



**US Army Corps
of Engineers**
St Paul District

APPLICANT: Minnesota Department of
Transportation and
Wisconsin Department of
Transportation

Public Notice

ISSUED: February 14, 2025
EXPIRES: March 17, 2025



Commander
Ninth Coast Guard District

REFER TO: Corps: MVP-2012-00794
USCG: 09-01-25

SECTION: 404 – Clean Water Act
SECTION: 408 – Rivers and Harbors Act
SECTION: 9 – Rivers and Harbors Act
SECTION 10 – Rivers and Harbors Act
General Bridge Act of 1946

1. **JOINT PUBLIC NOTICE:** This joint Public Notice is issued on behalf of the U.S. Army Corps of Engineers (Corps) St. Paul and Detroit Districts, and the U.S. Coast Guard (USCG) Ninth District Commander. The following outlines each agency's review process based on their respective authorities:

Corps: The St. Paul District is evaluating an application submitted by the Minnesota and Wisconsin Departments of Transportation requesting a Department of the Army permit under Section 404 of the Clean Water Act (33 USC 1344) to discharge fill material into waters of the United States and the Detroit District is evaluating a Section 408 request (33 USC 408) under Section 14 of the Rivers and Harbors Act of 1899 to alter the Duluth-Superior Harbor Project in association with the replacement of the John A. Blatnik Bridge on Interstate 535 (I-535) between Duluth, MN and Superior, WI.

USCG: The USCG reviews bridge location and plans under the authority of several acts pertaining to bridges. These Acts include, but are not limited to, Section 9 of the Rivers and Harbors Act of 1899 (33 U.S.C. 401, 502) and the General Bridge Act of 1946 (33 U.S.C. 525-533). The USCG has received application materials, dated November 27, 2024, for approval of the location and plans for replacing the John A. Blatnik / I-535 Bridge.

2. **SPECIFIC INFORMATION:**

APPLICANTS: Matt Meyer
Minnesota Department of Transportation (MnDOT)
1123 Mesaba Avenue
Duluth, Minnesota 55811

Aaron Gustafson
Wisconsin Department of Transportation (WisDOT)
1701 North 4th Street
Superior, Wisconsin 54880

LEAD FEDERAL AGENCY: The Federal Highway Administration (FHWA) is the lead federal agency for coordinating and conducting environmental reviews under the National Environmental Policy Act (NEPA) and other applicable statutes for this project, including acting on behalf of USCG for all environmental control laws. An Environmental Assessment (EA) and state Environmental Assessment Worksheet (EAW) were issued for the proposed project on September 6, 2023, followed by a Finding of No Significant Impact (FONSI) on March 5, 2024. The Corps and USCG are cooperating agencies in the NEPA process and will remain involved

in any future NEPA evaluations for the project. FHWA's environmental documents are publicly accessible here: <https://www.dot.state.mn.us/d1/projects/blatnik-bridge/documents.html>
Comments submitted in response to this public notice will be forwarded to MnDOT (on behalf of FHWA) and used by the Corps and USCG for any additional environmental review required under NEPA prior to making final decisions on permits or authorizations.

PROJECT LOCATION: The project site is located in Section 3, Township 49N, Range 14W, St. Louis County, Minnesota and Sections 10, 11, 15 and 16, Township 49N, Range 14W, Douglas County, Wisconsin. Approximate center coordinates of the project are Latitude 46.74942 Longitude -92.10096. Approximate center coordinates of the navigation span crossing St. Louis River and Bay are Latitude 46.749143 Longitude -92.100968. Approximate center coordinates of the navigation span crossing Howard's Bay are Latitude 46.74197 Longitude -92.097754.

DESCRIPTION OF PROJECT: MnDOT, in cooperation with WisDOT, is proposing to replace the John A. Blatnik Bridge (Minnesota Bridge #9030, Wisconsin Bridge #B-16-5) on I-535, which connects Duluth, Minnesota and Superior, Wisconsin across the St. Louis River and Bay. The project also includes reconstructing an interchange in Superior that routes I-535 directly to US 53, with local connections to Hammond Avenue and WIS 35.

QUANTITY, TYPE, AND AREA OF FILL: The project would permanently discharge fill material into 3.09 acres of wetlands and 1.37 acres of the St. Louis River and Bay, and temporarily discharge fill material into 7.51 acres of wetlands and 6.43 acres of the St. Louis River and Bay.

Permanent discharges would result from constructing new bridge piers, pier protection, a maintenance road on Connor's Point, and improvements to roadway approaches.

Long-term temporary fill (approximate duration of four years) consisting of rock causeways and pads would facilitate construction access and material staging. Restoration of open water areas would involve removing containment sheet piles and rock fill to restore pre-project bathymetry. In wetland areas, vegetation would be cleared mechanically to create a smooth construction surface without disturbing underlying soils. Geotextile fabric or temporary matting would then be placed to separate the temporary fill from native soils. After completion of the regulated activities, the temporary fill material and fabric/matting would be removed, and the affected areas restored to pre-construction contours and elevations. Soils would be amended or de-compacted as necessary and seeded with MnDOT's native "Wet Ditch Mix." The riparian zone would also be restored with native wetland trees and live stakes.

In addition, the applicant proposes to offset temporal losses of wetland function by purchasing wetland compensatory mitigation credits, please see MITIGATION below.

VEGETATION IN AFFECTED AREA:

Minnesota		
Wetland Type	Permanent Impact	Temporary Impact
Type 2 (Fresh Wet Meadow)	0.08 Acre	0.06 Acre
Type 6 (Shrub-Carr)	0.40 Acre	1.53 Acres
Type 7 (Hardwood Swamp)	0.56 Acre	0.06 Acre

Wisconsin		
Wetland Type	Permanent Impact	Temporary Impact
Wet Meadow	0.46 Acre	1.33 Acres
Riparian Emergent	1.58 Acres	3.74 Acres
Shallow Marsh	-	0.10 Acre
Shrub Swamp	0.01 Acre	0.07 Acre
Riparian Wooded	-	0.62 Acre

SOURCE OF FILL MATERIAL: All fill material utilized for the project would be generated on site or would be obtained from a licensed commercial source.

SURROUNDING LAND USE: The surrounding land use consists of residential, commercial and industrial associated with the cities of Duluth, MN and Superior, WI.

DESCRIPTION OF STRUCTURE: The Blatnik Bridge is 7,975 feet long (about 1.5 miles) and consists of a main truss unit (three span continuous truss) flanked by steel beam approach span units (referred to as the Minnesota and Wisconsin approach spans), with a total of 52 spans. The main truss span unit is 1,140 feet long with a 600-foot-long center span over the main navigation channel. Each of the spans is supported by piers at either end. The Minnesota approach spans consist of 15 spans totaling approximately 2,000 feet in length, and the Wisconsin approach spans consist of 34 spans totaling approximately 4,800 feet in length.



The Blatnik Bridge connects the I-535/Garfield Avenue Interchange in Duluth with the I-535/US 53/Hammond Avenue/WIS 35 Interchange in Superior. The existing interchange provides access to and from US 53, Hammond Avenue, and WIS 35. Currently traffic free flows between I-535 and Hammond Avenue without signals or interchange ramps to control traffic. There is a signalized intersection at I-535 Entrance Ramp/US 53.

The proposed project would improve bridge condition and increase vehicle safety and mobility of the traveling public, please reference the DESCRIPTION OF PROJECT for more details pertaining to the various structures associated with the proposed project.

DESCRIPTION OF DREDGING OR EXCAVATION: Excavation to remove contaminated material may be required if encountered during construction. MnDOT and WisDOT have taken steps to minimize proposed construction activity in areas with contaminated sediment and intend to avoid disturbing locations with the highest contamination levels where possible. If construction encounters known contaminated areas, materials would be removed and managed in accordance with all federal, state, and local regulations and permits. Contaminated soil management would include off-site disposal at an approved landfill.

THE FOLLOWING POTENTIALLY TOXIC MATERIALS COULD BE USED AT THE PROJECT SITE: Toxic materials would not be used in association with the construction of the proposed project, please see DESCRIPTION OF DREDGING OR EXCAVATION for more information related to potential contaminated sediment removal. Contaminated materials may be encountered during project construction and would be remediated in accordance with applicable federal, state, and local regulations. Please refer to Section 4.13 of the EA/EAW for more information.

THE FOLLOWING PRECAUTIONS TO PROTECT WATER QUALITY HAVE BEEN DESCRIBED BY THE APPLICANT: The applicant would be required to apply for and receive an Individual Section 401 Water Quality Certification (WQC), National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Permit from the Minnesota Pollution Control Agency (MPCA) and Wisconsin Department of Natural Resources (WDNR) as well as create a Stormwater Pollution Prevention Plan (SWPPP) that would be used to comply with MPCA and WDNR erosion control and storm water best management practices (BMPs). Appropriate BMPs would be utilized during construction and periodically inspected after qualifying rainfall events by the relevant agency.

MITIGATION: The applicant proposes to fulfill federal and state compensatory wetland mitigation requirements by utilizing wetland mitigation bank credits.

Summary of Proposed Mitigation		
State	Impact Type	Replacement Ratio
Minnesota	Permanent (All Wetland Types)	1:1
Minnesota	Temporary (All Wetland Types)	0.5:1
Wisconsin	Permanent (Shrub Swamp)	1:1
Wisconsin	Permanent (Riparian Emergent)	1:2
Wisconsin	Permanent (Riparian Wooded)	1:3
Wisconsin	Permanent (Wet Meadow – Disturbed)	1:1
Wisconsin	Temporary (All Wetland Types)	0.5:1
Wisconsin	Temporary (Open Water)	N/A (restoration)
Minnesota	Temporary (Open Water)	N/A (restoration)

3. FEDERALLY LISTED THREATENED OR ENDANGERED WILDLIFE OR PLANTS OR THEIR CRITICAL HABITAT

MnDOT's Office of Environmental Stewardship (on behalf of FHWA) reviewed the project for compliance with Section 7 of the Endangered Species Act (ESA). On April 3, 2023, MnDOT requested concurrence from the U.S. Fish and Wildlife Service (USFWS) via a "Section 7 – Notice of Determination" letter. The following determinations were made:

- Northern long-eared bat (*Myotis septentrionalis*) – May affect, not likely to adversely affect.
- Canada lynx (*Lynx canadensis*) – May affect, not likely to adversely affect.
- Gray wolf (*Canis lupus*) - May affect, not likely to adversely affect.
- Piping plover (*Charadrius melodus*) - May affect, not likely to adversely affect.
- Red knot (*Caladris canutus rufa*) - May affect, not likely to adversely affect.
- Piping plover designated critical habitat – No Effect.
- Fassett's Locoweed (*Oxtropis campestris*) – No Effect.
- Tricolored bat (*Perimyotis subflavus*) – No Jeopardy.
- Monarch butterfly (*Danaus plexippus*) – No Jeopardy.

Consultation was completed within the applicable coordination timeframes for the "may affect, not likely to adversely affect" determinations. Please refer to Appendix B. Agency Correspondence of the EA/EAW for more information.

4. HISTORICAL/ARCHAEOLOGICAL

MnDOT's Cultural Resources Unit and WisDOT's Cultural Resources Team (on behalf of FHWA) reviewed the project for compliance with Section 106 of the National Historic Preservation Act.

On February 29, 2024, MnDOT and WisDOT, in consultation with the Minnesota and Wisconsin State Historic Preservation Offices, executed a project-specific Programmatic Agreement due to circumstances that prevented the completion of historic property identification and effect assessments before issuing the FONSI under NEPA. Please refer to Appendix B of the FONSI and Section 4.15 of the EA/EAW for more information.

The Corps and USCG will review information on known cultural resources and historic properties within and adjacent to the permit areas and consider potential effects on unidentified properties in coordination with MnDOT and WisDOT. Any adverse effects on historic properties will be resolved before the Corps or USCG authorizes or approves the project.

5. JURISDICTION

This application is being reviewed in accordance with the practices for documenting Corps jurisdiction under Sections 9 & 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. The USCG bridge permit application is being reviewed under the General Bridge Act of 1946 and other relevant authorities.

6. SECTION 401 WATER QUALITY CERTIFICATION

Valid Section 404 permits cannot be issued for any activity unless a WQC for the activity is granted or waived pursuant to Section 401 of the CWA. The Section 401 authorities for this project are the MPCA and WDNR. A Department of the Army permit or USCG bridge permit will not be granted until the MPCA and WDNR have issued or waived Section 401 WQC certification and the U.S. Environmental Protection Agency (USEPA) neighboring jurisdiction process is completed. Corps Section 404 Clean Water Act decisions and USCG bridge permit determinations may not be finalized until after the USEPA completes this process.

The MPCA has indicated that this public notice serves as its public notice of the application for Section 401 WQC under Minnesota Rules Part 7001 Section 401 of the CWA (33 U.S. Code 1341 (a)(1)). The MPCA has indicated that if, at a later date, it makes a preliminary anti-degradation determination regarding Section 401 WQC, it will at that time plan to issue an additional public notice under Minnesota Rules Part 7001.

Any comments relative to MPCA's Section 401 Certification for the activity proposed in this public notice may be sent to:

Minnesota Pollution Control Agency
Resource Management and Assistance Division
Attention: 401 Certification
520 Lafayette Road North
St. Paul, Minnesota 55155-4194
401Certification.PCA@state.mn.us

7. COASTAL ZONE MANAGEMENT.

Minnesota's Lake Superior Coastal Program (MLSCP), which is administered by the Minnesota Department of Natural Resources (MnDNR), on behalf of the National Oceanic and Atmospheric Administration, may conduct a Federal consistency review to verify that the project will comply with State policies in Minnesota's coastal zone. Further information may be obtained from the MnDNR's Federal Consistency Coordinator at: Minnesota Department of Natural Resources, Waters, 1568 Highway 2, Two Harbors, MN 55616. Any comments on whether or not this proposed project complies with the State of Minnesota's coastal policies should be provided to the MnDNR's Federal Consistency Coordinator.

The proposed project is also subject to review for consistency under the policies of the Wisconsin Coastal Management Program (WCMP). More information on the WCMP and the State of Wisconsin's coastal policies may be found at <https://coastal.wisconsin.gov>. For additional information please contact coastal@wisconsin.gov. Comments should be submitted through the form linked on the Federal Consistency page of WCMP's website. The form is available directly at: <https://wi.accessgov.com/doa-wi/Forms/Page/intergov/federal-consistency-public-comment/0>. Comments will be accepted through 21 days of publication of this notice.

8. SECTION 408 REQUEST EVALUATION

The Blatnik Bridge Rehabilitation Project is located within the geographic scope of the Detroit District's boundaries for the review of potential alterations to federally authorized civil works projects under Section 408. The St. Paul District is the designated lead district to gather input for both the Regulatory and Section 408 Programs and to ensure synchronized reviews. Proposed alterations must not be injurious to the public interest nor impair the usefulness of any Corps' civil works project. Any decision on a Section 408 request is subject to the NEPA and the FHWA is the Lead Federal Agency for environmental compliance.

The request to alter the Duluth-Superior Harbor Project, will be reviewed pursuant to Section 408 and Engineer Circular 1165-2-220, which provides policy and procedural guidance for processing and evaluating requests to alter Corps civil works projects.

Section 408 requests are reviewed by the Corps consistent with the following main determinations:

- a. Impacts to the Usefulness of the Corps Project. The objective of this determination is to ensure that the proposed alteration will not limit the ability of the Corps project to function as authorized and will not compromise or change any authorized project conditions, purposes or outputs. All appropriate technical analyses including geotechnical, structural, hydraulic and hydrologic, real estate, construction, and operations and maintenance requirements, must be conducted, and the technical adequacy of the design must be reviewed. If at any time it is concluded that the usefulness of the authorized project will be negatively impacted, any further evaluation should be terminated and the requester notified. Section 408 permission will not be granted for a proposed alteration that would have an effect of deauthorizing a Corps project or eliminating an authorized project purpose.
- b. Injurious to the Public Interest. Proposed alterations will be reviewed to determine the probable impacts, including cumulative impacts, on the public interest. Evaluation of the probable impacts that the proposed alteration to the Corps project may have on the public interest requires a careful weighing of all those factors that are relevant in each particular case. The benefits that reasonably may be expected to accrue from the proposal must be compared against its reasonably foreseeable detriments. The decision whether to approve an alteration will be determined by the consideration of whether benefits are commensurate with risks. If the potential detriments are found to outweigh the potential benefits, then it may be determined that the proposed alteration is injurious to the public interest. Factors that may be relevant to the public interest depend upon the type of Corps project being altered and may include, but are not limited to, such things as conservation, economic development, historic properties, cultural resources, environmental impacts, water supply, water quality, flood hazards, floodplains, residual risk, induced damages, navigation, shore erosion or accretion, and recreation. This evaluation should consider information received from key stakeholders, interested parties, tribes, agencies, and the public. As a general rule, proposed alterations that will result in substantial adverse changes in water surface profiles will not be approved.
- c. Legal and Policy Compliance. A determination will be made by the appropriate Office of Counsel as to whether the request meets all legal and policy requirements.

9. USCG EVALUATION

NAVIGATIONAL CLEARANCES: The proposed replacement bridge would provide vertical and horizontal navigational clearances as described below. The Applicants have presented this application as a design-build project concept that includes two proposed fixed bridge designs for the span that would cross St. Louis River and Bay – an arch alternative and cable stay alternative – and a proposed fixed slab alternative for the span that would cross Howard’s Bay. Under the design-build concept, the Coast Guard would designate that the span of the proposed replacement structure would provide a minimum vertical navigation clearance of no less than 123.00-feet and a minimum horizontal navigation clearance of no less than 460.00-feet perpendicular to the navigation channel. The proposed span crossing Howard’s Bay would provide a minimum vertical navigation clearance of no less than 103.00-feet and a minimum horizontal navigation clearance of no less than 180.00-feet perpendicular to the navigation channel. Additionally, as presented to the Coast Guard, temporary structures would be used to facilitate the removal of the existing structure as well as construction of the replacement structure. For the span crossing St. Louis River and Bay, temporary access platforms would be constructed on the north and south sides of the navigation channel without encroaching into it. For the span crossing Howard’s Bay, contractors would utilize a combination of (1) temporary structures constructed on either side of the navigation channel that would not encroach into the navigation channel as well as (2) sheet piling that would temporarily encroach into the existing navigation channel for approximately 8 to 12 weeks. The table below reflects the existing structure’s navigational clearances, the proposed minimum vertical clearances that would be designated under a design-build permit, and the reference datum for vertical clearance. The proposed final structure is anticipated to both meet and exceed the existing navigational clearances of the existing structure.

Span Crossing St. Louis River and Bay		
	Existing	Proposed
Vertical	115.77-feet at the edge of the navigation channel, 123.00-feet at center.	Minimum 123.00-feet of navigational clearance throughout the navigation channel.
Horizontal	573.30-feet between piers 16 and 17 (460.00-feet perpendicular to the navigation channel).	573.30-feet between piers 16 and 17 (460.00-feet perpendicular to the navigation channel).

Span Crossing Howard’s Bay			
	Existing	Temporary Sheet Pile Structures	Proposed
Vertical	94.12-feet at the edge of the navigation channel, 103.25-feet at center.	N/A.	Minimum 103.00-feet throughout the navigation channel.
Horizontal	150.00-feet perpendicular to the navigation channel.	135.00-feet perpendicular to the navigation channel	180.00-feet perpendicular to the navigation channel.

Datum: All elevations referenced to Low Water Datum (LWD), elevation 602.31-feet, International Great Lakes Datum of 1985 (IGLD 85).

FLOODPLAINS: The bridge is located in the floodplain. The 100-year flood elevation is 604.42-feet, IGLD 85. The elevation of the low member of the navigation span crossing St. Louis River and Bay would be 725.31-feet, IGLD 85. The elevation of the low member of the navigation span crossing Howard's Bay would be 705.31-feet, IGLD 85. is 604.42-feet. Elevations are referenced to NAVD88 datum. Approximately 23,065-cubic yards of fill material will be placed below mean high water level for the construction of the bridge and approaches.

10. PUBLIC HEARING REQUESTS

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearings shall state, in detail, the reasons for holding a public hearing. A request may be denied if substantive reasons for holding a hearing are not provided or if there is otherwise no valid interest to be served.

11. PUBLIC INTEREST REVIEW

Corps: The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts, of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects. Among those are conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production and, in general, the needs and welfare of the people. Environmental and other documents will be available for review in the St. Paul District Office.

The Corps of Engineers is soliciting comments from the public; Federal, State, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

USCG: The decision whether to issue a Coast Guard Bridge Permit will be based on whether the proposed project meets the reasonable current and prospective needs of navigation. Interested parties are requested to express their views, in writing, on the proposed bridge project including its possible impacts to navigation.

REPLIES/COMMENTS

The Corps and USCG invite interested parties to submit written facts, arguments, or objections by the expiration date above. Mariners and waterways users are requested to comment on the proposed navigation clearances, placement of a bridge protective system and other navigational safety issues, including need for clearance gauges and extent of nighttime navigation to determine the need for bridge lighting, and operating schedules or regulations. These

statements should bear upon the suitability of the location and the adequacy of the project and should, if appropriate, suggest any changes believed to be desirable. Comments received may be forwarded to the applicant.

Comments to the Corps can be electronically submitted at the following link <https://rrs.usace.army.mil/rrs/public-notices> or by email to Jeremy.M.Kinney@usace.army.mil

Comments to USCG can be electronically submitted to Michael.O.Walker2@uscg.mil

If electronic submittal is not available, commenters should address replies to:

Corps:
Regulatory Division
St. Paul District Corps of Engineers
332 Minnesota Street, Suite E1500
St. Paul, MN 55101-1323

USCG:
Commander, Ninth Coast Guard District (dpb)
1240 E. 9th Street
Cleveland, OH 44199

IF YOU HAVE QUESTIONS ABOUT THE PROJECT, contact Jeremy Kinney at the St. Paul District office at 651-443-1929 or Michael Walker at the Ninth Coast Guard District at 216-902-6087.

To receive Public Notice notifications from the Corps, go to: <https://www.mvp.usace.army.mil/Contact/RSS/> and subscribe to the RSS Feed for which you would like to receive Public Notices.

To subscribe to USCG Bridge Program updates, go to: https://public.govdelivery.com/accounts/USDHSCG/subscriber/new?topic_id=USDHSCG_518.
To subscribe to updates on bridge projects in the Ninth Coast Guard District, go to: <https://public.govdelivery.com/accounts/USDHSCG/subscriber/new?preferences=true#tab1>

Enclosures:

Appendix A: St. Paul and Detroit District 404/408 Figures
Appendix B: Location and Plans Submitted to USCG

Appendix A

St. Paul and Detroit District 404/408 Plans



CANADA



Minnesota

Michigan

Wisconsin

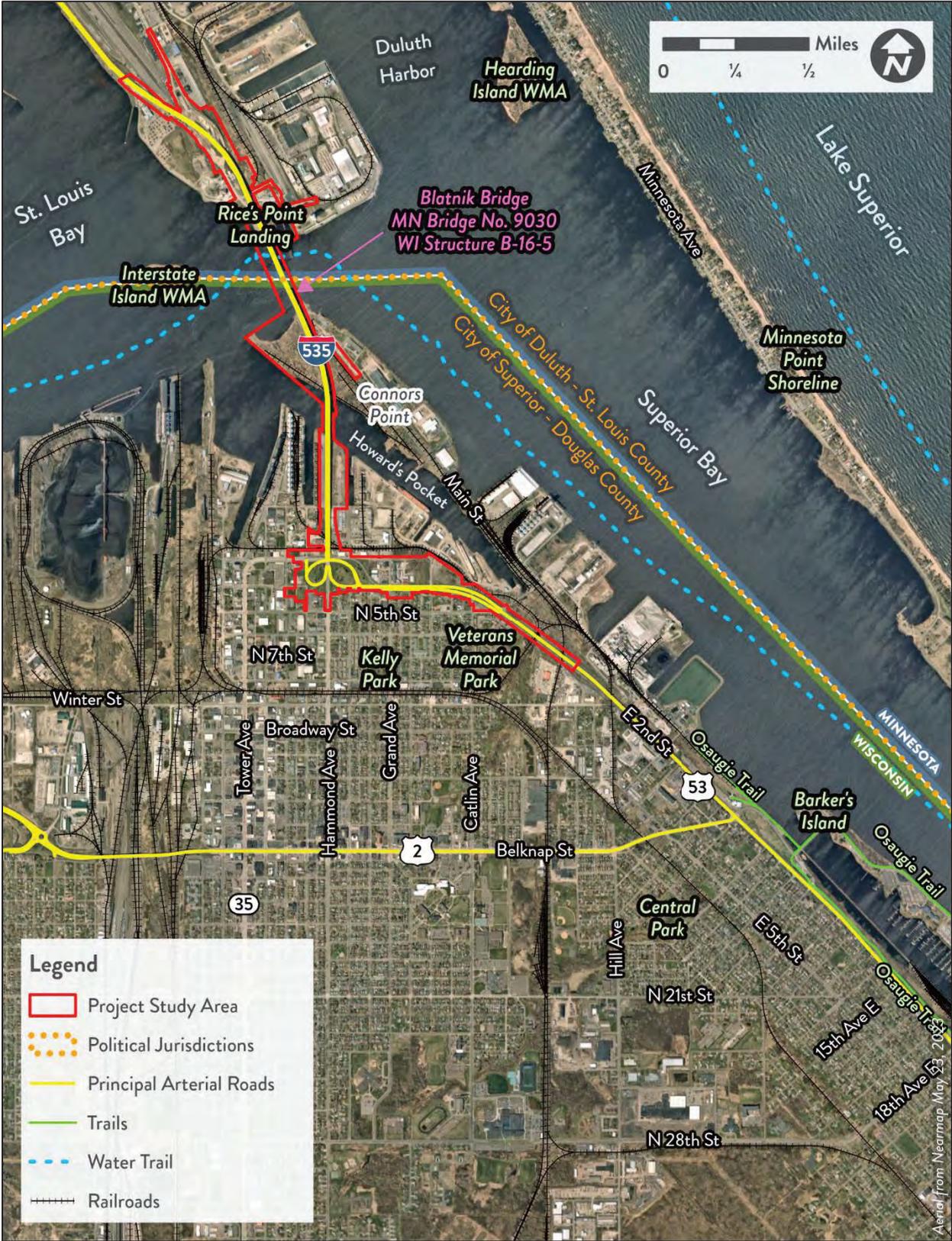
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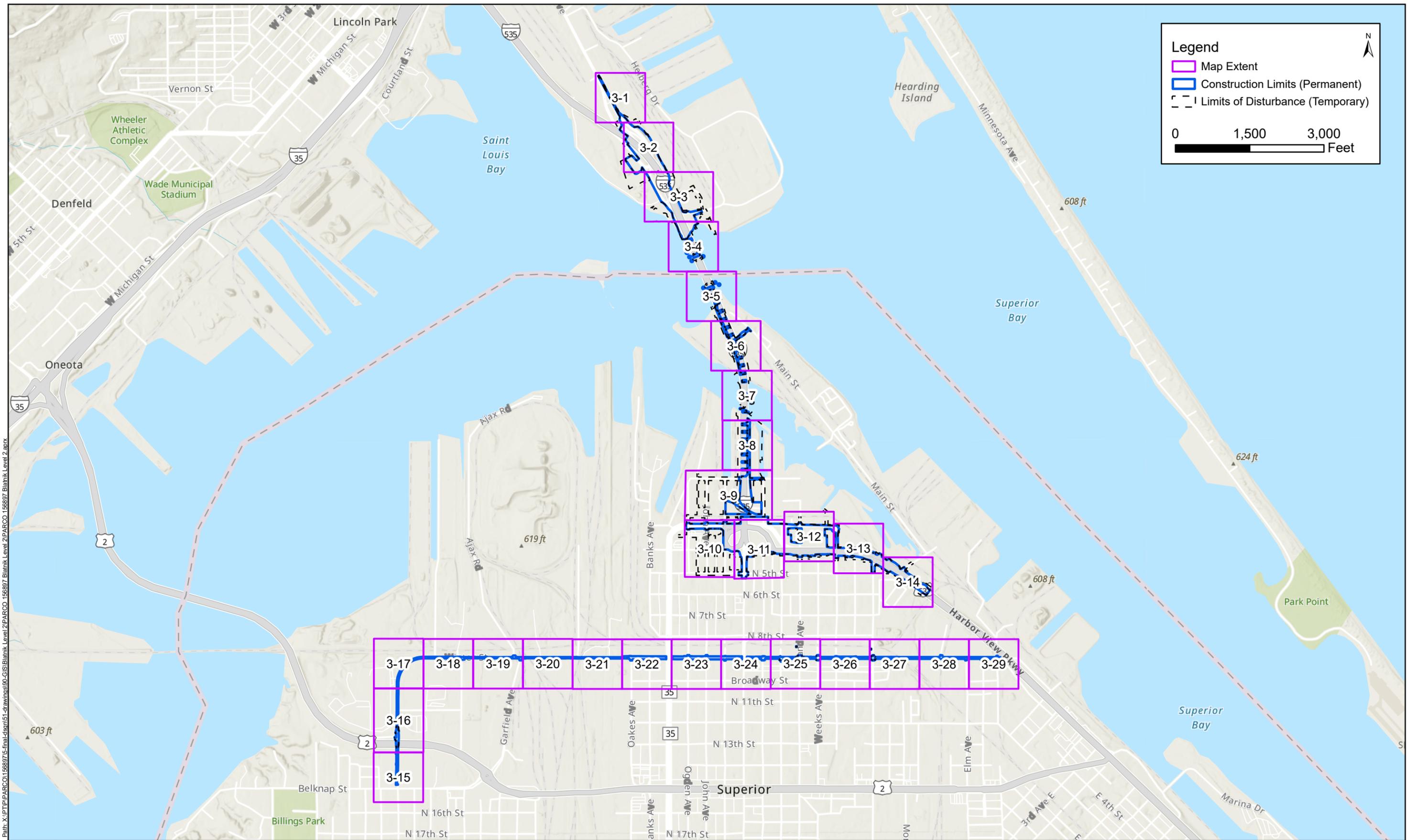
Illinois

Project Location

Lake Superior

Lake Michigan





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Project Number: PARCO 156897
 Print Date: Print Date: 1/7/2025



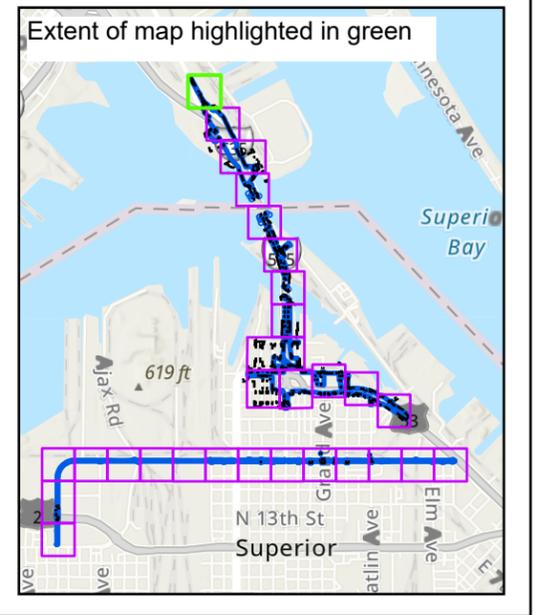
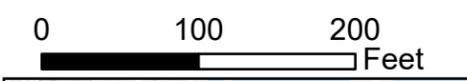
Map by: E. Massa
 Projection: WGS 84
 Source: MnDOT, WisDOT, ESRI, SEH

John A. Blatnik / I-535 Bridge Reconstruction
 Duluth, Minnesota and Superior, Wisconsin

FIGURE 3-0
 Overview of Map Extents

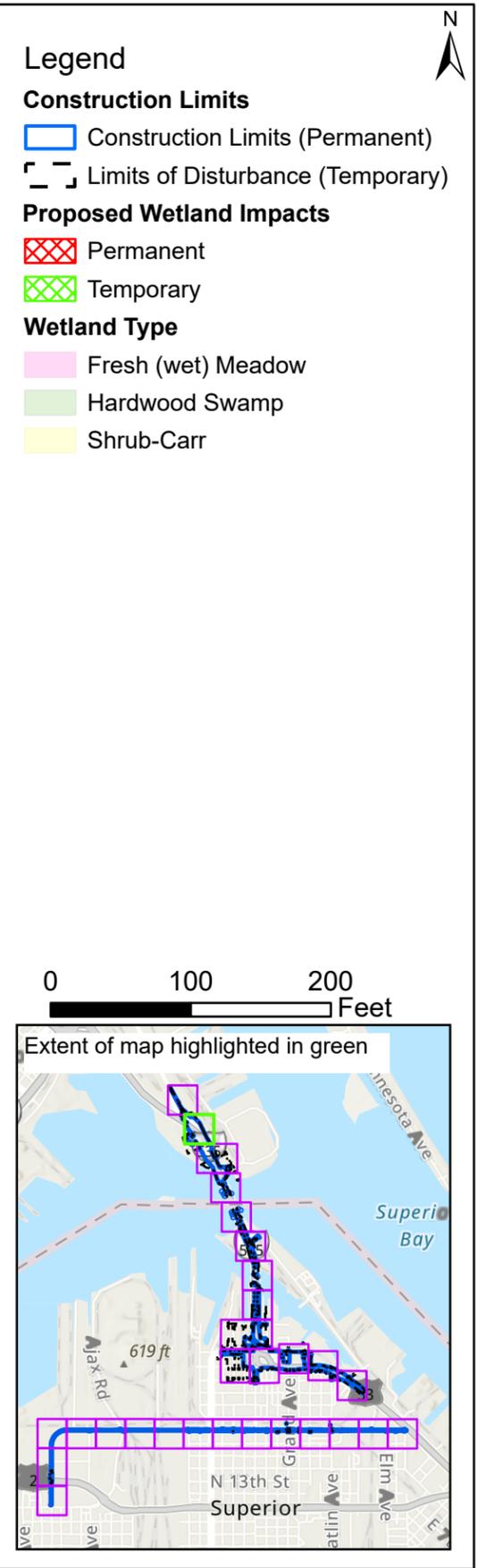


- Legend**
- Construction Limits**
 - Construction Limits (Permanent)
 - Limits of Disturbance (Temporary)
 - Wetland Type**
 - Fresh (wet) Meadow



No Wetland Impacts
Proposed For This
Project Area

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Legend

Construction Limits

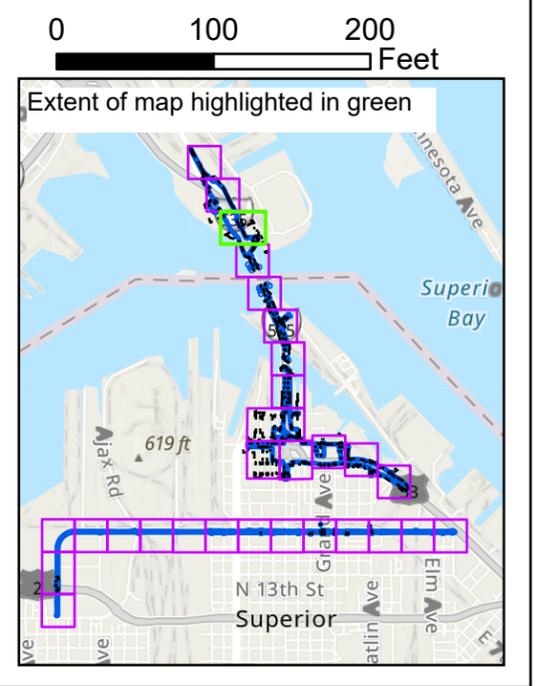
- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

Proposed Wetland Impacts

- Permanent
- Temporary

Wetland Type

- Fresh (wet) Meadow
- Hardwood Swamp
- Lacustrine
- Shrub-Carr
- Wet Ditch - Fresh (wet) Meadow
- Wet Ditch - Open Water



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Legend

Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

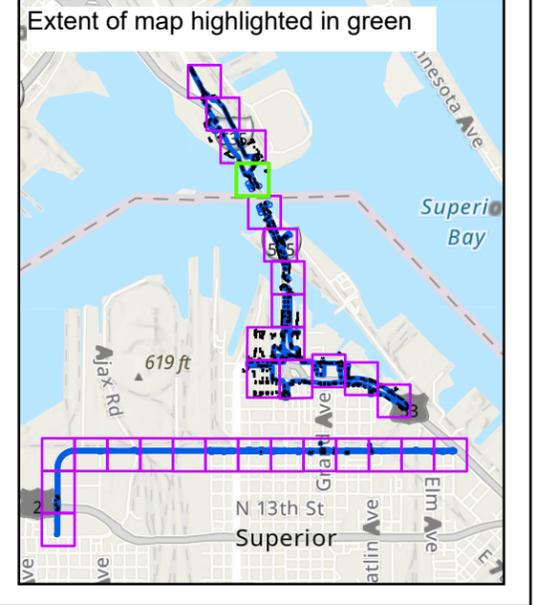
Proposed Wetland Impacts

- Permanent
- Temporary

Wetland Type

- Lacustrine
- Shrub-Carr

0 100 200 Feet



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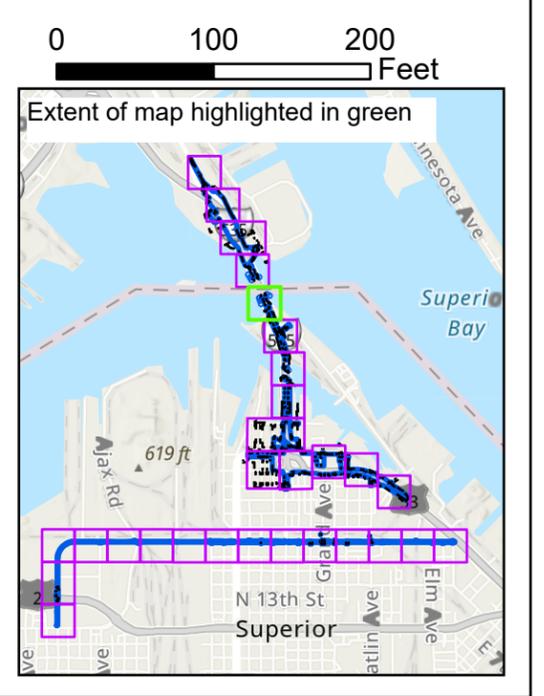
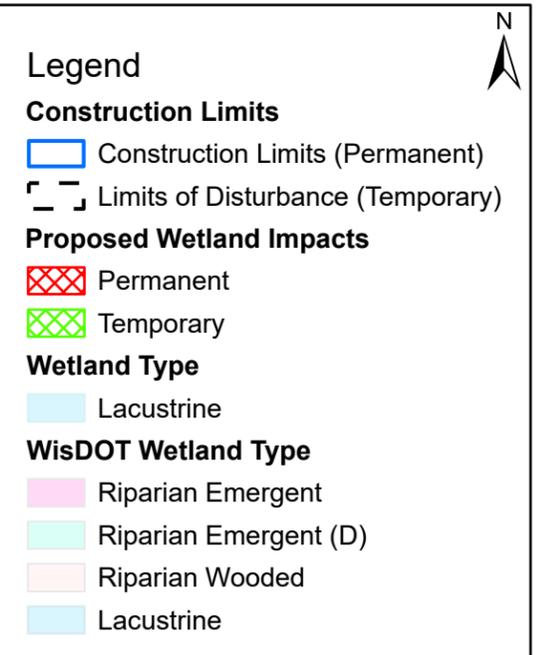
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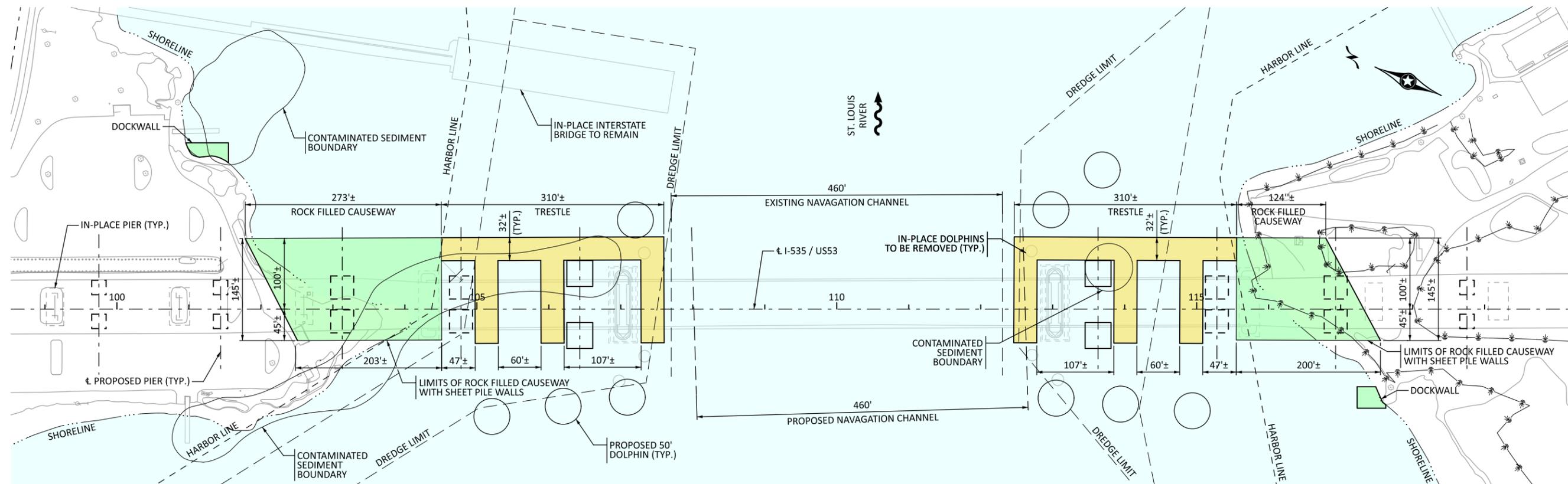
Map by: E. Massa
 Projection: WGS 84
 Source: MnDOT, WisDOT, St. Louis Co., Douglas Co., GEI, SEH

**John A. Blatnik / I-535 Bridge Reconstruction
 Duluth, Minnesota and Superior, Wisconsin**

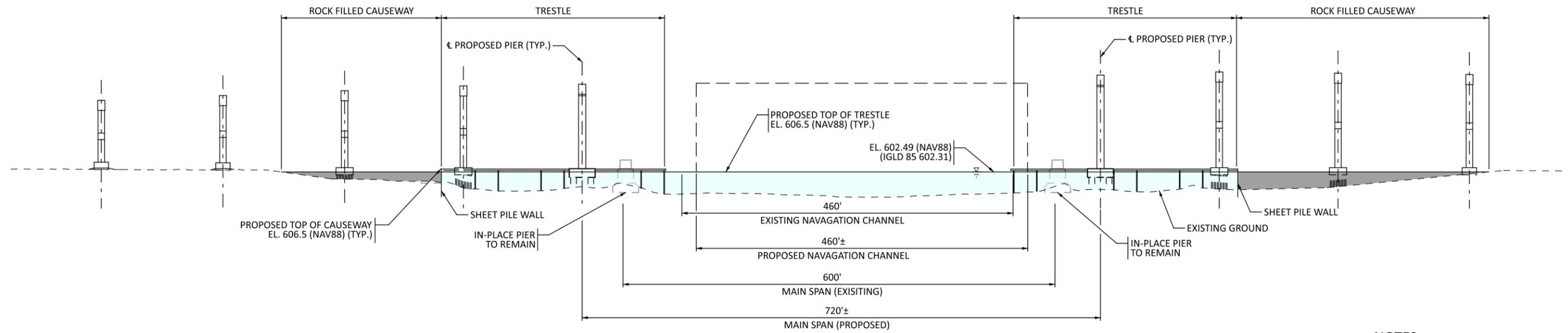
FIGURE 3-4
 Proposed Aquatic Resource Impacts



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GENERAL PLAN



GENERAL ELEVATION

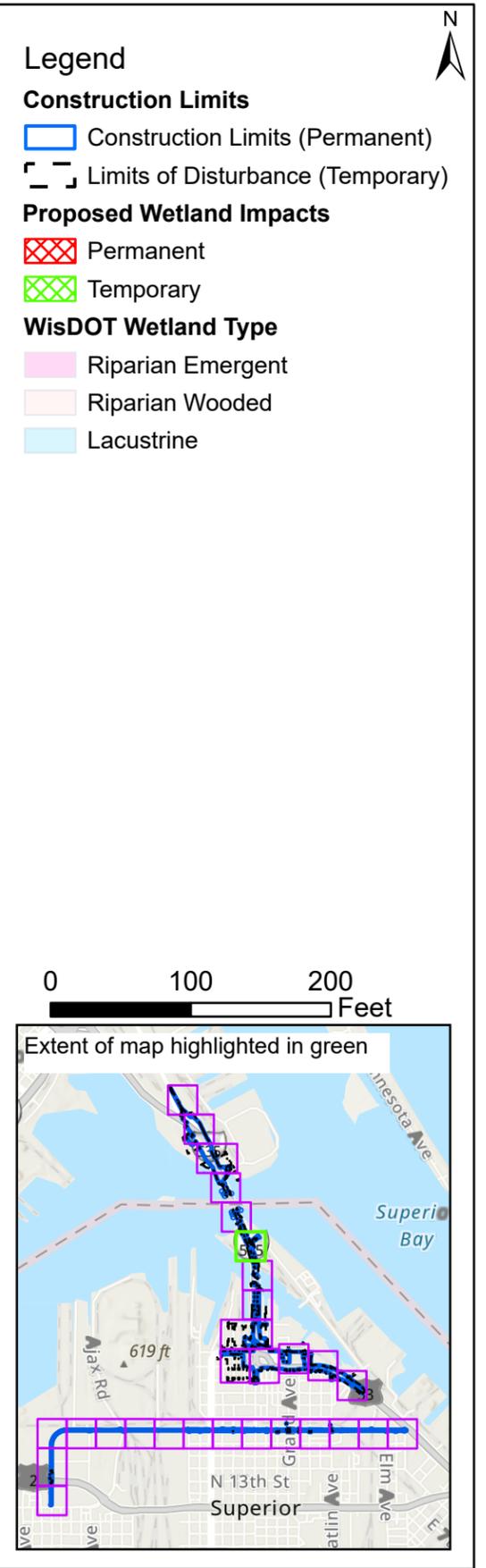
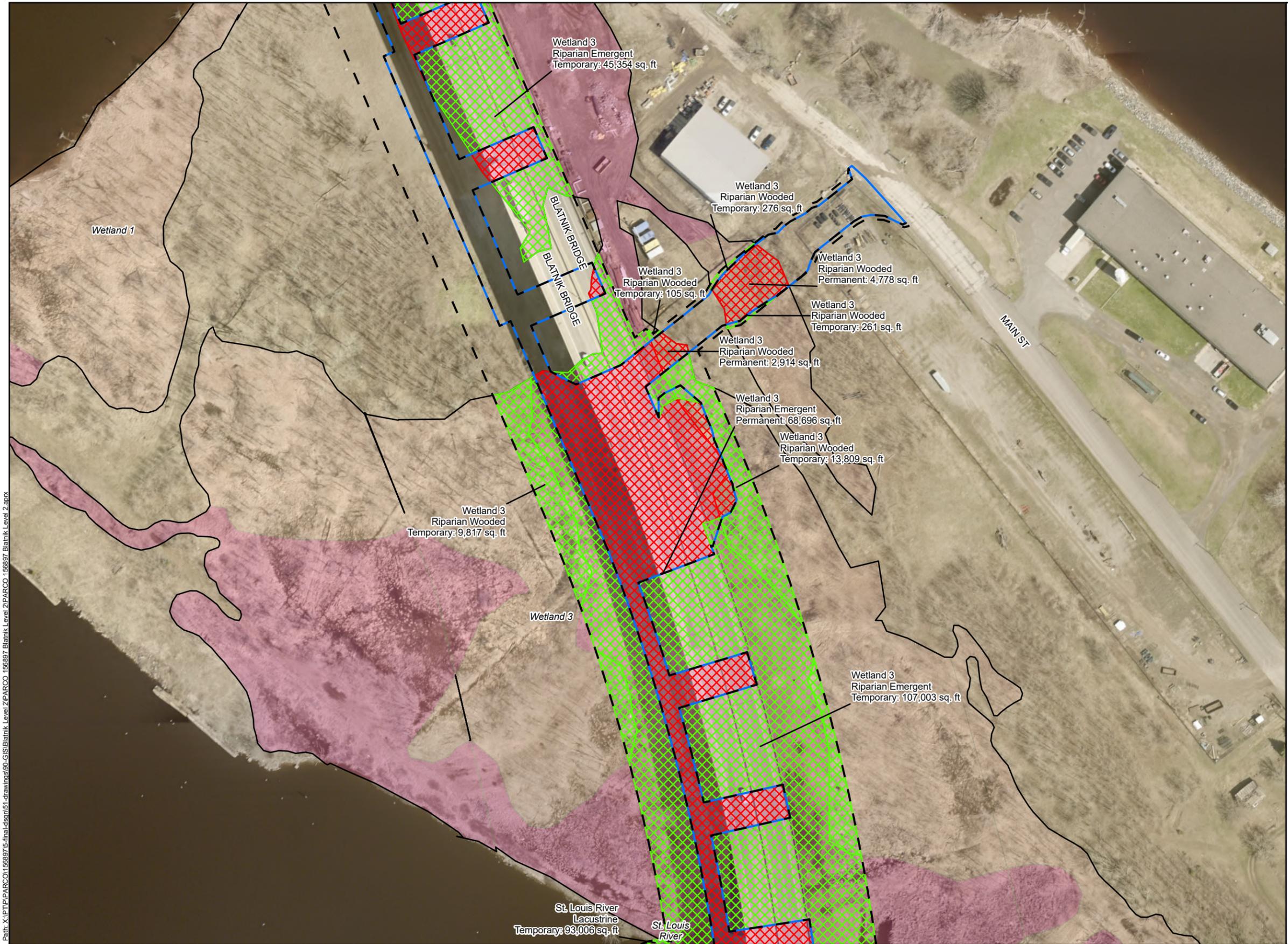
(ALONG ϵ I-535/US53)



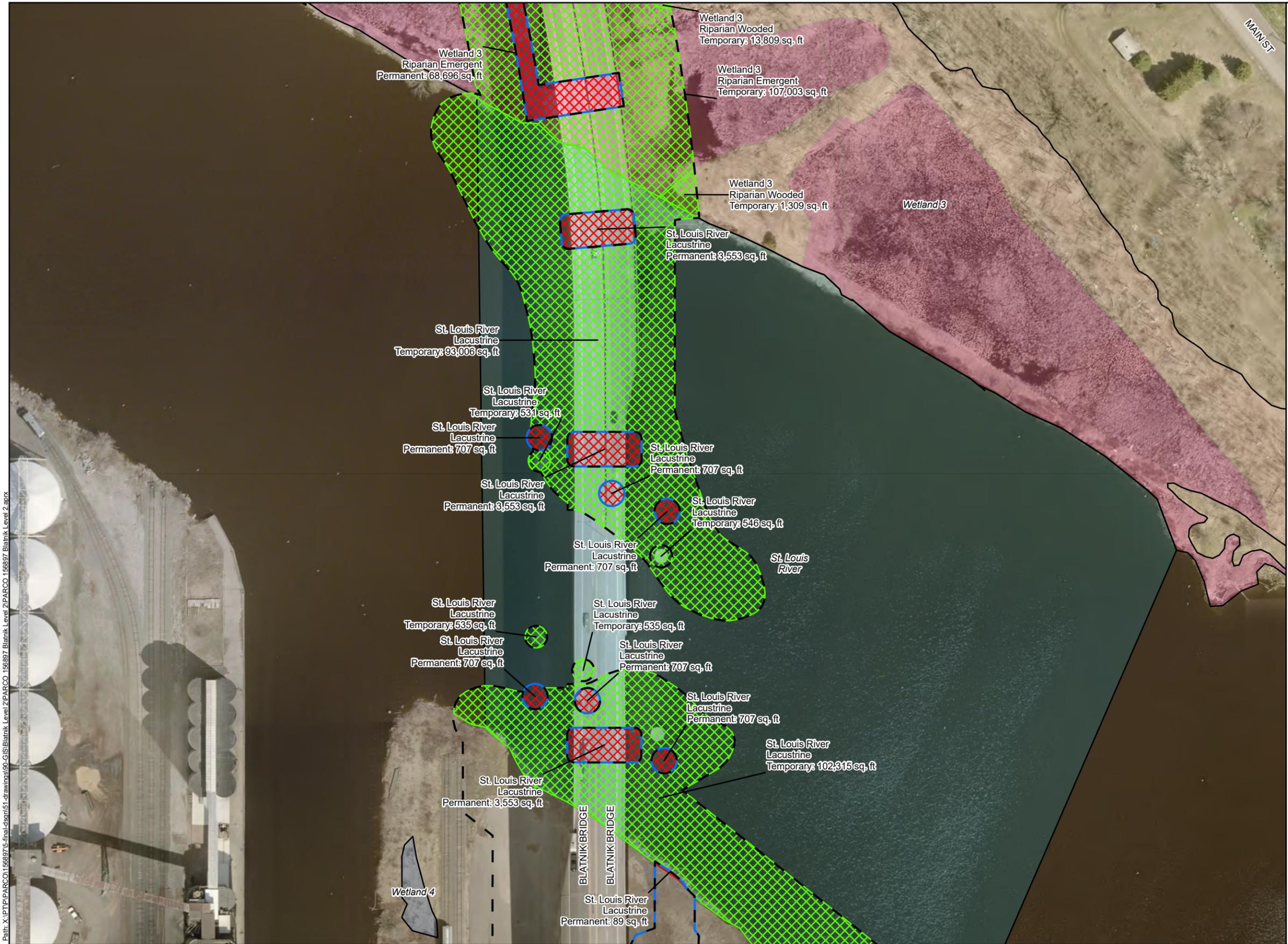
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DENOTES WETLAND

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Navigation Span Temp Works.dgn

STATE PROJECT NO. (SP.) 6981 - 69913		TITLE: PERMANENT & TEMPORARY WORKS - MAIN NAVIGATION CHANNEL		BRIDGE NO. 69913
		SHEET NO. _____	OF _____	SHEETS (B-16-0153)



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Legend

Construction Limits

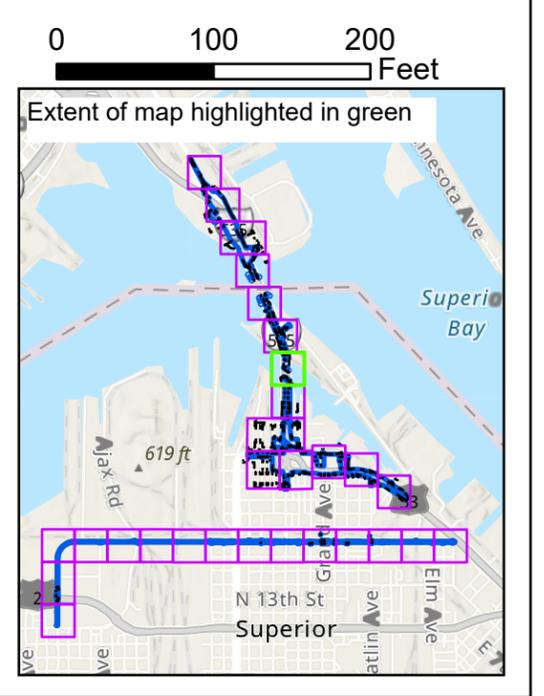
- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

Proposed Wetland Impacts

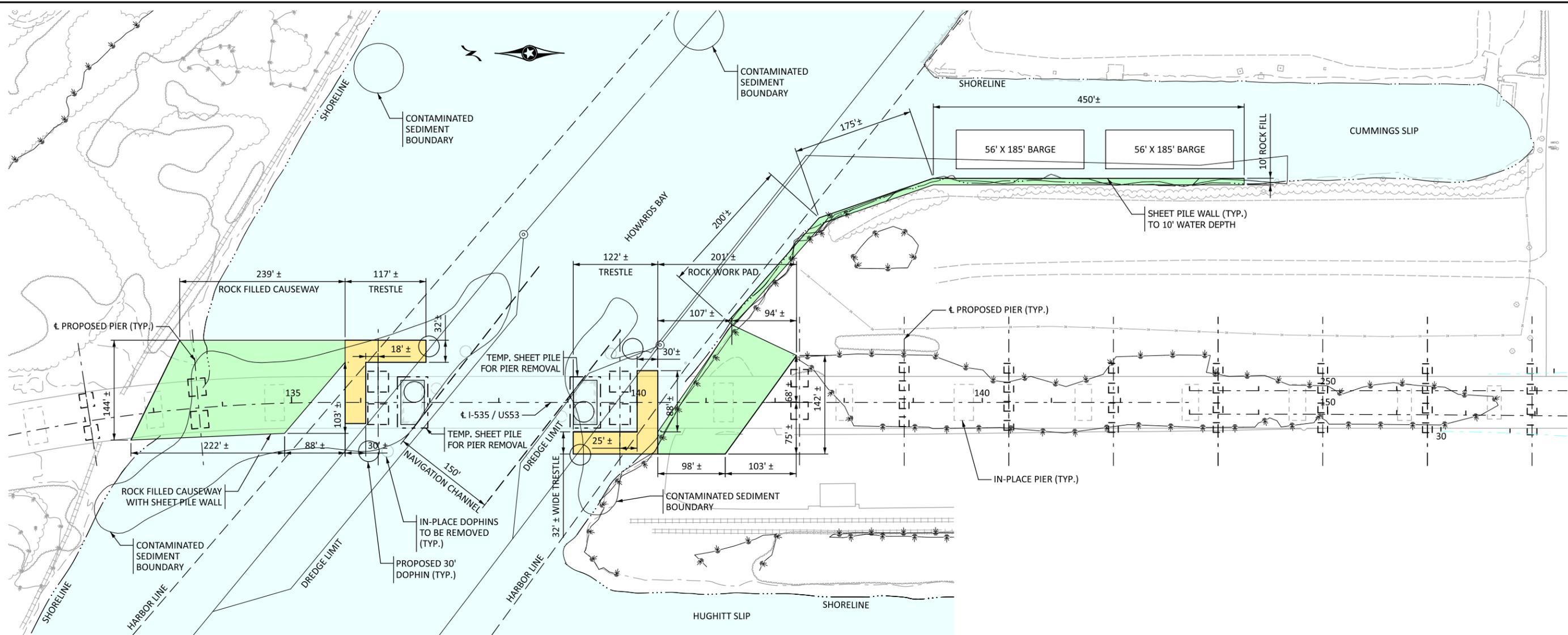
- Permanent
- Temporary

WisDOT Wetland Type

- Riparian Emergent
- Riparian Wooded
- Wet Meadow
- Lacustrine

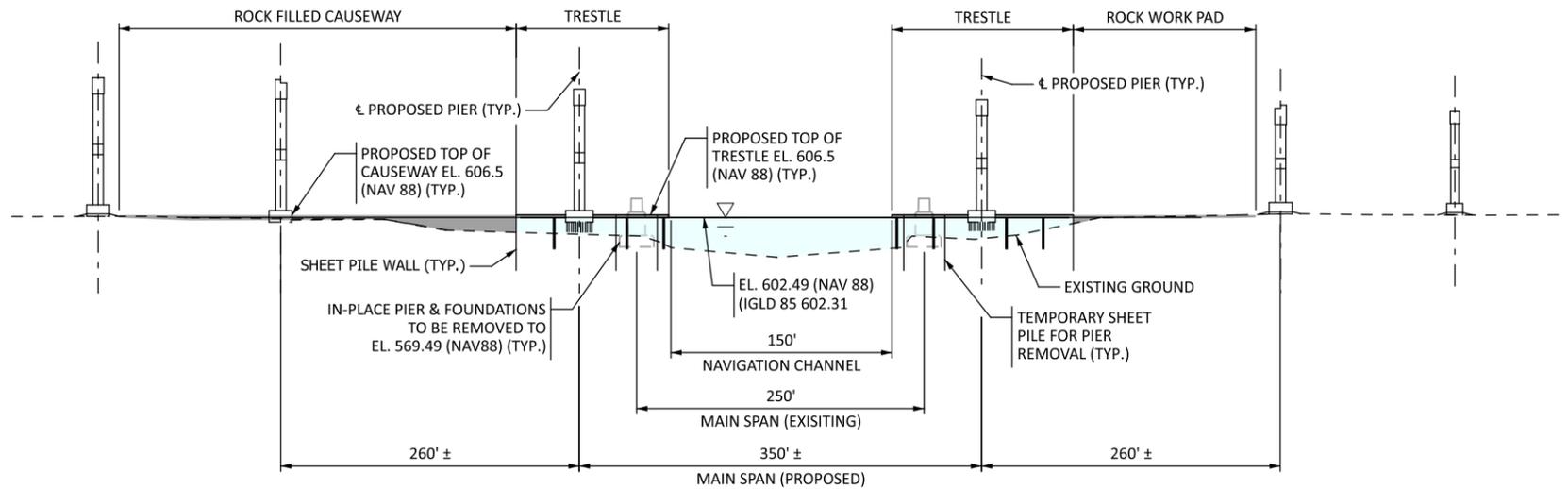


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GENERAL ELEVATION

SCALE 0 150 FT.



GENERAL ELEVATION

ALONG ℓ I-535/US53

SCALE 0 150 FT.

NOTES:

DENOTES WETLANDS

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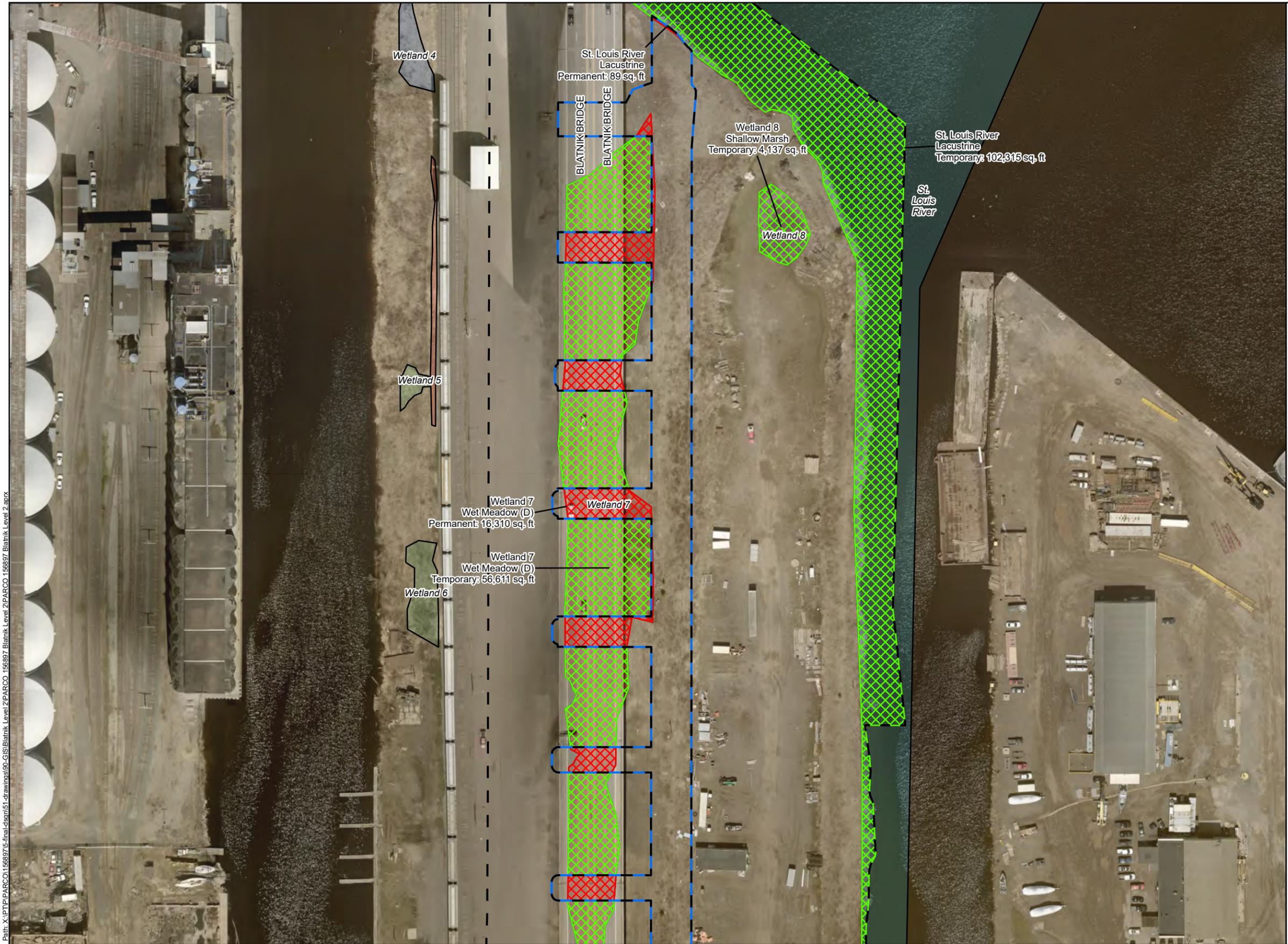
STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: PERMANENT & TEMPORARY
WORKS - HOWARDS POCKET
NAVIGATION CHANNEL

SHEET NO. OF SHEETS

BRIDGE NO.
69913
(B-16-0153)



Legend

Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

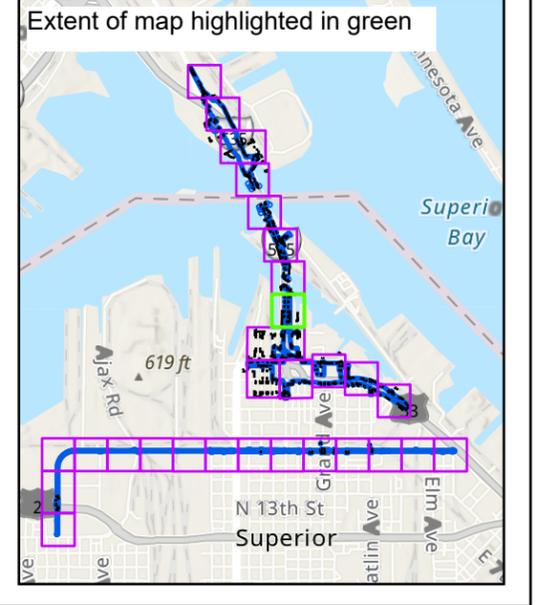
Proposed Wetland Impacts

- Permanent
- Temporary

WisDOT Wetland Type

- Shallow Marsh
- Shrub Scrub
- Wet Meadow
- Wet Meadow (D)
- Lacustrine

0 100 200 Feet



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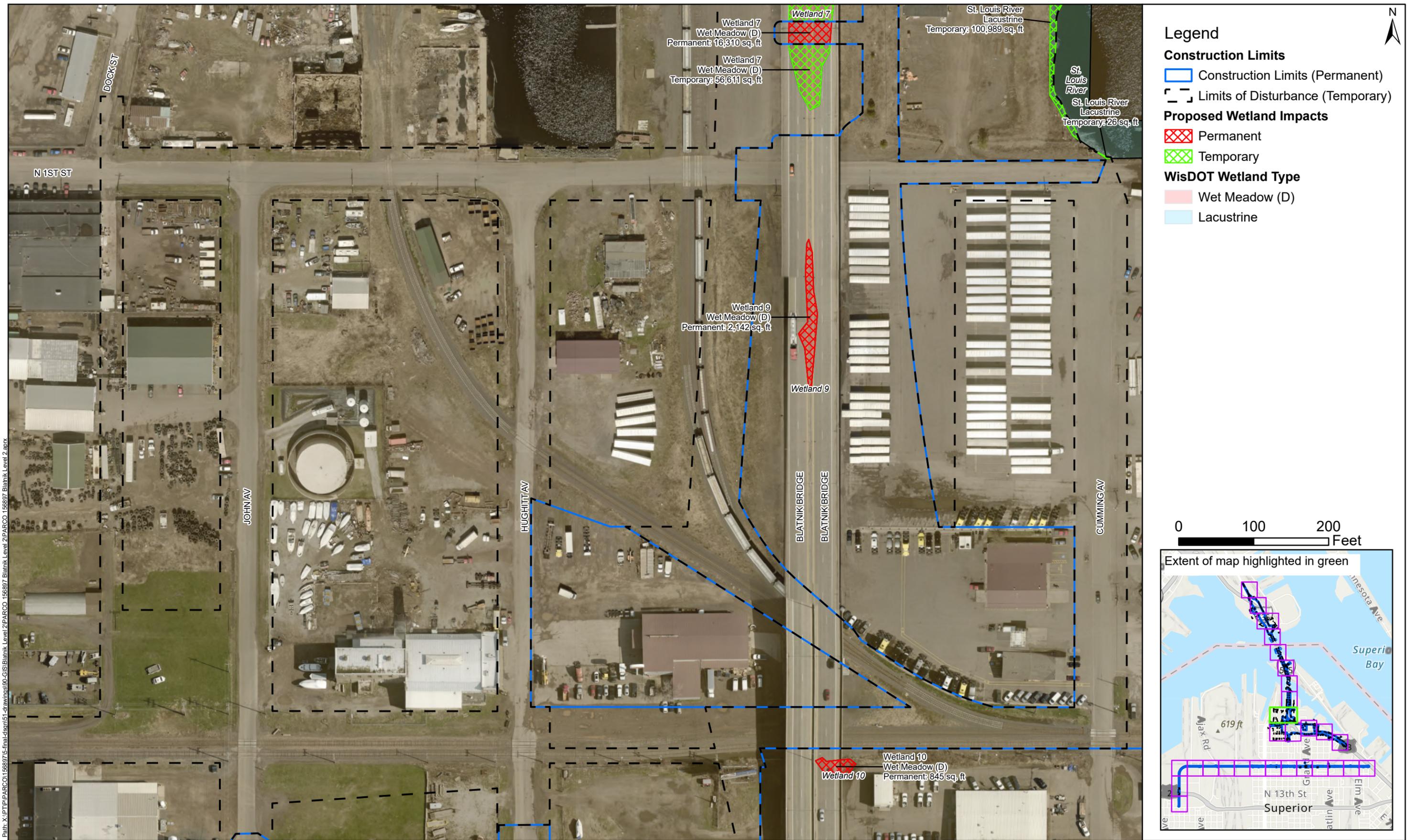
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 Print Date: Print Date: 1/24/2025



Map by: E. Massa
 Projection: WGS 84
 Source: MnDOT, WisDOT, St. Louis Co., Douglas Co., GEI, SEH

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 Duluth, Minnesota and Superior, Wisconsin

FIGURE 3-8
 Proposed Aquatic Resource Impacts



Legend

Construction Limits

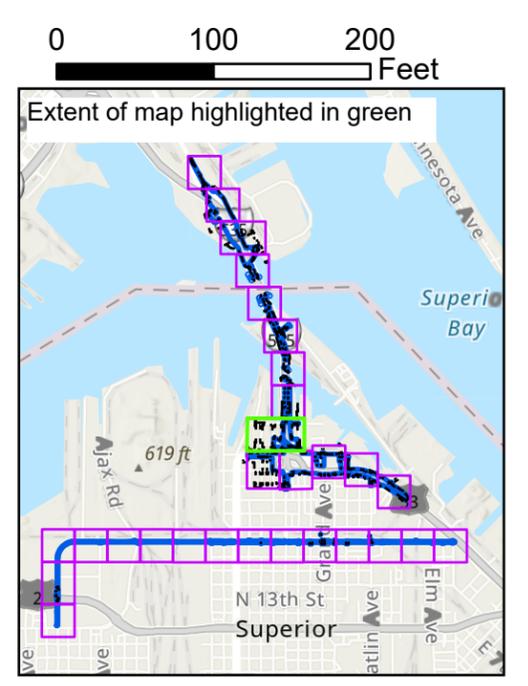
- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

Proposed Wetland Impacts

- Permanent
- Temporary

WisDOT Wetland Type

- Wet Meadow (D)
- Lacustrine



Path: X:\PT\PARCO\156897\5-final\sdm\51-drawings\90-GIS\Blatnik_Level_2\PARCO_156897_Blatnik_Level_2.aprx

Project Number: PARCO 156897
 Print Date: Print Date: 1/7/2025
 Map by: E. Massa
 Projection: WGS 84
 Source: MnDOT, WisDOT, St. Louis Co., Douglas Co., GEI, SEH

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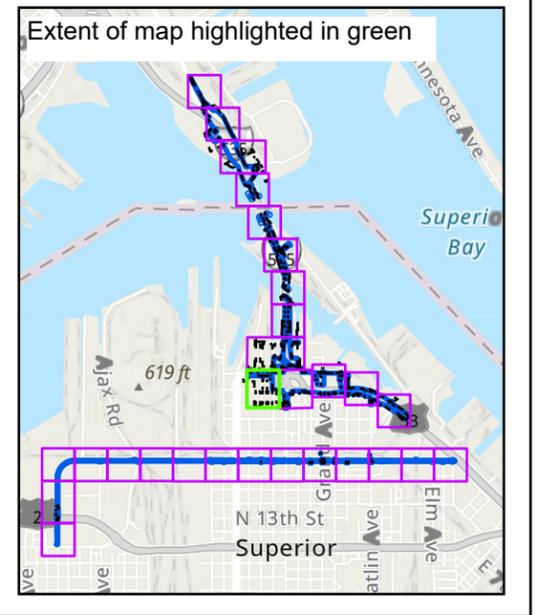
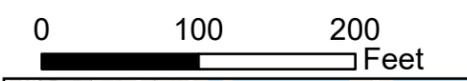
FIGURE 3-9
 Proposed Aquatic Resource Impacts



Legend

Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)



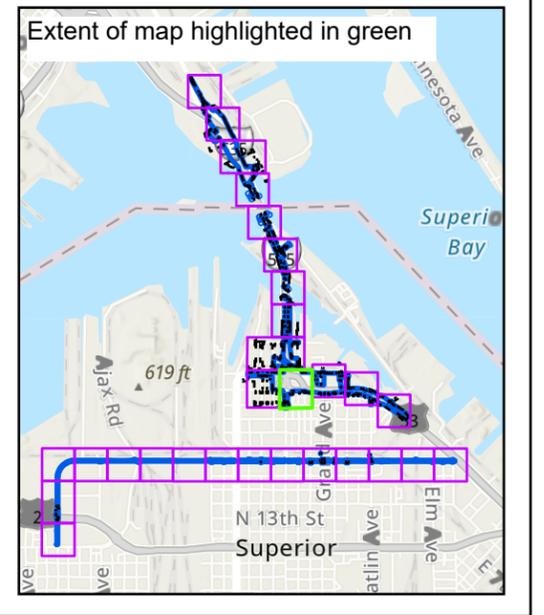
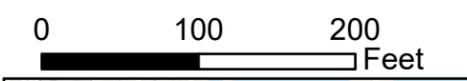
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Legend

Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)



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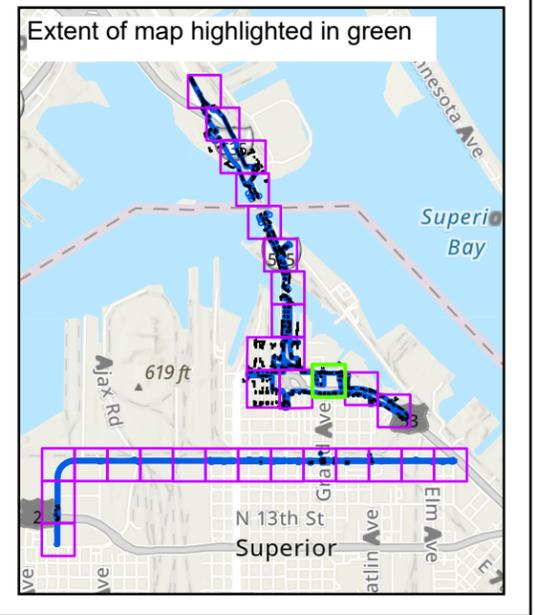
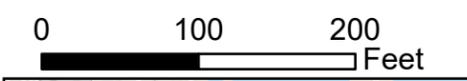
No Wetland Impacts
Proposed For This
Project Area



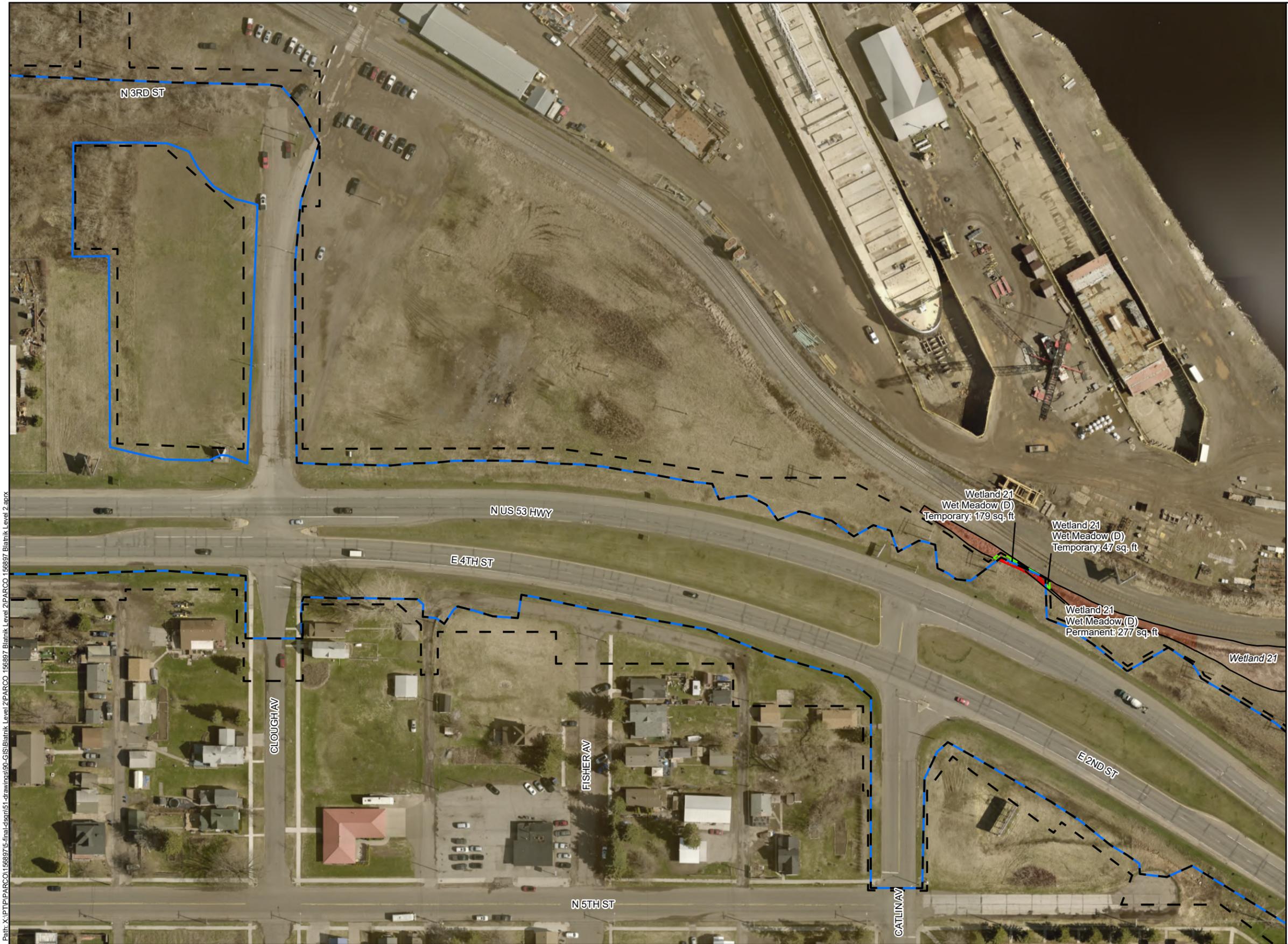
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Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)



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Legend

Construction Limits

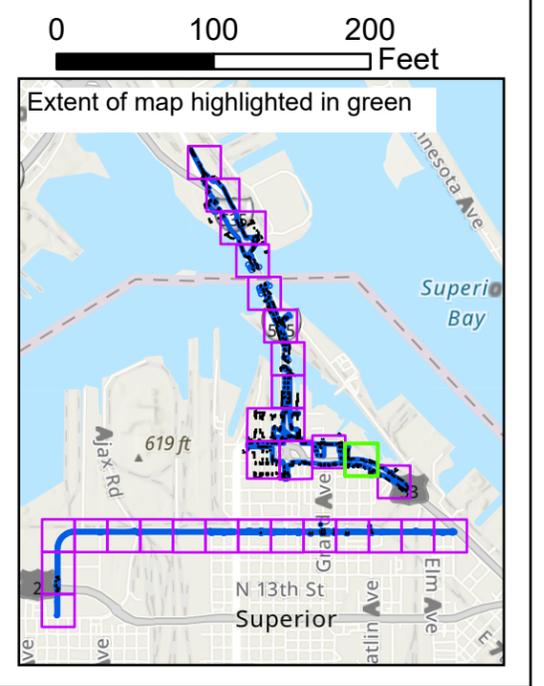
- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

Proposed Wetland Impacts

- Permanent
- Temporary

WisDOT Wetland Type

- Riparian Wooded
- Wet Meadow (D)



Path: X:\PT\PARCO\156897\5-final\dsml51-drawings\90-GIS\Blatnik_Level 2\PARCO_156897_Blatnik_Level 2.aprx



Legend

Construction Limits

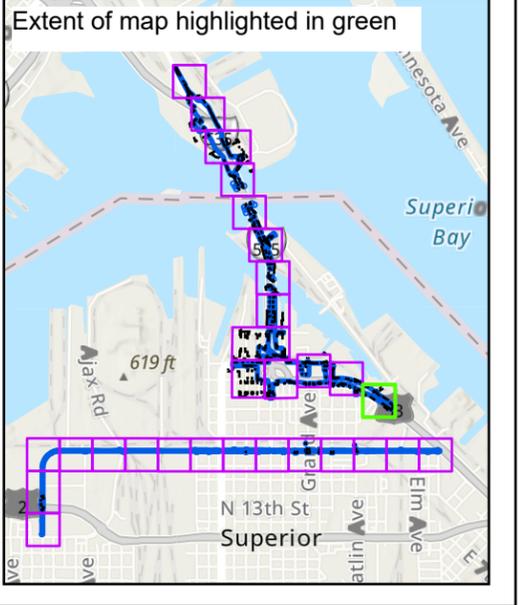
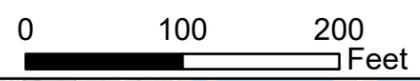
- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

Proposed Wetland Impacts

- Permanent
- Temporary

WisDOT Wetland Type

- Riparian Wooded
- Shallow Marsh
- Shrub Scrub
- Shrub Swamp (D)
- Wet Meadow (D)
- Wooded Swamp (D)



Path: X:\PT\PARCO\156897\5-final\dsml\51-drawings\90-GIS\Blatnik_Level_2\PARCO_156897_Blatnik_Level_2.aprx

Project Number: PARCO 156897
Print Date: Print Date: 1/7/2025



Map by: E. Massa
Projection: WGS 84
Source: MnDOT, WisDOT, St. Louis Co., Douglas Co., GEI, SEH

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Duluth, Minnesota and Superior, Wisconsin

FIGURE 3-14
Proposed Aquatic Resource Impacts



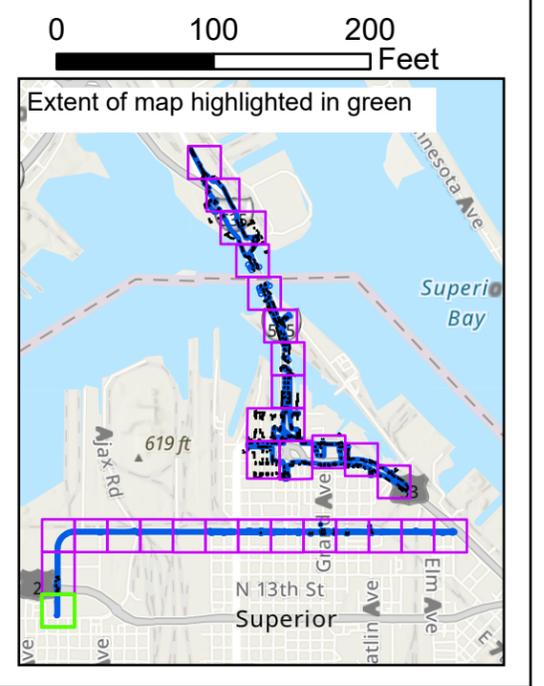
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Construction Limits

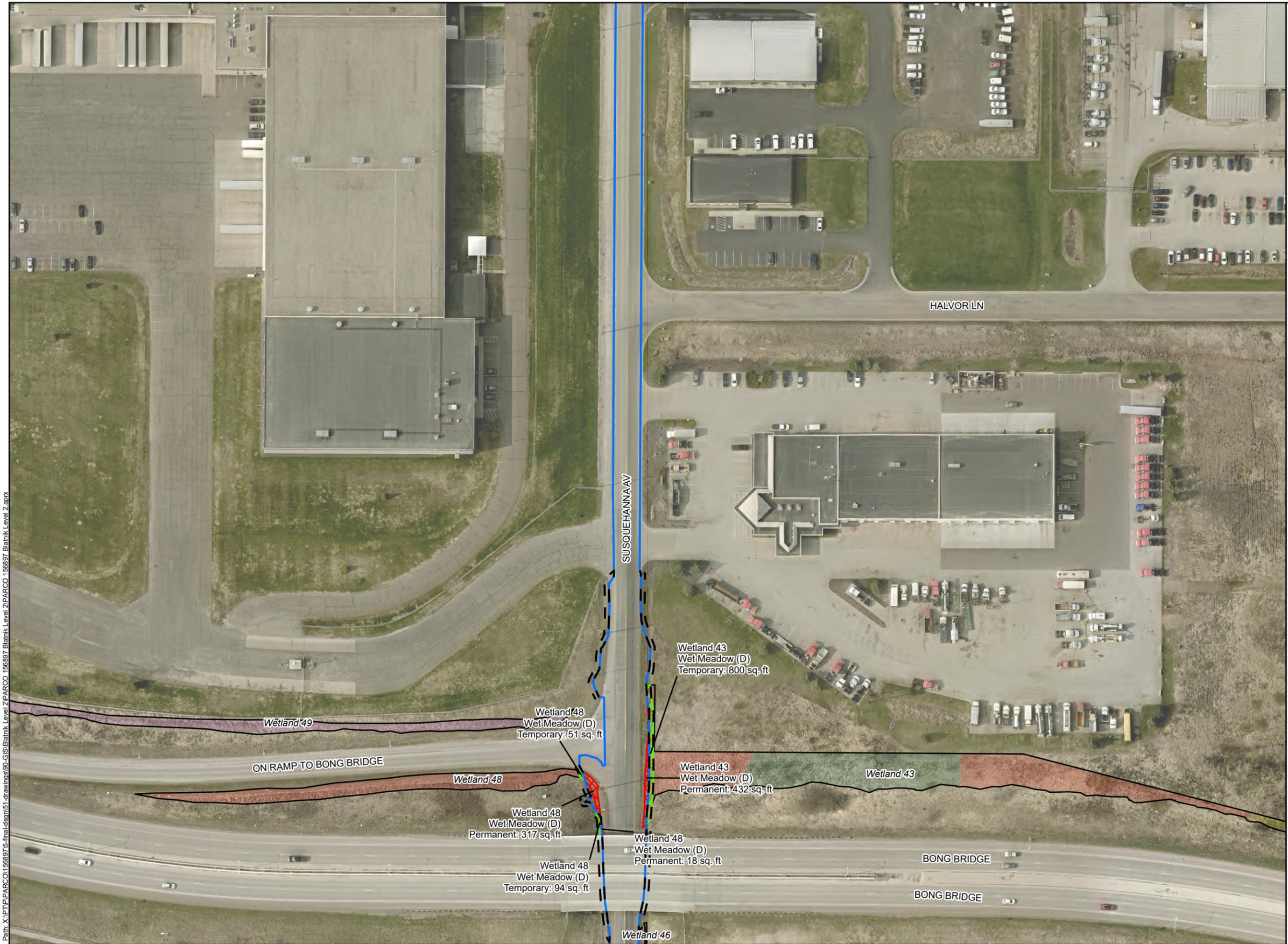
- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

WisDOT Wetland Type

- Shallow Marsh
- Wet Meadow (D)



Path: X:\PT\PARCO\156897\5-final\dsn\51-drawings\90-GIS\Blatnik_Level 2\PARCO_156897_Blatnik_Level 2.aprx



Legend

Construction Limits

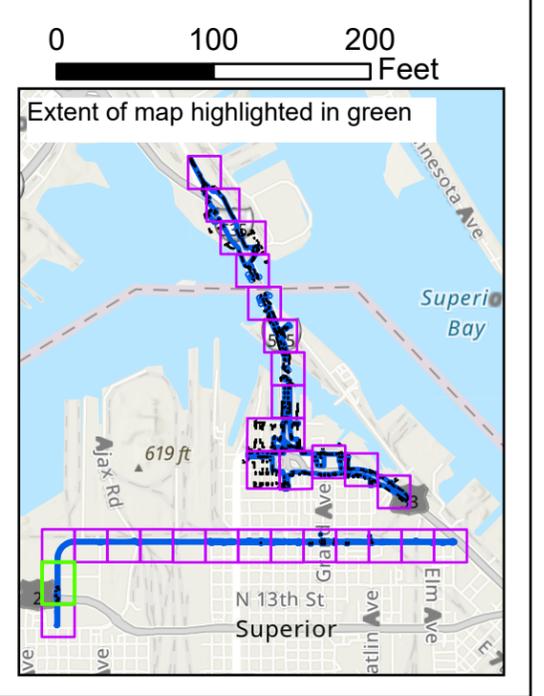
- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

Proposed Wetland Impacts

- Permanent
- Temporary

WisDOT Wetland Type

- Shallow Marsh
- Shrub Swamp (D)
- Wet Meadow (D)
- Wooded Swamp (D)



Path: X:\PT\PARCO\156897\5-final\dsml\51-drawings\90-GIS\Blatnik_Level_2\PARCO_156897_Blatnik_Level_2.aprx

Project Number: PARCO 156897
 Print Date: 1/7/2025
 Map by: E. Massa
 Projection: WGS 84
 Source: MnDOT, WisDOT, St. Louis Co., Douglas Co., GEI, SEH

**John A. Blatnik / I-535 Bridge Reconstruction
 Duluth, Minnesota and Superior, Wisconsin**

FIGURE 3-16
 Proposed Aquatic Resource Impacts





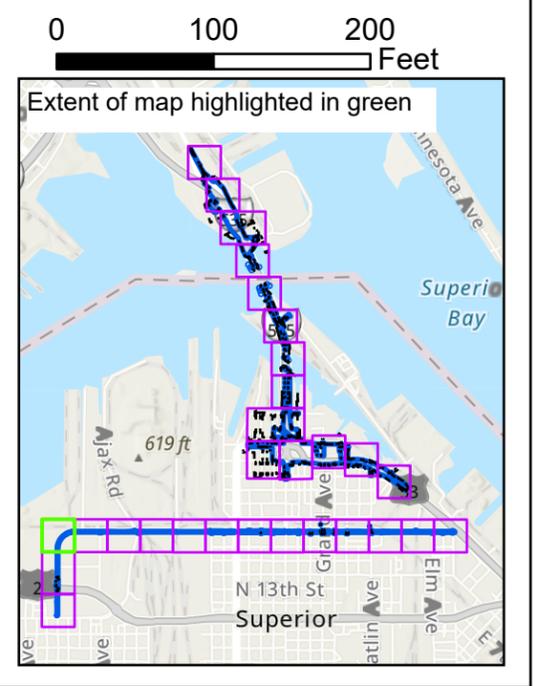
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Construction Limits

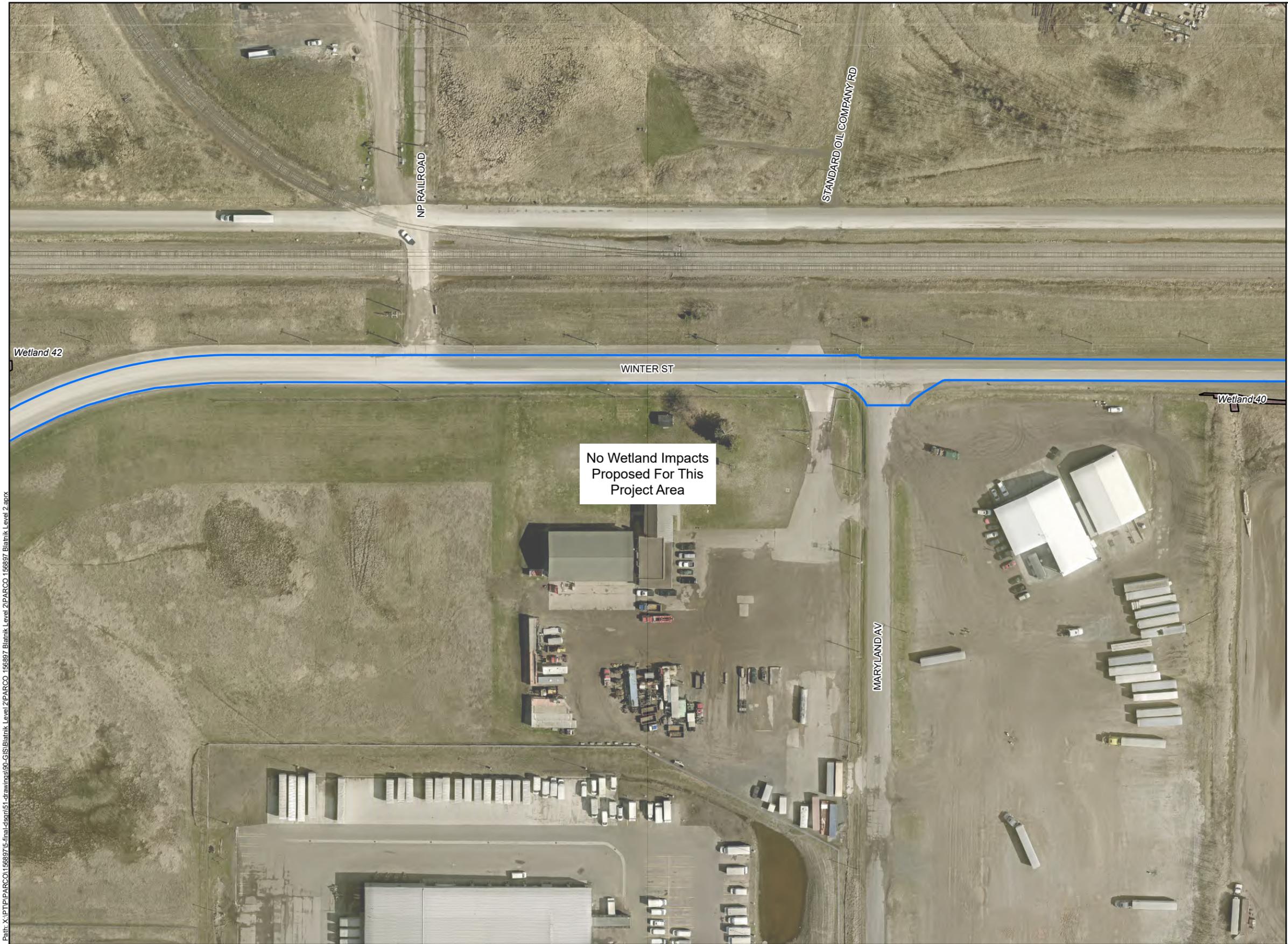
- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

WisDOT Wetland Type

- Shallow Marsh



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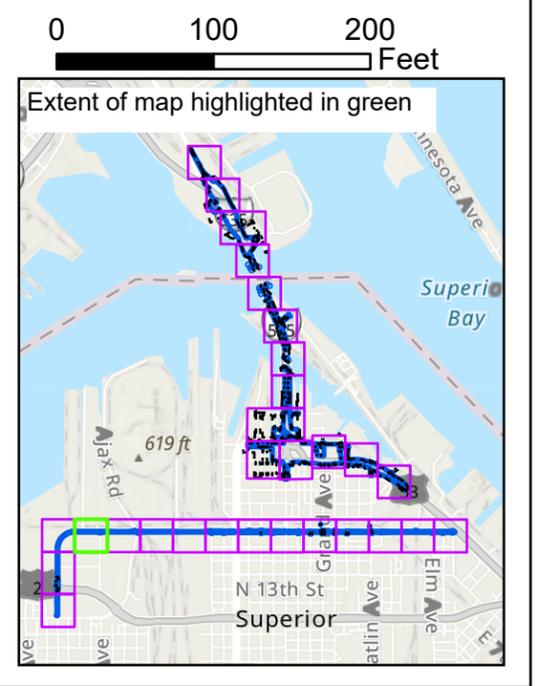
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Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

WisDOT Wetland Type

- Shallow Marsh



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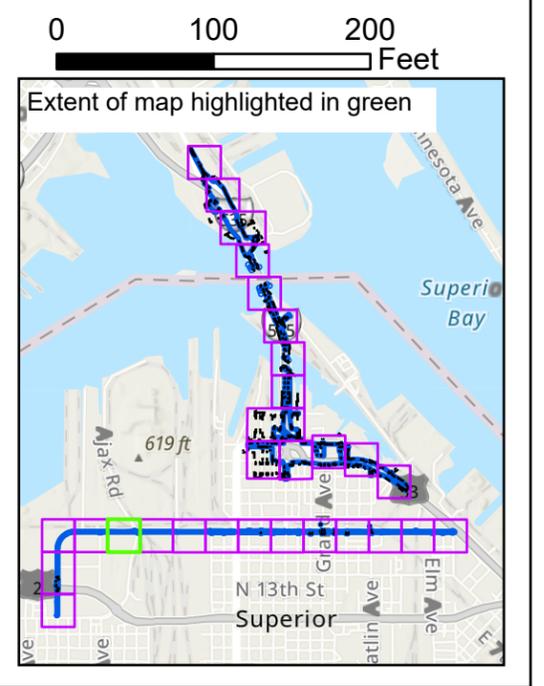
Legend

Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

WisDOT Wetland Type

- Shallow Marsh
- Wet Meadow (D)



Path: X:\PT\PARCO\156897\5-final\dsml\51-drawings\90-GIS\Blatnik_Level_2\PARCO_156897_Blatnik_Level_2.aprx

MARYLAND AV

ALAX RD

CARMAGIERD

Wetland 39

Wetland 41

Wetland 40

No Wetland Impacts
Proposed For This
Project Area

WINTER ST

GARFIELD AV



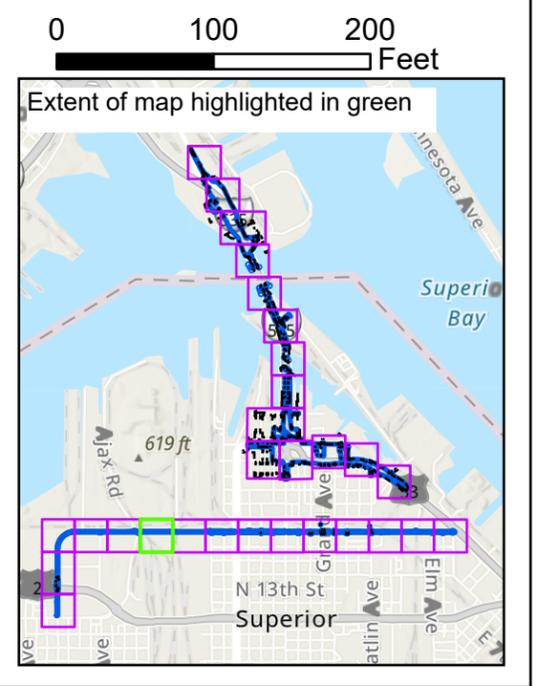
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Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

WisDOT Wetland Type

- Shallow Marsh
- Wet Meadow (D)



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No Wetland Impacts
Proposed For This
Project Area



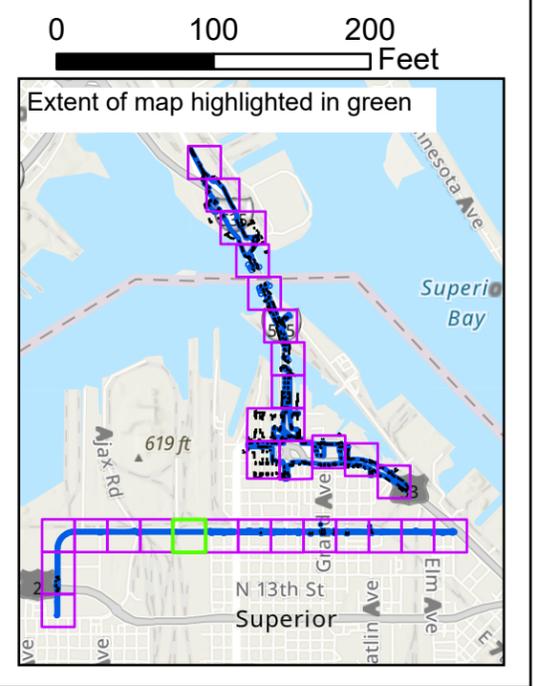
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Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

WisDOT Wetland Type

- Shallow Marsh
- Wet Meadow (D)



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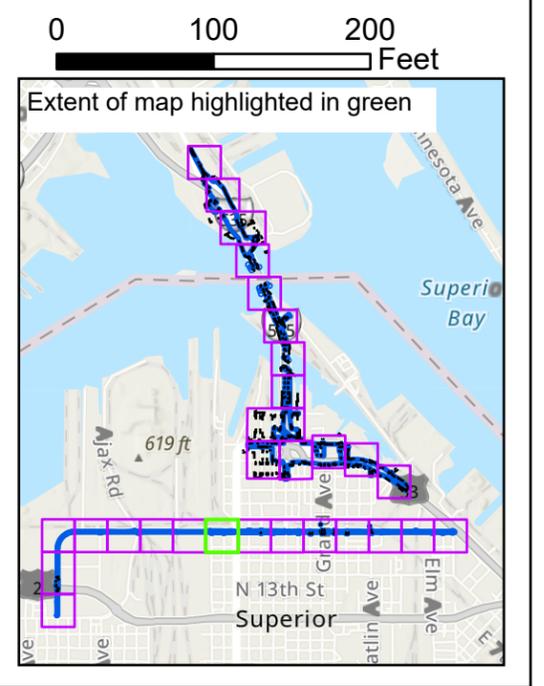
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Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

WisDOT Wetland Type

- Shallow Marsh



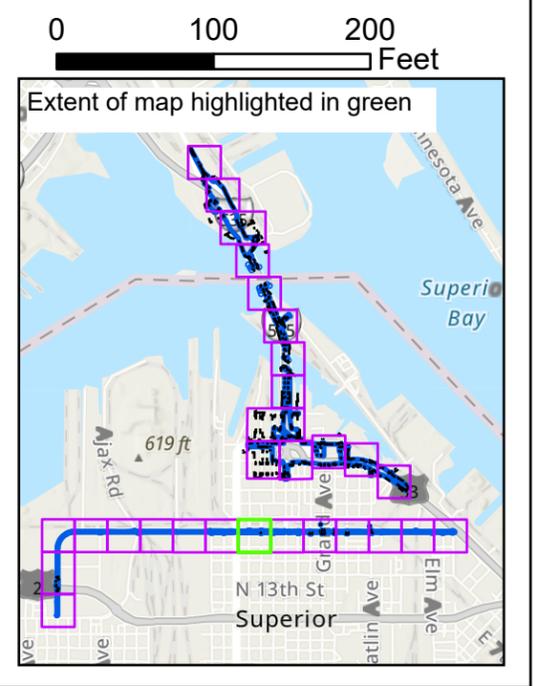
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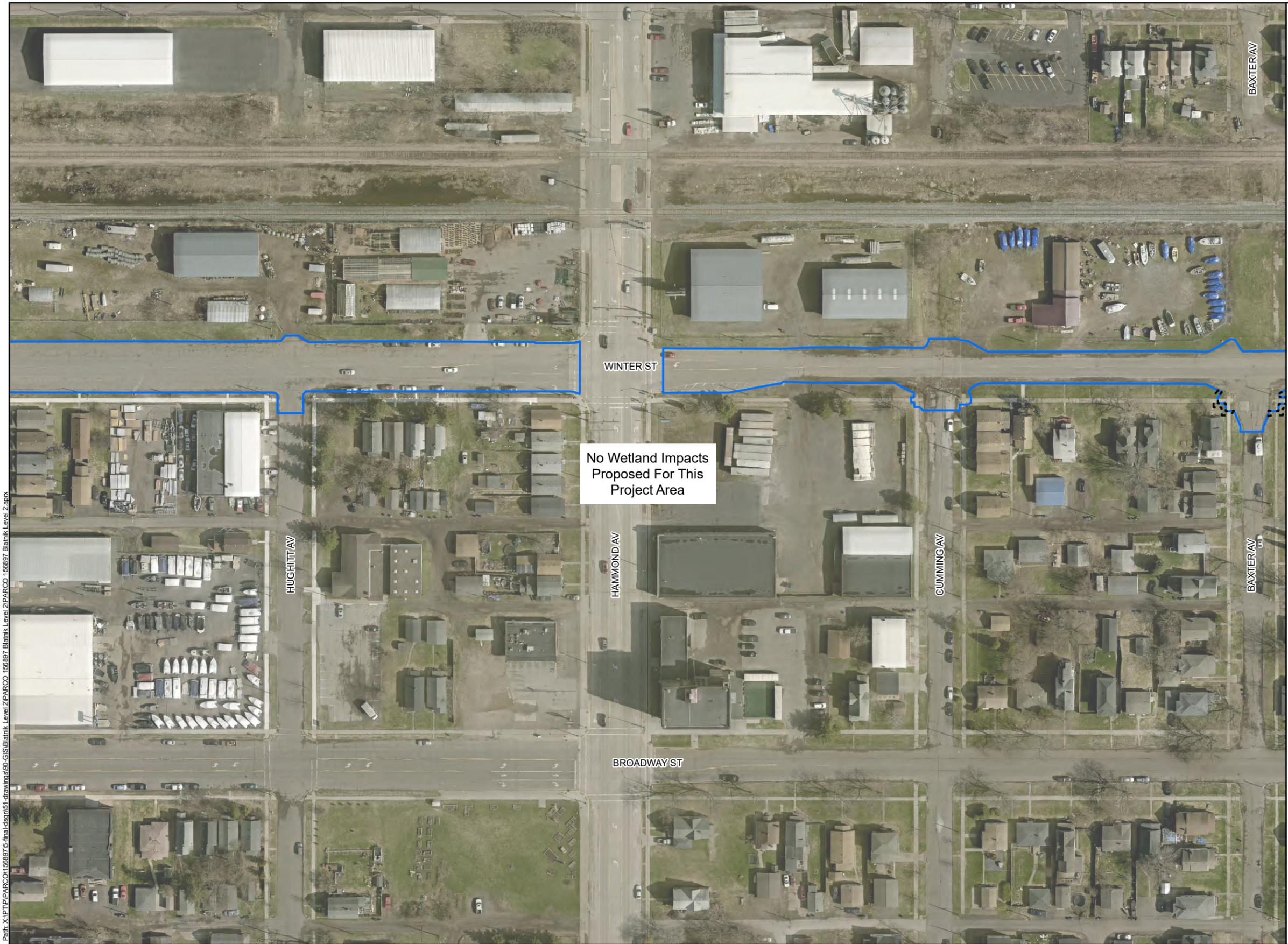
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Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)



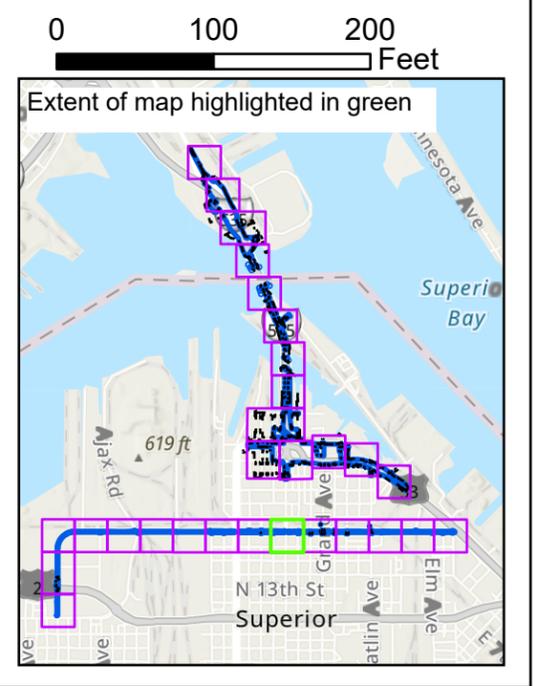
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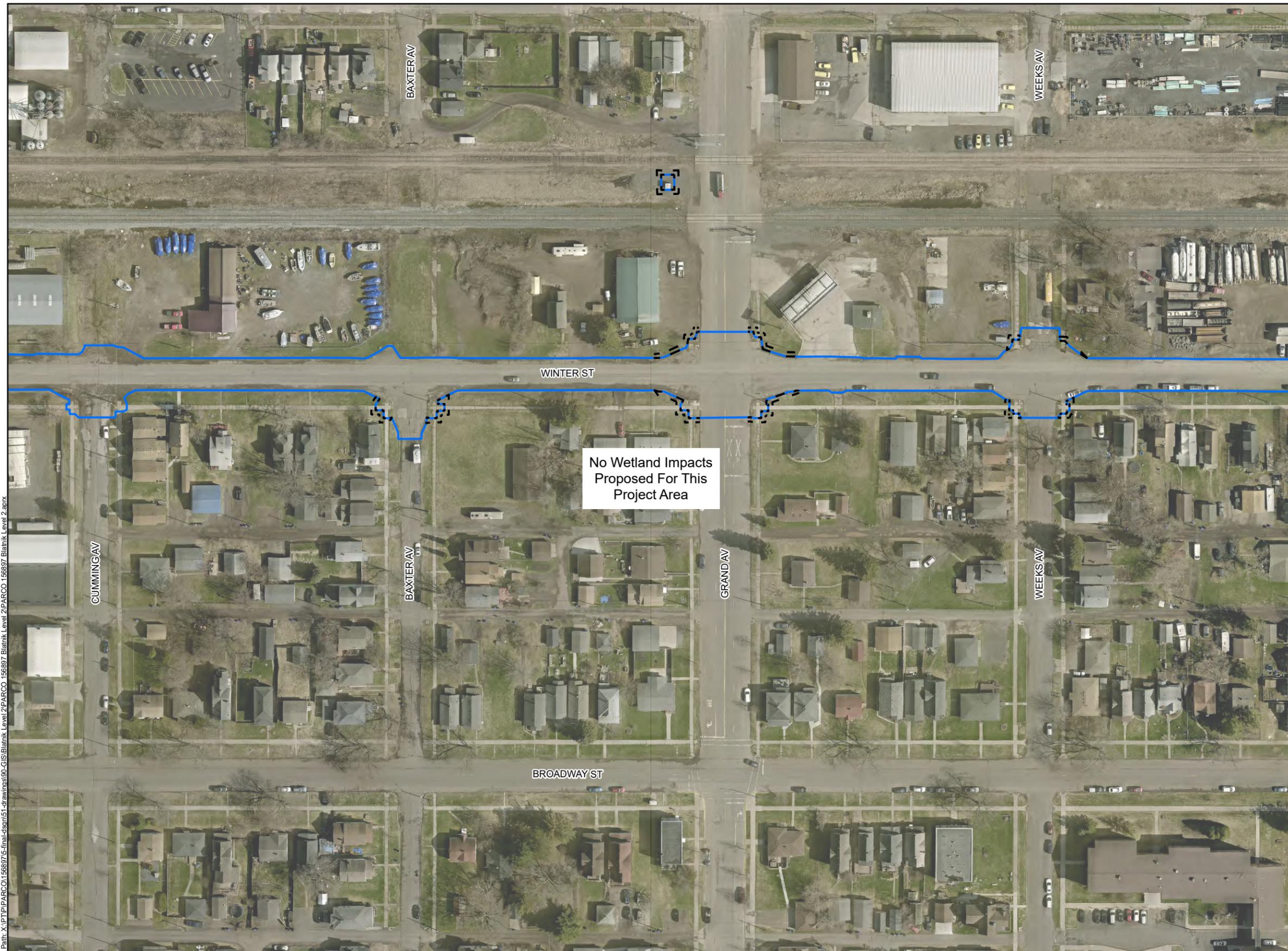
Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)



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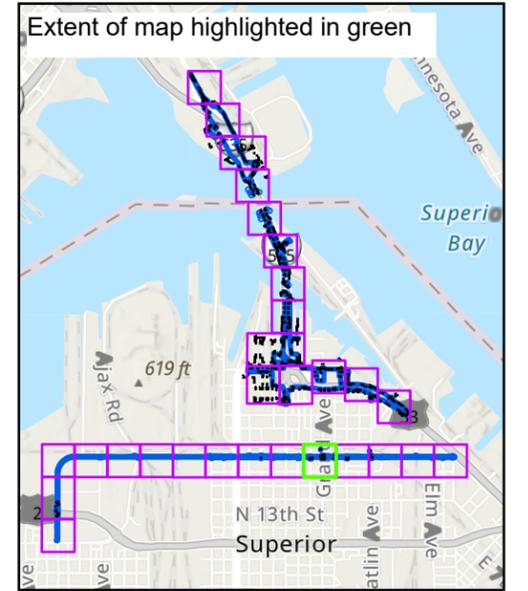
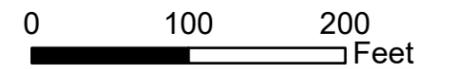
No Wetland Impacts
Proposed For This
Project Area



Legend

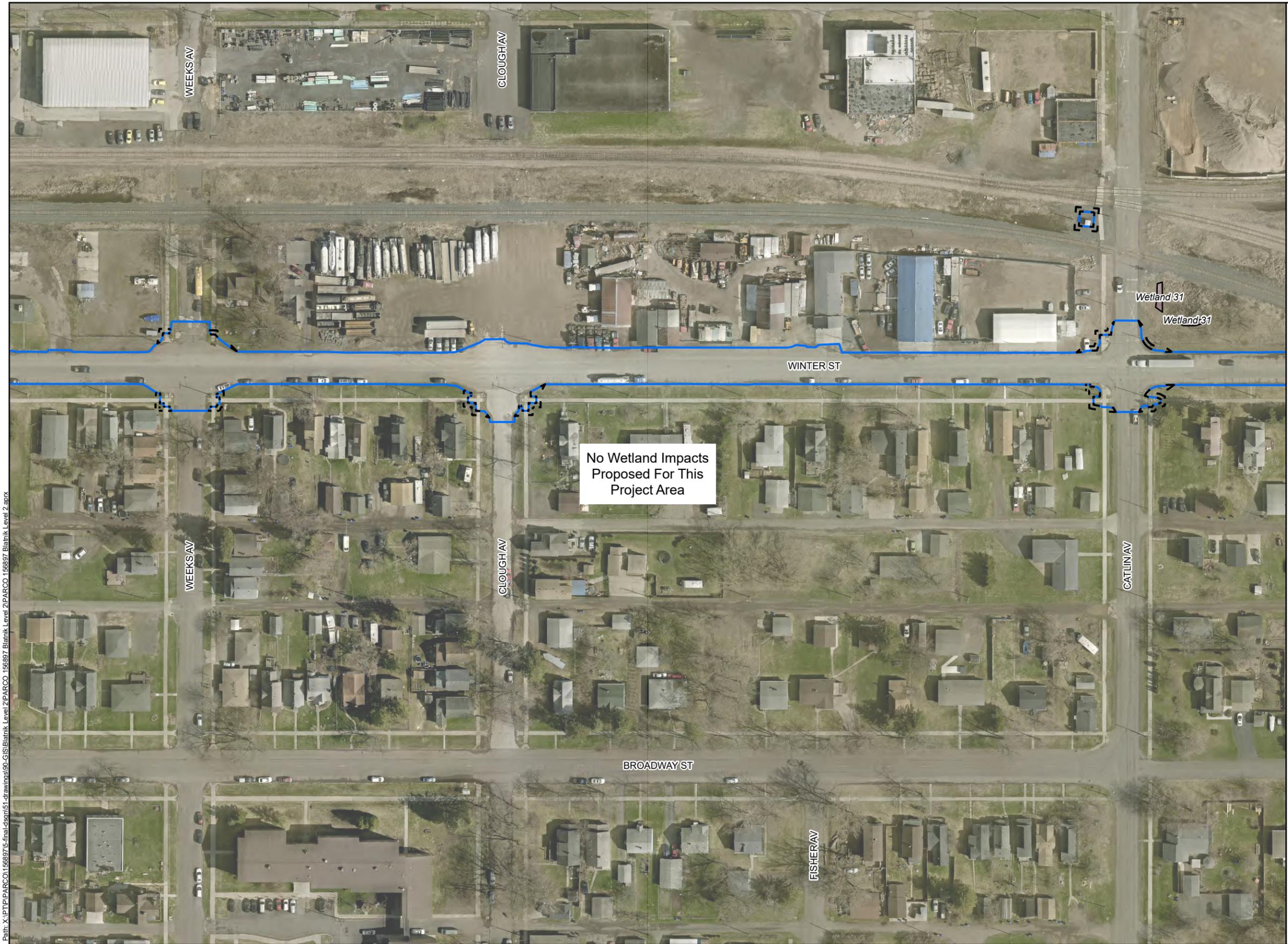
Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)



No Wetland Impacts
Proposed For This
Project Area

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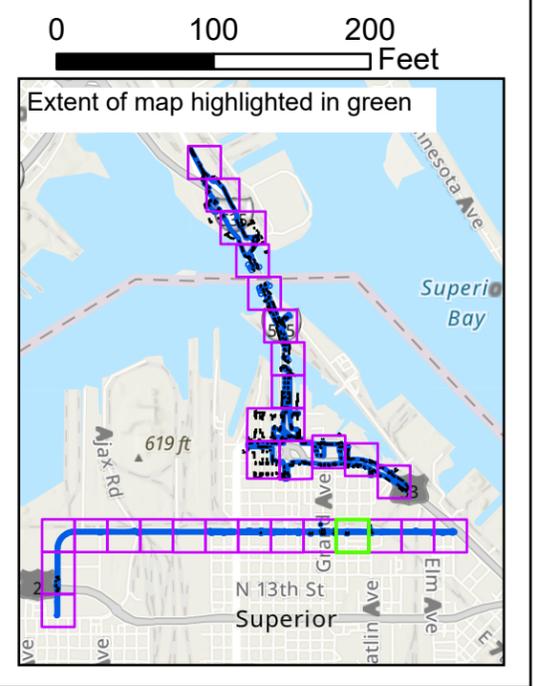
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Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

WisDOT Wetland Type

- Shallow Marsh



Path: X:\PT\PARCO\156897\5-final\ds\m151-drawings\90-GIS\Blatnik_Level_2\PARCO_156897_Blatnik_Level_2.aprx

No Wetland Impacts
Proposed For This
Project Area



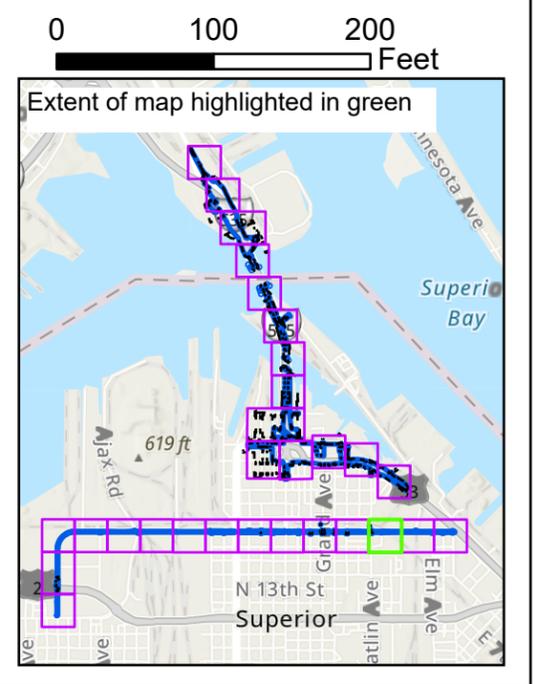
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Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

WisDOT Wetland Type

- Shallow Marsh



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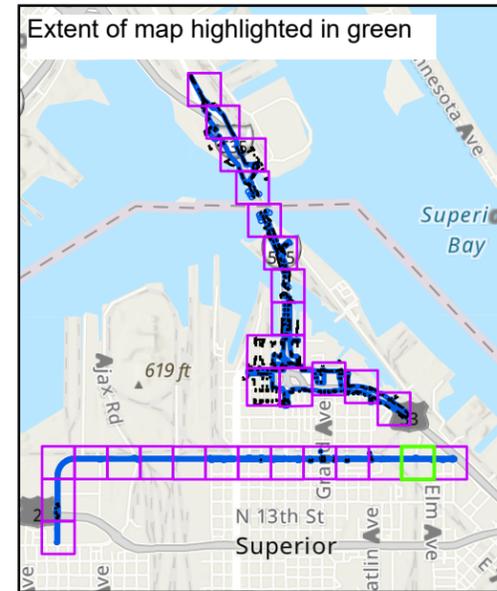
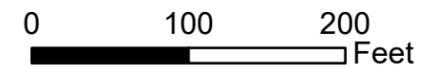
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Construction Limits

- Construction Limits (Permanent)
- Limits of Disturbance (Temporary)

WisDOT Wetland Type

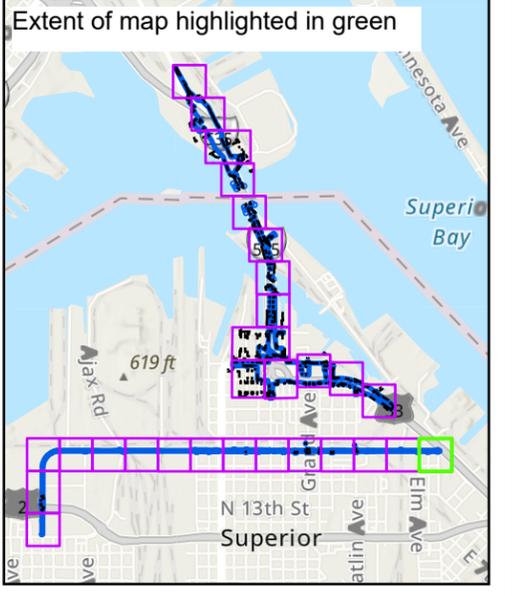
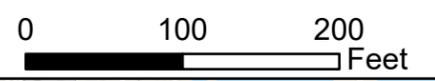
- Shallow Marsh
- Wet Meadow (D)



Path: X:\PT\PARCO\156897\5-final\dsml\51-drawings\90-GIS\Blatnik_Level_2\PARCO_156897_Blatnik_Level_2.aprx



- Legend**
- Construction Limits**
 - Construction Limits (Permanent)
 - Limits of Disturbance (Temporary)
 - WisDOT Wetland Type**
 - Shallow Marsh
 - Wet Meadow (D)

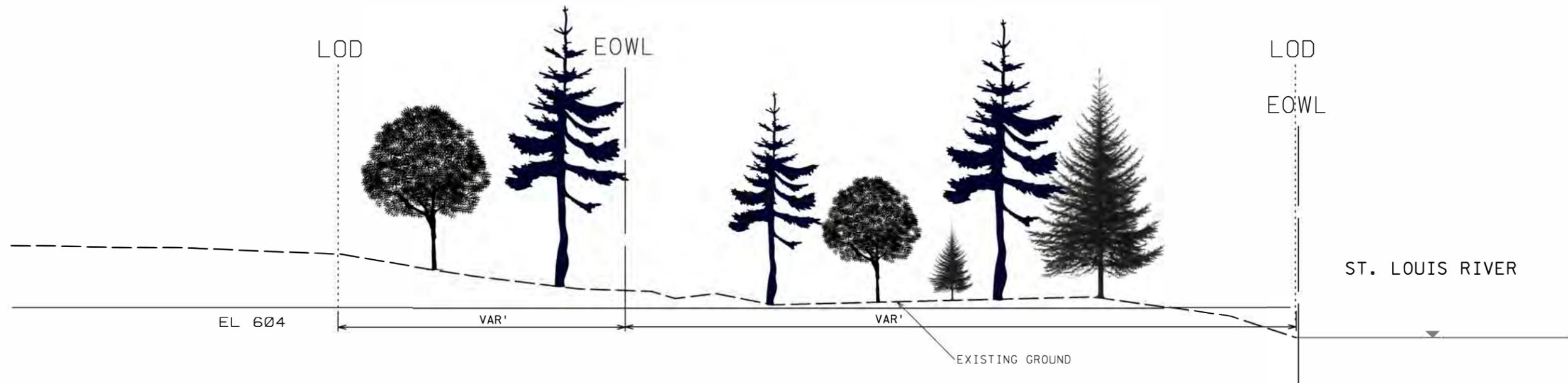


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No Wetland Impacts
Proposed For This
Project Area

LOD = LIMITS OF DISTURBANCE
LOC = LIMITS OF CONSTRUCTION
EOWL = EDGE OF WETLAND

XS-1 EXISTING CONDITIONS



CROSS SECTION 1
MINNESOTA LAND SIDE EXISTING CONDITIONS

LOCATION: NEAR MNDNR BOAT LAUNCH

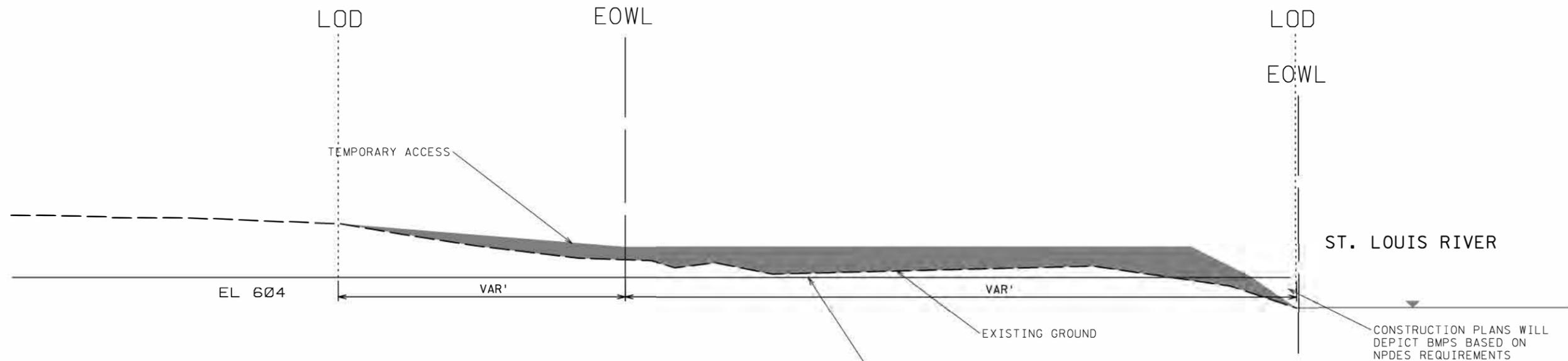


AQUATIC RESOURCES IMPACTS CROSS SECTIONS				
STATE PROJ. NO. 6981-26	(TH 535)	SHEET NO. X1	OF X6	SHEETS

DISTRICT #: 1
PLOT NAME: d698126.xs
PATH & FILENAME: Projects\DI_DUL\535\6981\026\Design\Consultant\Contract - 1034810 Parsons\WHDOT Deliverables\SP 6981-26 Permittting Drawings\d698126_xs.dgn

LOD = LIMITS OF DISTURBANCE
 LOC = LIMITS OF CONSTRUCTION
 EOWL = EDGE OF WETLAND

XS-1 TEMPORARY ACCESS & STAGING



TEMPORARY WETLAND IMPACT FOR TEMPORARY ACCESS PLATFORM AND LAYDOWN. TEMPORARY ACCESS PLATFORM AND LAYDOWN WILL BE EITHER TEMPORARY CRANE MATS OR TYPE 5 GEOTEXTILE FABRIC AND GRANULAR AGGREGATE. NO EXCAVATIONS ALLOWED, TREE CLEARING ONLY (NO GRUBBING), IN WETLANDS TO LEVEL PLATFORM OR LAYDOWN AREA.

CROSS SECTION 1
 MINNESOTA LAND SIDE TEMPORARY IMPACTS FOR
 TEMPORARY ACCESS PLATFORM AND LAYDOWN
 LOCATION: NEAR MNDNR BOAT LAUNCH

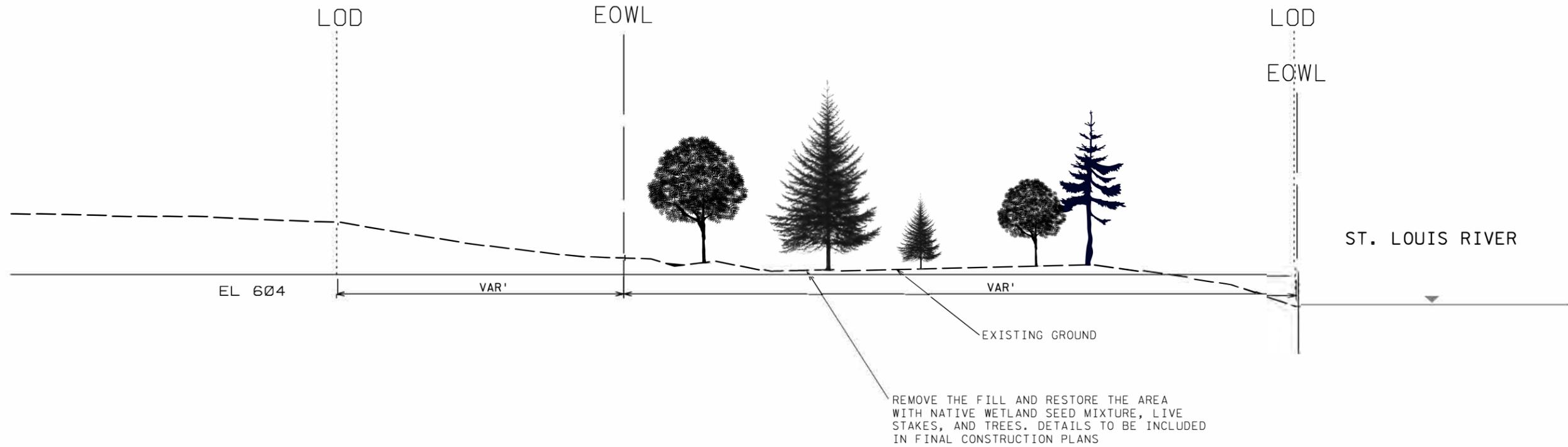


AQUATIC RESOURCES IMPACTS CROSS SECTIONS			
STATE PROJ. NO. 6981-26	(TH 535)	SHEET NO. X2	OF X6 SHEETS

DISTRICT #: 1
 PLOT NAME: d698126.xs
 PATH & FILENAME: Projects\DI_DIL\535\6981\026\Design\Consultant\Contract - 1034810 Parsons\WmDOT Deliverables\SP 6981-26 Permitting Drawings\d698126_xs.dgn
 PLOTTED/REVISED: 17-JAN-2025

LOD = LIMITS OF DISTURBANCE
LOC = LIMITS OF CONSTRUCTION
EOWL = EDGE OF WETLAND

XS-1 RESTORED CONDITIONS



CROSS SECTION 1
MINNESOTA LAND SIDE RESTORED CONDITIONS

LOCATION: NEAR MNDNR BOAT LAUNCH

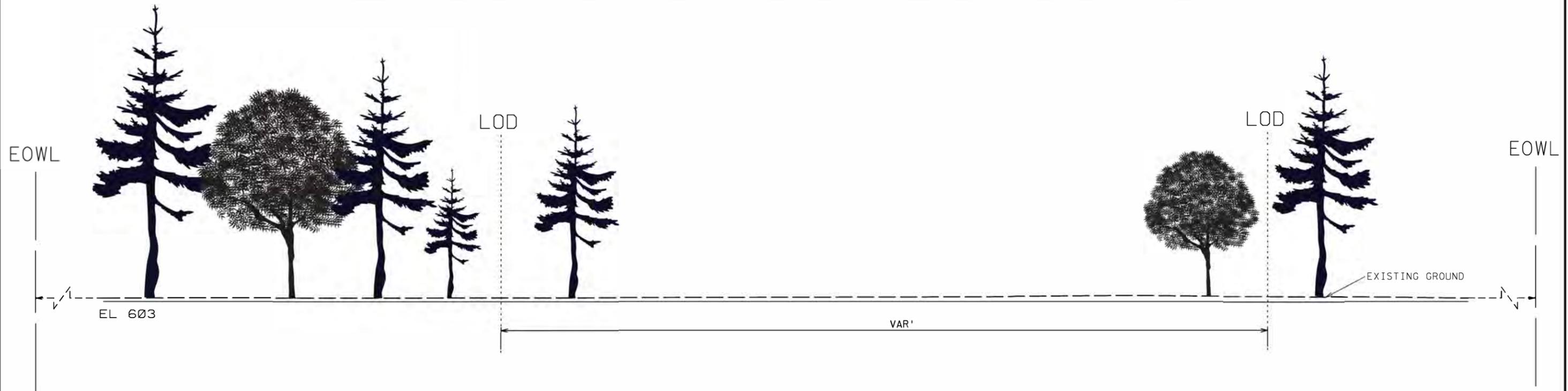


AQUATIC RESOURCES IMPACTS CROSS SECTIONS			
STATE PROJ. NO. 6981-26	(TH 535)	SHEET NO. X3	OF X6 SHEETS

DISTRICT #: 1
PLOT NAME: d698126.xs
PATH & FILENAME: Projects\DI_DUL\535\6981\026\Design\Consultant\Contract - 1034810 Parsons\WHDOT Deliverables\SP 6981-26 Permitting Drawings\d698126_xs.dgn
PLOTTED/REVISED: 17-JAN-2025

LOD = LIMITS OF DISTURBANCE
LOC = LIMITS OF CONSTRUCTION
EOWL = EDGE OF WETLAND

XS-2 EXISTING CONDITIONS



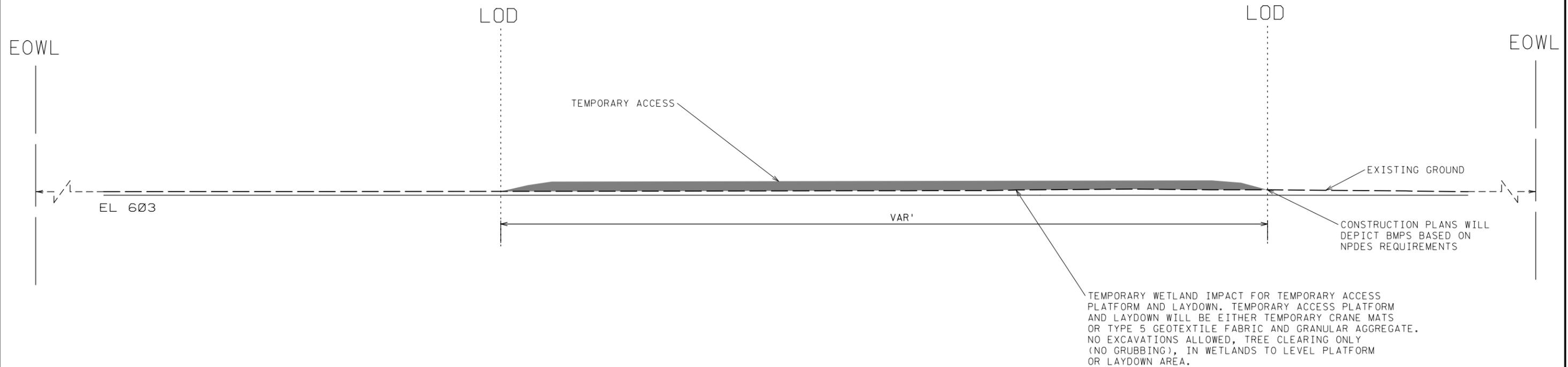
CROSS SECTION 2
WISCONSIN CONNOR'S POINT EXISTING CONDITIONS
LOCATION: INBETWEEN PROPOSED PIER 20 AND 21



DISTRICT #: 1
PLOT NAME: d698126.xs
PATH & FILENAME: Projects\DI_DUL\535\6981\026\Design\Consultant\Contract - 1034810 Parsons\WHDOT Deliverables\SP 6981-26 Permittting Drawings\d698126_xs.dgn
PLOTTED/REVISED: 17-JAN-2025

LOD = LIMITS OF DISTURBANCE
 LOC = LIMITS OF CONSTRUCTION
 EOWL = EDGE OF WETLAND

XS-2 TEMPORARY ACCESS & STAGING



CROSS SECTION 2
 WISCONSIN CONNOR'S POINT TEMPORARY IMPACTS FOR
 TEMPORARY ACCESS PLATFORM AND LAYDOWN

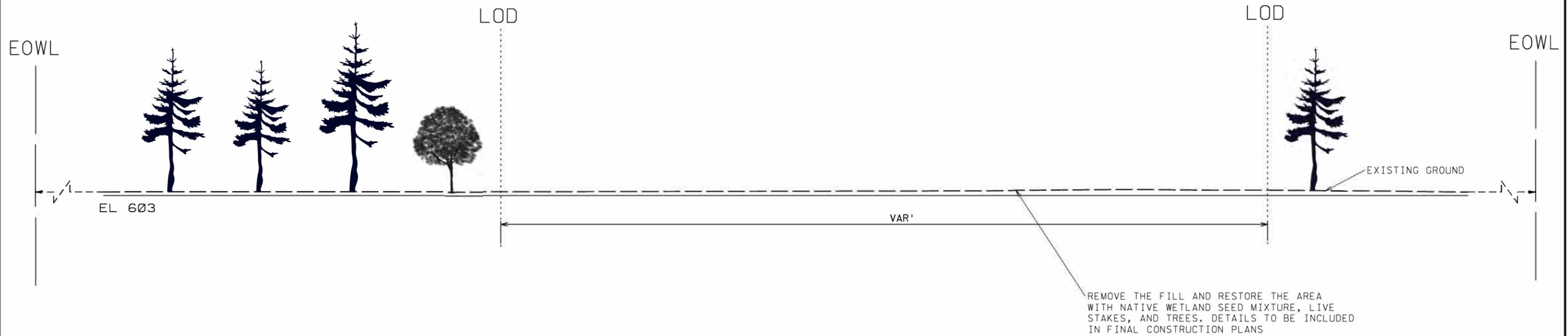
LOCATION: INBETWEEN PROPOSED PIER 20 AND 21



DISTRICT #: 1
 PLOT NAME: d698126.xs
 PATH & FILENAME: Projects\DI_DUL\535\6981\026\Design\Consultant\Contract - 1034810 Parsons\WnDOT Deliverables\SP 6981-26 Permitting Drawings\d698126_xs.dgn
 PLOTTED/REVISED: 17-JAN-2025

LOD = LIMITS OF DISTURBANCE
LOC = LIMITS OF CONSTRUCTION
EOWL = EDGE OF WETLAND

XS-2 RESTORED CONDITIONS



CROSS SECTION 2
WISCONSIN CONNOR'S POINT RESTORED CONDITIONS
LOCATION: INBETWEEN PROPOSED PIER 20 AND 21



DISTRICT #: 1
PLOT NAME: d698126.xs
PATH & FILENAME: Projects\DI_DUL\535\6981\026\Design\Consultant\Contract - 1034810 Parsons\WHDOT Deliverables\SP 6981-26 Permitting Drawings\d698126.xs.dgn
PLOTTED/REVISED: 17-JAN-2025

NOTES:

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINE FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES".

AN APPROACH FILL SETTLEMENT PERIOD OF xx MONTHS IS REQUIRED BEFORE CONSTRUCTION OF ABUTMENTS MAY BEGIN. SEE BRIDGE CONSTRUCTION'S FOUNDATION RECOMMENDATIONS AND FOUNDATION UNIT'S MEMO.

TRAFFIC TO BE DETOURED DURING CONSTRUCTION.

NUMBER AND SPACING OF BEAMS IS APPROXIMATE AND WILL BE SET DURING FINAL DESIGN.

SPANS SET TO AVOID EXISTING FOUNDATIONS TO EXTENT POSSIBLE.

RETAINING WALL AND WINGWALL CONNECTION DETAILS TO BE COORDINATED BY DESIGN BUILD CONTRACTOR.

ALLOW FOR 2" FORM LINER IN THE ABUTMENT FACE AND WINGWALLS.

DECK DRAINS ARE REQUIRED ON BRIDGE, COORDINATE LOCATION, SIZE AND CONNECTION TO ROAD DRAINAGE IN FINAL DESIGN.

BRIDGE IS ON THE OSOW (SUPERLOAD) CORRIDOR, SEE PROJECT OSOW REPORT FOR ADDITIONAL INFORMATION.

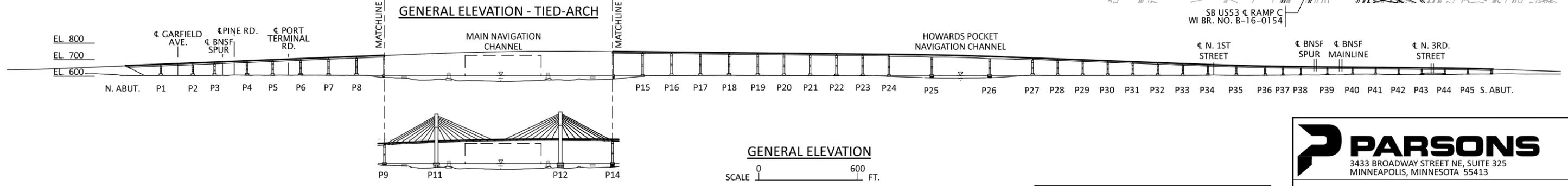
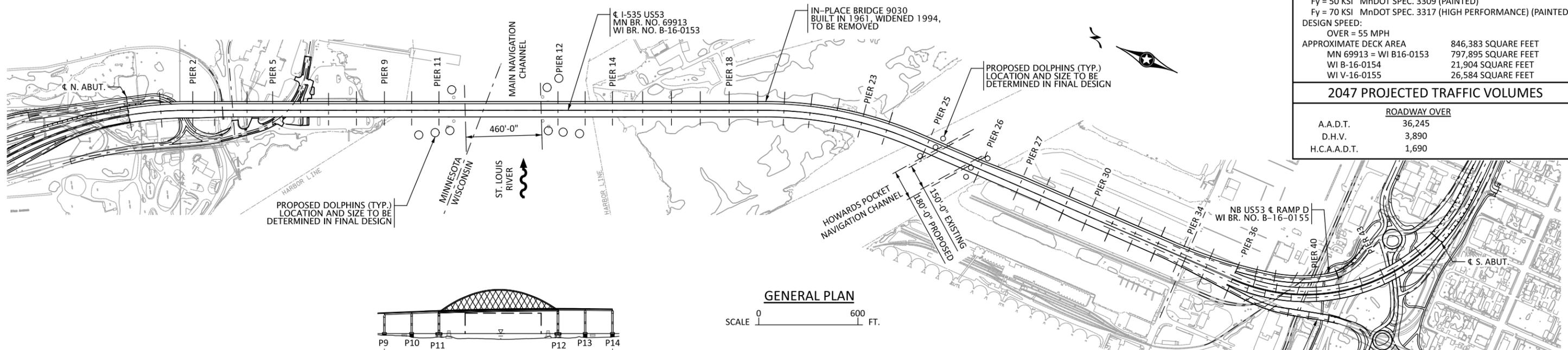
SEE INPLACE UTILITIES SHEETS FOR IN-PLACE UTILITIES.

BRIDGE APPROACH PANEL LAYOUT STANDARDS 5-297.224 AND 5-297.225 APPLY.

BRIDGE APPROACH TREATMENT STANDARD 5-297.233 APPLIES.

PROPOSED TYPE OF STRUCTURE
<p>SUPERSTRUCTURE:</p> <ul style="list-style-type: none"> SIMPLE SPAN PRESTRESSED CONCRETE BEAMS (APPROACH UNITS) 1-SPAN TIED ARCH (MAIN NAVIGATION UNIT - ALTERNATIVE) 3-SPAN CABLE STAY (MAIN NAVIGATION UNIT - ALTERNATIVE) 3-SPAN STEEL PLATE GIRDER (HOWARD POCKET NAVIGATION UNIT) <p>SUBSTRUCTURE:</p> <ul style="list-style-type: none"> PARAPET ABUTMENTS SUPPORTED ON PILING MULTI-COLUMN PIERS SUPPORTED ON PILING (PILE TYPE TO BE DETERMINED FROM 2024 LOAD TESTING PROGRAM) <p>AESTHETICS:</p> <p>SERVICE LIFE:</p>

FED. PROJ. NO. NHPP I535(005)													
DESIGN DATA	2047 PROJECTED TRAFFIC VOLUMES												
<p>2020 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS</p> <p>HL-93 LIVE LOAD</p> <p>n = 1.05 IMPORTANCE FACTOR</p> <p>DEAD LOAD INCLUDES 20 PSF ALLOWANCE FOR FUTURE WEARING COURSE MODIFICATIONS.</p> <p>MATERIAL DESIGN PROPERTIES:</p> <p>REINFORCED CONCRETE:</p> <ul style="list-style-type: none"> f_c = 4 KSI CONCRETE f_y = 60 KSI PLAIN AND EPOXY COATED BARS f_y = 75 KSI STAINLESS STEEL BARS n = 7.3 FOR REINFORCEMENT BARS <p>PRETENSIONED CONCRETE:</p> <ul style="list-style-type: none"> f_c = 9.5 KSI CONCRETE (MAX.) f_{pu} = 300 KSI LOW RELAXATION STRANDS n = 1 FOR PRETENSIONING STRANDS 0.72 f_{pu} FOR INITIAL PRESTRESS <p>STRUCTURAL STEEL:</p> <ul style="list-style-type: none"> F_y = 50 KSI MnDOT SPEC. 3309 (PAINTED) F_y = 70 KSI MnDOT SPEC. 3317 (HIGH PERFORMANCE) (PAINTED) <p>DESIGN SPEED:</p> <ul style="list-style-type: none"> OVER = 55 MPH <p>APPROXIMATE DECK AREA</p> <table border="0"> <tr> <td>846,383 SQUARE FEET</td> </tr> <tr> <td>MN 69913 = WI B16-0153 797,895 SQUARE FEET</td> </tr> <tr> <td>WI B-16-0154 21,904 SQUARE FEET</td> </tr> <tr> <td>WI V-16-0155 26,584 SQUARE FEET</td> </tr> </table>	846,383 SQUARE FEET	MN 69913 = WI B16-0153 797,895 SQUARE FEET	WI B-16-0154 21,904 SQUARE FEET	WI V-16-0155 26,584 SQUARE FEET	<table border="1"> <thead> <tr> <th colspan="2">ROADWAY OVER</th> </tr> </thead> <tbody> <tr> <td>A.A.D.T.</td> <td>36,245</td> </tr> <tr> <td>D.H.V.</td> <td>3,890</td> </tr> <tr> <td>H.C.A.A.D.T.</td> <td>1,690</td> </tr> </tbody> </table>	ROADWAY OVER		A.A.D.T.	36,245	D.H.V.	3,890	H.C.A.A.D.T.	1,690
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ROADWAY OVER													
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D.H.V.	3,890												
H.C.A.A.D.T.	1,690												



LIST OF SHEETS *	
NO.	DESCRIPTION
1	TITLE SHEET
2-8	GENERAL PLAN & ELEVATION
9	GENERAL PLAN & ELEVATION - RAMP C
10	GENERAL PLAN & ELEVATION - RAMP D
11	BRIDGE SURVEY
12-20	CONTRACTED PROFILES
21-26	TYPICAL SECTIONS
27-32	ALIGNMENT PLAN
33-36	ALIGNMENT TABULATIONS
37-41	SUPERELEVATION PLAN
42	NOT USED
43-44	NAVIGATIONAL CLEARANCE
45-48	RAILROAD CLEARANCE
49-52	INPLACE UTILITIES
53-56	BORING PLAN
57-81	BORINGS
82-86	AESTHETICS

* FOR STEEL GIRDER APPROACH ALTERNATIVE SEE PRELIMINARY PLAN SHEETS S1 THROUGH S10.

