Docusign Envelope ID: D08F99CC-381B-8972-8256-4A38F873B0EC

DESIGN DATA RP 36.332 to 37.257				
Traffic	Average Daily			
Current 2020	Pass: 625	Trucks: 125	Total: 750	
Forecast 2040	Pass: 765	Trucks: 170	Total: 935	
Clear Zone Distance: Existing		Design Speed: 25 / 45 / 65 MPH		
Minimum Sight Dist. for Stopping: Existing		Bridges: N/A		
Sight Dist. for No Passing Zone: Existing				
Pavement Design Life _ (years) N/A				
Design Accumulated One-way ____ ESALs: N/A				

DESIGN DATA RP 37.257 to 48.180				
Traffic	Average Daily			
Current 2020	Pass: 430	Trucks: 115	Total: 545	
Forecast 2040	Pass: 635	Trucks: 155	Total: 680	
Clear Zone Distance: Existing		Design Speed: 55 / 65 MPH		
Minimum Sight Dist. for Stopping: Existing		Bridges: N/A		
Sight Dist. for No Passing Zone: Existing				
Pavement Design Life _ (years) N/A				
Design Accumulated One-way ____ ESALs: N/A				

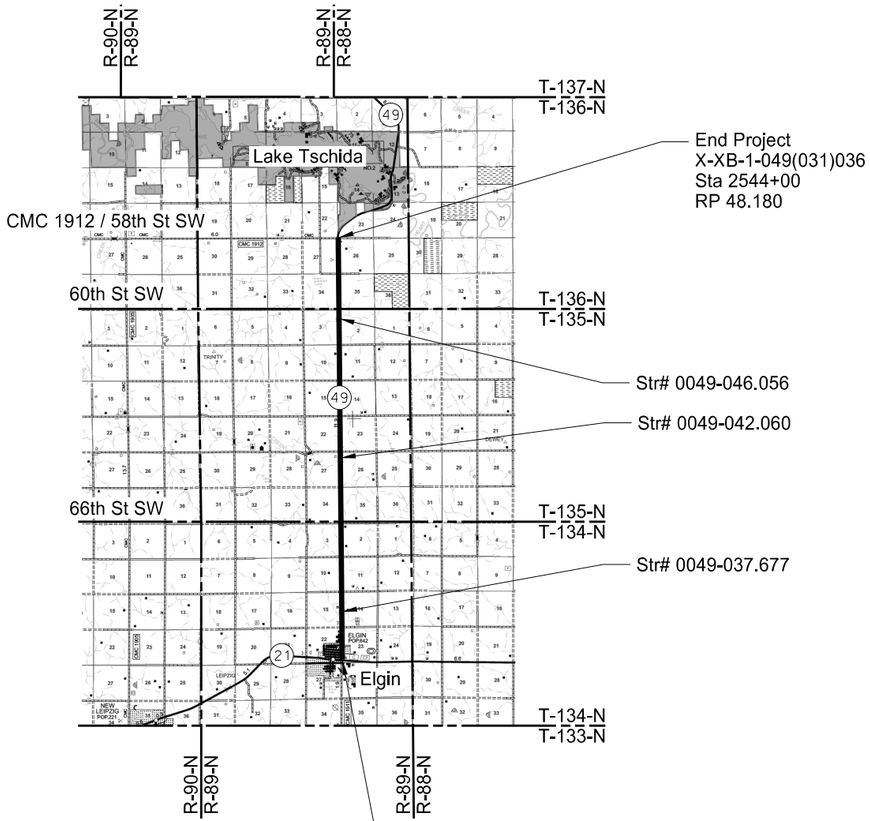
DESIGNER
Dawn Michel
DESIGNER
Caleb Weisgarber
DESIGNER
Austin Konschak

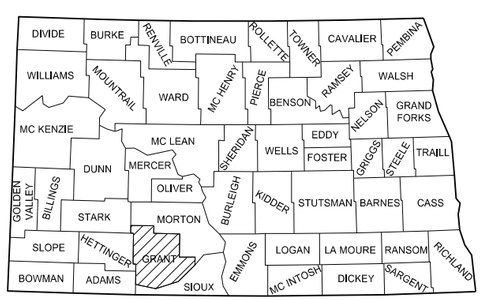
NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION

X-XB-1-049(031)036

Grant County
Jct 21 Elgin N to 58th St SW

Milling, HMA, Widening, Pipe Replacements, Pipe Extensions, Guardrail





STATE COUNTY MAP

STATE	PROJECT NO.	PCN	SECTION NO.	SHEET NO.
ND	X-XB-1-049(031)036	23272	1	1

GOVERNING SPECIFICATIONS	Date Published and Adopted by the North Dakota Department of Transportation
Standard Specifications	07/01/2025
Supplemental Specifications	NONE

PROJECT NUMBER \ DESCRIPTION	NET MILES	GROSS MILES
X-XB-1-049(031)036	11.863	11.863

ND DEPARTMENT OF TRANSPORTATION
OFFICE OF PROJECT DEVELOPMENT

Kirk Hoff
09/01/26

APEX ENGINEERING GROUP

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE
09/01/26
NORTH DAKOTA

TABLE OF CONTENTS

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	2	1

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
8	1 - 3	Quantities
10	1 - 3	Basis of Estimate
11	1 - 2	Data Tables
20	1 - 11	General Details
30	1 - 2	Typical Sections
50	1	Hydraulic Data
51	1 - 7	Allowable Pipe List
60	1 - 32	Plan & Profile
75	1 - 18	Wetland Impacts
76	1 - 18	Temporary Erosion Control
77	1 - 18	Permanent Erosion Control
80	1 - 5	Layouts
81	1 - 4	Survey Coordinate and Curve Data
82	1	Survey Data Layouts
82	2 - 18	Survey Data Layouts - Monuments
82	19 - 38	Survey Data Layouts
100	1 - 8	Work Zone Traffic Control
110	1 - 19	Signing
120	1 - 2	Pavement Marking
130	1 - 3	Guardrail
170	1 - 5	Bridges and Box Culverts
200	1 - 188	Cross Sections
200	189 - 199	Culvert Cross Sections
200	200 - 207	Temporary Cross Sections

SPECIAL PROVISIONS

Number	Description
SSP 1	Temporary Erosion and Sediment Best Management Practices
SSP 2	Federal Migratory Bird Treaty Act
SSP 4	Longitudinal Joint Density
SP 610 (25)	Temporary Water Diversion
PSP 99 (25)	Permits and Environmental Considerations
SP 605 (25)	Flexible Pavement Surface Tolerance
SP 606 (25)	Soil Stabilization
SP 607 (25)	Cured-In-Place Pipe
SP 608 (25)	Pipe Joint Repair
SP 609 (25)	Utility Coordination
SP 611 (25)	E-Ticketing (Mandatory)

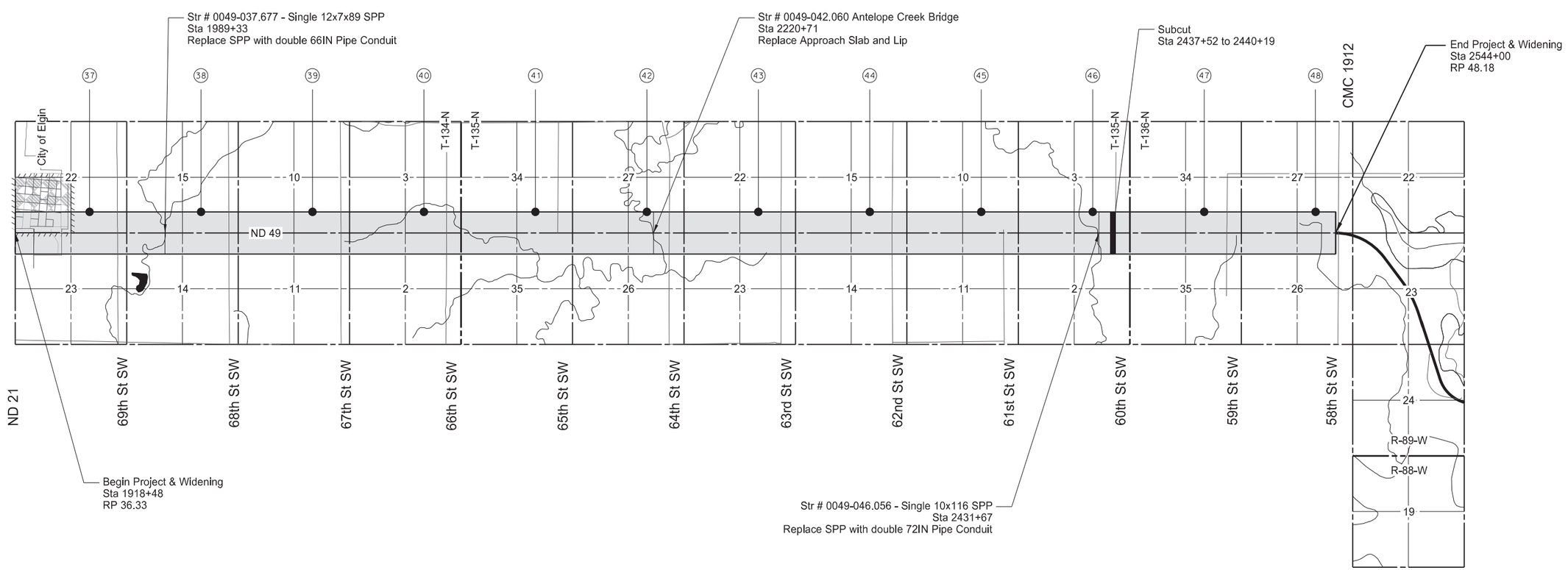
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	2	2

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-203-5	Standard 90 Degree Flared Intersection - (No Center Left Turn Lane on Major Road)
D-203-8	Standard Rural Approaches
D-255-2	Erosion And Siltation Control - Erosion Control Blanket Installation
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-704-2	Traffic Control For Coring Of Hot Bituminous Pavement
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-704-13	Barricade And Channelizing Device Details
D-704-14	Construction Sign Punching And Mounting Details
D-704-15	Road Closure Layouts
D-704-16	Lane Closure On A Two Lane Road Using Traffic Control Signals
D-704-17	Sign Layout For One Lane Closure Two Lane Roadway
D-704-19	Road Closure And Lane Closure On A Two Way Road Layouts
D-704-20	Terminal And Seal Coat Sign Layouts
D-704-22	Construction Truck And Temporary Detour Layouts
D-704-24	Shoulder Closures And Bridge Painting Layouts
D-704-26	Miscellaneous Sign Layouts
D-704-27	Mobile Operation (Pavement Marking)
D-704-33	Two-Lane Roadway Portable Rumble Strips
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-714-4	Round Corrugated Steel Pipe Culverts And End Sections
D-714-8	4' X 6' Precast Concrete Cattle Pass
D-714-11	Traversable End Sections For Corrugated Steel Pipe Culverts
D-714-16	Jacked and Bored Pipe
D-714-22	Concrete Pipe, Cattle Pass, or Precast Concrete Box Culvert Ties
D-714-25M	Transverse Mainline Pipe Installation Detail - Multiple Pipes More Than 4 Feet Below Top of Subgrade
D-720-1	Standard Monuments And Right Of Way Markers
D-752-1	Standard Barbed Wire Fence
D-752-3	Standard Woven Wire Fence
D-752-4	Concrete Cattle & Stockpass Fencing Standard
D-754-9	Letter and Arrow Details
D-754-11	State Highway Route Shield Detail
D-754-19	(Conventional Use) Reference Markers
D-754-23	Perforated Tube Assembly Details
D-754-24, 25	Mounting Details Perforated Tube
D-754-24A	Breakaway Coupler System For Perforated Tubes
D-754-26, 27,28,29,30,32,37,45	Sign Punching, Stringer and Support Location Details Regulatory, Warning and Guide Signs
D-754-47, 48,49	Sign Punching, Stringer and Support Location Details For Variable Length Signs
D-754-51, 57,58,60,74	Sign Punching, Stringer and Support Location Details - Route Marker Signs
D-754-82	Object Markers
D-754-83	Object Markers - Culverts
D-754-86	911 Sign Support Information And Sign Details
D-754-87	Sign Punching, Stringer And Support Location Details For Street Name Signs And 911 Signs
D-760-3	Rumble Strips Undivided Highways (Shoulders 4' Or Greater)
D-760-4	Rumble Strips Undivided Highways (Shoulders Less Than 4')
D-760-5	Saw Slotted Rumble Strips At Intersections
D-762-1	Pavement Marking Message Details
D-762-4	Pavement Marking
D-762-5	Pavement Marking for Standard 90 Degree Flared Intersection-(No Center Left Turn Lane on Major Road)
D-762-11	Short-Term Pavement Marking
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-764-50	MASH SoftStop End Terminal - Steel Post
D-764-51	MASH Sequential Kinking Terminal - Wood Post
D-764-60	MGS W-Beam Transition with Approach Curb to Concrete Single Slope or Jersey Barrier
D-764-62	Jersey Barrier to Thrie Beam Connector Plate Details
D-766-1	Mailbox Location Details

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	4	1



Widening (30' Pavement Width)
1IN Milling and 3IN RAP Superpave FAA 42

Subcut

Scope of Work

ND 49 - Jct 21 Elgin N to 58th St SW

JASON P. GULICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.20 16:03:19 -06'00'
ENGINEER
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	6	1

NOTES

105-200 UTILITY COORDINATION: A utility coordination meeting is required.

107-P01 MAINTAINING TRAFFIC – UNEVEN SHOULDER: If a shoulder and the adjacent lane are uneven due to milling or paving operations, the requirements of Section 704.04 O, “Traffic Control for Uneven Pavement” apply. If the uneven shoulder and adjacent lane are due to other circumstance, the contents of this note apply.

If, at the end of the work-day, drop-offs greater than 2 inches and less than 18 inches or slopes steeper than 4:1 exist between the edge of a traffic lane and the outside edge of the proposed roadway, perform one of the following actions:

- Construct a traversable wedge in the area of the drop-off or steep slope; or
- Close the lane adjacent to the drop-off or steep slope and provide 24-hour flagging or pilot car operations.

When constructing a wedge, construct a wedge composed of aggregate or earthen materials with a 4:1 or flatter slope along the entire length of the area. Compact materials using Type C compaction, as specified in 203.04 G.4, “Compaction Control Type C”.

Install stackable vertical panels that meet the requirements of Section 704.03 H, “Stackable Vertical Panels,” along the edge of the driving lane closest to the wedge.

The Engineer will measure stackable vertical panels as specified in Section 704.05, “Method of Measurement” and will pay for panels as specified in Section 704.06, “Basis of Payment.”

The Engineer will not measure material used to construct the wedge. Include the cost of materials, equipment, labor, and incidentals required for this operation in the price bid for “Aggregate Base Course CL 5.”

If a 4:1 or flatter wedge is not installed, provide 24 hour flagging or pilot car operations and associated traffic control at no additional cost to the Department.

108-100 WEEKLY PLANNING & REPORTING MEETING: A weekly planning and reporting meeting is required.

202-P01 REMOVAL OF STRUCTURE: Remove two existing structural plate pipe structures as shown in the plans, in accordance with Section 202. A summary of these structures is provided below.

Location	Description of Existing Structure
Sta 1989+60	12’x 7’x89’ SPP arch w/ concrete headwalls and concrete lined floor
Sta 2432+17	10’ Dia. x 92’ SPP with concrete headwalls

Remove each of the structures in phases, approximately one-half at a time, while maintaining one lane of ND 49 traffic through each site, as shown in the plans.

Install temporary culverts into the inlet ends of the existing structures a minimum distance of 12 feet, measured from the crown opening of the structural plate pipe to the pipe end. Provide RCP or corrugated steel temporary culverts having diameters equivalent to or larger than the diameters listed in the plans, which are sufficient for the traffic and construction loads. The 2-year peak discharge was used to determine the minimum pipe sizes listed in the plans. End sections are not required for these temporary culverts. Provide culvert lengths that extend beyond the toe of the temporary fill slope at each location.

Place grout around the outlet end of each temporary culvert across the invert of the existing structure with a minimum thickness of 1.5 feet and to a minimum height of 3 feet above the pipe invert. Allow grout to set for a minimum of 48 hours, then place compacted soil in the structure between the grout wall and the inlet end of the structural plate pipe, maintaining a slope of 1:1 or flatter from the grout wall to the crown of the existing structure at the opening to plug the pipe end. Complete temporary widening to carry traffic as shown in the plans.

Make neat vertical cuts to remove the first half of each structure to allow the remaining portion to retain structural integrity and convey flow if necessary.

Remove the temporary culverts, compacted soil plugs and grout, and dispose of these materials when the upstream half of each structure is removed.

Include the cost for all materials, equipment and labor to remove and dispose of the structural plate pipes with headwalls and for furnishing, installing, removing and disposing of temporary culverts, grout and compacted soil plugs in the price bid for the item “Removal of Structure.”

203-010 SHRINKAGE: 25 percent additional volume is included for shrinkage in earth embankment.

203-385 AVERAGE HAUL: No average haul has been computed for this project.

203-P01 COMPACTION AND DENSITY CONTROL: Compact material for sliver grading as specified in Section 203.04 G.3, Compaction Control, Type B and compact material for structure/pipe replacement areas as specified in Section 203.04 G.2, Compaction Control, Type A.

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:24:00 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	6	2

NOTES

203-P02 COMMON EXCAVATION – TYPE B: Plan quantity will be used as the measurement for payment for “Common Excavation – Type B.”

203-P03 TEMPORARY WIDENING EMBANKMENT: Construct temporary widenings at two locations, where structures are being replaced with pipe, with “Borrow – Excavation.” After each temporary widening is no longer needed to maintain traffic, excavate excess widening material and place as embankment on other parts of the project. Include the cost of excavating, hauling, and placing excess widening material in the unit price bid for “Common Excavation – Type B.”

302-110 BASE COURSE: Trim base course as specified in Section 302.04 C.2, "Surface Tolerance Type B."

430-P01 ASPHALT CEMENT: Aggregates in the vicinity of this project have shown rutting and stripping material characteristics during previous mechanical testing. Test the proposed mix on the Hamburg Wheel tracker using the AASHTO T 324-23 test procedure during mix design. Modify test procedure AASHTO T 324-23 for the Hamburg Wheel tracker to a 46 degrees Celsius water bath. Results of the Hamburg wheel tracking test must show a Stripping Number (SN) of ≥ 2000 and a Corrected Rut Depth (CRD) of ≤ 6.0 mm. Calculation of CRD and SN can be found here: Standardization of SIP Calculation for Hamburg Wheel Tracking Test. If unable to meet the SN and CRD requirements, the contractor has the option to use one or more of the following changes to the mix design and then re-test the mix:

- Use PG58V-34 Asphalt Cement in place of the PG58H-34 Asphalt Cement bid item.
- Add hydrated lime to the mix at a rate of 1% of the aggregate by weight.
- Add a liquid anti-strip at a rate recommended by the manufacturer.

Any changes shown above to the proposed mix design will be incidental to bid item for PG58H-34 Asphalt Cement. If the contractor is unable to meet the minimum test requirements after using the options shown above, then a different aggregate source may be needed to meet the test requirements. After meeting the test requirements, provide 150 pounds of loose mix asphalt for verification testing to be completed by the Engineer. Allow 7 days for testing by the Engineer once the mix is received. Mix tested by the Engineer must meet the same SN and CRD requirements before the mix design is accepted.

704-100 TRAFFIC CONTROL SUPERVISOR: Provide a Traffic Control Supervisor.

704-200 STATE FURNISHED MEDIAN BARRIER: Obtain (68) 22.5” x 12.5’ concrete barriers. They can be picked up and returned to the Belfield yard at 801 1st Ave NE in Belfield ND 58622. Contact the Dickinson District office at 701-227-6500 to facilitate the exchanges.

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”.

704-450 LANE CLOSURE - SIGNAL CONTROL/FLAGGING CONTROL: Install either the signal controlled lane closure on Standard D-704-16 or the flagging controlled lane closure on Standard D-704-17.

Obtain an electrical source for traffic signals. Solar powered signals may be used. Place generators a minimum of 60 feet from the roadway centerline, unless the generator and signal are part of a trailer mounted unit.

Place utility poles and equipment a minimum of 60 feet from the roadway centerline and place power conductors a minimum of 6 inches below the ground surface. Remove poles after they are no longer necessary.

The Engineer will measure individual traffic control devices, other than the signal system and flaggers, shown on the standards. Payment will be made at the respective contract unit price.

Include the cost of either a traffic signal system or flaggers in the contract unit price for "Lane Closure – Signal Control/Flagging Control.”

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:24:17 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	6	3

NOTES

704-500 PORTABLE RUMBLE STRIPS (PRS): Use PRS made of rubber or engineered polymers.

Install PRS as part of the temporary traffic control when the following signs are also part of the required traffic control set up:

- "Be Prepared to Stop" (W3-4); and
- "Flagger" symbol (W20-7)

Install PRS that meet the following criteria:

- Have no adhesives or fasteners required for placement;
- Have a manufacture's speed rating that meets or exceeds the posted speed limit; and
- Each strip in the array must weigh a minimum of 100 pounds.

Use individual PRS constructed in one of the following manners:

- A single piece;
- Interlocking segments; or
- Two pieces hinged at the midpoint.

An installed array of PRS consists of a minimum of 3 individual strips.

Move rumble strips with the flagging operation. Do not place rumble strips on horizontal curves.

The Engineer will count and measure each array as one unit. Include the cost of providing, installing, maintaining, and relocating PRS in the unit price bid for "Portable Rumble Strips".

704-P01 TRAFFIC CONTROL FOR BITUMINOUS PAVEMENT: Provide traffic control consisting of a temporary road closure, flagging, and a pilot car.

Traffic control device quantities are estimated based on a 6-mile lane closure and the list below. The Department will pay for all necessary deployed devices, regardless of the length of the lane closure.

1. Standard D-704-19, layout F for lane closure
2. Standard D-704-20, layout G for terminal signing layout
3. Standard D-704-22, layouts K and L for trucks entering/crossing roadway
4. Standard D-704-22, layouts N for temporary construction
5. Standard D-704-24, layouts R and S for shoulder work
6. Standard D-704-26, layouts BB, CC, EE, GG, and KK for misc. sign layouts
7. Standard D-704-33 for temporary road closure

Place flaggers and traffic control devices as shown on Standard D-704-15, layout A at the following intersections when the lane closure spans across them:

1. 1st Avenue, 2nd Avenue, and 6th Avenue in Elgin
2. North end of Frontage Road in Elgin
3. Sunflower Drive and Golf Club Road in Elgin
4. 58th Street

704-P02 TRAFFIC CONTROL FOR UNEVEN LANES: The contents of this note replace Section 704.04 O.2, “Two Lane Roadways” in the Standard Specifications.

If the pavement in adjacent lanes is uneven at the completion of a day’s work, install traffic control as described in this note. For the purposes of this note, use of a notched wedge during asphalt paving is considered greater than 1 inch and less than 2 inches.

If the difference in elevation between the lanes is less than 1 inch install the following signs:

- “Uneven Lanes” sign (Sign W8-11-48) and a supplementary plaque identifying the length of the uneven pavement (Sign W20-52-54). Place this assembly on the right shoulder, in both directions, in advance of the uneven pavement.

If the difference in elevation between the lanes is greater than 1 inch and less than 2 inches install the following signs:

- “Uneven Lanes” sign (Sign W8-11-48) and a supplementary plaque identifying the length of the uneven pavement (Sign W20-52-54). Place this assembly on the right shoulder, in both directions, in advance of the uneven pavement.
- Between the “Uneven Lanes” sign and the beginning of the uneven pavement, install a “Do Not Pass” sign (Sign R4-1-48) on the right shoulder in both directions.

If the difference in elevation between the lanes is 2 inches or greater install the following traffic control devices:

- “Uneven Lanes” sign (Sign W8-11-48) and a supplementary plaque identifying the length of the uneven pavement (Sign W20-52-54). Place this assembly on the right shoulder, in both directions, in advance of the uneven pavement.
- Between the “Uneven Lanes” sign and the beginning of the uneven pavement, install a “Do Not Pass” sign (Sign R4-1-48) on the right shoulder in both directions.
- Install tubular markers spaced at 2 times the posted speed limit through the uneven lane area.

In all instances install “Uneven Lanes” signs and a supplementary plaque identifying the length of the uneven pavement at the following intersections:

- County Major Collectors;
- State Highways;
- US Highways; and
- Interstate Ramps.

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:24:36 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	6	4

NOTES

704-P03 TRAFFIC CONTROL: Two “Lane Closure – Signal Control/Flagging Control” traffic signal systems/flagger set ups included in project. Relocate traffic signal systems/flaggers to facilitate the three “Lane Closure – Signal Control/Flagging Control” locations. Include the cost to relocate traffic signal systems/flaggers in the contract unit price for "Lane Closure – Signal Control/Flagging Control."

Relocate barriers to facilitate three “Lane Closure – Signal Control/Flagging Control” locations. Include the cost to relocate barriers in the contract unit price for "State Furnished Median Barrier."

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

1. Minimum total area of 440 square feet
2. Indoor bathroom facilities with weekly cleaning services
3. Hookups for heat, electricity, sewer, and potable water
4. Minimum cabinet space of 32 cubic feet
5. Minimum counter space of 40 square feet
6. A heating and cooling system that is capable of maintaining the temperature between 65°F and 78°F
7. Lighting with a minimum of 110 foot-candles
8. DSL broadband internet and a router that broadcasts Wi-Fi and will allow for hard wiring of a computer
9. Photocopy/Printer with scanning capabilities capable of 11x17 photocopies and toner to last the duration of the project. Other features to include digital copying and scanning. Provide a copier/printer machine with operating software compatible with that used by the NDDOT.
10. Supply a photocopier with enough toner to last the length of the project and with the following capabilities:
    a. Printing;
    b. Scanning; and
    c. Producing 11 x 17 photocopies and prints.

Place the field office on the project, or as close to the project as possible. The Contractor is responsible for the pay for the following:

- Rental fees
- Cleaning service
- Heating
- Electrical
- Sewer
- Potable water
- Internet/router service
- Furnishing office equipment
- Supply white 8.5” x 11” and 11”x17” paper for duration of project

Make the field office available for occupancy one week before the start of the project. The Engineer will approve the location and the condition of the office. Do not remove the field office until the Engineer releases the field office.

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".

Schedule for Payments:

- 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.

706-P02 LABORATORIES: Supply photocopy/printer with scanning capabilities capable of 11x17 photocopies and toner for Bituminous Laboratory. Include the costs for these items in the contract unit price bid for “Bituminous Laboratory.”

714-P01 PIPE WORK: Provide dewatering for pipe culvert installations and extensions if necessary according to site conditions. Include all costs associated with dewatering in the prices bid for the associated pipe installation pay items.

714-P02 VERTICAL BENDS AND DEFLECTED PIPE JOINTS: Install centerline culverts with vertical deflected pipe joints as shown in the plans, to extend existing culverts to match proposed ditch elevations. Where deflected joints have been specified in the plans, install the overall deflection angle gradually over the number of joints listed to be deflected with deflection of no more than 1 degree per joint.

Use mortar and filter fabric to fill all open joints of deflected RCP culverts. Longer tie bolts may be necessary to tie deflected RCP joints.

Include all costs of materials, equipment, and labor to install the pipes with deflected joints in the applicable pipe installation pay items.

714-P03 HORIZONTAL RCP BEND SECTIONS: Install one 45 degree horizontal bend section as part of the extension of the 24” RCP centerline culvert at Sta 2235+42 Lt.

Length of the bend section is included in the overall pay length of the pipe. Include the cost for the horizontal bend section in the contract unit price for “Pipe Conc Reinf 24IN CL III.”

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:24:50 -05'00'
NORTH DAKOTA

NOTES

714-P04 EXTEND SMOOTH WALL STEEL PIPES: Extend existing 36-inch diameter smooth wall steel centerline culverts located at Sta 1926+64 and Sta 1926+82 using 36" spiral rib corrugated steel pipe. Remove existing corrugated steel end sections from the ends of the smooth wall steel pipes and install spiral rib corrugated pipe extensions as shown in the plans. Connect spiral rib corrugated pipes to the smooth wall steel pipes in accordance with the "Connecting Band for Joining Smooth Wall Steel Pipe to Corrugated Pipe" detail on Standard Drawing D-714-16. Relay the corrugated steel end sections with new connecting bands onto the ends of the spiral rib corrugated steel pipes as shown in the plans.

Include all costs for installing the spiral rib corrugated steel pipe extensions to the smooth wall steel pipe and for removing and relaying the end sections in the prices bid for the items "Pipe Corr Steel .064IN 36IN Polymeric Coated" and "Remove & Relay End Section-All Types & Sizes."

752-P01 TEMPORARY FENCE: At temporary fence locations, install temporary fence prior to existing fence removal.

754-P01 STOP SIGNS - REFLECTIVE STRIPS: Install 2 inch wide red reflective strips on the side of the support that faces the same direction as the sign. Begin the strip at the bottom of the sign face and stop the strip 2 feet above the sign support base.

Use reflective material that meets the requirements of Section 894.02 C, "Type IV Retroreflective Sheeting".

Install the strips on STOP signs at the following locations:
- Station 1919+02 LT

Include the cost of furnishing and installing retroreflective strips in the contract unit price for "Steel Galvanized Posts – Telescoping Perforated Tube."

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

764-P01 REMOVED W-BEAM GUARDRAIL MATERIAL: Deliver the removed guardrail materials to the Glen Ullin Bismarck District Section and neatly stack them at a location designated by the Engineer. The address of Glen Ullin Bismarck District Section is:

4110 Hwy 88
Glen Ullin, ND 58631

764-P02 MGS W-BEAM GUARDRAIL: Install MGS W-beam guardrail with pre-punched slotted holes at the 3'-1 ½" mark as shown on D-764-40. Do not drill holes in standard W-beam guardrail sections to convert to MGS W-beam guardrail.

990-P01 PIPE CLEANOUT: Clean silt and debris from the interior of five centerline culverts which will not otherwise be rehabilitated by pipe lining or joint repair at the locations listed below.

Location	Size and Type of Culvert
Sta 1970+34	24" x 46' RCP
Sta 2295+40	24" x 46' RCP
Sta 2303+41	24" x 46' RCP
Sta 2310+21	24" x 46' RCP
Sta 2330+39	24" x 46' RCP

Remove and dispose of all silt and debris from the interior of each of the above culverts before extension of the culverts is performed.

Include all costs of materials, equipment, and labor to remove and dispose of all silt and debris from these culverts in the price bid for the item "Pipe Cleanout."

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:25:05 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	6	6

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 SPAWNING RESTRICTION: Do not work within Antelope Creek from April 15 to June 1.

EN-2 AVOIDANCE AREAS: The Project Engineer will contact Reilly Lembo of the Environmental and Transportation Services Division to coordinate any meetings needed to identify the limits of the avoidance area. The avoidance areas are as follows:

	752 0911 TEMPORARY SAFETY FENCE			
	Begin Station	End Station	Location	Quantity (LF)
Avoidance Sites	2418+81	2426+16	Rt	735
			Total:	735

This avoidance area within the right-of-way must not be disturbed and will be fenced prior to commencement of any construction. Provide the fence and fence posts, install the fence in the location designated in the plans, maintain the fence, and remove the fence upon completion of the project. A quantity of 735 LF of Temporary Safety Fence has been included for this purpose. All costs to provide, place, maintain, and remove the fence shall be included in the price bid for “Temporary Safety Fence.”

EN-3 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-4 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: April 1 - May 15* Fall: September 10 – October 31
Gray Wolf	Forested/Wooded Areas, Open Areas	Year-Round – No known populations, sightings extremely rare
Northern Long-Eared Bat	Forested/Wooded Areas/Bridges/Box Culverts/Caves/Mines	Active Season: April 1 - October 31* Inactive Season: November 1 - March 31*

*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-5 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.

EN-6 WETLAND MITIGATION: Wetland mitigation is required for unavoidable permanent wetland impacts. The wetland mitigation plan is incorporated into the plans for this project. After completion of the mitigation area, the Engineer will complete the Onsite Mitigation Certification Form SFN 61042. Any sedimentation occurring within the mitigation area will be removed.

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:25:21 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	8	1

Estimated Quantities

SPEC	CODE	ITEM DESCRIPTION	UNIT	Mainline: Funding A				TOTAL
103	0100	CONTRACT BOND	L SUM	1				1
109	1000	E-TICKETING	LSUM	1				1
201	0330	CLEARING & GRUBBING	L SUM	1				1
202	0104	REMOVAL OF STRUCTURE	EA	2				2
202	0135	REMOVAL OF BITUMINOUS SURFACING	TON	10252				10252
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES	EA	15				15
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES	LF	1834				1834
202	0312	REMOVE EXISTING FENCE	LF	1122				1122
203	0102	COMMON EXCAVATION-TYPE B	CY	13312				13312
203	0109	TOPSOIL	CY	99804				99804
203	0138	COMMON EXCAVATION - SUBCUT	CY	1412				1412
203	0140	BORROW-EXCAVATION	CY	167635				167635
203	0237	SUBCUT AGGREGATE	Ton	2355				2355
216	0100	WATER	M GAL	4333				4333
251	0200	SEEDING CLASS II	ACRE	121.8				121.8
251	2000	TEMPORARY COVER CROP	ACRE	121.8				121.8
253	0061	SOIL STABILIZATION	ACRE	243.6				243.6
255	0103	ECB TYPE 3	SY	37105				37105
256	0300	RIPRAP GRADE III	CY	196				196
260	0100	SILT FENCE UNSUPPORTED	LF	10943				10943
260	0101	REMOVE SILT FENCE UNSUPPORTED	LF	10943				10943
261	0112	FIBER ROLLS 12IN	LF	20937				20937
261	0113	REMOVE FIBER ROLLS 12IN	LF	7261				7261
262	0100	FLOTATION SILT CURTAIN	LF	218				218
262	0101	REMOVE FLOTATION SILT CURTAIN	LF	218				218
302	0120	AGGREGATE BASE COURSE CL 5	TON	71762				71762
401	0050	TACK COAT	GAL	29845				29845
401	0060	PRIME COAT	GAL	16308				16308
411	0100	MILLING PAVEMENT SURFACE	TON	9615				9615
430	0142	RAP - SUPERPAVE FAA 42	TON	39691				39691
430	1000	CORED SAMPLE	EA	378				378
430	5818	PG 58H-34 ASPHALT CEMENT	TON	1784				1784
602	1135	BRIDGE APPROACH SLAB-REMOVE & REPLACE	SY	171.2				171.2
602	1250	PENETRATING WATER REPELLENT TREATMENT	SY	569				569
602	7000	SPECIAL SURFACE FINISH	SF	685				685
702	0100	MOBILIZATION	L SUM	1				1
704	0100	FLAGGING	MHR	3000				3000
704	1000	TRAFFIC CONTROL SIGNS	UNIT	6378				6378
704	1018	LANE CLOSURE-SIGNAL CONTROL/FLAGGING CONTROL	EA	2				2
704	1043	ATTENUATION DEVICE-TYPE B-65	EA	4				4
704	1048	PORTABLE RUMBLE STRIPS	EA	4				4
704	1052	TYPE III BARRICADE	EA	12				12
704	1060	DELINEATOR DRUMS	EA	50				50
704	1067	TUBULAR MARKERS	EA	350				350
704	1080	STACKABLE VERTICAL PANELS	EA	60				60
704	1185	PILOT CAR	HR	1250				1250
704	1500	OBLITERATION OF PAVEMENT MARKING	SF	550				550

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	8	2

Estimated Quantities

SPEC	CODE	ITEM DESCRIPTION	UNIT	Mainline: Funding A				TOTAL
704	3511	STATE FURNISHED MEDIAN BARRIER	LF	850				850
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	2229				2229
709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	255				255
714	0615	PIPE CONC REINF 24IN CL III	LF	274				274
714	0705	PIPE CONC REINF 27IN CL III	LF	24				24
714	0820	PIPE CONC REINF 30IN CL III	LF	86				86
714	0905	PIPE CONC REINF 36IN CL III	LF	18				18
714	1105	PIPE CONC REINF 48IN CL III	LF	82				82
714	2527	CURED-IN-PLACE PIPE-27IN	LF	64				64
714	2536	CURED-IN-PLACE PIPE-36IN	LF	64				64
714	3020	END SECT-CONC REINF 24IN	EA	1				1
714	3023	END SECT-TRAVERSABLE REINF. CONC.24IN	EA	13				13
714	3033	END SECT-TRAVERSABLE REINF. CONC.30IN	EA	2				2
714	3035	END SECT-CONC REINF 36IN	EA	2				2
714	3036	END SECT-TRAVERSABLE REINF. CONC.36IN	EA	1				1
714	4099	PIPE CONDUIT 18IN-APPROACH	LF	196				196
714	4106	PIPE CONDUIT 24IN-APPROACH	LF	2286				2286
714	4113	PIPE CONDUIT 30IN-APPROACH	LF	858				858
714	4140	PIPE CONDUIT 66IN	LF	198				198
714	4145	PIPE CONDUIT 72IN	LF	268				268
714	5046	PIPE CORR STEEL .064IN 36IN POLYMERIC COATED	LF	28				28
714	9659	REMOVE & RELAY PIPE-ALL TYPES & SIZES	LF	78				78
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES	EA	48				48
720	0110	RIGHT OF WAY MARKERS	EA	104				104
720	0125	ALIGNMENT MONUMENTS	EA	31				31
720	0130	IRON PIN R/W MONUMENTS	EA	55				55
720	0135	IRON PIN REFERENCE MONUMENTS	EA	49				49
748	0141	CURB & GUTTER-TYPE 1 SPECIAL	LF	60				60
752	0100	FENCE BARBED WIRE 3 STRAND	LF	72				72
752	0200	FENCE BARBED WIRE 4 STRAND	LF	1153				1153
752	0905	TEMPORARY FENCE	LF	1585				1585
752	0911	TEMPORARY SAFETY FENCE	LF	735				735
752	2100	VEHICLE GATE	EA	8				8
752	2120	REMOVE VEHICLE GATE	EA	8				8
752	3150	CORNER ASSEMBLY BARBED WIRE-WOOD POST	EA	10				10
754	0110	FLAT SHEET FOR SIGNS-TYPE XI REFL SHEETING	SF	152				152
754	0112	FLAT SHEET FOR SIGNS-TYPE IV REFL SHEETING	SF	97				97
754	0206	STEEL GALV POSTS-TELESCOPING PERFORATED TUBE	LF	747				747
754	0562	REFERENCE MARKER-TYPE B	EA	12				12
754	0592	RESET SIGN PANEL	EA	25				25
754	0803	OBJECT MARKERS - TYPE III	EA	8				8
754	0805	OBJECT MARKERS - CULVERTS	EA	159				159
760	0025	SINUSOIDAL RUMBLE STRIP - ASPHALT SHOULDER	MILE	21.595				21.595

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	8	3

Estimated Quantities

SPEC	CODE	ITEM DESCRIPTION	UNIT	Mainline: Funding A				TOTAL
760	0027	SINUSOIDAL RUMBLE STRIP - ASPHALT CENTERLINE	MILE	10.798				10.798
762	0103	PVMT MK PAINTED-MESSAGE	SF	52				52
762	0422	SHORT TERM 6IN LINE-TYPE R	LF	8000				8000
762	0426	SHORT TERM 24IN LINE-TYPE R	LF	72				72
762	0432	SHORT TERM 6IN LINE-TYPE NR	LF	221016				221016
762	1106	PVMT MK PAINTED 6IN LINE	LF	180823				180823
762	1112	PVMT MK PAINTED 12IN LINE	LF	88				88
762	1124	PVMT MK PAINTED 24IN LINE	LF	12				12
764	0131	W-BEAM GUARDRAIL	LF	307.4				307.4
764	0145	W-BEAM GUARDRAIL END TERMINAL	EA	4				4
764	0151	REMOVE W-BEAM GUARDRAIL & POSTS	LF	275				275
764	2081	REMOVE END TREATMENT & TRANSITION	EA	4				4
766	0100	MAILBOX-ALL TYPES	EA	7				7
900	1000	TEMPORARY STREAM DIVERSION	EA	2				2
910	0810	REPAIR AND SEALING CULVERT JOINT	EA	8				8
930	3639	POLYURETHANE FOAM - 90 LBS	GAL	133.1				133.1
930	9223	CRACK SEALING	LF	130				130
930	9639	APPROACH SLAB LIP REPAIR	LF	77				77
990	0400	PIPE CLEANOUT	EA	9				9

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	10	1

	ND 49 - Jct 21 Elgin N to Glen Ullin															
	Typical 1 (30' Top Asphalt Width)			Typical 2 (Structure Replacements)			Typical 3 (Subcut Area)			Widening for Guard Rail			Typical (Subcut Area)		
	Stations		# of Sta	Stations		# of Sta	Stations		# of Sta	Stations		# of Sta	Stations		# of Sta
	1918+48	to 2544+00	625.520	1989+02	to 1989+64	0.620	2437+52	to 2440+07	2.550	2218+09	to 2223+32	5.230	2437+52	to 2440+19	2.67
				2431+25	to 2432+08	0.830									
															0.00
		Total Stations =	625.52		Total Stations =	1.45		Total Stations =	2.55					Total Stations =	2.67
Material	Unit	Area (SF) or Width (LF)	Quantity per Station	Area (SF) or Width (LF)	Quantity per Station		Area (SF) or Width (LF)	Quantity per Station		Area (SF) or Width (LF)	Station		Area (SF) or Width (FT)	Quantity per Station	
302 0120 AGGREGATE BASE COURSE CL 5 @ 1.875 Ton/CY	Ton	13.34	92.64	13.56	94.17		22.17	153.96		6424.00	223.06		22.17	153.96	
401 0050 TACK COAT @ 0.10 Gal/SY (1)	Gal	25.23	28.03	28.77	31.97										
401 0050 TACK COAT @ 0.05 Gal/SY (2)	Gal	30.99	17.22	32.99	18.33		33.70	18.72					33.70	18.72	
401 0060 PRIME @ 0.25 Gal/SY	Gal	8.98	24.94	9.18	25.50		35.25	97.92		5744.00	159.56		35.25	97.92	
411 0100 MILLING PAVEMENT SURFACE @ 2 Ton/CY	Ton	2.07	15.33	2.37	17.56										
430 0142 RAP - SUPERPAVE FAA 42 @ 2 Ton/CY	Ton	7.75	57.41	8.25	61.11		14.02	103.85		5744.00	70.91		14.02	103.85	
430 5818 PG 58H-34 ASPHALT CEMENT @ 4.5%	Ton		2.58		2.75			4.67			3.19			4.67	

Summary Table (1 of 3): Subtotals from Mainline Paving Tables		
Material	Unit	Total
302 0120 AGGREGATE BASE COURSE CL 5 @ 1.875 Ton/CY	Ton	59,111
401 0050 TACK COAT	Gal	28,475
401 0060 PRIME @ 0.25 Gal/SY	Gal	16,308
411 0100 MILLING PAVEMENT SURFACE	Ton	9,615
430 0142 RAP - SUPERPAVE FAA 42 @ 2 Ton/CY	Ton	36,613
430 5818 PG 58H-34 ASPHALT CEMENT @ 4.5%	Ton	1,645

Summary Table (2 of 3): Subtotals from Section 20 Paving		
Material	Unit	Total
203 0237 SUBCUT AGGREGATE @ 1.875 Ton/CY	Ton	2,355
302 0120 AGGREGATE BASE COURSE CL 5 @ 1.875 Ton/CY	Ton	12,126
401 0050 TACK COAT	Gal	1,370
401 0060 PRIME @ 0.25 Gal/SY	Gal	227
430 0142 RAP - SUPERPAVE FAA 42 @ 2 Ton/CY	Ton	3,078
430 5818 PG 58H-34 ASPHALT CEMENT @ 4.5%	Ton	139

Summary Table (3 of 3): Subtotals from Temporary Widening		
Material	Unit	Total
302 0120 AGGREGATE BASE COURSE CL 5 @ 1.875 Ton/CY	Ton	525

Cumulative Paving Summary Table: Summation of Summary Tables		
Material	Unit	Total
203 0237 SUBCUT AGGREGATE @ 1.875 Ton/CY	Ton	2,355
302 0120 AGGREGATE BASE COURSE CL 5 @ 1.875 Ton/CY	Ton	71,762
401 0050 TACK COAT	Gal	29,845
401 0060 PRIME @ 0.25 Gal/SY	Gal	16,308
411 0100 MILLING PAVEMENT SURFACE	Ton	9,615
430 0142 RAP - SUPERPAVE FAA 42 @ 2 Ton/CY	Ton	39,691
430 5818 PG 58H-34 ASPHALT CEMENT @ 4.5%	Ton	1,784

Cumulative Removals Summary Table: Summation of Section 60 Asphalt Removals		
Material	Unit	Total
202 0135 REMOVAL OF BITUMINOUS SURFACING @ 2 Ton/CY	Ton	10,049

Basis of Estimates

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:27:42 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	10	2

216 0100 WATER			
Material	Basis	Basis Quantity	Quantity (MGAL)
Dust Palliative	25 MGal/Mile	12 Mile	300
Dust Palliative Haul Road			750
Embankment	10 Gal/CY	180,076 CY	1,801
Aggregates	20 Gal/Ton	74,117 Ton	1,482
		Total:	4,333 MGal

Seeding Summary			
	251 0200	251 2000	253 0061
ND 49 Totals	121.8	121.8	243.6

754 0562 REFERENCE MARKER-TYPE B			
Station	Lt / Rt	Reference	Quantity (EA)
1953+74	Rt	37	1
2006+71	Rt	38	1
2059+43	Rt	39	1
2112+21	Rt	40	1
2165+12	Rt	41	1
2218+07	Rt	42	1
2270+64	Rt	43	1
2322+95	Rt	44	1
2376+31	Rt	45	1
2429+17	Rt	46	1
2482+72	Rt	47	1
2534+58	Rt	48	1
		Total:	12

430 1000 CORED SAMPLE									
Specification Section	Location	Begin STA	End STA	A	B		C			Unit
				Distance (Ft) /1000	Lanes	Joints	Lifts	Quantity (A * B * C)	Quantity (1 per mile)	
430.04 I.2.b(2), "Pavement Density Cores"	ND 49	1918+48	2544+00	63	2	N/A	2	252	N/A	EA
SSP 4 Longitudinal Joint Density in HMA Pavments (Centerline)	ND 49	1918+48	2544+00	63	N/A	1	2	126	N/A	EA
430.04 I.2.b(3), "Pavement Thickness Determination Cores"	ND 49	1918+48	2544+00						0	EA
							Subtotal:	378	0	EA
							Total:	378		EA

Avoidance Sites	752 0911 TEMPORARY SAFETY FENCE			
	Begin Station	End Station	Location	Quantity (LF)
	2418+81	2426+16	Rt	735
			Total:	735

766 0100 MAILBOX-ALL TYPES				
Station	Location	Type	Mailboxes	Quantity (EA)
1991+30	Rt	Single	1	1
1997+78	Lt	Single	1	1
2048+66	Lt	Single	1	1
2089+55	Rt	Single	1	1
2373+23	Lt	Multiple	3	1
2440+00	Rt	Single	1	1
2492+78	Rt	Single	1	1
		Total:	9 EA	7 EA

Note: Refer to Standard Drawing D-766-01

760 0025 SINUSOIDAL RUMBLE STRIP - ASPHALT SHOULDER			
Begin RP	End RP	Basis	Quantity (Mile)
1973+88	2544+00	10,560 LF/Mile	21.595
		Total:	21.595 Mile

760 0027 SINUSOIDAL RUMBLE STRIP - ASPHALT CENTERLINE			
Begin Station	End Station	Basis	Quantity (Mile)
1973+88	2544+00	5,280 LF/Mile	10.798
		Total:	10.798 Mile

Basis of Estimates

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:27:58 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	10	3

754 0805 Object Markers - Culvert (Table 1 of 2)			
Station		Offset	No.
1922+11 - Lt	Apr	Bk & Ahd	2
1925+78 - Lt	Apr	Bk & Ahd	2
1925+78 - Lt	Apr	Bk & Ahd	2
1926+55	CL	Lt & Rt	2
1926+64	CL	Lt & Rt	2
1926+73	CL	Lt & Rt	2
1926+82	CL	Lt & Rt	2
1927+67 - Rt	Apr	Bk & Ahd	2
1940+64 - Lt	Apr	Bk & Ahd	2
1941+07 - Rt	Apr	Bk & Ahd	2
1967+32 - Lt	Apr	Bk & Ahd	2
1967+36 - Rt	Apr	Bk & Ahd	2
1970+34	CL	Lt & Rt	2
1985+30 - Rt	Apr	Bk & Ahd	2
1985+33 - Lt	Apr	Bk & Ahd	2
1989+26	CL	Lt & Rt	2
1989+41	CL	Lt & Rt	2
2002+73	CL	Lt & Rt	2
2020+12 - Lt	Apr	Bk & Ahd	2
2020+12 - Rt	Apr	Bk & Ahd	2
2027+69 - Rt	Apr	Bk & Ahd	2
2045+53	CL	Rt	1
2048+50 - Lt	Apr	Bk & Ahd	2
2048+57 - Rt	Apr	Bk & Ahd	2
2059+70 - Lt	Apr	Bk & Ahd	2
2065+32	CL	Lt & Rt	2
2071+82	CL	Lt & Rt	2
2088+92	CL	Lt	1
		Rt	1
2089+45 - Rt	Apr	Bk & Ahd	2
2099+68 - Rt	Apr	Bk & Ahd	2
2099+71 - Lt	Apr	Bk & Ahd	2
2106+33	CL	Lt	1
		Rt	1
2123+21 - Lt	Apr	Bk & Ahd	2
2123+25 - Rt	Apr	Bk & Ahd	2
2133+58	CL	Lt & Rt	2
2133+67	CL	Lt & Rt	2
2150+33	CL	Lt & Rt	2
2158+98 - Lt	Apr	Bk & Ahd	2
2158+98 - Rt	Apr	Bk & Ahd	2
2163+32	CL	Lt	1
		Rt	1
2175+96 - Lt	Apr	Bk & Ahd	2
2178+62	CL	Lt & Rt	2
2197+25	CL	Rt	1
2202+48 - Lt	Apr	Bk & Ahd	2
2223+67 - Lt	Apr	Bk & Ahd	2
2228+75 - Rt	Apr	Bk & Ahd	2
		Subtotal:	90

754 0805 Object Markers - Culvert (Table 2 of 2)			
Station		Offset	No.
2228+77 - Lt	Apr	Bk & Ahd	2
2235+42	CL	Lt	1
		Rt	1
2257+50 - Rt	Apr	Bk & Ahd	2
2257+52 - Lt	Apr	Bk & Ahd	2
2264+21	CL	Lt & Rt	2
2273+88	CL	Lt & Rt	2
2281+64 - Lt	Apr	Bk & Ahd	2
2281+67 - Rt	Apr	Bk & Ahd	2
2289+14 - Lt	Apr	Bk & Ahd	2
2295+40	CL	Lt	1
		Rt	1
2303+41	CL	Lt & Rt	2
2308+03 - Lt	Apr	Bk & Ahd	2
2310+21	CL	Lt & Rt	2
2320+18 - Lt	Apr	Bk & Ahd	2
2320+20 - Rt	Apr	Bk & Ahd	2
2330+39	CL	Lt & Rt	2
2334+79	CL	Lt	1
		Rt	1
2353+63	CL	Lt & Rt	2
2371+18	CL	Lt & Rt	2
2376+33	CL	Rt	1
2387+10 - Rt	Apr	Bk & Ahd	2
2392+33	CL	Lt & Rt	2
2403+98	CL	Rt	1
2413+93 - Rt	Apr	Bk & Ahd	2
2416+28 - Lt	Apr	Bk & Ahd	2
2419+17	CL	Rt	1
2431+59	CL	Lt & Rt	2
2431+74	CL	Lt & Rt	2
2440+18 - Lt	Apr	Bk & Ahd	2
2473+16	CL	Lt	1
2481+15	CL	Lt & Rt	2
2491+14	CL	Lt & Rt	2
2492+97 - Lt	Apr	Bk & Ahd	2
2497+15	CL	Lt	1
		Rt	1
2519+43 - Lt	Apr	Bk & Ahd	2
2529+16	CL	Rt	1
2537+40	CL	Lt & Rt	2
		Subtotal:	69
		Total:	159

Basis of Estimates

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:28:13 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	11	1

Earthwork Summary				
Location	203 0102 COMMON EXCAVATION-TYPE B (CY)	Embankment (CY)	203 0140 BORROW EXCAVATION (CY)	203 0109 TOPSOIL (CY) (available)
	A	B	C = A - B	C = A - B
Temporary Widening Locations * (Construction)		10,701	10,701	
Temporary Widening Locations * (Partial Removal)	5,350		-5,350	
Begin to 2350+00	5,848	108,901	103,052	45,803
2350+00 to 2544+00	2,114	61,345	59,231	54,001
TOTAL	13,312	180,947	167,635	99,804

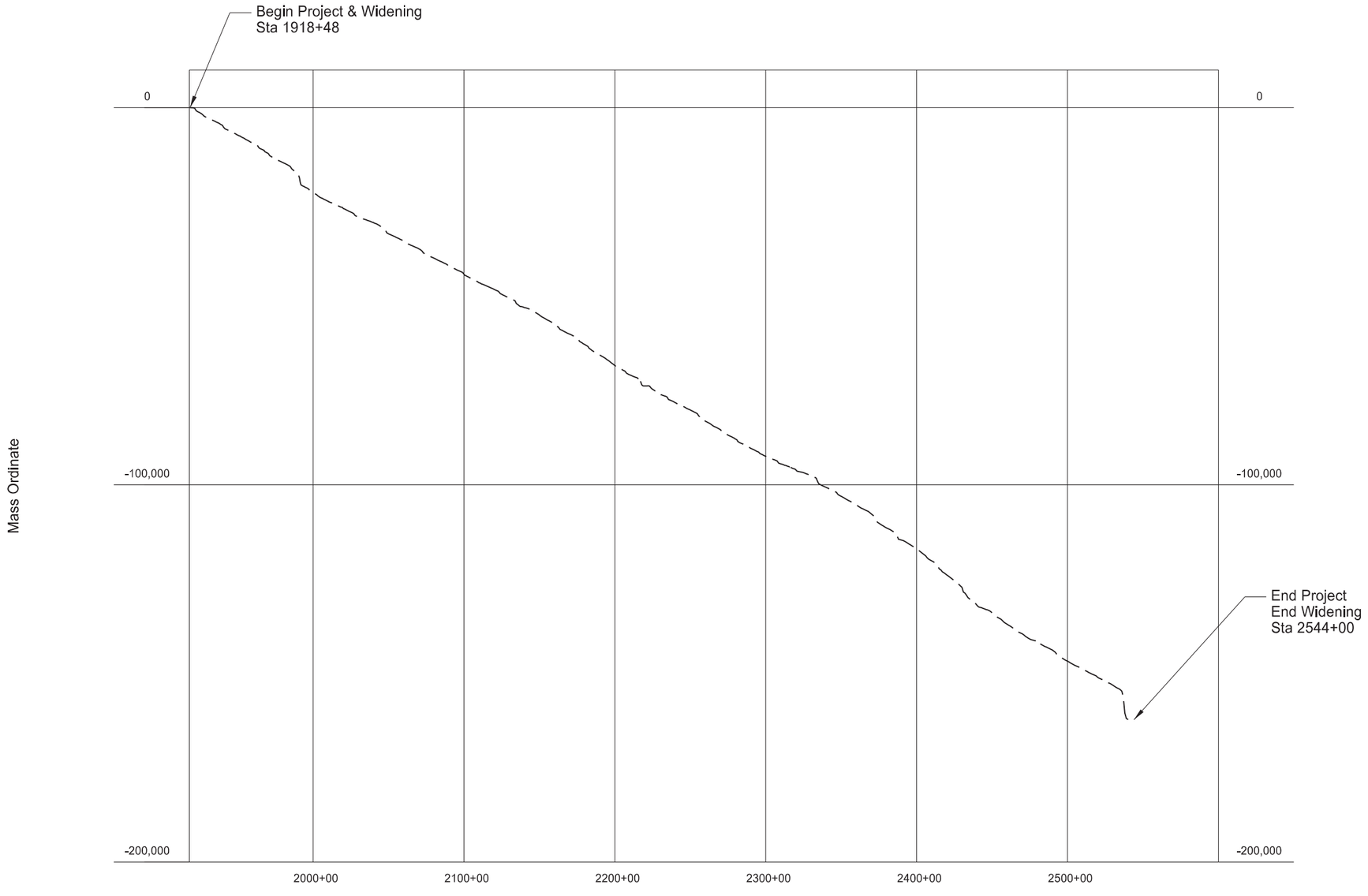
1. This computation report is not a balance sheet. The Contractor shall calculate their own balance of materials.
2. An additional volume of 25% to allow for shrinkage is included in all embankment volumes.
3. Temporary Widening additional borrow to be reincorporated into proect as COMMON EXCAVATION-TYPE B

Data Tables

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:21:21 -06'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	11	2

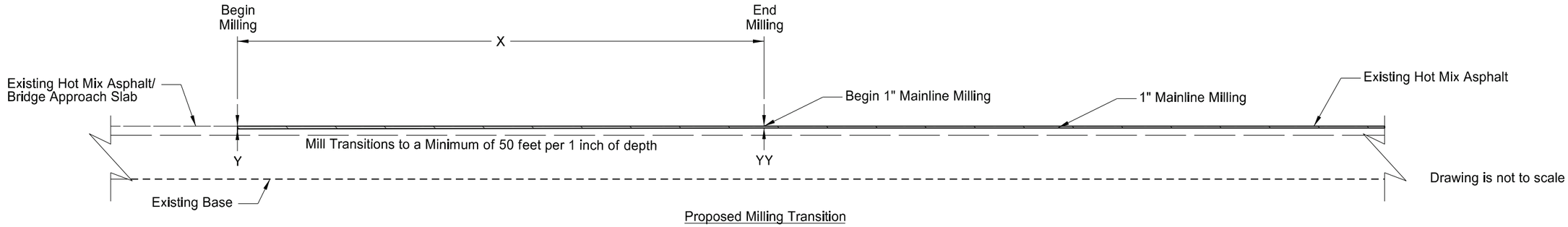


Mass Diagram

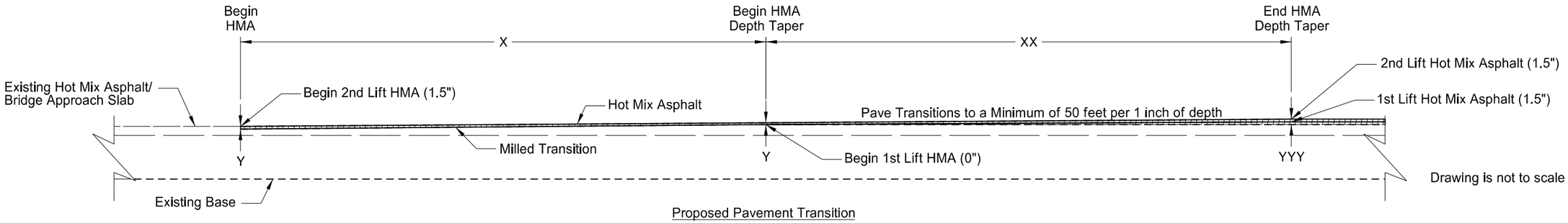
ND 49 - Jct 21 Elgin N to 58th St NW

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:21:37 -06'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	20	1



Proposed Milling Transition



Proposed Pavement Transition

Milling and Paving Transitions

Location	X	Begin Milling/Paving Station	Y	YY	End Milling Station	XX	YYY	End HMA Depth Taper Station
Beginning of Project	25 ft	1918+48	1.5 in	1.0 in	1918+73	75 ft	3.0 in	1919+48
Bridge 49-042.060	25 ft	2220+00	1.5 in	1.0 in	2219+75	75 ft	3.0 in	2219+00
Bridge 49-042.060	25 ft	2221+42	1.5 in	1.0 in	2222+17	75 ft	3.0 in	2222+92
End of Project	25 ft	2544+25	1.5 in	1.0 in	2544+00	75 ft	3.0 in	2543+25

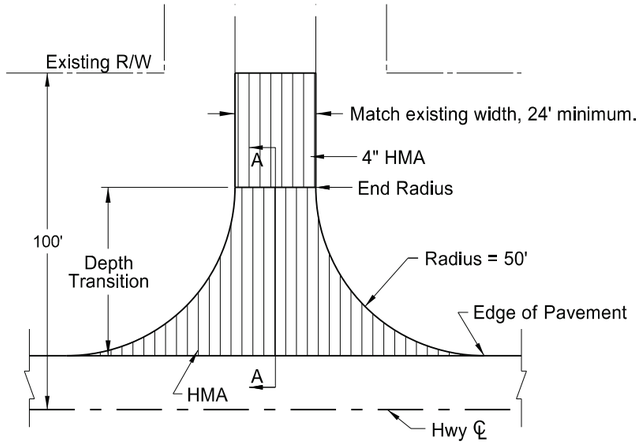
General Details

ND 49 - Jct 21 Elgin N to 58th St SW

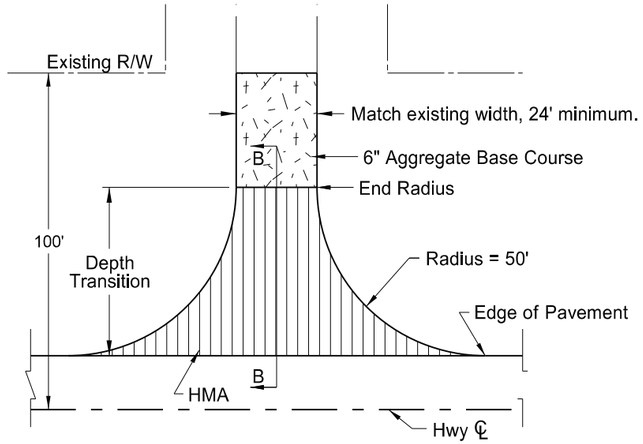
Milling and Paving End Transitions

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.09.01 08:41:47 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	20	2



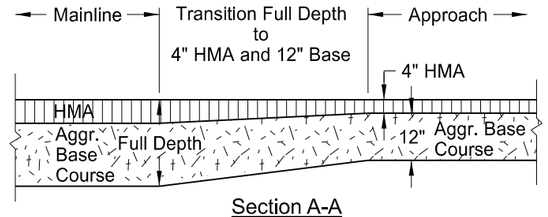
(1) Paved Section Line, County Road, or Street Approach



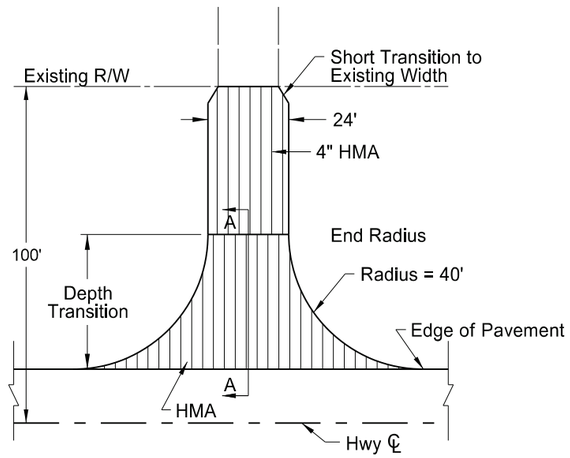
(2) Gravel Section Line, County Road, or Street Approach

Notes:

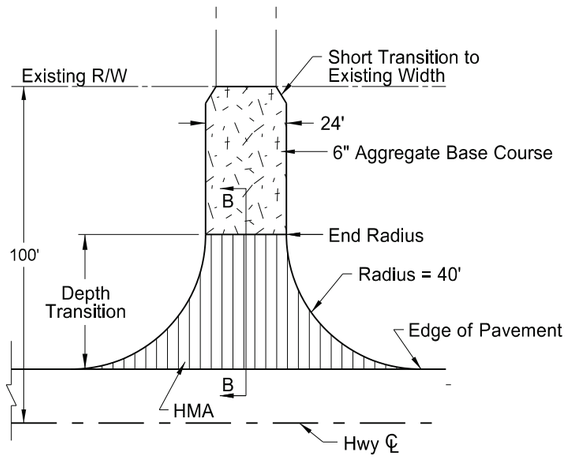
1. Actual HMA paving and aggregate base course locations may vary in the field, as approved by the Engineer.
2. Quantity totals have been included in the bid items of the "Estimate of Quantities" of the plans.



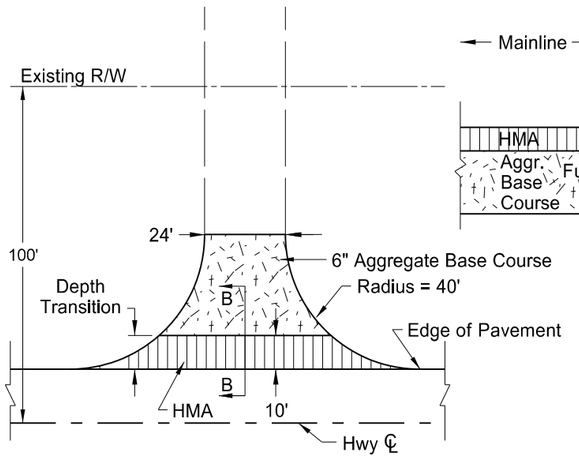
Section A-A
(not to scale)



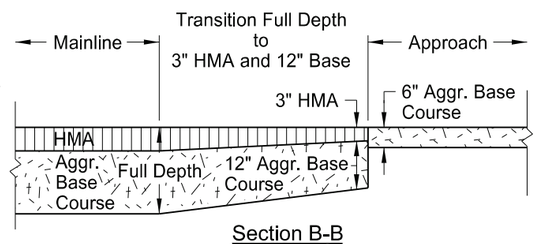
(3) Paved Private Drive Approach



(4) Gravel Private Drive Approach



(5) Field Drive Approach



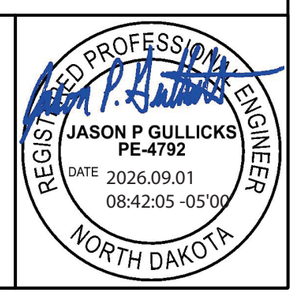
Section B-B
(not to scale)

Basis of Estimate		1	2	3	4		5	
Item	Unit	Paved Public Road	Gravel Public Road	Paved Private Drive	Short Gravel Private Drive	Long Gravel Private Drive	Field Drive	Totals
Number of Location	#	7	9	5	8	3	55	87
302 0120 AGGREGATE BASE COURSE CL 5 @ 1.875	Ton	261	233	194	167	188	97	12,126
401 0050 TACK COAT @ 0.05 Gal/SY	Gal	36	26	26	20	21	8	1,279
430 0142 RAP SUPERPAVE FAA 42 @ 2 Ton/CY	Ton	78	57	57	43	45	18	2,813
430 5818 PG 58H-34 ASPHALT CEMENT @ 4.5%	Ton	3.5	2.6	2.6	2.0	2.0	0.8	127.1

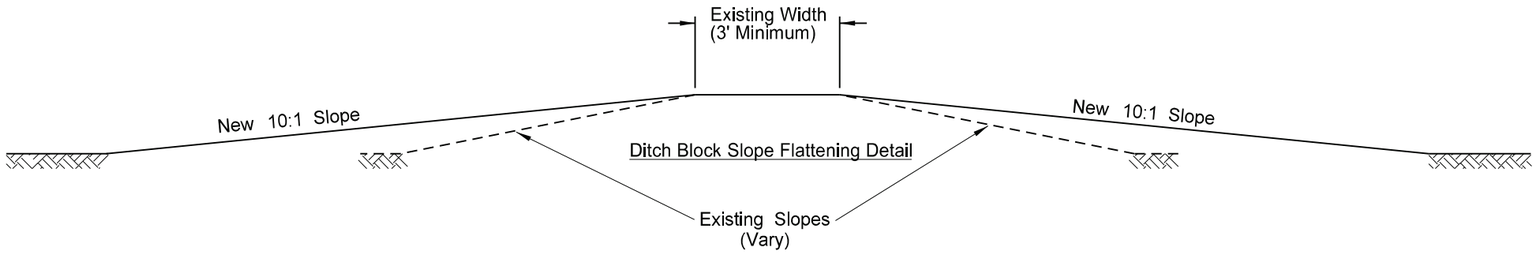
General Details

ND 49 - Jct 21 Elgin N to 58th St SW

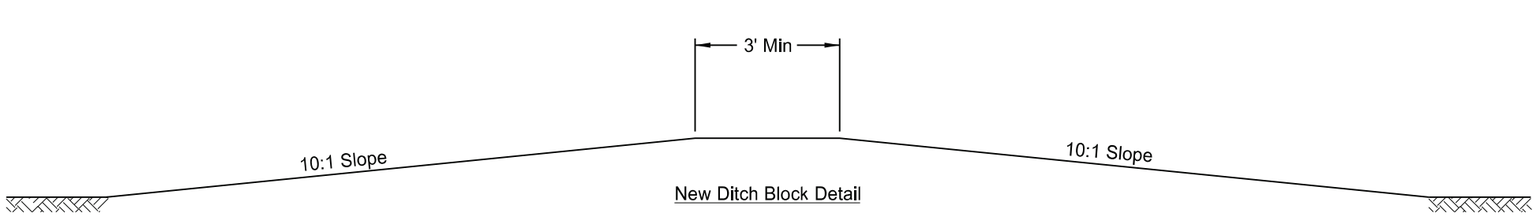
Approach Paving Details for
New or Regrading Rural Approaches



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	20	3



Note: Flatten existing ditch block slopes to 10:1.



DITCH BLOCKS		
Existing Location	Proposed Location	Top Elevation
2065+42 Lt	2065+66 Lt	2368.6 (A)
2065+44 Rt	2065+66 Rt	2368.8 (A)
2106+68 Rt	2106+72 Rt	2303.8 (A)
2392+49 Rt	2392+72 Rt	2265.8 (A)
2419+99 Rt	(B)	2184.6 (A)
2497+03 Lt	2496+77 Lt	2209.6 (A)

(A) Match Existing Elevation
(B) To Remain at Existing Location

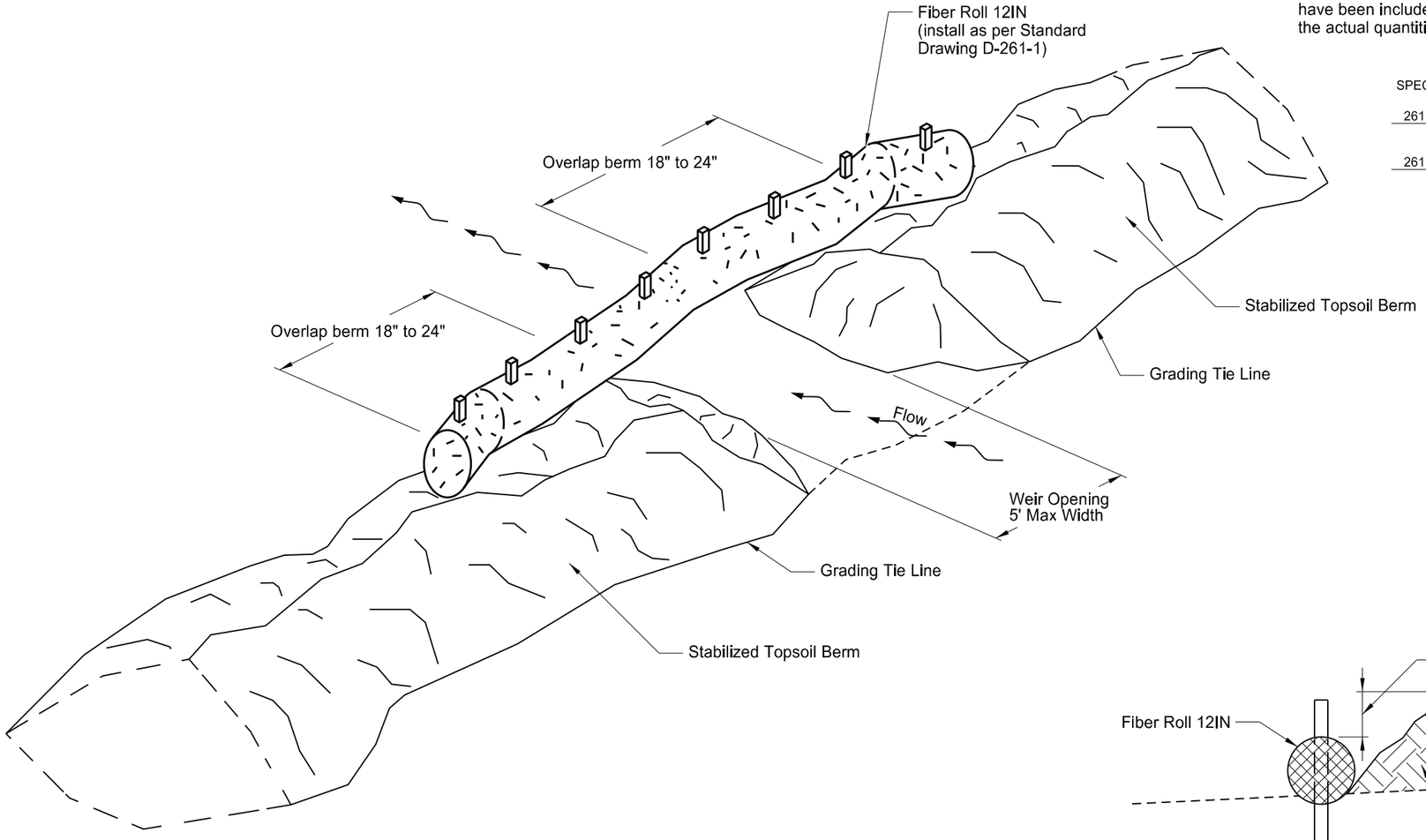
General Details

ND 49 - Jct 21 Elgin N to 58th St SW

Ditch Block Detail

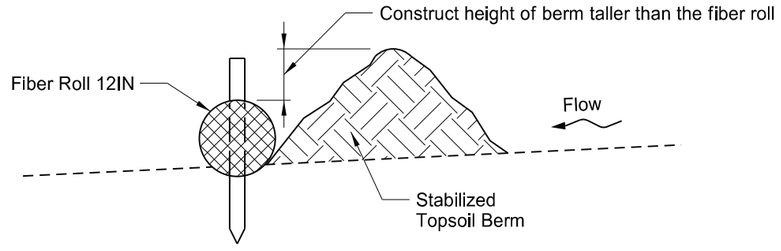
REGISTERED PROFESSIONAL ENGINEER
LEVI L CLAGETT
PE-40749
DATE 2026.09.01 08:30:07-05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	20	4



Quantities of 1500 LF of Fiber Roll 12IN and 1500 LF of Remove Fiber Roll 12IN have been included in the quantities for use at weirs. The Engineer will measure the actual quantities required in the field.

SPEC	CODE	BID ITEM	QTY	UNIT
261	0112	FIBER ROLLS 12IN		
		Weir Locations	500	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Weir Locations	500	LF



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".

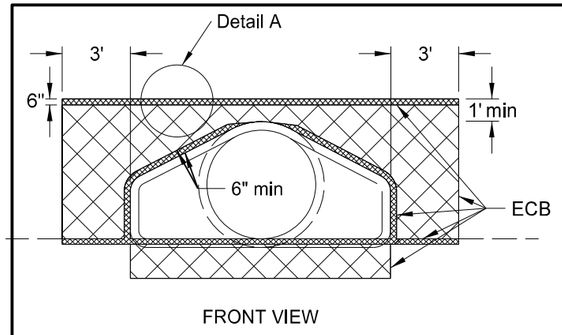
General Details

ND 49 - Jct 21 Elgin N to 58th St SW

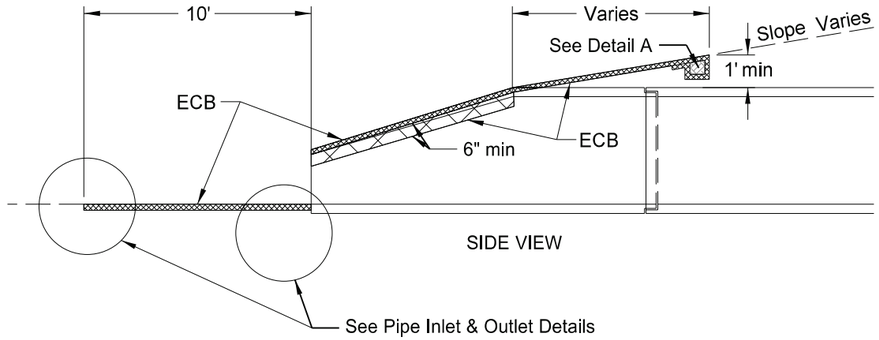
Temporary Topsoil Berm and Weir Detail

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.09.01
08:42:27 -05'00'
NORTH DAKOTA

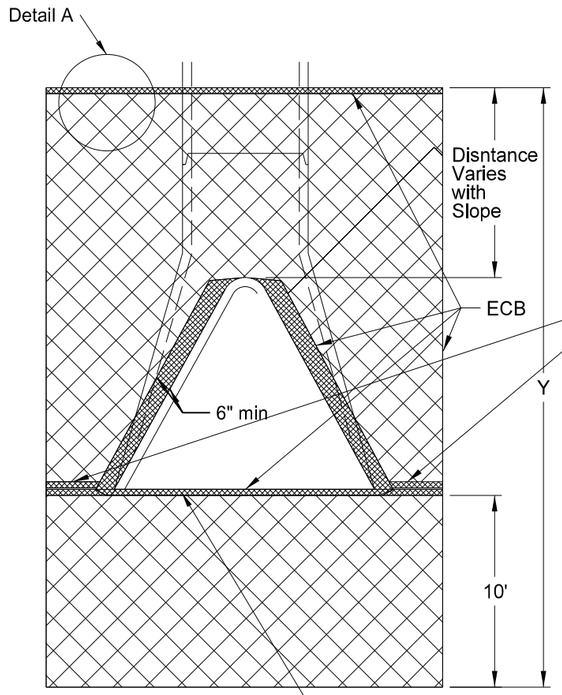
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	20	5



FRONT VIEW



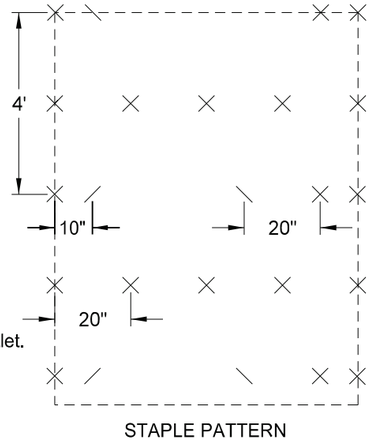
SIDE VIEW



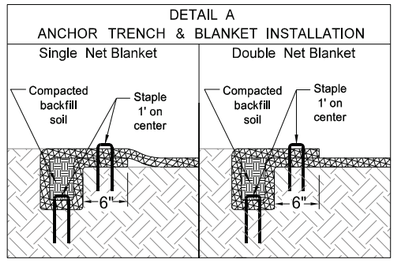
TOP VIEW

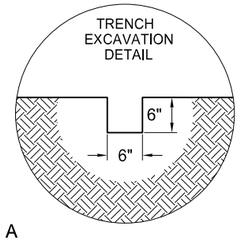
Inlet side - see applicable detail for pipe inlet.
Outlet side - see applicable detail for pipe outlet.

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



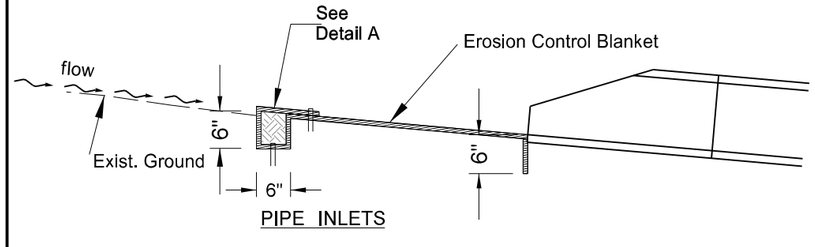
STAPLE PATTERN



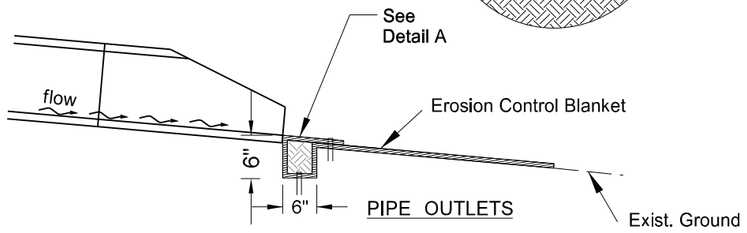


APPROACH CULVERTS				
DIA	X	Y	Surface area to be protected	ECB
In	Ft	Ft	SF	SY
15	9.0	20.0	176.0	20
18	9.5	20.7	190.7	22
21	9.5	21.0	190.9	22
24	10.5	21.6	214.1	24
27	11.0	22.0	226.3	25
30	11.6	22.5	241.5	27
36	12.7	23.3	268.8	30
42	13.3	23.3	279.7	31
48	13.8	24.0	293.2	33
54	14.5	23.4	300.6	34
60	15.0	23.0	307.5	35
66	15.6	24.0	325.6	37
72	16.2	24.5	340.6	38
Note: Quantities based on 8:1 slope.				

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.				



PIPE INLETS

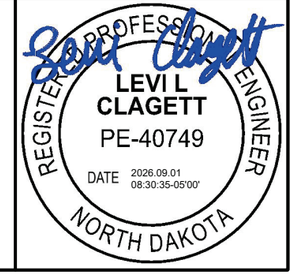


PIPE OUTLETS

General Details

ND 49 - Jct 21 Elgin N to 58th St SW

Erosion Control at Culvert Flared End Sections



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	20	6

255 0103 ECB TYPE 3 (Table 1 of 2)

Chain	Station		Offset	No.	Pipe Diameter (IN)	Unit Quantity (SY)	Total Quantity (SY)
PR49_G	1922+11 - Lt	Apr	Bk & Ahd	2	24*	22	44
	1925+78 - Lt	Apr	Bk & Ahd	2	30*	50	100
	1925+78 - Lt	Apr	Bk & Ahd	2	30*		
	1926+55	CL	Lt & Rt	2	36	85	170
	1926+64	CL	Lt & Rt	2	36		
	1926+73	CL	Lt & Rt	2	27		
	1926+82	CL	Lt & Rt	2	36		
	1927+67 - Rt	Apr	Bk & Ahd	2	30*	25	50
	1940+64 - Lt	Apr	Bk & Ahd	2	24*	22	44
	1941+07 - Rt	Apr	Bk & Ahd	2	24	24	48
	1967+32 - Lt	Apr	Bk & Ahd	2	24*	22	44
	1967+36 - Rt	Apr	Bk & Ahd	2	30*	25	50
	1970+34	CL	Lt & Rt	2	24	20	40
	1985+30 - Rt	Apr	Bk & Ahd	2	24*	22	44
	1985+33 - Lt	Apr	Bk & Ahd	2	24*	22	44
	1989+26	CL	Lt & Rt	2	66	30	60
	1989+41	CL	Lt & Rt	2	66	30	60
	2002+73	CL	Lt & Rt	2	36	24	48
	2020+12 - Lt	Apr	Bk & Ahd	2	30*	25	50
	2020+12 - Rt	Apr	Bk & Ahd	2	24*	22	44
	2027+69 - Rt	Apr	Bk & Ahd	2	18	22	44
	2045+53	CL	Rt	1	24	20	20
	2048+50 - Lt	Apr	Bk & Ahd	2	24*	22	44
	2048+57 - Rt	Apr	Bk & Ahd	2	24*	22	44
	2059+70 - Lt	Apr	Bk & Ahd	2	24*	22	44
	2065+32	CL	Lt & Rt	2	24*	18	36
	2071+82	CL	Lt & Rt	2	30	22	44
	2088+92	CL	Lt	1	36	24	24
			Rt	1	36*	23	23
	2089+45 - Rt	Apr	Bk & Ahd	2	24*	22	44
	2099+68 - Rt	Apr	Bk & Ahd	2	24*	22	44
	2099+71 - Lt	Apr	Bk & Ahd	2	24*	22	44
	2106+33	CL	Lt	1	24*	18	18
			Rt	1	24	20	20
	2123+21 - Lt	Apr	Bk & Ahd	2	24*	22	44
	2123+25 - Rt	Apr	Bk & Ahd	2	24*	22	44
	2133+58	CL	Lt & Rt	2	48	27	54
	2133+67	CL	Lt & Rt	2	48	27	54
	2150+33	CL	Lt & Rt	2	30	22	44
	2158+98 - Lt	Apr	Bk & Ahd	2	24*	22	44
	2158+98 - Rt	Apr	Bk & Ahd	2	24*	22	44
	2163+32	CL	Lt	1	30*	21	21
			Rt	1	30	22	22
	2175+96 - Lt	Apr	Bk & Ahd	2	30*	25	50
	2178+62	CL	Lt & Rt	2	27	21	42
	2197+25	CL	Rt	1	24	20	20
	2202+48 - Lt	Apr	Bk & Ahd	2	18*	21	42
	2223+67 - Lt	Apr	Bk & Ahd	2	30*	25	50
	2228+75 - Rt	Apr	Bk & Ahd	2	30*	25	50
	SUBTOTAL (Table 1 of 2) =						2,058

255 0103 ECB TYPE 3 (Table 2 of 2)

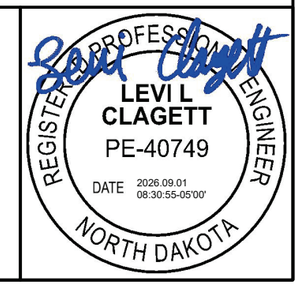
Chain	Station		Offset	No.	Pipe Diameter (IN)	Unit Quantity (SY)	Total Quantity (SY)
PR49_G	2228+77 - Lt	Apr	Bk & Ahd	2	30*	25	50
	2235+42	CL	Lt	1	24*	18	18
			Rt	1	24	24	24
	2257+50 - Rt	Apr	Bk & Ahd	2	24*	22	44
	2257+52 - Lt	Apr	Bk & Ahd	2	24*	22	44
	2264+21	CL	Lt & Rt	2	24	20	40
	2273+88	CL	Lt & Rt	2	24	20	40
	2281+64 - Lt	Apr	Bk & Ahd	2	30*	25	50
	2281+67 - Rt	Apr	Bk & Ahd	2	30*	25	50
	2289+14 - Lt	Apr	Bk & Ahd	2	24*	22	44
	2295+40	CL	Lt	1	24*	18	18
			Rt	1	24	24	24
	2303+41	CL	Lt & Rt	2	24*	18	36
	2308+03 - Lt	Apr	Bk & Ahd	2	24*	22	44
	2310+21	CL	Lt & Rt	2	24*	18	36
	2320+18 - Lt	Apr	Bk & Ahd	2	24*	22	44
	2320+20 - Rt	Apr	Bk & Ahd	2	24*	22	44
	2330+39	CL	Lt & Rt	2	24*	18	36
	2334+79	CL	Lt	1	24	20	20
			Rt	1	24*	22	22
	2353+63	CL	Lt & Rt	2	24	20	40
	2371+18	CL	Lt & Rt	2	24	20	40
	2376+33	CL	Rt	1	24	20	20
	2387+10 - Rt	Apr	Bk & Ahd	2	24*	22	44
	2392+33	CL	Lt & Rt	2	24	20	40
	2403+98	CL	Rt	1	30	22	22
	2413+93 - Rt	Apr	Bk & Ahd	2	24*	22	44
	2416+28 - Lt	Apr	Bk & Ahd	2	24*	22	44
	2419+17	CL	Rt	1	30	22	22
	2431+59	CL	Lt & Rt	2	72	31	62
	2431+74	CL	Lt & Rt	2	72	31	62
	2440+18 - Lt	Apr	Bk & Ahd	2	24*	22	44
	2473+16	CL	Lt	1	30	22	22
	2481+15	CL	Lt & Rt	2	30	22	44
	2491+14	CL	Lt & Rt	2	30	22	44
	2492+97 - Lt	Apr	Bk & Ahd	2	24*	22	44
	2497+15	CL	Lt	1	24*	18	18
			Rt	1	24	24	24
	2519+43 - Lt	Apr	Bk & Ahd	2	18*	21	42
	2529+16	CL	Rt	1	30*	21	21
	2537+40	CL	Lt & Rt	2	48	27	54
	SUBTOTAL (Table 2 of 2) =						1,525
	TOTAL =						3,583

Notes:
1. Quantites based on 4:1 inslopes for centerline culverts.
2. Quantites based on 8:1 inslopes for approach culverts.
3. Tuck the ECB a minimum of 6" into the embankment (against the flared end section)
4. * = Traversable End Section

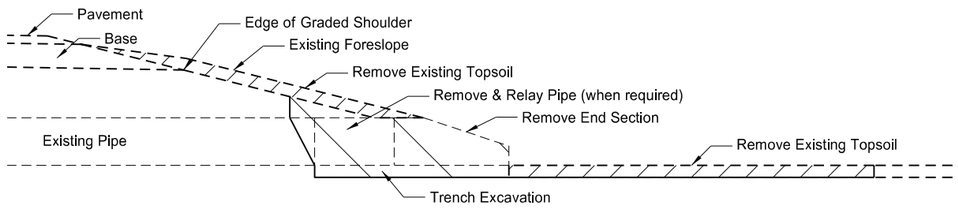
General Details

ND 49 - Jct 21 Elgin N to 58th St SW

Erosion Control Blanket Tables

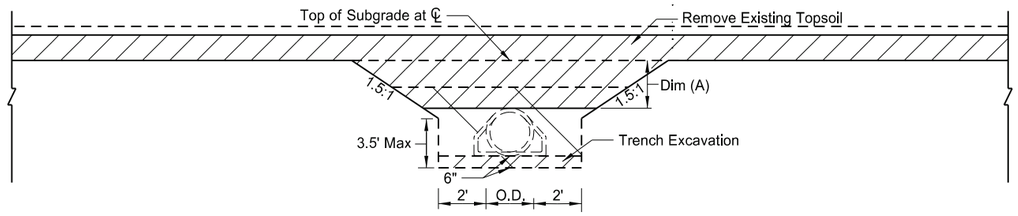


	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	20	7



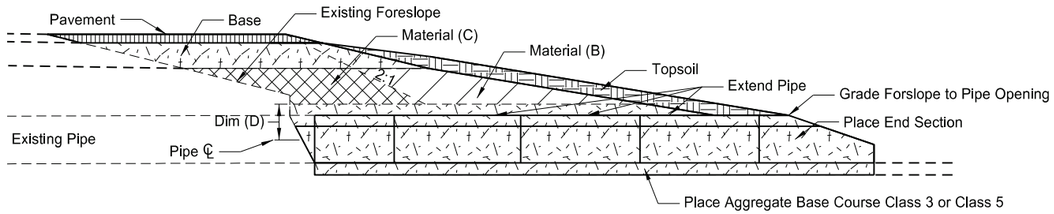
Removal Section

Cross Section View



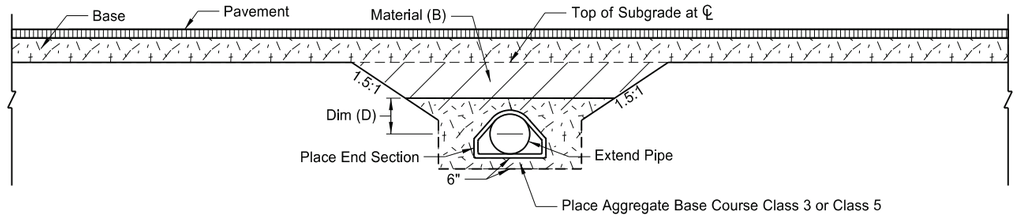
Removal Detail

Side View



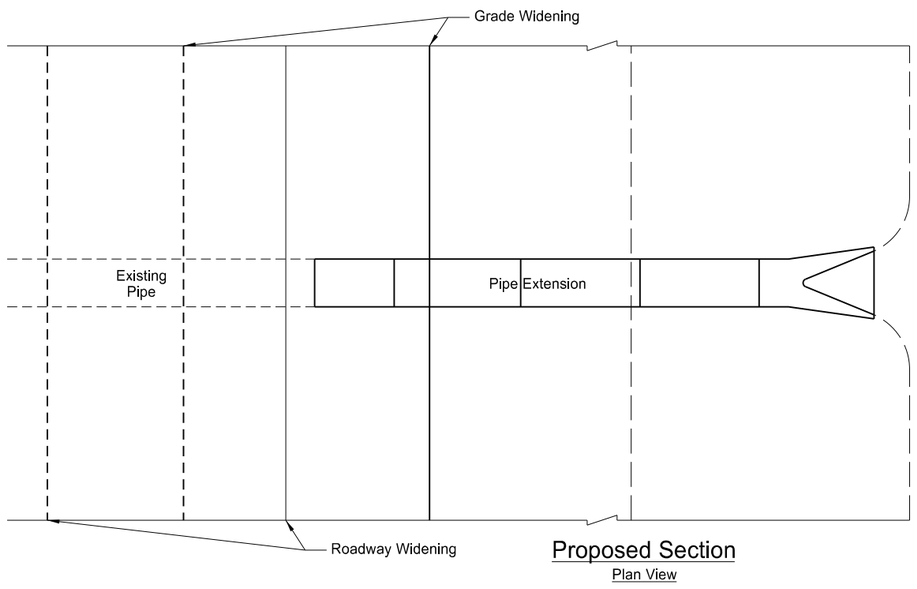
Proposed Section

Cross Section View



Backfill Detail

Side View (Topsoil not shown)



Proposed Section

Plan View

Pay Items
1) Pipe*
2) Remove & Relay Pipe - All Types & Sizes (when required)
3) Remove & Reset End Section or
   Remove End Section and Place New End Section
4) Borrow Excavation or Common Excavation
5) Topsoil
6) Seeding
7) Mulching

*Included in Pipe Pay Item
1) Pipe
2) Trench excavation
3) Aggregate Base Course Class 3 or Class 5

Pipe Materials	Dim (A)<=4 Feet		Backfill Dimension
	Material (B)	Material (C)	Dim (D)
Concrete	Embank or Aggr	Aggregate	0.5 O.D.
Metal	Embank or Aggr	Aggregate	0.5 O.D.+1 Foot

Pipe Materials	Dim (A)>4 Feet		Backfill Dimension
	Material (B)	Material (C)	Dim (D)
Concrete	Embankment	Embankment	0.5 O.D.
Metal	Embankment	Embankment	0.5 O.D.+1 Foot

NOTES:
1. Embankment may be either Borrow Excavation or Common Excavation

2. Aggregate may be either Class 3 or Class 5 Aggregate Base Course.

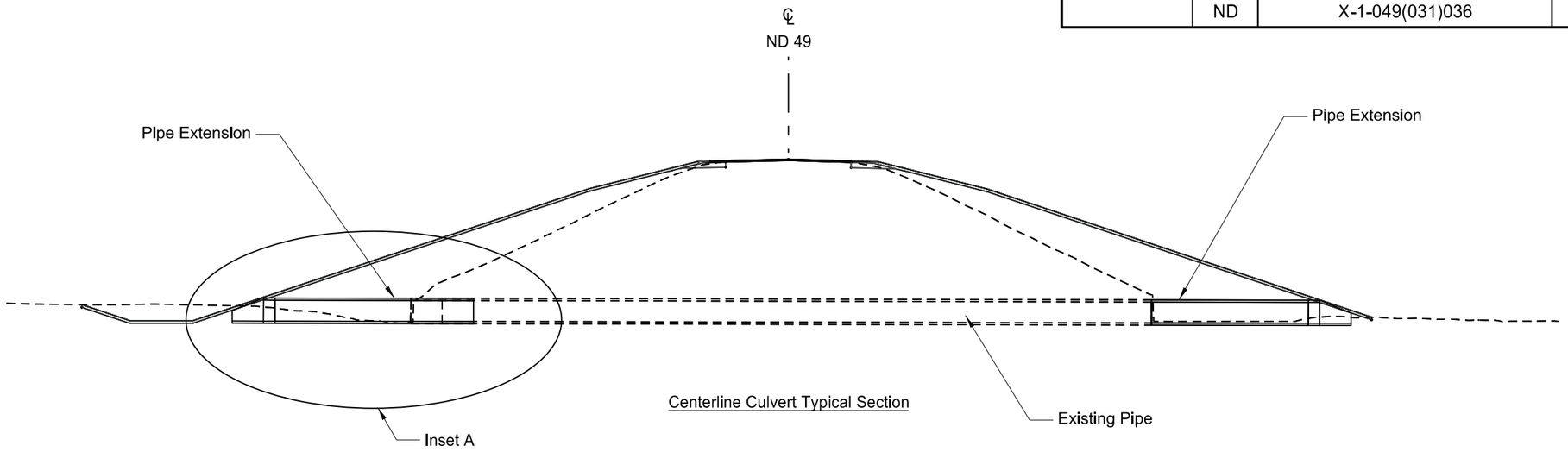
General Details

ND 49 - Jct 21 Elgin N to 58th St SW

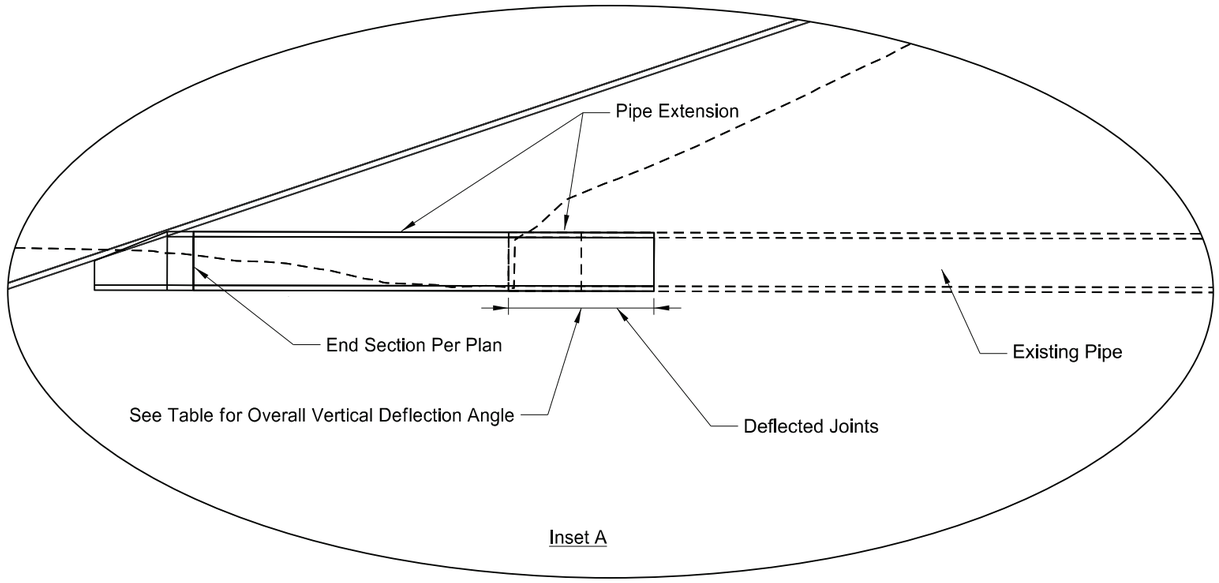
Mainline Widening CL Pipe Extension Detail

REGISTERED PROFESSIONAL ENGINEER
LEVI L CLAGETT
PE-40749
DATE 2026.09.01 08:31:18-05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	20	8



Centerline Culvert Typical Section



Inset A

PIPE EXTENSIONS WITH DEFLECTED JOINTS OR VERTICAL BENDS						
Chain	Station	Offset	Circular Pipe Diameter	Number of Deflected Joints	Deflection Angle at Each Joint	Overall Deflection Angle
Centerline Culverts						
PR49_G	2334+79	Lt	24" RCP	2	1° 00' 00"	- 2° 00' 00"

Notes: + = Pipe extension deflect upwards
- = Pipe extension deflect downwards

General Details

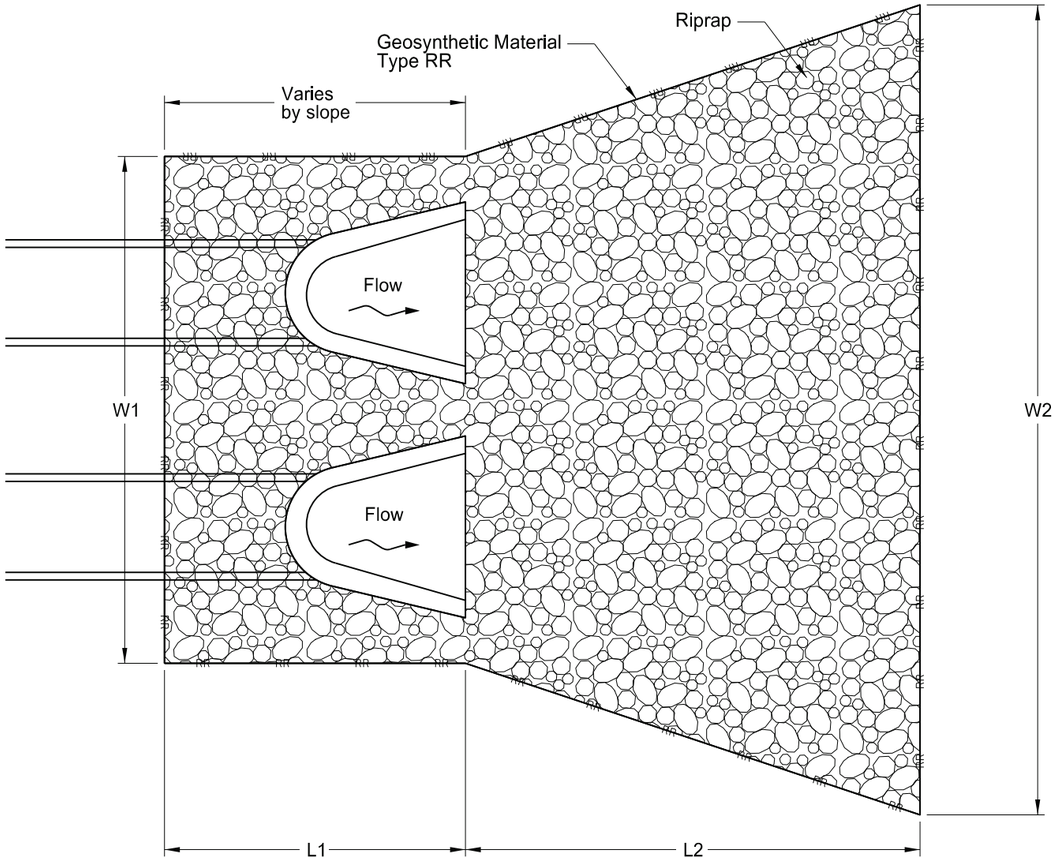
ND 49 - Jct 21 Elgin N to 58th St SW

Pipe Deflection Detail

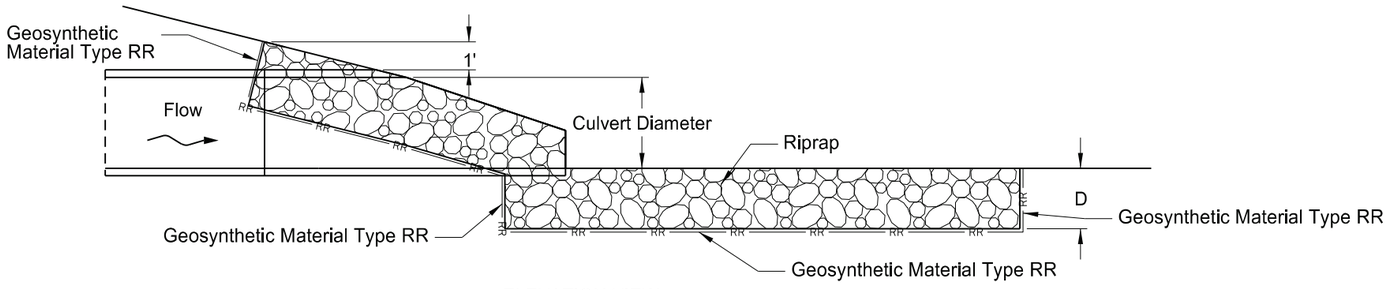
REGISTERED PROFESSIONAL ENGINEER
LEVI L CLAGETT
PE-40749
DATE 2026.09.01 08:31:35-05'00'
NORTH DAKOTA

8/31/2026 4:58:40 PM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\020GD\020GD_008_PipeDeflection.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	20	9



PLAN VIEW
(Double Pipe)



ELEVATION VIEW

RIPRAP AND GEOSYNTHETIC MATERIAL

Location of Surface Area to be Protected			Pipe Diameter	L1	L2	W1	W2	D	256 0300 RIPRAP GRADE III	709 0155 GEOSYNTHETIC MATERIAL TYPE RR
Chain	Station	Offset	(IN)	(FT)	(FT)	(FT)	(FT)	(FT)	(CY)	(SY)
PR49_G	2431+59 & 2431+74	Rt	Dbl 72	10.5	32.3	33.0	54.5	3	196	255
								TOTAL =	196	255

General Details

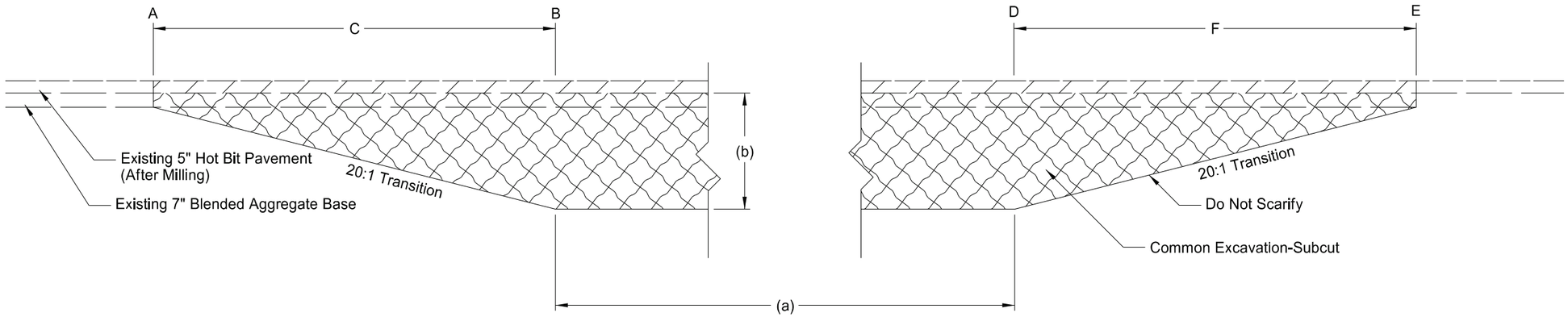
ND 49 - Jct 21 Elgin N to 58th St SW

Riprap at Pipe Outlets

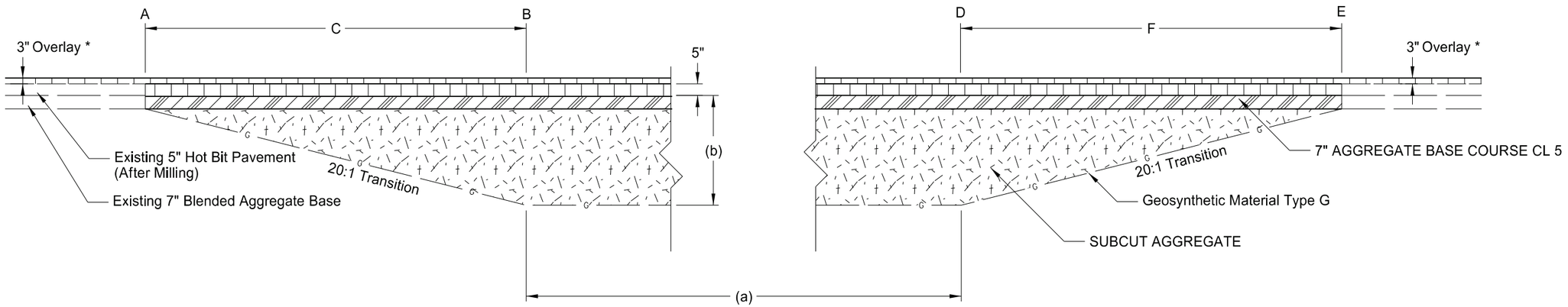
REGISTERED PROFESSIONAL ENGINEER
LEVI L CLAGETT
PE-40749
DATE 2026.09.01 08:31:53-05'00'
NORTH DAKOTA

8/31/2026 5:05:56 PM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\020GD\020GD_009_Riprap_at_Culvert_Ends.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	20	10



Subcut Removal Detail
(Not Drawn to Scale)



Subcut Backfill Detail
(Not Drawn to Scale)

Begin transition	End transition/ Begin full depth	Length of transition	End full depth / Begin transition	End transition	Length of transition
A	B	C	D	E	F
2437+52	2438+17	65	2439+42	2440+19	65

Begin Station	End Station	Length (a) (Ft)	Depth (b) (Inches)	202 0135 REMOVAL OF BITUMINOUS SURFACING (Ton)	203 0138 COMMON EXCAVATION - SUBCUT (CY)	302 240 SUBCUT AGGREGATE (Ton)	401 0050 TACK COAT (gal)	401 0060 PRIME (gal)	430 0142 RAP - SUPERPAVE FAA 42 (Ton)	430 5818 PG 58H-34 ASPHALT CEMENT (Ton)	709 0100 GOESYNTHETIC MATERIAL TYPE G (SY)
2438+17	2439+42	125	46	203	1,412	2,355	91	227	265	12	1,619
			Totals:	203	1,412	2,355	91	227	265	12	1,619

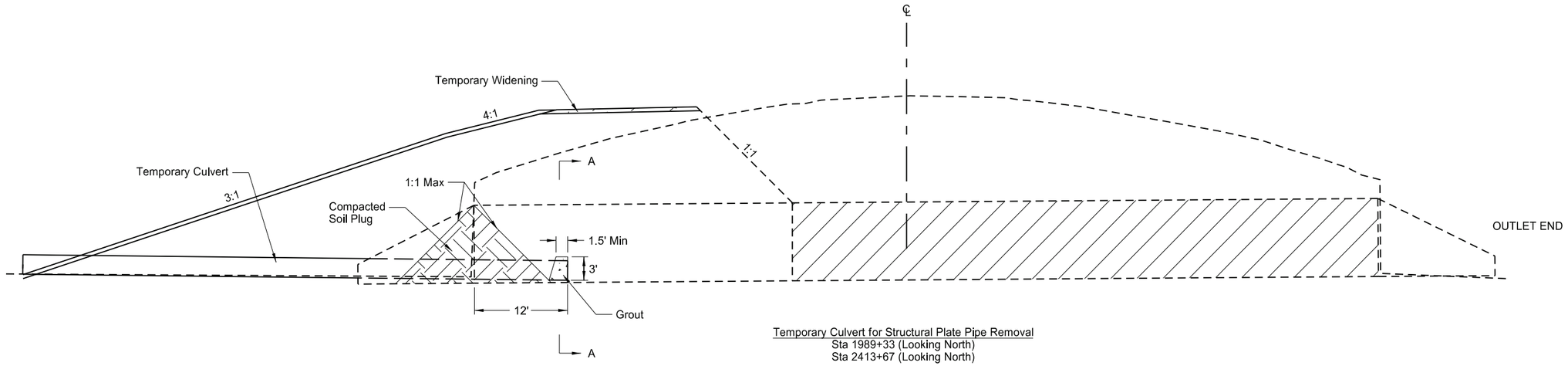
General Details

ND 49 - Jct 21 Elgin N to 58th St SW

Subcut Detail

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.09.01 08:42:51 -05'00'
NORTH DAKOTA

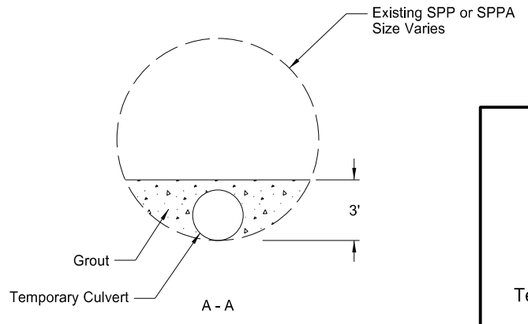
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	20	11



Temporary Culvert for Structural Plate Pipe Removal
Sta 1989+33 (Looking North)
Sta 2413+67 (Looking North)

Existing Structure Number	Station	Structure Size & Type	Minimum Temporary Culvert	
			Diameter	Length (A)
0049-037.677	1989+33	Single 11'-10" x 7'-7" SPPA	24"	50'
0049-046.056	2431+67	Single 10' SPP	24"	49'

(A) Estimated culvert length is based on minimum listed culvert diameter



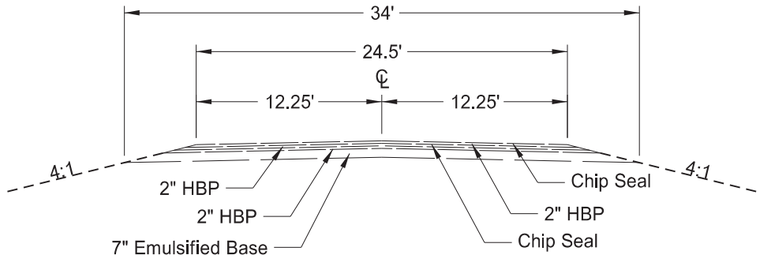
General Details

ND 49 - Jct 21 Elgin N to 58th St SW

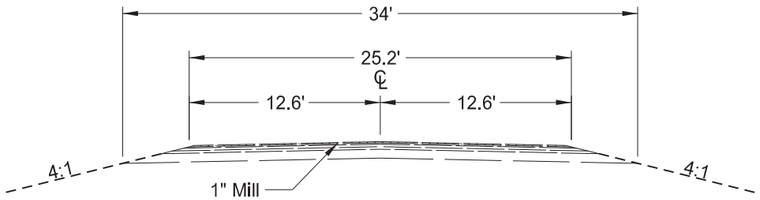
Temporary Culverts for Removal of Structures

REGISTERED PROFESSIONAL ENGINEER
LEVI L
CLAGETT
PE-40749
DATE 2026.09.01 08:32:11-05'00'
NORTH DAKOTA

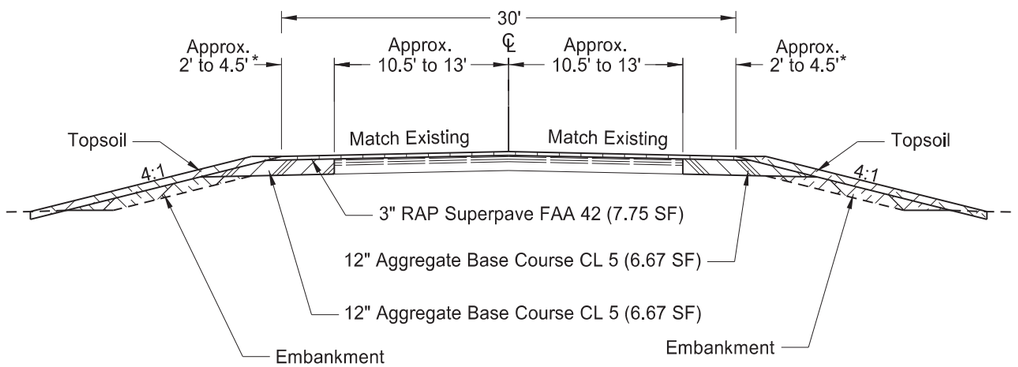
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	30	1



Existing Typical Section 1
Sta 1918+48 to 2544+00



Proposed Milling Typical Section 1a
Sta 1918+48 to 2544+00



Proposed Typical Section 1b
Sta 1918+48 to 2544+00

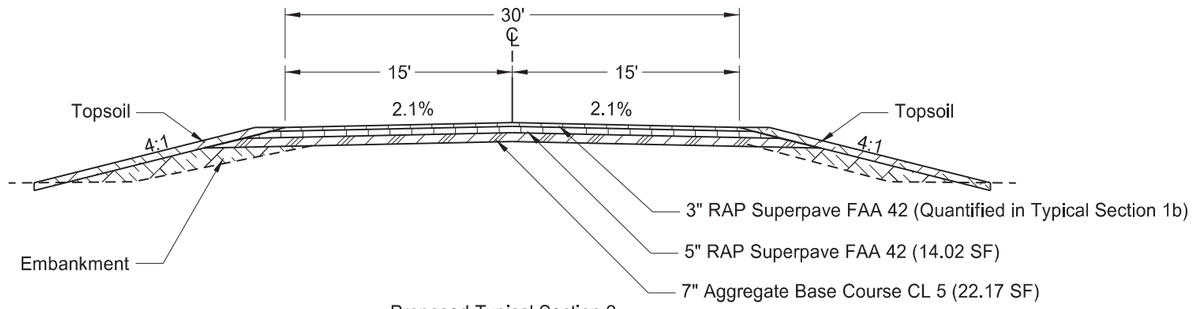
* Vertical cut offset varies throughout project.

Typical Sections

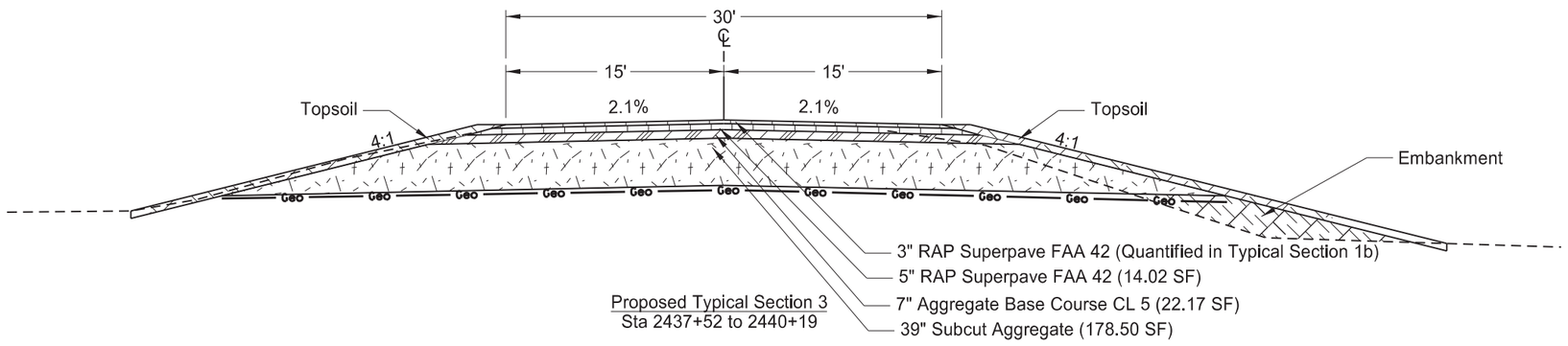
ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:23:46 -06'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	30	2



Proposed Typical Section 2
Sta 1989+02 to 1989+64
Sta 2431+25 to 2432+08



Proposed Typical Section 3
Sta 2437+52 to 2440+19

Proposed Typical Sections

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:24:01 -06'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	50	1

HYDRAULIC DATA FOR X-1-049(031)036 (A)										
					25-YEAR DATA				100-YEAR DATA	
CHAIN	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)
PR49_G	1989+26 & 1989+41	11'-10" x 7'-7" SPPA	Dbl 66"	4679.9	277.0	5.95	9.80	2311.84	441.0	2314.87
	2431+59 & 2431+74	10' SPP	Dbl 72"	3074.1	261.0	5.36	11.09	2156.62	416.0	2158.63
(A) Hydraulic data provided is for smooth-walled (Manning's n=0.012) type conduits.										

