SPECIAL PROVISIONS

WATERWAY PERMITS CONDITIONS

C-R-S: LUC-23-11.75

PID: 105889

Date: 02/04/2025

1. Waterway Permits Time Restrictions:

A USACE Section 404 Nationwide Permit (NWP) 14 (Linear Transportation Projects) is authorized for LUC-23-11.75, PID: 105889. A copy of the NWP and authorization letter (USACE ID: LRH-2024-00968-OTT) shall be kept at the work site at all times and made available to all contractors and subcontractors. The permit is effective starting: February 4, 2025. The permit expires: March 14, 2026.

For authorized work in aquatic resources (including streams, wetlands, jurisdictional ditches, captured streams, lakes, ponds), the Department will consider the Contractor's submission of a reauthorization to the waterway permit expiration date based on project constraints. If more than one permit is authorized for the project, then all permits become invalid once the first permit expires. In order for the request to be considered, the Contractor must submit a justification to the Engineer at least 90 days prior to the waterway permit expiration date. The Engineer will submit the request for a time extension to the Ohio Department of Transportation, Office of Environmental Services, Waterway Permits Unit (ODOT-OES-WPU) for consideration and coordination with the U.S. Army Corps of Engineers (USACE), Ohio Environmental Protection Agency (OEPA), U.S. Coast Guard (USCG), U.S. Fish and Wildlife Service (USFWS), and Ohio Department of Natural Resources (ODNR) as appropriate.

2. Deviations From Permitted Construction Activities:

No deviation from the requirements for work in aquatic resources depicted in the plans, Special Provisions, and/or Working Drawings may be made unless a modification has been submitted to ODOT-OES-WPU and approved by the appropriate agencies (i.e., USACE, OEPA, USCG, ODNR, and USFWS).

NOTE: Plan sheets submitted with the Pre-Construction Notification were approved by the USACE in accordance with NWP 14 and are included in these Special Provisions.

For emergency situations resulting in unanticipated impacts to aquatic resources, provide notification (verbal or written) to the Engineer as soon as possible following discovery of the situation. Written notification to the Engineer and notification to the ODOT-OES-WPU (614-466-2159) must be made within 24 hours.

For non-emergency situations, notify the Engineer in writing for submission to the ODOT-OES-WPU (614-466-2159) for consideration and coordination with the appropriate agencies. Notification must be made at least 90 days prior to planned, non-permitted activities. Consideration of the requested deviation is at the discretion of the Director and must be coordinated with the appropriate regulatory agencies.

3. In-Stream Work Restrictions:

Work in the following aquatic resources is further restricted as follows:

Stream Name /Description	Location	Work restriction dates (No in-stream work permitted)
Stream 1	SR 51 STA 189+80 to STA 190+05. Ramp A STA 23+40 to STA 24+50 and STA 28+55 to STA 31+40.	None
Stream 2	US 23 STA 941+60 to STA 942+05. Ramp D: STA 24+15 to STA 26+25.	None
Ottawa River	Ramp A: STA 31+85 to STA 32+40, STA 23+65 to STA 24+45, and STA 11+40 to STA 12+10.	No restrictions in 2025 or 2026; April 15-June 30 thereafter*

In-stream work has been defined as the placement and/or removal of fill materials (temporary or permanent) below ordinary high water of a stream. Examples of "fill" include, but are not limited to: bridge piers, abutments, culverts, rock channel protection, scour protection, and temporary access fills.

Fills placed within a stream identified in the above table (outside of the work restriction dates) can continue to be worked from during the work restriction dates, but cannot be expanded, removed, or otherwise modified (below ordinary high water) until once again outside of the work restriction dates.

*Note: ODNR granted a waiver of in-water work restrictions (April 15-June 30) for 2025 and 2026.

4. Materials:

Materials utilized in or adjacent to aquatic resources for temporary or permanent fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities. Asphalt products are specifically excluded for use as fill. Chromated Copper Arsenate (CCA), creosote, and other pressure treated lumber shall not be used in structures that are placed in aquatic resources.

5. Cultural Resources:

Per CMS 107.10, if archeological sites, historical sites, or human remains are discovered, cease all work in the immediate area and notify the Engineer who will immediately contact the ODOT-District Environmental Coordinator and ODOT-OES-Cultural Resource Section at 614-466-2159. In the event of human remains are identified by OES-Cultural Resources Section, the Engineer shall also contact the Lucas County Sheriff's Office at 419-213-4900.

6. Aquatic Resource Demarcation:

The tables attached (Table 3 and Table 4) include detailed fill quantities authorized within the aquatic resources. Aquatic resources not authorized for impact by these Special Provisions shall be demarcated in the field as per SS 832 prior to site disturbance. The fence shall remain in place and be maintained throughout the construction process. Following the completion of the project, the fence and posts shall be removed.

7. Spill containment:

Provide and Maintain an Oil Spill Kit with a minimum capacity of 65 gallons. The Spill Kit shall contain:

- 6 - 3 in. X 8 ft. oil only socks
- 4 - 18 in. X18 in. oil only pillows
- 2 - 5 in. X 10ft. booms
- 50 - 16in. X 20 in. oil only pads
- 10 - disposable bags
- 1 - 65 gallon drum with lid
- 25 pounds of granular oil absorbent

The Oil Spill Kit shall be located within 150 feet of any equipment working in a stream or wetland. The oil Spill Kit shall be maintained for the life of the contract. Any materials utilized during the project will be replaced within 48 hours. All costs associated with furnishing and maintaining the above-referenced spill containment kit are incidental to work.

8. Blasting:

State law requires notification to the Ohio Department of Natural Resources should blasting be required within or near stream channels (See ORC 1533.58 & CMS 107.09). Notify the Engineer, in writing, a minimum of 30 days in advance of blasting, for submission to ODOT-OES-WPU (614-466-2159) for coordination with ODNR.

9. Project Inspection:

Inspection of Work may include inspection by representatives of other government agencies or railroad corporations that pay a portion of the cost of the Work or regulate the Work through State and Federal law. Comments from the representatives of these agencies shall be directed to the Engineer who will immediately contact the ODOT-District Environmental Coordinator and ODOT-OES-WPU at 614-466-2159.

10. Temporary Access Fills:

Definitions:

Hydraulic Opening
The cross-sectional area allowing an unimpeded discharge equal to twice the highest monthly flow without producing a rise in the backwater above the Ordinary High Water Mark (OHWM).

Standard Temporary Discharge
Discharge equal to twice the *highest monthly flow* without producing a rise in the backwater above the OHWM. The U.S. Geologic Service publication "Techniques for estimating Selected Streamflow Characteristics of Rural Unregulated Streams in Ohio" provides equations that estimate monthly flow for Ohio Waterways These flows are also available in a web application by USGS StreamStats, (https://water.usgs.gov/osw/streamstats/ohio.html). The highest monthly flow is the highest monthly mean discharge occurring in a 12-month period from January to December.

Average Monthly Flow
The average monthly flow represents the estimated "normal" flow.

Temporary Access Fills (TAFs)
Include, but are not limited to, dewatering fills, causeways, cofferdams, access pads, temporary bridges, etc. below the OHWM.

Requirements
21 calendar days prior to the initiation of any in-stream work, provide the Engineer with Working Drawings that include:

- Plan view drawing (50 scale or less) showing the location of all TAFs proposed for use on the project.
- Scaled cross section and profile drawing showing the OHWM and the proposed hydraulic opening.
- Identify the minimum diameter size, placement location and thickness of non-erodible Dumped Rock Fill material on the plan and profile.
- Calculations analyzing the hydraulic impacts of the TAF on the waterway. Include in the calculations an analysis of the hydraulic opening sized adequately to pass the Standard Temporary

Discharge without producing a rise in backwater above the OHWM. Include, in the analysis, calculated channel velocities adjacent to the TAF, culvert exit velocities, calculated headwater and tailwater elevations, and any additional appropriate calculations to assess potential impacts to the waterway during normal and anticipated high flow (twice the highest monthly flow) events.

- A description of all temporary material to be placed below the OHWM elevation.
- A description of the installation and staging of all temporary fill over the life of the contract.
- Identify the protection methods and/or structural Best Management Practices for minimizing impacts to the waterway.
- Volume of temporary fill below the OHWM elevation.
- A description of the diversion ditches, equipment, conduits or means for maintaining normal flows in the waterway.
- A description of the removal of all temporary fill and restoration of the channel and all areas impacted by the TAFs.
- A schedule outlining the timing of the placement and removal of all temporary fill.
- Have competent individuals prepare and check the Working Drawings and hydraulic calculations. Provide a cover sheet containing the preparer(s) and checker(s): First Name, Last Name and Initials. The preparer(s) and checker(s) shall not be the same individual. Have an Ohio Registered Engineer review, approve, sign, seal and date the Working Drawings and hydraulic calculations according to ORC 4733 and OAC 4733-35. Include the following statement on the Working Drawings:

  "These Working Drawings were prepared in compliance with the terms of these Special Provisions and all contract documents."

Do not begin in-stream work until the Engineer has accepted the Working Drawings and hydraulic calculations.

The design and construction of the Contractor's TAF must minimize impacts to water bodies, stream banks, stream beds, and riparian zones to the maximum extent practicable.

Fording of waterways and other aquatic resources is prohibited.

Construct TAFs in such a manner that will maintain flows, minimize upstream flooding, and avoid overtopping the TAF on a regular basis. ***TAFs shall be designed and constructed so that the hydraulic opening provides capacity for a discharge equal to twice the highest monthly flow without producing a rise in the backwater above the (OHWM)***.

If the Contractor proposes a TAF which does not meet all the requirements of these Special Provisions, the Contractor must submit a request in writing for a modified TAF to the Engineer. The request must include all Working Drawings and hydraulic calculations required by these Special Provisions. The Department makes no guarantee to grant the request. The Contractor's proposed TAF request will be coordinated by OES with the USACE and the OEPA, as appropriate. The time frame allowed for the coordination of the contractor's proposed TAF will be a minimum of 60 days.

Installation of any temporary fill without appropriate authorization is strictly prohibited. All direct coordination with the USACE and/or OEPA will be performed through OES.

TAFs Construction and Payment

Begin planning and installing causeways and access fills as early in construction as possible to avoid conflicts with these Special Provisions or other environmental commitments that have been included in the construction plans.

TAFs in Streams and Rivers may include, but are not limited to, causeways, cofferdams, access pads, sheet piling, temporary bridges, etc. The Contractor must make every attempt to minimize disturbance to waterbodies, stream banks, stream beds and riparian zones during the construction, maintenance, and removal of the TAF. Construct the TAFs as narrow as practical. Install in-stream conduits parallel to the stream banks. Make the TAFs in shallow areas rather than deep pools where possible. Minimize clearing, grubbing, and excavation of stream banks, and approach sections. Construct the TAFs as to not cause erosion or allow sediment deposits in the waterway.

Prior to the initiation of any in-stream work, establish a monument upstream of the proposed TAF to visually monitor the water elevation in the waterway where the fill is permitted. Maintain the monument throughout the project. Provide a visual mark on the monument that identifies the elevation 1 foot above the OHWM. Ensure that the monument can be read from the bank of the waterway. Have this elevation set and certified by an Ohio Registered Surveyor. All costs associated with furnishing and maintaining the above referenced monument is incidental to the work.

Should the surface water elevation exceed the elevation 1 foot above OHWM, the Department will compensate the Contractor for repair of any resulting damage to the TAF up to the elevation of 1 foot above the OHWM, except as noted. The Department will recognize this event as an excusable, non-compensable delay in accordance with Section 108.06 B. of the Construction & Materials Specifications.

Follow the requirements in Item 502 for Structures for Maintaining Traffic and in Item 503 for Cofferdams and Excavation Bracing and any modifications to these items as shown in the plans. The Department will not pay for repair and maintenance of TAFs associated with Items 502 and 503 as a result of surface water elevation exceeding 1 foot above the OHWM. Compensation for damages associated with waterway flows will be provided as described in Items 502 and 503.

Construct the TAFs, not including Items 502 and 503, to a water elevation at least 1 foot (0.3 m) above the OHWM. If more than one-third the width of the stream is filled, then use culvert pipes to allow the movement of aquatic life. Ensure that any ponding of water behind the TAF will not damage property, flood roadways, or threaten human health and safety.

The following minimum requirements apply to TAFs where culverts are used:

A. Furnish culverts on the existing stream bottom.
B. Avoid a drop in water elevation at the downstream end of the culvert that would result in an adverse impact to the waterway.
C. Furnish a sufficient number of culverts in addition to stream openings to provide a discharge equal to twice the highest monthly flow without producing a rise in the backwater above the OHWM.
D. Furnish culverts with a minimum diameter of 18 inches (0.5 m).

All TAFs must be constructed of suitable materials. Causeways and access fills must be encapsulated with clean, non-erodible, nontoxic Dumped Rock Fill, Type A, B, C, or D, meeting the requirements of C&MS 703.19.B. Utilize appropriately sized Dumped Rock Fill determined by the Contractor's engineer for encapsulating the sides of the TAF. Encapsulate all sides of the TAF with the non-erodible material. For causeways, contractors may use clean aggregate meeting C&MS 703.01 Size Number 1 and 2 for creating a working surface above the OHWM. Extend the non-erodible encapsulating material to at least the elevation of the top of the working surface. Extend clean aggregate up the slope from the original stream bank for 50 feet (10 m) to remove erodible material and prevent tracking from equipment onto the TAF.

When the work requiring TAF is complete, all portions of the TAF (including all rock and culverts) will be removed in its entirety. Do not dispose of TAF material in other aquatic resources or where erosion into another aquatic resource is possible. The stream bottom affected by the TAFs will be restored to its pre-construction elevations. The TAFs will not be paid as a separate item but will be included by the Contractor as part of the total project cost.

Unless specific TAF compensation is included in the plans, all environmental protection and control associated with the authorized activities are incidental to the work within the boundaries of the aquatic resources.

11. Excavation Activities:

Excavated material will be placed at an upland site and disposed of in such a manner that sediment and runoff to streams and other aquatic resources is controlled and minimized. Additionally, no more than incidental fallback into aquatic resources is permitted during the excavation process. If any changes to the proposed work are deemed necessary, notify the Engineer who will immediately contact the ODOT-District Environmental Coordinator and ODOT-OES-WPU at 614-466-2159.

12. Demolition Debris:

The intentional discharge of demolition debris from any structure (including but not limited to bridges, culverts, abutments, wing walls, piers) is not authorized for this project. If any demolition debris inadvertently falls into aquatic resources, it must be removed immediately. Notify the Engineer immediately in writing of any inadvertent fill discharged into aquatic resources. The Engineer will immediately contact ODOT-OES-WPU at 614-466-2159 if any unintentional discharge occurs.

13. Construction Completion Certification:

Upon completion of the work, notify the Engineer. The USACE Construction Completion Certification must be completed and signed by the Engineer then provided via US mail or email to:

Waterway Permits Program Manager
ODOT - Office of Environmental Services
1980 West Broad Street, Mail Stop 4170
Columbus, Ohio 43223
Adrienne.Earley@dot.ohio.gov

A copy of the certification has been attached to these Special Provisions.

Version: July 2020

NWP 14
LUC-US23-11.75 PID 105889
11/5/2024

TABLE 3. STREAM DISCHARGE AND FILL QUANTITIES

Stream	Station	Description of Impacts	Length (LF)	Width (LF)	Depth (LF)	Permanent Fill Below OHWM						Total Permanent Fill			Total Temporary Fill			Total Impact Length
						Proposed Concrete (Includes Culvert, Piers, Walls, Abutments, etc.)			Proposed Earthen, Granular, or Embankment Fill									
						Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)	Length (LF)
Stream 1	SR51 STA 189+80 to STA 190+05	Grading	659	5.3	1.8	0	0	0	60	0.007	21	60	0.007	21	0	0	0	60
Stream 1	Proposed Ramp A STA 23+40 to STA 24+50	Grading	659	5.3	1.8	0	0	0	290	0.035	102	290	0.035	102	0	0	0	290
Stream 1	Proposed Ramp A STA 28+55 to STA 31+40	Grading	659	3.1	2.1	0	0	0	289	0.020	68	289	0.020	68	0	0	0	289
Stream 2	US23 STA 941+60 to STA 942+05	Grading	662	4.7	0.6	0	0	0	85	0.009	9	85	0.009	9	0	0	0	85
Stream 2	Proposed Ramp D STA 24+15 to STA 26+25	Grading	662	4.7	0.6	0	0	0	170	0.018	18	170	0.018	18	0	0	0	170
Ottawa River	Proposed Ramp A STA 31+85 to STA 32+40	Bridge Installation	1,640	56.7	5.6	26	0.005	15	0	0	0	26	0.005	15	110	0.089	805	110
Ottawa River	Proposed Ramp D STA 23+65 to STA 24+45	Bridge Installation	1,640	78.2	4.1	27	0.002	14	0	0	0	27	0.002	14	86	0.076	503	86
Ottawa River	Existing Ramp A STA 11+40 to STA 12+10	TAF - Demolition Debris	1,640	71.0	5.4	0	0	0	0	0	0	0	0	0	54	0.088	767	54
					SUM:	**53**	**0**	**29**	**894**	**0**	**218**	**947**	**0**	**247**	**250**	**0**	**2075**	**1144**

LF = linear feet; AC = acres; CY = cubic yards; RCP = rock channel protection or the like (specify if different, i.e.. concrete block matting); NA = Not Applicable

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TABLE 4. WETLAND DISCHARGE AND FILL QUANTITIES

Wetland	Station	Description of Impacts	Acreage (AC)	Depth (LF)	Proposed Earthen, Granular, or Embankment Fill		Total Permanent Fill		Total Temporary Fill		Total Impact Acreage
					Area (AC)	Volume (CY)	Area (AC)	Volume (CY)	Area (AC)	Volume (CY)	Area (AC)
Wetland B	Ramp A STA 24+30 to STA 25+00	Grading	0.066	1	0.066	107	0.066	107	0	0	0.066
				SUM:	0.066	107	0.066	107	0	0	0.066

LF = linear feet; AC = acres; CY = cubic yards; RCP = rock channel protection or the like (specify if different, i.e.. concrete block matting); NA = Not Applicabl

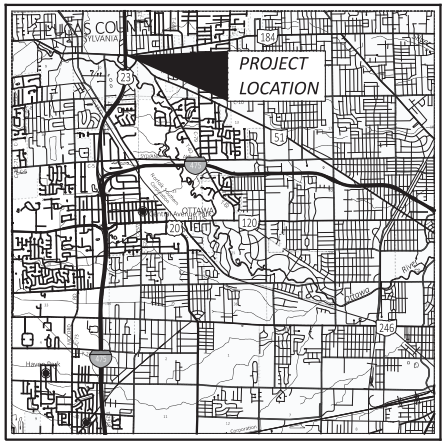
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
LUC-023-11.75

PART 1

CITY OF SYLVANIA

LUCAS COUNTY

FOR PART 2, SEE LUC-51-10.99



LOCATION MAP

LATITUDE: 41°42'55" N LONGITUDE: 83°41'18" W

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

	US 23	CR 4 - SR 51 (WEST OF US 23)	SR 51 (EAST OF US 23)
CURRENT ADT (2026)	68,030	45,650	27,430
DESIGN YEAR ADT (2046)	72,790	46,920	28,460
DESIGN HOURLY VOLUME (2046)	4030	4,880	3,040
DIRECTIONAL DISTRIBUTION	0.50	0.54	0.62
TRUCKS (24 HOUR B&C)	21%	3%	3%
DESIGN SPEED	70 MPH	40 MPH	40 MPH
LEGAL SPEED	65 MPH	35 MPH	35 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
US-23: URBAN FREEWAY SR 51: URBAN PRINCIPAL ARTERIAL
NHS PROJECT — *YES*

DESIGN EXCEPTIONS

NONE REQUIRED

ADA DESIGN WAIVERS

NONE REQUIRED

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811. 8-1-1. or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:
ARCADIS

INDEX OF SHEETS:

INDEX OF SHEETS (CONT.):

FEDERAL PROJECT NUMBER

E210244

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

RECONSTRUCTION AND RECONFIGURATION OF THE SR 51 INTERCHANGE AT US 23 IN THE CITY OF SYLVANIA, LUCAS COUNTY. NECESSARY WORK INCLUDES BRIDGE REPLACEMENTS, RAMP RECONSTRUCTION, SECONDARY STREET UPGRADES AND RESURFACING.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	*30.07 ACRES*
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	*1.00 ACRE*
NOTICE OF INTENT EARTH DISTURBED AREA:	*31.07 ACRES*

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEETS 22 - 27, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

Pat McColley, P.E., S.I.
District 02 Deputy Director

Jack Marchbanks, PhD
Director, Department of Transportation

ENGINEER'S SEAL:

SIGNED: _____
DATE: _____

ENGINEER'S SEAL:

SIGNED: _____
DATE: _____

STANDARD CONSTRUCTION DRAWINGS										*SUPPLEMENTAL SPECIFICATIONS*		*SPECIAL PROVISIONS*
BP-2.1	*1/21/22*	*MGS-1.1*	*7/16/21*	*HL-30.11*	*7/21/23*	*TC-21.21*	*1/20/23*	*TC-74.10*	*7/21/23*	*800-2023*		
BP-2.2	*1/15/21*	*MGS-2.1*	*1/19/18*	*HL-30.21*	*4/17/20*	*TC-22.10*	*4/21/23*	*TC-81.22*	*7/21/23*	*804*	*1/19/24*	
BP-2.5	*1/21/22*	*MGS-3.1*	*1/19/18*	*HL-30.22*	*1/15/21*	*TC-22.20*	*1/17/14*	*TC-83.20*	*1/19/24*	*807*	*1/21/22*	
BP-3.1	*1/19/24*	*MGS-3.2*	*1/18/13*	*HL-30.31*	*7/21/23*	*TC-41.10*	*7/19/13*	*TC-85.10*	*1/19/24*	*809*	*1/19/24*	
BP-3.2	*1/18/19*	*MGS-4.2*	*1/18/13*	*HL-40.20*	*1/19/24*	*TC-41.20*	*10/18/13*	*TC-85.20*	*4/21/23*	*813*	*7/21/23*	
BP-4.1	*7/19/13*	*MGS-5.2*	*7/15/16*	*HL-50.21*	*7/15/22*	*TC-41.30*	*4/21/23*			*825*	*4/21/23*	
BP-5.1	*7/15/22*	*MGS-5.3*	*7/15/16*	*HL-60.11*	*7/21/17*	*TC-41.40*	*10/18/13*	*AS-1-15*	*1/20/23*	*828*	*1/19/18*	
BP-6.1	*7/19/23*	*MGS-6.1*	*1/19/18*	*HL-60.12*	*7/21/23*	*TC-41.41*	*7/19/19*	*AS-2-15*	*1/20/23*	*832*	*7/21/23*	
BP-7.1	*1/19/24*	*MGS-6.2*	*7/19/19*	*HL-60.31*	*7/21/23*	*TC-41.50*	*10/18/13*	*CPA-1-08*	*7/18/08*	*836*	*1/19/24*	
BP-8.2	*1/18/19*	*HW-2.1*	*7/15/22*	*ITS-11.10*	*1/20/23*	*TC-42.10*	*10/18/13*	*CS-1-08*	*1/15/21*	*850*	*7/21/23*	
CB-2-2ABC	*1/20/23*	*HW-2.2*	*7/20/18*	*ITS-14.10*	*4/21/23*	*TC-42.20*	*10/18/13*	*SBR-1-20*	*1/20/23*	*894*	*4/16/21*	
CB-2-4	*1/20/23*	*MH-3*	*1/19/24*	*ITS-14.11*	*1/19/24*	*TC-51.11*	*1/15/16*	*SICD-1-20*	*1/15/21*	*902*	*7/19/19*	
CB-3	*7/16/21*	*RM-3.1*	*7/20/18*	*ITS-15.10*	*1/20/23*	*TC-52.10*	*10/18/13*			*909*	*1/19/24*	
CB-3A	*7/16/21*	*RM-4.3*	*1/21/22*	*ITS-50.10*	*7/15/22*	*TC-52.20*	*1/15/21*			*913*	*4/16/24*	
CB-6	*1/21/22*	*RM-4.5*	*7/21/17*	*MT-101.60*	*4/21/23*	*TC-61.10*	*4/21/23*			*928*	*1/19/18*	
CB-7	*7/16/21*	*RM-5.2*	*7/21/23*	*MT-101.70*	*4/21/23*	*TC-61.30*	*7/19/19*					
DM-1.1	*7/17/20*			*MT-101.75*	*7/21/23*	*TC-64.10*	*7/21/23*					
DM-1.2	*7/15/21*	*HL-10.11*	*7/21/23*	*MT-101.90*	*7/17/20*	*TC-65.10*	*1/17/14*					
DM-4.4	*1/15/16*	*HL-10.12*	*7/21/23*	*TC-9.31*	*7/21/23*	*TC-65.11*	*1/19/24*					
F-1.1	*7/19/13*	*HL-10.13*	*1/20/23*	*TC-12.31*	*4/15/22*	*TC-71.10*	*4/21/23*					
F-3.3	*7/19/13*	*HL-20.11*	*7/21/23*	*TC-16.22*	*7/21/23*	*TC-72.20*	*7/21/23*					
F-3.4	*7/19/13*	*HL-20.14*	*4/17/20*	*TC-21.11*	*7/16/21*	*TC-73.20*	*7/21/23*					

TITLE SHEET

DESIGN AGENCY
ARCADIS
222 SOUTH MAIN STREET, SUITE 200
AKRON, OHIO 44308
330.434.4646
www.arcadis.com

DESIGNER: TB
REVIEWER: SMG 04/01/24
PROJECT ID: 105889
SHEET: 1 TOTAL: 533

LUC-023-11.75

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 3/29/2024 TIME: 3:53:15 PM USER: sgault
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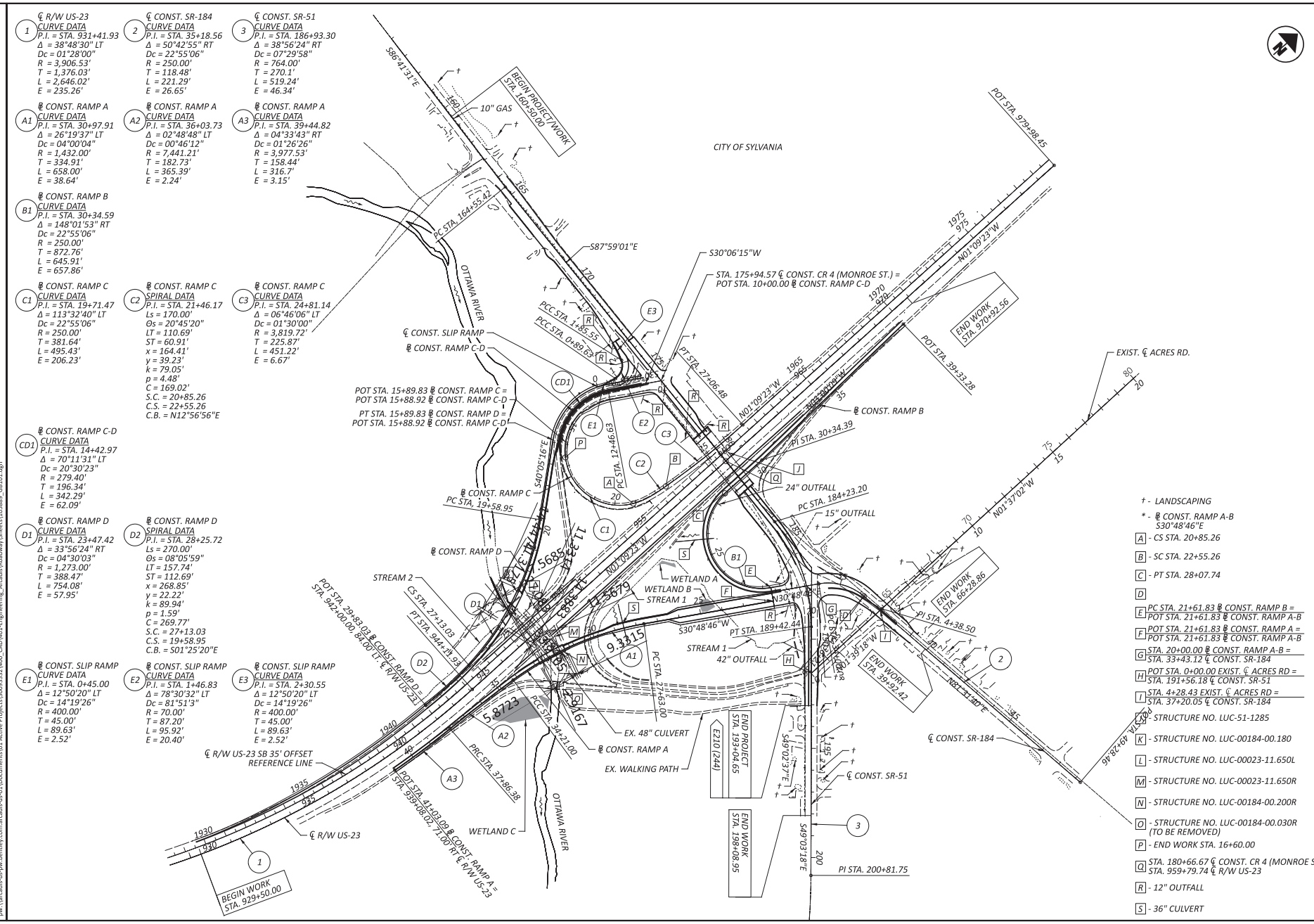

SCHEMATIC PLAN

LUC-023-11.75

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DESIGNER TB
REVIEWER SMG 11/02/22
PROJECT ID 105889
SHEET 2 TOTAL 533

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

COLUMBIA GAS OF OHIO (TOLEDO)
2901 EAST MANHATTAN BLVD
TOLEDO, OH 43611
CLINT WELLS
419-539-6209
CLINTWELLS@NISOURCE.COM

TOLEDO EDISON
6099 ANGOLA ROAD
HOLLAND, OH 43528
419-249-5218
RANDY SWOPE
RRSWOPE@FIRSTENERGYCORP.COM

BUCKEYE CABLE
2700 OREGON ROAD
NORTHWOOD, OH 43619
419-724-3713
MICHAEL SHEAHAN
MSHEAHAN@SHAREDSVCS.COM

CHARTER COMMUNICATIONS
3760 INTERCHANGE DR
COLUMBUS, OH 43204
614-255-6340

FRONTIER
1300 COLUMBUS-SANDUSKY RD
MARION, OH 43302
740-383-0686

NORTHERN BUCKEYE EDUCATION COUNCIL
209 NOLAN PARKWAY
ARCHBOLD, OH 43502
419-267-2515

CITY OF SYLVANIA
6730 MONROE ST
SYLVANIA, OH 43560
419-885-8965

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C

CLEARING AND GRUBBING

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201, CLEARING AND GRUBBING. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED.

SIZES	*NO. TREES*	*NO. STUMPS*	*TOTAL*
18"			
30"			
48"			
60"			

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET ___ OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS SURVEYS
MONUMENT TYPE: TYPE B

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 12A

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS 80
COORDINATE SYSTEM: OHIO STATE PLANE, NOTH ZONE
COMBINED SCALE FACTOR: 0.99997466
ORIGIN OF COORDINATE SYSTEM: (0,0)

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS, EVEN THOUGH OTHERWISE SHOWN.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CONNECTION BETWEEN EXISTING AND PROPOSED GUARDRAIL

WHEN IT IS NECESSARY TO SPLICE PROPOSED GUARDRAIL TO EXISTING GUARDRAIL, ONLY THE EXISTING GUARDRAIL SHALL BE CUT, DRILLED, OR PUNCHED. THE CONNECTION SHALL BE MADE USING A W-BEAM, BEAM SPLICE AS SHOWN IN AASHTO M 180-12, EXCEPT THE BEAM WASHERS ARE NOT TO BE USED. PAYMENT SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE RESPECTIVE GUARDRAIL ITEMS.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 9PM AND 9AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE B

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND, THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

THE FACE OF THE TYPE B IMPACT HEAD SHALL BE COVERED WITH REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE B, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING REFLECTIVE SHEETING AND ALL RELATED HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 606 - IMPACT ATTENUATOR, TYPE 2 (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 2 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 2 (70 MPH), HAZARD WIDTH (XXXXXX"), UNIDIRECTIONAL, EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

ITEM 606 - IMPACT ATTENUATOR, TYPE 3 (UNIDIRECTIONAL)

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE TYPE 3 IMPACT ATTENUATORS AS LISTED ON THE OFFICE OF ROADWAY ENGINEERING'S WEB PAGE (REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS). WHEN BI-DIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, IMPACT ATTENUATOR, TYPE 3 (70 MPH), HAZARD WIDTH (XXXXXXX), (UNIDIRECTIONAL), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS/BACKSTOPS, TRANSITIONS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

CONTRACTION JOINTS IN CONCRETE PAVEMENT OR BASE WIDENING

WHERE NEW CONCRETE IS PLACED ADJACENT TO EXISTING CONCRETE, PROVIDE CONTRACTION JOINTS IN THE NEW CONCRETE TO FORM CONTINUOUS JOINTS WITH THOSE IN THE EXISTING CONCRETE.

THE MAXIMUM DISTANCE BETWEEN THE JOINTS IN THE NEW CONCRETE ARE IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2, IF NECESSARY, ADDITIONAL JOINTS MAY BE PROVIDED IN THE NEW CONCRETE AT APPROXIMATELY EQUAL INTERVALS BETWEEN EXISTING JOINTS THAT EXCEED THE MAXIMUM SPACING.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

GENERAL NOTES

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FENCE LENGTHS

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.

ITEM 607 - FENCE REBUILT, TYPE CL

CAREFULLY RECONDITION AND RE-ERECT FENCE AND COMPONENT PARTS AS DETAILED ON THE PLANS. DO NOT DAMAGE THE FENCE OR COMPONENT PARTS. ANY NEW PARTS WHICH ARE NEEDED, AS DETERMINED BY THE ENGINEER, WILL BE SUPPLIED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.

THE AMOUNT OF REBUILT FENCE TO BE PAID FOR WILL BE THE NUMBER OF FEET REBUILT, COMPLETE IN PLACE, AND MEASURED AS PROVIDED FOR IN SECTION 607.09 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS)

PAYMENT FOR THE ABOVE WILL BE PAID FOR AT THE CONTRACT PRICE PER FOOT FOR ITEM 607, FENCE REBUILT, TYPE CL.

ITEM 607 - FENCE, MISC.: WOOD FENCE, WITH 5' RAILS

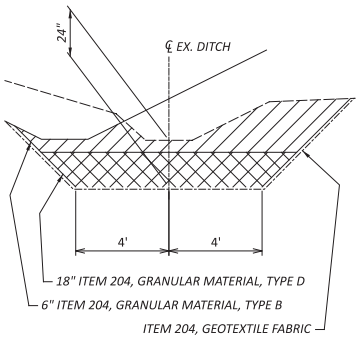
CONSTRUCT A WOOD BIKEWAY RAILING PER SCD RM-5.2, EXCEPT PROVIDE A MAXIMUM RAIL LENGTH OF 5'-0" TO ALLOW FOR THE CONSTRUCTION OF THE RAILING ALONG THE ADJACENT CURVED SIDEWALK.

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN SECTION 203.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS). NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF SECTION 203.05

SHALLOW EMBANKMENT OVER EXISTING DITCHES

IN AREAS NOTED IN THE CROSS SECTIONS WHERE SHALLOW EMBANKMENT IS BEING PLACED OVER AN EXISTING DITCH BOTTOM THE SOIL REMIDIATION SHOWN BELOW WILL BE PERFORMED PRIOR TO PLACEMENT OF THE EMBANKMENT:



ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 – PROOF ROLLING 20 HOUR.

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.

2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO SECTION 204.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS).

IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

3. COMPACT THE SUBGRADE ACCORDING TO C&MS 204.03.

4. APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSTABLE SUBGRADE. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO C&MS 204.06.

5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO C&MS 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO C&MS 204.06 TO VERIFY STABILITY.

7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204, EXCAVATION OF SUBGRADE.

