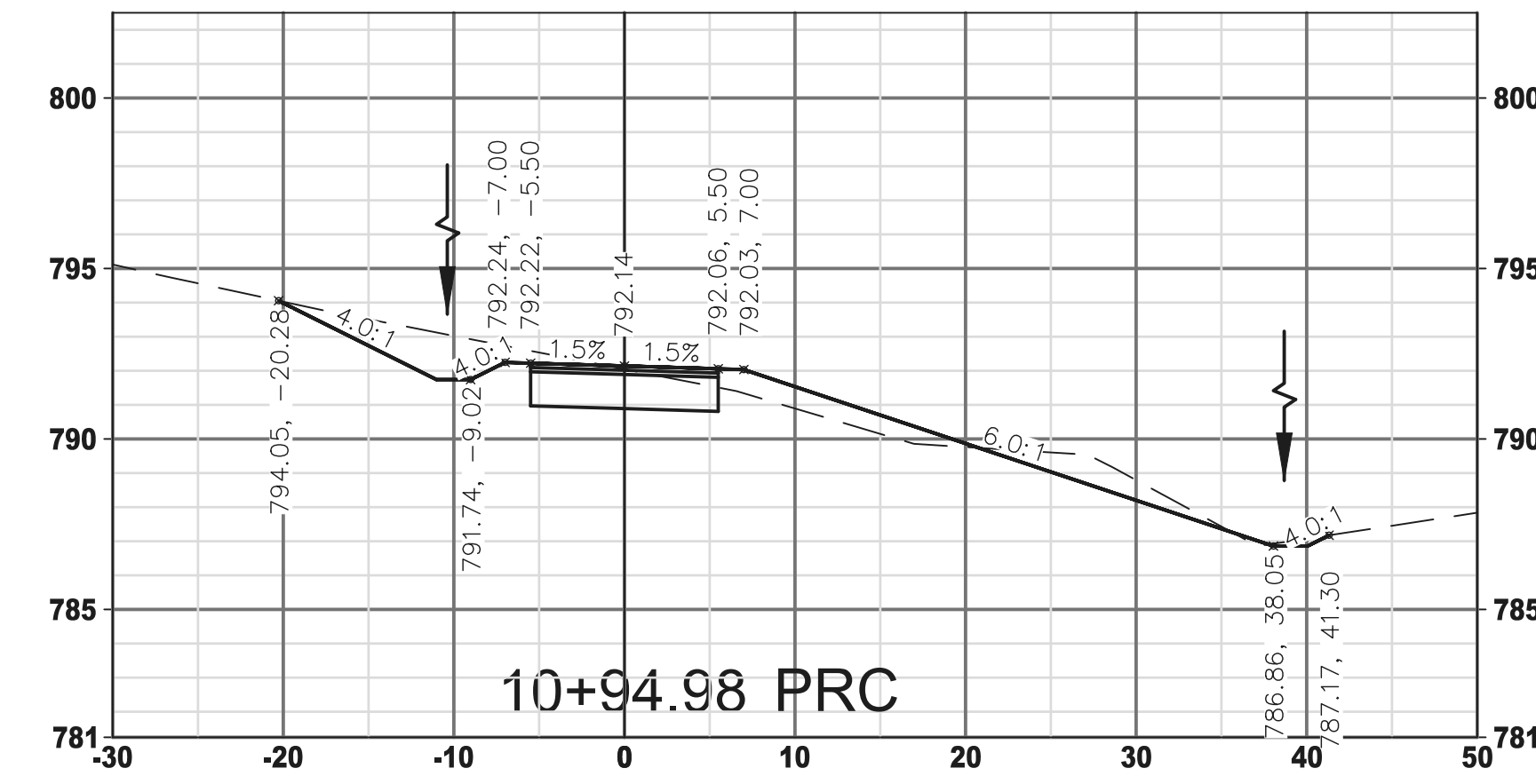
CURVE MIDPOINT



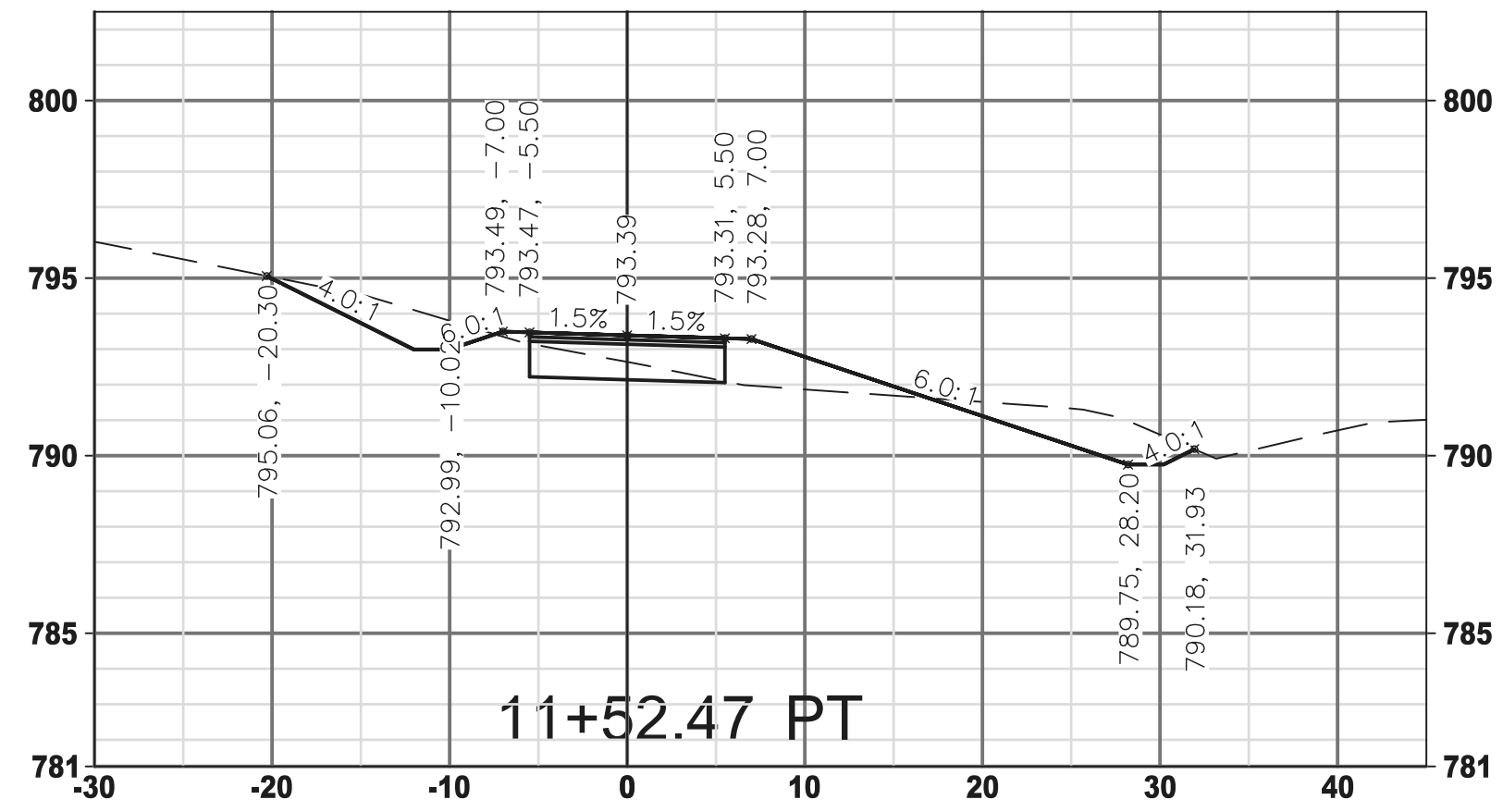
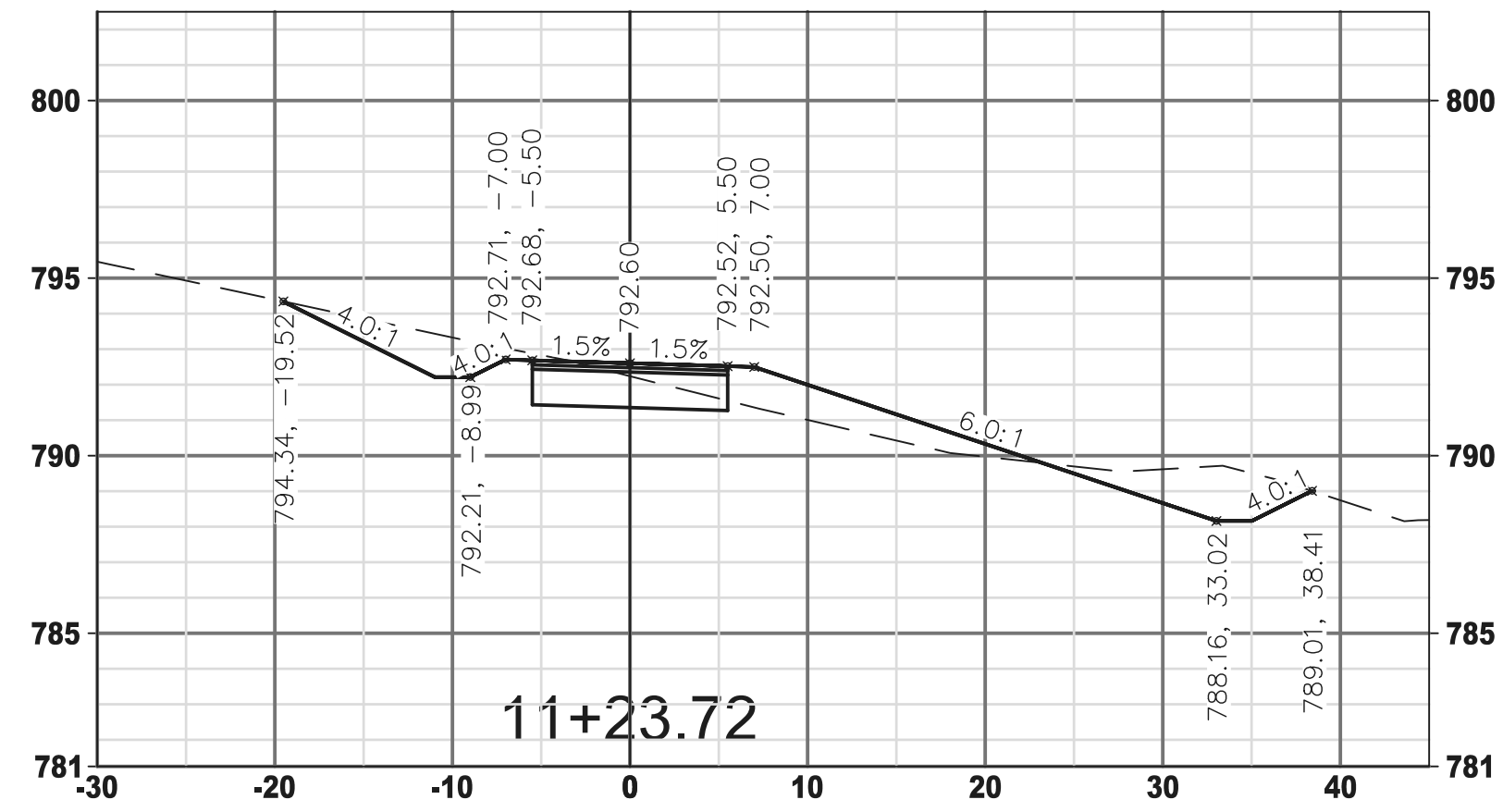
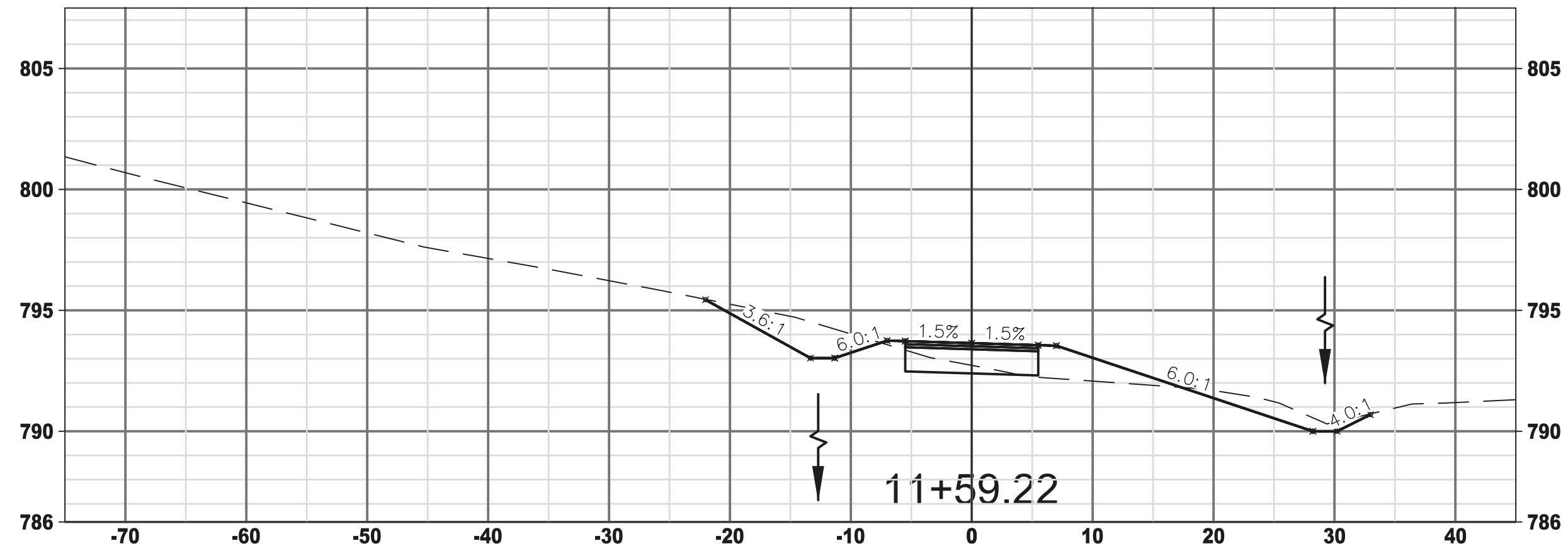
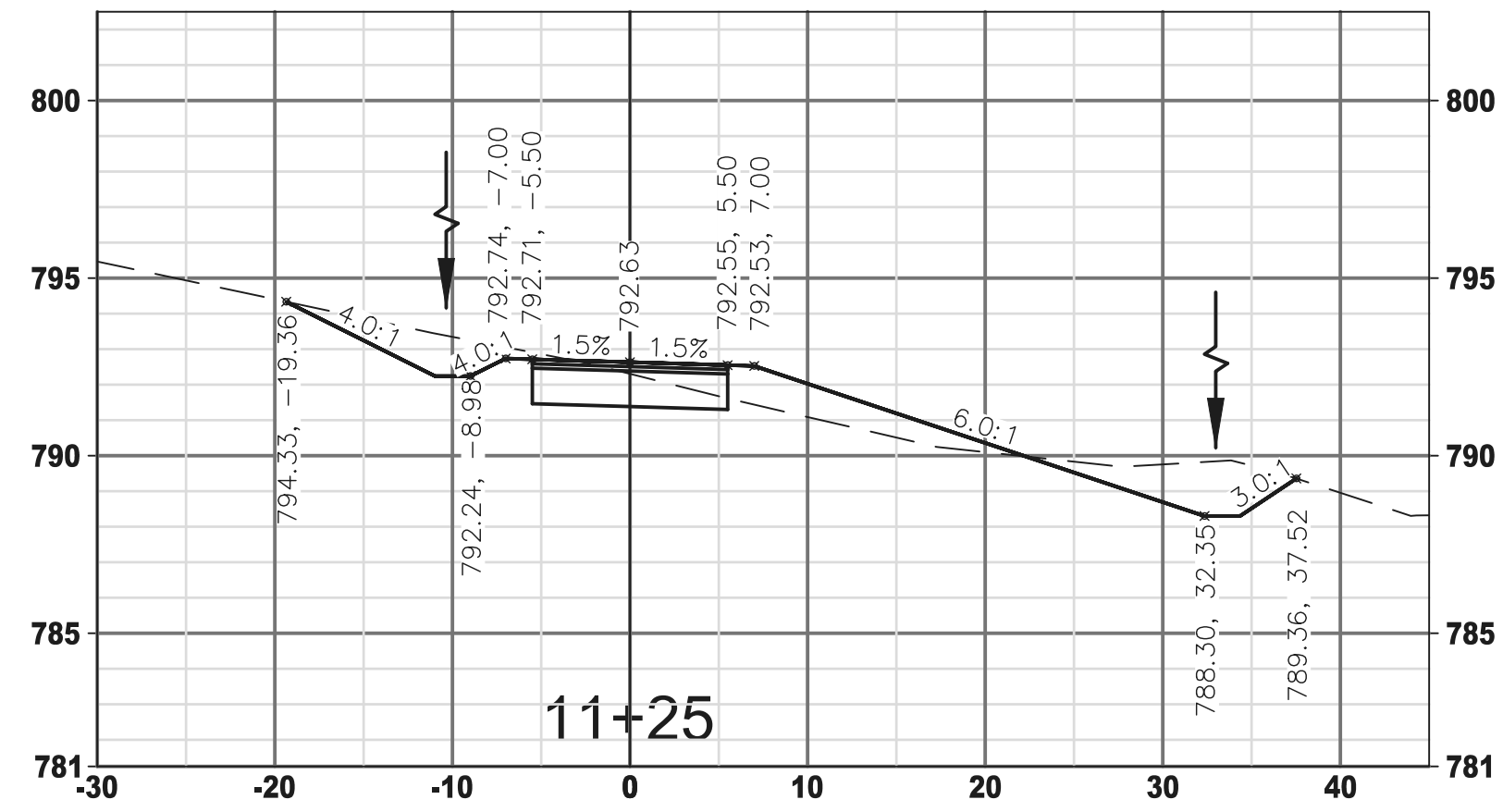




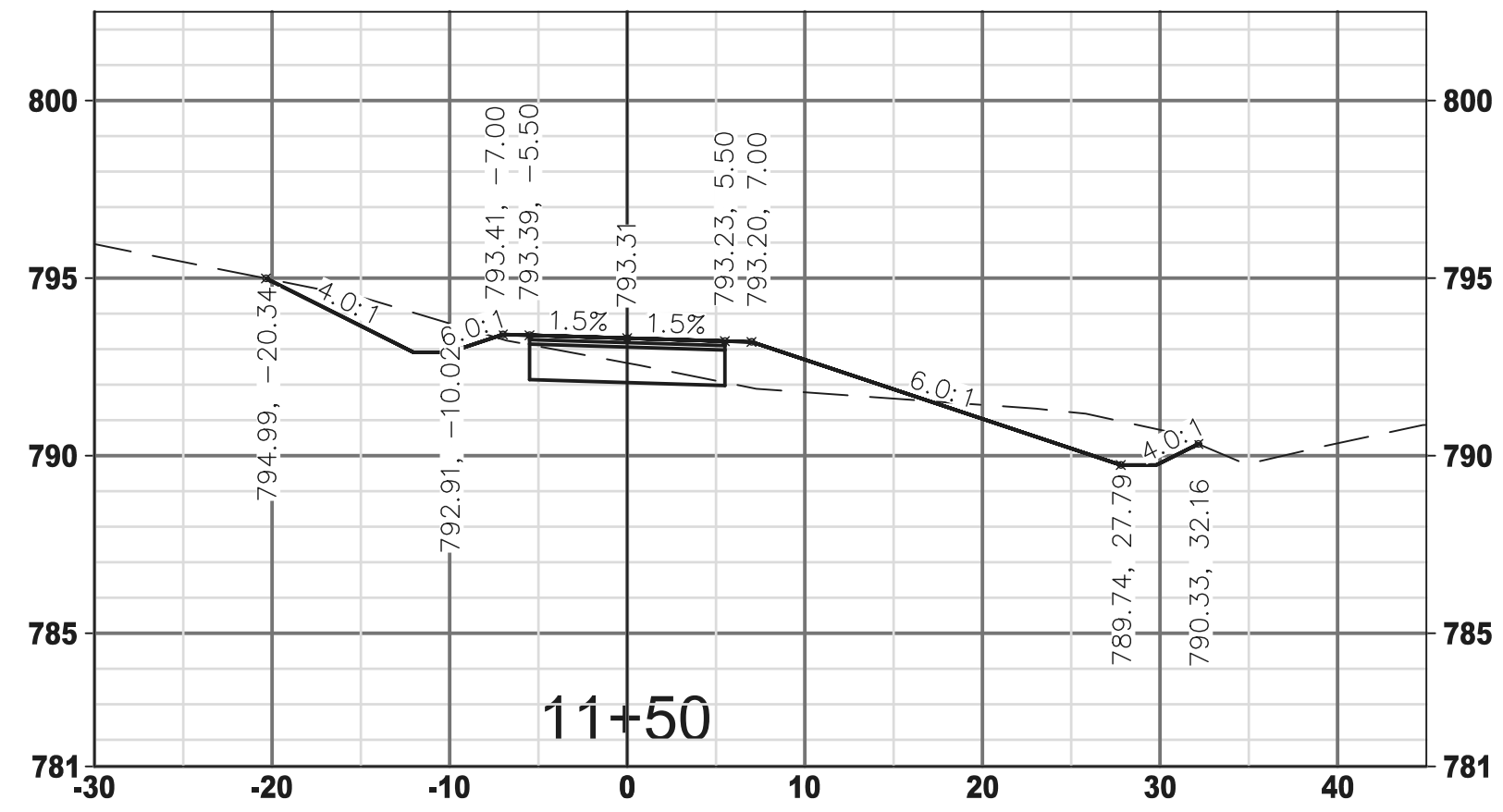
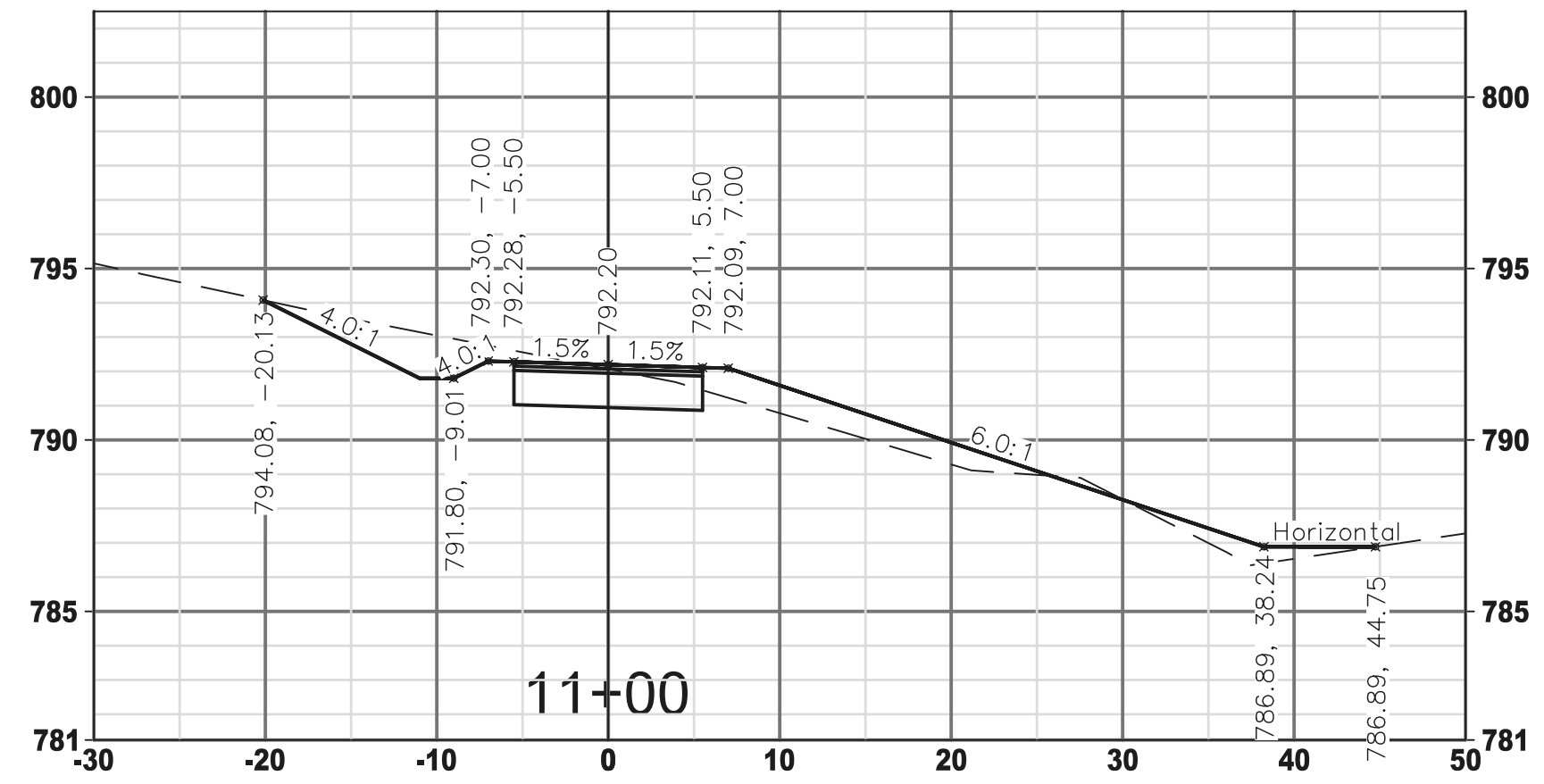
CURVE MIDPOINT



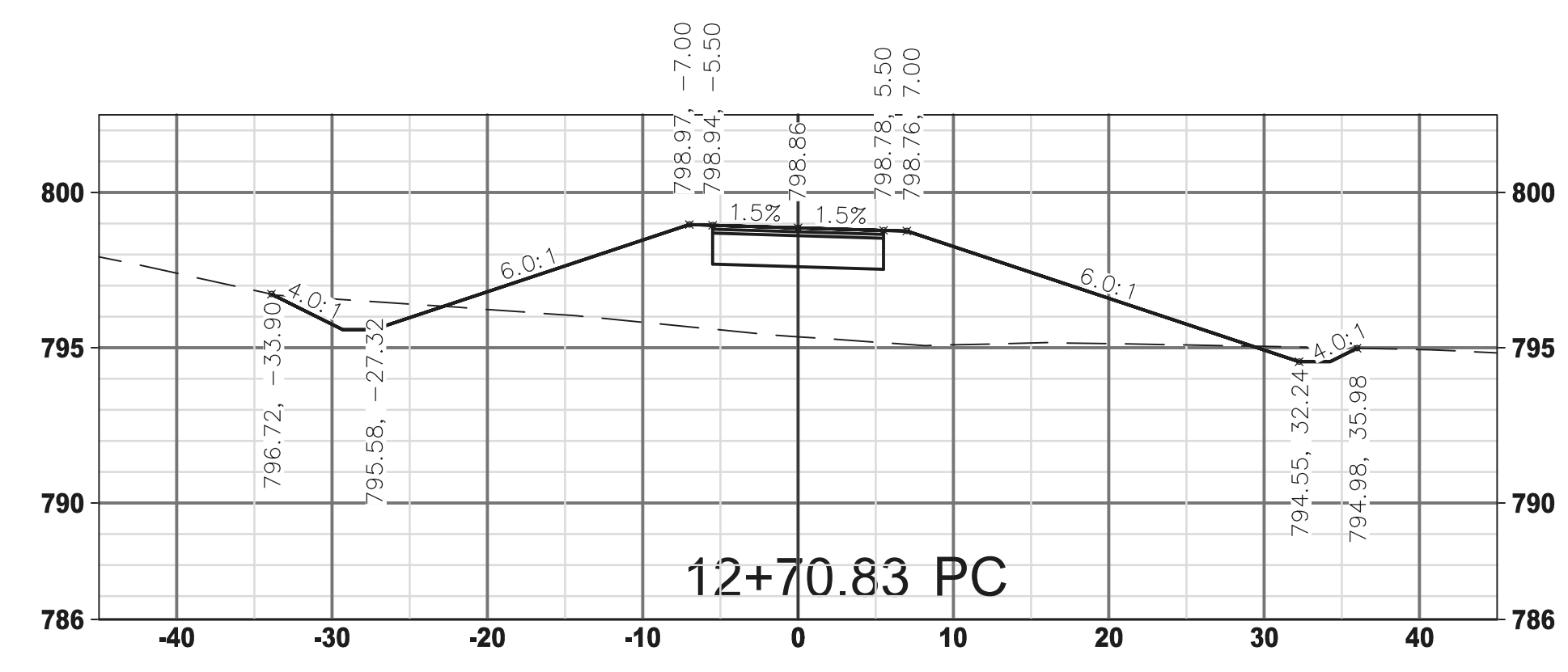
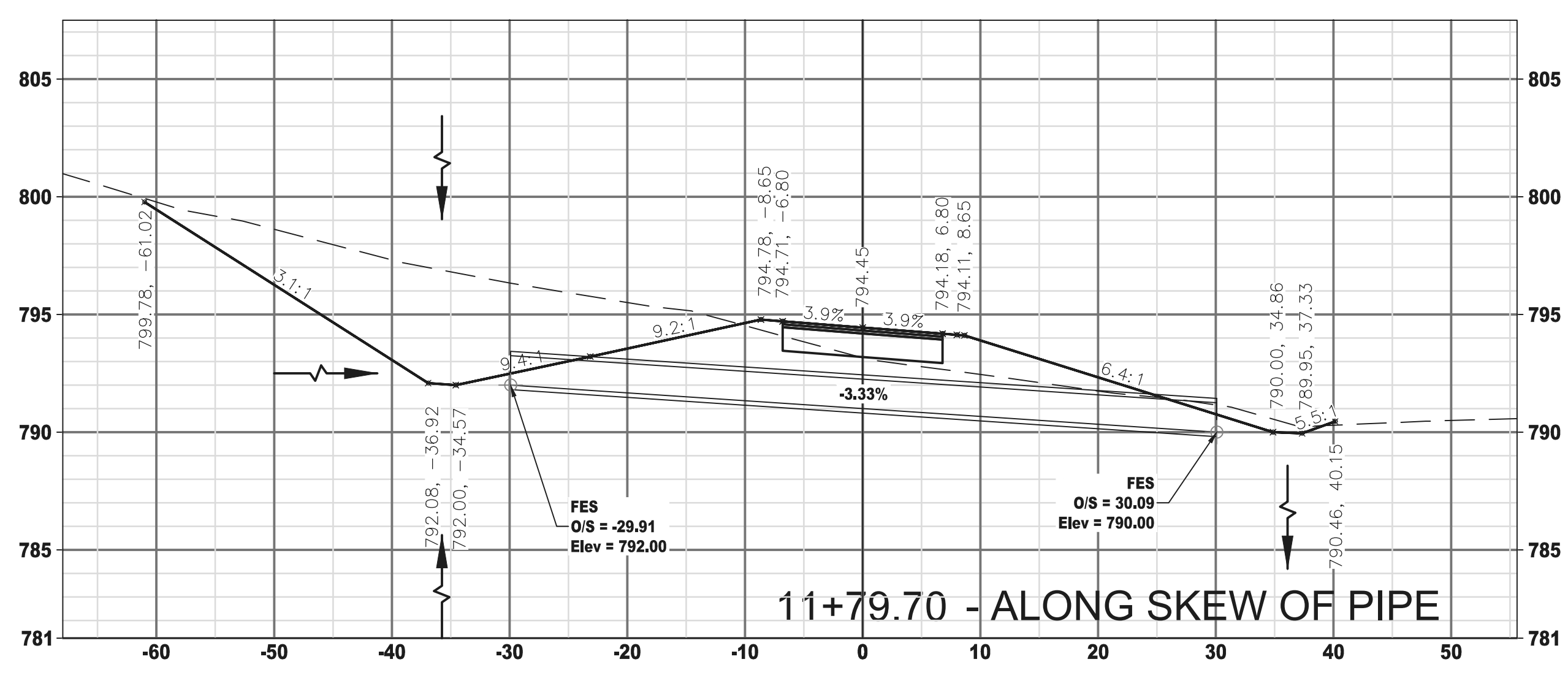
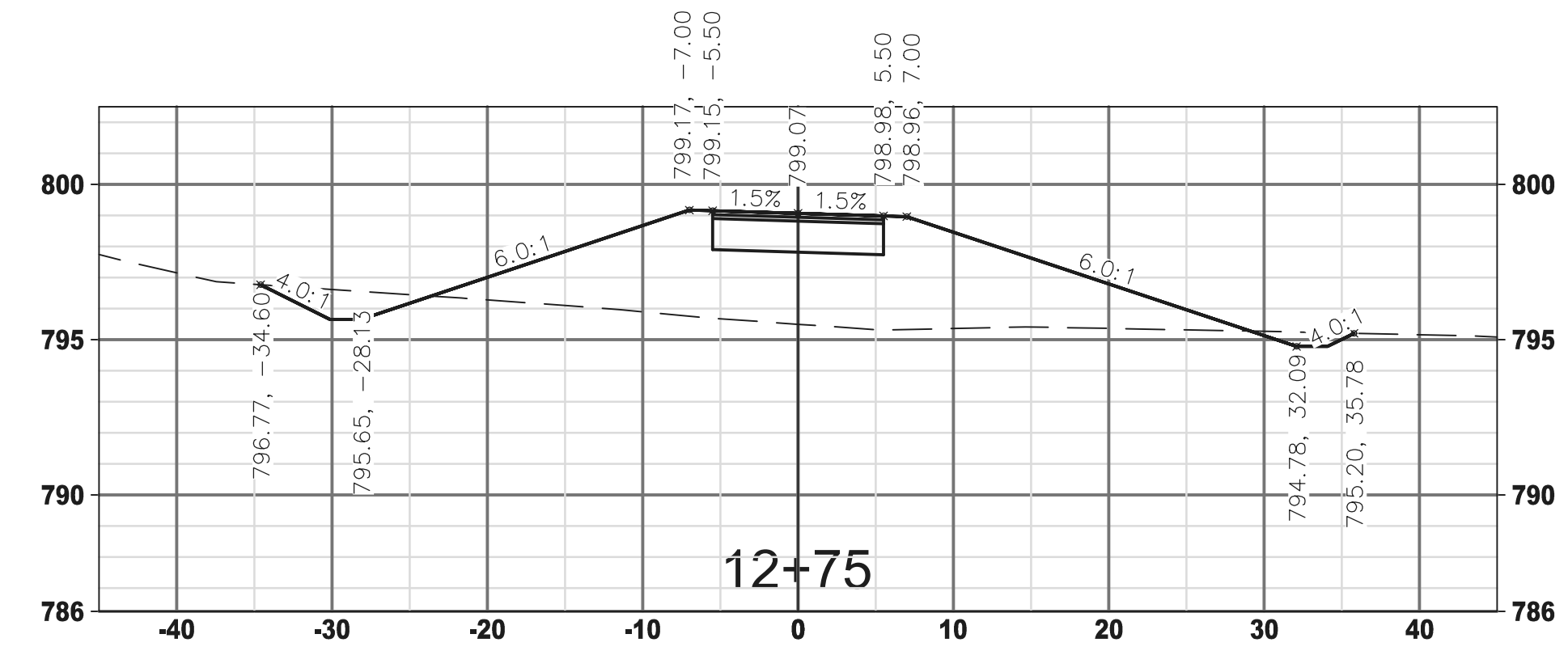
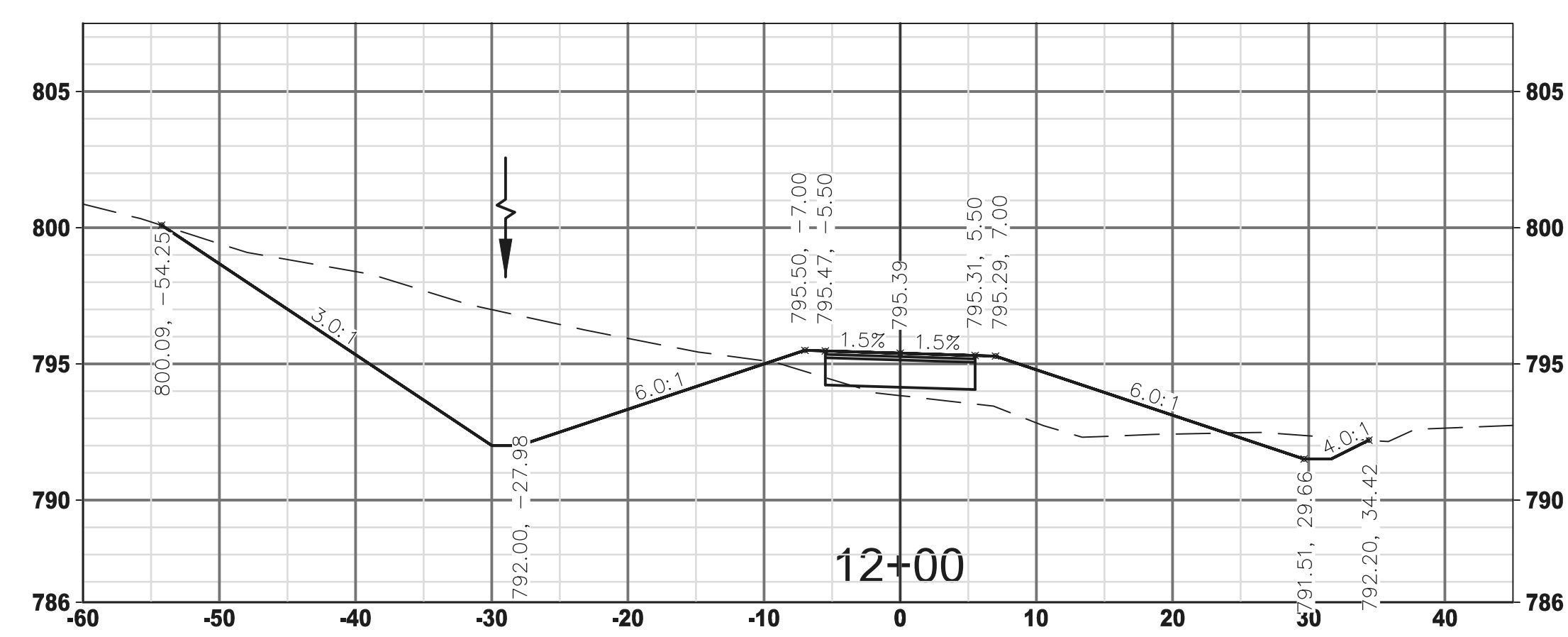
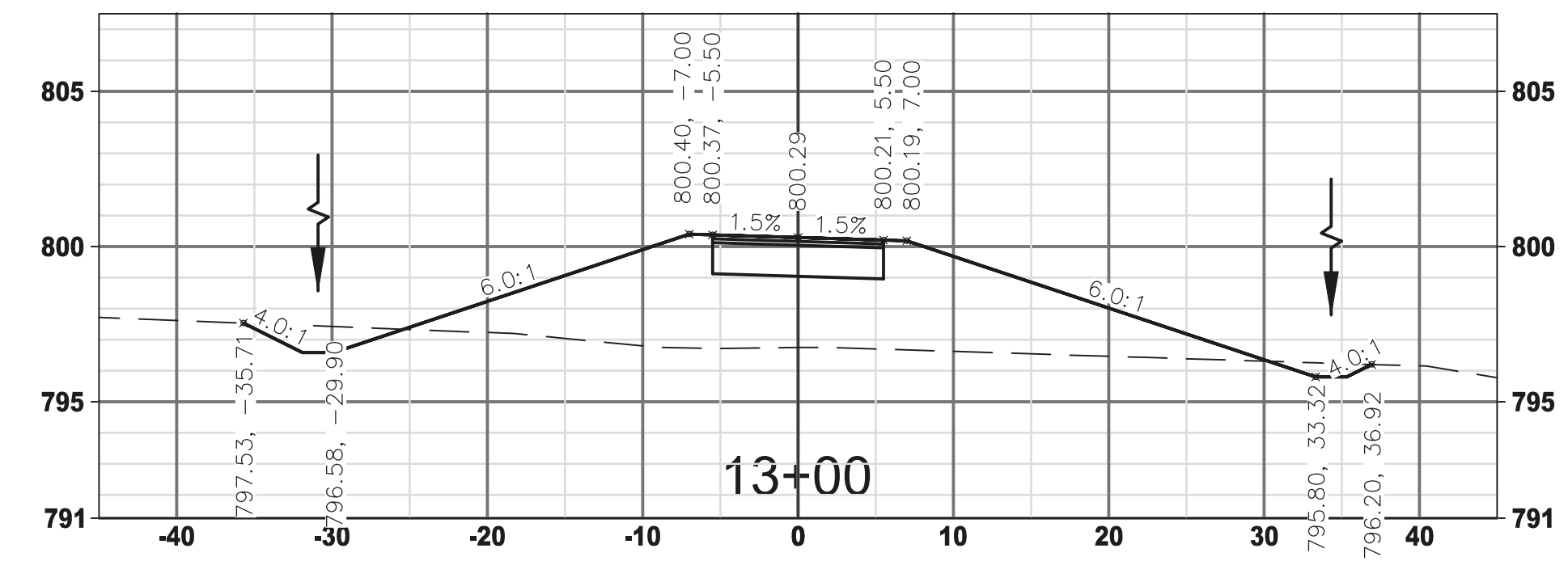
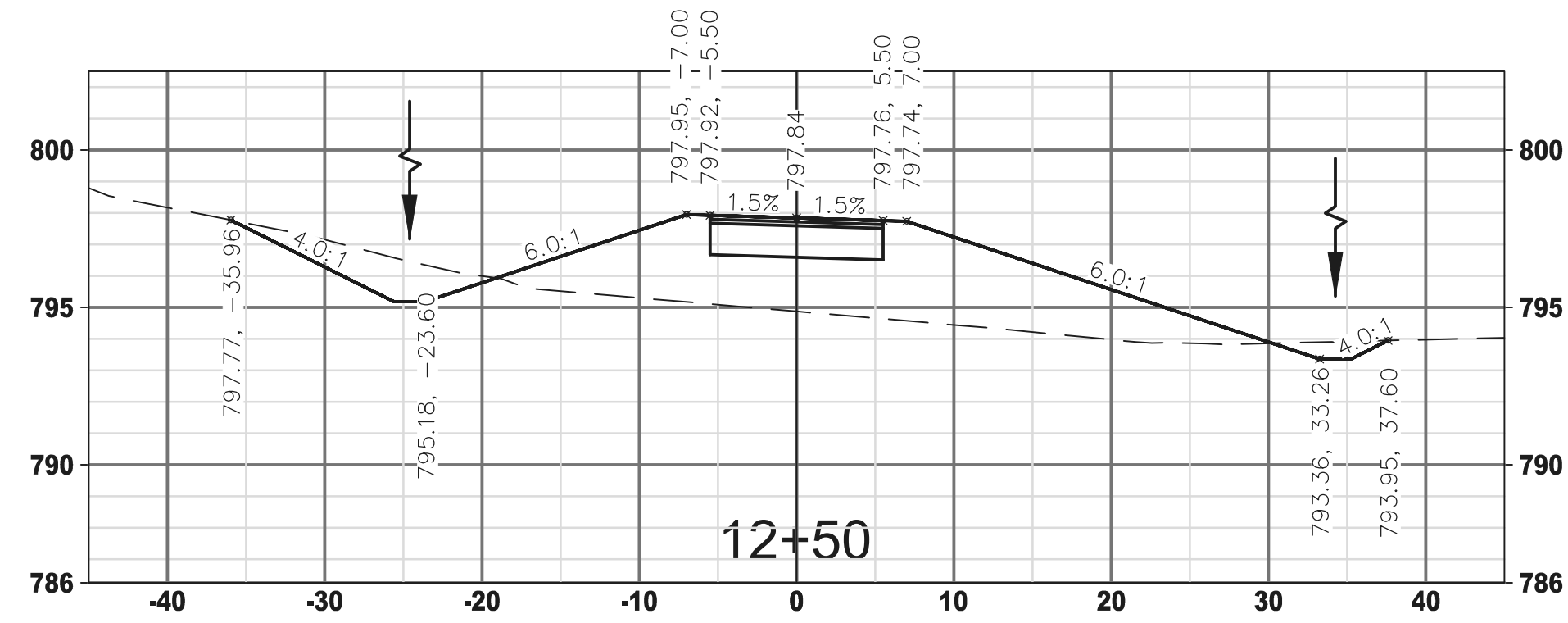


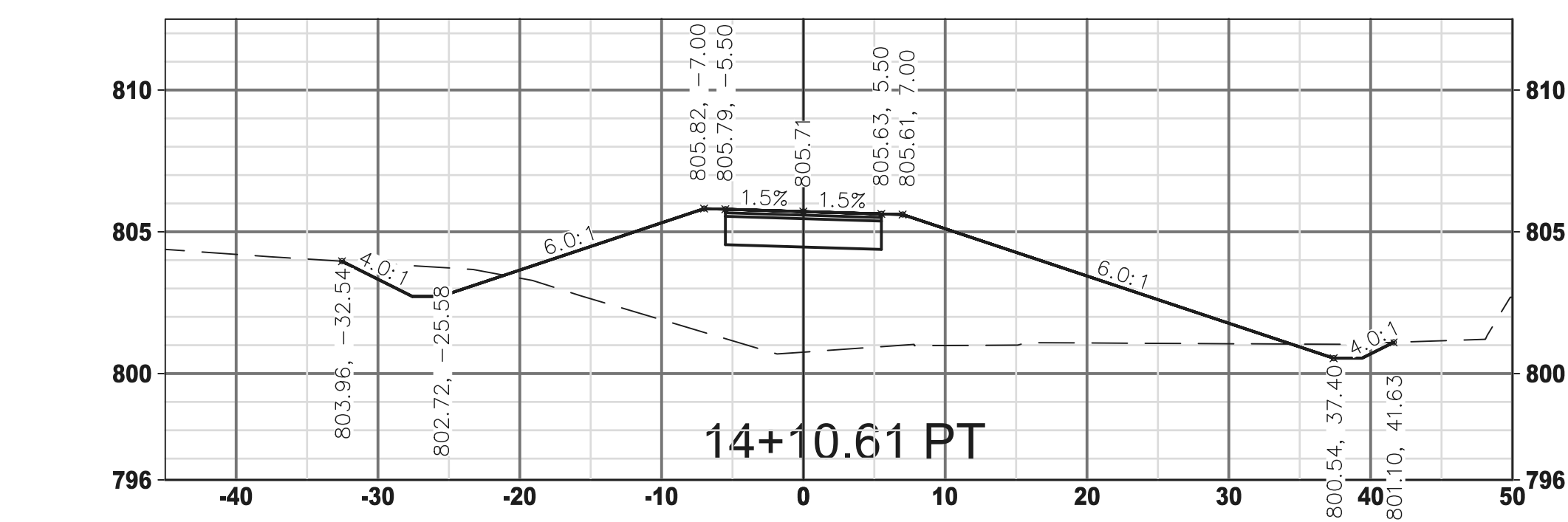
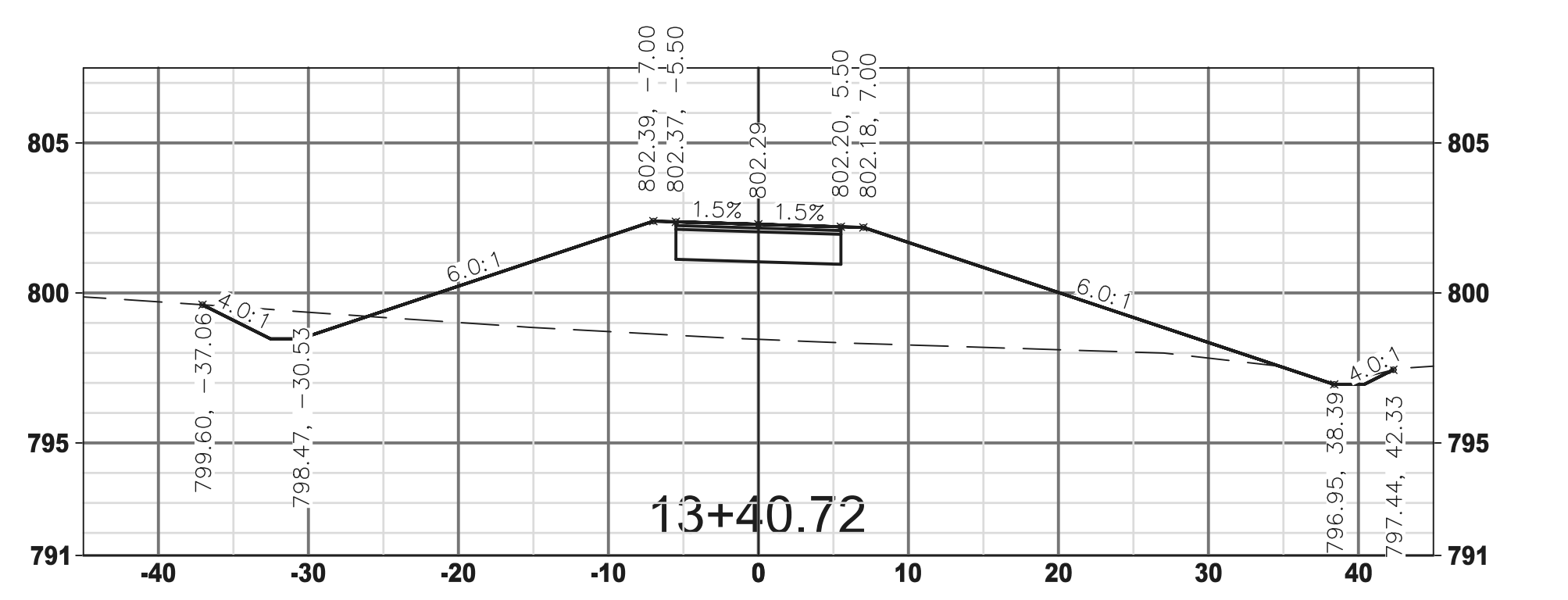
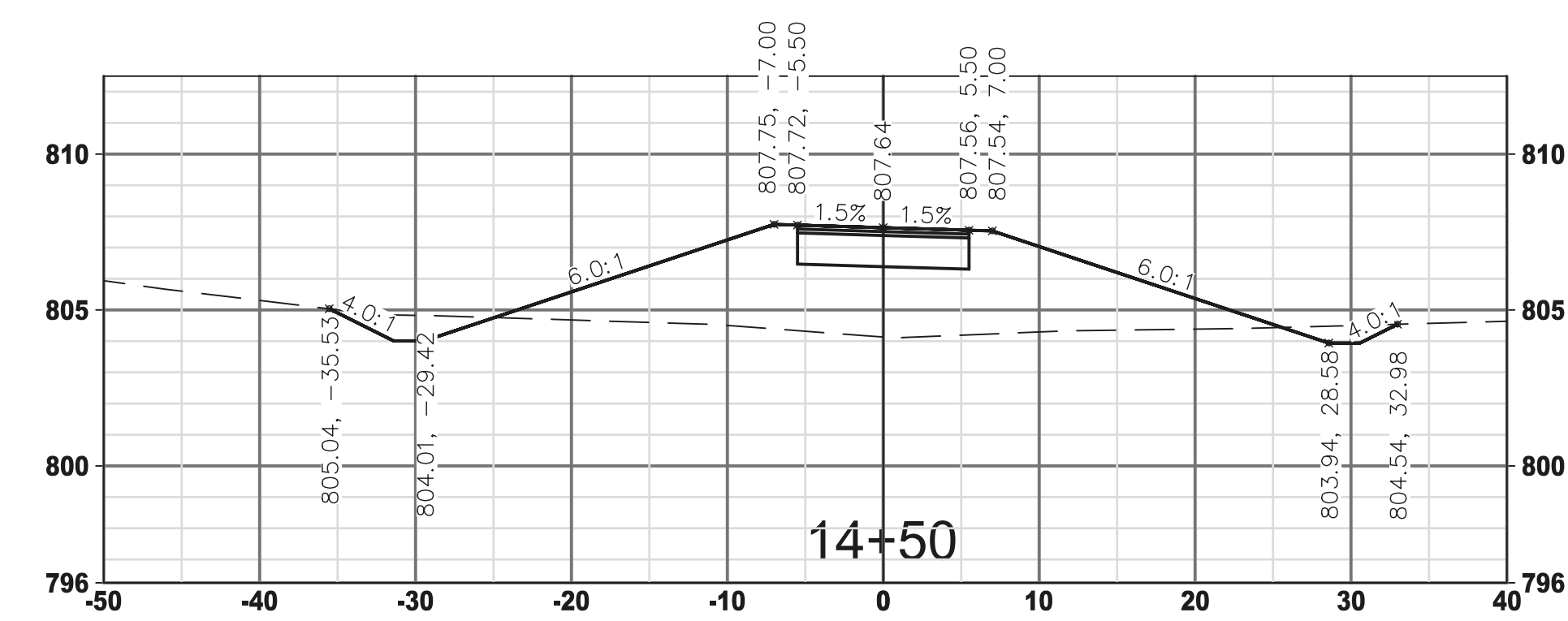
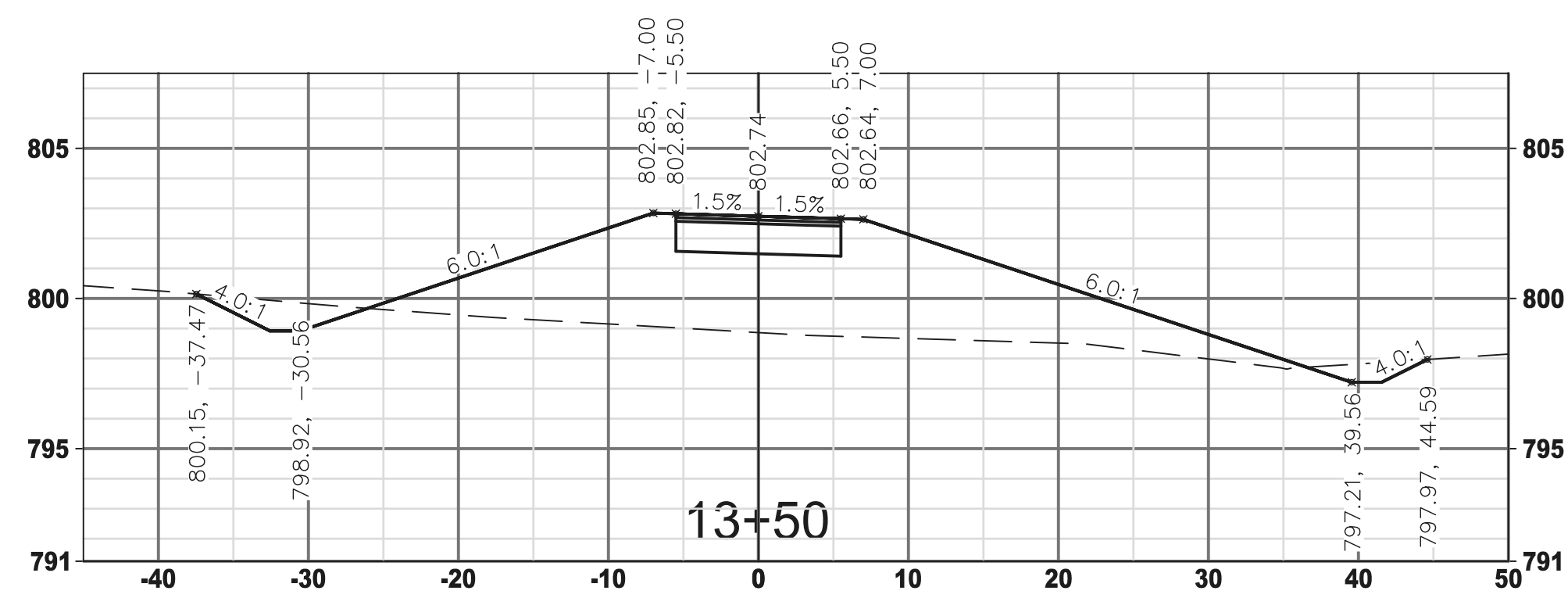
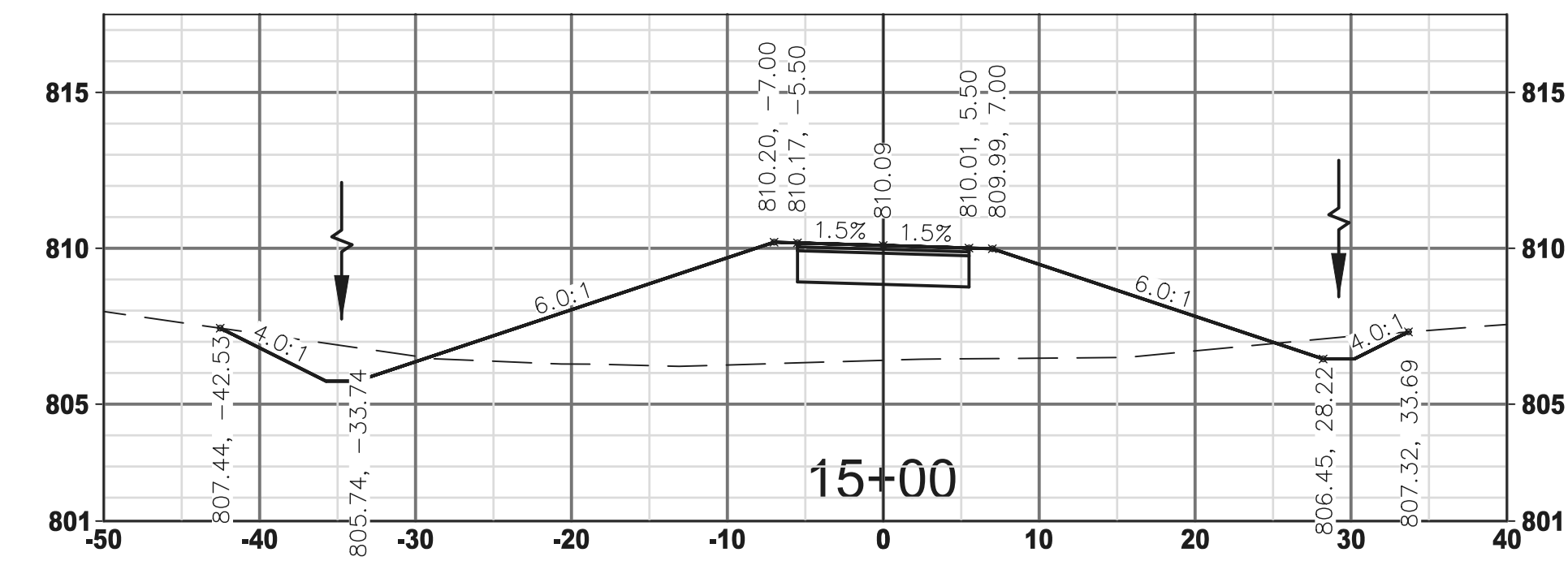
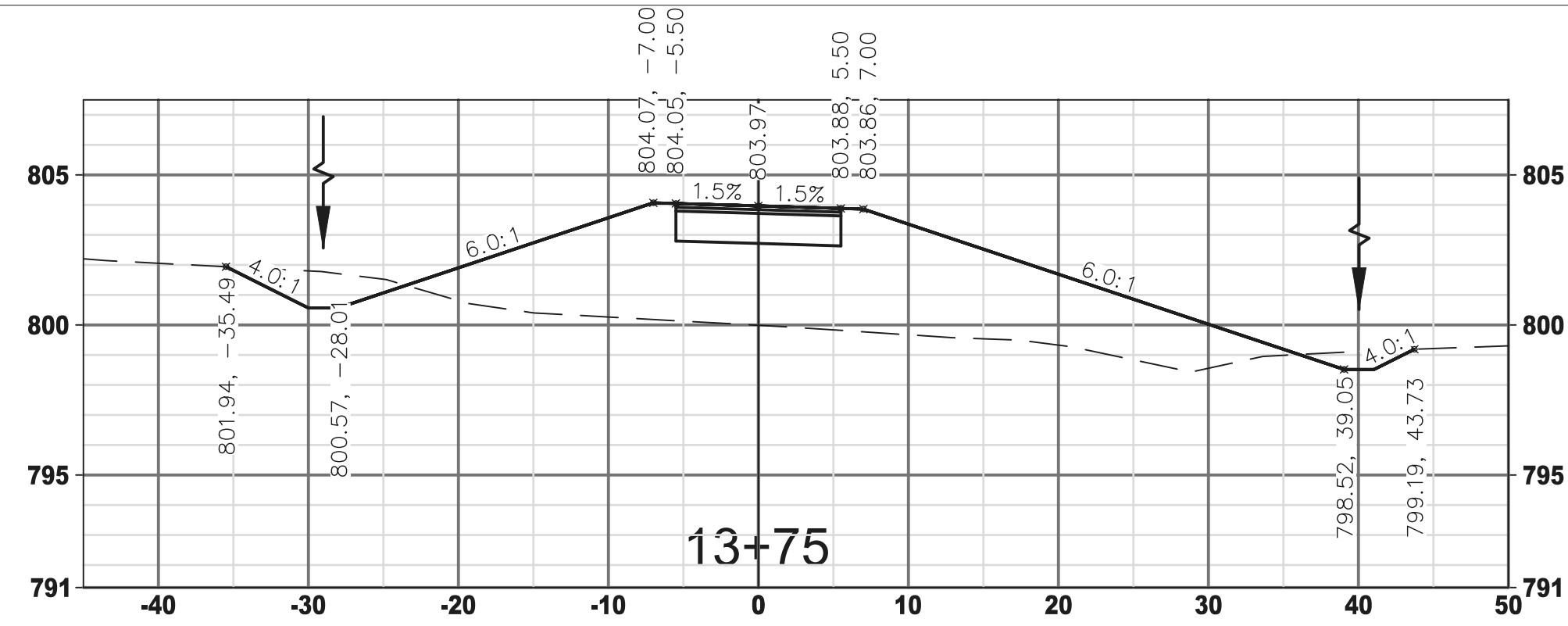


