Docusign Envelope ID: 2E7C855D-6DD9-43F7-B6C8-27364FB71077

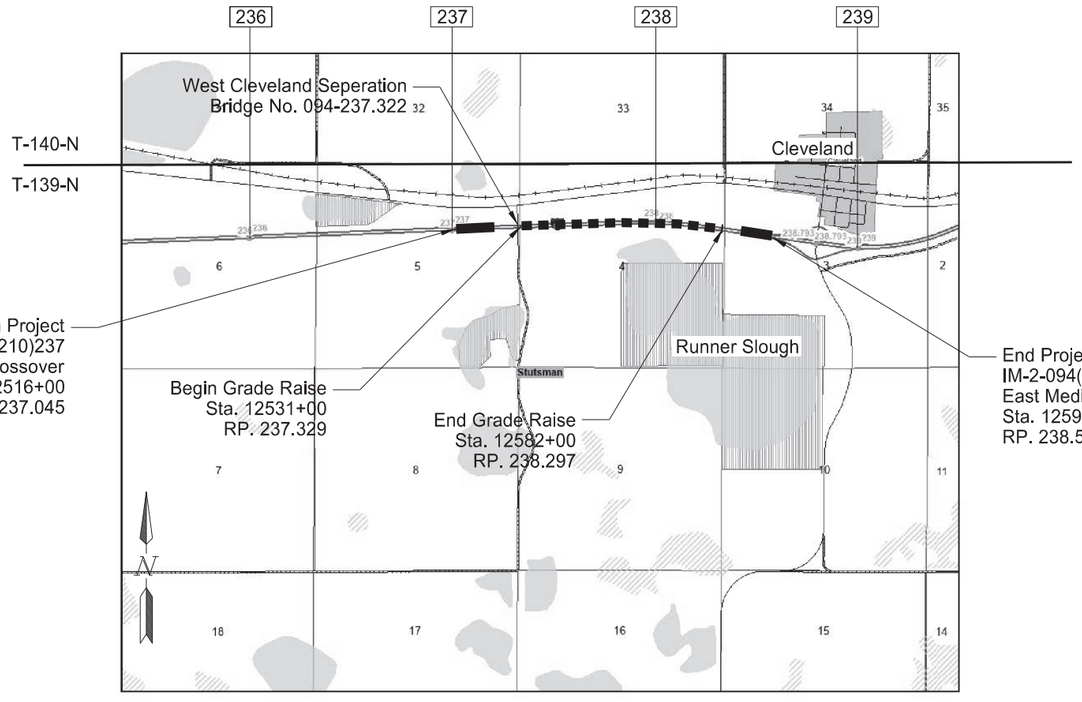
DESIGN DATA				
Traffic	Average Daily			
Current 2024	Pass: 2915	Trucks: 1255	Total: 4170	EB
Forecast 2044	Pass: 3760	Trucks: 1965	Total: 5455	EB
Current 2024	Pass: 2805	Trucks: 1225	Total: 4030	WB
Forecast 2044	Pass: 3620	Trucks: 1655	Total: 5275	WB
Clear Zone Distance: 6:1=38 ft		Design Speed: 80 MPH		
Minimum Sight Dist. for Stopping: 910 ft		Bridges: N/A		
Full Control of Access, No Point of Access Other Than at Interchange Ramps				
Pavement Design Life 20 (years)				
Design Accumulated One-way Flexible ESALs: 7,131,917				

STATE	PROJECT NO.	PCN	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	24461	1	1

NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION

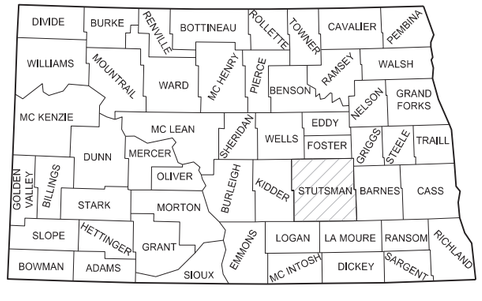
IM-2-094(210)237

Stutsman County
I-94 EB/WB
1.3 Miles West of Cleveland Interchange
Median Crossovers, Grade Raise, Pipe
Embankment, Aggregate Base, HMA



GOVERNING SPECIFICATIONS	Date Published and Adopted by the North Dakota Department of Transportation
Standard Specifications	7/1/2025
Supplemental Specifications	NONE

PROJECT NUMBER \ DESCRIPTION	NET MILES	GROSS MILES
IM-2-094(210)237	1.297	1.468



STATE COUNTY MAP

DESIGNER
Leon Eckroth
DESIGNER
Brianne Kappes
DESIGNER
Jea Monje

ND DEPARTMENT OF TRANSPORTATION
OFFICE OF PROJECT DEVELOPMENT

kirk Hoff

Kirk Hoff
01/08/26

NDDOT DESIGN DIVISION

CHAD FRISINGER
REGISTERED
PROFESSIONAL
PE-4876
01/08/26
ENGINEER
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	2	1

TABLE OF CONTENTS

PLAN SECTIONS

Section	Page(s)	Description
1	1	Title Sheet
2	1 - 2	Table of Contents
4	1	Scope of Work
6	1 - 6	Notes
6	7	Environmental Notes
8	1 - 3	Quantities
10	1 - 2	Basis of Estimate
11	1	Data Tables
20	1 - 10	General Details
30	1 - 7	Typical Sections
40	1 - 3	Removals
50	1	Hydraulic Data
51	1	Allowable Pipe List
60	1 - 8	Plan & Profile
75	1 - 4	Wetland Impacts
76	1 - 2	Temporary Erosion Control
77	1 - 3	Permanent Erosion Control
80	1 - 2	Layouts
81	1 - 1	Survey Coordinate and Curve Data
82	1 - 5	Survey Data Layouts
100	1 - 11	Work Zone Traffic Control
110	1 - 3	Signing
130	1 - 2	Guardrail
200	1 - 50	Cross Sections - Mainline I-94
200	51 - 57	Cross Sections - Crossovers

SPECIAL PROVISIONS

Number	Description
SP 217(25)	E-Ticketing (Mandatory)
SSP 1	Temporary Erosion and Sediment Best Management Practices
SSP 4	Longitudinal Joint Density
PSP 18(25)	Permits and Environmental Considerations
SP 188(25)	Commercial Grade Asphalt
SP 139(25)	Vehicle Speed Feedback Sign

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	2	2

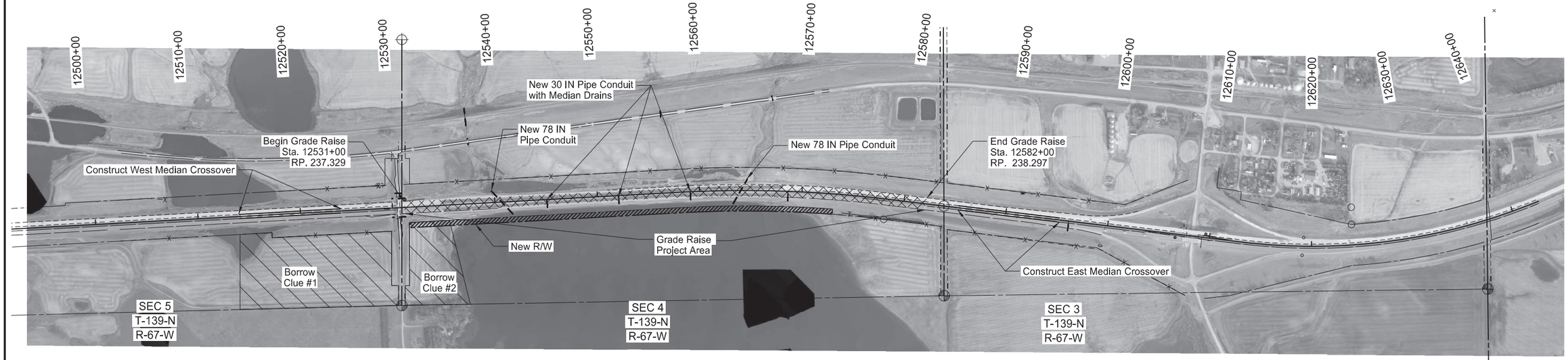
TABLE OF CONTENTS

LIST OF STANDARD DRAWINGS

Number	Description
D-101-1, 2,3,4	NDDOT Abbreviations
D-101-10	NDDOT Utility Company and Organization Abbreviations
D-101-20, 21	Line Styles
D-101-30, 31,32,33	Symbols
D-101-40	Cross Section Legend
D-256-1	Erosion And Siltation Controls
D-260-1	Erosion And Siltation Controls - Silt Fence
D-261-1	Erosion Control - Fiber Roll Placement Details
D-704-1	Attenuation Device
D-704-7	Breakaway Systems For Construction Zone Signs - Perforated Tube
D-704-8	Breakaway Systems For Construction Zone Signs - U-Channel Post
D-704-9	Construction Sign Details - Terminal And Guide Signs
D-704-10	Construction Sign Details - Regulatory Signs
D-704-11, 11A	Construction Sign Details - Warning Signs
D-704-12	Shoulder Closure Tapers
D-704-13	Barricade And Channelizing Device Details
D-704-14	Construction Sign Punching And Mounting Details
D-704-22	Construction Truck And Temporary Detour Layouts
D-704-27	Mobile Operation (Pavement Marking)
D-704-35	Sign Layout For One Lane Closure - Interstate System
D-704-38, 39	Traffic Control System - Median Crossover - 55 Mph Speed Limit or Greater
D-704-49	Construction Sign and Barricade Location Details - Construction Traffic Median Crossing
D-704-50	Portable Sign Support Assembly
D-704-51	Portable Precast Concrete Median Barrier (Temporary Usage)
D-704-56	Mobile Operation - Grinding Shoulder Rumble Strips
D-706-1	Bituminous Laboratory
D-714-1	Reinforced Concrete Pipe Culverts And End Sections (Round Pipe)
D-714-22	Concrete Pipe, Cattle Pass, or Precast Concrete Box Culvert Ties
D-714-26	Transverse Mainline Pipe Installation Detail - Pipes 4 Feet or Less Below Top of Subgrade
D-720-1	Standard Monuments And Right Of Way Markers
D-722-7	Precast Concrete Median Drain
D-752-1	Standard Barbed Wire Fence
D-754-1	Pipe Or W-Shape Assembly Details
D-754-2	Breakaway Coupler System For Standard Pipe - Stub Post
D-754-3	Breakaway System for Standard Pipe - Stub Post
D-754-5	Foundation Data For Steel Supports
D-754-6	Hinge Plate, Fuse Plate, And Foundation Details For Standard Pipe
D-754-7	Pipe Support And Sign Mounting Details
D-754-9	Letter and Arrow Details
D-754-12	Breakaway Coupler System - Structural Details For W-Shape Supports
D-754-13	Breakaway System Structural Details For W-Shape Supports
D-754-14	Wind Beams And Anchor Plates For W-Shape Supports
D-754-20	(Expressway-Freeway Use) Mile Posts
D-754-21	Reflectorized Delineators - Divided Highway
D-754-21A	Type A Reflectorized Delineator Spacing - Divided Highway
D-754-83	Object Markers - Culverts
D-760-1	Rumble Strips Interstate Highways
D-762-2	Interstate Pavement Marking 4 Lane Divided Highway
D-762-4	Pavement Marking
D-764-1	W-Beam Guardrail General Details
D-764-5	Sequential Kinking Terminal
D-764-38	MGS Flared Energy Absorbing Terminal - Wood Post
D-764-40	MGS W-Beam Guardrail General Details
D-764-48	Typical Grading at Bridge Ends with MGS W-Beam Guardrail
D-764-63	MGS W-Beam Transition to Concrete Safety Shape Transition

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	4	1



N

Crossover Work Area

Grade Raise Work Area

Borrow Clue Area

New Right of Way

Scope of Work

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

1/7/2026 10:02:05 AM leckroth R:\project\20094237.210\Design\Sheets\004SW_001_Scope of Work.dgn

Docusign Envelope ID: A17B6D89-FA5F-40DB-A3FD-DE5721C30941

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	6	1

NOTES

104-P01 WATER LEVEL: The Contractor should be aware that the water levels on this project are expected to change. NDDOT reserves the right to change roadway profiles, grades, and any other aspect of the work that are affected by changing water levels.

It is the responsibility of the Contractor to become informed regarding the anticipated water level at the time of construction. The submission of a proposal will be considered conclusive evidence that the bidder is satisfied with the conditions to be encountered in performing the work and as to the requirements of the proposed work. For the purposes of preparing these plans, the water elevation was assumed to be at elevation on 1804.46 June 26, 2025.

105-110 PAVEMENT SWEEPING: Sweep paved areas that were used by construction traffic before opening these areas to public traffic.

Sweep all newly constructed pavement no more than 24 hours before a scheduled final inspection.

Use a vacuum or pick-up type sweeper to perform this work.

107-300 CONSTRUCTION TRAFFIC ACCESS: Access areas within the right of way only at interchanges. The Engineer may allow temporary access at other locations.

To obtain temporary access, provide an access plan containing the following information:

- A traffic control plan;
- A traffic impact analysis;
- A safety analysis;
- A COA; and
- An environmental impact analysis.

To be considered for approval, the following minimum conditions must be met in the access plan:

- Construction traffic will not be allowed to cross the interstate median or lanes of traffic being used by the public at grade;
- The access plan must show that there will be methods in place, at all times, to prevent public traffic from using the access;
- A plan to restore the area disturbed by the access, including right of way fences, to preexisting or better condition.

All work necessary to provide the access plan, comply with the plan, and to restore the area to its pre-exiting condition must be completed at no additional cost to the Department.

107-P01 HAUL ROAD RESTORATION: Use Class 13 aggregate for haul road restoration.

202-P01 REMOVAL OF TEMPORARY BYPASS: Remove the median crossovers (2 total) when no longer needed to maintain traffic.

This work will consist of:

- Saw cutting the pavement to be removed at the edge of the finished shoulder.
- Constructing an aggregate slough at the edge of the saw cut.
- Shaping the median foreslopes to 6:1.
- Removal, hauling, and disposal of all materials.
- The topsoil, seeding, mulching and erosion control will be paid for separately as shown in Section 76 and 77 plan sheets.

Include all labor and equipment costs for the work described in the unit price bid for “Removal of Temporary Bypass”.

202-P02 REMOVAL OF PAVEMENT: Include all costs associated with removing the existing bituminous surfacing/concrete pavement and existing aggregate bases in the bid item “Removal of Bituminous Surfacing” or “Removal of Concrete Pavement”. Remove and salvage the existing concrete, asphalt, and aggregate base material (except bottom 1”) within areas shown in Section 40 Removals. No additional pavement removals are allowed unless approved by the Engineer.

203-380 AVERAGE HAUL: The average haul shown on the plans does not include the dead haul from the borrow areas to the point of entry into the mass.

203-P01 SHRINKAGE: 50 percent additional volume is included for shrinkage in earth embankment placed below the water line. 20 percent additional volume is included for shrinkage in earth embankment placed above the water line.

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA
01/08/26

Docusign Envelope ID: A17B6D89-FA5F-40DB-A3FD-DE5721C30941

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	6	2

NOTES

203-P02 KEYWAY/BERM: Construct a keyway/berm in areas where the foreslope extends into the water at locations shown in the plans. Construct the keyway/berm as shown in the plans.

Include all costs of material, dewatering, and construction in the price bid for "Borrow-Excavation". The estimated quantity of borrow needed to construct the keyway/berm is included in the quantities for "Borrow-Excavation".

203-P03 EMBANKMENT REMOVAL: Remove the embankment in its entirety at locations adjacent to newly installed culverts and where the embankment extends beyond the right of way after completion of the culvert installation. Protect culverts during embankment removal to ensure no silt enters the pipe.

In areas not adjacent to culvert pipes, remove the embankment to an elevation one foot below the existing water elevation after placing riprap. Do not push the embankment into the water so it is below the water elevation.

The removed embankment may be incorporated in other areas of the project. The Engineer will not pay for removed embankment material incorporated into other areas of the project a second time. The Engineer will only pay for the borrow material removed from the borrow site. All specifications of the new placement site apply to this material.

Dispose of all removed embankment, not incorporated into the project, outside the highway right of way in accordance with Section 107.17. If the removed embankment is disposed of in a borrow site, coordinate with the Engineer to cross-section the borrow site prior to disposal. Include all costs for placement, dewatering, removal, and disposal of the removed embankment in the price bid for "Borrow-Excavation".

203-P04 COMMON EXCAVATION-TYPE A: Include costs to excavate, place, dry, and compact the material in the price bid for “Common Excavation-Type A”. Common excavation will not be measured but paid for as Plan Quantity.

203-P05 TOPSOIL: Strip, stockpile, and replace existing topsoil located above the water elevation within the areas of construction. Quantities are calculated based off an assumed 6-inch depth. Evenly spread available topsoil across the project. The final depth of the topsoil may vary. Include the cost of stripping, stockpiling, and replacing any existing topsoil in the price bid for “Topsoil”.

203-P06 CROSSOVER TOPSOIL: The topsoil in the median may be temporarily stockpiled in the median for the construction of median crossovers. The median topsoil stockpile must have foreslopes 4:1 or flatter and approach slopes that are 10:1 or flatter.

203-P07 BORROW CLUE: The following locations in Stutsman County along 62nd Ave SE are listed as borrow pit clues:

Contact the landowner John Carlson at 701-368-8042 for information for the following locations.
1. South ½ of the NE ¼, Section 5, Township 139-North, Range 67-West
2. South ¼ of the NW ¼, Section 4,Township 139-North, Range 67-West

Contact the landowner, Jordan Wanzek 701.320.2653 for potential borrow at an additional location.

The borrow sites have not been cleared per section 107.05 C of the Standard Specifications.

256-P01 RIPRAP-GRADE II: The contractor is responsible for maintenance of the earthwork before riprap has been placed. Existing riprap may be salvaged for use as Riprap-Grade II. No additional payment will be made for salvaged riprap. Include all costs for materials, equipment, and labor for procuring, salvaging, and placing riprap in the unit price for “Riprap-Grade II”.

302-110 BASE COURSE: Trim base course as specified in Section 302.04 C.1, "Surface Tolerance Type B."

401-P01 BLOTTER MATERIAL CL 44: Include the cost of blotter material in the contract unit price for "Prime Coat".

430-100 HMA LONGITUDINAL JOINTS: Construct the joints within the final lift of pavement as detailed within this note.

Place a longitudinal joint at the centerline of the roadway.

Construct each lane and the adjoining shoulder using a single pass or a hot seam. A hot seam is defined as follows:

* Constructed using two pavers simultaneously;
* No more than 300 feet between pavers; and
* Roll the seam between paver passes in a manner such that the seam is not visible.

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA
01/08/26

Docusign Envelope ID: A17B6D89-FA5F-40DB-A3FD-DE5721C30941

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	6	3

NOTES

430-200 FOG SEAL: Apply a fog seal at a rate of 0.05 Gal/SY to the final surface of the hot mix asphalt if the ND T 113 "Lightweight Pieces in Virgin Aggregate" test results exceeds 3.0% during mix design or production of the hot mix asphalt. Apply the fog seal behind the finish roller before the mat temperature drops below 130 degrees Fahrenheit. Use the same emulsion material as the Tack Coat. Apply the fog seal at no additional cost to the Department.

704-200 STATE FURNISHED MEDIAN BARRIER: Obtain (50) 22.5” x 12.5’ concrete barriers. They can be picked up and returned to the Minot District yard at 1305 Hwy 2 Bypass E in Minot ND. Contact the Minot District office at 701-857-6925 to facilitate the exchanges.

Return the existing (150) 22.5” x 12.5’ concrete barriers to the Minot District also.

Obtain (86) 22.5” x 12.5’ concrete barriers. They can be picked up and returned to the Grand Forks District yard at 1951 N Washington in Grand Forks ND. Contact the Grand Forks District office at 701-787-6500 to facilitate the exchanges.

Use 18 barriers at each crossover and the remaining barriers at the median during the grade raise construction. See plans

If returning barriers with connection components, coordinate the delivery location for the connecting components with the Engineer. Some 4 inch x 4 inch boards are available at the return location. Provide any additional 4 inch x 4 inch boards necessary to stack barriers. The boards will become property of the Department.

Include all costs associated with median barriers in the contract unit price for “State Furnished Median Barrier”.

704-300 FLASHING BEACON: Provide solar powered flashing beacons that meet the requirements of the MUTCD and ITE. Provide beacons that are visible for a distance of 0.25 miles (1,320 feet) and are capable of operating for 20 days without a solar charge.

Include all costs for materials, equipment, labor, and incidentals in the contract unit price for "Flashing Beacon".

704-301 SEQUENCING ARROW PANEL – TYPE C – CROSSOVER: Provide solar powered arrow panels that meet the requirements of the MUTCD and ITE and that are capable of operating for 20 days without a solar charge.

Include all costs for materials, equipment, labor, and incidentals in the contract unit price for "Sequencing Arrow Panel – Type C – Crossover".

704-P01 TRAFFIC CONTROL DEVICES: The traffic control devices list for each phase has been developed using traffic control signing layouts (shown in Section 100 of the plans) and Standard Drawings listed below:

- D-704-22, Type K: for trucks entering and exiting
- D-704-34A: For lane shifts at grade raise locations
- D-704-35: for construction and removal of median crossovers and temporary guardrail.
- D-704-38 and 39: For median crossovers.
- D-704-49: For exiting and entering the median when constructing and removing median crossovers.

704-P02 PORTABLE CHANGEABLE MESSAGE SIGN: Install Portable Changeable Message Signs (PCMS) before work begins on the project. The Engineer will determine the locations for PCMS installation. Relocate the PCMS as directed by the Engineer.

Provide an operator trained in the use of the PCMS.

The Engineer will determine the message to be displayed. The operator shall program the message within one hour of the Engineer's request to change the message.

704-P03 MEDIAN CROSSOVER CONSTRUCTION AND REMOVAL: For exiting and entering median when constructing and removing median crossovers, use standard drawing D-704-49 in conjunction with one lane closures. If trucks will be entering or exiting roadway from the 10-foot shoulder, Trucks Entering Highway (W8-53-48) or Trucks Exiting Highway (W8-56-48) signs should be used respectively. Scrapers will not be allowed on the Interstate roadway.

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA
01/08/26

Docusign Envelope ID: A17B6D89-FA5F-40DB-A3FD-DE5721C30941

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	6	4

NOTES

704-P04 TRAFFIC CONTROL PHASING: The traffic control details, as indicated on the plans, have been developed based on the premise that this project will be constructed in 5 phases. The traffic control device lists include the required number of devices for each phase of each described work area. The Contractor is responsible for removing and resetting devices for each phase of construction. The costs associated with removing and resetting traffic control devices is included in the price bid for other items.

The construction phasing plan is listed below. Only one phase may be active at a time.

Phase 1: Close lanes as required on WB and EB I-94 per standard drawing D-704-35 for crossover construction. Two one-lane closures have been provided.

- Install median crossovers.
- Install temporary guardrail at bridge located on 62 Ave SE.
- Install pavement markings in preparation for Phase 2.

Phase 2: Close EB I-94, direct traffic onto the median crossovers and implement head-to-head traffic on WB I-94.

- Shift median barrier 8’ to the north of existing barrier location.
- Install keyway/berm south of the interstate as needed for pipe installation.
- Install pipe culverts crossing EB I-94 at Sta 12540+54 ℄ and Sta 12564+09 ℄
- Backfill trenches, install 12 inches of Aggregate Base Course Cl 5 and 5 inches of Commercial Grade HMA to even the lanes up for all pipe installation locations.
- Shift median barrier and EB driving lanes 24 feet south in preparation for Phase 3.
- Mask existing pavement marking and install temporary pavement markings on EB lanes in preparation for lane shift in Phase 3.

Phase 3: Close WB I-94, direct traffic onto the median crossovers and implement head-to-head traffic on EB I-94.

- Shift median barrier 24’ south of barrier location in Phase 2.
- Install pipe culverts crossing WB I-94 and connect to the newly installed culverts crossing EB I-94.
- Backfill trenches.
- Install median drain T-section and risers at Sta 12545+00 ℄, Sta. 12552+00℄ and Sta 12559+00℄.
- Construct grade raise for WB I-94.
- Install temporary pavement markings on WB lanes in preparation for lane shift in Phase 4.

Phase 4: Close EB I-94, direct traffic onto the median crossovers and implement head-to-head traffic on WB I-94.

- Install culverts to median drain T-sections.
- Construct grade raise for EB I-94.
- Remove keyway/berm at pipe locations and riprap area and install riprap.
- Install permanent pavement markings and rumble strips on EB lane.
- Remove temporary guardrail on the EB lanes.

Phase 5: Close left lanes of WB and EB I-94 and right lane of WB I-94 per standard drawing D-704-35. Two one-lane closures have been provided.

- Remove median crossovers.
- Remove temporary guardrail on WB lanes.
- Install permanent signs, pavement markings, and rumble strips on WB lane.

704-P05 OBLITERATION OF PAVEMENT MARKINGS: Obliterate the white centerline marking and white and yellow edge lines at median crossover locations where the roadway alignment is changed. Obliterate the dashed white centerline markings throughout the two-lane, two-way area, designated for obliteration. The markings may be masked as specified in Section 704.04 N.2. Include the cost of all equipment, material, and labor, including the removal of tape, if used, in the unit price bid for "Obliteration of Pvmt Mk".

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA
01/08/26

Docusign Envelope ID: A17B6D89-FA5F-40DB-A3FD-DE5721C30941

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	6	5

NOTES

706-P01 FIELD OFFICE: Provide a field office which meets the following requirements:

1. Be completely insulated and weather tight.
2. Minimum total area of 450 square feet.
3. Bathroom facilities, which includes sewer, potable water, and weekly cleaning or weekly service of a port-a-potty.
4. Have a dependable source of electricity for power and lights with a minimum of 6 electrical outlets spaced throughout the building and light fixtures spaced to uniformly light the entire interior (lumens required 110 foot-candles).
5. Be wired for DSL Broadband internet with wireless Wi-Fi and have the capability to allow for hard wiring the computer. Include the cost of the installation and monthly fees.
6. A heating and cooling system that is capable of maintaining the temperature between 65°F and 78°F year around.
7. A minimum of 3 desks and 3 desk chairs, 3 extra chairs, a drawer file cabinet with at least two drawers, one table minimum of 2.5 ft x 5 ft.
8. Photocopy machine/Printer capable of 11x17 photocopies/prints and toner to last the duration of the project. Engineer will provide paper. Other features to include digital copying & scanning. (Fax capabilities can be included but not necessary).
9. The location of the field office will be on, or as close to the project as possible and approved by the Engineer. Any rental fees will be paid by the Contractor.
10. Make the field office available for occupancy one week before the start of the project and remain through project completion. Provide a field office that is separate or independent from the contractor's field office.
11. Heat, electric, internet service, sewer, water hookups, and port-a-potty service to be furnished by Contractor, Contractor to pay utility bills.

All requirements of the Field Office are subject to approval by the Engineer. Include the costs for the field office in the bid item "Field Office" and the Schedule for Payment is as follows:

- 25% when set up on site.
- 50% when 30% of the work is complete.
- 75% when 60% of the work is complete.
- 100% when project is complete.

714-P01 PIPE SHORING: Design and provide shoring as necessary during the traffic control phasing to complete the centerline pipes. Coordinate with the Engineer to provide adequate clear zone distance for traffic when shoring occurs in the median. This may include but not limited to reducing traffic speeds and maintaining foreslopes adjacent to the traveled lane.

Provide a shoring plan design and submit the design in accordance with Section 105.08, “Work Drawings”. Submit the shoring plan design to the Engineer at least 21 calendar days before starting construction of any necessary shoring.

Construct any necessary shoring as described in the shoring plan design submittal. If there are changes to the shoring, notify the engineer and resubmit the revised shoring plan design at least 7 days prior to incorporating any changes into the shoring.

Include all costs to design, construct, maintain and remove any necessary shoring in the price bid for “Shoring”. Such payment is full compensation for furnishing all material, equipment, labor, and incidentals to complete the work as specified.

714-P02 PLUG PIPE – ALL TYPES & SIZES: At locations designated on the plans for plug and abandon pipe conduit. Remove all existing end sections, median drain castings and adjusting rings on all pipe designated to be abandoned. Pump the pipe full of controlled density backfill (CDF). The CDF will be fluid on placement to flow through and fill the pipe. The mixes below yield approximately one cubic yard of flowable CDF.

Mix Design:

Cement (Section 804.01):	70 lbs
Fly Ash (Section 820.02):	125 lbs
Fine Aggregate (Section 802.01):	2600 lbs
Water (Section 812):	50 Gal

Place CDF at the low end of the pipe cavity and fill progressively from the low end to the high end of the pipe. Continue pumping CDF until no more CDF can be pumped. Include all costs for labor, materials, and equipment necessary to perform this described work in the price bid for “PLUG PIPE-ALL TYPES & SIZES”.

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA
01/08/26

Docusign Envelope ID: A17B6D89-FA5F-40DB-A3FD-DE5721C30941

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	6	6

NOTES

754-P01 OBJECT MARKERS – CULVERTS: In locations where the pipe ends are submerged underwater, install object markers higher up the foreslope at a location approved by the Engineer.

762-050 PAVEMENT MARKING: If the Engineer and Contractor agree, plan quantity will be used as the measurement for payment for pavement marking items.

762-P01 RAISED PAVEMENT MARKERS: Place raised pavement markers on the centerline of the two-lane two-way roadway. Also place raised pavement markers at the median cross-over locations. Place the markers as shown on Standard Drawings D-704-38 & D-704-39. Space the markers on 5-foot centers. Clean the markers when necessary to retain reflectivity as specified in Section 704.04 B. At completion of the project phases, remove the markers in accordance with the manufacturer's recommendations. Remove the adhesive pad down as close as possible to the pavement using a mechanical scraper such as a loader-type machine with a bucket. Include the cost of furnishing, installing, maintaining, and removing in the price bid for "Raised Pavement Markers."

764-P01 MODIFY ATTENUATION DEVICE FOR TWO-WAY TRAFFIC: Relocate the existing barrel attenuation device – Type B-80 -- as shown in the plans during two-way traffic operation. Return barrel attenuation devices to original position once Phase 4 has been complete.

Include all costs to relocate the existing attenuation devices for two-way traffic operation, including all materials, equipment, and labor, in the contract unit price bid for "Modify Barrel Attenuation Device."

764-P02 W-BEAM GUARDRAIL END TERMINALS FOR TWO-WAY TRAFFIC: One W-beam guardrail end terminal is required for protection for the outside pier protection on the eastbound and westbound roadways during two-way traffic operation.

Install a W-beam terminal connector, a 12'-6" double rail section, two 12’-6” W-beam rail sections, and a W-beam guardrail end terminal at the outside pier protection, as shown in the plans.

The W-beam guardrail end terminals and additional guardrail materials, required for two-way traffic will remain the property of the contractor and be removed when no longer needed for two-way traffic operation. The W-beam guardrail end terminals will be measured and paid for by the number of W-beam guardrail end terminals required and accepted by the engineer and include all materials, including W-beam terminal connector and W-beam rail sections, and all necessary posts, blocks, hardware, equipment, and labor.

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA
01/08/26

Docusign Envelope ID: A17B6D89-FA5F-40DB-A3FD-DE5721C30941

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	6	7

ENVIRONMENTAL NOTES

ENVIRONMENTAL NOTES (EN): The North Dakota Department of Transportation and the Federal Highway Administration have made environmental commitments to secure approval of this project. The following environmental notes are requirements to comply with these commitments:

EN-1 AQUATIC NUISANCE SPECIES (ANS): Equipment that was last used outside of North Dakota or within a Class I infested waterbody (identified on the North Dakota Game and Fish Department (NDGFD) website) requires an inspection by NDGFD. Notify the NDGFD at least 10 business days prior to pumps, watercraft, or any equipment entering a public water to allow the NDGFD sufficient time to inspect any and all such equipment for ANS. Contact the NDGFD ANS Coordinator, Ben Holen by e-mail - bholen@nd.gov for equipment inspections. Supply one of the following to the engineer as proof of compliance prior to work taking place in the water: (1) the NDGFD inspection report, (2) documented NDGFD correspondence (email or signed letter).

EN-2 THREATENED AND ENDANGERED SPECIES: The project is located near/within suitable habitat for the species listed in the following table

SPECIES	HABITAT	PRESENCE
Whooping Crane	Cropland/Wetland Associations	Spring: March 15 - May 15* Fall: September 10 – November 15

*Time frames can differ slightly, depending on the year

If any of the above threatened and endangered species are identified within 1 mile of the project, the Contractor will notify the Engineer immediately and cease construction activities in the vicinity until an avoidance area is established. The Engineer will establish an avoidance area that is at least a 0.5 mile and immediately coordinate with the USFWS (701-355-8513), FHWA (701-221-9464), and NDDOT Environmental and Transportation Services (701-328-2592). The Contractor will not resume work within the avoidance area until the Engineer has confirmed with the agencies that work may proceed (either the species have left the area, or approved avoidance/minimization measures have been implemented).

EN-3 TEMPORARY WETLAND IMPACT: Temporary impact areas within wetlands and or other waters are incorporated into the plans for this project. Remove temporary fill placed and sedimentation in wetlands or other waters. Restore these wetlands to preconstruction contours.

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA
01/08/26

ESTIMATE OF QUANTITIES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	8	1

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
103	0100	CONTRACT BOND	L SUM	1	1
103	0200	ESCROW OF BID DOCUMENTATION	L SUM	1	1
109	1000	E-TICKETING	L SUM	1	1
202	0114	REMOVAL OF CONCRETE PAVEMENT	SY	13,285	13,285
202	0132	REMOVAL OF BITUMINOUS SURFACING	SY	1,328	1,328
202	0151	REMOVE PRECAST CONCRETE BARRIER	LF	1,865	1,865
202	0235	REMOVAL OF CATCH BASIN	EA	6	6
202	0312	REMOVE EXISTING FENCE	LF	968	968
202	0350	REMOVAL OF TEMPORARY BYPASS	EA	2	2
203	0101	COMMON EXCAVATION-TYPE A	CY	48,981	48,981
203	0109	TOPSOIL	CY	27,303	27,303
203	0140	BORROW-EXCAVATION	CY	390,781	390,781
216	0100	WATER	M GAL	1,208	1,208
230	0165	SUBGRADE PREPARATION-TYPE A-12IN	STA	30.24	30.24
251	0200	SEEDING CLASS II	ACRE	28.7	28.7
251	2000	TEMPORARY COVER CROP	ACRE	56.21	56.21
253	0101	STRAW MULCH	ACRE	56.21	56.21
255	0103	ECB TYPE 3	SY	188	188
256	0200	RIPRAP GRADE II	CY	7,048	7,048
260	0300	SILT FENCE	LF	812	812
260	0301	REMOVE SILT FENCE	LF	812	812
261	0112	FIBER ROLLS 12IN	LF	24,401	24,401
261	0113	REMOVE FIBER ROLLS 12IN	LF	12,802	12,802
262	0100	FLOTATION SILT CURTAIN	LF	3,640	3,640
262	0101	REMOVE FLOTATION SILT CURTAIN	LF	3,640	3,640
302	0120	AGGREGATE BASE COURSE CL 5	TON	57,712	57,712
401	0050	TACK COAT	GAL	4,790	4,790
401	0060	PRIME COAT	GAL	19,469	19,469
401	0070	FOG SEAL	GAL	2,179	2,179
430	0045	SUPERPAVE FAA 45	TON	23,417	23,417
430	0500	COMMERCIAL GRADE HOT MIX ASPHALT	TON	90	90
430	1000	CORED SAMPLE	EA	130	130
430	5818	PG 58H-34 ASPHALT CEMENT	TON	1,054	1,054

ESTIMATE NUMBER: 24690 ESTIMATE TYPE: FINAL FINALIZED: Y RUN DATE: 01/07/2026 TIME: 11:42:05

ESTIMATE OF QUANTITIES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	8	2

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
702	0100	MOBILIZATION	L SUM	1	1
704	0100	FLAGGING	MHR	400	400
704	1000	TRAFFIC CONTROL SIGNS	UNIT	2,612	2,612
704	1046	ATTENUATION DEVICE-TYPE B-80	EA	2	2
704	1052	TYPE III BARRICADE	EA	6	6
704	1060	DELINEATOR DRUMS	EA	91	91
704	1067	TUBULAR MARKERS	EA	338	338
704	1072	FLEXIBLE DELINEATORS	EA	136	136
704	1087	SEQUENCING ARROW PANEL-TYPE C	EA	2	2
704	1088	SEQUENCING ARROW PANEL-TYPE C-CROSSOVER	EA	2	2
704	1500	OBLITERATION OF PAVEMENT MARKING	SF	984	984
704	3511	STATE FURNISHED MEDIAN BARRIER	LF	1,700	1,700
704	4011	PORTABLE CHANGEABLE MESSAGE SIGN	EA	4	4
704	8015	VEHICLE SPEED FEEDBACK SIGN	EA	2	2
706	0400	FIELD OFFICE	EA	1	1
706	0500	AGGREGATE LABORATORY	EA	1	1
706	0550	BITUMINOUS LABORATORY	EA	1	1
706	0600	CONTRACTOR'S LABORATORY	EA	1	1
709	0100	GEOSYNTHETIC MATERIAL TYPE G	SY	1,486	1,486
709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	13,930	13,930
714	4105	PIPE CONDUIT 24IN	LF	24	24
714	4110	PIPE CONDUIT 30IN	LF	381	381
714	4150	PIPE CONDUIT 78IN	LF	520	520
714	9680	PLUG PIPE-ALL TYPES & SIZES	EA	4	4
720	0110	RIGHT OF WAY MARKERS	EA	3	3
720	0125	ALIGNMENT MONUMENTS	EA	4	4
720	0130	IRON PIN R/W MONUMENTS	EA	3	3
722	4565	MEDIAN DRAIN PRECAST CONCRETE-TYPE A	EA	3	3
752	0200	FENCE BARBED WIRE 4 STRAND	LF	725	725
752	0911	TEMPORARY SAFETY FENCE	LF	500	500
752	0993	FENCE TERMINAL	EA	3	3
754	0154	DELINEATORS-TYPE A-SINGLE SIDED	EA	26	26
754	0210	GALV STEEL POST-STANDARD PIPE	LF	14	14

ESTIMATE OF QUANTITIES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	8	3

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
754	0214	GALV STEEL POSTS-W-SHAPE POSTS(TWO OR MORE)	LF	79	79
754	0534	PANEL FOR SIGNS-TYPE IV REFLECTIVE SHEETING	SF	149	149
754	0592	RESET SIGN PANEL	EA	1	1
754	0596	RESET MILE POST	EA	2	2
754	0805	OBJECT MARKERS - CULVERTS	EA	10	10
754	1100	CLASS AE CONCRETE-SIGN FOUNDATIONS	CY	0.4	0.4
754	1104	REMOVE SIGN FOUNDATION	EA	5	5
760	0025	SINUSOIDAL RUMBLE STRIP - ASPHALT SHOULDER	MILE	3.86	3.86
762	0200	RAISED PAVEMENT MARKERS	EA	11,520	11,520
762	0422	SHORT TERM 6IN LINE-TYPE R	LF	20,376	20,376
762	0432	SHORT TERM 6IN LINE-TYPE NR	LF	36,000	36,000
762	1106	PVMT MK PAINTED 6IN LINE	LF	43,920	43,920
764	0131	W-BEAM GUARDRAIL	LF	177	177
764	0145	W-BEAM GUARDRAIL END TERMINAL	EA	3	3
764	0151	REMOVE W-BEAM GUARDRAIL & POSTS	LF	177	177
764	2081	REMOVE END TREATMENT & TRANSITION	EA	1	1
764	8080	MODIFY BARREL ATTENUATION DEVICE	EA	6	6
772	2110	FLASHING BEACON-POST MOUNTED	EA	2	2
930	8230	SHORING	EA	7	7

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	10	1

PAVING SUMMARY: MAINLINE PIPE ROADWAY PATCHING

Roadway	Begin Station	End Station	Length	Area (Plan View)		**302-0120** AGGREGATE BASE COURSE CL 5	**401-0070** FOG SEAL	**430 0500** COMMERCIAL GRADE HMA
				Aggrgate Base (12")	HMA (5")			
			(LF)	(SY)	(SY)	(TON)	(GAL)	(TON)
I-94 EB	12541+27	12541+57	30.00	182.00	182.00	113.75	9.10	50.56
I-94 EB	12563+00	12563+30	30.00	140.00	140.00	87.50	8.00	38.89
TOTALS						201.25	17.10	89.45

PAVING SUMMARY: MEDIAN CROSSOVER CONNECTIONS

Roadway	Begin Station	End Station	Length	Area (Plan View)		**302-0120** AGGREGATE BASE COURSE Cl 5	**401-0050** TACK COAT	**401-0060** PRIME COAT	**430-0045** SUPERPAVE FFA 45	**430-5818** PG 58H-34 ASPHALT CEMEMT	**709-0100** GEOSYNTHETIC MATERIAL TYPE G
				Aggrgate Base (12")	HMA (5")						
			(LF)	(SF)	(SF)	(TON)	(GAL)	(GAL)	(TON)	(TON)	(SY)
I-94 West Crossover	12516+00	12524+00	800.00	26538.00	23778.00	1842.92	132.10	1032.03	732.71	32.97	204.77
I-94 East Crossover	12584+00	12592+00	800.00	25295.00	22385.00	1756.60	124.36	983.69	689.79	31.04	195.18
TOTALS						3599.51	256.46	2015.73	1422.50	64.01	399.95

Earthwork Summary

LOCATION	EARTHWORK SUMMARY				TOPSOIL SUMMARY [2]
	EMBANKMENT	203-0101 COMMON EXCAVATION TYPE A	203-0104 BORROW EXCAVATION	202-0350 REMOVAL OF TEMPORARY BYPASS	203-0109 TOPSOIL
	(CY)	(CY)	(CY)	(CY)	(CY)
	A	B	C=A-B	D	E
Construct West Crossover	708	162	546	-	705
Remove West Crossover	-	-	-	590	186
I-94 WB	196,985	36,542	160,443	-	16,926
I-94 EB	240,765	12,180	228,585	-	8,650
Construct East Crossover	1,304	97	1,207	-	637
Remove East Crossover				1,184	199
TOTALS	439,762	48,981	390,781	1,774	27,303

Notes:
[1] Additional 50% volume for shrinkage for fill below the water and additional 20% volume for shrinkage for fill above the existing water.
[2] Quantities for TOPSOIL and TOPSOIL-DEPT OPTION BORROW AREA are included in the base bid.

Basis of Estimate

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA
01/07/26

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

OBLITERATION, RAISED PAVEMENT MARKERS & SHORT TERM SUMMARY

Roadway	Begin Station	End station	704-1500 OBLITERATIONN OF PAVEMENT MARKING	762-0200 RAISED PAVEMENT MARKERS	762-0422 SHORT TERM 6IN LINE-TYPE R		762-0432 SHORT TERM 6IN LINE-TYPE NR	
			Edge Line/ CenterLine	Yellow or White	Edge Line	Center Line	Edge Line	Center Line
			(SF)	(EA)	(LF)	(LF)	(LF)	(LF)
PHASE 1								
I-94 Eastbound	12524+00	12584+00						
I-94 Westbound	12524+00	12584+00						
West Crossover	12516+00	12524+00						
East Crossover	12584+00	12592+00						
Subtotal =			-					
PHASE 2								
I-94 Eastbound	12524+00	12584+00						
I-94 Westbound	12524+00	12584+00		2,400			6,000	6,000
West Crossover	12516+00	12524+00	484	709	3,112			
East Crossover	12584+00	12592+00	500	731	3,224			
Subtotal =			984	3,840	6,336		6,000	6,000
PHASE 3								
I-94 Eastbound	12524+00	12584+00		2,400			6,000	6,000
I-94 Westbound	12524+00	12584+00						
West Crossover	12516+00	12524+00	-	731	3,112			
East Crossover	12584+00	12592+00	-	709	3,224			
Subtotal =			-	3,840	6,336		6,000	6,000
PHASE 4								
I-94 Eastbound	12524+00	12584+00			12,000	12,000		
I-94 Westbound	12524+00	12584+00		2,400			6,000	6,000
West Crossover	12516+00	12524+00	-	709	3,112			
East Crossover	12584+00	12592+00	-	731	3,224			

Permanent Pavement Markings

Permanent Pavement Marking (EB Roadway)			
Spec-Code	Location-Type	Basis	Quantity
762-1106	PVMT MK PAINTED 6IN LINE (White) - Centerline Skip	Skip Line - 1,320 LF/Mile	2,440 LF
	PVMT MK PAINTED 6IN LINE (White) - Edge Line	Barrier Line - 5,280 LF/Mile	9,760 LF
	PVMT MK PAINTED 6IN LINE (Yellow) - Edge Line	Barrier Line - 5,280 LF/Mile	9,760 LF
Permanent Pavement Marking (WB Roadway)			
762-1106	PVMT MK PAINTED 6IN LINE (White) - Centerline Skip	Skip Line - 1,320 LF/Mile	2,440 LF
	PVMT MK PAINTED 6IN LINE (White) - Edge Line	Barrier Line - 5,280 LF/Mile	9,760 LF
	PVMT MK PAINTED 6IN LINE (Yellow) - Edge Line	Barrier Line - 5,280 LF/Mile	9,760 LF

216-0100 Water

	Basis	Quantity (MGAL)
Dust Palliative	25 MGal/Mile	50
Aggregates	20 Gal/Ton	1159
Embankment	10 Gal/CY	4434
Total		1208.7

760-0025 Sinusoidal Rumble Strips - Asphalt Shoulder

Length		Totals	
(ft)	(mile)	(ft)	(mile)
EB = 5100'	0.97	10200	1.93
WB = 5100'	0.97	10200	1.93
Totals		20400	3.86

754-0805 Object Markers - Culverts

	Station	Location	Quantity (EA)
I-94 Median ℄	12541+03	End Section	1 - Lt
	12541+84	End Section	1 - Rt
	12545+00	Median Drain	1
		End Section	1 - Rt
	12552+00	Median Drain	1
		End Section	1 - Rt
	12559+00	Median Drain	1
		End Section	1 - Rt
	12562+90	End Section	1 - Rt
	12563+49	End Section	1 - Lt
Totals =			10

Basis of Estimate

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

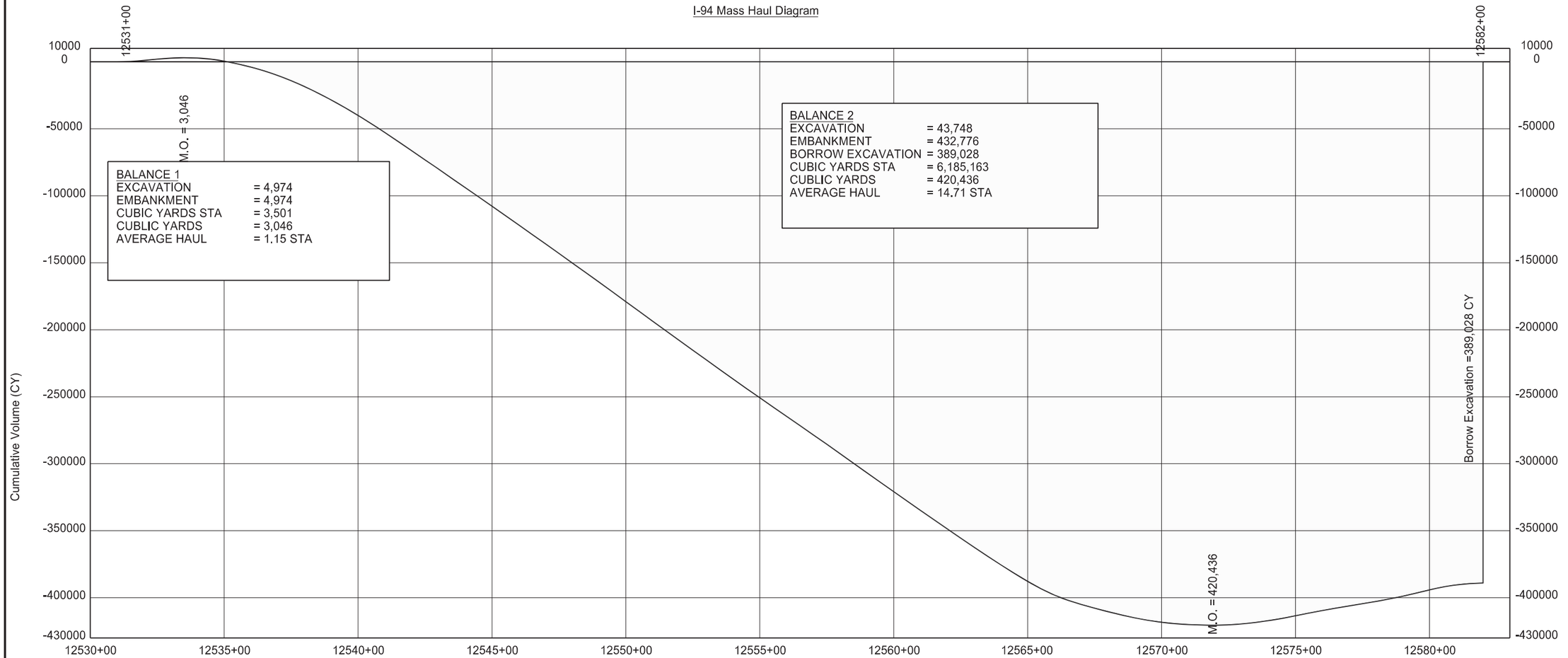
BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	11	1

I-94 Mass Haul Diagram



BALANCE 1
EXCAVATION = 4,974
EMBANKMENT = 4,974
CUBIC YARDS STA = 3,501
CUBLIC YARDS = 3,046
AVERAGE HAUL = 1.15 STA

BALANCE 2
EXCAVATION = 43,748
EMBANKMENT = 432,776
BORROW EXCAVATION = 389,028
CUBIC YARDS STA = 6,185,163
CUBLIC YARDS = 420,436
AVERAGE HAUL = 14.71 STA

PROJECT TOTALS
EXCAVATION = 48,722
EMBANKMENT = 437,750
BORROW EXCAVATION = 389,028
CUBIC YARDS STA = 6,188,664
CUBLIC YARDS = 423,482
AVERAGE HAUL = 14.61 STA

Note: Totals differ from earthwork summary because median Crossovers are not included in the mass-haul calulations.

Note:
1) Mass haul diagram does not incorporate project phasing.
2) Borrow has been incorporated into the mass haul diagram at Sta. 12582+00 for both EB and WB lanes.
3) Contractor is allowed to haul directly from pit onto adjacent lanes.
4) Contractor is not allowed to cross traffic when hauling borrow from pit. Utilize the 63½ Ave. SE underpass, the 62nd Ave SE overpass or approved alternate to haul borrow to EB/WB lanes.

Mass Haul Diagram

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

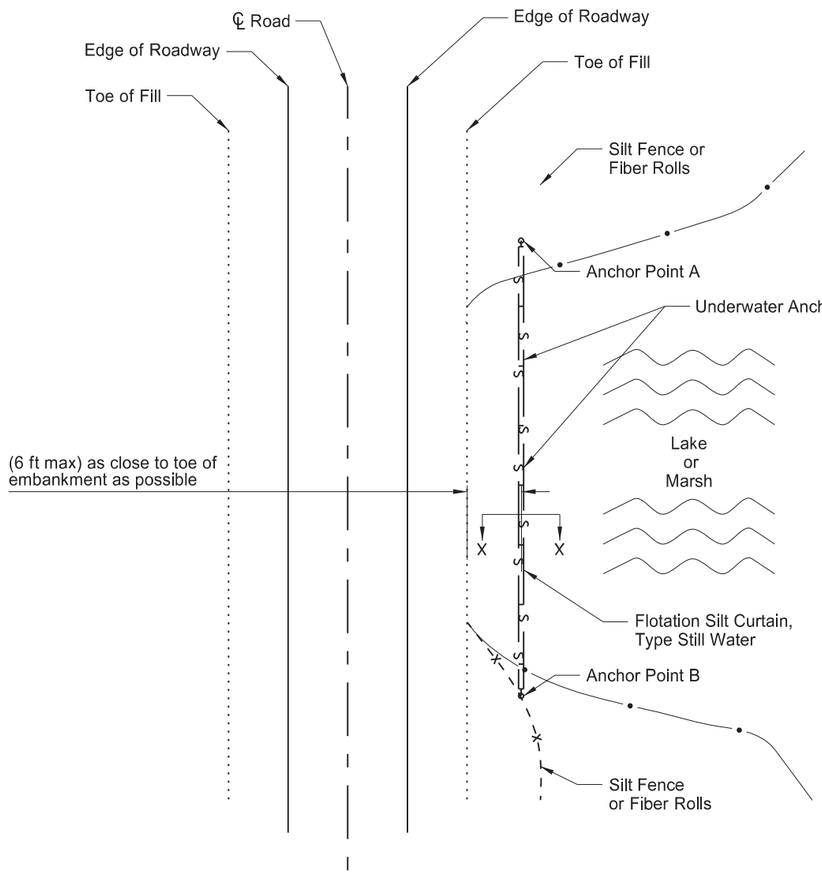
BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

1/7/2026 1:02:19 PM leckroth R:\project\20094237.210\Design\Sheets\011DT_001_Mass.dgn

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

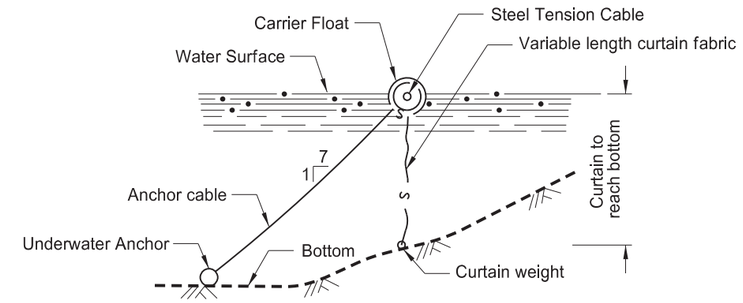
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	20	1



PLAN VIEW

FLOTATION SILT CURTAIN - TYPE STILL WATER

Extend silt curtain onto shore and anchor there also.



SECTION X-X

FLOTATION SILT CURTAINS

Note:
Maximum water velocity for moving water = 5 ft/sec

Floatation Silt Curtain Detail

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

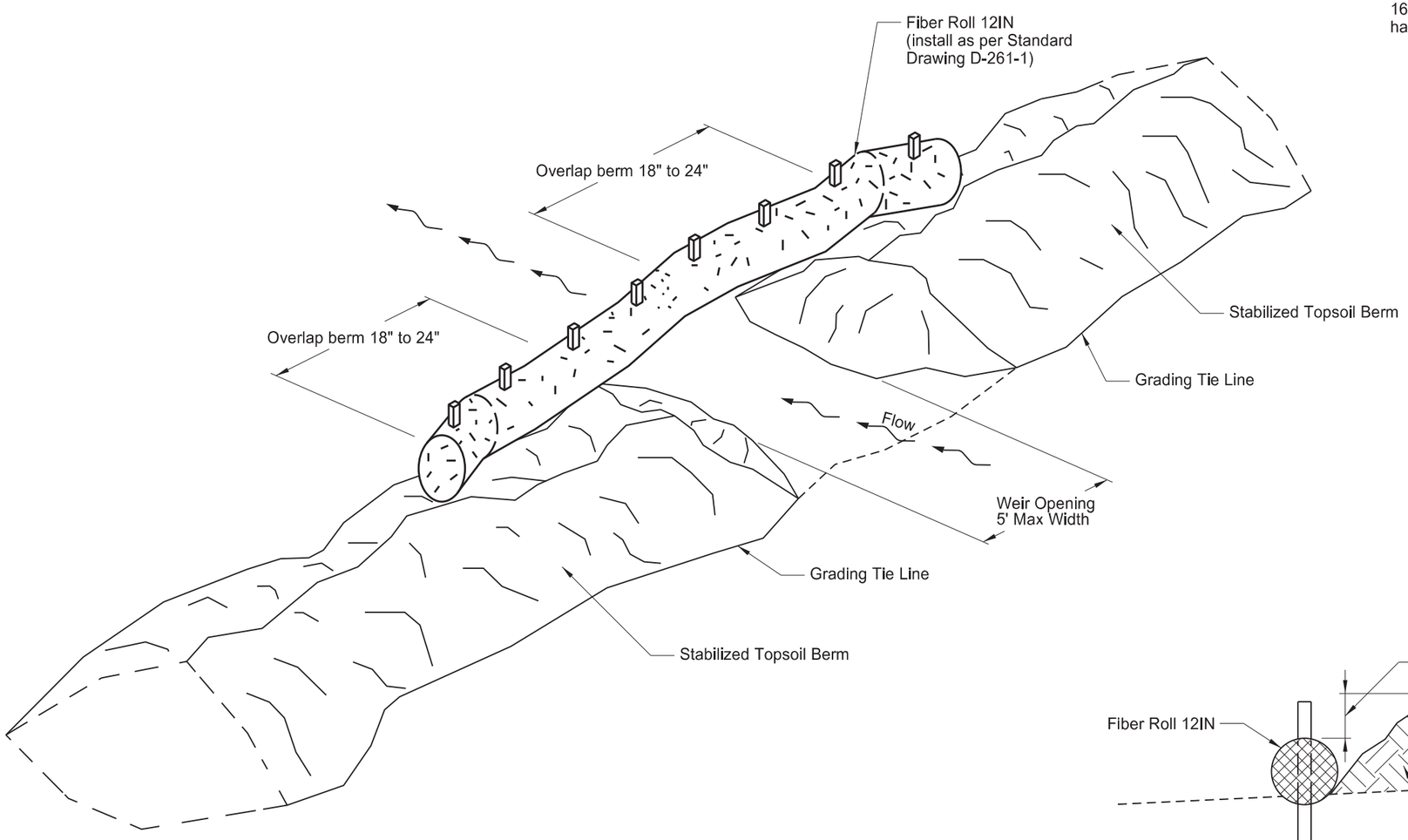
BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

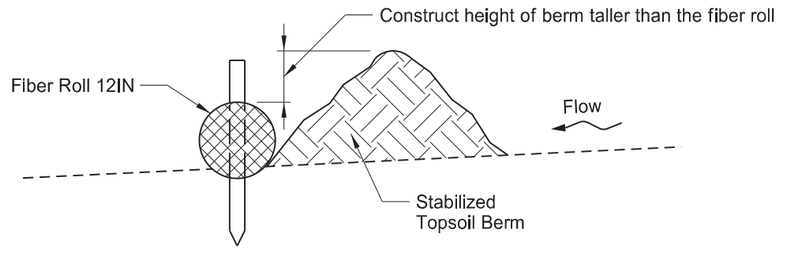
01/07/26

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	20	2

160 LF of Fiber Roll 12IN and 160 LF of Remove Fiber Roll 12IN have been included in the quantities for use at weirs.





Topsoil Berm Detail

Notes:

1. Windrow the existing topsoil from the foreslope to create a berm at the grading tie line.
2. Stabilize berms in accordance with the Construction General Permit.
3. Place weirs intermittently throughout the length of the berm to allow stormwater to drain through the berm.
4. Avoid placing weirs adjacent to waterbodies.
5. Install fiber rolls as the weirs are created in the topsoil berm.
6. The Engineer will measure and pay for fiber rolls separately.
7. The Engineer will measure and pay for removal of fiber rolls separately when required by the specifications.
8. The Engineer will measure and pay for soil stabilization and temporary cover crop separately.
9. Include the costs to create, maintain, and dismantle the berm in the unit price bid for "Topsoil".

Temporary Topsoil Berm and Weir Detail

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

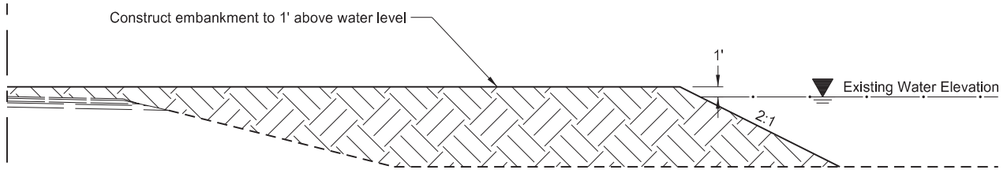
01/07/26

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	20	3

EB Rdwy ℄

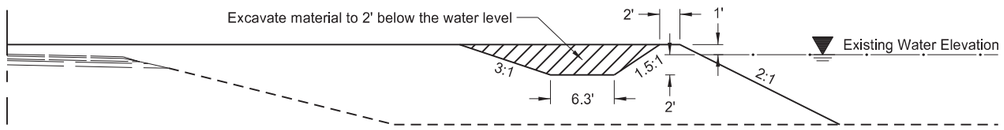
STAGE 1 - Embankment



EB Rdwy ℄

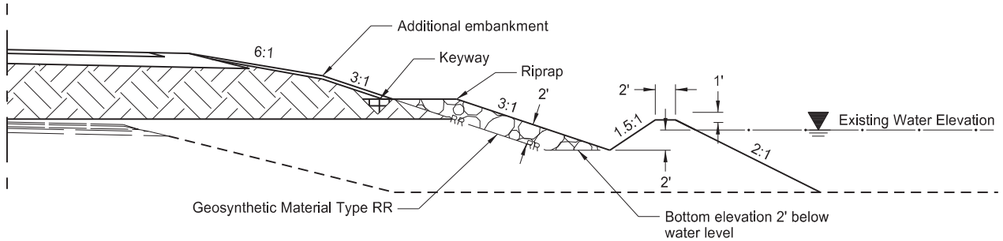
STAGE 2 - Excavation

NOTE: Use excavated material in other embankment areas. Do not measure and pay for reuse of this material. Include all cost for use and reuse of this material in the price bid for "Borrow-Excavation".



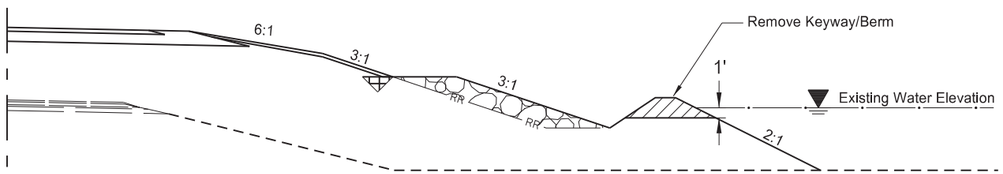
EB Rdwy ℄

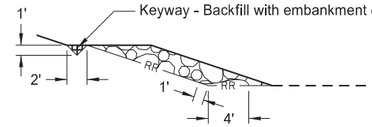
STAGE 3 - Place Fabric, Riprap, and Additional Embankment



EB Rdwy ℄

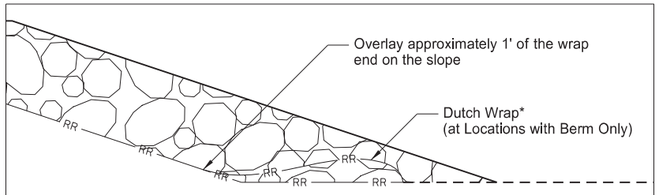
STAGE 4 - Remove Keyway / Berm





* Fabric Quantity for Dutch Wrap and Keyway Included in Geosynthetic Material Quantities.

Geosynthetic Material and Riprap
Placement Detail



* Fabric Quantity for Dutch Wrap and Keyway Included in Geosynthetic Material Quantities.

Dutch Wrap
Placement Detail

Note - An extra 3 feet of material width has been added for the keyway (top) and an extra 6 feet of material width has been added for the dutch wrap/overlay (bottom). The addtional material required for these items will be paid for as "Geosynthetic Material - Type RR".

Riprap Placement Detail

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

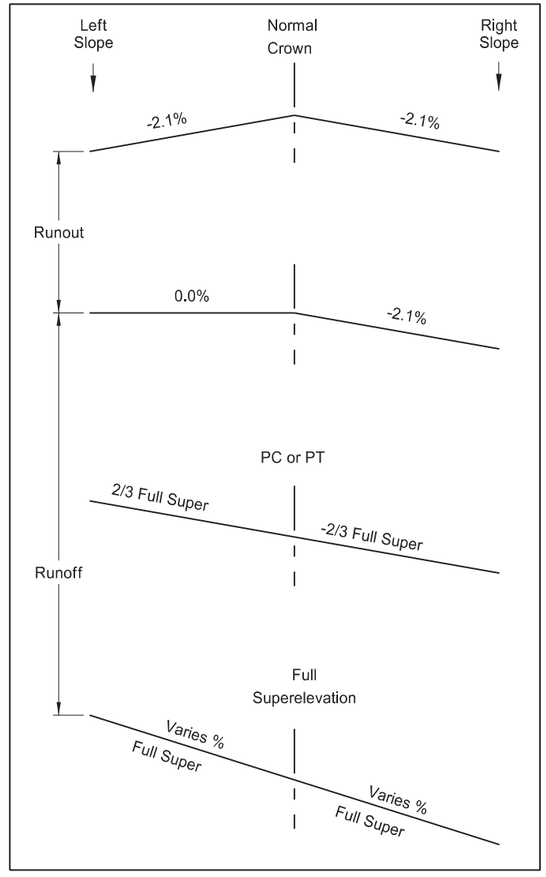
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	20	4

West Bound		
P.C. Station		12558+13.78
P.I. Station		12568+25.44
Delta	=	10°03' 28" (RT)
Degree	=	00° 29' 54"
Tangent	=	1011.66
Length	=	2018.12
Radius	=	11496.69
External	=	
P.T. Station	=	12578+31.91

East Bound		
P.C. Station		12558+13.78
P.I. Station		12568+25.44
Delta	=	10°03' 28" (RT)
Degree	=	00° 29' 54"
Tangent	=	1011.66
Length	=	2018.12
Radius	=	11496.69
External	=	
P.T. Station	=	12578+18.74

Station	Left Slope	Right Slope
PC -186	-2.1	-2.1
PC - 78	0	-2.1
PC + 29	2.1	-2.1
PC + 40	2.3	-2.3
PC	2.3	-2.3
PT - 39	2.3	-2.3
PT - 29	2.1	-2.1
PT + 79	0	-2.1
PT + 187	-2.1	-2.1

Station	Left Slope	Right Slope
PC - 74	-2.1	-2.1
PC - 31	0	-2.1
PC + 12	2.1	-2.1
PC +16	2.3	-2.3
PC	2.3	-2.3
PT - 16	2.3	-2.3
PT - 11	2.1	-2.1
PT + 32	0	-2.1
PT + 75	-2.1	-2.1



Note: Calculations based on AASHTO method five. A design speed of 80 mph and maximum superelevation of 6% were used.