GENERAL NOTES

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CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

EXISTING SUBSURFACE DRAINAGE

PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE. UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 601, TIED CONCRETE BLOCK MAT, TYPE 1	*4 SQ. YD.*
ITEM 611, 6" CONDUIT, TYPE F	*100 FT*
ITEM 611, PRECAST REINFORCED CONCRETE OUTLET	*2 EACH*
ITEM 605, 6" UNCLASSIFIED PIPE UNDERDRAINS	*75 FT*

ITEM 611 CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN

EXISTING CATCH BASIN AT MONROE STREET STA. 168+41.51 SHALL BE MODIFIED BY RECONSTRUCTING FLUSH TO THE FINISHED GRADE OF THE PROPOSED WALK OR PROPOSED GRASS SHOWN IN THE PLANS. FIT AND FURNISH A NEW ADA COMPLIANT SOLID COVER. THE CASTING SHALL BE NEENAH R-1792 (SOLID LID), EAST JORDAN V-1600 (SOLID LID), OR AN APPROVED EQUAL. ALL EXISTING STRUCTURE DIMENSIONS FOR THE CASTING SHALL BE FIELD VERIFIED BY THE CONTRACTOR FOR COMPATIBILITY WITH THE PROPOSED CASTING PRIOR TO ORDERING MATERIALS.

THE CONTRACTOR SHALL ALSO MAKE AND INSPECTION OF THE EXISTING STRUCTURE TO REMAIN IN SERVICE. ALL EXISTING UNDERDRAINS AND CONNECTIONS SHALL REMAIN UNOBSTRUCTED. THE CONDITION OF THE EXISTING STRUCTURE, AND CONDUITS SHALL BE DETERMINED FROM FIELD OBSERVATIONS. ANY DEFICIENCY IDENTIFIED OR CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

ALL EQUIPMENT, MATERIALS, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK OUTLINED ABOVE AND PER CMS 611 SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM 611 - CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

VEGETATED FILTER STRIP

THIS PLAN UTILIZES VEGETATED FILTER STRIPS FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AND ITEM 670 SLOPE EROSION PROTECTION TO ALL DISTURBED AREAS DESIGNATED AS VEGETATED FILTER STRIPS, THE EDGE OF SHOULDER, AND THE FORESLOPE AS SPECIFIED IN THE PLANS.

ENDANGERED BAT HABITAT REMOVAL

THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT, AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT (ESA). FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS: A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK 3 INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

ITEM 659, TOPSOIL	*8920 CU. YD.*
ITEM 659, SEEDING AND MULCHING	*80355 SQ. YD.*
ITEM 659, REPAIR SEEDING AND MULCHING	*4018 SQ. YD.*
ITEM 659, INTER-SEEDING	*4018 SQ. YD.*
ITEM 659, COMMERCIAL FERTILIZER	*10.84 TONS*
ITEM 659, LIME	*16.60 ACRES*
ITEM 659, WATER	*456 M. GAL.*
ITEM 659, MOWING	*181 M. SQ. FT.*

APPLY SEEDING AND MULCHING S TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ITEM 900 - STRUCTURAL SOIL MIX

AWAITING PLAN NOTE FROM EDGE, THE CITY OF SYLVANIA'S LANDSCAPE ARCHITECTURE FIRM.

GENERAL NOTES

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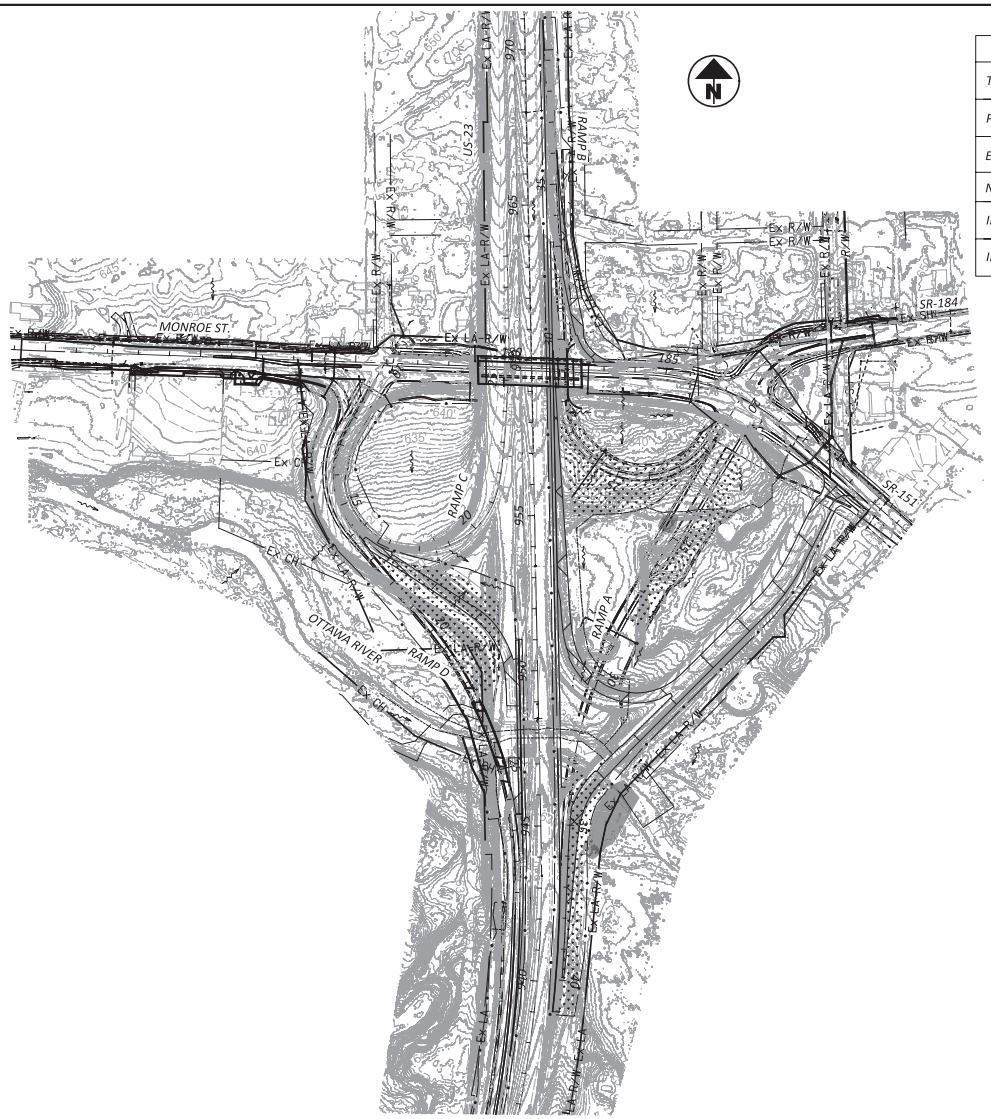

PROJECT DATA			
TOTAL AREA (RIGHT-OF-WAY)	65.11 ACRES	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.67
PROJECT EARTH DISTURBED AREA	30.07 ACRES	RUNOFF COEFFICIENT FOR POST-CONSTRUCTION SITE	0.68
ESTIMATED CONTRACTOR EARTH DISTUBED AREA	1.00 ACRE	POST CONSTRUCTION BMP: VEGETATED FILTER STRIPS WERE PROVIDED TO MEET NPDES POST-CONSTRUCTION REQUIREMENTS.	
NOTICE OF INTENT EARTH DISTURBED AREA	31.07 ACRES		
IMPERVIOUS AREA FOR PRE-CONSTRUCTION SITE	21.16 ACRES	IMMEDIATE RECEIVING WATERS	OTTAWA RIVER
IMPERVIOUS AREA FOR POST-CONSTUCTION SITE	21.23 ACRES	SUBSEQUENT RECEIVING WATERS	LAKE ERIE

USGS MAP: SYLVANIA QUADRANGLE
SYLVANIA, OH
LONGITUDE: 83°41'18" W
LATITUDE: 41°42'55" N
*LONGITUDE AND LATITUDE TO APPROX. CENTER OF PROJECT

LEGEND

VEGETATED FILTER STRIP

BMP TYPE	LATITUDE/LONGITUDE BEGIN		LATITUDE/LONGITUDE END		BMP WIDTH (FEET)	EDA TREATMENT CREDIT (ACRES)
VEGETATED FILTER STRIP 1	41.7143°	-83.6865°	41.7148°	-83.6878°	15	0.94
VEGETATED FILTER STRIP 2	41.7147°	-83.6861°	41.7148°	-83.6877°	25	0.61
VEGETATED FILTER STRIP 3	41.7145°	-83.6857°	41.7130°	-83.6870°	25	1.50
VEGETATED FILTER STRIP 4	41.7117°	-83.6876°	41.7096°	-83.6878°	50	1.39
VEGETATED FILTER STRIP 5	41.7136°	-83.6900°	41.7124°	-83.6888°	50	1.80
					TREATMENT PROVIDED	6.24
					TREATMENT REQUIRED	6.14

*CALCULATED PER L&D VOL. 2, SEC. 1111.7

ESTIMATED QUANTITIES			
ITEM	DESCRIPTION	QUANTITY	UNIT
659	TOPSOIL	2610	CY
670	SLOPE EROSION PROTECTION	23494	SY
832	STORM WATER POLLUTION PREVENTION PLAN	1	LS
832	STORM WATER POLLUTION PREVENTION PLAN INSPECTIONS	1	LS
832	STORM WATER POLLUTION PREVENTION PLAN INSPECTION SOFTWARE	1	LS
832	EROSION CONTROL	320,000	EACH

QUANTITIES CARRIED TO GENERAL SUMMARY

PROJECT DESCRIPTION
RECONSTRUCTION AND RECONFIGURATION OF THE SR 51 INTERCHANGE AT US 23 IN THE CITY OF SYLVANIA, LUCAS COUNTY, NECESSARY WORK INCLUDES BRIDGE REPLACEMENTS, RAMP RECONSTRUCTION, SECONDARY STREET UPGRADES AND RESURFACING.

HORIZONTAL SCALE IN FEET
0 100 200 400

PROJECT SITE PLAN

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1300
CLEVELAND, OHIO 44114
(216) 696-2604
www.arcadis.com

DESIGNER CRA
REVIEWER SMG 03/18/24
PROJECT ID 105889
SHEET 135 TOTAL 533

LUC-023-11.75

MODEL: Sheet PAPERSIZE 34x22 (in.) DATE: 3/29/2024 TIME: 4:32:01 PM USER: sgault
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30093327400_CAD\401 Engineering_Arcadis\Drainage\Sheets\105889_DE001.dgn

LUC-023-11.75

MODEL: CLX_us23 - Plan 2 PAPERSIZE: 34x22 (in.) DATE: 3/29/2024 TIME: 4:34:51 PM USER: sgrubi
pw:\\arcadis-us.pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30093332\400_CAD\401 Engineering_Arcadis\Roadway\Sheets\105889_GP101.dgn

LEGEND
(DND) - DO NOT DISTURB
(RBO) - RELOCATED BY OTHERS

- DITCH EROSION PROTECTION MAT, TYPE A

FOR ADDITIONAL INTERCHANGE DETAILS, SEE SHEET 286

℄ R/W US-23
CURVE DATA
P.I. = STA. 931+41.93
Δ = 38°48'30" LT
Dc = 01°28'00"
R = 3,906.53'
T = 1,376.03'
L = 2,646.02'
E = 235.23'

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET - US-23
STA. 927+00 TO STA. 933+00

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE, SUITE 1500
CLEVELAND, OHIO 44114
(216) 696-2604
www.arcadis.com

DESIGNER
TB

REVIEWER
SMG 04/01/24

PROJECT ID
105889

SHEET 136 | TOTAL 533

MODEL: CLX_us23 - Plan 3 PAPERSIZE: 34x22 (in.) DATE: 3/29/2024 TIME: 4:35:07 PM USER: sgault
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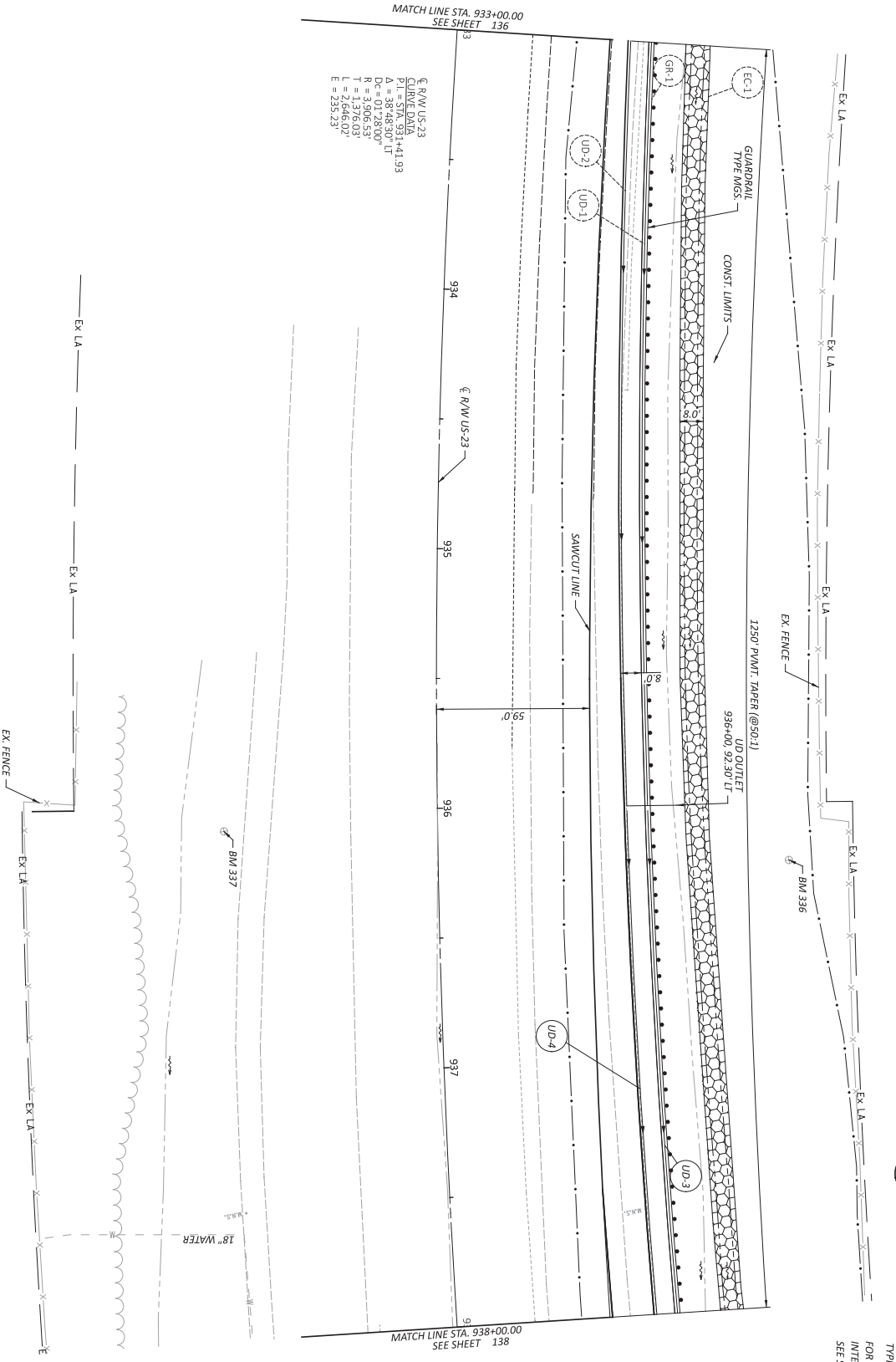


LEGEND
(DND) - DO NOT DISTURB
(R&D) - RELOCATED BY OTHERS

- DITCH EROSION PROTECTION MAT, TYPE A

FOR ADDITIONAL INTERCHANGE DETAILS, SEE SHEET 286

HORIZONTAL SCALE IN FEET
0 20
10 40

PLAN SHEET - US-23
STA. 933+00 TO STA. 938+00

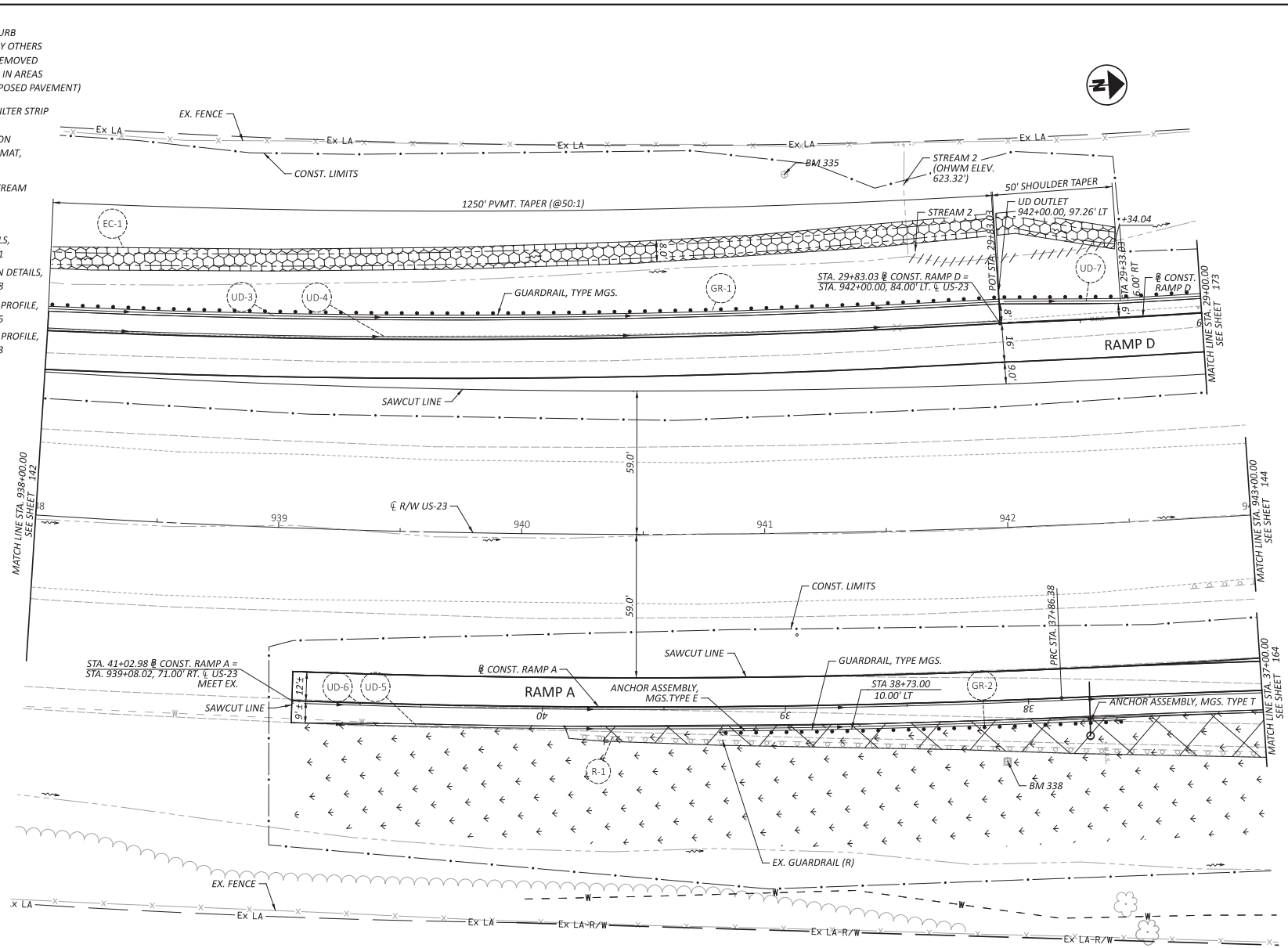
SHEET	TOTAL
137	533

PROJECT ID 105889

REVIEWER SMG 04/01/24

DESIGNER TB

ARCADIS
1111 SUPERIOR AVENUE SUITE 1300
CLEVELAND, OHIO 44114
(216) 781-5177
www.arcadis.com
DESIGN AGENCY



LUC-023-11.75

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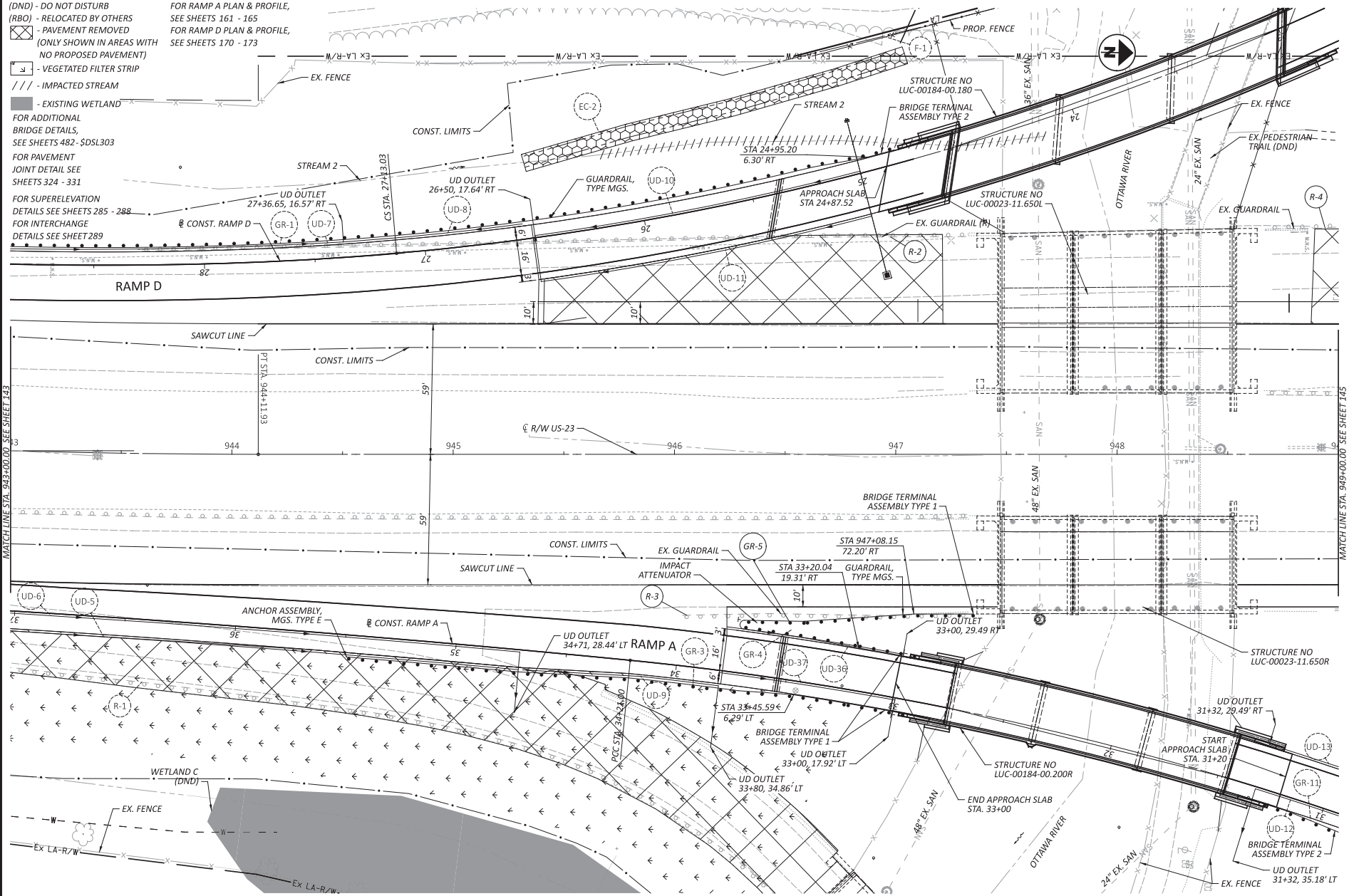
HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET - US-23
STA. 938+00 TO STA. 943+00

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1300
CLEVELAND, OHIO 44114
(216) 241-2357
www.arcadis.com

DESIGNER TB
REVIEWER SMG 09/13/24
PROJECT ID 105889
SHEET 143 TOTAL 607



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET - US-23
STA. 943+00 TO STA. 949+00

LUC-023-11.75

MODEL: CLX_us24 - Plan 13 PAPERSIZE: 34x22 (in.) DATE: 10/17/2024 TIME: 9:40:32 AM USER: sgault
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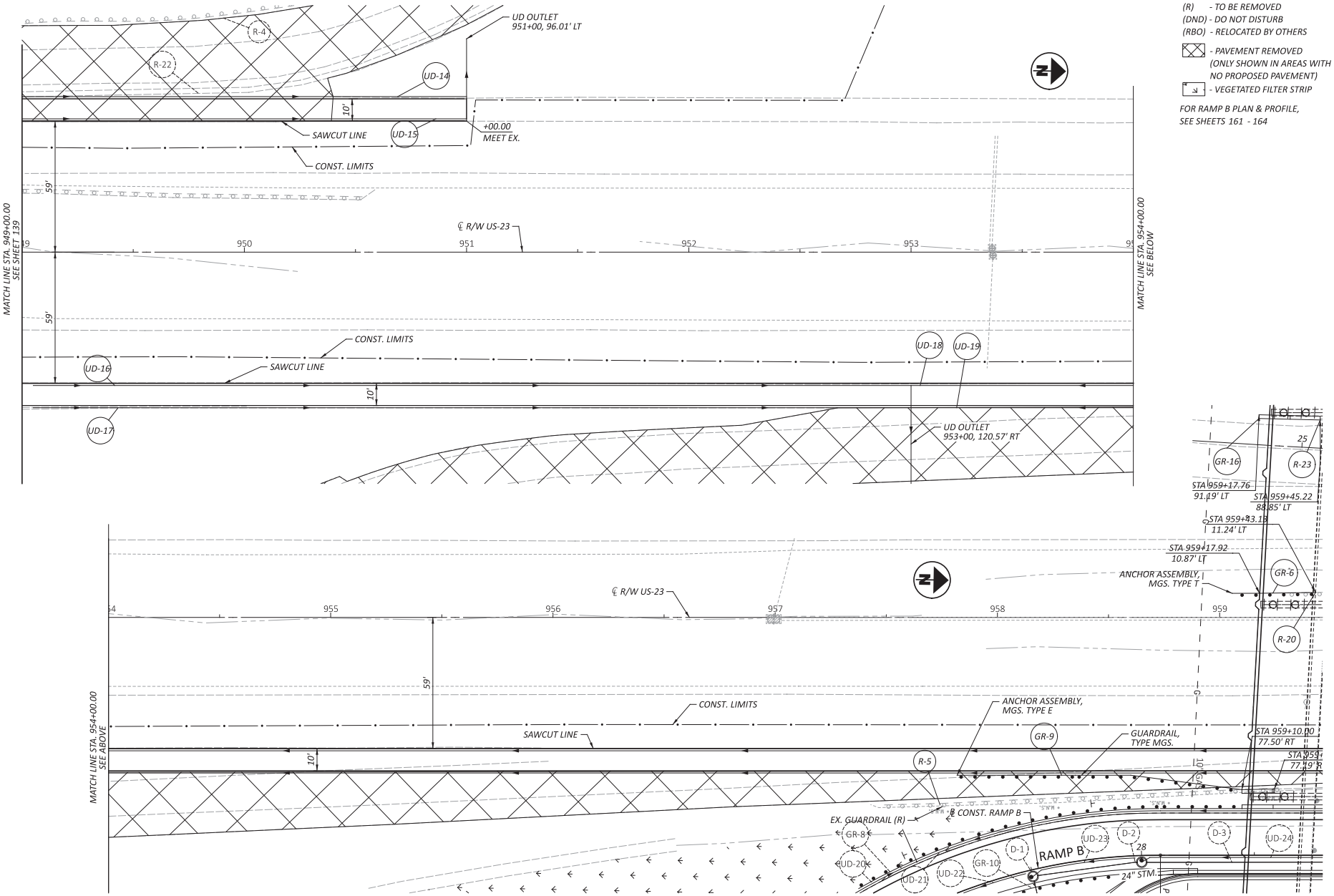
DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE, SUITE 1500
CLEVELAND, OHIO 44114
PHONE: 216.696.2604
www.arcadis.com

DESIGNER TB
REVIEWER SMG 09/13/24
PROJECT ID 105889
SHEET 144 TOTAL 607



LUC-023-11.75

MODEL: CLX_us24 - Plan 14 PAPERSIZE: 34x22 (in.) DATE: 3/29/2024 TIME: 4:35:56 PM USER: sgault
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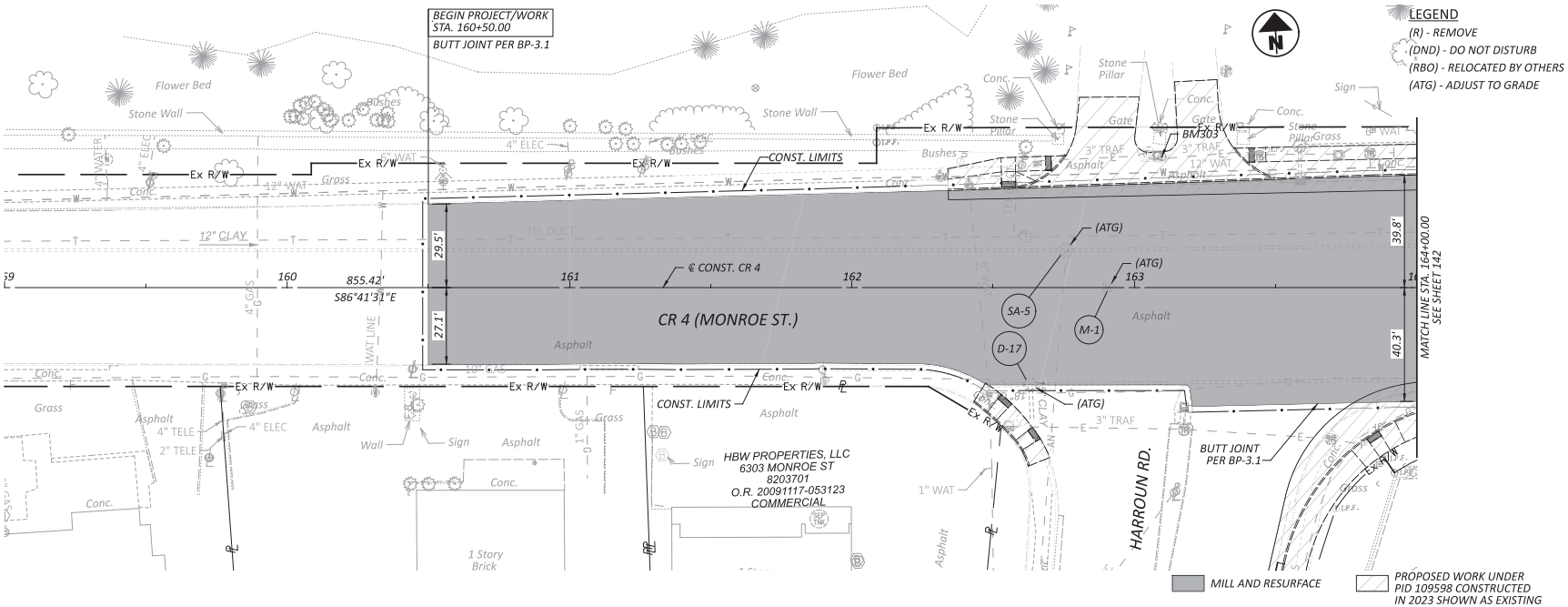
HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN SHEET - US-23
STA. 949+00 TO STA. 959+00

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1500
CLEVELAND, OHIO 44114
(216) 696-2604
www.arcadis.com

DESIGNER TB
REVIEWER SMG 04/01/24
PROJECT ID 105889
SHEET 140 TOTAL 533



HORIZONTAL SCALE IN FEET
0 10 20 40

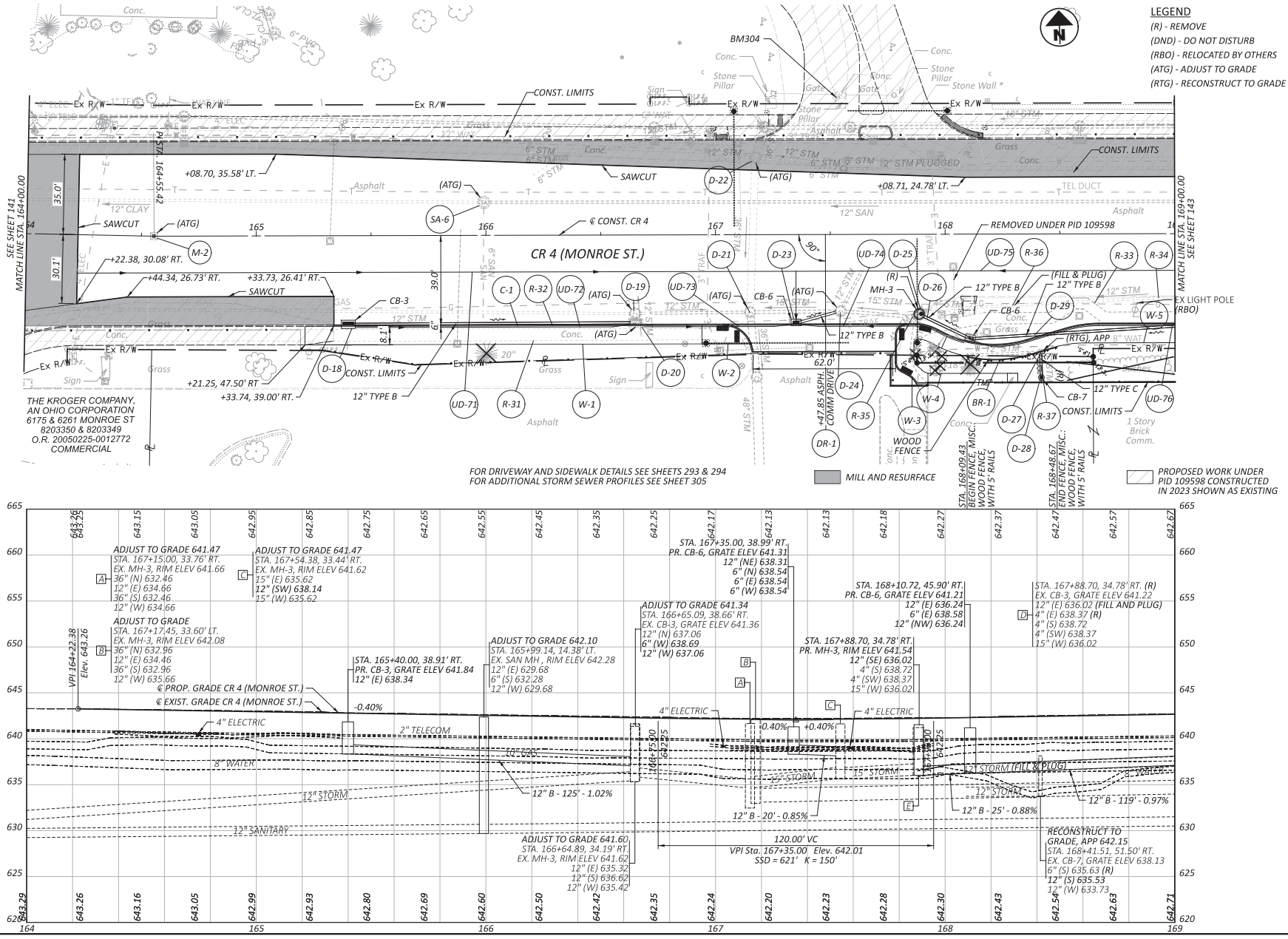
PLAN & PROFILE - CR 4 (MONROE ST.)
STA. 159+00 TO STA. 164+00

LUC-023-11.75

MODEL: CLP_MONROE - Plan 1 PAPERSIZE: 34x22 (in.) DATE: 3/30/2024 TIME: 2:05:12 PM USER: GARRETT.BRENKE
pw:\\arcadis-us.pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30093332\400_CAD\400-Engineering_TetraTech\Roadway\Sheets\105889_GP601.dgn

