

**FHWA-Indiana Environmental Document**  
**CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM**  
**GENERAL PROJECT INFORMATION**

<b>Road No./County:</b>	United States Highway (US) 6/Marshall and Elkhart Counties
<b>Designation Number(s):</b>	1702997 & 2001886
<b>Project Description/Termini:</b>	US 6 Roadway Project that includes a hot mix asphalt (HMA) and shoulder widening from the east junction of State Road (SR) 106 to 2.03 miles west of SR 19

	<b>Categorical Exclusion, Level 2</b> – Required Signatories: INDOT DE and/or INDOT ESD
<b>X</b>	<b>Categorical Exclusion, Level 3</b> – Required Signatories: INDOT ESD
	<b>Categorical Exclusion, Level 4</b> – Required Signatories: INDOT ESD and FHWA
	<b>Environmental Assessment (EA)</b> – Required Signatories: INDOT ESD and FHWA
	<b>Additional Investigation (AI)</b> – The proposed action included a design change from the original approved environmental document. Required Signatories must include the appropriate environmental approval authority

**Approval**

_____	_____
INDOT DE Signature and Date	INDOT ESD Signature and Date
_____	
FHWA Signature and Date	

**Release for Public Involvement**

<i>SFM</i> 08/08/2024 _____ INDOT DE Initials and Date	<i>ADWP</i> August 8, 2024 _____ INDOT ESD Initials and Date
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**Certification of Public Involvement**

\_\_\_\_\_

INDOT Consultant Services Signature and Date

**INDOT DE/ESD Reviewer Signature and Date:**

\_\_\_\_\_

**Name and Organization of CE/EA Preparer:**

Chris Kunkel/Lochmueller Group, Inc.

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Note: Refer to the most current INDOT CE Manual, guidance language, and other ESD resources for further guidance regarding any section of this form.

### Part I – Public Involvement

Every Federal action requires some level of public involvement, providing for early and continuous opportunities throughout the project development process. **The level of public involvement should be commensurate with the proposed action.**

Does the project have a historic bridge processed under the Historic Bridges PA*?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
If No, then: Opportunity for a Public Hearing Required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

\*A public hearing is required for all historic bridges processed under the Historic Bridges Programmatic Agreement between INDOT, FHWA, SHPO, and the ACHP.

Discuss what public involvement activities (legal notices, letters to affected property owners and residents (i.e. notice of entry), meetings, special purpose meetings, newspaper articles, etc.) have occurred for this project.

Notice of Survey letters were mailed to potentially affected property owners near the project area on March 11, 2022 and again on February 8, 2023 notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. Sample copies of the Notice of Survey letters are included in Appendix G, page G1 to G2.

The project will meet the minimum requirements described in the current *Indiana Department of Transportation (INDOT) Project Development Public Involvement Procedures Manual* which requires the project sponsor to offer the public an opportunity to submit comments and/or request a public hearing. Therefore, a legal notice will appear in a local publication contingent upon the release of this document for public involvement. This document will be revised after the public involvement requirements are fulfilled.

### **Public Controversy on Environmental Grounds**

Discuss public controversy concerning community and/or natural resource impacts, including what is being done during the project to minimize impacts.

At this time, there is no substantial public controversy concerning impacts to the community or to natural resources.

### Part II - General Project Identification, Description, and Design Information

Sponsor of the Project: INDOT INDOT District: LaPorte

Local Name of the Facility: US 6 (locally identified as Market Street)

Funding Source (mark all that apply): Federal  State  Local  Other\*

\*If other is selected, please identify the funding source: N/A

#### **PURPOSE AND NEED:**

The need should describe the specific transportation problem or deficiency that the project will address. The purpose should describe the goal or objective of the project. The solution to the traffic problem should NOT be discussed in this section.

#### **Need:**

The need for the project stems from the deteriorated condition of the existing pavement, shoulder, and many of the

This is page 2 of 30 Project name: US 6 Roadway Project Date: August 6, 2024

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drainage structures along this stretch of US 6. According to the May 19, 2022 Abbreviated Engineer's Report for Des. No. 2001886 (Appendix I, I13 to I22), the pavement has extensive transverse cracking, widening crack distress, and longitudinal joint distress. The shoulders are in poor condition. Many of the drainage structures within this stretch of US 6 are in fair condition or worse (Appendix I, I20). Many of the metal structures have significant rust with full sections missing. Others exhibited pavement cracking on the roadway above indicating damage within the pipe. Also, the pavement condition data received from INDOT show that the International Roughness Index (IRI) for this stretch of US 6 being 114 inches per mile (in/mi) which is considered "acceptable" (Appendix I, I23). IRI is a metric used to measure the roughness of roadway with a value of 171 in/mi or greater being considered "poor", a value from 170 in/mi to 96 in/mi being considered "acceptable" and a value less than 95 in/mi being considered "good." Additionally, according to the December 26, 2019 Abbreviated Engineer's Report for Des. No. 1702997 (Appendix I, I21 to I22), this segment of US 6 does not have adequate width to safely accommodate the horse-drawn carriage, bicycle, and pedestrian traffic along US 6. This contributes to a lack of safe, multi-modal connectivity between the communities of Bremen and Nappanee.

**Purpose:**

The purpose of the project is to improve the IRI to less than 70 by addressing the deterioration that includes the transverse cracking, widening crack distress, and longitudinal joint distress of the pavement and shoulder of US 6, while also providing accommodations for safe multi-modal connectivity between the communities of Bremen and Nappanee.

**PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):**

County: Marshall & Elkhart Municipality: Bremen & Nappanee

Limits of Proposed Work: Along US 6, from east junction of SR 106 to 2.03 miles west of SR 19

Total Work Length: 5.41 Mile(s) Total Work Area: 93.92 Acre(s)

Is an Interstate Access Document (IAD)<sup>1</sup> required?  
 If yes, when did the FHWA provide a Determination of Engineering and Operational Acceptability?

<b>Yes<sup>1</sup></b>	<b>No</b>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Date: N/A	

<sup>1</sup>If an IAD is required; a copy of the approved CE/EA document must be submitted to the FHWA with a request for final approval of the IAD.

*Describe location of project including township, range, city, county, roads, etc. Existing conditions should include current conditions, current deficiencies, roadway description, surrounding features, etc. Preferred alternative should include the scope of work, anticipated impacts, and how the project will meet the Purpose and Need. Logical termini and independent utility also need discussed.*

The INDOT LaPorte District and the Federal Highway Administration (FHWA) intend to proceed with a roadway project along US 6 in northeastern Marshall and southwestern Elkhart Counties in Indiana.

**Location:**

The proposed project is located along US 6 from the east junction of SR 106 to 2.03 miles west of SR 19 in northeastern Marshall and southwestern Elkhart Counties. In Marshall County, the project is located in Sections 25, 29, 30, 32, and 33, Township 35 North, Range 3 East and Range 4 East within German Township. In Elkhart County, the project is located in Sections 34 and 35, Township 35 North, Range 4 East in Locke Township, as depicted on the Bremen and Nappanee West Quadrangles of the US Geological Survey (USGS) 1:24,000 scale map (Appendix B, B2 to B3).

**Existing Conditions:**

US 6 is an east/west highway, which is functionally classified as a principal arterial roadway (Appendix B, B46). The typical cross section of US 6 within the project area consists of two 12-foot-wide travel lanes (one in each direction)

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with paved outside shoulders varying from 1 to 10 feet in width. Additionally, there are 11-foot-wide dedicated right turn lanes at the intersections of Douglas Road (SR 106), Dogwood Road, Beech Road, and Shawnee Street. The posted speed limit along this stretch of US 6 is 55 miles per hour (mph) from Douglas Road/SR 106 to Shawnee Street and 45 mph from Shawnee Street to the eastern terminus. Drainage within the project area is currently conveyed by constructed roadside ditches, small structures, and culverts along and under US 6.

The existing US 6 roadway pavement has extensive transverse cracking, widening crack distress, and longitudinal joint distress. The shoulders are in poor condition. The structures within this stretch of US 6 are in fair condition or worse with section loss due to rust and other various signs of deterioration, according to the Abbreviated Engineer's Report for Des. No. 2001886 (Appendix I, I20). See the *Bridges and/or Small Structures* section of this document for more details.

Adjacent land use is primarily rural and consists of farm fields, residences, light industrial and commercial properties, and wooded areas with streams and wetlands (Appendix B, B5 to B21).

### Preferred Alternative:

The proposed project involves the application of a new HMA overlay and shoulder widening along US 6 from the east junction of SR 106 to 2.03 miles west of SR 19. Approximately 1.5 inches of the existing pavement will be milled and four inches of HMA overlay will be applied. Where the existing shoulders are less than 8 feet wide, they will be widened to 8 feet to accommodate horse-drawn carriages and bicyclists in the area. Additionally, there are 41 drainage structures within the project area that will be removed, replaced, repaired, or extended. Most of the structures will have riprap placed at their outlet (Appendix C, C43). The total amount of riprap to be placed is approximately 0.05 acre. The structure work includes replacing two large culverts (CLV-100157 & CLV-100155), that convey the east crossing of George Marberger Ditch, with a single 94-foot long pipe with an 84-inch diameter. CLV-100157, a 61-foot long reinforced concrete pipe (RCP) with a 36-inch diameter, and CLV-100155, a 41-foot long reinforced concrete box (RCB) structure with a 48 inch by 48 inch opening, are the only large culverts within the project area that will be impacted by the project. The remaining impacted structures consist of smaller driveway culverts and culverts under roadways, all less than 24 inches in diameter. The project will also involve regrading the roadside ditches to accommodate the widened shoulders. The proposed improvement will maintain the existing travel lane widths and will not introduce any added travel lanes or turn lanes. Guardrails will be removed and replaced at the southeast corner of the intersection of SR 106 and US 6 (approximately 220 feet), at the culvert carrying the west crossing of George Marberger Ditch (325 feet on the north side of the road and 382 feet on the south side of the road), and at the side-by-side culverts carrying the east crossing of George Marberger Ditch (approximately 475 feet on the north side of the road and 746 feet on the south side of the road) (Appendix B, B46 to B107).

This project requires the acquisition of approximately 20.41 acres of new permanent right-of-way (ROW) and approximately 1.05 acres of temporary ROW. The project is anticipated to permanently impact a total of 122 linear feet (0.03 acre) of George Marberger Ditch by structure replacement and riprap placement activities. The project is anticipated to permanently impact a total of 0.846 acre of wetlands due to shoulder pavement placement, ditch construction, grading the roadside drainage areas, riprap placement, and structure work activities. The project is also anticipated to temporarily impact a total of 0.0101 acre of wetlands due to construction access activities. Approximately 1.09 acre of tree clearing will occur to accommodate shoulder widening and ditch grading activities. The project will minimize impacts to these features by limiting the extent of the construction limits to what is necessary to achieve the project purpose and need. Terrestrial habitat impacts have also been minimized to the greatest extent possible to achieve the purpose and need of the project. Complete avoidance of these impacts is not practicable to meet the purpose and need of the project. Mitigation for wetland impacts will likely be required.

The maintenance of traffic (MOT) plan will occur in six phases. The first phase will involve complete closure of US 6. Phases II through V will involve various lane closures to accommodate shoulder and overlay work. Phase VI will have intermittent closures of one lane at a time and have a mobile flagging operation in place. A detour utilizing SR 19, US 20, and SR 331 will be in place during the first five phases. See the *Maintenance of Traffic (MOT) During Construction* section of this document for more details.

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The proposed alternative will meet the purpose and need of the project by addressing the deterioration and improving the IRI to a less than 70 in/mi and widen the roadways to accommodate safe multi-modal connectivity between Bremen and Nappanee.

**Logical Termini/Independent Utility:**

The termini for the project are from the east junction of SR 106 to 2.03 miles west of SR 19. The termini along US 6 are the logical beginning and end points of this project in order to complete the HMA overlay and shoulder widening that will meet the purpose and need of the project. This project is independent of any other action and is able to be constructed without relying on the completion of any other project.

**OTHER ALTERNATIVES CONSIDERED:**

*Provide a header for each alternative. Describe all discarded alternatives, including the No Build Alternative. Explain why each discarded alternative was not selected. Make sure to state how each alternative meets or does not meet the Purpose and Need and why.*

**No Build Alternative**

This alternative would not involve any improvements to US 6 or to the drainage structures along the roadway. This would not involve any immediate cost or result in any environmental impacts. However, if no improvements were made to the pavement of US 6, the pavement would continue to deteriorate and result in greater costs to improve the roadway at a later date. Not addressing the poor conditions of the drainage structures along US 6 will result in their continued deterioration and reduce their ability to convey drainage along US 6. This alternative was dismissed from further consideration because it would not address the purpose and need of the project.

No other alternatives were considered for this project.

**The No Build Alternative is not feasible, prudent or practicable because (Mark all that apply)**

It would not correct existing capacity deficiencies;

It would not correct existing safety hazards;

It would not correct the existing roadway geometric deficiencies;

It would not correct existing deteriorated conditions and maintenance problems; or

It would result in serious impacts to the motoring public and general welfare of the economy.

Other (Describe):

X
X
X

**ROADWAY CHARACTER:**

*If the proposed action includes multiple roadways, complete and duplicate for each roadway.*

Name of Roadway	<u>US 6</u>			
Functional Classification:	<u>Principal Arterial</u>			
Current ADT:	<u>11,027</u>	VPD (2025)	Design Year ADT:	<u>12,429</u>
Design Hour Volume (DHV):	<u>1,211</u>	Truck Percentage (%)		<u>11.57</u>
Designed Speed (mph):	<u>45/55</u>	Legal Speed (mph):		<u>45/55</u>

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	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Through travel lanes, with intermittent turn lanes		Through travel lanes, with intermittent turn lanes	
Pavement Width:	38-58	ft.	40-58	ft.
Shoulder Width:	1-10	ft.	8-10	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:  Urban  Suburban  Rural  
 Topography:  Level  Rolling  Hilly

### BRIDGES AND/OR SMALL STRUCTURE(S):

*If the proposed action includes multiple structures, complete and duplicate for each bridge and/or small structure. Include both existing and proposed bridge(s) and/or small structure(s) in this section.*

Structure/NBI Number(s): N/A Sufficiency Rating: N/A  
 (Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	N/A		N/A	
Number of Spans:	N/A		N/A	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	N/A	ft.	N/A	ft.
Outside to Outside Width:	N/A	ft.	N/A	ft.
Shoulder Width:	N/A	ft.	N/A	ft.

*Describe impacts and work involving bridge(s), culvert(s), pipe(s), and small structure(s). Provide details for small structure(s): structure number, type, size (length and dia.), location and impacts to water. Use a table if the number of small structures becomes large. If the table exceeds a complete page, put it in the appendix and summarize the information below with a citation to the table.*

There are no bridges within the project area that will be impacted by the project. However, there are 41 drainage structures that will be impacted by the project. Impacts include replacement, extension, or removal of these structures. Many of the structures convey drainage between jurisdictional water features but some do not. None of the impacted structures are considered historic. Two large culverts will be impacted by the proposed improvements, CLV-100157 and CLV-100155, which are side-by-side culverts that convey the east crossing of George Marberger Ditch. CLV-100157 and CLV-100155 are both reinforced concrete structures that are 94-feet long by 48 inches wide and 41 feet long by 36 inches wide, respectively. The proposed structure work includes replacing both structures with a single 94-foot long, 84-inch pipe.

Details of the remaining proposed structure work can be found in the table in Appendix C, page C43. No other bridges or small structures will be impacted.

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### MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is a temporary roadway proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the project involve the use of a detour or require a ramp closure? (describe below)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for access by local traffic and so posted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for through-traffic dependent businesses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made to accommodate any local special events or festivals.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the proposed MOT substantially change the environmental consequences of the action?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there substantial controversy associated with the proposed method for MOT?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the project require a sidewalk, curb ramp, and/or bicycle lane closure? (describe below)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Provisions will be made for access by pedestrians and/or bicyclist and so posted (describe below).	<input type="checkbox"/>	<input type="checkbox"/>

*Discuss closures, detours, and/or facilities (if any) that will be provided for maintenance of traffic. Any known impacts from these temporary measures should be quantified to the extent possible, particularly with respect to properties such as Section 4(f) resources and wetlands. Discuss any pedestrian/bicycle closures. Any local concerns about access and traffic flow should be detailed as well.*

- The MOT plan will occur in six phases to accommodate traffic during construction (Appendix B, B54 to B68):
- Phase I will require a full road closure and detour of traffic at the east crossing of George Marberger Ditch to replace the side-by-side concrete culverts at that location.
  - Phase II consists of the closure of the eastbound lane of US 6 for replacement and widening of the shoulder.
  - Phase III will consist of the closure of the westbound lane to accommodate the replacement and widening of the shoulder.
  - Phase IV will then close the eastbound lane to accommodate the milling and overlay of the eastbound lane.
  - Phase V will then close the westbound lane to accommodate the milling and overlay of the westbound lane.
  - Phase VI will involve resurfacing the surface layer of the roadway with intermittent closures of one lane of traffic at a time.

A flagger will be in place to facilitate traffic through the construction area for phases II through VI. A detour will be in place during each phase of construction and will utilize SR 19, US 20, and SR 331. This detour is planned to be in place for approximately 9 months. The detour will add approximately 25.4 additional travel miles and approximately 29 additional minutes. Short local detours will be available for use by horse and buggy traffic in the area. These details are forthcoming. Access to all residences and businesses within the project area will be maintained throughout construction. The MOT plan will be implemented per the *Manual on Uniform Traffic Control Devices (MUTCD)* guidelines.

The closures/lane restrictions will pose a temporary inconvenience to traveling motorists (including school buses and emergency services); however, no significant delays are anticipated, and all inconveniences and delays will cease upon project completion.

### ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ 260,000 (2022 & 2026) Right-of-Way: \$ TBD\* (20--) Construction: \$ 8,930,875 (2024-2026)

Anticipated Start Date of Construction: Spring 2026

\* Final approval of this document is contingent upon an amendment to the TIP & STIP to include necessary ROW funds for the next project phase.

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### RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	2.70	0.27
Commercial	3.59	0.09
Agricultural	11.91	0.68
Forest	1.09	0.01
Wetlands	0.49	0.00
Other: Utility	0.63	0.00
Other:	0.00	0.00
<b>TOTAL</b>	<b>20.41</b>	<b>1.05</b>

*Describe both Permanent and Temporary right-of-way and describe their current use. Typical and Maximum right-of-way widths (existing and proposed) should also be discussed. Any advance acquisition, reacquisition or easements, either known or suspected, and their impacts on the environmental analysis should be discussed.*

The typical existing ROW along US 6 extends 15 to 25 feet north and 220 to 250 feet south of the roadway centerline from the western project terminus to Plymouth-Goshen Trail. East of Plymouth-Goshen Trail to the eastern project terminus, the typical existing ROW extends 18 to 27 feet north and 26 to 150 feet south of the centerline of US 6. Existing ROW mainly consists of existing pavement and maintained roadside. At its widest, the existing ROW consists of maintained scrub/shrub land (Appendix B, B5 to B21).

This project requires approximately 20.41 acres of permanent ROW from residential, commercial, agricultural, forested, wetland, and utility properties. The majority of the new permanent ROW acquisition will be acquired from the north side of the roadway. There will also be some ROW acquired from the south side of the roadway southeast of the intersection of Plymouth-Goshen Trail and US 6. The project requires 1.05 acres of temporary ROW from residential, commercial, agricultural, and forested properties. The temporary ROW will be acquired from both the north and south sides of the roadway at residential and commercial driveways. The typical proposed ROW width will be approximately 40 to 80 feet to the north and 26 to 250 feet south of the roadway centerline (Appendix B, B69 to B107).

If the scope of work or permanent or temporary ROW amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately.

## Part III – Identification and Evaluation of Impacts of the Proposed Action

### SECTION A - EARLY COORDINATION:

*List the date(s) coordination was sent and all resource agencies that were contacted as a part of the development of this Environmental Study. Also, include the date of their response or indicate that no response was received.*

Early coordination letters were sent on January 25, 2024 (Appendix C, C1 to C4).

Agency	Date Sent	Date Response Received	Appendix C
FHWA - Indiana Division	January 25, 2024	No Response	N/A
US Dept. of Agriculture, Natural Resources Conservation Service	January 25, 2024; June 25, 2024	February 12, 2024; July 8, 2024	C10 to C12
US Department of Housing and Urban Development, Chicago Regional Office	January 25, 2024	No Response	N/A
National Park Service, Midwest Regional Office	January 25, 2024	No Response	N/A
US Army Corps of Engineers, Detroit District	January 25, 2024	No Response	N/A



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Kankakee River Basin and Yellow River Basin Development Commission	January 25, 2024	No Response	N/A
INDOT LaPorte District Office, Environmental Section Manager	January 25, 2024	February 6, 2024	C9
INDOT LaPorte District Office, Project Manager	January 25, 2024	No Response	N/A
Indiana Dept. of Natural Resources, Division of Fish and Wildlife	January 25, 2024	February 23, 2024	C13 to C15
Michiana Area Council of Governments (MACOG)	January 25, 2024	No Response	N/A
INDOT Environmental Services Division	January 25, 2024	No Response	N/A
Indiana Geological and Water Survey	January 25, 2024	January 25, 2024	C5 to C6
Indiana Department of Environmental Management	January 25, 2024	No Response	N/A
INDOT Utilities and Railroad	January 25, 2024	No Response	N/A
Marshall County Highway Department	January 25, 2024	January 29, 2024	C7
Elkhart County Highway Department	January 25, 2024	No Response	N/A
Bremen Street Department	January 25, 2024	No Response	N/A
Nappanee Street Department	January 25, 2024	No Response	N/A
Marshall County Board of Commissioners	January 25, 2024	No Response	N/A
Elkhart County Board of Commissioners	January 25, 2024	No Response	N/A
Marshall County German Township Trustee	January 25, 2024	No Response	N/A
Elkhart County Locke Township Trustee	January 25, 2024	No Response	N/A
Marshall County Council	January 25, 2024	No Response	N/A
Elkhart County Council	January 25, 2024	No Response	N/A
Bremen Town Council	January 25, 2024	No Response	N/A
Nappanee City Council	January 25, 2024	No Response	N/A
Nappanee Mayor	January 25, 2024	No Response	N/A
City of Nappanee Clerk-Treasurer	January 25, 2024	No Response	N/A
Town of Bremen Clerk-Treasurer	January 25, 2024	No Response	N/A
Marshall County Surveyor's Office and Drainage Board	January 25, 2024	No Response	N/A
Elkhart County Surveyor's Office and Drainage Board	January 25, 2024	No Response	N/A
Marshall County Emergency Management Agency	January 25, 2024	No Response	N/A
Elkhart County Emergency Management Agency	January 25, 2024	No Response	N/A
Marshall County Sheriff Department	January 25, 2024	No Response	N/A
Elkhart County Sheriff Department	January 25, 2024	No Response	N/A
Bremen Police Department	January 25, 2024	No Response	N/A
Nappanee Police Department	January 25, 2024	No Response	N/A
Bremen Fire Department	January 25, 2024	No Response	N/A
Nappanee Fire Department	January 25, 2024	No Response	N/A
Marshall County Health Department	January 25, 2024	No Response	N/A
Elkhart County Health Department	January 25, 2024	No Response	N/A
Marshall County Plan Commission, Floodplain Administrator	January 25, 2024	January 30, 2024	C8
Elkhart County Planning Department, Floodplain Administrator	January 25, 2024	No Response	N/A
Bremen Public Schools	January 25, 2024	No Response	N/A
Wa-Nee Community School Corporation	January 25, 2024	No Response	N/A
United Pentecostal Church	January 25, 2024	No Response	N/A

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Pla-Mor Park/Campground	January 25, 2024	No Response	N/A
Digger Specialties, Inc	January 25, 2024	No Response	N/A
Elkhart County Municipal Separate Storm Sewer System (MS4) Coordinator	January 25, 2024	No Response	N/A
DeWayne Creighton	January 25, 2024	No Response	N/A

All applicable recommendations are included in the *Environmental Commitments* section of this Categorical Exclusion (CE) document.

### SECTION B – ECOLOGICAL RESOURCES:

Streams, Rivers, Watercourses & Other Jurisdictional Features	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Federal Wild and Scenic Rivers	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
State Natural, Scenic or Recreational Rivers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nationwide Rivers Inventory (NRI) listed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outstanding Rivers List for Indiana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Navigable Waterways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total stream(s) in project area: 622 Linear feet      Total impacted stream(s): 122 Linear feet

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet	Comments (i.e. location, flow direction, likely Water of the , appendix reference)
Albert Zeiger Ditch	Perennial	187	N/A	41.455708, -86.133355; Flows southwest through project area; No impacts below OHWM; Likely Water of the US (Appendix B, B5)
George Marberger Ditch	Perennial	336	122	Crosses project area at two locations (41.453882, -86.113749 & 41.453055, -86.097223); Flows northwest at the western crossing and flows southwest at the eastern crossing; Likely Water of the US (Appendix B, B8 & B10 to B11)
Unnamed tributary (UNT) to Arme y Ditch	Intermittent	99	N/A	41.443616, -86.033032; Flows east along the north side of US 6; No impacts below OWHM; Likely Water of the US (Appendix B, B21)

*Describe all streams, rivers, watercourses and other jurisdictional features adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if the streams or rivers are listed on any federal or state lists for Indiana. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.*

Based on the desktop review, the aerial maps of the project area (Appendix B, B5 to B21), and the Red Flag Investigation (RFI) report (Appendix E, E1 to E16), there are five streams, rivers, watercourses, or other jurisdictional features within the 0.5-mile search radius. There are two streams, rivers, watercourses, or other jurisdictional features within or adjacent to the project area. That number was updated to three by the site visits on June 28 & 29, 2022 and June 5, 6 & 7, 2023 by Lochmueller Group.

A *Waters of the US Determination/Wetland Delineation Report* was approved by INDOT Ecology, Waterway Permitting, and Stormwater Office (EWPSO) on April 22, 2024. Please refer to Appendix F, pages F2 to F54 for the *Waters of the US Determination/Wetland Delineation Report*. It was determined that three streams are located within the project investigation area: Albert Zeiger Ditch, George Marberger Ditch, and UNT to Arme y Ditch. The US Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

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Albert Zeiger Ditch is a perennial channel flowing southwest underneath US 6 through an unnamed corrugated metal pipe (CMP) east of SR 106 near the western terminus of the project area. Approximately 187 feet of the stream is within the project area. The ordinary high water mark (OHWM) is 12 feet wide by 1.4 feet deep. Albert Zeiger Ditch is considered to be a relatively permanent water (RPW) and would likely be considered a Water of the U.S. due its hydrologic connection to the Yellow River, a traditional navigable water (TNW), via Middle Fork Yellow River. The project is not anticipated to permanently or temporarily impact Albert Zeiger Ditch below the OHWM.

George Marberger Ditch is a perennial stream flowing through the project area under US 6 at two different locations. The western crossing flows southeast to northwest through a concrete box culvert east of Dogwood Drive. The OHWM is 9.5 feet wide by 1.7 feet deep. The eastern crossing flows northeast to southwest through a CMP (CLV-100157) under US 6 west of Plymouth-Goshen Trail. The OHWM of this reach of George Marberger Ditch is 2.8 feet wide by 0.2 feet deep. A total of approximately 336 linear feet (140 feet west and 196 feet east) of this stream flows within the project area. George Marberger Ditch is considered to be an RPW and would likely be considered a Water of the US due its hydrologic connection to the Yellow River, a TNW, via Albert Zeiger Ditch, and Middle Fork Yellow River. The project is anticipated to permanently impact a total of 122 linear feet (0.03 acre below OHWM) for the replacement of CLV-100157 and riprap placement at the eastern crossing.

UNT to Armeay Ditch is an intermittent channel flowing east to west along the north side of US 6. The stream begins at the outlet of a culvert under US 6 near the eastern terminus of the project and terminates at Wetland 26. Approximately 99 linear feet of this stream flows within the project area. The OHWM is 1.2 feet wide by 0.3 feet deep. UNT to Armeay Ditch is considered to be an RPW and would likely be considered a Water of the US due to its intermittent nature and connection to the Yellow River, a TNW, via Armeay Ditch and Middle Fork Yellow River. This stream is located outside of the construction limits of the project; therefore, the project is not anticipated to permanently or temporarily impact UNT to Armeay Ditch.

No Federal, Wild and Scenic Rivers; State Natural, Scenic, and Recreational Rivers; Outstanding Rivers for Indiana; navigable waterways or National Rivers Inventory waterways are present in the project area.

Due to the total permanent impacts to George Marberger Ditch of 122 linear feet (0.03 acre below OHWM), this project will likely require an Indiana Department of Environmental Management (IDEM) Section 401 permit and a USACE Section 404 Nationwide Permit (NWP). Mitigation will not likely be required for stream impacts.

Albert Zeiger Ditch and UNT to Armeay Ditch will be identified on the plans and labeled as "Do Not Disturb". This is listed as a firm commitment in the *Environmental Commitments* section of this document.

Albert Zeiger Ditch and George Marberger Ditch are listed as impaired for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate personal protective equipment (PPE), observe proper hygiene procedures, including regular handwashing, and limit personal exposure. This firm commitment is included in the *Environmental Commitments* section of this document.

The Marshall County Plan Commission responded to early coordination on January 30, 2024, stating that both Albert Zeiger Ditch and George Marberger Ditch are county regulated ditches (Appendix C, C8).

The Indiana Department of Natural Resources, Division of Fish and Wildlife (IDNR DFW) responded on February 23, 2024, with recommendations to minimize or avoid any impacts to streams (Appendix C, C13 to C15). These recommendations include utilizing best management practices to limit contaminant runoff into the stream, minimizing any in-channel disturbance, time of year restrictions for working in waterways, minimizing movement of sediment from the project area, not depositing any construction materials into the waterway, utilizing appropriate erosion control measures, and seeding and protecting any disturbed streambanks and slopes. All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

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**Open Water Feature(s)**

Reservoirs  
Lakes  
Farm Ponds  
Retention/Detention Basin  
Storm Water Management Facilities  
Other: \_\_\_\_\_

**Presence**


**Impacts**

Yes	No

*Describe all open water feature(s) identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.*

Based on the desktop review, the aerial maps of the project area (Appendix B, B5 to B21), and the RFI report (Appendix E, E1 to E16), there are eight open water features within the 0.5-mile search radius. There is one open water feature adjacent to the project area. That number was updated to zero by the site visits on June 28 & 29, 2022 and June 5, 6 & 7, 2023 by Lochmueller Group. Therefore, no impacts are expected.

**Wetlands**

**Presence**

X
---

**Impacts**

Yes	No
X	

Total wetland area: 3.117 Acre(s) Total wetland area impacted: 0.8561 Acre(s)

(If a determination has not been made for non-isolated/isolated wetlands, fill in the total wetland area impacted above.)

Wetland No.	Classification	Total Size (Acres)	Total Impacted Acres (Temporary impacts in parentheses)	Comments (i.e. location, likely Water of the US, appendix reference)
1	Emergent	0.03	N/A	41.456111, -86.133884; likely Water of the US (Appendix B, B5)
2	Emergent	0.21	0.007 (0.004)	41.453964, -86.128354; likely Water of the US (Appendix B, B5)
3	Emergent	0.008	0.0001	41.453703, -86.127692; likely Water of the US (Appendix B, B6)
4	Emergent	0.101	0.070	41.453610, -86.115839; not likely Water of the US (Appendix B, B8)
5	Emergent	0.009	0.006 (0.006)	41.453508, -86.099441; likely Water of the US (Appendix B, B10)
6	Emergent	0.004	0.003	41.453758, -86.099348; likely Water of the US (Appendix B, B10)
7	Emergent	0.016	0.016	41.449919, -86.090901; not likely Water of the US (Appendix B, B12)
8	Emergent	0.011	0.011	41.448583, -86.088101; not likely Water of the US (Appendix B, B12 to B13)
9	Emergent	0.036	N/A	41.447139, -86.083345; not likely Water of the US (Appendix B, B13)
10	Emergent	0.066	0.005	41.447040, -86.081648; not likely Water of the US (Appendix B, B13 to B14)
11	Emergent	0.18	0.003	41.446585, -86.075677; likely Water of the US (Appendix B, B14 to B15)

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Wetland No.	Classification	Total Size (Acres)	Total Impacted Acres (Temporary impacts in parentheses)	Comments (i.e. location, likely Water of the US, appendix reference)
12	Emergent	0.34	0.055	41.446390, -86.072715; likely Water of the US (Appendix B, B15 to B16)
13	Emergent	0.081	0.076	41.446569, -86.072803; likely Water of the US (Appendix B, B15)
14	Emergent	0.072	N/A	41.446048, -86.068536; not likely Water of the US (Appendix B, B15 to B16)
15	Emergent	0.082	0.082	41.445911, -86.064242; not likely Water of the US (Appendix B, B16)
16	Emergent	0.279	0.106	41.445843, -86.065123; not likely Water of the US (Appendix B, B16 to B17)
17	Emergent	0.014	0.001	41.445233, -86.057486; not likely Water of the US (Appendix B, B17)
18	Emergent	0.027	0.008	41.445106, -86.055555; not likely Water of the US (Appendix B, B17 to B18)
19	Emergent	0.009	0.009	41.445245, -86.055423; not likely Water of the US (Appendix B, B17 to B18)
20	Emergent	0.287	0.037	41.444639, -86.049420; likely Water of the US (Appendix B, B18 to B19)
21	Emergent	0.184	0.184	41.444785, -86.049311; likely Water of the US (Appendix B, B18 to B19)
22	Emergent	0.746	0.055	41.443944, -86.040030; not likely Water of the US (Appendix B, B20 to B21)
23	Emergent	0.134	0.045	41.444034, -86.038643; not likely Water of the US (Appendix B, B20)
24	Emergent	0.028	0.019	41.443970, -86.037987; not likely Water of the US (Appendix B, B20 to B21)
25	Emergent	0.051	0.045	41.443866, -86.036935; not likely Water of the US (Appendix B, B20 to B21)
26	Emergent	0.015	0.013	41.443636, -86.033364; not likely Water of the US (Appendix B, B21)
27	Emergent	0.097	N/A	41.443367, -86.033026; not likely Water of the US (Appendix B, B21)

**Wetlands (Mark all that apply)**

- Wetland Determination
- Wetland Delineation
- USACE Isolated Waters Determination

**Documentation**

<b>X</b>
<b>X</b>

**ESD Approval Dates**

<b>April 22, 2024</b>
<b>April 22, 2024</b>

**Improvements that will not result in any wetland impacts are not practicable because such avoidance would result in** (Mark all that apply and explain):

- Substantial adverse impacts to adjacent homes, business or other improved properties;
- Substantially increased project costs;
- Unique engineering, traffic, maintenance, or safety problems;
- Substantial adverse social, economic, or environmental impacts, or
- The project not meeting the identified needs.

<b>X</b>
<b>X</b>

*Describe all wetlands identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.*

Based on the desktop review, the aerial maps of the project area (Appendix B, B5 to B21), and the RFI report

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(Appendix E, E1 to E16), there are 87 wetlands within the 0.5-mile search radius. There are four wetlands adjacent to the project area. That number was updated to 27 within the project area by the site visits on June 28 & 29, 2022 and June 5, 6 & 7, 2023 by Lochmueller Group.

A *Waters of the US Determination/Wetland Delineation Report* was approved by INDOT EWPSO on April 22, 2024. Please refer to Appendix F, pages F2 to F54 for the *Waters of the US Determination/Wetland Delineation Report*. It was determined that 27 wetlands, Wetlands 1 through 27, are located within the project area. The USACE makes all final determinations regarding jurisdiction.