Superelevation Table

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

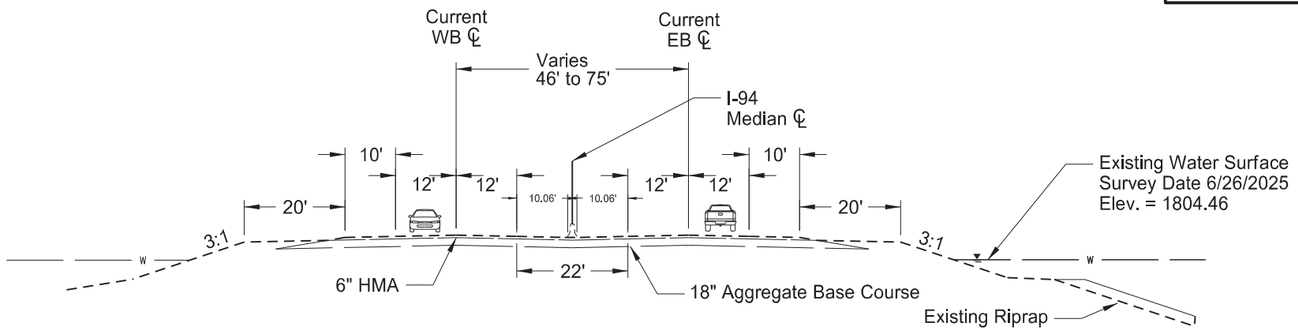
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

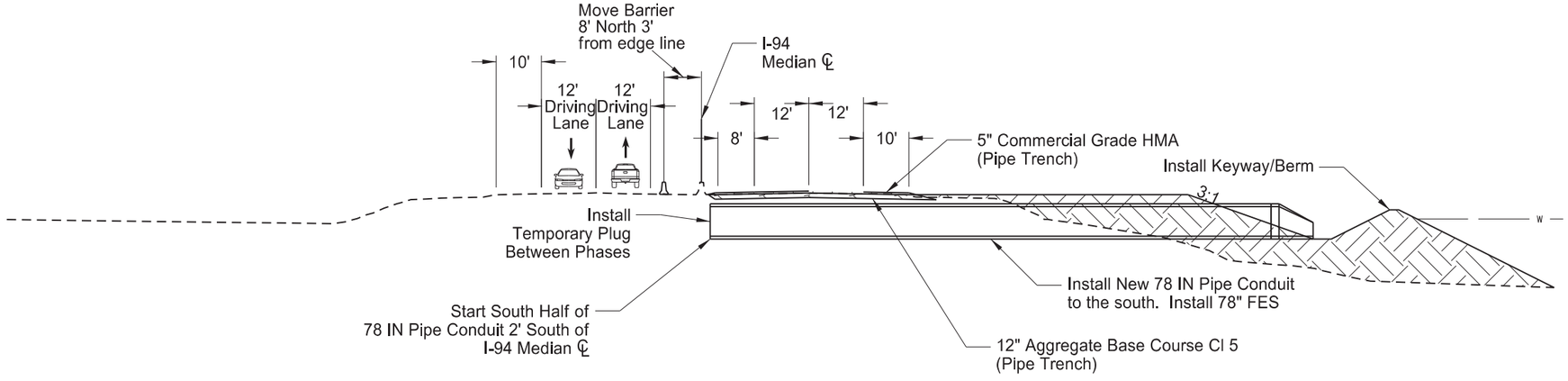
Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	20	5



Existing Typical
22' Paved Median with Barrier
Sta 12541+60 to 12560+25

Phase 1
Shift Traffic to outside lanes
Construct Median Crossovers
Install Temp Guardrail at structure



Phase 2
Shift Traffic Head to Head on WB Rdwy
Install South Half of ℄ Pipes
Install South Keyway
Temp Surface at Pipe Locations

Note: See Section 100-5 for Phased Striping Layouts

Pipe Conduit Detail

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

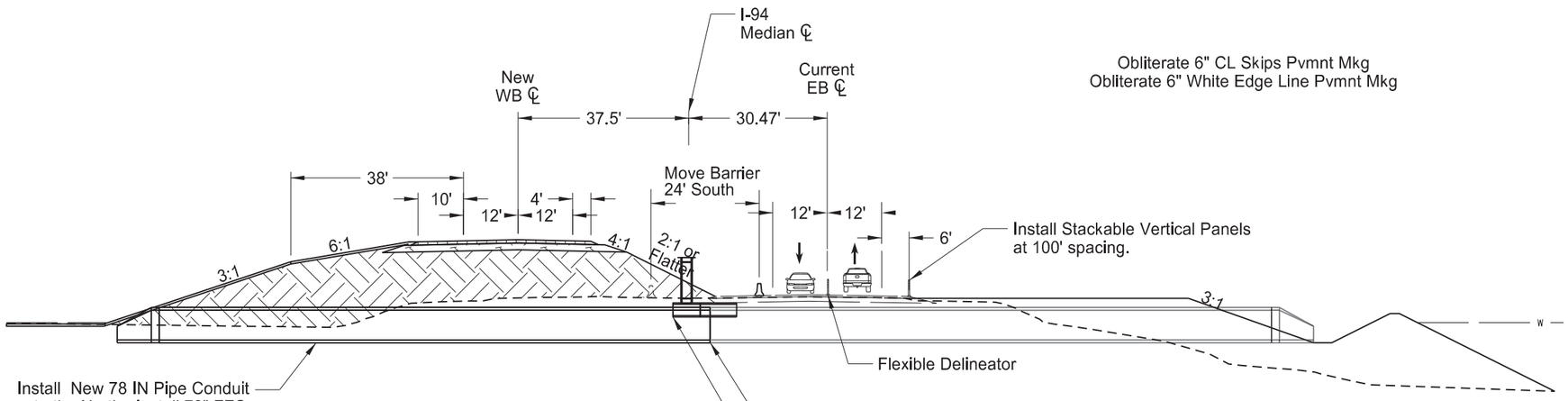
BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

1/7/2026 1:26:19 PM leckroth R:\project\20094237.210\Design\Sheets\020GD_005_Pipe Conduit Details.dgn

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	20	6



Note: See Section 100-5 for Phased Striping Layouts

Pipe Conduit Detail

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

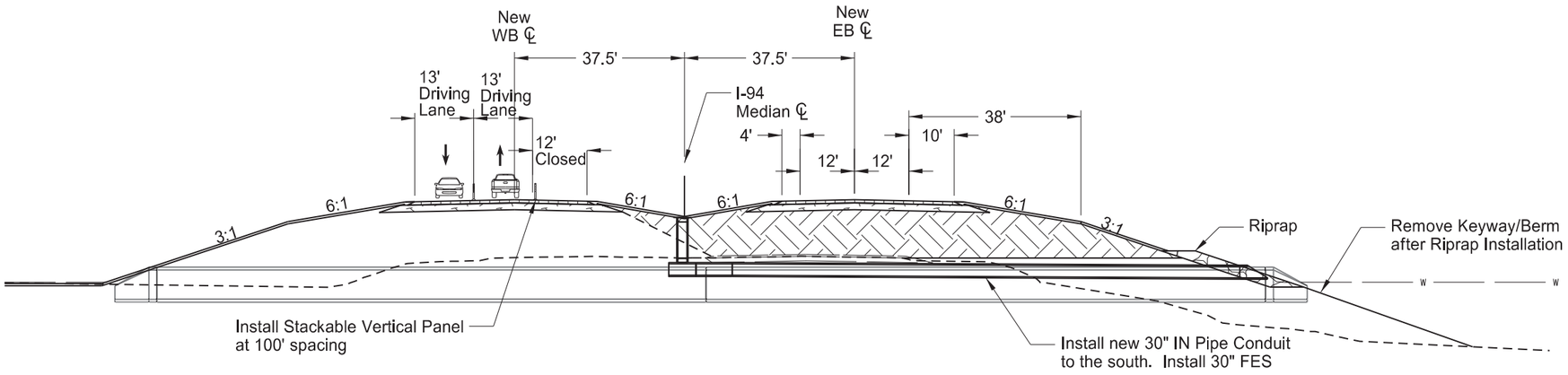
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	20	7



Phase 4
Shift Traffic Head to Head on WB lanes
Install South portion of Median Drain Culverts
Construct EB Rdwy

Note: See Section 100-5 for Phased Striping Layouts

Pipe Conduit Detail

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

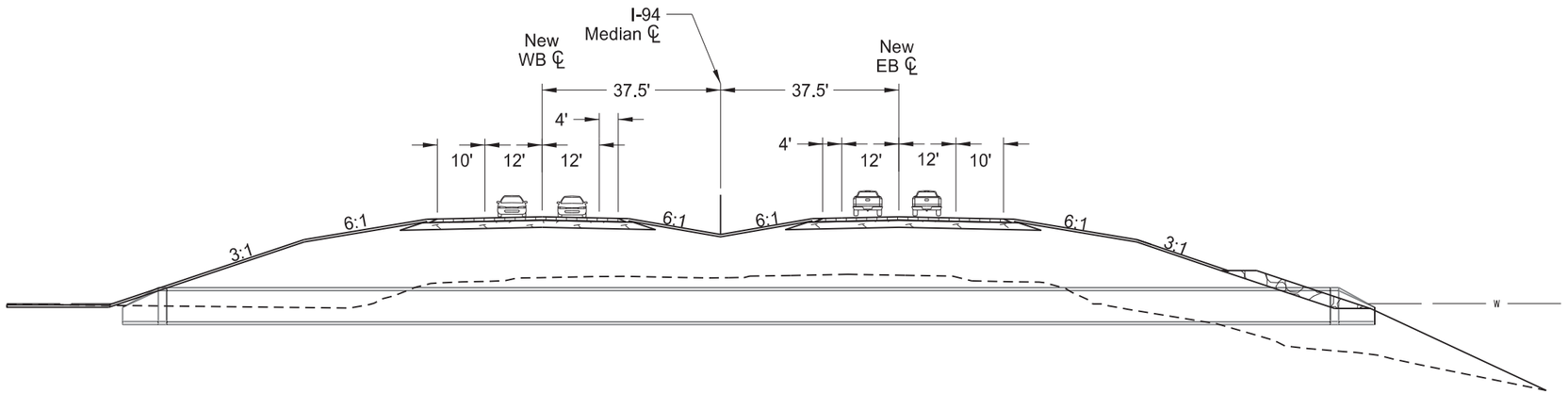
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	20	8



Phase 5
Shift Traffic to EB/WB directions
Remove Crossovers
Remove Temp Guardrail at structure

Note: See Section 100-5 for Phased Striping Layouts

Pipe Conduit Detail

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

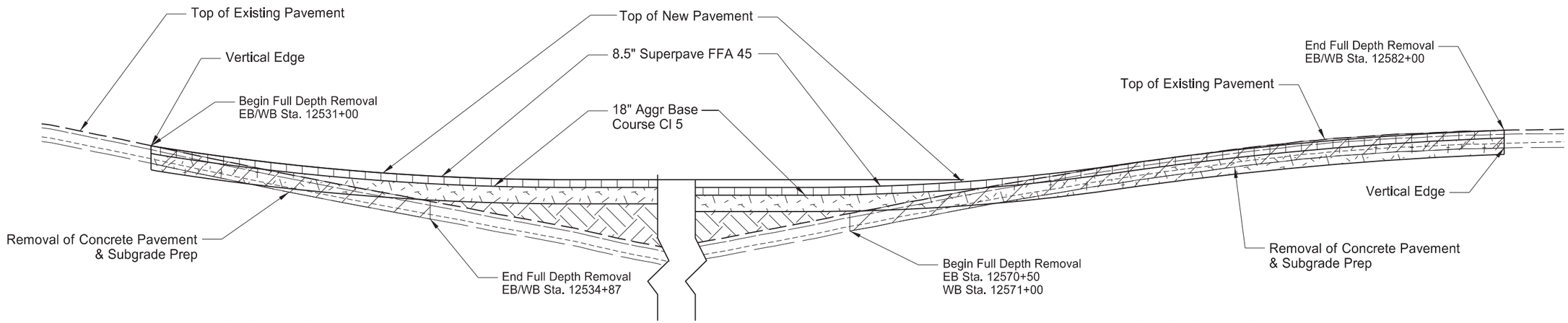
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

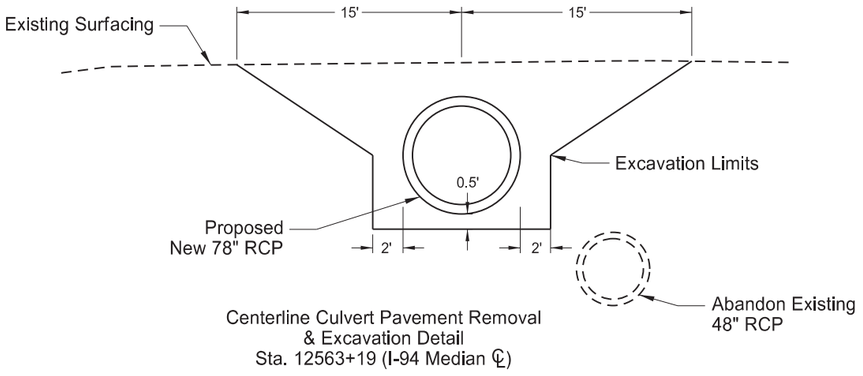
Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	20	9

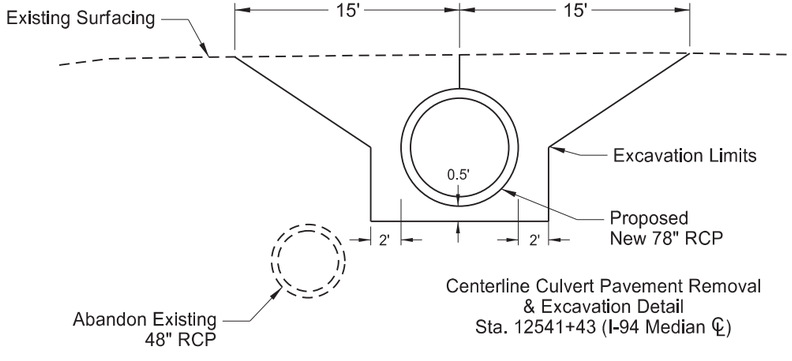


West End Removal Detail

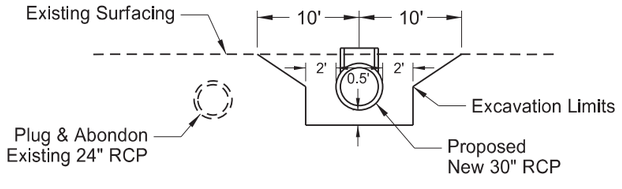
East End Removal Detail



Centerline Culvert Pavement Removal
& Excavation Detail
Sta. 12563+19 (I-94 Median ℄)



Centerline Culvert Pavement Removal
& Excavation Detail
Sta. 12541+43 (I-94 Median ℄)



Median Drain Culvert Pavement Removal
& Excavation Detail
Sta. 12545+00 (I-94 Median ℄)
Sta. 12552+00 (I-94 Median ℄)
Sta. 12559+00 (I-94 Median ℄)

Note: See Standard Drawing D-714-26
for Excavation and Backfill Details

230-0165 Subgrade Preparation-Type A-12IN

East Bound	12531+00 to 12534+87	3.87 Sta.
	12570+50 to 12582+00	11.5 Sta.
West Bound		
	12531+00 to 12534+87	3.87 Sta.
	12571+00 to 12582+00	11 Sta.
Total		30.24 Sta.

Removal Details

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

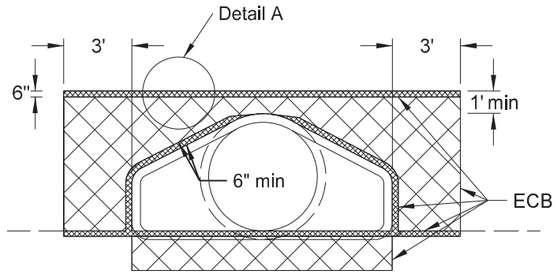
BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

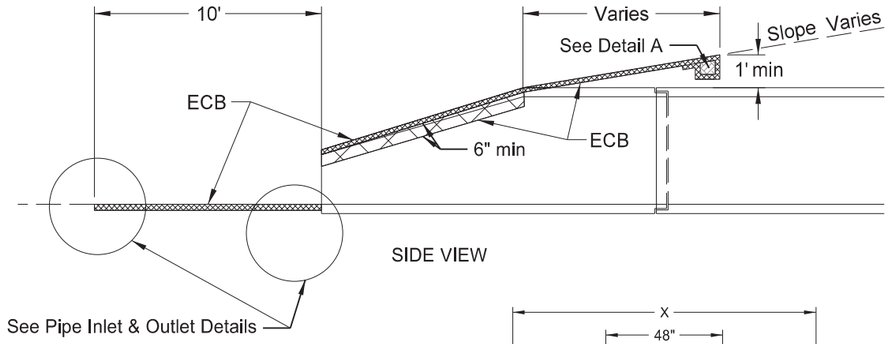
Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	20	10

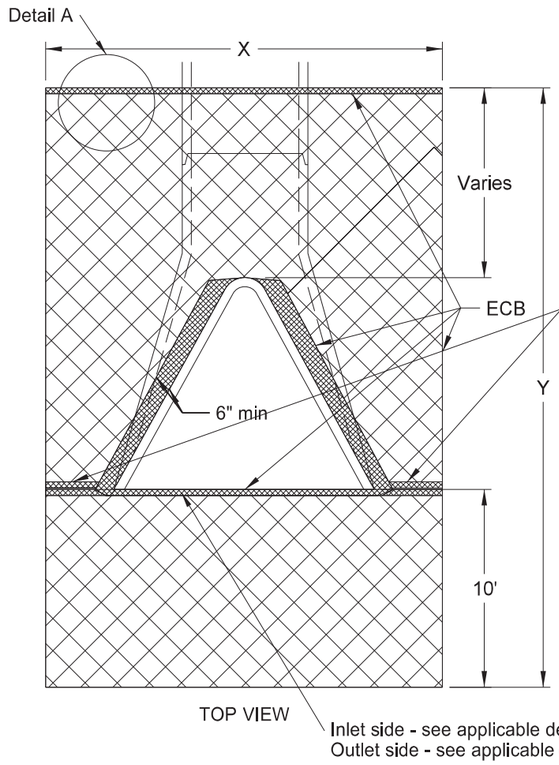
SPEC	CODE	BID ITEM	UNIT	QUANTITY
255	103	ECB TYPE 3	SY	
		IM-2-094(210)237		188



FRONT VIEW



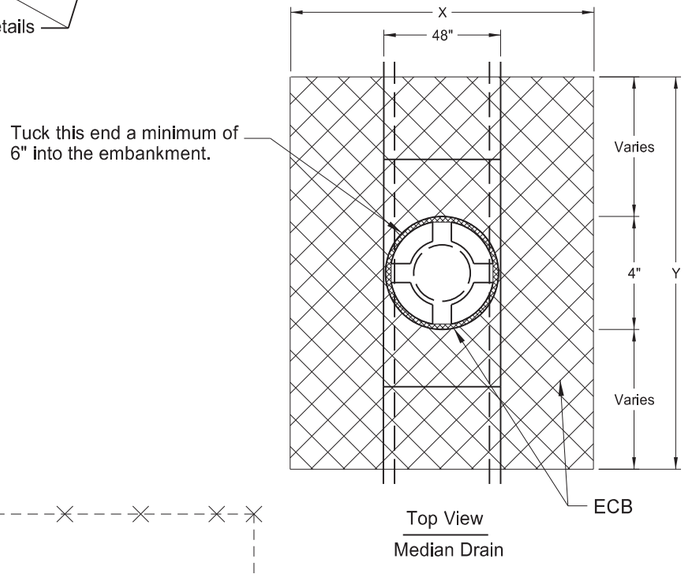
SIDE VIEW



TOP VIEW

Inlet side - see applicable detail for pipe inlet.
Outlet side - see applicable detail for pipe outlet.

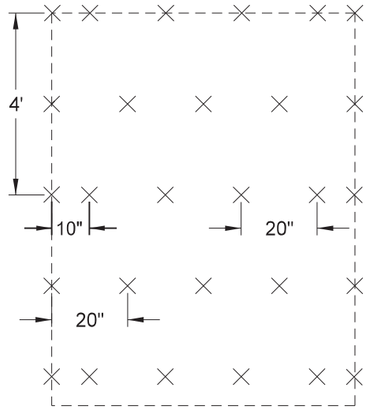
NOTE: Tuck the ECB a minimum of 6" into the embankment (against the flared end section) around the opening of the flared end section.



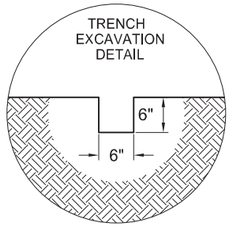
Top View
Median Drain

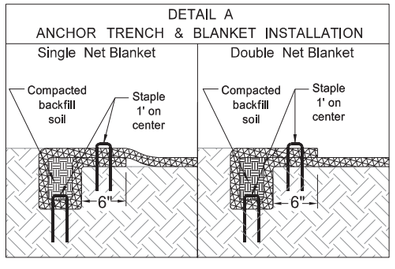
255-0103 ECB TYPE 3								
Roadway	Location		Pipe Diameter	No.	X	Y	Unit Quantity	Total Quantity
	Station	Offset	(IN)		(FT)	(FT)	(SY)	(SY)
I-94	12541+03	Lt	78	1	17	21	40	40
I-94	12545+00	CL	Median Drain	1	20	16	36	36
I-94	12552+00	CL	Median Drain	1	20	16	36	36
I-94	12559+00	CL	Median Drain	1	20	16	36	36
I-94	12563+45	Lt	78	1	17	21	40	40
Totals								188

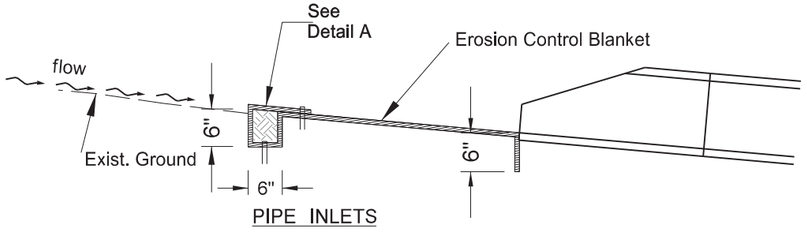
CENTERLINE CULVERTS									
DIA	X	Y	Surface area to be protected	ECB	DIA	X	Y	Surface area to be protected	ECB
In	Ft	Ft	SF	SY	In	Ft	Ft	SF	SY
24	10.5	19.6	193.1	22	24	10.5	17.6	172.1	20
27	11.0	20.0	204.3	23	27	11.0	18.0	182.3	21
30	11.6	20.5	218.3	25	30	11.6	18.5	195.1	22
36	12.7	21.2	242.1	27	36	12.7	19.2	216.7	24
42	13.3	21.2	251.8	28	42	13.3	19.2	225.2	25
48	13.8	22.0	265.6	30	48	13.8	20.0	238.0	27
54	14.5	21.5	273.7	31	54	14.5	19.5	244.7	28
60	15.0	21.0	278.3	31	60	15.0	19.0	248.3	28
66	15.6	22.0	295.7	33	66	15.6	20.0	264.5	30
72	16.2	22.5	309.2	35	72	16.2	20.5	276.8	31
Note: Quantities based on 6:1 slope.					Note: Quantities based on 4:1 slope.				



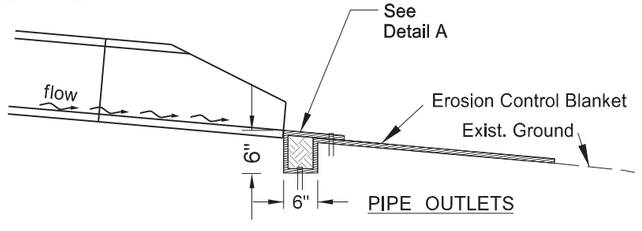
STAPLE PATTERN







PIPE INLETS



PIPE OUTLETS

Erosion Control at Culvert Flared End Sections

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

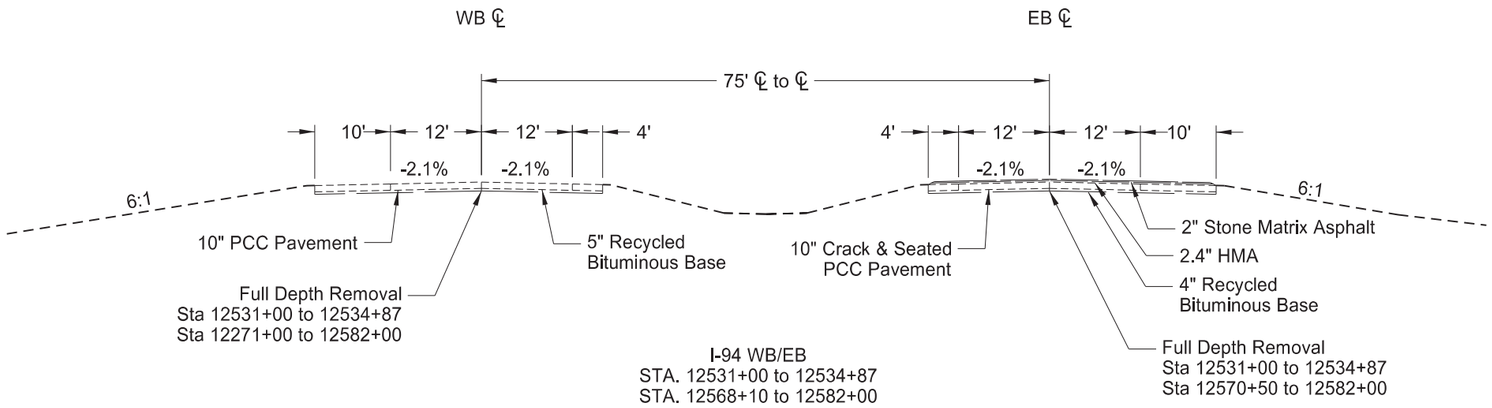
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

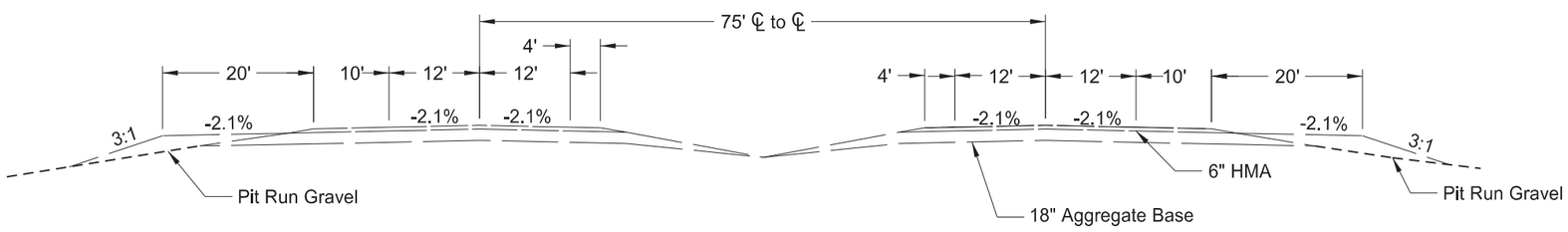
01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	30	1



I-94 WB/EB
STA. 12531+00 to 12534+87
STA. 12568+10 to 12582+00



I-94 WB/EB
STA 12534+87 & STA 12568+10

Existing Typical Sections

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

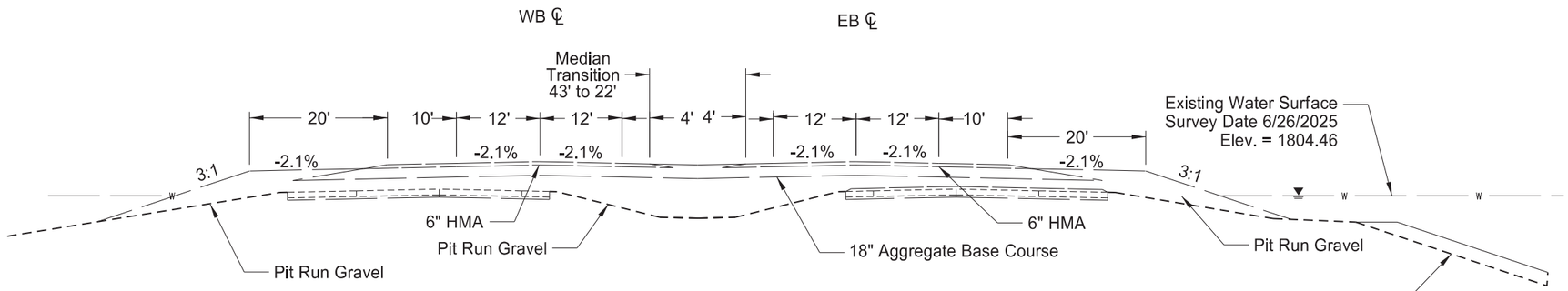
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

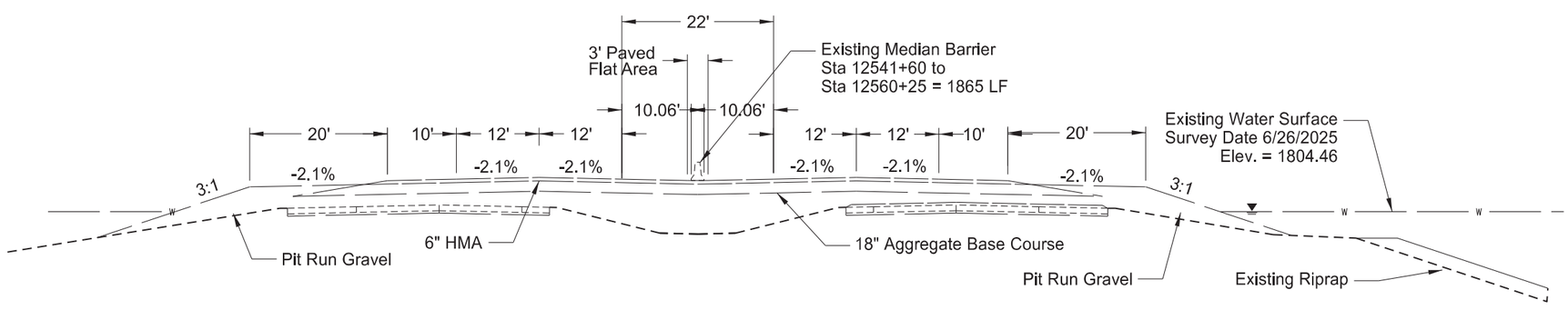
01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	30	2



I-94 WB/EB
Median Transitions
STA 12534+80 to STA.12540+50
STA 12561+12 to STA. 12568+00



I-94 WB/EB
22' Paved Median Section
STA 12540+50 to STA 12561+12

Existing Typical Sections

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

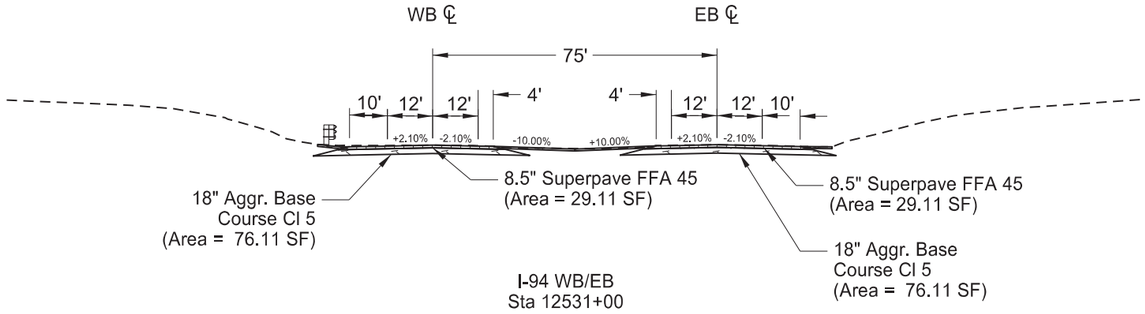
BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

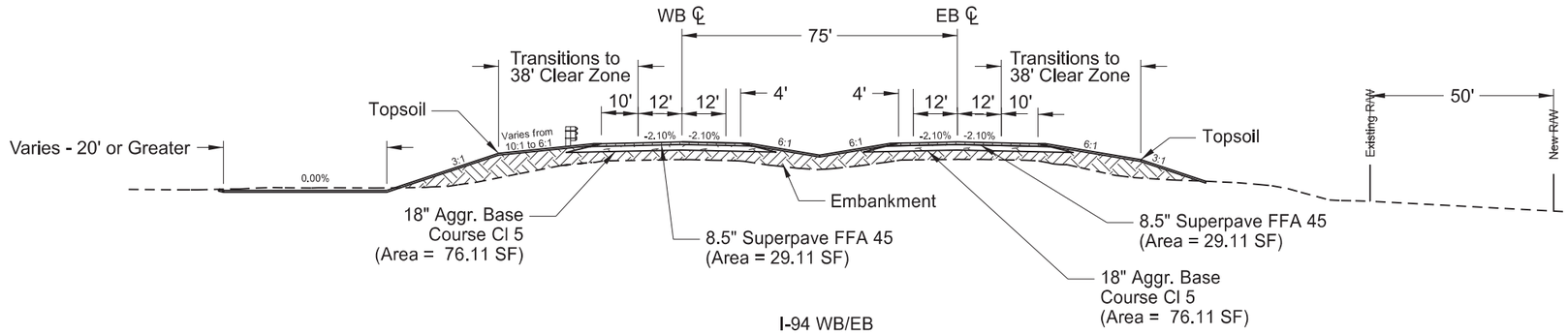
1/7/2026 1:39:59 PM leckroth R:\project\20094237.210\Design\Sheets\030TP_002_Existing Typicals.dgn

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D

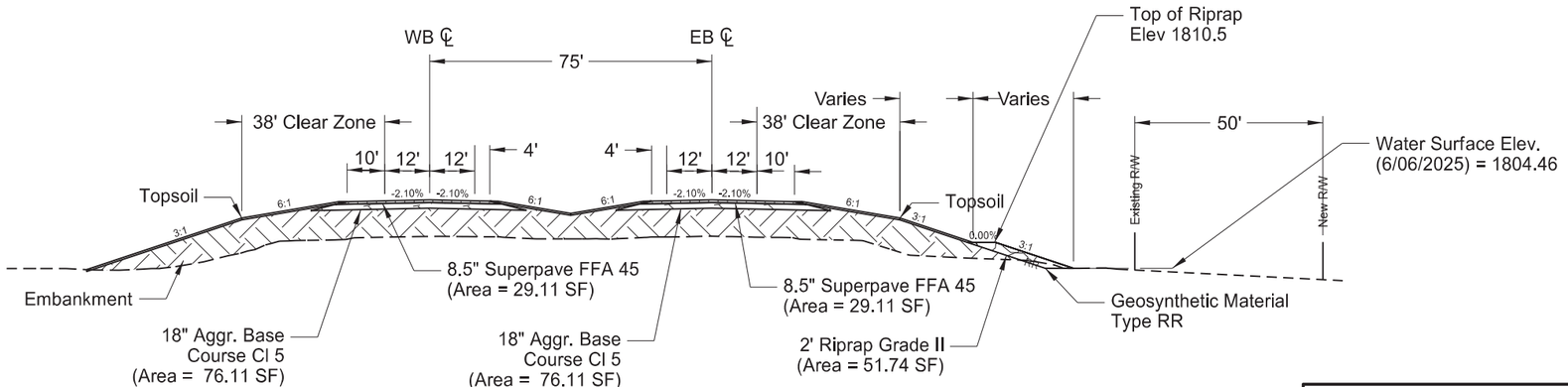
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	30	3



I-94 WB/EB
Sta 12531+00



I-94 WB/EB
Sta 12531+00 to 12534+87



I-94 WB/EB
Sta 12534+87 to 12537+25

Proposed Typical Sections

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

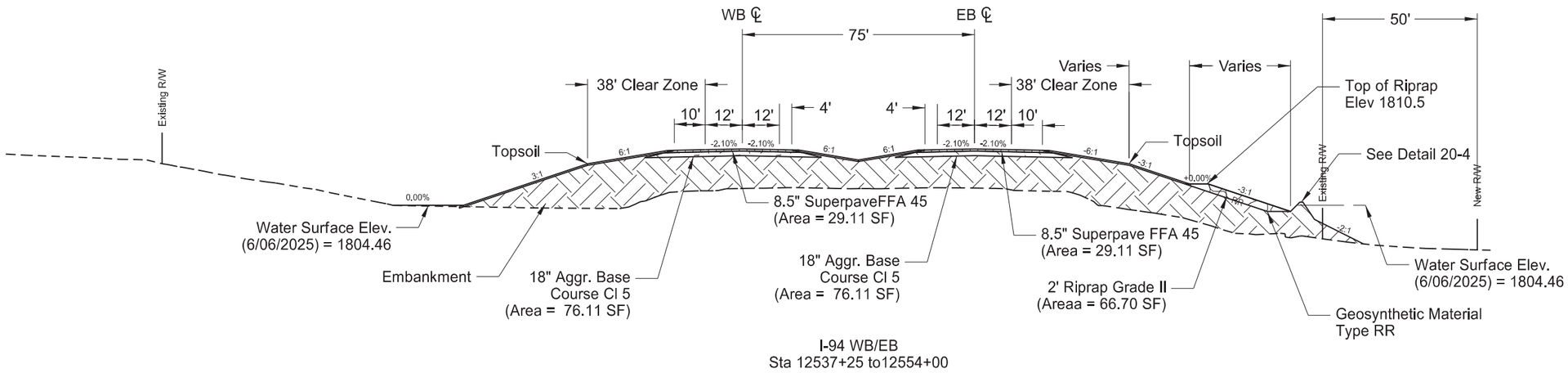
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

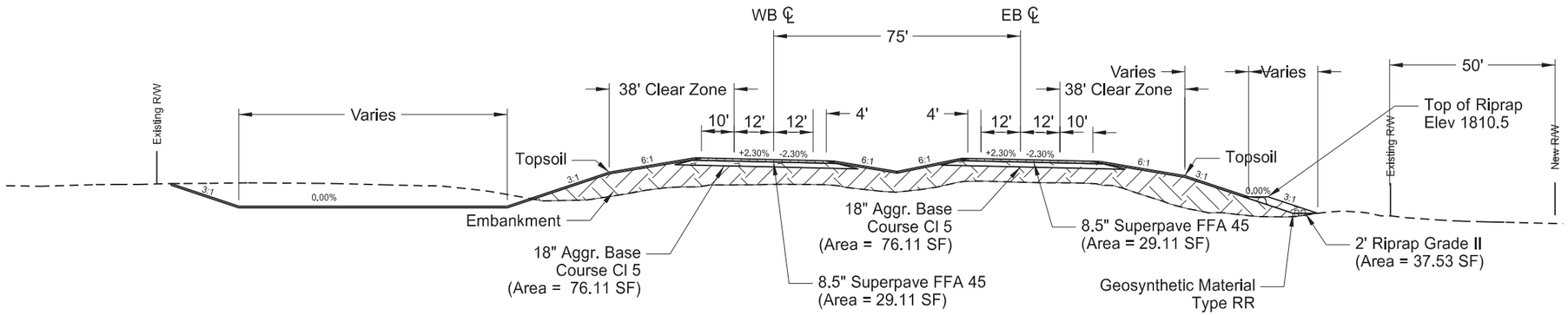
01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	30	4



I-94 WB/EB
Sta 12537+25 to12554+00



I-94 WB/EB
Sta 12554+00 to 12557+00
Superelevation Section from
Sta 12558+13 to 12568+00

Proposed Typical Sections

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

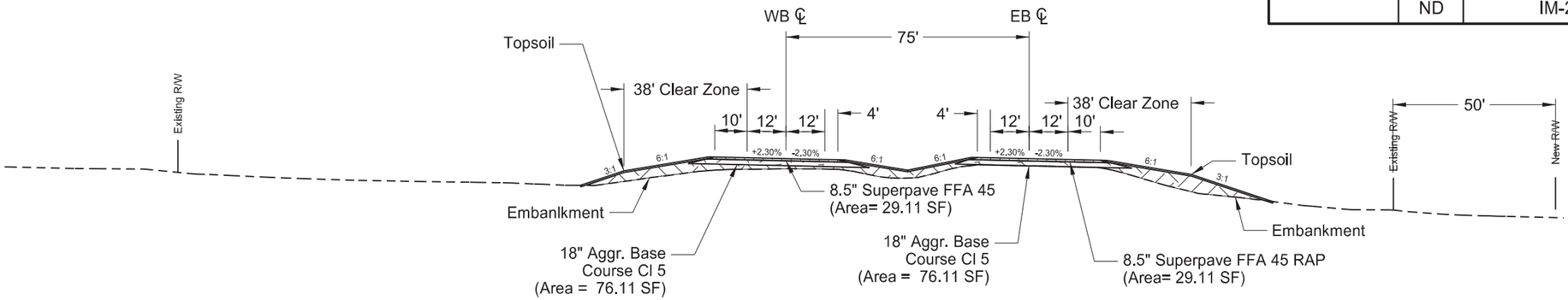
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

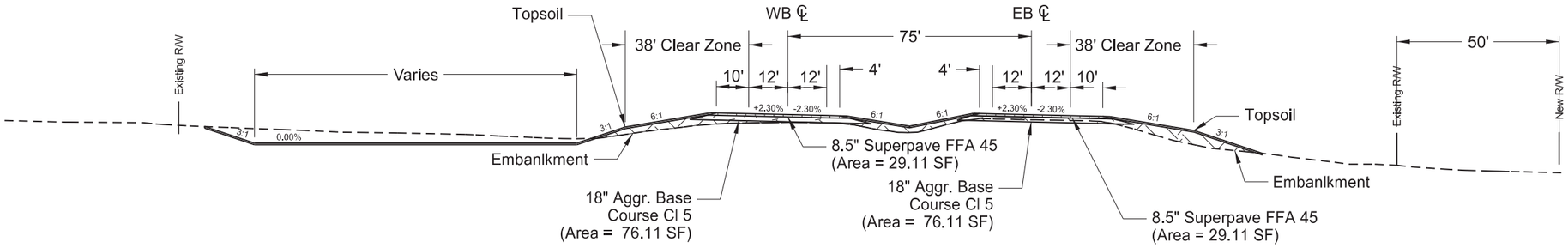
01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D

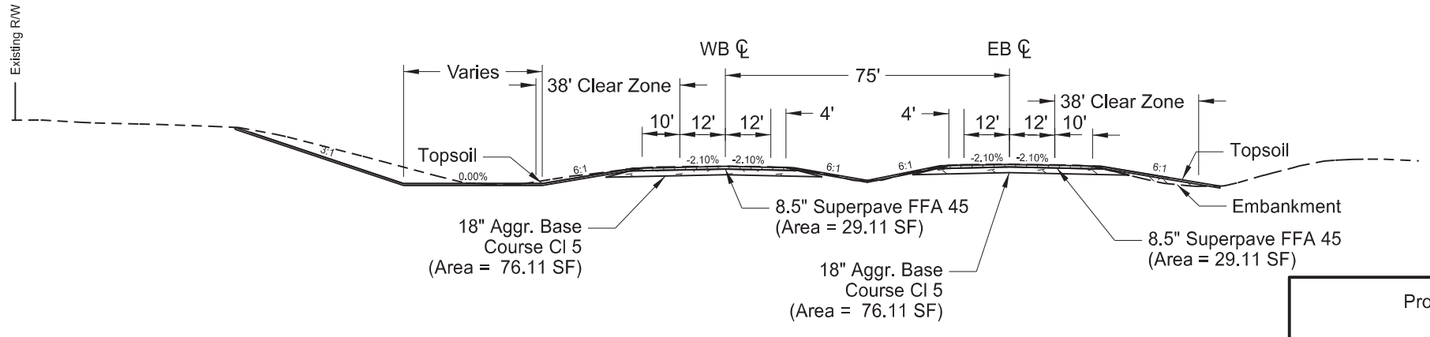
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	30	5



I-94 WB/EB
Sta 12557+00 to 12565+00
Superelevation Section from
Sta 12568+00 to 12570+50



I-94 WB/EB
Sta 12565+00 to 12571+00
Superelevation Section from
Sta 12570+50 to 12571+00



I-94 WB/EB
Sta 12571+00 to 12582+00
Superelevation Section from
Sta 12571+00 to 12578+25

Proposed Typical Sections

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

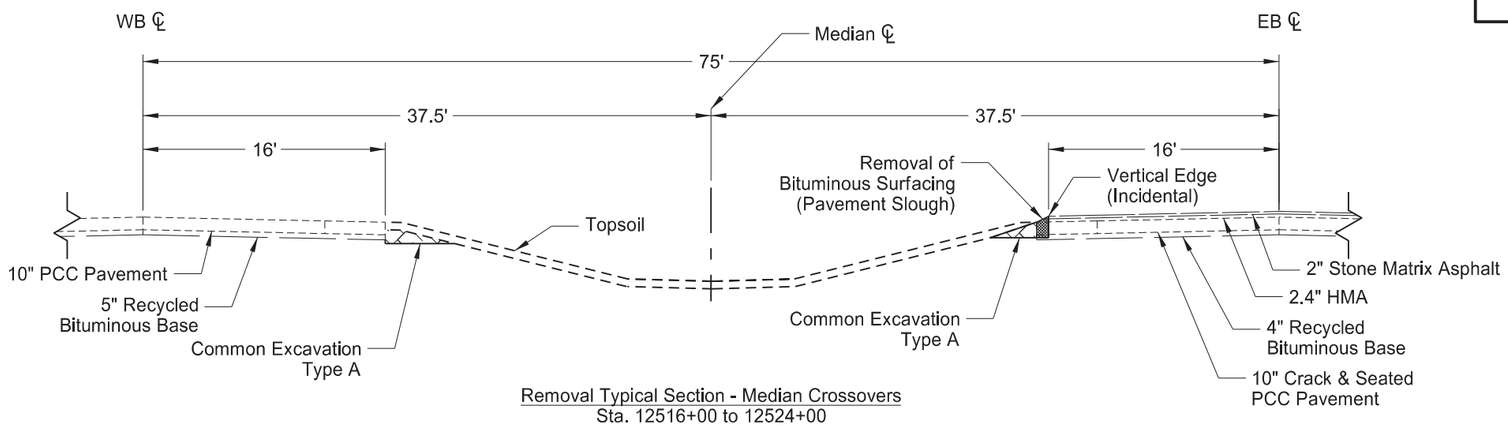
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

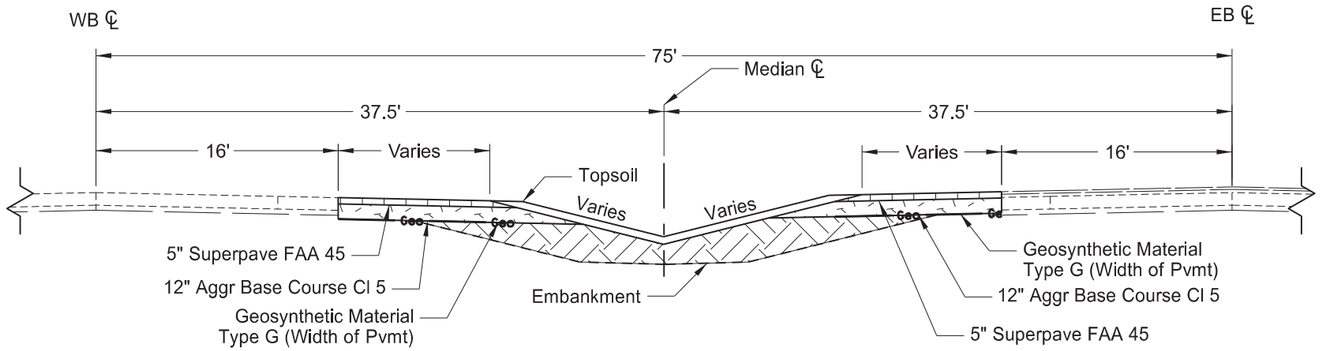
01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D

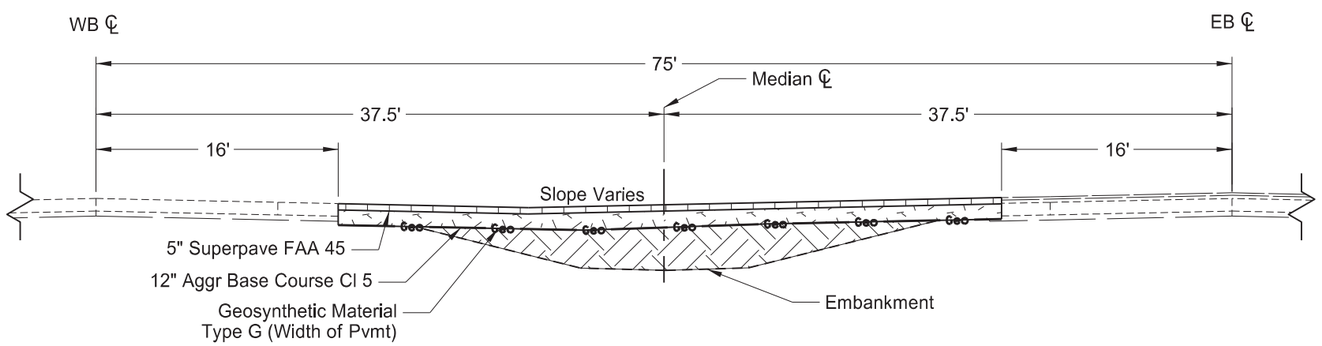
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	30	6



Removal Typical Section - Median Crossovers
Sta. 12516+00 to 12524+00
Sta. 12584+00 to 12592+00



Proposed Typical Section - Median Crossovers
Sta. 12516+00 to 12518+45
Sta. 12521+52 to 12524+00
Sta. 12584+00 to 12587+00
Sta. 12589+00 to 12592+00



Proposed Typical Section - Median Crossovers
Sta. 12518+45 to 12521+52
Sta. 12587+00 to 12589+00

Typical Section -Median Crossovers

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

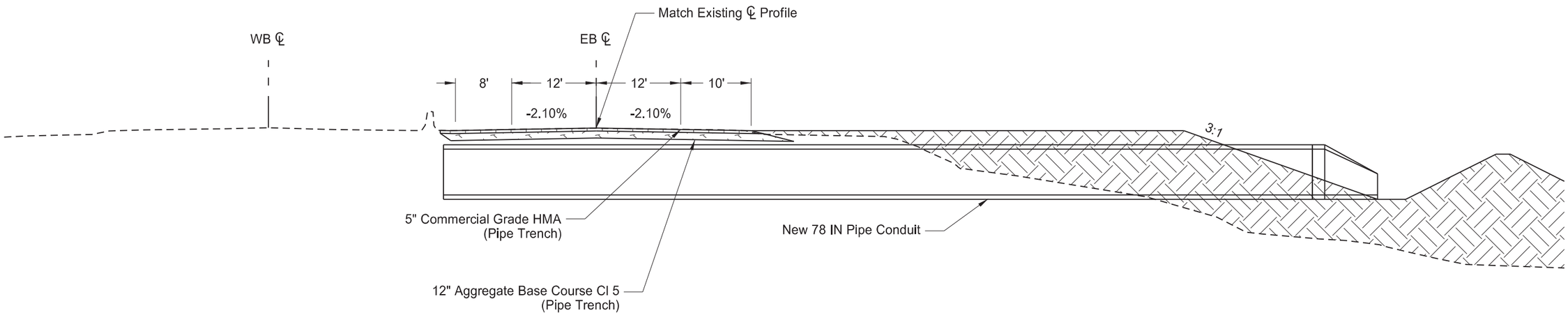
Runner Slough

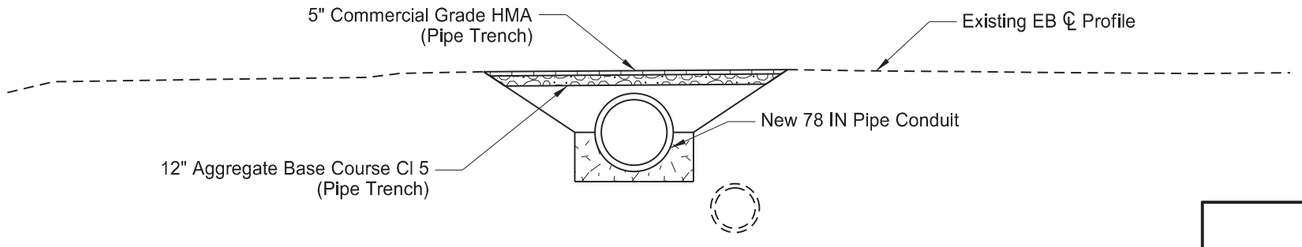
BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	30	7





Side View

Proposed Typical Sections
78" Pipe Conduit Locations

Grade Raise
I-94 EB/WB

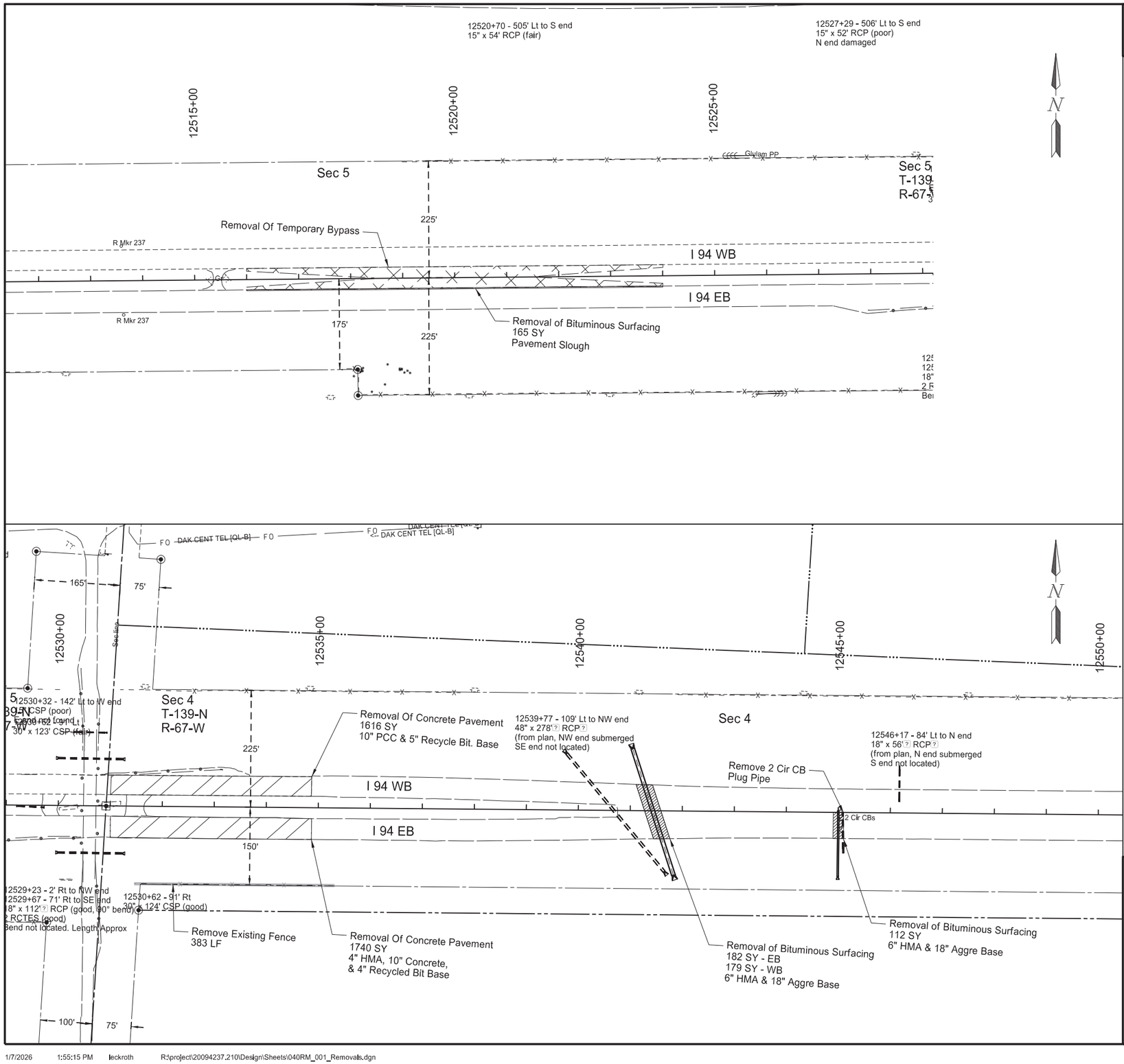
1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	40	1

SPEC	CODE	BID ITEM	UNIT	QUANTITY
202	114	REMOVAL OF CONCRETE PAVEMENT	SY	
		Sta. 12531+00 to 12534+84 - EB		1740
		Sta. 12531+00 to 12534+84 - WB		1616
202	132	REMOVAL OF BITUMINOUS SURFACING	SY	
		Sta. 12516+00 to 12524+00 - EB (Pvmt Slough)		165
		Sta. 12541+27 to 12541+57 - EB/WB		
		(30 LF for Pipe Instalation)		365
		Sta. 12544+90 to 12545+10 - EB		
		(20 LF for Pipe Instalation)		112
202	312	REMOVE EXISTING FENCE	LF	
		Sta. 12531+45 to 12535+30 - Rt		383
202	350	REMOVAL OF TEMPORARY BYPASS	EA	
		Sta. 12516+00 to 12524+00		1

*Removal Quantities for Median Crossover		
Embankment	590	CY
Aggregate	1842	TON
Asphalt	732	TON
Geosynthetic Material Type G	204	SY

*For information purpose only. Included in the price bid for " Removal of Temporary Bypass"

Removal of Concrete Pavement

Removal of Bituminous Surfacing

Remove Existing Fence

Removal of Temporary Bypass

Removals

Grade Raise
I-94 EB/WB

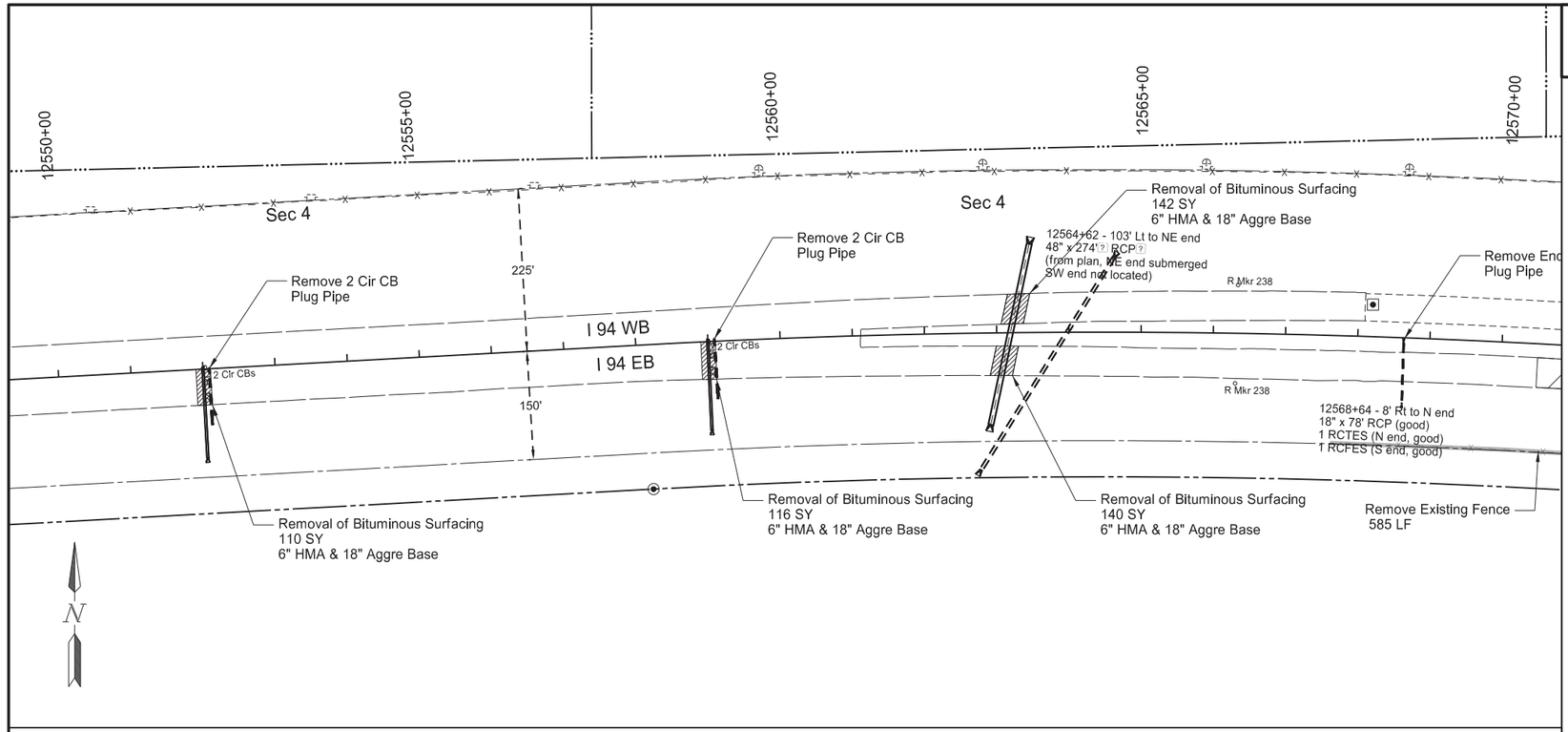
1.3 Miles West of Cleveland Interchange

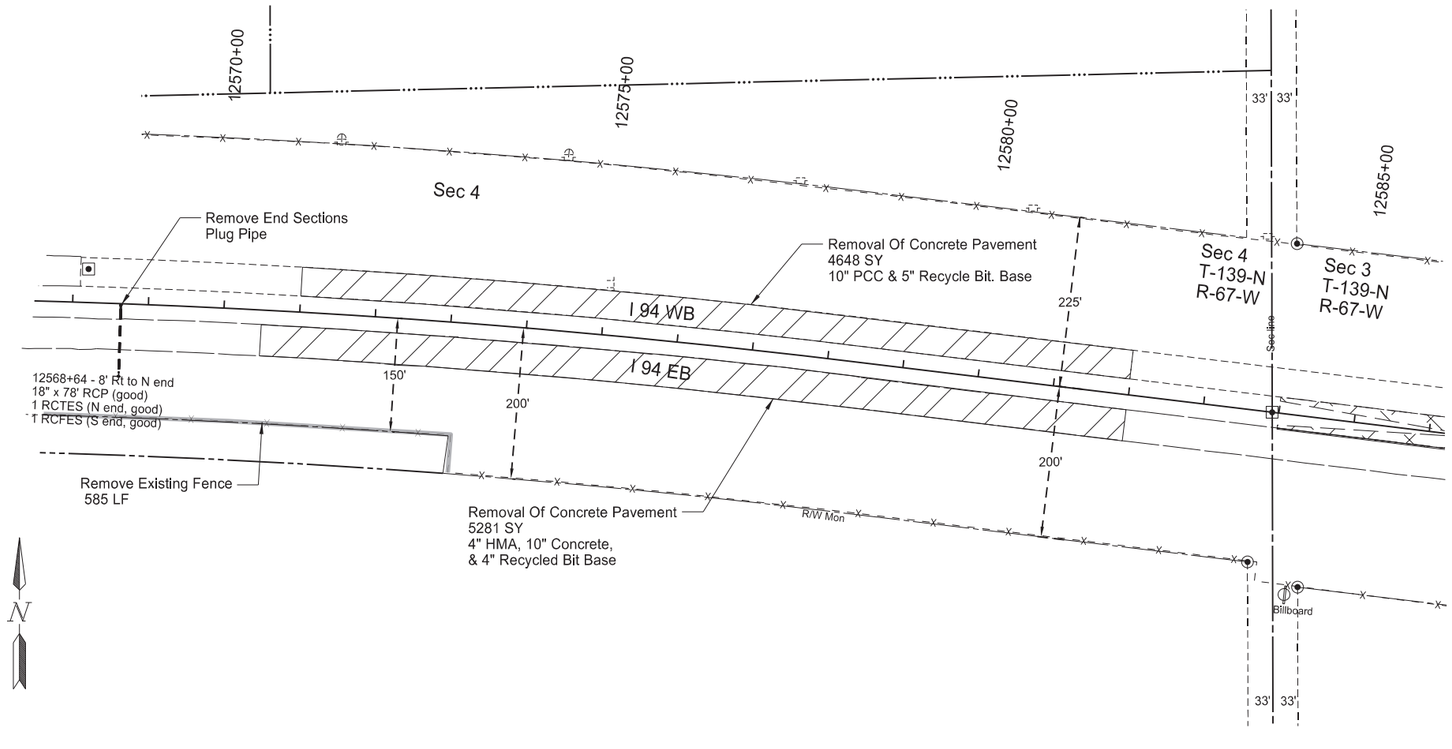
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	40	2

SPEC	CODE	BID ITEM	UNIT	QUANTITY
202	114	REMOVAL OF CONCRETE PAVEMENT	SY	
		Sta. 12570+00 to 12582+00 - WB		4648
		Sta. 12570+50 to 12582+00 - EB		5281
202	132	REMOVAL OF BITUMINOUS SURFACING	SY	
		Sta. 12551+90 to 12552+10 - EB		
		(20 LF for Pipe Instalation)		110
		Sta. 12558+90 to 12590+10 - EB		
		(20 LF for Pipe Instalation)		116
		Sta. 12563+00 to 12563+30 - EB		
		(30 LF for Pipe Instalation)		140
		Sta. 12563+06 to 12563+36 - WB		
		(30 LF for Pipe Instalation)		142
202	312	REMOVE EXISTING FENCE	LF	
		Sta. 12567+85 to 12573+00 - Rt		585

Removal of Concrete Pavement

Removal of Bituminous Surfacing

Remove Existing Fence

Removal of Temporary Bypass

Removals

Grade Raise
I-94 EB/WB

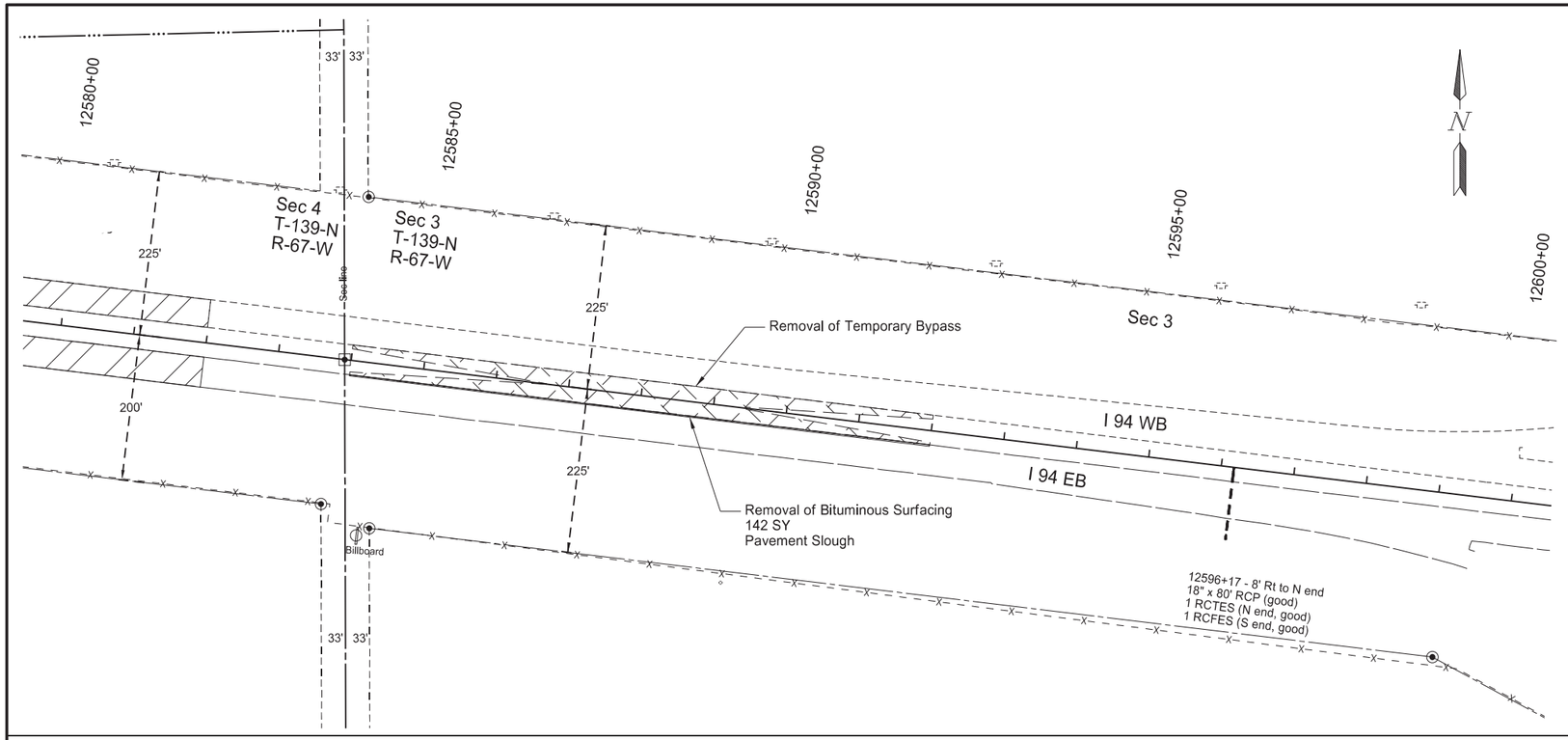
1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	40	3

SPEC	CODE	BID ITEM	UNIT	QUANTITY
202	132	REMOVAL OF BITUMINOUS SURFACING Sta. 12584+00 to 12592+00 - EB (Pvmt Slough)	SY	142
202	350	REMOVAL OF TEMPORARY BYPASS Sta. 12584+00 to 12592+00	EA	1

*Removal Quantities for Median Crossover		
Embankment	1184	CY
Aggregate	1756	TON
Asphalt	689	TON
Geosynthetic Material Type G	195	SY

*For information purpose only. Included in the price bid for " Removal of Temporary Bypass"

Removal of Concrete Pavement

Removal Bituminous Surfacing

Remove Existing Fence

Removal of Temporary Bypass

Removals

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: 68F56E0A-D23C-4406-A28E-0E1F7D1AF785

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	50	1

HYDRAULIC DATA FOR IM-2-094(210)237 (A)									
				50-YEAR DATA				100-YEAR DATA	
STATION	EXISTING PIPE	PROPOSED PIPE SIZE	DRAINAGE AREA (ACRES)	DESIGN DISCHARGE (CFS)	DESIGN HEADWATER (FT)	DESIGN VELOCITY (FPS)	DESIGN STAGE (NAVD 88)	100-YEAR DISCHARGE (CFS)	100-YEAR STAGE (NAVD 88)
12540+56	48" RCP	78" (B)	375.4	126.3	20.14	3.81	1820.14	156.8	1820.39
12564+09	48" RCP	78" (B)	300.9	112.5	20.05	3.39	1820.05	139.4	1820.24

(A) Hydraulic data provided is for smooth-walled (Manning's n=0.012) type conduits.
(B) Centerline culvert acts as an equalizer and is not evaluated as a conventional culvert.