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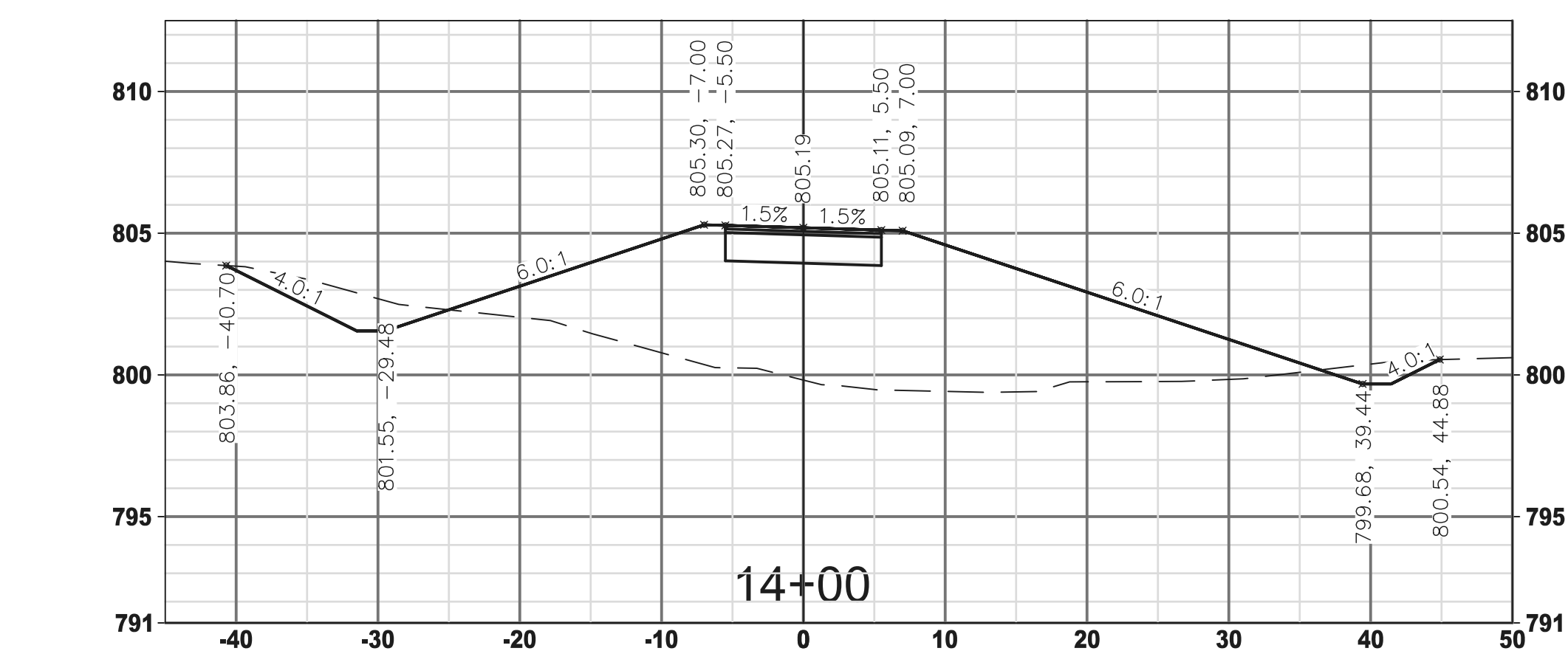
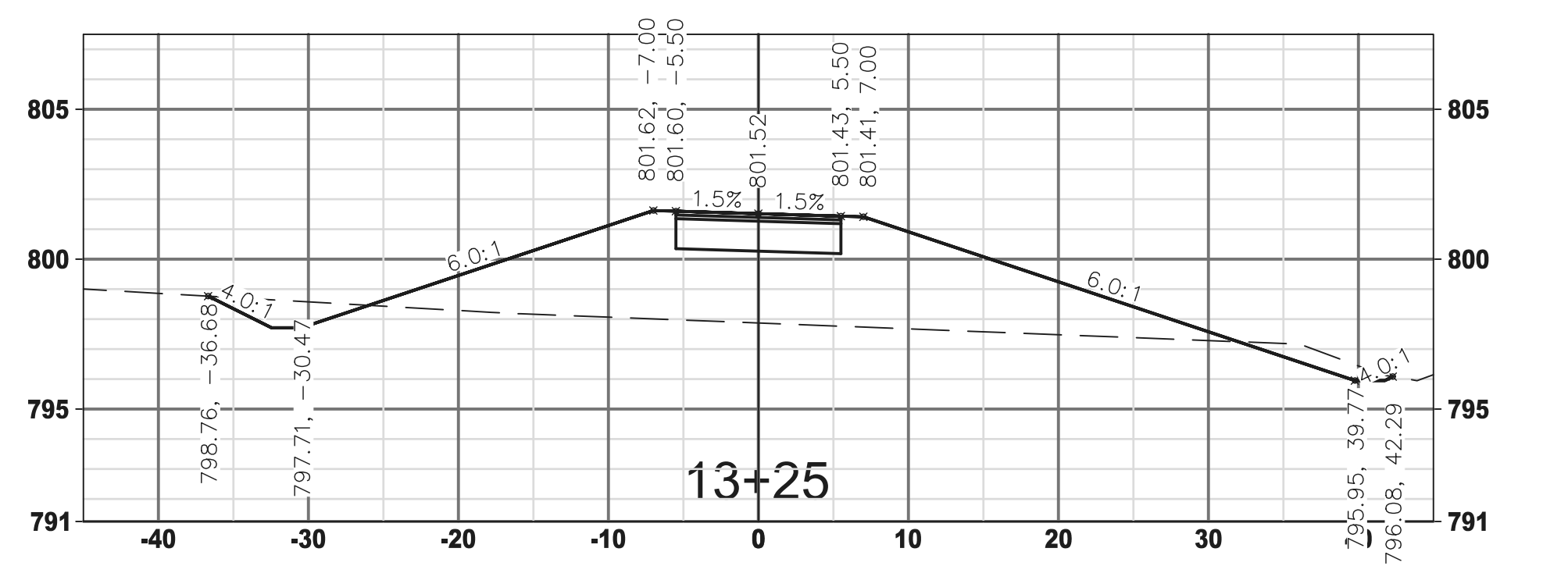




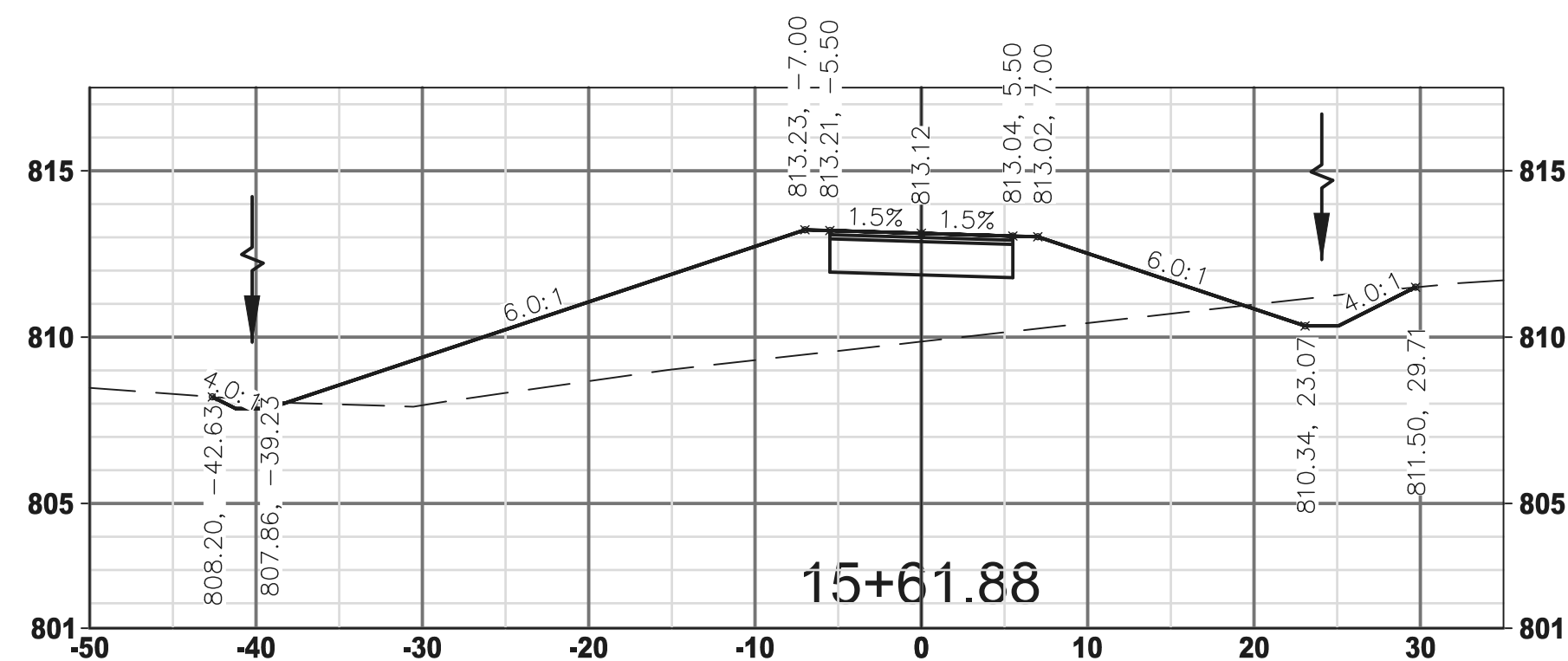




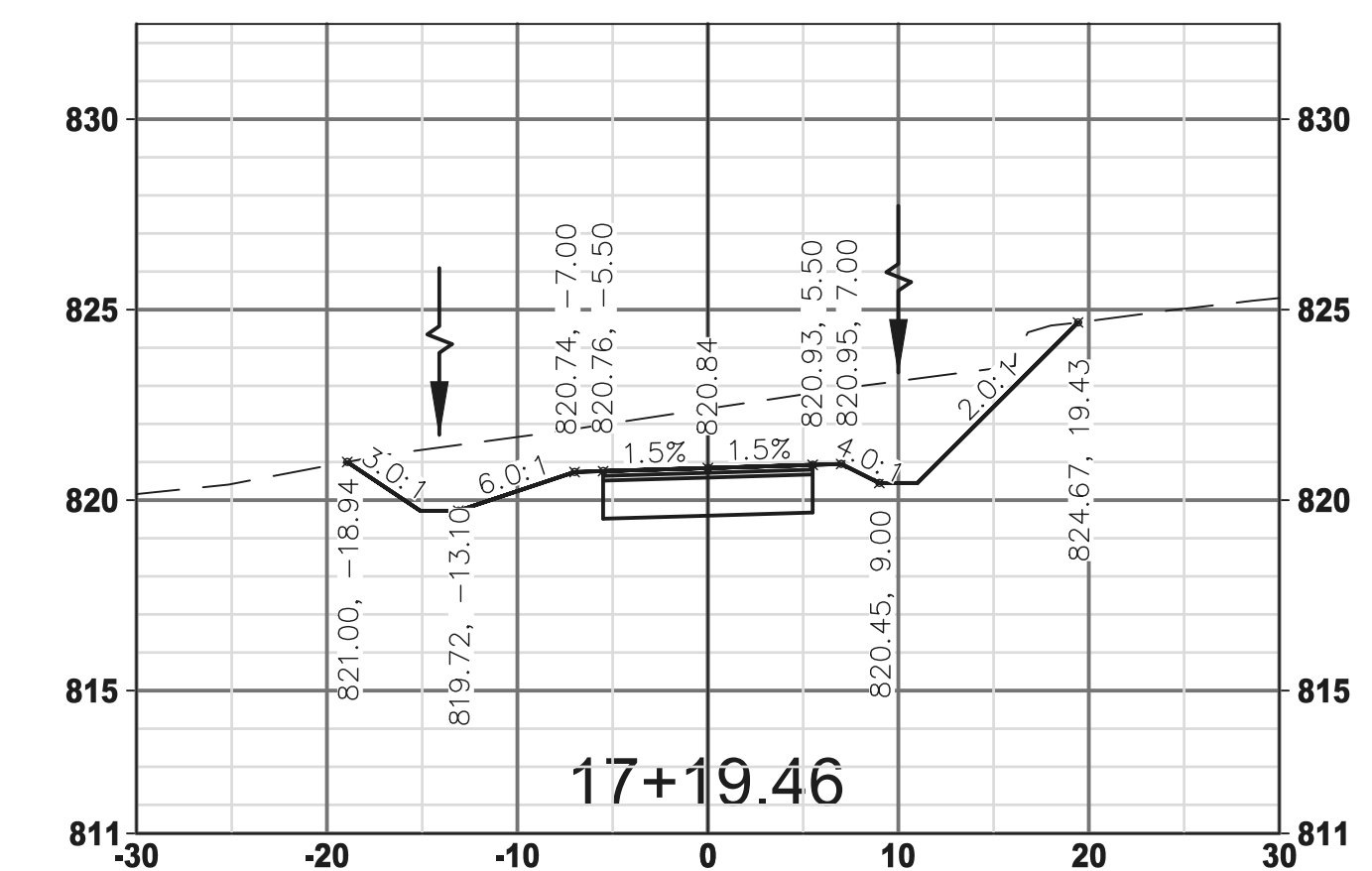
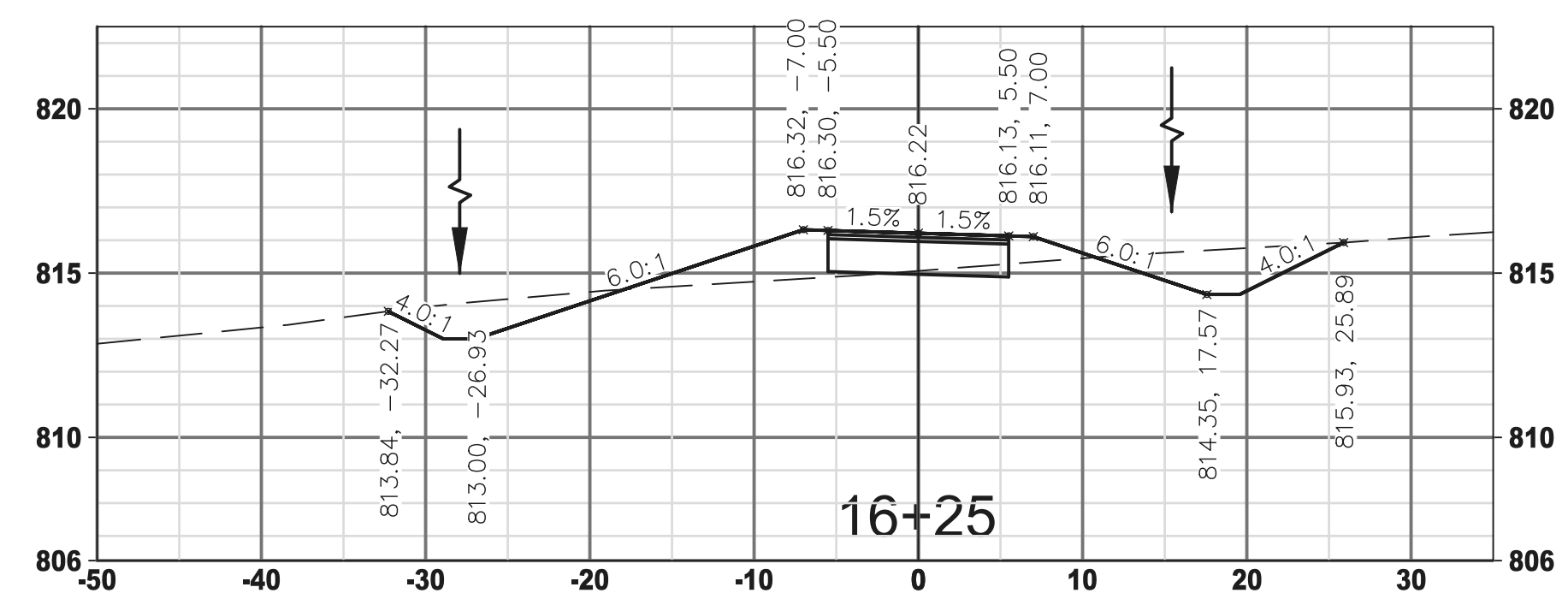
CURVE MIDPOINT



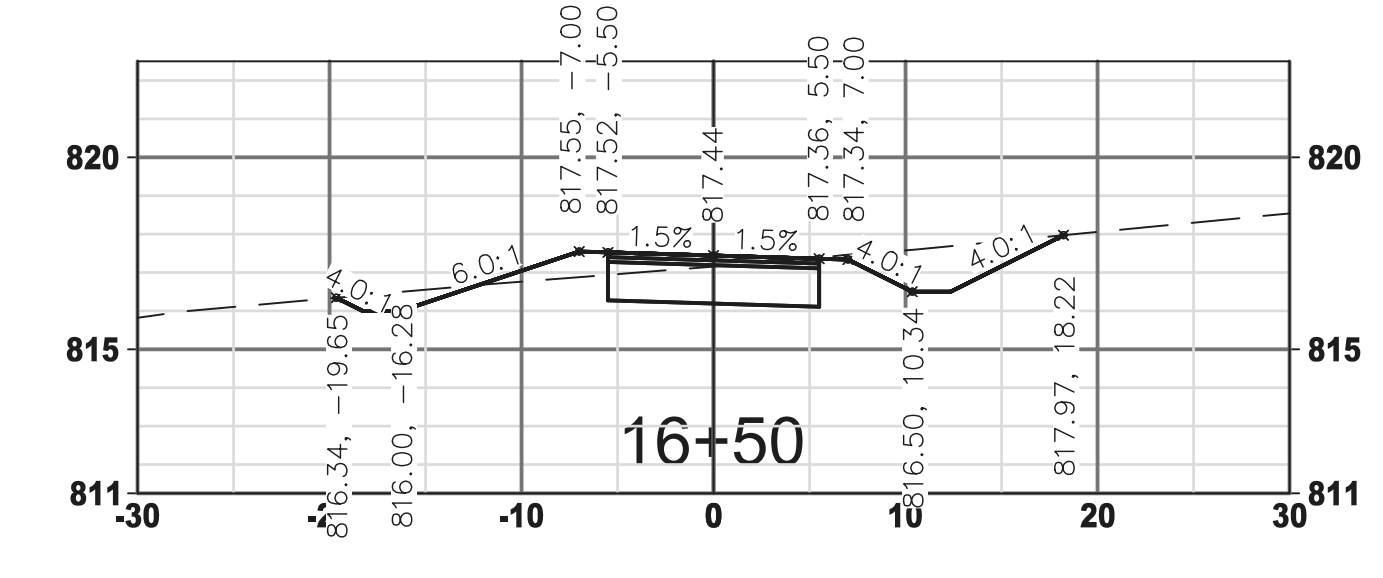
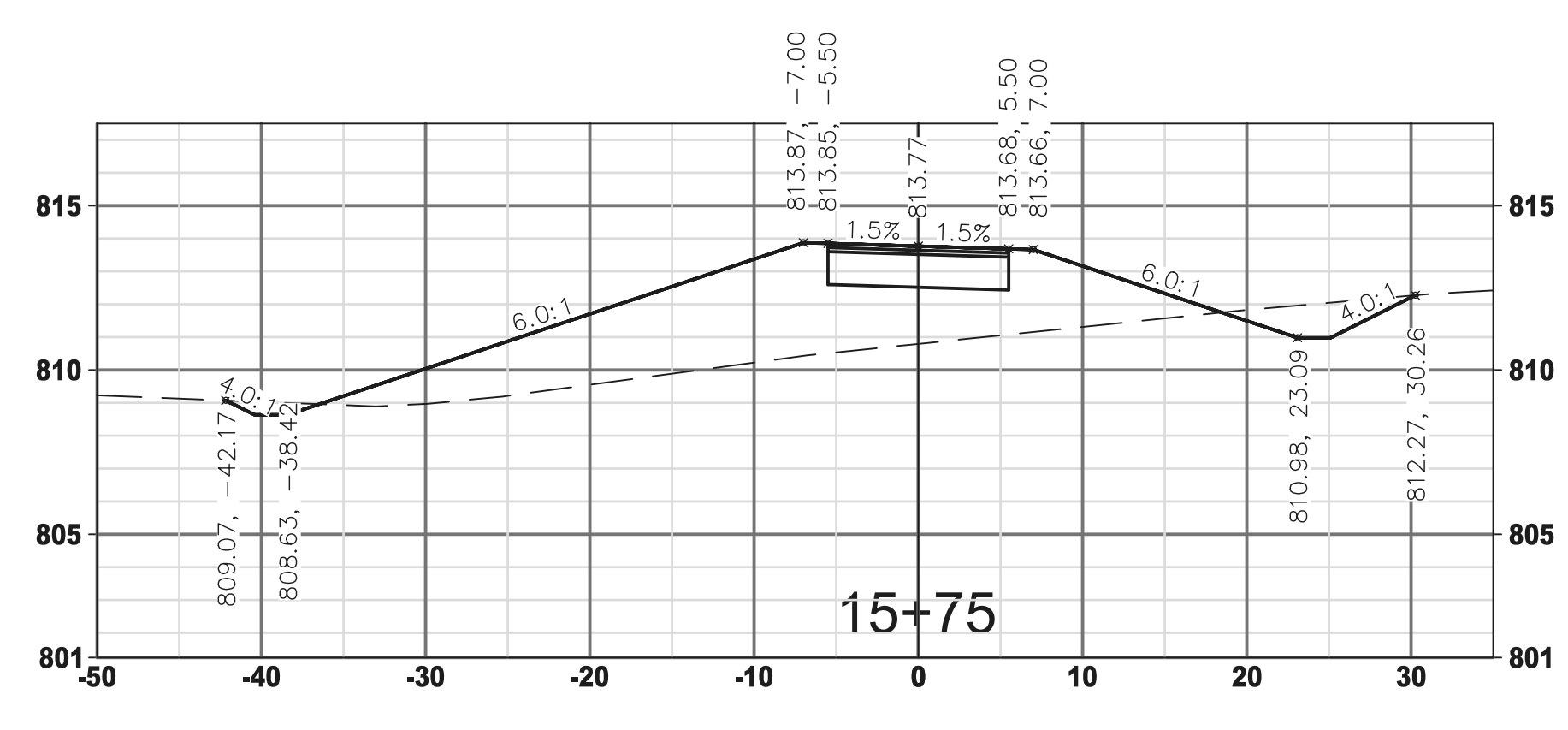
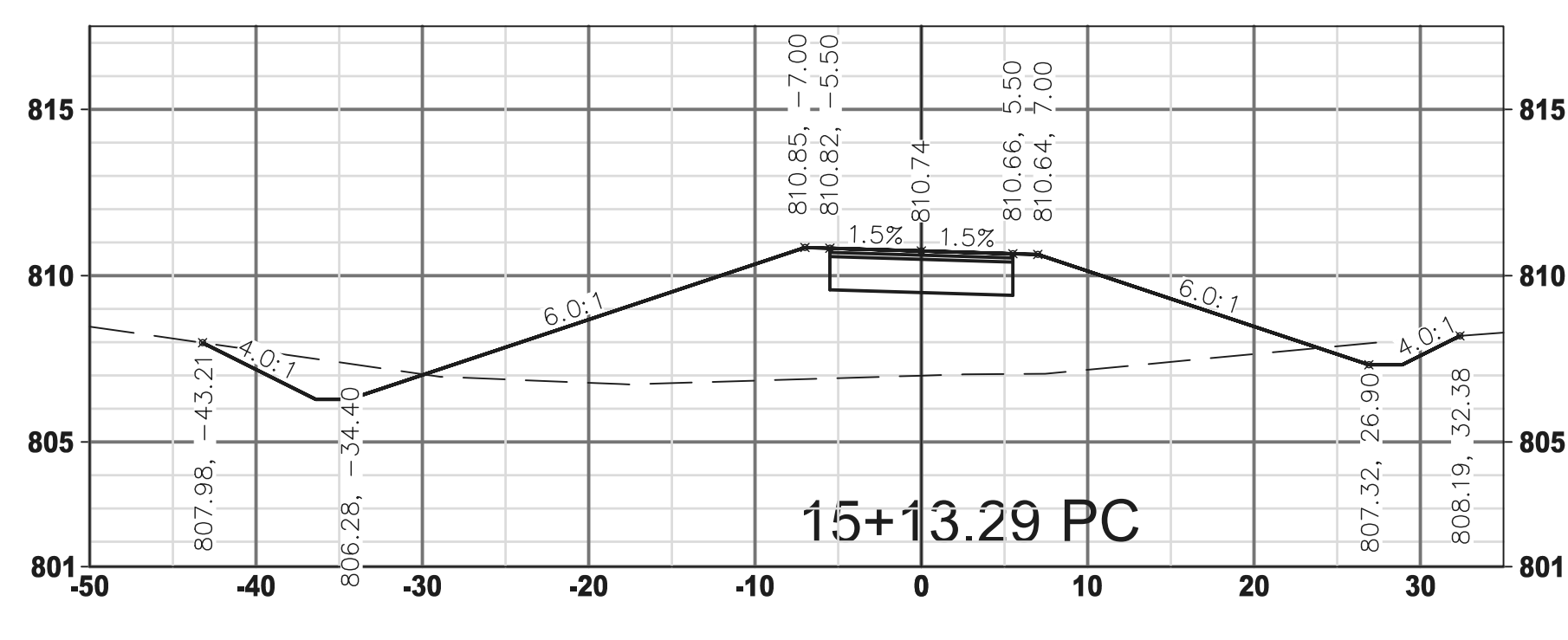
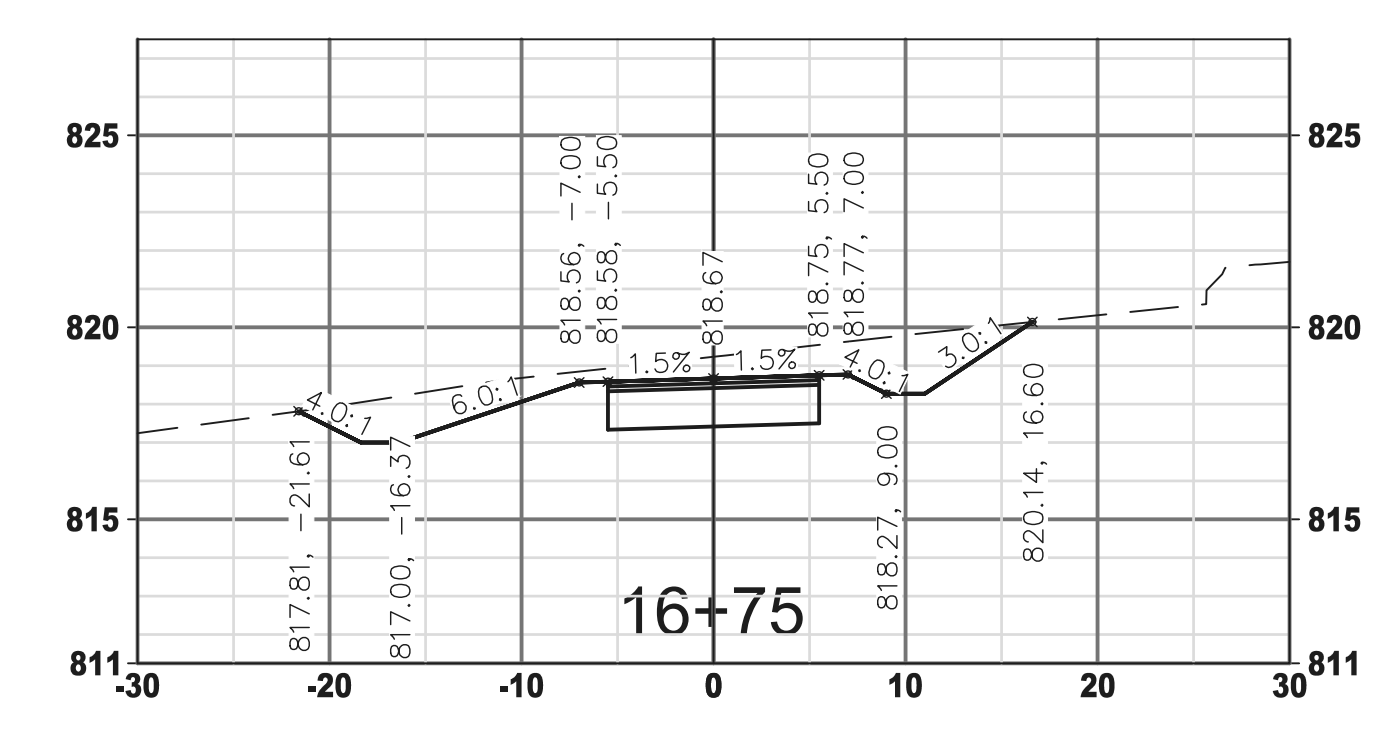
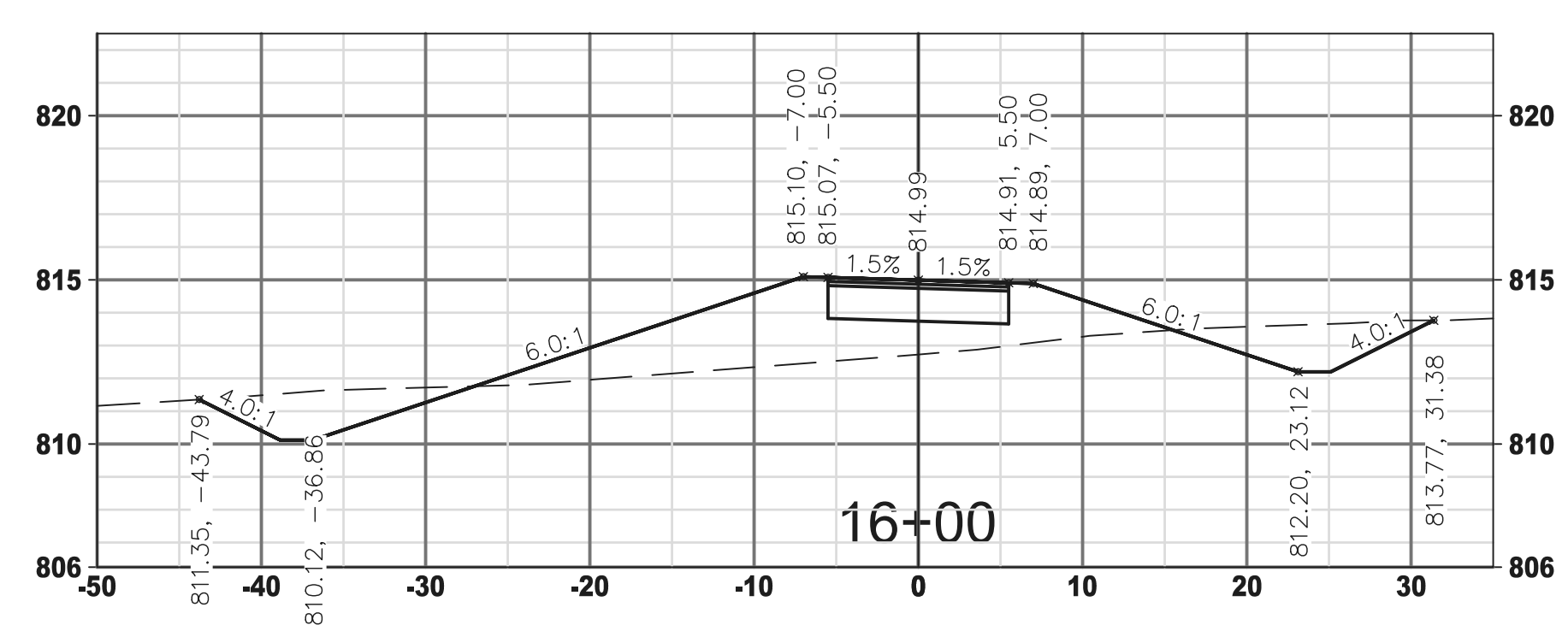
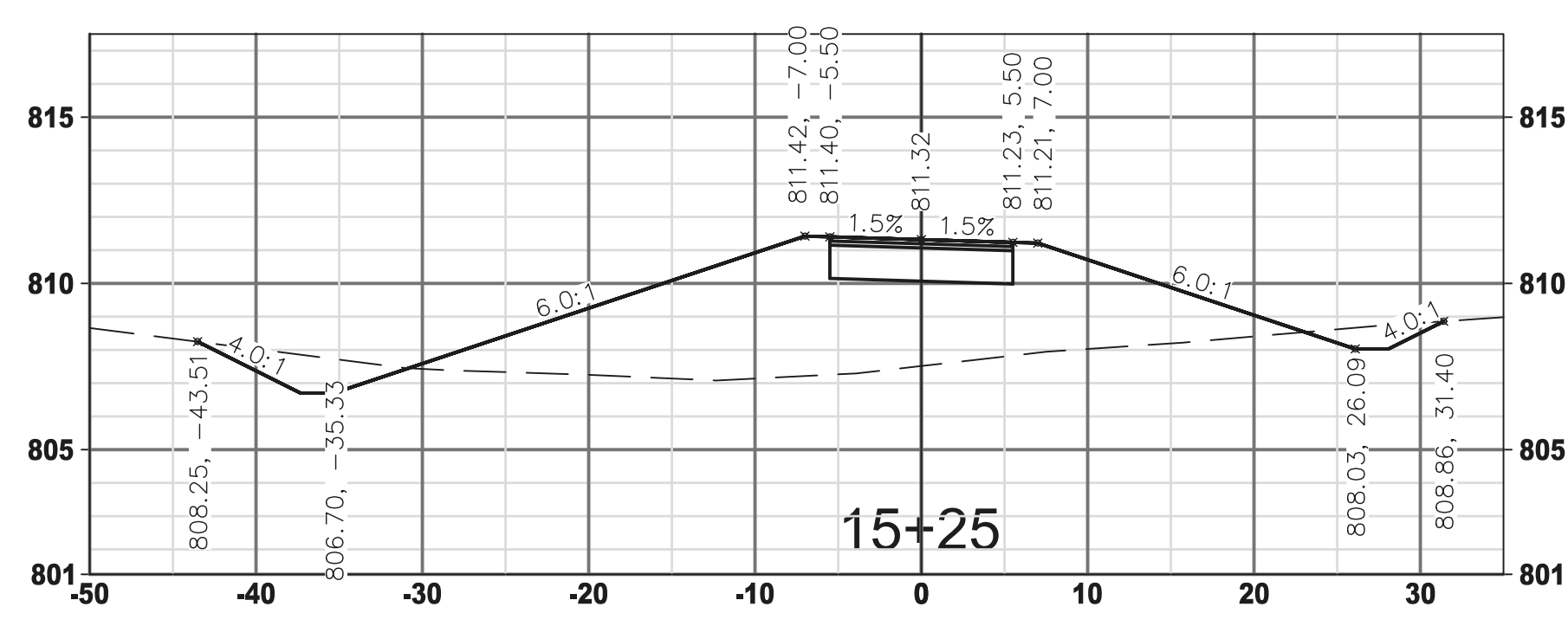
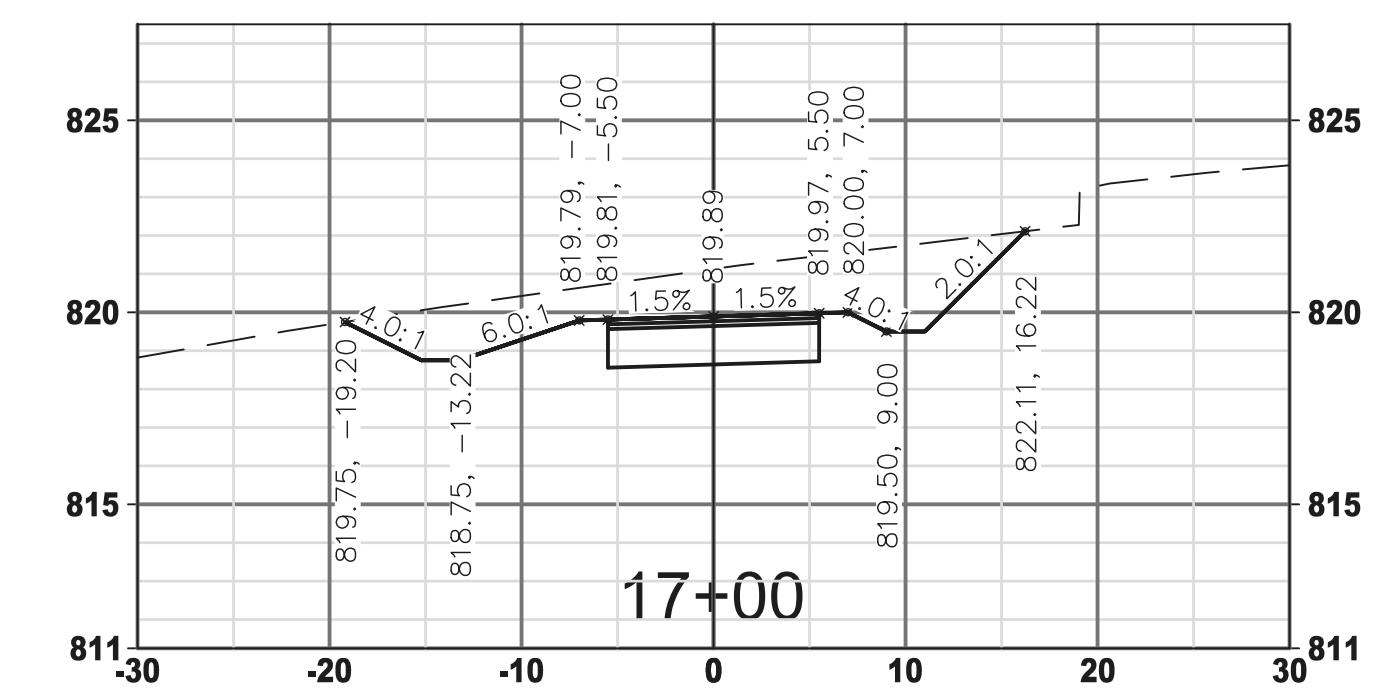
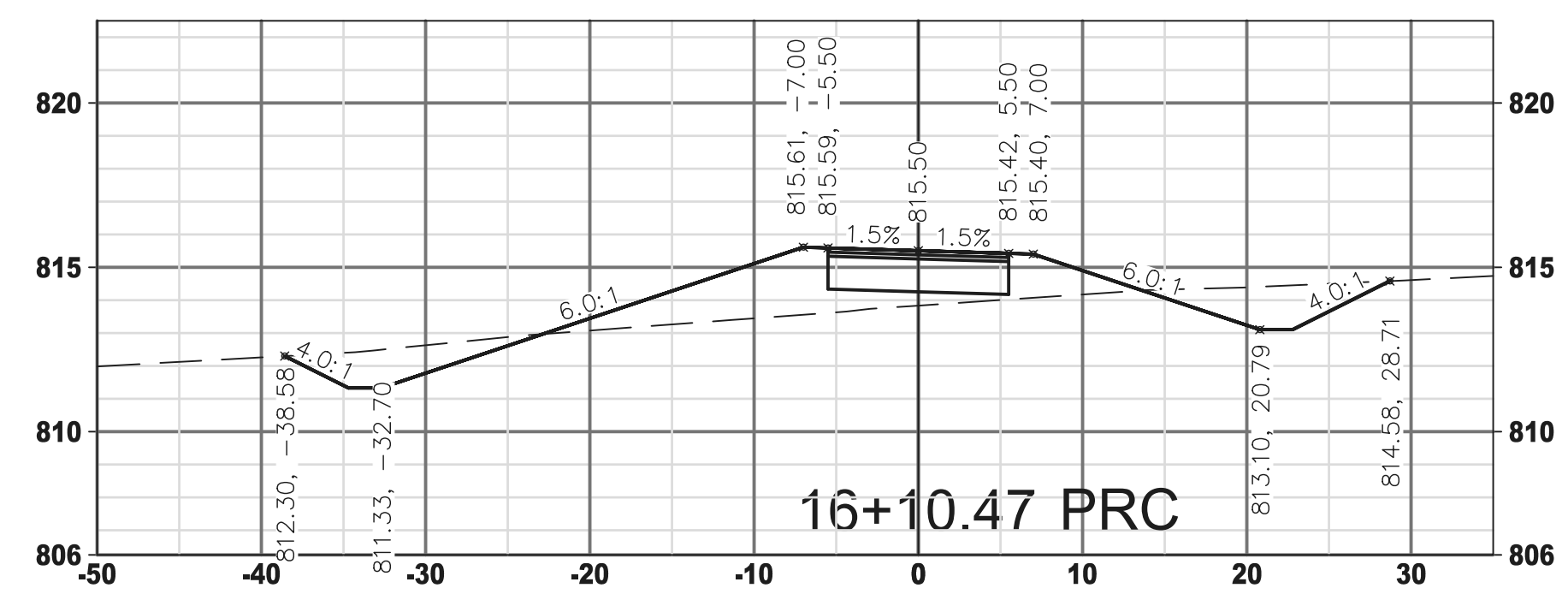
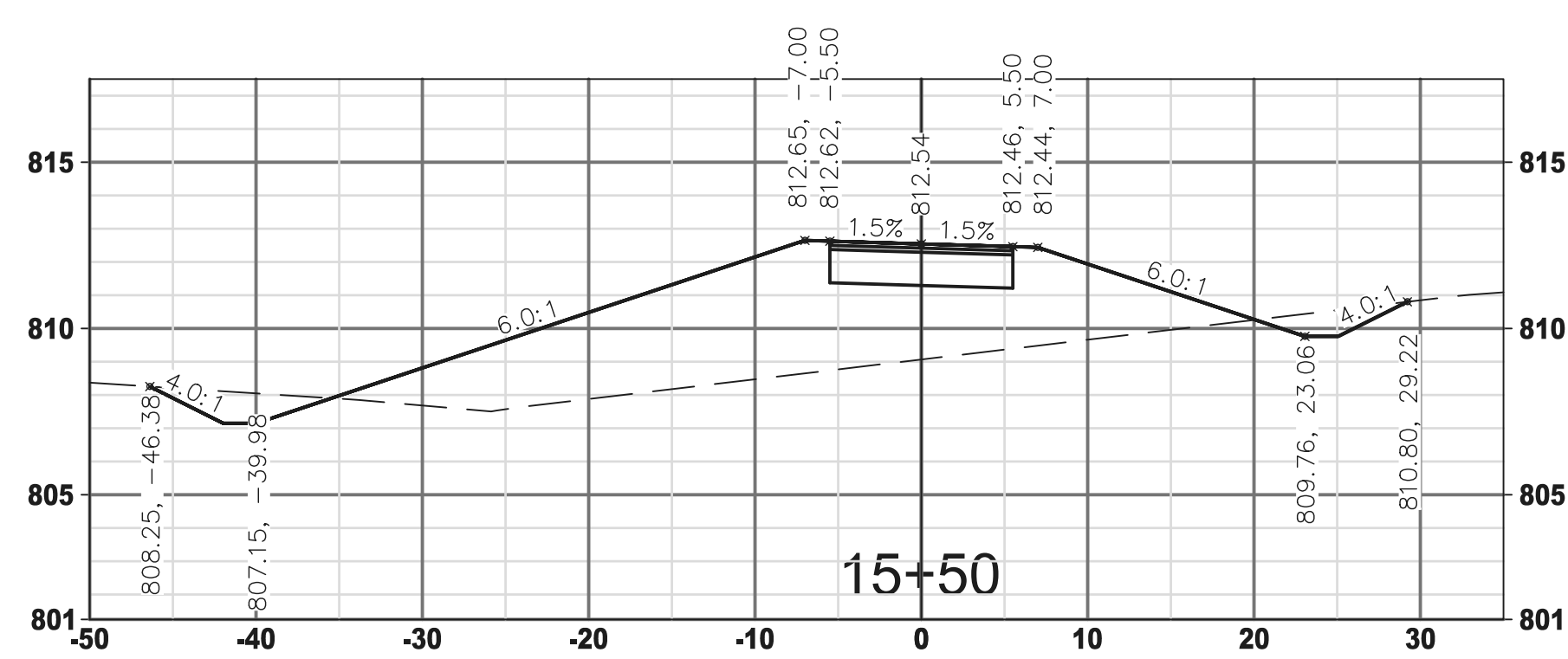


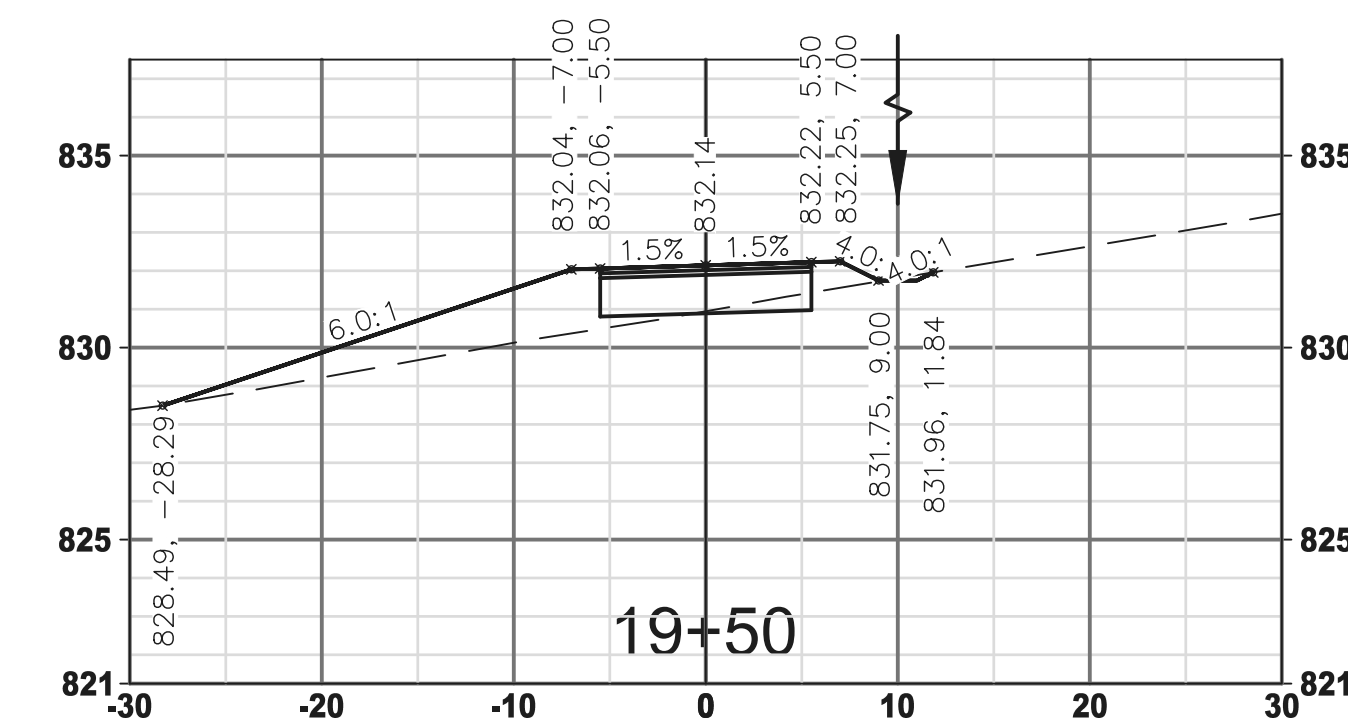
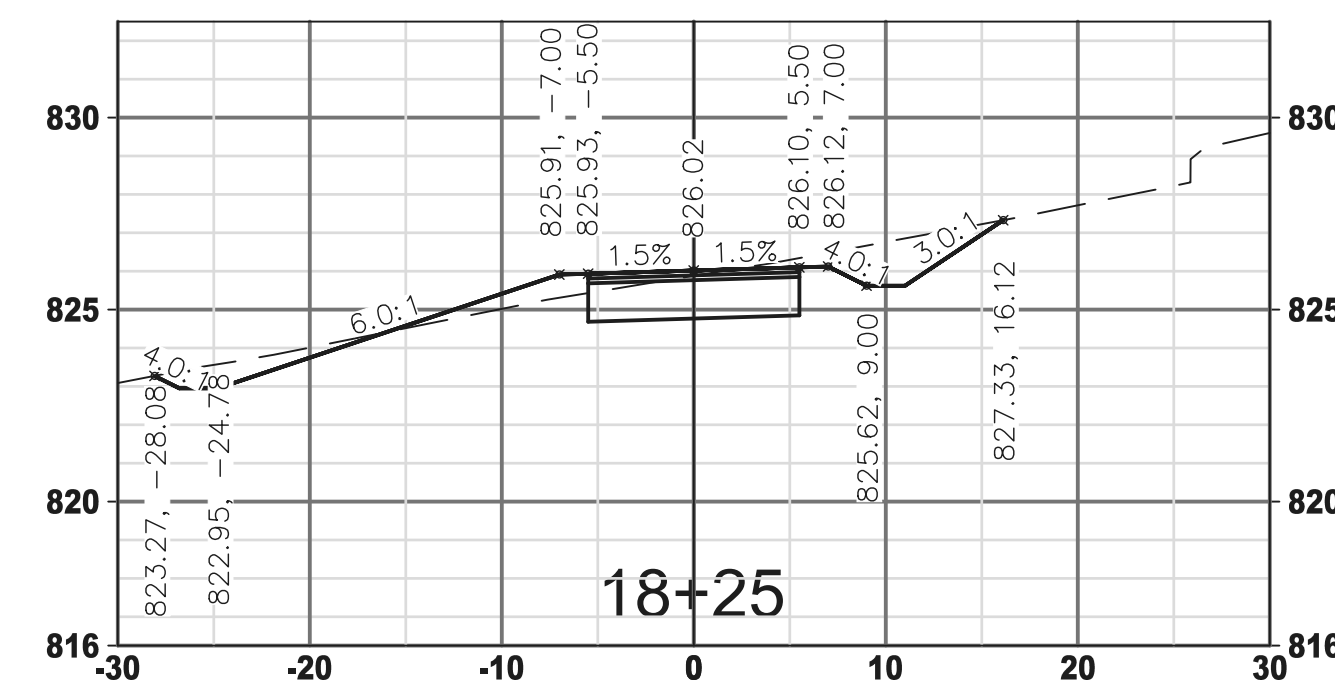
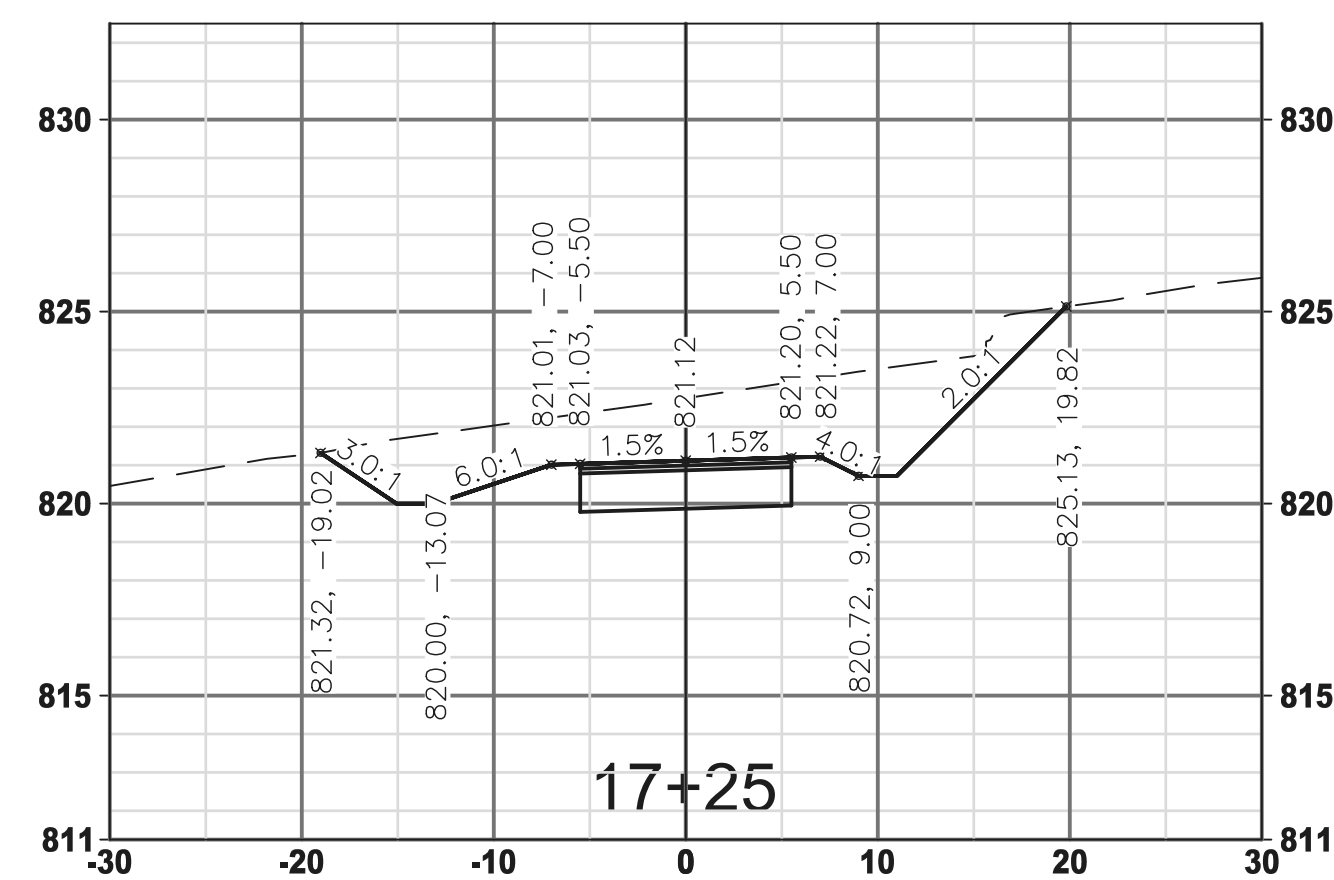
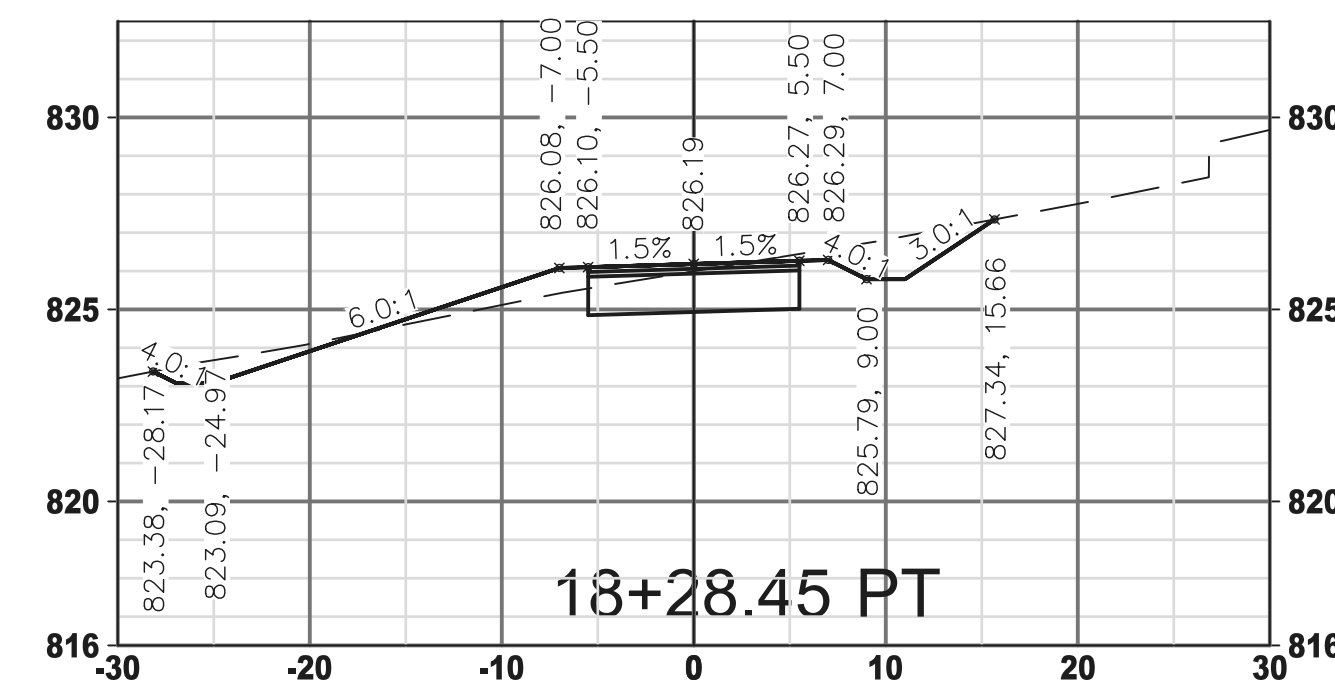
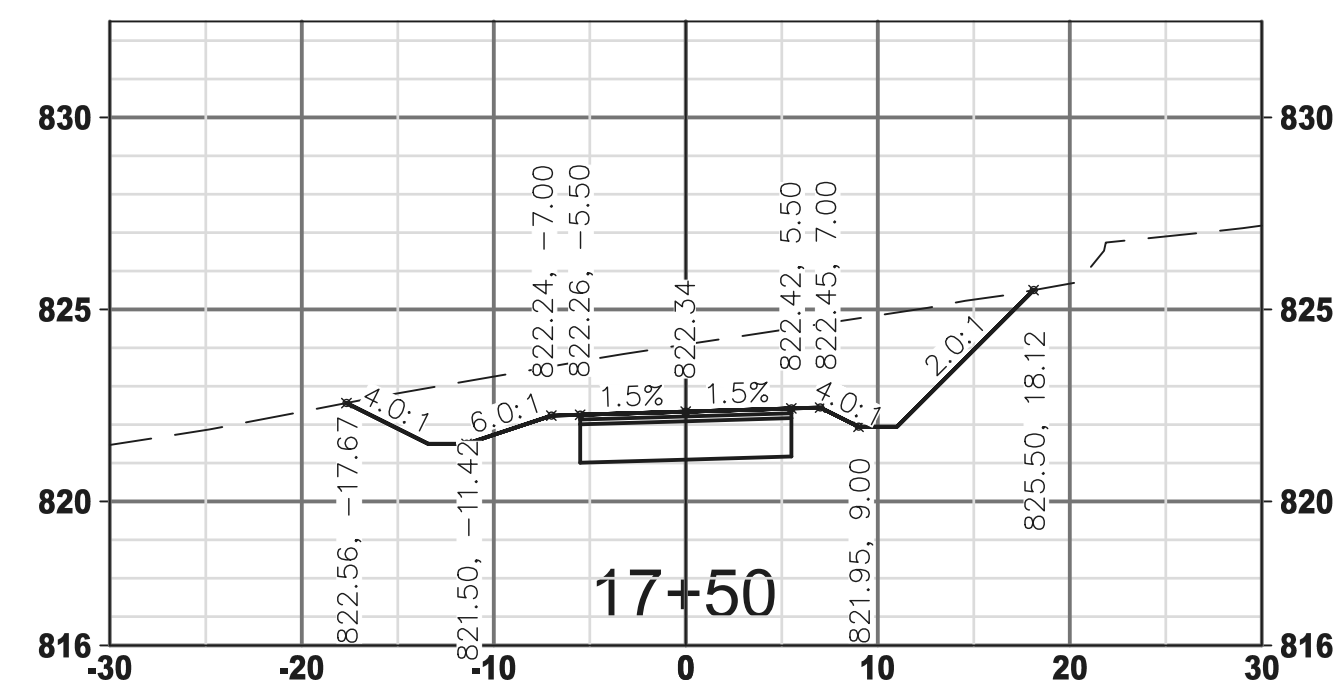
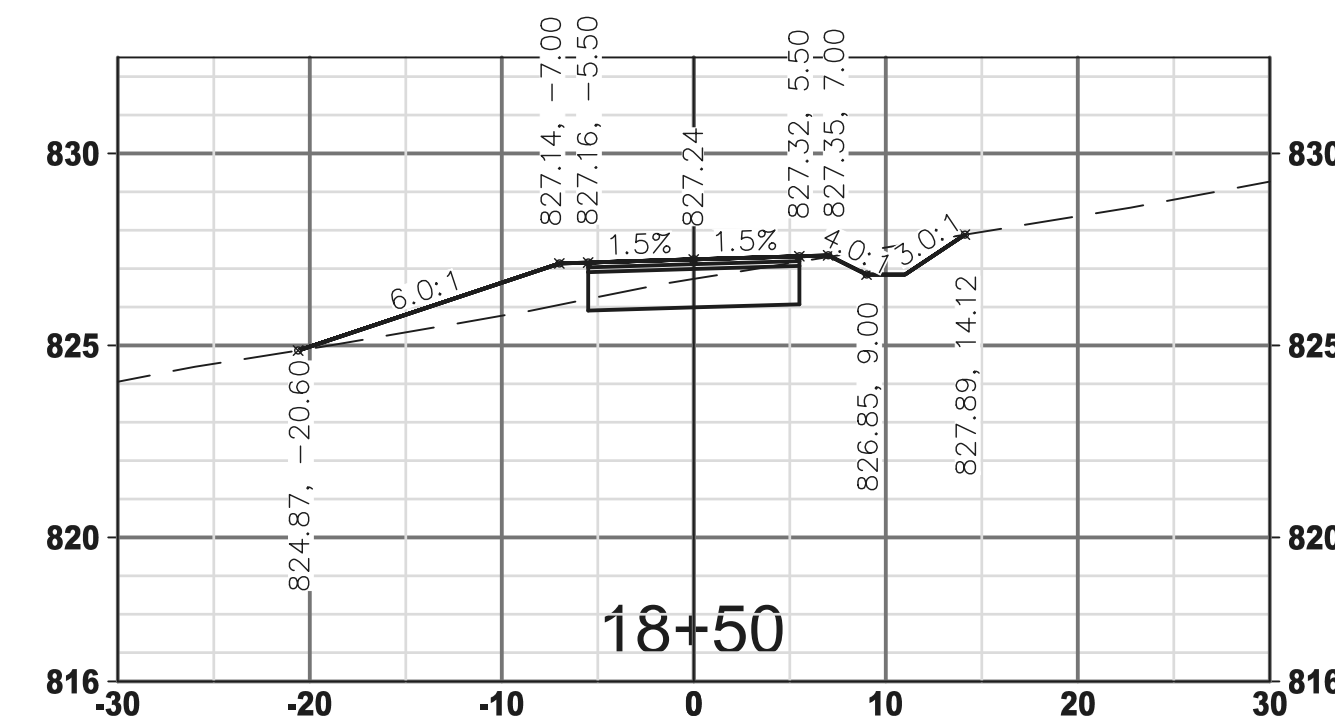
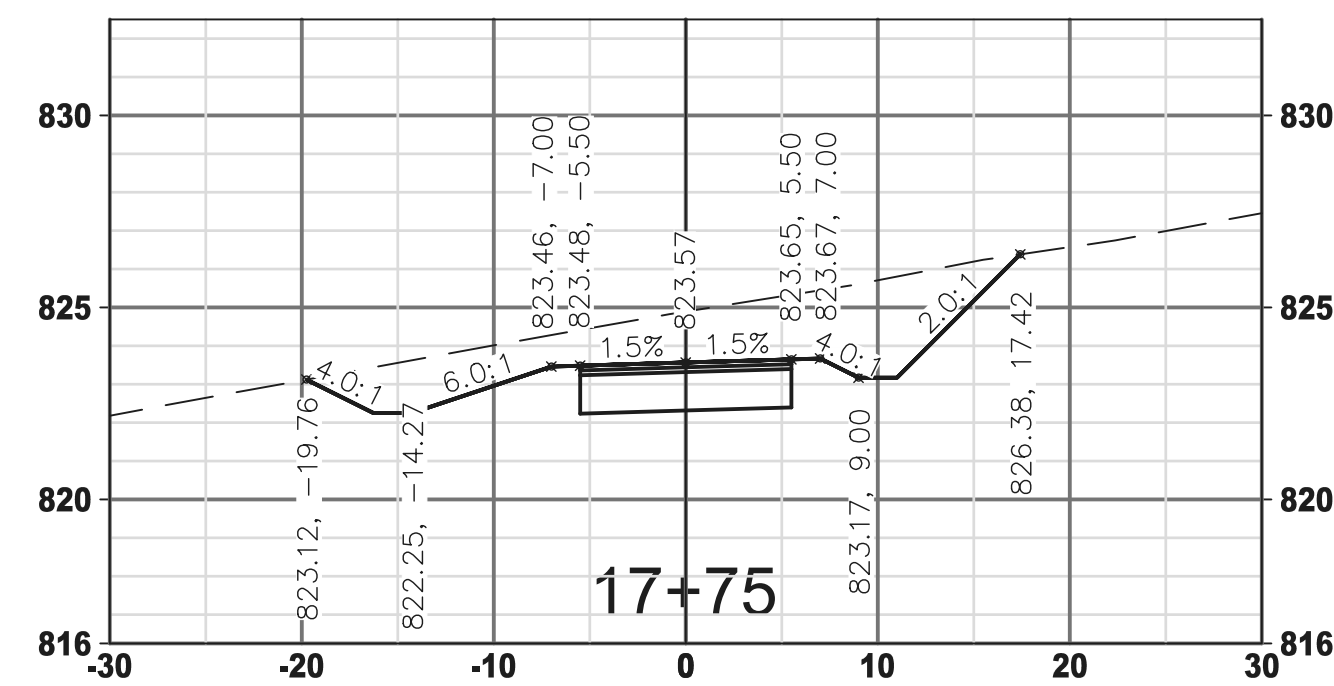
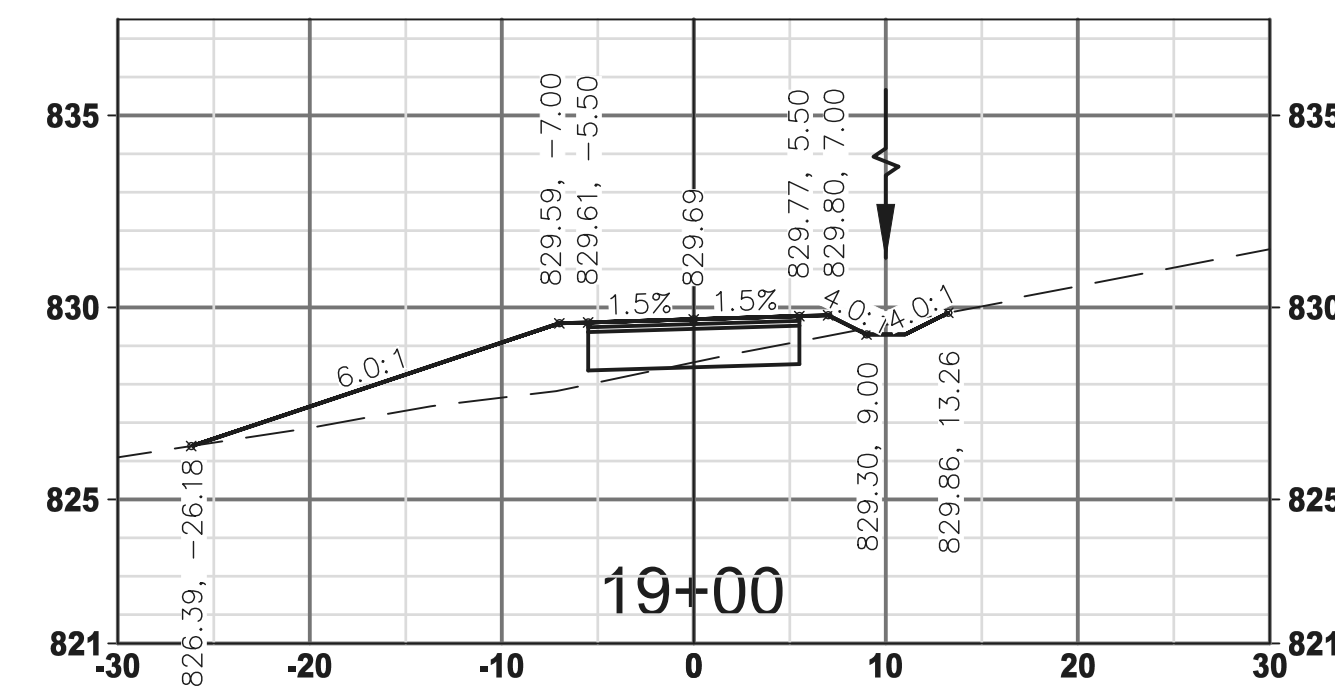
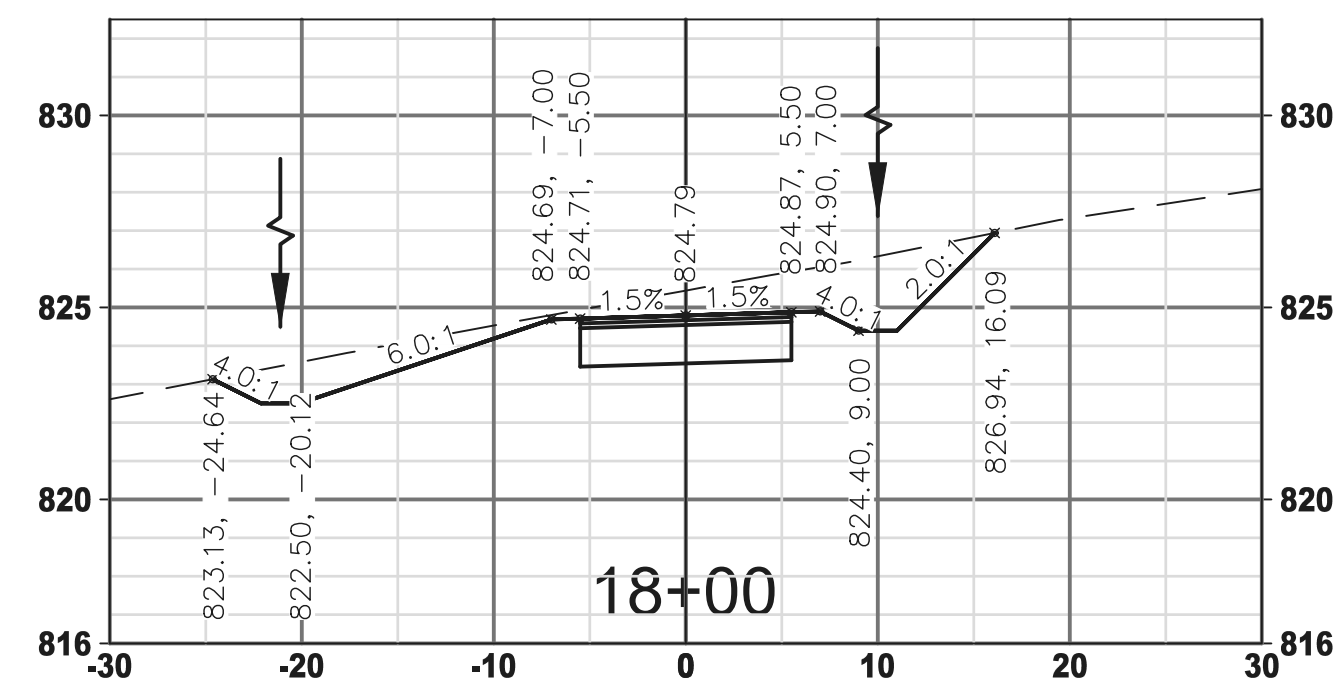