The majority of the delineated wetlands are fed by agricultural drains and underdrains below US 6 and have formed within excavated concave drainage areas along US 6. All of the wetlands would be classified as poor quality, emergent wetlands dominated by narrow-leaf cattail (*Typha angustifolia*), reed canary grass (*Phalaris arundinacea*), and other various grass-like species. Some wetlands are bordered by fence rows allowing for sparse overhanging shrub vegetation. According to the IDEM under stipulations provided in IC 13-18-22, all of the wetlands, with the exception of Wetlands 1, 2, 3, 5, 6, 11, 12, 13, 20, and 21, would be considered exempt isolated wetlands based on their classification as Class I wetlands, lack of surface connection to a RPW, and being located within a roadside ditch ([www.in.gov/idem/wetlands/information-about/state-regulated-wetlands-program/understanding-state-regulated-wetland-exemptions/](http://www.in.gov/idem/wetlands/information-about/state-regulated-wetlands-program/understanding-state-regulated-wetland-exemptions/)). INDOT acknowledges that these wetlands would not likely meet the definition of a Waters of the US under the Clean Water Act. However, INDOT may request that the USACE take jurisdiction of these wetlands. All other wetlands drain to one of two jurisdictional streams. Therefore, the remaining wetlands were given a preliminary "Waters of the US" determination. For details regarding these wetlands, see the Wetland Summary Table in the *Water of the US Determination/Wetland Delineation Report* (Appendix F, F8 to F10). The project is anticipated to permanently impact a total of 0.8461 acre of wetlands. Permanent impacts include shoulder pavement placement, ditch construction, grading the roadside drainage areas, riprap placement at the inlet or outlet of drainage structures, and structure replacement. The project is also anticipated to temporarily impact a total of 0.0101 acre of wetlands. These impacts mainly consist of construction access activities. Due to these impacts, IDEM Section 401 Individual Permit (IP) and a USACE Section 404 NWP will be required. Mitigation for wetland impacts will likely be required and will be determined during permitting.

Wetlands 1, 9, 14, and 27 will be labeled on the project plans as "Do Not Disturb". Non-impacted areas of Wetlands 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, and 26 shall be protected during construction and will be labeled on the plans as "Do Not Disturb". These are listed as firm commitments in the *Environmental Commitments* section of this document.

Impacts to wetlands will be minimized to the extent possible while meeting the purpose and need of the project. A project alternative that would completely avoid impacts to wetlands is not practicable because the avoidance of wetlands would not allow for work to widen the shoulder to be done, thus preventing the project purpose and need from being met.

The IDNR DFW responded on February 23, 2024 with recommendations to minimize or avoid impacts to wetlands (Appendix C, C13 to C15). These recommendations include limiting ground disturbance and excavating or placing fill in riparian wetlands.

In their response to early coordination on January 30, 2024, the Marshall County Floodplain Administrator inquired about a forested wetland south of the intersection of US 6 and Plymouth-Goshen Trail (Appendix C, C8). Lochmueller Group responded stating that the area is mapped as a National Wetland Inventory (NWI) wetland and that based on the Waters of the US Investigation for the project, project work will not extend into the limits of the wetland and that no impacts were anticipated. All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

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	<b>Presence</b>	<b>Impacts</b>	
<b>Terrestrial Habitat</b>	<input checked="" type="checkbox"/>	<b>Yes</b> <input checked="" type="checkbox"/>	<b>NO</b> <input type="checkbox"/>

Total terrestrial habitat in project area: 23.73 Acre(s) Total tree clearing: 1.0 Acre(s)

*Describe types of terrestrial habitat (i.e. forested, grassland, farmland, lawn, etc) adjacent or within the project area. Include whether or not impacts will occur to habitat identified. Include total terrestrial habitat impacted and total tree clearing that will occur. Discuss measure to avoid, minimize, and mitigate if impacts will occur.*

Based on a desktop review, site visits on June 28 & 29, 2022 and June 5, 6 & 7, 2023 by Lochmueller Group, the aerial maps of the project area (Appendix B, B5 to B21), there is maintained lawn, scrub/shrub, forested, farmland, and wetland habitat within the project area. The dominant species present are tall fescue (*Schedonorus arundinaceus*), reed canary grass (*Phalaris arundinacea*), silver maple (*Acer saccharinum*), sugar maple (*Acer saccharum*), American basswood (*Tilia americana*), sandbar willow (*Salix interior*), American sycamore (*Platanus occidentalis*), and eastern cottonwood (*Populus deltoides*). It's anticipated that the project will impact 23.73 acres of terrestrial habitat with approximately 1.0 acre of that being tree clearing within 100 feet of existing pavement. Tree clearing will take place outside of the bat active season. Terrestrial habitat impacts are being caused by construction access activities, structure replacement, structure repair and extension, riprap placement, and roadside ditch regrading. Avoidance of terrestrial habitat impacts is not practicable because doing so would not allow for the project to meet the purpose and need. Terrestrial habitat impacts will be minimized to the maximum extent possible while also allowing the project to meet the purpose and need. Mitigation for terrestrial habitat impacts is not anticipated to be required.

The IDNR DFW responded on February 23, 2024, with recommendations to minimize or avoid any impacts to terrestrial habitat (Appendix C, C13 to C15). These recommendations include maintaining or improving wildlife crossings through structures, time of year restrictions on tree clearing, potential mitigation requirements, minimizing tree and brush clearing to that which is necessary for the project, utilizing appropriate erosion control measures, and revegetating disturbed areas with native plants. All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

**Protected Species**

**Federally Listed Bats**

	<b>Yes</b>	<b>No</b>
Information for Planning and Consultation (IPaC) determination key completed	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Section 7 informal consultation completed (IPaC cannot be completed)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Section 7 formal consultation Biological Assessment (BA) required	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Determination Received for Listed Bats from USFWS: NE  NLAA  LAA

**Other Species not included in IPaC**

	<b>Yes</b>	<b>No</b>
Additional federal species found in project area (based on IPaC species list)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
State species (not bird) found in project area (based upon consultation with IDNR)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Migratory Birds**

	<b>Yes</b>	<b>No</b>
Known usage or presence of birds (i.e. nests)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
State bird species based upon coordination with IDNR	<input type="checkbox"/>	<input checked="" type="checkbox"/>

*Discuss IDNR coordination and species identified. Describe USFWS Section 7 consultation and determination received for Indiana bat and northern long-eared bat impacts. Discuss if other federally listed species were identified. If so, include consultation that has occurred and the determination that was received. Discuss if migratory birds have been observed and any impacts.*

Based on a desktop review and the RFI report (Appendix E, E1 to E16), completed by Lochmueller Group on December 30, 2022, the IDNR Marshall and Elkhart County Endangered, Threatened, and Rare (ETR) Species Lists have been checked. According to the IDNR DFW early coordination response letter dated February 23, 2024 (Appendix C, C13 to C15), the Natural Heritage Program's Database has been checked. The State special concern Least Weasel

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(*Mustela nivalis*) has been documented within the project area. The IDNR DFW does not anticipate any major impacts to the Least Weasel due to this project, although precautions should still be taken. Moving earth for shoulder widening may impact areas utilized by Least Weasels. To minimize impacts to the species, conduct earth moving activities outside of the breeding season (April – July). This has been added as a “for consideration” commitment in the *Environmental Commitments* section of this document. An INDOT 0.5-mile bat review occurred on February 7, 2022 and the review did not indicate the presence of endangered bat species within 0.5 mile of the project area.

### Indiana Bat and Northern Long-Eared Bat

Project information was submitted through the US Fish and Wildlife Service’s (USFWS) Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, C16 to C28). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally endangered northern long-eared bat (NLEB) (*Myotis septentrionalis*). Other species were generated in the IPaC species list along with the Indiana bat and NLEB. Refer to paragraph below.

The official species list generated from IPaC indicated four additional species. These species include the tricolored bat (*Perimyotis subflavus*, proposed endangered), whooping crane (*Grus americana*, experimental population, non-essential), salamander mussel (*Simpsonaias ambigua*, proposed endangered) and monarch butterfly (*Danaus plexippus*, candidate). The tricolored bat and salamander mussel are listed as proposed endangered and since they are not currently listed as endangered and do not have designated critical habitat, they were not evaluated as a part of this project. Should these species become listed before project construction, reinitiation of coordination with the USFWS as required by Section 7 of the Endangered Species Act (ESA) will occur. The whooping crane is listed as endangered wherever found, except where listed as an experimental population according to the Environmental Conservation Online System (<https://ecos.fws.gov/ecp/>). The whooping crane is listed as an experimental population in this location. Therefore, the species was not considered as part of this project. The monarch butterfly is identified as a candidate species, which is not yet listed or proposed for listing. Therefore, these species were not considered as part of this project, and the USFWS Interim Policy is not applicable because there are no other federally protected species identified within the project area. No further coordination is needed with USFWS.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and NLEB*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. A structure inspection occurred for all structures within the project on June 5, 6, and 7, 2023, and no sign of the use of any of the structures by bat or bird species was observed (Appendix C, C43). USFWS Bridge/Structure Assessments shall take place no earlier than two years prior to the start of construction. If construction will begin after June 5, 2025, an inspection of the structure by a qualified individual must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. This firm commitment is included in the *Environmental Commitments* section of this document.

An effect determination key was completed on February 13, 2024, and based on the responses provided, the project was found to “May Affect – Not Likely to Adversely Affect” the Indiana bat and/or the NLEB (Appendix C, C29 to C42). INDOT reviewed and verified the effect finding on March 14, 2024, and requested USFWS’s review of the finding. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Minimization Measures (AMMs) must be implemented as a part of this project and include ensuring all project workers are aware of all AMMs and project commitments, avoiding tree removal where possible, applying time of year restrictions for tree removal for when bats are not likely to be present, limiting tree removal to that which is specified in project plans, not removing documented bat habitat any time of year, and directing temporary lighting away from suitable habitat during the bat active season. All AMMs and/or commitments are included as firm commitments in the *Environmental Commitments* section of this document.

### Migratory Birds

The structures carrying Albert Zeiger Ditch (unnamed) and George Marberger Ditch (CLV-100157 & CLV-100155) and the project’s surrounding habitat are conducive for use (i.e. nests) by a bird species protected under the Migratory Bird



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Treaty Act (MBTA). Prior to the start of nesting season (May 1) the structures must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspection avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the Recurring Special Provision (RSP) 107-C-273 “Migratory Bird Protection.” This firm commitment is included in the *Environmental Commitments* section of this document.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act, as amended. If new information on endangered species at the site becomes available, or if project plans are changed, USFWS will be contacted for consultation.

### Geological and Mineral Resources

- Project located within the Indiana Karst Region
- Karst features identified within or adjacent to the project area
- Oil/gas or exploration/abandoned wells identified in the project area

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Date Karst Evaluation reviewed by INDOT EWPO (if applicable): \_\_\_\_\_ N/A \_\_\_\_\_

*Discuss if project is located in the Indiana Karst Region and if any karst features have been identified in the project area (from RFI). Discuss response received from IGWS coordination. Discuss if any mines, oil/gas, or exploration/abandoned wells were identified and if impacts will occur. Include discussion of karst study/report was completed and results. (Karst investigation must comply with the current Protection of Karst Features during Planning and Construction guidance and coordinated and reviewed by INDOT EWPO)*

Based on a desktop review and the Indiana Karst Region map, the project is located outside the designated Indiana Karst Region as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topographic maps of the project area (Appendix B, B2 to B3) and the RFI report (Appendix E, E1 to E16), there are no karst features identified within or adjacent to the project area. In the early coordination response on January 25, 2024, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, C5 to C6) The IGWS did state that there is moderate liquefaction potential, floodway, moderate potential to encounter bedrock resources, and high potential to encounter sand and gravel resources within 0.5 mile of the project area. No active or abandoned mineral resource extraction sites were documented. Response from IGWS has been communicated with the designer on January 31, 2024. No impacts are expected.

### SECTION C – OTHER RESOURCES

#### Drinking Water Resources

- Wellhead Protection Area(s)
- Source Water Protection Area(s)
- Water Well(s)
- Urbanized Area Boundary
- Public Water System(s)

	Impacts	
	Yes	No
<u>Presence</u>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Is the project located in the St. Joseph Sole Source Aquifer (SSA):  
 If Yes, is the FHWA/EPA SSA MOU Applicable?  
 If Yes, is a Groundwater Assessment Required?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

*Check the appropriate boxes and discuss each topic below. Provide details about impacts and summarize resource-specific coordination responses and any mitigation commitments. Reference responses in the Appendix.*

**Sole Source Aquifer**

The project is located in Marshall and Elkhart Counties, but located outside the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/Environmental Protection Agency (EPA)/INDOT Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project, a detailed groundwater assessment is not needed, and no impacts are expected.

**Wellhead Protection Area and Source Water**

IDEM’s Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on January 24, 2024 by Lochmueller Group. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

**Water Wells**

The IDNR Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on January 24, 2024 by Lochmueller Group. There are six unconsolidated wells mapped adjacent to US 6 within the project area. According to the well reports, these wells are not field located; therefore, their locations are not likely to be accurate. At this time, no impacts are expected. Should it be determined during the right-of-way phase that wells will be affected, a cost to cure will likely be included in the appraisal to restore the wells.

**Urban Area Boundary**

Based on a desktop review of the IDEM MS4 boundary map (<https://www.in.gov/idem/cleanwater/ms4s-boundaries-map-for-indiana/>) by Lochmueller Group on January 18, 2024, this project is located in an Urban Area Boundary (UAB). An early coordination letter was sent on January 25, 2024, to the Elkhart County MS4 Coordinator. The MS4 coordinator did not respond within the 30-day time frame. The project will comply with all legally required stormwater requirements and best management practices (BMPs).

**Public Water System**

Based on a desktop review, site visits on June 28 & 29, 2022 and June 5, 6 & 7, 2023 by Lochmueller Group, the aerial maps of the project area (Appendix B, B5 to B21), and the preliminary plans (Appendix B, B46 to B95), the project is located where there is a public water system maintained by the City of Nappanee near their western project limits (near the eastern project terminus). Early coordination letters were sent on January 25, 2024, to City of Nappanee representatives. No responses were received. Utility coordination is ongoing and will continue throughout project development to ensure impacts to water and other utilities are as minimal as possible.

**Floodplains**

Project located within a regulated floodplain  
 Longitudinal encroachment  
 Transverse encroachment  
 Homes located in floodplain within 1000’ up/downstream from project

	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Project located within a regulated floodplain	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Longitudinal encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transverse encroachment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Homes located in floodplain within 1000’ up/downstream from project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If applicable, indicate the Floodplain Level?

Level 1     Level 2     Level 3     Level 4     Level 5

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Use the IDNR Floodway Information Portal to help determine potential impacts. Include floodplain map in appendix. Discuss impacts according to the classification system. If encroachment on a flood plain will occur, coordinate with the Local Flood Plain Administrator during design to insure consistency with the local flood plain planning.

Based on a desktop review of the IDNR Indiana Floodway Information Portal website (<https://indnr.maps.arcgis.com/apps/webappviewer/index.html?id=05026dabc2e8461983e196d56a213c1e>) by Lochmueller Group on March 15, 2024 and the RFI report (Appendix E, E1 to E16), this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, F1). An early coordination letter was sent on January 25, 2024, to the local Floodplain Administrator. The Marshall County Floodplain Administrator responded on January 30, 2024 (Appendix C, C8) and stated that there are two floodplains within the project area, Albert Zeiger Ditch and George Marberger Ditch. This project exhibits transverse encroachment of the floodplain at Albert Zeiger Ditch.

This project qualifies as a Category 3 per the current INDOT CE Manual, which states: The modifications to drainage structures included in this project will result in an insubstantial change in their capacity to carry flood water. This change could cause a minimal increase in flood heights and flood limits. These minimal increases will not result in any substantial adverse impacts on the natural and beneficial floodplain values; they will not result in substantial change in flood risks or damage; and they do not have substantial potential for interruption or termination of emergency service or emergency routes; therefore, it has been determined that this encroachment is not substantial.

In their early coordination response received on February 23, 2024, the IDNR DFW stated, "This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile, unless it qualifies for a bridge exemption or qualifies under the INDOT and IDNR Memorandum of Understanding for Maintenance Activity Exemption, dated March 2023." This project is expected to qualify for the rural bridge exemption and a Construction in a Floodway Permit from IDNR is not anticipated to be required.

<b>Farmland</b>	<b><u>Presence</u></b>	<b><u>Impacts</u></b>				
		<b>Yes</b>	<b>No</b>			
Agricultural Lands	<table border="1" style="width: 40px; height: 20px; margin: auto;"><tr><td style="text-align: center;">X</td></tr></table>	X	<table border="1" style="width: 40px; height: 20px; margin: auto;"><tr><td style="text-align: center;">X</td></tr></table>	X	<table border="1" style="width: 40px; height: 20px; margin: auto;"><tr><td style="text-align: center;"> </td></tr></table>	
X						
X						
Prime Farmland (per NRCS)	<table border="1" style="width: 40px; height: 20px; margin: auto;"><tr><td style="text-align: center;">X</td></tr></table>	X	<table border="1" style="width: 40px; height: 20px; margin: auto;"><tr><td style="text-align: center;">X</td></tr></table>	X	<table border="1" style="width: 40px; height: 20px; margin: auto;"><tr><td style="text-align: center;"> </td></tr></table>	
X						
X						
Total Points (from Section VII of CPA-106/AD-1006*)	<b><u>153/158</u></b>					
<i>*If 160 or greater, see CE Manual for guidance.</i>						

Discuss existing farmland resources in the project area, impacts that will occur to farmland, and mitigation and minimization measures considered.

Based on a desktop review, site visits on June 28 & 29, 2022 and June 5, 6 & 7, 2023 by Lochmueller Group, and the aerial maps of the project area (Appendix B, B5 to B21), the project will convert 11.90 acres of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on January 25, 2024, to the US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). NRCS responded on February 12, 2024, stating that the project will cause a conversion of prime farmland (Appendix C, C10). Coordination with NRCS resulted in a score of 153 for the portion of the project in Elkhart County and 158 for the portion of the project in Marshall County on the AD-1006 Form (Appendix C, C11 and C12). The discrepancy in the ROW amounts on the AD-1006 forms and the ROW section of this document is due to the refinement of design. Additional coordination with NRCS occurred on June 25, 2024 and a response was received on July 8, 2024 (Appendix C, C44). With updated ROW numbers, the totals points for each form remained 153 for Elkhart County and 158 for Marshall County (Appendix C, C45 and C46). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

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### SECTION D – CULTURAL RESOURCES

**Minor Projects PA**      **Category(ies) and Type(s)**       **INDOT Approval Date(s)**       **N/A**

**Full 106 Effect Finding**  
 No Historic Properties Affected       No Adverse Effect       Adverse Effect

**Eligible and/or Listed Resources Present**  
 NRHP Building/Site/District(s)       Archaeology       NRHP Bridge(s)

Documentation Prepared (mark all that apply)	ESD Approval Date(s)	SHPO Approval Date(s)
APE, Eligibility and Effect Determination	<input type="checkbox"/>	<input type="checkbox"/>
800.11 Documentation	<input type="checkbox"/>	<input type="checkbox"/>
Historic Properties Report or Short Report	<input type="checkbox"/>	<input type="checkbox"/>
Archaeological Records Check and Assessment	<input type="checkbox"/>	<input type="checkbox"/>
Archaeological Phase Ia Survey Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Archaeological Phase Ic Survey Report	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>

Memorandum of Agreement (MOA)       **MOA Signature Dates** (List all signatories)

*If the project falls under the MPPA, describe the category(ies) that the project falls under and any approval dates. If the project requires full Section 106, use the headings provided. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of the paper(s) and the comment period deadline. Include any further Section 106 work which must be completed at a later date, such as mitigation from a MOA or avoidance commitments.*

On July 29, 2024, the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Types 3, 4, 9, and 10 under the Minor Projects Programmatic Agreement (MPPA) (Appendix D, D1 to D9). These MPPA types are as follows:

B-3. Construction of added travel, turning, or auxiliary lanes (e.g., bicycle, truck climbing, acceleration and deceleration lanes) and shoulder widening where work occurs in undisturbed soils and an archaeological investigation determines that no National Register-listed or eligible resources are present within the project area and work does not occur adjacent to a National Register-listed or eligible district or above-ground resource.

B-4. Installation of new safety appurtenances, including but not limited to, guardrails, barriers, glare screens, and crash attenuators, where work occurs in undisturbed soils and an archaeological investigation determines that no National Register-listed or eligible resources are present within the project area and work does not occur adjacent to a National Register-listed or eligible district or above-ground resource.

B-9. Installation, replacement, repair, lining, or extension of culverts and other drainage structures where work occurs in undisturbed soils and an archaeological investigation determines that no National Register-listed or eligible resources are present within the project area and work does not involve installation of a new culvert and other drainage structure, and there are no impacts to unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, work does not occur adjacent to a National Register-listed or eligible district or above-ground resource, and the structure exhibits no wood, stone, or brick structures or parts therein.

B-10. Slide corrections, slope repairs, and other erosion control measures, where work occurs in undisturbed soils and an archaeological investigation determines that no National Register-listed or eligible resources are present within

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the project area and work does not occur adjacent to a National Register-listed or eligible district or above-ground resource.

A Phase 1a Archaeological Reconnaissance was prepared by Cultural Resources Analysts (CRA) on July 29, 2024 (Appendix D, D10 to D12). The Phase 1a included a review of IDNR Division of Historic Preservation and Archaeology (DHPA) data for the survey area and no previously recorded sites were found within or near the survey area. The Phase 1a also included a survey of 79 acres along both sides of US 6 with shovel tests occurring at set intervals. Two sites, 12MR516 and 12MR521, were identified within the survey area. The report concluded that neither site is currently National Register-listed nor are they eligible for National Register listing. Therefore, archaeological clearance was recommended. INDOT CRO responded on July 31, 2024, concurring with the findings of the Phase 1a and determining that the aforementioned work types from MPPA Category B are applicable to this project (Appendix D, D13). They also stated that the following should be included as a firm commitment of the project: The portions of archaeological sites 12MR516 and 12MR521 beyond the surveyed limits within the proposed project area must be avoided by all ground disturbing activities and other project-related activities. The areas must be marked on plans as "DO NOT DISTURB – Environmentally Sensitive Area" and should be marked similarly on the ground for avoidance during construction. The avoidance areas shall not be identified as archaeological sites.

No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

**SECTION E – SECTION 4(f) RESOURCES/ SECTION 6(f) RESOURCES**

	<u>Presence</u>	<u>Use</u>	
		Yes	No
<b>Parks and Other Recreational Land</b>			
Publicly owned park	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Publicly owned recreation area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (school, state/national forest, bikeway, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Wildlife and Waterfowl Refuges</b>			
National Wildlife Refuge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
National Natural Landmark	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Wildlife Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State Nature Preserve	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Historic Properties</b>			
Site eligible and/or listed on the NRHP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Evaluations**  
**Prepared**

Programmatic Section 4(f)	<input type="checkbox"/>
"De minimis" Impact	<input type="checkbox"/>
Individual Section 4(f)	<input type="checkbox"/>
Any exception included in 23 CFR 774.13	<input type="checkbox"/>

*Discuss Programmatic Section 4(f) and "de minimis" Section 4(f) impacts in the discussion below. Individual Section 4(f) documentation must be included in the appendix and summarized below. Discuss proposed alternatives that satisfy the requirements of Section 4(f). FHWA has identified various exceptions to the requirement for Section 4(f) approval. Refer to 23 CFR § 774.13 - Exceptions.*

Section 4(f) of the US Department of Transportation Act of 1966 prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is no feasible and prudent alternative. The law applies to significant publicly owned parks, recreation areas, wildlife/waterfowl refuges, and National Register of Historic Places (NRHP) eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section

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4(f) resources.

Based on a desktop review, the aerial maps of the project area (Appendix B, B5 to B21), and the RFI report (Appendix E, E1 to E16), there are no potential 4(f) resources located within the 0.5-mile search radius. This was confirmed by the site visits on June 28 & 29, 2022 and June 5, 6 & 7, 2023, by Lochmueller Group. Therefore, no 4(f) use is expected.

**Section 6(f) Involvement**

**Presence**

**Use**

**Section 6(f) Property**

**Yes**

**No**




*Discuss Section 6(f) resources present or not present. Discuss if any conversion would occur as a result of this project. If conversion will occur, discuss the conversion approval.*

The US Land and Water Conservation Fund Act of 1965 established the Land and Water Conservation Fund (LWCF), which was created to preserve, develop, and assure accessibility to outdoor recreation resources. Section 6(f) of this Act prohibits conversion of lands purchased with LWCF monies to a non-recreation use.

A review of 6(f) properties on the INDOT ESD website revealed a total of 10 properties in Marshall County and 19 properties in Elkhart County (Appendix I, I1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.

### SECTION F – Air Quality

**STIP/TIP and Conformity Status of the Project**

- Is the project in the most current STIP/TIP?
- Is the project located in an MPO Area?
- Is the project in an air quality non-attainment or maintenance area?
- If Yes, then:
  - Is the project in the most current MPO TIP?
  - Is the project exempt from conformity?
- If No, then:
  - Is the project in the Transportation Plan (TP)?
  - Is a hot spot analysis required (CO/PM)?

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Location in STIP: Pages 7 and 8 of MACOG Project List

Name of MPO (if applicable): MACOG

Location in TIP (if applicable): Page 60

Level of MSAT Analysis required?

Level 1a  Level 1b  Level 2  Level 3  Level 4  Level 5

*Describe if the project is listed in the STIP and if it is in a TIP. Describe the attainment status of the county(ies) where the project is located. Indicate whether the project is exempt from a conformity determination. If the project is not exempt, include information about the TP and TIP. Describe if a hot spot analysis is required and the MSAT Level.*

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**STIP/TIP**

This project is included in the Fiscal Year (FY) 2024-2028 MACOG Transportation Improvement Program (TIP), which was directly incorporated into the INDOT FY 2024-2028 Statewide Transportation Improvement Program (STIP) (Appendix H, H1 to H6). Final approval of this document is contingent upon an amendment to the TIP & STIP to include necessary ROW funds for the next project phase.

**Attainment Status**

This project is located in Marshall and Elkhart County. Marshall County is currently in attainment for all criteria pollutants according to the US EPA Green Book (<https://www.epa.gov/green-book>). However, Elkhart County is currently a nonattainment area for Ozone, under the 1997 Ozone 8-hour standard which was revoked in 2015 but is being evaluated for conformity due to the February 16, 2018, *South Coast Air Quality Management District V. Environmental Protection Agency, Et. Al.* decision. This project has been identified as being exempt from air quality analysis in accordance with 40 CFR Part 93.126 and this project is not a project of air quality concern (40 CFR Part 93.123). Therefore, the project will have no significant impact on air quality.

**MSAT**

This project is of a type qualifying as a categorical exclusion (Group 1) under 23 CFR 771.117(c), or exempt under the Clean Air Act conformity rule under 40 CFR 93.126, and as such, a Mobile Source Air Toxics analysis is not required.

**SECTION G - NOISE**

**Noise**

**Yes**

**No**

Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?

Date Noise Analysis was approved/technically sufficient by INDOT ESD: N/A

*Describe if the project is a Type I or Type III project. If it is a Type I project, describe the studies completed to date and if noise impacts were identified. If noise impacts were identified, describe if abatement is feasible and reasonable and include a statement of likelihood.*

This project is a Type III project. In accordance with 23 CFR 772 and the current Indiana Department of Transportation Traffic Noise Analysis Procedure, this action does not require a formal noise analysis.

**SECTION H – COMMUNITY IMPACTS**

**Regional, Community & Neighborhood Factors**

**Yes**

**No**

Will the proposed action comply with the local/regional development patterns for the area?

<b>X</b>	
----------	--

Will the proposed action result in substantial impacts to community cohesion?

	<b>X</b>
--	----------

Will the proposed action result in substantial impacts to local tax base or property values?

	<b>X</b>
--	----------

Will construction activities impact community events (festivals, fairs, etc.)?

<b>X</b>	
----------	--

Does the community have an approved transition plan?

<b>X</b>	
----------	--

If No, are steps being made to advance the community's transition plan?

--	--

Does the project comply with the transition plan? (explain in the discussion below)

<b>X</b>	
----------	--

*Discuss how the project complies with the area's local/regional development patterns; whether the project will impact community cohesion; and impact community events. Discuss how the project conforms with the ADA Transition Plan.*

The project will ultimately be beneficial to local businesses and properties due to improved non-motorized vehicle connectivity in this area and the improvements to the roadway will not substantially change access to properties within

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the area. Overall, the negative impacts to property owners and local businesses within the project area will be minimal and will consist primarily of short-term construction impacts and the purchase of strips of permanent or temporary ROW along property frontages. No relocations are anticipated. Property owners will be provided access throughout the duration of the project. The project is not anticipated to result in substantial negative impacts to community cohesion and is not expected to negatively impact the surrounding community or cause negative economic impacts.

According to the Indiana Festivals website (<https://indianafestivals.org/>), accessed on February 2, 2024, by Lochmueller Group, there may be festivals in the vicinity of the project area during construction including the Nappanee Apple Festival held annually in Nappanee in September. Although there may be some inconvenience to those traveling to and from festivals in the area during construction due to the temporary road and lane closures, the MOT plan includes an official detour which will provide adequate access for those traveling to and from any festivals in the area.

The Americans with Disabilities Act (ADA) Transition Plan for Marshall County was approved and implemented on February 7, 2013 (<https://www.co.marshall.in.us/topic/index.php?topicid=62&structureid=12>), and the ADA Transition plan for Elkhart County was approved and implemented on December 3, 2012 and updated in 2022 (<https://www.elkcohw.org/wp-content/uploads/2024/04/2023-ROW-Transition-Plan.11.27.23.pdf>). No existing pedestrian facilities are present within the project area; however, widening the shoulders will allow pedestrian and bicycle traffic more space to travel safely along the roadway. The project will comply with the published ADA Transition Plan and will not create any additional barriers to access.

### Public Facilities and Services

*Discuss what public facilities and services are present in the project area and impacts (such as MOT) that will occur to them. Include how the impacts have been minimized and what coordination has occurred. Some examples of public facilities and services include health facilities, educational facilities, public and private utilities, emergency services, religious institutions, airports, transportation or public pedestrian and bicycle facilities.*

Based on a desktop review, the aerial map of the project area (Appendix B, B5 to B21), and the RFI report (Appendix E, E1 to E16), there is one recreational facility, one religious facility, one private airport, six pipeline segments, and five railroad segments located within the 0.5 mile of the project. There are five public facilities within or adjacent to the project area. That number was confirmed by site visits on June 28 & 29, 2022 and June 5, 6 & 7, 2023 by Lochmueller Group. Early coordination letters were sent to Pla-Mor Park, United Pentecostal Church, Dewayne Creighton, and INDOT Utilities and Railroads on January 25, 2024. No responses were received within the 30-day response period. Impacts to the church and airport will only consist of temporary traffic impacts due to lane and road closure during construction. Impacts to Pla-Mor Park include permanent and temporary ROW acquisition, but this will not impact the properties function as a private recreational area. Detailed utility and railroad coordination are ongoing, which will ensure impacts to the pipeline and railroad are avoided. Therefore, no impacts are expected. Access to all properties will be maintained during construction.

It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access.

### Environmental Justice (EJ) (Presidential EO 12898)

During the development of the project were EJ issues identified?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Does the project require an EJ analysis?

If YES, then:

Are any EJ populations located within the project area?

<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Will the project result in adversely high and disproportionate impacts to EJ populations?

*Indicate if EJ issues were identified during project development. If an EJ analysis was not required, discuss why. If an EJ analysis was required, describe how the EJ population was identified. Include if the project has a disproportionately high or adverse effect on EJ populations and explain your reasoning. If yes, describe actions to avoid, minimize and mitigate these effects.*

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority



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or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional ROW. The project will require approximately 20.41 acres of permanent ROW. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority populations and low-income populations relative to a reference population to determine if populations of EJ concern exist and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city, or town and is called the community of comparison (COC). For this project, there are two COCs identified as Elkhart County, Indiana and Marshall County, Indiana. The community that overlaps the project limits is called the affected community (AC). For this project there are three ACs: one (AC 1, Census Tract 11) occurs within Elkhart County, Indiana (COC 1) and two (AC 2, Census Tract 201.01 and AC 3, Census Tract 201.02) occur within Marshall County, Indiana (COC 2). An AC has a population of concern for EJ if the population is more than 50% low-income or minority or if the low-income population or minority population is greater than 125% of the same populations in the COC. A review of the US Census Bureau data (2018-2022) was completed on February 2, 2024. The data were obtained from the US Census Bureau's webpage (<https://data.census.gov/>). The data collected for minority and low-income populations within the AC's are summarized in the below table.

	<b>COC 1</b>	<b>AC 1</b>	<b>COC 2</b>	<b>AC 2</b>	<b>AC 3</b>
	Elkhart County, Indiana	Census Tract 11, Elkhart County, Indiana	Marshall County, Indiana	Census Tract 201.01, Marshall County, Indiana	Census Tract 201.02, Marshall County, Indiana
<b>LOW-INCOME POPULATION</b>					
<b>Total Population for Whom Poverty Status is Determined</b>	203,329	5,034	45,428	4,999	3,849
<b>Total Population Below Poverty Level</b>	24,427	283	4,919	732	99
<b>Percent Low-Income</b>	12.0%	5.6%	10.8%	14.6%	2.6%
<b>125 Percent of COC</b>	15.0%		13.5%		
<b>AC Percent Low-Income Greater Than 125 Percent of COC?</b>		NO		YES	NO
<b>AC Percent Low-Income Greater Than 50 Percent?</b>		NO		NO	NO
<b>Population of EJ Concern?</b>		NO		YES	NO
<b>MINORITY POPULATION</b>					
<b>Total Population</b>	206,841	5,034	46,208	5,035	3,869
<b>Minority Population</b>	55,430	377	6,283	1,160	134
<b>Percent Minority</b>	26.8%	7.5%	13.6%	23.0%	3.5%
<b>125 Percent of COC</b>	33.5%		17.0%		
<b>AC Percent Minority Greater Than 125 Percent of COC?</b>		NO		YES	NO

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AC Percent Minority Greater Than 50 Percent?		NO		NO	NO
Population of EJ Concern?		NO		YES	NO

### Low Income Populations

AC-1, Census Tract 11, has a percent low-income of 5.6%, which is below 50% and is below the 125% COC 1 threshold. AC-2, Census Tract 201.01, has a percent low-income of 14.6%, which is below 50% and is above the 125% COC 2 threshold. AC-3, Census Tract 201.02, has a percent low-income of 2.6%, which is below 50% and is below the 125% COC 2 threshold. Therefore, AC-2 has a low-income population of EJ concern.

### Minority Populations

AC-1, Census Tract 11, has a percent minority of 7.5%, which is below 50% and is below the 125% COC 1 threshold. AC-2, Census Tract 201.01, has a percent minority of 23.0%, which is below 50% and is above the 125% COC 2 threshold. AC-3, Census Tract 201.02, has a percent minority of 3.5%, which is below 50% and is below the 125% COC 2 threshold. Therefore, AC-2 has a minority population of EJ concern.