DESIGN AGENCY

DESIGNER JPH
REVIEWER AJL 04/01/24
PROJECT ID 105889
SHEET 141 TOTAL 533

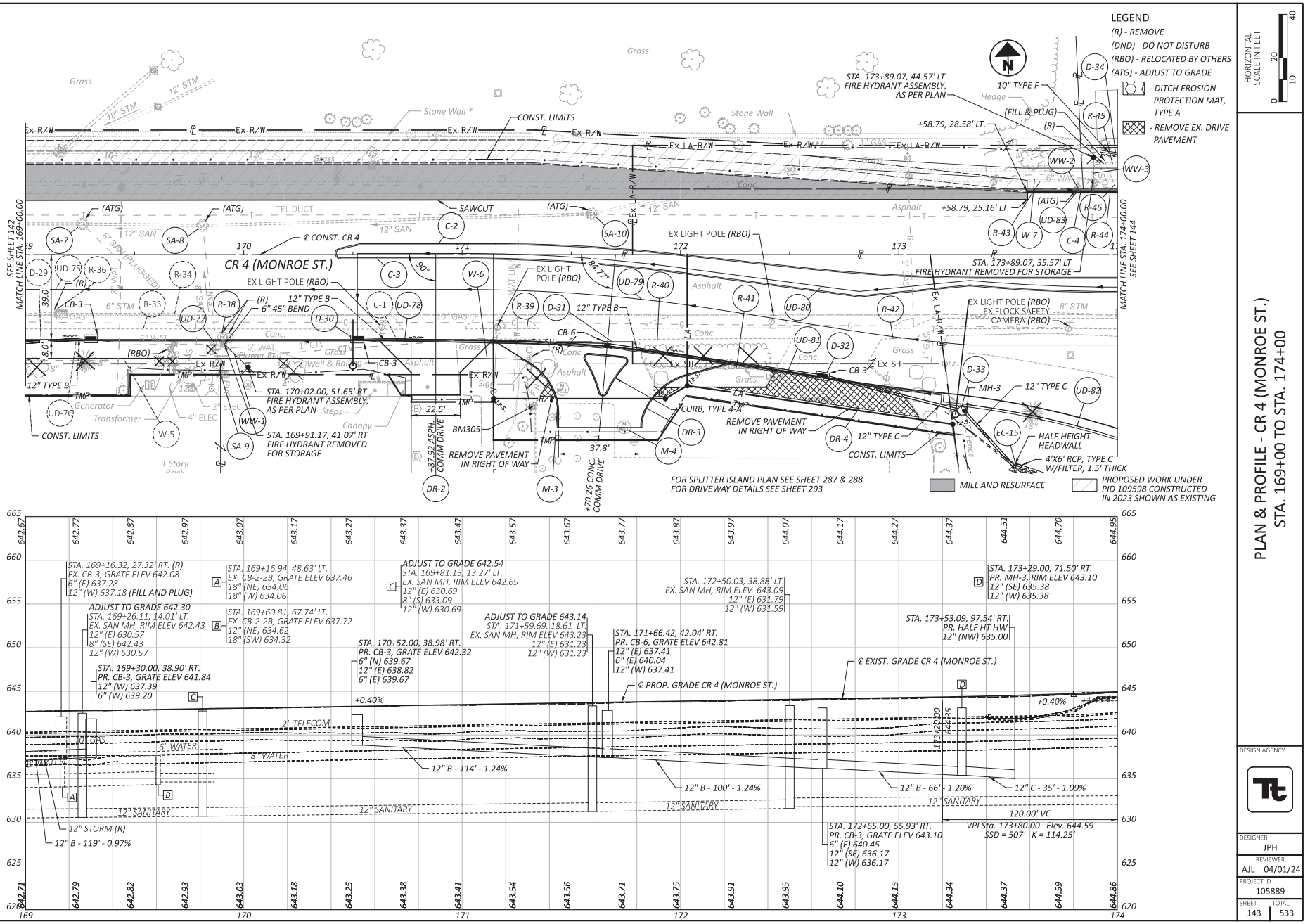


PLAN & PROFILE - CR 4 (MONROE ST.)
STA. 164+00 TO STA. 169+00

LUC-023-11.75

DESIGN AGENCY

DESIGNER JPH
REVIEWER AJL 04/01/24
PROJECT ID 105889
SHEET 142 TOTAL 533



LUC-023-11.75

MODEL: CLP_MONROE - Plan 3 PAPERSIZE: 34x22 (in.) DATE: 3/29/2024 TIME: 4:01:46 PM USER: GARRETT BRENKE
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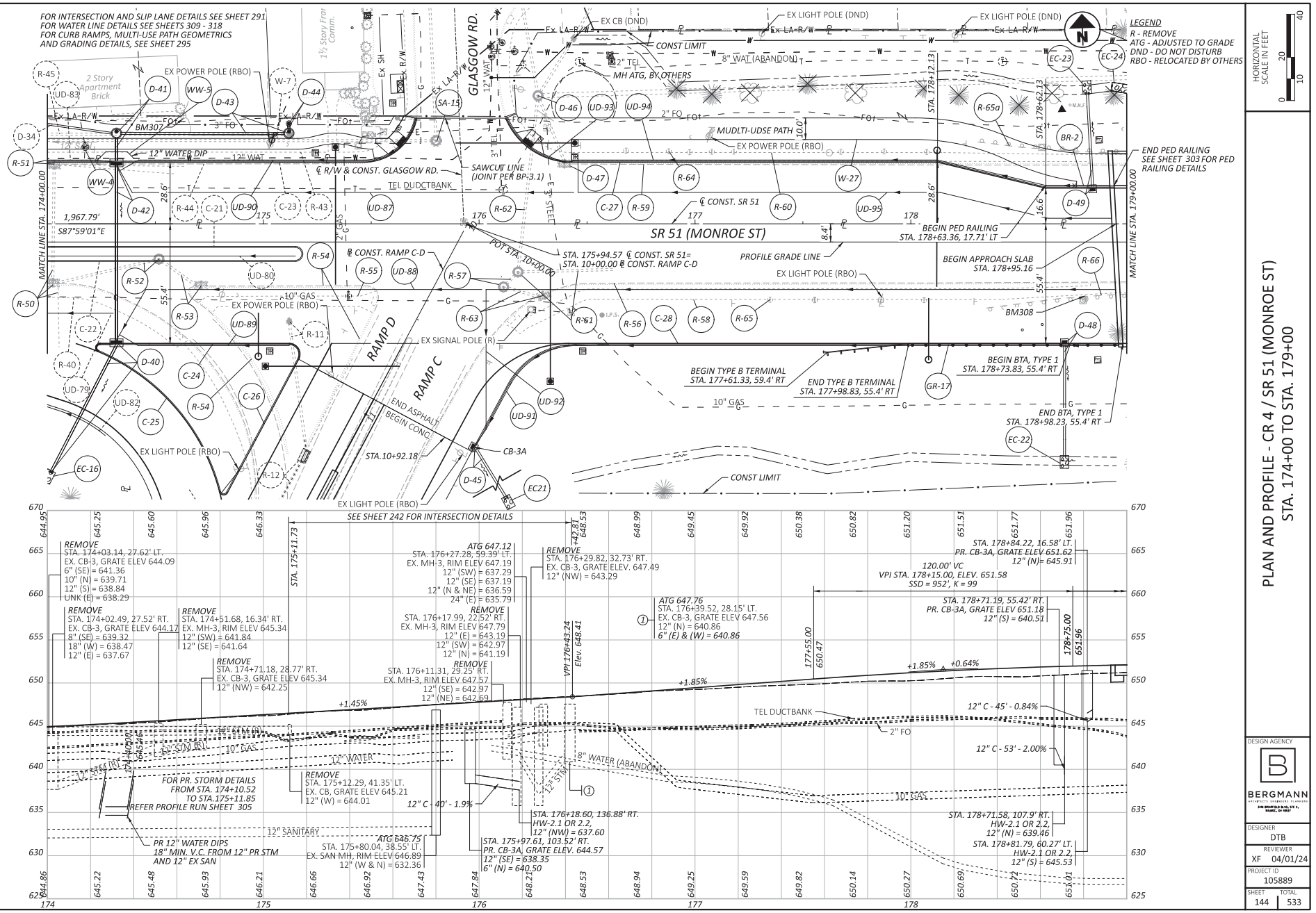
PLAN & PROFILE - CR 4 (MONROE ST.)
STA. 169+00 TO STA. 174+00

HORIZONTAL SCALE IN FEET
0 10 20 40

DESIGN AGENCY

DESIGNER JPH
REVIEWER AJL 04/01/24
PROJECT ID 105889
SHEET 143 TOTAL 533



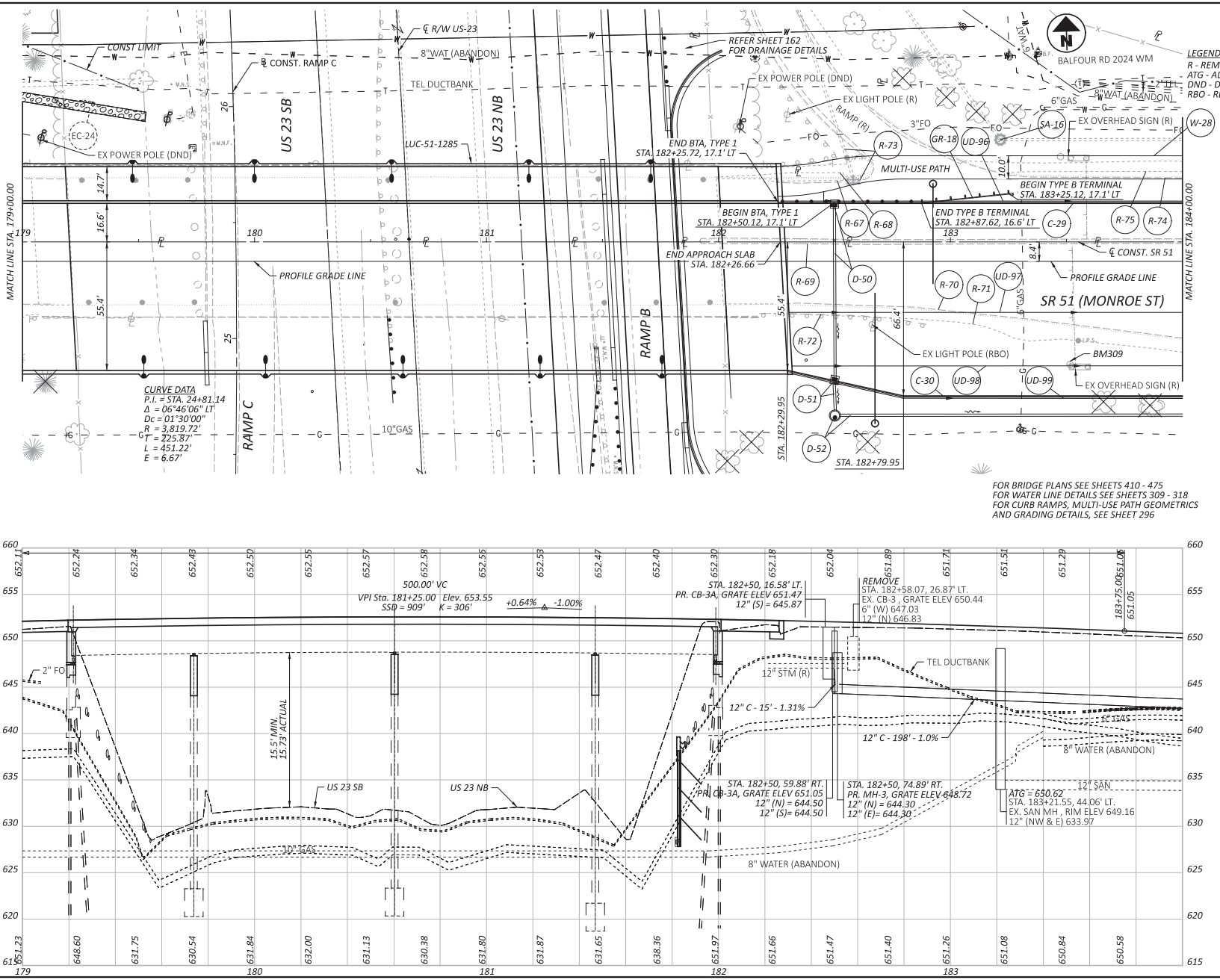
HORIZONTAL SCALE IN FEET: 0, 10, 20, 40

PLAN AND PROFILE - CR 4 / SR 51 (MONROE ST)
STA. 174+00 TO STA. 179+00

LUC-023-11.75

MODEL: CLP_MONROE-1 Plan 1 PAPERSIZE: 17x11 (in.) DATE: 3/29/2024 TIME: 15:16:01 USER: dbuehrer
pw:\\arcadis-us.pwclientsy.com:arcadis-us-01\Documents\01 Active Projects\30099332\400_CAD\60-Engineering_Bergmann\Roadway\Sheets\105889_GP401

DESIGN AGENCY
BERGMANN
DESIGNER DTB
REVIEWER XF 04/01/24
PROJECT ID 105889
SHEET 144 TOTAL 533



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN AND PROFILE - SR 51 (MONROE ST)
STA. 179+00 TO STA. 184+00

LUC-023-11.75

MODEL: CLP_MONROE-1 Plan 2 PAPERSIZE: 17x11 (in.) DATE: 3/20/2024 TIME: 15:16:26 USER: dbuehrer
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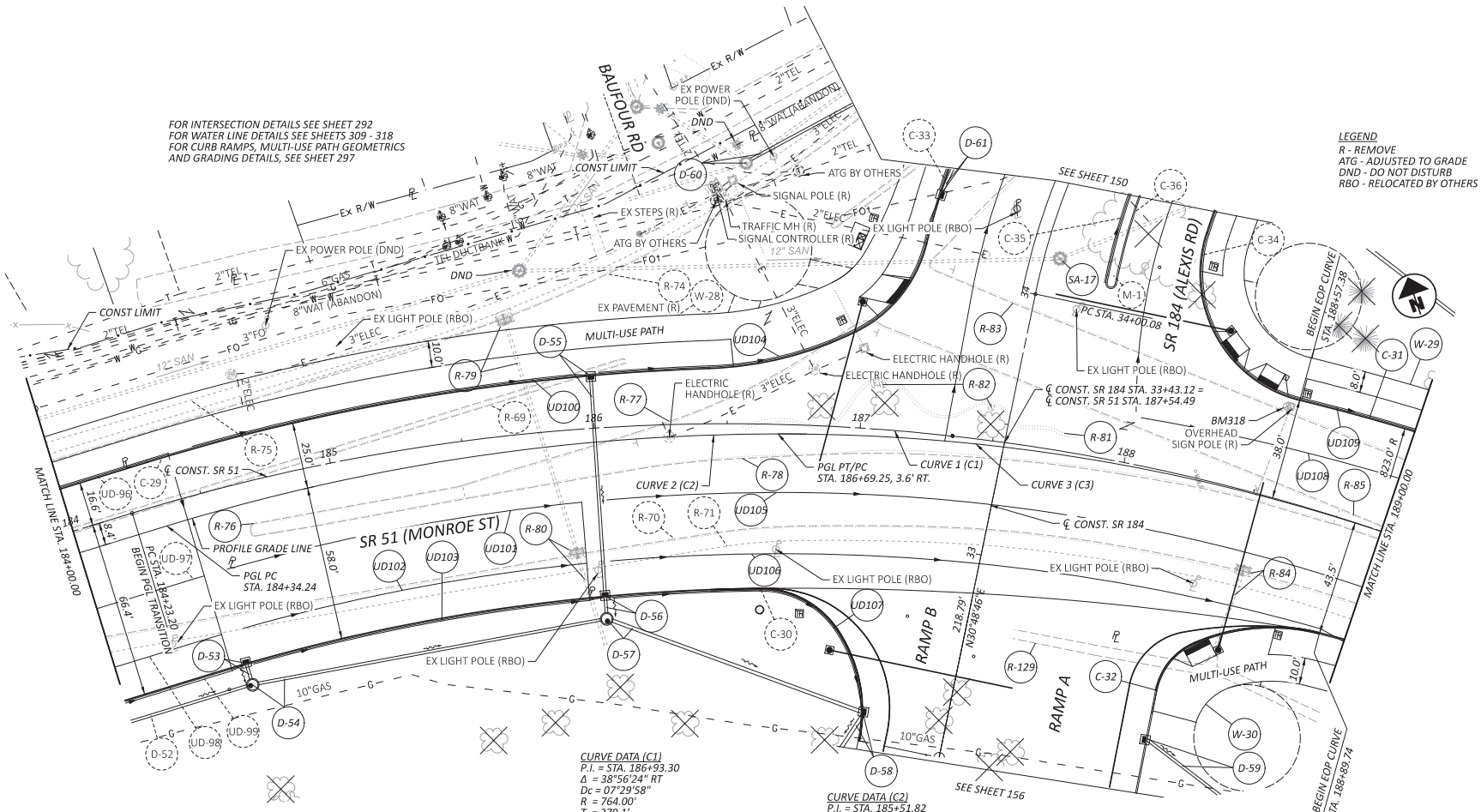
DESIGN AGENCY
BERGMANN
DESIGNER DTB
REVIEWER XF 04/01/24
PROJECT ID 105889
SHEET 145 TOTAL 533



LUC-023-11.75

MODEL: CLP_MONROE - Plan 3-1 PAPERSIZE: 17x11 (in.) DATE: 3/20/2024 TIME: 2:56:25 PM USER: rfeng
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30099332\900_CAD\604-Engineering_Bergmann\Roadway\Sheets\105889_GP403

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN - SR 51 (MONROE ST)
STA. 184+00 TO STA. 189+00

DESIGN AGENCY
BERGMANN
ARCHITECTS ENGINEERS PLANNERS
240 BRAYFIELD BLVD, STE C,
WAUKEE, IA 50263

DESIGNER	DTB
REVIEWER	XF 04/01/24
PROJECT ID	105889
SHEET	146
TOTAL	533

LUC-023-11.75

MODEL: CLP_MONROE-1 Plan 3 PAPERSIZE: 17x11 (in.) DATE: 3/20/2024 TIME: 2:56:41 PM USER: dfeng
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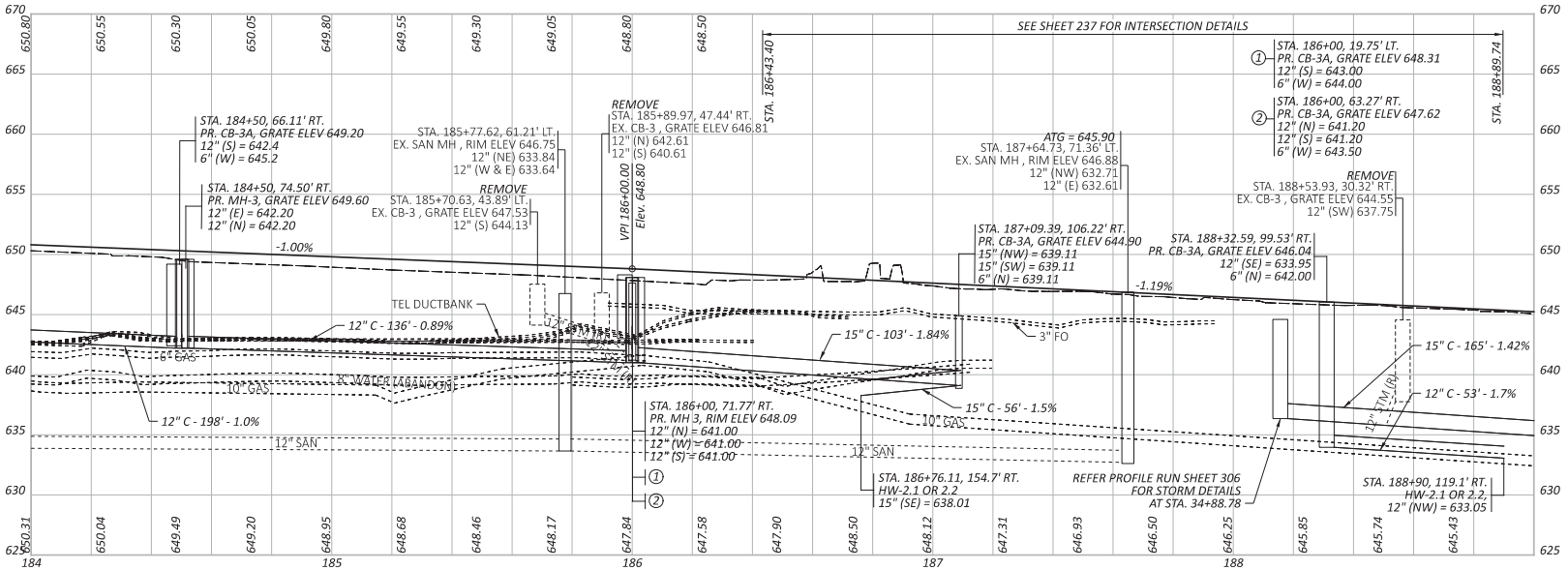
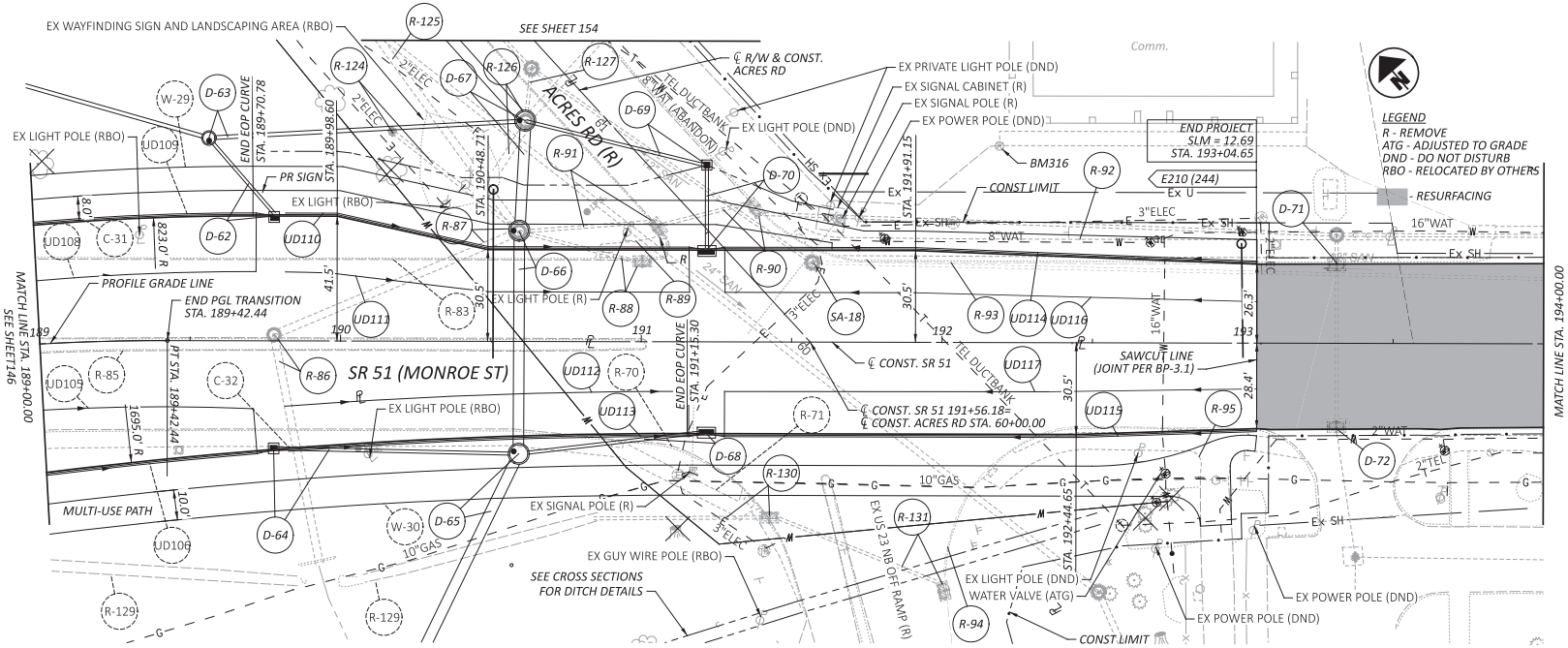


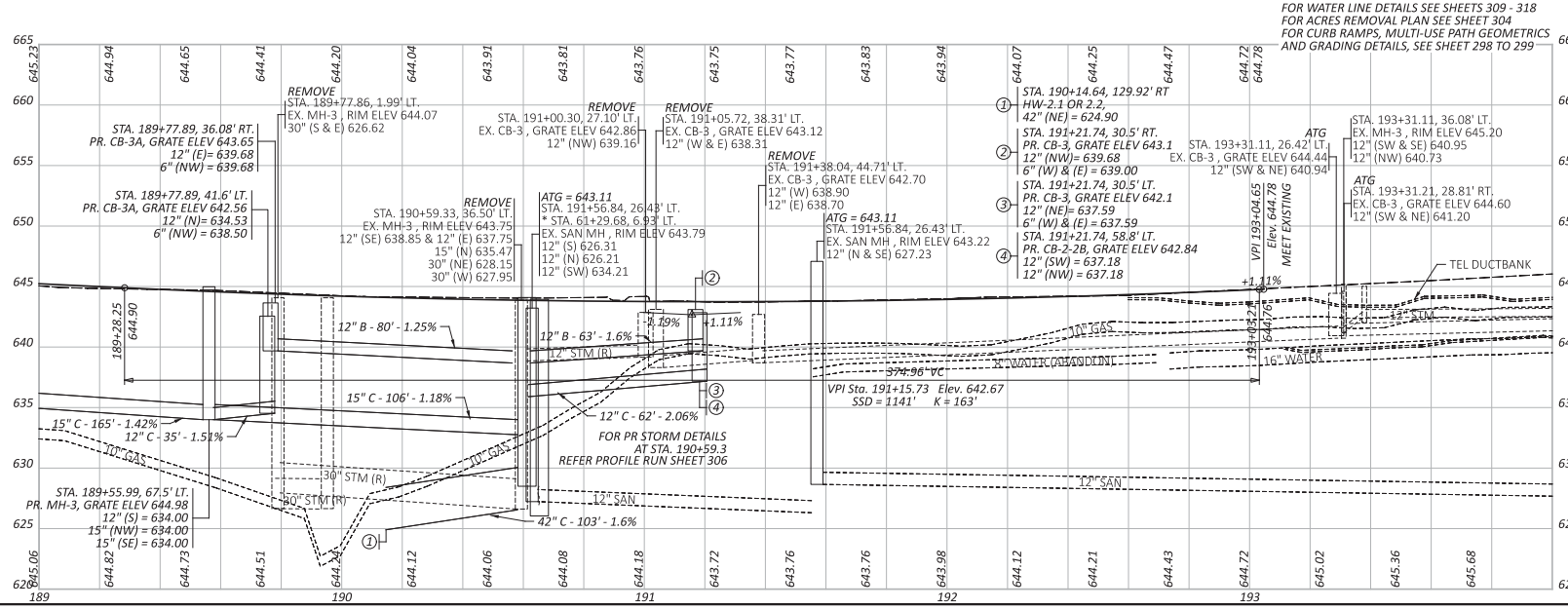
HORIZONTAL SCALE IN FEET
0 10 20 40

PROFILE - SR 51 (MONROE ST)
STA. 184+00 TO STA. 189+00

DESIGN AGENCY
BERGMANN
ARCHITECTS ENGINEERS PLANNERS
240 BRAYFIELD BLVD, STE C,
MIAMEL, OH 45147

DESIGNER	DTB
REVIEWER	XF 04/01/24
PROJECT ID	105889
SHEET	147
TOTAL	533





HORIZONTAL SCALE IN FEET
0 10 20 40

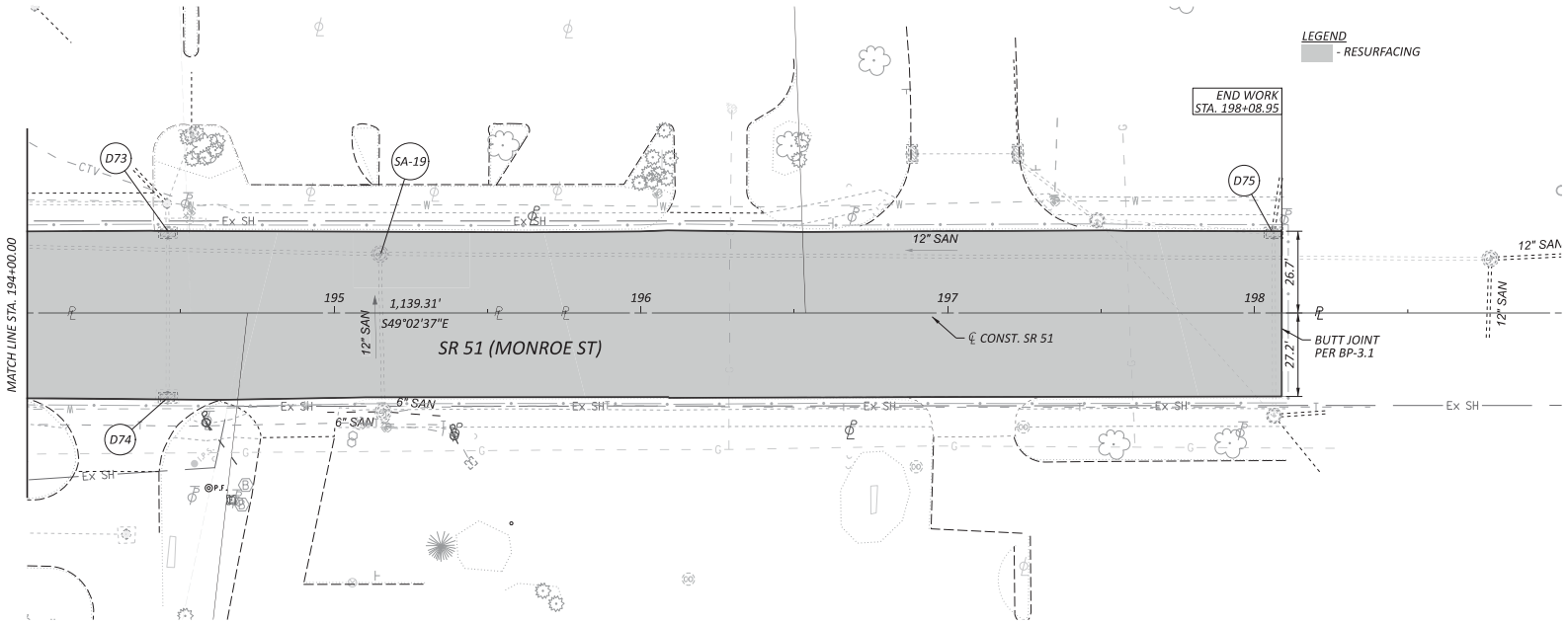
PLAN AND PROFILE - MONROE ST
STA. 189+00 TO STA. 194+00

LUC-023-11.75

MODEL: CLP_MONROE-1 Plan 4 PAPERSIZE: 34x22 (in.) DATE: 4/1/2024 TIME: 12:04:16 PM USER: xfeng
pw:\\arcadia-us.pw.bentley.com:arcadia-us-01\Documents\01 Active Projects\10099332\RDO_CAD\604-Engineering_Bergmann\Roadway\Sheets\105889_GP404

DESIGN AGENCY
BERGMANN
ARCHITECTS ENGINEERS PLANNERS
360 HUNTINGTON AV., STE C, MANNEL, OR 97057

DESIGNER	DTB
REVIEWER	XF 04/01/24
PROJECT ID	105889
SHEET	148
TOTAL	533



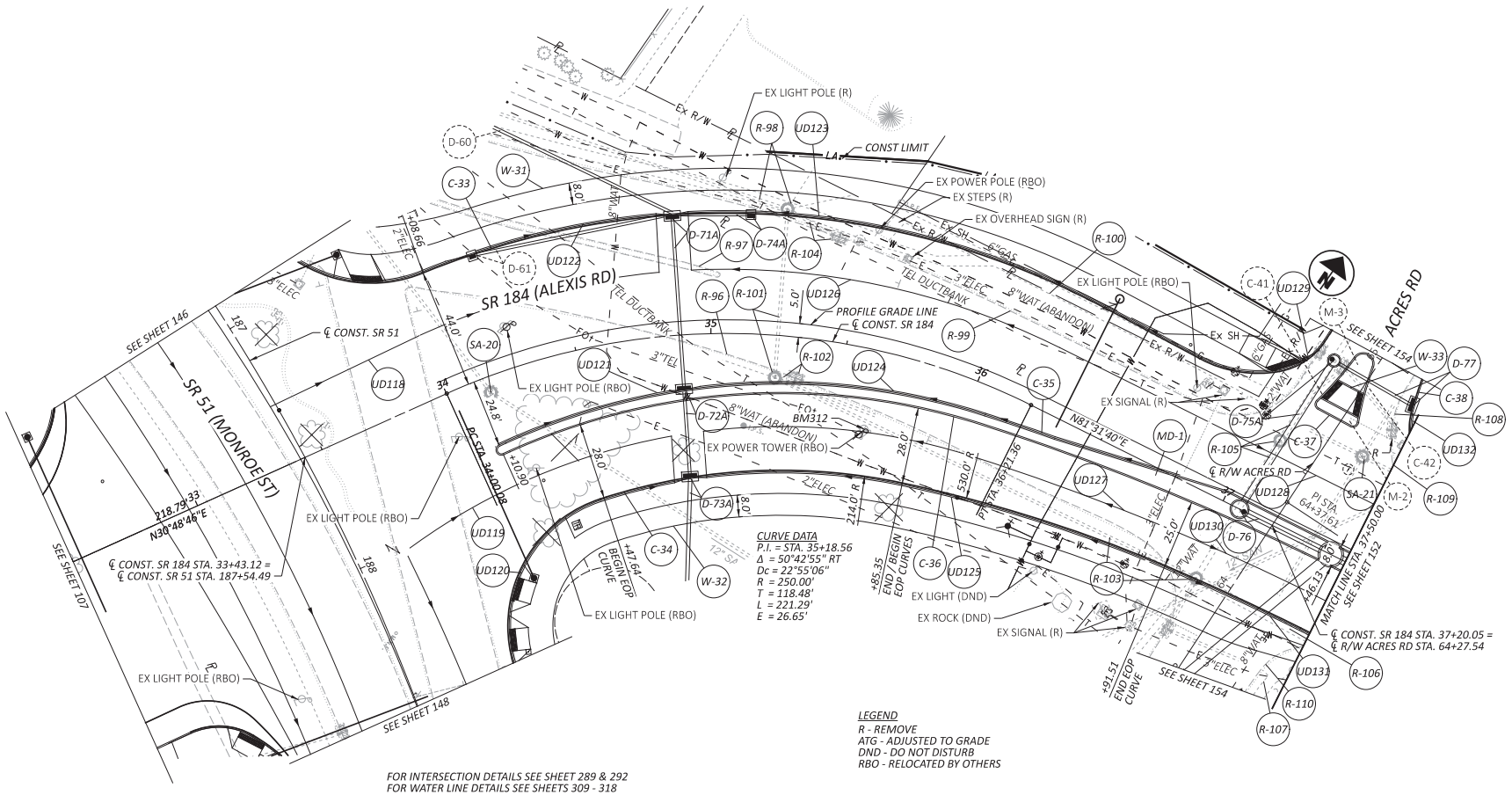
HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN - MONROE ST
STA. 194+00 TO END

DESIGN AGENCY

DESIGNER DTB
REVIEWER XF 04/01/24
PROJECT ID 105889
SHEET 149 TOTAL 533

LUC-023-11.75



LUC-023-11.75

MODEL: CLP_5184 • Plan 1 PAPERSIZE: 17x11 (in.) DATE: 3/29/2024 TIME: 2:57:20 PM USER: xfeng
pw:\\arcadis-us-pw.bentley.com:arcadis-us-o1\Documents\01 Active Projects\30099332\400_CAD\400# Engineering_Bergmann\Roadway\Sheets\105889_GP406