PARSONS
3433 BROADWAY STREET NE, SUITE 325
MINNEAPOLIS, MINNESOTA 55413

MINNESOTA
DEPARTMENT OF TRANSPORTATION

PRELIMINARY PLAN
MN BRIDGE NO. 69913
WI BRIDGE NO. B-16-0153

I 535 (BLATNIK) OVER ST LOUIS RIVER, RAIL & STREET,
1.3 MI SE OF JCT TH 35,
REPLACE BR# 9030

BRIDGE I.D. NO. 501, 401, (324 OR 425)
SEC. 3, 10 & 14 TWP. 49 N. R. 14 W.

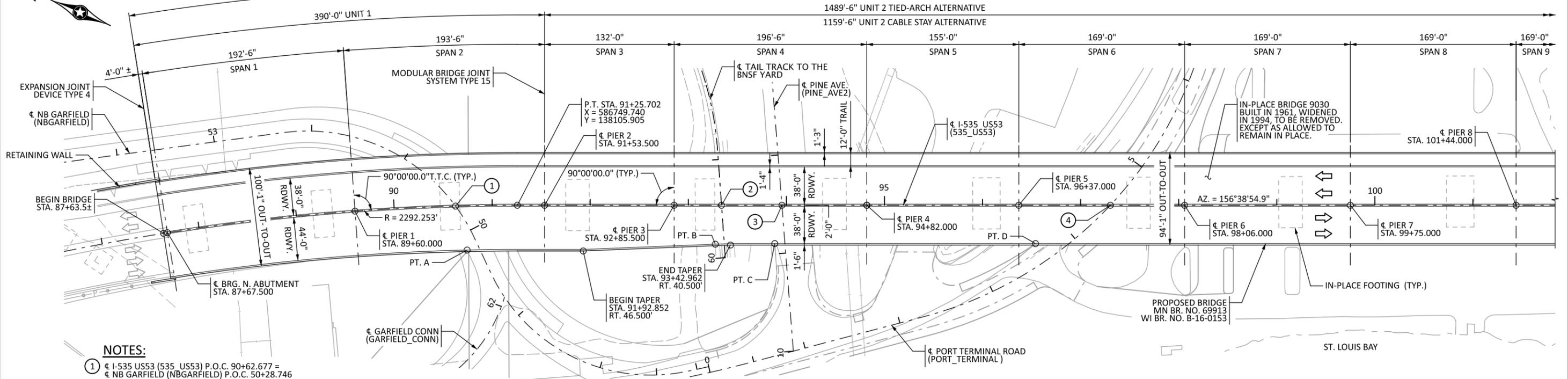
CITY OF DULUTH ST. LOUIS COUNTY, MN &
CITY OF SUPERIOR DOUGLAS COUNTY, WI

APPROVED: _____ DATE _____

DES: BJB DR: BJB
CHK: GLJ CHK: GLJ

Plotted By: PARSONS\p0022751
Date Plotted: 16-JAN-2025
Time Plotted: 11:43:46 AM Central
Pen Table: ICS MndOT-Iplot.pen
File Path: 001_T11eSheet.dgn

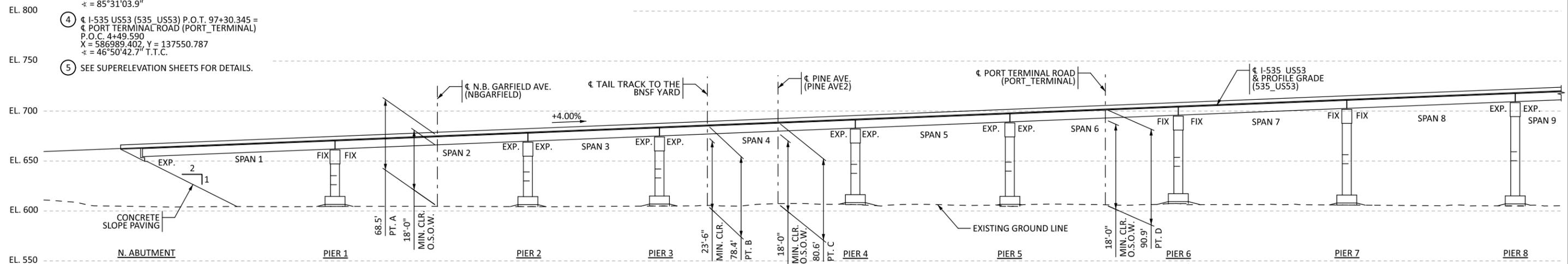
8201'-4 $\frac{3}{4}$ " ± OUT-TO-OUT OF BRIDGE (MEASURED ALONG 535 US53 & NB US53)
 8249'-0" ± OUT-TO-OUT OF BRIDGE (MEASURED ALONG 535 US53 & SB US53)



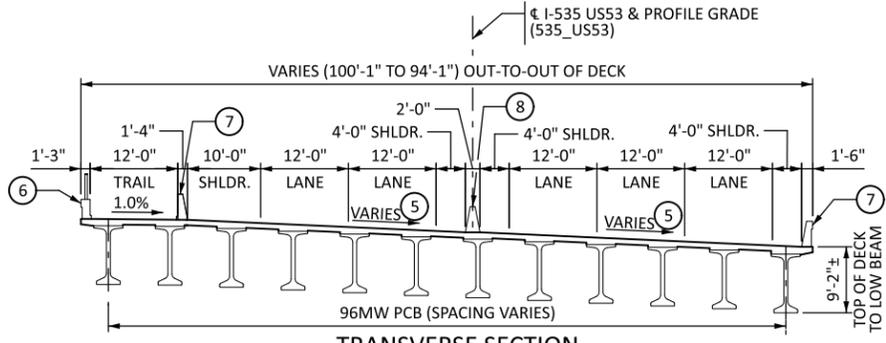
NOTES:

- ① ϵ I-535 US53 (535_US53) P.O.C. 90+62.677 = ϵ NB GARFIELD (NBGARFIELD) P.O.C. 50+28.746
 X = 586723.966, Y = 138163.417
 α = 55°06'58.5" T.T.C.
- ② ϵ I-535 US53 (535_US53) P.O.T. 93+33.846 = ϵ TAIL TRACK TO THE BNSF YARD
 X = 586832.242, Y = 137914.809
 α = 85°55'10.3"
- ③ ϵ I-535 US53 (535_US53) P.O.T. 93+95.447 = ϵ PINE AVE (PINE_AVE2) P.O.T. 11+48.813
 X = 586856.659, Y = 137858.254
 α = 85°31'03.9"
- ④ ϵ I-535 US53 (535_US53) P.O.T. 97+30.345 = ϵ PORT TERMINAL ROAD (PORT_TERMINAL) P.O.C. 4+49.590
 X = 586989.402, Y = 137550.787
 α = 46°50'42.7" T.T.C.
- ⑤ SEE SUPERELEVATION SHEETS FOR DETAILS.
- ⑥ CONCRETE PARAPET (TYPE P-1, TL-2) FIG. 5-397.166 W/ METAL RAILING (TYPE M-1) FIG. 5-397.154
- ⑦ CONCRETE BARRIER 42" (TYPE S, TL-4) FIG. 5-397.141
- ⑧ SOLID MEDIAN BARRIER 42" (TYPE S, TL-4) FIG. 5-397.148

GENERAL PLAN

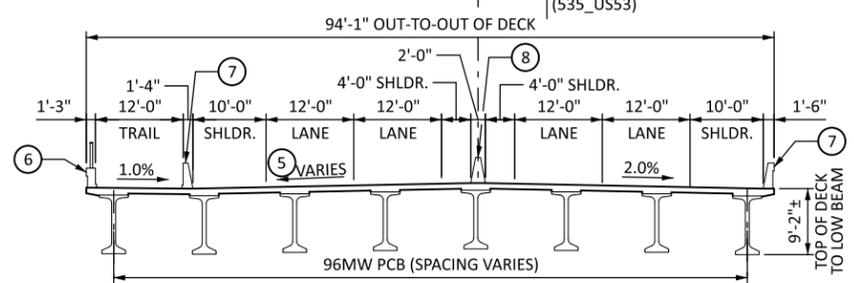


GENERAL ELEVATION



TRANSVERSE SECTION

100'-1" (STA. 87+63.500 TO STA. 91+92.852)
 VARIES 100'-1" TO 94'-1" (STA. 91+92.852 TO STA. 93+42.962)



TRANSVERSE SECTION

STA. 93+42.962 TO STA. 106+43.000 (TIED-ARCH), STA. 93+42.962 TO STA. 103+13.000 (CABLE STAY)



EXISTING GROUND LINE PROFILE
 58.6' LT.
 ϵ US53
 40.5' RT.

Plotted By: PARSONS\p0007740
 Date Plotted: 16-JAN-2025
 Time Plotted: 11:40:01 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 002_GeneralPlan&Elevation1.dgn

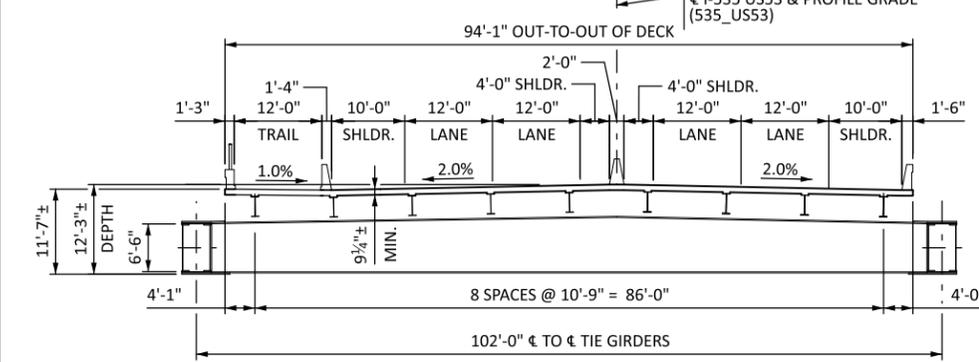
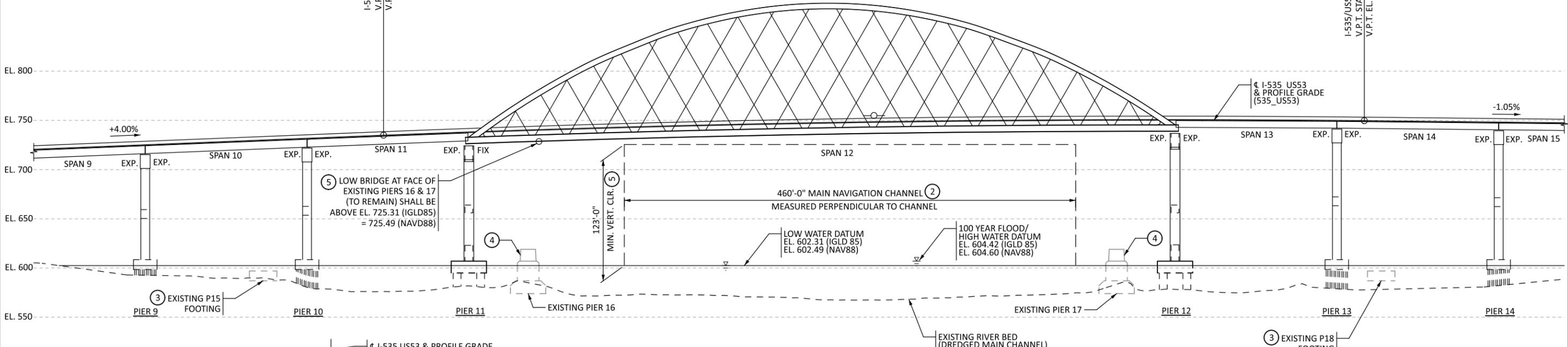
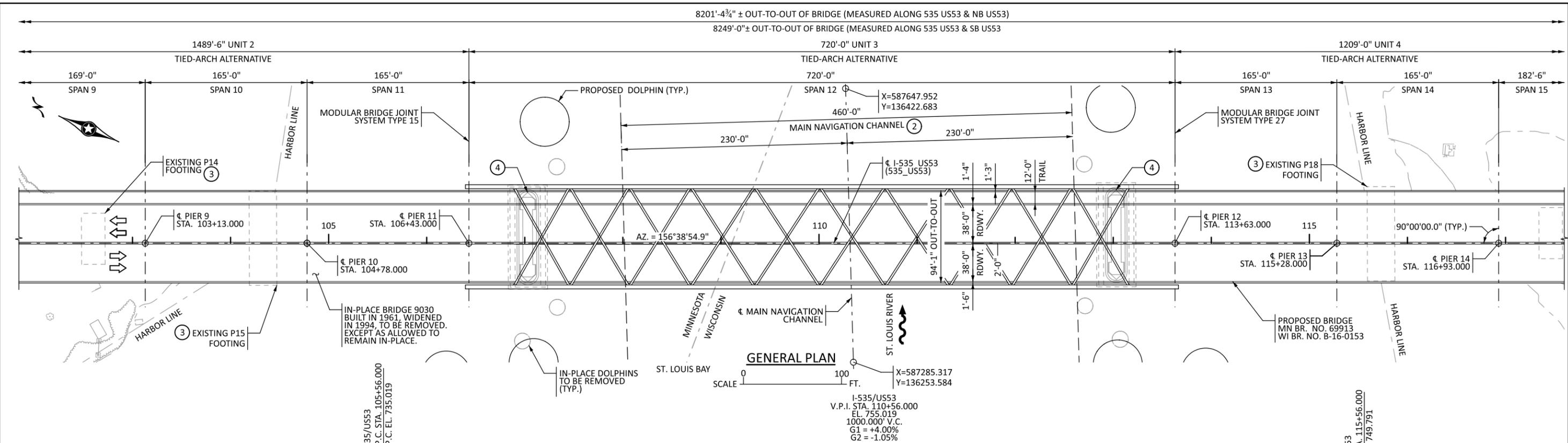
STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: GENERAL PLAN & ELEVATION 1

DES: BJB	DR: MJJN
CHK: GLJ	CHK: GLJ
SHEET NO. 2 OF 86 SHEETS	

BRIDGE NO. 69913 (B-16-0153)



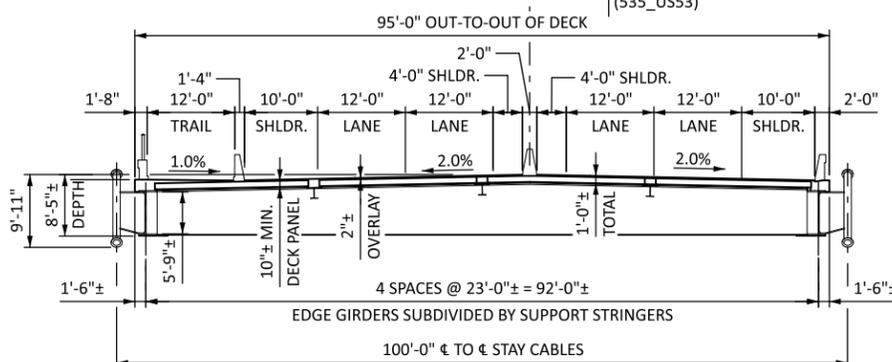
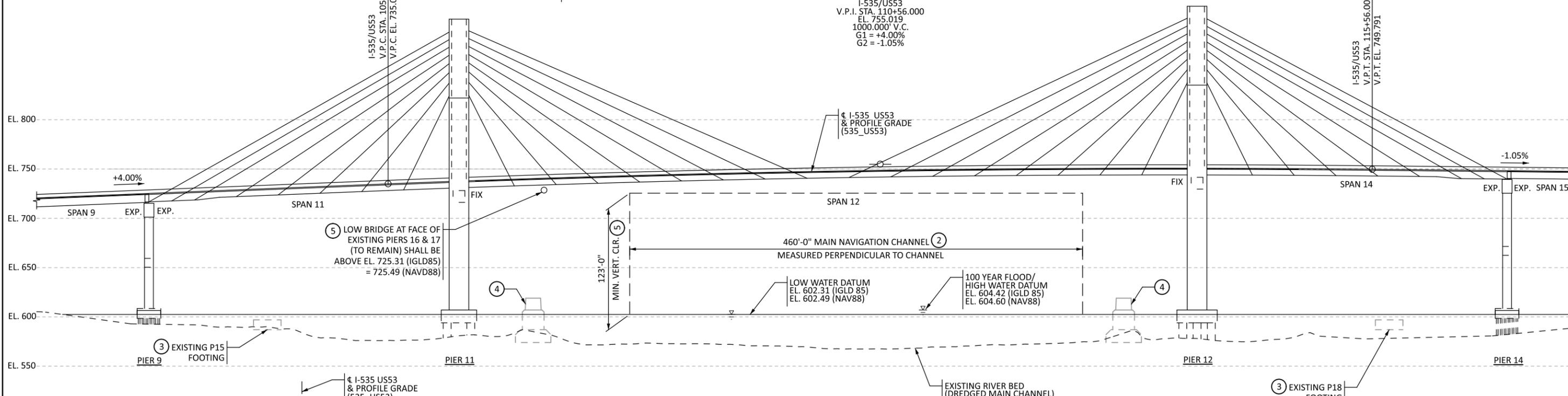
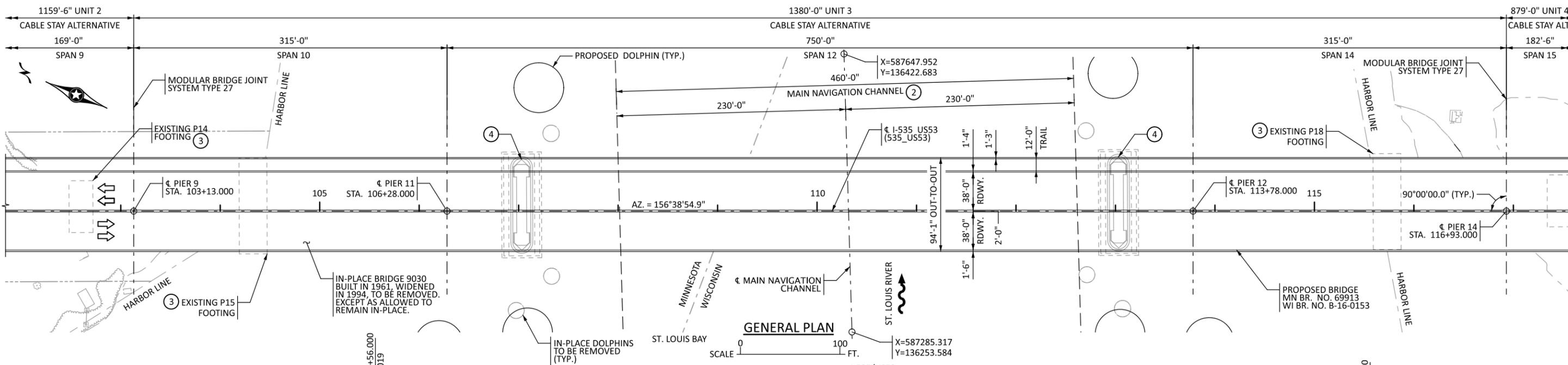
1 TRANSVERSE SECTION
 STA. 106+43.000 TO STA. 113+63.000
 SCALE 0 20 FT.

GENERAL ELEVATION
 SCALE 0 100 FT.

- NOTES:
- SEE GENERAL PLAN & ELEVATION 1, SHEET 02, FOR BARRIER AND PARAPET TYPES.
 - FOR NAVIGATION CHANNEL CLEARANCES, SEE NAVIGATIONAL CLEARANCES MAIN NAVIGATION CHANNEL SHEET 43.
 - EXISTING PIER P14, P15, P18 TO BE REMOVED AS REQUIRED PER THE COAST GUARD PERMIT.
 - EXISTING PIERS 16 AND 17 TO BE RECONSTRUCTED FOR VESSEL COLLISION PROTECTION. REMOVE TO TOP OF STRUT EL. 619.0
 - 123'-0" TO BE PROVIDED TO FACE OF THE EXISTING PIER AND FACE OF DOLPHINS.

Plotted By: PARSONS\p0007740
 Date Plotted: 16-JAN-2025
 Time Plotted: 11:27:52 AM Central
 Pen Table: ICS_MinDOT-plot.pen
 File Path: 003_GeneralPlan&Elevation2_ArchOption.dgn

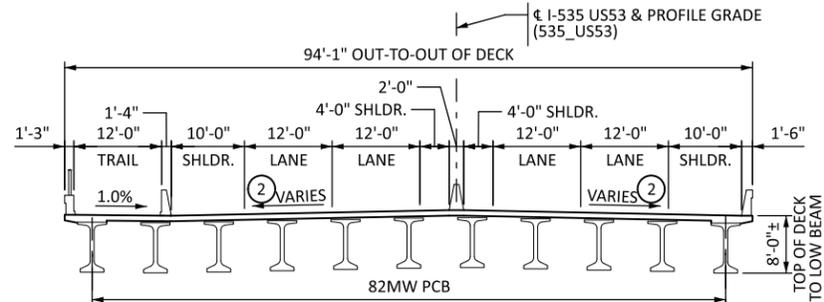
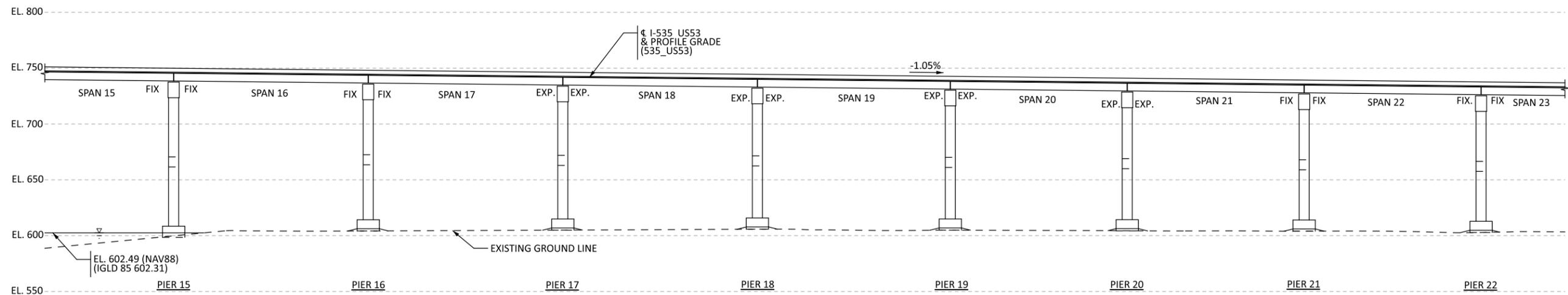
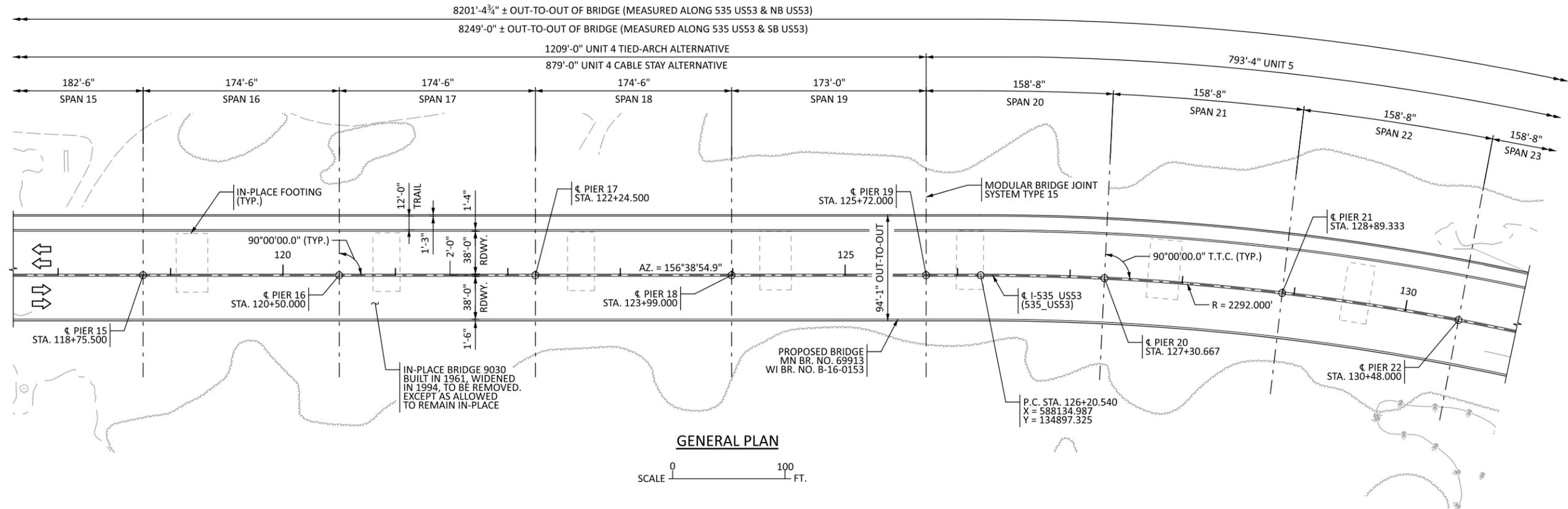
8201'-4 $\frac{3}{4}$ "± OUT-TO-OUT OF BRIDGE (MEASURED ALONG 535 US53 & NB US53)
 8249'-0"± OUT-TO-OUT OF BRIDGE (MEASURED ALONG 535 US53 & SB US53)



- NOTES:**
- SEE GENERAL PLAN & ELEVATION 1, SHEET 02, FOR BARRIER AND PARAPET TYPES.
 - FOR NAVIGATION CHANNEL CLEARANCES, SEE NAVIGATIONAL CLEARANCES MAIN NAVIGATION CHANNEL SHEET 43.
 - EXISTING PIER P14, P15, P18 TO BE REMOVED AS REQUIRED PER THE COAST GUARD PERMIT.
 - EXISTING PIERS 16 AND 17 TO BE RECONSTRUCTED FOR VESSEL COLLISION PROTECTION. REMOVE TO TOP OF STRUT EL. 619.0
 - 123'-0" TO BE PROVIDED TO FACE OF THE EXISTING PIER AND FACE OF DOLPHINS.

EXISTING GROUND LINE PROFILE
 58.6' LT.
 40.5' RT.

Plotted By: PARSONS\p0007740
 Date Plotted: 16-JAN-2025
 Time Plotted: 11:11:26 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 004_GeneralPlan&Elevation2_CableStayOption.dgn



① TRANSVERSE SECTION
 STA. 113+63.000 TO STA. 133+65.333 (TIED-ARCH)
 STA. 116+93.000 TO STA. 133+65.333 (CABLE STAY)

STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: GENERAL PLAN & ELEVATION 3

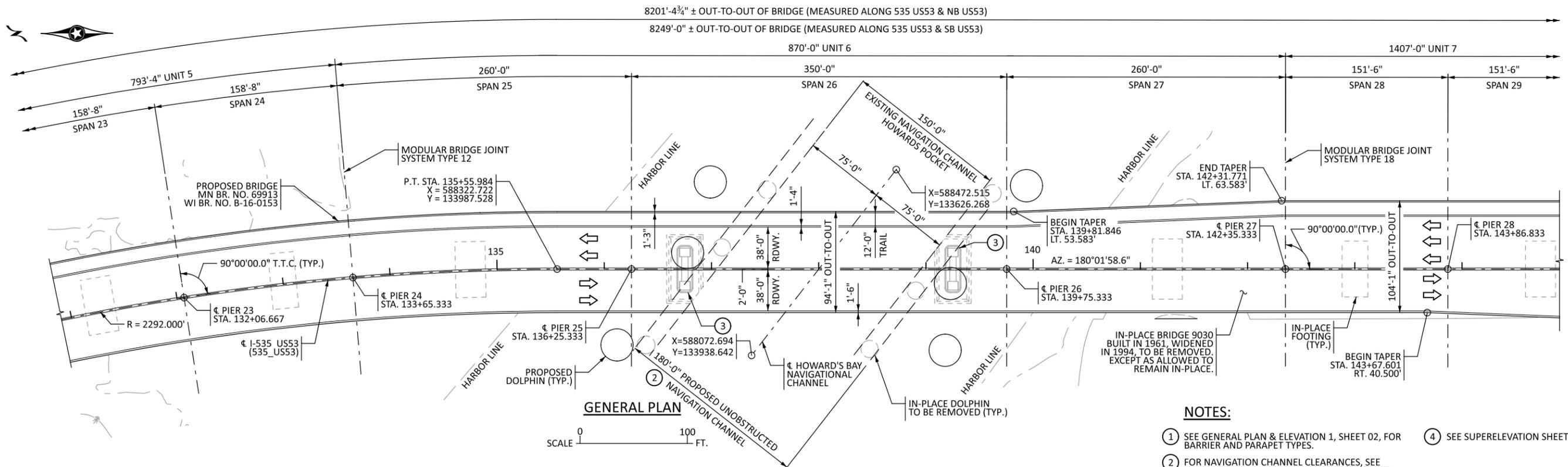
DES:	BJB	DR:	MJJN
CHK:	GLJ	CHK:	GLJ
SHEET NO. 5 OF 86 SHEETS			

BRIDGE NO. 69913 (B-16-0153)

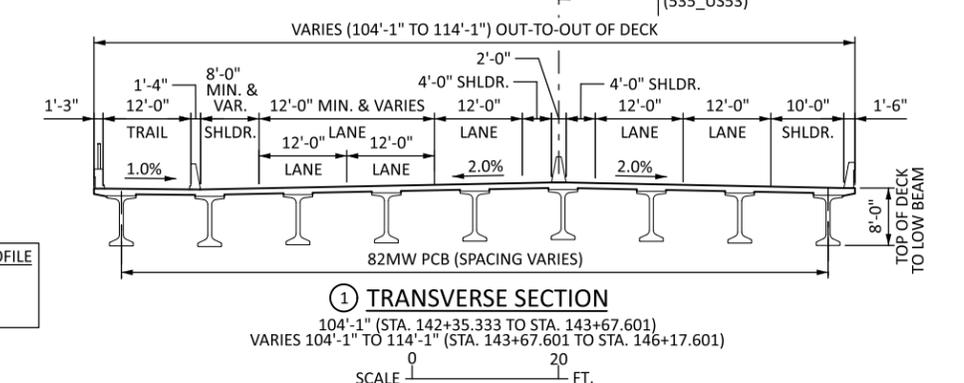
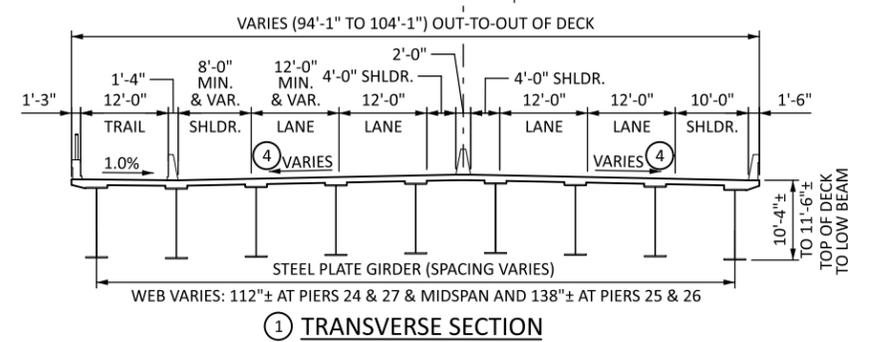
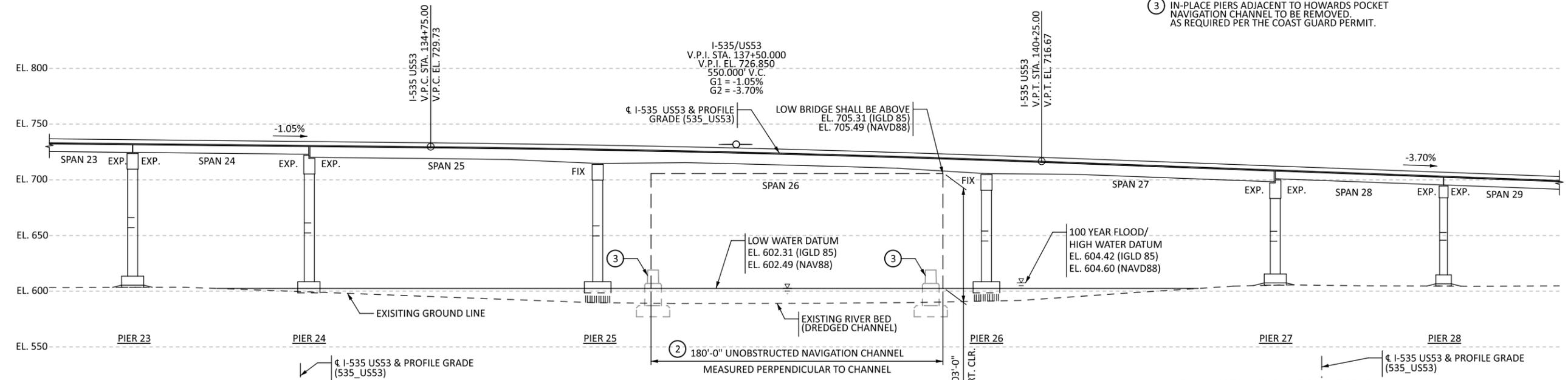
- NOTES:
- SEE GENERAL PLAN & ELEVATION 1, SHEET 02, FOR BARRIER AND PARAPET TYPES.
 - SEE SUPERELEVATION SHEETS FOR DETAILS.

EXISTING GROUND LINE PROFILE
58.6' LT.
40.5' RT.

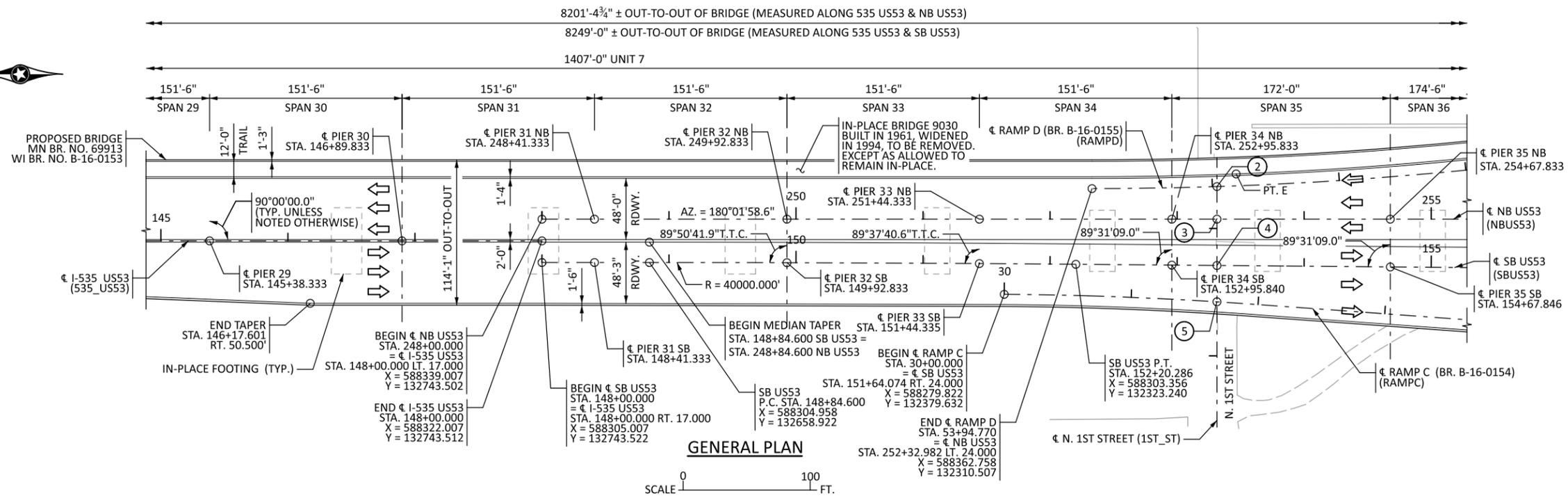
Plotted By: PARSONS\p0007740
 Date Plotted: 16-JAN-2025
 Time Plotted: 11:54:55 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 005_GeneralPlan&Elevation3.dgn



- NOTES:**
- ① SEE GENERAL PLAN & ELEVATION 1, SHEET 02, FOR BARRIER AND PARAPET TYPES.
 - ② FOR NAVIGATION CHANNEL CLEARANCES, SEE NAVIGATIONAL CLEARANCE-HOWARD'S POCKET SHEET.
 - ③ IN-PLACE PIERS ADJACENT TO HOWARDS POCKET NAVIGATION CHANNEL TO BE REMOVED AS REQUIRED PER THE COAST GUARD PERMIT.
 - ④ SEE SUPERELEVATION SHEETS FOR DETAILS



Plotted By: PARSONS\p005639H
 Date Plotted: 16-JAN-2025
 Time Plotted: 4:11:56 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 006_GeneralPlan&Elevation4.dgn



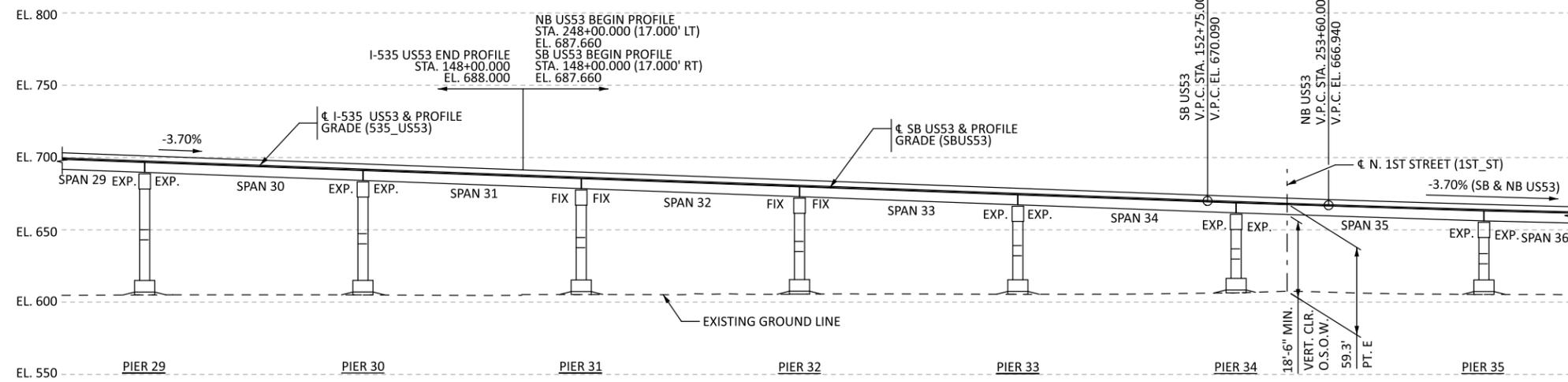
GENERAL PLAN

SCALE 0 100 FT.

EXISTING GROUND LINE PROFILE
58.6' LT.
US53
40.5' RT.

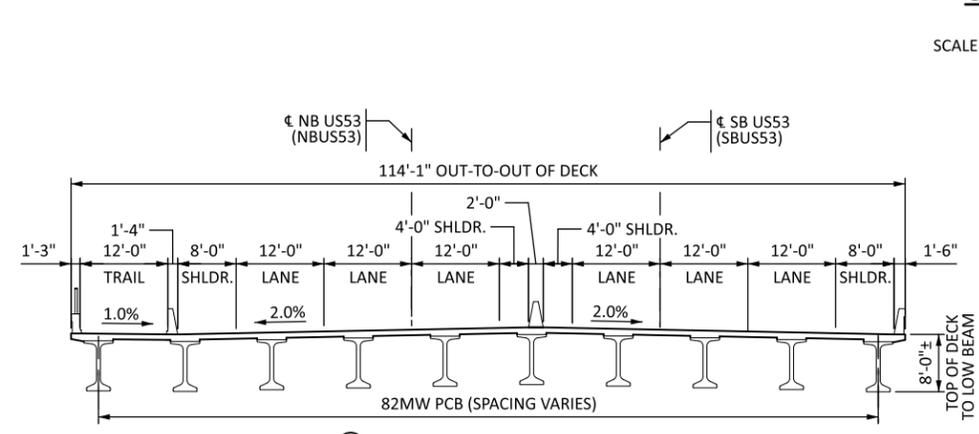
NOTES:

- 1 SEE GENERAL PLAN & ELEVATION 1, SHEET 02, FOR BARRIER AND PARAPET TYPES.
- 2 RAMP D (RAMPD) P.O.C. 52+96.383 = N 1ST STREET (1ST_ST) P.O.T. 24+32.908 X = 588364.314, Y = 132212.137, $\alpha = 91^{\circ}52'32.7''$ T.T.C.
- 3 NB US53 (NBUS53) P.O.T. 253+31.352 = N 1ST STREET (1ST_ST) P.O.T. 24+07.295 X = 588338.701, Y = 132212.150, $\alpha = 89^{\circ}59'48.2''$
- 4 SBUS53 (SBUS53) P.O.T. 153+31.362 = N 1ST STREET (1ST_ST) P.O.T. 23+70.954 X = 588302.360, Y = 132212.169, $\alpha = 89^{\circ}30'57.2''$
- 5 RAMP C (RAMPC) P.O.C. 31+67.576 = N 1ST STREET (1ST_ST) P.O.T. 23+42.470 X = 588273.876, Y = 132212.184, $\alpha = 86^{\circ}23'45.4''$ T.T.C.
- 6 SEE SUPERELEVATION SHEETS FOR DETAILS.



GENERAL ELEVATION

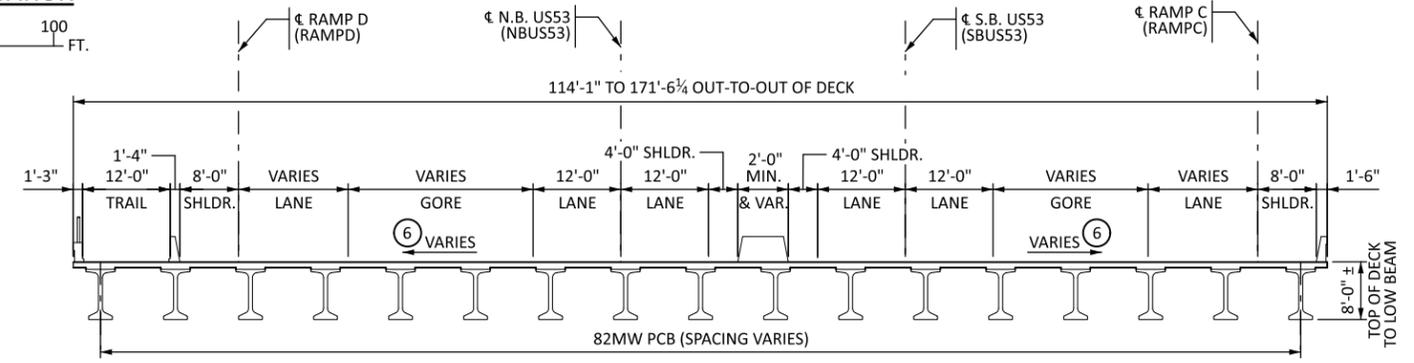
SCALE 0 100 FT.



TRANSVERSE SECTION

535 US53 STA. 146+17.601 TO SB STA. 148+00.000
535 US53 STA. 146+17.601 TO NB STA. 248+00.000

SCALE 0 20 FT.



TRANSVERSE SECTION

NB US53 (STA. 248+00.000 TO STA. 256+42.333)
SB US53 (STA. 148+00.000 TO STA. 156+42.352)

SCALE 0 20 FT.

Plotted By: PARSONS\p005639H
 Date Plotted: 17-JAN-2025
 Time Plotted: 12:55:34 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 007_GeneralPlan&Elevations.dgn

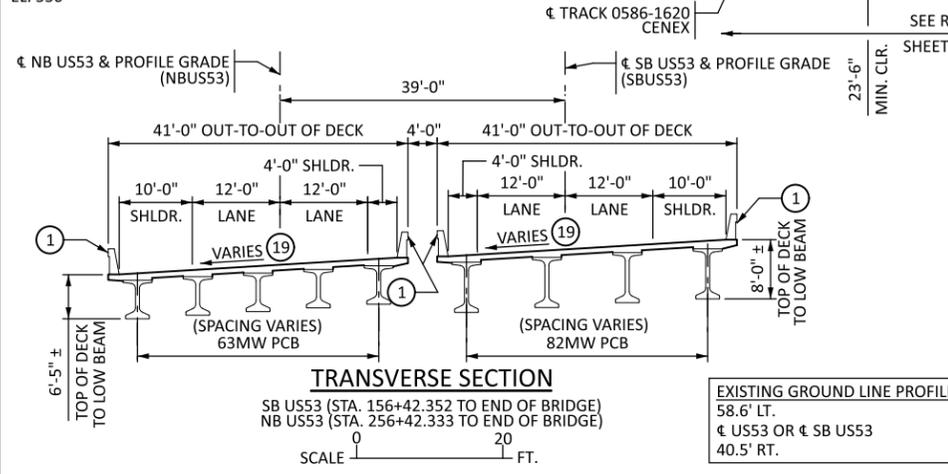
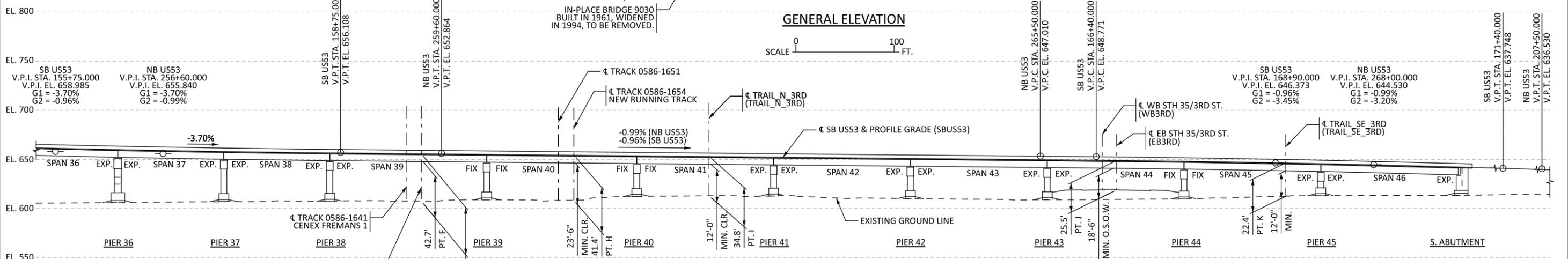
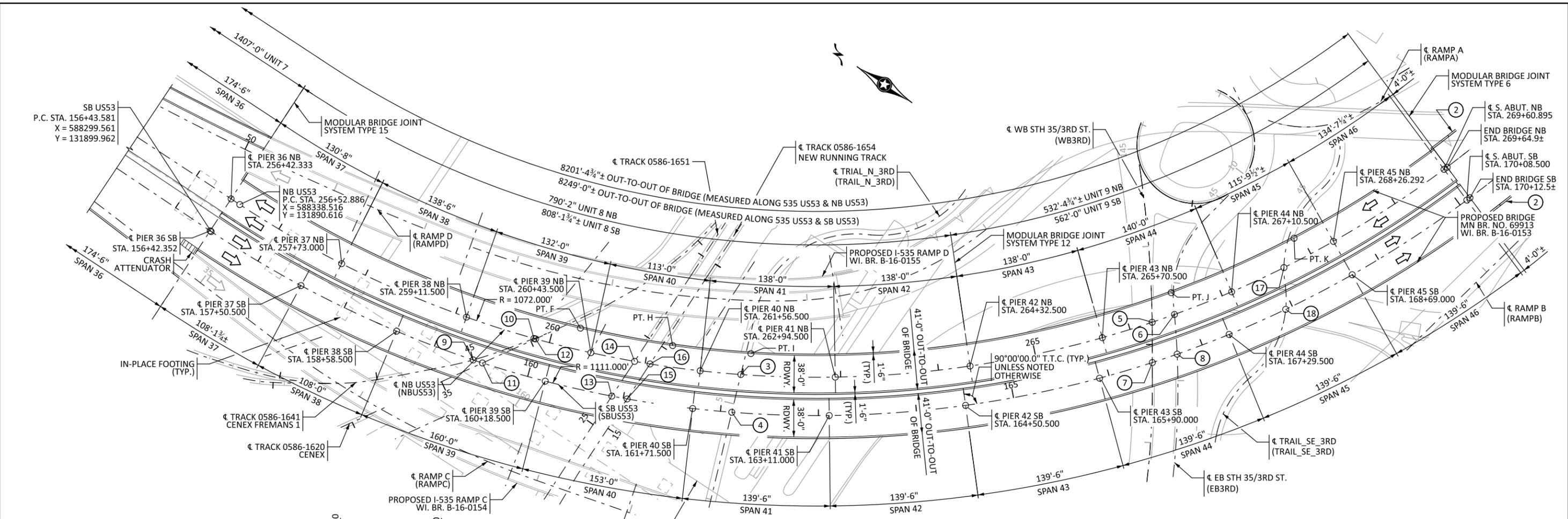
STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: GENERAL PLAN & ELEVATION 5

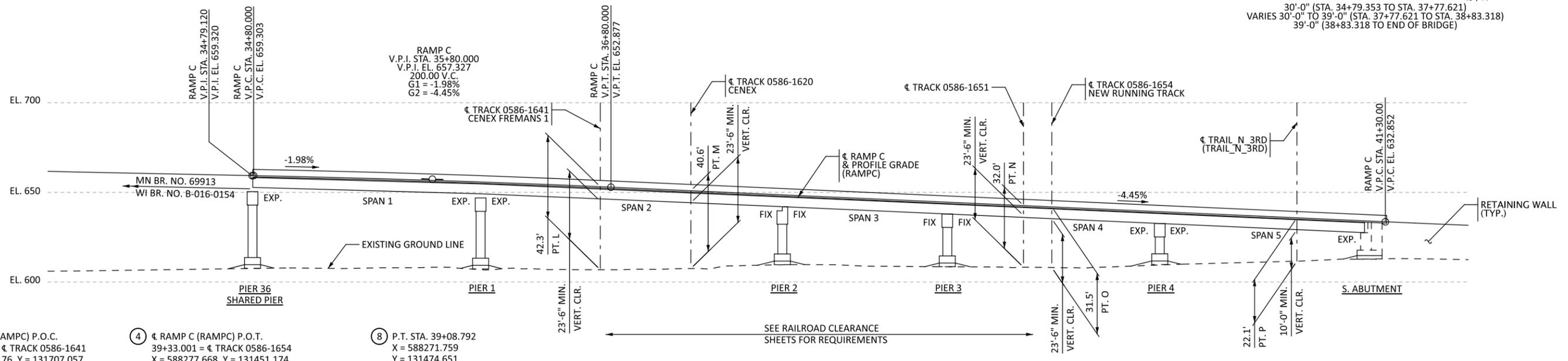
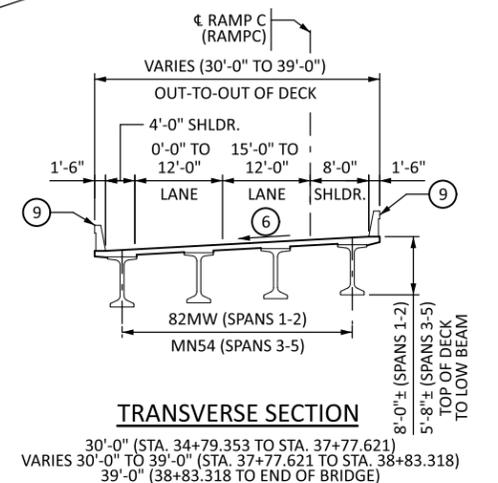
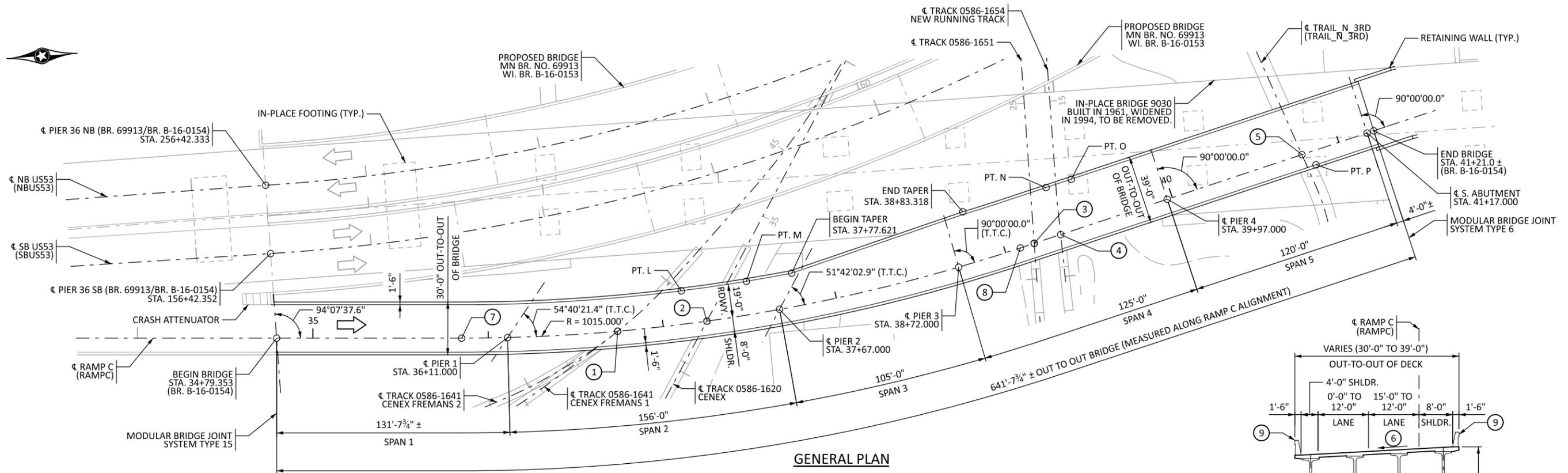
DES: BJB	DR: MJJN
CHK: GLJ	CHK: GLJ
SHEET NO. 7 OF 86 SHEETS	

BRIDGE NO. 69913 (B-16-0153)



- NOTES:**
- CONCRETE BARRIER 42" (TYPE S, TL-4) FIG. 5-397.141
 - RETAINING WALL
 - NB US53 (NBU53) P.O.C. 261+98.168 =
 TRACK N 3RD (TRAIL_N_3RD) P.O.T. 5+30.706
 X = 588473.933, Y = 131368.467
 = 80°38'17.9" T.T.C.
 - SB US53 (SBU53) P.O.C. 162+11.599 =
 TRACK N 3RD (TRAIL_N_3RD) P.O.T. 4+91.198
 X = 588436.749, Y = 131355.117
 = 80°58'11.0" T.T.C.
 - NB US53 (NBU53) P.O.C. 266+23.699 =
 TRACK STH35/3RD ST. (WB3RD) P.O.T. 143+22.577
 X = 588748.386, Y = 131046.929
 = 72°12'48.1" T.T.C.
 - NB US53 (NBU53) P.O.C. 266+47.786 =
 TRACK STH35/3RD ST. (EB3RD) P.O.T. 43+67.480
 X = 588767.495, Y = 131032.266
 = 75°27'06.2" T.T.C.
 - SB US53 (SBU53) P.O.C. 142+81.571 =
 TRACK STH35/3RD ST. (WB3RD) P.O.T. 43+59.645
 X = 588714.201, Y = 131024.283
 = 72°13'31.0" T.T.C.
 - SB US53 (SBU53) P.O.C. 166+72.849 =
 TRACK STH35/3RD ST. (EB3RD) P.O.T. 43+26.967
 X = 588735.213, Y = 131007.794
 = 73°10'05.3" T.T.C.
 - SB US53 (SBU53) P.O.C. 159+41.920 =
 TRACK 0586-1641
 X = 588336.733, Y = 131604.851
 = 33°50'54.0" T.T.C.
 - NB US53 (NBU53) P.O.C. 259+83.703 =
 TRACK 0586-1641
 X = 588388.970, Y = 131564.995
 = 36°29'24.1" T.T.C.
 - SB US53 (SBU53) P.O.C. 159+51.818 =
 TRACK 0586-1620
 X = 588339.315, Y = 131595.296
 = 42°27'03.4" T.T.C.
 - NB US53 (NBU53) P.O.C. 259+85.421 =
 TRACK 0586-1620
 X = 588389.492, Y = 131563.360
 = 39°34'51.6" T.T.C.
 - SB US53 (SBU53) P.O.C. 160+88.077 =
 TRACK 0586-1651
 X = 588383.416, Y = 131433.460
 = 67°31'52.1" T.T.C.
 - NB US53 (NBU53) P.O.C. 260+88.963 =
 TRACK 0586-1651
 X = 588425.751, Y = 131466.417
 = 66°39'58.8" T.T.C.
 - SB US53 (SBU53) P.O.C. 161+03.947 =
 TRACK 0586-1654
 X = 588398.570, Y = 131451.833
 = 66°45'07.6" T.T.C.
 - NB US53 (NBU53) P.O.C. 261+04.906 =
 TRACK 0586-1654
 X = 588432.160, Y = 131451.819
 = 65°51'12.9" T.T.C.
 - NB US53 (NBU53) P.O.C. 267+69.218 =
 TRACK SE RD (TRAIL_SE_3RD)
 P.O.C. 44+27.492
 X = 588868.569, Y = 130965.080
 = 63°00'38.3"
 - SB US53 (SBU53) P.O.C. 167+92.582 =
 TRACK SE RD (TRAIL_SE_3RD)
 P.O.C. 43+79.870
 X = 588834.022, Y = 130940.276
 = 58°52'55.8"
 - SEE SUPERELEVATION SHEETS FOR DETAILS.

Plotted By: PARSONS\p022751
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 Time Plotted: 1:03:03 PM Central
 Pen Table: ICS_MnDOT-plot.pen
 File Path: 008_GeneralPlan&Elevation6.dgn

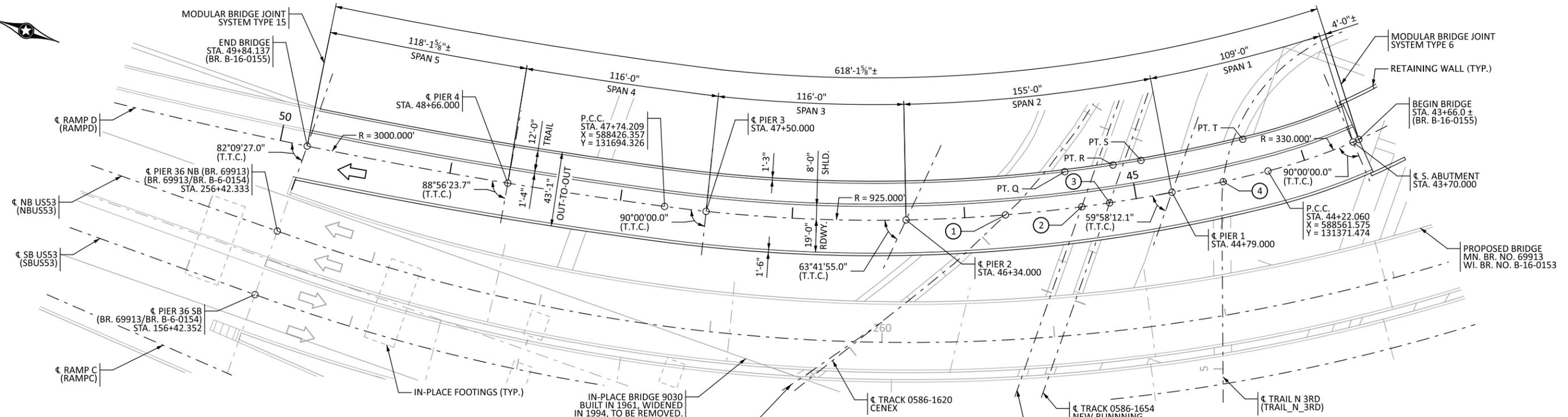


- NOTES:**
- ① RAMP C (RAMPC) P.O.C. 36+73.858 = TRACK 0586-1641 X = 588241.176, Y = 131707.057 \angle 145°47'52.4" T.T.C.
 - ② RAMP C (RAMPC) P.O.C. 37+25.084 = TRACK 0586-1620 X = 588243.242, Y = 131655.877 \angle 143°59'03.7" T.T.C.
 - ③ RAMP C (RAMPC) P.O.T. 39+17.121 = TRACK 0586-1651 X = 588273.792, Y = 131466.574 \angle 104°11'13.3"
 - ④ RAMP C (RAMPC) P.O.T. 39+33.001 = TRACK 0586-1654 X = 588277.668, Y = 131451.174 \angle 102°11'21.1"
 - ⑤ RAMP C (RAMPC) P.O.T. 40+77.859 = TRAIL_N_3RD (TRAIL_N_3RD) P.O.T. 3+59.742 X = 588313.026, Y = 131310.698 = 84°22'41.9"
 - ⑥ SEE SUPER ELEVATION SHEETS FOR DETAILS.
 - ⑦ P.C. STA. 35+84.823 X = 588243.734 Y = 131796.027
 - ⑧ P.T. STA. 39+08.792 X = 588271.759 Y = 131474.651
 - ⑨ CONCRETE BARRIER 42" (TYPE S, TL-4) FIG. 5-397.141

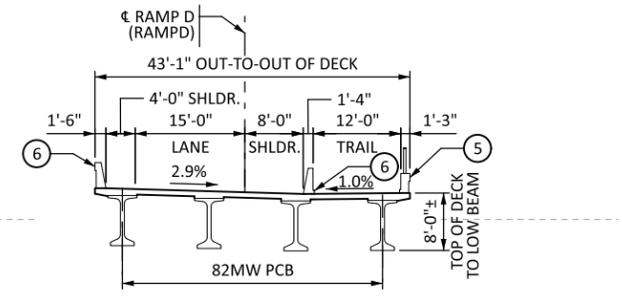
GENERAL ELEVATION



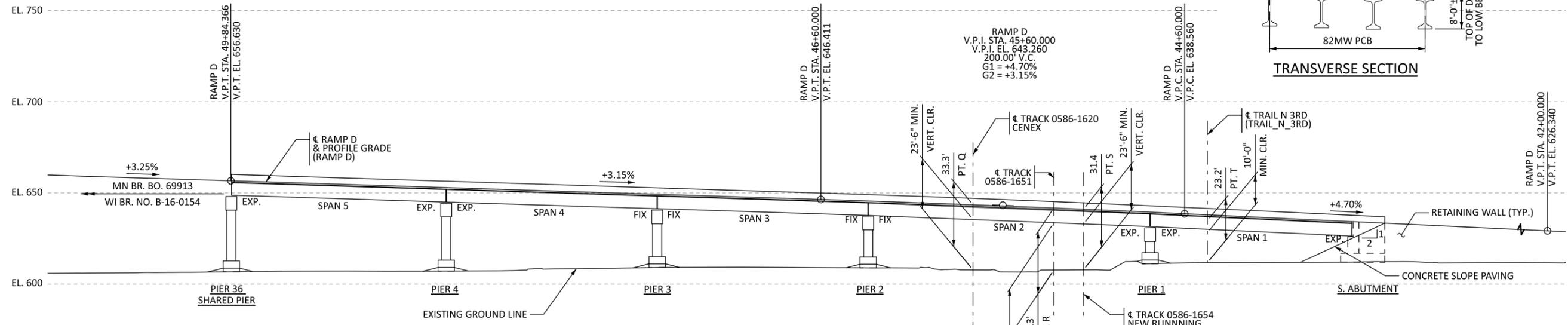
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 Date Plotted: 20-JAN-2025
 Time Plotted: 3:20:21 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 009_GeneralPlan&Elevation_RampC.dgn



GENERAL PLAN
(STATIONING AND PROFILE GRADES INCREASE TO LEFT)
SCALE 0 60 FT.



TRANSVERSE SECTION



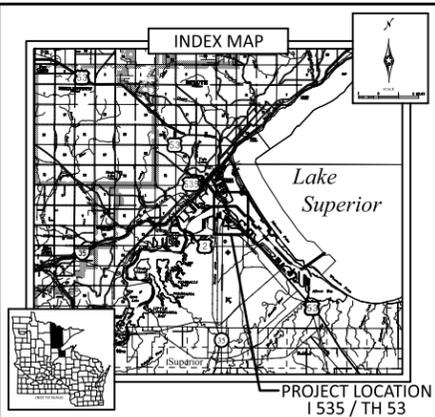
GENERAL ELEVATION
(STATIONING AND PROFILE GRADES INCREASE TO LEFT)
SCALE 0 60 FT.

NOTES:

- ① ϕ RAMP D (RAMPD) P.O.C. 45+76.370 = ϕ TRACK 0586-1620
X = 588487.200, Y = 131506.470, $\alpha = 39^{\circ}09'01.4''$
- ② ϕ RAMP D (RAMPD) P.O.C. 45+31.915 = ϕ TRACK 0586-1651
X = 588506.301, Y = 131466.333, $\alpha = 63^{\circ}06'49.4''$
- ③ ϕ RAMP D (RAMPD) P.O.C. 45+15.607 = ϕ TRACK 0586-1654
X = 588513.789, Y = 131451.846, $\alpha = 62^{\circ}14'15.0''$
- ④ ϕ RAMP D (RAMPD) P.O.C. 44+48.784
= ϕ TRAIL N 3RD (TRAIL_N_3RD) P.O.T. 6+08.218
X = 588547.126, Y = 131393.891, $\alpha = 109^{\circ}19'28.1''$
- ⑤ CONCRETE PARAPET (TYPE P-1, TL-2) FIG. 5-397.166
W/METAL RAILING (TYPE M-1) FIG. 5-397.154
- ⑥ CONCRETE BARRIER 42" (TYPE S, TL-4) FIG. 5-397.141

SEE RAILROAD CLEARANCES SHEET FOR REQUIREMENTS

Plotted By: PARSONS\p0007740
Date Plotted: 20-JAN-2025
Time Plotted: 1:38:13 PM Central
Pen Table: ICS MndOT-plot.pen
File Path: 010_GeneralPlan&Elevation_RampD.dgn



NOTES:

- ① I-535 US53 (535_US53) P.O.C. 90+62.677 =
 E NB GARFIELD (NBGARFIELD) P.O.C. 50+28.746
 X = 586723.966, Y = 138163.417
 * = 55°06'58.5" T.T.C.
- ② I-535 US53 (535_US53) P.O.T. 93+95.447 =
 E PINE AVE (PINE_AVE2) P.O.T. 11+48.813
 X = 586856.659, Y = 137858.254
 * = 85°31'03.9"
- ③ I-535 US53 (535_US53) P.O.T. 97+30.345 =
 E PORT TERMINAL ROAD (PORT_TERMINAL)
 P.O.C. 4+49.590
 X = 586989.402, Y = 137550.787
 * = 46°50'42.7" T.T.C.
- ④ E NB US53 (NBUS53) P.O.C. 266+47.786 =
 E EB STH35/3RD ST. (EB3RD) P.O.T. 43+67.480
 X = 588767.495, Y = 131032.266
 * = 75°27'06.2" T.T.C.

SEE THE GENERAL PLAN AND ELEVATION SHEETS FOR ADDITIONAL INTERSECTION POINTS.

**HYDRAULIC ENGINEERS RECOMMENDATION
 ST. LOUIS RIVER
 DATE: 08-09-2024**

STREAM OR DITCH DESIGNATION: ST. LOUIS RIVER
 DRAINAGE AREA: 3700 SQ. MI.
 MAX. FLOOD ON RECORD: XXX C.F.S. (XX-XX-XX)
 MAXIMUM OBSERVED HIGHWATER ELEVATION: 604.75 FT.
 DESIGN FLOOD (100 YR. FREQ.): 40000 C.F.S.
 HEADWATER ELEVATION: 604.6 FT.
 DESIGN MEAN VELOCITY THROUGH STRUCTURE: 1.4 F.P.S.
 TOTAL STAGE INCREASE: 0.0 FT.
 LOW MEMBER AT OR ABOVE ELEVATION: XXX.X FT.
 WATERWAY AREA REQUIRED BELOW ELEV. 604.58 =
 29895 SQ. FT. AT RIGHT ANGLES TO CHANNEL
 BASIC FLOOD (100 YR. FREQ.): XXXX C.F.S.
 HEADWATER ELEVATION: XXX.X FT.
 TOTAL STAGE INCREASE: X.X FT.
 MEAN VELOCITY THROUGH STRUCTURE: X.X F.P.S.
 FLOWLINE ELEVATION: 569 FT. SKEW ANGLE: 0°
 ESTIMATED PRELIMINARY TOTAL SCOUR AT
 PIER 11 EL. 548 FT
 PIER 12 EL. 560 FT
 (500 OR 0T YR. FREQ.)

**SCOUR CONFIRMATION RECOMMENDATION
 DATE: XX-XX-XX**

TOTAL SCOUR AT PIER EL. XXX.XX (500 OR 0T YR. FREQ.)
 SCOUR CODE: OBTAIN FROM HYDRAULIC ENGINEER

**HYDRAULIC ENGINEERS RECOMMENDATION
 HOWARD'S POCKET
 DATE: 08-09-2024**

STREAM OR DITCH DESIGNATION: ST. LOUIS RIVER
 DRAINAGE AREA: XXX SQ. MI.
 MAX. FLOOD ON RECORD: XXX C.F.S. (XX-XX-XX)
 MAXIMUM OBSERVED HIGHWATER ELEVATION: 604.75 FT.
 DESIGN FLOOD (XX YR. FREQ.): XXX C.F.S.
 HEADWATER ELEVATION: XXX.X FT.
 DESIGN MEAN VELOCITY THROUGH STRUCTURE: X.X F.P.S.
 TOTAL STAGE INCREASE: XX.X FT.
 LOW MEMBER AT OR ABOVE ELEVATION: XXX.X FT.
 WATERWAY AREA REQUIRED BELOW ELEV. XXX.X = XXX SQ. FT.
 AT RIGHT ANGLES TO CHANNEL
 BASIC FLOOD (100 YR. FREQ.): XXXX C.F.S.
 HEADWATER ELEVATION: XXX.X FT.
 TOTAL STAGE INCREASE: X.X FT.
 MEAN VELOCITY THROUGH STRUCTURE: X.X F.P.S.
 FLOWLINE ELEVATION: XXX.X FT. SKEW ANGLE: XX°
 ESTIMATED PRELIMINARY TOTAL SCOUR AT
 PIER EL. XXX.X
 (500 OR 0T YR. FREQ.)

**SCOUR CONFIRMATION RECOMMENDATION
 DATE: XX-XX-XX**

TOTAL SCOUR AT PIER EL. XXX.XX (500 OR 0T YR. FREQ.)
 SCOUR CODE: OBTAIN FROM HYDRAULIC ENGINEER

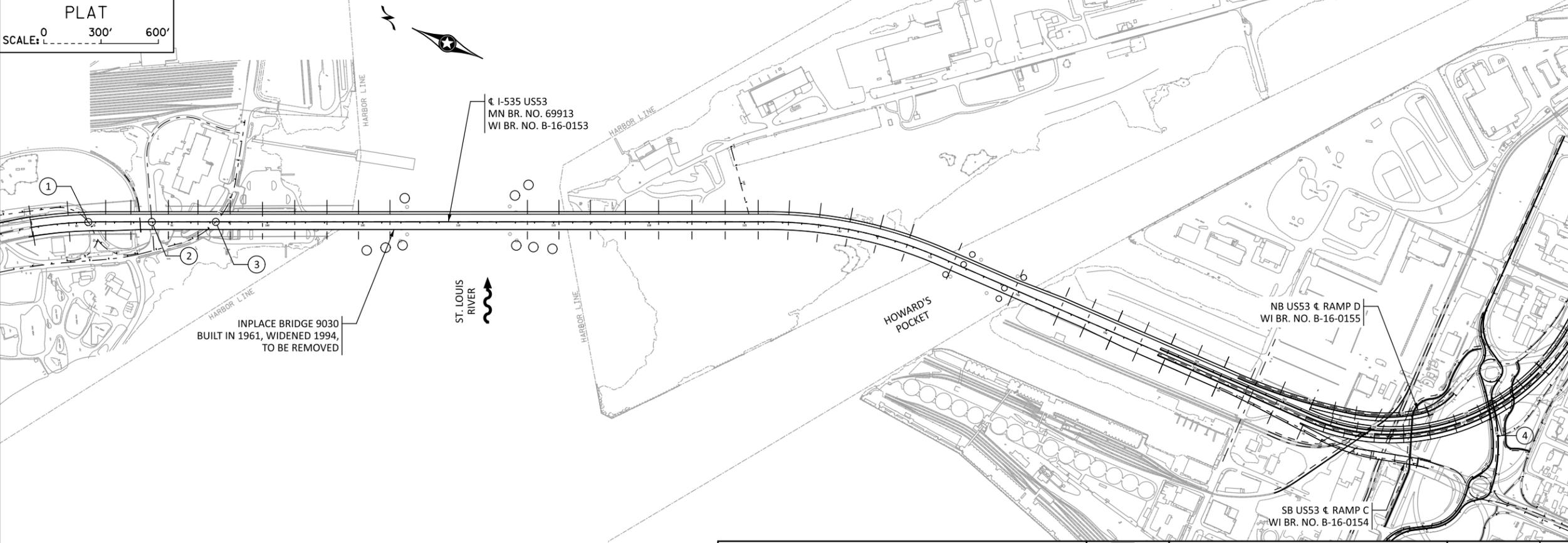
**LOCATION ENGINEER'S OBSERVATIONS
 AT BRIDGE SITE**

1. SPECIAL FEATURES: WATERFALLS, DAMS, FLOODS, ICE, DEBRIS, SLIDING BANKS, RECREATIONAL BOATING.
2. OTHER BRIDGES OR CULVERTS OVER THE SAME STREAM (PARTICULARLY STRUCTURES WHICH CARRY HIGH WATER WITHOUT OVERFLOW OF ROADWAY): GIVEN LOCATION,TYPE, LENGTH,HEIGHT ABOVE HIGH WATER, CROSS-SECTIONAL AREA ETC.
3. APPARENT HIGHWATER ELEVATION OBTAINED FROM:
4. OTHER DATA: APPROX. VELOCITY OF WATER AT TIME OF SURVEY.

