

HMA Resurfacing/Cold-in-Place Recycling
NHSX-030-2(182)--3H-14

CARROLL COUNTY

LETTING DATE
11-19-2024

INDEX OF SHEETS	
No.	DESCRIPTION
A Sheets	Title Sheets
* A.1	Title Sheet
* A.2	Location Map Sheet
* A.3 - 4	Field Exam Questions
* A.4 - 8	Project Concept
B Sheets	Typical Cross Sections and Details
B.1 - 3	Typical Cross Sections and Details
D Sheets	Mainline Plan and Profile Sheets
* D.1	Legend Sheet
D.2 - 7	US 30 Cross Sections
G Sheets	Survey Sheets
G.1	Survey Information
G.2	Control Vicinity Map
G.3	Project Control Listing
J Sheets	Traffic Control and Staging Sheets
J.1	Traffic Control Plan
W Sheets	Mainline Cross Sections
W.1 - 19	Mainline Cross Sections
	* Color Plan Sheets



PLANS OF PROPOSED IMPROVEMENT ON THE
PRIMARY ROAD SYSTEM
CARROLL COUNTY
HMA Resurfacing/Cold-in-Place Recycling
0.2 mi W of Zephyr Ave to IA 25

SCALES: As Noted

Refer to the Proposal Form for list of applicable specifications.
Value Engineering Saves. Refer to Article 1105.14 of the Specifications.



REVISIONS		TOTAL
		41
PROJECT IDENTIFICATION NUMBER		
22-14-030-010		
PROJECT NUMBER		
NHSX-030-2(182)--3H-14		
R.O.W. PROJECT NUMBER		

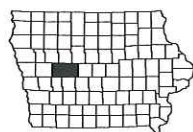
*L sheets needed for paving
Ditch grades
structures added
ROW Project #
Add D3 data*

*Revisions
Ditch grades & ROW @ Zephyr*

*Field Exam Attendees:
Ally Smyth
Ben Adey
Matt Vais
Jeff Gorman
Ryan Greenly
Jenny Hoshins*

Request D3 & D5 Dates
D7 PLAN - Date: 9-3-2024

Project location map on sheet A.2.



INDEX OF SEALS		
SHEET NO.	NAME	TYPE
A.1	Allison Smyth	Primary Signature Block

PRELIMINARY PLANS

Subject to change by final design.

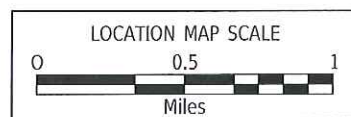
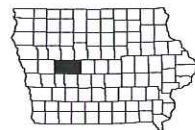
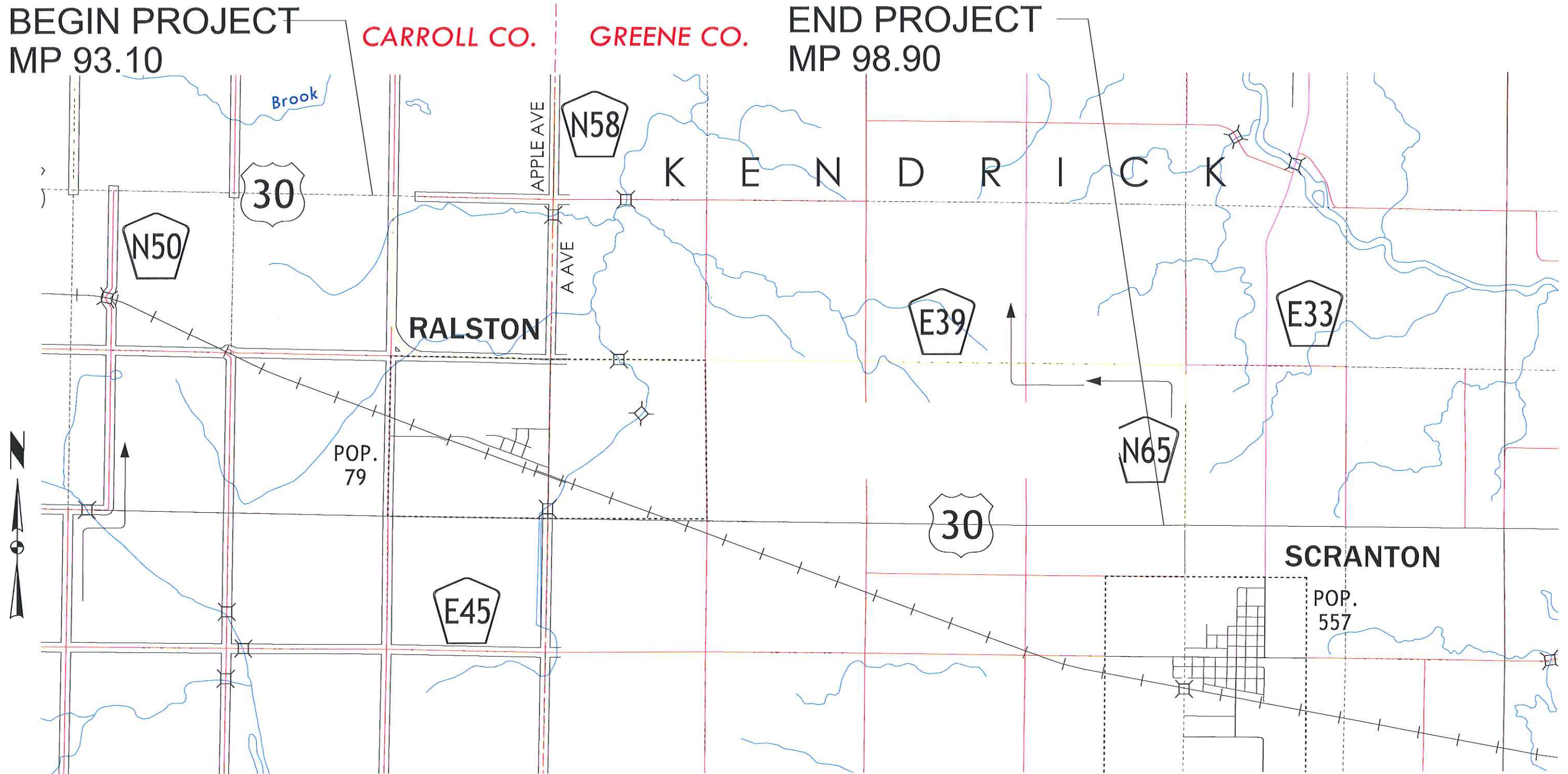
D2 PLAN - Date: 3-21-2023

BEGIN PROJECT
MP 93.10

CARROLL CO.

GREENE CO.

END PROJECT
MP 98.90



FIELD EXAM CHECKLIST

- 1 - Duration of project?
3 months
- 2 - Speed Limit
55
- 3 - Speed Limit during construction
55
- 4 - Is sight distance a problem?
No
- 5 - Patching quantities-full depth, partial depth, and surface.
Jefferson RCE
- 6 - Does patching need to be done in the project area or do the construction limits need to be extended?
Who will provide locations of patches by milepost?
Yes, Jefferson RCE
- 7 - Are rumble strips going to be placed with this project or a separate project?
Yes, this project
- 8 - Leveling and strengthening locations and lengths (i.e. station to station).
N/A
- 9 - Areas of haul-outs.
N/A
- 10 - Any survey needed? (culvert extensions, safety dikes, right turn lanes, horizontal curves, ext..)
Yes, for the turn lanes.
- 11 - Do any of the utilities need to be relocated (power/telephone poles) either permanently or temporarily for construction?
Sean Passick
- 12 - Names and addresses of affected utility companies.
Sean Passick
- 13 - Locations of entrances to be reshaped.
N/A
- 14 - Are there existing drainage problems?
N/A

FIELD EXAM CHECKLIST

- 15 - Note any special features not shown on plan.
N/A
- 16 - Note condition of existing culverts.
Jefferson Maintenance *Culverts such holes almost everyone*
- 17 - Names of affected special events.
Gary Kretlow
- 18 - Locations of mailboxes to be relocated to a minimum of 8' from the pavement edge.
N/A
- 19 - Number and location of EF joints.
N/A
- 20 - Disposition of bridge handrail and guardrail, including posts.
N/A
- 21 - Inventory of existing guardrail.
N/A
- 22 - Remove & Reinstall Signs - District Maintenance or by the Contractor?
Contractor if needed.
- 23 - Longitudinal joint repair locations (station to station).
N/A
- 24 - Locations and quantities of engineering fabric to be placed over random cracks.
N/A
- 25 - Tabulation of adjustment of fixtures.
N/A
- 26 - Clearing and grubbing quantities - by unit or by area?
Possibly for turn lanes or culvert extension. *By area if needed*
- 27 - Resurfacing Projects - Is District Survey able to preserve Section Corners & Points?
If "no", then add these items under Construction Survey.
D1 Survey

FIELD EXAM CHECKLIST

Contractor furnish borrow? (Yes) / (No)

Full depth patches to be PCC? (Yes) / (No)

Full depth PCC patches to be doweled? (Yes) / (No)

Soils to determine and provide tabulation of subdrains? (Yes) / (No)

By DI

Pollution Prevention Plan required? (Yes) / (No)

possibly needed if turn lane grading requires it.

Field Office? (Yes) / (No)
Jenny?

Construction Survey and or Point Preservation by DOT or Contractor? See Dist. 1 Surveyor for this (DOT) / (Contractor).
D1 Tony H.

Survey by Office of Design? (Yes) / (No)

Pavement markings for turn lanes as determined by the District? (Yes) / (No)

Any RWIS or Traffic Recorder Sites within project limits? (Yes) / (No)



TO OFFICE: District 1

DATE: September 8, 2022

ATTENTION: Tony Gustafson

COUNTY: Carroll/Greene

FROM: Benjamin Adey

PHASE No: NHSX-030-2(182)—3H-14

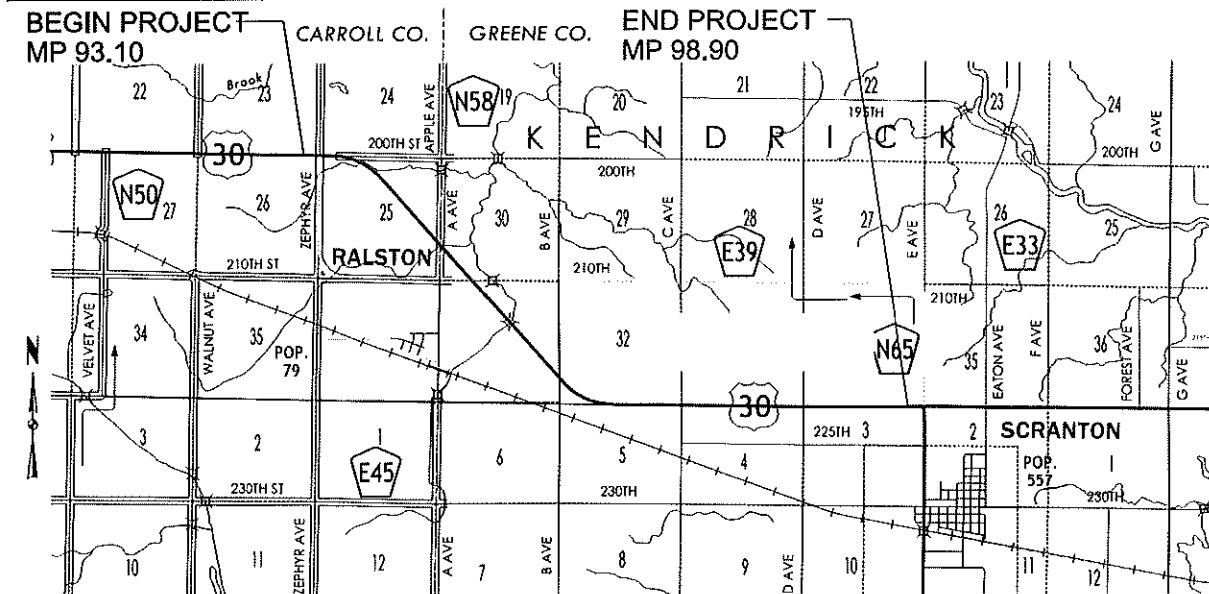
PROJECT: 22-14-030-010

OFFICE: District 1

FOLDER: pw:\NTPwint1.dot.int.lan:PWMain\Documents\Projects\1403001022\Concept\DOSubmittal

SUBJECT: FY 2024 3R Concept Statement - FINAL

PROJECT LOCATION:



PROJECT DATA:

ROUTE: U.S. 30

LENGTH: 5.80 miles

PLANNING CLASSIFICATION: 2

MAINTENANCE SERVICE LEVEL: B

NHS ROUTE: Yes

TRAFFIC:	Carroll County	2024: 4000 ADT with 16% Trucks
		2044: 4500 ADT with 16% Trucks
	Greene County	2024: 3200 ADT with 20% Trucks
		2044: 3800 ADT with 20% Trucks

PURPOSE AND NEED:

This section of U.S. 30 is showing signs of deterioration and needs rehabilitation.

FEASIBLE ALTERNATIVES:

Option 1: 3" Mill and 3" Fill (20-year design) for \$2,765,406 – 3" HMA Resurfacing with 3" Scarification
 Option 2: 3" CIP and 3" Resurfacing (20-year design) for \$2,964,364 – 3" HMA Resurfacing on 3" Cold-in-Place
 Option 3: PCC Reconstruction (40-year design) for \$16,280,360

RECOMMENDATIONS:

District 1 recommends proceeding with 3" of cold-in-place recycling and 3" of HMA resurfacing (1.5" surface over 1.5" intermediate) for an estimated cost of \$2,964,364. The cold-in-place recycling will be 24' wide and the HMA resurfacing will be across the full existing pavement and paved shoulder surface width of 32'. The roadway section will have two 12-foot driving lanes and 4-foot paved shoulders. The shoulders will have 6' Type B granular shoulders to accommodate the 3" grade raise and provide an effective shoulder width of 10'. This project will UAC the existing foreslopes adjacent to the resurfacing area. In the areas where turn lanes are being constructed, the grading will be 6:1 to the 30' clear zone and 3:1 beyond the clear zone. The turn lanes will be constructed of full depth asphalt.

FUNDS PROGRAMMED:

Project is planned to be let on 11-21-2023 and will be funded with 3R Funds.

ROJECT IMPACTS:

Designed by: District 1

Design Impact	Assistance Requested (Y/N)	Remarks
ADA:	N	
Agreements/Notification Letters:	Y	Carroll and Greene Counties will be invited to pave any unpaved side road approaches as a part of this project.
Bridges and Structures:	Y	Culvert extension at N58 intersection.
Consultant:	N	
Contracts:	N	
Design/Methods:	N	
Location and Environment:	N	
Maintenance: Jefferson	Y	Jefferson Maintenance has provided a list of deficient pipes.
Project Management:	N	
Railroad:	N	
RCE: Jefferson	Y	Jefferson RCE will provide patching tabs by 8-1-2023.
Right of Way:	?	To be determined with turn lane design.
Soils:	N	
Survey/Photogrammetry:	Y	Survey needed for turn lane construction at Zephyr Ave, N58 and E39.
Systems Planning:	N	
Traffic and Safety:	Y	Intersection layout for US 30 and E39
Utilities:	?	To be determined with survey and turn lane design.

Cc: C. Purcell
 M. Dell
 M. A. Swenson
 D. L. Newell
 W. A. Sorenson
 M. E. Ross
 C. C. Poole
 D. Stokes
 K. K. Patel
 C. Brakke
 J. Bartholomew
 G. Cagle
 S. Nielsen
 M. Nop
 V. Brewer
 A. Smyth
 J. Hoskins
 B. Adey
 C. Davis

M. J. Kennerly
 J. S. Nelson
 J. Hart
 K. Olson
 D. E. Sprengeler
 A. A. Welch
 B. E. Azeltine
 S. J. Gent
 M. Collins
 E. Engle
 N. Cuva
 D. L. Maiffeld
 E. D. Gansen
 W. W. Musgrove
 J. Garton
 A. Loonan
 S. Nixon
 G. Kretlow

K. D. Nicholson
 M. Sloppy
 K. Brink
 J. W. Laaser-Webb
 E. C. Wright
 J. Harris
 B. D. Hofer
 S. Anderson
 J. Ellis
 T. Quam
 M. Buttz
 J. Vortherms
 H. Bibiano
 M. Ortiz-Pagan
 J. Becker
 B. Hucker
 S. Passick
 B. Ellis

CONCEPT ANALYSIS & SUPPORTING DATA:

Necessary supporting data may be linked in the analysis to ProjectWise.

Date of Field Review: 8-24-2022

Participants: Ben Adey from District 1, Jenny Hoskins from Jefferson Construction and Craig Davis from Jefferson Maintenance.

PAVEMENT:

Existing Conditions:

The existing pavement is showing signs of deterioration and needs rehabilitation.

Pavement History & PMIS Data:

See attached PMIS sheets.

Pavement Design & dTIMS Recommendation:

From dTIMS:

Direction	Ref. Loc. To Ref. Loc.	Existing Pavement	Year Built	dTIMS Recommendation
Both	93.28 to 94.70	Composite	2027-2030	PRI_CIR
Both	93.28 to 99.22	Composite	2024-2029	PRI_MIN_REHAB_FUNC
Both	93.28 to 99.22	Composite	2018-2026	PRI_THIN_SURF

Subdrains:

The project limits are approximately 92% covered by existing subdrain. Subdrain will be added to bring coverage up to 100%.

Patching/Curb Repairs:

Patching tabs will be provided by the Jefferson RCE.

ADA/Sidewalk/Trails:

No sidewalk or trails are present within the project limits. None will be added with this project.