Hydraulic Data

ND 49 - Jct 21 Elgin N to 58th St SW

BRAD PFEIFER
REGISTERED
PROFESSIONAL
PE 5247
2024.11.20 10:58:55 -06'00'
ENGINEER
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	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	Geosynthetic Material - Type G (Pay Item)	(*) End Sections		Applicable Backfill
				In	Bid Item	LF		In	Type		In	SY	Begin EA	End EA	
1921+67	52.4' Lt	1922+59	53.2' Lt	24	Pipe Conduit-Approach	92	Reinforced Concrete Pipe - Class III (barrel length = 90 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
1925+40	52.2' Lt	1926+25	49.1' Lt	30	Pipe Conduit-Approach	85	Reinforced Concrete Pipe - Class III (barrel length = 84 LF)	30					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
1925+40	60.2' Lt	1926+25	57.3' Lt	30	Pipe Conduit-Approach	85	Reinforced Concrete Pipe - Class III (barrel length = 84 LF)	30					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
1926+55	31.4' Lt			36	End Section Conc. Reinf.								FES		Section 20 Sheet 7
		1926+55	29.3' Rt	36	End Section Conc. Reinf.									FES	Section 20 Sheet 7
1926+64	31.9' Lt	1926+64	25.9' Lt	36	Pipe Corr. Steel (Extension)	6	Spiral Rib Steel Pipe	36	P	3/4,1	0.064		Remove & Relay		Section 20 Sheet 7
1926+64	24' Rt	1926+64	32' Rt	36	Pipe Corr. Steel (Extension)	8	Spiral Rib Steel Pipe	36	P	3/4,1	0.064			Remove & Relay	Section 20 Sheet 7
1926+72	31.3' Lt	1926+72	23.3' Lt	27	Pipe Conc. Reinf. CL III (Extension)	8	Reinforced Concrete Pipe - Class III (barrel length = 8 LF)	27					Remove & Relay		Section 20 Sheet 7
1926+73	23.1' Rt	1926+73	31.1' Rt	27	Pipe Conc. Reinf. CL III (Extension)	8	Reinforced Concrete Pipe - Class III (barrel length = 8 LF)	27						Remove & Relay	Section 20 Sheet 7
1926+82	32.1' Lt	1926+82	26.1' Lt	36	Pipe Corr. Steel (Extension)	6	Spiral Rib Steel Pipe	36	P	3/4,1	0.064		Remove & Relay		Section 20 Sheet 7
1926+82	23.7' Rt	1926+82	31.7' Rt	36	Pipe Corr. Steel (Extension)	8	Spiral Rib Steel Pipe	36	P	3/4,1	0.064			Remove & Relay	Section 20 Sheet 7
1927+27	43.2' Rt	1928+03	43.4' Rt	30	Pipe Conduit-Approach	76	Reinforced Concrete Pipe - Class III (barrel length = 74 LF)	30					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
1940+08	54.5' Lt	1941+01	56.1' Lt	24	Pipe Conduit-Approach	93	Reinforced Concrete Pipe - Class III (barrel length = 92 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
1940+74	72.9' Rt	1941+31	74.7' Rt	24	Pipe Conduit-Approach	57	Reinforced Concrete Pipe - Class III (barrel length = 52 LF)	24					FES	FES	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064				
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
1967+06	51.9' Lt	1967+74	53.2' Lt	24	Pipe Conduit-Approach	68	Reinforced Concrete Pipe - Class III (barrel length = 66 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
1967+02	50.5' Rt	1967+76	50.8' Rt	30	Pipe Conduit-Approach	74	Reinforced Concrete Pipe - Class III (barrel length = 72 LF)	30					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
1970+34	46.8' Lt	1970+34	28.8' Lt	24	Pipe Conc. Reinf. CL III (Extension)	18	Reinforced Concrete Pipe - Class III (barrel length = 18 LF)	24					Remove & Relay		Section 20 Sheet 7

Corrugations: 2 = 2-2/3" x 1/2"
3 = 3" x 1"
5 = 5" x 1"

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

Spiral Ribs: 3/4 = 3/4" x 3/4" @ 7-1/2"
1 = 3/4" x 1" @ 11-1/2"

(*) End sections are measured and paid for separately for pipe extensions.
FES = Flared End Section
TES = Traversable End Section

Allowable Pipe List

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
LEVI L CLAGETT
PE-40749
DATE 2026.09.01 08:32:58-05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	51	2

Begin Station / Location	Begin Offset	End Station / Location	End Offset	Pipe Installation (Pay Item) In	Pipe Installation (Pay Item) Bid Item	Pipe Installation (Pay Item) LF	Allowable Material	Required Diameter In	Steel Pipe Coatings Type	Steel Pipe Corrugations or Spiral Ribs	Steel Pipe Minimum Thickness In	Geosynthetic Material - Type G (Pay Item) SY	(*) End Sections Begin EA	(*) End Sections End EA	Applicable Backfill
1970+34	22' Rt	1970+34	38' Rt	24	Pipe Conc. Reinf. CL III (Extension)	16	Reinforced Concrete Pipe - Class III (barrel length = 16 LF)	24						Remove & Relay	Section 20 Sheet 7
1984+94	48.1' Rt	1985+71	48.5' Rt	24	Pipe Conduit-Approach	77	Reinforced Concrete Pipe - Class III (barrel length = 76 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
1984+94	50.2' Lt	1985+76	51.3' Lt	24	Pipe Conduit-Approach	82	Reinforced Concrete Pipe - Class III (barrel length = 80 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
1989+25	48.5' Lt	1989+27	50' Rt	66	Pipe Conduit	99	Reinforced Concrete Pipe - Class III (barrel length = 94 LF)	66				124	FES	FES	D-714-25M
				72		95	Corrugated Steel Pipe	72	A,P	2	0.168				
				72		95	Corrugated Steel Pipe	72	P	3,5	0.064				
				66		99	Spiral Rib Steel Pipe	66	A,P	3/4,1	0.168				
				66		99	Spiral Rib Steel Pipe	66	P	3/4	0.109				
				66		99	Spiral Rib Steel Pipe	66	P	1	0.079				
1989+40	48.7' Lt	1989+42	49.8' Rt	66	Pipe Conduit	99	Reinforced Concrete Pipe - Class III (barrel length = 94 LF)	66				124	FES	FES	D-714-25M
				72		95	Corrugated Steel Pipe	72	A,P	2	0.168				
				72		95	Corrugated Steel Pipe	72	P	3,5	0.064				
				66		99	Spiral Rib Steel Pipe	66	A,P	3/4,1	0.168				
				66		99	Spiral Rib Steel Pipe	66	P	3/4	0.109				
				66		99	Spiral Rib Steel Pipe	66	P	1	0.079				
2002+73	40.6' Lt	2002+73	36.6' Lt	36	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	36					Remove & Relay		Section 20 Sheet 7
2002+73	34' Rt	2002+73	38' Rt	36	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	36						Remove & Relay	Section 20 Sheet 7
2019+71	46.4' Lt	2020+43	46.5' Lt	30	Pipe Conduit-Approach	72	Reinforced Concrete Pipe - Class III (barrel length = 70 LF)	30					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2019+63	52.8' Rt	2020+52	51.1' Rt	24	Pipe Conduit-Approach	89	Reinforced Concrete Pipe - Class III (barrel length = 88 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2027+41	71.9' Rt	2027+90	72' Rt	18	Pipe Conduit-Approach	49	Reinforced Concrete Pipe - Class III (barrel length = 42 LF)	18					FES	FES	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064				
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2045+53	36.3' Rt	2045+53	40.3' Rt	24	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	24						Remove & Relay	Section 20 Sheet 7
2047+93	53.4' Lt	2048+90	52.7' Lt	24	Pipe Conduit-Approach	97	Reinforced Concrete Pipe - Class III (barrel length = 96 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								

Corrugations: 2 = 2-2/3" x 1/2"
3 = 3" x 1"
5 = 5" x 1"

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

Spiral Ribs: 3/4 = 3/4" x 3/4" @ 7-1/2"
1 = 3/4" x 1" @ 11-1/2"

(*) End sections are measured and paid for separately for pipe extensions.
FES = Flared End Section
TES = Traversable End Section

Allowable Pipe List

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
LEVI L CLAGETT
PE-40749
DATE 2026.09.01 08:33:10-05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	51	3

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	Geosynthetic Material - Type G (Pay Item)	(*) End Sections		Applicable Backfill
				In	Bid Item	LF		In	Type		In	SY	Begin EA	End EA	
2048+09	43.8' Rt	2048+93	43.5' Rt	24	Pipe Conduit-Approach	84	Reinforced Concrete Pipe - Class III (barrel length = 82 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2059+35	43.3' Lt	2060+15	44.2' Lt	24	Pipe Conduit-Approach	80	Reinforced Concrete Pipe - Class III (barrel length = 78 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2065+32	32.4' Lt	2065+32	26.4' Lt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24					TES (4:1)		Section 20 Sheet 7
2065+32	24.9' Rt	2065+32	30.9' Rt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24						TES (4:1)	Section 20 Sheet 7
2071+82	46.2' Lt	2071+82	42.2' Lt	30	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	30					Remove & Relay		Section 20 Sheet 7
2071+82	45.7' Rt	2071+82	53.7' Rt	30	Pipe Conc. Reinf. CL III (Extension)	8	Reinforced Concrete Pipe - Class III (barrel length = 8 LF)	30						Remove & Relay	Section 20 Sheet 7
2088+92	37.4' Lt	2088+92	33.4' Lt	36	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	36					Remove & Relay		Section 20 Sheet 7
2088+92	21.2' Rt	2088+92	27.2' Rt	36	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	36						TES (4:1)	Section 20 Sheet 7
2089+04	40.5' Rt	2089+88	39.1' Rt	24	Pipe Conduit-Approach	84	Reinforced Concrete Pipe - Class III (barrel length = 82 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2099+30	40.8' Rt	2100+14	42.9' Rt	24	Pipe Conduit-Approach	84	Reinforced Concrete Pipe - Class III (barrel length = 82 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2099+33	42' Lt	2100+17	42.5' Lt	24	Pipe Conduit-Approach	84	Reinforced Concrete Pipe - Class III (barrel length = 82 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2106+33	35.7' Lt	2106+33	29.7' Lt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24					TES (4:1)		Section 20 Sheet 7
2106+33	23.7' Rt	2106+33	31.7' Rt	24	Pipe Conc. Reinf. CL III (Extension)	8	Reinforced Concrete Pipe - Class III (barrel length = 8 LF)	24						Remove & Relay	Section 20 Sheet 7
2122+78	42.9' Lt	2123+69	44.8' Lt	24	Pipe Conduit-Approach	91	Reinforced Concrete Pipe - Class III (barrel length = 90 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2122+82	42.8' Rt	2123+75	43.6' Rt	24	Pipe Conduit-Approach	93	Reinforced Concrete Pipe - Class III (barrel length = 92 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2133+58	27.2' Lt	2133+58	21.2' Lt	48	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	48					Remove & Relay		Section 20 Sheet 7

Corrugations: 2 = 2-2/3" x 1/2"
3 = 3" x 1"
5 = 5" x 1"

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

Spiral Ribs: 3/4 = 3/4" x 3/4" @ 7-1/2"
1 = 3/4" x 1" @ 11-1/2"

(*) End sections are measured and paid for separately for pipe extensions.
FES = Flared End Section
TES = Traversable End Section

Allowable Pipe List

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
LEVI L CLAGETT
PE-40749
DATE 2026.09.01 08:33:23-05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	51	4

Begin Station / Location	Begin Offset	End Station / Location	End Offset	Pipe Installation (Pay Item) In	Pipe Installation (Pay Item) Bid Item	Pipe Installation (Pay Item) LF	Allowable Material	Required Diameter In	Steel Pipe Coatings Type	Steel Pipe Corrugations or Spiral Ribs	Steel Pipe Minimum Thickness In	Geosynthetic Material - Type G (Pay Item) SY	(*) End Sections Begin EA	(*) End Sections End EA	Applicable Backfill
2133+58	25.2' Rt	2133+58	29.2' Rt	48	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	48						Remove & Relay	Section 20 Sheet 7
2133+67	27.2' Lt	2133+67	21.2' Lt	48	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	48					Remove & Relay		Section 20 Sheet 7
2133+67	25.9' Rt	2133+67	29.9' Rt	48	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	48						Remove & Relay	Section 20 Sheet 7
2150+32	37.2' Lt	2150+32	29.2' Lt	30	Pipe Conc. Reinf. CL III (Extension)	8	Reinforced Concrete Pipe - Class III (barrel length = 8 LF)	30					Remove & Relay		Section 20 Sheet 7
2150+33	30.7' Rt	2150+33	36.7' Rt	30	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	30						Remove & Relay	Section 20 Sheet 7
2158+54	49.3' Lt	2159+33	48.8' Lt	24	Pipe Conduit-Approach	79	Reinforced Concrete Pipe - Class III (barrel length = 78 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2158+57	47.6' Rt	2159+34	46.8' Rt	24	Pipe Conduit-Approach	77	Reinforced Concrete Pipe - Class III (barrel length = 76 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2163+32	48.3' Lt	2163+32	28.3' Lt	30	Pipe Conc. Reinf. CL III (Extension)	20	Reinforced Concrete Pipe - Class III (barrel length = 20 LF)	30					Remove & Relay		Section 20 Sheet 7
2163+32	25' Rt	2163+32	31' Rt	30	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	30						TES (4:1)	Section 20 Sheet 7
2175+65	45.5' Lt	2176+39	45.2' Lt	30	Pipe Conduit-Approach	74	Reinforced Concrete Pipe - Class III (barrel length = 72 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe	30	Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2178+62	40.1' Lt	2178+62	36.1' Lt	27	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	27					Remove & Relay		Section 20 Sheet 7
2178+62	39.3' Rt	2178+62	43.3' Rt	27	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	27						Remove & Relay	Section 20 Sheet 7
2197+25	43.6' Rt	2197+25	49.6' Rt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24						FES	Section 20 Sheet 7
2202+12	45.2' Lt	2202+84	44.4' Lt	18	Pipe Conduit-Approach	72	Reinforced Concrete Pipe - Class III (barrel length = 70 LF)	18					TES (6:1)	TES (6:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064				
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2223+10	55.3' Lt	2224+01	55.7' Lt	30	Pipe Conduit-Approach	91	Reinforced Concrete Pipe - Class III (barrel length = 90 LF)	30					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2228+41	52.7' Rt	2229+07	53.8' Rt	30	Pipe Conduit-Approach	66	Reinforced Concrete Pipe - Class III (barrel length = 64 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe	30	Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2228+40	52.5' Lt	2229+15	52' Lt	30	Pipe Conduit-Approach	75	Reinforced Concrete Pipe - Class III (barrel length = 74 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe	30	Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								

Corrugations: 2 = 2-2/3" x 1/2"
3 = 3" x 1"
5 = 5" x 1"

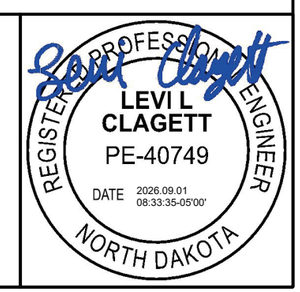
Coatings: Z = Zinc
A = Aluminum
P = Polymeric (over Zinc or Aluminum)

Spiral Ribs: 3/4 = 3/4" x 3/4" @ 7-1/2"
1 = 3/4" x 1" @ 11-1/2"

(*) End sections are measured and paid for separately for pipe extensions.
FES = Flared End Section
TES = Traversable End Section

Allowable Pipe List

ND 49 - Jct 21 Elgin N to 58th St SW



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	51	5

Begin Station / Location	Begin Offset	End Station / Location	End Offset	Pipe Installation (Pay Item) In	Pipe Installation (Pay Item) Bid Item	Pipe Installation (Pay Item) LF	Allowable Material	Required Diameter In	Steel Pipe Coatings Type	Steel Pipe Corrugations or Spiral Ribs	Steel Pipe Minimum Thickness In	Geosynthetic Material - Type G (Pay Item) SY	(*) End Sections Begin EA	(*) End Sections End EA	Applicable Backfill
2235+52	39.6' Lt	2235+41	26.1' Lt	24	Pipe Conc. Reinf. CL III (Extension)	18	Reinforced Concrete Pipe - Class III (barrel length = 18 LF) (Includes 45° horizontal bend)	24					TES (4:1)		Section 20 Sheet 7
2235+42	25.3' Rt	2235+42	57.3' Rt	24	Pipe Conc. Reinf. CL III (Extension)	32	Reinforced Concrete Pipe - Class III (barrel length = 32 LF)	24						Remove & Relay	Section 20 Sheet 7
2257+13	48.2' Rt	2257+92	47.9' Rt	24	Pipe Conduit-Approach	79	Reinforced Concrete Pipe - Class III (barrel length = 78 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2257+13	45.1' Lt	2257+96	45.4' Lt	24	Pipe Conduit-Approach	83	Reinforced Concrete Pipe - Class III (barrel length = 82 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2264+21	39.1' Lt	2264+21	35.1' Lt	24	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	24					Remove & Relay		Section 20 Sheet 7
2264+21	33.4' Rt	2264+21	39.4' Rt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24						Remove & Relay	Section 20 Sheet 7
2273+89	35.9' Lt	2273+89	31.9' Lt	24	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	24					Remove & Relay		Section 20 Sheet 7
2273+88	30.7' Rt	2273+88	36.7' Rt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24						Remove & Relay	Section 20 Sheet 7
2281+24	45.4' Lt	2282+02	45.4' Lt	30	Pipe Conduit-Approach	78	Reinforced Concrete Pipe - Class III (barrel length = 76 LF)	30					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2281+18	49.5' Rt	2282+00	54.6' Rt	30	Pipe Conduit-Approach	82	Reinforced Concrete Pipe - Class III (barrel length = 80 LF)	30					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2288+75	40.5' Lt	2289+61	41.2' Lt	24	Pipe Conduit-Approach	86	Reinforced Concrete Pipe - Class III (barrel length = 84 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2295+40	32.7' Lt	2295+40	26.7' Lt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24					TES (4:1)		Section 20 Sheet 7
2295+40	24.1' Rt	2295+40	46.1' Rt	24	Pipe Conc. Reinf. CL III (Extension)	22	Reinforced Concrete Pipe - Class III (barrel length = 22 LF)	24						Remove & Relay	Section 20 Sheet 7
2303+41	30' Lt	2303+41	26' Lt	24	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	24					TES (4:1)		Section 20 Sheet 7
2303+41	24.8' Rt	2303+41	30.8' Rt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24						TES (4:1)	Section 20 Sheet 7
2307+66	45.5' Lt	2308+40	44.6' Lt	24	Pipe Conduit-Approach	74	Reinforced Concrete Pipe - Class III (barrel length = 72 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2310+21	32.5' Lt	2310+21	26.5' Lt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24					TES (6:1)		Section 20 Sheet 7
2310+21	24.4' Rt	2310+21	30.4' Rt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24						TES (6:1)	Section 20 Sheet 7

Corrugations: 2 = 2-2/3" x 1/2"
3 = 3" x 1"
5 = 5" x 1"

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

Spiral Ribs: 3/4 = 3/4" x 3/4" @ 7-1/2"
1 = 3/4" x 1" @ 11-1/2"

(*) End sections are measured and paid for separately for pipe extensions.
FES = Flared End Section
TES = Traversable End Section

Allowable Pipe List

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
LEVI L CLAGETT
PE-40749
DATE 2026.09.01 08:33:46-05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	51	6

Begin Station / Location	Begin Offset	End Station / Location	End Offset	Pipe Installation (Pay Item) In	Pipe Installation (Pay Item) Bid Item	Pipe Installation (Pay Item) LF	Allowable Material	Required Diameter In	Steel Pipe Coatings Type	Steel Pipe Corrugations or Spiral Ribs	Steel Pipe Minimum Thickness In	Geosynthetic Material - Type G (Pay Item) SY	(*) End Sections Begin EA	(*) End Sections End EA	Applicable Backfill
2319+81	50.9' Lt	2320+55	51.2' Lt	24	Pipe Conduit-Approach	74	Reinforced Concrete Pipe - Class III (barrel length = 72 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2319+85	48.3' Rt	2320+56	49.1' Rt	24	Pipe Conduit-Approach	71	Reinforced Concrete Pipe - Class III (barrel length = 70 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2330+38	32' Lt	2330+39	26' Lt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24					TES (4:1)		Section 20 Sheet 7
2330+39	24.5' Rt	2330+39	30.5' Rt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24						TES (4:1)	Section 20 Sheet 7
2334+79	61.5' Lt	2334+79	33.5' Lt	24	Pipe Conc. Reinf. CL III (Extension)	28	Reinforced Concrete Pipe - Class III (barrel length = 28 LF)	24					Remove & Relay		Section 20 Sheet 7
2334+79	28.9' Rt	2334+79	34.9' Rt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24						TES (4:1)	Section 20 Sheet 7
2353+63	38.6' Rt	2353+63	42.6' Rt	24	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	24						Remove & Relay	Section 20 Sheet 7
2371+18	69.2' Lt	2371+18	63.2' Lt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24					Remove & Relay		Section 20 Sheet 7
2371+18	59.1' Rt	2371+18	63.1' Rt	24	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	24						Remove & Relay	Section 20 Sheet 7
2376+33	42.7' Rt	2376+33	46.7' Rt	24	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	24						Remove & Relay	Section 20 Sheet 7
2386+80	50' Rt	2387+46	50.7' Rt	24	Pipe Conduit-Approach	66	Reinforced Concrete Pipe - Class III (barrel length = 64 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2392+33	40.5' Lt	2392+33	36.5' Lt	24	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	24					Remove & Relay		Section 20 Sheet 7
2392+33	30.3' Rt	2392+33	36.3' Rt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24						Remove & Relay	Section 20 Sheet 7
2403+98	53.8' Rt	2403+98	57.8' Rt	30	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	30						Remove & Relay	Section 20 Sheet 7
2413+63	50' Rt	2414+51	50' Rt	24	Pipe Conduit-Approach	88	Corrugated Steel Pipe	24	Z, A, P	2	0.064		TES (6:1)	TES (6:1)	Specification 714.04 A
2416+05	53.2' Lt	2416+79	54.7' Lt	24	Pipe Conduit-Approach	74	Reinforced Concrete Pipe - Class III (barrel length = 72 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2419+17	49.7' Rt	2419+17	53.7' Rt	30	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	30						Remove & Relay	Section 20 Sheet 7
2431+59	67.5' Lt	2431+59	66' Rt	72	Pipe Conduit	134	Reinforced Concrete Pipe - Class III (barrel length = 130 LF)	72					FES	FES	D-714-25M
				78		130	Corrugated Steel Pipe	78	A,P	2	0.168	181			
				78		130	Corrugated Steel Pipe	78	P	3,5	0.064				
				72		134	Spiral Rib Steel Pipe	72	A,P	3/4,1	0.168				
				72		134	Spiral Rib Steel Pipe	72	P	3/4,1	0.109				
2431+74	67.6' Lt	2431+75	65.9' Rt	72	Pipe Conduit	134	Reinforced Concrete Pipe - Class III (barrel length = 130 LF)	72					FES	FES	D-714-25M
				78		130	Corrugated Steel Pipe	78	A,P	2	0.168	181			
				78		130	Corrugated Steel Pipe	78	P	3,5	0.064				
				72		134	Spiral Rib Steel Pipe	72	A,P	3/4,1	0.168				
				72		134	Spiral Rib Steel Pipe	72	P	3/4,1	0.109				

Corrugations: 2 = 2-2/3" x 1/2"
3 = 3" x 1"
5 = 5" x 1"

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

Spiral Ribs: 3/4 = 3/4" x 3/4" @ 7-1/2"
1 = 3/4" x 1" @ 11-1/2"

(*) End sections are measured and paid for separately for pipe extensions.
FES = Flared End Section
TES = Traversable End Section

Allowable Pipe List

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
LEVI L CLAGETT
PE-40749
DATE 2026.09.01 08:33:57-05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	51	7

Begin Station / Location	Begin Offset	End Station / Location	End Offset	Pipe Installation (Pay Item) In	Pipe Installation (Pay Item) Bid Item	Pipe Installation (Pay Item) LF	Allowable Material	Required Diameter In	Steel Pipe Coatings Type	Steel Pipe Corrugations or Spiral Ribs	Steel Pipe Minimum Thickness In	Geosynthetic Material - Type G (Pay Item) SY	(*) End Sections Begin EA	(*) End Sections End EA	Applicable Backfill
2439+49	48.1' Lt	2440+47	48' Lt	24	Pipe Conduit-Approach	98	Reinforced Concrete Pipe - Class III (barrel length = 96 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2481+15	40.4' Lt	2481+15	32.4' Lt	30	Pipe Conc. Reinf. CL III (Extension)	8	Reinforced Concrete Pipe - Class III (barrel length = 8 LF)	30					Remove & Relay		Section 20 Sheet 7
2481+15	37.9' Rt	2481+15	41.9' Rt	30	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	30						Remove & Relay	Section 20 Sheet 7
2491+14	40.4' Lt	2491+14	36.4' Lt	30	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	30					Remove & Relay		Section 20 Sheet 7
2491+14	40.7' Rt	2491+14	44.7' Rt	30	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	30						Remove & Relay	Section 20 Sheet 7
2492+53	44.7' Lt	2493+35	45' Lt	24	Pipe Conduit-Approach	82	Reinforced Concrete Pipe - Class III (barrel length = 80 LF)	24					TES (4:1)	TES (4:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064		TES (6:1)	TES (6:1)	
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2497+15	32.6' Lt	2497+15	26.6' Lt	24	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	24					TES (4:1)		Section 20 Sheet 7
2497+15	38.5' Rt	2497+15	42.5' Rt	24	Pipe Conc. Reinf. CL III (Extension)	4	Reinforced Concrete Pipe - Class III (barrel length = 4 LF)	24						Remove & Relay	Section 20 Sheet 7
2519+17	43.2' Lt	2519+92	43.3' Lt	18	Pipe Conduit-Approach	75	Reinforced Concrete Pipe - Class III (barrel length = 74 LF)	18					TES (6:1)	TES (6:1)	Specification 714.04 A
							Corrugated Steel Pipe		Z, A, P	2	0.064				
							Spiral Rib Steel Pipe		Z, A, P	3/4, 1	0.064				
							High-Density Polyethylene								
							Polypropylene Pipe (AASHTO M330, Type S)								
2529+16	27.1' Rt	2529+16	33.1' Rt	30	Pipe Conc. Reinf. CL III (Extension)	6	Reinforced Concrete Pipe - Class III (barrel length = 6 LF)	30						TES (4:1)	Section 20 Sheet 7
2537+40	98.2' Lt	2537+40	66.2' Lt	48	Pipe Conc. Reinf. CL III (Extension)	32	Reinforced Concrete Pipe - Class III (barrel length = 32 LF)	48					Remove & Relay		Section 20 Sheet 7
2537+40	69.4' Rt	2537+40	99.4' Rt	48	Pipe Conc. Reinf. CL III (Extension)	30	Reinforced Concrete Pipe - Class III (barrel length = 30 LF)	48						Remove & Relay	Section 20 Sheet 7

Corrugations: 2 = 2-2/3" x 1/2"
3 = 3" x 1"
5 = 5" x 1"

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

Spiral Ribs: 3/4 = 3/4" x 3/4" @ 7-1/2"
1 = 3/4" x 1" @ 11-1/2"

(*) End sections are measured and paid for separately for pipe extensions.
FES = Flared End Section
TES = Traversable End Section

Allowable Pipe List

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
LEVI L CLAGETT
PE-40749
DATE 2026.09.01 08:34:09-05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	60	1

SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 1918+48 to 1935+00 Lt	362	TON
		Sta 1918+48 to 1935+00 Rt	180	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 1922+10 Lt	54	LF
		Sta 1925+77 Lt	44	LF
		Sta 1927+66 Rt	34	LF
714	0705	PIPE CONC REINF 27IN CL III		
		Sta 1926+73 ℄ Lt	8	LF
		Sta 1926+73 ℄ Rt	8	LF
714	2527	CURED-IN-PLACE PIPE-27IN		
		Sta 1926+73 ℄	64	LF
714	2536	CURED-IN-PLACE PIPE-36IN		
		Sta 1926+55 ℄	64	LF
714	3035	END SECT-CONC REINF 36IN		
		Sta 1926+55 ℄ Lt	1	EA
		Sta 1926+55 ℄ Rt	1	EA
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 1922+11 Lt	92	LF
714	4113	PIPE CONDUIT 30IN-APPROACH		
		Sta 1925+78 Lt	85	LF
		Sta 1925+78 Lt	85	LF
		Sta 1927+67 Rt	76	LF
714	5046	PIPE CORR STEEL .064IN 36IN POLYMERIC COATED		
		Sta 1926+64 ℄ Lt	6	LF
		Sta 1926+64 ℄ Rt	8	LF
		Sta 1926+82 ℄ Lt	6	LF
		Sta 1926+82 ℄ Rt	8	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 1926+64 ℄ Lt	1	EA
		Sta 1926+64 ℄ Rt	1	EA
		Sta 1926+73 ℄ Lt	1	EA
		Sta 1926+73 ℄ Rt	1	EA
		Sta 1926+82 ℄ Lt	1	EA
		Sta 1926+82 ℄ Rt	1	EA
930	3639	POLYURETHANE FOAM - 90 LBS		
		Sta 1926+55 ℄	45.2	GAL
		Sta 1926+73 ℄	19.7	GAL
990	0400	PIPE CLEANOUT		
		Sta 1926+55 ℄	1	EA
		Sta 1926+73 ℄	1	EA

Note: Stationing Based on PR49_G Alignment

Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

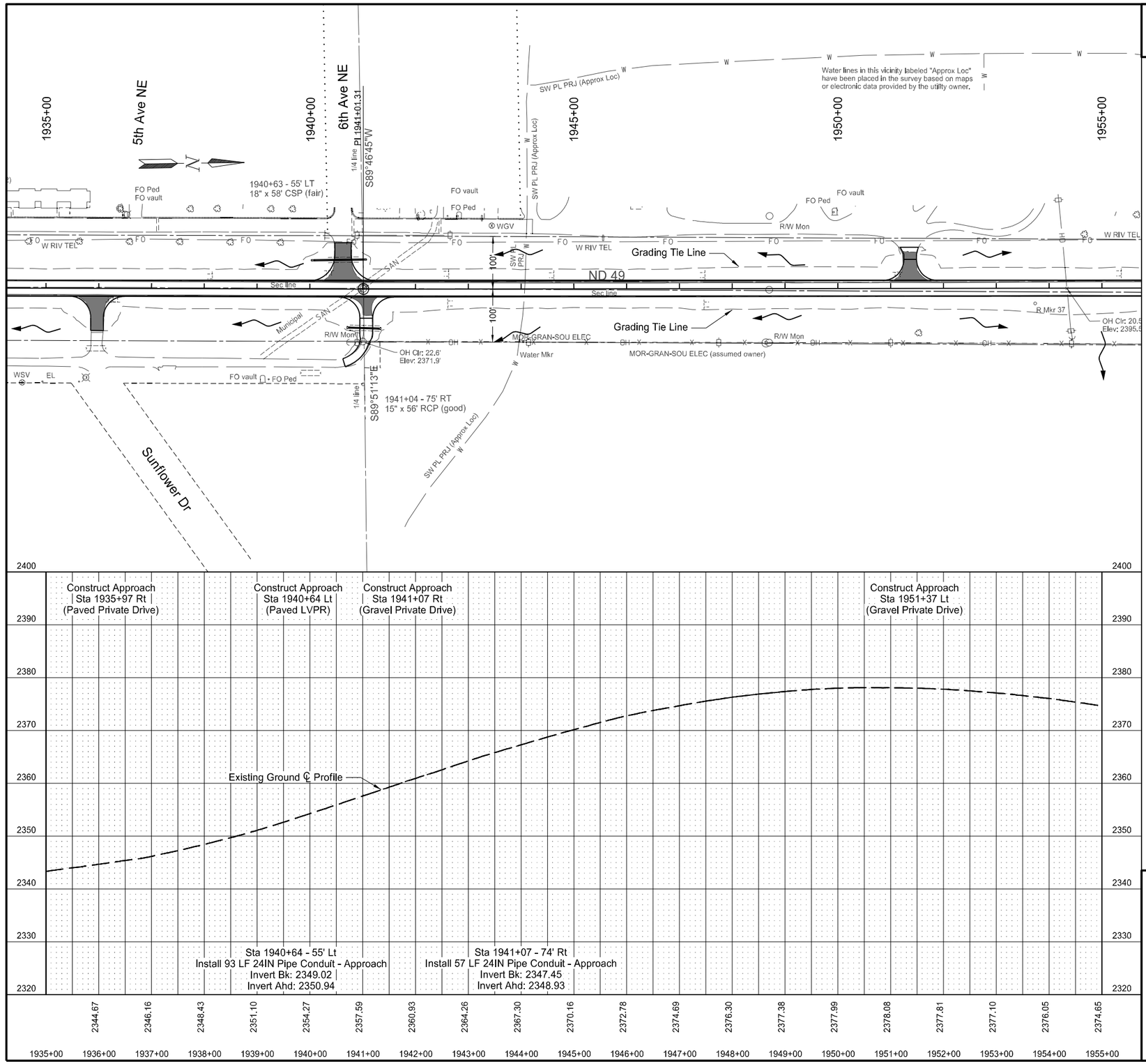
Sta 1918+48 to 1935+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:47:24 -05'00'
NORTH DAKOTA

8/26/2026 10:27:54 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	60	2

SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 1935+00 to 1955+00 Lt	327	TON
		Sta 1935+00 to 1955+00 Rt	204	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 1940+63 Lt	58	LF
		Sta 1941+04 Rt	56	LF
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 1940+64 Lt	93	LF
		Sta 1941+07 Rt	57	LF



LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

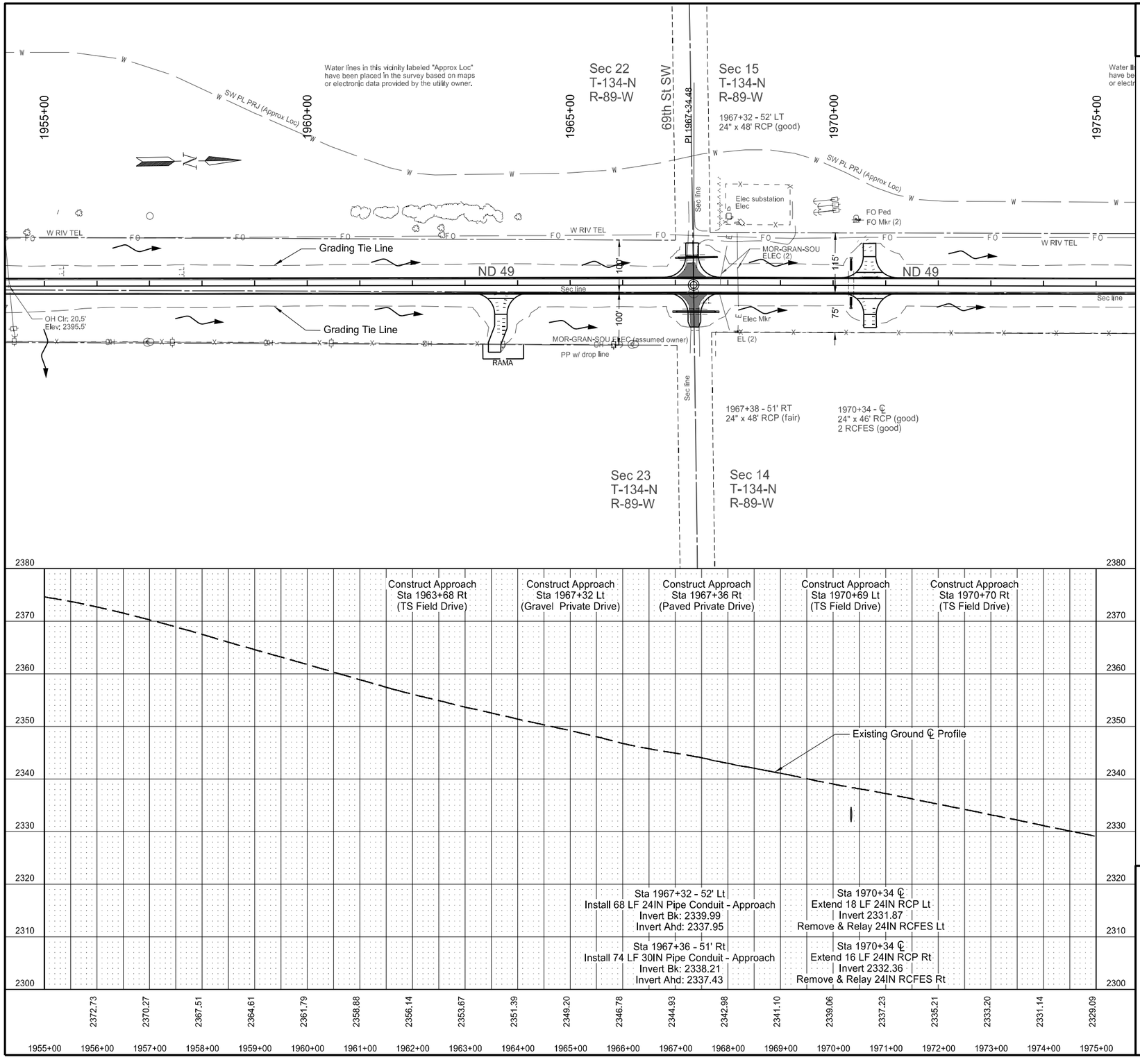
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1935+00 to 1955+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:47:39 -05'00'
NORTH DAKOTA

8/26/2026 10:28:00 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	3



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 1955+00 to 1975+00 Lt	171	TON
		Sta 1955+00 to 1975+00 Rt	168	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 1967+32 Lt	48	LF
		Sta 1967+38 Rt	48	LF
714	0615	PIPE CONC REINF 24IN CL III		
		Sta 1970+34 ℄ Lt	18	LF
		Sta 1970+34 ℄ Rt	16	LF
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 1967+32 Lt	68	LF
714	4113	PIPE CONDUIT 30IN-APPROACH		
		Sta 1967+36 Rt	74	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 1970+34 ℄ Lt	1	EA
		Sta 1970+34 ℄ Rt	1	EA
990	0400	PIPE CLEANOUT		
		Sta 1970+34 ℄	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

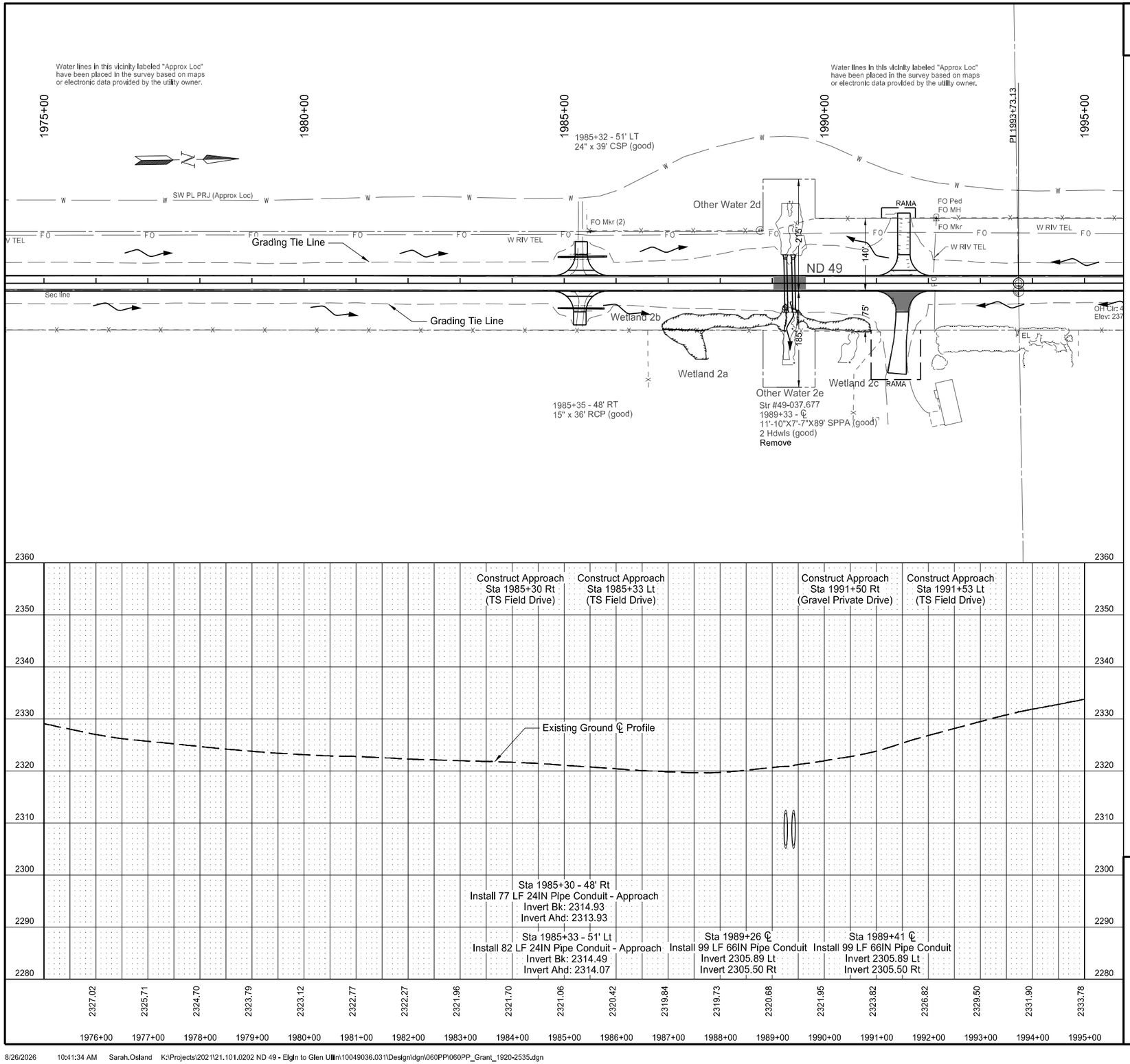
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1955+00 to 1975+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:47:52 -05'00'
NORTH DAKOTA

8/26/2026 10:28:07 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	4



SPEC	CODE	BID ITEM	QTY	UNIT
202	0104	REMOVAL OF STRUCTURE		
		Sta 1989+33 ℄	1	EA
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 1975+00 to 1995+00 Lt	129	TON
		Sta 1975+00 to 1995+00 Rt	170	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 1985+32 Lt	39	LF
		Sta 1985+35 Rt	36	LF
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 1985+30 Rt	77	LF
		Sta 1985+33 Lt	82	LF
714	4140	PIPE CONDUIT 66IN		
		Sta 1989+26 ℄	99	LF
		Sta 1989+41 ℄	99	LF
900	1000	TEMPORARY STREAM DIVERSION		
		Sta 1989+33 ℄	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

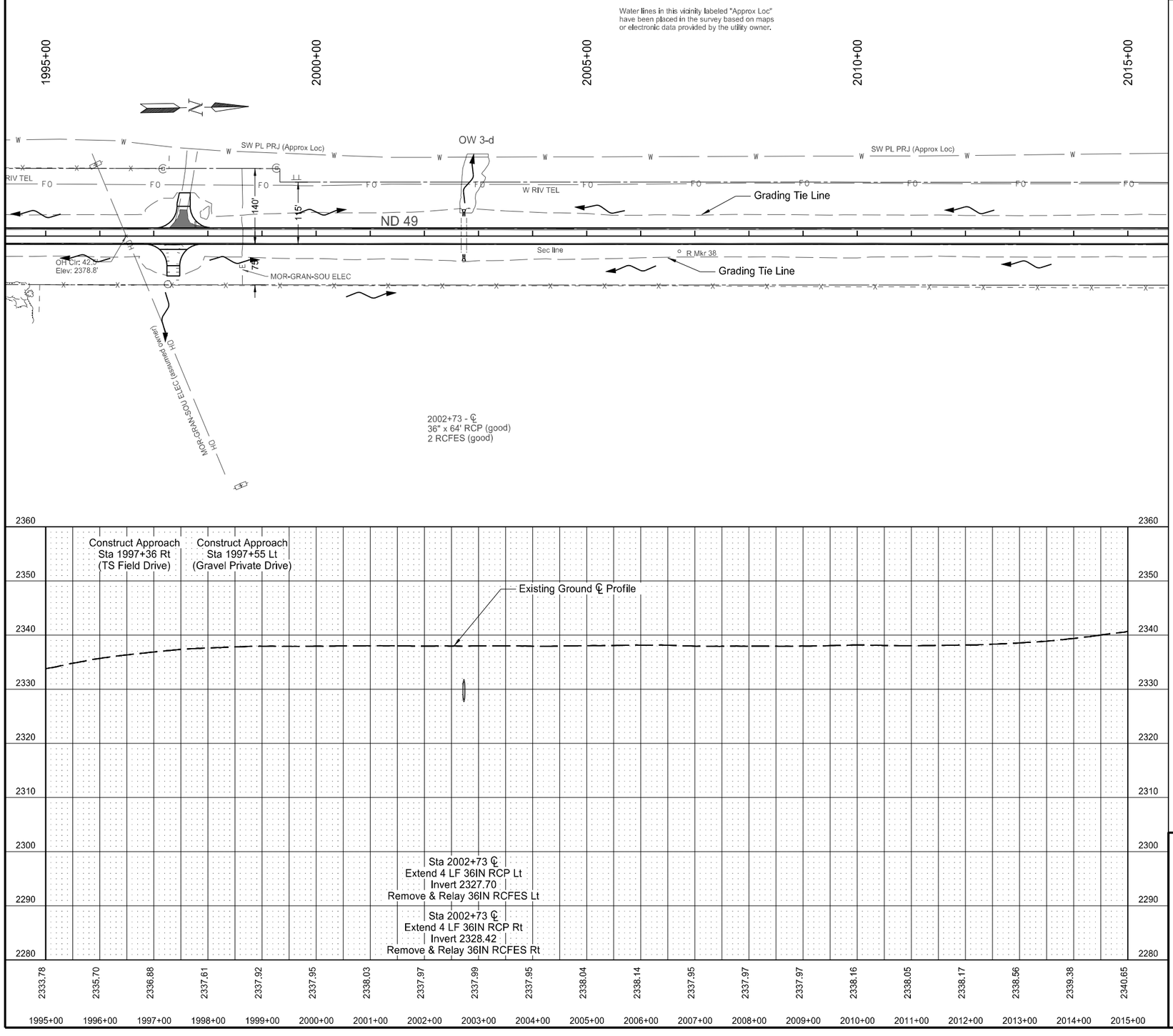
Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1975+00 to 1995+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:48:06 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	5



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 1995+00 to 2015+00 Lt	142	TON
		Sta 1995+00 to 2015+00 Rt	124	TON
714	0905	PIPE CONC REINF 36IN CL III		
		Sta 2002+73 ℄ Lt	4	LF
		Sta 2002+73 ℄ Rt	4	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2002+73 ℄ Lt	1	EA
		Sta 2002+73 ℄ Rt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

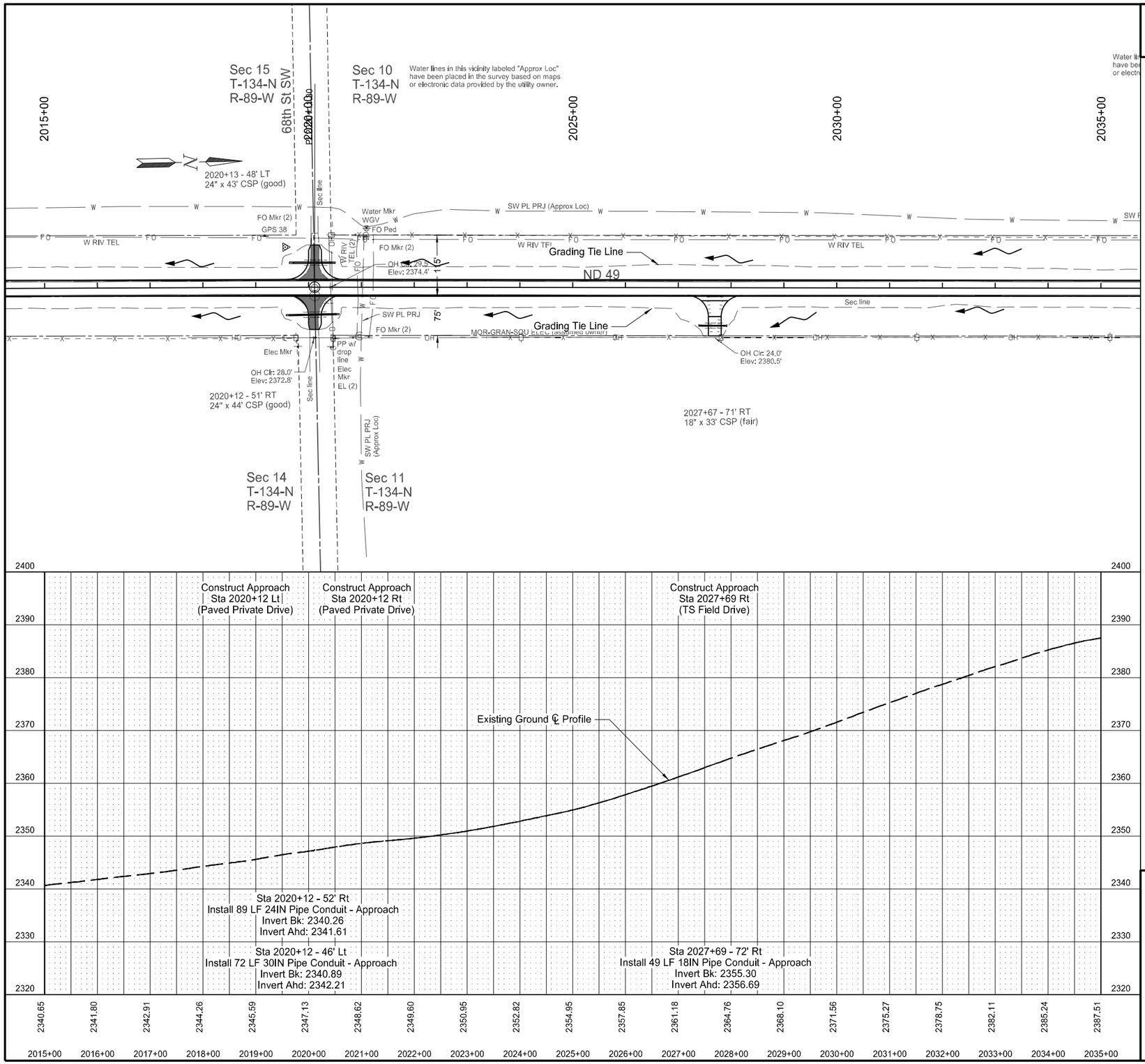
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1995+00 to 2015+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:48:19 -05'00'
NORTH DAKOTA

8/26/2026 10:28:09 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	6



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2015+00 to 2035+00 Lt	158	TON
		Sta 2015+00 to 2035+00 Rt	204	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2020+12 Rt	44	LF
		Sta 2020+13 Lt	43	LF
		Sta 2027+67 Rt	33	LF
714	4099	PIPE CONDUIT 18IN-APPROACH		
		Sta 2027+69 Rt	49	LF
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2020+12 Rt	89	LF
714	4113	PIPE CONDUIT 30IN-APPROACH		
		Sta 2020+12 Lt	72	LF

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

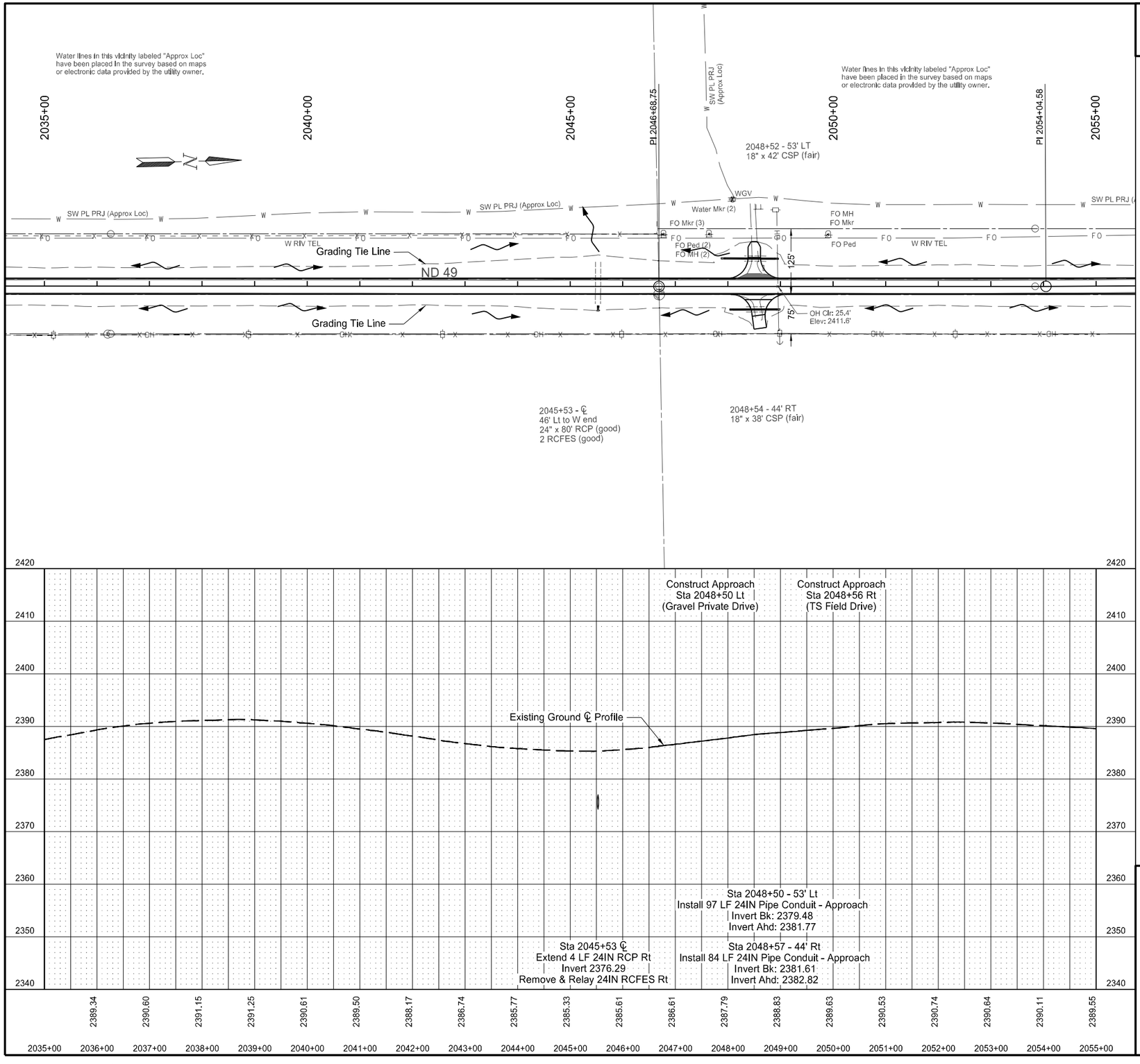
Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2015+00 to 2035+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:48:30 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	7



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2035+00 to 2055+00 Lt	150	TON
		Sta 2035+00 to 2055+00 Rt	136	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2048+52 Lt	42	LF
		Sta 2048+54 Rt	38	LF
714	0615	PIPE CONC REINF 24IN CL III		
		Sta 2045+53 ℄ Rt	4	LF
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2048+50 Lt	97	LF
		Sta 2048+57 Rt	84	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2045+53 ℄ Rt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2035+00 to 2055+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:48:42 -05'00'
NORTH DAKOTA

8/26/2026 10:28:10 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	60	8

Water lines in this vicinity labeled "Approx Loc" have been placed in the survey based on maps or electronic data provided by the utility owner.

2059+70 - 43' LT
18" x 41' CSP (fair)

Sec 10 T-134-N R-89-W

Sec 3 T-134-N R-89-W

67th St SW

PI 2073+25.91

SW PL PRJ (Approx Loc)

FO Mkr

W RIV TEL

FO Mkr (3)

FO Ped

FO MH

OW 4a-d

Grading Tie Line

DB

ND 49

125'

75'

Sec line

R Mkr 39

Grading Tie Line

Remove (2) End Sections

Wetland 4b

MOR-GRAN-SOU ELEC (assumed owner)

OW 4c-d

OH Clr: 18.4'
Elev: 2375.7'

Wetland 4a

2065+32 - ℄
24" x 46' RCP (good)
2 RCFES (good)

2071+82 - ℄
51' Rt to E end
30" x 90' RCP (good)
2 RCFES (good)

Sec 11 T-134-N R-89-W

Sec 2 T-134-N R-89-W

Construct Approach
Sta 2059+70 Lt
(TS Field Drive)

Construct Ditch Block
Sta 2065+66 Lt

Construct Ditch Block
Sta 2065+66 Rt

Construct Approach
Sta 2073+24 Rt
(Gravel LVPR)

Construct Approach
Sta 2073+25 Lt
(TS Field Drive)

Existing Ground ℄ Profile

Sta 2059+70 - 44' Lt
Install 80 LF 24IN Pipe Conduit - Approach
Invert Bk: 2376.96
Invert Ahd: 2375.66

Sta 2065+32 ℄
Extend 6 LF 24IN RCP Lt
Invert 2365.93
Install 24IN RCTES Lt

Sta 2065+32 ℄
Extend 6 LF 24IN RCP Rt
Invert 2366.04
Install 24IN RCTES Rt

Sta 2071+82 ℄
Extend 4 LF 30IN RCP Lt
Invert 2352.40
Remove & Relay 30IN RCFES Lt

Sta 2071+82 ℄
Remove 6 LF 30IN RCP Rt
Install 8 LF 30IN RCP Rt
Invert 2349.02
Remove & Relay 30IN RCFES Rt

2388.56 2386.84 2385.05 2383.30 2381.76 2380.12 2378.33 2376.65 2374.85 2373.07 2371.54 2369.94 2368.17 2366.30 2364.86 2363.78 2363.13 2362.74 2361.78 2360.62

2055+00 2056+00 2057+00 2058+00 2059+00 2060+00 2061+00 2062+00 2063+00 2064+00 2065+00 2066+00 2067+00 2068+00 2069+00 2070+00 2071+00 2072+00 2073+00 2074+00 2075+00

SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2055+00 to 2075+00 Lt	122	TON
		Sta 2055+00 to 2075+00 Rt	162	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2059+70 Lt	41	LF
202	0174	REMOVAL OF PIPE ALL TYPES AND SIZES		
		Sta 2071+82 ℄ Rt	6	LF
714	0615	PIPE CONC REINF 24IN CL III		
		Sta 2065+32 ℄ Lt	6	LF
		Sta 2065+32 ℄ Rt	6	LF
714	0820	PIPE CONC REINF 30IN CL III		
		Sta 2071+82 ℄ Lt	4	LF
		Sta 2071+82 ℄ Rt	8	LF
714	3023	END SECT-TRAVERSABLE REINF. CONC.24IN		
		Sta 2065+32 ℄ Lt	1	EA
		Sta 2065+32 ℄ Rt	1	EA
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2059+70 Lt	80	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2071+82 ℄ Lt	1	EA
		Sta 2071+82 ℄ Rt	1	EA

LEGEND

Removal of Bituminous Surfacing

Avoidance Area

Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

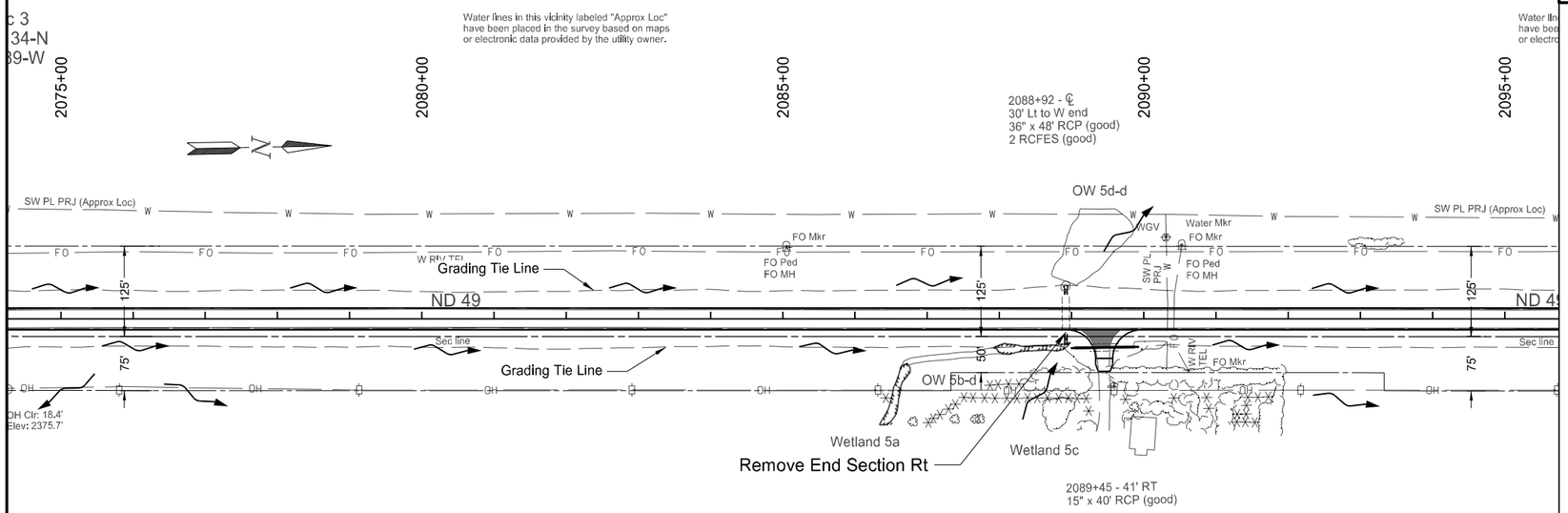
Sta 2055+00 to 2075+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:48:54 -05'00'
NORTH DAKOTA

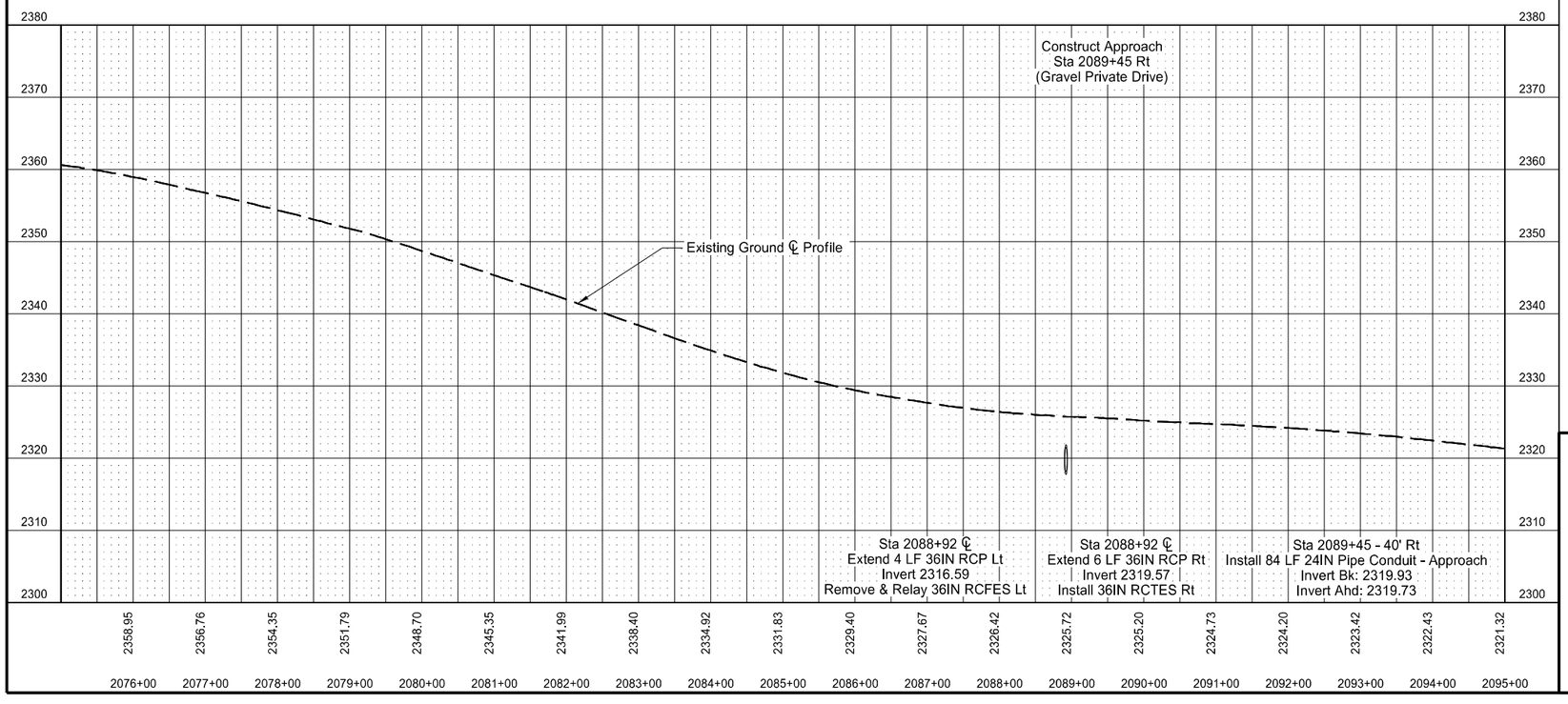
8/26/2026 10:28:10 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	9

c 3
34-N
89-W



ec 2
-134-N
-89-W



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2075+00 to 2095+00 Lt	123	TON
		Sta 2075+00 to 2095+00 Rt	135	TON
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES		
		Sta 2088+92 ℄ Rt	1	EA
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2089+45 Rt	40	LF
714	0905	PIPE CONC REINF 36IN CL III		
		Sta 2088+92 ℄ Lt	4	LF
		Sta 2088+92 ℄ Rt	6	LF
714	3036	END SECT-TRAVERSABLE REINF. CONC.36IN		
		Sta 2088+92 ℄ Rt	1	EA
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2089+45 Rt	84	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2088+92 ℄ Lt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

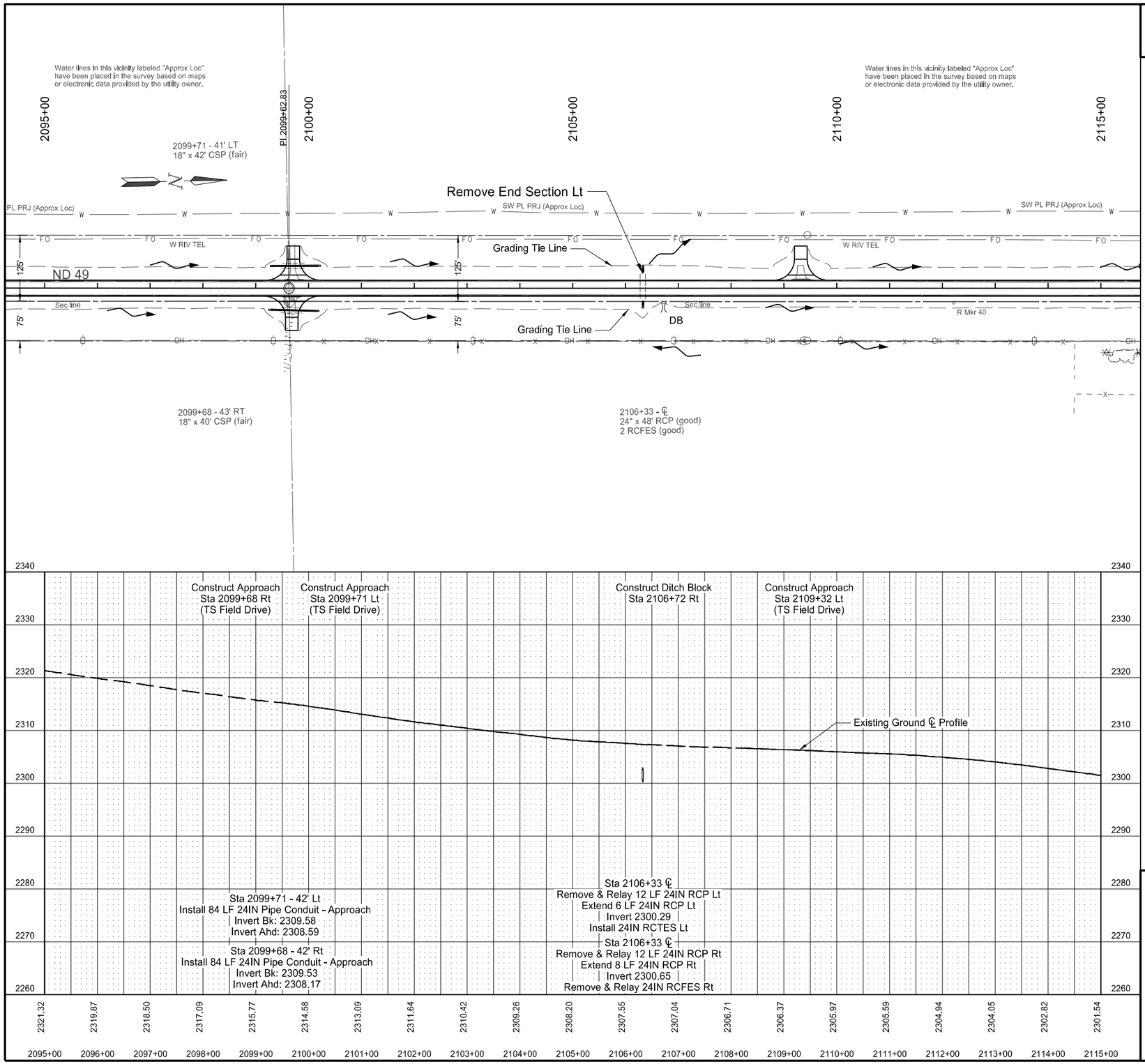
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2075+00 to 2095+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:49:09 -05'00'
NORTH DAKOTA

8/26/2026 10:28:11 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	10



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2095+00 to 2115+00 Lt	141	TON
		Sta 2095+00 to 2115+00 Rt	109	TON
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES		
		Sta 2106+33 ℄ Lt	1	EA
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2099+68 Rt	40	LF
		Sta 2099+71 Lt	42	LF
714	0615	PIPE CONC REINF 24IN CL III		
		Sta 2106+33 ℄ Lt	6	LF
		Sta 2106+33 ℄ Rt	8	LF
714	3023	END SECT-TRAVERSABLE REINF. CONC.24IN		
		Sta 2106+33 ℄ Lt	1	EA
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2099+68 Rt	84	LF
		Sta 2099+71 Lt	84	LF
714	9659	REMOVE & RELAY PIPE-ALL TYPES & SIZES		
		Sta 2106+33 ℄ Lt	12	LF
		Sta 2106+33 ℄ Rt	12	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2106+33 ℄ Rt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- – – –x Temporary Safety Fence

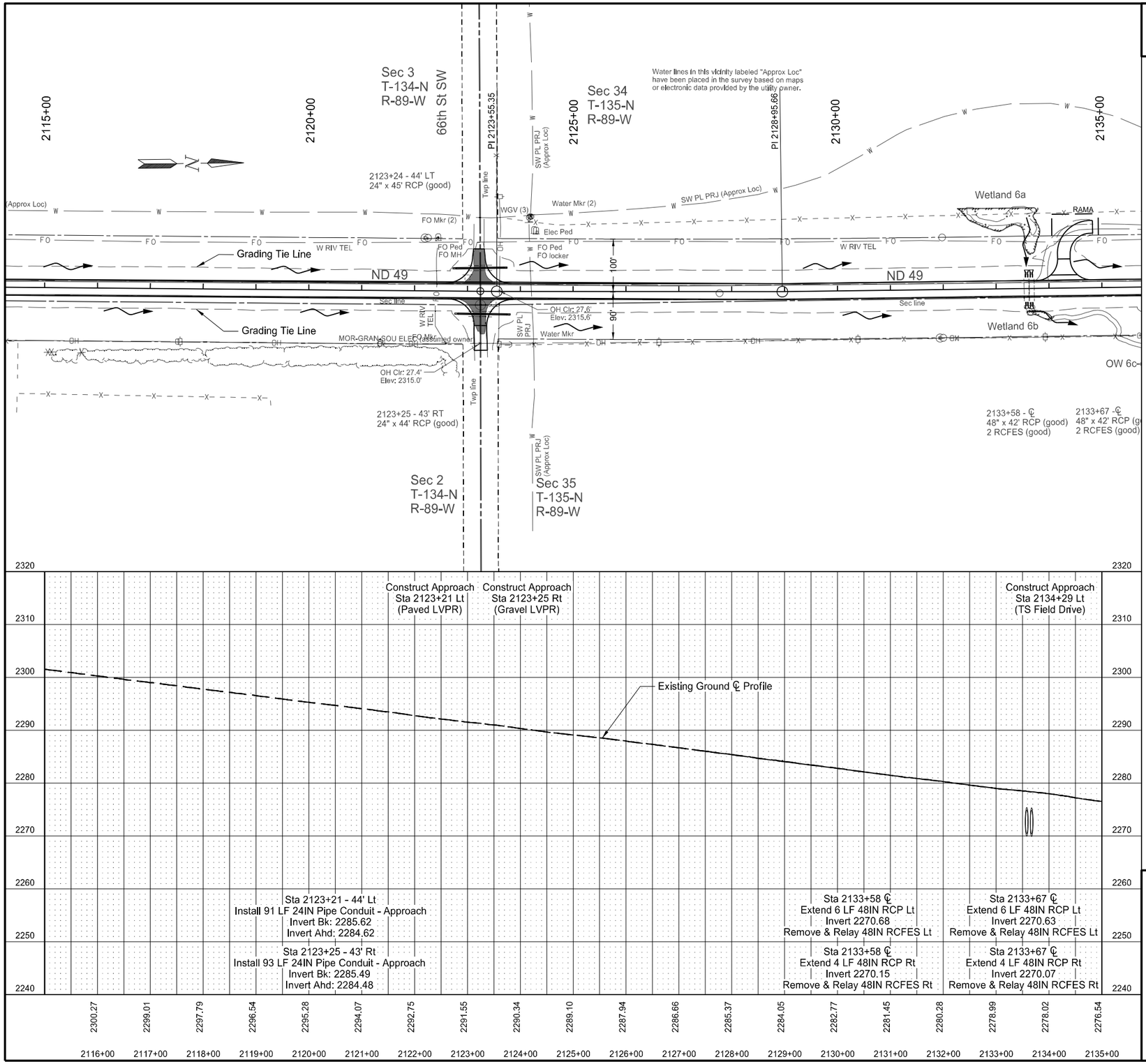
Note: Stationing Based on PR49_G Alignment

Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2095+00 to 2115+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:49:22 -05'00'
NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	11

SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2115+00 to 2135+00 Lt	177	TON
		Sta 2115+00 to 2135+00 Rt	156	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2123+24 Lt	45	LF
		Sta 2123+25 Rt	44	LF
714	1105	PIPE CONC REINF 48IN CL III		
		Sta 2133+58 ℄ Lt	6	LF
		Sta 2133+58 ℄ Rt	4	LF
		Sta 2133+67 ℄ Lt	6	LF
		Sta 2133+67 ℄ Rt	4	LF
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2123+21 Lt	91	LF
		Sta 2123+25 Rt	93	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2133+58 ℄ Lt	1	EA
		Sta 2133+58 ℄ Rt	1	EA
		Sta 2133+67 ℄ Lt	1	EA
		Sta 2133+67 ℄ Rt	1	EA
910	0810	REPAIR AND SEALING CULVERT JOINT		
		Sta 2133+58 ℄	4	EA
		Sta 2133+67 ℄	4	EA
930	3639	POLYURETHANE FOAM - 90 LBS		
		Sta 2133+58 ℄	34.1	GAL
		Sta 2133+67 ℄	34.1	GAL
990	0400	PIPE CLEANOUT		
		Sta 2133+58 ℄	1	EA
		Sta 2133+67 ℄	1	EA

LEGEND

Removal of Bituminous Surfacing

Avoidance Area

Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

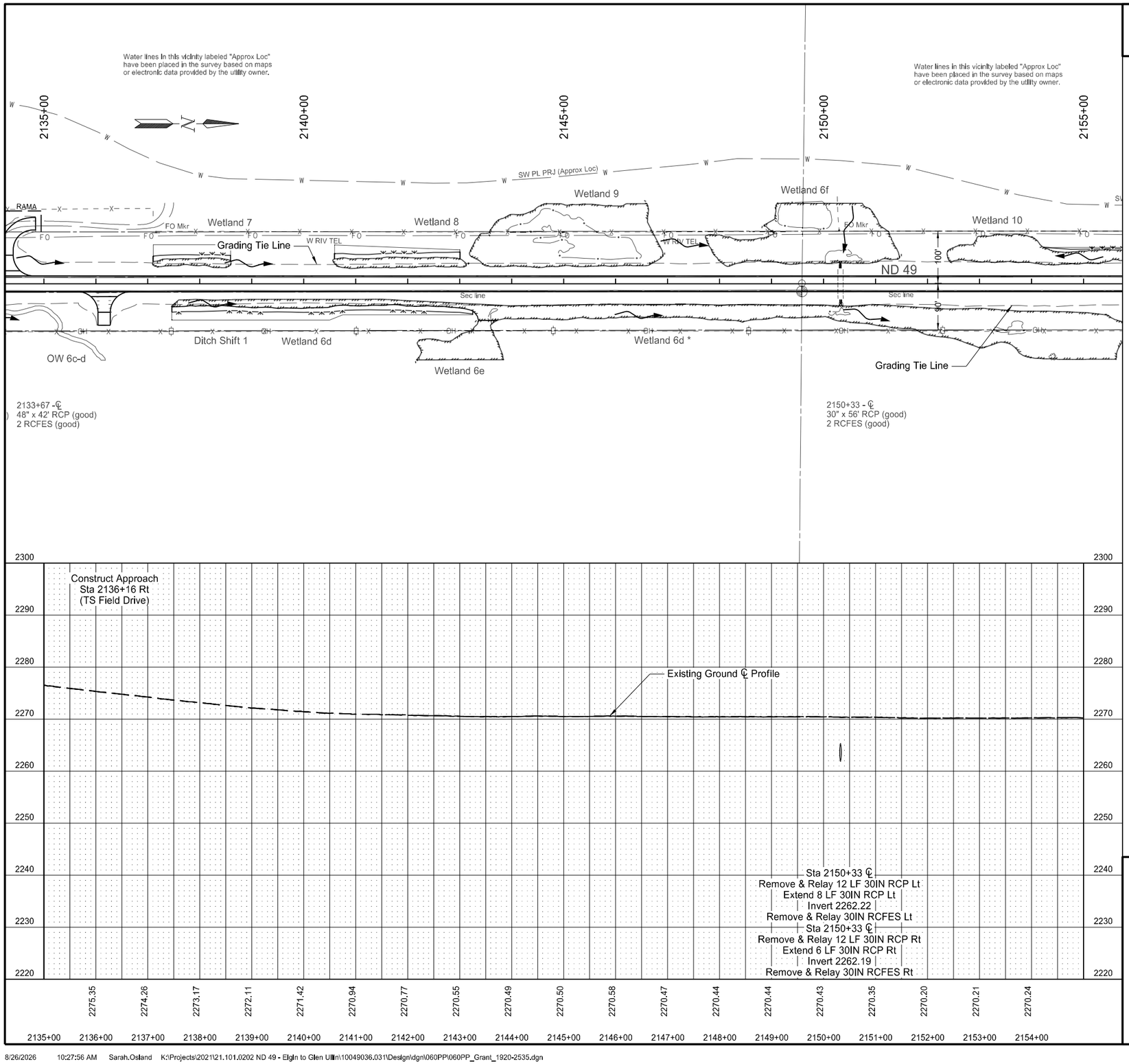
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2115+00 to 2135+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:49:41 -05'00'
NORTH DAKOTA

8/26/2026 10:27:55 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	60	12



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2135+00 to 2155+00 Lt	156	TON
		Sta 2135+00 to 2155+00 Rt	113	TON
714	0820	PIPE CONC REINF 30IN CL III		
		Sta 2150+33 ℄ Lt	8	LF
		Sta 2150+33 ℄ Rt	6	LF
714	9659	REMOVE & RELAY PIPE-ALL TYPES & SIZES		
		Sta 2150+33 ℄ Lt	12	LF
		Sta 2150+33 ℄ Rt	12	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2150+33 ℄ Lt	1	EA
		Sta 2150+33 ℄ Rt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

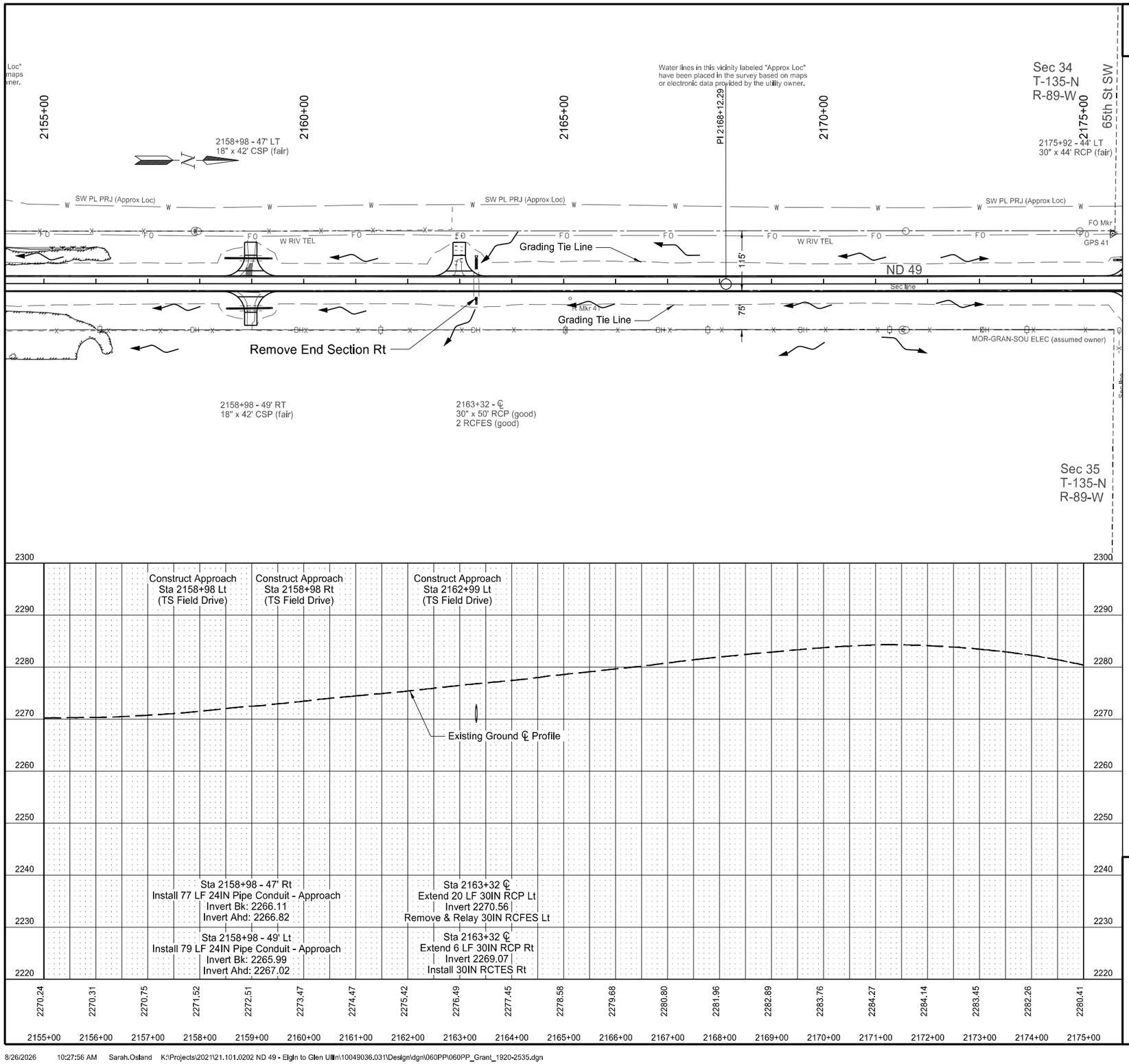
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2135+00 to 2155+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:51:01 -05'00'
NORTH DAKOTA

8/26/2026 10:27:56 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	13



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2155+00 to 2175+00 Lt	155	TON
		Sta 2155+00 to 2175+00 Rt	106	TON
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES		
		Sta 2163+32 ℄ Rt	1	EA
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2158+98 Lt	42	LF
		Sta 2158+98 Rt	42	LF
714	0820	PIPE CONC REINF 30IN CL III		
		Sta 2163+32 ℄ Lt	20	LF
		Sta 2163+32 ℄ Rt	6	LF
714	3033	END SECT-TRAVERSABLE REINF. CONC.30IN		
		Sta 2163+32 ℄ Rt	1	EA
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2158+98 Lt	79	LF
		Sta 2158+98 Rt	77	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2163+32 ℄ Lt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

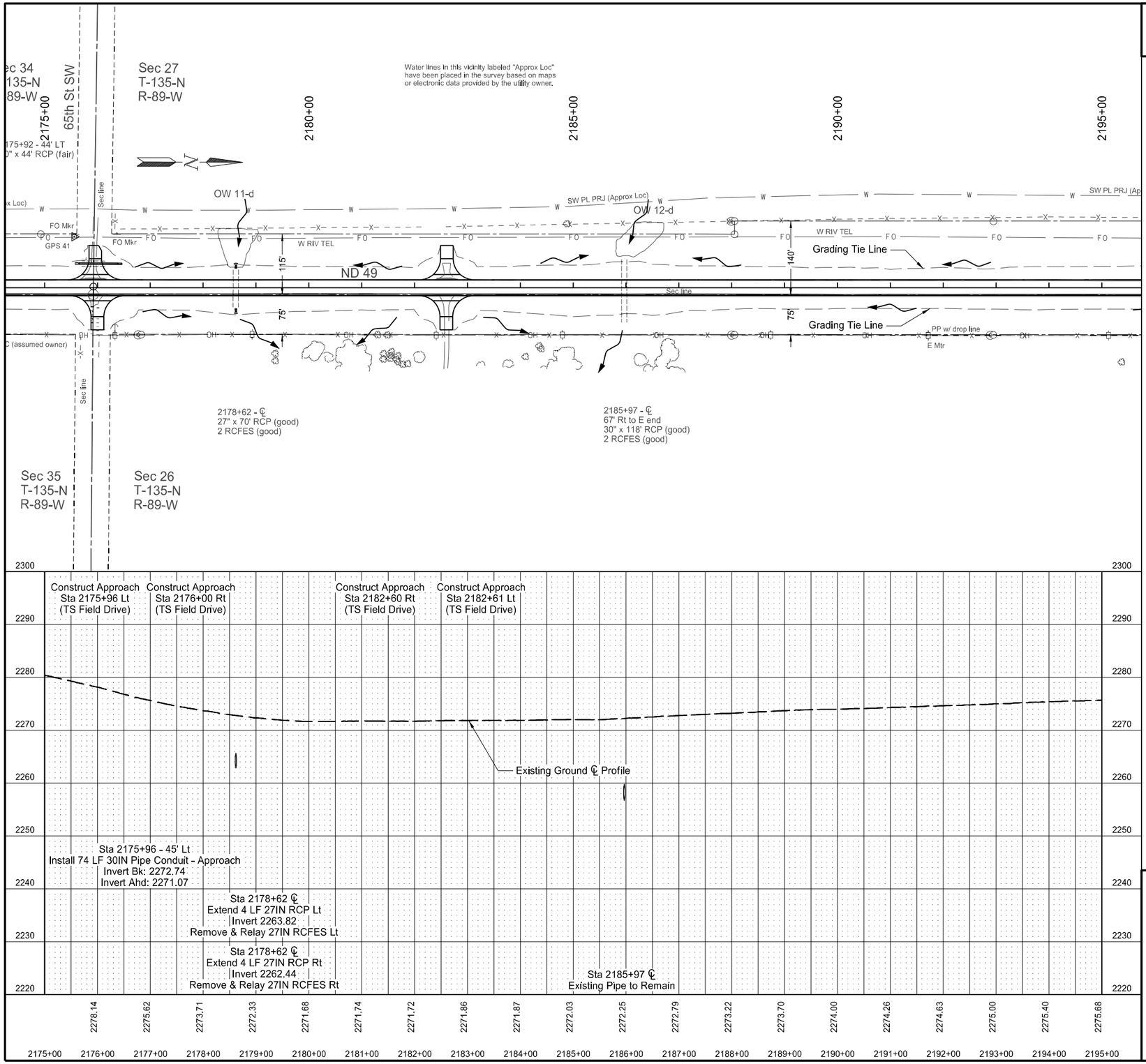
Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2155+00 to 2175+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:51:14 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	14



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2175+00 to 2195+00 Lt	113	TON
		Sta 2175+00 to 2195+00 Rt	131	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2175+92 Lt	44	LF
714	0705	PIPE CONC REINF 27IN CL III		
		Sta 2178+62 ℄ Lt	4	LF
		Sta 2178+62 ℄ Rt	4	LF
714	4113	PIPE CONDUIT 30IN-APPROACH		
		Sta 2175+96 Lt	74	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2178+62 ℄ Lt	1	EA
		Sta 2178+62 ℄ Rt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

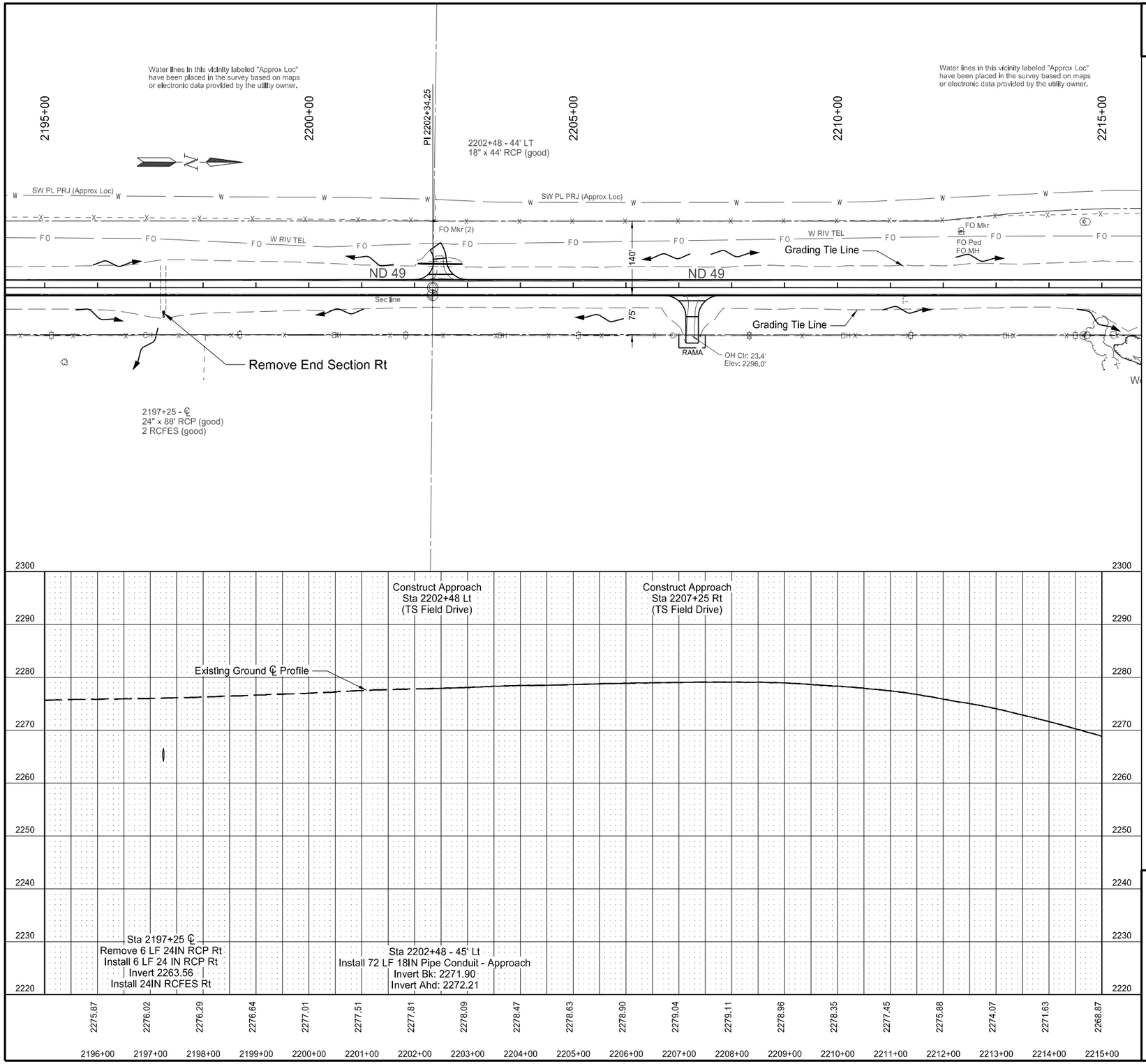
Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2175+00 to 2195+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:51:27 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	60	15



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2195+00 to 2215+00 Lt	108	TON
		Sta 2195+00 to 2215+00 Rt	137	TON
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES		
		Sta 2197+25 ℄ Rt	1	EA
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2202+48 Lt	44	LF
202	0174	REMOVAL OF PIPE ALL TYPES AND SIZES		
		Sta 2197+25 ℄ Rt	6	LF
714	0615	PIPE CONC REINF 24IN CL III		
		Sta 2197+25 ℄ Rt	6	LF
714	3020	END SECT-CONC REINF 24IN		
		Sta 2197+25 ℄ Rt	1	EA
714	4099	PIPE CONDUIT 18IN-APPROACH		
		Sta 2202+48 Lt	72	LF

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

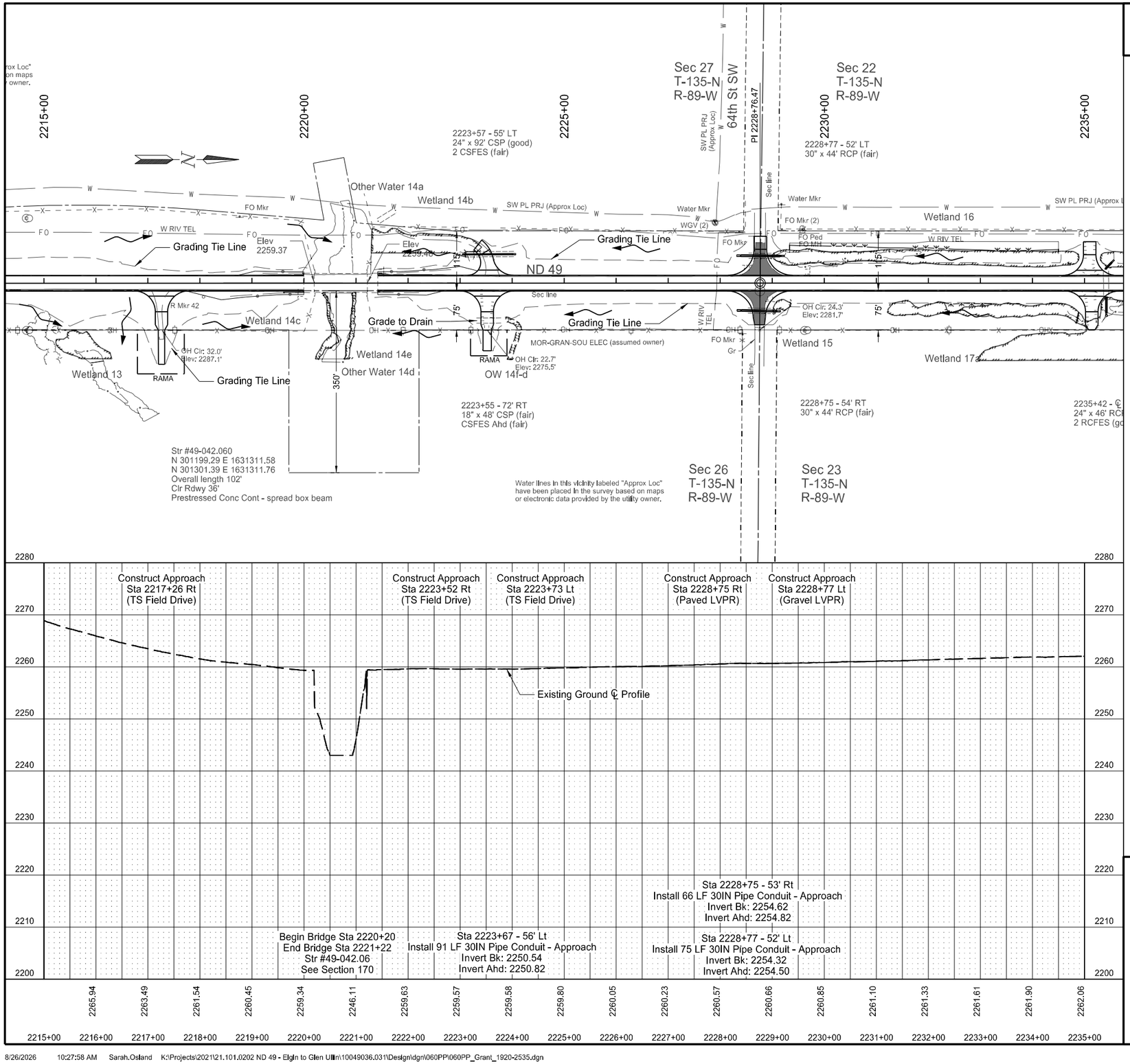
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2195+00 to 2215+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:51:43 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	16

SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2215+00 to 2235+00 Lt	187	TON
		Sta 2215+00 to 2235+00 Rt	200	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2223+55 Rt	48	LF
		Sta 2223+57 Lt	92	LF
		Sta 2228+75 Rt	44	LF
		Sta 2228+77 Lt	44	LF
714	4113	PIPE CONDUIT 30IN-APPROACH		
		Sta 2223+67 Lt	91	LF
		Sta 2228+75 Rt	66	LF
		Sta 2228+77 Lt	75	LF



LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

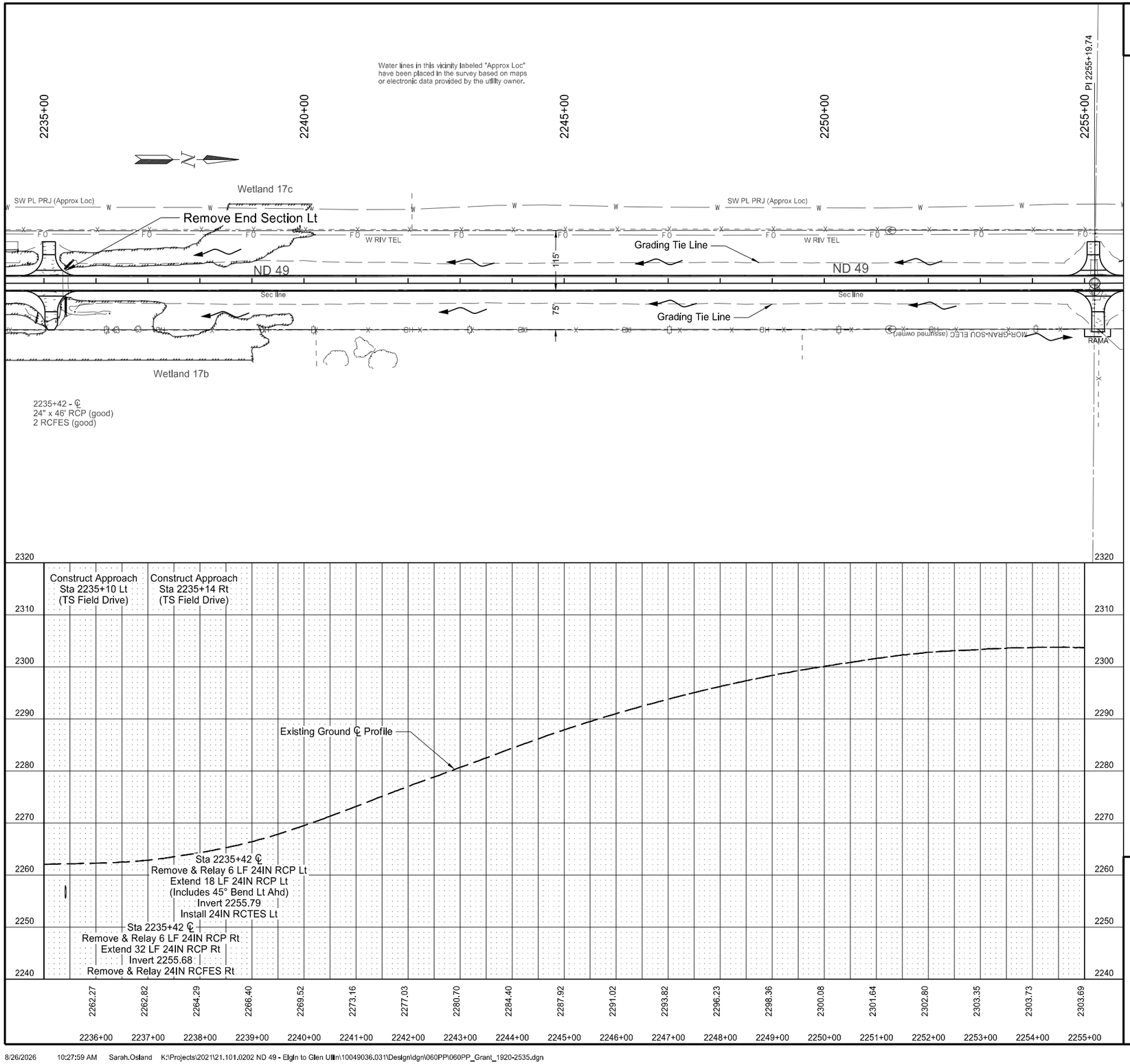
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2215+00 to 2235+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:52:00 -05'00'
NORTH DAKOTA

8/26/2026 10:27:58 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	17



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2235+00 to 2255+00 Lt	159	TON
		Sta 2235+00 to 2255+00 Rt	107	TON
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES		
		Sta 2235+42 ℄ Lt	1	EA
714	0615	PIPE CONC REINF 24IN CL III		
		Sta 2235+42 ℄ Lt	18	LF
		Sta 2235+42 ℄ Rt	32	LF
714	3023	END SECT-TRAVERSABLE REINF. CONC.24IN		
		Sta 2235+42 ℄ Lt	1	EA
714	9659	REMOVE & RELAY PIPE-ALL TYPES & SIZES		
		Sta 2235+42 CL Lt	6	LF
		Sta 2235+42 CL Rt	6	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2235+42 ℄ Rt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

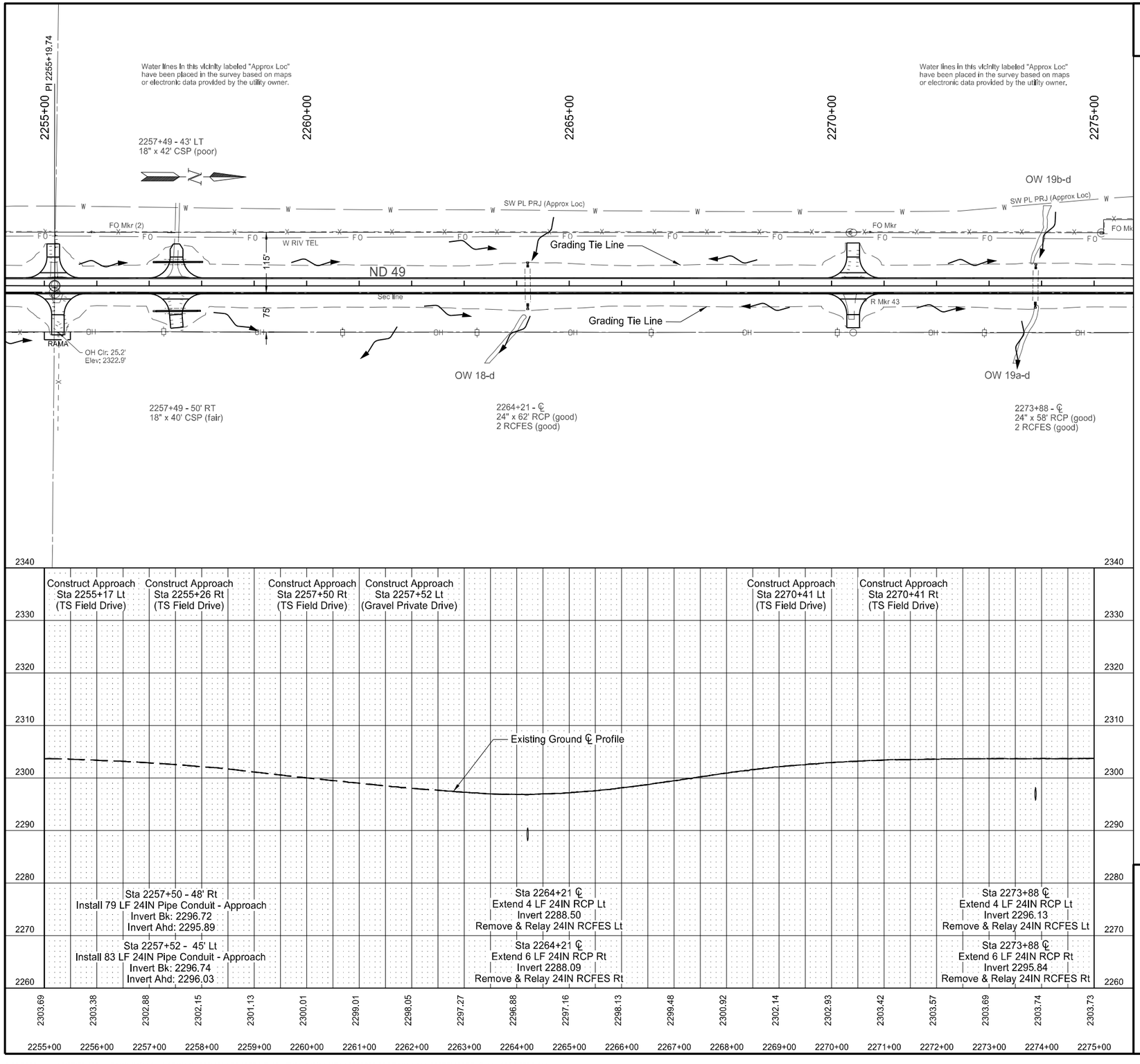
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2235+00 to 2255+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:52:16 -05'00'
NORTH DAKOTA

8/26/2026 10:27:59 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	18



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2255+00 to 2275+00 Lt	154	TON
		Sta 2255+00 to 2275+00 Rt	121	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2257+49 Rt	40	LF
		Sta 2257+49 Lt	42	LF
714	0615	PIPE CONC REINF 24IN CL III		
		Sta 2264+21 ℄ Lt	4	LF
		Sta 2264+21 ℄ Rt	6	LF
		Sta 2273+88 ℄ Lt	4	LF
		Sta 2273+88 ℄ Rt	6	LF
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2257+50 Rt	79	LF
		Sta 2257+52 Lt	83	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2264+21 ℄ Lt	1	EA
		Sta 2264+21 ℄ Rt	1	EA
		Sta 2273+88 ℄ Lt	1	EA
		Sta 2273+88 ℄ Rt	1	EA

LEGEND

Removal of Bituminous Surfacing

Avoidance Area

Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

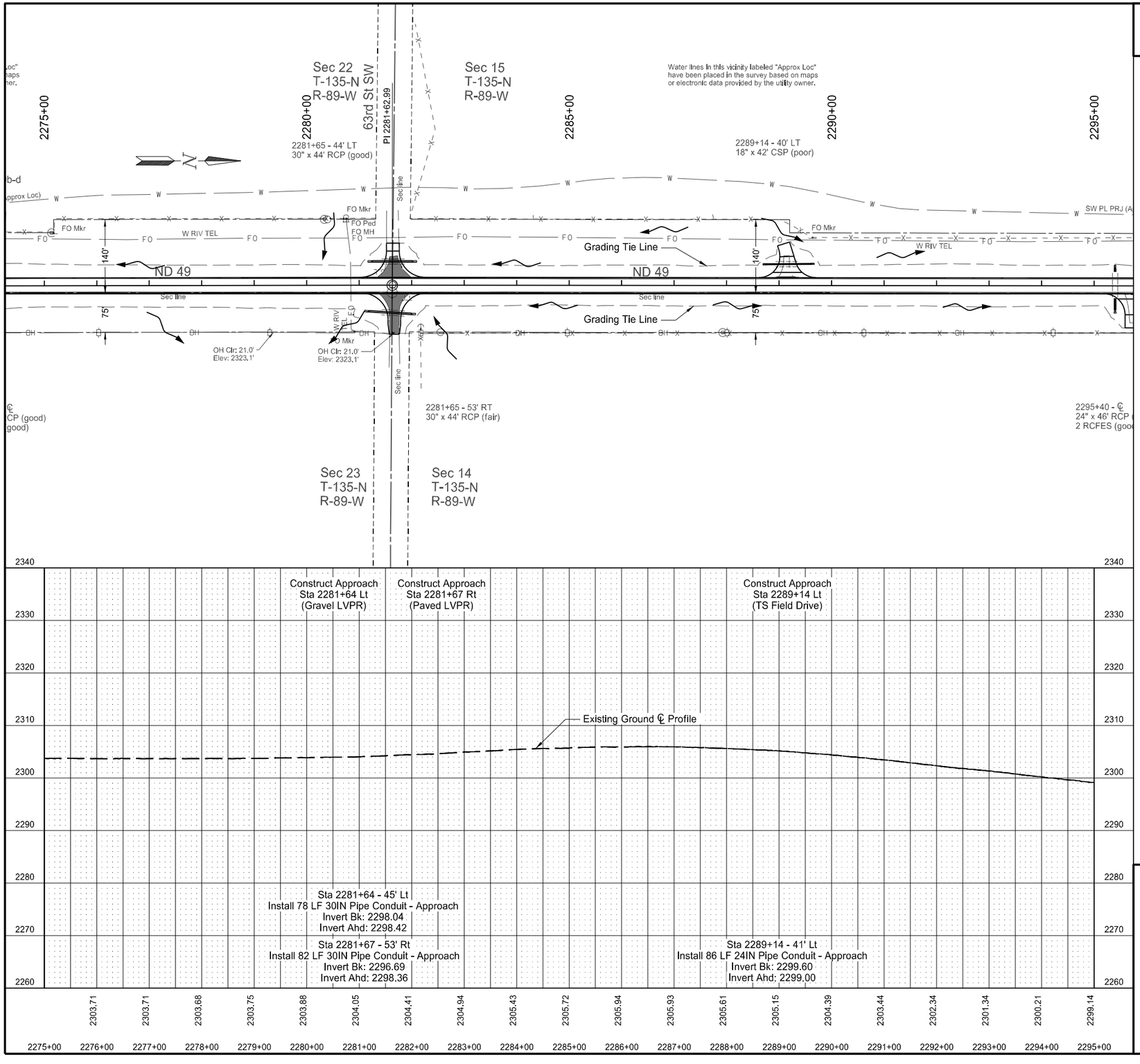
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2255+00 to 2275+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:52:32 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	19

SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2275+00 to 2295+00 Lt	201	TON
		Sta 2275+00 to 2295+00 Rt	205	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2281+65 Lt	44	LF
		Sta 2281+65 Rt	44	LF
		Sta 2289+14 Lt	42	LF
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2289+14 Lt	86	LF
714	4113	PIPE CONDUIT 30IN-APPROACH		
		Sta 2281+64 Lt	78	LF
		Sta 2281+67 Rt	82	LF



LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

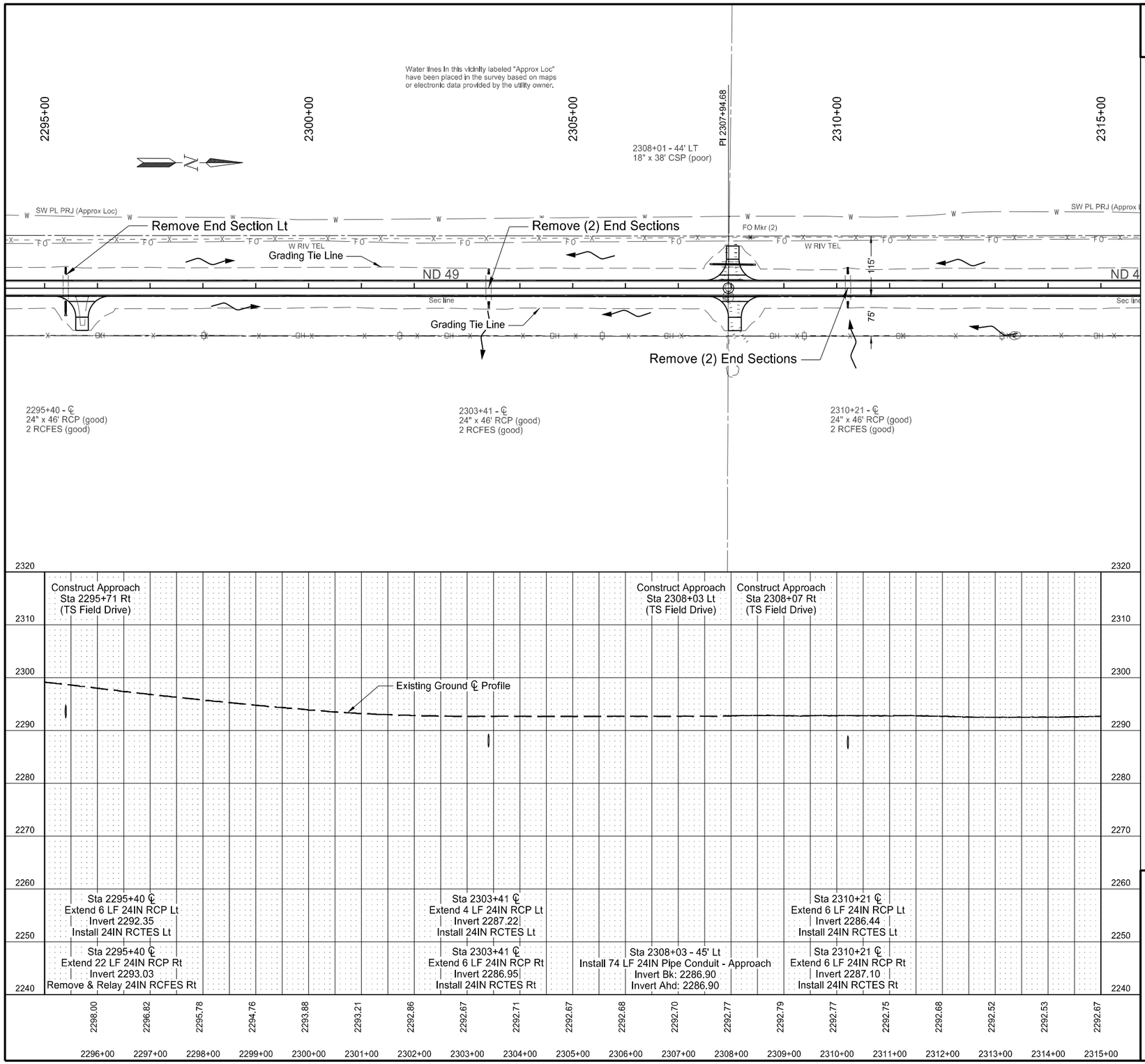
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2275+00 to 2295+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:52:50 -05'00'
NORTH DAKOTA

8/26/2026 10:28:00 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	60	20



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2295+00 to 2315+00 Lt	162	TON
		Sta 2295+00 to 2315+00 Rt	118	TON
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES		
		Sta 2295+40 ℄ Lt	1	EA
		Sta 2303+41 ℄ Lt	1	EA
		Sta 2303+41 ℄ Rt	1	EA
		Sta 2310+21 ℄ Lt	1	EA
		Sta 2310+21 ℄ Rt	1	EA
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2308+01 Lt	38	LF
714	0615	PIPE CONC REINF 24IN CL III		
		Sta 2295+40 ℄ Lt	6	LF
		Sta 2295+40 ℄ Rt	22	LF
		Sta 2303+41 ℄ Lt	4	LF
		Sta 2303+41 ℄ Rt	6	LF
		Sta 2310+21 ℄ Lt	6	LF
		Sta 2310+21 ℄ Rt	6	LF
714	3023	END SECT-TRAVERSABLE REINF. CONC.24IN		
		Sta 2295+40 ℄ Lt	1	EA
		Sta 2303+41 ℄ Lt	1	EA
		Sta 2303+41 ℄ Rt	1	EA
		Sta 2310+21 ℄ Lt	1	EA
		Sta 2310+21 ℄ Rt	1	EA
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2308+03 Lt	74	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2295+40 ℄ Rt	1	EA
990	0400	PIPE CLEANOUT		
		Sta 2295+40 ℄	1	EA
		Sta 2303+41 ℄	1	EA
		Sta 2310+21 ℄	1	EA

LEGEND

Removal of Bituminous Surfacing

Avoidance Area

Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

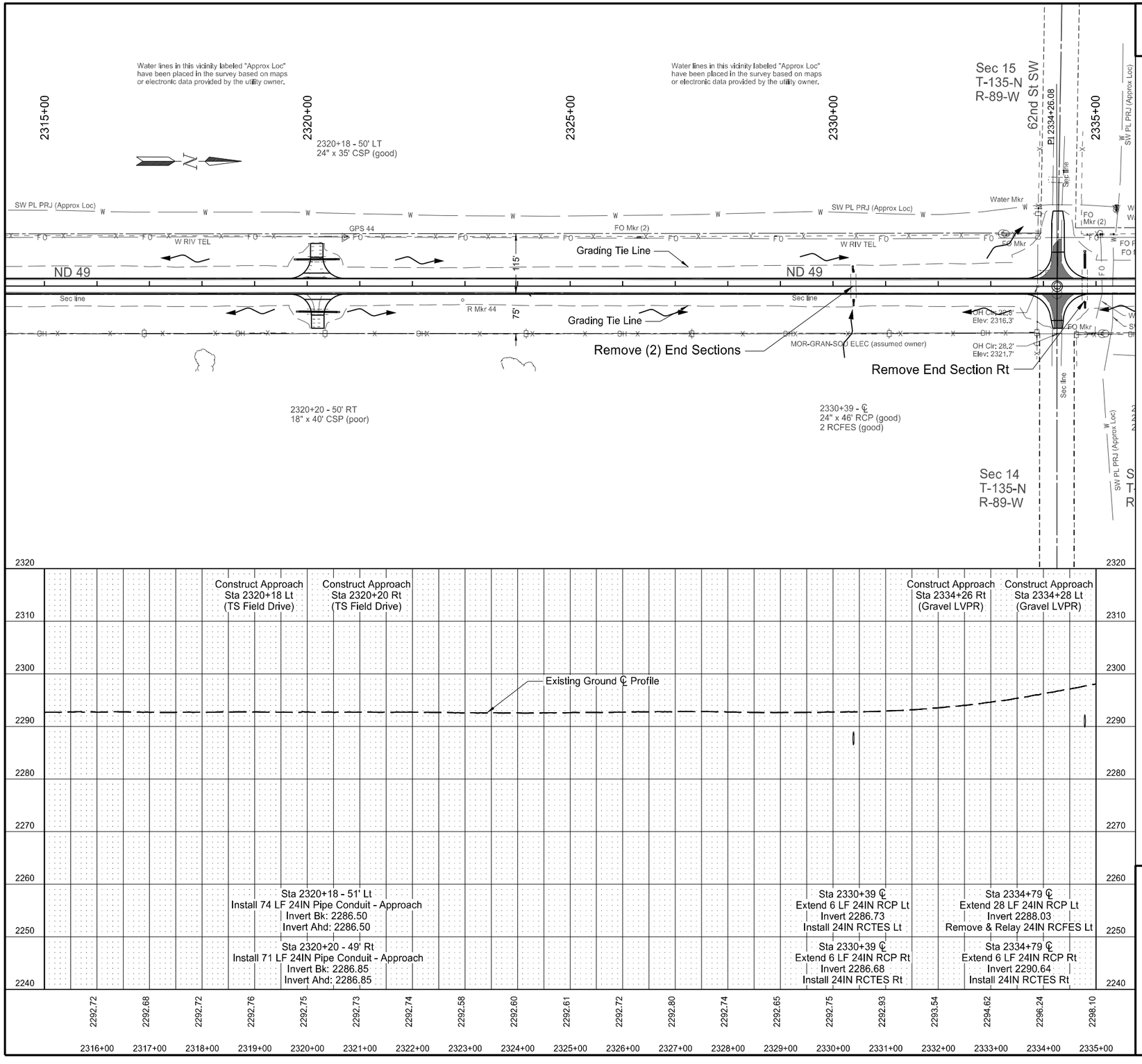
Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2295+00 to 2315+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:54:26 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	21



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2315+00 to 2335+00 Lt	208	TON
		Sta 2315+00 to 2335+00 Rt	180	TON
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES		
		Sta 2330+39 ℄ Lt	1	EA
		Sta 2330+39 ℄ Rt	1	EA
		Sta 2334+79 ℄ Rt	1	EA
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2320+18 Lt	35	LF
		Sta 2320+20 Rt	40	LF
714	0615	PIPE CONC REINF 24IN CL III		
		Sta 2330+39 ℄ Lt	6	LF
		Sta 2330+39 ℄ Rt	6	LF
		Sta 2334+79 ℄ Lt	28	LF
		Sta 2334+79 ℄ Rt	6	LF
714	3023	END SECT-TRAVERSABLE REINF. CONC.24IN		
		Sta 2330+39 ℄ Lt	1	EA
		Sta 2330+39 ℄ Rt	1	EA
		Sta 2334+79 ℄ Rt	1	EA
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2320+18 Lt	74	LF
		Sta 2320+20 Rt	71	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2334+79 ℄ Lt	1	EA
990	0400	PIPE CLEANOUT		
		Sta 2330+39 ℄	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

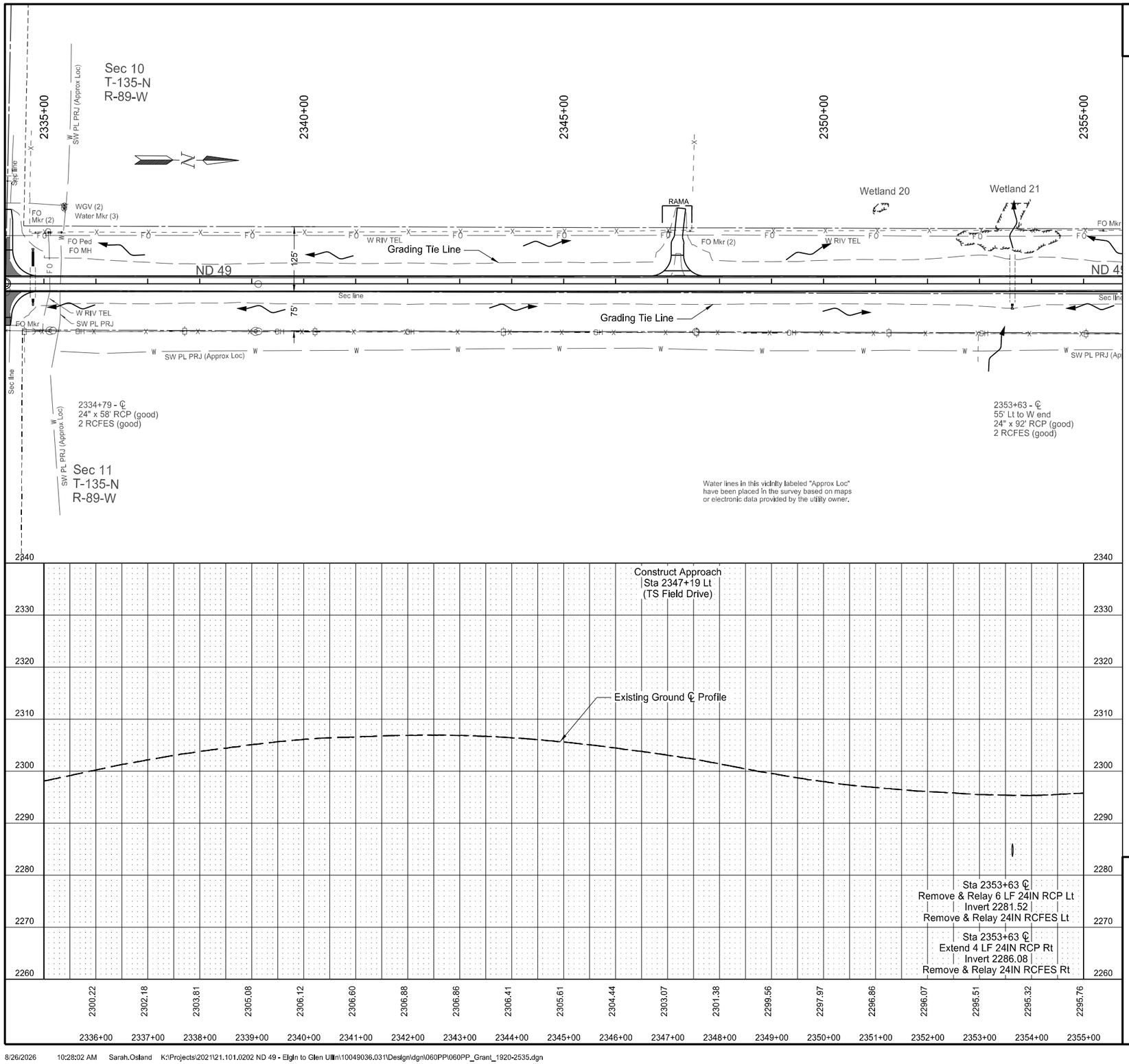
Note: Stationing Based on PR49_G Alignment

Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2315+00 to 2335+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:54:46 -05'00'
NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	22

SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2335+00 to 2355+00 Lt	172	TON
		Sta 2335+00 to 2355+00 Rt	133	TON
714	0615	PIPE CONC REINF 24IN CL III		
		Sta 2353+63 ℄ Rt	4	LF
714	9659	REMOVE & RELAY PIPE-ALL TYPES & SIZES		
		Sta 2353+63 ℄ Lt	6	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2353+63 ℄ Lt	1	EA
		Sta 2353+63 ℄ Rt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