BRIDGE SURVEY SHEETS MADE FROM :
 2019 FALL AERIAL LIDAR FLIGHT ASP*19F-2 AND 2020 GROUND SURVEYS MAPPED INTO 698126_apl3dORD.dgn AND OTHER DATA FOUND IN s698126_apl2d.dgn CP698126_rowWI.dgn cp698126_001all.dgn cp698126_000pro.dgn cp698126_001gem.dgn cp698126_000typ.dgn CP698126_000spr.dgn

BENCH MARK ELEVATION 626.692 (N.A.V.D. 88 ADJ.) BLATNIK
 LOCATION IN DULUTH, 1.05 MILES SOUTHEAST ALONG TRUNK HIGHWAY 53/535 FROM THE JUNCTION OF TRUNK HIGHWAY 53/535 AND INTERSTATE HIGHWAY 35 IN DULUTH, 66.4 FEET SOUTHWEST OF THE SOUTHBOUND TRUNK HIGHWAY 53/535 ENTRANCE RAMP, 32.0 FEET NORTHEAST OF THE RAMP TO GARFIELD AVENUE, 1.5 FEET NORTHEAST OF A WITNESS POST.

BENCH MARK ELEVATION 604.448 (N.A.V.D. 88 ADJ.) CHINOUI AT A BOAT LANDING IN RICES PARK, DULUTH, 0.6 MILE SOUTHEASTERLY ALONG INTERSTATE HIGHWAY 535 FROM THE JUNCTION OF INTERSTATE HIGHWAY 535 AND INTERSTATE HIGHWAY 35, THEN 0.4 MILE SOUTHEASTERLY ALONG GARFIELD AVENUE, THEN 0.1 MILE SOUTHEASTERLY ALONG PORT TERMINAL DRIVE, 69.1 FEET SOUTH-SOUTHEAST OF PORT TERMINAL DRIVE, 24.5 FEET NORTHEAST OF THE EASTERLY EDGE OF THE BITUMINOUS BOAT LANDING PARKING LOT, 1.0 FOOT NORTH-NORTHWEST OF A WITNESS POST.



BENCH MARK ELEVATION 611.980 (N.A.V.D. 88 ADJ.) PRIDE
 LOCATION IN SUPERIOR, 200.0 FEET EAST OF INTERSTATE HIGHWAY 535 IN THE MEDIAN BETWEEN NORTH 3RD STREET RAMP AND HIGHBRIDGE BOULEVARD, 95.0 FEET WEST OF CUMMING AVENUE EXTENDED, 41.4 SOUTH OF HIGHBRIDGE BOULEVARD, 60.4 FEET SOUTHEAST OF A LIGHT POLE, 10.0 FEET NORTH OF THE BACK OF CURB OF NORTH 3RD STREET RAMP, 1.0 FOOT SOUTHEAST OF A WITNESS POST.

MINNESOTA
 DEPARTMENT OF TRANSPORTATION

BRIDGE SURVEY

PROPOSED BRIDGE LOCATED
 1.3 MILES SE OF JCT TH 35

SEC 3, 10 & 14 T 49 N R 14 W

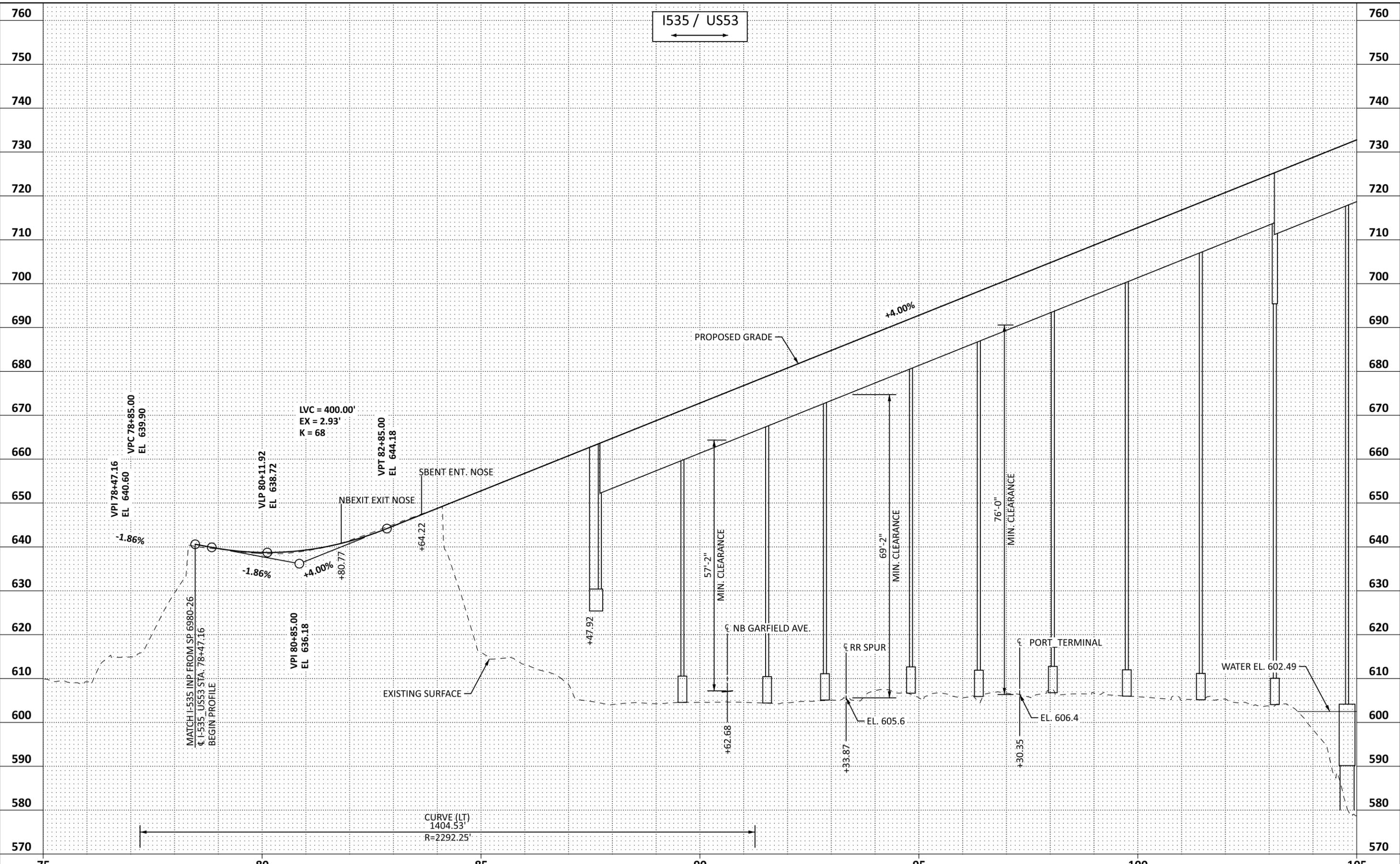
COUNTY: ST. LOUIS COUNTY, MN &
 DOUGLAS COUNTY, WI

CITY: DULUTH, MN & SUPERIOR, WI

BRIDGE NO. **69913**

Plotted By: PARSONS\p01010292
 Date Plotted: 17-JAN-2025
 Time Plotted: 10:12:24 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 011_BridgeSurvey.dgn

Plotted By: PARSONS\p002751
 Date Plotted: 8-JAN-2025
 Time Plotted: 10:51:05 AM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 012_ContractedProfiles.dgn



STATE PROJECT NO. (SP.) 6981 - 69913

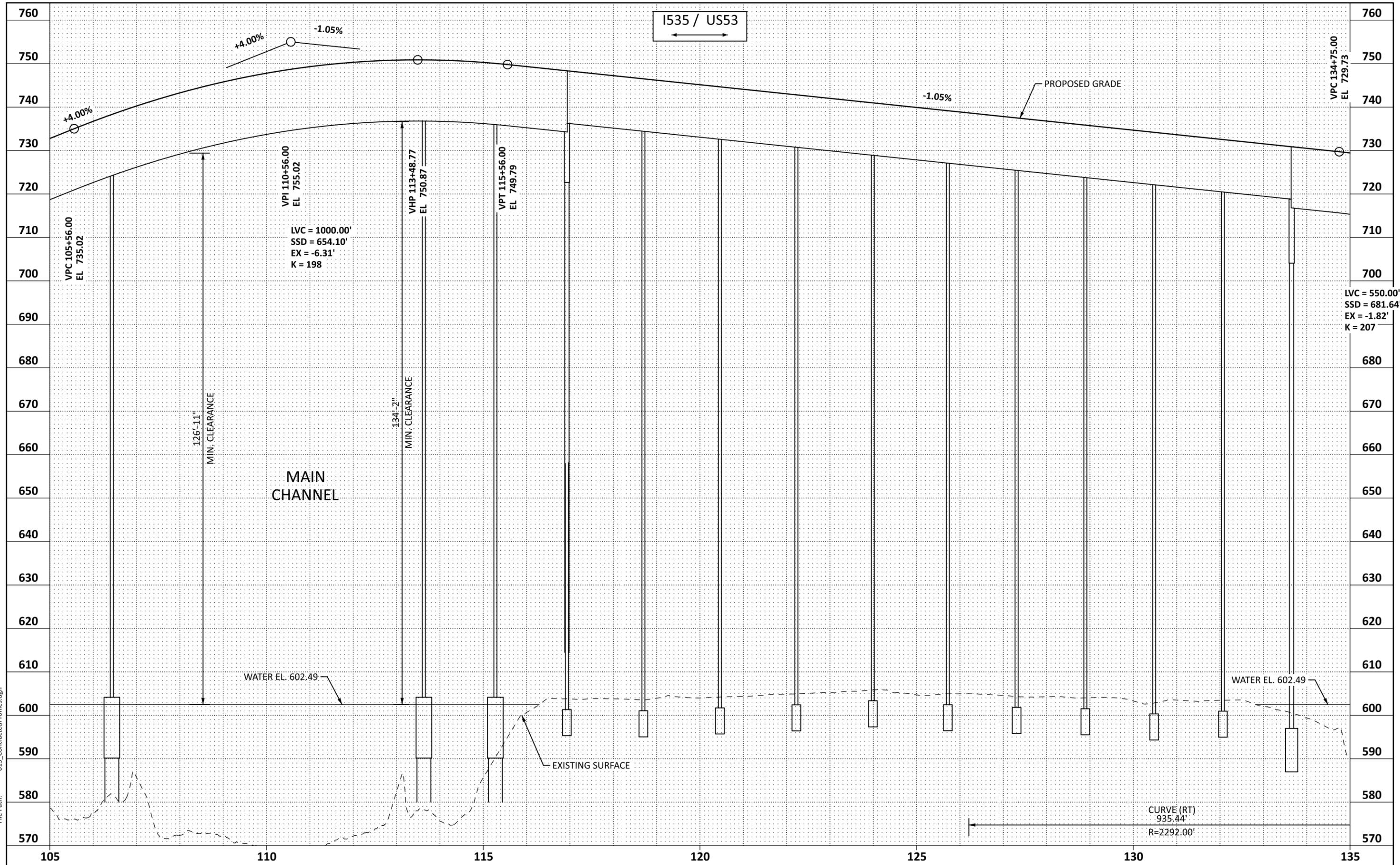


TITLE: CONTRACTED PROFILES

DES: ---	DR: RDF
CHK: ---	CHK: EJA
SHEET NO. 12 OF 86 SHEETS	

BRIDGE NO. 69913 (B-16-0153)

Plotted By: PARSONS\p0022751
 Date Plotted: 8-JAN-2025
 Time Plotted: 10:50:38 AM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 013_ContractedProfiles.dgn



STATE PROJECT NO. (SP.) 6981 - 69913

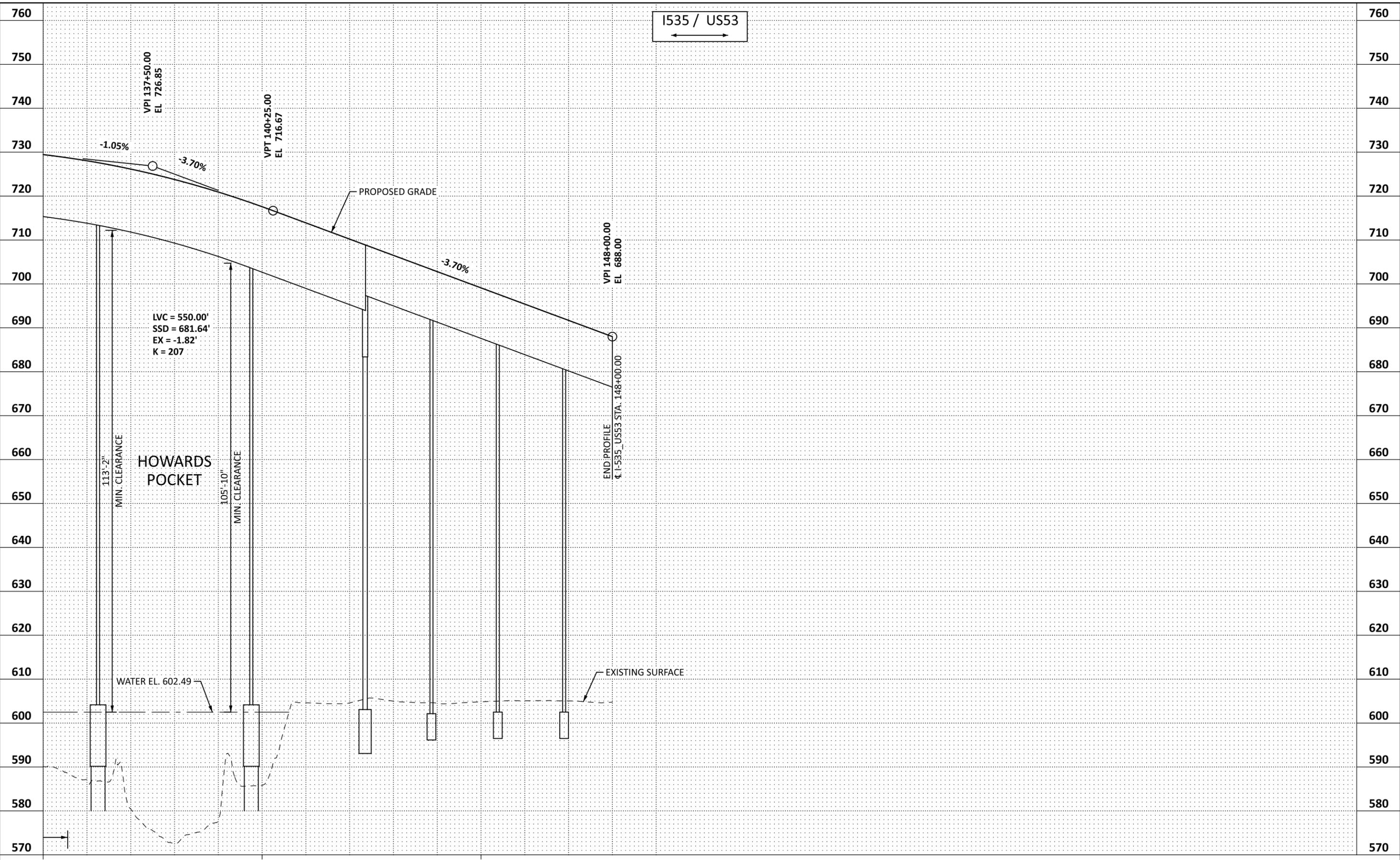


TITLE: CONTRACTED PROFILES

DES: ---	DR: RDF
CHK: ---	CHK: EJA
SHEET NO. 13 OF 86 SHEETS	

BRIDGE NO. 69913 (B-16-0153)

Plotted By: PARSONS\p0022751
 Date Plotted: 8-JAN-2025
 Time Plotted: 10:50:46 AM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 014_ContractedProfiles.dgn



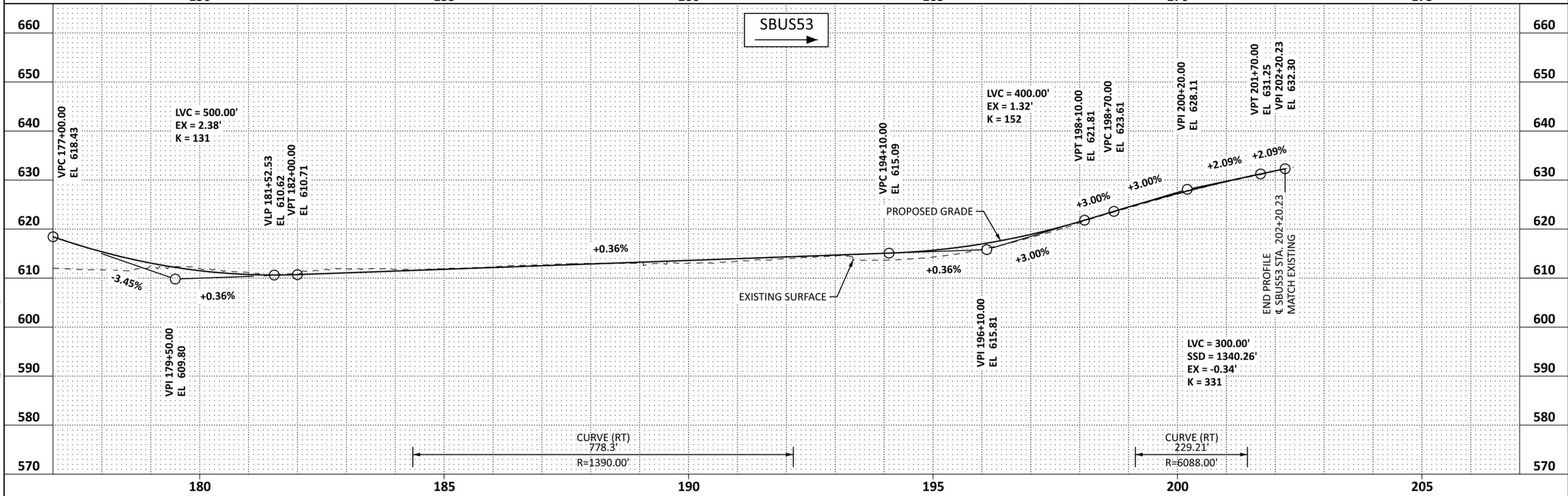
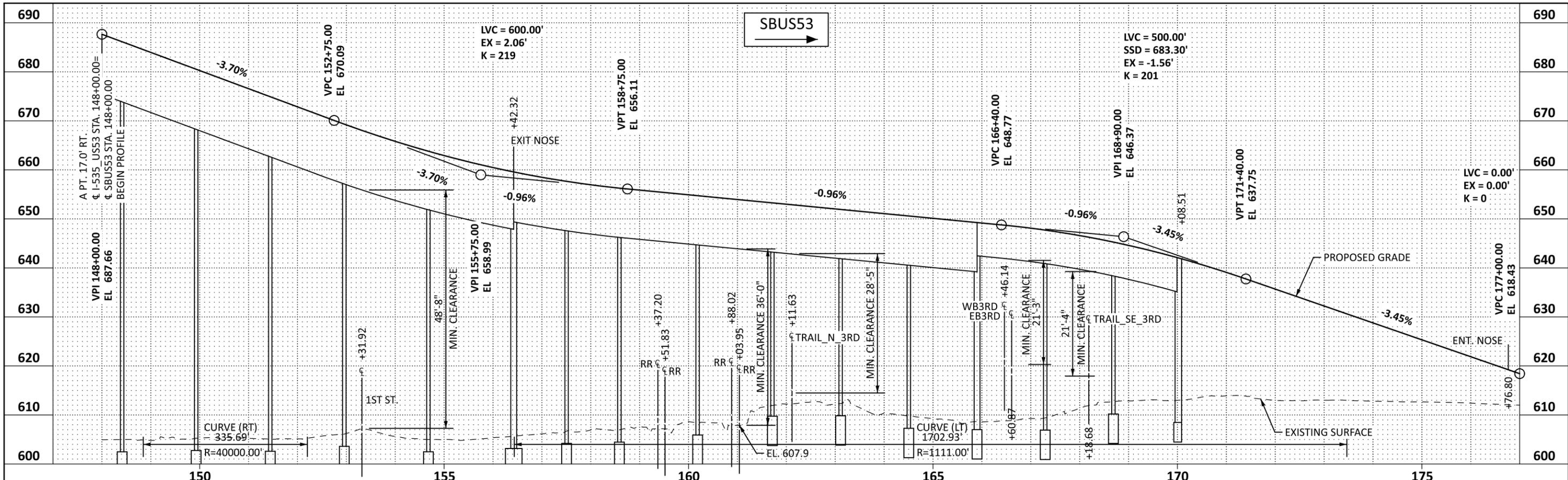
STATE PROJECT NO. (SP.) 6981 - 69913



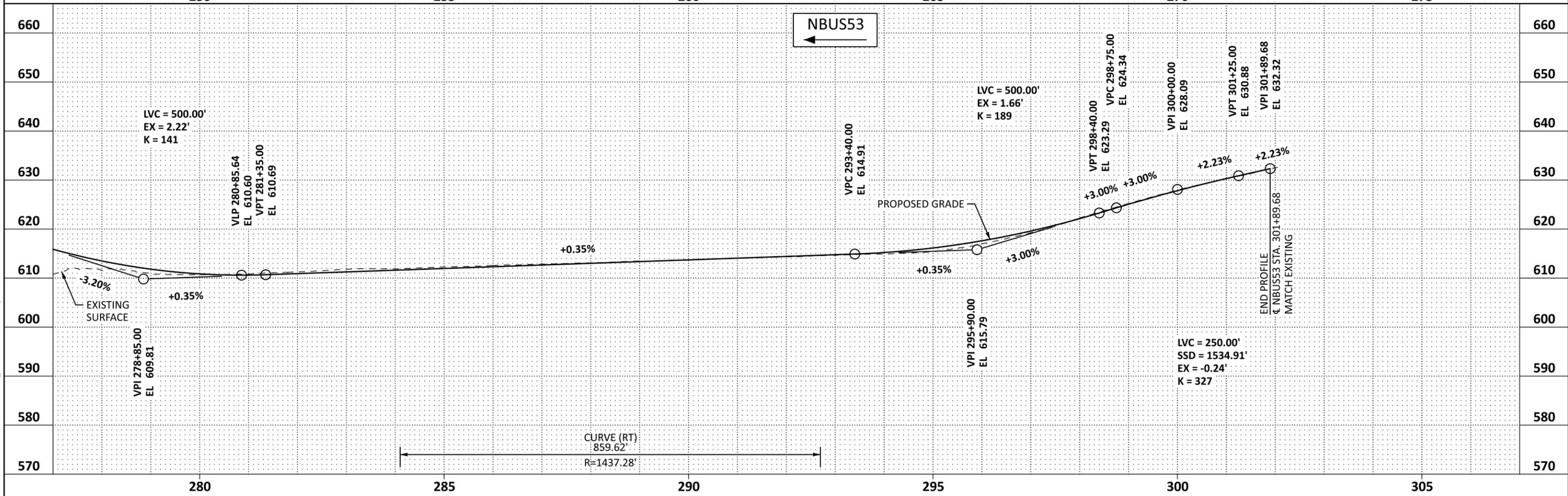
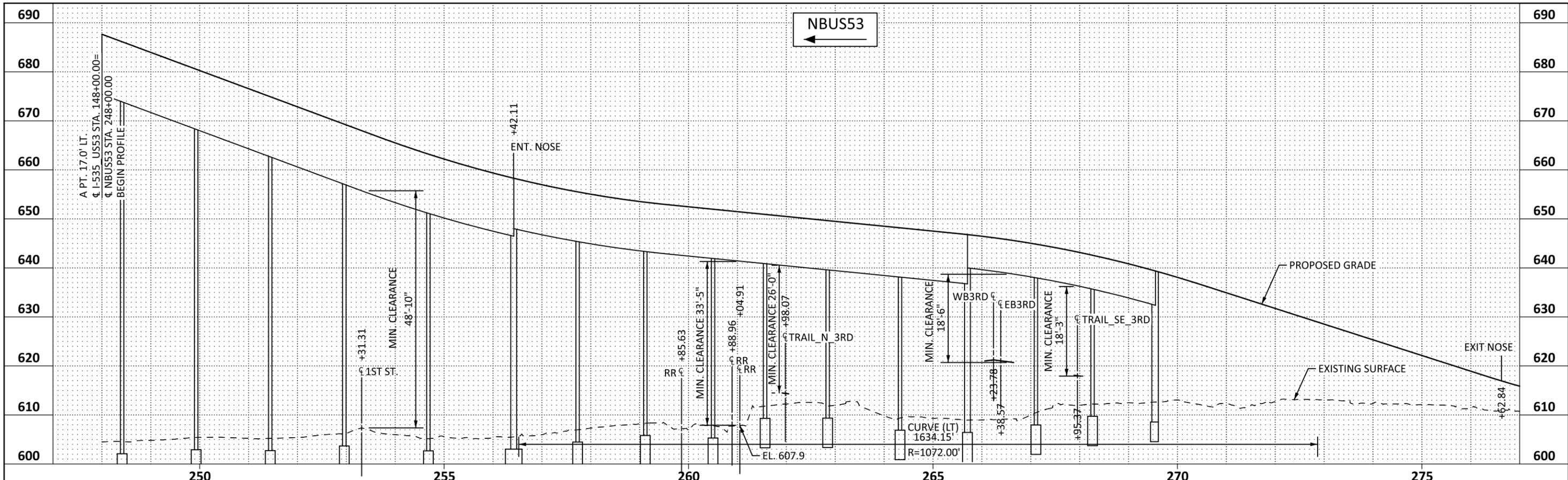
TITLE: CONTRACTED PROFILES

DES: ---	DR: RDF
CHK: ---	CHK: EJA
SHEET NO. 14 OF 86 SHEETS	

BRIDGE NO. 69913
(B-16-0153)



Plotted By: PARSONS\p0022751
 Date Plotted: 8-JAN-2025
 Time Plotted: 10:51:07 AM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 015_ContractedProfiles.dgn



Plotted By: PARSONS\p0022751
 Date Plotted: 8-JAN-2025
 Time Plotted: 10:50:55 AM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 016_ContractedProfiles.dgn

STATE PROJECT NO. (SP.) 6981 - 69913

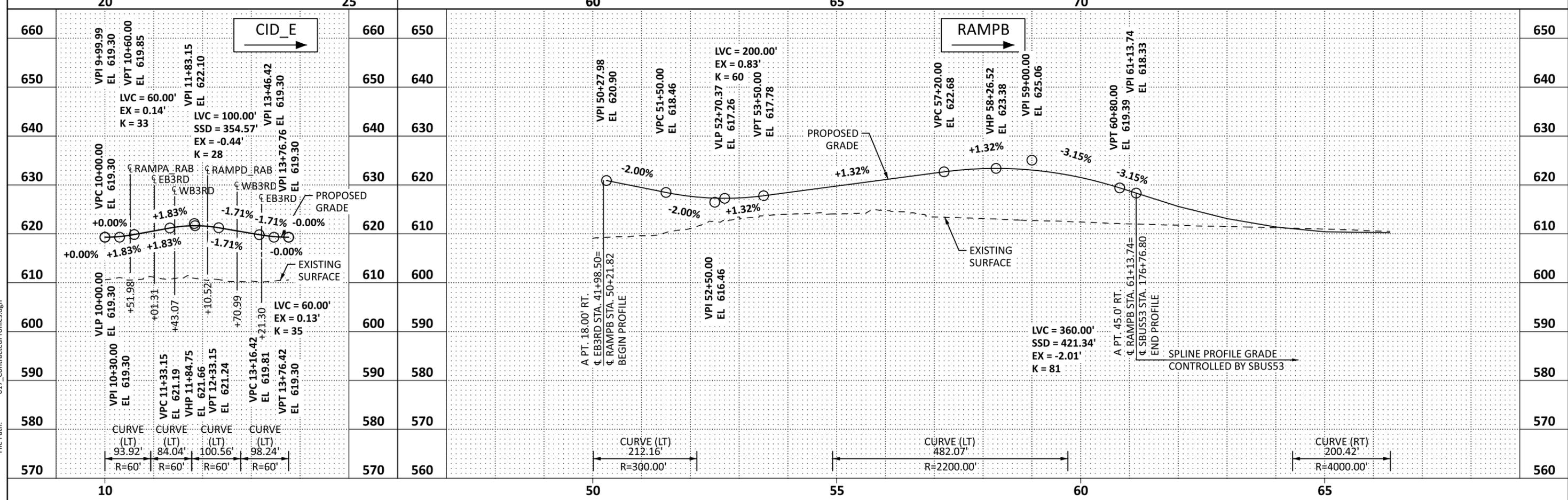
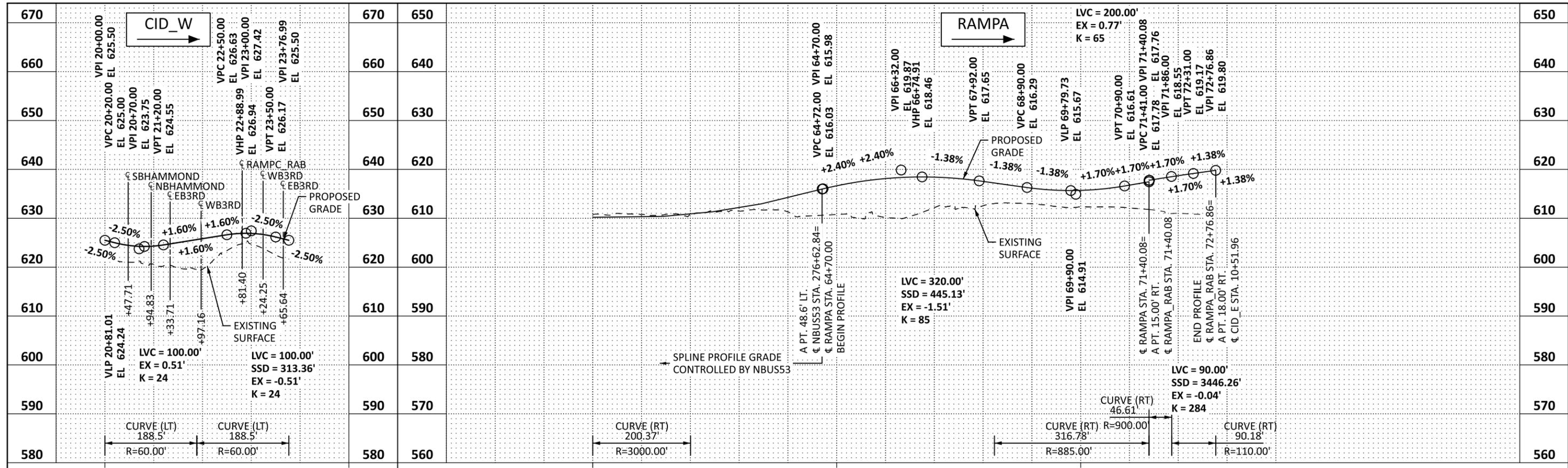


TITLE: CONTRACTED PROFILES

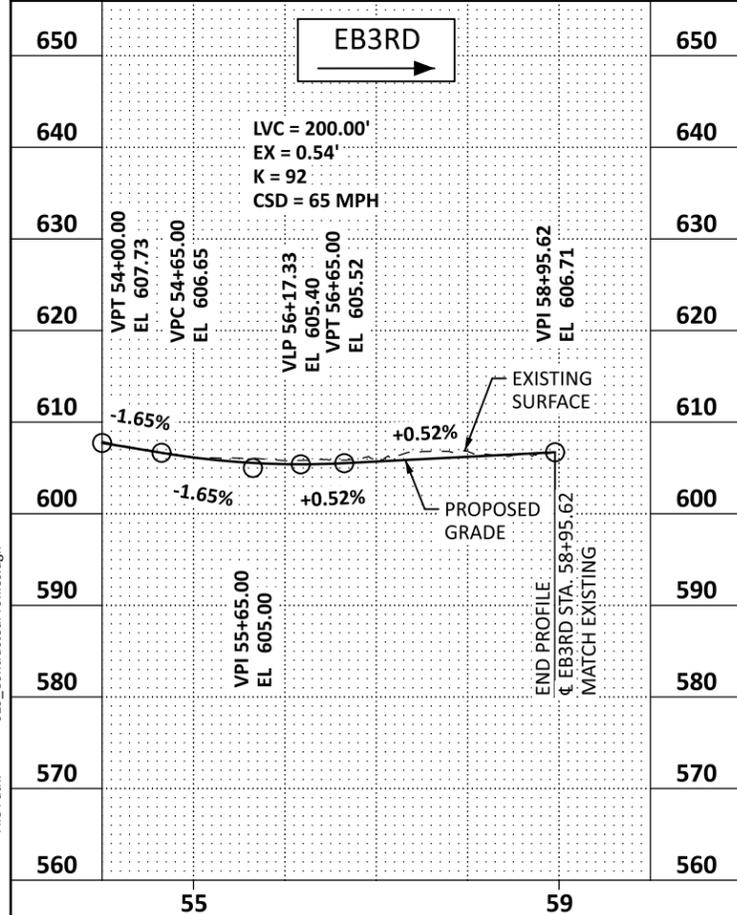
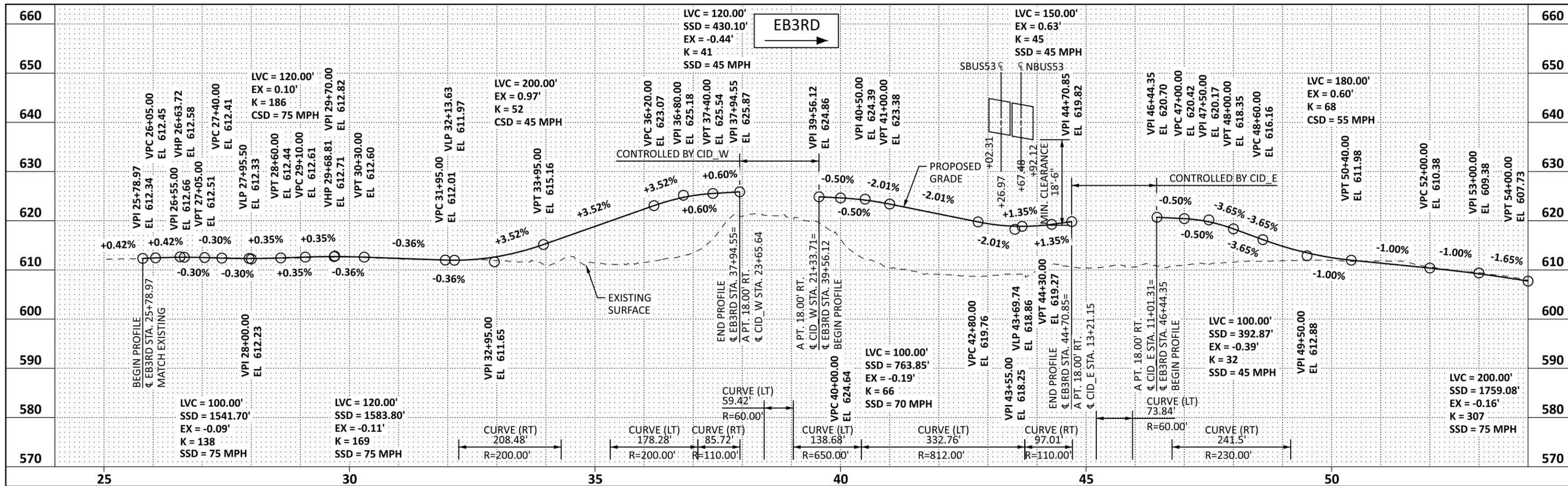
DES: ---	DR: RDF
CHK: ---	CHK: EJA
SHEET NO. 16 OF 86 SHEETS	

BRIDGE NO. 69913
 (B-16-0153)

Plotted By: PARSONS\p0022751
 Date Plotted: 8-JAN-2025
 Time Plotted: 10:50:52 AM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 017_ContractedProfiles.dgn



Plotted By: PARSONS\p0022751
 Date Plotted: 8-JAN-2025
 Time Plotted: 10:50:55 AM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 019_ContractedProfiles.dgn



STATE PROJECT NO. (SP.) 6981 - 69913

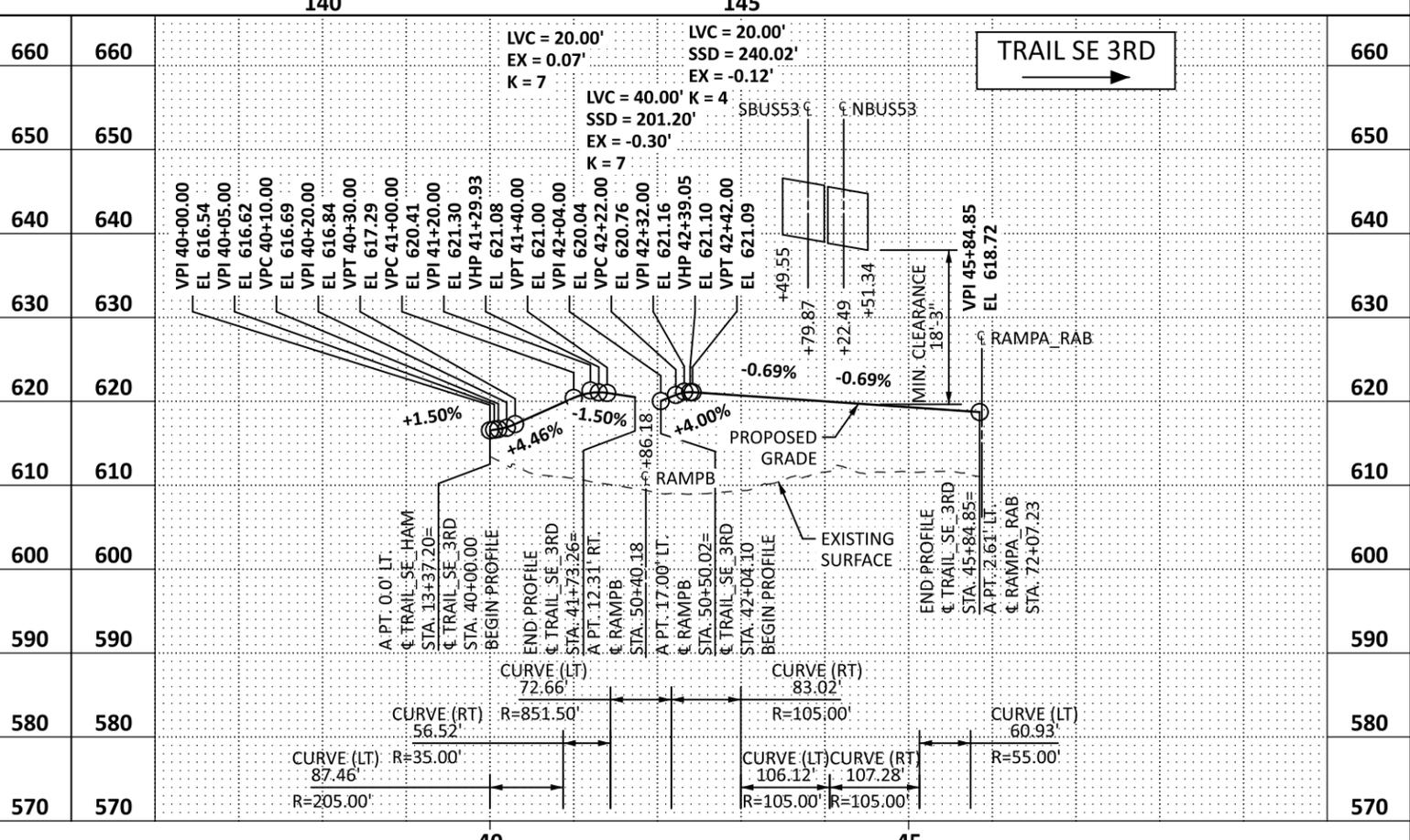
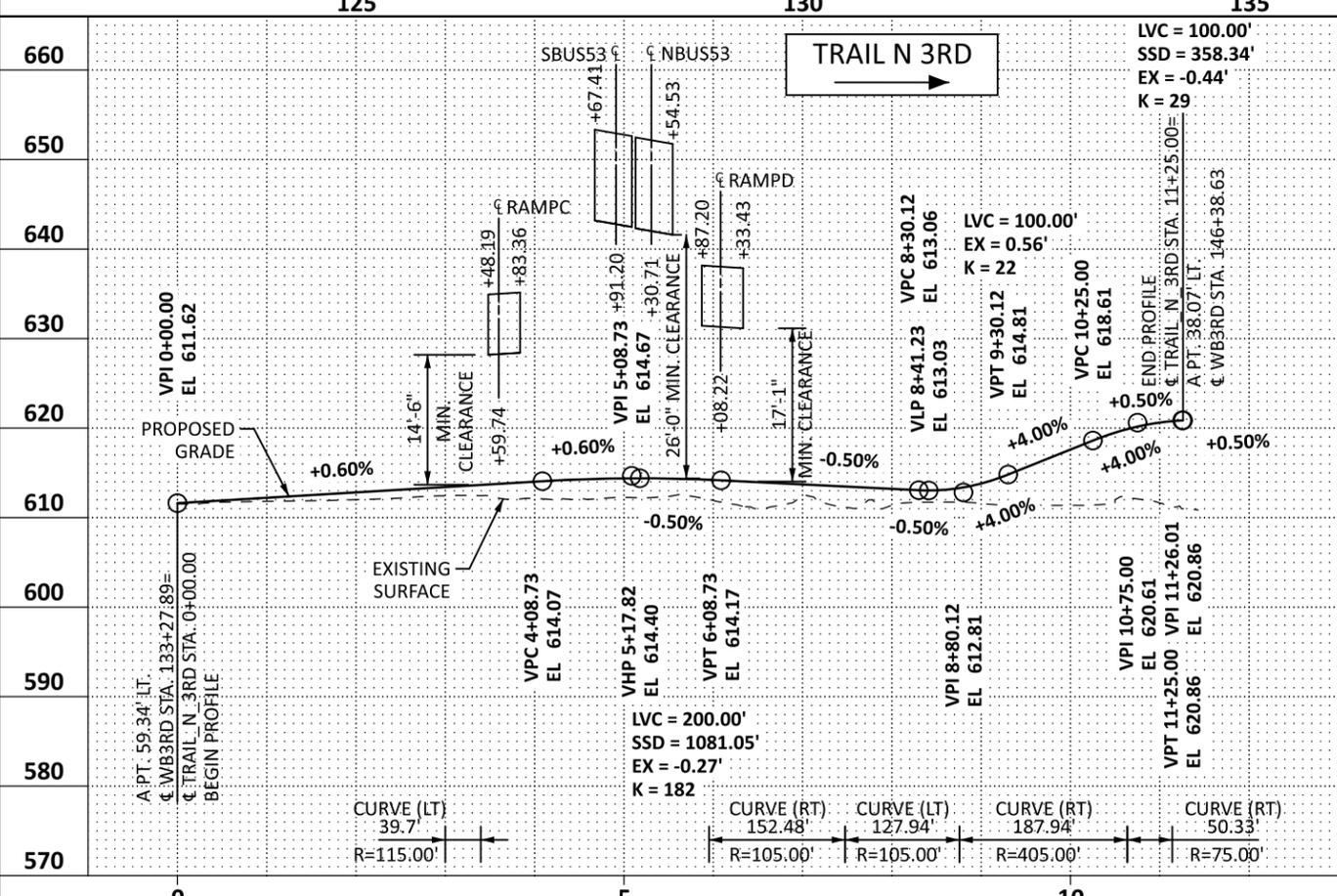
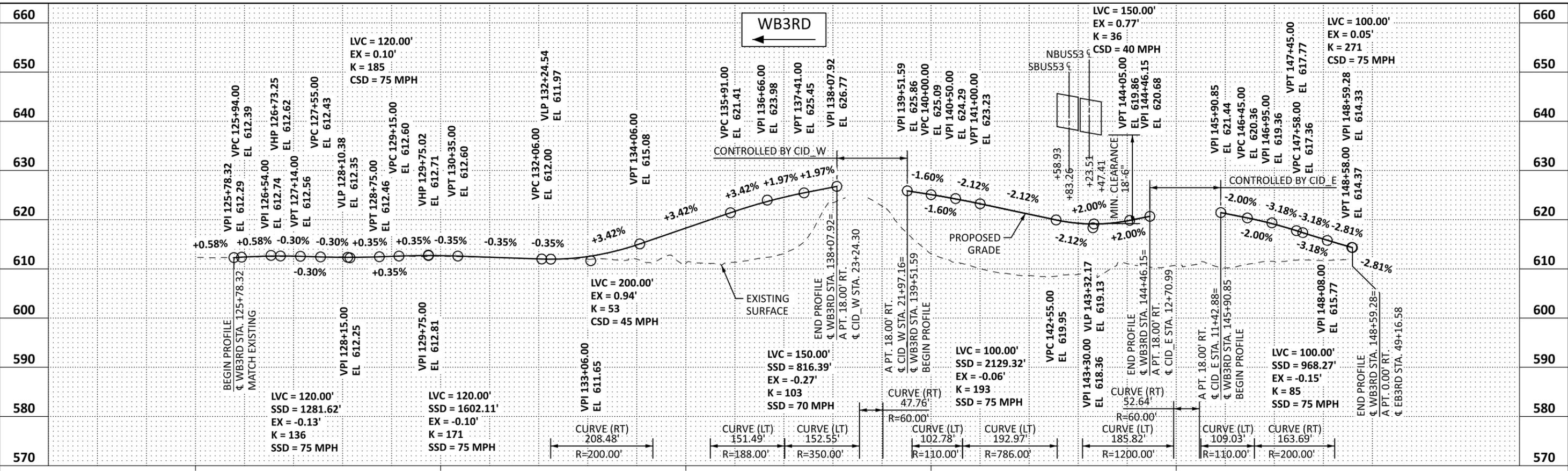


TITLE: CONTRACTED PROFILES

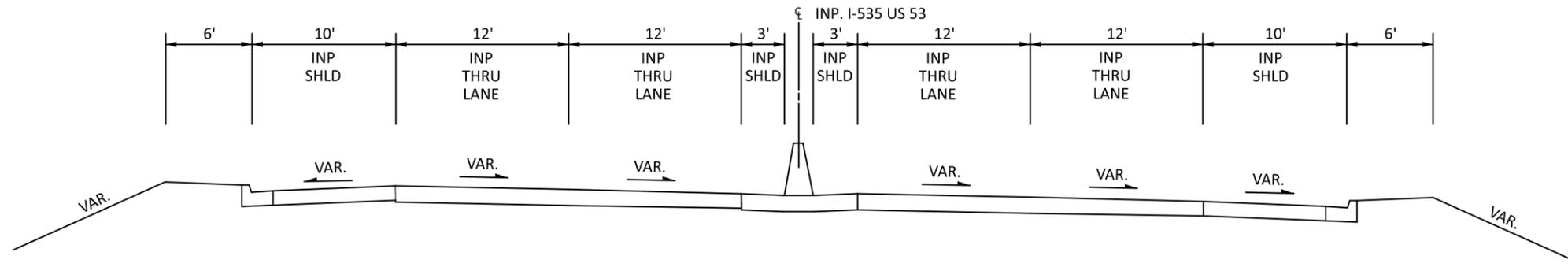
DES: ---	DR: RDF
CHK: ---	CHK: EJA
SHEET NO. 19 OF 86 SHEETS	

BRIDGE NO. 69913 (B-16-0153)

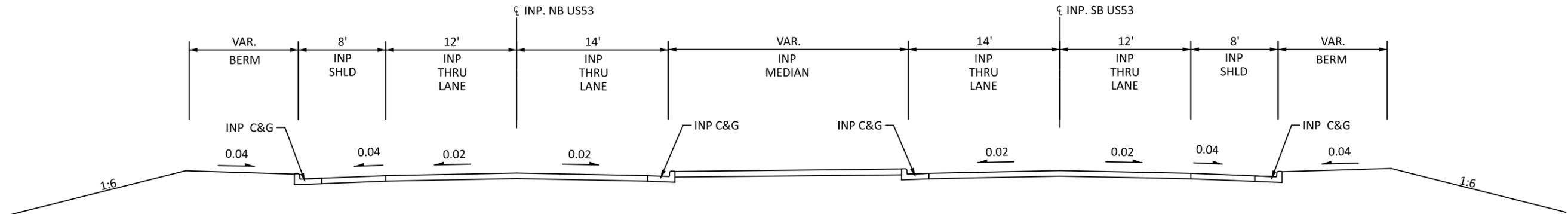
Plotted By: PARSONS\p0022751
 Date Plotted: 14-JAN-2025
 Time Plotted: 5:59:46 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 020_ContractedProfiles.dgn



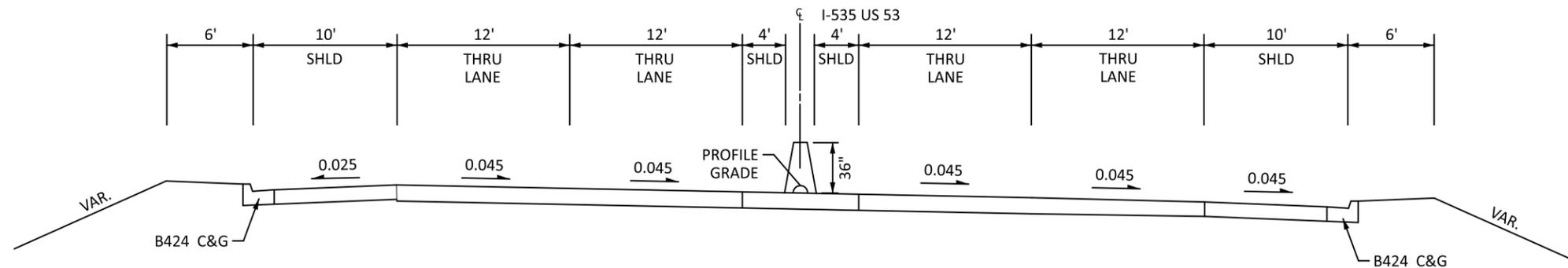
EXISTING
I-535 / US 53 FROM BR 69808 TO BR 9030



EXISTING
I-535 / US 53 FROM HAMMOND AVE. TO 5TH ST.



PROPOSED
I-535 / US 53 STA. 78+47 - 82+55



Plotted By: PARSONS\p0022751
Date Plotted: 3-JAN-2025
Time Plotted: 11:13:11 AM Central
Pen Table: ICS MinDOT-plot.pen
File Path: 021_TypicalSections.dgn

STATE PROJECT NO. (SP.) 6981 - 69913

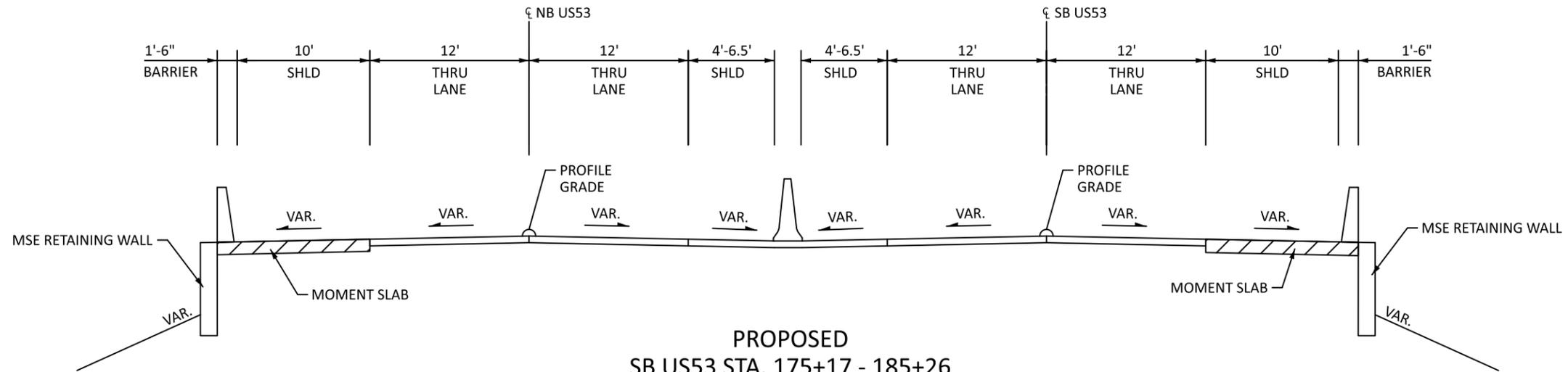


TITLE: TYPICAL SECTIONS

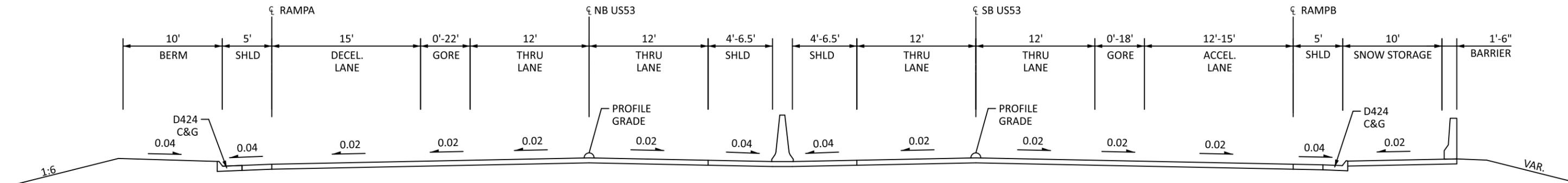
DES: ---	DR: RDF
CHK: ---	CHK: AMP
SHEET NO. 21 OF 86 SHEETS	

BRIDGE NO. 69913
(B-16-0153)

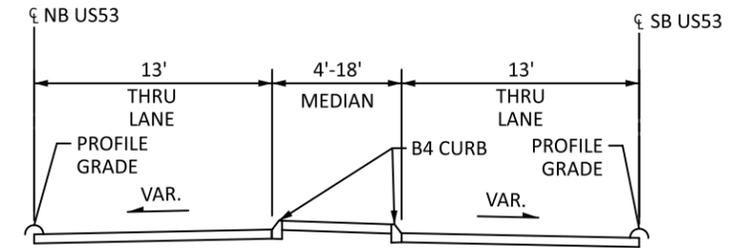
PROPOSED
SB US53 STA. 170+09 - 175+17
NB US53 STA. 269+61 - 274+58



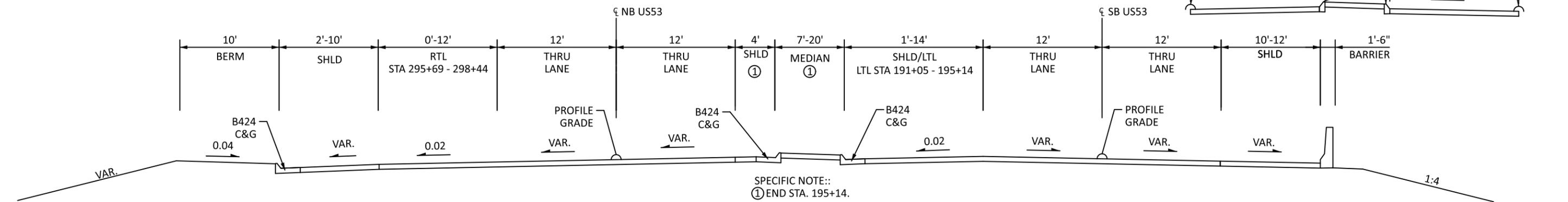
PROPOSED
SB US53 STA. 175+17 - 185+26
NB US53 STA. 274+58 - 284+10



PROPOSED MEDIAN
SB US53 STA. 195+67 - 202+20
NB US53 STA. 295+36 - 301+90



PROPOSED
SB US53 STA. 185+26 - 202+20
NB US53 STA. 284+10 - 301+90



SPECIFIC NOTE:
① END STA. 195+14.

Plotted By: PARSONS\p0022751
Date Plotted: 3-JAN-2025
Time Plotted: 11:32:47 AM Central
Pen Table: ICS MinDOT-plot.pen
File Path: 022_TypicalSections.dgn

STATE PROJECT NO. (SP.) 6981 - 69913

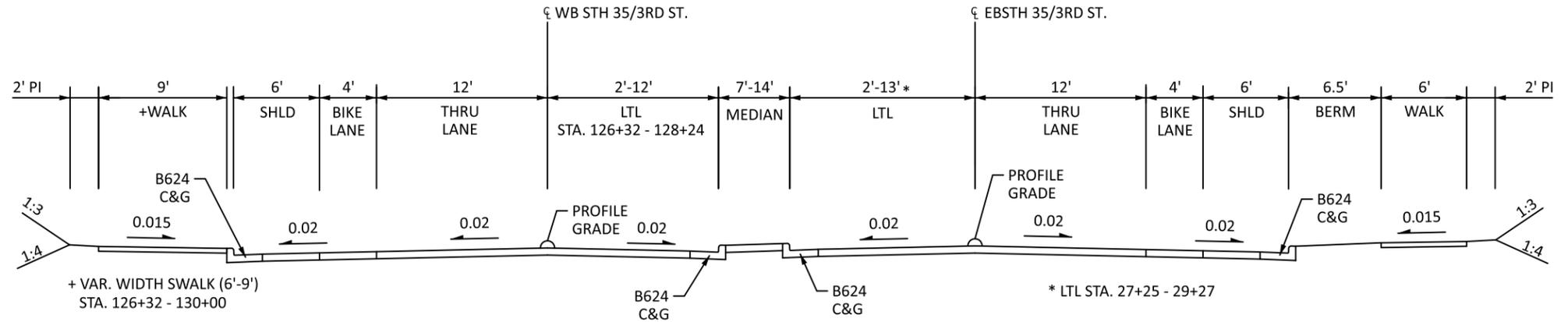


TITLE: TYPICAL SECTIONS

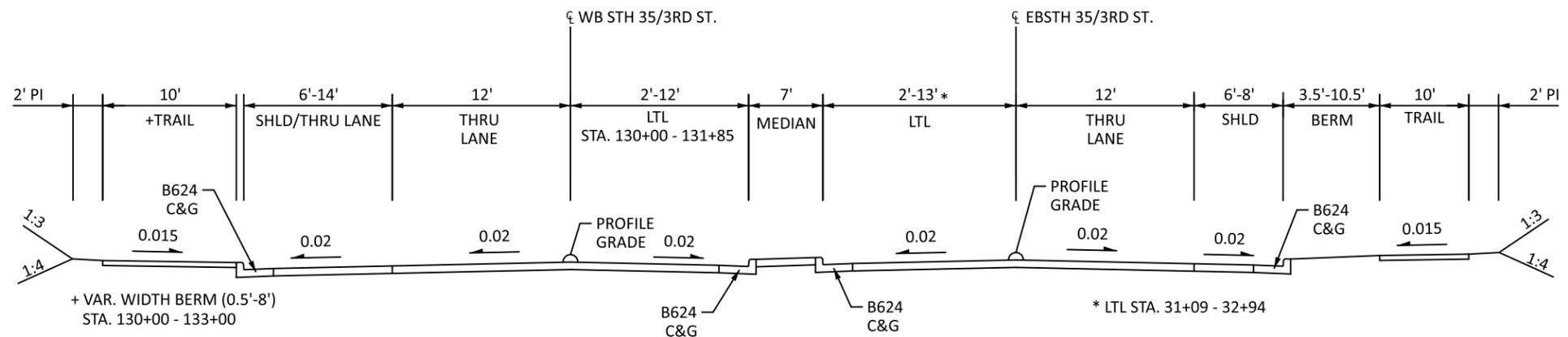
DES: ---	DR: RDF
CHK: ---	CHK: AMP
SHEET NO. 22 OF 86 SHEETS	

BRIDGE NO. 69913
(B-16-0153)

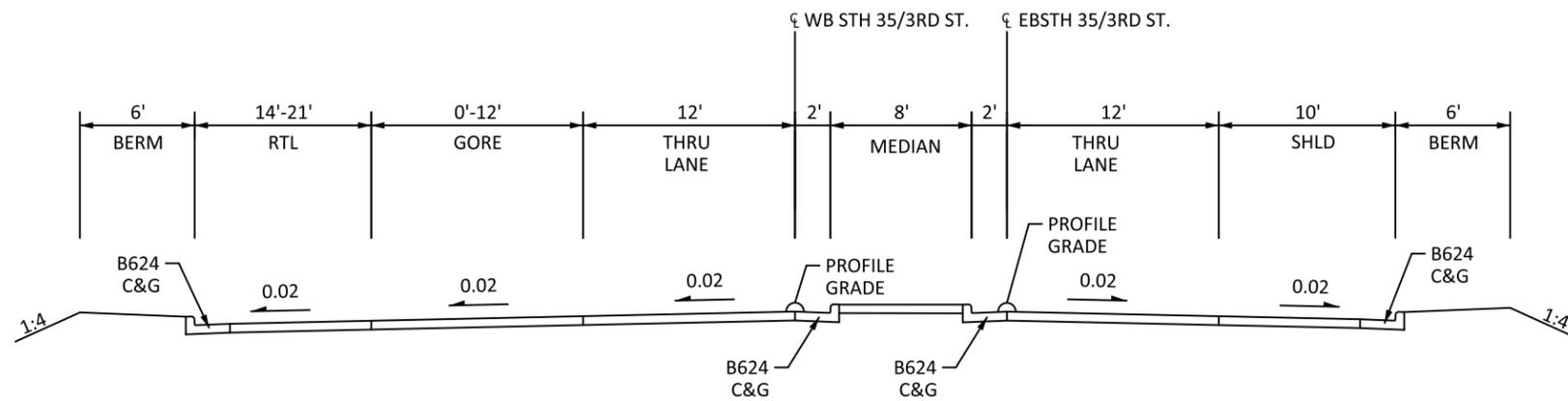
PROPOSED
 EB 3RD ST. STA. 26+32 - 30+00
 WB 3RD ST. STA. 126+32 - 130+00



PROPOSED
 EB 3RD ST. STA. 30+00 - 33+00
 WB 3RD ST. STA. 130+00 - 133+00



PROPOSED
 EB 3RD ST. STA. 33+00 - 37+85
 WB 3RD ST. STA. 133+00 - 137+97



Plotted By: PARSONS\p0022751
 Date Plotted: 3-JAN-2025
 Time Plotted: 11:13:19 AM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 023_TypicalSections.dgn

STATE PROJECT NO. (SP.) 6981 - 69913



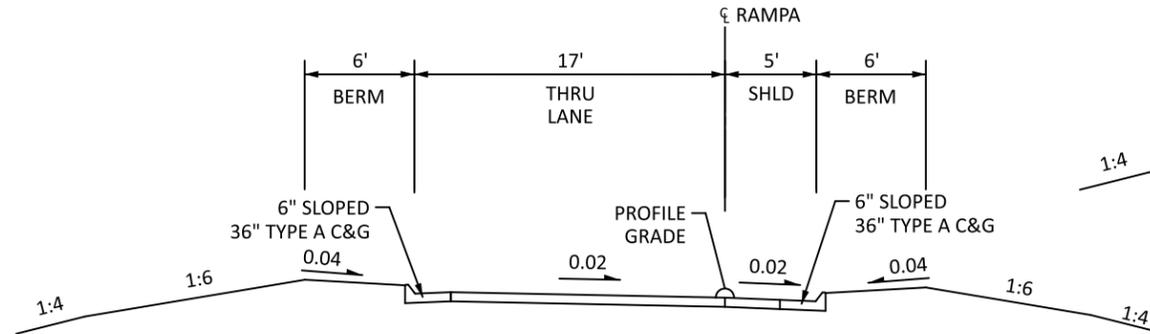
TITLE: TYPICAL SECTIONS

DES: ---	DR: RDF
CHK: ---	CHK: AMP
SHEET NO. 23 OF 86 SHEETS	

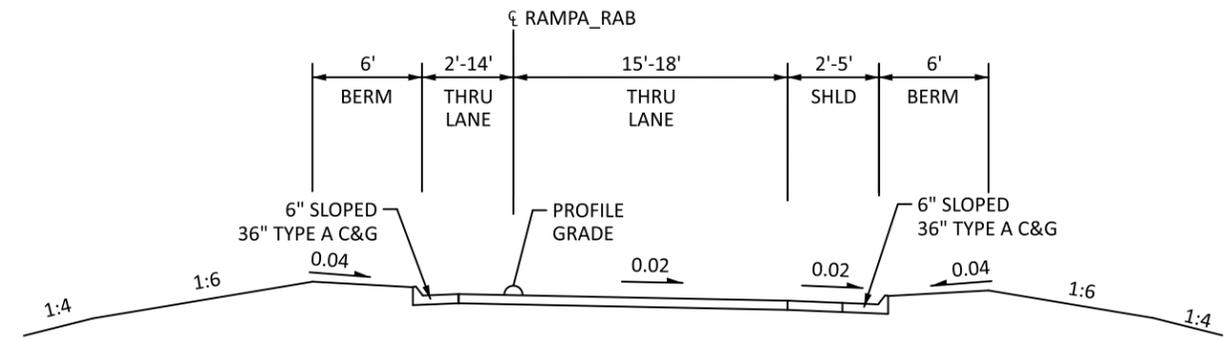
BRIDGE NO. 69913
 (B-16-0153)

Plotted By: PARSONS\p0022751
 Date Plotted: 3-JAN-2025
 Time Plotted: 11:32:45 AM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 024_TypicalSections.dgn

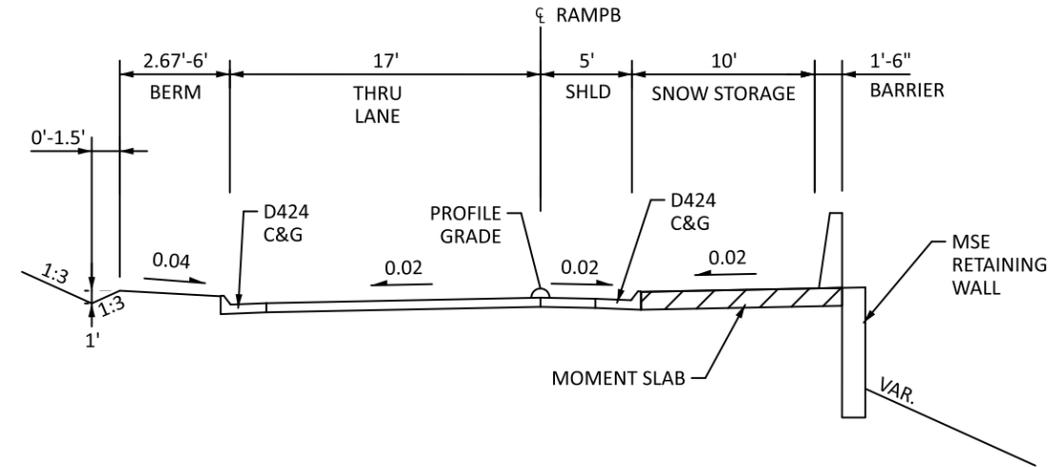
PROPOSED
 RAMP A STA. 64+68 - 71+40.08



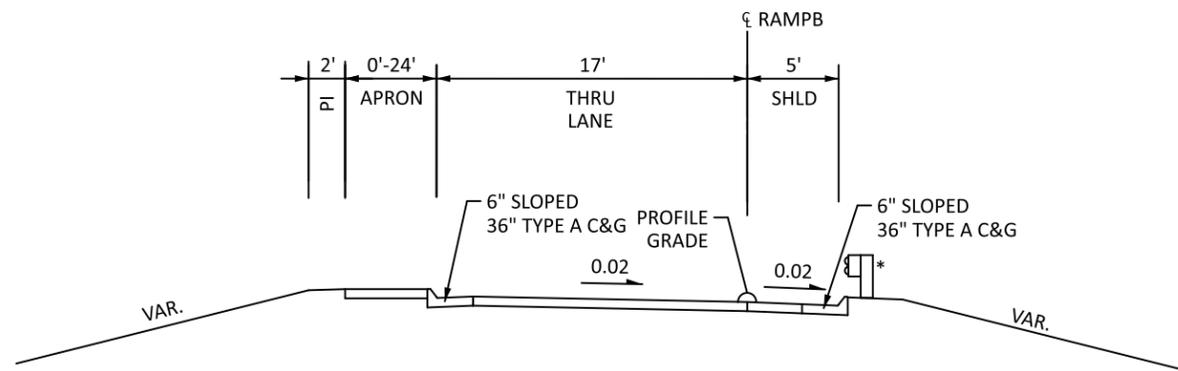
PROPOSED
 RAMP A RAB STA. 71+40.08 - 72+76.84



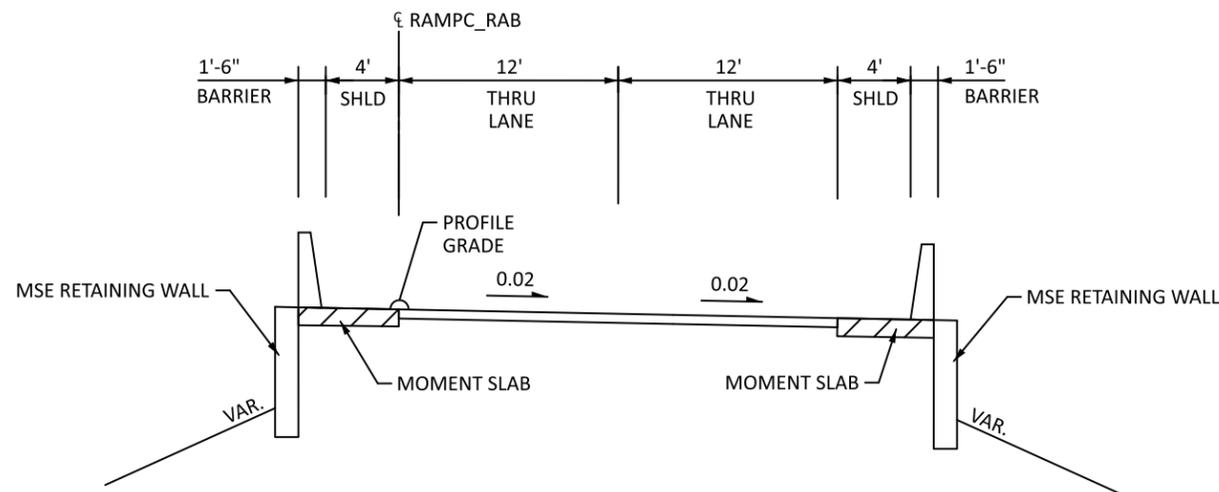
PROPOSED
 RAMP B STA. 57+31 - 61+15



PROPOSED
 RAMP B STA. 50+65 - 57+31

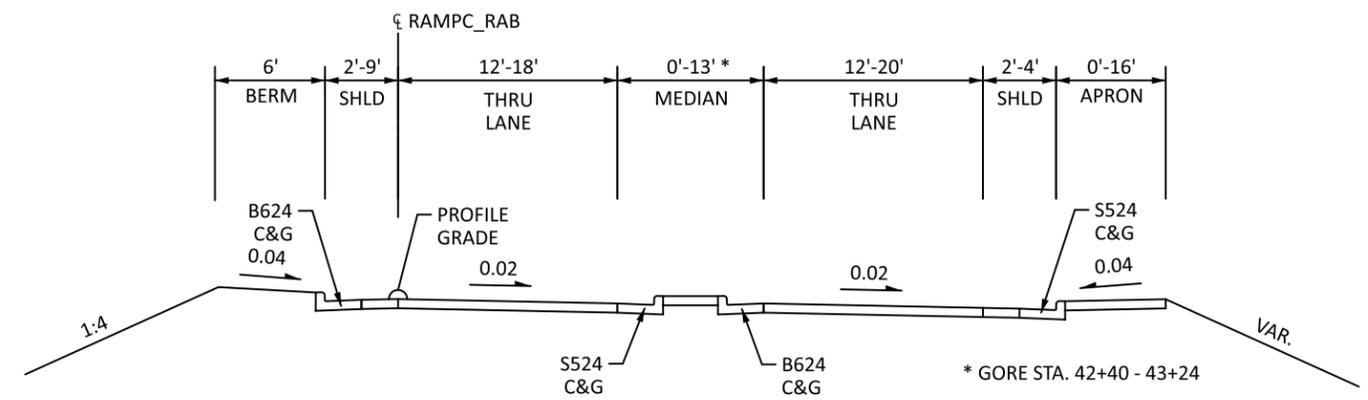


PROPOSED
 RAMP C RAB STA. 41+30 - 41+84



* GUARDRAIL RT
 STA. 55+52 - 56+33

PROPOSED
 RAMP C RAB STA. 41+84 - 44+08



* GORE STA. 42+40 - 43+24

STATE PROJECT NO. (SP.) 6981 - 69913

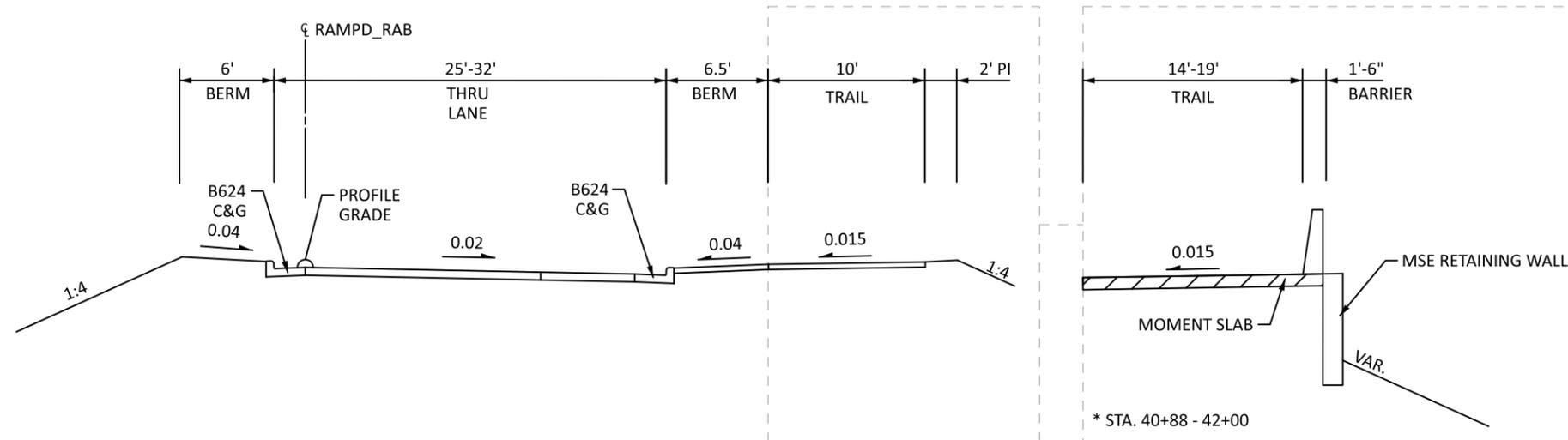


TITLE: TYPICAL SECTIONS

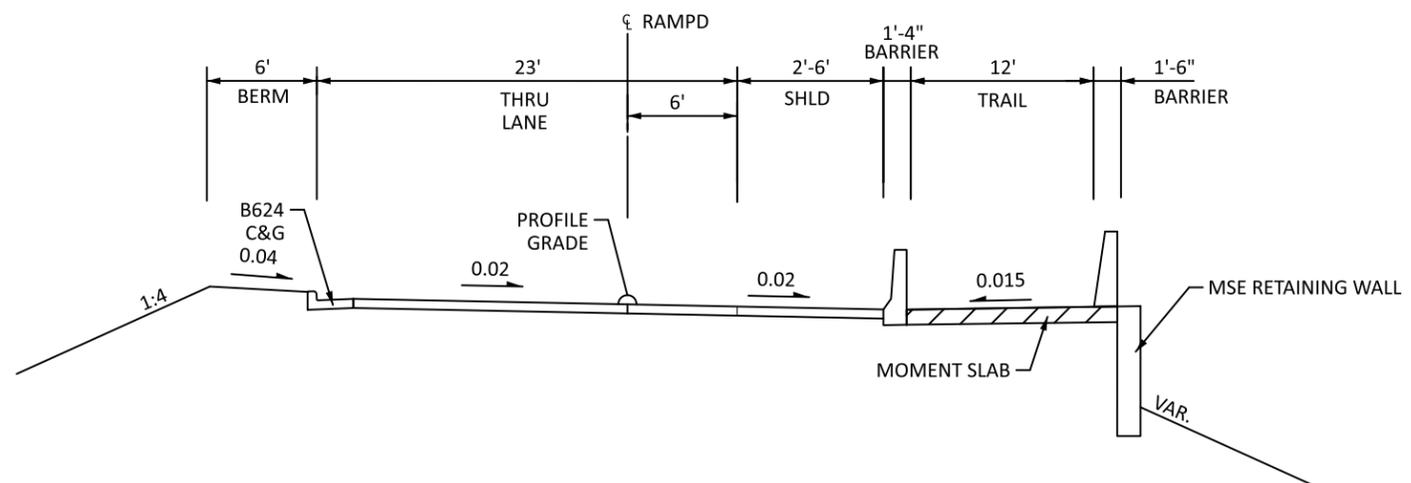
DES: ---	DR: RDF
CHK: ---	CHK: AMP
SHEET NO. 24 OF 86 SHEETS	

BRIDGE NO.
 69913
 (B-16-0153)