SAFETY:

3R Design Criteria:

DESIGN ELEMENT	Acceptable Values for 3R Roadway Features					Project Values
	FREEWAY	NON-FREEWAY				
Regulatory Speed (mph)	65/55	55	45	35	25	55
Minimum Vertical Curve (mph)	65/55	35	25	15	5	60
Maximum Horizontal Curve (degrees)	3	6	8	14	28	2
Maximum Gradient	3%	6%	7%	10%	13%	2.16%
Lane Width (feet)	12	12	11	11	11	12
Parking Lane Width (feet)	--	--	8	8	8	N/A
Shoulder Width (feet)	10/6	6	4	4	2	10
Foreshores	3:1	3:1	3:1	--	--	3:1
Transverse Slopes	6:1	6:1	6:1	--	--	6:1
Horizontal Clearance (feet)						30
Bridge Width	Approach Lanes + Shoulder Width		Approach Lanes + Offset			
Vertical Clearance - Over NHS (feet)	16.5	16.5	16.5	16.5	16.5	N/A
Vertical Clearance - Over Local (feet)	14.5	14.5	14.5	14.5	14.5	N/A

Crash Analysis:

See attached ICAT quick report with 5-year crash history summary.

Corridor Crash History:

Over the 5-year period from 2017 through 2021, the project limits had a total of 18 crashes. There were no fatalities within the project limits over the period. Of the 18 crashes, 1 was related to winter driving conditions and 8 were related to animals.

Intersection Crash History:

Only 1 of the 18 crashes within the project limits were intersection related (6%).

Intersection Analysis:

The existing parallel right turns within the project limits will be widened and converted to offset rights. There are existing parallel rights at US 30 eastbound to Zephyr Ave and both eastbound and westbound US 30 to N58.

Railroads:

No railroads are located within 100 feet of the project area.

Additional Safety & Operation Considerations:

No additional safety or operation improvements have been identified as a part of this project.

STRUCTURES and DRAINAGE:

Bridges:

There is one twin 12' x 10' RCB located within the project limits, 3795.5S030. No work on this culvert will be included with this project.

Culverts/Pipes:

Jefferson Maintenance has provided a list of deficient pipes located within the project limits.

Location	Size/Type	Proposed Work
568+00	10' x 4'	Extend culvert so that it is outside the clear zone.
620+16.20 (US 30 and N58)	12' x 8'	This culvert may need to be extended to accommodate offset right-turn lane construction.
190+80	6' x 3'	Extend culvert so that it is outside the clear zone.

Guardrail:

There is no guardrail located within the project limits.

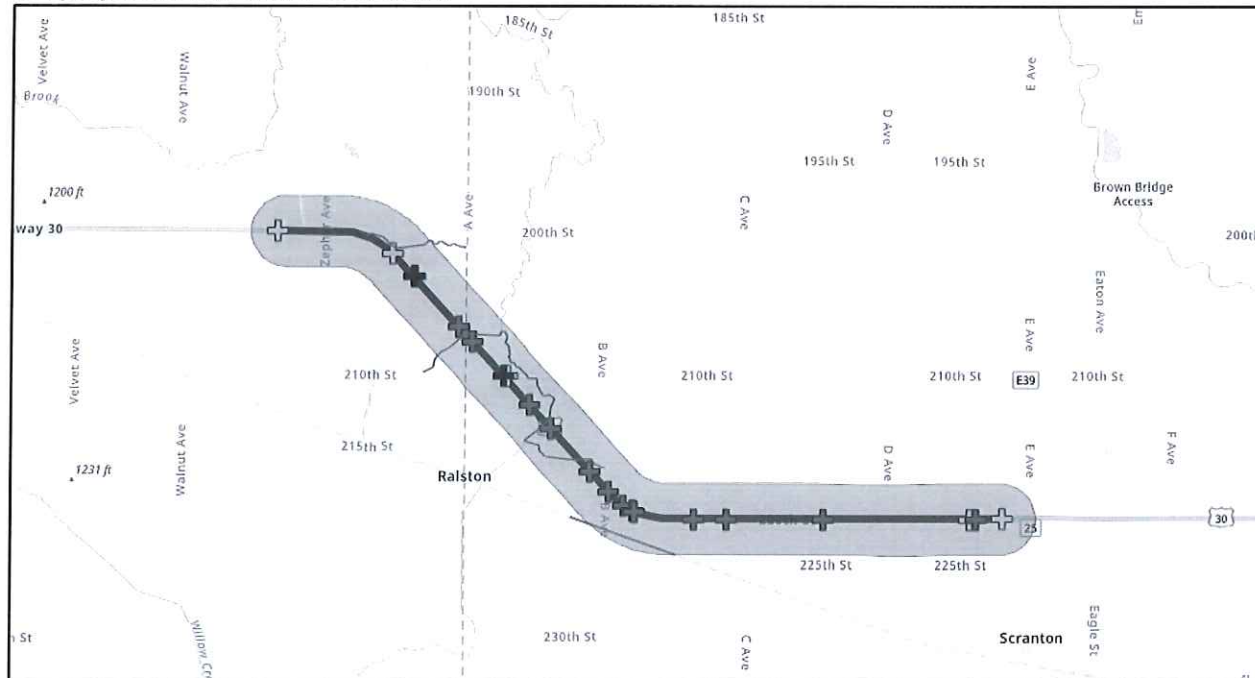
Drainage District:

No coordination is needed with drainage districts.

PROJECT IMPACTS:

Impacts Map:

The project area includes a Regional Planning Affiliation, historic rail lines and the waterways within the project area include 15 streams.



Environmental:

Clearing and grubbing may be needed for culvert extension or turn lane construction.

No impacts to wetlands, parks, historic/cultural resources, etc. have been identified.

TSMO/Traffic Control:

This is not a traffic critical project. Traffic will be maintained via pilot cars and flaggers.

ROW:

ROW may be needed at new offset right-turn lanes.

Agreements/Notification Letters:

Project will be constructed using TC-214, so no detour agreements will be required. Carroll and Greene Counties will be invited to have their side road approaches paved as a part of this project.

Project Coordination:

No other DOT projects within the vicinity have been identified.

Previous Projects List:

Project Number	Project Type	Year
Reference Location 93.18 to 94.59 (Carroll County)		
F-1029(2)	10" PCC	1955
NHSN-30-2(126)—2R-14	4" HMA	2008
NHSN-30-2(126)—2R-14	7" HMA Widening	2008
Reference Location 994.59 to 99.10 (Greene County)		
F-1029(2)	10" PCC	1955
NHSN-30-2(126)—2R-14	4" HMA	2008
NHSN-30-2(126)—2R-14	7" HMA Widening	2008




FEASIBLE ALTERNATIVES & RECOMMENDATION:

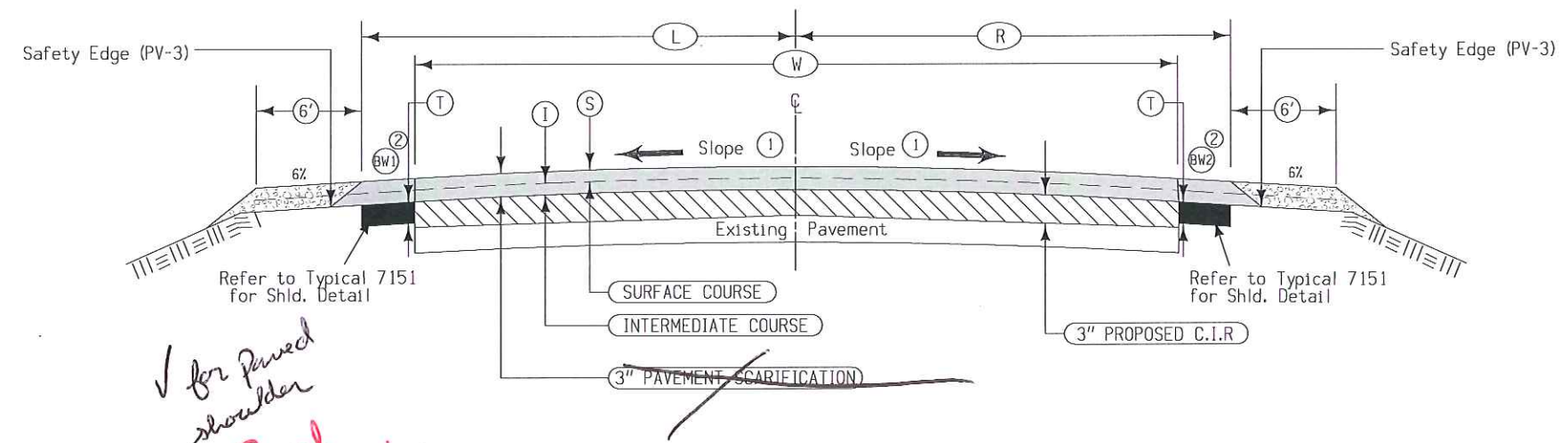
FEASIBLE ALTERNATIVES:

- Option 1: 3" Mill and 3" Fill (20-year design) for \$2,765,406 – 3" HMA Resurfacing with 3" Scarification
- Option 2: 3" CIP and 3" Resurfacing (20-year design) for \$2,964,364 – 3" HMA Resurfacing on 3" Cold-in-Place
- Option 3: PCC Reconstruction (40-year design) for \$16,280,360

RECOMMENDATIONS:

District 1 recommends proceeding with 3" of cold-in-place recycling and 3" of HMA resurfacing (1.5" surface over 1.5" intermediate) for an estimated cost of \$2,964,364. The cold-in-place recycling will be 24' wide and the HMA resurfacing will be across the full existing pavement and paved shoulder surface width of 32'. The roadway section will have two 12-foot driving lanes and 4-foot paved shoulders. The shoulders will have 6' Type B granular shoulders to accommodate the 3" grade raise and provide an effective shoulder width of 10'. This project will UAC the existing foreslopes adjacent to the resurfacing

-  C.I.R. (Cold In-Place Recycling)
-  HMA RESURFACING
-  Granular Shoulder



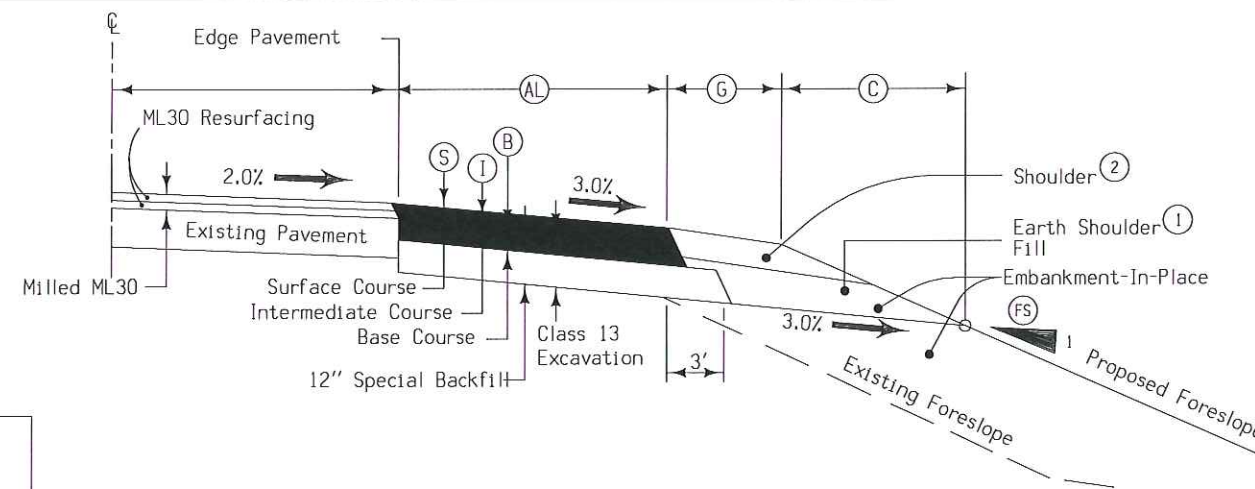
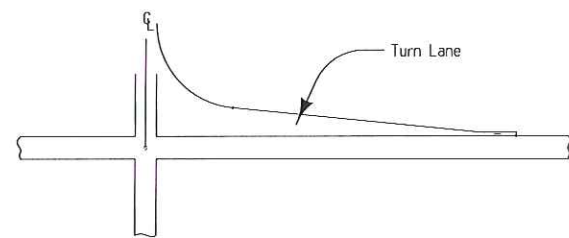
*✓ for paved shoulder
Paved 4' Entire Length*

- Notes:
- ① Match finished slope to existing pavement, except that the maximum allowable slope is 3.0 %, minimum allowable slope is 2.0 %. Section may be modified as directed by the Engineer through areas of special shaping.
Refer to tabulation listing of superelevated curves and Standard Road Plans for additional requirements through superelevated curves.
 - ② Paved 4' shoulder slope shall be 4%.
 - ③ Equation: 620+16.2 BK = 0+00 AH

Location		(S)	(I)	(W)	(L)	(R)	(T)	(BW1)	(BW2)	Cold In-Place Recycling		Pavement Scarification
Road Identification	Station To Station	Inches	Inches	Feet	Feet	Feet	Inches	Feet	Feet	Asphalt Pavement Square Yards	Stabilizing Agent Tons	Square Yards
US 30	538+50.00 - 620+16.20	1.5	1.5	24.0	16.0	16.0	3.0	4.0	4.0	21776.56	71.9	21776.56
US 30	0+00 - 227+00	1.5	1.5	24.0	16.0	16.0	3.0	4.0	4.0	60533.33	199.8	60533.33
								TOTALS		82309.87	271.6	82309.87

TYPICAL CROSS SECTION
PROPOSED: COLD IN-PLACE RECYCLING
and HMA RESURFACING

2620
MODIFIED



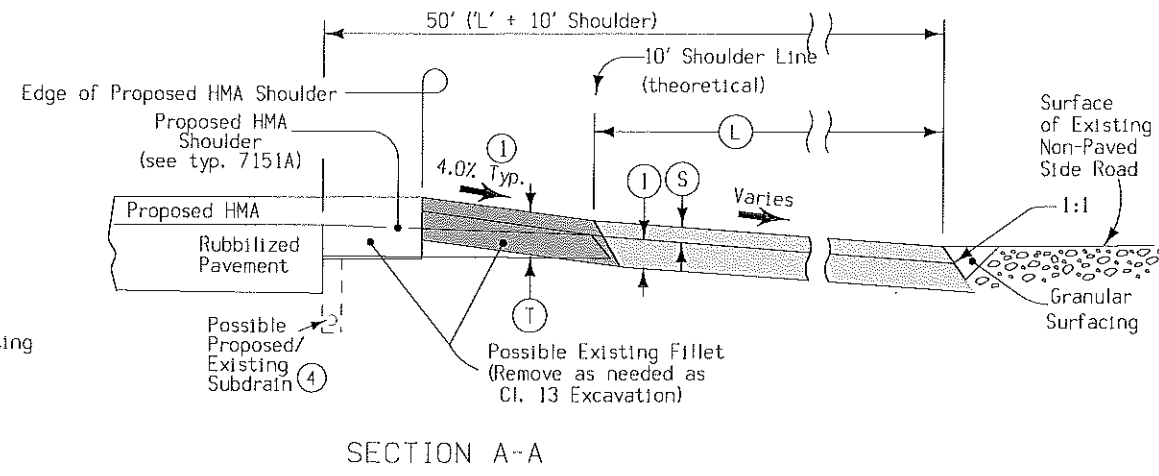
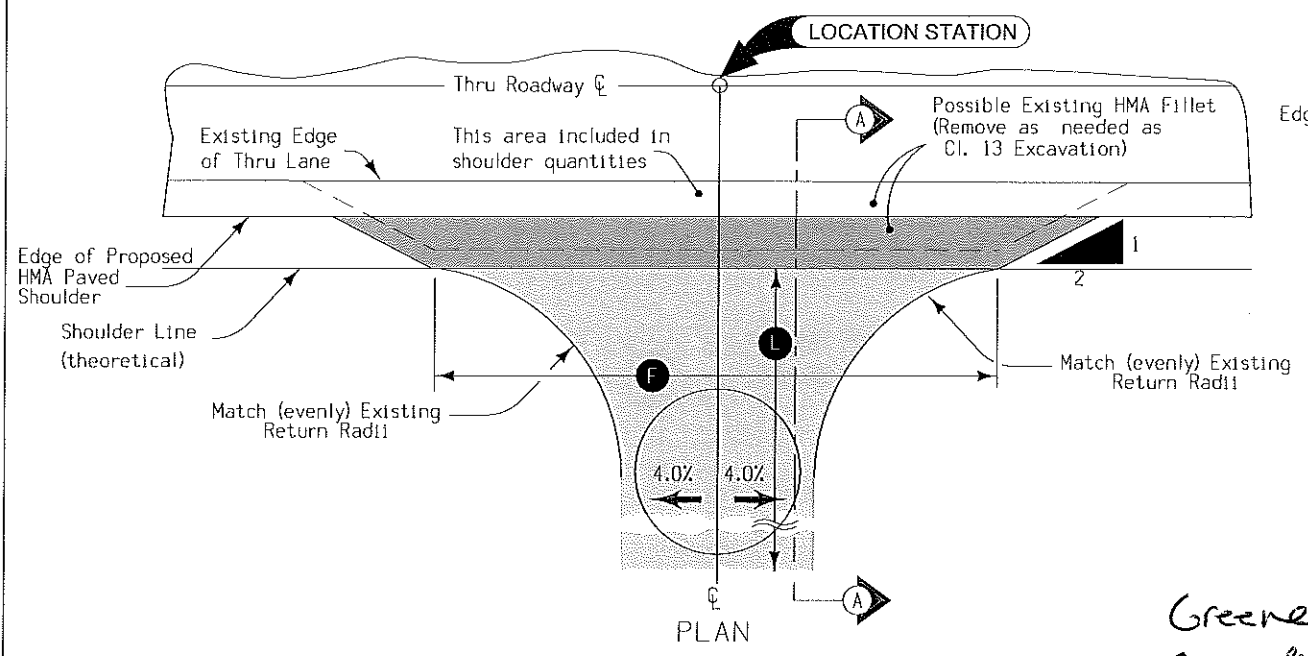
- ① Material to be included in the price bid for "Embankment-In-Place" and shaping to be bid as "Earth Shoulder Finishing".
- ② Refer to shoulder typicals.
- ③ Equation: $620+16.2 \text{ BK} = 0+00 \text{ AH}$

TYPICAL HALF SECTION
OFFSET RIGHT TURN LANE

Station to Station	Side	Direction of Travel	(S)	(I)	(B)	(G)	(AL)	Comments
			Inches	Inches	Inches	Feet	Feet	
545+40.19 to 552+13.83	Rt	EB	1.5	1.5	6.0	4.0	0-9.94	Rt turnlane at Zephyr Ave.
609+26.10 to 0+73.68	Rt	EB	1.5	1.5	6.0	4.0	9.94-0	Rt turnlane at Apple Ave.
619+34.49 to 9+58.01	Rt	WB	1.5	1.5	6.0	4.0	0-21.4	Rt turnlane at N-58



Co. Line

↳ sheets to show papers etc.