CURVE MIDPOINT

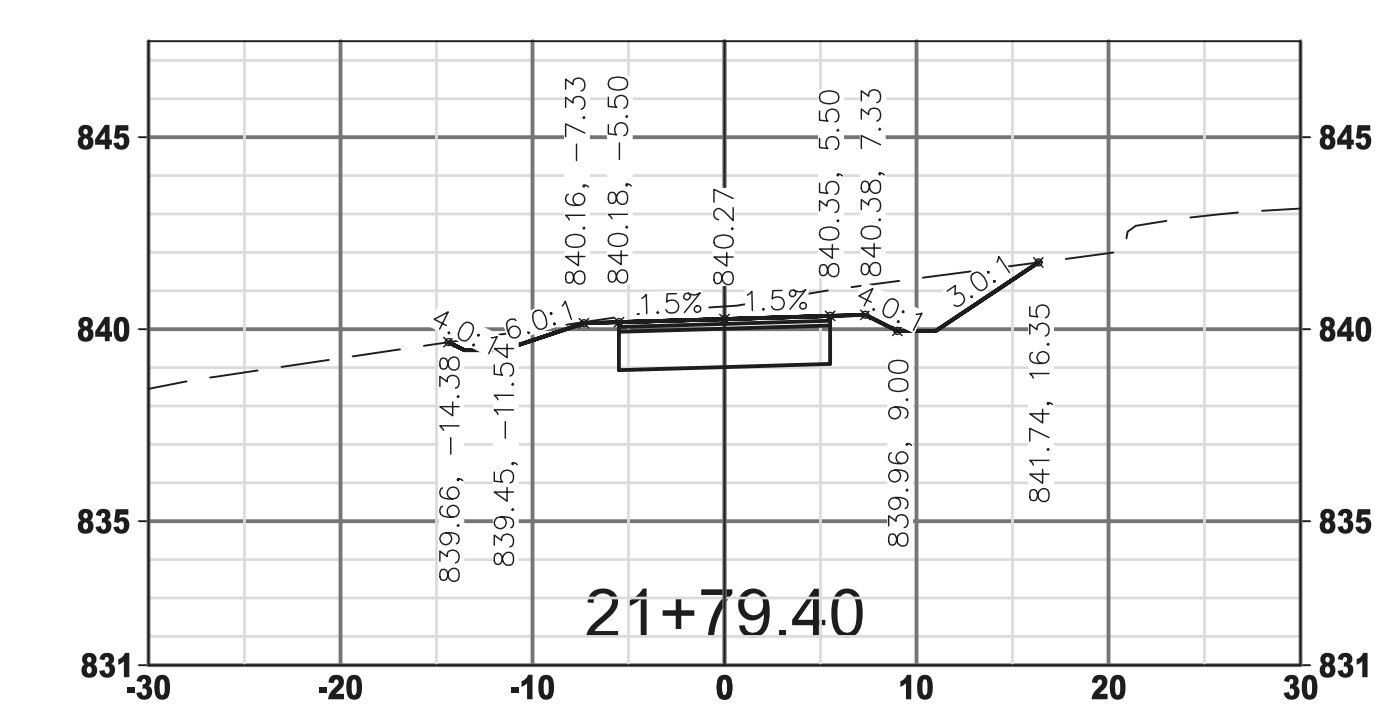
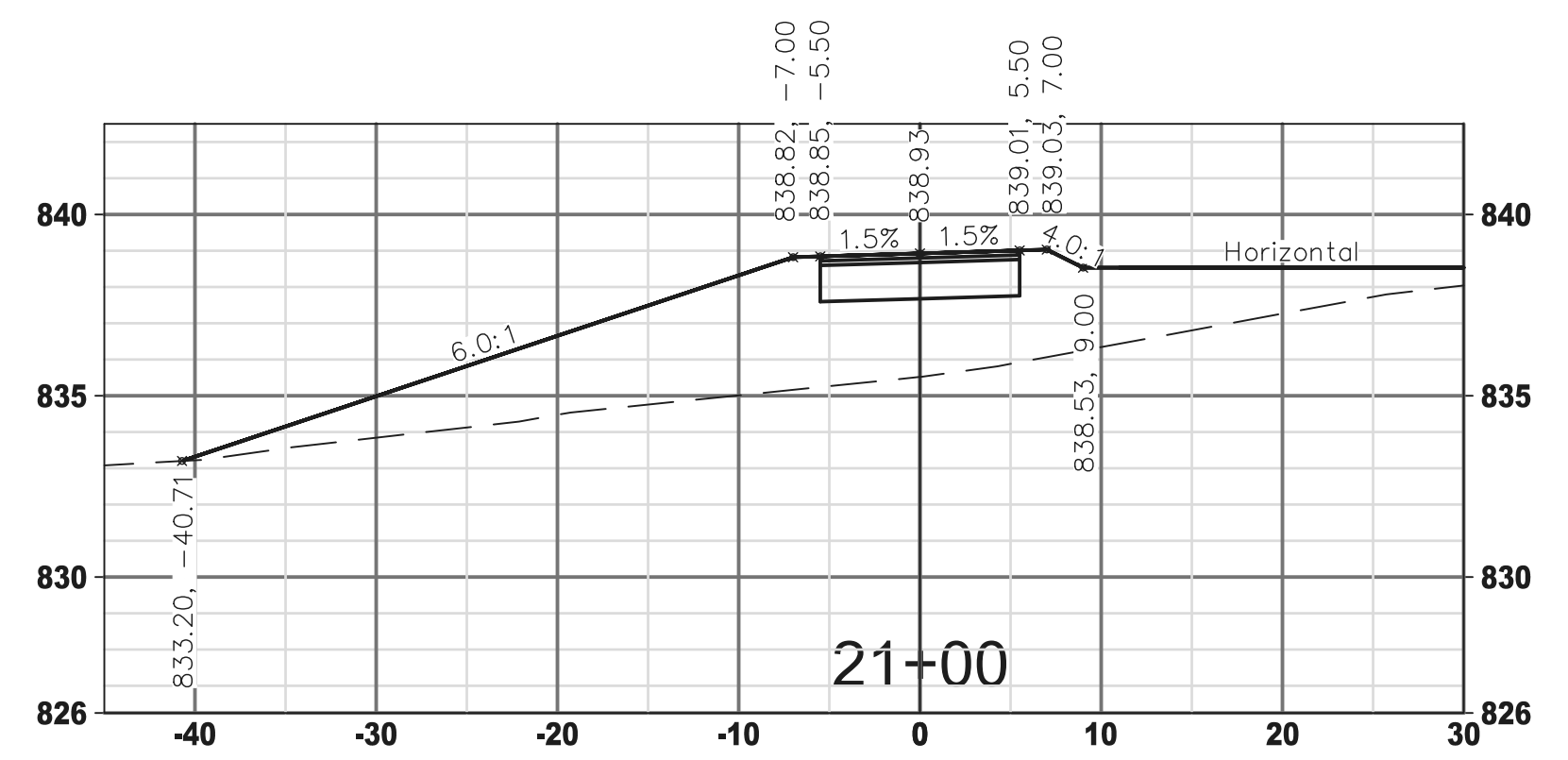
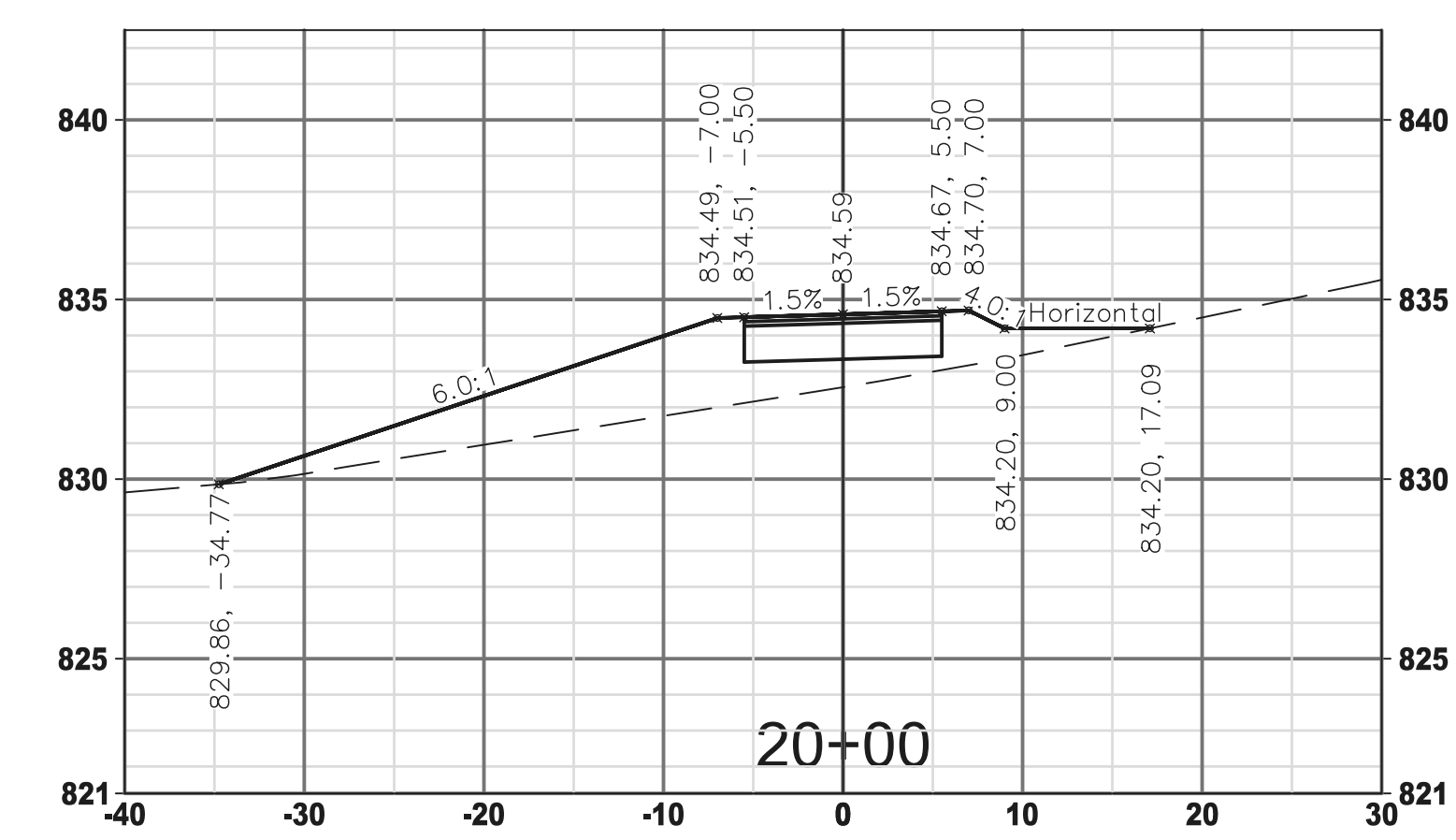
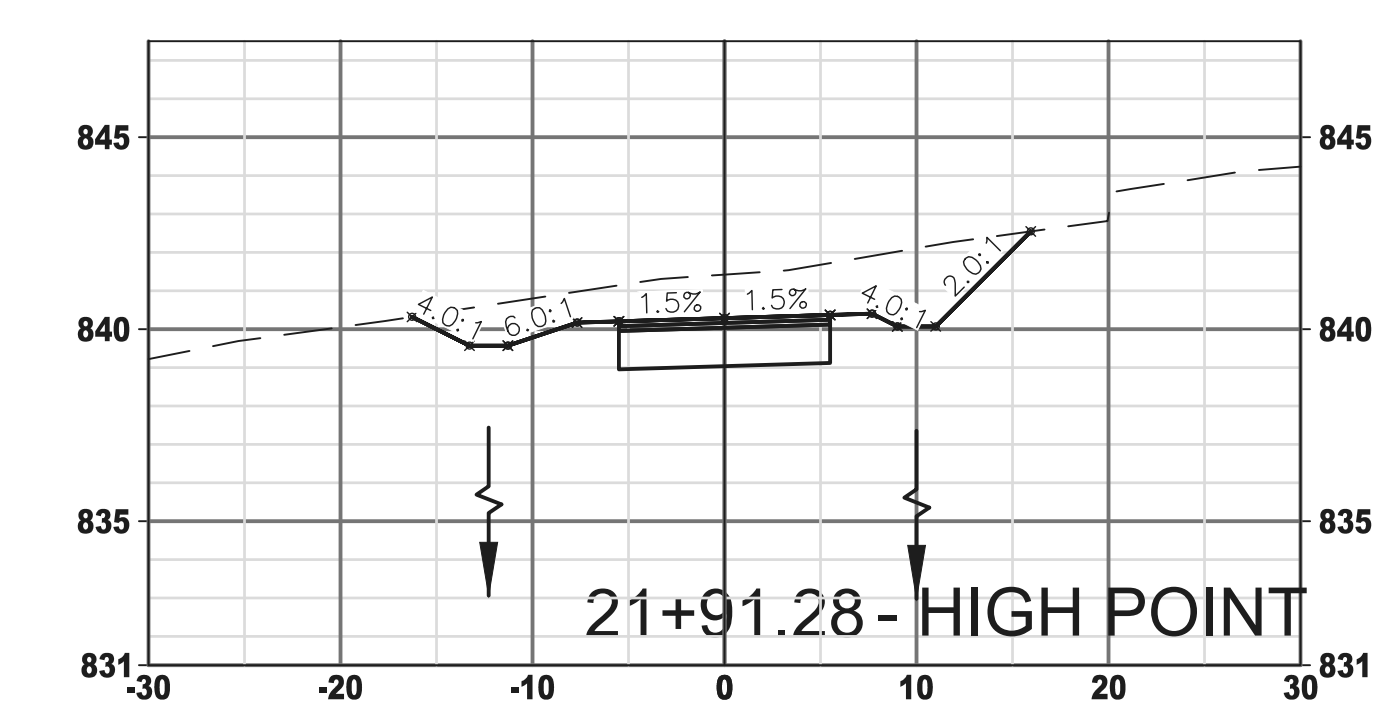
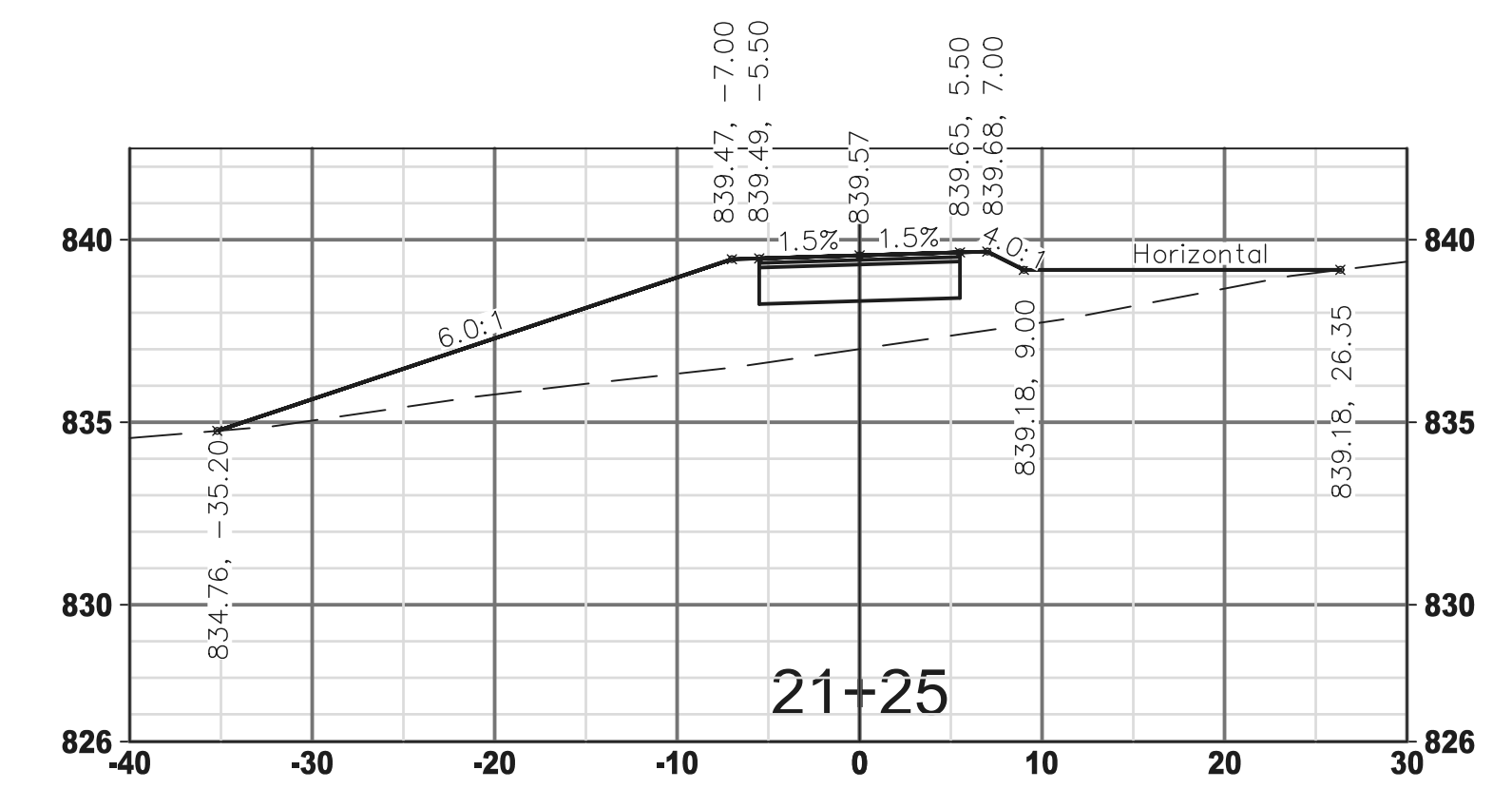
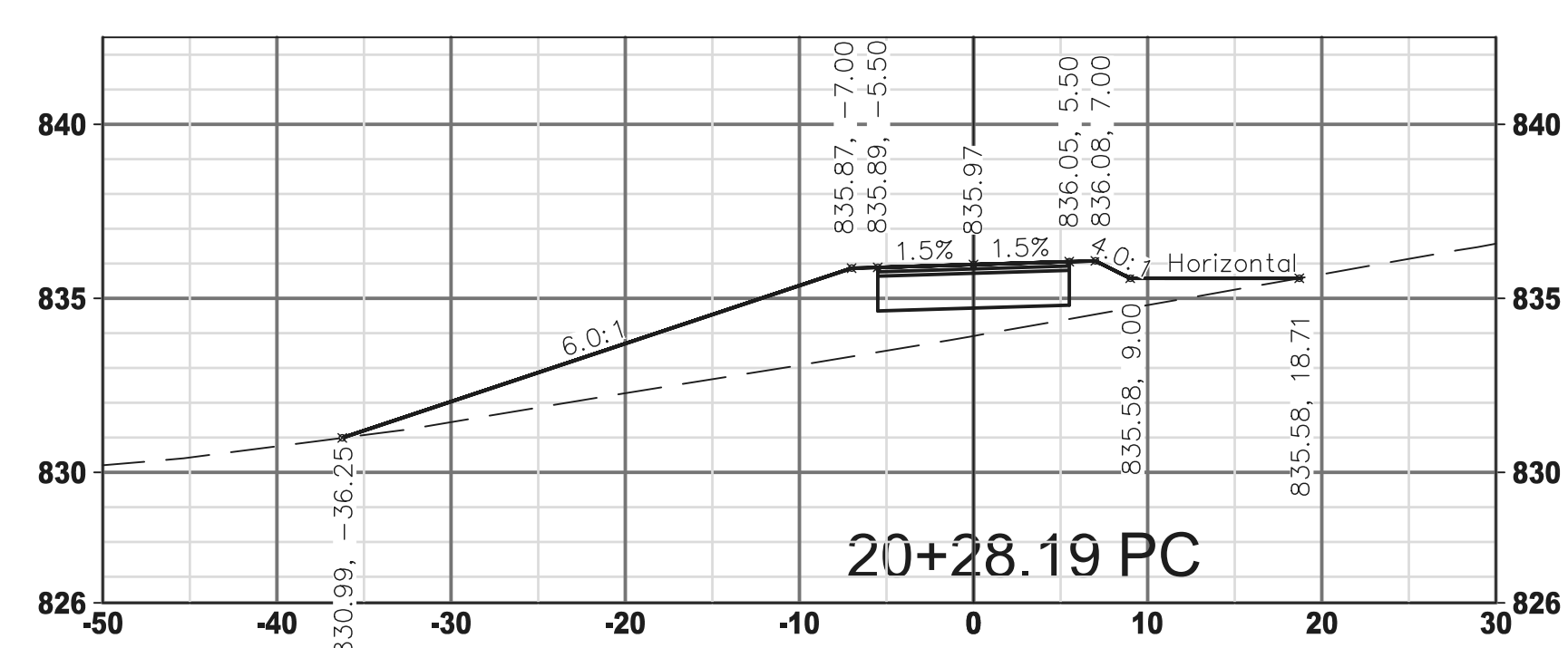
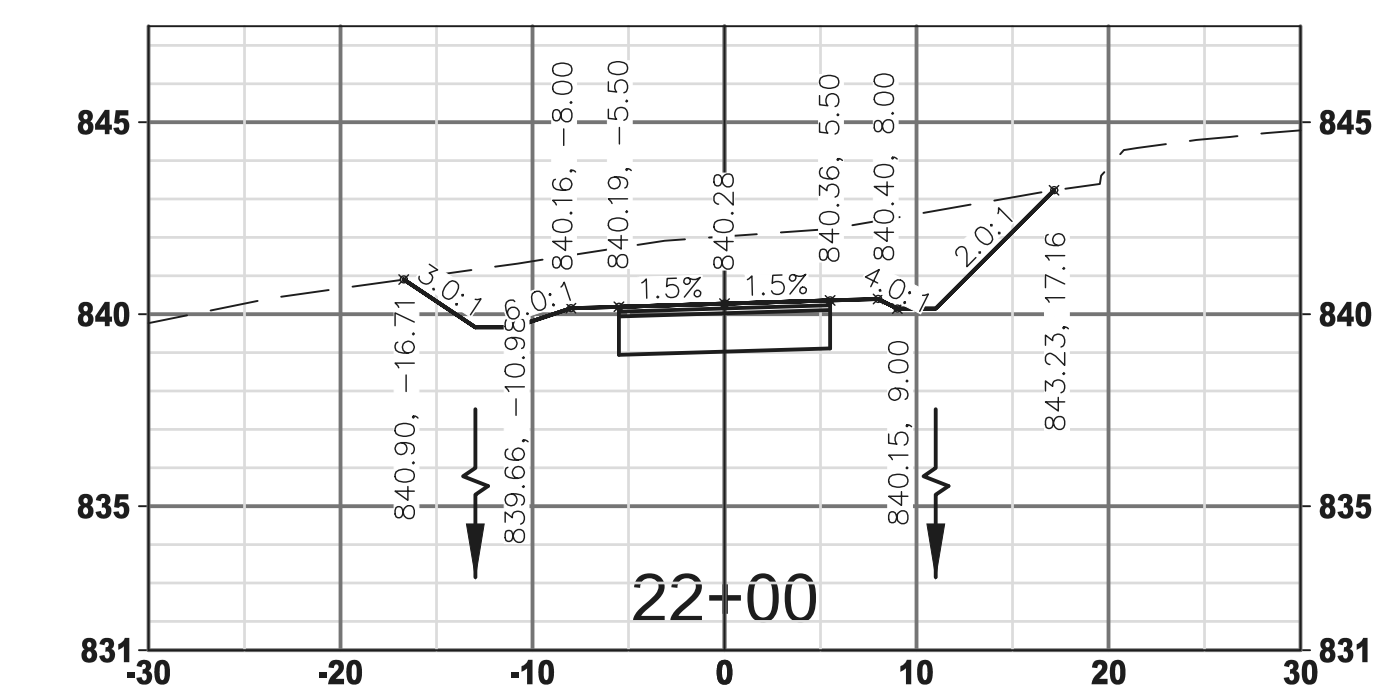
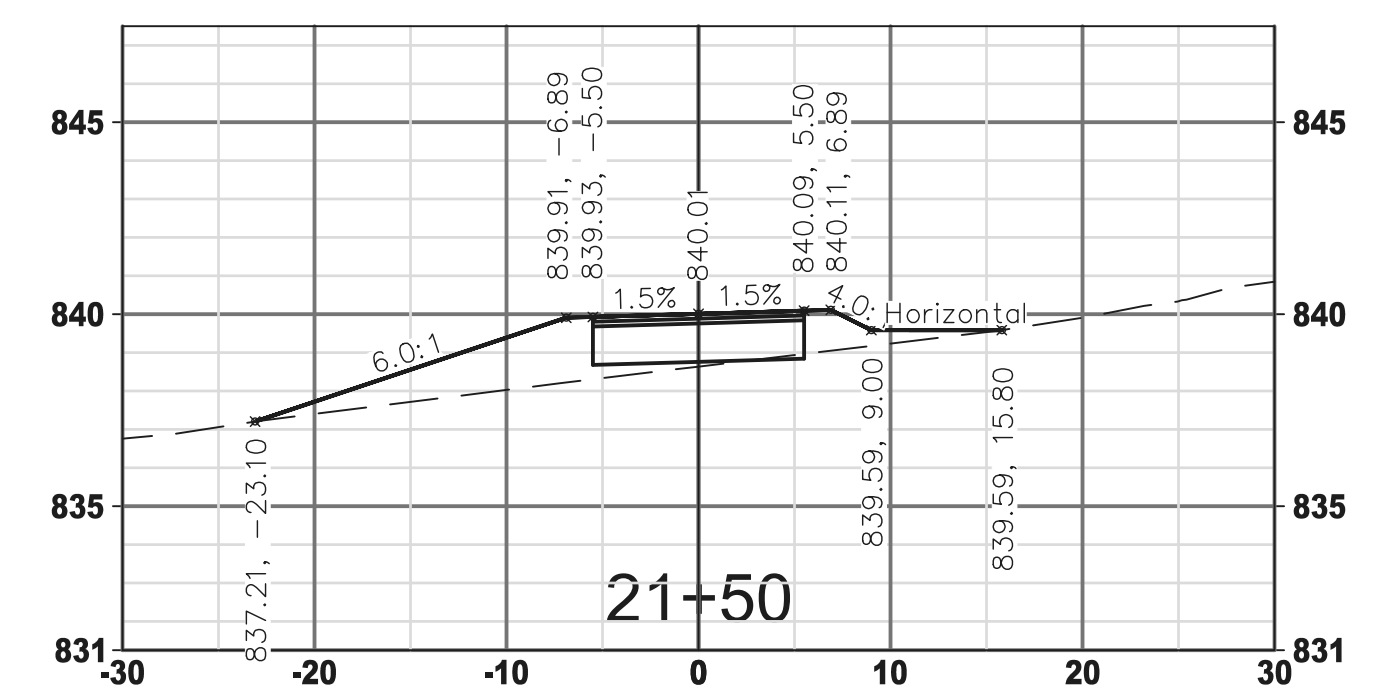
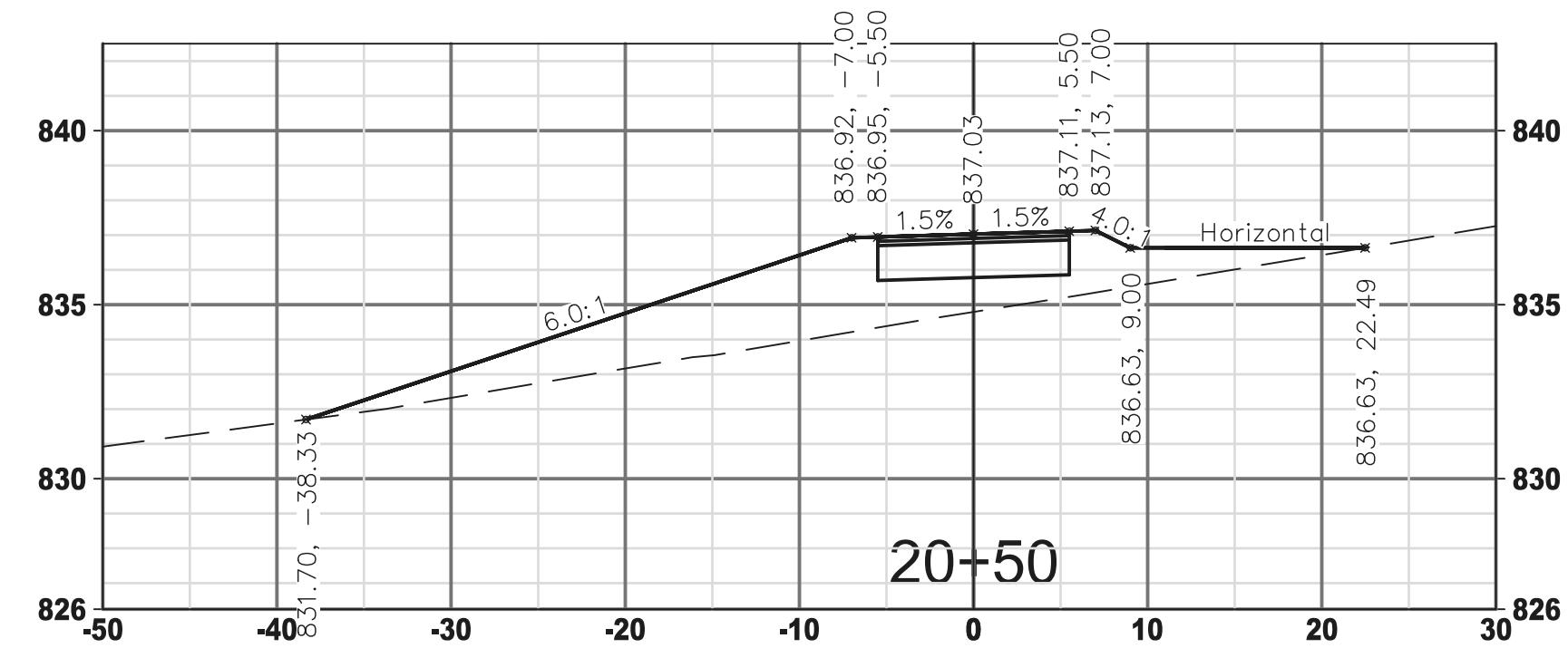
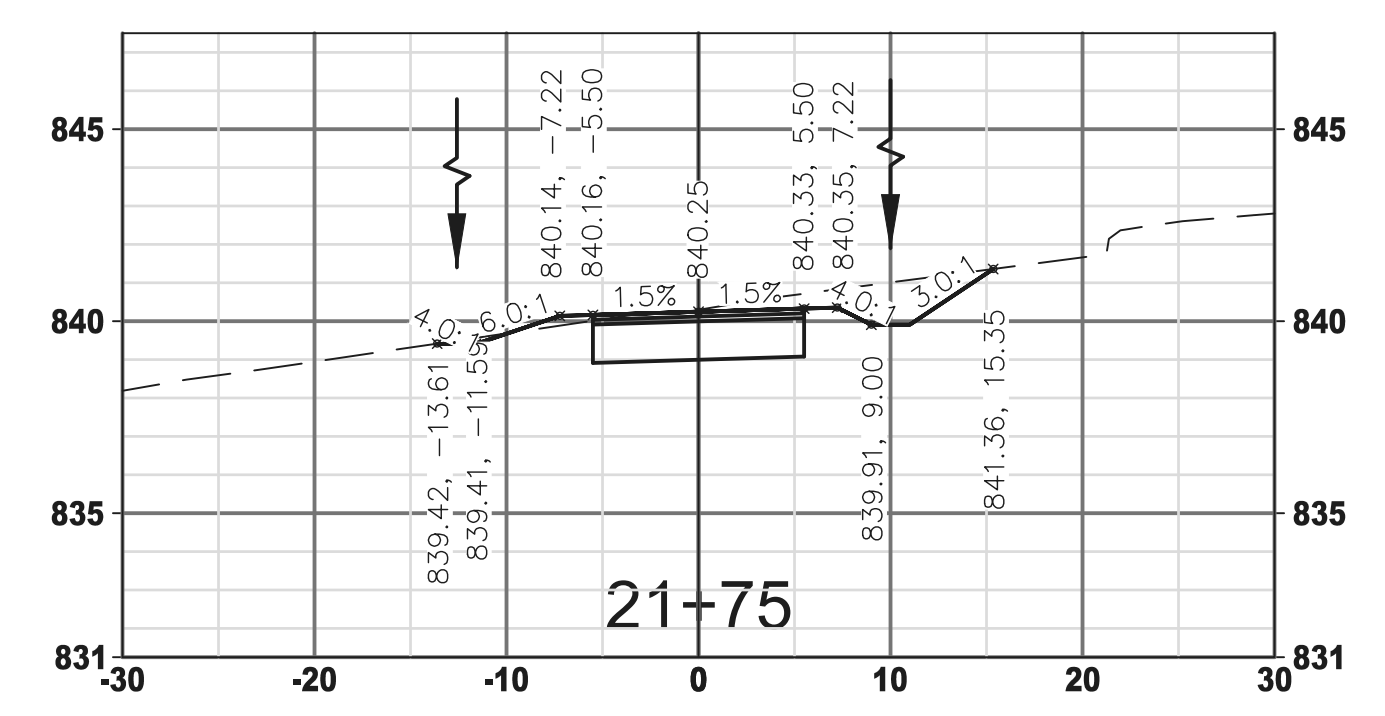
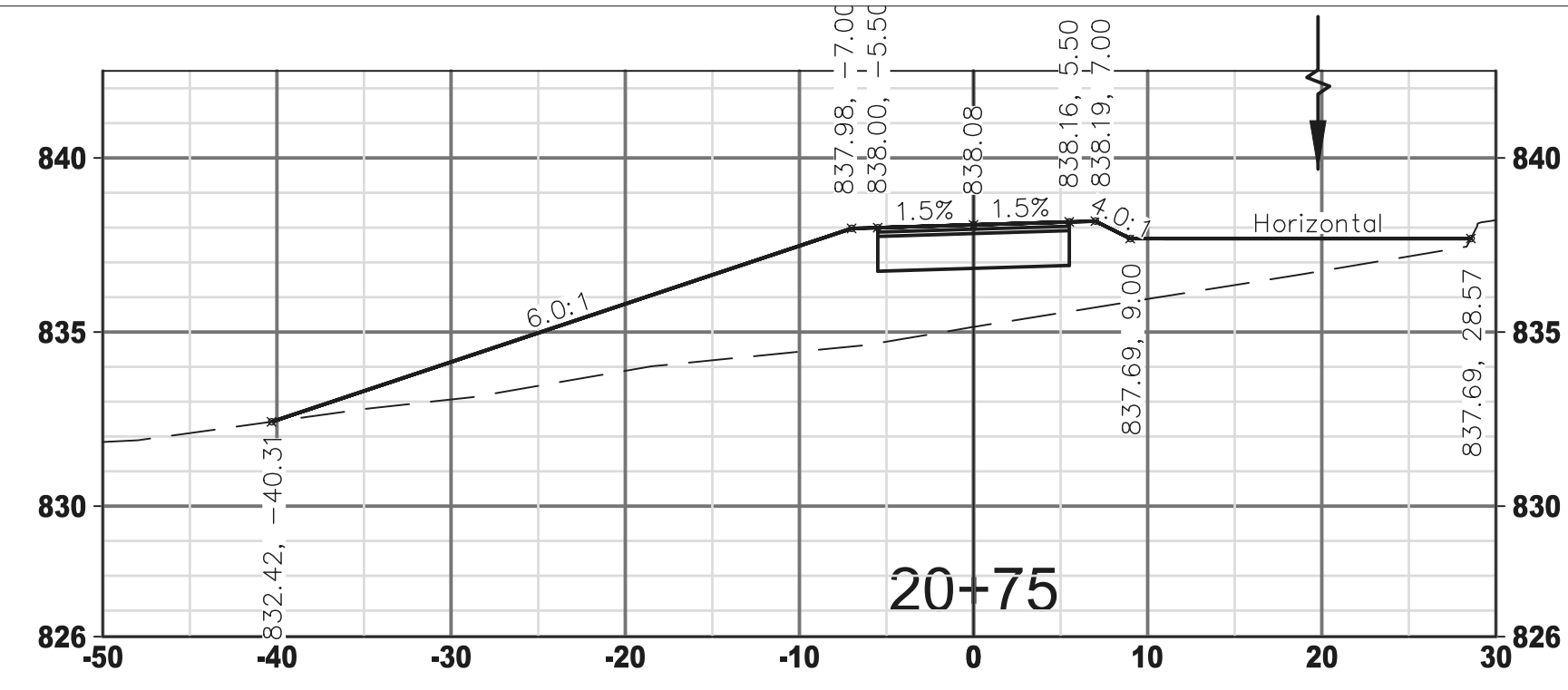


CURVE MIDPOINT

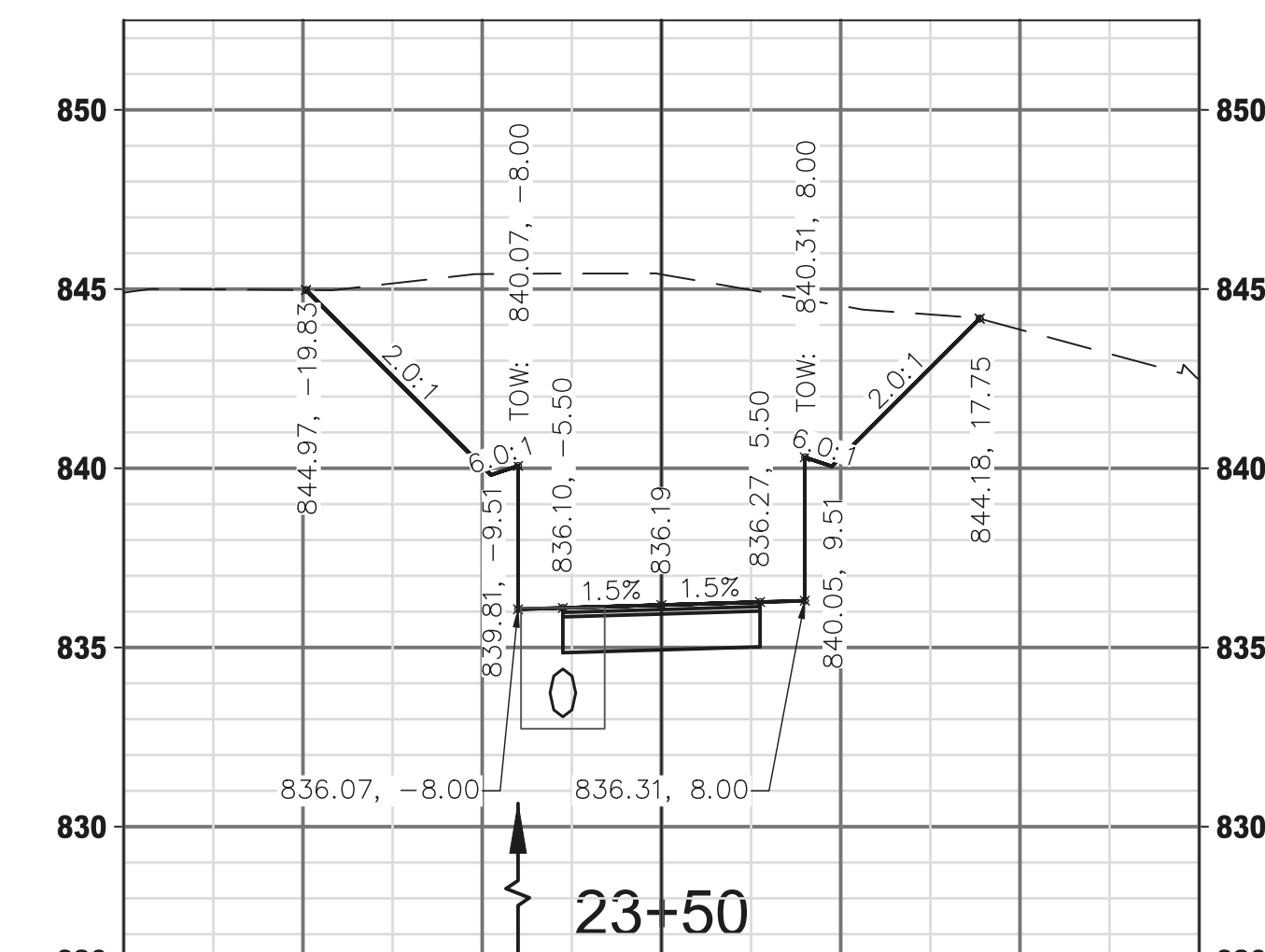
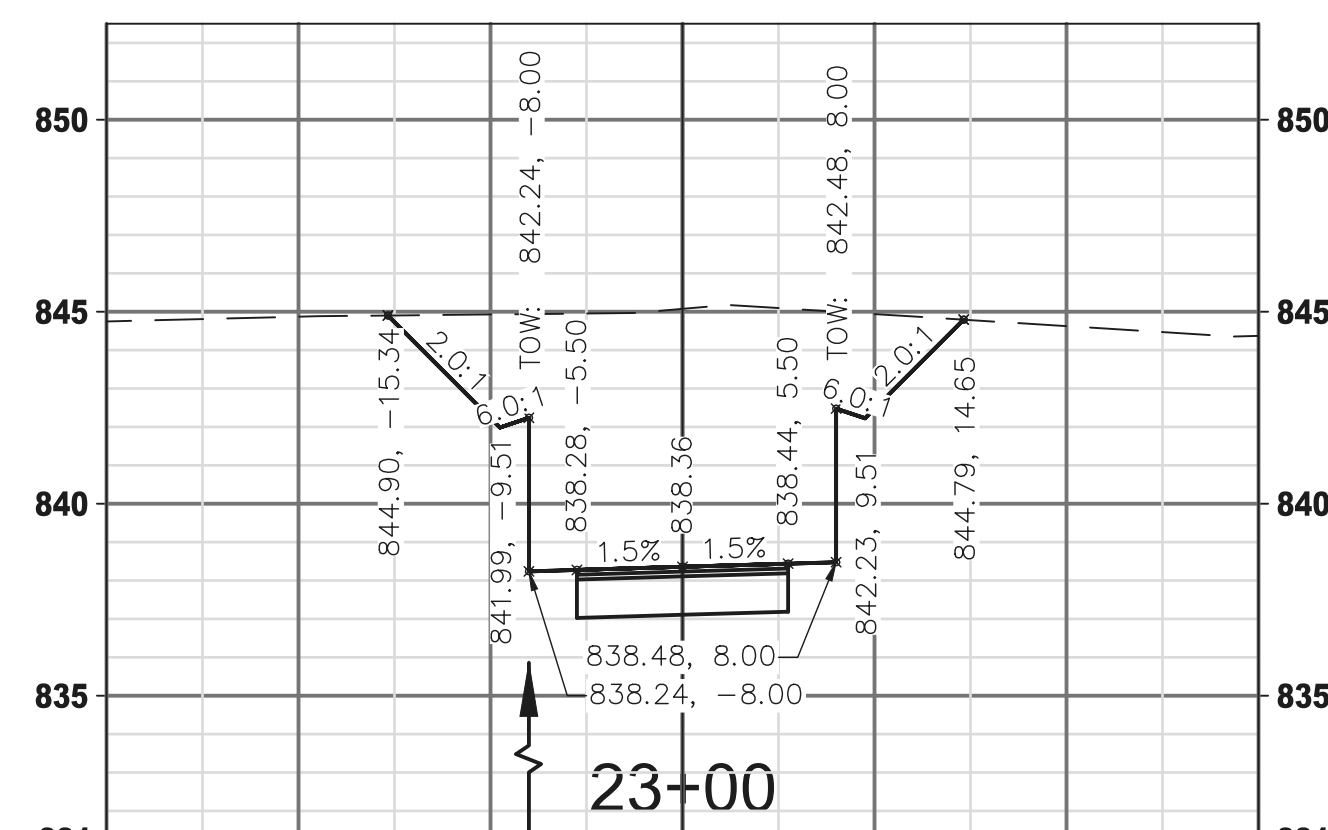
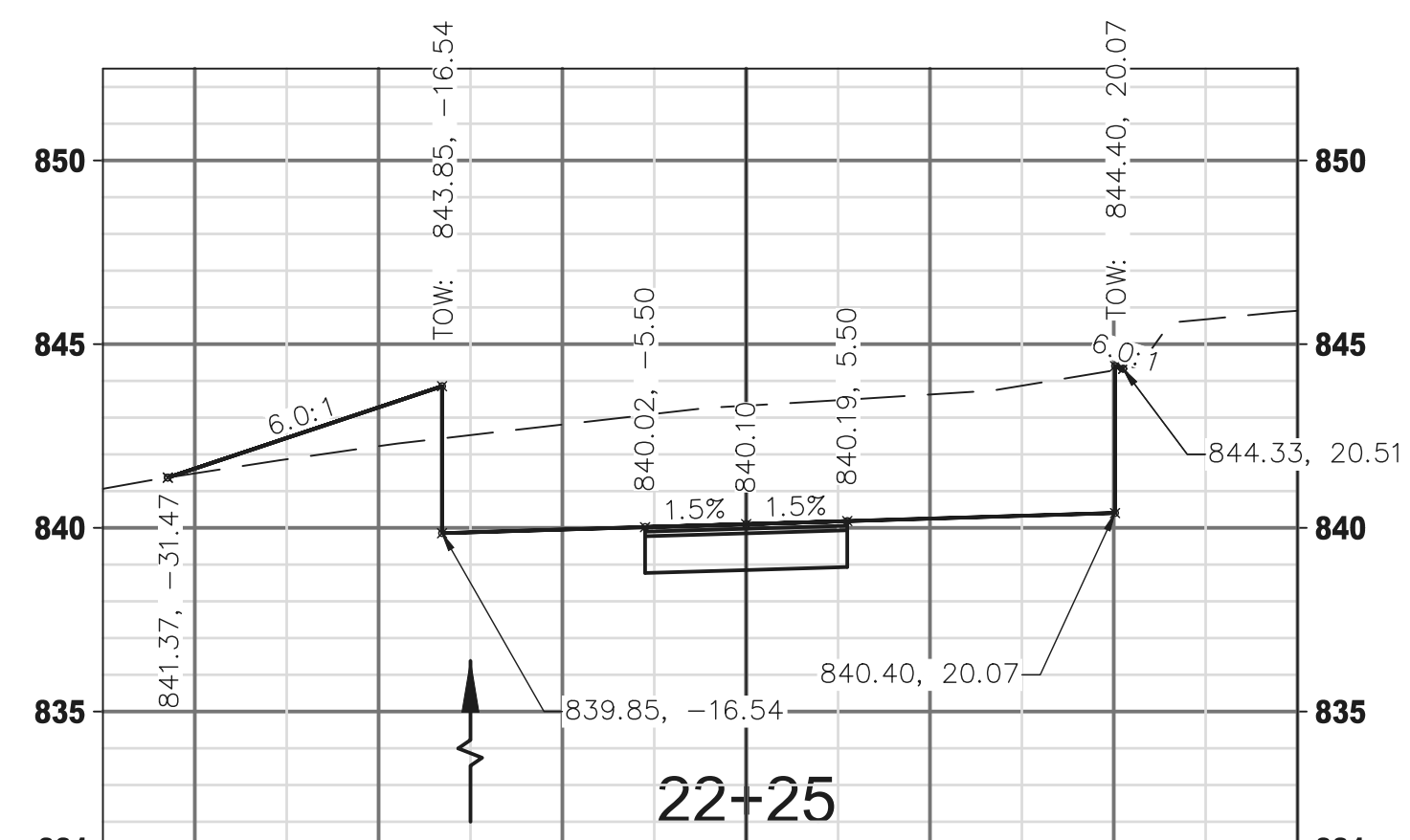
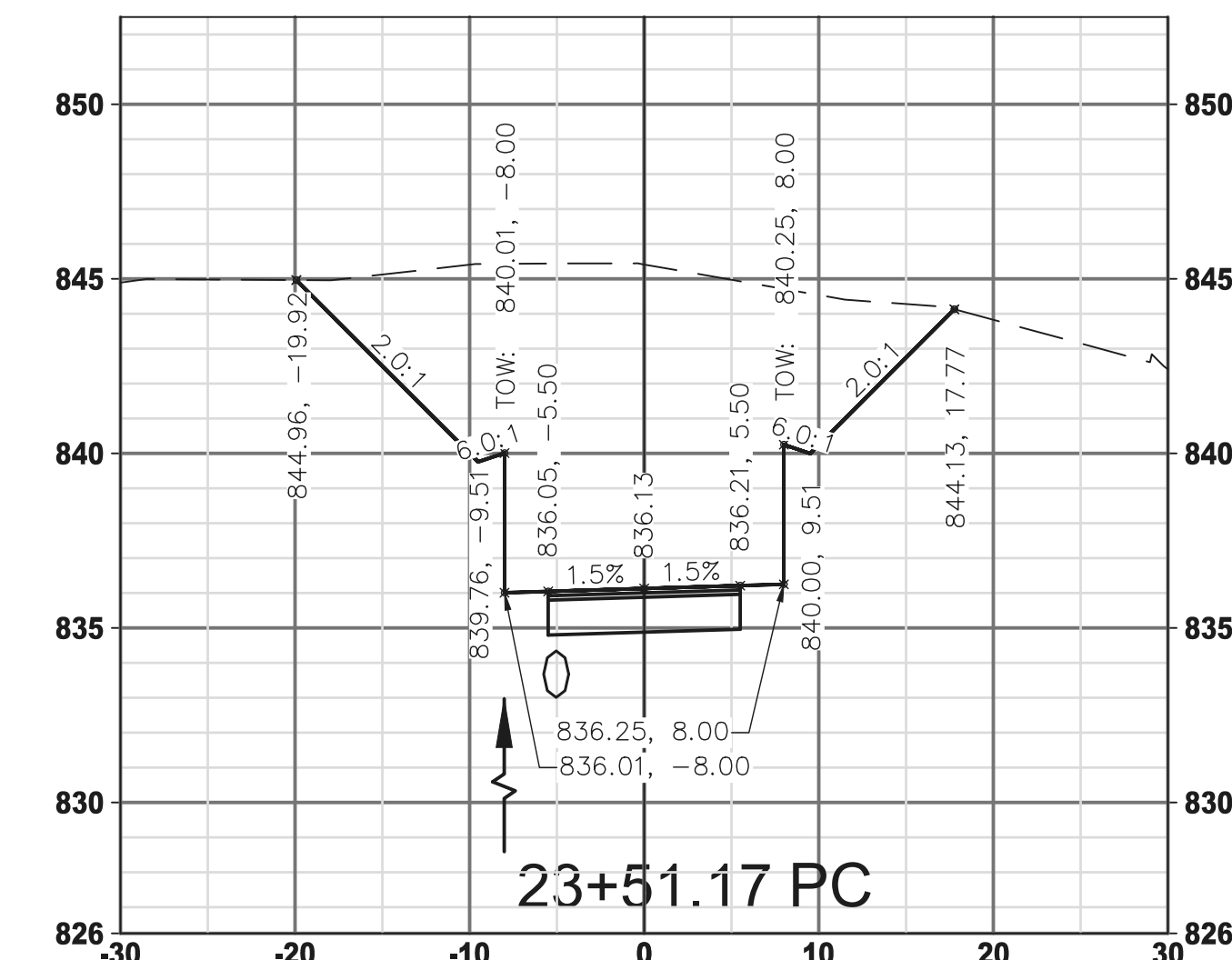
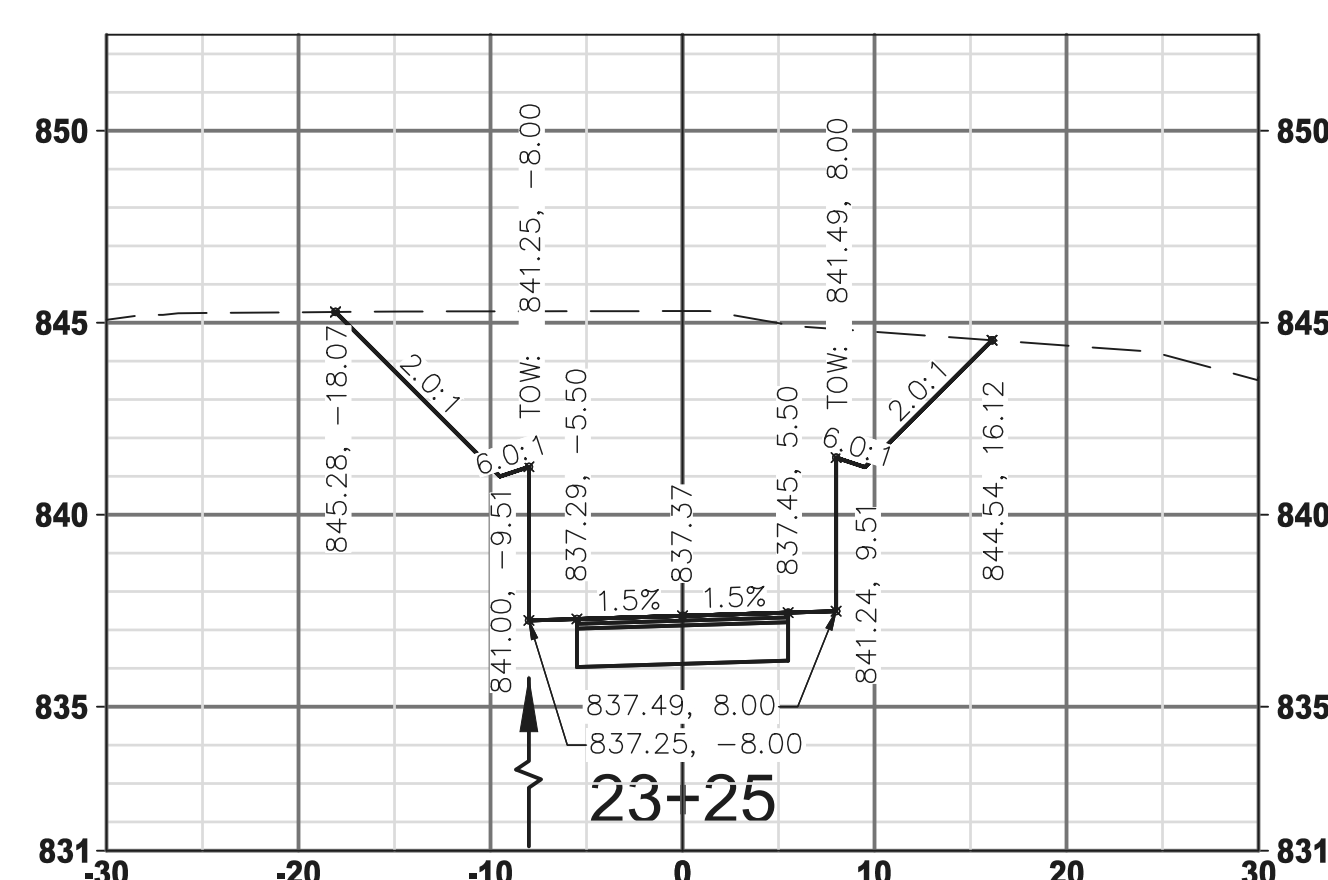
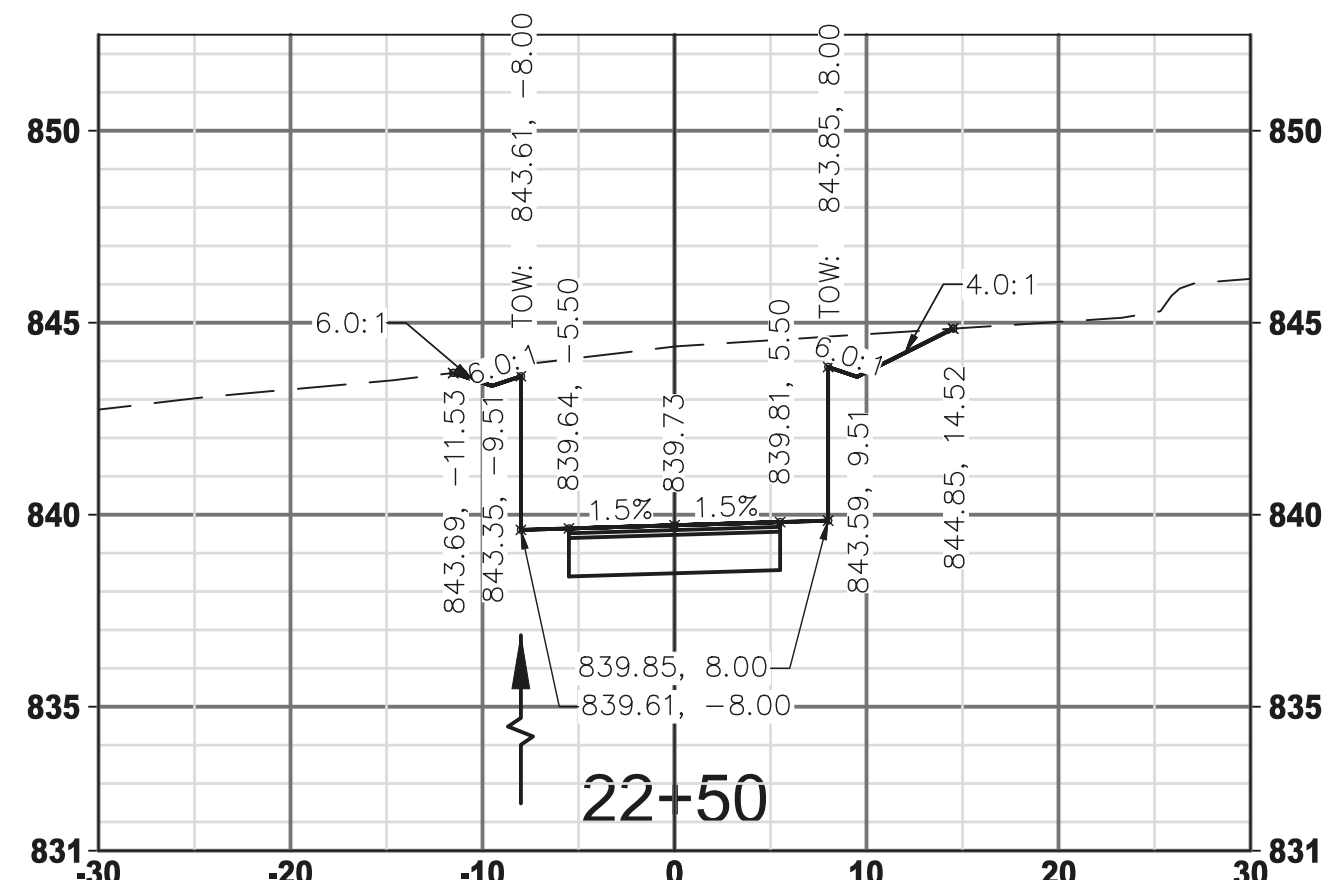
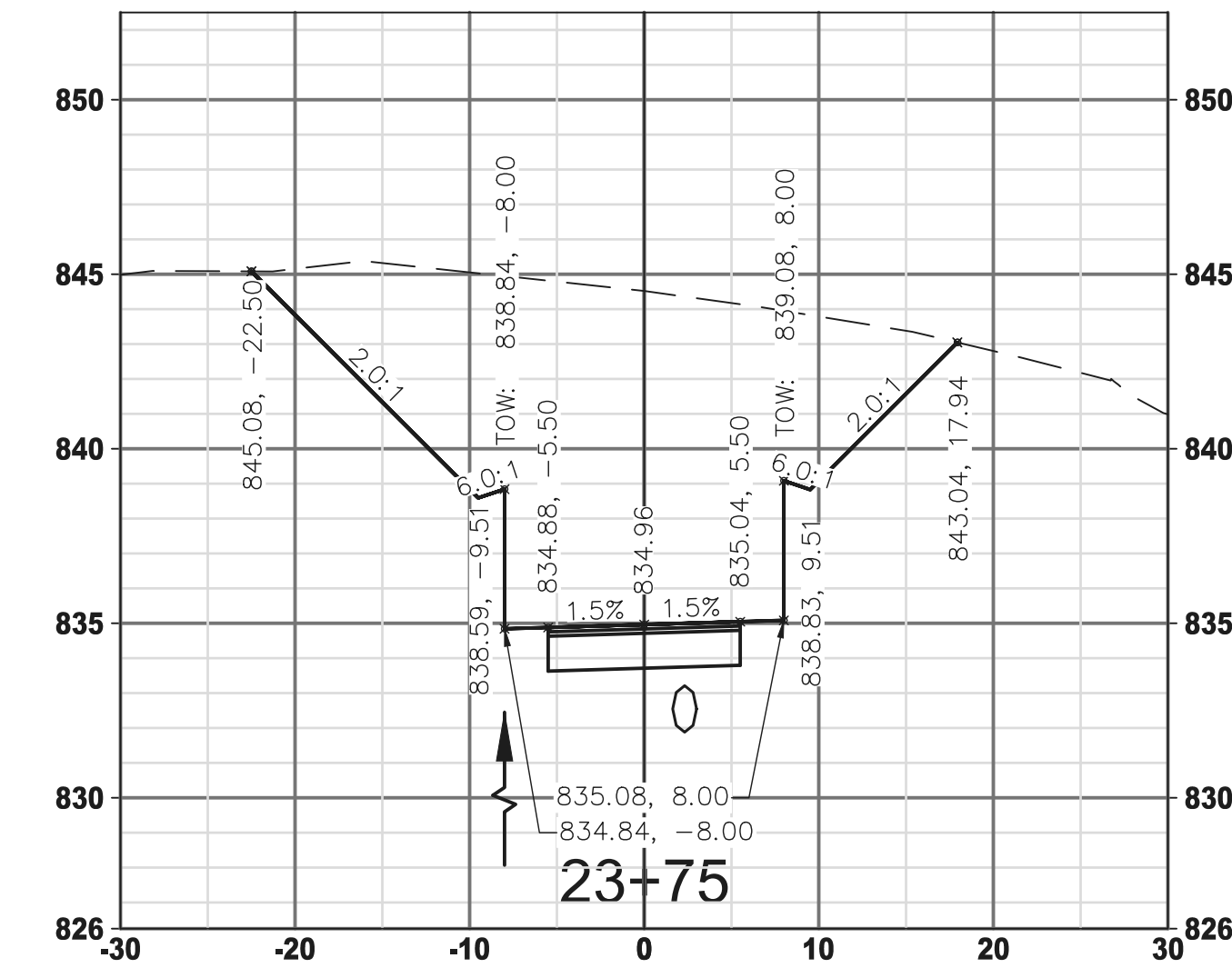
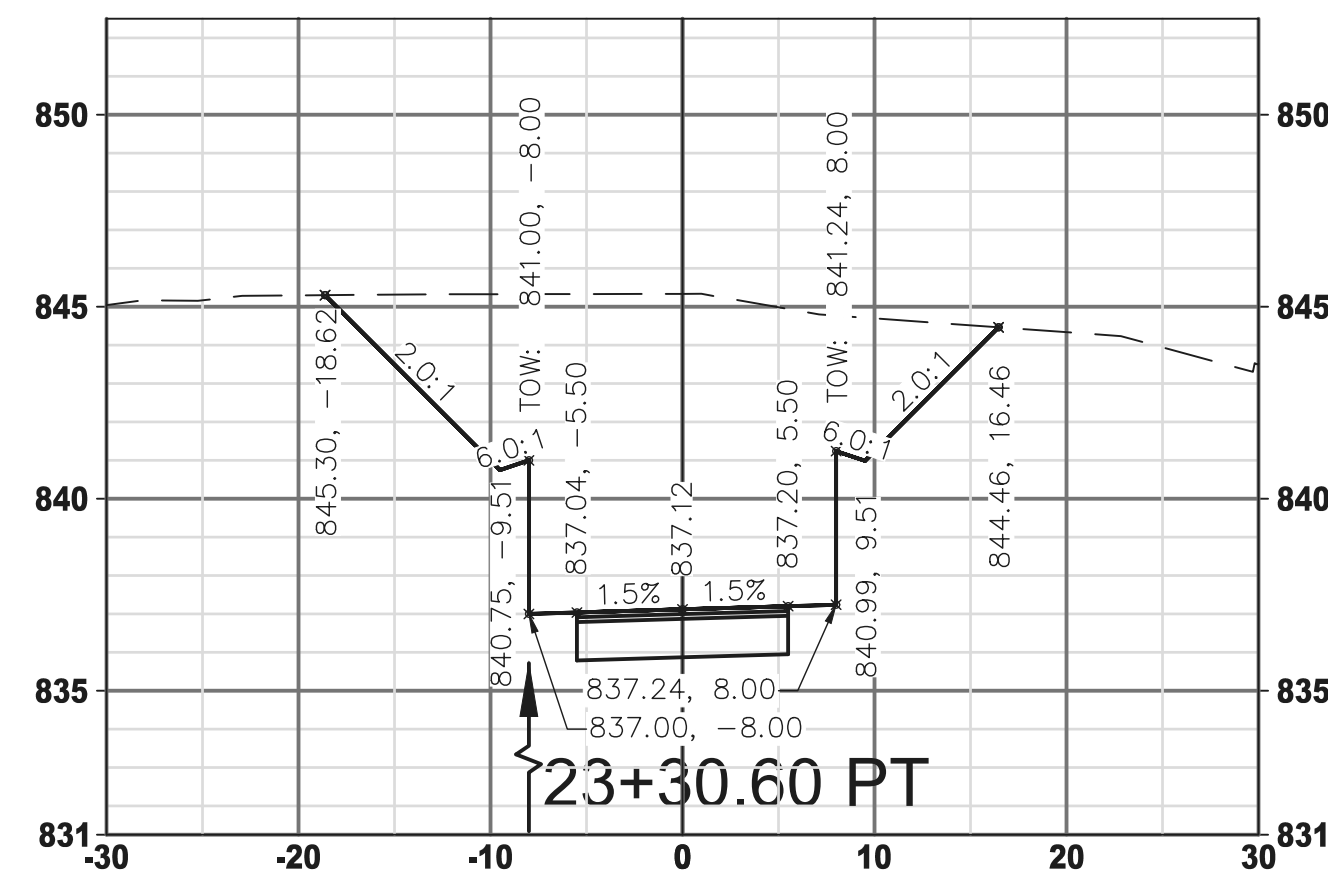
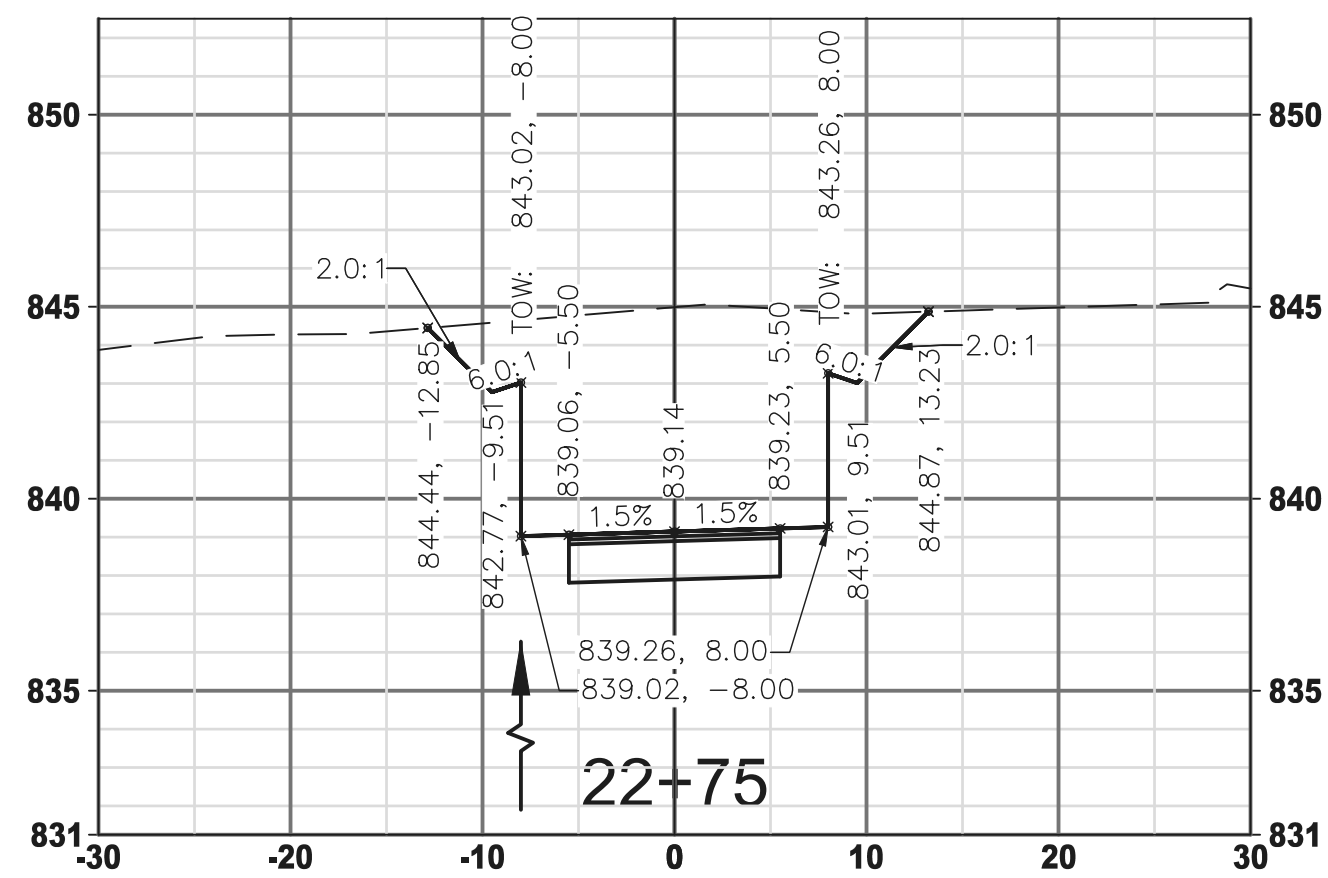