### Conclusion

Overall, the project will benefit EJ communities in this area due to the improved roadway conditions and improved safety and connectivity for non-vehicular traffic throughout the corridor, especially for horse-drawn buggies used by the local community. The negative impacts to property owners within the project area will be minimal and consist primarily of short-term construction impacts and the loss of temporary and permanent ROW along the property frontage. The ROW to be acquired will not substantially diminish the remaining properties' existing use and is expected to be acquired along the majority of the length of the project area. The project will involve less ROW acquisition from properties within the boundary of the EJ population of concern, AC-2: Census Tract 201.01, than in the rest of the project. Impacts to surrounding properties have been minimized to the maximum extent feasible while still meeting the purpose and need of the project. The proposed MOT plan will temporarily close US 6 during construction. An official detour around the closure will be in place utilizing SR 19, US 20, and SR 331. The official detour will add approximately 25.4 miles to the route and approximately 29 minutes traveled. Unofficial detours using local roads will also be available to divert traffic around the closure area. The shortest of these unofficial local detour routes, utilizing Douglas Road, SR 331, 2B Road, and County Road (CR) 56 and CR 101, would be approximately 6.6 miles. Accommodations will also be made for local buggy traffic during construction. Access will be maintained for property owners during construction of the project. Avoidance alternatives for EJ populations is not feasible because avoidance would not allow for the purpose and need of the project to be met. It is expected that the project will not have a disproportionately high and adverse environmental or health impact to low-income or minority populations of EJ concern when compared to non-EJ populations.

On March 22, 2024, INDOT Environmental Service Division concurred with the determination that the project will not have a disproportionately high and adverse environmental or health impact to EJ populations of concern (Appendix I, I12). No further environmental justice analysis is warranted. The census data sheets, map, and calculations can be found in Appendix I, pages I2 to I11.

### Relocation of People, Businesses or Farms

Will the proposed action result in the relocation of people, businesses or farms?  
Is a BIS or CSRS required?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Number of relocations: Residences: N/A Businesses: N/A Farms: N/A Other: N/A

*Discuss any relocations that will occur due to the project. If a BIS or CSRS is required, discuss the results in the discussion below.*

No relocations of people, businesses, or farms will take place as a result of this project.

# Indiana Department of Transportation

County Marshall & Elkhart

Route US 6

Des. No. 1702997 & 2001886

## SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

### Documentation

#### Hazardous Materials & Regulated Substances (Mark all that apply)

Red Flag Investigation (RFI)

Phase I Environmental Site Assessment (Phase I ESA)

Phase II Environmental Site Assessment (Phase II ESA)

Design/Specifications for Remediation required?

X

Date RFI concurrence by INDOT SAM (if applicable): January 4, 2023

*Include a summary of the potential hazardous material concerns found during review. Discuss in depth sites found within, directly adjacent to, or ones that could impact the project area. Refer to current INDOT SAM guidance. If additional documentation (special provisions, pay quantities, etc.) will be needed, include in discussion. Include applicable commitments.*

Based on a review of geographic information systems (GIS) and available public records, the RFI was completed on December 30, 2022 by Lochmueller Group and INDOT Site Assessment & Management (SAM) provided their concurrence on January 4, 2023 (Appendix E, E1 to E16). Three Resource Conservation and Recovery Act (RCRA) Generator/Transfer, Storage, or Disposal (TSD) sites, one state cleanup site, six leaking underground storage tank (LUST) sites, one institutional control site, and seven National Pollutant Discharge and Elimination System (NPDES) facilities are located within 0.5 mile of the project area. Two hazardous material sites could potentially impact the project:

- One LUST site, Schmucker's LP Gas (Agency Identification (AID) 14223), is located adjacent to the project area. USTs were removed from the site in 1990. Two 1,000 unleaded gallon tanks and associated pump island were located between the main building and US 6 and one 500-gallon gasoline tank was located at the southeast corner of the building. A product pipeline connected the 500-gallon tank to the pump island. In June 1990, all suspect contaminated soil to the north and south of the 1,000-gallon tanks was removed between the US 6 ROW and the main building. Contaminated soil may still be present within the US 6 ROW. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.
- One NPDES facility, Digger Specialties Incorporated (AID 47351 & permit number INRM01030), is located adjacent to the project area. According to the GIS database, the permit was issued on February 26, 2019, and expired on February 25, 2024. Coordination with the facility owner occurred on January 24, 2024 (Appendix C, C1 to C4). No response was received within 30 days. No impact is expected.

Due to the amount of time that passed since the completion of the RFI and the scope being refined to include the shoulder widening work (Des. No. 1702997), a subsequent review of the GIS data for resources was undertaken by Lochmueller staff on November 28, 2023. No new resources that could potentially impact the project were identified. Further investigation for hazardous material concerns is not required at this time.

## Indiana Department of Transportation

County Marshall & Elkhart

Route US 6

Des. No. 1702997 & 2001886

### Part IV – Permits and Commitments

#### PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

**Army Corps of Engineers (404/Section10 Permit)**

Nationwide Permit (NWP)	<input checked="" type="checkbox"/>
Regional General Permit (RGP)	<input type="checkbox"/>
Individual Permit (IP)	<input type="checkbox"/>
Other	<input type="checkbox"/>

**IN Department of Environmental Management (401/Rule 5)**

Nationwide Permit (NWP)	<input type="checkbox"/>
Regional General Permit (RGP)	<input type="checkbox"/>
Individual Permit (IP)	<input checked="" type="checkbox"/>
Isolated Wetlands	<input type="checkbox"/>
Rule 5	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

**IN Department of Natural Resources**

Construction in a Floodway	<input type="checkbox"/>
Navigable Waterway Permit	<input type="checkbox"/>
Other	<input type="checkbox"/>

**Mitigation Required**

**US Coast Guard Section 9 Bridge Permit**

**Others (Please discuss in the discussion below)**

*List the permits likely required for the project and summarize why the permits are needed, including permits designated as "Other."*

Due to stream and wetland impacts, an IDEM Section 401 IP and a USACE Section 404 NWP will be required. Mitigation for wetlands impacts will likely be required and will be determined during permitting.

Due to ground disturbance in excess of 1.0 acre, an IDEM Construction Stormwater General Permit will be required.

Applicable recommendations provided by resource agencies are included in the *Environmental Commitments* section of this document. If permits are found to be necessary, the conditions of the permit will be requirements of the project and will supersede these recommendations.

It is the responsibility of the project sponsor to identify and obtain all required permits.

#### ENVIRONMENTAL COMMITMENTS

*List all commitments and include the name of agency/organization requesting/requiring the commitment(s). Listed commitments should be numbered.*

**Firm:**

1. If the scope of work or permanent or temporary right-of-way amounts change during design or construction, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT LaPorte District)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
3. Any work in a wetland area within right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the US Army Corps of Engineers permit. (INDOT EWPSO)

## Indiana Department of Transportation

County Marshall & Elkhart

Route US 6

Des. No. 1702997 & 2001886

4. Albert Zeiger Ditch and UNT to Armeiy Ditch will be labeled "Do Not Disturb" on the project plans. (INDOT ESD)
5. Non-impacted areas of George Marberger Ditch shall be protected during construction and will be labeled "Do Not Disturb" on the project plans. (INDOT ESD)
6. Wetlands 1, 9, 14, and 27 will be labeled "Do Not Disturb" on the project plans. (INDOT ESD)
7. Non-impacted areas of Wetlands 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, and 26 shall be protected during construction and will be labeled "Do Not Disturb" on the project plans. (INDOT ESD)
8. General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
9. Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
10. Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
11. Tree Removal AMM 2: Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and **outside of documented** roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS)
12. Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)
13. Tree Removal AMM 4: Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat any time of year. (USFWS)
14. The structures carrying Albert Zeiger Ditch (unnamed) and George Marberger Ditch (CLV-100155 & CLV-100157) and the project's surrounding habitat are conducive for use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1) the structures must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspections avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the RSP 107-C-273 "Migratory Bird Protection." (INDOT ESD)
15. USFWS Bridge/Structure Assessments (listed on page C43 of the environmental document) shall take place no earlier than two years prior to the start of construction. If construction will begin after June 5, 2025, an inspection of the structures by a qualified individual must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT ESD)
16. One LUST site, Schmucker's LP Gas (AID 14223), is located adjacent to the project area. USTs were removed from the site in 1990. Two (2) 1,000 unleaded gallon tanks and associated pump island were located between the main building and US 6 and one (1) 500-gallon gasoline tank was located at the southeast corner of the building. A product pipeline connected the 500-gallon tank to the pump island. In June 1990, all suspect contaminated soil to the north and south of the 1,000-gallon tanks was removed between the US-6 right of way (ROW) and the main building. Contaminated soil may still be present within the US 6 ROW. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination. (INDOT SAM)
17. One NPDES facility, Digger Specialties Incorporated (AID 47351 & permit number INRM01030), is located adjacent to the project area. According to the GIS database, the permit was issued on February 26, 2019, and expired on February 25, 2024. Coordination with the facility owner should occur. (INDOT SAM)
18. Albert Zeiger Ditch and George Marberger Ditch are listed as impaired for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate personal protective equipment (PPE), observe proper hygiene procedures, including regular handwashing, and limit personal exposure. (INDOT SAM)

## Indiana Department of Transportation

County Marshall & Elkhart

Route US 6

Des. No. 1702997 & 2001886

19. The portions of archaeological sites 12MR516 and 12MR521 beyond the surveyed limits within the proposed project area must be avoided by all ground disturbing activities and other project-related activities. The areas must be marked on plans as "DO NOT DISTURB – Environmentally Sensitive Area" and should be marked similarly on the ground for avoidance during construction. The avoidance areas shall not be identified as archaeological sites. (INDOT CRO)

**For Further Consideration:**

20. The State special concern Least Weasel (*Mustela nivalis*) has been documented within the project area. The IDNR Division of Fish and Wildlife does not anticipate any major impacts to the Least Weasel due to this project, although precautions should still be taken. Moving earth for shoulder widening may impact areas utilized by Least Weasels. To minimize impacts to the species, conduct earth moving activities outside of the breeding season (April – July). (IDNR DFW)
21. The stream crossing repairs or modifications, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to existing conditions. Upgrading wildlife passage for rehabilitated/modified structures is encouraged whenever possible to improve wildlife/vehicle safety. (IDNR DFW)
22. Contaminated road runoff can significantly impact the aquatic environment through increased turbidity and release of sediment into the stream which can be harmful to fish and other aquatic organisms, their eggs, and their food supply. Where possible, road runoff should be directed to riprap turnouts and sediment filtration prior to entering a stream to reduce impacts to aquatic species. We recommend the use of pollutant trapping technology such as storm drain inserts to reduce the runoff of roadside pollutants where appropriate. (IDNR DFW)
23. Impacts to non-wetland forest of one (1) acre or more in a rural or urban area should be mitigated at a minimum 2:1 ratio based on area of impact. Impacts to non-wetland forest under one (1) acre but at least 0.10 acre in a rural or urban area should be mitigated at a minimum 1:1 ratio based on area of impact. Impacts under 0.10 acre in a rural area typically do not require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites. Impacts under 0.10 acre in an urban area should be mitigated by replacing trees that are 10" diameter-at-breast height (dbh) or greater by planting five trees, 1" to 2" in dbh, for each tree which is removed that is 10" dbh or greater. (IDNR DFW)
24. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR DFW)

# Des. Nos.: 1702997 & 2001886

US 6 Roadway Project

Elkhart & Marshall County, Indiana

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## Appendix A: INDOT Supporting Documentation

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## Appendix B: Graphics

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## Appendix C: Early Coordination

Sample Early Coordination Letter (January 25, 2024).....	C1-C4
Indiana Geological and Water Survey Electronic Response (January 25, 2024).....	C5-C6
Marshall County Highway Department Response (January 29, 2024).....	C7
Marshall County Plan Commission Floodplain Administrator Response (January 30, 2024).....	C8
Indiana Department of Transportation, LaPorte District Environmental Services Response (February 6, 2024).....	C9
Natural Resources Conservation Service Response Letter (February 12, 2024).....	C10
Completed AD-1006 Form, Elkhart County .....	C11
Completed AD-1006 Form, Marshall County .....	C12
Indiana Department of Natural Resources, Division of Fish and Wildlife Response Letter (February 23, 2024).....	C13-C15
United States Fish and Wildlife Service IPaC Official Species List (May 15, 2024) .....	C16-C28
IPaC NLAA Concurrence Verification Letter (March 14, 2024) .....	C29-C42
Structure Inspection Table (June 5-7, 2023) .....	C43
Natural Resources Conservation Service Response Email (July 8, 2024).....	C44
Updated AD-1006 Form, Elkhart County .....	C45
Updated AD-1006 Form, Marshall County.....	C46

## Appendix D: Section 106 of the National Historic Preservation Act (NHPA)

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## Appendix E: Red Flag Investigation & Hazardous Materials

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## Appendix F: Water Resources

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Des. Nos.: 1702997 & 2001886

US 6 Roadway Project

Elkhart & Marshall County, Indiana

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Preliminary Jurisdictional Determination Form ..... F51-F54

**Appendix G: Public Involvement**

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Sample Supplemental Notice of Survey (February 8, 2023) ..... G2

**Appendix H: Air Quality**

Relevant pages from the FY 2024-2028 MACOG TIP.....H1-H2

FHWA/INDOT STIP approval and MPO TIP incorporation letter .....H3-H6

**Appendix I: Other Information**

Land and Water Conservation Fund Grants: Elkhart and Marshall County, Indiana..... I1

EJ Analysis (March 1, 2024) ..... I2-I11

EJ Analysis Approval Email ..... I12

Note to File (NTF) No. 2 to Abbreviated Engineer’s Report - Des. No. 2001886

May 19, 2022)..... I13

NTF No. 1 to Abbreviated Engineer’s Report - Des. No. 2001886 (February 23, 2022). I14

Abbreviated Engineer’s Report - Des. No. 2001886 (June 25, 2020) ..... I15-I20

Abbreviated Engineer’s Report - Des. No. 1702997 (December 26, 2019)..... I21-I22

INDOT response email with Pavement Condition Data (July 2, 2024)..... I23



**Categorical Exclusion**

**Appendix A**

**INDOT Supporting Documentation**

## Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 <sup>1</sup>
<b>Section 106</b>	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement <sup>2</sup>
<b>Stream Impacts<sup>3</sup></b>	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit <sup>4</sup>
<b>Wetland Impacts<sup>3</sup></b>	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
<b>Right-of-way<sup>5</sup></b>	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
<b>Relocations<sup>6</sup></b>	None	-	-	< 5	≥ 5
<b>Threatened/Endangered Species (Species Specific Programmatic for Indiana bat &amp; northern long eared bat)*</b>	“No Effect”, “Not likely to Adversely Affect” (With select AMMs <sup>7</sup> )	“Not likely to Adversely Affect” (With any AMMs or commitments)	-	“Likely to Adversely Affect”	Project does not fall under Species Specific Programmatic <sup>8</sup>
<b>Threatened/Endangered Species (Any other species)*</b>	Falls within guidelines of USFWS 2013 Interim Policy or “No Effect”	“Not likely to Adversely Affect”	-	-	“Likely to Adversely Affect”
<b>Environmental Justice</b>	No disproportionately high and adverse impacts	-	-	-	Potential <sup>9</sup>
<b>Sole Source Aquifer</b>	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
<b>Floodplain</b>	No Substantial Impacts	-	-	-	Substantial Impacts
<b>Section 4(f) Impacts</b>	None	-	-	-	Any <sup>10</sup>
<b>Section 6(f) Impacts</b>	None	-	-	-	Any
<b>Permanent Traffic Alteration</b>	None	-	-	-	Any
<b>Noise Analysis Required</b>	No	-	-	-	Yes
<b>Air Quality Analysis Required</b>	No	-	-	-	Yes <sup>11</sup>
<b>Approval Level</b>	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

<sup>1</sup> Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

<sup>2</sup> Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

<sup>3</sup> Total permanent impacts to streams (linear feet) and wetlands (acres).

<sup>4</sup> US Army Corps of Engineers Individual 404 Permit

<sup>5</sup> Total permanent and temporary right-of-way. This does not include reacquisition of existing apparent right-of-way.

<sup>6</sup> If any relocations are within an area with a known or suspected Environmental Justice (EJ) or disadvantaged population, or has greater than 5 relocations, a conversation with FHWA, through INDOT ESD, is needed to confirm NEPA classification and outreach plan for the project.

<sup>7</sup> Avoidance and Mitigation Measures (AMMs) determined by the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.

<sup>8</sup> Projects that do not fall under a Species Specific Programmatic and results in a “Likely to Adversely Affect”. Other findings can be processed as a lower-level CE.

<sup>9</sup> Potential for causing a disproportionately high and adverse impact.

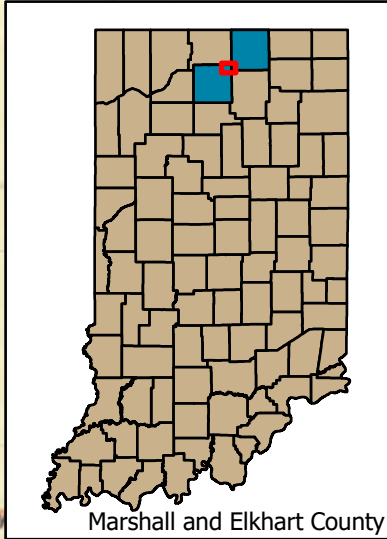
<sup>10</sup> Section 4(f) use resulting in an Individual, Programmatic, or *de minimis* evaluation. The only exception is a *de minimis* evaluation for historic properties (Effective January 2, 2020). If a historic property *de minimis* and no other use, mark the *None* column.

<sup>11</sup> Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

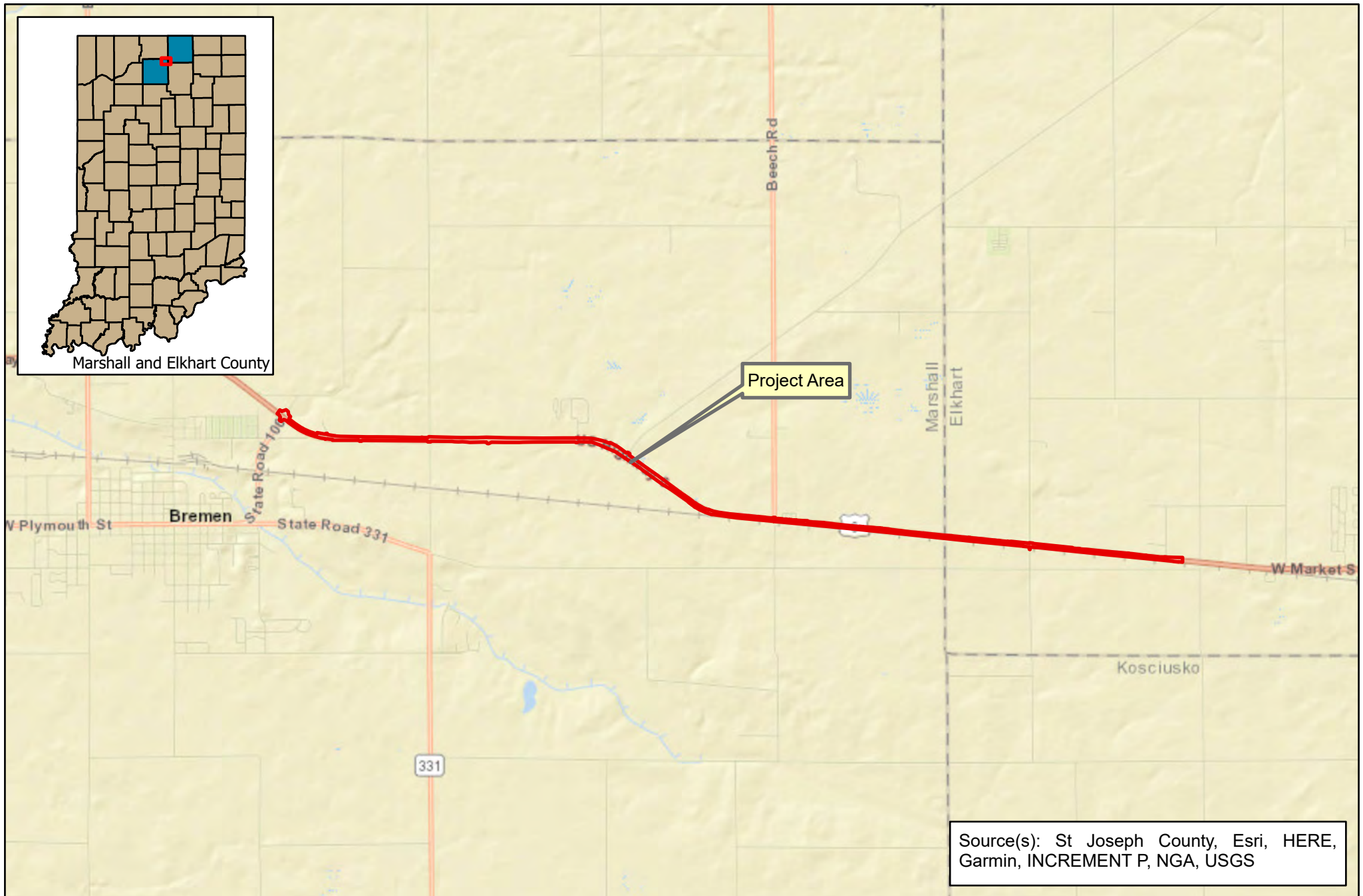
\* Includes the threatened/endangered species critical habitat

Note: Substantial public or agency controversy may require a higher-level NEPA document.

**Categorical Exclusion**  
**Appendix B**  
**Graphics**



Marshall and Elkhart County



Project Area

Source(s): St Joseph County, Esri, HERE, Garmin, INCREMENT P, NGA, USGS



112 West Jefferson Blvd., Suite 500  
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 Phone: (574) 334-5460

**Location Map**

Des. No. 1702997 & 2001886

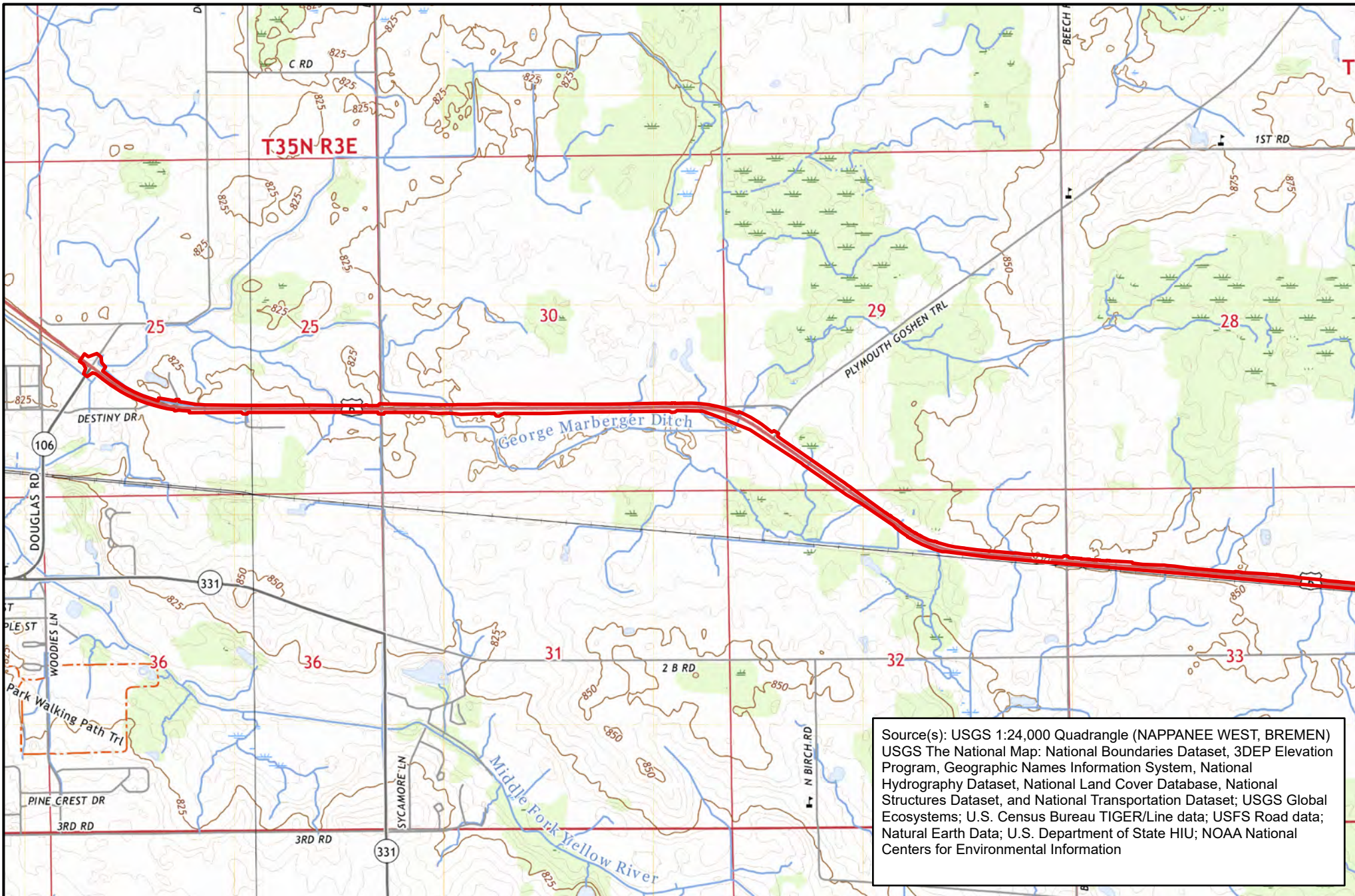


County: Marshall and Elkhart  
 Township: German and Locke  
 State: Indiana

HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
 Created: 4/17/2024, CKunkel

**Legend**

Project Area

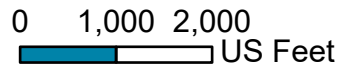


Source(s): USGS 1:24,000 Quadrangle (NAPPANEE WEST, BREMEN)  
 USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information



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**USGS Quad Map (1:24,000)**  
 Des. No. 1702997 & 2001886

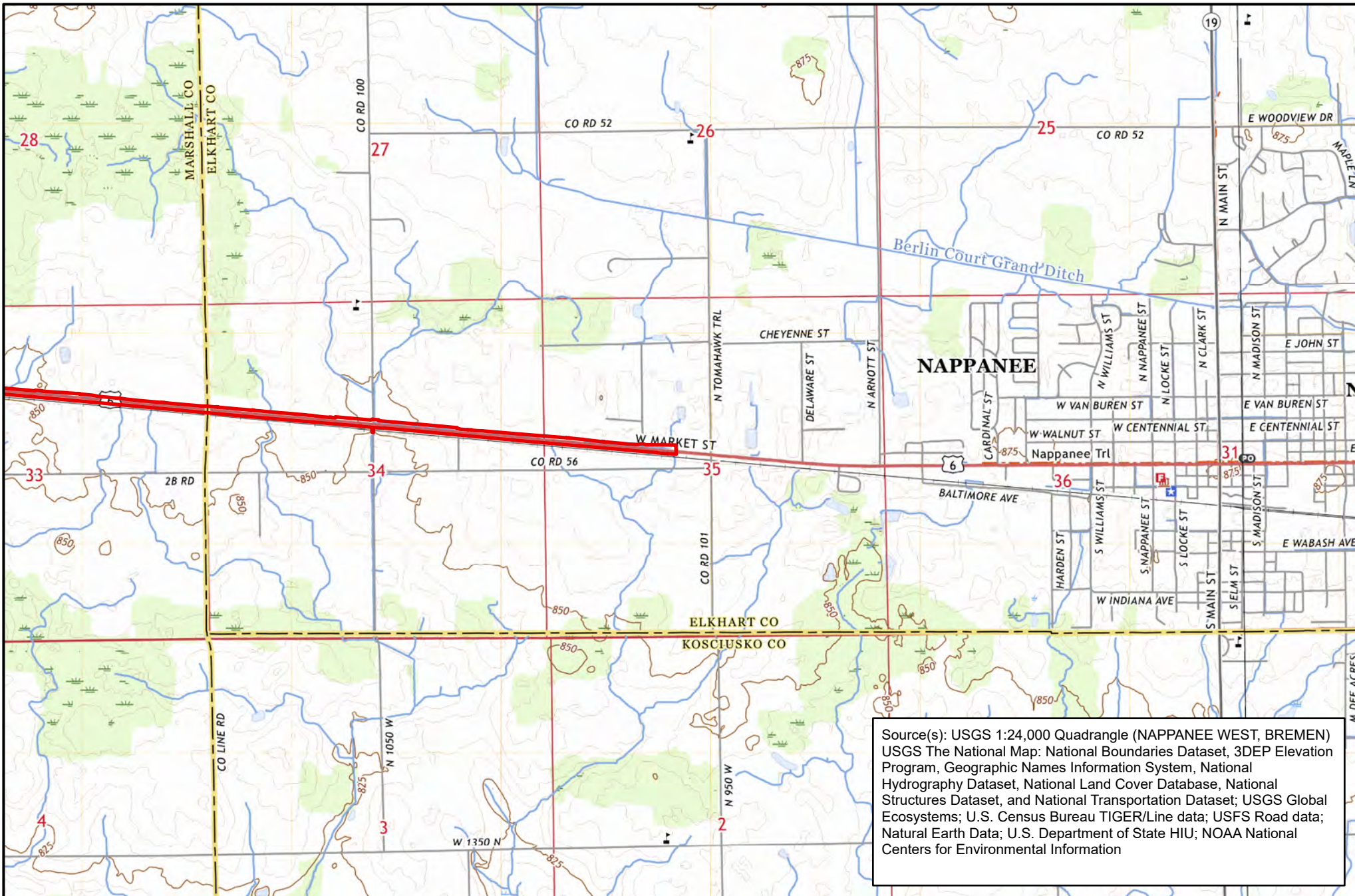


County: Marshall and Elkhart  
 Township: German and Locke  
 State: Indiana

HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
 Created: 4/17/2024, CKunkel

**Legend**

Project Area




Source(s): USGS 1:24,000 Quadrangle (NAPPANEE WEST, BREMEN)  
 USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information



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**USGS Quad Map (1:24,000)**  
 Des. No. 1702997 & 2001886

0 1,000 2,000  
 US Feet




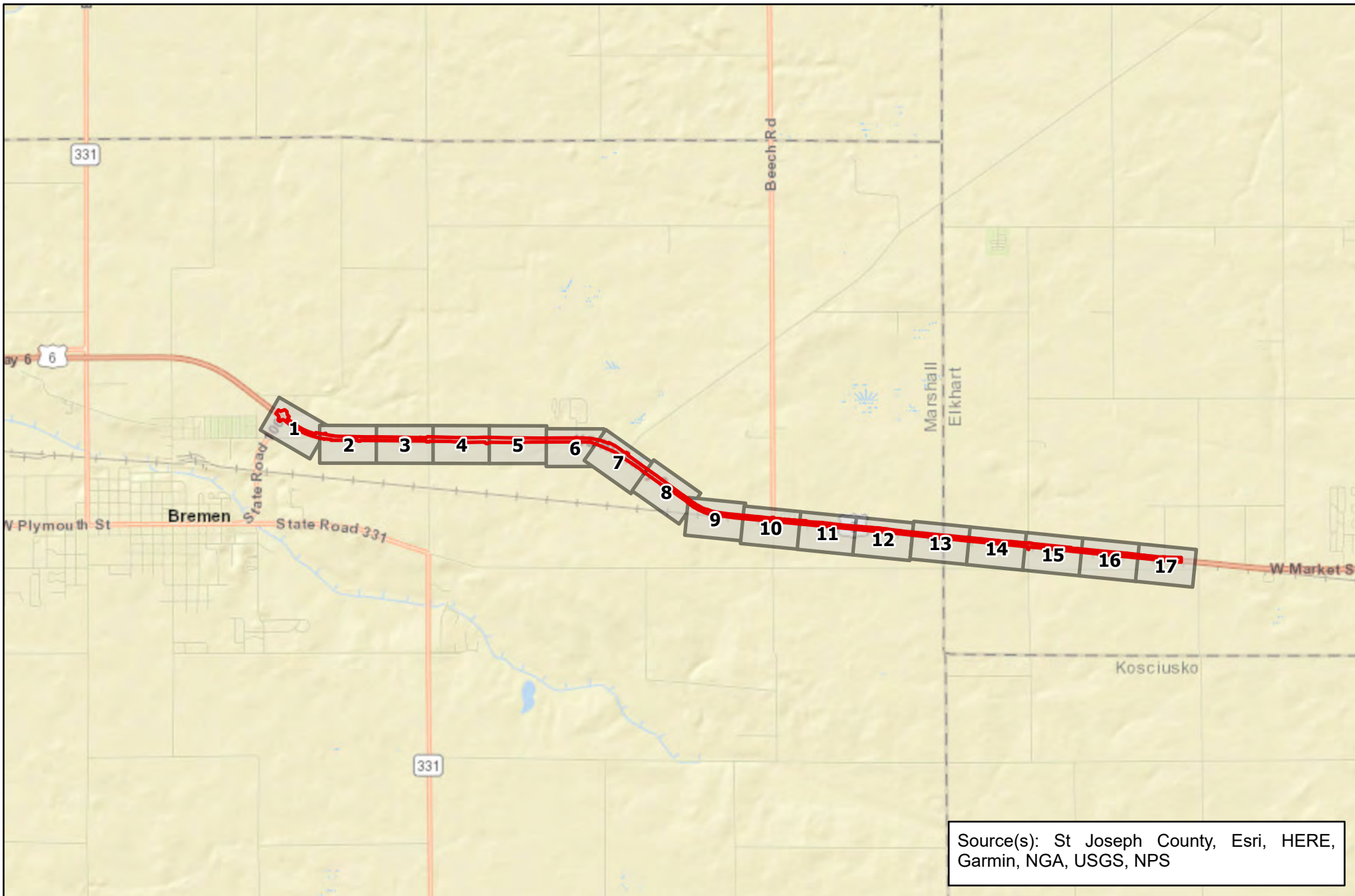
County: Marshall and Elkhart  
 Township: German and Locke  
 State: Indiana

HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
 Created: 4/17/2024, CKunkel

**Page 2 of 2**

**Legend**

 Project Area



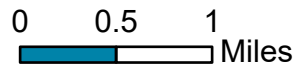
Source(s): St Joseph County, Esri, HERE, Garmin, NGA, USGS, NPS



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### Aerial & Photo Index Map