- Special shaping of existing surface prior to placement of fillet or fillet extension may be required by the Engineer and is incidental to other work on the project.
- ① Match existing slope.
 - ② Bid Item (NOTE: for billing purposes calculations show State/County; State area (per agreement) is the first 10' from edge of highway with remaining HMA fillet being county responsibility.
 - ③ Estimated Class 13 quantity assumes 8" ave. depth
 - ④ Existing subdrains and their outlets shall remain functional at all time; do not damage. See tab. 104-9 for proposed locations.

*Greene Co. wants
Carroll Co. checking*

 Proposed HMA Area (100% County Paid)
 Proposed HMA Area (100% State Paid)
 HMA estimated @ 145 #/cu.ft.
 Binder estimated 6% of HMA tons

Equation: 620+16.2 BK = 0+00 AH

Location				④ (F)	(I)	(S)	(T)	(L)
Rd. ID	Station	Side Road	Side	Feet	Inches	Inches	(Ave.) Inches	Feet
US 30	552+59.24	Zephyr Ave.	North	100	5.5	1.5	7.0	43
US 30	561+73.12	200th St	East	329	5.5	1.5	7.0	43
US 30	76+50	B Ave.	North	162	5.5	1.5	7.0	43
US 30	77+60	B Ave.	South	148	5.5	1.5	7.0	43
US 30	133+30.64	C Ave.	North	115	5.5	1.5	7.0	43
US 30	133+30.64	C Ave.	South	82	5.5	1.5	7.0	43
US 30	185+93.56	D Ave.	North	97	5.5	1.5	7.0	43
US 30	185+93.56	D Ave.	North	77	5.5	1.5	7.0	43

DIVISION 2 -100% REIMBURSEMENT-Carroll/Greene Co.

TYPICAL SECTION FOR
FILLET EXTENSION FOR
NON-PAVED SIDE ROADS
(ADJACENT TO HMA RESURFACING)

SURVEY SYMBOLS

- Interstate Highway Symbol
- U.S. Highway Symbol
- Iowa Highway Symbol
- County Road Highway Symbol
- Evergreen Tree
- Deciduous Tree
- Fruit Tree
- Shrub (Bushes)
- Timber
- Hedge
- Stump
- Swamp
- Rock Outcrop
- Broken Concrete
- Revetment (Rip Rap)
- Cemetery
- Grave
- Cave
- Sink Hole
- Board Fence
- Chain Link or Security Fence
- Wire Fence
- Terrace
- Earth Dam or Dike (Existing)
- Tile Outlet
- Edge of Water
- Existing Drainage
- Right of Way Rail or Lot Corner
- Concrete Monument
- Well
- Windmill
- Beehive Intake
- Existing Intake
- Existing Utility Access (Manhole)
- Fire Hydrant
- Water Hydrant (Rural)
- Septic Tank
- Cistern
- L.P. Gas Tank (No Footing)
- Underground Storage Tank
- Latrine
- Satellite TV Dish
- Water Hook Up
- Radio Tower
- Tower Anchor
- Guardrail (Beam or Cable)
- Guard Post (one or two)
- Guard Post (over two)
- Filler Pipe
- Gas Valve
- Water Valve
- Speed Limit Sign
- Mile Marker Post
- SIGN Sign
- TCB Traffic Signal Control Box
- RRB Rail Road Signal Control Box
- TSB Telephone Switch Box
- EB Electric Box

UTILITY LEGEND

- Dan Hogan
Engineering Manager - IA
Windstream Communications
1614 230th St.
Manchester, IA 52057
(563)920-2428 Cell: (563)920-2428
Dan.Hogan@windstream.com
- Steve Kness
Engineer OSP
Windstream Communications
1450 N. Center Pt. Rd.
Hiawatha, IA 52233
(319)790-7678 Cell: (319)538-1985
stephen.kness@windstream.com
- Mike Broderick
Sr. OSP Telecommunications Engineer
Iowa Communications Network
400 E 14th St, Grimes State Office Building
Des Moines, IA 50319
(515) 725-4610 Cell: (515) 330-7139
Mike.Broderick@iowa.gov
- Mary Montgomery
Real Estate and Right of Way Representative II
Alliant Energy
PO Box 351
Cedar Rapids, IA 52406-9874
(319) 786-4768
MaryMontgomery@alliantenergy.com
- Steve Parker
Manager of Engineering & Construction
Lumen CenturyLink
2103 E. University Ave.
Des Moines, IA 50317
(515) 265-0968 Cell: (507) 358-1978
Steven.Parker4@lumen.com

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK		Design Color No.	
Green	(2)		Existing Topographic Features and Labels
Blue	(1)		Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation
Magenta	(5)		Existing Utilities
SHADING		Design Color No.	
Lavender	(9)		Temporary Pavement Shading
Yellow	(4)		Proposed Pavement Shading
Orange	(6)		Proposed Granular Shading
Orange	(70)		Proposed Shoulder Granular Shading
Yellow	(68)		Proposed Shoulder Paved Full Depth Shading
Yellow	(132)		Proposed Shoulder Paved Partial Depth Shading
Gray, Dark	(112)		Proposed Grade and Pave Shading "In conjunction with a paving project"
Brown, Light	(236)		Grading Shading
Orange, Light	(134)		Proposed Granular Entrance Shading
Yellow	(220)		Proposed Paved Entrance Shading
Tan	(8)		Proposed Sidewalk Shading
Blue, Light	(230)		Proposed Sidewalk Landing Shading
Pink	(11)		Proposed Sidewalk Ramp Shading
Green, Light	(225)		Existing Pavement Shading
Red	(3)		Proposed Structure Shading
Red	(3)		Delineates Restricted Areas

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

LINEWORK		Design Color No.	
Green	(10)		Existing Ground Line Profile
Blue	(1)		Proposed Profile and Annotation
Magenta	(5)		Existing Utilities
Blue, Light	(230)		Proposed Ditch Grades, Left
Black	(0)		Proposed Ditch Grades, Median
Rust	(14)		Proposed Ditch Grades, Right

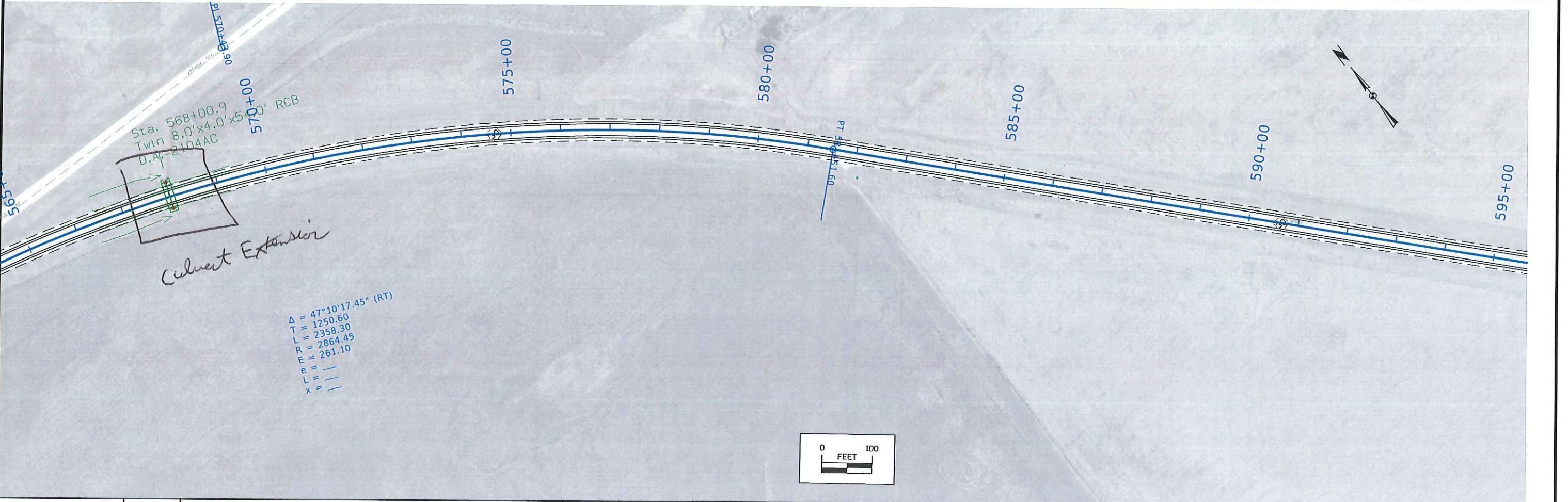
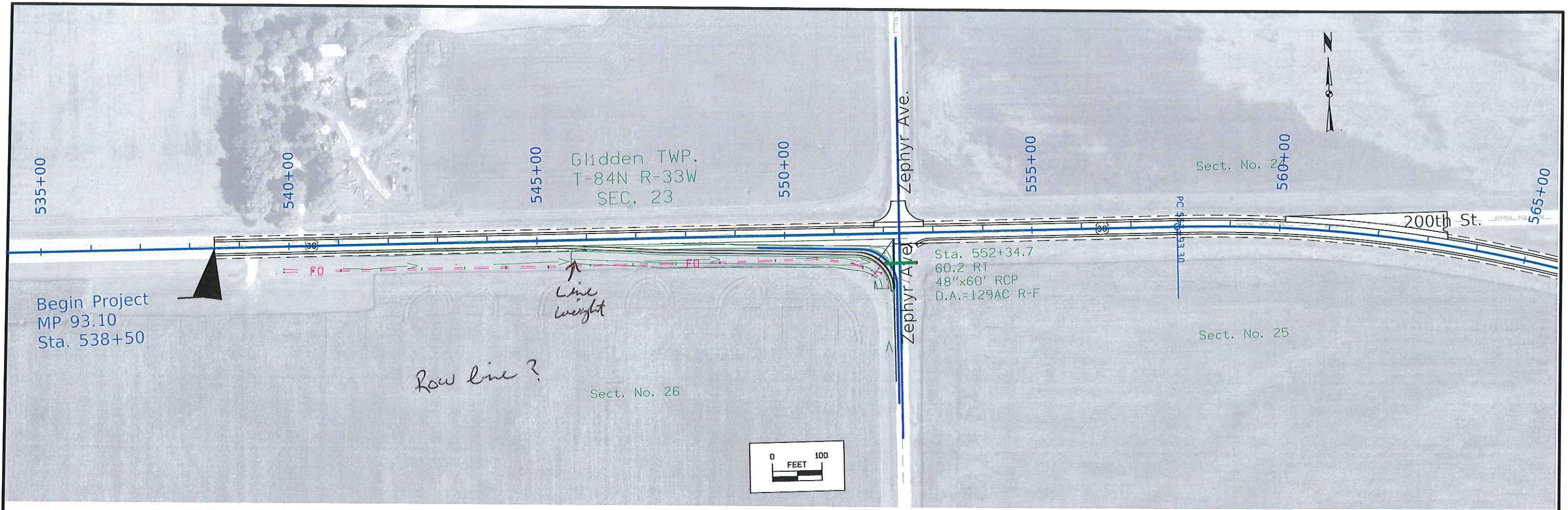
- Reference Point
- Station
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- High Tension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

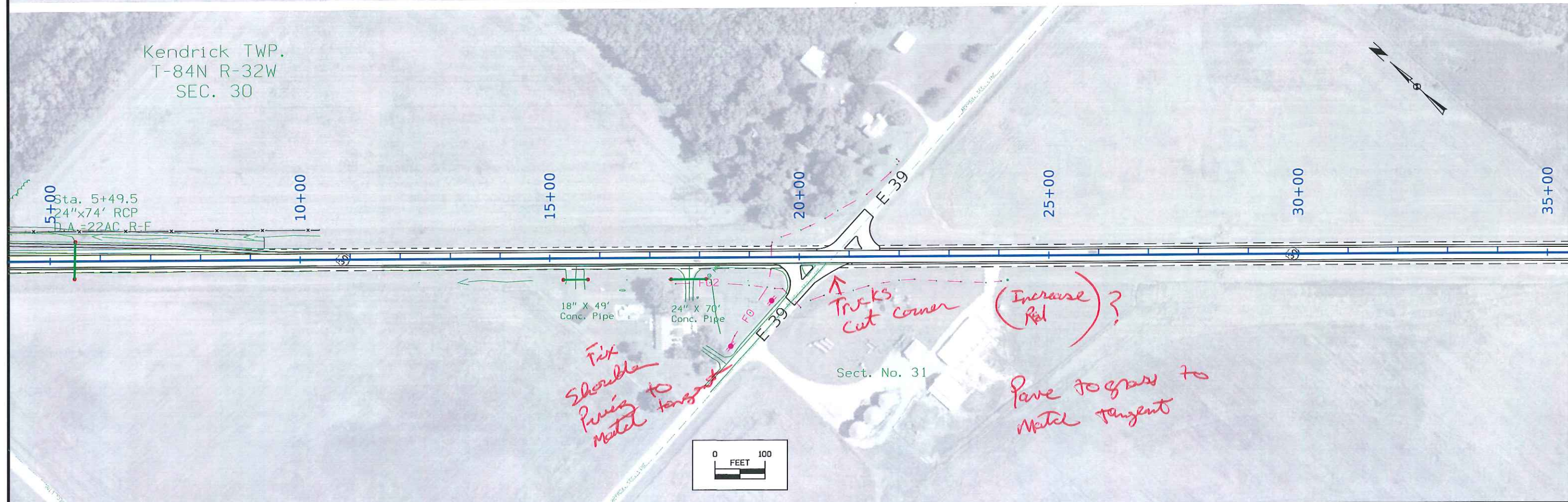
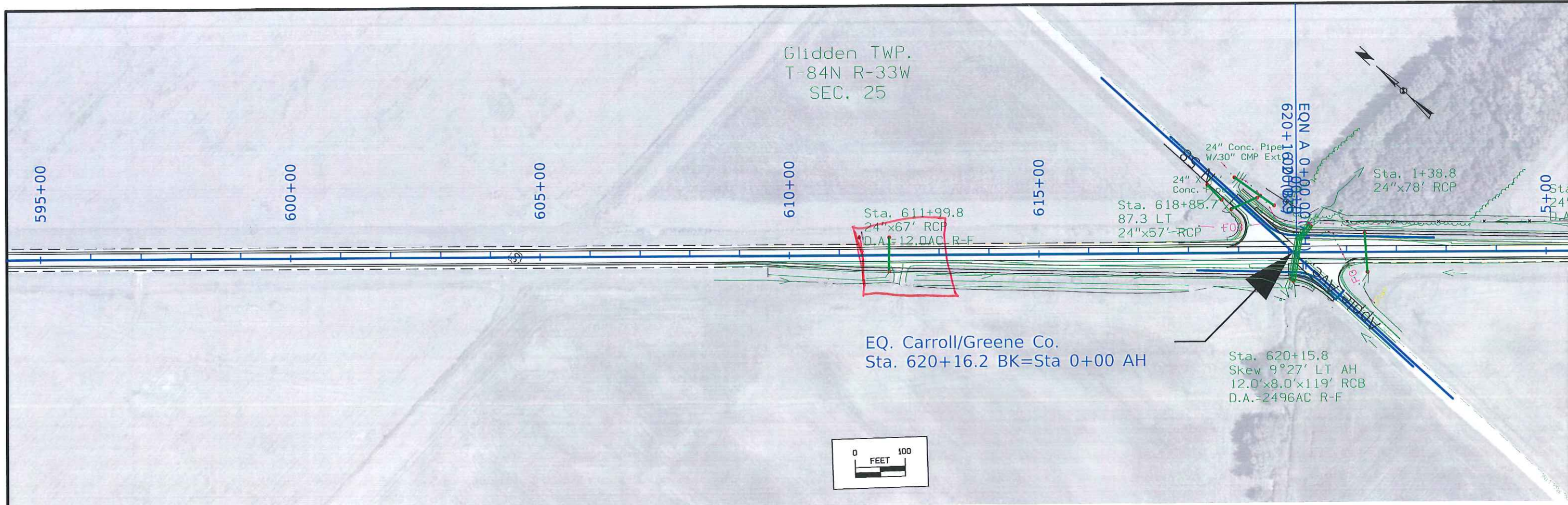
RIGHT-OF-WAY LEGEND