CURVE MIDPOINT



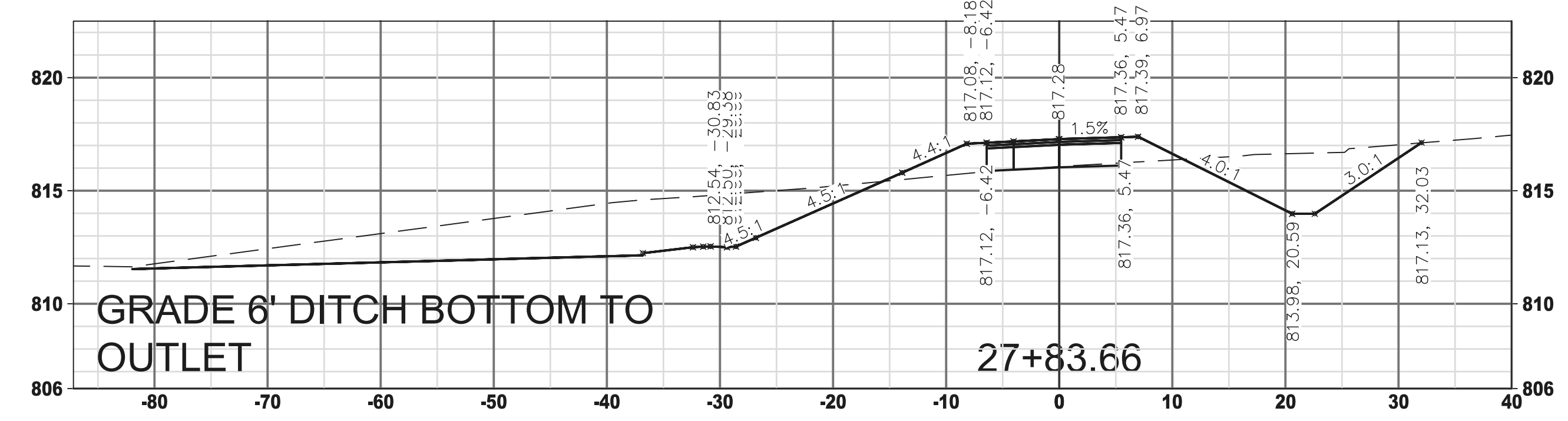
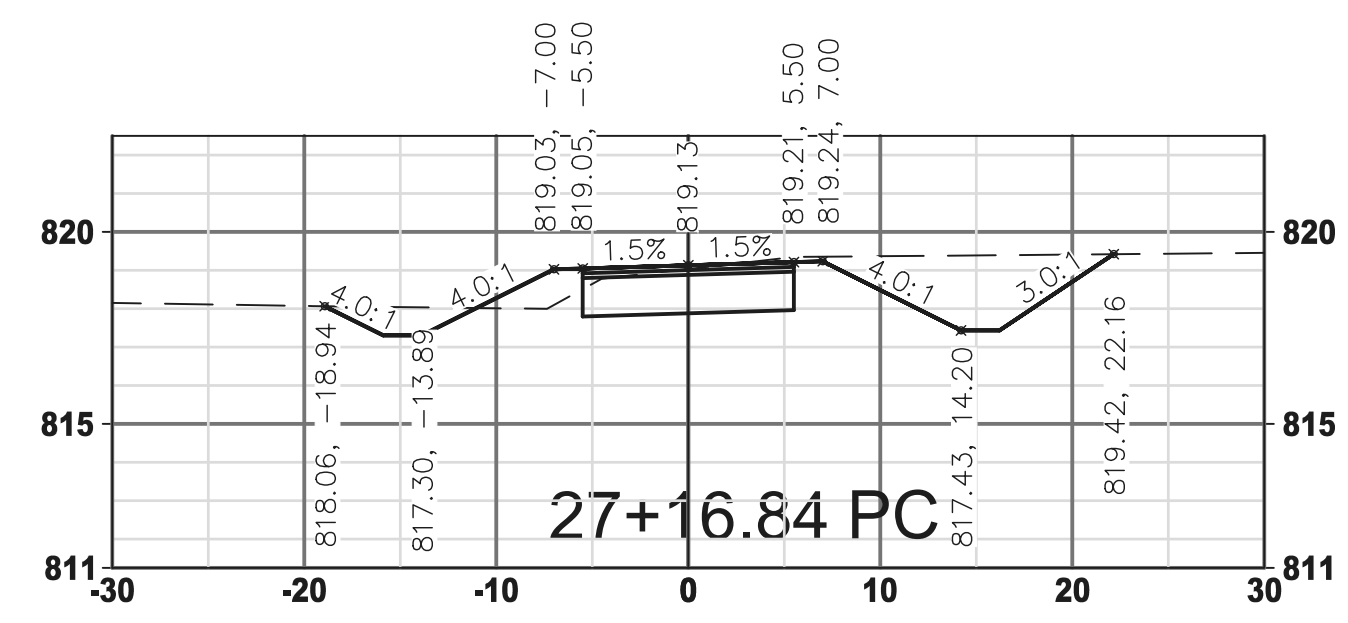
NOTE: TOW = TOP OF WALL

NOTE: TOW = TOP OF WALL

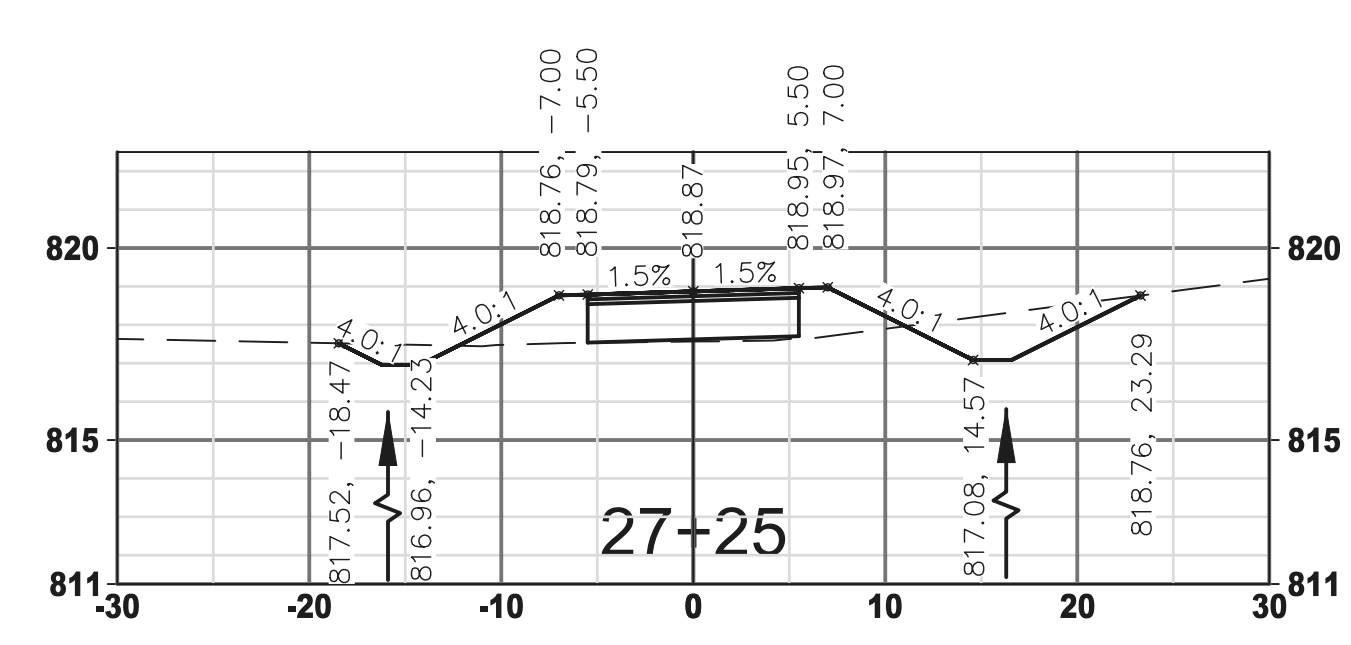
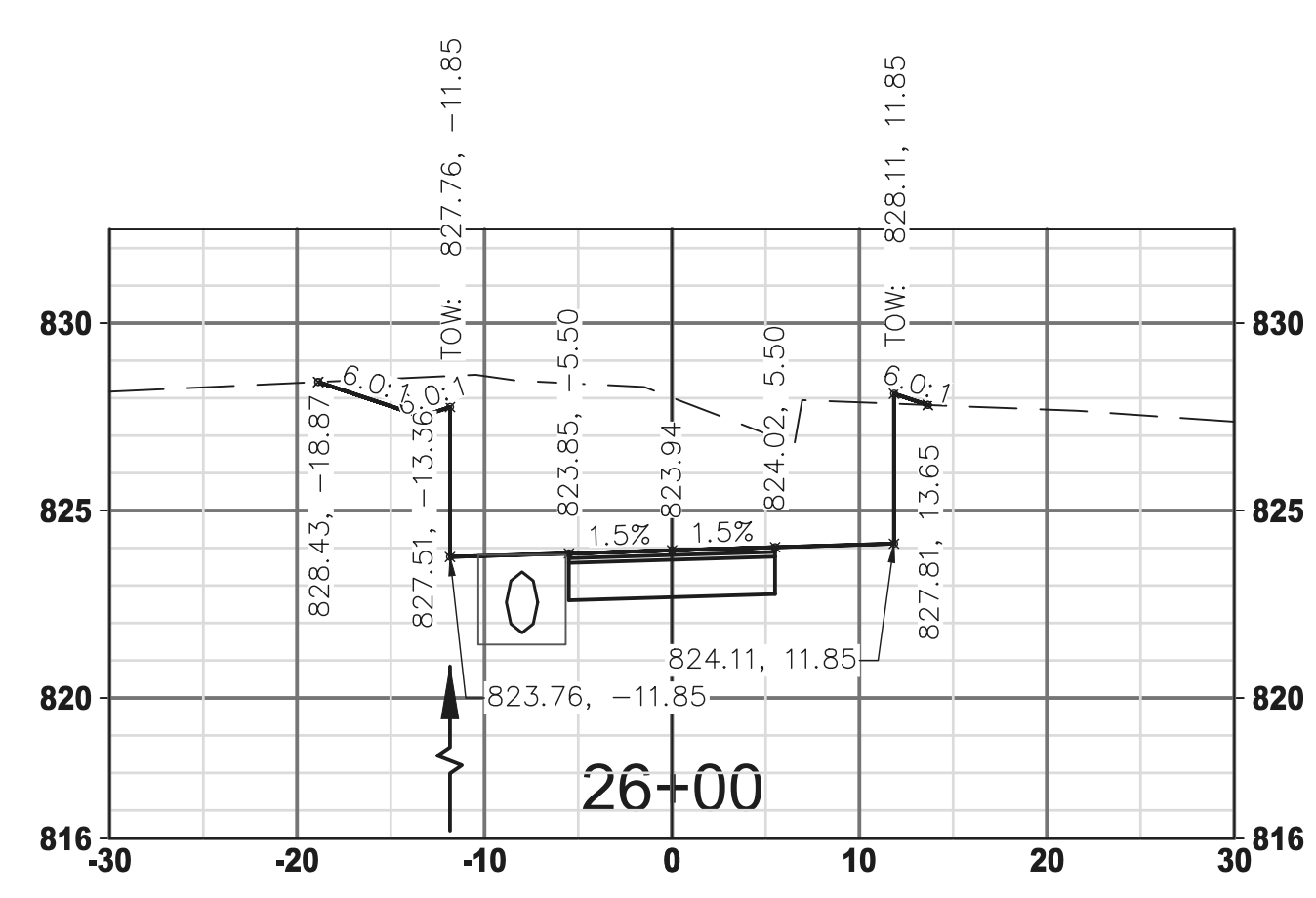
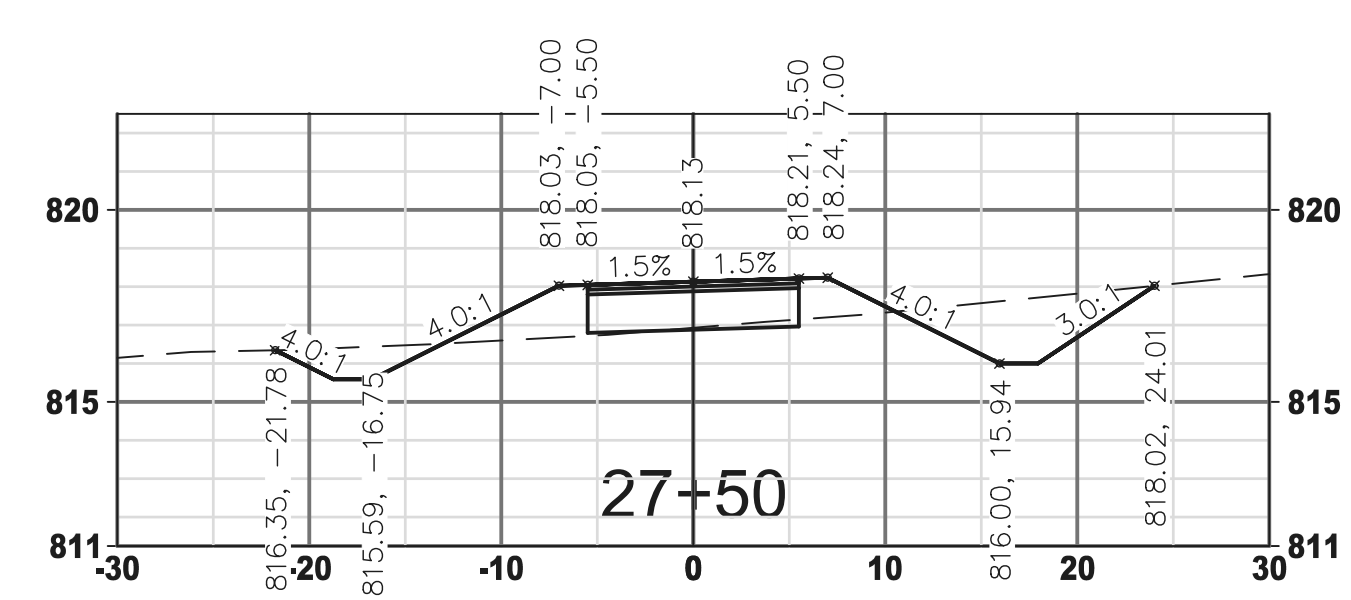
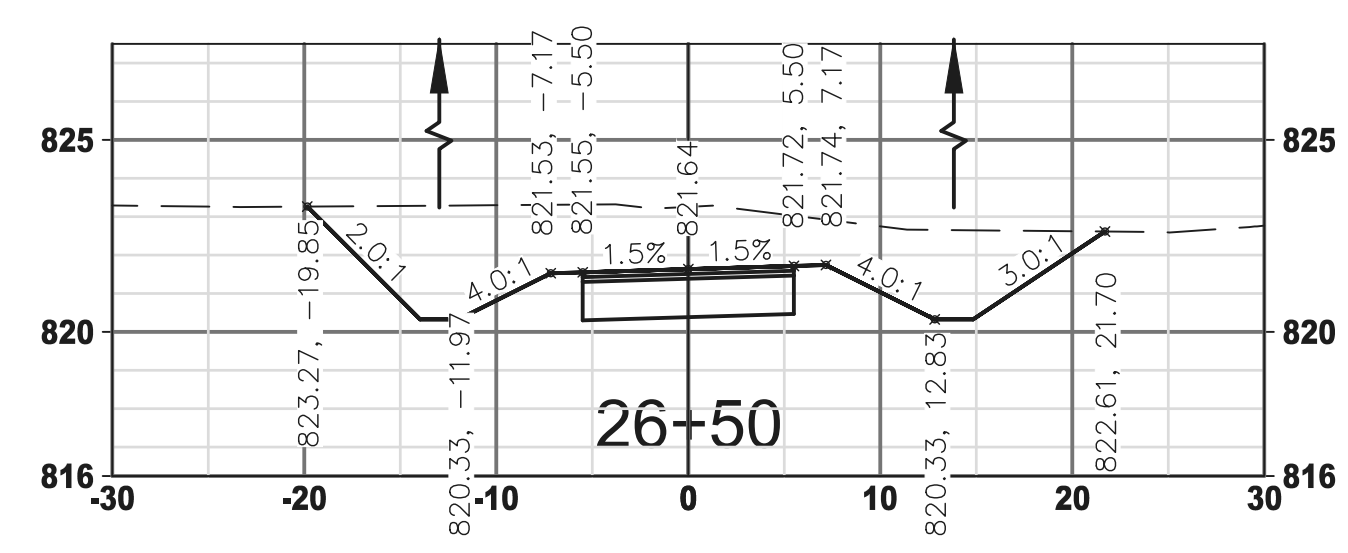
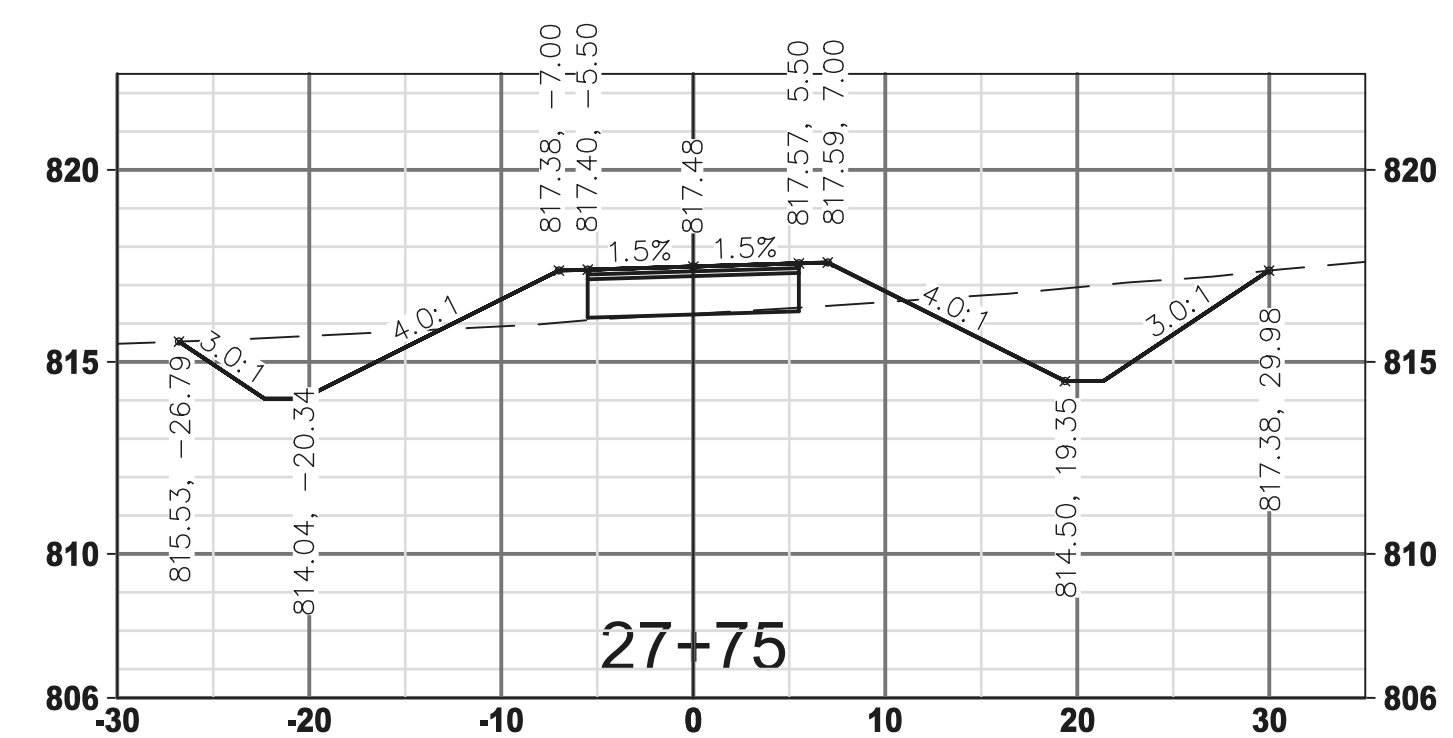
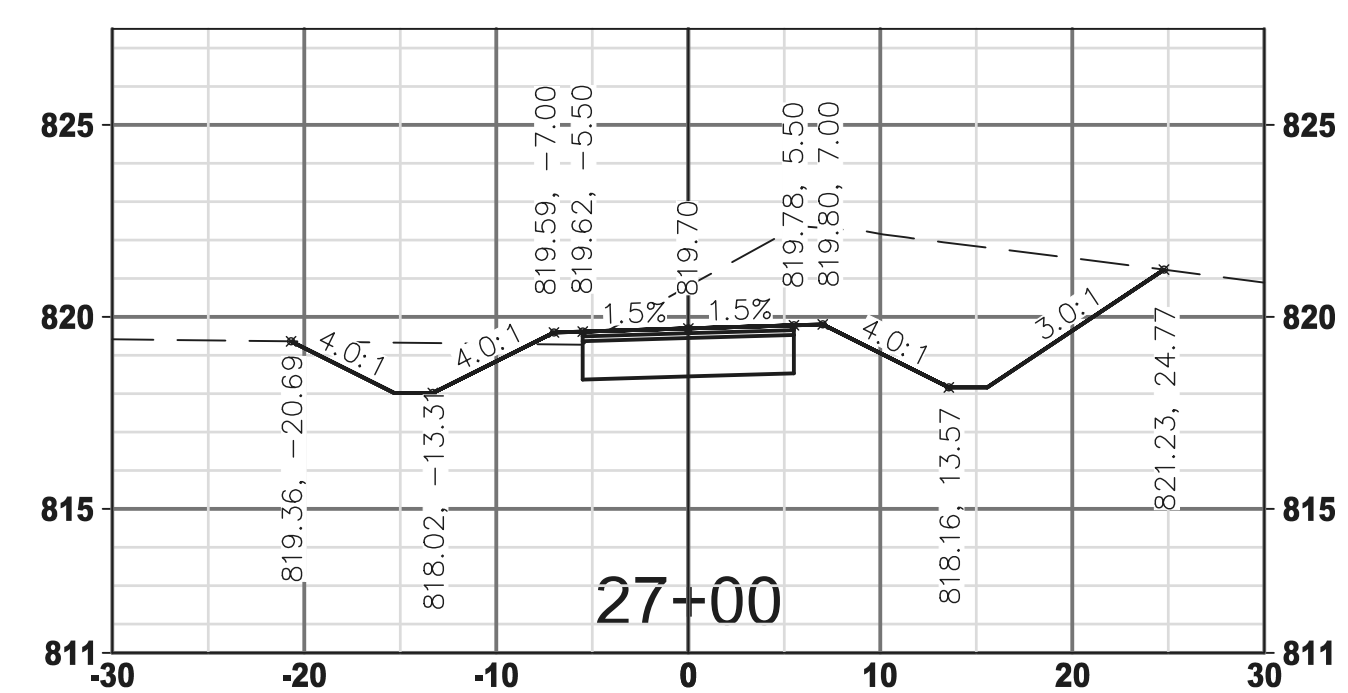
NOTE: TOW = TOP OF WALL



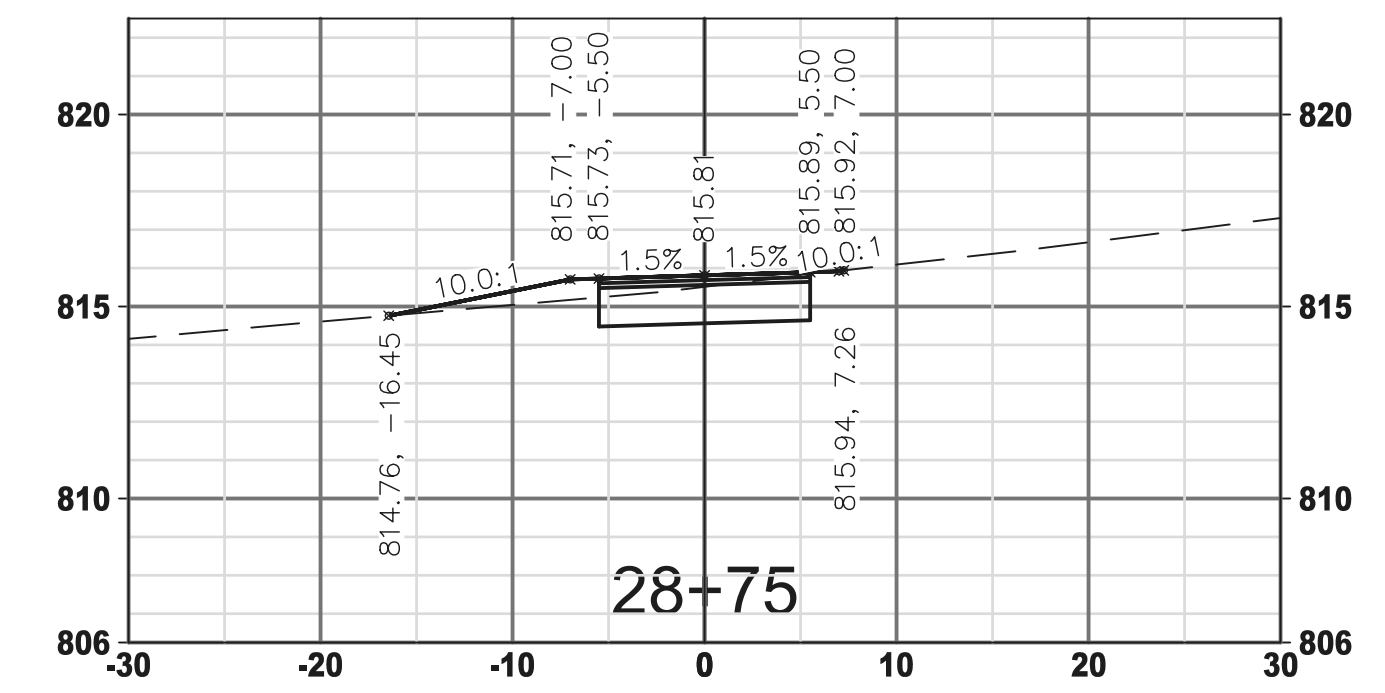




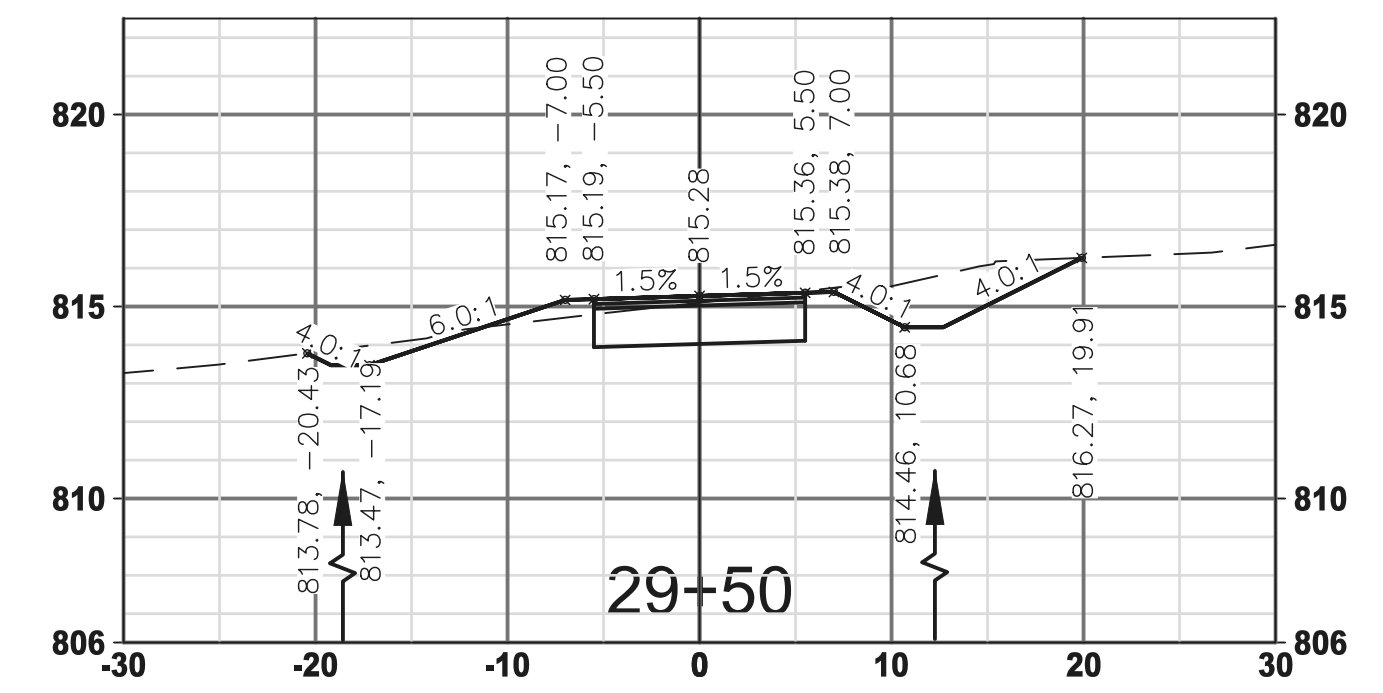
LEFT HALF OF X-SEC SKEWED TO MATCH DITCH OUTLET



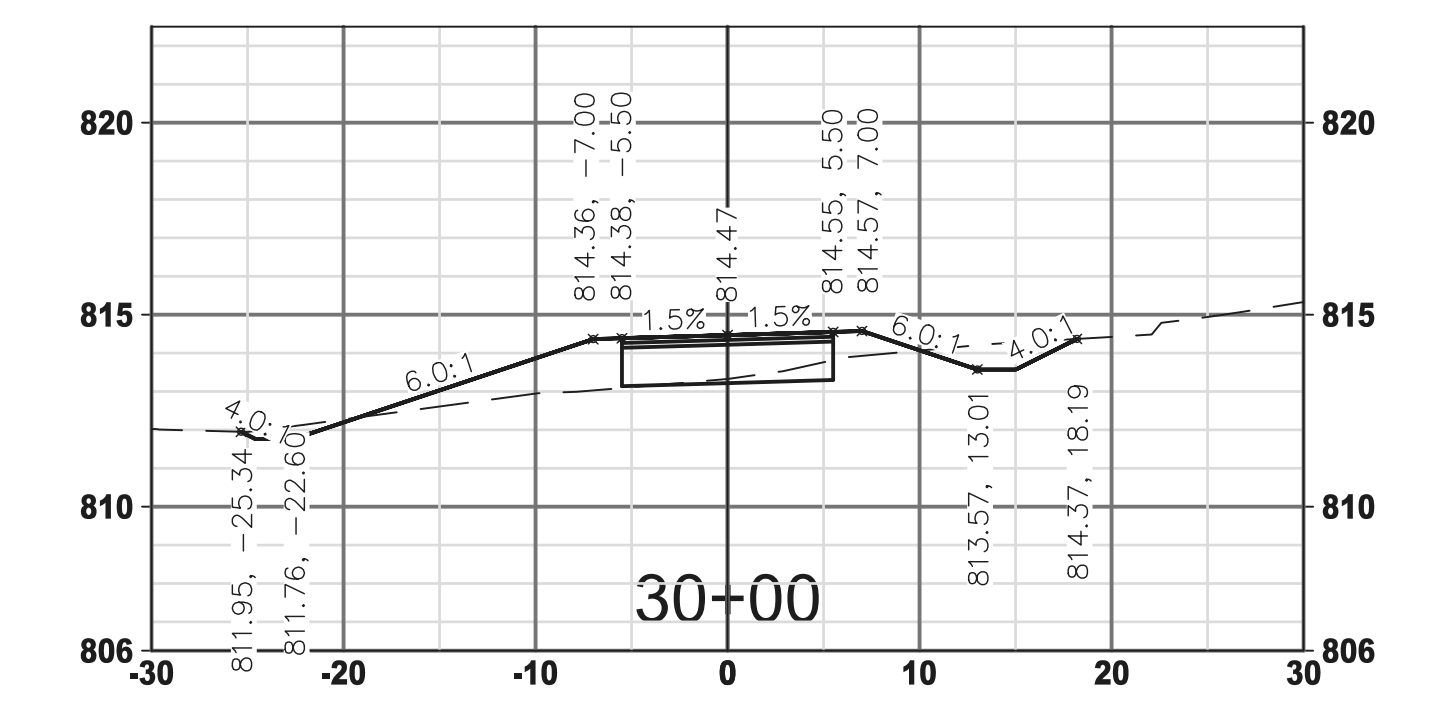
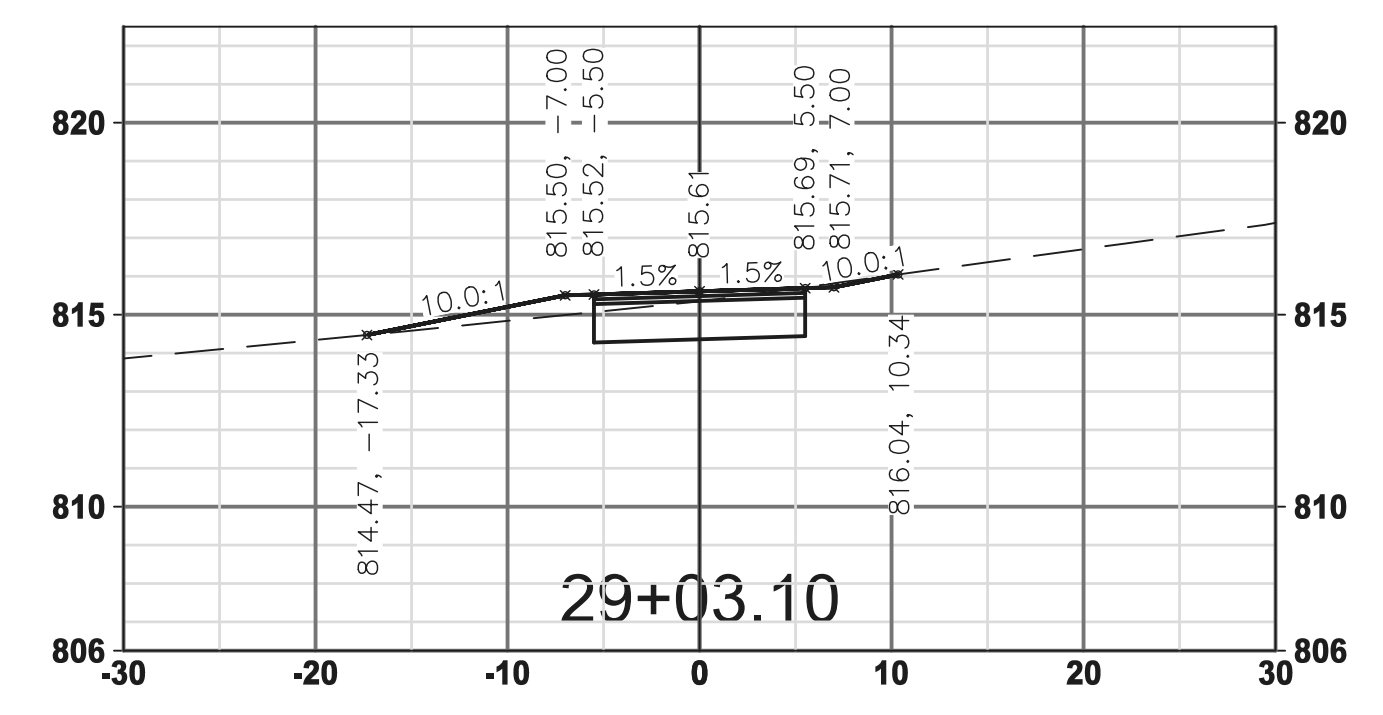
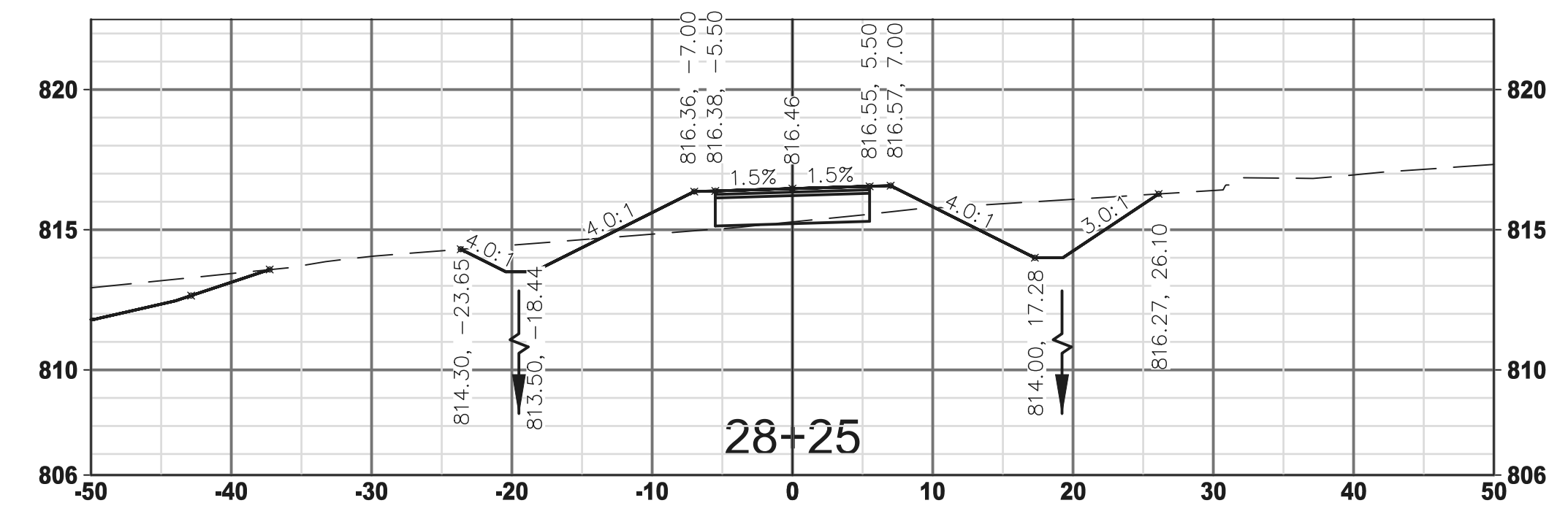
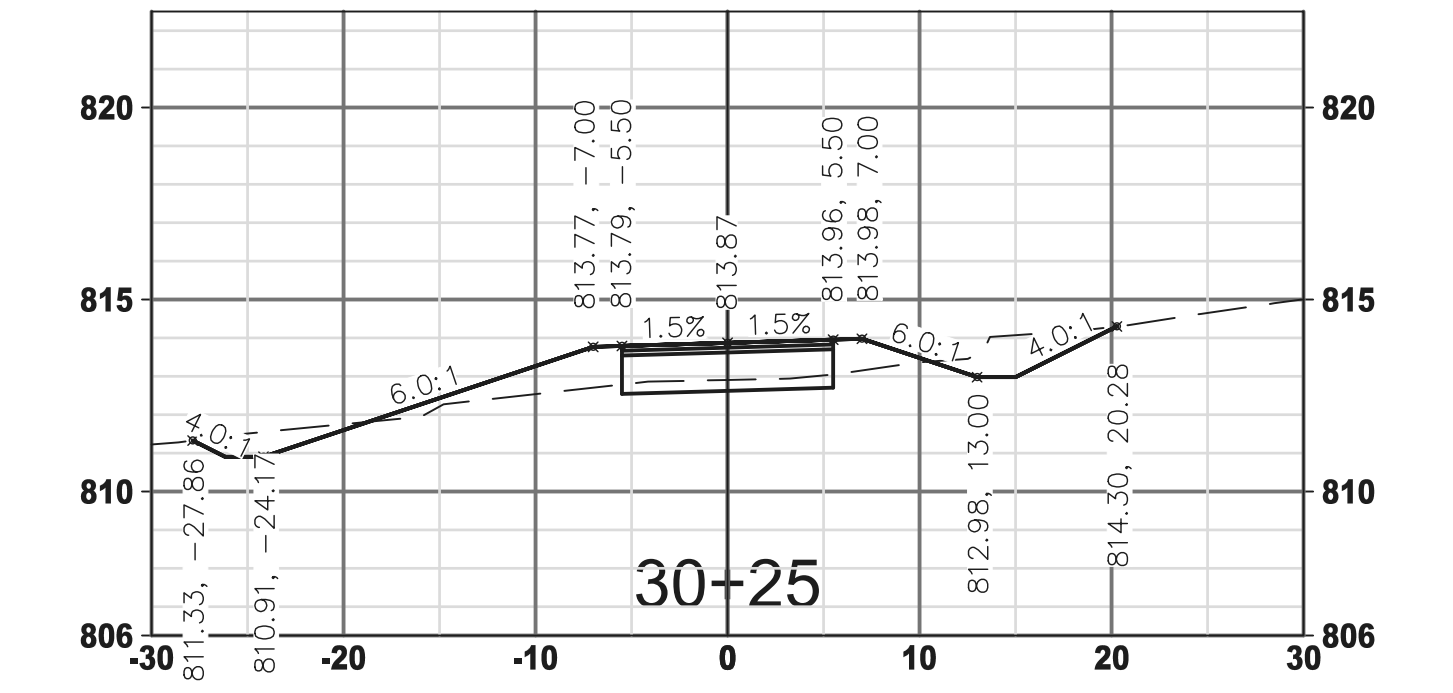
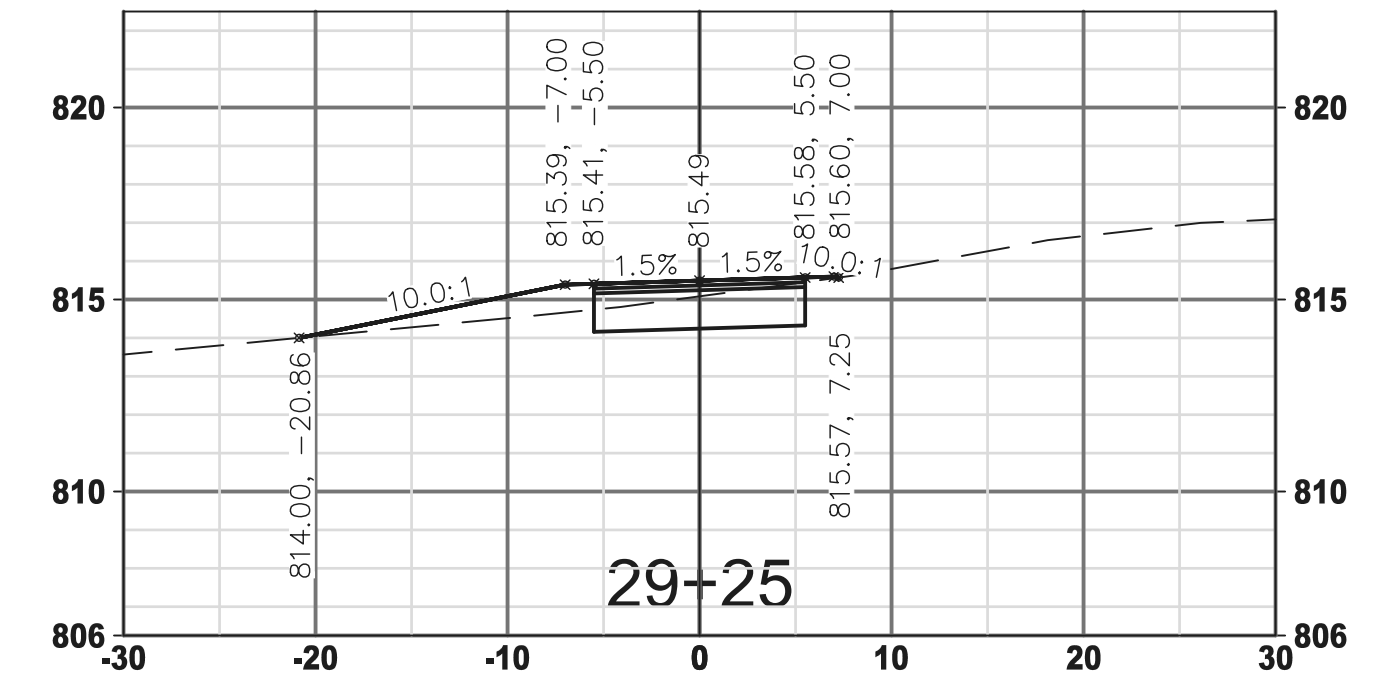
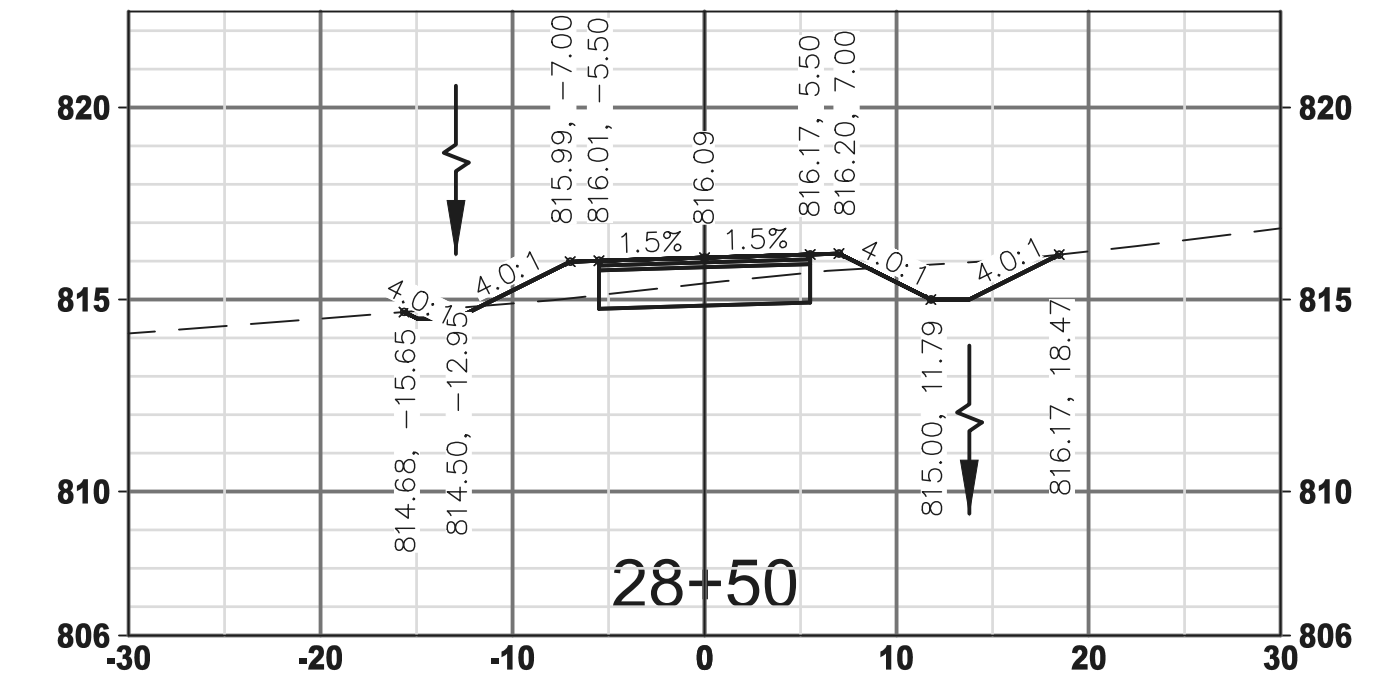
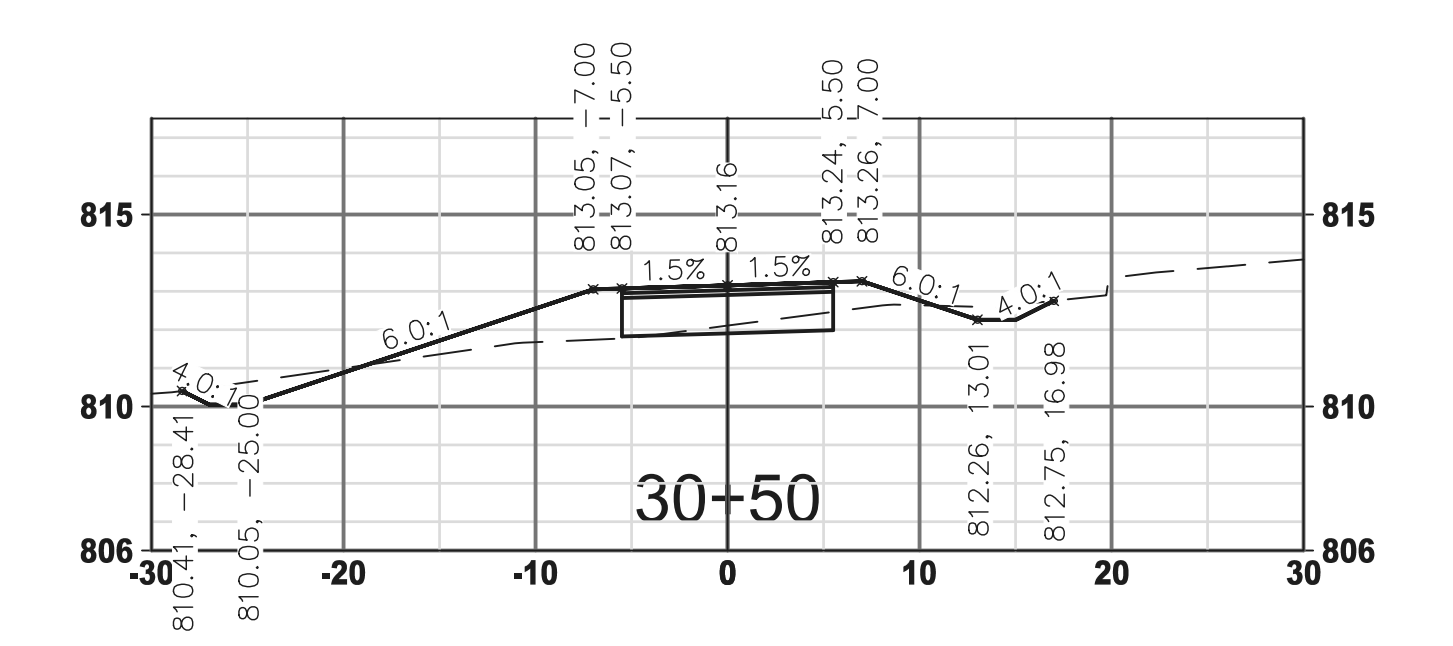