Culvert Hydraulic Data

Cleveland Grade Raise

REGISTERED PROFESSIONAL ENGINEER
STEPHEN WIRTZ
PE-10111
DATE 12/19/25
NORTH DAKOTA

Docusign Envelope ID: 85368446-B508-4799-882C-060F6708CC42

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	51	1

Begin Station / Location	Begin Offset	End Station / Location	End Offset	Pipe Installation (Pay Item)			Allowable Material	Required Diameter	Steel Pipe Coatings	Steel Pipe Corrugations or Spiral Ribs	Steel Pipe Minimum Thickness	Geosythetic Material - Type G (Pay Item)	(*) End Sections		Applicable Backfill
													Begin	End	
				In	Bid Item	LF		In	Type		In	SY	EA	EA	
12541+03	119.3' Lt	12541+84	123.7' Rt	78	Pipe Conduit	260'	Reinforced Concrete Pipe - Class IV **(barrel length = 256 LF)**	78				350	FES	FES	D-714-26
12545+00	3.0' Lt	12545+00	3.0' Rt	30	Pipe Conduit	6' (T-Section)	Reinforced Concrete Pipe - Class III **(barrel length = 6 LF)**	30				5	Plug		D-714-26
12545+00		12545+00		24	Pipe Conduit	8' (Riser)	Reinforced Concrete Pipe - Class III **(barrel length = 8 LF)**	24							
12545+00	3.0' Rt	12545+00	123' Rt	30	Pipe Conduit	121'	Reinforced Concrete Pipe - Class III **(barrel length = 120 LF)**	30				95		FES	D-714-26
12552+00	3.0' Lt	12552+00	3.0' Rt	30	Pipe Conduit	6' (T-Section)	Reinforced Concrete Pipe - Class III **(barrel length = 6 LF)**	30				5	Plug		D-714-26
12552+00		12552+00		24	Pipe Conduit	8' (Riser)	Reinforced Concrete Pipe - Class III **(barrel length = 8 LF)**	24							
12552+00	3.0' Rt	12552+00	123' Rt	30	Pipe Conduit	121'	Reinforced Concrete Pipe - Class III **(barrel length = 120 LF)**	30				95		FES	D-714-26
12559+00	3.0' Lt	12559+00	3.0' Rt	30	Pipe Conduit	6' (T-Section)	Reinforced Concrete Pipe - Class III **(barrel length = 6 LF)**	30				5	Plug		D-714-26
12559+00		12559+00		24	Pipe Conduit	8' (Riser)	Reinforced Concrete Pipe - Class III **(barrel length = 8 LF)**	24							
12559+00	3.0' Rt	12559+00	123' Rt	30	Pipe Conduit	121'	Reinforced Concrete Pipe - Class III **(barrel length = 120 LF)**	30				95		FES	D-714-26
12562+90	127.1' Rt	12563+46	122.75' Lt	78	Pipe Conduit	260'	Reinforced Concrete Pipe - Class III **(barrel length = 256 LF)**	78				350	FES	FES	D-714-26
12568+64		12568+64		18"	Plug Pipe										

Corrugations: **2 =** 2-2/3"x1/2"
3 = 3"x1"
5 = 5"x1"

Coatings: **Z =** Zinc
A = Aluminum
P = Polymeric (over Zinc or Aluminum)

Spiral Ribs: **3/4 =** 3/4"x3/4"@7-1/2"
1 = 3/4"x1"@11-1/2"

(*) End sections are measured and paid for separately for pipe extensions.
FES = Flared End Section
TES = Traversable End Section
PLUG = Precast Concrete Plug
T-SECTION = See Standard D-722-07

Allowable Pipe List

Grade Raise
I-94 EB/WB

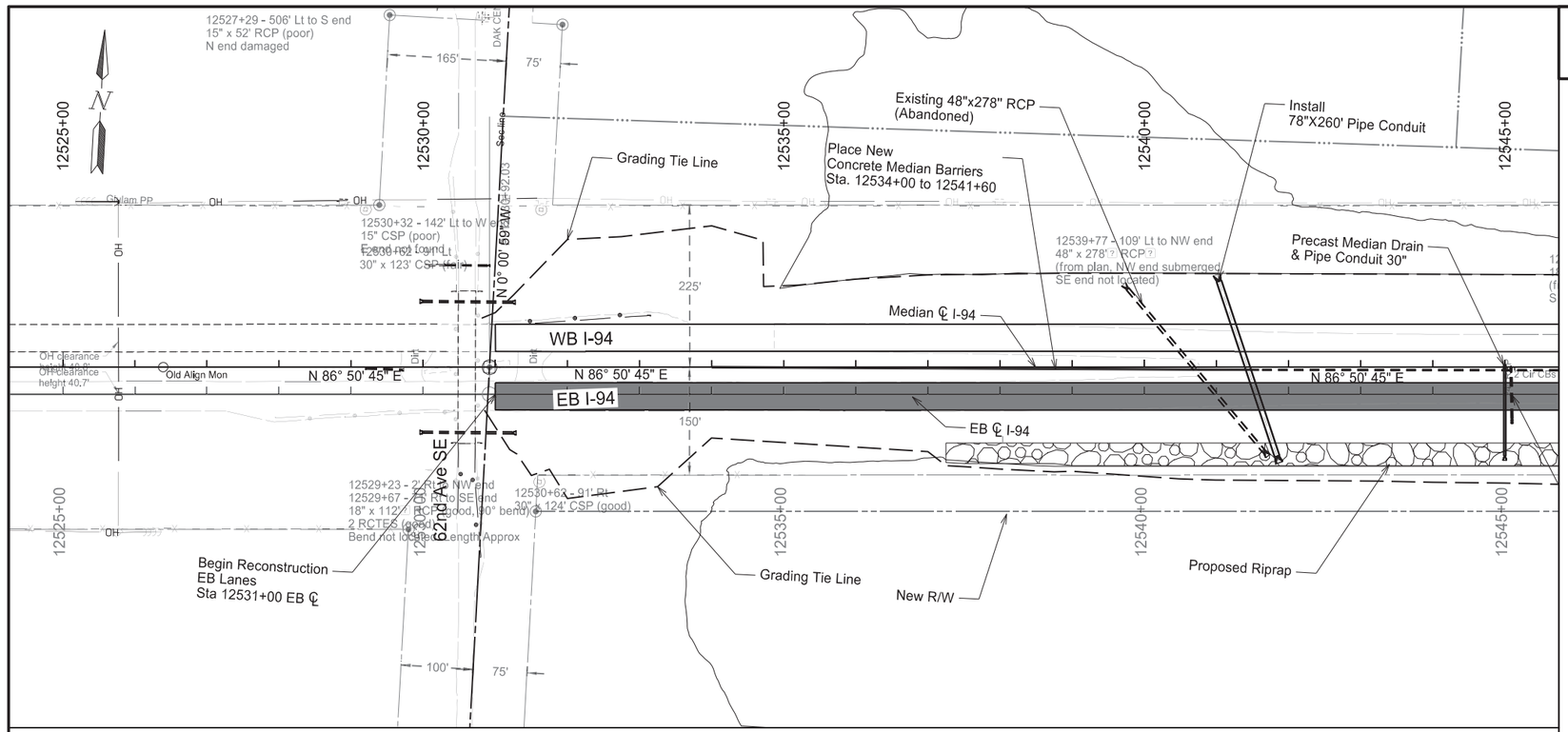
1.3 Miles West of Cleveland Interchange

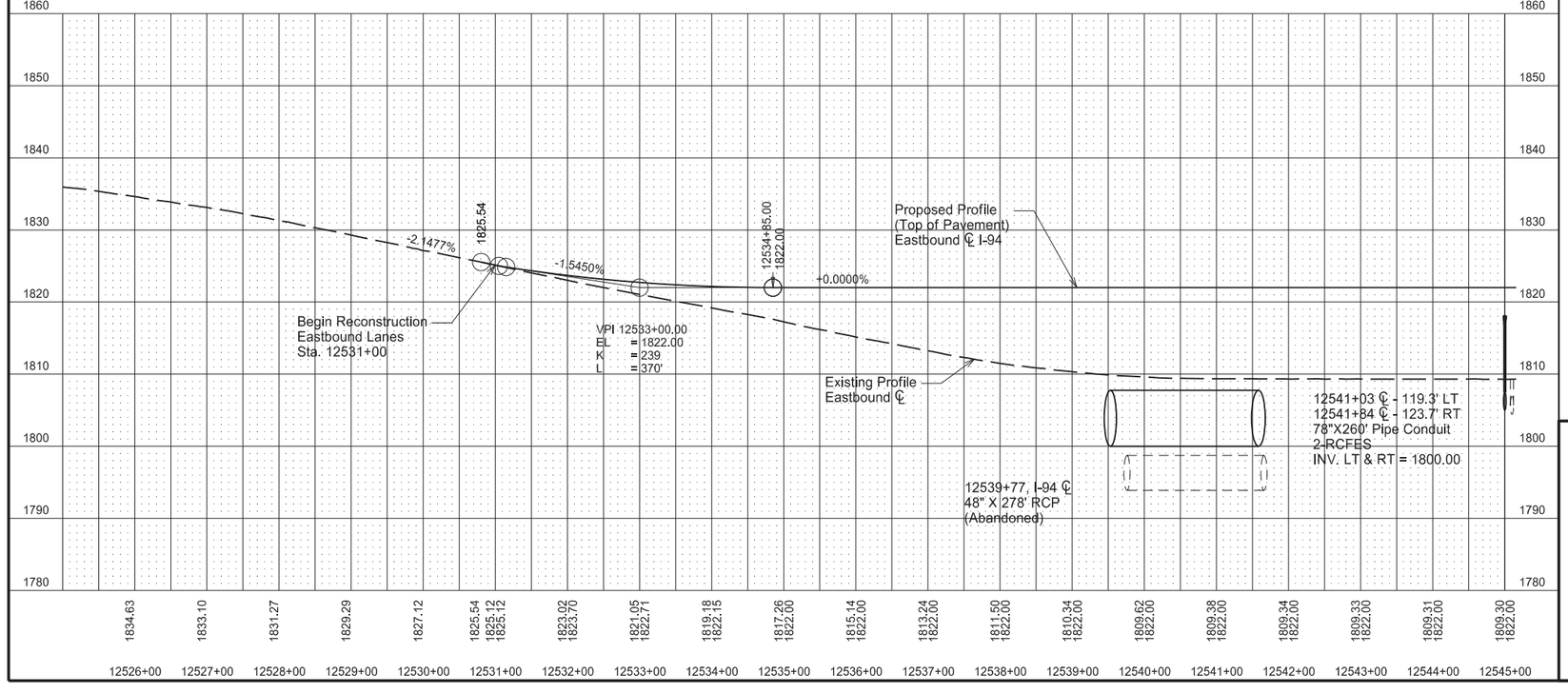
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	60	1

SPEC	CODE	BID ITEM	UNIT	QUANTITY
714	4150	PIPE CONDUIT 78IN Sta 12541+43 Median ℄ (EB Lanes)	LF	*128

*Quantity is from 2' south of Median ℄ to south end, see Sheet 60-4 for WB quantity

Plan & Profile EB Lanes

Grade Raise
I-94 EB/WB

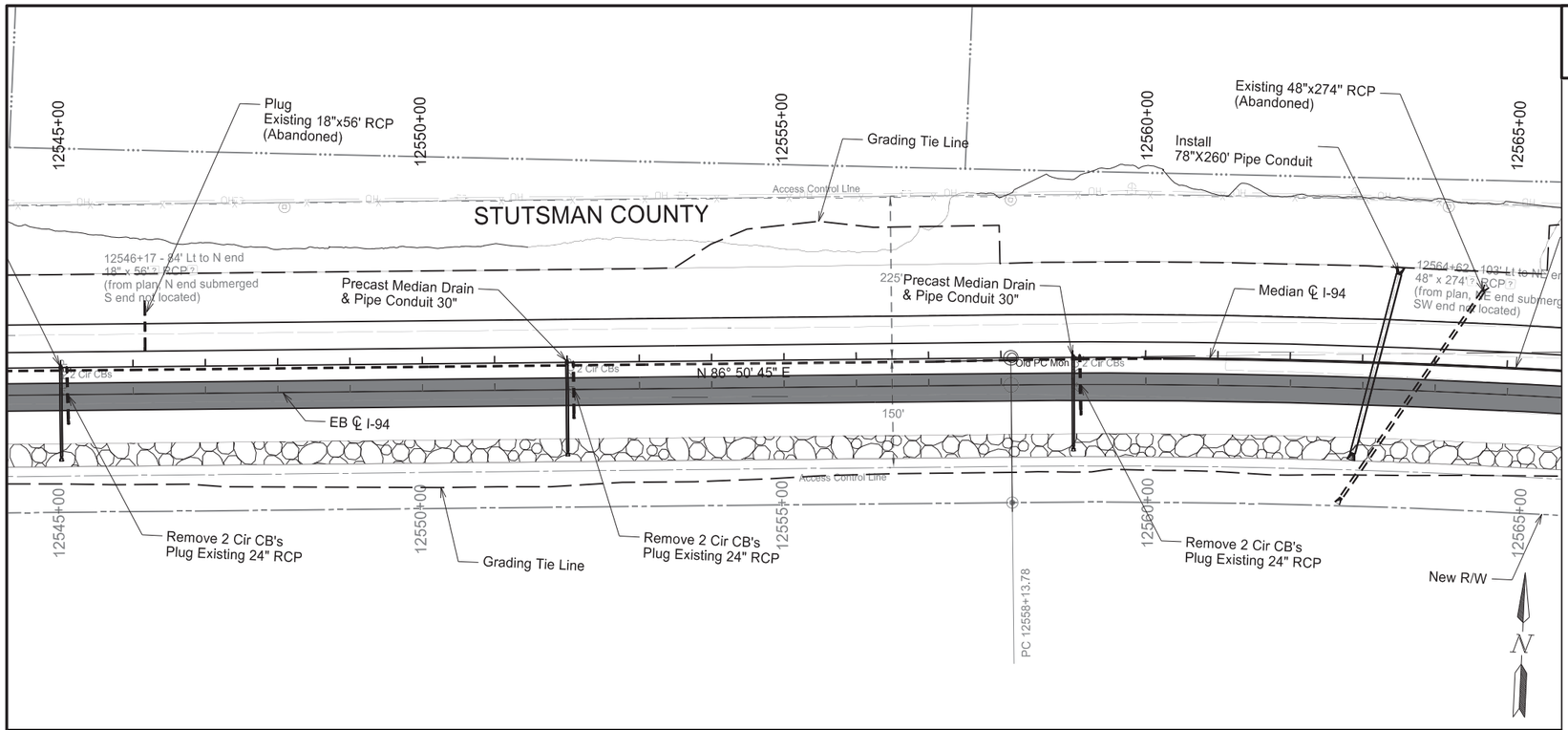
1.3 Miles West of Cleveland Interchange

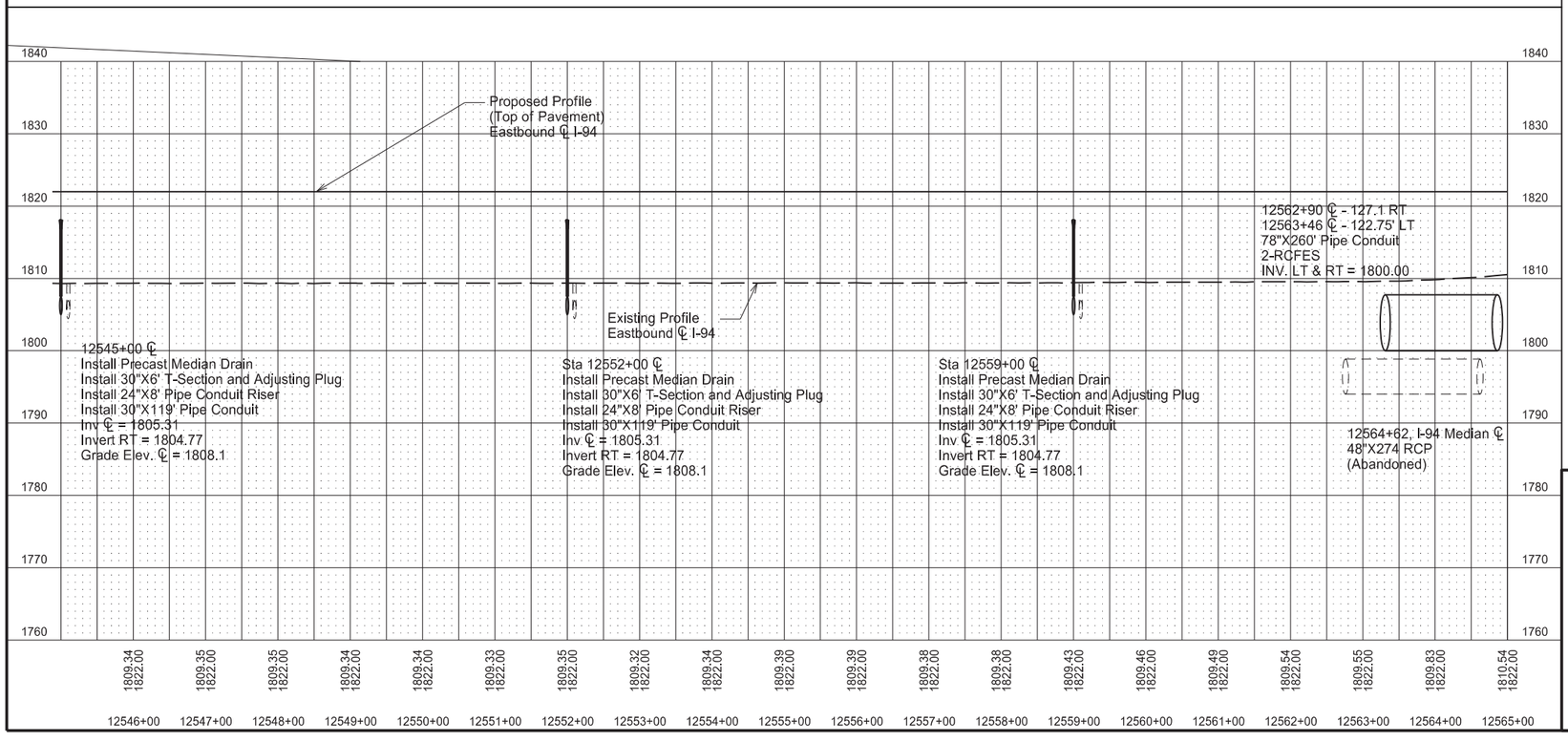
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	60	2

SPEC	CODE	BID ITEM	UNIT	QUANTITY
202	235	REMOVAL OF CATCH BASIN	EA	
		Sta. 12545+09 ℄		2
		Sta. 12552+09 ℄		2
		Sta. 12559+09 ℄		2
714	4105	PIPE CONDUIT 24IN	LF	
		*Sta. 12545+00 Median ℄ (Riser)		8
		*Sta. 12552+00 Median ℄ (Riser)		8
		*Sta. 12559+00 Median ℄ (Riser)		8
714	4110	PIPE CONDUIT 30IN	LF	
		**Sta 12545+00 Median ℄ (EB Lane)		127
		**Sta 12552+00 Median ℄ EB Lane)		127
		**Sta 12559+00 Median ℄ (EB Lane)		127
714	4150	PIPE CONDUIT 78IN	LF	
		Sta 12564+09 Median ℄ (EB Lane)		***128.4
714	9680	PLUG PIPE-ALL TYPES & SIZES	EA	
		Sta 12545+09 Median ℄ (EB Lane)		1
		Sta 12552+09 Median ℄ EB Lane)		1
		Sta 12559+09 Median ℄ (EB Lane)		1
722	4565	MEDIAN DRAIN PRECAST CONCRETE-TYPE A	EA	
		Sta. 12545+00 Median ℄		1
		Sta. 12552+00 Median ℄		1
		Sta. 12559+00 Median ℄		1

*Includes Riser and Adjusting Ring.
**Includes 6' T-Section and Concrete Plug.
***Quantity is from 2' South of Median ℄ to south end, see Sheet 60-5 for WB quantity

Plan & Profile EB Lanes

Grade Raise
I-94 EB/WB

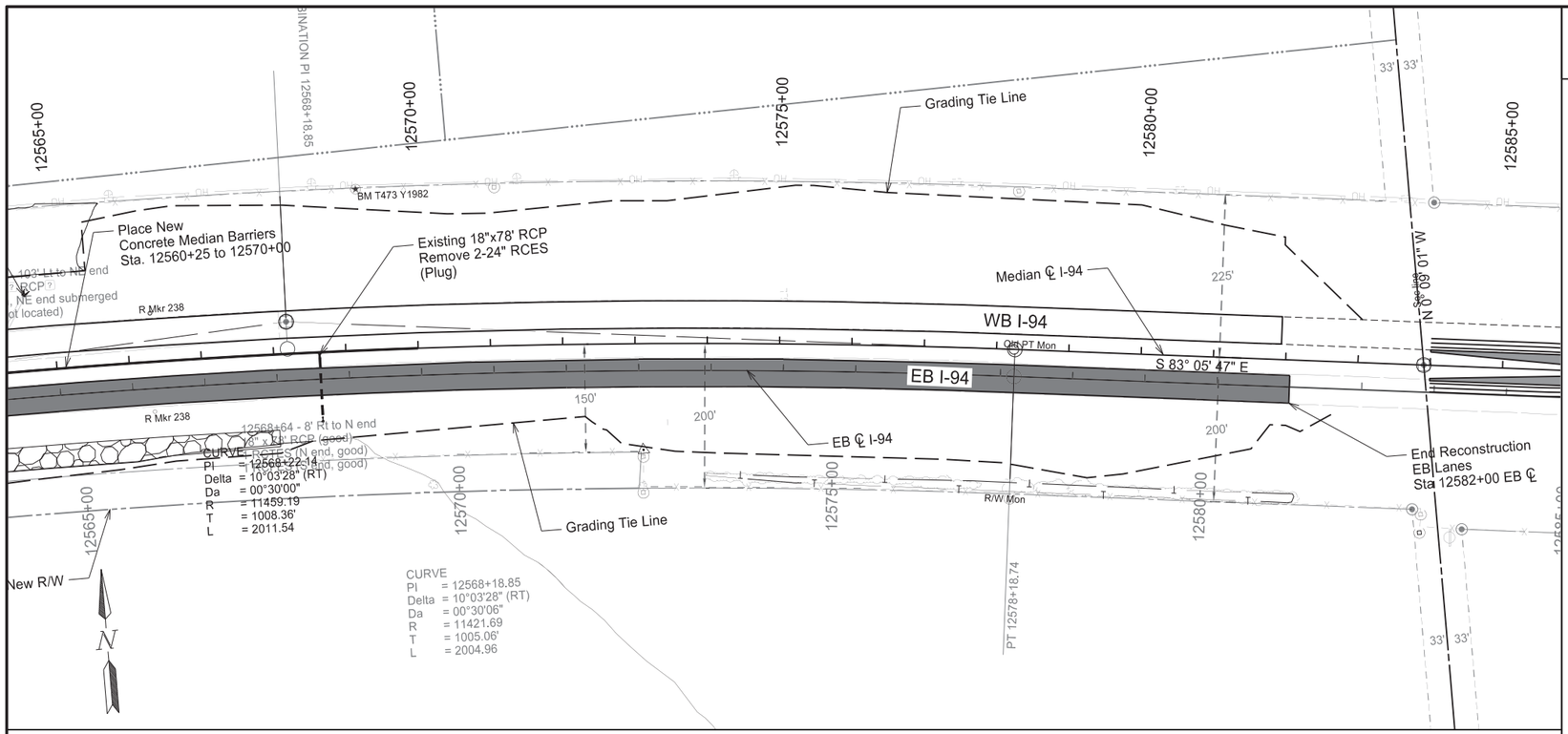
1.3 Miles West of Cleveland Interchange

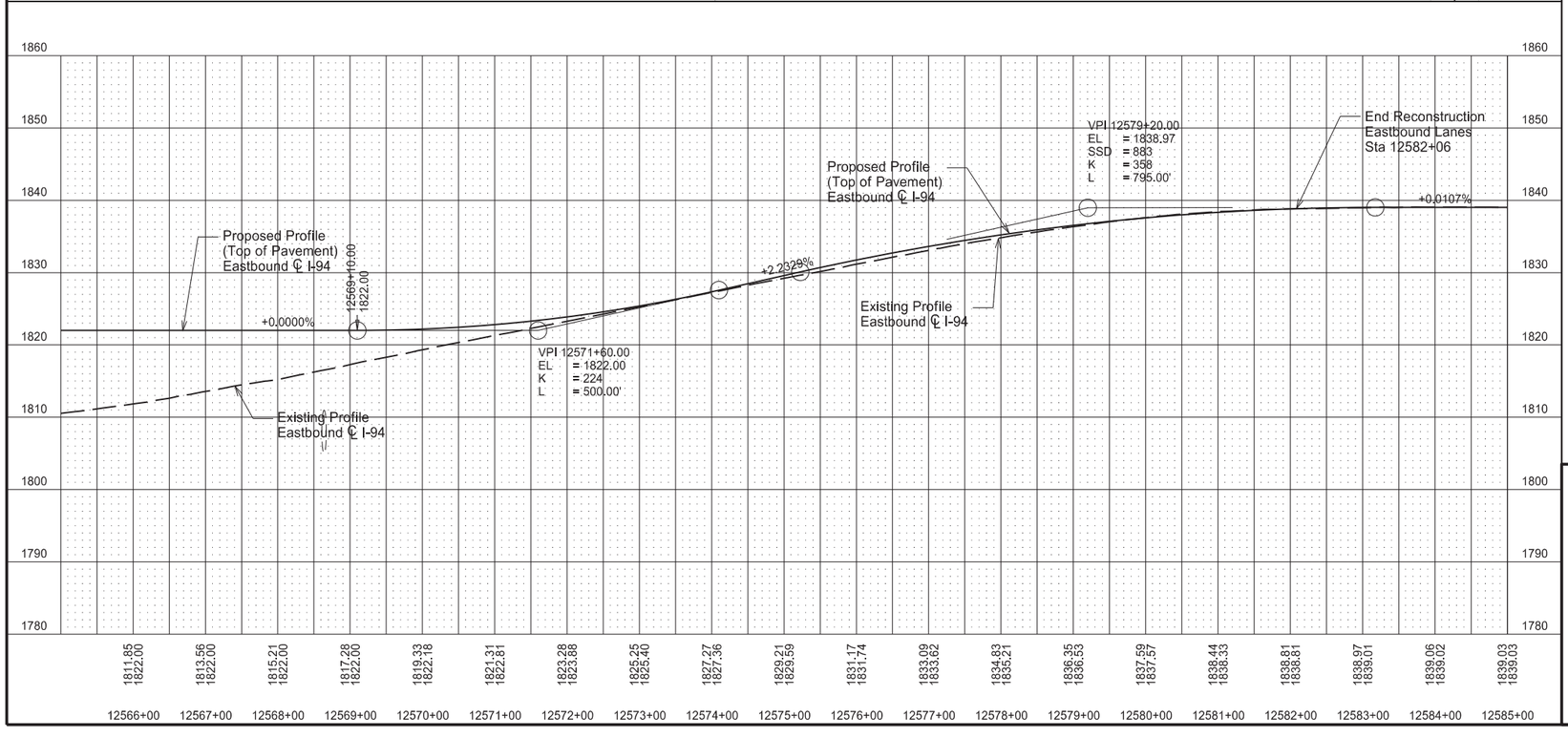
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D





STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	60	3

SPEC	CODE	BID ITEM	UNIT	QUANTITY
714	9680	PLUG PIPE-ALL TYPES & SIZES Sta 12563+18.9 Median ℄ (EB Lanes)	EA	1

Plan & Profile EB Lanes

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

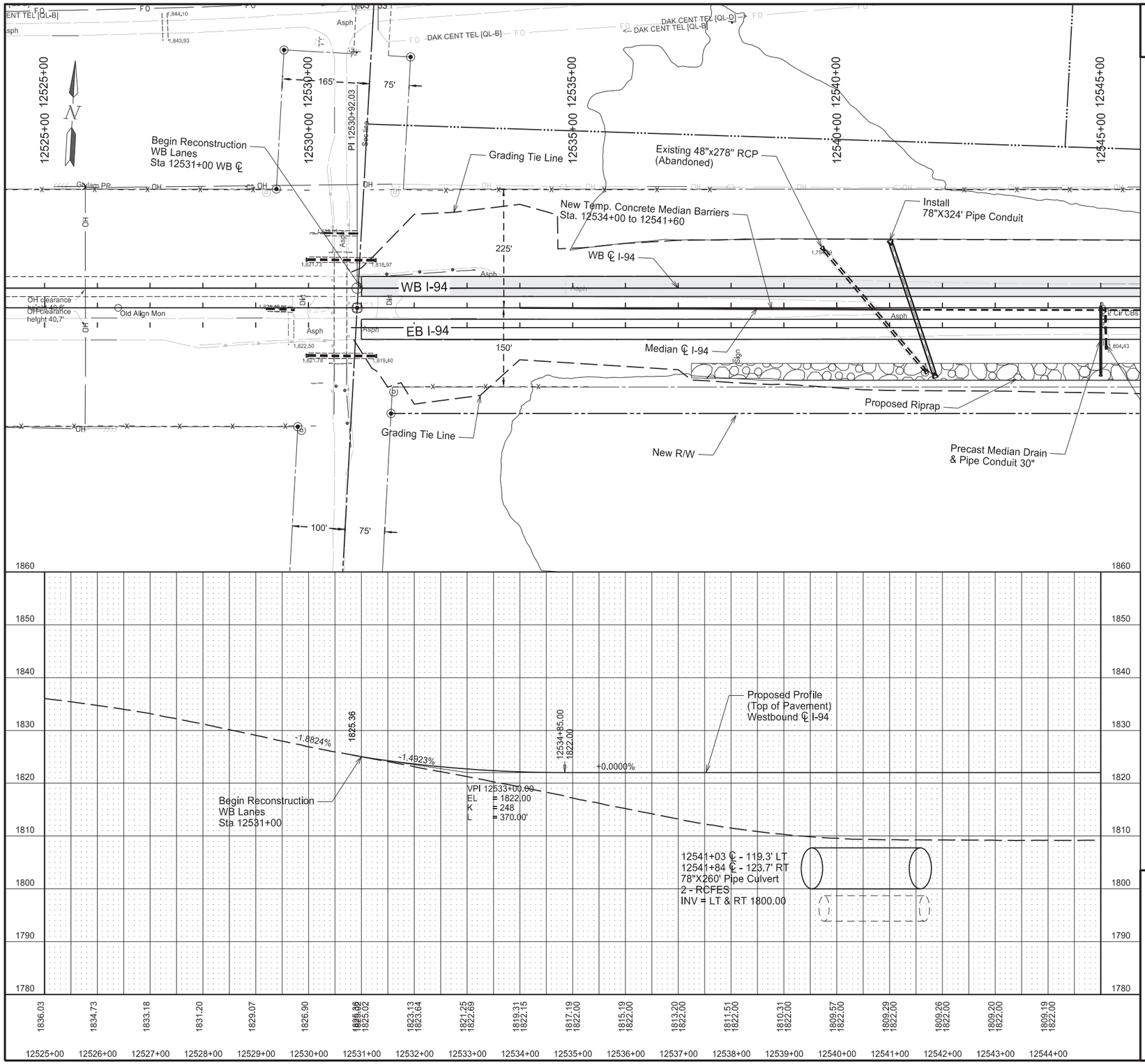
01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	60	4

SPEC	CODE	BID ITEM	UNIT	QUANTITY
714	4150	PIPE CONDUIT 78IN Sta 12541+43 Median ℄ (WB Lane)	LF	 *132

*Quantity is to 2' South of Median ℄ only, see Sheet 60-1 for EB quantity



Plan & Profile WB Lanes

Grade Raise
I-94 EB/WB

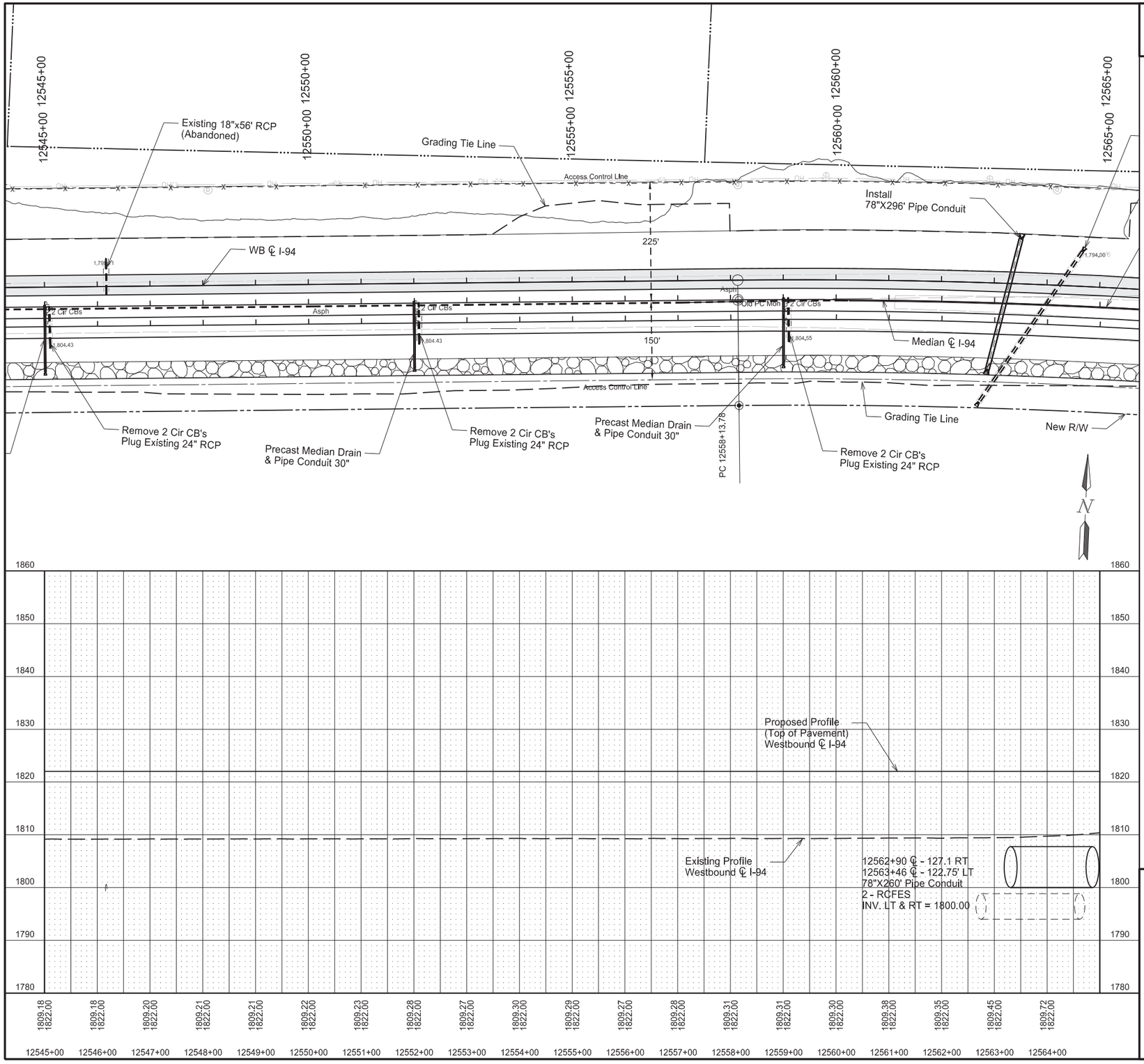
1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	60	5

SPEC	CODE	BID ITEM	UNIT	QUANTITY
714	4150	PIPE CONDUIT 78IN Sta 12563+18.9 Median ℄ (WB Lane)	LF	*131.6

*Quantity is to 2' south of Median ℄ only, see Sheet 60-2 for EB quantity

Plan & Profile WB Lanes

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

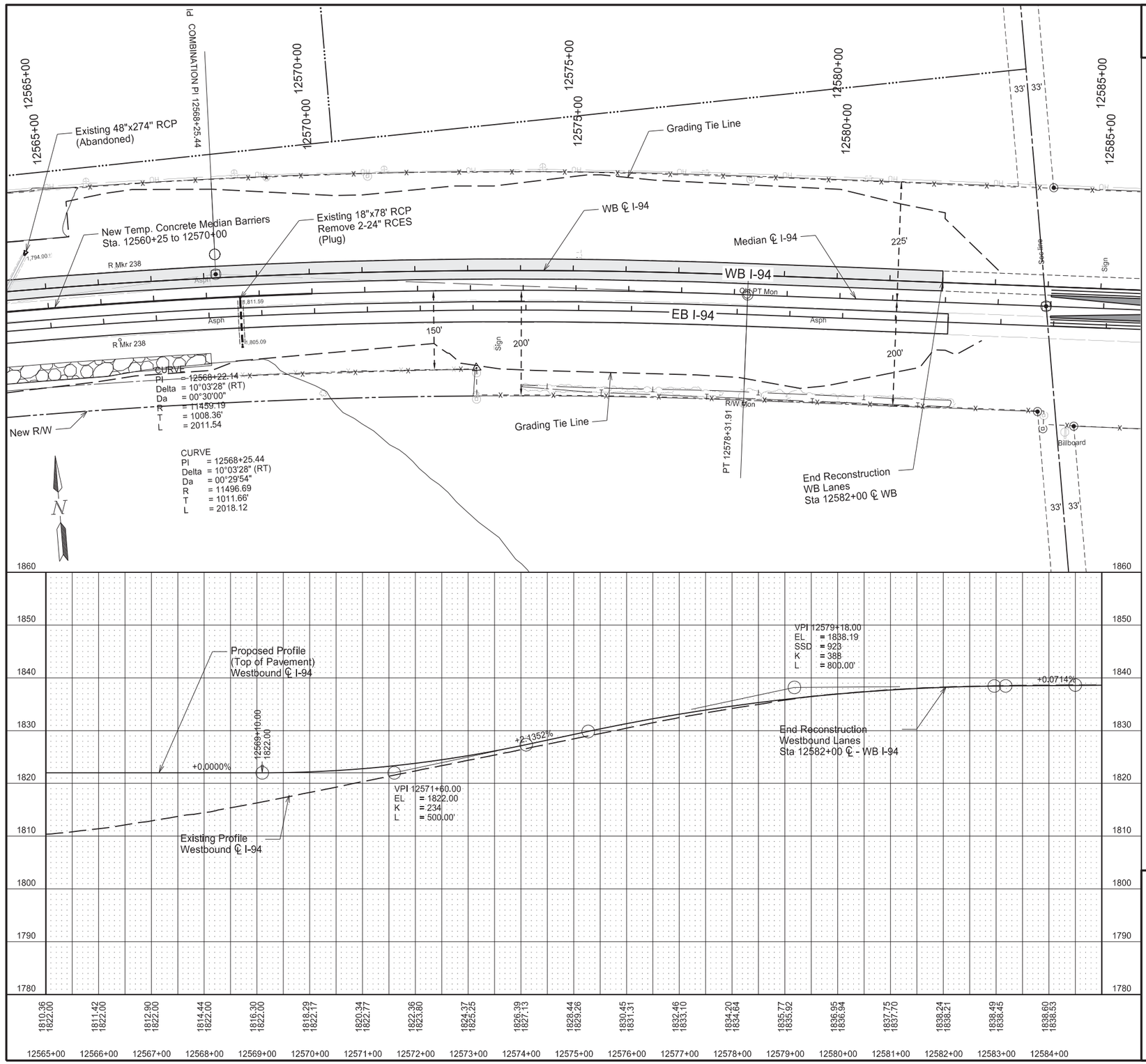
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	60	6



Plan & Profile WB Lanes

Grade Raise
I-94 EB/WB

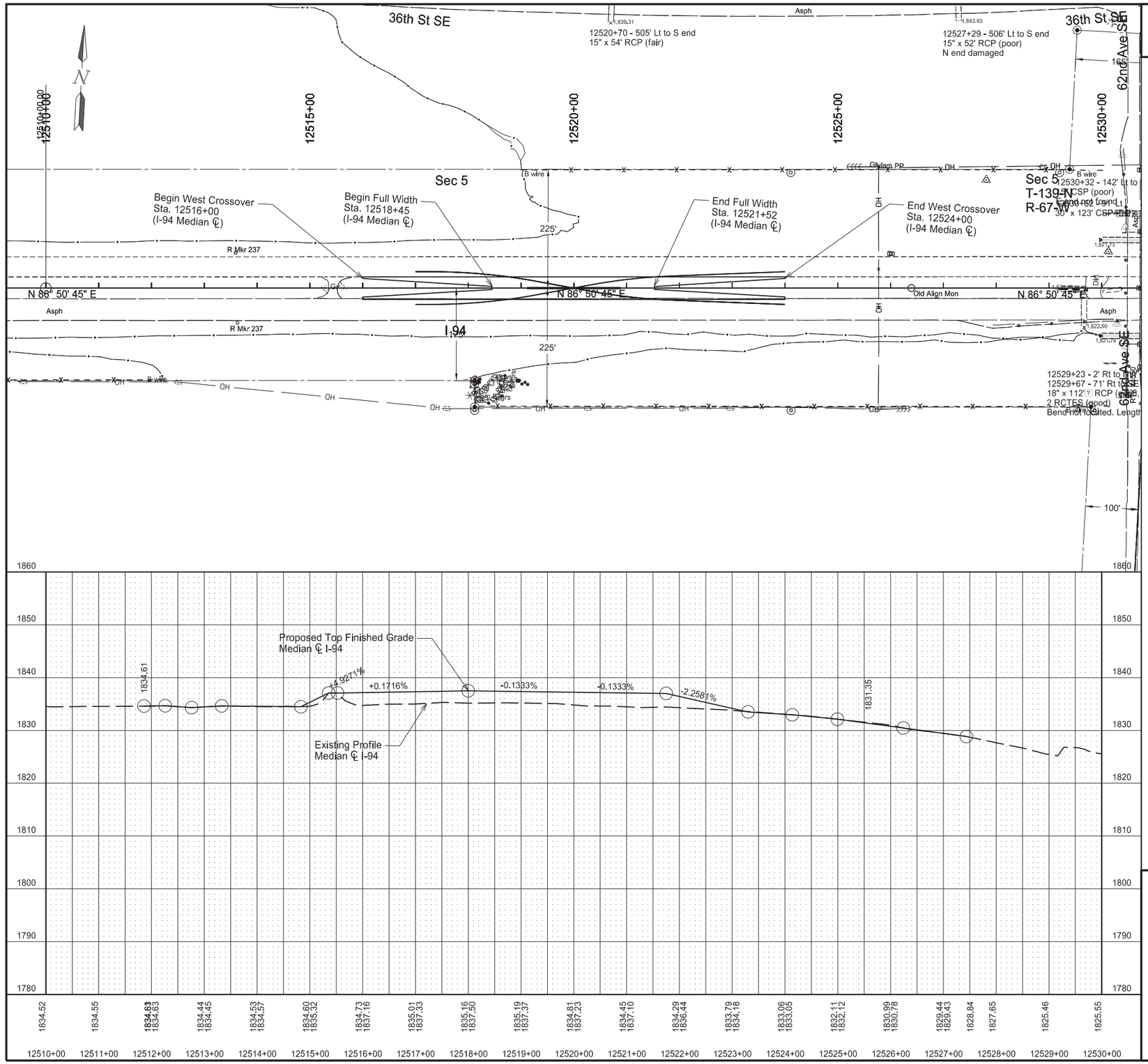
1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	60	7

SPEC	CODE	BID ITEM	UNIT	QUANTITY
203	140	BORROW-EXCAVATION Sta 12516+00 to 12524+00	CY	590
302	120	AGGREGATE BASE COURSE CL 5 Sta 12516+00 to 12524+00	TON	1843
401	50	TACK COAT Sta 12516+00 to 12524+00	GAL	132
401	60	PRIME COAT Sta 12516+00 to 12524+00	GAL	1032
430	45	SUPERPAVE FAA 45 Sta 12516+00 to 12524+00	TON	732
430	5818	PG 58H-34 ASPHALT CEMENT Sta 12516+00 to 12524+00	TON	33
709	100	GEOSYNTHETIC MATERIAL TYPE G Sta 12516+00 to 12524+00	SY	204

West Crossover Plan & Profile

Grade Raise
I-94 EB/WB

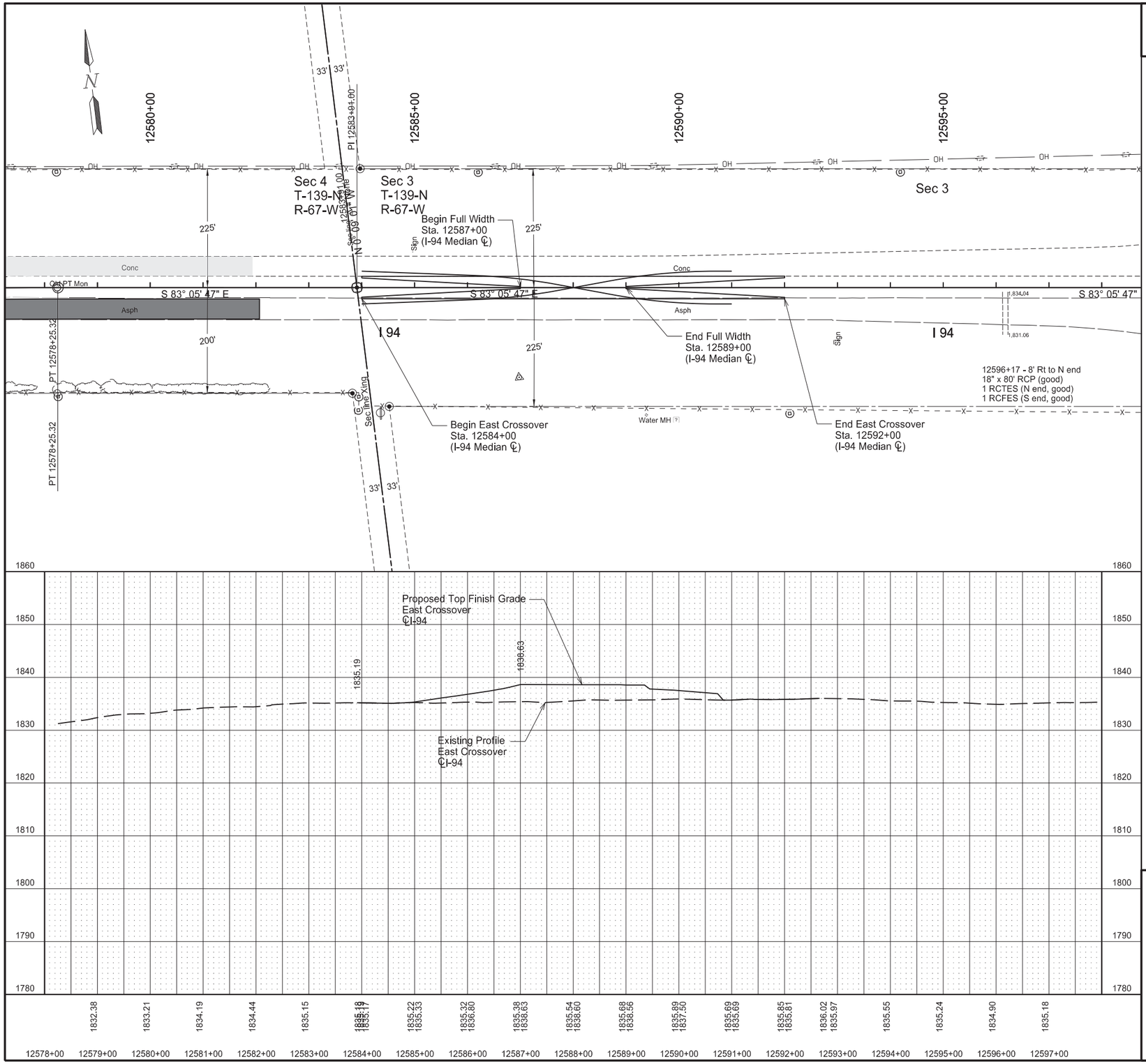
1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	60	8

SPEC	CODE	BID ITEM	UNIT	QUANTITY
203	140	BORROW-EXCAVATION Sta 12516+00 to 12524+00	CY	1184
302	120	AGGREGATE BASE COURSE CL 5 Sta 12516+00 to 12524+00	TON	1756
401	50	TACK COAT Sta 12516+00 to 12524+00	GAL	124
401	60	PRIME COAT Sta 12516+00 to 12524+00	GAL	983
430	45	SUPERPAVE FAA 45 Sta 12516+00 to 12524+00	TON	589
430	5818	PG 58H-34 ASPHALT CEMENT Sta 12516+00 to 12524+00	TON	31
709	100	GEOSYNTHETIC MATERIAL TYPE G Sta 12516+00 to 12524+00	SY	195

East Crossover Plan & Profile

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runer Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	75	1

Wetland Impact Table

Wetland Number	Location	Wetland Type	Wetland Feature	USACE Jurisdictional Wetlands	Wetland Impact: Wetland Impacts Acre(s) Temp.	Perm. (Fill/Drain)	Perm. (Cut)	USFWS Easement Impacts Acre(s) Temp.	Perm.	Wetland Mitigation: Mitigation Proposed EO 11990	USACE	USFWS	USACE/11990 Bank Location	Acre(s)	11990 Bank Location	Acre(s)	USFWS Bank Location	Acre(s)	Onsite Mitigation Method Mitigation Location: Ratio	Ditch Shift Acre(s)	Onsite Acre(s)	Onsite Constructed Location Onsite Constructed Site #	Onsite Constructed Size Acre(s)
#4	Sec.5, T139N, R67W	Ditch	Created	N	0.000	0.000				N													
#5	Sec.5, T139N, R67W	Ditch	Created	N	0.042	0.000				N													
#6B	Sec.5, T139N, R67W	Basin	Natural	N	0.000	0.000				N													
#6C	Sec.5, T139N, R67W	Ditch	Created	N	0.000	0.000				N													
#6D	Sec.5, T139N, R67W	Ditch	Created	N	0.000	0.000				N													
#6E	Sec.5, T139N, R67W	Ditch	Created	N	0.287	0.000				N													
#6F	Sec.4, T139N, R67W	Ditch	Created	N	0.095	0.039				N													
#6G	Sec.4, T139N, R67W	Ditch	Created	N	0.331	0.027				N													
#6J	Sec.4, T139N, R67W	Ditch	Created	N	1.779	0.000				N													
#6K	Sec.4, T139N, R67W	Fringe	Natural	N	0.033	0.000				N													
#17C	Sec.4, T139N, R67W	Linear	Natural	N	0.000	0.000				N													
#21B	Sec.4, T139N, R67W	Linear	Natural	N	0.000	0.000				N													
#23	Sec.4, T139N, R67W	Ditch	Created	N	0.000	0.070				N													
#25	Sec.3 & 4, T139N, R67W	Ditch	Created	N	0.401	0.186				N													
#26	Sec.3 & 4, T139N, R67W	Ditch	Created	N	0.149	0.000				N													
#27A	Sec.3 & 4, T139N, R67W	Ditch	Created	N	0.086	0.109				N													
#27B	Sec.3, T139N, R67W	Ditch	Created	N	0.000	0.000				N													
				Totals	3.203	0.431											0				0.000	0.000		0.000

Other Waters and Streams Impact Table

Number	Location	Type	Feature	USACE Jurisdictional	Impacts to Other Waters: Acres Temp.	Perm. (Fill/Drain)	Perm. (Cut)	Linear Feet Temp.	Perm. (Fill/Drain)	Perm. (Cut)	Other Water Mitigation: Mitigation Proposed EO 11990	USACE	USFWS	USFWS Mitigation Bank Location	Acre(s)	Onsite Mitigation Method Mitigation Location: ratio	Acre(s)	Onsite Constructed Location Onsite Constructed Site #	Onsite Constructed Size Acre(s)
#OW 6H	Sec 4 T-139-N R-67-W	Lake		N	1.405	3.195		3295.000	3140.000		N	N	Y	Volrath 15/21	2.122				
#OW 6 I	Sec 4 T-139-N R-67-W	Lake		N	1.740	2.023		3065.000	3080.000		N	N	N						
				Totals	3.145	5.218									2.122		0.000		0.000

A wetland Jurisdictional Determination was issued by the USACE on 01/30/2025; NWO-2015-02173-BIS.