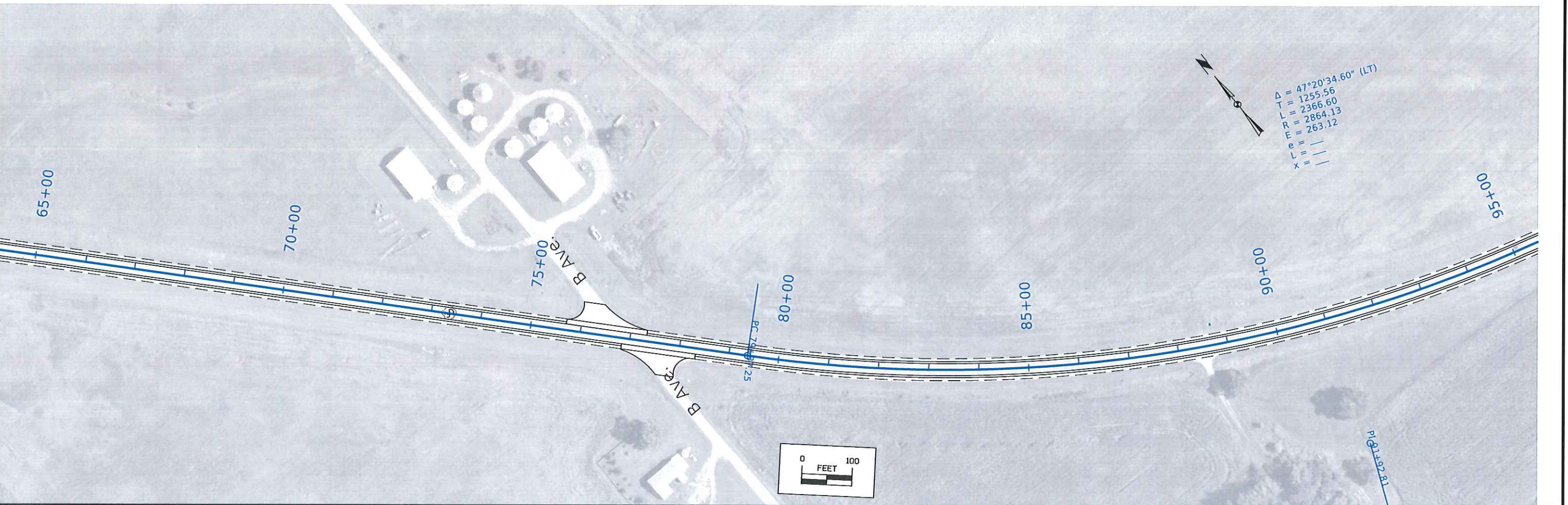
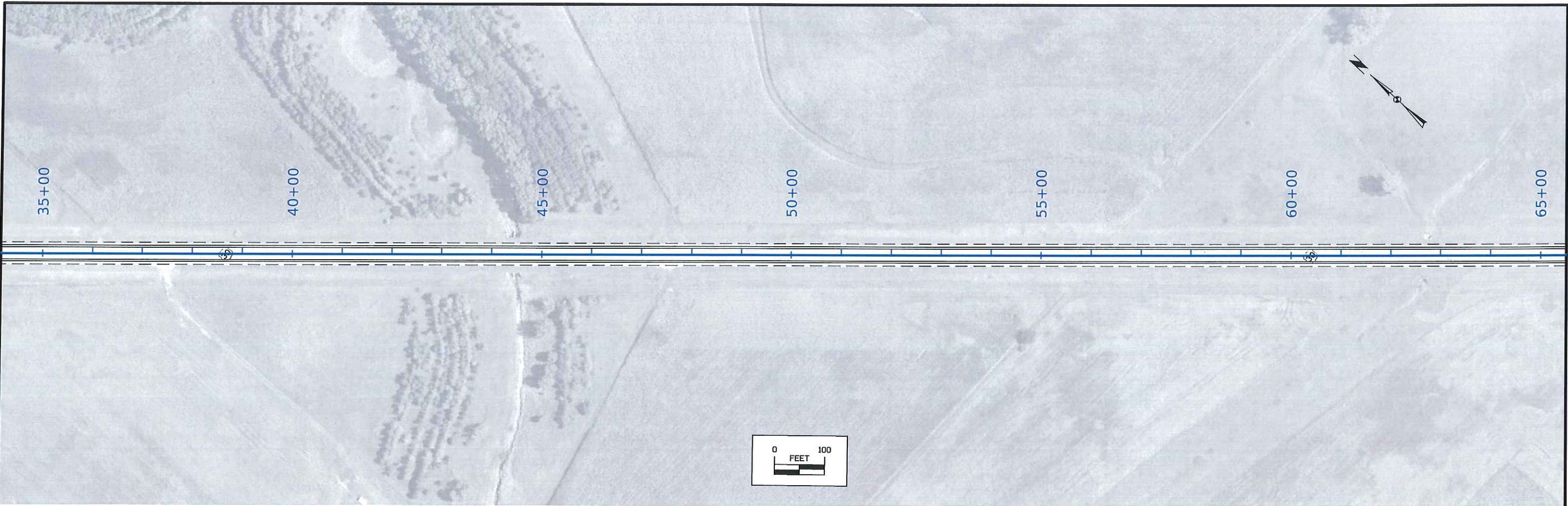
- Proposed Right-of-Way
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary)
- Easement
- C/A Access Control
- Property Line

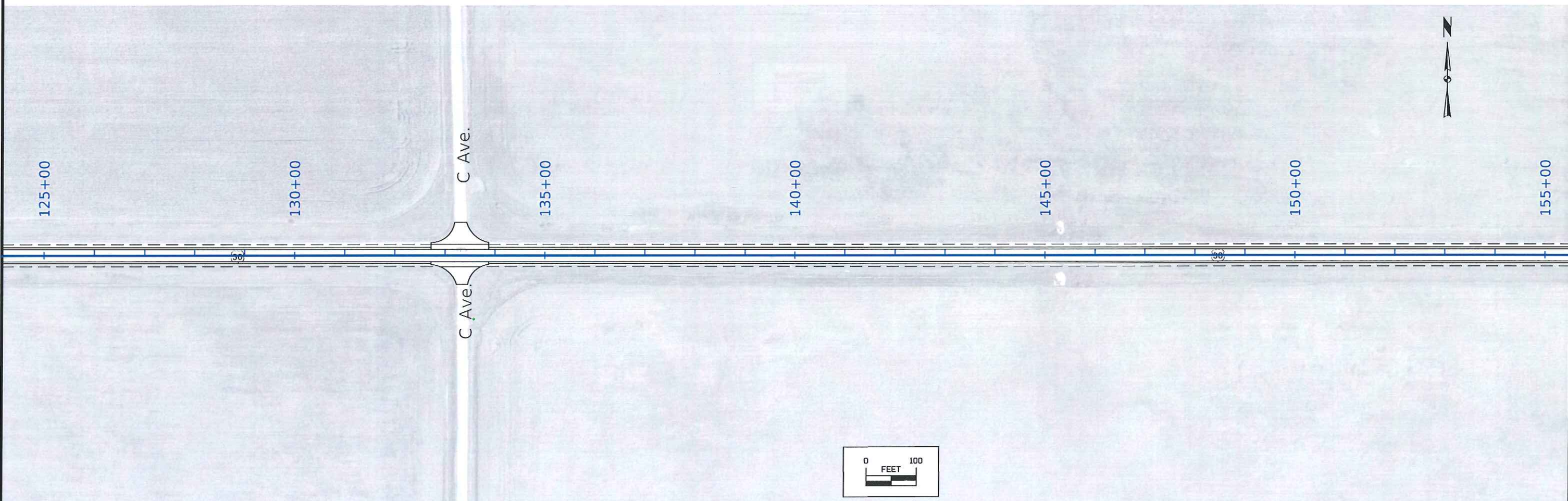
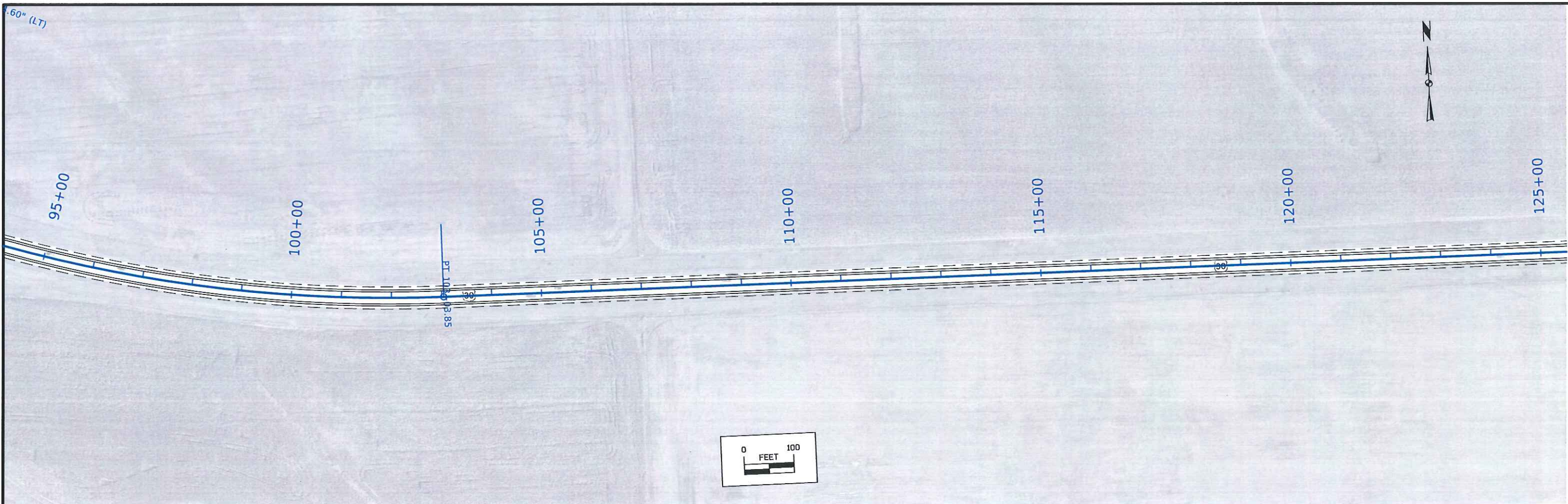
PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

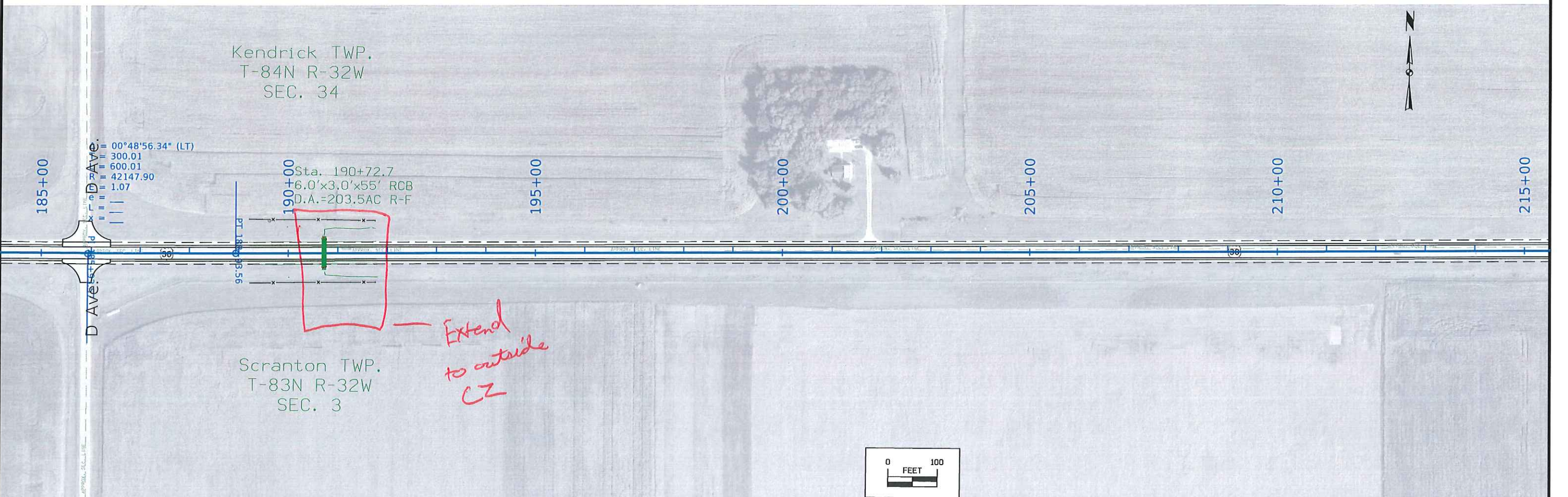
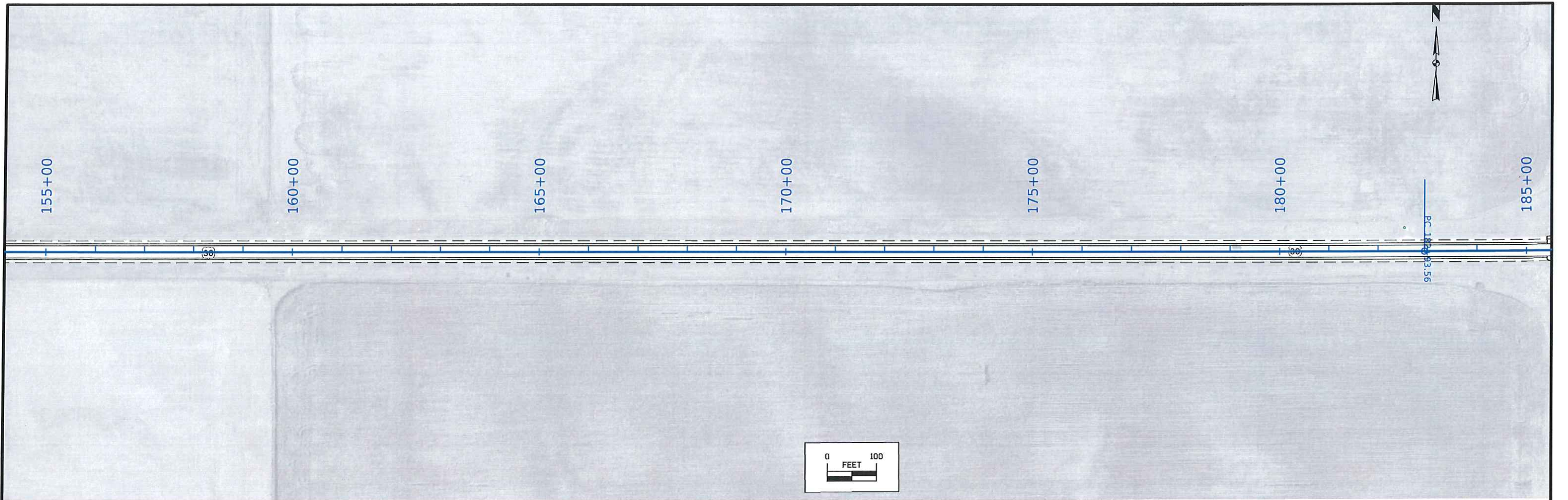
(COVERS SHEET SERIES D, E, F, & K)

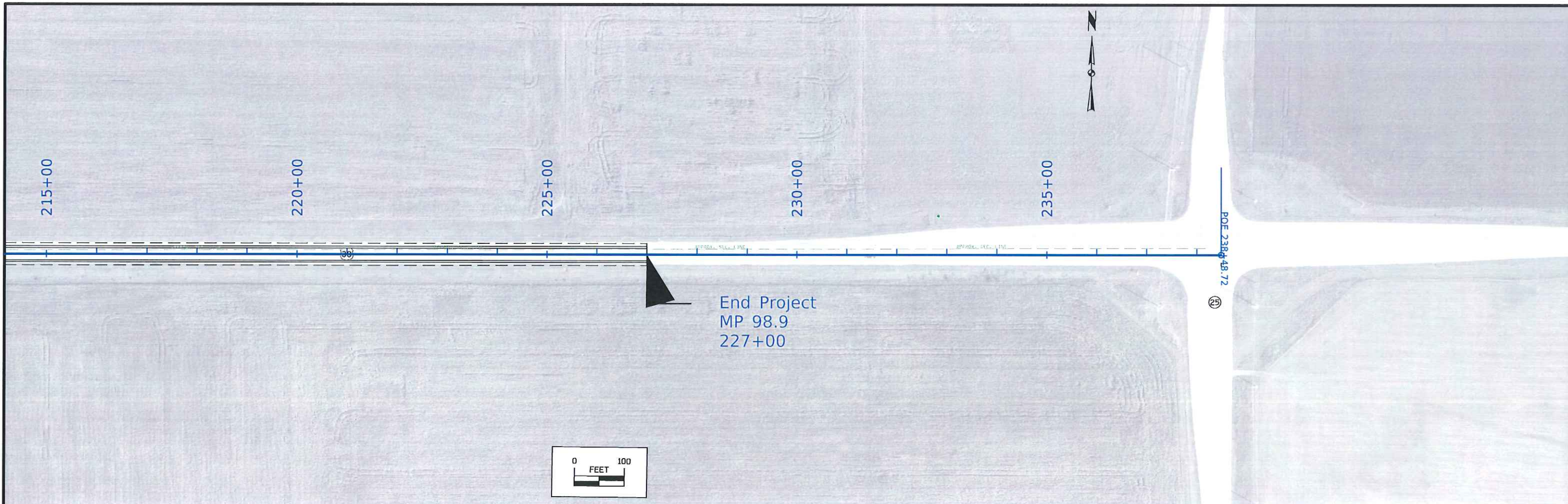












Survey Information

SURVEY INDEX

County: Carroll
PIN: 22-14-030-010
Project Number: NHSX-030-2(182)--3H-14
Location: 0.2 mi W of Zephyr Ave to IA 25
Type of Work: HMA Resurfacing/Cold-in-Place Recycling
Project Directory: 1403001022

Survey Personnel

Paul Harry – Survey Party Chief
Dan Duncan – Assistant Survey Party Chief

Date(s) of Survey

Begin Date 09/14/2022
End Date 10/06/2022

General Information

This survey is for US Hwy 30 turn lanes and culvert extensions at five locations 0.2 mi W of Zephyr Ave to IA Hwy 25. This project is a Full Field DTM survey.

Utility Information

For logging data and other utility details see Utility Survey and Ownership Report in the Utility folder of the PrelimSurvey project directory.

Project Control

Nearby Iowa Real Time Network reference stations were utilized to obtain horizontal and vertical control on primary project control points. Six three-minute observations were taken with a minimum one-hour time span between and used in a weighted average to obtain final coordinate values. For additional details of the control survey, contact the Preliminary Survey department.

PROJECT DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 ADJUSTMENT)
COORDINATE SYSTEM: IOWA REGIONAL COORDINATE SYSTEM ZONE 07
(U.S. SURVEY FOOT)
VERTICAL DATUM: NAVD88
GEOID MODEL: 2018u3

Alignment Information

The horizontal alignment for U.S. Hwy 30 was provided by the District 1 ROW Office.

CONTROL POINT VICINITY MAP

This map is a guide to the vicinity of the primary project control points. Primary control is for use with RTK base stations and for RTN validation. Future surveys will use primary project control to establish temporary control as needed for construction or other surveying applications.



HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment) - Iowa RCS Zone 07 (U.S. Survey Foot)

VERT. DATUM: NAVD88 - Geoid Model: 2018u3

Coordinate listing from next sheet will be used with IaRTN for monument recovery. No other reference ties are given.