PLAN - SR 184 (ALEXIS RD)
STA. 32+50 TO STA. 37+50

DESIGN AGENCY
BERGMANN
ARCHITECTS ENGINEERS PLANNERS
240 BRAYFIELD BLVD, STE C,
MIAMI, OH 45327

DESIGNER: DTB
REVIEWER: XF 04/01/24
PROJECT ID: 105889
SHEET: 150 TOTAL: 533

MODEL: CLP_S184 - Plan 1 PAPERSIZE: 17x11 (in.) DATE: 3/29/2024 TIME: 2:57:30 PM USER: xfeng
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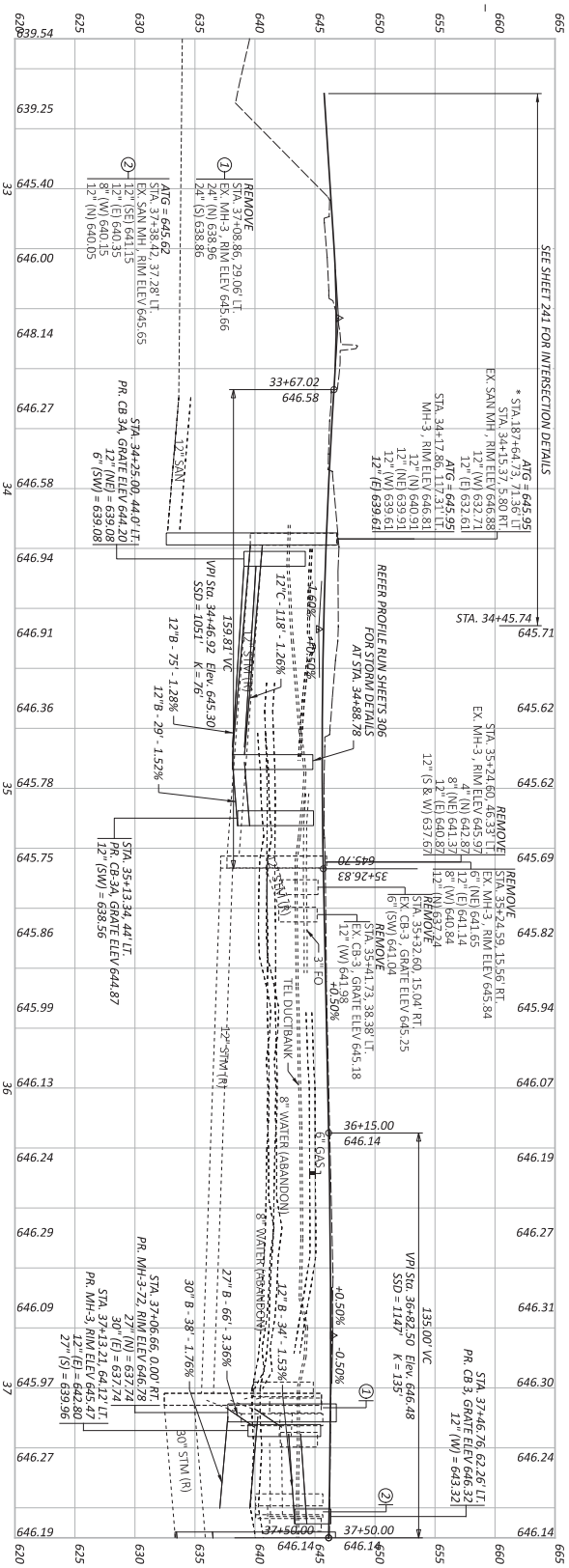


PROFILE - SR 184 (ALEXIS RD)
STA. 32+50 TO STA. 37+50

HORIZONTAL SCALE IN FEET
0 20
10 40

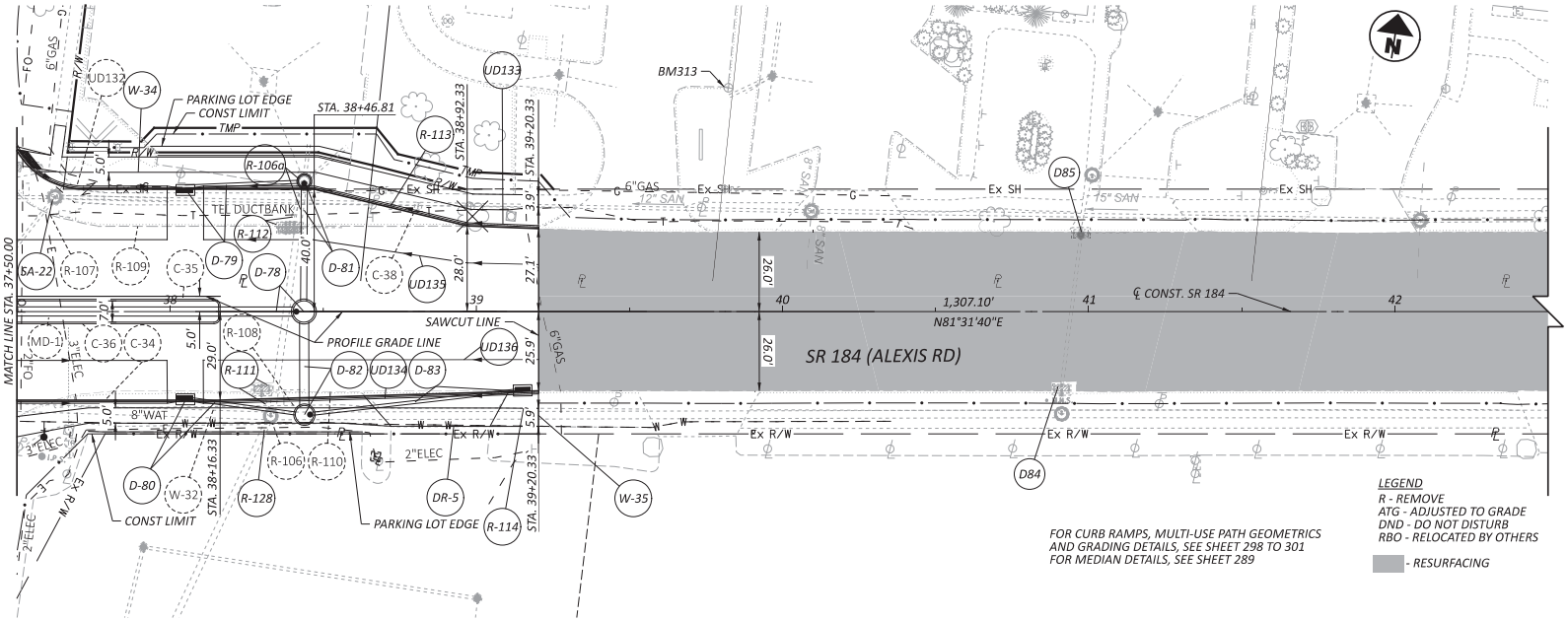
SHEET	TOTAL
151	533

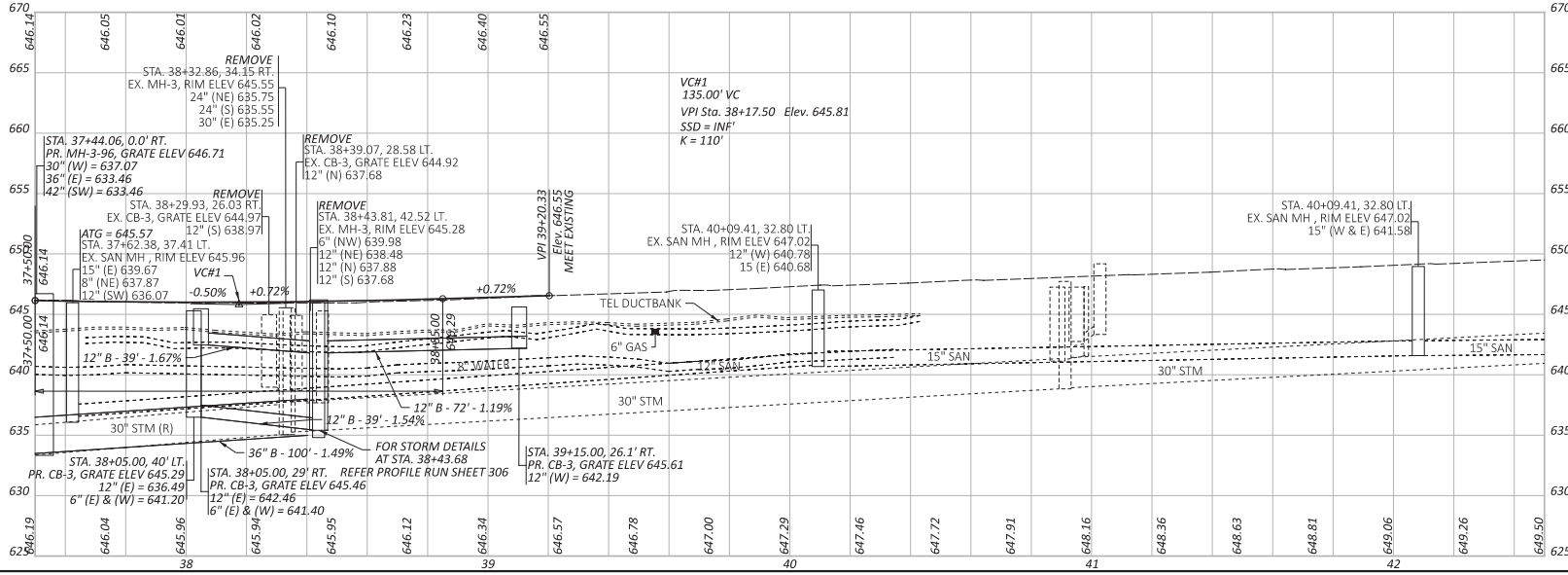
PROJECT ID 105889

REVIEWER XF 04/01/24

DESIGNER DTB

DESIGN AGENCY
BERGMANN



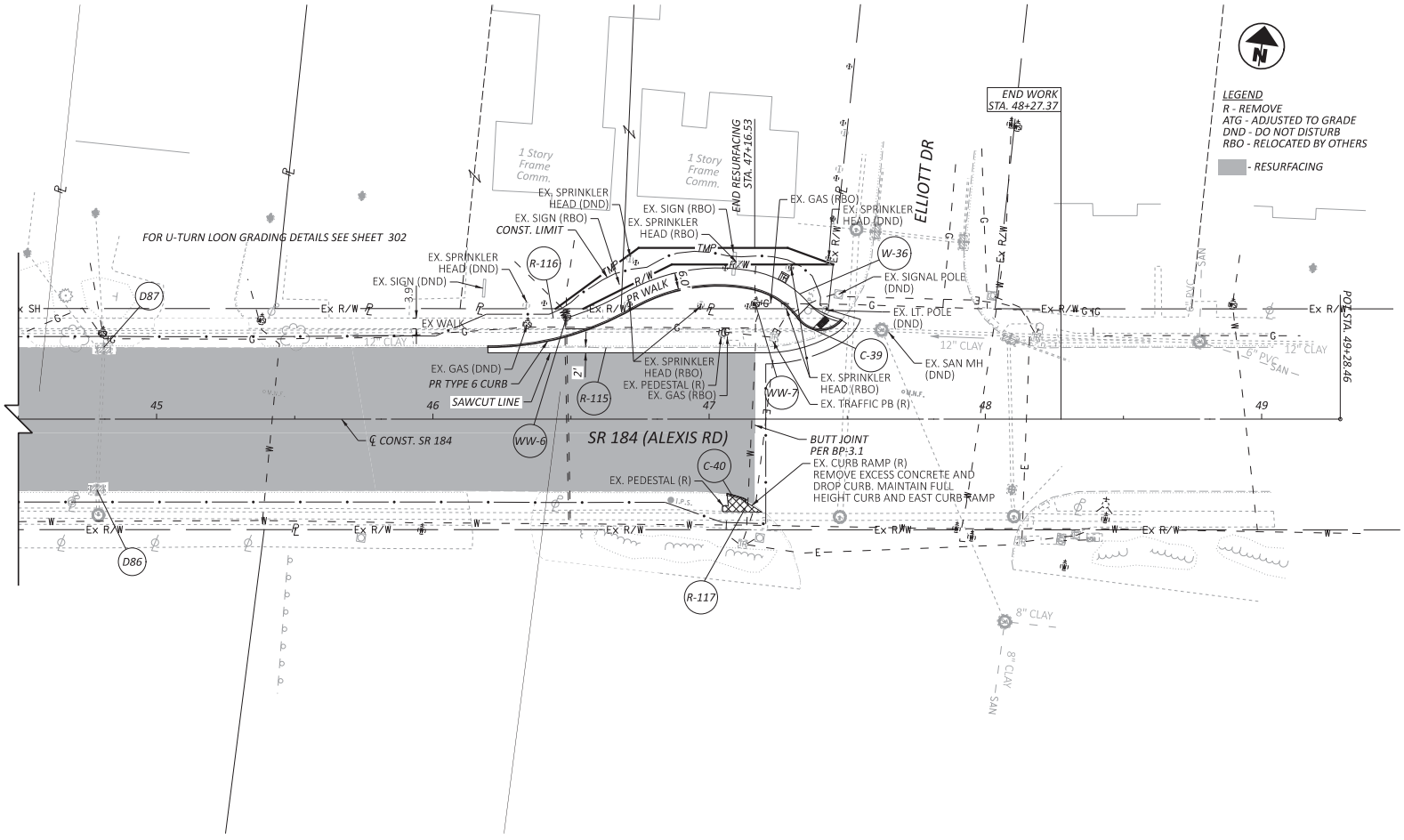


HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN AND PROFILE - SR 184 (ALEXIS RD)
STA. 37+50 TO STA. 42+50

LUC-023-11.75

DESIGN AGENCY
BERGMANN
DESIGNER DTB
REVIEWER XF 04/01/24
PROJECT ID 105889
SHEET 152 TOTAL 533



LUC-023-11.75

MODEL: CLP_518S - Plan B PAPERSIZE: 17x11 (in.) DATE: 3/29/2024 TIME: 2:58:05 PM USER: xfeng
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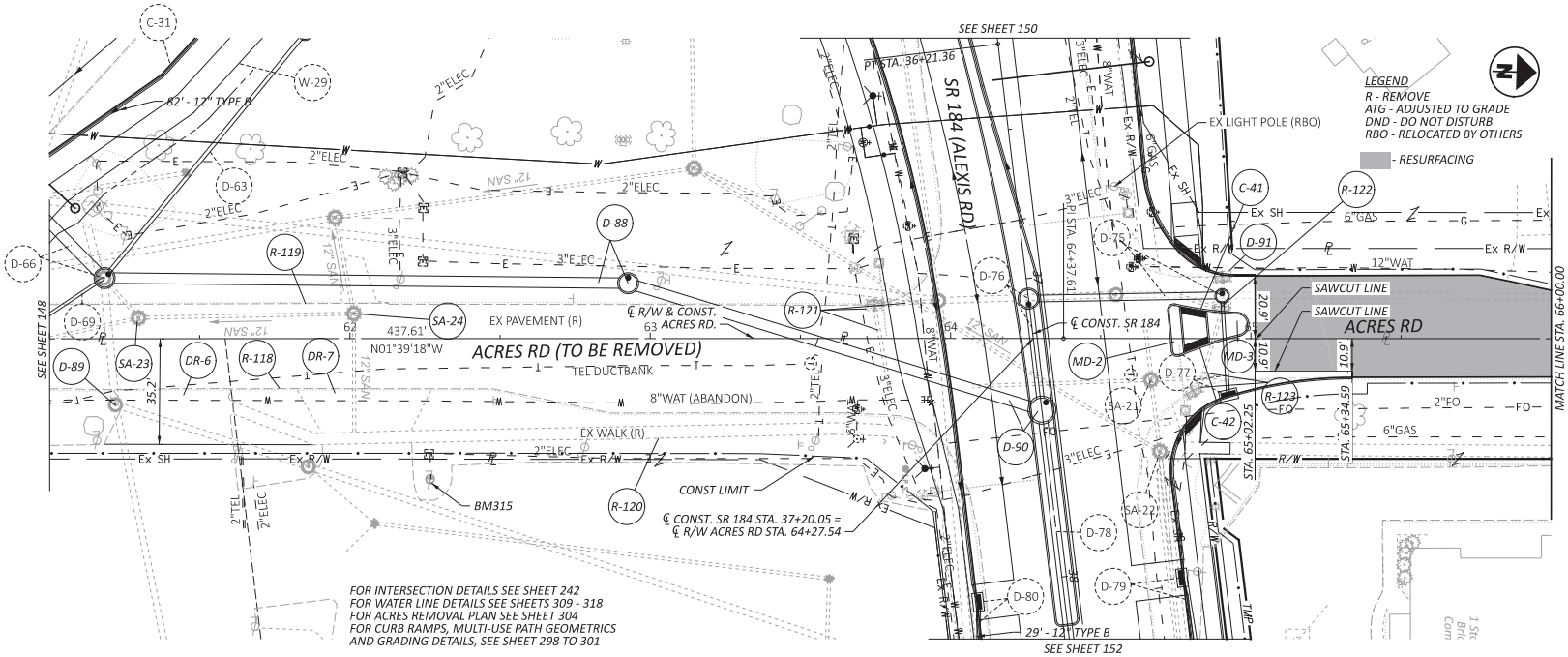
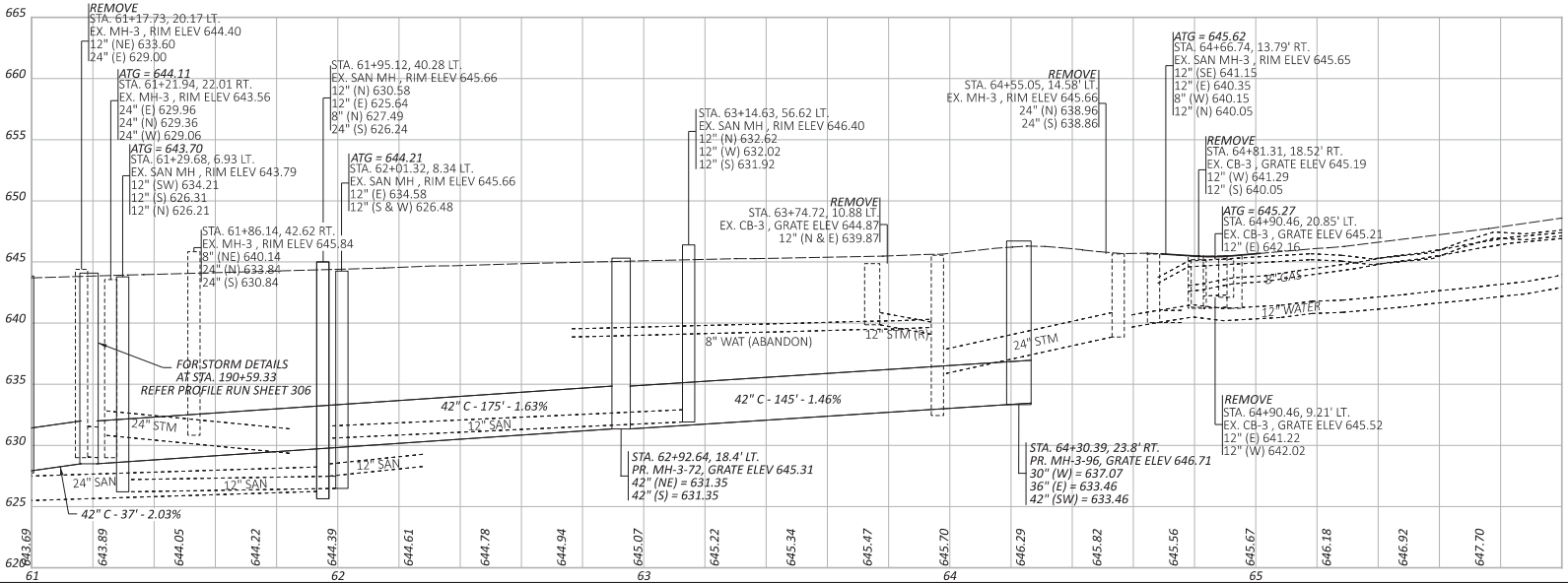
HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN - SR 184 (ALEXIS RD)
STA. 44+50 TO STA. 49+38

DESIGN AGENCY
BERGMANN
ARCHITECTS ENGINEERS PLANNERS
240 BRADFIELD BLVD, STE C,
MARIEL, OH 43537

DESIGNER MAS
REVIEWER XF 04/01/24
PROJECT ID 105889
SHEET 153 TOTAL 533





LUC-023-11.75

MODEL: CLX_RW_ACRES - Plan 6 PAPERSIZES: 17x11 (in.) DATE: 3/29/2024 TIME: 2:58:18 PM USER: rfeng
pw:\\arcadia-us.pw.bentley.com:arcadia-us-01\Documents\01 Active Projects\10099332\ROD_CAD\604-Engineering_Bergmann\Roadway\Sheets\105889_GP408

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN AND PROFILE - ACRES RD
STA. 61+00 TO STA. 66+00

DESIGN AGENCY
BERGMANN
ARCHITECTS ENGINEERS PLANNERS
240 BRADFIELD BLVD, STE C,
MARIEL, OH 43537

DESIGNER DTB
REVIEWER XF 04/01/24
PROJECT ID 105889
SHEET 154 TOTAL 533

MODEL: CLX_RW_ACRES - Plan 7 PAPERSIZE: 17x11 (in.) DATE: 3/29/2024 TIME: 2:58:34 PM USER: xfeng
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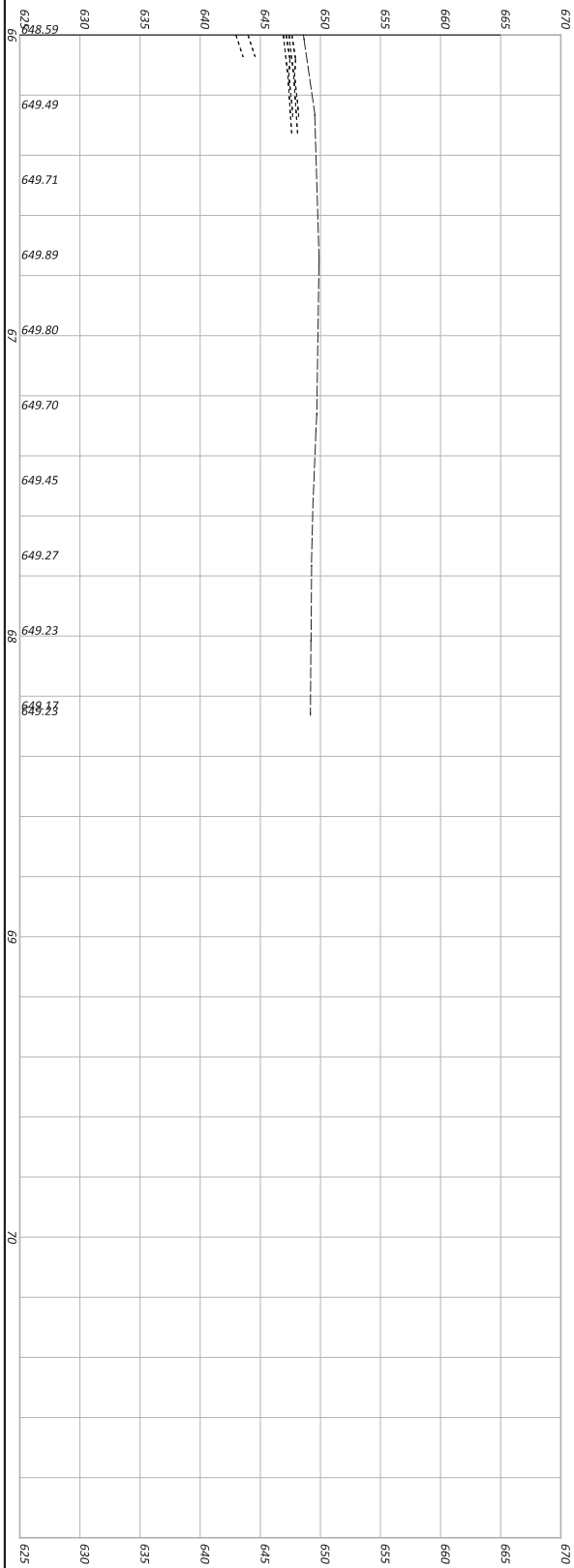
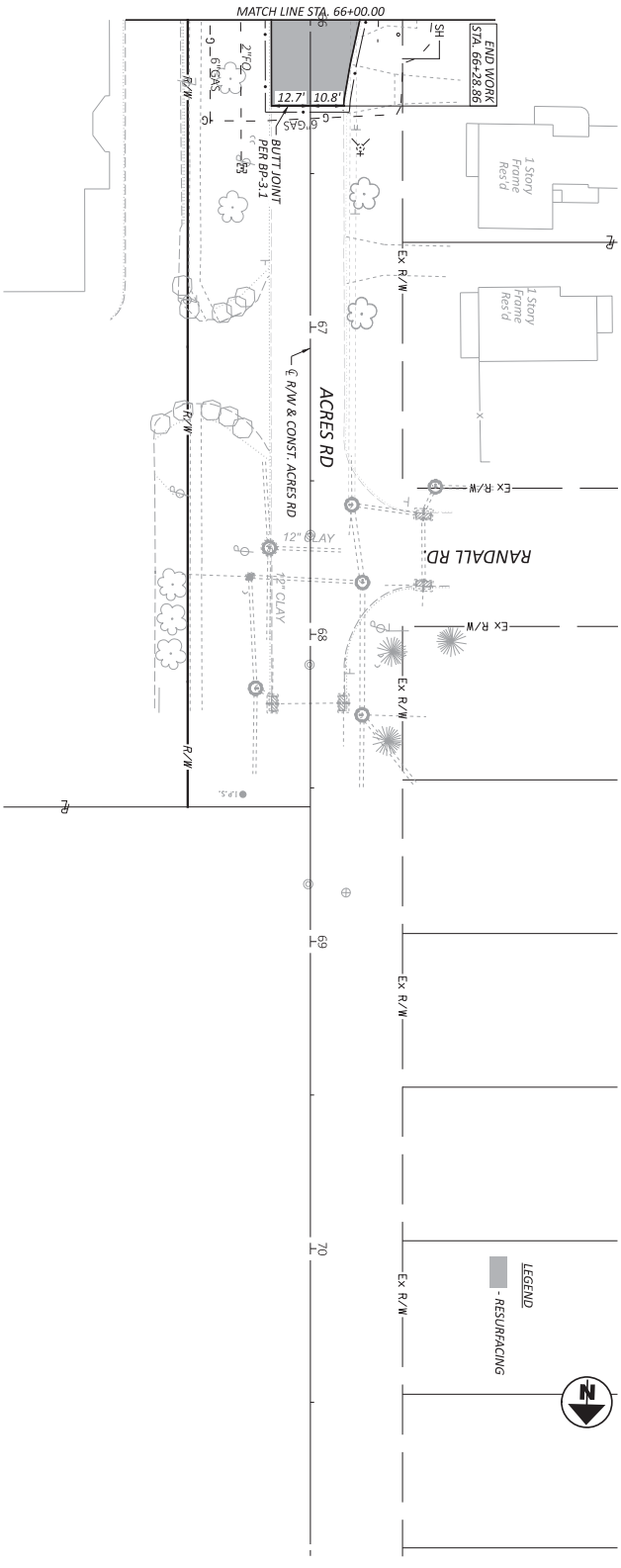




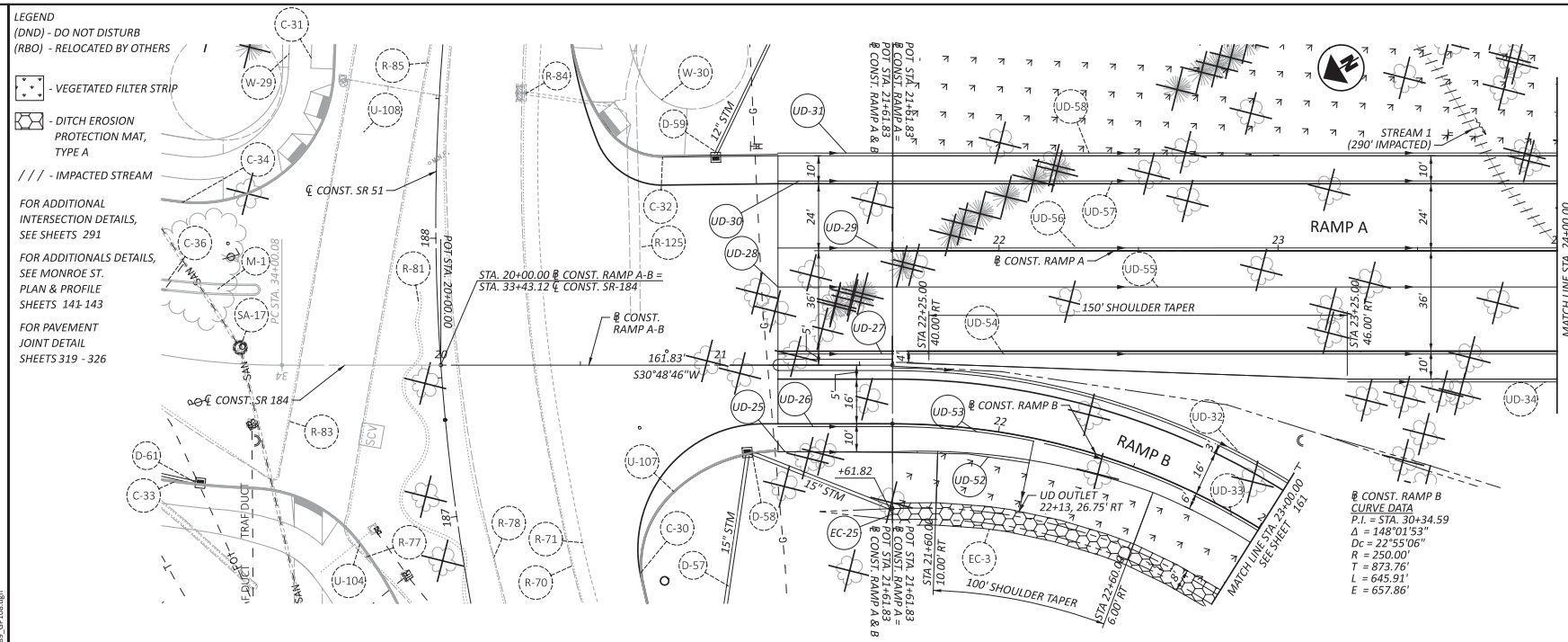
PLAN AND PROFILE - ACRES RD
STA. 66+00 TO STA. 71+00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL
155	533

PROJECT ID 105889
REVIEWER XF 04/01/24
DESIGNER DTB
DESIGN AGENCY BERGMANN

LUC-023-11.75



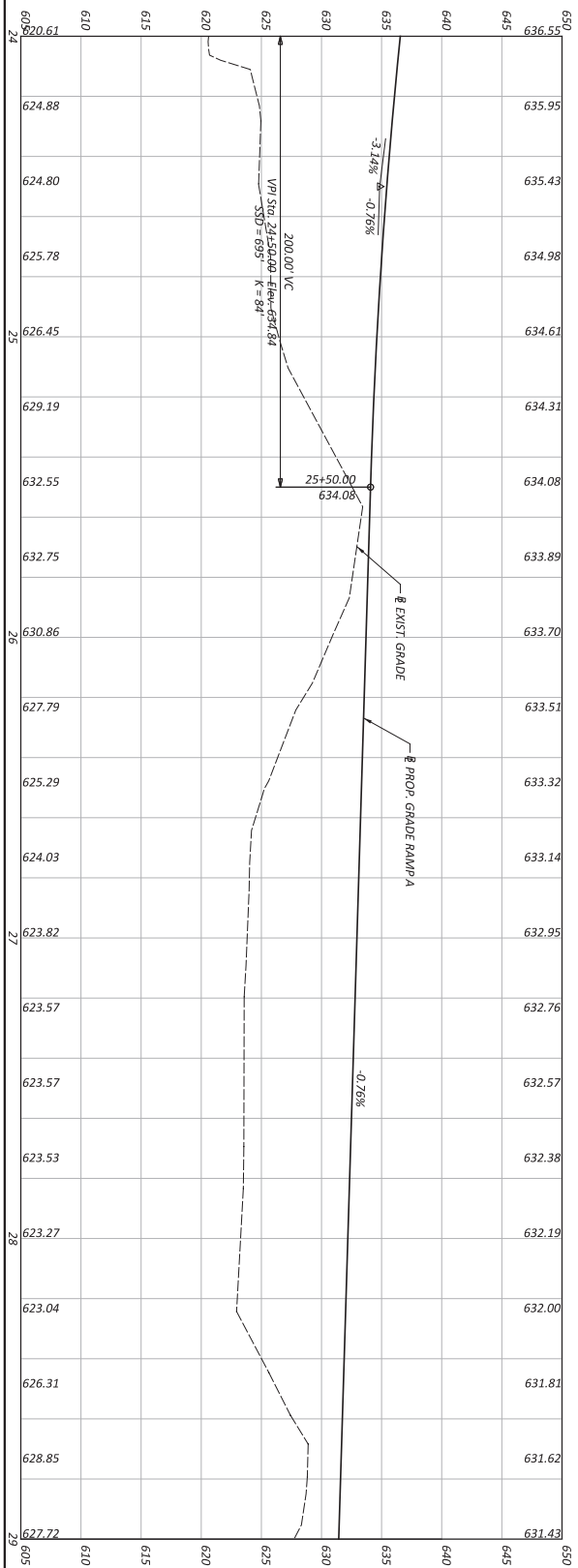
PLAN & PROFILE - RAMP A - B
STA. 20+00 TO STA. 24+00

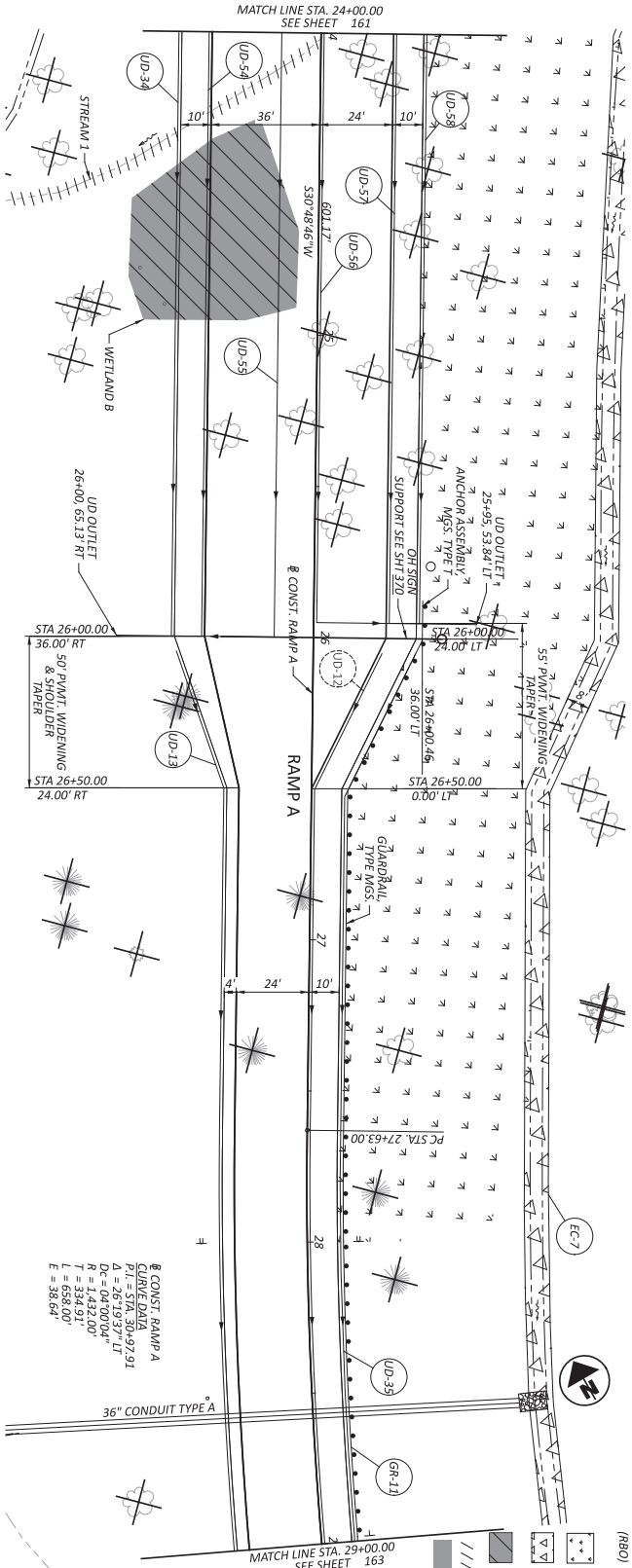
HORIZONTAL SCALE IN FEET
0 10 20 40

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1500
CLEVELAND, OHIO 44114
PHONE: 216.861.4677
www.arcadis.com