Des. No. 1702997 & 2001886

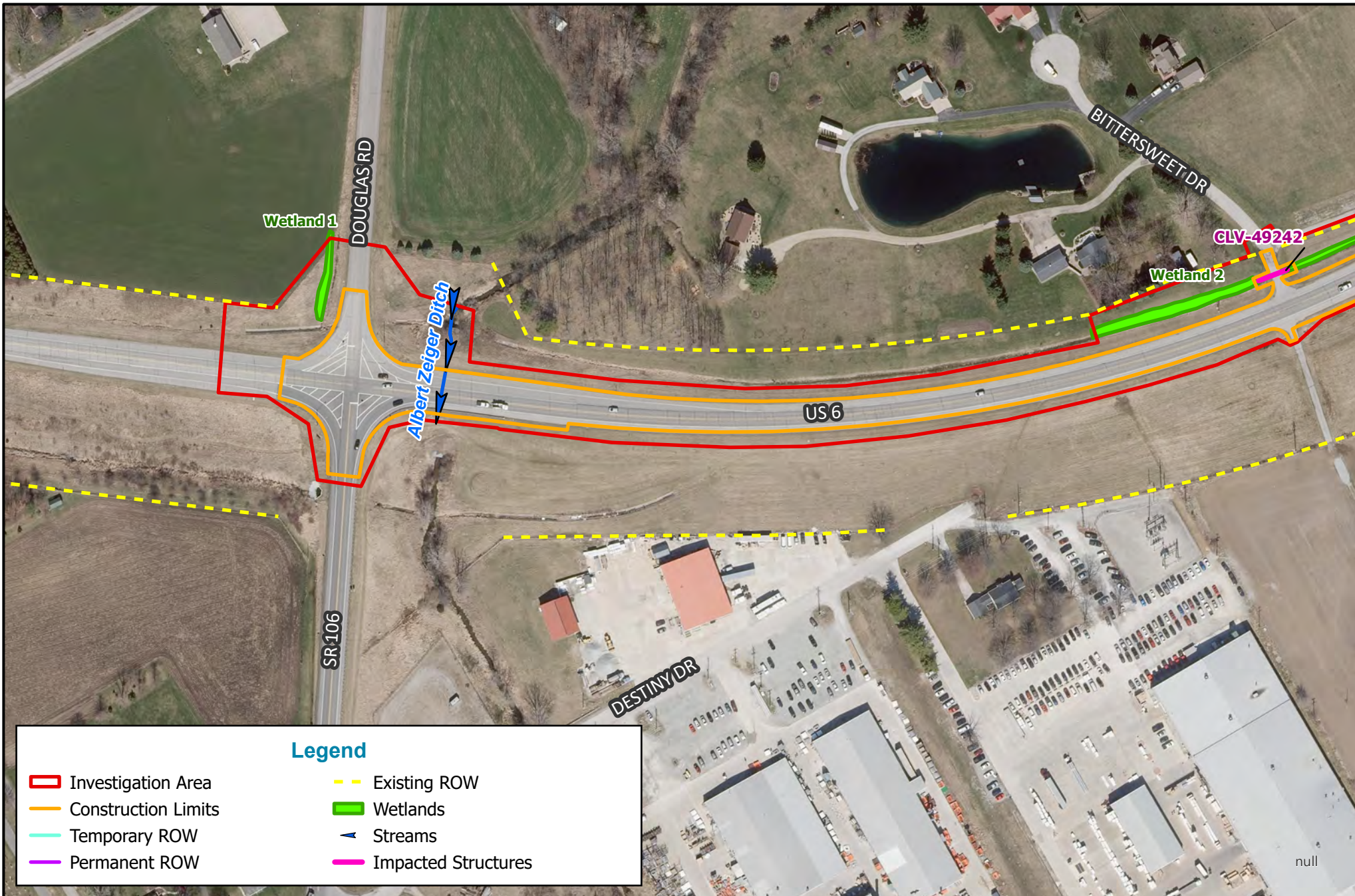


County: Marshall and Elkhart  
 Township: German and Locke  
 State: Indiana

HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
 Created: 5/8/2024, CKunkel

### Legend

- Project Area
- Map Viewshed



**Legend**

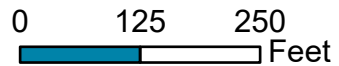
- Investigation Area
- Construction Limits
- Temporary ROW
- Permanent ROW
- Existing ROW
- Wetlands
- ▶ Streams
- Impacted Structures



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**Aerial Map (2021)**

Des. No. 1702997 & 2001886

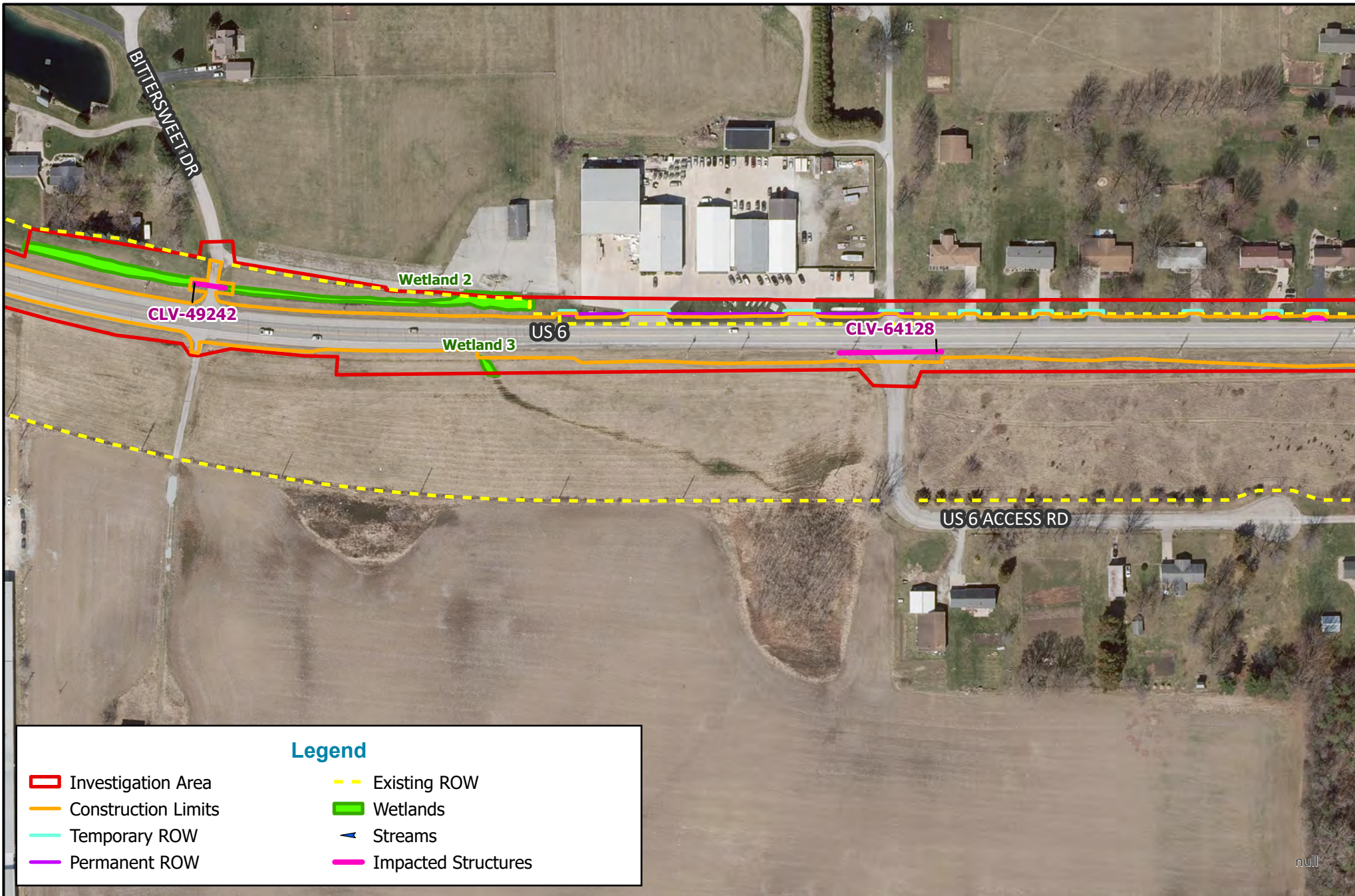


County: Marshall and Elkhart  
 Township: German and Locke  
 State: Indiana

HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 179  
 Created: 5/9/2024, CKunkel

Aerial Source: 2021 Indiana Current Imagery





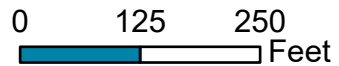
**Legend**

- Investigation Area
- Construction Limits
- Temporary ROW
- Permanent ROW
- Existing ROW
- Wetlands
- ▶ Streams
- Impacted Structures



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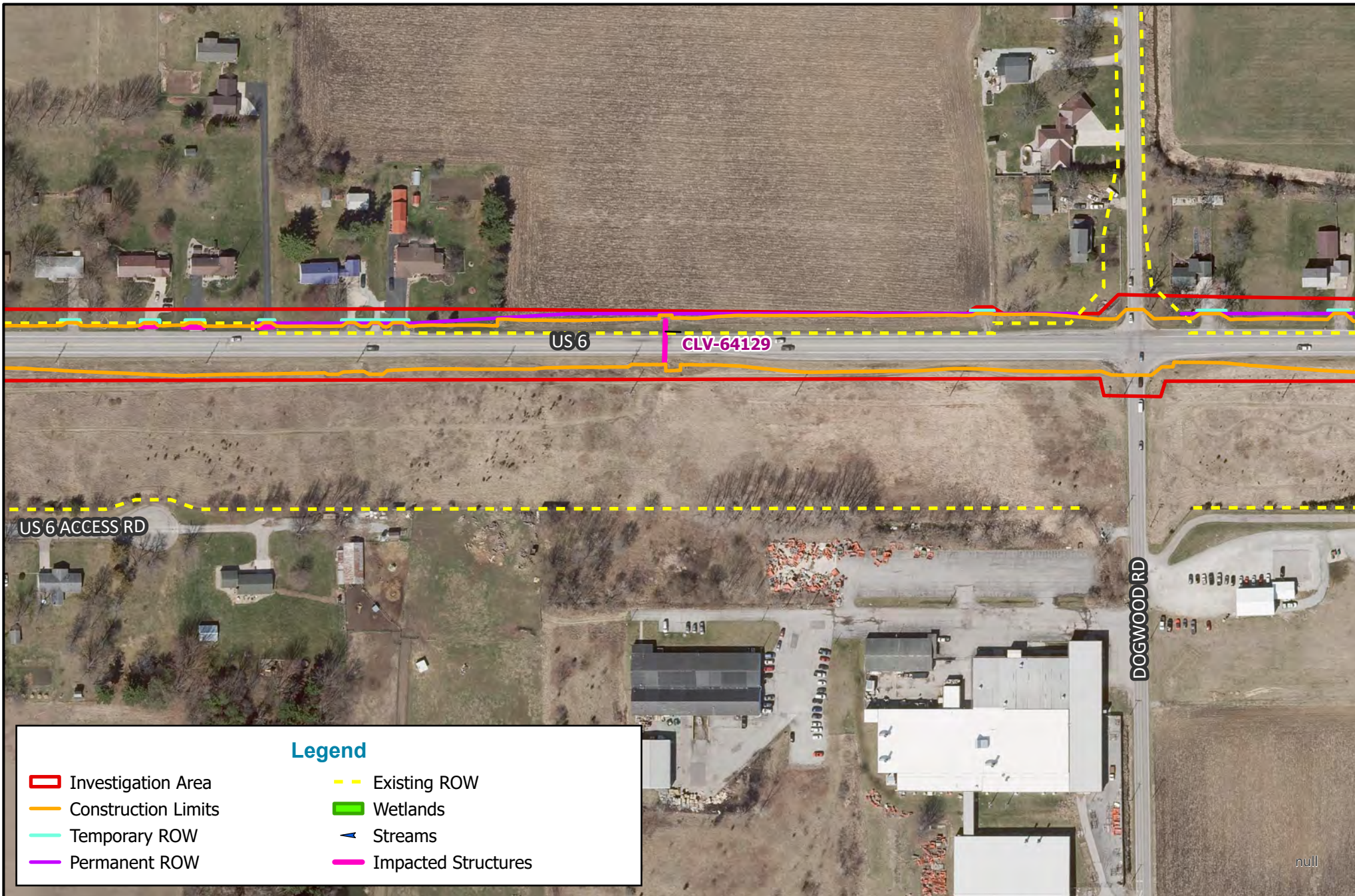
**Aerial Map (2021)**  
 Des. No. 1702997 & 2001886



County: Marshall and Elkhart  
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HMA Overlay & Shoulder Rehabilitation  
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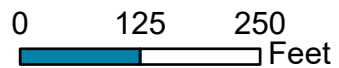
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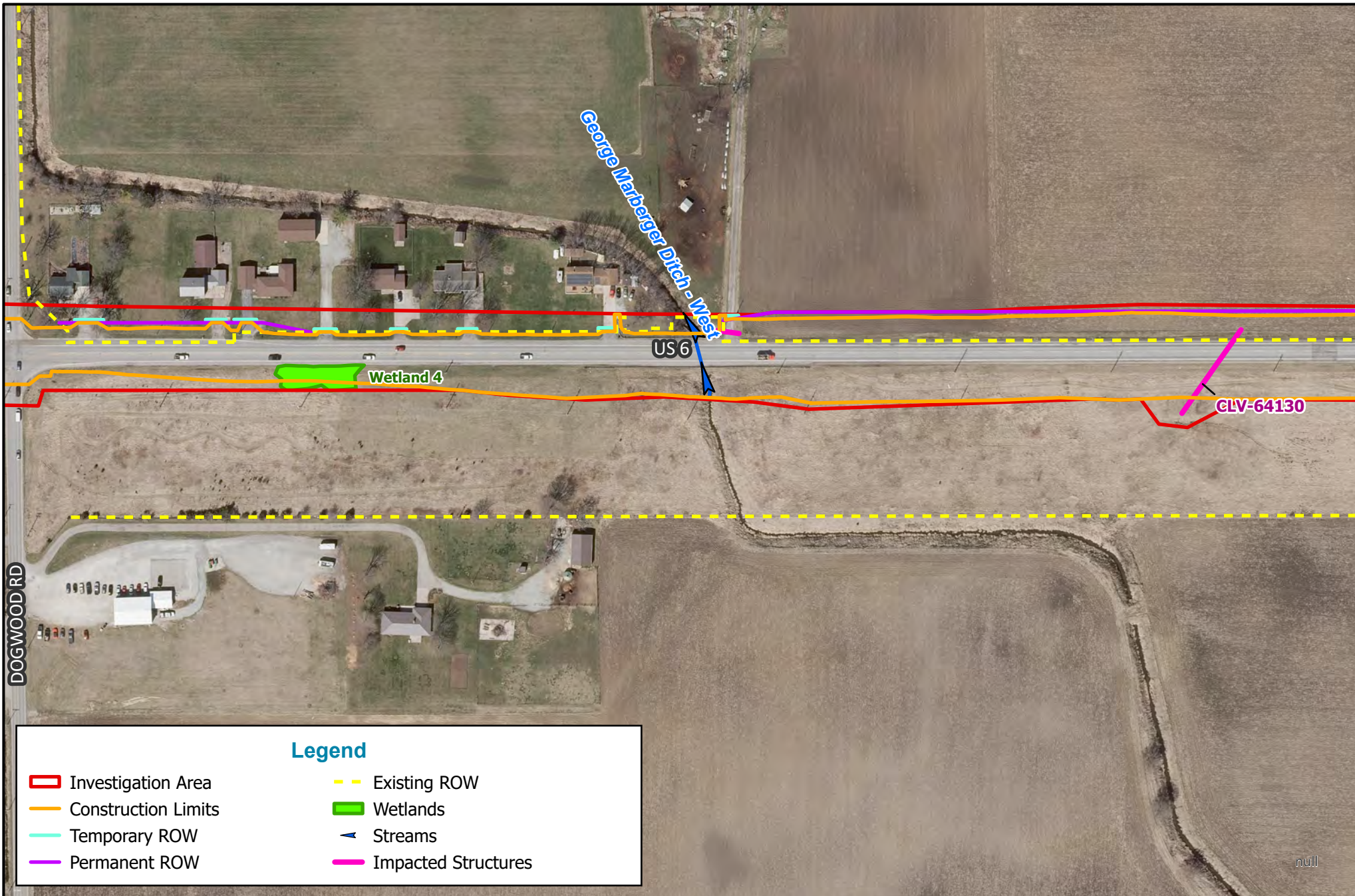
**Aerial Map (2021)**  
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County: Marshall and Elkhart  
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HMA Overlay & Shoulder Rehabilitation  
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**Legend**

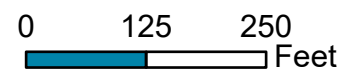
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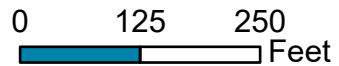
**Legend**

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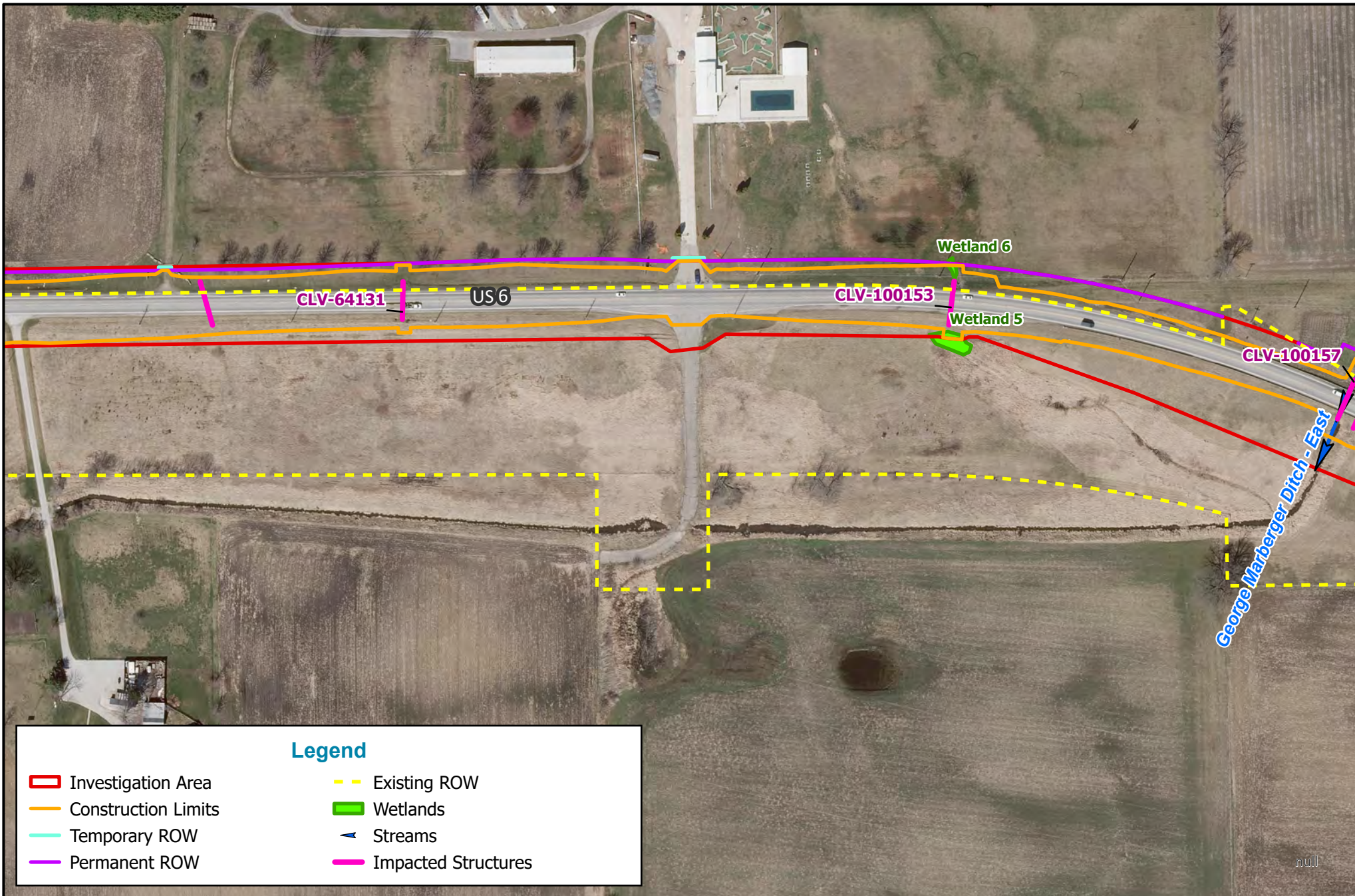
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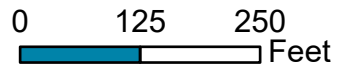
- ▭ Investigation Area
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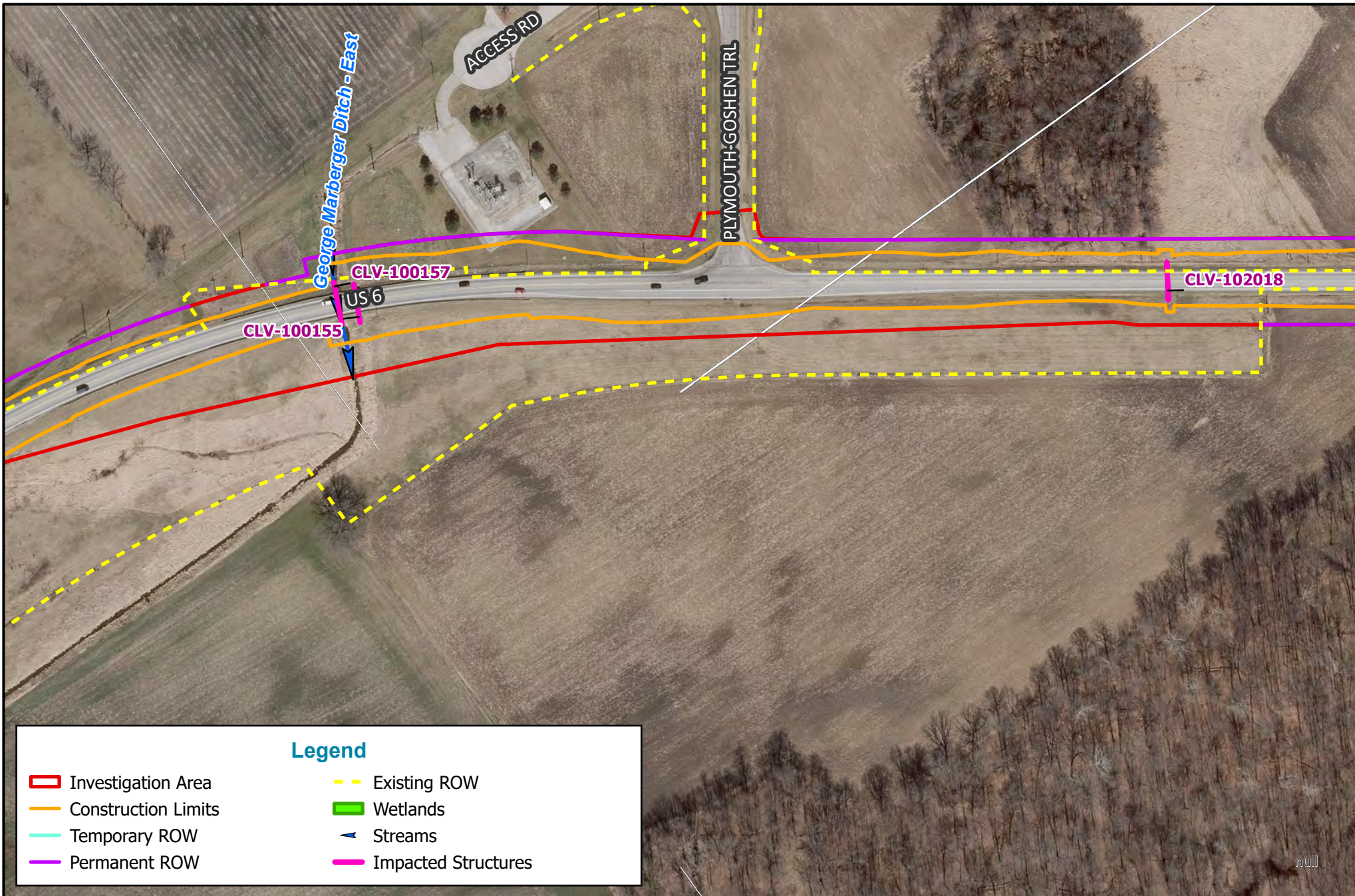
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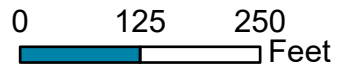
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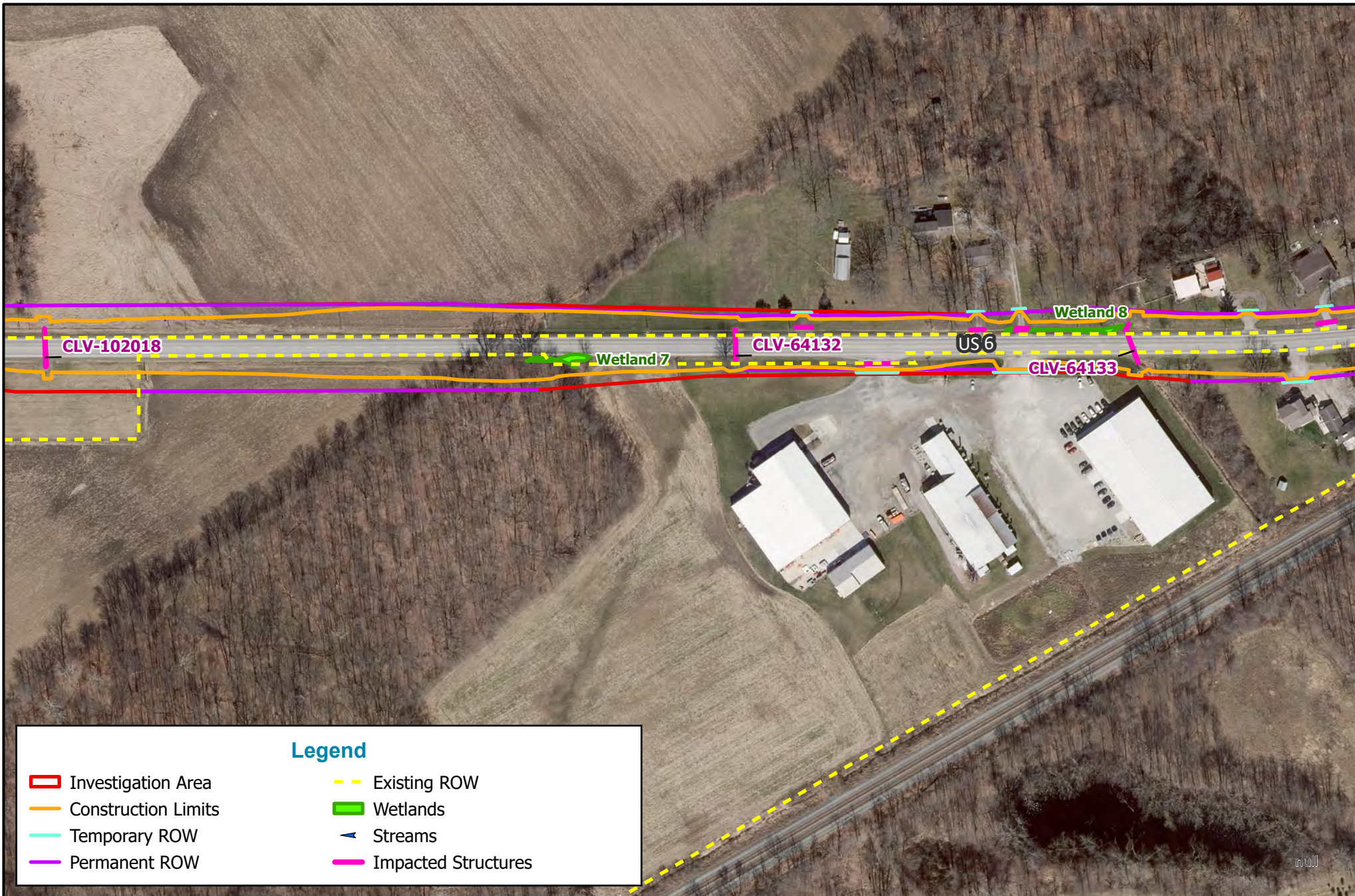
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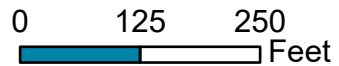
**Legend**

- ▭ Investigation Area
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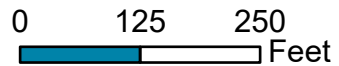
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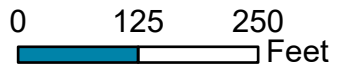
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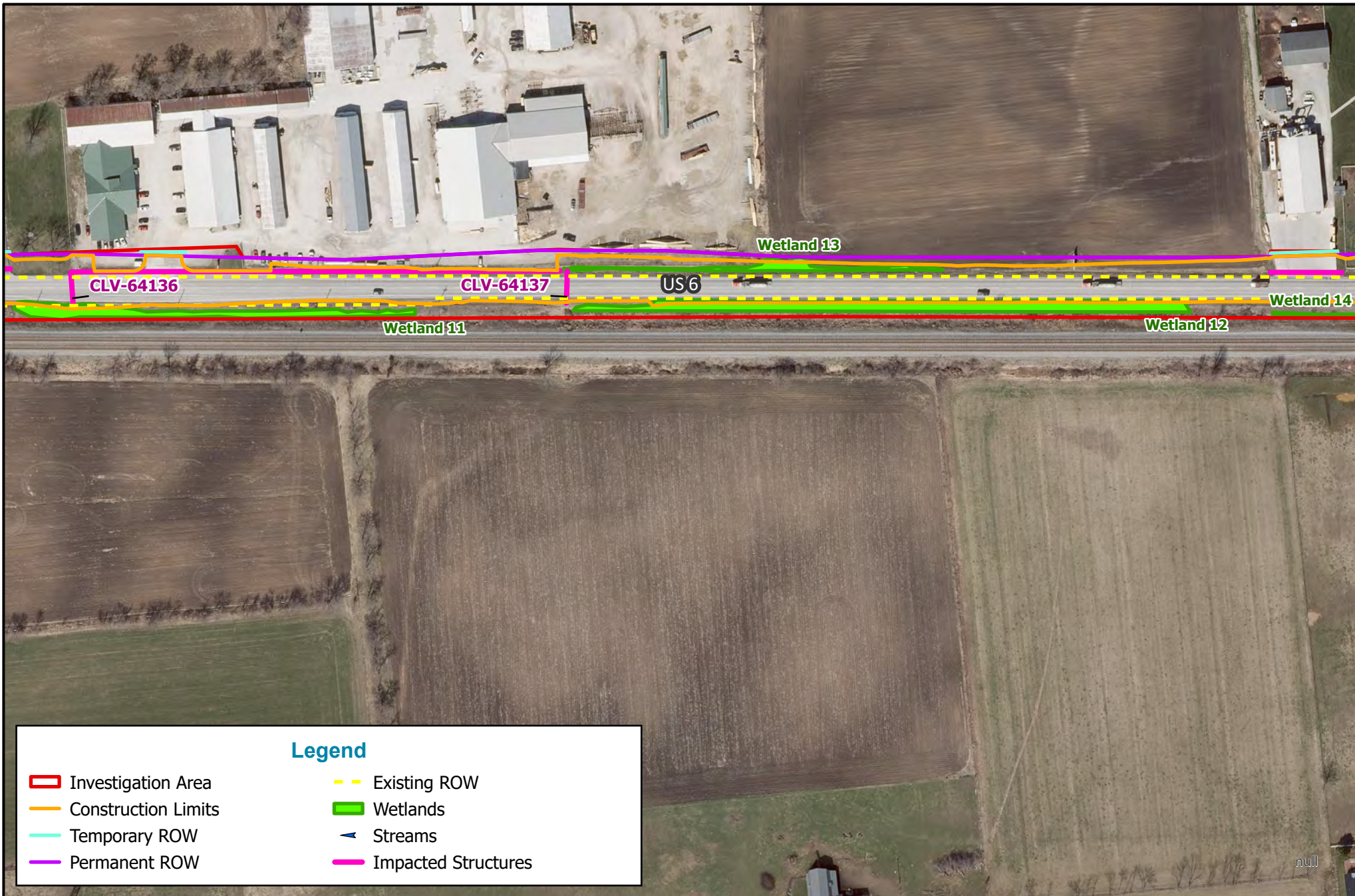
**Aerial Map (2021)**  
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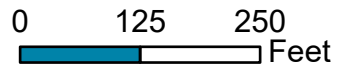
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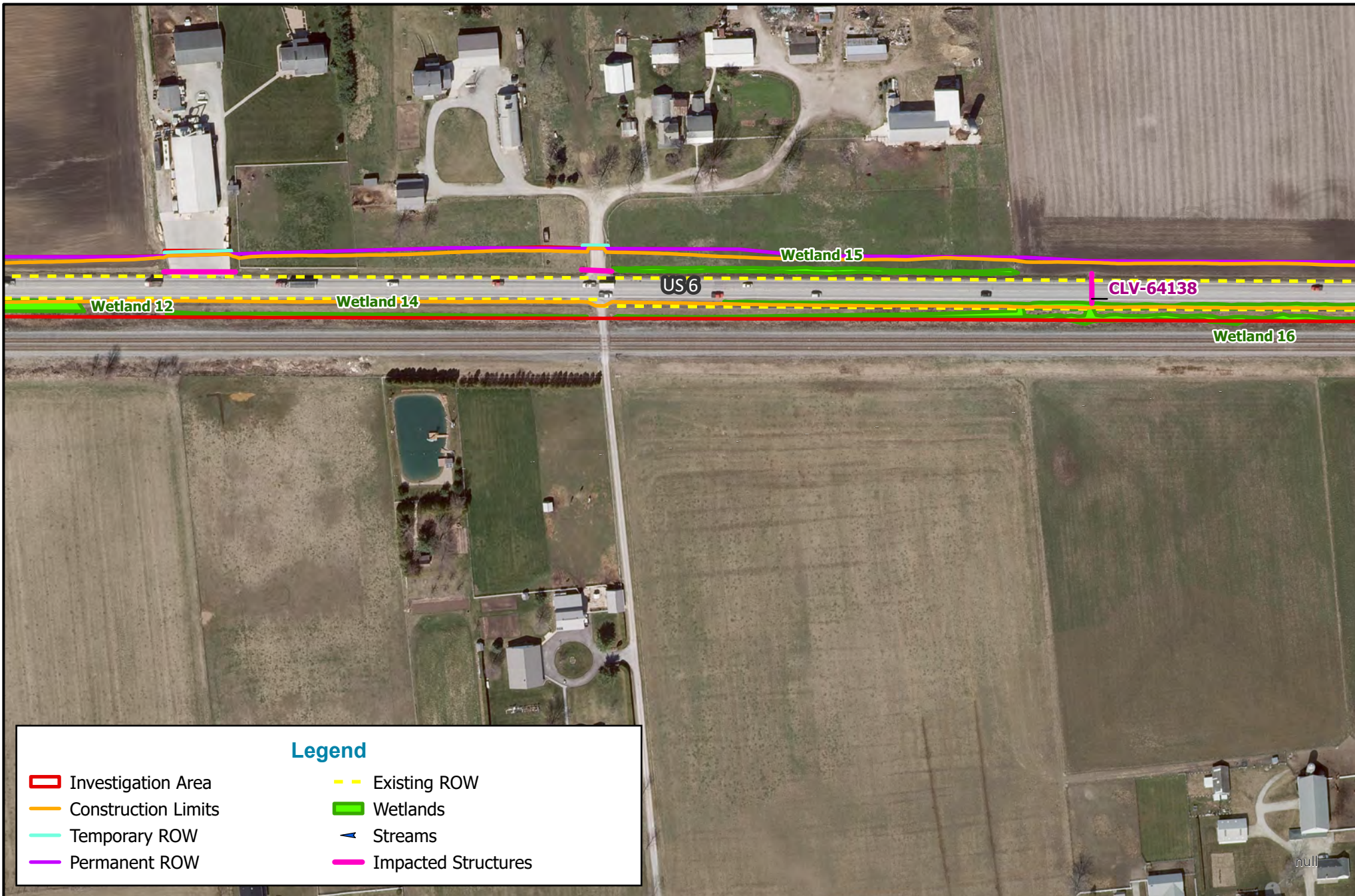
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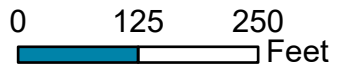
**Legend**