HORIZONTAL AND VERTICAL PROJECT CONTROL COORDINATE LISTING

HORIZ. DATUM: NAD83(2011) for EPOCH 2010.00 (IaRTN 2019 Adjustment)
 Ia. Regional Coordinate System Zone 07 (U.S. Survey Foot)

VERT. DATUM: NAVD88
 Geoid Model: 2018u3

Point Name	Northing	Easting	Elevation	Feature Definition - Description
GSVS 039	7460816.34	17493120.56	1143.01	CP FND NGS MONUMENT AS DESCRIBED IN GOOD CONDITION
GSVS 040	7459839.56	17498561.95	1110.07	CP FND NGS MONUMENT AS DESCRIBED IN GOOD CONDITION
GSVS 041	7455242.20	17502759.00	1111.92	CP FND NGS MONUMENT AS DESCRIBED IN GOOD CONDITION
GSVS 042	7450659.62	17507266.86	1142.99	CP FND NGS MONUMENT AS DESCRIBED IN GOOD CONDITION
GSVS 043	7450125.11	17511672.62	1175.18	CP FND NGS MONUMENT AS DESCRIBED IN GOOD CONDITION
GSVS 044	7450277.40	17516568.56	1179.65	CP FND NGS MONUMENT AS DESCRIBED IN GOOD CONDITION
GSVS 045	7450351.09	17521597.28	1170.41	CP FND NGS MONUMENT AS DESCRIBED IN GOOD CONDITION

TRAFFIC CONTROL PLAN

108-23A
08-01-08

Traffic shall be maintained with the use of pilot cars, flaggers and lane closures on US 30 and all side roads at all times.

COORDINATED OPERATIONS

111-01
04-17-12

Other work in progress during the same period of time will include the construction of the projects listed. Coordinate operations with those of other contractors working within the same area.

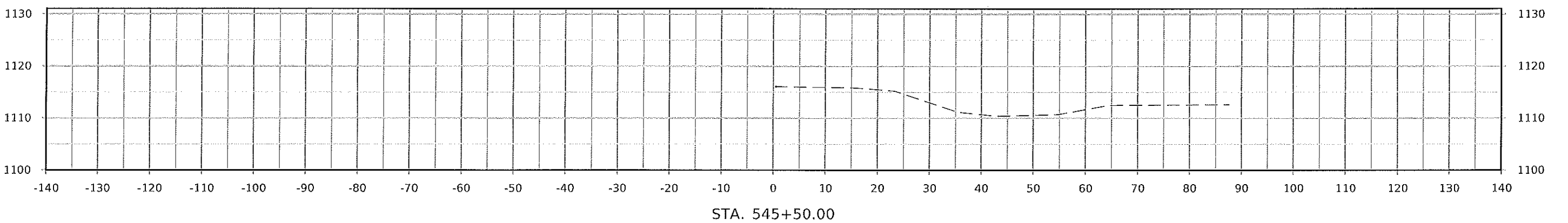
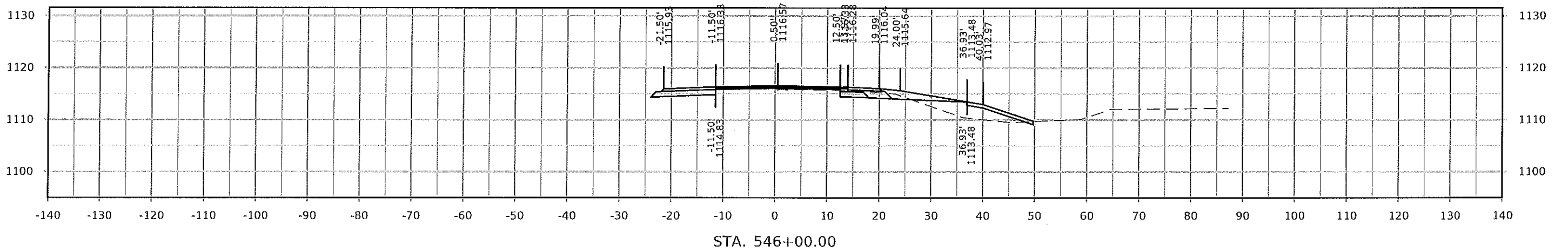
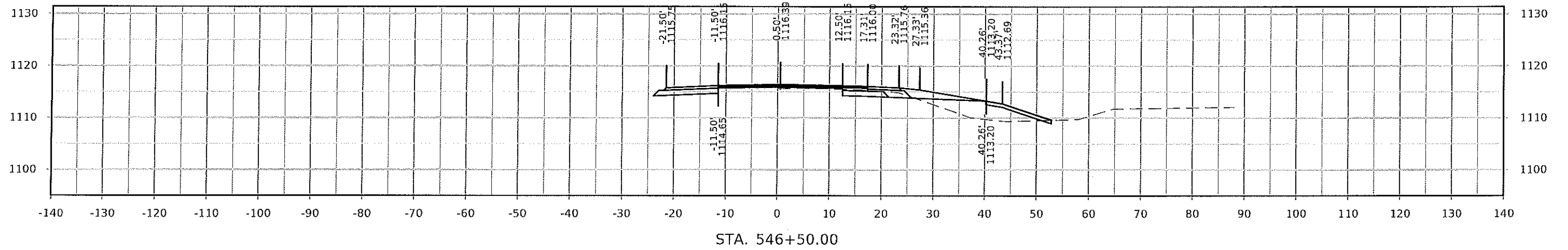
Project	Type of Work
None.	

511 TRAVEL RESTRICTIONS

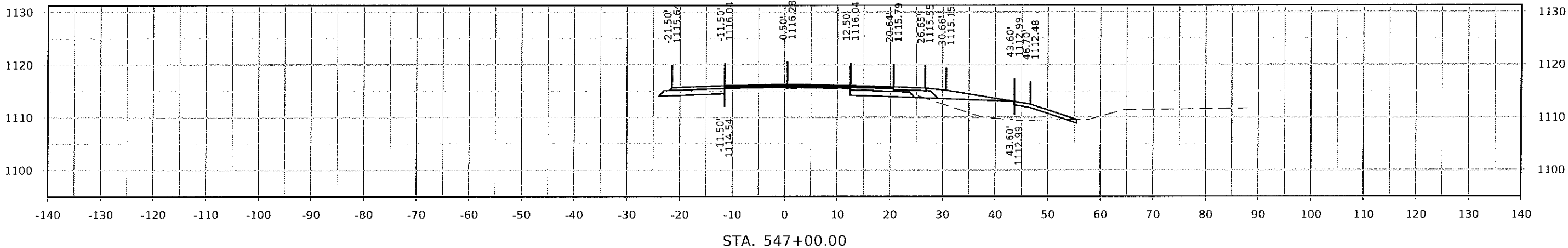
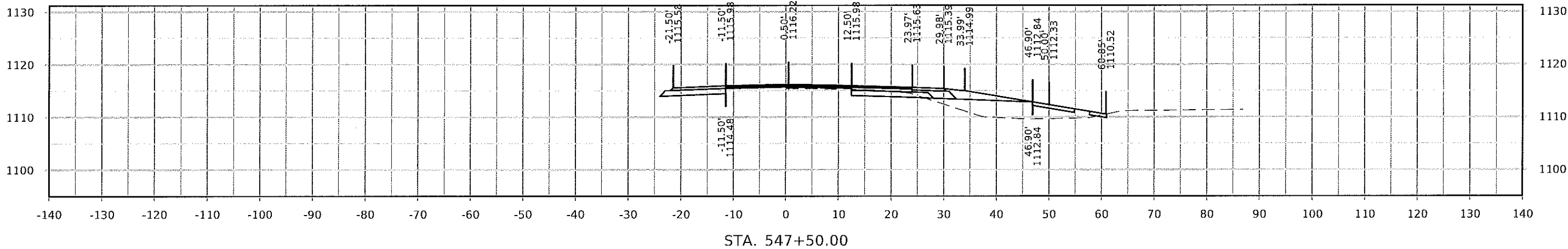
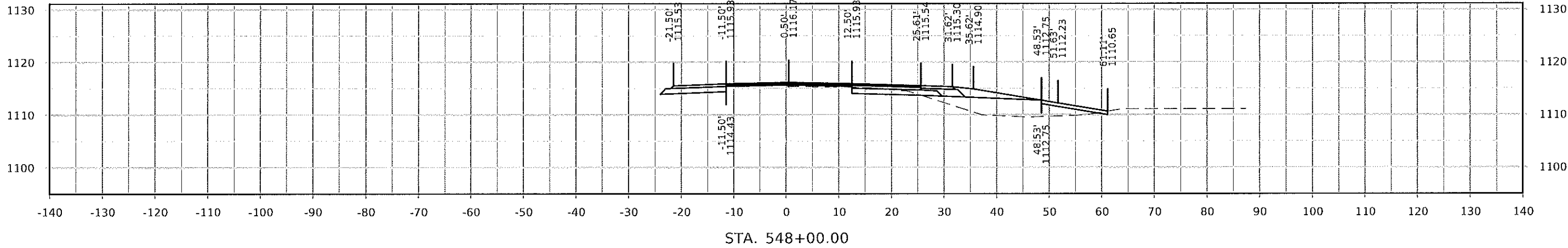
108-25
10-21-14

Route	Direction	County	Location Description	Feature Crossed	Object Type	Maint. Bridge No., Structure ID, or FHWA No.	Type of Restriction	Existing Measurement	Construction Measurement	Construction Measurement as Signed	Projected As Built Measurement	Remarks
			None expected.									

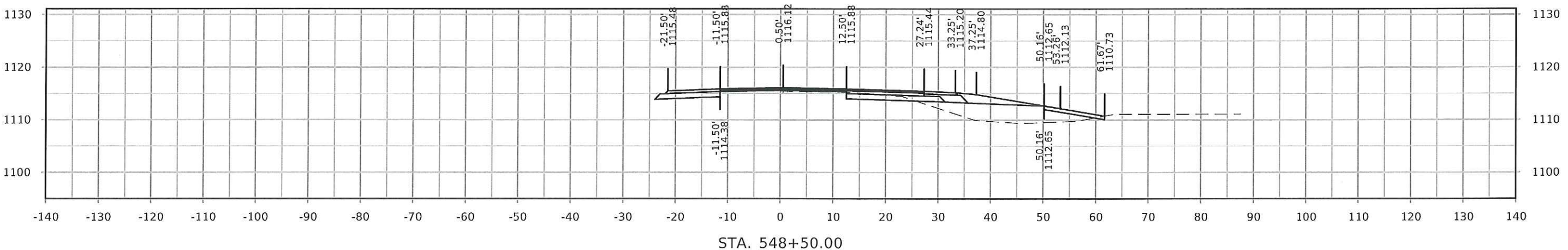
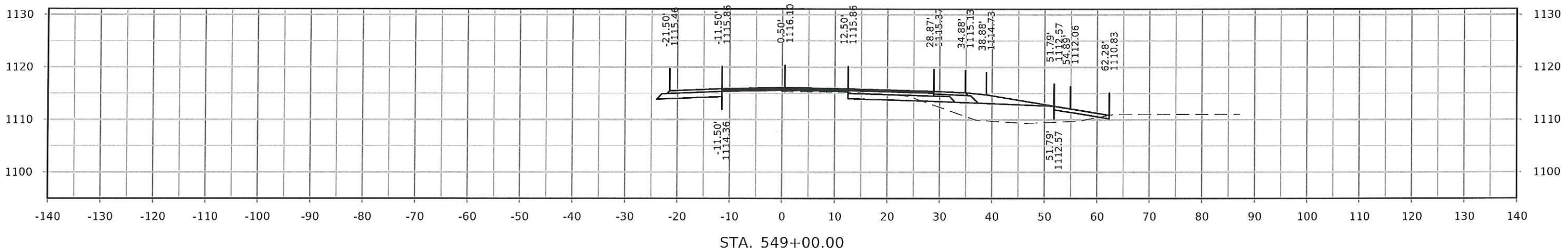
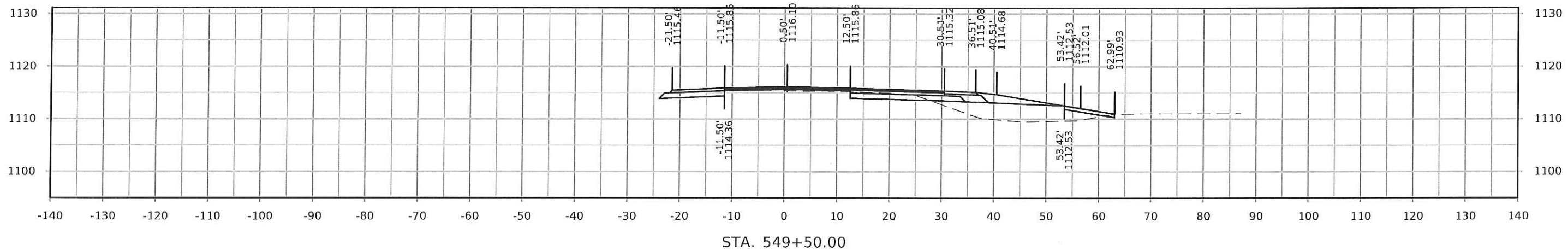
ML - US30

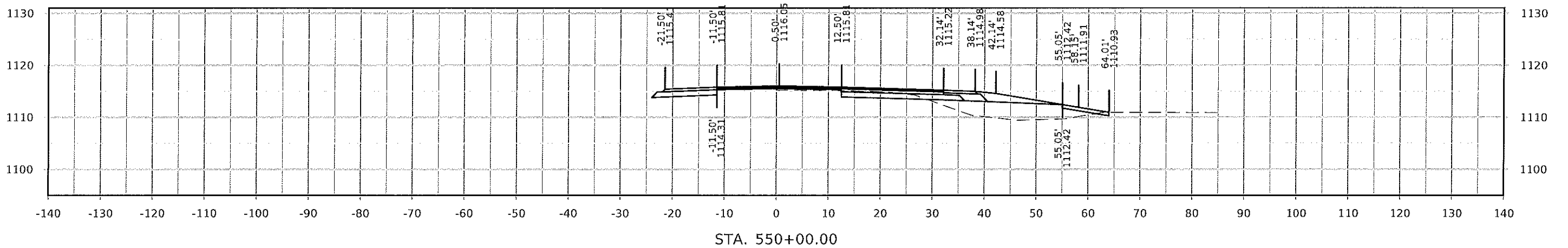
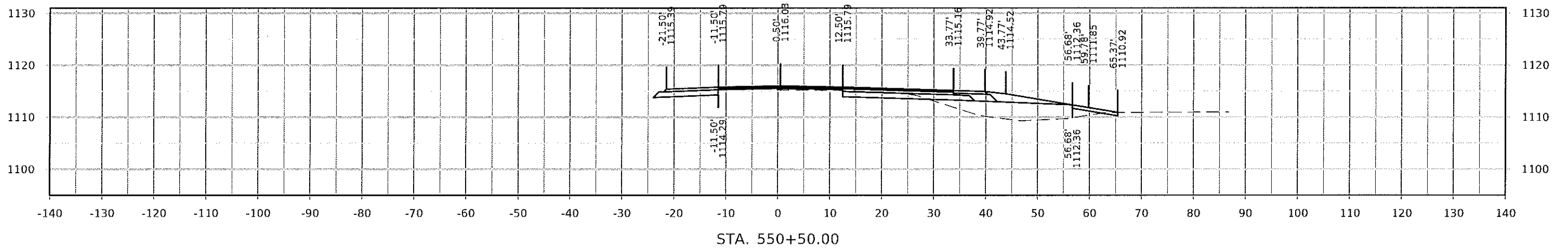
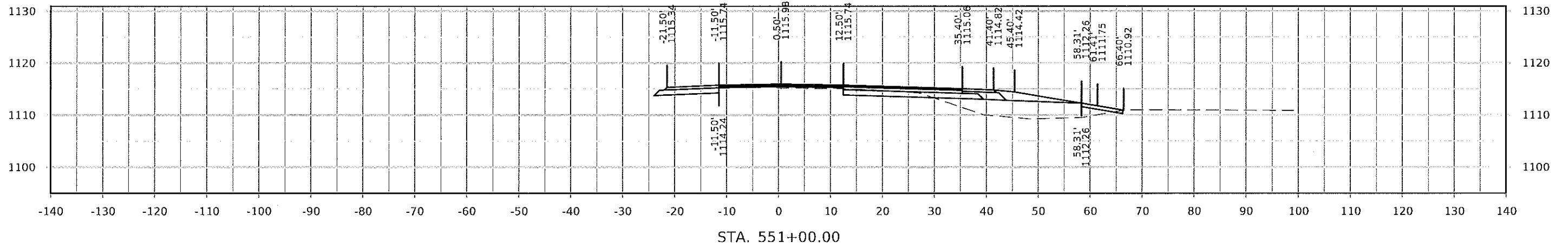