DESIGNER TB
REVIEWER SMG 04/01/24
PROJECT ID 105889
SHEET 156 TOTAL 533

MODEL: CLP_NB_EXT - Plan 5 PAPERSIZE: 34x22 (in.) DATE: 11/4/2024 TIME: 9:29:28 AM USER: sgault
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30093332\400_CAD\401-Engineering_Arcadis\Roadway\Sheets\105889_GP109.dgn





PLAN & PROFILE - RAMP A
STA. 24+00 TO STA. 29+00

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL
162	607

PROJECT ID: 105889
REVIEWER: SMG 09/13/24
DESIGNER: TB

ARCADIS
1111 SUPERIOR AVENUE SUITE 1300
CLEVELAND, OHIO 44114
(216) 781-4177
www.arcadis.com
DESIGN AGENCY

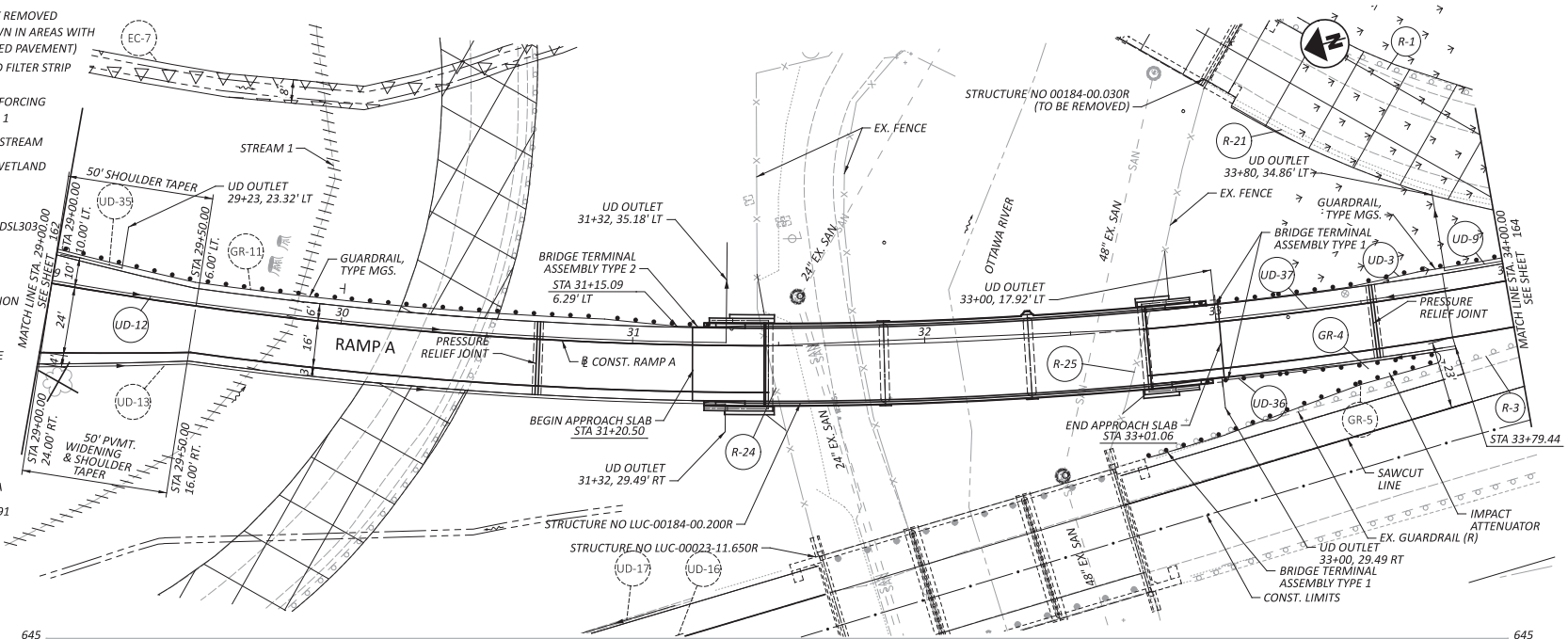
LUC-023-11.75

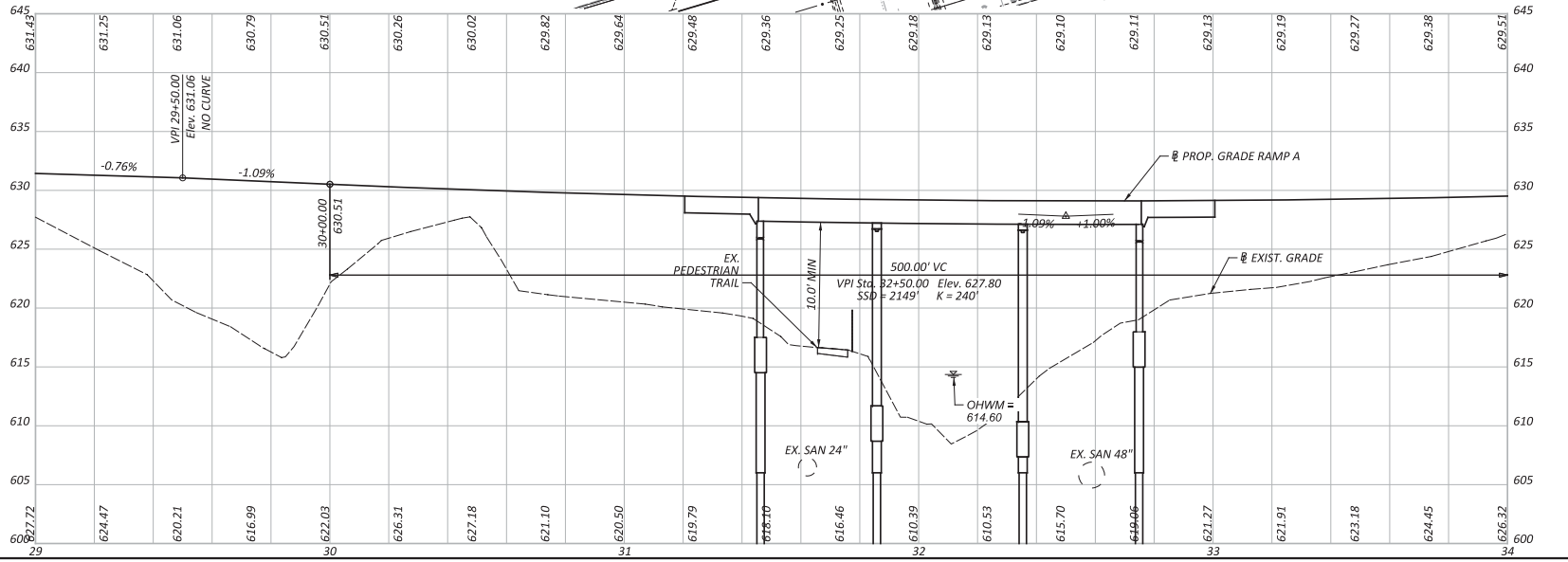
MODEL: CLP_NB_EXT - Plan 6 PAPERSIZE: 34x22 (in.) DATE: 10/17/2024 TIME: 9:43:02 AM USER: sgault
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\10099332\R400_CAD\401 Engineering_Arcadis\Roadway\Sheets\105889_GP110.dgn

LEGEND
(DND) - DO NOT DISTURB
(RBO) - RELOCATED BY OTHERS
- PAVEMENT REMOVED (ONLY SHOWN IN AREAS WITH NO PROPOSED PAVEMENT)
- VEGETATED FILTER STRIP
- TURF REINFORCING MAT, TYPE 1
/// - IMPACTED STREAM
- EXISTING WETLAND

FOR ADDITIONAL BRIDGE DETAILS, SEE SHEETS 482 - $DSL303
FOR PAVEMENT JOINT DETAIL SEE SHEETS 324 - 331
FOR SUPERELEVATION DETAILS SEE SHEETS 285 - 288
FOR INTERCHANGE DETAILS SEE SHEET 289

℄ CONST. RAMP A
CURVE DATA
P.I. = STA. 30+97.91
Δ = 26°19'37" LT
Dc = 04°00'04"
R = 1,432.00'
T = 334.91'
L = 658.00'
E = 38.64'





HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - RAMP A
STA. 29+00 TO STA. 34+00

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1500
CLEVELAND, OHIO 44114
PHONE: 216.241.7333
www.arcadis.com

DESIGNER	TB
REVIEWER	SMG 09/13/24
PROJECT ID	105889
SHEET	163
TOTAL	607

LUC-023-11.75

MODEL: CLP_NB_EXT - Plan ? PAPERSIZE: 34x22 (in.) DATE: 3/29/2024 TIME: 4:42:40 PM USER: sgault
pw:\\arcadis-us-pw.bentley.com:arcadis-us-v01\Documents\01 Active Projects\10095932\400_CAD\401 Engineering_Arcadis\Roadway\Sheets\105889_GP111.dgn

LEGEND
(DND) - DO NOT DISTURB
(RBO) - RELOCATED BY OTHERS
- VEGETATED FILTER STRIP
- PAVEMENT REMOVED (ONLY SHOWN IN AREAS WITH NO PROPOSED PAVEMENT)
- EXISTING WETLAND

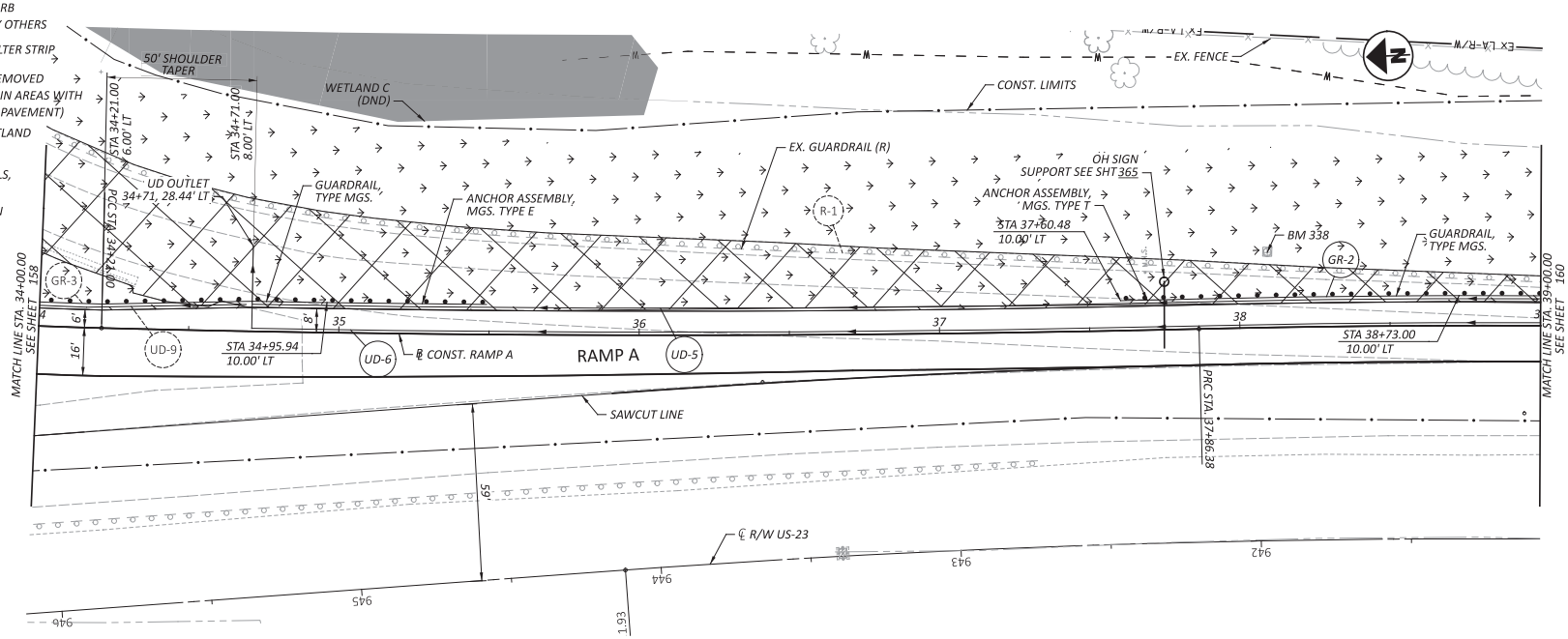
FOR ADDITIONAL INTERCHANGE DETAILS, SEE SHEET 284

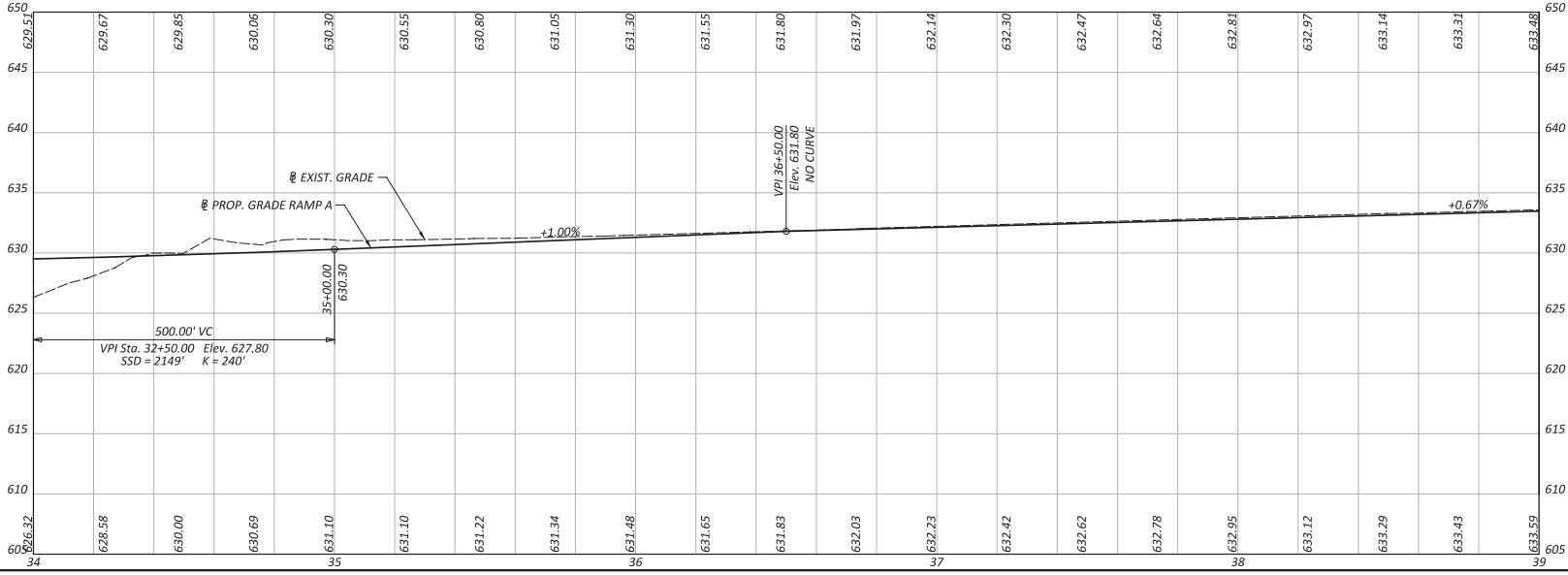
FOR SUPERELEVATION DETAILS SHEETS 280 - 283 FOR US 23 PLAN SEE SHEETS 136 - 140

℄ CONST. RAMP A
CURVE DATA
P.I. = STA. 30+97.91
Δ = 26°19'37" LT
Dc = 04°00'04"
R = 1,432.00'
T = 334.91'
L = 658.00'
E = 38.64'

℄ CONST. RAMP A
CURVE DATA
P.I. = STA. 36+03.73
Δ = 02°48'48" LT
Dc = 00°46'12"
R = 7,441.21'
T = 182.73'
L = 365.39'
E = 2.24'

℄ CONST. RAMP A
CURVE DATA
P.I. = STA. 39+44.82
Δ = 04°33'43"
Dc = 01°26'26"
R = 3,977.53'
T = 158.44'
L = 316.7'
E = 3.15'





HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - RAMP A
STA. 34+00 TO STA. 39+00

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1500
CLEVELAND, OHIO 44114
PHONE: 216.696.2077
www.arcadis.com

DESIGNER TB
REVIEWER SMG 04/01/24
PROJECT ID 105889
SHEET 159 TOTAL 533

LUC-023-11.75

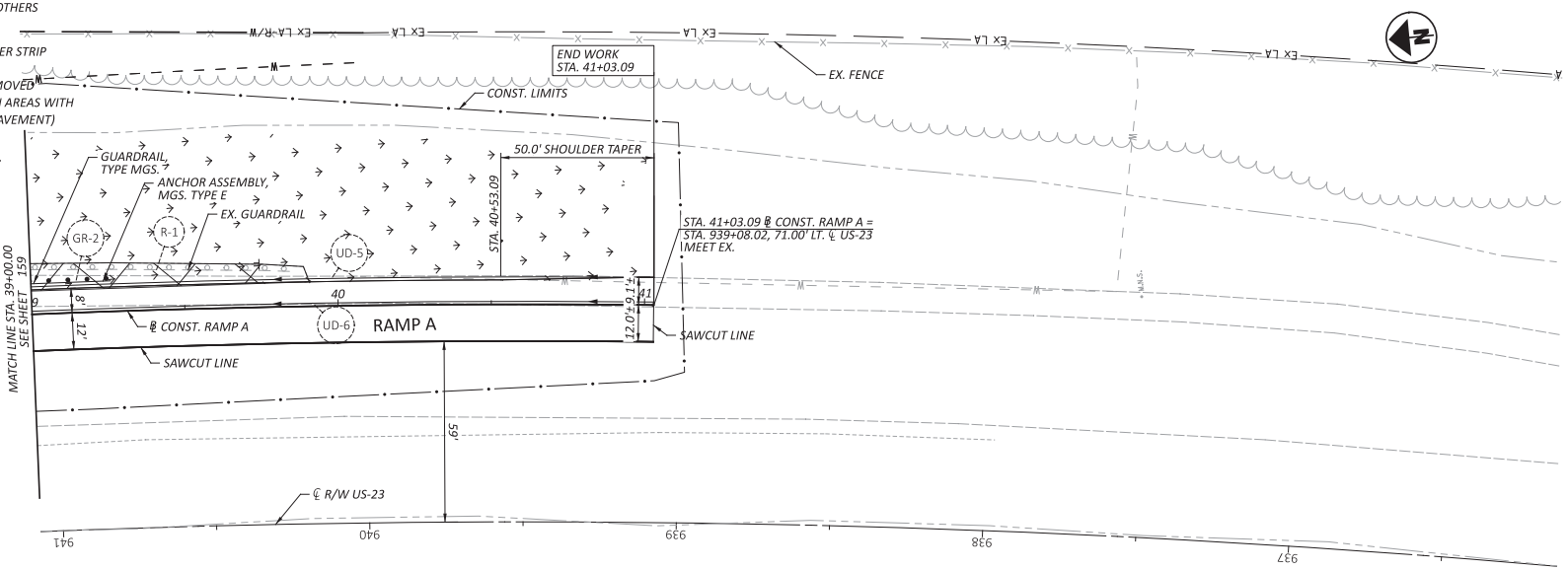
MODEL: CLP_N8_EXT - Plan 8 PAPERSIZE: 34x22 (in.) DATE: 3/29/2024 TIME: 4:42:57 PM USER: sgault
pw:\\arcadis-us-pw.bentley.com:arcadis-us-v01\Documents\01 Active Projects\30099332\R&D_CAD\401 Engineering_Arcadis\Roadway\Sheets\105889_GP112.dgn

LEGEND
(DND) - DO NOT DISTURB
(RBO) - RELOCATED BY OTHERS

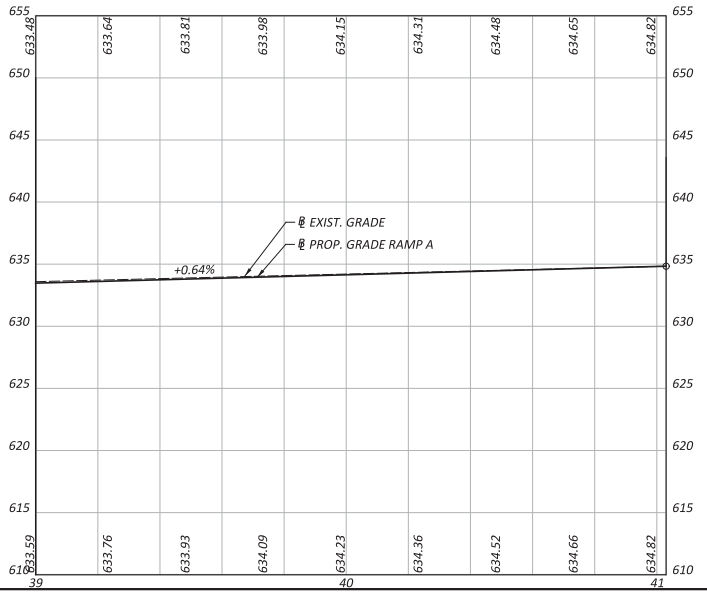
- VEGETATED FILTER STRIP
- PAVEMENT REMOVED (ONLY SHOWN IN AREAS WITH NO PROPOSED PAVEMENT)

FOR ADDITIONAL INTERCHANGE DETAILS, SEE SHEET 284

FOR US 23 PLAN SEE SHEETS 136 - 140



℄ CONST. RAMP A
CURVE DATA
P.I. = STA. 39+44.82
Δ = 04°33'43"
Dc = 01°26'26"
R = 3,977.53'
T = 158.44'
L = 316.7'
E = 3.15'



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - RAMP A
STA. 39+00 TO END

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1000
CLEVELAND, OHIO 44114
(216) 696-2407
www.arcadis.com

DESIGNER TB
REVIEWER SMG 04/01/24
PROJECT ID 105889
SHEET 160 TOTAL 533

LUC-023-11.75

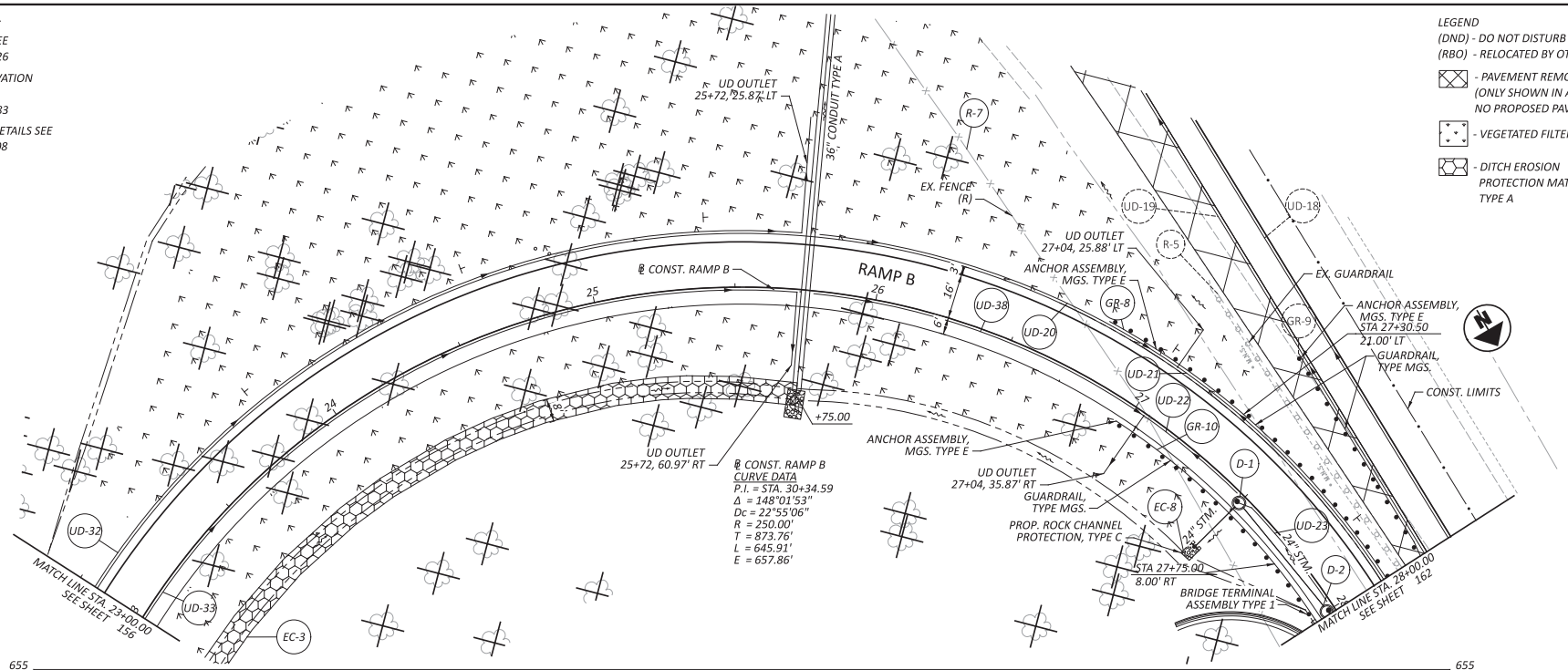
MODEL: CLP_NB_ENT - Plan 9 PAPERSIZE: 34x22 (in.) DATE: 3/29/2024 TIME: 4:43:12 PM USER: sgrutt
pw:\\arcadis-us-pw.bentley.com:arcadis-us-v01\Documents\01 Active Projects\30093932\400_CAD\401 Engineering_Arcadis\Roadway\Sheets\105889_GP113.dgn

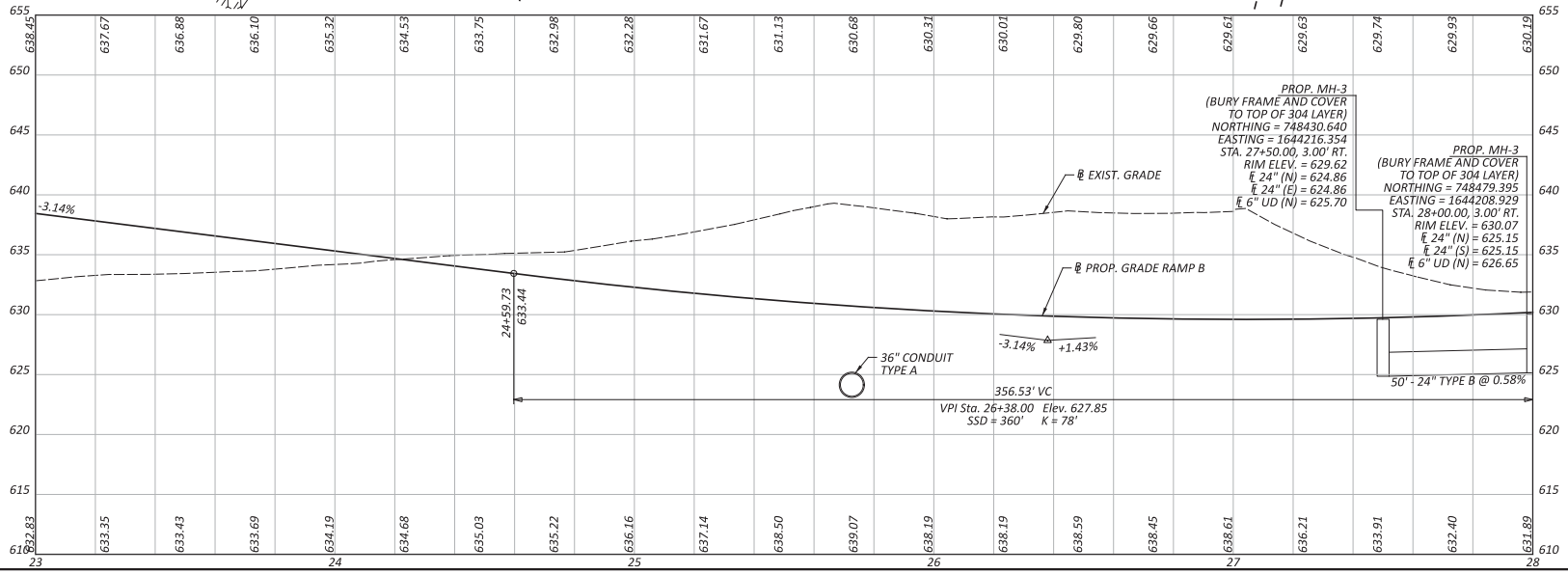
FOR PAVEMENT JOINT DETAIL SEE SHEETS 319 - 326

FOR SUPERELEVATION DETAILS SEE SHEETS 280 - 283

FOR CULVERT DETAILS SEE SHEETS 307 - 308

LEGEND
(DND) - DO NOT DISTURB
(RBO) - RELOCATED BY OTHERS
- PAVEMENT REMOVED (ONLY SHOWN IN AREAS WITH NO PROPOSED PAVEMENT)
- VEGETATED FILTER STRIP
- DITCH EROSION PROTECTION MAT, TYPE A





PLAN & PROFILE - RAMP B
STA. 23+00 TO STA. 28+00

HORIZONTAL SCALE IN FEET
0 10 20 40

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1300
CLEVELAND, OHIO 44114
216.622.2400
www.arcadis.com

DESIGNER SMG
REVIEWER TB 04/01/24
PROJECT ID 105889
SHEET 161 TOTAL 533

LUC-023-11.75

MODEL: CLP_NB_ENT - Plan 10 PAPERSIZE: 34x22 (in.) DATE: 3/29/2024 TIME: 4:43:30 PM USER: sgault
pw:\\arcadis-us-pw.bentley.com:arcadis-us-o1\Documents\01 Active Projects\30093327\400_CAD\401 Engineering_Arcadis\Roadway\Sheets\105889_GP114.dgn

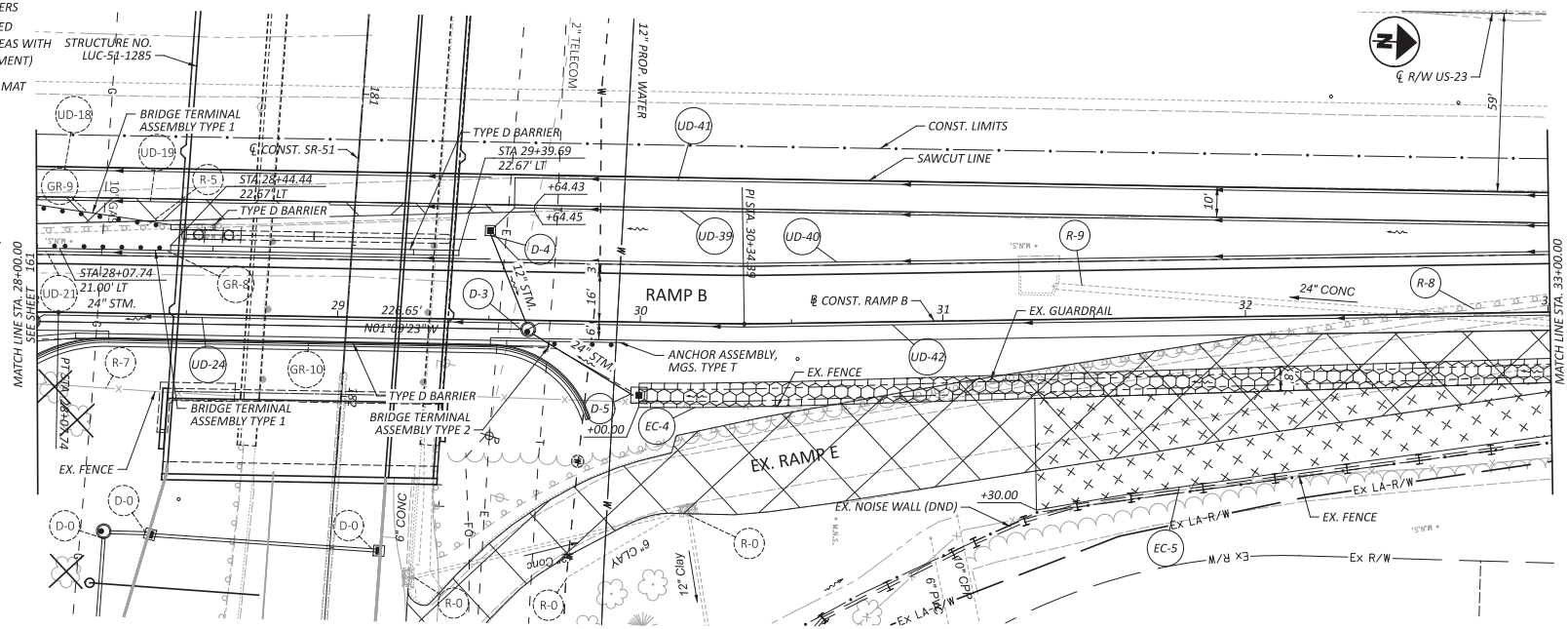
LEGEND
(DND) - DO NOT DISTURB
(RBO) - RELOCATED BY OTHERS
- PAVEMENT REMOVED (ONLY SHOWN IN AREAS WITH NO PROPOSED PAVEMENT)
- EROSION CONTROL MAT
- DITCH EROSION PROTECTION MAT, TYPE A

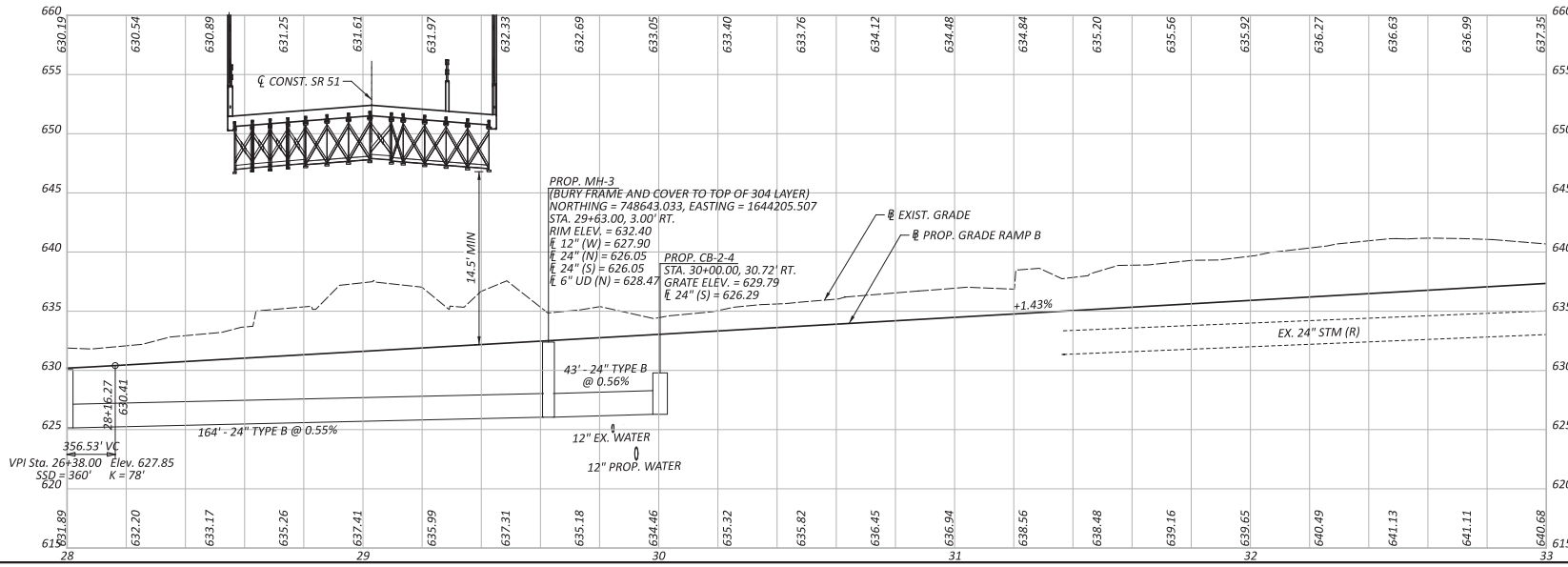
FOR ADDITIONAL BRIDGE DETAILS, SEE SHEET 410

FOR ADDITIONALS DETAILS, SEE MONROE ST. PLAN & PROFILE SHEETS 141-143

FOR INTERCHANGE DETAILS, SEE SHEET 285

FOR SUPERELEVATION DETAILS, SEE SHEETS 280-283





HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - RAMP B
STA. 28+00 TO STA. 33+00