- ▭ Investigation Area
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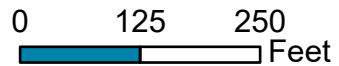
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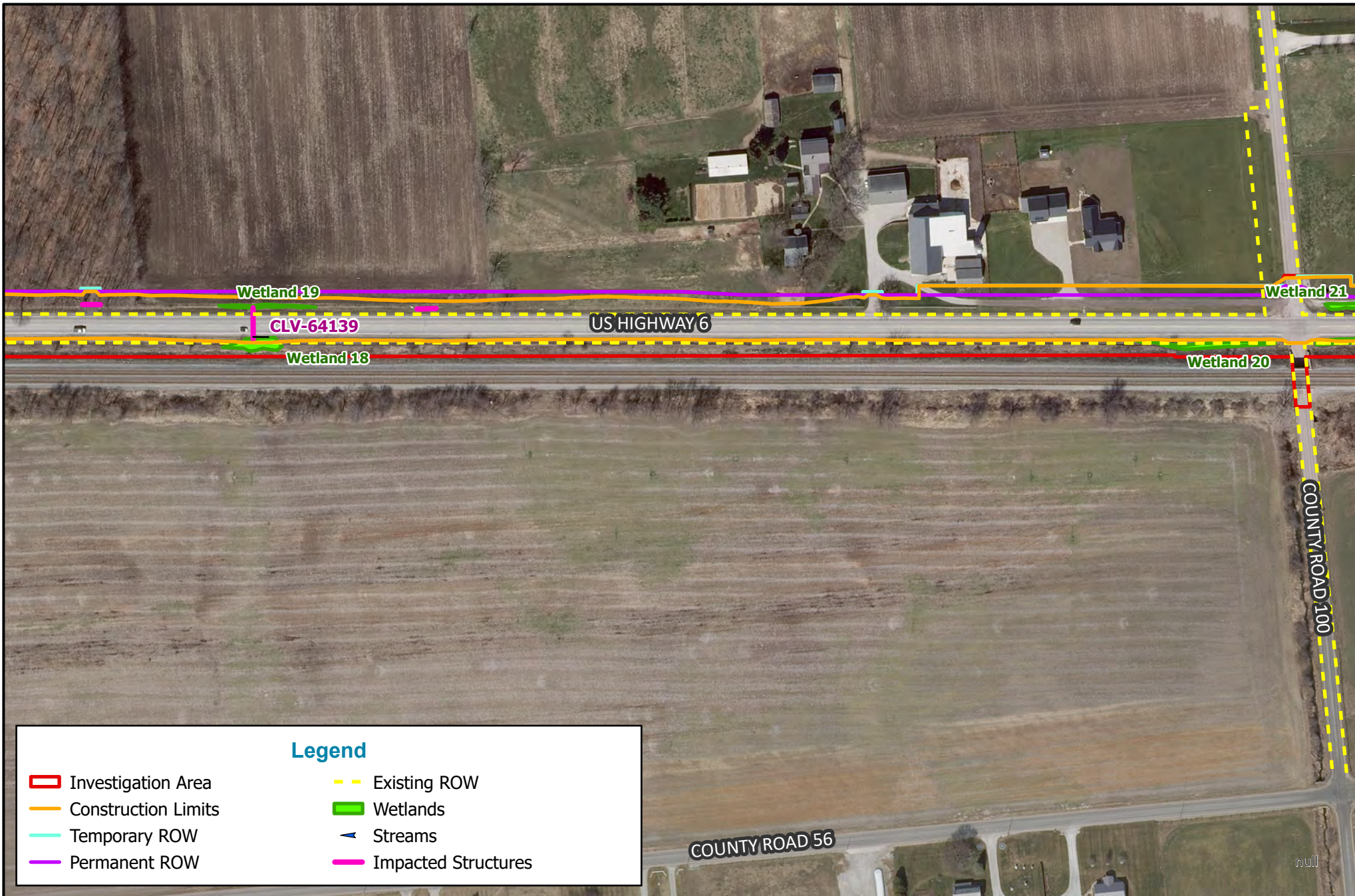
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**Legend**

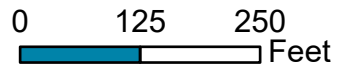
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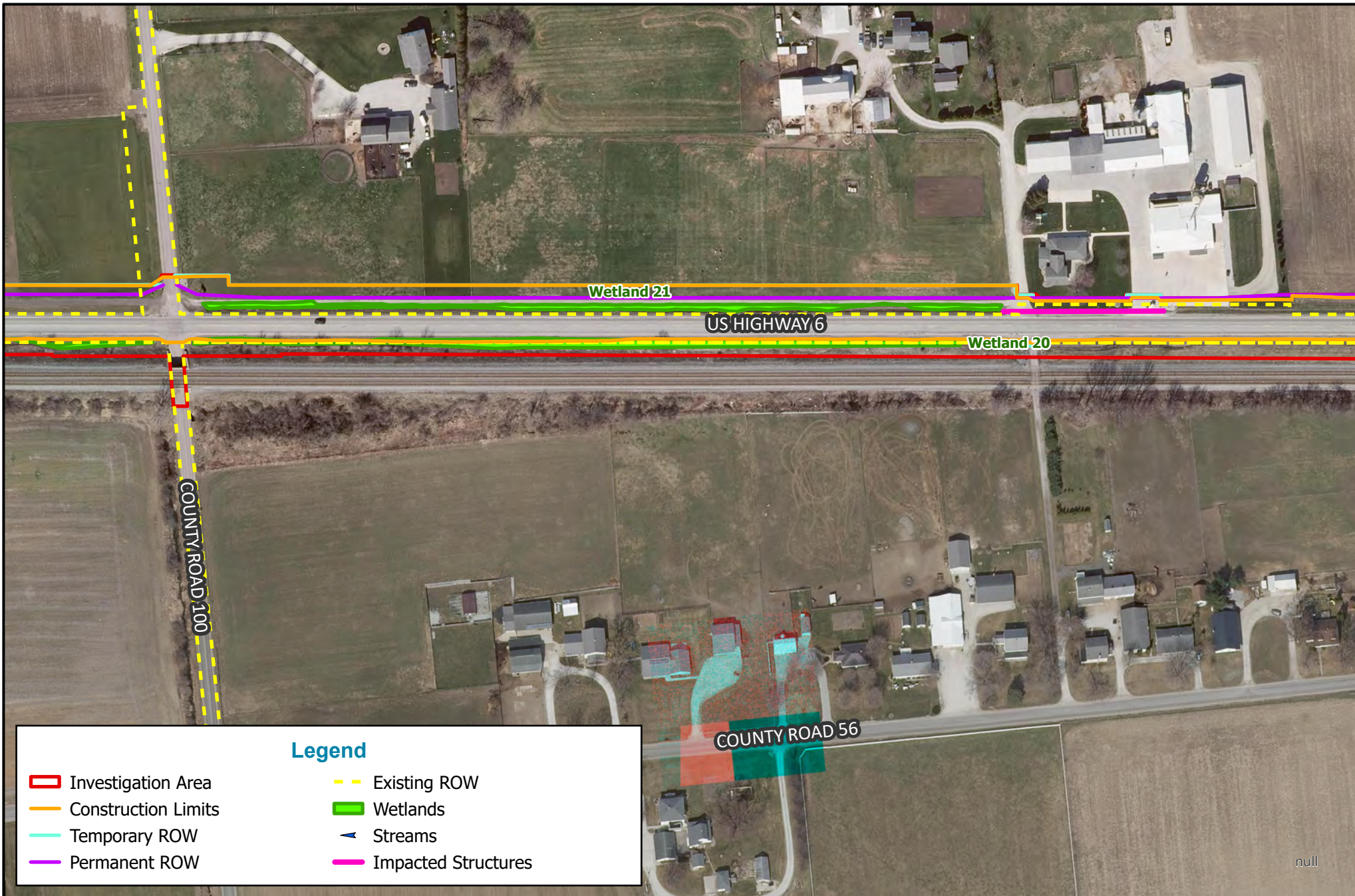
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HMA Overlay & Shoulder Rehabilitation  
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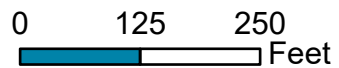
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County: Marshall and Elkhart  
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HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 179  
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**Legend**

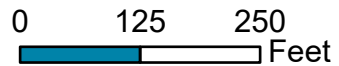
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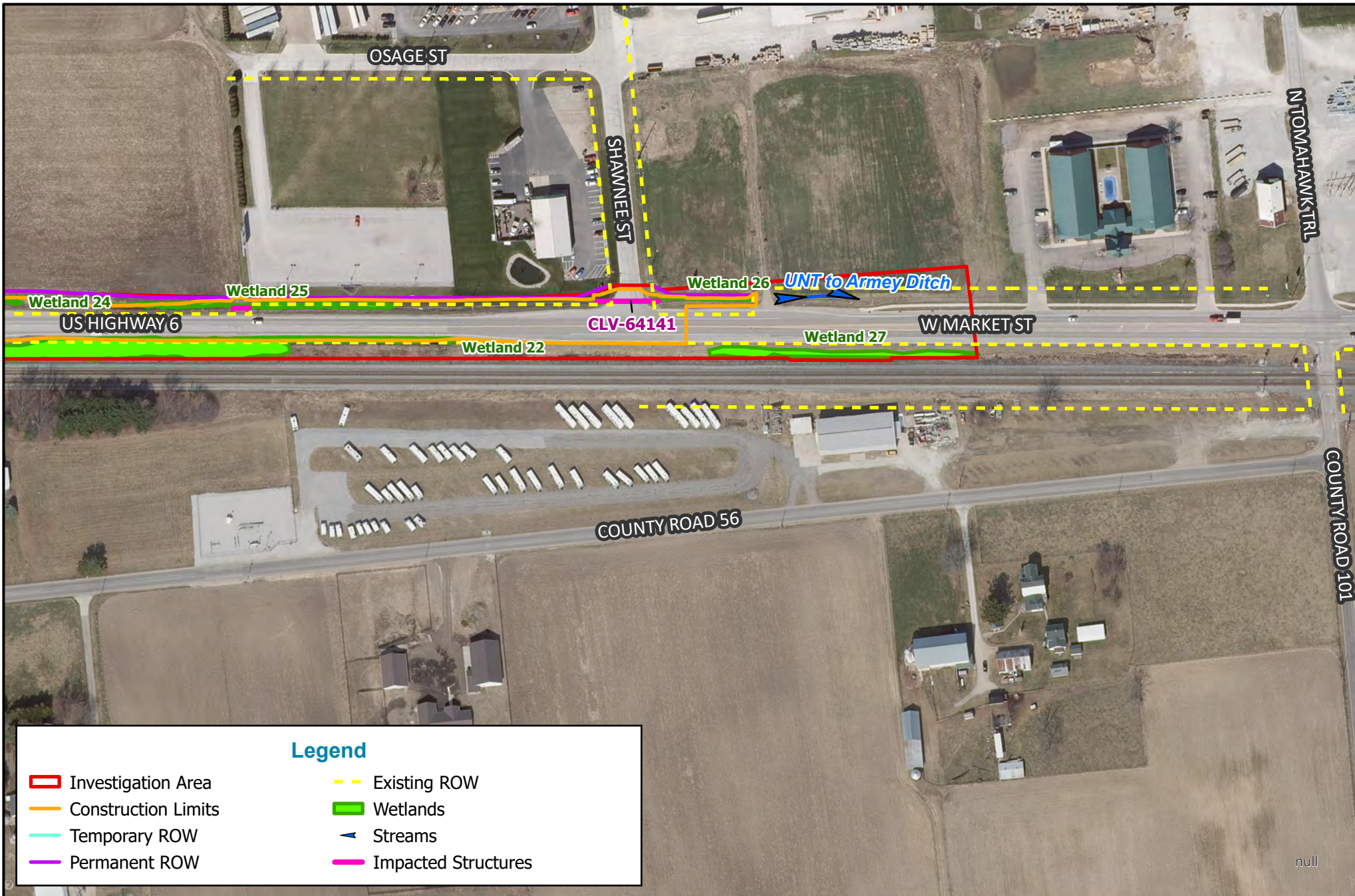
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**Aerial Map (2021)**  
 Des. No. 1702997 & 2001886

0      125      250  
 Feet

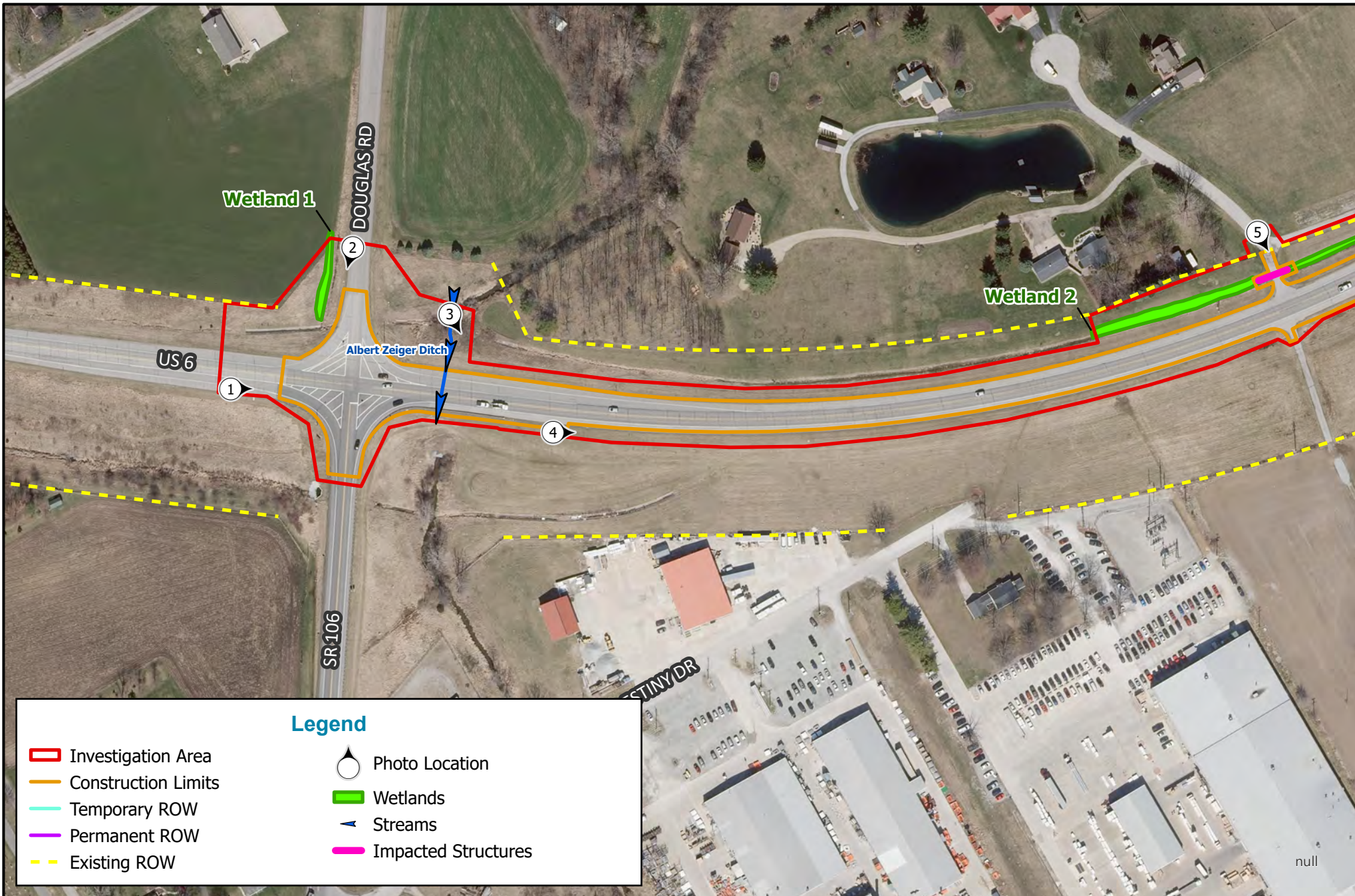
County: Marshall and Elkhart  
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HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
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**Legend**

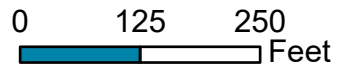
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**Photo Location Map**

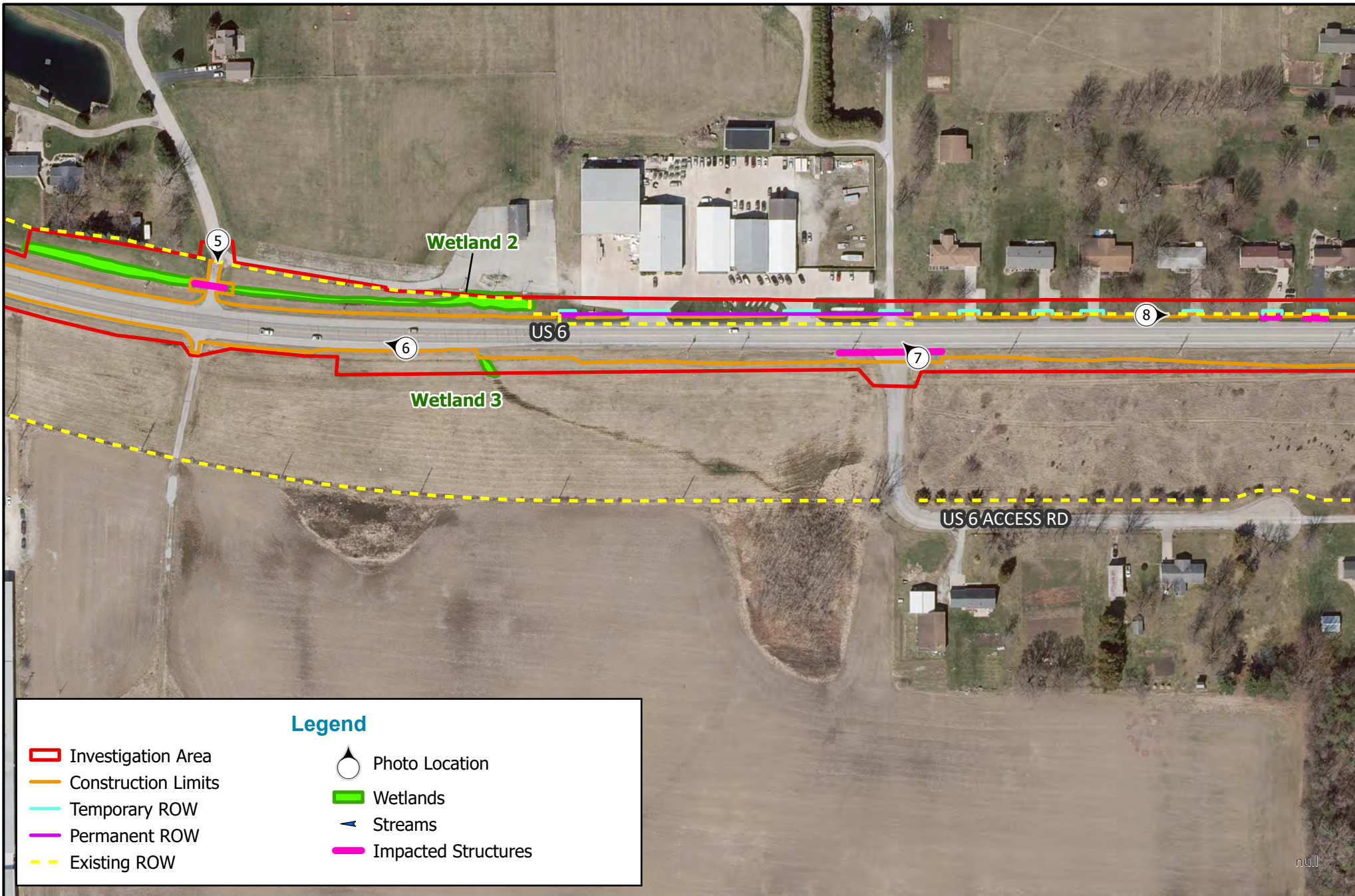
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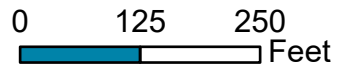
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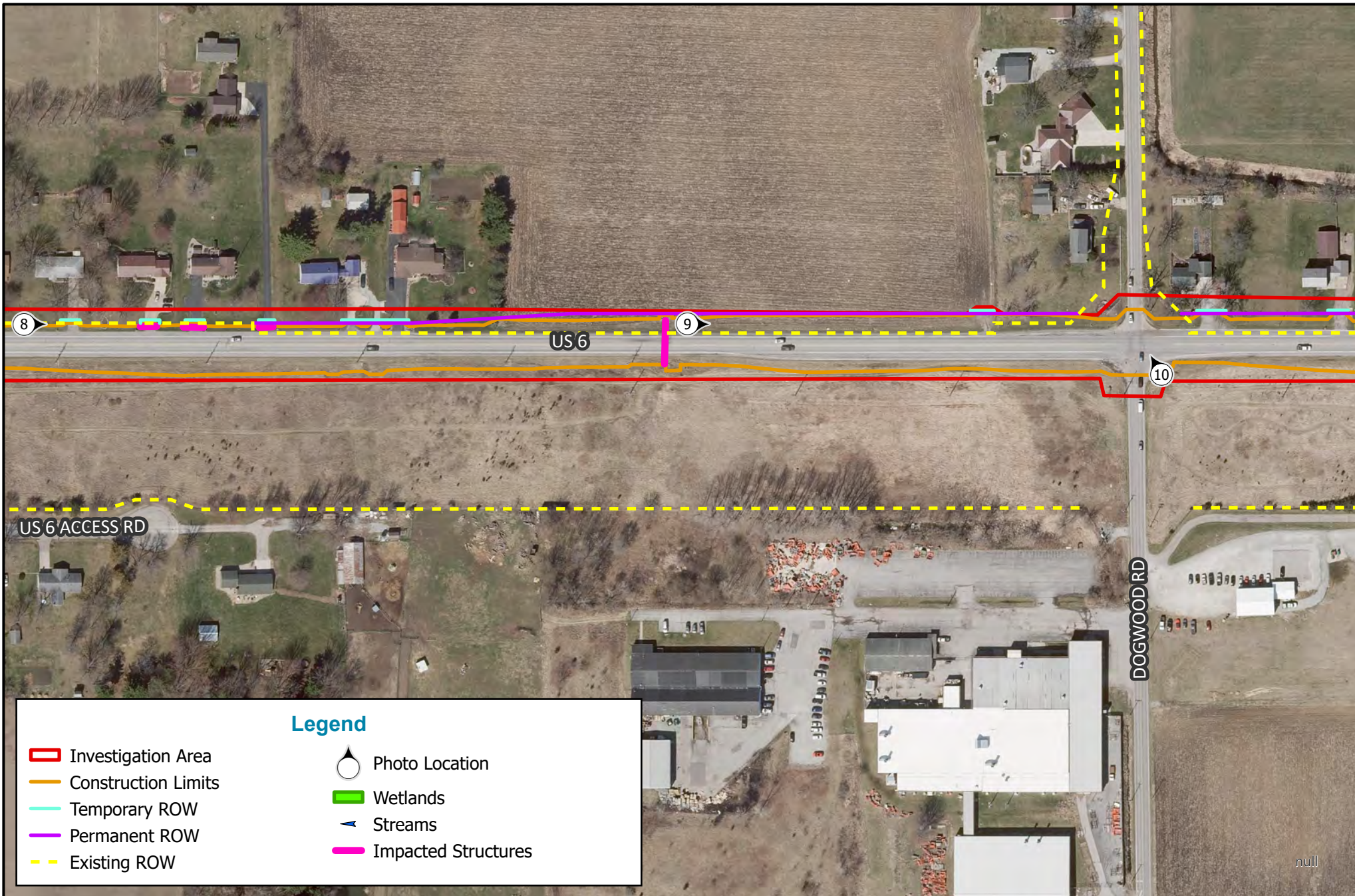
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**Legend**

-  Investigation Area
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-  Permanent ROW
-  Existing ROW
-  Photo Location
-  Wetlands
-  Streams
-  Impacted Structures

**Photo Location Map**

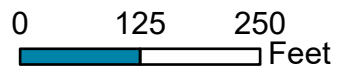
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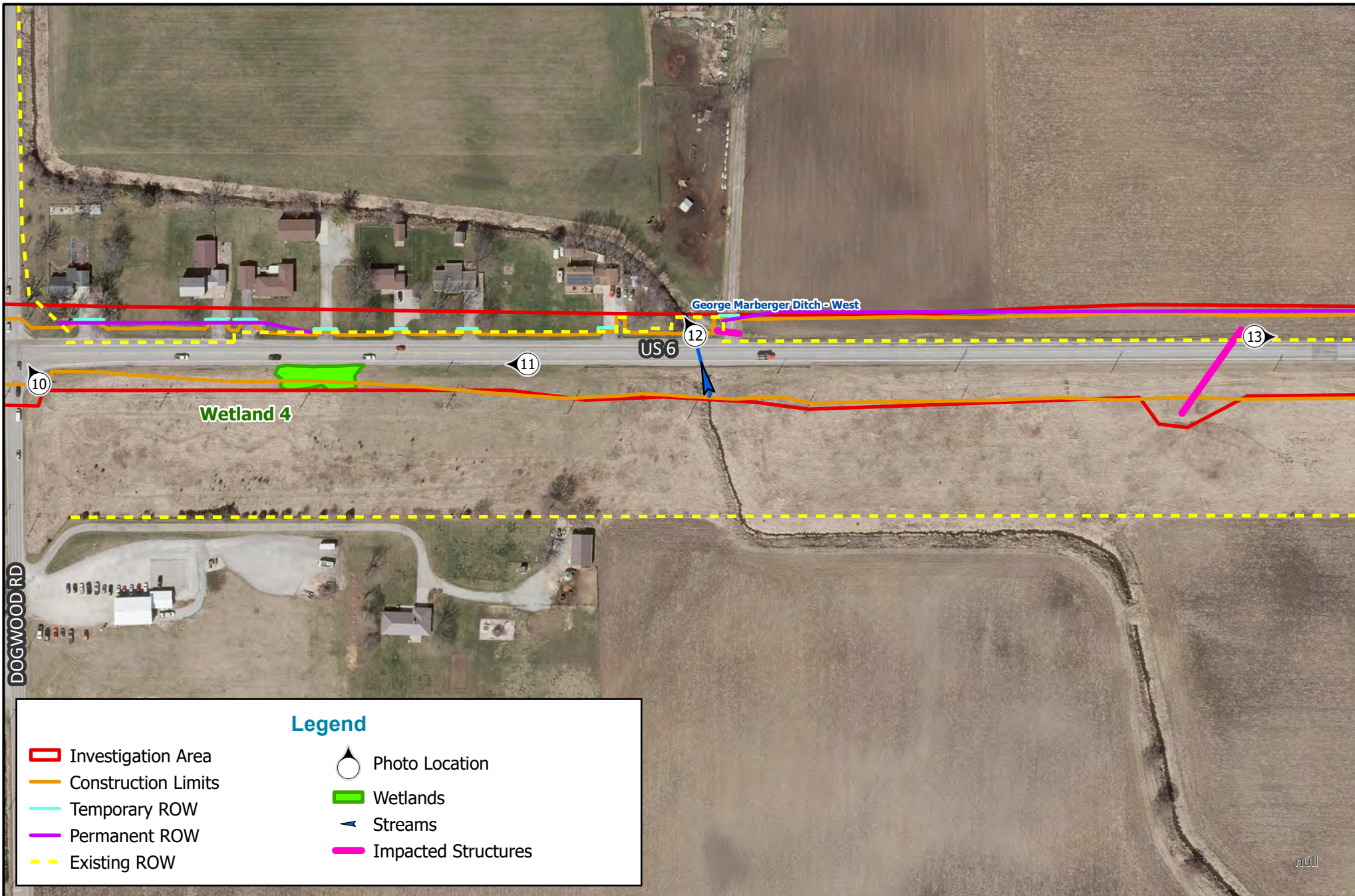
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HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
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**Photo Location Map**  
 Des. No. 1702997 & 2001886

0    125    250  
 Feet

County: Marshall and Elkhart  
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**Legend**

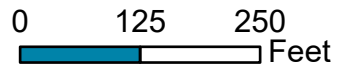
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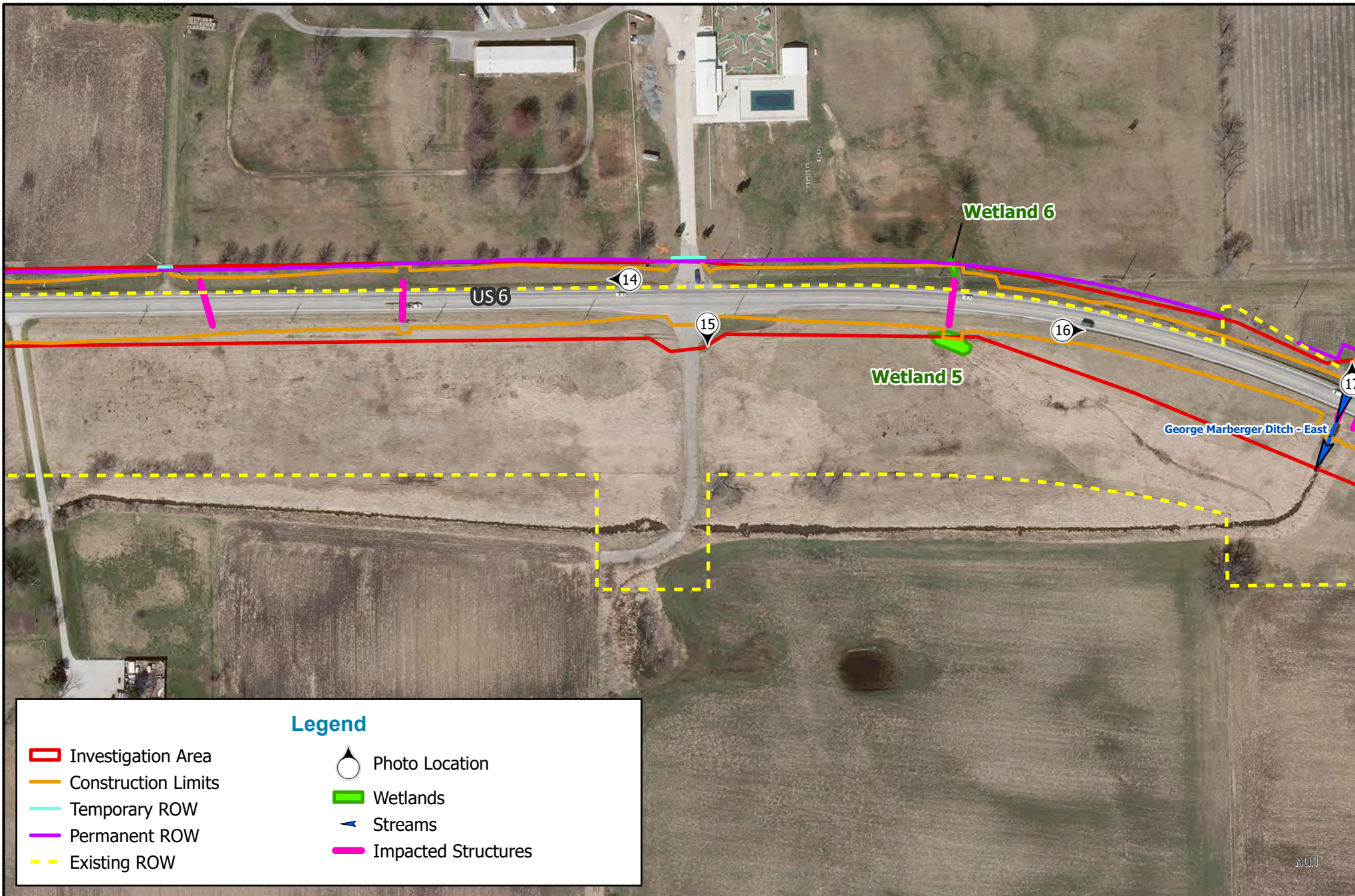
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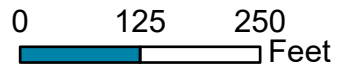
- ▭ Investigation Area
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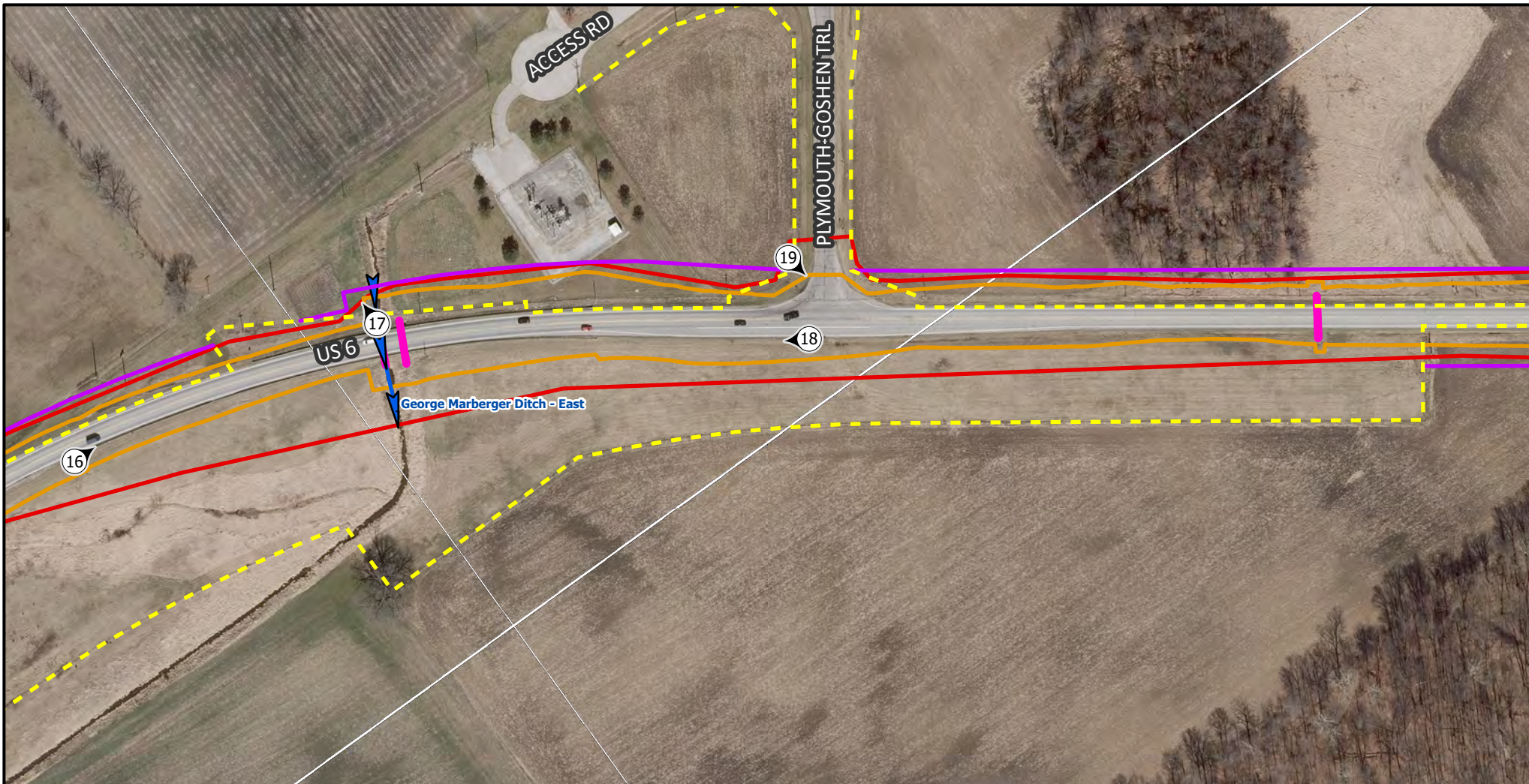
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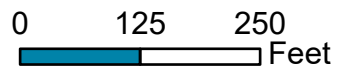
- ▭ Investigation Area
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



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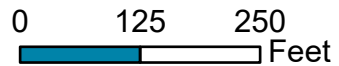
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**Photo Location Map**