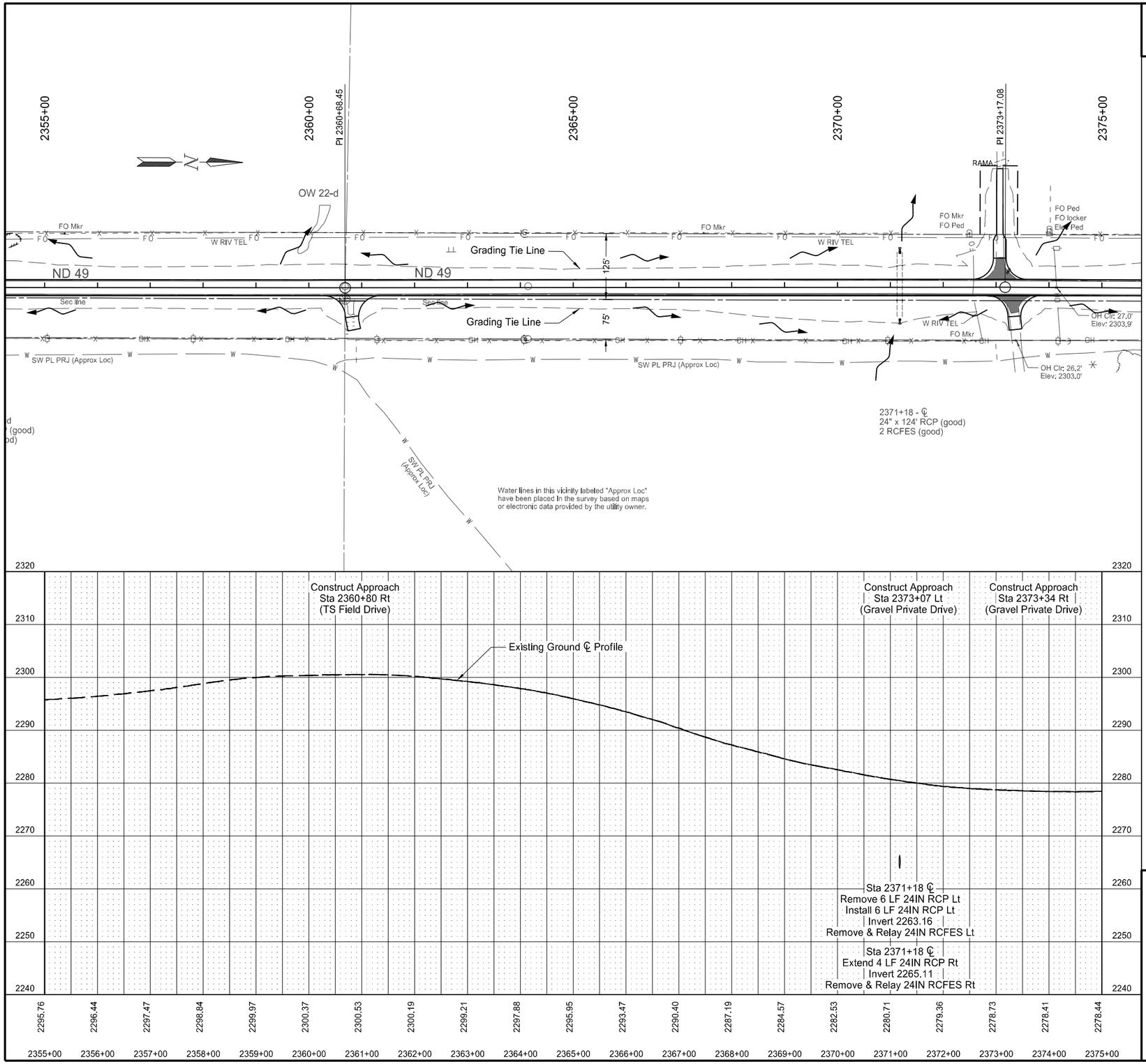
Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2335+00 to 2355+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:55:06 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	23



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2355+00 to 2375+00 Lt	171	TON
		Sta 2355+00 to 2375+00 Rt	191	TON
202	0174	REMOVAL OF PIPE ALL TYPES AND SIZES		
		Sta 2371+18 ℄ Lt	6	LF
714	0615	PIPE CONC REINF 24IN CL III		
		Sta 2371+18 ℄ Lt	6	LF
		Sta 2371+18 ℄ Rt	4	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2371+18 ℄ Lt	1	EA
		Sta 2371+18 ℄ Rt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2355+00 to 2375+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:55:28 -05'00
NORTH DAKOTA

8/26/2026 10:28:03 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	24

SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2375+00 to 2395+00 Lt	106	TON
		Sta 2375+00 to 2395+00 Rt	224	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2387+11 Rt	46	LF
714	0615	PIPE CONC REINF 24IN CL III		
		Sta 2376+33 ℄ Rt	4	LF
		Sta 2392+33 ℄ Lt	4	LF
		Sta 2392+33 ℄ Rt	6	LF
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2387+10 Rt	66	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2376+33 ℄ Rt	1	EA
		Sta 2392+33 ℄ Lt	1	EA
		Sta 2392+33 ℄ Rt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

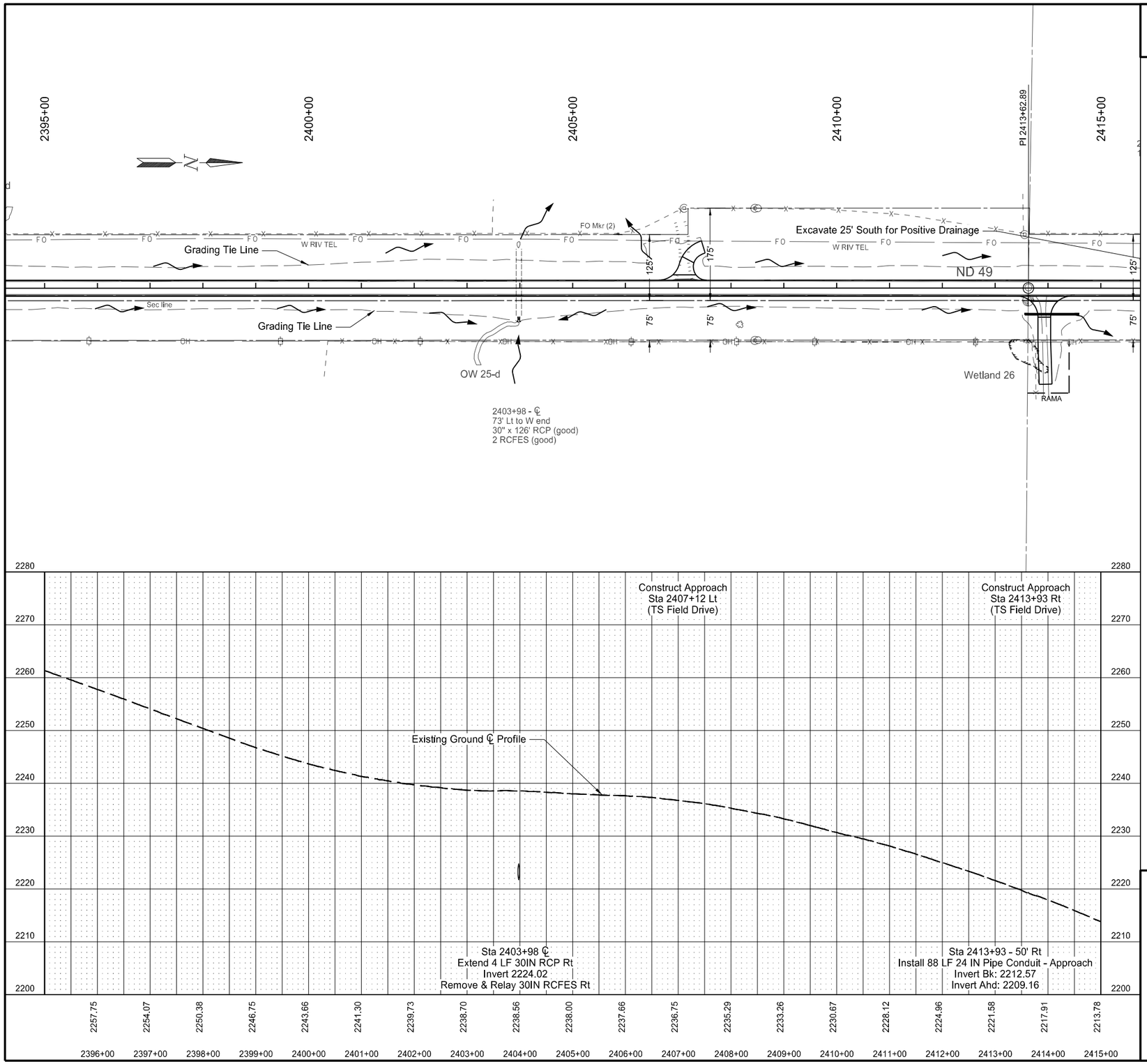
Sta 2375+00 to 2395+00

JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:55:51 -05'00'

REGISTERED PROFESSIONAL ENGINEER
NORTH DAKOTA

8/26/2026 10:28:03 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	60	25



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2395+00 to 2415+00 Lt	131	TON
		Sta 2395+00 to 2415+00 Rt	143	TON
714	0820	PIPE CONC REINF 30IN CL III		
		Sta 2403+98 ℄ Rt	4	LF
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2413+93 Rt	88	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2403+98 ℄ Rt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

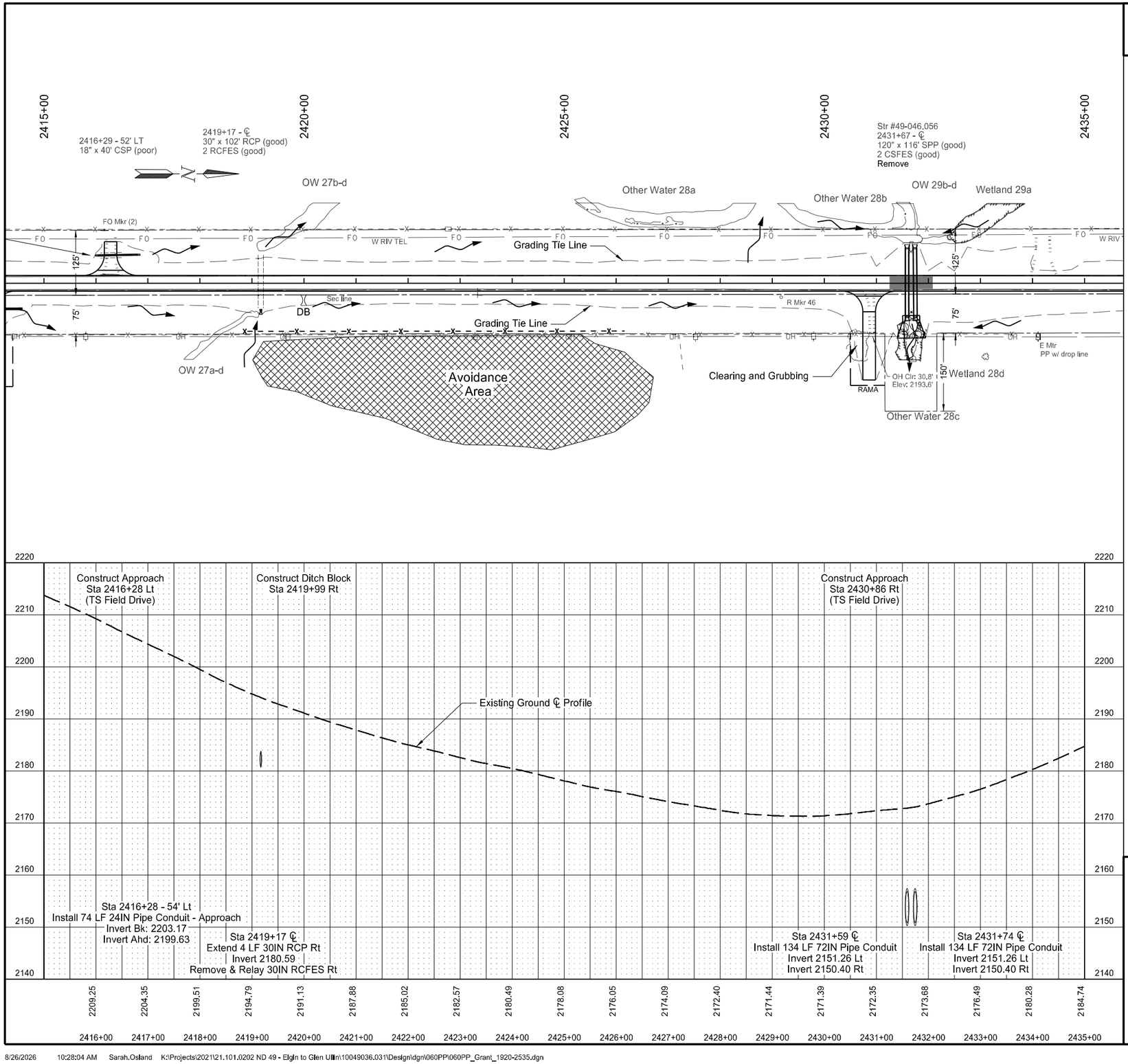
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2395+00 to 2415+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:56:14 -05'00'
NORTH DAKOTA

8/26/2026 10:28:04 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	60	26



SPEC	CODE	BID ITEM	QTY	UNIT
202	0104	REMOVAL OF STRUCTURE		
		Sta 2431+67 ℄	1	EA
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2415+00 to 2435+00 Lt	116	TON
		Sta 2415+00 to 2435+00 Rt	123	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2416+29 Lt	40	LF
714	0820	PIPE CONC REINF 30IN CL III		
		Sta 2419+17 ℄ Rt	4	LF
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2416+28 Lt	74	LF
714	4145	PIPE CONDUIT 72IN		
		Sta 2431+59 ℄	134	LF
		Sta 2431+74 ℄	134	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2419+17 ℄ Rt	1	EA
900	1000	TEMPORARY STREAM DIVERSION		
		Sta 2431+67 ℄	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

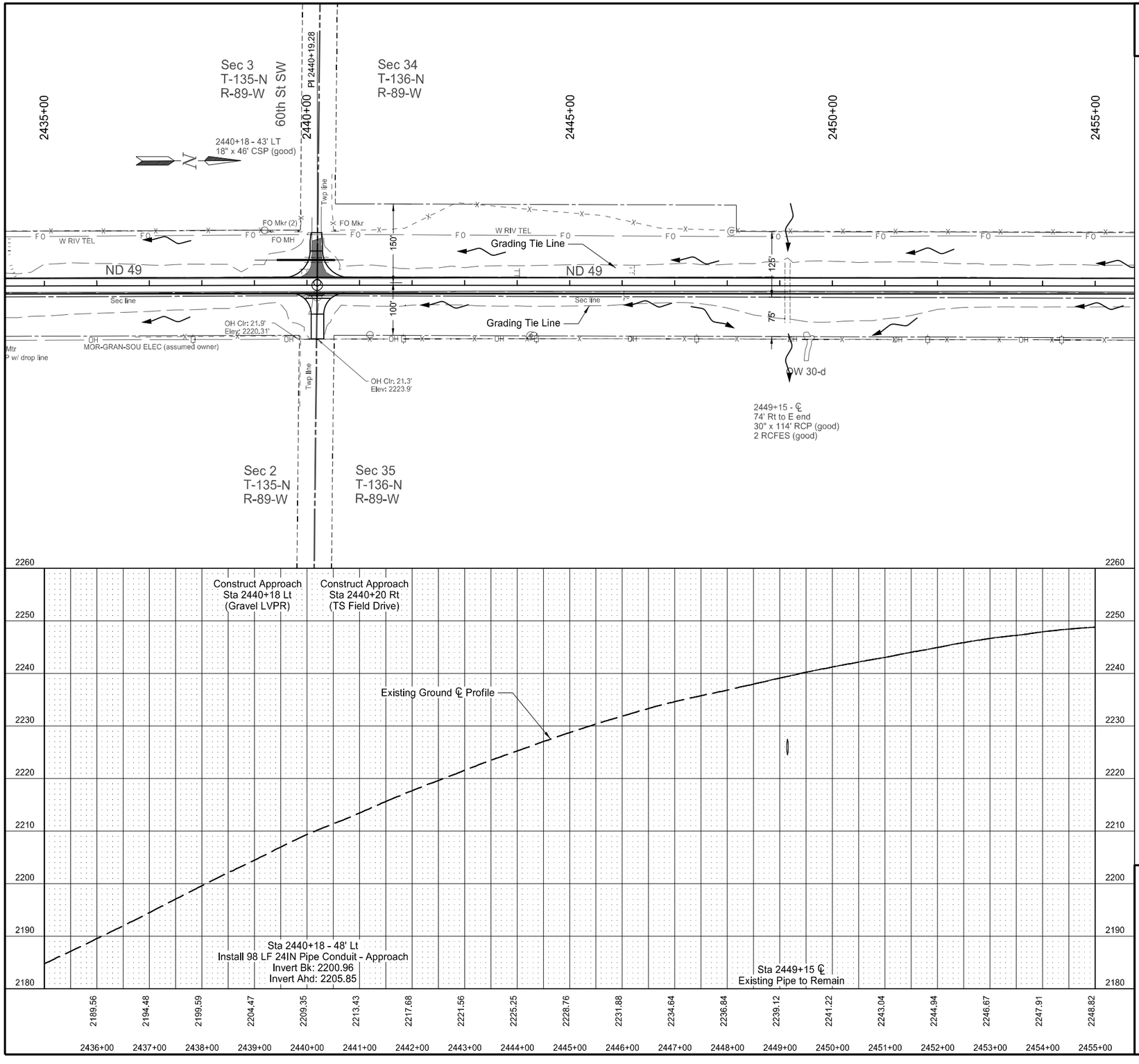
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2415+00 to 2435+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:56:37 -05'00'
NORTH DAKOTA

8/26/2026 10:28:04 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	27



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2435+00 to 2455+00 Lt	229	TON
		Sta 2435+00 to 2455+00 Rt	138	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2440+18 Lt	46	LF
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2440+18 Lt	98	LF

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

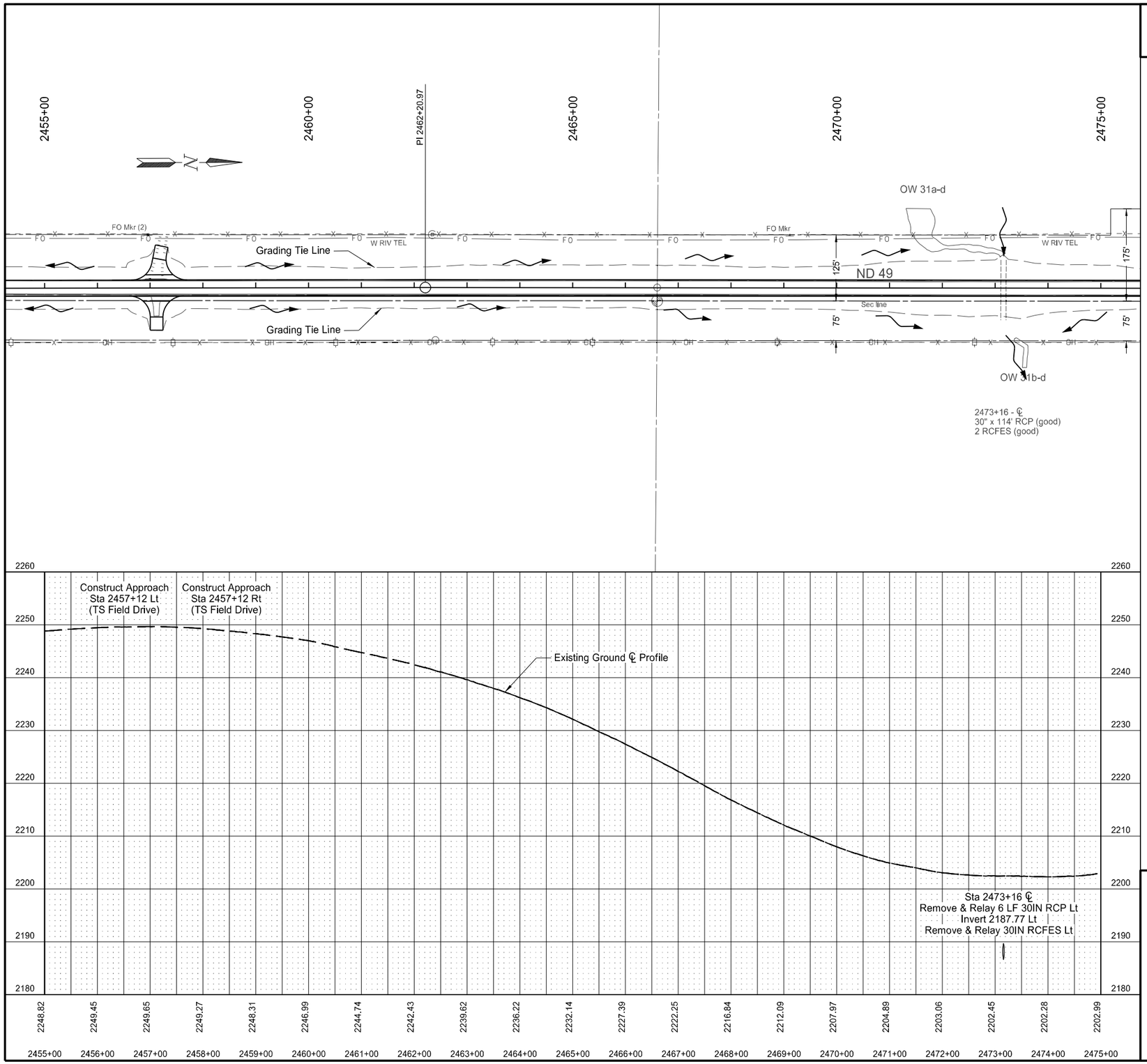
Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2435+00 to 2455+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:57:00 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	60	28



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2455+00 to 2475+00 Lt	135	TON
		Sta 2455+00 to 2475+00 Rt	147	TON
714	9659	REMOVE & RELAY PIPE-ALL TYPES & SIZES		
		Sta 2473+16 ℄ Lt	6	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2473+16 ℄ Lt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2455+00 to 2475+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:57:20 -05'00
NORTH DAKOTA

8/26/2026 10:28:05 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	29

SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2475+00 to 2495+00 Lt	157	TON
		Sta 2475+00 to 2495+00 Rt	206	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2492+96 Lt	46	LF
714	0820	PIPE CONC REINF 30IN CL III		
		Sta 2481+15 ℄ Lt	8	LF
		Sta 2481+15 ℄ Rt	4	LF
		Sta 2491+14 ℄ Lt	4	LF
		Sta 2491+14 ℄ Rt	4	LF
714	4106	PIPE CONDUIT 24IN-APPROACH		
		Sta 2492+97 Lt	82	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2481+15 ℄ Lt	1	EA
		Sta 2481+15 ℄ Rt	1	EA
		Sta 2491+14 ℄ Lt	1	EA
		Sta 2491+14 ℄ Rt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

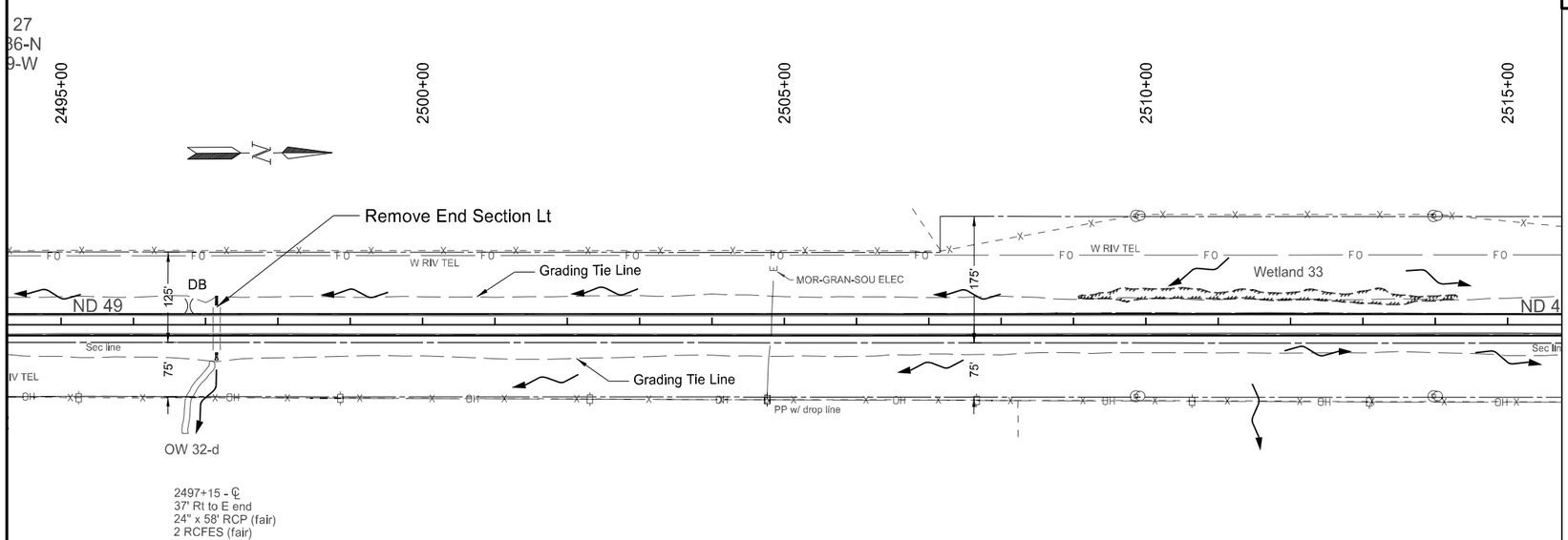
Sta 2475+00 to 2495+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:57:42 -05'00
NORTH DAKOTA

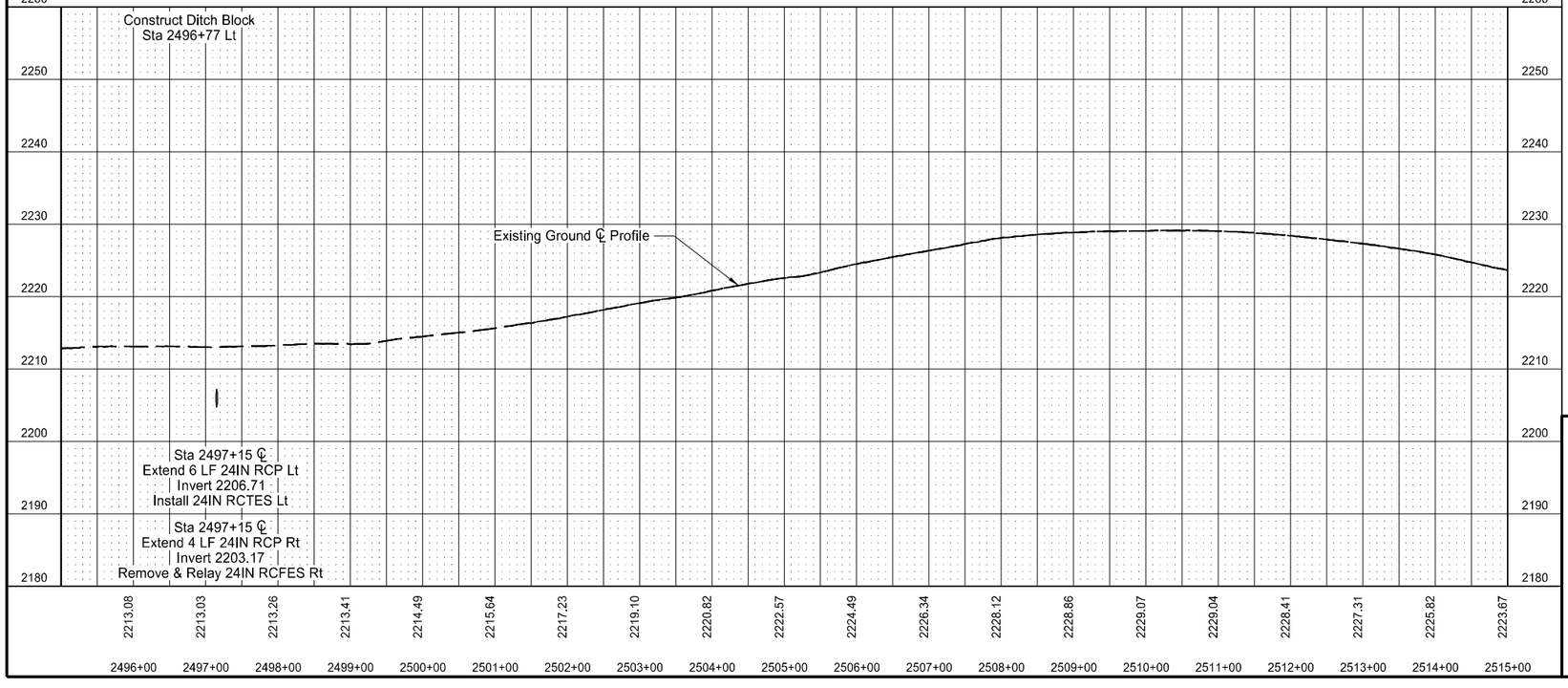
8/26/2026 10:28:06 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	60	30

27
36-N
9-W



26
6-N
-W



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2495+00 to 2515+00 Lt	186	TON
		Sta 2495+00 to 2515+00 Rt	130	TON
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES		
		Sta 2497+15 ℄ Lt	1	EA
714	0615	PIPE CONC REINF 24IN CL III		
		Sta 2497+15 ℄ Lt	6	LF
		Sta 2497+15 ℄ Rt	4	LF
714	3023	END SECT-TRAVERSABLE REINF. CONC.24IN		
		Sta 2497+15 ℄ Lt	1	EA
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2497+15 ℄ Rt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

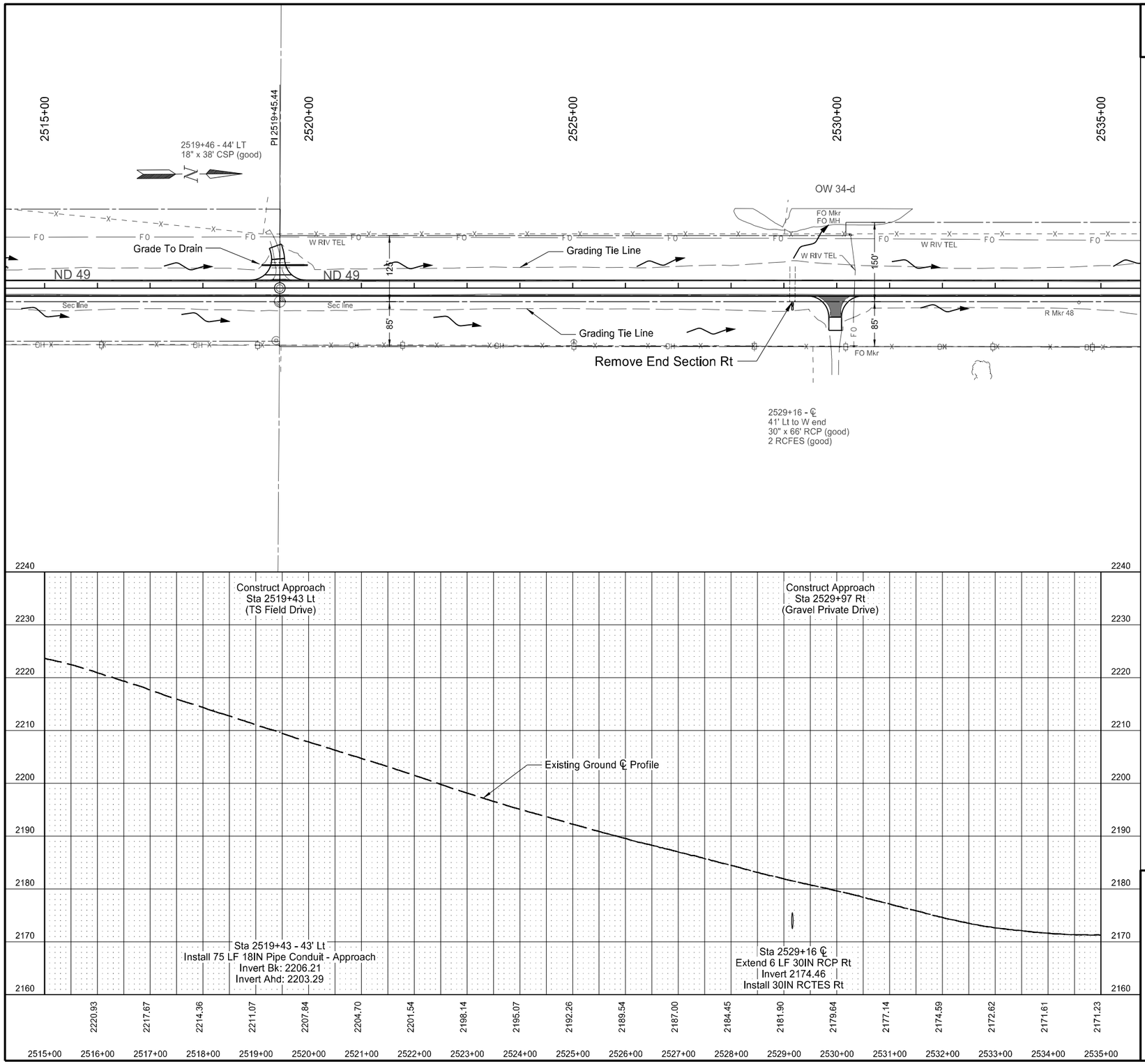
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2495+00 to 2515+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:58:06 -05'00'
NORTH DAKOTA

8/26/2026 10:28:07 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	60	31



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2515+00 to 2535+00 Lt	145	TON
		Sta 2515+00 to 2535+00 Rt	162	TON
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES		
		Sta 2529+16 ℄ Rt	1	EA
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2519+46 Lt	38	LF
714	0820	PIPE CONC REINF 30IN CL III		
		Sta 2529+16 ℄ Rt	6	LF
714	3033	END SECT-TRAVERSABLE REINF. CONC.30IN		
		Sta 2529+16 ℄ Rt	1	EA
714	4099	PIPE CONDUIT 18IN-APPROACH		
		Sta 2519+43 Lt	75	LF

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

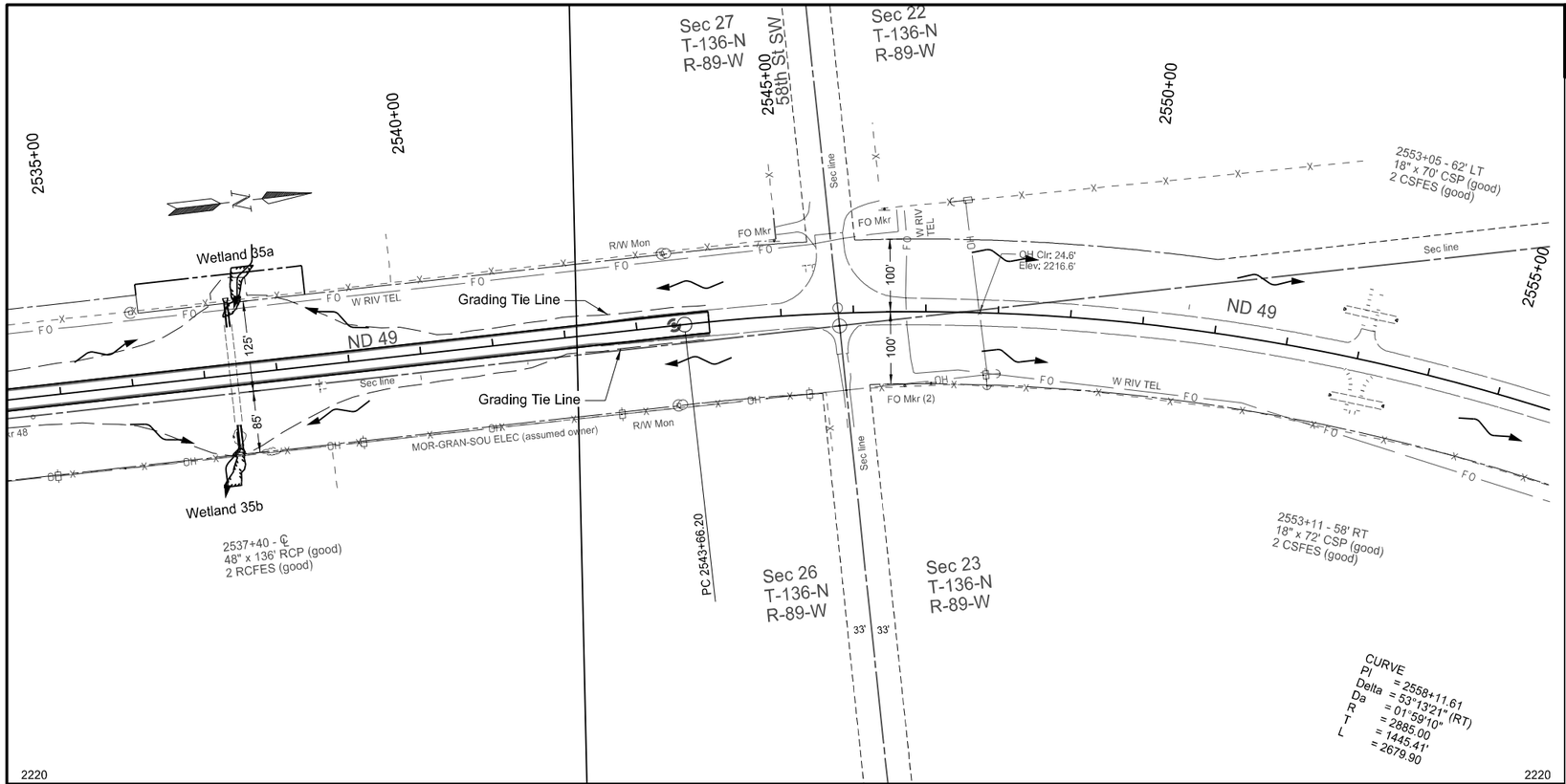
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2515+00 to 2535+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:58:31 -05'00'
NORTH DAKOTA

8/26/2026 10:28:08 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\060PP\060PP_Grant_1920-2535.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	60	32



SPEC	CODE	BID ITEM	QTY	UNIT
202	0135	REMOVAL OF BITUMINOUS SURFACING		
		Sta 2535+00 to 2544+00 Lt	66	TON
		Sta 2535+00 to 2544+00 Rt	70	TON
202	0170	REMOVAL OF CULVERTS-ALL TYPES & SIZES		
		Sta 2537+40 ℄ Lt	6	LF
714	1105	PIPE CONC REINF 48IN CL III		
		Sta 2537+40 ℄ Lt	32	LF
		Sta 2537+40 ℄ Rt	30	LF
714	9659	REMOVE & RELAY PIPE-ALL TYPES & SIZES		
		Sta 2537+40 ℄ Lt	6	LF
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES		
		Sta 2537+40 ℄ Lt	1	EA
		Sta 2537+40 ℄ Rt	1	EA

LEGEND

- Removal of Bituminous Surfacing
- Avoidance Area
- Temporary Safety Fence

Note: Stationing Based on PR49_G Alignment

Plan & Profile

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2535+00 to 2544+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:58:56 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	75	1

Wetland Impact Table

Wetland Number	Location	Wetland Type	Wetland Feature	USACE Jurisdictional Wetlands[1]	Wetland Impact			Wetland Mitigation							
					Wetland Impacts Acre(s)			Mitigation Proposed		USACE / 11990 Bank		11990 Bank		Onsite Mitigation Method	
					Temp.	Perm. (Fill/Drain)	Perm. (Cut)	EO 11990	USACE	Location	Acre(s)	Location	Acre(s)	Mitigation Location; Ratio	Ditch Shift Acre(s)
#1	Sec.23, T134N, R89W	Ditch	Created	No	0.006	0.004		N	N						
#2a	Sec.14, T134N, R89W	Depression	Natural	Yes											
#2b	Sec.14, T134N, R89W	Ditch	Created	Yes	0.024	0.003		N	N						
#2c	Sec.14, T134N, R89W	Ditch	Created	Yes	0.016	0.001		N	N						
#4b	Sec.11, T134N, R89W	Slope	Natural	Yes	0.006	0.001		Y	N			Anderson 1:1	0.001		
#4d	Sec.11, T134N, R89W	Slope	Natural	Yes											
#5a	Sec.2, T134N, R89W	Slope	Natural	Yes											
#5c	Sec.2, T134N, R89W	Slope	Natural	Yes	0.015	0.004		Y	N			Anderson 1:1	0.004		
#6a	Sec.34, T135N, R89W	Slope	Natural	Yes	0.012										
#6b	Sec.35, T135N, R89W	Slope	Natural	Yes	0.009	0.001		Y	Y						
#6d *	Sec.35, T135N, R89W	Slope	Natural	Yes	0.337	0.012		Y	Y	Bowman; 1:1	0.012				
#6d	Sec.35, T135N, R89W	Ditch	Created	Yes	0.070	0.096		N	Y					Ditch Shift #1; 1:1	0.096
#6e	Sec.35, T135N, R89W	Slope	Natural	Yes											
#6f	Sec.34, T135N, R89W	Basin	Natural	Yes	0.114	0.019		Y	Y	Bowman; 1:1	0.019				
#7	Sec.34, T135N, R89W	Ditch	Created	Yes	0.030	0.017		N	Y					Ditch Shift #2; 1:1	0.017
#8	Sec.34, T135N, R89W	Ditch	Created	Yes	0.066	0.037		N	Y					Ditch Shift #3; 1:1	0.037
#9	Sec.34, T135N, R89W	Basin	Natural	Yes	0.121	0.042		Y	Y	Bowman; 1:1	0.042				
#10	Sec.34, T135N, R89W	Ditch	Created	Yes	0.119	0.007		N	Y					Ditch Shift #4; 1:1	0.007
#13	Sec.26, T135N, R89W	Slope	Natural	Yes											
#14b	Sec.27, T135N, R89W	Ditch	Created	Yes	0.061	0.003		N	N						
#14c	Sec.26, T135N, R89W	Fringe	Natural	Yes											
#14e	Sec.26, T135N, R89W	Fringe	Natural	Yes											
#15	Sec.23, T135N, R89W	Ditch	Created	Yes		0.012		N	Y	Bowman; 1:1	0.012				
#16	Sec.22, T135N, R89W	Ditch	Created	Yes	0.276	0.067		N	Y					Ditch Shift #5; 1:1	0.067
#17a	Sec.23, T135N, R89W	Ditch	Created	Yes	0.094	0.012		N	Y					Ditch Shift #6; 1:1	0.012
#17b	Sec.23, T135N, R89W	Slope	Natural	Yes	0.090	0.056		Y	Y	Bowman; 1:1	0.056				
#17c	Sec.22, T135N, R89W	Slope	Natural	Yes	0.129	0.048		Y	Y	Bowman; 1:1	0.048				
#20	Sec.10, T135N, R89W	Basin	Natural	No											
#21	Sec.10, T135N, R89W	Basin	Natural	No	0.006										
#26	Sec.2, T135N, R89W	Basin	Natural	No	0.016	0.015		Y	N			Anderson 1:1	0.015		
#28d	Sec.2, T135N, R89W	Slope	Natural	Yes	0.013	0.010		Y	N			Anderson 1:1	0.010		
#29a	Sec.3, T135N, R89W	Slope	Natural	Yes	0.002										
#33	Sec.27, T136N, R89W	Ditch	Created	No	0.118	0.051		N	N						
#35a	Sec.27, T136N, R89W	Slope	Natural	Yes	0.008	0.016		Y	N			Anderson 1:1	0.016		
#35b	Sec.26, T136N, R89W	Slope	Natural	Yes	0.005	0.002		Y	N			Anderson 1:1	0.002		
				Total	1.763	0.536					0.189		0.048		0.236

[1]A Jurisdictional Determination was issued by the USACE on 12/09/2022: NWO-2022-01666-BIS
* Considered Streams for Mitigation.

Wetlands, Mitigation, and Environmental

ND 49 - Jct 21 Elgin N to 58th St SW

Impact Tables

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:28:25 -06'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	75	2

Other Waters Impact Table											
Number	Location	Type	USACE Jurisdictional	Impacts to Other Waters						Other Water Mitigation	
				Acres			Linear Feet			Mitigation Proposed	
				Temp.	Perm. (Fill/Drain)	Perm. (Cut)	Temp.	Perm. (Fill/Drain)	Perm. (Cut)	EO 11990	USACE
#OW 2d	Sec.15, T134N, R89W	Stream	Yes	0.017	0.004		15	7		N	N
#OW 2e	Sec.14, T134N, R89W	Stream	Yes	0.009	0.004		15	15		N	N
#OW 14a	Sec.27, T135N, R89W	Stream	Yes								
#OW 14d	Sec.26, T135N, R89W	Stream	Yes								
#OW 28a	Sec.3, T135N, R89W	Stream	Yes								
#OW 28b	Sec.3, T135N, R89W	Stream	Yes	0.012			15	1		N	N
#OW 28c	Sec.2, T135N, R89W	Stream	Yes	0.018	0.008		40	30		N	N
			Totals	0.056	0.016		85	53			

Other Waters-d Impact Table								
Number	Location	Type	USACE Jurisdictional	Impacts to Other Waters			Other Water Mitigation	
				Acres			Mitigation Proposed	
				Temp.	Perm. (Fill/Drain)	Perm. (Cut)	EO 11990	USACE
#OW 3-d	Sec.15, T134N, R89W	Ephemeral Swale	No	0.010	0.004			
#OW 4a-d	Sec.10, T134N, R89W	Ephemeral Swale	No	0.024	0.008			
#OW 4c-d	Sec.11, T134N, R89W	Ephemeral Swale	No	0.003				
#OW 5b-d	Sec. 2, T134N, R89W	Ephemeral Swale	Yes	0.015				
#OW 5d-d	Sec. 3, T134N, R89W	Ephemeral Swale	Yes	0.010				
#OW 6c-d	Sec. 35, T135N, R89W	Ephemeral Swale	Yes	0.014				
#OW 11-d	Sec. 27, T135N, R89W	Ephemeral Swale	No	0.013	0.004			
#OW 12-d	Sec. 27, T135N, R89W	Ephemeral Swale	No	0.004				
#OW 14f-d	Sec. 26, T135N, R89W	Ephemeral Swale	No	0.003	0.001			
#OW 18-d	Sec. 23, T135N, R89W	Ephemeral Swale	No	0.001				
#OW 19a-d	Sec. 23, T135N, R89W	Ephemeral Swale	No	0.003	0.001			
#OW 19b-d	Sec. 22, T135N, R89W	Ephemeral Swale	No	0.002				
#OW 22-d	Sec. 10, T135N, R89W	Ephemeral Swale	No					
#OW 23-d	Sec. 10, T135N, R89W	Ephemeral Swale	No					
#OW 24-d	Sec. 3, T135N, R89W	Ephemeral Swale	No	0.107	0.002			
#OW 25-d	Sec. 2, T135N, R89W	Ephemeral Swale	No	0.006				
#OW 27a-d	Sec. 2, T135N, R89W	Ephemeral Swale	No	0.006	0.001			
#OW 27b-d	Sec. 3, T135N, R89W	Ephemeral Swale	No	0.001				
#OW 29b-d	Sec. 3, T135N, R89W	Ephemeral Swale	No	0.002				
#OW 30-d	Sec. 35, T136N, R89W	Ephemeral Swale	No					
#OW 31a-d	Sec. 34, T136N, R89W	Ephemeral Swale	No	0.004				
#OW 31b-d	Sec. 35, T136N, R89W	Ephemeral Swale	No					
#OW 32-d	Sec. 26, T136N, R89W	Ephemeral Swale	No	0.003				
#OW 34-d	Sec. 27, T136N, R89W	Ephemeral Swale	No					
			Totals	0.231	0.021	0.000		

Impact Summary Table			
Permanent Impact Summary		Temporary Impacts and additional information	
Wetland Type	Total Acre(s)	WaterType	Total Acre(s)
Natural/JD (Fill/Drain)	0.211	Temporary Wetland JD	1.617
Natural/Non-JD (Fill/Drain)	0.015	Non-JD Wetland Temporary	0.146
Created/JD (Fill/Drain)	0.255	Total	1.763
Created /Non-JD (Fill/Drain)	0.055	Permanent OW	0.016 AC (53 LF)
Total	0.536	Temporary OW	0.056 Ac (85 LF)
JD Natural (Cut)		Permanent OW-d	0.021
JD Created (Cut)		Temporary OW-d	0.231
Non-JD Natural (Cut)			
Non-JD Created (Cut)			
Total	0		

Mitigation Summary Table			
	Onsite Acre(s)	11990 Bank Acre(s)	USACE/11990 Bank Acre(s)
Bowman			0.189
Anderson		0.048	
Ditch Shift	0.236		
	0.236	0.048	0.189

Wetlands, Mitigation, and Environmental

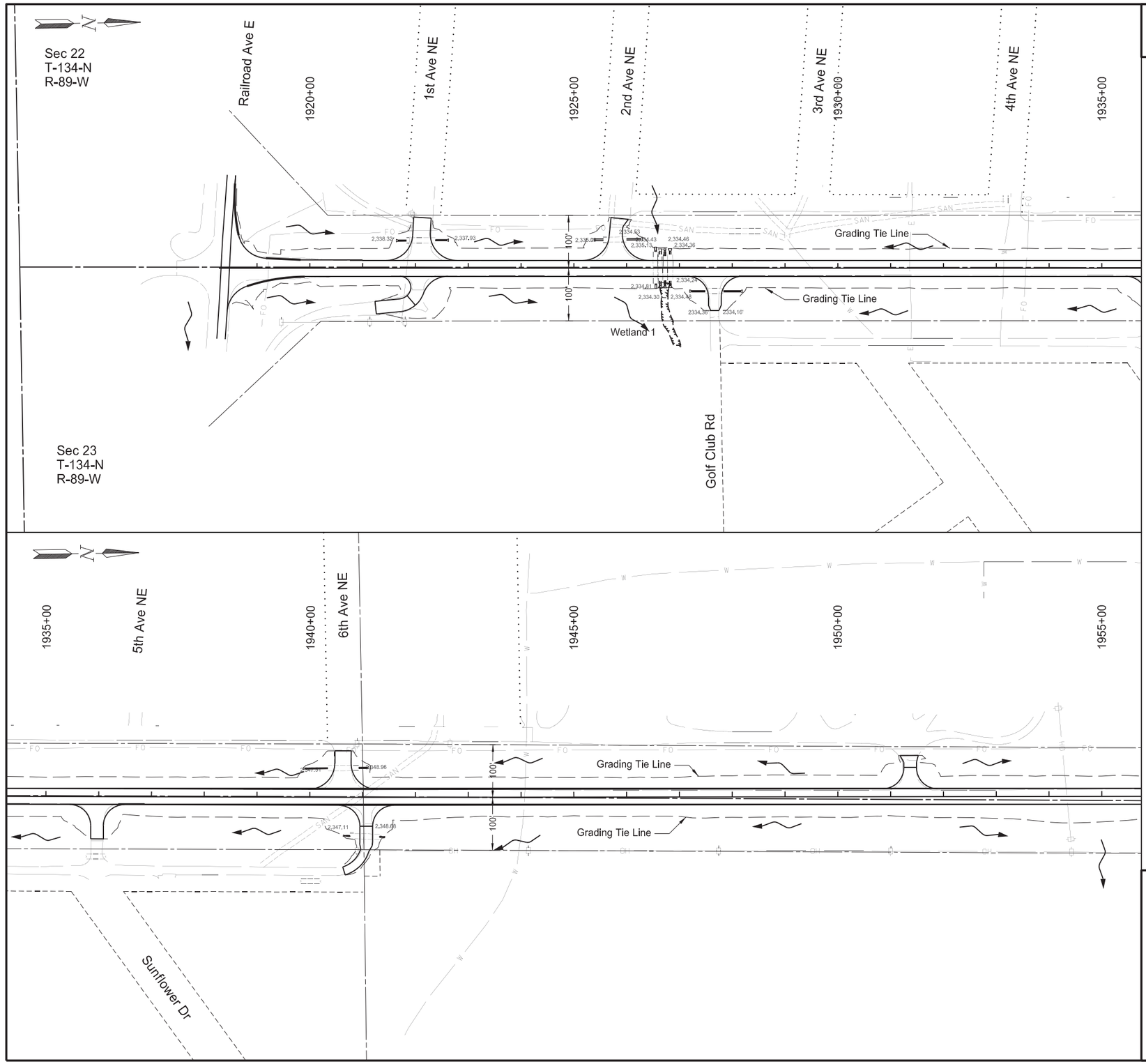
ND 49 - Jct 21 Elgin N to 58th St SW

Impact Tables

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:28:44 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	75	3

Wetland Impacts			
Sta 1918+42 to 1955+00			
Wetland #	Temporary Wetland Impact	Permanent Wetland Impact	
		Fill / Drain	Cut
#1	0.006 Acre	0.004 Acre	-



Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

Wetlands, Mitigation, and Environmental

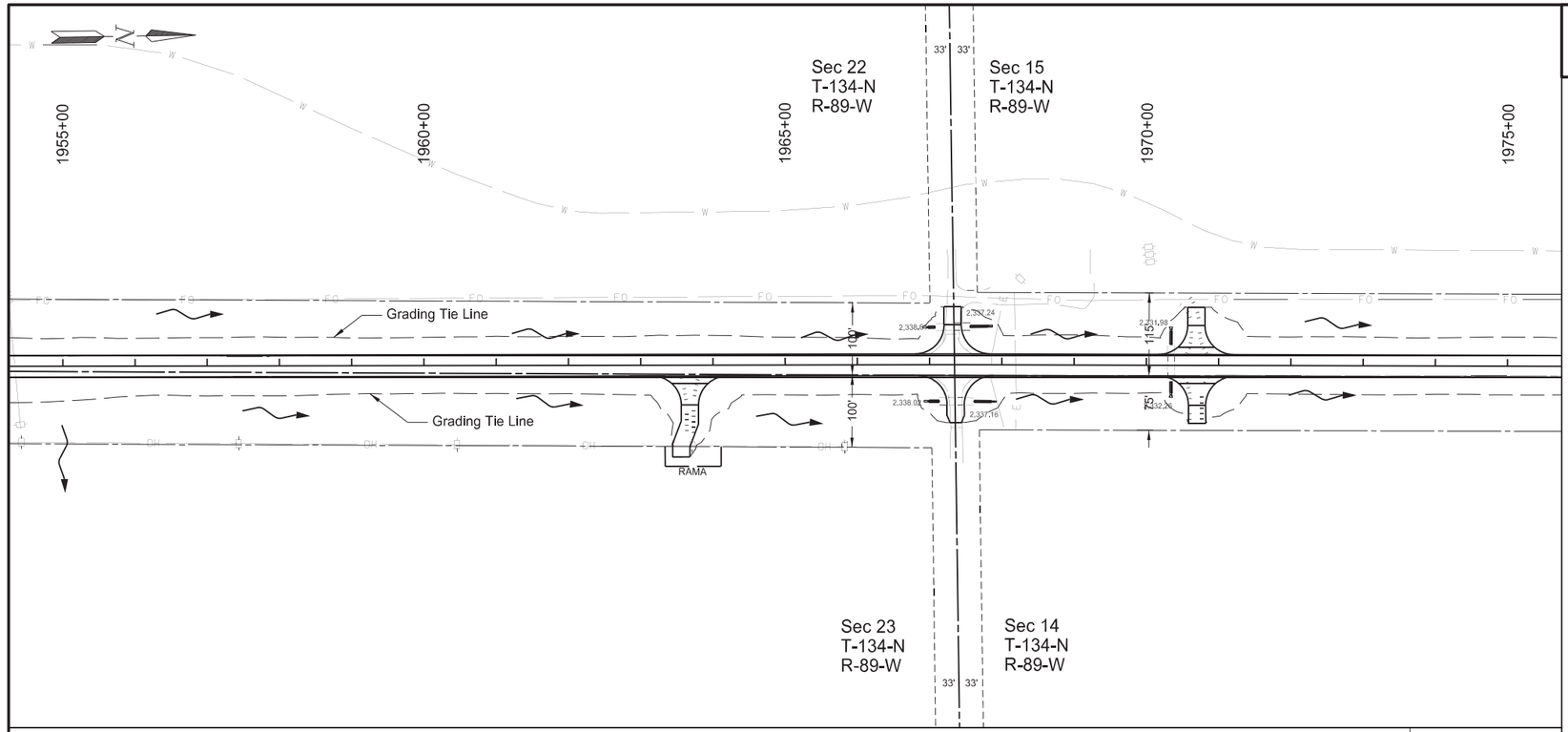
ND 49 - Jct 21 Elgin N to 58th St SW

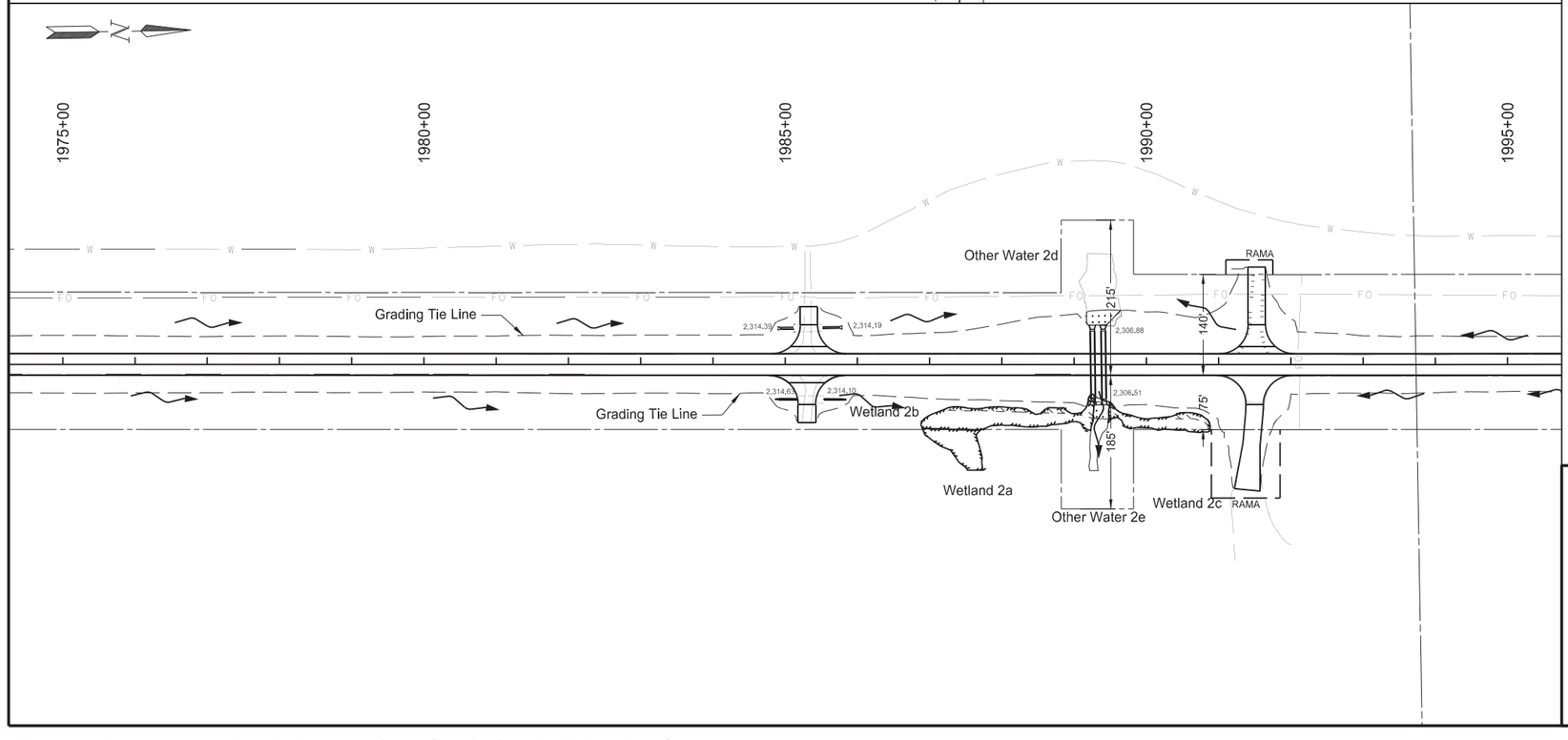
Sta 1918+48 to 1955+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:29:03 -06'00'
NORTH DAKOTA

11/8/2024 8:54:18 AM Kasey.Ward K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\075WL\075WL_Grant.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	75	4





Wetland Impacts			
Sta 1955+00 to 1995+00			
Wetland #	Temporary Wetland Impact	Permanent Wetland Impact	
		Fill / Drain	Cut
#2a	-	-	-
#2b	0.024 Acre	0.003 Acre	-
#2c	0.016 Acre	0.001 Acre	-

Other Water Impacts			
Sta 1955+00 to 1995+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 2d	0.017 Acre	0.004 Acre	-
#OW 2e	0.009 Acre	0.004 Acre	-

Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

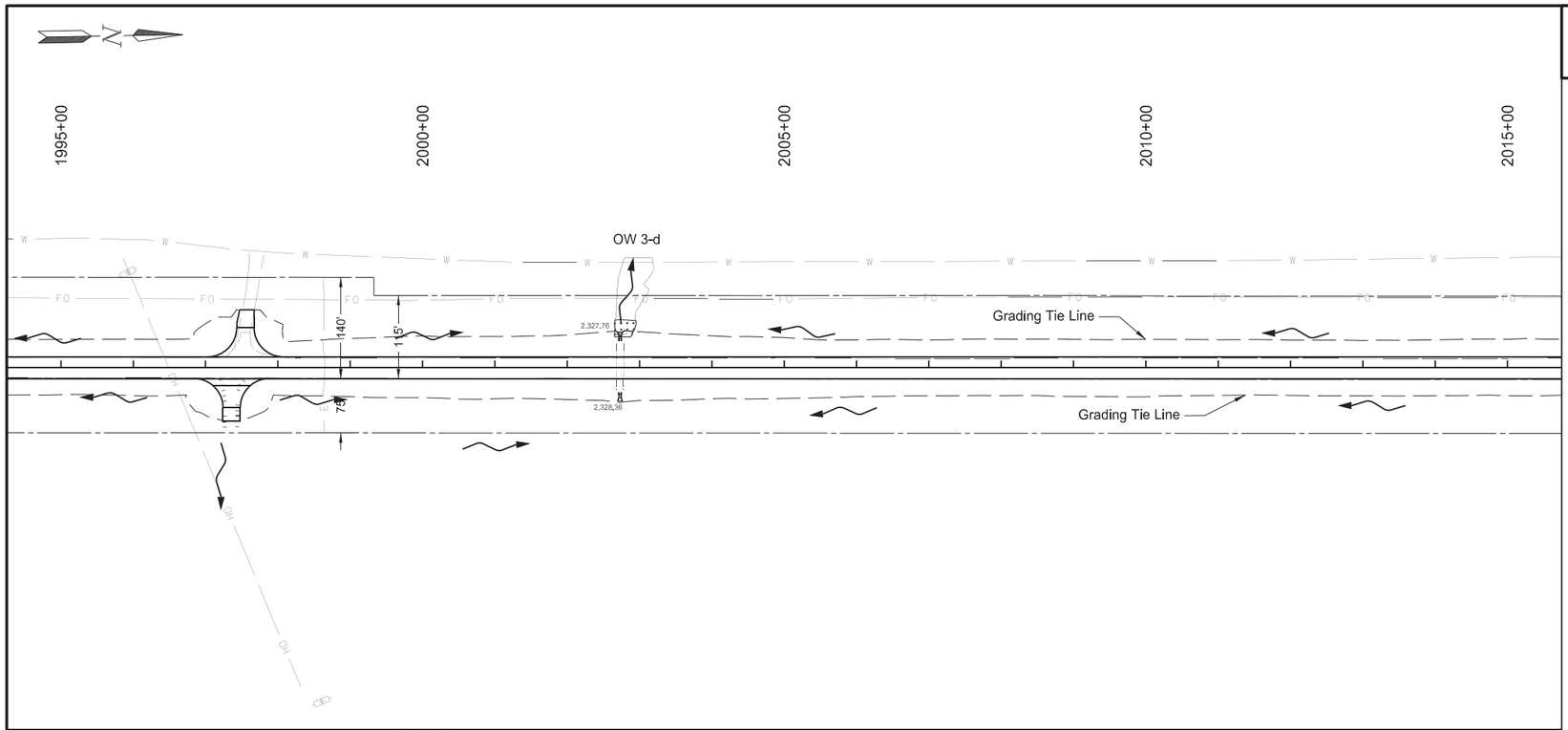
Wetlands, Mitigation, and Environmental

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1955+00 to 1995+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:29:16 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	75	5



Other Water Drainage Impacts			
Sta 1995+00 to 2035+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 3-d	0.010 Acre	0.004 Acre	-

Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

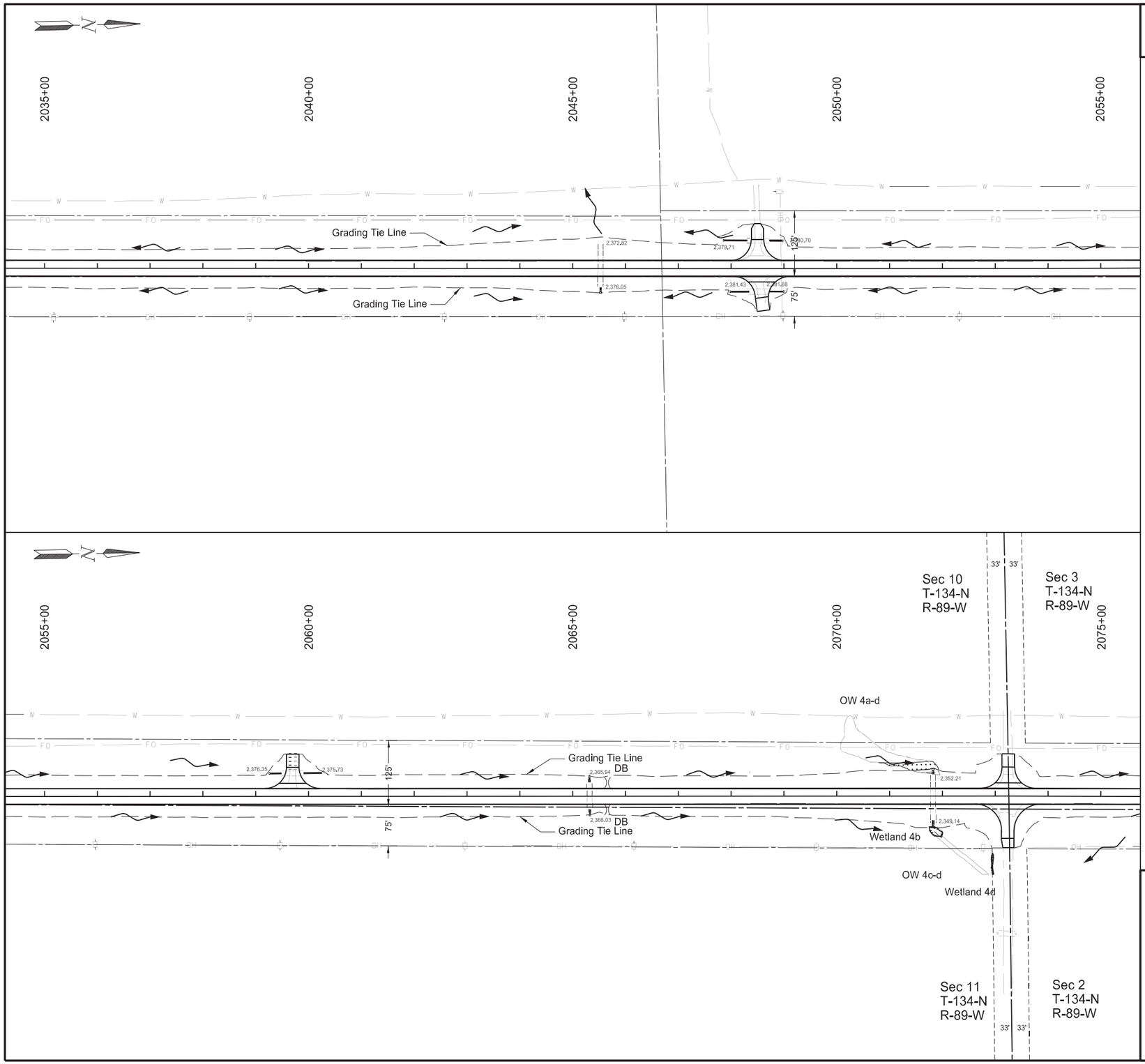
Wetlands, Mitigation, and Environmental

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1995+00 to 2035+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:29:37 -06'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	75	6



Wetland Impacts			
Sta 2035+00 to 2075+00			
Wetland #	Temporary Wetland Impact	Permanent Wetland Impact	
		Fill / Drain	Cut
#4b	0.006 Acre	0.001 Acre	-
#4d	-	-	-

Other Water Drainage Impacts			
Sta 2035+00 to 2075+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 4a-d	0.024 Acre	0.008 Acre	-
#OW 4c-d	0.003 Acre	-	-

Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

Wetlands, Mitigation, and Environmental

ND 49 - Jct 21 Elgin N to 58th St SW

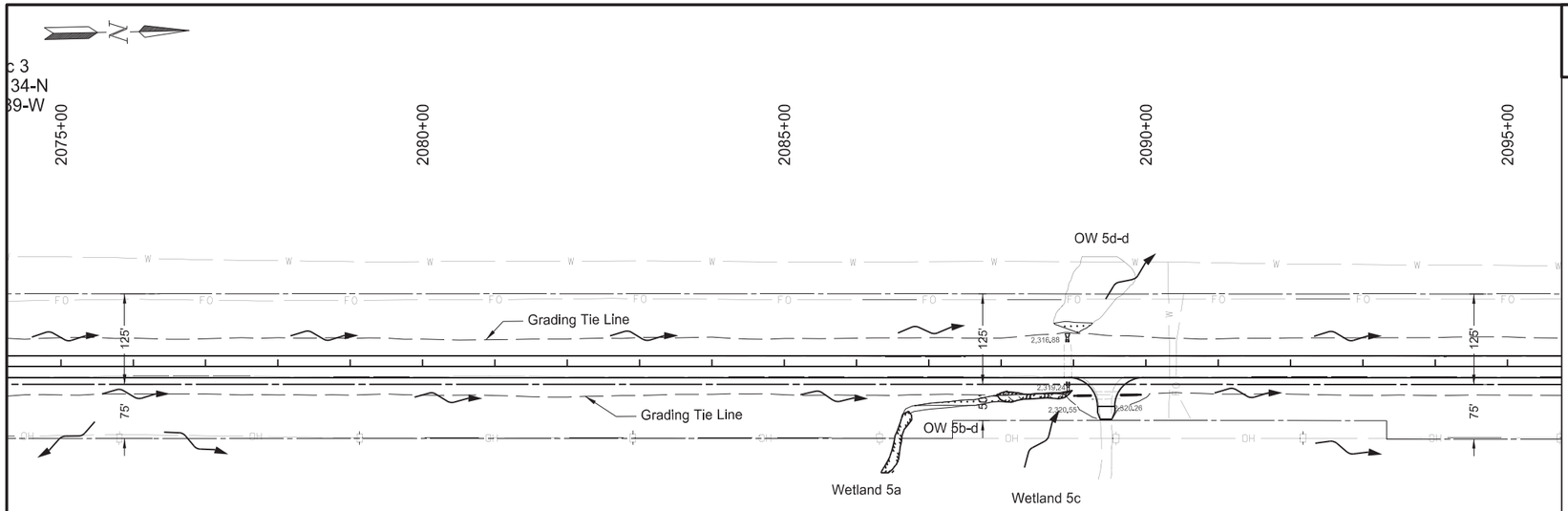
Sta 2035+00 to 2075+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:29:52 -06'00'
NORTH DAKOTA

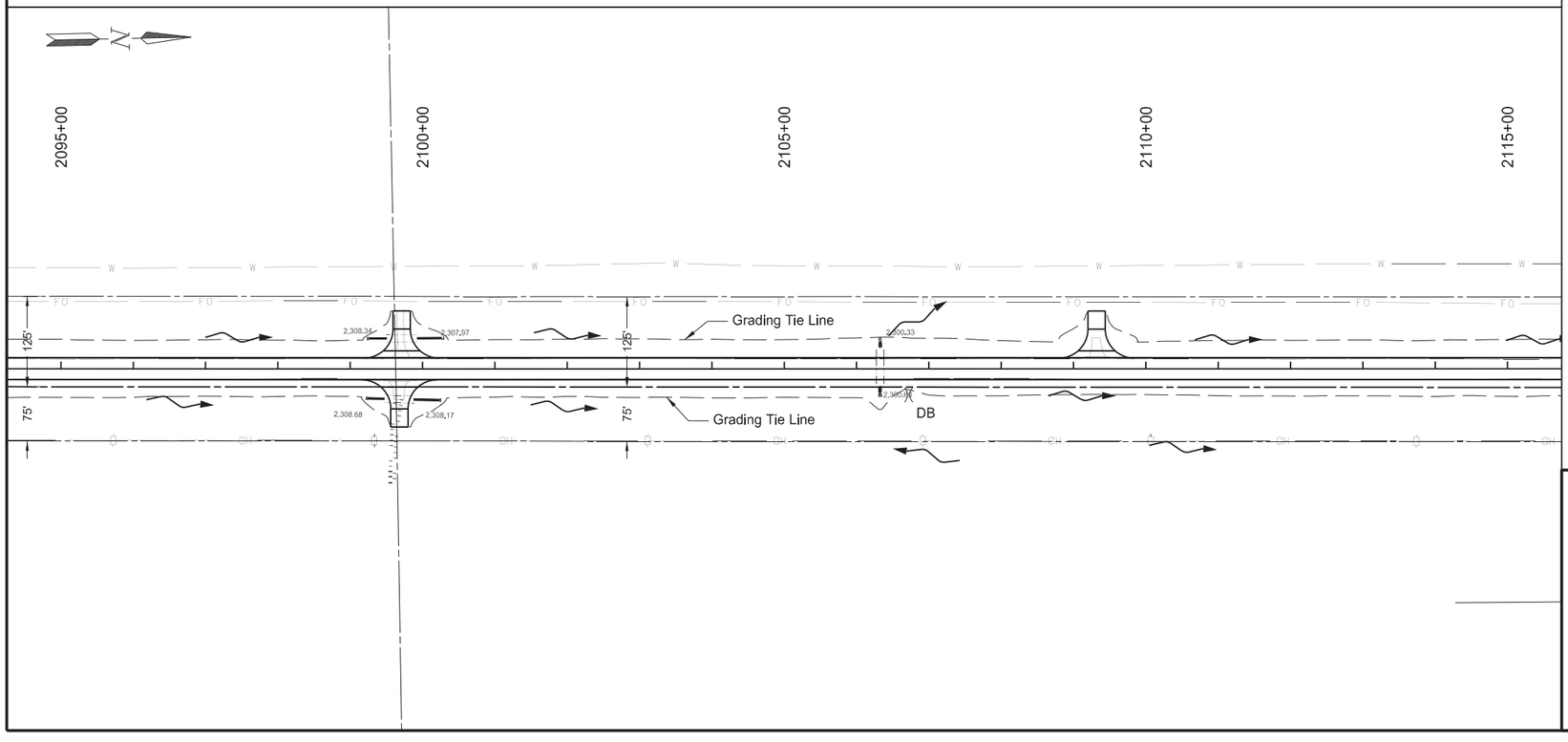
11/8/2024 8:54:33 AM Kasey.Ward K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\075WL\075WL_Grant.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	75	7

c 3
34-N
89-W



ec 2
-134-N
-89-W



Wetland Impacts			
Sta 2075+00 to 2115+00			
Wetland #	Temporary Wetland Impact	Permanent Wetland Impact	
		Fill / Drain	Cut
#5a	-	-	-
#5c	0.015 Acre	0.004 Acre	-

Other Water Drainage Impacts			
Sta 2075+00 to 2115+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 5b-d	0.015 Acre	-	-
#OW 5d-d	0.010 Acre	-	-

Legend
- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

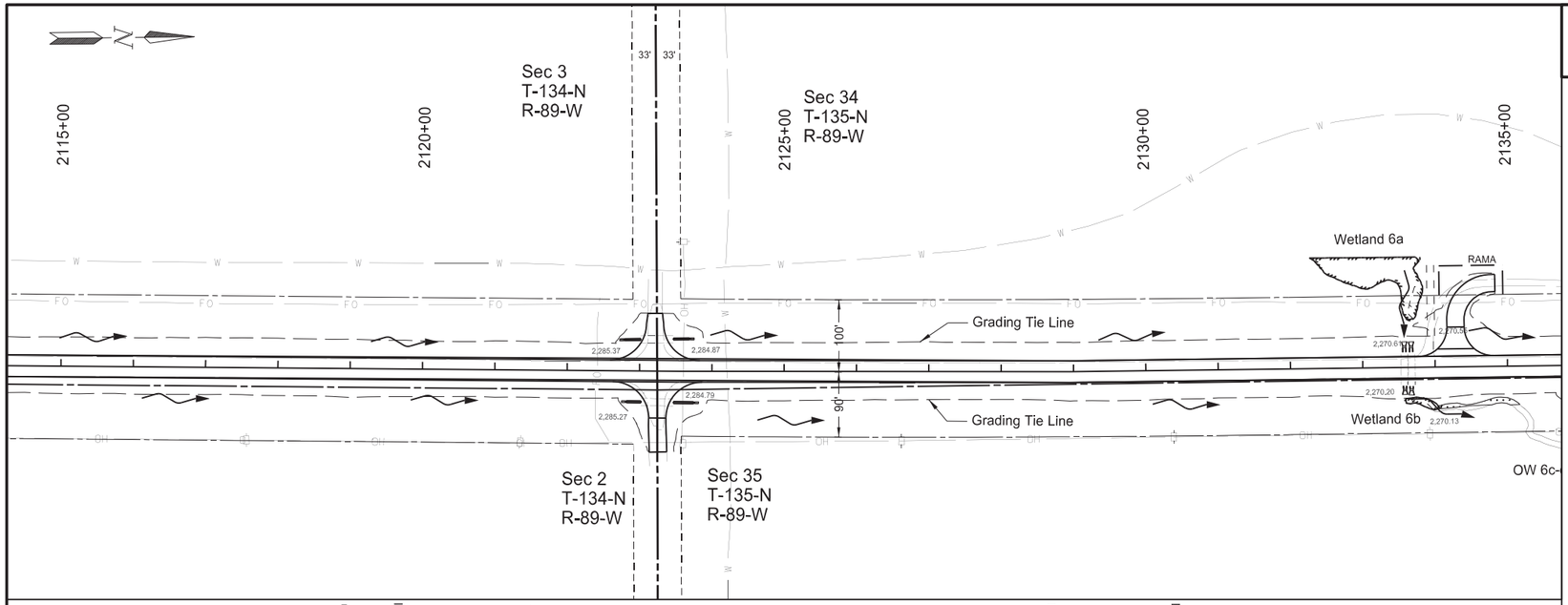
Wetlands, Mitigation, and Environmental

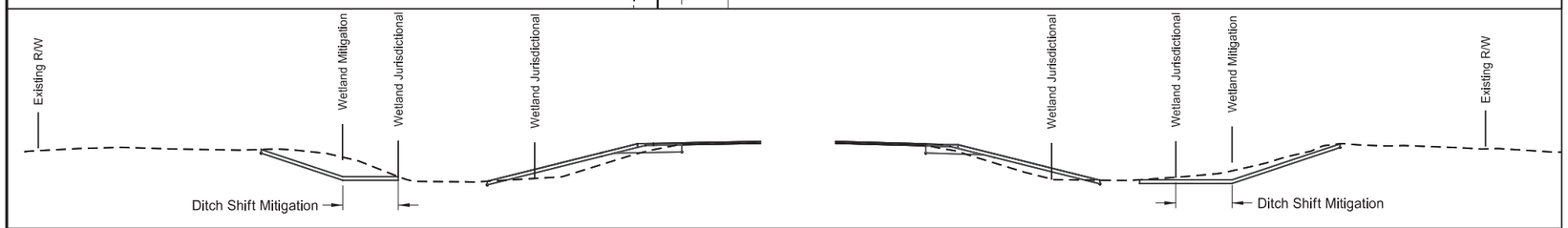
ND 49 - Jct 21 Elgin N to 58th St SW

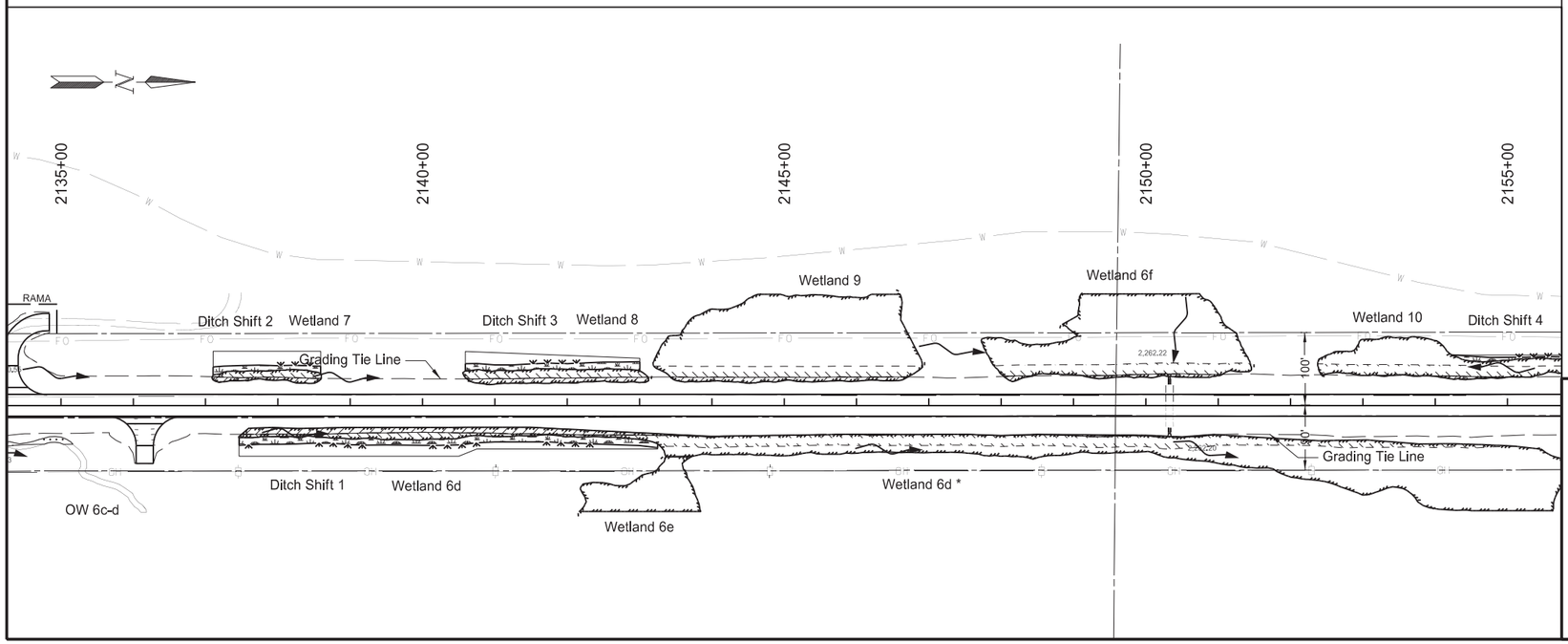
Sta 2075+00 to 2115+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:30:08 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	75	8







Wetland Impacts			
Sta 2115+00 to 2155+00			
Wetland #	Temporary Wetland Impact	Permanent Wetland Impact	
		Fill / Drain	Cut
#6a	0.012 Acre	-	-
#6b	0.009 Acre	0.001 Acre	-
#6d *	0.337 Acre	0.012 Acre	-
#6d	0.070 Acre	0.096 Acre	-
#6e	-	-	-
#6f	0.114 Acre	0.019 Acre	-
#7	0.030 Acre	0.017 Acre	-
#8	0.066 Acre	0.037 Acre	-
#9	0.121 Acre	0.042 Acre	-
#10	0.119 Acre	0.007 Acre	-

Other Water Drainage Impacts			
Sta 2115+00 to 2155+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 6c-d	0.014 Acre	-	-

Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

Wetlands, Mitigation, and Environmental

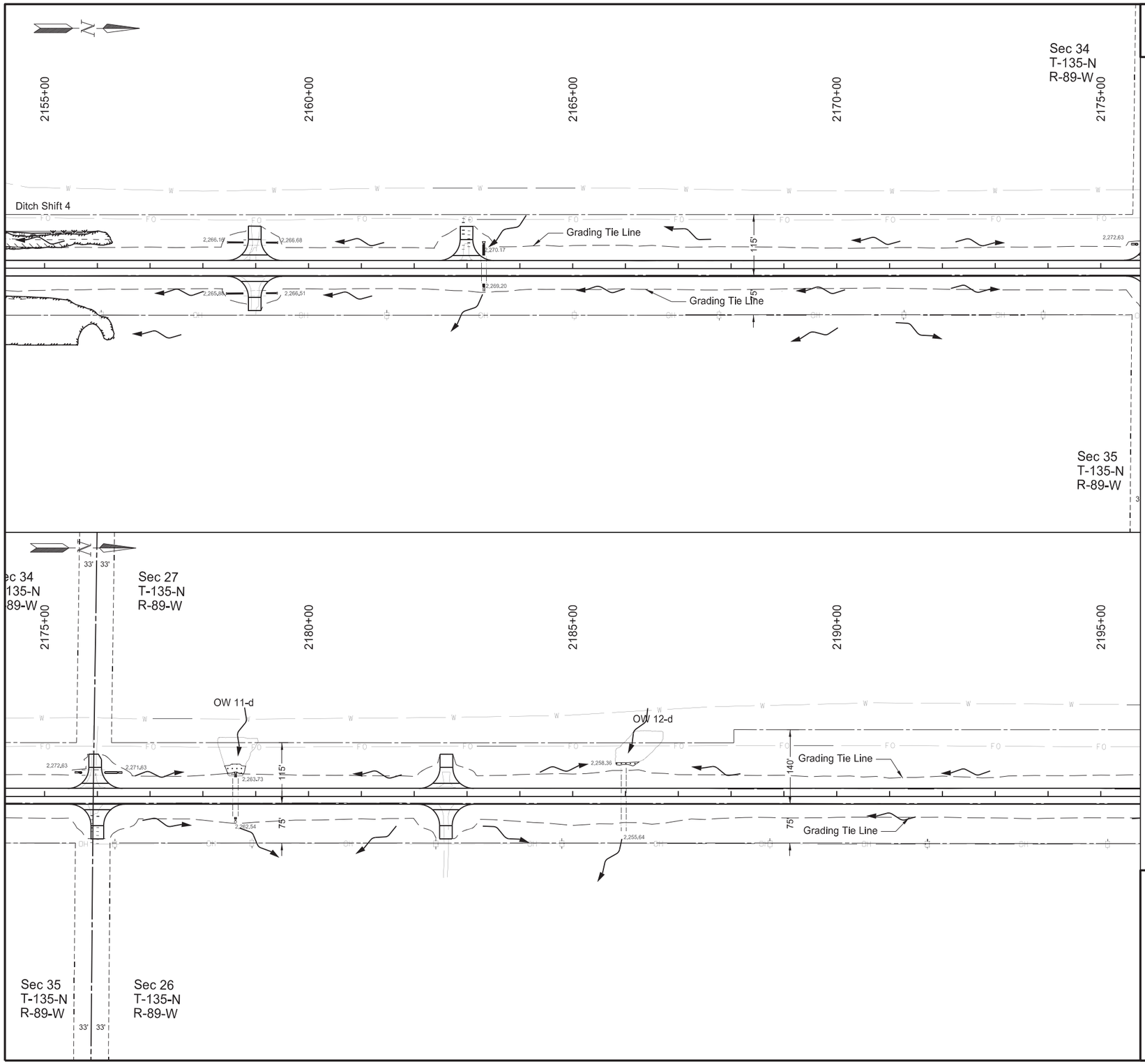
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2115+00 to 2155+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:30:31 -06'00'
NORTH DAKOTA

11/8/2024 8:54:58 AM Kasey.Ward K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\075WL\075WL_Grant.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	75	9



Other Water Drainage Impacts			
Sta 2155+00 to 2195+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 11-d	0.013 Acre	0.004 Acre	-
#OW 12-d	0.004 Acre	-	-

Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

Wetlands, Mitigation, and Environmental

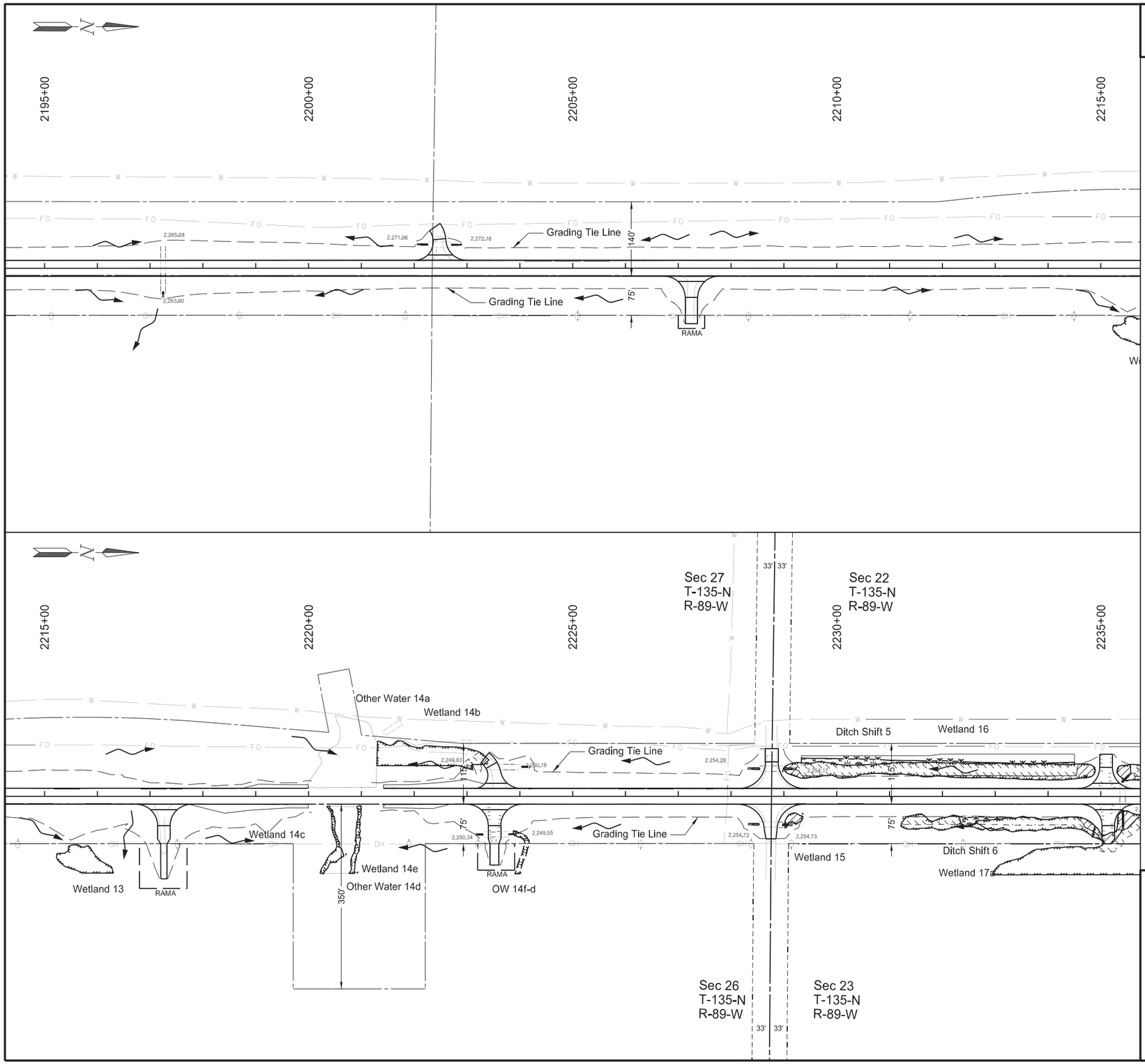
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2155+00 to 2195+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:30:48 -06'00'
NORTH DAKOTA

11/8/2024 8:55:03 AM Kasey.Ward K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\075WL\075WL_Grant.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	75	10



Wetland Impacts			
Sta 2195+00 to 2235+00			
Wetland #	Temporary Wetland Impact	Permanent Wetland Impact	
		Fill / Drain	Cut
#13	-	-	-
#14b	0.061 Acre	0.003 Acre	-
#14c	-	-	-
#14e	-	-	-
#15	-	0.012 Acre	-
#16	0.276 Acre	0.067 Acre	-
#17a	0.094 Acre	0.012 Acre	-

Other Water Impacts			
Sta 2195+00 to 2235+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 14a	-	-	-
#OW 14d	-	-	-

Other Water Drainage Impacts			
Sta 2195+00 to 2235+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 14f-d	0.003 Acre	0.001 Acre	-

Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

Wetlands, Mitigation, and Environmental

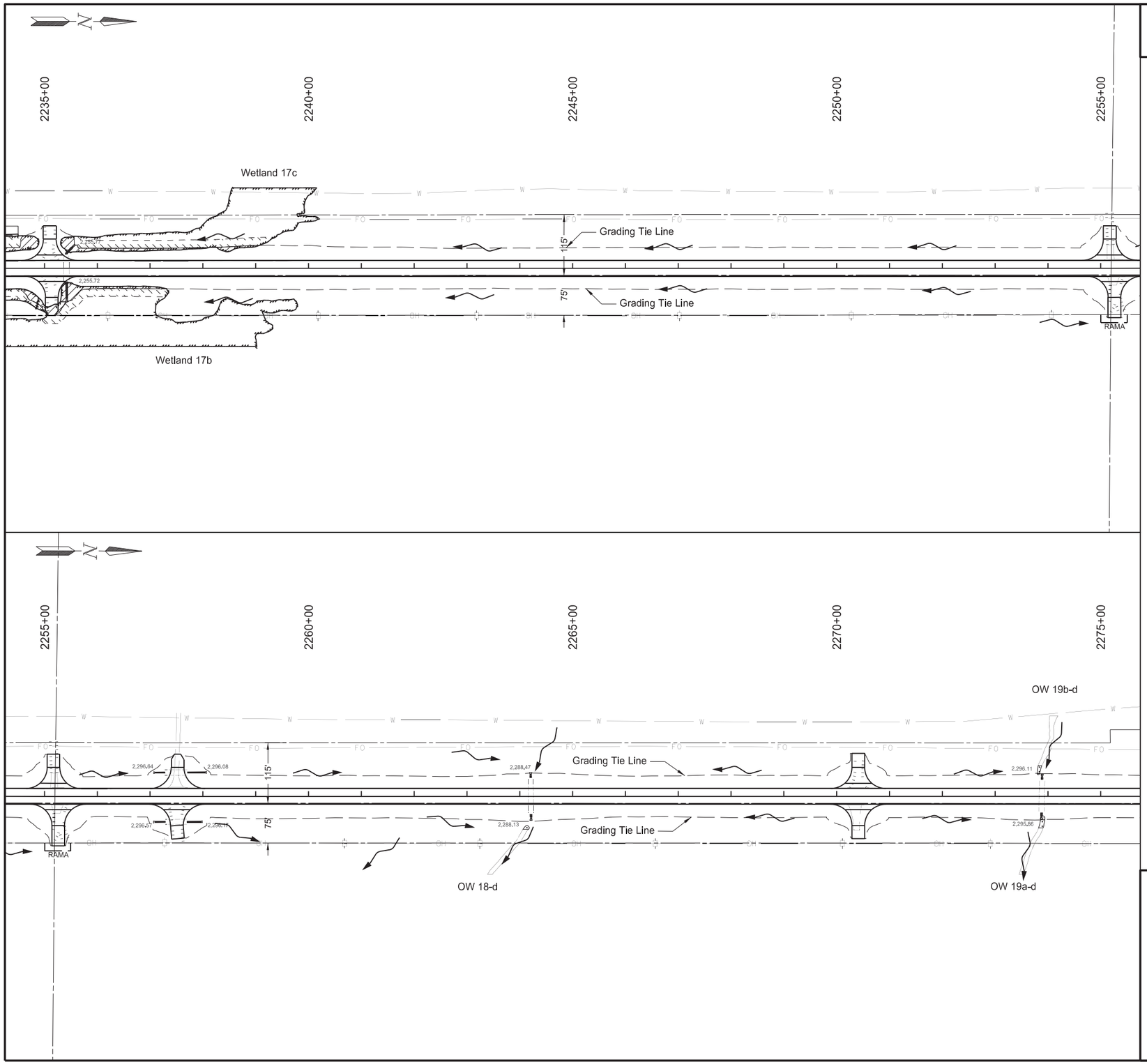
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2195+00 to 2235+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:31:17 -06'00'
NORTH DAKOTA

11/8/2024 8:55:09 AM Kasey.Ward K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\075WL\075WL_Grant.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	75	11



Wetland Impacts			
Sta 2235+00 to 2275+00			
Wetland #	Temporary Wetland Impact	Permanent Wetland Impact	
		Fill / Drain	Cut
#17b	0.090 Acre	0.056 Acre	-
#17c	0.129 Acre	0.048 Acre	-

Other Water Drainage Impacts			
Sta 2235+00 to 2275+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 18-d	0.001 Acre	-	-
#OW 19a-d	0.003 Acre	0.001 Acre	-
#OW 19b-d	0.002 Acre	-	-

Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

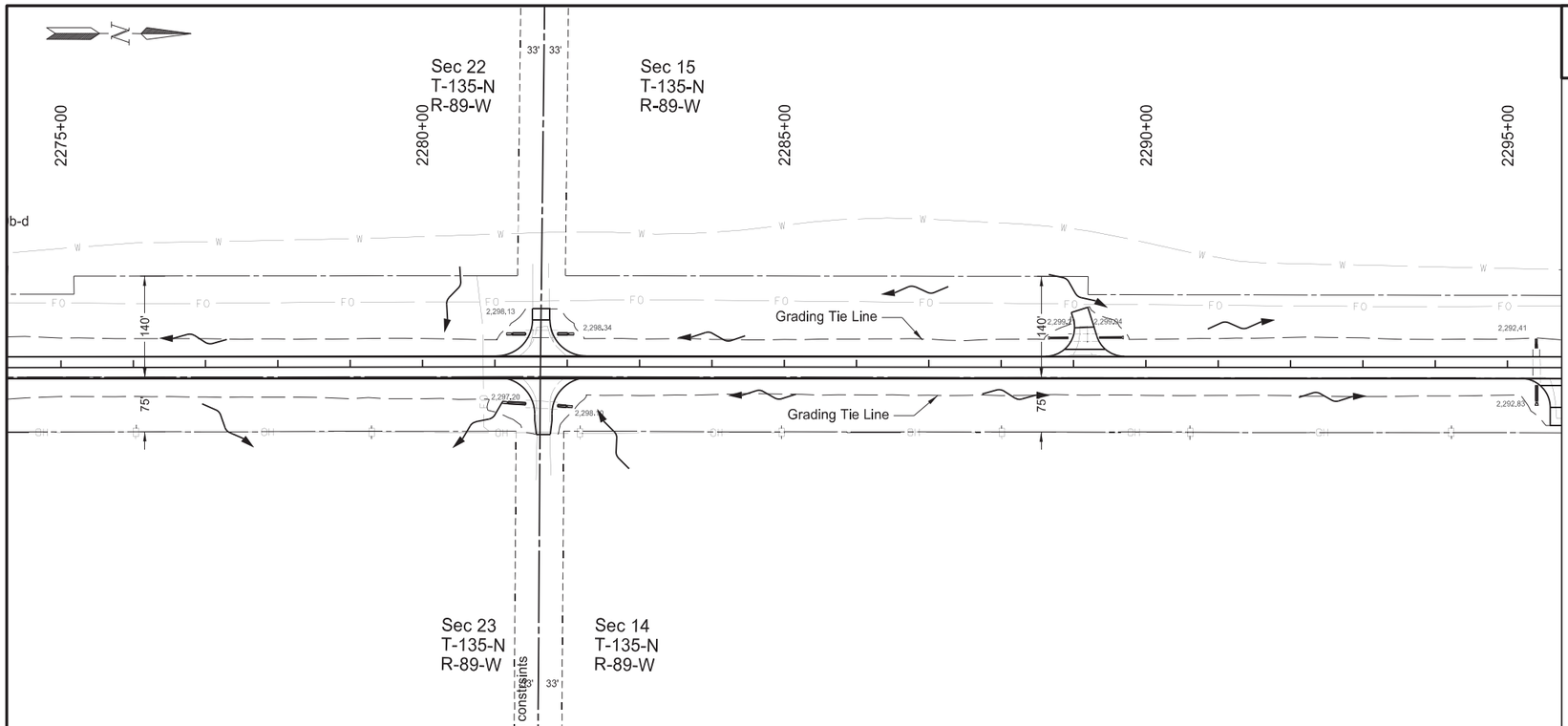
Wetlands, Mitigation, and Environmental

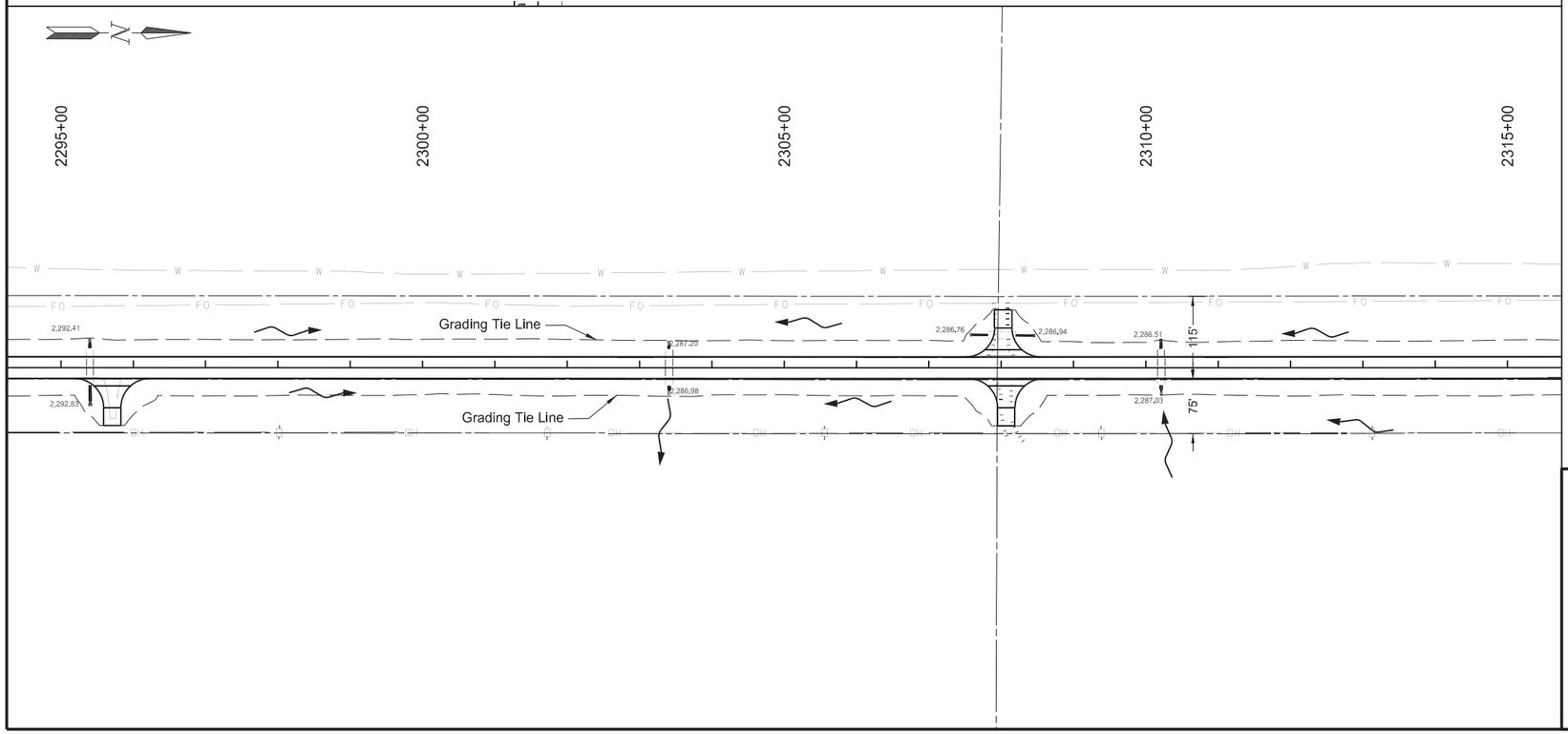
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2235+00 to 2275+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:31:37 -06'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	75	12





Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

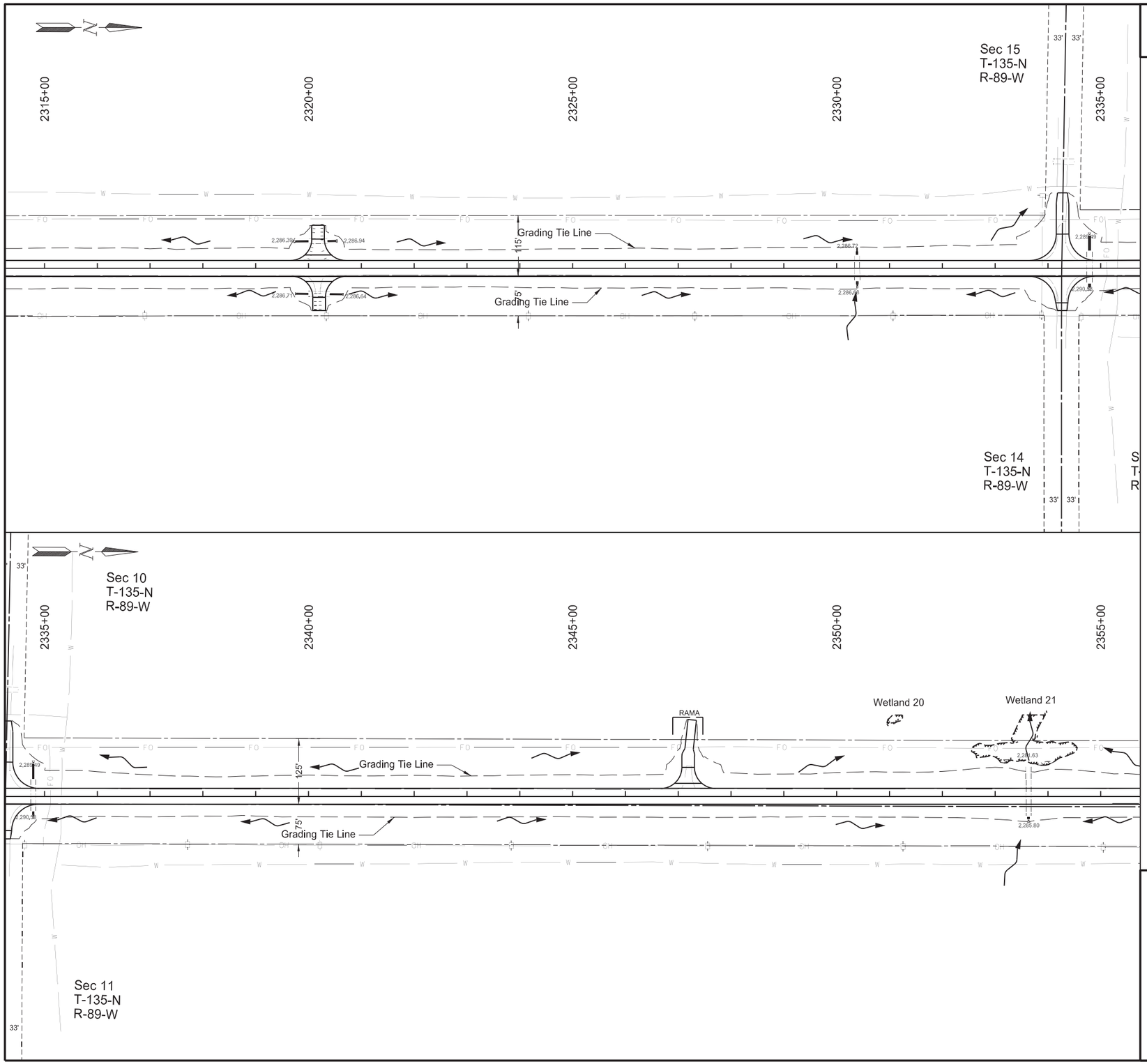
Wetlands, Mitigation, and Environmental

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2275+00 to 2315+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:31:59 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	75	13



Wetland Impacts			
Sta 2315+00 to 2355+00			
Wetland #	Temporary Wetland Impact	Permanent Wetland Impact	
		Fill / Drain	Cut
#20	-	-	-
#21	0.006 Acre	-	-

Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

Wetlands, Mitigation, and Environmental

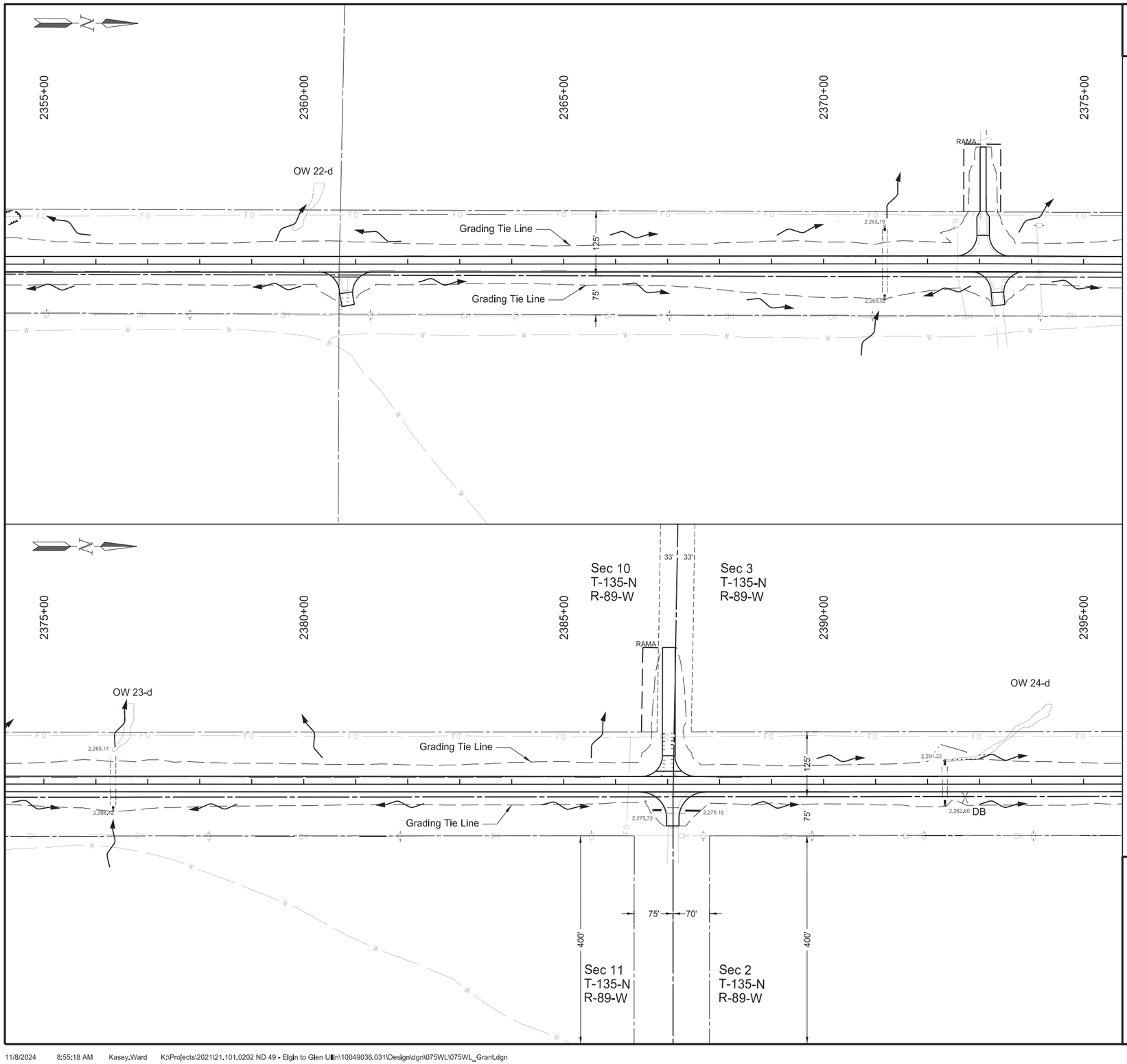
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2315+00 to 2355+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:32:20 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	75	14

Other Water Drainage Impacts			
Sta 2355+00 to 2395+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 22-d	-	-	-
#OW 23-d	-	-	-
#OW 24-d	0.107 Acre	0.002 Acre	-



Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

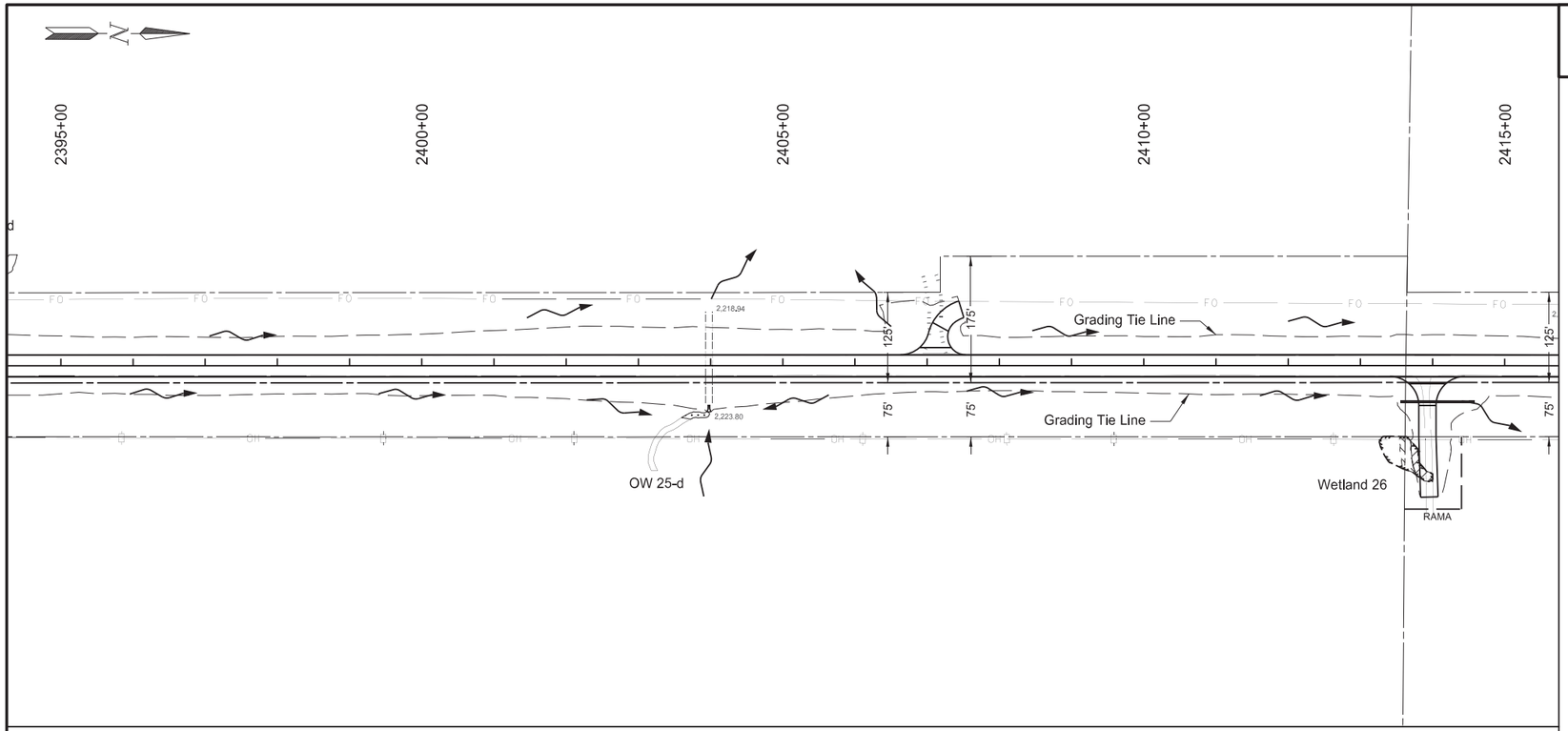
Wetlands, Mitigation, and Environmental

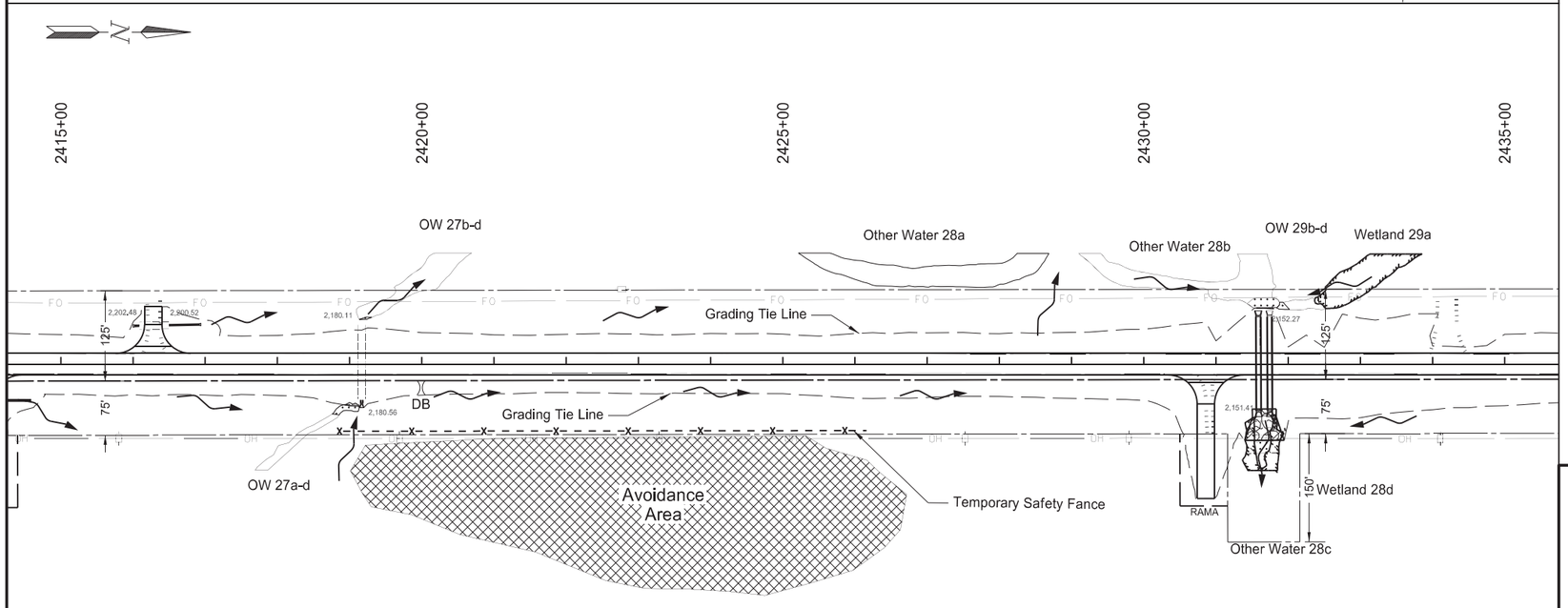
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2355+00 to 2395+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:32:48 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	75	15





Wetland Impacts			
Sta 2395+00 to 2435+00			
Wetland #	Temporary Wetland Impact	Permanent Wetland Impact	
		Fill / Drain	Cut
#26	0.016 Acre	0.015 Acre	-
#28d	0.013 Acre	0.010 Acre	-
#29a	0.002 Acre	-	-

Other Water Impacts			
Sta 2395+00 to 2435+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 28a	-	-	-
#OW 28b	0.012 Acre	-	-
#OW 28c	0.018 Acre	0.008 Acre	-

Other Water Drainage Impacts			
Sta 2395+00 to 2435+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 25-d	0.006 Acre	-	-
#OW 27a-d	0.006 Acre	0.001 Acre	-
#OW 27b-d	0.001 Acre	-	-
#OW 29b-d	0.002 Acre	-	-

Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

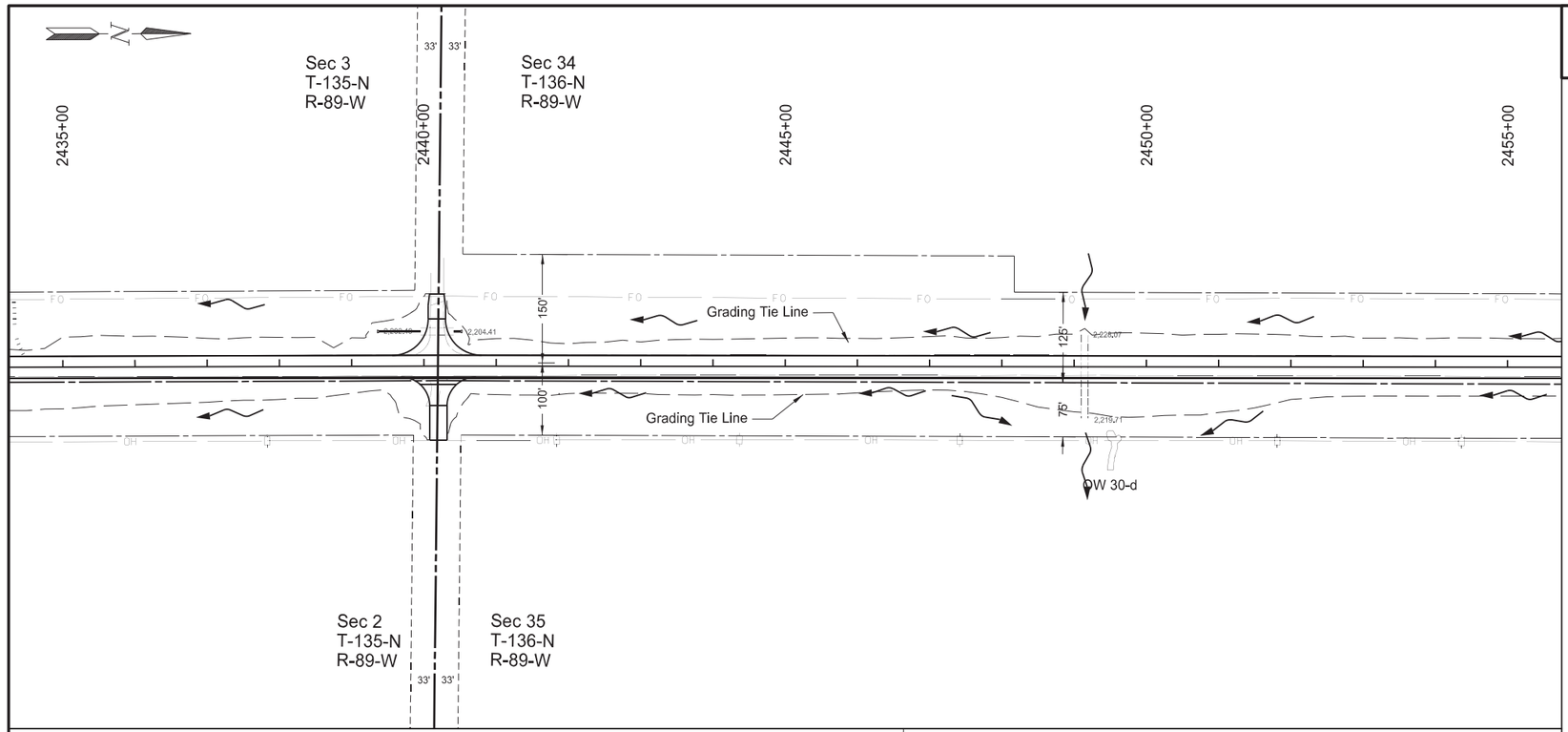
Wetlands, Mitigation, and Environmental

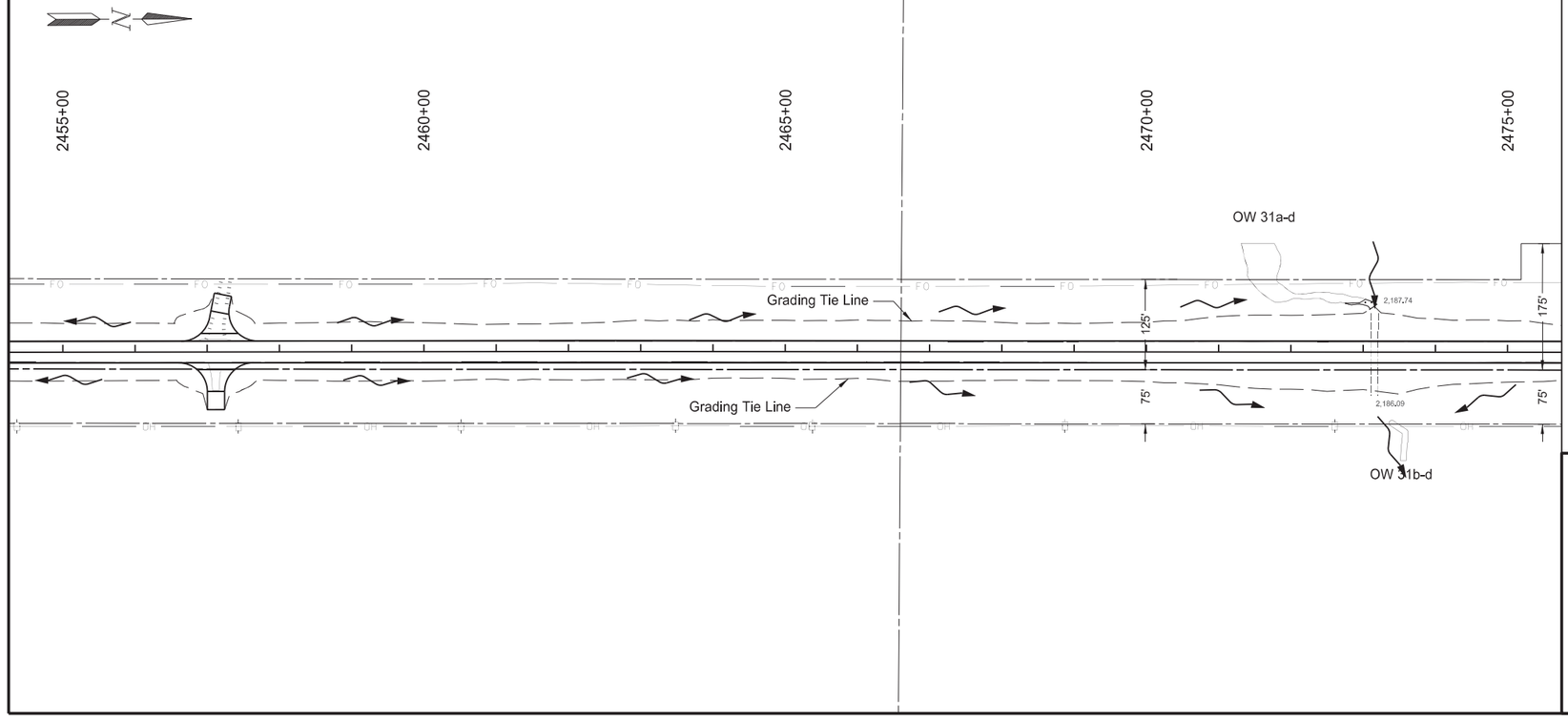
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2395+00 to 2435+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:33:03 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	75	16





Other Water Drainage Impacts			
Sta 2435+00 to 2475+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 30-d	-	-	-
#OW 31a-d	0.004 Acre	-	-
#OW 31b-d	-	-	-

Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

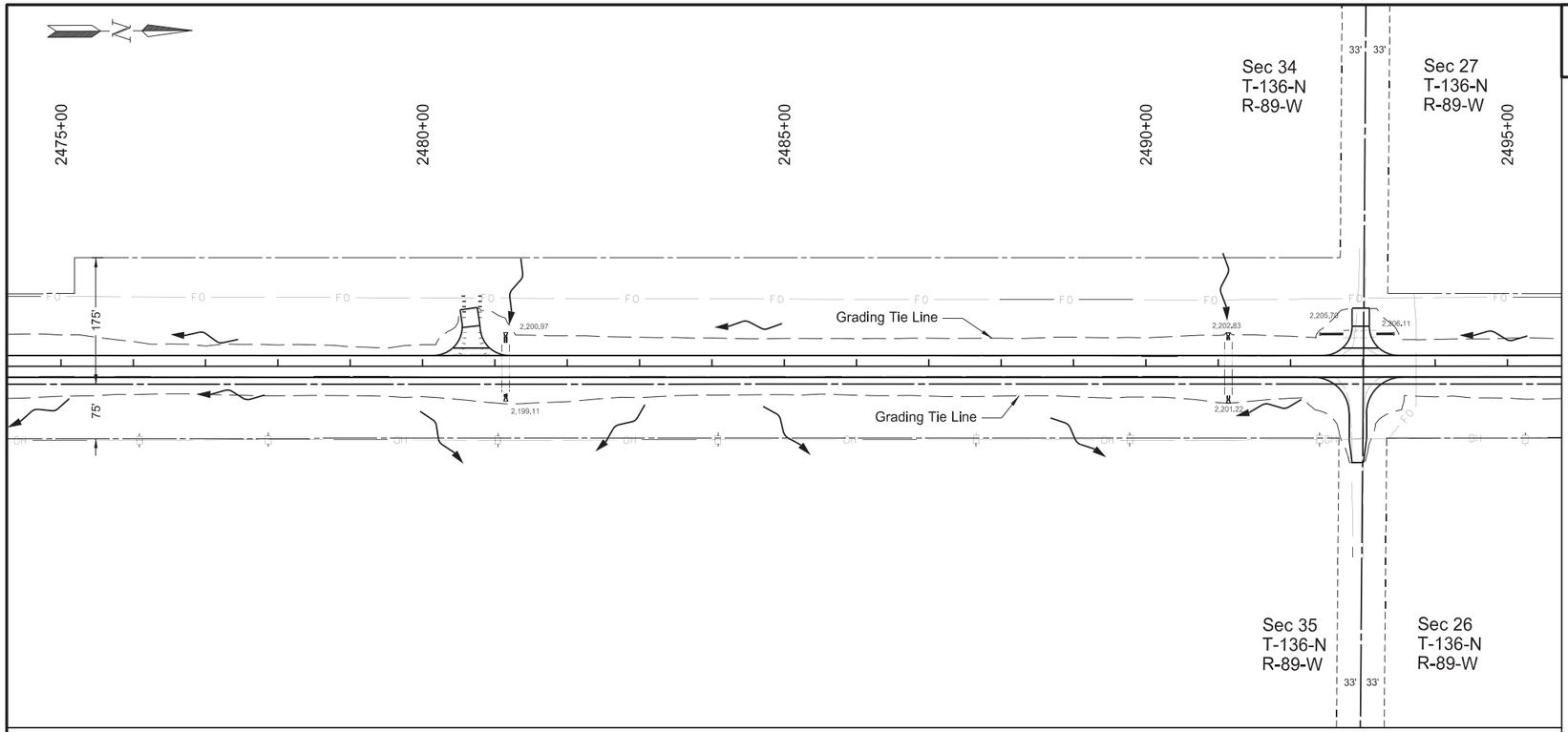
Wetlands, Mitigation, and Environmental

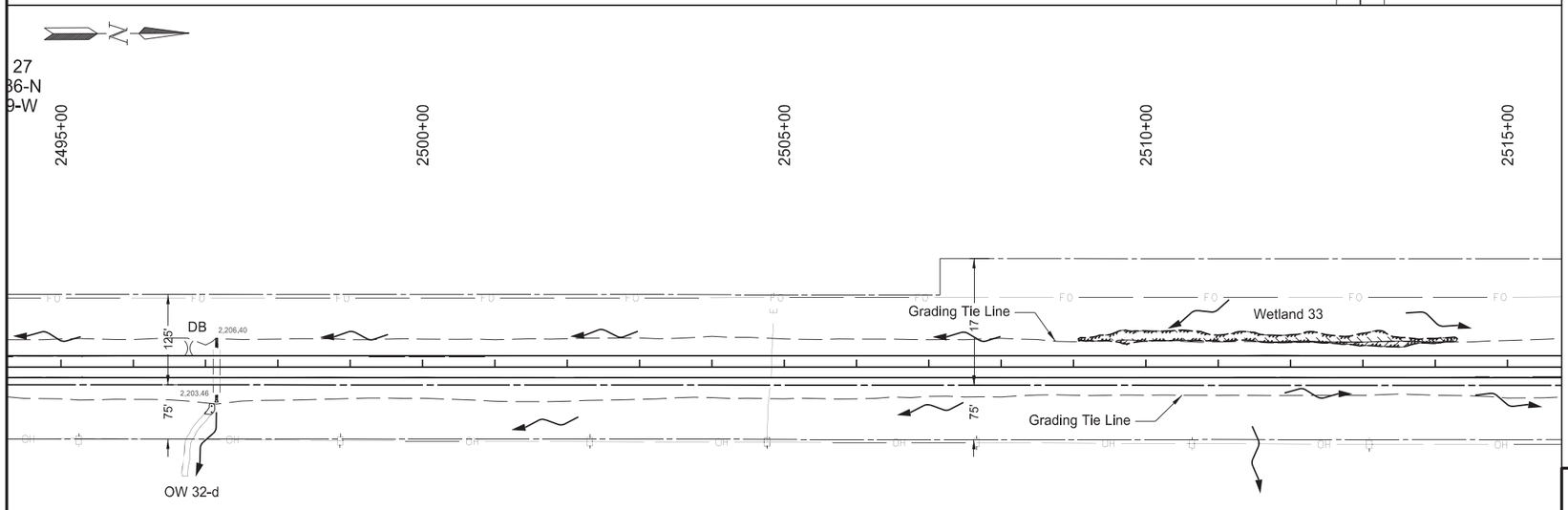
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2435+00 to 2475+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:33:23 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	75	17





Wetland Impacts			
Sta 2475+00 to 2515+00			
Wetland #	Temporary Wetland Impact	Permanent Wetland Impact	
		Fill / Drain	Cut
#33	0.118 Acre	0.051 Acre	-

Other Water Drainage Impacts			
Sta 2475+00 to 2515+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 32-d	0.003 Acre	-	-

Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

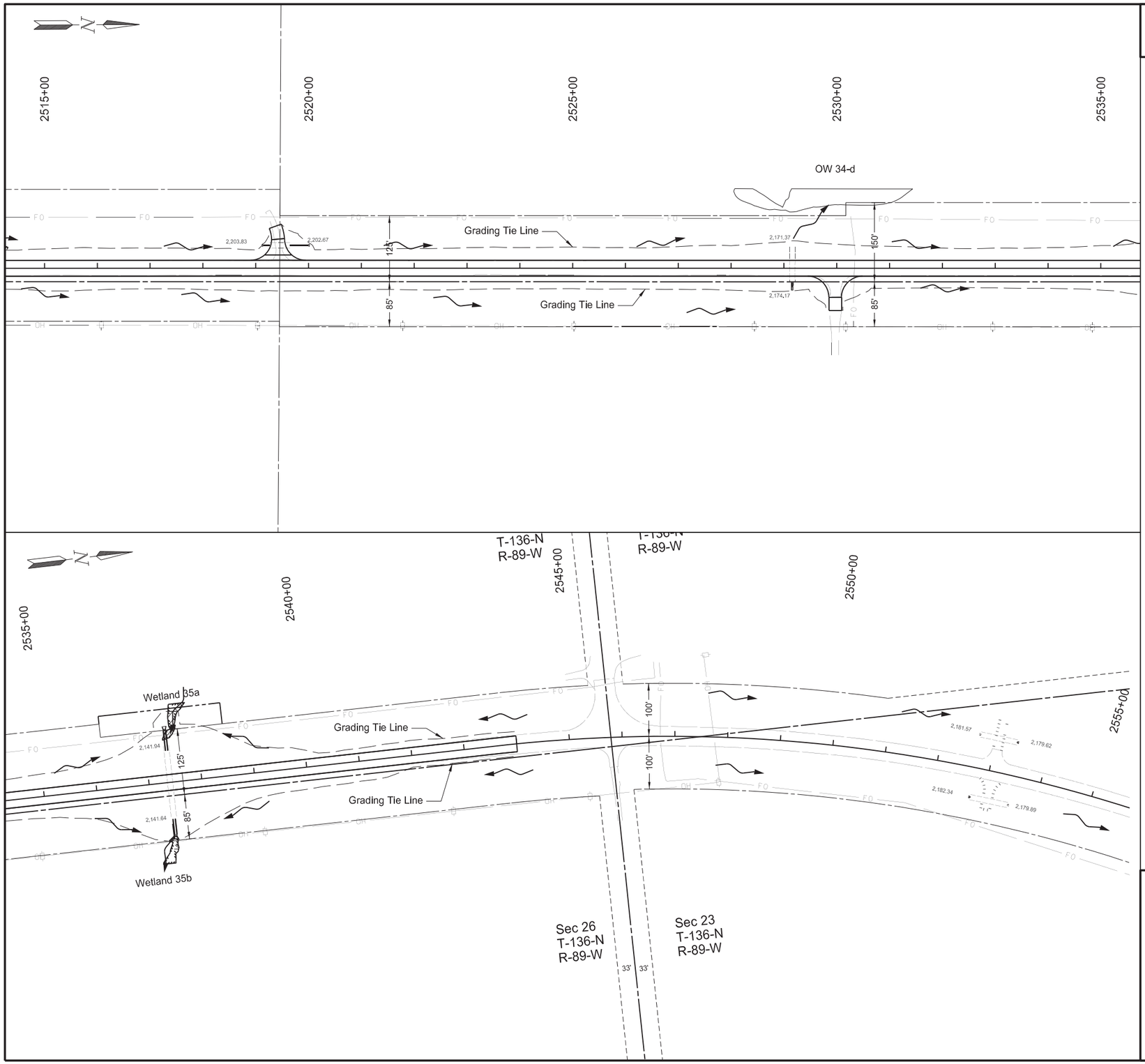
Wetlands, Mitigation, and Environmental

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2475+00 to 2515+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:33:40 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	75	18



Wetland Impacts			
Sta 2515+00 to 2555+00			
Wetland #	Temporary Wetland Impact	Permanent Wetland Impact	
		Fill / Drain	Cut
#35a	0.008 Acre	0.016 Acre	-
#35b	0.005 Acre	0.002 Acre	-

Other Water Drainage Impacts			
Sta 2515+00 to 2555+00			
Other Waters #	Temporary Other Waters Impact	Permanent Other Waters Impact	
		Fill / Drain	Cut
#OW 34-d	-	-	-

Legend

- Temporary Wetland Impact
- Permanent Fill / Drain Wetland Impact
- Permanent Cut Wetland Impact
- Permanent Fill/Drain Impact Other Waters
- Temporary Impact Other Waters
- Wetland Mitigation (Ditch Shift)
- Avoidance Area
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - D
- Exst Delineated Wetland - JD
- Exst Delineated Wetland - Non-JD
- Flow Direction

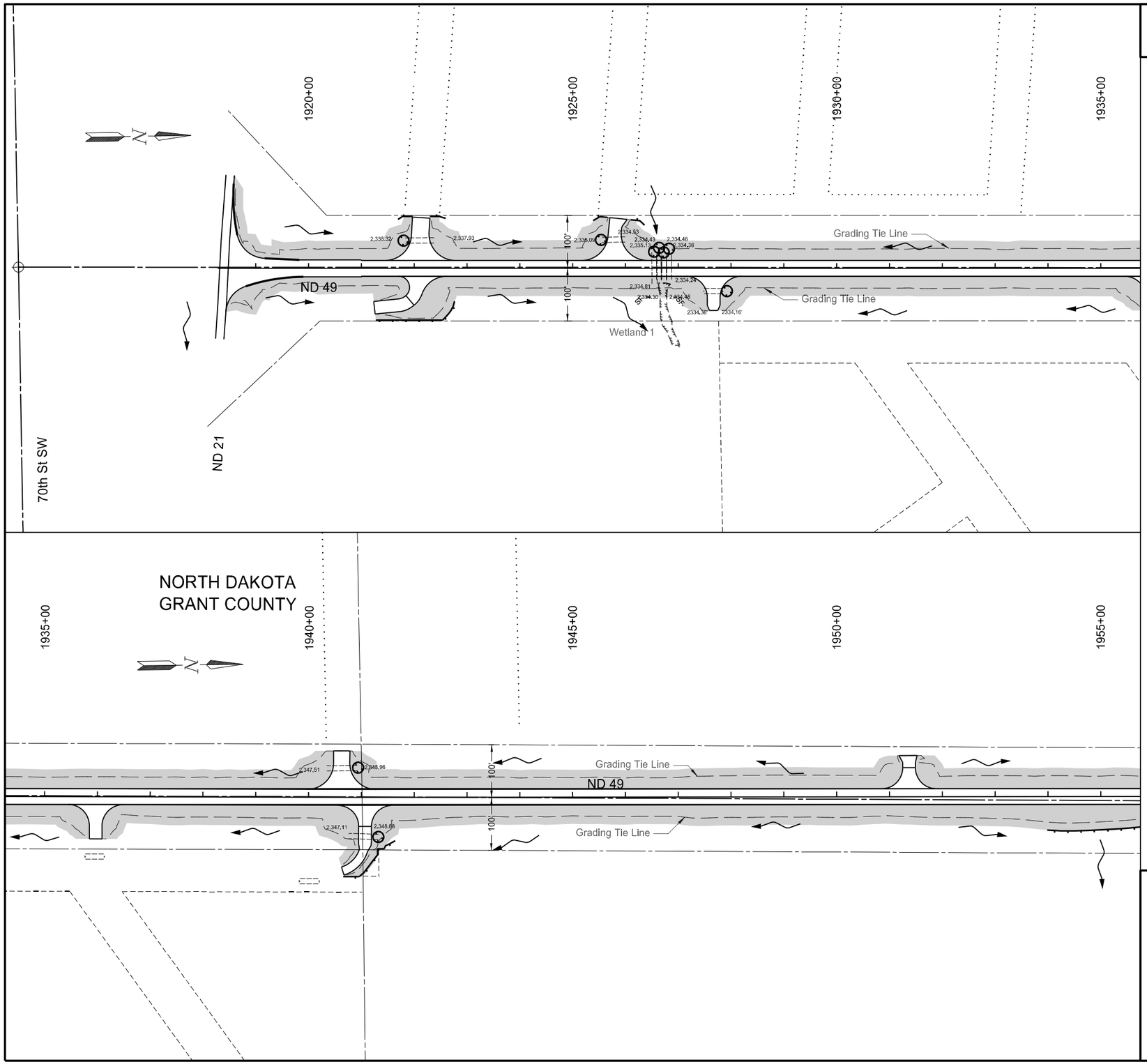
Wetlands, Mitigation, and Environmental

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2515+00 to 2544+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.11.18 14:34:02 -06'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	1



SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	67	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	67	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	288	LF
		Various Locations	526	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	288	LF
		Various Locations	526	LF

Legend

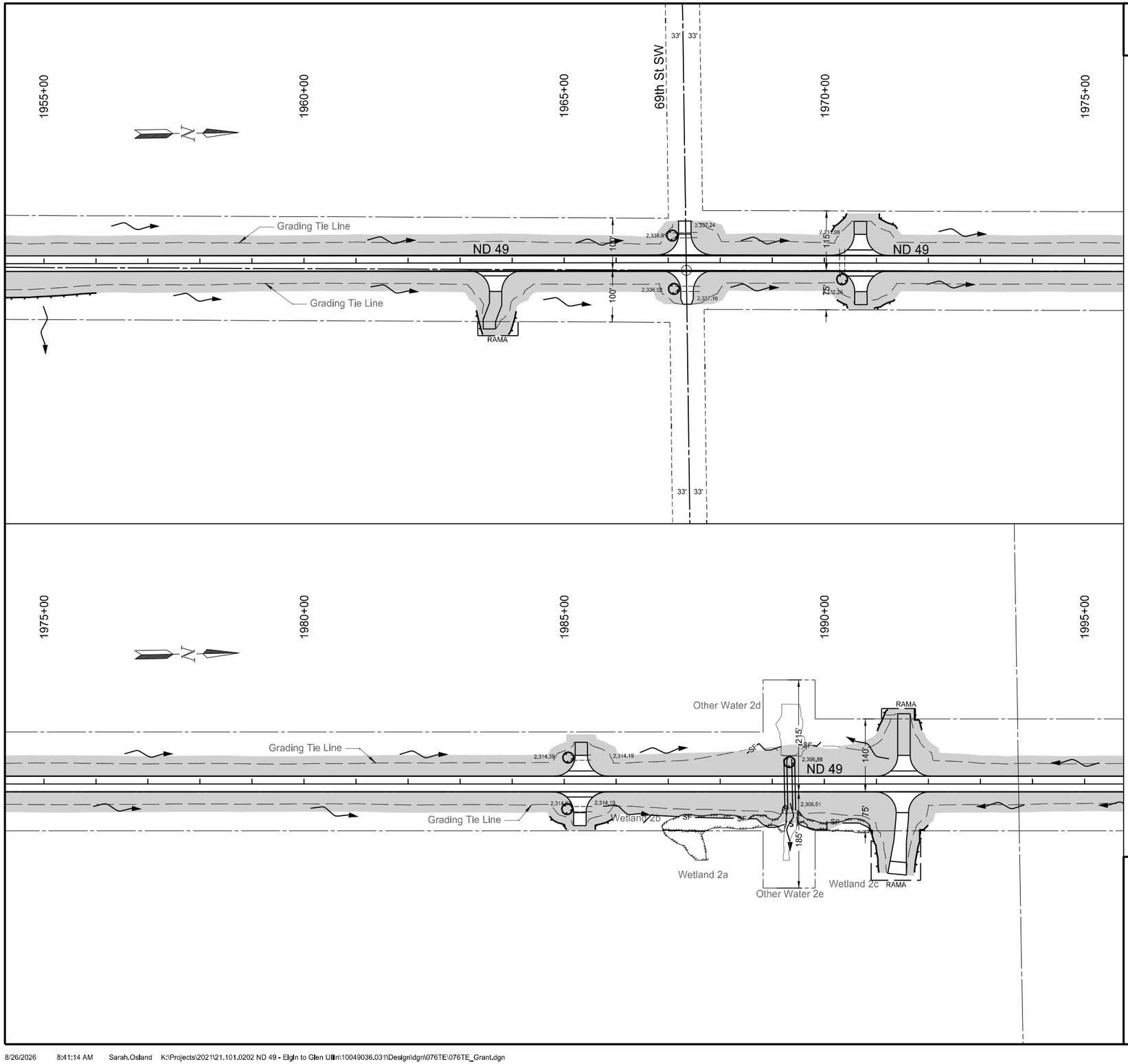
- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

Temporary Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1918+48 to 1955+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:37:27 -05'00
NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	2

SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	568	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	568	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	192	LF
		Various Locations	757	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	192	LF
		Various Locations	757	LF
262	0100	FLOTATION SILT CURTAIN		
		Various Locations	26	LF
262	0101	REMOVE FLOTATION SILT CURTAIN		
		Various Locations	26	LF

Legend

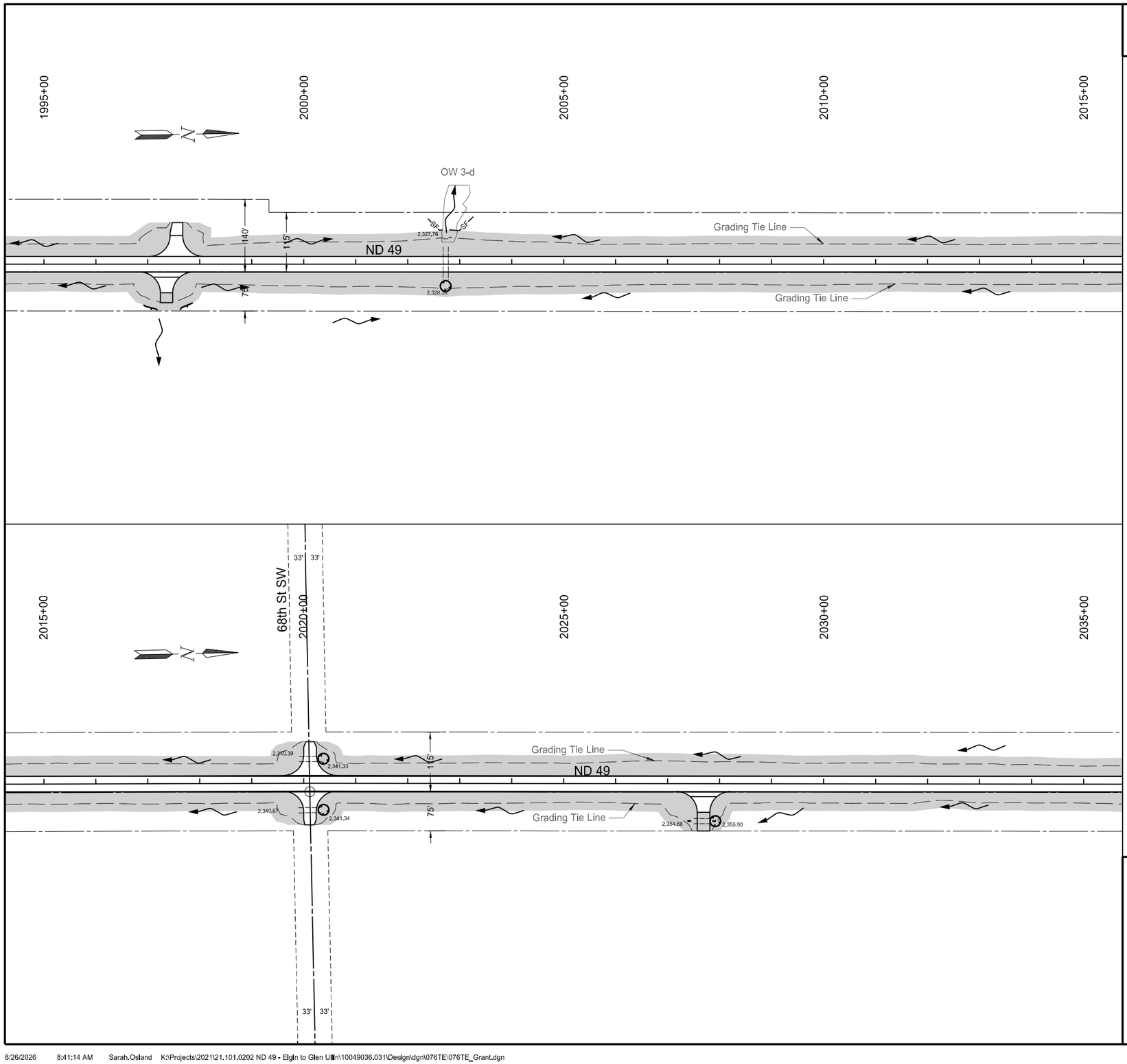
- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

Temporary Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1955+00 to 1995+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:37:40 -05'00'
NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	3

SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	94	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	94	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	128	LF
		Various Locations	60	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	128	LF
		Various Locations	60	LF

Legend

- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

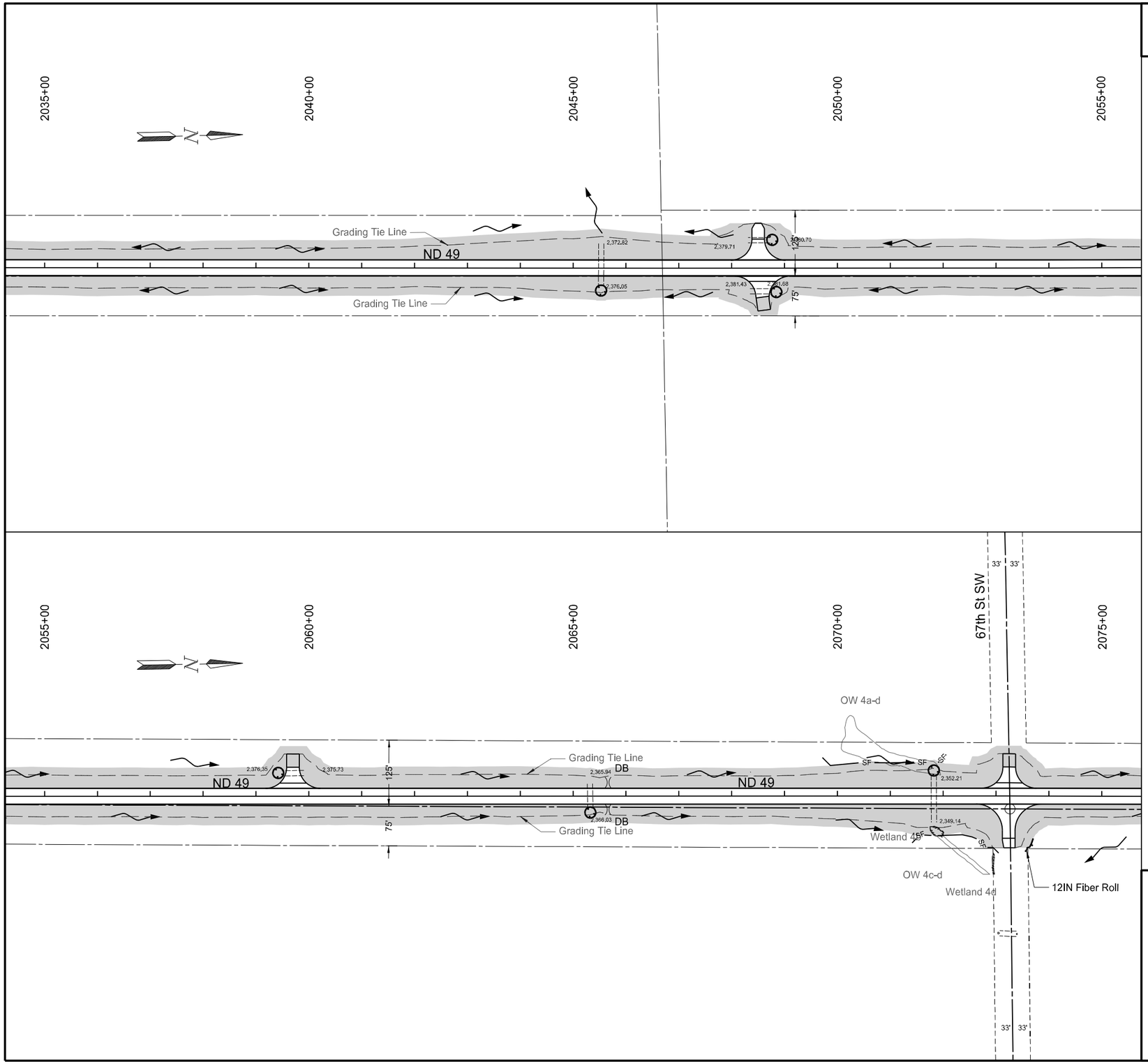
Temporary Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1995+00 to 2035+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:37:55 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	4



SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	403	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	403	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	192	LF
		Various Locations	32	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	192	LF
		Various Locations	32	LF

Legend

- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

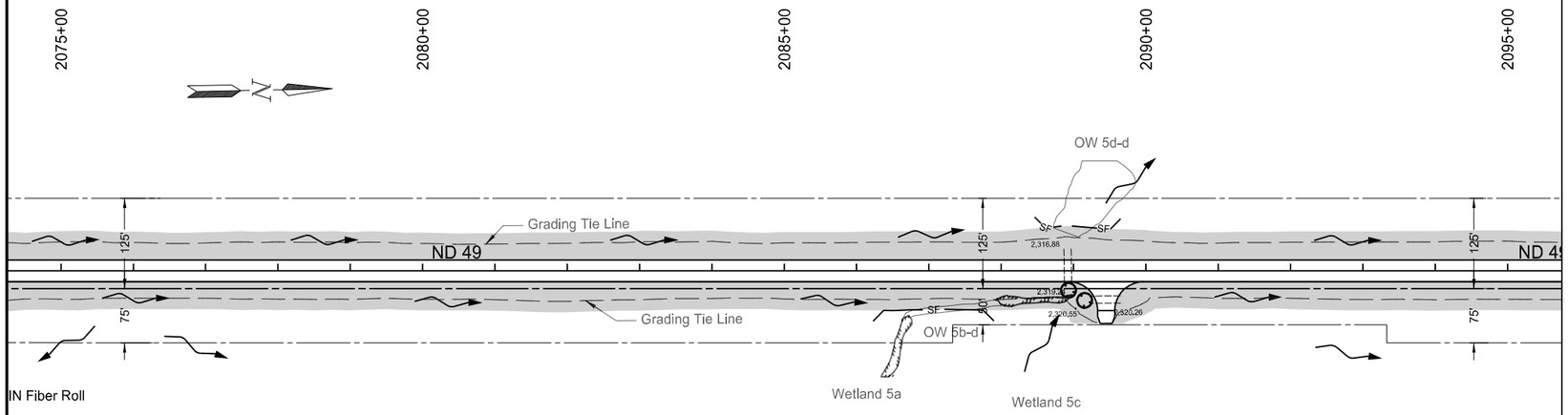
Temporary Sediment and Erosion Control

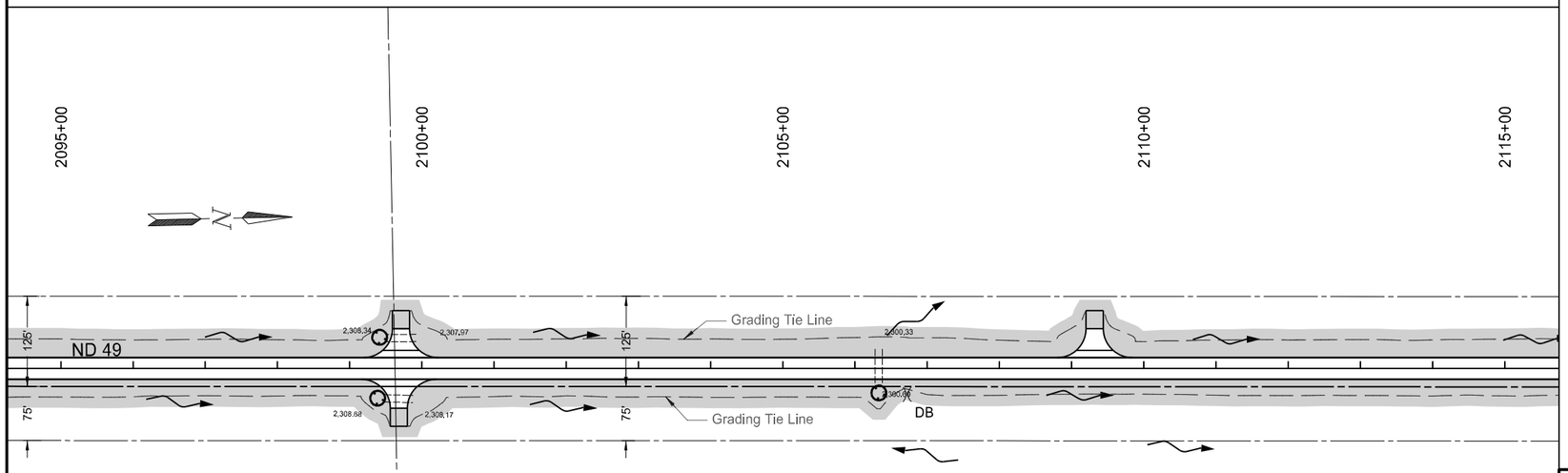
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2035+00 to 2075+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:38:13 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	76	5





SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	297	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	297	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	160	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	160	LF

Legend

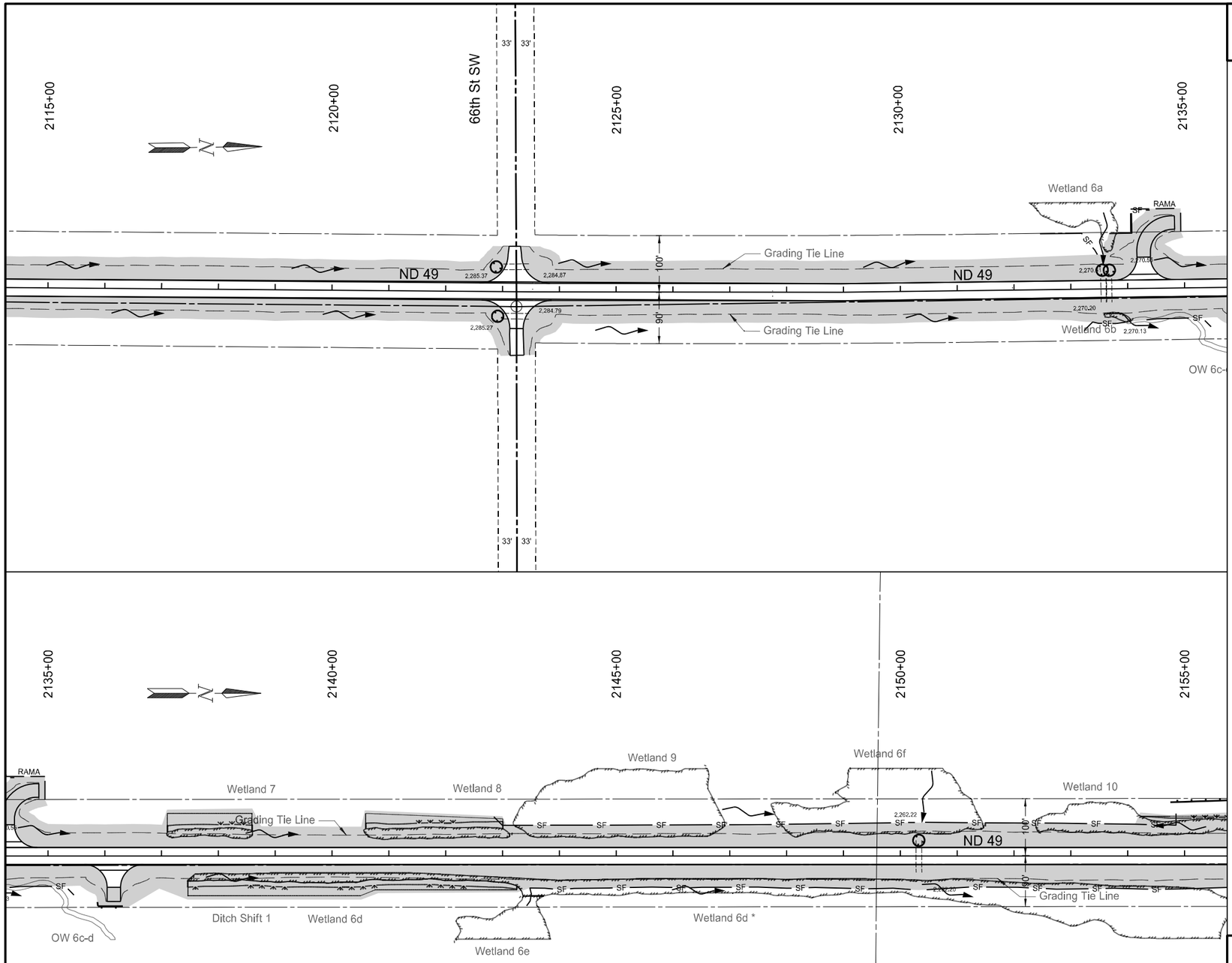
- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

Temporary Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2075+00 to 2115+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:38:24 -05'00'
NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	6

SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	2,791	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	2,791	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	160	LF
		Various Locations	76	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	160	LF
		Various Locations	76	LF

Legend

- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

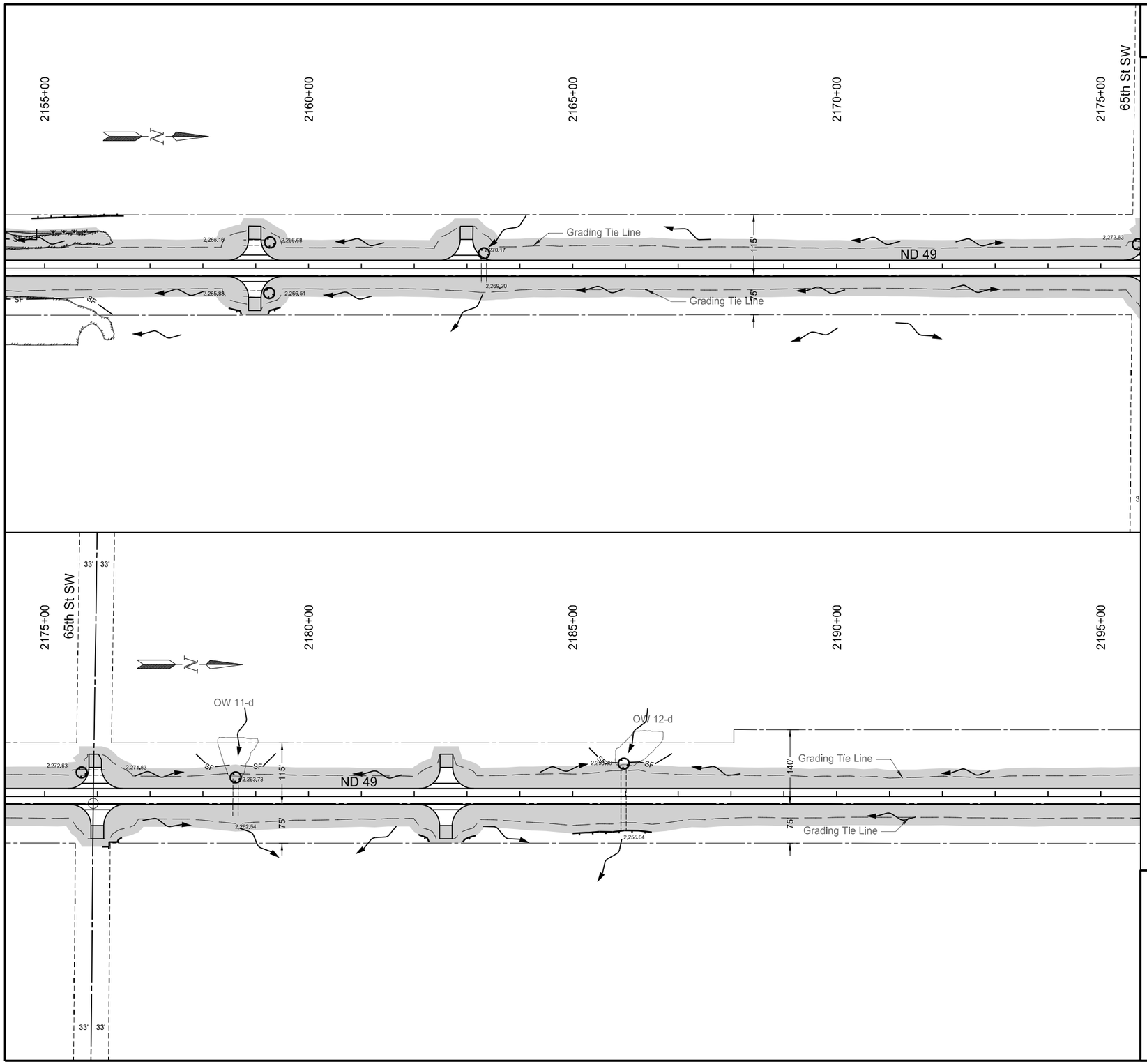
Temporary Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2115+00 to 2155+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:38:35 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	7



SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	446	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	446	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	192	LF
		Various Locations	464	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	192	LF
		Various Locations	464	LF

Legend

- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

Temporary Sediment and Erosion Control

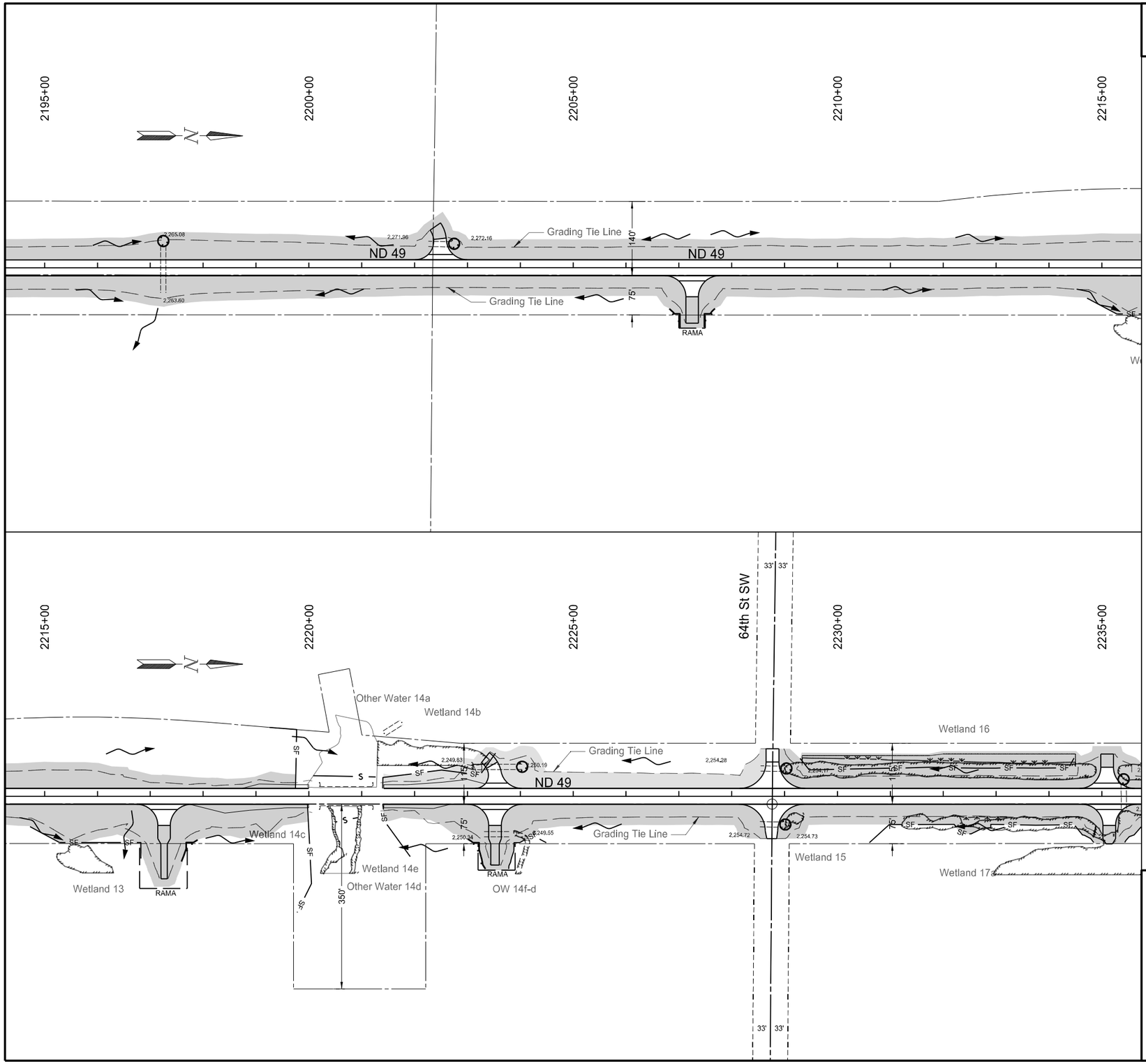
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2155+00 to 2195+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:38:48 -05'00
NORTH DAKOTA

8/26/2026 8:41:16 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\076TE\076TE_Grant.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	8



SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	2,096	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	2,096	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	160	LF
		Various Locations	235	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	160	LF
		Various Locations	235	LF
262	0100	FLOTATION SILT CURTAIN		
		Various Locations	166	LF
262	0101	REMOVE FLOTATION SILT CURTAIN		
		Various Locations	166	LF

Legend

- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

Temporary Sediment and Erosion Control

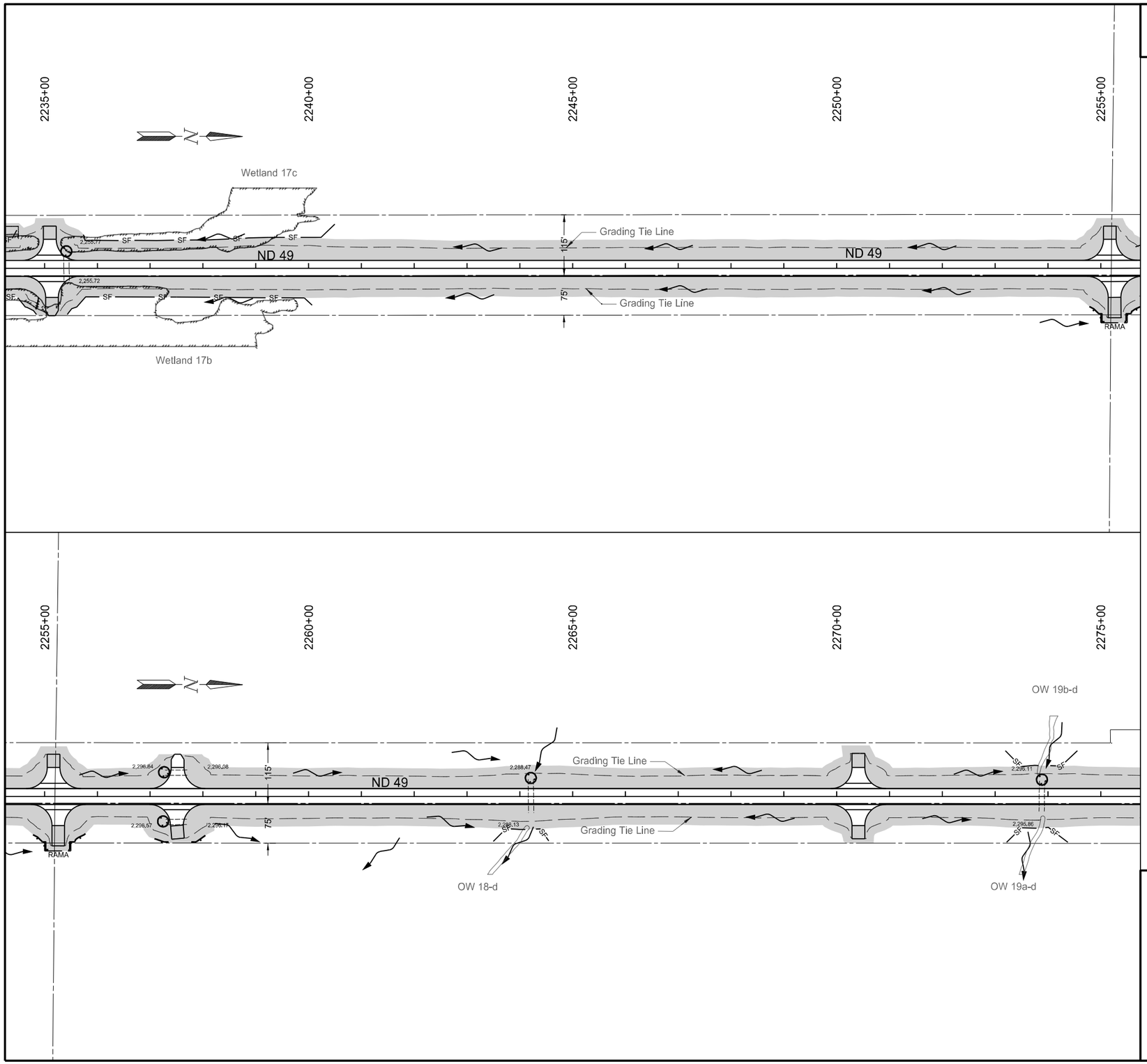
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2195+00 to 2235+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:39:01 -05'00'
NORTH DAKOTA

8/26/2026 8:41:17 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\076TE\076TE_Grant.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	9



SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	1,351	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	1,351	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	160	LF
		Various Locations	160	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	160	LF
		Various Locations	160	LF

Legend

- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

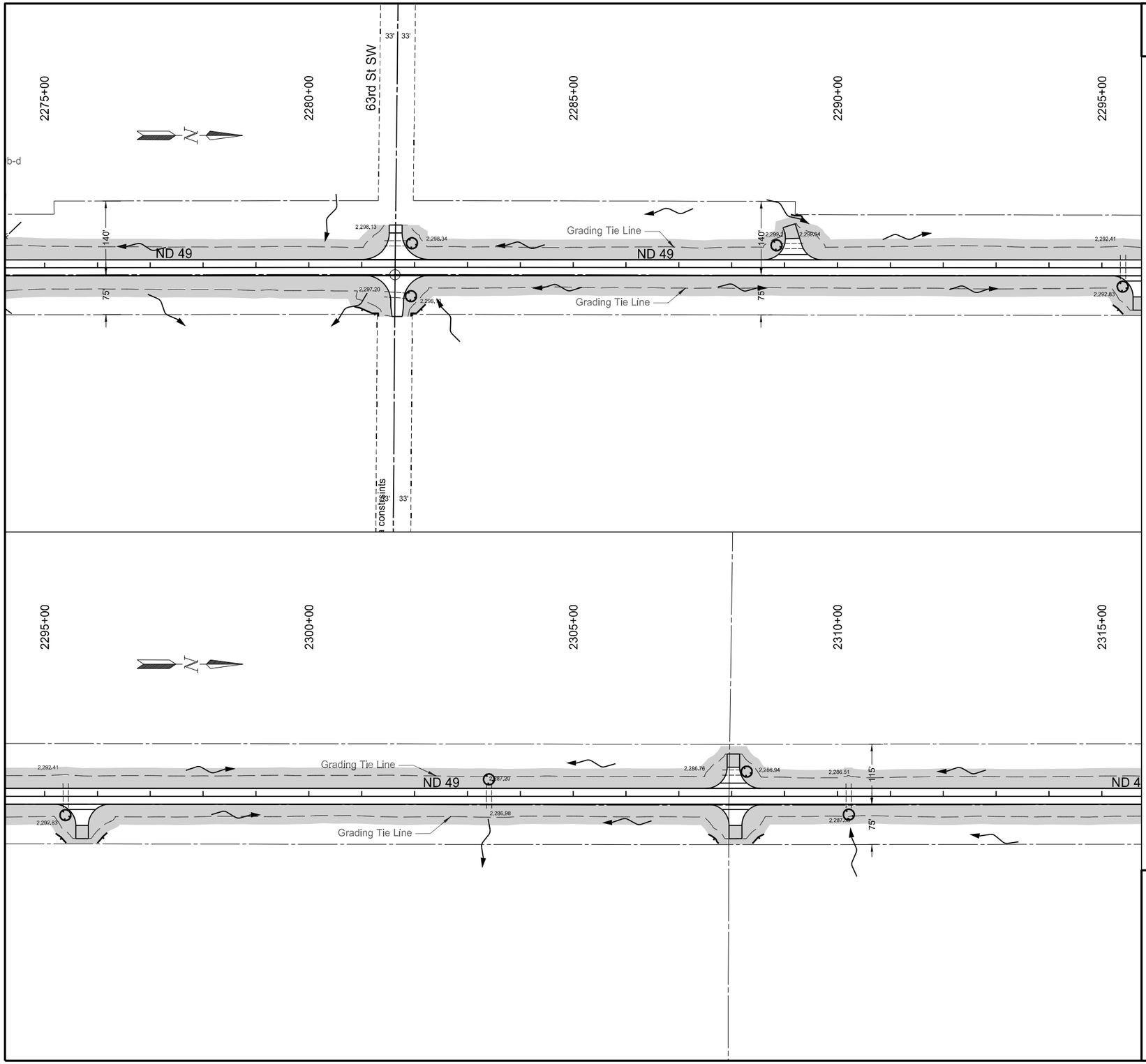
Temporary Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2235+00 to 2275+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:39:19 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	10



SPEC	CODE	BID ITEM	QTY	UNIT
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	224	LF
		Various Locations	240	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	224	LF
		Various Locations	240	LF

Legend

- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

Temporary Sediment and Erosion Control

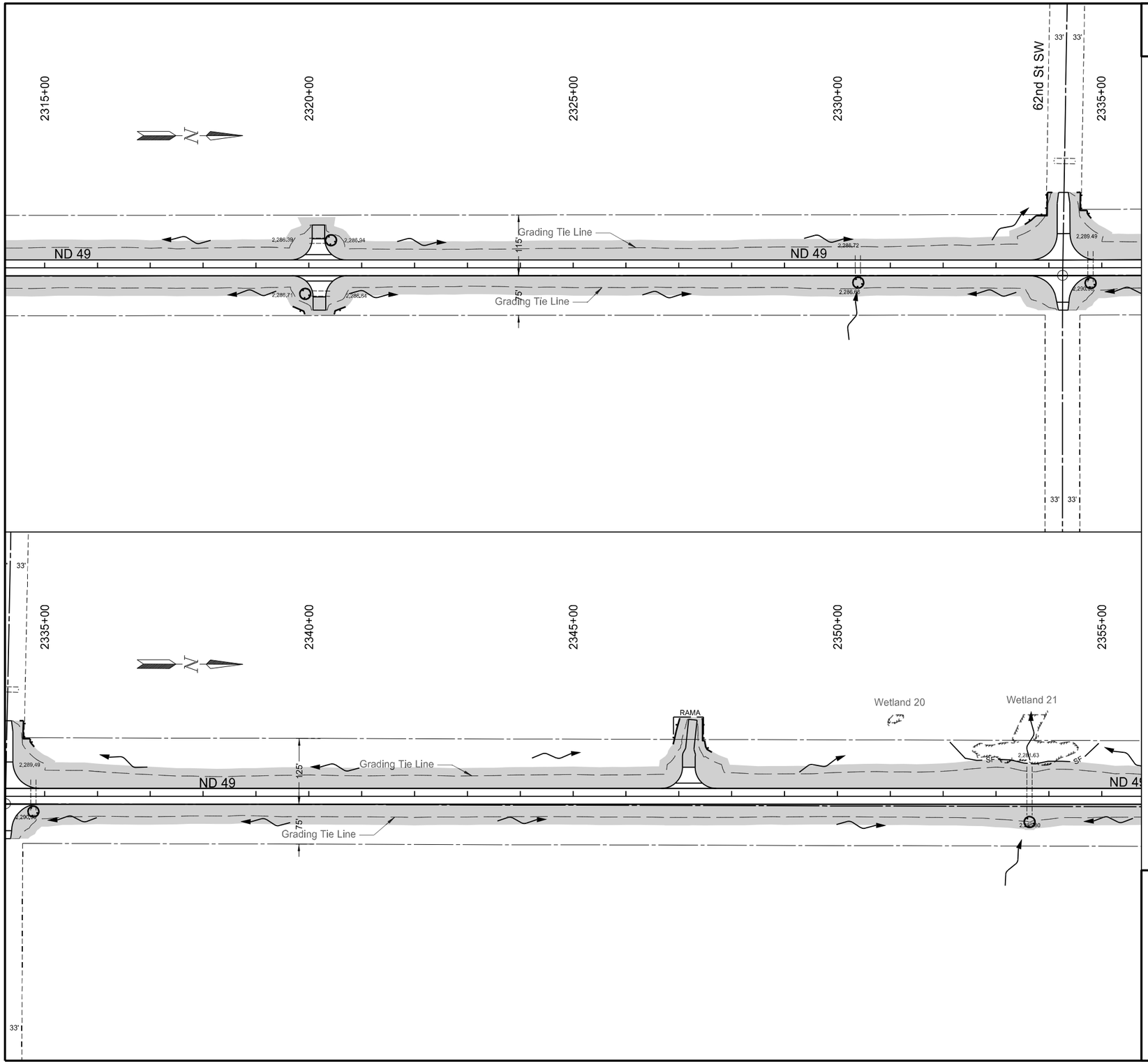
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2275+00 to 2315+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:39:31 -05'00'
NORTH DAKOTA

8/26/2026 8:41:10 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\076TE\076TE_Grant.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	11



SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	304	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	304	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	160	LF
		Various Locations	359	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	160	LF
		Various Locations	359	LF

Legend

- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

Temporary Sediment and Erosion Control

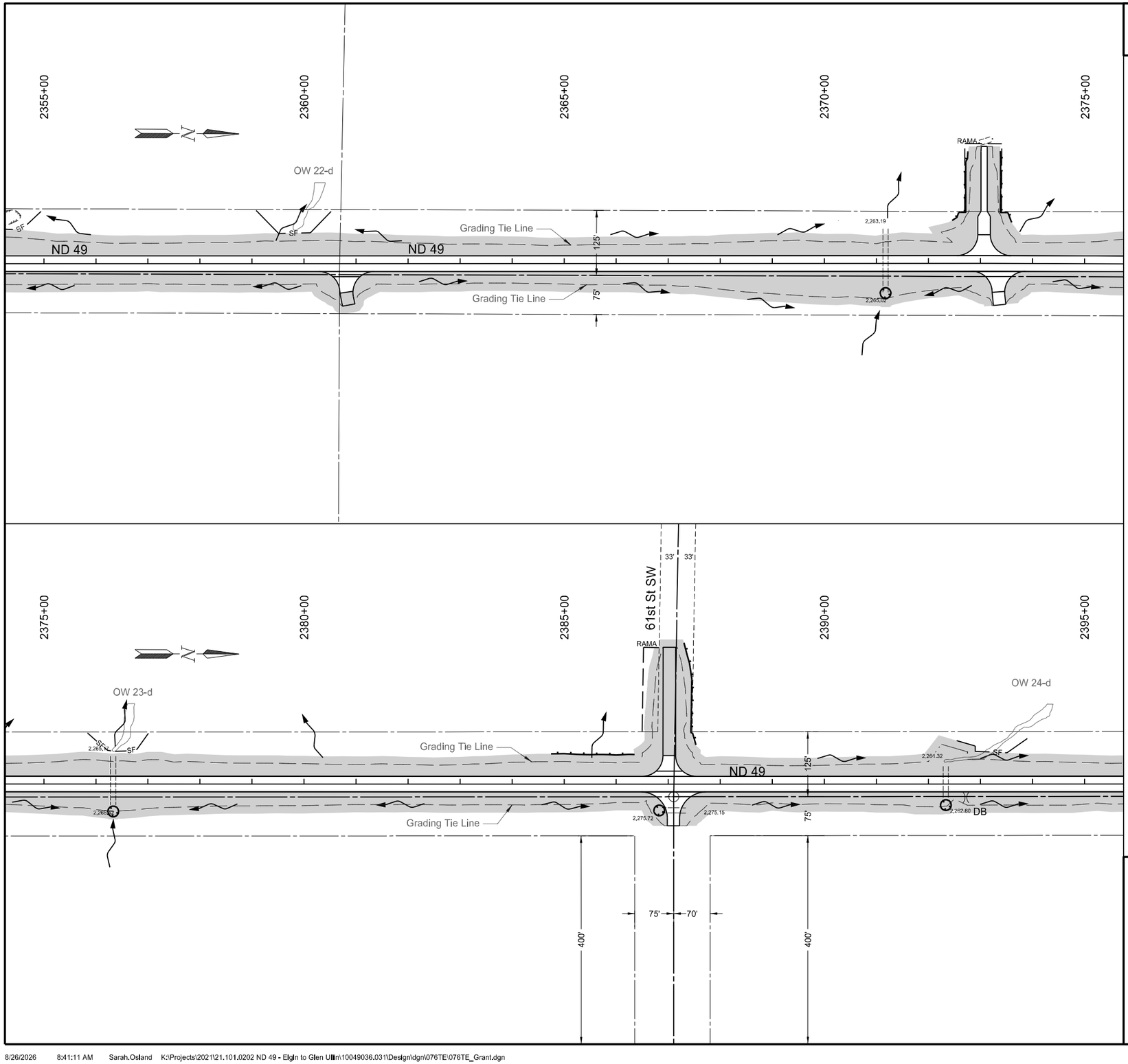
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2315+00 to 2355+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:39:44 -05'00'
NORTH DAKOTA

8/26/2026 8:41:10 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\076TE\076TE_Grant.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	12



SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	477	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	477	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	128	LF
		Various Locations	665	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	128	LF
		Various Locations	665	LF

Legend

- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

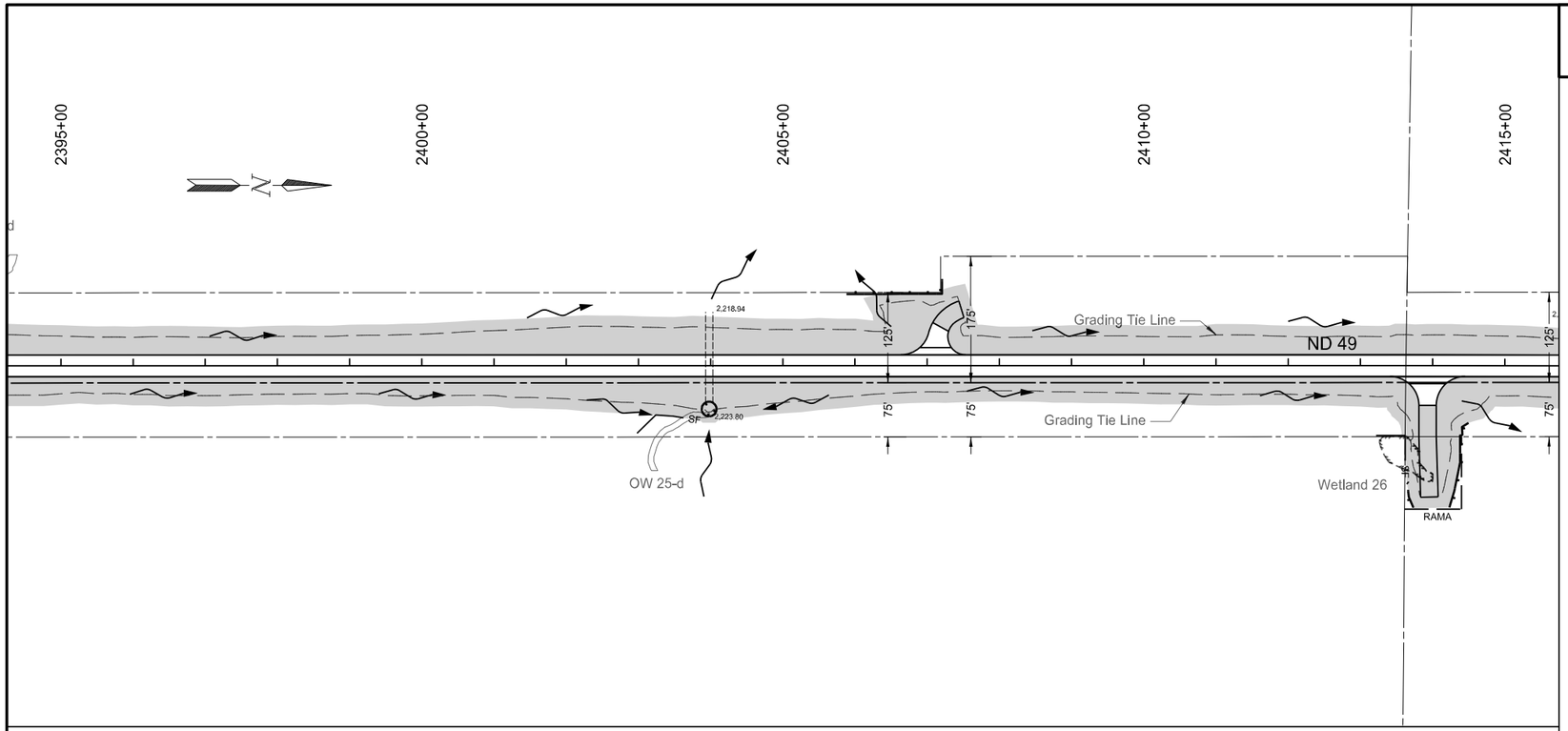
Temporary Sediment and Erosion Control

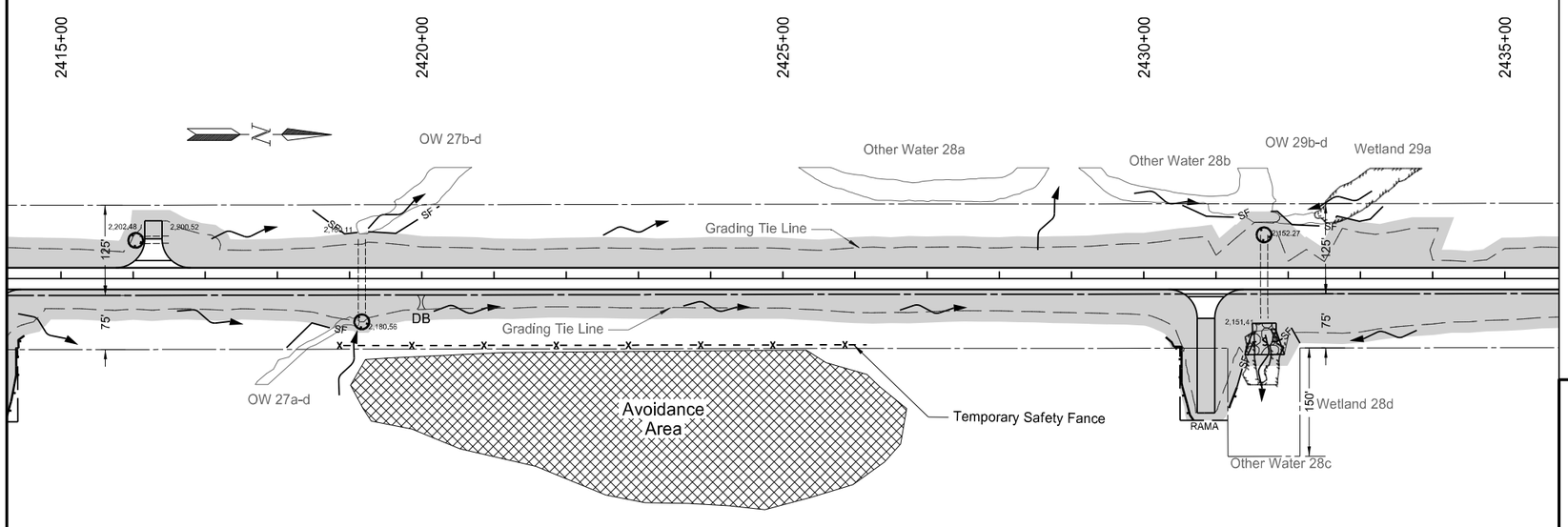
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2355+00 to 2395+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:39:57 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	13





SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	913	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	913	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	128	LF
		Various Locations	470	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	128	LF
		Various Locations	470	LF
262	0100	FLOTATION SILT CURTAIN		
		Various Locations	26	LF
262	0101	REMOVE FLOTATION SILT CURTAIN		
		Various Locations	26	LF

Legend

- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

Temporary Sediment and Erosion Control

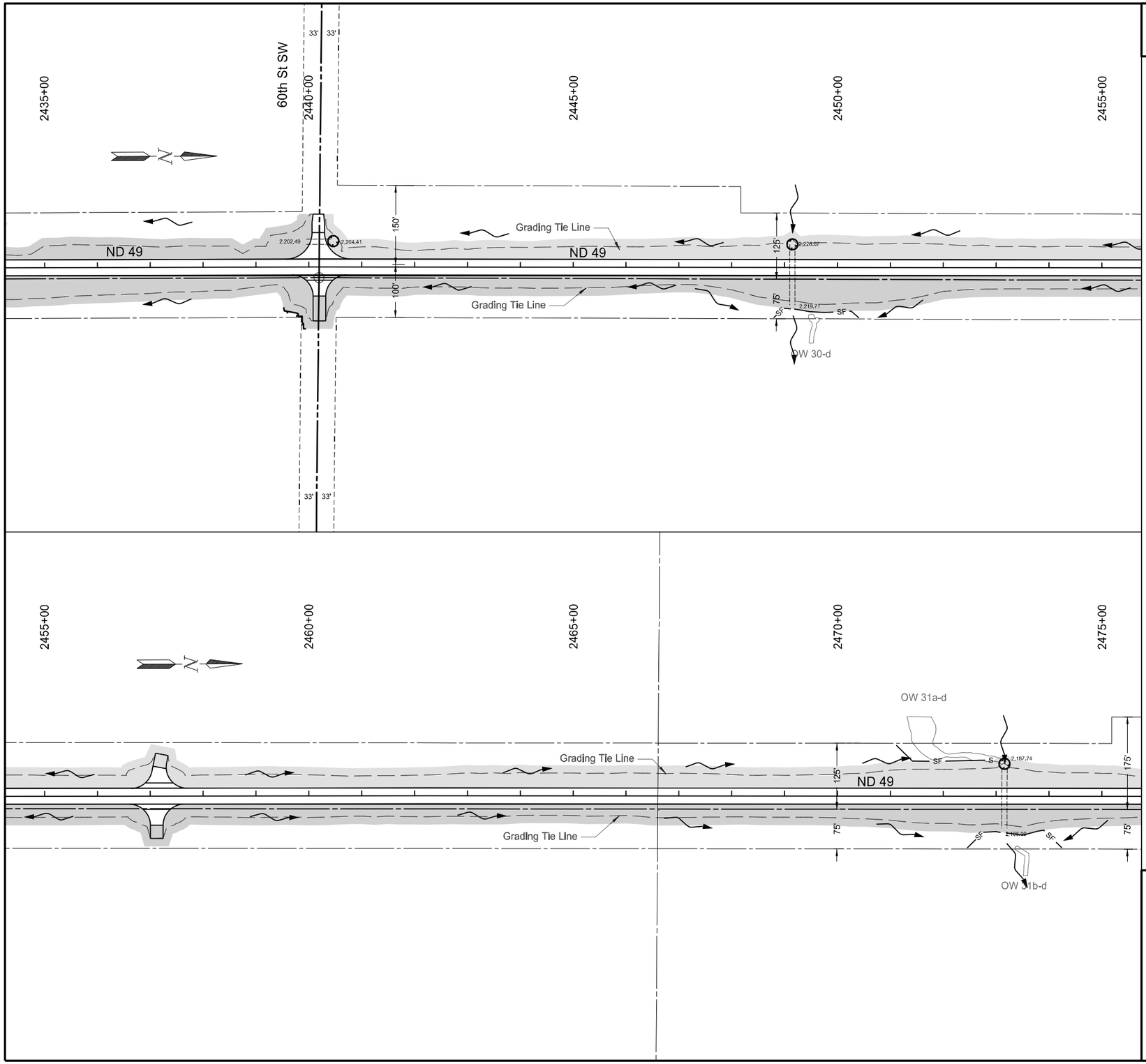
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2395+00 to 2435+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:40:09 -05'00'
NORTH DAKOTA

8/26/2026 8:41:11 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\076TE\076TE_Grant.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	14



SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	641	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	641	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	96	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	96	LF

Legend

- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

Temporary Sediment and Erosion Control

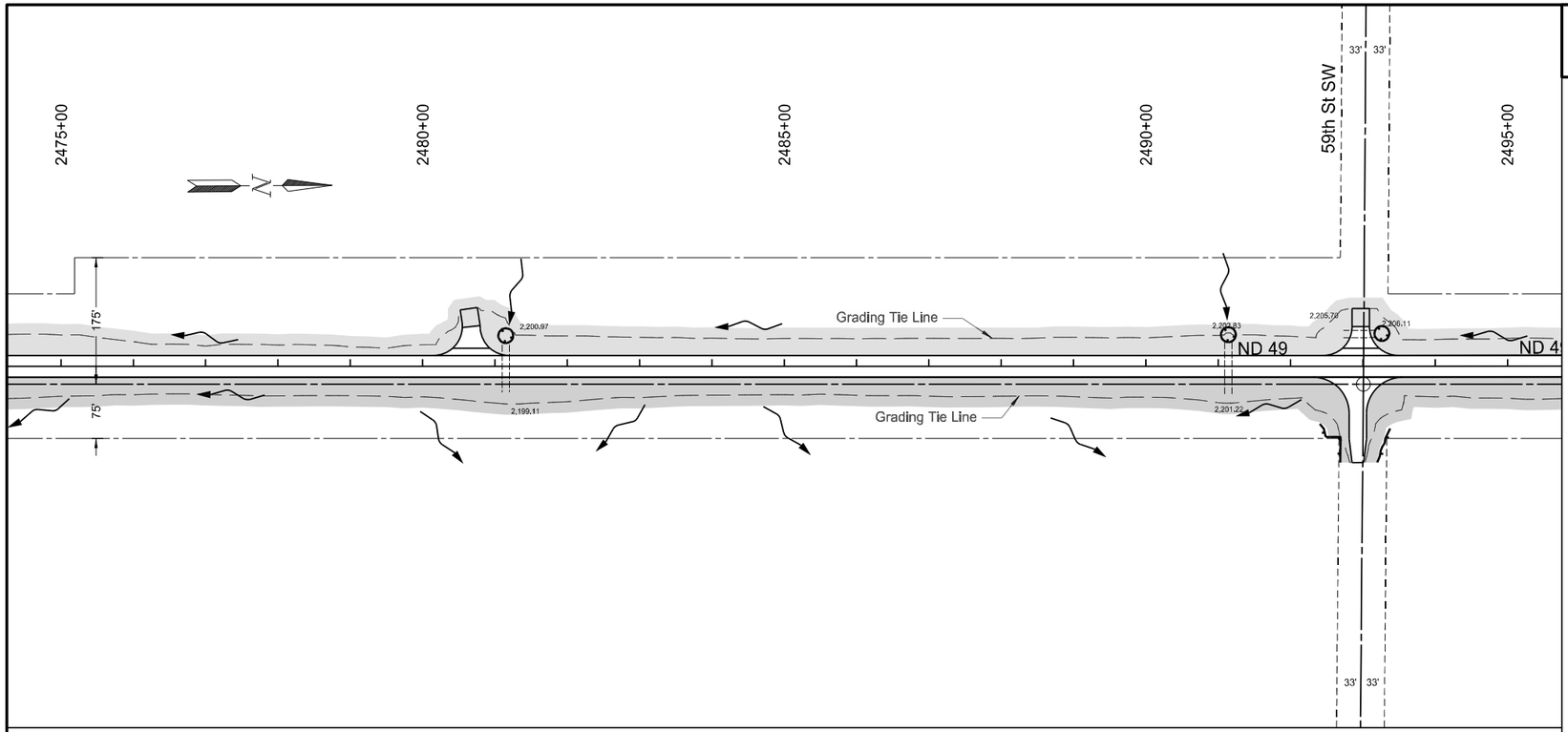
ND 49 - Jct 21 Elgin N to 58th St SW

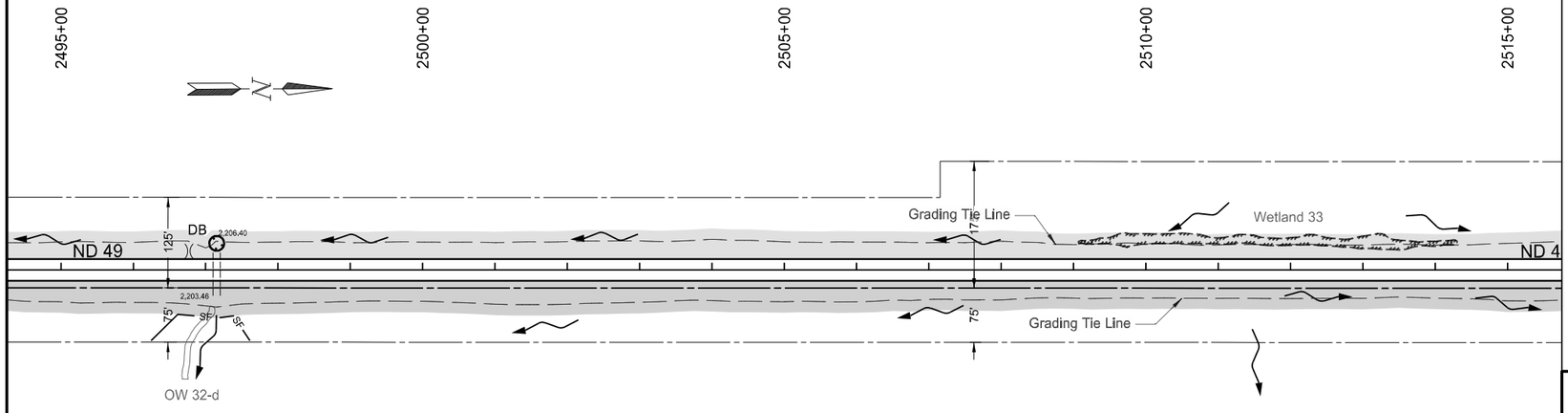
Sta 2435+00 to 2475+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:40:21 -05'00'
NORTH DAKOTA

8/26/2026 8:41:12 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\076TE\076TE_Grant.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	15





SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	160	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	160	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	128	LF
		Various Locations	125	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	128	LF
		Various Locations	125	LF

Legend

- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

Temporary Sediment and Erosion Control

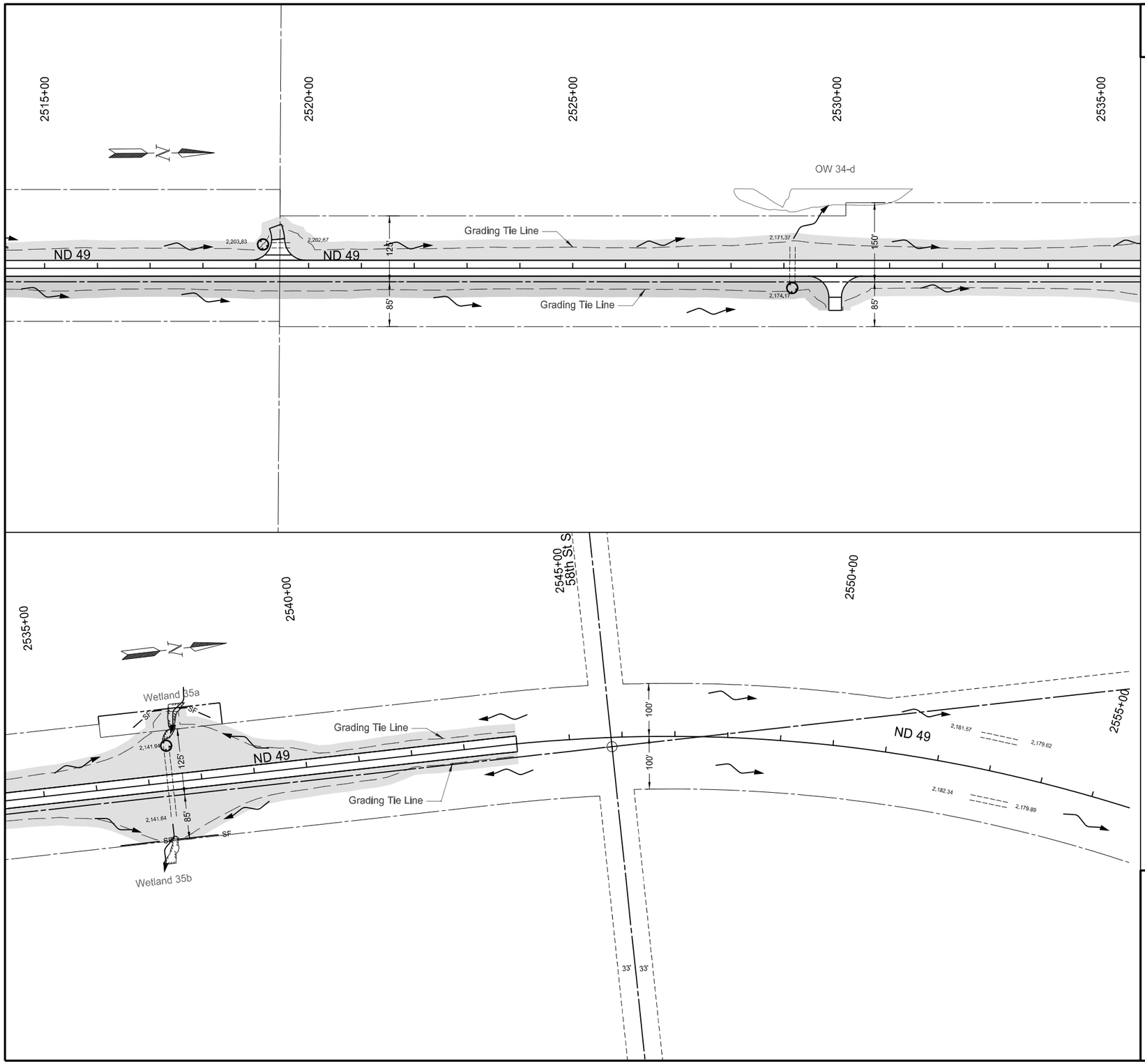
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2475+00 to 2515+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:40:33 -05'00'
NORTH DAKOTA

8/26/2026 8:41:13 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\076TE\076TE_Grant.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	16



SPEC	CODE	BID ITEM	QTY	UNIT
260	0100	SILT FENCE UNSUPPORTED		
		Various Locations	335	LF
260	0101	REMOVE SILT FENCE UNSUPPORTED		
		Various Locations	335	LF
261	0112	FIBER ROLLS 12IN		
		Culvert Inlet Locations	96	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Culvert Inlet Locations	96	LF

Legend

- Fiber Rolls 12IN
- SF — Silt Fence Unsupported
- S — Flotation Silt Fence
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Temp Cover Crop / Mulch
- Avoidance Area

Temporary Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2515+00 to 2544+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:40:46 -05'00'
NORTH DAKOTA

8/26/2026 8:41:13 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\076TE\076TE_Grant.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	17

Sec 76 Sheet #	Begin Station	End Station	Fiber Rolls 12IN (LF)		Silt Fence (LF)	
			Lt.	Rt.	Lt.	Rt.
1	1921+27	1922+76		170		
	1921+69	1921+97	30			
	1922+30	1922+60	30			
	1925+39	1925+66	30			
	1926+09	1926+36	30			
	1926+15	1926+48			40	
	1926+91	1927+09				27
	1940+66	1941+64		135		
	1953+99	1955+00		101		
2	1955+00	1956+01		101		
	1963+31	1963+43		48		
	1963+93	1964+07		48		
	1970+13	1970+43	50			
	1970+24	1970+45		30		
	1970+96	1971+35		45		
	1971+05	1971+40	50			
	1984+72	1985+05		45		
	1985+59	1985+94		45		
	1986+52	1989+24				284
	1988+51	1989+17			80	
	1989+49	1990+84				157
	1989+50	1989+94			47	
	1990+84	1991+04		93		
	1991+01	1991+22	47			
	1991+73	1991+99		103		
	1991+73	1991+87	52			
3	1996+91	1997+19		30		
	1997+62	1997+87		30		
	2002+39	2002+67			37	
	2002+80	2003+26			57	
4	2069+72	2071+74			209	
	2071+41	2071+78				43
	2071+90	2073+05				131
	2071+91	2072+06			21	
	2073+55	2073+71		32		
5	2086+23	2087+90				180
	2088+46	2088+83			43	
	2088+97	2089+65			74	
6	2132+50	2133+50			108	
	2133+24	2133+47				79
	2133+69	2134+41			112	
	2134+32	2135+46				120
	2135+87	2136+32		51		
	2142+85	2150+26			747	
	2143+42	2150+22				708
	2150+44	2154+85			462	
	2150+46	2155+00				454
	2154+75	2155+00	25			

Sec 76 Sheet #	Begin Station	End Station	Fiber Rolls 12IN (LF)		Silt Fence (LF)	
			Lt.	Rt.	Lt.	Rt.
7	2155+00	2156+50	150			
	2155+00	2156+29				139
	2158+48	2158+72		30		
	2159+23	2159+47		30		
	2176+09	2176+46		50		
	2177+87	2178+51			75	
	2178+71	2179+38			78	
	2182+08	2182+28		26		
	2182+92	2183+16		28		
	2185+00	2186+50		150		
	2185+31	2185+85			66	
	2186+07	2186+88			88	
8	2206+82	2207+03		50		
	2207+48	2207+68		50		
	2214+72	2216+82				248
	2217+59	2217+90		60		
	2219+25	2219+75			163	
	2219+78	2219+97				211
	2221+40	2221+92				115
	2221+40	2223+08			229	
	2223+00	2223+34		75		
	2223+78	2224+49				119
	2230+60	2234+85				469
	2229+29	2234+47			542	
9	2235+42	2240+07				483
	2235+73	2240+56			503	
	2254+78	2255+07		50		
	2255+50	2255+77		50		
	2257+08	2257+35		30		
	2257+78	2258+04		30		
	2263+50	2264+10				71
	2264+30	2264+55				36
	2273+19	2273+82			75	
	2273+22	2273+79				68
	2273+95	2274+38				52
	2274+04	2274+56			63	
10	2280+86	2281+31		54		
	2281+93	2282+21		40		
	2289+11	2289+36	31			
	2295+21	2295+41		30		
	2296+00	2296+18		30		
	2307+56	2307+75		27		
	2308+39	2308+61		28		
11	2319+69	2319+92		30		
	2320+48	2320+70		30		
	2333+54	2334+06	101			
	2334+53	2334+80	73			
	2346+89	2347+02	51			
	2347+44	2347+62	74			
	2352+13	2353+60			162	
	2353+66	2354+94			142	

Sec 76 Sheet #	Begin Station	End Station	Fiber Rolls 12IN (LF)		Silt Fence (LF)	
			Lt.	Rt.	Lt.	Rt.
12	2359+08	2360+54			183	
	2372+46	2372+76	150			
	2373+38	2373+60	153			
	2375+84	2376+29			58	
	2376+37	2377+01			80	
	2384+75	2386+35	160			
	2387+30	2387+53	202			
	2392+54	2393+90			156	
13	2402+98	2403+85				98
	2405+88	2407+21	152			
	2413+22	2413+64				109
	2413+66	2413+74		26		
	2414+24	2414+50		127		
	2418+12	2418+99				102
	2418+49	2419+11			74	
	2419+25	2420+24			110	
	2430+30	2430+69		134		
	2430+53	2431+52			104	
	2431+18	2431+29		31		
	2431+29	2431+51				72
	2431+76	2432+16				59
	2431+76	2433+35			185	
14	2439+52	2439+94			75	
	2448+79	2449+12				40
	2449+18	2450+41				128
	2471+11	2472+96			197	
	2472+45	2473+08				80
	2473+19	2474+25				121
15	2492+40	2492+69		75		
	2493+20	2493+38		50		
	2496+25	2497+08				99
	2497+19	2497+61				61
16	2536+33	2537+34				101
	2536+82	2537+39			66	
	2537+45	2538+49				104
	2537+71	2537+29			64	
Subtotal			1,641	2,528	5,575	5,368
Total			4,169		10,943	

Temporary Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Summary

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:40:58 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	76	18

Sec 76 Sheet #	Station	Fiber Rolls 12IN (LF)	
		Lt.	Rt.
1	1921+80	32	
	1925+54	32	
	1926+54	32	
	1926+64	32	
	1926+72	32	
	1926+82	32	
	1927+67		32
	1940+94	32	
	1941+32		32
2	1967+08	32	
	1967+11		32
	1970+34		32
	1985+06		32
	1985+08	32	
	1989+33	32	
3	2002+73		32
	2020+38		32
	2020+38		32
	2028+10	32	
4	2045+53		32
	2048+77	32	
	2048+84		32
	2059+42	32	
	2065+32		32
	2071+82	32	
5	2088+93		32
	2089+15		32
	2099+39		32
	2099+42	32	
	2106+33		32
6	2122+89	32	
	2122+92		32
	2133+56	32	
	2133+68	32	
	2150+32	32	
7	2159+25		32
	2159+27	32	
	2163+32	32	
	2175+70	32	
	2178+62	32	

Sec 76 Sheet #	Station	Fiber Rolls 12IN (LF)	
		Lt.	Rt.
8	2197+25	32	
	2202+75	32	
	2224+03	32	
	2229+01		32
	2229+03	32	
9	2235+41	32	
	2257+24		32
	2257+26	32	
	2264+21	32	
	2273+89	32	
10	2281+93		32
	2281+95	32	
	2288+84	32	
	2295+39		32
	2303+41	32	
	2308+28	32	
	2310+21		32
11	2319+93		32
	2320+42	32	
	2330+39		32
	2334+79		32
	2353+63		32
12	2371+18		32
	2376+33		32
	2386+83		32
	2392+33		32
13	2403+98		32
	2416+04	32	
	2419+17		32
	2431+66	32	
14	2440+46	32	
	2449+15	32	
	2473+16	32	
15	2481+15	32	
	2491+14	32	
	2493+26	32	
	2497+15	32	
16	2519+14	32	
	2529+16		32
	2537+40	32	
	Subtotal	1,536	1,056
	Total	2,592	

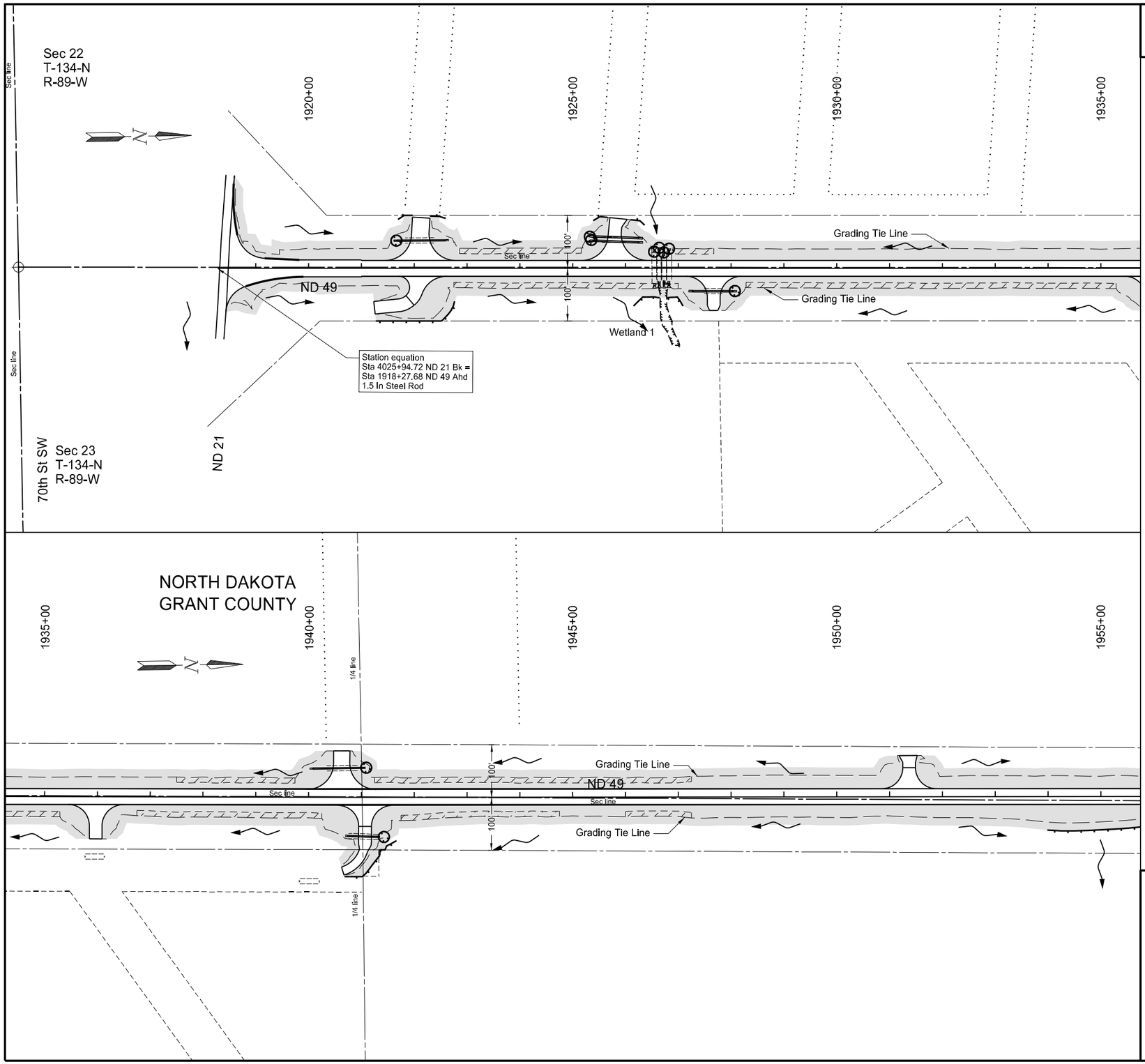
Temporary Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Summary

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:41:14 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	77	1



SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	3,417	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	624	LF
		Culvert Inlet Locations	320	LF

Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

Permanent Sediment and Erosion Control

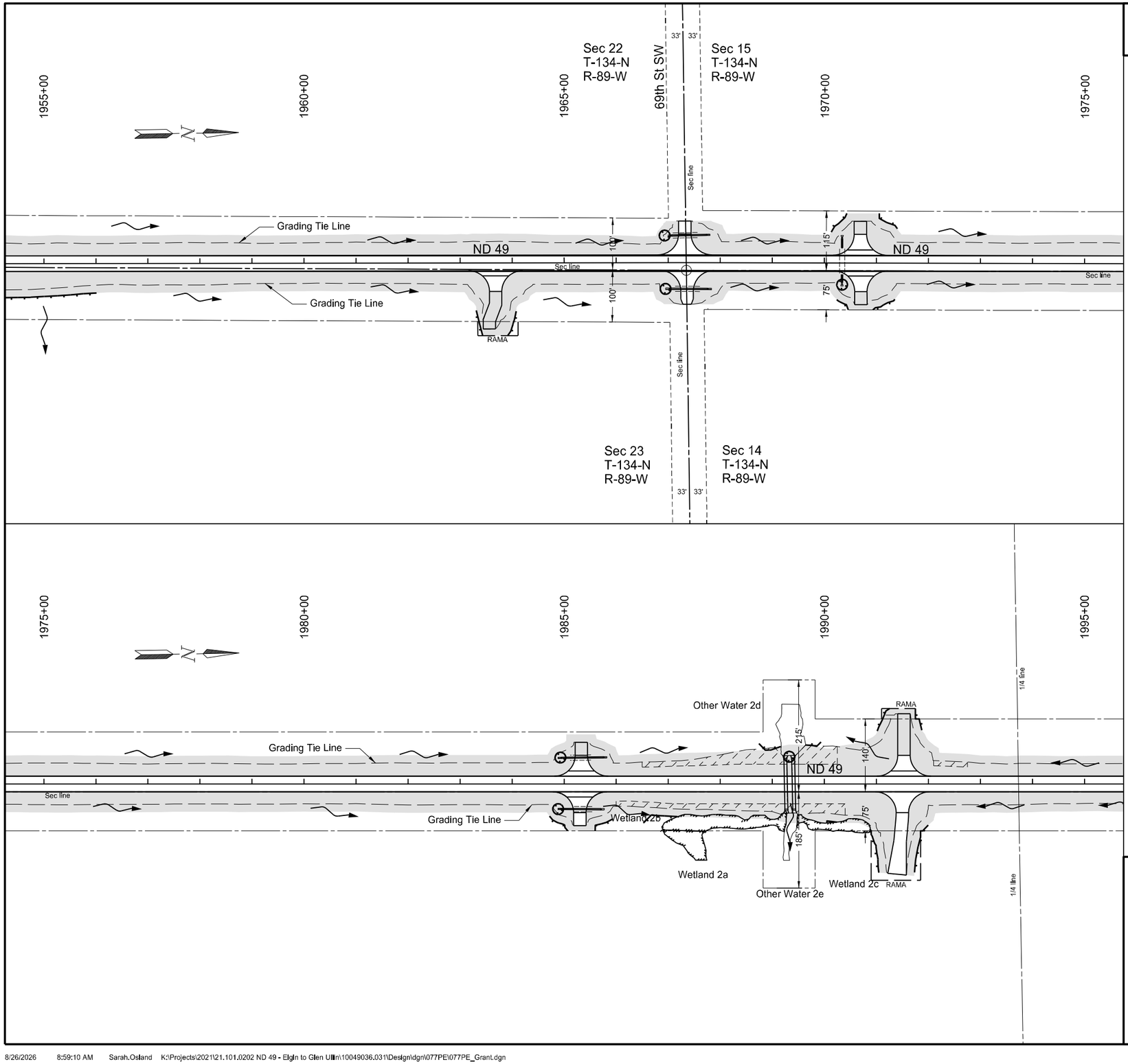
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1918+48 to 1955+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:42:16 -05'00'
NORTH DAKOTA

8/26/2026 8:59:03 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\077PE\077PE_Grant.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	77	2



SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	1,644	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	940	LF
		Culvert Inlet Locations	192	LF

Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

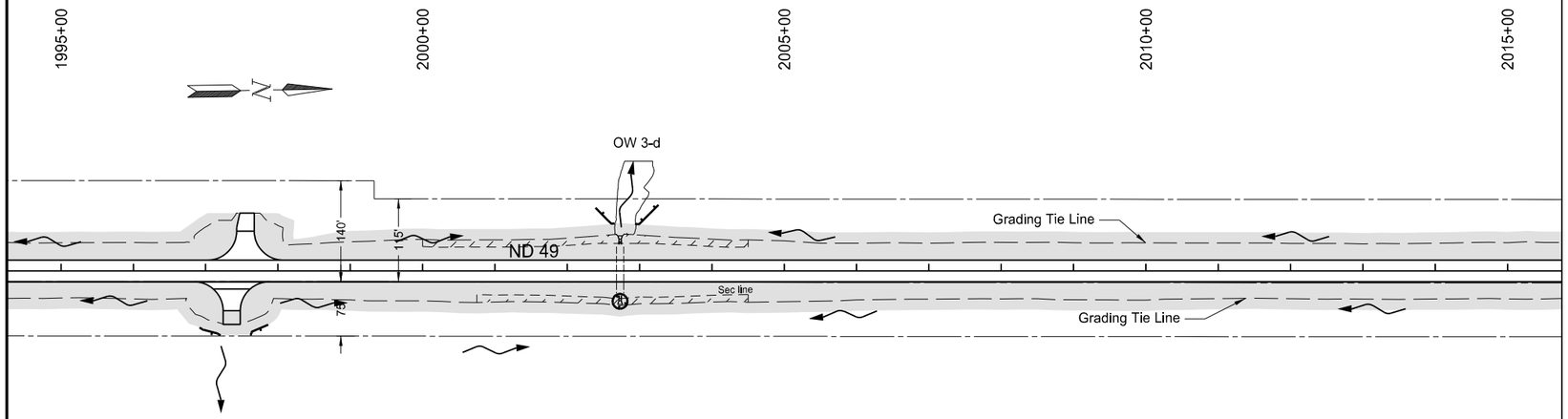
Permanent Sediment and Erosion Control

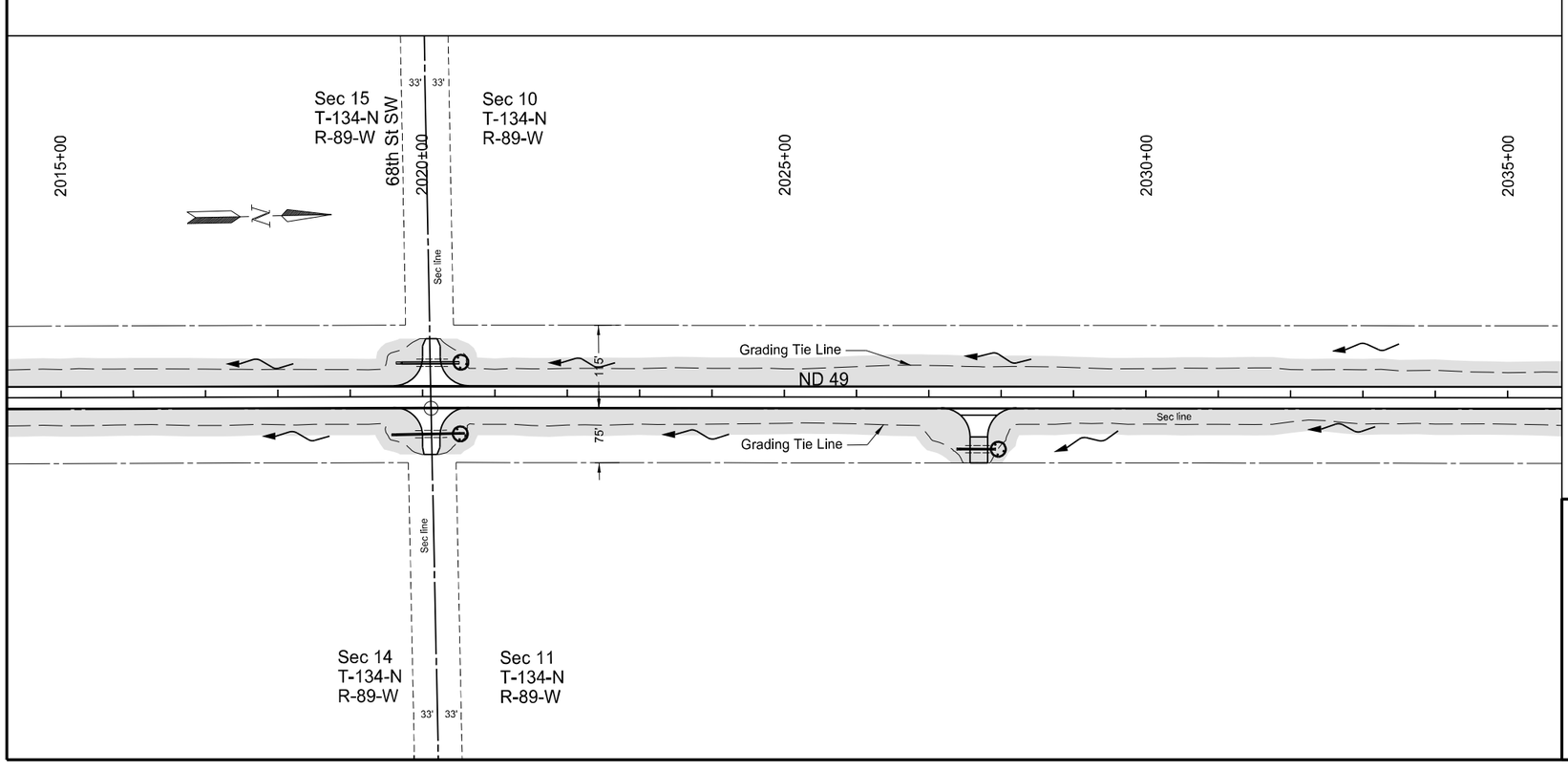
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1955+00 to 1995+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:42:25 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	77	3





SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	908	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	140	LF
		Culvert Inlet Locations	128	LF

Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

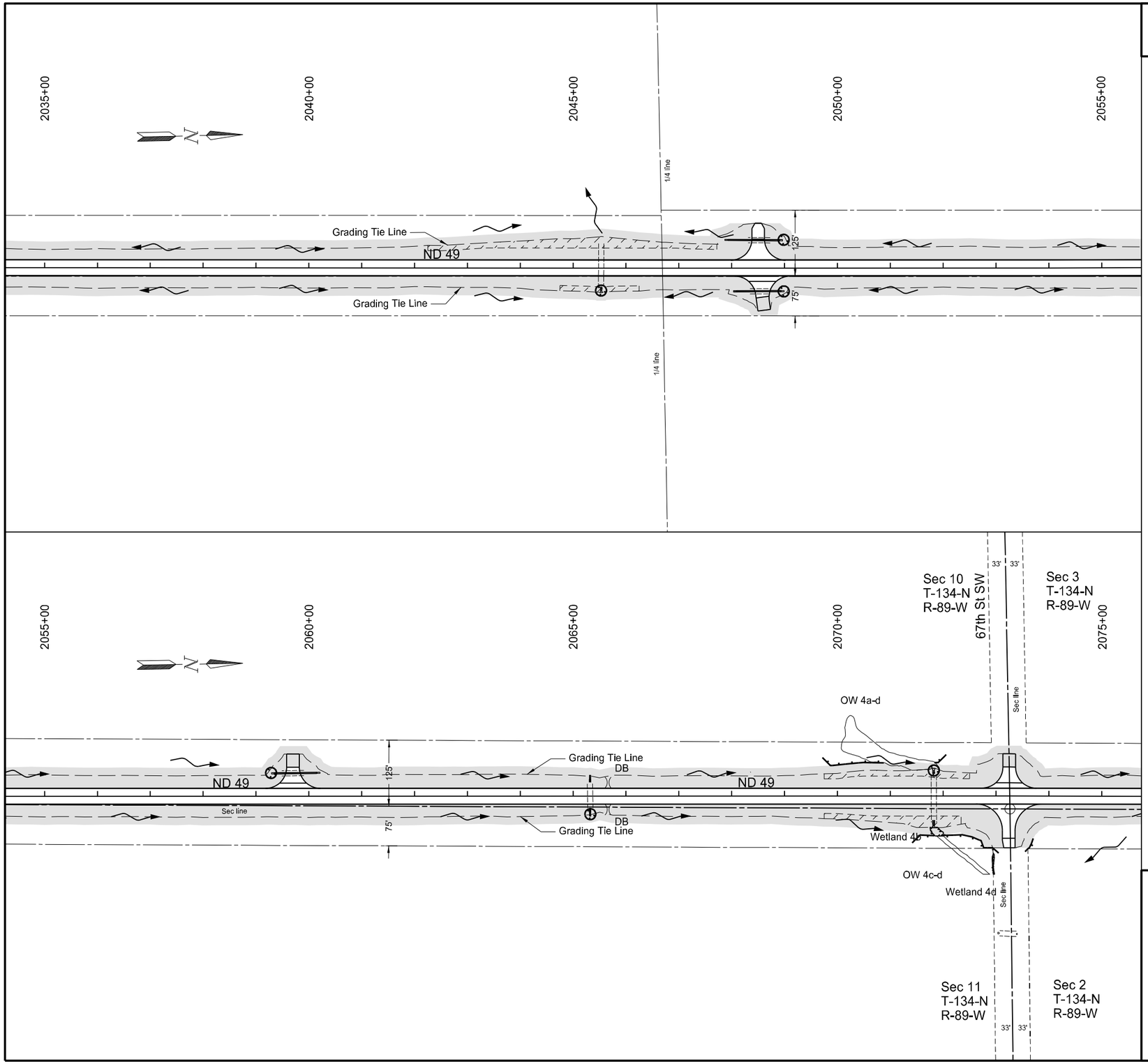
Permanent Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1995+00 to 2035+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:42:36 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	77	4



SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	1,719	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	350	LF
		Culvert Inlet Locations	192	LF

Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

Permanent Sediment and Erosion Control

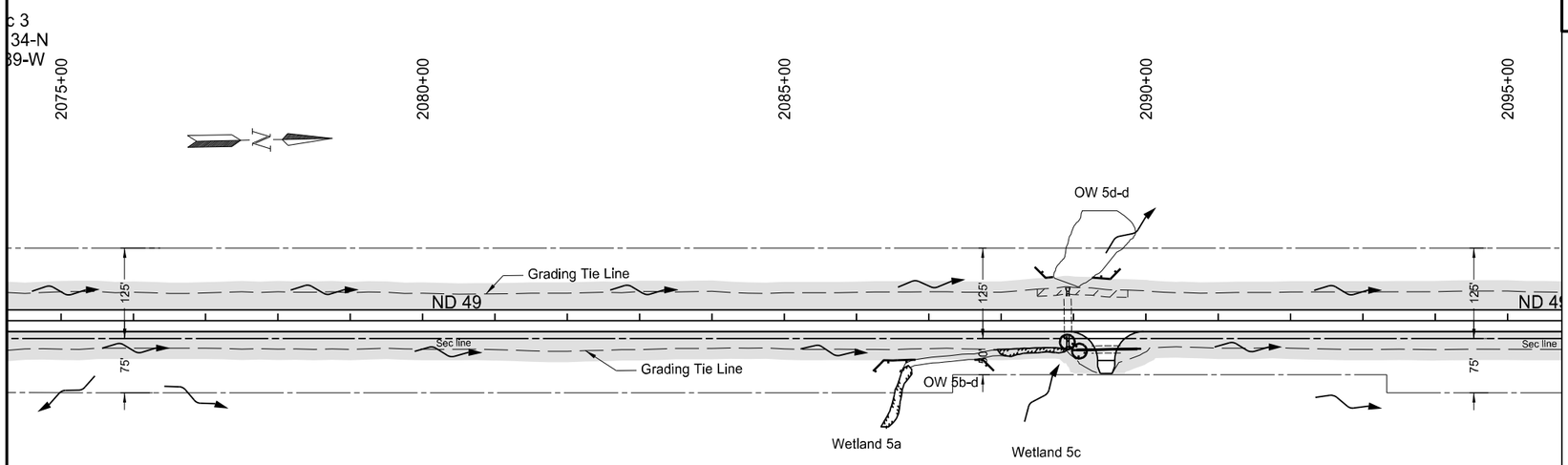
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2035+00 to 2075+00

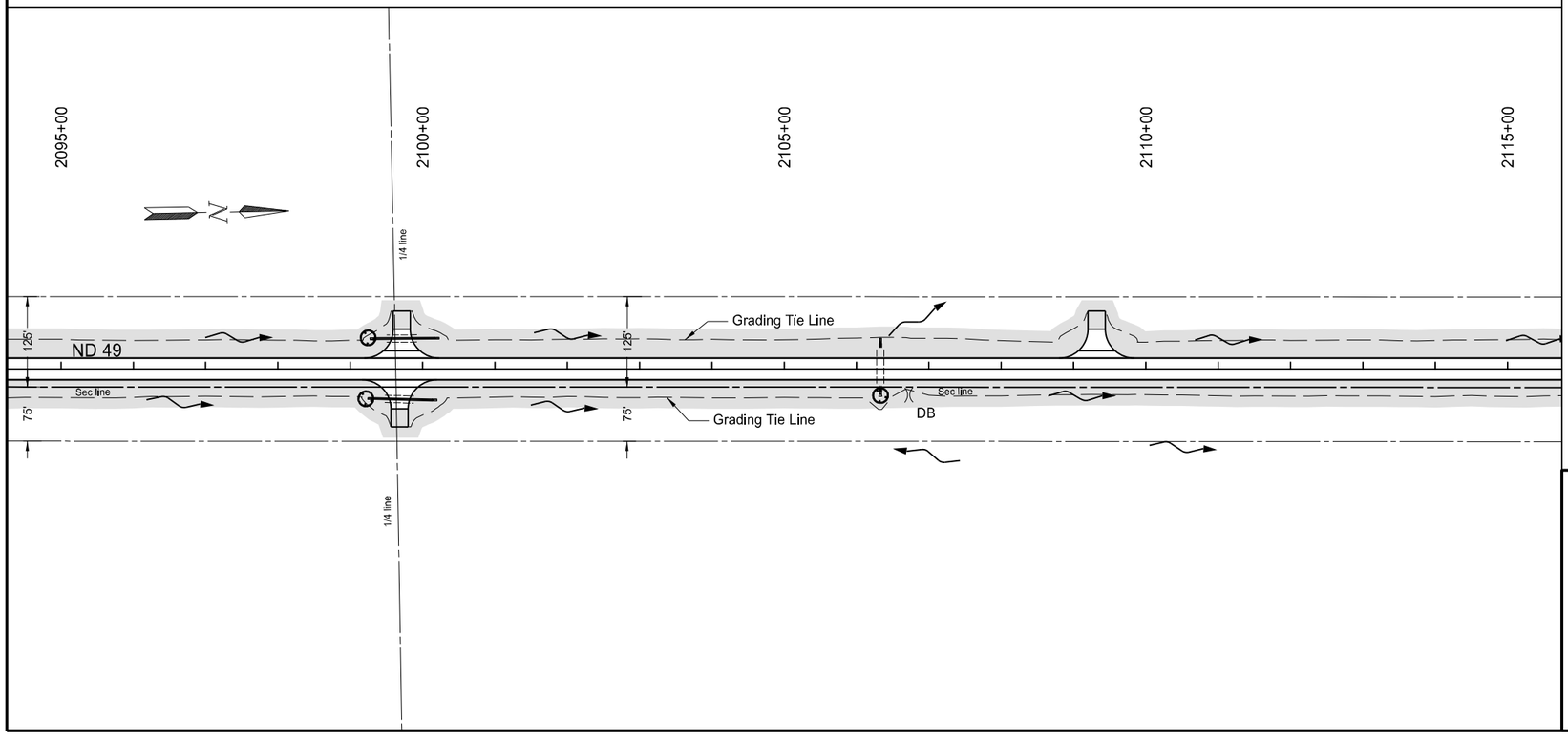
REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:42:47 -05'00'
NORTH DAKOTA

8/26/2026 8:59:04 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\077PE\077PE_Grant.dgn

c 3
34-N
39-W



ec 2
-134-N
-89-W



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	77	5

SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	139	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	175	LF
		Culvert Inlet Locations	160	LF

Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

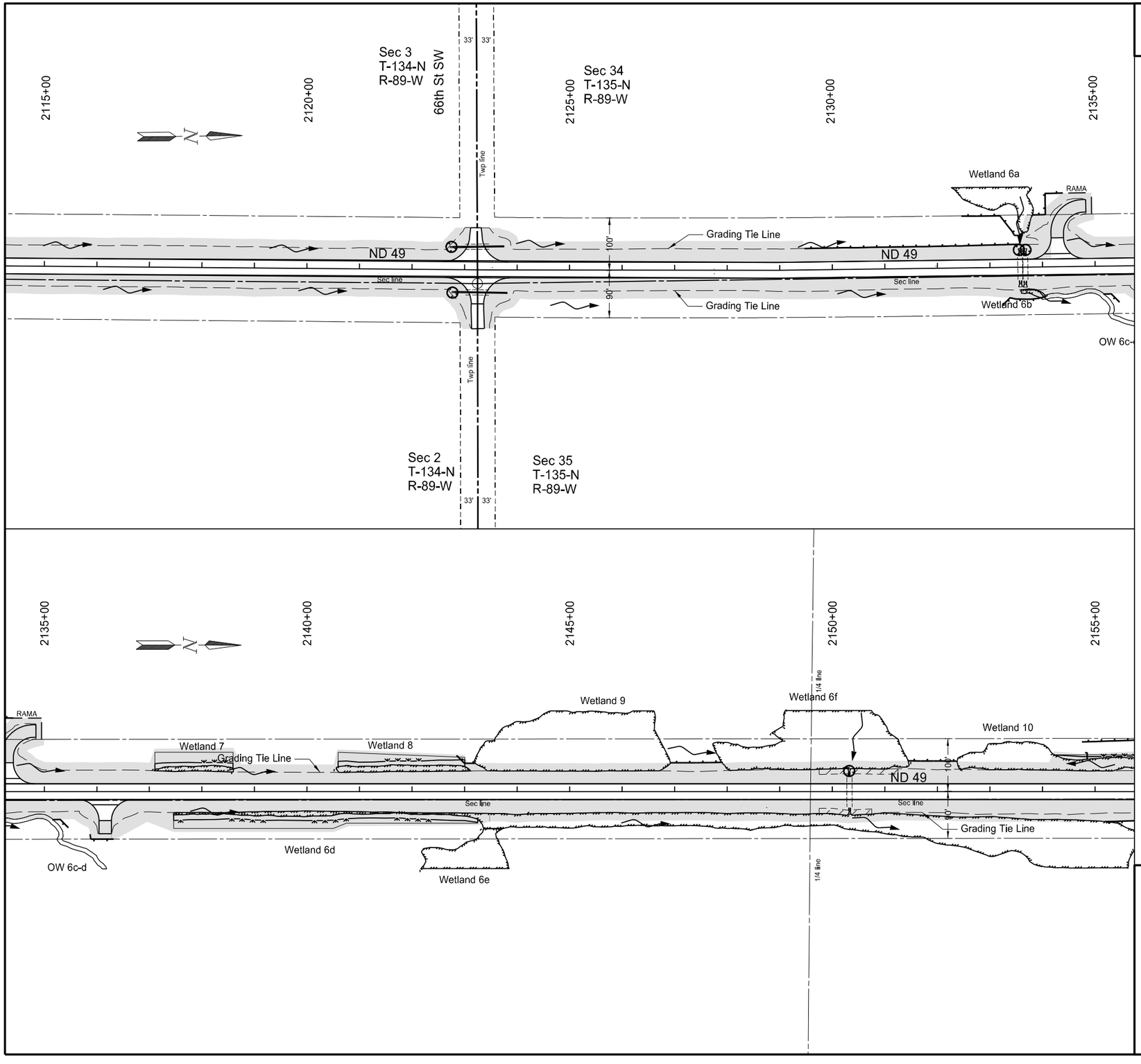
Permanent Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2075+00 to 2115+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:43:07 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	77	6



SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	1,504	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	1,089	LF
		Culvert Inlet Locations	160	LF

Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

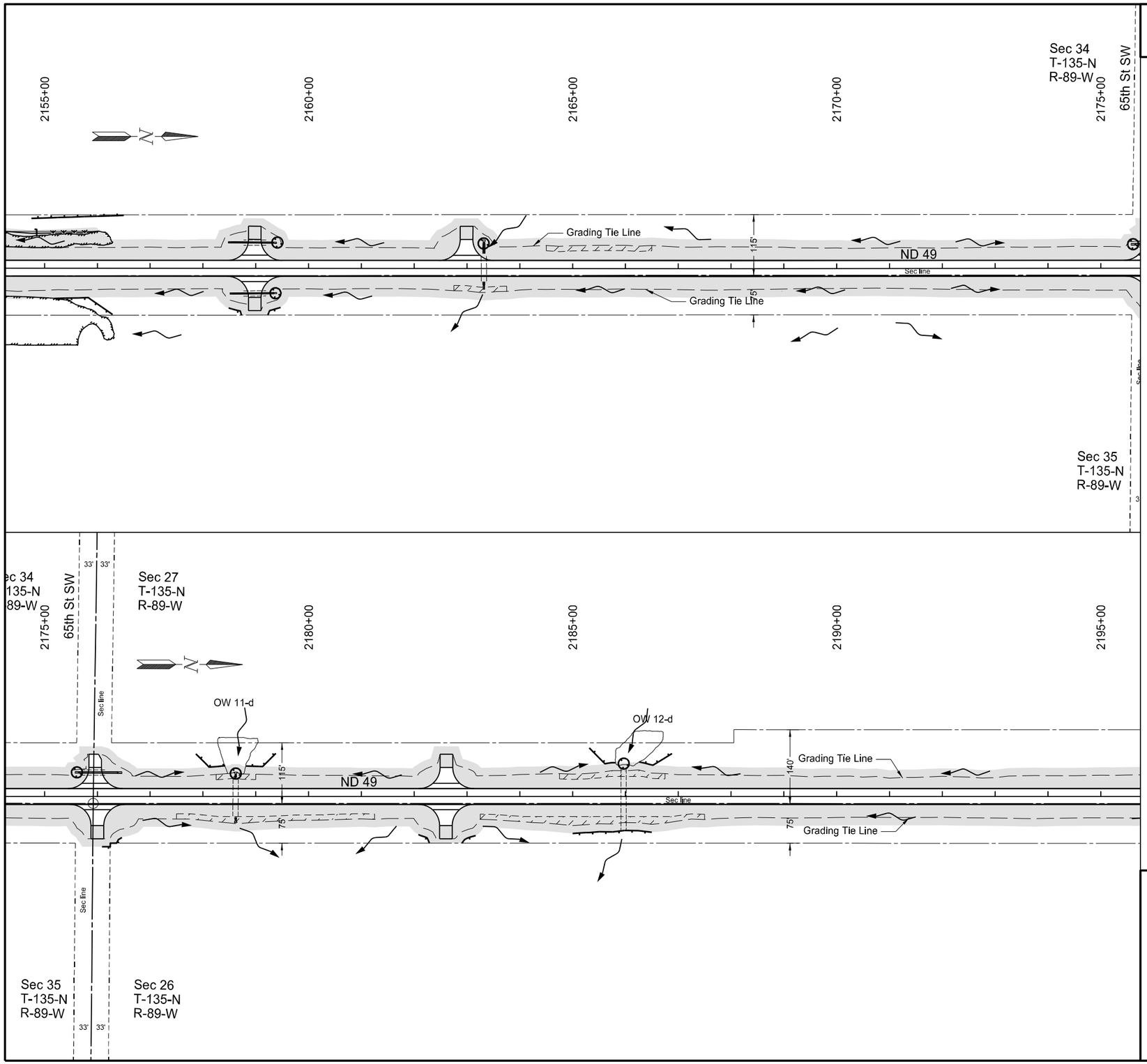
Permanent Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2115+00 to 2155+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:43:21 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	77	7



SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	1,660	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	855	LF
		Culvert Inlet Locations	192	LF

Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

Permanent Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

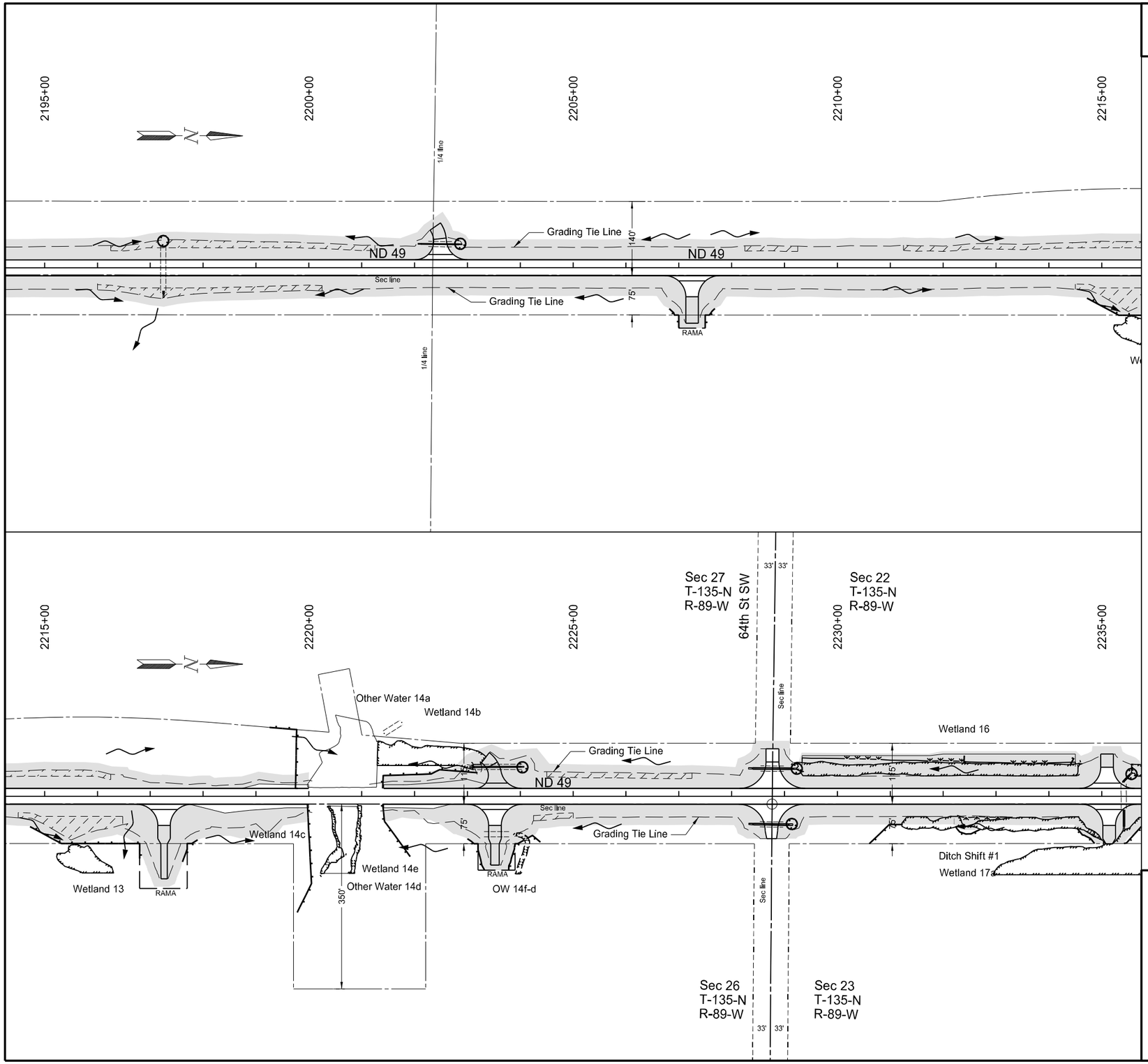
Sta 2155+00 to 2195+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:43:32 -05'00'
NORTH DAKOTA

8/26/2026 8:59:05 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\077PE\077PE_Grant.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	77	8

SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	2,808	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	1,496	LF
		Culvert Inlet Locations	160	LF



Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

Permanent Sediment and Erosion Control

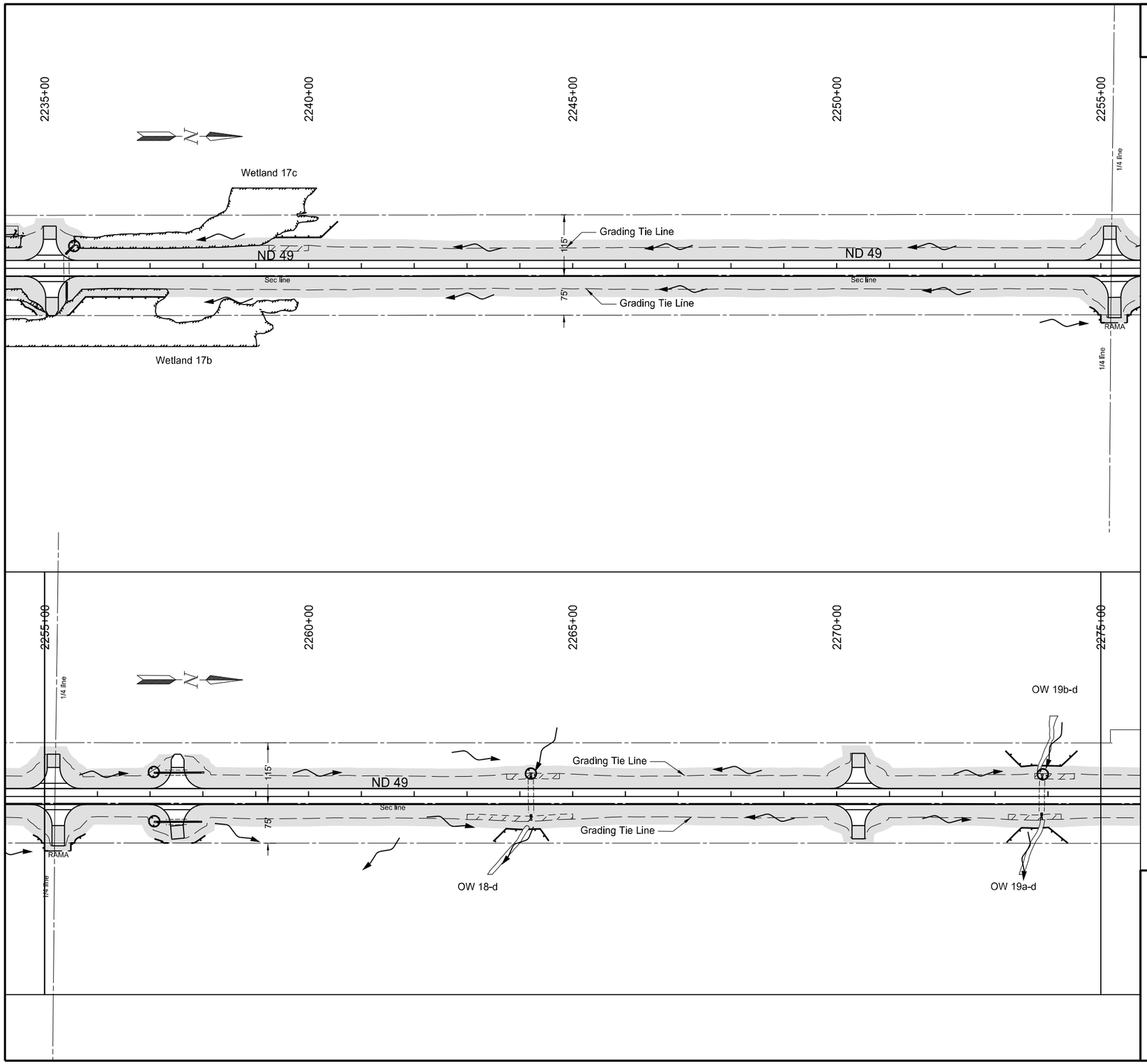
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2195+00 to 2235+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:43:44 -05'00'
NORTH DAKOTA

8/26/2026 8:59:06 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\077PE\077PE_Grant.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	77	9



SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	612	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	890	LF
		Culvert Inlet Locations	160	LF

Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

Permanent Sediment and Erosion Control

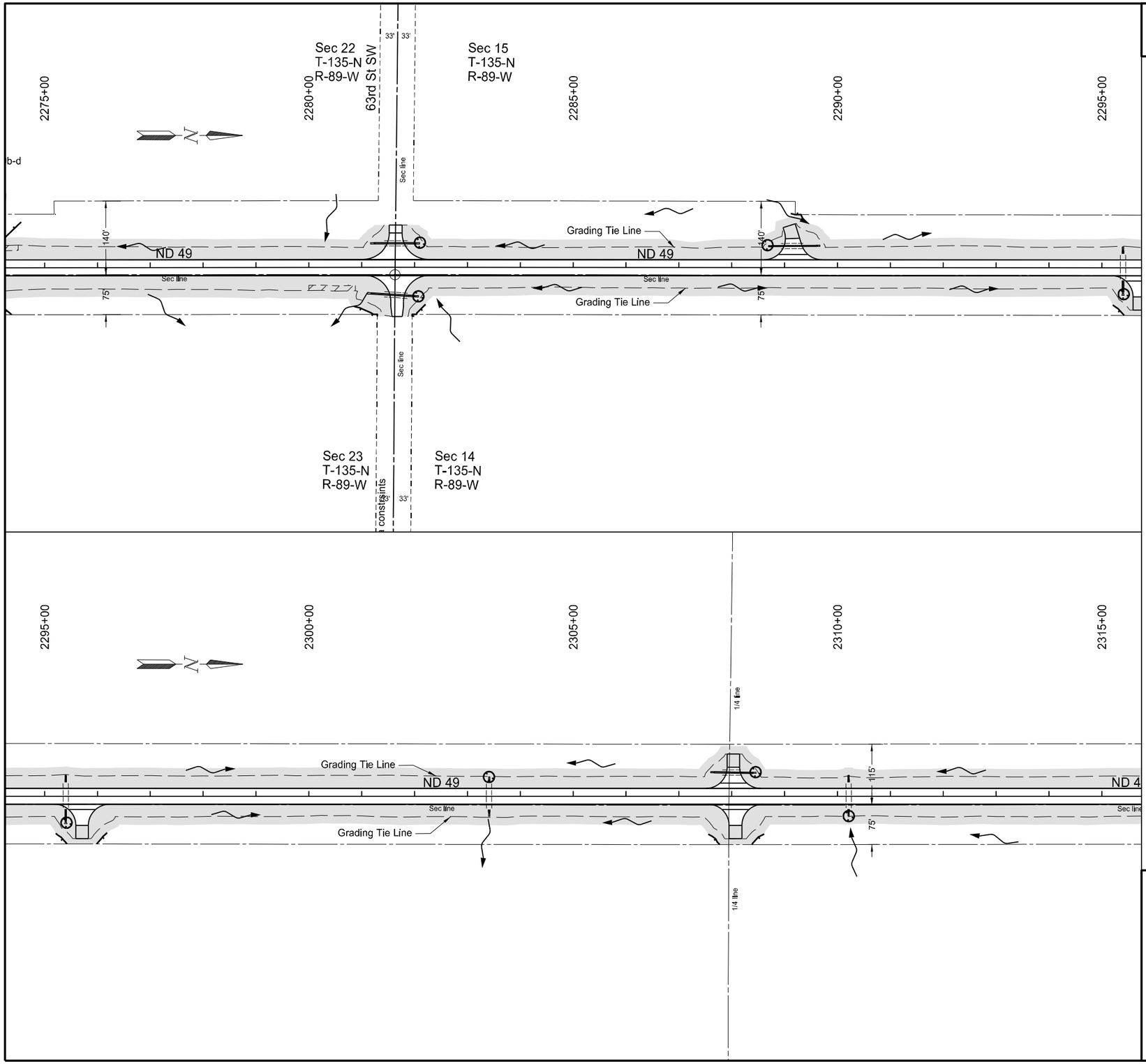
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2235+00 to 2275+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:43:56 -05'00'
NORTH DAKOTA

8/26/2026 8:59:06 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\077PE\077PE_Grant.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	77	10



SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	98	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	240	LF
		Culvert Inlet Locations	224	LF

Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

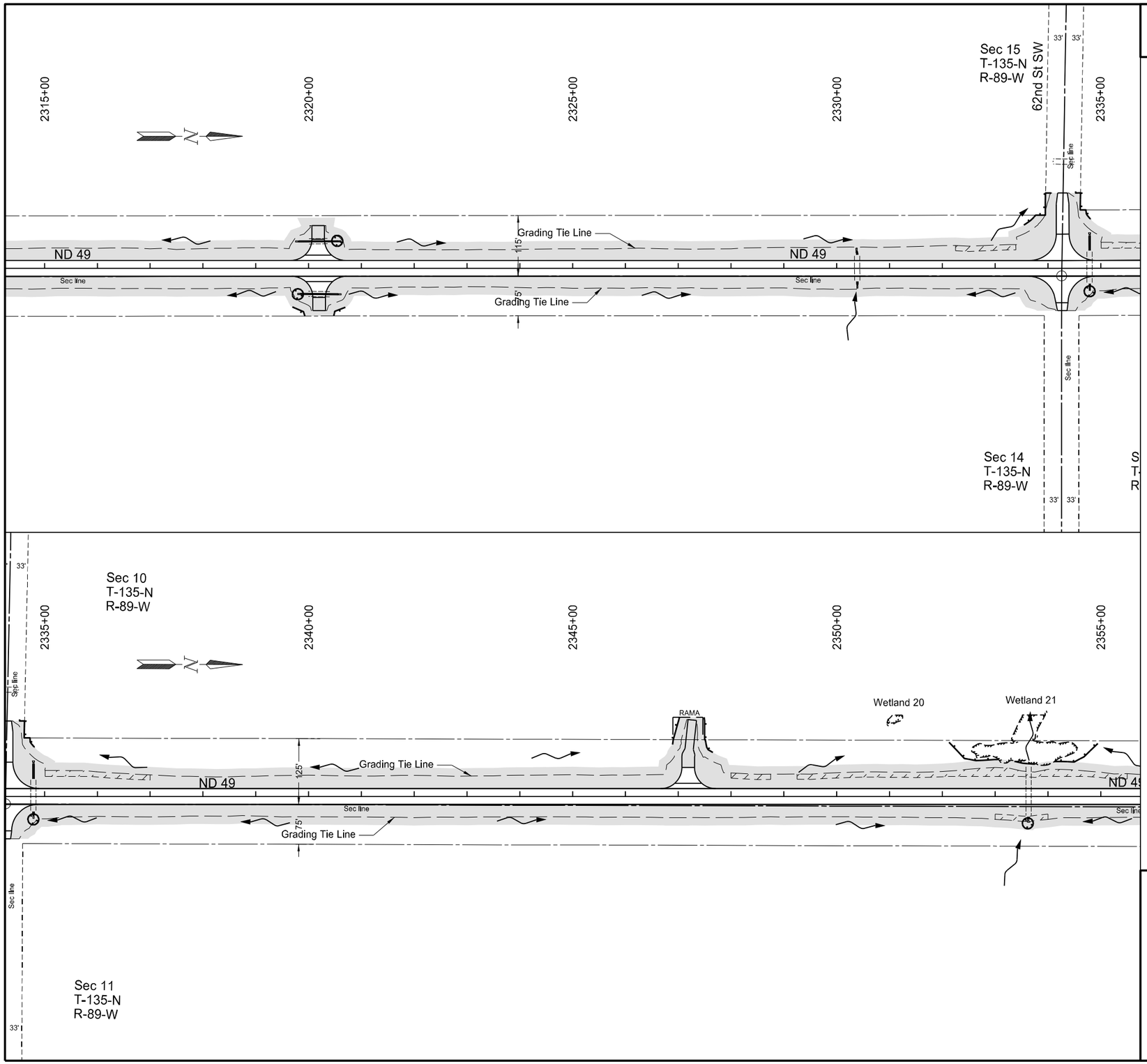
Permanent Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2275+00 to 2315+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:44:09 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	77	11



SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	1,337	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	610	LF
		Culvert Inlet Locations	160	LF

Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

Permanent Sediment and Erosion Control

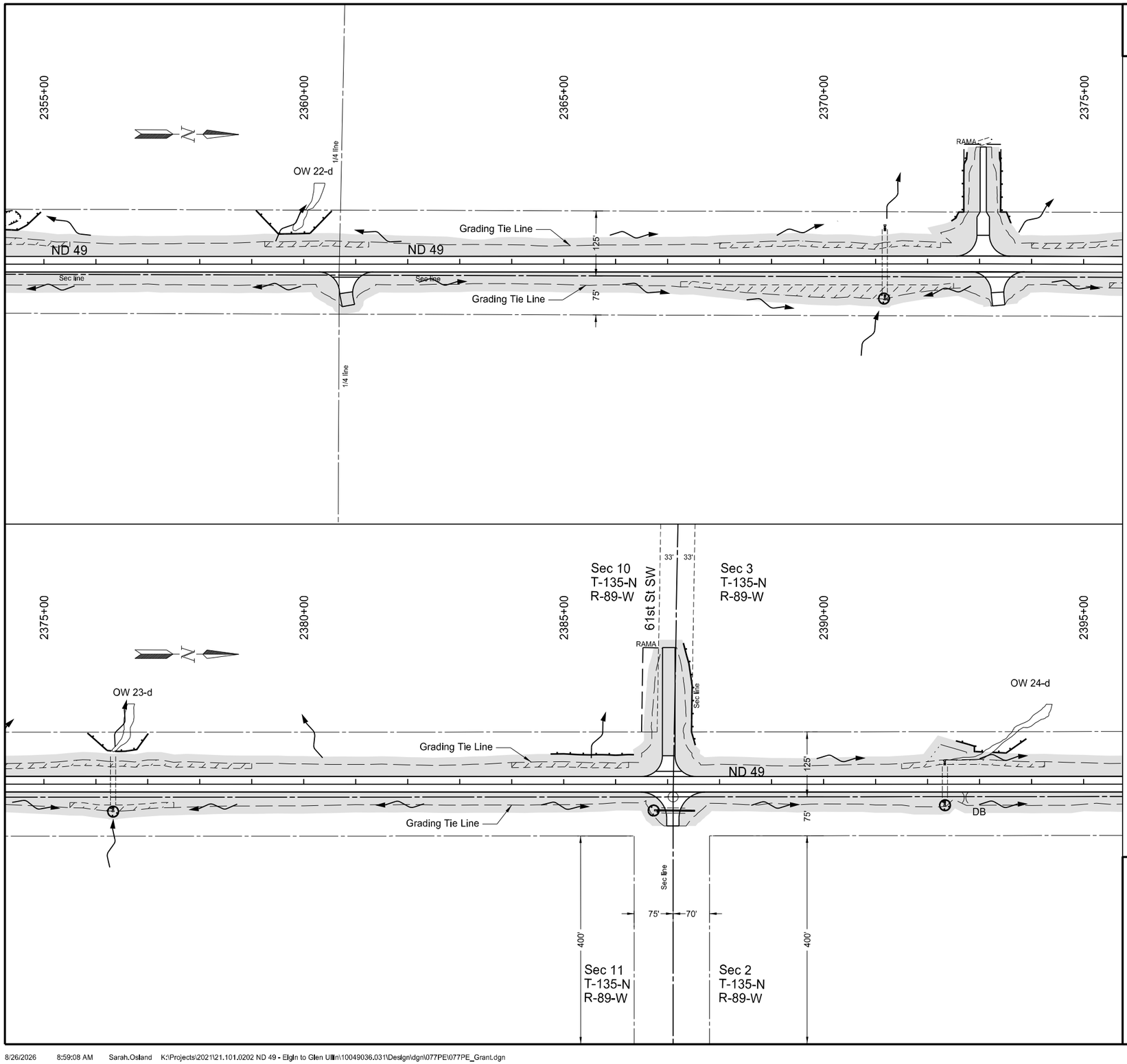
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2315+00 to 2355+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:44:22 -05'00'
NORTH DAKOTA

8/26/2026 8:59:07 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\077PE\077PE_Grant.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	77	12



SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	3,080	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	1,122	LF
		Culvert Inlet Locations	128	LF

Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

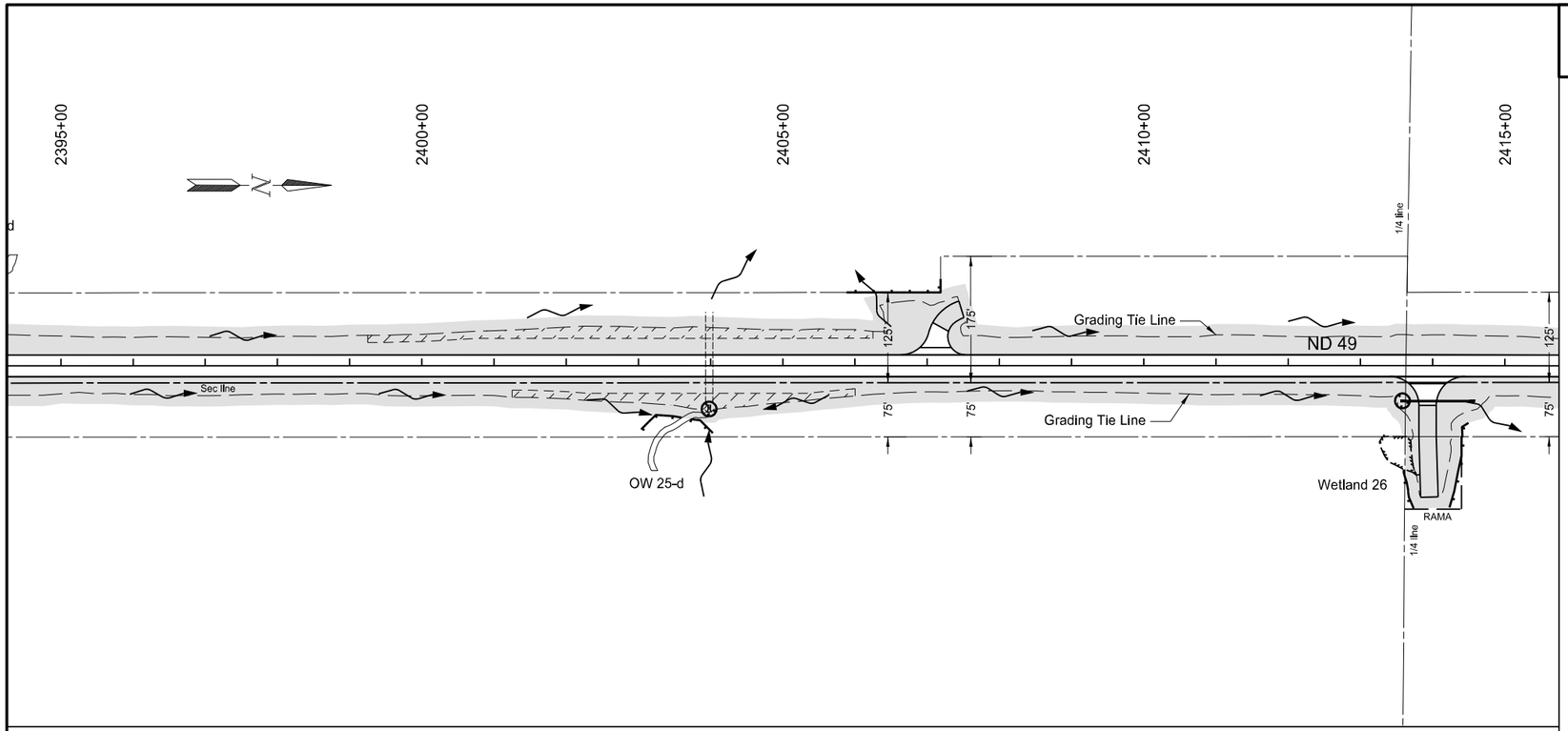
Permanent Sediment and Erosion Control

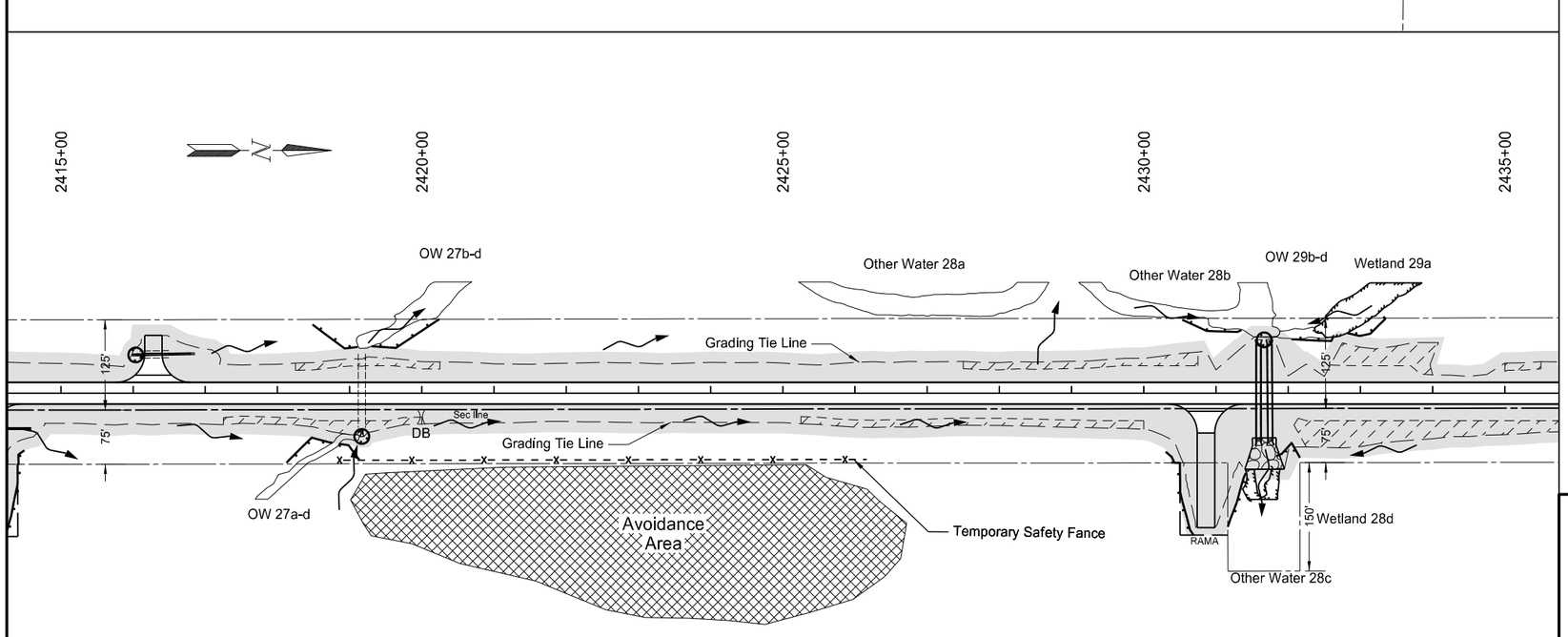
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2355+00 to 2395+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:44:35 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	77	13





SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	4,637	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	1,202	LF
		Culvert Inlet Locations	160	LF

Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

Permanent Sediment and Erosion Control

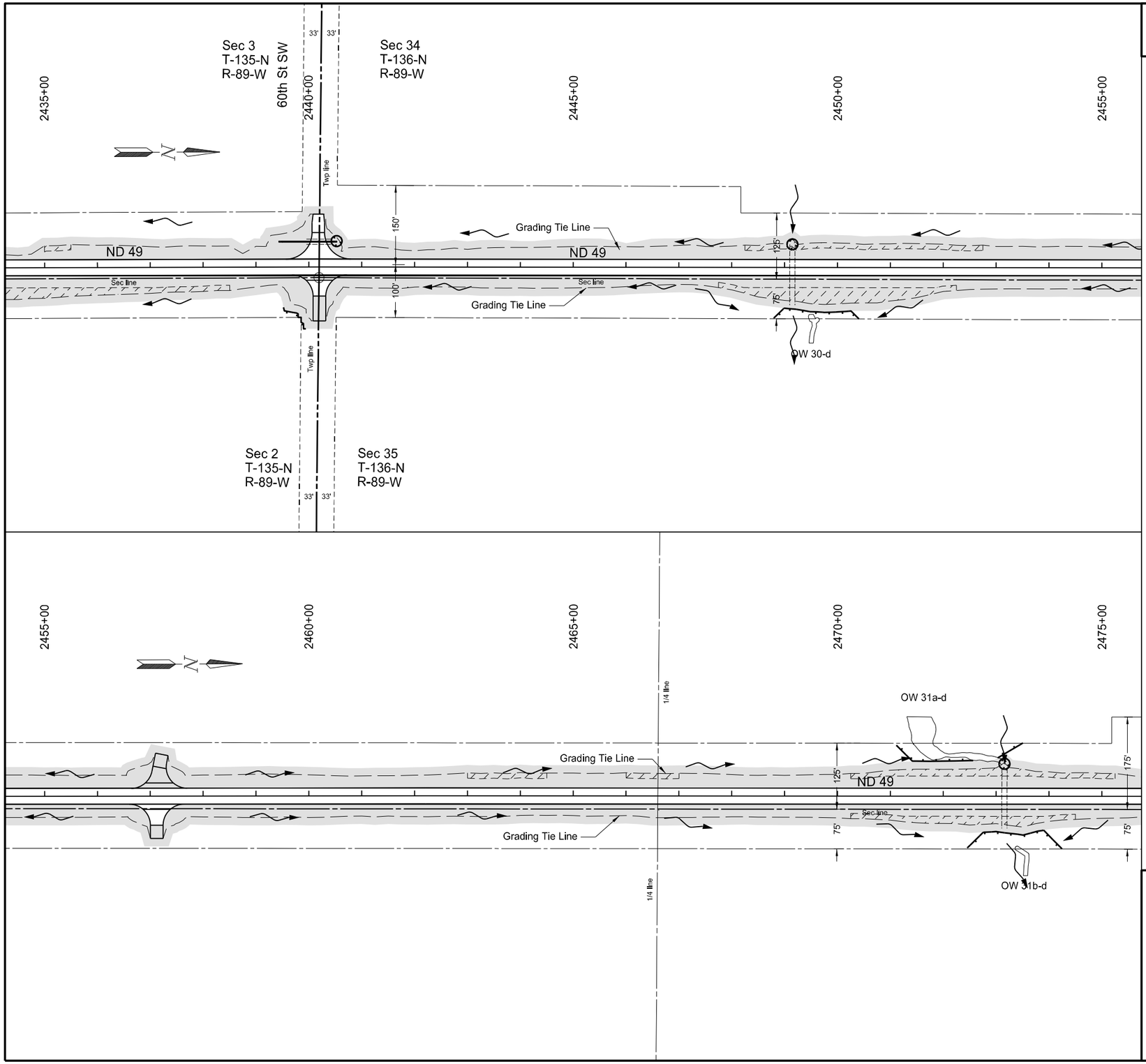
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2395+00 to 2435+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:44:49 -05'00'
NORTH DAKOTA

8/26/2026 8:59:08 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\077PE\077PE_Grant.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	77	14



SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	3,698	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	673	LF
		Culvert Inlet Locations	96	LF

Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

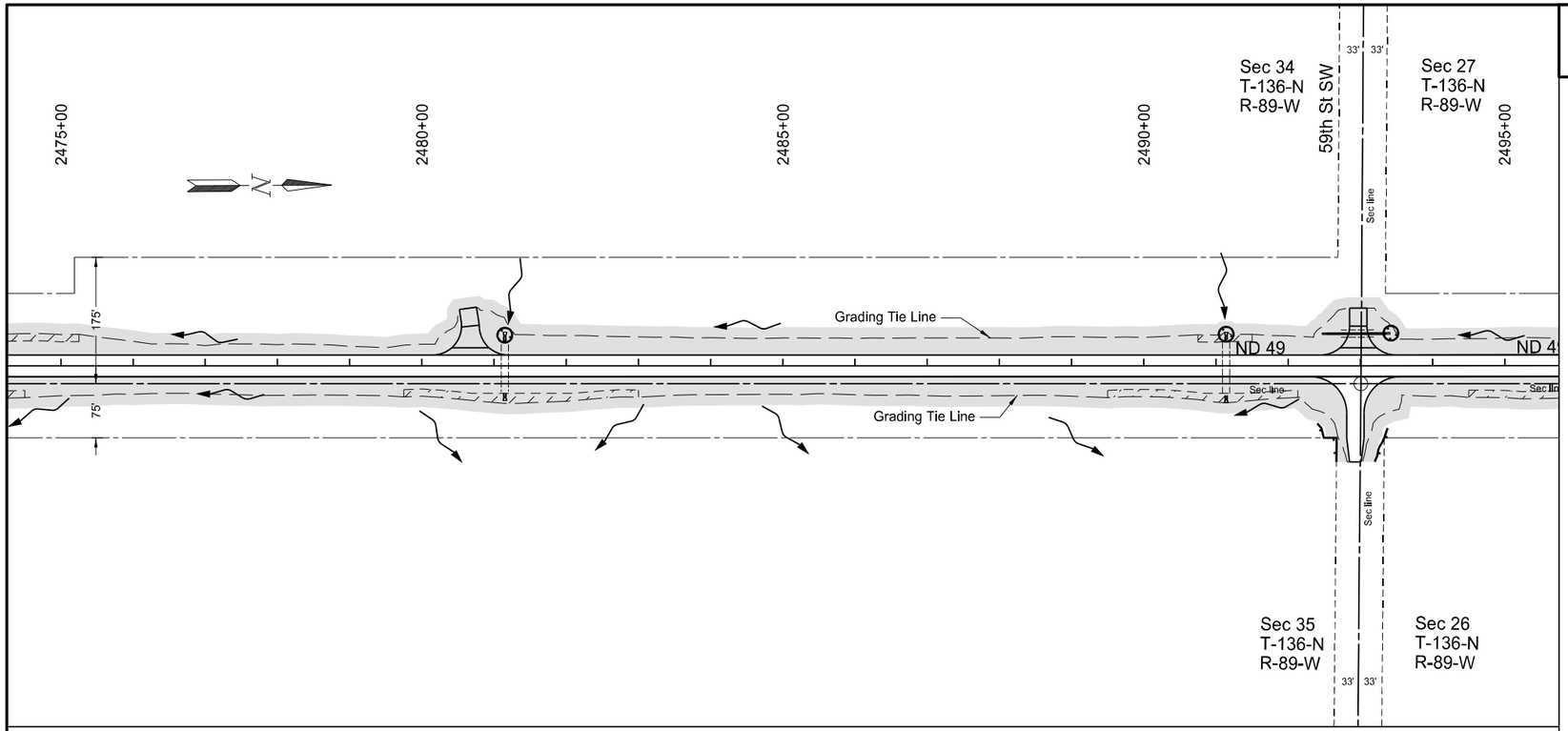
Permanent Sediment and Erosion Control

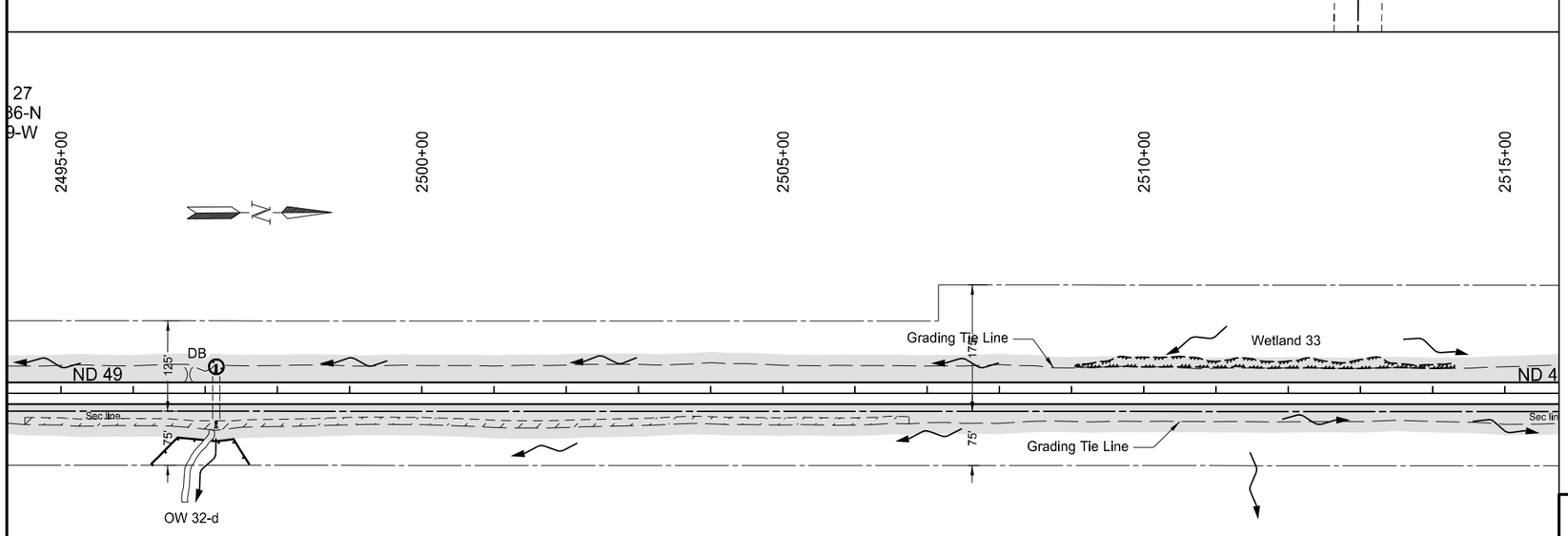
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2435+00 to 2475+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:45:02 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	77	15





SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	2,161	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	287	LF
		Culvert Inlet Locations	128	LF

Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

Permanent Sediment and Erosion Control

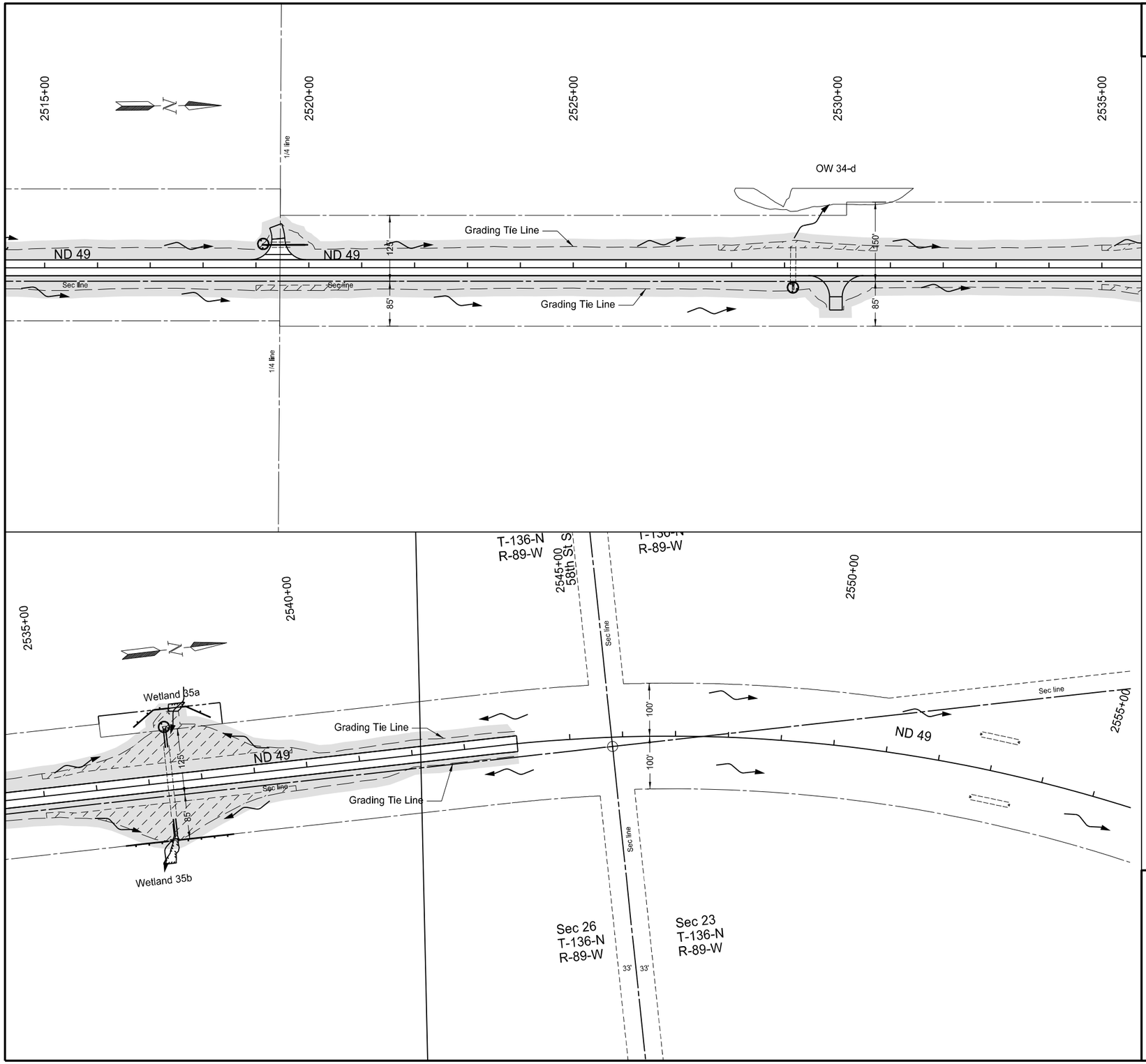
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2475+00 to 2515+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:45:12 -05'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	77	16

SPEC	CODE	BID ITEM	QTY	UNIT
255	0103	ECB TYPE 3		
		Various Locations	4,099	SY
261	0112	FIBER ROLLS 12IN		
		Various Locations	327	LF
		Culvert Inlet Locations	96	LF



Legend

- Fiber Rolls 12IN
- Grading Tie Line (Fill)
- Grading Tie Line (Cut)
- Other Waters/Other Waters - d
- Existing Delineated Wetland - JD
- Existing Delineated Wetland - Non JD
- Flow Direction
- Seeding Class II / Mulch
- ECB Type 3
- Avoidance Area

Permanent Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2515+00 to 2544+00

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:45:23 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	77	17

Sec 77 Sheet #	Begin Station	End Station	Fiber Rolls 12IN (LF)	
			Lt.	Rt.
1	1921+27	1922+76		170
	1921+69	1921+97	30	
	1922+30	1922+60	30	
	1925+39	1925+66	30	
	1926+09	1926+36	30	
	1926+15	1926+65		57
	1926+77	1927+09		41
	1940+68	1941+66		135
	1953+99	1955+00		101
2	1955+00	1956+01		101
	1963+31	1963+43		50
	1963+91	1964+07		50
	1970+13	1970+43	47	
	1970+24	1970+46		32
	1970+94	1971+35		48
	1971+05	1971+40	51	
	1984+72	1985+07		48
	1985+59	1985+94		47
	1986+52	1987+18		72
	1988+74	1989+17	48	
	1989+63	1989+94	34	
	1990+05	1990+24	23	
	1990+87	1991+04		87
	1991+01	1991+26	51	
	1991+73	1991+99		101
	1991+75	1991+87	50	
3	1996+91	1997+21		31
	1997+62	1997+87		30
	2002+39	2002+65	36	
	2002+94	2003+26	43	
4	2069+72	2070+87	122	
	2071+41	2071+83	48	
	2071+83	2072+06	29	
	2071+99	2073+05	121	
	2073+55	2073+71		30
5	2086+23	2086+81		65
	2087+63	2087+90		33
	2088+46	2088+72	32	
	2089+26	2089+65	45	

Sec 77 Sheet #	Begin Station	End Station	Fiber Rolls 12IN (LF)	
			Lt.	Rt.
6	2129+50	2133+55	410	
	2133+22	2133+95		78
	2132+47	2133+63	140	
	2133+82	2134+41	100	
	2135+15	2135+46		38
	2135+87	2136+32		53
	2142+85	2143+20	42	
	2146+91	2147+88	97	
	2151+43	2152+36	93	
	2154+85	2154+86	13	
	2154+75	2155+00	25	
7	2155+00	2156+50	150	
	2155+19	2156+29		120
	2158+48	2158+73		31
	2159+23	2159+47		30
	2176+09	2176+46		50
	2177+87	2178+42	66	
	2178+81	2179+38	67	
	2182+08	2182+29		28
	2182+90	2183+16		31
	2185+00	2186+50		150
	2185+31	2185+81	62	
	2186+26	2186+88	70	
8	2206+82	2207+01		50
	2207+49	2207+68		50
	2214+72	2216+80		244
	2217+61	2217+90		58
	2219+25	2219+75	163	
	2219+78	2219+97		211
	2221+40	2221+92		115
	2221+40	2223+08	229	
	2223+00	2223+32		75
	2223+78	2224+07		70
	2224+14	2224+38		30
	2230+60	2231+22		75
	2232+24	2232+71		54
	2232+39	2232+40	14	
	2234+41	2234+47	14	
	2234+54	2234+86	44	

Sec 77 Sheet #	Begin Station	End Station	Fiber Rolls 12IN (LF)	
			Lt.	Rt.
9	2235+42	2237+29		202
	2239+38	2240+56	130	
	2254+78	2255+07		51
	2255+50	2255+77		50
	2257+08	2257+35		29
	2257+78	2258+04		30
	2263+50	2264+05		65
	2264+16	2264+55		50
	2273+19	2273+81	74	
	2273+22	2273+81		71
	2273+87	2274+56	80	
	2273+90	2274+38		58
10	2280+86	2281+29		51
	2281+95	2282+21		38
	2289+12	2289+36	31	
	2295+21	2295+42		30
	2295+99	2296+18		29
	2307+56	2307+77		30
	2308+38	2308+61		31
11	2319+69	2319+93		31
	2320+48	2320+70		30
	2333+54	2334+06	101	
	2334+53	2334+80	75	
	2346+89	2347+02	53	
	2347+49	2347+65	74	
	2352+13	2353+05	106	
	2353+36	2353+76	40	
	2354+12	2354+94	100	
12	2359+08	2360+54	184	
	2372+46	2372+76	150	
	2373+38	2373+60	150	
	2375+84	2376+30	59	
	2376+37	2377+01	80	
	2384+75	2386+35	160	
	2387+30	2387+53	200	
	2392+54	2393+07	65	
	2393+24	2393+90	74	

Sec 77 Sheet #	Begin Station	End Station	Fiber Rolls 12IN (LF)	
			Lt.	Rt.
13	2403+04	2403+60		64
	2403+72	2404+03		38
	2405+88	2407+19	149	
	2413+60	2413+74		56
	2414+24	2414+50		125
	2418+12	2418+76		79
	2418+49	2419+11	74	
	2418+85	2419+13		39
	2419+30	2420+24	106	
	2430+30	2430+69		131
	2430+53	2431+35	86	
	2431+16	2431+41		79
	2431+83	2432+16		52
	2432+05	2432+62	61	
	2432+82	2433+35	63	
14	2439+52	2439+94		75
	2448+79	2450+41		176
	2471+11	2472+56	158	
	2472+45	2474+25		208
	2473+03	2473+51	56	
15	2492+40	2492+67		74
	2493+20	2493+38		51
	2496+25	2496+98		89
	2497+07	2497+61		73
16	2536+43	2537+25		82
	2536+82	2537+51	78	
	2537+43	2538+49		107
	2537+76	2538+29	60	
		Subtotal	5,576	5,444
		Total	11,020	

Permanent Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Summary

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26 13:45:38 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	77	18

Sec 77 Sheet #	Station	Fiber Rolls 12IN (LF)	
		Lt.	Rt.
1	1921+80	32	
	1925+54	32	
	1925+54	32	
	1926+54	32	
	1926+64	32	
	1926+72	32	
	1926+82	32	
	1927+67		32
	1940+94	32	
	1941+32		32
2	1967+08	32	
	1967+11		32
	1970+34		32
	1985+06		32
	1985+08	32	
	1989+33	32	
3	2002+73		32
	2020+38		32
	2020+38		32
	2028+10	32	
4	2045+53		32
	2048+77	32	
	2048+84		32
	2059+42	32	
	2065+32		32
	2071+82	32	
5	2088+93		32
	2089+15		32
	2099+39		32
	2099+42	32	
	2106+33		32
6	2122+89	32	
	2122+92		32
	2133+56	32	
	2133+68	32	
	2150+32	32	
7	2159+25		32
	2159+27	32	
	2163+32	32	
	2175+70	32	
	2178+62	32	
	2185+97	32	
8	2197+25	32	
	2202+75	32	
	2224+03	32	
	2229+01		32
	2229+03	32	
9	2235+41	32	
	2257+24		32
	2257+26	32	
	2264+21	32	
	2273+89	32	

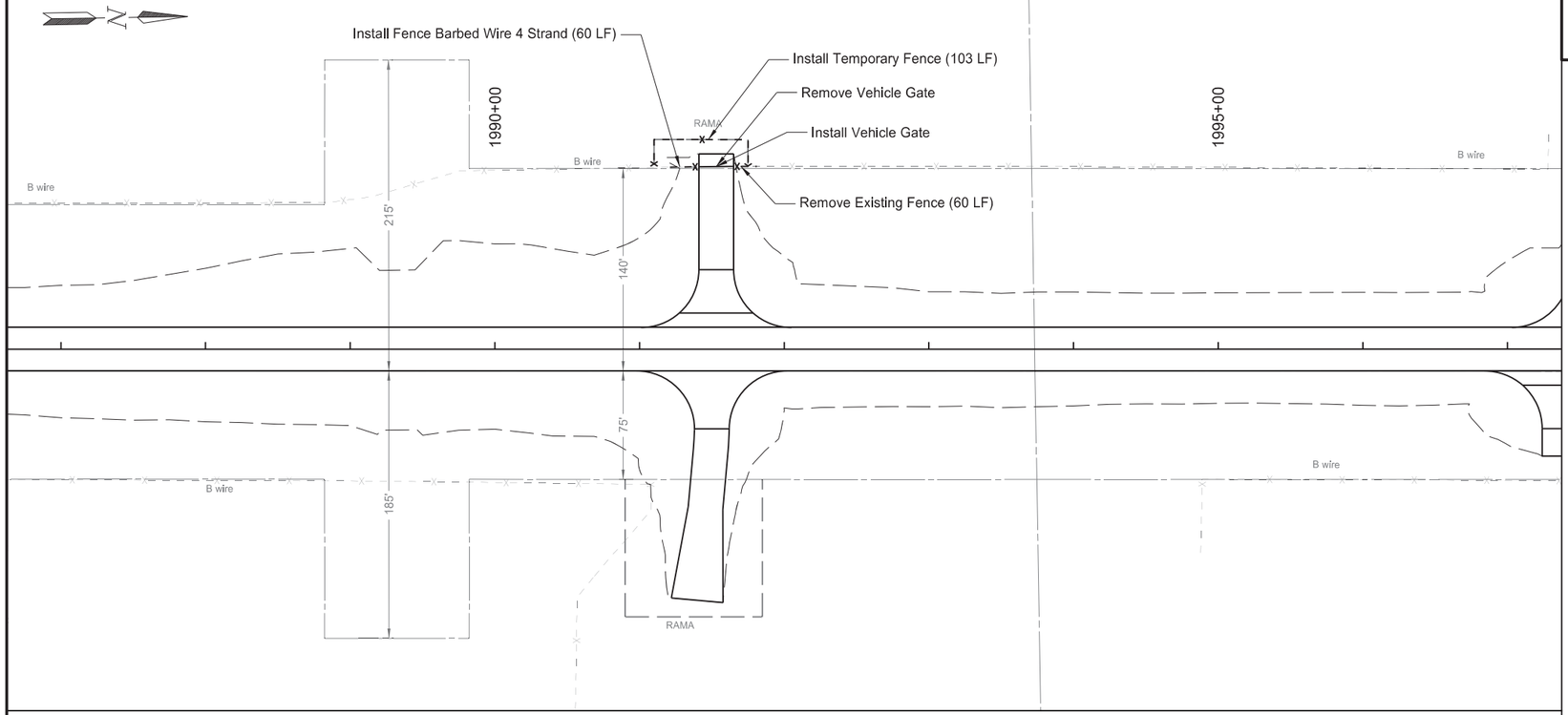
Sec 77 Sheet #	Station	Fiber Rolls 12IN (LF)	
		Lt.	Rt.
10	2281+93		32
	2281+95	32	
	2288+84	32	
	2295+39		32
	2303+41	32	
	2308+28	32	
	2310+21		32
11	2319+93		32
	2320+42	32	
	2330+39		32
	2334+79		32
	2353+63		32
12	2371+18		32
	2376+33		32
	2386+83		32
	2392+33		32
13	2403+98		32
	2413+93	32	
	2416+04	32	
	2419+17		32
	2431+66	32	
14	2440+46	32	
	2449+15	32	
	2473+16	32	
15	2481+15	32	
	2491+14	32	
	2493+26	32	
	2497+15	32	
16	2519+14	32	
	2529+16		32
	2537+40	32	
Subtotal		1,600	1,056
Total		2,656	

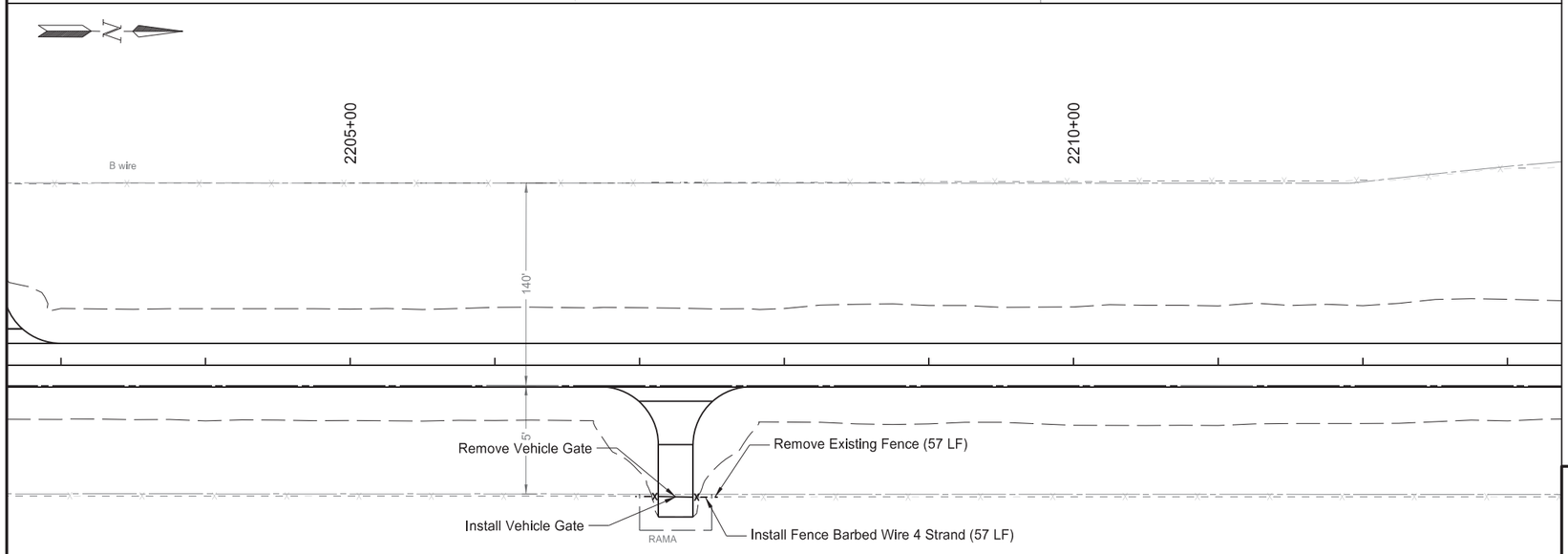
Permanent Sediment and Erosion Control

ND 49 - Jct 21 Elgin N to 58th St SW

Summary

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.08.26
13:45:51 -05'00'
NORTH DAKOTA





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	80	1

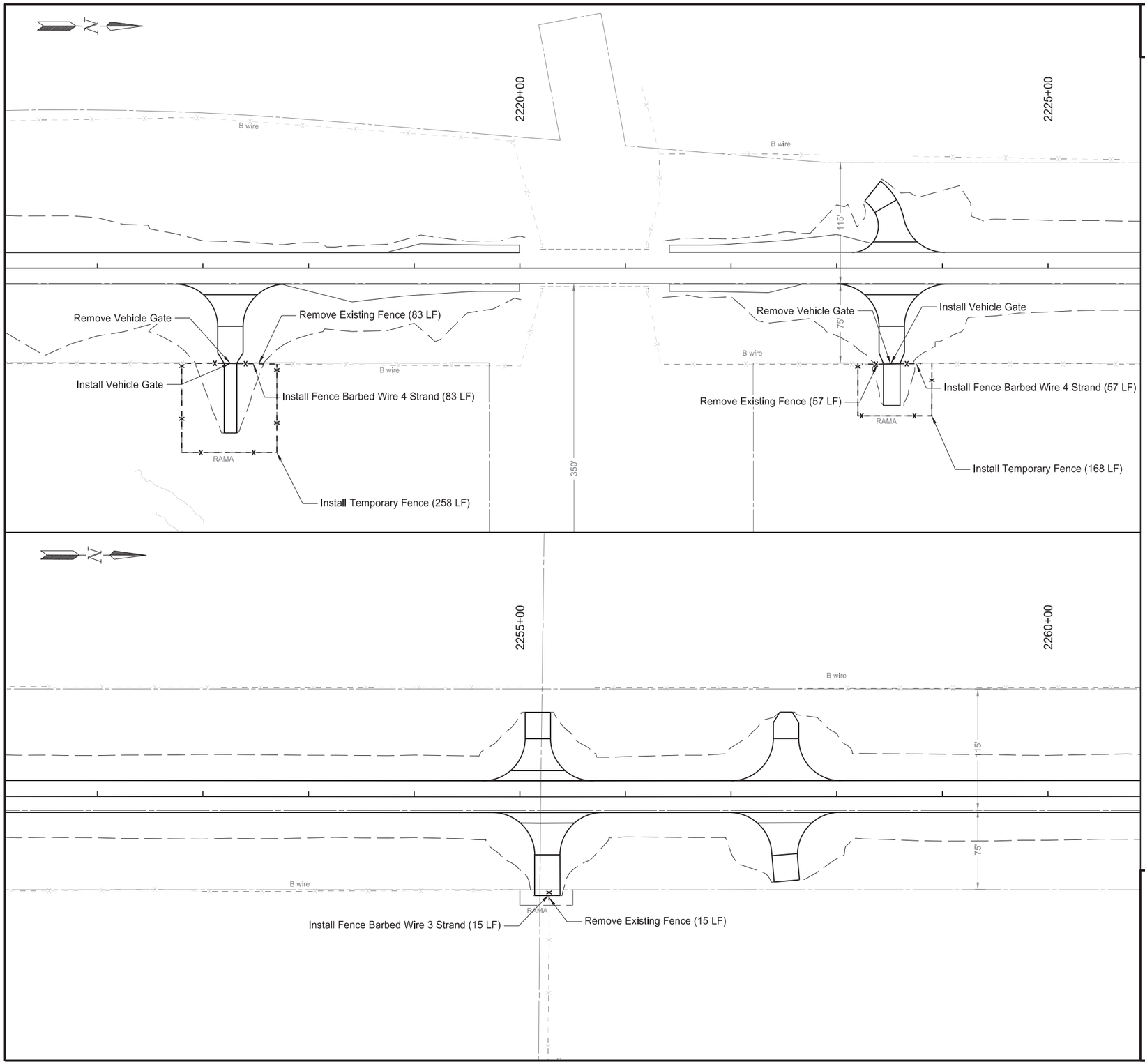
SPEC	CODE	BID ITEM	QTY	UNIT
202	0312	REMOVE EXISTING FENCE		
		Sta 1987+00 to Sta 1997+00 Lt	60	LF
		Sta 2203+00 to Sta 2213+00 Rt	57	LF
752	0200	FENCE BARBED WIRE 4 STRAND		
		Sta 1987+00 to Sta 1997+00 Lt	60	LF
		Sta 2203+00 to Sta 2213+00 Rt	57	LF
752	0905	TEMPORARY FENCE		
		Sta 1987+00 to Sta 1997+00 Lt	103	LF
752	2100	VEHICLE GATE		
		Sta 1987+00 to Sta 1997+00 Lt	1	EA
		Sta 2203+00 to Sta 2213+00 Rt	1	EA
752	2120	REMOVE VEHICLE GATE		
		Sta 1987+00 to Sta 1997+00 Lt	1	EA
		Sta 2203+00 to Sta 2213+00 Rt	1	EA

Fencing Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1987+00 to Sta 1997+00
Sta 2203+00 to Sta 2213+00

JASON P. GULLICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.20 16:10:26 -06'00'
ENGINEER
NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	80	2

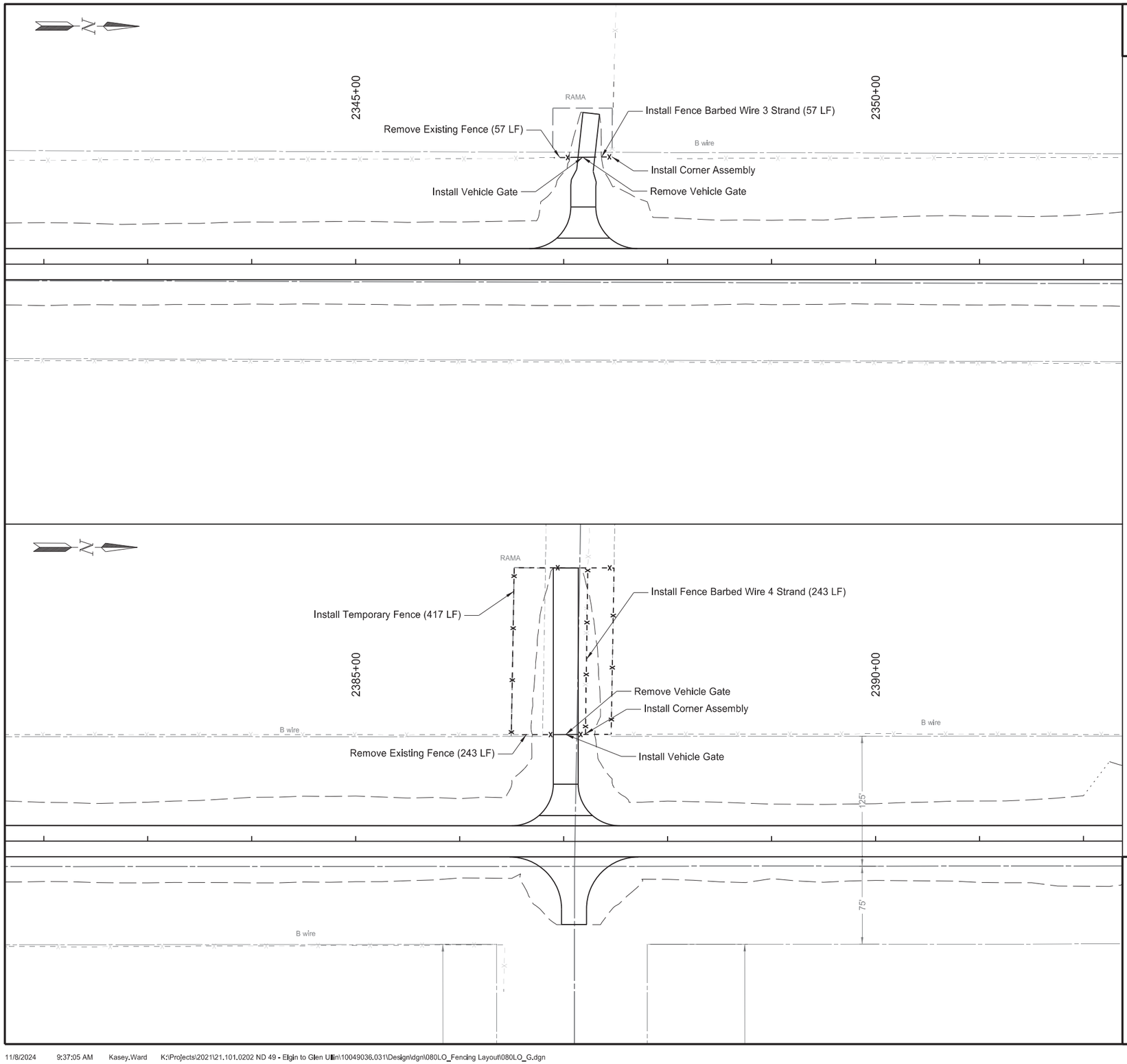
SPEC	CODE	BID ITEM	QTY	UNIT
202	0312	REMOVE EXISTING FENCE		
		Sta 2216+00 to Sta 2225+00 Rt	140	LF
		Sta 2251+00 to Sta 2260+00 Rt	15	LF
752	0100	FENCE BARBED WIRE 3 STRAND		
		Sta 2251+00 to Sta 2260+00 Rt	15	LF
752	0200	FENCE BARBED WIRE 4 STRAND		
		Sta 2216+00 to Sta 2225+00 Rt	140	LF
752	0905	TEMPORARY FENCE		
		Sta 2216+00 to Sta 2225+00 Rt	426	LF
752	2100	VEHICLE GATE		
		Sta 2216+00 to Sta 2225+00 Rt	2	EA
752	2120	REMOVE VEHICLE GATE		
		Sta 2216+00 to Sta 2225+00 Rt	2	EA

Fencing Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2216+00 to Sta 2225+00
Sta 2251+00 to Sta 2260+00

JASON P. GULLICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.20 16:10:50 -06'00'
ENGINEER
NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	80	3

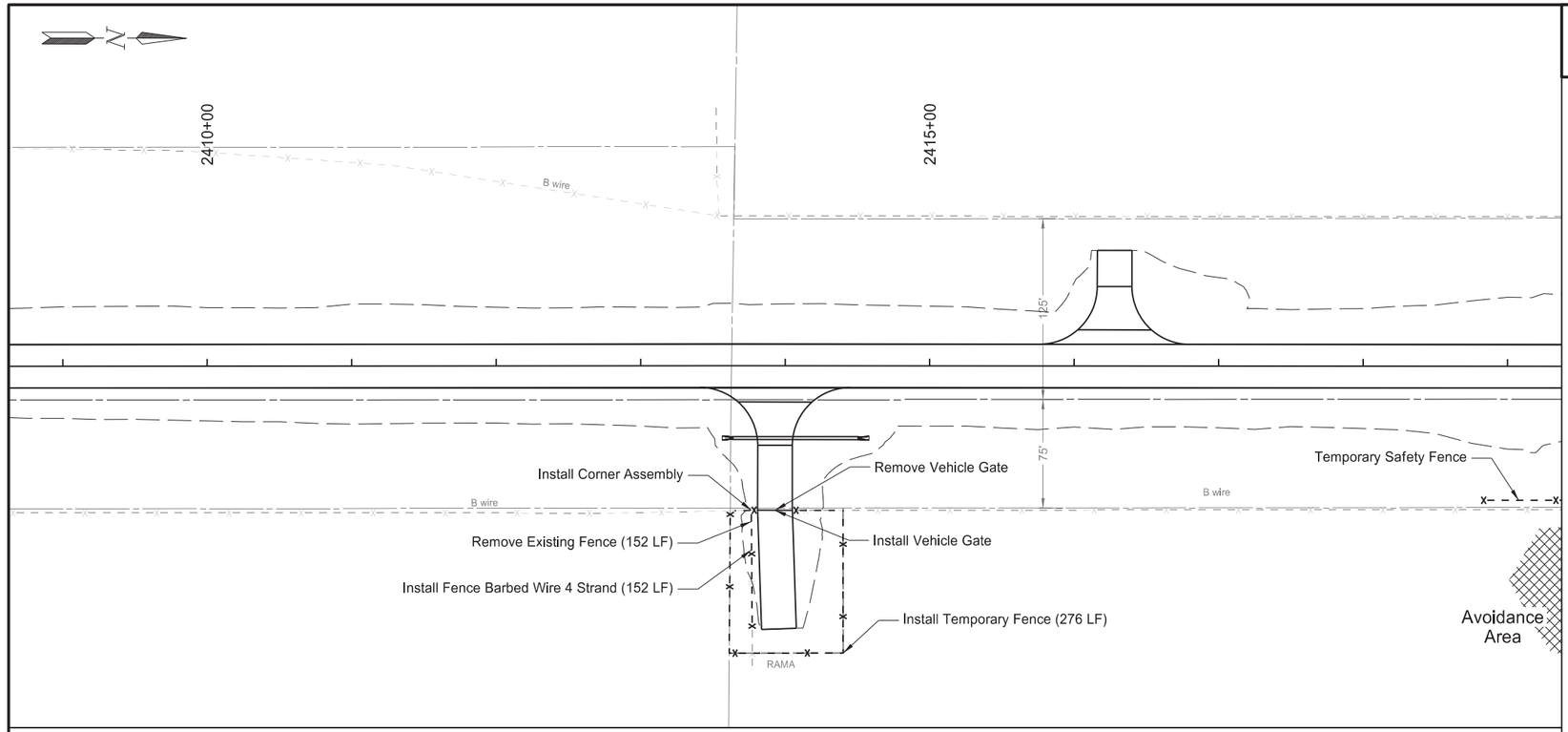
SPEC	CODE	BID ITEM	QTY	UNIT
202	0312	REMOVE EXISTING FENCE		
		Sta 2342+00 to Sta 2352+00 Lt	57	LF
		Sta 2382+00 to Sta 2392+00 Lt	243	LF
752	0100	FENCE BARBED WIRE 3 STRAND		
		Sta 2342+00 to Sta 2352+00 Lt	57	LF
752	0200	FENCE BARBED WIRE 4 STRAND		
		Sta 2382+00 to Sta 2392+00 Lt	243	LF
752	0905	TEMPORARY FENCE		
		Sta 2382+00 to Sta 2392+00 Lt	417	LF
752	2100	VEHICLE GATE		
		Sta 2342+00 to Sta 2352+00 Lt	1	EA
		Sta 2382+00 to Sta 2392+00 Lt	1	EA
752	2120	REMOVE VEHICLE GATE		
		Sta 2342+00 to Sta 2352+00 Lt	1	EA
		Sta 2382+00 to Sta 2392+00 Lt	1	EA
752	3150	CORNER ASSEMBLY BARBED WIRE-WOOD POST		
		Sta 2382+00 to Sta 2392+00 Lt	1	EA

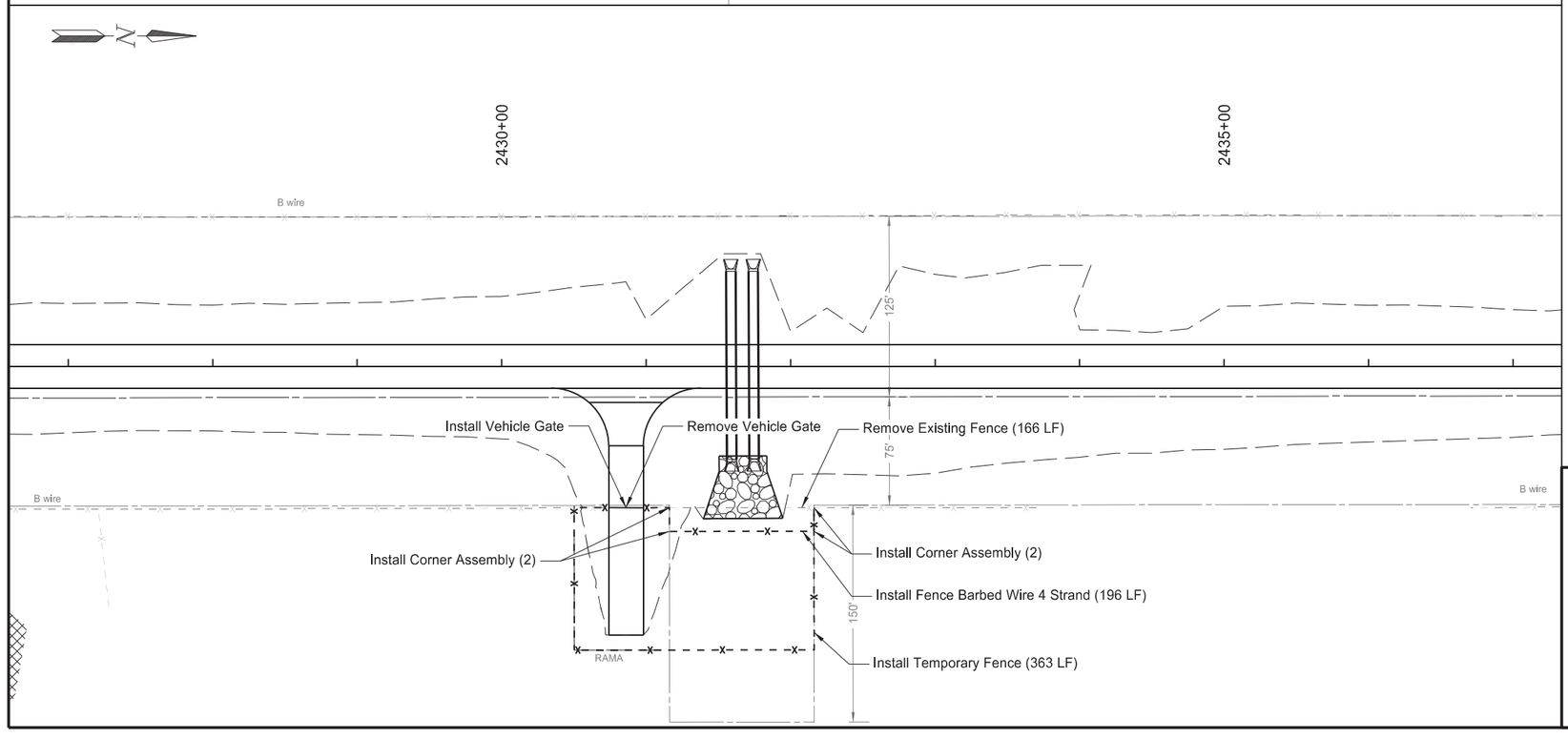
Fencing Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2342+00 to Sta 2352+00
Sta 2382+00 to Sta 2392+00

JASON P. GULLICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.20 16:11:09 -06'00'
ENGINEER
NORTH DAKOTA





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	80	4

SPEC	CODE	BID ITEM	QTY	UNIT
202	0312	REMOVE EXISTING FENCE		
		Sta 2409+00 to Sta 2419+00 Rt	152	LF
		Sta 2427+00 to Sta 2437+00 Rt	166	LF
752	0200	FENCE BARBED WIRE 4 STRAND		
		Sta 2409+00 to Sta 2419+00 Rt	152	LF
		Sta 2427+00 to Sta 2437+00 Rt	196	LF
752	0905	TEMPORARY FENCE		
		Sta 2409+00 to Sta 2419+00 Rt	276	LF
		Sta 2427+00 to Sta 2437+00 Rt	363	LF
752	2100	VEHICLE GATE		
		Sta 2409+00 to Sta 2419+00 Rt	1	EA
		Sta 2427+00 to Sta 2437+00 Rt	1	EA
752	2120	REMOVE VEHICLE GATE		
		Sta 2409+00 to Sta 2419+00 Rt	1	EA
		Sta 2427+00 to Sta 2437+00 Rt	1	EA
752	3150	CORNER ASSEMBLY BARBED WIRE-WOOD POST		
		Sta 2409+00 to Sta 2419+00 Rt	1	EA
		Sta 2427+00 to Sta 2437+00 Rt	4	EA

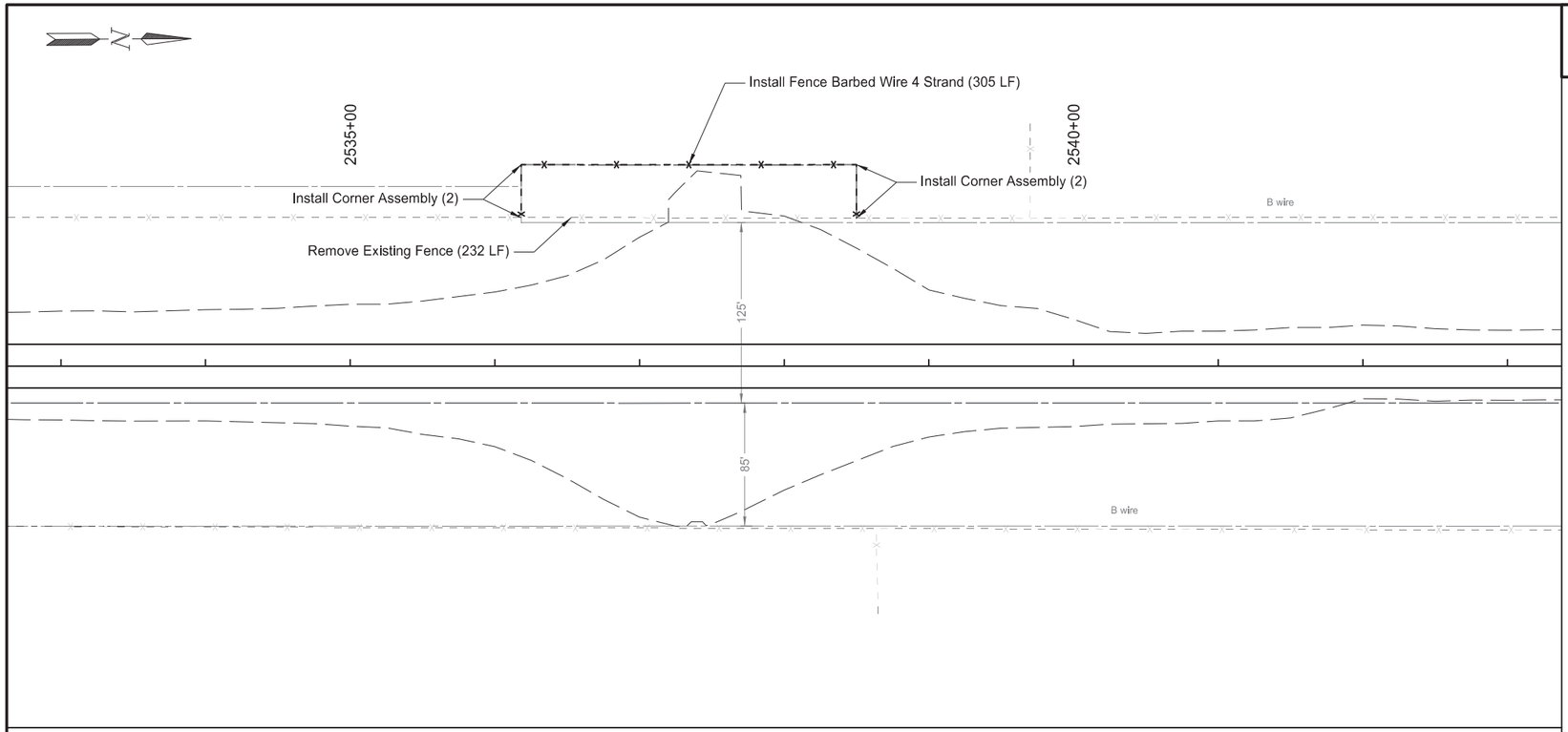
Fencing Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2409+00 to Sta 2419+00
Sta 2427+00 to Sta 2437+00

JASON P. GULLICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.20 16:11:28 -06'00'
ENGINEER
NORTH DAKOTA

11/8/2024 9:37:09 AM Kasey.Ward K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\080LO_Fencing Layout\080LO_G.dgn



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	80	5

SPEC	CODE	BID ITEM	QTY	UNIT
202	0312	REMOVE EXISTING FENCE		
		Sta 2533+00 to Sta 2543+00 Lt	232	LF
752	0200	FENCE BARBED WIRE 4 STRAND		
		Sta 2533+00 to Sta 2543+00 Lt	305	LF
752	3150	CORNER ASSEMBLY BARBED WIRE-WOOD POST		
		Sta 2533+00 to Sta 2543+00 Lt	4	EA

Fencing Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2533+00 to Sta 2543+00

JASON P. GULLICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.20 16:11:49 -06'00'
ENGINEER
NORTH DAKOTA

PRELIMINARY SURVEY COORDINATE AND CURVE DATA - ND 49 - Elgin to 58th St SW

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	81	1

HORIZONTAL ALIGNMENT

PNT	STATION	NORTHING	EASTING
Begin ND 49 Chain (SCL49_G)			
Begin	1918+27.68	271011.03	1630937.26
¼ line	1941+04.30	273284.31	1630976.46
PI	1948+69.81	274052.71	1630989.71
Sec line	1967+34.48	275917.25	1631011.99
PI	1967+34.81	275917.58	1631011.99
¼ line	1993+73.14	278555.48	1631058.93
Sec line	2020+11.33	281193.26	1631105.86
¼ line	2046+68.74	283850.05	1631163.43
PI	2053+84.17	284565.31	1631178.93
Sec line	2073+25.95	286506.76	1631211.62
PI	2073+26.46	286507.32	1631211.62
¼ line	2099+62.82	289143.11	1631266.58
PI	2123+24.20	291503.98	1631315.81
Twp line	2123+24.34	291504.12	1631315.81
PC	2123+55.08	291534.85	1631316.45
PI - C8102	2127+76.92	291956.60	1631325.25
PT	2131+98.72	292378.44	1631324.72
¼ line	2149+58.68	294138.03	1631322.54
PI	2175+91.95	296771.66	1631319.28
Sec line	2175+92.24	296771.95	1631319.28
¼ line	2202+34.27	299413.98	1631314.83
PI	2228+76.30	302056.00	1631310.38
Sec line	2228+76.48	302056.18	1631310.38
¼ line	2255+19.77	304699.46	1631304.45
Sec line	2281+63.01	307342.70	1631298.52
PI	2281+64.26	307343.95	1631298.52
¼ line	2307+94.70	309974.38	1631297.06
Sec line	2334+26.10	312605.79	1631295.61
PI	2334+69.00	312648.69	1631295.58
PI	2339+12.38	313092.07	1631295.34
¼ line	2360+68.50	315248.16	1631283.14
PI	2364+14.67	315594.32	1631281.18
Chain description continued on sheet 2			

NOTES: Sheet 1 of 4

CURVE DATA

ARC DEFINITION			
CURVE C8102		CURVE C8108	
PI =	2127+76.92	PI =	2684+39.62
Delta =	01°15'56" Lt	Delta =	26°31'16" Rt
Da =	00°09'00"	Da =	03°35'58"
R =	38197.20	R =	1591.81
T=	421.84'	T =	375.13'
L=	843.64	L =	736.82

Date Survey Completed 07/12/22

US PUBLIC LAND SURVEY DATA

CORNER		IRN	NORTHING	EASTING
T-134-N R-89-W				
W Qtr Cor	Sec 3	7-B	289146.03	1626001.73
SW Cor	Sec 3	7-C	286503.42	1625942.32
W Qtr Cor	Sec 10	7-D	283854.91	1625894.77
SW Cor	Sec 10	7-E	281206.64	1625847.58
W Qtr Cor	Sec 15	7-F	278562.23	1625798.17
NE Cor	Sec 21	7-G	275918.23	1625747.87
W Qtr Cor	Sec 22	7-H	273271.32	1625699.33
SW Cor	Sec 22	7-J	270624.52	1625650.78
CS Cor	Sec 22	8-H	273274.14	1628335.71
S Qtr Cor	Sec 22	8-J	270628.43	1628289.46
NW Cor	Sec 2	9-A	291503.90	1631342.02
W Qtr Cor	Sec 2	9-B	289143.09	1631292.31
SW Cor	Sec 2	9-C	286506.78	1631236.85
W Qtr Cor	Sec 11	9-D	283850.05	1631178.85
SW Cor	Sec 11	9-E	281193.21	1631120.86
W Qtr Cor	Sec 14	9-F	278555.46	1631073.89
SW Cor	Sec 14	9-G	275917.25	1631026.94
W Qtr Cor	Sec 23	9-H	273284.31	1630976.32
SW Cor	Sec 23	9-J	270634.04	1630928.25
N Qtr Cor	Sec 26	10-J	270632.72	1633567.17
E Qtr Cor	Sec 2	11-B	289120.09	1636584.98
SE Cor	Sec 2	11-C	286478.92	1636536.33
E Qtr Cor	Sec 11	11-D	283835.36	1636508.83
SE Cor	Sec 11	11-E	281191.65	1636481.60
E Qtr Cor	Sec 14	11-F	278550.64	1636408.53
SE Cor	Sec 14	11-G	275909.82	1636335.11
E Qtr Cor	Sec 23	11-H	273270.78	1636270.83
SE Cor	Sec 23	11-J	270631.36	1636205.99
T-135-N R-89-W				
NW Cor	Sec 3	7-A	323260.70	1626013.14

☐ Assumed Coordinates

☒ All coordinates on this sheet are Grant County ground coordinates.
They are derived from the NAD83(2011) reference frame; North Dakota South Zone Combination Factor (cf) = 0.9998615

SURVEY CONTROL POINTS

PNT	NORTHING	EASTING	ELEV	STATION	OFFSET	MONUMENT DESCRIPTION
GPS 38	281139.29	1631027.63	2344.28	2019+55.98	77' Lt	# 5 Rebar w/ 1.5" Alum Cap Stamped "GPS 38"
GPS 41	296735.70	1631224.79	2278.51	2175+56.11	94' Lt	# 5 Rebar w/ 1.5" Alum Cap Stamped "GPS 41"
GPS 44	311250.75	1631204.79	2290.23	2320+71.12	91' Lt	# 5 Rebar w/ 1.5" Alum Cap Stamped "GPS 44"
GPS 47	327165.49	1631193.95	2209.18	2479+85.37	97' Lt	# 5 Rebar w/ 1.5" Alum Cap Stamped "GPS 47"

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

INITIALIZING BENCH MARK
NDGPS Stations (OPUS)

☒ NAVD-88
☐ _____

☐ GEOID12B ☐ _____
☒ GEOID18

GREGG ORVIK
REGISTERED LAND SURVEYOR
LS. -3881
2024.11.22 07:46:38 -06'00'
NORTH DAKOTA

PRELIMINARY SURVEY COORDINATE AND CURVE DATA - ND 49 - Elgin to 58th St SW

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	81	2

HORIZONTAL ALIGNMENT

PNT	STATION	NORTHING	EASTING
Chain (SCL49_G) description continued from Sheet 1			
Sec line	2387+10.91	317890.55	1631277.28
PI	2387+11.13	317890.78	1631277.28
¼ line	2413+62.91	320542.55	1631272.91
Twp line	2440+19.35	323198.99	1631268.54
PI	2440+19.67	323199.30	1631268.54
¼ line	2466+60.12	325839.71	1631283.50
Sec line	2493+00.85	328480.40	1631298.45
¼ line	2519+45.47	331124.98	1631313.43
PC	2543+75.32	333554.79	1631327.19
Sec line	Bk Tan 2545+78.86	333758.33	1631328.11
PI - C1919	2558+07.46	334989.72	1631333.72
Sec line	Ahd Tan 32.82' to PI	335009.21	1631360.13
PT	2570+31.44	335839.90	1632485.71

CURVE DATA

ARC DEFINITION

US PUBLIC LAND SURVEY DATA

CORNER		IRN	NORTHING	EASTING
T-135-N R-89-W (Continued)				
W Qtr Cor	Sec 3	7-B	320618.73	1626018.31
SW Cor	Sec 3	7-C	317976.65	1626023.53
W Qtr Cor	Sec 10	7-D	315333.77	1626019.77
SW Cor	Sec 10	7-E	312690.91	1626020.99
W Qtr Cor	Sec 15	7-F	310043.30	1626026.50
SW Cor	Sec 15	7-G	307395.61	1626031.98
W Qtr Cor	Sec 22	7-H	304756.13	1626038.02
SW Cor	Sec 22	7-J	302116.63	1626043.76
W Qtr Cor	Sec 27	7-K	299477.15	1626055.33
SW Cor	Sec 27	7-L	296837.66	1626066.73
W Qtr Cor	Sec 34	7-M	294203.46	1626063.66
SW Cor	Sec 34	7-N	291547.60	1626055.73
N Qtr Cor	Sec 3	8-A	323231.48	1628655.35
C Qtr Cor	Sec 3	8-B	320580.50	1628659.21
S Qtr Cor	Sec 3	8-C	317933.35	1628662.84
S Qtr Cor	Sec 10	8-E	312648.26	1628665.77
NW Cor	Sec 2	9-A	323198.68	1631293.50
W Qtr Cor	Sec 2	9-B	320542.19	1631297.62
SW Cor	Sec 2	9-C	317890.14	1631302.27
E Qtr Cor	Sec 10	9-D	315247.78	1631306.40
SW Cor	Sec 11	9-E	312605.55	1631310.55
W Qtr Cor	Sec 14	9-F	309974.16	1631314.55
SW Cor	Sec 14	9-G	307342.55	1631313.41
W Qtr Cor	Sec 23	9-H	304699.30	1631319.56
NW Cor	Sec 26	9-J	302056.00	1631325.43
W Qtr Cor	Sec 26	9-K	299413.80	1631329.84
SW Cor	Sec 26	9-L	296771.77	1631334.27
W Qtr Cor	Sec 35	9-M	294137.84	1631338.14
S Qtr Cor	Sec 14	10-G	307328.17	1633947.36
C Qtr Cor	Sec 23	10-G	304684.49	1633956.26

SURVEY CONTROL POINTS

PNT	NORTHING	EASTING	ELEV	STATION	OFFSET	MONUMENT DESCRIPTION

NOTES: Sheet 2 of 4

Date Survey Completed 07/12/22

☐ Assumed Coordinates

☒ All coordinates on this sheet are Grant County ground coordinates. They are derived from the NAD83(2011) reference frame; North Dakota South Zone Combination Factor (cf) = 0.9998615

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

INITIALIZING BENCH MARK
NDGPS Stations (OPUS)

☒ NAVD-88

☐ _____

☐ GEOID12B ☐ _____

☒ GEOID18

GREGG ORVIK
REGISTERED LAND SURVEYOR
LS. -3881
2024.11.22 07:47:42 -06'00'
NORTH DAKOTA

PRELIMINARY SURVEY COORDINATE AND CURVE DATA - ND 49 - Elgin to 58th St SW

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	81	3

HORIZONTAL ALIGNMENT

PNT	STATION	NORTHING	EASTING

CURVE DATA

ARC DEFINITION

US PUBLIC LAND SURVEY DATA

CORNER		IRN	NORTHING	EASTING
T-135-N R-89-W (Continued)				
S Qtr Cor	Sec 23	10-J	302040.84	1633965.22
NE Cor	Sec 2	11-A	323129.10	1636584.67
E Qtr Cor	Sec 2	11-B	320508.74	1636579.66
SE Cor	Sec 2	11-C	317895.92	1636574.59
E Qtr Cor	Sec 11	11-D	315251.79	1636580.86
SE Cor	Sec 11	11-E	312607.60	1636587.09
E Qtr Cor	Sec 14	11-F	309960.51	1636583.28
SE Cor	Sec 14	11-G	307313.87	1636581.51
E Qtr Cor	Sec 23	11-H	304669.85	1636593.25
SE Cor	Sec 23	11-J	302025.86	1636604.95
E Qtr Cor	Sec 26	11-K	299381.89	1636609.97
SE Cor	Sec 26	11-L	296737.99	1636614.96
E Qtr Cor	Sec 35	11-M	294094.09	1636619.97
SE Cor	Sec 35	11-N	291450.08	1636624.89
T-136-N R-89-W				
NW Cor	Sec 22	7-G	339100.14	1626106.32
W Qtr Cor	Sec 22	7-H	336459.25	1626090.96
SW Cor	Sec 22	7-J	333818.68	1626075.53
W Qtr Cor	Sec 27	7-K	331182.99	1626061.90
NW Cor	Sec 34	7-L	328547.49	1626048.43
W Qtr Cor	Sec 34	7-M	325904.01	1626031.05
N Qtr Cor	Sec 22	8-G	339067.47	1628745.74
S Qtr Cor	Sec 22	8-J	333788.38	1628714.43
C Qtr Cor	Sec 27	8-K	331151.12	1628700.29
S Qtr Cor	Sec 27	8-L	328513.78	1628686.39
C Qtr Cor	Sec 34	8-M	325872.68	1628670.88
NW Cor	Sec 2	9-A	354585.35	1631463.66
SW Cor	Sec 2	9-C	349614.92	1631439.95
SW Cor	Sec 11	9-E	344336.80	1631422.65
NE Cor	Sec 22	9-G	339050.69	1631382.14

SURVEY CONTROL POINTS

PNT	NORTHING	EASTING	ELEV	STATION	OFFSET	MONUMENT DESCRIPTION

NOTES: Sheet 3 of 4

Date Survey Completed 07/12/22

☐ Assumed Coordinates

☒ All coordinates on this sheet are Grant County ground coordinates.
They are derived from the NAD83(2011) reference frame; North Dakota South Zone Combination Factor (cf) = 0.9998615

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

INITIALIZING BENCH MARK
NDGPS Stations (OPUS)

☒ NAVD-88

☐ _____

☐ GEOID12B ☐ _____

☒ GEOID18

GREGG ORVIK
REGISTERED LAND SURVEYOR
LS. -3881
2024.11.22 07:48:11 -06'00'
NORTH DAKOTA

PRELIMINARY SURVEY COORDINATE AND CURVE DATA - ND 49 - Elgin to 58th St SW

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	81	4

HORIZONTAL ALIGNMENT

PNT	STATION	NORTHING	EASTING

CURVE DATA

ARC DEFINITION	

US PUBLIC LAND SURVEY DATA

CORNER		IRN	NORTHING	EASTING
T-136-N R-89-W (Continued)				
W Qtr Cor	Sec 23	9-H	336398.04	1631367.71
SE Cor	Sec 22	9-J	333758.04	1631353.30
N Qtr Cor	Sec 23	10-G	339033.04	1634025.72
S Qtr Cor	Sec 23	10-J	333727.10	1633982.55

SURVEY CONTROL POINTS

PNT	NORTHING	EASTING	ELEV	STATION	OFFSET	MONUMENT DESCRIPTION

NOTES: Sheet 4 of 4

Date Survey Completed 07/12/22

☐ Assumed Coordinates

☒ All coordinates on this sheet are Grant County ground coordinates. They are derived from the NAD83(2011) reference frame; North Dakota South Zone Combination Factor (cf) = 0.9998615

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

INITIALIZING BENCH MARK
NDGPS Stations (OPUS)

☒ NAVD-88

☐ _____

☐ GEOID12B ☐ _____

☒ GEOID18

GREGG ORVIK
REGISTERED LAND SURVEYOR
LS. -3881
2024.11.22
09:48:40 -06'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	82	1

Alignment Name: PR49_G
Alignment Description:
Alignment Style: Alignment\Horizontal\Large Scale\Alignment 1

		Station	Northing	Easting
Element: Linear				
START	( )	1918+27.68	271,011.030	1,630,937.258
COMBINATION PI	( )	1941+01.312	273,284.308	1,630,977.382
Tangential Direction:		N1.011°E		
Tangential Length:		2273.632		
Element: Linear				
COMBINATION PI	( )	1941+01.312	273,284.308	1,630,977.382
COMBINATION PI	( )	1967+34.485	275,917.254	1,631,011.942
Tangential Direction:		N0.752°E		
Tangential Length:		2633.172		
Element: Linear				
COMBINATION PI	( )	1967+34.485	275,917.254	1,631,011.942
COMBINATION PI	( )	1993+73.131	278,555.482	1,631,058.923
Tangential Direction:		N1.020°E		
Tangential Length:		2638.647		
Element: Linear				
COMBINATION PI	( )	1993+73.131	278,555.482	1,631,058.923
COMBINATION PI	( )	2020+11.298	281,193.254	1,631,104.567
Tangential Direction:		N0.991°E		
Tangential Length:		2638.166		
Element: Linear				
COMBINATION PI	( )	2020+11.298	281,193.254	1,631,104.567
COMBINATION PI	( )	2046+68.751	283,850.050	1,631,163.648
Tangential Direction:		N1.274°E		
Tangential Length:		2657.453		
Element: Linear				
COMBINATION PI	( )	2046+68.751	283,850.050	1,631,163.648
COMBINATION PI	( )	2054+04.578	284,585.708	1,631,179.428
Tangential Direction:		N1.229°E		
Tangential Length:		735.827		
Element: Linear				
COMBINATION PI	( )	2054+04.578	284,585.708	1,631,179.428
COMBINATION PI	( )	2073+25.913	286,506.760	1,631,212.413
Tangential Direction:		N0.984°E		
Tangential Length:		1921.335		
Element: Linear				
COMBINATION PI	( )	2073+25.913	286,506.760	1,631,212.413
COMBINATION PI	( )	2099+62.834	289,143.106	1,631,267.466
Tangential Direction:		N1.196°E		
Tangential Length:		2636.921		
Element: Linear				
COMBINATION PI	( )	2099+62.834	289,143.106	1,631,267.466
COMBINATION PI	( )	2123+55.352	291,535.119	1,631,316.600
Tangential Direction:		N1.177°E		
Tangential Length:		2392.518		
Element: Linear				
COMBINATION PI	( )	2123+55.352	291,535.119	1,631,316.600
COMBINATION PI	( )	2128+95.655	292,075.372	1,631,323.959
Tangential Direction:		N0.780°E		
Tangential Length:		540.303		
Element: Linear				
COMBINATION PI	( )	2128+95.655	292,075.372	1,631,323.959
COMBINATION PI	( )	2168+12.293	295,992.010	1,631,322.711
Tangential Direction:		N0.018°W		
Tangential Length:		3916.638		
Element: Linear				
COMBINATION PI	( )	2168+12.293	295,992.010	1,631,322.711
COMBINATION PI	( )	2202+34.255	299,413.965	1,631,315.774
Tangential Direction:		N0.116°W		
Tangential Length:		3421.962		
Element: Linear				
COMBINATION PI	( )	2202+34.255	299,413.965	1,631,315.774
COMBINATION PI	( )	2228+76.474	302,056.179	1,631,310.589
Tangential Direction:		N0.112°W		
Tangential Length:		2642.219		
Element: Linear				
COMBINATION PI	( )	2228+76.474	302,056.179	1,631,310.589
COMBINATION PI	( )	2255+19.738	304,699.440	1,631,306.592
Tangential Direction:		N0.087°W		
Tangential Length:		2643.263		
Element: Linear				
COMBINATION PI	( )	2255+19.738	304,699.440	1,631,306.592
COMBINATION PI	( )	2281+62.994	307,342.686	1,631,299.433
Tangential Direction:		N0.155°W		
Tangential Length:		2643.257		
Element: Linear				
COMBINATION PI	( )	2281+62.994	307,342.686	1,631,299.433
COMBINATION PI	( )	2307+94.676	309,974.368	1,631,298.236
Tangential Direction:		N0.026°W		
Tangential Length:		2631.682		
Element: Linear				
COMBINATION PI	( )	2307+94.676	309,974.368	1,631,298.236
COMBINATION PI	( )	2334+26.08	312,605.771	1,631,296.600
Tangential Direction:		N0.036°W		
Tangential Length:		2631.404		
Element: Linear				
COMBINATION PI	( )	2334+26.08	312,605.771	1,631,296.600
COMBINATION PI	( )	2360+68.453	315,248.120	1,631,285.418
Tangential Direction:		N0.242°W		
Tangential Length:		2642.373		
Element: Linear				
COMBINATION PI	( )	2360+68.453	315,248.120	1,631,285.418
COMBINATION PI	( )	2373+17.075	316,496.727	1,631,279.139
Tangential Direction:		N0.288°W		
Tangential Length:		1248.622		
Element: Linear				
COMBINATION PI	( )	2373+17.075	316,496.727	1,631,279.139
COMBINATION PI	( )	2387+10.882	317,890.534	1,631,278.224
Tangential Direction:		N0.038°W		
Tangential Length:		1393.807		
Element: Linear				
COMBINATION PI	( )	2387+10.882	317,890.534	1,631,278.224
COMBINATION PI	( )	2413+62.887	320,542.535	1,631,274.182
Tangential Direction:		N0.087°W		
Tangential Length:		2652.005		
Element: Linear				
COMBINATION PI	( )	2413+62.887	320,542.535	1,631,274.182
COMBINATION PI	( )	2440+19.278	323,198.927	1,631,273.406
Tangential Direction:		N0.017°W		
Tangential Length:		2656.392		
Element: Linear				
COMBINATION PI	( )	2440+19.278	323,198.927	1,631,273.406
COMBINATION PI	( )	2462+20.967	325,400.601	1,631,281.426
Tangential Direction:		N0.209°E		
Tangential Length:		2201.689		
Element: Linear				
COMBINATION PI	( )	2462+20.967	325,400.601	1,631,281.426
COMBINATION PI	( )	2493+00.806	328,480.385	1,631,299.856
Tangential Direction:		N0.343°E		
Tangential Length:		3079.839		
Element: Linear				
COMBINATION PI	( )	2493+00.806	328,480.385	1,631,299.856
COMBINATION PI	( )	2519+45.442	331,124.987	1,631,313.141
Tangential Direction:		N0.288°E		
Tangential Length:		2644.635		
Element: Linear				
COMBINATION PI	( )	2519+45.442	331,124.987	1,631,313.141
PC	( )	2543+66.201	333,545.709	1,631,326.639
Tangential Direction:		N0.319°E		
Tangential Length:		2420.759		
Element: Circular				
PC	( )	2543+66.201	333,545.709	1,631,326.639
COMBINATION PI	( )	2558+11.612	334,991.097	1,631,334.699
CC	( )		333,529.621	1,634,211.595
PT	( )	2570+46.103	335,850.007	1,632,497.234
Radius:		2885		
Delta:		53.223° Right		
Degree of Curvature (Arc):		1.986°		
Length:		2679.902		
Tangent:		1445.411		
Chord:		2584.586		
Middle Ordinate:		305.619		
External:		341.831		
Back Tangent Direction:		N0.319°E		
Back Radial Direction:		S89.681°E		
Chord Direction:		N26.931°E		
Ahead Radial Direction:		S36.458°E		
Ahead Tangent Direction:		N53.542°E		
Element: Linear				
PT	( )	2570+46.103	335,850.007	1,632,497.234
PC	( )	2583+84.773	336,645.489	1,633,573.917
Tangential Direction:		N53.542°E		
Tangential Length:		1338.67		

Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

PR49_G

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:05:03 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	2

POINT	NORTHING	EASTING	STATION	OFFSET
6000	271218.96	1630840.83	191808.424 R1	300
6101	273286.04	1630876.33	191827.680 R1	0
6263	271035.45	1630638.25	191846.936 R1	-299
6325	271202.63	1631040.58	192021.028 R1	100
6327	270986.61	1631236.26	192033.917 R1	-100
8000	271011.03	1630937.26	194101.299 R1	0
8001	273284.31	1630976.46	194101.299 R1	-100
8002	274052.71	1630989.71	194869.814 R1	0

Sec 22
T-134-N
R-89-W

Sec line
S88°52'41"W

Begin 1918+27.68
Rebar w/ cap
6263

Railroad Ave E

1920+00

1st Ave NE

1925+00

2nd Ave NE

3rd Ave NE

1930+00

4th Ave NE

1935+00

PCR
6000
4025+00
100'
Sec line
N01°02'20"E (Sec line)
PI 4025+94.72
8000
ND 49
N00°59'17"E (Align)
100'

Rec Sec Cor
#4 Rebar Inside Pipe
N 270634.04
E 1630928.25

6325

Station equation
Sta 4025+94.72 ND 21 Bk =
Sta 1918+27.68 ND 49 Ahd
1.5 In Steel Rod

Sec line
S89°58'17"E

Rec Sec Cor
Rebar
70th St SW

Sec 23
T-134-N
R-89-W

6327
ND 21

4030+00

Golf Club Rd

NORTH DAKOTA
GRANT COUNTY

1935+00

5th Ave NE

1940+00

Rec 1/4 Cor 2640.62' W
to RPC Unreadable

6th Ave NE
1941+01.29

1/4 line
S89°46'45"W

1945+00

PI 1948+69.81

1950+00

1955+00

R/W Mon
6101
100'
Sec line
ND 49
Sec line
8001
8002
R Mkr 37
R/W Mon
R/W Mon
100'

6218
Rec 1/4 Cor
Rebar w/ cap LS 3881
N 273284.31
E 1630976.32

1/4 line
S89°51'13"E

Rec 1/4 Cor
Rebar w/ cap
Rec 1/4 Cor 5284.54' E
to 3/4 in Steel Rod

Sunflower Dr

Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

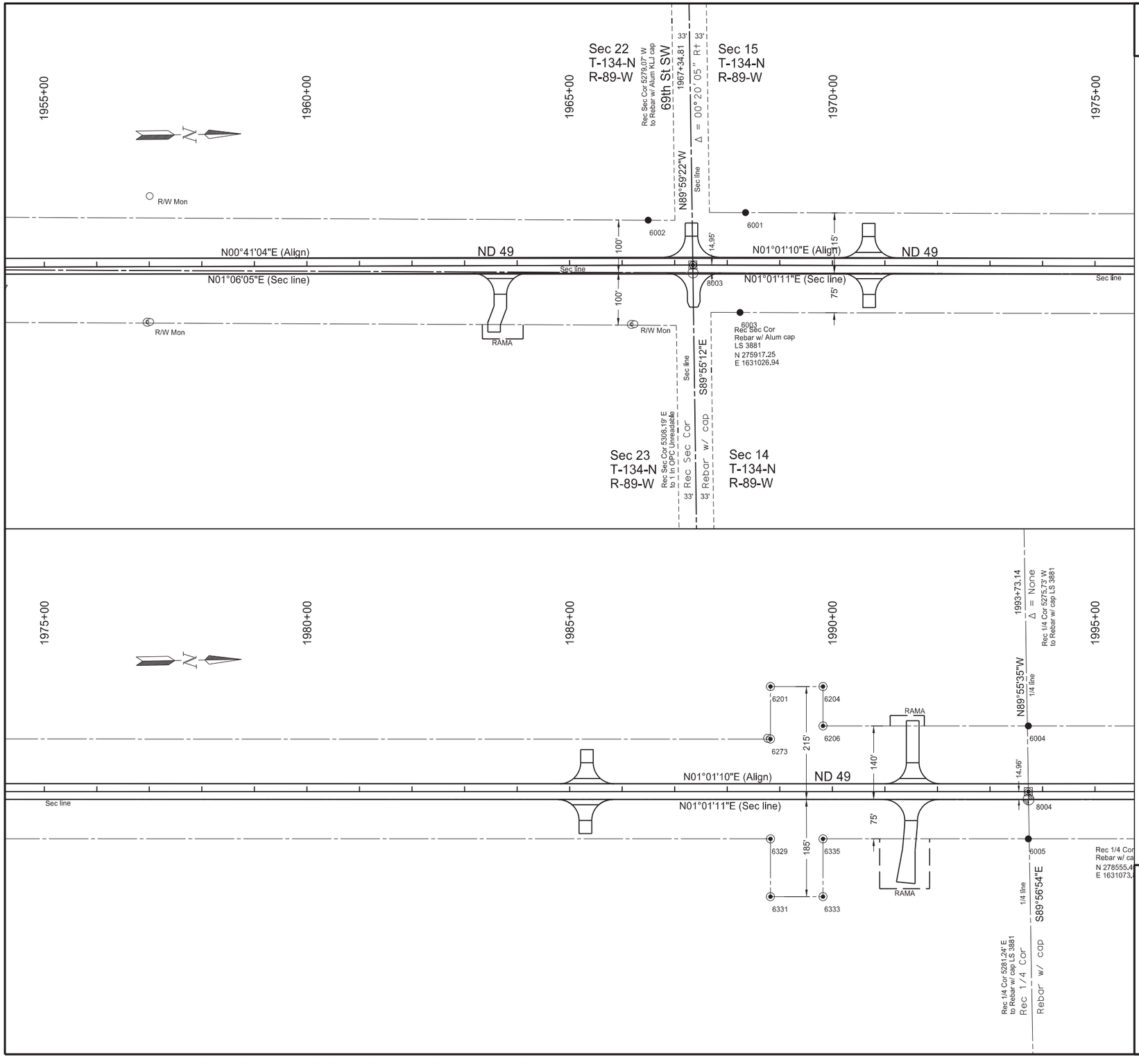
Survey Data Layout - Monuments

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1918+42 to 1955+00

JASON P. GULLICKS
PROFESSIONAL
PE-4792
2024.11.29 18:16:19 -06'00'
ENGINEER
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	3



POINT	NORTHING	EASTING	STATION	OFFSET
6001	276018.96	1630913.73	196834.434 R1	-100
6002	275833.51	1630925.31	196649.717 R1	-86
6003	276005.68	1631103.52	196824.533 R1	90
6004	278557.69	1630933.91	199373.116 R1	-125
6005	278553.86	1631148.88	199373.116 R1	90
6201	278068.22	1630850.19	198882.235 R1	-200
6204	278168.2	1630851.97	198982.235 R1	-200
6206	278166.87	1630926.95	198982.234 R1	-125
6273	278066.44	1630950.17	198882.234 R1	-100
6329	278063.06	1631140.14	198882.232 R1	90
6331	278061.1	1631250.12	198882.231 R1	200
6333	278161.08	1631251.9	198982.231 R1	200
6335	278163.04	1631141.92	198982.232 R1	90
8003	275917.25	1631011.99	196734.489 R1	0
8004	278555.48	1631058.93	199373.135 R1	0

Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

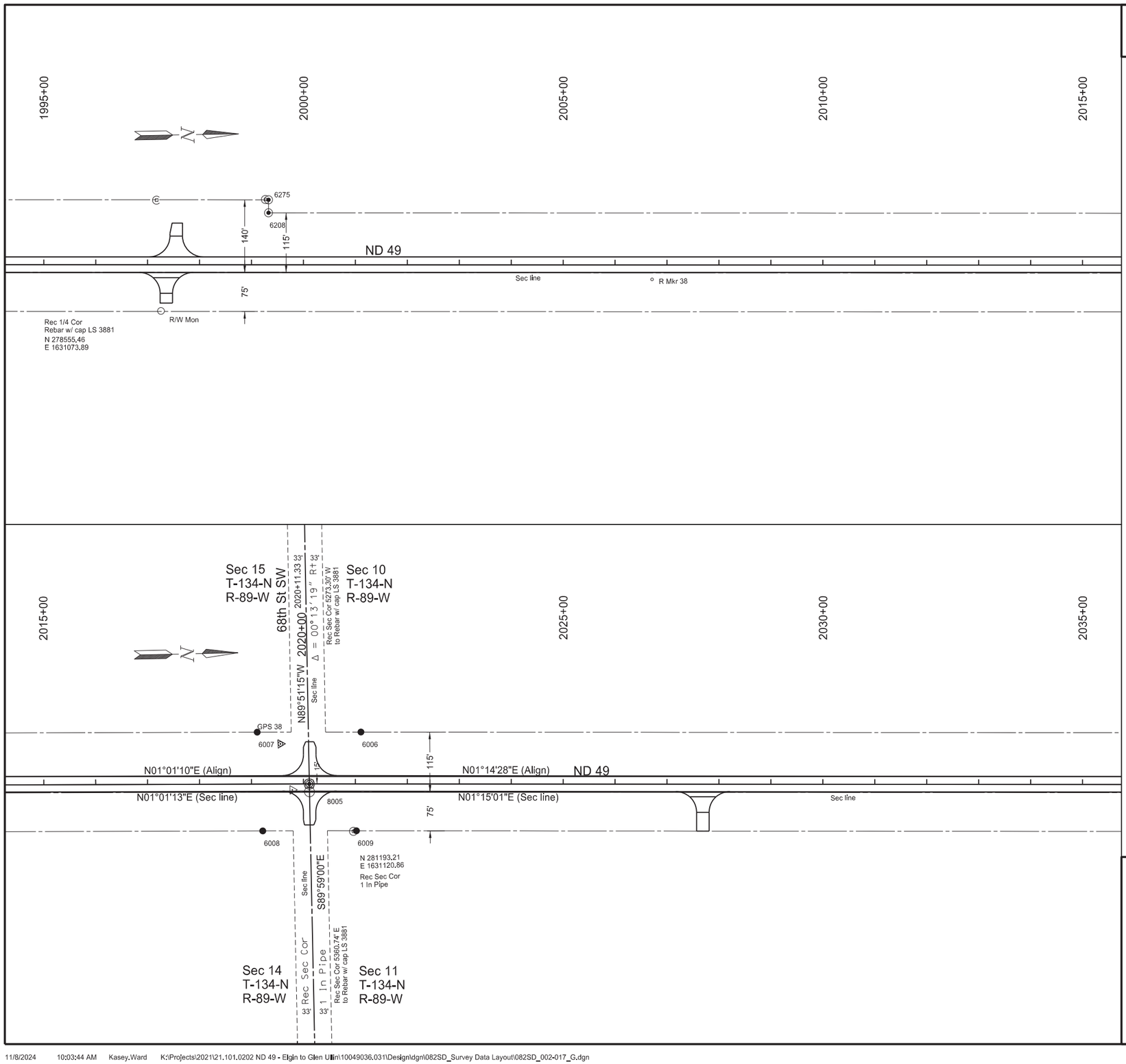
Survey Data Layout - Monuments

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1955+00 to 1995+00

JASON P. GULLICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.29 18:16:42 -06'00'
ENGINEER
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	4



POINT	NORTHING	EASTING	STATION	OFFSET
6006	281294.61	1631008.05	2021+10.54	-100
6007	281095.05	1631004.1	2019+11.32	-100
6008	281101.67	1631194.24	2019+21.33	90
6009	281282	1631197.82	2021+02.04	90
6208	279116.71	1630968.87	1999+32.67	-100
6275	279117.16	1630943.87	1999+32.67	-125
8005	281193.26	1631105.86	2020+11.33	0

Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

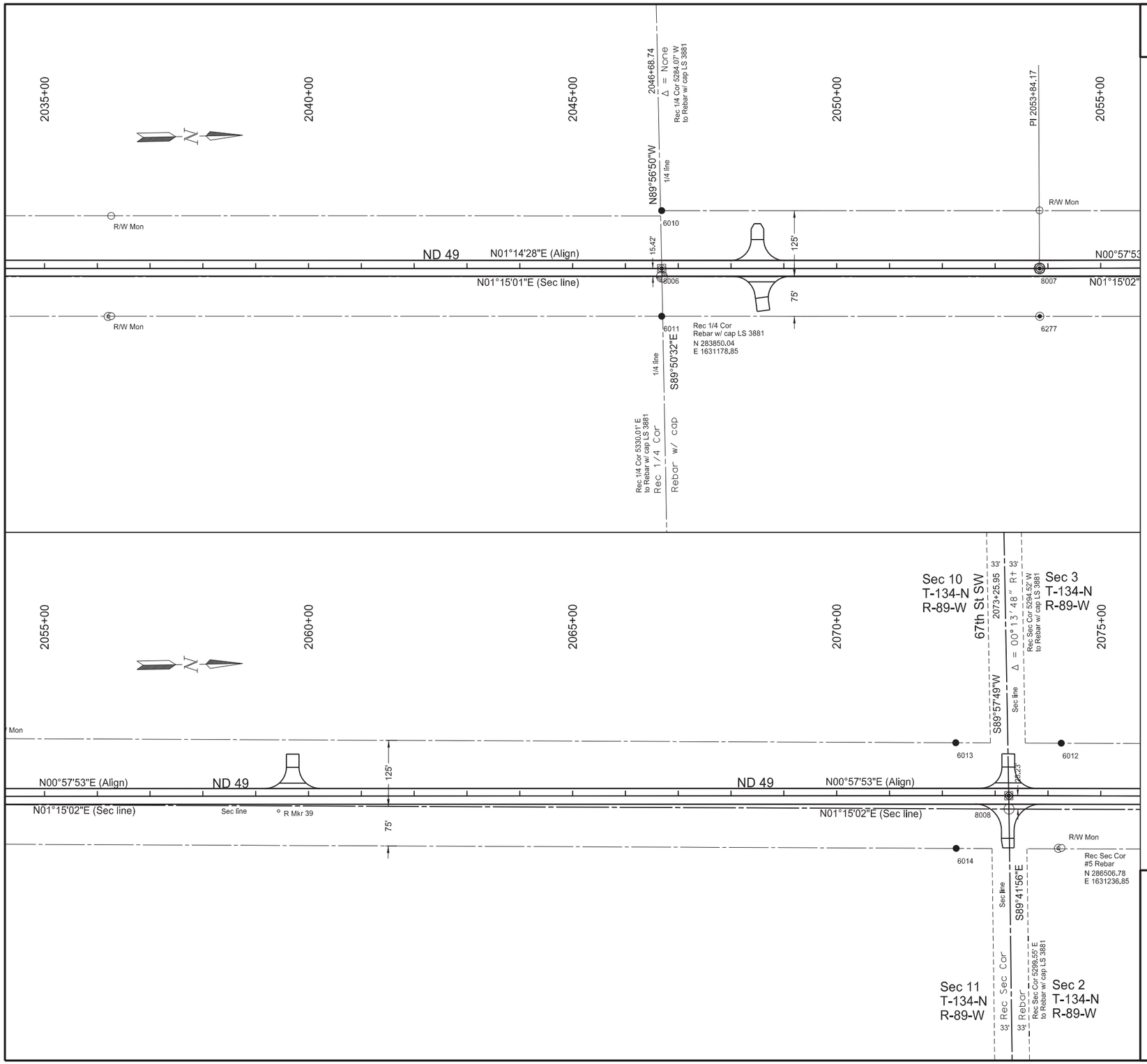
Survey Data Layout - Monuments

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1995+00 to 2035+00

JASON P. GULLICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.29 18:17:03 -06'00'
ENGINEER
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	5



POINT	NORTHING	EASTING	STATION	OFFSET
6010	283852.42	1631053.87	2046+68.74	-110
6011	283848.09	1631253.82	2046+68.74	90
6012	286607.77	1631113.94	2074+24.85	-100
6013	286408.19	1631109.66	2072+25.62	-100
6014	286405.36	1631309.65	2072+26.17	100
6277	284563.79	1631269.45	2053+84.17	91
8006	283850.05	1631163.43	2046+68.74	0
8007	284565.31	1631178.93	2053+84.17	0
8008	286506.76	1631211.61	2073+25.90	0

Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

Survey Data Layout - Monuments

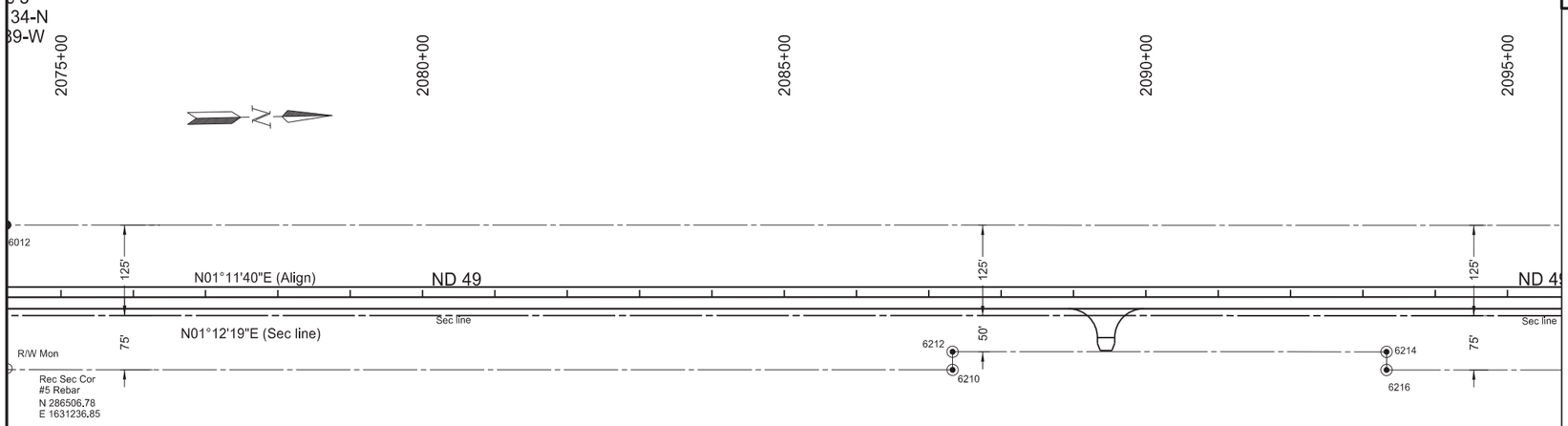
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2035+00 to 2075+00