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE, SUITE 1500
CLEVELAND, OHIO 44114
PHONE: 216.696.2604
www.arcadis.com

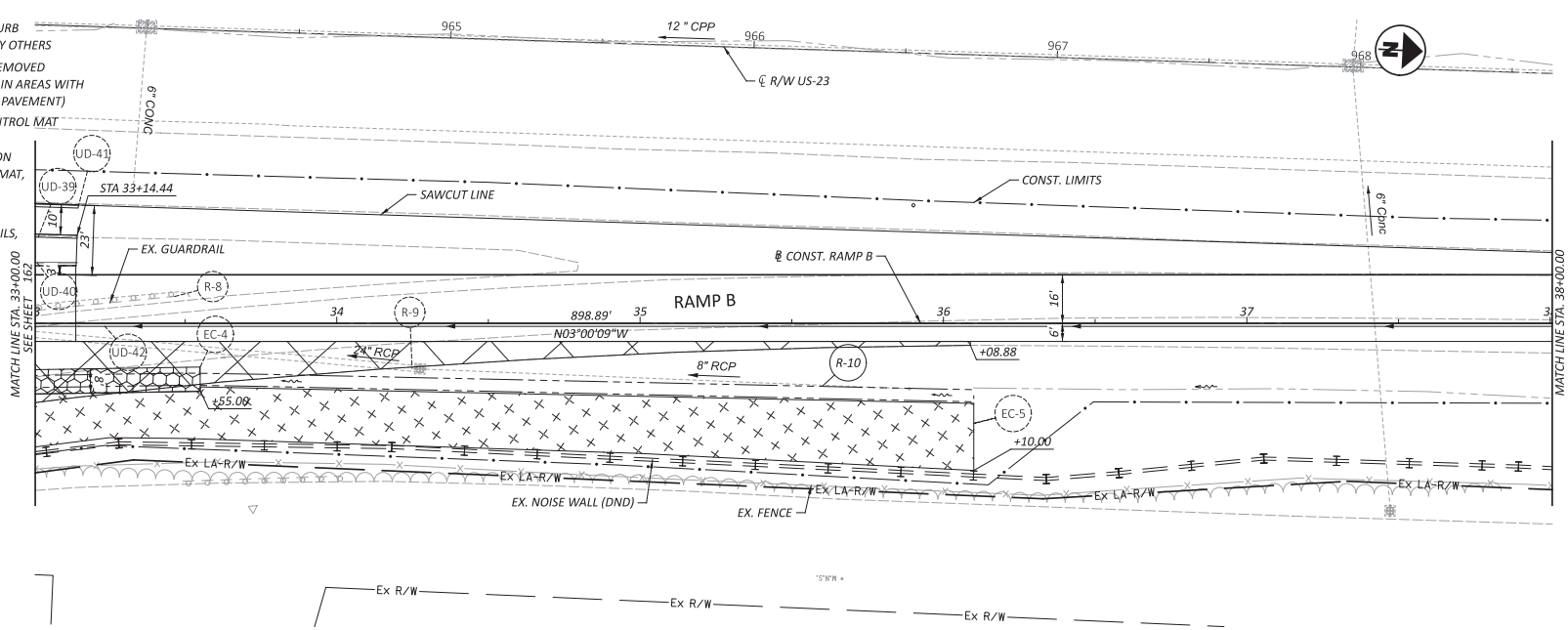
DESIGNER TB
REVIEWER SMG 04/01/24
PROJECT ID 105889
SHEET 162 TOTAL 533

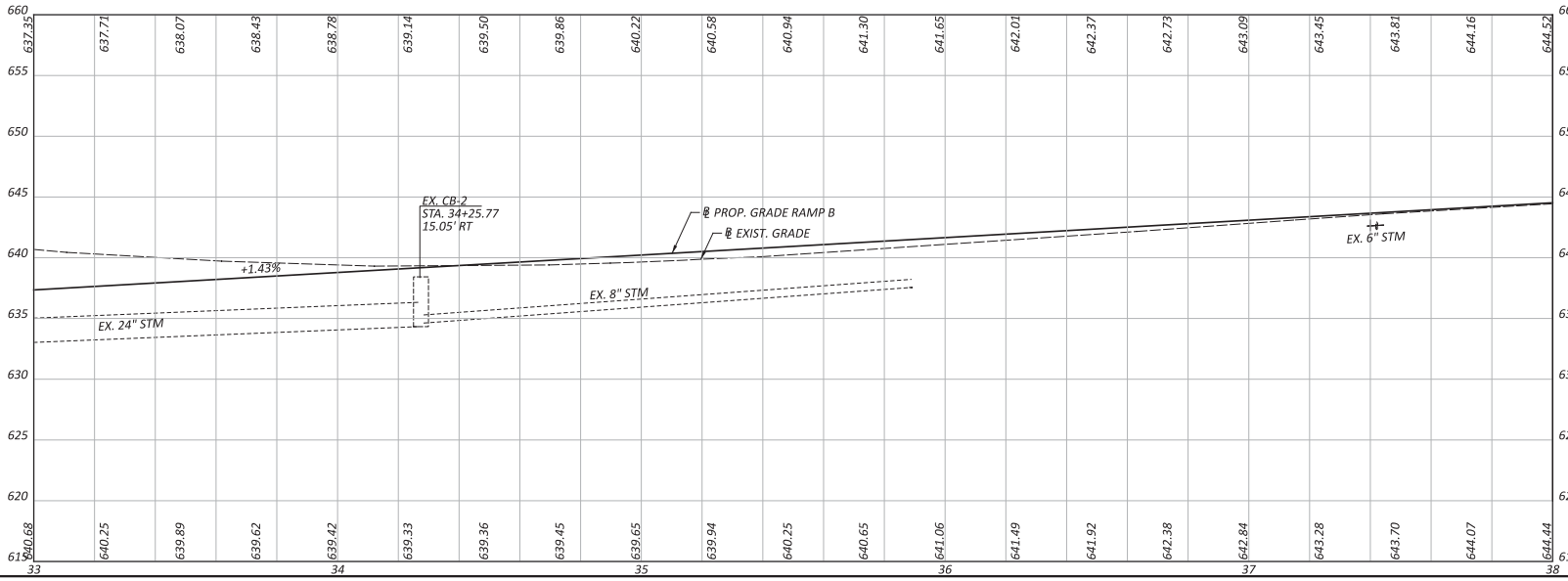
LUC-023-11.75

MODEL: CLP_NB_ENT - Plan 11 PAPERSIZE: 34x22 (in.) DATE: 3/29/2024 TIME: 4:43:47 PM USER: sgault
pw:\\arcadis-us-pw.bentley.com:arcadis-us-v01\Documents\01 Active Projects\30099332\R400_CAD\401 Engineering_Arcadis\Roadway\Sheets\105889_GP115.dgn

LEGEND
(DND) - DO NOT DISTURB
(RBO) - RELOCATED BY OTHERS
- PAVEMENT REMOVED (ONLY SHOWN IN AREAS WITH NO PROPOSED PAVEMENT)
- EROSION CONTROL MAT
- DITCH EROSION PROTECTION MAT, TYPE A

FOR ADDITIONAL INTERCHANGE DETAILS, SEE SHEET 285





HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - RAMP B
STA. 33+00 TO STA 38+00

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE, SUITE 1500
CLEVELAND, OHIO 44114
PHONE: (216) 696-2604
www.arcadis.com

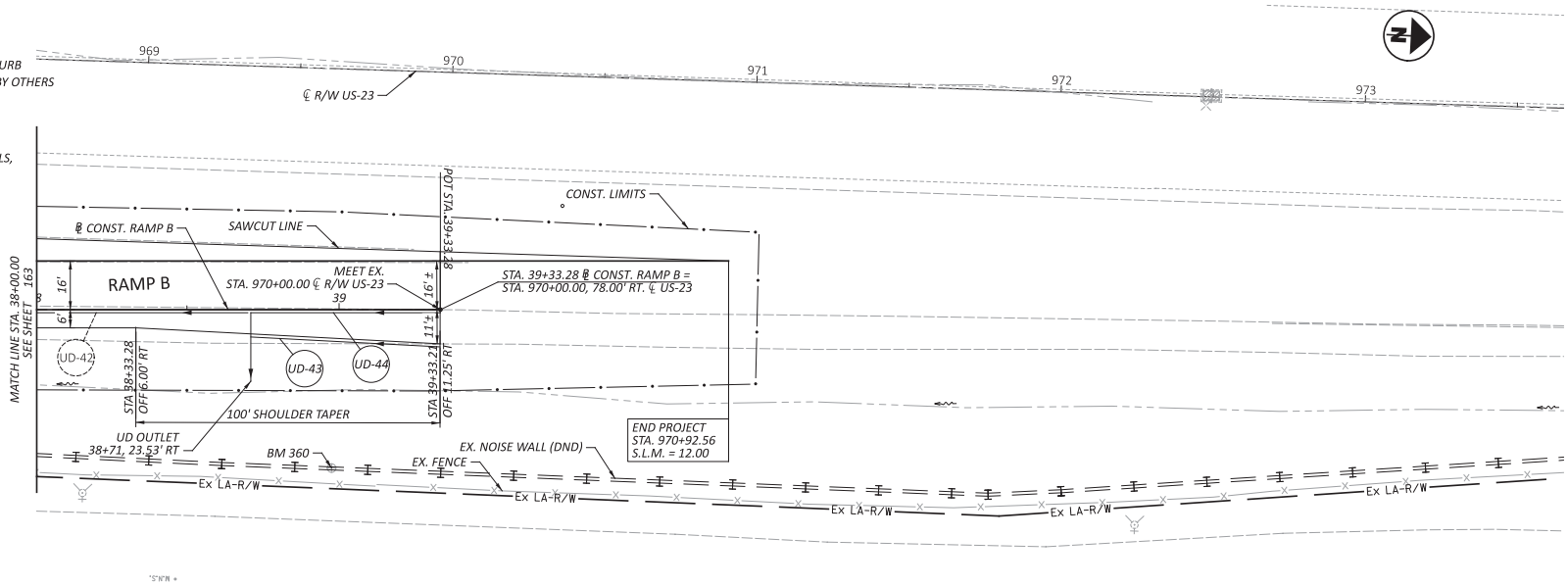
DESIGNER TB
REVIEWER SMG 04/01/24
PROJECT ID 105889
SHEET 163 TOTAL 533

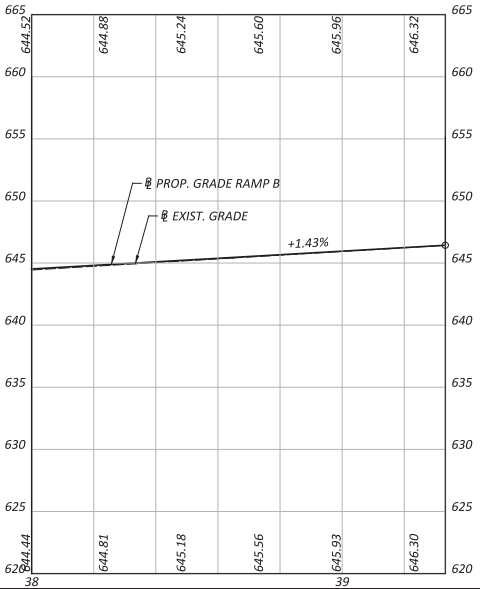
LUC-023-11.75

MODEL: CLP_NB_ENT - Plan 12 PAPERSIZE: 34x22 (in.) DATE: 3/29/2024 TIME: 4:44:04 PM USER: sgault
pw:\\arcadis-us-pw.bentley.com:arcadis-us-v01\Documents\01 Active Projects\30093332\400_CAD\401 Engineering_Arcadis\Roadway\Sheets\105889_GP116.dgn

LEGEND
(DND) - DO NOT DISTURB
(RBO) - RELOCATED BY OTHERS

FOR ADDITIONAL INTERCHANGE DETAILS, SEE SHEET 285



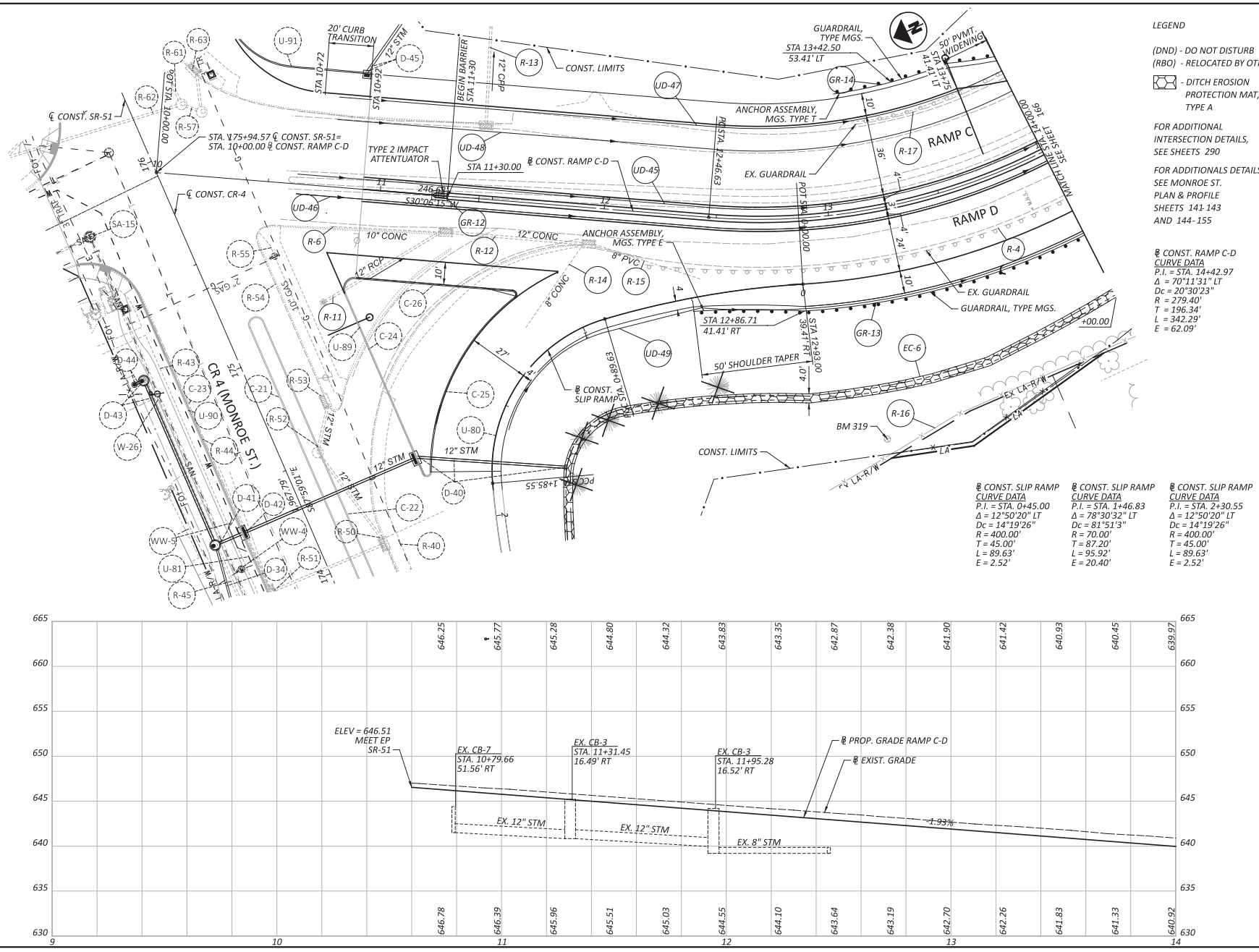


HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - RAMP B
STA. 38+00 TO END

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE, SUITE 1500
CLEVELAND, OHIO 44114
440.801.9000
www.arcadis.com

DESIGNER TB
REVIEWER SMG 04/01/24
PROJECT ID 105889
SHEET 164 TOTAL 533



LUC-023-11.75

MODEL: CLP_SB - Plan 1 PAPERSIZE: 34x22 (in.) DATE: 3/29/2024 TIME: 4:44:20 PM USER: sgault
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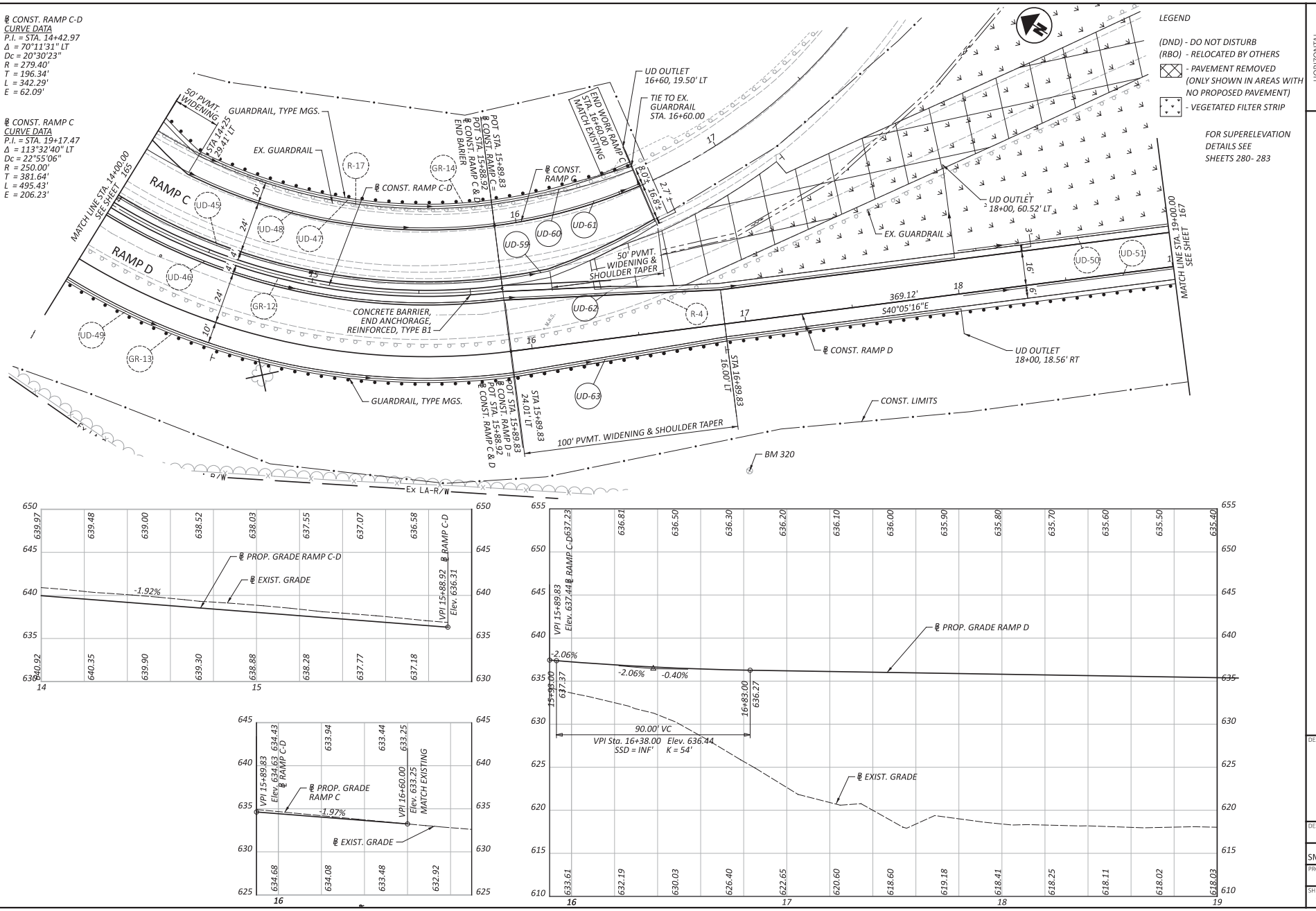
HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - RAMP C - D
STA. 10+00 TO STA. 14+00

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE, SUITE 1500
CLEVELAND, OHIO 44114
PHONE: 216.696.2604
www.arcadis.com

DESIGNER TB
REVIEWER SMG 04/01/24
PROJECT ID 105889
SHEET 165 TOTAL 533



PLAN & PROFILE - RAMP C - D
STA. 14+00 TO STA. 19+00

LUC-023-11.75

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE, SUITE 1500
CLEVELAND, OHIO 44114
PHONE: 216.696.2604
www.arcadis.com

DESIGNER TB
REVIEWER SMG 04/01/24
PROJECT ID 105889
SHEET 166 TOTAL 533

MODEL: CLP_SB - Plan 2 PAPERSIZE: 34x22 (in.) DATE: 3/29/2024 TIME: 4:44:37 PM USER: sgault
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30099332\400_CAD\401 Engineering_Arcadis\Roadway\Sheets\105889_GP105.dgn

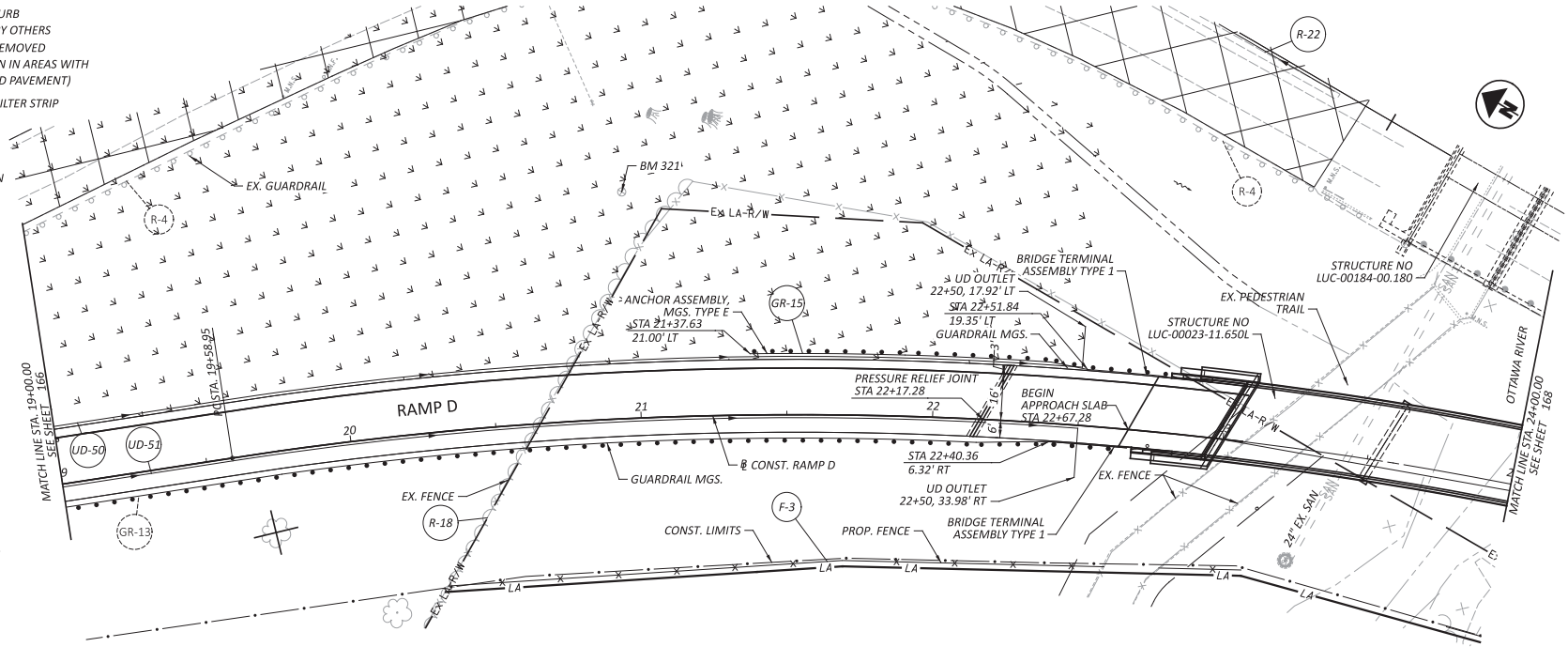
LUC-023-11.75

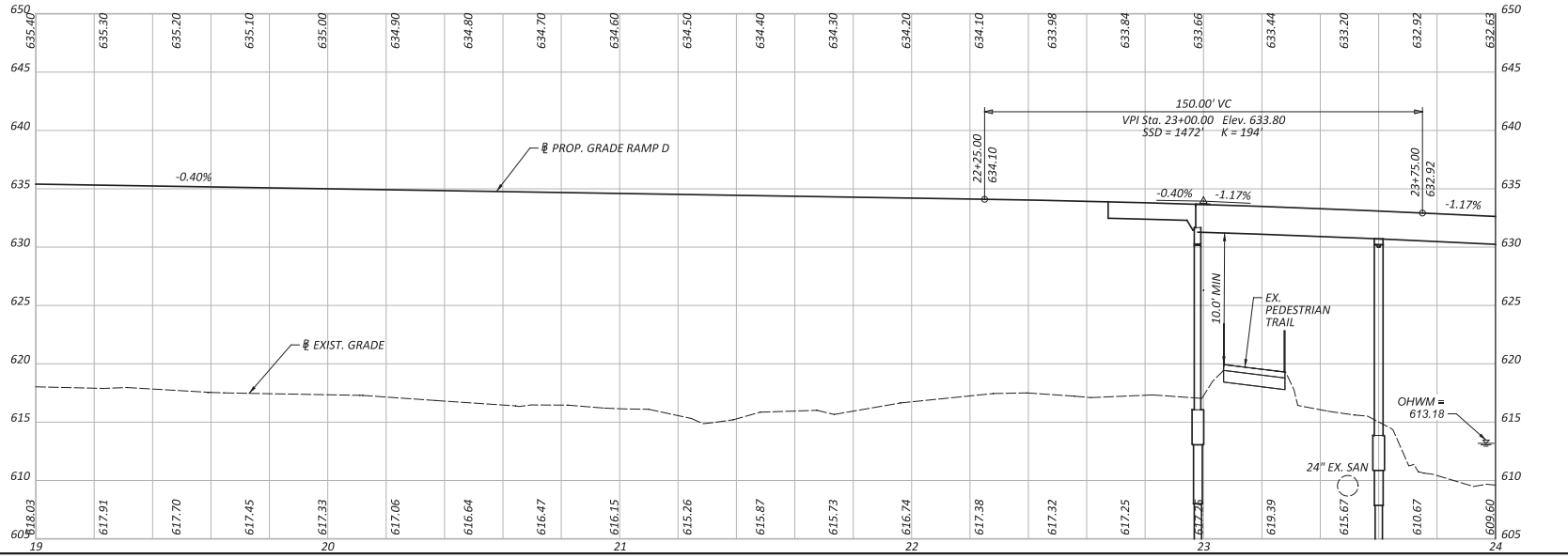
MODEL: 105889_CLP_SB_ENT - Plan 3 PAPERSIZE: 34x22 (in.) DATE: 3/29/2024 TIME: 4:44:57 PM USER: sgault
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30093332\400_CAD\401 Engineering_Arcadis\Roadway\Sheets\105889_GP106.dgn

LEGEND
(DND) - DO NOT DISTURB
(RBO) - RELOCATED BY OTHERS
- PAVEMENT REMOVED (ONLY SHOWN IN AREAS WITH NO PROPOSED PAVEMENT)
- VEGETATED FILTER STRIP

FOR ADDITIONAL BRIDGE DETAILS, SEE SHEET 476
FOR SUPERELEVATION DETAILS SEE SHEETS 280- 283

℄ CONST. RAMP D
CURVE DATA
P.I. = STA. 23+47.42
Δ = 33°56'24" RT
Dc = 33°30'03"
R = 1,273.00'
T = 388.47'
L = 754.08'
E = 57.95'



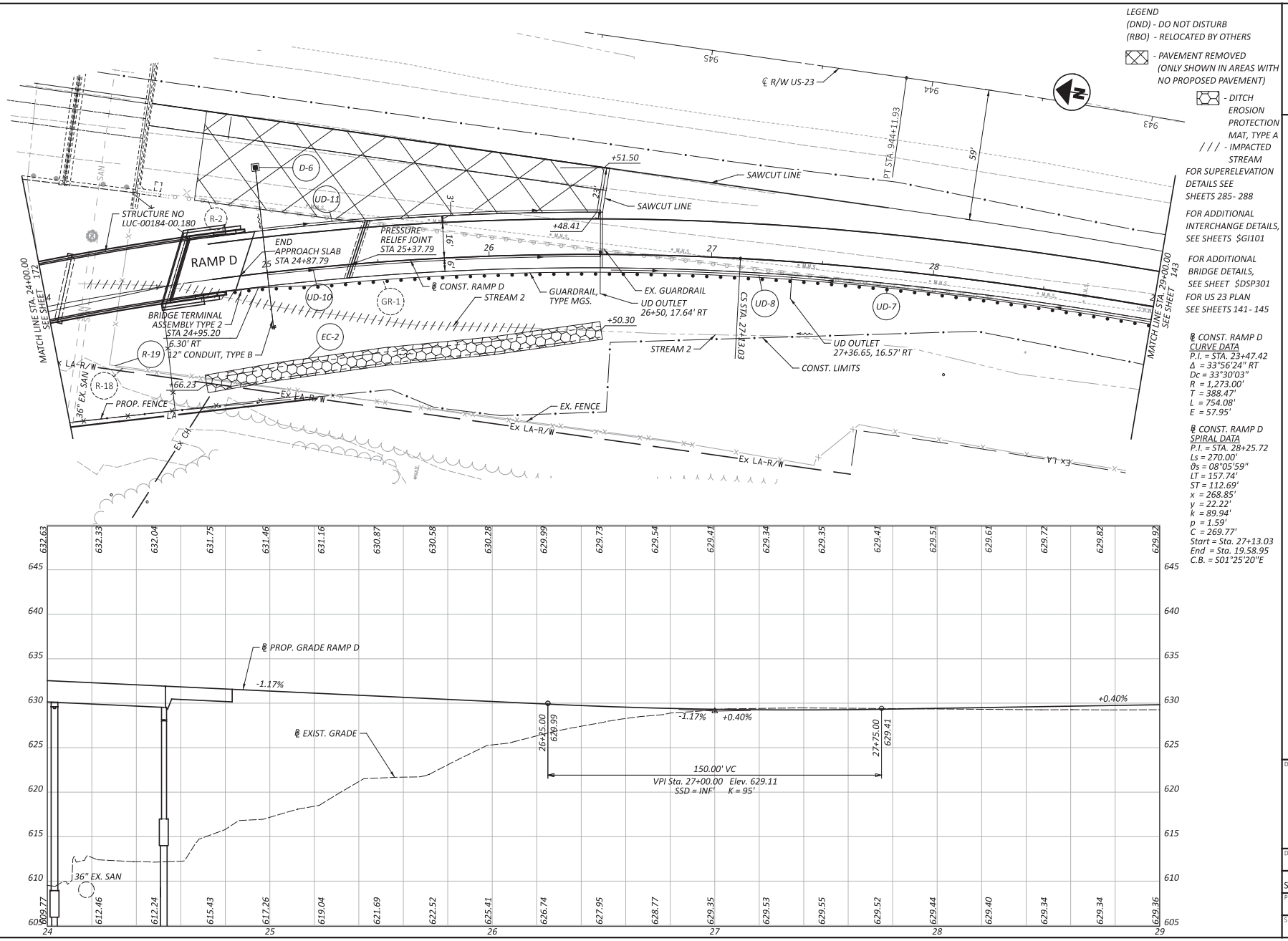


HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - RAMP D
STA. 19+00 TO STA. 24+00

DESIGN AGENCY
ARCADIS
111 SUPERIOR AVENUE SUITE 1300
CLEVELAND, OHIO 44114
(216) 696-2071
www.arcadis.com

DESIGNER TB
REVIEWER SMG 04/01/24
PROJECT ID 105889
SHEET 167 TOTAL 533



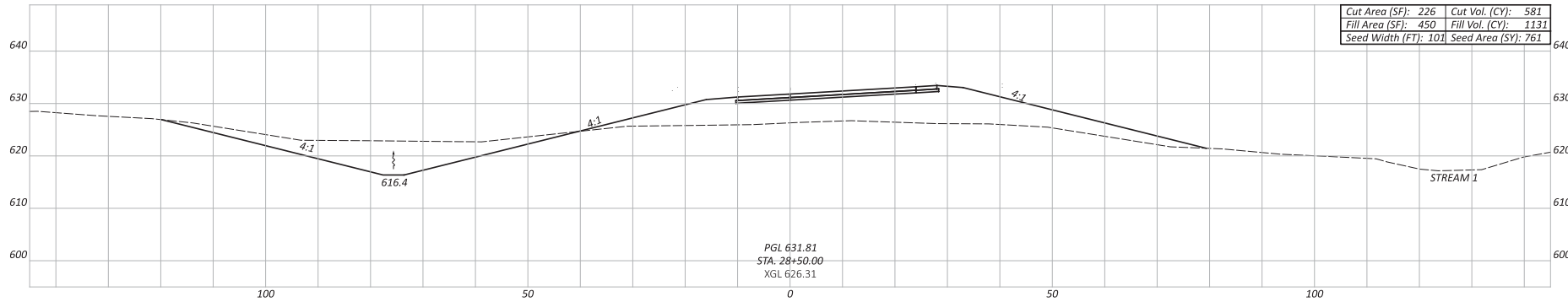
PLAN & PROFILE - RAMP D
STA. 24+00 TO STA. 29+00

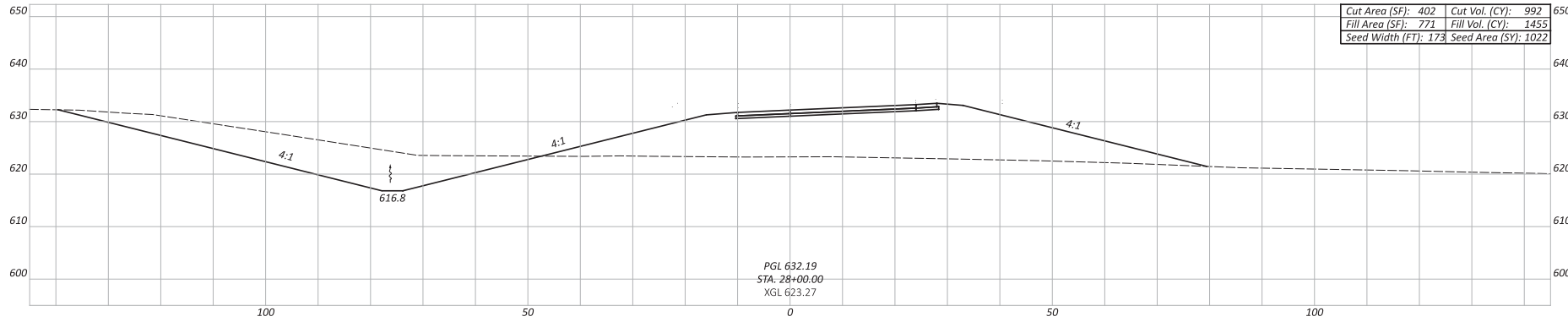
LUC-023-11.75

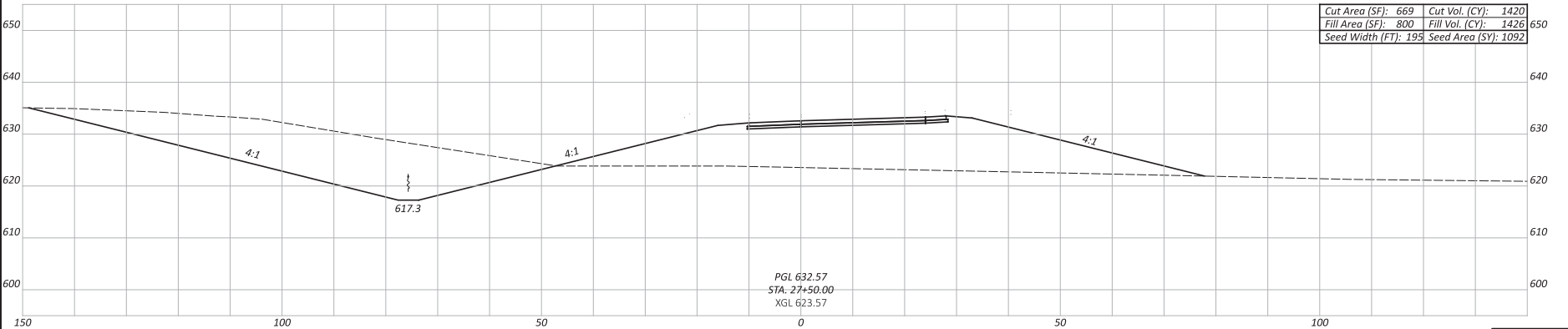
MODEL: 105889_CLP_SB_ENT - Plan 4 PAPERSIZE: 34x22 (in.) DATE: 10/17/2024 TIME: 9:43:21 AM USER: sgault
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\00 Active Projects\30093332\400_CAD\401 Engineering_Arcadis\Roadway\Sheets\105889_GP107.dgn