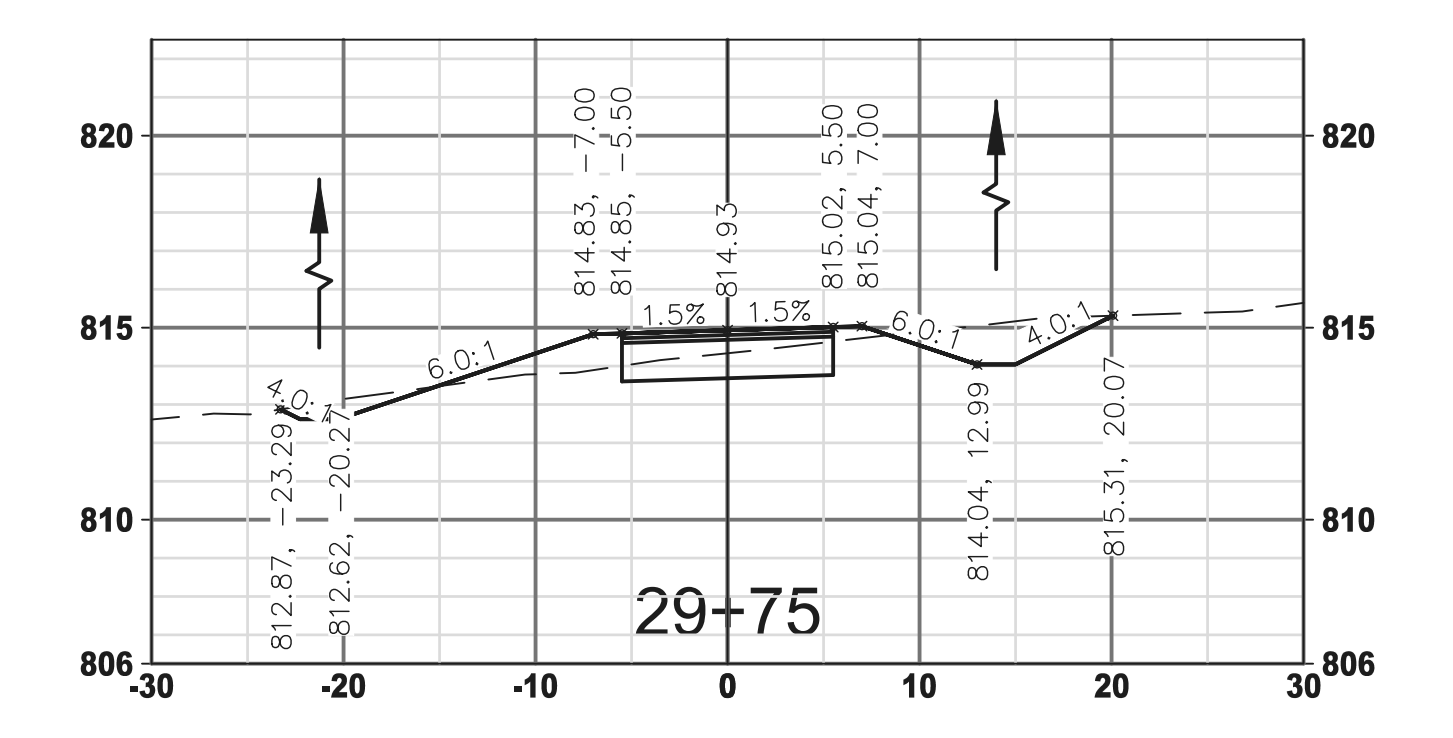
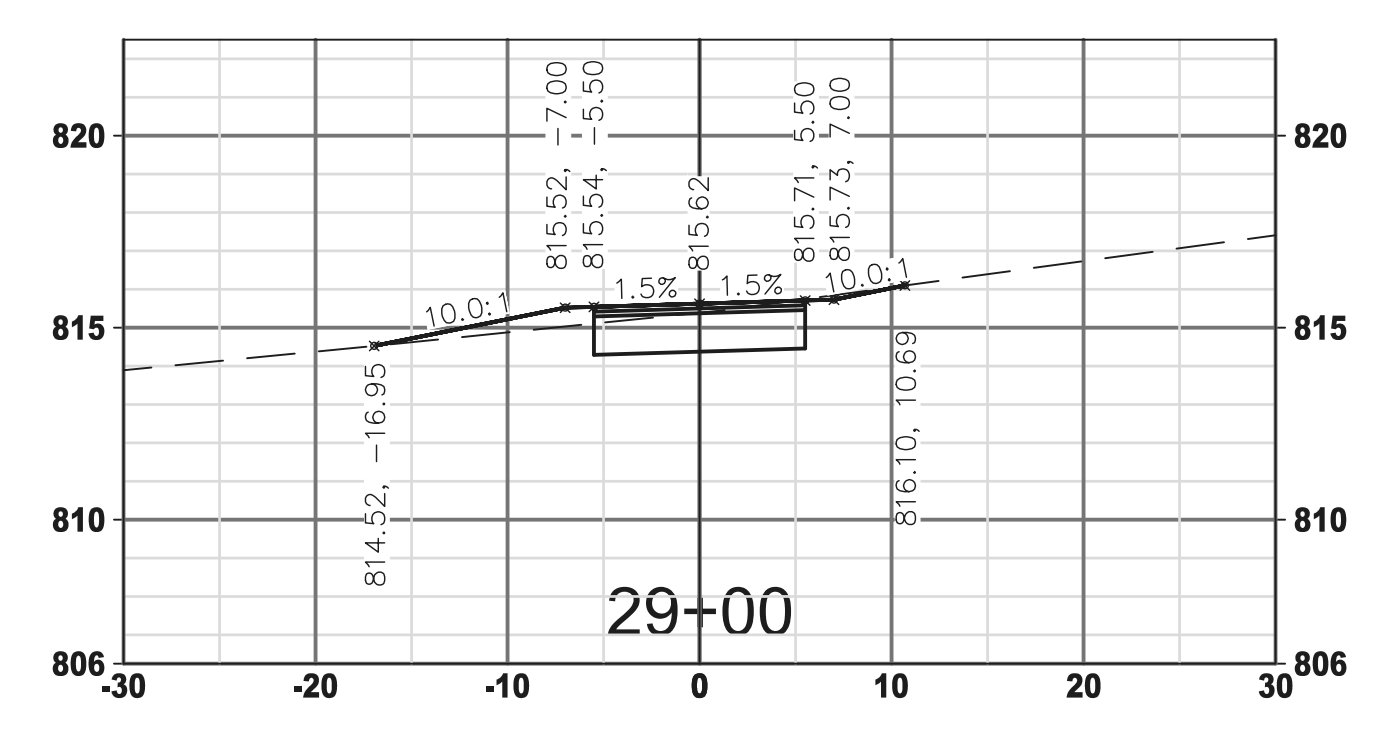
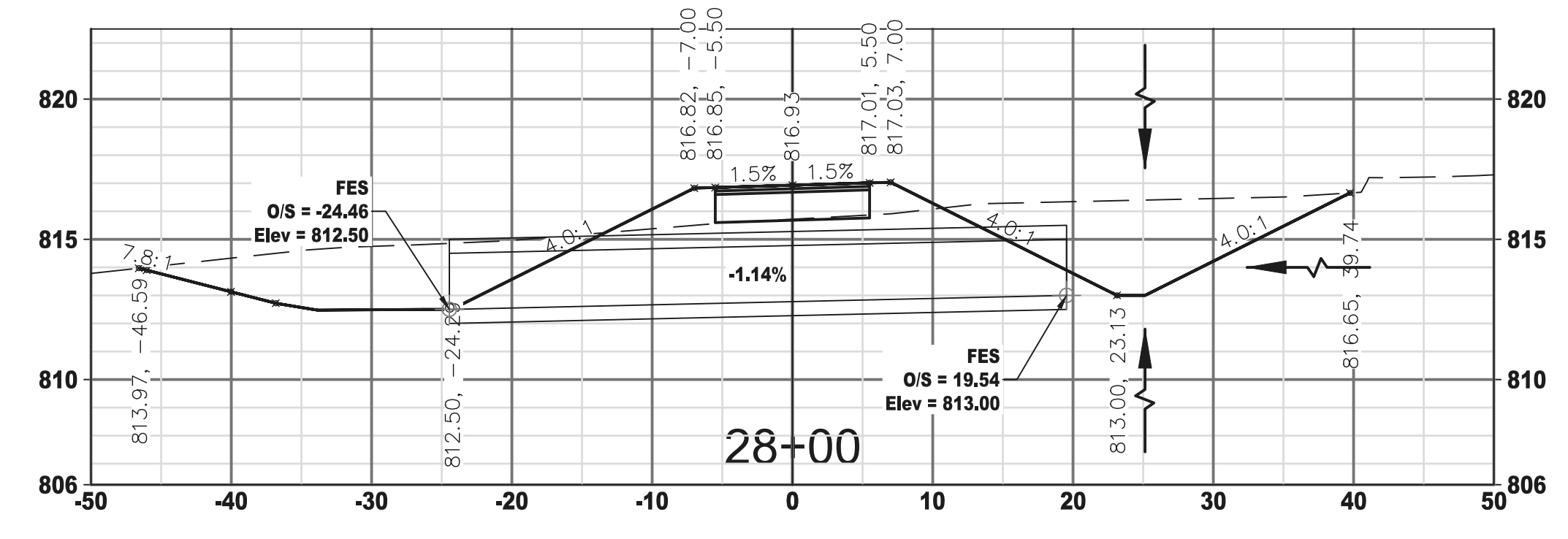
COMED ROW BEGINS AT  
STA 28+51.29 (+/-)

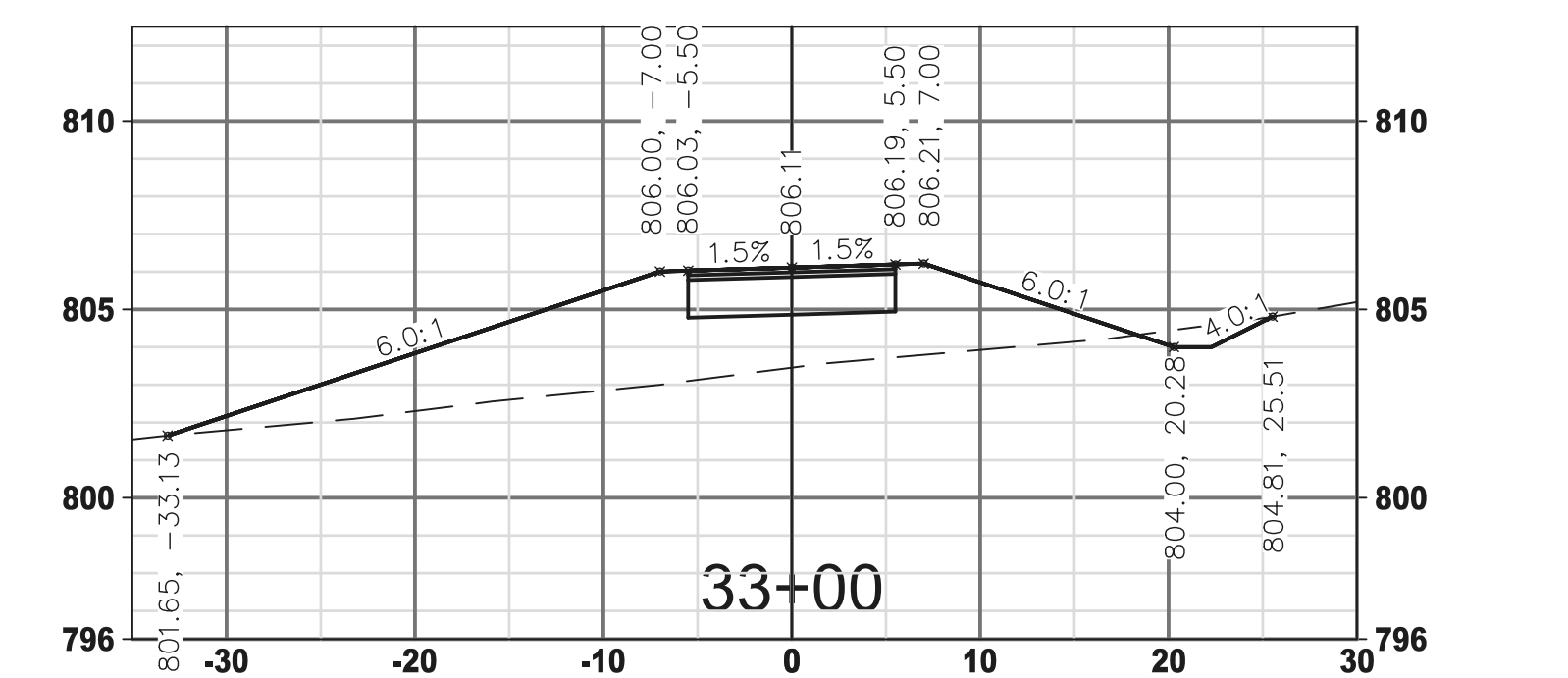
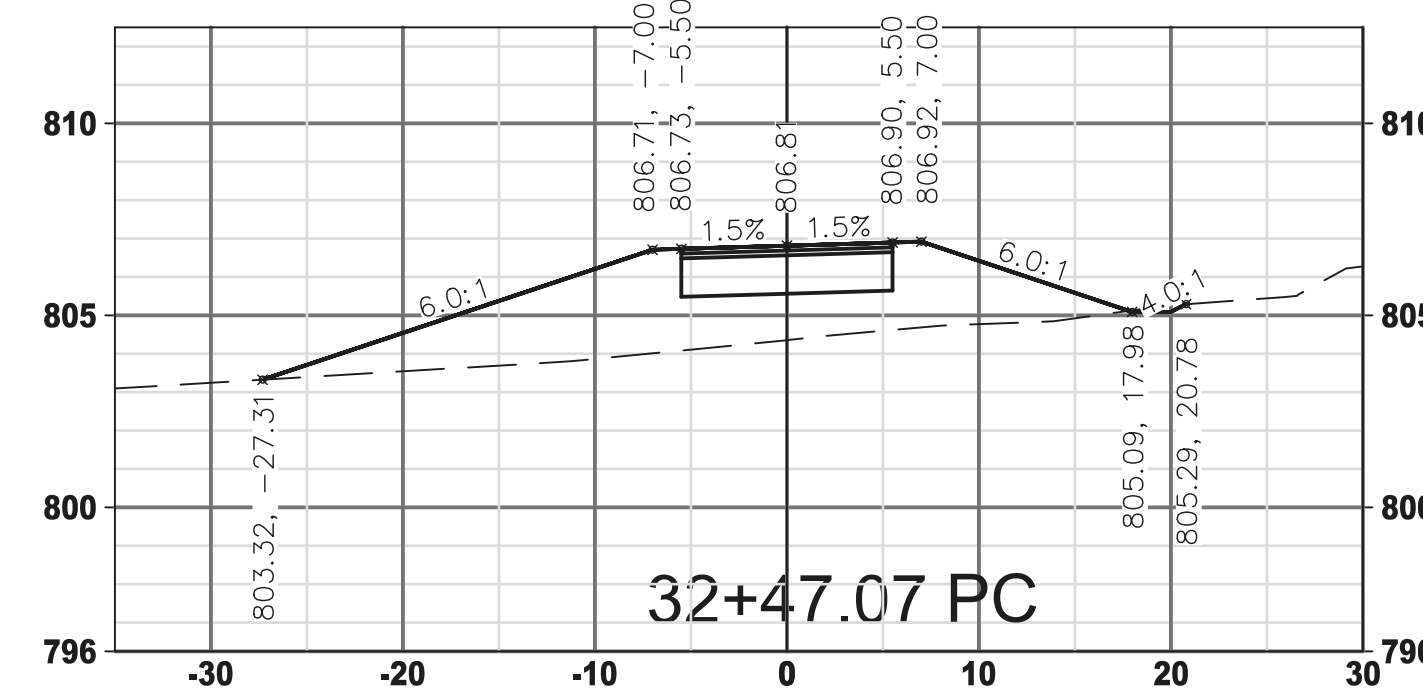
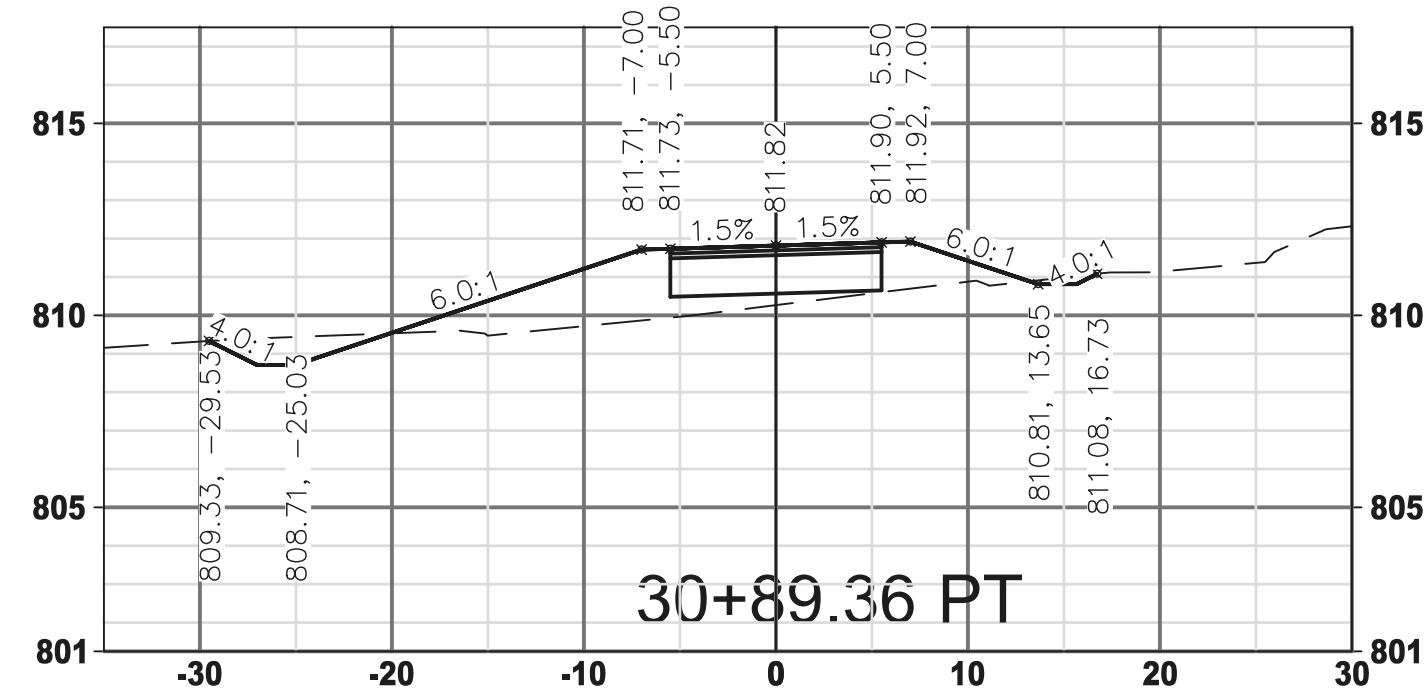
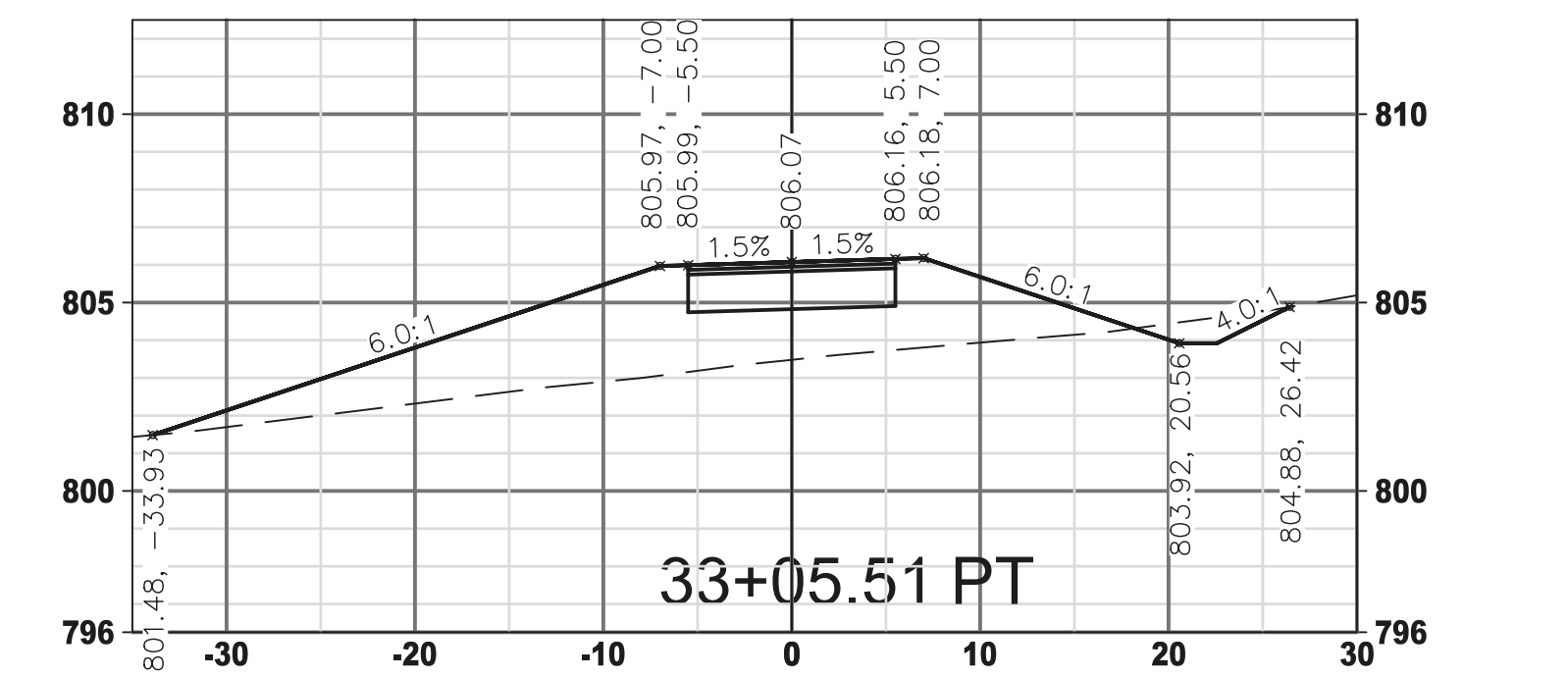
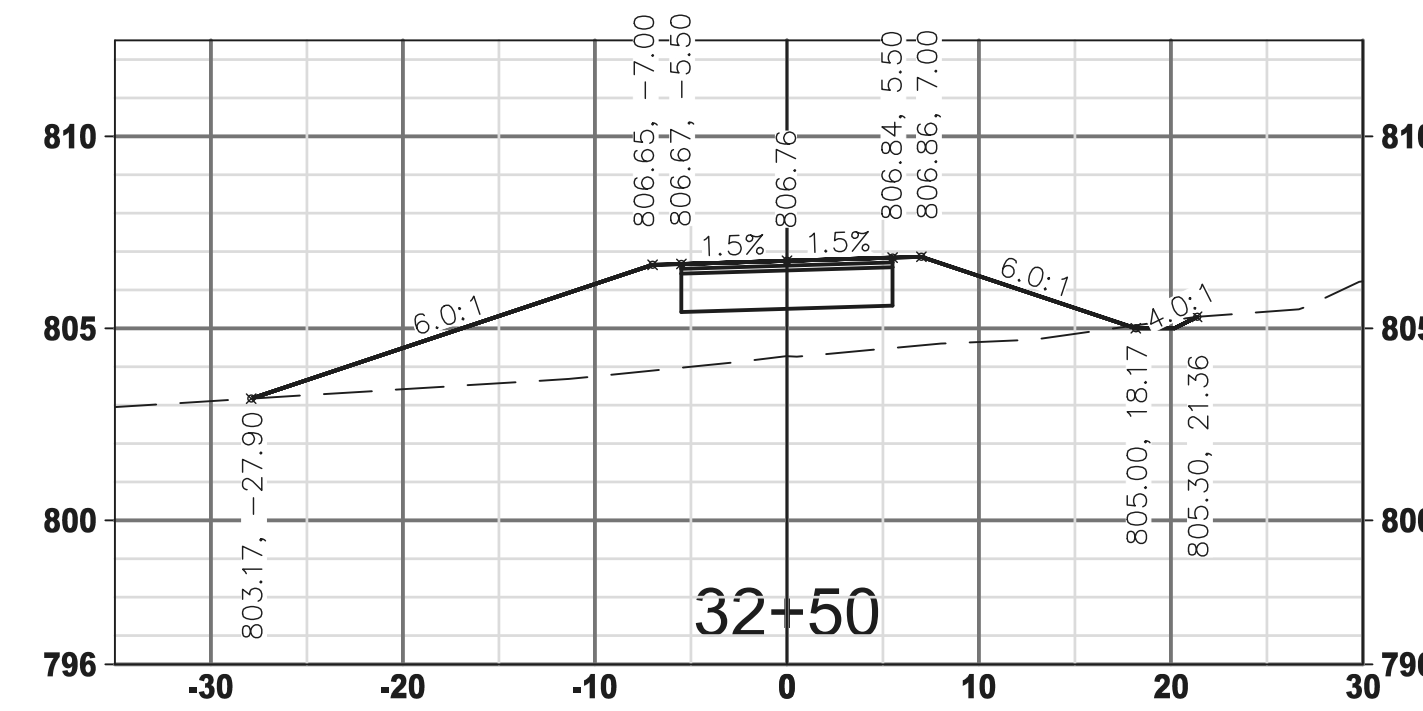
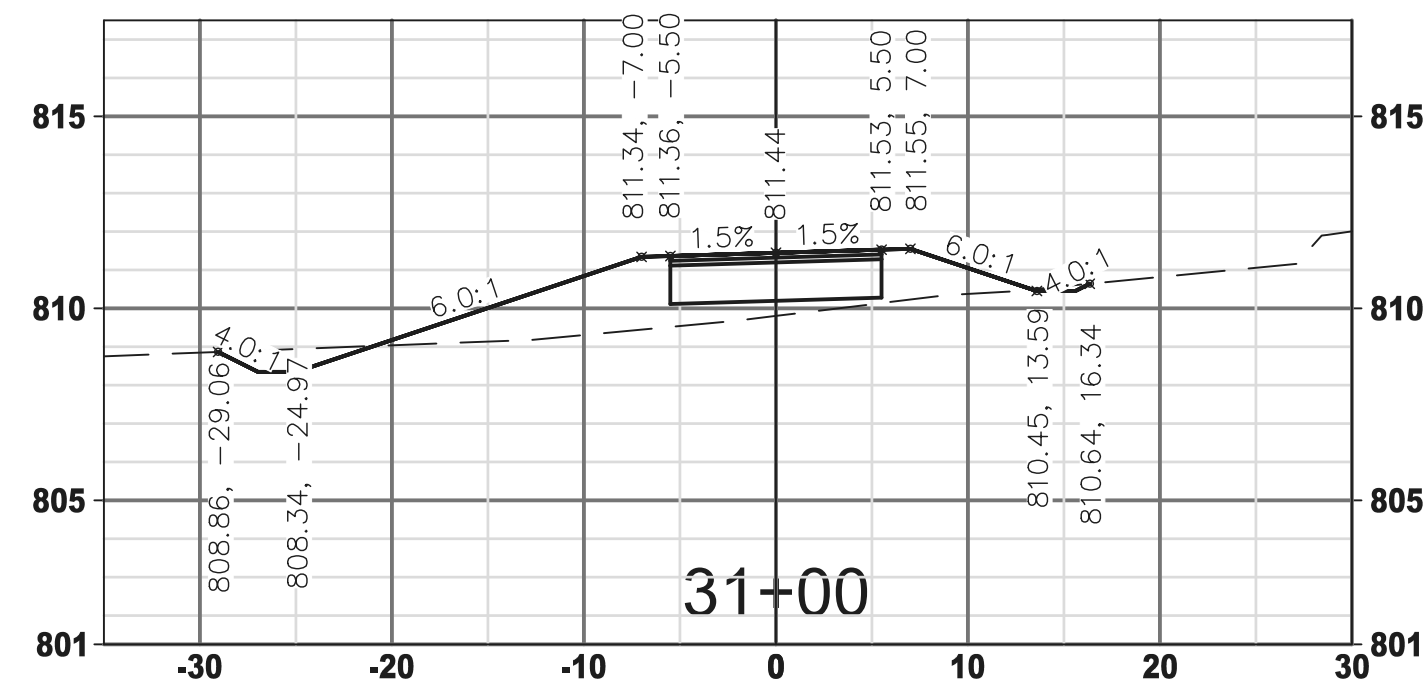
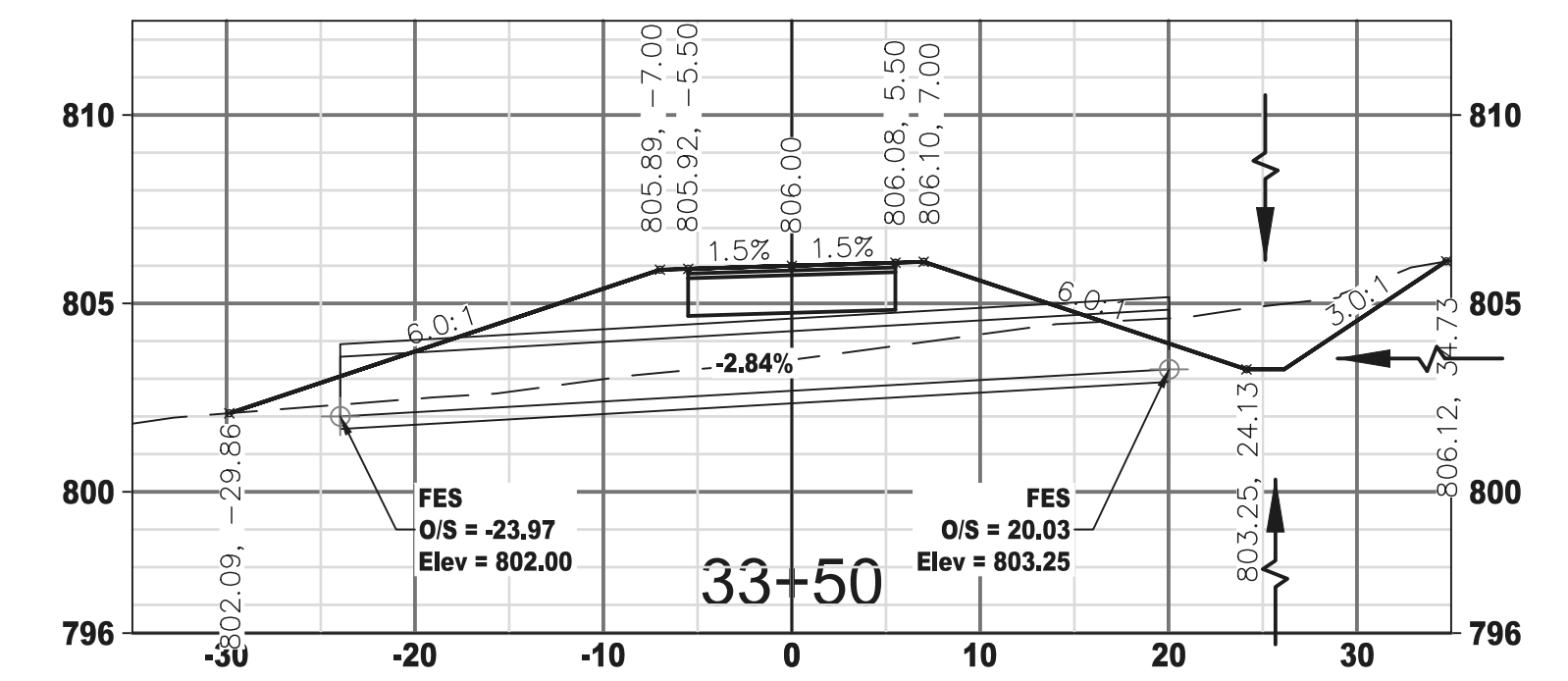
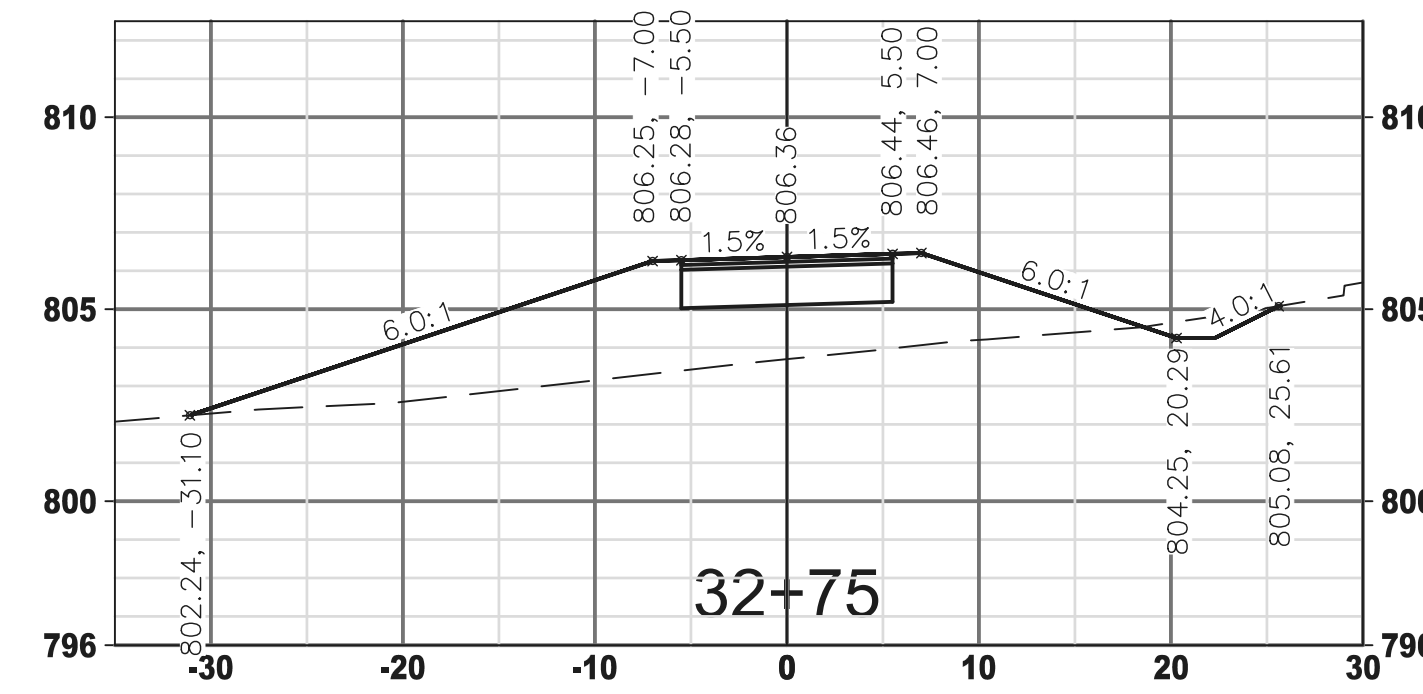
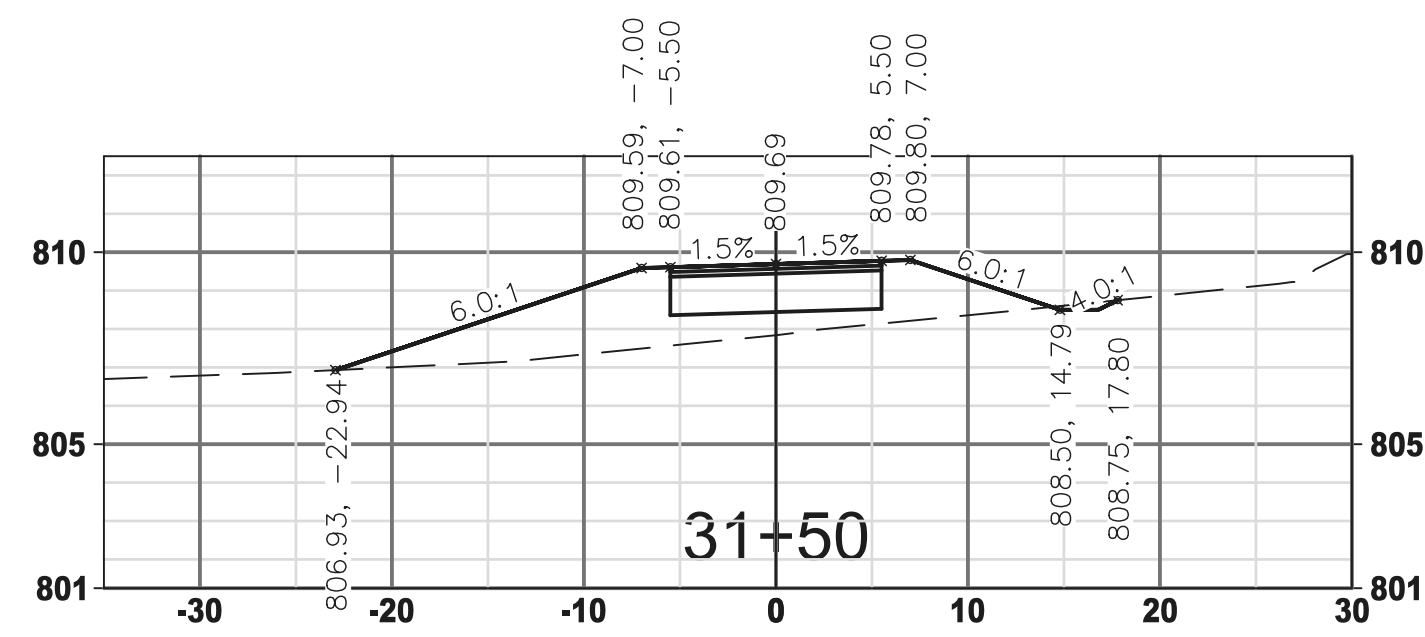


COMED ROW ENDS AT  
STA 29+41.85 (+/-)

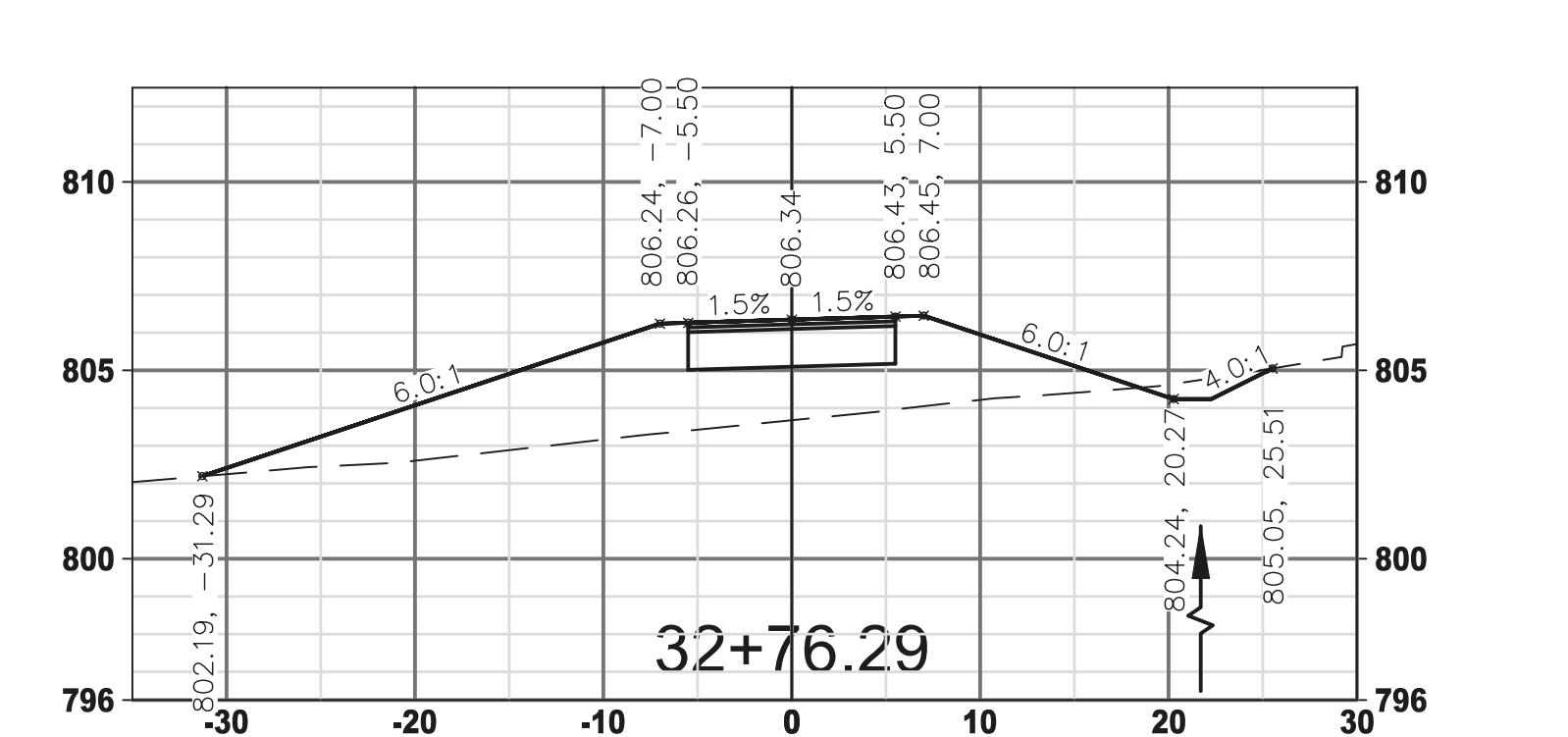
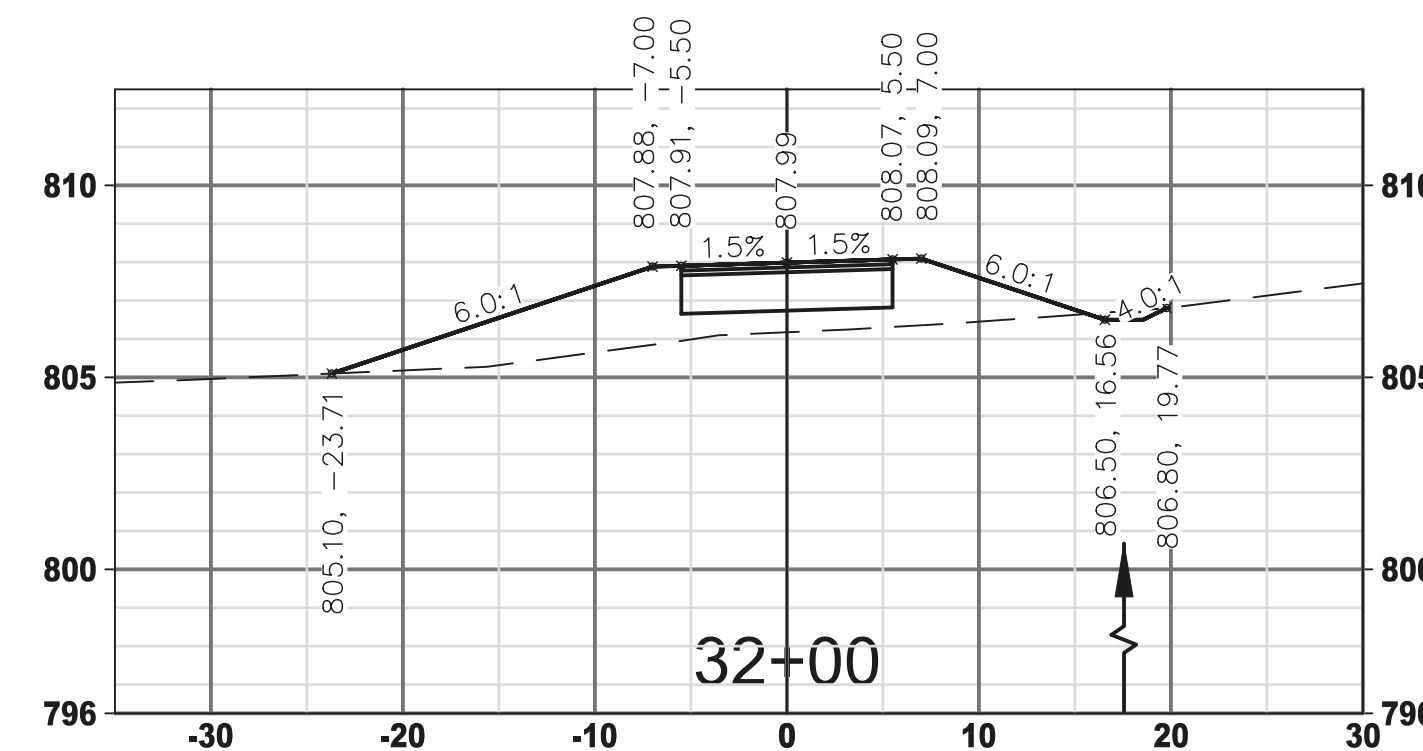
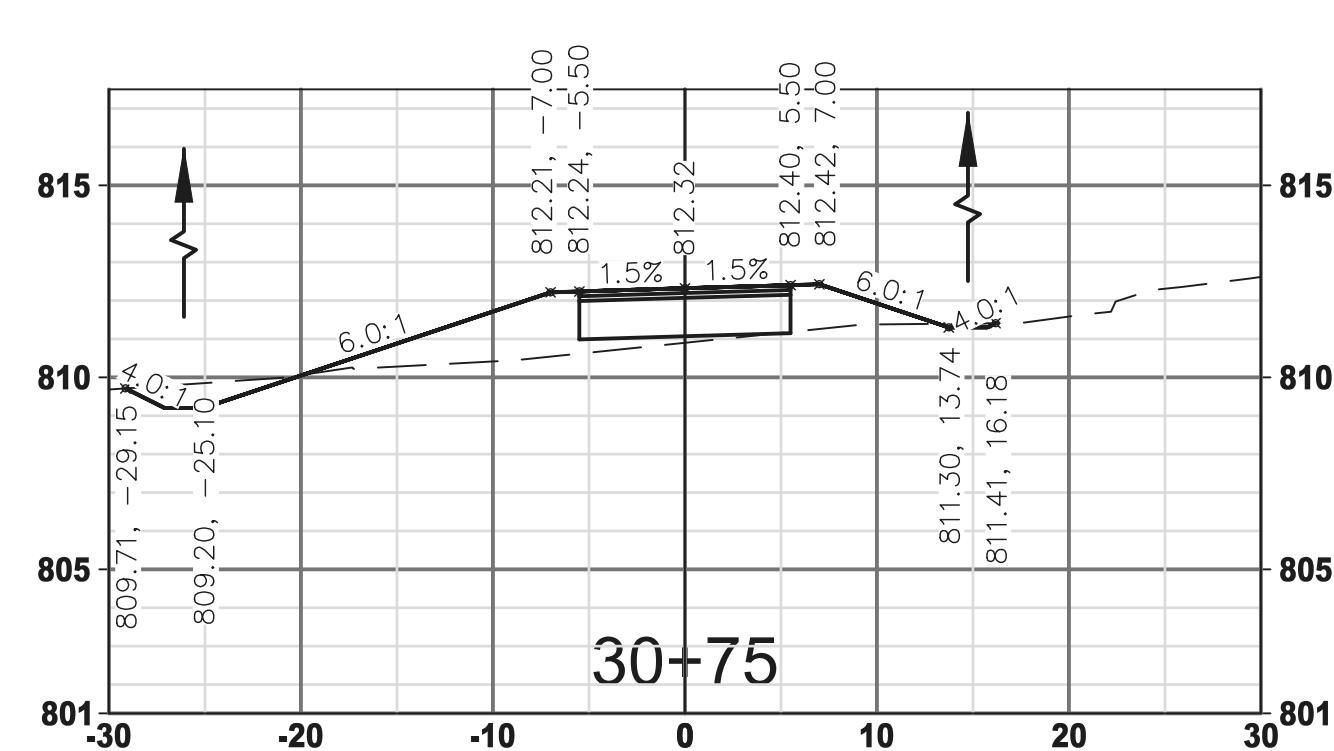


CURVE MIDPOINT



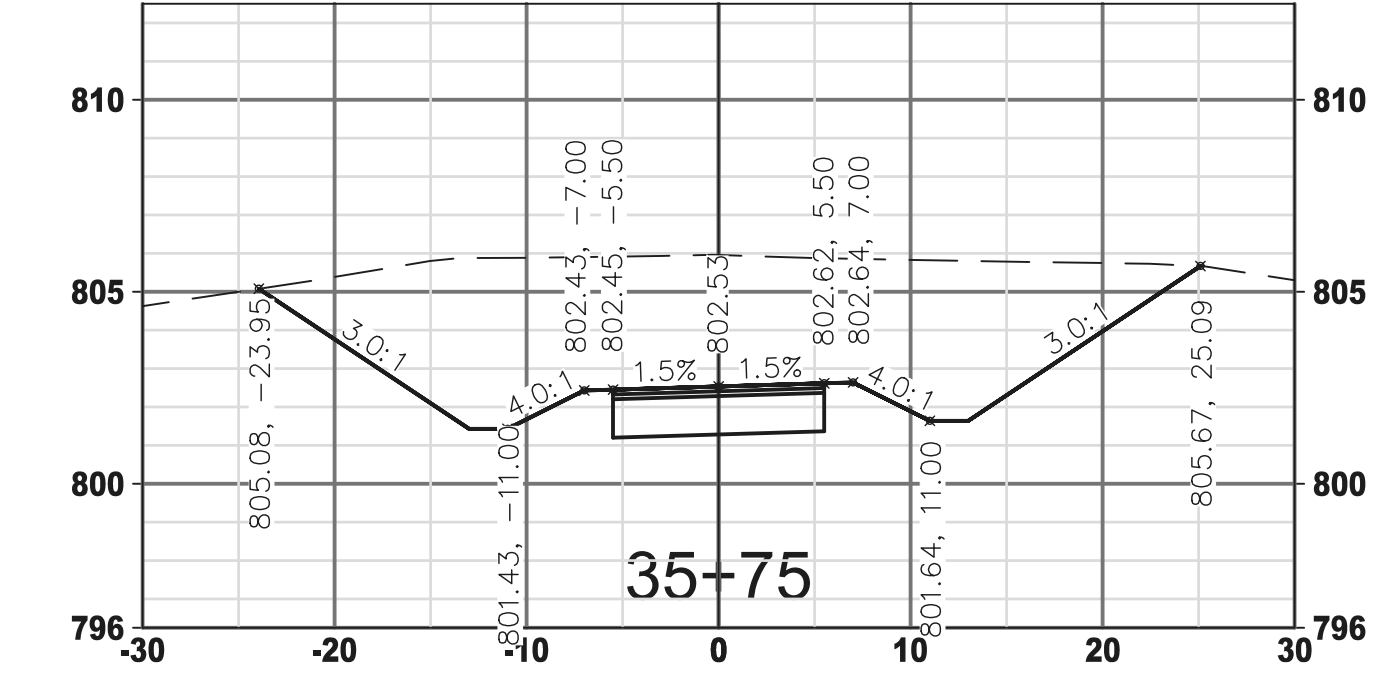
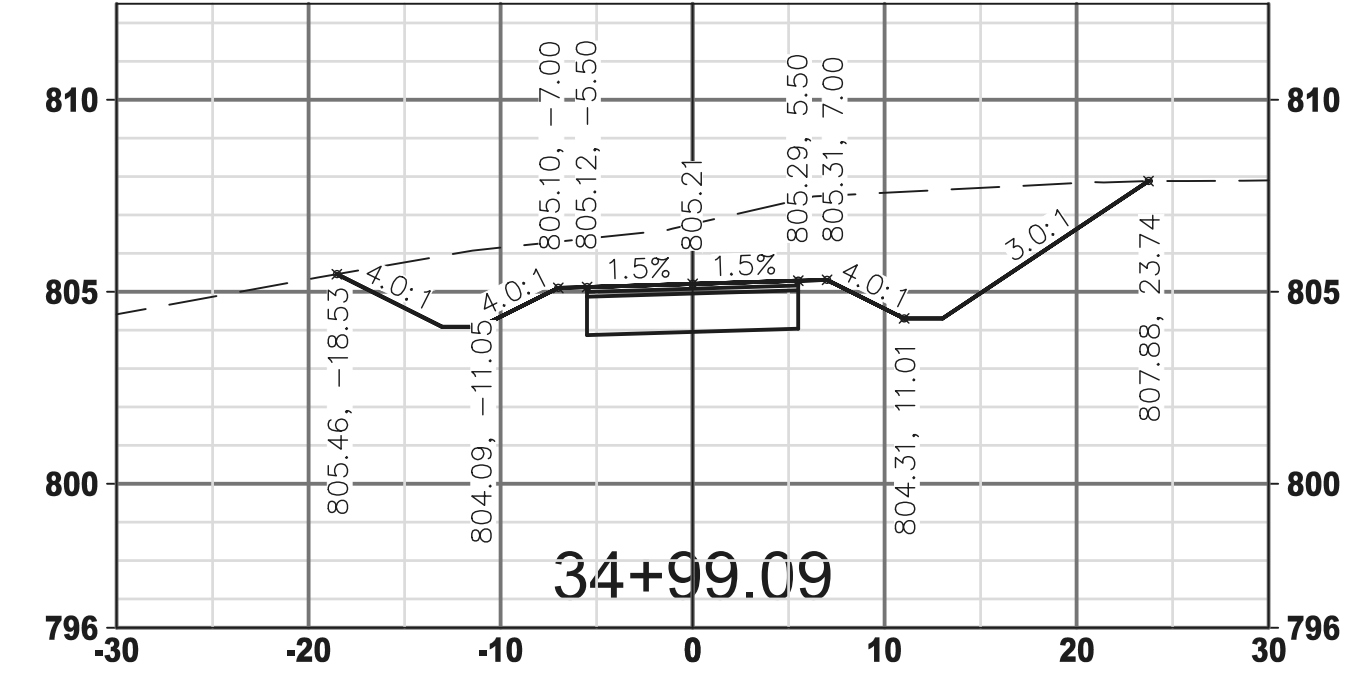
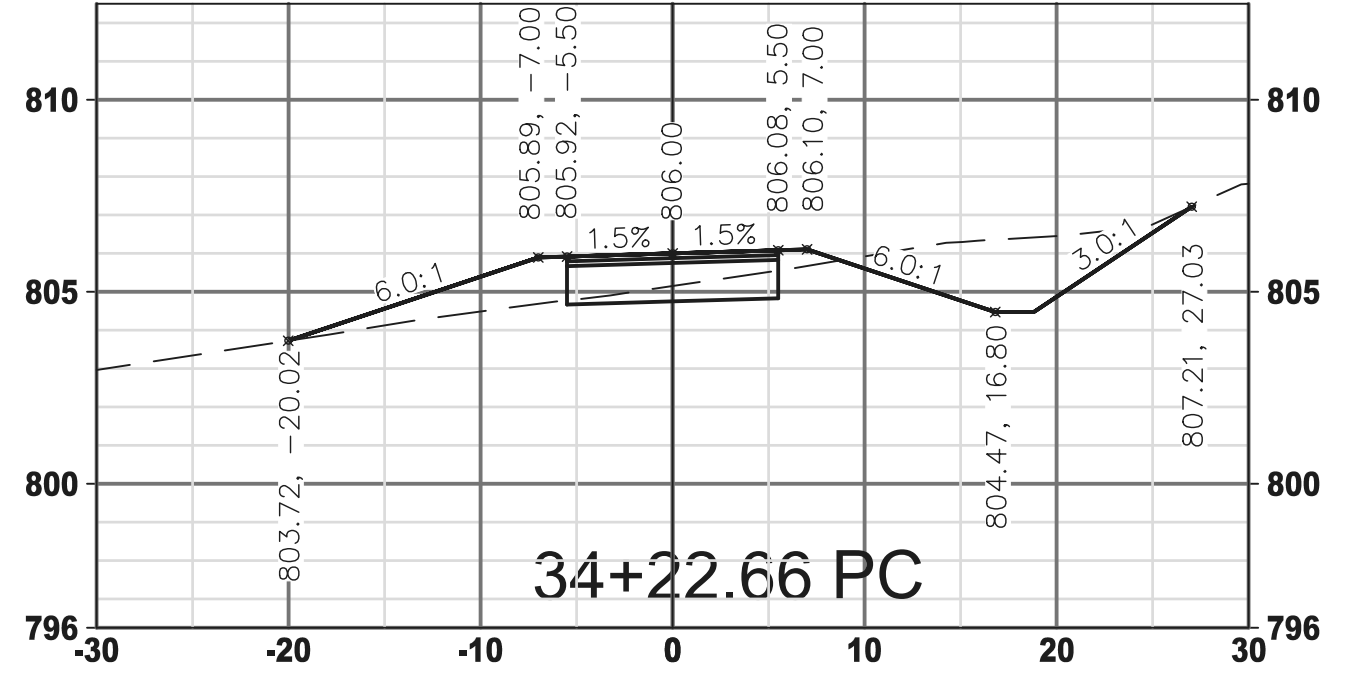
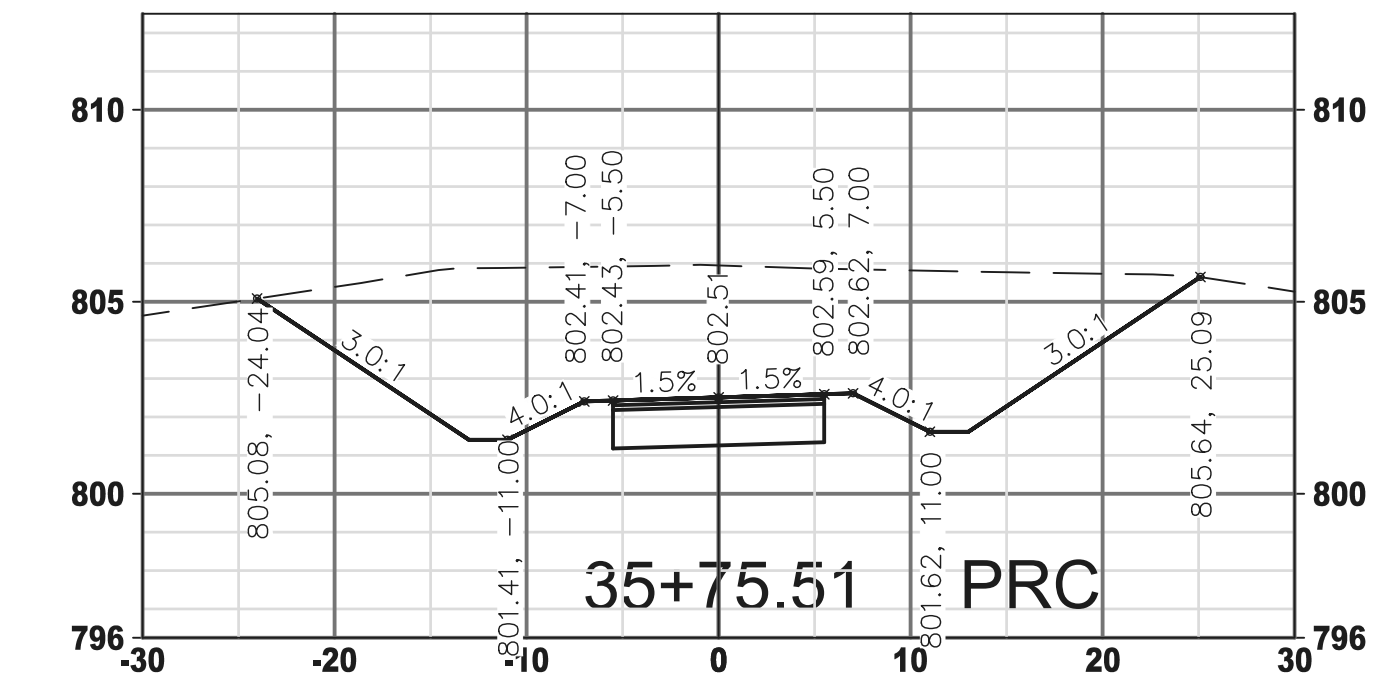
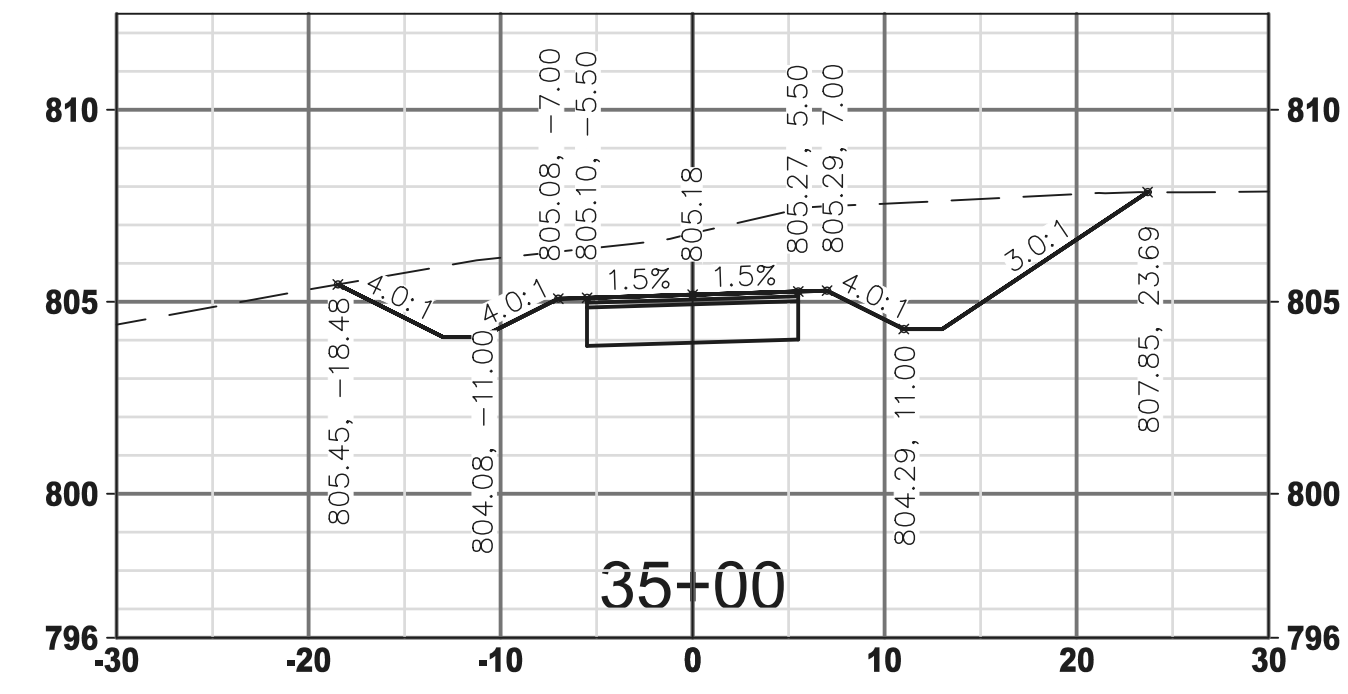
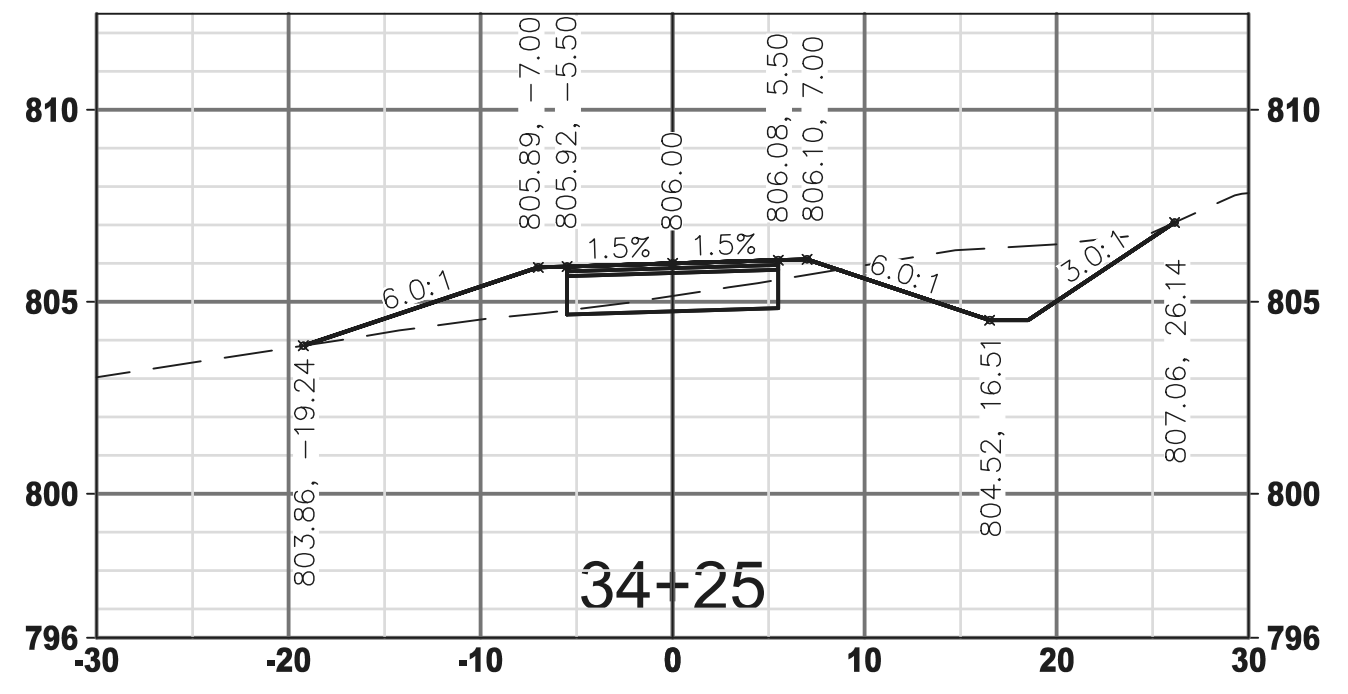
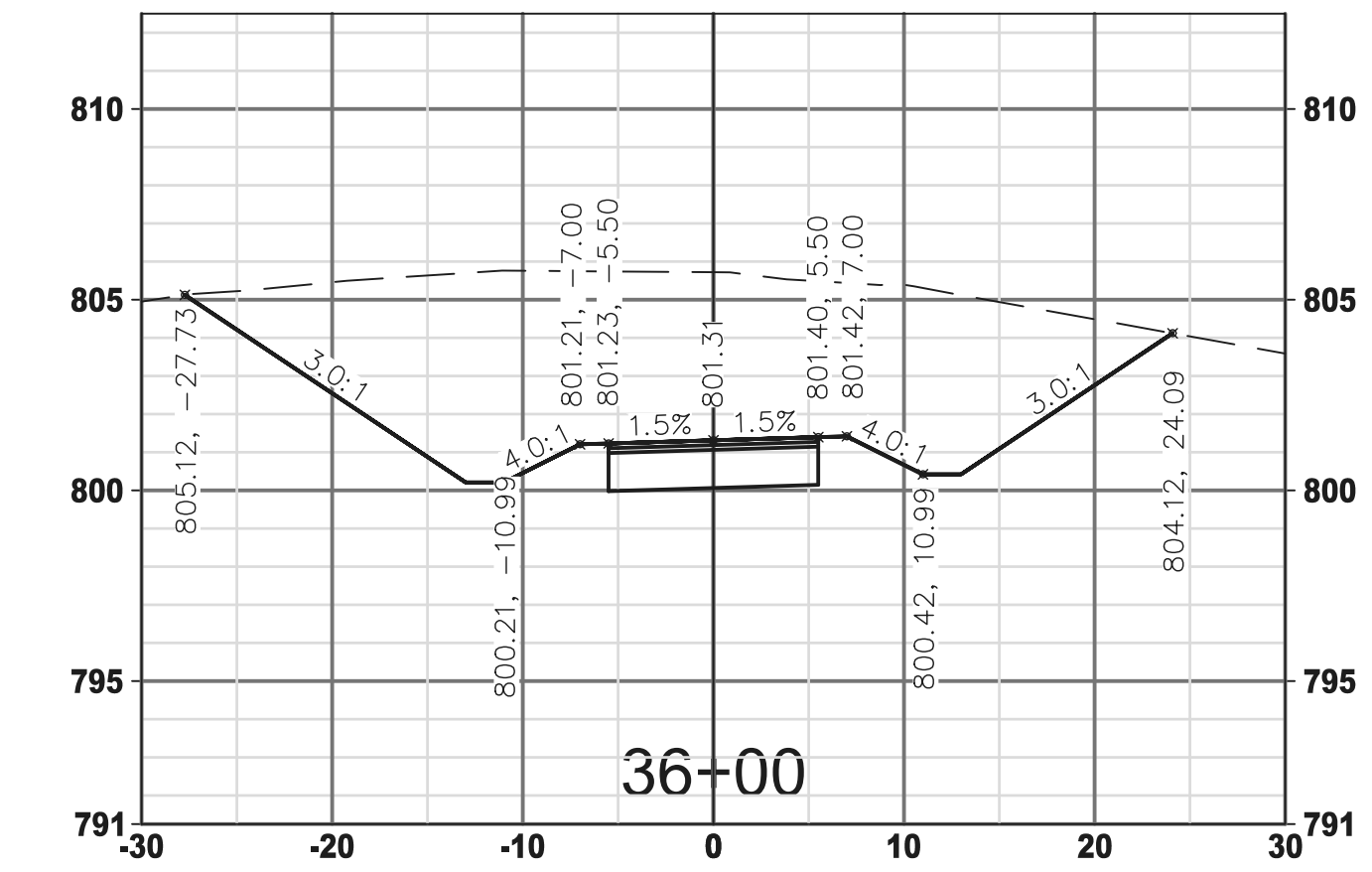
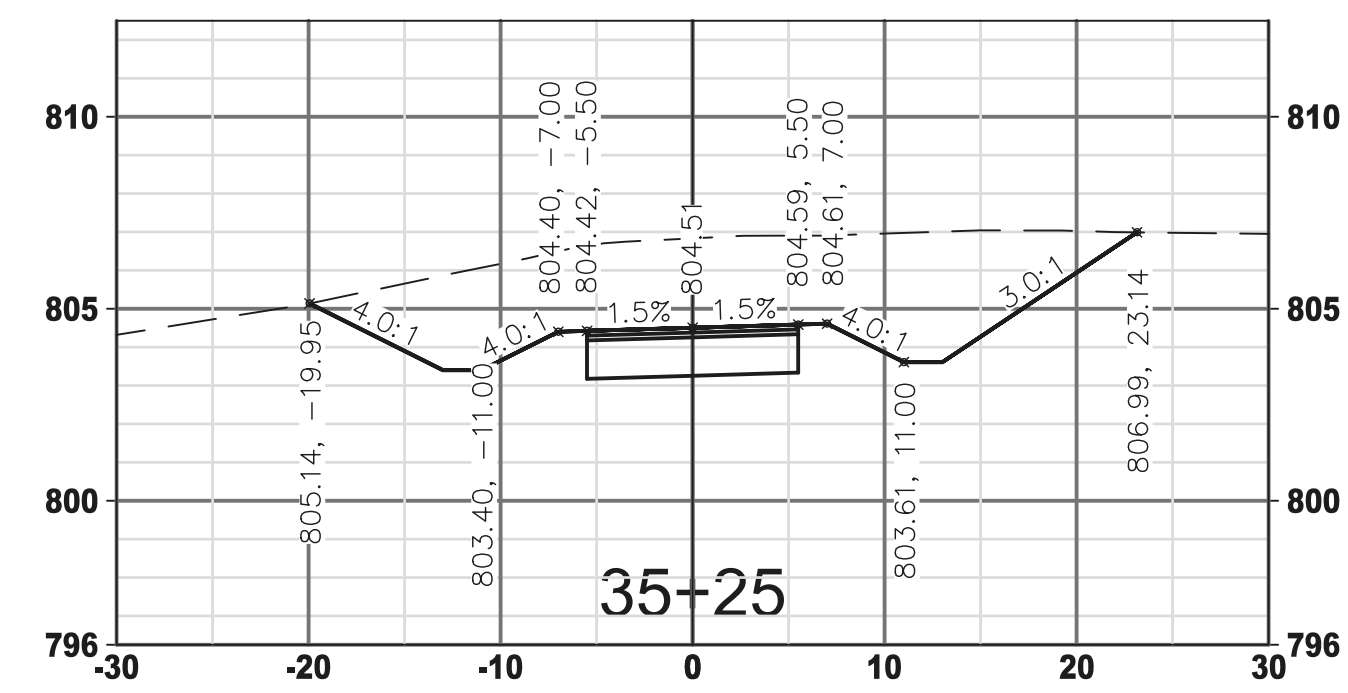
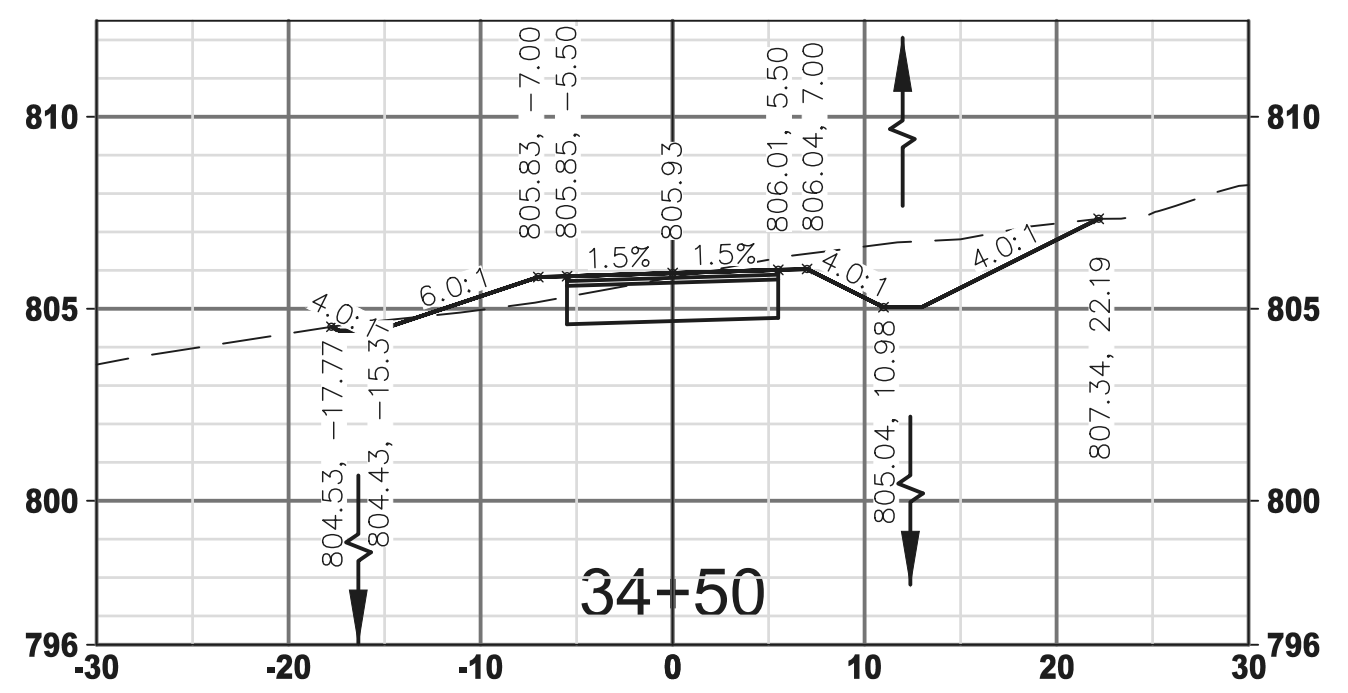