PROPOSED
RAMP D RAB STA. 40+32 - 42+00



PROPOSED
RAMP D STA. 42+00 - 43+70



Plotted By: PARSONS\p0022751
Date Plotted: 3-JAN-2025
Time Plotted: 11:13:17 AM Central
Pen Table: ICS_MinDOT-plot.pen
File Path: 025_TypicalSections.dgn

STATE PROJECT NO. (SP.) 6981 - 69913

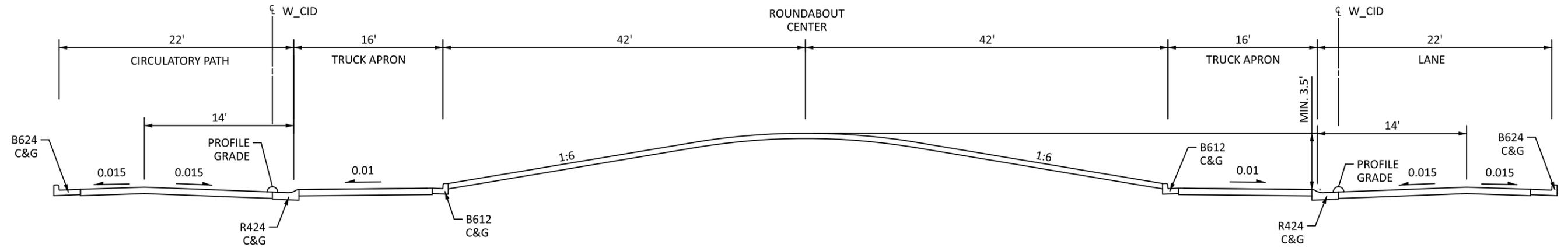


TITLE: TYPICAL SECTIONS

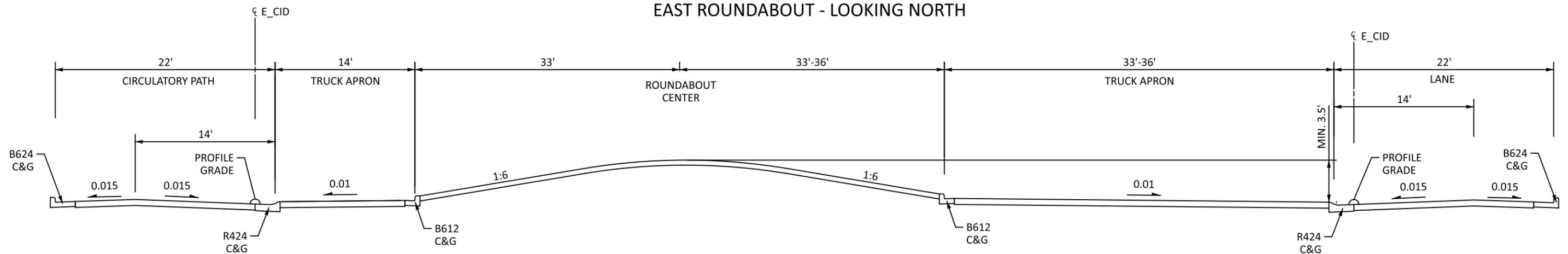
DES: ---	DR: RDF
CHK: ---	CHK: AMP
SHEET NO. 25 OF 86 SHEETS	

BRIDGE NO.
69913
(B-16-0153)

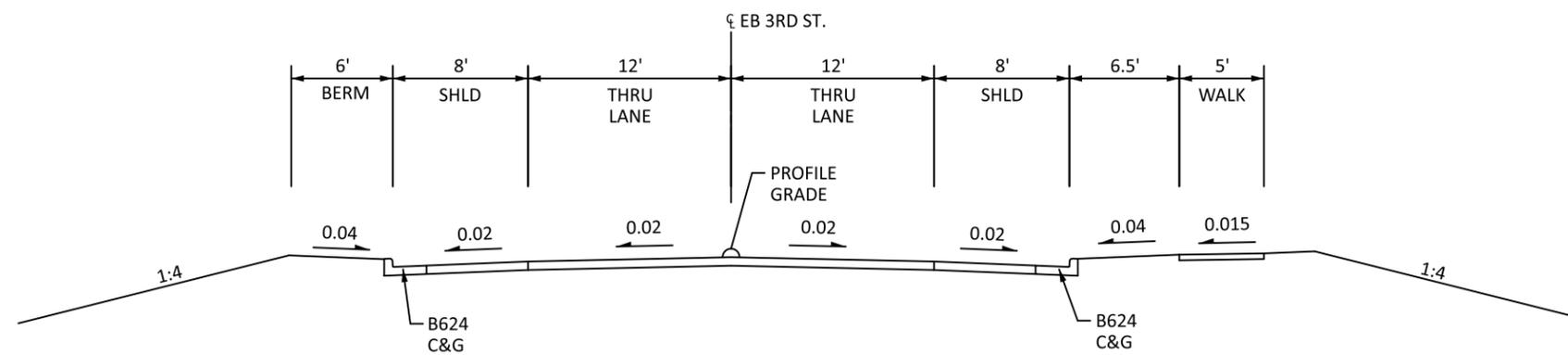
PROPOSED
WEST ROUNDABOUT - LOOKING SOUTH



PROPOSED
EAST ROUNDABOUT - LOOKING NORTH



PROPOSED
EB 3RD ST. STA. 49+07 - 57+57



Plotted By: PARSONS\p0022751
Date Plotted: 3-JAN-2025
Time Plotted: 11:13:14 AM Central
Pen Table: ICS_MinDOT-plot.pen
File Path: 026_TypicalSections.dgn

STATE PROJECT NO. (SP.) 6981 - 69913



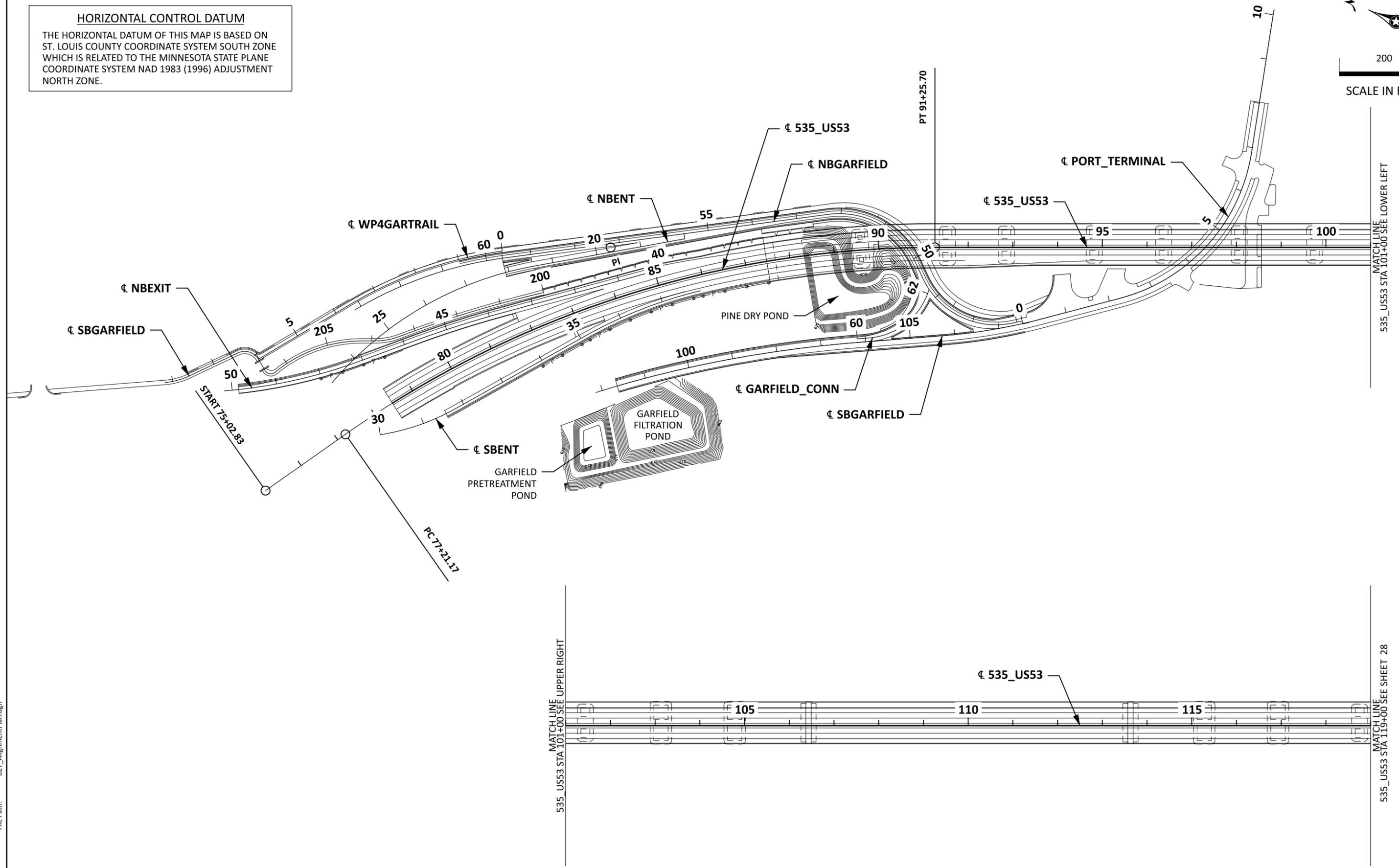
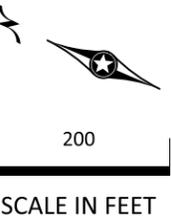
TITLE: TYPICAL SECTIONS

DES: ---	DR: RDF
CHK: ---	CHK: AMP
SHEET NO. 26 OF 86 SHEETS	

BRIDGE NO. 69913
(B-16-0153)

HORIZONTAL CONTROL DATUM

THE HORIZONTAL DATUM OF THIS MAP IS BASED ON ST. LOUIS COUNTY COORDINATE SYSTEM SOUTH ZONE WHICH IS RELATED TO THE MINNESOTA STATE PLANE COORDINATE SYSTEM NAD 1983 (1996) ADJUSTMENT NORTH ZONE.



Plotted By: PARSONS\p0022751
 Date Plotted: 10-JAN-2025
 Time Plotted: 10:23:12 AM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 027_AlignmentPlan.dgn

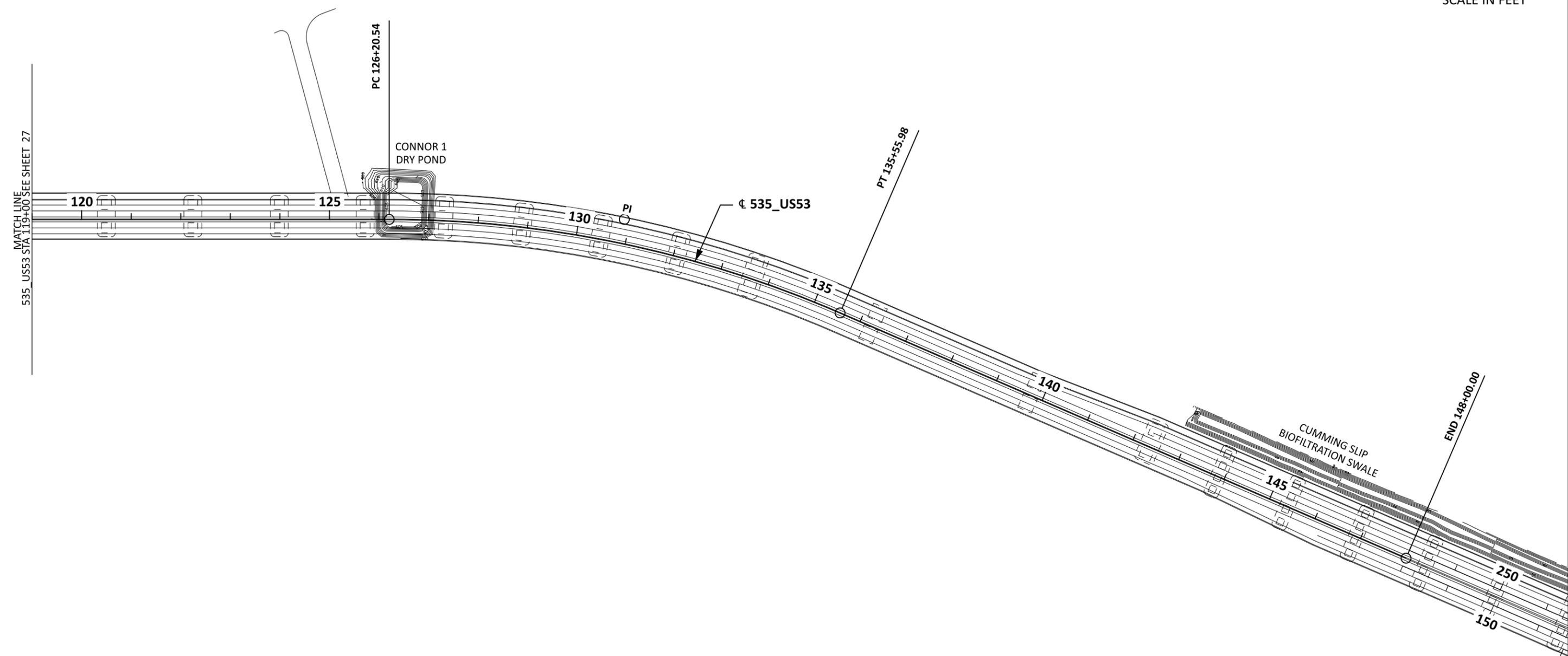
MATCH LINE 535_US53 STA 101+00 SEE UPPER RIGHT

MATCH LINE 535_US53 STA 119+00 SEE SHEET 28

STATE PROJECT NO. (SP.) 6981 - 69913		TITLE: ALIGNMENT PLAN	DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
			CHK: ---	CHK: AMP	
			SHEET NO. 27 OF 86 SHEETS		



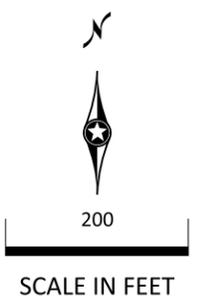
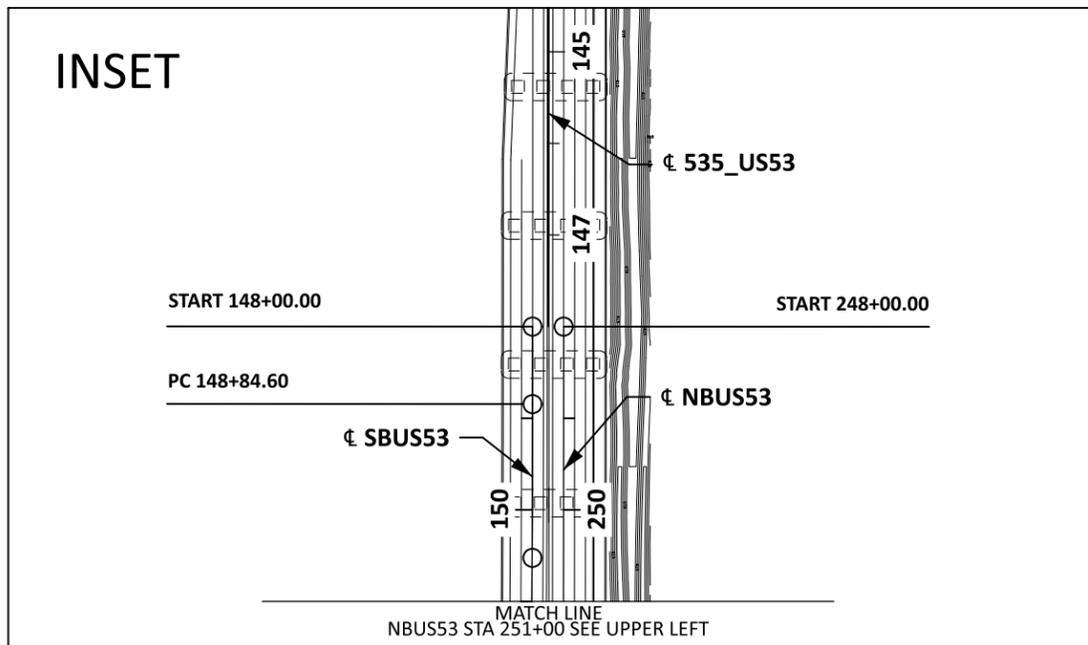
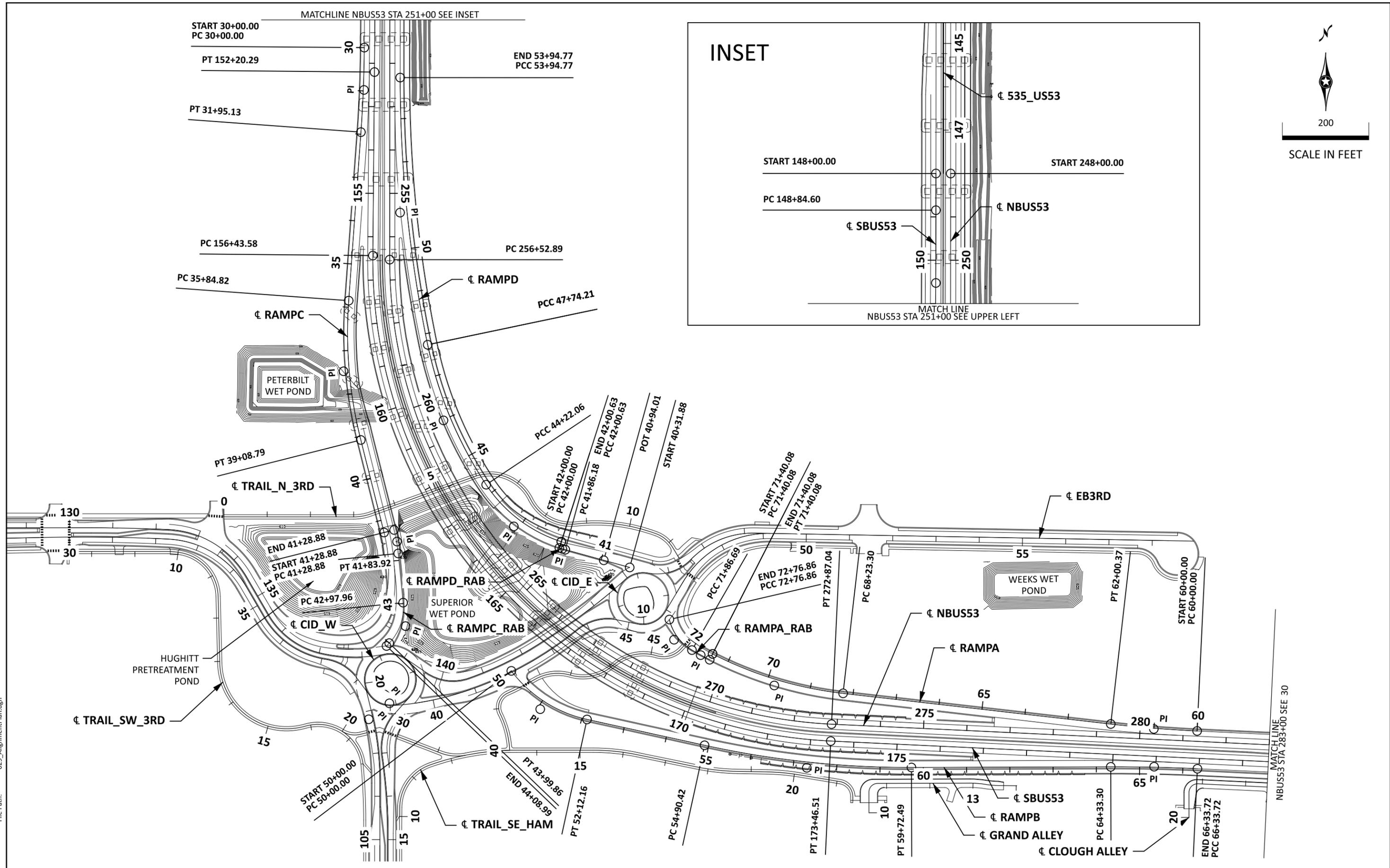
200
SCALE IN FEET



Plotted By: PARSONS\p0022751
 Date Plotted: 10-JAN-2025
 Time Plotted: 10:23:12 AM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 028_AlignmentPlan.dgn

STATE PROJECT NO. (SP.) 6981 - 69913		TITLE: ALIGNMENT PLAN	DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
			CHK: ---	CHK: AMP	
SHEET NO. 28 OF 86 SHEETS					

Plotted By: PARSONS\p0022751
 Date Plotted: 10-JAN-2025
 Time Plotted: 10:23:16 AM Central
 Pen Table: ICS_MinDOT-plot.pen
 File Path: 029_AlignmentPlan.dgn



STATE PROJECT NO. (SP.) 6981 - 69913

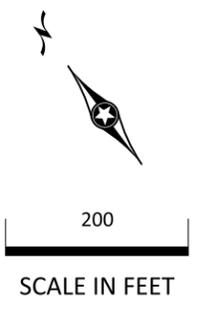
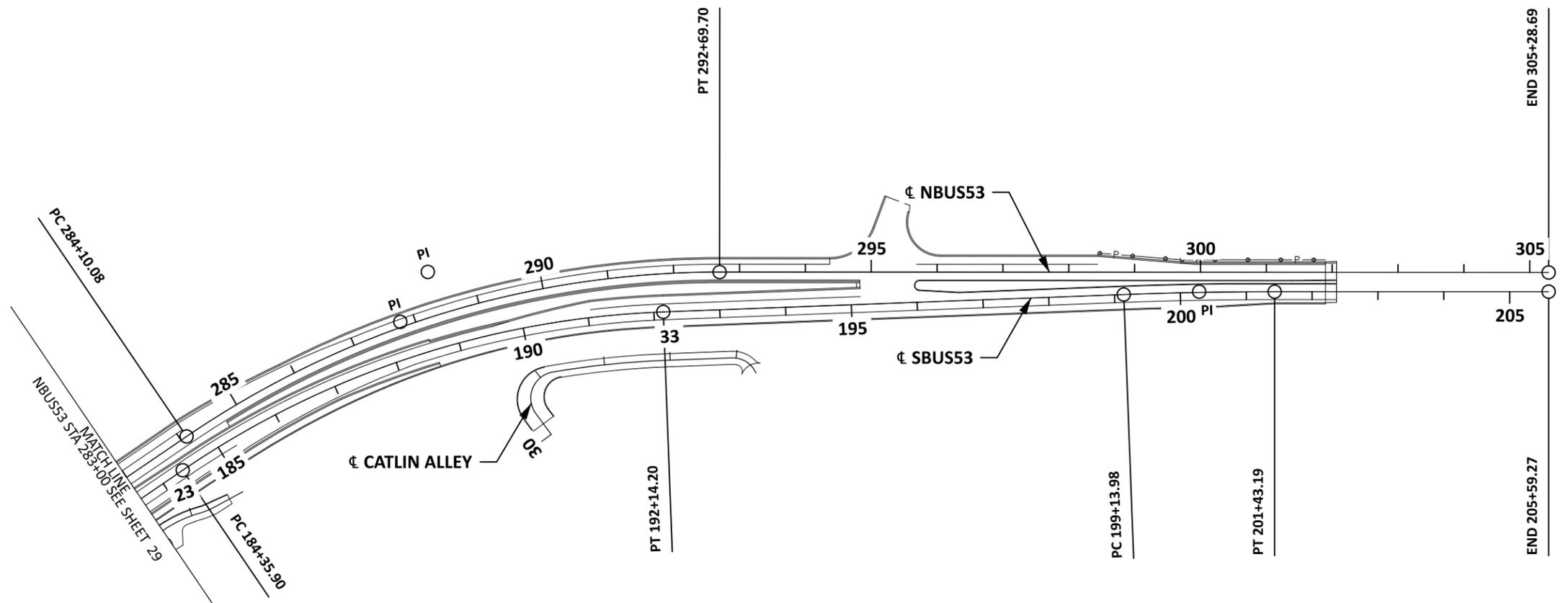


TITLE: ALIGNMENT PLAN

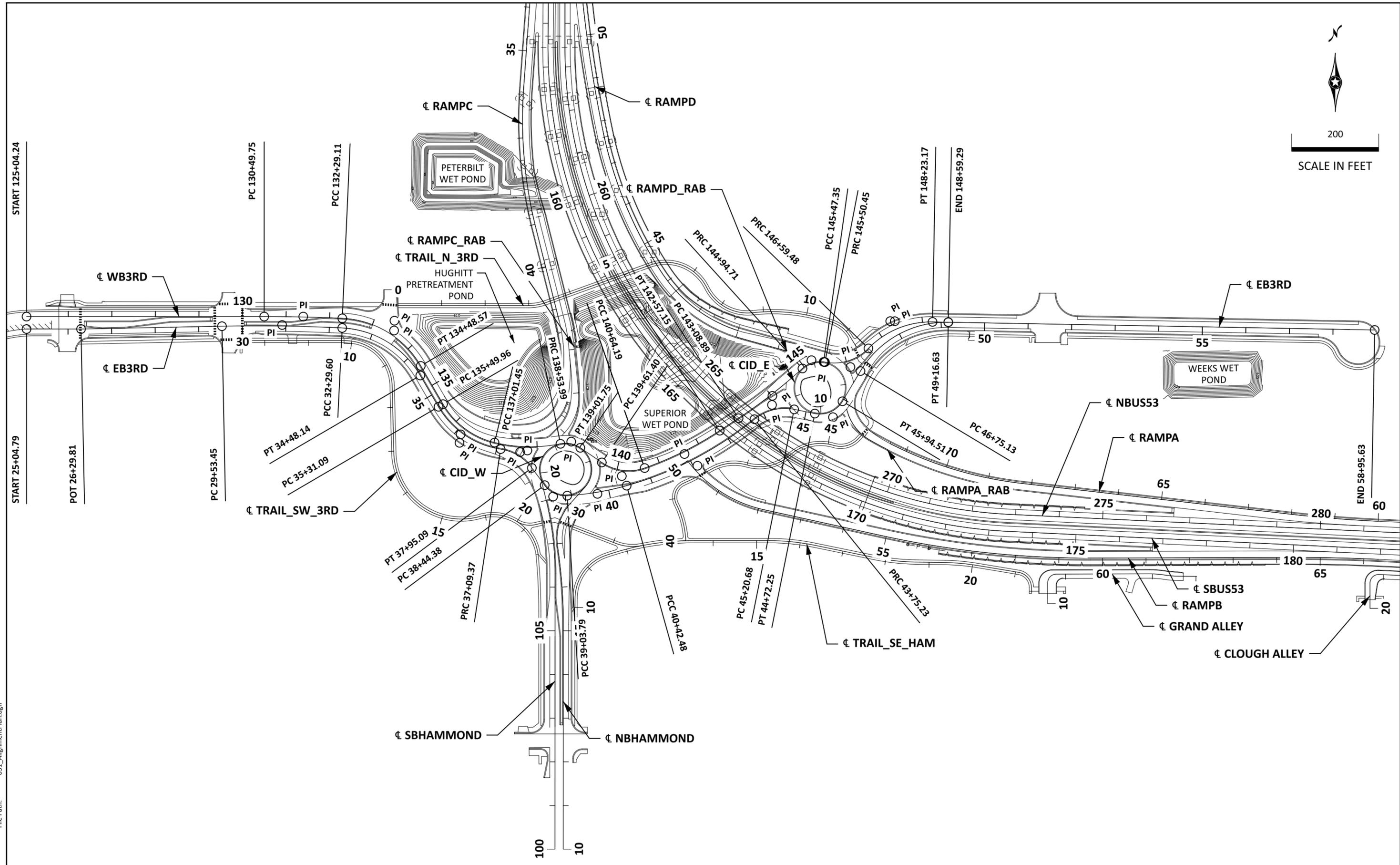
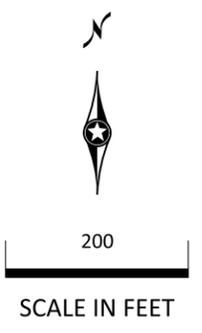
DES: ---	DR: BJB
CHK: ---	CHK: AMP
SHEET NO. 29 OF 86 SHEETS	

BRIDGE NO. 69913 (B-16-0153)

Plotted By: PARSONS\p0022751
 Date Plotted: 10-JAN-2025
 Time Plotted: 10:23:14 AM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 030_AlignmentPlan.dgn

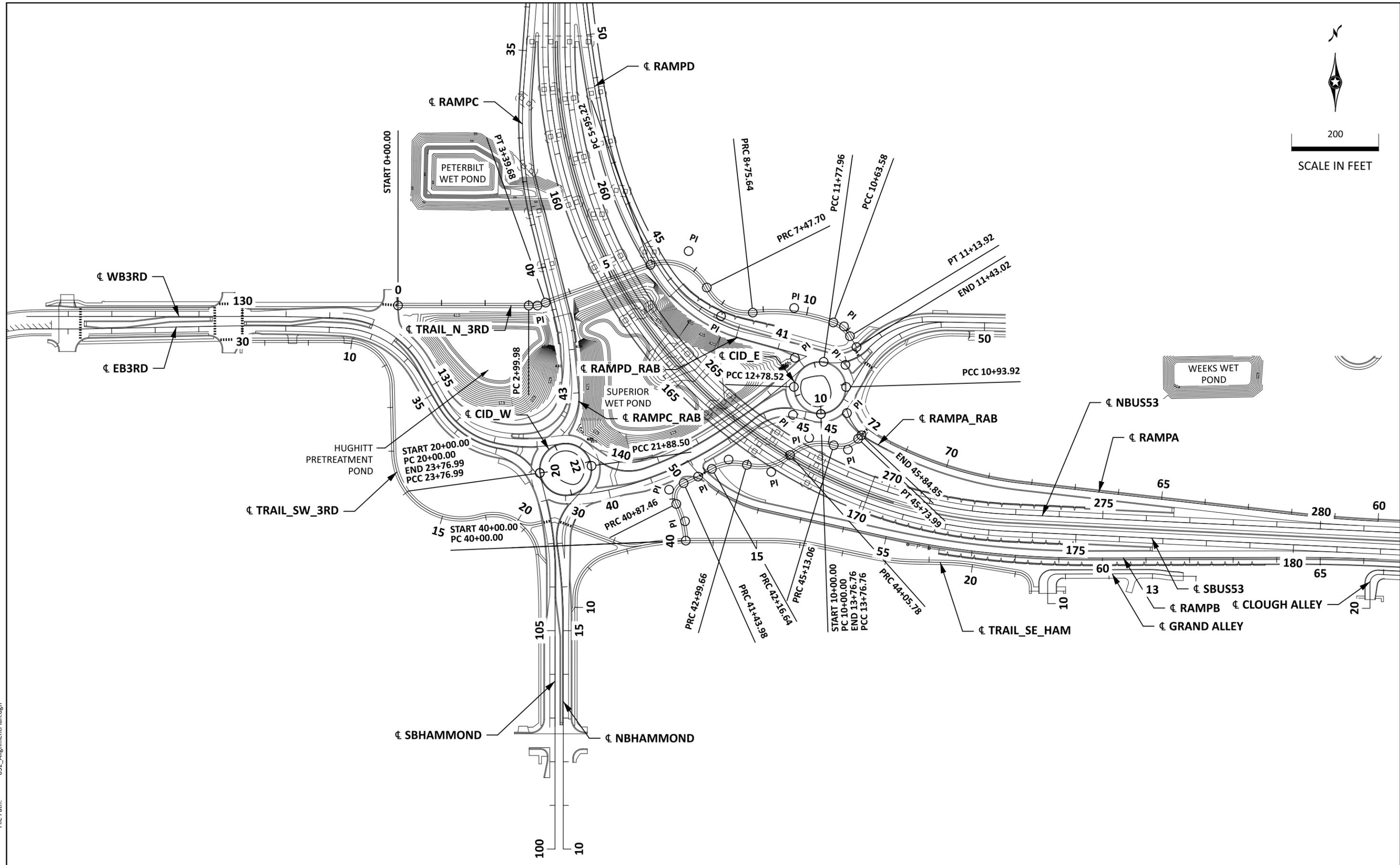
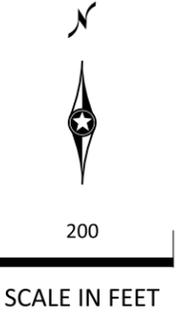


STATE PROJECT NO. (SP.) 6981 - 69913		TITLE: ALIGNMENT PLAN	DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
			CHK: ---	CHK: AMP	
SHEET NO. 30 OF 86 SHEETS					



Plotted By: PARSONS\p0022751
 Date Plotted: 10-JAN-2025
 Time Plotted: 11:08:10 AM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 031_AlignmentPlan.dgn

STATE PROJECT NO. (SP.) 6981 - 69913			TITLE: ALIGNMENT PLAN		DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
					CHK: ---	CHK: AMP	
				SHEET NO. 31 OF 86 SHEETS			



Plotted By: PARSONS\p0022751
 Date Plotted: 10-JAN-2025
 Time Plotted: 11:08:09 AM Central
 Pen Table: ICS_MnDOT-plot.pen
 File Path: 032_AlignmentPlan.dgn

STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: ALIGNMENT PLAN

DES: ---	DR: BJB
CHK: ---	CHK: AMP
SHEET NO. 32 OF 86 SHEETS	

BRIDGE NO. 69913 (B-16-0153)

ALIGNMENT TABULATION												
ELEMENT	POINT TYPE	STATION	CIRCULAR CURVE DATA					COORDINATES		DIRECTION AZIMUTH		
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	EASTING (X)	NORTHING (Y)			
			SPIRAL CURVE DATA									
			THETA	DEGREE	ST	LT	LS					
ALIGNMENT: 535_US53												
TANGENT	START	75+02.83 R1						585658.286	139265.1357			
TANGENT	PC	77+21.17 R1						585844.3682	139150.9176	121°32'30.54"		
ARC	PC	77+21.17 R1						585844.3682	139150.9176	121°32'30.54"		
ARC	HPI	84+46.27 R1	35°06'24.36" RT	02°29'58.35"	2292.253	725.093	1404.529	586462.3351	138771.6063		PI	
ARC	CC							584645.2434	137197.3255			
ARC	PT	91+25.70 R1						586749.74	138105.9047	156°38'54.90"		
TANGENT	PT	91+25.70 R1						586749.74	138105.9047			
TANGENT	PC	126+20.54 R1						588134.9874	134897.325	156°38'54.90"		
ARC	PC	126+20.54 R1						588134.9874	134897.325	156°38'54.90"		
ARC	HPI	130+94.86 R1	23°23'03.75" RT	02°29'59.34"	2292	474.324	935.444	588322.9952	134461.8519		PI	
ARC	CC							586030.7228	133988.846			
ARC	PT	135+55.98 R1						588322.7224	133987.5276	180°01'58.65"		
TANGENT	PT	135+55.98 R1						588322.7224	133987.5276			
TANGENT	END	148+00.00 R1						588322.0068	132743.5118	180°01'58.65"		
ALIGNMENT: NBU53												
TANGENT	START	248+00.00						588339.0068	132743.502			
TANGENT	PC	256+52.89						588338.5162	131890.6164	180°01'58.65"		
ARC	PC	256+52.89						588338.5162	131890.6164	180°01'58.65"		
ARC	HPI	266+76.26	87°20'29.00" LT	05°20'41.12"	1072	1023.377	1634.151	588337.9275	130867.2397		PI	
ARC	CC							589410.516	131889.9998			
ARC	PT	272+87.04						589360.1755	130819.1824	92°41'29.65"		
TANGENT	PT	272+87.04						589360.1755	130819.1824			
TANGENT	PC	284+10.08						590481.9808	130766.4449	92°41'29.65"		
ARC	PC	284+10.08						590481.9808	130766.4449	92°41'29.65"		
ARC	HPI	288+53.18	34°16'05.14" RT	03°59'11.09"	1437.277	443.099	859.622	590924.5911	130745.6372		PI	
ARC	CC							590414.4871	129330.7539			
ARC	PT	292+69.70						591278.6534	130479.2227	126°57'34.78"		
TANGENT	PT	292+69.70						591278.6534	130479.2227			
TANGENT	END	305+28.69						592284.6582	129722.2536	126°57'34.78"		
ALIGNMENT: SBUS53												
TANGENT	START	148+00.00						588305.0068	132743.5215			
TANGENT	PC	148+84.60						588304.9581	132658.9219	180°01'58.65"		
ARC	PC	148+84.60						588304.9581	132658.9219	180°01'58.65"		
ARC	HPI	150+52.44	00°28'51.01" RT	00°08'35.66"	40000	167.844	335.687	588304.8616	132491.0776		PI	
ARC	CC							548304.9647	132681.9308			
ARC	PT	152+20.29						588303.3565	132323.2401	180°30'49.66"		
TANGENT	PT	152+20.29						588303.3565	132323.2401			
TANGENT	PC	156+43.58						588299.5607	131899.9624	180°30'49.66"		
ARC	PC	156+43.58						588299.5607	131899.9624	180°30'49.66"		
ARC	HPI	167+13.14	87°49'20.01" LT	05°09'25.69"	1111	1069.554	1702.926	588289.9697	130830.4512		PI	
ARC	CC							589410.516	131889.9998			
ARC	PT	173+46.51						589358.344	130780.2255	92°41'29.65"		
TANGENT	PT	173+46.51						589358.344	130780.2255			
TANGENT	PC	184+35.90						590446.5323	130729.0683	92°41'29.65"		
ARC	PC	184+35.90						590446.5323	130729.0683	92°41'29.65"		
ARC	HPI	188+35.55	32°04'54.11" RT	04°07'19.19"	1390	399.649	778.304	590845.7402	130710.301		PI	
ARC	CC							590381.2587	129340.6017			
ARC	PT	192+14.20						591174.0178	130482.3692	124°46'23.75"		
TANGENT	PT	192+14.20						591174.0178	130482.3692			
TANGENT	PC	199+13.98						591748.8255	130083.2651	124°46'23.75"		
ARC	PC	199+13.98						591748.8255	130083.2651	124°46'23.75"		
ARC	HPI	200+28.60	02°09'25.79" RT	00°56'28.06"	6088	114.619	229.211	591842.9754	130017.8944		PI	
ARC	CC							588276.6544	125082.488			
ARC	PT	201+43.19						591934.5979	129949.0261	126°55'49.55"		
TANGENT	PT	201+43.19						591934.5979	129949.0261			
TANGENT	END	205+59.27						592267.199	129699.0258	126°55'49.55"		

ALIGNMENT TABULATION												
ELEMENT	POINT TYPE	STATION	CIRCULAR CURVE DATA					COORDINATES		DIRECTION AZIMUTH		
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	EASTING (X)	NORTHING (Y)			
			SPIRAL CURVE DATA									
			THETA	DEGREE	ST	LT	LS					
ALIGNMENT: RAMPA												
ARC	PC	60+00.00										
ARC	HPI	61+00.22	03°49'36.12" RT	01°54'35.49"	3000	100.22	200.366	590105.3175	130808.1788		PI	
ARC	CC							590346.3054	133800.1629			
ARC	PT	62+00.37						590005.7453	130819.5558	276°31'05.77"		
TANGENT	PT	62+00.37						590005.7453	130819.5558			
TANGENT	PC	68+23.30						589386.8426	130890.2708	276°31'05.77"		
ARC	PC	68+23.30						589386.8426	130890.2708	276°31'05.77"		
ARC	HPI	69+83.40	20°30'32.11" RT	06°28'26.76"	885	160.105	316.784	589227.7723	130908.4459		PI	
ARC	CC							589487.3078	131769.5499			
ARC	PT	71+40.08						589085.152	130981.1999	297°01'37.88"		
TANGENT	PT	71+40.08						589085.152	130981.1999			
TANGENT	END	71+40.08						589085.1515	130981.2001	297°01'37.87"		
ALIGNMENT: RAMPA_RAB												
ARC	PC	71+40.08 R1						589078.3358	130967.838			
ARC	HPI	71+63.39 R1	02°58'01.15" RT	06°21'58.31"	900	23.308	46.605	589057.5734	130978.4294		PI	
ARC	CC							589487.3078	131769.5499			
ARC	PCC	71+86.69 R1						589037.387	130990.0813	299°59'39.03"		
ARC	PCC	71+86.69 R1						589037.387	130990.0813	299°59'39.03"		
ARC	HPI	72+34.48 R1	46°58'12.50" RT	52°05'13.46"	110	47.795	90.176	588995.9927	131013.9747		PI	
ARC	CC							589092.3773	131085.3497			
ARC	PT	72+76.86 R1						588985.2121	131060.5383	346°57'51.53"		
ALIGNMENT: RAMPB												
ARC	PC	50+00.00						588619.7715	130942.0918	142°53'44.58"		
ARC	HPI	51+10.74	40°31'12.33" LT	19°05'54.94"	300	110.736	212.163	588686.5747	130853.7758		PI	
ARC	CC							588859.0331	131123.0721			
ARC	PT	52+12.16						588794.7372	130830.043	102°22'32.24"		
TANGENT	PT	52+12.16						588794.7372	130830.043			
TANGENT	PC	54+90.42						589066.5279	130770.4072	102°22'32.24"		
ARC	PC	54+90.42						589066.5279	130770.4072	102°22'32.24"		
ARC	HPI	57+32.42	12°33'17.55" LT	02°36'15.67"	2200	242.005	482.073	589302.9099	130718.5406		PI	
ARC	CC							589538.0314	132919.287			
ARC	PT	59+72.49						589544.9141	130719.2977	89°49'14.70"		
TANGENT	PT	59+72.49						589544.9141	130719.2977			
TANGENT	PC	64+33.30						590005.7203	130720.7394	89°49'14.70"		
ARC	PC	64+33.30						590005.7203	130720.7394	89°49'14.70"		
ARC	HPI	65+33.53	02°52'14.95" RT	01°25'56.62"	4000	100.231	200.421	590105.9513	130721.0529		PI	
ARC	CC							590018.2344	126720.7589			
ARC	PT	66+33.72						590206.0722	130716.3461	92°41'29.65"		

Plotted By: PARSONS\p0022751
Date Plotted: 9-JAN-2025
Time Plotted: 4:44:41 PM Central
Pen Table: ICS MinDOT-plot.pen
File Path: 033_AlignmentTabulations.dgn

STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: ALIGNMENT TABULATIONS

DES: --- DR: BJB
CHK: --- CHK: DLS
SHEET NO. 33 OF 86 SHEETS

BRIDGE NO. 69913
(B-16-0153)

ALIGNMENT TABULATION

ELEMENT	POINT TYPE	STATION	CIRCULAR CURVE DATA					COORDINATES		DIRECTION AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	EASTING (X)	NORTHING (Y)	
			SPIRAL CURVE DATA							
			THETA	DEGREE	ST	LT	LS			
ALIGNMENT: RAMPC										
ARC	PC	30+00.00 R1					588279.8217	132379.632	180°25'59.79"	
ARC	HPI	30+97.60 R1	03°43'36.49" RT	01°54'35.49"	3000	97.602	195.135	588279.0837	132282.0329	PI
ARC	CC							585279.9075	132402.318	
ARC	PT	31+95.13 R1						588272.0033	132184.6882	184°09'36.28"
TANGENT	PT	31+95.13 R1						588272.0033	132184.6882	
TANGENT	PC	35+84.82 R1						588243.734	131796.0266	184°09'36.28"
ARC	PC	35+84.82 R1						588243.734	131796.0266	184°09'36.28"
ARC	HPI	37+48.20 R1	18°17'15.89" LT	05°38'41.66"	1015	163.374	323.969	588231.8824	131633.0831	PI
ARC	CC							589256.0598	131722.3952	
ARC	PT	39+08.79 R1						588271.7592	131474.6506	165°52'20.39"
TANGENT	PT	39+08.79 R1						588271.7592	131474.6506	
TANGENT	END	41+28.88 R1						588325.4799	131261.2159	165°52'20.39"
ALIGNMENT: RAMPC_RAB										
ARC	PC	41+28.88 R1						588348.754	131267.0739	165°52'20.39"
ARC	HPI	41+56.45 R1	08°23'15.42" RT	15°14'17.66"	376	27.571	55.043	588355.4836	131240.3369	PI
ARC	CC							587984.1264	131175.2985	
ARC	PT	41+83.92 R1						588358.2411	131212.9043	174°15'35.81"
TANGENT	PT	41+83.92 R1						588358.2387	131212.9277	
TANGENT	PC	42+97.96 R1						588369.6444	131099.4609	174°15'35.81"
ARC	PC	42+97.96 R1						588369.6444	131099.4609	174°15'35.81"
ARC	HPI	43+52.33 R1	49°28'44.40" RT	48°33'20.68"	118	54.373	101.901	588375.0824	131045.361	PI
ARC	CC							588252.236	131087.6591	
ARC	PT	43+99.86 R1						588337.4907	131006.077	223°44'20.21"
TANGENT	PT	43+99.86 R1						588337.4907	131006.077	
TANGENT	END	44+08.99 R1						588331.18	130999.4822	223°44'20.21"
ALIGNMENT: RAMPD_RAB										
TANGENT	START	40+31.88 R1						588893.3931	131180.64	
TANGENT	HPI	40+94.01 R1						588833.4979	131197.1541	285°24'51.86"
TANGENT	HPI	40+94.01 R1						588833.4979	131197.1541	
TANGENT	PC	41+86.18 R1						588744.6387	131221.654	285°24'51.86"
ARC	PC	41+86.18 R1						588744.6387	131221.654	285°24'51.86"
ARC	HPI	41+93.41 R1	02°23'56.50" RT	16°36'26.90"	345	7.224	14.445	588737.6748	131223.5741	PI
ARC	CC							588836.3392	131554.2439	
ARC	PT	42+00.63 R1						588730.7973	131225.784	287°48'48.37"
ALIGNMENT: RAMPD										
TANGENT	START	42+00.00						588735.3864	131240.0648	
TANGENT	PC	42+00.00						588735.3861	131240.0649	287°48'48.36"
ARC	PC	42+00.00						588735.3861	131240.0649	287°48'48.38"
ARC	HPI	43+15.42	38°33'18.88" RT	17°21'44.49"	330	115.42	222.062	588625.4999	131275.3739	PI
ARC	CC							588836.3392	131554.2439	
ARC	PCC	44+22.06						588561.5751	131371.4745	326°22'07.25"
ARC	PCC	44+22.06						588561.5751	131371.4745	326°22'07.25"
ARC	HPI	46+00.29	21°48'44.82" RT	06°11'38.90"	925	178.231	352.147	588462.8623	131519.873	PI
ARC	CC							589331.7473	131883.7827	
ARC	PCC	47+74.21						588426.3573	131694.3257	348°10'52.07"
ARC	PCC	47+74.21						588426.3573	131694.3257	348°10'52.07"
ARC	HPI	50+85.60	11°51'06.59" RT	01°54'35.49"	3000	311.391	620.56	588362.5786	131999.1155	PI
ARC	CC							591362.7573	132308.781	
ARC	PT	53+94.77						588362.7578	132310.5067	00°01'58.65"

ALIGNMENT TABULATION

ELEMENT	POINT TYPE	STATION	CIRCULAR CURVE DATA					COORDINATES		DIRECTION AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	EASTING (X)	NORTHING (Y)	
			SPIRAL CURVE DATA							
			THETA	DEGREE	ST	LT	LS			
ALIGNMENT: EB3RD										
TANGENT	START	25+04.79 R1								
TANGENT	HPI	26+29.81 R1								587102.5306 131243.5564
TANGENT	HPI	26+29.81 R1								587227.5506 131243.5564 90°00'00.00"
TANGENT	HPI	26+29.81 R1								587227.5506 131243.5564
TANGENT	PC	29+53.45 R1								587551.1253 131250.0279 88°51'15.26"
ARC	PC	29+53.45 R1								587551.1253 131250.0279 88°51'15.26"
ARC	HPI	30+91.58 R1	03°57'20.25" RT	01°25'56.62"	4000	138.132	276.155	587689.2299	131252.79	PI
ARC	CC									587631.1092 127250.8277
ARC	PCC	32+29.60 R1								587827.1961 131246.0185 92°48'35.51"
ARC	PCC	32+29.60 R1								587827.1961 131246.0185 92°48'35.51"
ARC	HPI	33+48.84 R1	56°54'55.18" RT	26°02'36.73"	220	119.24	218.539	587946.2926	131240.1732	PI
ARC	CC									587816.4113 131026.283
ARC	PT	34+48.14 R1								588006.4071 131137.1956 149°43'30.69"
TANGENT	PT	34+48.14 R1								588006.4071 131137.1956
TANGENT	PC	35+31.09 R1								588048.2238 131065.5626 149°43'30.69"
ARC	PC	35+31.09 R1								588048.2238 131065.5626 149°43'30.69"
ARC	HPI	36+26.64 R1	51°04'22.98" LT	28°38'52.40"	200	95.552	178.279	588096.3959	130983.0426	PI
ARC	CC									588220.9472 131166.3922
ARC	PRC	37+09.37 R1								588190.8602 130968.6682 98°39'07.71"
ARC	PRC	37+09.37 R1								588190.8602 130968.6682 98°39'07.71"
ARC	HPI	37+54.54 R1	44°39'05.02" RT	52°05'13.46"	110	45.172	85.725	588235.5181	130961.8728	PI
ARC	CC									588174.3124 130859.9201
ARC	PT	37+95.09 R1								588262.5117 130925.6534 143°18'12.73"
TANGENT	PT	37+95.09 R1								588262.5117 130925.6534
TANGENT	PC	38+44.38 R1								588291.9632 130886.1361 143°18'12.73"
ARC	PC	38+44.38 R1								588291.9632 130886.1361 143°18'12.73"
ARC	HPI	38+76.78 R1	56°44'24.53" LT	95°29'34.68"	60	32.401	59.418	588311.3255	130860.1563	PI
ARC	CC									588340.0719 130921.9907
ARC	PCC	39+03.79 R1								588343.6686 130862.0986 86°33'48.20"
ARC	PCC	39+03.79 R1								588343.6686 130862.0986 86°33'48.20"
ARC	HPI	39+73.40 R1	12°13'28.06" LT	08°48'53.05"	650	69.605	138.682	588413.1487	130866.271	PI
ARC	CC									588304.7048 131510.9297
ARC	PCC	40+42.48 R1								588480.17 130885.0607 74°20'20.13"
ARC	PCC	40+42.48 R1								588480.17 130885.0607 74°20'20.13"
ARC	HPI	42+11.22 R1	23°28'47.26" LT	07°03'22.07"	812	168.747	332.757	588642.6522	130930.6133	PI
ARC	CC									588260.9735 131666.9155
ARC	PRC	43+75.23 R1								588773.5316 131037.1313 50°51'32.87"
ARC	PRC	43+75.23 R1								588773.5316 131037.1313 50°51'32.87"
ARC	HPI	44+27.15 R1	50°31'51.35" RT	52°05'13.46"	110	51.916	97.012	588813.7972	131069.902	PI
ARC	CC									588842.9668 130951.8157
ARC	PT	44+72.25 R1								588864.6904 131059.6493 101°23'24.22"
TANGENT	PT	44+72.25 R1								588864.6904 131059.6493
TANGENT	PC	45+20.68 R1								588912.1677 131050.0848 101°23'24.22"
ARC	PC	45+20.68 R1								588912.1677 131050.0848 101°23'24.22"
ARC	HPI	45+63.09 R1	70°30'30.26" LT	95°29'34.68"	60	42.41	73.836	588953.7428	131041.7092	PI
ARC	CC									588924.0169 131108.9031
ARC	PT	45+94.51 R1								588975.5107 131078.1071 30°52'53.96"
TANGENT	PT	45+94.51 R1								588975.5107 131078.1071
TANGENT	PC	46+75.13 R1								589016.8867 131147.2918 30°52'53.96"
ARC	PC	46+75.13 R1								589016.8867 131147.2918 30°52'53.96"
ARC	HPI	48+08.35 R1	60°09'39.59" RT	24°54'40.35"	230	133.222	241.502	589085.265	131261.6266	PI
ARC	CC									589214.2795 131029.2405
ARC	PT	49+16.63 R1								589218.4647 131259.2024 91°02'33.56"
TANGENT	PT	49+16.63 R1								589218.4647 131259.2024
TANGENT	END	58+95.63 R1								590197.3026 131241.3878 91°02'33.56"

Plotted By: PARSONS\p0022751
 Date Plotted: 9-JAN-2025
 Time Plotted: 4:44:50 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 034_AlignmentTabulations.dgn

STATE PROJECT NO. (SP.) 6981 - 69913

Plotted By: PARSONS\p0022751
 Date Plotted: 9-JAN-2025
 Time Plotted: 4:44:46 PM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 035_AlignmentTabulations.dgn

ALIGNMENT TABULATION											
ELEMENT	POINT TYPE	STATION	CIRCULAR CURVE DATA					COORDINATES		DIRECTION	AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	EASTING (X)	NORTHING (Y)		
			SPIRAL CURVE DATA								
THETA	DEGREE	ST	LT	LS							
ALIGNMENT: WB3RD											
TANGENT	START	125+04.24 R1						587102.5306	131272.0564		
TANGENT	PC	130+49.75 R1						587648.0404	131272.0564	90°00'00.00"	
ARC	PC	130+49.75 R1						587648.0404	131272.0564	90°00'00.00"	
ARC	HPI	131+39.44 R1	02°34'08.92" RT	01°25'56.62"	4000	89.695	179.36	587737.7354	131272.0564	PI	
ARC	CC							587648.0404	127272.0564		
ARC	PCC	132+29.11 R1						587827.3403	131268.0358	92°34'08.92"	
ARC	PCC	132+29.11 R1						587827.3403	131268.0358	92°34'08.91"	
ARC	HPI	133+48.95 R1	57°09'21.78" RT	26°02'36.73"	220	119.838	219.463	587947.0583	131262.6641	PI	
ARC	CC							587817.4788	131048.257		
ARC	PT	134+48.57 R1						588007.4746	131159.1695	149°43'30.69"	
TANGENT	PT	134+48.57 R1						588007.4746	131159.1695		
TANGENT	PC	135+49.96 R1						588058.5872	131071.6124	149°43'30.69"	
ARC	PC	135+49.96 R1						588058.5872	131071.6124	149°43'30.69"	
ARC	HPI	136+30.09 R1	46°10'08.89" LT	30°28'35.32"	188	80.129	151.491	588098.984	131002.4117	PI	
ARC	CC							588220.9472	131166.3922		
ARC	PCC	137+01.45 R1						588176.8807	130983.6297	103°33'21.80"	
ARC	PCC	137+01.45 R1						588176.8807	130983.6297	103°33'21.80"	
ARC	HPI	137+78.95 R1	24°58'19.77" LT	16°22'12.80"	350	77.504	152.546	588252.2254	130965.4631	PI	
ARC	CC							588258.9195	131323.8791		
ARC	PRC	138+53.99 R1						588328.196	130980.8036	78°35'02.03"	
ARC	PRC	138+53.99 R1						588328.196	130980.8036	78°35'02.03"	
ARC	HPI	138+79.22 R1	45°36'13.12" RT	95°29'34.68"	60	25.224	47.756	588352.9208	130985.7963	PI	
ARC	CC							588340.0719	130921.9907		
ARC	PT	139+01.75 R1						588373.7861	130971.6229	124°11'15.15"	
TANGENT	PT	139+01.75 R1						588373.7861	130971.6229		
TANGENT	PC	139+61.40 R1						588423.1319	130938.1032	124°11'15.15"	
ARC	PC	139+61.40 R1						588423.1319	130938.1032	124°11'15.15"	
ARC	HPI	140+16.89 R1	53°32'09.79" LT	52°05'13.46"	110	55.488	102.782	588469.0318	130906.9243	PI	
ARC	CC							588484.9413	131029.0955		
ARC	PCC	140+64.19 R1						588521.3858	130925.3082	70°39'05.37"	
ARC	PCC	140+64.19 R1						588521.3858	130925.3082	70°39'05.37"	
ARC	HPI	141+61.16 R1	14°03'58.70" LT	07°17'22.34"	786	96.97	192.966	588612.8794	130957.4358	PI	
ARC	CC							588260.9735	131666.9155		
ARC	PT	142+57.15 R1						588693.821	131010.837	56°35'06.66"	
TANGENT	PT	142+57.15 R1						588693.821	131010.837		
TANGENT	PC	143+08.89 R1						588737.0103	131039.3311	56°35'06.66"	
ARC	PC	143+08.89 R1						588737.0103	131039.3311	56°35'06.66"	
ARC	HPI	144+01.99 R1	08°52'19.26" LT	04°46'28.73"	1200	93.094	185.815	588814.716	131090.5974	PI	
ARC	CC							588076.1743	132040.9777		
ARC	PRC	144+94.71 R1						588883.5854	131153.2348	47°42'47.41"	
ARC	PRC	144+94.71 R1						588883.6434	131153.2876	47°42'33.91"	
ARC	HPI	145+22.86 R1	50°15'56.01" RT	95°29'34.68"	60	28.148	52.638	588904.4656	131172.2281	PI	
ARC	CC							588924.0169	131108.9031		
ARC	PCC	145+47.35 R1						588932.3413	131168.3228	97°58'29.91"	
ARC	PCC	145+47.35 R1						588932.3413	131168.3228	97°58'29.91"	
ARC	HPI	145+48.90 R1	02°57'49.59" RT	95°29'34.68"	60	1.552	3.104	588933.8785	131168.1075	PI	
ARC	CC							588924.0169	131108.9031		
ARC	PRC	145+50.45 R1						588935.4025	131167.8129	100°56'19.50"	
ARC	PRC	145+50.45 R1						588935.4025	131167.8129	100°56'19.50"	
ARC	HPI	146+09.92 R1	56°47'24.71" LT	52°05'13.46"	110	59.465	109.029	588993.7867	131156.5289	PI	
ARC	CC							588956.276	131275.8143		
ARC	PRC	146+59.48 R1						589035.205	131199.197	44°08'54.79"	
ARC	PRC	146+59.48 R1						589035.205	131199.197	44°08'54.79"	
ARC	HPI	147+46.22 R1	46°53'38.77" RT	28°38'52.40"	200	86.743	163.691	589095.6232	131261.4381	PI	
ARC	CC							589178.7123	131059.8927		
ARC	PT	148+23.17 R1						589182.3516	131259.8596	91°02'33.56"	
TANGENT	PT	148+23.17 R1						589182.3516	131259.8596		
TANGENT	END	148+59.29 R1						589218.4647	131259.2024	91°02'33.56"	

ALIGNMENT TABULATION											
ELEMENT	POINT TYPE	STATION	CIRCULAR CURVE DATA					COORDINATES		DIRECTION	AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	EASTING (X)	NORTHING (Y)		
			SPIRAL CURVE DATA								
THETA	DEGREE	ST	LT	LS							
ALIGNMENT: CID_E											
ARC	PC	10+00.00									
ARC	HPI	10+59.67	89°41'09.97" LT	95°29'34.68"	60	59.672	93.919	588926.1595	131048.9414	87°57'12.54"	
ARC	CC							588924.0169	131108.9031		
ARC	PCC	10+93.92						588983.9895	131110.7172	358°16'02.57"	
ARC	PCC	10+93.92						588983.9882	131110.7593	358°13'37.79"	
ARC	HPI	11+44.49	80°15'07.88" LT	95°29'34.68"	60	50.571	84.04	588982.4237	131161.3065	PI	
ARC	CC							588924.0169	131108.9031		
ARC	PCC	11+77.96						588932.3413	131168.3228	277°58'29.91"	
ARC	PCC	11+77.96						588932.3413	131168.3228	277°58'29.91"	
ARC	HPI	12+44.63	96°01'32.00" LT	95°29'34.68"	60	66.667	100.558	588866.3194	131177.5722	PI	
ARC	CC							588924.0169	131108.9031		
ARC	PCC	12+78.52						588864.0516	131110.9441	181°56'57.91"	
ARC	PCC	12+78.52						588864.0516	131110.9441	181°56'57.91"	
ARC	HPI	13+42.65	93°48'59.24" LT	95°29'34.68"	60	64.136	98.244	588861.8699	131046.8454	PI	
ARC	CC							588924.0169	131108.9031		
ARC	PT	13+76.76						588925.9717	131048.9349	88°07'58.67"	
ALIGNMENT: CID_W											
ARC	PC	20+00.00									
ARC	HPI	0+00.00	180°00'00.00" LT	95°29'34.68"	60	1.02E+14	188.496	588280.6308	130913.8207	172°10'26.17"	
ARC	CC							588340.0719	130921.9907		
ARC	PCC	21+88.50						588399.5131	130930.1607	352°10'26.17"	
ARC	PCC	21+88.50						588399.5131	130930.1607	352°10'25.88"	
ARC	HPI	420787+30.22	179°59'59.41" LT	95°29'34.68"	60	42076544.54	188.495	-5141064.189	41815562.93	PI	
ARC	CC							588340.0719	130921.9906		
ARC	PT	20+00.00						588280.6308	130913.8207	172°10'26.47"	

STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: ALIGNMENT TABULATIONS

DES: --- DR: BJB
 CHK: --- CHK: DLS
 SHEET NO. 35 OF 86 SHEETS

BRIDGE NO. 69913 (B-16-0153)

Plotted By: PARSONS\p0022751
 Date Plotted: 9-JAN-2025
 Time Plotted: 4:44:43 PM Central
 Pen Table: ICS MinDOT-plot.pen
 File Path: 036_AlignmentTabulations.dgn

ALIGNMENT TABULATION

ELEMENT	POINT TYPE	STATION	CIRCULAR CURVE DATA					COORDINATES		DIRECTION AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	EASTING (X)	NORTHING (Y)	
			SPIRAL CURVE DATA							
			THETA	DEGREE	ST	LT	LS			
ALIGNMENT: TRAIL_N_3RD										
TANGENT	START	0+00.00						587955.2434	131297.3231	
TANGENT	PC	2+99.98						588255.2204	131297.1544	90°01'56.00"
ARC	PC	2+99.98						588255.2204	131297.1544	90°01'56.00"
ARC	HPI	3+20.03	19°46'53.76" LT	49°49'20.70"	115	20.052	39.704	588275.2721	131297.1432	PI
ARC	CC							588255.285	131412.1544	
ARC	PT	3+39.68						588294.1443	131303.9188	70°15'02.24"
TANGENT	PT	3+39.68						588294.1443	131303.9188	
TANGENT	PC	5+95.22						588534.6485	131390.2656	70°15'02.24"
ARC	PC	5+95.22						588534.6485	131390.2656	70°15'02.24"
ARC	HPI	6+88.45	83°12'21.04" RT	54°34'02.67"	105	93.233	152.483	588622.3974	131421.7696	PI
ARC	CC							588570.1287	131291.4418	
ARC	PRC	7+47.70						588664.0611	131338.3639	153°27'23.29"
ARC	PRC	7+47.70						588664.0611	131338.3639	153°27'23.29"
ARC	HPI	8+20.97	69°48'51.40" LT	54°34'02.67"	105	73.268	127.941	588696.8032	131272.8183	PI
ARC	CC							588757.9936	131385.2861	
ARC	PRC	8+75.64						588769.621	131280.9318	83°38'31.89"
ARC	PRC	8+75.64						588769.621	131280.9318	83°38'31.89"
ARC	HPI	9+71.34	26°35'19.53" RT	14°08'49.58"	405	95.696	187.945	588864.7285	131291.5289	PI
ARC	CC							588814.4696	130878.4227	
ARC	PCC	10+63.58						588954.5206	131258.4368	110°13'51.41"
ARC	PCC	10+63.58						588954.5206	131258.4368	110°13'51.41"
ARC	HPI	10+89.74	38°27'01.23" RT	76°23'39.74"	75	26.155	50.331	588979.0617	131249.3924	PI
ARC	CC							588928.5852	131188.0638	
ARC	PT	11+13.92						588992.6569	131227.0487	148°40'52.64"
TANGENT	PT	11+13.92						588992.6569	131227.0487	
TANGENT	END	11+43.02						589007.7839	131202.1874	148°40'52.64"

ALIGNMENT TABULATION

ELEMENT	POINT TYPE	STATION	CIRCULAR CURVE DATA					COORDINATES		DIRECTION AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	EASTING (X)	NORTHING (Y)	
			SPIRAL CURVE DATA							
			THETA	DEGREE	ST	LT	LS			
ALIGNMENT: TRAIL_SE_3RD										
ARC	PC	40+00.00 R1						588615.8663	130758.9501	357°39'20.30"
ARC	HPI	40+44.40 R1	24°26'37.74" LT	27°56'56.98"	205	44.405	87.458	588614.0499	130803.3175	PI
ARC	CC							588411.0379	130750.5645	
ARC	PRC	40+87.46 R1						588594.0371	130842.9566	333°12'42.56"
ARC	PRC	40+87.46 R1						588594.0371	130842.9566	333°12'42.56"
ARC	HPI	41+24.03 R1	92°31'25.11" RT	163°42'08.02"	35	36.577	56.519	588577.5523	130875.6077	PI
ARC	CC							588625.2808	130858.7309	
ARC	PRC	41+43.98 R1						588610.8976	130890.6389	65°44'07.67"
ARC	PRC	41+43.98 R1						588610.8976	130890.6389	65°44'07.67"
ARC	HPI	41+80.33 R1	04°53'21.57" LT	06°43'43.70"	851.5	36.353	72.663	588644.0394	130905.5783	PI
ARC	CC							588260.9735	131666.9155	
ARC	PRC	42+16.64 R1						588675.7873	130923.2881	60°50'46.10"
ARC	PRC	42+16.64 R1						588675.7873	130923.2881	60°50'46.10"
ARC	HPI	42+60.46 R1	45°17'59.98" RT	54°34'02.67"	105	43.815	83.017	588714.0515	130944.6328	PI
ARC	CC							588726.9388	130831.5901	
ARC	PRC	42+99.66 R1						588756.138	130932.4484	106°08'46.08"
ARC	PRC	42+99.66 R1						588756.138	130932.4484	106°08'46.08"
ARC	HPI	43+57.75 R1	57°54'30.22" LT	54°34'02.67"	105	58.093	106.123	588811.9394	130916.2935	PI
ARC	CC							588785.3373	131033.3067	
ARC	PRC	44+05.78 R1						588855.2716	130954.9857	48°14'15.86"
ARC	PRC	44+05.78 R1						588855.2716	130954.9857	48°14'15.86"
ARC	HPI	44+64.63 R1	58°32'15.27" RT	54°34'02.67"	105	58.848	107.276	588899.1673	130994.1809	PI
ARC	CC							588925.206	130876.6646	
ARC	PRC	45+13.06 R1						588955.511	130977.1962	106°46'31.13"
ARC	PRC	45+13.06 R1						588955.511	130977.1962	106°46'31.13"
ARC	HPI	45+47.08 R1	63°28'37.73" LT	104°10'26.92"	55	34.02	60.934	588988.0831	130967.3774	PI
ARC	CC							588971.3851	131029.8556	
ARC	PT	45+73.99 R1						589011.4138	130992.1369	43°17'53.40"
TANGENT	PT	45+73.99 R1						589011.4138	130992.1369	
TANGENT	END	45+84.85 R1						589018.8652	131000.0447	43°17'53.40"

STATE PROJECT NO. (SP.) 6981 - 69913



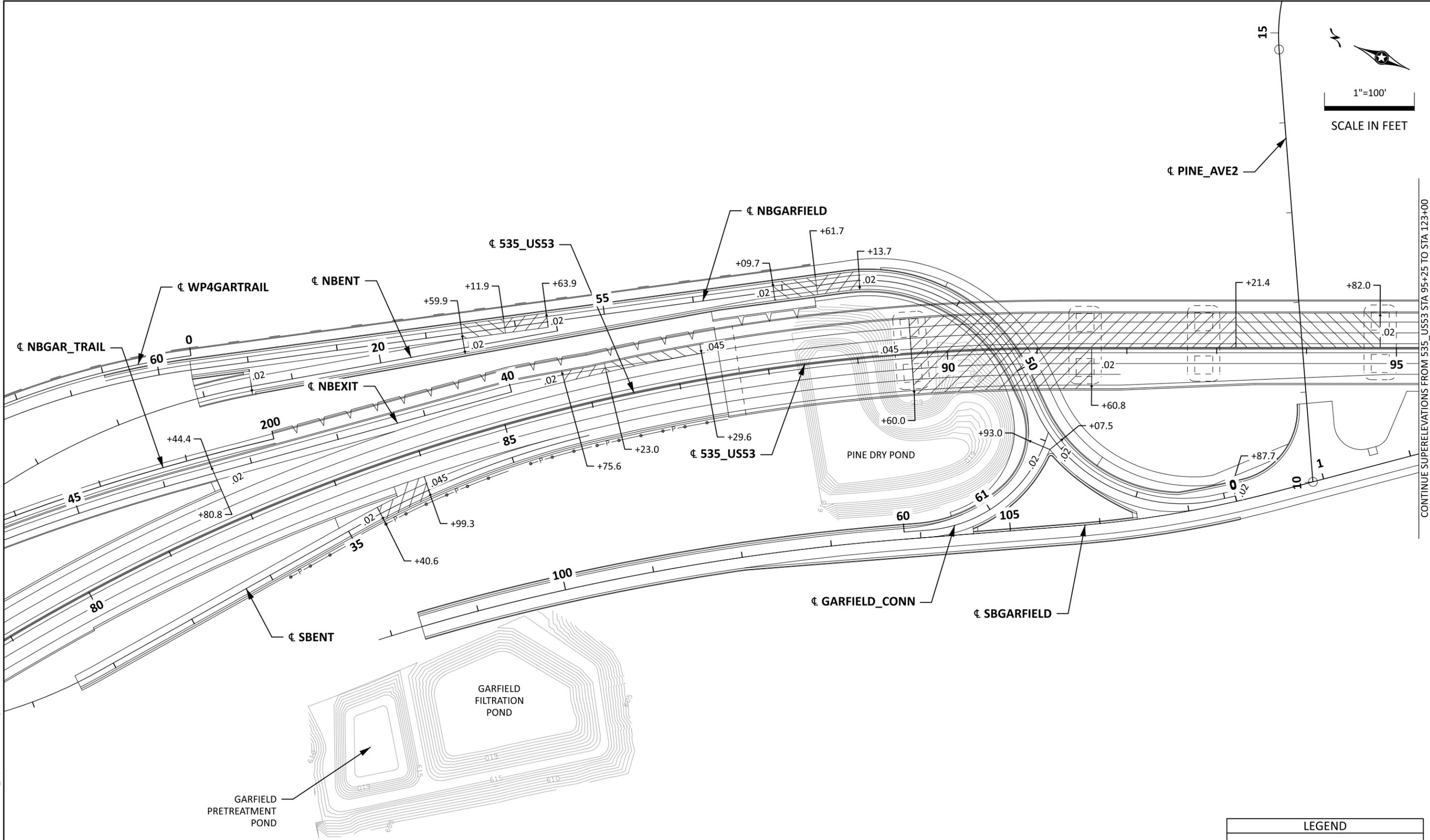
TITLE: ALIGNMENT TABULATIONS

DES: --- DR: BJB
 CHK: --- CHK: DLS
 SHEET NO. 36 OF 86 SHEETS

BRIDGE NO. 69913
 (B-16-0153)



1"=100'
SCALE IN FEET



CONTINUE SUPERELEVATIONS FROM 535_US53 STA 95+25 TO STA 123+00

Plotted By: PARSONS\p0022751
Date Plotted: 14-JAN-2025
Time Plotted: 5:10:34 PM Central
Pen Table: ICS MndOT-plot.pen
File Path: 037_SuperelevationPlan.dgn

LEGEND	
	SUPERELEVATION TRANSITION (FT/FT)

STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: SUPERELEVATION PLAN

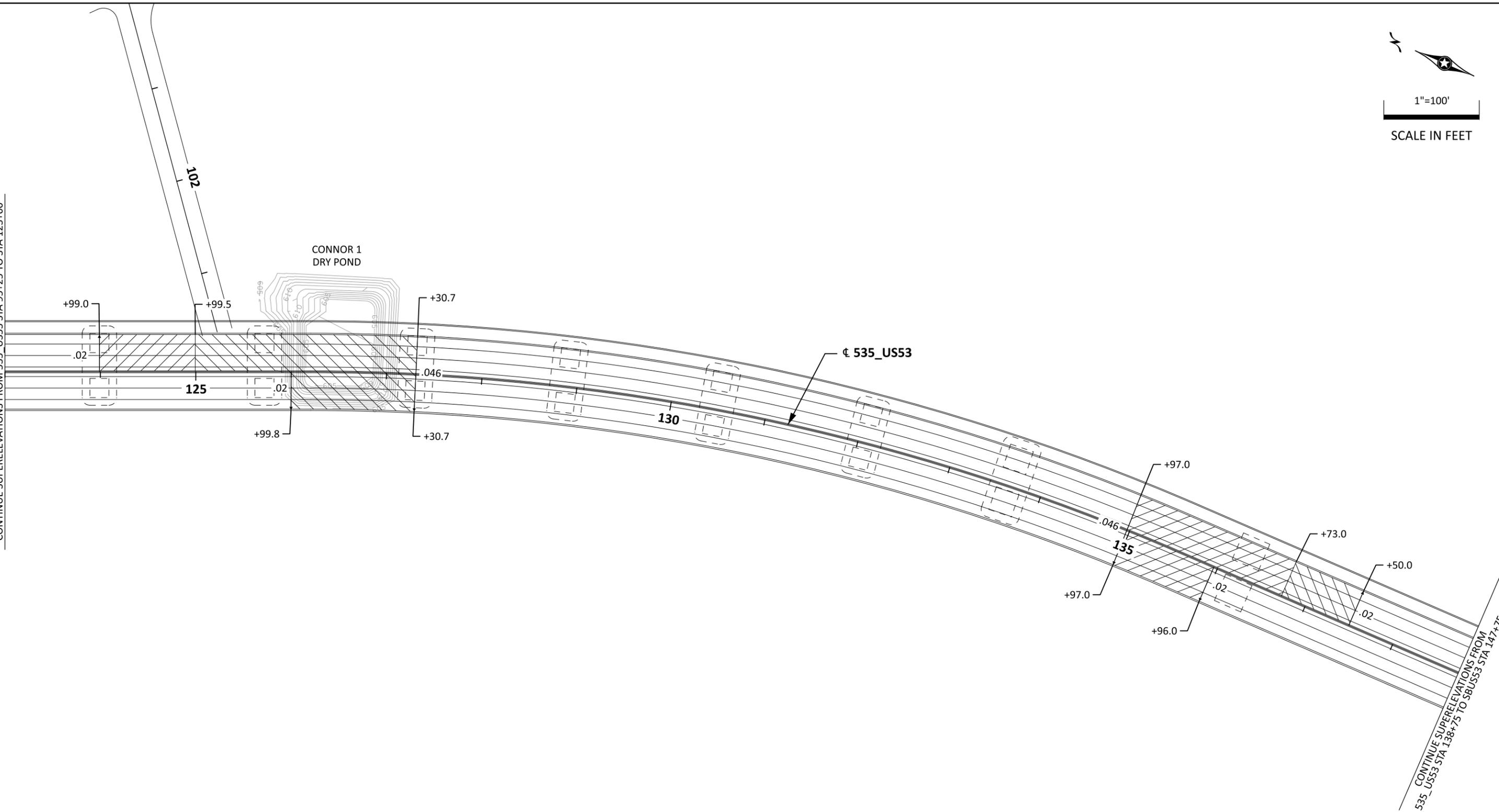
DES: ---	DR: BJB
CHK: ---	CHK: DLS
SHEET NO. 37 OF 86 SHEETS	

BRIDGE NO. 69913
(B-16-0153)



1"=100'
SCALE IN FEET

CONTINUE SUPERELEVATIONS FROM 535_US53 STA 95+25 TO STA 123+00



Plotted By: PARSONS\p0022751
Date Plotted: 14-JAN-2025
Time Plotted: 5:10:39 PM Central
Pen Table: ICS MinDOT-plot.pen
File Path: 038_SuperelevationPlan.dgn

LEGEND	
	SUPERELEVATION TRANSITION (FT/FT)

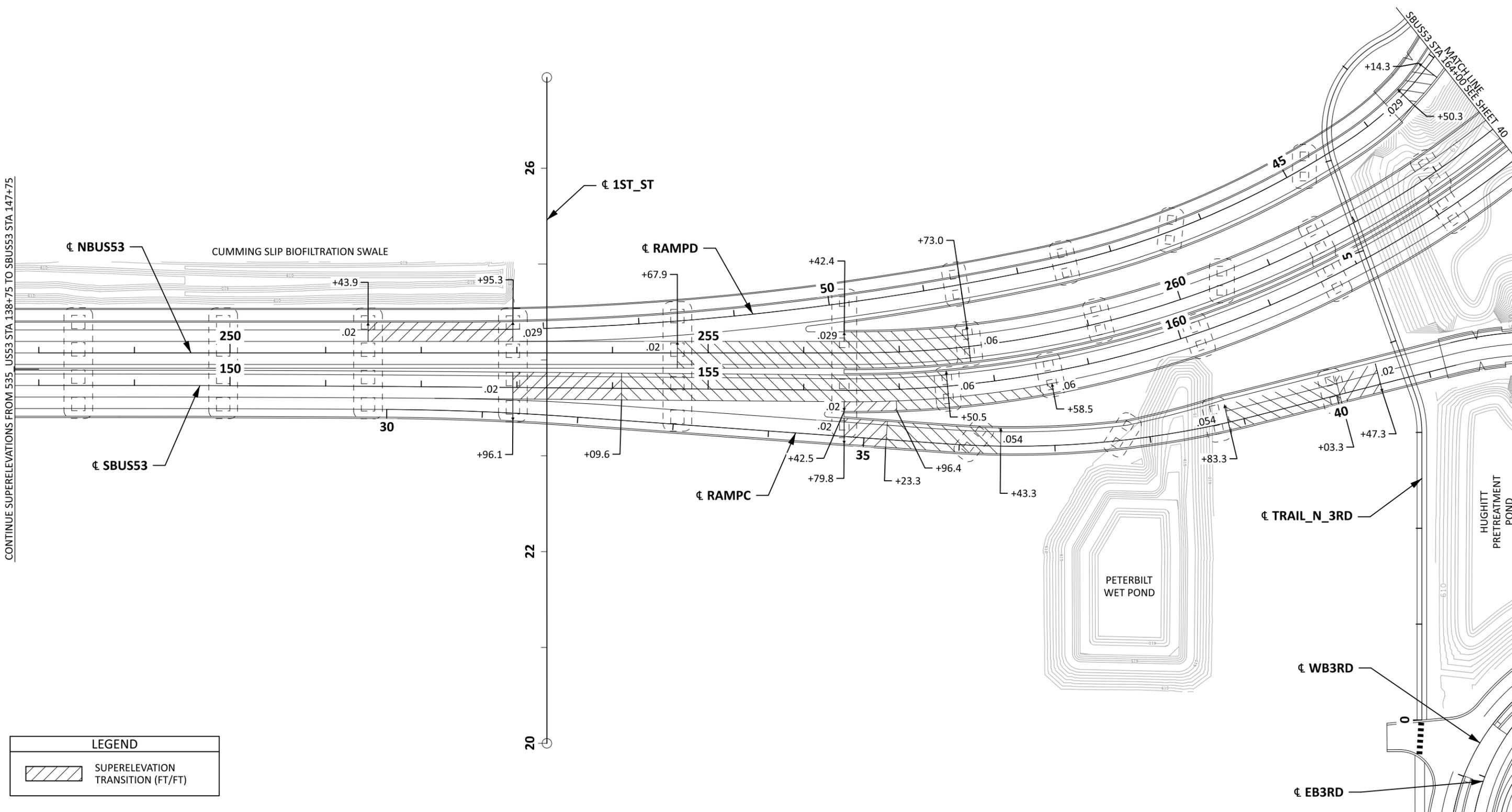
STATE PROJECT NO. (SP.) 6981 - 69913		TITLE: SUPERELEVATION PLAN	DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
			CHK: ---	CHK: DLS	
SHEET NO. 38 OF 86 SHEETS					



1"=100'

SCALE IN FEET

CONTINUE SUPERELEVATIONS FROM 535 US53 STA 138+75 TO SBUS53 STA 147+75

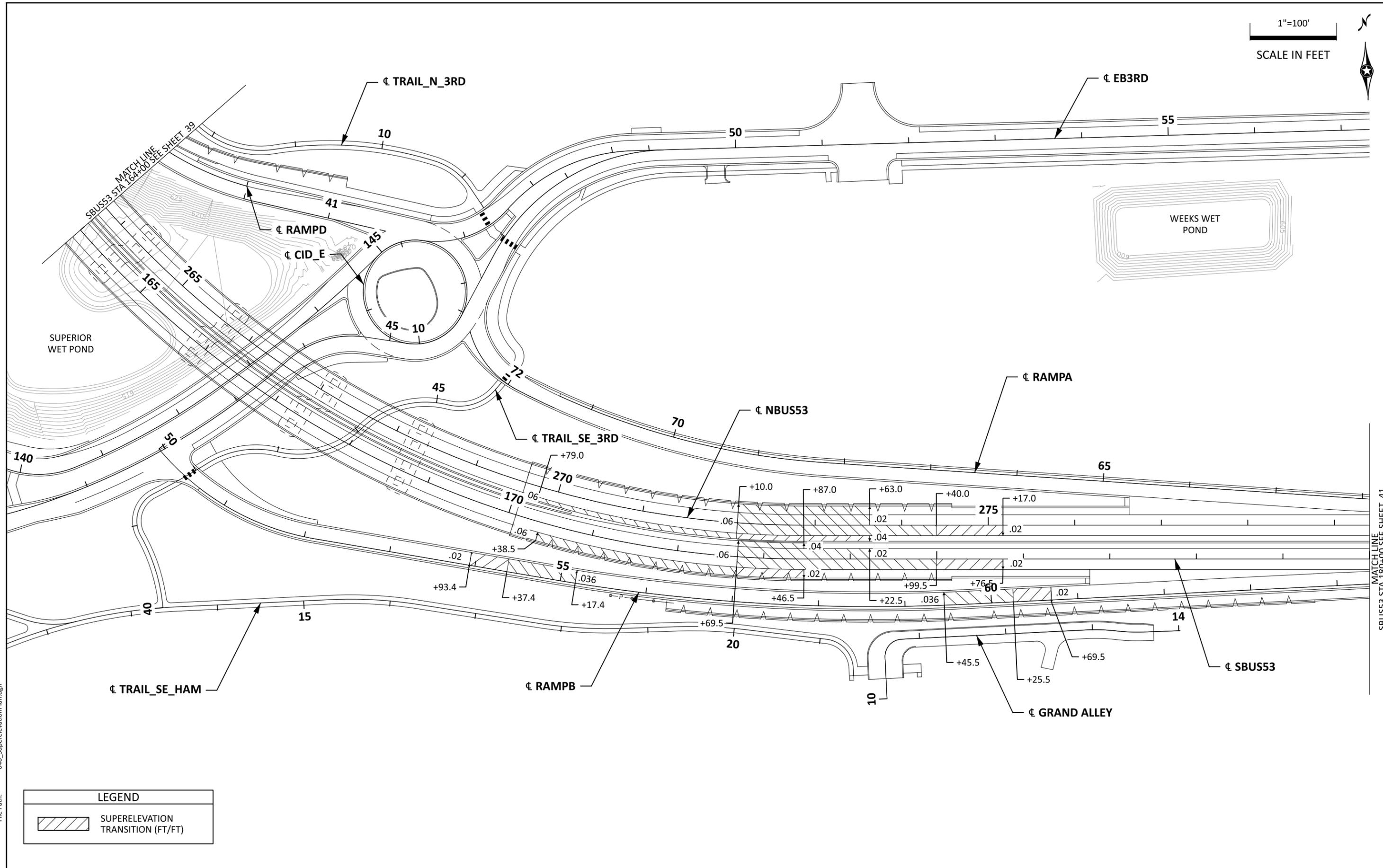


Plotted By: PARSONS\p0022751
 Date Plotted: 14-JAN-2025
 Time Plotted: 5:10:43 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 039_SuperelevationPlan.dgn

LEGEND	
	SUPERELEVATION TRANSITION (FT/FT)

STATE PROJECT NO. (SP.) 6981 - 69913		TITLE: SUPERELEVATION PLAN	DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
			CHK: ---	CHK: DLS	
			SHEET NO. 39 OF 86 SHEETS		

1"=100'
SCALE IN FEET



Plotted By: PARSONS\p0022751
Date Plotted: 14-JAN-2025
Time Plotted: 5:10:29 PM Central
Pen Table: ICS MndOT-plot.pen
File Path: 040_SuperelevationPlan.dgn

LEGEND	
	SUPERELEVATION TRANSITION (FT/FT)

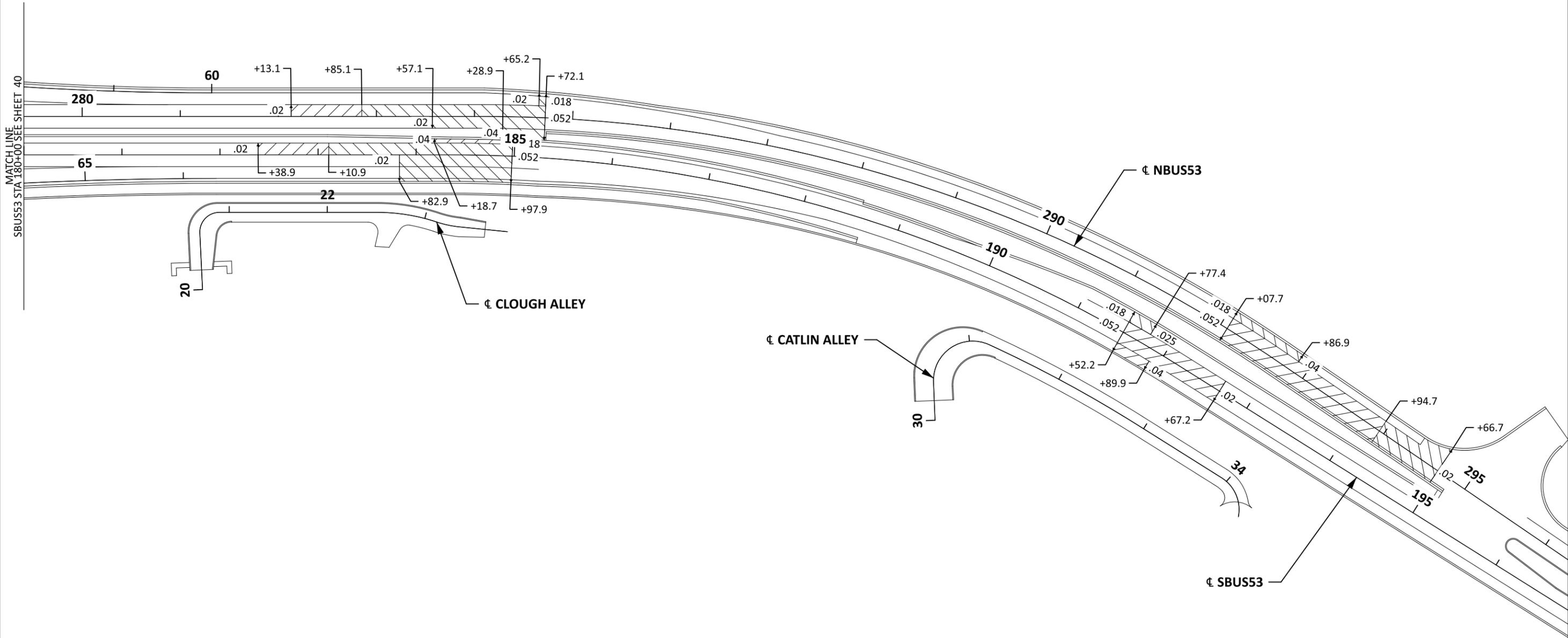
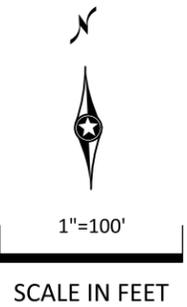
STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: SUPERELEVATION PLAN

DES: ---	DR: BJB
CHK: ---	CHK: DLS
SHEET NO. 40 OF 86 SHEETS	

BRIDGE NO. 69913
(B-16-0153)



Plotted By: PARSONS\p0022751
 Date Plotted: 14-JAN-2025
 Time Plotted: 5:10:45 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 041_SuperelevationPlan.dgn

LEGEND	
	SUPERELEVATION TRANSITION (FT/FT)

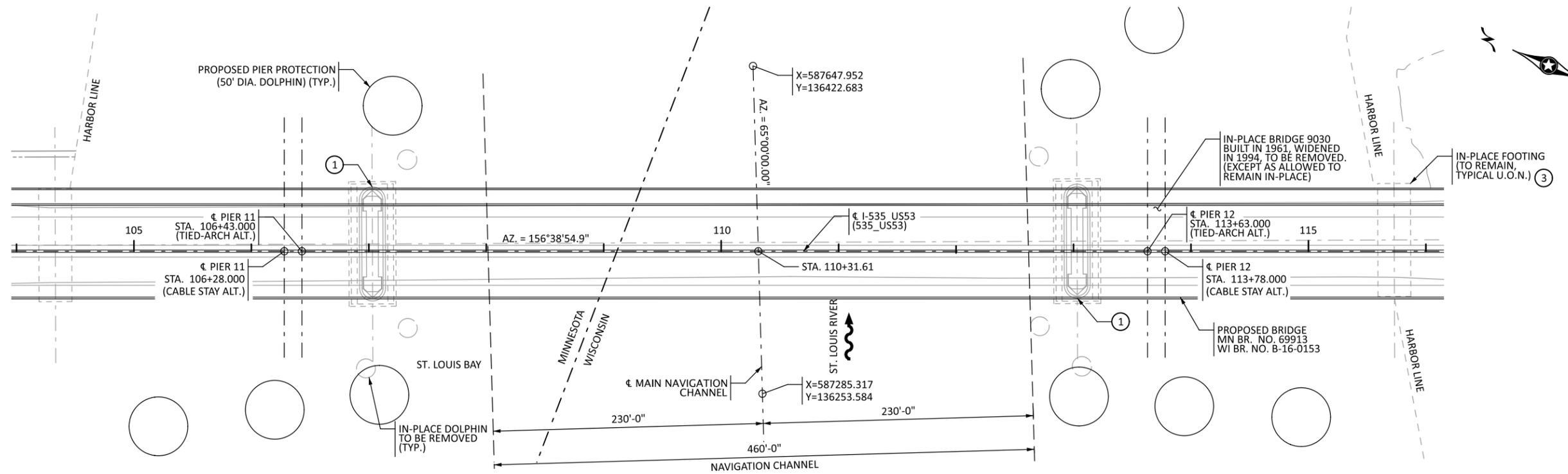
STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: SUPERELEVATION PLAN

DES: ---	DR: BJB
CHK: ---	CHK: DLS
SHEET NO. 41 OF 86 SHEETS	

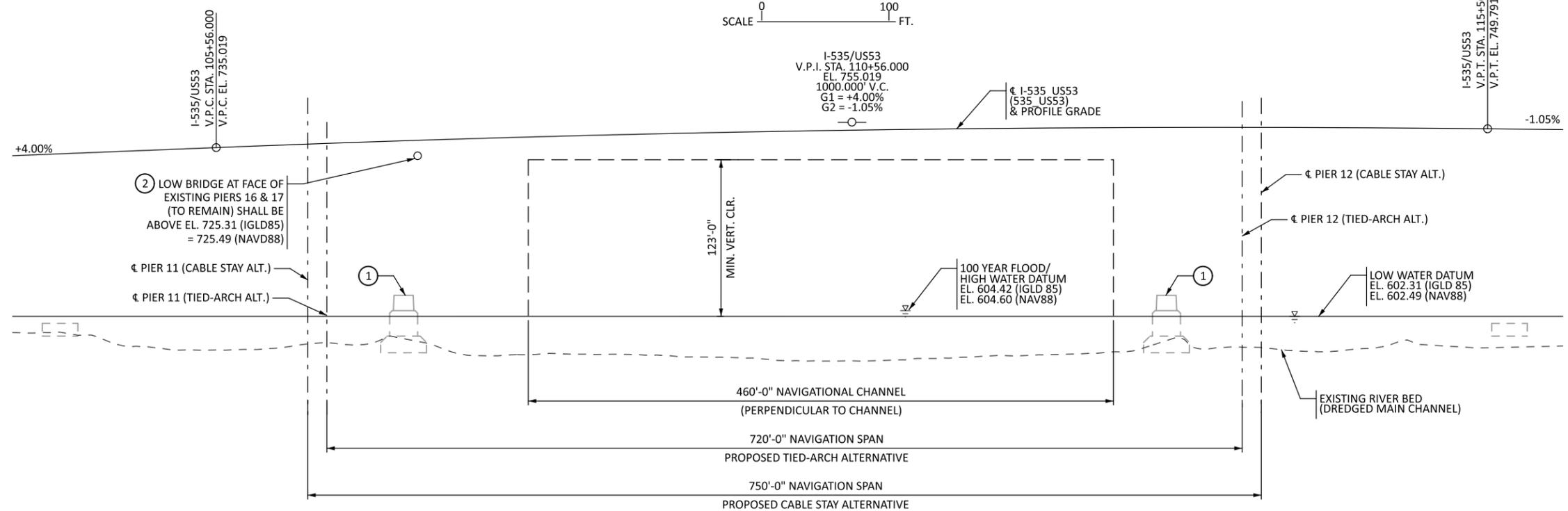
BRIDGE NO. 69913 (B-16-0153)



GENERAL PLAN



I-535/US53
V.P.I. STA. 110+56.000
EL. 755.019
1000.000' V.C.
G1 = +4.00%
G2 = -1.05%



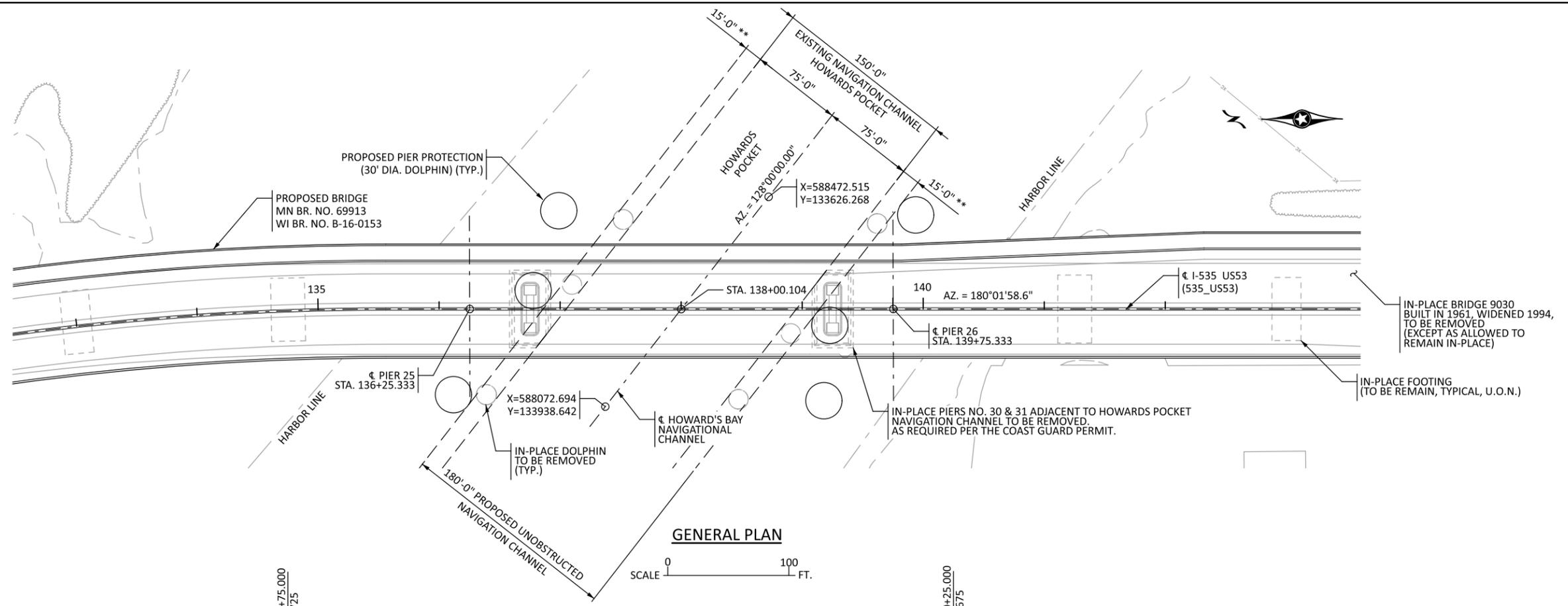
GENERAL ELEVATION



NOTES:

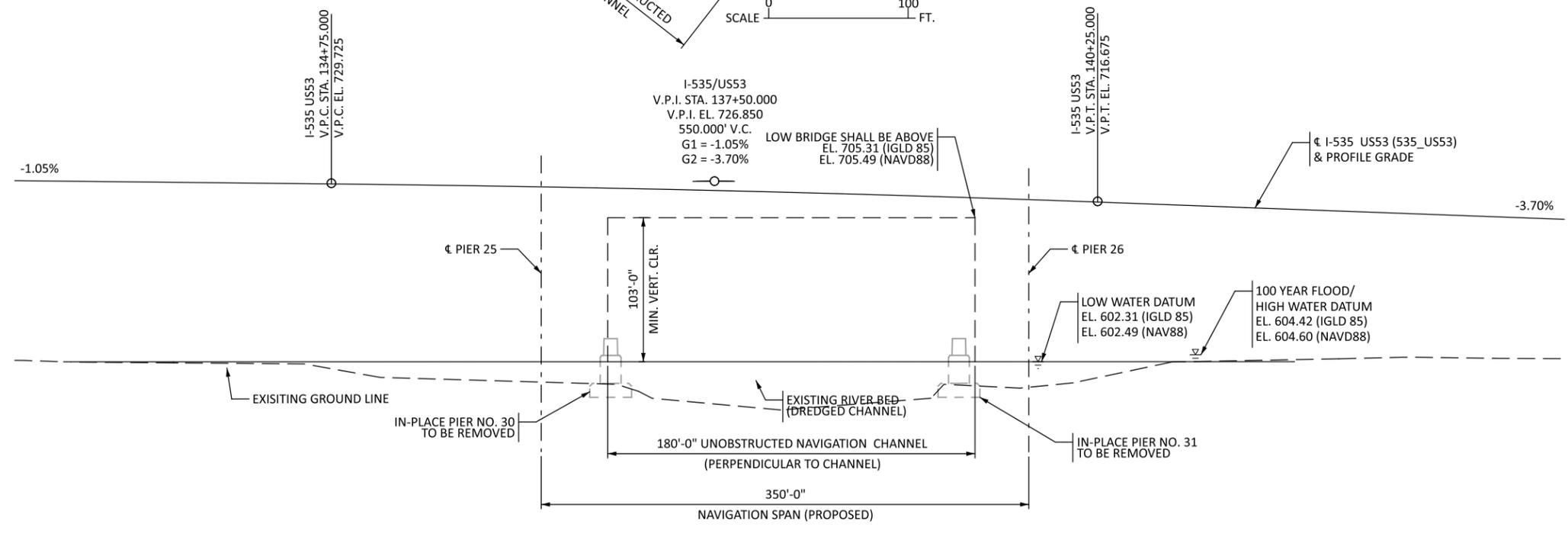
- 1 EXISTING PIERS 16 AND 17 TO BE RECONSTRUCTED FOR VESSEL COLLISION PROTECTION. REMOVE TO TOP OF STRUT EL. 619.0
- 2 123'-0" TO BE PROVIDED TO FACE OF THE EXISTING PIER AND FACE OF DOLPHINS.
- 3 EXISTING PIERS P14, P15 AND P18 TO BE REMOVED AS REQUIRED PER THE COAST GUARD PERMIT.

Plotted By: PARSONS\p0010292
Date Plotted: 20-JAN-2025
Time Plotted: 3:37:05 PM Central
Pen Table: ICS MndOT-plot.pen
File Path: 043_NavigationalClearance-MainChannel.dgn



GENERAL PLAN

SCALE 0 100 FT.

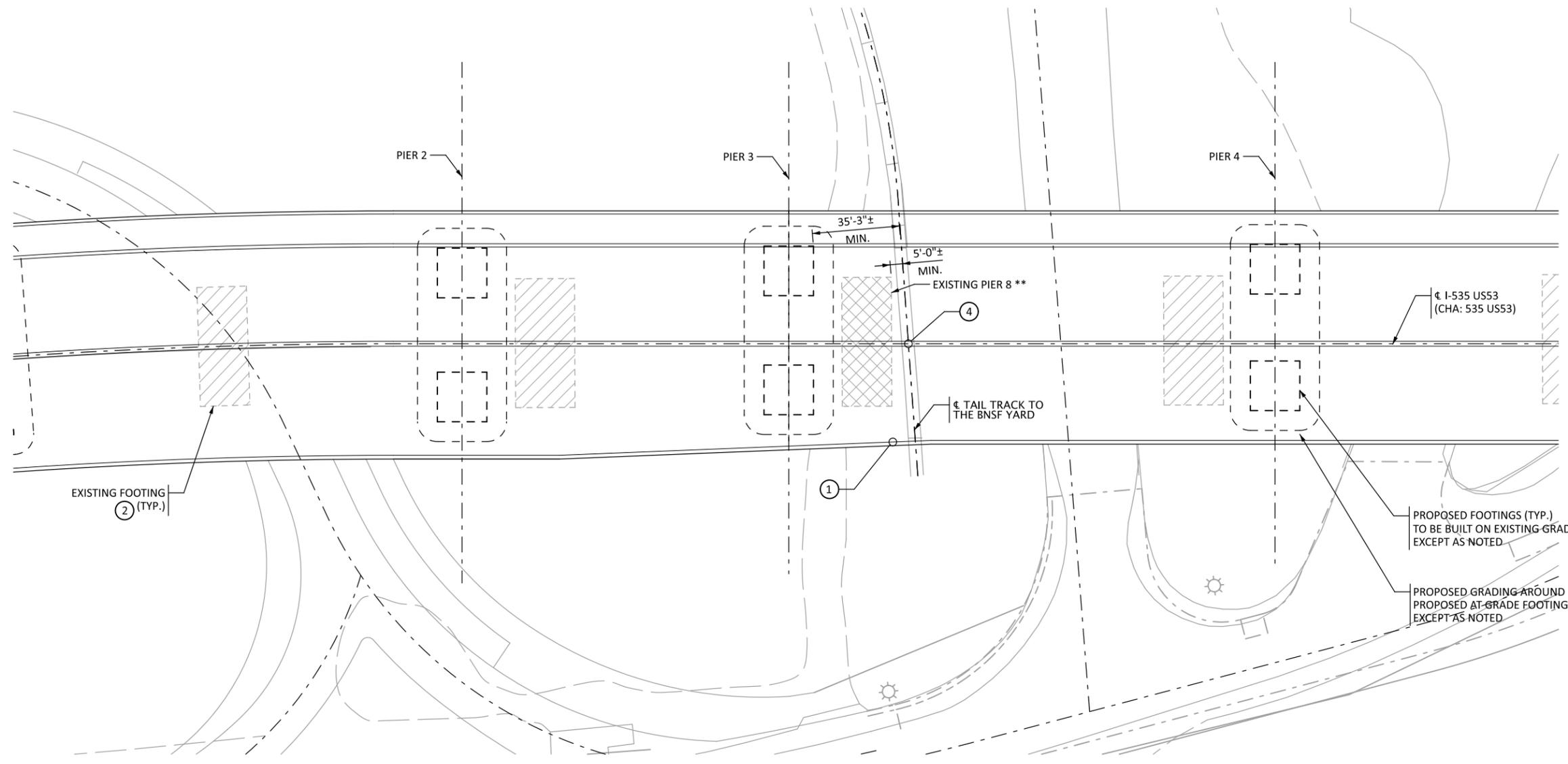


GENERAL ELEVATION

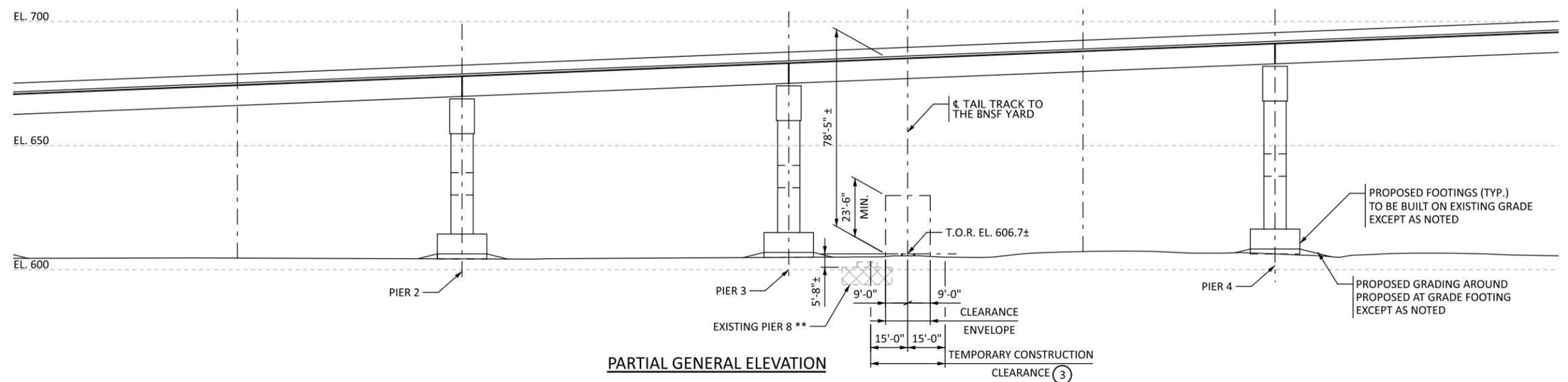
SCALE 0 100 FT.

Plotted By: PARSONS\p0010292
 Date Plotted: 20-JAN-2025
 Time Plotted: 11:51:24 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 044_NavigationalClearance-HowardsPocket.dgn

STATE PROJECT NO. (SP.) 6981 - 69913		TITLE: NAVIGATION CLEARANCES HOWARDS POCKET CHANNEL	DES: JRC	DR: MJJN	BRIDGE NO. 69913 (B-16-0153)
			CHK: BJB	CHK: GX	
			SHEET NO. 44 OF 86 SHEETS		



PARTIAL GENERAL PLAN



PARTIAL GENERAL ELEVATION

NOTES:

THIS BRIDGE, BRIDGE 69913 (B-16-0153), WILL BE CONSTRUCTED OVER THE PROPERTY OF THE BNSF RAILROAD IN THE VICINITY OF _____ IN THE _____ DIVISION, MP _____, _____ SUBDIVISION.

- ① CRITICAL CLEARANCE POINTS. 9'-0" OFFSET FROM CENTERLINE TRACK. 23'-6" MINIMUM.
- ② EXISTING FOOTING, PROPOSING TO REMAIN IN PLACE.
 ** EXISTING FOOTING, REVIEW REMOVAL REQUIREMENTS WITH BNSF - FINAL DETERMINATION PENDING
- ③ NO CONSTRUCTION ACTIVITIES OR OTHER OBSTRUCTIONS TO BE PLACED WITHIN THESE LIMITS. SEE BNSF/UPRR 'GUIDELINES FOR RAILROAD GRADE SEPARATION PROJECTS'.
- ④ ∇ I-535 US53 (535 US53) P.O.T. 93+33.846 = ∇ TAIL TRACK TO THE BNSF YARD
X = 586832.2421, Y = 137914.8092
 ∇ = 85°55'10"

** REVIEW EXISTING PIER REMOVAL REQUIREMENTS

EXISTING PIER 8
TOP OF FOOTING EL. 601.0
BOTTOM OF FOOTING EL. 594.0
APPROXIMATE GROUNDLINE EL. 605.0
(Part 1 - pdf 167)

Plotted By: PARSONS\p010292
 Date Plotted: 17-JAN-2025
 Time Plotted: 11:04:00 AM Central
 Pen Table: ICS_MnDOT-plot.pen
 File Path: 045_RailroadClearances.dgn

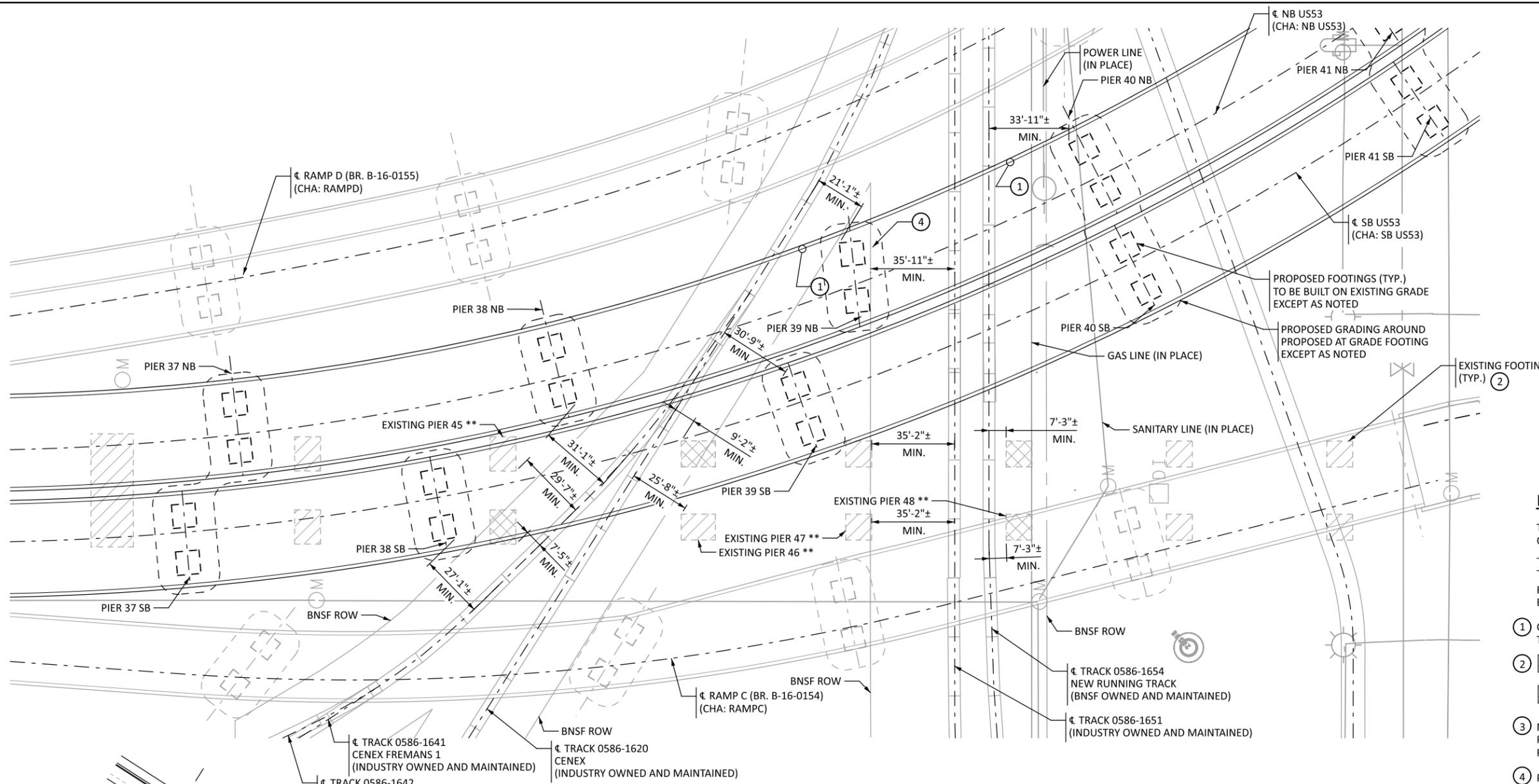
STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: RAILROAD CLEARANCES

DES: BJB/JAG	DR: BJB
CHK: EJA	CHK: GX
SHEET NO. 45 OF 86 SHEETS	

BRIDGE NO. 69913 (B-16-0153)



NOTES:

THIS BRIDGE, BRIDGE 69913 (B-16-0153), WILL BE CONSTRUCTED OVER THE PROPERTY OF THE BNSF RAILROAD IN THE VICINITY OF _____ IN THE _____ DIVISION, MP _____ SUBDIVISION.

FOR DETAILS OF THE RAMP BRIDGES, SEE BR. B-16-0154 AND BR. B-16-0155.

- ① CRITICAL CLEARANCE POINTS. 9'-0" OFFSET FROM CENTERLINE TRACK. 23'-6" MINIMUM.
- ② EXISTING FOOTING, PROPOSING TO REMAIN IN PLACE.
- ** EXISTING FOOTING, REVIEW REMOVAL REQUIREMENTS WITH BNSF - FINAL DETERMINATION PENDING
- ③ NO CONSTRUCTION ACTIVITIES OR OTHER OBSTRUCTIONS TO BE PLACED WITHIN THESE LIMITS. SEE BNSF/UPRR 'GUIDELINES FOR RAILROAD GRADE SEPARATION PROJECTS'.
- ④ PIER 39NB TO BE PARTIALLY BUILT IN BNSF ROW. FOOTING TO BE 2.00 FT BELOW TOP OF EXISTING GRADE PER PROPOSED BNSF VARIANCE REQUEST.

** REVIEW EXISTING PIER REMOVAL REQUIREMENTS

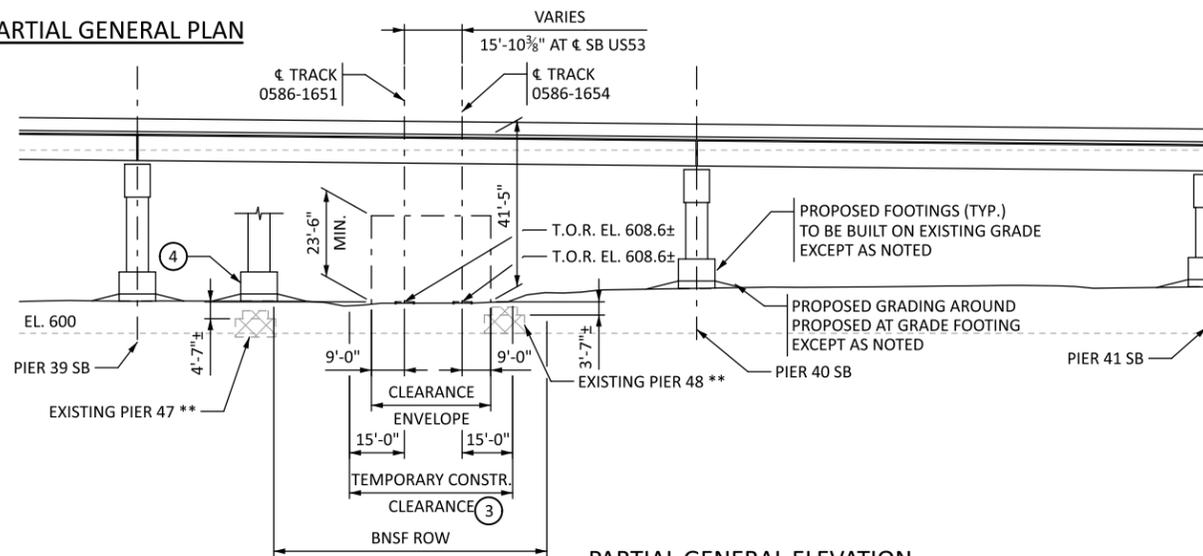
EXISTING PIER 45 (WEST COLUMN)
TOP OF FOOTING EL. 604.0
BOTTOM OF FOOTING EL. 599.0
APPROXIMATE GROUNDLINE EL. 607.0
(Part 1 - pdf 48)

EXISTING PIER 46 (EAST COLUMN)
TOP OF FOOTING EL. 604.0
BOTTOM OF FOOTING EL. 599.0
APPROXIMATE GROUNDLINE EL. 607.0
(Part 1 - pdf 49)

EXISTING PIER 47
TOP OF FOOTING EL. 604.0
BOTTOM OF FOOTING EL. 599.0
APPROXIMATE GROUNDLINE EL. 607.0
(Part 1 - pdf 50)

EXISTING PIER 48
TOP OF FOOTING EL. 605.0
BOTTOM OF FOOTING EL. 600.0
APPROXIMATE GROUNDLINE EL. 607.2
(Part 1 - pdf 51)

PARTIAL GENERAL PLAN



PARTIAL GENERAL ELEVATION

(SHOWN ALONG PROPOSED CENTERLINE SB US53)

Plotted By: PARSONS\p010292
Date Plotted: 17-JAN-2025
Time Plotted: 11:04:05 AM Central
Pen Table: ICS MndOT-plot.pen
File Path: 046_RailroadClearances.dgn

PARTIAL GENERAL ELEVATION
(SHOWN ALONG PROPOSED CENTERLINE SB US53)

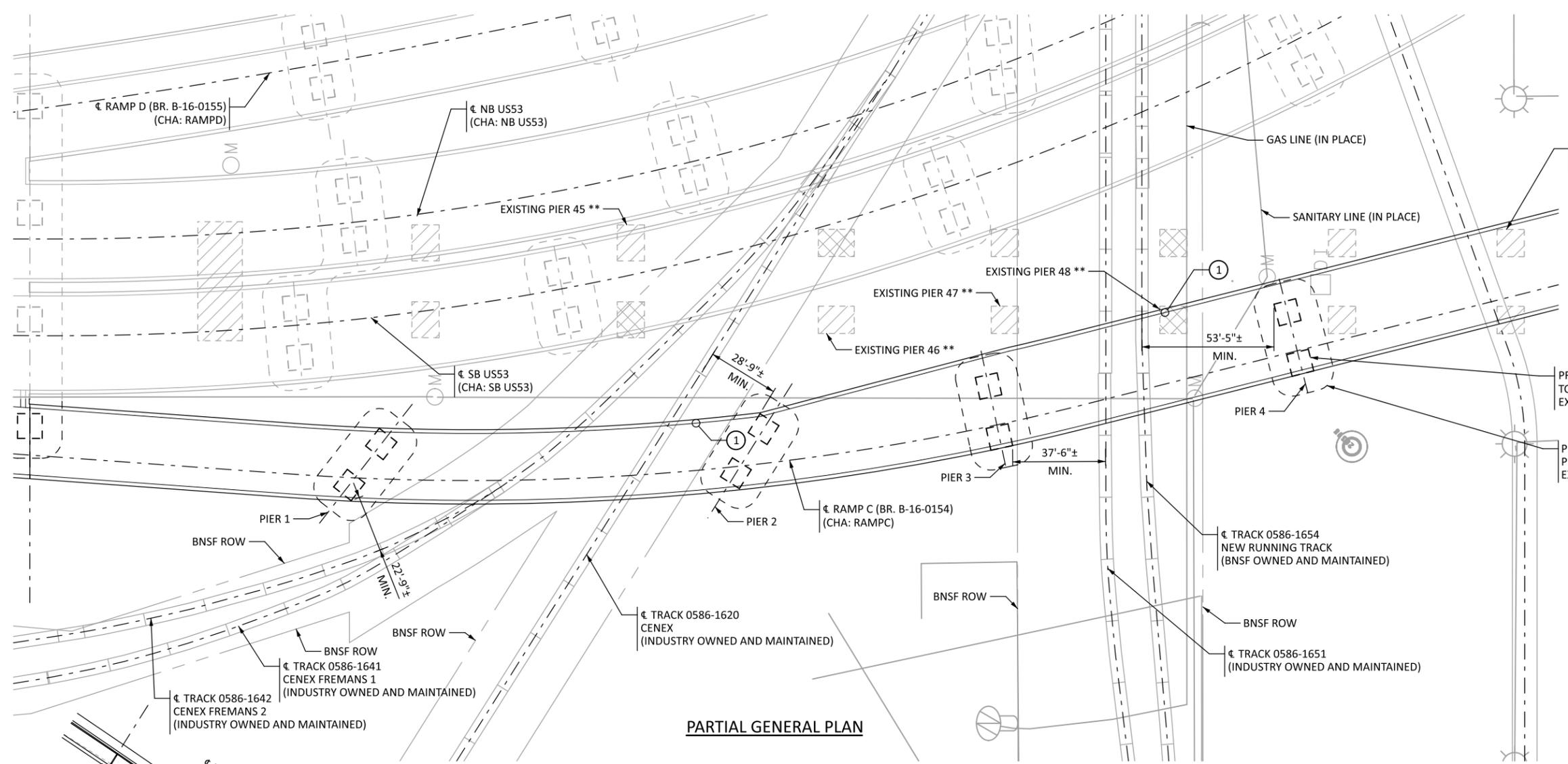
STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: RAILROAD CLEARANCES

DES: BJB/JAG DR: BJB
CHK: EJA CHK: GX
SHEET NO. 46 OF 86 SHEETS

BRIDGE NO. 69913 (B-16-0153)



PARTIAL GENERAL PLAN

EXISTING FOOTING (TYP.) ②

PROPOSED FOOTINGS (TYP.) TO BE BUILT ON EXISTING GRADE EXCEPT AS NOTED

PROPOSED GRADING AROUND PROPOSED AT GRADE FOOTING EXCEPT AS NOTED

NOTES:

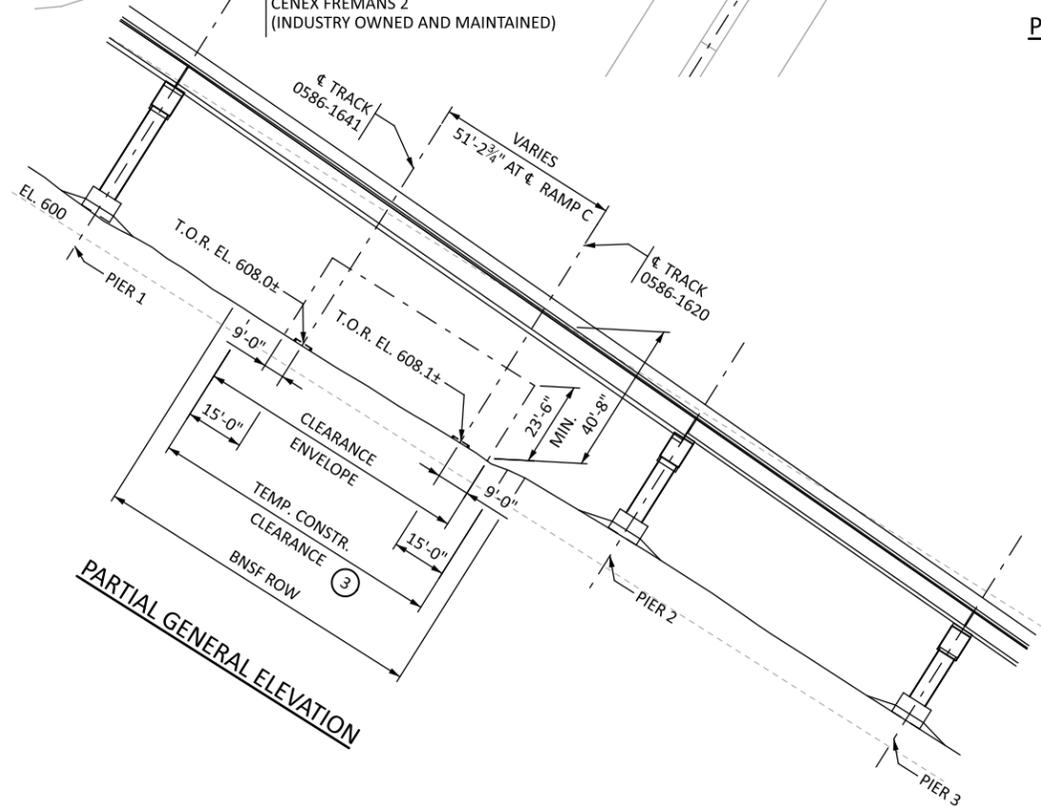
THIS BRIDGE, BRIDGE B-16-0154, WILL BE CONSTRUCTED OVER THE PROPERTY OF THE BNSF RAILROAD IN THE VICINITY OF _____ IN THE _____ DIVISION, MP _____ SUBDIVISION.

- ① CRITICAL CLEARANCE POINTS. 9'-0" OFFSET FROM CENTERLINE TRACK. 23'-6" MINIMUM.
- ② EXISTING FOOTING, PROPOSING TO REMAIN IN PLACE.
- ** EXISTING FOOTING, REVIEW REMOVAL REQUIREMENTS WITH BNSF - FINAL DETERMINATION PENDING
- ③ NO CONSTRUCTION ACTIVITIES OR OTHER OBSTRUCTIONS TO BE PLACED WITHIN THESE LIMITS. SEE BNSF/UPRR 'GUIDELINES FOR RAILROAD GRADE SEPARATION PROJECTS'.

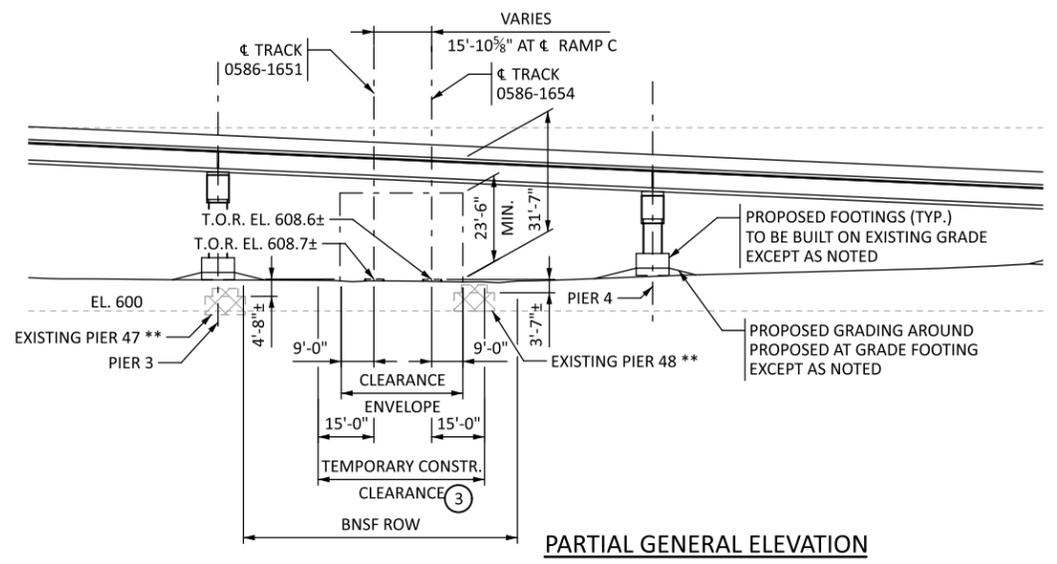
** REVIEW EXISTING PIER REMOVAL REQUIREMENTS

EXISTING PIER 47
TOP OF FOOTING EL. 604.0
BOTTOM OF FOOTING EL. 599.0
APPROXIMATE GROUNDLINE EL. 607.0
(Part 1 - pdf 50)

EXISTING PIER 48
TOP OF FOOTING EL. 605.0
BOTTOM OF FOOTING EL. 600.0
APPROXIMATE GROUNDLINE EL. 607.2
(Part 1 - pdf 51)



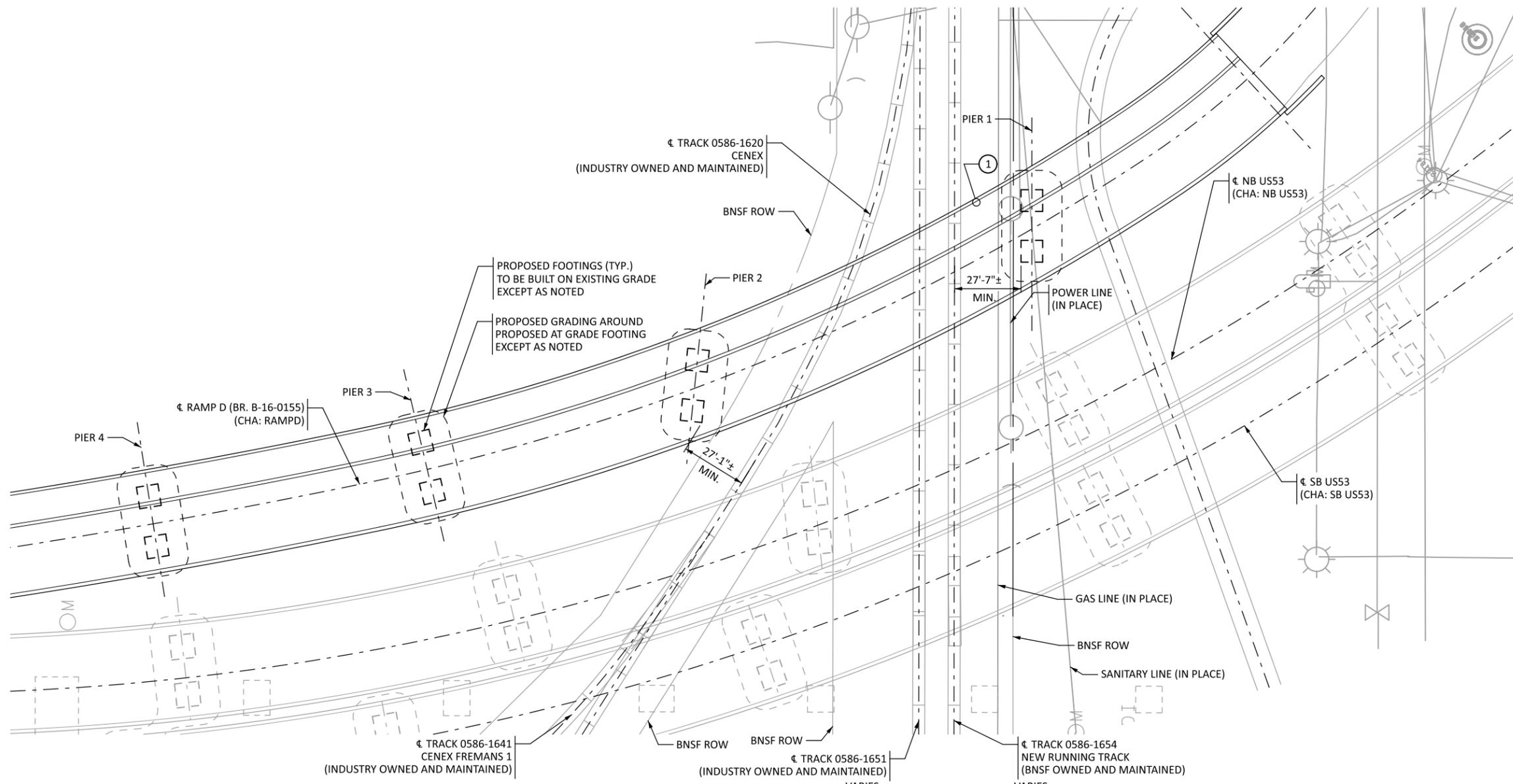
PARTIAL GENERAL ELEVATION



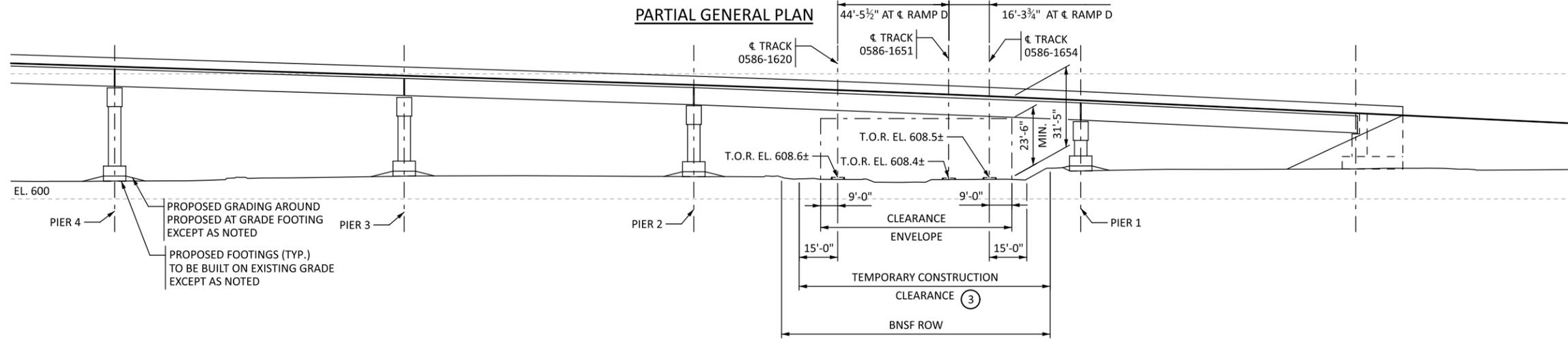
PARTIAL GENERAL ELEVATION

Plotted By: PARSONS\p0010292
 Date Plotted: 17-JAN-2025
 Time Plotted: 11:04:10 AM Central
 Pen Table: ICS_MnDOT-plot.pen
 File Path: 047_RailroadClearance_RampC.dgn

STATE PROJECT NO. (SP.) 6981 - 69913			TITLE: RAILROAD CLEARANCE RAMP C		DES: BJB/JAG DR: BJB		BRIDGE NO. B-16-0154
					CHK: EJA CHK: GX		
					SHEET NO. 47 OF 86 SHEETS		



- NOTES:**
- THIS BRIDGE, BRIDGE B-16-0155, WILL BE CONSTRUCTED OVER THE PROPERTY OF THE BNSF RAILROAD IN THE VICINITY OF _____ IN THE _____ DIVISION, MP _____ SUBDIVISION.
 - ① CRITICAL CLEARANCE POINTS. 9'-0" OFFSET FROM CENTERLINE TRACK. 23'-6" MINIMUM.
 - ③ NO CONSTRUCTION ACTIVITIES OR OTHER OBSTRUCTIONS TO BE PLACED WITHIN THESE LIMITS. SEE BNSF/UPRR 'GUIDELINES FOR RAILROAD GRADE SEPARATION PROJECTS'.



Plotted By: PARSONS\p0010292
 Date Plotted: 17-JAN-2025
 Time Plotted: 11:04:10 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 048_RailroadClearance_RampD.dgn

PARTIAL GENERAL ELEVATION

STATE PROJECT NO. (SP.) 6981 - 69913		TITLE: RAILROAD CLEARANCE RAMP D	DES: BJB/JAG CHK: EJA	DR: BJB CHK: GX	SHEET NO. 48 OF 86 SHEETS	BRIDGE NO. B-16-0155
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Plotted By: PARSONS\p0022751
 Date Plotted: 3-JAN-2025
 Time Plotted: 2:51:05 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 049_inplaceUtilities.dgn

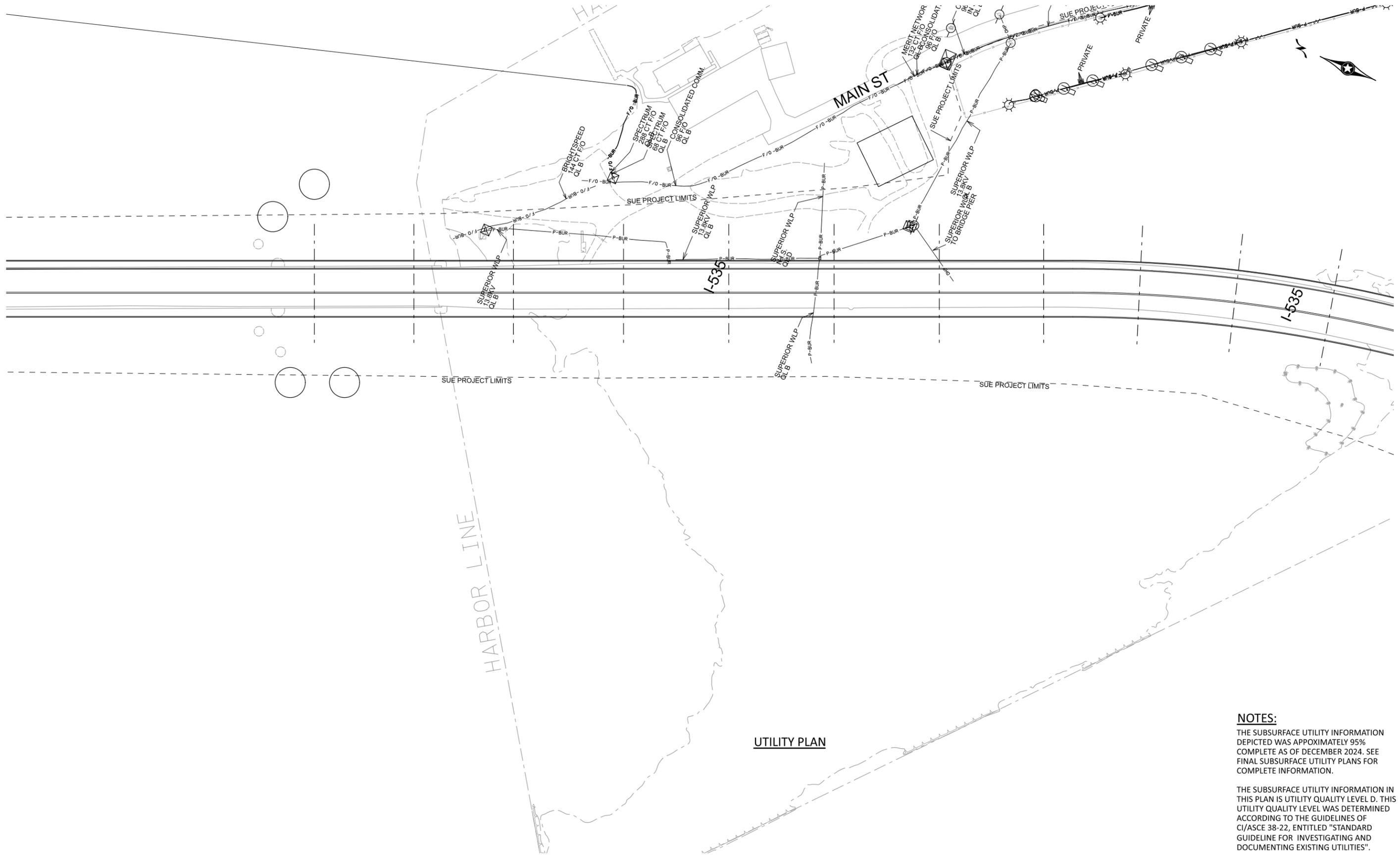


UTILITY PLAN

NOTES:
 THE SUBSURFACE UTILITY INFORMATION DEPICTED WAS APPROXIMATELY 95% COMPLETE AS OF DECEMBER 2024. SEE FINAL SUBSURFACE UTILITY PLANS FOR COMPLETE INFORMATION.
 THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-22, ENTITLED "STANDARD GUIDELINE FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES".

STATE PROJECT NO. (SP.) 6981 - 69913			TITLE: INPLACE UTILITIES		DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
			CHK: ---	CHK: DLS	SHEET NO. 49 OF 86 SHEETS		

Plotted By: PARSONS\p0022751
 Date Plotted: 3-JAN-2025
 Time Plotted: 2:51:11 PM Central
 Pen Table: ICS_MnDOT-plot.pen
 File Path: 050_inplaceUtilities.dgn



UTILITY PLAN

NOTES:
 THE SUBSURFACE UTILITY INFORMATION DEPICTED WAS APPROXIMATELY 95% COMPLETE AS OF DECEMBER 2024. SEE FINAL SUBSURFACE UTILITY PLANS FOR COMPLETE INFORMATION.
 THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINE FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES".

STATE PROJECT NO. (SP.) 6981 - 69913			TITLE: INPLACE UTILITIES		DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
			CHK: ---	CHK: DLS	SHEET NO. 50 OF 86 SHEETS		

Plotted By: PARSONS\p0022751
 Date Plotted: 3-JAN-2025
 Time Plotted: 2:56:12 PM Central
 Pen Table: ICS MndOT-iplot.pen
 File Path: 05_1_inplaceUtilities.dgn

NOTES:

THE SUBSURFACE UTILITY INFORMATION DEPICTED WAS APPROXIMATELY 95% COMPLETE AS OF DECEMBER 2024. SEE FINAL SUBSURFACE UTILITY PLANS FOR COMPLETE INFORMATION.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-22, ENTITLED "STANDARD GUIDELINE FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES".