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1000
CLEVELAND, OHIO 44114
216.622.2400
www.arcadis.com

DESIGNER TB
REVIEWER SMG 09/13/24
PROJECT ID 105889
SHEET 173 TOTAL 607







CROSS SECTIONS - RAMP A
STA. 27+50 TO STA. 28+50

Sheet Totals		
Seeding	Cut	Fill
2875	2708	3638

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1500
CLEVELAND, OHIO 44114
PHONE: 216.781.7400
www.arcadis.com

DESIGNER: TB
REVIEWER: SMG 04/01/24
PROJECT ID: 105889
SHEET: 230
TOTAL: 533

LUC-23-11.75

MODEL: CLP_NB_EXT - 27+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 4/1/2024 TIME: 3:59:32 PM USER: TBuniak
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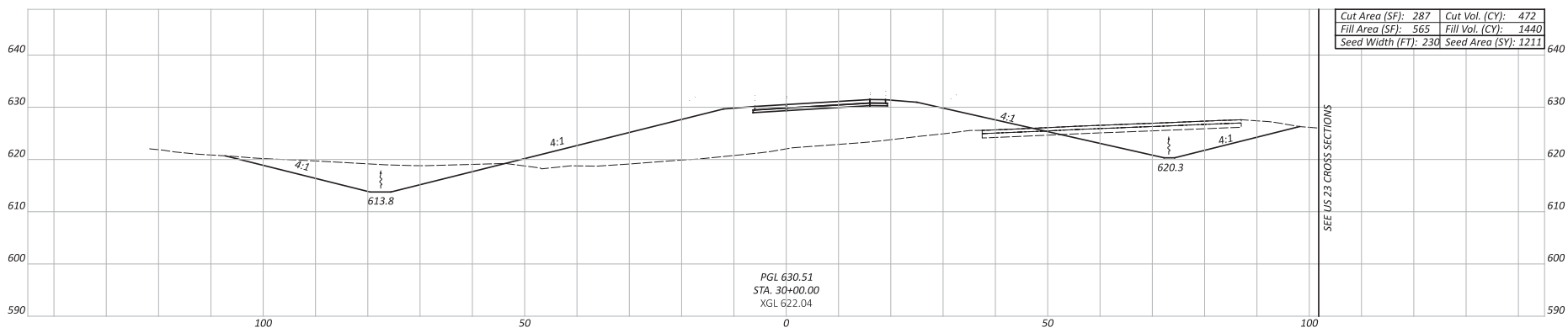

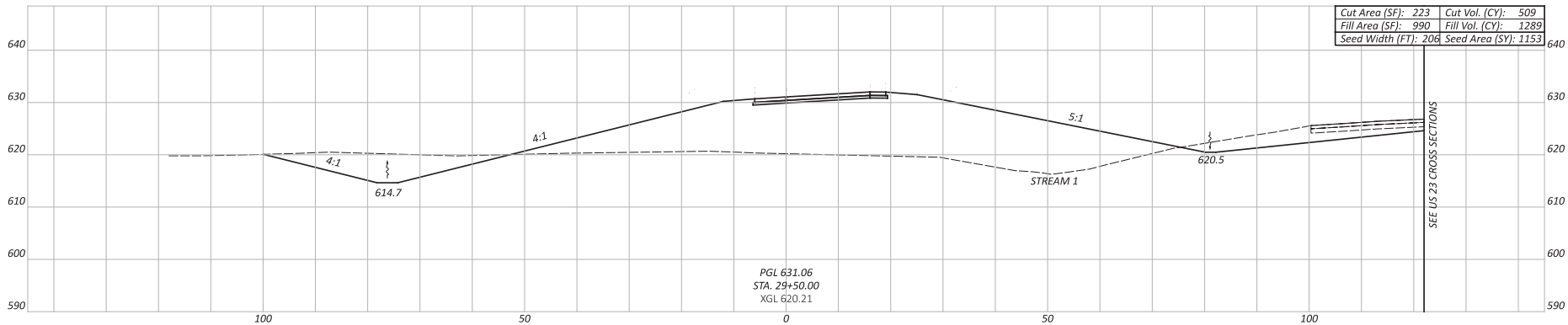

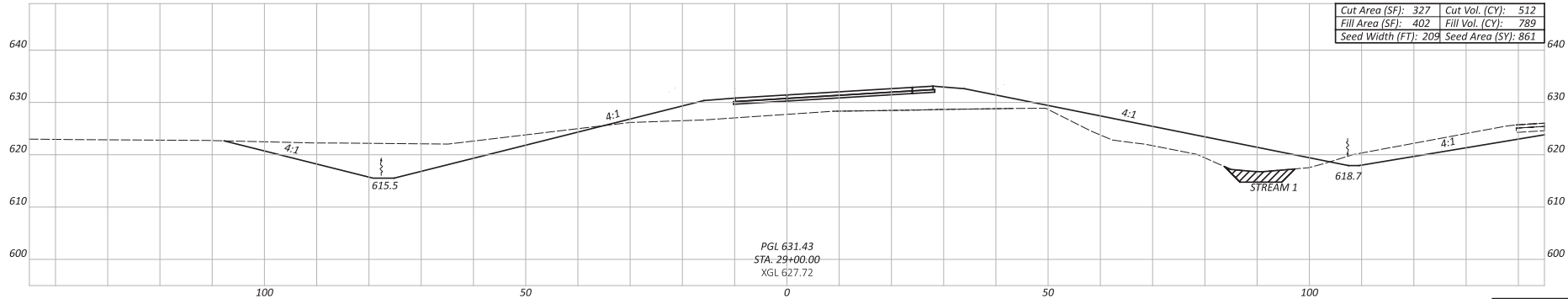

CROSS SECTIONS - RAMP A
STA. 29+00 TO STA. 30+00

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1300
CLEVELAND, OHIO 44114
PHONE: 216.696.2604
www.arcadis.com

DESIGNER: TB
REVIEWER: SMG 04/01/24
PROJECT ID: 105889
SHEET: 231
TOTAL: 533

LUC-23-11.75

MODEL: CLP_NB_EXT - 29+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 4/1/2024 TIME: 3:59:38 PM USER: TBuniak
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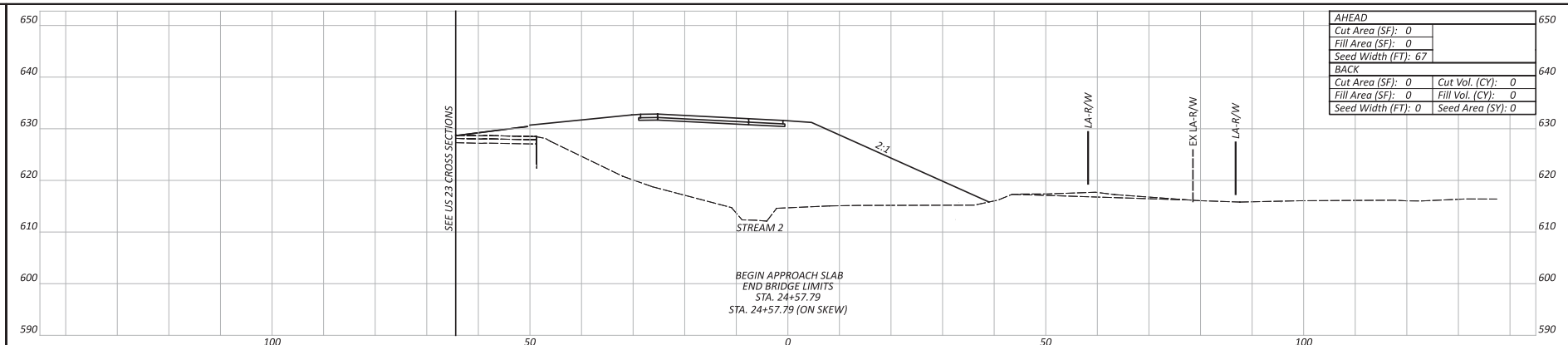
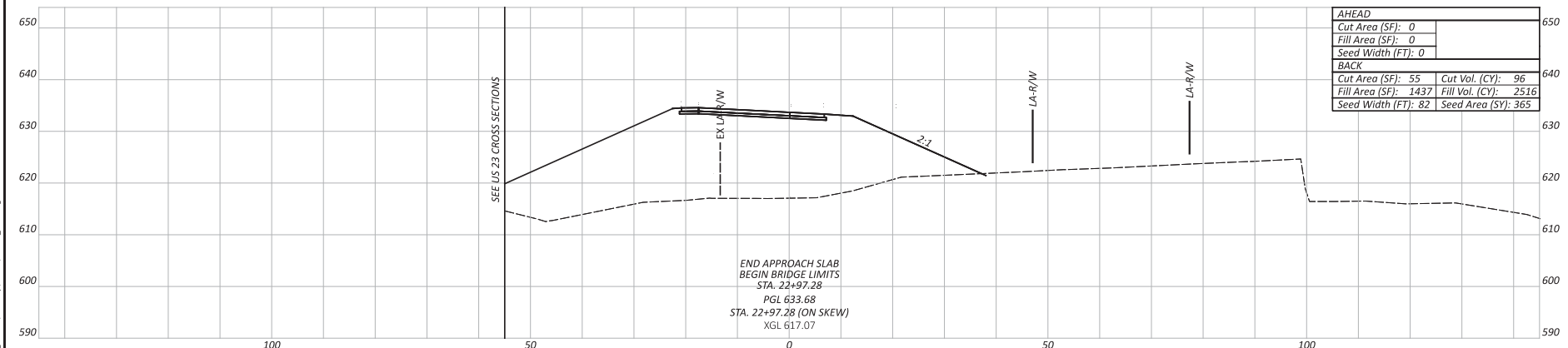
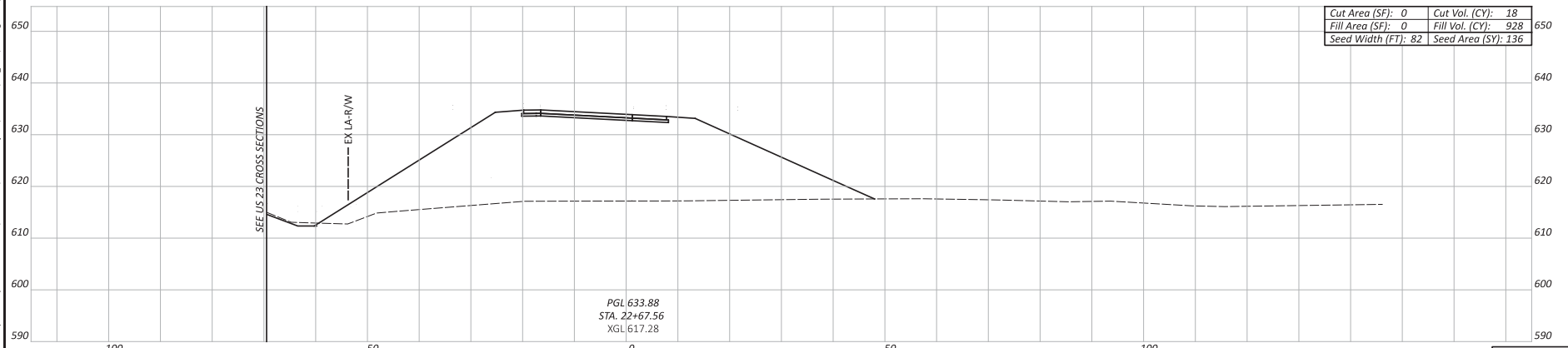


AHEAD			
Cut Area (SF): 0			
Fill Area (SF): 0			
Seed Width (FT): 67			
BACK			
Cut Area (SF): 0	Cut Vol. (CY): 0		
Fill Area (SF): 0	Fill Vol. (CY): 0		
Seed Width (FT): 0	Seed Area (SY): 0		



AHEAD			
Cut Area (SF): 0			
Fill Area (SF): 0			
Seed Width (FT): 0			
BACK			
Cut Area (SF): 55	Cut Vol. (CY): 96		
Fill Area (SF): 1437	Fill Vol. (CY): 2516		
Seed Width (FT): 82	Seed Area (SY): 365		



Cut Area (SF): 0	Cut Vol. (CY): 18		
Fill Area (SF): 0	Fill Vol. (CY): 928		
Seed Width (FT): 82	Seed Area (SY): 136		

CROSS SECTIONS - RAMP D
STA. 22+67.56 TO STA. 24+57.79

LUC-23-11.75

Sheet Totals		
Seeding	Cut	Fill
407	18	2499

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1300
CLEVELAND, OHIO 44114
(216) 696-2604
www.arcadis.com

DESIGNER TB

REVIEWER SMG 04/01/24

PROJECT ID 105889

SHEET 273 TOTAL 533

LUC-23-11.75

MODEL: CLP_SB_ENT - 24+87.52 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 4/1/2024 TIME: 4:07:03 PM USER: TBuniak
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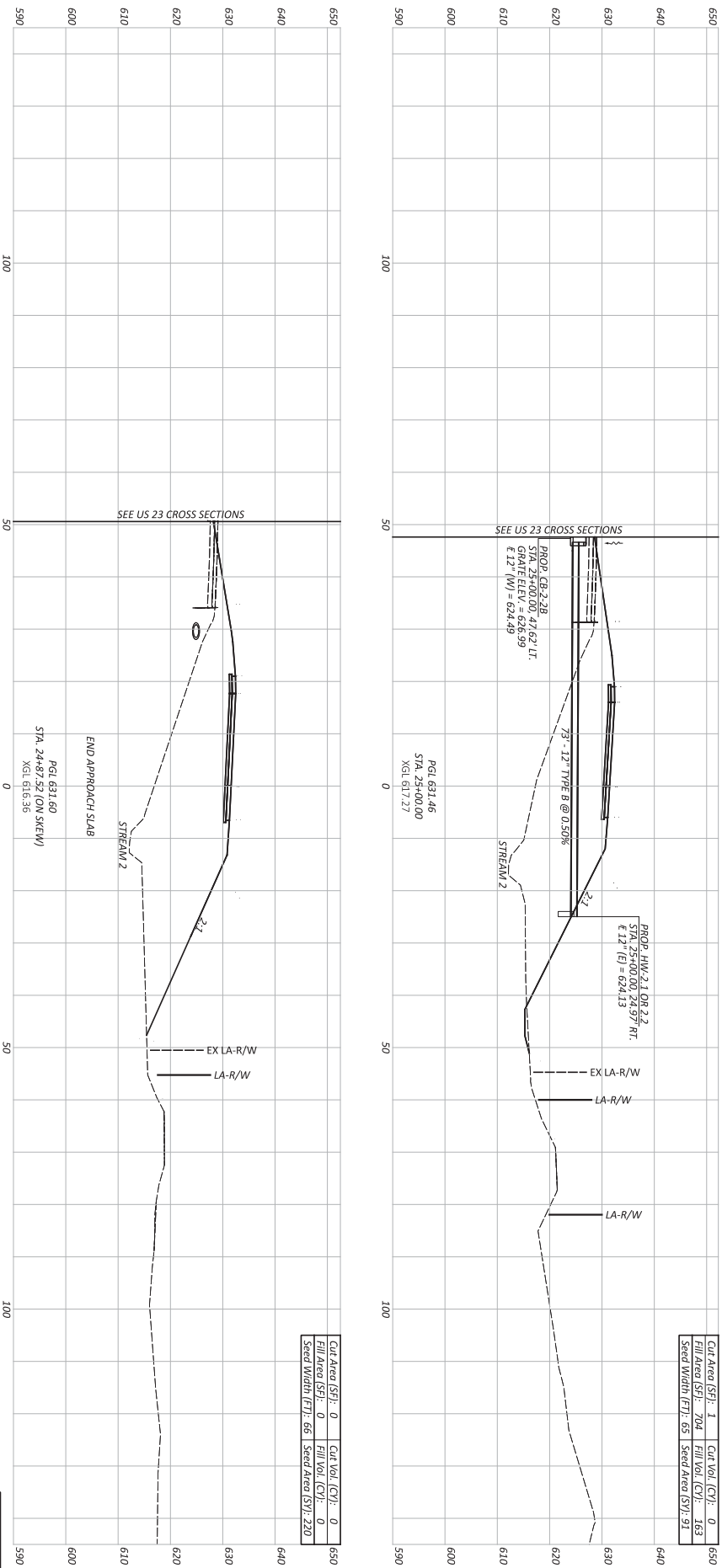

CROSS SECTIONS - RAMP D
STA. 24+87.52 TO STA. 25+00

Sheet Totals		
Seeding	Cut	Fill
311	0	163

SHEET	274
TOTAL	533
PROJECT ID	105889
REVIEWER	SMG 04/01/24
DESIGNER	TB

ARCADIS
1111 SUPERIOR AVENUE SUITE 1300
CLEVELAND, OHIO 44114
(216) 781-5177
www.arcadis.com
DESIGN AGENCY

LUC-23-11.75

MODEL: CLP_SB_ENT - 25+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 4/1/2024 TIME: 4:07:06 PM USER: TBuniak
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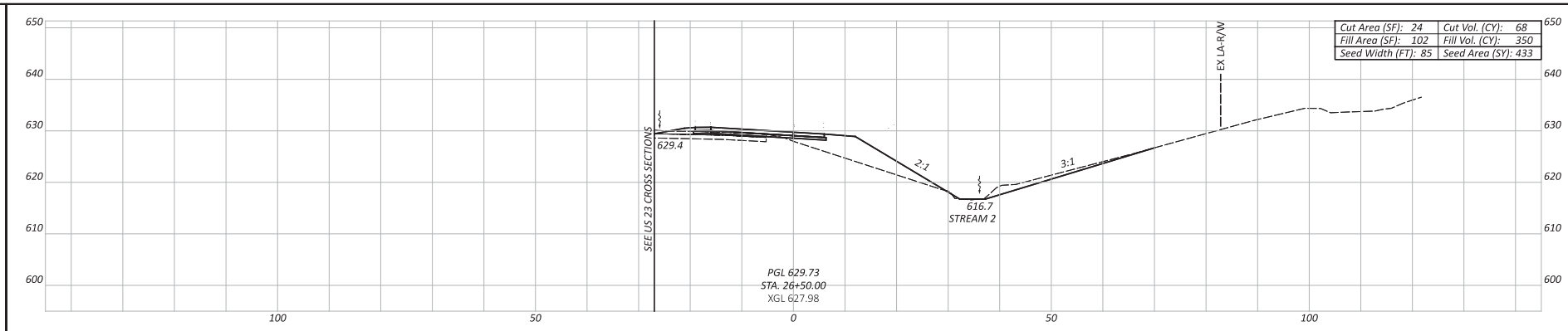
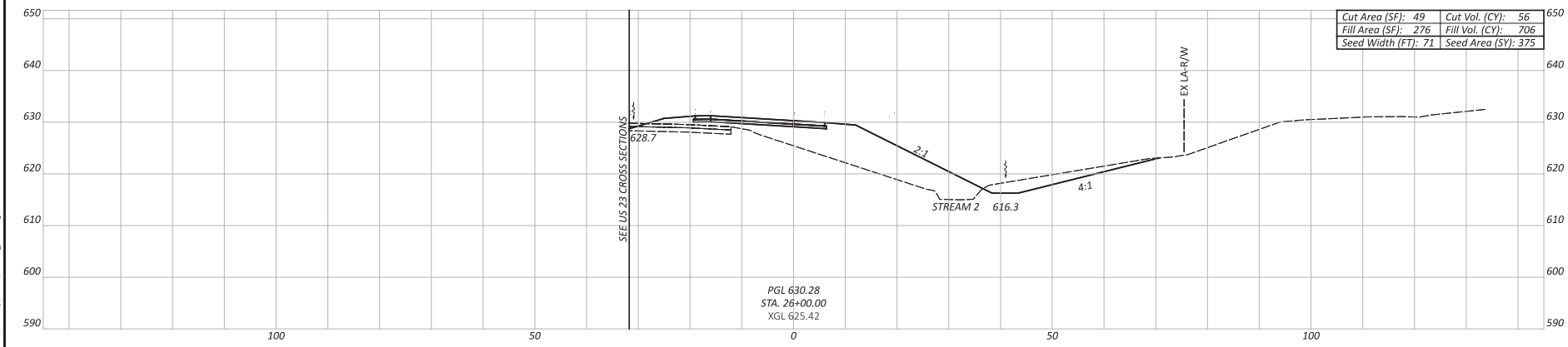
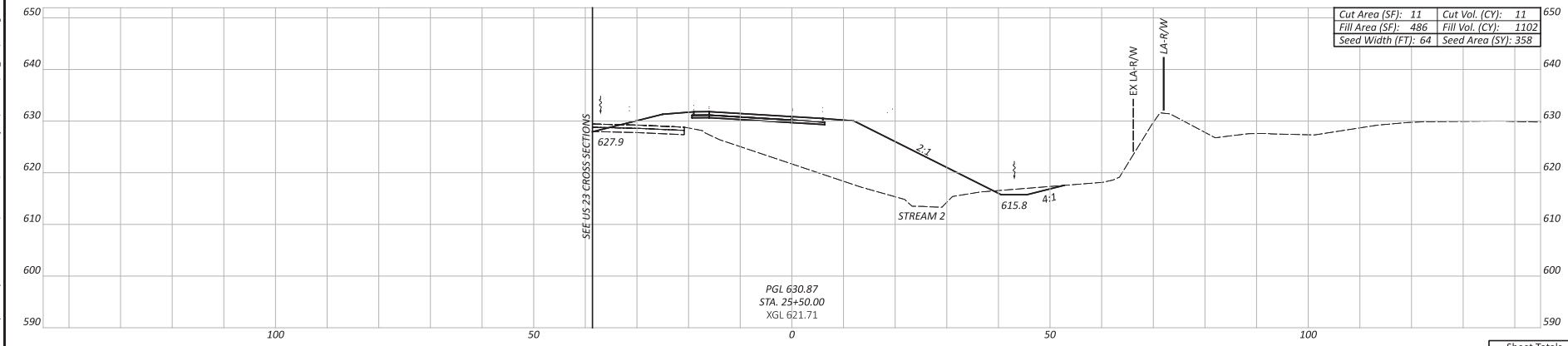






CROSS SECTIONS - RAMP D
STA. 25+50 TO STA. 26+50

Sheet Totals		
Seeding	Cut	Fill
1166	135	2158

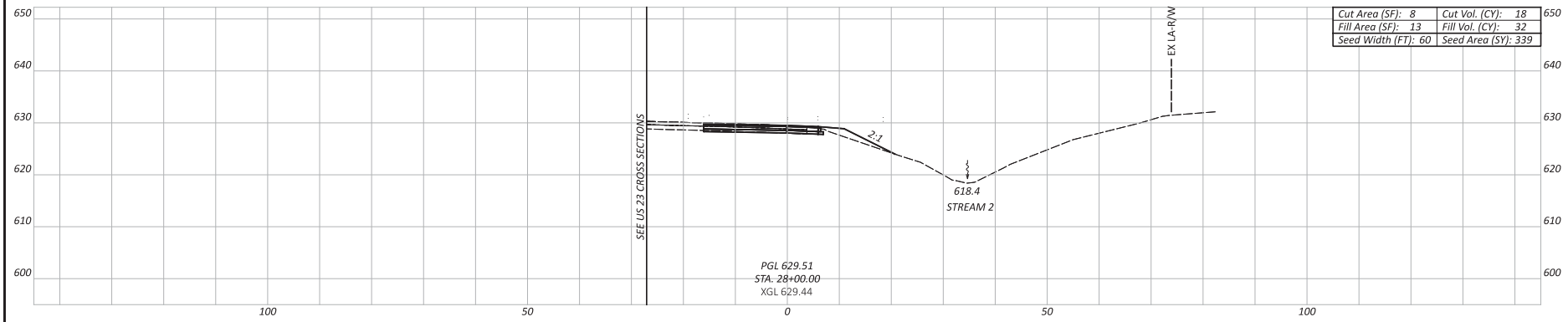
DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1300
CLEVELAND, OHIO 44114
216.696.2604
www.arcadis.com

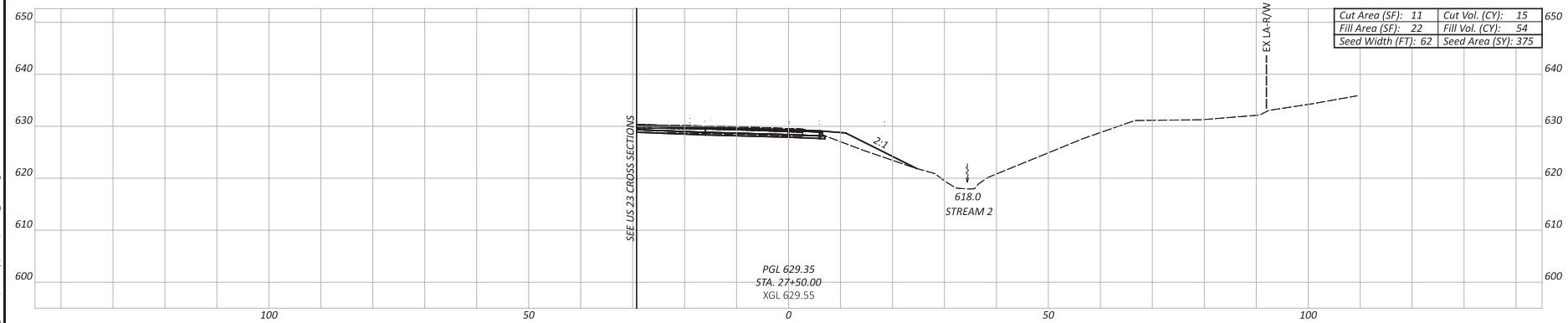
DESIGNER
TB

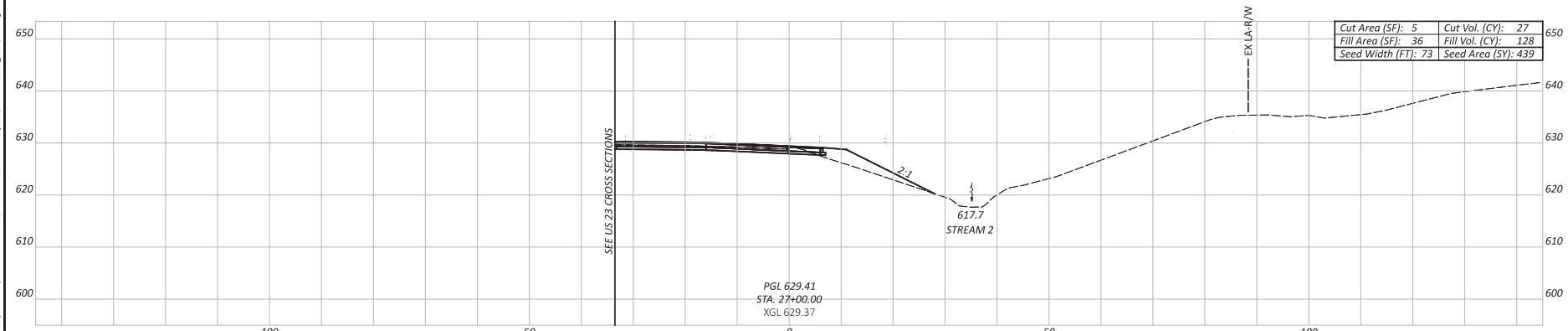
REVIEWER
SMG 04/01/24

PROJECT ID
105889

SHEET 275 TOTAL 533







CROSS SECTIONS - RAMP D
STA. 27+00 TO STA. 28+00

Sheet Totals		
Seeding	Cut	Fill
1153	160	209

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1300
CLEVELAND, OHIO 44114
(216) 696-2604
www.arcadis.com

DESIGNER: TB
REVIEWER: SMG 04/01/24
PROJECT ID: 105889
SHEET: 276
TOTAL: 533

LUC-23-11.75

MODEL: CLP_SB_ENT - 27+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 4/1/2024 TIME: 4:07:09 PM USER: TBuniak
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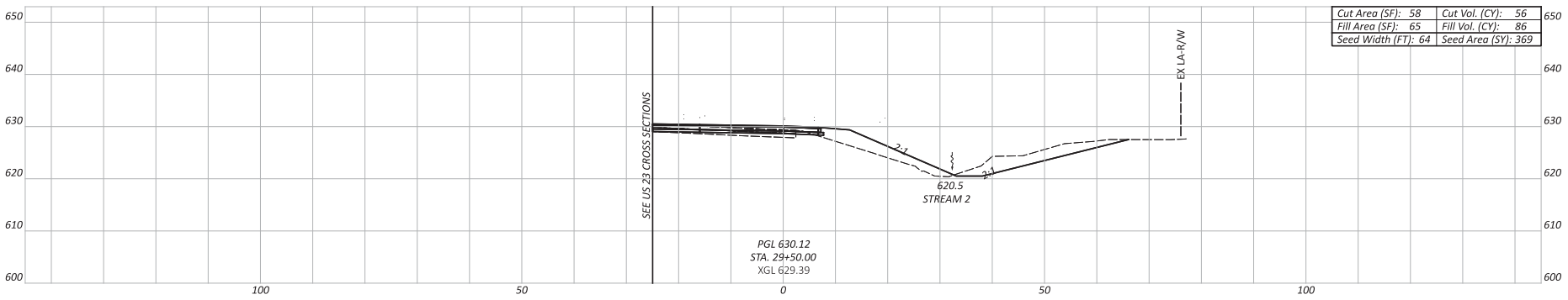
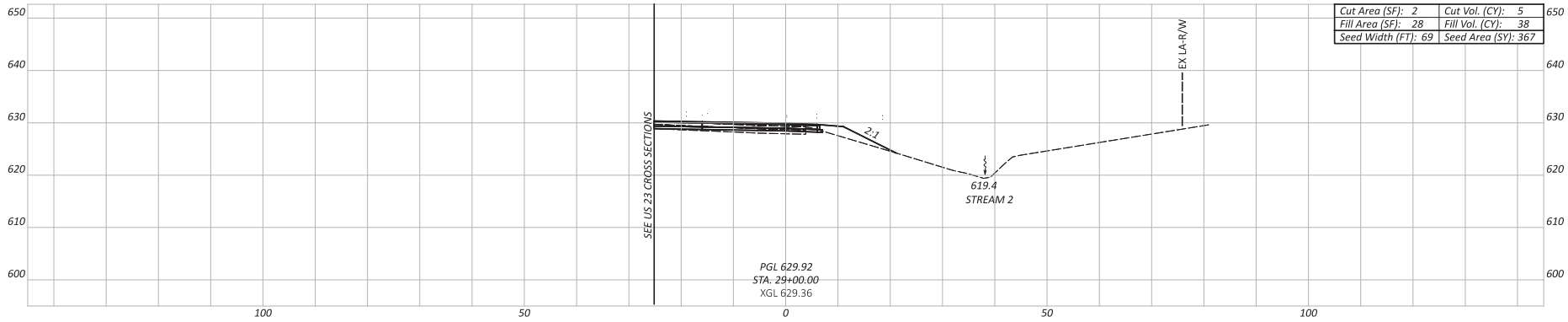
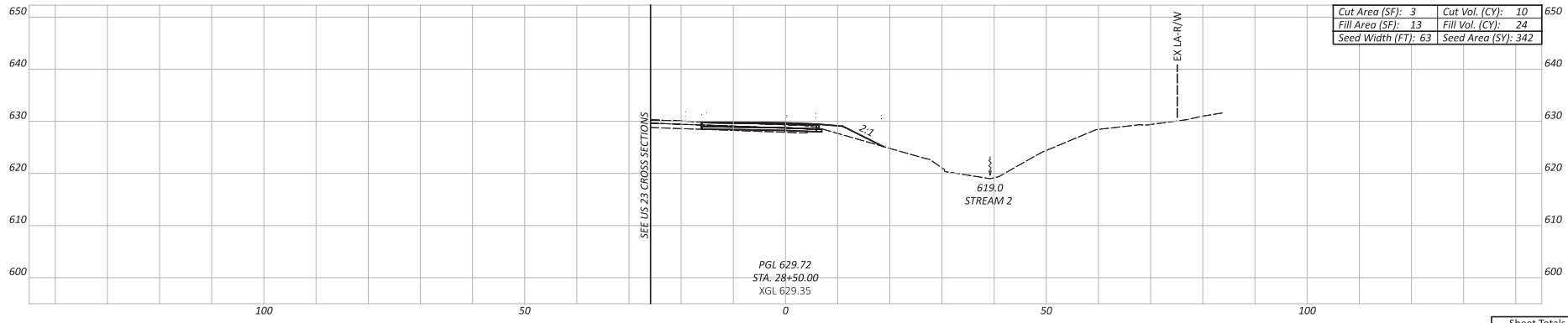
LUC-23-11.75



Cut Area (SF): 58	Cut Vol. (CY): 56
Fill Area (SF): 65	Fill Vol. (CY): 86
Seed Width (FT): 64	Seed Area (SY): 369



Cut Area (SF): 2	Cut Vol. (CY): 5
Fill Area (SF): 28	Fill Vol. (CY): 38
Seed Width (FT): 69	Seed Area (SY): 367



Cut Area (SF): 3	Cut Vol. (CY): 10
Fill Area (SF): 13	Fill Vol. (CY): 24
Seed Width (FT): 63	Seed Area (SY): 342