Impact Summary Table

Permanent Impact Summary: Wetland Type	Total Acre(s)	Temporary Impacts and additional Information: WaterType	Total Acre(s)
Natural/JD (Fill/Drain)	0.000	Temporary Wetland JD	0.000
Natural/Non-JD (Fill/Drain)	0.000	Non-JD Wetland Temporary	3.203
Artificial/JD (Fill/Drain)	0.000		
Artificial /Non-JD (Fill/Drain))	0.431	Permanent OW	5.218
Total	0.431	Temporary OW	3.145
JD Natural (Cut)		Permanent OW-d	0.000
JD Artificial (Cut)		Temporary OW-d	0.000
Non-JD Natural (Cut)			
Non-JD Artificial (Cut)			
Total	0.000		

Mitigation Summary Table

	Location	Ditch Shift Acre(s)	Onsite Acre(s)	11990 Bank Acre(s)	USACE/11990 Bank Acre(s)	USFWS Bank Acre(s)
USFWS	Volraqth 15/21					2.122
	Total	0	0	0	0	2.122

Wetland Tables

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

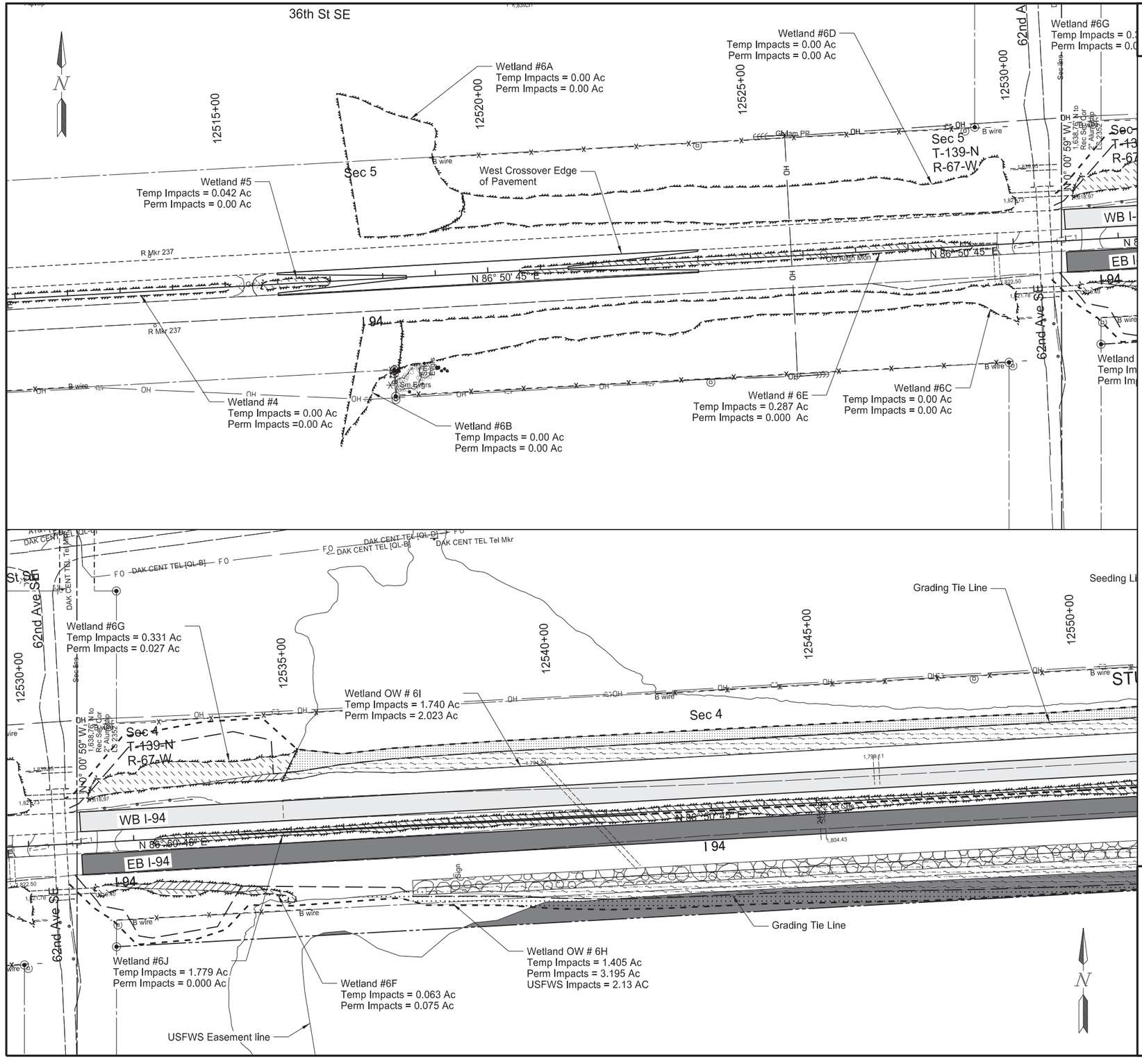
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210237	75	2



- Wetland Impacts - Temporary
- Wetland Impacts - Permanent
- Other Water Impacts - Temporary
- Other Water Impacts - Permanent
- USFWS Impacts - Permanent

Wetland Impacts

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

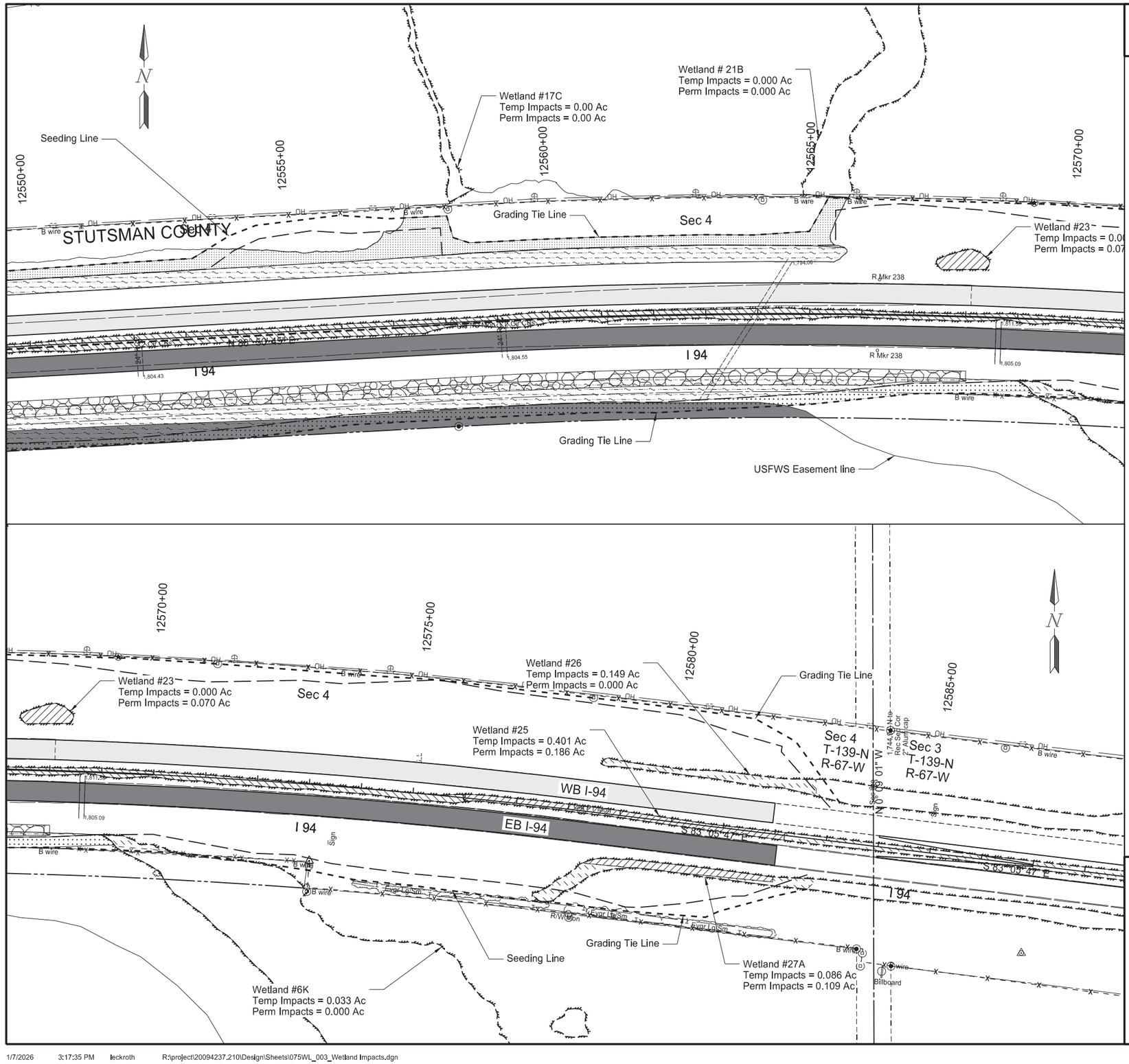
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	75	3



- Wetland Impacts - Temporary
- Wetland Impacts - Permanent
- Other Water Impacts - Temporary
- Other Water Impacts - Permanent
- USFWS Impacts - Permanent

Wetland Impacts

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

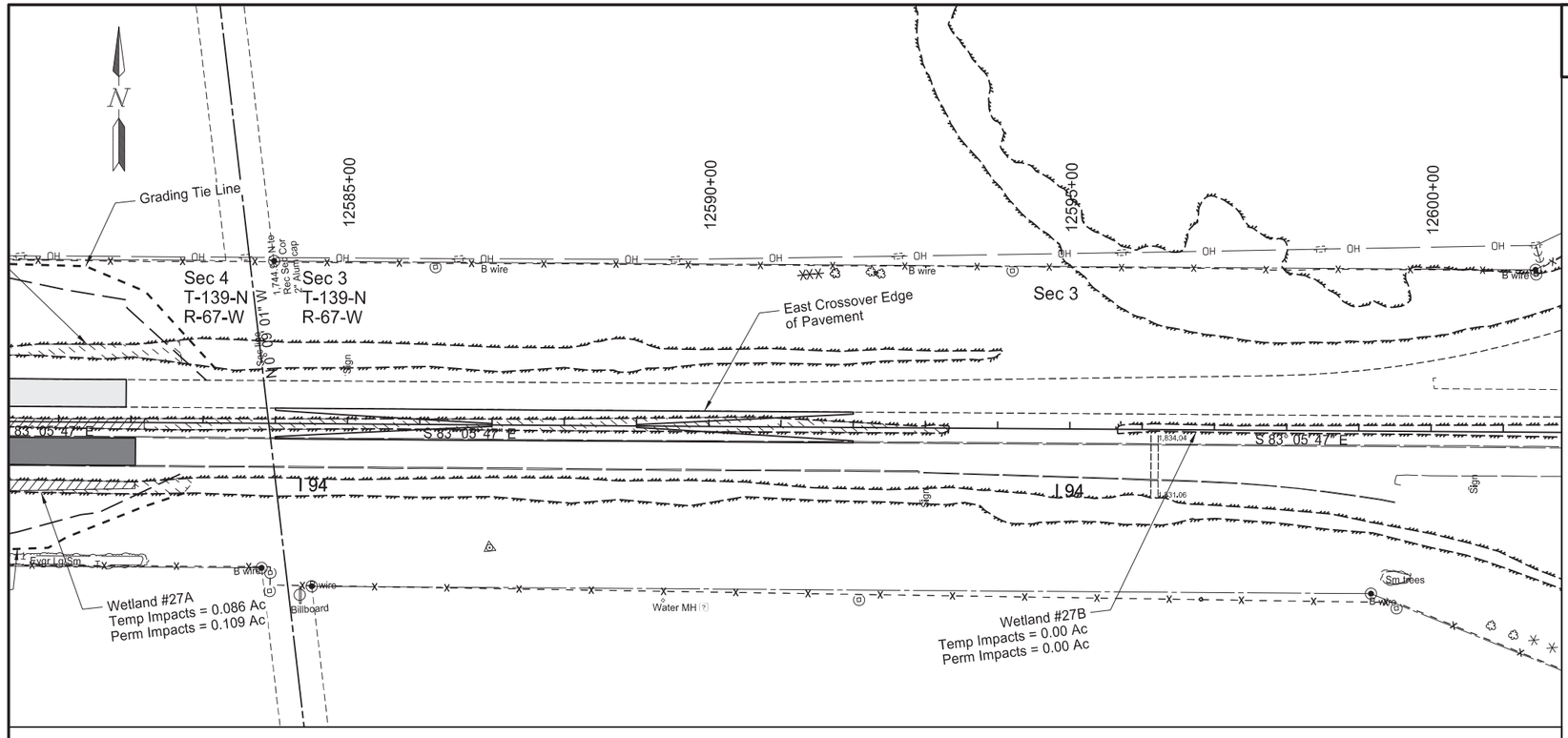
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: D28F385C-ED78-4F1A-A02D-2974A2DA352D

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	75	4



- Wetland Impacts - Temporary
- Wetland Impacts - Permanent
- Other Water Impacts - Temporary
- Other Water Impacts - Permanent
- USFWS Impacts - Permanent

Wetland Impacts

Grade Raise
I-94 EB/WB

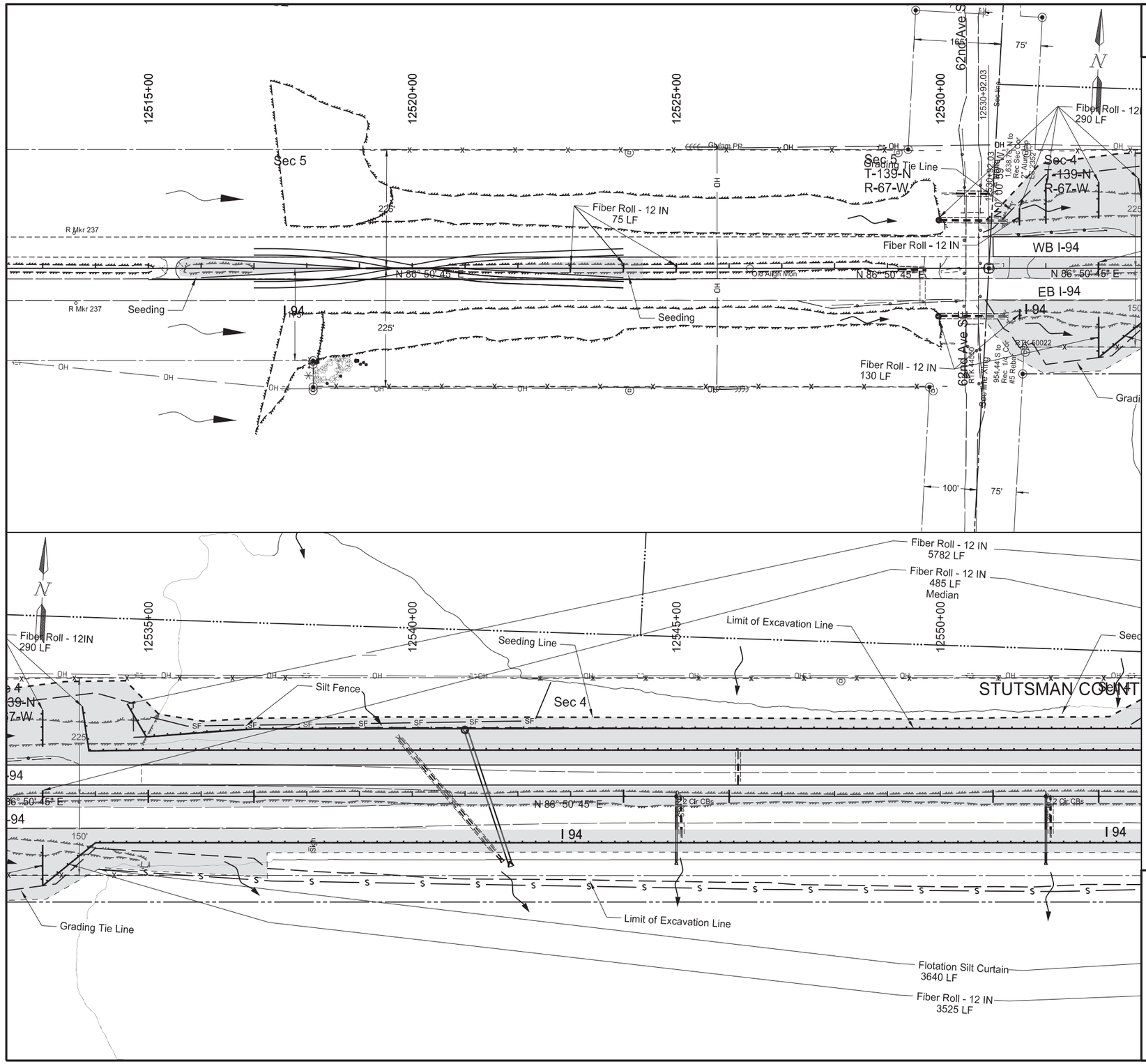
1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/07/26

Docusign Envelope ID: 6727544E-7BE9-4BAE-8B5C-E497024B1FDB



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	76	1

SPEC	CODE	BID ITEM	UNIT	QUANTITY
251	2000	TEMPORARY COVER CROP	ACRE	
		Sta 12515+40 to 12524+60 Median		0.32
		Sta 12530+50 to 12583+00 Rt.		7.78
		Sta. 12531+00 to 12583+00 Median		4.67
		Sta 12530+50 to 12583+00 Lt.		14.39
253	101	STRAW MULCH	ACRE	
		Sta 12515+40 to 12524+60 Median		0.32
		Sta 12530+50 to 12583+00 Rt.		7.78
		Sta. 12531+00 to 12583+00 Median		4.67
		Sta 12530+50 to 12583+00 Lt.		14.39
260	300	SILT FENCE	LF	
		Sta 12535+20 to 12542+60 Lt.		812
260	301	REMOVE SILT FENCE	LF	
		Sta 12535+20 to 12542+60 Lt.		812
261	112	FIBER ROLLS 12IN	LF	
		Sta 12523+00 to 12525+00 Median		75
		Sta 12530+00 to 12533+00 Lt.		290
		Sta 12530+00 to 12533+00 Rt.		130
		Sta 12533+00 to 12566+00 Lt		5782
		Sta 12533+00 to 12581+00 Median		485
		Sta 12533+00 to 12568+00 Rt.		3525
261	113	REMOVE FIBER ROLLS 12IN	LF	
		Sta 12523+00 to 12525+00 Median		75
		Sta 12530+00 to 12533+00 Lt.		290
		Sta 12530+00 to 12533+00 Rt.		130
		Sta 12533+00 to 12566+00 Lt		5782
		Sta 12533+00 to 12581+00 Median		485
		Sta 12533+00 to 12568+00 Rt.		3525
262	100	FLOTATION SILT CURTAIN	LF	
		Sta 12534+00 to 12570+60 Rt		3640
262	101	REMOVE FLOTATION SILT CURTAIN	LF	
		Sta 12534+00 to 12570+60 Rt		3640

Temporary Cover Crop & Straw Mulch

Riprap Grade II

Fiber Roll - 12 IN Inlet Protection

Flow Line

SF Silt Fence

S Floatation Silt Curtain

Seeding Limits

Fiber Roll - 12 IN

Temporary Erosion Control

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

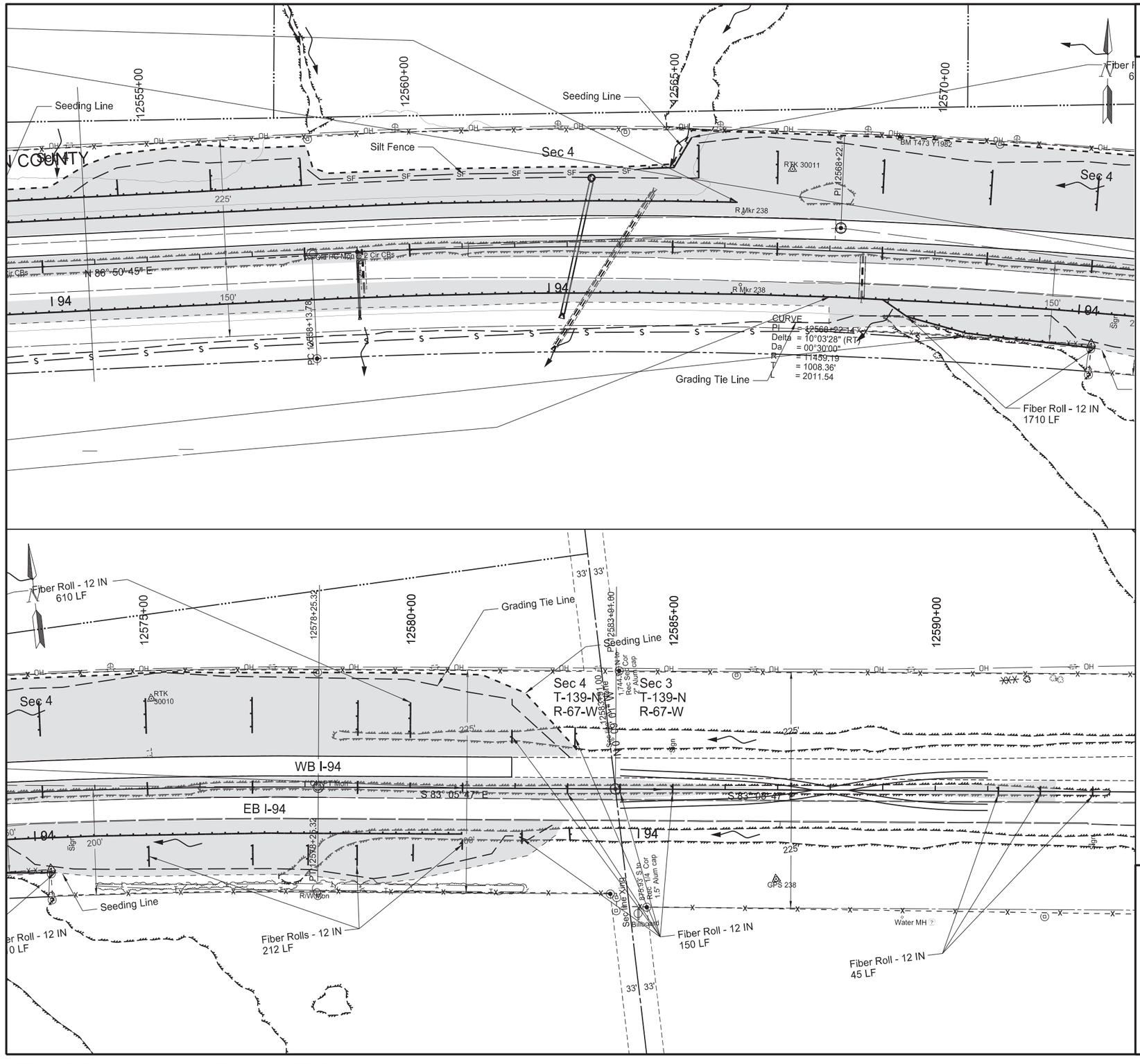
BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/08/26

Docusign Envelope ID: 6727544E-7BE9-4BAE-8B5C-E497024B1FDB

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	76	2

SPEC	CODE	BID ITEM	UNIT	QUANTITY
251	200	TEMPORARY COVER CROP	ACRE	
		Sta 12583+00 to 12592+50 Median		0.35
253	101	STRAW MULCH	ACRE	
		Sta 12583+00 to 12592+50 Median		0.35
261	112	FIBER ROLLS 12IN	LF	
		Sta 12566+00 to 12580+00 Lt		610
		Sta 12568+00 to 12581+00 Rt.		1710
		Sta 12582+00 to 12885+00 Lt., Rt, & Median		150
		Sta 12591+00 to 12593+00 Median		45
261	113	REMOVE FIBER ROLLS 12IN	LF	
		Sta 12566+00 to 12580+00 Lt		610
		Sta 12568+00 to 12581+00 Rt.		1710
		Sta 12582+00 to 12885+00 Lt., Rt, & Median		150
		Sta 12591+00 to 12593+00 Median		45



Temporary Erosion Control

Grade Raise
I-94 EB/WB

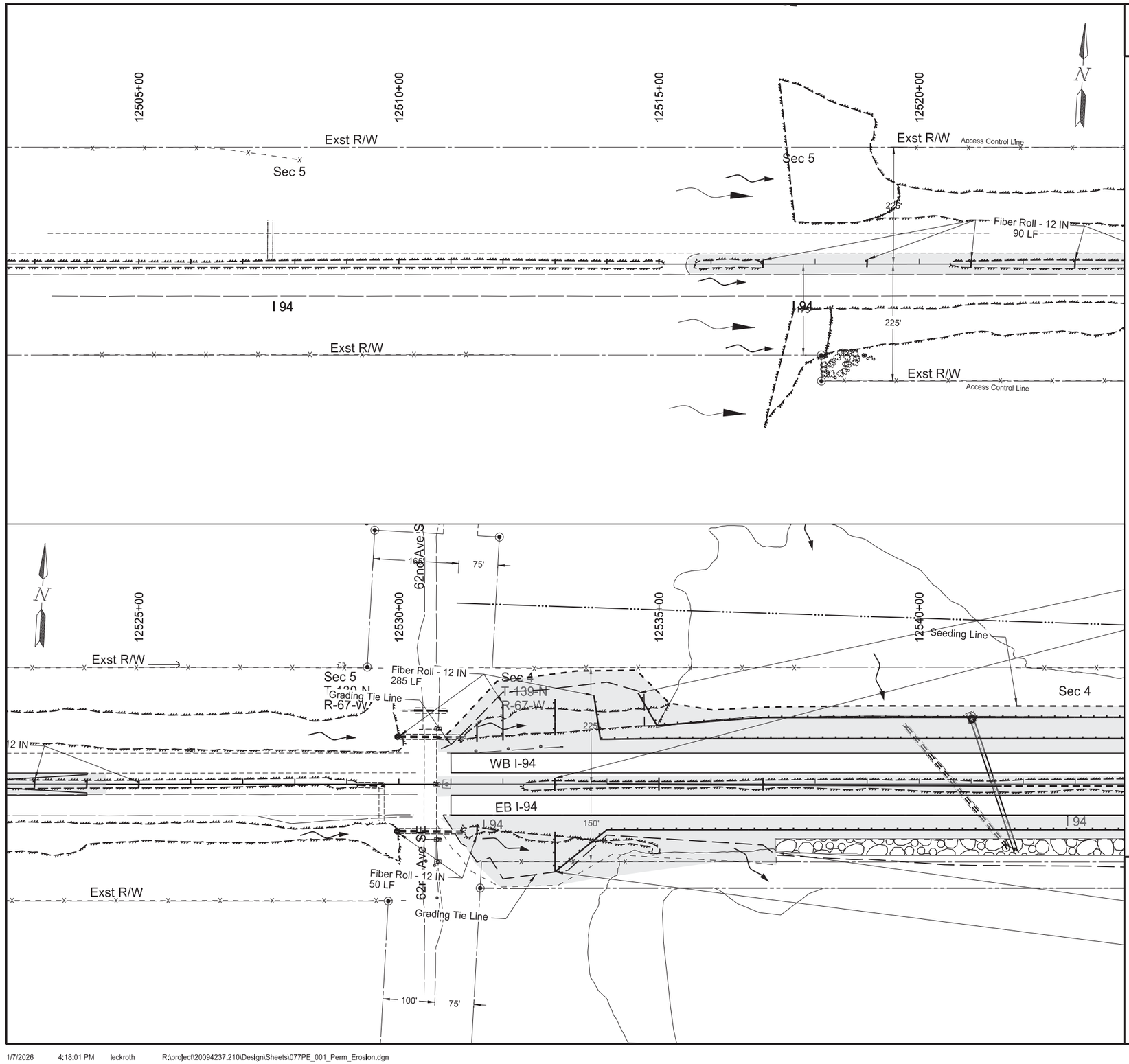
1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/08/26

Docusign Envelope ID: 6727544E-7BE9-4BAE-8B5C-E497024B1FDB



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	77	1

SPEC	CODE	BID ITEM	UNIT	QUANTITY
251	200	SEEDING CLASS II	ACRE	
		12515+40 to 12524+40 Median		0.81
251	2000	TEMPORARY COVER CROP	ACRE	
		12515+40 to 12524+40 Median		0.81
253	101	STRAW MULCH	ACRE	
		12515+40 to 12524+40 Median		0.81
255	103	ECB TYPE 3	SY	
		12541+03 - Lt		40
261	112	FIBER ROLLS 12IN	LF	
		Sta 12522+00 to 12525+00 Median		90
		Sta 12530+00 to 12533+00 Lt		285
		Sta 12530+00 to 12532+00 Rt.		50

- Permanent Seeding & Straw Mulch
- Riprap Grade II
- Fiber Roll - 12 IN Inlet Protection
- ECB Type 3
- Flow Line
- Seeding Limits
- Fiber Roll - 12 IN

Permanent Erosion Control

Grade Raise
I-94 EB/WB

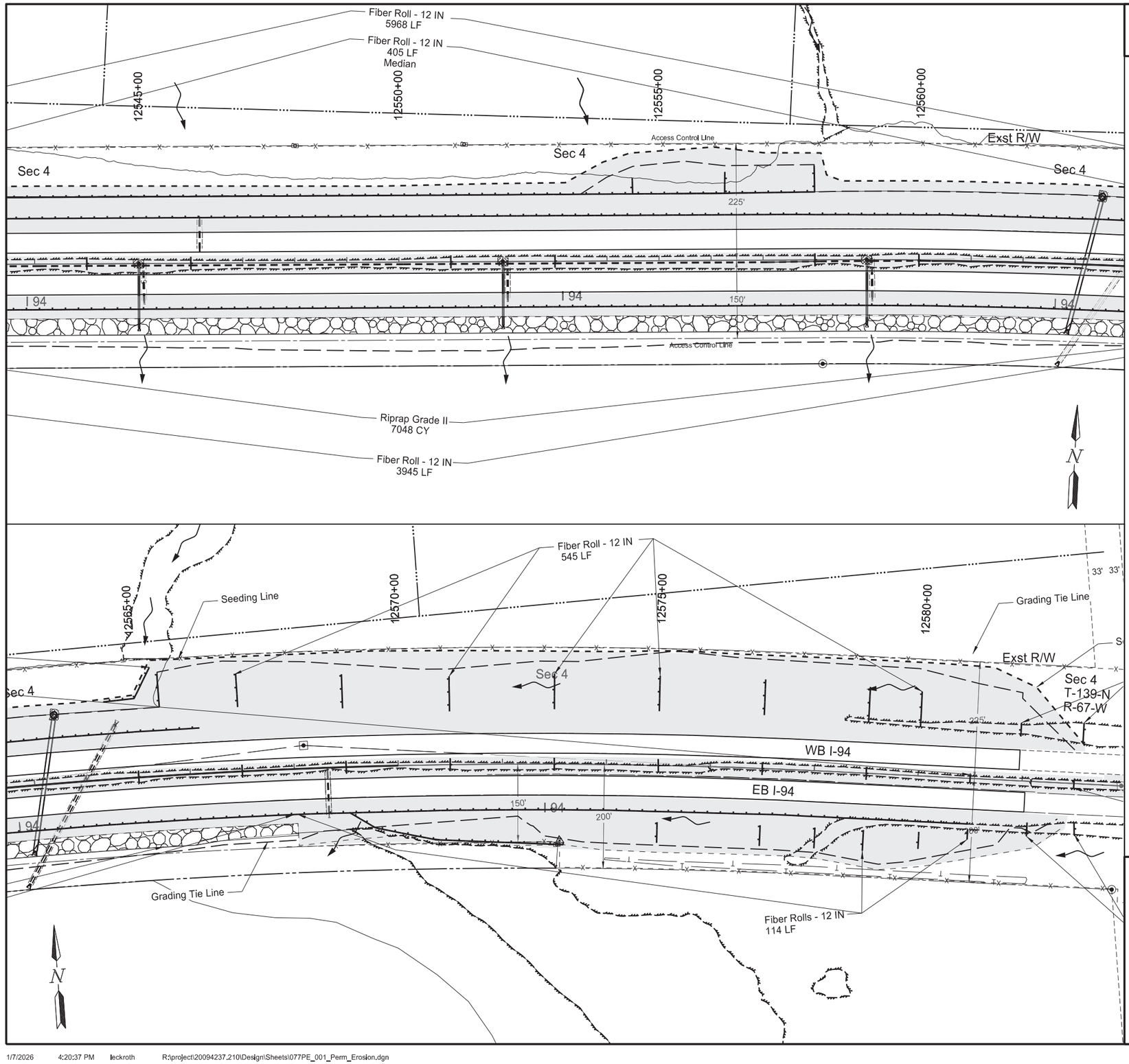
1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/08/26

Docusign Envelope ID: 6727544E-7BE9-4BAE-8B5C-E497024B1FDB



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	77	2

SPEC	CODE	BID ITEM	UNIT	QUANTITY
251	200	SEEDING CLASS II	ACRE	
		Sta 12530+50 to 12583+00 Lt.		14.37
		Sta 12530+50 to 12583+00 Median		4.72
		Sta 12530+50 to 12583+00 Rt.		7.94
251	2000	TEMPORARY COVER CROP	ACRE	
		Sta 12530+50 to 12583+00 Lt.		14.37
		Sta 12530+50 to 12583+00 Median		4.72
		Sta 12530+50 to 12583+00 Rt.		7.94
253	101	STRAW MULCH	ACRE	
		Sta 12530+50 to 12583+00 Lt.		14.37
		Sta 12530+50 to 12583+00 Median		4.72
		Sta 12530+50 to 12583+00 Rt.		7.94
255	103	ECB TYPE 3	SY	
		Sta. 12545+00 - Median ℄		36
		Sta. 12552+00 - Median ℄		36
		Sta. 12559+00 - Median ℄		36
		Sta. 12563+45 - Lt		40
256	200	RIPRAP GRADE II	CY	
		Sta 12537+00 to 12568+00 Rt		7048
261	112	FIBER ROLLS 12IN	LF	
		Sta 12534+00 to 12561+00 Lt		5968
		Sta 12562+00 to 12580+00 Lt		545
		Sta 12533+00 to 12581+00 Median		405
		Sta 12533+00 to 12581+00 Rt.		3945
		Sta 12581+00 to 12583+00 Rt		114
709	155	GEOSYNTHETIC MATERIAL TYPE RR	SY	
		Sta 12537+00 to 12568+00 Rt		13930

Permanent Seeding & Straw Mulch

Riprap Grade II

Fiber Roll - 12 IN Inlet Protection

ECB Type 3

Flow Line

Seeding Limits

Fiber Roll - 12 IN

Permanent Erosion Control

Grade Raise
I-94 EB/WB

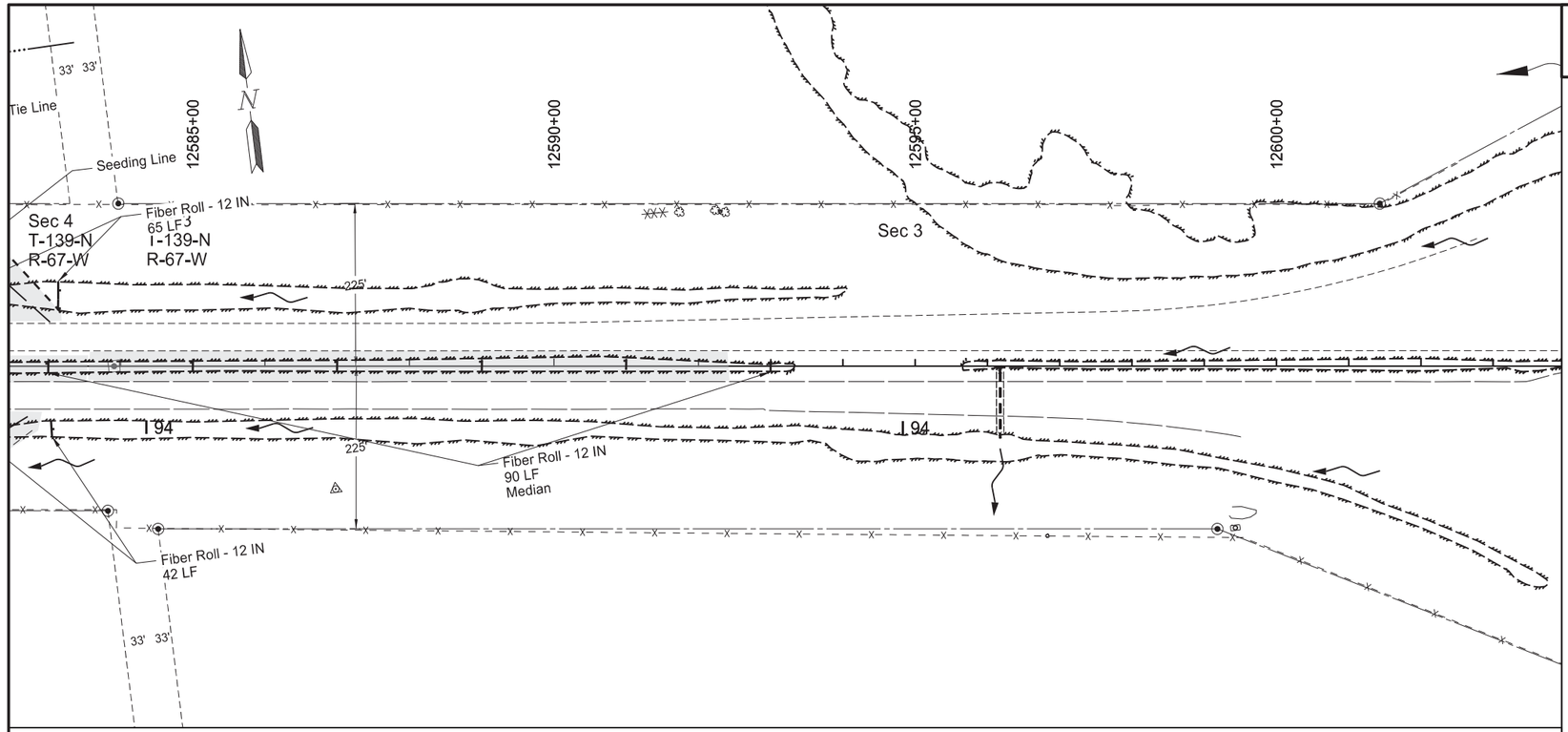
1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/08/26

Docusign Envelope ID: 6727544E-7BE9-4BAE-8B5C-E497024B1FDB



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	77	3

SPEC	CODE	BID ITEM	UNIT	QUANTITY
251	200	SEEDING CLASS II	ACRE	
		Sta 12583+00 to 12592+40 Median		0.86
251	2000	TEMPORARY COVER CROP	ACRE	
		Sta 12583+00 to 12592+40 Median		0.86
253	101	STRAW MULCH	ACRE	
		Sta 12583+00 to 12592+40 Median		0.86
261	112	FIBER ROLLS 12IN	LF	
		Sta 12581+00 to 12583+00 Lt		65
		Sta 12581+00 to 12583+00 Rt		42
		Sta 12583+00 to 12592+40 Median		90

Permanent Seeding & Straw Mulch

Riprap Grade II

Fiber Roll - 12 IN Inlet Protection

Flow Line

Seeding Limits

Fiber Roll - 12 IN

Permanent Erosion Control

Grade Raise
I-94 EB/WB

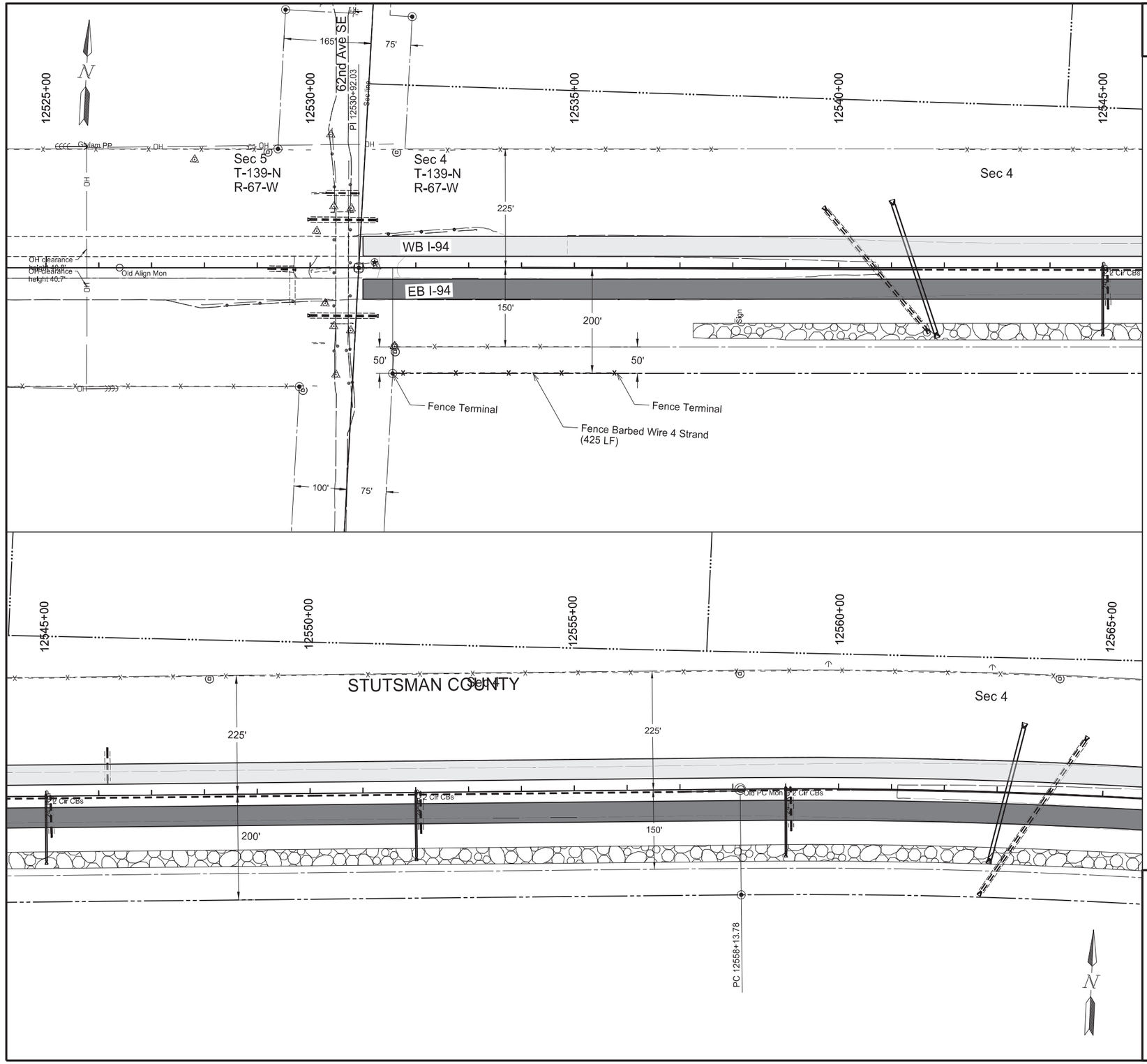
1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/08/26

Docusign Envelope ID: 6727544E-7BE9-4BAE-8B5C-E497024B1FDB



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	80	1

SPEC	CODE	BID ITEM	UNIT	QUANTITY
752	200	FENCE BARBED WIRE 4 STRAND Sta. 12531+56 to 12535+81 - 200' RT	LF	425
752	911	TEMPORARY SAFETY FENCE Culvert Locations at Median	LF	500
752	993	FENCE TERMINAL Sta. 12531+56 - 200' RT Sta. 12535+81 - 200' RT	EA	1 1

Fencing

Grade Raise
I-94 EB/WB

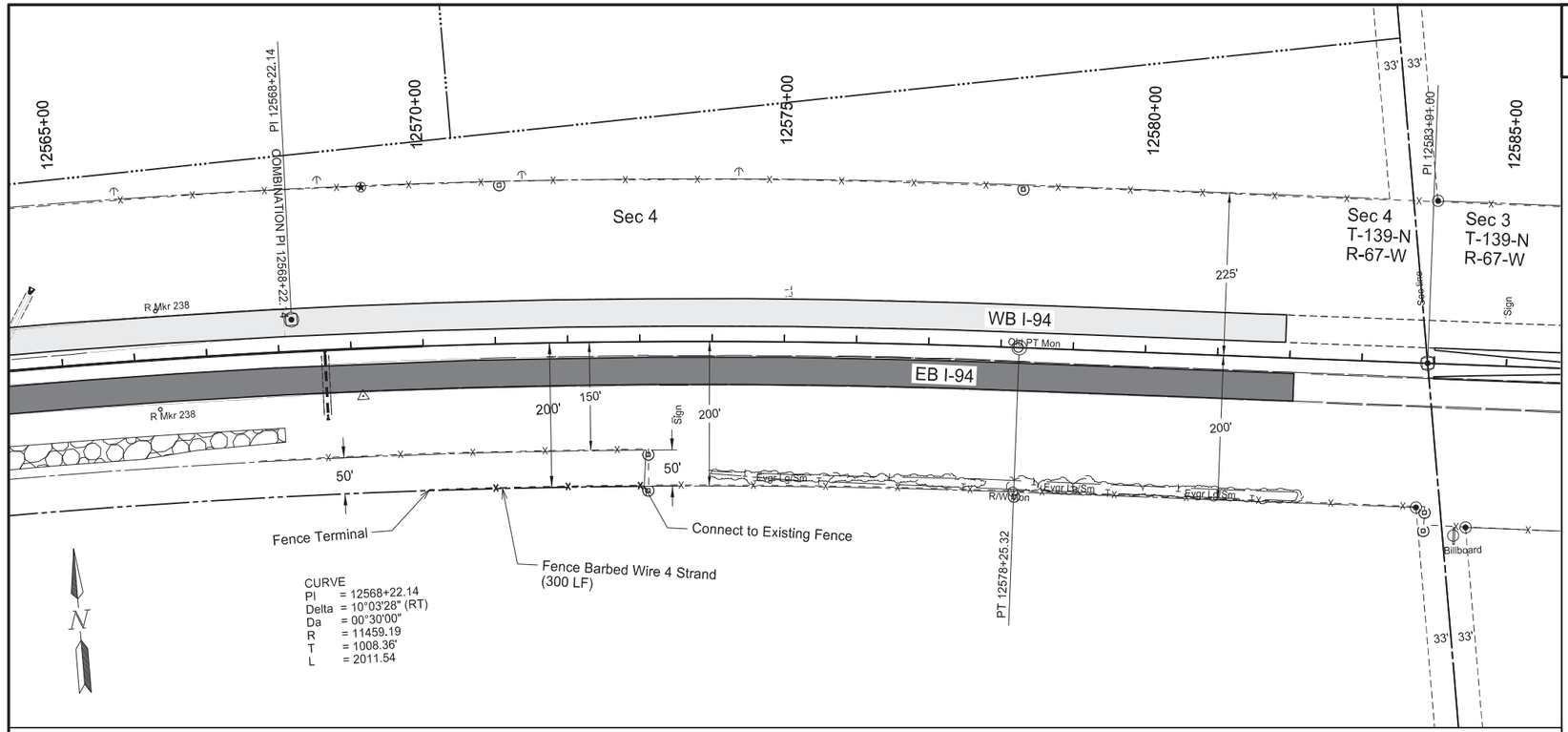
1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/08/26

Docusign Envelope ID: 6727544E-7BE9-4BAE-8B5C-E497024B1FDB



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	80	2

SPEC	CODE	BID ITEM	UNIT	QUANTITY
752	200	FENCE BARBED WIRE 4 STRAND Sta. 12570+00 to 12573+00 - 200' Rt	LF	300
752	993	FENCE TERMINAL Sta. 12570+00 - 200' RT	EA	1

Fencing

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/08/26

PRELIMINARY SURVEY COORDINATE AND CURVE DATA - 1.3 Miles west of Cleveland Interchange

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	81	1

HORIZONTAL ALIGNMENT

PNT	STATION	NORTHING	EASTING
Interstate 94 (Chain: SCLI94)			
Begin	12302+23.53	446,367.30	2,282,891.03
PC	12309+08.07	446,541.54	2,283,553.02
Sec line Xing	12320+61.98 (Bk Tan)	446,835.25	2,284,668.92
PI	12320+71.43	446,837.66	2,284,678.06
PT	12332+26.85	446,901.63	2,285,839.67
1/4 line Xing	12347+03.95	446,982.85	2,287,314.53
Sec line Xing	12373+53.76	447,128.56	2,289,960.33
PI	12426+53.13	447,419.96	2,295,251.68
Sec line Xing	12478+12.37	447,704.42	2,300,403.08
Sec line Xing	12530+92.03	447,994.91	2,305,674.74
PC	12558+13.78	448,144.66	2,308,392.37
PI	12568+22.14	448,200.14	2,309,399.20
PT	12578+25.32	448,078.94	2,310,400.25
Sec line Xing	12583+91.00	448,010.94	2,310,961.83
PC	12613+19.77	447,658.90	2,313,869.37
PI	12628+97.48	447,469.26	2,315,435.63
Sec line Xing	676.74' to PT (Ahd Tan)	447,834.09	2,316,259.43
PT	12643+98.87	448,108.13	2,316,878.20
PC	12658+24.07	448,685.24	2,318,181.32
PI	12666+13.76	449,005.01	2,318,903.37
PT	12673+93.56	449,117.54	2,319,685.01
End	12692+62.93	449,383.91	2,321,535.29

REFERENCE MARKERS

#	NORTHING	EASTING	STATION	OFFSET	ALIGN
237	447,966.01	2,303,941.08	12513+59	67' Lt	SCL94
237	447,834.02	2,303,951.81	12513+63	66' Rt	SCL94
238	448,091.20	2,309,208.32	12566+31	69' Rt	SCL94
238	448,227.37	2,309,212.51	12566+33	67' Lt	SCL94
239	447,529.97	2,314,456.18	12619+10	88' Rt	SCL94
239	447,702.16	2,314,472.94	12619+24	84' Lt	SCL94
240	449,152.93	2,319,484.20	12672+02	67' Lt	SCL94
240	449,011.01	2,319,510.66	12672+03	77' Rt	SCL94

CURVE DATA

ARC DEFINITION

CURVE
PI = 12320+71.43
Delta = 11°35'38" (RT)
Da = 00°30'00"
R = 11459.19
T = 1163.36'
L = 2318.78

CURVE
PI = 12568+22.14
Delta = 10°03'28" (RT)
Da = 00°30'00"
R = 11459.19
T = 1008.36'
L = 2011.54

CURVE
PI = 12628+97.48
Delta = 30°47'26" (LT)
Da = 01°00'00"
R = 5729.65
T = 1577.70'
L = 3079.10

CURVE
PI = 12666+13.76
Delta = 15°41'41" (RT)
Da = 01°00'00"
R = 5729.65
T = 789.69'
L = 1569.49

US PUBLIC LAND SURVEY DATA

CORNER	IRN	NORTHING	EASTING
T-139-N R-67-W			
NW Cor Sec 5	3-A	449,538.87	2,300,391.79
W Qtr Cor Sec 5	3-B	446,907.01	2,300,407.99
SW Cor Sec 5	3-C	444,274.83	2,300,424.15
N Qtr Cor Sec 5	4-A	449,586.42	2,303,033.15
NW Cor Sec 4	5-A	449,633.67	2,305,674.27
W Qtr Cor Sec 4	5-B	447,040.47	2,305,675.02
E Qtr Cor Sec 4	7-B	447,135.02	2,310,964.13
N Qtr Cor Sec 3	8-A	449,805.82	2,313,594.26
NE Cor Sec	9-A	449,856.55	2,316,235.47
W Qtr Cor Sec 2	9-B	447,200.99	2,316,266.93
SW Cor Sec 2	9-C	444,545.60	2,316,298.29
NW Cor Sec 1	11-A	449,965.53	2,321,530.78
T-139-N R-68-W			
NW Cor Sec 2	9-A	449,411.68	2,284,645.82
W Qtr Cor Sec 2	9-B	446,737.08	2,284,669.80
SW Cor Sec 2	9-C	444,095.20	2,284,693.63
N Qtr Cor Sec 2	10-A	449,421.25	2,287,294.00
S Qtr Cor Sec 2	10-C	444,113.55	2,287,338.69
NE Cor Sec 2	11-A	449,430.88	2,289,942.20
WC E Qtr Sec 2	11-B	446,931.46	2,289,961.88
SE Cor Sec 2	11-C	444,131.87	2,289,983.83
N Qtr Cor Sec 1	12-A	449,438.52	2,292,583.58
T-140-N R-67-W			
SE Cor Sec 33	7-N	449,755.88	2,310,957.25

SURVEY CONTROL POINTS

PNT	NORTHING	EASTING	ELEV	STATION	OFFSET	ALIGNMENT	MONUMENT
PRIMARY CONTROL							
GPS 236	448,056.38	2,302,807.51	1,856.94	12502+33	219' Lt	SCL94	30" Rebar w/ 1/5" Alum cap
GPS 238	447,805.46	2,311,246.12	1,850.79	12586+98	170' Rt	SCL94	30" Rebar w/ 1/5" Alum cap
SECONDARY CONTROL							
RTK 40044	447,373.53	2,297,790.54	1,925.66	12451+86	186' Rt	SCL94	18" #6 Rebar
BM U473 Y1982	448,037.34	2,302,392.44	1,843.88	12498+17	223' Lt	SCL94	Steel pin
RTK 44550	447,790.58	2,305,642.78	1,845.63	12530+49	202' Rt	SCL94	Bolt in asphalt
RTK 50022	447,850.06	2,305,750.37	1,826.00	12531+60	149' Rt	SCL94	1.5" OP Cap stamped NDDOT CONTROL
RTK 30011	448,311.98	2,309,306.15	1,815.34	12567+24	153' Lt	SCL94	#6 Rebar
BM T473 Y1982	448,374.95	2,309,509.94	1,815.40	12569+23	223' Lt	SCL94	Steel pin in Mon box
RTK 30010	448,282.79	2,310,103.72	1,838.64	12575+11	171' Lt	SCL94	#6 Rebar
RTK 50020	447,573.56	2,312,515.79	1,837.05	12599+86	247' Rt	SCL94	1.5" OP Cap stamped NDDOT CONTROL
RTK 40045	440,847.46	2,313,752.40	1,867.97	12616+41	6796' Rt	SCL94	18" #6 Rebar
BM Q473 Y1982	450,216.48	2,330,863.31	1,846.46	N/A	N/A	SCL94	Steel pin in Mon box

NOTES: Sheet 1 of 1
Alingment based from NDDOT ROW Plat of 1958

All coordinates and measurements on this document derived from the International Foot definition.

INITIALIZING BENCH MARK
NDGPS CORS (OPUS)

- [x] NAVD-88
- [ ] _____
- [ ] GEOID12B
- [x] GEOID18
- [ ] _____

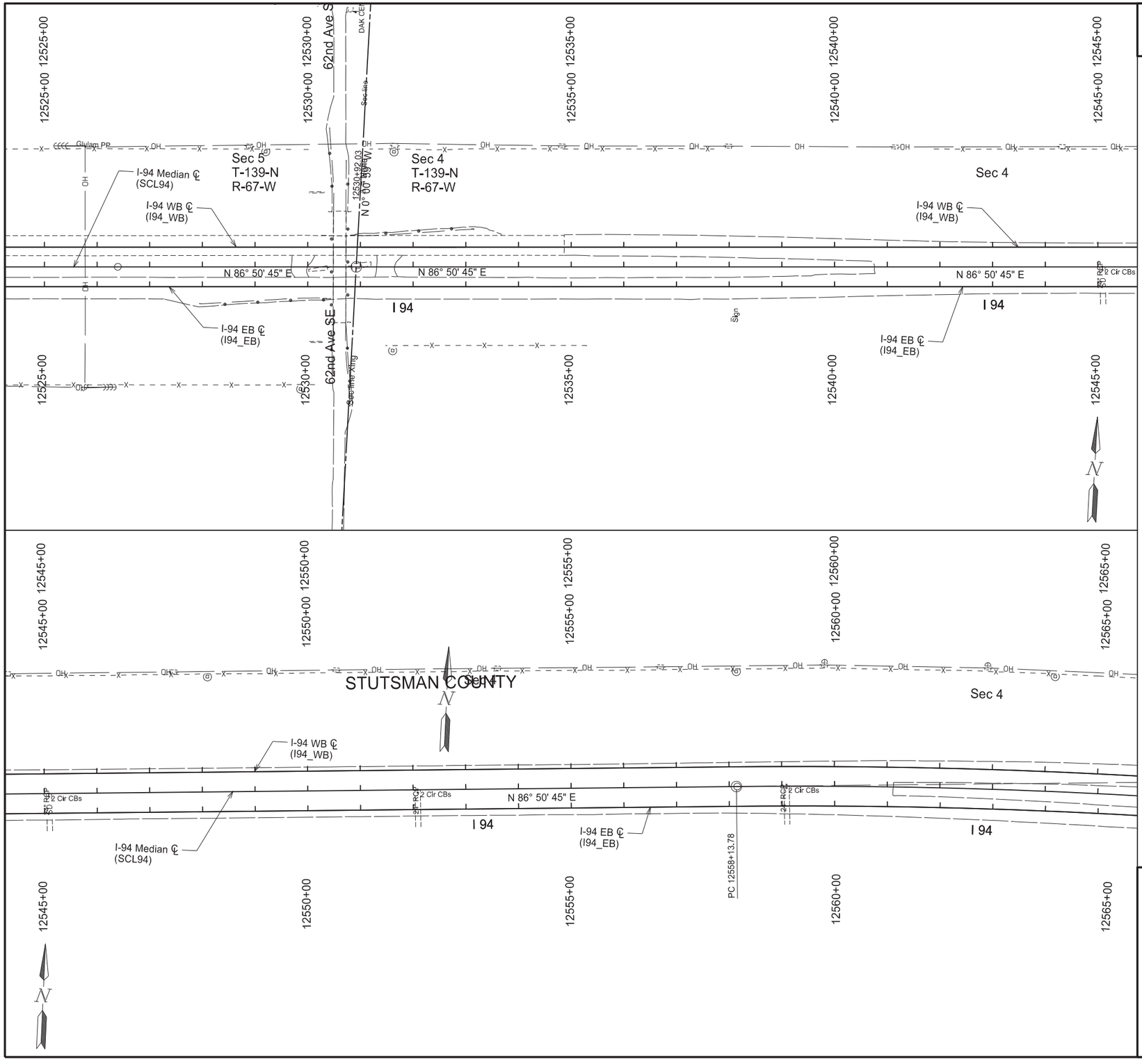
Date Survey Completed 12/09/24

- [ ] Assumed Coordinates
- [x] All coordinates on this sheet are Stutsman County ground coordinates. They are derived from the NAD83(2011) reference frame; North Dakota South Zone Combination Factor (cf) = 0.9998560

REGISTERED PROFESSIONAL LAND SURVEYOR
Kristofer Johnson
LS-10169
DATE 03/25/25
NORTH DAKOTA

Docusign Envelope ID: 6727544E-7BE9-4BAE-8B5C-E497024B1FDB

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	82	1



EB/WB Alignments

Grade Raise
I-94 EB/WB

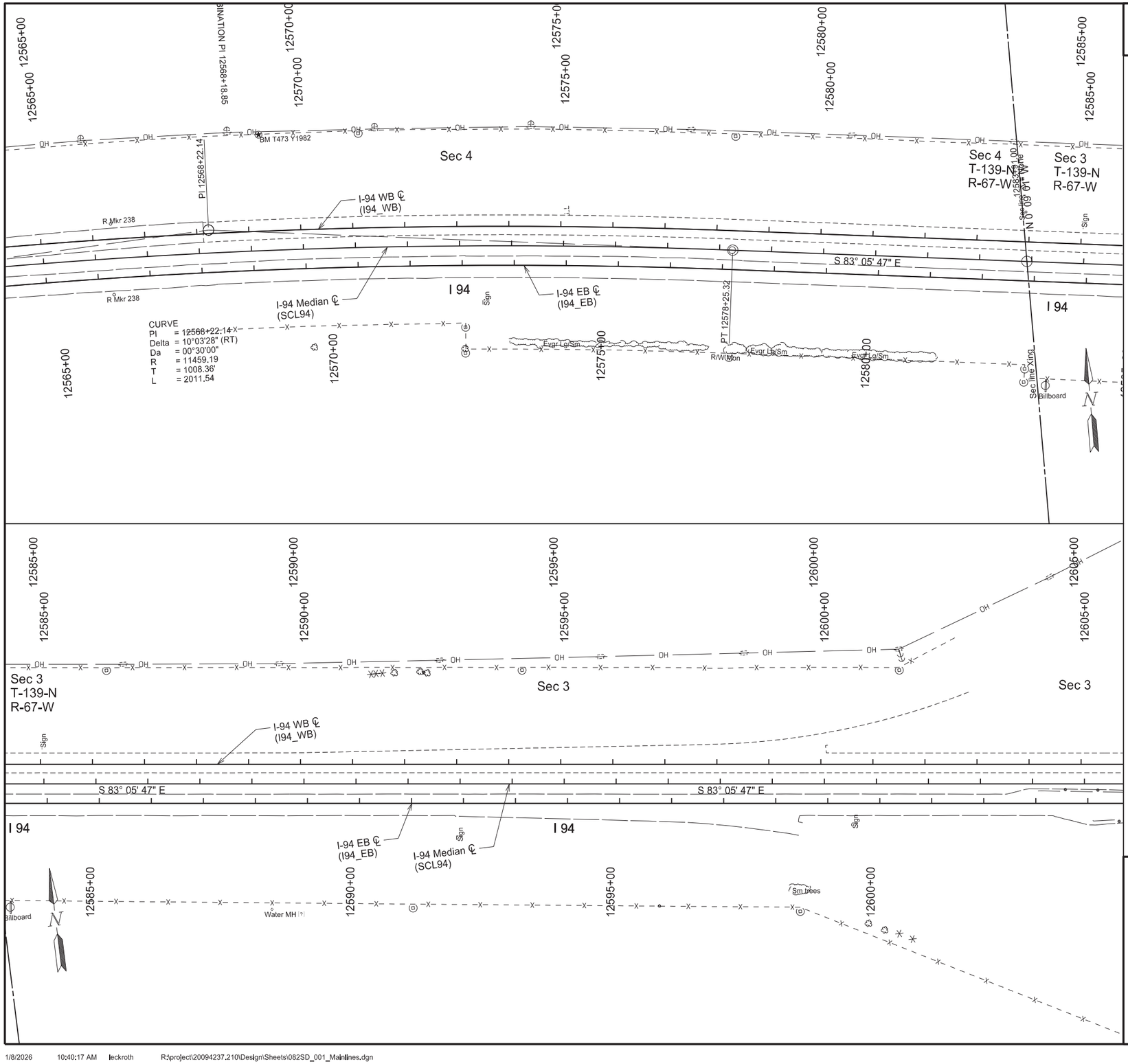
1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA
01/08/26

Docusign Envelope ID: 6727544E-7BE9-4BAE-8B5C-E497024B1FDB

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	82	2



EB/WB Alignments

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

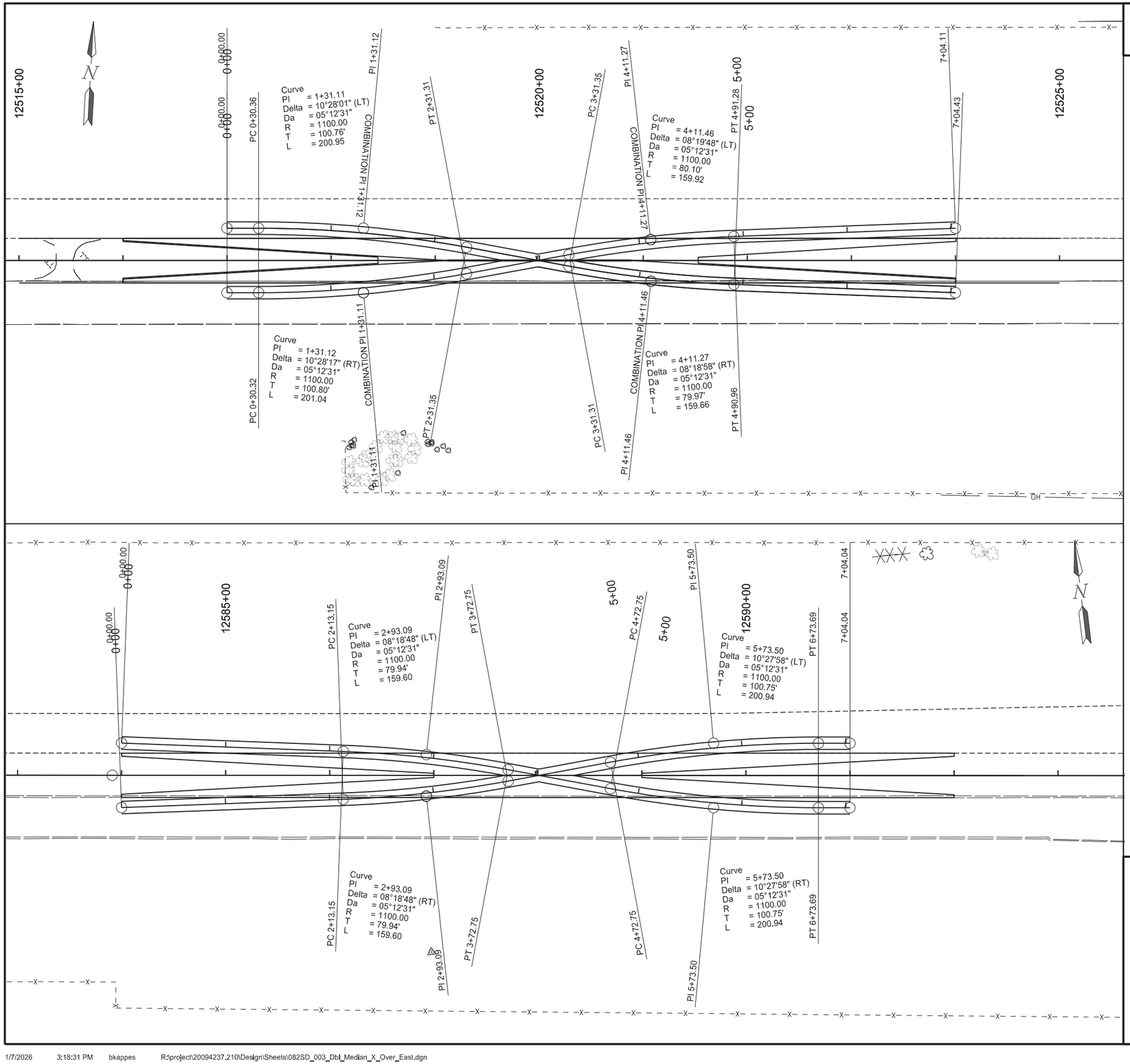
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/08/26

Docusign Envelope ID: 6727544E-7BE9-4BAE-8B5C-E497024B1FDB

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	82	3



Median Crossover Alignments

Grade Raise
I-94 EB/WB

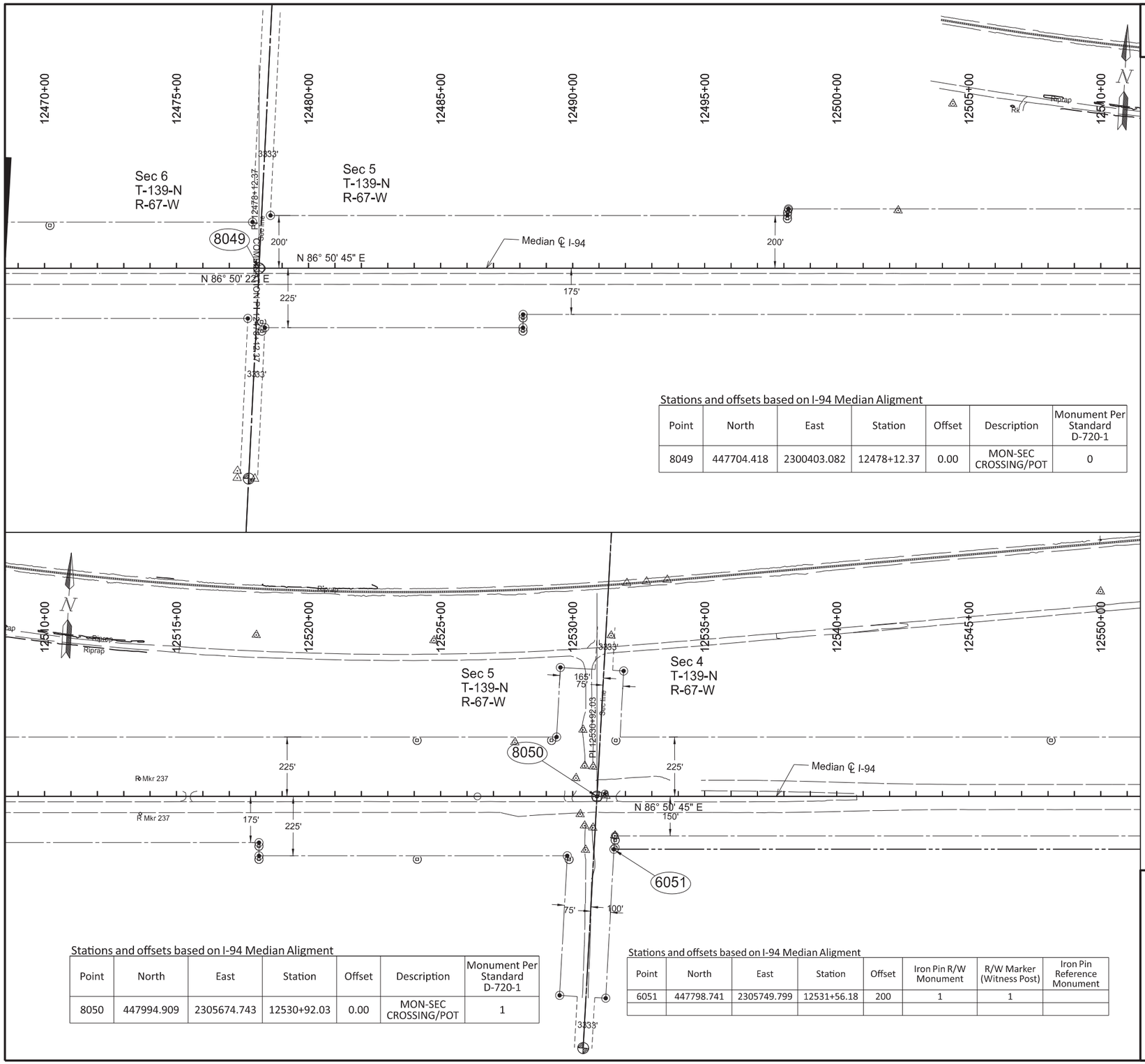
1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/08/26

Docusign Envelope ID: 6727544E-7BE9-4BAE-8B5C-E497024B1FDB



Stations and offsets based on I-94 Median Aligment

Point	North	East	Station	Offset	Description	Monument Per Standard D-720-1
8049	447704.418	2300403.082	12478+12.37	0.00	MON-SEC CROSSING/POT	0

Stations and offsets based on I-94 Median Aligment

Point	North	East	Station	Offset	Description	Monument Per Standard D-720-1
8050	447994.909	2305674.743	12530+92.03	0.00	MON-SEC CROSSING/POT	1

Stations and offsets based on I-94 Median Aligment

Point	North	East	Station	Offset	Iron Pin R/W Monument	R/W Marker (Witness Post)	Iron Pin Reference Monument
6051	447798.741	2305749.799	12531+56.18	200	1	1	

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	82	4

SPEC	CODE	BID ITEM	UNIT	QUANTITY
720	110	RIGHT OF WAY MARKERS Sta. 12531+56.18 - 200.0' RT	EA	1
720	125	ALIGNMENT MONUMENTS Sta. 12530+92.03 - 0.0'	EA	1
720	130	IRON PIN R/W MONUMENTS Sta. 12531+56.18 - 200.0' RT	EA	1

LEGEND

- R/W Marker (Witness Post)
- Iron Monument found
- Iron Pin R/W Monument
- Iron Pin Reference Monument
- Alignment Monument