UTILITY PLAN

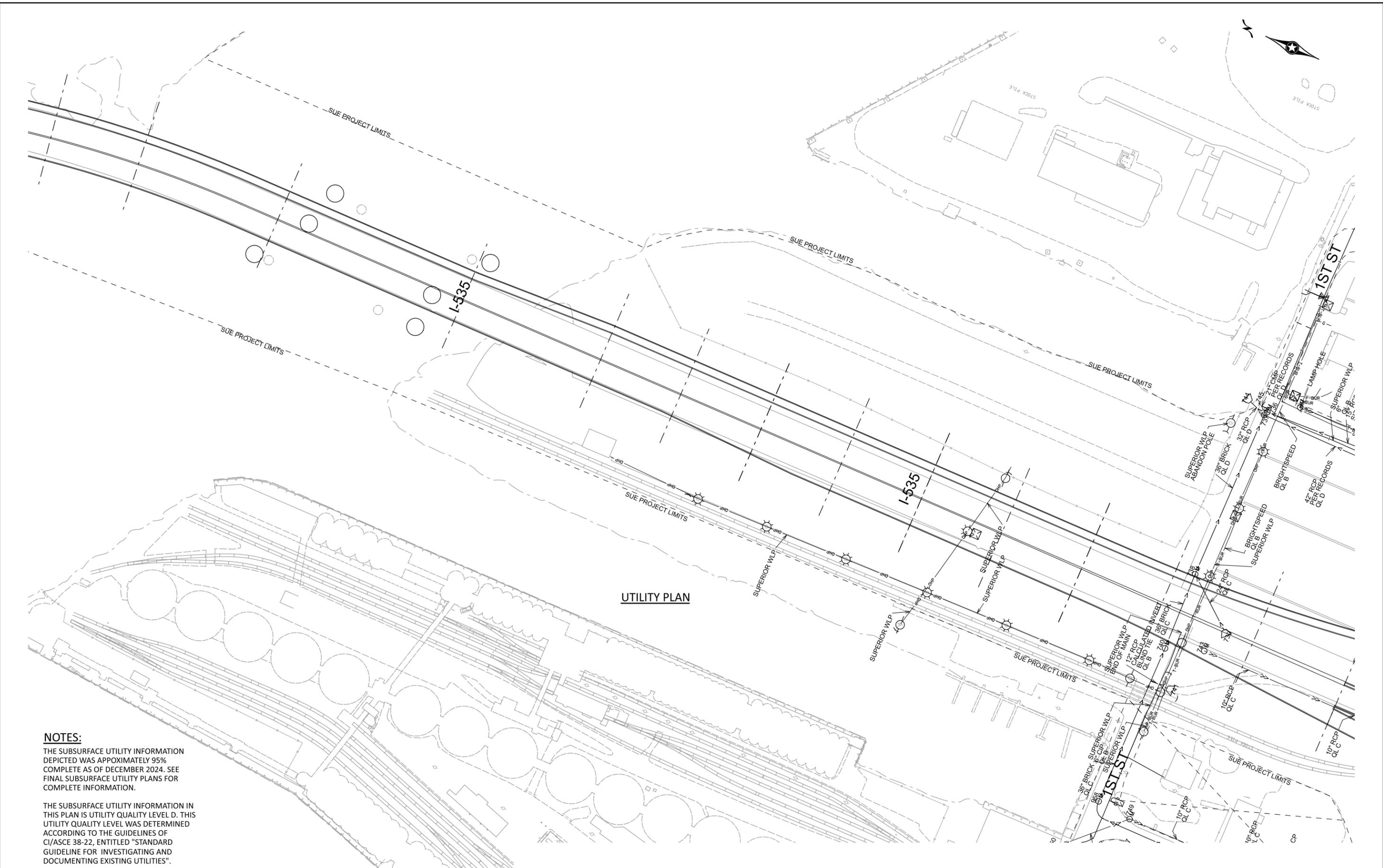
STATE PROJECT NO. (SP.) 6981 - 69913



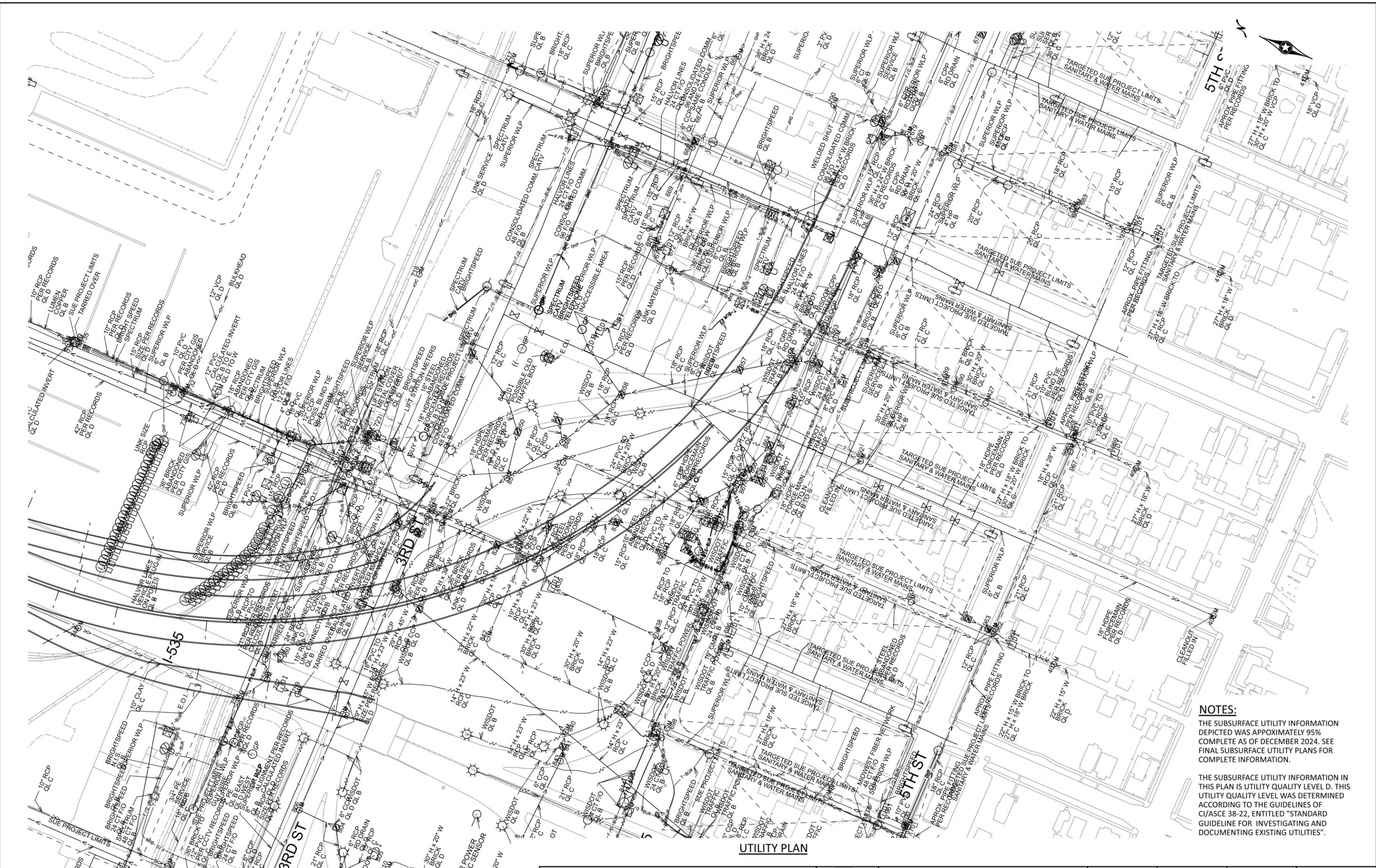
TITLE: INPLACE UTILITIES

DES: ---	DR: BJB
CHK: ---	CHK: DLS
SHEET NO. 51 OF 86 SHEETS	

BRIDGE NO. 69913 (B-16-0153)



Plotted By: PARSONS\p0022751
 Date Plotted: 3-JAN-2025
 Time Plotted: 2:51:07 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 052_InplaceUtilities.dgn

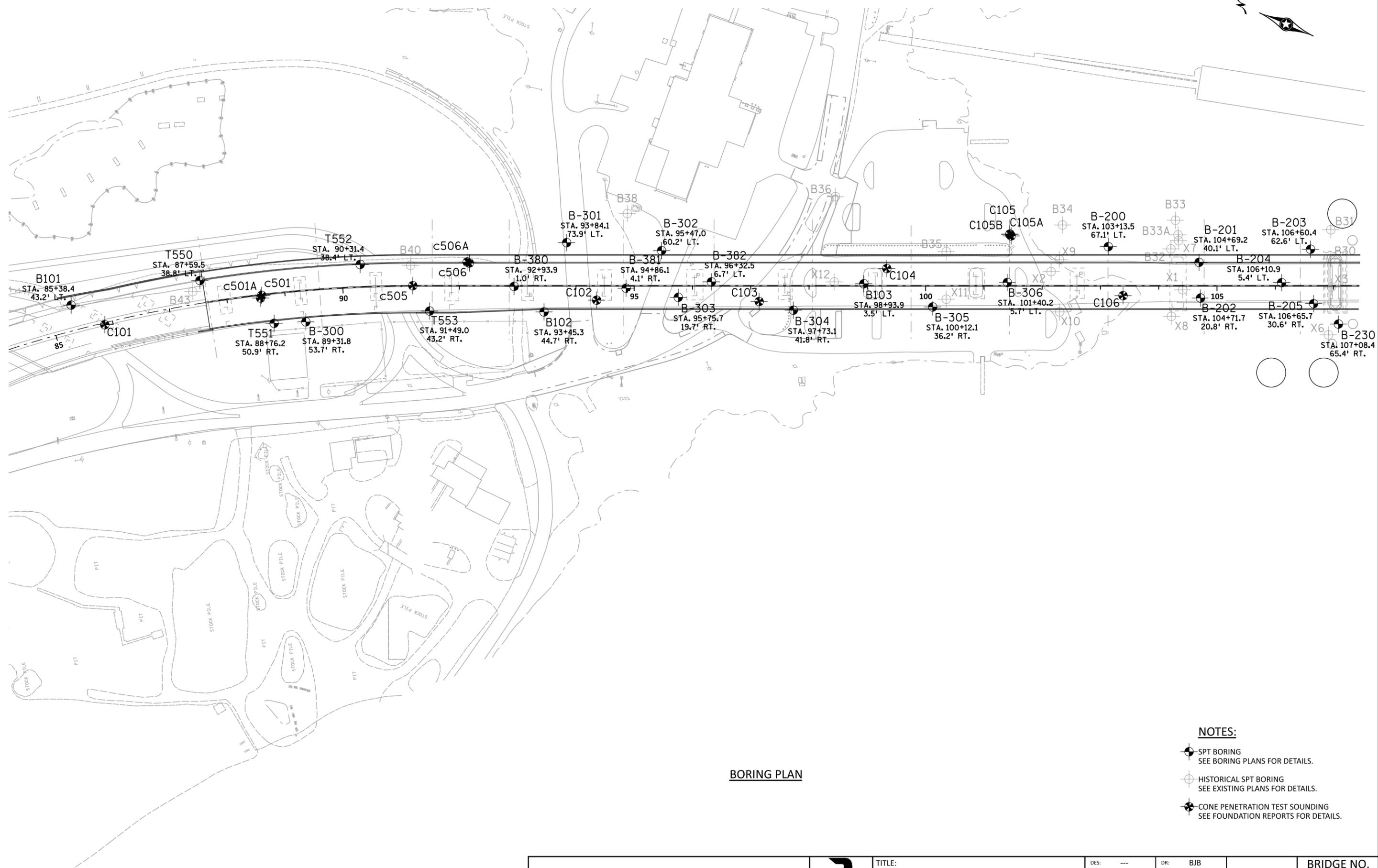


NOTES:

THE SUBSURFACE UTILITY INFORMATION DEPICTED WAS APPROXIMATELY 95% COMPLETE AS OF DECEMBER 2024. SEE FINAL SUBSURFACE UTILITY PLANS FOR COMPLETE INFORMATION.

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF C/ASCE 38-22, ENTITLED "STANDARD GUIDELINE FOR INVESTIGATING AND DOCUMENTING EXISTING UTILITIES".

STATE PROJECT NO. (SP.) 6981 - 69913			TITLE: INPLACE UTILITIES		DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
			CHK: ---	CHK: DLS	SHEET NO. 52 OF 86 SHEETS		



BORING PLAN

- NOTES:**
- SPT BORING
SEE BORING PLANS FOR DETAILS.
 - HISTORICAL SPT BORING
SEE EXISTING PLANS FOR DETAILS.
 - ⊙ CONE PENETRATION TEST SOUNDING
SEE FOUNDATION REPORTS FOR DETAILS.

Plotted By: PARSONS\p009395D
 Date Plotted: 30-DEC-2024
 Time Plotted: 12:56:10 PM Central
 Pen Table: ICS_MnDOT-plot.pen
 File Path: 053_BoringPlan.dgn

STATE PROJECT NO. (SP.) 6981 - 69913			TITLE: BORING PLAN		DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
			CHK: ---	CHK: GX	SHEET NO. 53 OF 86 SHEETS		



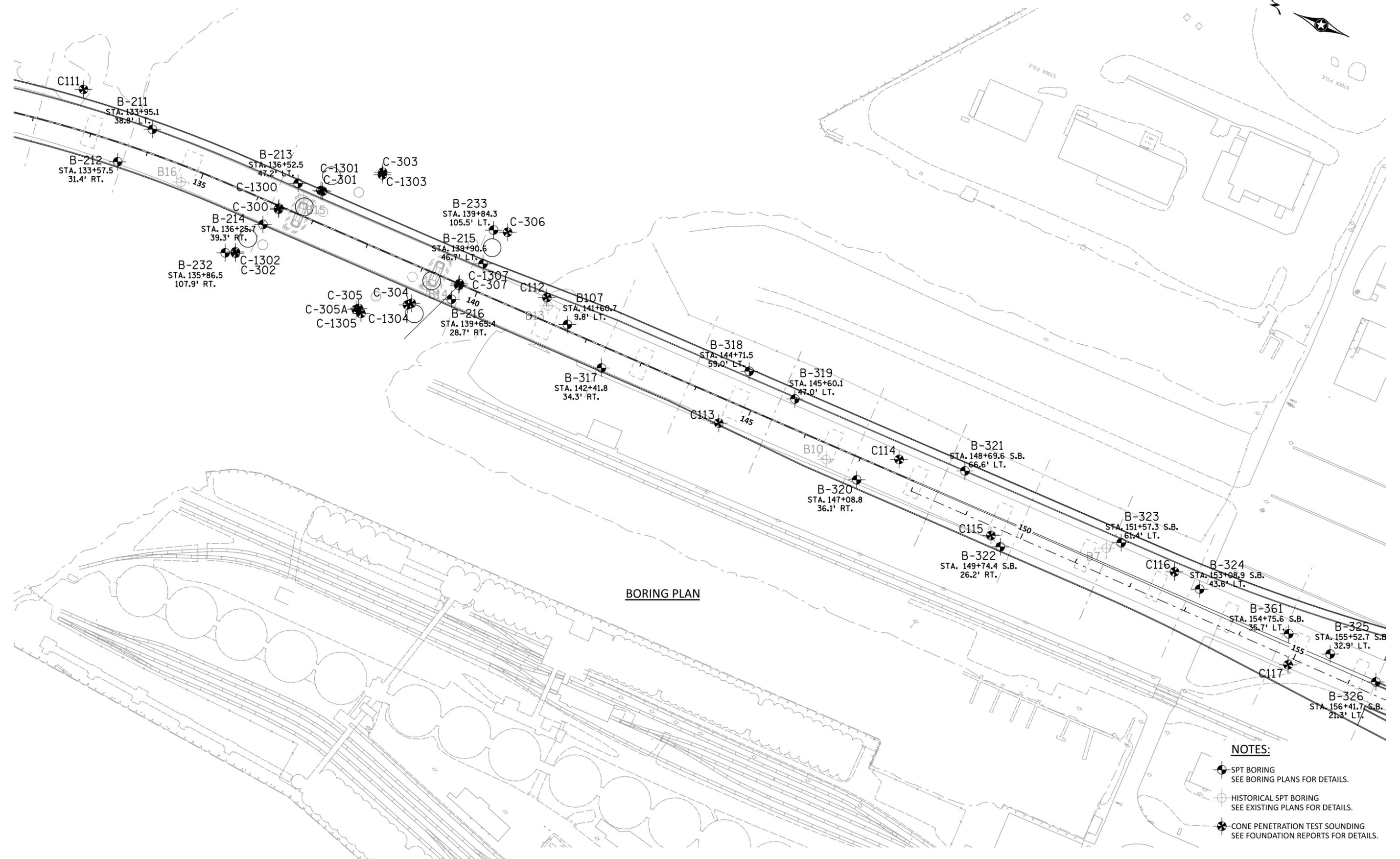
BORING PLAN

NOTES:

- SPT BORING
SEE BORING PLANS FOR DETAILS.
- HISTORICAL SPT BORING
SEE EXISTING PLANS FOR DETAILS.
- ⊗ CONE PENETRATION TEST SOUNDING
SEE FOUNDATION REPORTS FOR DETAILS.

Plotted By: PARSONS\p009395D
 Date Plotted: 30-DEC-2024
 Time Plotted: 12:56:06 PM Central
 Pen Table: ICS_MnDOT-plot.pen
 File Path: 054_BoringPlan.dgn

STATE PROJECT NO. (SP.) 6981 - 69913			TITLE:	BORING PLAN		DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
			CHK: ---	CHK: GX	SHEET NO. 54 OF 86 SHEETS			



BORING PLAN

NOTES:

- SPT BORING
SEE BORING PLANS FOR DETAILS.
- HISTORICAL SPT BORING
SEE EXISTING PLANS FOR DETAILS.
- ⊗ CONE PENETRATION TEST SOUNDING
SEE FOUNDATION REPORTS FOR DETAILS.

Plotted By: PARSONS\p009395D
 Date Plotted: 30-DEC-2024
 Time Plotted: 12:56:00 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 055_BoringPlan.dgn

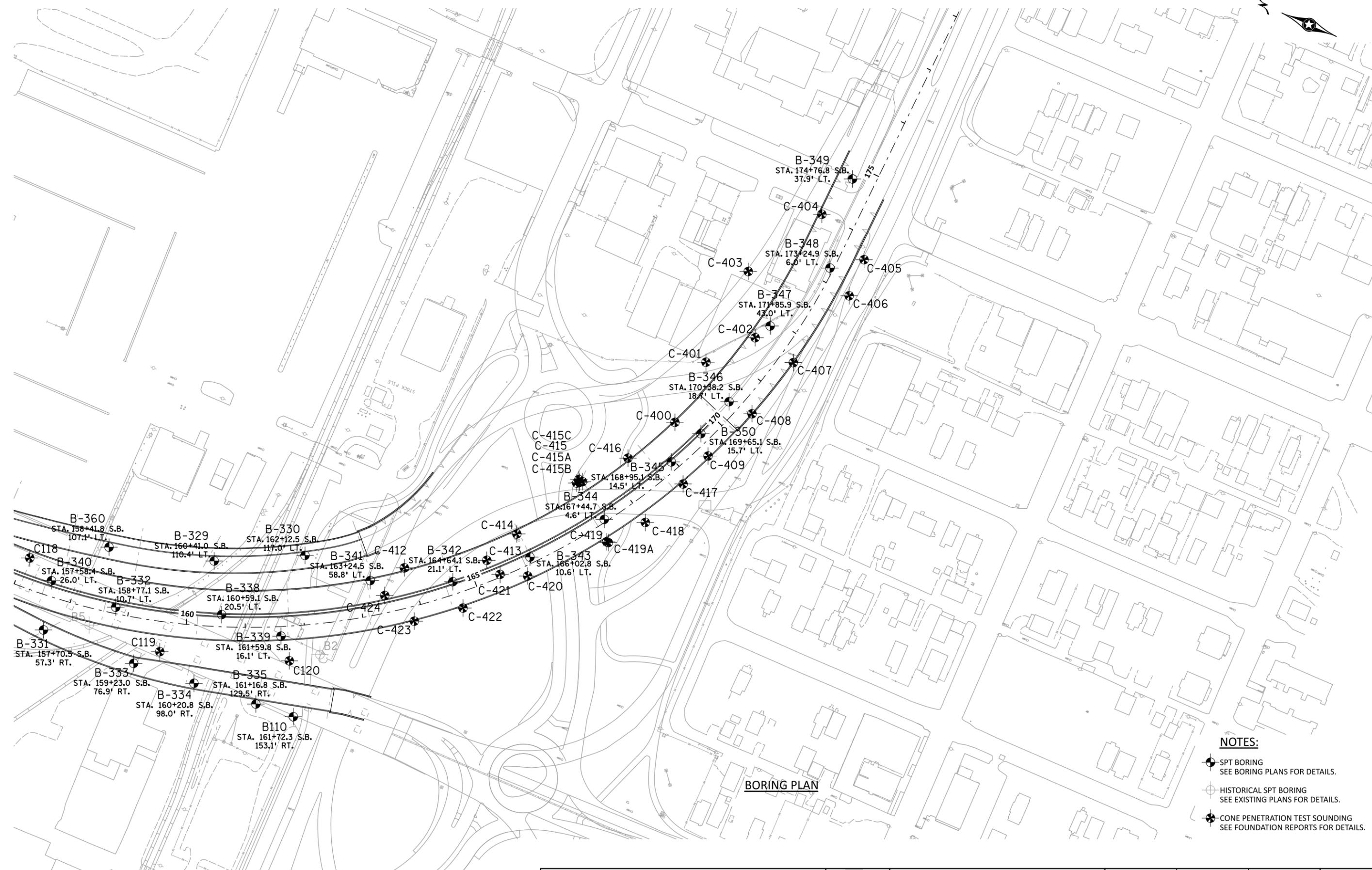
STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: BORING PLAN

DES: ---	DR: BJB
CHK: ---	CHK: GX
SHEET NO. 55 OF 86 SHEETS	

BRIDGE NO. 69913 (B-16-0153)

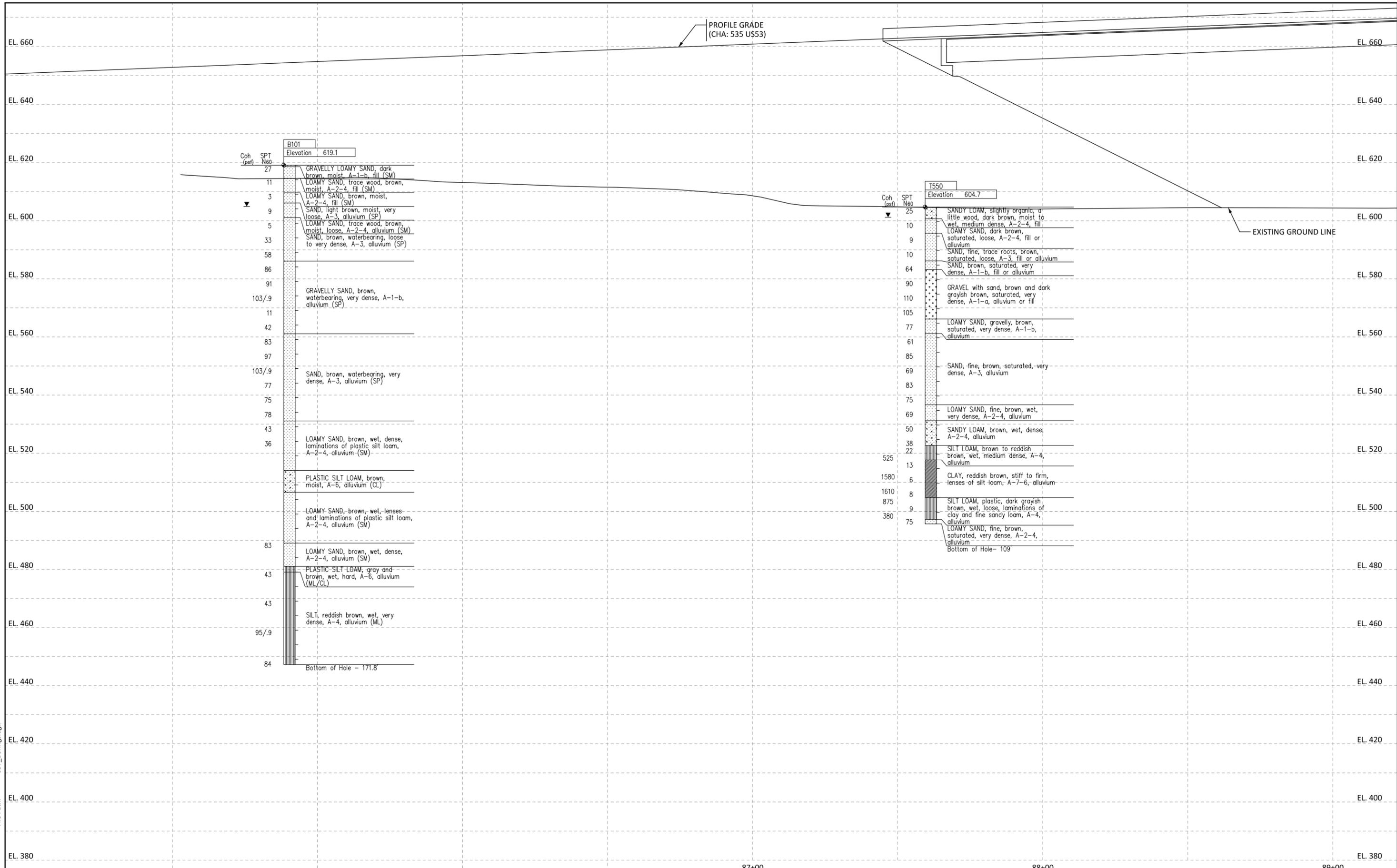


BORING PLAN

- NOTES:**
- SPT BORING
SEE BORING PLANS FOR DETAILS.
 - HISTORICAL SPT BORING
SEE EXISTING PLANS FOR DETAILS.
 - ⊙ CONE PENETRATION TEST SOUNDING
SEE FOUNDATION REPORTS FOR DETAILS.

Plotted By: PARSONS\p009395D
 Date Plotted: 30-DEC-2024
 Time Plotted: 12:56:03 PM Central
 Pen Table: ICS_MnDOT-plot.pen
 File Path: 056_BoringPlan.dgn

STATE PROJECT NO. (SP.) 6981 - 69913			TITLE: BORING PLAN		DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
			CHK: ---	CHK: GX	SHEET NO. 56 OF 86 SHEETS		



Plotted By: PARSONS\p009395D
 Date Plotted: 30-DEC-2024
 Time Plotted: 2:45:05 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 057_Borings.dgn

STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: BORINGS

DES: ---	DR: BJB
CHK: ---	CHK: DLS

SHEET NO. 57 OF 86 SHEETS

BRIDGE NO. 69913 (B-16-0153)

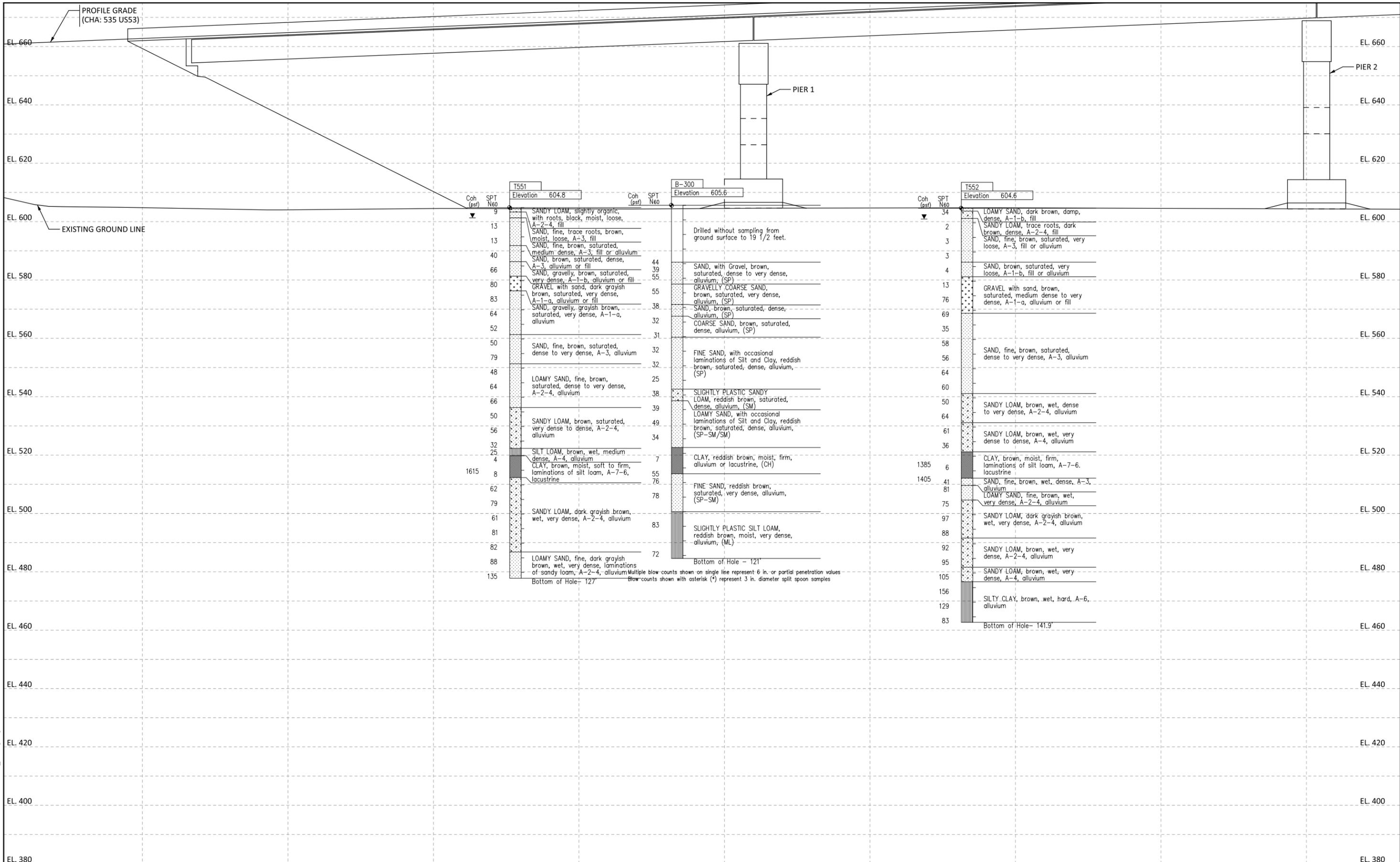
85+00

86+00

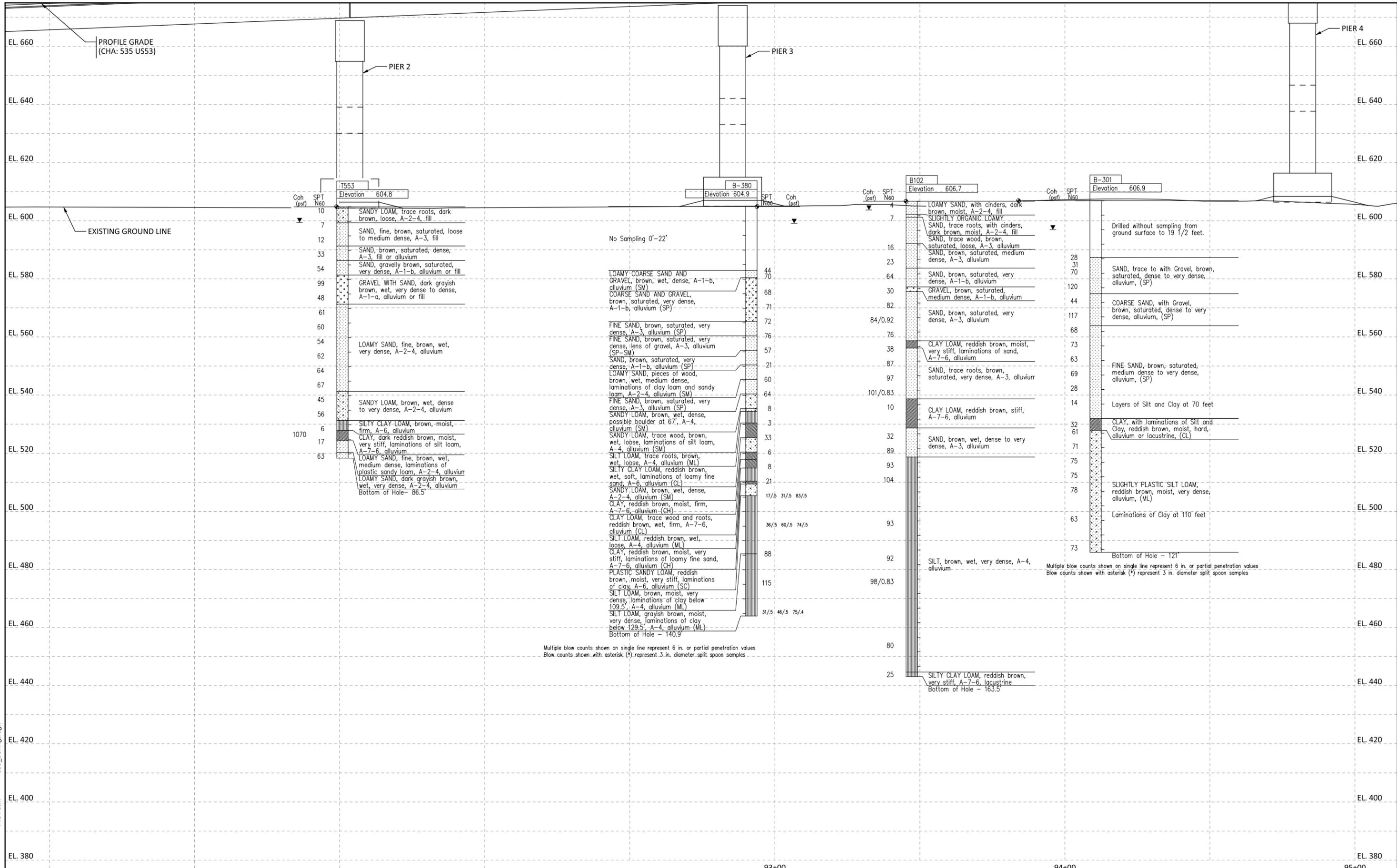
87+00

88+00

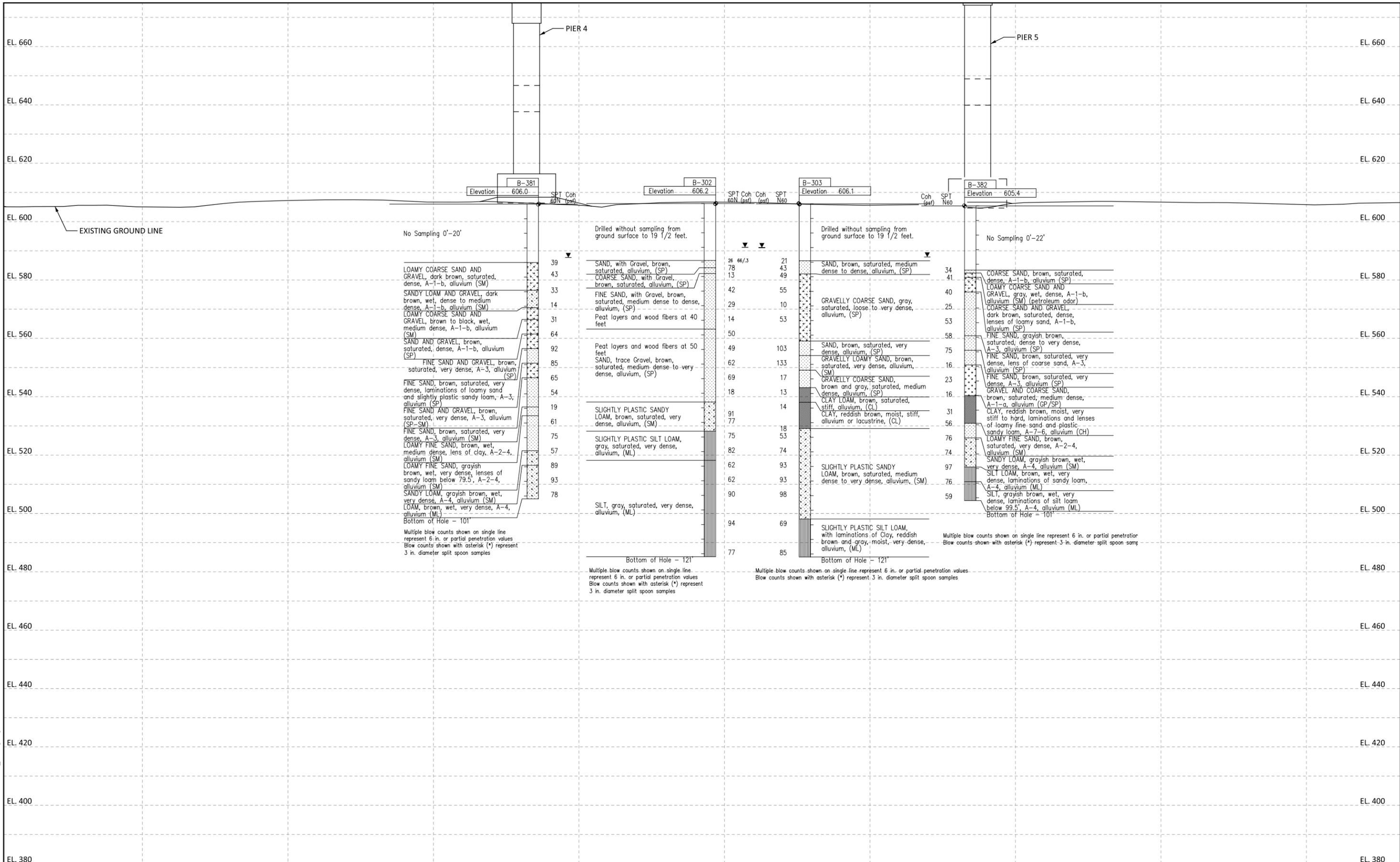
89+00



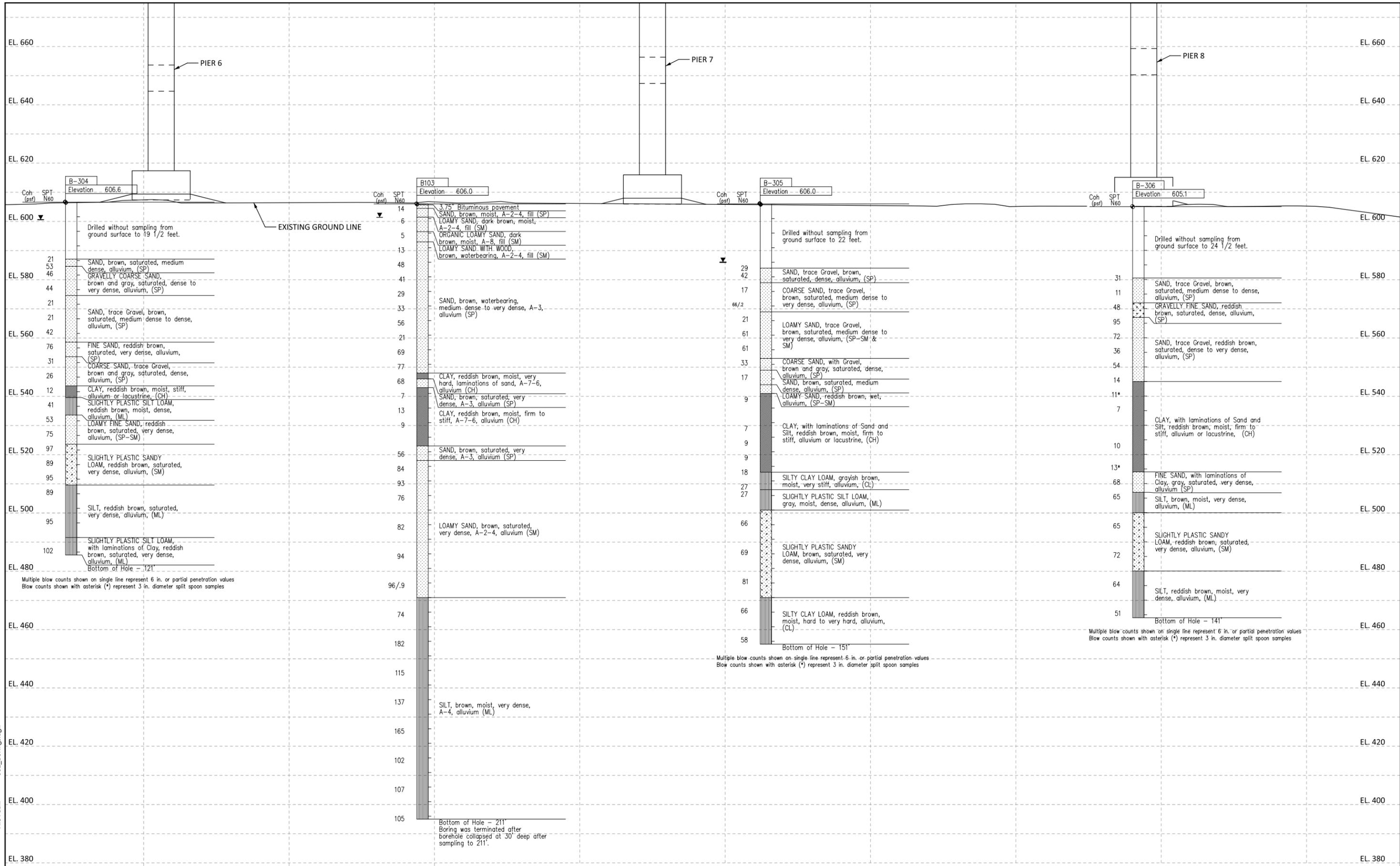
Plotted By: PARSONS\p009395D
 Date Plotted: 30-DEC-2024
 Time Plotted: 2:45:04 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 05g_Borings.dgn



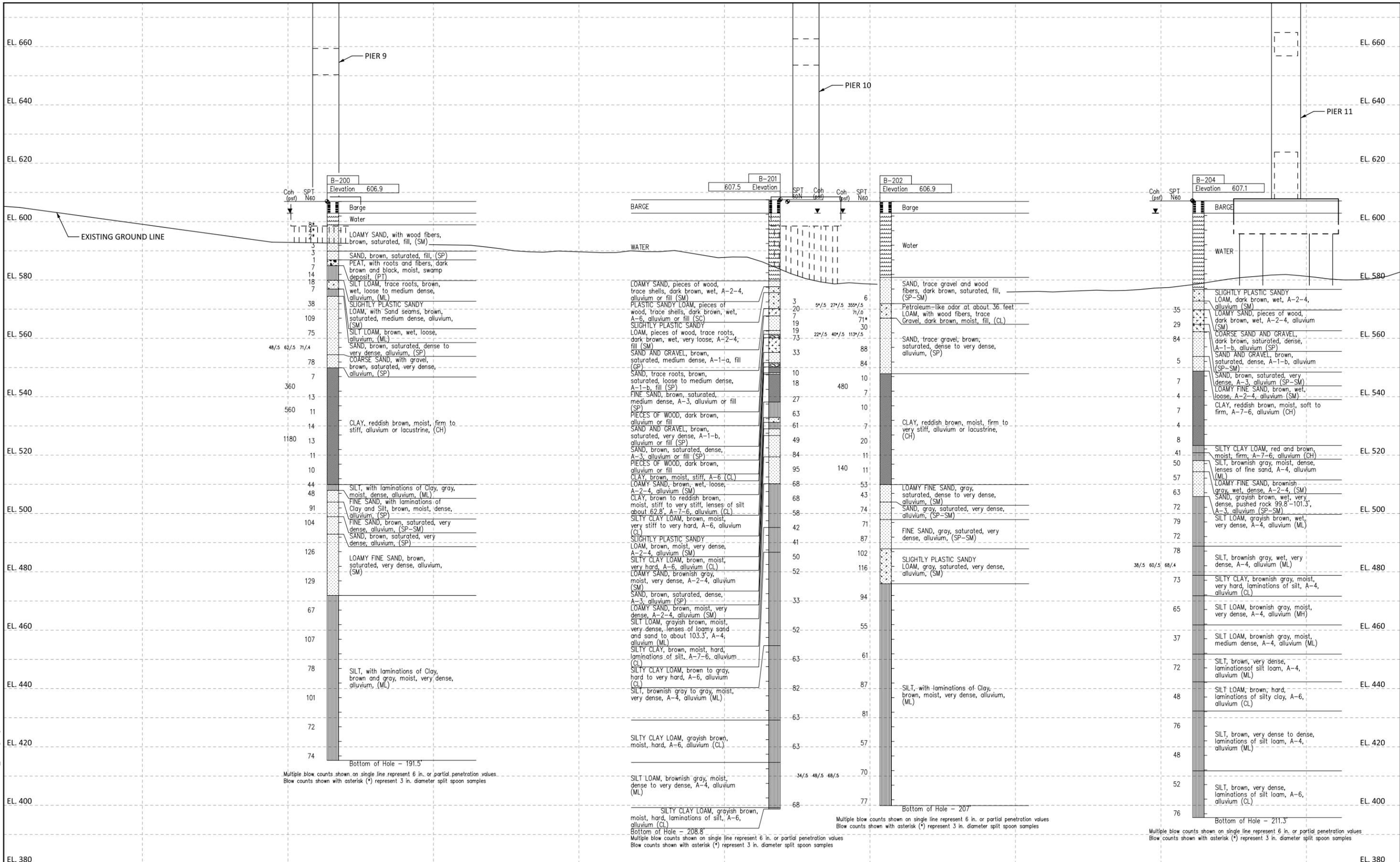
Plotted By: PARSONS\p009395D
 Date Plotted: 30-DEC-2024
 Time Plotted: 2:45:11 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 059_Borings.dgn



Plotted By: PARSONS\p009395D
 Date Plotted: 30-DEC-2024
 Time Plotted: 2:45:15 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 060_Borings.dgn



Plotted By: PARSONS\p009395D
 Date Plotted: 30-DEC-2024
 Time Plotted: 2:45:14 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 061_Borings.dgn



Plotted By: PARSONS\p0010292
Date Plotted: 14-JAN-2025
Time Plotted: 2:57:32 PM Central
Pen Table: ICS MndOT-plot.pen
File Path: 062_Borings.dgn

104+00

105+00

106+00

STATE PROJECT NO. (SP.) 6981 - 69913

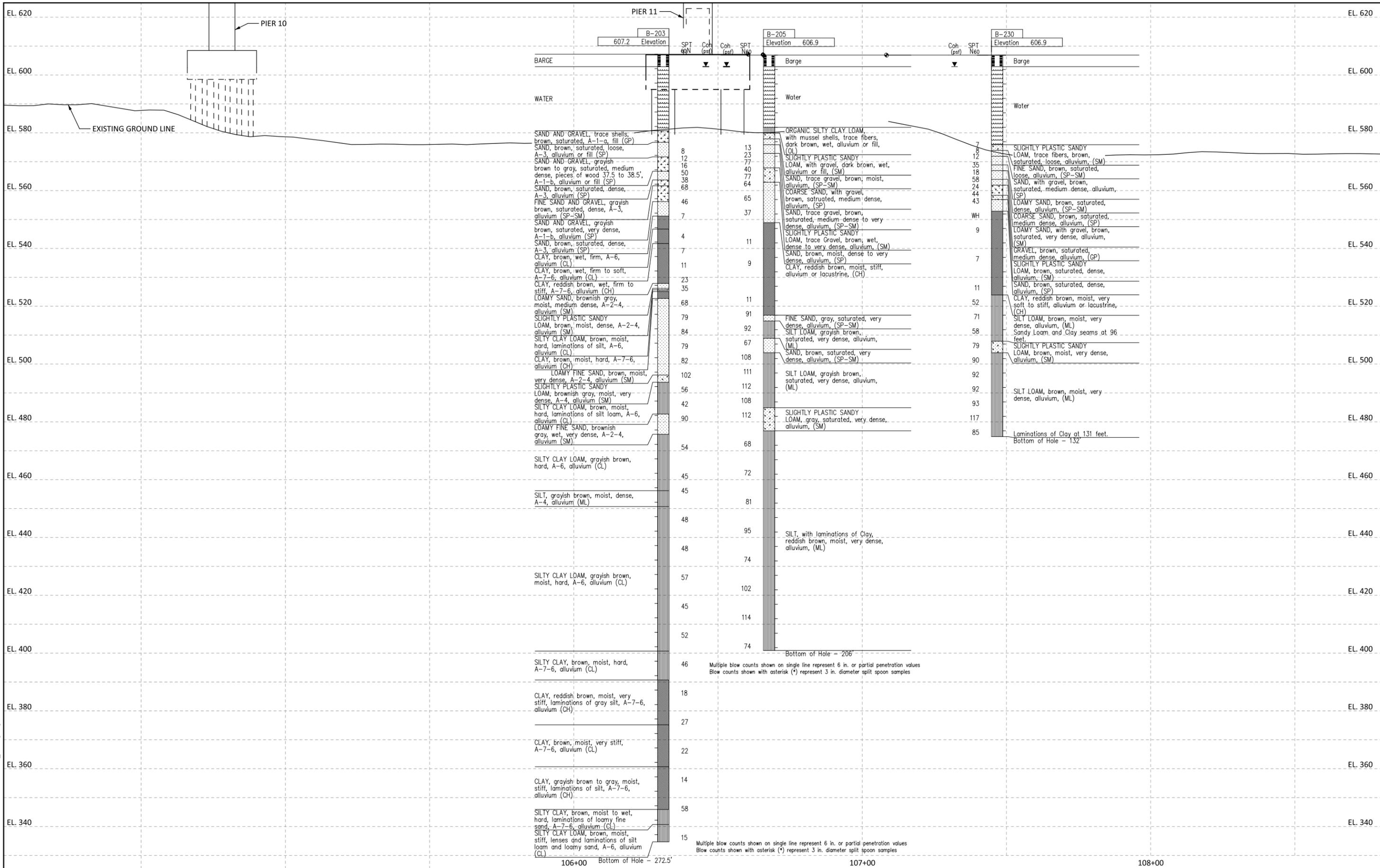


TITLE: BORINGS

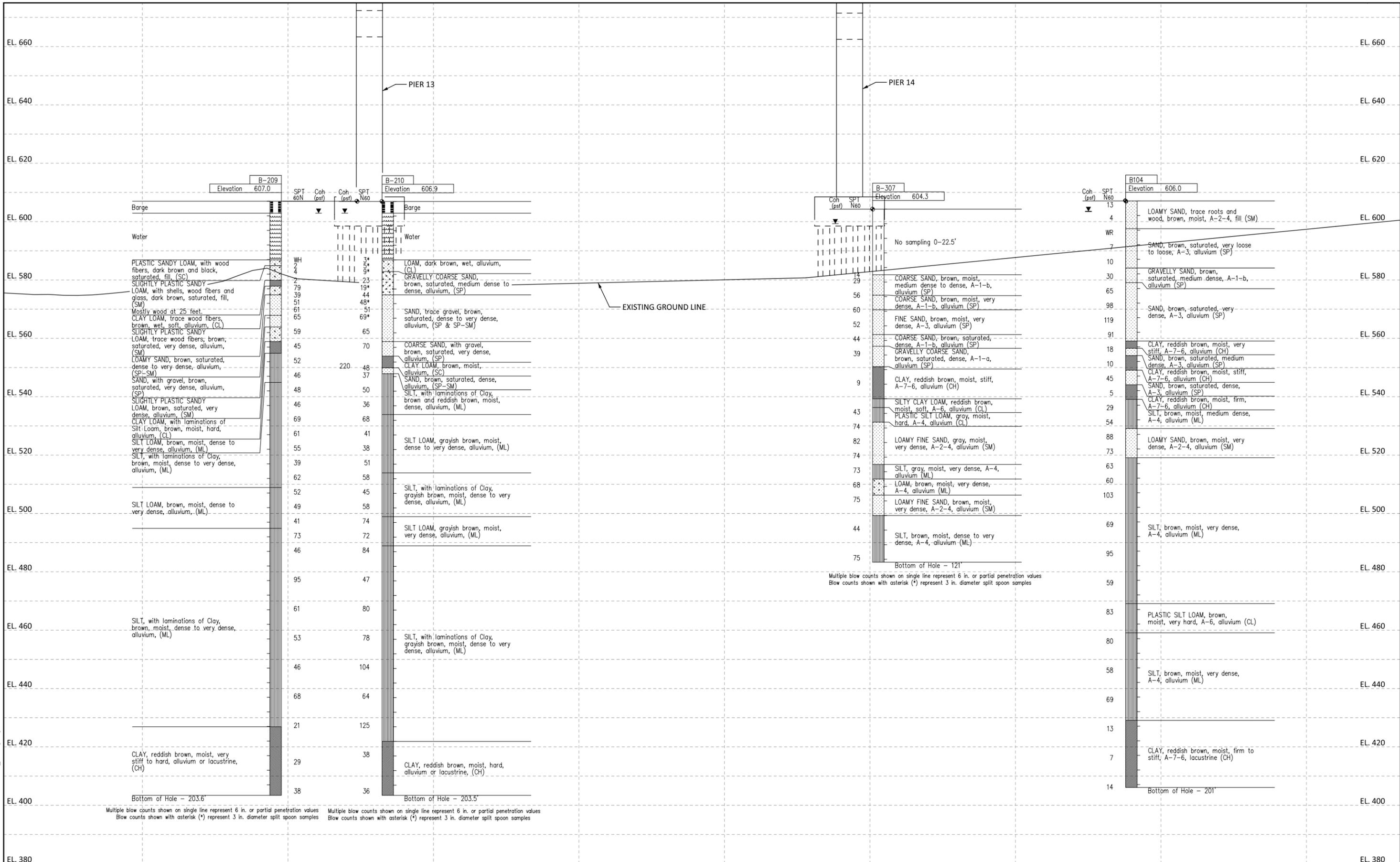
DES: --- DR: BJB
CHK: --- CHK: DLS
SHEET NO. 62 OF 86 SHEETS

BRIDGE NO. 69913 (B-16-0153)

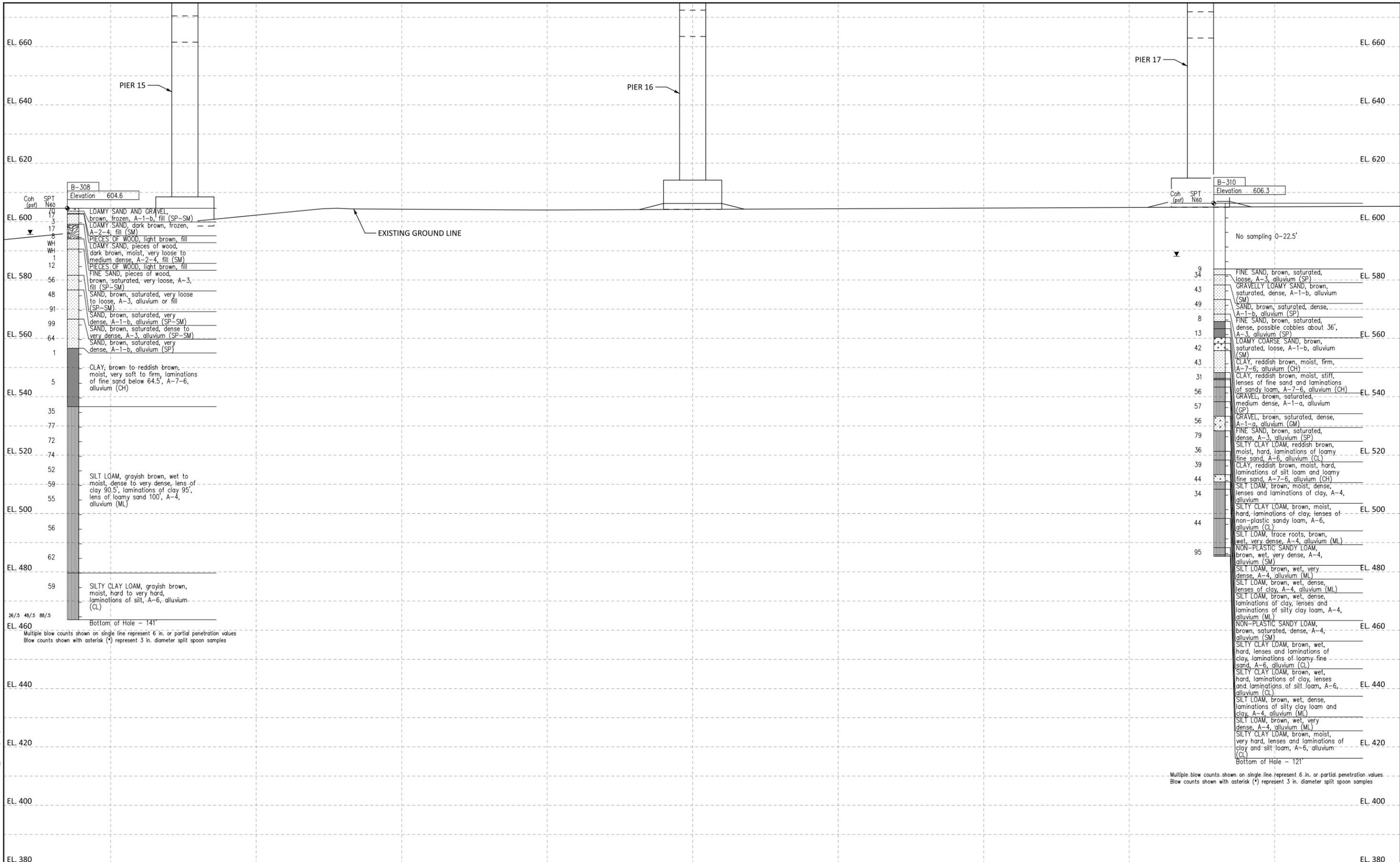
103+00



Plotted By: PARSONS\p0010292
 Date Plotted: 14-JAN-2025
 Time Plotted: 2:57:28 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 063_Borings.dgn



Plotted By: PARSONS\p0010292
Date Plotted: 14-JAN-2025
Time Plotted: 2:57:36 PM Central
Pen Table: ICS MndOT-plot.pen
File Path: 065_Borings.dgn



Plotted By: PARSONS\p009395D
Date Plotted: 2-JAN-2025
Time Plotted: 9:08:03 AM Central
Pen Table: ICS_MnDOT-plot.pen
File Path: 066_Borings.dgn

STATE PROJECT NO. (SP.) 6981 - 69913

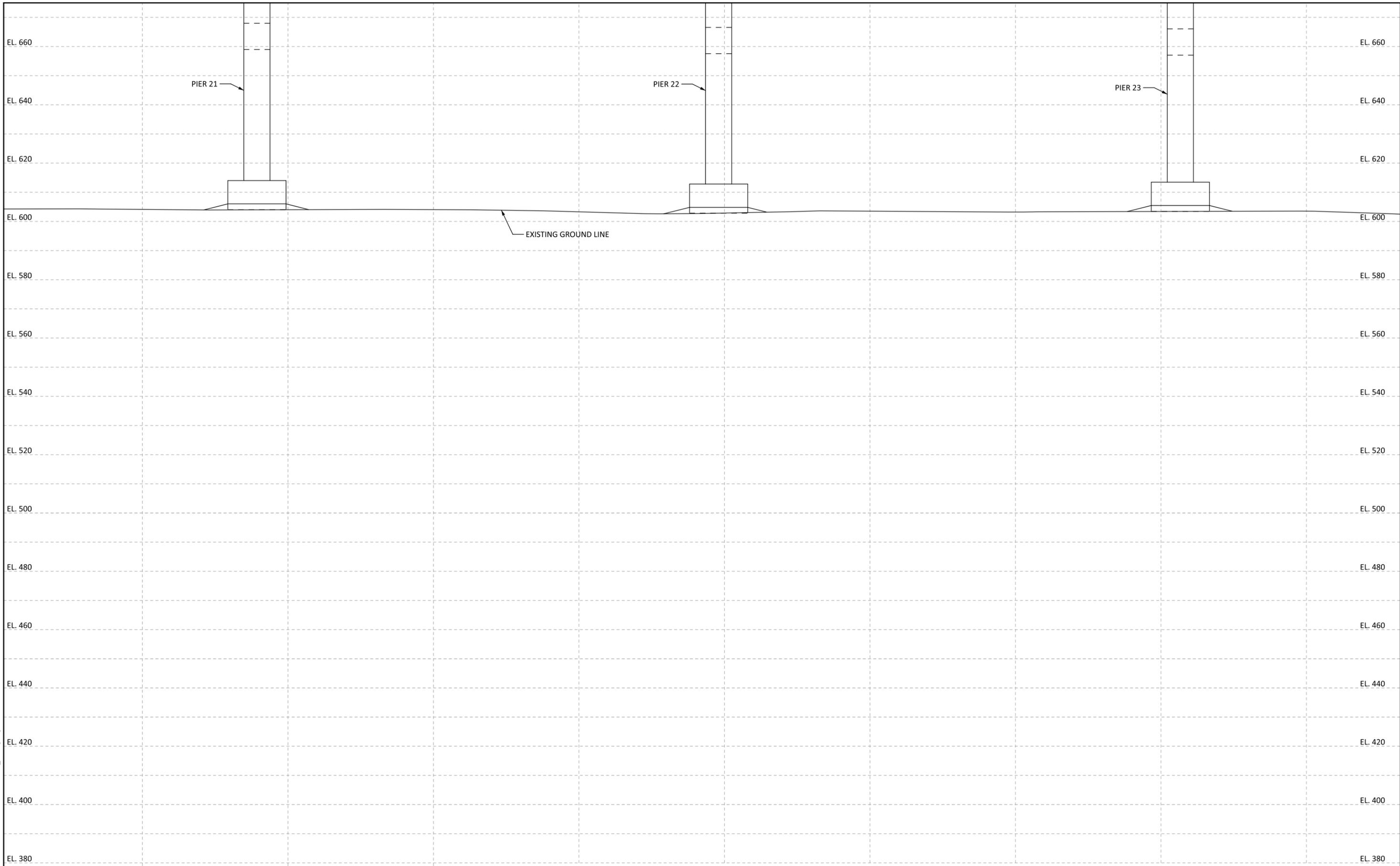


TITLE: BORINGS

DES: --- DR: BJB
CHK: --- CHK: GX
SHEET NO. 66 OF 86 SHEETS

BRIDGE NO. 69913 (B-16-0153)

Plotted By: PARSONS\p009395D
 Date Plotted: 2-JAN-2025
 Time Plotted: 9:08:02 AM Central
 Pen Table: ICS_MnDOT-plot.pen
 File Path: 06g_Borings.dgn

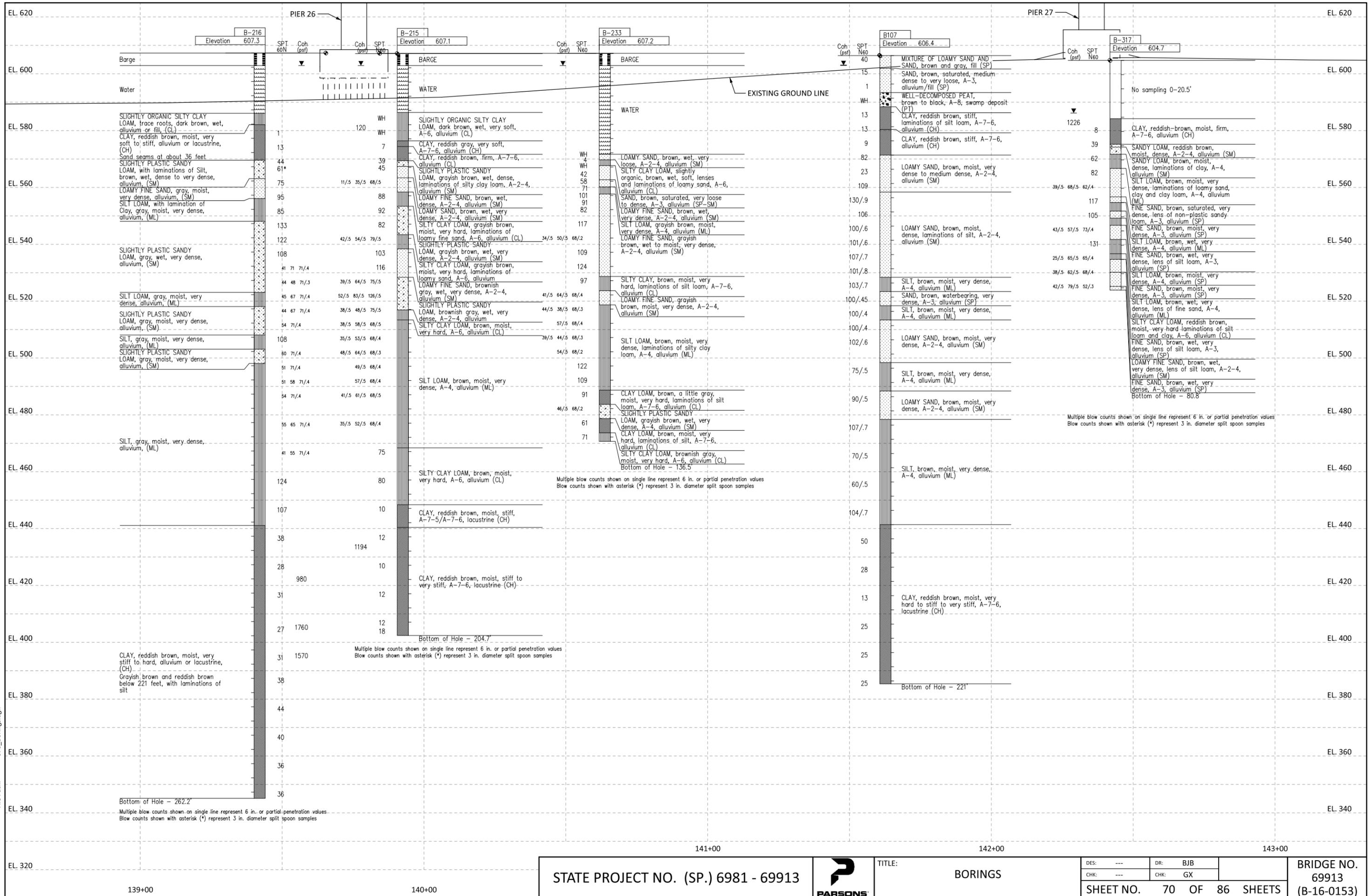


129+00 130+00 131+00 132+00

STATE PROJECT NO. (SP.) 6981 - 69913		TITLE: BORINGS	DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
			CHK: ---	CHK: GX	

SHEET NO. 68 OF 86 SHEETS

129+00



Plotted By: PARSONS\p009395D
 Date Plotted: 2-JAN-2025
 Time Plotted: 9:07:55 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 070_Borings.dgn



Plotted By: PARSONS\p009395D
 Date Plotted: 2-JAN-2025
 Time Plotted: 9:42:13 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 071_Borings.dgn

STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: BORINGS

DES: --- DR: BJB
 CHK: --- CHK: GX
 SHEET NO. 71 OF 86 SHEETS

BRIDGE NO. 69913
 (B-16-0153)

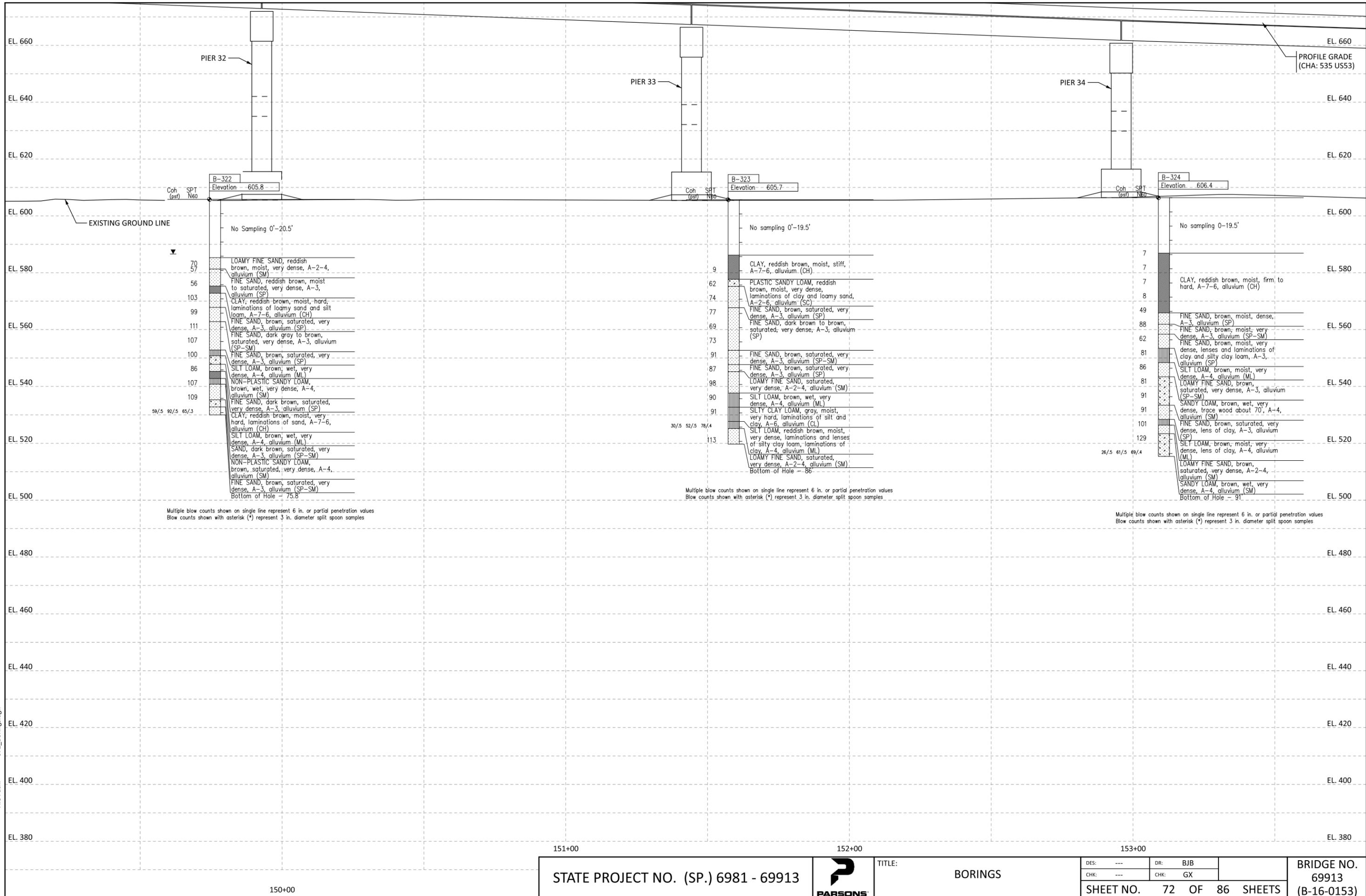
145+00

146+00

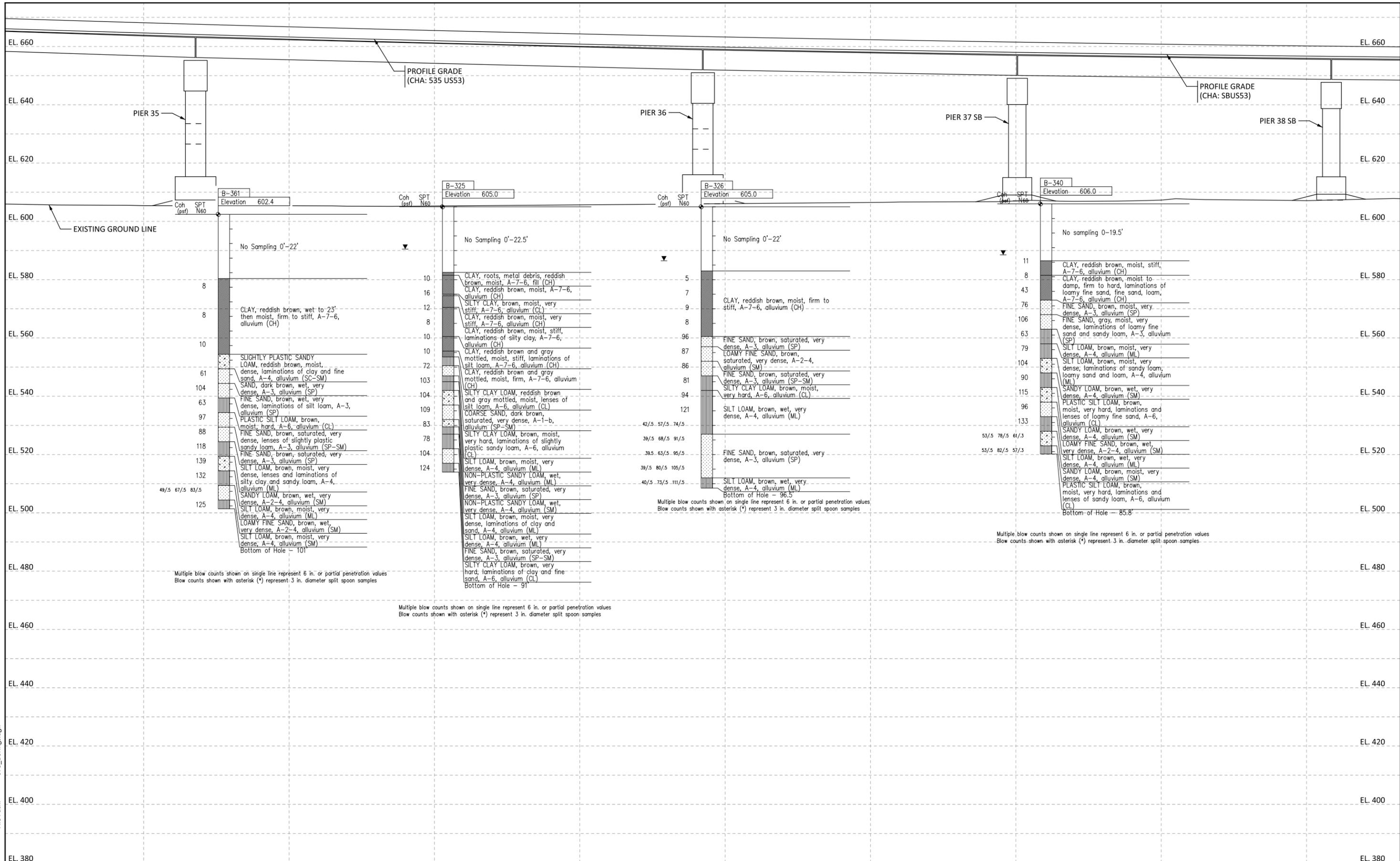
147+00

148+00

149+00



Plotted By: PARSONS\p009395D
 Date Plotted: 2-JAN-2025
 Time Plotted: 9:42:26 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 072_Borings.dgn

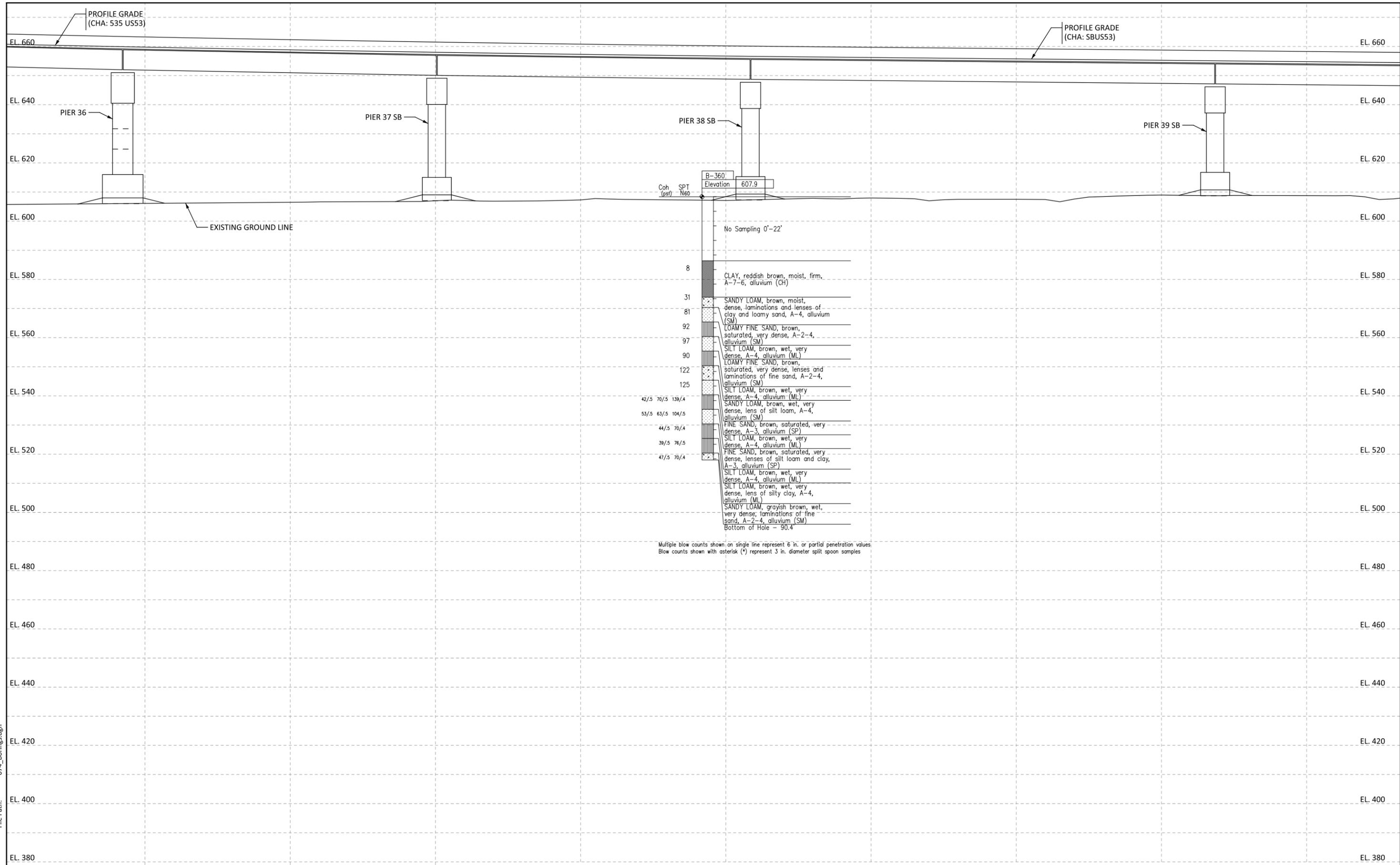


Plotted By: PARSONS\p009395D
 Date Plotted: 2-JAN-2025
 Time Plotted: 9:42:31 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 073_Borings.dgn

155+00 156+00 157+00 158+00

STATE PROJECT NO. (SP.) 6981 - 69913			TITLE: BORINGS		DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
			CHK: ---	CHK: GX	SHEET NO. 73 OF 86 SHEETS		

Plotted By: PARSONS\p009395D
 Date Plotted: 2-JAN-2025
 Time Plotted: 9:42:35 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 074_Borings.dgn