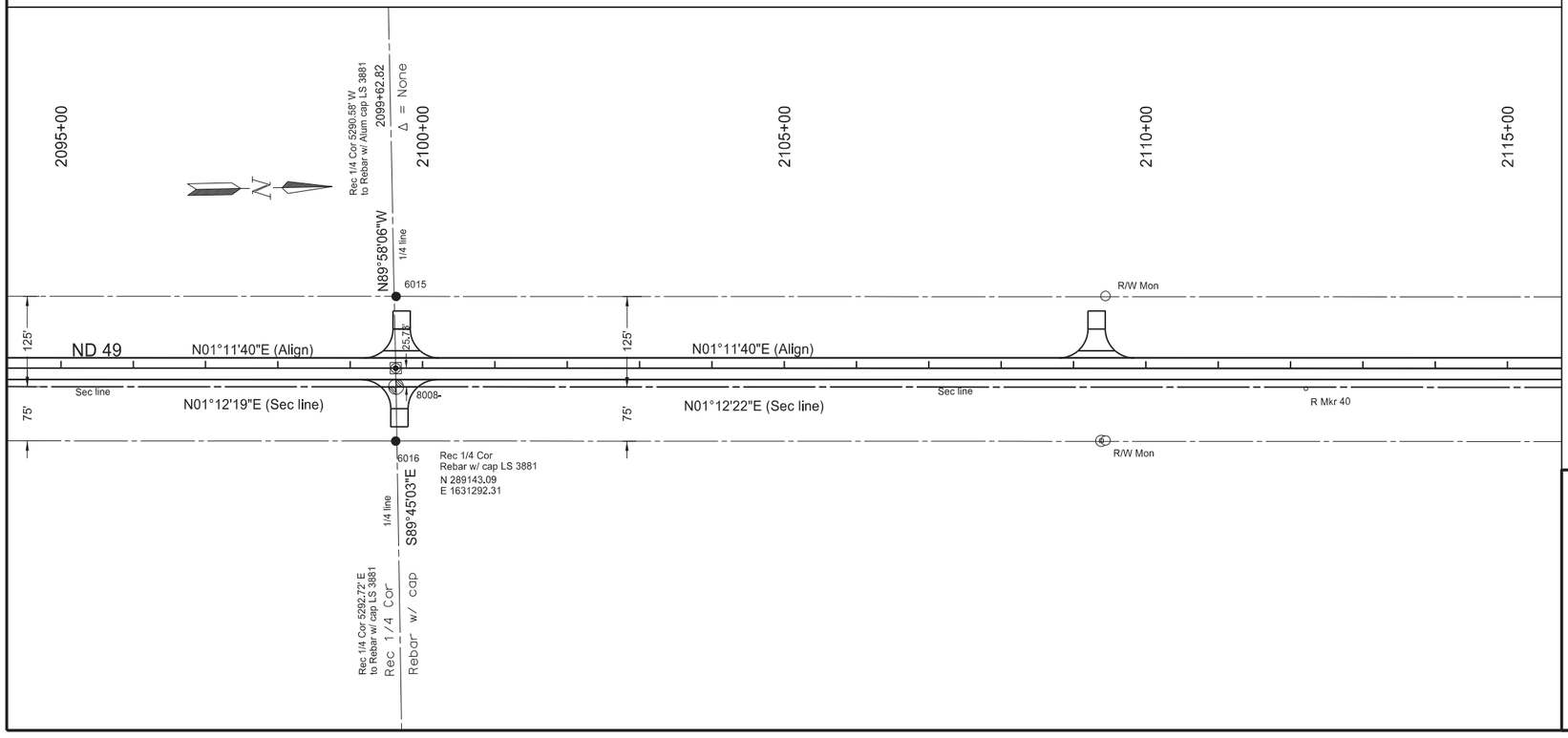
JASON P. GULICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.29 18:17:19 -06'00'
ENGINEER
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	82	6

c 3
34-N
39-W



ec 2
-134-N
-89-W



POINT	NORTHING	EASTING	STATION	OFFSET
6015	289145.72	1631167.34	2099+63.36	-99
6016	289141.02	1631367.29	2099+62.83	101
6210	287911.28	1631341.42	2087+32.81	101
6212	287911.8	1631316.42	2087+32.82	75
6214	288511.63	1631329.04	2093+32.78	76
6216	288511.1	1631354.03	2093+32.77	101
8008-	289143.11	1631266.58	2099+62.82	0

Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

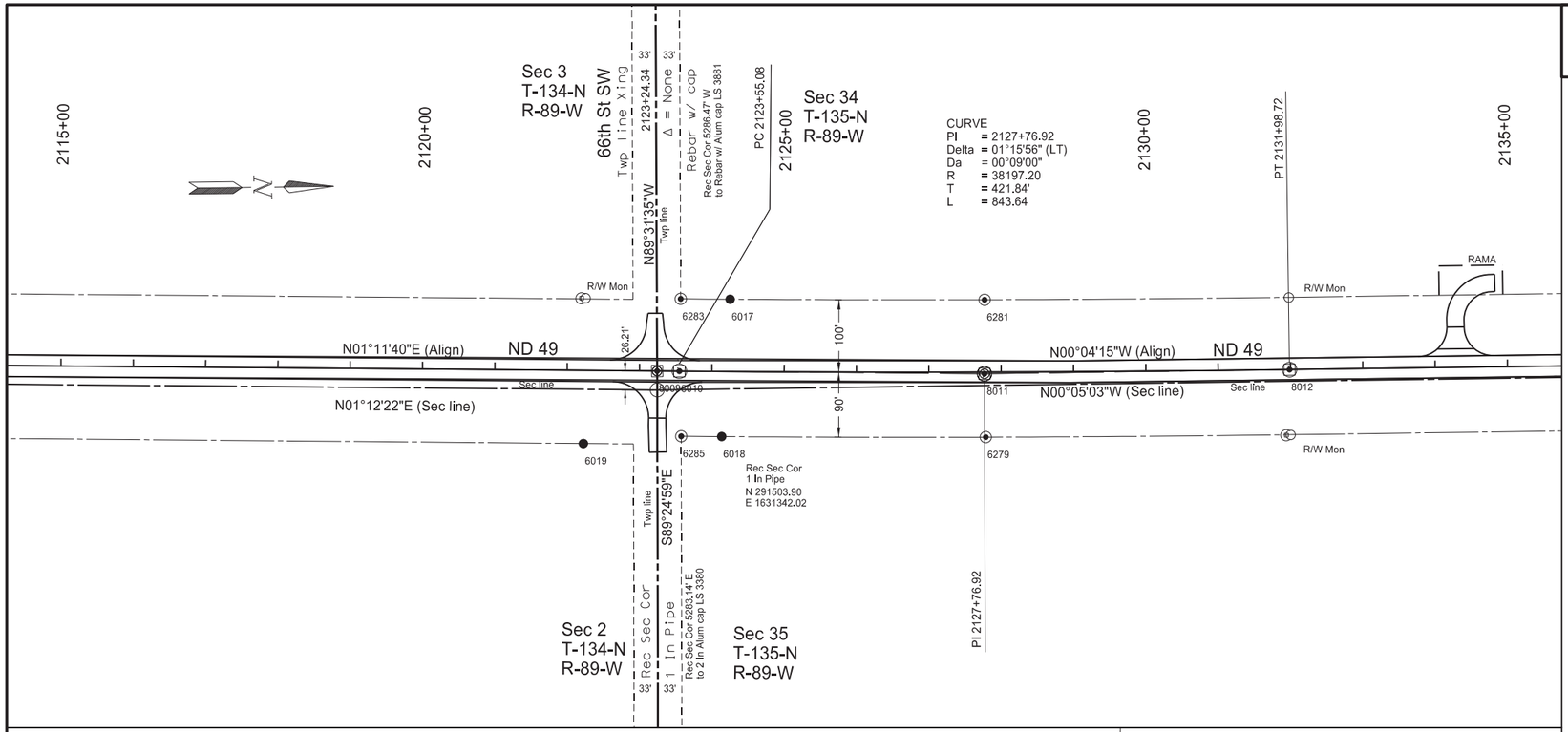
Survey Data Layout - Monuments

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2075+00 to 2115+00

JASON P. GULLICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.29 18:17:37 -06'00'
ENGINEER
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	7



POINT	NORTHING	EASTING	STATION	OFFSET
6017	291606.21	1631217.86	2124+24.55	-100
6018	291592.22	1631407.62	2124+14.20	90
6019	291400.86	1631414.87	2122+23.17	101
6020	294237.87	1631222.42	2150+58.29	-100
6021	294037.9	1631222.67	2148+58.31	-100
6022	294048.16	1631412.66	2148+68.33	90
6023	294228.18	1631412.43	2150+48.36	90
6279	291957.35	1631412.93	2127+78.51	90
6281	291958.08	1631222.93	2127+77.38	-100
6283	291537.94	1631216.5	2123+56.09	-100
6285	291536.25	1631406.5	2123+58.35	90
8009	291504.12	1631315.81	2123+24.34	0
8010	291534.85	1631316.45	2123+55.08	0
8011	291956.6	1631325.25	2127+76.90	2
8012	292378.44	1631324.72	2131+98.72	0
8013	294138.03	1631322.54	2149+58.32	0

Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

Survey Data Layout - Monuments

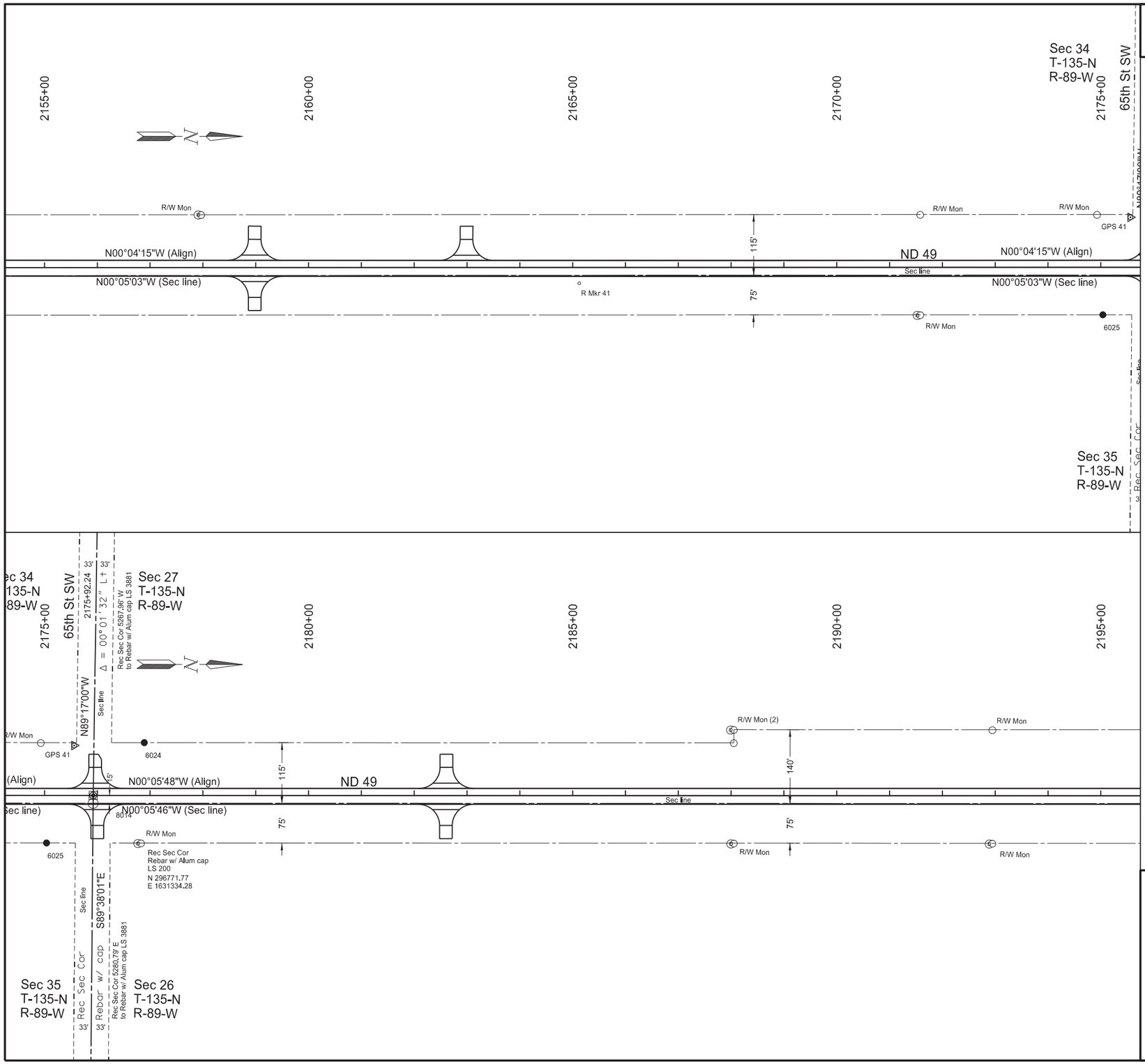
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2115+00 to 2155+00

JASON P. GULLICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.29 18:17:56 -06'00'
ENGINEER
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	8

POINT	NORTHING	EASTING	STATION	OFFSET
6024	296868.5	1631219.12	2176+88.96	-100
6025	296683.64	1631409.39	2175+03.82	90
8014	296771.95	1631319.28	2175+92.25	0



Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

Survey Data Layout - Monuments

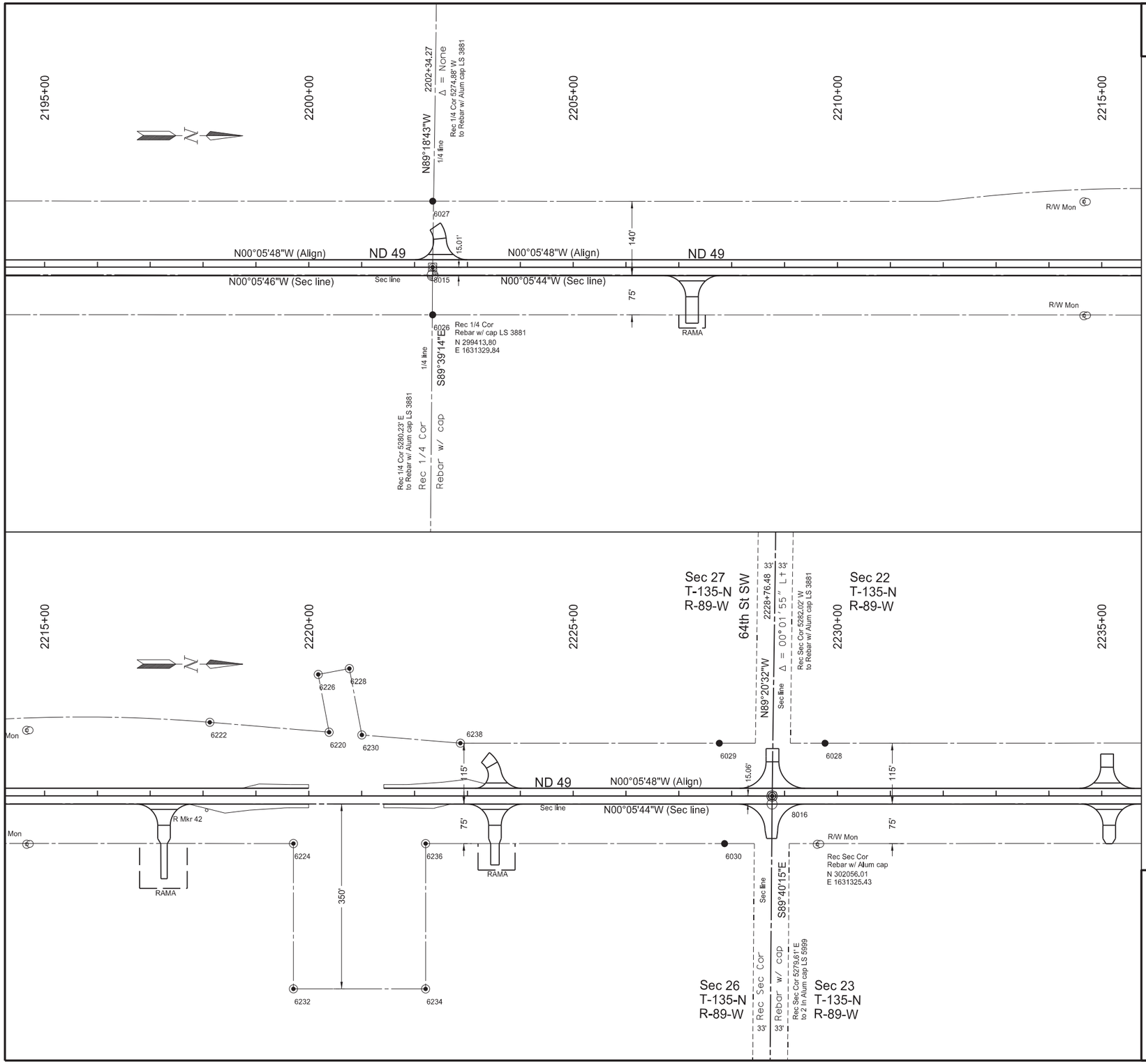
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2155+00 to 2195+00

JASON P. GULICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.29 18:18:23 -06'00'
ENGINEER
NORTH DAKOTA

11/8/2024 10:03:46 AM Kasey.Ward K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\082SD_Survey Data Layout\082SD_002-017_G.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	82	9



POINT	NORTHING	EASTING	STATION	OFFSET
6026	299414.13	1631404.85	2202+34.27	90
6027	299413.77	1631189.85	2202+34.27	-125
6028	302156.01	1631210.21	2229+76.53	-100
6029	301956.07	1631210.6	2227+76.53	-100
6030	301966.28	1631400.58	2227+86.43	90
6218	300370.32	1631188.25	2211+90.83	-125
6220	301217.74	1631191.18	2220+38.24	-121
6222	300992.04	1631172.79	2218+12.57	-139
6224	301150.74	1631401.95	2219+70.88	90
6226	301197.04	1631081.86	2220+17.72	-230
6228	301255.99	1631070.7	2220+76.69	-241
6230	301279.77	1631196.23	2221+00.26	-115
6232	301151.2	1631676.95	2219+70.88	365
6234	301401.2	1631676.53	2222+20.88	365
6236	301400.74	1631401.53	2222+20.88	90
6238	301466.16	1631211.42	2222+86.62	-100
8015	299413.98	1631314.83	2202+34.27	0
8016	302056.18	1631310.38	2228+76.48	0

Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

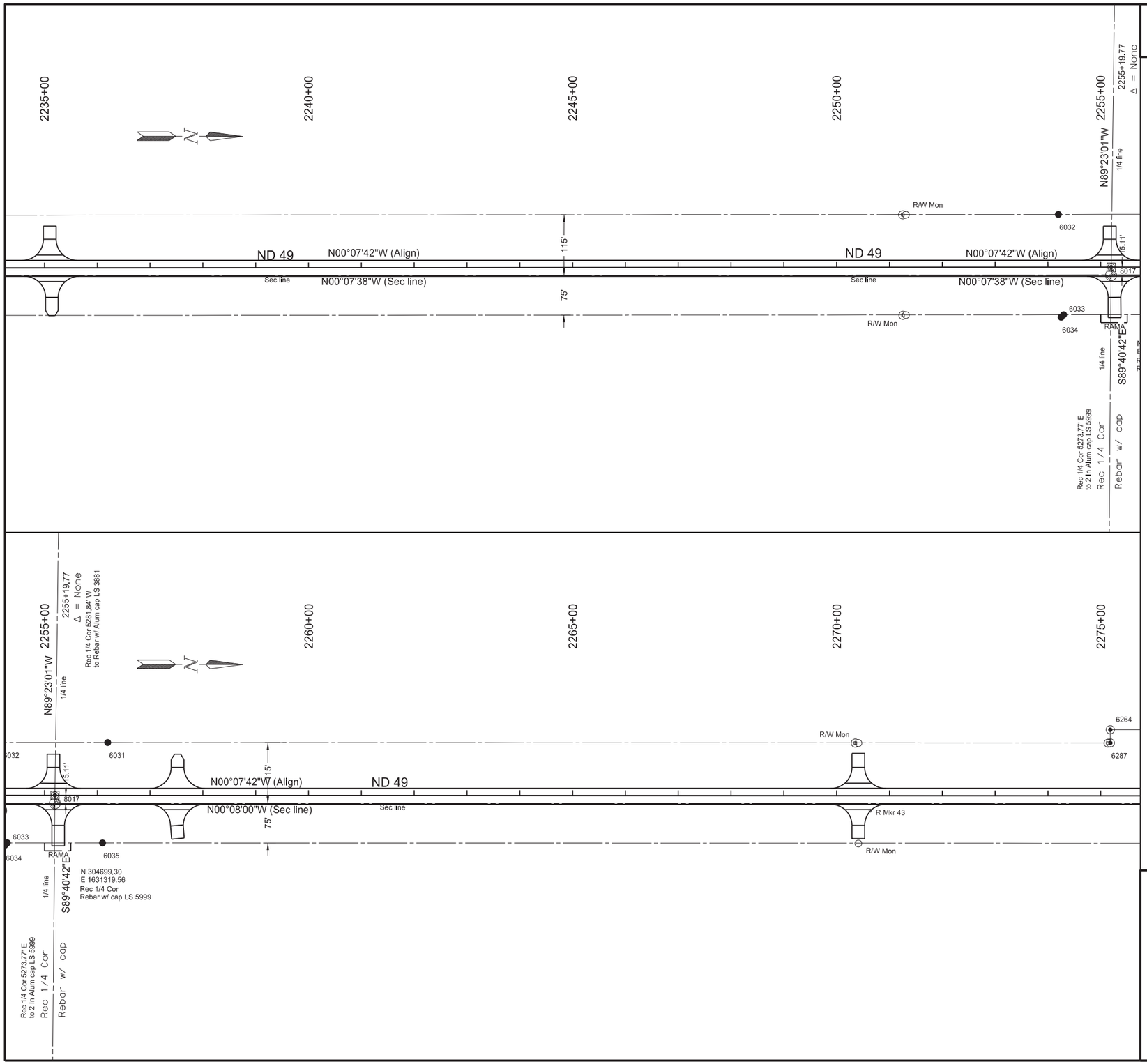
Survey Data Layout - Monuments

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2195+00 to 2235+00

JASON P. GULICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.29 18:18:46 -06'00'
ENGINEER
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	10



POINT	NORTHING	EASTING	STATION	OFFSET
6031	304799.13	1631204.33	2256+19.66	-100
6032	304599.35	1631204.78	2254+19.88	-100
6033	304609.55	1631394.76	2254+29.66	90
6034	304604.92	1631399.41	2254+25.02	95
6035	304789.77	1631394.35	2256+09.87	90
8017	304699.46	1631304.45	2255+19.77	0

Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

Survey Data Layout - Monuments

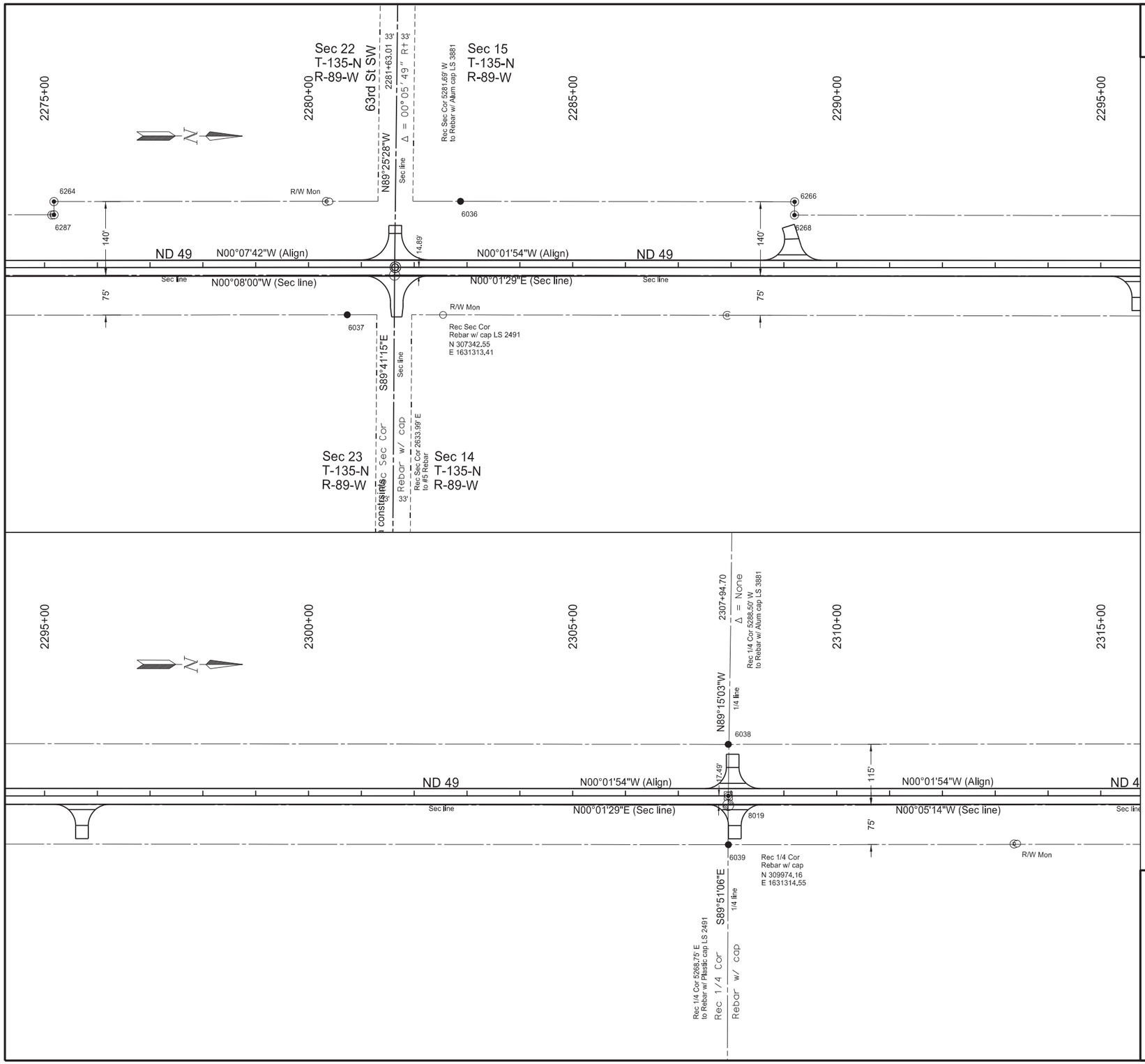
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2235+00 to 2275+00

JASON P. GULICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.29 18:19:05 -06'00'
ENGINEER
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	11

POINT	NORTHING	EASTING	STATION	OFFSET
6036	307467.19	1631173.47	2282+87.57	-125
6037	307253	1631388.62	2280+73.11	90
6038	309974.28	1631199.55	2307+94.65	-98
6039	309974.59	1631389.55	2307+94.85	92
6264	306697.43	1631174.91	2275+18.02	-125
6266	308099.79	1631173.74	2289+20.17	-124
6268	308099.54	1631198.74	2289+19.90	-99
6287	306697.59	1631199.91	2275+18.13	-100
8019	309974.38	1631297.06	2307+94.70	0



Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

Survey Data Layout - Monuments

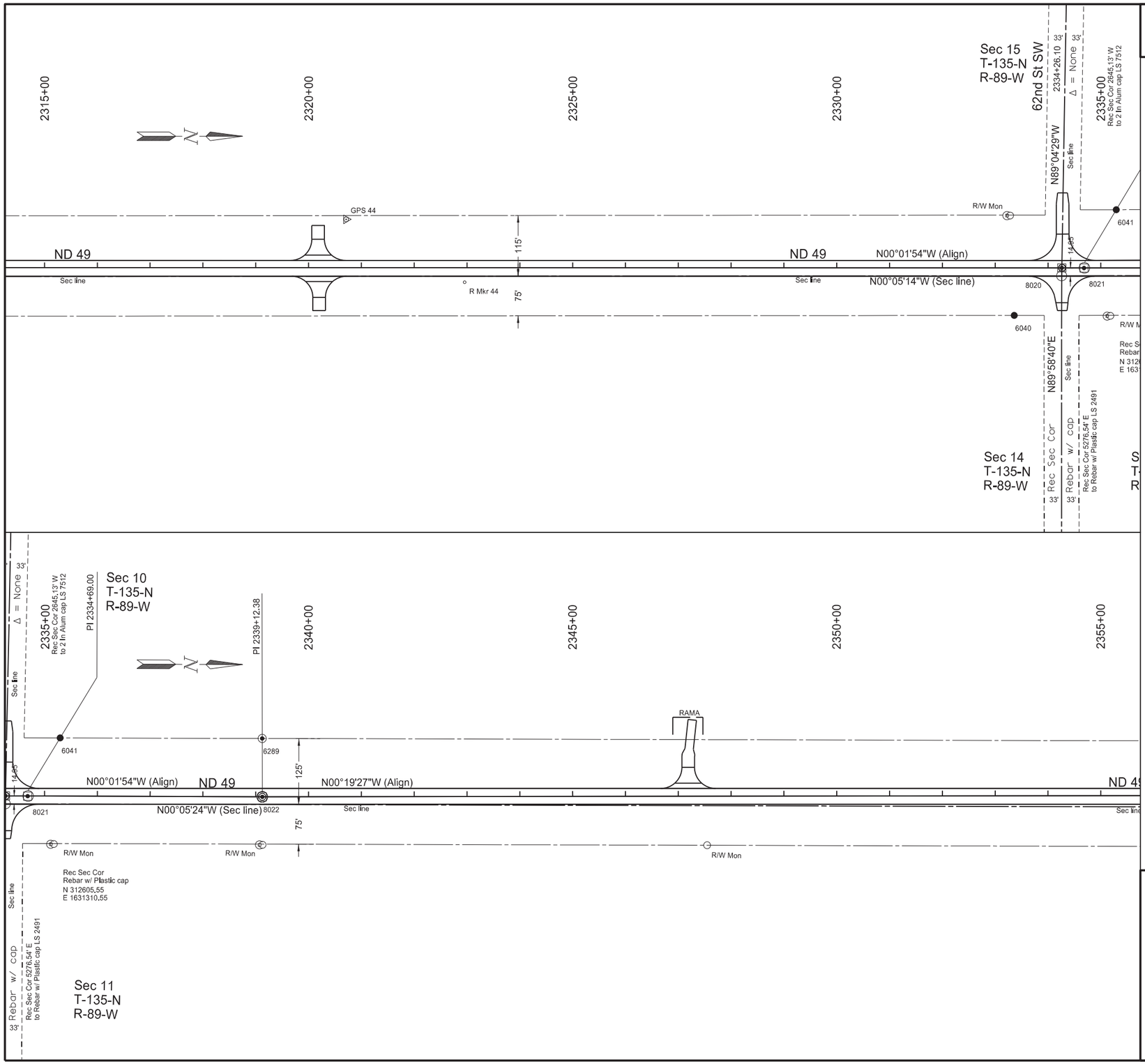
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2275+00 to 2315+00

JASON P. GULLICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.29 18:19:51 -06'00'
ENGINEER
NORTH DAKOTA

11/8/2024 10:03:47 AM Kasey.Ward K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\082SD_Survey Data Layout\082SD_002-017_G.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	12



POINT	NORTHING	EASTING	STATION	OFFSET
6040	312515.81	1631385.69	2333+36.07	90
6041	312708.87	1631185.39	2335+29.24	-110
6289	313091.44	1631184.79	2339+11.81	-111
8020	312605.79	1631295.61	2334+26.10	0
8021	312647.85	1631295.93	2334+68.16	0
8022	313092.07	1631295.34	2339+12.38	0

Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

Survey Data Layout - Monuments

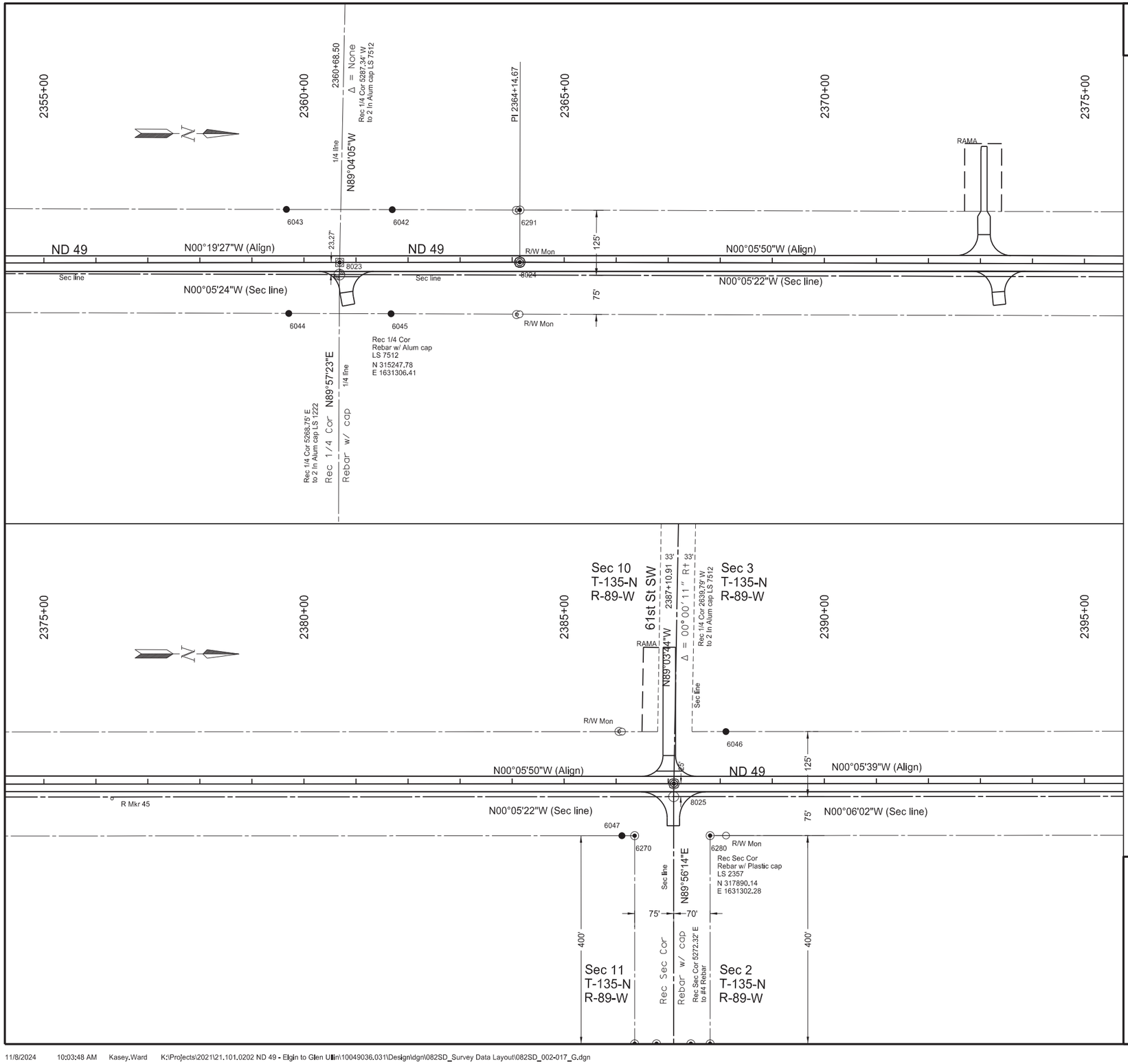
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2315+00 to 2355+00

JASON P. GULICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.29 18:20:16 -06'00'
ENGINEER
NORTH DAKOTA

11/8/2024 10:03:48 AM Kasey.Ward K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Design\dgn\082SD_Survey Data Layout\082SD_002-017_G.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	13



POINT	NORTHING	EASTING	STATION	OFFSET
6042	315348.89	1631181.26	2361+69.81	-101
6043	315145.44	1631181.58	2359+66.36	-102
6044	315150.83	1631381.57	2359+70.63	98
6045	315347.4	1631381.26	2361+67.19	99
6046	317990.39	1631177.1	2388+10.91	-100
6047	317790.73	1631377.43	2386+10.92	100
6270	317815.22	1631377.39	2386+35.41	100
6272	317815.66	1631777.39	2386+35.17	500
6274	317857.66	1631777.33	2386+77.17	500
6276	317923.66	1631777.22	2387+43.20	500
6278	317960.66	1631777.15	2387+80.20	500
6280	317960.22	1631377.15	2387+80.41	100
6291	315594.15	1631180.87	2364+14.67	-100
8023	315248.16	1631283.14	2360+68.51	0
8024	315594.32	1631281.18	2364+14.67	0
8025	317890.55	1631277.28	2387+10.91	0

Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

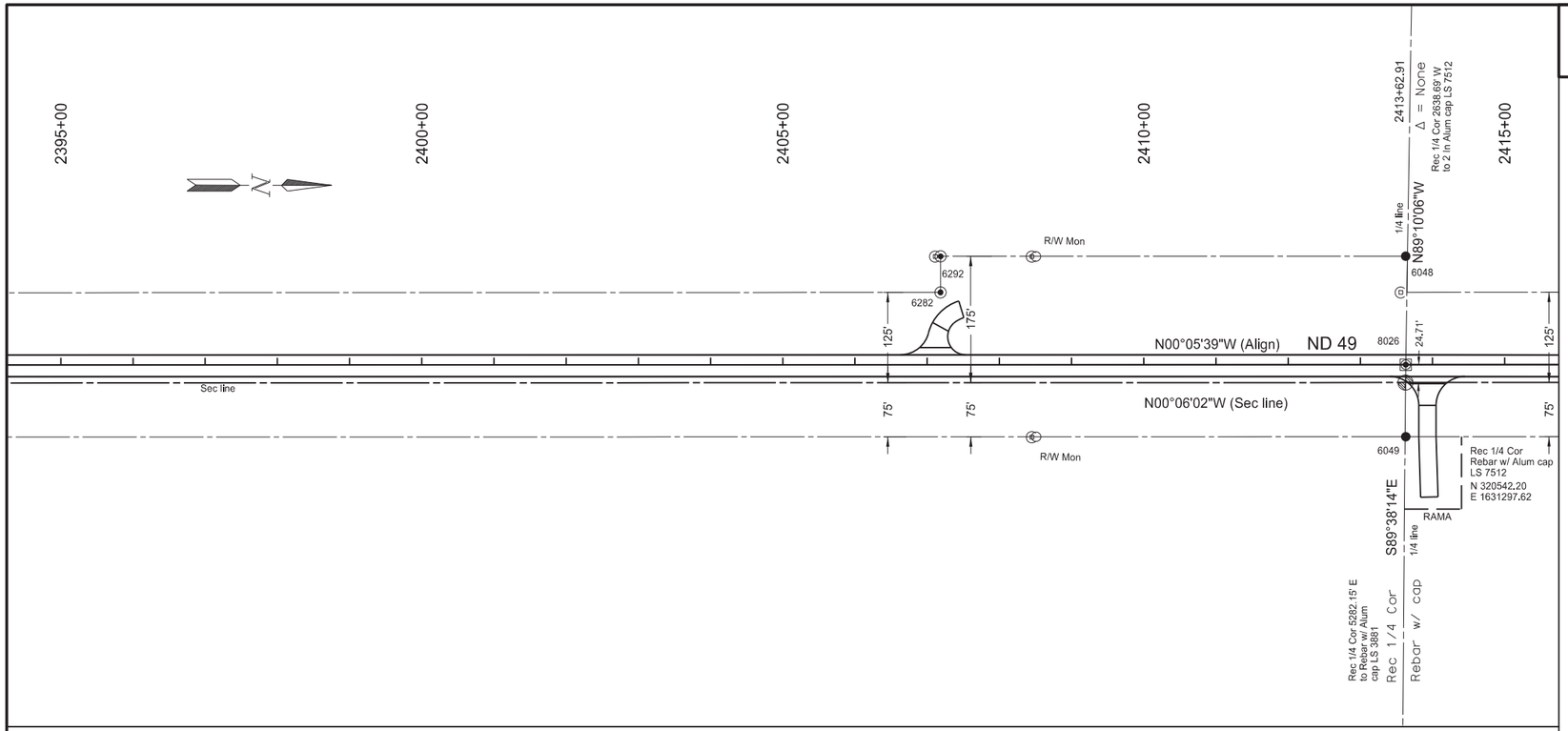
Survey Data Layout - Monuments

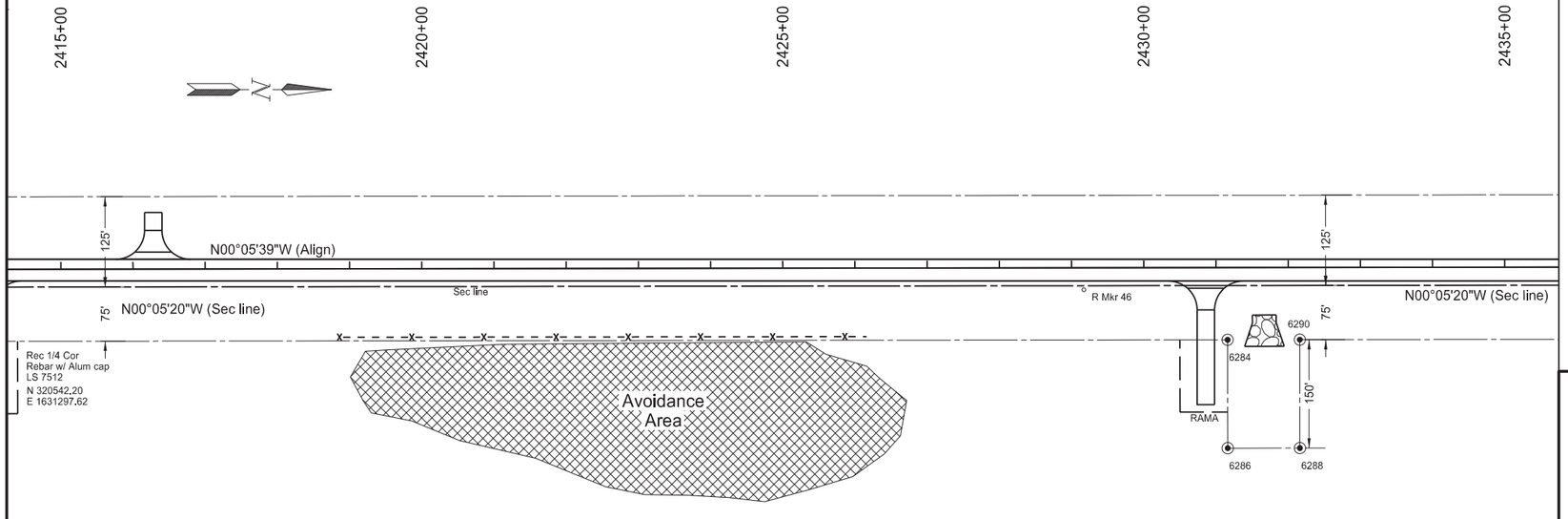
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2355+00 to 2395+00

JASON P. GULLICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.29 18:20:40 -06'00'
ENGINEER
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	14





POINT	NORTHING	EASTING	STATION	OFFSET
F	320542.3	1631122.62	2413+62.91	-150
6049	320542.72	1631372.62	2413+62.92	100
6282	319897.96	1631173.75	2407+18.49	-100
6284	322295.79	1631369.91	2431+15.99	100
6286	322296.03	1631519.91	2431+15.98	250
6288	322396.03	1631519.75	2432+15.98	250
6290	322395.79	1631369.75	2432+15.99	100
6292	319897.96	1631123.75	2407+18.57	-150
8026	320542.55	1631272.91	2413+62.91	0

Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

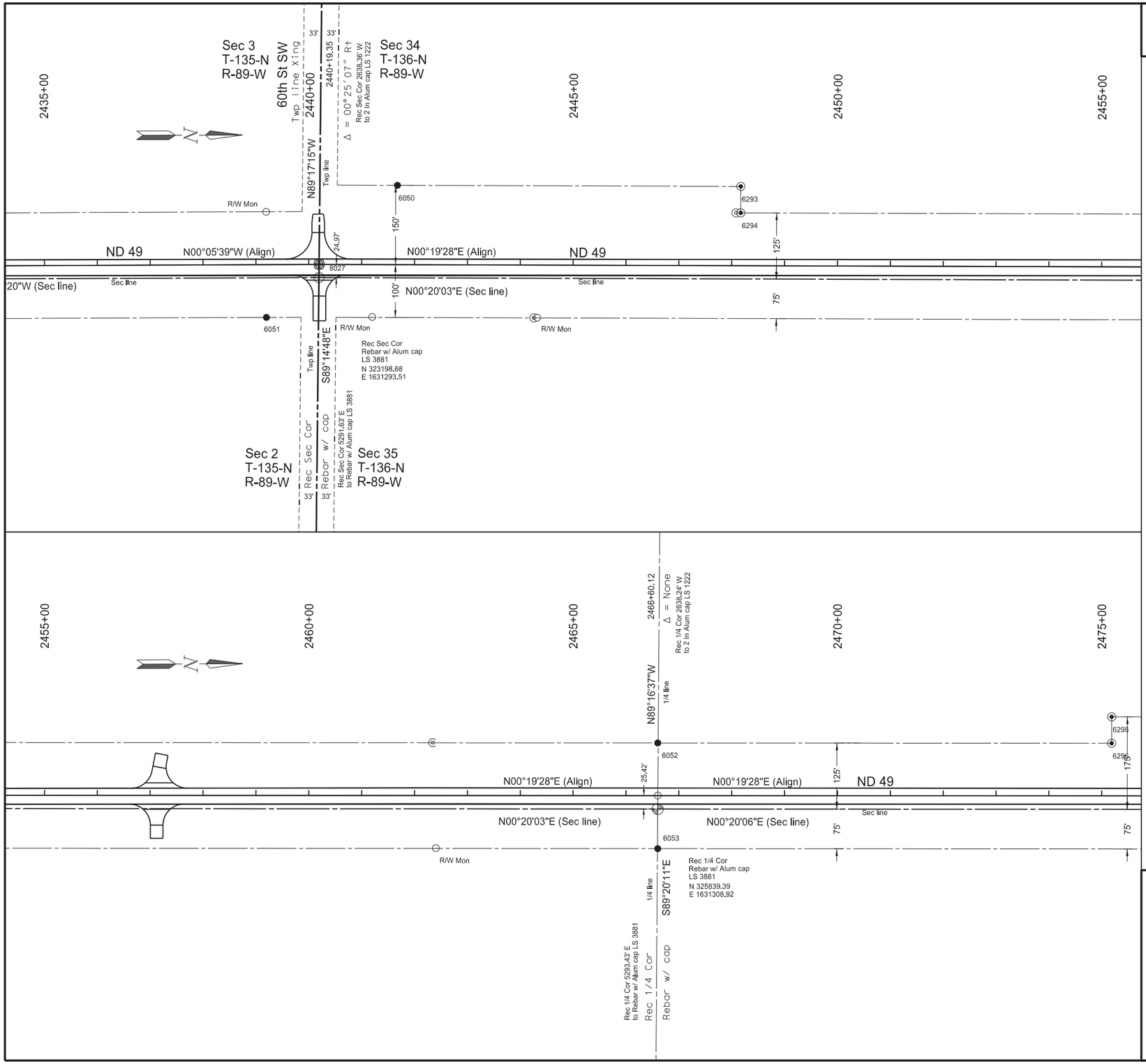
Survey Data Layout - Monuments

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2395+00 to 2435+00

JASON P. GULLICKS
PROFESSIONAL
PE-4792
2024.11.29 18:23:54 -06'00'
ENGINEER
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	82	15



POINT	NORTHING	EASTING	STATION	OFFSET
6050	323347.67	1631119.37	2441+67.18	-150
6051	323099.2	1631368.66	2439+19.40	100
6052	325840.12	1631183.92	2466+59.96	-100
6053	325839.14	1631383.91	2466+60.12	100
6293	323997.24	1631123.16	2448+16.77	-150
6294	323996.95	1631173.16	2448+16.76	-100
8027	323198.99	1631268.54	2440+19.35	0

Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

Survey Data Layout - Monuments

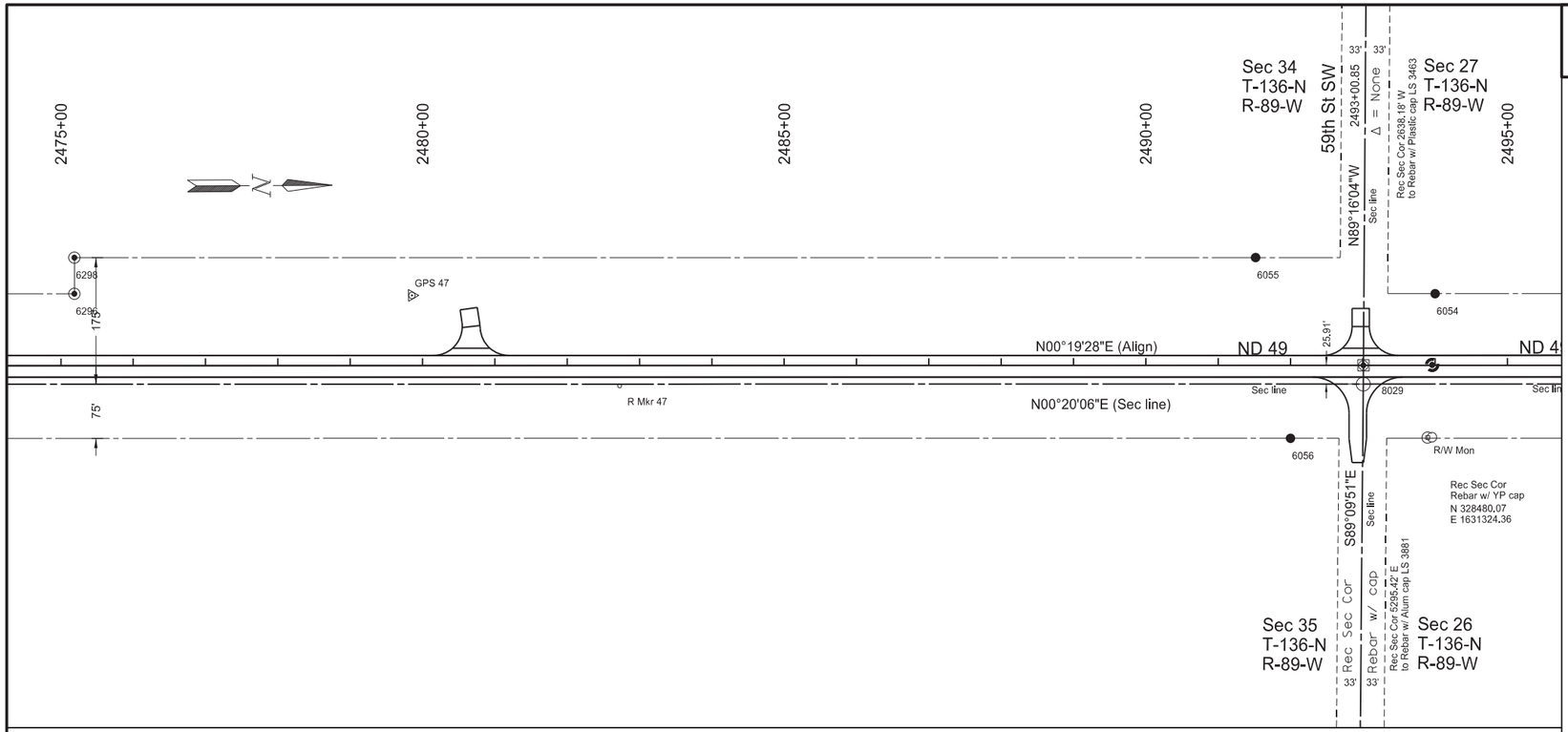
ND 49 - Jct 21 Elgin N to 58th St SW

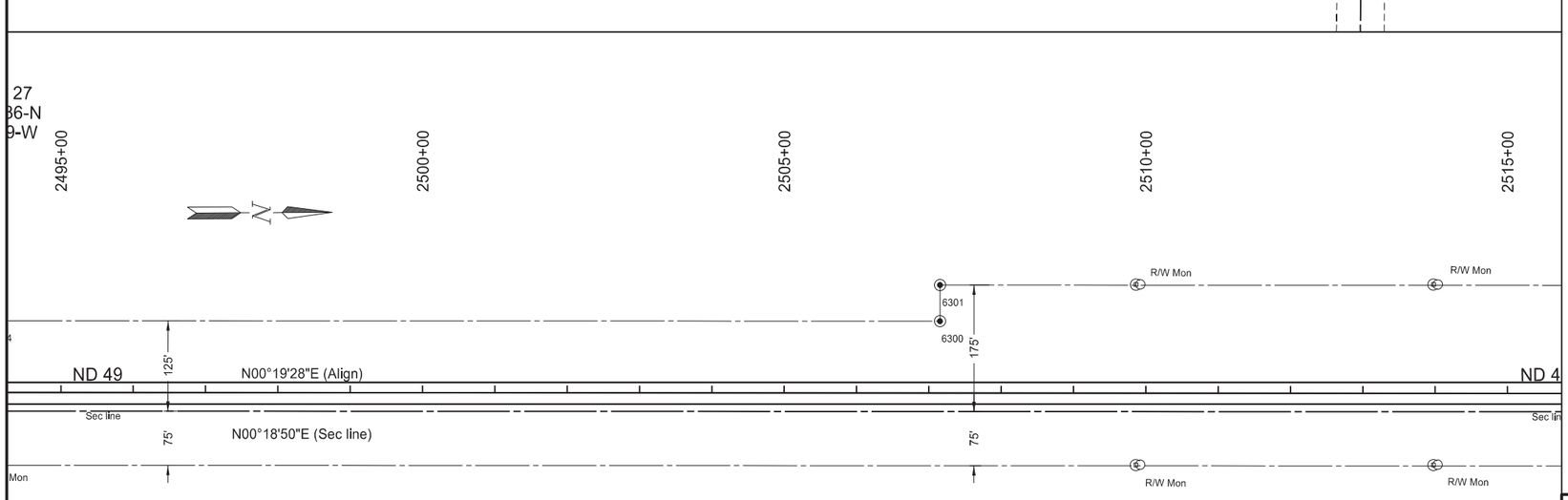
Sta 2435+00 to 2475+00

JASON P. GULACKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.29 18:25:20 -06'00'
ENGINEER
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	16

POINT	NORTHING	EASTING	STATION	OFFSET
6054	328580.12	1631199.9	2494+00.01	-99
6055	328332.18	1631148.49	2491+51.78	-149
6056	328378.99	1631398.77	2492+00.01	101
6296	326698.79	1631188.94	2475+18.65	-99
6298	326699.09	1631138.94	2475+18.66	-149
6300	329895.43	1631207.11	2507+15.34	-99
6301	329895.71	1631157.11	2507+15.33	-149
8029	328480.4	1631298.45	2493+00.85	0





Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

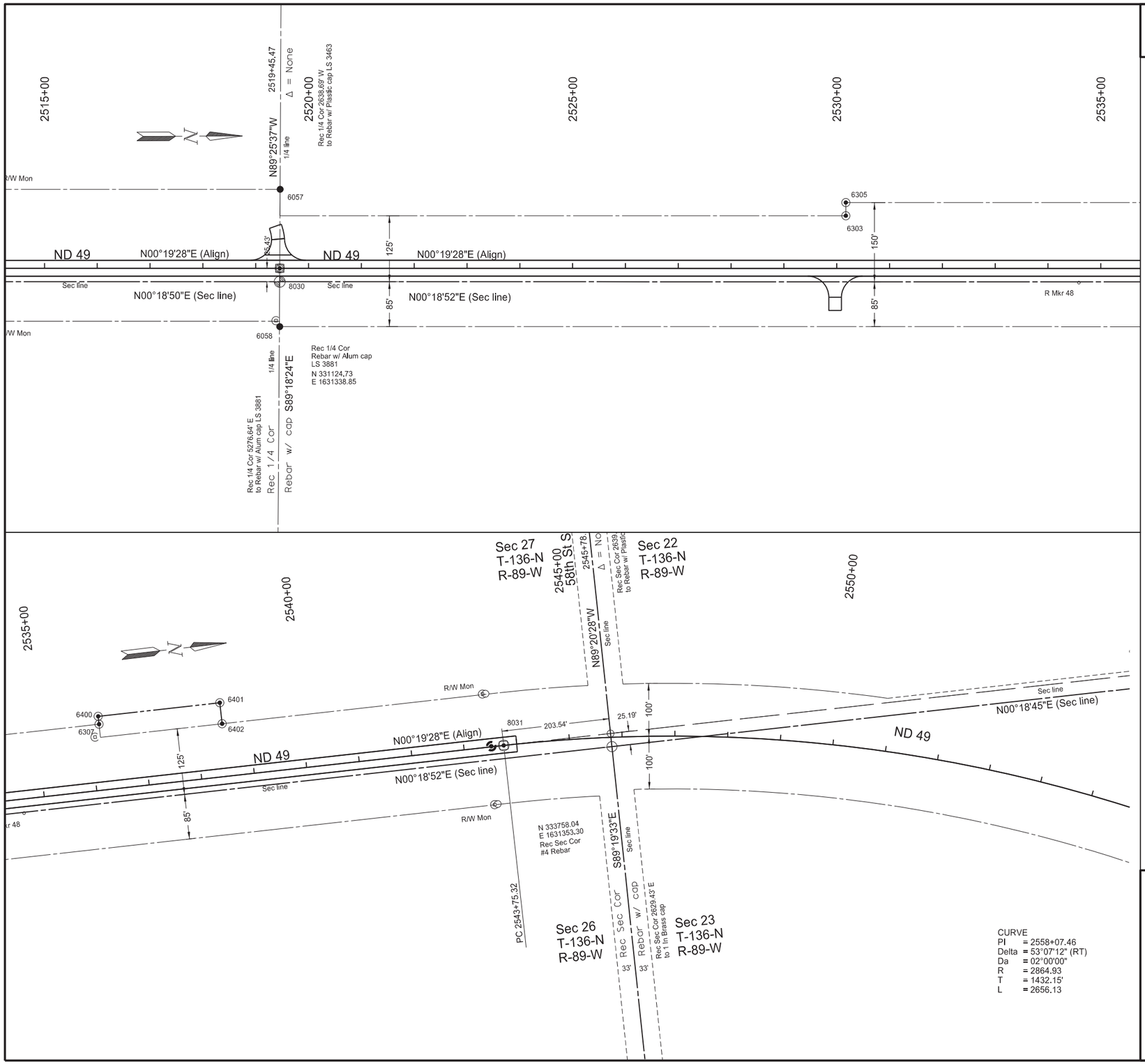
Survey Data Layout - Monuments

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2475+00 to 2515+00

JASON P. GULLICKS
REGISTERED
PROFESSIONAL
PE-4792
2024.11.29 18:26:02 -06'00'
ENGINEER
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	17



CURVE
PI = 2558+07.46
Delta = 53°07'12" (RT)
Da = 02°00'00"
R = 2864.93
T = 1432.15'
L = 2656.13

POINT	NORTHING	EASTING	STATION	OFFSET
6057	331126.48	1631163.86	2519+46.12	-150
6058	331124.36	1631423.85	2519+45.48	110
6303	332197.29	1631219.74	2530+17.23	-100
6305	332197.42	1631194.74	2530+17.23	-125
6307	332798.47	1631198.03	2536+18.29	-125
6400	332798.56	1631183.03	2536+18.28	-140
6401	333030.27	1631184.31	2538+50.00	-140
6402	333030.04	1631224.31	2538+50.00	-100
8030	331124.98	1631313.43	2519+45.48	0
8031	333554.79	1631327.19	2543+75.32	0

Legend

- Alignment Monuments
- Iron Pin R/W Monuments
- R/W Marker
- Iron Pin Reference Monuments

Note: Stationing Based on SCL49_G

Survey Data Layout - Monuments

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2515+00 to 2544+00

JASON P. GULLICKS
PROFESSIONAL
PE-4792
2024.11.29 18:26:30 -06'00'
ENGINEER
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	82	18

SPEC	CODE	BID ITEM	QTY	UNIT
720	0110	RIGHT OF WAY MARKERS	104	EA
720	0125	ALIGNMENT MONUMENTS	31	EA
720	0130	IRON PIN R/W MONUMENTS	55	EA
720	0135	IRON PIN REFERENCE MONUMENTS	49	EA

Grant County (Table 1 of 2)							
Point	North	East	Station	Offset	720 110 R/W Marker (Witness Post)	720 130 Iron Pin R/W Monument	720 135 Iron Pin Reference Monument
6059	333844.65	1631242.98	2546+55.39	-100	X		X
6060	333876.51	1631447.87	2547+10.14	100	X		X
6061	333646.16	1631439.24	2544+71.01	110	X		X
6062	333660.76	1631229.66	2544+77.20	-100	X		X
6063	336454.33	1633146.48	2579+28.18	-100	X		X
6064	336293.67	1633265.60	2579+28.18	100	X		X
6065	337026.20	1633966.75	2589+18.66	-100	X		X
6066	336864.71	1634086.50	2589+39.11	100	X		X
6067	344082.62	1639632.51	2696+51.53	-100	X		X
6068	344282.94	1639668.29	2698+59.77	-100	X		X
6069	344251.12	1639865.74	2698+59.77	100	X		X
6070	344057.07	1639831.47	2696+66.95	100	X		X
6071	346819.94	1640077.13	2724+29.50	-100	X		X
6072	346788.12	1640274.58	2724+29.50	100	X		X
6073	352160.96	1639643.95	2781+06.82	100	X		X
6074	352020.27	1639501.81	2781+06.82	-100	X		X
6075	352252.18	1639272.26	2784+33.12	-100	X		X
6076	352392.87	1639414.40	2784+33.12	100	X		X
6077	355257.74	1636107.93	2828+50.91	-100	X		X
6078	354567.20	1637262.23	2814+92.46	100	X		X
6079	354391.33	1637084.55	2814+92.46	-150	X		X
6080	355677.87	1633655.10	2853+69.79	100	X		X
6081	355478.03	1633647.09	2853+69.79	-100	X		X
6082	355954.89	1630978.25	2880+66.91	-100	X		X
6083	356133.27	1631068.69	2880+66.91	100	X		X
6084	357357.95	1628653.13	2907+75.18	100	X		X
6085	357179.56	1628562.69	2907+75.18	-100	X		X
6086	357455.86	1628460.00	2909+91.72	100	X		X
6087	357277.48	1628369.56	2909+91.72	-100	X		X
6088	362592.24	1625766.32	2973+40.76	-100	X		X
6089	362588.85	1625966.33	2973+40.63	100	X		X
6090	365325.57	1625810.98	3000+74.34	-100	X		X
6091	365322.56	1626010.96	3000+74.82	100	X		X
6092	370604.74	1625903.16	3053+54.26	-100	X		X
6093	370601.83	1626103.14	3053+54.95	100	X		X
6094	370401.81	1626099.59	3051+54.84	100	X		X
6095	370404.82	1625899.62	3051+54.36	-100	X		X
6096	373151.34	1625918.90	3079+00.74	-130	X		X
6097	373146.45	1626178.85	3079+00.52	130	X		X
6098	375887.84	1625998.01	3106+38.19	-100	X		X
6099	375684.91	1626194.45	3104+38.85	100	X		X
6100	378418.60	1626044.15	3131+69.38	-100	X		X
6102	381181.30	1626094.68	3159+32.21	-100	X		X
6103	380978.80	1626290.70	3157+33.63	100	X		X
6104	383715.08	1626149.12	3184+66.57	-100	X		X
6105	383711.83	1626349.10	3184+67.61	100	X		X
6106	386228.01	1626183.05	3209+79.65	-120	X		X
6107	386225.36	1626423.05	3209+82.16	120	X		X
6108	378415.36	1626244.12	3131+69.77	100	X		X
6200	360724.48	1625935.98	2954+76.01	100	X	X	
6203	360727.74	1625736.00	2954+76.01	-100	X	X	
R/W Marker Subtotal:					51		
Iron Pin R/W Monument Subtotal:						2	
Iron Pin Reference Monument Subtotal:							49

Stationing based on SCL49_G Alignment.

Grant County (Table 2 of 2)							
Point	North	East	Station	Offset	720 110 R/W Marker (Witness Post)	720 130 Iron Pin R/W Monument	720 135 Iron Pin Reference Monument
6205	369078.16	1625876.46	3038+27.50	-100	X	X	
6207	369078.51	1625856.47	3038+27.50	-120	X	X	
6209	371530.73	1625919.79	3062+80.40	-100	X	X	
6211	371537.92	1625519.86	3062+80.40	-500	X	X	
6213	371838.72	1625525.26	3065+81.25	-500	X	X	
6215	371832.07	1625895.20	3065+81.25	-130	X	X	
6217	371527.57	1626119.77	3062+80.83	100	X	X	
6219	371523.44	1626349.73	3062+80.83	330	X	X	
6221	371623.70	1626351.53	3063+81.11	330	X	X	
6223	371627.29	1626151.56	3063+81.11	130	X	X	
6225	372534.86	1626237.88	3072+90.08	200	X	X	
6295	335920.23	1632426.15	2570+31.44	-100	X	X	
6297	341052.39	1639500.95	2665+67.79	100	X	X	
6231	372536.11	1626167.89	3072+90.08	130	X	X	
6233	372540.78	1625907.93	3072+90.08	-130	X	X	
6235	372543.84	1625737.96	3072+90.08	-300	X	X	
6237	372694.24	1625740.66	3074+40.51	-300	X	X	
6262	372691.19	1625910.63	3074+40.51	-130	X	X	
6227	372785.53	1626242.38	3075+40.79	200	X	X	
6229	372786.78	1626172.39	3075+40.79	130	X	X	
6265	385566.75	1626388.91	3203+22.96	100	X	X	
6267	385566.32	1626408.91	3203+22.96	120	X	X	
6269	385571.04	1626188.96	3203+22.96	-100	X	X	
6271	385571.47	1626168.96	3203+22.96	-120	X	X	
6309	334287.11	1631323.19	2550+90.30	-100	X	X	
6310	334904.88	1631392.56	2556+59.90	-250	X	X	
6311	335121.98	1631685.36	2559+73.14	-100	X	X	
6312	335759.58	1632545.27	2570+31.44	100	X	X	
6313	336542.00	1633600.52	2583+45.12	100	X	X	
6314	336702.66	1633481.40	2583+45.12	-100	X	X	
6315	337572.43	1635177.78	2602+27.23	-100	X	X	
6316	337381.93	1635238.70	2602+27.23	100	X	X	
6317	337860.81	1636079.50	2611+73.94	-100	X	X	
6318	338519.32	1638138.57	2633+35.75	-100	X	X	
6319	340261.63	1639342.06	2657+86.41	-100	X	X	
6299	341043.13	1639301.16	2665+68.99	-100	X	X	
6304	342350.61	1639433.00	2678+67.79	100	X	X	
6302	342341.35	1639233.21	2678+68.99	-100	X	X	
6320	342546.44	1639422.75	2680+63.89	100	X	X	
6321	342537.19	1639222.96	2680+65.05	-100	X	X	
6322	342536.26	1639202.98	2680+65.15	-120	X	X	
6323	355675.32	1634965.69	2840+60.15	150	X	X	
6306	355939.60	1631008.41	2880+33.09	-100	X	X	
6324	356117.98	1631098.85	2880+33.09	100	X	X	
6326	356199.47	1630495.84	2886+07.77	-100	X	X	
6328	357646.07	1628084.83	2914+12.34	100	X	X	
6330	357467.69	1627994.39	2914+12.34	-100	X	X	
6332	359847.17	1625854.66	2946+14.18	-100	X	X	
6334	360099.61	1625792.79	2948+65.42	-100	X	X	
6400	332798.56	1631183.03	2536+18.28	-140	X	X	
6307	332798.47	1631198.03	2536+18.29	-125	X	X	
6401	333030.27	1631184.31	2538+50.00	-140	X	X	
6402	333030.04	1631224.31	2538+50.00	-100	X	X	
R/W Marker Subtotal:					53		
Iron Pin R/W Monument Subtotal:						53	
Iron Pin Reference Monument Subtotal:							0

Grant County (Table 1 of 1)					
Point	North	East	Station	Offset	720 125 Alignment Monument
8000	271011.03	1630937.26	1918+27.68	0.00	X
8001	273284.31	1630976.46	1941+01.30	0.00	X
8002	274052.71	1630989.71	1948+69.81	0.00	X
8003	275917.25	1631011.99	1967+34.49	0.00	X
8004	278555.48	1631058.93	1993+73.14	0.00	X
8005	281193.26	1631105.86	2020+11.33	0.00	X
8006	283850.05	1631163.43	2046+68.74	0.00	X
8007	284565.31	1631178.93	2053+84.17	0.00	X
8008	286506.76	1631211.61	2073+25.90	0.00	X
8008	289143.11	1631266.58	2099+62.82	0.00	X
8009	291504.12	1631315.81	2123+24.34	0.00	X
8010	291534.85	1631316.45	2123+55.08	0.00	X
8011	291956.60	1631325.25	2127+76.90	2.33	X
8012	292378.44	1631324.72	2131+98.72	0.00	X
8013	294138.03	1631322.54	2149+58.32	0.00	X
8014	296771.95	1631319.28	2175+92.24	0.00	X
8015	299413.98	1631314.83	2202+34.27	0.00	X
8016	302056.18	1631310.38	2228+76.48	0.00	X
8017	304699.46	1631304.45	2255+19.77	0.00	X
8019	309974.38	1631297.06	2307+94.70	0.00	X
8020	312605.79	1631295.61	2334+26.10	0.00	X
8021	312647.85	1631295.93	2334+68.16	0.34	X
8022	313092.07	1631295.34	2339+12.38	0.00	X
8023	315248.16	1631283.14	2360+68.50	0.00	X
8024	315594.32	1631281.18	2364+14.67	0.00	X
8025	317890.55	1631277.28	2387+10.91	0.00	X
8026	320542.55	1631272.91	2413+62.91	0.00	X
8027	323198.99	1631268.54	2440+19.35	0.00	X
8029	328480.40	1631298.45	2493+00.85	0.00	X
8030	331124.98	1631313.43	2519+45.47	0.00	X
8031	333554.79	1631327.19	2543+75.32	0.00	X
Allgnment Monument Subtotal:					31

Stationing based on PR49_G Alignment.

Summary Table			
	720 110 R/W Marker (Witness	720 130 Iron Pin R/W Monument	720 135 Iron Pin Reference
Subtotal from Grant County Table 1 of 2	51	2	49
Subtotal from Grant County Table 2 of 2	53	53	0
Total	104	55	49

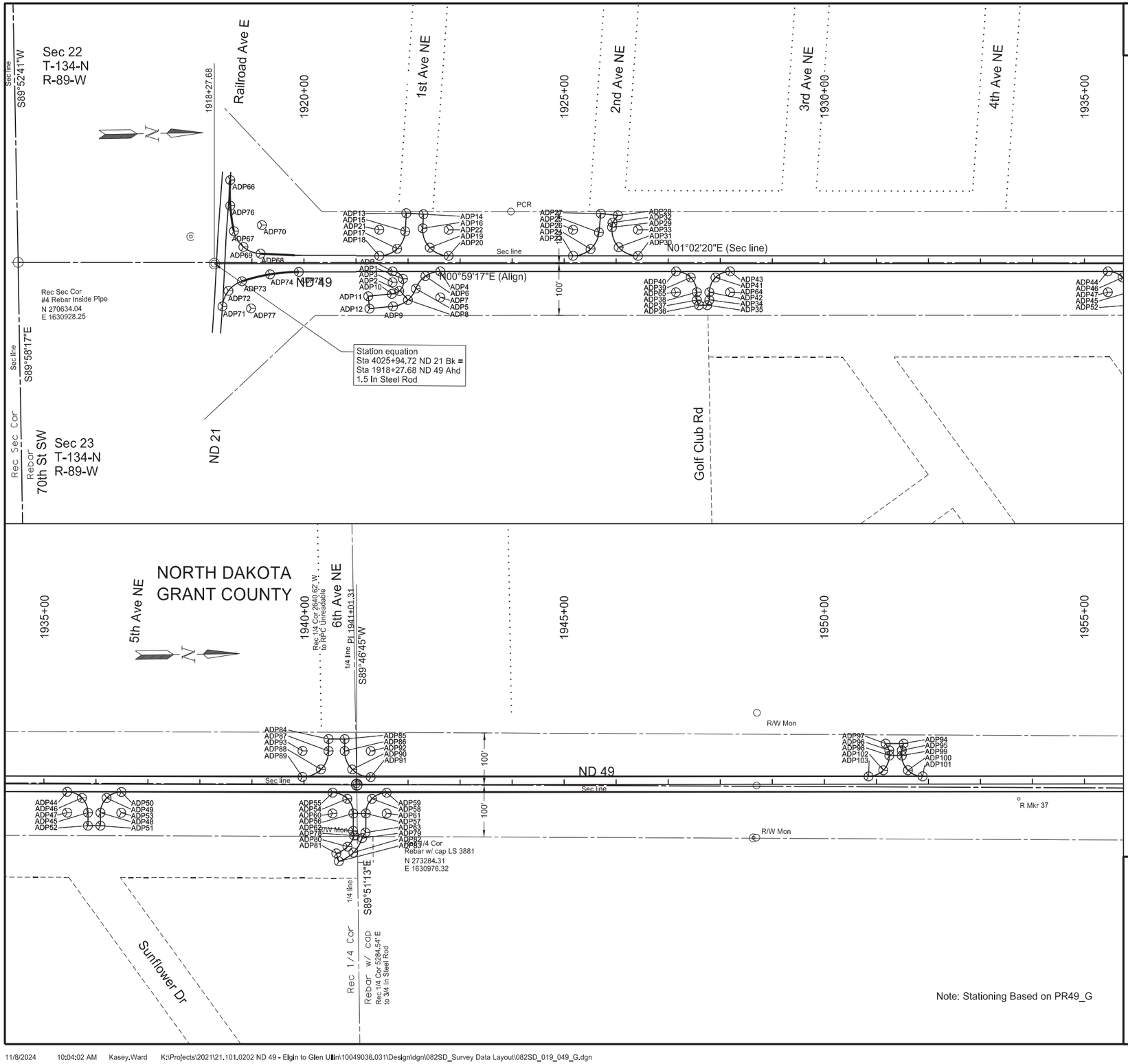
Survey Data Layout - Monuments

ND 49 - Jct 21 Elgin N to 58th St SW

Quantities

JASON P. GULLICKS
PROFESSIONAL
PE-4792
2024.11.29 18:27:03 -06'00'
ENGINEER
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	19



Point	Northing	Easting	Station	Offset
ADP	271353.28	1630958.30	1921+70.25	15.00
ADP1	271372.92	1630972.91	1921+90.14	29.26
ADP2	271365.38	1630996.20	1921+83.01	52.68
ADP3	271352.91	1630979.30	1921+70.25	36.00
ADP4	271444.98	1630959.92	1922+61.96	15.00
ADP5	271397.36	1630992.14	1922+14.92	48.06
ADP6	271416.08	1630968.50	1922+33.22	24.09
ADP7	271444.10	1631009.91	1922+61.96	65.00
ADP8	271381.82	1631013.80	1921+99.77	69.98
ADP9	271352.95	1631025.50	1921+71.11	82.19
ADP10	271351.02	1631001.57	1921+68.75	58.31
ADP11	271305.66	1631005.24	1921+23.46	62.78
ADP12	271307.59	1631029.17	1921+25.82	86.66
ADP13	271381.69	1630846.88	1921+96.69	-96.91
ADP14	271414.60	1630849.37	1922+29.63	-94.99
ADP15	271379.05	1630881.65	1921+94.67	-62.10
ADP16	271412.54	1630876.43	1922+28.06	-67.90
ADP17	271362.86	1630914.83	1921+79.06	-28.63
ADP18	271328.31	1630927.86	1921+44.75	-15.00
ADP19	271425.43	1630913.88	1922+41.61	-30.69
ADP20	271461.52	1630930.21	1922+77.97	-15.00
ADP21	271329.20	1630877.86	1921+44.75	-65.00
ADP22	271462.40	1630880.22	1922+77.97	-65.00
ADP23	271700.64	1630934.43	1925+17.14	-15.00
ADP24	271734.42	1630922.09	1925+50.69	-27.93
ADP25	271751.18	1630890.28	1925+66.89	-60.04
ADP26	271701.53	1630884.44	1925+17.14	-65.00
ADP27	271755.40	1630854.41	1925+70.47	-95.97
ADP28	271788.18	1630858.27	1926+03.31	-92.69
ADP29	271776.46	1630880.79	1925+92.00	-69.96
ADP30	271825.24	1630936.63	1926+41.75	-15.00
ADP31	271788.47	1630919.53	1926+04.68	-31.45
ADP32	271777.48	1630872.11	1925+92.87	-78.66
ADP33	271826.12	1630886.64	1926+41.75	-65.00
ADP34	271961.00	1631024.03	1927+79.03	70.00
ADP35	271956.83	1631033.96	1927+75.04	80.00
ADP36	271940.83	1631033.68	1927+59.04	80.00
ADP37	271937.00	1631023.62	1927+55.03	70.01
ADP38	271937.26	1631008.60	1927+55.03	54.98
ADP39	271926.04	1630980.12	1927+43.31	26.71
ADP40	271897.97	1630967.92	1927+15.03	15.00
ADP41	271973.47	1630980.97	1927+90.74	26.72
ADP42	271961.26	1631009.06	1927+79.03	55.02
ADP43	272001.96	1630969.75	1928+19.03	15.00
ADP44	272727.81	1630982.56	1935+45.00	15.00
ADP45	272767.10	1631023.26	1935+85.00	55.00
ADP46	272755.89	1630994.78	1935+73.28	26.72
ADP47	272727.11	1631022.56	1935+45.00	55.00
ADP48	272791.10	1631023.69	1936+09.00	55.00
ADP49	272803.31	1630995.61	1936+20.71	26.72

Note: Stationing Based on PR49_G

Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1918+42 to 1955+00

Note: Stationing Based on PR49_G

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:05:57 -06'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	82	20

Point	Northing	Easting	Station	Offset
ADP50	272831.80	1630984.40	1936+49.00	15.00
ADP51	272790.66	1631048.68	1936+09.00	80.00
ADP52	272766.66	1631048.26	1935+85.00	80.00
ADP53	272831.09	1631024.39	1936+49.00	55.00
ADP54	273265.83	1631003.77	1940+83.30	26.71
ADP55	273237.76	1630991.56	1940+55.02	15.00
ADP56	273277.05	1631032.25	1940+95.02	54.98
ADP57	273301.05	1631032.44	1941+18.78	54.84
ADP58	273313.19	1631004.42	1941+30.55	26.66
ADP59	273341.57	1630993.14	1941+58.78	15.00
ADP60	273237.06	1631031.56	1940+55.02	55.00
ADP61	273341.05	1631033.13	1941+58.78	55.00
ADP62	273276.05	1631065.62	1940+94.62	88.37
ADP63	273299.79	1631069.20	1941+17.99	91.61
ADP64	272001.25	1631009.74	1928+19.03	55.00
ADP65	271897.27	1631007.91	1927+15.03	55.00
ADP66	271044.45	1630777.22	1918+58.27	-160.60
ADP67	271049.78	1630875.57	1918+65.33	-62.36
ADP68	271100.23	1630919.79	1919+16.56	-19.04
ADP69	271067.48	1630906.26	1918+83.58	-31.99
ADP70	271103.73	1630864.90	1919+19.09	-73.99
ADP71	271025.22	1631019.82	1918+43.32	82.30
ADP72	271037.14	1630990.11	1918+54.72	52.39
ADP73	271063.58	1630972.07	1918+80.84	33.88
ADP74	271117.75	1630959.74	1919+34.78	20.59
ADP75	271173.18	1630956.12	1919+90.14	16.00
ADP76	271043.64	1630826.58	1918+58.33	-111.23
ADP77	271080.01	1631024.56	1918+98.19	86.07
ADP78	273278.01	1631074.64	1940+96.73	97.35
ADP79	273293.22	1631079.62	1941+11.56	102.11
ADP80	273264.83	1631095.75	1940+83.92	118.70
ADP81	273243.35	1631108.32	1940+62.67	131.64
ADP82	273275.98	1631107.23	1940+95.28	129.97
ADP83	273247.88	1631123.66	1940+67.48	146.90
ADP84	273231.52	1630888.44	1940+46.97	-88.00
ADP85	273262.52	1630888.98	1940+77.97	-88.00
ADP86	273262.12	1630911.88	1940+77.98	-65.10
ADP87	273231.13	1630911.41	1940+46.98	-65.02
ADP88	273215.87	1630946.52	1940+32.34	-29.65
ADP89	273180.25	1630960.54	1939+96.98	-15.00
ADP90	273276.23	1630947.56	1940+92.71	-29.68
ADP91	273311.46	1630962.74	1941+28.27	-15.00
ADP92	273312.12	1630912.74	1941+28.27	-65.00
ADP93	273181.14	1630910.55	1939+96.98	-65.00
ADP94	274336.42	1630913.19	1951+52.49	-78.00
ADP95	274332.76	1630926.14	1951+49.00	-65.00
ADP96	274308.77	1630925.82	1951+25.00	-65.00
ADP97	274301.96	1630912.73	1951+18.03	-78.00
ADP98	274308.63	1630935.82	1951+25.00	-55.00
ADP99	274332.63	1630936.14	1951+49.00	-55.00
ADP100	274343.98	1630964.57	1951+60.72	-26.72
ADP101	274372.10	1630976.66	1951+89.00	-15.00
ADP102	274296.55	1630963.95	1951+13.29	-26.72
ADP103	274268.11	1630975.30	1950+85.00	-15.00

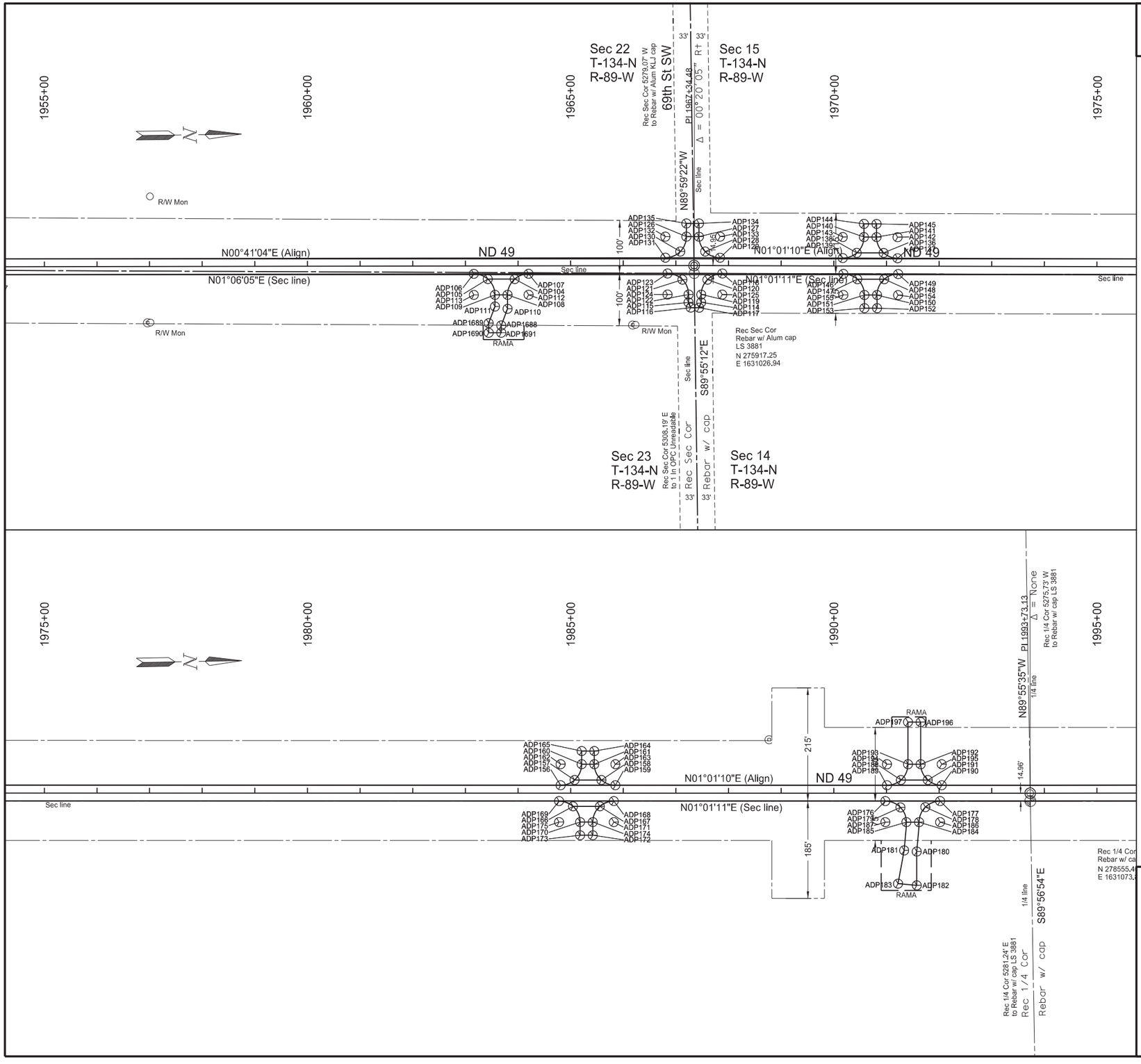
Note: Stationing Based on PR49_G

Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1918+42 to 1955+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:08:50 -06'00'
NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	82	21

Point	Northing	Easting	Station	Offset
ADP104	275576.01	1631032.47	1963+93.54	25.00
ADP105	275524.93	1631031.80	1963+42.46	25.00
ADP106	275498.61	1631021.45	1963+16.00	15.00
ADP107	275602.60	1631022.81	1964+20.00	15.00
ADP108	275562.08	1631062.29	1963+80.00	55.00
ADP109	275538.08	1631061.97	1963+56.00	55.00
ADP110	275561.73	1631088.82	1963+80.00	81.54
ADP111	275537.79	1631084.10	1963+56.00	77.14
ADP112	275602.07	1631062.81	1964+20.00	55.00
ADP113	275498.08	1631061.45	1963+16.00	55.00
ADP114	275929.85	1631082.12	1967+48.33	69.94
ADP115	275905.85	1631081.81	1967+24.00	70.01
ADP116	275909.72	1631091.85	1967+28.00	80.00
ADP117	275925.72	1631092.11	1967+44.38	80.00
ADP118	275970.75	1631027.90	1967+88.26	15.00
ADP119	275930.04	1631067.37	1967+48.26	55.19
ADP120	275942.20	1631039.17	1967+59.91	26.78
ADP121	275894.71	1631038.36	1967+12.29	26.72
ADP122	275906.05	1631066.80	1967+24.00	55.00
ADP123	275866.58	1631026.28	1966+84.00	15.00
ADP124	275866.05	1631066.28	1966+84.00	55.00
ADP125	275970.04	1631067.89	1967+88.26	55.00
ADP126	275903.50	1630956.76	1967+20.00	-55.00
ADP127	275927.49	1630957.30	1967+43.75	-54.81
ADP128	275938.77	1630985.67	1967+55.53	-26.65
ADP129	275966.78	1630997.82	1967+83.75	-15.00
ADP130	275891.41	1630984.89	1967+08.29	-26.72
ADP131	275862.97	1630996.23	1966+80.00	-15.00
ADP132	275863.50	1630956.23	1966+80.00	-55.00
ADP133	275967.49	1630957.83	1967+83.75	-55.00
ADP134	275927.82	1630932.07	1967+43.63	-80.04
ADP135	275903.82	1630931.76	1967+20.00	-80.00
ADP136	276277.70	1630993.36	1970+94.54	-25.00
ADP137	276303.97	1631003.83	1971+21.00	-15.00
ADP138	276226.62	1630992.45	1970+43.46	-25.00
ADP139	276199.99	1631001.98	1970+17.00	-15.00
ADP140	276240.70	1630962.69	1970+57.00	-55.00
ADP141	276264.69	1630963.12	1970+81.00	-55.00
ADP142	276304.69	1630963.83	1971+21.00	-55.00
ADP143	276200.70	1630961.98	1970+17.00	-55.00
ADP144	276241.14	1630937.70	1970+57.00	-80.00
ADP145	276265.14	1630938.13	1970+81.00	-80.00
ADP146	276200.73	1631031.99	1970+18.28	15.00
ADP147	276227.01	1631042.46	1970+44.73	25.00
ADP148	276278.09	1631043.37	1970+95.82	25.00
ADP149	276304.72	1631033.85	1971+22.28	15.00
ADP150	276264.01	1631073.13	1970+82.28	55.00
ADP151	276240.01	1631072.70	1970+58.28	55.00
ADP152	276263.69	1631098.12	1970+82.40	80.00

Note: Stationing Based on PR49_G

Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1955+00 to 1995+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:09:20 -06'00'
NORTH DAKOTA

Point	Northing	Easting	Station	Offset
ADP153	276239.69	1631097.70	1970+58.40	80.00
ADP154	276304.01	1631073.84	1971+22.28	55.00
ADP155	276200.02	1631071.99	1970+18.28	55.00
ADP156	277663.76	1631028.04	1984+81.00	-15.00
ADP157	277690.39	1631018.51	1985+07.45	-25.00
ADP158	277741.46	1631019.42	1985+58.54	-25.00
ADP159	277767.74	1631029.89	1985+85.00	-15.00
ADP160	277704.46	1630988.76	1985+21.00	-55.00
ADP161	277728.46	1630989.19	1985+45.00	-55.00
ADP162	277664.47	1630988.05	1984+81.00	-55.00
ADP163	277768.45	1630989.90	1985+85.00	-55.00
ADP164	277728.90	1630964.19	1985+45.00	-80.00
ADP165	277704.91	1630963.76	1985+21.00	-80.00
ADP166	277686.50	1631068.45	1985+04.45	25.00
ADP167	277737.57	1631069.36	1985+55.54	25.00
ADP168	277764.21	1631059.83	1985+82.00	15.00
ADP169	277660.22	1631057.98	1984+78.00	15.00
ADP170	277699.50	1631098.69	1985+18.00	55.00
ADP171	277723.50	1631099.12	1985+42.00	55.00
ADP172	277723.05	1631124.11	1985+42.00	80.00
ADP173	277699.06	1631123.68	1985+18.00	80.00
ADP174	277763.49	1631099.83	1985+82.00	55.00
ADP175	277659.51	1631097.98	1984+78.00	55.00
ADP176	278280.08	1631069.02	1990+97.95	15.00
ADP177	278384.08	1631070.87	1992+01.97	15.00
ADP178	278355.79	1631081.90	1991+73.88	26.52
ADP179	278308.47	1631081.57	1991+26.57	27.05
ADP180	278337.92	1631165.96	1991+57.51	110.89
ADP181	278314.06	1631163.38	1991+33.61	108.74
ADP182	278336.93	1631230.22	1991+57.66	175.16
ADP183	278301.32	1631226.37	1991+21.99	171.95
ADP184	278343.38	1631110.15	1991+61.98	55.00
ADP185	278319.35	1631109.73	1991+37.94	55.00
ADP186	278383.37	1631110.87	1992+01.97	55.00
ADP187	278279.37	1631109.01	1990+97.95	55.00
ADP188	278310.29	1631029.55	1991+27.46	-25.00
ADP189	278283.66	1631039.08	1991+01.00	-15.00
ADP190	278387.64	1631040.93	1992+05.00	-15.00
ADP191	278361.37	1631030.46	1991+78.54	-25.00
ADP192	278348.36	1631000.22	1991+65.00	-55.00
ADP193	278324.37	1630999.80	1991+41.00	-55.00
ADP194	278284.37	1630999.09	1991+01.00	-55.00
ADP195	278388.36	1631000.94	1992+05.00	-55.00
ADP196	278349.79	1630920.24	1991+65.00	-135.00
ADP197	278325.79	1630919.81	1991+41.00	-135.00
ADP1688	275549.32	1631120.26	1963+68.00	113.14
ADP1689	275525.38	1631115.54	1963+44.00	108.73
ADP1690	275525.14	1631133.81	1963+44.00	127.00
ADP1691	275549.13	1631134.12	1963+68.00	127.00

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	22

Note: Stationing Based on PR49_G

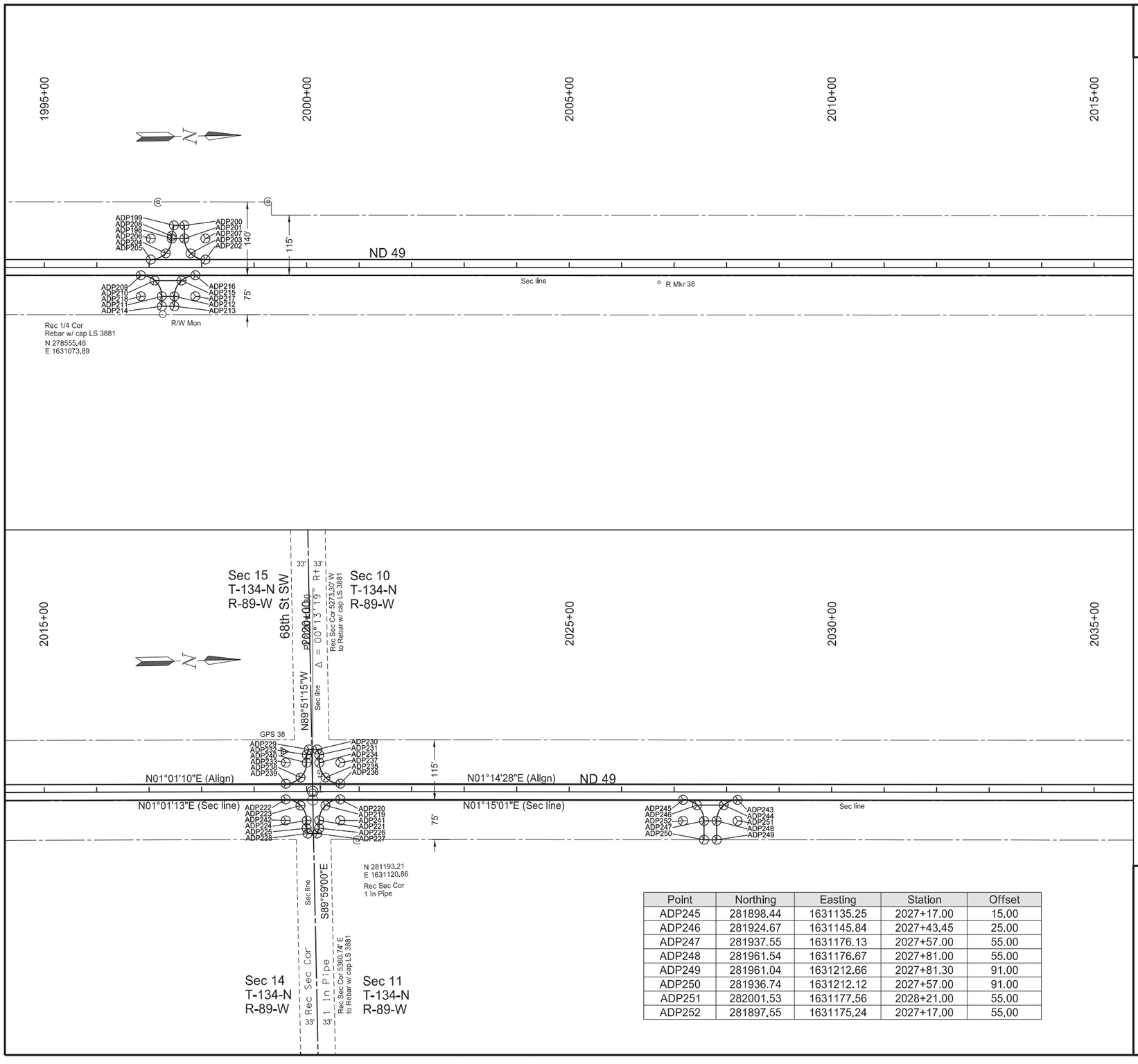
Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1955+00 to 1995+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:09:51 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	23



Point	Northing	Easting	Station	Offset
ADP198	278926.27	1631010.33	1997+43.03	-55.00
ADP199	278930.72	1630985.40	1997+47.04	-80.01
ADP200	278950.71	1630985.75	1997+67.04	-80.00
ADP201	278950.27	1631010.75	1997+67.03	-55.00
ADP202	278989.57	1631051.43	1998+07.03	-15.00
ADP203	278961.49	1631039.22	1997+78.73	-26.72
ADP204	278914.06	1631038.42	1997+31.30	-26.71
ADP205	278885.59	1631049.63	1997+03.03	-15.00
ADP206	278886.28	1631009.64	1997+03.03	-55.00
ADP207	278990.26	1631011.44	1998+07.03	-55.00
ADP208	278926.36	1631005.32	1997+43.03	-60.01
ADP209	278866.05	1631079.30	1996+84.00	15.00
ADP210	278892.33	1631089.76	1997+10.46	25.00
ADP211	278905.35	1631119.99	1997+24.00	55.00
ADP212	278929.35	1631120.40	1997+48.00	55.00
ADP213	278929.02	1631139.40	1997+48.00	74.00
ADP214	278905.02	1631138.98	1997+24.00	74.00
ADP215	278943.41	1631090.64	1997+61.54	25.00
ADP216	278970.03	1631081.10	1997+88.00	15.00
ADP217	278969.34	1631121.09	1997+88.00	55.00
ADP218	278865.36	1631119.29	1996+84.00	55.00
ADP219	281217.07	1631131.82	2020+35.72	26.72
ADP220	281245.61	1631120.74	2020+64.00	15.00
ADP221	281204.73	1631159.84	2020+24.00	55.00
ADP222	281141.43	1631118.67	2019+59.73	15.00
ADP223	281169.58	1631130.95	2019+88.08	26.79
ADP224	281180.73	1631159.56	2019+99.73	55.20
ADP225	281180.41	1631174.30	2019+99.66	69.94
ADP226	281204.40	1631174.83	2020+24.00	70.00
ADP227	281200.18	1631184.74	2020+20.00	80.00
ADP228	281182.19	1631184.39	2020+01.62	80.00
ADP229	281187.73	1631024.46	2020+04.39	-80.00
ADP230	281203.73	1631024.78	2020+20.00	-80.00
ADP231	281207.51	1631034.87	2020+24.00	-70.00
ADP232	281183.51	1631034.33	2020+00.34	-70.06
ADP233	281183.17	1631049.58	2020+00.27	-54.80
ADP234	281207.17	1631049.86	2020+24.00	-55.00
ADP235	281218.26	1631078.40	2020+35.71	-26.72
ADP236	281246.27	1631090.74	2020+64.00	-15.00
ADP237	281247.16	1631050.75	2020+64.00	-55.00
ADP238	281170.90	1631077.53	2019+88.48	-26.65
ADP239	281142.49	1631088.69	2019+60.27	-15.00
ADP240	281143.18	1631048.69	2019+60.27	-55.00
ADP241	281244.72	1631160.73	2020+64.00	55.00
ADP242	281140.74	1631158.67	2019+59.73	55.00
ADP243	282002.42	1631137.57	2028+21.00	15.00
ADP244	281975.75	1631146.97	2027+94.54	25.00

Note: Stationing Based on PR49_G

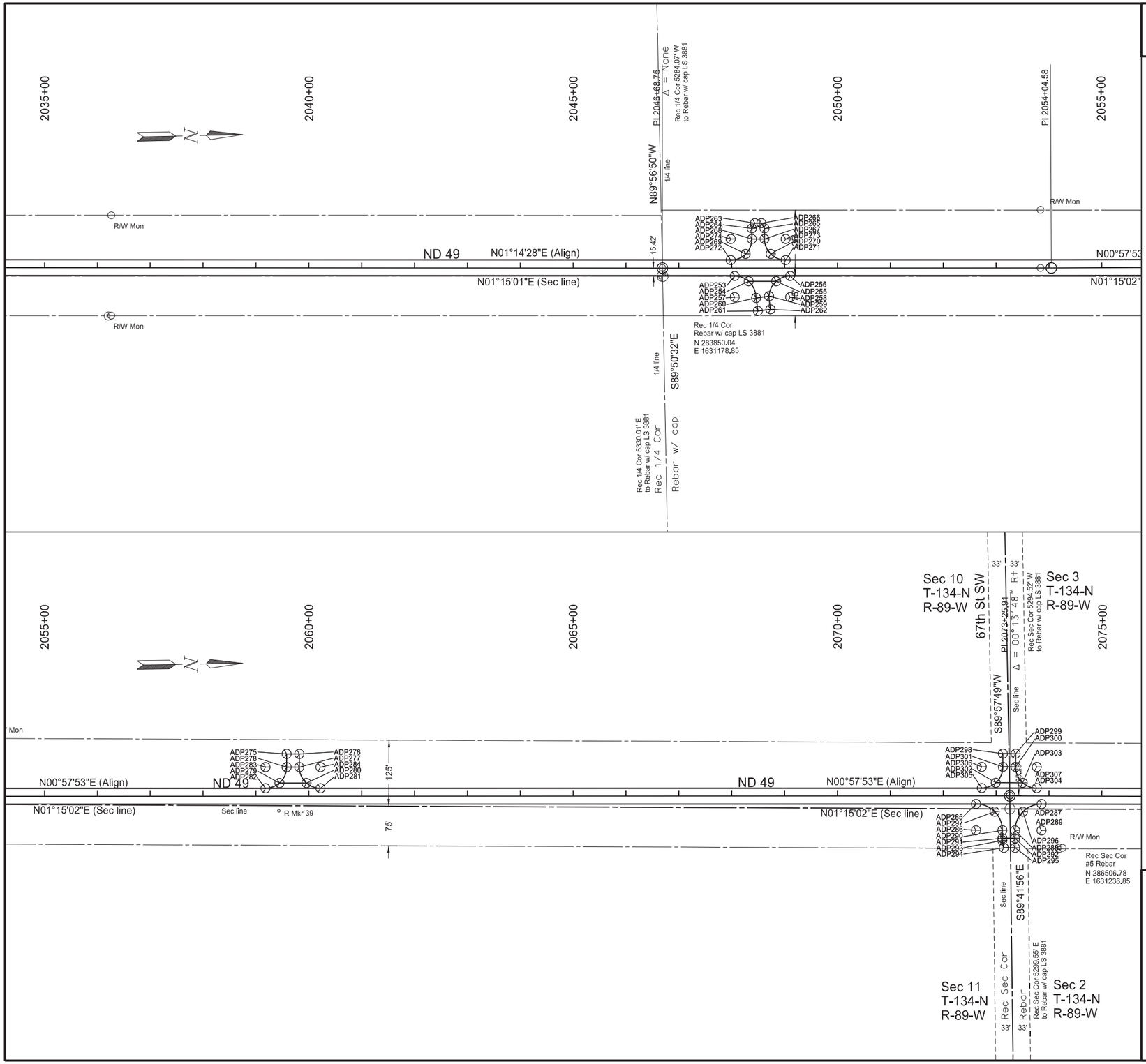
Point	Northing	Easting	Station	Offset
ADP245	281898.44	1631135.25	2027+17.00	15.00
ADP246	281924.67	1631145.84	2027+43.45	25.00
ADP247	281937.55	1631176.13	2027+57.00	55.00
ADP248	281961.54	1631176.67	2027+81.00	55.00
ADP249	281961.04	1631212.66	2027+81.30	91.00
ADP250	281936.74	1631212.12	2027+57.00	91.00
ADP251	282001.53	1631177.56	2028+21.00	55.00
ADP252	281897.55	1631175.24	2027+17.00	55.00

Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1995+00 to 2035+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:10:21 -06'00'
NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	82	24

Point	Northing	Easting	Station	Offset
ADP253	283986.51	1631181.58	2048+05.57	15.00
ADP254	284012.75	1631192.14	2048+32.02	25.00
ADP255	284064.75	1631193.26	2048+84.04	25.00
ADP256	284091.42	1631183.83	2049+10.49	15.00
ADP257	283985.65	1631221.57	2048+05.57	55.00
ADP258	284090.56	1631223.82	2049+10.49	55.00
ADP259	284050.65	1631221.15	2048+70.54	53.19
ADP260	284026.17	1631223.90	2048+46.12	56.46
ADP261	284028.95	1631248.74	2048+49.44	81.24
ADP262	284052.80	1631246.07	2048+73.22	78.05
ADP263	284027.08	1631082.43	2048+44.00	-85.00
ADP264	284020.87	1631092.30	2048+38.00	-75.00
ADP265	284044.86	1631092.81	2048+62.00	-75.00
ADP266	284039.08	1631082.68	2048+56.00	-85.00
ADP267	284044.43	1631112.81	2048+62.00	-55.00
ADP268	284020.44	1631112.29	2048+38.00	-55.00
ADP269	284008.12	1631140.32	2048+26.28	-26.72
ADP270	284055.54	1631141.33	2048+73.72	-26.72
ADP271	284083.57	1631153.65	2049+02.00	-15.00
ADP272	283979.59	1631151.42	2047+98.00	-15.00
ADP273	284084.43	1631113.66	2049+02.00	-55.00
ADP274	283980.45	1631111.43	2047+98.00	-55.00
ADP275	285140.42	1631108.94	2059+58.00	-80.00
ADP276	285164.42	1631109.35	2059+82.00	-80.00
ADP277	285163.99	1631134.35	2059+82.00	-55.00
ADP278	285140.00	1631133.94	2059+58.00	-55.00
ADP279	285125.94	1631163.70	2059+44.46	-25.00
ADP280	285177.02	1631164.58	2059+95.55	-25.00
ADP281	285203.30	1631175.03	2060+22.00	-15.00
ADP282	285099.32	1631173.25	2059+18.00	-15.00
ADP283	285100.00	1631133.25	2059+18.00	-55.00
ADP284	285203.99	1631135.04	2060+22.00	-55.00
ADP285	286442.60	1631226.31	2072+62.00	15.00
ADP286	286491.73	1631277.16	2073+12.00	65.00
ADP287	286566.76	1631228.67	2073+86.24	15.00
ADP288	286515.72	1631277.80	2073+36.24	65.19
ADP289	286565.72	1631278.66	2073+86.24	65.00
ADP290	286441.74	1631276.31	2072+62.00	65.00
ADP291	286491.47	1631292.16	2073+12.00	80.00
ADP292	286515.41	1631292.61	2073+36.24	80.00
ADP293	286491.39	1631296.16	2073+11.98	84.00
ADP294	286493.79	1631310.21	2073+14.62	98.00
ADP295	286515.14	1631310.61	2073+36.34	98.00
ADP296	286531.04	1631242.64	2073+50.82	29.71
ADP297	286477.70	1631241.56	2072+97.35	29.64
ADP298	286495.22	1631132.20	2073+13.00	-80.00
ADP299	286519.21	1631132.66	2073+36.70	-80.00
ADP300	286518.79	1631157.65	2073+36.79	-55.00
ADP301	286494.79	1631157.20	2073+13.00	-55.00

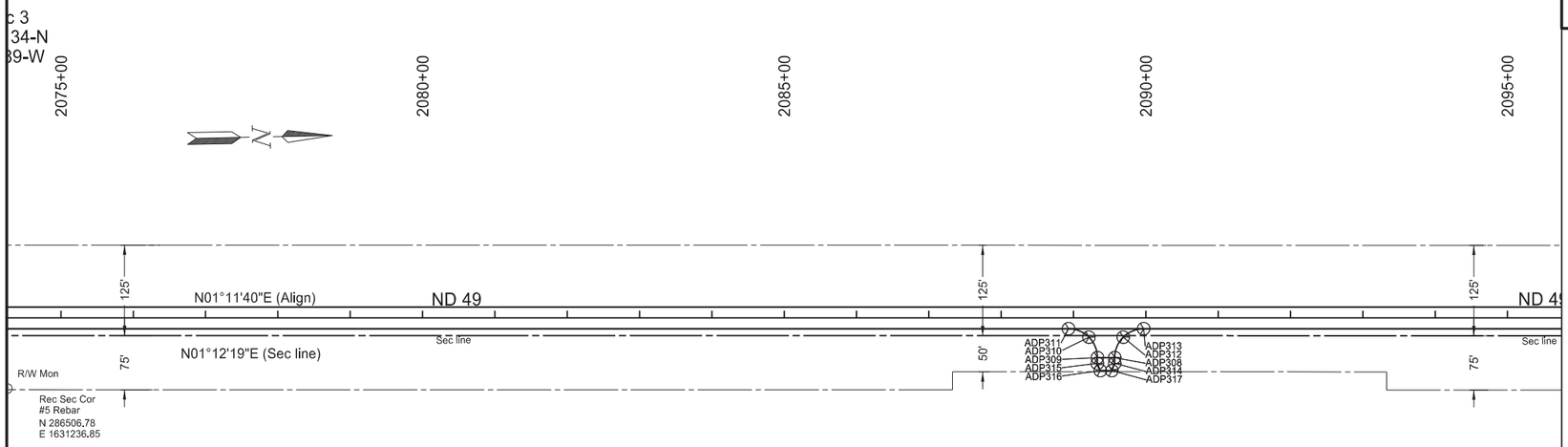
Note: Stationing Based on PR49_G

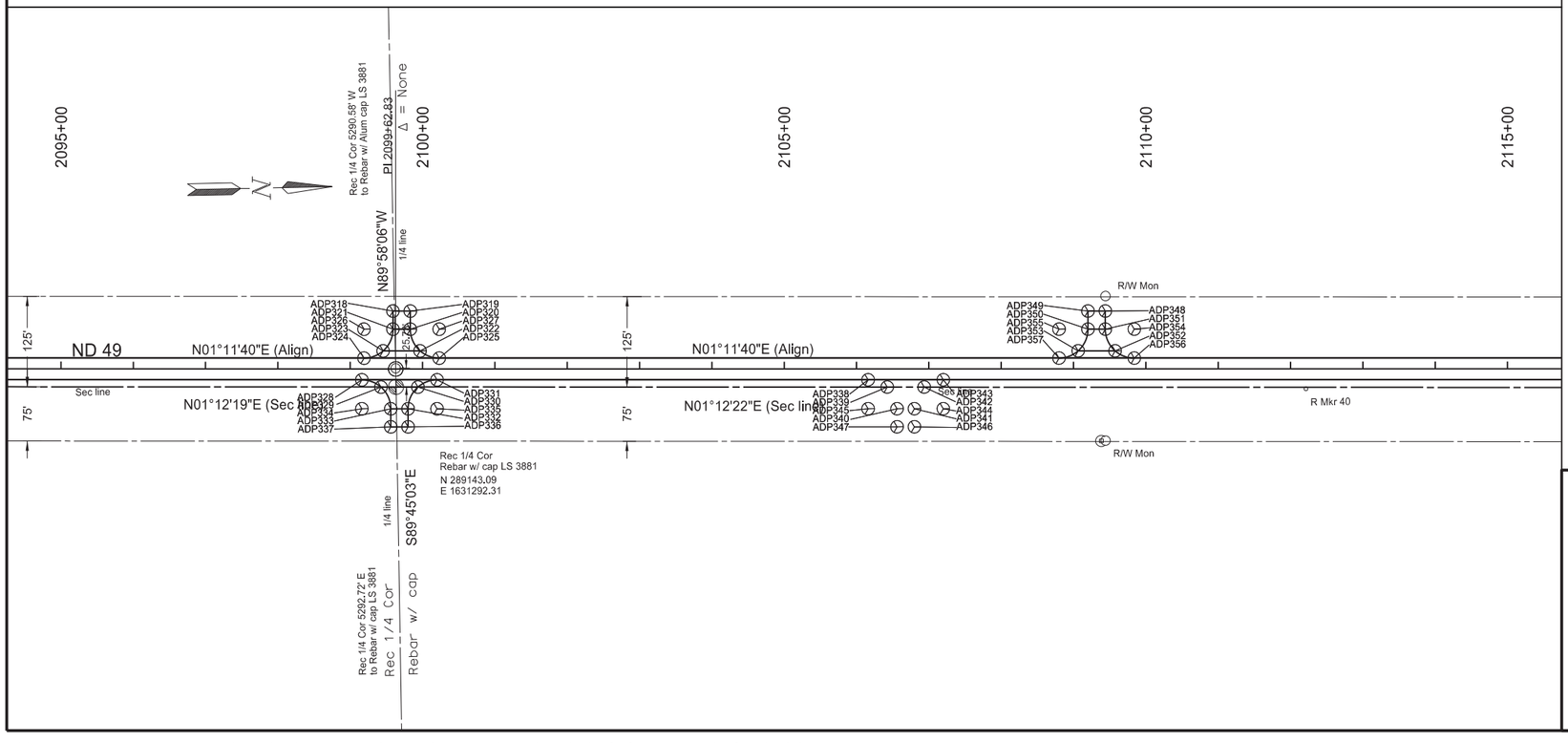
Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2035+00 to 2075+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:10:52 -06'00'
NORTH DAKOTA





	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	82	25

Point	Northing	Easting	Station	Offset
ADP308	288136.35	1631301.45	2089+57.00	55.00
ADP309	288112.35	1631300.95	2089+33.00	55.00
ADP310	288101.23	1631272.43	2089+21.29	26.72
ADP311	288073.20	1631260.13	2088+93.00	15.00
ADP312	288148.65	1631273.42	2089+68.72	26.72
ADP313	288177.17	1631262.30	2089+97.00	15.00
ADP314	288136.18	1631309.45	2089+57.00	63.00
ADP315	288112.18	1631308.95	2089+33.00	63.00
ADP316	288115.97	1631319.03	2089+37.00	73.00
ADP317	288131.97	1631319.37	2089+53.00	73.00
ADP318	289140.91	1631187.40	2099+58.97	-80.00
ADP319	289164.91	1631187.90	2099+83.00	-80.00
ADP320	289164.40	1631212.89	2099+83.00	-55.00
ADP321	289140.40	1631212.40	2099+58.98	-55.00
ADP322	289177.32	1631243.16	2099+96.54	-25.00
ADP323	289126.23	1631242.11	2099+45.44	-25.00
ADP324	289099.57	1631251.55	2099+18.98	-15.00
ADP325	289203.57	1631253.70	2100+23.00	-15.00
ADP326	289100.41	1631211.56	2099+18.98	-55.00
ADP327	289204.39	1631213.71	2100+23.00	-55.00
ADP328	289095.99	1631281.49	2099+16.02	15.00
ADP329	289122.23	1631292.04	2099+42.48	25.00
ADP330	289173.30	1631293.09	2099+93.55	25.00
ADP331	289199.95	1631283.64	2100+20.00	15.00
ADP332	289159.14	1631322.81	2099+80.00	55.00
ADP333	289135.15	1631322.30	2099+56.02	54.99
ADP334	289095.16	1631321.48	2099+16.02	55.00
ADP335	289199.13	1631323.63	2100+20.00	55.00
ADP336	289158.63	1631347.80	2099+80.00	80.00
ADP337	289134.63	1631347.31	2099+56.03	80.00
ADP338	289795.83	1631295.88	2106+16.00	15.00
ADP339	289822.07	1631306.42	2106+42.46	25.00
ADP340	289835.00	1631336.69	2106+56.00	55.00
ADP341	289858.99	1631337.18	2106+80.00	55.00
ADP342	289873.15	1631307.47	2106+93.54	25.00
ADP343	289899.81	1631298.01	2107+20.00	15.00
ADP344	289898.98	1631338.00	2107+20.00	55.00
ADP345	289795.01	1631335.87	2106+16.00	55.00
ADP346	289858.48	1631362.18	2106+80.00	80.00
ADP347	289834.48	1631361.68	2106+56.00	80.00
ADP348	290125.71	1631207.63	2109+44.00	-80.00
ADP349	290101.71	1631207.14	2109+20.00	-80.00
ADP350	290101.20	1631232.13	2109+20.00	-55.00
ADP351	290125.19	1631232.63	2109+44.00	-55.00
ADP352	290138.12	1631262.90	2109+57.54	-25.00
ADP353	290087.04	1631261.85	2109+06.46	-25.00
ADP354	290165.19	1631233.45	2109+84.00	-55.00
ADP355	290061.21	1631231.31	2108+80.00	-55.00
ADP356	290164.36	1631273.44	2109+84.00	-15.00
ADP357	290060.39	1631271.30	2108+80.00	-15.00

Note: Stationing Based on PR49_G

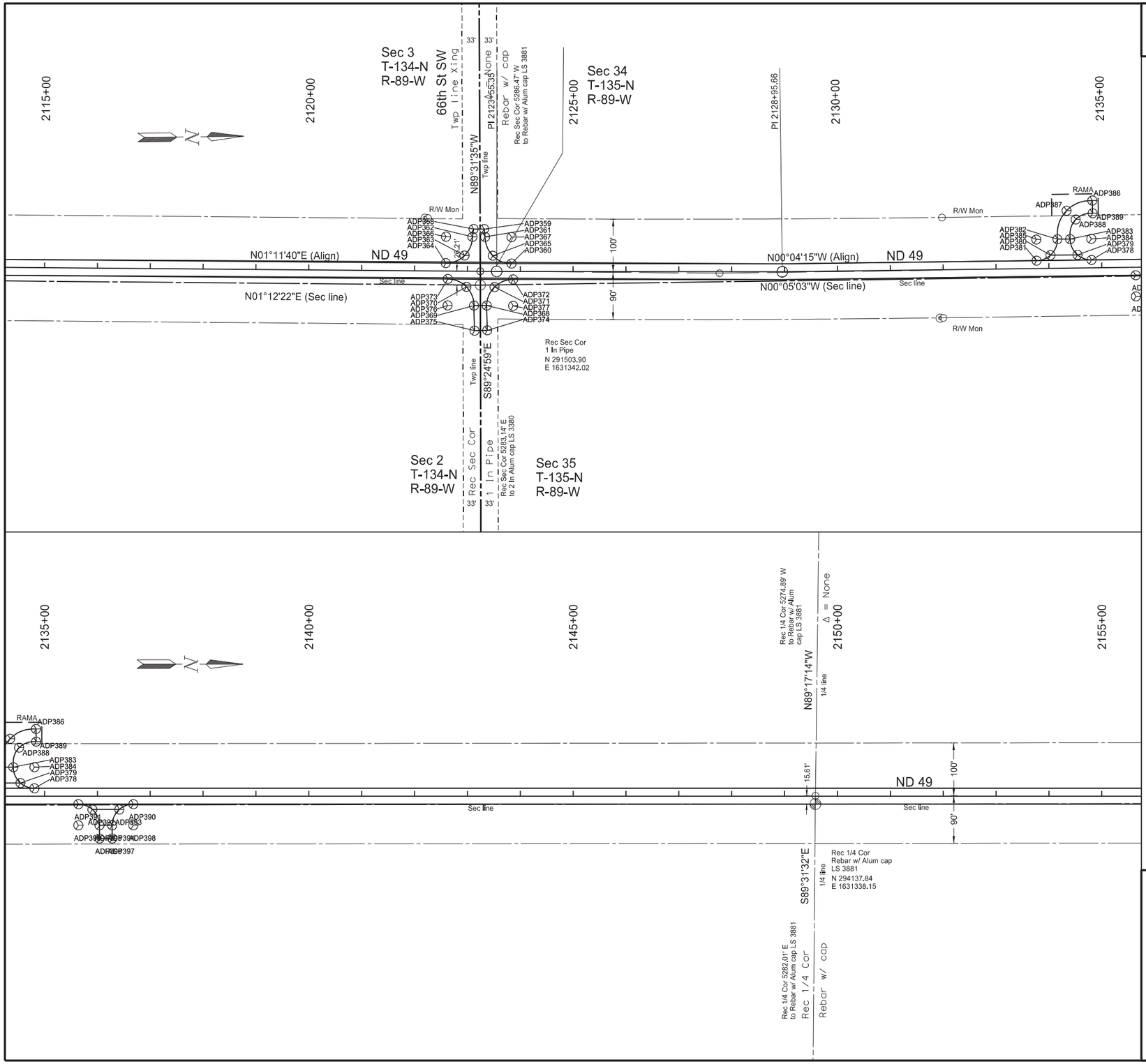
Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2075+00 to 2115+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:11:26 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	26



Point	Northing	Easting	Station	Offset
ADP358	291492.42	1631235.71	2123+11.00	-80.00
ADP359	291512.41	1631236.12	2123+31.00	-80.00
ADP360	291563.42	1631301.98	2123+83.45	-15.00
ADP361	291514.11	1631250.97	2123+33.00	-65.19
ADP362	291490.11	1631250.66	2123+09.00	-65.00
ADP363	291474.75	1631285.71	2122+94.36	-29.65
ADP364	291439.10	1631299.62	2122+59.00	-15.00
ADP365	291528.15	1631286.74	2123+47.77	-29.71
ADP366	291440.12	1631249.64	2122+59.00	-65.00
ADP367	291564.10	1631251.99	2123+83.45	-65.00
ADP368	291515.44	1631380.99	2123+37.00	64.78
ADP369	291491.44	1631380.72	2123+13.00	65.00
ADP370	291477.52	1631345.07	2122+98.35	29.65
ADP371	291530.68	1631346.07	2123+51.52	29.55
ADP372	291566.11	1631332.02	2123+86.55	15.00
ADP373	291442.47	1631329.70	2122+63.00	15.00
ADP374	291515.89	1631427.74	2123+38.41	111.51
ADP375	291491.90	1631428.17	2123+14.43	112.43
ADP376	291441.45	1631379.69	2122+63.00	65.00
ADP377	291565.43	1631382.02	2123+86.55	65.00
ADP378	292660.61	1631308.77	2134+80.90	-15.00
ADP379	292634.15	1631298.78	2134+54.44	-25.00
ADP380	292583.07	1631298.80	2134+03.36	-25.00
ADP381	292556.61	1631308.81	2133+76.90	-15.00
ADP382	292596.60	1631268.79	2134+16.90	-55.00
ADP383	292620.60	1631268.79	2134+40.90	-55.00
ADP384	292660.60	1631268.77	2134+80.90	-55.00
ADP385	292556.60	1631268.81	2133+76.90	-55.00
ADP386	292663.52	1631196.43	2134+83.85	-127.34
ADP387	292614.50	1631214.90	2134+34.82	-108.89
ADP388	292631.57	1631231.78	2134+51.88	-92.01
ADP389	292663.79	1631220.43	2134+84.11	-103.35
ADP390	292847.72	1631338.71	2136+68.00	15.00
ADP391	292743.72	1631338.75	2135+64.00	15.00
ADP392	292770.18	1631348.74	2135+90.46	25.00
ADP393	292821.27	1631348.72	2136+41.54	25.00
ADP394	292807.74	1631378.73	2136+28.00	55.00
ADP395	292783.74	1631378.73	2136+04.00	55.00
ADP396	292783.74	1631403.73	2136+04.00	80.00
ADP397	292807.74	1631403.73	2136+28.00	80.00
ADP398	292847.74	1631378.71	2136+68.00	55.00
ADP399	292743.74	1631378.75	2135+64.00	55.00