Right of Way Markers

Grade Raise
I-94 EB/WB

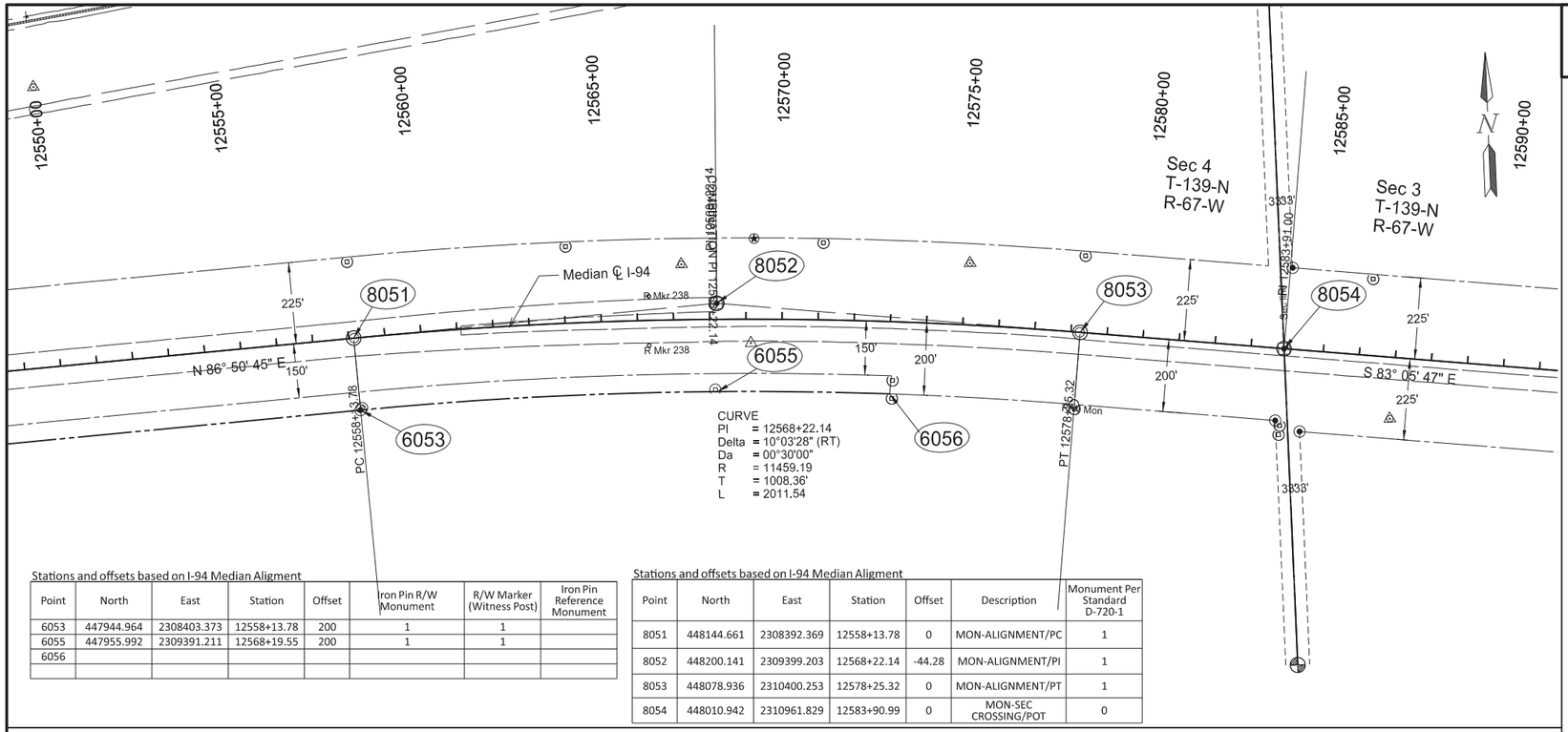
1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/08/26

Docusign Envelope ID: 6727544E-7BE9-4BAE-8B5C-E497024B1FDB

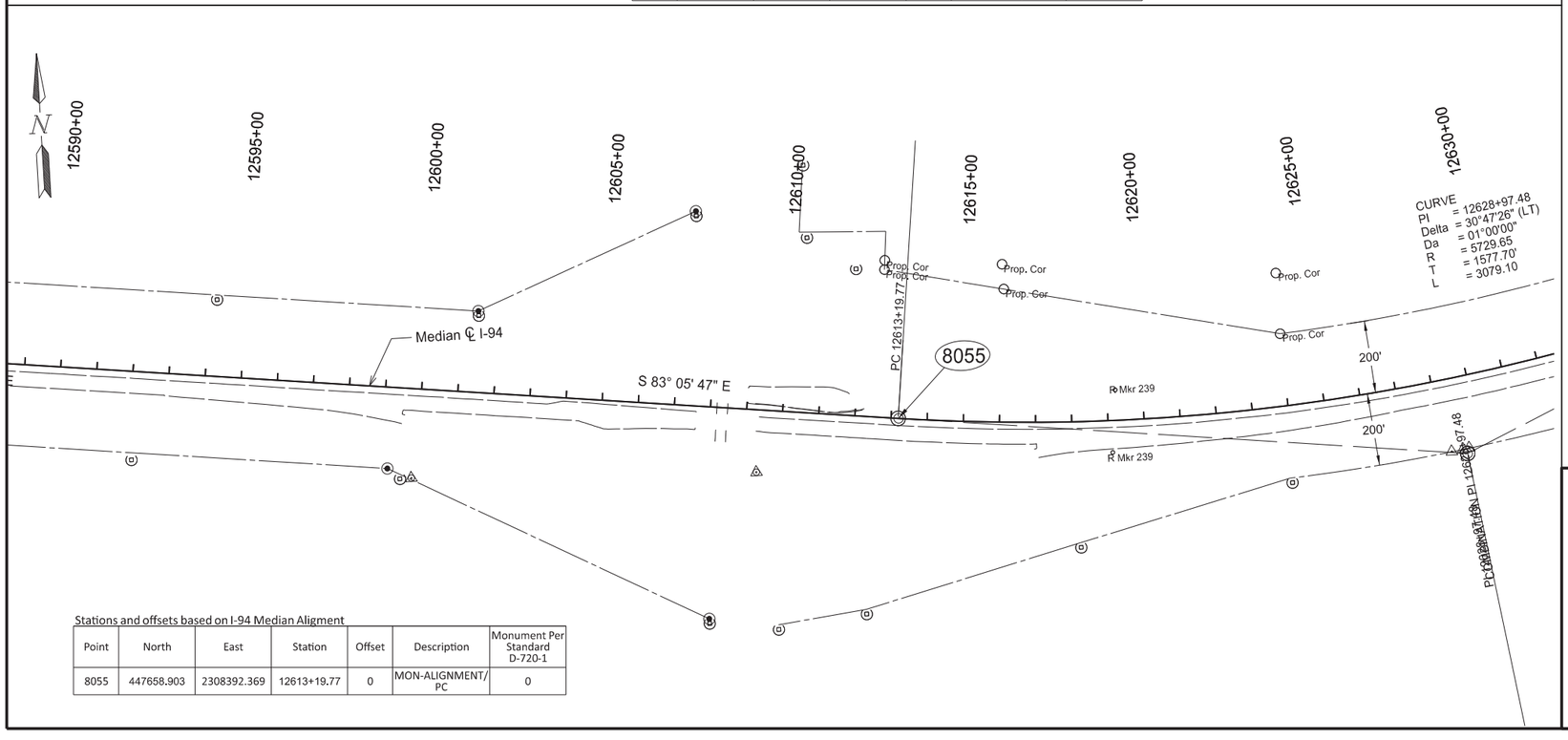


Stations and offsets based on I-94 Median Aligment

Point	North	East	Station	Offset	Iron Pin R/W Monument	R/W Marker (Witness Post)	Iron Pin Reference Monument
6053	447944.964	2308403.373	12558+13.78	200	1	1	
6055	447955.992	2309391.211	12568+19.55	200	1	1	
6056							

Stations and offsets based on I-94 Median Aligment

Point	North	East	Station	Offset	Description	Monument Per Standard D-720-1
8051	448144.661	2308392.369	12558+13.78	0	MON-ALIGNMENT/PC	1
8052	448200.141	2309399.203	12568+22.14	-44.28	MON-ALIGNMENT/PI	1
8053	448078.936	2310400.253	12578+25.32	0	MON-ALIGNMENT/PT	1
8054	448010.942	2310961.829	12583+90.99	0	MON-SEC CROSSING/POT	0



Stations and offsets based on I-94 Median Aligment

Point	North	East	Station	Offset	Description	Monument Per Standard D-720-1
8055	447658.903	2308392.369	12613+19.77	0	MON-ALIGNMENT/PC	0

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	82	5

SPEC	CODE	BID ITEM	UNIT	QUANTITY
720	110	RIGHT OF WAY MARKERS	EA	
		Sta. 12558+13.78 - 200.0' RT		1
		Sta. 12568+19.55 - 200.0' RT		1
720	125	ALIGNMENT MONUMENTS	EA	
		Sta. 12558+13.78 - 0.0' LT		1
		Sta. 12568+22.14 - 44.28' LT		1
		Sta. 12578+25.32 - 0.0' LT		1
720	130	IRON PIN R/W MONUMENTS	EA	
		Sta. 12558+13.78 - 200.0' RT		1
		Sta. 12568+19.55 - 200.0' RT		1

LEGEND

- R/W Marker (Witness Post)
- Iron Monument found
- Iron Pin R/W Monument
- Iron Pin Reference Monument
- Alignment Monument

Right of Way Markers

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/08/26

Docusign Envelope ID: A17B6D89-FA5F-40DB-A3FD-DE5721C30941

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	100	1

SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED BY PHASE NO. 1	2	3	4	5	TOTAL AMOUNT REQUIRED	UNITS PER AMOUNT	UNITS SUB TOTAL
E5-1-48	48"x48"	EXIT GORE							35	
G20-1-60	60"x24"	ROAD WORK NEXT __ MILES							28	
G20-1b-60	60"x24"	NO WORK IN PROGRESS (Sign and installation only)							18	
G20-2-48	**48"x24"**	**END ROAD WORK**	**4**	**4**	**4**	**4**	**4**	**4**	**26**	**104**
G20-4-36	36"x18"	PILOT CAR FOLLOW ME (Mounted to back of pilot car)							18	
G20-4b-36	36"x30"	WAIT FOR PILOT CAR							18	
G20-50a-72	72"x36"	ROAD WORK NEXT __ MILES RT & LT ARROWS							43	
G20-52a-72	72"x24"	ROAD WORK NEXT __ MILES RT or LT ARROW							36	
G20-55-96	**96"x48"**	**SPEED LIMIT ENFORCED - MINIMUM FEE $150 WHEN WORKERS PRESENT**	**4**	**4**	**4**	**4**	**4**	**4**	**59**	**236**
M1-1-36	36"x36"	INTERSTATE ROUTE MARKER (Post and installation only)							11	
M1-4-24	24"x24"	U.S. ROUTE MARKER (Post and installation only)							10	
M1-5-24	24"x24"	STATE ROUTE MARKER (Post and installation only)							10	
M3-1-24	24"x12"	NORTH (Mounted on route marker post)							7	
M3-2-24	24"x12"	EAST (Mounted on route marker post)							7	
M3-3-24	24"x12"	SOUTH (Mounted on route marker post)							7	
M3-4-24	24"x12"	WEST (Mounted on route marker post)							7	
M4-8-24	24"x12"	DETOUR (Mounted on route marker post)							7	
M4-9-30	30"x24"	DETOUR ARROW RIGHT or LEFT/AHD AND RT or LT							15	
M4-10-48	48"x18"	DETOUR (INSIDE ARROW) RIGHT or LEFT (Mounted on barricade)							7	
M5-1-21	21"x15"	ADVANCE TURN ARROW RT or LT(Mounted on route marker post)							7	
M5-1-30	30"x21"	ADVANCE TURN ARROW RT or LT(Mounted on route marker post)							9	
M6-1-21	21"x15"	DIRECTIONAL ARROW RT or LT (Mounted on route marker post)							7	
M6-1-30	30"x21"	DIRECTIONAL ARROW RT or LT (Mounted on route marker post)							9	
M6-3-21	21"x15"	DIRECTIONAL ARROW UP (Mounted on route marker post)							7	
R1-1-48	48"x48"	STOP							32	
R1-2-60	**60"x60"**	**YIELD**	**2**	**1**	**1**	**1**	**2**	**2**	**29**	**58**
R2-1-36	**36"x48"**	**SPEED LIMIT __ (Portable only)**	**6**	**1**	**1**	**1**	**6**	**6**	**30**	**180**
R2-1-48	**48"x60"**	**SPEED LIMIT __**	**8**	**8**	**8**	**8**	**8**	**8**	**39**	**312**
R2-1aP-24	**24"x18"**	**MINIMUM FEE $150 (Mounted on Speed Limit post)**	**10**	**7**	**7**	**7**	**10**	**10**	**10**	**100**
R3-2-48	48"x48"	NO LEFT TURN							35	
R4-1-48	**48"x60"**	**DO NOT PASS**		**2**	**2**	**2**		**2**	**39**	**78**
R4-7-48	**48"x60"**	**KEEP RIGHT**		**2**	**2**	**2**		**2**	**39**	**78**
R5-1-48	48"x48"	DO NOT ENTER							35	
R6-1-54	54"x18"	ONE WAY RIGHT or LEFT (Mounted on STOP or DO NOT ENTER post)							14	
R7-1-12	12"x18"	NO PARKING ANY TIME							11	
R10-6-24	24"x36"	STOP HERE ON RED							16	
R11-2-48	**48"x30"**	**ROAD CLOSED (Mounted on barricade)**		**2**	**2**	**2**		**2**	**12**	**24**
R11-2a-48	48"x30"	STREET CLOSED (Mounted on barricade)							12	
R11-3a-60	60"x30"	ROAD CLOSED __ MILES AHEAD LOCAL TRAFFIC ONLY (Mtd on barricade)							15	
R11-3c-60	60"x30"	STREET CLOSED __ MILES AHEAD LOCAL TRAFFIC ONLY (Mtd on barricade)							15	
R11-4a-60	60"x30"	STREET CLOSED TO THRU TRAFFIC (Mounted on barricade)							15	
W1-3-48	48"x48"	REVERSE TURN RIGHT or LEFT							35	
W1-4-48	**48"x48"**	**REVERSE CURVE RIGHT or LEFT**		**2**	**2**	**2**		**2**	**35**	**70**
W1-4b-48	48"x48"	TWO LANE REVERSE CURVE RIGHT or LEFT							35	
W1-6-48	48"x24"	ONE DIRECTION LARGE ARROW							26	
W1-6-60	**60"x30"**	**ONE DIRECTION LARGE ARROW**		**2**	**2**	**2**		**2**	**31**	**62**
W3-1-48	48"x48"	STOP AHEAD							35	
W3-3-48	48"x48"	SIGNAL AHEAD							35	
W3-4-48	48"x48"	BE PREPARED TO STOP							35	
W3-5-48	**48"x48"**	**SPEED REDUCTION AHEAD**	**4**	**4**	**4**	**4**	**4**	**4**	**35**	**140**
W4-2-48	**48"x48"**	**LANE ENDS RIGHT or LEFT**	**4**	**4**	**4**	**4**	**4**	**4**	**35**	**140**
W5-1-48	48"x48"	ROAD NARROWS							35	
W5-8-48	48"x48"	THRU TRAFFIC RIGHT LANE							35	
W5-9-48	48"x48"	ROAD WORK TRAFFIC ONLY DOWN & LT or RT ARROW							35	
W6-3-48	**48"x48"**	**TWO WAY TRAFFIC**		**2**	**2**	**2**		**2**	**35**	**70**
W8-1-48	48"x48"	BUMP							35	
W8-3-48	48"x48"	PAVEMENT ENDS							35	
W8-7-48	48"x48"	LOOSE GRAVEL							35	
W8-11-48	48"x48"	UNEVEN LANES							35	
W8-12-48	48"x48"	NO CENTER LINE							35	
W8-17-48	48"x48"	SHOULDER DROP-OFF SYMBOL							35	
W8-53-48	48"x48"	TRUCKS ENTERING HIGHWAY							35	
W8-54-48	48"x48"	TRUCKS ENTERING AHEAD or __ FT or _ MILE							35	
W8-55-48	48"x48"	TRUCKS CROSSING AHEAD or __ FT or _ MILE							35	
W8-56-48	48"x48"	TRUCKS EXITING HIGHWAY							35	
W9-3a-48	48"x48"	CENTER LANE CLOSED SYMBOL							35	
W13-1P-30	**30"x30"**	**__ MPH ADVISORY SPEED PLAQUE (Mounted on warning sign post)**		**2**	**2**	**2**		**2**	**14**	**28**
W14-3-64	64"x48"	NO PASSING ZONE							28	
W16-2P-30	30"x24"	__ FEET PLAQUE (Mounted on warning sign post)							10	
W20-1-48	**48"x48"**	**ROAD WORK AHEAD or _FT or _ MILE**	**4**	**4**	**4**	**4**	**4**	**4**	**35**	**140**
W20-2-48	48"x48"	DETOUR AHEAD or __ FT or _ MILE							35	
W20-3-48	48"x48"	ROAD or STREET CLOSED AHEAD or __ FT or _ MILE							35	
W20-4-48	48"x48"	ONE LANE ROAD AHEAD or __ FT or _ MILE							35	
W20-5-48	**48"x48"**	**RIGHT or CENTER or LEFT LANE CLOSED AHEAD or __ FT or _ MILE**	**4**	**8**	**8**	**8**	**4**	**8**	**35**	**280**
W20-7-48	**48"x48"**	**FLAGGER**	**2**				**2**	**2**	**35**	**70**
W20-8-18	**18"x18"**	**STOP - SLOW PADDLE Back to Back**	**2**				**2**	**2**	**5**	**10**
W20-52P-54	**54"x12"**	**NEXT __ MILES (Mounted on warning sign post)**		**2**	**2**	**2**		**2**	**12**	**24**
W21-1-48	48"x48"	WORKERS							35	
W21-2-48	48"x48"	FRESH OIL							35	
W21-3-48	48"x48"	ROAD MACHINERY AHEAD or __ FT or _ MILE							35	
W21-5-48	48"x48"	SHOULDER WORK							35	
W21-5a-48	48"x48"	RIGHT or LEFT SHOULDER CLOSED							35	
W21-5b-48	48"x48"	RIGHT or LEFT SHOULDER CLOSED AHEAD or __ FT or _ MILE							35	
W21-6-48	48"x48"	SURVEY CREW							35	
W21-50-48	48"x48"	BRIDGE PAINTING AHEAD or __ FT							35	
W21-51-48	48"x48"	MATERIAL ON ROADWAY							35	
W21-52-48	48"x48"	PAVEMENT BREAKS							35	
W21-53-48	48"x48"	RUMBLE STRIPS AHEAD							35	
W22-8-48	48"x48"	FRESH OIL LOOSE ROCK							35	
W24-1-48	48"x48"	DOUBLE REVERSE CURVE							35	

SPECIAL SIGNS

CONSIGN 1	**150" X 72**	**I-94 EAST 13 FT LANE AHEAD**	**2**	**2**	**2**	**2**		**2**	**102**	**204**
CONSIGN 2	**150" X 72**	**I-94 WEST 13 FT LANE AHEAD**	**2**	**2**	**2**	**2**		**2**	**102**	**204**

SPEC & CODE

704-1000	**TRAFFIC CONTROL SIGNS**	**TOTAL UNITS 2612**

SPEC & CODE	DESCRIPTION	UNIT	QUANTITY BY PHASE NO. 1	2	3	4	5	TOTAL QUANTITY
704-0100	**FLAGGING**	MHR	**80**	**80**	**80**	**80**	**80**	**400**
704-1046	**ATTENUATION DEVICE-TYPE B-80**	EACH		**1**	**1**	**1**		**1**
704-1046	**ATTENUATION DEVICE-TYPE B-80**	EACH		**1**	**1**	**1**		**1**
704-1048	PORTABLE RUMBLE STRIPS	EACH						
704-1050	TYPE I BARRICADES	EACH						
704-1052	**TYPE III BARRICADES**	EACH	**2**	**6**	**6**	**6**	**2**	**6**
704-1060	**DELINEATOR DRUMS**	EACH	**56**	**91**	**91**	**91**	**56**	**91**
704-1065	TRAFFIC CONES	EACH						
704-1067	**TUBULAR MARKERS**	EACH	**338**	**200**	**200**	**200**	**138**	**338**
704-1070	DELINEATOR	EACH						
704-1072	**FLEXIBLE DELINEATORS**	EACH		**136**	**136**	**136**		**136**
704-1080	STACKABLE VERTICAL PANELS	EACH						
704-1081	VERTICAL PANELS - BACK TO BACK	EACH						
704-1085	SEQUENCING ARROW PANEL - TYPE A	EACH						
704-1086	SEQUENCING ARROW PANEL - TYPE B	EACH						
704-1087	**SEQUENCING ARROW PANEL - TYPE C**	EACH	**2**				**2**	**2**
704-1088	**SEQUENCING ARROW PANEL - TYPE C - CROSSOVER**	EACH		**2**	**2**	**2**		**2**
704-1500	**OBLITERATION OF PVMT MK**	SF		**984**				**984**
704-3501	PORTABLE PRECAST CONCRETE MED BARRIER	LF						
704-3510	PRECAST CONCRETE MED BARRIER - STATE FURNISHED	EACH						
704-3511	**STATE FURNISHED MEDIAN BARRIER**	LF		**1700**	**1700**	**1700**		**1700**
704-4011	**PORTABLE CHANGEABLE MESSAGE SIGN**	EACH	**4**	**2**	**2**	**2**	**2**	**4**
704-8015	**VEHICLE SPEED FEEDBACK SIGN**	EACH		**2**	**2**	**2**		**2**
762-0200	**RAISED PAVEMENT MARKERS**	EACH		**3840**	**3840**	**3840**		**11520**
762-0420	SHORT TERM 4IN LINE - TYPE R	LF						
762-0422	**SHORT TERM 6IN LINE-TYPE R**	LF		**6792**	**6792**	**6792**		**20376**
762-0430	SHORT TERM 4IN LINE - TYPE NR	LF						
762-0432	**SHORT TERM 6IN LINE-TYPE NR**	LF		**12000**	**12000**	**12000**		**36000**
762-1106	**PVMT MK PAINTED 6IN LINE**	LF					**43920**	**43920**
772-2110	**FLASHING BEACON - POST MOUNTED**	EACH		**2**	**2**	**2**		**2**

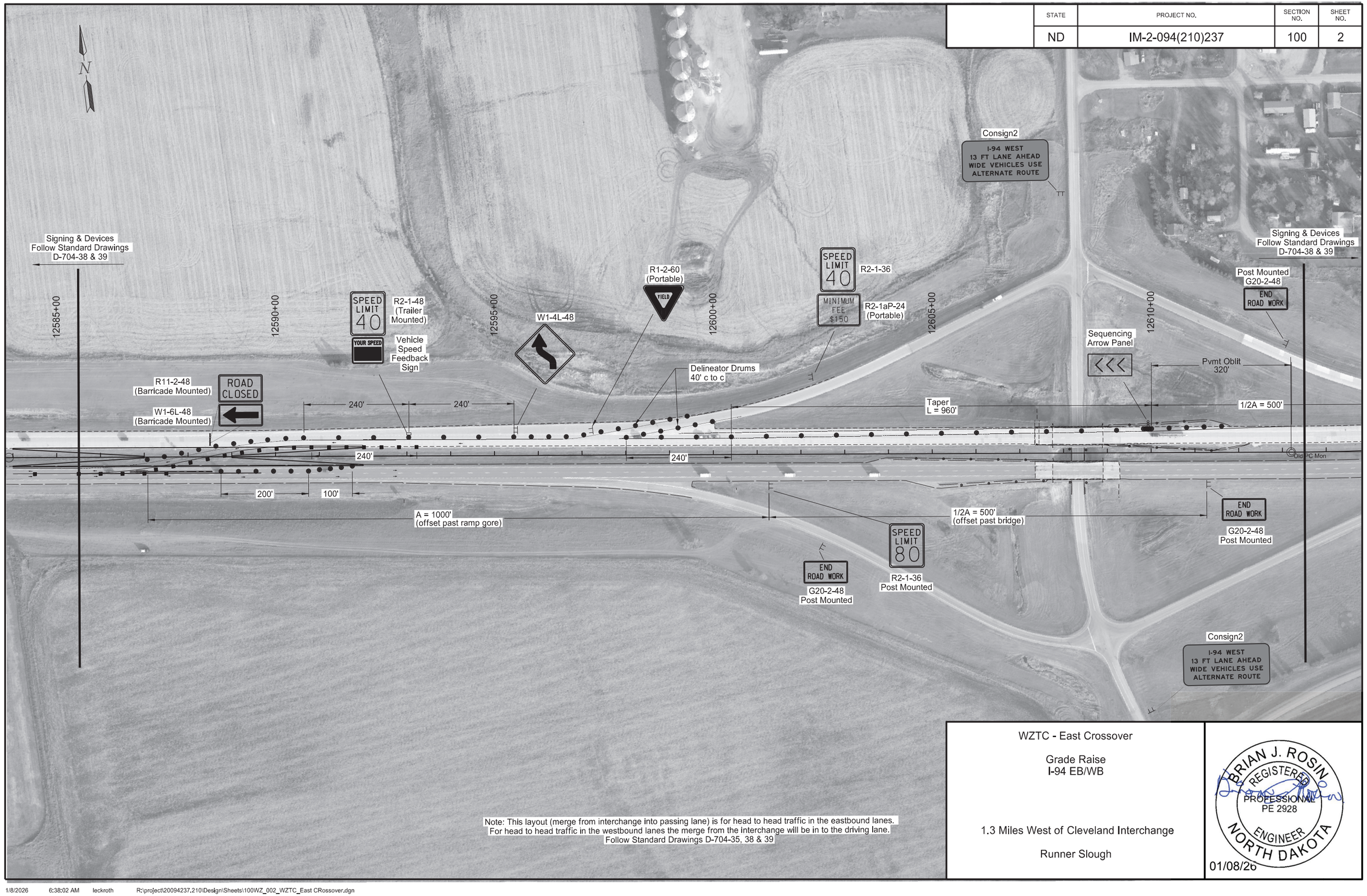
NOTE:
If additional signs are required, units will be calculated using the formula from Section III-18.06 of the Design Manual.
http://www.dot.nd.gov/

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA
01/08/26

Traffic Control Devices List
Grade Raise
I-94 EB/WB
1.3 Miles West of Cleveland Interchang
Runner Slough

Docusign Envelope ID: A17B6D89-FA5F-40DB-A3FD-DE5721C30941

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	100	2



Note: This layout (merge from interchange into passing lane) is for head to head traffic in the eastbound lanes.
For head to head traffic in the westbound lanes the merge from the interchange will be in to the driving lane.
Follow Standard Drawings D-704-35, 38 & 39

WZTC - East Crossover

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA
01/08/26

1/8/2026 6:38:02 AM leckroth R:\project\20094237.210\Design\Sheets\100WZ_002_WZTC_East CRossover.dgn

Docusign Envelope ID: A17B6D89-FA5F-40DB-A3FD-DE5721C30941

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	100	3

WZTC - Width Restrictions

Grade Raise
I-94 EB/WB

Sign Layout
Exit 233

1.3 Miles West of Cleveland Interchange

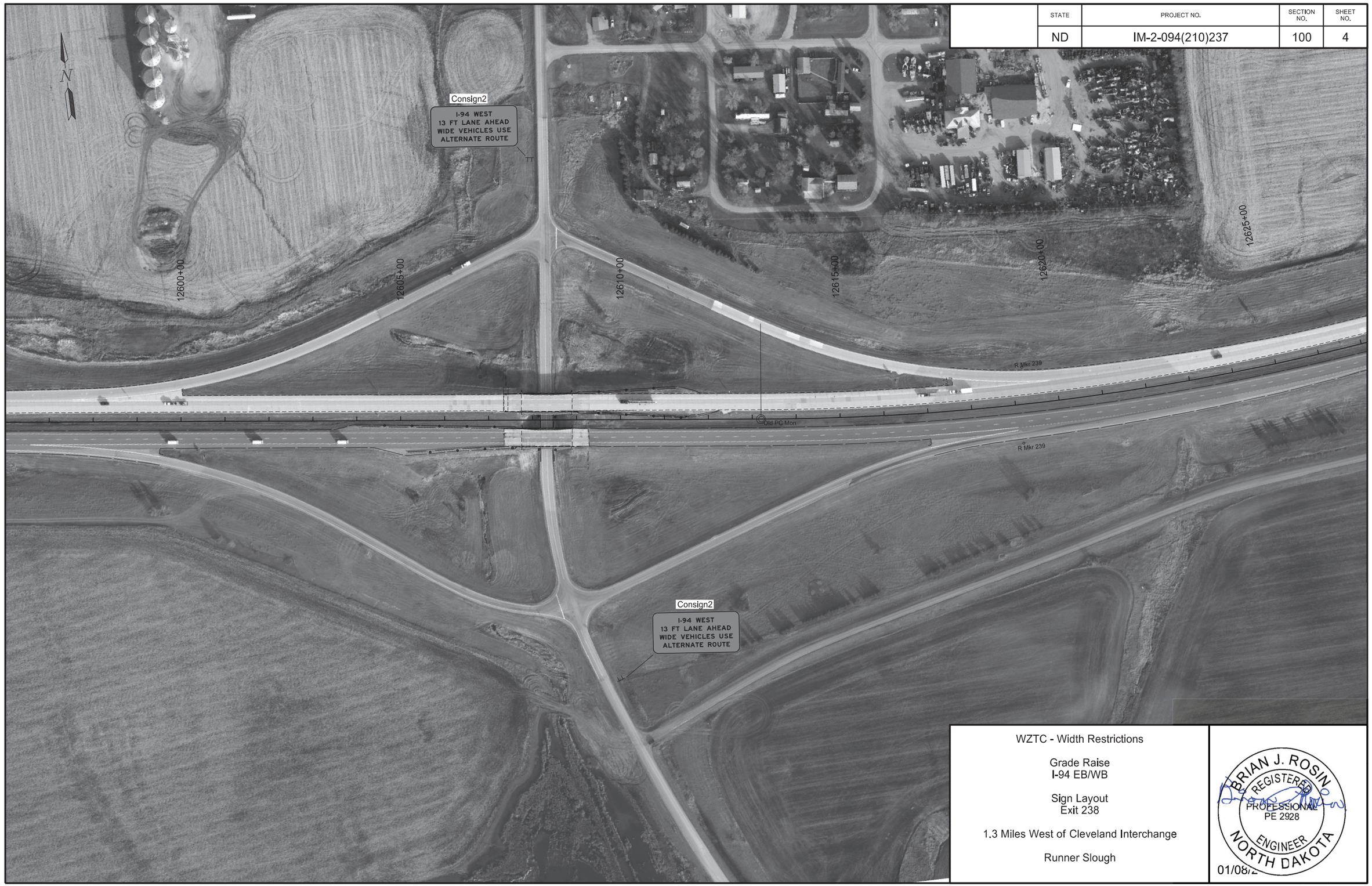
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA
01/08/26

1/8/2026 6:38:08 AM leckroth R:\project\20094237.210\Design\Sheets\100WZ_003_ConSign_Width_Restriction.dgn

Docusign Envelope ID: A17B6D89-FA5F-40DB-A3FD-DE5721C30941

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	100	4



WZTC - Width Restrictions

Grade Raise
I-94 EB/WB

Sign Layout
Exit 238

1.3 Miles West of Cleveland Interchange

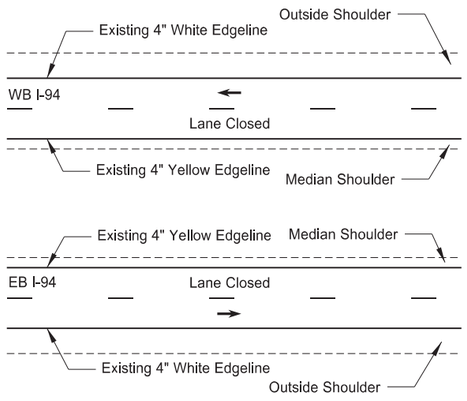
Runner Slough

BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA
01/08/2

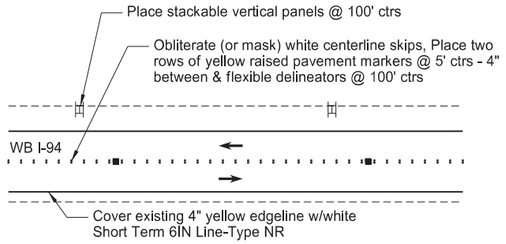
1/8/2026 10:59:21 AM leckroth R:\project\20094237.210\Design\Sheets\100WZ_004_ConSign_Width_Restriction2.dgn

Docusign Envelope ID: A17B6D89-FA5F-40DB-A3FD-DE5721C30941

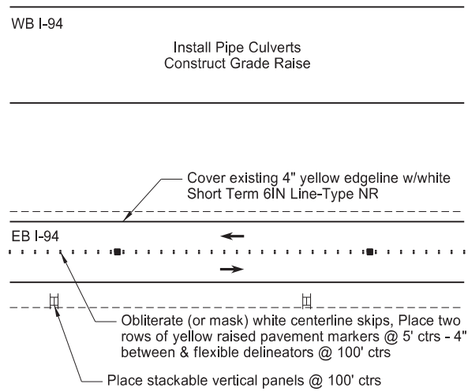
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	100	5



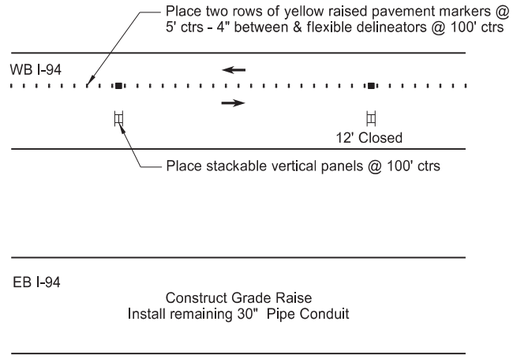
Phase 1 (Showing Inside Lane Closure)
Construct Median Crossovers
Install Temporary W-Beam Guardrail



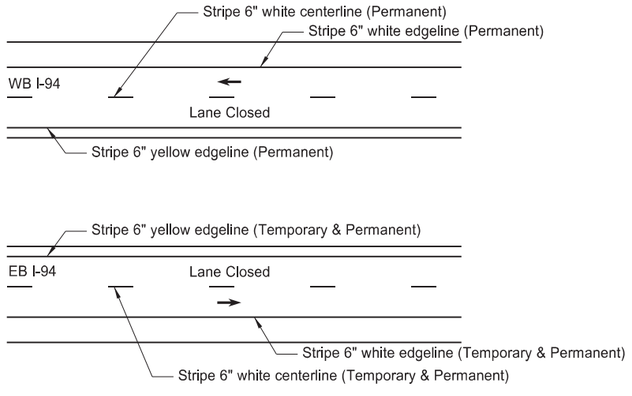
Phase 2
Install EB Pipe Culverts



Phase 3
Install WB Pipe Culverts
Construct WB Grade Raise



Phase 4
Construct EB Grade Raise



Phase 5 (Showing Inside Lane Closure)
Remove Median Crossovers
Remove Temporary W-Beam Guardrail

Traffic Control Stripping

Grade Raise
I-94 EB/WB

1.3 Miles West of Cleveland Interchange

Runner Slough

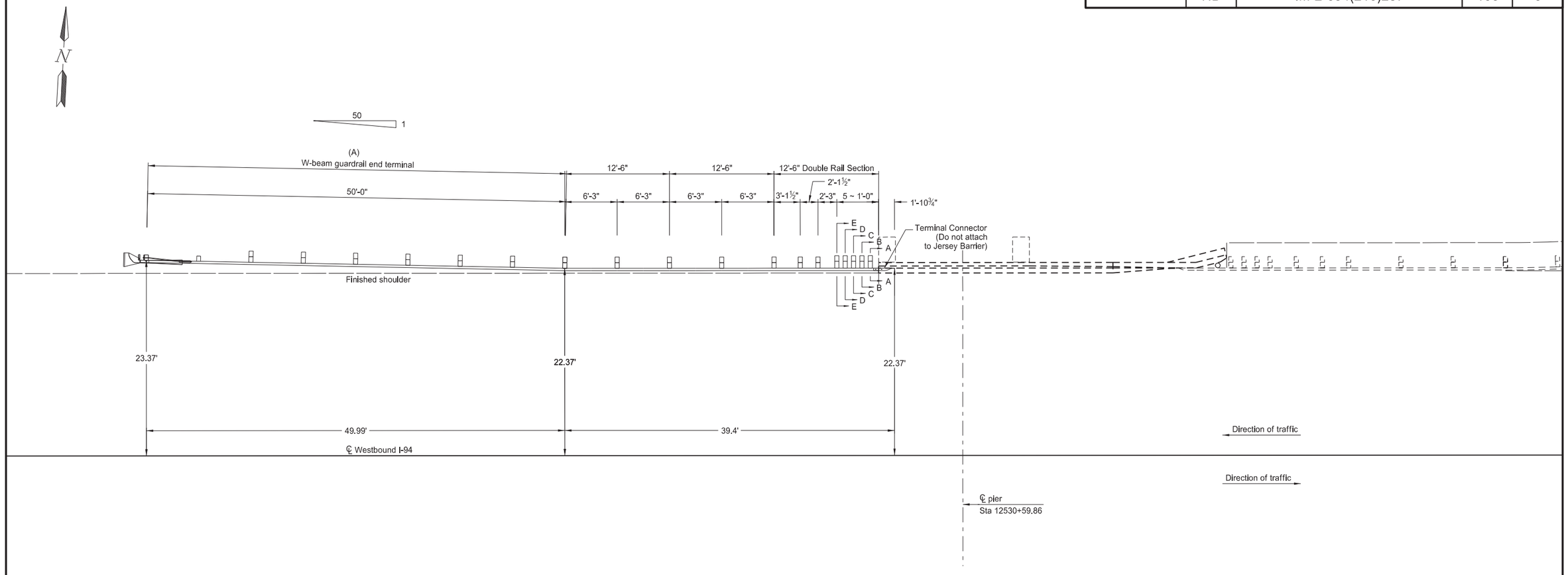
BRIAN J. ROSIN
REGISTERED
PROFESSIONAL
PE 2928
ENGINEER
NORTH DAKOTA

01/08/26

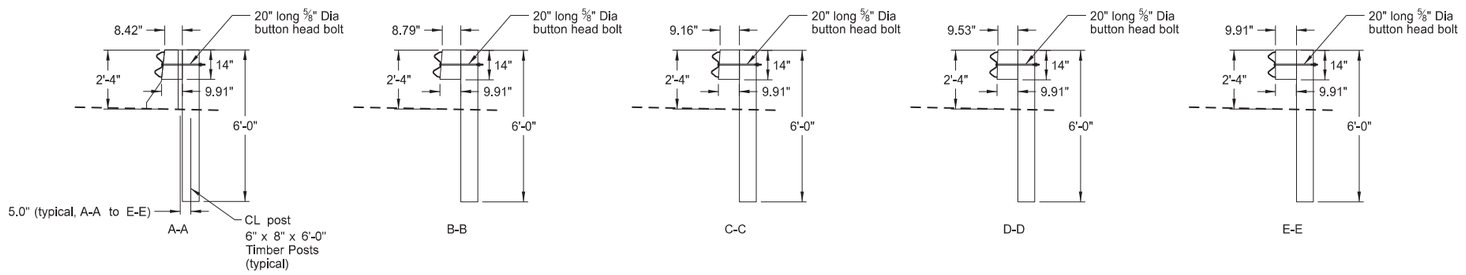
Docusign Envelope ID: 871F66B7-4BED-4C2F-B2B9-B98D5A49770E

23 U.S.C. § 407 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	100	6



SPEC	CODE	BID ITEM	QTY	UNIT
764	0145	W-BEAM GUARDRAIL END TERMINAL	1	EA



(A) Install a Sequential Kinking Terminal at this location.

See Standard D-764-5

W-Beam Guardrail End Treatment Layout
For Two-Way Traffic

West Cleveland Separation
RP 237.322

I-94

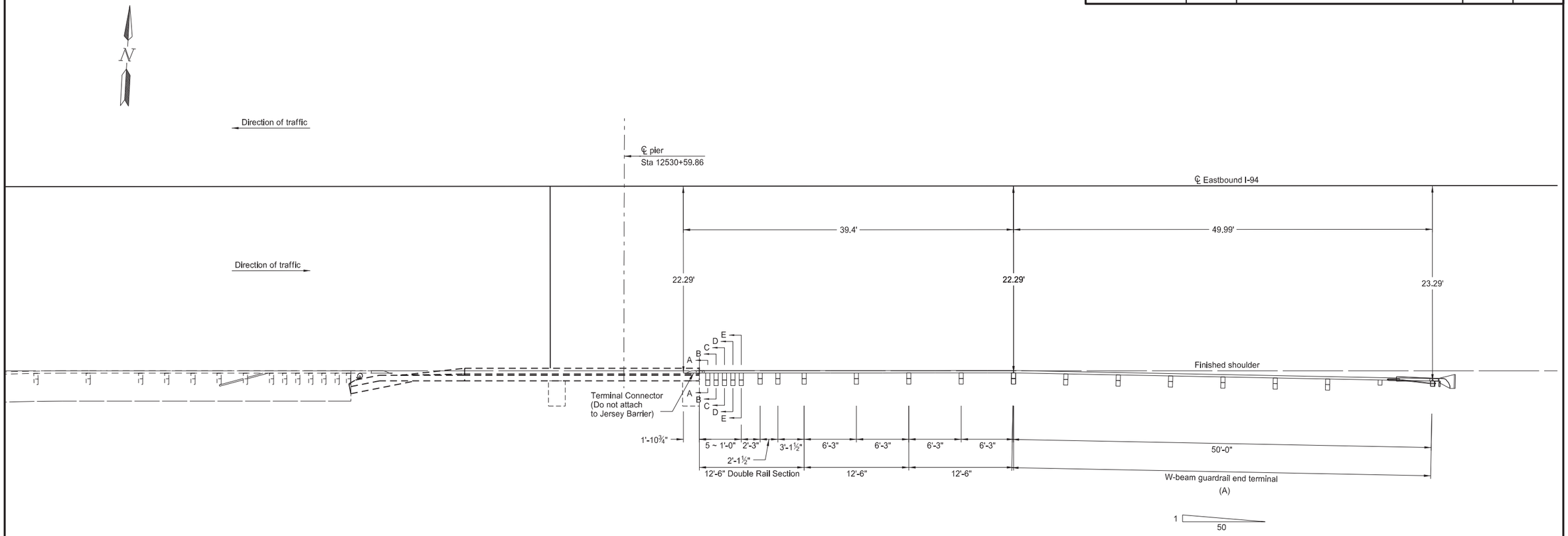
Phases 2 & 4

REGISTERED PROFESSIONAL ENGINEER
Darell Arne
PE-6529
DATE 01/08/26
NORTH DAKOTA

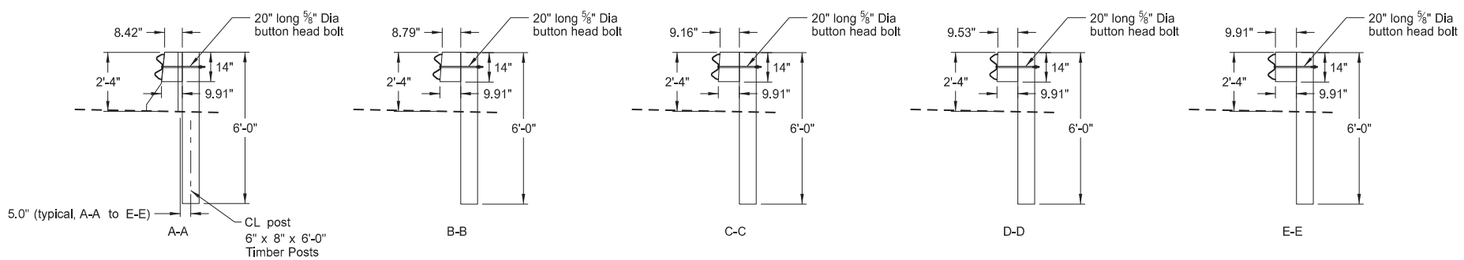
Docusign Envelope ID: 871F66B7-4BED-4C2F-B2B9-B98D5A49770E

23 U.S.C. § 407 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	100	7



SPEC	CODE	BID ITEM	QTY	UNIT
764	0145	W-BEAM GUARDRAIL END TERMINAL	1	EA



(A) Install a Sequential Kinking Terminal at this location.

See Standard D-764-5

W-Beam Guardrail End Treatment Layout
For Two-Way Traffic

West Cleveland Separation
RP 237.322

I-94

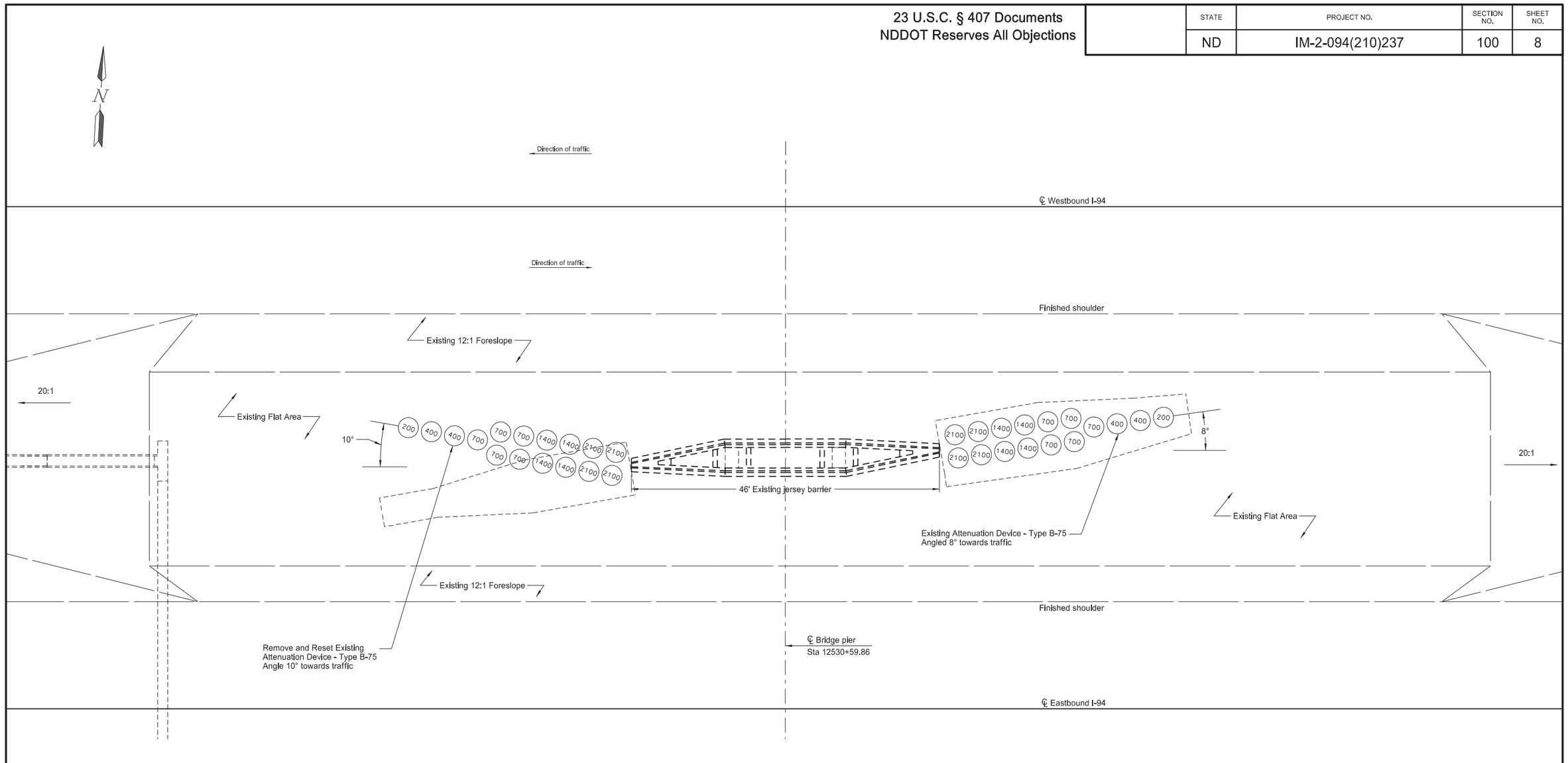
Phase 3

REGISTERED PROFESSIONAL ENGINEER
Darell Arne
PE-6529
DATE 01/08/26
NORTH DAKOTA

Docusign Envelope ID: 871F66B7-4BED-4C2F-B2B9-B98D5A49770E

23 U.S.C. § 407 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	100	8



NOTES:

1. Include all costs to remove and reset attenuation device for temporary traffic control in the bid price for "Modify Barrel Attenuation Device." Install Attenuation Device- Type B-75 per Standard Drawing D-704-1.
2. Complete removal and reset attenuation device work prior to establishment of head to head traffic

SPEC	CODE	BID ITEM	QTY	UNIT
764	8080	MODIFY BARREL ATTENUATION DEVICE	1	EA

Attenuation Device Layout for Two Way Traffic

West Cleveland Separation
RP 237.322

I-94

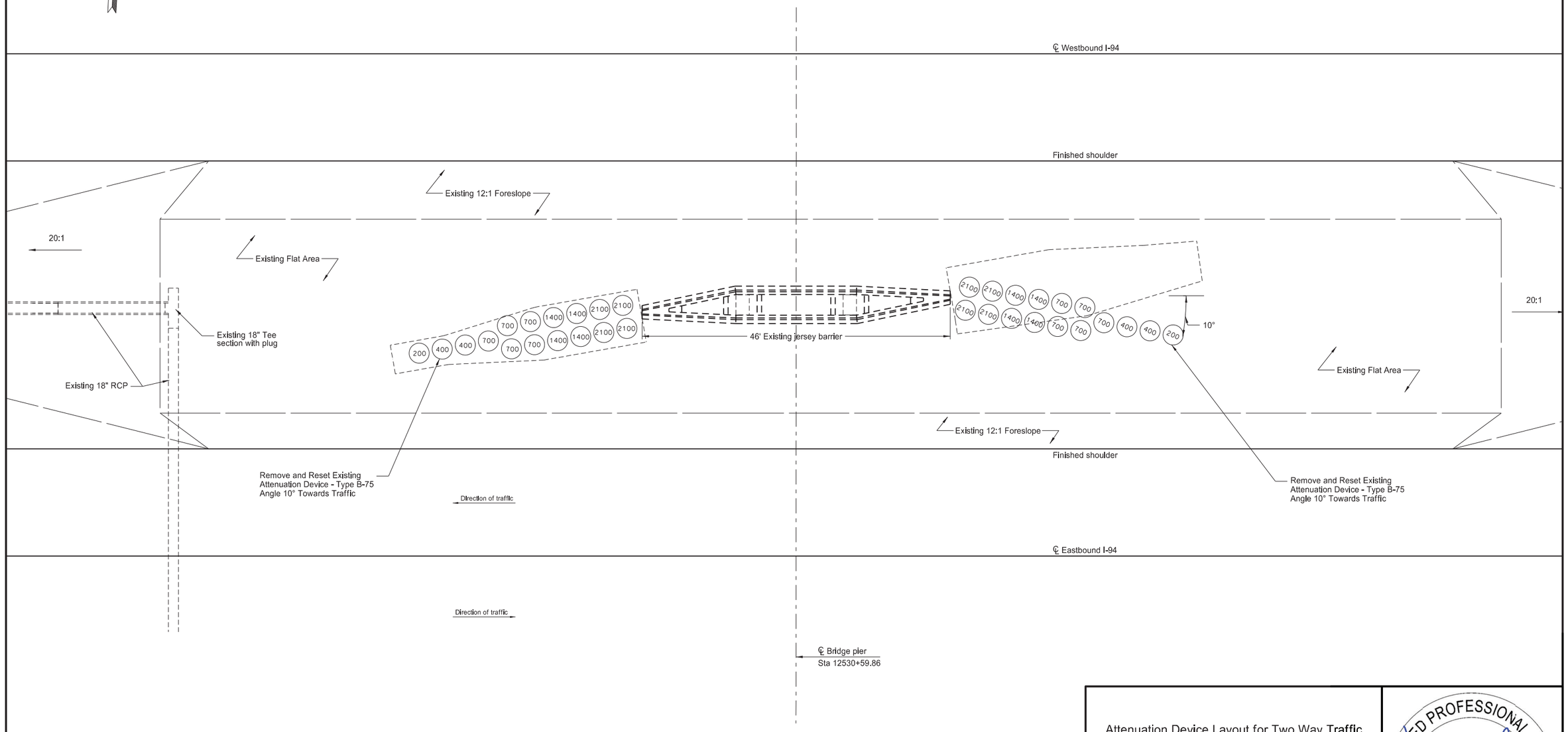
Phase 2

REGISTERED PROFESSIONAL ENGINEER
Darell Arne
PE-6529
DATE 01/08/26
NORTH DAKOTA

Docusign Envelope ID: 871F66B7-4BED-4C2F-B2B9-B98D5A49770E

23 U.S.C. § 407 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	100	9



NOTES:

1. Include all costs to remove and reset attenuation device for temporary traffic control in the bid price for "Modify Barrel Attenuation Device." Install Attenuation Device- Type B-75 per Standard Drawing D-704-1.
2. Complete removal and reset attenuation device work prior to establishment of head to head traffic

SPEC	CODE	BID ITEM	QTY	UNIT
764	8080	MODIFY BARREL ATTENUATION DEVICE	2	EA

Attenuation Device Layout for Two Way Traffic

West Cleveland Separation
RP 237.322

I-94

Phase 3

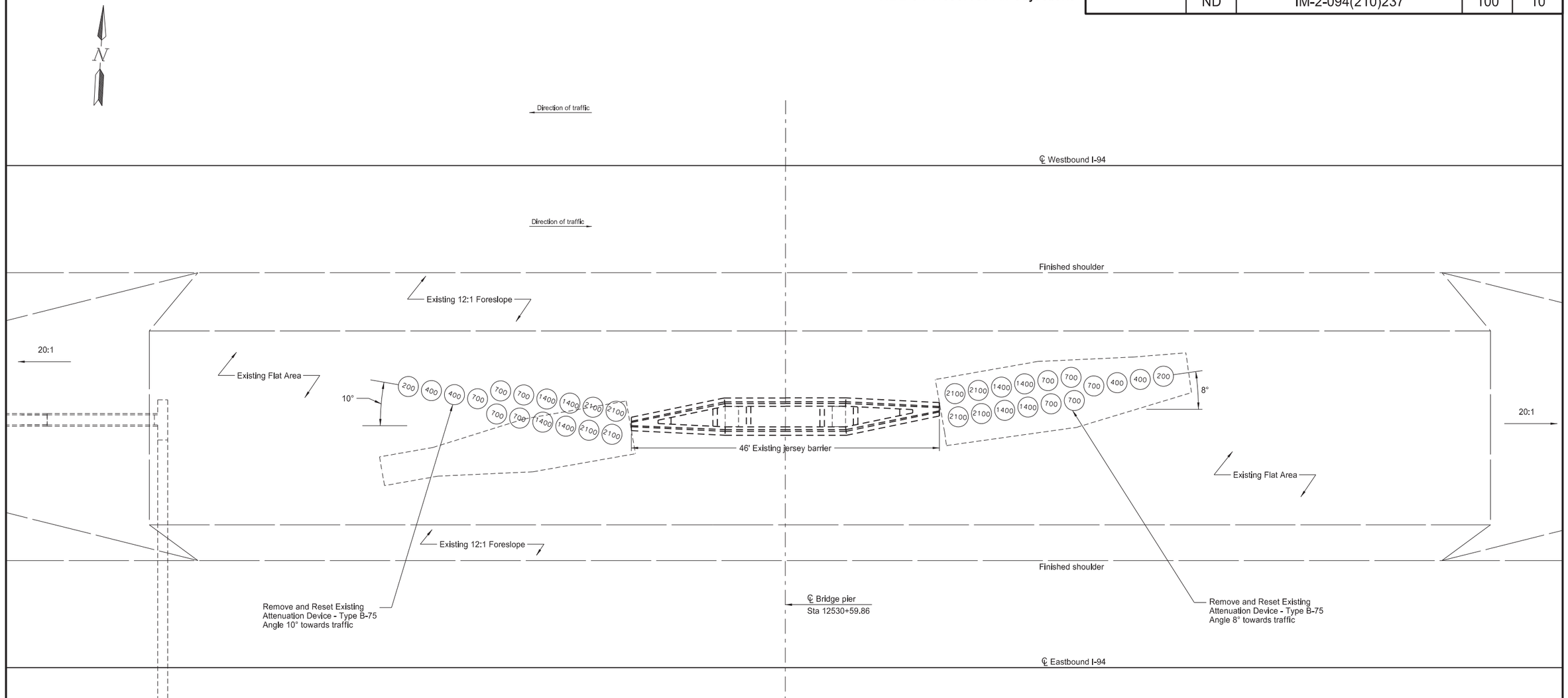
REGISTERED PROFESSIONAL ENGINEER
Darell Arne
PE-6529
DATE 01/08/26
NORTH DAKOTA

1/8/2026 8:36:03 AM jallery R:\project\20094237.210\Traffic\Sheets\100WZ_009_Lgdrl_094_237.322_EAttenuation--zoomed in.dgn

Docusign Envelope ID: 871F66B7-4BED-4C2F-B2B9-B98D5A49770E

23 U.S.C. § 407 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	100	10



NOTES:

1. Include all costs to remove and reset attenuation device for temporary traffic control in the bid price for "Modify Barrel Attenuation Device." Install Attenuation Device- Type B-75 per Standard Drawing D-704-1.
2. Complete removal and reset attenuation device work prior to establishment of head to head traffic

SPEC	CODE	BID ITEM	QTY	UNIT
764	8080	MODIFY BARREL ATTENUATION DEVICE	3	EA

Attenuation Device Layout for Two Way Traffic

West Cleveland Separation
RP 237.322

I-94

Phase 4

REGISTERED PROFESSIONAL ENGINEER
Darell Arne
PE-6529
DATE 01/08/26
NORTH DAKOTA

1/8/2026 8:36:05 AM jallery R:\project\20094237.210\Traffic\Sheets\100WZ_010_Lgdrl_094_237.322_WAttenuation – zoomed in.dgn

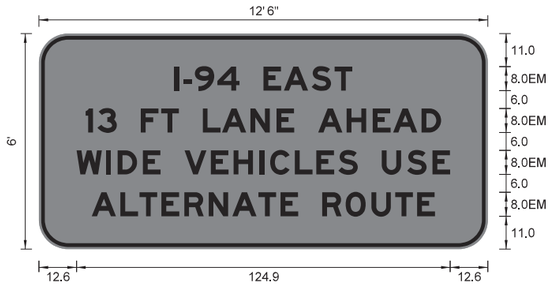
Docusign Envelope ID: 871F66B7-4BED-4C2F-B2B9-B98D5A49770E

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	100	11

SIGN NUMBER	ConSign 1
WIDTH X HEIGHT	12'-6" x 6'-0"
BORDER WIDTH	1.25" (inset 0.75")
CORNER RADIUS	9"
MOUNTING	Ground
BACKGROUND	TYPE: XI Reflective
	COLOR: Fluorescent Orange
LEGEND/BORDER	TYPE: Non-Reflective
	COLOR: Black

SYMBOL	X	Y	WID	HT	ANGLE

STATION(S): AREA: 75.0 Sq.Ft.



Dimensions are in inches tenths

Letter locations are panel edge to lower left corner

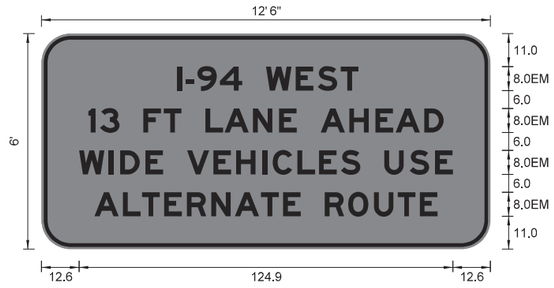
PANEL STYLE: ND_Const_Detour.ssl

LETTER POSITION (X)																				LENGTH	SIZE	SERIES
I	-	9	4		E	A	S	T												59.4	8.0	EM 2000
45.3	48.2	52.1	59.6	67.0	75.0	81.8	91.1	98.8														
1	3		F	T		L	A	N	E		A	H	E	A	D					118.7	8.0	EM 2000
15.6	19.6	26.0	34.0	40.8	46.8	54.8	61.2	70.7	79.4	85.3	93.3	102.8	111.6	118.4	127.9							
W	I	D	E		V	E	H	I	C	L	E	S		U	S	E				124.9	8.0	EM 2000
12.6	22.5	26.3	34.7	40.6	48.6	57.4	65.0	73.8	77.3	85.5	92.7	100.1	106.6	114.6	123.0	131.5						
A	L	T	E	R	N	A	T	E		R	O	U	T	E						114.6	8.0	EM 2000
17.7	27.2	33.6	41.0	48.6	56.7	64.6	73.4	80.7	86.6	94.6	102.5	111.1	119.0	126.4								

SIGN NUMBER	ConSign 2
WIDTH X HEIGHT	12'-6" x 6'-0"
BORDER WIDTH	1.25" (inset 0.75")
CORNER RADIUS	9"
MOUNTING	Ground
BACKGROUND	TYPE: XI-Reflective
	COLOR: Fluorescent Orange
LEGEND/BORDER	TYPE: Non-Reflective
	COLOR: Black

SYMBOL	X	Y	WID	HT	ANGLE

STATION(S): AREA: 75.0 Sq.Ft.



Dimensions are in inches tenths

Letter locations are panel edge to lower left corner

PANEL STYLE: ND_Const_Detour.ssl

LETTER POSITION (X)																				LENGTH	SIZE	SERIES
I	-	9	4		W	E	S	T												60.6	8.0	EM 2000
45.3	48.2	52.1	59.6	67.0	75.0	85.0	92.3	100.0														
1	3		F	T		L	A	N	E		A	H	E	A	D					118.7	8.0	EM 2000
15.6	19.6	26.0	34.0	40.8	46.8	54.8	61.2	70.7	79.4	85.3	93.3	102.8	111.6	118.4	127.9							
W	I	D	E		V	E	H	I	C	L	E	S		U	S	E				124.9	8.0	EM 2000
12.6	22.5	26.3	34.7	40.6	48.6	57.4	65.0	73.8	77.3	85.5	92.7	100.1	106.6	114.6	123.0	131.5						
A	L	T	E	R	N	A	T	E		R	O	U	T	E						114.6	8.0	EM 2000
17.7	27.2	33.6	41.0	48.6	56.7	64.6	73.4	80.7	86.6	94.6	102.5	111.1	119.0	126.4								

Construction Sign Details

1.3 Miles West of Cleveland

I-94

REGISTERED PROFESSIONAL ENGINEER
Darell Arne
PE-6529
DATE 01/08/26
NORTH DAKOTA

Docusign Envelope ID: 36F112AC-949B-4F05-9365-975DBD1ECC96

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	IM-2-094(210)237	110	1

Station / RP	Sign / Assembly No.	Flat Sheet For Signs IV SF	Flat Sheet For Signs XI SF	Panel For Signs IV SF	Panel For Signs XI SF	Overlay Panel IV SF	Overlay Panel XI SF	Vert Clear-ance FT	Galv Steel Sheet Standard Pipe 1st LF	Galv Steel Sheet Standard Pipe 2nd LF	Size	Galv Steel Post W-Shape Posts 1st LF	Galv Steel Post W-Shape Posts 2nd LF	Galv Steel Post W-Shape Posts 3rd LF	Max Post Len LF	Post Space FT	Revise Fuse Joint EA	Std Pipe Fdn Dia FT	Std Pipe Fdn Dep FT	Std Pipe Fdn Vol CY	W-Shape Pile LF	Remove Sign Fdns Conc Fdn EA	Remove Sign Fdns W-Shape Pile EA	Reset Sign Panel EA	Reset Sign Support EA	Stub Post EA	Multi Dir Base EA	Comments
I-94																												
12538+04 Rt	SN 1/2			149.0				5.0			W8x24	25.0	25.7		27.8	6.8					28		2					
12573+44 Rt																						2						
12575+10 Lt								7.0	14.0		4.0				16.6			1.3	7.0	0.4		1		1				
Sub Total				149.0				**Total**	14.0			**Total**	50.7							0.4	28	3	2	1	0	0	0	
Grand Total				**149.0**				**Total**	**14.0**			**Total**	**50.7**							**0.4**	**28**	**3**	**2**	**1**	**0**	**0**	**0**	

REGISTERED PROFESSIONAL ENGINEER
Darell Arne
PE-6529
DATE 12/30/25
NORTH DAKOTA

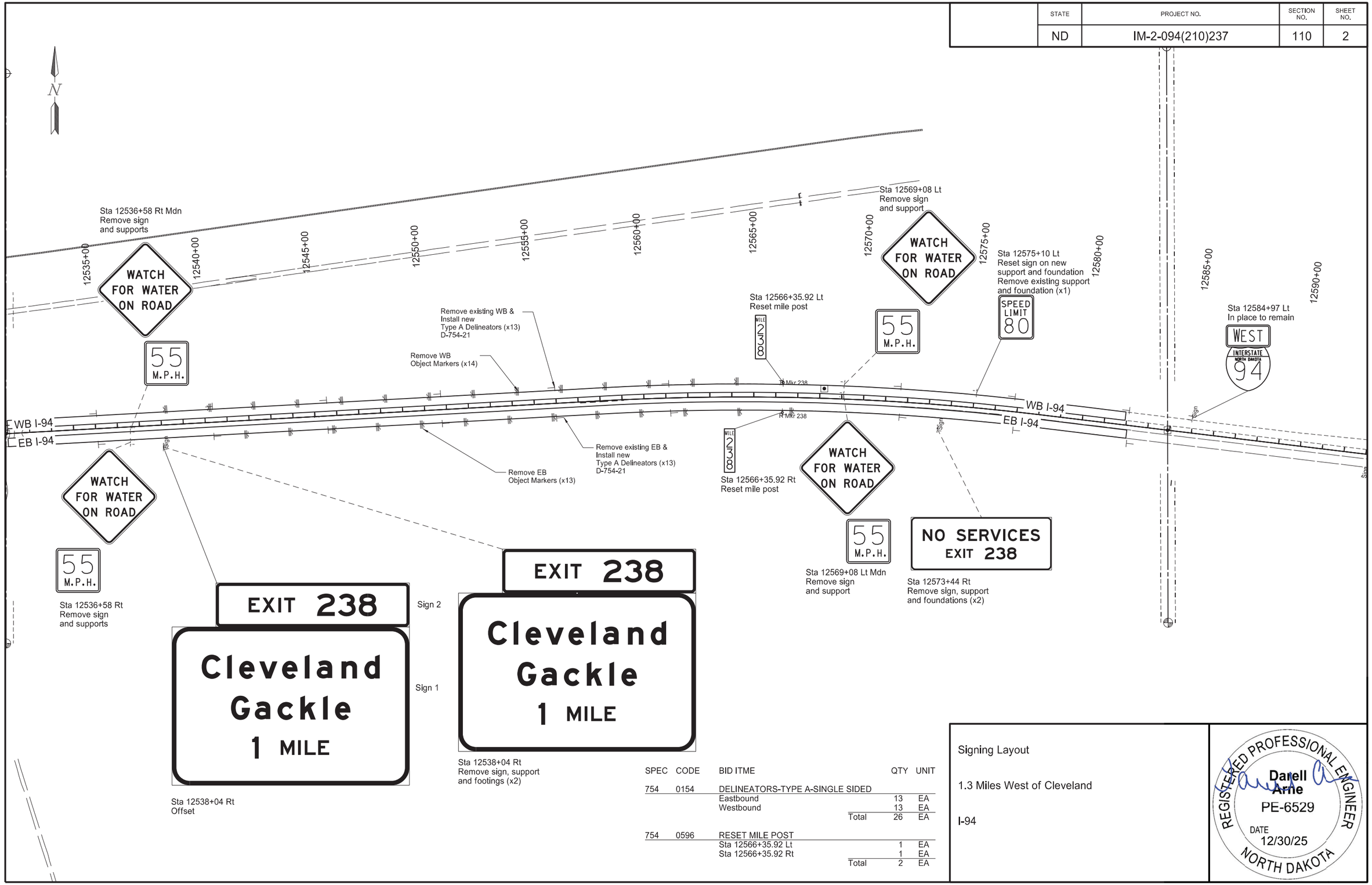
Sign Summary
Round Steel Pipe & W-Shape

1.3 Miles West of Cleveland

I-94

Docusign Envelope ID: 36F112AC-949B-4F05-9365-975DBD1ECC96

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	110	2



SPEC	CODE	BID ITME		QTY	UNIT
754	0154	DELINEATORS-TYPE A-SINGLE SIDED			
		Eastbound		13	EA
		Westbound		13	EA
			Total	26	EA
754	0596	RESET MILE POST			
		Sta 12566+35.92 Lt		1	EA
		Sta 12566+35.92 Rt		1	EA
			Total	2	EA

Signing Layout

1.3 Miles West of Cleveland

I-94

REGISTERED PROFESSIONAL ENGINEER
Darell Arne
PE-6529
DATE 12/30/25
NORTH DAKOTA

Docusign Envelope ID: 36F112AC-949B-4F05-9365-975DBD1ECC96

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	110	3

SIGN NUMBER	Sign 1
WIDTH X HEIGHT	13'-6" x 9'-0"
BORDER WIDTH	3" (inset 0")
CORNER RADIUS	12"
MOUNTING	Ground
BACKGROUND	TYPE: IV Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: IV Reflective
	COLOR: White

SYMBOL	X	Y	WID	HT	ANGLE

STATION(S):
12538+04 Rt

AREA: 121.5 Sq.Ft.