CURVE MIDPOINT

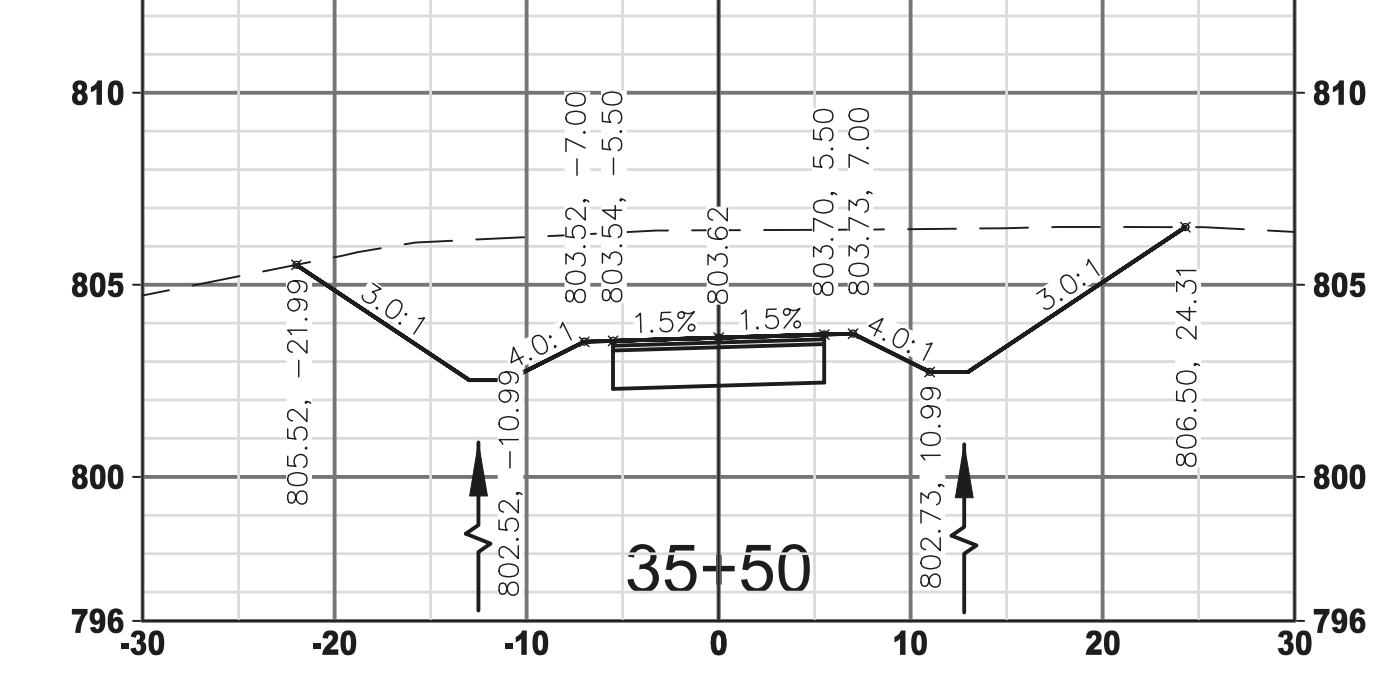
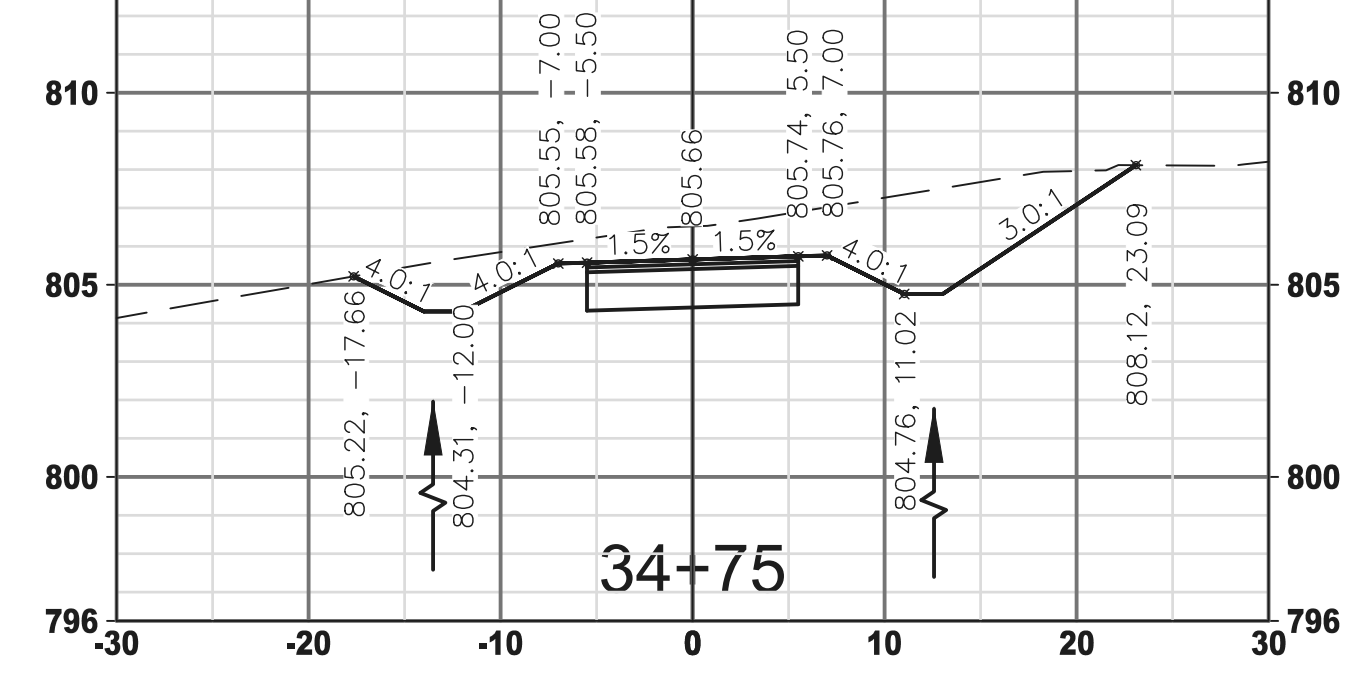
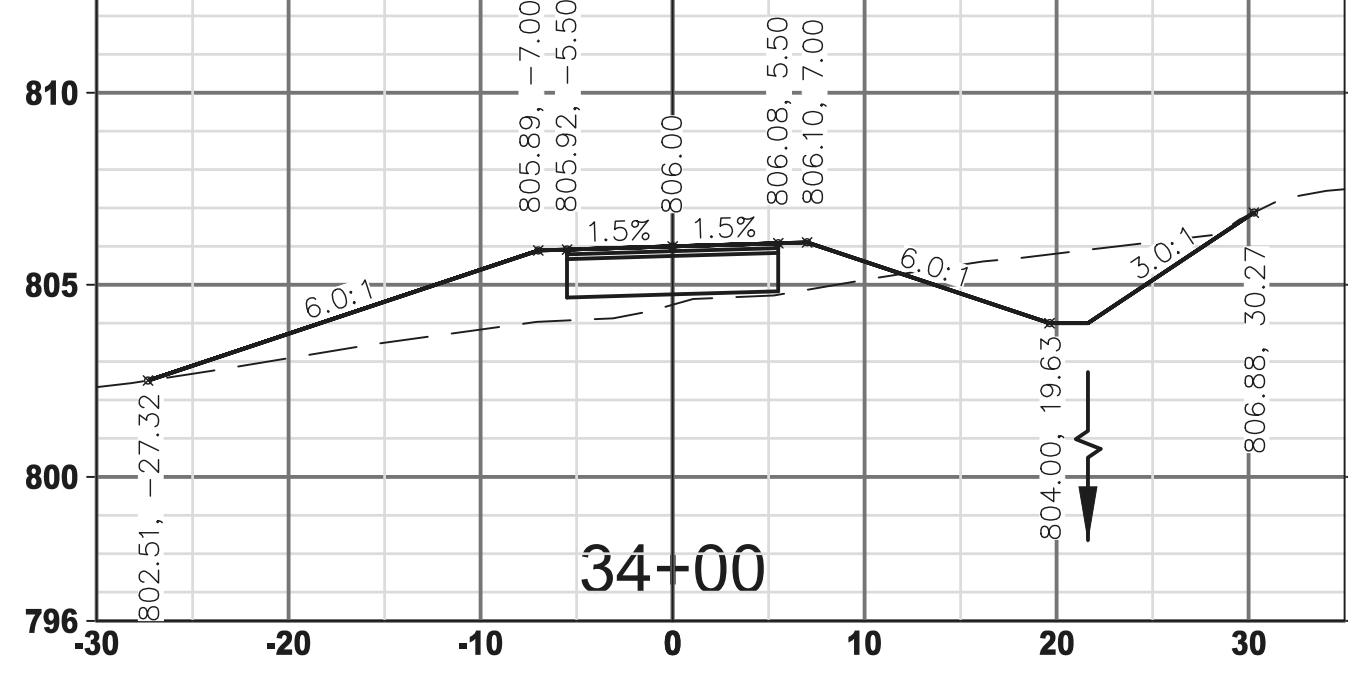


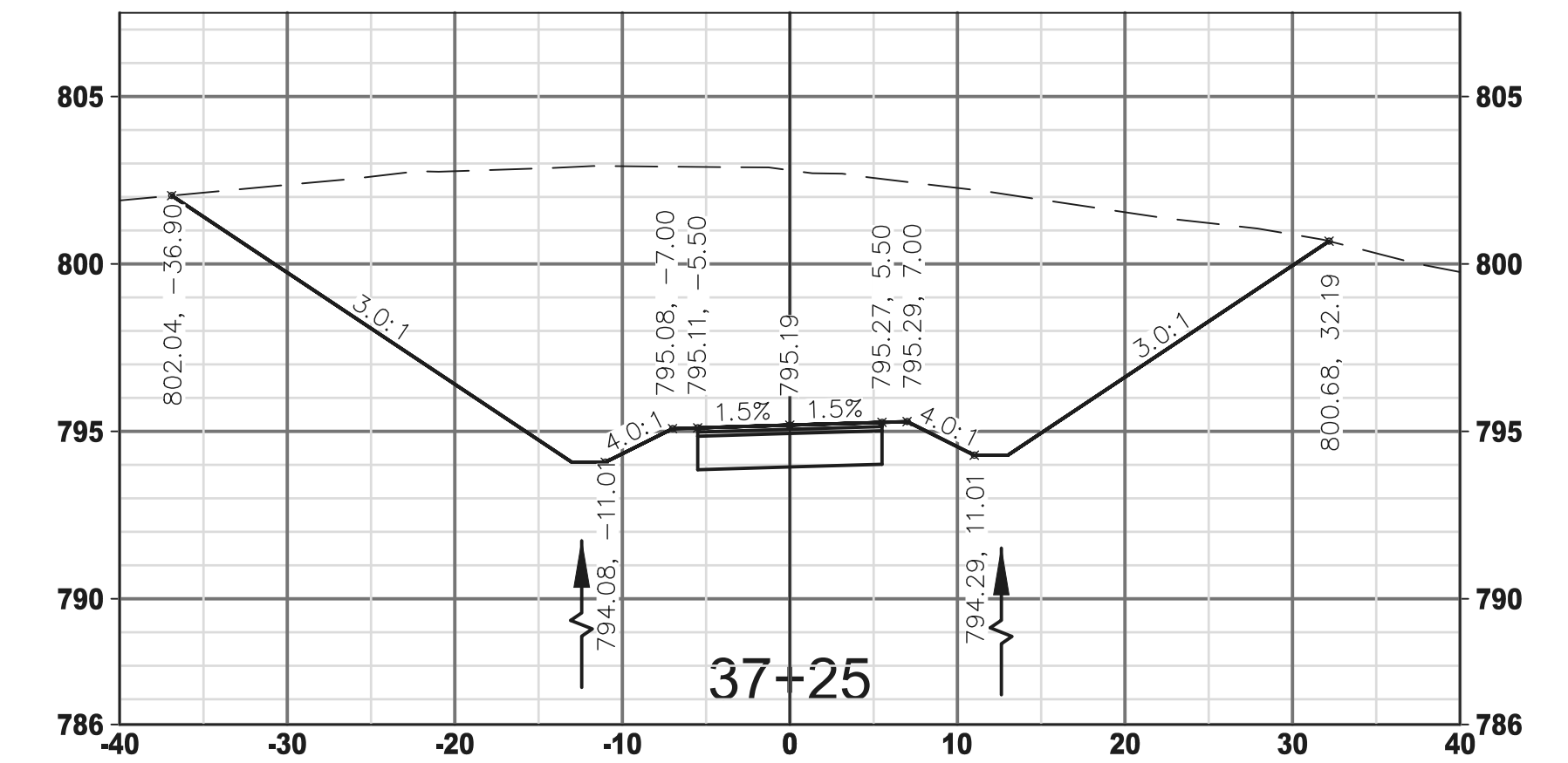
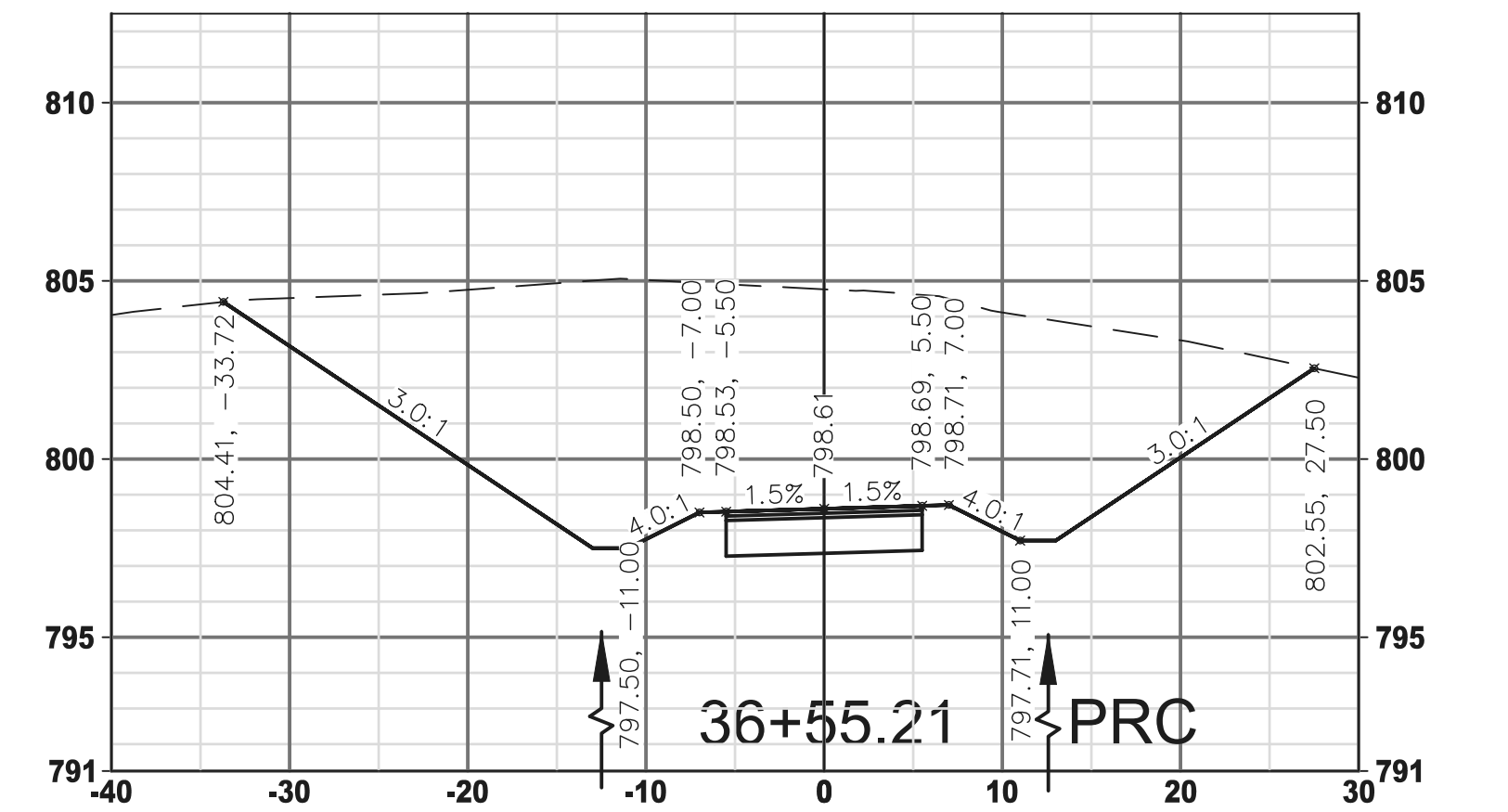
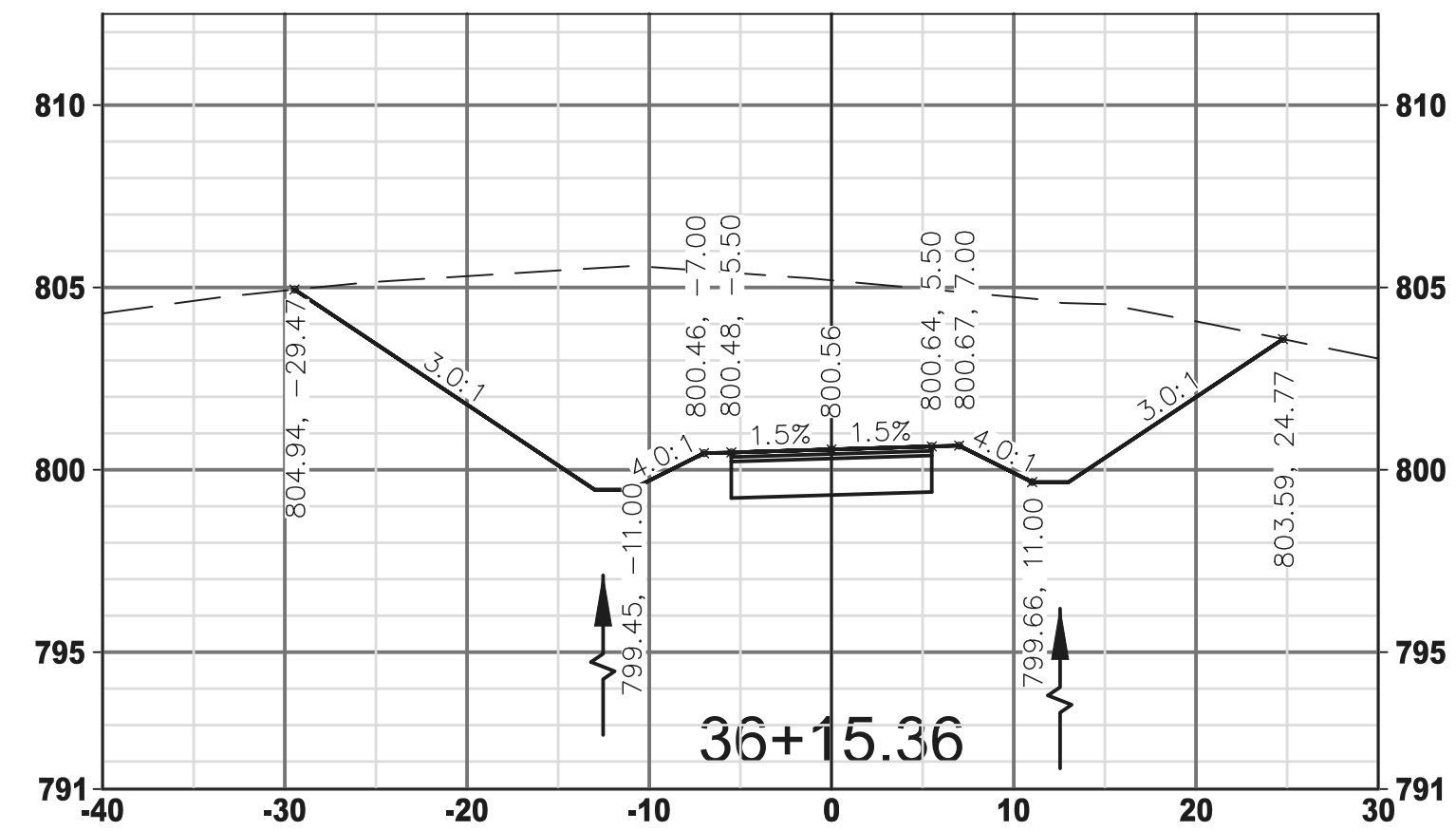
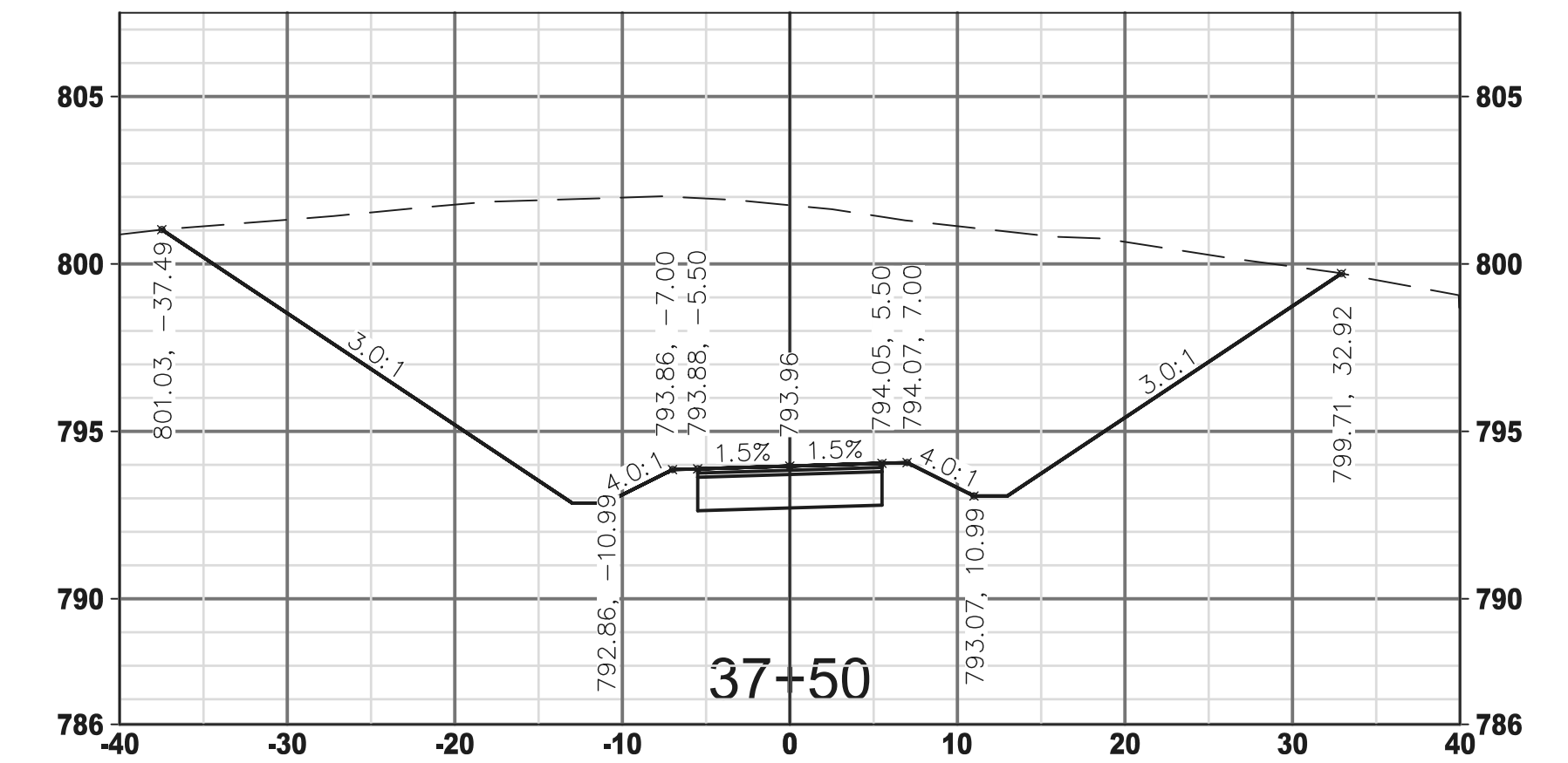
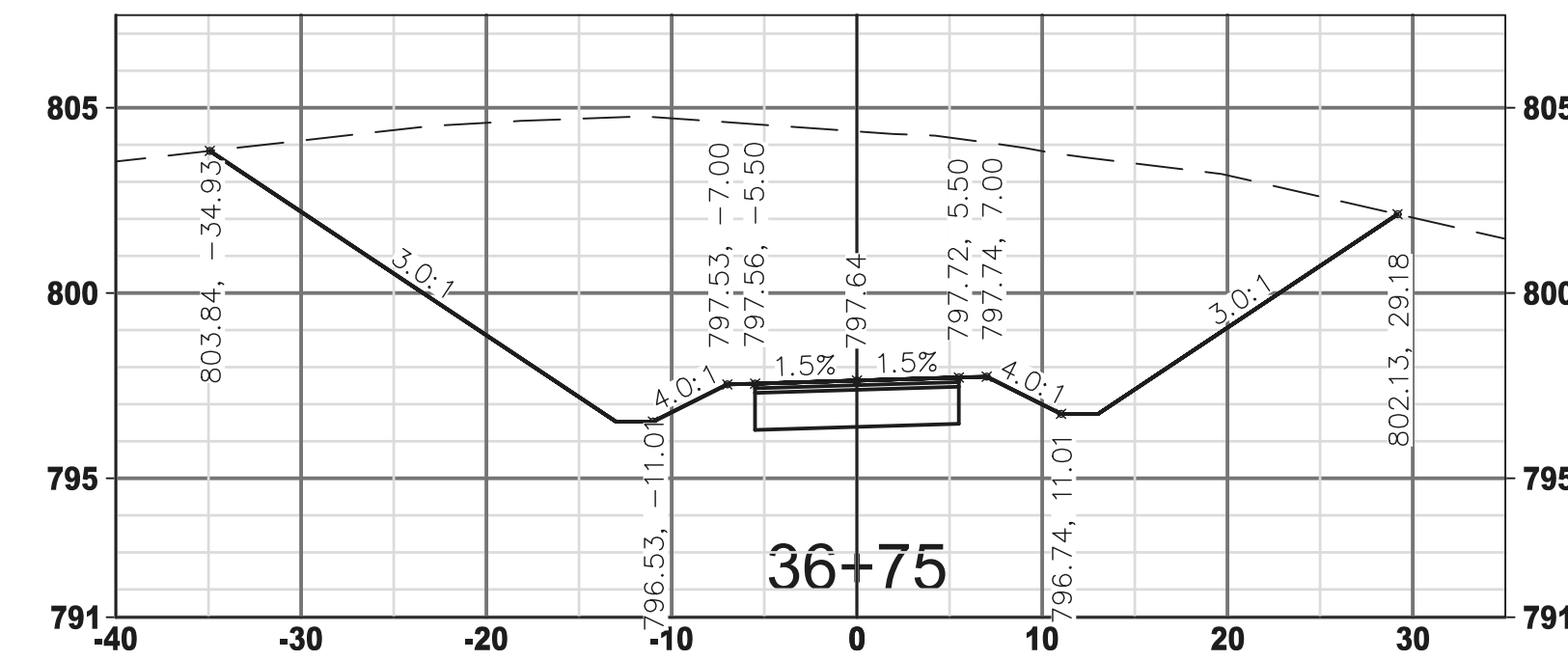
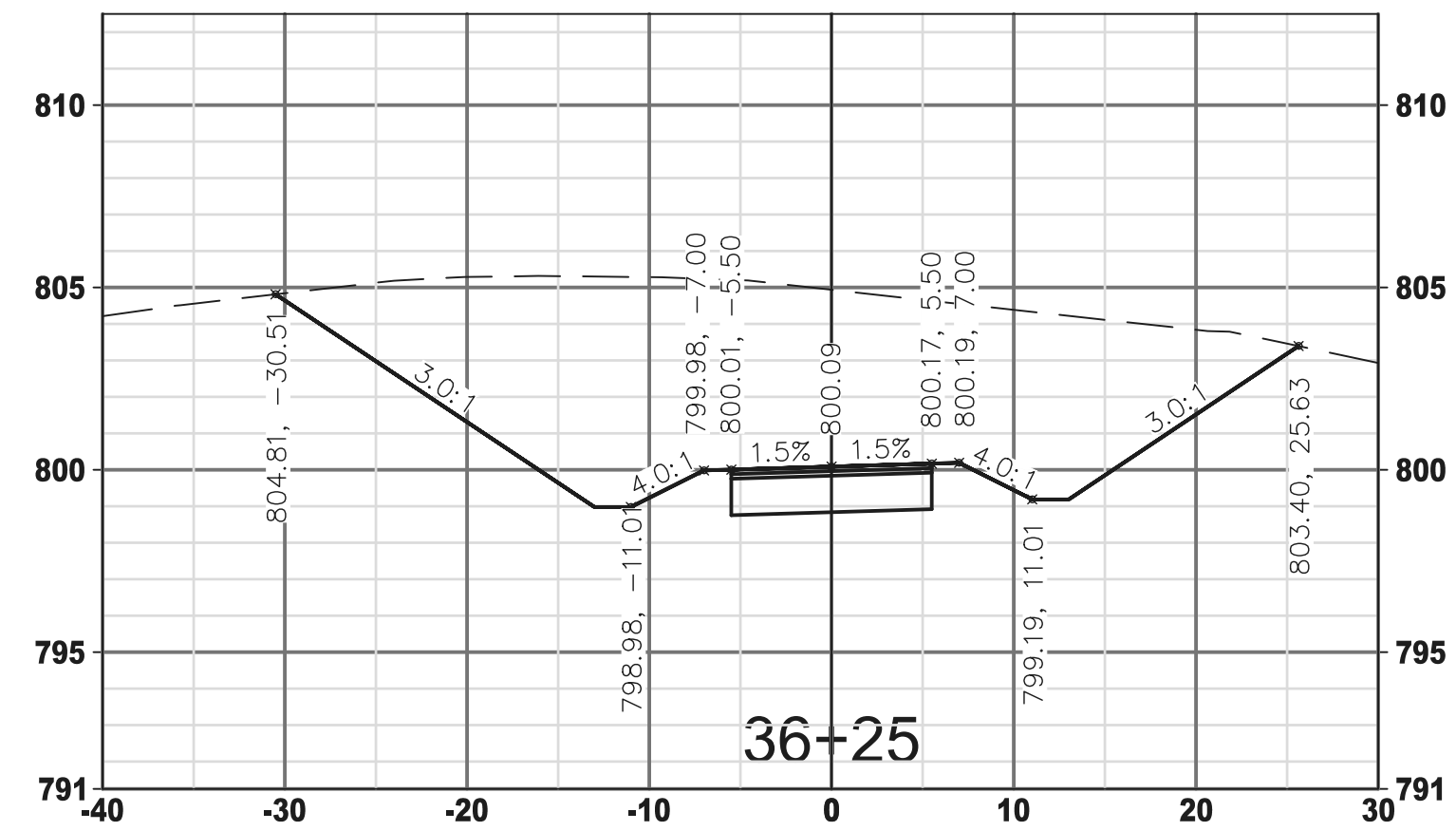
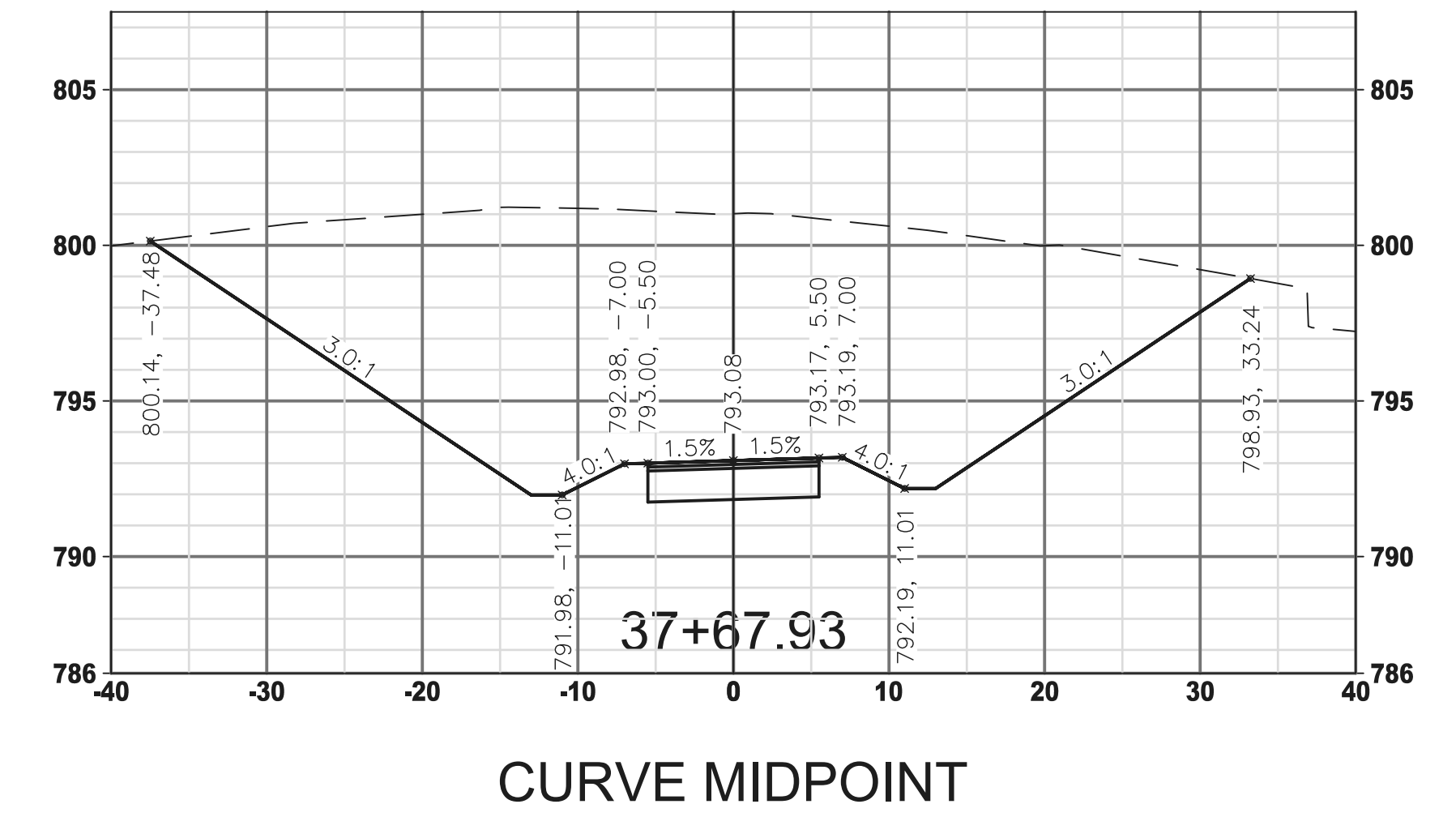
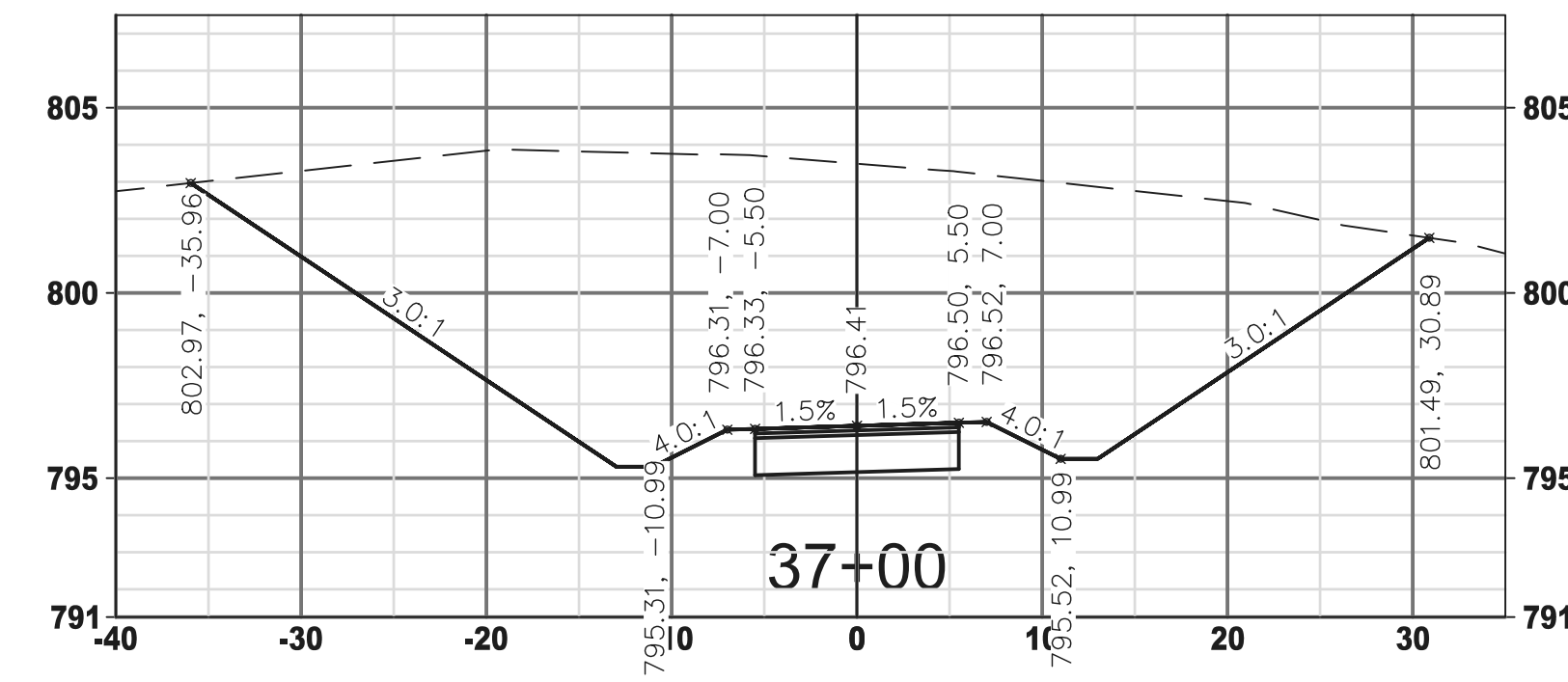
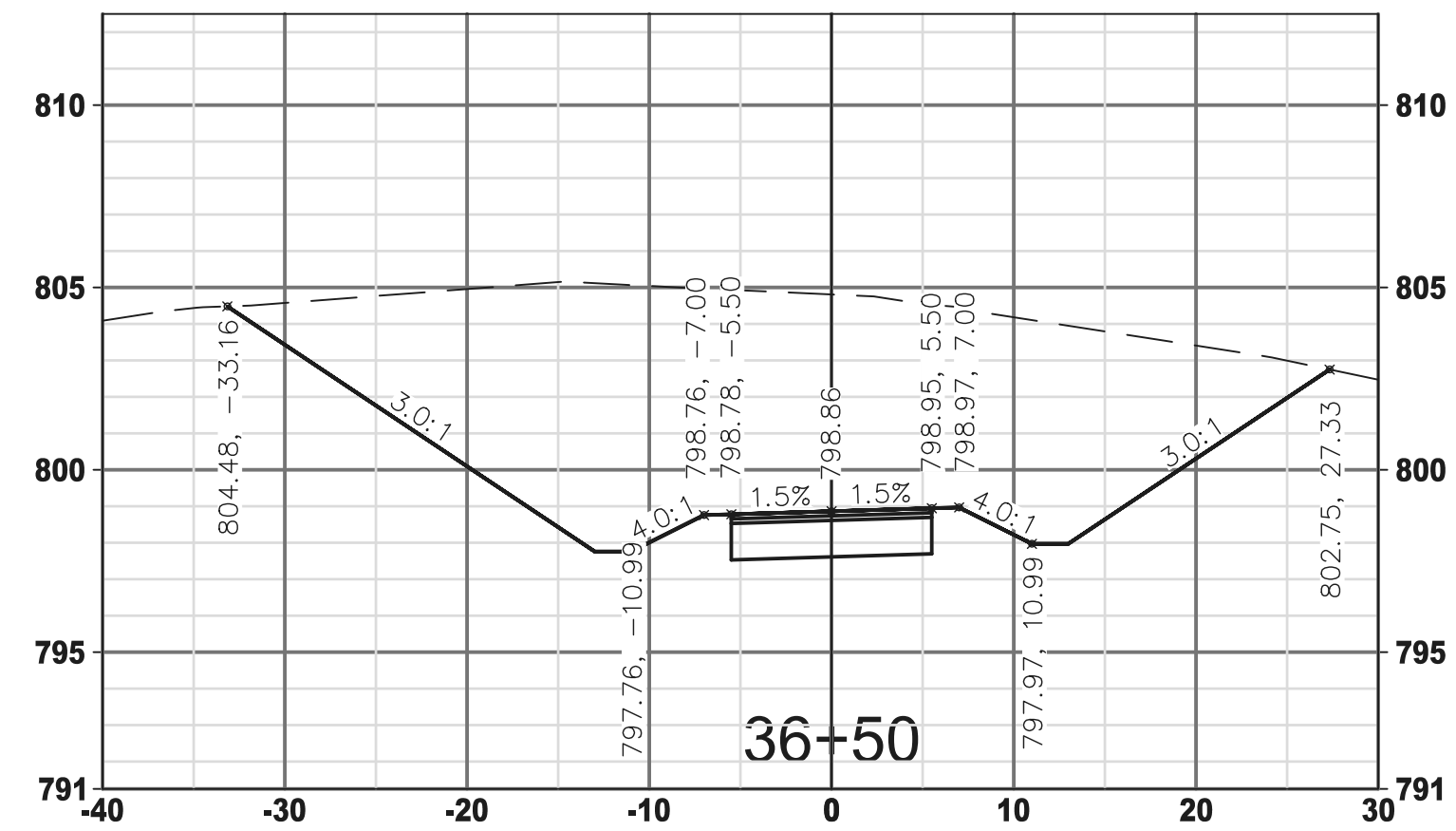
CURVE MIDPOINT





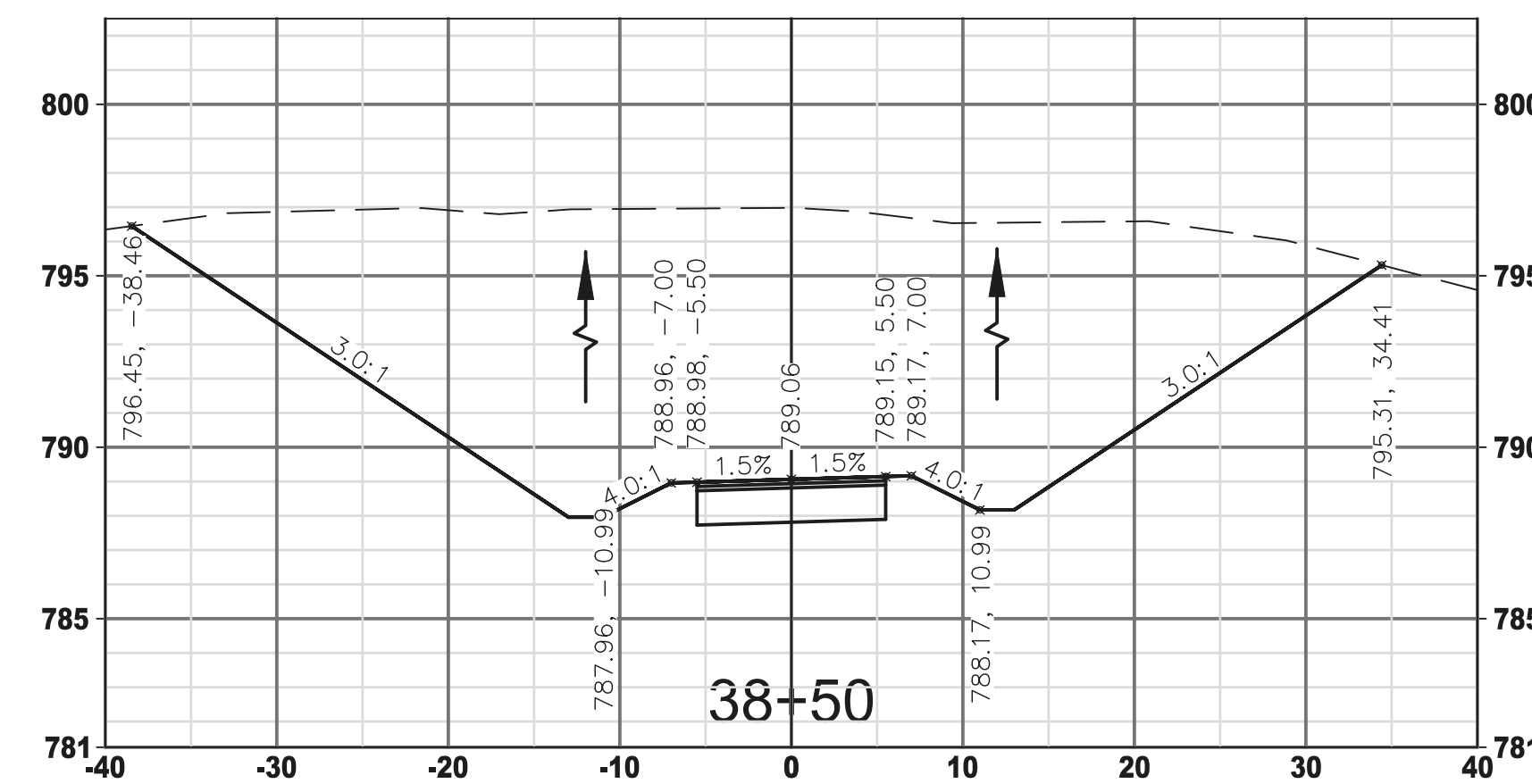
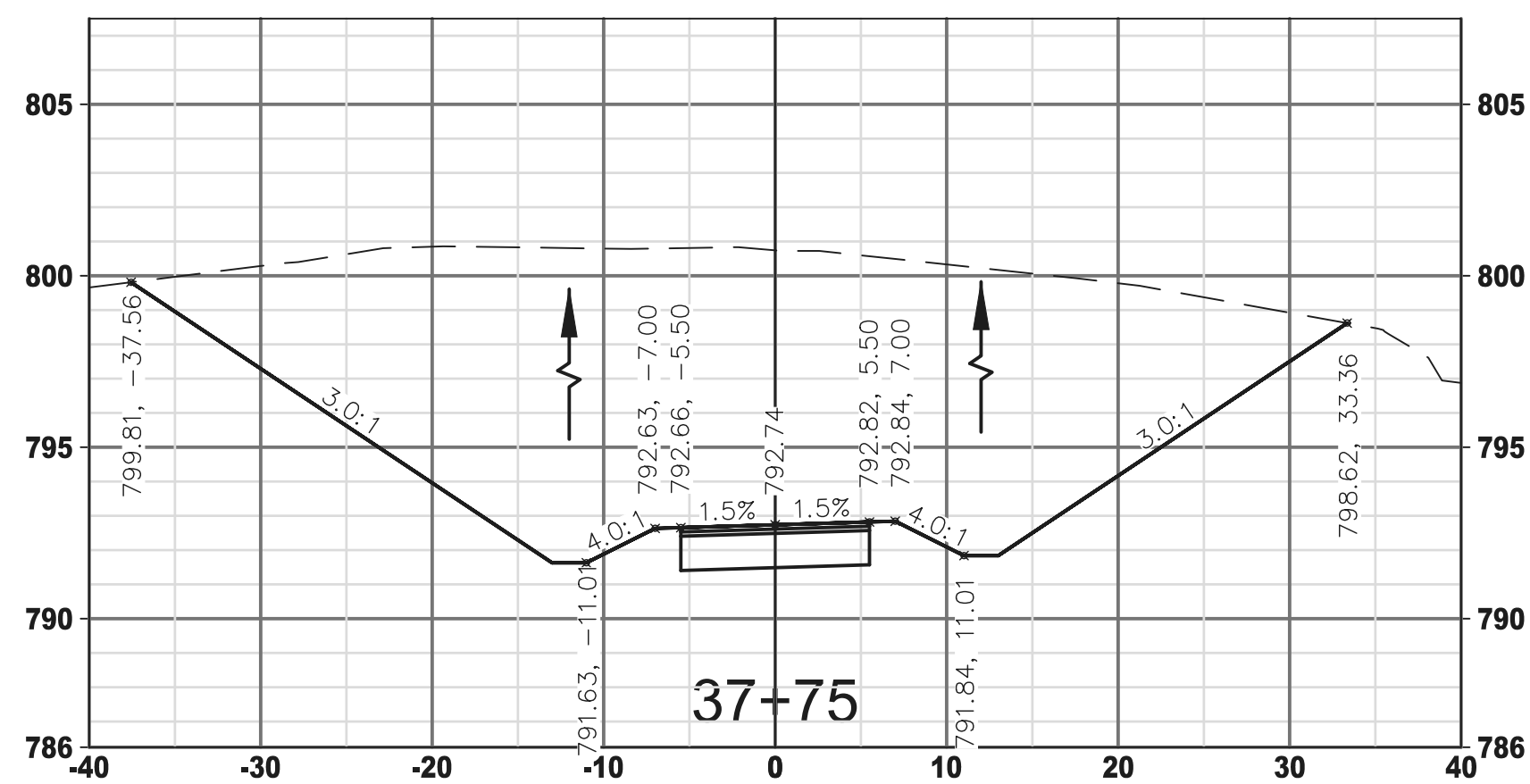
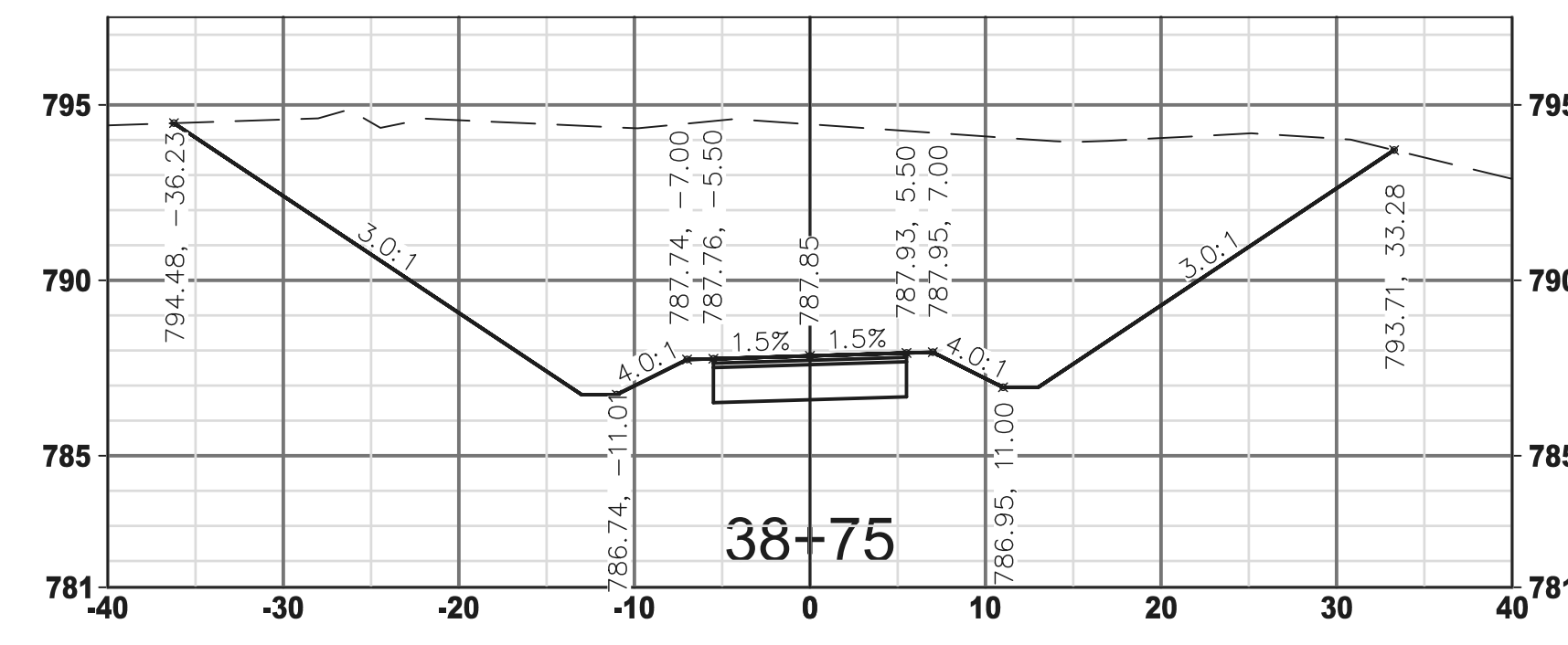
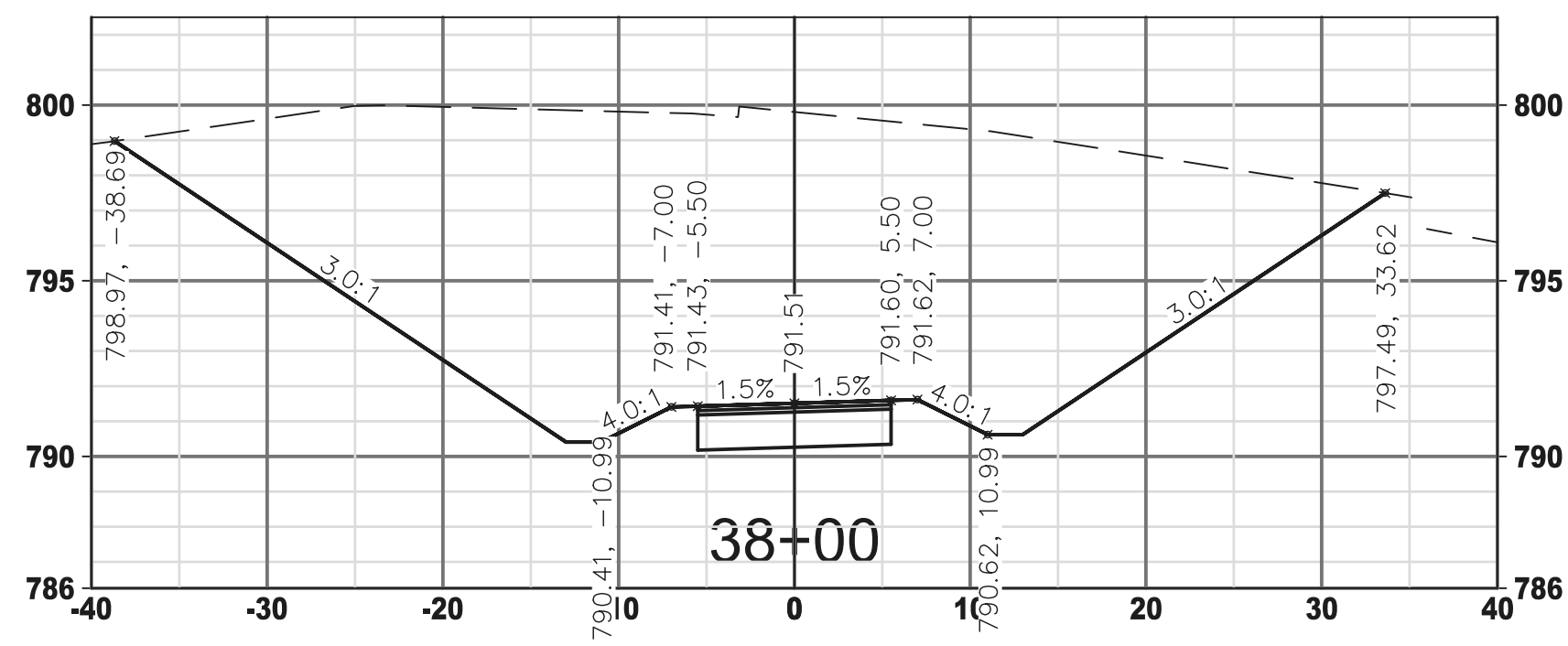
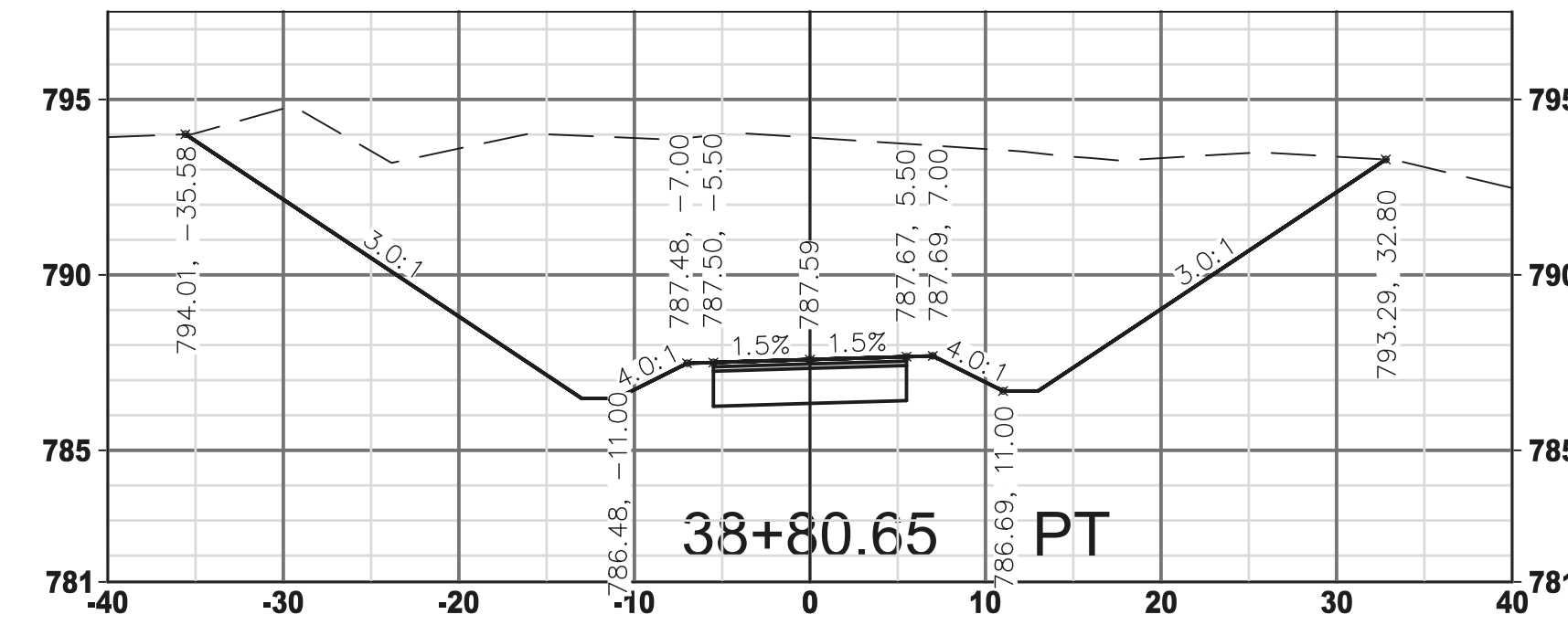
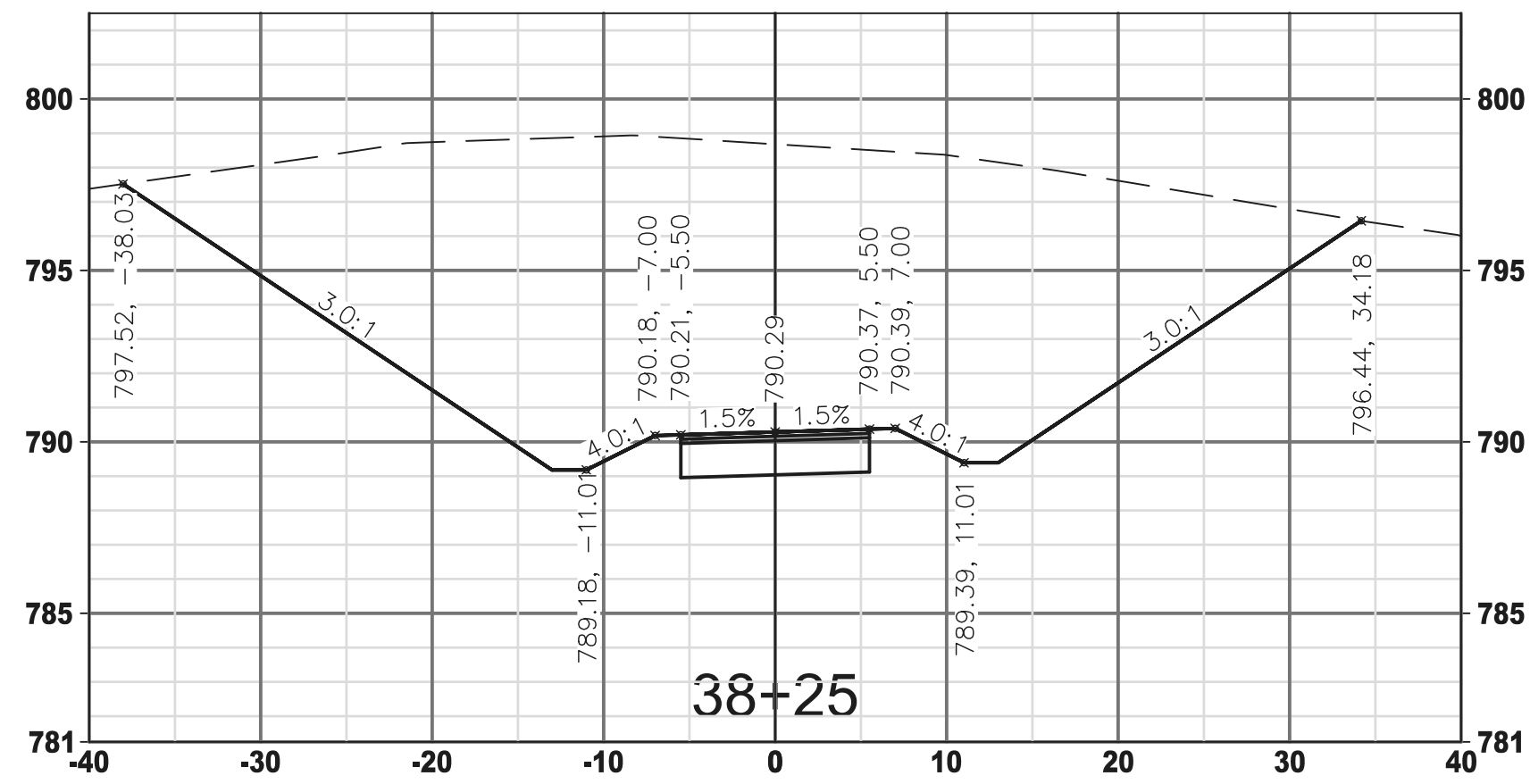
CURVE MIDPOINT