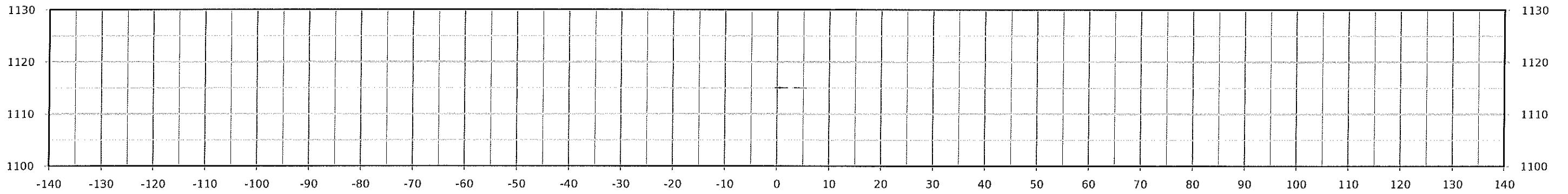
ML - US30



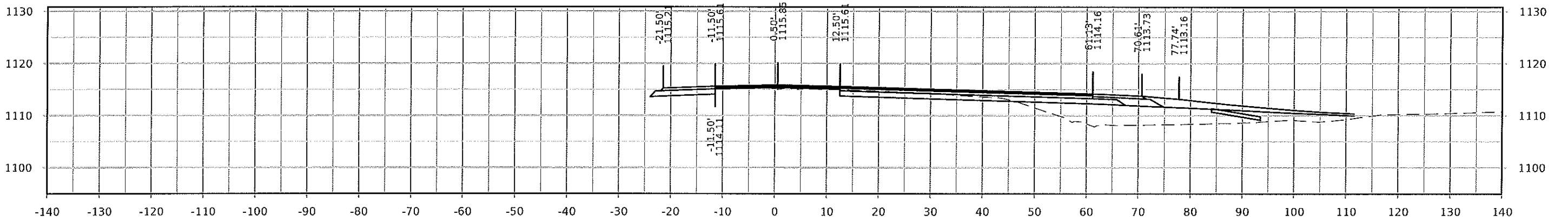
Add
Distal
Grades



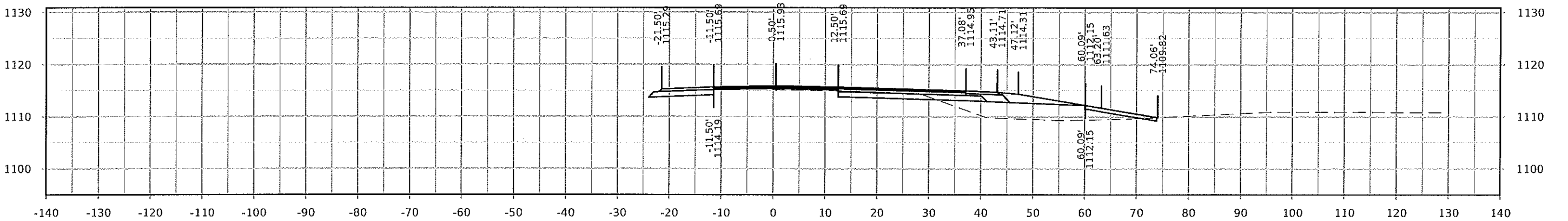




STA. 552+50.00

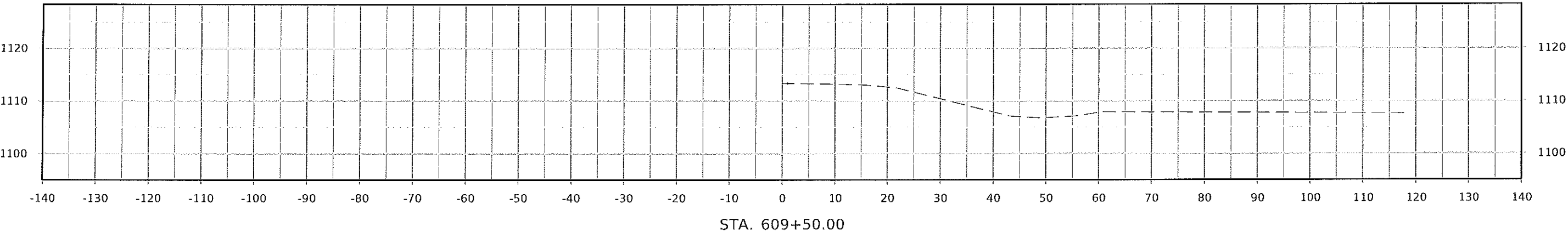
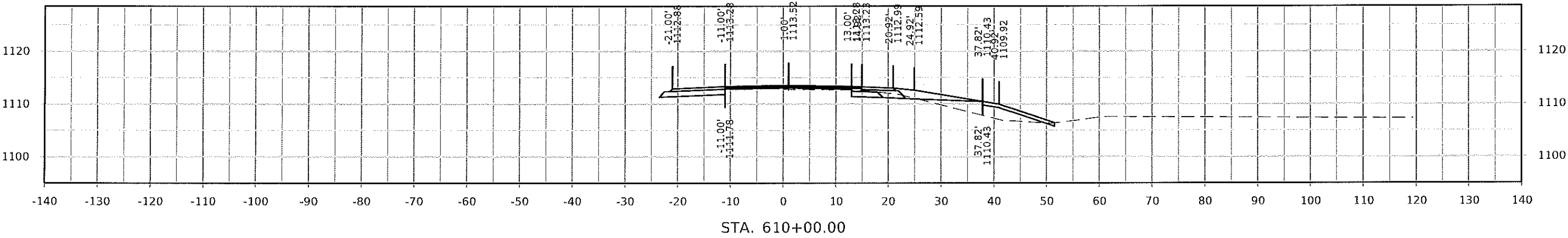
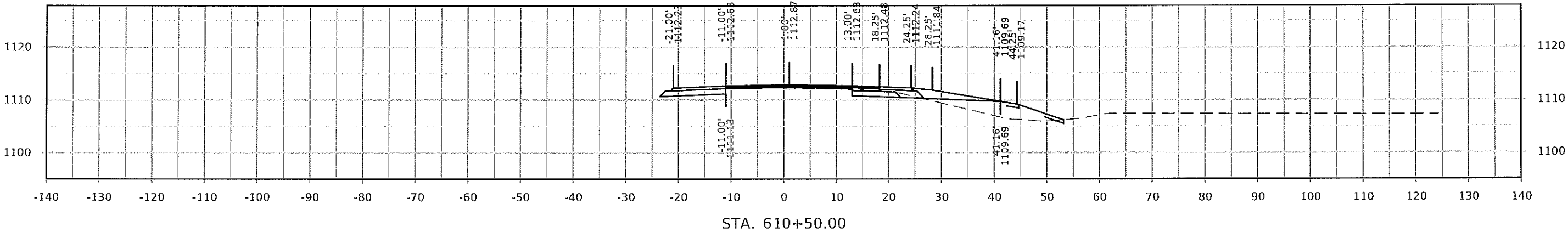


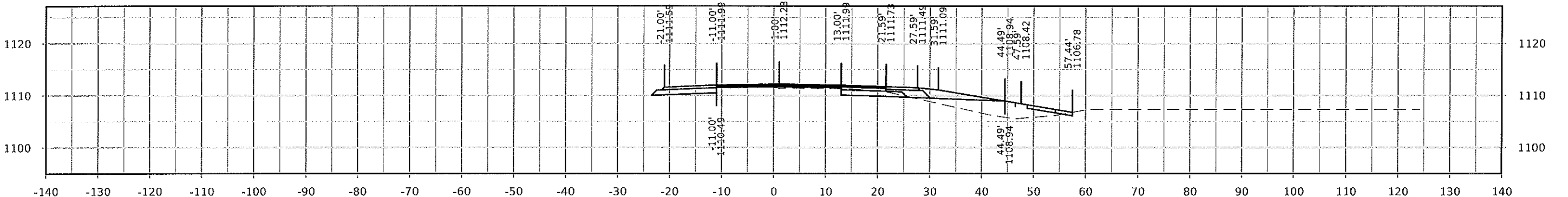
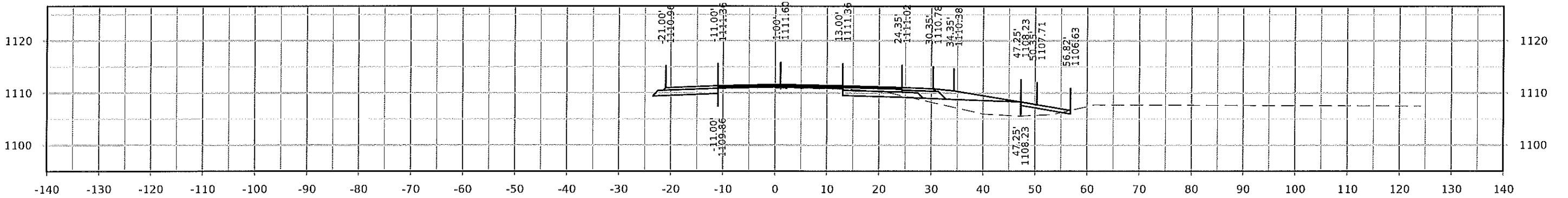
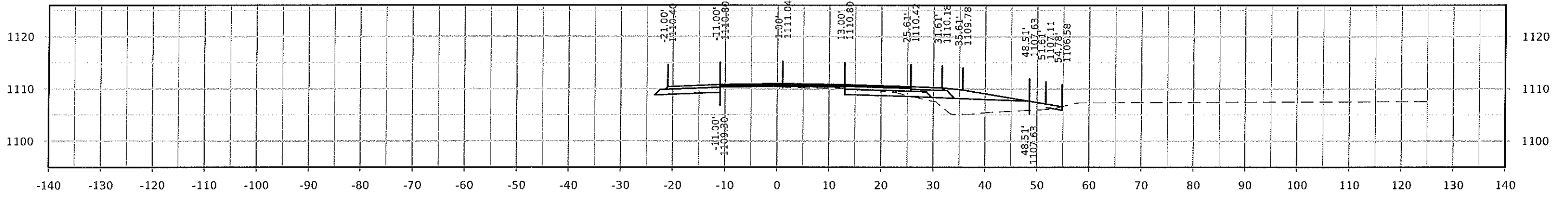
STA. 552+00.00

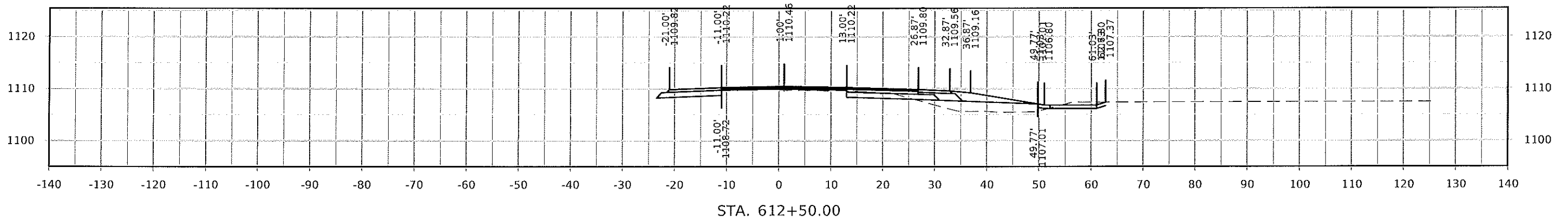
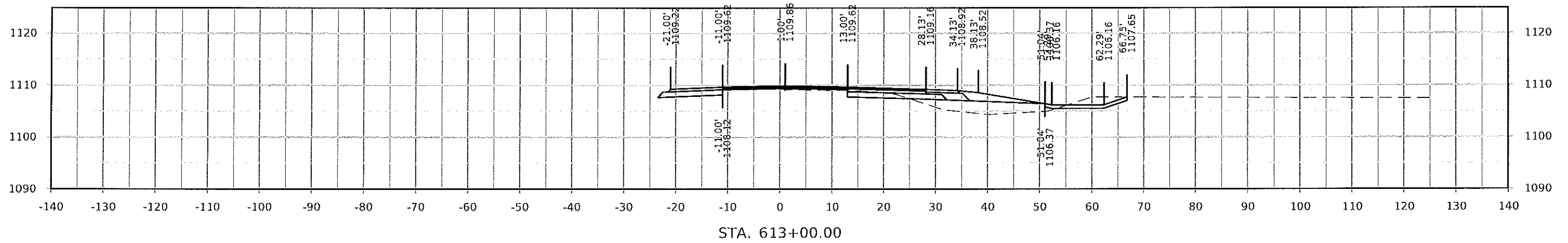
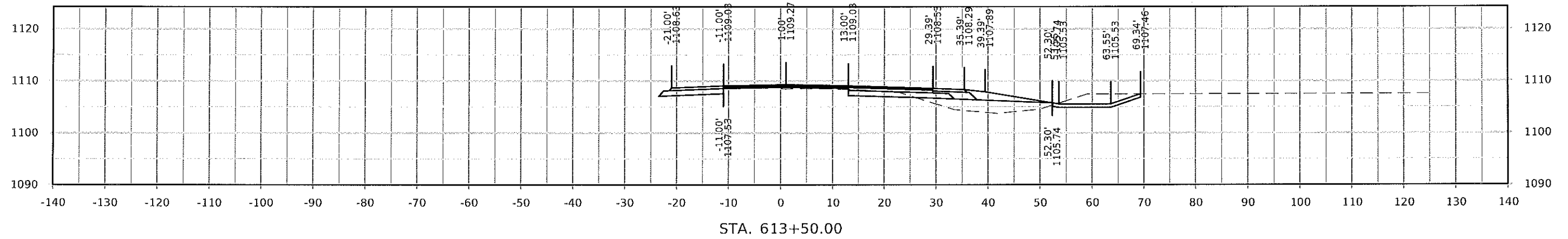


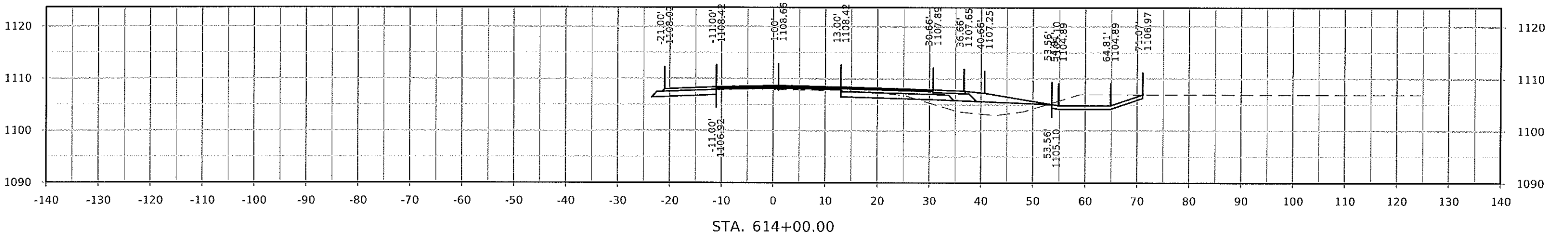
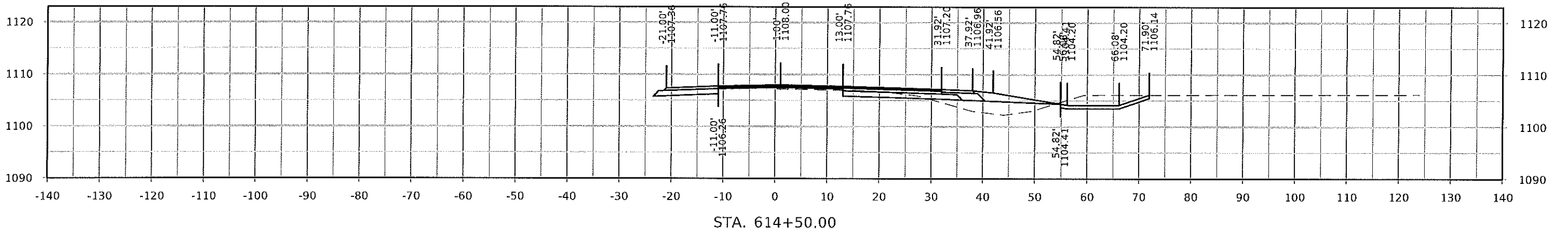
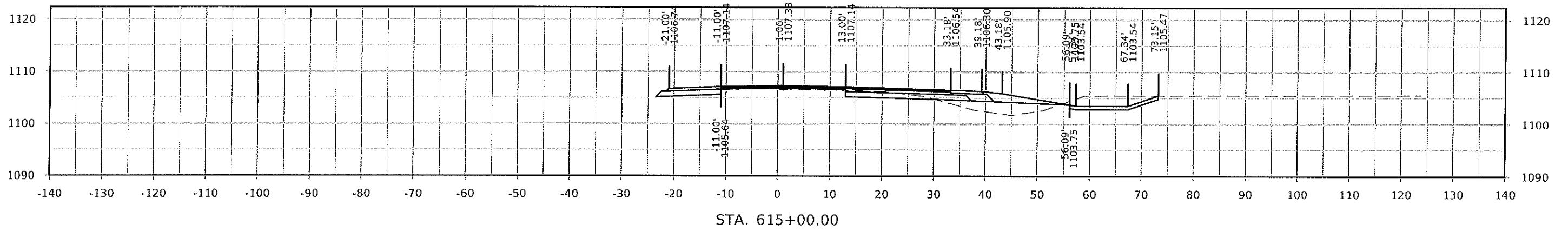
STA. 551+50.00

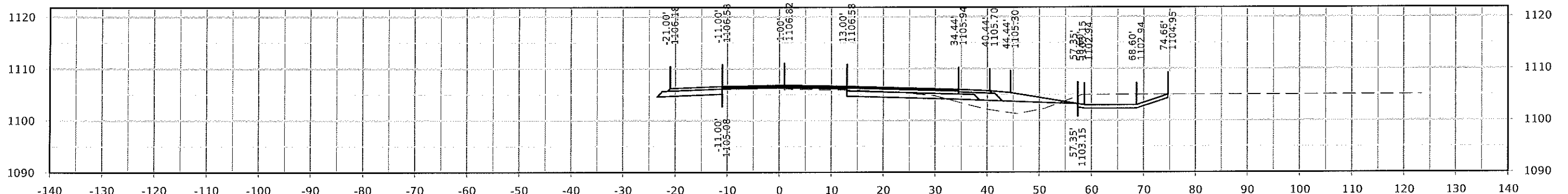
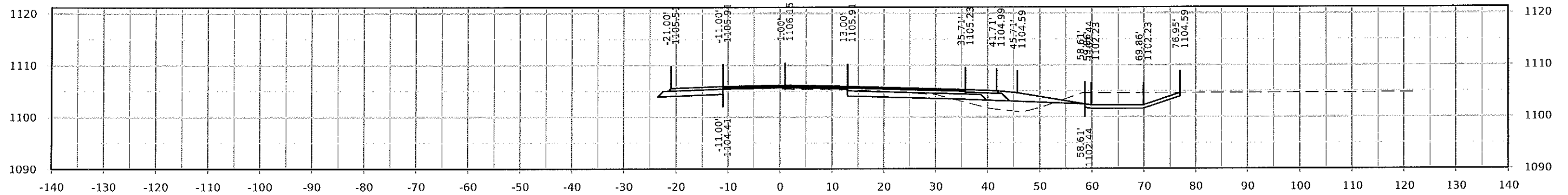
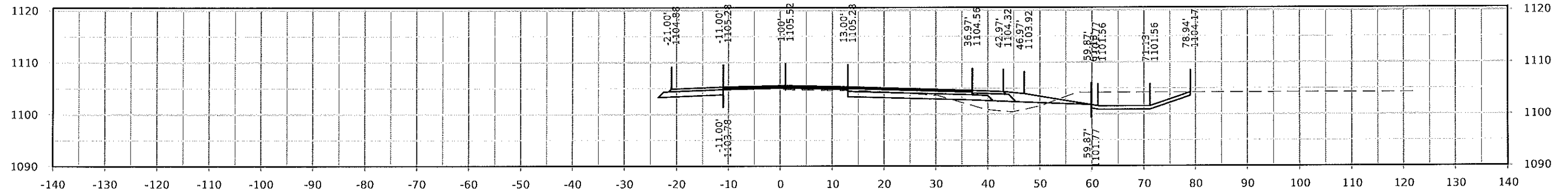
ML - US30