Dimensions are in inches tenths

Letter locations are panel edge to lower left corner

PANEL STYLE: ND_Fwy_Advance_Int.ssl

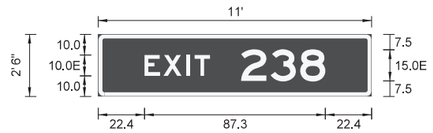
LETTER POSITION (X)																			LENGTH	SIZE	SERIES
C	l	e	v	e	l	a	n	d											121.6	16.0/12.0	EM 2000
20.2	37.6	45.8	59.6	75.1	90.6	98.8	115.7	131.2													
G	a	c	k	l	e														81.6	16.0/12.0	EM 2000
40.2	56.5	72.0	87.6	103.1	111.2																
1	M	I	L	E															52.6	15.0,10.0	E 2000
54.7	74.2	86.2	90.6	99.8																	

SIGN NUMBER	Sign 2
WIDTH X HEIGHT	11'-0" x 2'-6"
BORDER WIDTH	2" (inset 0")
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: IV Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: IV Reflective
	COLOR: White

SYMBOL	X	Y	WID	HT	ANGLE

STATION(S):
12538+04 Rt

AREA: 27.5 Sq.Ft.



Dimensions are in inches tenths

Letter locations are panel edge to lower left corner

PANEL STYLE: ND_Fwy_Exit PanelLbsl

LETTER POSITION (X)																			LENGTH	SIZE	SERIES
E	X	I	T																31.6	10.0	E 2000
22.4	31.6	42.7	46.5																		
2	3	8																	40.7	15.0	E 2000
69.0	83.2	97.5																			

Sign Details

1.3 Miles West of Cleveland

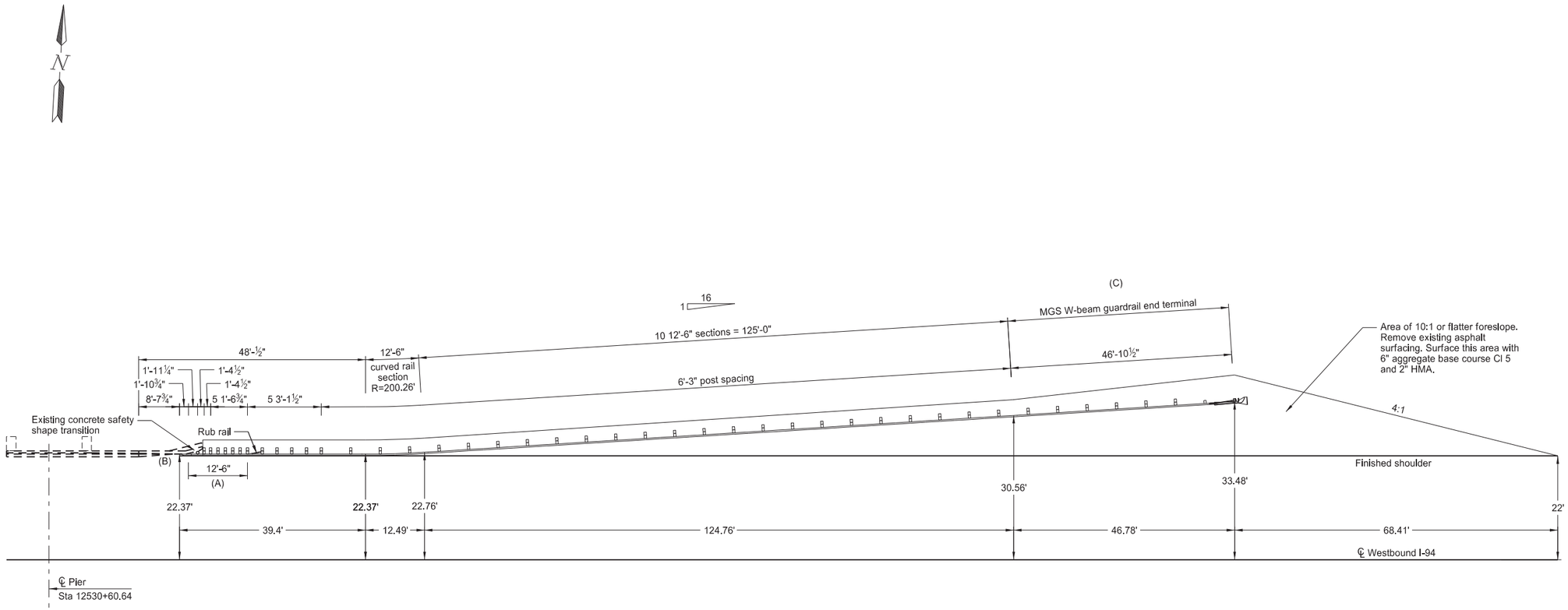
I-94

REGISTERED PROFESSIONAL ENGINEER
Darell Arne
PE-6529
DATE 12/30/25
NORTH DAKOTA

Docusign Envelope ID: 36F112AC-949B-4F05-9365-975DBD1ECC96

23 U.S.C. § 407 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	130	1



(A) 12'-6" double rail section.

(B) Installation of the guardrail onto the existing safety shape transition requires drilling new bolt holes through the concrete. See Standard D-764-63.

(C) Install an MGS FLEAT end terminal at this location. See Standard D-764-38

MGS Jersey Barrier and W-Beam Guardrail Layout

Outside Pier Protection

West Cleveland Separation
RP 237.322

Westbound I-94

REGISTERED PROFESSIONAL ENGINEER
Darell Arne
PE-6529
DATE 12/30/25
NORTH DAKOTA

12/30/2025 2:09:51 PM allanaschaefer R:\project\20094237.210\Traffic\Sheets\130GR_001_Lgdrl_094_237.322L.dgn

Docusign Envelope ID: 36F112AC-949B-4F05-9365-975DBD1ECC96

23 U.S.C. § 407 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	IM-2-094(210)237	130	2

MGS W-BEAM GUARDRAIL SUMMARY OF QUANTITIES

MGS W-BEAM GUARDRAIL AT BRIDGE ENDS WITH EXISTING SAFETY SHAPE TRANSITION

LOCATION	(A) TERM-INAL CONNEC-TOR EACH	(A) 6" ID STD PIPE 12" LONG EACH	(A) 5/8" Ø x 2" LONG GUARD-RAIL BOLT EACH	(A) 7/8"Ø x 10" LONG HEX HEAD BOLT EACH	(A) 5/8" Ø x 18" LONG GUARD-RAIL BOLT EACH	(A) 6"x 8" x 14" WOOD OFF-SET BLOCK EACH	(A) 6"x 8" x 6' TIMBER POST EACH	(A) 5/8" Ø x 1 1/4" LONG GUARD-RAIL BOLT EACH	(A) 12'-6" DOUBLE RAIL SECTION EACH	(A) 12'-6" STRAIGHT RAIL SECTION EACH	(A) 12'-6" CURVED RAIL SECTION EACH	(A) 1/2" Ø x 4" LONG LAG SCREW EACH	(A) 6" x 8" x 7'-0" TIMBER POSTS EACH	(A) 6" x 8" x 23" WOOD OFFSET BLOCK EACH	(A) 5'-3" RUBRAIL SECTION EACH	(A) 15'-7 1/4" RUBRAIL SECTION EACH	(A) 5/8" Ø x 1 ½" LONG HEX HEAD BOLT EACH	(A) 5/8" Ø x 20" LONG GUARD-RAIL BOLT EACH	(A) REFL-ECTOR-IZED PLATES EACH	(A) 7" x 7" x ½" RUBRAIL ANCHOR PLATE EACH	(A) 7 3/4" x 4 1/2" x x 3/8" RUBRAIL SPLICE PLATE EACH	(A) 12" x 12 1/2" x 5/8" PLATE EACH	(A) 6"x 9 3/4" x 14" WOOD OFF-SET BLOCK EACH	(A) 5/8" Ø x 20" LONG GUARD-RAIL BOLT EACH
Sta 12530+88.30 to 12532+64.95 Lt	1	1	1	7	34	27	31	120	1	12	1	1	4	7	1	1	4	7	11	1	1	1	1	1
TOTAL	1	1	1	7	34	27	31	120	1	12	1	4	4	7	1	1	4	7	11	1	1	1	1	1

SPEC	CODE	BID ITEM	QTY	UNIT
764	0131	W-BEAM GUARDRAIL		
		Sta 12530+88.30 to 12532+64.95 Lt	176.9	LF
764	0145	W-BEAM GUARDRAIL END TERMINAL		
		Sta 12532+64.95 to 12533+11.73 Lt	1	Ea

SPEC	CODE	BID ITEM	QTY	UNIT
764	0151	REMOVE W-BEAM GUARDRAIL & POSTS		
		Sta 12530+87.15 to 12532+63.77 Lt	176.9	LF
764	2081	REMOVE END TREATMENT & TRANSITION		
		Sta 12532+63.77 to 12533+13.66 Lt	1	Ea

(A) Include these items in the contract unit price bid for "W-Beam Guardrail".

REGISTERED PROFESSIONAL ENGINEER
Darell Arne
PE-6529
DATE 12/30/25
NORTH DAKOTA

MGS W-Beam Guardrail Quantities

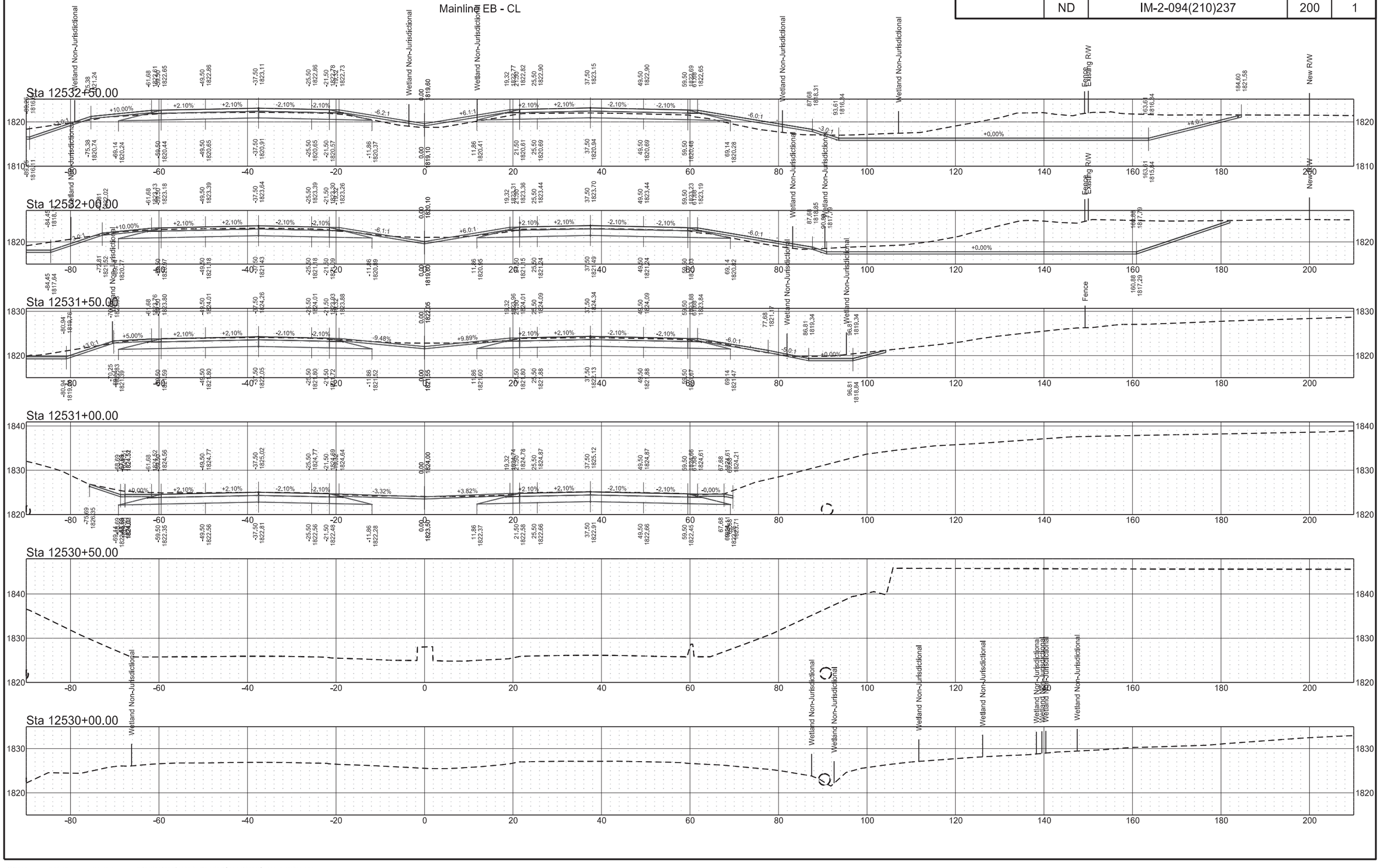
West Cleveland Interchange
RP 237.322

I-94

Cross Sections

Mainline EB - CL

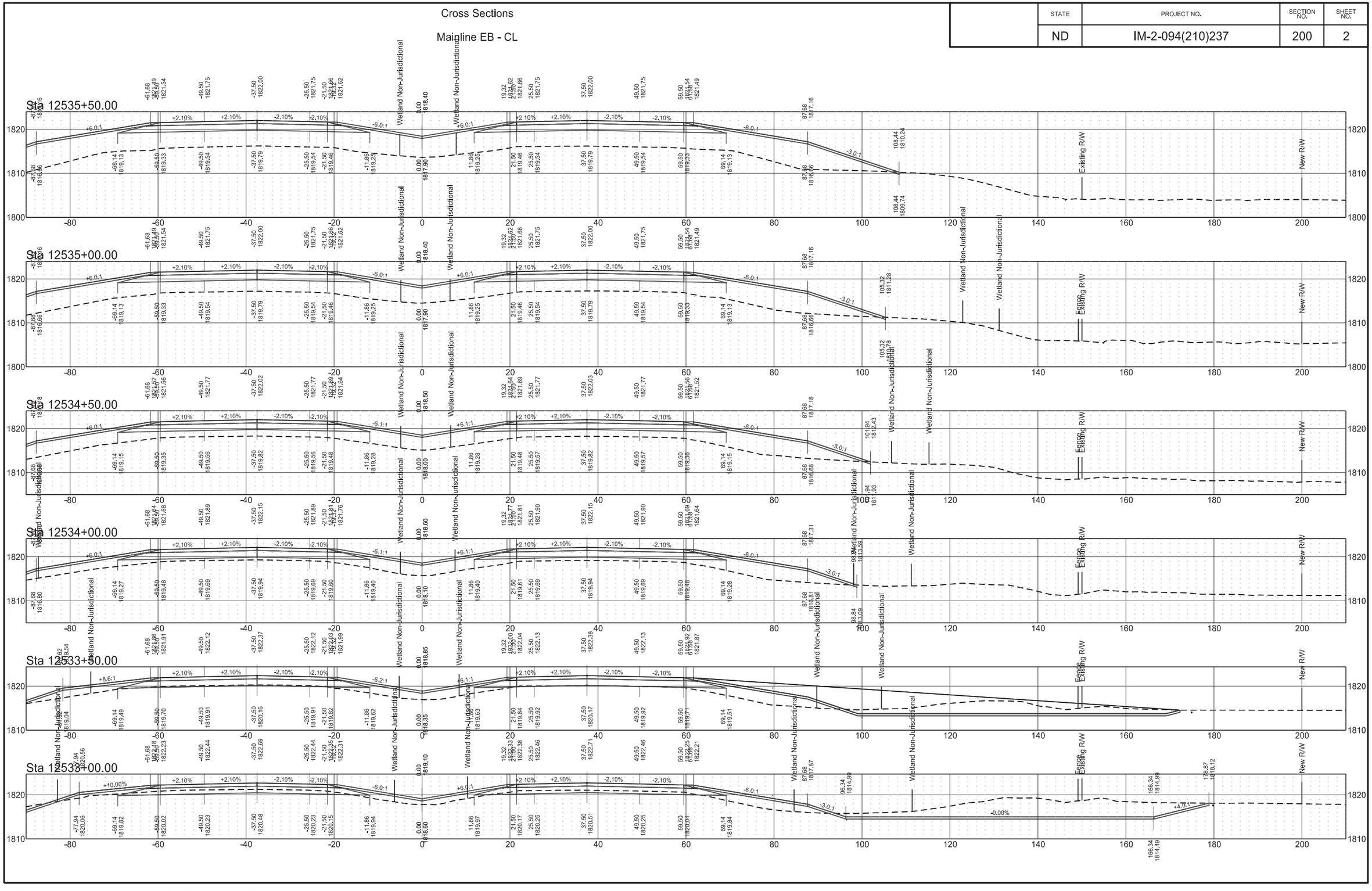
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	1



Cross Sections

Mainline EB - CL

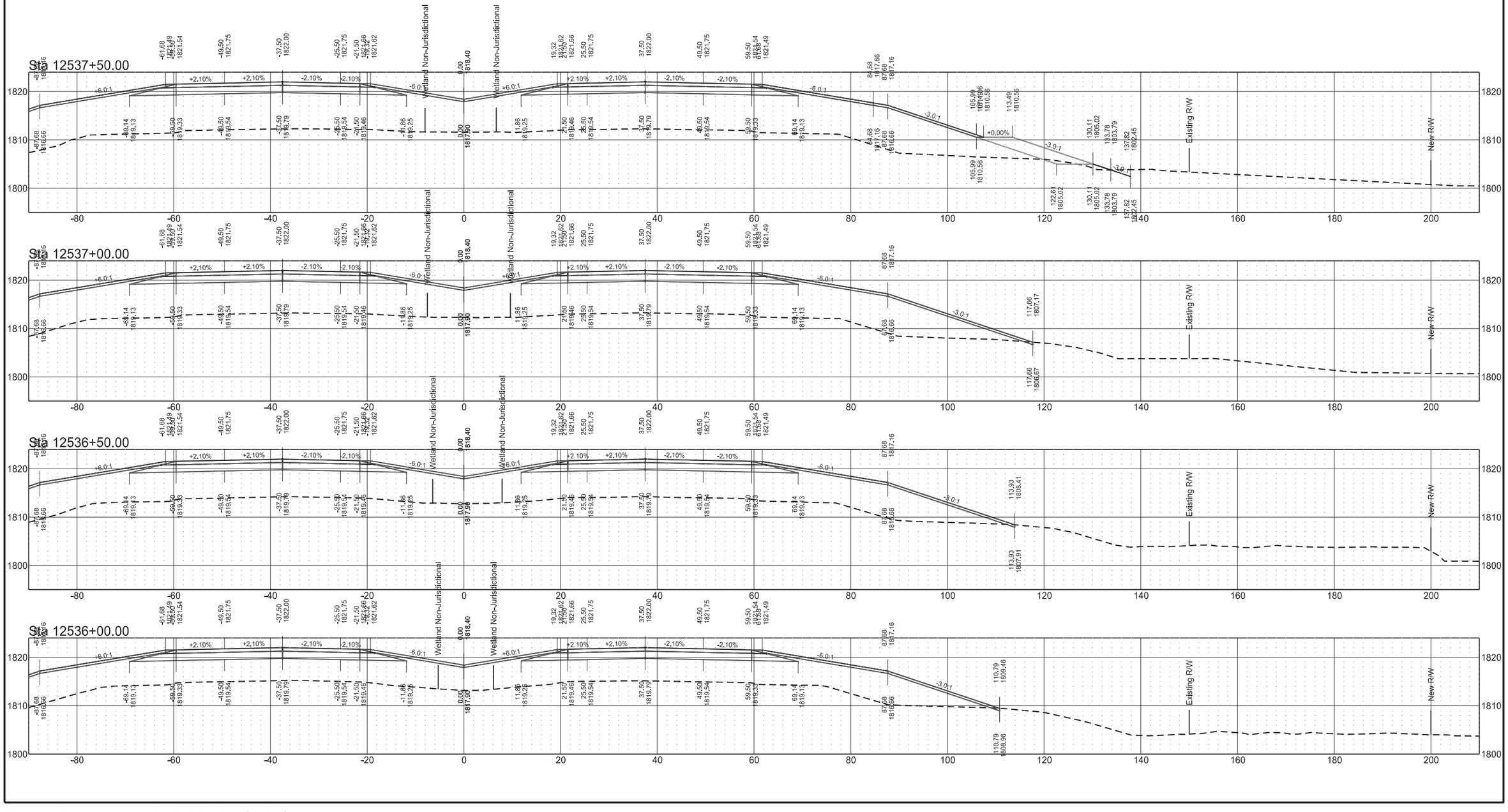
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	2



Cross Sections

Mainline EB - CL

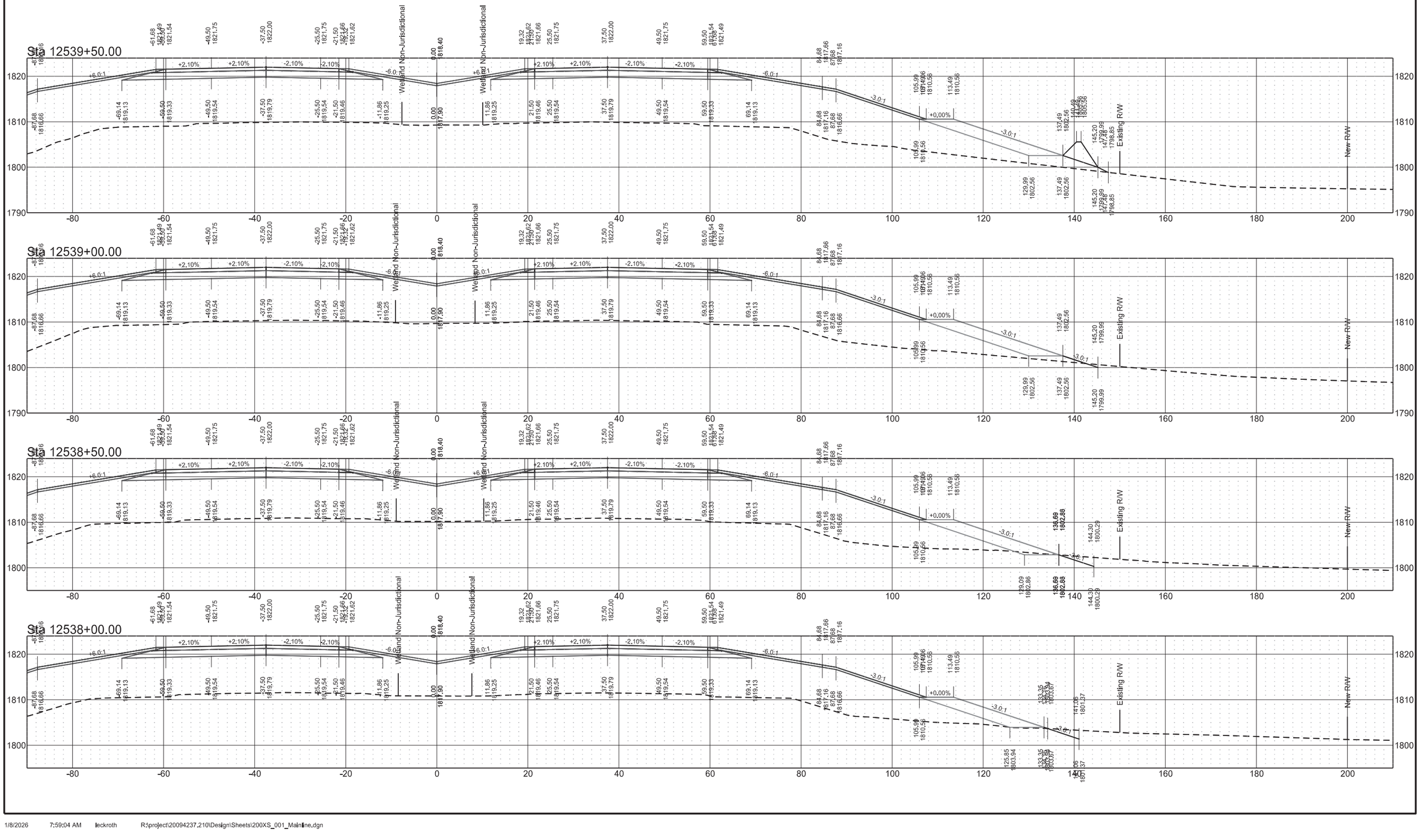
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	3



Cross Sections

Mainline EB - CL

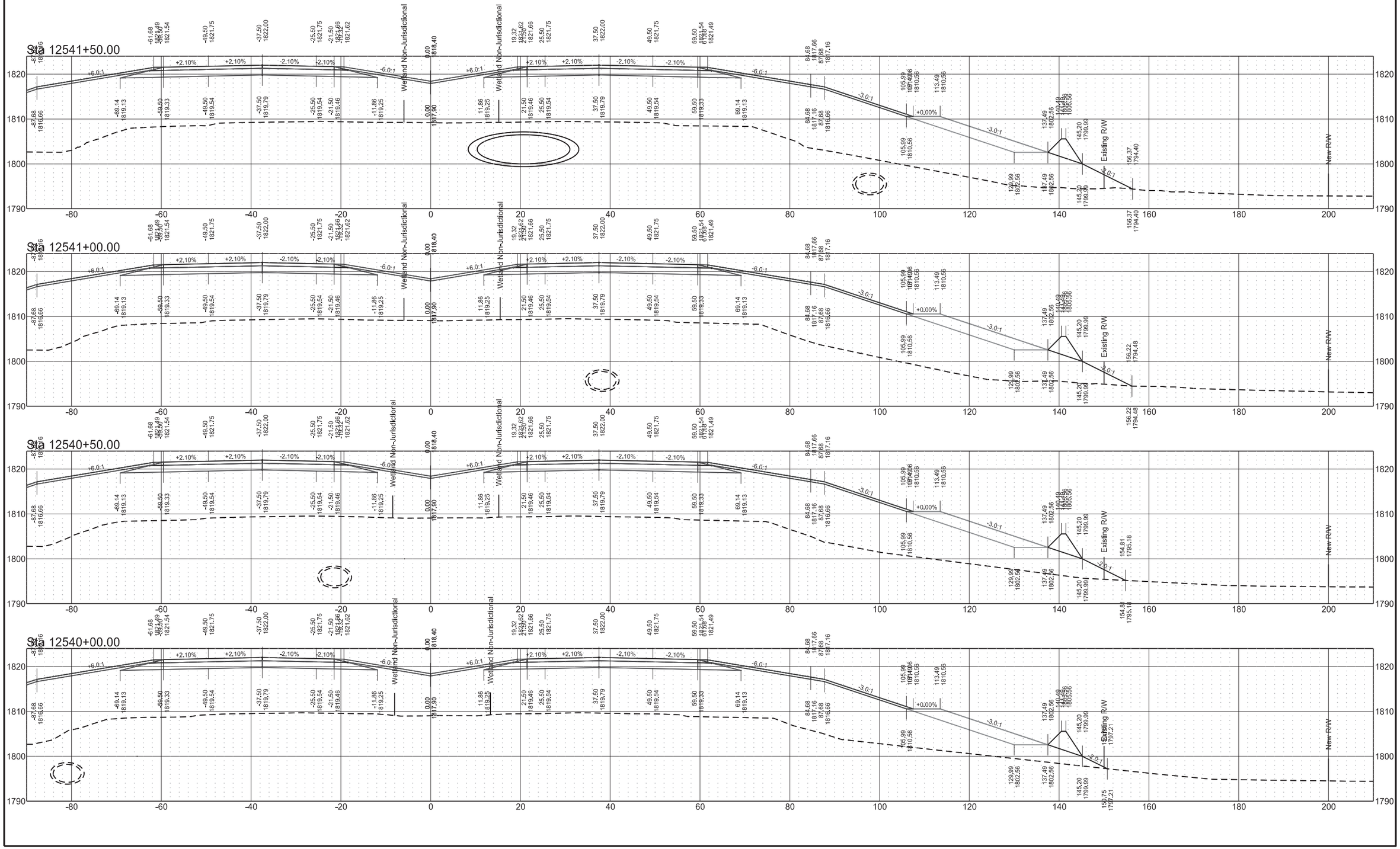
T1	D1	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
T2	D2				
T3	D3	ND	IM-2-094(210)237	200	4
T4	D4				



Cross Sections

Mainline EB - CL

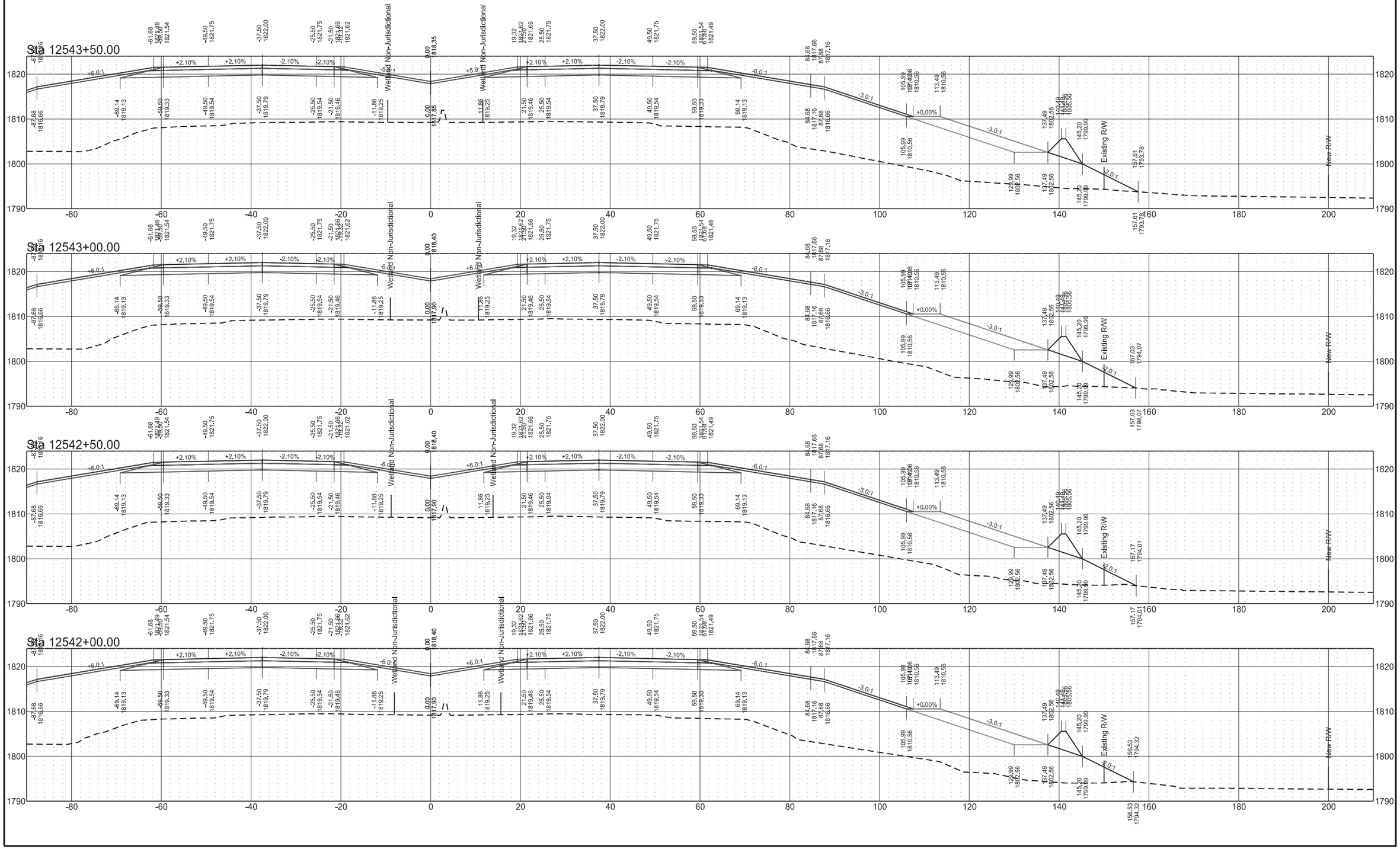
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	5



Cross Sections

Mainline EB - CL

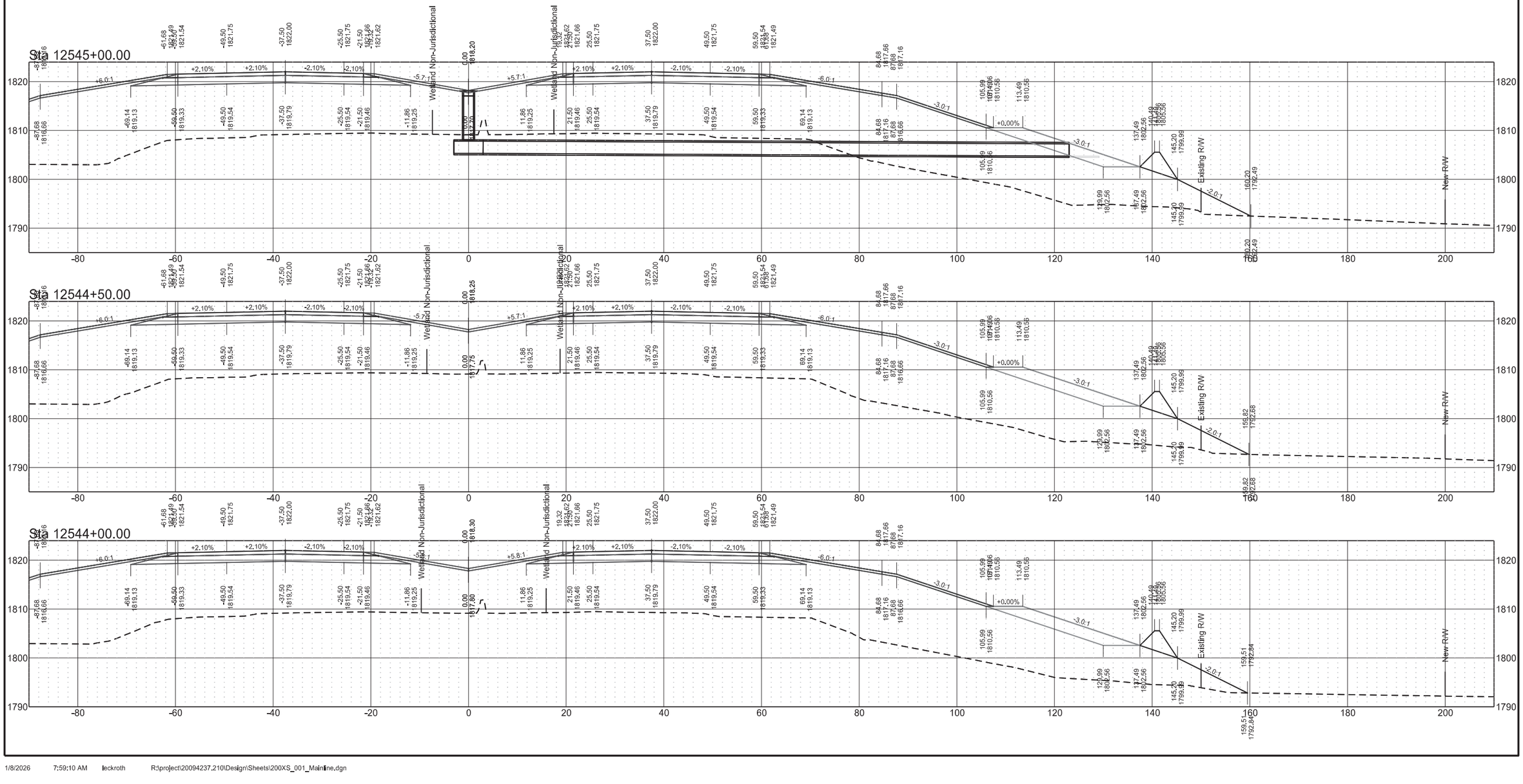
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	6



Cross Sections

Mainline EB - CL

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	7



Cross Sections

Mainline EB - CL

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	8

Cross Sections

Mainline EB - CL

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	9

Cross Sections

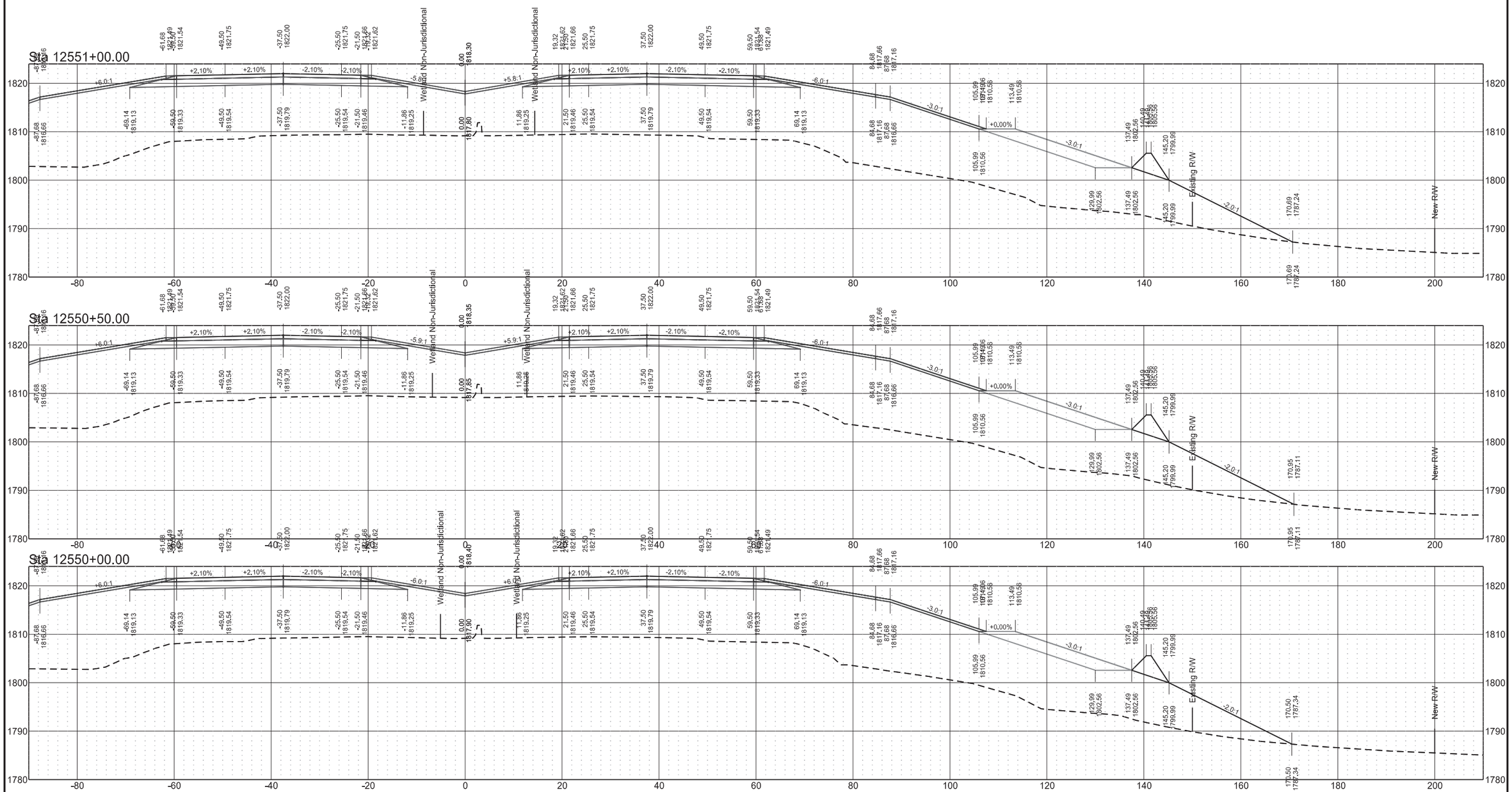
Mainline EB - CL

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	10

Cross Sections

Mainline EB - CL

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	11



Cross Sections

Mainline EB - CL

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	12

Cross Sections

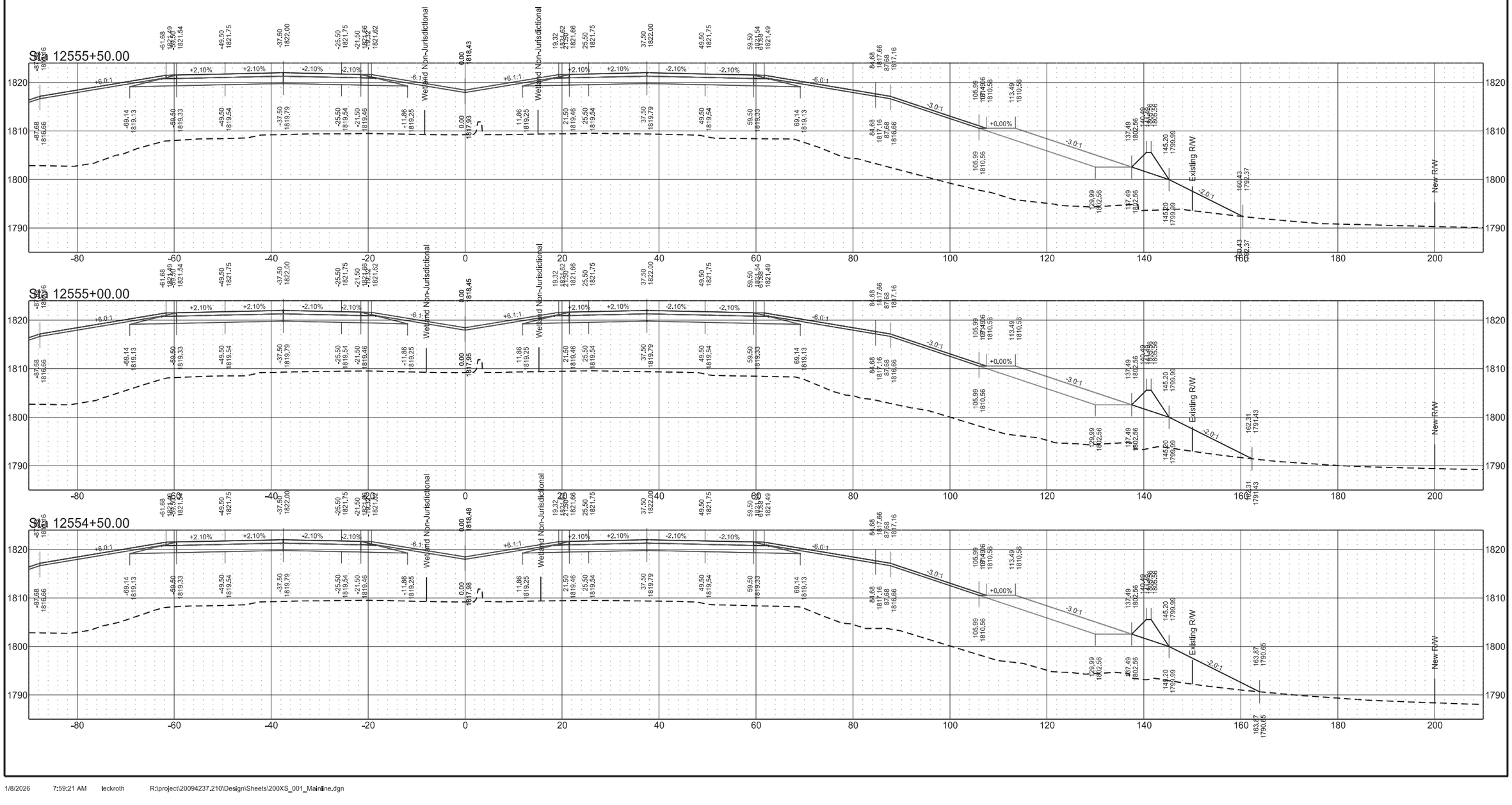
Mainline EB - CL

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	13

Cross Sections

Mainline EB - CL

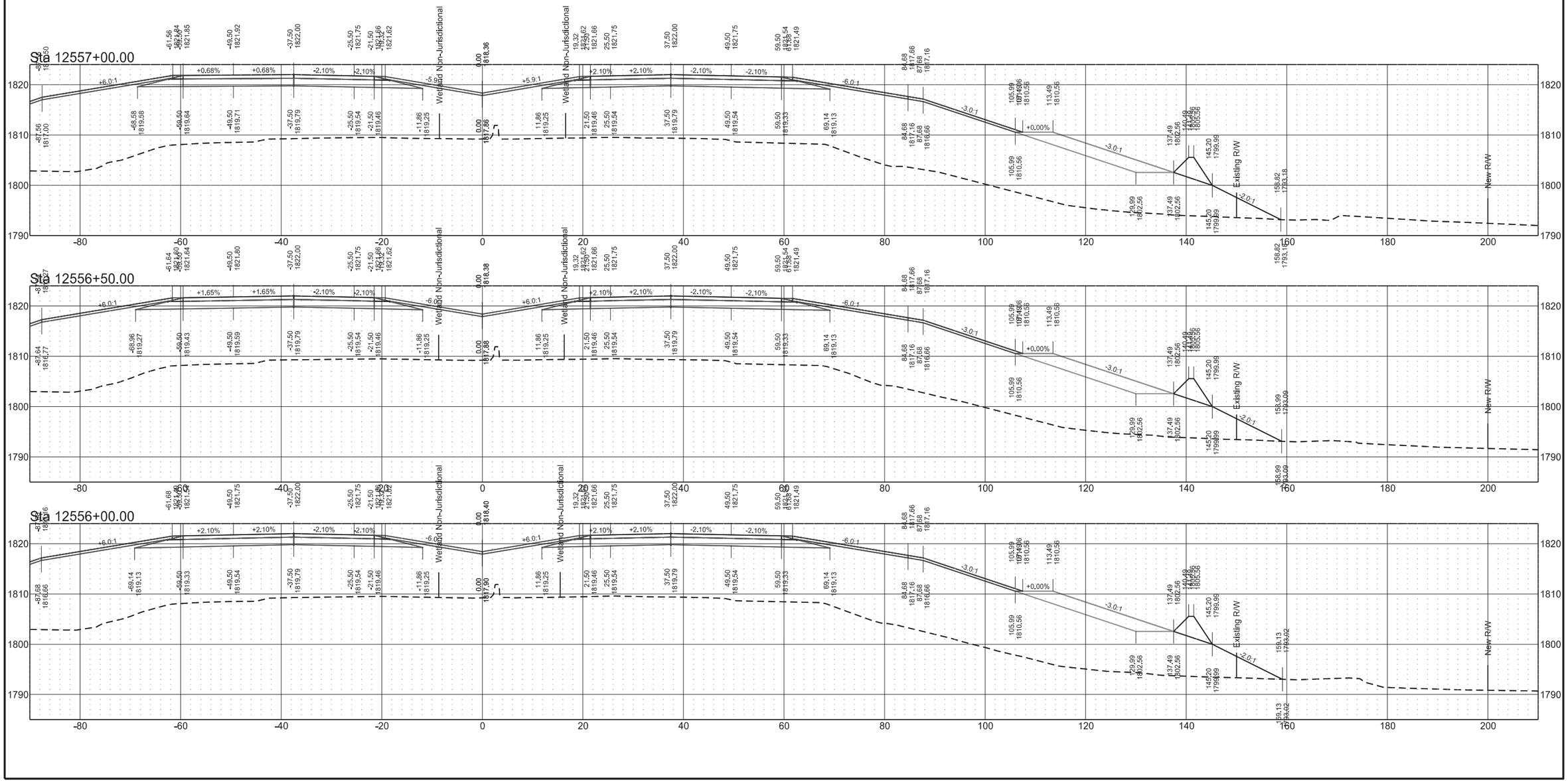
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	14



Cross Sections

Mainline EB - CL

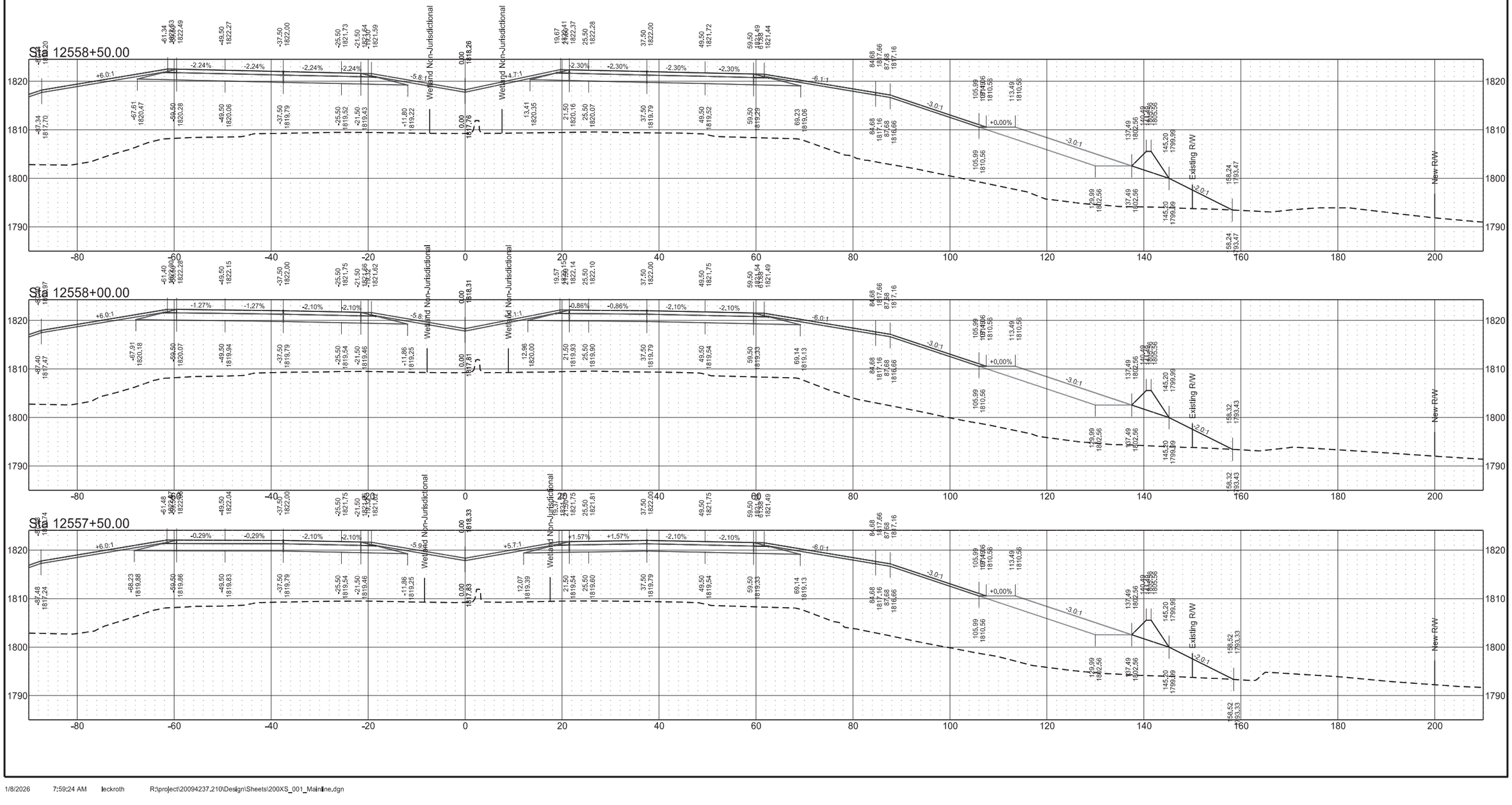
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	15



Cross Sections

Mainline EB - CL

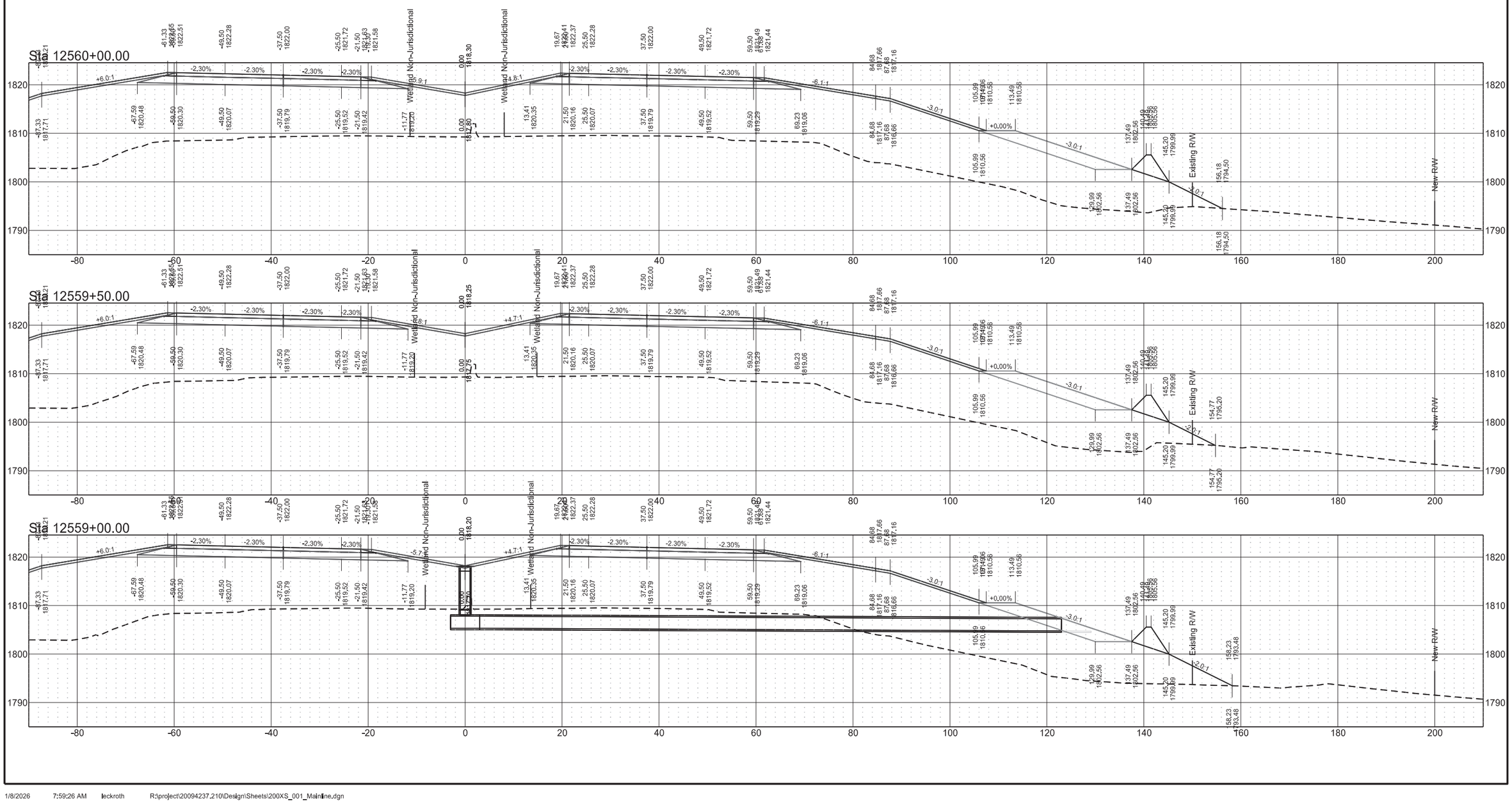
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	16



Cross Sections

Mainline EB - CL

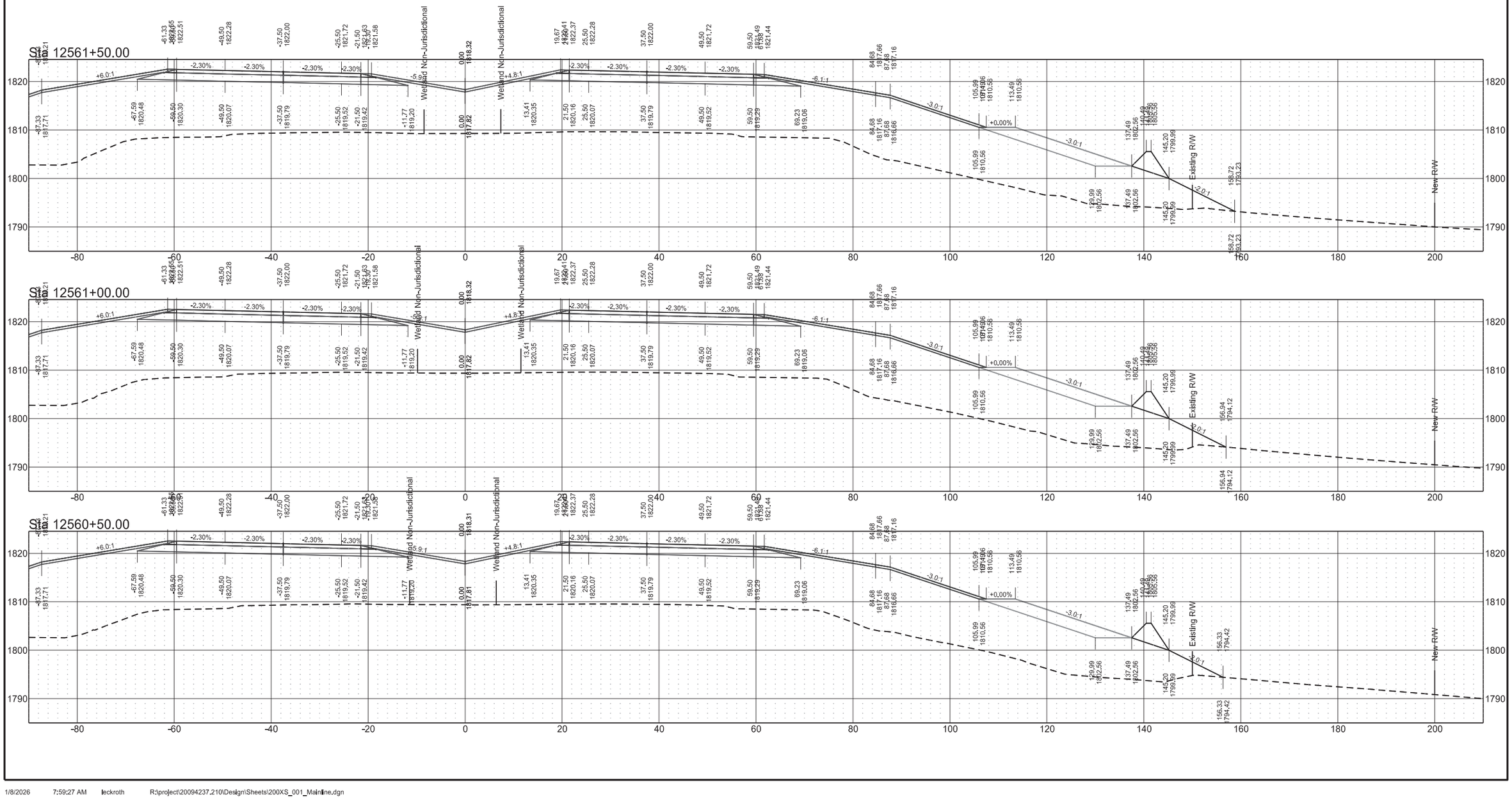
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	17



Cross Sections

Mainline EB - CL

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	18



Cross Sections

Mainline EB - CL

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	19

Cross Sections

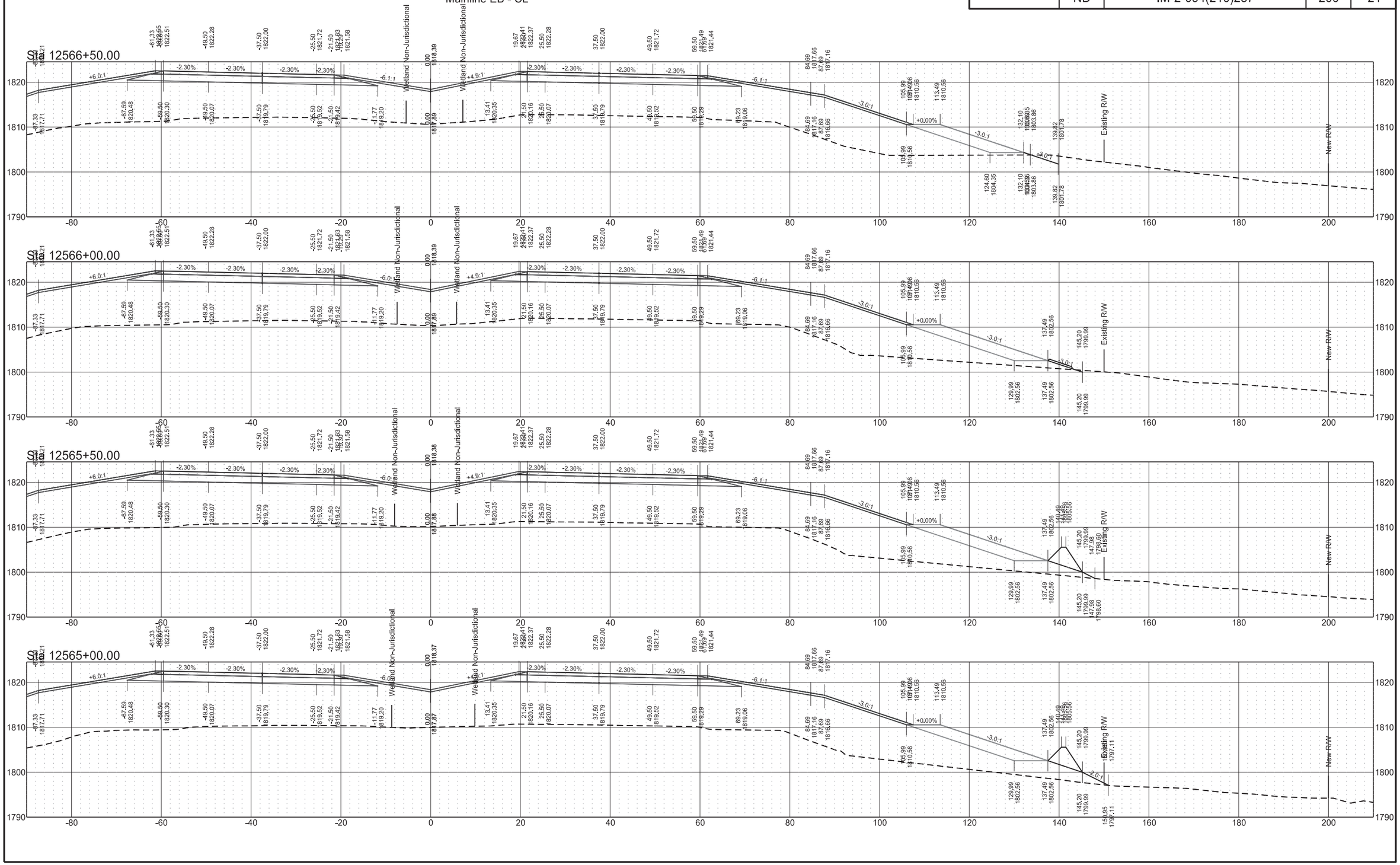
Mainline EB - CL

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	20

Cross Sections

Mainline EB - CL

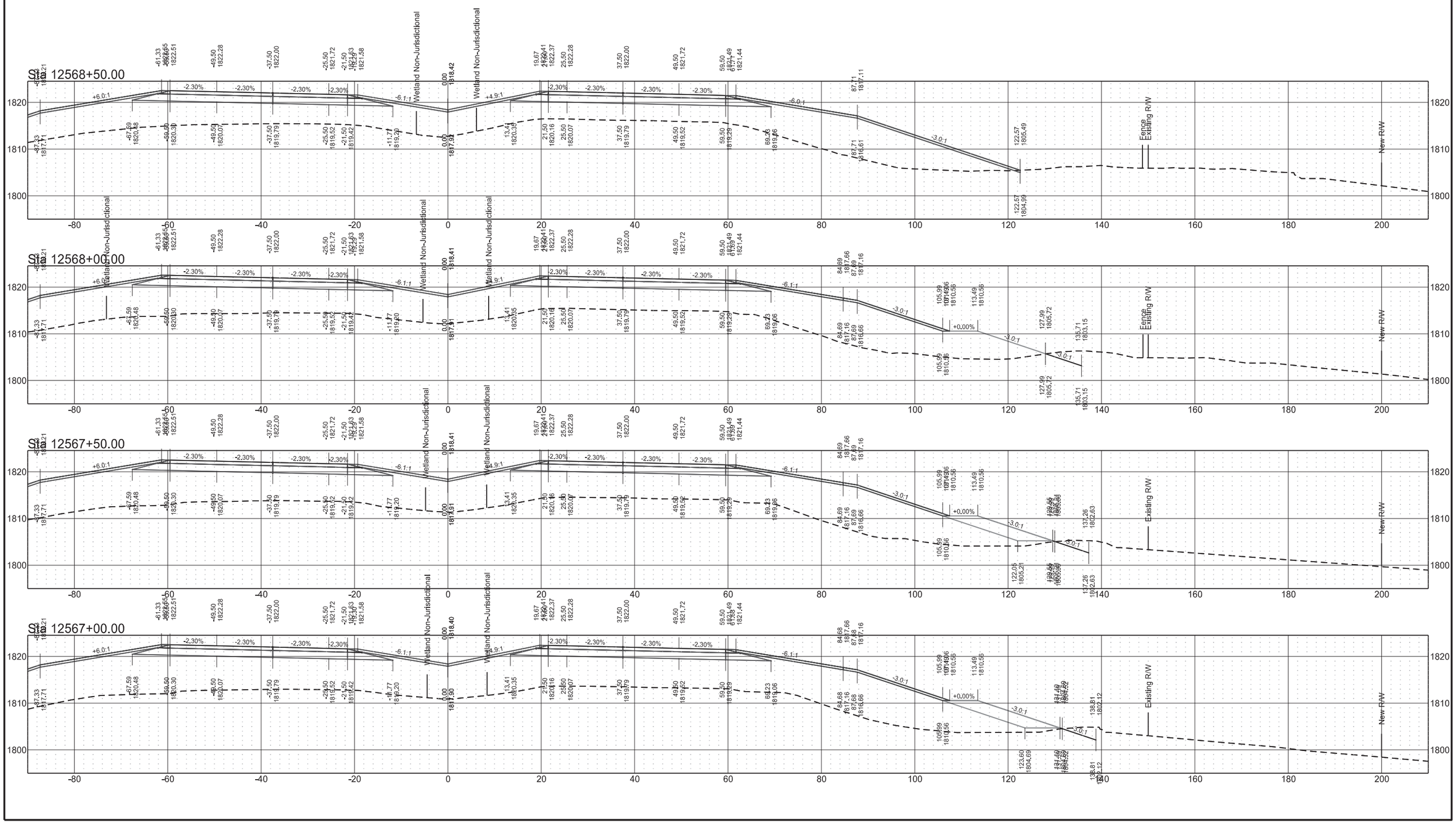
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	21