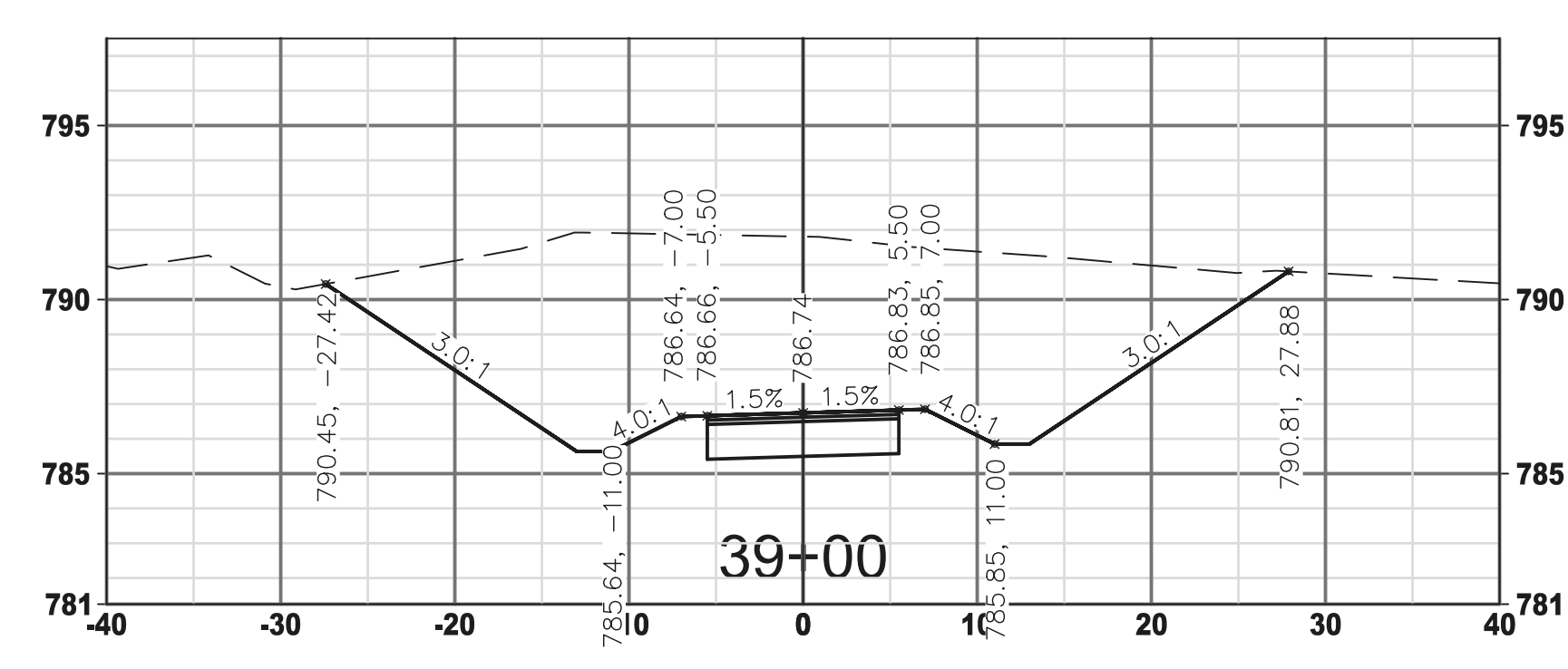
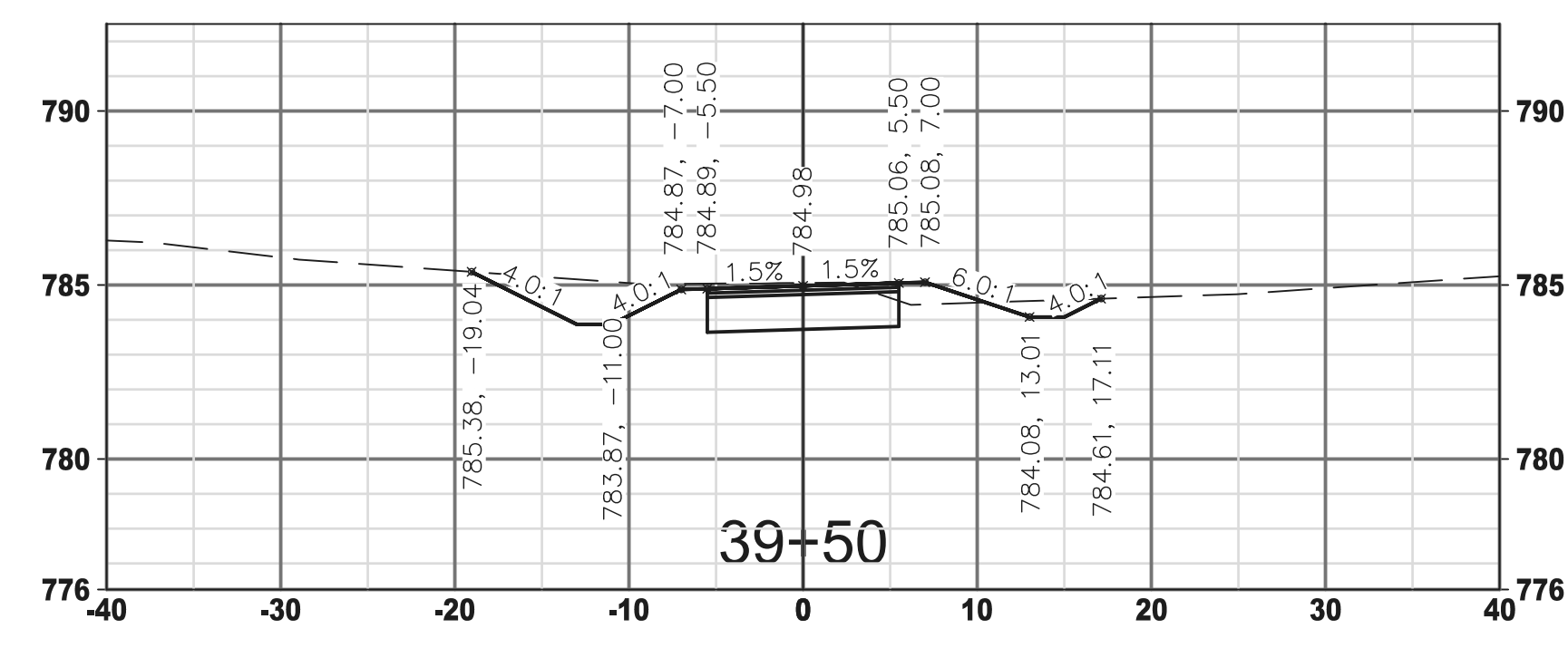




CURVE MIDPOINT



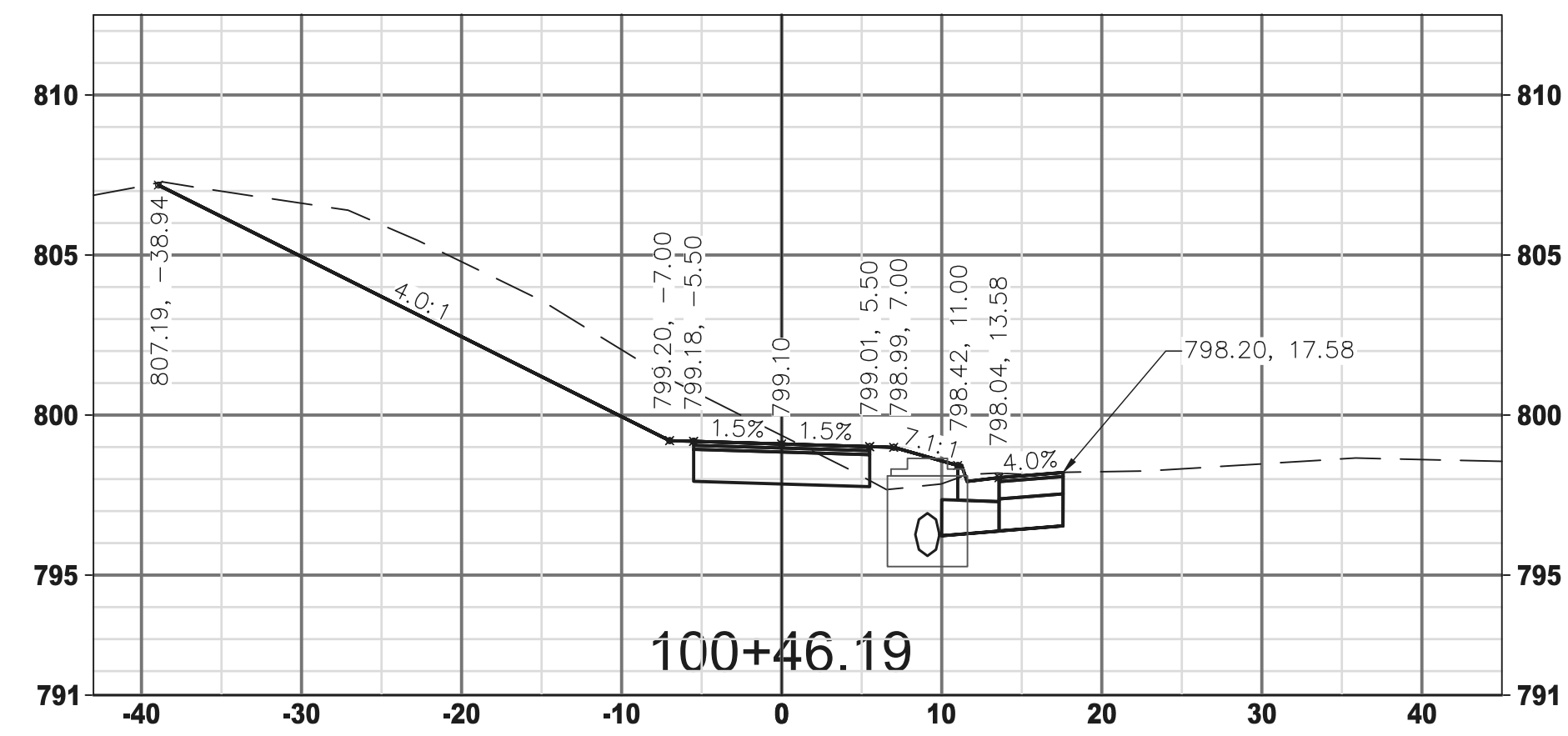




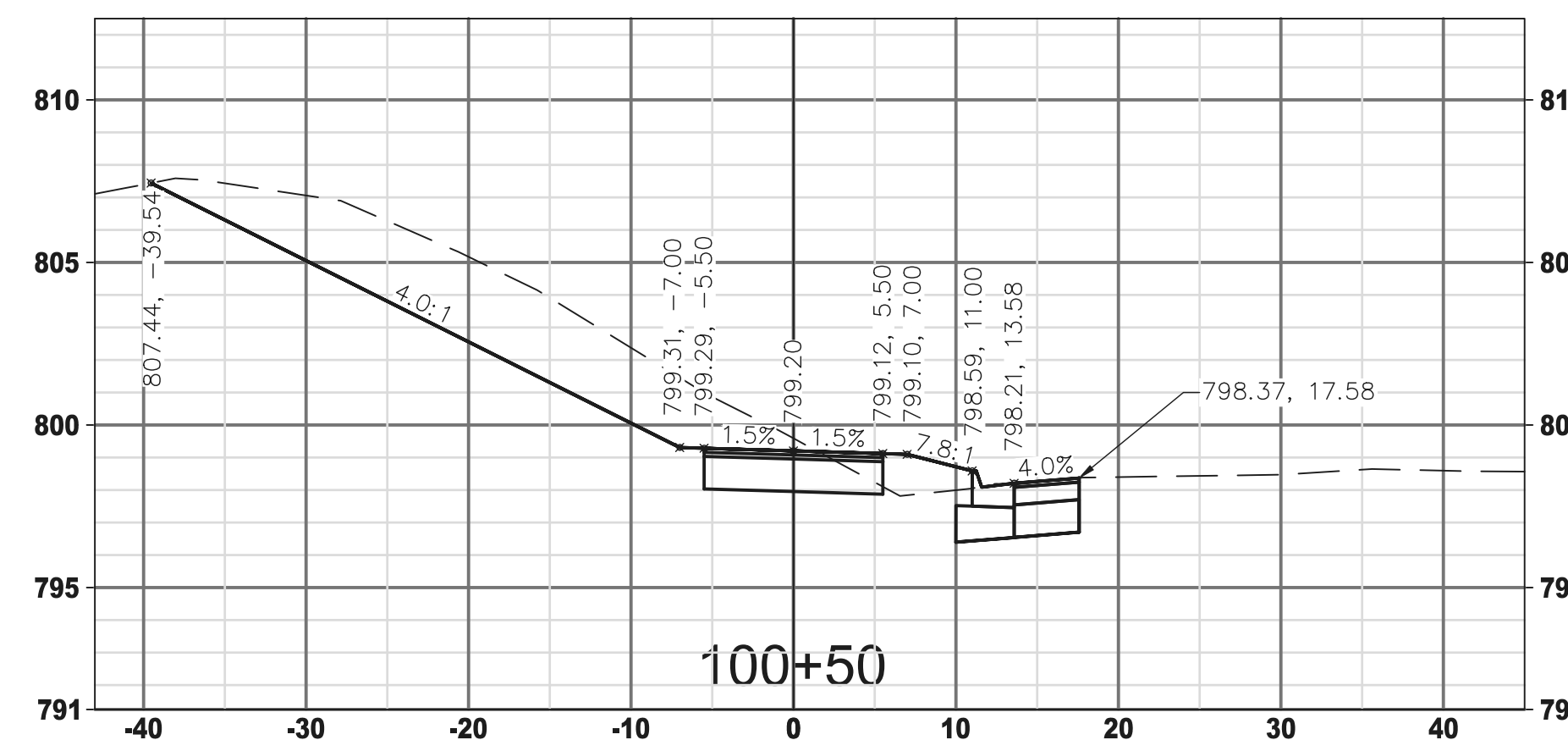
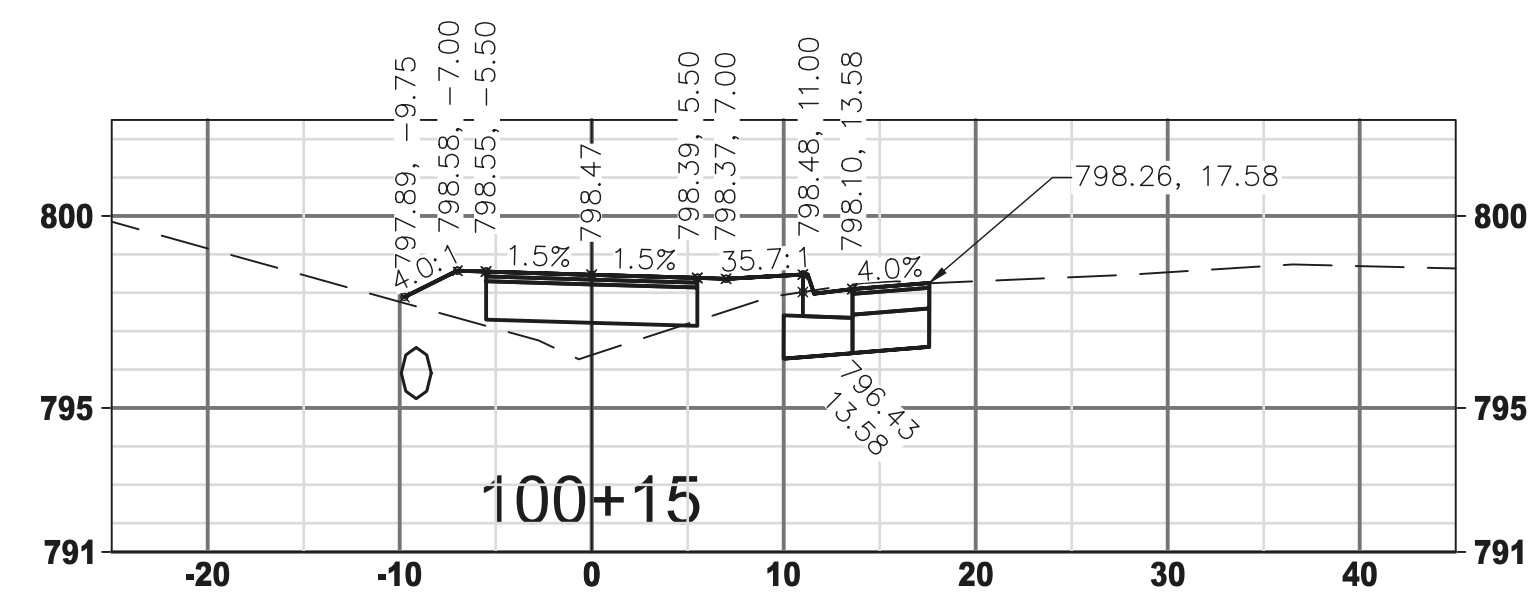
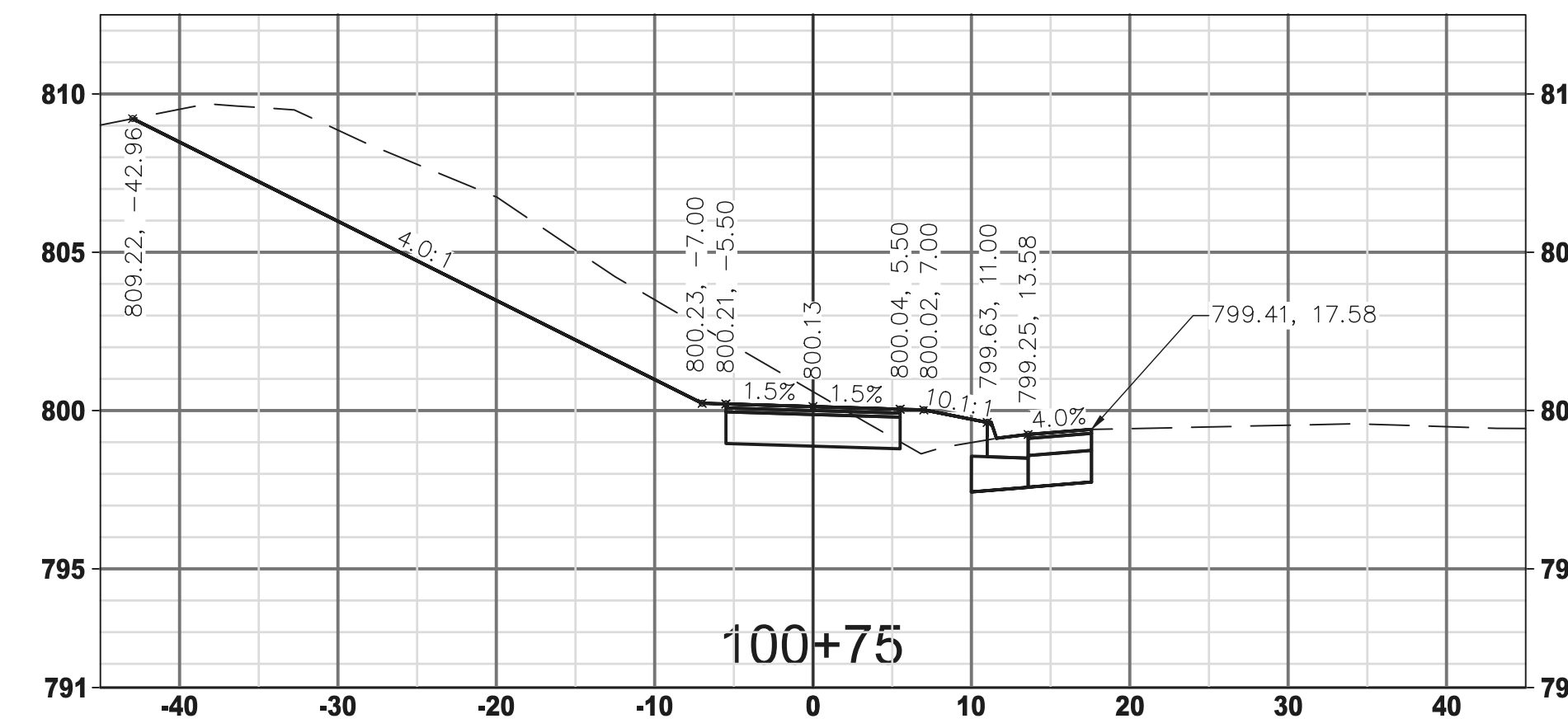
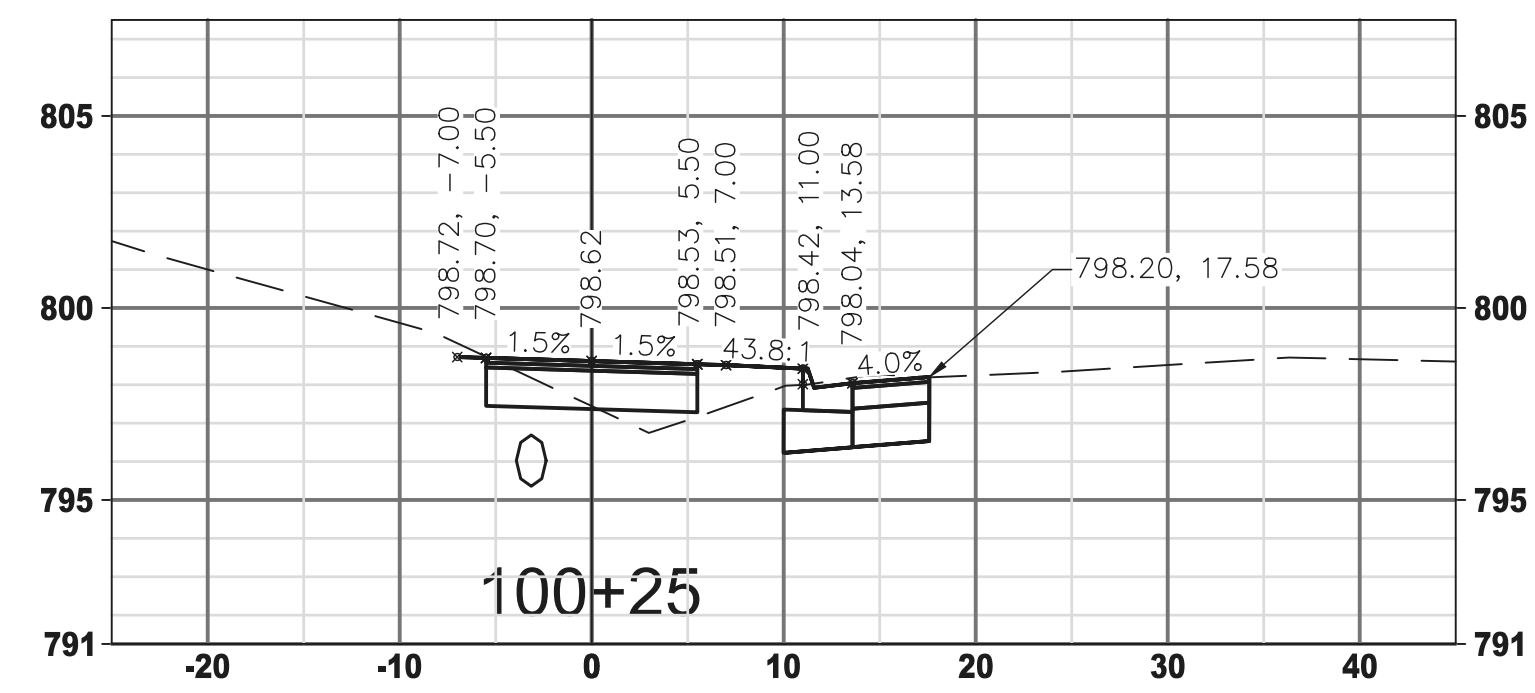
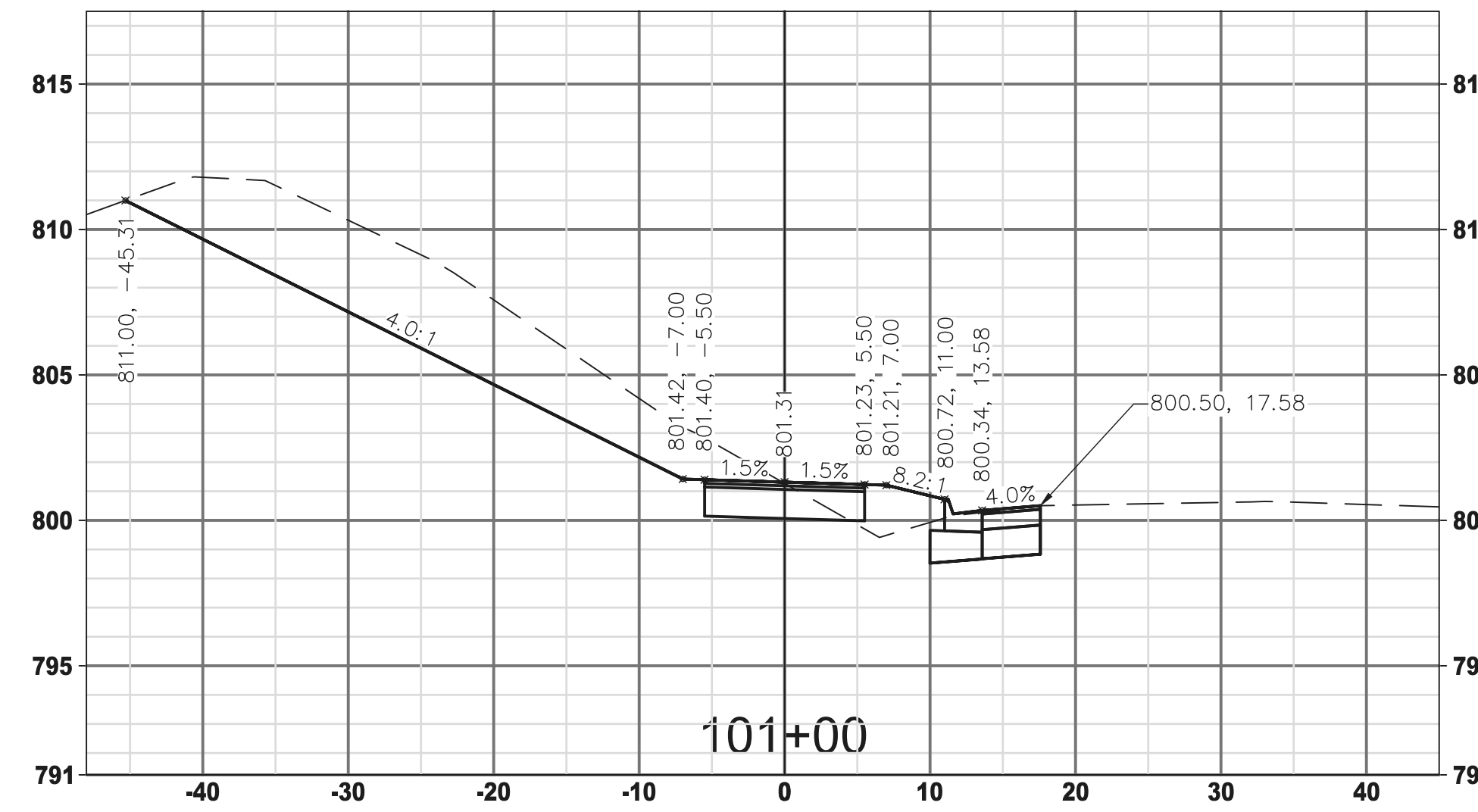


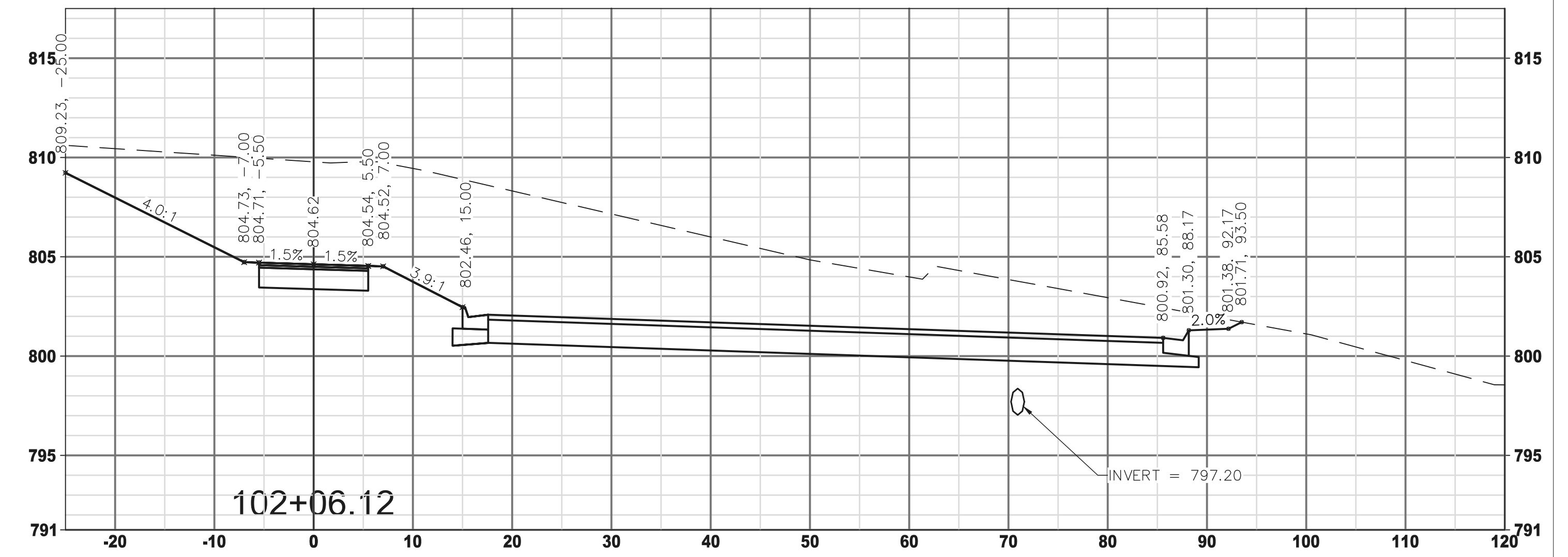
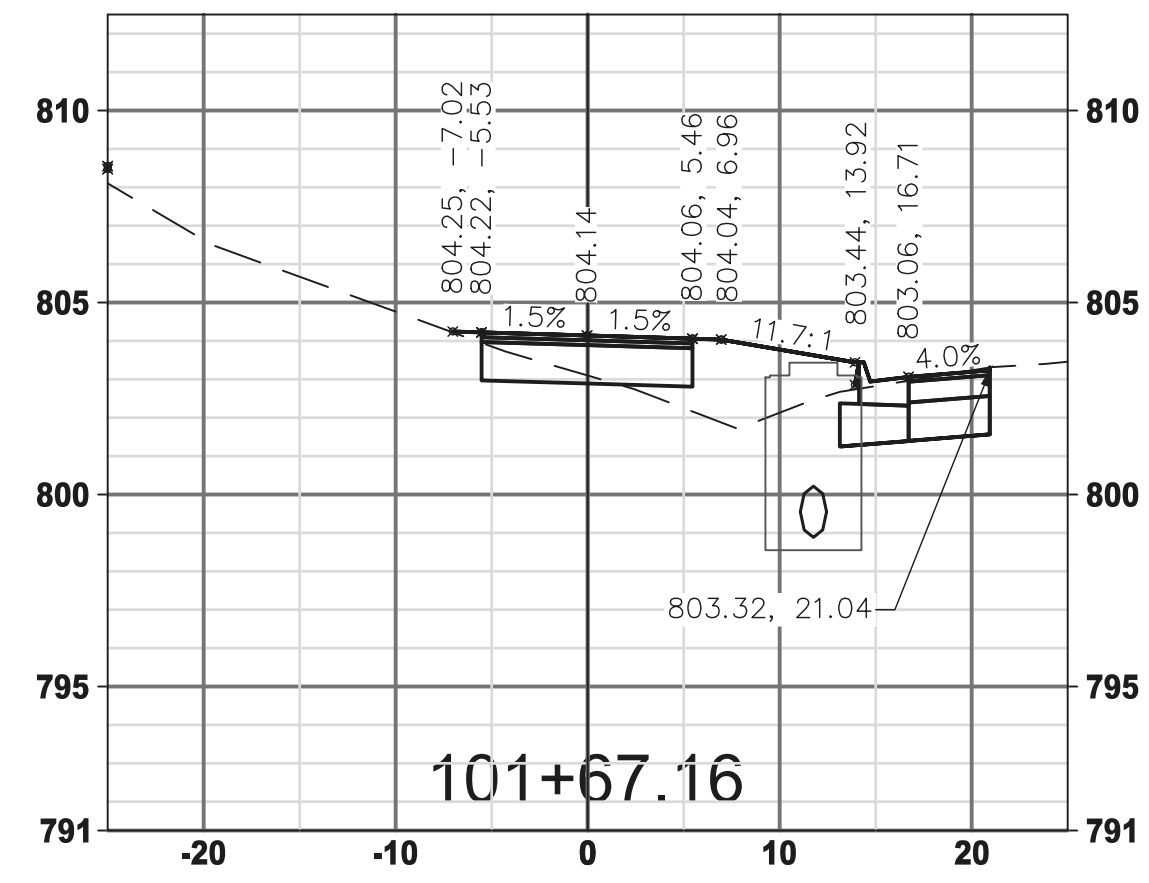


NOTE: THE IDNR (ROCK CUT STATE PARK) RECENTLY IMPROVED HART ROAD (EAST OF PERRYVILLE ROAD). PROPOSED ELEVATIONS SHOWN FOR THE IMPROVEMENTS ALONG HART ROAD MAY NEED TO BE ADJUSTED IN THE FIELD TO ACCOUNT FOR NEW/REVISED EXISTING CONDITIONS.

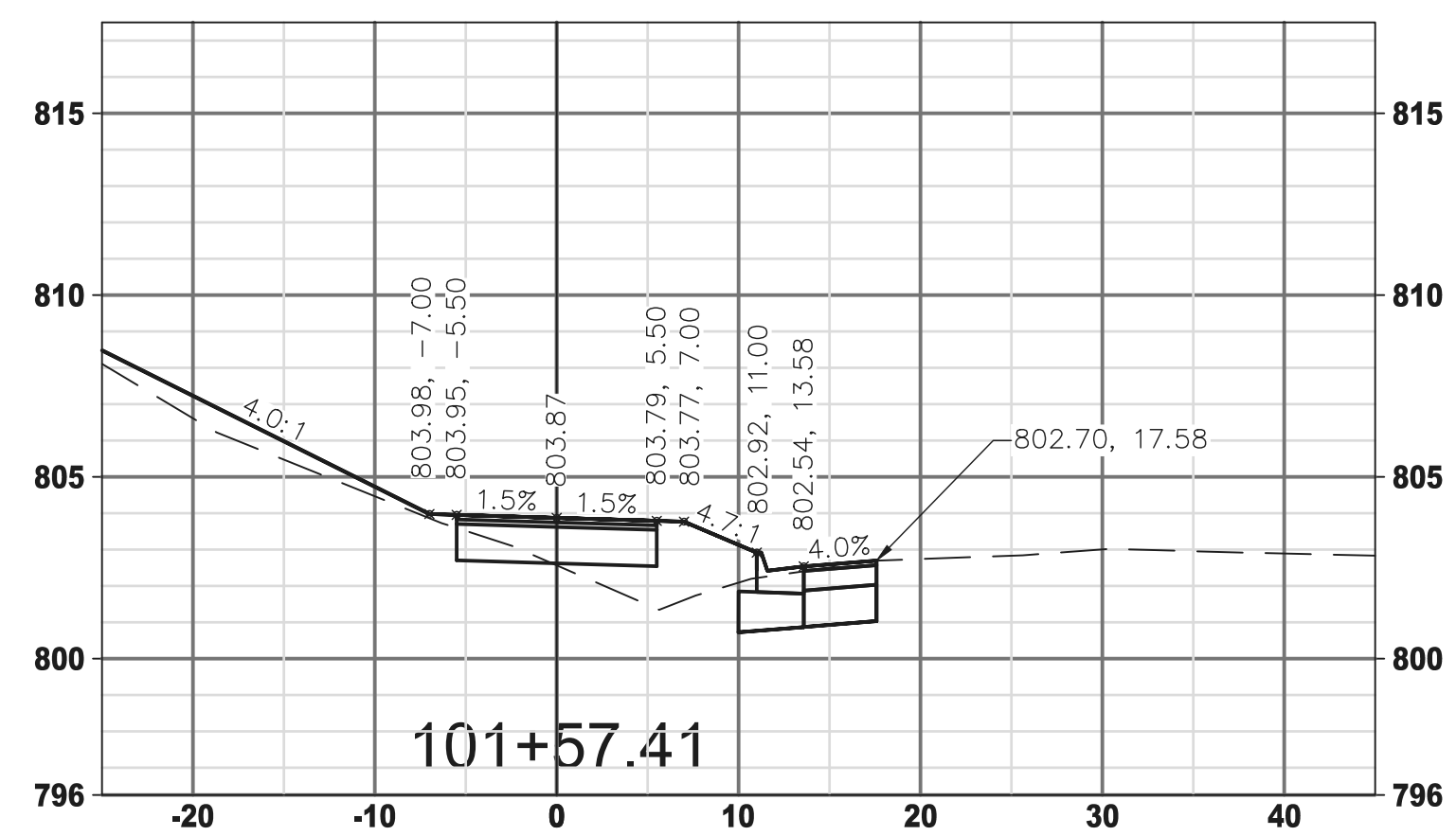


HART ROAD LOW POINT

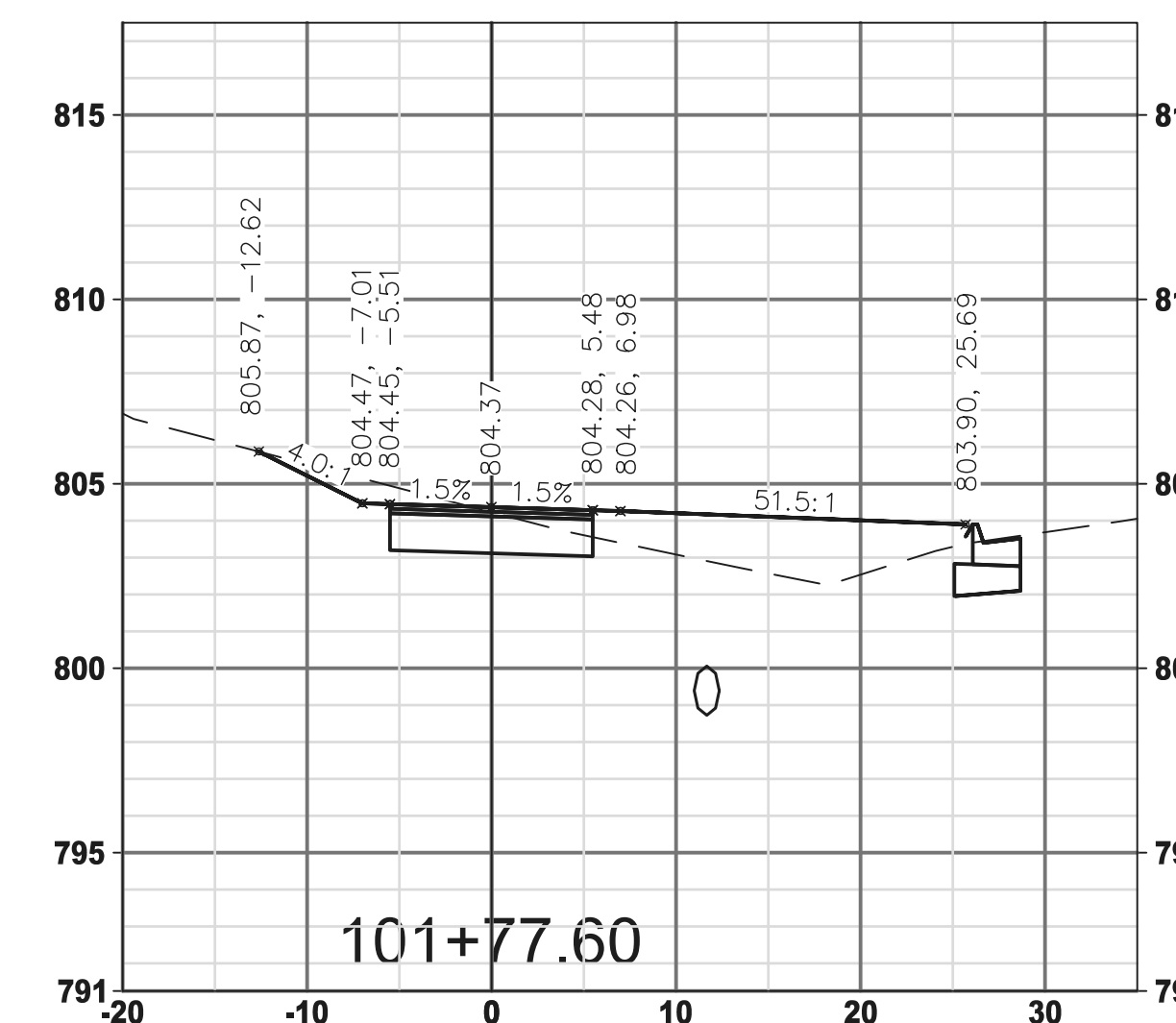
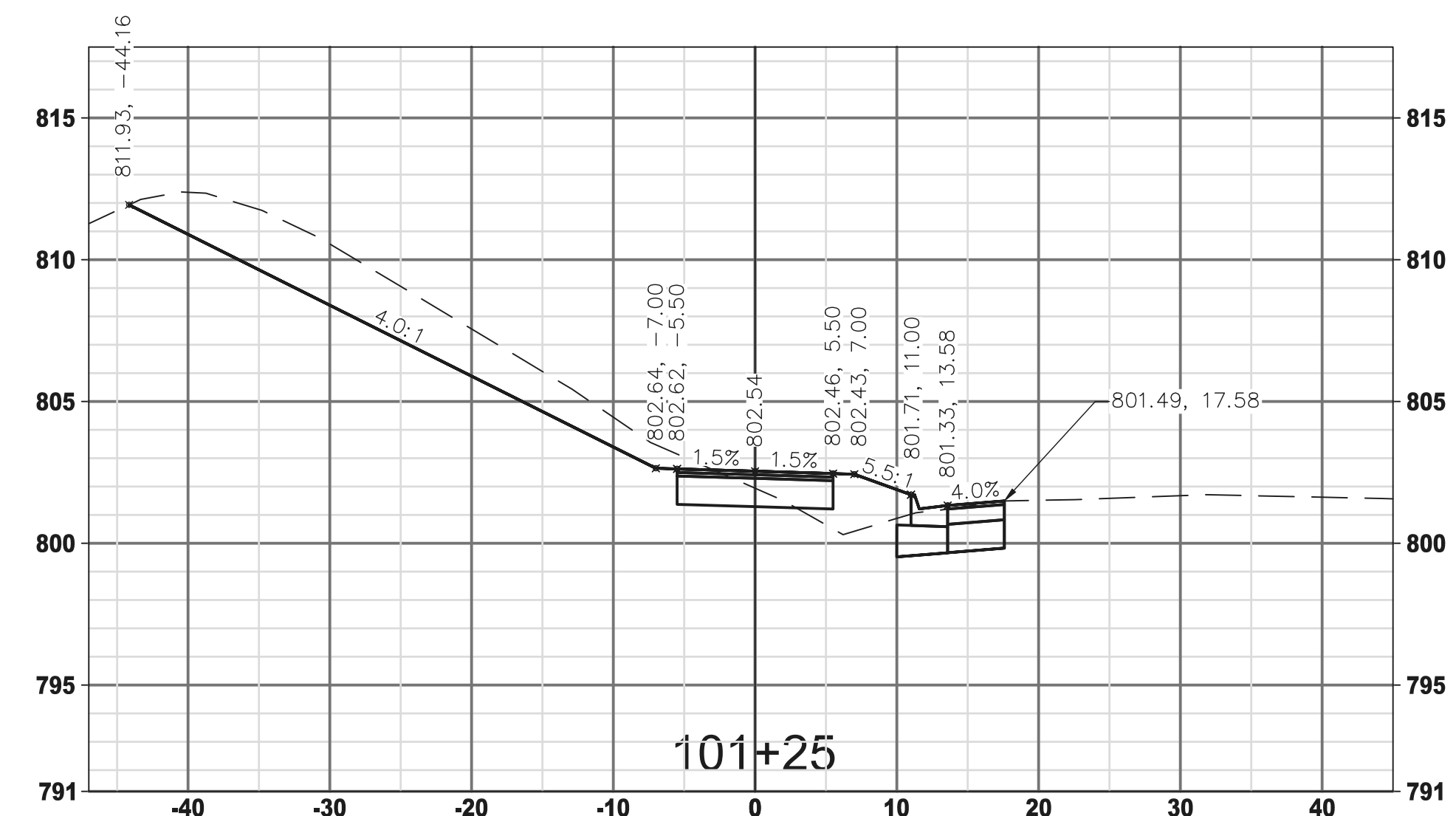
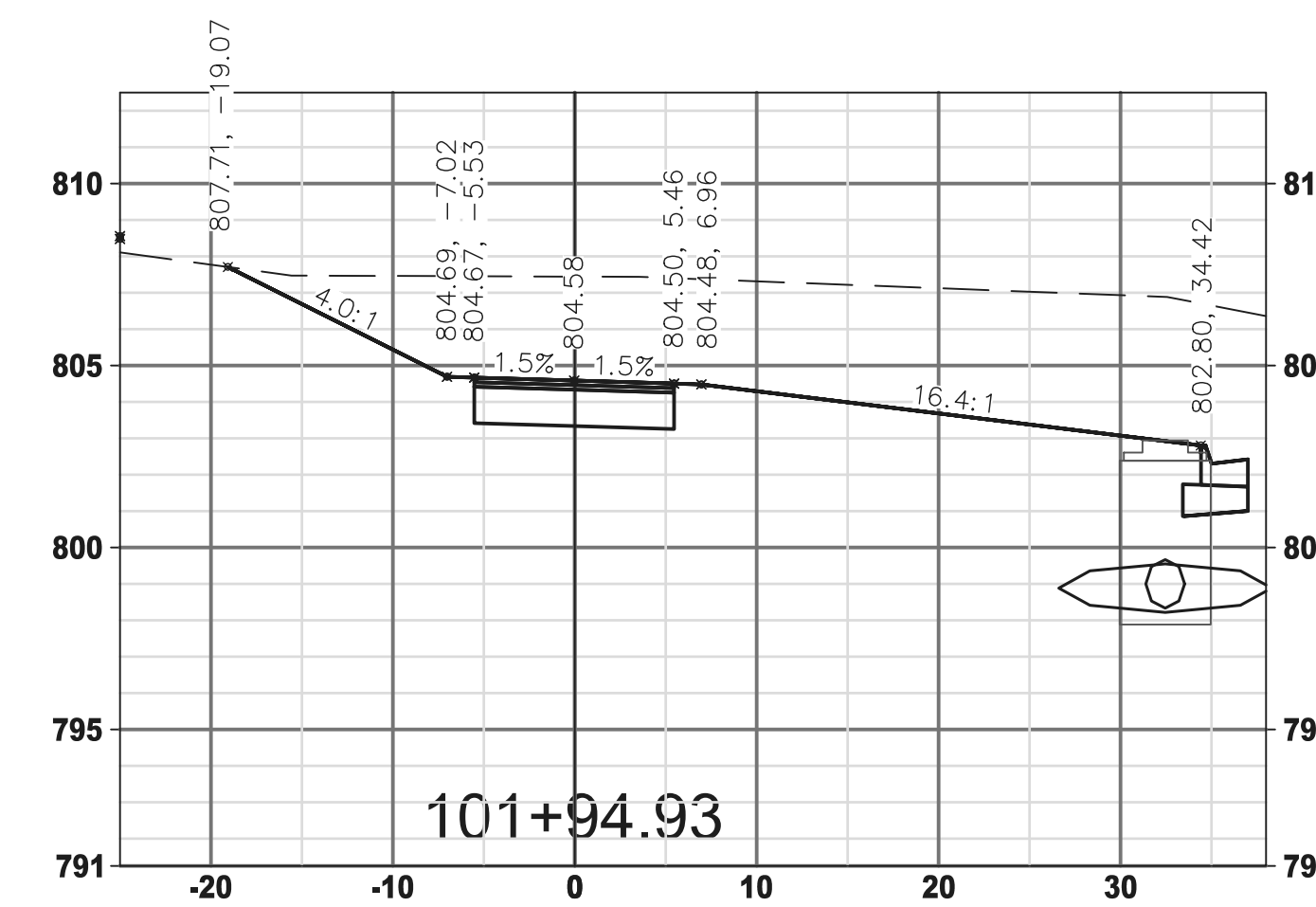




HART ROAD PATH HIGH POINT

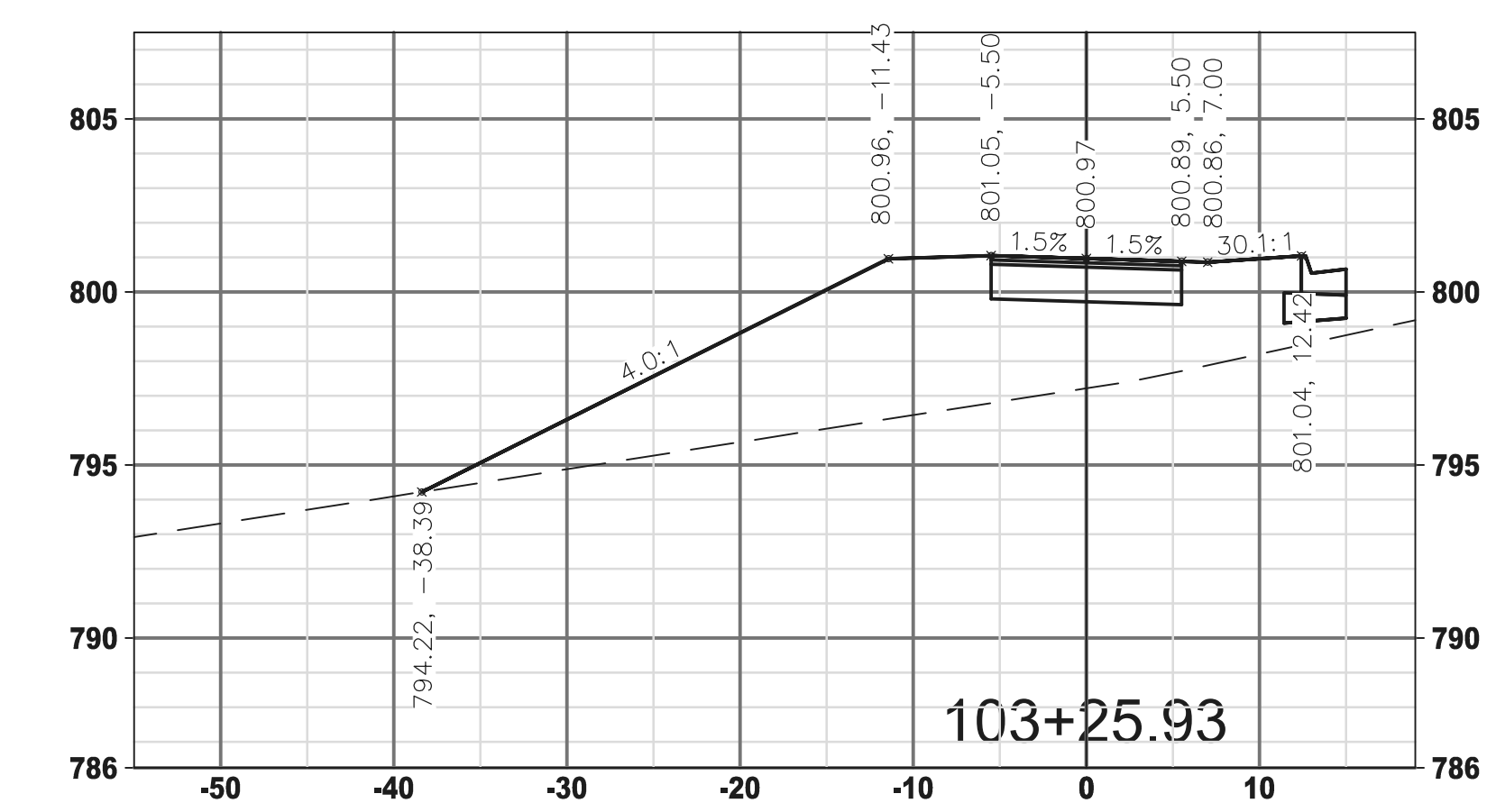
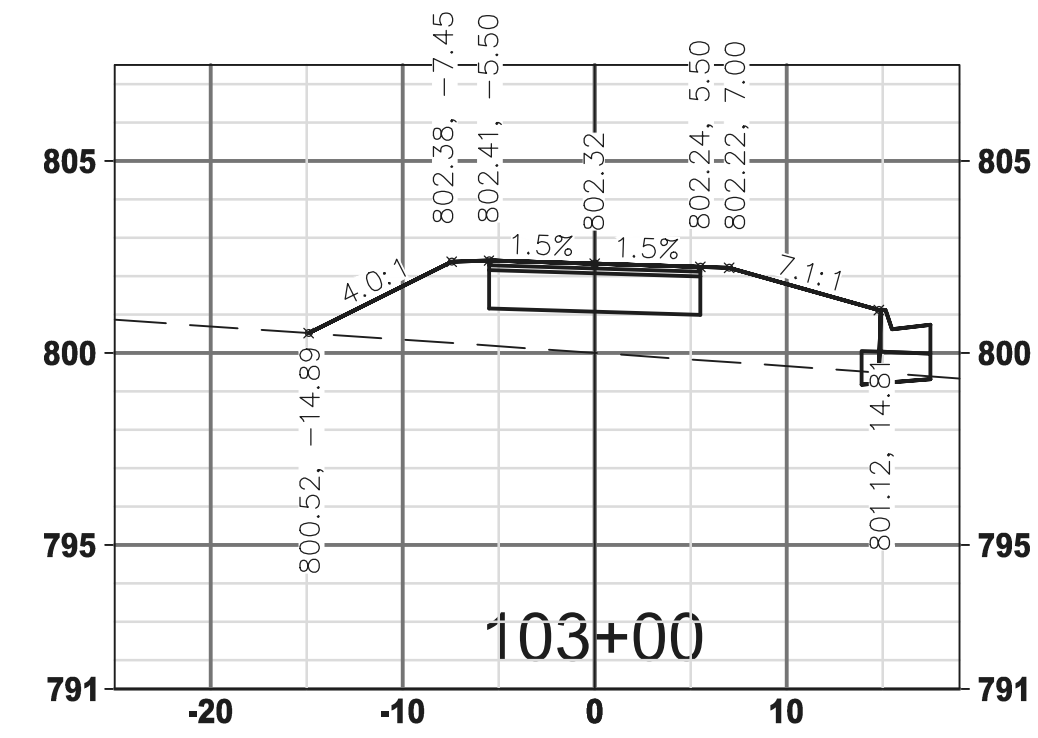