Note: Stationing Based on PR49_G

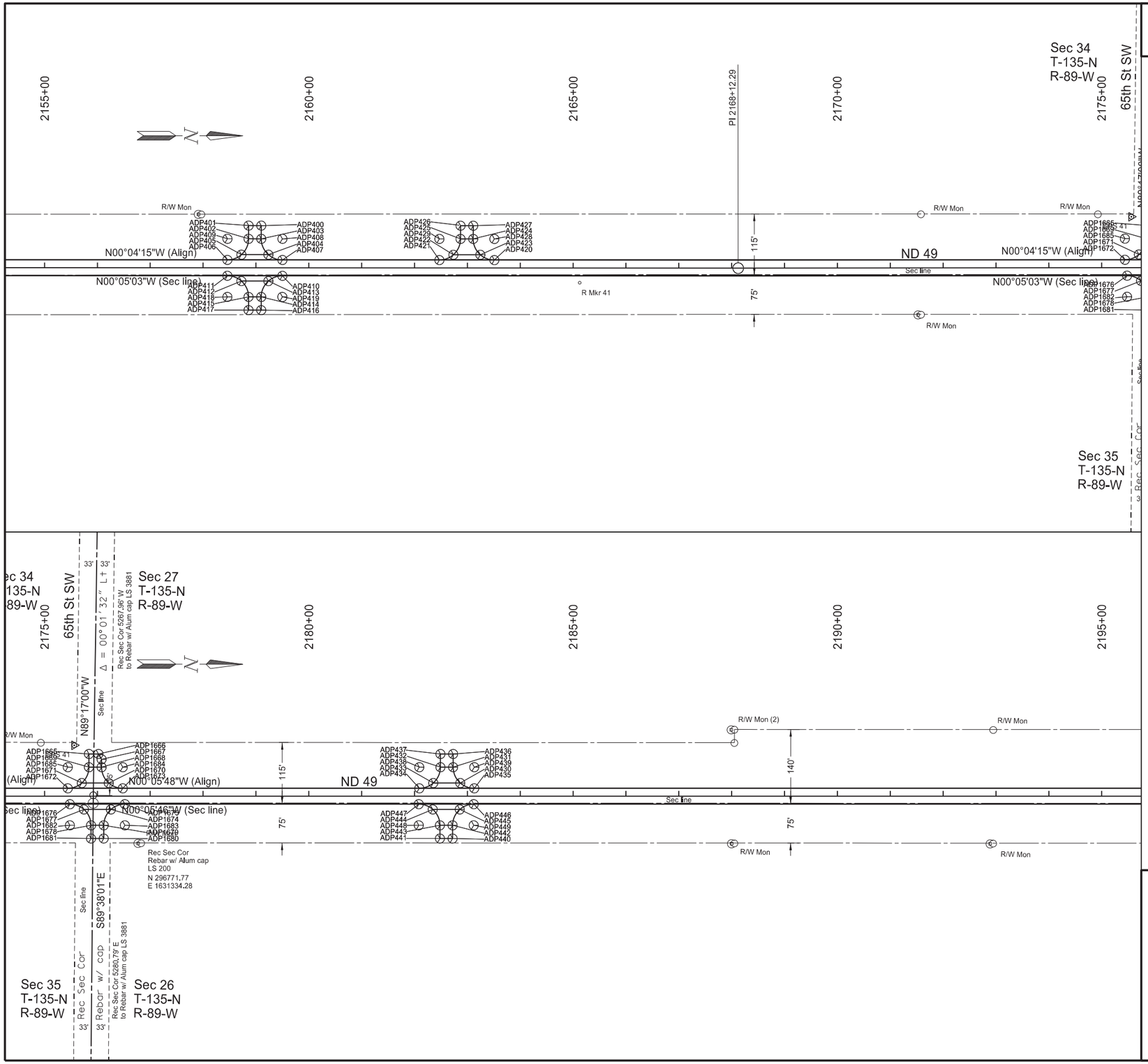
Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2115+00 to 2155+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:11:57 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	27



Point	Northing	Easting	Station	Offset
ADP400	295089.70	1631243.00	2159+10.00	-80.00
ADP401	295065.70	1631243.01	2158+86.00	-80.00
ADP402	295065.70	1631268.01	2158+86.00	-55.00
ADP403	295089.70	1631268.00	2159+10.00	-55.00
ADP404	295103.26	1631298.00	2159+23.55	-25.00
ADP405	295052.17	1631298.01	2158+72.46	-25.00
ADP406	295025.72	1631308.02	2158+46.00	-15.00
ADP407	295129.72	1631307.99	2159+50.00	-15.00
ADP408	295129.70	1631267.99	2159+50.00	-55.00
ADP409	295025.70	1631268.02	2158+46.00	-55.00
ADP410	295129.73	1631337.99	2159+50.00	15.00
ADP411	295025.73	1631338.02	2158+46.00	15.00
ADP412	295052.19	1631348.01	2158+72.46	25.00
ADP413	295103.27	1631348.00	2159+23.55	25.00
ADP414	295089.74	1631378.00	2159+10.00	55.00
ADP415	295065.74	1631378.01	2158+86.00	55.00
ADP416	295089.75	1631403.00	2159+10.00	80.00
ADP417	295065.75	1631403.01	2158+86.00	80.00
ADP418	295025.74	1631378.02	2158+46.00	55.00
ADP419	295129.74	1631377.99	2159+50.00	55.00
ADP420	295530.72	1631307.86	2163+51.00	-15.00
ADP421	295426.72	1631307.89	2162+47.00	-15.00
ADP422	295453.17	1631297.88	2162+73.46	-25.00
ADP423	295504.25	1631297.87	2163+24.55	-25.00
ADP424	295490.70	1631267.87	2163+11.00	-55.00
ADP425	295466.70	1631267.88	2162+87.00	-55.00
ADP426	295466.69	1631242.88	2162+87.00	-80.00
ADP427	295490.69	1631242.87	2163+11.00	-80.00
ADP428	295530.70	1631267.86	2163+51.00	-55.00
ADP429	295426.70	1631267.89	2162+47.00	-55.00
ADP430	297466.21	1631294.72	2182+86.54	-25.00
ADP431	297452.60	1631264.75	2182+73.00	-55.00
ADP432	297428.60	1631264.80	2182+49.00	-55.00
ADP433	297415.12	1631294.83	2182+35.46	-25.00
ADP434	297388.69	1631304.88	2182+09.00	-15.00
ADP435	297492.69	1631304.67	2183+13.00	-15.00
ADP436	297452.55	1631239.75	2182+73.00	-80.00
ADP437	297428.55	1631239.80	2182+49.00	-80.00
ADP438	297388.60	1631264.88	2182+09.00	-55.00
ADP439	297492.60	1631264.67	2183+13.00	-55.00
ADP440	297451.88	1631399.75	2182+72.00	80.00
ADP441	297427.88	1631399.80	2182+48.00	80.00
ADP442	297451.83	1631374.75	2182+72.00	55.00
ADP443	297427.83	1631374.80	2182+48.00	55.00
ADP444	297414.22	1631344.83	2182+34.46	25.00
ADP445	297465.31	1631344.72	2182+85.54	25.00
ADP446	297491.75	1631334.67	2183+12.00	15.00
ADP447	297387.75	1631334.88	2182+08.00	15.00
ADP448	297387.83	1631374.88	2182+08.00	55.00

Note: Stationing Based on PR49_G

Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2155+00 to 2195+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:12:31 -06'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	82	28

Point	Northing	Easting	Station	Offset
ADP449	297491.83	1631374.67	2183+12.00	55.00
ADP1665	296763.55	1631241.15	2175+84.00	-80.00
ADP1666	296781.55	1631241.11	2176+02.00	-80.00
ADP1667	296787.57	1631251.10	2176+08.00	-70.00
ADP1668	296787.60	1631266.10	2176+08.00	-55.00
ADP1669	296763.60	1631266.15	2175+84.00	-55.00
ADP1670	296801.20	1631296.07	2176+21.54	-25.00
ADP1671	296750.12	1631296.17	2175+70.45	-25.00
ADP1672	296723.68	1631306.23	2175+44.00	-15.00
ADP1673	296827.68	1631306.02	2176+48.00	-15.00
ADP1674	296805.31	1631346.06	2176+25.55	25.00
ADP1675	296831.75	1631336.01	2176+52.00	15.00
ADP1676	296727.75	1631336.22	2175+48.00	15.00
ADP1677	296754.23	1631346.17	2175+74.46	25.00
ADP1678	296767.83	1631376.14	2175+88.00	55.00
ADP1679	296791.83	1631376.09	2176+12.00	55.00
ADP1680	296791.88	1631401.09	2176+12.00	80.00
ADP1681	296767.88	1631401.14	2175+88.00	80.00
ADP1682	296727.83	1631376.22	2175+48.00	55.00
ADP1683	296831.83	1631376.01	2176+52.00	55.00
ADP1684	296827.60	1631266.02	2176+48.00	-55.00
ADP1685	296723.60	1631266.23	2175+44.00	-55.00

Note: Stationing Based on PR49_G

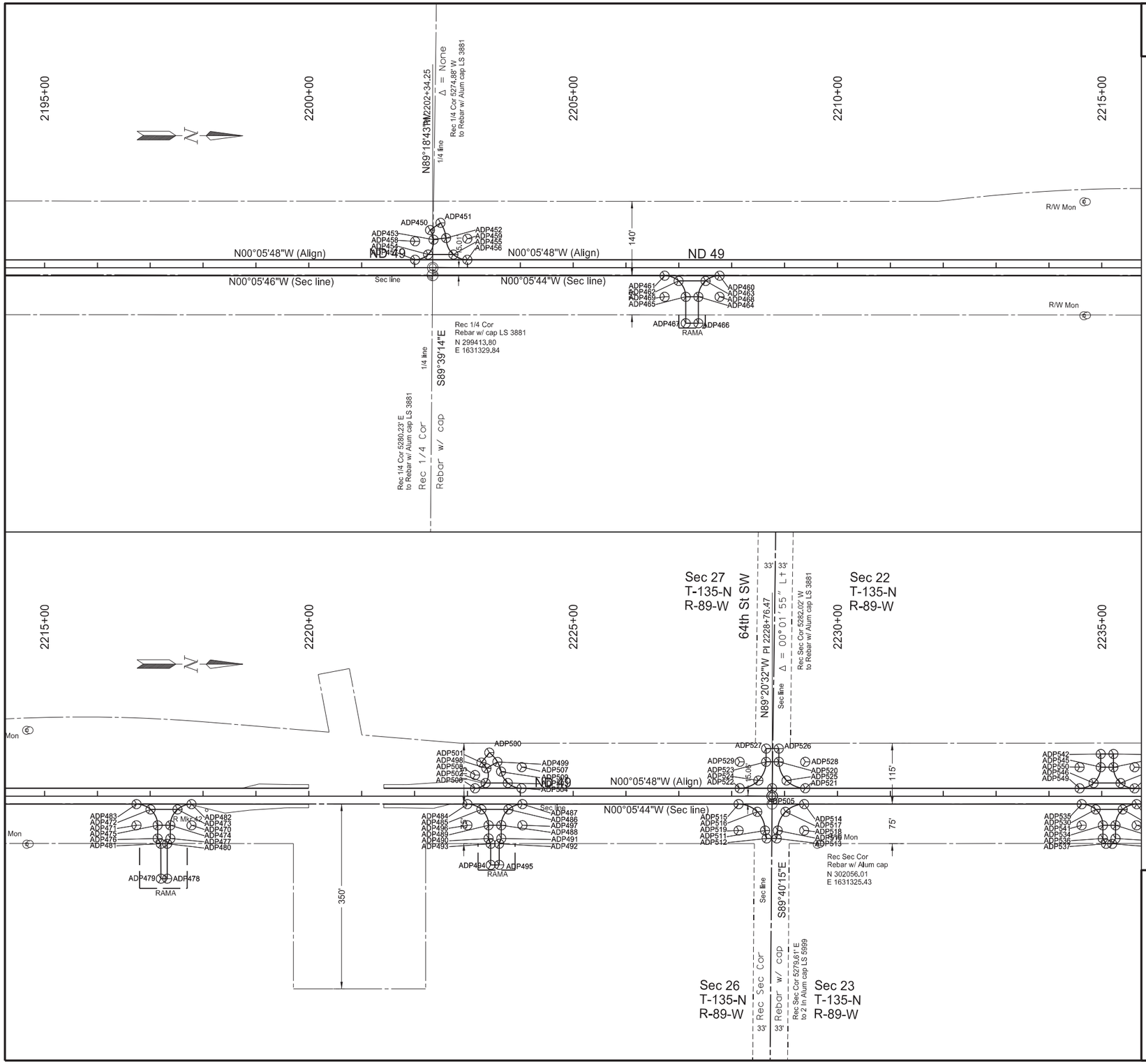
Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2155+00 to 2195+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:13:05 -06'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	82	29



Point	Northing	Easting	Station	Offset
ADP450	299408.83	1631244.43	2202+29.26	-71.36
ADP451	299428.54	1631230.73	2202+48.99	-85.01
ADP452	299439.26	1631259.47	2202+59.66	-56.25
ADP453	299415.47	1631262.69	2202+35.86	-53.08
ADP454	299405.15	1631290.79	2202+25.49	-25.00
ADP455	299453.08	1631290.70	2202+73.41	-25.00
ADP456	299479.55	1631300.65	2202+99.87	-15.00
ADP457	299380.68	1631300.84	2202+01.00	-15.00
ADP458	299380.61	1631265.84	2202+01.00	-50.00
ADP459	299479.47	1631260.65	2202+99.87	-55.00
ADP460	299956.74	1631329.71	2207+77.00	15.00
ADP461	299852.74	1631329.91	2206+73.00	15.00
ADP462	299879.21	1631339.86	2206+99.45	25.00
ADP463	299930.30	1631339.76	2207+50.54	25.00
ADP464	299916.81	1631369.79	2207+37.00	55.00
ADP465	299892.81	1631369.83	2207+13.00	55.00
ADP466	299916.91	1631419.79	2207+37.00	105.00
ADP467	299892.91	1631419.83	2207+13.00	105.00
ADP468	299956.81	1631369.71	2207+77.00	55.00
ADP469	299852.81	1631369.91	2206+73.00	55.00
ADP470	300957.81	1631367.74	2217+78.00	55.00
ADP471	300853.81	1631367.95	2216+74.00	55.00
ADP472	300880.21	1631337.90	2217+00.45	25.00
ADP473	300931.30	1631337.80	2217+51.54	25.00
ADP474	300917.81	1631367.82	2217+38.00	55.00
ADP475	300893.81	1631367.87	2217+14.00	55.00
ADP476	300893.86	1631392.87	2217+14.00	80.00
ADP477	300917.86	1631392.82	2217+38.00	80.00
ADP478	300912.01	1631468.84	2217+32.00	156.00
ADP479	300900.01	1631468.86	2217+20.00	156.00
ADP480	300911.88	1631402.84	2217+32.00	90.00
ADP481	300899.88	1631402.86	2217+20.00	90.00
ADP482	300957.73	1631327.74	2217+78.00	15.00
ADP483	300853.73	1631327.95	2216+74.00	15.00
ADP484	301479.74	1631326.72	2223+00.00	15.00
ADP485	301506.21	1631336.67	2223+26.46	25.00
ADP486	301557.30	1631336.57	2223+77.54	25.00
ADP487	301583.74	1631326.52	2224+04.00	15.00
ADP488	301543.81	1631366.59	2223+64.00	55.00
ADP489	301519.81	1631366.64	2223+40.00	55.00
ADP490	301519.86	1631391.64	2223+40.00	80.00
ADP491	301543.86	1631391.60	2223+64.00	80.00
ADP492	301539.88	1631401.60	2223+60.00	90.00
ADP493	301523.88	1631401.64	2223+44.00	90.00
ADP494	301523.96	1631441.63	2223+44.00	130.00
ADP495	301539.96	1631441.60	2223+60.00	130.00
ADP496	301479.81	1631366.72	2223+00.00	55.00
ADP497	301583.81	1631366.52	2224+04.00	55.00
ADP498	301515.52	1631258.85	2223+35.88	-52.80

Note: Stationing Based on PR49_G

Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2195+00 to 2235+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
2024.12.02
DATE 09:13:42
-06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	30

Point	Northing	Easting	Station	Offset
ADP499	301536.27	1631246.79	2223+56.66	-64.82
ADP500	301520.88	1631229.13	2223+41.31	-82.51
ADP501	301506.09	1631248.03	2223+26.48	-63.64
ADP502	301514.09	1631286.65	2223+34.40	-25.00
ADP503	301555.99	1631286.57	2223+76.30	-25.00
ADP504	301582.02	1631296.52	2224+02.32	-15.00
ADP505	302056.15	1631295.59	2228+76.47	-15.00
ADP506	301494.11	1631296.69	2223+14.40	-15.00
ADP507	301582.39	1631256.52	2224+02.76	-55.00
ADP508	301494.06	1631271.69	2223+14.40	-40.00
ADP509	301543.28	1631264.92	2223+63.64	-46.67
ADP510	302066.83	1631375.57	2228+87.03	65.00
ADP511	302042.83	1631375.62	2228+63.00	65.00
ADP512	302045.86	1631390.61	2228+66.00	80.00
ADP513	302064.86	1631390.58	2228+85.03	80.00
ADP514	302116.75	1631325.50	2229+37.03	15.00
ADP515	301992.73	1631325.71	2228+13.00	15.00
ADP516	302028.11	1631340.29	2228+48.35	29.65
ADP517	302081.41	1631340.20	2229+01.66	29.65
ADP518	302116.83	1631375.50	2229+37.03	65.00
ADP519	301992.83	1631375.71	2228+13.00	65.00
ADP520	302068.61	1631245.57	2228+89.00	-65.00
ADP521	302118.69	1631295.49	2229+39.00	-15.00
ADP522	301994.71	1631295.71	2228+15.03	-15.00
ADP523	302044.61	1631245.63	2228+65.03	-64.98
ADP524	302030.03	1631281.00	2228+50.38	-29.64
ADP525	302083.31	1631280.90	2229+03.65	-29.65
ADP526	302068.57	1631220.57	2228+89.00	-90.00
ADP527	302044.57	1631220.61	2228+65.04	-90.00
ADP528	302118.61	1631245.49	2229+39.00	-65.00
ADP529	301994.61	1631245.71	2228+15.03	-65.00
ADP530	302668.20	1631334.66	2234+88.46	25.00
ADP531	302719.29	1631334.59	2235+39.55	25.00
ADP532	302745.73	1631324.55	2235+66.01	15.00
ADP533	302705.79	1631364.61	2235+26.01	55.00
ADP534	302681.79	1631364.64	2235+02.01	55.00
ADP535	302641.73	1631324.70	2234+62.01	15.00
ADP536	302681.83	1631389.64	2235+02.01	80.00
ADP537	302687.85	1631399.63	2235+08.01	90.00
ADP538	302699.61	1631399.62	2235+19.77	90.00
ADP539	302705.83	1631389.61	2235+26.01	80.00
ADP540	302745.79	1631364.55	2235+66.01	55.00
ADP541	302641.79	1631364.70	2234+62.01	55.00
ADP542	302677.58	1631229.65	2234+98.00	-80.00
ADP543	302701.58	1631229.61	2235+22.00	-80.00
ADP544	302701.62	1631254.61	2235+22.00	-55.00
ADP545	302677.62	1631254.65	2234+98.00	-55.00
ADP546	302664.12	1631284.67	2234+84.46	-25.00
ADP547	302715.21	1631284.59	2235+35.54	-25.00
ADP548	302741.68	1631294.55	2235+62.00	-15.00
ADP549	302637.68	1631294.71	2234+58.00	-15.00
ADP550	302637.62	1631254.71	2234+58.00	-55.00
ADP551	302741.62	1631254.55	2235+62.00	-55.00

Note: Stationing Based on PR49_G

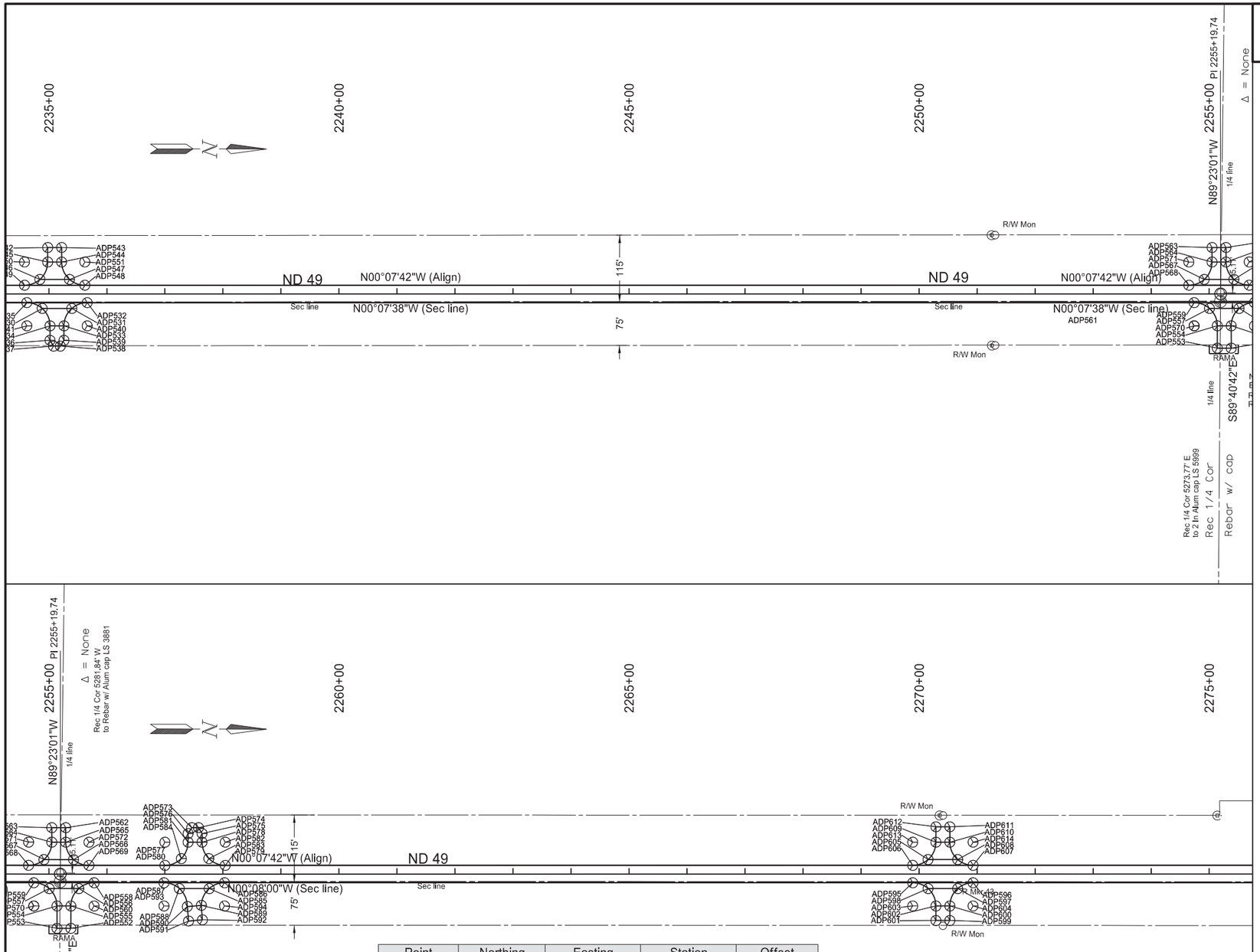
Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2195+00 to 2235+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:14:16 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	31



Point	Northing	Easting	Station	Offset
ADP552	304717.95	1631400.04	2255+38.00	93.50
ADP553	304693.96	1631400.10	2255+14.11	93.50
ADP554	304693.85	1631361.55	2255+14.07	54.95
ADP555	304717.85	1631361.54	2255+38.00	55.00
ADP556	304731.31	1631331.51	2255+51.54	25.00
ADP557	304680.26	1631331.62	2255+00.52	25.00
ADP558	304757.74	1631321.43	2255+78.00	15.00
ADP559	304653.79	1631321.66	2254+74.07	15.00
ADP560	304757.85	1631361.43	2255+78.00	55.00
ADP561	304653.85	1631361.66	2254+74.07	55.00
ADP562	304708.58	1631226.57	2255+29.10	-80.00
ADP563	304684.58	1631226.62	2255+05.00	-80.00
ADP564	304684.62	1631251.62	2255+05.00	-55.00
ADP565	304708.62	1631251.57	2255+29.07	-55.00
ADP566	304722.24	1631281.53	2255+42.61	-25.00
ADP567	304671.12	1631281.64	2254+91.46	-25.00
ADP568	304644.68	1631291.68	2254+65.00	-15.00
ADP569	304748.73	1631291.46	2255+69.07	-15.00
ADP570	304653.85	1631361.66	2254+74.07	55.00
ADP571	304644.62	1631251.68	2254+65.00	-55.00
ADP572	304748.62	1631251.46	2255+69.07	-55.00
ADP573	304925.63	1631225.98	2257+46.15	-80.00
ADP574	304937.33	1631225.95	2257+57.84	-80.00
ADP575	304943.51	1631235.93	2257+64.00	-70.00
ADP576	304919.51	1631236.00	2257+40.00	-70.00
ADP577	304919.55	1631251.00	2257+40.00	-55.00
ADP578	304943.55	1631250.93	2257+64.00	-55.00
ADP579	304983.66	1631290.82	2258+04.00	-15.00
ADP580	304879.66	1631291.10	2257+00.00	-15.00
ADP581	304879.55	1631251.10	2257+00.00	-55.00
ADP582	304983.55	1631250.82	2258+04.00	-55.00
ADP583	304955.34	1631279.18	2257+75.71	-26.72
ADP584	304907.91	1631279.31	2257+28.28	-26.72
ADP585	304956.09	1631330.90	2257+76.33	25.00
ADP586	304982.52	1631320.83	2258+02.78	15.00
ADP587	304878.16	1631321.11	2256+98.42	15.00
ADP588	304904.64	1631331.04	2257+24.87	25.00
ADP589	304942.64	1631359.88	2257+62.80	53.95
ADP590	304918.49	1631361.96	2257+38.63	55.96
ADP591	304920.67	1631386.86	2257+40.75	80.87
ADP592	304944.58	1631384.77	2257+64.66	78.84
ADP593	304878.27	1631361.11	2256+98.42	55.00
ADP594	304982.63	1631360.83	2258+02.78	55.00
ADP595	306168.74	1631317.61	2269+89.00	15.00
ADP596	306272.73	1631317.33	2270+93.00	15.00
ADP597	306246.30	1631327.40	2270+66.54	25.00
ADP598	306195.22	1631327.54	2270+15.46	25.00
ADP599	306232.91	1631382.44	2270+53.00	80.00
ADP600	306232.84	1631357.44	2270+53.00	55.00
ADP601	306208.91	1631382.50	2270+29.00	80.00
ADP602	306208.84	1631357.50	2270+29.00	55.00

Note: Stationing Based on PR49_G

Point	Northing	Easting	Station	Offset
ADP603	306168.84	1631357.61	2269+89.00	55.00
ADP604	306272.84	1631357.33	2270+93.00	55.00
ADP605	306195.09	1631277.54	2270+15.46	-25.00
ADP606	306168.66	1631287.61	2269+89.00	-15.00
ADP607	306272.66	1631287.33	2270+93.00	-15.00
ADP608	306246.17	1631277.40	2270+66.55	-25.00
ADP609	306208.55	1631247.51	2270+29.00	-55.00
ADP610	306232.55	1631247.44	2270+53.00	-55.00
ADP611	306232.48	1631220.94	2270+53.00	-81.50
ADP612	306208.48	1631221.01	2270+29.00	-81.50
ADP613	306168.55	1631247.61	2269+89.00	-55.00
ADP614	306272.55	1631247.33	2270+93.00	-55.00

N 304699.30
E 1631319.56
Rec 1/4 Cor
Rebar w/ cap LS 5999

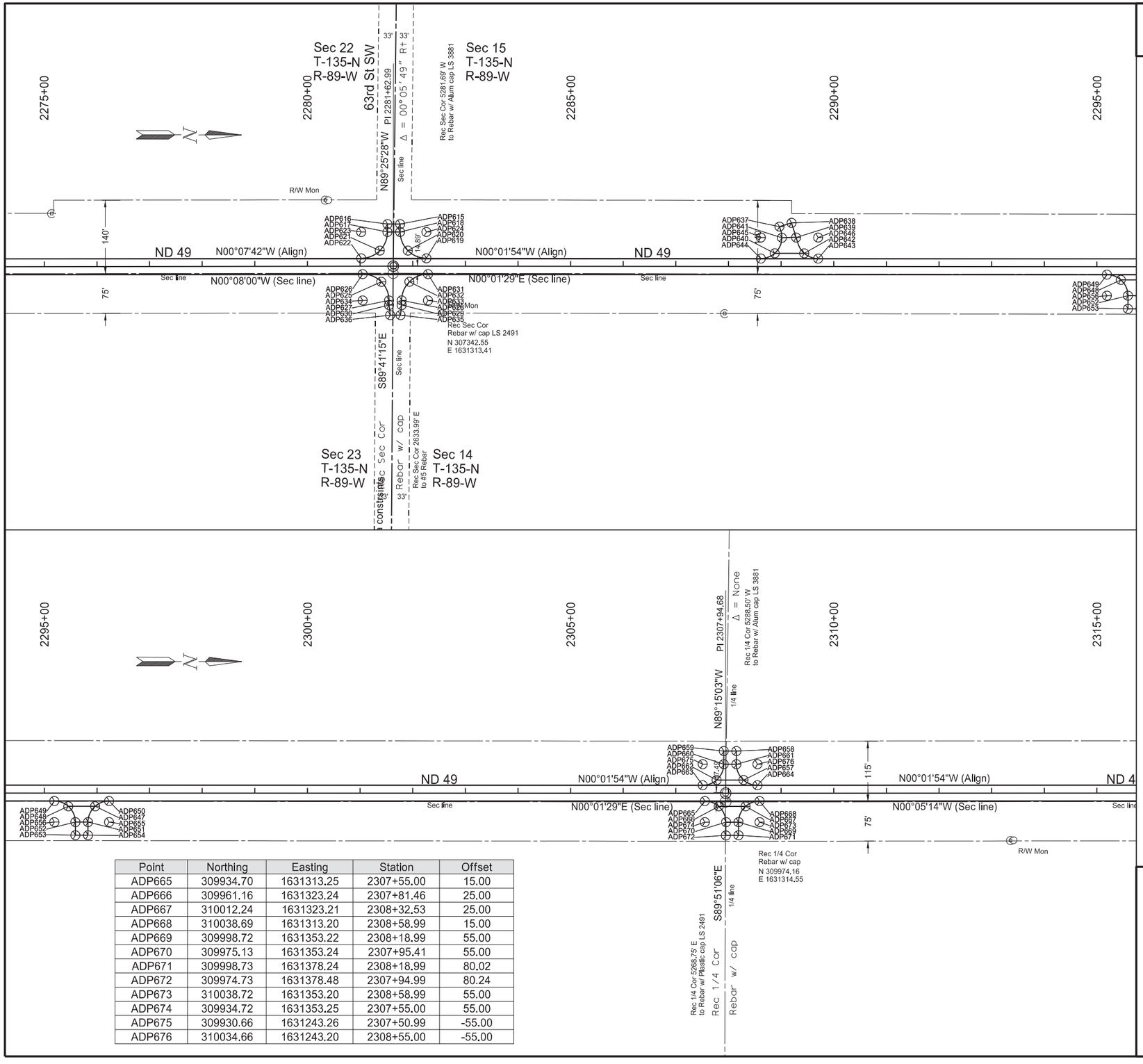
Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2235+00 to 2275+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:14:50 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	32



Point	Northing	Easting	Station	Offset
ADP615	307355.66	1631219.43	2281+76.00	-80.00
ADP616	307331.66	1631219.46	2281+52.18	-80.00
ADP617	307331.66	1631234.46	2281+52.15	-65.00
ADP618	307355.66	1631234.43	2281+76.00	-65.00
ADP619	307405.69	1631284.41	2282+26.00	-15.00
ADP620	307370.32	1631269.78	2281+90.64	-29.65
ADP621	307317.07	1631269.90	2281+37.46	-29.60
ADP622	307281.80	1631284.60	2281+02.15	-15.00
ADP623	307281.66	1631234.60	2281+02.15	-65.00
ADP624	307405.66	1631234.41	2282+26.00	-65.00
ADP625	307320.02	1631329.18	2281+40.25	29.69
ADP626	307284.59	1631314.59	2281+04.86	15.00
ADP627	307334.72	1631364.57	2281+54.86	65.11
ADP628	307358.72	1631364.43	2281+79.00	65.00
ADP629	307358.73	1631373.43	2281+79.00	74.00
ADP630	307334.73	1631373.44	2281+54.84	73.98
ADP631	307408.70	1631314.40	2282+29.00	15.00
ADP632	307373.35	1631329.06	2281+93.65	29.65
ADP633	307408.72	1631364.40	2282+29.00	65.00
ADP634	307284.72	1631364.59	2281+04.86	65.00
ADP635	307356.54	1631392.43	2281+76.81	93.00
ADP636	307336.93	1631392.45	2281+56.99	93.00
ADP637	308076.49	1631223.44	2288+96.83	-75.66
ADP638	308099.39	1631216.27	2289+19.74	-82.82
ADP639	308108.13	1631244.16	2289+28.46	-54.92
ADP640	308067.52	1631274.10	2288+87.84	-25.00
ADP641	308081.05	1631244.52	2289+01.38	-54.58
ADP642	308123.57	1631274.08	2289+43.89	-25.00
ADP643	308150.03	1631284.07	2289+70.35	-15.00
ADP644	308041.07	1631284.12	2288+61.38	-15.00
ADP645	308041.05	1631244.12	2288+61.38	-55.00
ADP646	308150.02	1631244.07	2289+70.35	-55.00
ADP647	308776.24	1631323.78	2295+96.54	25.00
ADP648	308725.16	1631323.80	2295+45.46	25.00
ADP649	308698.70	1631313.82	2295+19.00	15.00
ADP650	308802.70	1631313.77	2296+23.00	15.00
ADP651	308762.72	1631353.79	2295+83.00	55.00
ADP652	308738.72	1631353.80	2295+59.00	55.00
ADP653	308738.73	1631378.80	2295+59.00	80.00
ADP654	308762.73	1631378.79	2295+83.00	80.00
ADP655	308802.72	1631353.77	2296+23.00	55.00
ADP656	308698.72	1631353.82	2295+19.00	55.00
ADP657	310008.22	1631273.22	2308+28.54	-25.00
ADP658	309994.64	1631218.22	2308+15.00	-80.00
ADP659	309970.64	1631218.24	2307+90.99	-80.00
ADP660	309970.66	1631243.23	2307+90.99	-55.01
ADP661	309994.66	1631243.22	2308+15.00	-55.00
ADP662	309957.13	1631273.24	2307+77.45	-25.00
ADP663	309930.68	1631283.26	2307+50.99	-15.00
ADP664	310034.68	1631283.20	2308+55.00	-15.00

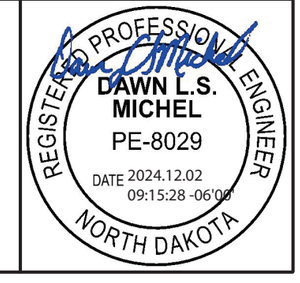
Note: Stationing Based on PR49_G

Point	Northing	Easting	Station	Offset
ADP665	309934.70	1631313.25	2307+55.00	15.00
ADP666	309961.16	1631323.24	2307+81.46	25.00
ADP667	310012.24	1631323.21	2308+32.53	25.00
ADP668	310038.69	1631313.20	2308+58.99	15.00
ADP669	309998.72	1631353.22	2308+18.99	55.00
ADP670	309975.13	1631353.24	2307+95.41	55.00
ADP671	309998.73	1631378.24	2308+18.99	80.02
ADP672	309974.73	1631378.48	2307+94.99	80.24
ADP673	310038.72	1631353.20	2308+58.99	55.00
ADP674	309934.72	1631353.25	2307+55.00	55.00
ADP675	309930.66	1631243.26	2307+50.99	-55.00
ADP676	310034.66	1631243.20	2308+55.00	-55.00

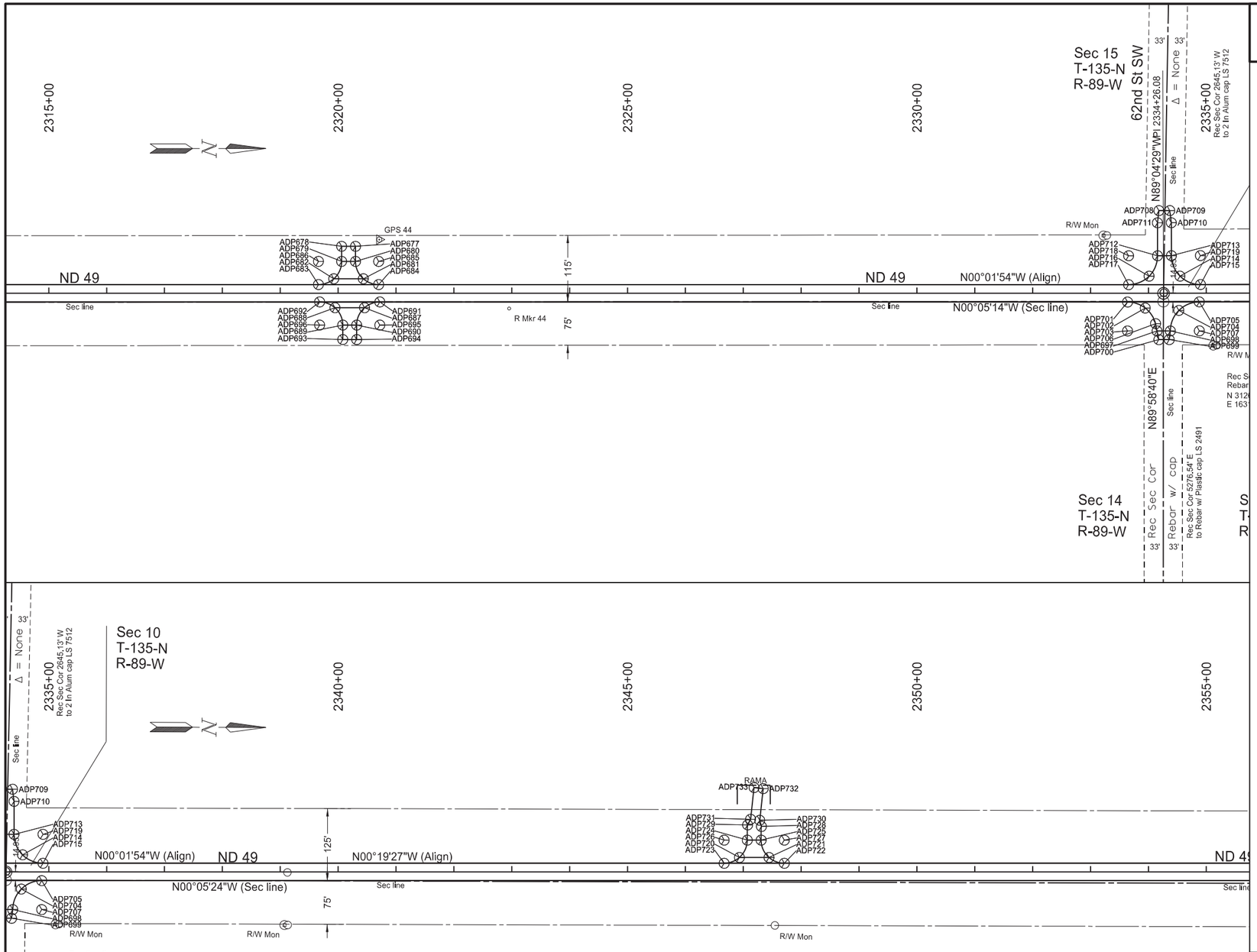
Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2275+00 to 2315+00



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	33



Point	Northing	Easting	Station	Offset
ADP677	311209.64	1631216.47	2320+30.00	-81.00
ADP678	311185.64	1631216.48	2320+06.00	-81.00
ADP679	311185.66	1631242.48	2320+06.00	-55.00
ADP680	311209.66	1631242.47	2320+30.00	-55.00
ADP681	311223.22	1631272.46	2320+43.54	-25.00
ADP682	311172.13	1631272.49	2319+92.46	-25.00
ADP683	311145.68	1631282.51	2319+66.00	-15.00
ADP684	311249.68	1631282.44	2320+70.00	-15.00
ADP685	311249.66	1631242.44	2320+70.00	-55.00
ADP686	311145.66	1631242.51	2319+66.00	-55.00
ADP687	311225.25	1631322.46	2320+45.55	25.00
ADP688	311174.17	1631322.49	2319+94.46	25.00
ADP689	311187.73	1631352.48	2320+08.00	55.00
ADP690	311211.73	1631352.47	2320+32.00	55.00
ADP691	311251.71	1631312.44	2320+72.00	15.00
ADP692	311147.71	1631312.51	2319+68.00	15.00
ADP693	311187.75	1631377.48	2320+08.00	80.00
ADP694	311211.75	1631377.47	2320+32.00	80.00
ADP695	311251.73	1631352.44	2320+72.00	55.00
ADP696	311147.73	1631352.51	2319+68.00	55.00
ADP697	312594.68	1631361.61	2334+14.95	65.00
ADP698	312617.71	1631361.55	2334+37.74	65.00
ADP699	312615.74	1631376.56	2334+35.71	80.00
ADP700	312597.74	1631376.61	2334+18.00	80.00
ADP701	312543.70	1631311.64	2333+64.00	15.00
ADP702	312574.25	1631322.03	2333+94.54	25.41
ADP703	312592.09	1631348.92	2334+12.36	52.31
ADP704	312632.29	1631326.07	2334+52.48	29.58
ADP705	312667.52	1631311.34	2334+87.77	15.00
ADP706	312543.73	1631361.64	2333+64.00	65.00
ADP707	312667.73	1631361.34	2334+87.77	65.00
ADP708	312597.71	1631153.64	2334+18.11	-142.96
ADP709	312616.46	1631153.56	2334+37.38	-142.99
ADP710	312619.18	1631174.55	2334+40.00	-121.99
ADP711	312595.18	1631174.65	2334+15.56	-121.95
ADP712	312595.42	1631231.61	2334+15.77	-65.00
ADP713	312619.42	1631231.54	2334+40.00	-65.00
ADP714	312634.21	1631266.83	2334+54.65	-29.65
ADP715	312669.63	1631281.33	2334+90.00	-15.00
ADP716	312580.86	1631266.91	2334+01.19	-29.71
ADP717	312545.45	1631281.64	2333+65.77	-15.00
ADP718	312545.42	1631231.64	2333+65.77	-65.00
ADP719	312669.42	1631231.33	2334+90.00	-65.00
ADP720	313872.92	1631266.24	2346+93.35	-25.00
ADP721	313924.01	1631266.02	2347+44.43	-25.00
ADP722	313950.51	1631275.91	2347+70.89	-15.00
ADP723	313846.51	1631276.35	2346+66.89	-15.00
ADP724	313886.34	1631236.18	2347+06.89	-55.00
ADP725	313910.34	1631236.08	2347+30.89	-55.00

Note: Stationing Based on PR49_G

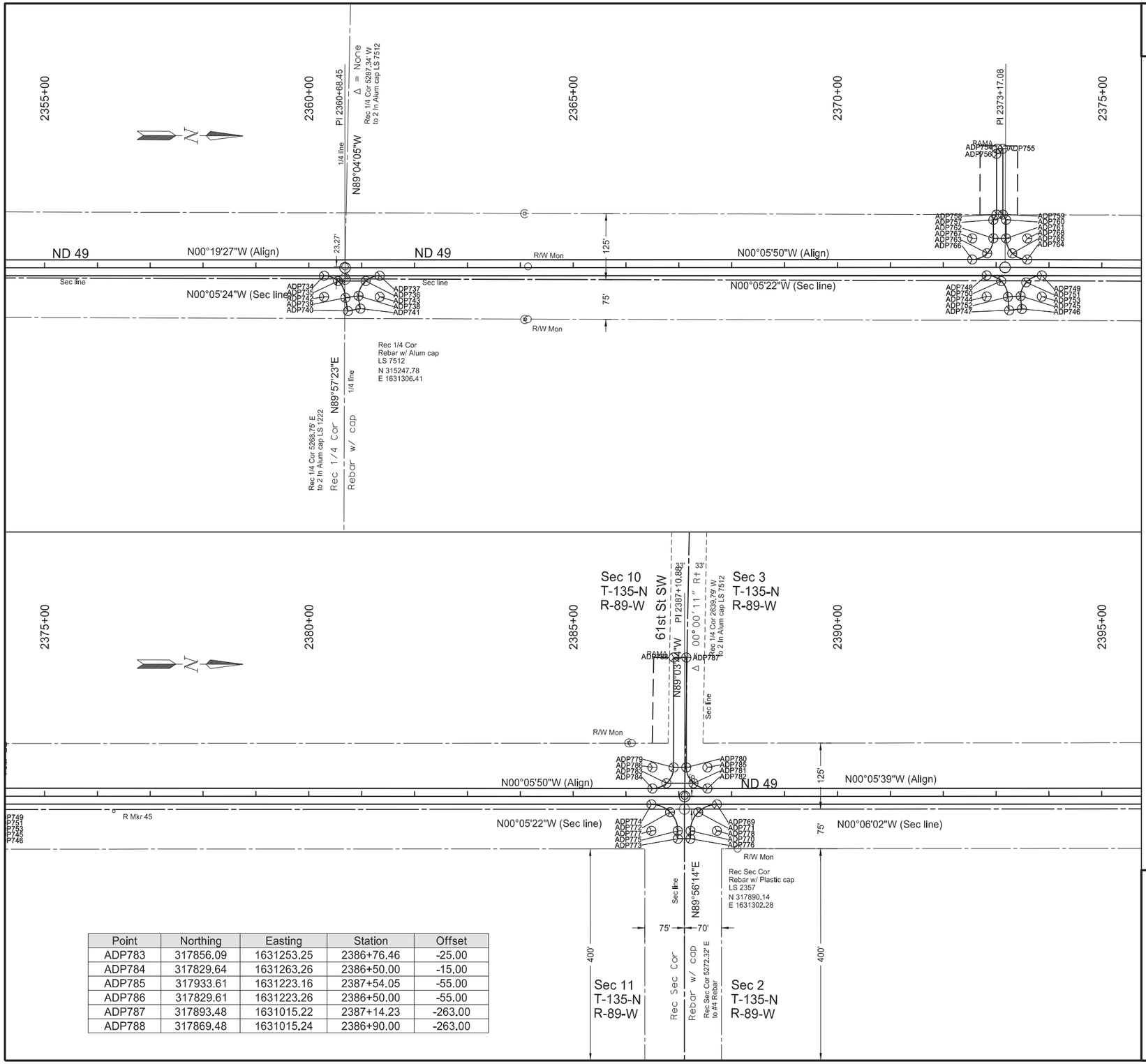
Point	Northing	Easting	Station	Offset
ADP726	313846.34	1631236.35	2346+66.89	-55.00
ADP727	313950.34	1631235.91	2347+70.89	-55.00
ADP728	313910.67	1631212.41	2347+31.33	-78.66
ADP729	313886.81	1631209.89	2347+07.47	-81.29
ADP730	313907.78	1631201.79	2347+28.48	-89.30
ADP731	313891.87	1631200.10	2347+12.57	-91.06
ADP732	313913.57	1631147.01	2347+34.50	-144.06
ADP733	313897.66	1631145.32	2347+18.60	-145.81

Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2315+00 to 2355+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:16:03 -06'00'
NORTH DAKOTA



Point	Northing	Easting	Station	Offset
ADP783	317856.09	1631253.25	2386+76.46	-25.00
ADP784	317829.64	1631263.26	2386+50.00	-15.00
ADP785	317933.61	1631223.16	2387+54.05	-55.00
ADP786	317829.61	1631223.26	2386+50.00	-55.00
ADP787	317893.48	1631015.22	2387+14.23	-263.00
ADP788	317869.48	1631015.24	2386+90.00	-263.00

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	34

Point	Northing	Easting	Station	Offset
ADP734	315208.48	1631300.59	2360+28.75	15.00
ADP735	315234.98	1631310.47	2360+55.20	25.00
ADP736	315287.27	1631310.22	2361+07.48	25.00
ADP737	315313.68	1631300.09	2361+33.94	15.00
ADP738	315273.92	1631338.34	2360+93.99	53.05
ADP739	315249.11	1631342.11	2360+69.16	56.70
ADP740	315254.02	1631367.18	2360+73.94	81.79
ADP741	315277.56	1631362.50	2360+97.50	77.23
ADP742	315208.65	1631340.59	2360+28.75	55.00
ADP743	315313.88	1631340.09	2361+33.94	55.00
ADP744	316502.30	1631335.03	2373+22.61	55.90
ADP745	316526.48	1631333.18	2373+46.79	54.06
ADP746	316528.74	1631357.72	2373+49.04	78.60
ADP747	316504.88	1631360.24	2373+25.17	81.11
ADP748	316461.95	1631294.31	2372+82.23	15.00
ADP749	316566.44	1631294.09	2373+86.78	15.00
ADP750	316489.48	1631305.10	2373+09.70	25.93
ADP751	316536.75	1631307.32	2373+57.08	28.20
ADP752	316462.15	1631334.31	2372+82.23	55.00
ADP753	316566.47	1631334.09	2373+86.78	55.00
ADP754	316480.49	1631054.57	2373+01.97	-224.65
ADP755	316491.53	1631054.51	2373+13.00	-224.65
ADP756	316479.57	1631064.22	2373+01.00	-215.00
ADP757	316474.20	1631189.25	2372+95.00	-90.00
ADP758	316480.15	1631179.22	2373+01.00	-100.00
ADP759	316492.15	1631179.16	2373+13.00	-100.00
ADP760	316498.20	1631189.13	2373+18.61	-90.01
ADP761	316498.38	1631224.31	2373+18.76	-54.83
ADP762	316474.38	1631224.25	2372+95.00	-55.00
ADP763	316434.58	1631264.45	2372+55.00	-15.00
ADP764	316538.40	1631264.11	2373+58.76	-15.00
ADP765	316510.17	1631252.48	2373+30.54	-26.65
ADP766	316462.80	1631252.59	2372+83.28	-26.72
ADP767	316434.38	1631224.45	2372+55.00	-55.00
ADP768	316538.38	1631224.11	2373+58.76	-55.00
ADP769	317951.62	1631293.13	2387+71.94	15.00
ADP770	317901.69	1631343.17	2387+21.94	64.96
ADP771	317916.30	1631307.82	2387+36.60	29.63
ADP772	317863.02	1631307.89	2386+83.35	29.64
ADP773	317877.69	1631343.23	2386+98.00	65.00
ADP774	317827.66	1631293.27	2386+48.00	15.00
ADP775	317877.70	1631358.23	2386+98.00	80.00
ADP776	317901.70	1631358.21	2387+21.93	80.00
ADP777	317827.69	1631343.27	2386+48.00	65.00
ADP778	317951.69	1631343.13	2387+71.94	65.00
ADP779	317869.61	1631223.24	2386+90.00	-55.00
ADP780	317893.61	1631223.22	2387+14.05	-55.00
ADP781	317907.20	1631253.20	2387+27.59	-25.00
ADP782	317933.68	1631263.16	2387+54.05	-15.00

Note: Stationing Based on PR49_G

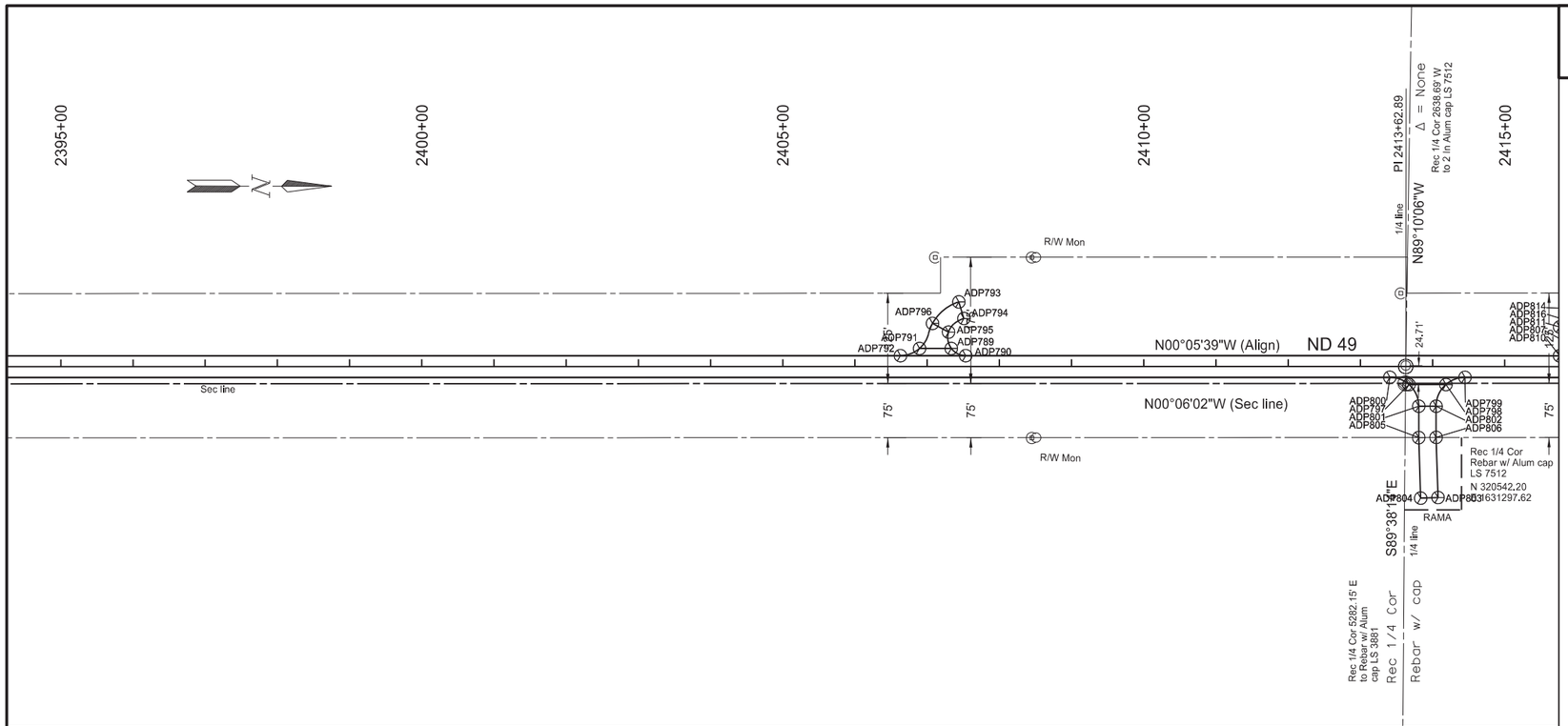
Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2355+00 to 2395+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:16:55 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	35



Point	Northing	Easting	Station	Offset
ADP789	319913.01	1631250.14	2407+33.40	-25.00
ADP790	319933.02	1631260.11	2407+53.40	-15.00
ADP791	319869.07	1631250.21	2406+89.45	-25.00
ADP792	319842.62	1631260.25	2406+63.00	-15.00
ADP793	319923.44	1631185.60	2407+43.93	-89.53
ADP794	319930.45	1631208.56	2407+50.90	-66.56
ADP795	319909.19	1631227.45	2407+29.61	-47.70
ADP796	319886.97	1631215.47	2407+07.41	-59.71
ADP797	320547.08	1631299.18	2413+67.43	25.00
ADP798	320598.20	1631299.17	2414+18.54	25.00
ADP799	320624.65	1631289.16	2414+45.00	15.00
ADP800	320520.60	1631289.22	2413+40.93	15.00
ADP801	320560.67	1631329.18	2413+81.00	55.00
ADP802	320584.67	1631329.17	2414+05.00	55.00
ADP803	320587.48	1631455.72	2414+07.78	181.55
ADP804	320563.50	1631456.53	2413+83.79	182.35
ADP805	320560.68	1631372.78	2413+81.00	98.60
ADP806	320584.68	1631372.37	2414+05.00	98.20
ADP807	320782.10	1631249.11	2416+02.46	-25.00
ADP808	320833.19	1631249.10	2416+53.54	-25.00
ADP809	320859.65	1631259.09	2416+80.00	-15.00
ADP810	320755.65	1631259.12	2415+76.00	-15.00
ADP811	320795.63	1631219.11	2416+16.00	-55.00
ADP812	320819.63	1631219.10	2416+40.00	-55.00
ADP813	320819.63	1631194.10	2416+40.00	-80.00
ADP814	320795.63	1631194.11	2416+16.00	-80.00
ADP815	320859.63	1631219.09	2416+80.00	-55.00
ADP816	320755.63	1631219.12	2415+76.00	-55.00
ADP817	322240.11	1631298.69	2430+60.46	25.00
ADP818	322213.65	1631288.69	2430+34.00	15.00
ADP819	322253.66	1631328.68	2430+74.00	55.00
ADP820	322277.66	1631328.68	2430+98.00	55.00
ADP821	322291.20	1631298.67	2431+11.54	25.00
ADP822	322317.65	1631288.66	2431+38.00	15.00
ADP823	322277.70	1631459.68	2430+98.00	186.00
ADP824	322253.70	1631459.68	2430+74.00	186.00
ADP825	322213.66	1631328.69	2430+34.00	55.00
ADP826	322317.66	1631328.66	2431+38.00	55.00

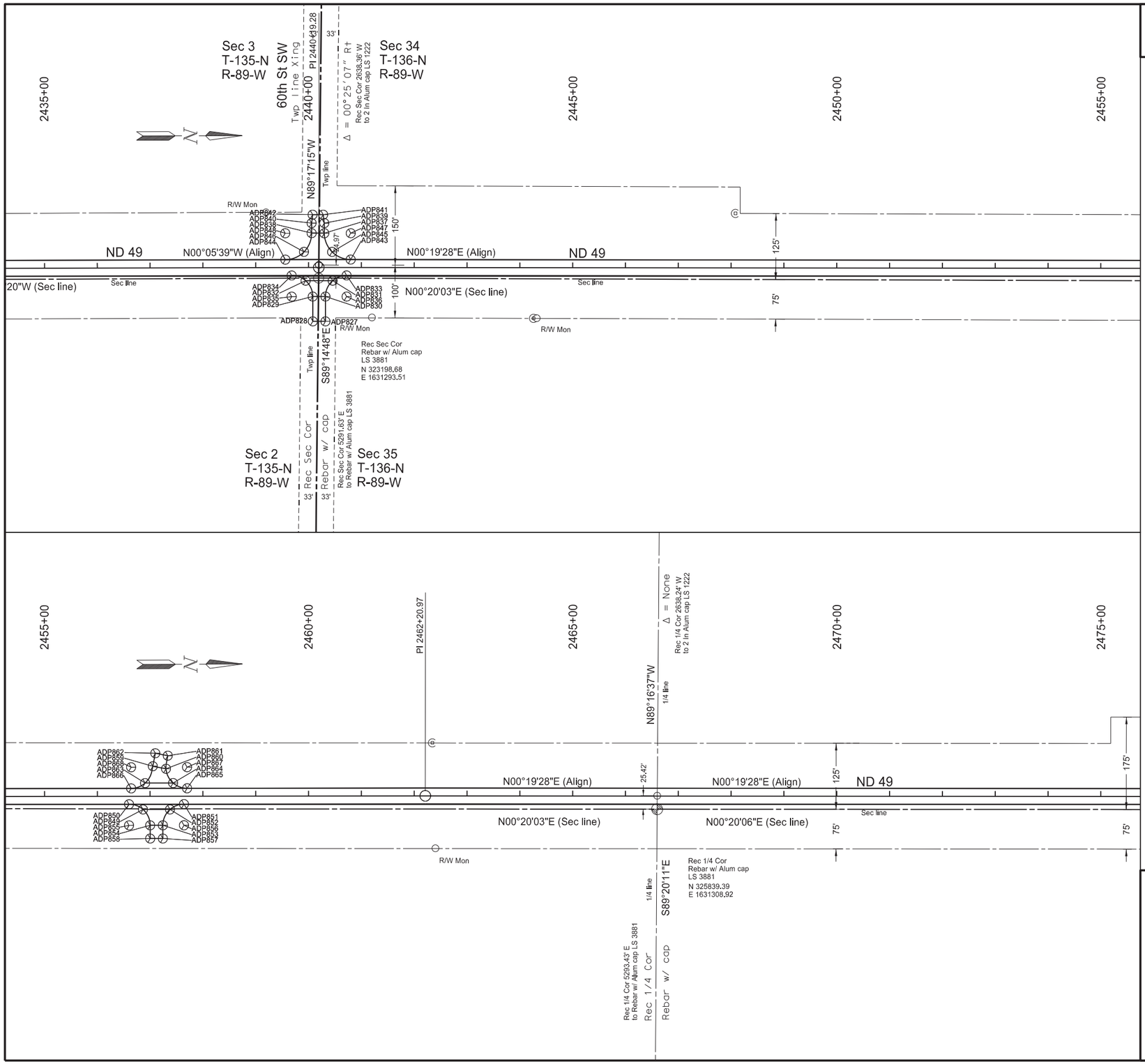
Note: Stationing Based on PR49_G

Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2395+00 to 2435+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
2024.12.02
DATE 09:17:35 -06'00'
NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	82	36

Point	Northing	Easting	Station	Offset
ADP827	323211.44	1631375.43	2440+32.16	101.98
ADP828	323187.44	1631375.38	2440+07.76	101.97
ADP829	323187.39	1631328.41	2440+07.73	55.00
ADP830	323211.54	1631328.52	2440+32.09	55.06
ADP831	323225.19	1631298.50	2440+45.63	25.00
ADP832	323173.98	1631298.41	2439+94.33	25.00
ADP833	323251.68	1631288.60	2440+72.09	15.00
ADP834	323147.52	1631288.42	2439+67.87	15.00
ADP835	323147.54	1631328.42	2439+67.87	55.00
ADP836	323251.54	1631328.60	2440+72.09	55.00
ADP837	323209.63	1631208.64	2440+29.75	-64.80
ADP838	323185.63	1631208.41	2440+06.00	-65.00
ADP839	323209.62	1631189.40	2440+29.67	-84.04
ADP840	323185.62	1631189.41	2440+06.00	-84.00
ADP841	323207.62	1631173.44	2440+27.61	-100.00
ADP842	323187.62	1631173.41	2440+08.00	-100.00
ADP843	323259.45	1631258.63	2440+79.75	-15.00
ADP844	323135.64	1631258.42	2439+56.00	-15.00
ADP845	323224.22	1631243.92	2440+44.46	-29.58
ADP846	323171.00	1631243.77	2439+91.36	-29.65
ADP847	323259.63	1631208.63	2440+79.75	-65.00
ADP848	323135.63	1631208.42	2439+56.00	-65.00
ADP849	324866.01	1631304.48	2456+86.46	25.00
ADP850	324839.59	1631294.38	2456+60.00	15.00
ADP851	324943.59	1631294.76	2457+64.00	15.00
ADP852	324917.09	1631304.67	2457+37.55	25.00
ADP853	324903.44	1631334.62	2457+24.00	55.00
ADP854	324879.44	1631334.53	2457+00.00	55.00
ADP855	324839.44	1631334.38	2456+60.00	55.00
ADP856	324943.44	1631334.76	2457+64.00	55.00
ADP857	324903.35	1631359.62	2457+24.00	80.00
ADP858	324879.35	1631359.53	2457+00.00	80.00
ADP859	324885.02	1631222.67	2457+05.17	-56.88
ADP860	324909.95	1631227.63	2457+30.13	-52.01
ADP861	324913.44	1631202.84	2457+33.52	-76.82
ADP862	324889.90	1631198.15	2457+09.96	-81.41
ADP863	324870.24	1631254.49	2456+90.51	-25.00
ADP864	324923.29	1631254.69	2457+43.56	-25.00
ADP865	324949.71	1631264.78	2457+70.02	-15.00
ADP866	324843.75	1631264.40	2456+64.05	-15.00
ADP867	324949.85	1631224.78	2457+70.02	-55.00
ADP868	324843.89	1631224.40	2456+64.05	-55.00

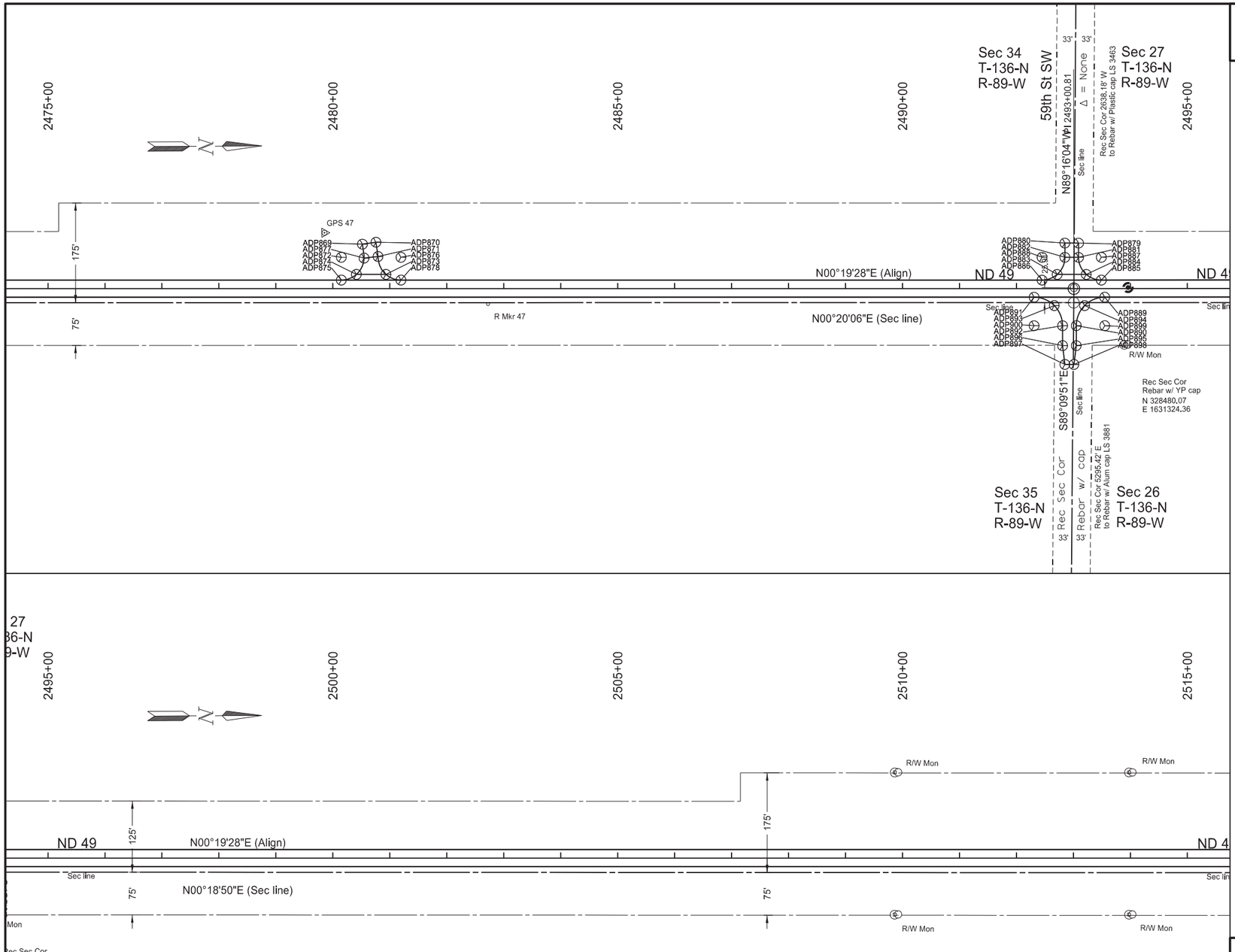
Note: Stationing Based on PR49_G

Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2435+00 to 2475+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:18:11 -06'00'
NORTH DAKOTA



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	37

Point	Northing	Easting	Station	Offset
ADP869	327231.99	1631214.40	2480+51.92	-77.98
ADP870	327255.76	1631211.07	2480+75.67	-81.46
ADP871	327259.23	1631236.22	2480+79.29	-56.33
ADP872	327234.76	1631238.84	2480+54.84	-53.56
ADP873	327272.88	1631267.63	2480+93.13	-25.00
ADP874	327221.07	1631267.32	2480+41.32	-25.00
ADP875	327194.55	1631277.16	2480+14.86	-15.00
ADP876	327299.51	1631237.79	2481+19.58	-55.00
ADP877	327194.79	1631237.16	2480+14.86	-55.00
ADP878	327299.27	1631277.79	2481+19.58	-15.00
ADP879	328489.06	1631219.90	2493+09.08	-80.00
ADP880	328465.06	1631219.76	2492+85.00	-80.00
ADP881	328488.91	1631244.90	2493+09.05	-55.00
ADP882	328464.91	1631244.76	2492+85.00	-55.00
ADP883	328451.19	1631274.68	2492+71.46	-25.00
ADP884	328502.30	1631274.97	2493+22.60	-25.00
ADP885	328528.71	1631285.10	2493+49.05	-15.00
ADP886	328424.67	1631284.52	2492+45.00	-15.00
ADP887	328528.91	1631245.10	2493+49.05	-55.00
ADP888	328424.91	1631244.52	2492+45.00	-55.00
ADP889	328534.44	1631315.13	2493+54.94	15.00
ADP890	328484.19	1631364.83	2493+04.94	64.95
ADP891	328410.49	1631314.44	2492+31.00	15.00
ADP892	328460.19	1631364.74	2492+81.00	65.00
ADP893	328445.76	1631329.29	2492+66.35	29.64
ADP894	328499.03	1631329.58	2493+19.60	29.63
ADP895	328483.98	1631399.88	2493+04.90	100.00
ADP896	328459.98	1631399.74	2492+81.00	100.00
ADP897	328463.78	1631432.76	2492+85.00	133.00
ADP898	328479.65	1631432.85	2493+00.81	133.00
ADP899	328534.19	1631365.13	2493+54.94	65.00
ADP900	328410.19	1631364.44	2492+31.00	65.00

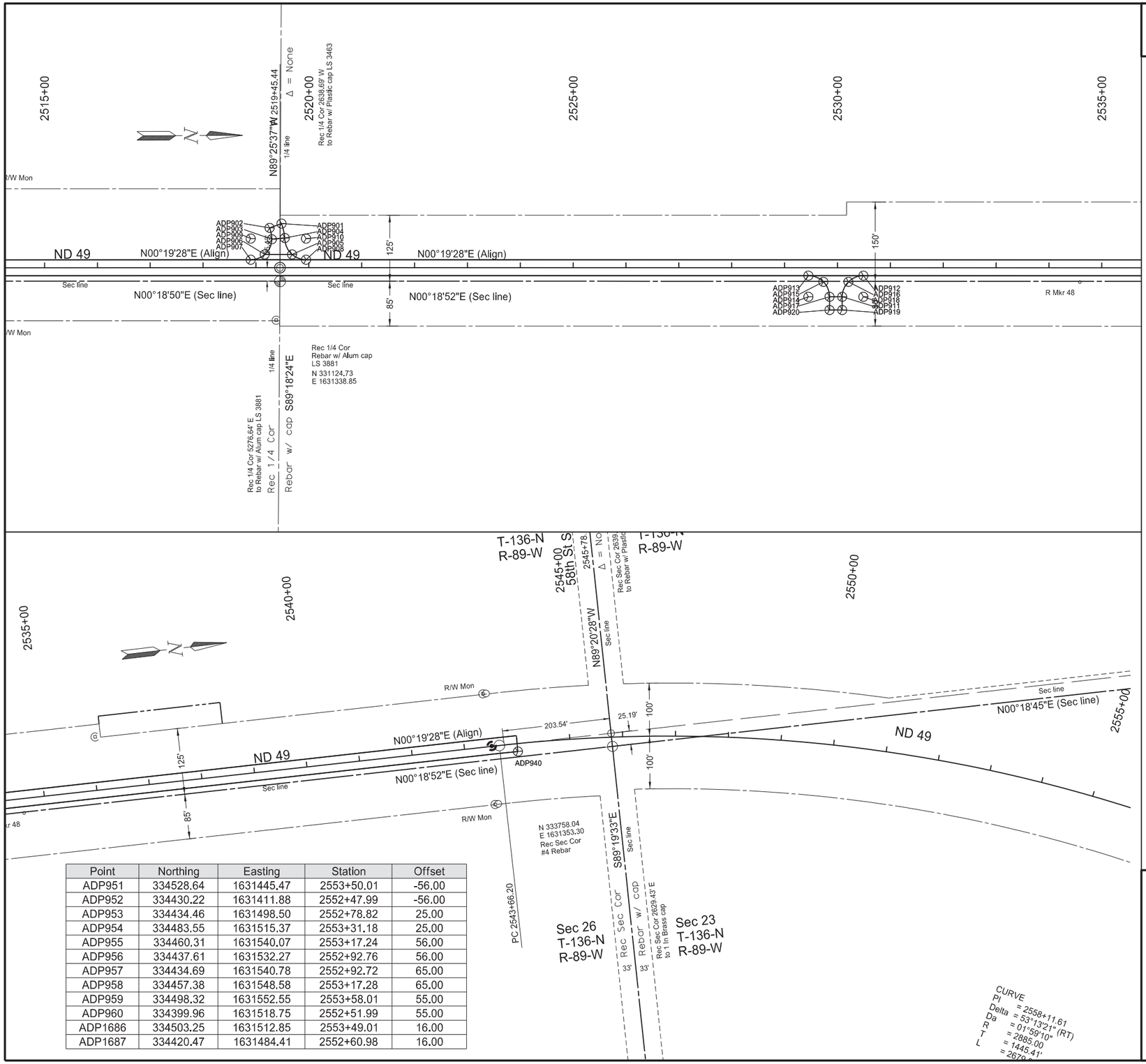
Note: Stationing Based on PR49_G

Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2475+00 to 2515+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 09:18:54 -06'00'
NORTH DAKOTA



Point	Northing	Easting	Station	Offset
ADP951	334528.64	1631445.47	2553+50.01	-56.00
ADP952	334430.22	1631411.88	2552+47.99	-56.00
ADP953	334434.46	1631498.50	2552+78.82	25.00
ADP954	334483.55	1631515.37	2553+31.18	25.00
ADP955	334460.31	1631540.07	2553+17.24	56.00
ADP956	334437.61	1631532.27	2552+92.76	56.00
ADP957	334434.69	1631540.78	2552+92.72	65.00
ADP958	334457.38	1631548.58	2553+17.28	65.00
ADP959	334498.32	1631552.55	2553+58.01	55.00
ADP960	334399.96	1631518.75	2552+51.99	55.00
ADP1686	334503.25	1631512.85	2553+49.01	16.00
ADP1687	334420.47	1631484.41	2552+60.98	16.00

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	82	38

Point	Northing	Easting	Station	Offset
ADP901	331128.33	1631229.78	2519+48.32	-83.38
ADP902	331105.71	1631237.80	2519+25.79	-75.24
ADP903	331109.83	1631259.29	2519+30.01	-53.78
ADP904	331134.31	1631257.06	2519+54.45	-56.14
ADP905	331147.89	1631288.27	2519+68.21	-25.00
ADP906	331096.16	1631288.00	2519+16.49	-25.00
ADP907	331069.65	1631297.86	2518+90.03	-15.00
ADP908	331174.30	1631298.42	2519+94.67	-15.00
ADP909	331069.85	1631257.86	2518+90.03	-55.00
ADP910	331174.52	1631258.42	2519+94.67	-55.00
ADP911	332188.22	1631374.07	2530+09.00	55.00
ADP912	332228.44	1631334.29	2530+49.00	15.00
ADP913	332124.45	1631333.71	2529+45.00	15.00
ADP914	332164.22	1631373.94	2529+85.00	55.00
ADP915	332152.66	1631345.59	2529+73.28	26.72
ADP916	332200.09	1631345.85	2530+20.71	26.72
ADP917	332124.22	1631373.71	2529+45.00	55.00
ADP918	332228.22	1631374.29	2530+49.00	55.00
ADP919	332188.08	1631399.07	2530+09.00	80.00
ADP920	332164.08	1631398.94	2529+85.00	80.00
ADP921	333777.50	1631235.78	2545+89.88	-101.12
ADP922	333740.30	1631234.91	2545+53.96	-99.13
ADP923	333740.00	1631247.60	2545+54.55	-86.45
ADP924	333699.40	1631299.40	2545+18.12	-32.14
ADP925	333728.31	1631280.24	2545+45.36	-53.08
ADP926	333789.55	1631288.51	2546+05.98	-49.62
ADP927	333845.86	1631327.88	2546+65.23	-16.00
ADP928	333807.17	1631314.66	2546+25.67	-25.20
ADP929	333594.17	1631311.31	2544+14.31	-16.00
ADP930	333647.44	1631309.34	2544+67.17	-19.65
ADP931	333842.06	1631272.15	2546+55.62	-71.00
ADP932	333685.02	1631246.32	2545+01.17	-84.35
ADP933	333734.36	1631358.93	2545+56.82	25.00
ADP934	333813.49	1631356.67	2546+36.03	16.00
ADP935	333787.30	1631363.23	2546+10.39	25.00
ADP936	333769.79	1631391.80	2545+95.24	55.00
ADP937	333745.86	1631389.87	2545+70.77	55.00
ADP938	333768.19	1631415.97	2545+95.71	79.22
ADP939	333744.19	1631415.53	2545+71.08	80.72
ADP940	333708.44	1631347.17	2545+29.99	15.00
ADP941	333705.95	1631387.09	2545+29.99	55.00
ADP942	333809.53	1631396.48	2546+36.03	56.00
ADP943	334515.06	1631483.09	2553+50.01	-16.00
ADP944	334494.43	1631466.19	2553+25.08	-25.00
ADP945	334490.79	1631432.55	2553+10.77	-55.57
ADP946	334502.04	1631400.01	2553+10.77	-90.00
ADP947	334479.06	1631392.16	2552+87.22	-90.00
ADP948	334468.07	1631424.80	2552+87.22	-55.57
ADP949	334444.63	1631449.19	2552+72.91	-25.00
ADP950	334417.97	1631449.96	2552+47.99	-16.00

Note: Stationing Based on PR49_G

Survey Data Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2515+00 to 2544+00

REGISTERED PROFESSIONAL ENGINEER
DAWN L.S. MICHEL
PE-8029
DATE 2024.12.02 10:04:36 -06'00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	100	1

SIGN NUMBER	SIGN SIZE	DESCRIPTION	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**	**2**	**28**	**56**
G20-1b-60	60"x24"	NO WORK IN PROGRESS (Sign and installation only)		18	
G20-2-48	**48"x24"**	**END ROAD WORK**	**2**	**26**	**52**
G20-4-36	**36"x18"**	**PILOT CAR FOLLOW ME (Mounted to back of pilot car)**	**2**	**18**	**36**
G20-4b-36	**36"x30"**	**WAIT FOR PILOT CAR**	**8**	**18**	**144**
G20-50a-72	**72"x36"**	**ROAD WORK NEXT __ MILES RT & LT ARROWS**	**15**	**43**	**645**
G20-52a-72	**72"x24"**	**ROAD WORK NEXT __ MILES RT or LT ARROW**	**3**	**36**	**108**
G20-55-96	96"x48"	SPEED LIMIT ENFORCED - MINIMUM FEE $80 WHEN WORKERS PRESENT		59	
G20-55-96	**96"X48"**	**SPEED LIMIT ENFORCED - MINIMUM FEE $1580 WHEN WORKERS PRESENT**	**2**	**59**	**118**
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**	**4**	**32**	**128**
R1-2-60	60"x60"	YIELD		29	
R2-1-36	**36"x48"**	**SPEED LIMIT __ (Portable only)**	**10**	**30**	**300**
R2-1-48	**48"x60"**	**SPEED LIMIT __**	**20**	**39**	**780**
R2-1aP-24	24"x18"	MINIMUM FEE $80 (Mounted on Speed Limit post)		10	
R2-1aP-24	**24"X18"**	**MINIMUM FEE $150 (Mounted on Speed Limit post)**	**24**	**10**	**240**
R3-2-48	48"x48"	NO LEFT TURN		35	
R4-1-36	**36"x48"**	**DO NOT PASS (Portable only)**	**8**	**30**	**240**
R4-1-48	**48"x60"**	**DO NOT PASS**	**2**	**39**	**78**
R4-7-48	48"x60"	KEEP RIGHT		39	
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**	**4**	**16**	**64**
R11-2-48	**48"x30"**	**ROAD CLOSED (Mounted on barricade)**	**4**	**12**	**48**
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**	**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	
W3-1-48	48"x48"	STOP AHEAD		35	
W3-3-48	**48"x48"**	**SIGNAL AHEAD**	**4**	**35**	**140**
W3-4-48	**48"x48"**	**BE PREPARED TO STOP**	**8**	**35**	**280**
W3-5-48	**48"x48"**	**SPEED REDUCTION AHEAD**	**8**	**35**	**280**
W4-2-48	48"x48"	LANE ENDS RIGHT or LEFT		35	
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		35	
W8-1-48	**48"x48"**	**BUMP**	**10**	**35**	**350**
W8-3-48	48"x48"	PAVEMENT ENDS		35	
W8-7-48	**48"x48"**	**LOOSE GRAVEL**	**10**	**35**	**350**
W8-11-48	**48"x48"**	**UNEVEN LANES**	**8**	**35**	**280**
W8-12-48	48"x48"	NO CENTER LINE		35	
W8-17-48	**48"x48"**	**SHOULDER DROP-OFF SYMBOL**	**8**	**35**	**280**
W8-53-48	48"x48"	TRUCKS ENTERING HIGHWAY		35	
W8-54-48	**48"x48"**	**TRUCKS ENTERING AHEAD or __ FT or _ MILE**	**2**	**35**	**70**
W8-55-48	**48"x48"**	**TRUCKS CROSSING AHEAD or __ FT or _ MILE**	**2**	**35**	**70**
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)		14	
W14-3-64	64"x48"	NO PASSING ZONE		28	
W16-2P-30	**30"x24"**	**__ FEET PLAQUE (Mounted on warning sign post)**	**2**	**10**	**20**
W20-1-48	**48"x48"**	**ROAD WORK AHEAD or _FT or _ MILE**	**7**	**35**	**245**
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**	**4**	**35**	**140**
W20-5-48	48"x48"	RIGHT or CENTER or LEFT LANE CLOSED AHEAD or __ FT or _ MILE		35	
W20-7-48	**48"x48"**	**FLAGGER**	**8**	**35**	**280**
W20-8-18	**18"x18"**	**STOP - SLOW PADDLE Back to Back**	**8**	**5**	**40**
W20-52P-54	**54"x12"**	**NEXT __ MILES (Mounted on warning sign post)**	**8**	**12**	**96**
W21-1-48	48"x48"	WORKERS		35	
W21-2-48	**48"x48"**	**FRESH OIL**	**2**	**35**	**70**
W21-3-48	48"x48"	ROAD MACHINERY AHEAD or __ FT or _ MILE		35	

SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED	UNITS PER AMOUNT	UNITS SUB TOTAL
W21-5-48	**48"x48"**	**SHOULDER WORK**	**4**	**35**	**140**
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**	**4**	**35**	**140**
W22-8-48	48"x48"	FRESH OIL LOOSE ROCK		35	
W24-1-48	48"x48"	DOUBLE REVERSE CURVE		35	

SPECIAL SIGNS

SPEC & CODE

704-1000	TRAFFIC CONTROL SIGNS	TOTAL UNITS	6378

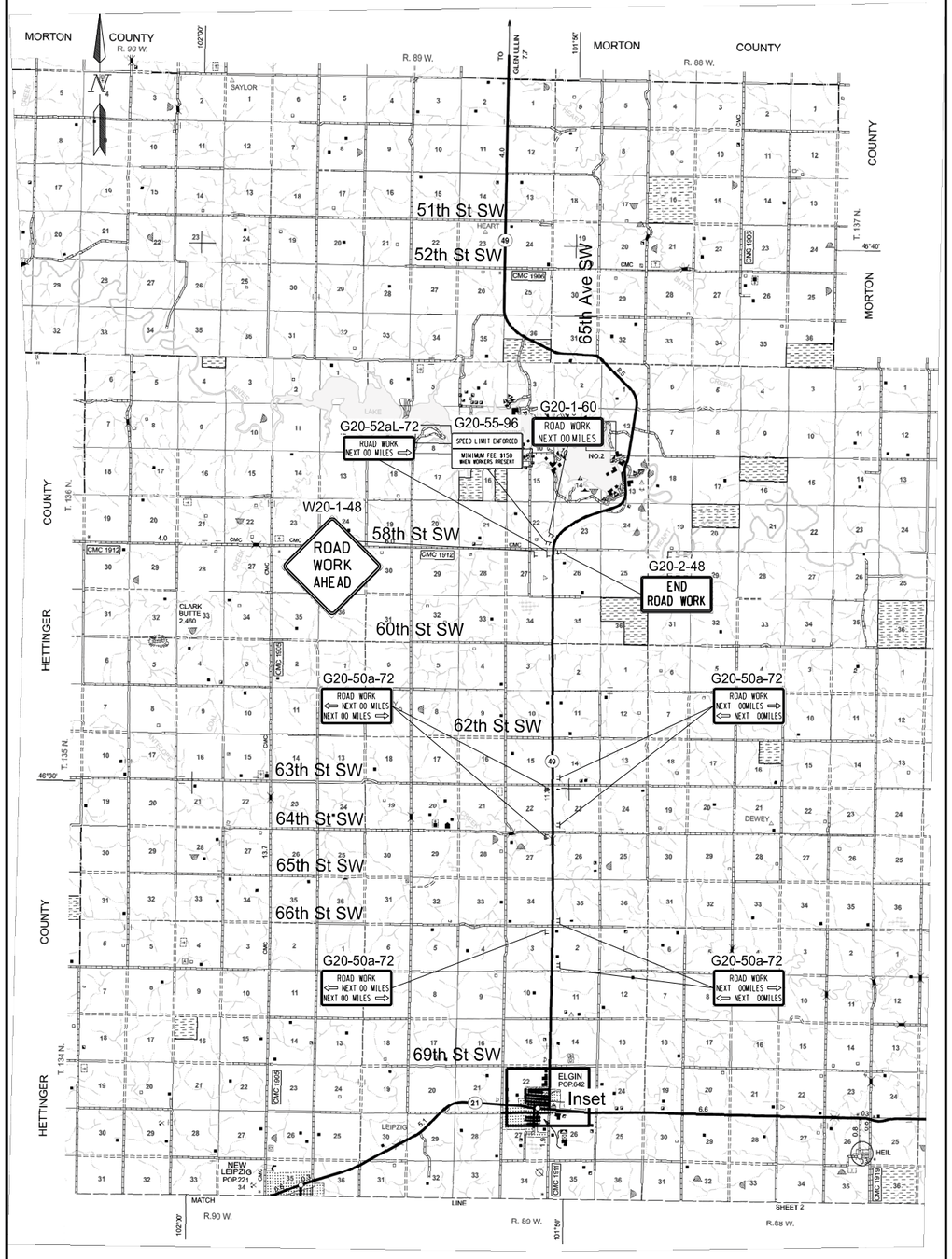
SPEC & CODE	DESCRIPTION	UNIT	QUANTITY
704-0100	FLAGGING	**MHR**	**3000**
704-1018	LANE CLOSURE-SIGNAL CONTROL/FLAGGING CONTROL	**EACH**	**2**
704-1043	ATTENUATION DEVICE-TYPE B-65	**EACH**	**4**
704-1048	PORTABLE RUMBLE STRIPS	**EACH**	**4**
704-1050	TYPE I BARRICADES	**EACH**	
704-1052	TYPE III BARRICADES	**EACH**	**12**
704-1060	DELINEATOR DRUMS	**EACH**	**50**
704-1065	TRAFFIC CONES	**EACH**	
704-1067	TUBULAR MARKERS	**EACH**	**350**
704-1070	DELINEATOR	**EACH**	
704-1072	FLEXIBLE DELINEATORS	**EACH**	
704-1080	STACKABLE VERTICAL PANELS	**EACH**	**60**
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**	
704-1185	PILOT CAR	**HR**	**1250**
704-1500	OBLITERATION OF PVMT MK	**SF**	**550**
704-3501	PORTABLE PRECAST CONCRETE MED BARRIER	**LF**	
704-3510	PRECAST CONCRETE MED BARRIER - STATE FURNISHED	**EACH**	
704-3511	STATE FURNISHED MEDAIN BARRIER	**LF**	**850**
762-0200	RAISED PAVEMENT MARKERS	**EACH**	
762-0420	SHORT TERM 4IN LINE - TYPE R	**LF**	
762-0422	SHORT TERM 6IN LINE - TYPE R	**LF**	**8000**
762-0426	SHORT TERM 24IN LINE-TYPE R	**LF**	**72**
762-0430	SHORT TERM 4IN LINE - TYPE NR	**LF**	

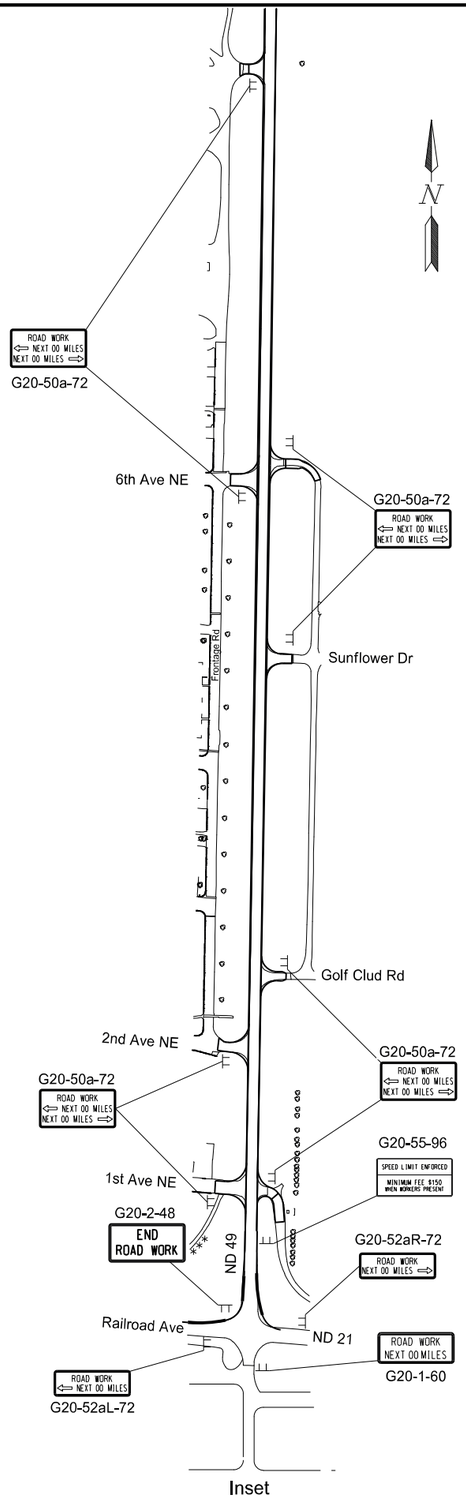
NOTE:
If additional signs are required, units will be calculated using the formula from Section III-18.06 of the Design Manual.
http://www.dot.nd.gov/

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.10.26 13:10:21 -05'00'
NORTH DAKOTA

Traffic Control Devices List

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	100	2



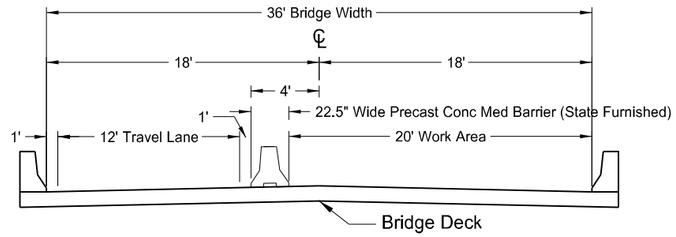


Work Zone Traffic Control

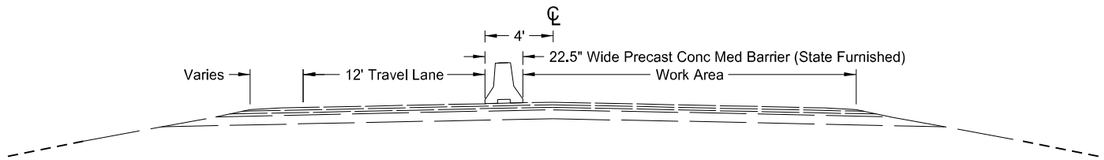
ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.10.26 13:10:34 -05'00'
NORTH DAKOTA

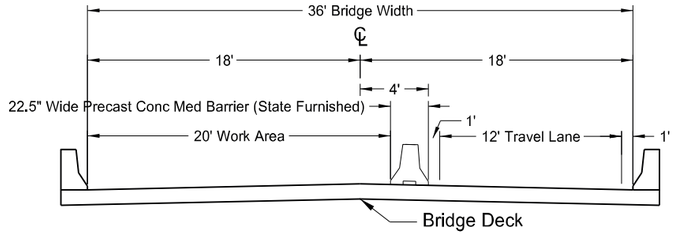
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	100	3



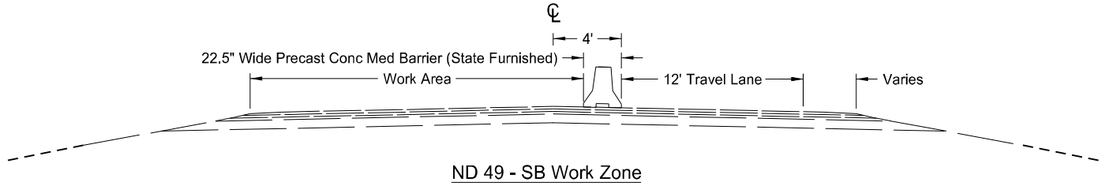
Structure # 49-042.060 - NB Work Zone
Sta 2219+99.5 (Begin Bridge) to 2221+41.7 (End Bridge)



ND 49 - NB Work Zone
Sta 2218+95.5 to 2219+99.5 (Begin Bridge)
Sta 2221+41.7 (End Bridge) to 2222+25.5



Structure # 49-042.060 - SB Work Zone
Sta 2219+99.5 (Begin Bridge) to 2221+41.7 (End Bridge)



ND 49 - SB Work Zone
Sta 2218+95.5 to 2219+99.5 (Begin Bridge)
Sta 2221+41.7 (End Bridge) to 2222+25.5

Work Zone Traffic Control

ND 49 - Jct 21 Elgin N to 58th St SW

Approach Slab & Lip Replacement Typical Sections

Structure #0049-042.060

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.10.26
13:10:47 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	100	4

Str # 0049-042.060 Antelope Creek Bridge
Sta 2221+22.42
Replace Approach Slab and Lip

337.5'

Attenuation Device
Type B-65

Attenuation Device
Type B-65

15:1 Taper

15:1 Taper

ND 49

Asph

Sec line

R Mkr 42

Delineator Drums at 20' c-c

R11-2-48
Barricade Mounted
CLOSED
ROAD

Type III Barricades (2)

Portable Precast Concrete
Median Barriers

Type III Barricades (2)

R11-2-48
Barricade Mounted
CLOSED
ROAD

Delineator Drums at 20' c-c

OH

Legend:

- DELINEATOR DRUM
- TYPE III BARRICADE
- WORK AREA

Note:
See Standard Note 704-450 for additional traffic control details for lane closure on bridge.

Work Zone Traffic Control

ND 49 - Jct 21 Elgin N to 58th St SW

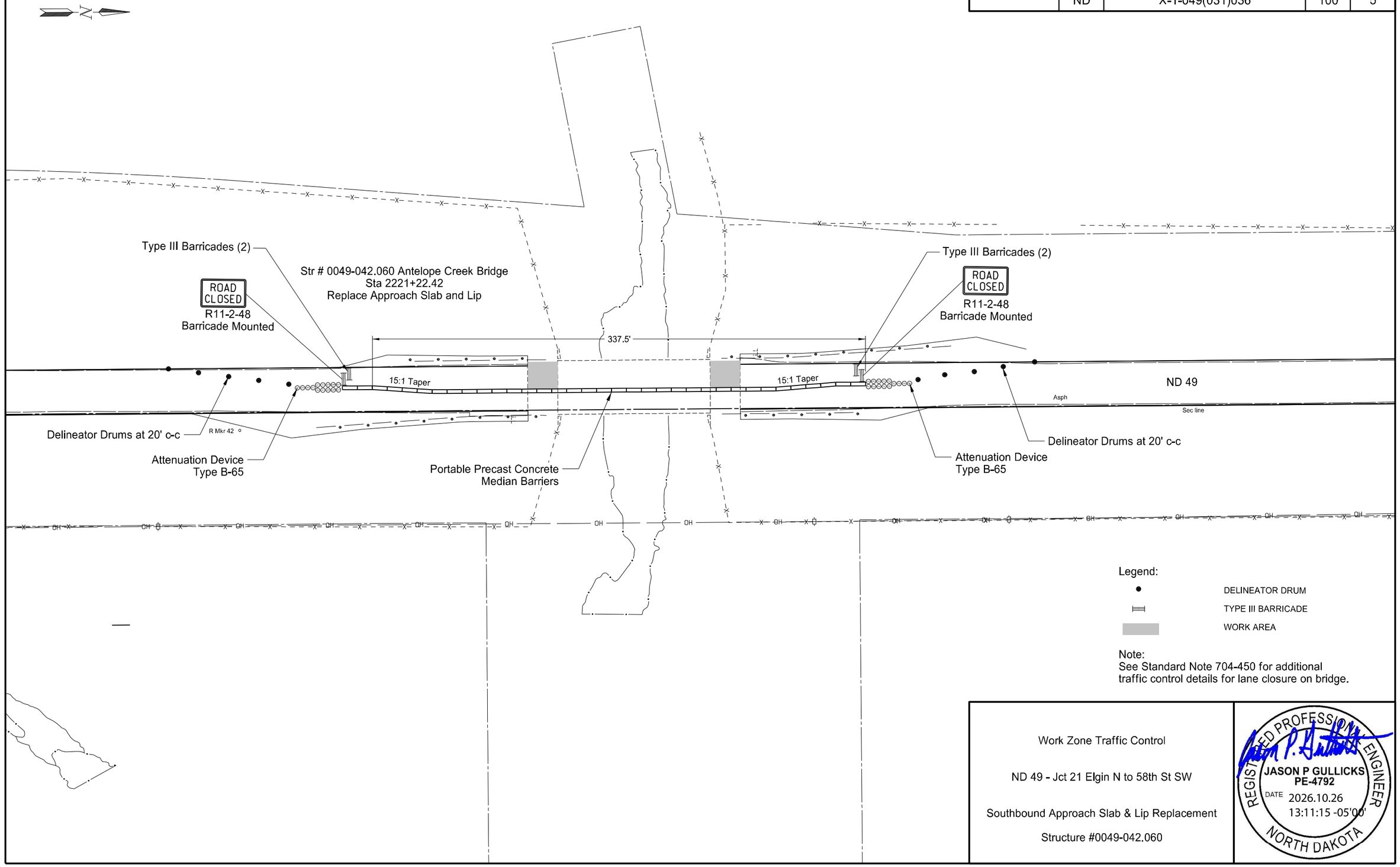
Northbound Approach Slab & Lip Replacement

Structure #0049-042.060

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.10.26
13:10:59 -05'00'
NORTH DAKOTA

10/26/2026 11:19:36 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Traffic\100WZ\100WZ_004.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	100	5



Legend:

- DELINEATOR DRUM
- TYPE III BARRICADE
- WORK AREA

Note:
See Standard Note 704-450 for additional traffic control details for lane closure on bridge.

Work Zone Traffic Control

ND 49 - Jct 21 Elgin N to 58th St SW

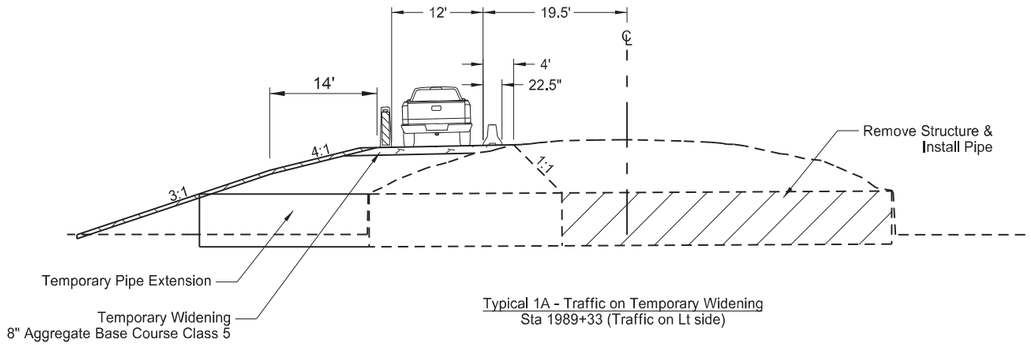
Southbound Approach Slab & Lip Replacement

Structure #0049-042.060

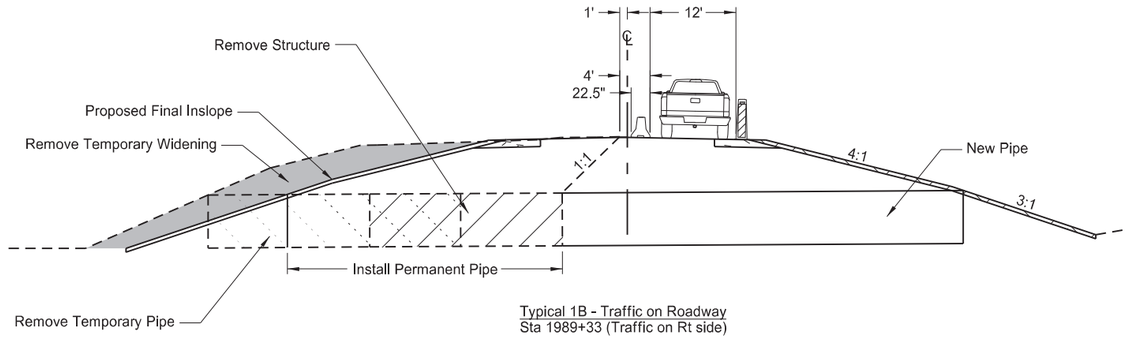
REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.10.26
13:11:15 -05'00'
NORTH DAKOTA

10/26/2026 11:33:08 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Traffic\100WZ\100WZ_005.dgn

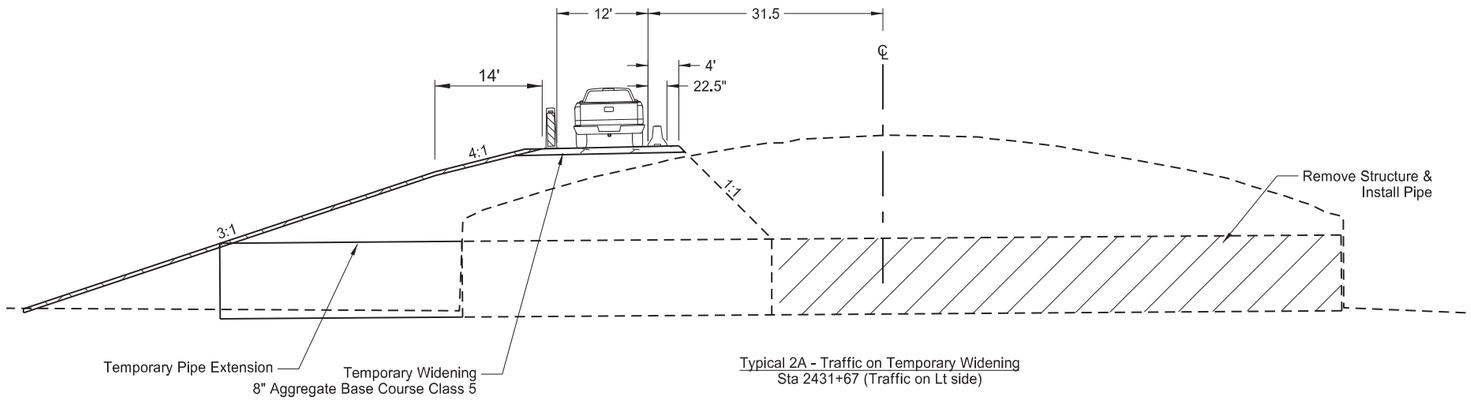
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	100	6



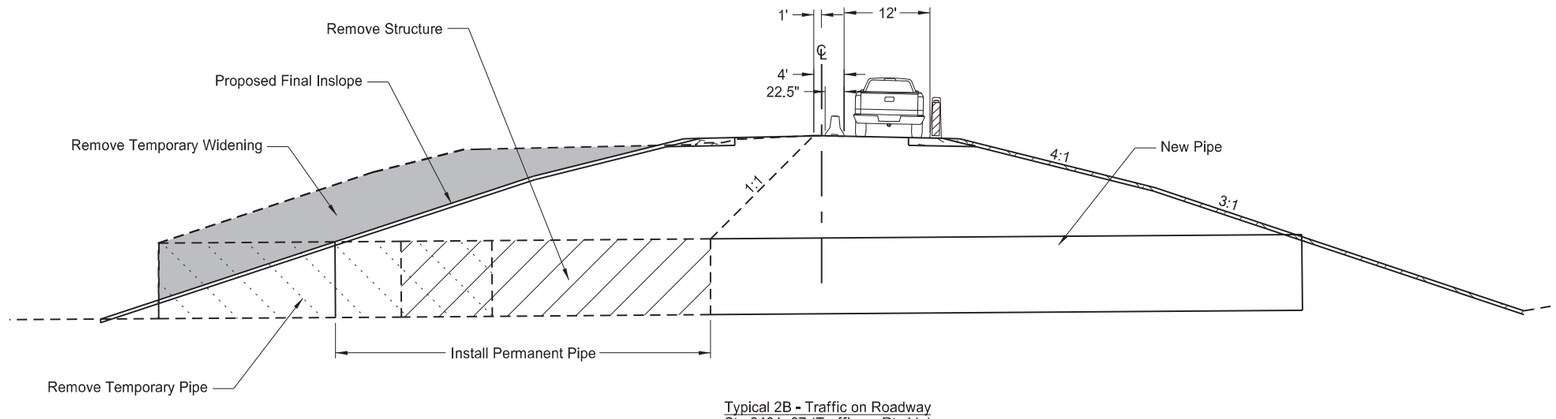
Typical 1A - Traffic on Temporary Widening
Sta 1989+33 (Traffic on Lt side)



Typical 1B - Traffic on Roadway
Sta 1989+33 (Traffic on Rt side)



Typical 2A - Traffic on Temporary Widening
Sta 2431+67 (Traffic on Lt side)



Typical 2B - Traffic on Roadway
Sta 2431+67 (Traffic on Rt side)

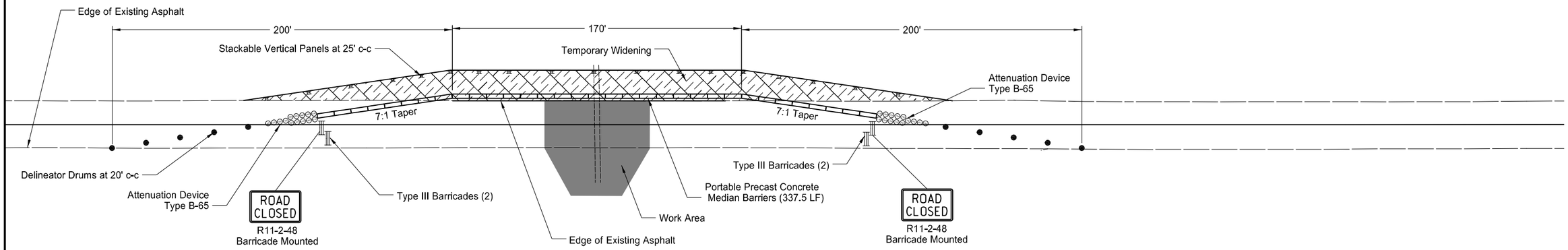
Work Zone Traffic Control

ND 49 - Jct 21 Elgin N to 58th St SW

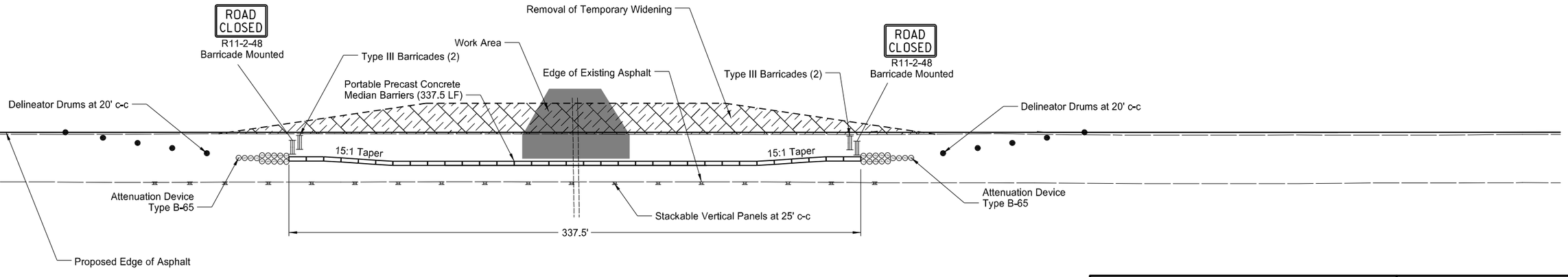
Structure Replacement with Pipe - Typical Sections

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.10.26
13:11:28 -05'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	100	7



Plan View 1A - Traffic on Temporary Widening
Sta 1989+33 (Traffic on Lt side)



Plan View 1B - Traffic on Roadway
Sta 1989+33 (Traffic on Rt side)

*See D-704-16 For Additional Signage Needed

Work Zone Traffic Control

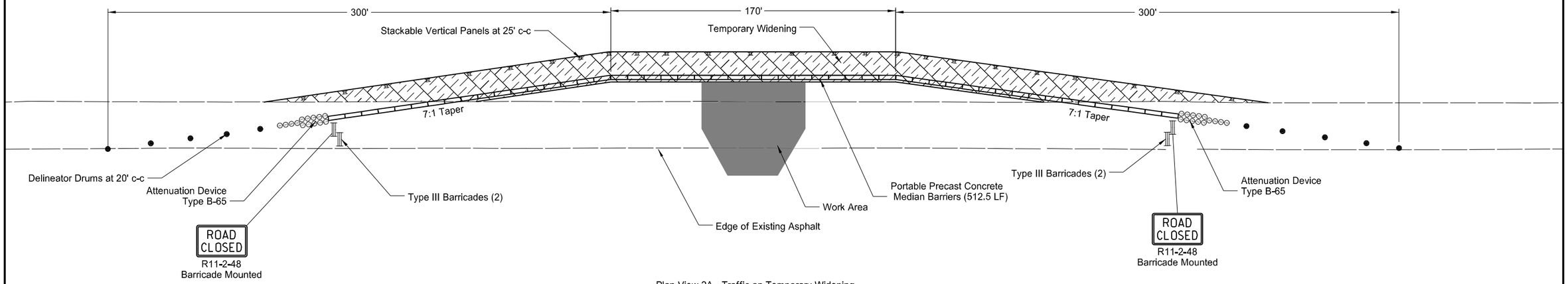
ND 49 - Jct 21 Elgin N to 58th St SW

Structure Replacement with Pipe - Typical Layouts

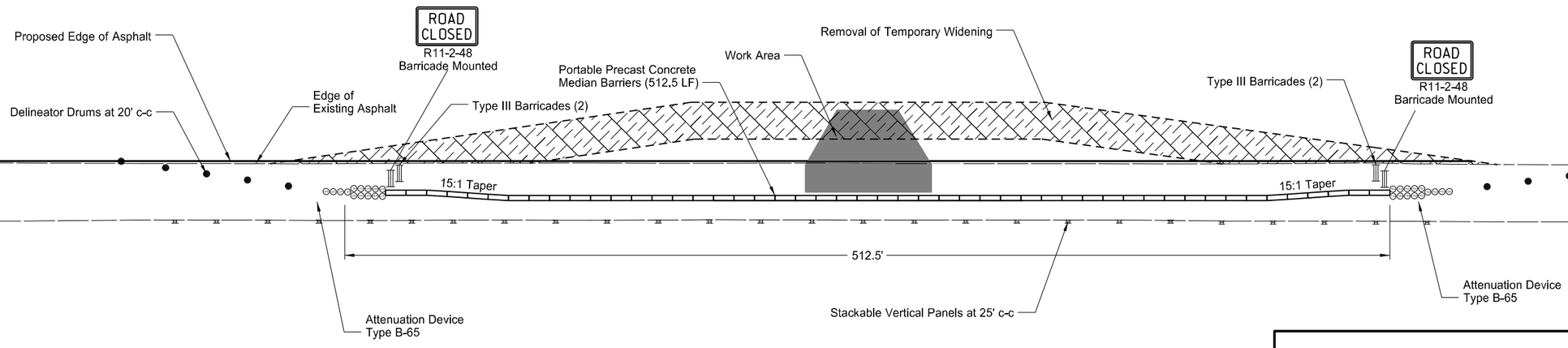
REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.10.26 13:11:42 -05'00'
NORTH DAKOTA

10/26/2026 11:43:05 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Traffic\100WZ\100WZ_007-Typ 1 Plan.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	100	8



Plan View 2A - Traffic on Temporary Widening
Sta 2431+67 (Traffic on Lt side)



Plan View 2B - Traffic on Roadway
Sta 2431+67 (Traffic on Rt side)

*See D-704-16 For Additional Signage Needed

Work Zone Traffic Control

ND 49 - Jct 21 Elgin N to 58th St SW

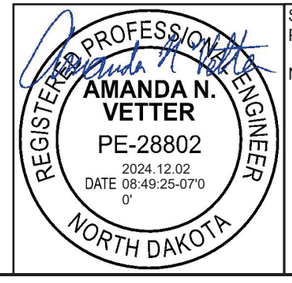
Structure Replacement with Pipe - Typical Layouts

REGISTERED PROFESSIONAL ENGINEER
JASON P GULLICKS
PE-4792
DATE 2026.10.26
13:11:58 -05'00'
NORTH DAKOTA

10/26/2026 11:52:21 AM Sarah.Osland K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Traffic\100WZ\100WZ_008-Typ 2 Plan.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	X-1-049(031)036	110	1

Station / RP	Sign No.	Assembly No.	Flat Sheet For Signs IV SF	Flat Sheet For Signs XI SF	Sign Support Length 1st LF	2nd LF	3rd LF	4th LF	Vert Clear-ance FT	Support Size	Max Post Len LF	Sleeve Length 1st LF	2nd LF	3rd LF	4th LF	Sleeve Size	Anchor EA	Anchor LF	Anchor Size	Reset Sign Panel EA	Reset Sign Support EA	Break-Away EA	Comments
1918+70 Rt	M1-5	405			11.6				5.0	2.25 x 2.25 12 ga	13.5	3.2				2.5 x 2.5 12 ga	1	4	3 x 3 7 ga	1		1	Mount with M1-5, M6-4, M6-6L
1919+02 Lt	R1-1	2			11.1				5.0	2.5 x 2.5 12 ga	12.1						1	4	3 x 3 7 ga	1			Mount with red reflective strips on the post
1919+65 Rt	M1-5	371	6.0		11.6				5.0	2.25 x 2.25 12 ga	12.9						1	4	2.5 x 2.5 12 ga				Mount with M3-1
1920+68 Rt	R2-1	9		5.0	11.0				5.0	2 x 2 12 ga	11.5						1	4	2.25 x 2.25 12 ga				
1921+83 Lt	SA 2A			5.2	10.6				5.0	2.25 x 2.25 12 ga	13.2						1	4	2.5 x 2.5 12 ga	1			Mount with R1-1,street sign
1922+29 Rt	R1-1	1		5.2	11.1				5.0	2.25 x 2.25 12 ga	13.7						1	4	2.5 x 2.5 12 ga				
1922+33 Lt	SA B				13.0				5.0	2.5 x 2.5 12 ga	13.3						1	4	3 x 3 7 ga	1			
1922+80 Lt	Sign 1		35.0		11.2	12.0	12.8		5.0	2.25 x 2.25 12 ga	13.8	2.9	3.7	4.5			3	4	3 x 3 7 ga			3	D-754-49
1924+69 Lt	Sign 2	17	16.0		11.5				5.0	2.5 x 2.5 10 ga	12.3	3.9				2.19 x 2.19 10 ga	1	4	3 x 3 7 ga			1	
1925+54 Lt	SA 2A			5.2	10.6				5.0	2.25 x 2.25 12 ga	13.2						1	4	2.5 x 2.5 12 ga	1			Mount with R1-1,street signs
1926+36 Lt	M1-5	399			11.8				5.0	2.25 x 2.25 12 ga	12.7						1	4	2.5 x 2.5 12 ga	1			Mount with M5-1R
1927+91 Rt	SA 2B			5.2	10.3				5.0	2.25 x 2.25 12 ga	12.9						1	4	2.5 x 2.5 12 ga	1			Mount with R1-1,street sign
1929+82 Lt	M1-5	391			11.8				5.0	2.25 x 2.25 12 ga	12.7						1	4	2.5 x 2.5 12 ga	1			Mount with M 2-1
1930+26 Rt	Sign 6	9		5.0	11.0				5.0	2 x 2 12 ga	11.5						1	4	2.25 x 2.25 12 ga				
1933+41 Lt	W3-1	19		6.3	11.7				5.0	2.5 x 2.5 12 ga	14.5						1	4	3 x 3 7 ga				
1936+21 Rt	SA 2A			5.2	10.6				5.0	2.25 x 2.25 12 ga	13.2						1	4	2.5 x 2.5 12 ga	1			Mount with R1-1,street sign
1936+31 Rt	D9-2	399	6.2		11.8				5.0	2.25 x 2.25 12 ga	12.7						1	4	2.5 x 2.5 12 ga				Mount with M6-1L
1938+15 Lt	SA A		4.5		11.6				5.0	2.5 x 2.5 12 ga	13.0						1	4	3 x 3 7 ga	1			Mount with Sign 2, Cardiac Ready Sign
1940+35 Lt	SA 2A			5.2	10.6				5.0	2.25 x 2.25 12 ga	13.2						1	4	2.5 x 2.5 12 ga	1			Mount with R1-1,street sign
1942+61 Rt	R2-1	9		5.0	11.0				5.0	2 x 2 12 ga	11.5						1	4	2.25 x 2.25 12 ga				
1942+63 Lt	R2-1	9		5.0	11.0				5.0	2 x 2 12 ga	11.5						1	4	2.25 x 2.25 12 ga				
1944+62 Lt	SA C		7.9		13.3				5.0	2.5 x 2.5 12 ga	13.6						1	4	3 x 3 7 ga	1			Mount with M6-1R and Crime Watch
1947+47 Rt	R2-1	9		5.0	11.0				5.0	2 x 2 12 ga	11.5						1	4	2.25 x 2.25 12 ga				
1947+48 Lt	R2-1	9		5.0	11.0				5.0	2 x 2 12 ga	11.5						1	4	2.25 x 2.25 12 ga				
1951+13 Lt	R1-1	1		5.2	11.1				5.0	2.25 x 2.25 12 ga	13.7						1	4	2.5 x 2.5 12 ga				
1957+65 Lt	W3-5	20		9.0	12.0				5.0	2.5 x 2.5 10 ga	12.9						1	4	3 x 3 7 ga			1	
1967+60 Rt	SA 2E			5.2	11.1				5.0	2.5 x 2.5 12 ga	14.1						1	4	3 x 3 7 ga	1			Mount with R1-1,street signs
2020+36 Rt	SA 2E			5.2	11.1				5.0	2.5 x 2.5 12 ga	14.1						1	4	3 x 3 7 ga	1			Mount with R1-1,street signs
2073+01 Lt	R1-1	1		5.2	11.1				5.0	2.25 x 2.25 12 ga	13.7						1	4	2.5 x 2.5 12 ga				
2073+48 Rt	SA 2E			5.2	11.1				5.0	2.5 x 2.5 12 ga	14.1						1	4	3 x 3 7 ga	1			Mount with R1-1,street signs
2122+97 Lt	R1-1	1		5.2	11.1				5.0	2.25 x 2.25 12 ga	13.7						1	4	2.5 x 2.5 12 ga				
2123+49 Rt	SA 2E				11.1				5.0	2.5 x 2.5 12 ga	14.1						1	4	3 x 3 7 ga	1			Mount with R1-1,street signs

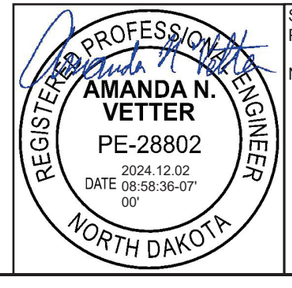


Sign Summary
Perforated Tube

ND 49 - Jct 21 Elgin N to 58th St SW

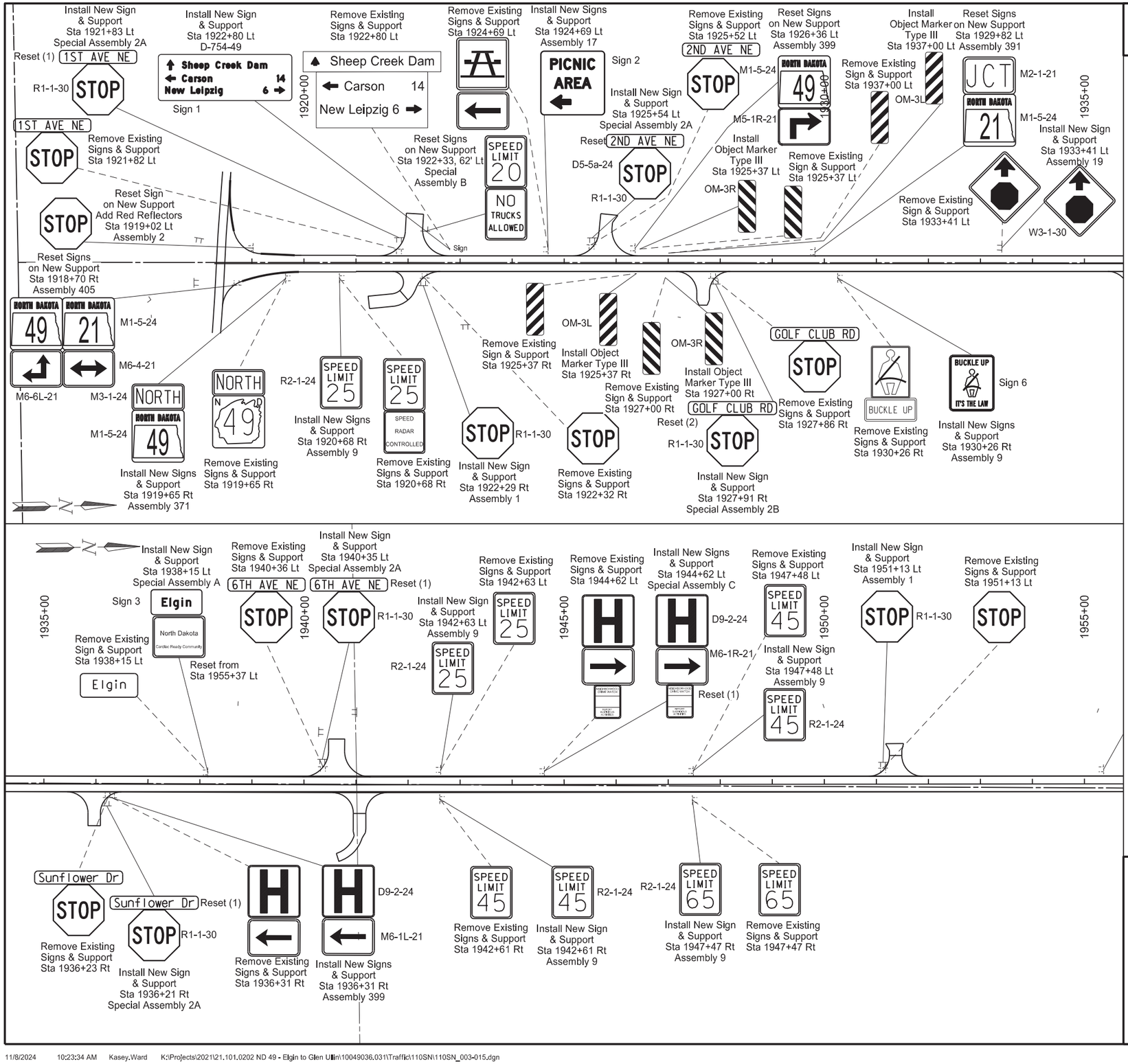
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
N.D.	X-1-049(031)036	110	2