Cross Sections

Mainline EB - CL

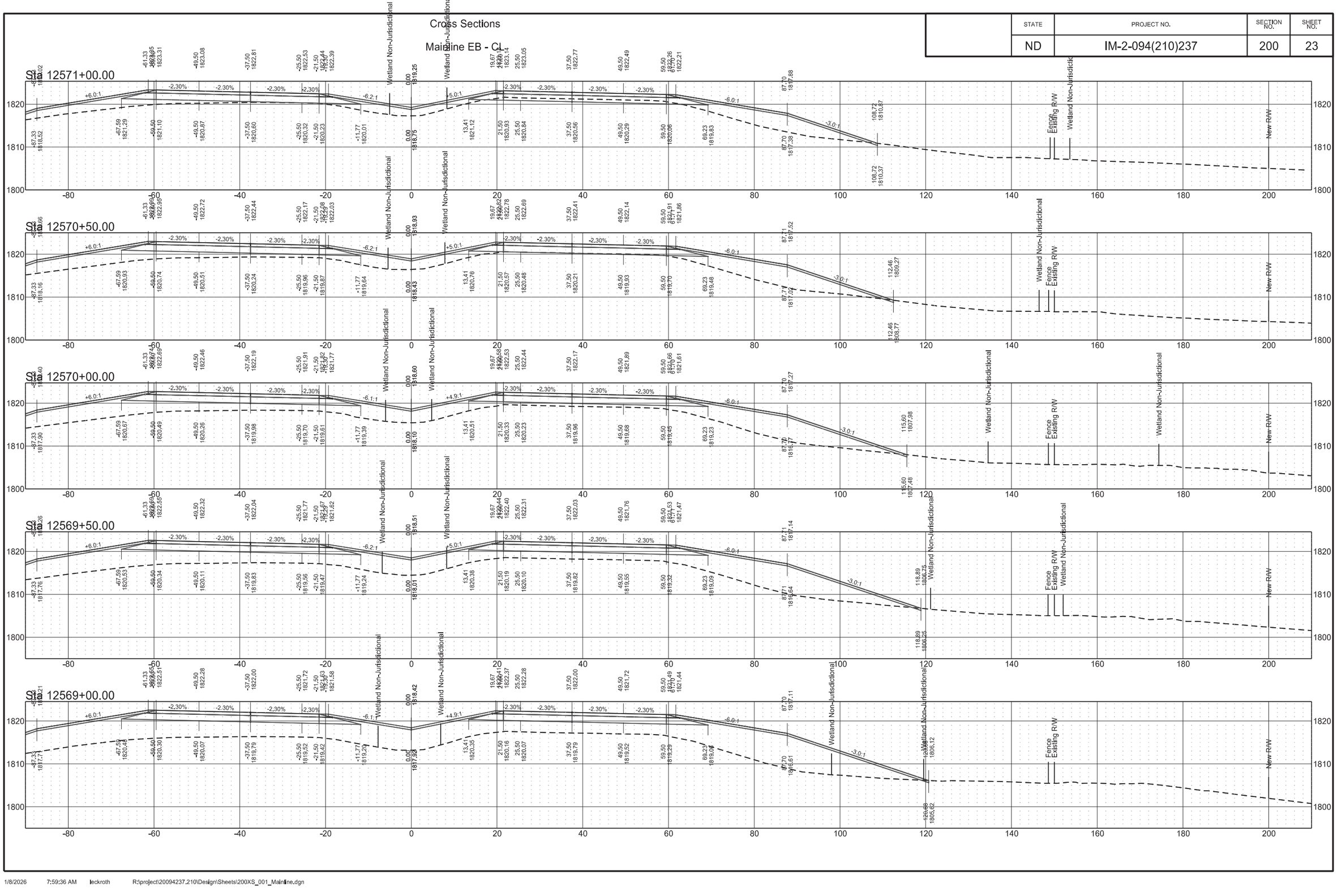
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	22



Cross Sections

Mainline EB - CL

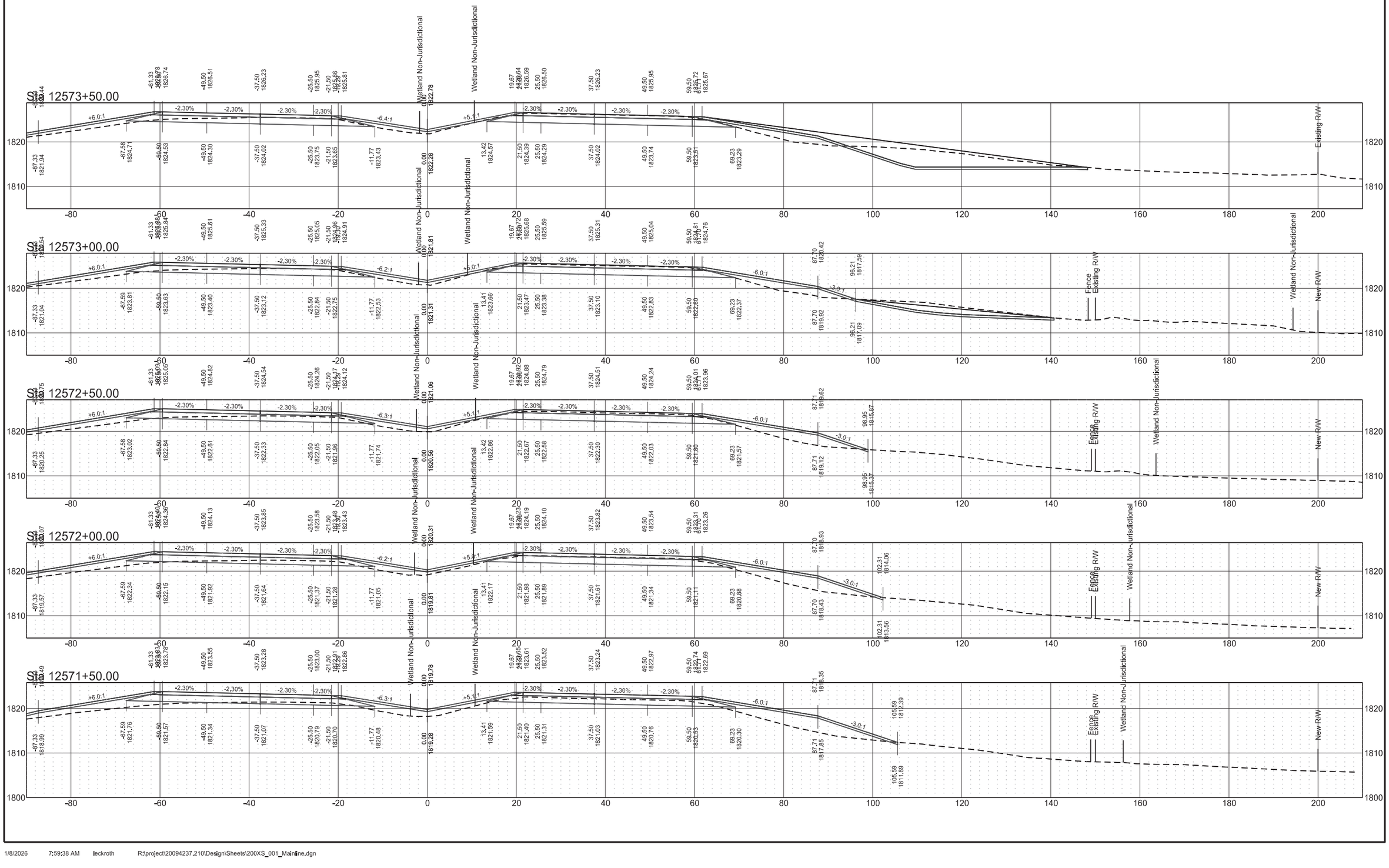
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	23



Cross Sections

Mainline EB - CL

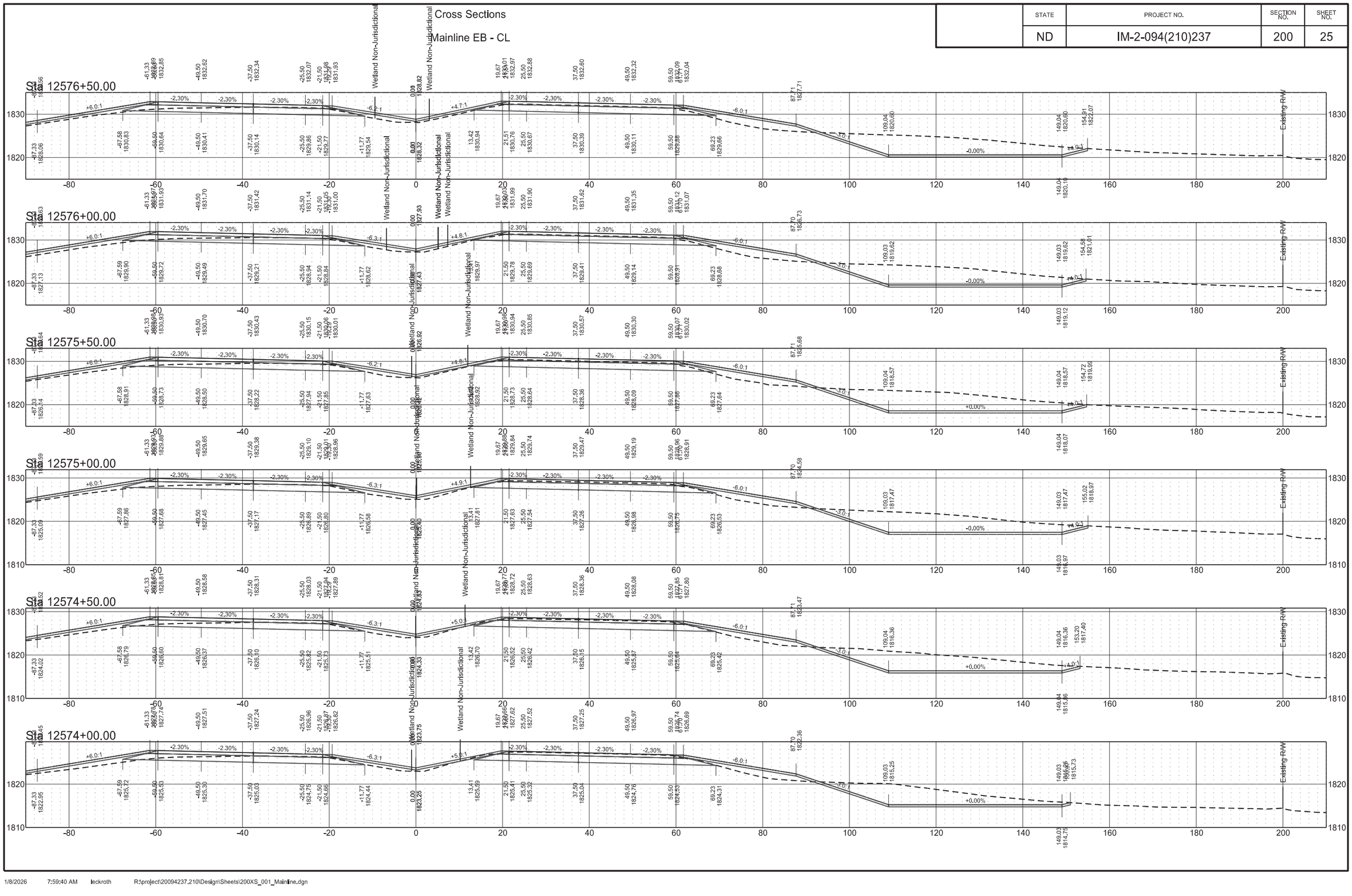
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	24



Cross Sections

Mainline EB - CL

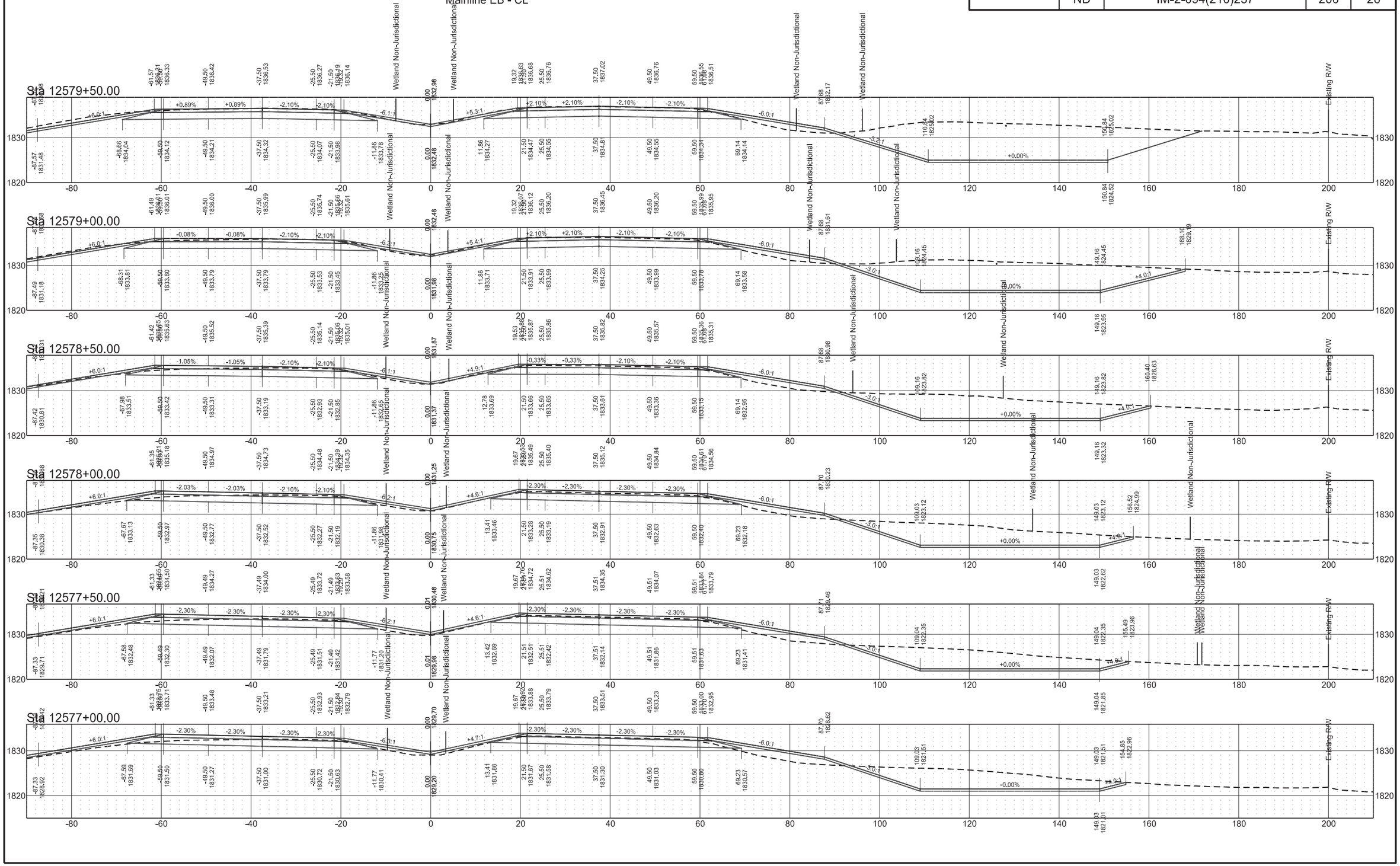
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	25



Cross Sections

Mainline EB - CL

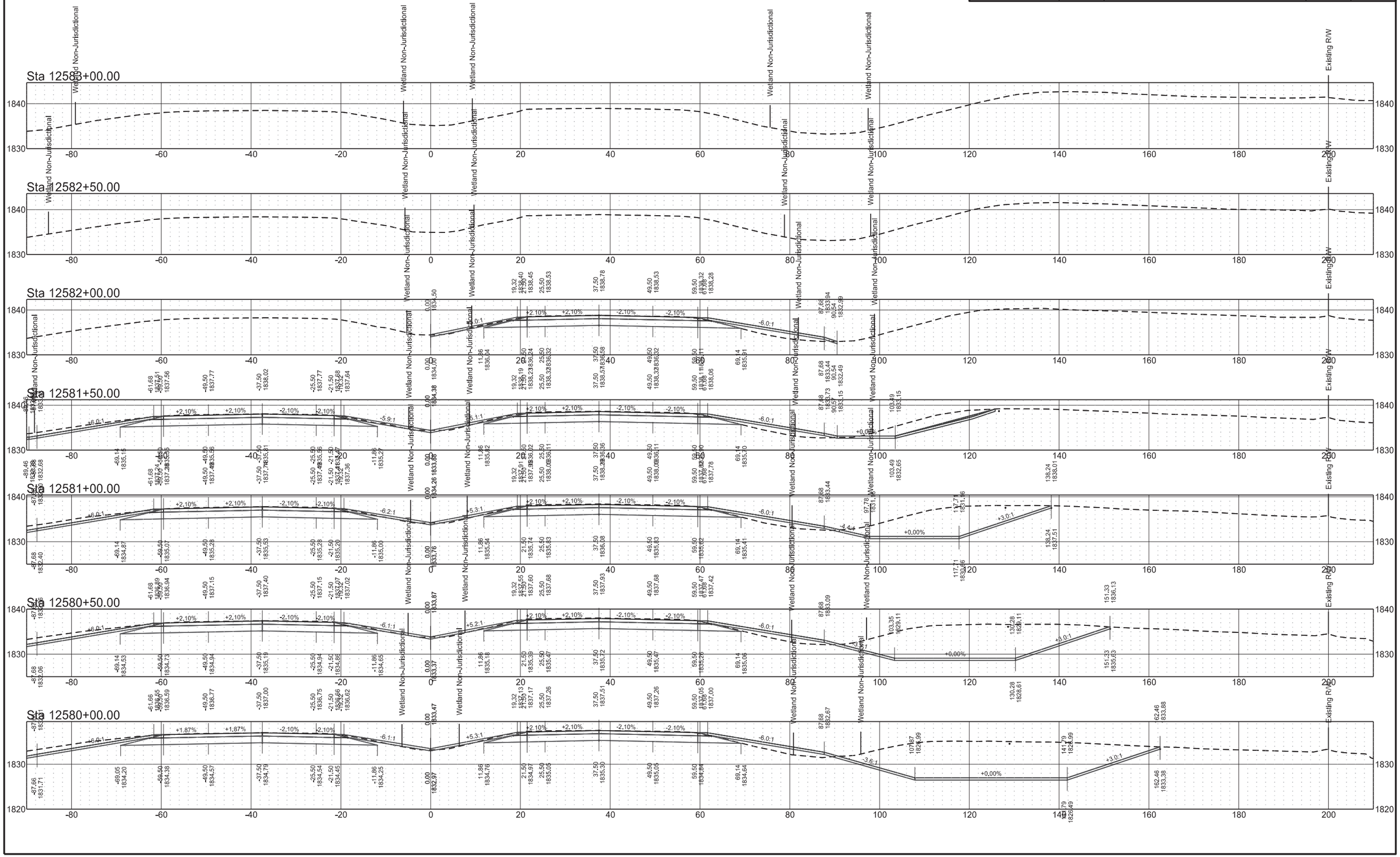
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	26



Cross Sections

Mainline EB - CL

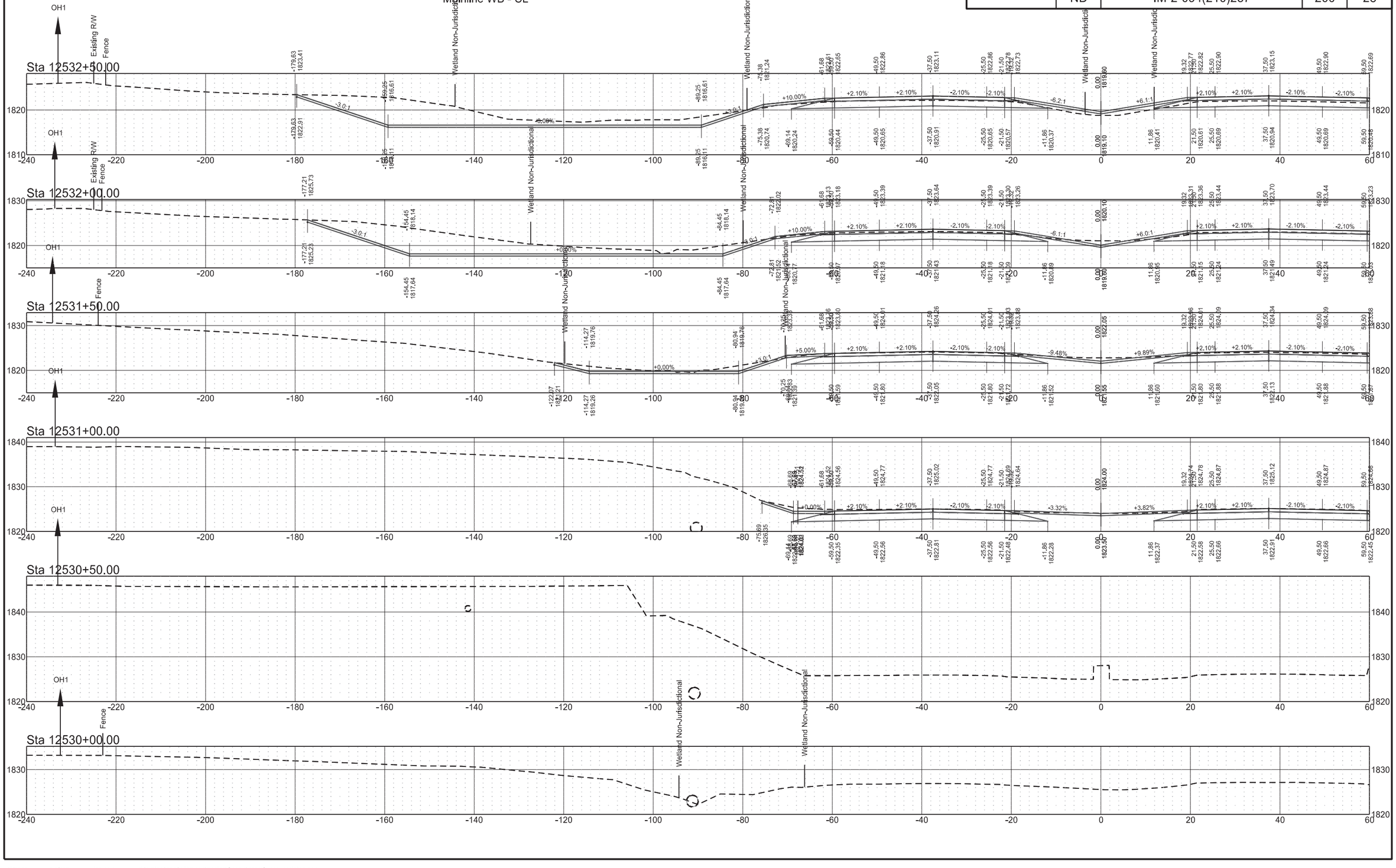
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	27



Cross Sections

Mainline WB - CL

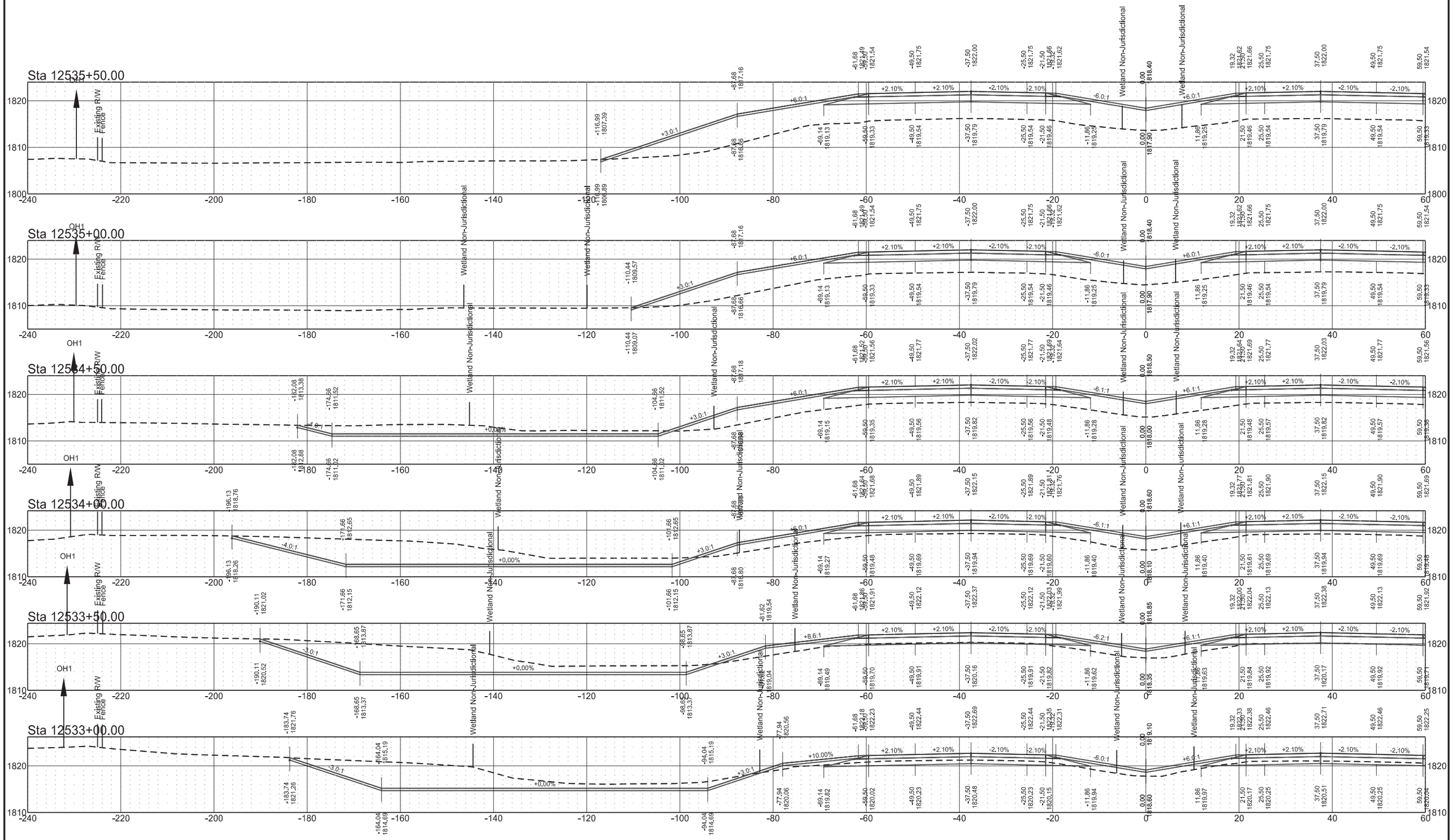
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	28



Cross Sections

Mainline WB - CL

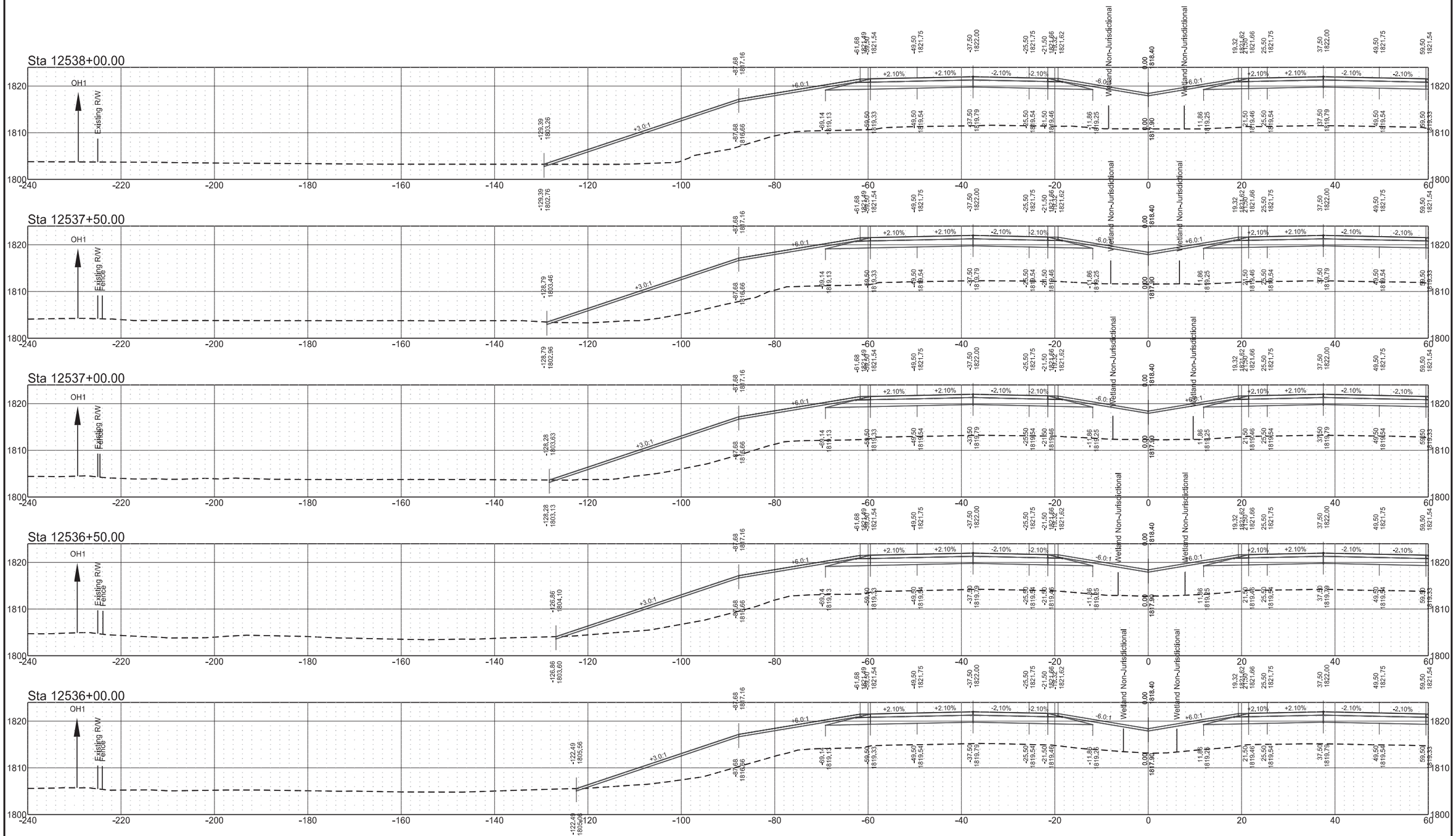
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	29



Cross Sections

Mainline WB - CL

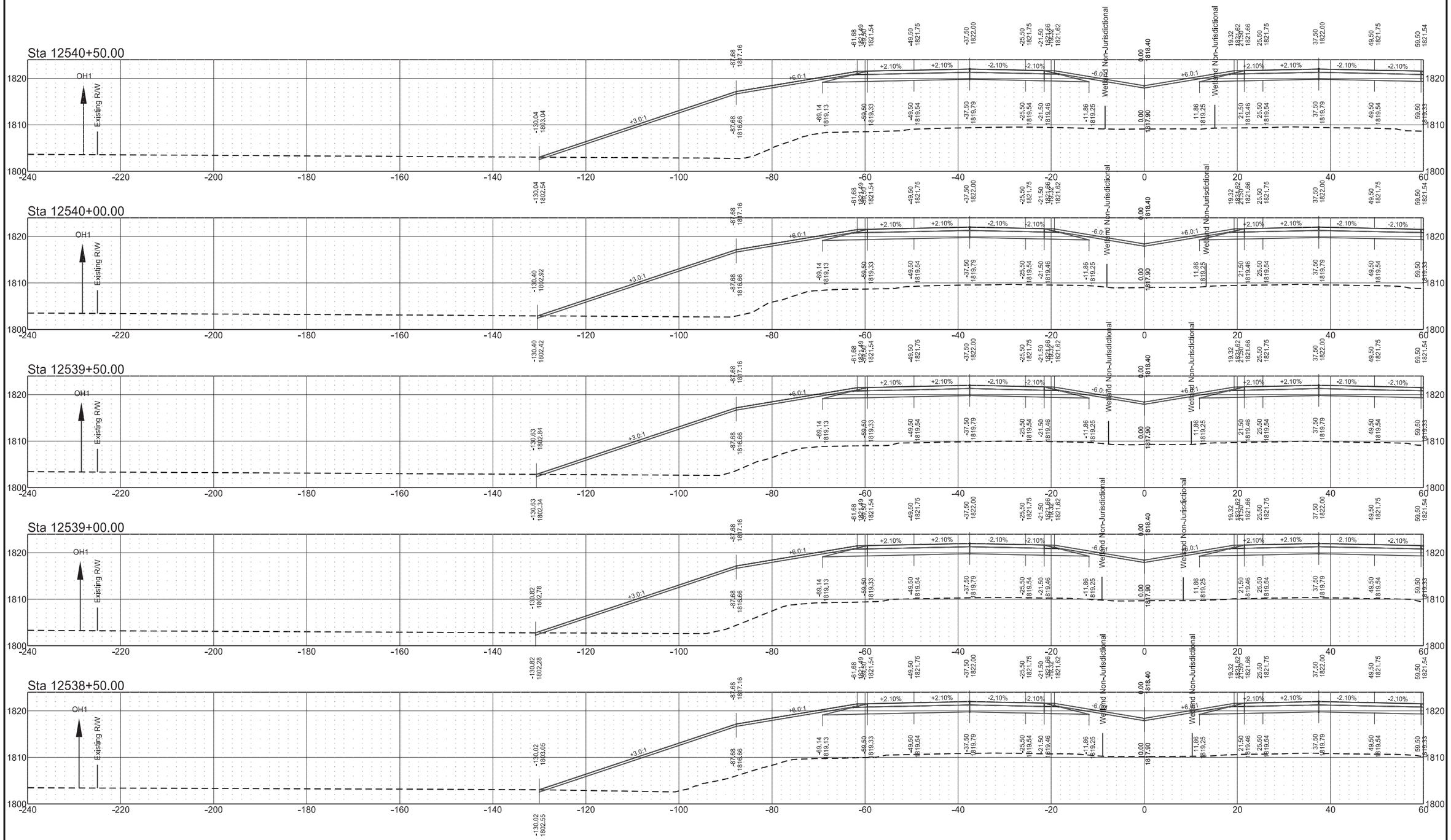
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	30



Cross Sections

Mainline WB - CL

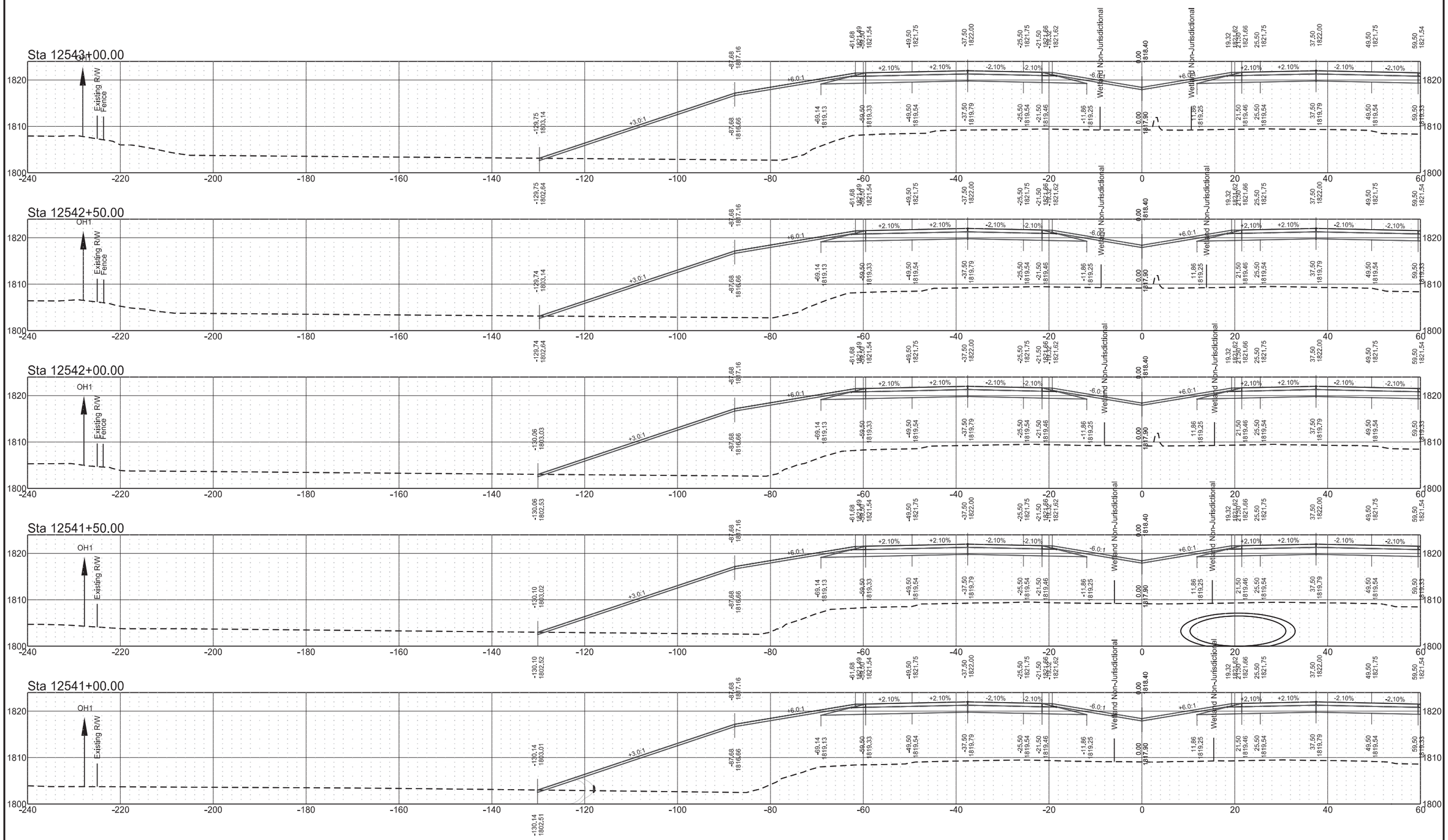
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	31



Cross Sections

Mainline WB - CL

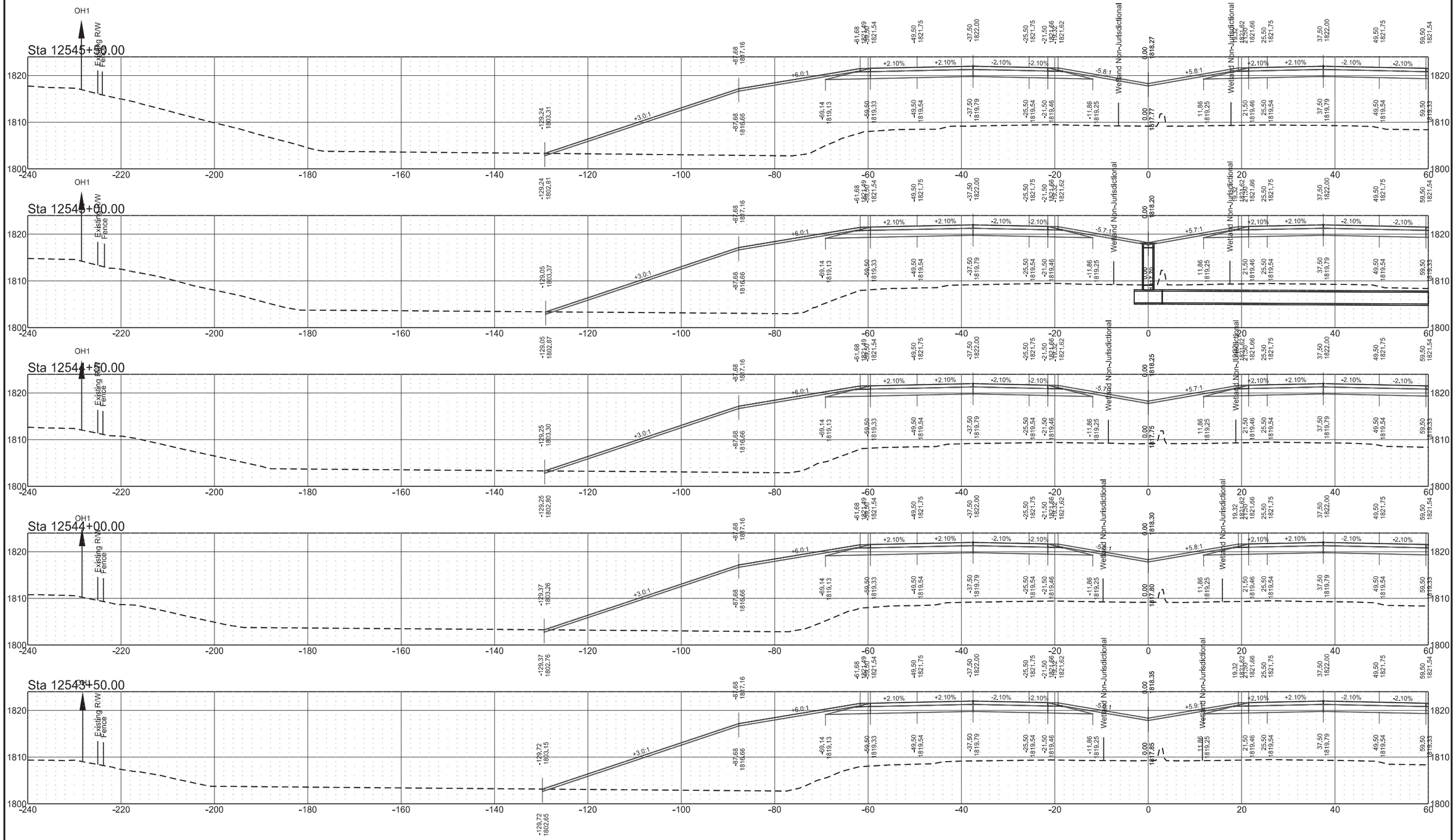
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	32



Cross Sections

Mainline WB - CL

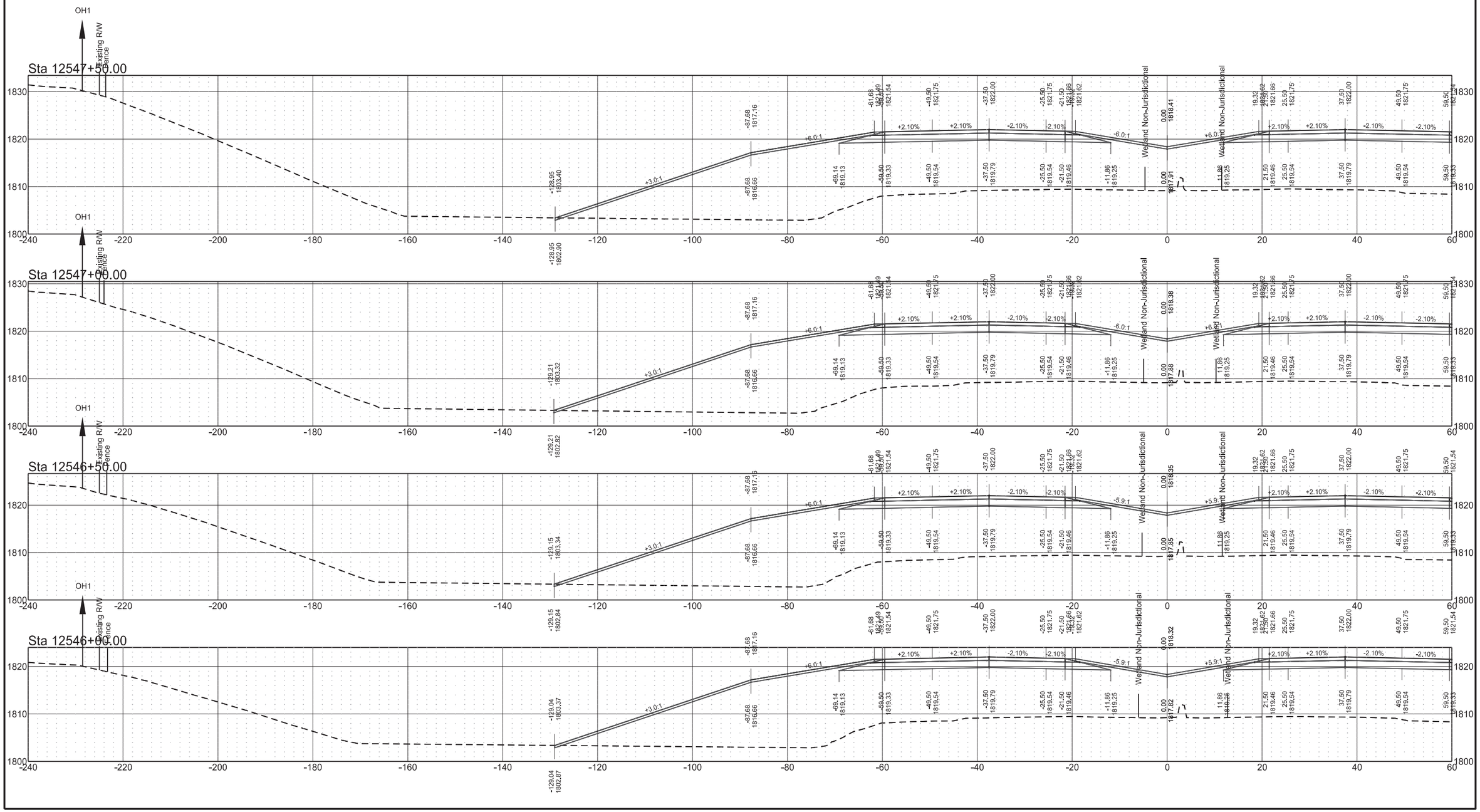
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	33



Cross Sections

Mainline WB - CL

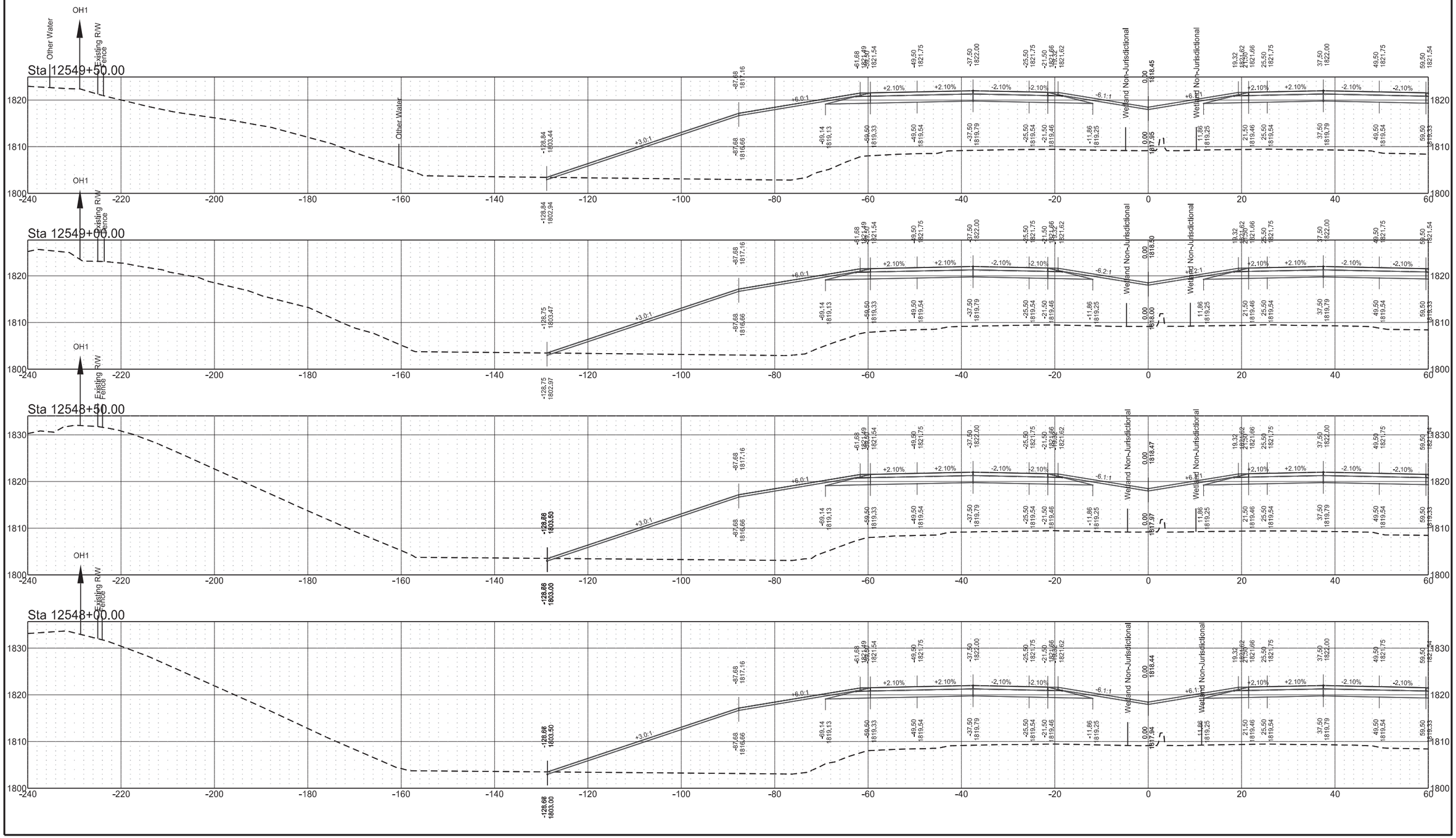
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	34



Cross Sections

Mainline WB - CL

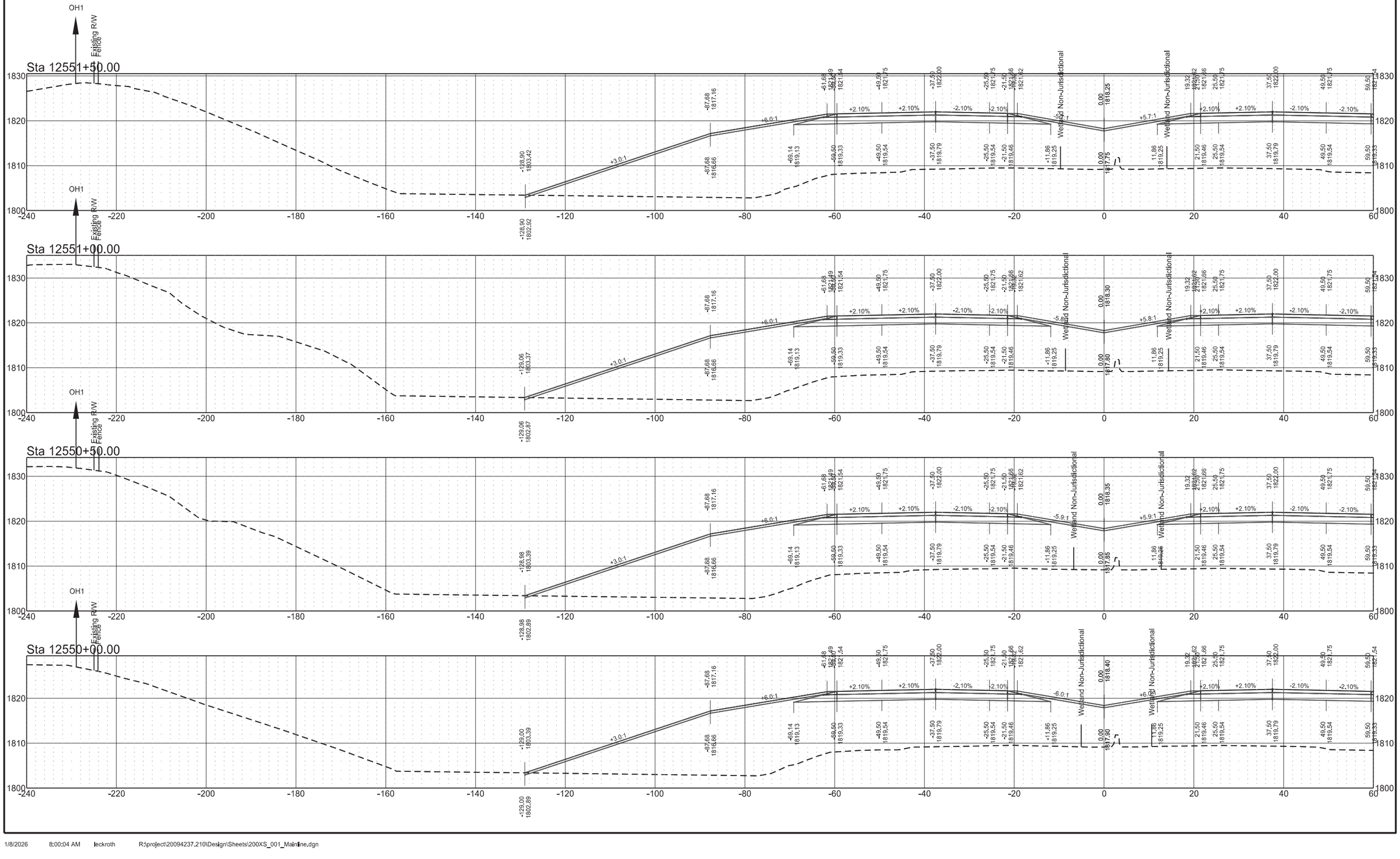
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	35



Cross Sections

Mainline WB - CL

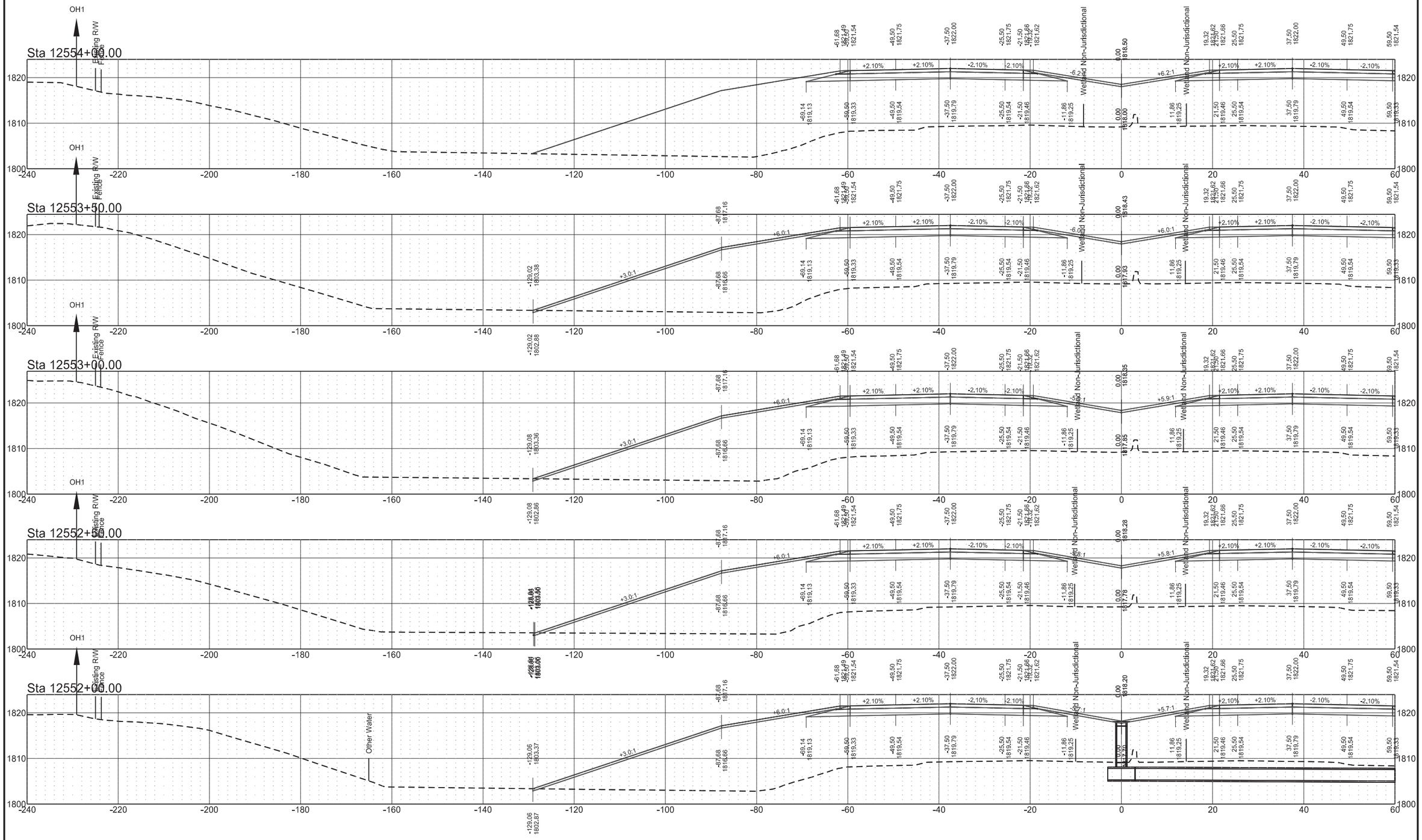
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	36



Cross Sections

Mainline WB - CL

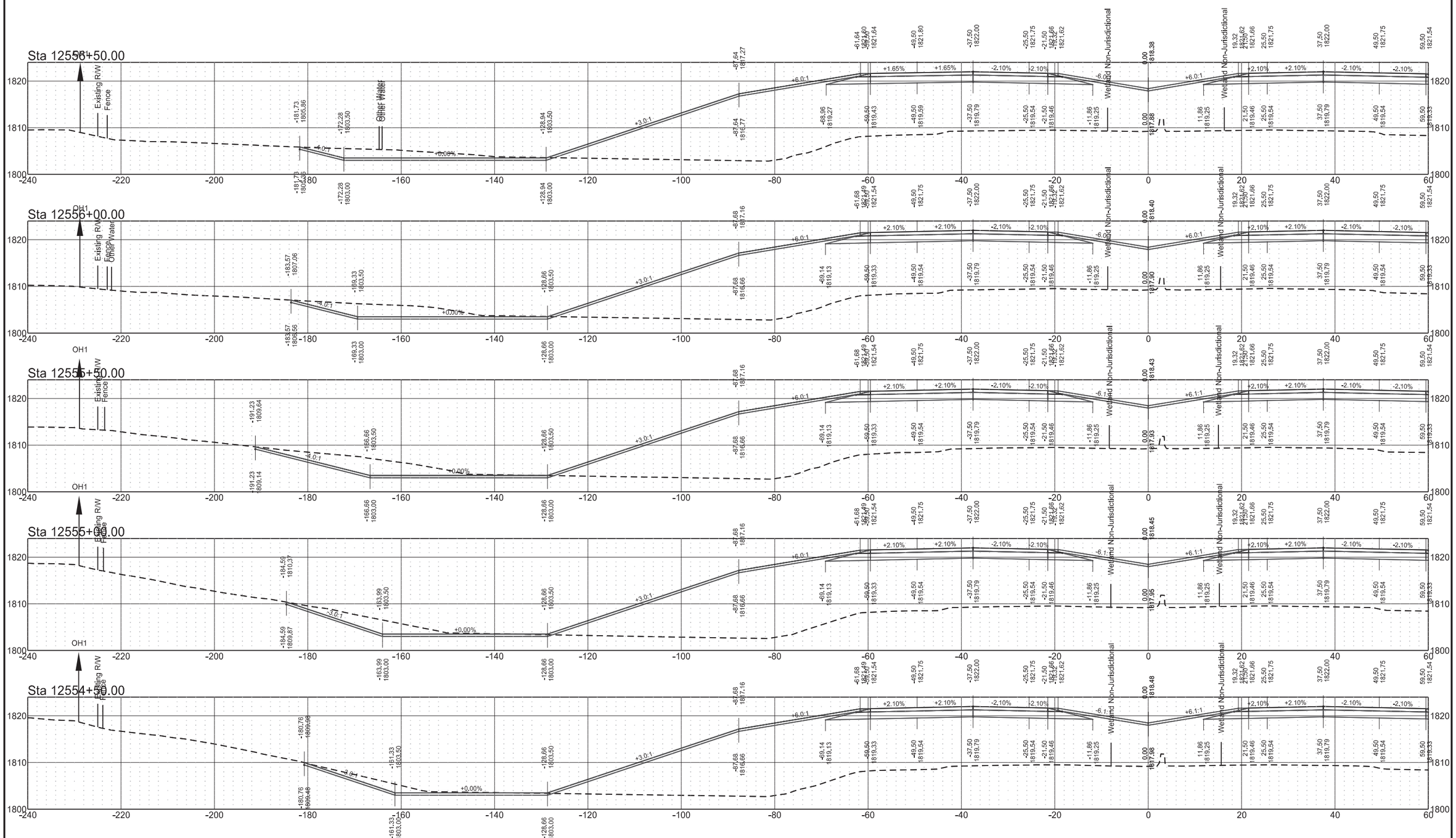
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	37



Cross Sections

Mainline WB - CL

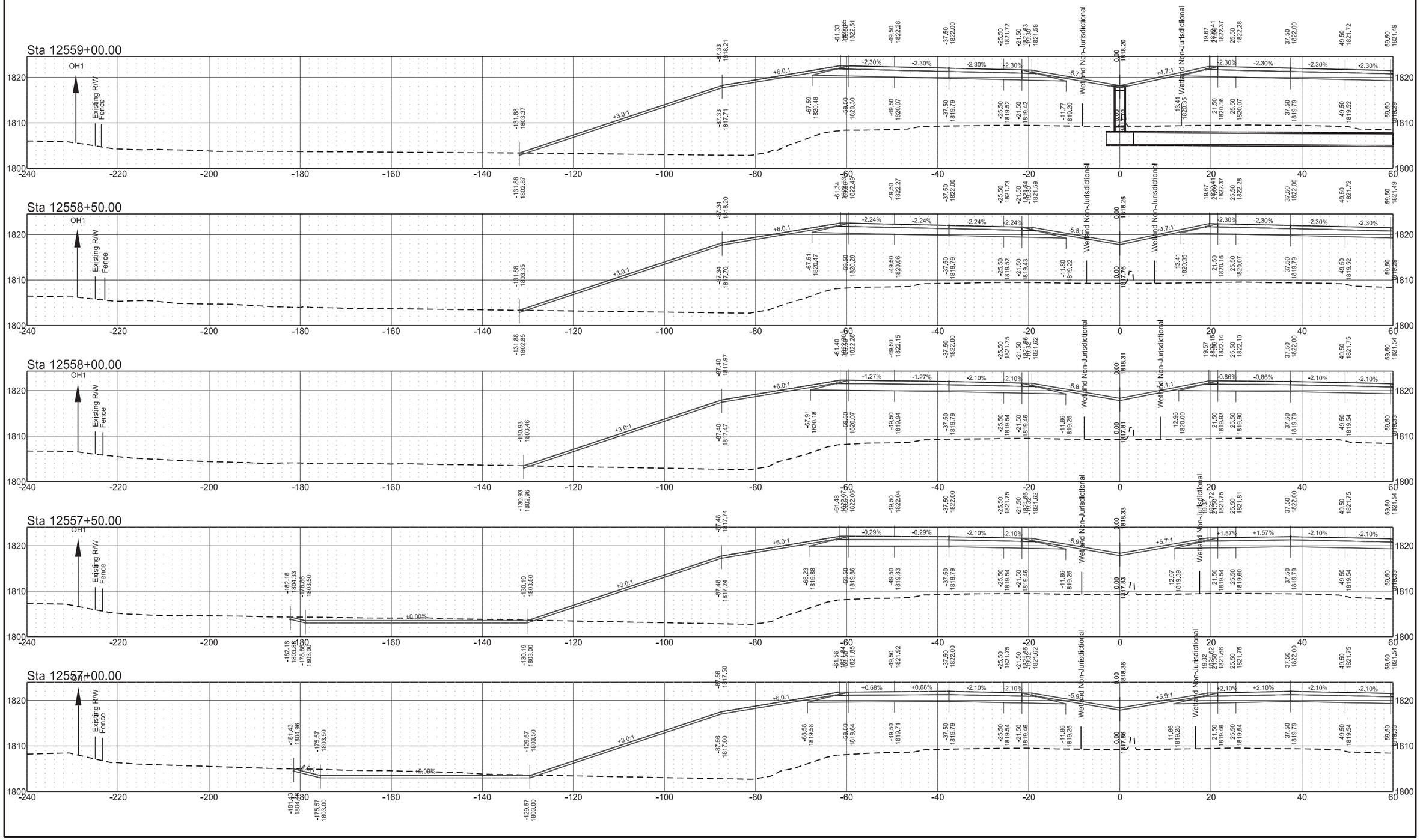
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	38