CROSS SECTIONS - RAMP D
STA. 28+50 TO STA. 29+50

Sheet Totals		
Seeding	Cut	Fill
1078	25	128

DESIGN AGENCY
ARCADIS
1111 SUPERIOR AVENUE SUITE 1500
CLEVELAND, OHIO 44114
PH: (216) 696-2604
www.arcadis.com

DESIGNER: TB
REVIEWER: SMG 04/01/24
PROJECT ID: 105889
SHEET: 277
TOTAL: 533

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 10/17/2024 TIME: 9:45:30 AM USER: sgault
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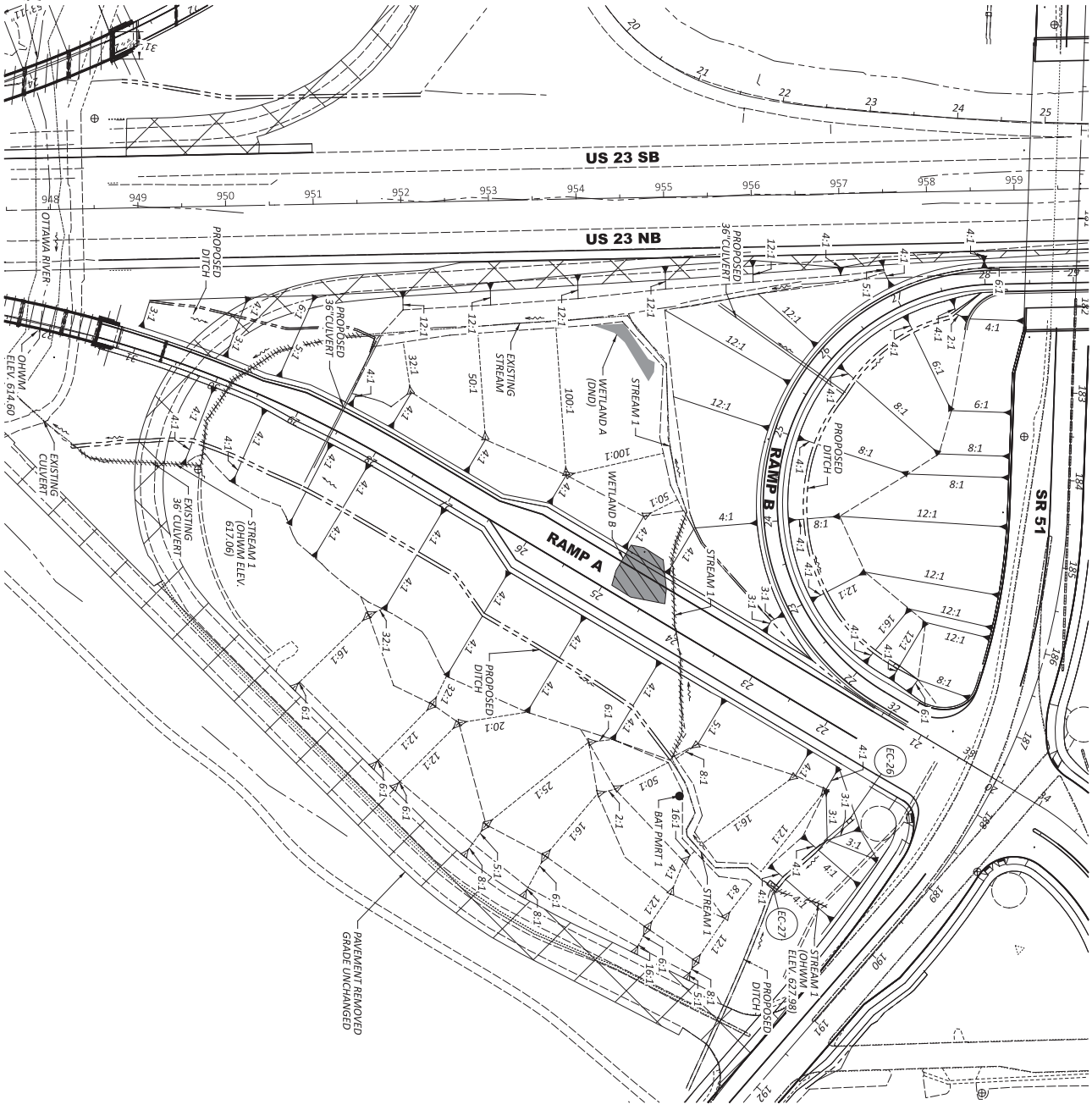


LEGEND

- IMPACTED WETLAND
- IMPACTED STREAM
- EXISTING WETLAND
- BAT PMRT

FOR CULVERT DETAILS SEE SHEETS 312 - 313

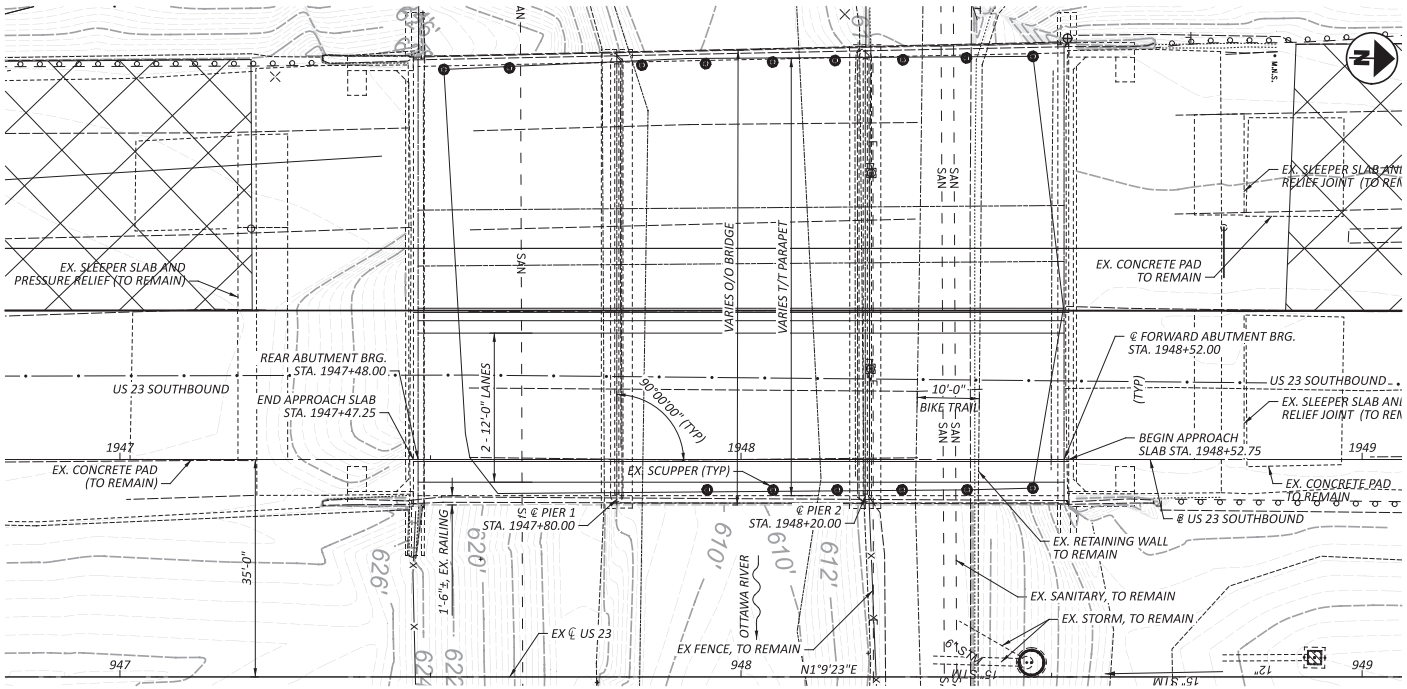
N

GRADING PLAN
MEDIAN - US 23 & SR 51 AND RAMPS A & B

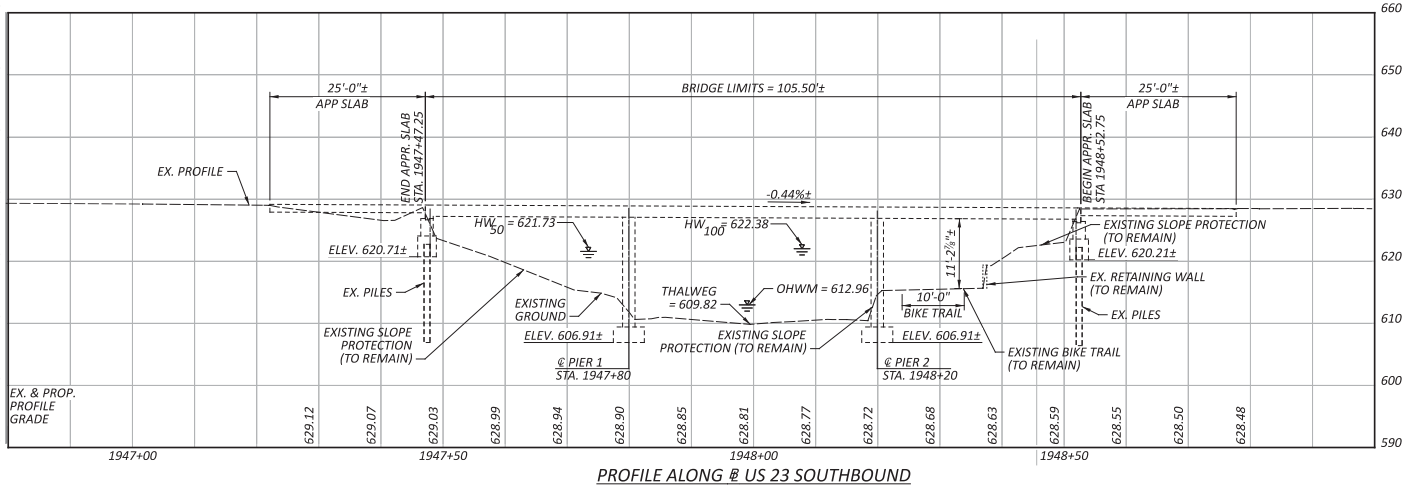
HORIZONTAL SCALE IN FEET
0 60
30 120

SHEET	332
TOTAL	607
PROJECT ID	105889
REVIEWER	SMG 09/13/24
DESIGNER	TFM
DESIGN AGENCY	ARCADIS

1111 SUPERIOR AVENUE SUITE 1300
CLEVELAND, OHIO 44114
(216) 781-4107
www.arcadis.com



PLAN



PROFILE ALONG ℄ US 23 SOUTHBOUND

BENCHMARK DATA

BM #1 STA.	946+49.55,	ELEV.	629.62 ,	OFFSET	203.30,	RT.
BM #2 STA.	948+52.57,	ELEV.	627.76 ,	OFFSET	102.82,	LT.
BM #3 STA.	949+62.69,	ELEV.	620.40 ,	OFFSET	299.97,	RT.

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET

NOTES

EXISTING BRIDGE DETAILED IN THESE PLANS ARE TAKEN FROM EXISTING PLANS AND SHOULD BE USED FOR INFORMATION ONLY.

LEGEND

- PAVEMENT TO BE REMOVED, PAID FOR UNDER ROADWAY

DESIGN TRAFFIC:

2026 ADT =	68,030	2026 ADTT =	13,236
2046 ADT =	72,790	2046 ADTT =	15,286

DIRECTIONAL DISTRIBUTION = 0.50

HYDRAULIC DATA

DRAINAGE AREA =	125 SQ. MILES		
Q (50) =	5510 CFS	V (50) =	8.01 FT/S
Q (100) =	6190 CFS	V (100) =	8.37 FT/S

STRUCTURE CLEARS THE 50 YEAR DESIGN HW BY 5.04 FEET.

PROPOSED WORK

REHABILITATION OF EXISTING STRUCTURE:
1. CONCRETE REPAIR OF SUPERSTRUCTURE AND SUBSTRUCTURE.

EXISTING STRUCTURE

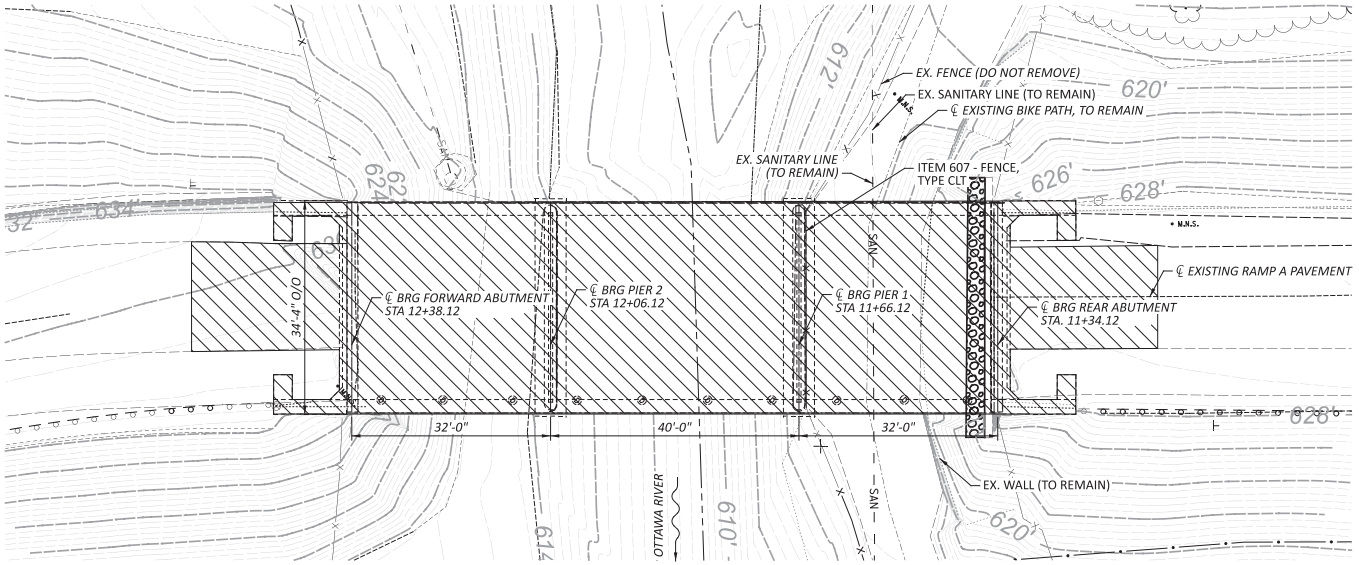
TYPE:	3-SPAN CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE WITH REINFORCED CONCRETE SUBSTRUCTRURES
SPANS:	32.0' ± - 40.0' ± - 32.0' ± C/C BRGS
ROADWAY:	VARIES
LOADING:	CF=2000
SKEW:	NONE
WEARING SURFACE:	2.25" MICROSILICA MODIFIED CONCRETE
APPROACH SLABS:	AS-1-81, 25'-0" LONG
ALIGNMENT:	TANGENT
CROWN:	0.016
STRUCTURE FILE NUMBER:	4801261
DATE BUILT:	1960/2010

HORIZONTAL SCALE IN FEET 0 5 10 20

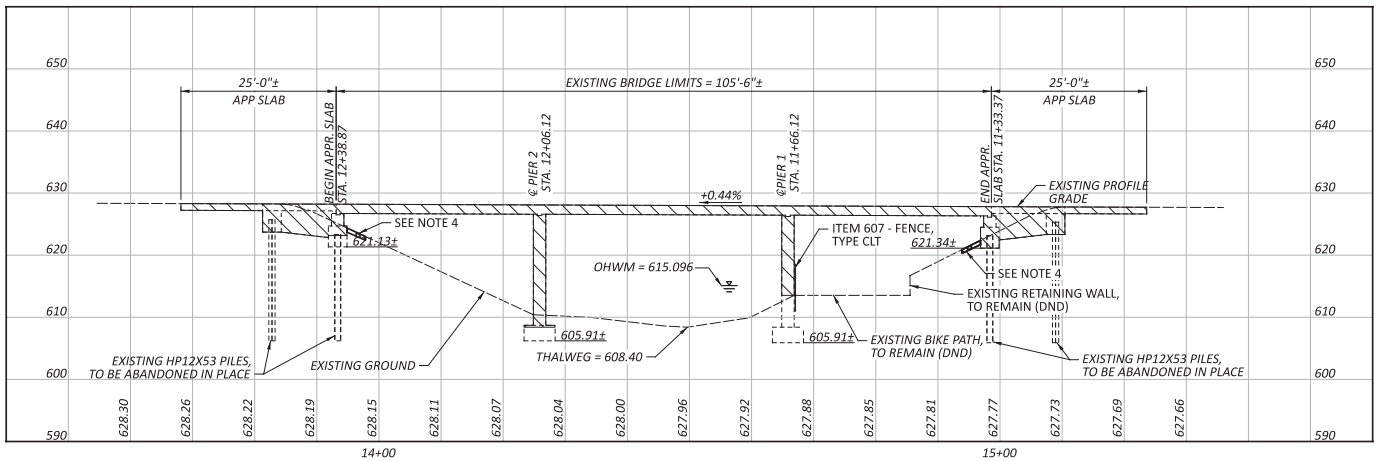
SITE PLAN
BRIDGE NO. LUC-00023-11.650 L
OVER OTTAWA RIVER

SFN 4801261
DESIGN AGENCY 2LMN
DESIGNER RFS | CHECKER JAH
REVIEWER MUR 03-28-24
PROJECT ID 105889
SUBSET 1 | TOTAL 7
SHEET P.476 | TOTAL 533

LUC-023-11.75



PLAN



PROFILE ALONG BL OF US 23 NORTHBOUND OFF RAMP (RAMP A)

BENCHMARK DATA

BM #1 STA.	946+49.55,	ELEV.	629.62 ,	OFFSET	203.30,	RT.
BM #2 STA.	948+52.57,	ELEV.	627.76 ,	OFFSET	102.82,	LT.
BM #3 STA.	949+62.69,	ELEV.	620.40 ,	OFFSET	299.97,	RT.

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET

NOTES

1. BRIDGE PARAPETS, DECK, AND APPROACH SLABS SHALL BE REMOVED IN THEIR ENTIRETY.
2. BRIDGE ABUTMENTS, PIERS, AND WINGWALLS SHALL BE REMOVED AS SHOWN IN THESE PLANS, WITH MINIMUM REMOVAL TO 1'-0" BELOW GRADE.
3. AREAS OF STRUCTURAL REMOVAL SHALL BE REGRADED TO MATCH SURROUNDING TERRAIN.
4. REPLACE AGGREGATE SLOPE PROTECTION AS DIRECTED BY THE ENGINEER IF EXISTING IS DISTURBED DURING REMOVAL OPERATIONS.

LEGEND

- ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

HYDRAULIC DATA

DRAINAGE AREA = 125 SQ. MILES
Q (50) = 5510 CFS V (50) = 8.0 FT/S
Q (100) = 6190 CFS V (100) = 7.8 FT/S
STRUCTURE CLEARS THE 50 YEAR
DESIGN HW BY 5.04 FEET.

PROPOSED WORK

REMOVE EXISTING STRUCTURE
1. REMOVAL OF EXISTING BRIDGE DECK
2. REMOVAL OF EXISTING ABUTMENTS TO 1'-0" BELOW GRADE
3. REMOVAL OF EXISTING PIERS TO ELEVATION SHOWN IN THESE PLANS
4. REMOVAL OF EXISTING APPROACH SLABS
5. REGRADE EXISTING GROUND
6. INSTALL FENCING ALONG REMAING PORTION OF PIER 2 ADJACENT TO PATH TO CONNECT EXISTING FENCING

EXISTING STRUCTURE

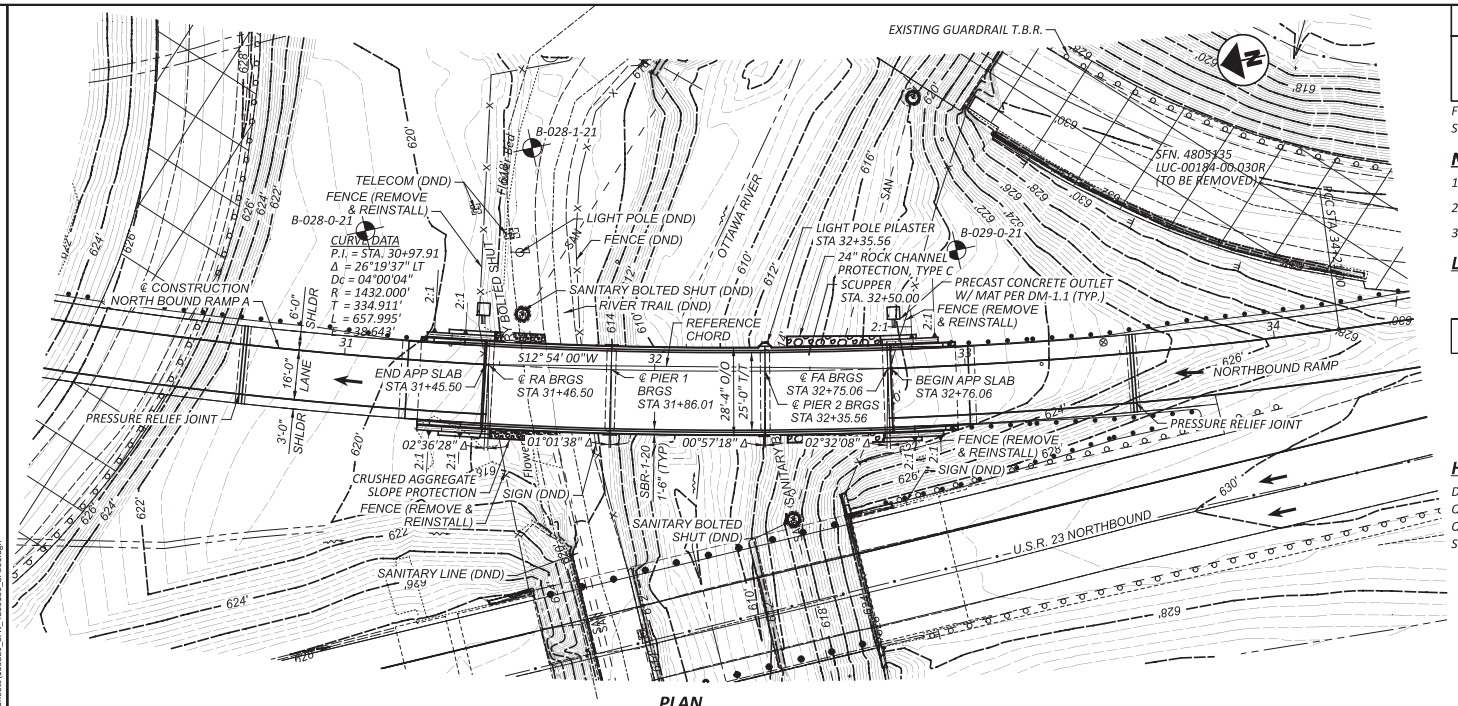
TYPE: 3-SPAN CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE WITH REINFORCED CONCRETE SUBSTRUCTURES
SPANS: 32.0' ± - 40.0' ± - 32.0' ± C/C BRGS
ROADWAY: 29'-8" ± F/F SAFETY CURB
LOADING: CF-2000 (57)
SKEW: NONE
WEARING SURFACE: LATEX CONCRETE OVERLAY
APPROACH SLABS: AS-1-54 (25'-0" LONG)
ALIGNMENT: TANGENT
CROWN: 0.016 ± FT/FT
STRUCTURE FILE NUMBER: 4805135
DATE BUILT: 1960
DISPOSITION: REMOVED
COORDINATES: LATITUDE 41°42'42.73"
LONGITUDE 83°41'13.92"

HORIZONTAL SCALE IN FEET 0 5 10 20

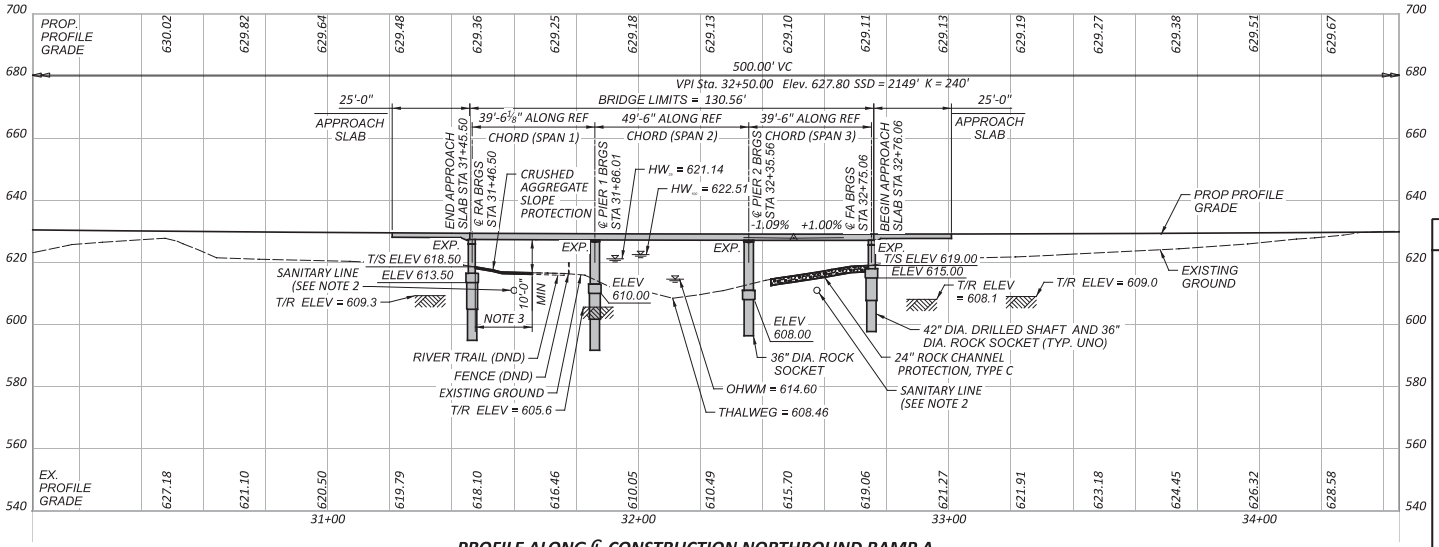
SITE PLAN
BRIDGE NO. LUC-00184-00.030R NORTHBOUND RAMP OVER OTTAWA RIVER

SFN 4805135
DESIGN AGENCY 2LMN
DESIGNER RFS | CHECKER JAH
REVIEWER MUR 03-28-24
PROJECT ID 105889
SUBSET 1 | TOTAL 7
SHEET P.483 | TOTAL 533

LUC-023-11.75



PLAN



PROFILE ALONG ℄ CONSTRUCTION NORTHBOUND RAMP A

BENCHMARK DATA

BM #1 STA.	29+80.84,	ELEV.	620.40,	OFFSET	106.60',	LT
BM #2 STA.	33+34.87,	ELEV.	629.62,	OFFSET	100.39',	LT
BM #3 STA.	38+09.55,	ELEV.	631.27,	OFFSET	25.02',	LT

FOR ADDITIONAL BENCHMARK INFORMATION, SEE ROADWAY PLAN SHEET

NOTES

1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
2. SANITARY LINE LOCATIONS ARE APPROXIMATED FROM EXISTING PLANS AND SHOULD BE FIELD VERIFIED.
3. LATERAL CLEARANCE RANGES FROM 8'-6" MIN TO 14'-2.

LEGEND

- 10'-0" REQUIRED MINIMUM VERTICAL CLEARANCE AT RIVER TRAIL
- Δ TO REFERENCE CHORD
- EXISTING RAMPS TO BE REMOVED
- PROJECT BORING LOCATION

HYDRAULIC DATA

DRAINAGE AREA = 125 SQ. MILES

Q (25) =	4840 CFS	HW (25) =	621.14 FT	V (25) =	6.64 FT/S
Q (100) =	6190 CFS	HW (100) =	622.51 FT	V (100) =	7.16 FT/S

STRUCTURE CLEARS THE 25 YEAR DESIGN HW BY 7.05 FEET.

PROPOSED STRUCTURE

TYPE: 3-SPAN CONTINUOUS REINFORCED CONCRETE SLAB WITH SEMI-INTEGRAL ABUTMENTS AND SOLID WALL PIERS ON DRILLED SHAFTS.

SPANS: 39'-6⅛", 49'-6", 39'-6" C/C BEARINGS ALONG REFERENCE CHORD

ROADWAY: 25'-0" TOE/TOE RAILING

LOADING: HL93 AND 60PSF FUTURE WEARING SURFACE

SKEW: VARIES

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: 25'-0" LONG (AS-1-15, AS-2-15)

ALIGNMENT: 4°-00'-04" CURVE LT

CROWN: SUPERELEVATED 0.06 FT/FT

DECK AREA: 3721 SF

COORDINATES: LATITUDE 41° 42' 43.90" N

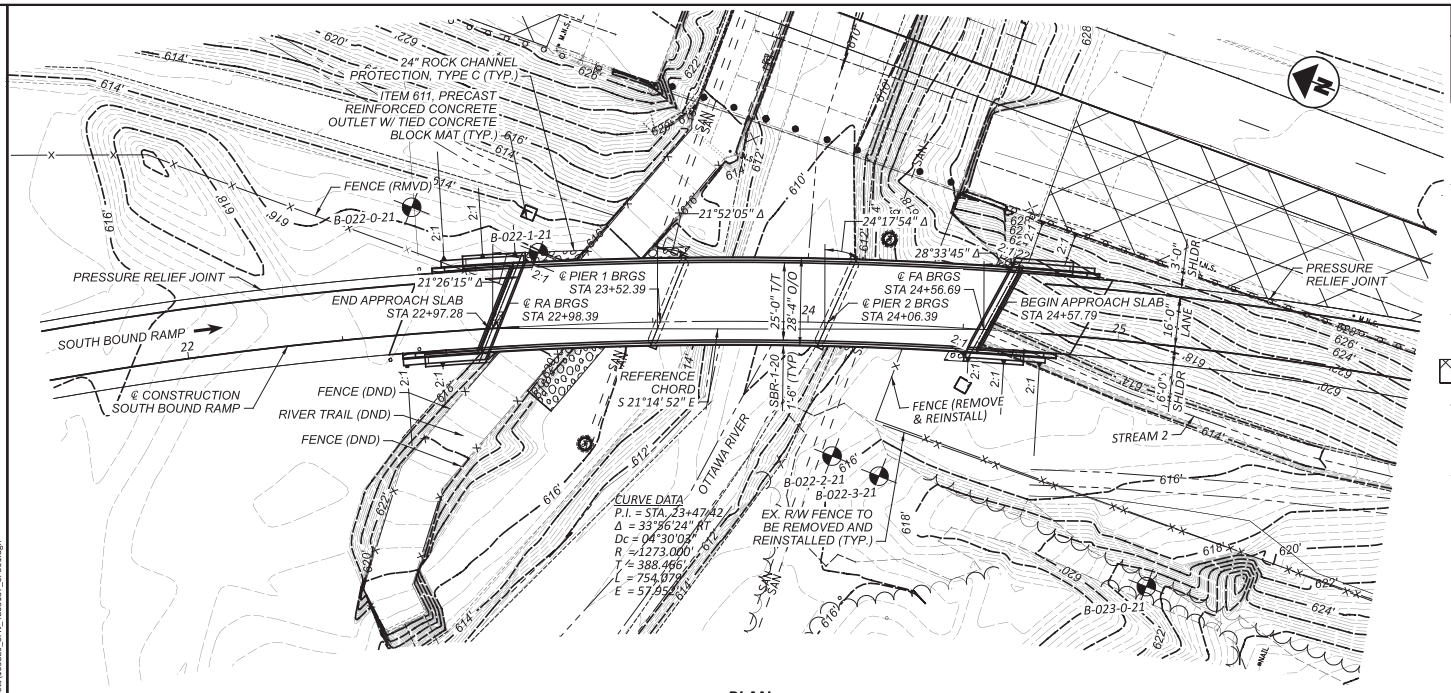
LONGITUDE 83° 41' 15.10" W

HORIZONTAL SCALE IN FEET 0 10 20 40

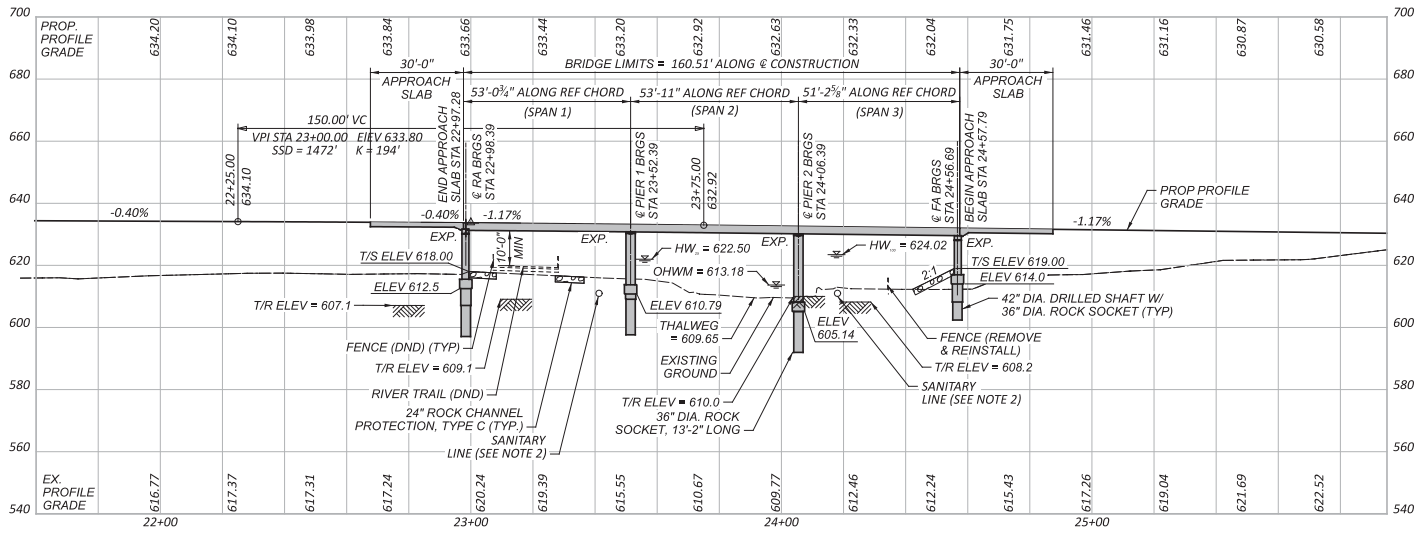
SITE PLAN
BRIDGE NO. LUC-00184-00.200R NORTHBOUND RAMP A OVER OTTAWA RIVER

SFN	4805136
DESIGN AGENCY	2LMN
DESIGNER	HHH
CHECKER	JAH
REVIEWER	MUR 06-28-23
PROJECT ID	105889
SUBSET	1
TOTAL	22
SHEET	P.490
TOTAL	533

LUC-023-11.75



PLAN



PROFILE ALONG ℄ CONSTRUCTION SOUTHBOUND RAMP

BENCHMARK DATA

BM #1 STA.	17+75.39,	ELEV.	618.44,	OFFSET	203.45',	LT
BM #2 STA.	23+51.47,	ELEV.	627.76,	OFFSET	75.01',	LT
BM #3 STA.	25+93.55,	ELEV.	629.62,	OFFSET	315.29',	LT

FOR ADDITIONAL BENCHMARK INFORMATION. SEE ROADWAY PLAN SHEET

NOTES

1. EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.
2. GEOTECHNICAL INFORMATION WAS NOT AVAILABLE YET.

LEGEND

- 10'-0" REQUIRED MINIMUM VERTICAL CLEARANCE AT RIVER TRAIL
- Δ TO REFERENCE CHORD
- PAVEMENT REMOVED, SEE ROADWAY PLANS
- PROJECT BORING LOCATION

HYDRAULIC DATA

DRAINAGE AREA = 125 SQ. MILES

Q (25) =	4840 CFS	HW (25) =	621.14 FT	V (25) =	6.64 FT/S
Q (100) =	6190 CFS	HW (100) =	622.51 FT	V (100) =	7.16 FT/S

STRUCTURE CLEARS THE 25 YEAR DESIGN HW BY 7.05 FEET.

PROPOSED STRUCTURE

TYPE: 3-SPAN CONTINUOUS REINFORCED CONCRETE SLAB WITH SEMI-INTEGRAL ABUTMENTS AND SOLID WALL PIERS ON DRILLED SHAFTS.

SPANS: 50'-0¾", 53'-11", 51'-2⅝" C/C BEARINGS ALONG REFERENCE CHORD

ROADWAY: 25'-0" TOE/TOE RAILING

LOADING: HL93 AND 60PSF FUTURE WEARING SURFACE

SKEW: VARIES

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: 30'-0" LONG (AS-1-15, AS-2-15)

ALIGNMENT: 4°-30'-03" CURVE RT

CROWN: SUPERELEVATED 0.06 FT/FT

DECK AREA: 4571 SF

COORDINATES: LATITUDE 41° 42' 44.04" N

LONGITUDE 83° 41' 19.58" W

HORIZONTAL SCALE IN FEET 0 10 20 40

SITE PLAN
BRIDGE NO. LUC-00184-00.180 SOUTHBOUND RAMP D OVER OTTAWA RIVER

SFN	4805137
DESIGN AGENCY	2LMN
DESIGNER	HHH
CHECKER	JAH
REVIEWER	MUR 06-28-23
PROJECT ID	105889
SUBSET	1
TOTAL	22
SHEET	P.512
TOTAL	533

LUC-023-11.75

US Army Corps of Engineers
Huntington District

Permit Number: 2024-00968-OTT

Name of Permittee: Ohio Department of Transportation

Date of Issuance: January 24, 2025

Upon completion of the activity authorized by this permit and any mitigation required by the permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers - Huntington District
Building 10/ Section 10
PO Box 3990
Columbus, OH 43218-3990

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

_____ _____
Signature of Permittee Date