Des. No. 1702997 & 2001886

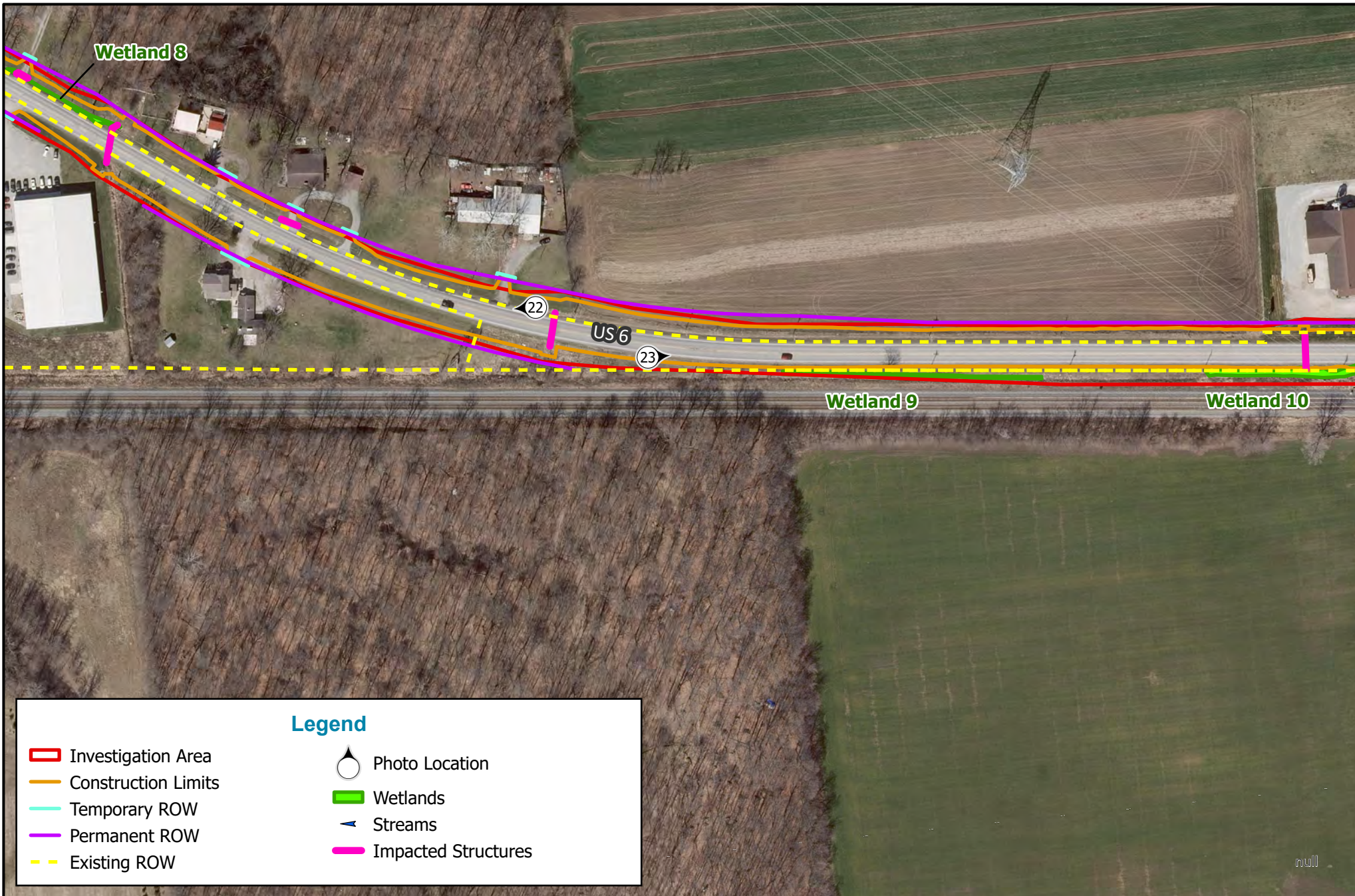


County: Marshall and Elkhart  
 Township: German and Locke  
 State: Indiana

HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
 Created: 5/8/2024, CKunkel

Aerial Source: 2021 Indiana Current Imagery





**Legend**

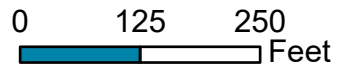
- Investigation Area
- Construction Limits
- Temporary ROW
- Permanent ROW
- Existing ROW
- Photo Location
- Wetlands
- Streams
- Impacted Structures



112 West Jefferson Blvd., Suite 500  
 South Bend, IN 46601  
 Phone: (574) 334-5460

**Photo Location Map**

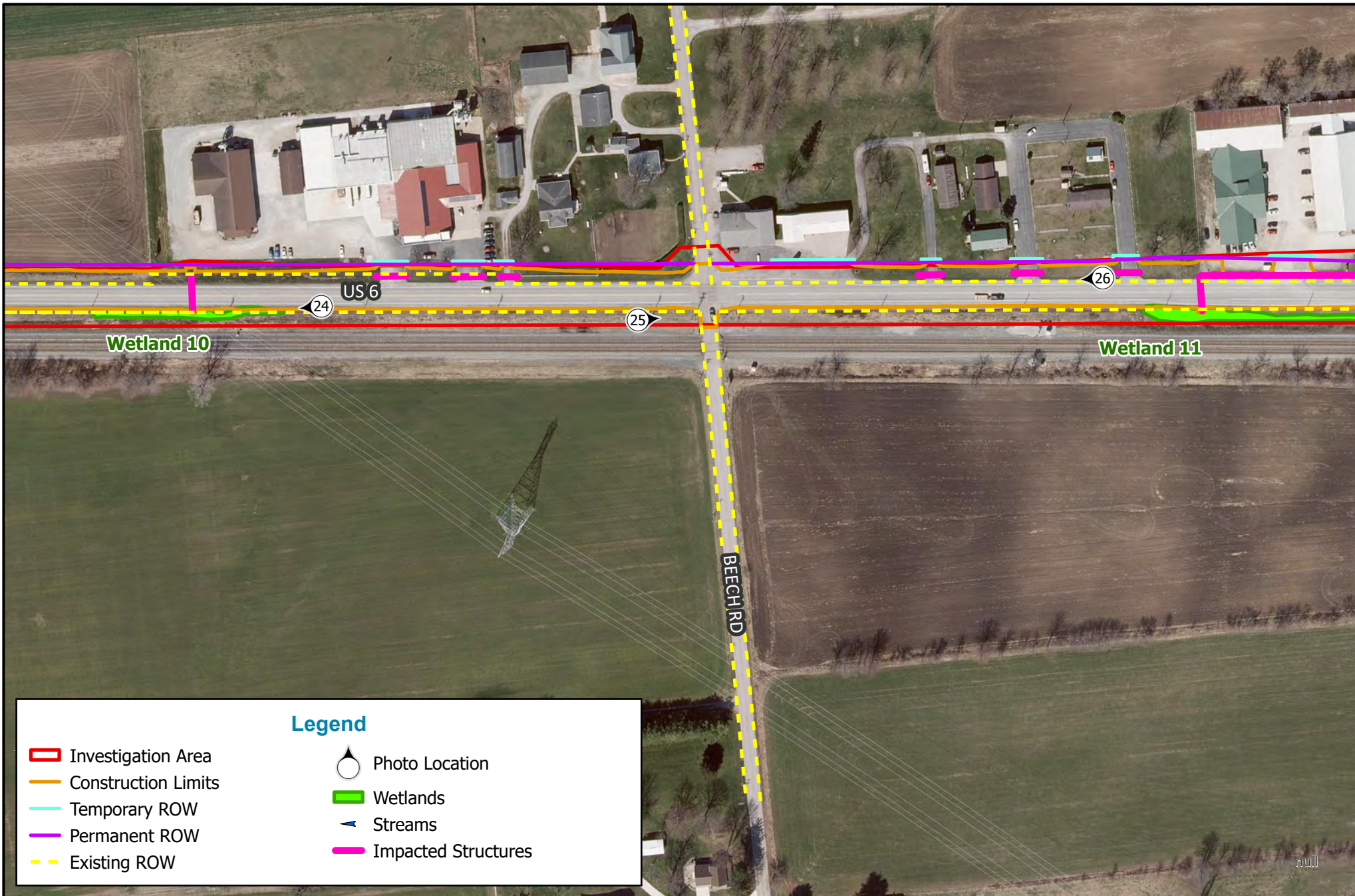
Des. No. 1702997 & 2001886



County: Marshall and Elkhart  
 Township: German and Locke  
 State: Indiana

HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
 Created: 5/8/2024, CKunkel

Aerial Source: 2021 Indiana Current Imagery



**Legend**

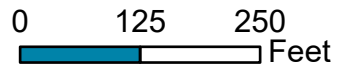
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-  Construction Limits
-  Temporary ROW
-  Permanent ROW
-  Existing ROW
-  Photo Location
-  Wetlands
-  Streams
-  Impacted Structures



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**Photo Location Map**

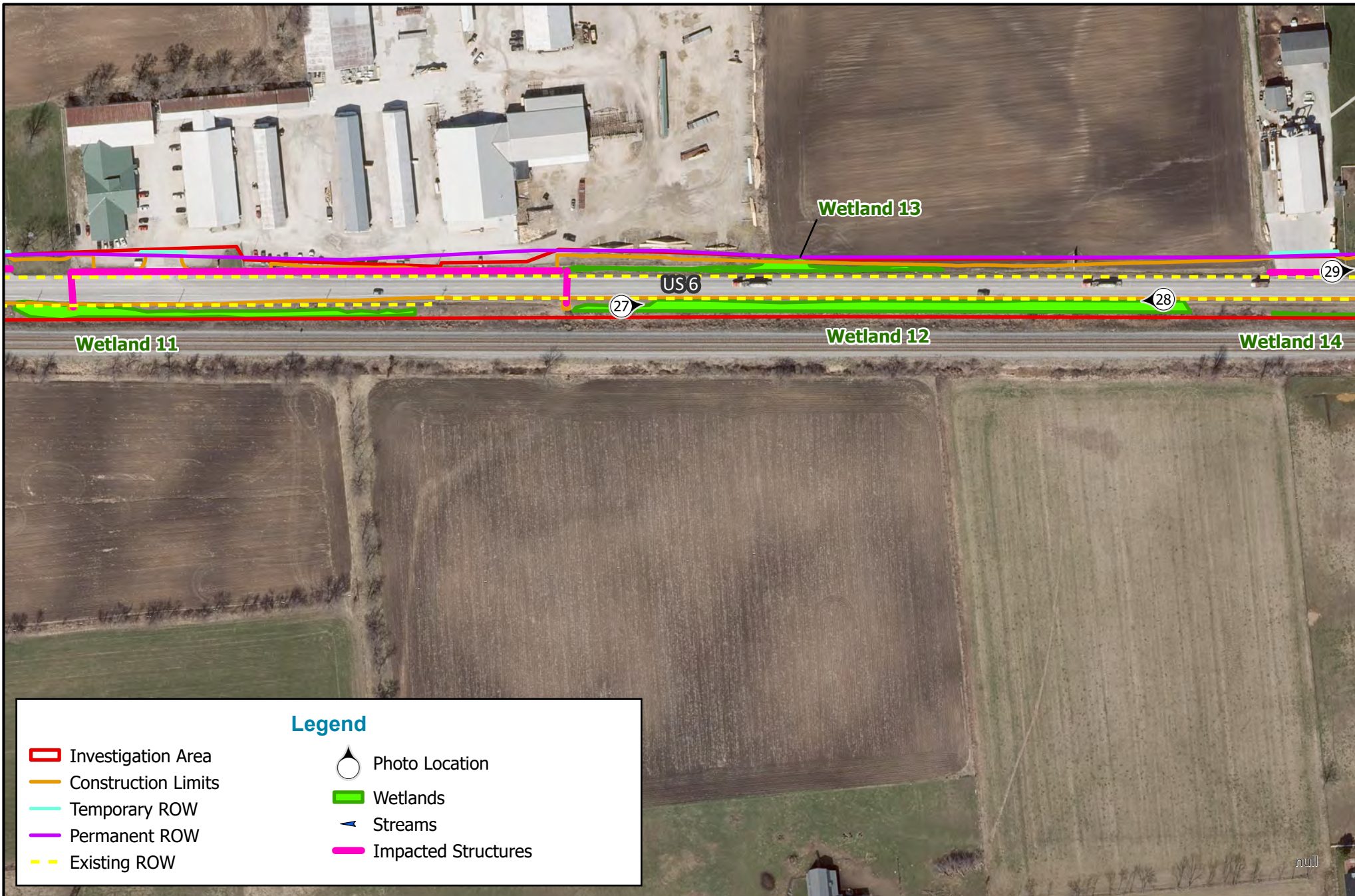
Des. No. 1702997 & 2001886



County: Marshall and Elkhart  
 Township: German and Locke  
 State: Indiana

HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
 Created: 5/8/2024, CKunkel

Aerial Source: 2021 Indiana Current Imagery



**Legend**

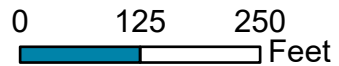
- Investigation Area
- Construction Limits
- Temporary ROW
- Permanent ROW
- Existing ROW
- Photo Location
- Wetlands
- Streams
- Impacted Structures



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**Photo Location Map**

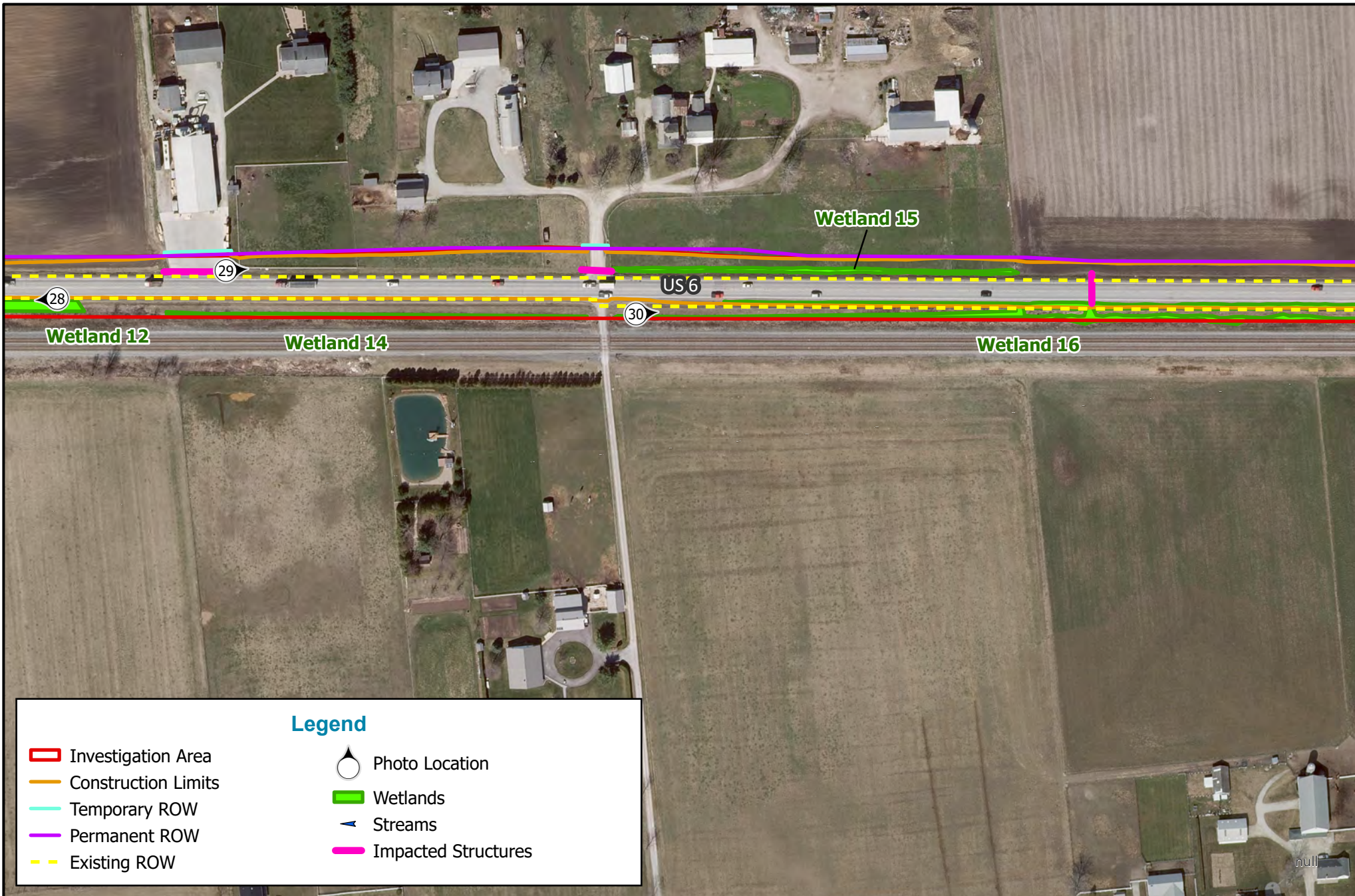
Des. No. 1702997 & 2001886



County: Marshall and Elkhart  
 Township: German and Locke  
 State: Indiana

HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
 Created: 5/8/2024, CKunkel

Aerial Source: 2021 Indiana Current Imagery



**Legend**

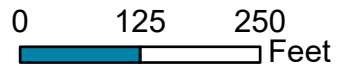
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- Construction Limits
- Temporary ROW
- Permanent ROW
- Existing ROW
- Photo Location
- Wetlands
- Streams
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**Photo Location Map**

Des. No. 1702997 & 2001886



County: Marshall and Elkhart  
 Township: German and Locke  
 State: Indiana

HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
 Created: 5/8/2024, CKunkel

Aerial Source: 2021 Indiana Current Imagery



**Legend**

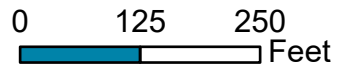
- ▭ Investigation Area
- ▭ Construction Limits
- ▭ Temporary ROW
- ▭ Permanent ROW
- ▭ Existing ROW
- ▭ Wetlands
- ▭ Streams
- ▭ Impacted Structures
- ⬆ Photo Location



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 South Bend, IN 46601  
 Phone: (574) 334-5460

**Photo Location Map**

Des. No. 1702997 & 2001886



County: Marshall and Elkhart  
 Township: German and Locke  
 State: Indiana

HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
 Created: 5/8/2024, CKunkel

Aerial Source: 2021 Indiana Current Imagery



**Legend**

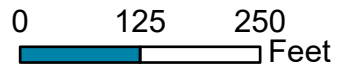
- Investigation Area
- Construction Limits
- Temporary ROW
- Permanent ROW
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- Wetlands
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 South Bend, IN 46601  
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**Photo Location Map**

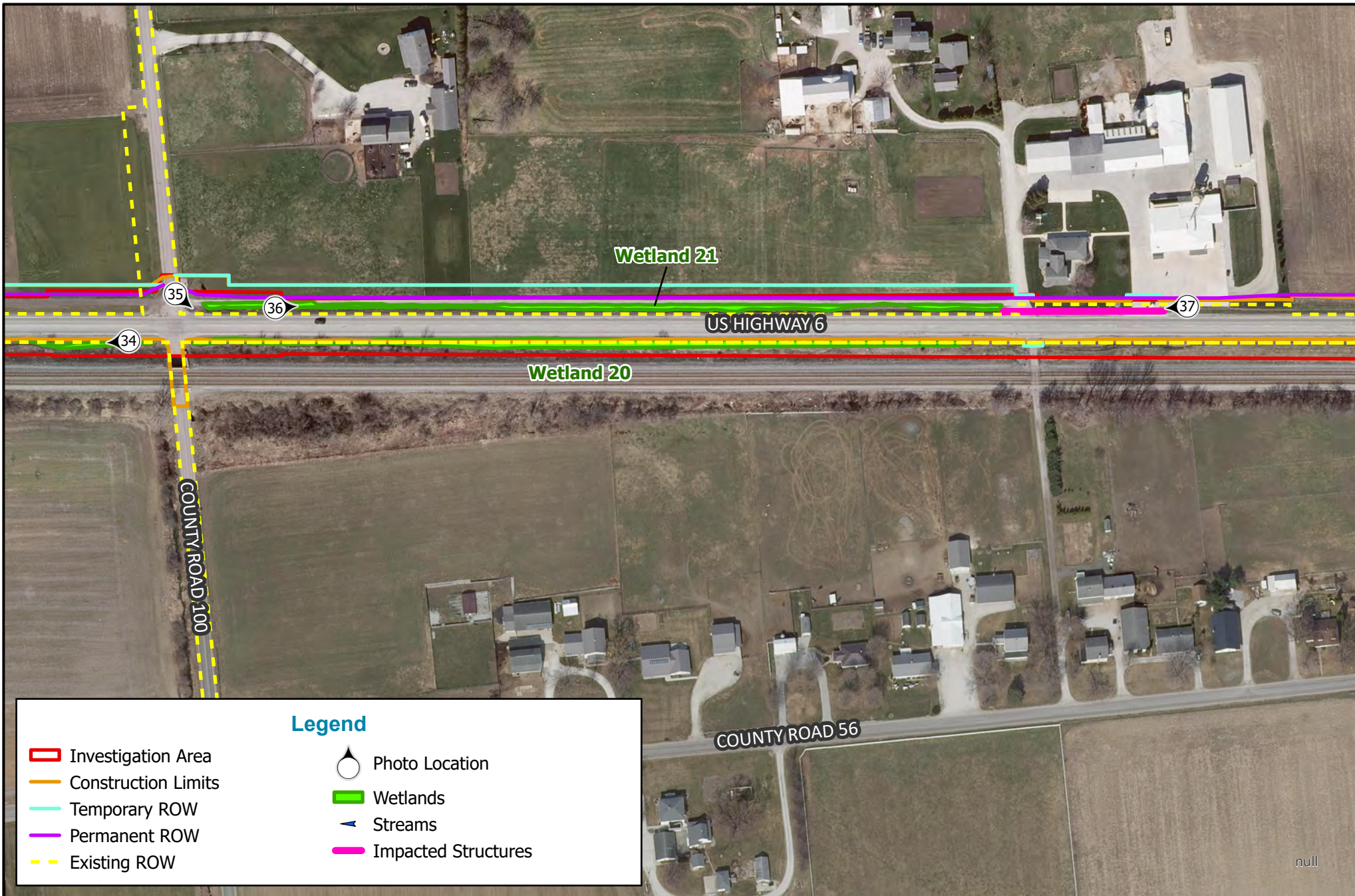
Des. No. 1702997 & 2001886



County: Marshall and Elkhart  
 Township: German and Locke  
 State: Indiana

HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
 Created: 5/8/2024, CKunkel

Aerial Source: 2021 Indiana Current Imagery



**Legend**

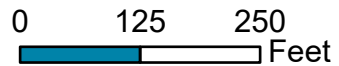
- Investigation Area
- Construction Limits
- Temporary ROW
- Permanent ROW
- Existing ROW
- Photo Location
- Wetlands
- Streams
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 South Bend, IN 46601  
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**Photo Location Map**

Des. No. 1702997 & 2001886



County: Marshall and Elkhart  
 Township: German and Locke  
 State: Indiana

HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
 Created: 5/8/2024, CKunkel

Aerial Source: 2021 Indiana Current Imagery



**LOCHMUELLER GROUP**  
 112 West Jefferson Blvd., Suite 500  
 South Bend, IN 46601  
 Phone: (574) 334-5460

**Photo Location Map**  
 Des. No. 1702997 & 2001886

0 125 250 Feet

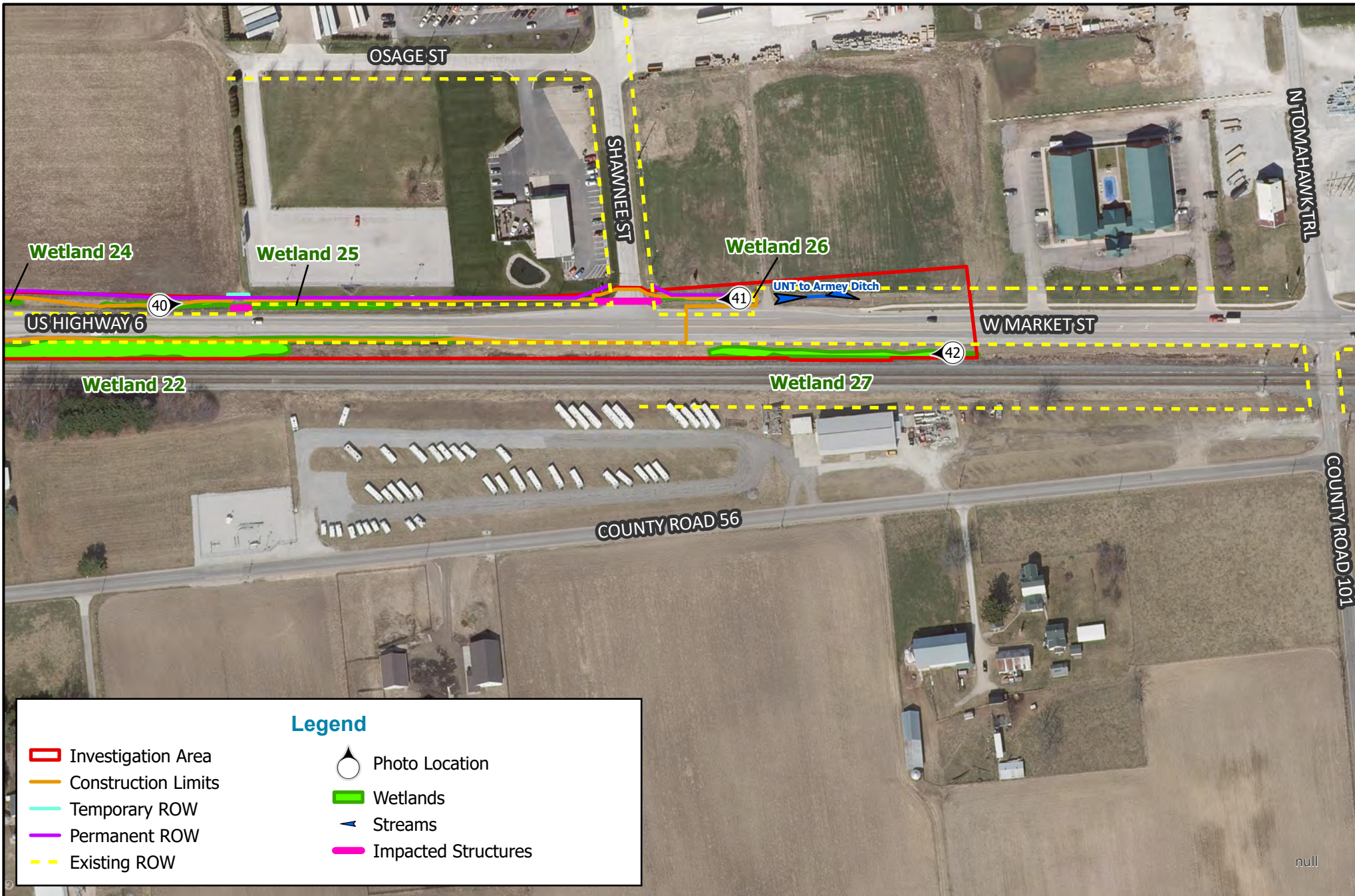
County: Marshall and Elkhart  
 Township: German and Locke  
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HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
 Created: 5/8/2024, CKunkel

Aerial Source: 2021 Indiana Current Imagery

**Page 16 of 17**





**LOCHMUELLER GROUP**

112 West Jefferson Blvd., Suite 500  
 South Bend, IN 46601  
 Phone: (574) 334-5460

**Photo Location Map**  
 Des. No. 1702997 & 2001886

0 125 250 Feet

County: Marshall and Elkhart  
 Township: German and Locke  
 State: Indiana

HMA Overlay & Shoulder Rehabilitation  
 US 6, from E Jct SR 106 to 2.03 mi W of SR 19  
 Created: 5/8/2024, CKunkel

Aerial Source: 2021 Indiana Current Imagery

**Page 17 of 17**



1. Looking southeast along US 6



2. Looking southwest along Douglas Rd toward US 6



3. Looking south downstream along Albert Zeiger Ditch toward culvert



4. Looking southeast along south side of US 6



5. Looking south along Bittersweet Drive toward US 6



6. Looking northwest along south side of US 6



7. Looking northwest at intersection of US 6 and US 6 Access Road



8. Looking east along north side of us6



9. Looking east along north side of US 6



10. Looking northwest at intersection of US 6 and Dogwood RD



11. Looking west along south side of US 6



12. Looking northwest downstream along George Marberger Ditch



13. Looking east along north side of US 6



14. Looking west along north side of US 6



15. Looking south from US 6



16. Looking east along south side of US 6



17. Looking north upstream along George Marberger Ditch



18. Looking west along south side of US 6



19. Looking southeast across Plymouth-Goshen Trail toward US 6



20. Looking southeast along south side of US 6



21. Looking northwest along north side of US 6



22. Looking northwest along north side of US 6



23. Looking east along south side of US 6



24. Looking west along south side of US 6



25. Looking east along south side of US 6



26. Looking west along north side of US 6



27. Looking east along south side of US 6



28. Looking west along south side of US 6



29. Looking east along north side US 6



30. Looking east along south side of US 6



31. Looking west along south side of US 6



32. Looking east along north side of US 6



33. Looking west along south side of US 6



34. Looking west along south side of US 6 at drainage structure



35. Looking southeast at intersection of US 6 and CR 100



36. Looking east along north side of US 6



37. Looking west along north side of US 6 toward culvert



38. Looking east along south side of US 6



39. Looking west along north side of US 6



40. Looking east along north side of US 6



41. Looking west along north side of US 6



42. Looking west along south side of US 6



PROJECT	DESIGNATION
2001886/1702997	2001886/1702997
CONTRACT	BRIDGE FILE
R-43381	N/A

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
2001886 (LEAD)	HMA Overlay and Minor Structural
1702997	Shoulder Widening

CULVERT ASSETS			
DES. NO.	CULVERT ASSET ID	STR. NO.	WORK TYPE
2001886	CLV-49242	101	RIK
1702997	CLV-64127	102	LIP
1702997	CLV-64128	104	RIK
1702997	CLV-64129	110	RIK
2001886	CLV-64130	115	RIK
1702997	CLV-64131	122	RIK
1702997	CLV-100457	124	RIK
1702997	CLV-100155	125	RIK
1702997	CLV-64132	127	RIK
2001886	CLV-64133	131	RIK
1702997	CLV-64134	137	RIK
2001886	CLV-64135	138	RIK
2001886	CLV-64136	147	RIK
2001886	CLV-64137	150	RIK
1702997	CLV-64138	153	LIP
1702997	CLV-64139	157	RIK
1702997	CLV-64141	169	RIK

ADDITIONAL RIGHT-OF-WAY  
REQUIRED FOR THIS PROJECT

**Railroad Coordination, CSX**  
 Crossing ID 155435Y, At-Grade with Beech Road; 56' from US 6 edge of travel lane to Nearest track  
 Crossing ID 155434S, At-Grade with Private Road; 61' from US 6 edge of travel lane to Nearest track  
 Crossing ID 155433K, Grade Separated, CSX Over CR 100  
 Crossing ID 155432D, At-Grade with Private Road; 56' from US 6 edge of travel lane to Nearest track

# INDIANA DEPARTMENT OF TRANSPORTATION

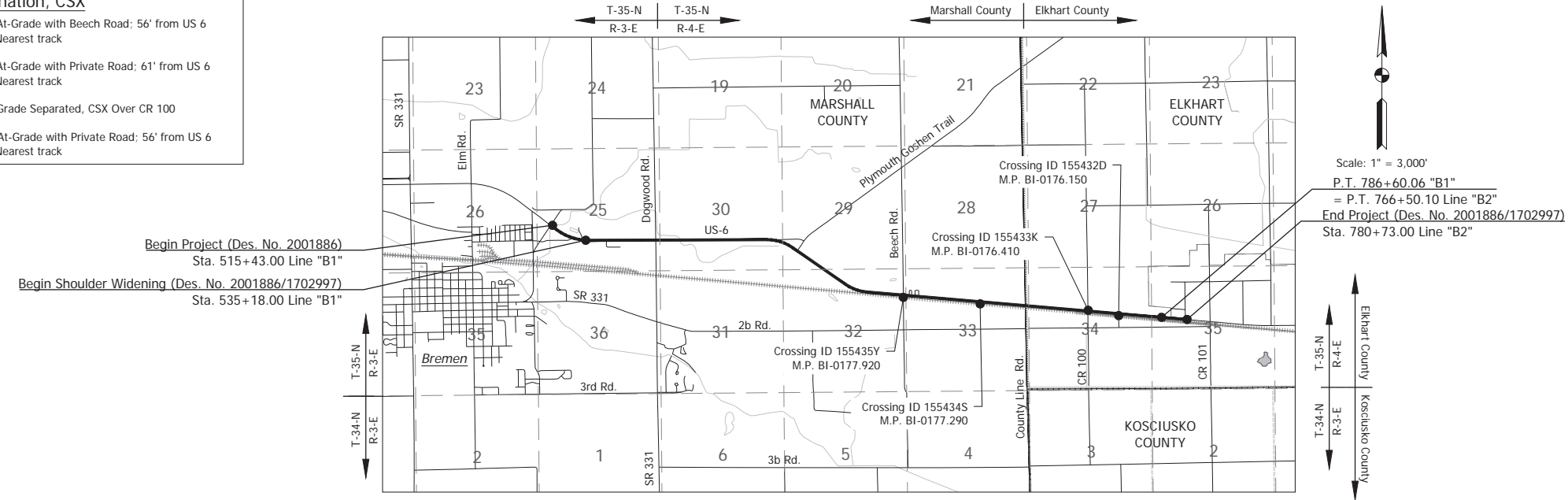


## ROAD PLANS

ROUTE: US 6 FROM: RP 79+016 TO: RP 84+074  
 PROJECT NO. 2001886/1702997 P.E.  
 2001886/1702997 R/W  
 2001886/1702997 CONST.

Gross Length: 5.39 MI.  
 Net Length: 5.41 MI.  
 Maximum Grade: Existing

HMA Overlay, Minor Structural on US 6 From the East Junction of SR 106 to 2.03 miles West of SR 19 (Shawnee Dr.) Sections 25, 30, 29, 32, & 33, T-35-N, R-3-E & R-4-E, Marshall County, Indiana Sections 34 & 35, T-35-N, R-4-E, Elkhart County, Indiana



VICINITY MAP  
MARSHALL & ELKHART COUNTIES

TRAFFIC DATA		
	STA. 508+00 TO STA. 777+00	STA. 777+00 TO STA. 823+89
A.A.D.T. (2025)	11,027 V.P.D.	11,027 V.P.D.
A.A.D.T. (2045)	12,429 V.P.D.	12,429 V.P.D.
D.H.V. (2045)	1,211 V.P.H.	1,211 V.P.H.
DIRECTIONAL DISTRIBUTION	49.21 %	49.21 %
TRUCKS	11.57% A.A.D.T. 8.54 % D.H.V.	11.57% A.A.D.T. 8.54% D.H.V.