Station / RP	Sign No.	Assembly No.	Flat Sheet For Signs IV SF	Flat Sheet For Signs XI SF	Sign Support Length 1st LF	2nd LF	3rd LF	4th LF	Vert Clear-ance FT	Support Size	Max Post Len LF	Sleeve Length 1st LF	2nd LF	3rd LF	4th LF	Sleeve Size	Anchor EA	Anchor LF	Anchor Size	Reset Sign Panel EA	Reset Sign Support EA	Break-Away EA	Comments
2228+53 Lt	R1-1	1			11.1				5.0	2.25 x 2.25 12 ga	13.7						1	4	2.5 x 2.5 12 ga	1			
2228+99 Rt	SA 2E				11.1				5.0	2.5 x 2.5 12 ga	14.1						1	4	3 x 3 7 ga	1			Mount with R1-1,street signs
2281+40 Lt	R1-1	1		5.2	11.1				5.0	2.25 x 2.25 12 ga	13.7						1	4	2.5 x 2.5 12 ga				
2281+91 Rt	SA 2E			5.2	11.1				5.0	2.5 x 2.5 12 ga	14.1						1	4	3 x 3 7 ga	1			Mount with R1-1,street signs
2334+04 Lt	SA 2E			5.2	11.1				5.0	2.5 x 2.5 12 ga	14.1						1	4	3 x 3 7 ga	1			Mount with R1-1,street signs
2386+91 Lt	HUNTER								5.0											1			Mount on Existing Supports
2387+34 Rt	SA 2D			5.2	11.1				5.0	2.5 x 2.5 12 ga	14.1						1	4	3 x 3 7 ga	1			Mount with R1-1,street signs
2439+94 Lt	SA 2D			5.2	11.1				5.0	2.5 x 2.5 12 ga	14.1						1	4	3 x 3 7 ga	1			Mount with R1-1,street signs
2446+03 Rt	SA D				12.1				5.0	2.5 x 2.5 10 ga	12.8						1	4	3 x 3 7 ga	1		1	
2446+23 Lt	W2-2	19		6.3	11.7				5.0	2.5 x 2.5 12 ga	14.5						1	4	3 x 3 7 ga				
2493+17 Rt	SA 2D			5.2	11.1				5.0	2.5 x 2.5 12 ga	14.1						1	4	3 x 3 7 ga	1			Mount with R1-1,street signs
2538+56 Rt	W1-2R	19		6.3	11.7				5.0	2.5 x 2.5 12 ga	14.5						1	4	3 x 3 7 ga				
2539+97 Rt	Sign 4		10.5		9.6	10.6			5.0	2.25 x 2.25 12 ga	12.4						2	4	2.5 x 2.5 12 ga				D-754-48
2541+45 Rt	Sign 5		10.5		9.6	10.6			5.0	2.25 x 2.25 12 ga	12.4						2	4	2.5 x 2.5 12 ga				D-754-48
Sub Total			96.6	151.5		**Total**	551.0										**Total**	196.0		25	0	7	
Grand Total			**96.6**	**151.5**		**Total**	**551.0**										**Total**	**196**	**0**	**25**	**0**	**7**	



Sign Summary
Perforated Tube

ND 49 - Jct 21 Elgin N to 58th St SW



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	110	3

SPEC	CODE	BID ITEM	QTY	UNIT
754	0803	OBJECT MARKERS - TYPE III		
		Sta 1925+37 Lt	1	EA
		Sta 1927+37 Rt	1	EA
		Sta 1927+00 Lt	1	EA
		Sta 1927+00 Rt	1	EA

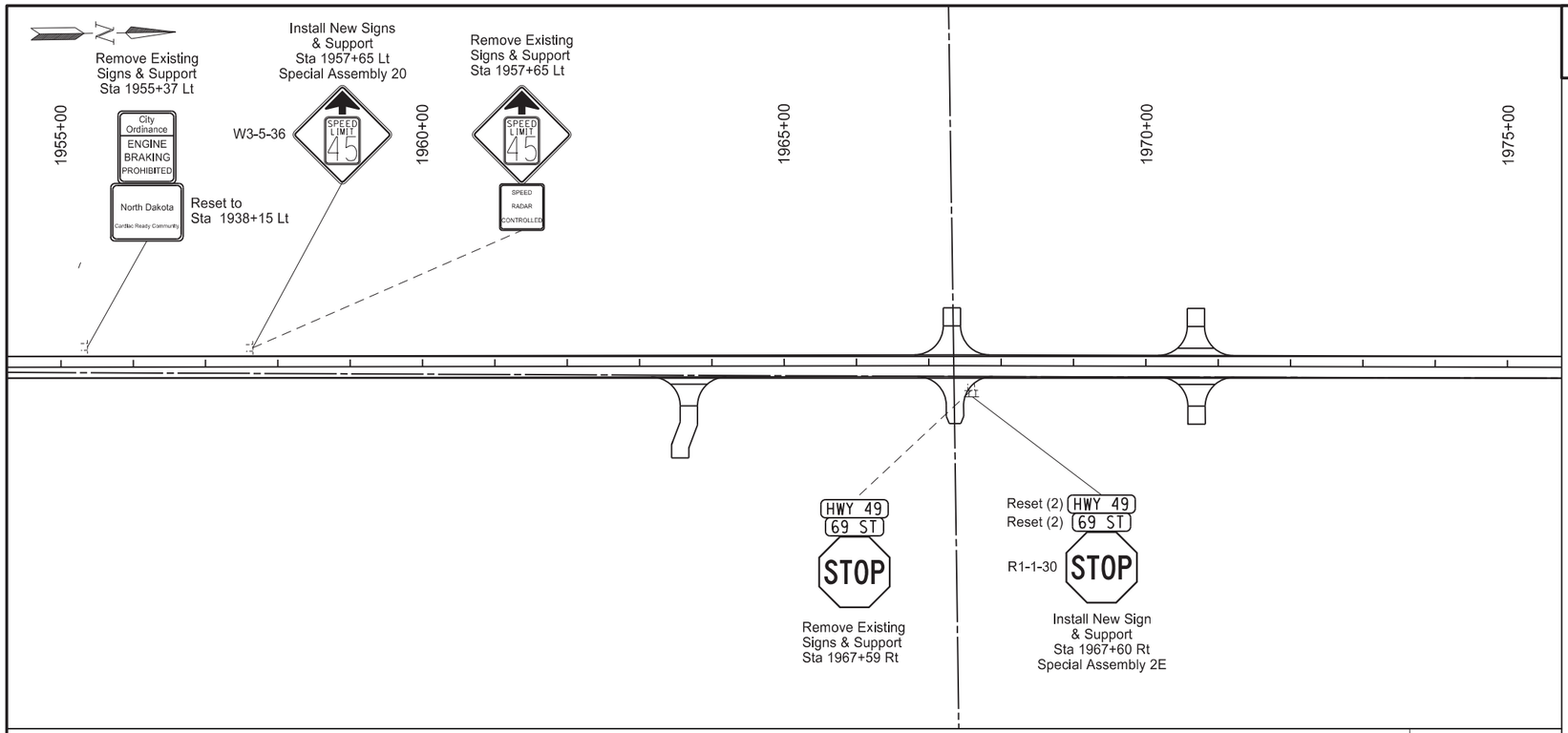
Signing Layout

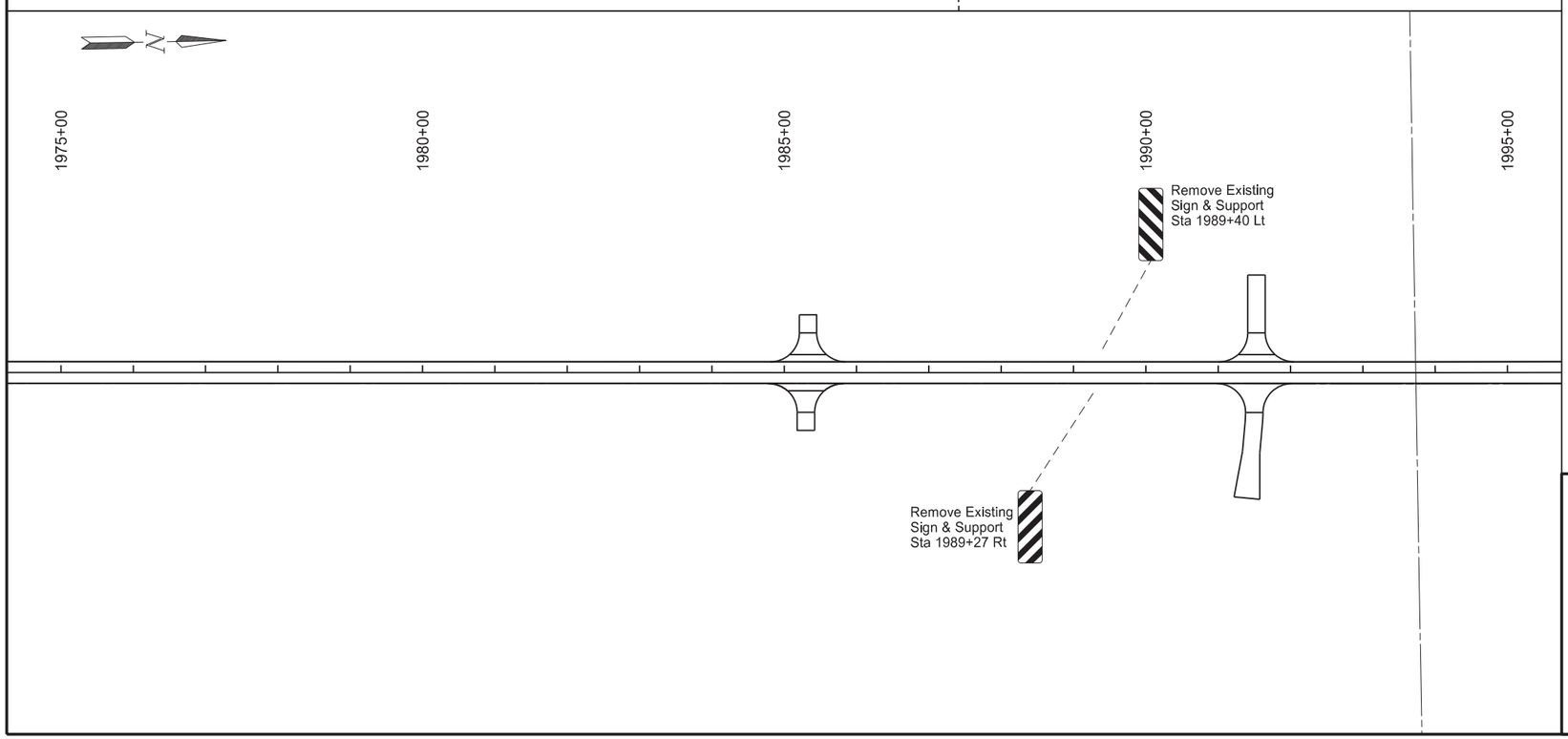
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1918+42 to 1955+00

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
2024.12.02 08:58:10-07' 00'
DATE
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	110	4





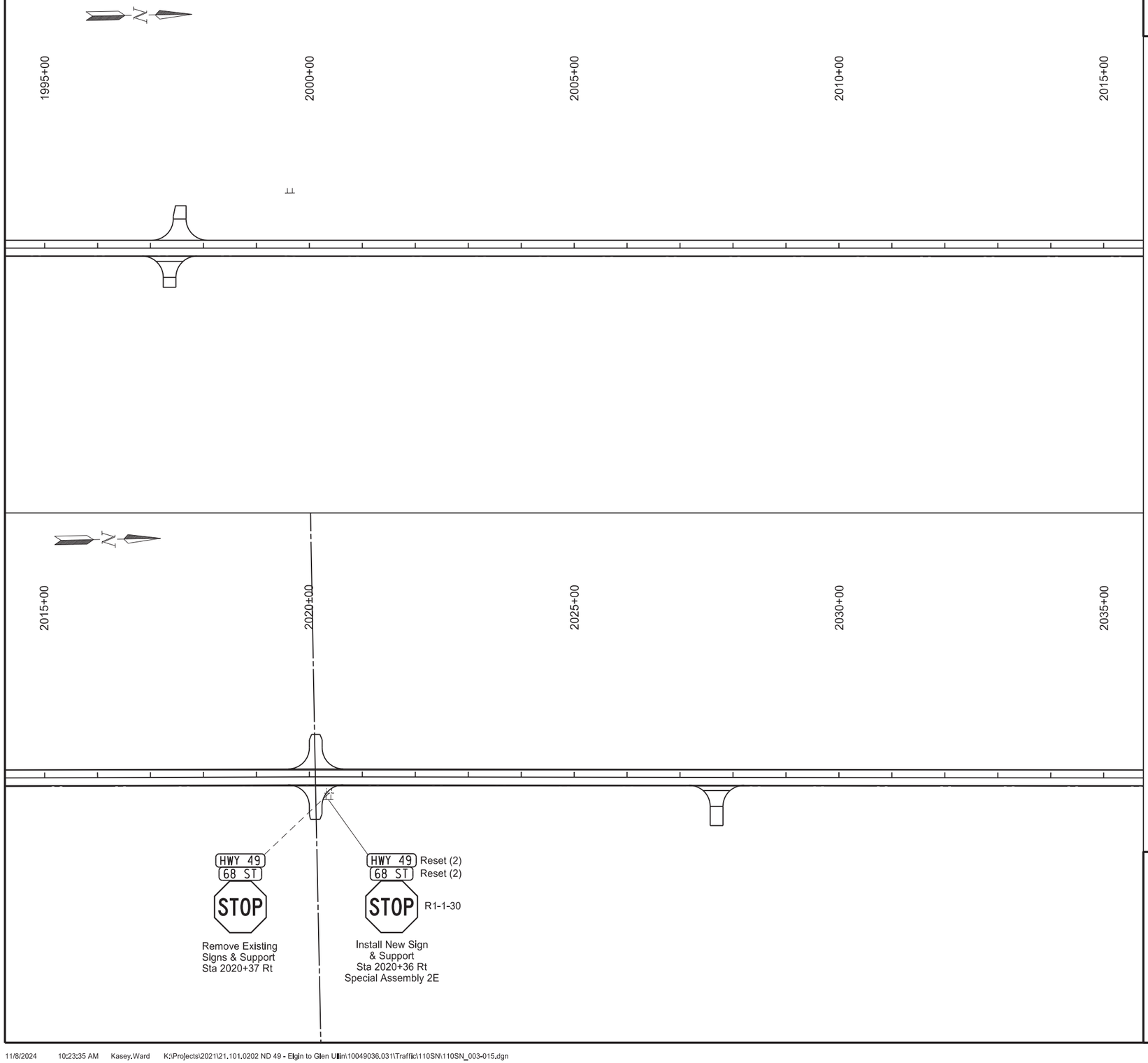
Signing Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1955+00 to 1995+00

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
2024.12.02 08:57:57-07'00'
DATE
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	110	5



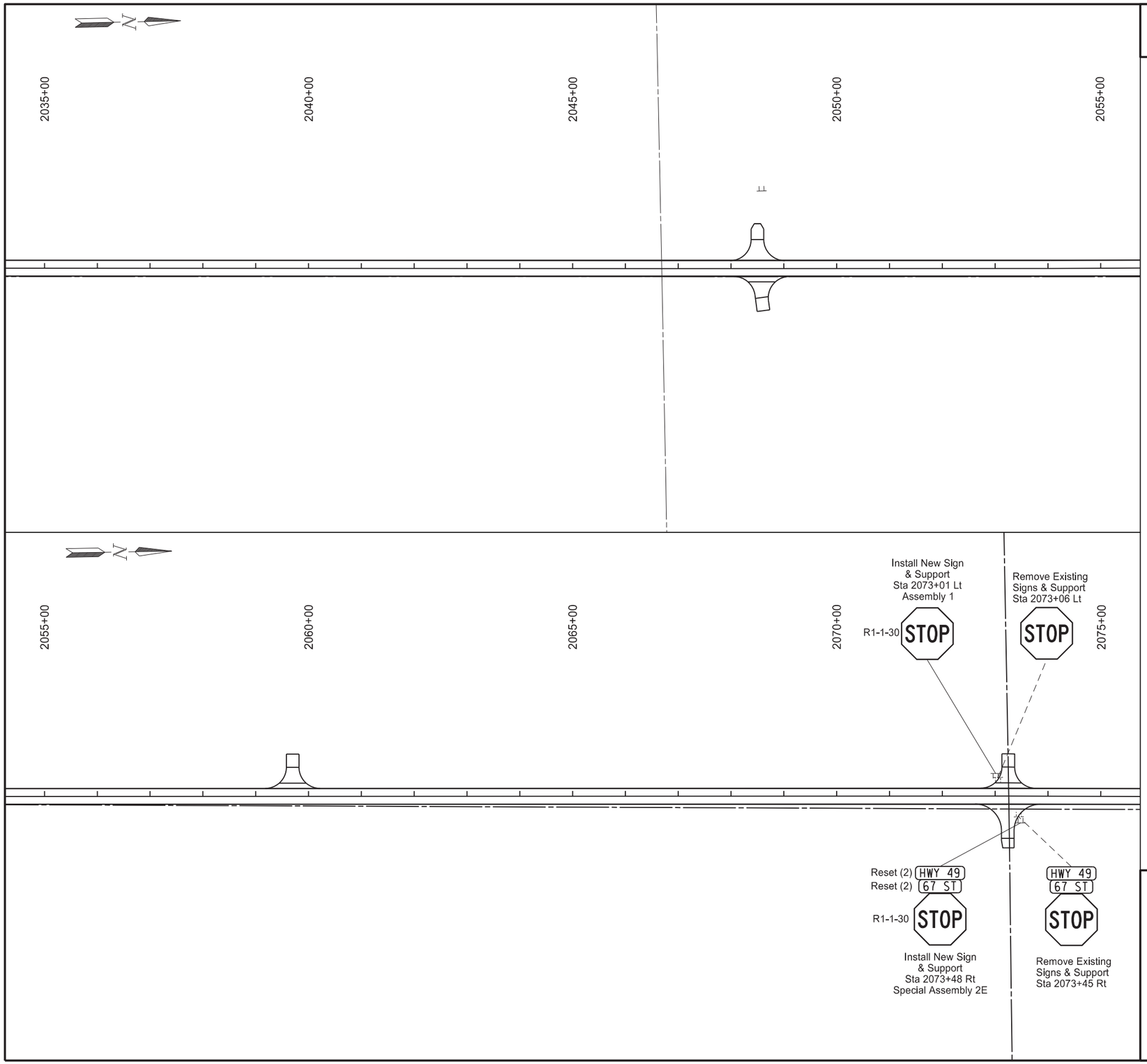
Signing Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 1995+00 to 2035+00

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
2024.12.02 08:57:44-07'00'
DATE
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	110	6

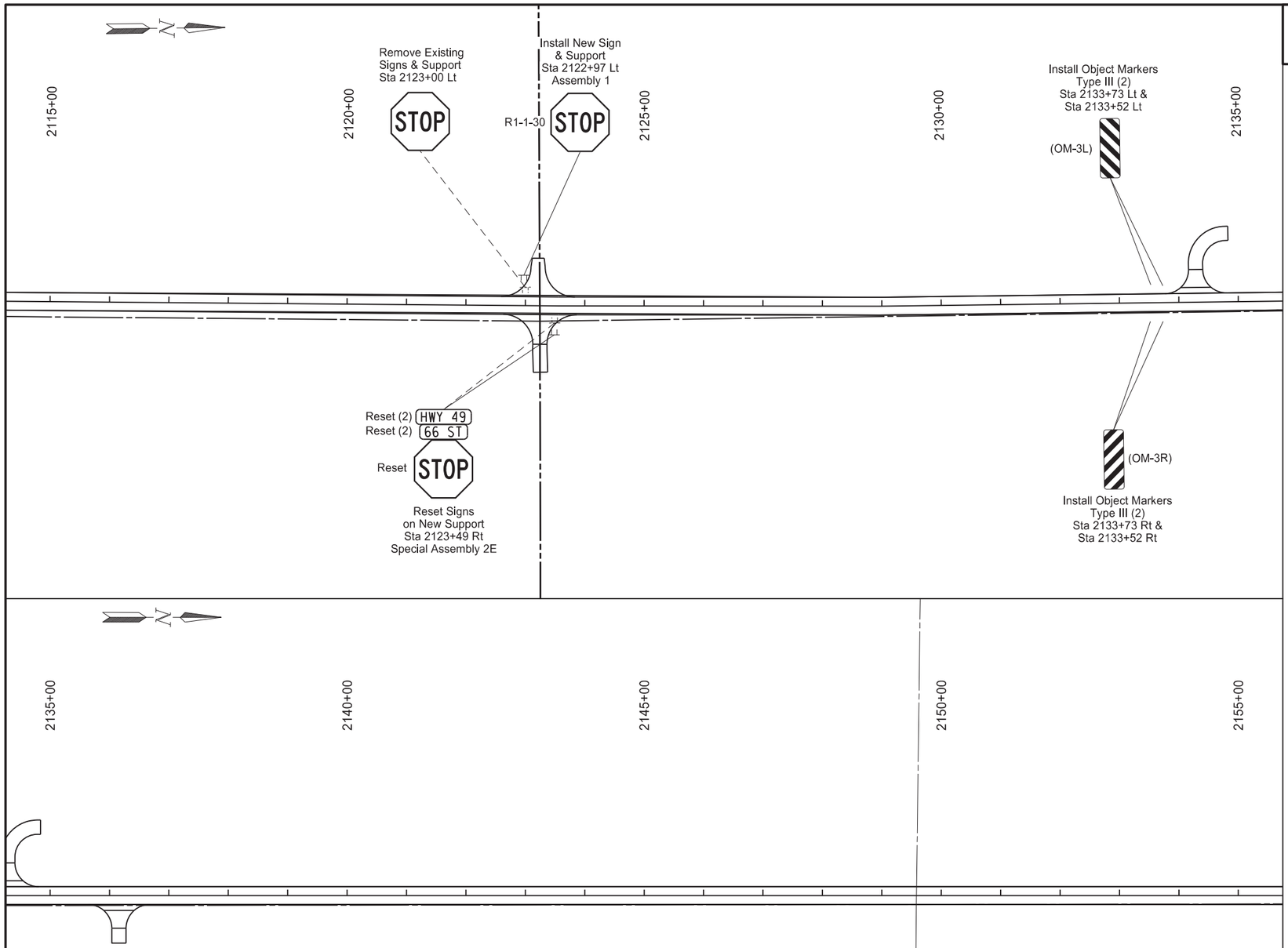


Signing Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2035+00 to 2075+00

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
DATE 2024.12.02 08:57:31-07' 00'
NORTH DAKOTA



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	110	7

SPEC	CODE	BID ITEM	QTY	UNIT
754	0803	OBJECT MARKERS - TYPE III		
		Sta 2133+73 Lt	1	EA
		Sta 2133+73 Rt	1	EA
		Sta 2133+52 Lt	1	EA
		Sta 2133+52 Rt	1	EA

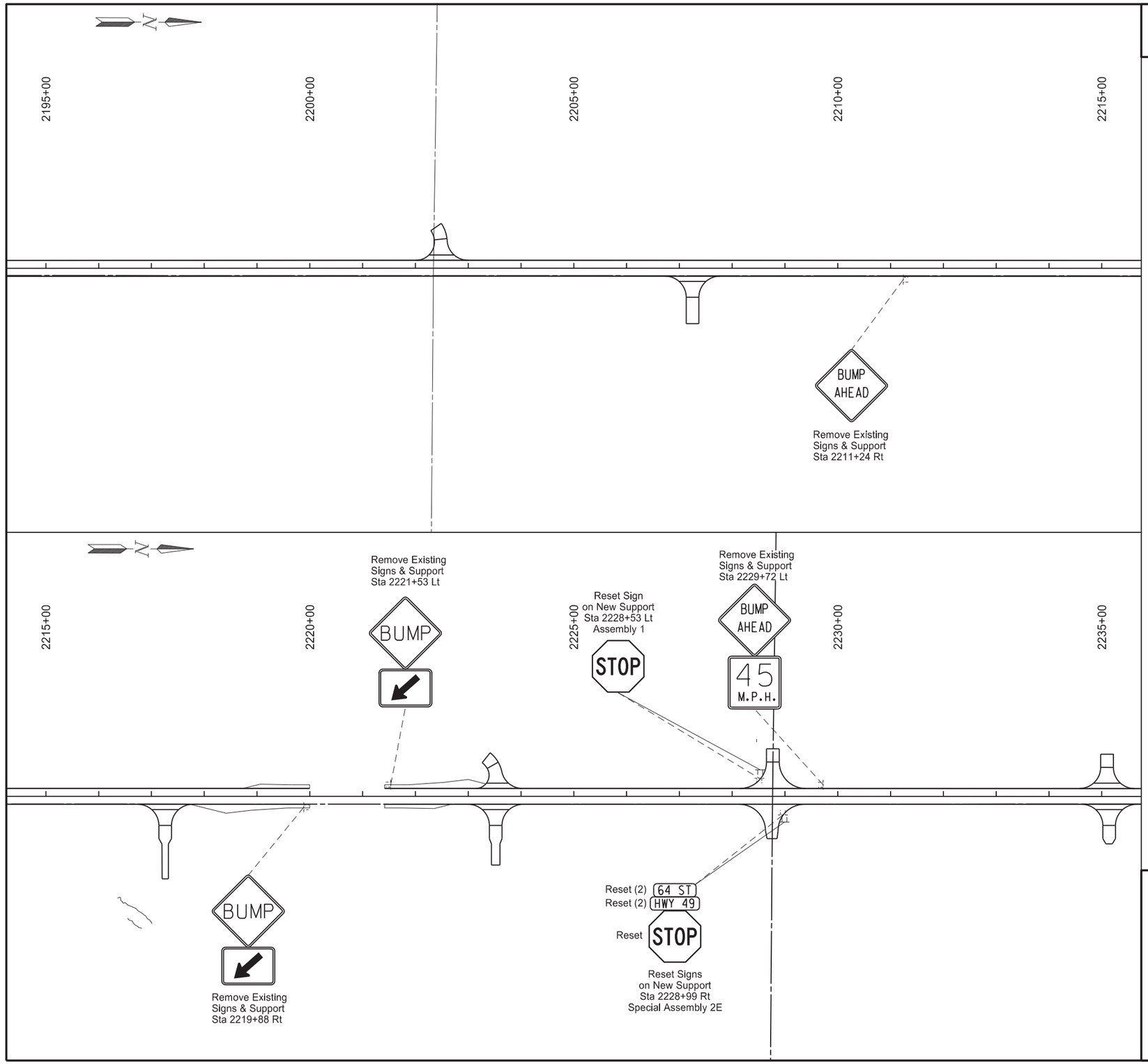
Signing Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2115+00 to 2155+00

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
2024.12.02 08:57:20-07' 00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	110	8



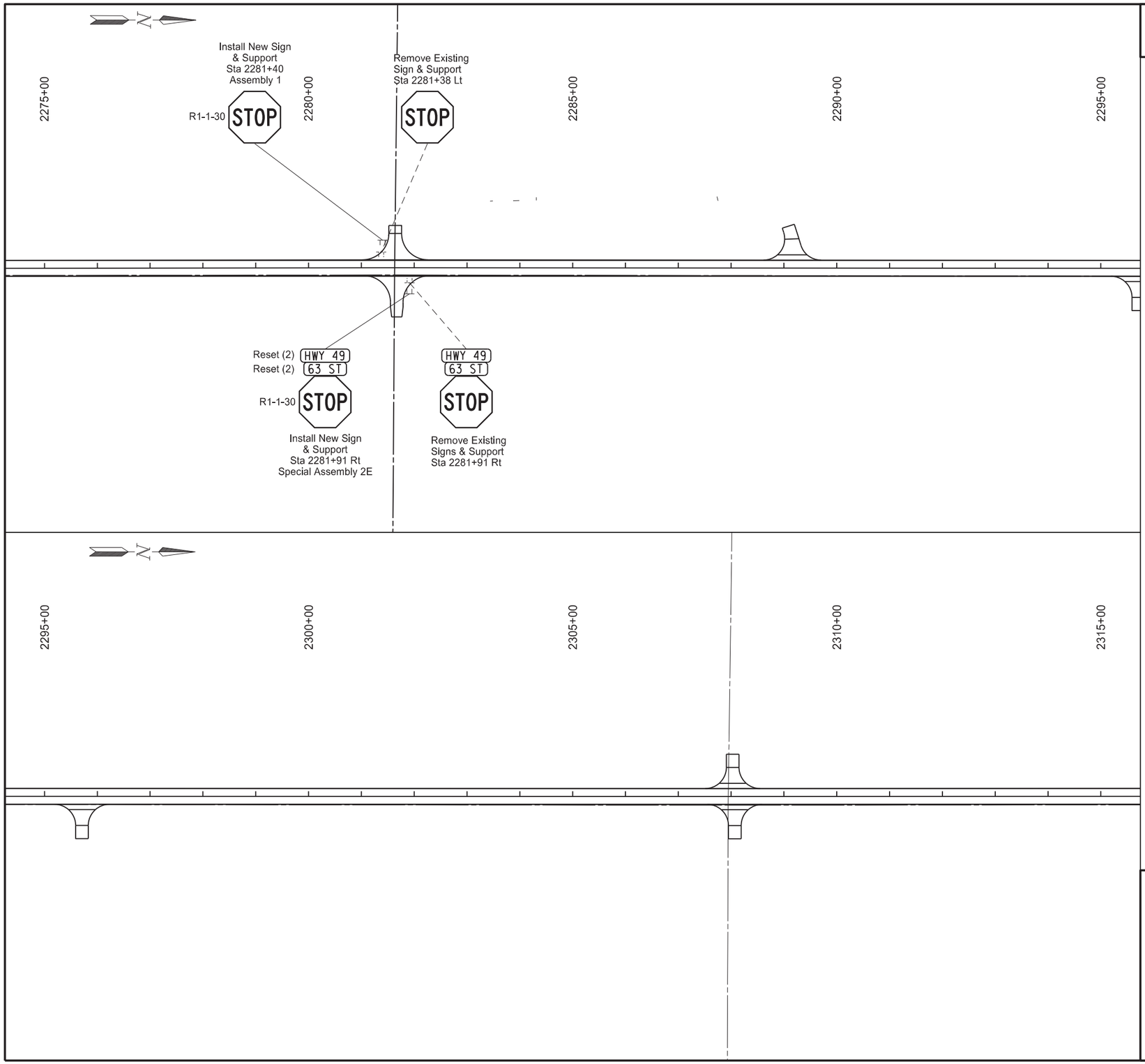
Signing Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2195+00 to 2235+00

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
2024.12.02
DATE 08:56:55-07'0
0'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	110	9



Signing Layout

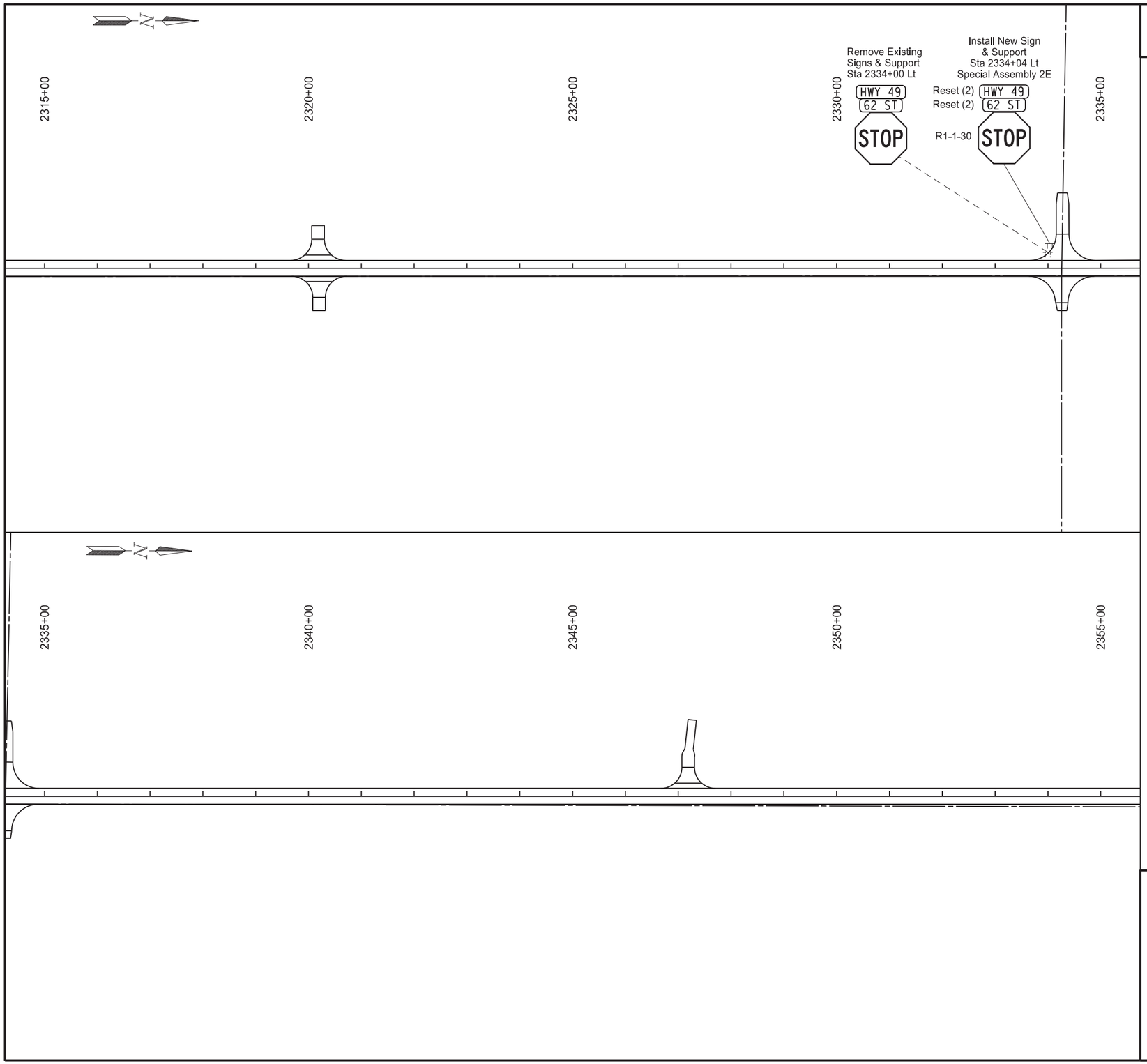
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2275+00 to 2315+00

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
2024.12.02 08:56:25-07'0
DATE 0'
NORTH DAKOTA

11/8/2024 10:23:37 AM Kasey.Ward K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Traffic\110SN\110SN_003-015.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	110	10



Signing Layout

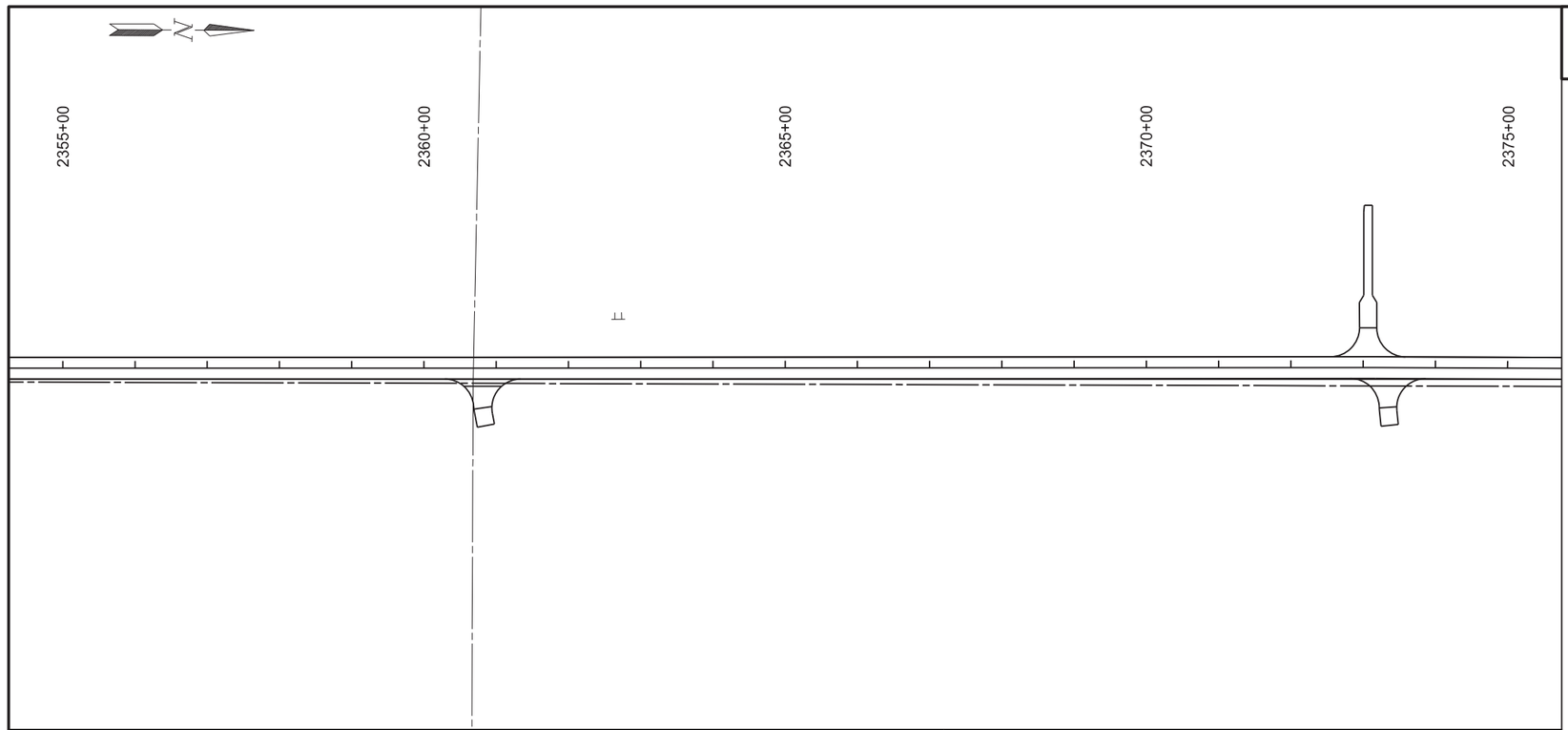
ND 49 - Jct 21 Elgin N to 58th St SW

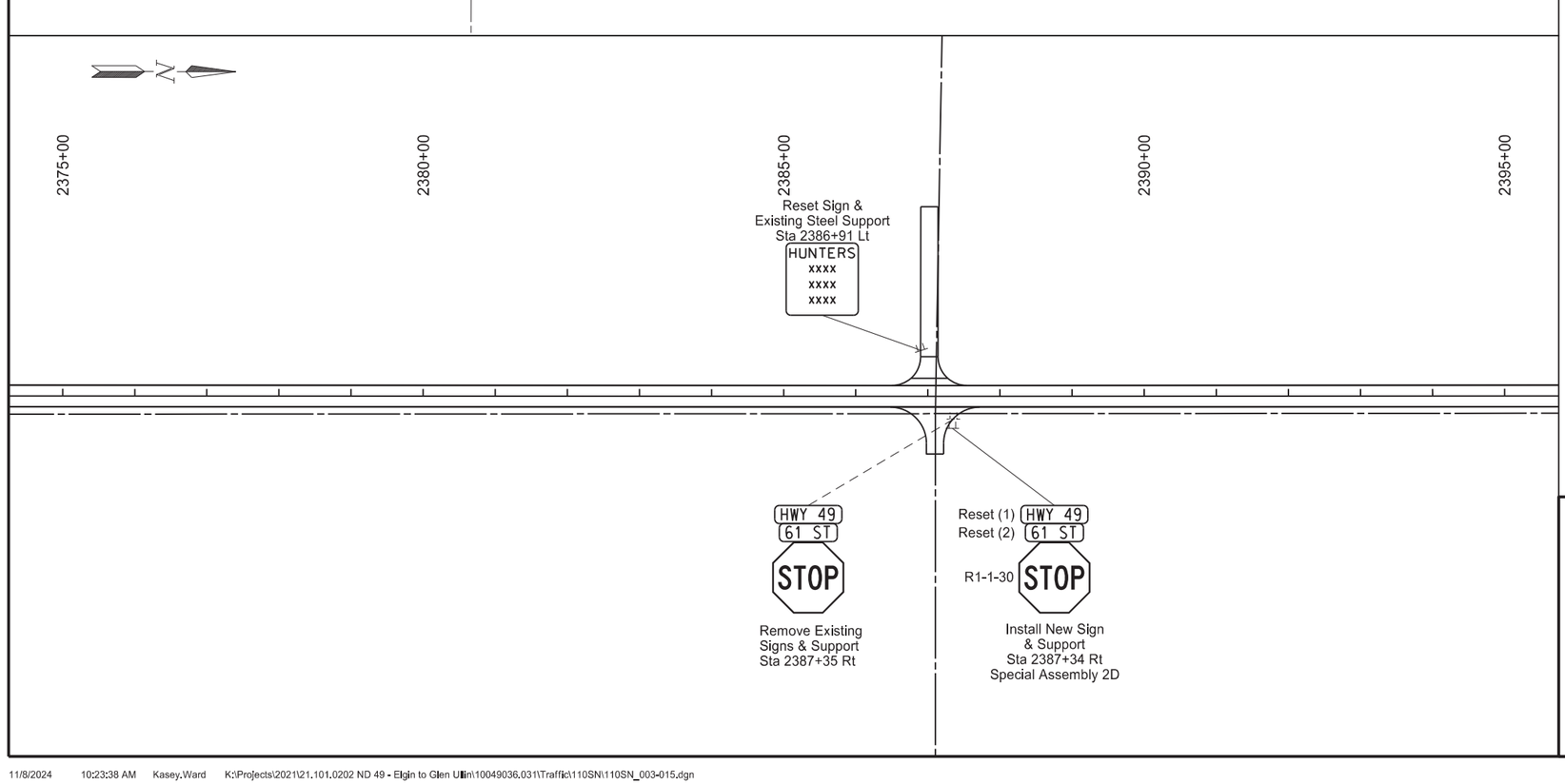
Sta 2315+00 to 2355+00

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
2024.12.02 08:54:58-07'00'
DATE
NORTH DAKOTA

11/8/2024 10:23:38 AM Kasey.Ward K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Traffic\110SN\110SN_003-015.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	110	11





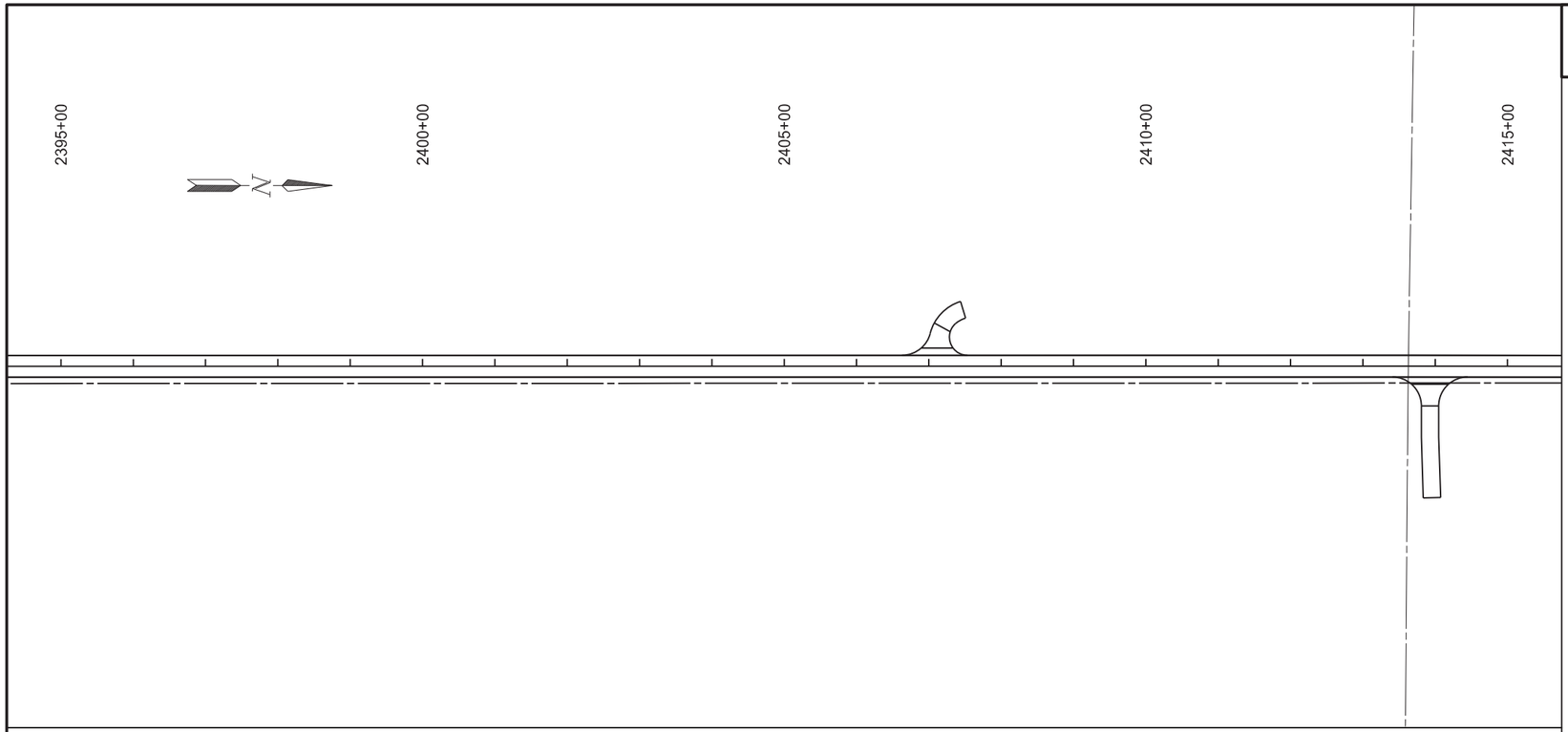
Signing Layout

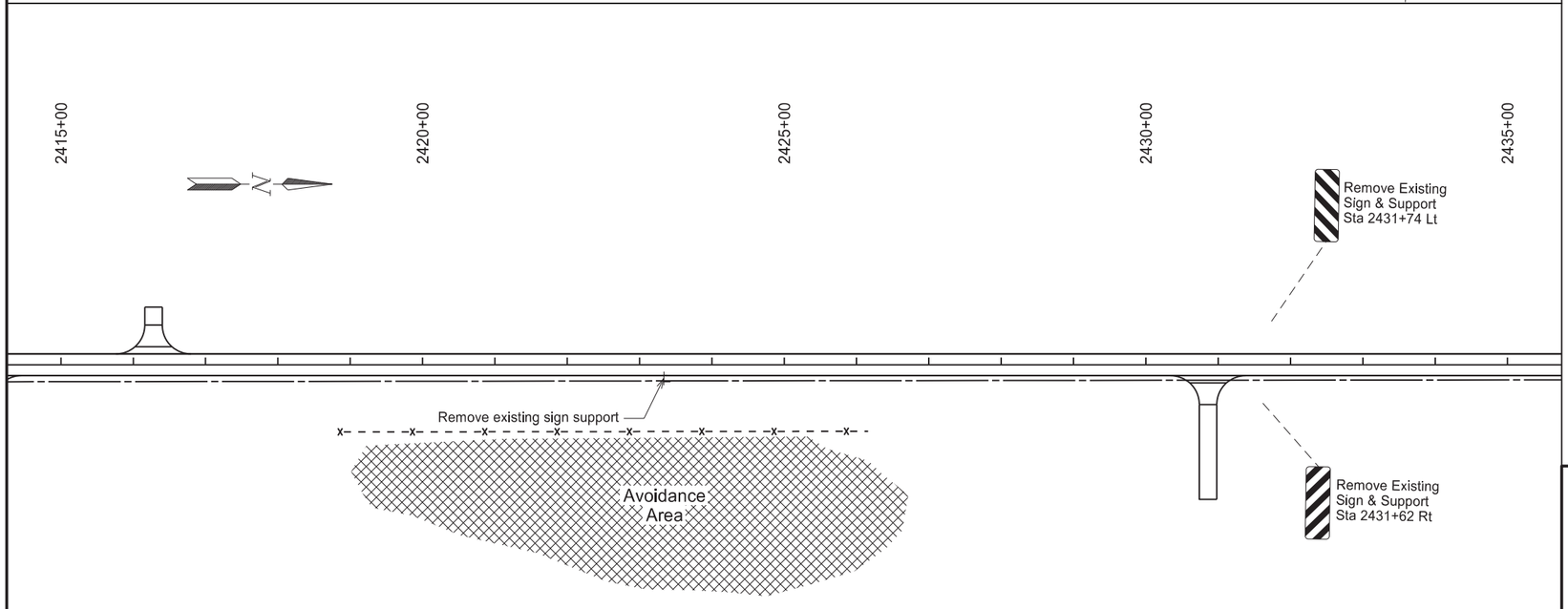
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2355+00 to 2395+00

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
DATE 2024.12.02 08:53:25-07' 00'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	110	12





Signing Layout

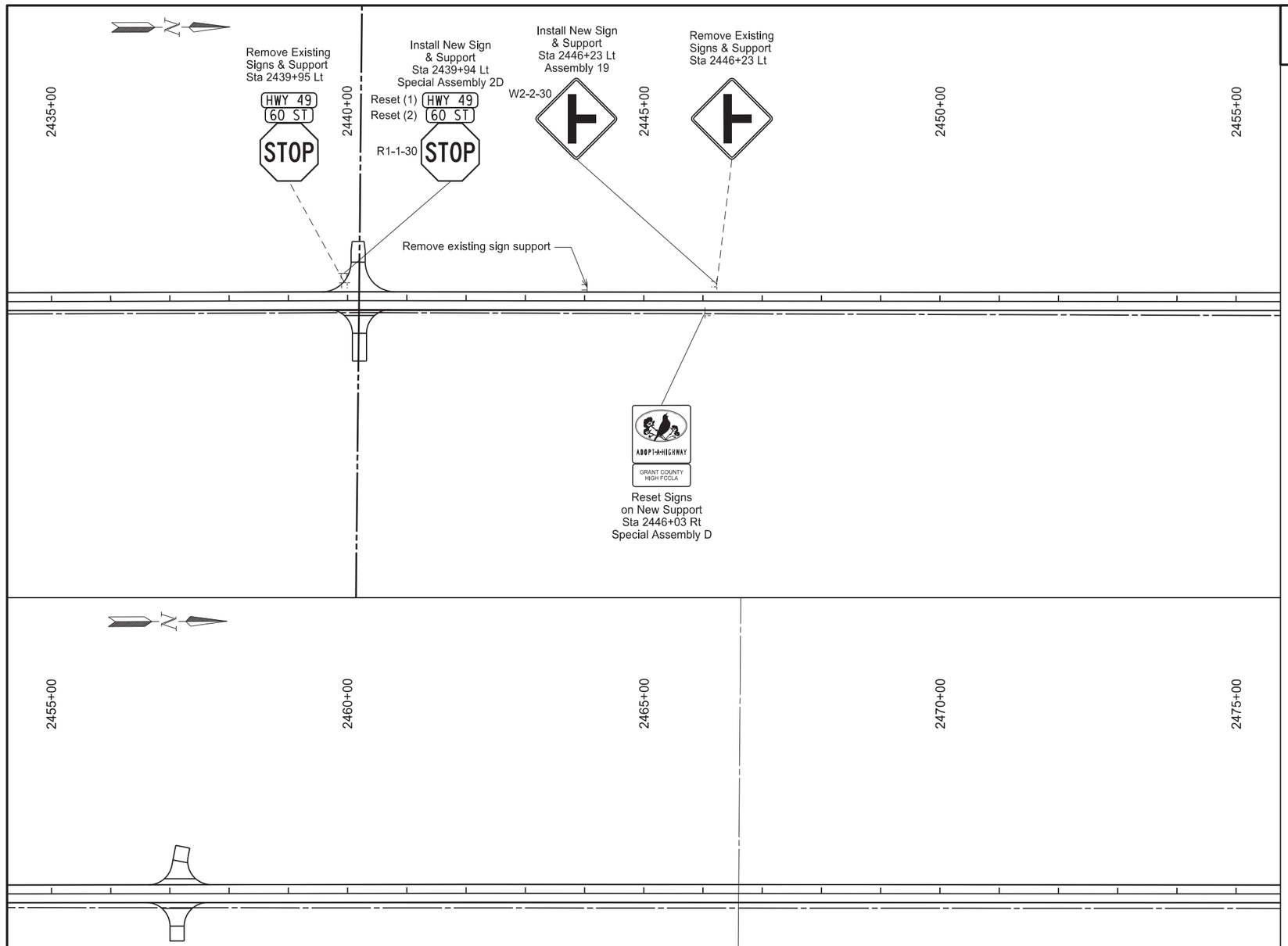
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2395+00 to 2435+00

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
2024.12.02
DATE 08:53:13-07'0
0'
NORTH DAKOTA

11/8/2024 10:23:39 AM Kasey.Ward K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Traffic\110SN\110SN_003-015.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	110	13



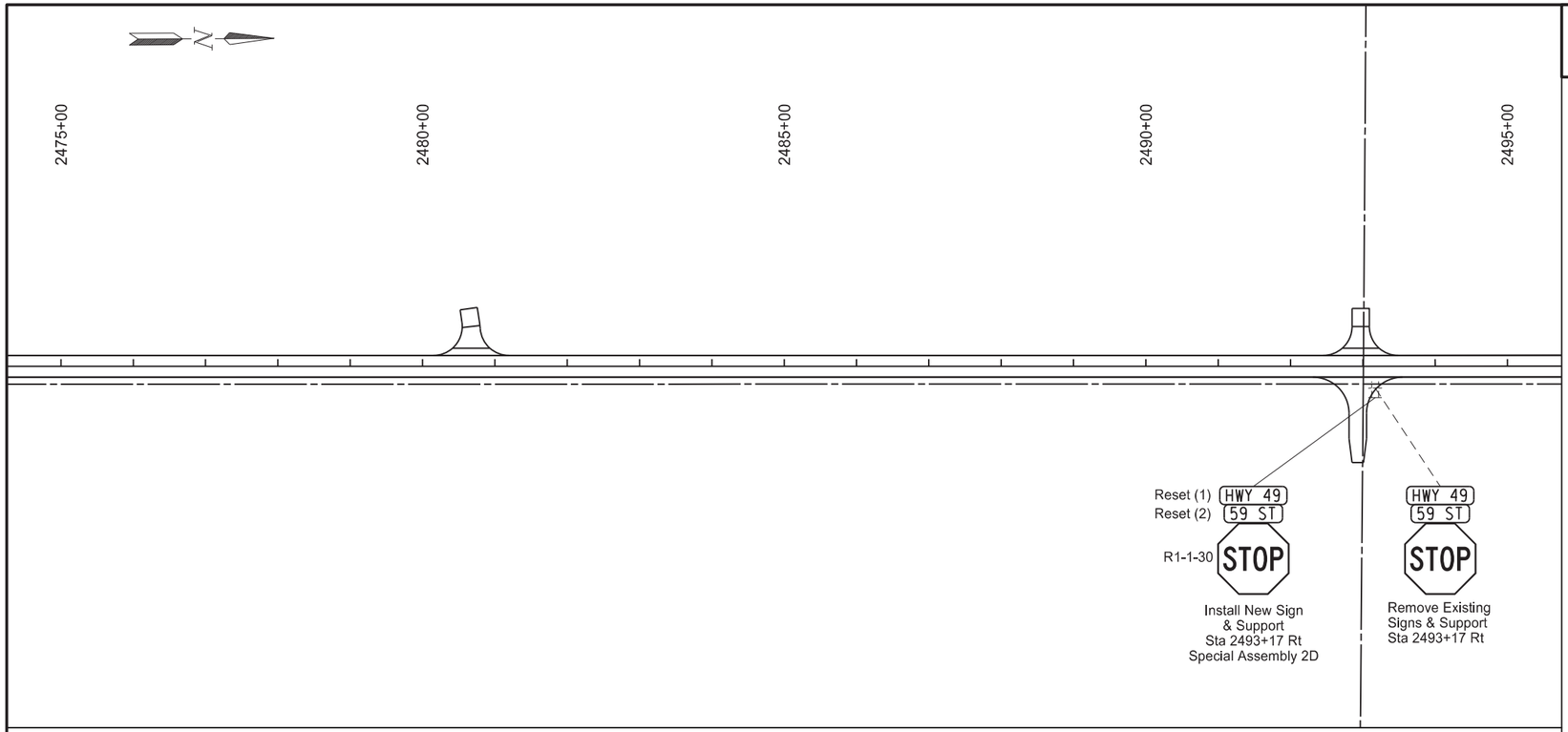
Signing Layout

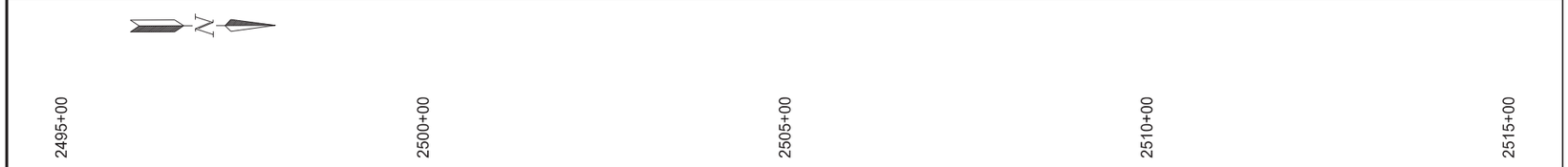
ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2435+00 to 2475+00

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
2024.12.02 08:53:02-07'0 0'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	110	14





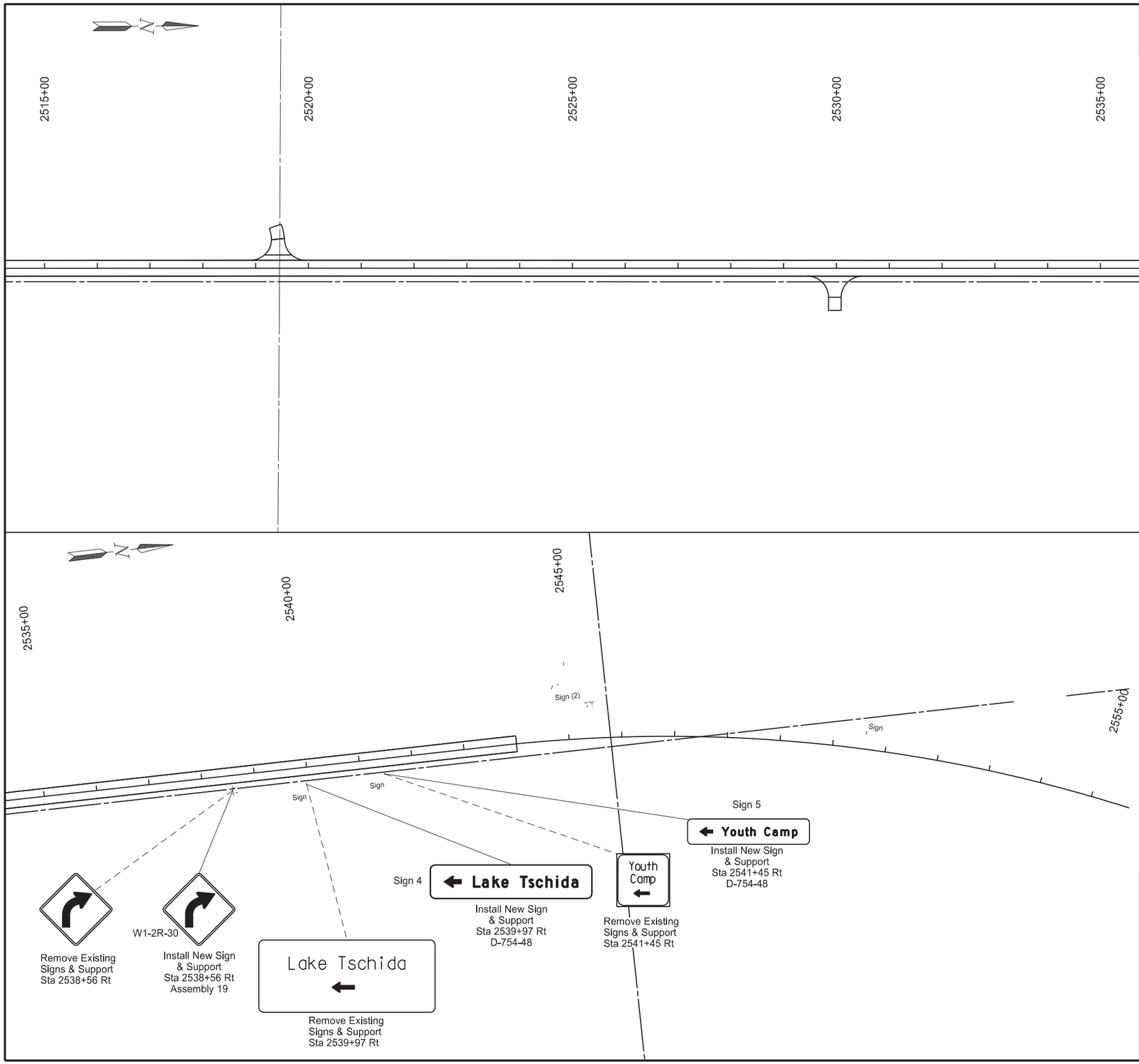
Signing Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2475+00 to 2515+00

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
2024.12.02
DATE 08:52:49-07'0
0'
NORTH DAKOTA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	110	15



Signing Layout

ND 49 - Jct 21 Elgin N to 58th St SW

Sta 2515+00 to 2544+00

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
DATE 2024.12.02 08:52:27-07' 00'
NORTH DAKOTA

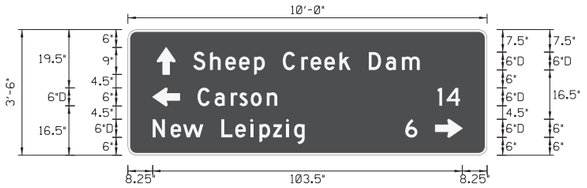
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	110	16

SIGN NUMBER	Sign 1
WIDTH X HEIGHT	10'-0" x 3'-6"
BORDER WIDTH	0.75" (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
ND_6IN_TYPE D	9.8	27	6	9	0
ND_6IN_TYPE D	8.3	16.5	6	9	90
ND_6IN_TYPE D	102.7	6	6	9	270

STATION(S):
1922+80 Lt

AREA: 35.0 Sq.Ft.



Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

PANEL STYLE: ND_Conv_Destination.ssl

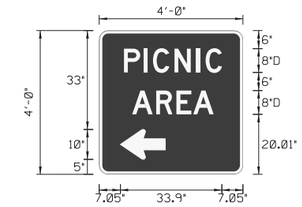
LETTER POSITION (X)																			LENGTH	SIZE	SERIES
S	h	e	e	p		C	r	e	e	k		D	a	m					75.7	6/4.5	D 2000
21.8	27.4	32.5	37.1	42.1	45.7	51.7	57.9	61	65.6	70.6	74.5	80.5	86.1	91.6							
C	a	r	s	o	n														26.6	6/4.5	D 2000
23.3	28.9	34.3	37.3	41	46.4																
1	4																		7.5	6	D 2000
103.5	106.5																				
N	e	w		L	e	i	p	z	i	g									50.8	6/4.5	D 2000
8.3	14.2	18.4	25.2	31.2	35.9	40.9	43.9	48.5	52.8	55.5											
6																			4.1	6	D 2000
92.6																					

SIGN NUMBER	Sign 2
WIDTH X HEIGHT	4'-0" x 4'-0"
BORDER WIDTH	1" (inset 0")
CORNER RADIUS	3"
MOUNTING	Ground
BACKGROUND	TYPE: IV Reflective
	COLOR: Blue
LEGEND/BORDER	TYPE: IV Reflective
	COLOR: White

SYMBOL	X	Y	WID	HT	ANGLE
ND_10IN_TYPE D	7	5	10	15	90

STATION(S):
1924+69 Lt

AREA: 16.0 Sq.Ft.



Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

PANEL STYLE: ND_Conv_Gen Serv_Rest-Roadside Area.ssl

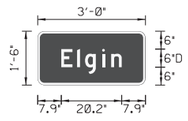
LETTER POSITION (X)																			LENGTH	SIZE	SERIES
P	I	C	N	I	C														32.7	8	D 2000
8.2	14.9	17.9	25.1	32.5	35.5																
A	R	E	A																27.2	8	D 2000
11	19	25.8	31.4																		

SIGN NUMBER	Sign 3
WIDTH X HEIGHT	3'-0" x 1'-6"
BORDER WIDTH	0.75" (inset 0")
CORNER RADIUS	2.25"
MOUNTING	Ground
BACKGROUND	TYPE: IV Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: IV Reflective
	COLOR: White

SYMBOL	X	Y	WID	HT	ANGLE

STATION(S):
1938+15 Lt

AREA: 4.5 Sq.Ft.



Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

PANEL STYLE: ND_Conv_Boundary.sst

LETTER POSITION (X)																			LENGTH	SIZE	SERIES
E	l	g	i	n															20.2	6/4.5	D 2000
7.9	13.2	15.8	21.5	24.6																	

Signing Details

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
DATE 2024.12.02 08:52:15-07' 00'
NORTH DAKOTA

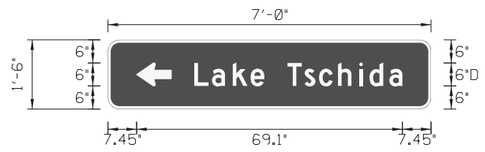
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	110	17

SIGN NUMBER	Sign 4
WIDTH X HEIGHT	7'-0" x 1'-6"
BORDER WIDTH	0.75" (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
ND_6IN_TYPE D	7.5	6	6	9	90

STATION(S): 2539+97 Rt

AREA: 10.5 Sq.Ft.



Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

PANEL STYLE: ND_Conv_Destination.ssl

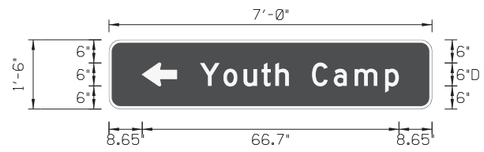
LETTER POSITION (X)																			LENGTH	SIZE	SERIES
L	a	k	e		T	s	c	h	i	d	a								54.1	6/4.5	D 2000
22.5	27	32.4	37.1	40.7	46.7	51.1	54.9	59.8	65.3	68	73.1										

SIGN NUMBER	Sign 5
WIDTH X HEIGHT	7'-0" x 1'-6"
BORDER WIDTH	0.75" (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
ND_6IN_TYPE D	8.6	6	6	9	90

STATION(S): 2541+45

AREA: 10.5 Sq.Ft.



Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

PANEL STYLE: ND_Conv_Destination.ssl

LETTER POSITION (X)																			LENGTH	SIZE	SERIES
Y	o	u	t	h		C	a	m	p										51.7	6/4.5	D 2000
23.6	29.7	35	39.7	43.2	46.8	52.8	58.4	63.8	71.8												

Signing Details

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
2024.12.02
DATE 08:50:48-07'0
0'
NORTH DAKOTA

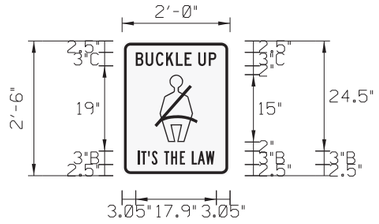
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	110	18

SIGN NUMBER	Sign 6
WIDTH X HEIGHT	2'-0" x 2'-6"
BORDER WIDTH	0.63" (inset 0.38")
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: XI Reflective
	COLOR: White
LEGEND/BORDER	TYPE: Non-reflective
	COLOR: Black

SYMBOL	X	Y	WID	HT	ANGLE
Seat Belt	7.2	7.5	9.7	15	0

STATION(S):
1930+26 Rt

AREA: 5.0 Sq.Ft.



Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

PANEL STYLE: ND_Misc_Regulatory.ssl

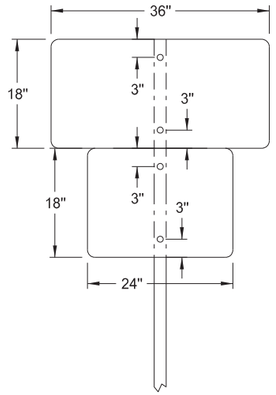
LETTER POSITION (X)																		LENGTH	SIZE	SERIES
B	U	C	K	L	E	U	P											17.9	3	C 2000
3	5.2	7.5	9.8	12	13.9	17	19.3													
I	T	'	S	T	H	E	L	A	W									17.1	3	B 2000
3.5	4.3	5.7	6.6	9.4	10.9	12.9	15.5	16.8	18.6											

Signing Details

ND 49 - Jct 21 Elgin N to 58th St SW

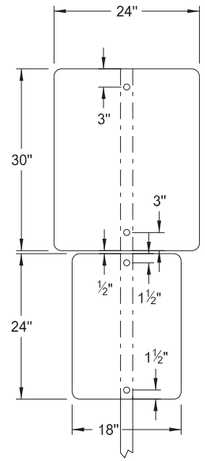
REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
2024.12.02 08:50:32-07'00'
DATE
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	110	19



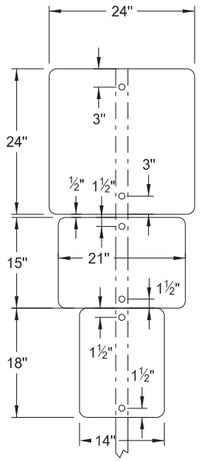
Special Assembly A
Area = 7.5 SF
(Perforated Steel Tube)

Sta 1938+15 Lt



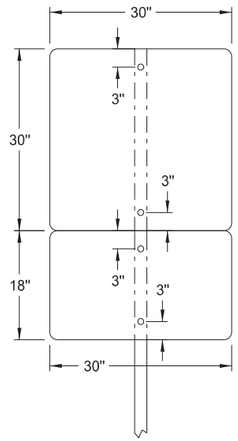
Special Assembly B
Area = 8.0 SF
(Perforated Steel Tube)

Sta 1922+33 Lt



Special Assembly C
Area = 7.9 SF
(Perforated Steel Tube)

Sta 1944+62 Lt



Special Assembly D
Area = 10.0 SF
(Perforated Steel Tube)

Sta 2446+03 Rt

Special Assemblies

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
2024.12.02 08:50:05-07'00'
NORTH DAKOTA

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	120	1

Centerline Pavement Markings - ND 49 (Table 1 of 3)				
762 - 1106 PVMT MK PAINTED 6IN LINE				
Begin Station	End Station	CL Skips (yellow)	SB Barrier (Lt) (yellow)	NB Barrier (Rt) (yellow)
1918+48	1922+42	See Sheet 3		
1922+42	1925+56	0	314	314
1926+03	1934+49	212	846	0
1934+49	1940+35	0	586	586
1941+11	1952+50	0	1139	1139
1952+50	1962+87	259	1037	0
1962+87	1986+63	594	0	0
1986+63	1995+54	223	0	891
1995+54	1999+33	95	0	0
1999+33	2007+37	201	804	0
2007+37	2023+74	409	0	0
2023+74	2034+76	276	0	1102
2034+76	2036+13	0	137	137
2036+13	2042+86	168	673	0
2042+86	2049+34	0	648	648
2049+34	2054+53	130	0	519
2054+53	2054+79	0	26	26
2054+79	2065+17	260	1038	0
2065+17	2066+00	21	0	0
2066+00	2074+17	204	0	817
2074+17	2077+63	87	0	0
2077+63	2086+26	216	863	0
2086+26	2160+22	1849	0	0
2160+22	2170+02	245	0	980
2170+02	2172+04	51	0	0
2172+04	2182+21	254	1017	0
2182+21	2199+65	436	0	0
2199+65	2208+18	213	0	853
2208+18	2211+19	75	0	0
2211+19	2219+27	202	808	0
2219+27	2237+57	458	0	0
2237+57	2248+79	281	0	1122
2248+79	2251+69	0	290	290
2251+69	2264+02	308	1233	0
2264+02	2279+02	375	0	0
2279+02	2284+81	145	0	579
2284+81	2290+60	145	0	0
2290+60	2296+36	144	576	0
2296+36	2330+22	847	0	0
2330+22	2341+19	274	0	1097
2341+19	2342+60	35	0	0
2342+60	2350+95	209	835	0
2350+95	2353+44	0	249	249
2353+44	2361+70	207	0	826
2361+70	2363+10	35	0	0
2363+10	2372+82	243	972	0
2372+82	2373+50	17	0	0
2373+50	2386+48	325	0	1298
2386+48	2388+48	0	200	200
2388+48	2398+25	244	977	0
2398+25	2400+76	0	251	251
2400+76	2410+12	234	0	936
2410+12	2410+42	0	30	30
2410+42	2421+89	287	1147	0
2421+89	2432+59	268	0	0
2432+59	2443+78	280	0	1119
2443+78	2460+24	0	1646	1646
2460+24	2472+59	309	1235	0
2472+59	2497+58	625	0	0
2497+58	2510+00	311	0	1242
2510+00	2512+05	0	205	205
2512+05	2524+47	311	1242	0
2524+47	2533+85	235	0	0
2533+85	2544+25	260	0	1040
Subtotal		14,088 LF	41,166 LF	
Total		55,254 LF		

Edge Line Pavement Markings - ND 49 (Table 2 of 3)			
762 - 1106 PVMT MK PAINTED 6IN LINE			
Begin Station	End Station	SB Edgeline (Lt) (white)	NB Edgeline (Rt) (white)
1918+48	1922+42	See Sheet 3	
1922+36	1922+47	0	11
1922+47	1925+42	295	295
1925+42	1926+22	0	80
1926+22	1927+35	113	113
1927+35	1927+96	61	0
1927+96	1935+60	764	764
1935+60	1936+30	70	0
1936+30	1940+19	389	389
1940+19	1941+03	0	84
1941+03	1950+99	996	996
1950+99	1951+64	0	65
1951+64	1967+07	1,543	1,543
1967+07	1967+68	61	0
1967+68	2019+75	5,207	5,207
2019+75	2020+44	69	0
2020+44	2072+92	5,248	5,248
2072+92	2072+93	0	1
2072+93	2073+57	0	0
2073+57	2073+58	0	1
2073+58	2122+87	4,929	4,929
2122+87	2122+90	3	0
2122+90	2123+55	0	0
2123+55	2123+56	1	0
2123+56	2228+34	10,478	10,478
2228+34	2228+45	0	11
2228+45	2229+15	0	0
2229+15	2229+20	0	5
2229+20	2281+33	5,213	5,213
2281+33	2281+44	0	11
2281+44	2282+00	0	0
2282+00	2282+01	0	1
2282+01	2333+90	5,189	5,189
2333+90	2334+54	0	64
2334+54	2386+84	5,230	5,230
2386+84	2387+43	59	0
2387+43	2439+89	5,246	5,246
2439+89	2440+46	0	57
2440+46	2544+25	10,379	10,379
Total		123,153 LF	

Short Term Pavement Marking - Removable - ND 49		
	762 - 0422 SHORT TERM 6IN LINE-TYPE R	762 - 0426 SHORT TERM 24IN LINE-TYPE R
	White	White
Sta 1989+33 (Temp widening)	2,667	24
Sta 2221+22 (Approach Slab	2,667	24
Sta 2431+67 (Temp widening)	2,667	24
Totals	8,000	72

Quantities as shown in Section 100 sheet 1

Short Term Pavement Marking - ND 49		
762 - 0432 SHORT TERM 6IN LINE-TYPE NR		
Location	Basis	Quantity
Centerline - Top of Milled Surface	Centerline Skips	14,088
	Barrier Stripes	41,166
Centerline - Top of 1st Lift	Centerline Skips	14,088
	Barrier Stripes	41,166
Centerline - Top of 2nd Lift	Centerline Skips	14,088
	Barrier Stripes	41,166
Centerline - Top of Fogged CL Rumble Strips	Centerline Skips	14,088
	Barrier Stripes	41,166
Total		221,016 LF

Permanent Pavement Marking Detail Summary (Table 3 of 3)				
STATION / LOCATION	762 - 0103 MESSAGE	762 - 1106 6IN LINE	762 - 1112 12IN LINE	762 - 1124 24IN LINE
Section 120 Sheet 3	52	2,416	88	12
Centerline Pavement Marking (Table 1 of 3)	-	55,254	-	-
Edgeline Pavement Marking (Table 2 of 3)	-	123,153	-	-
Total	52 SF	180,823 LF	88 LF	12 LF

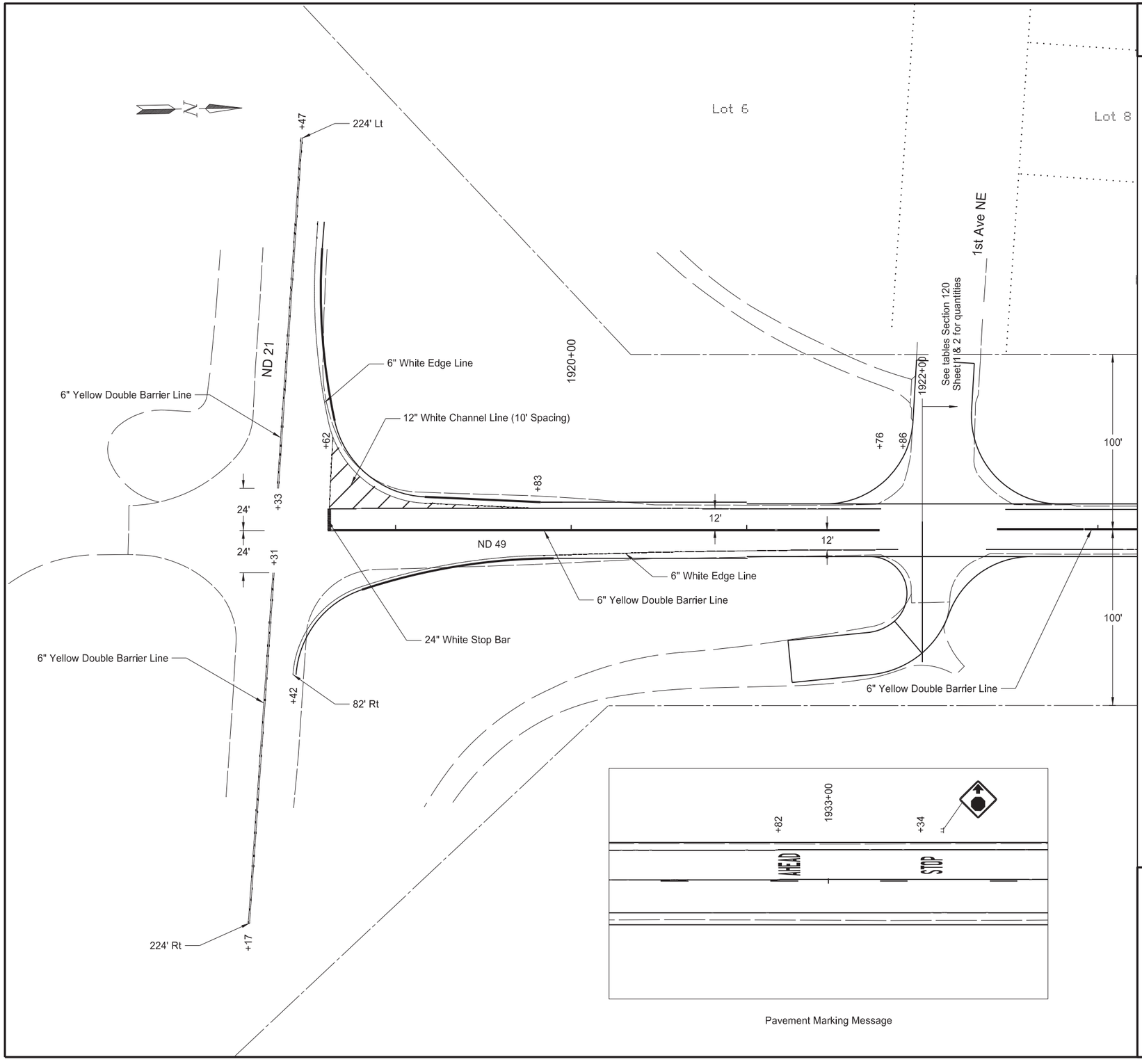
Permanent Pavement Marking Total Quantity Summary		
Spec - Code	Bid Item	Quantity
762 - 0103	PERFORMED PATTERENED PVMT MK-MESSAGE	52 SF
762 - 1106	PVMT MK PAINTED 6IN LINE	180,823 LF
762 - 1112	PVMT MK PAINTED 12IN LINE	88 LF
762 - 1124	PVMT MK PAINTED 24IN LINE	12 LF

Pavement Marking Summary

ND 49 - Jct 21 Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
AMANDA N. VETTER
PE-28802
2024.11.18 14:21:38-07'00'
DATE
NORTH DAKOTA

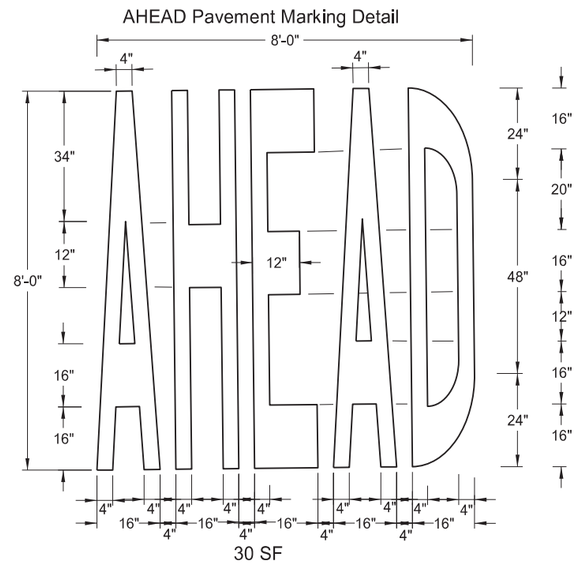
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	120	2



Pavement Marking Message

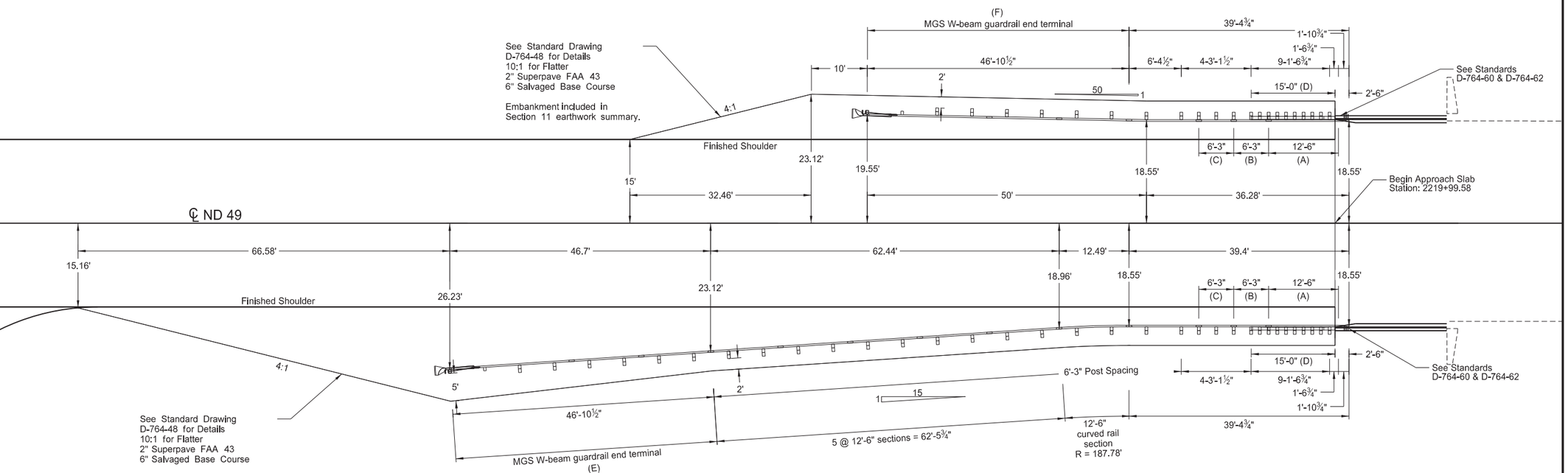
SPEC	CODE	BID ITEM	QTY	UNIT
762	0103	PVMT MK PAINTED-MESSAGE		
		STOP AHEAD	52	SF
762	1106	PVMT MK PAINTED 6IN LINE		
		6" White Edge Line	988	LF
		6" Yellow Barrier Line	1,428	LF
762	1112	PVMT MK PAINTED 12IN LINE		
		12" White Channel Line	88	LF
762	1124	PVMT MK PAINTED 24IN LINE		
		24" White Stop Bar	12	LF

AHEAD Pavement Marking Detail


8'-0"
4"
4"
34"
12"
8'-0"
16"
16"
12"
48"
24"
16"
20"
12"
16"
16"
24"
16"
4"
4"
4

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	130	1

23 USC § 407 Documents
NDDOT Reserves All Objections



(A) Thrie beam double rail section (12 Gauge).

(B) Thrie beam rail section

(C) Asymetrical W-Thrie beam transition section

(D) Curb & Gutter Type 1 Special. Install in accordance with Standard Drawing D-748-1, except for transitions on each end as shown on Standard Drawing D-764-60.

(E) Install a FLEAT Terminal at this location. See Standard Drawing D-764-38

(F) Install either a SoftStop or SKT at this location. Planview shows an SKT installation. See Standard Drawings D-764-50 or D-764-51 for details.

Thrie/MGS W-Beam Guardrail Layout
Beginning of Bridge
Antelope Creek Bridge
RP 042.060

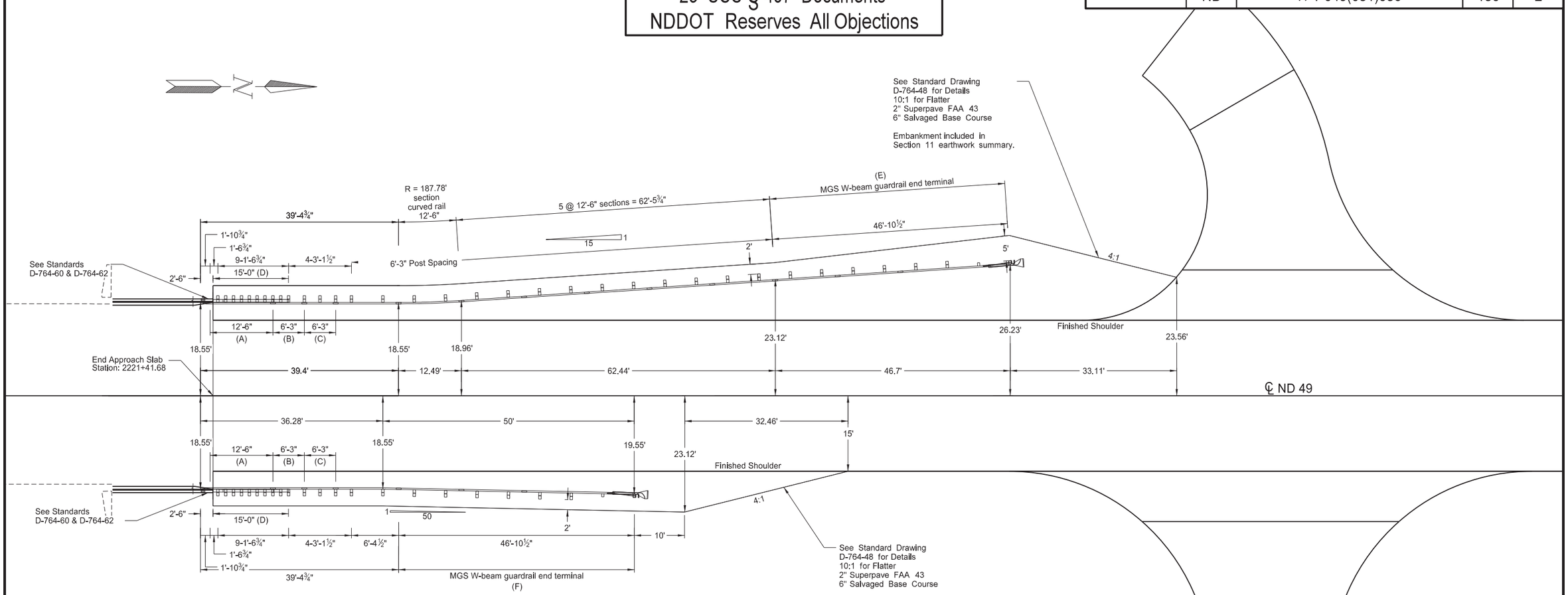
ND 49 - Jct Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
ALEX E. AUSK
PE-10915
DATE 2024.11.20 15:53:13 -06'00'
NORTH DAKOTA

11/20/2024 3:18:34 PM Kasey.Ward K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Traffic\130GR\130GR_001-003.dgn

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	130	2

23 USC § 407 Documents
NDDOT Reserves All Objections



(A) Thrie beam double rail section (12 Gauge).

(B) Thrie beam rail section

(C) Asymetrical W-Thrie beam transition section

(D) Curb & Gutter Type 1 Special. Install in accordance with Standard Drawing D-748-1, except for transitions on each end as shown on Standard Drawing D-764-60.

(E) Install a FLEAT Terminal at this location. See Standard Drawing D-764-38

(F) Install either a SoftStop or SKT at this location. Planview shows an SKT installation. See Standard Drawings D-764-50 or D-764-51 for details.

Thrie/MGS W-Beam Guardrail Layout
End of Bridge
Antelope Creek Bridge
RP 042.060

ND 49 - Jct Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
ALEX E. AUSK
PE-10915
DATE 2024.11.20 15:53:49 -06'00'
NORTH DAKOTA

11/20/2024 3:18:34 PM Kasey.Ward K:\Projects\2021\21.101.0202 ND 49 - Elgin to Glen Ullin\10049036.031\Traffic\130GR\130GR_001-003.dgn

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	X-1-049(031)036	130	3

23 USC § 407 Documents
NDDOT Reserves All Objections

MGS W-BEAM GUARDRAIL SUMMARY OF QUANTITIES
MGS W-BEAM GUARDRAIL AT BRIDGE ENDS

LOCATION	5/8" DIA X 18" LONG GUARDRAIL BOLT	6" X 8" X 6-0' TIMBER POST	6" X 8" X 14" WOOD OFFSET BLOCK	5/8" DIA X 1-1/4" BUTTON HEAD SPLICE BOLTS	5/8" DIA X 2" BUTTON HEAD SPLICE BOLTS	12'-6" STRAIGHT RAIL SECTION	12'-6" CURVED RAIL SECTION	REFLECTORIZED PLATES	6" X 8" X 7-0' TIMBER POST	6" X 8" X 19" WOOD OFFSET BLOCK	6'-3" NON-SYMMETRICAL TRANSITION TO W-BEAM	6'-3" THRIE BEAM SECTION	12'-6" THRIE BEAM DOUBLE RAIL SECTION	2'6" THRIE BEAM TERMINAL CONNECTOR	7/8" DIA x 15" LONG HEX HEAD BOLT	JERSEY BARRIER TO THRIE BEAM CONNECTO R PLATE
	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
Sta 2219+82.68 Lt to Sta 2220+22.08 Lt	26	9	3	60	36	1	0	5	6	12	1	1	1	1	5	1
Sta 2219+07.78 Rt to Sta 2220+22.08 Rt	38	21	15	16	36	6	1	8	6	12	1	1	1	1	5	1
Sta 2221+19.08 Lt to Sta 2222+33.38 Lt	38	21	15	16	36	6	1	8	6	12	1	1	1	1	5	1
Sta 2221+19.08 Rt to Sta 2221+58.48 Rt	26	9	3	60	36	1	0	5	6	12	1	1	1	1	5	1
TOTAL	128	60	36	152	144	14	2	26	24	48	4	4	4	4	20	4

Note:
Include these items in the price bid for "W-Beam Guardrail"

SPEC	CODE	BID ITEM	QTY	UNIT
748	0141	CURB & GUTTER-TYPE 1 SPECIAL		
		Sta 2220+04.58 to 2220+19.58 Lt	15	LF
		Sta 2220+04.58 to 2220+19.58 Rt	15	LF
		Sta 2221+21.58 to 2221+36.58 Lt	15	LF
		Sta 2221+21.58 to 2221+36.58 Rt	15	LF
764	0131	W-BEAM GUARDRAIL		
		Sta 2219+82.68 to 2220+22.08 Lt	39.4	LF
		Sta 2219+07.78 to 2220+22.08 Rt	114.3	LF
		Sta 2221+19.08 to 2222+33.38 Lt	114.3	LF
		Sta 2221+19.08 to 2221+58.48 Rt	39.4	LF
764	0145	W-BEAM GUARDRAIL END TERMINAL		
		Sta 2219+35.81 to 2219+82.68 Lt	1	EA
		Sta 2218+73.52 to 2219+07.78 Rt	1	EA
		Sta 2222+33.38 to 2222+67.62 Lt	1	EA
		Sta 2221+58.48 to 2222+05.34 Rt	1	EA
764	0151	REMOVE W-BEAM GUARDRAIL & POSTS		
		Sta 2219+74.58 to 2220+12.08 Lt	37.5	LF
		Sta 2219+12.08 to 2220+12.08 Rt	100	LF
		Sta 2221+29.18 to 2222+29.18 Lt	100	LF
		Sta 2221+29.18 to 2221+66.68 Rt	37.5	LF
764	2081	REMOVE END TREATMENT & TRANSITION		
		Sta 2219+20.33 to 2219+74.58 Lt	1	EA
		Sta 2218+58.58 to 2219+12.08 Rt	1	EA
		Sta 2222+29.18 to 2222+83.00 Lt	1	EA
		Sta 2221+66.68 to 2222+20.87 Rt	1	EA

Thrie/MGS W-Beam Guarail Quantities
Antelope Creek Bridge
Str No. 042.060

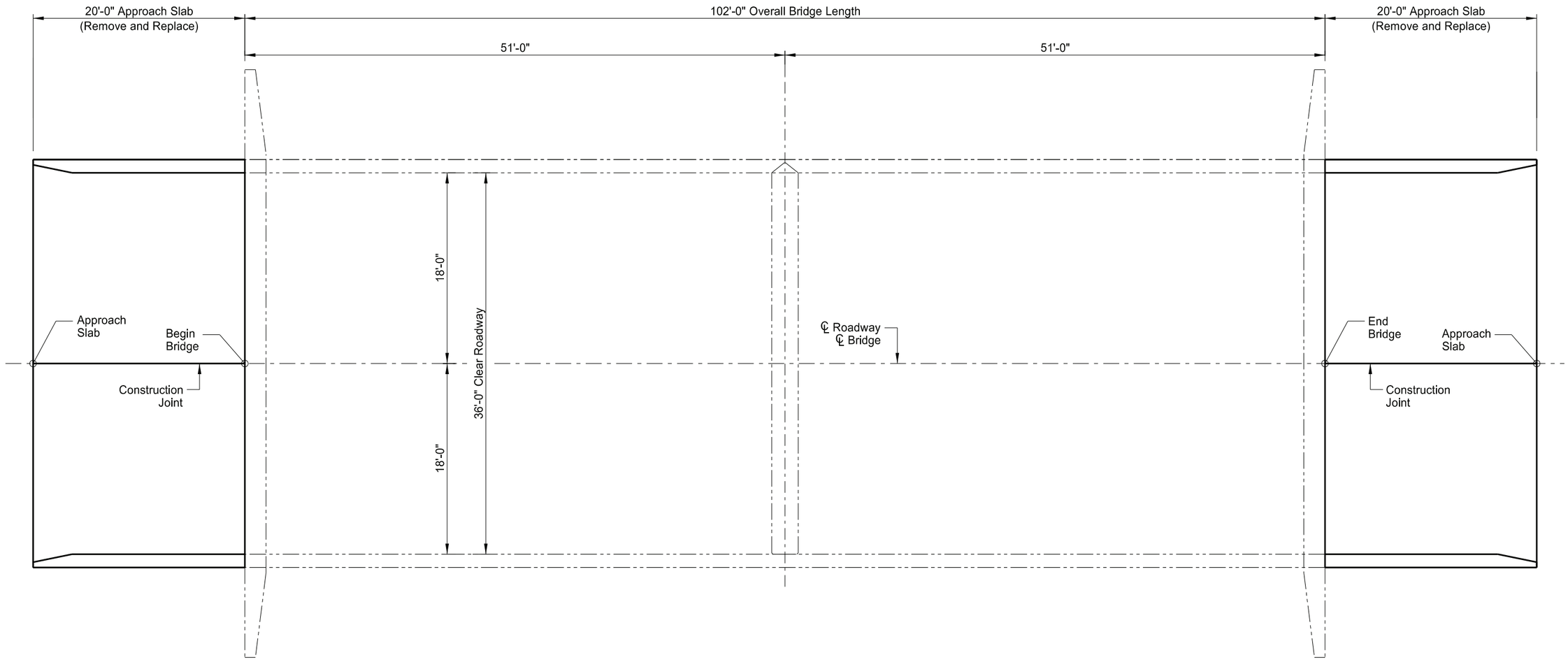
ND 49 - Jct Elgin N to 58th St SW

REGISTERED PROFESSIONAL ENGINEER
ALEX E. AUSK
PE-10915
DATE 2024.11.20 15:54:09 -06'00'
NORTH DAKOTA

Docusign Envelope ID: A61C8B1E-9469-8829-831A-75DE5DAB4495

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

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	170	1



PLAN

BRIDGE BID ITEMS

SPEC	CODE	ITEM DESCRIPTION	UNIT	QUANTITY
602	1135	BRIDGE APPROACH SLAB-REMOVE & REPLACE	SY	171.2
602	1250	PENETRATING WATER REPELLENT TREATMENT	SY	569
602	7000	SPECIAL SURFACE FINISH	SF	685
930	9223	CRACK SEALING	LF	130
930	9639	APPROACH SLAB LIP REPAIR	LF	77

REGISTERED PROFESSIONAL ENGINEER
RYAN A. RYKOWSKY
PE-6691
DATE: 07/16/26
NORTH DAKOTA

6 NORTH OF ND 21
ANTELOPE CREEK

BRIDGE LAYOUT

ND DEPARTMENT OF TRANSPORTATION
BRIDGE DIVISION

Jason Thorenson
07/16/26

Docusign Envelope ID: A61C8B1E-9469-8829-831A-75DE5DAB4495

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

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	170	2

NOTES

100 SCOPE OF WORK: Work at this site consists of removing and replacing approach slabs, approach lip repair, applying penetrating water repellent treatment, crack sealing, and applying special surface finish.

602 CONCRETE BRIDGE APPROACH SLABS: Survey the elevation of the approach pavement prior to conducting removals. Construct the new approach panels to proper crown and grade to maintain adequate drainage of the bridge and approaches.

602 SPECIAL SURFACE FINISH: Clean the surfaces that are to receive the Tex-Cote surface finish using sandblasting, shot blasting, or water-washing equipment to remove all dirt, grease, oil, efflorescence, and laitance. Ensure any curing compounds and release agents have been completely removed from the surfaces to receive the Tex-Cote surface finish.

Apply Tex-Cote XL 70 Bridge Cote with Silane to the inside and top surfaces of the new and existing concrete barriers. Apply the surface finish in accordance with the manufacturer's recommended application procedures to attain a dry film thickness of 15 mils.

Finish the surface with a uniform texture, color, and appearance free from fins, projections, cavities, and porous areas. Use a "sand" textured finish. Use gray surface finish color number 36424 meeting AMS-STD-595.

602 WATER WASHING EQUIPMENT: In addition to the water-washing equipment listed in Section 602.02 D, a cold water pressure washer that provides a minimum nozzle pressure of 3,000 psi may be used.

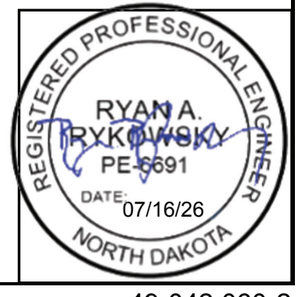
602 PENETRATING WATER REPELLENT TREATMENT: Apply penetrating water repellent to the driving surface of the bridge deck and approach slabs prior to crack sealing. Apply penetrating water repellent to the approach slab surfaces after the approach slabs have been in place for 14 days. Do not allow traffic on the driving surfaces until the solution has completely penetrated and the entire driving surface is dry.

930 CRACK SEALING: After the penetrating water repellent has been applied and is dry, the Engineer will perform a visual inspection of the bridge deck and approach slabs to determine the need for crack sealing. Mark and repair all visible cracks on the top surface measuring 0.012" or greater in width at the widest segment or as directed by the Engineer.

Immediately before applying the sealer, clean the cracks by removing all dust and debris with compressed air. Seal the cracks with a two-part epoxy in accordance with the manufacturer's recommendations. Chase crack with the sealant application to the limits of the crack, including those portions that are narrower than 0.012" wide. Use Paulco TE-2501 (Viking Paints, Inc.), Dural 50 LM (Euclid Chemical Co.), TK-9000 or TK-2110 (TK Products), or an approved equal epoxy sealer.

Include all material, labor, and equipment required to crack seal the bridge deck in the price bid for "Crack Sealing".

Include all material, labor, and equipment required to crack seal the bridge approach slabs in the price bid for "Bridge Approach Slab - Remove and Replace".

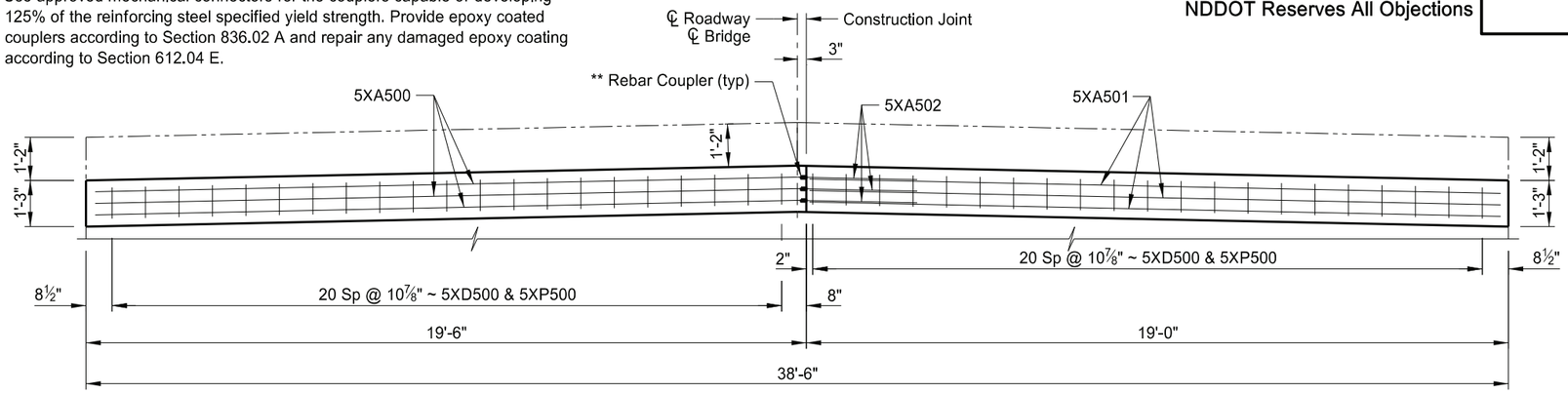


Docusign Envelope ID: A61C8B1E-9469-8829-831A-75DE5DAB4495

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

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	170	3

** Use approved mechanical connectors for the couplers capable of developing 125% of the reinforcing steel specified yield strength. Provide epoxy coated couplers according to Section 836.02 A and repair any damaged epoxy coating according to Section 612.04 E.



(SHOWING ONLY NEW REINFORCING)

ELEVATION

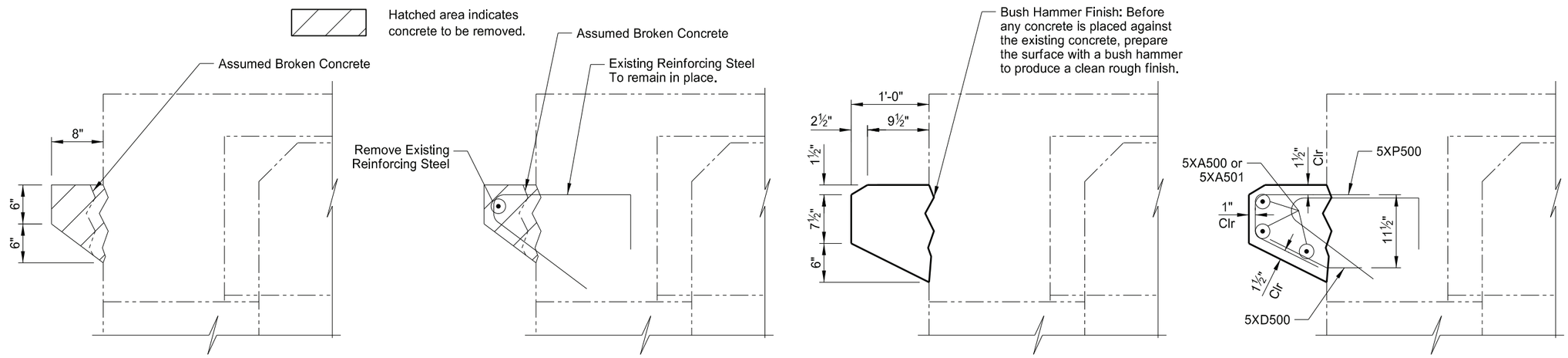
SKEW ANGLE = 0°

BAR LIST - ONE APPROACH LIP

SIZE	MARK	NO.	LENGTH
5	XA500	3	19'-3"
5	XA501	3	18'-8"
5	XA502	3	3'-0"
5	XD500	42	*1'-8"
5	XP500	42	*3'-0"

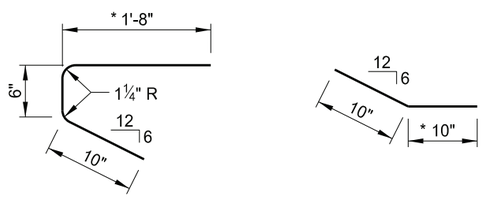
ESTIMATED MATERIAL QUANTITIES

REINFORCING STEEL (LBS)	CONCRETE (CY)
332	1.4



(SHOWING DIMENSIONS) (SHOWING REINFORCING) (SHOWING DIMENSIONS) (SHOWING REINFORCING)

EXISTING APPROACH SLAB LIP **NEW APPROACH SLAB LIP**



XP500 XD500

(DIMENSIONS SHOWN ARE OUT TO OUT)

BENT BAR DETAILS

* Length may vary depending on manufacturer's recommendations for anchorage. Provide a minimum anchorage length of 9 inches.

NOTES:

Provide Class AAE-3 concrete that meets Section 602.03 B and Grade 60 reinforcing Steel that meets Section 612. Provide a mix that will attain a compressive strength of 4,000 psi at 28 days. Use a curing period of at least five days.

Install the 5XD500 and 5XP500 bars according to the manufacturer's recommendations with a high strength adhesive specifically intended for concrete anchorage (16k min. ultimate pullout) that meets the requirements of Section 806.02.

Include all excavation and backfilling, labor, equipment, and materials required to remove the existing approach lip and to build the new approach lip in the bid item "Approach Slab Lip Repair."

The estimated material quantities shown are for informational purposes only.

The bar marks beginning with an "X" indicate an epoxy coated bar.

REGISTERED PROFESSIONAL ENGINEER
RYAN A. RYKOWSKY
PE-6691
DATE: 07/16/26
NORTH DAKOTA

QUANTITIES	(ONE APPROACH LIP)
APPROACH SLAB LIP REPAIR	38.5 LF

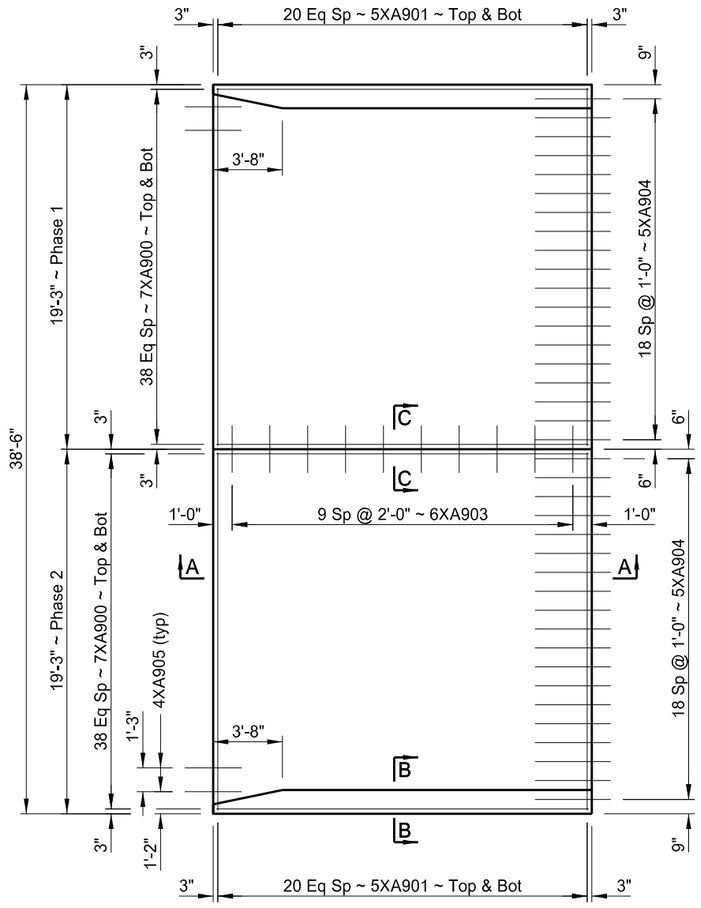
6 NORTH OF ND 21
ANTELOPE CREEK

APPROACH SLAB LIP REPAIR DETAILS

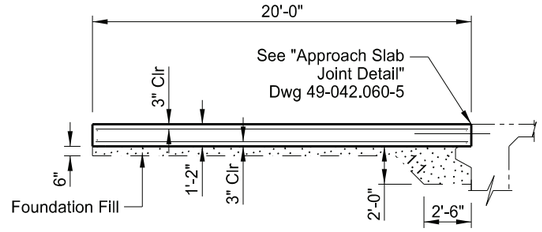
Docusign Envelope ID: A61C8B1E-9469-8829-831A-75DE5DAB4495

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

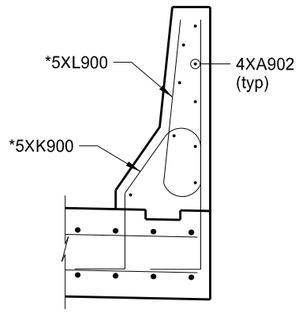
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	170	4



PLAN

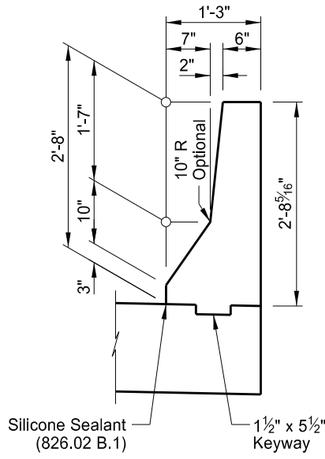


A-A



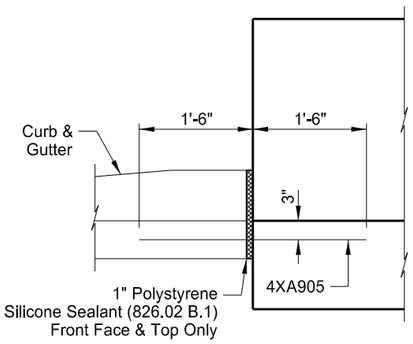
* Provide a 1½" clearance
to the barrier reinforcing.

SHOWING REINFORCING

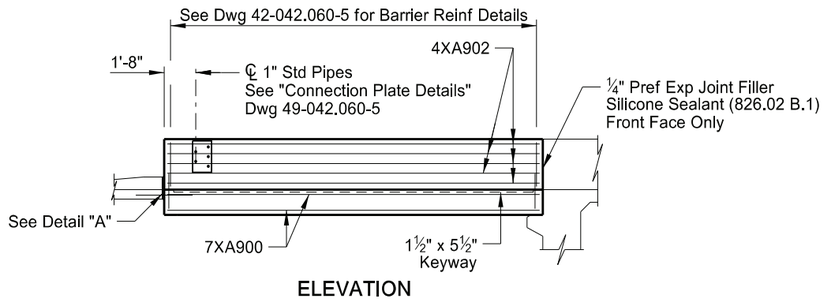


SHOWING DIMENSIONS

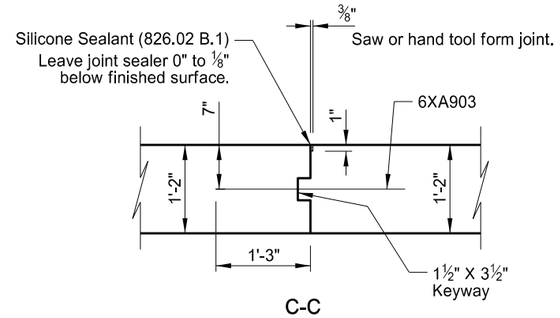
B-B



DETAIL "A"



ELEVATION



C-C

REGISTERED PROFESSIONAL ENGINEER
RYAN A. RYKOWSKY
PE-6691
DATE: 07/16/26
NORTH DAKOTA

QUANTITIES

SEE DWG 49-042.060-5

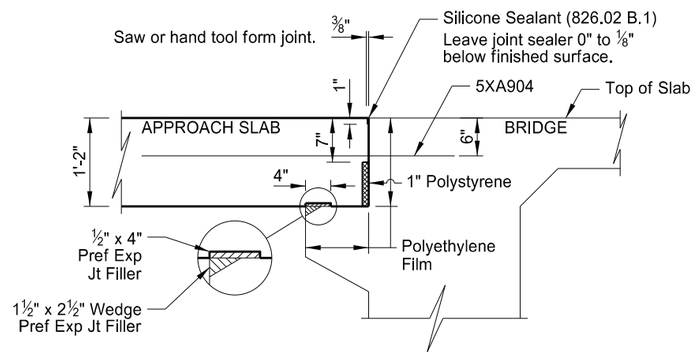
6 NORTH OF ND 21
ANTELOPE CREEK

APPROACH SLAB DETAILS

Docusign Envelope ID: A61C8B1E-9469-8829-831A-75DE5DAB4495

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

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	X-1-049(031)036	170	5



APPROACH SLAB JOINT DETAIL

NOTES:

The estimated material quantities shown are for information purposes only. Include the concrete, reinforcing bars, polyethylene film, preformed joint filler, polystyrene, silicone sealant, foundation fill, connection plates and pipes, and labor required to build the approach slabs and barriers in the pay item "Bridge Approach Slab-Remove & Replace." Use Class AAE-3 concrete and Grade 60 reinforcing steel. Provide a mix that will attain a compressive strength of 4,000 psi at 28 days. Use a curing period of at least five days. Provide reinforcing steel that meets the requirements of Section 612. Use polyethylene film that meets the requirements of ASTM C171.

The bar marks beginning with an "X" indicate an epoxy coated bar. The dimensions shown in the

"Bent Bar Details" are out to out. Radius values shown indicate the inside bend radius.

Install 5XA904 bars according to manufacturer's recommendations, with a high strength adhesive specifically intended for concrete anchorage (16k min. ultimate pullout) and that meets the requirements of Section 806.02. Provide a minimum anchorage length of 1 foot.

SKEW ANGLE = 0°

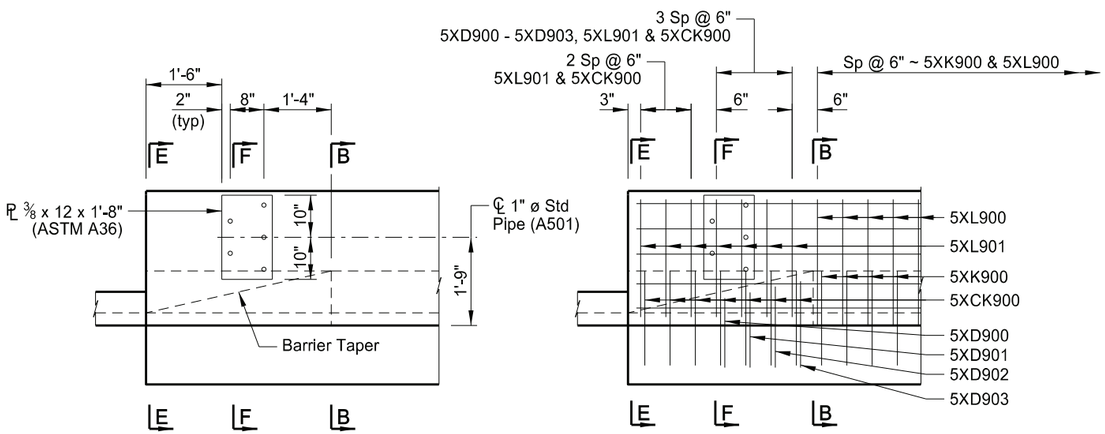
BAR LIST - ONE SLAB

SIZE	MARK	NO.	LENGTH
7	XA900	156	19'-8"
5	XA901	84	18'-11"
4	XA902	18	19'-8"
6	XA903	10	2'-6"
5	XA904	38	*4'-0"
4	XA905	4	3'-0"
5	XCK900	14	4'-8"
5	XD900	2	2'-0"
5	XD901	2	2'-2"
5	XD902	2	2'-4"
5	XD903	2	2'-6"
5	XK900	66	5'-7"
5	XL900	66	5'-1"
5	XL901	14	5'-0"

ESTIMATED MATERIAL QUANTITIES

REINFORCING STEEL (LBS)	CONCRETE (CY)
9,263	36.2

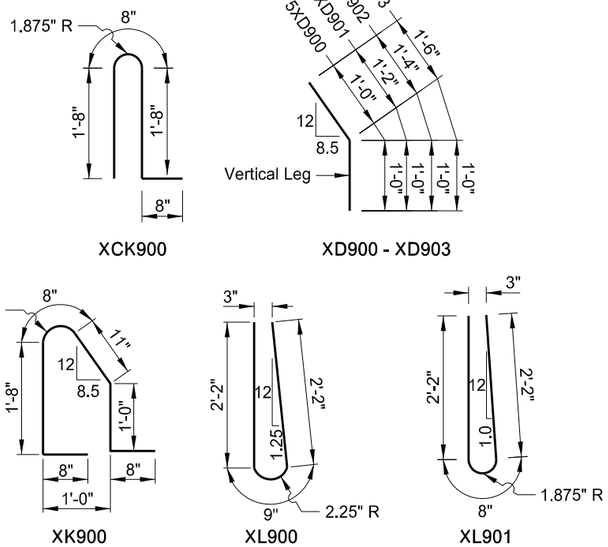
* Length may vary depending on manufacturer's recommendations for anchorage. Length based on 1 foot minimum anchorage length.



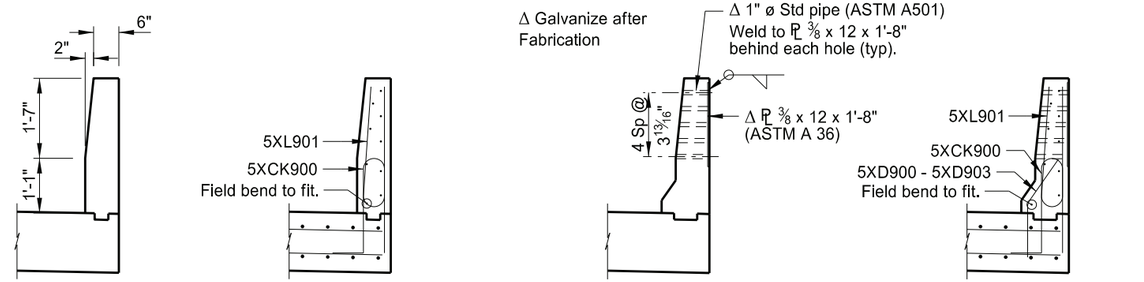
SHOWING DIMENSIONS — SHOWING REINFORCING

(SHOWING BACK FACE & JERSEY BARRIER TRANSITION)

CONNECTION PLATE DETAILS



BENT BAR DETAILS



SHOWING DIMENSIONS — SHOWING REINFORCING — SHOWING CONNECTION PLATE — SHOWING REINFORCING

E-E — F-F

NOTE:
See Dwg 49-042.060-4 for Section B-B.

REGISTERED PROFESSIONAL ENGINEER
RYAN A. RYKOWSKY
PE-9691
DATE 07/16/26
NORTH DAKOTA

QUANTITIES	(ONE SLAB)
APPROACH SLAB	85.6 SY

6 NORTH OF ND 21
ANTELOPE CREEK

APPROACH SLAB DETAILS