158+00

159+00

160+00

157+00

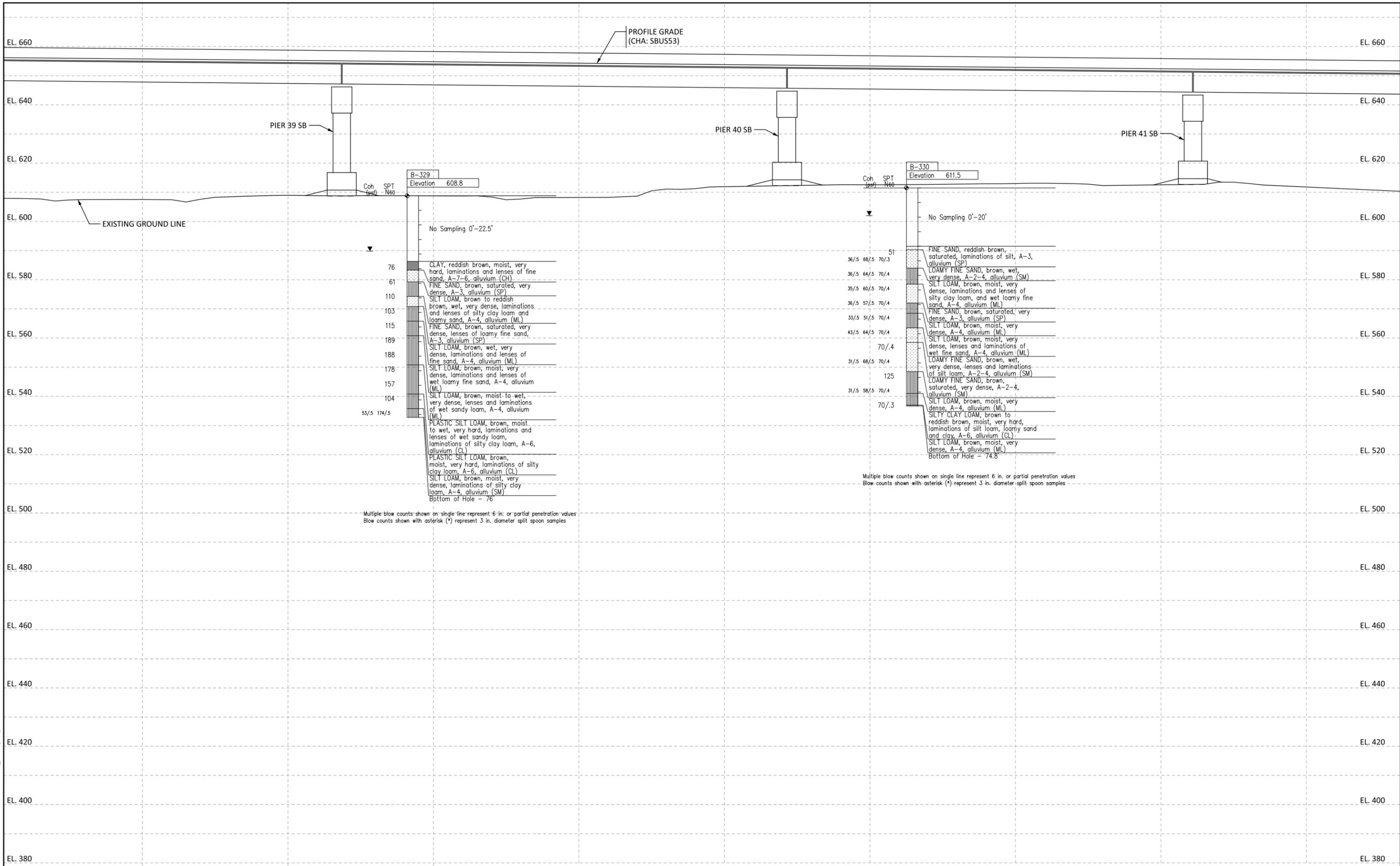
STATE PROJECT NO. (SP.) 6981 - 69913



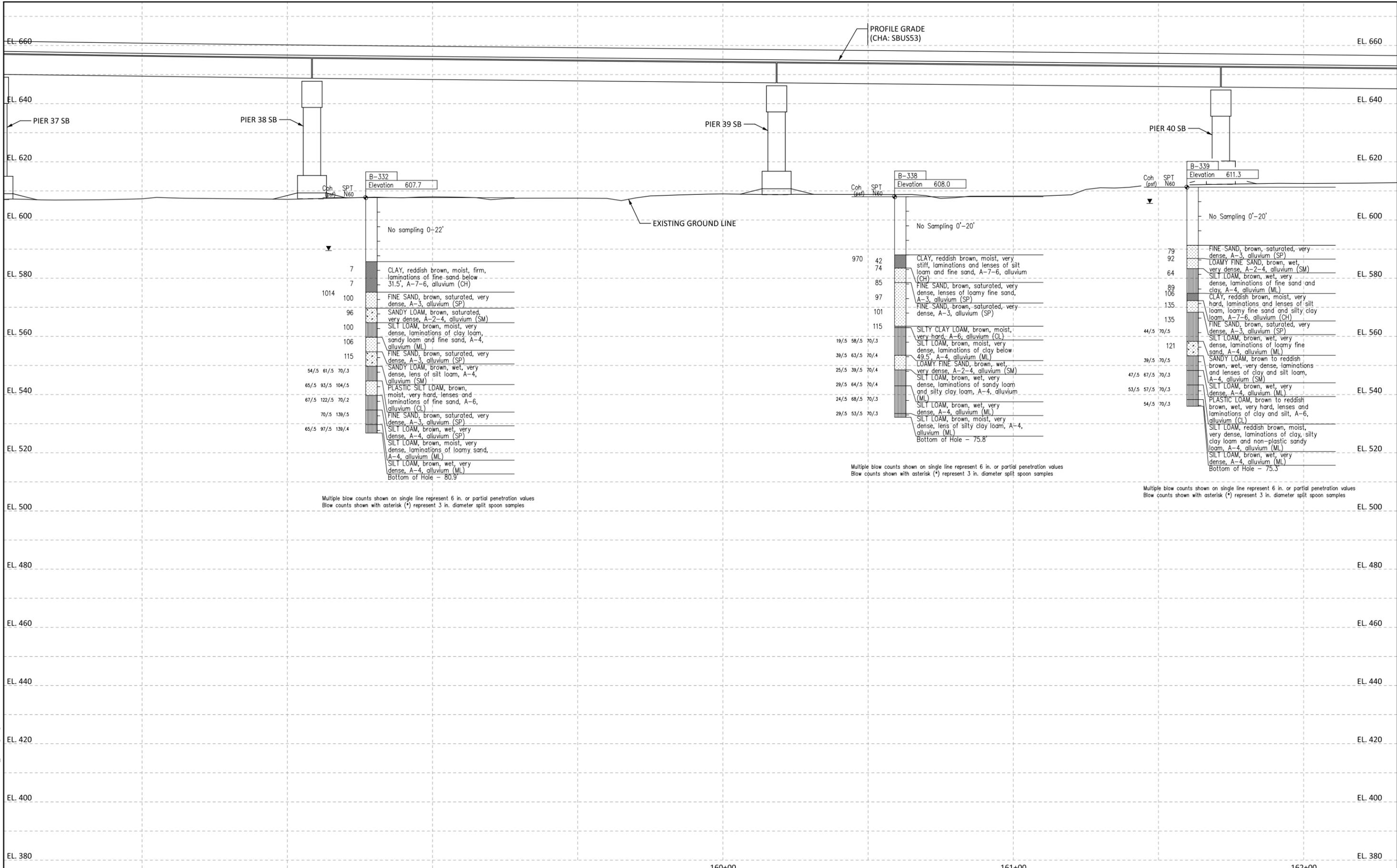
TITLE: BORINGS

DES: ---	DR: BJB
CHK: ---	CHK: GX
SHEET NO. 74 OF 86 SHEETS	

BRIDGE NO. 69913 (B-16-0153)



Plotted By: PARSONS\p009395D
 Date Plotted: 2-JAN-2025
 Time Plotted: 9:42:52 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 075_Borings.dgn



Plotted By: PARSONS\p009395D
 Date Plotted: 2-JAN-2025
 Time Plotted: 9:43:02 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 076_Borings.dgn

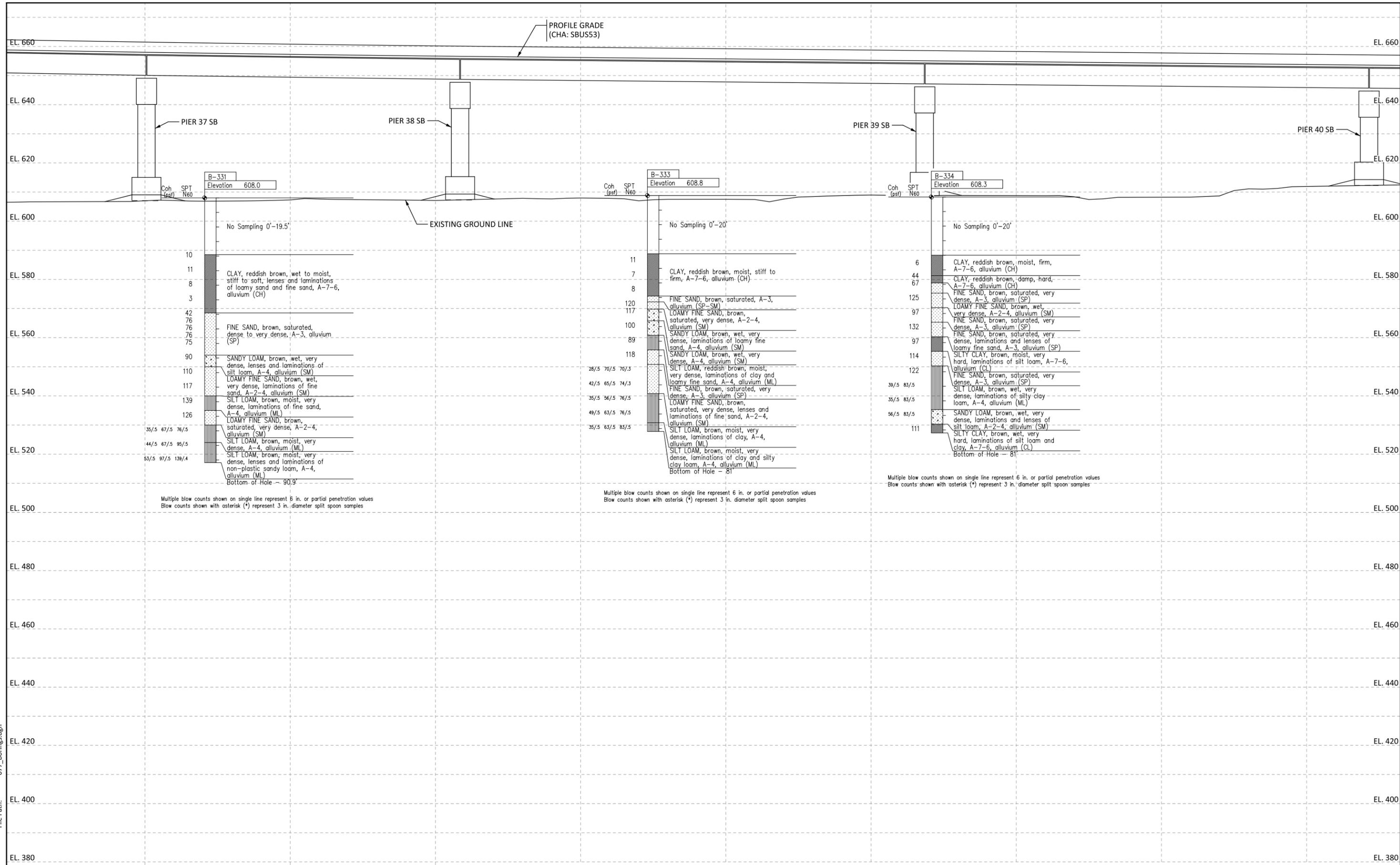
STATE PROJECT NO. (SP.) 6981 - 69913



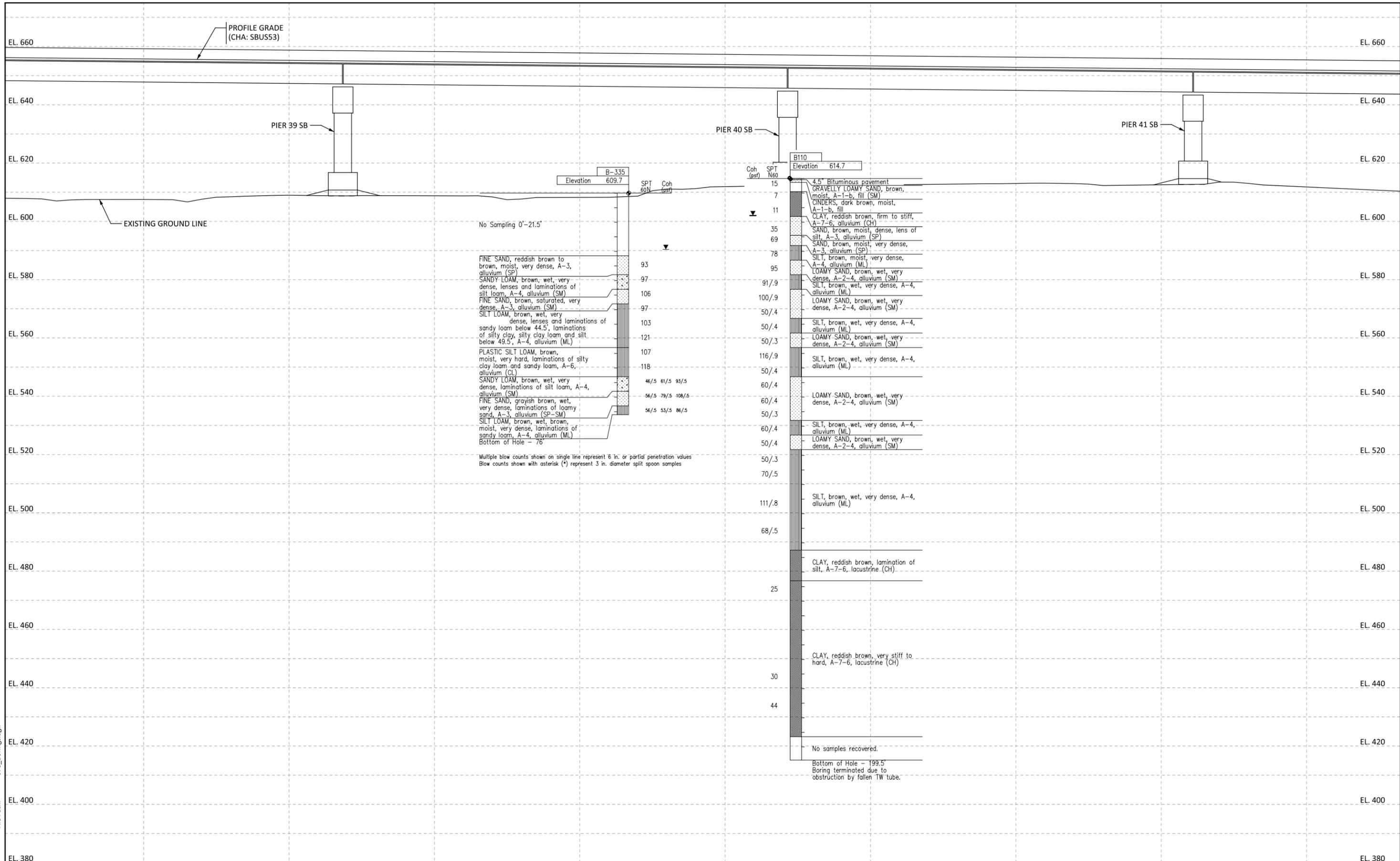
TITLE: BORINGS

DES: ---	DR: BJB
CHK: ---	CHK: GX
SHEET NO. 76 OF 86 SHEETS	

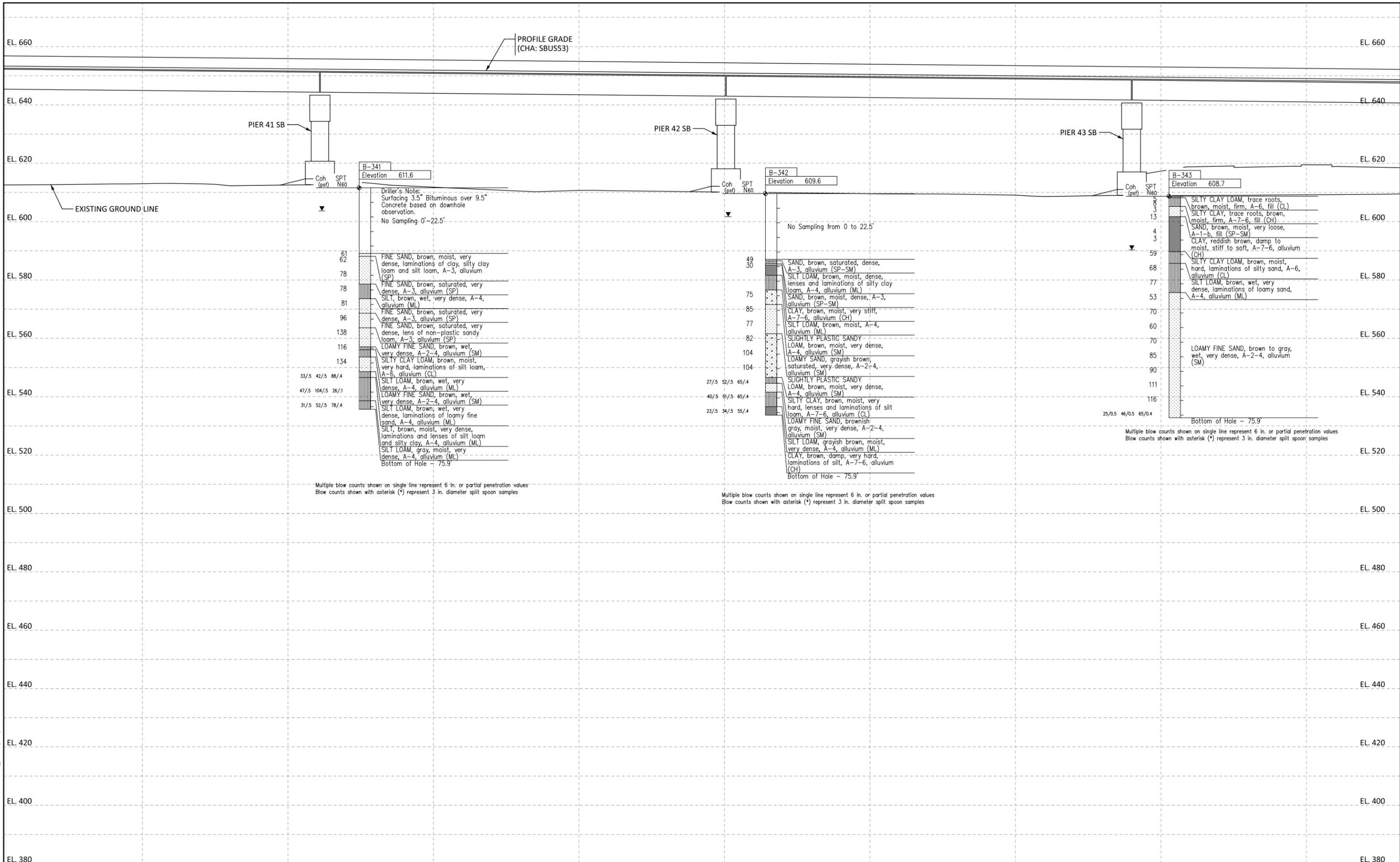
BRIDGE NO. 69913
 (B-16-0153)



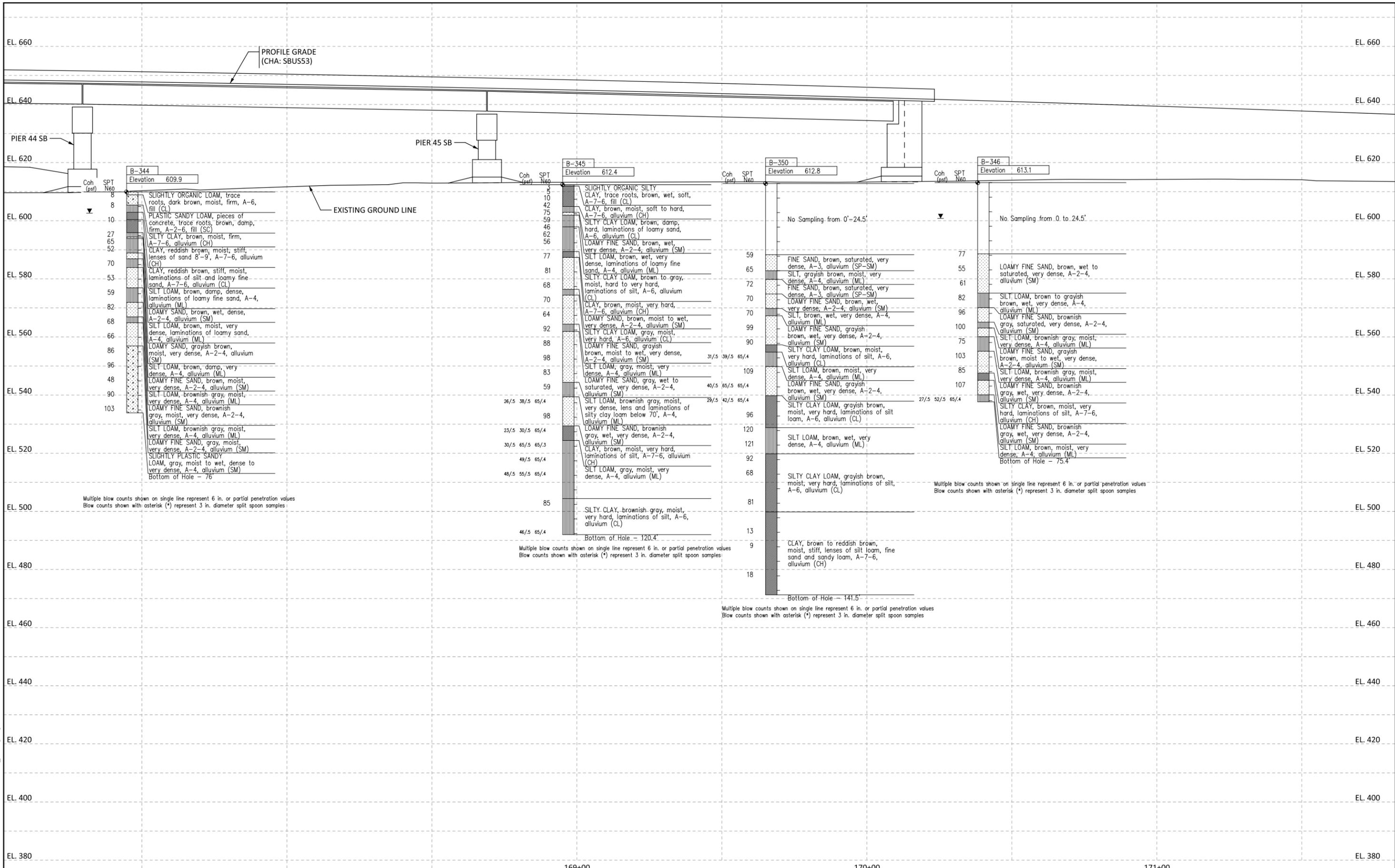
Plotted By: PARSONS\p009395D
 Date Plotted: 2-JAN-2025
 Time Plotted: 9:42:52 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 077_Borings.dgn



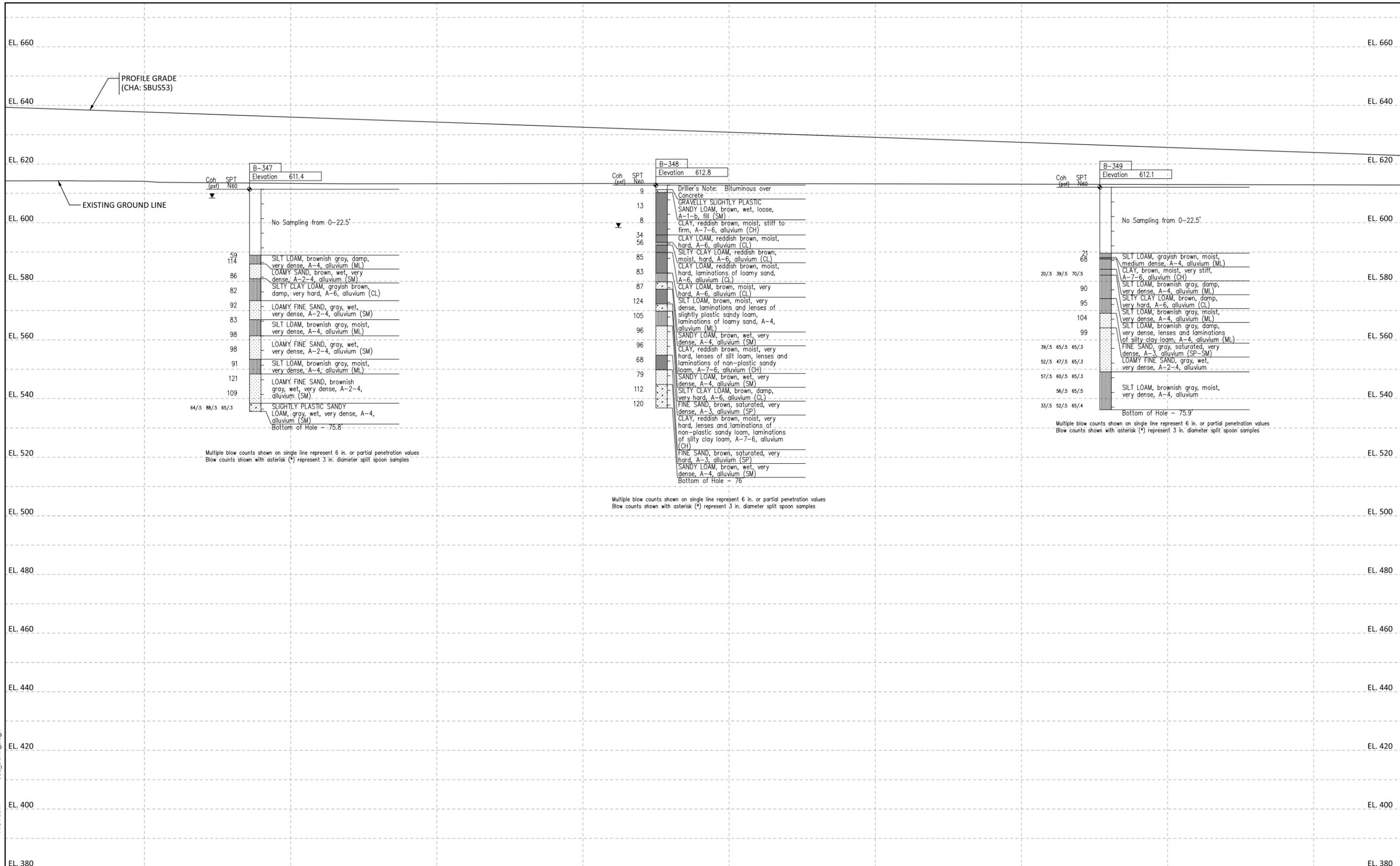
Plotted By: PARSONS\p009395D
Date Plotted: 2-JAN-2025
Time Plotted: 9:42:38 AM Central
Pen Table: ICS MndOT-plot.pen
File Path: 078_Borings.dgn



Plotted By: PARSONS\p009395D
 Date Plotted: 2-JAN-2025
 Time Plotted: 9:42:33 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 079_Borings.dgn



Plotted By: PARSONS\p009395D
 Date Plotted: 2-JAN-2025
 Time Plotted: 9:42:49 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 080_Borings.dgn



Plotted By: PARSONS\p009395D
Date Plotted: 2-JAN-2025
Time Plotted: 9:43:01 AM Central
Pen Table: ICS MndOT-plot.pen
File Path: 081_Borings.dgn

172+00 173+00 174+00 175+00

STATE PROJECT NO. (SP.) 6981 - 69913			TITLE: BORINGS	DES: ---	DR: BJB	BRIDGE NO. 69913 (B-16-0153)
			CHK: ---	CHK: GX	SHEET NO. 81 OF 86 SHEETS	

Plotted By: PARSONS\p009395D
Date Plotted: 20-JAN-2025
Time Plotted: 12:50:03 PM Central
Pen Table: ICS_MnDOT-plot.pen
File Path: 082-Aesthetics.dgn

AESTHETICS DETAILS IN PROCESS --- ABUTMENT DETAILS TO BE ADDED LATER

NOTES:

AESTHETIC DETAILS ARE IN PROCESS. SEE FINAL VISUAL QUALITY MANUAL FOR ADDITIONAL DETAILS.

UNLESS OTHERWISE NOTED, PROVIDE A $\frac{3}{4}$ " CHAMFER ON ALL HORIZONTAL OR VERTICAL CORNERS / EDGES OF 90° OR LESS.

DIMENSIONS SHOWN ARE RECOMMENDED ONLY - FOR CHANGES OR REVISIONS CONSULT THE FINAL VISUAL QUALITY MANUAL.

STATE PROJECT NO. (SP.) 6981 - 69913



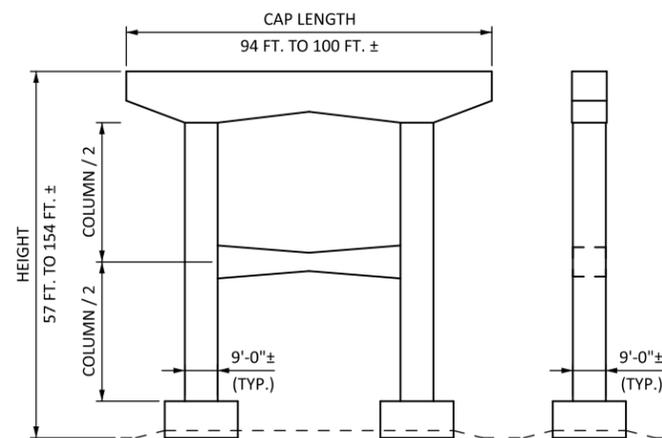
TITLE:

AESTHETICS
ABUTMENTS

DES: ---	DR: GLJ
CHK: ---	CHK: BJB

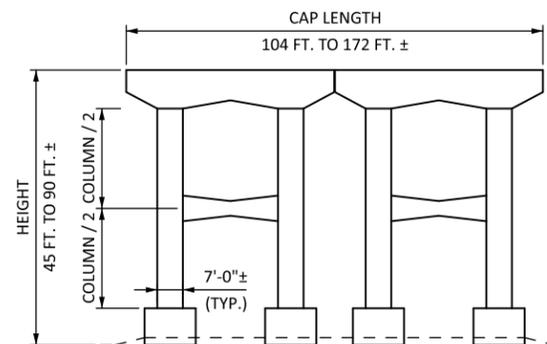
SHEET NO. 82 OF 86 SHEETS

BRIDGE NO.
69913
(B-16-0153)

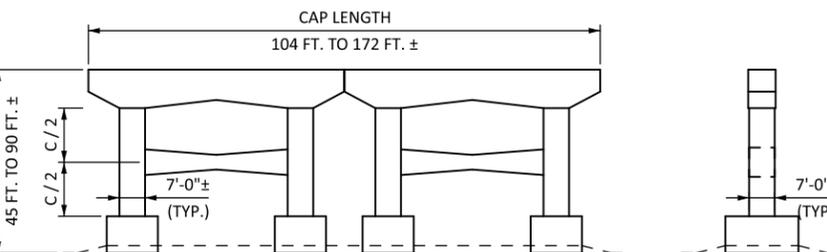


ELEVATION SECTION

PIERS 1-10 & 13-27

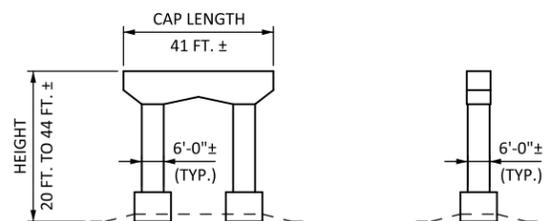


ELEVATION SECTION



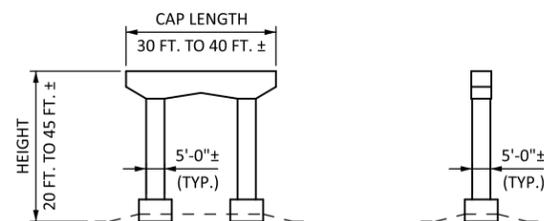
ELEVATION SECTION

PIERS 28-36



ELEVATION SECTION

PIERS 37-45 N.B. & S.B.



ELEVATION SECTION

PIERS 37-40 RAMP C & D

NOTES:

AESTHETIC DETAILS ARE IN PROCESS. SEE FINAL VISUAL QUALITY MANUAL FOR ADDITIONAL DETAILS.

UNLESS OTHERWISE NOTED, PROVIDE A 3/4" CHAMFER ON ALL HORIZONTAL OR VERTICAL CORNERS / EDGES OF 90° OR LESS.

DIMENSIONS SHOWN ARE RECOMMENDED ONLY - FOR CHANGES OR REVISIONS CONSULT THE FINAL VISUAL QUALITY MANUAL.

Plotted By: PARSONS\p009395D
 Date Plotted: 20-JAN-2025
 Time Plotted: 11:07:59 AM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 083-Aesthetics.dgn

STATE PROJECT NO. (SP.) 6981 - 69913



TITLE: AESTHETICS
PIERS - APPROACHES

DES: ---	DR: GLJ
CHK: ---	CHK: BJB
SHEET NO. 83 OF 86 SHEETS	

BRIDGE NO.
69913
(B-16-0153)

Plotted By: PARSONS\p009395D
 Date Plotted: 20-JAN-2025
 Time Plotted: 12:50:09 PM Central
 Pen Table: ICS MndOT-plot.pen
 File Path: 084-Aesthetics.dgn



ELEVATION

SECTION A-A

NOTES:

AESTHETIC DETAILS ARE IN PROCESS. SEE FINAL VISUAL QUALITY MANUAL FOR ADDITIONAL DETAILS.

UNLESS OTHERWISE NOTED, PROVIDE A 3/4" CHAMFER ON ALL HORIZONTAL OR VERTICAL CORNERS / EDGES OF 90° OR LESS.

DIMENSIONS SHOWN ARE RECOMMENDED ONLY - FOR CHANGES OR REVISIONS CONSULT THE FINAL VISUAL QUALITY MANUAL.

STATE PROJECT NO. (SP.) 6981 - 69913

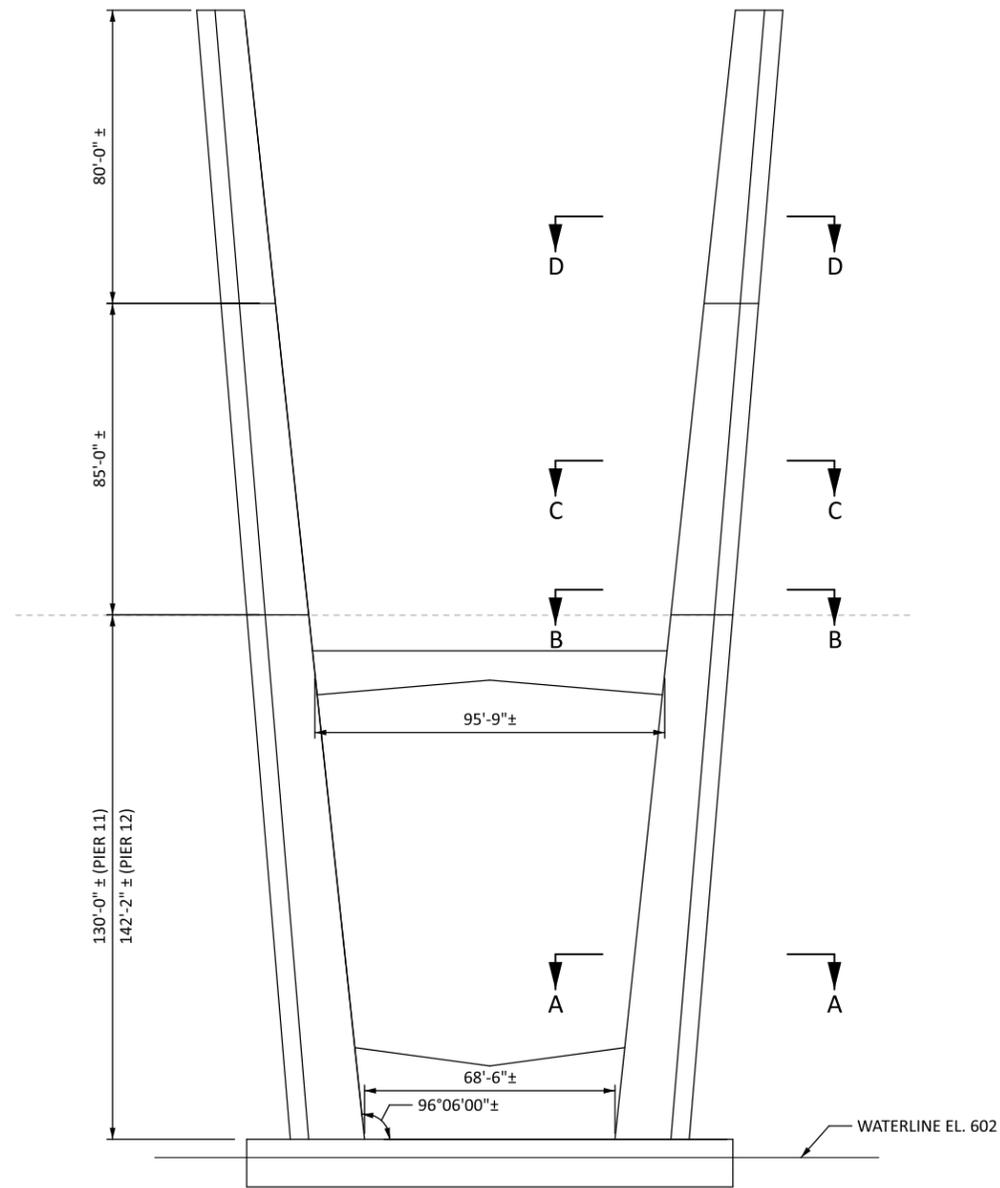


TITLE: AESTHETICS
PIERS - ARCH

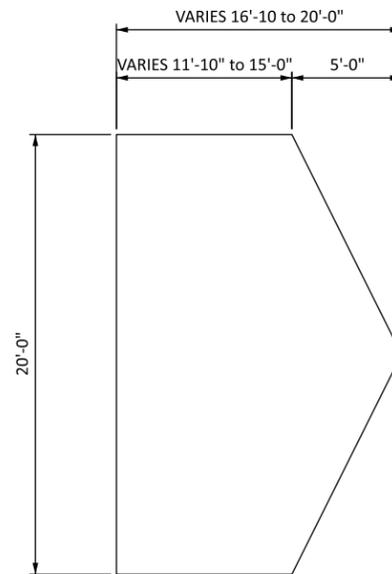
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CHK: ---	CHK: BJB
SHEET NO. 84 OF 86 SHEETS	

BRIDGE NO.
69913
(B-16-0153)

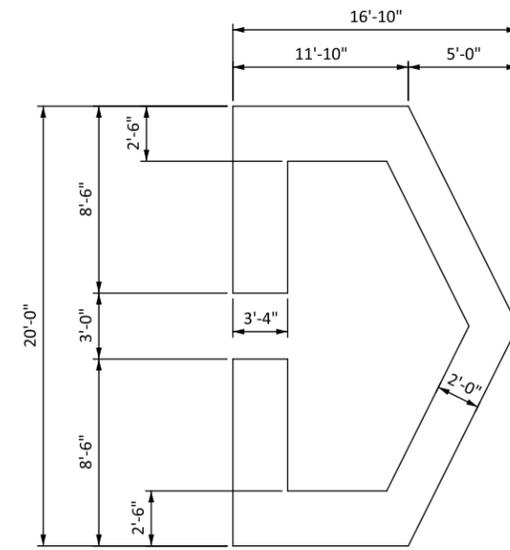
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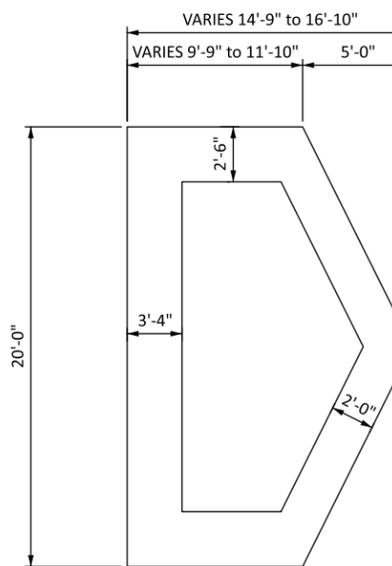
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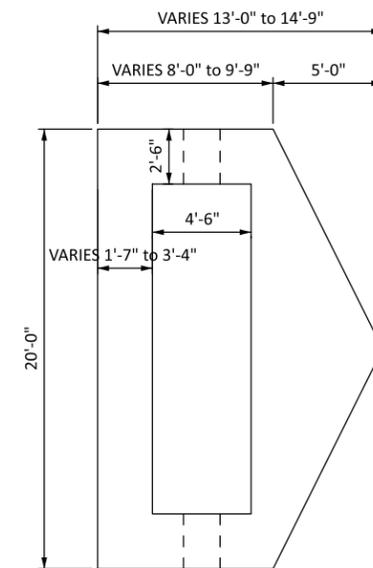
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

NOTES:

AESTHETIC DETAILS ARE IN PROCESS. SEE FINAL VISUAL QUALITY MANUAL FOR ADDITIONAL DETAILS.

UNLESS OTHERWISE NOTED, PROVIDE A 3/4" CHAMFER ON ALL HORIZONTAL OR VERTICAL CORNERS / EDGES OF 90° OR LESS.

DIMENSIONS SHOWN ARE RECOMMENDED ONLY - FOR CHANGES OR REVISIONS CONSULT THE FINAL VISUAL QUALITY MANUAL.

STATE PROJECT NO. (SP.) 6981 - 69913



TITLE:

AESTHETICS
PIERS - CABLE STAY

DES: ---	DR: GLJ
CHK: ---	CHK: BJB
SHEET NO. 85 OF 86 SHEETS	

BRIDGE NO.
69913
(B-16-0153)

AESTHETICS DETAILS IN PROCESS --- SIDEWALK / LIGHTING / RAILING DETAILS TO BE ADDED LATER

NOTES:

AESTHETIC DETAILS ARE IN PROCESS. SEE FINAL VISUAL QUALITY MANUAL FOR ADDITIONAL DETAILS.

UNLESS OTHERWISE NOTED, PROVIDE A 3/4" CHAMFER ON ALL HORIZONTAL OR VERTICAL CORNERS / EDGES OF 90° OR LESS.

DIMENSIONS SHOWN ARE RECOMMENDED ONLY - FOR CHANGES OR REVISIONS CONSULT THE FINAL VISUAL QUALITY MANUAL.

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STATE PROJECT NO. (SP.) 6981 - 69913



TITLE:

AESTHETICS
MISCELLANEOUS

DES: ---	DR: GLJ
CHK: ---	CHK: BJB

SHEET NO. 86 OF 86 SHEETS

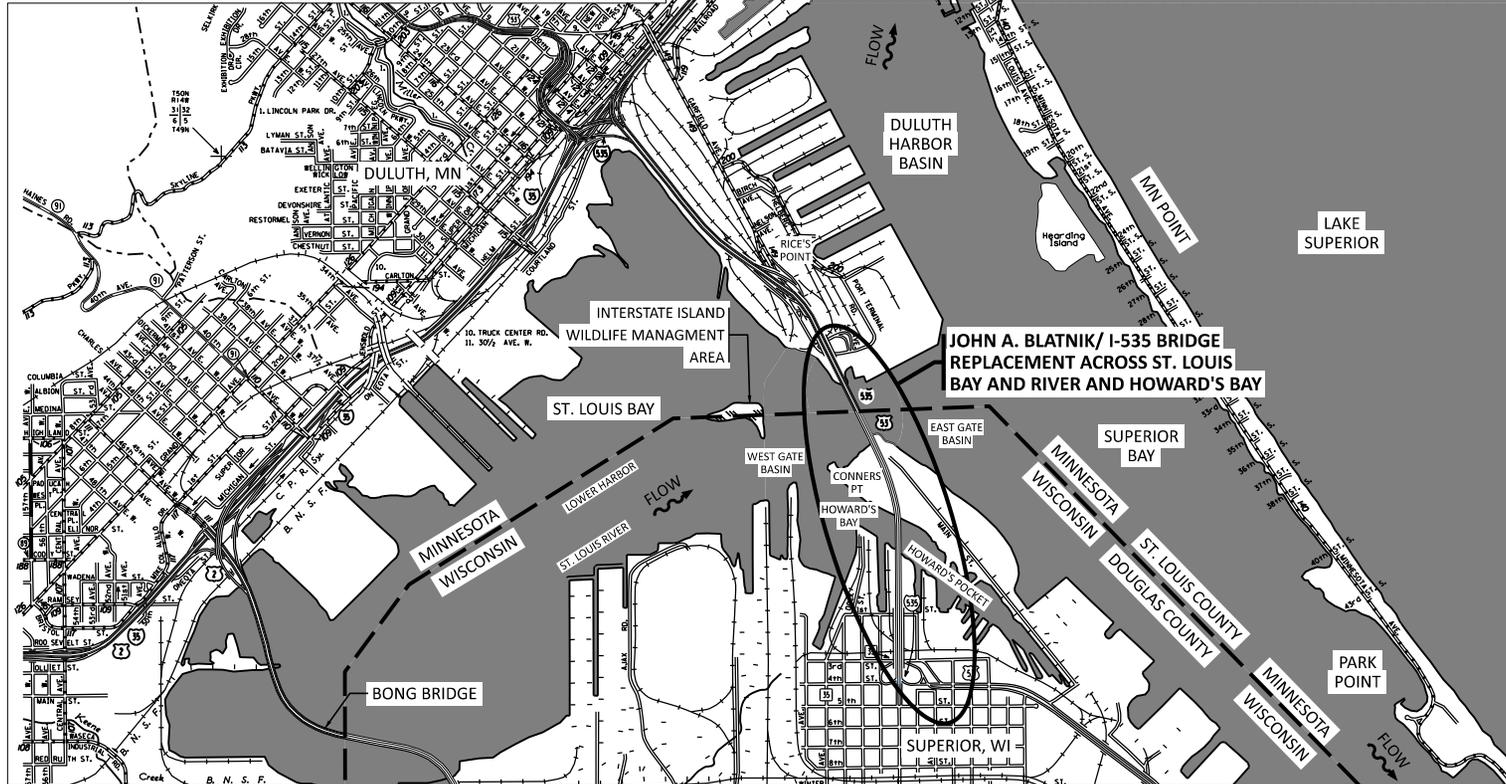
BRIDGE NO.
69913
(B-16-0153)

Appendix B

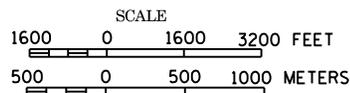
U.S. Coast Guard Figures



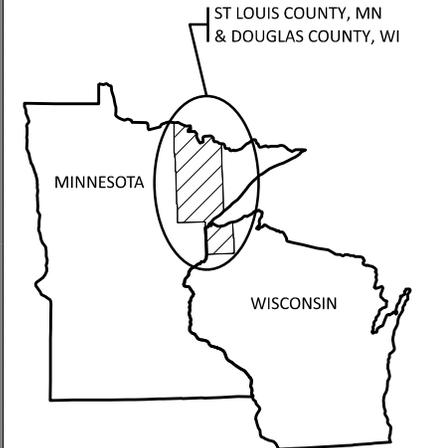
**MINNESOTA DEPARTMENT
OF TRANSPORTATION
(LEAD STATE), TOGETHER WITH
THE WISCONSIN DEPARTMENT
OF TRANSPORTATION**



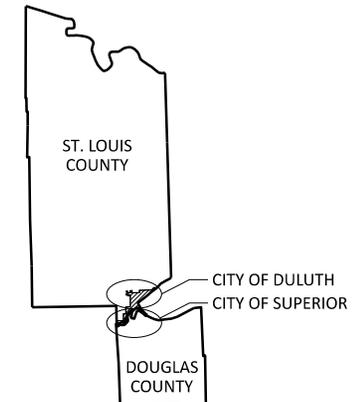
LOCATION/VICINITY MAP



2016
BASIC DATA - 2013



STATE OF MINNESOTA & WISCONSIN



**ST. LOUIS COUNTY, MN &
DOUGLAS COUNTY, WI**

TO SUPERIOR
ENTRY CANAL

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

CERTIFIED BY: _____
LICENSED PROFESSIONAL ENGINEER DATE

NAME: _____ LIC. NO. _____

CONCEPTUAL PLANS TO OBTAIN COAST GUARD BRIDGE PERMIT.



JOHN A. BLATNIK/ I-535 BRIDGE REPLACEMENT I-535 ACROSS ST. LOUIS BAY AND RIVER (MILE POINT 2.74), AND HOWARD'S BAY (0.48 MILES INTO HOWARD'S POCKET FROM MILE POINT 3.02)

WITHIN THE PORT OF DULUTH SUPERIOR CITY OF DULUTH, ST. LOUIS COUNTY, MN AND CITY OF SUPERIOR, DOUGLAS COUNTY, WI

APPLICATION BY MINNESOTA DEPARTMENT OF TRANSPORTATION

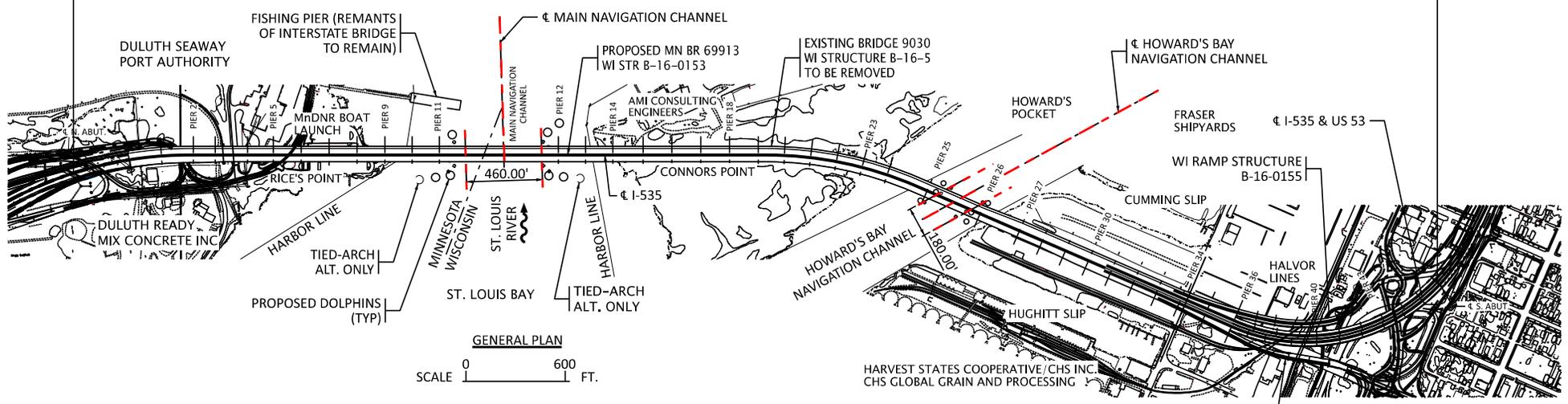
SHEET 1 OF 6

DATE: FEBRUARY 10, 2025

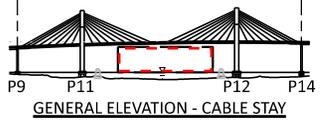
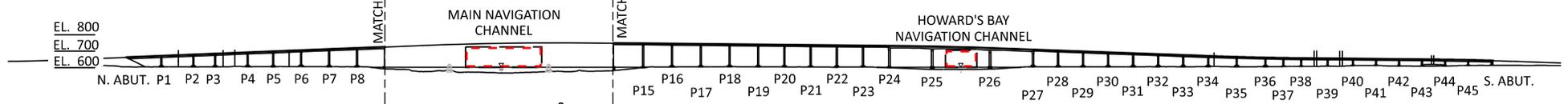
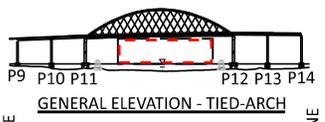
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8249.0 FEET (MEASURED ALONG I-535 & US 53)



GENERAL PLAN
SCALE 0 600 FT.



MAIN SPAN ALTERNATIVE DESIGNS

GENERAL ELEVATION
SCALE 0 600 FT.

NOTES:
REMOVAL OF EXISTING BRIDGE AND CONSTRUCTION OF NEW BRIDGE WILL REQUIRE TEMPORARY CHANNEL RESTRICTIONS. CONTRACTOR MUST PLAN REMOVAL AND CONSTRUCTION OPERATIONS TO MINIMIZE DURATION OF NAVIGATION CHANNEL RESTRICTIONS. BRIDGE REMOVAL DURING OFF-PEAK NAVIGATION SEASON IS HIGHLY ENCOURAGED BY THE UNITED STATES COAST GUARD AND SUBJECT TO APPROVAL.

CONTRACTOR SUBMITTALS FOR ALL TEMPORARY CHANNEL RESTRICTIONS WILL BE REQUIRED IN ADVANCE OF CONSTRUCTION FOR REVIEW AND APPROVAL BY THE UNITED STATES COAST GUARD.

ESTIMATED VOLUME OF FILL PLACED BELOW 100 YEAR FLOOD ELEV. 604.42 (IGLD) = 23065 CUBIC YARDS.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

CERTIFIED BY: _____
LICENSED PROFESSIONAL ENGINEER DATE

NAME: _____ LIC. NO. _____

CONCEPTUAL PLANS TO OBTAIN COAST GUARD BRIDGE PERMIT.



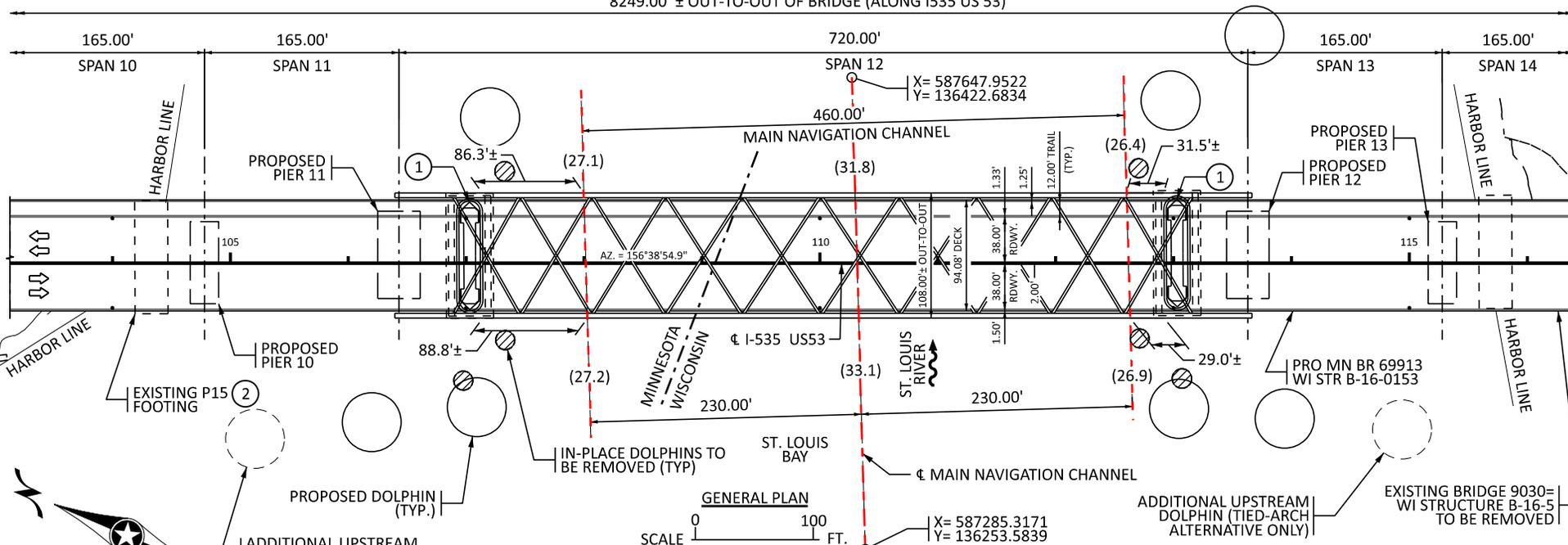
JOHN A. BLATNIK / I-535 BRIDGE REPLACEMENT I-535 ACROSS ST. LOUIS BAY AND RIVER (MILE POINT 2.74), AND HOWARD'S BAY (0.48 MILES INTO HOWARD'S POCKET FROM MILE POINT 3.02) WITHIN THE PORT OF DULUTH SUPERIOR CITY OF DULUTH, ST. LOUIS COUNTY, MN AND CITY OF SUPERIOR, DOUGLAS COUNTY, WI APPLICATION BY MINNESOTA DEPARTMENT OF TRANSPORTATION

SHEET 2 OF 6 DATE: FEBRUARY 10, 2025

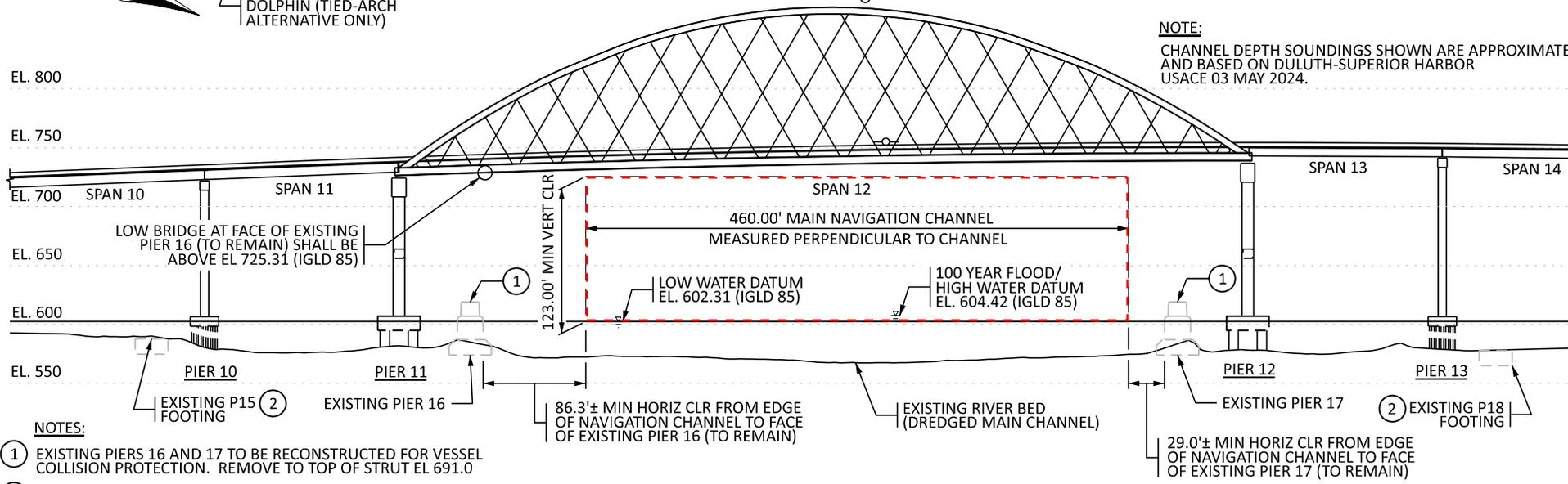
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TIME: 11:14:57 AM
 PLOTTED: 2/6/2025
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8249.00' ± OUT-TO-OUT OF BRIDGE (ALONG I535 US 53)

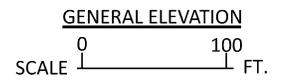


NOTE:
 CHANNEL DEPTH SOUNDINGS SHOWN ARE APPROXIMATE AND BASED ON DULUTH-SUPERIOR HARBOR USACE 03 MAY 2024.



- NOTES:**
- ① EXISTING PIERS 16 AND 17 TO BE RECONSTRUCTED FOR VESSEL COLLISION PROTECTION. REMOVE TO TOP OF STRUT EL 691.0
 - ② EXISTING PIER P14, P15, P18 TO BE REMOVED TO RIVER BED ELEVATION

MAIN SPAN - ARCH ALTERNATIVE



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

CERTIFIED BY: _____
 LICENSED PROFESSIONAL ENGINEER DATE _____
 NAME: _____ LIC. NO. _____

CONCEPTUAL PLANS TO OBTAIN COAST GUARD BRIDGE PERMIT.

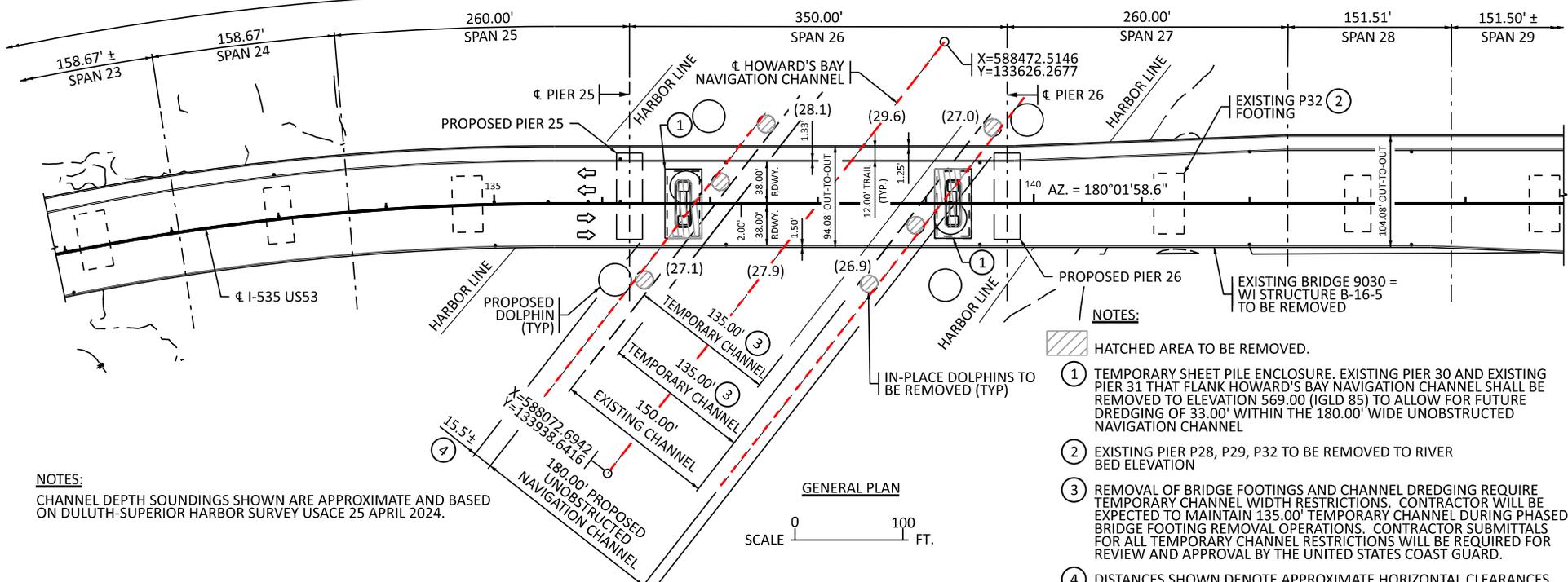


JOHN A. BLATNIK / I-535 BRIDGE REPLACEMENT I-535 ACROSS ST. LOUIS BAY AND RIVER (MILE POINT 2.74), AND HOWARD'S BAY (0.48 MILES INTO HOWARD'S POCKET FROM MILE POINT 3.02) WITHIN THE PORT OF DULUTH SUPERIOR CITY OF DULUTH, ST. LOUIS COUNTY, MN AND CITY OF SUPERIOR, DOUGLAS COUNTY, WI
 APPLICATION BY MINNESOTA DEPARTMENT OF TRANSPORTATION
 SHEET 3 OF 6 DATE: FEBRUARY 10, 2025

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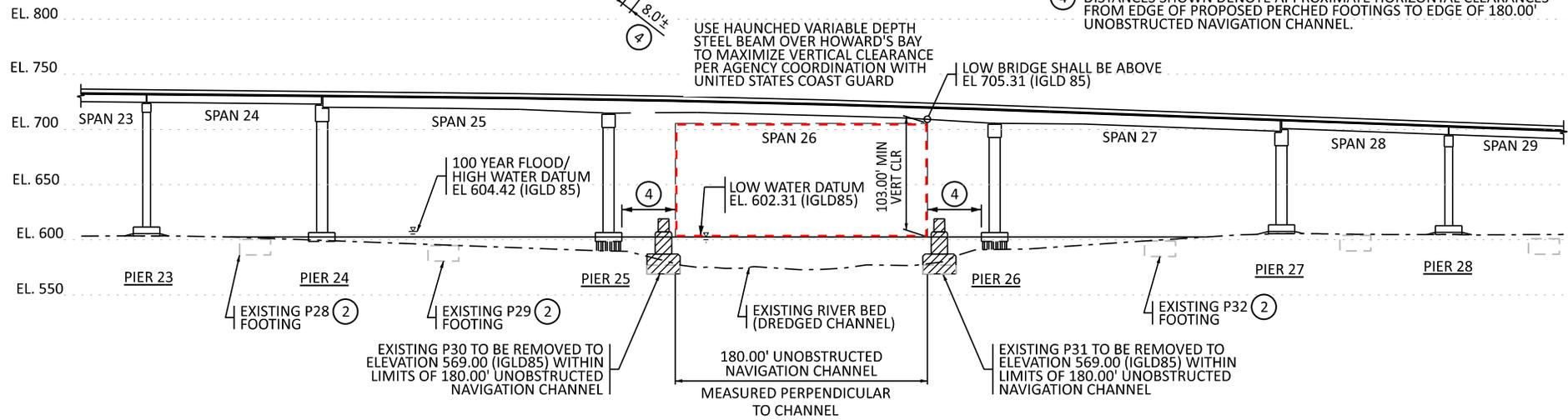


8249.00' OUT-TO-OUT OF BRIDGE (ALONG I535 & US 53)



NOTES:
 CHANNEL DEPTH SOUNDINGS SHOWN ARE APPROXIMATE AND BASED ON DULUTH-SUPERIOR HARBOR SURVEY USACE 25 APRIL 2024.

- NOTES:**
- ① HATCHED AREA TO BE REMOVED.
 - ① TEMPORARY SHEET PILE ENCLOSURE. EXISTING PIER 30 AND EXISTING PIER 31 THAT FLANK HOWARD'S BAY NAVIGATION CHANNEL SHALL BE REMOVED TO ELEVATION 569.00 (IGLD 85) TO ALLOW FOR FUTURE DREDGING OF 33.00' WITHIN THE 180.00' WIDE UNOBSTRUCTED NAVIGATION CHANNEL
 - ② EXISTING PIER P28, P29, P32 TO BE REMOVED TO RIVER BED ELEVATION
 - ③ REMOVAL OF BRIDGE FOOTINGS AND CHANNEL DREDGING REQUIRE TEMPORARY CHANNEL WIDTH RESTRICTIONS. CONTRACTOR WILL BE EXPECTED TO MAINTAIN 135.00' TEMPORARY CHANNEL DURING PHASED BRIDGE FOOTING REMOVAL OPERATIONS. CONTRACTOR SUBMITTALS FOR ALL TEMPORARY CHANNEL RESTRICTIONS WILL BE REQUIRED FOR REVIEW AND APPROVAL BY THE UNITED STATES COAST GUARD.
 - ④ DISTANCES SHOWN DENOTE APPROXIMATE HORIZONTAL CLEARANCES FROM EDGE OF PROPOSED PERCHED FOOTINGS TO EDGE OF 180.00' UNOBSTRUCTED NAVIGATION CHANNEL.



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

CERTIFIED BY: _____
 LICENSED PROFESSIONAL ENGINEER DATE _____
 NAME: _____ LIC. NO. _____

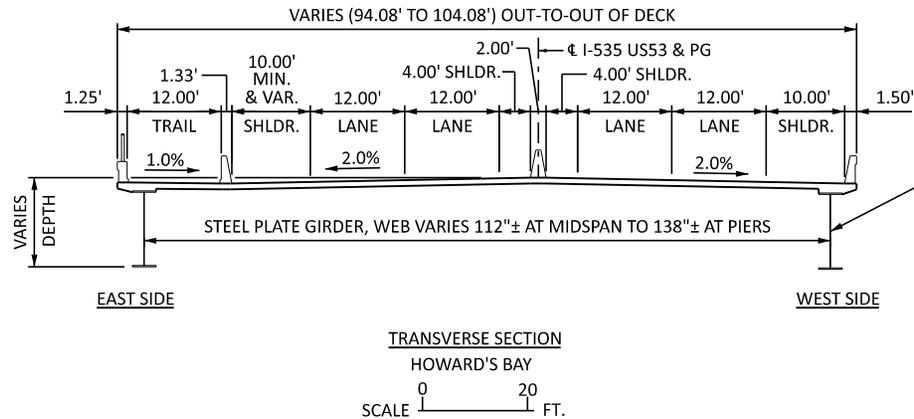
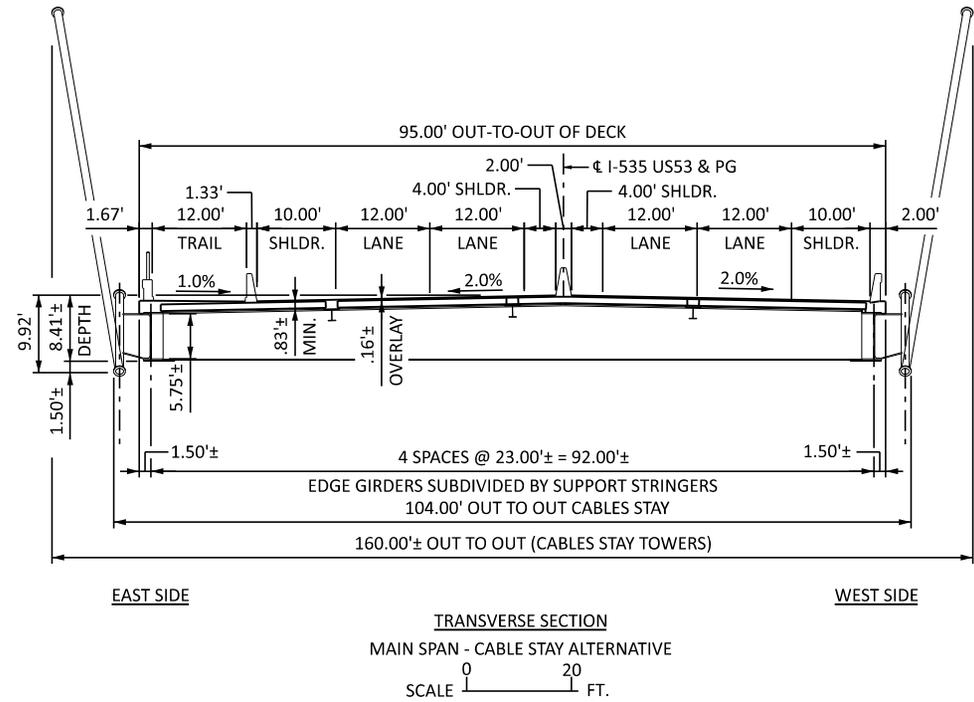
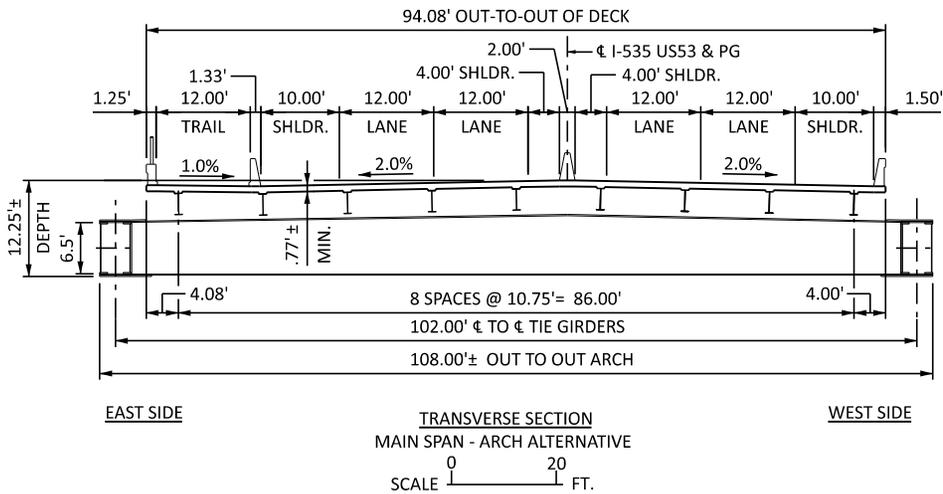
GENERAL ELEVATION
 SCALE 0 100 FT.

CONCEPTUAL PLANS TO OBTAIN COAST GUARD BRIDGE PERMIT.



JOHN A. BLATNIK / I-535 BRIDGE REPLACEMENT
 I-535 ACROSS ST. LOUIS BAY AND RIVER (MILE POINT 2.74),
 AND HOWARD'S BAY (0.48 MILES INTO HOWARD'S POCKET
 FROM MILE POINT 3.02)
 WITHIN THE PORT OF DULUTH SUPERIOR
 CITY OF DULUTH, ST. LOUIS COUNTY, MN AND
 CITY OF SUPERIOR, DOUGLAS COUNTY, WI
 APPLICATION BY MINNESOTA DEPARTMENT OF TRANSPORTATION
 SHEET 5 OF 6 DATE: FEBRUARY 10, 2025

TIME: 11:16:49 AM
 PLOTTED: 2/6/2025
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USE HAUNCHED VARIABLE DEPTH STEEL BEAM OVER HOWARD'S BAY TO MAXIMIZE VERTICAL CLEARANCE PER AGENCY COORDINATION WITH UNITED STATES COAST GUARD

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

CERTIFIED BY: _____
 LICENSED PROFESSIONAL ENGINEER DATE
 NAME: _____ LIC. NO. _____

CONCEPTUAL PLANS TO OBTAIN COAST GUARD BRIDGE PERMIT.



JOHN A. BLATNIK / I-535 BRIDGE REPLACEMENT I-535 ACROSS ST. LOUIS BAY AND RIVER (MILE POINT 2.74), AND HOWARD'S BAY (0.48 MILES INTO HOWARD'S POCKET FROM MILE POINT 3.02) WITHIN THE PORT OF DULUTH SUPERIOR CITY OF DULUTH, ST. LOUIS COUNTY, MN AND CITY OF SUPERIOR, DOUGLAS COUNTY, WI APPLICATION BY MINNESOTA DEPARTMENT OF TRANSPORTATION