DESIGN DATA		
DESIGN SPEED	55 M.P.H.	45 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL	PRINCIPAL ARTERIAL
RURAL/URBAN	RURAL	URBAN (SUBURBAN)
TERRAIN	LEVEL	LEVEL
ACCESS CONTROL	NONE	NONE



LATITUDE: 41° 27' 13"N LONGITUDE: 86° 7' 03"W

BRIDGE LENGTH:	N/A	MI.
ROADWAY LENGTH:	5.39	MI.
TOTAL LENGTH:	5.41	MI.
MAX. GRADE:	Existing	%
H.U.C. 14:	07120001050050	

STAGE 2 SUBMISSION  
April 23, 2024

INDIANA DEPARTMENT OF TRANSPORTATION  
STANDARD SPECIFICATIONS DATED 2024  
TO BE USED WITH THESE PLANS

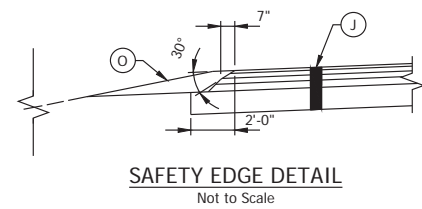
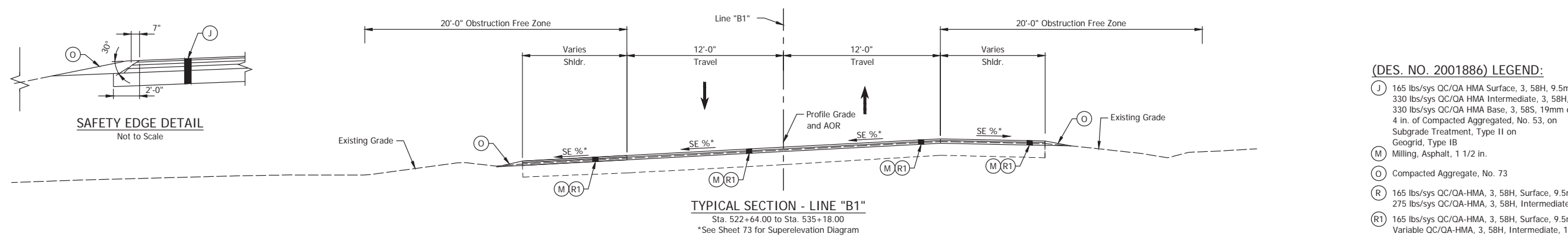
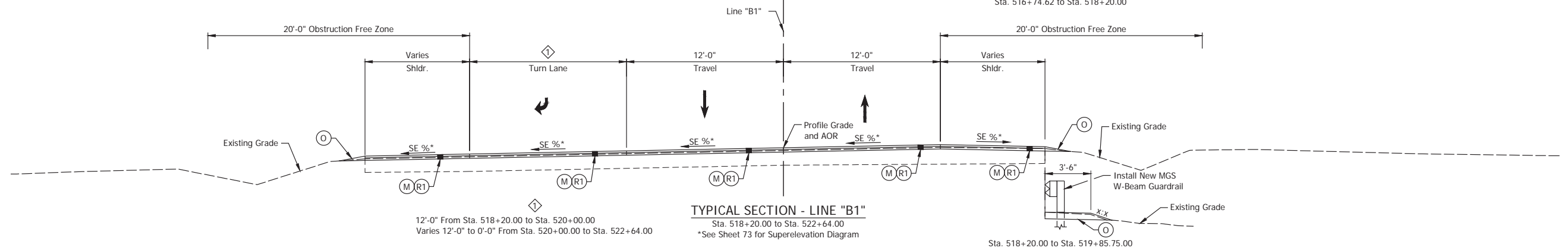
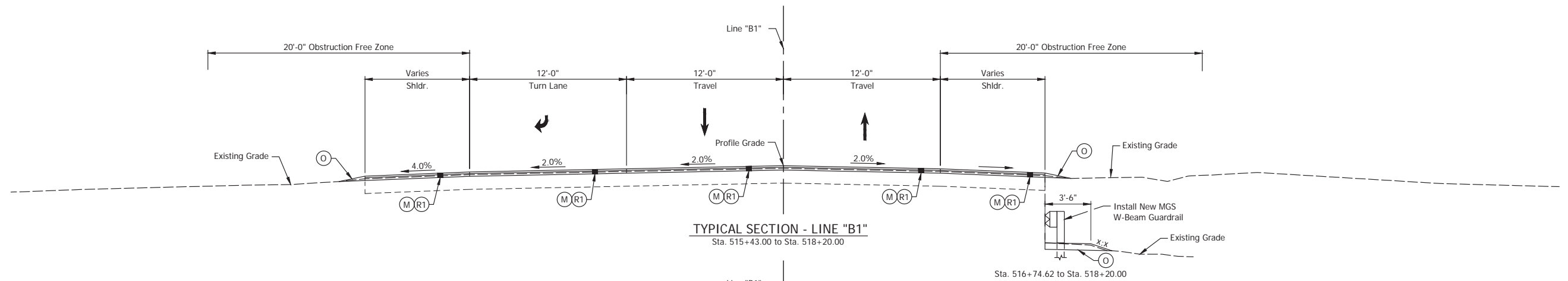
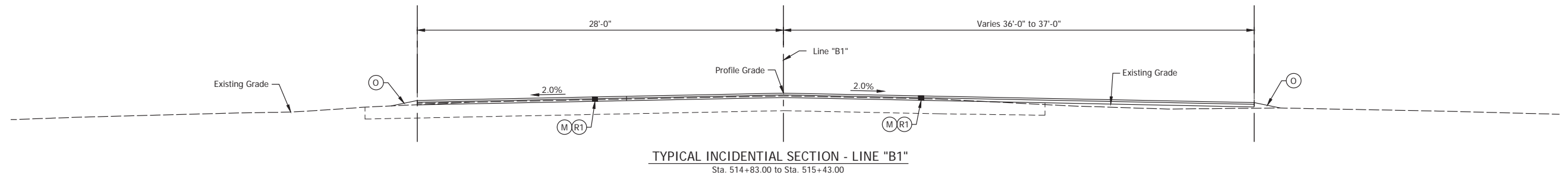
Date: Apr 23, 2024, 8:59am User Name: BSchutzman File: X:\Production\Files\2021\121-3035\CAD\Plans\Set\SHL\_RD\_Title.dwg



PLANS PREPARED BY:	Lochmueller Group	(574) 334-5460
		PHONE NUMBER
CERTIFIED BY:		DATE
APPROVED FOR LETTING:	INDIANA DEPARTMENT OF TRANSPORTATION	DATE

BRIDGE FILE	
N/A	
DESIGNATION	
2001886/1702997	
SURVEY BOOK	SHEET
ELECTRONIC	1 of 308
CONTRACT	PROJECT
R-43381	2001886





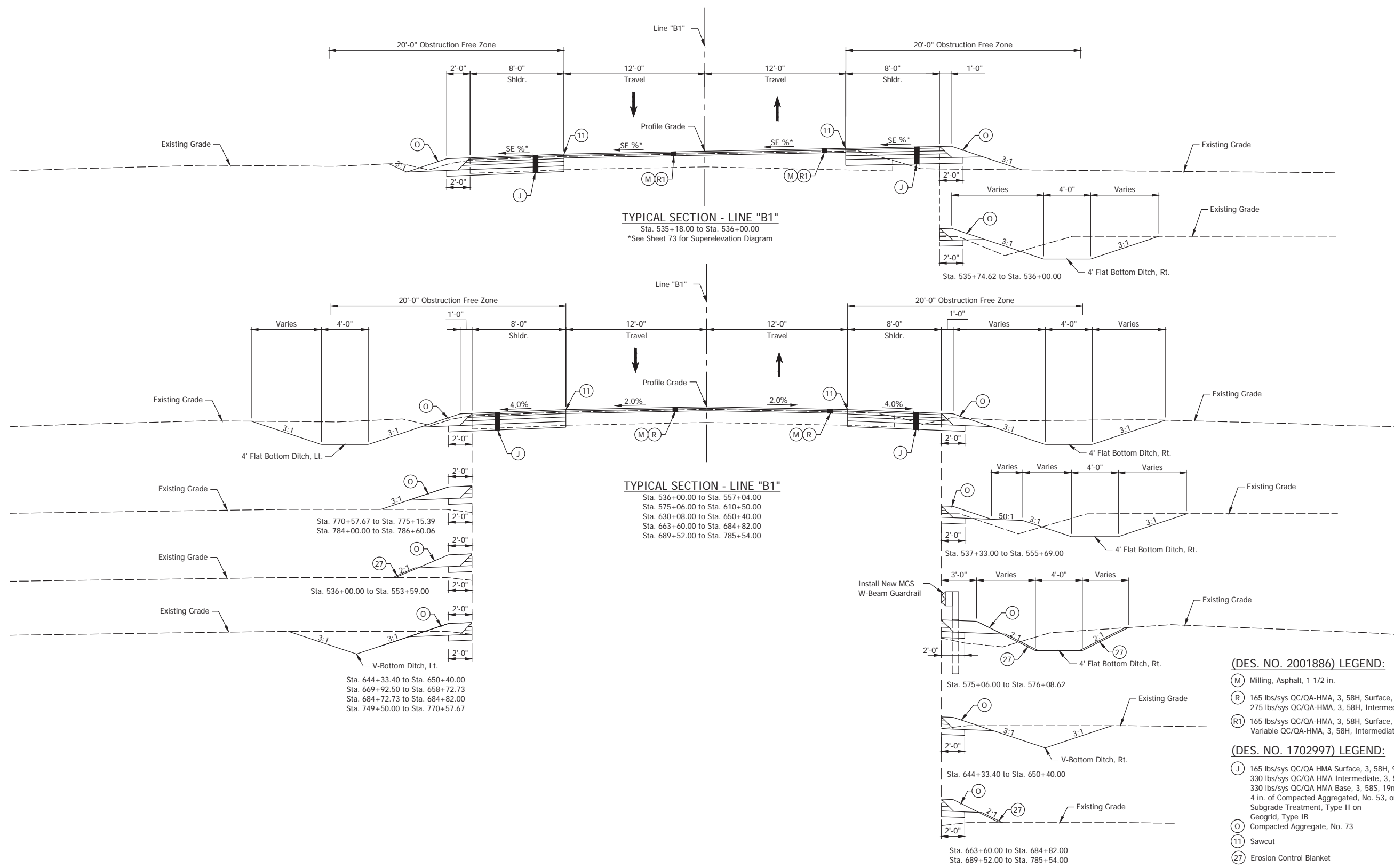
- (DES. NO. 2001886) LEGEND:**
- (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm  
330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm  
330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on  
4 in. of Compacted Aggregated, No. 53, on  
Subgrade Treatment, Type II on  
Geogrid, Type IB
  - (M) Milling, Asphalt, 1 1/2 in.
  - (O) Compacted Aggregate, No. 73
  - (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on  
275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm
  - (R1) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on  
Variable QC/QA-HMA, 3, 58H, Intermediate, 19mm

Date: Apr 22, 2024, 10:36am User Name: rmaylor File: X:\Production\Files\2024\1121-2024\GAD\Plan\SS1(S)E\_02\_Typical Sections.dwg - (Typical Section (1))

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 22, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

INDIANA DEPARTMENT OF TRANSPORTATION	
TYPICAL CROSS SECTIONS	

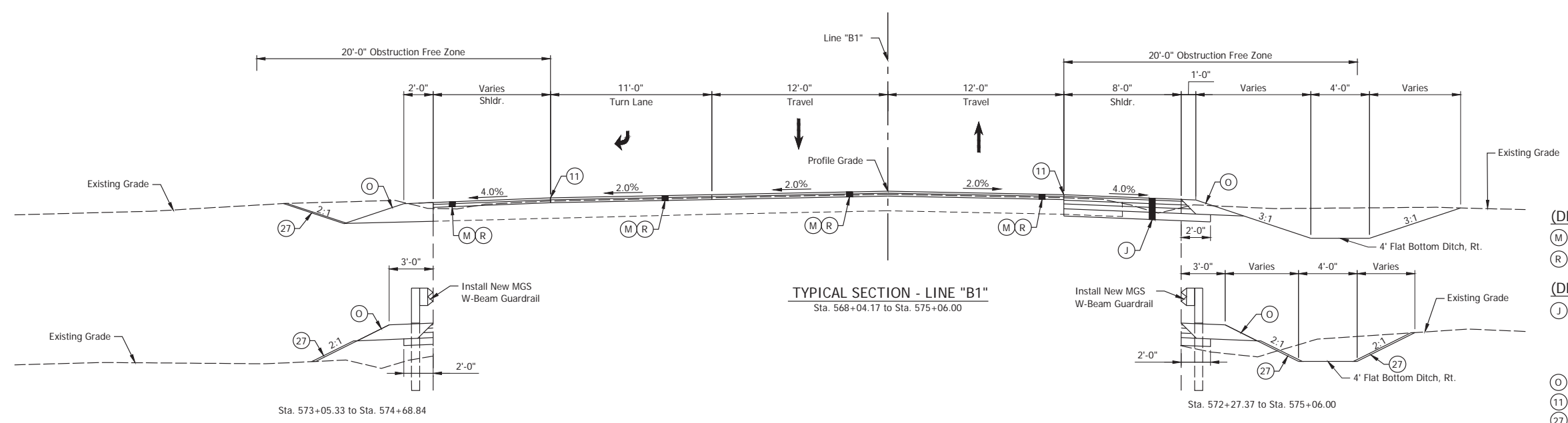
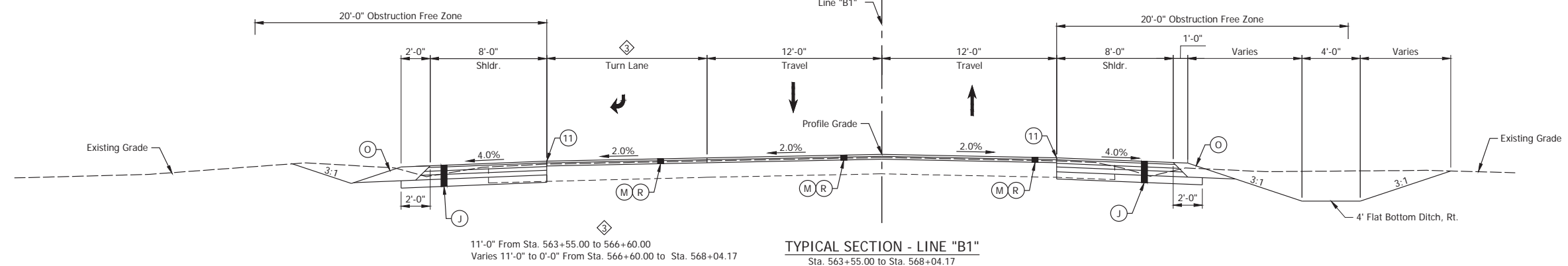
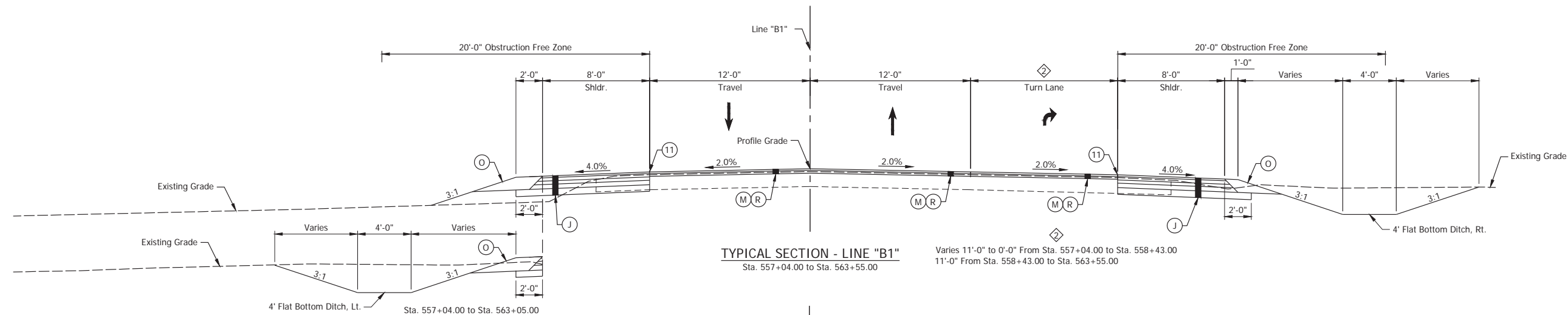
HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	4 of 308
CONTRACT	PROJECT
R-43381	2001886



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
  - (R1) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on Variable QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (O) Compacted Aggregate, No. 73
  - (11) Sawcut
  - (27) Erosion Control Blanket

Date: Apr 22, 2024, 10:36pm User Name: mmaylor File: X:\Production\Files\20211221\21-3039\GAD\Plan\Std\SLD\_02\_Typical Sections.dwg - (Typical Section (2))

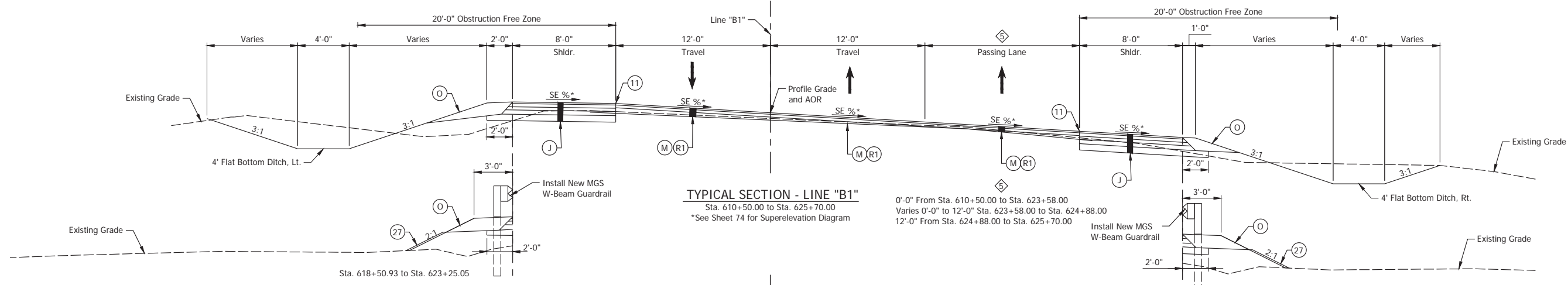
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE April 22, 2024	<b>INDIANA DEPARTMENT OF TRANSPORTATION</b>	HORIZONTAL SCALE	BRIDGE FILE
DESIGNED: _____ MMT	DRAWN: _____ DJG			1/4" = 1'-0"	N/A
CHECKED: _____ BSS	CHECKED: _____ BJS			VERTICAL SCALE	DESIGNATION
			<b>TYPICAL CROSS SECTIONS</b>	N/A	2001886/1702997
				SURVEY BOOK	SHEET
				ELECTRONIC	5 of 308
				CONTRACT	PROJECT
				R-43381	2001886



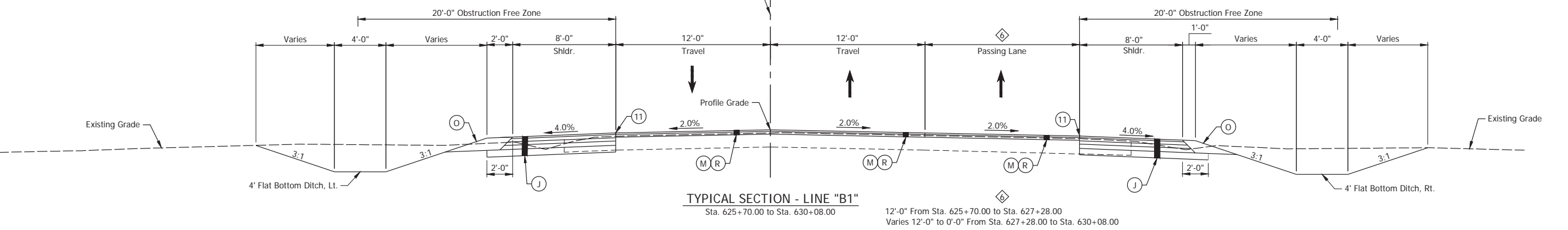
- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (O) Compacted Aggregate, No. 73
  - (11) Sawcut
  - (27) Erosion Control Blanket

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE April 22, 2024	<b>INDIANA DEPARTMENT OF TRANSPORTATION</b>	HORIZONTAL SCALE	BRIDGE FILE
DESIGNED: _____ MMT	DRAWN: _____ DJG	CHECKED: _____ BSS		VERTICAL SCALE	DESIGNATION
<b>TYPICAL CROSS SECTIONS</b>			1/4" = 1'-0"		N/A
			N/A		2001886/1702997
			SURVEY BOOK		SHEET
			ELECTRONIC		6 of 308
			CONTRACT		PROJECT
			R-43381		2001886

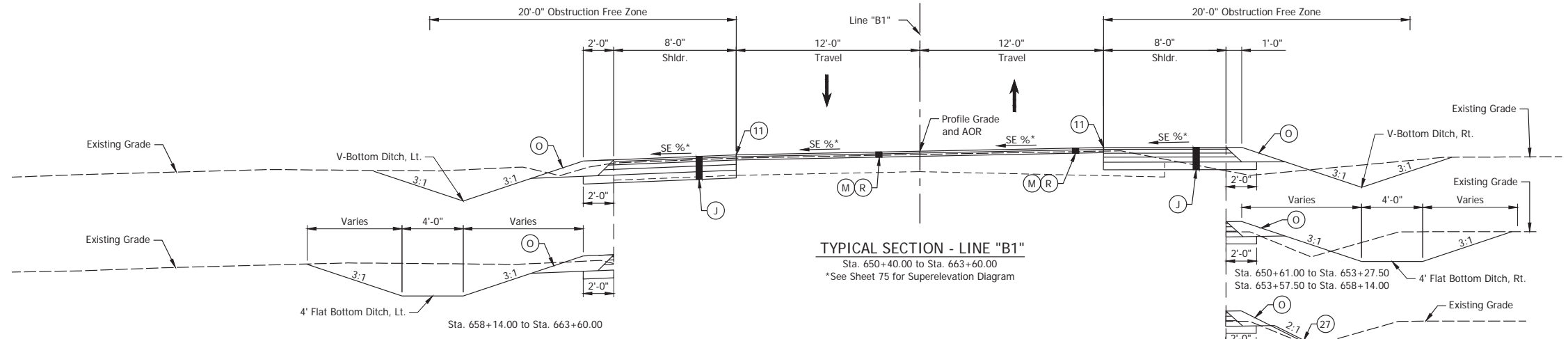
Date: Apr 22, 2024, 10:36pm User Name: rmaylor File: X:\Production\Files\2024\1702997\Plan\SS1\SS1\_C02\_Typical Sections.dwg - (Typical Section (3))



**TYPICAL SECTION - LINE "B1"**  
Sta. 610+50.00 to Sta. 625+70.00  
\*See Sheet 74 for Superelevation Diagram



**TYPICAL SECTION - LINE "B1"**  
Sta. 625+70.00 to Sta. 630+08.00



**TYPICAL SECTION - LINE "B1"**  
Sta. 650+40.00 to Sta. 663+60.00  
\*See Sheet 75 for Superelevation Diagram

- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm
  - (R1) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on Variable QC/QA-HMA, 3, 58H, Intermediate, 19mm

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- (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (O) Compacted Aggregate, No. 73
  - (11) Sawcut
  - (27) Erosion Control Blanket

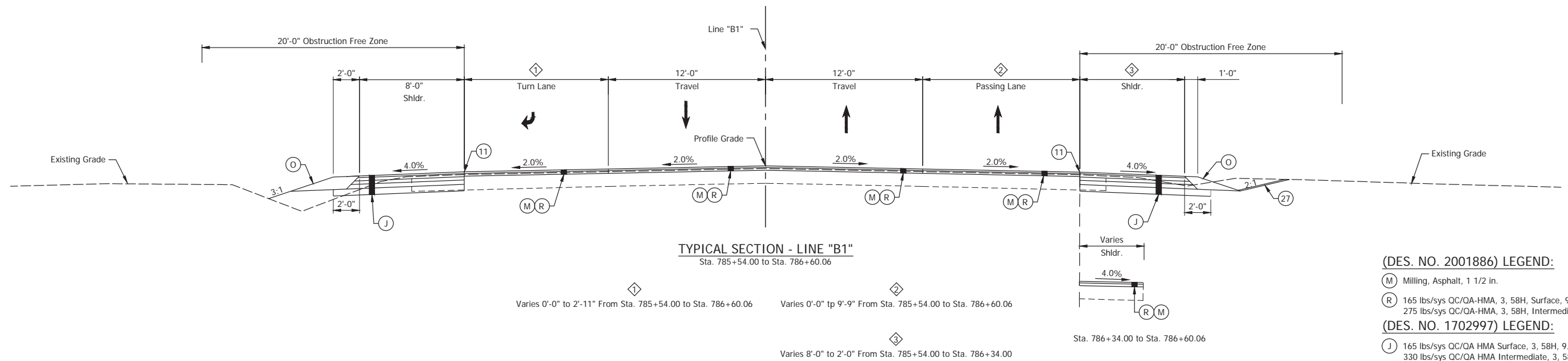
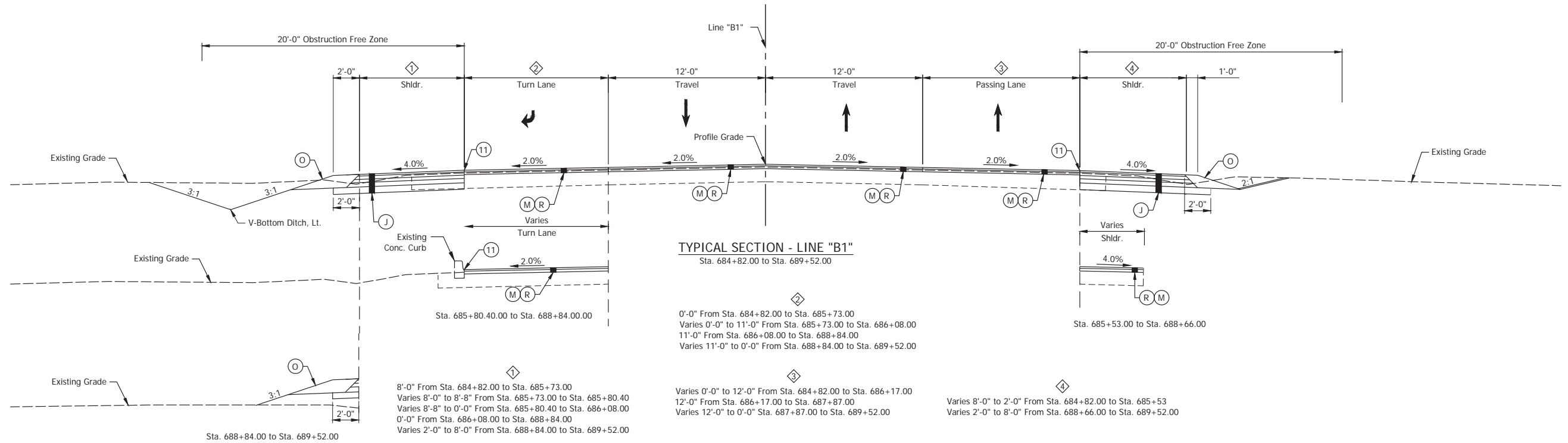
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
		April 22, 2024
DESIGNED: MMT	DRAWN: DJG	
CHECKED: BSS	CHECKED: BJS	

**INDIANA**  
**DEPARTMENT OF TRANSPORTATION**

**TYPICAL CROSS SECTIONS**

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	7 of 308
CONTRACT	PROJECT
R-43381	2001886

Date: Apr 22, 2024, 10:36pm User Name: rmaylor  
File: X:\Production\Files\2021\221-3039\CAD\Plan\SS1(SH)\_RD\_Typical Sections.dwg - (Typical Section (4))



**(DES. NO. 2001886) LEGEND:**

- (M) Milling, Asphalt, 1 1/2 in.
- (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm

**(DES. NO. 1702997) LEGEND:**

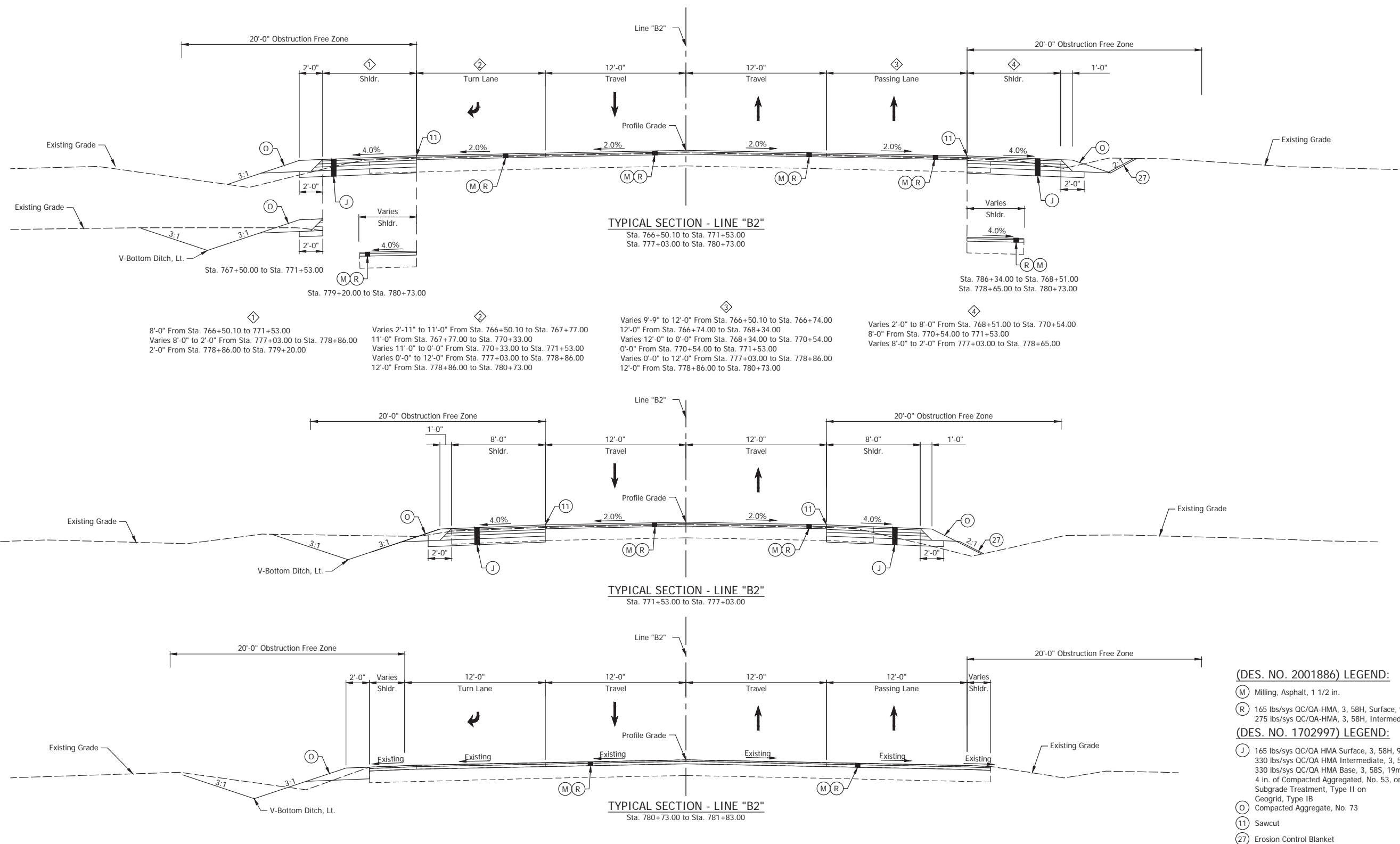
- (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
- (O) Compacted Aggregate, No. 73
- (11) Sawcut
- (27) Erosion Control Blanket

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 22, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

INDIANA DEPARTMENT OF TRANSPORTATION	
TYPICAL CROSS SECTIONS	

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	8 of 308
CONTRACT	PROJECT
R-43381	2001886

Date: Apr 22, 2024, 10:36pm User Name: mmaylor File: X:\Production\Files\2024\1702997\Plan\Std\_C01\_Typical Sections.dwg - (Typical Section) (5)



8'-0" From Sta. 766+50.10 to 771+53.00  
 Varies 8'-0" to 2'-0" From Sta. 771+03.00 to Sta. 778+86.00  
 2'-0" From Sta. 778+86.00 to Sta. 779+20.00

Varies 2'-11" to 11'-0" From Sta. 766+50.10 to Sta. 767+77.00  
 11'-0" From Sta. 767+77.00 to Sta. 770+33.00  
 Varies 11'-0" to 0'-0" From Sta. 770+33.00 to Sta. 771+53.00  
 Varies 0'-0" to 12'-0" From Sta. 771+03.00 to Sta. 778+86.00  
 12'-0" From Sta. 778+86.00 to Sta. 780+73.00

Varies 9'-9" to 12'-0" From Sta. 766+50.10 to Sta. 766+74.00  
 12'-0" From Sta. 766+74.00 to Sta. 768+34.00  
 Varies 12'-0" to 0'-0" From Sta. 768+34.00 to Sta. 770+54.00  
 0'-0" From Sta. 770+54.00 to Sta. 771+53.00  
 Varies 0'-0" to 12'-0" From Sta. 771+03.00 to Sta. 778+86.00  
 12'-0" From Sta. 778+86.00 to Sta. 780+73.00

Varies 2'-0" to 8'-0" From Sta. 768+51.00 to Sta. 770+54.00  
 8'-0" From Sta. 770+54.00 to 771+53.00  
 Varies 8'-0" to 2'-0" From 771+03.00 to Sta. 778+65.00

- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm  
275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm  
330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm  
330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on  
4 in. of Compacted Aggregated, No. 53, on  
Subgrade Treatment, Type II on
  - (O) Geogrid, Type IB  
Compacted Aggregate, No. 73
  - (11) Sawcut
  - (27) Erosion Control Blanket

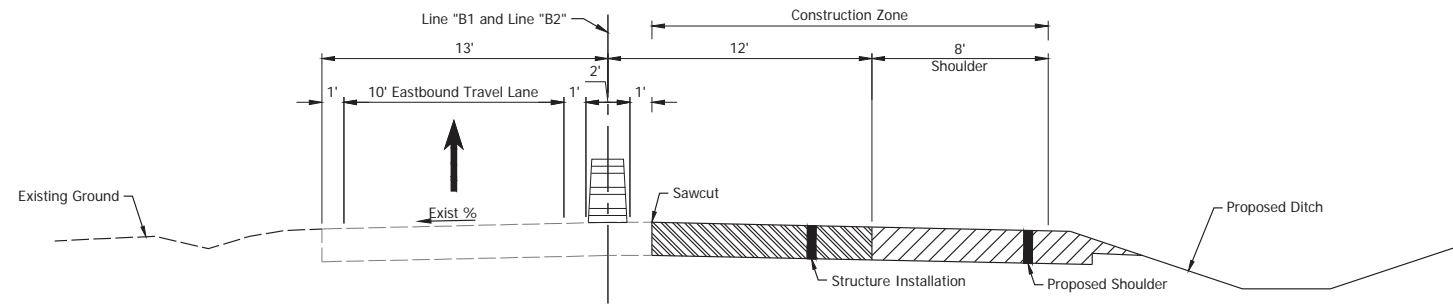
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 22, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

INDIANA DEPARTMENT OF TRANSPORTATION	
TYPICAL CROSS SECTIONS	

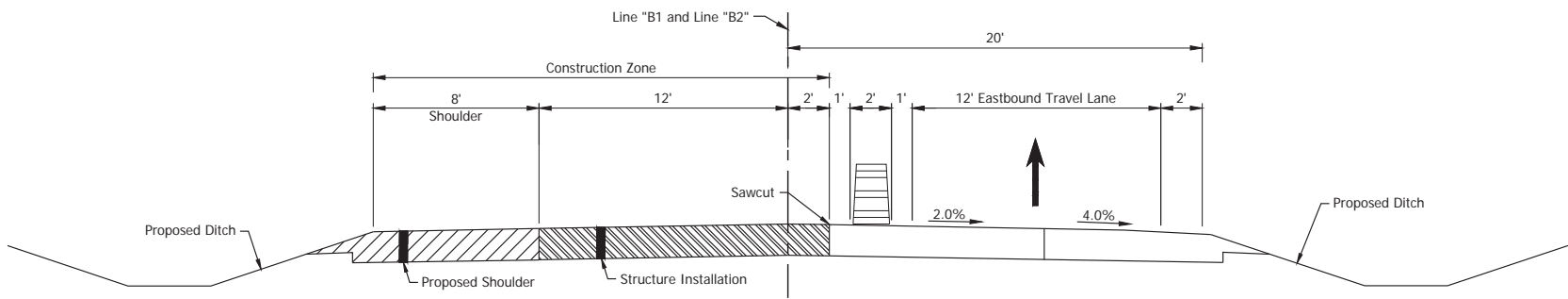
HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	9 of 308
CONTRACT	PROJECT
R-43381	2001886