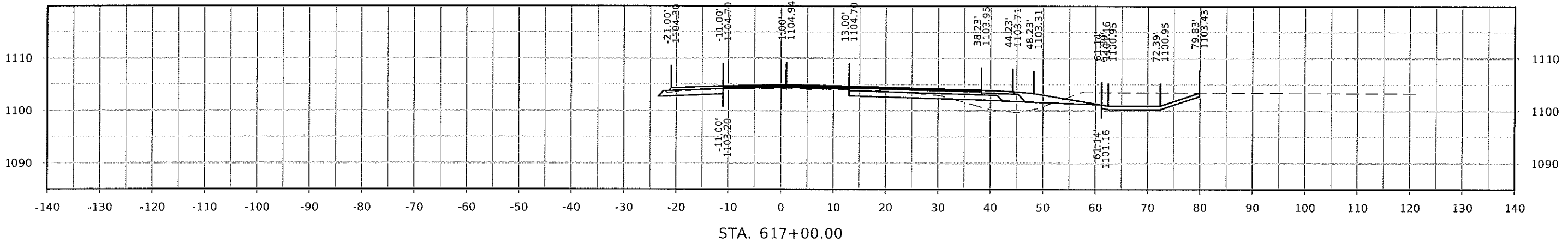
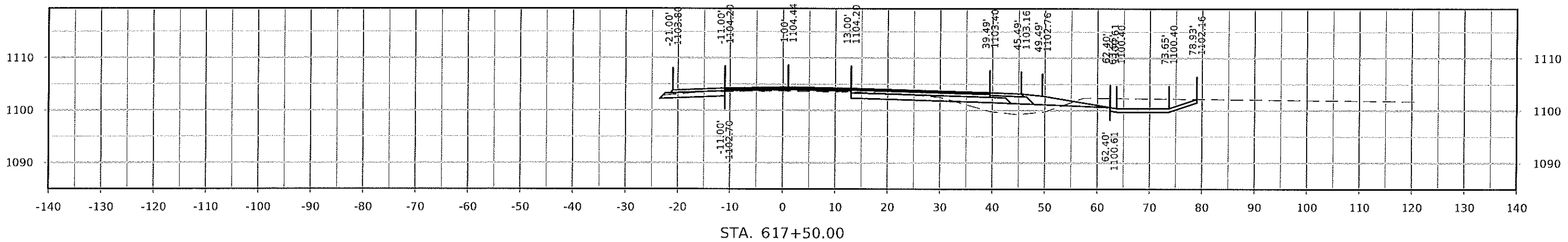
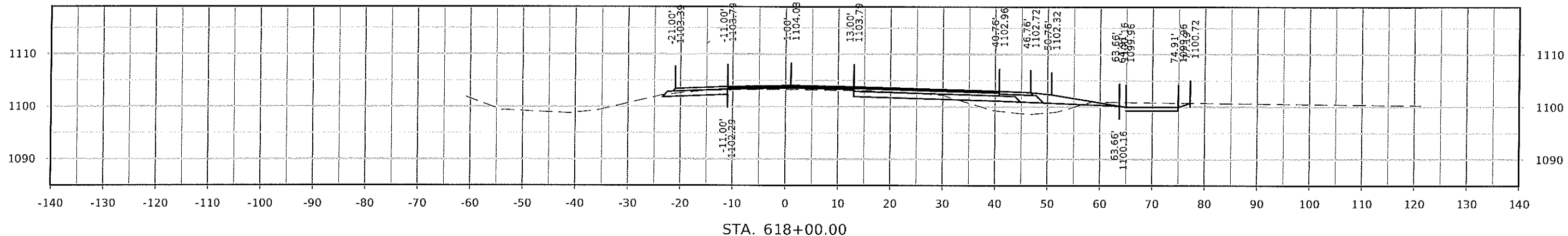


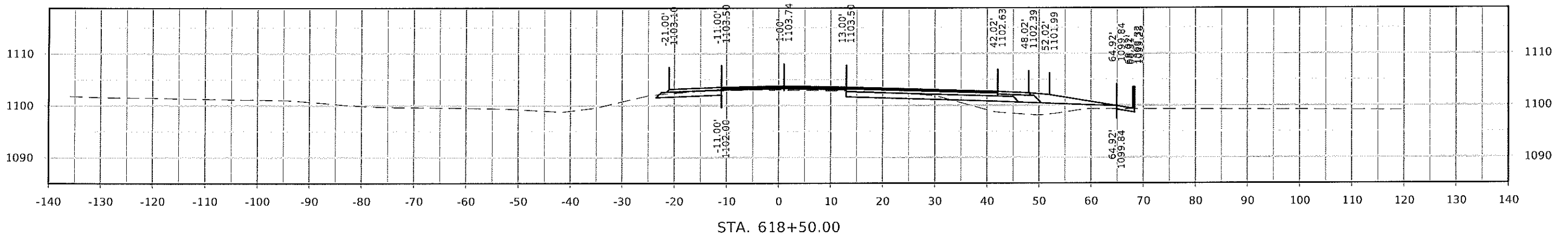
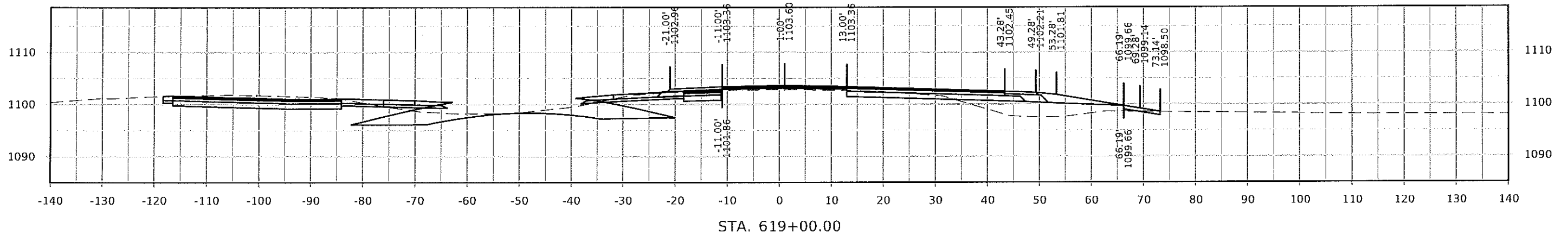
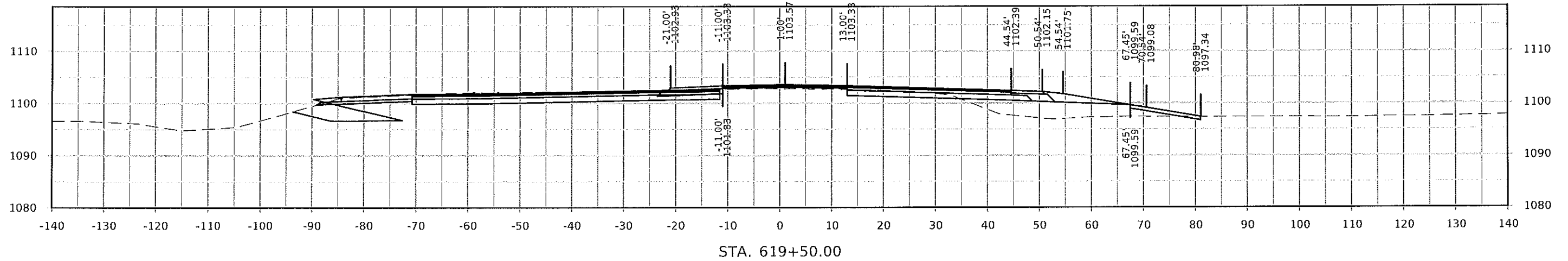


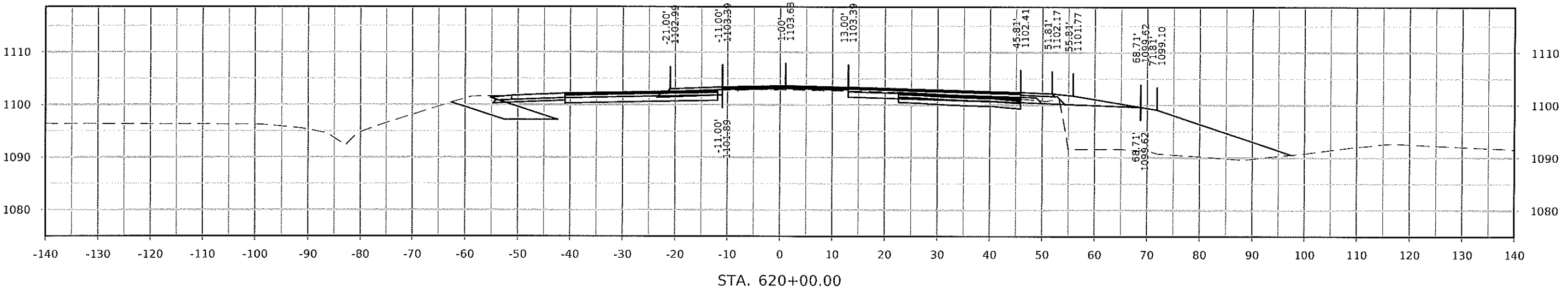
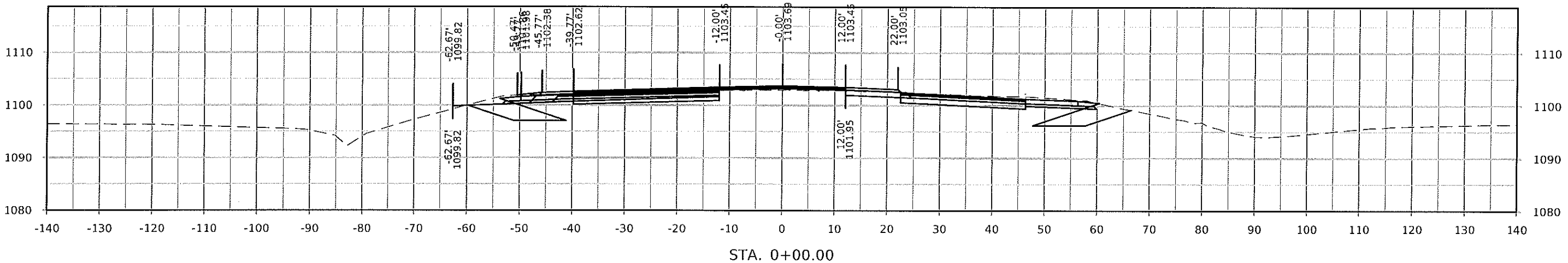
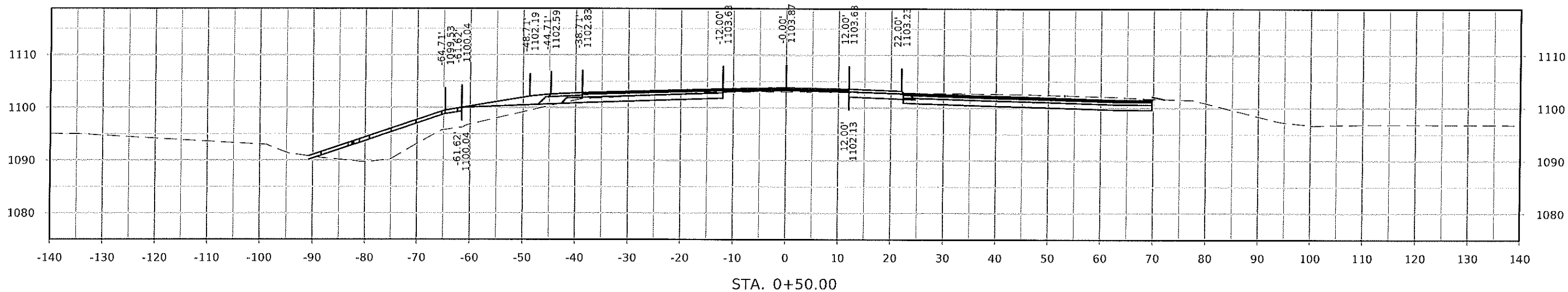




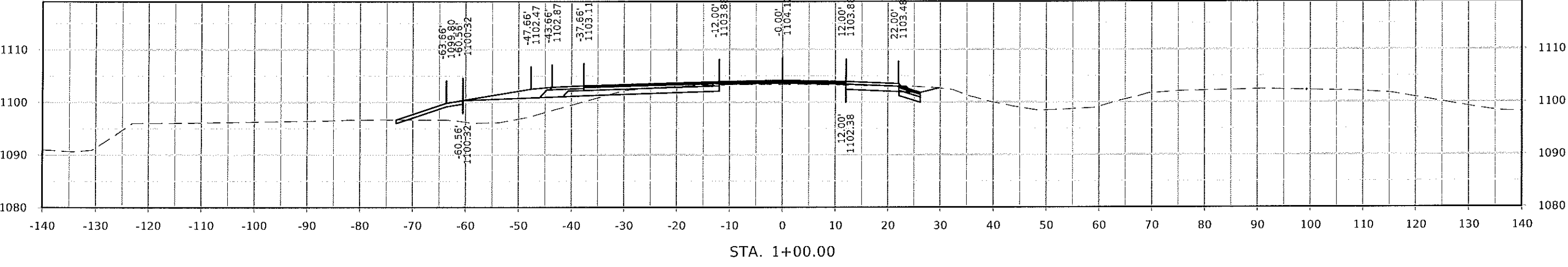
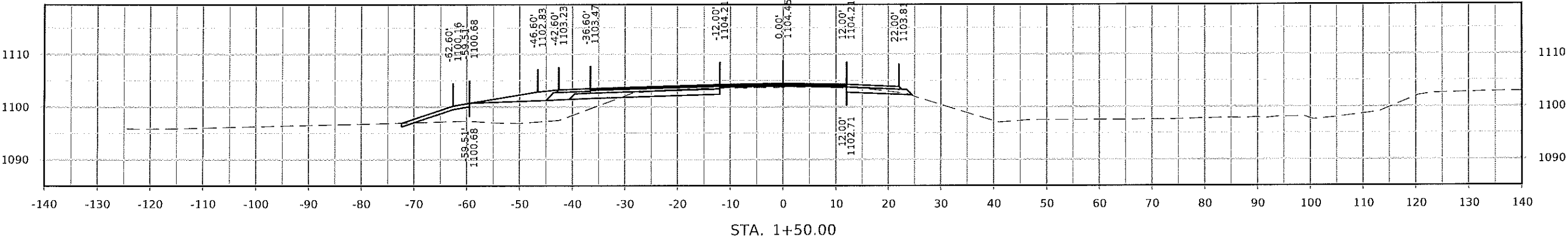
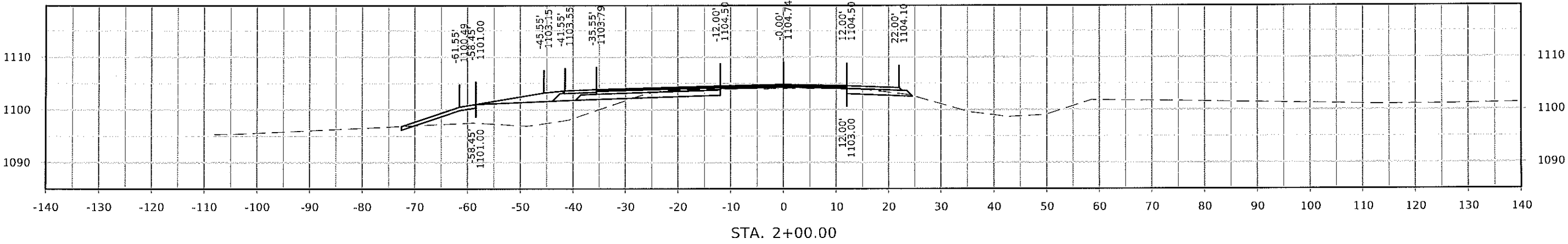