HART ROAD PATH PC

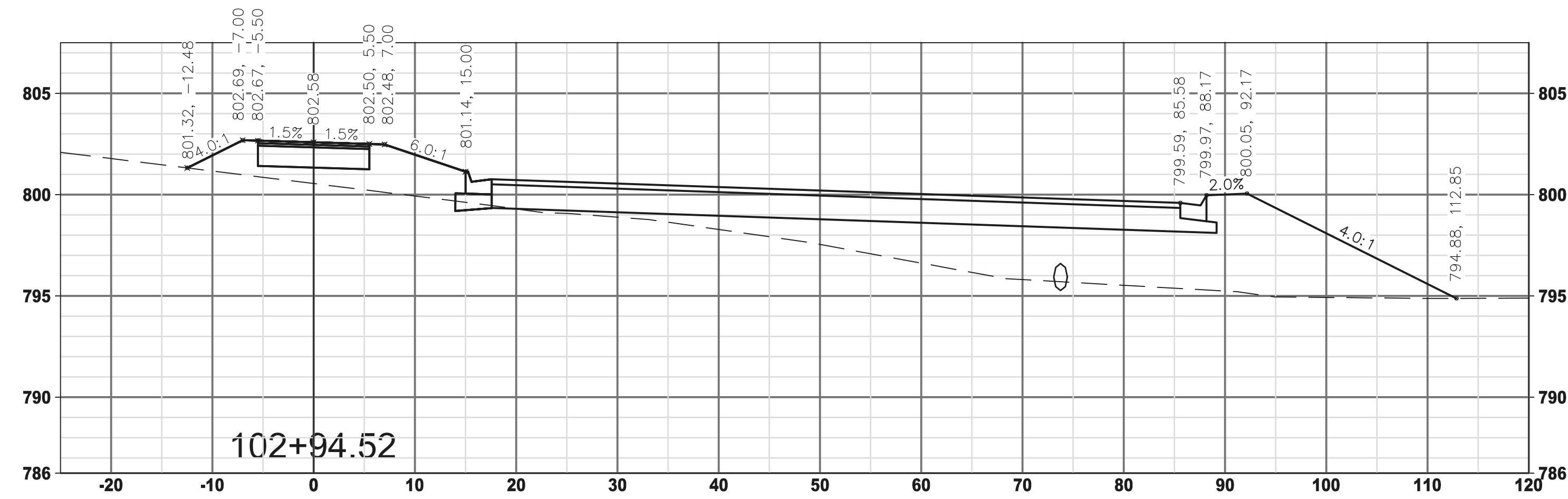


HART ROAD PATH CURVE MIDPOINT

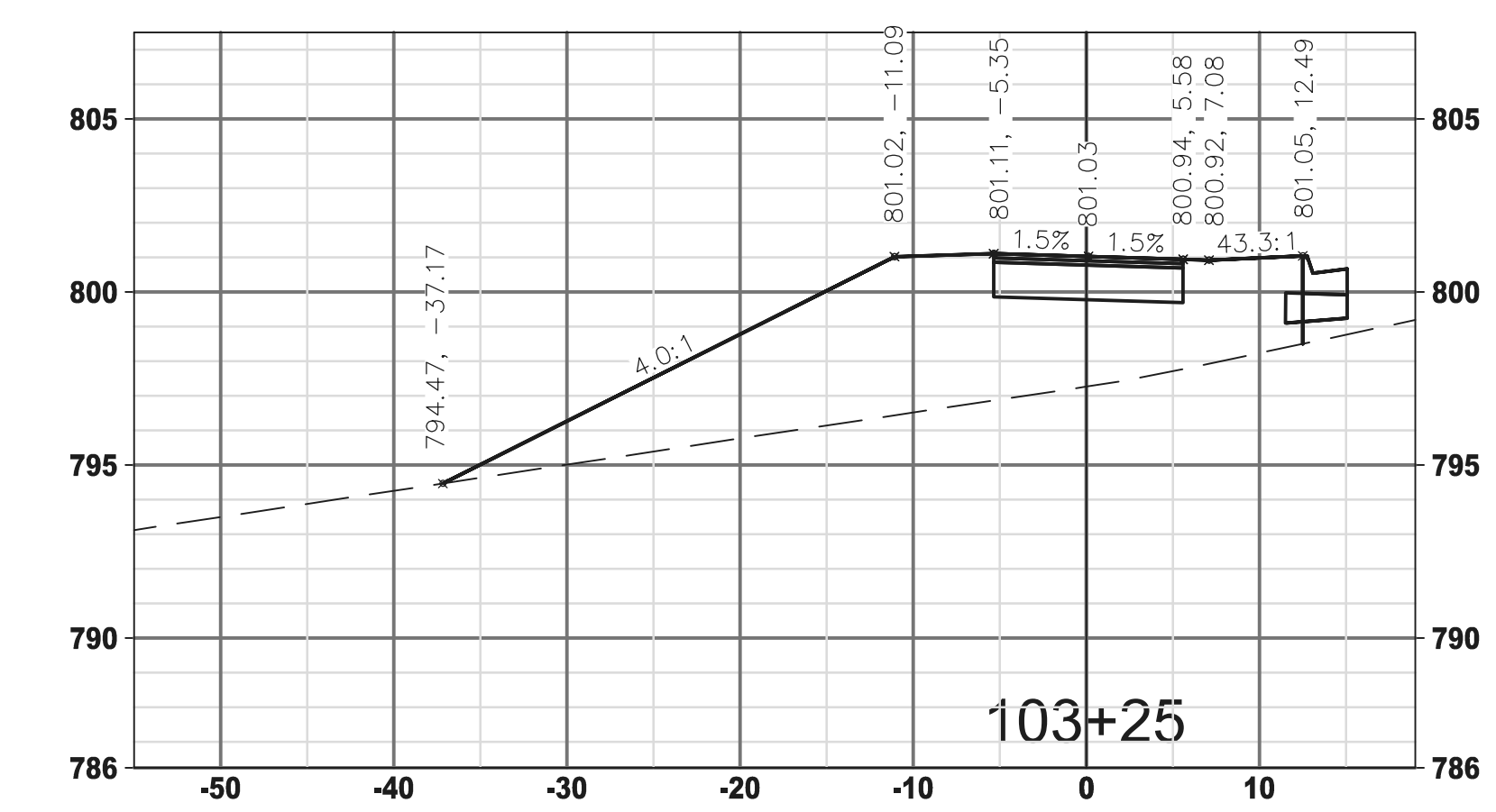




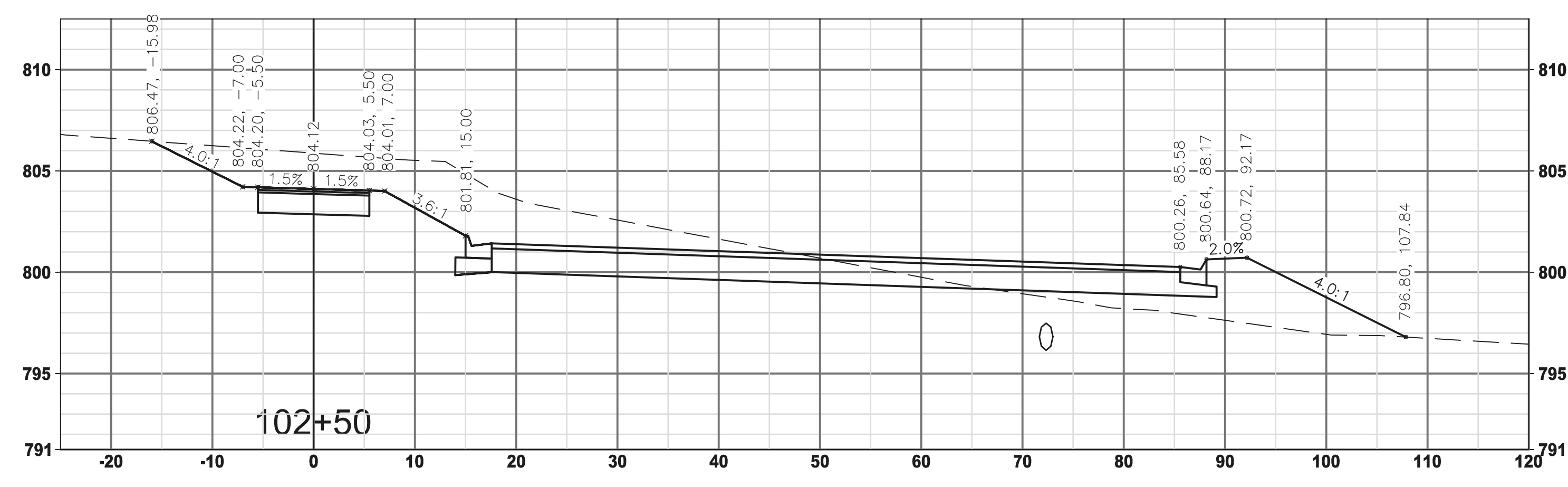
HART ROAD PATH PT



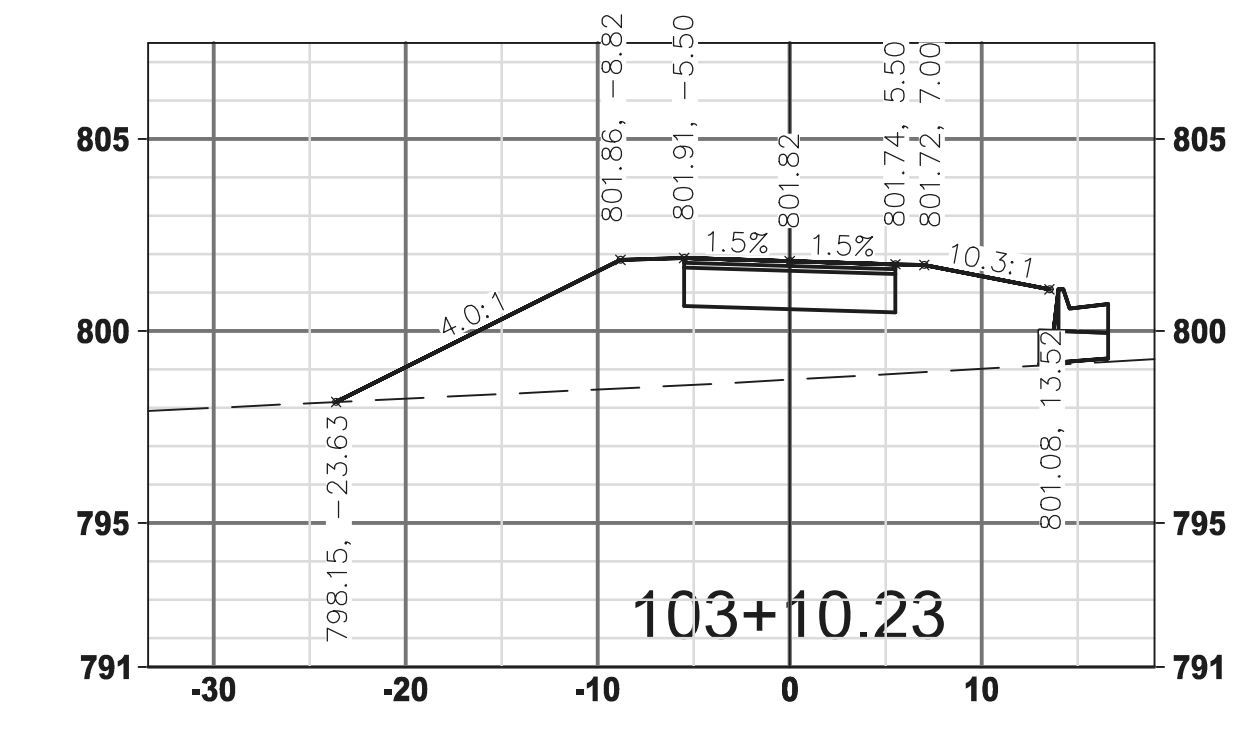
HART ROAD PATH PC



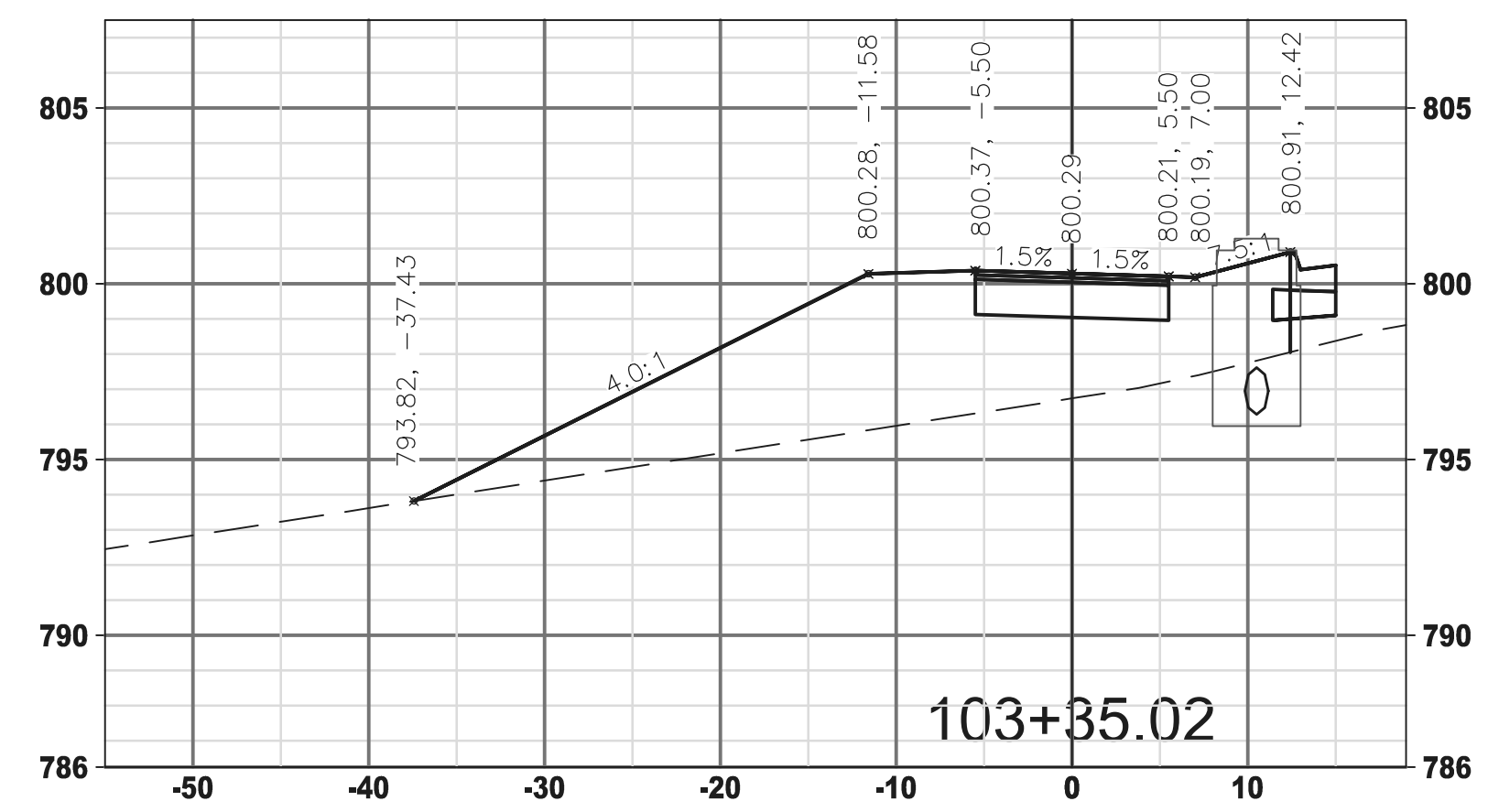
103+25



102+50

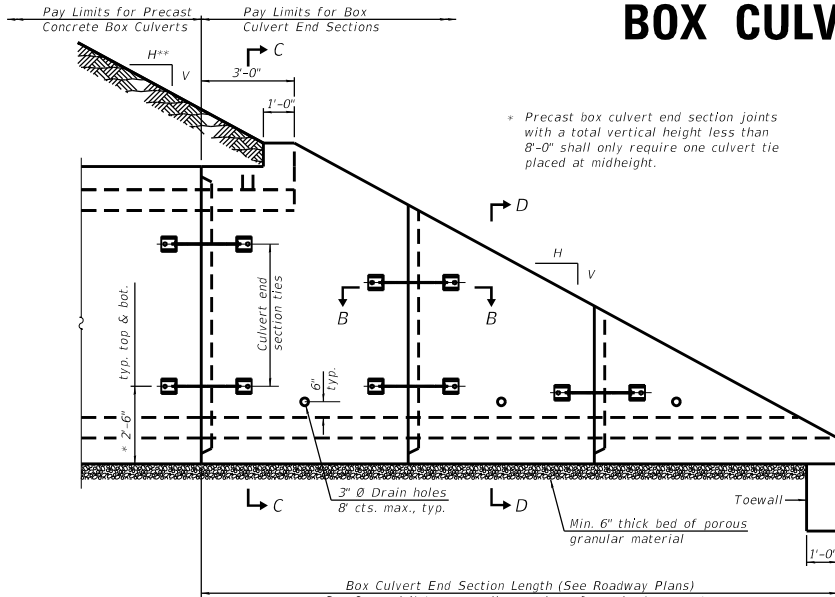


HART ROAD PATH CURVE MIDPOINT

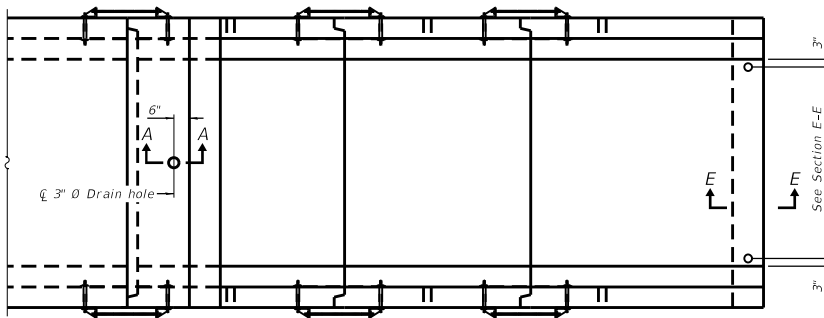




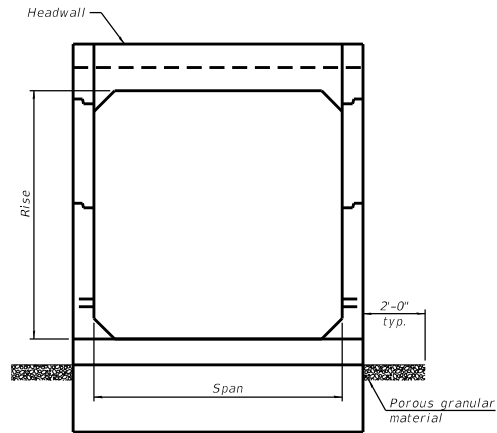
# BOX CULVERT END SECTIONS



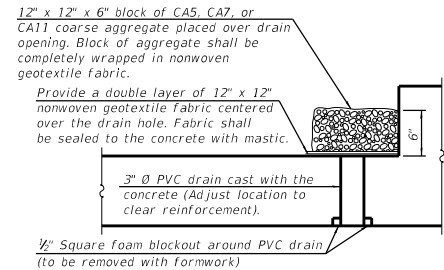
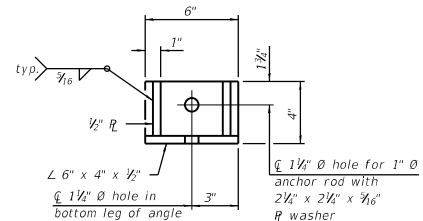
ELEVATION



PLAN



END VIEW



(All costs associated with furnishing and constructing the above drain detail will not be measured for payment but shall be included in the contract unit price for the associated work.) (Sheet 1 of 2)

**GENERAL NOTES**

Box Culvert End Sections shall be constructed according to the requirements of Section 540 of the Standard Specifications except as modified herein. This work will be measured for payment as each, with each end of each culvert being one each. End sections will be paid for at the contract unit price per each for Box Culvert End Sections of the culvert number specified.

Typical box section dimensions, materials, and reinforcement details for Box Culvert End Sections shall be according to the requirements of ASTM C 1577 as required for the design of the portion of the culvert within the limits of Precast Concrete Box Culverts except as modified herein.

Number of segments shown in Elevation is for example only. Length and number of precast box sections required to construct Box Culvert End Sections shall be determined by the Contractor.

\*\* See roadway plans for embankment slope (V:H).

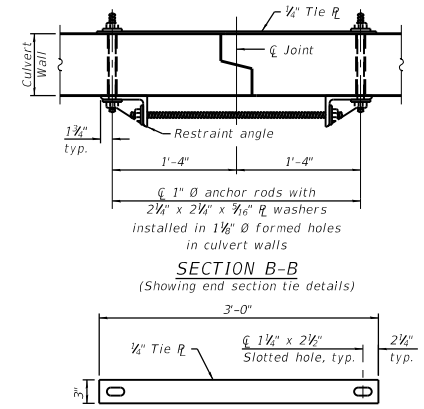
1" Ø anchor rods for the culvert ties shall conform to the requirements of ASTM F1554, Grade 105. Structural steel for tie plate and restraint angle shall conform to the requirements of Article 1006.04 of the Standard Specifications. All components of the culvert tie detail shall be galvanized according to the requirements of AASHTO M 111 or M 232 as applicable. 2 1/2" x 2 1/2" x 1/16" plate washers shall be provided under each nut required for the anchor rods. Anchor rods connecting precast sections shall be brought to a snug tight condition followed by an additional 1/2 turn on one of the nuts for anchor rods installed in the walls. Match marks shall be provided on the bolt and nut to verify relative rotation between the bolt and the nut. Holes in the walls for the culvert tie assembly may be drilled using core bits in lieu of using formed holes.

All costs associated with furnishing and installing or constructing the toewall and culvert ties will not be measured for payment but shall be included in the contract unit price for Box Culvert End Sections of the culvert number specified.

Drain holes shall conform to the requirements of Article 503.11 of the Standard Specifications unless noted otherwise.

Nonwoven geotextile fabric shall conform to the requirements of Article 1080.01. The minimum weight of the fabric shall be 6 oz. / sq. yd..

For end sections with traversable pipe grate systems, see grate detail sheet for required modifications.



SCB-TES

2-17-2017

FILE NAME: DRBKT 2 Standard	USER NAME: IDOT/DRBKT 2	DESIGNED -	REVISED - 1-10-18
		DRAWN -	REVISED - 1-05-16
PLOT SCALE: 3/8" = 1' BL.	CHECKED -	REVISOR -	5-09-14
PLOT DATE: 5/14/2020	DATE -	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

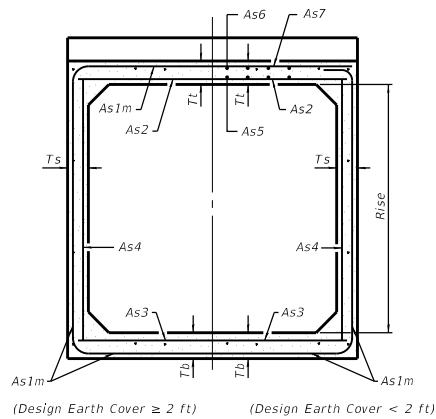
REGION 2 / DISTRICT 2 STANDARD

SCALE:	SHEET 1 OF 2 SHEETS	STA.	TO STA.	F.A. SITE.	SECTION	COUNTY	TOTAL SHEETS, NO.
							CONTRACT NO.
							ILLINOIS FED. AID PROJECT

# BOX CULVERT END SECTIONS

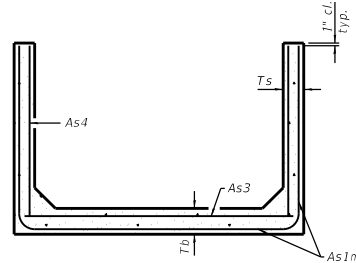
Rise (ft)	2	3	4	5	6	7	8	9	10	11	12
4	0.19	0.17									
5	0.26	0.21	0.18								
6	0.22	0.26	0.23	0.22							
7	0.25	0.33	0.59	0.27	0.28						
8	0.40	0.35	0.43	0.39	0.36	0.34	0.40				
9	0.44	0.39	0.35	0.43	0.40	0.37	0.36	0.48			
10	0.48	0.42	0.38	0.47	0.44	0.41	0.38	0.42	0.56		
11	0.52	0.45	0.54	0.50	0.46	0.44	0.41	0.46	0.50	0.65	
12	0.55	0.49	0.58	0.54	0.50	0.48	0.45	0.46	0.46	0.61	0.75

(As1m reinforcement based upon welded wire reinforcement conforming to AASHTO M 55 or M 221).

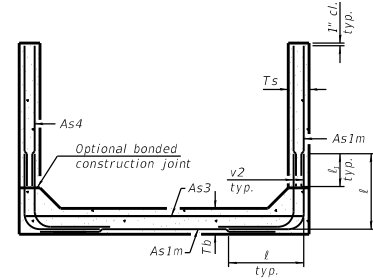


(Design Earth Cover ≥ 2 ft) (Design Earth Cover < 2 ft)

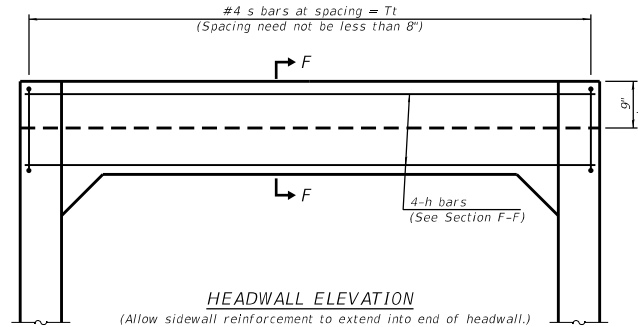
SECTION C-C



SECTION D-D



ALTERNATE SECTION D-D



HEADWALL ELEVATION

(Allow sidewall reinforcement to extend into end of headwall.)

**l<sub>2</sub> DIMENSION**

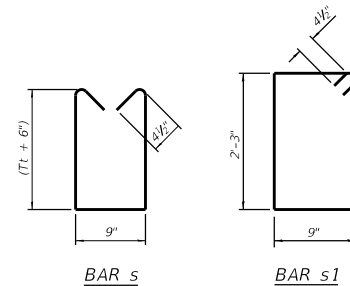
- #3 bar = 2'-0"
- #4 bar = 2'-8"
- #5 bar = 3'-4"
- #6 bar = 3'-11"

**Notes:**

Alternate Section D-D is provided to allow the Contractor the option of casting the bottom slab of the end section first followed by construction of the sidewalls using conventional forming methods. Shop drawings that detail slab thickness and reinforcement layout shall be submitted to the Engineer for review and approval when using Alternate Section D-D.

The size and spacing of the v2 bars shall provide a minimum reinforcement area along each face of the walls (in.<sup>2</sup>/ft.) equal to 1.10(As1m). v2 bars may consist of #3 thru #6 size reinforcement bars and the longitudinal spacing shall not exceed the lesser of the wall thickness or 8 inches.

Bonded construction joints shall be prepared according to Article 503.09 of the Standard Specifications.



BAR S

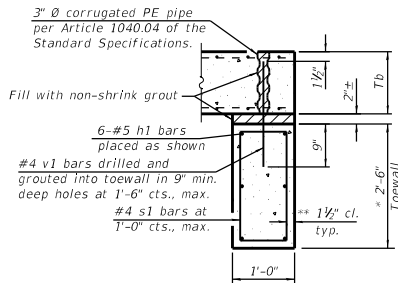
BAR S1

**TOEWALL CONSTRUCTION SEQUENCE**

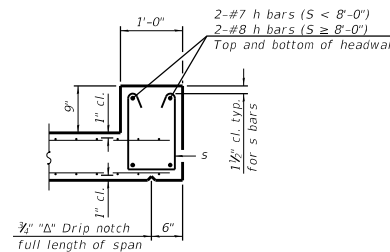
1. Perform excavation and construct toewall.
2. Backfill according to the applicable paragraphs of Article 502.10 of the Standard Specifications and place bedding for precast box culvert end sections.
3. Set precast box culvert end section.
4. Drill and epoxy grout reinforcement in toewall in accordance with Section 584 of the Standard Specifications.
5. Pressure grout voids using non-shrink grout conforming to Section 1024 of the Standard Specifications.

\* The Contractor may furnish a precast or cast-in-place toewall. The Contractor shall be responsible for the strength and stability of the precast toewall during handling. Additional lifting points may be required depending upon the length of the toewall or the Contractor may need to modify the design of the toewall for the proposed handling method.

\*\* If soil conditions permit, the sides of the toewall may be poured directly against the soil. The clear cover on the sides of the toewall shall be increased to 3" by increasing the thickness of the toewall.



SECTION E-E



SECTION F-F

(Sheet 2 of 2)

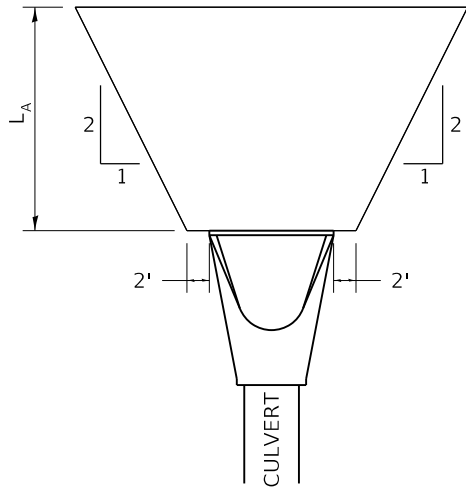
SCB-TES

2-17-2017

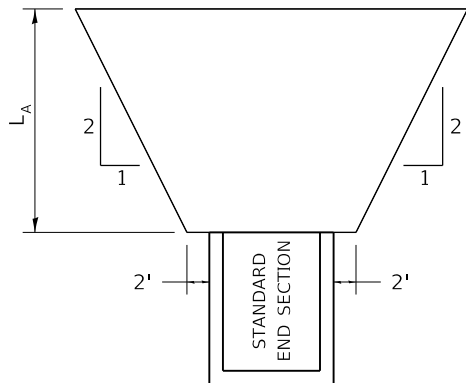
FILE NAME: DRBKT 2 Standard	USER NAME: IDOT/DRBKT 2	DESIGNED: -	REVISED: - 1-10-18	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>REGION 2 / DISTRICT 2 STANDARD</b>	F.A. SITE:	SECTION:	COUNTY:	TOTAL SHEET NO.:
PLOT SCALE: = 3/8" = 1' B.L.	CHECKED: -	REVISED: - 1-05-16	SCALE:			SHEET 2 OF 2 SHEETS	STA. TO STA.	CONTRACT NO.	
PLOT DATE: = 5/14/2020	DATE: -	REVISED: - 5-09-14	ILLINOIS			FED. AID PROJECT			



# RIPRAP AT END SECTIONS



FLARED END SECTION

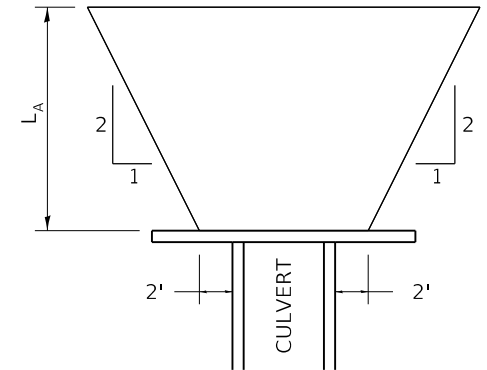


STANDARD END SECTION

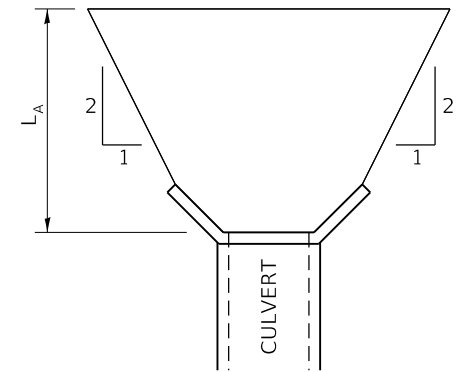
$L_A$  = APRON LENGTH (ft)

IF THE CULVERT OUTLETS INTO A DEFINED CHANNEL, RIPRAP BANK TO BANK FOR LENGTH ( $L_A$ ).

STANDARD END SECTION:  
542001 (PIPE), 542011 (ELLIPTICAL)  
DISTRICT STANDARD 10.1 (BOX).



CULVERT WITH HEADWALL

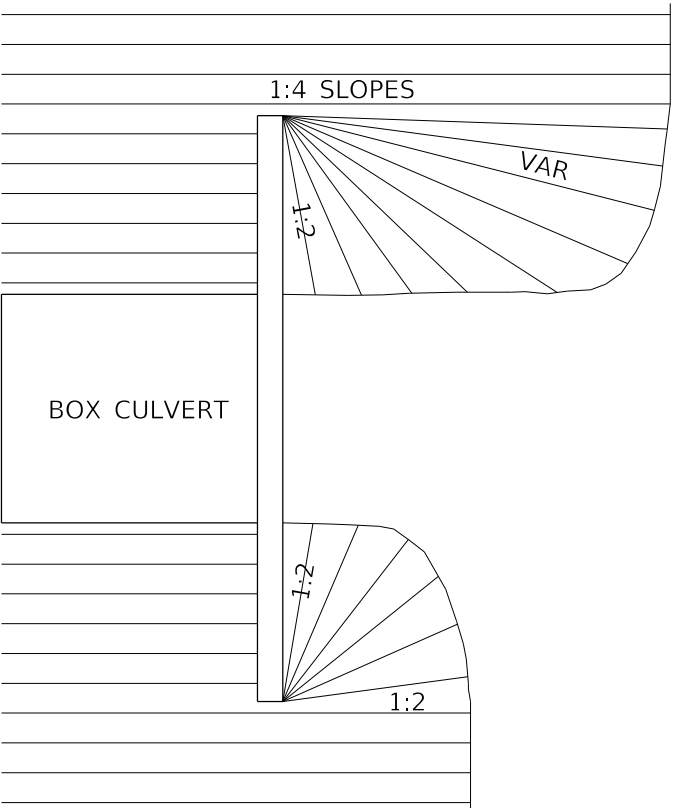
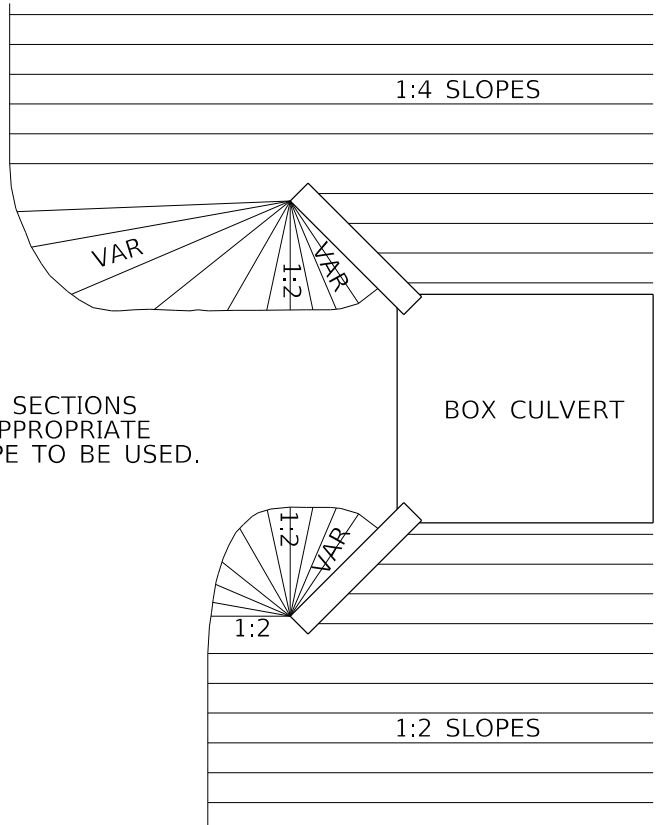


CULVERT WITH WING WALLS

FILE NAME: District 2 Standard  
PLOT DATE = 5/14/2020

REVISED - 7-13-16	<b>REGION 2 / DISTRICT 2 STANDARD</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED - 11-12-14									
REVISED - 2-10-14					CONTRACT NO.				
REVISED -	SCALE: 1.5455 ' / in.	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

# GRADING AROUND WINGWALLS



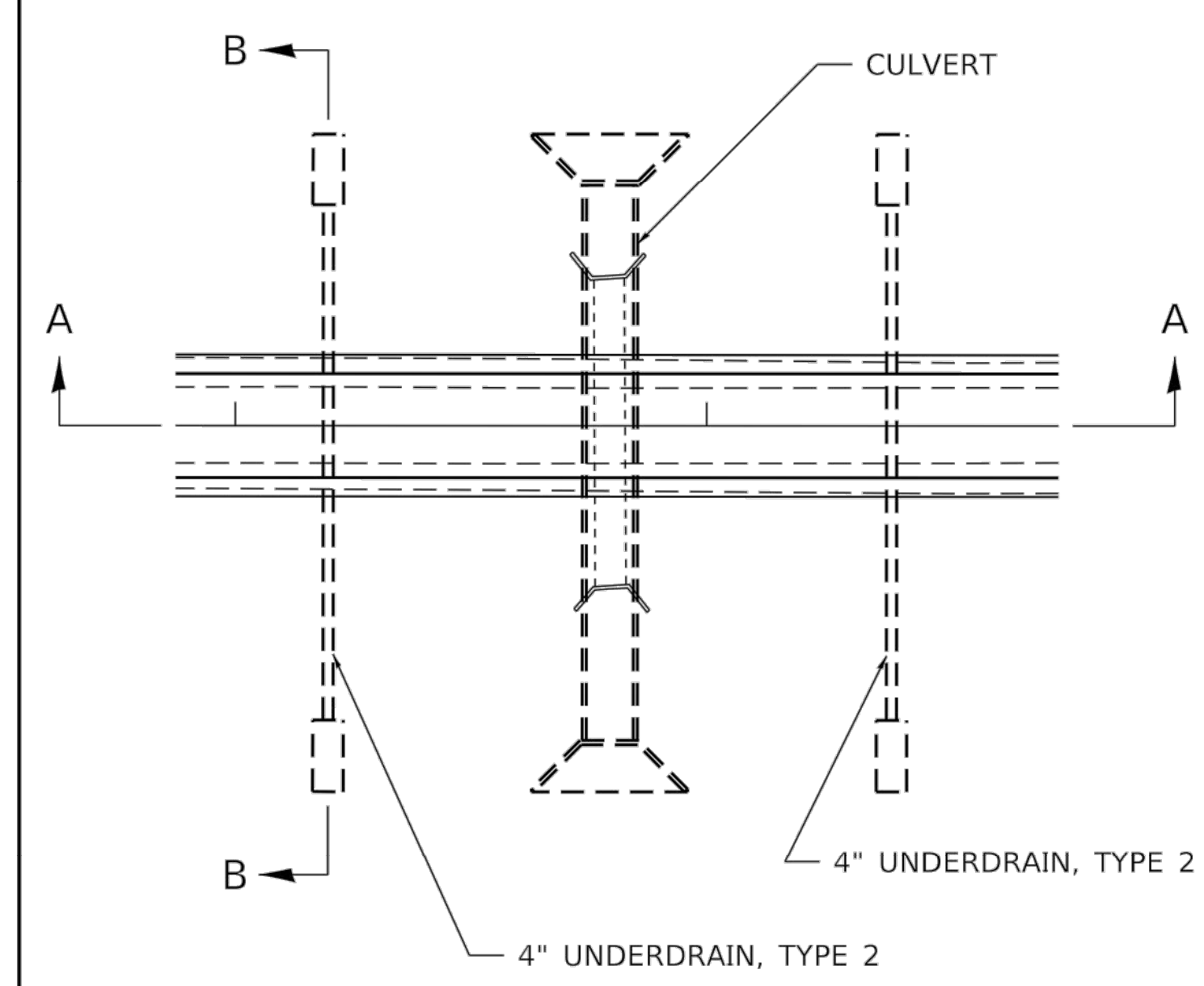
**NOTES**  
SEE CROSS SECTIONS  
FOR THE APPROPRIATE  
FRONTSLOPE TO BE USED.

FILE NAME: District 2 Standard  
PLOT DATE = 5/14/2020

REVISED - 5-27-09	<b>REGION 2 / DISTRICT 2 STANDARD</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
REVISED -												
REVISED -									CONTRACT NO.			
REVISED -	SCALE: 1.5455 ' / in.	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT					



# UNDERDRAIN FOR ACROSS ROAD (AR) CULVERTS



**NOTES:**

IN SAG CONDITIONS INSTALL PIPE UNDERDRAINS, TYPE 2, 4" ON BOTH SIDES OF CULVERT.

ON HIGHWAY GRADES GREATER THAN 2% INSTALL PIPE UNDERDRAINS, TYPE 2, 4" ON THE HIGH SIDE OF THE CULVERT.

THIS WORK SHALL BE COMPLETED ACCORDING TO SECTION 601 OF THE STANDARD SPECIFICATIONS.

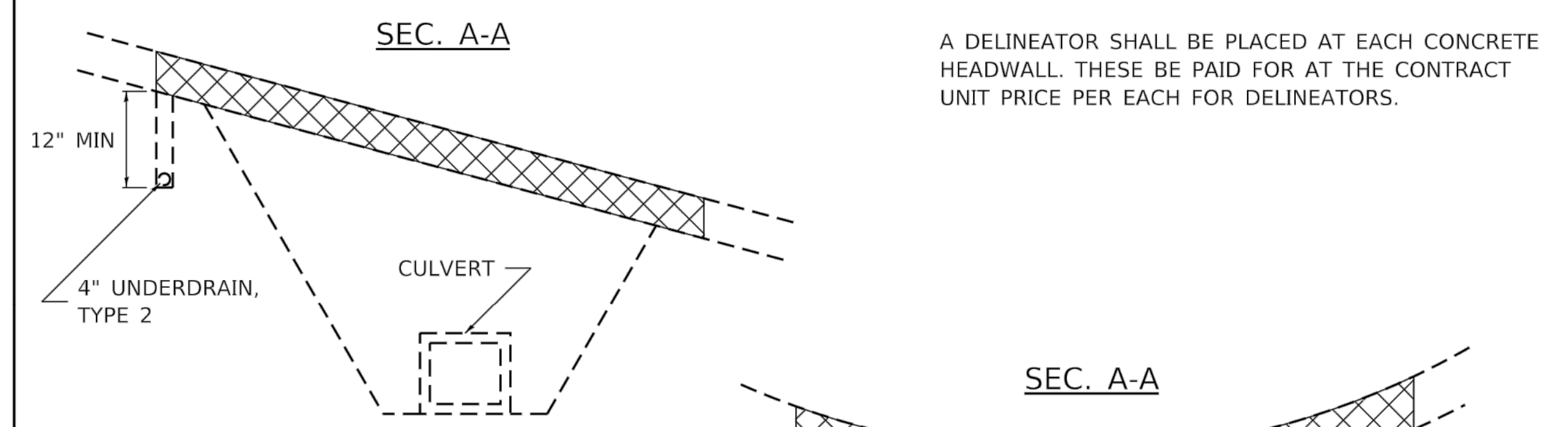
THE UNDERDRAIN SHALL EXTEND UNTIL INTERSECTING WITH THE SIDE SLOPES. THE PIPES SHALL DRAIN INTO CONCRETE HEADWALLS. (SEE ARTICLE 601.05 OF THE STANDARD SPECIFICATIONS AND HIGHWAY STANDARD 601101).

THE UNDERDRAIN SHALL BE A MINIMUM OF 12" BELOW THE EXISTING PAVEMENT.

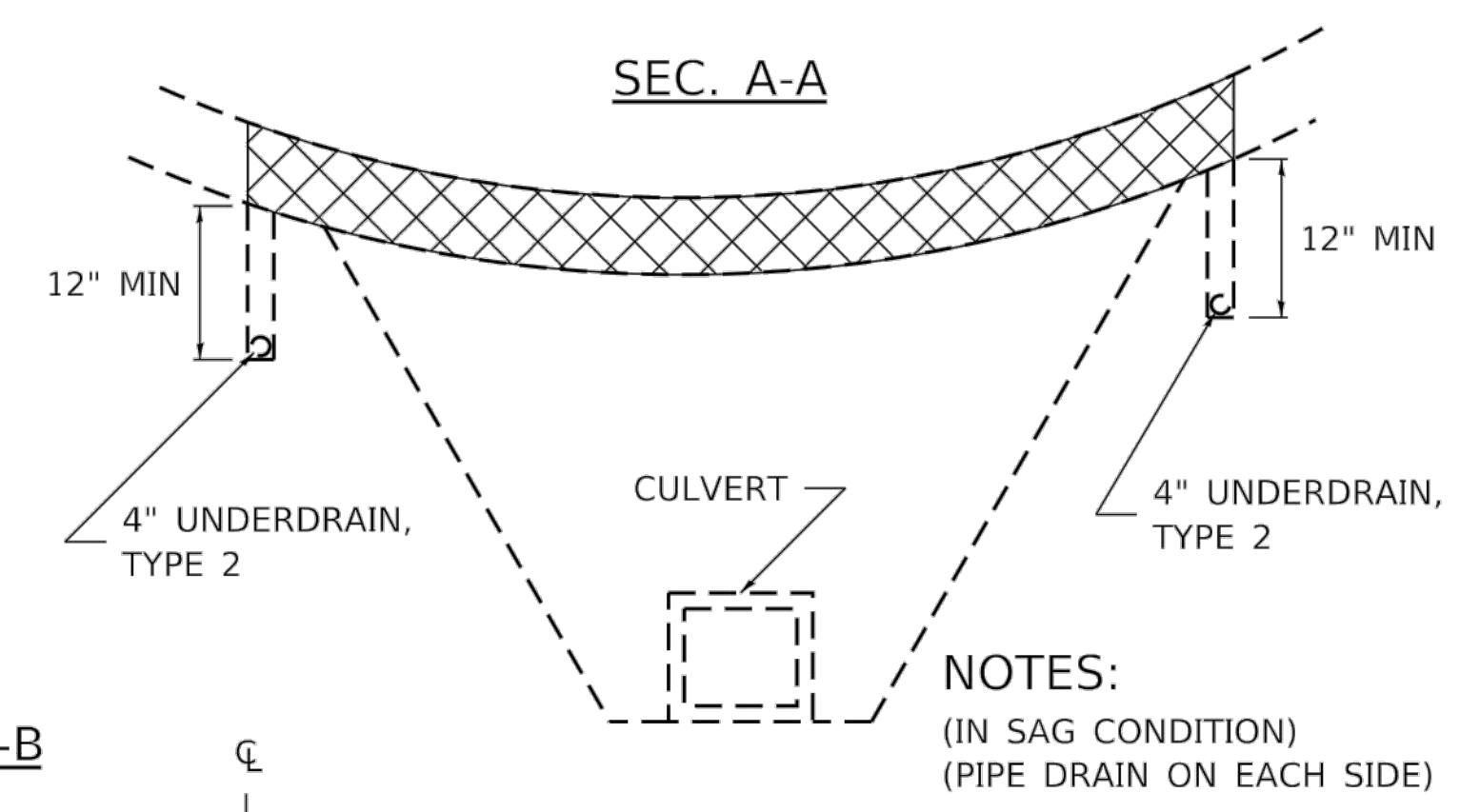
PIPE UNDERDRAINS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR PIPE UNDERDRAINS, TYPE 2, 4".

CONCRETE HEADWALLS WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR CONCRETE HEADWALLS FOR PIPE DRAINS.

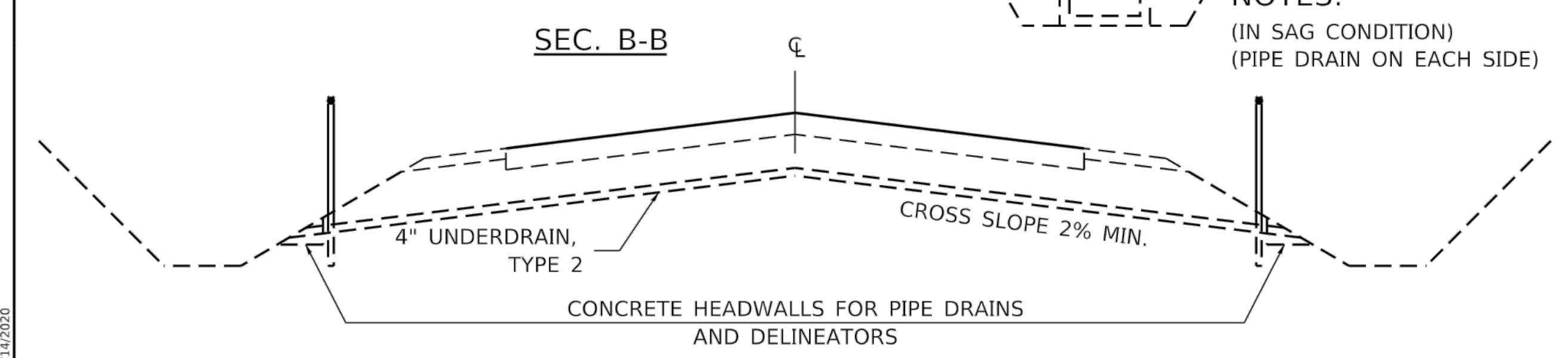
A DELINEATOR SHALL BE PLACED AT EACH CONCRETE HEADWALL. THESE BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR DELINEATORS.



**NOTES:**  
(HIGHWAY GRADE GREATER THAN 2%)



**NOTES:**  
(IN SAG CONDITION)  
(PIPE DRAIN ON EACH SIDE)

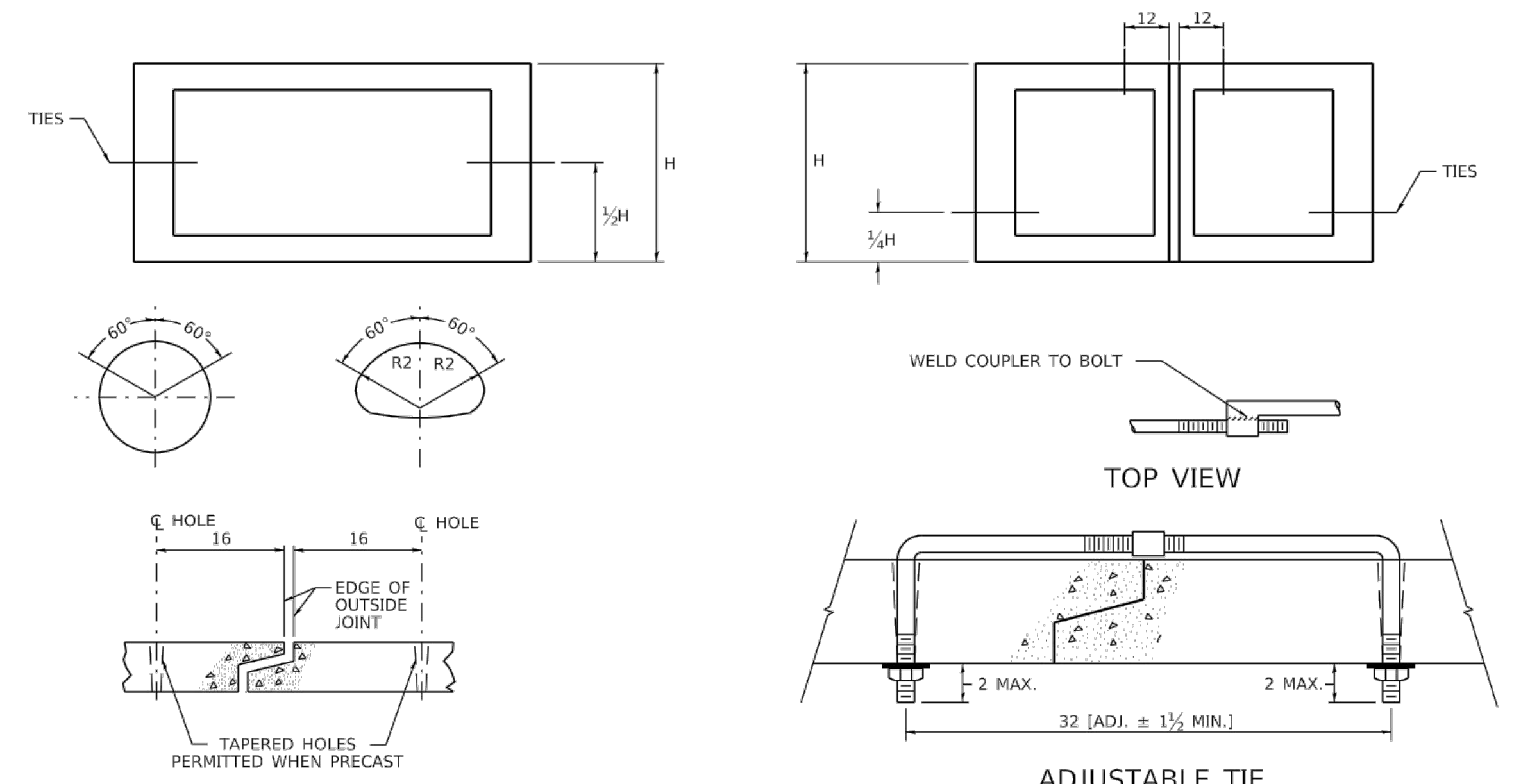


REVISED - 8-03-17	REGION 2 / DISTRICT 2 STANDARD	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED - 7-13-16						
REVISED - 1-05-16		CONTRACT NO.				
REVISED - 6-27-14		SCALE: 2.0000' / in	SHEET OF	SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT

## UNDERDRAIN FOR ACROSS ROAD (AR) CULVERTS 37.2

# MECHANICAL JOINTS FOR CONCRETE PIPE AND BOX CULVERTS

THE CULVERT TIES SHALL BE INCLUDED IN THE COST OF THE CONCRETE PIPE CULVERTS OR THE PRECAST CONCRETE BOX CULVERT. THE MECHANICAL TIES SHALL BE ON THE OUTSIDE OF THE CULVERT. THE NUTS AND WASHERS SHALL BE PLACED ON THE INSIDE OF THE CULVERT AND COVERED WITH MASTIC JOINT SEALER CONFORMING TO SECTION 1055 IN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.



BOX CULVERT FEET	PIPE SIZE INCHES	THREAD DIAMETER
	12	3/8" ROLLED THREADS (SEE NOTE 4)
	15	
	18	
	21	
	24	
	27	3/4" CUT OR ROLLED
3x2	33	
3x3	36	
4x2	42	
4x3	48	
4x4	54	1" CUT OR ROLLED
5x3	60	
5x4	66	
5x5	72	
6x*	78	
7x*	84	1 1/4" CUT OR ROLLED
8x*	90	
9x*	96	
10x*	102	
11x* AND GREATER	108	
	120	
	132	
	138	1 3/4"

**NOTES:**

- HOLES SHALL BE CAST-IN OR DRILLED 16 FROM OUTSIDE EDGE OF JOINT.
- NUTS AND WASHERS ARE NOT REQUIRED ON INSIDE OF 27 DIAM. PIPE OR LESS.
- TIES ARE NOT REQUIRED FOR BELL PIPE 24 AND SMALLER. ON OTHER SIZES TIE MAY BE INSERTED FROM INSIDE.
- CUT THREADS MAY BE USED IF WASHER AND NUT ARE USED.
- PIPE SIZE LISTED IS INSIDE DIAM. OF ROUND PIPE OR EQUIVALENT DIAM. OF PIPE ARCH OR ELLIPTICAL.
- GALVANIZING OF TIES IS REQUIRED.
- ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

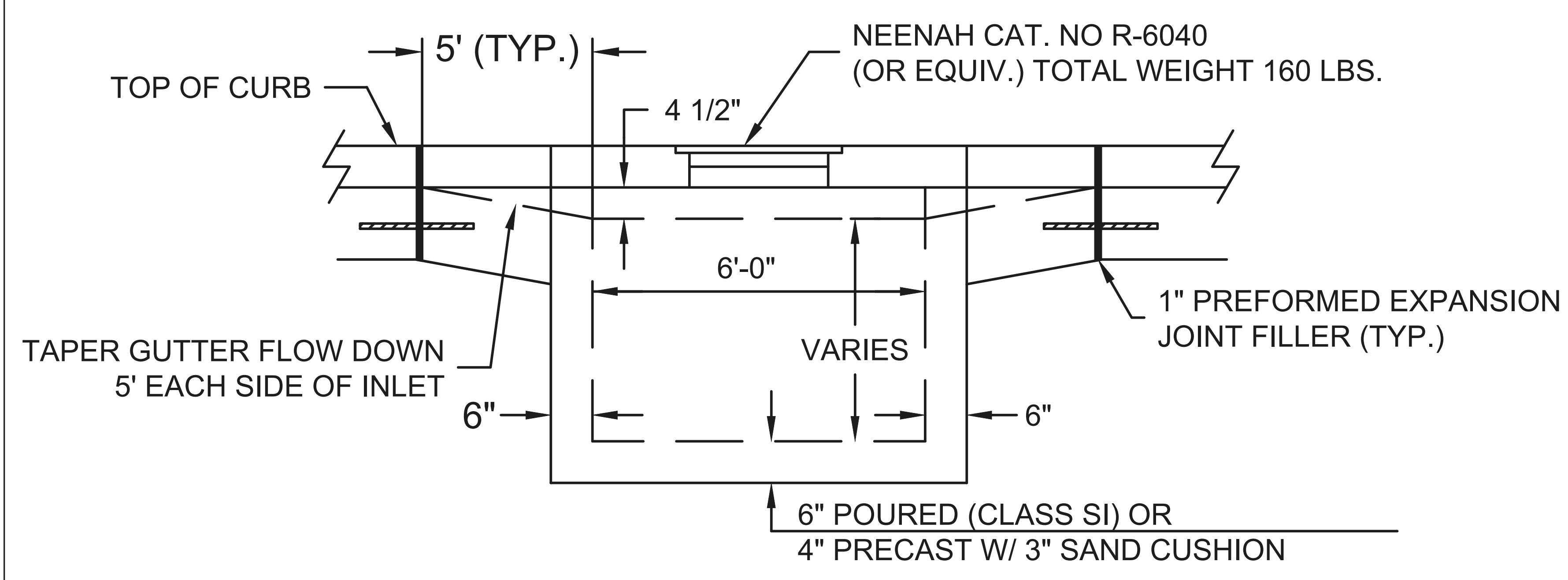
REVISED - 1-05-16	REGION 2 / DISTRICT 2 STANDARD	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED - 11-12-14						
REVISED - 10-14-11		CONTRACT NO.				
REVISED -		SCALE: 2.0000' / in	SHEET OF	SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT

## MECHANICAL JOINTS FOR CONCRETE PIPE AND BOX CULVERTS 90.2

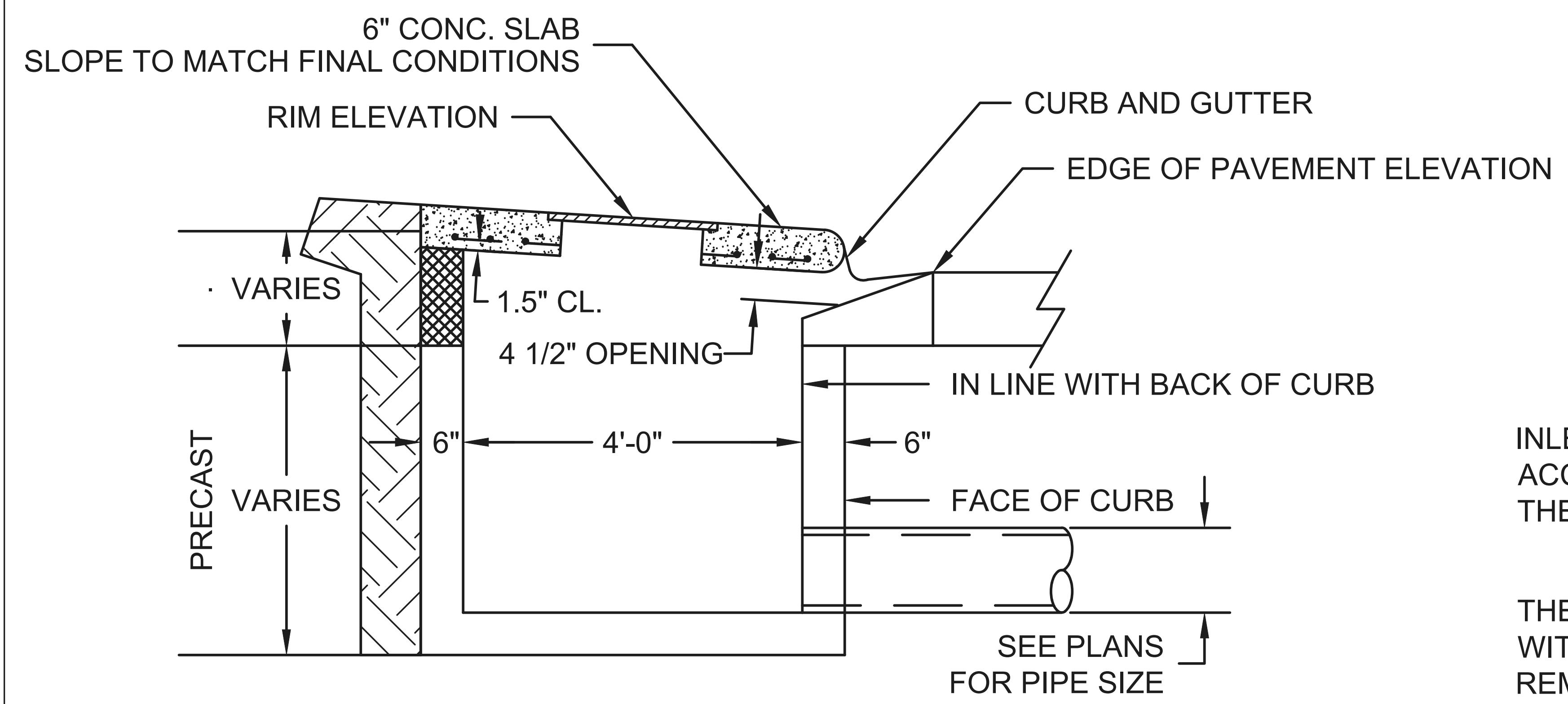




# INLET SPECIAL NO. 1

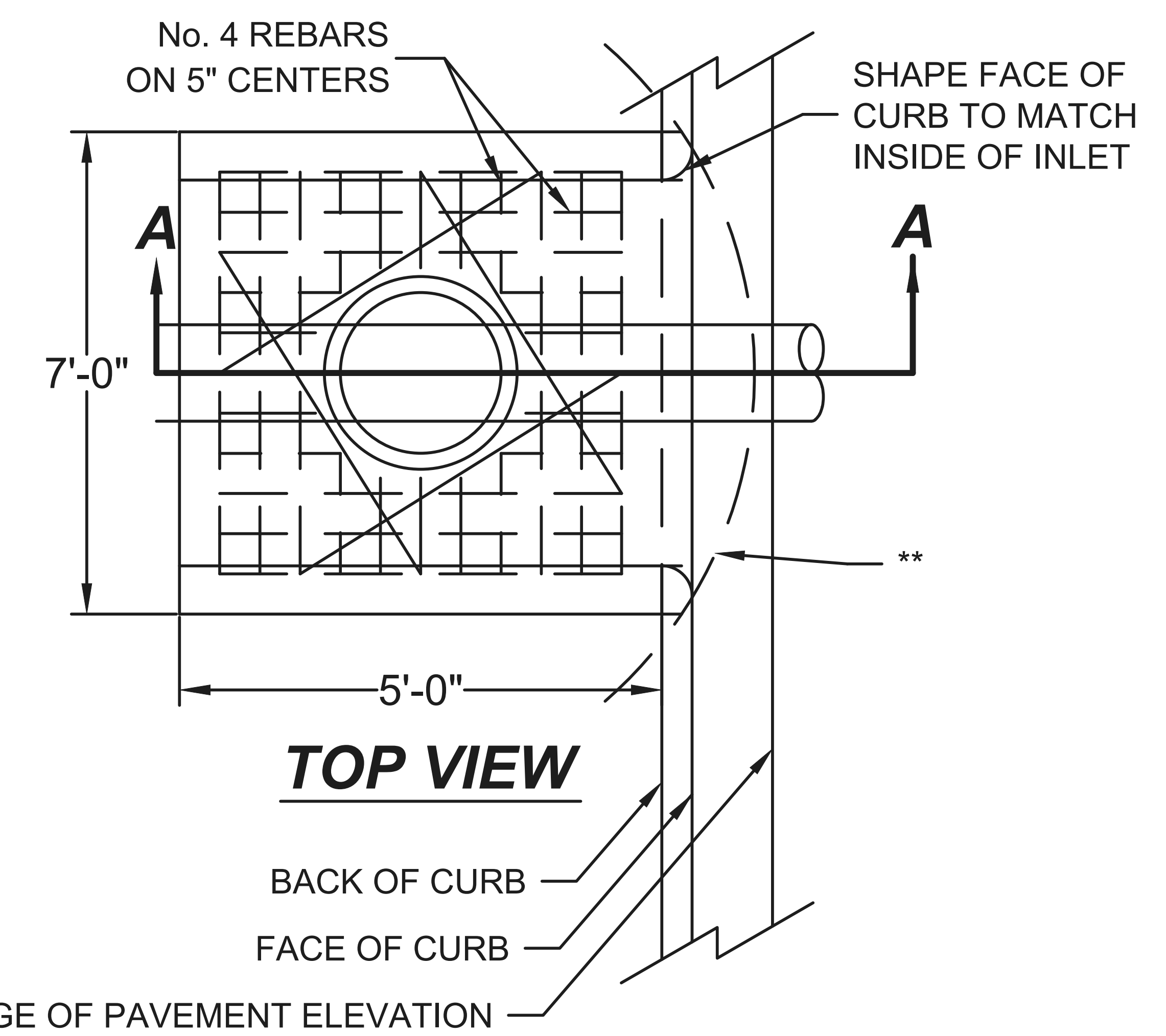


**TYPICAL FRONT VIEW**



\* - THE WALL ADJUSTMENT SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE.  
 THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 6" SHORT TO ALLOW FOR FIELD ADJUSTMENTS.

**SECTION A-A**



**TOP VIEW**

\*\* - WHEN INLET IS TO BE CONSTRUCTED IN RETURN, THE TOP OF THE SLAB SHALL CONFORM TO THE RADIUS OF THE RETURN.

INLET, SPECIAL NO. 1 SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS, THE SUPPLEMENTAL SPECIFICATIONS AND THIS DRAWING.

THE LOWER PORTION OF THE INLET (2'-9") SHALL BE CONSTRUCTED WITH PRECAST CONCRETE WITH BLOCK OUTS FOR PIPES AND THE REMAINDER MAY BE CONCRETE MASONRY. CONCRETE MASONRY UNITS ARE TO BE LAID IN FULL MORTAR BEDS WITH FLUSH JOINTS.

THIS ITEM SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH INLET, SPECIAL NO. 1 WHICH PRICE SHALL INCLUDE THE COST OF FRAME AND LID, REINFORCEMENT BARS AND ALL OTHER MATERIALS.

CONTRACTOR TO VERIFY PRECAST HEIGHT PRIOR TO ORDERING MATERIALS.