Cross Sections

Mainline WB - CL

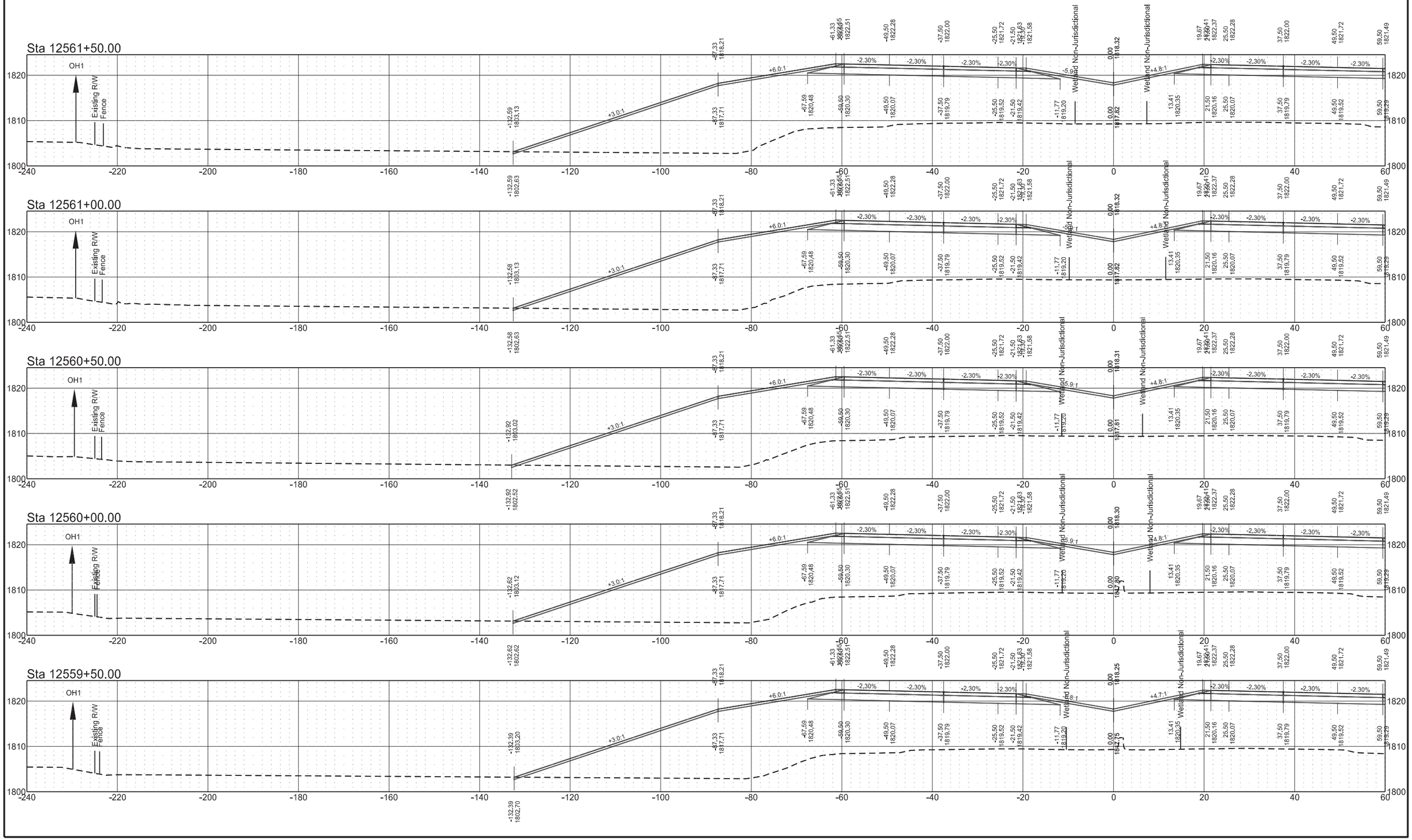
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	39



Cross Sections

Mainline WB - CL

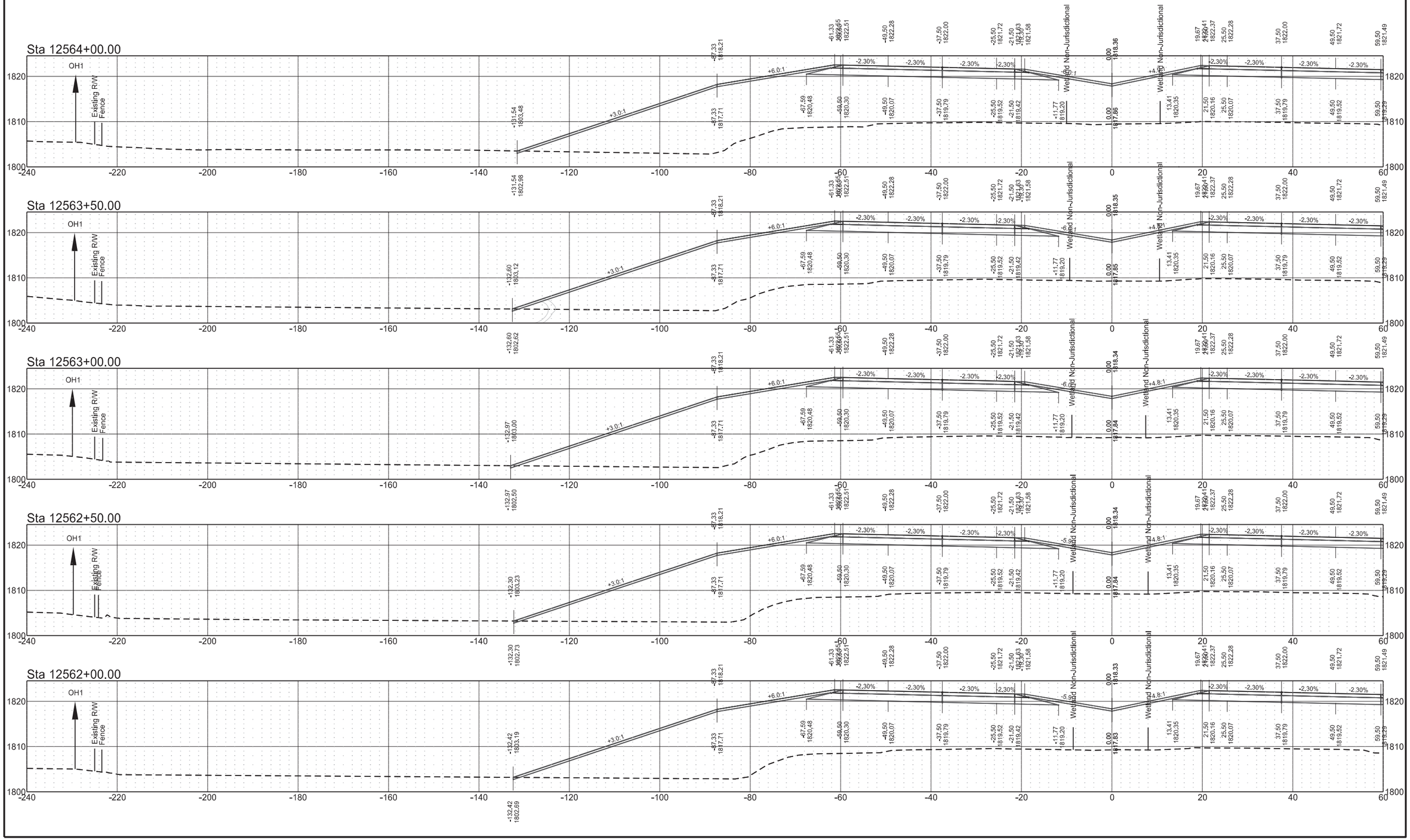
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	40



Cross Sections

Mainline WB - CL

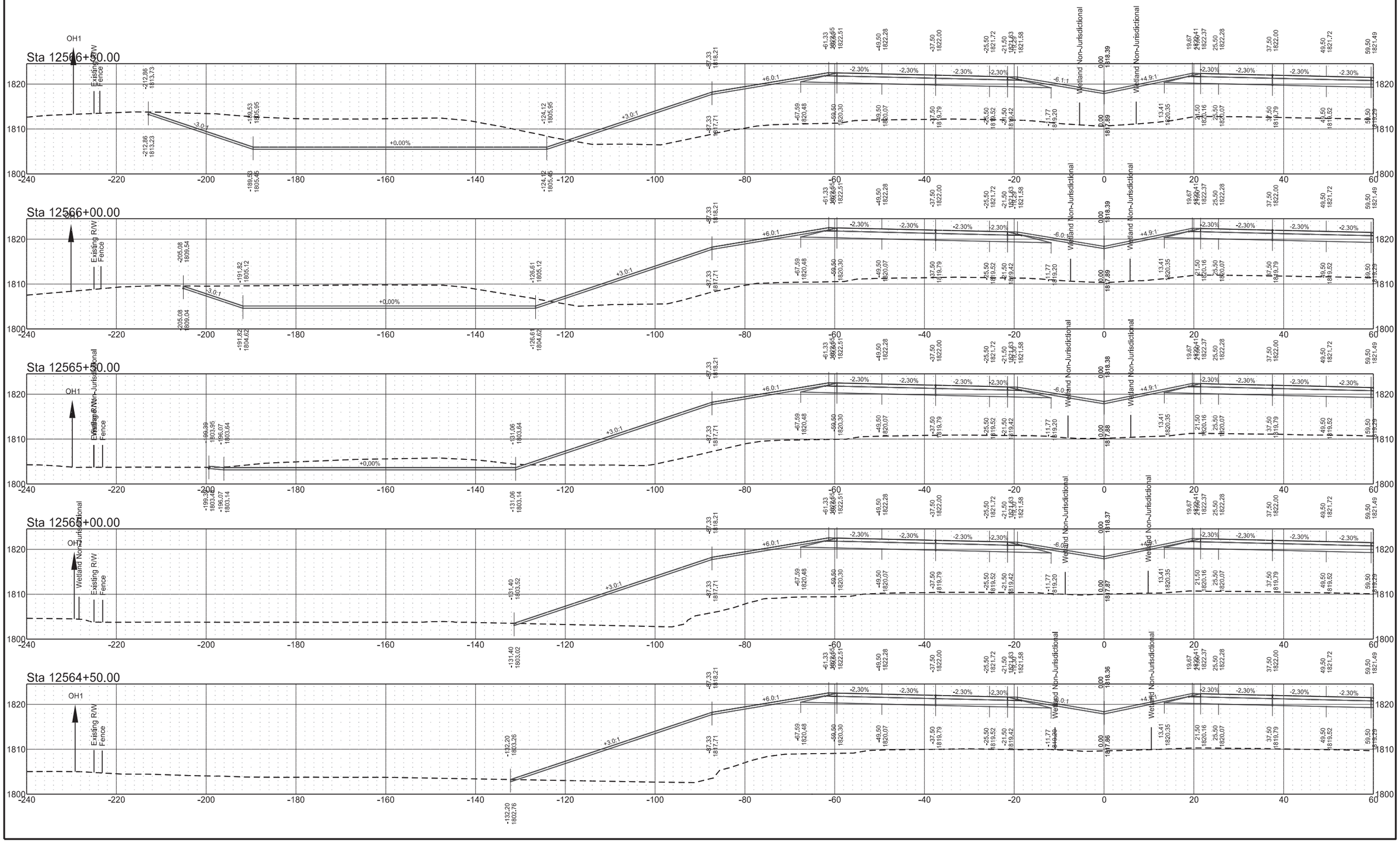
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	41



Cross Sections

Mainline WB - CL

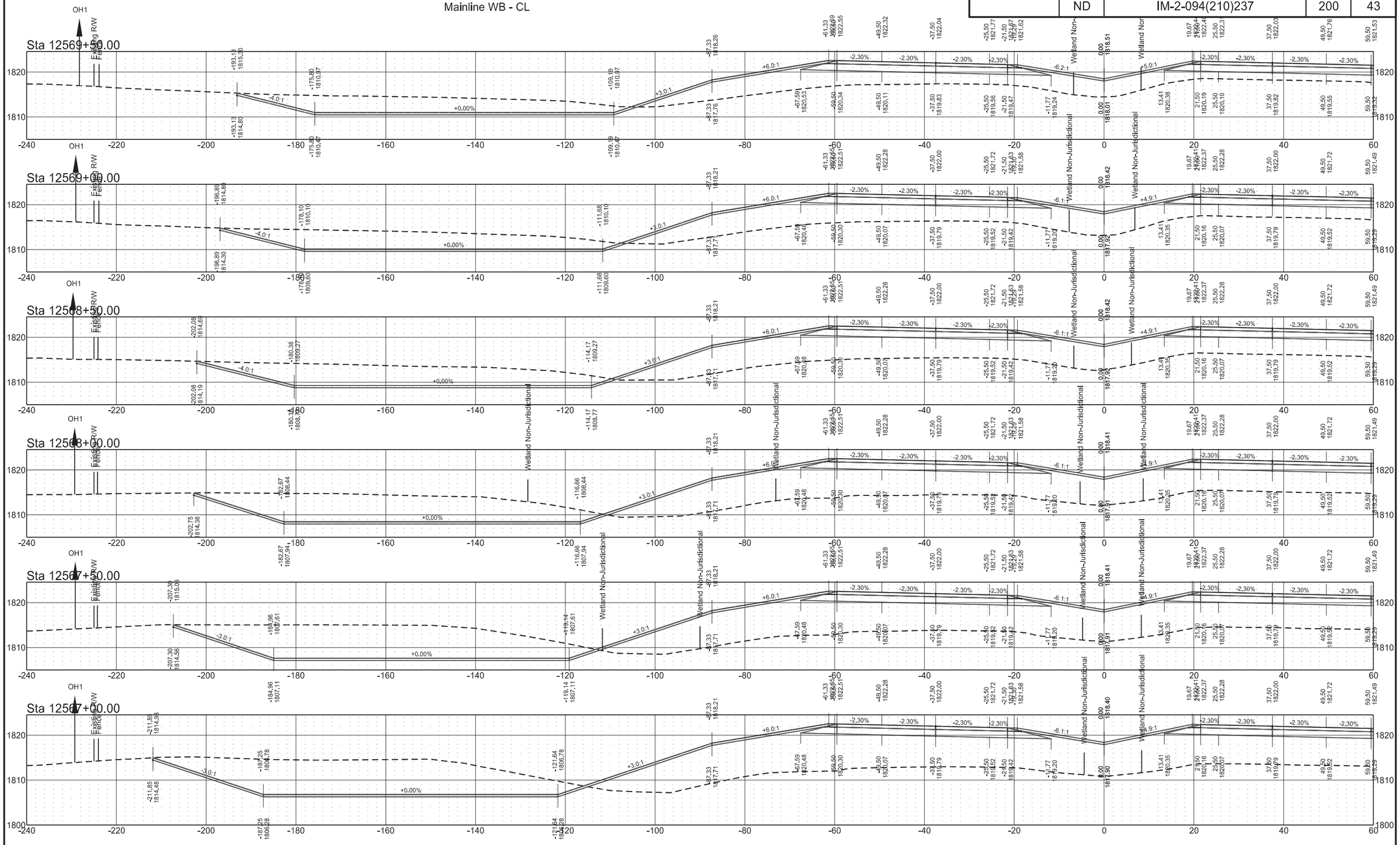
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	42



Cross Sections

Mainline WB - CL

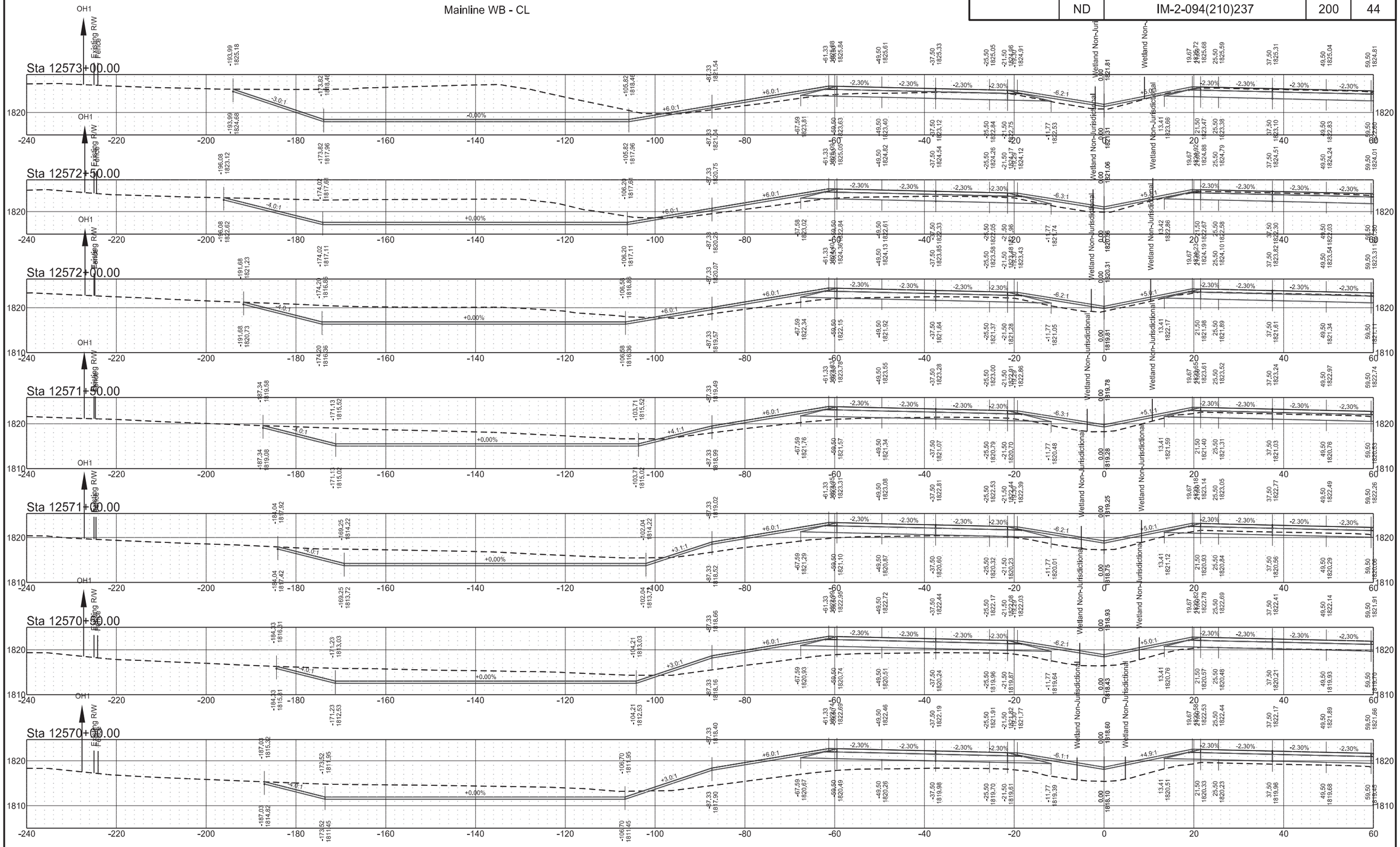
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	43



Cross Sections

Mainline WB - CL

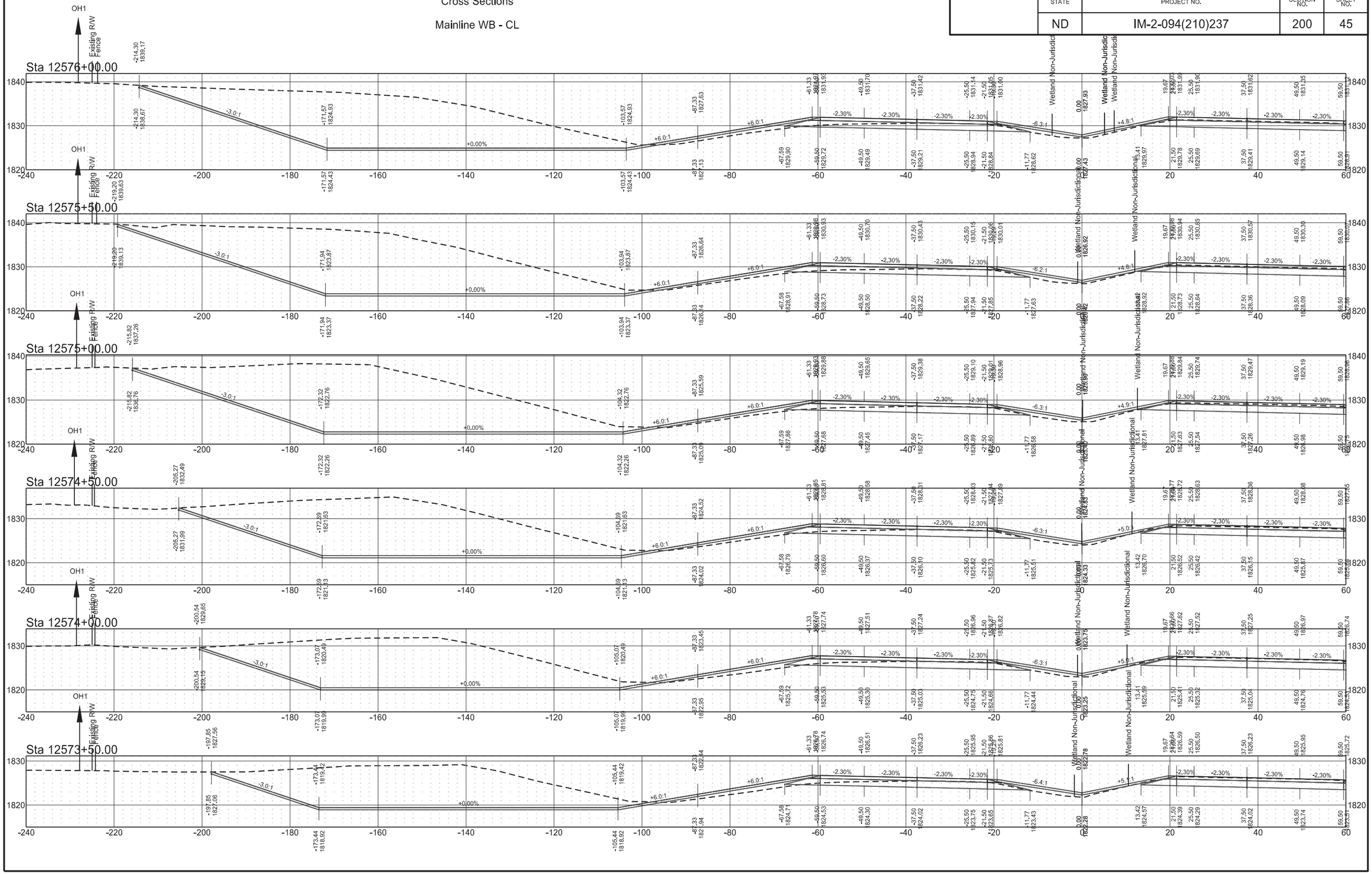
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	44



Cross Sections

Mainline WB - CL

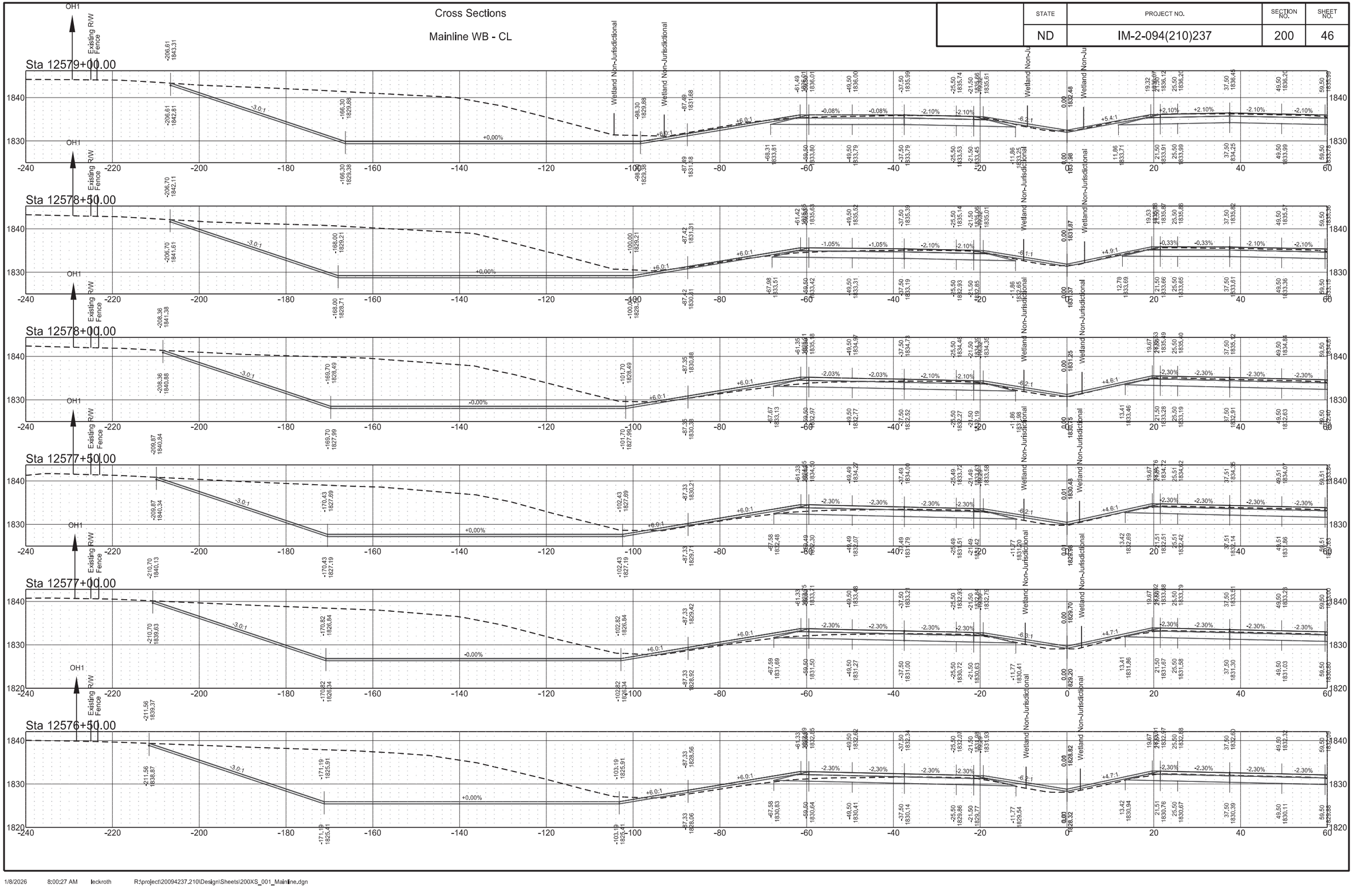
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	45



Cross Sections

Mainline WB - CL

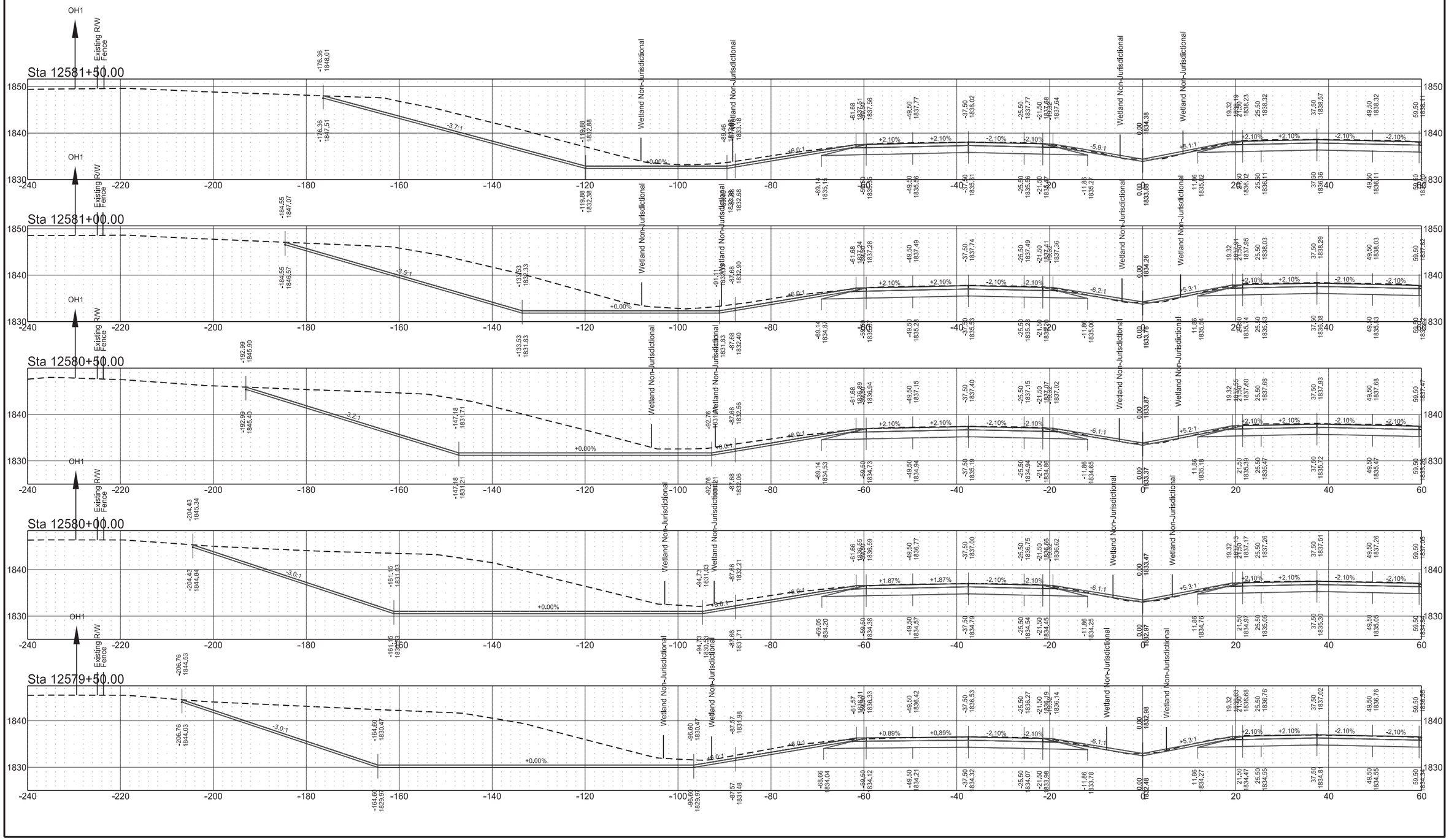
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	46



Cross Sections

Mainline WB - CL

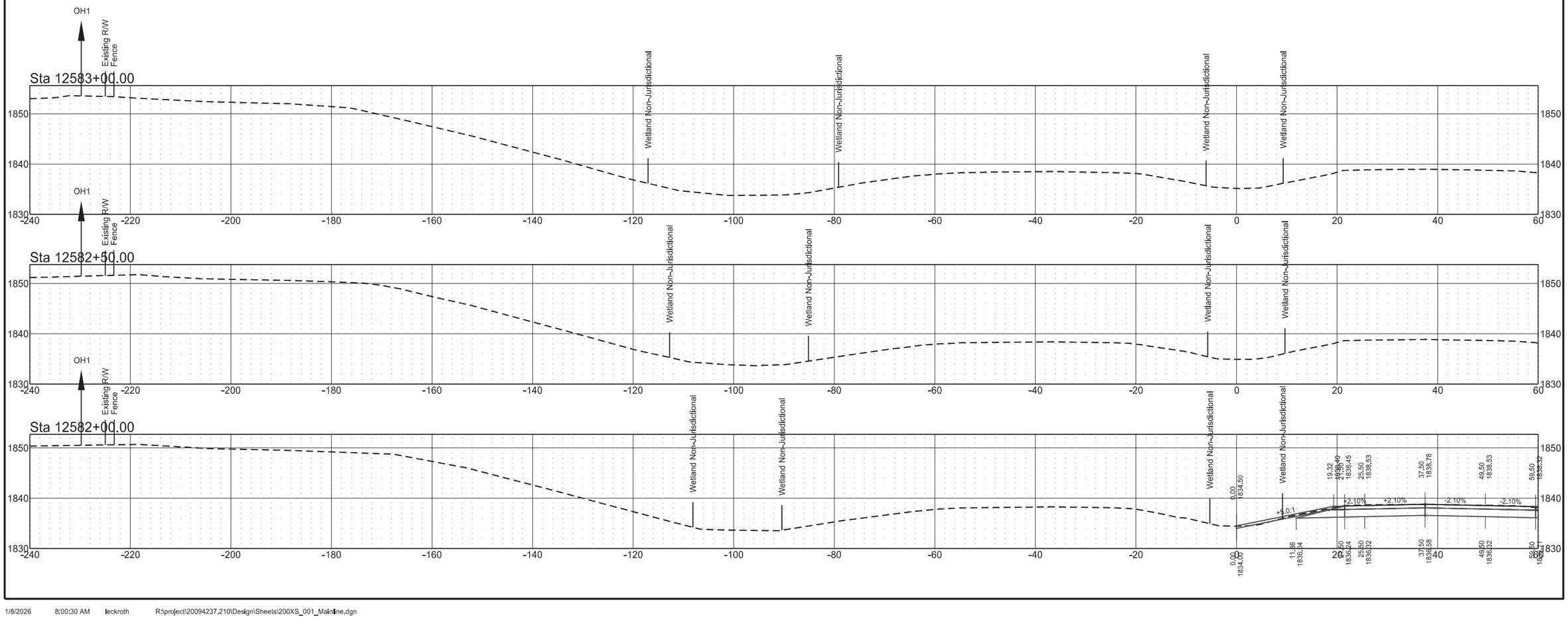
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	47



Cross Sections

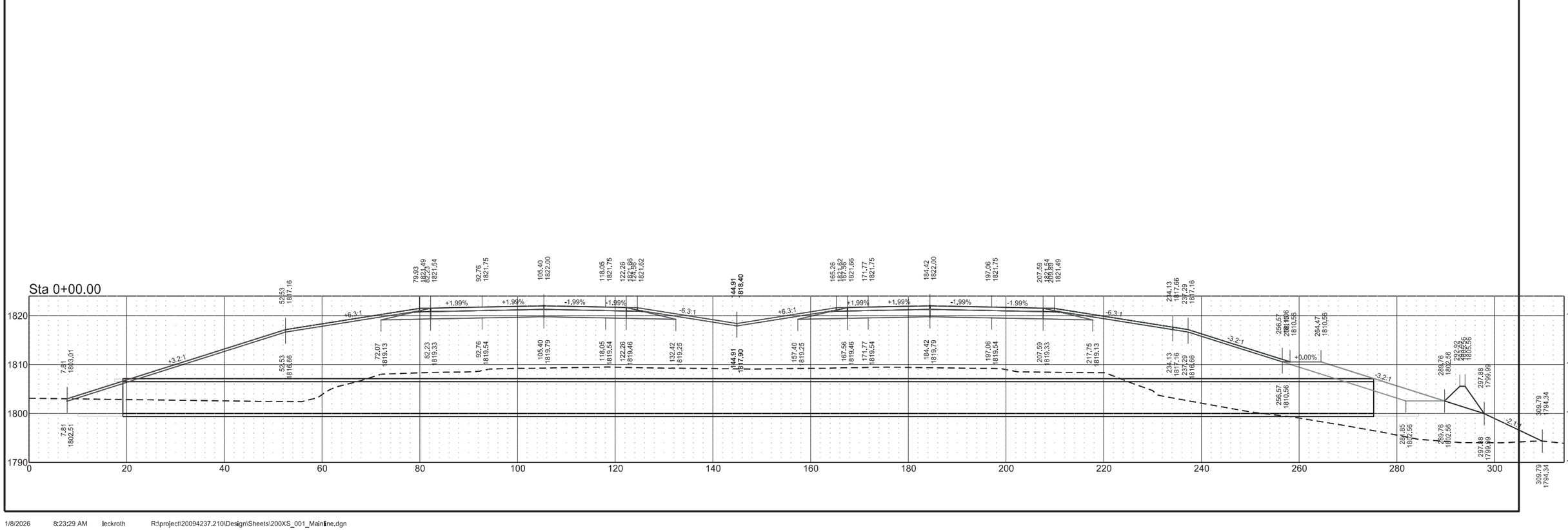
Mainline WB - CL

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	48



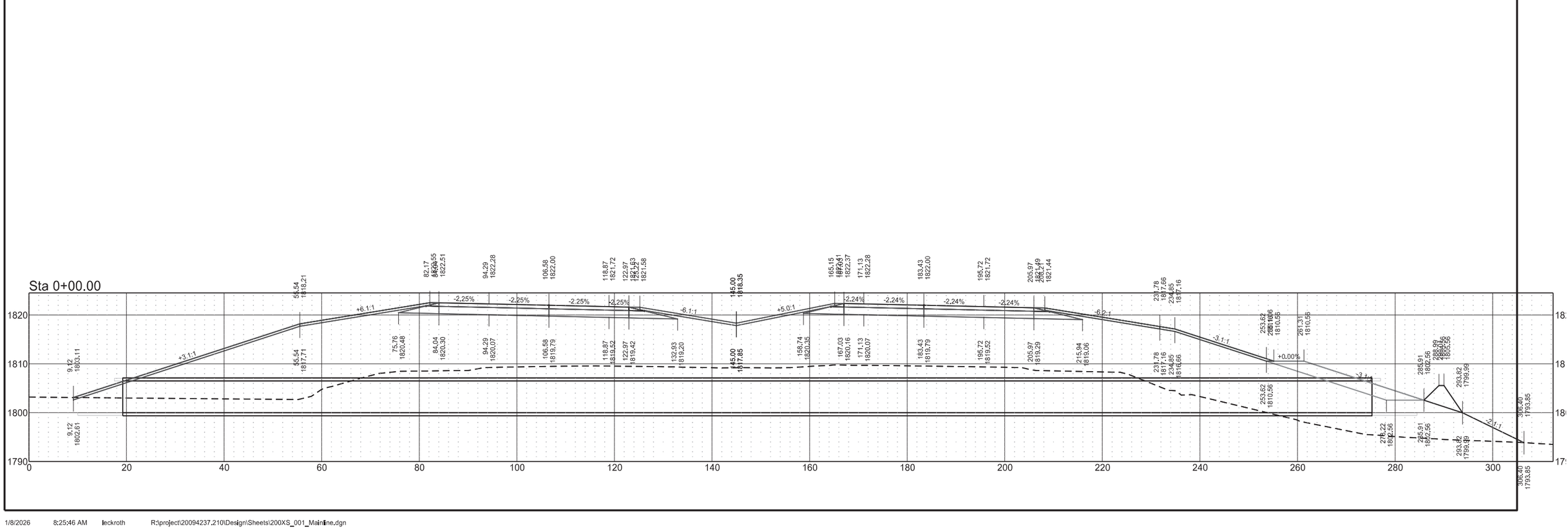
Cross Sections
Sta. 12541+43
Centerline Culvert

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	49



Cross Sections
Sta. 12563+19
Centerline Culvert

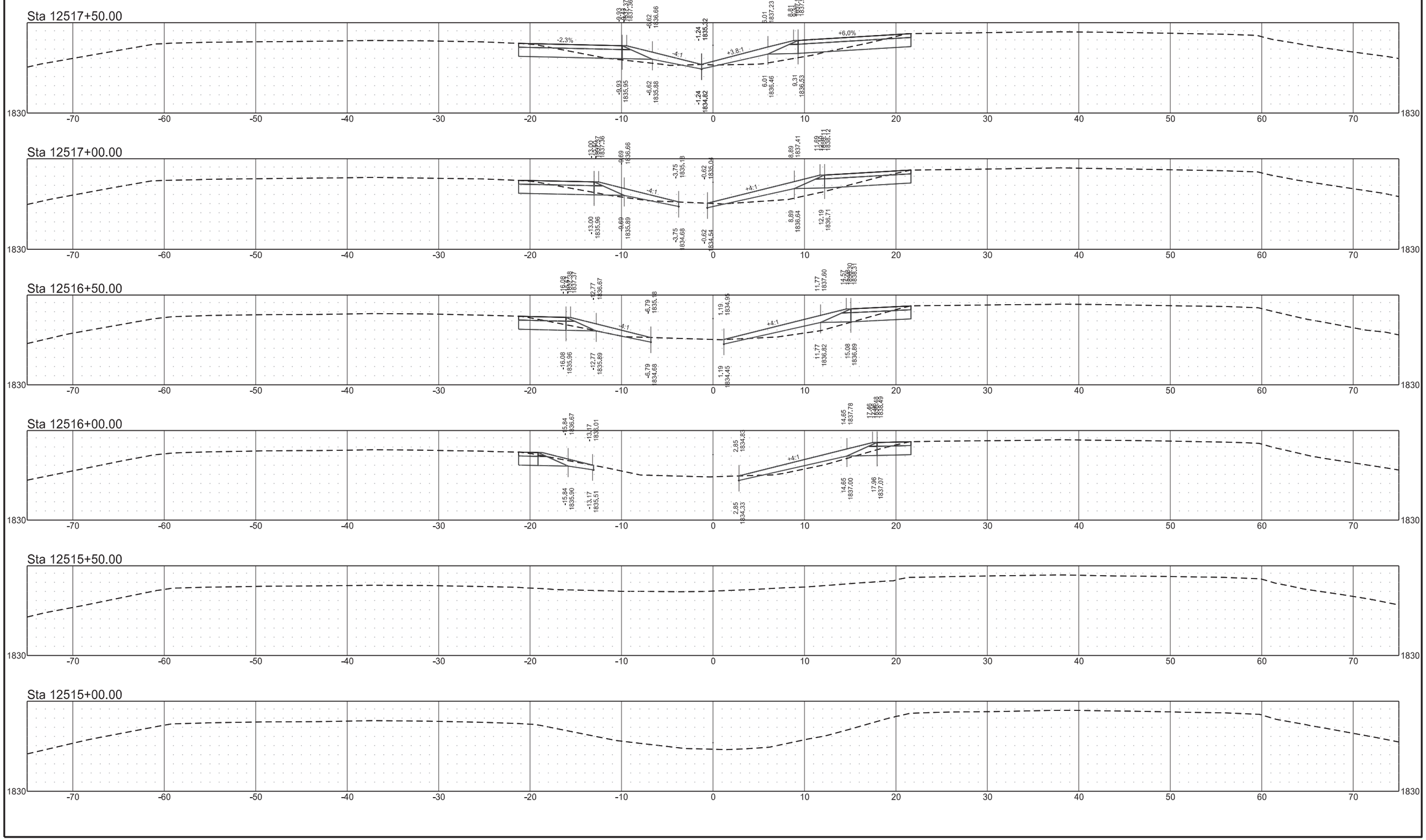
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	50



Cross Sections

West Crossover

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	51

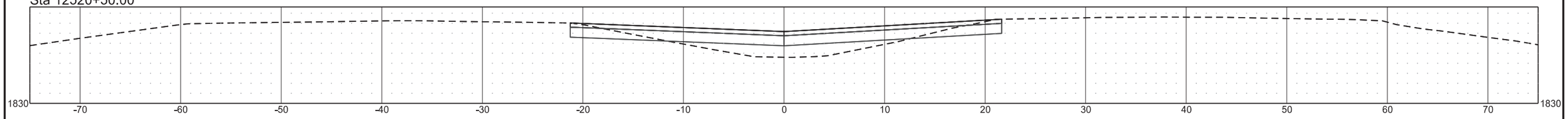


Cross Sections

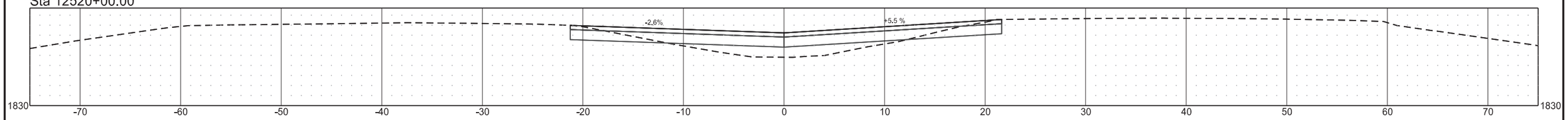
West Crossover

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	52

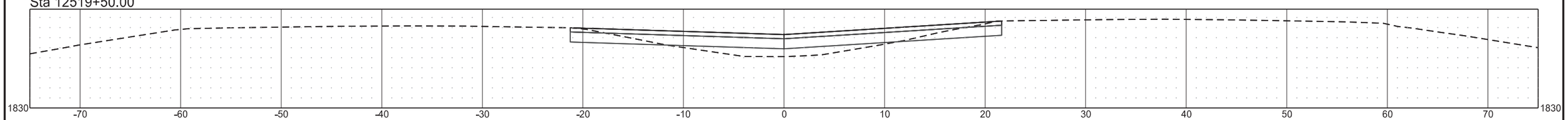
Sta 12520+50.00



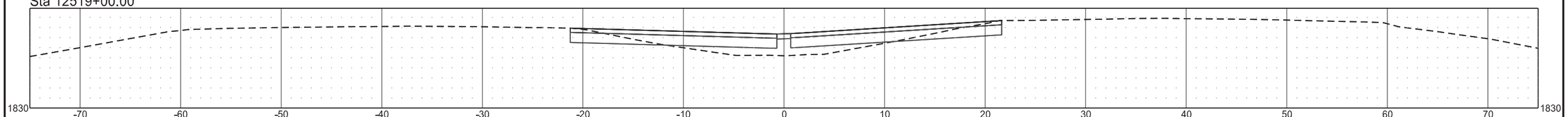
Sta 12520+00.00



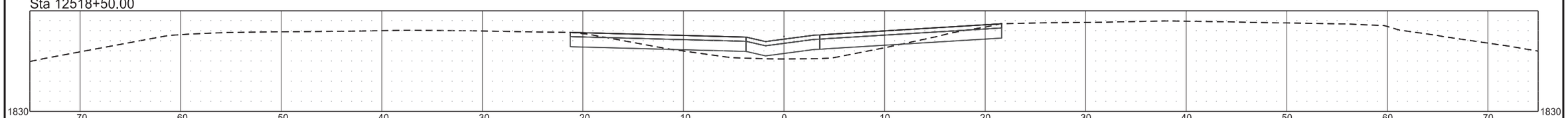
Sta 12519+50.00



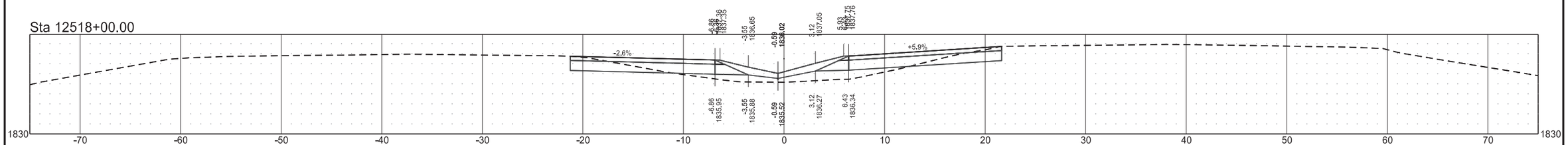
Sta 12519+00.00



Sta 12518+50.00



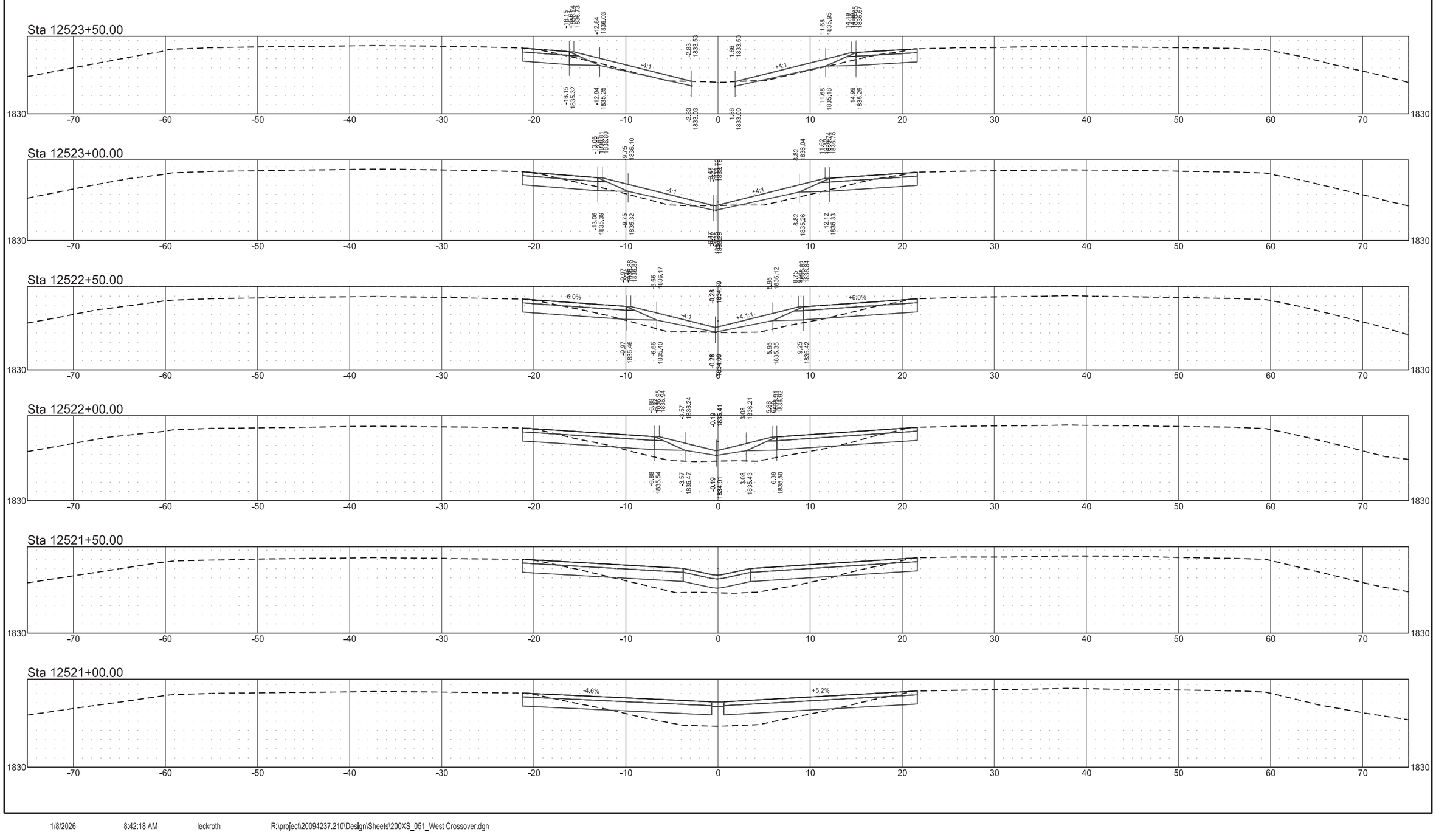
Sta 12518+00.00



Cross Sections

West Crossover

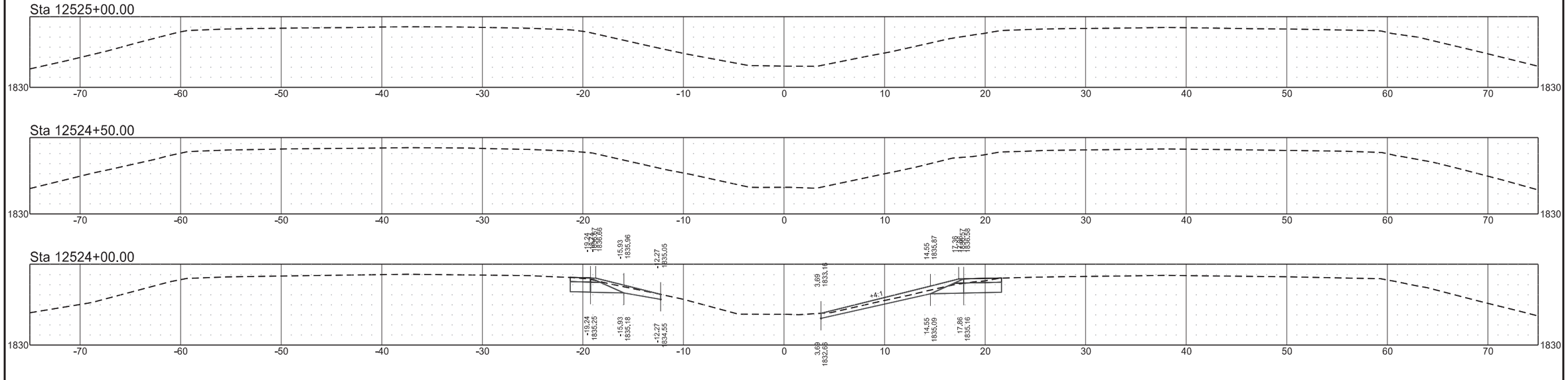
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	53



Cross Sections

West Crossover

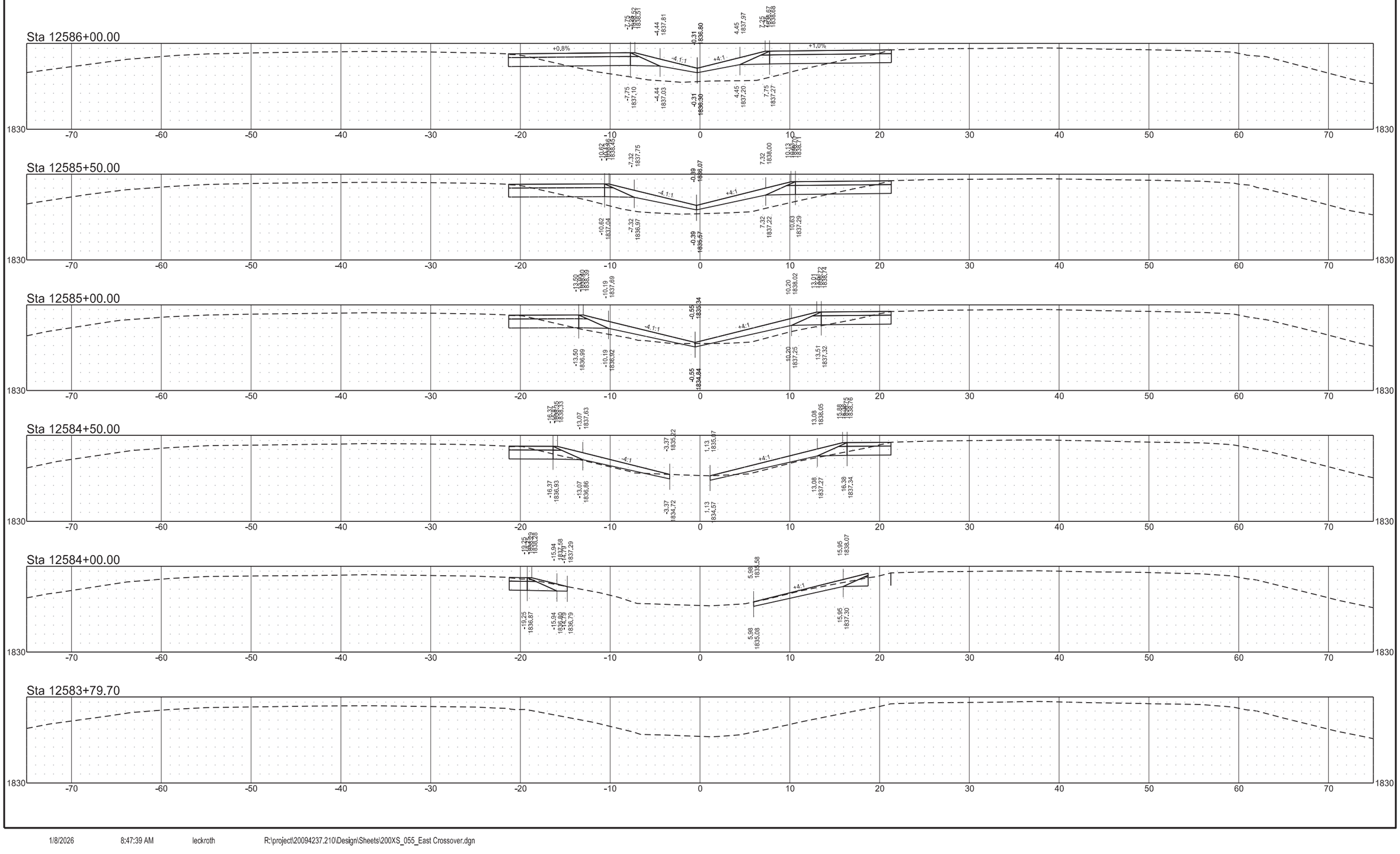
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	54



Cross Sections

East Crossover

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	55

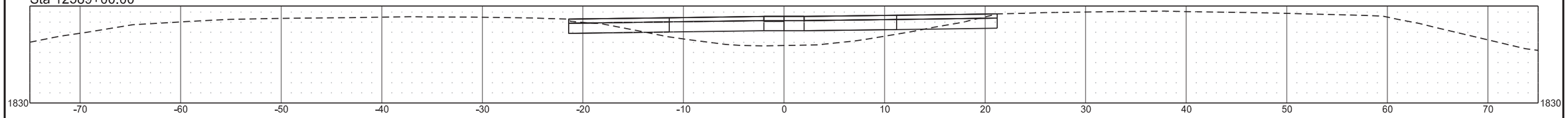


Cross Sections

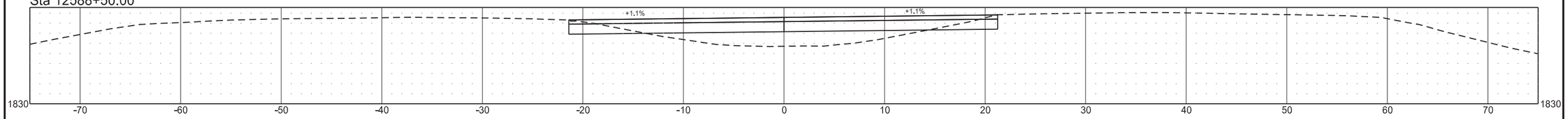
East Crossover

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	56

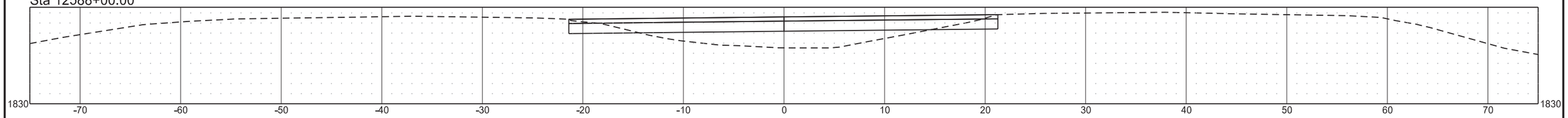
Sta 12589+00.00



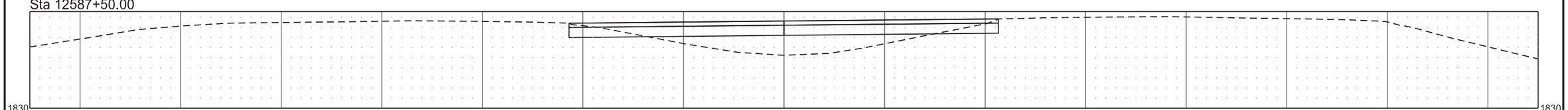
Sta 12588+50.00



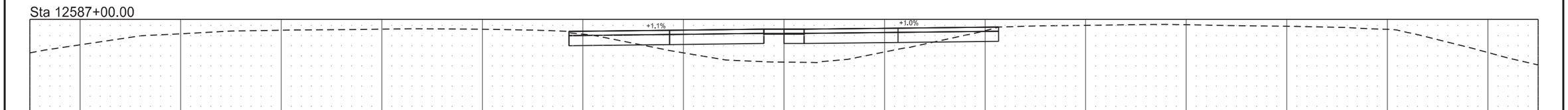
Sta 12588+00.00



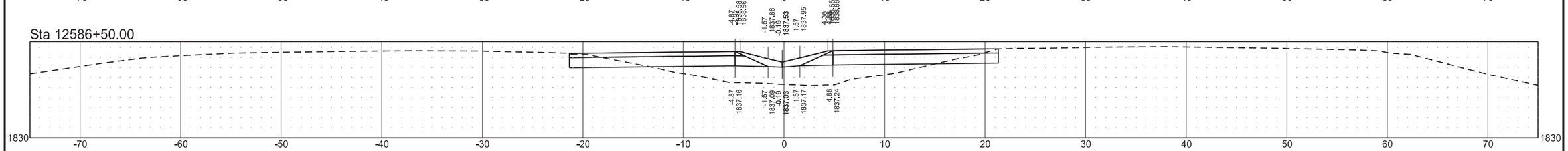
Sta 12587+50.00



Sta 12587+00.00



Sta 12586+50.00

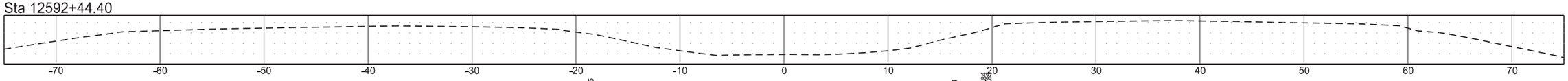


Cross Sections

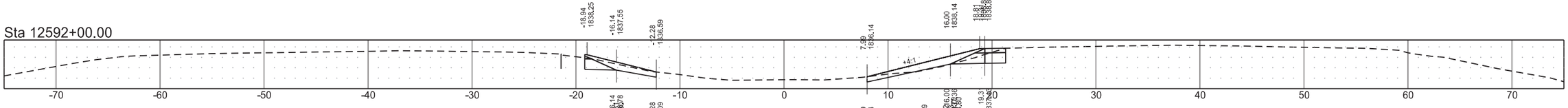
East Crossover

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	IM-2-094(210)237	200	57

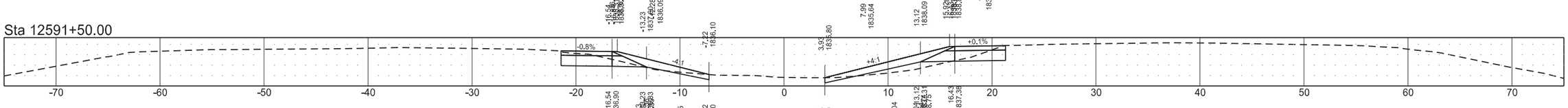
Sta 12592+44.40



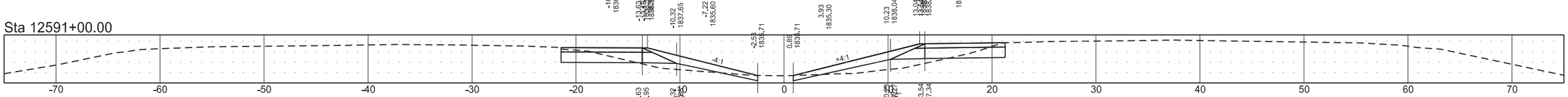
Sta 12592+00.00



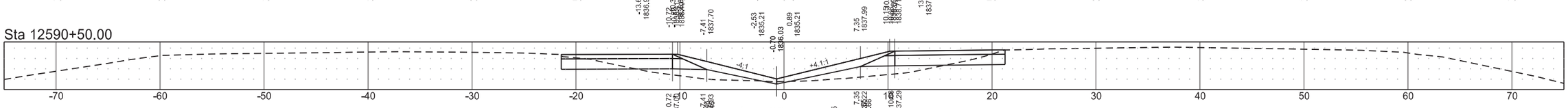
Sta 12591+50.00



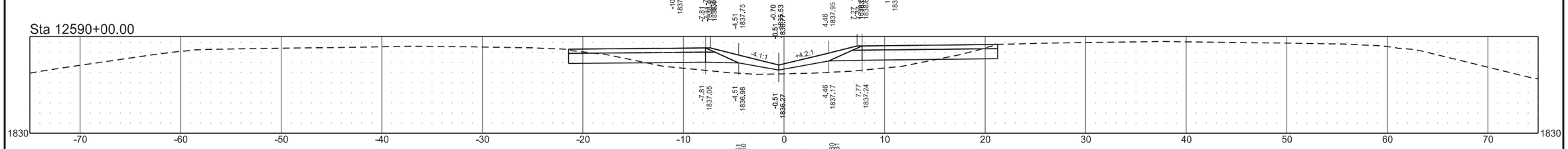
Sta 12591+00.00



Sta 12590+50.00



Sta 12590+00.00



Sta 12589+50.00