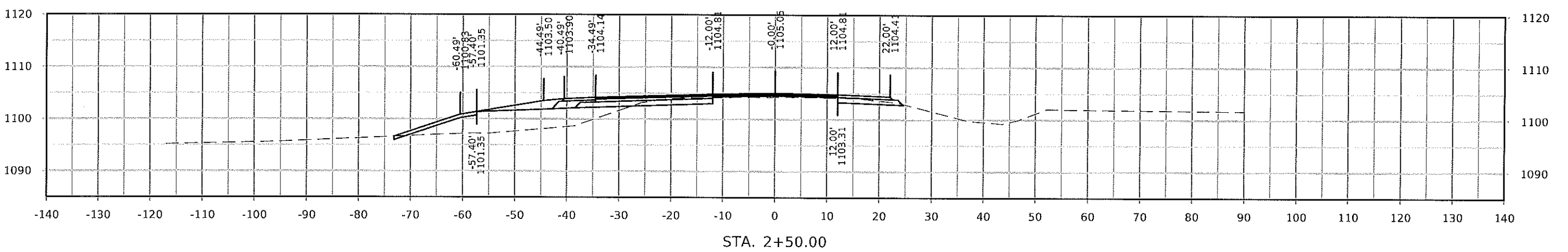
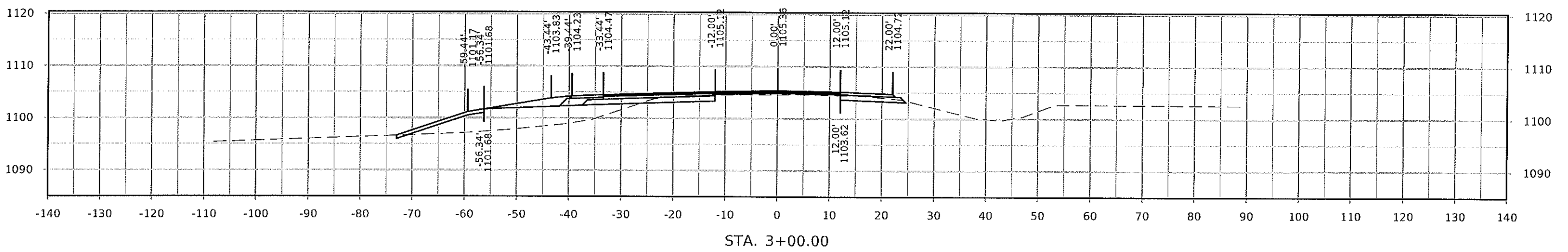
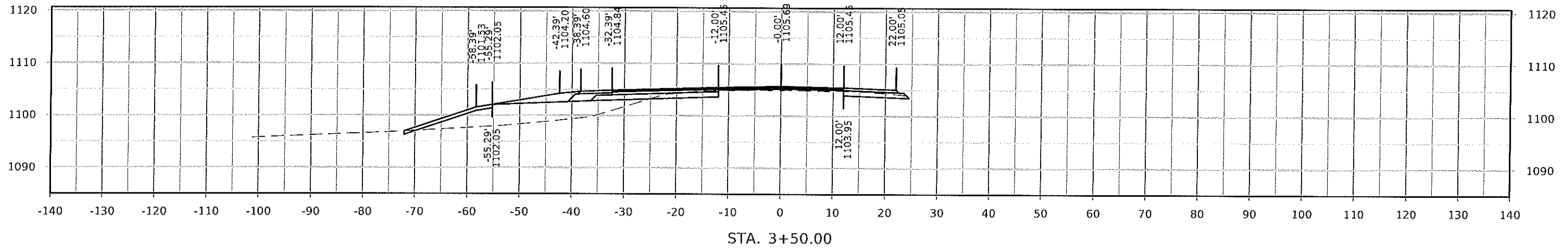


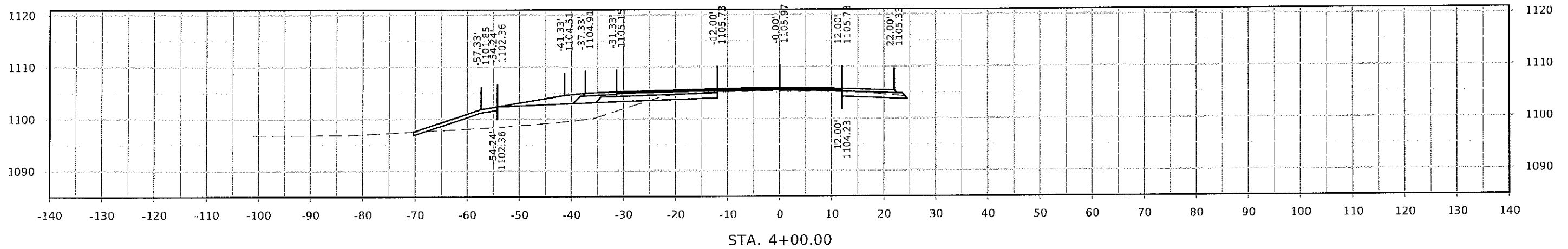
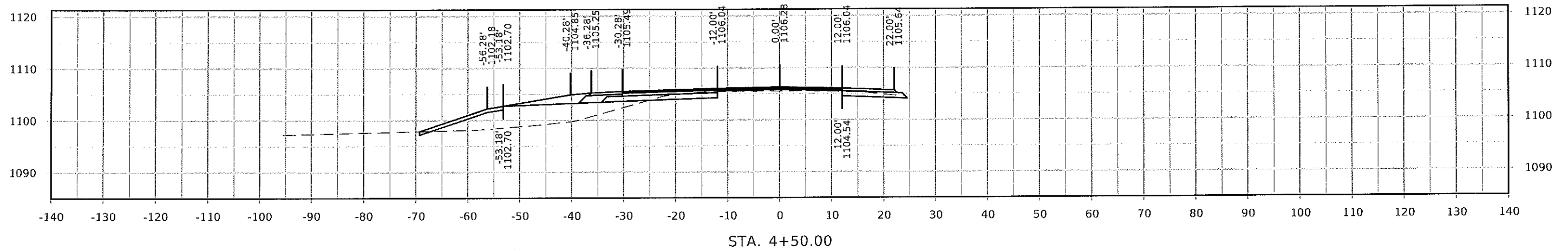
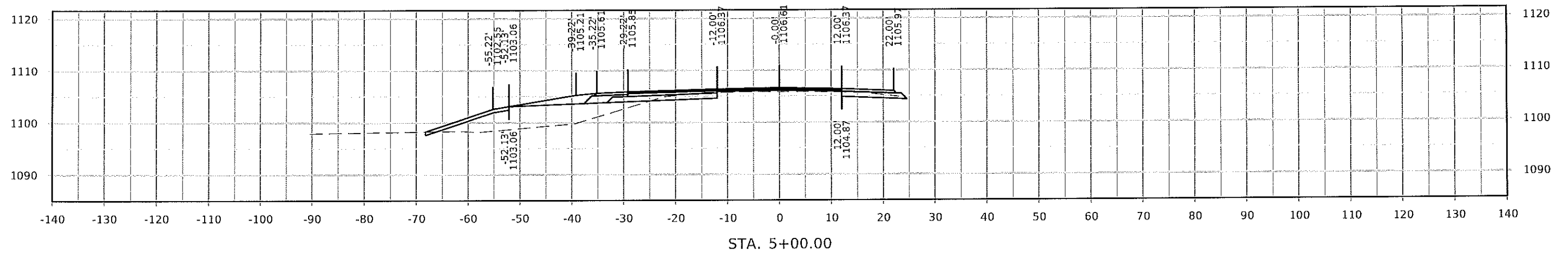


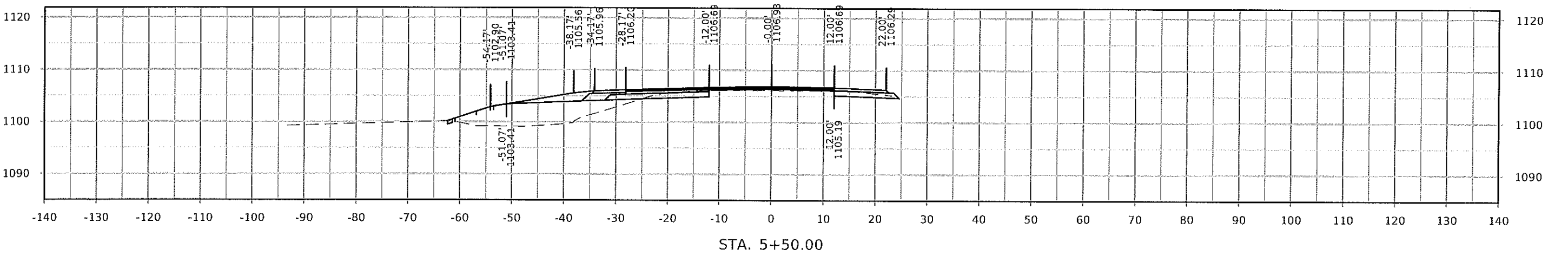
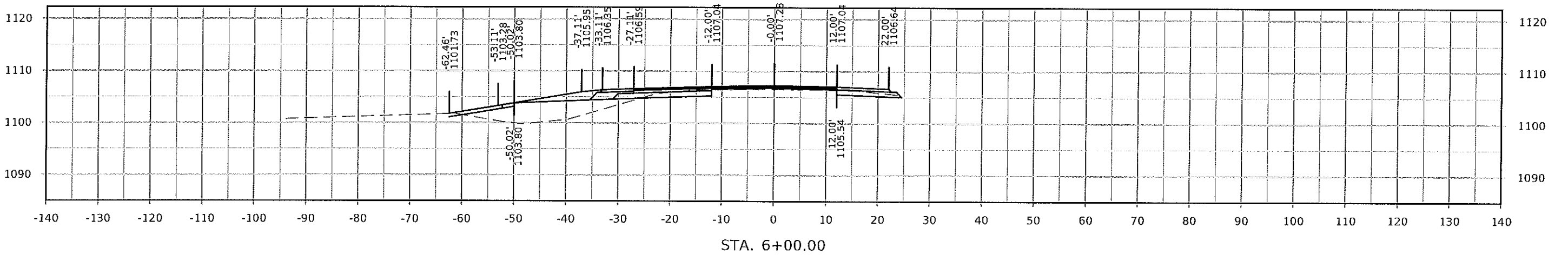
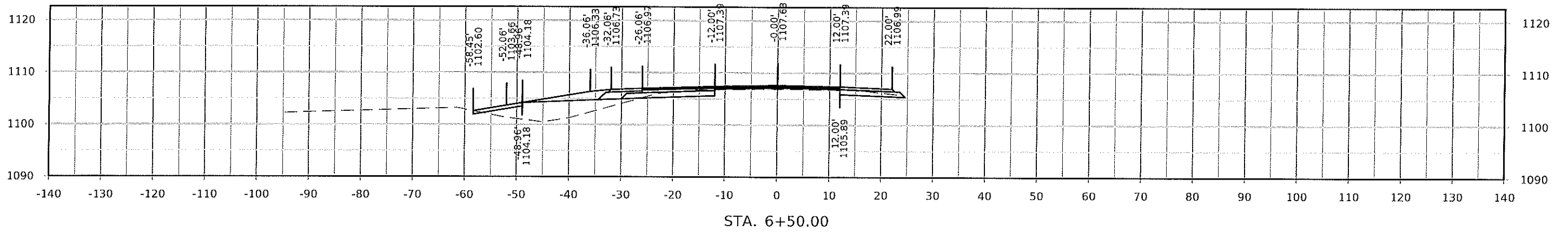


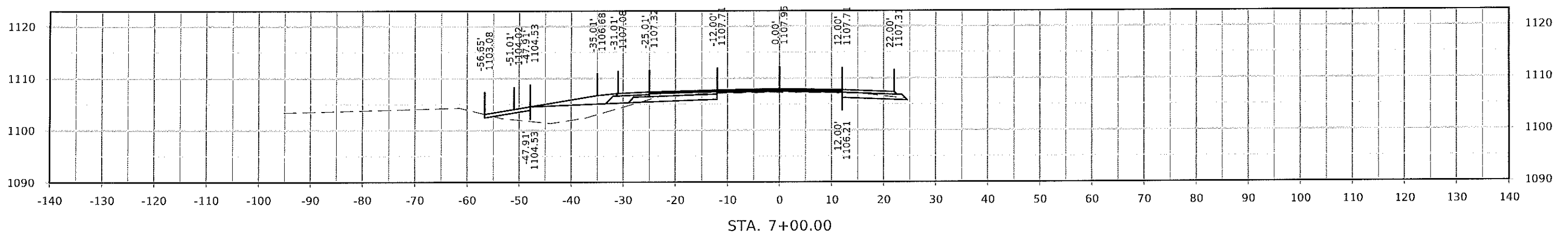
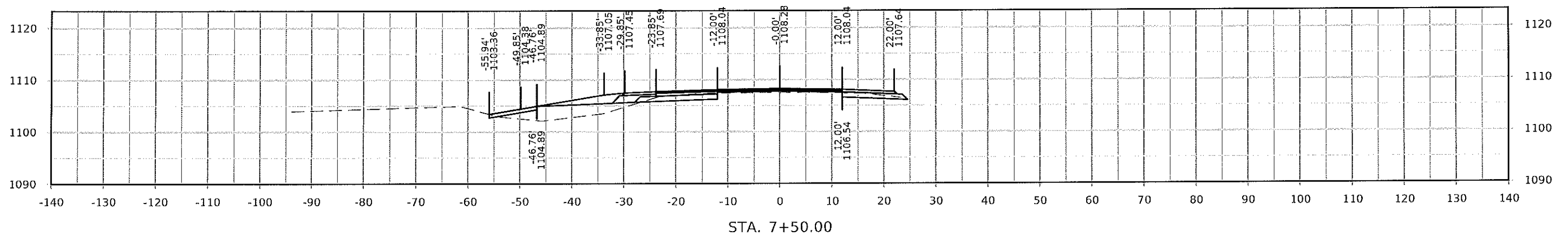
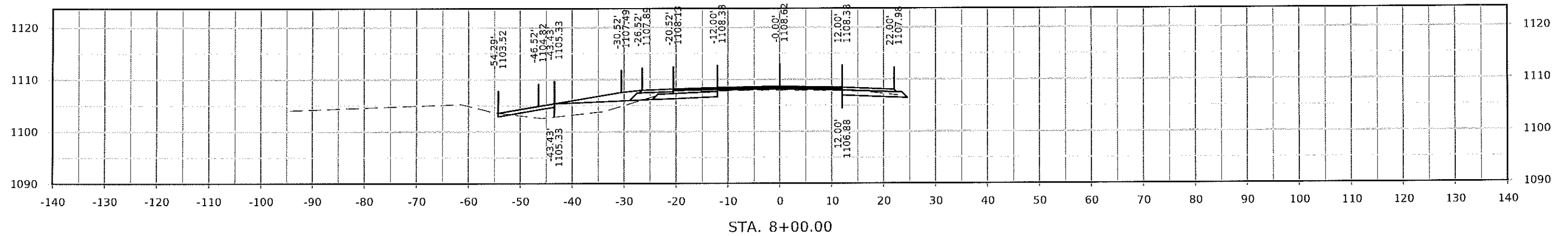
ML - US30



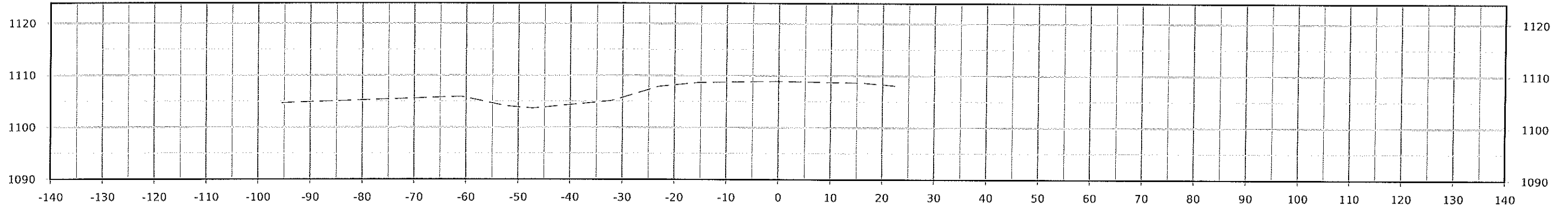




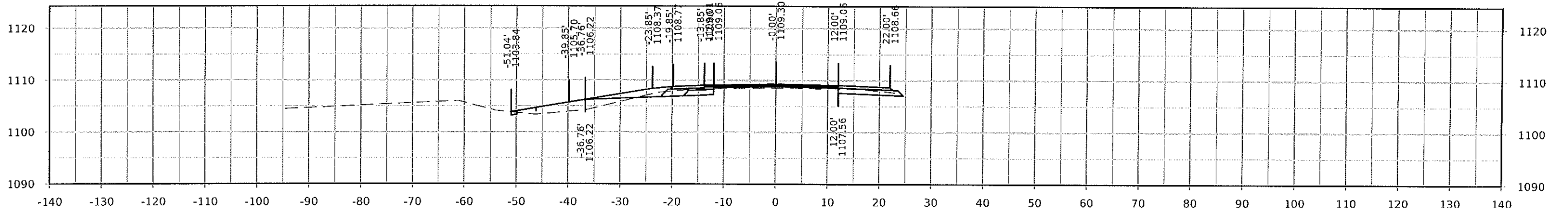




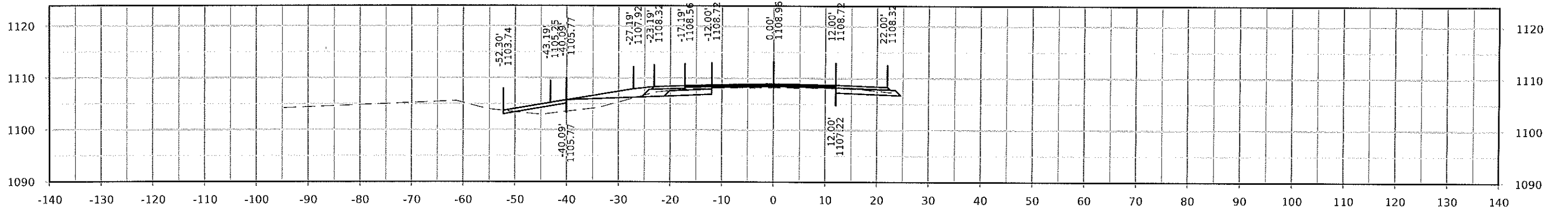
ML - US30



STA. 9+50.00



STA. 9+00.00



STA. 8+50.00

US 30 Culverts/RCB Issues.

Extend w/ project ✓ Row

93.6 - 4' Box ^{OBL} Culvert - Deteriorated concrete
- 12' off the edge line

93.8 - Slight culvert separation between shoulder + outlet
Sink Holes

Remove + Rebay ← 94.7 - slight culvert separation - sink holes

Remove + Rebay ^{Final 3} ← 95.2 slight culvert separation - sink holes → Remove + Reinstall
Remove + Rebay ^{1st section} ← 95.6 - West bound - Deteriorated concrete
Culvert separation
Remove + Rebay ^{1st section} ← 95.9 - slight culvert separation - sink holes
Remove + Rebay ^{1st section} ← 96.8 - Sub Drain - sink holes → Remove + Rebay ^{1st section}

Both sides N/S

97.7 - Culvert separation - sink holes → Remove + Rebay ^{1st section}

98.2 - Culvert separation - 6' Box culvert 15' from edge line

98.4 culvert separation - sink holes → Possible Extend?

@ D Ave South side
Remove + Rebay ^{1st section}

98.6 culvert separation - Deteriorated Concrete → Remove + Rebay ^{1-2 sections}

98.8 culvert separation - Deteriorated Concrete

95.8 1/2 Box Erosion on N. end

Class 13 for travel triangles @ Stop Sign E39
Subdrain - near 110+00
Hole in shoulder