Date: Apr 22, 2024, 10:36pm User Name: rmaylor  
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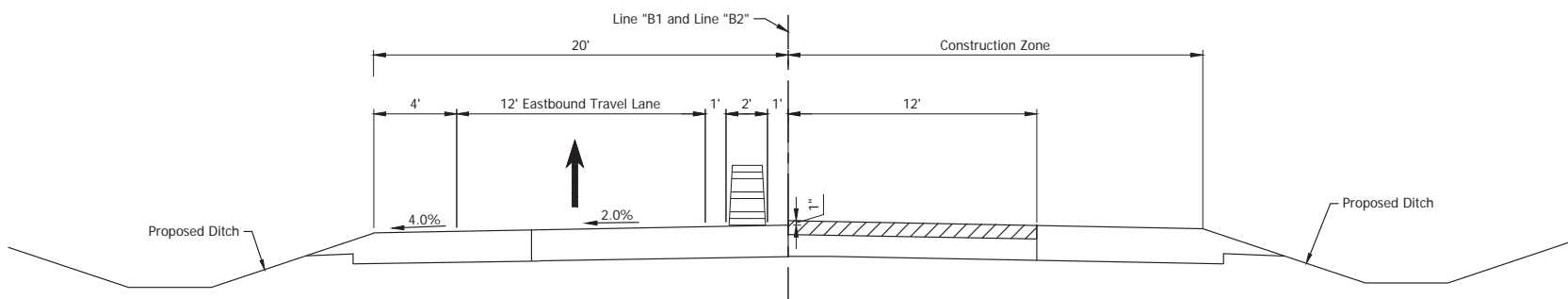




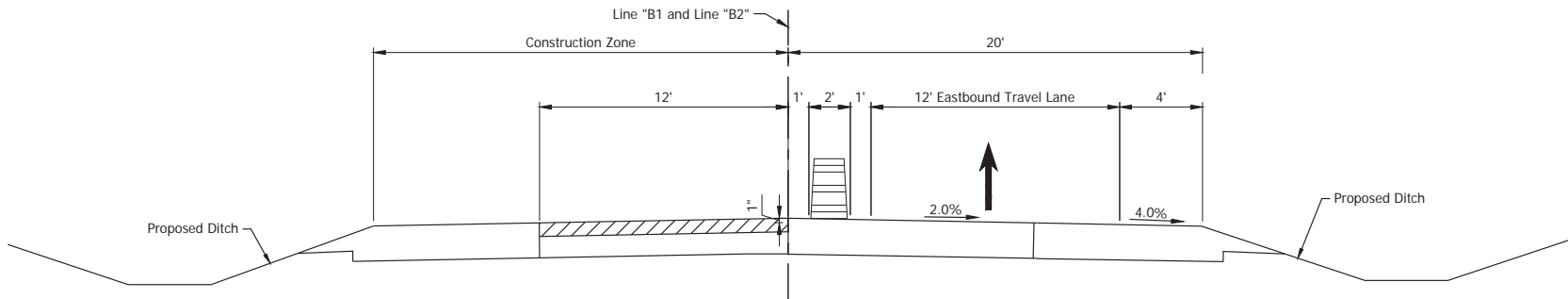
**MAINTENANCE OF TRAFFIC TYPICAL SECTION - PHASE II**  
Scale: 1/4" = 1'-0"



**MAINTENANCE OF TRAFFIC TYPICAL SECTION - PHASE III**  
Scale: 1/4" = 1'-0"



**MAINTENANCE OF TRAFFIC TYPICAL SECTION - PHASE IV**  
Scale: 1/4" = 1'-0"



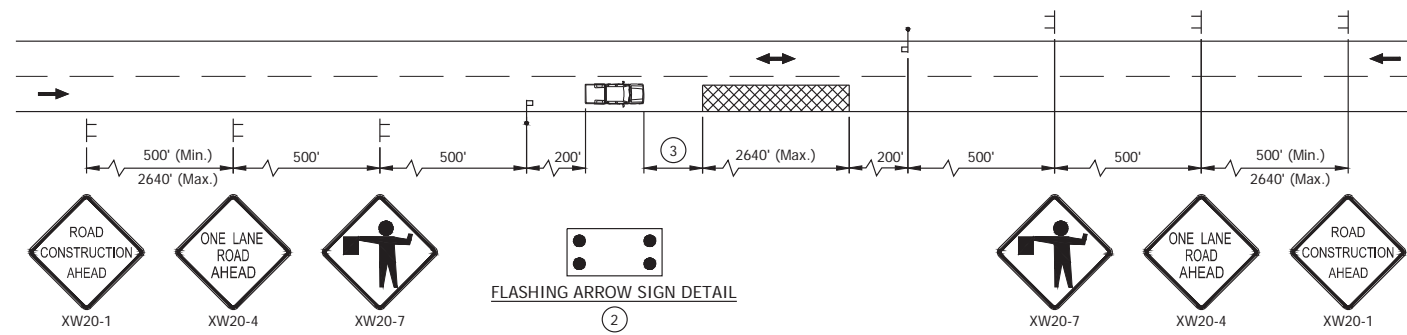
**MAINTENANCE OF TRAFFIC TYPICAL SECTION - PHASE V**  
Scale: 1/4" = 1'-0"

Date: Apr 22, 2024, 2:46pm User Name: mmtaylor  
File: X:\Production\Files\20211221-2025\CA\Plan\Sec\SHL\_RD\_HOT\_Typical Sections.dwg - (NOT Typical)

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 22, 2024	DATE
DESIGNED: MMT	DRAWN: MMT		
CHECKED: BSS	CHECKED: BJS		

INDIANA DEPARTMENT OF TRANSPORTATION	
MOT TYPICAL SECTION	

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	15 of 308
CONTRACT	PROJECT
R-43381	2001886



MAINTENANCE OF TRAFFIC - FLAGGER DETAIL "PHASE VI"  
Not to Scale

**NOTES:**

1. Additional signs may be required for the moving operations so as to maintain proper spacing.
2. Flashing arrow sign shall be in caution mode.
3. Shadow vehicle roll ahead distance shall be as recommended by the truck mounted attenuator manufacturer.

**LEGEND:**

- |— Flagger
- ▨ Work Area
- |— Construction Sign and Supports
- Direction of Traffic
- ☐ Shadow vehicle with truck-mounted attenuator, type B flashing arrow sign, and strobe lights.

FLAGGING OPERATION CONSTRUCTION SIGN SCHEDULE				
SIGN NO.	DESCRIPTION	SIZE (IN)	TYPE	QUANTITY
XW20-1	"ROAD CONSTRUCTION AHEAD" Sign	48 x 48	A	2
XW20-4	"ONE LANE ROAD AHEAD" Sign	48 x 48	A	2
XW20-7	"FLAGGER" Sign	48 x 48	A	2
TOTAL TYPE "A" SIGNS				6

**MAINTENANCE OF TRAFFIC PHASING**

1. Install construction signs as shown on plans and as directed by the engineer.
2. Access to commercial properties shall be maintained at all times. At least one driveway, or one-half width of driveway must be maintained and usable at all times. Commercial property owners shall be notified at least seven calendar days prior to drive reconstruction.
3. Emergency vehicles and postal access to local residences shall be maintained at all times except drive reconstruction. Property owners shall be notified in writing at least two days prior to beginning driveway work.
4. All materials, procedures, signs, markings, and miscellaneous items shall conform to the requirements of the INDOT standard specifications and the Indiana Manual on Uniform Traffic Control Devices, and revisions there to.
5. Contractor shall notify local fire department, police, ambulance services, postal service and schools of the work schedule and temporary traffic layouts.
6. The construction zone speed limit for U.S. 6 is 55 mph.

Construction activities include full depth and partial depth patching and milling and resurfacing of existing mainline pavement, shoulder widening, approach work, guardrail replacement, culvert replacement and new ditches.

The first phase of construction will require a full closure of U.S. 6 and the last phase will require a flagging operation. Advance signage is required for both phases.

**Phase I – Construction of CLV-100457 and the Removal of CLV-100155**

The construction of CLV-100457 and the removal of CLV-100155 crossing U.S. 6 to be replaced as shown in plans and existing roadway repaired. A full detour route is provided for eastbound and westbound traffic. See Sheet 19 for details.

**Phase II– Construction of the Culverts and Shoulders for the Eastbound Lane**

Sawcut, remove and replace U.S. 6 existing shoulders with 8 ft shoulders, remove and replace guardrail, remove and replace culverts and grade ditches for the eastbound lane as shown on plans. This will all occur under a one lane detour for the westbound traffic. A wide load detour will be provided for eastbound traffic. See Sheets 17, 20, 22 and 23 for details.

**Phase III– Construction of the Culverts and Shoulders for the Westbound Lane**

Sawcut, remove and replace U.S. 6 existing shoulders with 8 ft shoulders, remove and replace guardrail, remove and replace culverts and grade ditches for the westbound lane as shown on plans. This will all occur under a one lane detour for the westbound traffic. See Sheets 17, 21, 24 and 25 for details.

**Phase IV– Mill and Resurface the Intermediate Layer for the Eastbound Lanes**

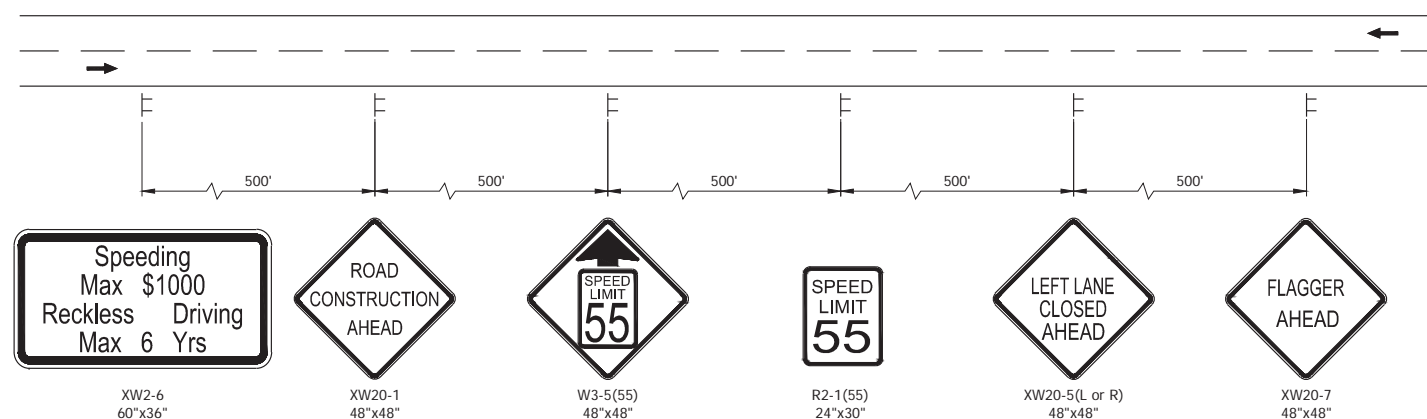
Perform partial depth and full depth patching and mill and resurface the mainline pavement up to the intermediate layer for the eastbound lane as shown on plans. This will all occur under a one lane detour for the westbound traffic. See Sheets 21, 26 and 27 for details.

**Phase V– Mill and Resurface the Intermediate Layer for the Westbound Lanes**

Perform partial depth and full depth patching and mill and resurface the mainline pavement up to the intermediate layer for the westbound lane as shown on plans. This will all occur under a one lane detour for the westbound traffic. See Sheets 21, 28 and 29 for details.

**Phase VI– Mill and Resurface the Surface Layer for Eastbound and Westbound Lanes**

Resurface the surface layer for the mainline and shoulder for the eastbound and westbound lane as shown on plans. This will all occur under a mobile flagging operation. Beginning approximately 1700 ft. away from the construction zone, advanced signage will be used to alert traffic of the operation ahead. Approximately 200 ft. away from the construction zone, a flagger will direct traffic. Following the flagger will be a shadow vehicle protecting the operation. Following the construction area, an additional flagger will be direct traffic in the opposite direction. The flaggers will coordinate throughout the operation to ensure collisions will not take place. Following the construction area and before the second flagger. See Sheet 16 for details.

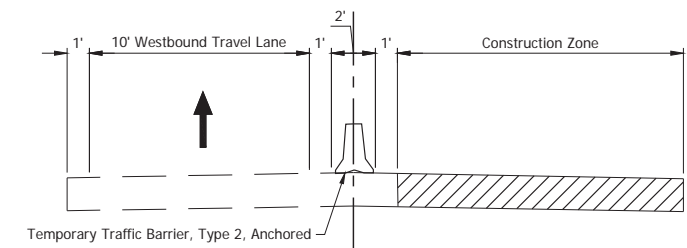
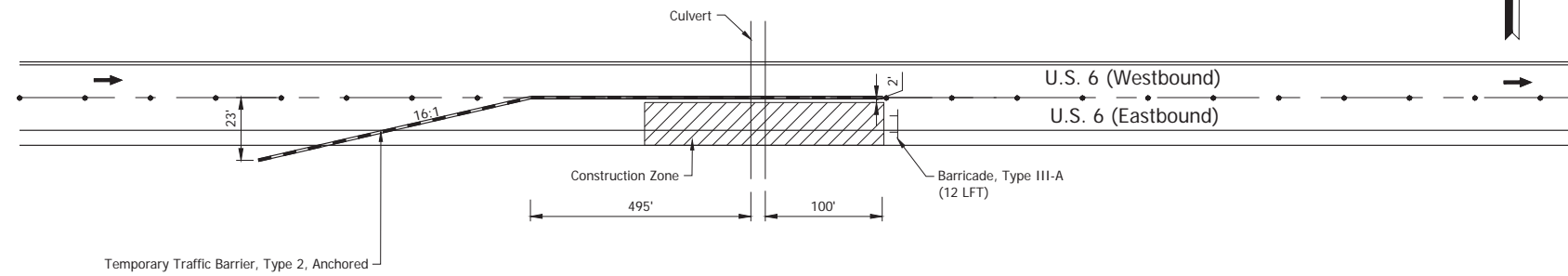


ADVANCE SIGNAGE DETAIL - PHASE VI  
Not to Scale

Date: Apr 22, 2024, 7:42pm User Name: mtdyler  
File: X:\Production\Files\2024\1121-3039\CD\Plan\SS\SL\_R2\_MOT\_Details.dwg - (NOT-Detail)

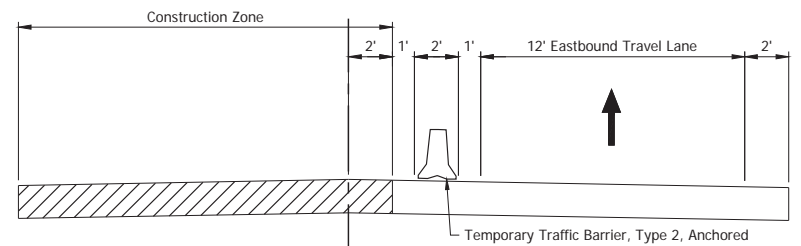
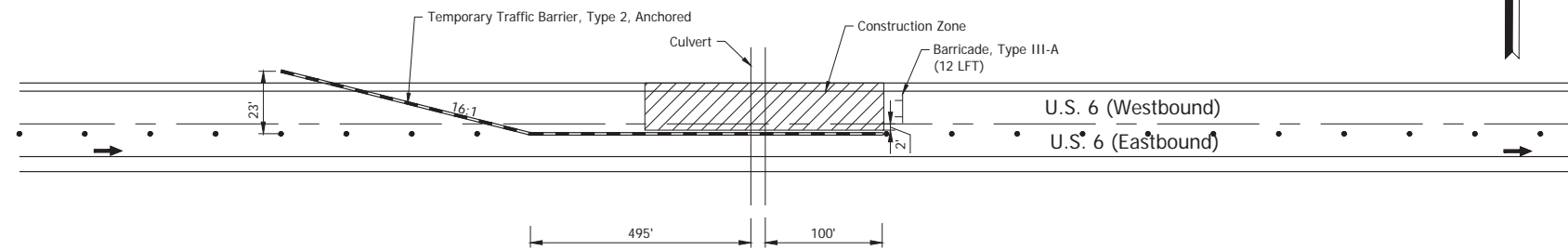
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE	BRIDGE FILE
			VERTICAL SCALE	DESIGNATION
DESIGNED: _____ MMT _____ DRAWN: _____ BJS _____	MAINTENANCE OF TRAFFIC DETAILS		NTS	N/A
CHECKED: _____ BSS _____ CHECKED: _____ BJS _____			NTS	2001886/1702997
			SURVEY BOOK	SHEET
			ELECTRONIC	16 of 308
			CONTRACT	PROJECT
			R-43381	2001886

Maintenance of Traffic - Phase II  
Culvert Replacement  
Eastbound Lane Closed

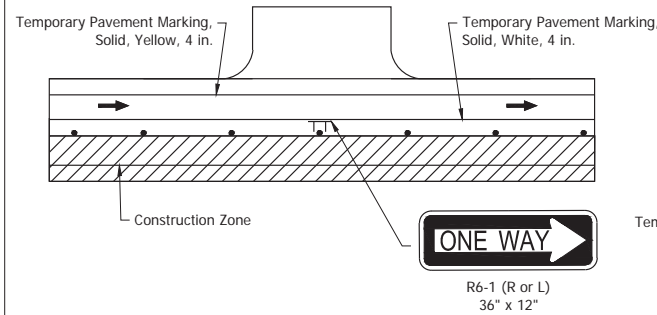


MAINTENANCE OF TRAFFIC TYPICAL SECTION - PHASE II  
EASTBOUND LANE CLOSURE  
Scale: 1/4" = 1'-0"

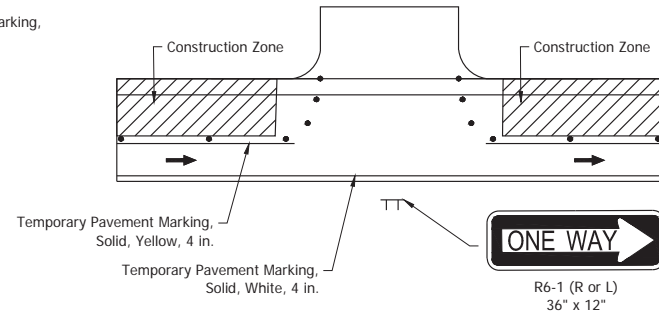
Maintenance of Traffic - Phase III  
Culvert Replacement  
Westbound Lane Closed



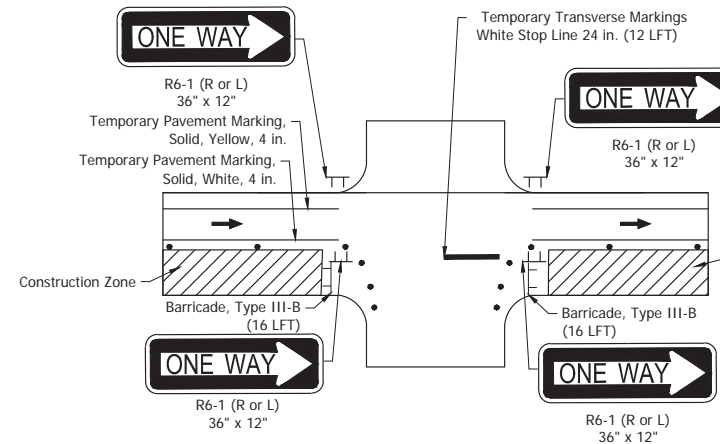
MAINTENANCE OF TRAFFIC TYPICAL SECTION - PHASE III  
WESTBOUND LANE CLOSURE  
Scale: 1/4" = 1'-0"



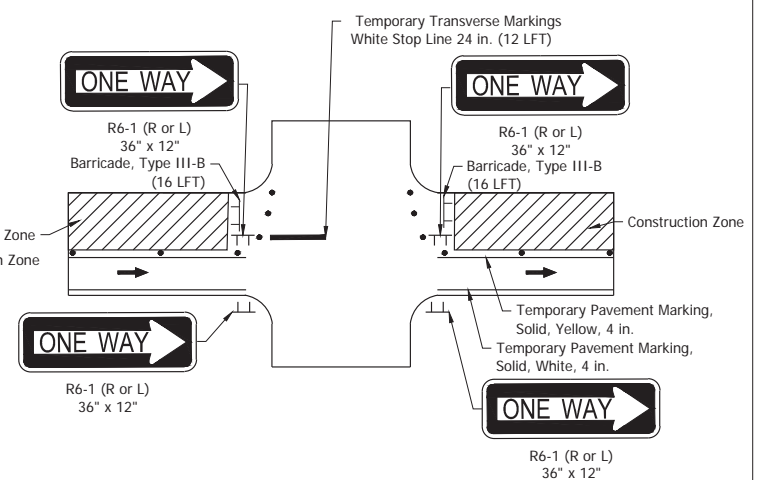
DRIVEWAY SIGNAGE DETAIL - PHASE II & PHASE IV  
Not to Scale



DRIVEWAY SIGNAGE DETAIL - PHASE III & PHASE V  
Not to Scale



APPROACH SIGNAGE DETAIL - PHASE II & PHASE IV  
Not to Scale



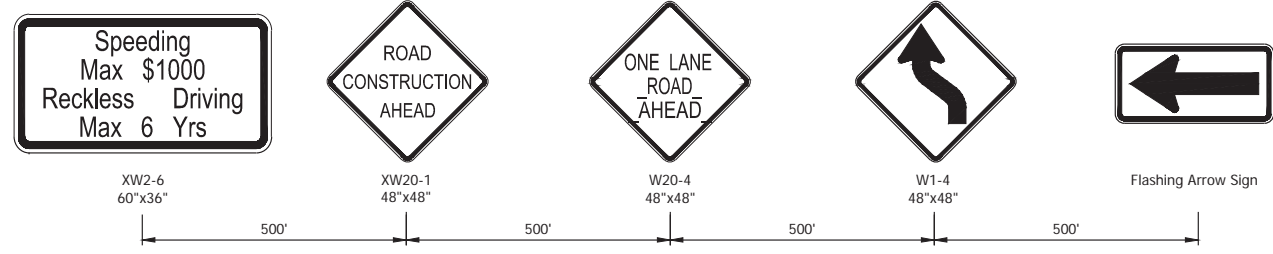
APPROACH SIGNAGE DETAIL - PHASE III & PHASE V  
Not to Scale

Date: Apr 22, 2024, 7:43am User Name: mta/ldr  
File: X:\Production\Files\2024\1121-3035\CD\PlanSet\SHL\_RD\_NOT\_Details.dwg - (NOT-Details (2))

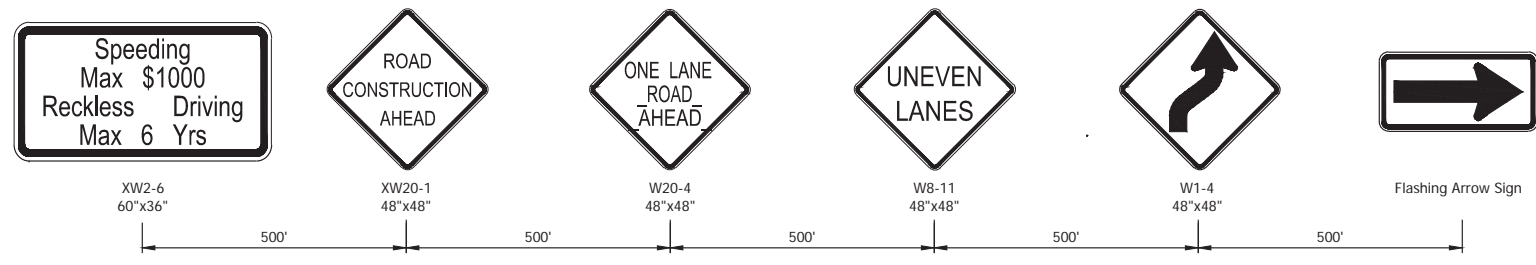
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MMT	DRAWN: BJS	
CHECKED: BSS	CHECKED: BJS	

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC DETAILS	

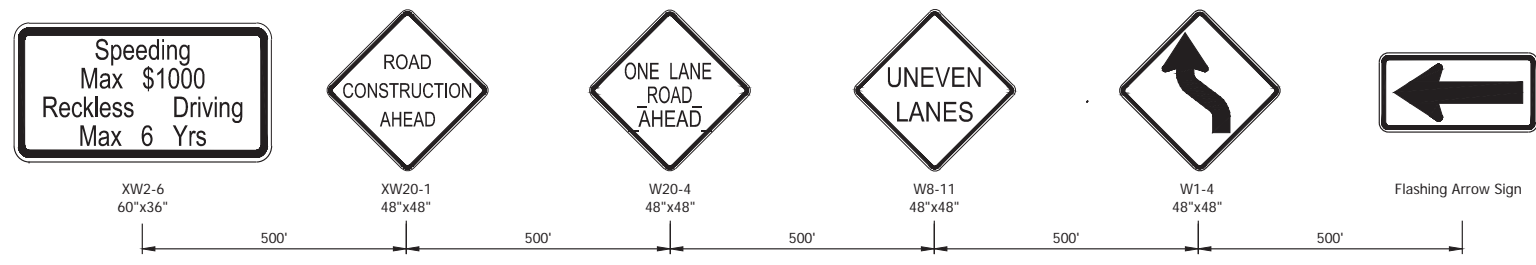
HORIZONTAL SCALE	BRIDGE FILE
NTS	N/A
VERTICAL SCALE	DESIGNATION
NTS	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	17 of 308
CONTRACT	PROJECT
R-43381	2001886



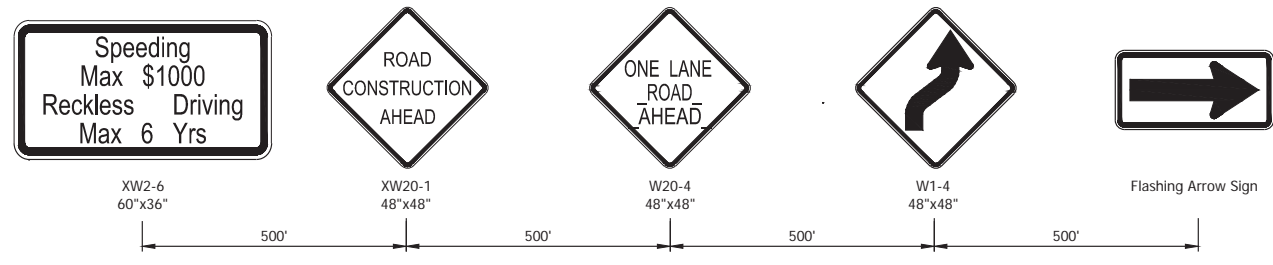
US 6 LANE CLOSURE ADVANCE SIGN DETAIL, PH. II  
LANE CLOSURE AND SHIFT  
Not to Scale



US 6 LANE CLOSURE ADVANCE SIGN DETAIL, PH. III  
LANE CLOSURE AND SHIFT  
Not to Scale



US 6 LANE CLOSURE ADVANCE SIGN DETAIL, PH. IV  
LANE CLOSURE AND SHIFT  
Not to Scale



US 6 LANE CLOSURE ADVANCE SIGN DETAIL, PH. V  
LANE CLOSURE AND SHIFT  
Not to Scale

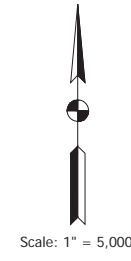
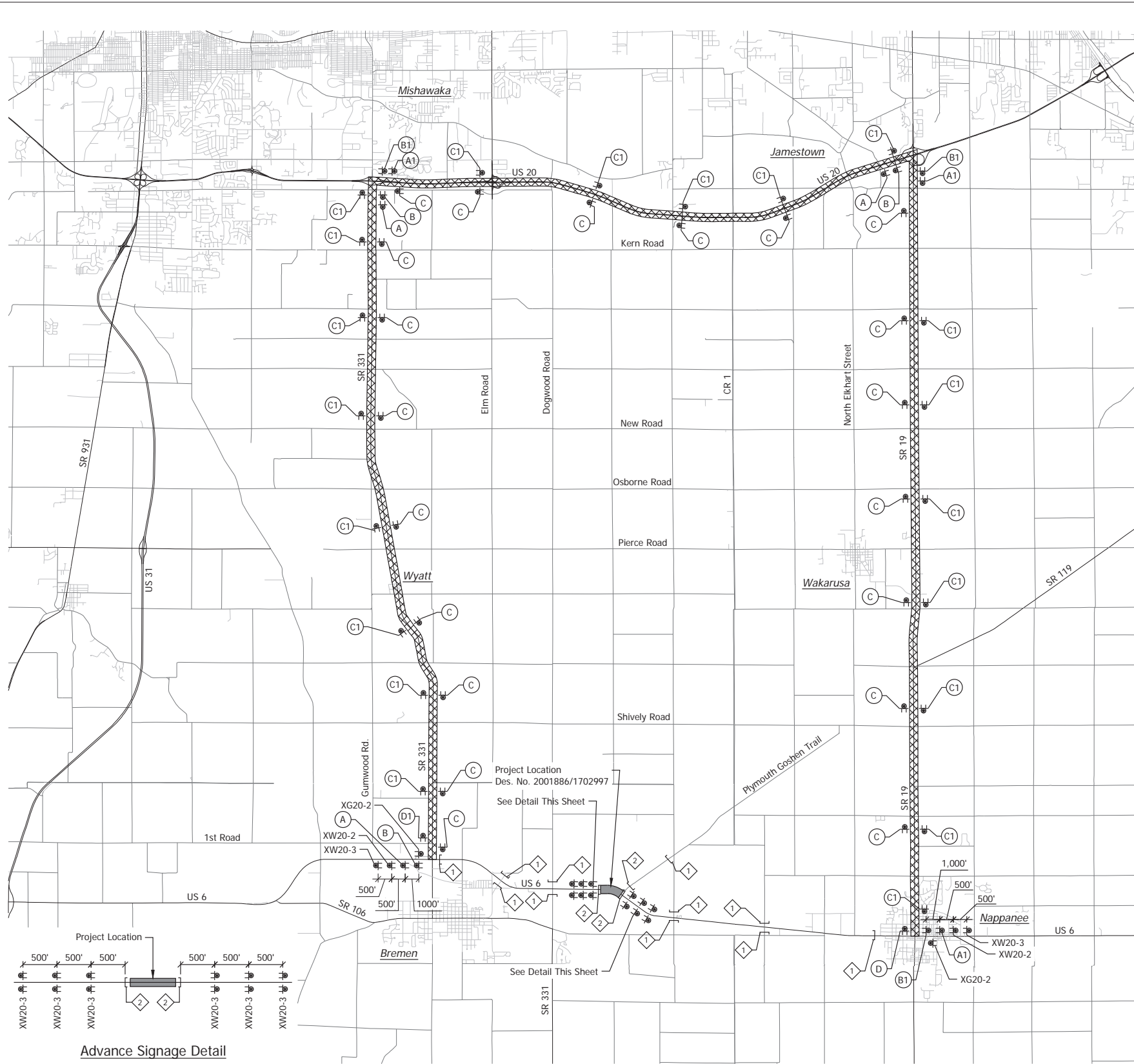
Date: Apr 22, 2024, 7:42pm User Name: mtaylor  
File: X:\Production\Files\2024\1121-2025\CAD\Plans\SI\SHL\_RD\_HOT - Advance Sign Detail.dwg - (Advanced Sign Detail)

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE: April 22, 2024
DESIGNED: _____ MMT	DRAWN: _____ BJS	
CHECKED: _____ BSS	CHECKED: _____ BJS	

INDIANA DEPARTMENT OF TRANSPORTATION	
MAINTENANCE OF TRAFFIC ADVANCE SIGN DETAIL	

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	18 of 308
CONTRACT	PROJECT
R-43381	2001886

Date: Apr 22, 2024, 7:43am User Name: mtd/c User: mtd/c File: X:\Production\Files\2024\1121-3035\CD\Plan\SR106\_HOT\_Full\_Detour.dwg - (HOT Full Detour)



CONSTRUCTION SIGN SCHEDULE				
SIGN NO.	DESCRIPTION	SIZE (IN)	TYPE	QUANTITY
R11-2	"ROAD CLOSED" Sign	48 x 30	(1)	3
R11-3A	"ROAD CLOSED XX MILES AHEAD" Sign	60 x 30	(1)	11
XM4-10 (L or R)	"DETOUR" Sign	48 x 18	(1)	11
XW20-2	"DETOUR AHEAD" Sign	48 x 48	A	2
XW20-3	"ROAD CLOSED AHEAD" Sign	48 x 48	A	14
XG20-2	"END CONSTRUCTION" Sign	36 x 18	B	2
TOTAL TYPE "A" SIGNS				41
TOTAL TYPE "B" SIGNS				2

Detour Route Marker Assemblies 54 Req'd.  
 Road Closure Sign Assemblies 14 Req'd.  
 Type III-A Barricades 72 LFT  
 Type III-B Barricades 132 LFT

(1) Included with road closure sign assembly.

**LEGEND:**

XM4-10 (L or R)

XW20-2

XW20-3

XG20-2

R11-2

R11-3A

A1  
DETOUR XM4-8 24x12

A  
DETOUR XM4-8 24x12

B1  
DETOUR XM4-8 24x12

B  
DETOUR XM4-8 24x12

C1  
DETOUR XM4-8 24x12

C  
DETOUR XM4-8 24x12

A1  
WEST M3-4 24x12

A  
EAST M3-2 24x12

B1  
WEST M3-4 24x12

B  
EAST M3-2 24x12

C1  
WEST M3-4 24x12

C  
EAST M3-2 24x12

A1  
6 M1-4 24x24

A  
6 M1-4 24x24

B1  
6 M1-4 24x24

B  
6 M1-4 24x24

C1  
6 M1-4 24x24

C  
6 M1-4 24x24

A1  
M5-1(R)(S) 21x15

A  
M5-1(R)(S) 21x15

B1  
M6-1(R)(S) 21x15

B  
M6-1(R)(S) 21x15

C1  
M6-3(S) 21x15

C  
M6-3(S) 21x15

D1  
END DETOUR XM4-8a 24x18

D  
END DETOUR XM4-8a 24x18

D1  
WEST M3-4 24x12

D  
EAST M3-2 24x12

D1  
6 M1-4 24x24

D  
6 M1-4 24x24

D1  
M6-1(R)(S) 21x15

D  
M6-1(R)(S) 21x15

◆ Road Closure Sign Assembly w/ Type III-B Barricade (12 LFT) And R11-3a And XM4-10 (L or R)

◆ Road Closure Sign Assembly w/ Type III-A Barricade (24 LFT) And R11-2

■ Construction Zone

▨ Detour Route

**GENERAL NOTES:**

- All maintenance of traffic devices, signs and pavement markings shall conform to the latest edition of the Indiana MUTCD.
- See INDOT Std. Drwg. 801-TCDT-01 for sign spacing requirements and additional notes.
- See INDOT Std. Drwg. 801-TCLG-01 for standard notes.
- Type B construction warning lights shall be used with all signs located on barricades. Type A construction warning lights shall be used on all other construction signs.

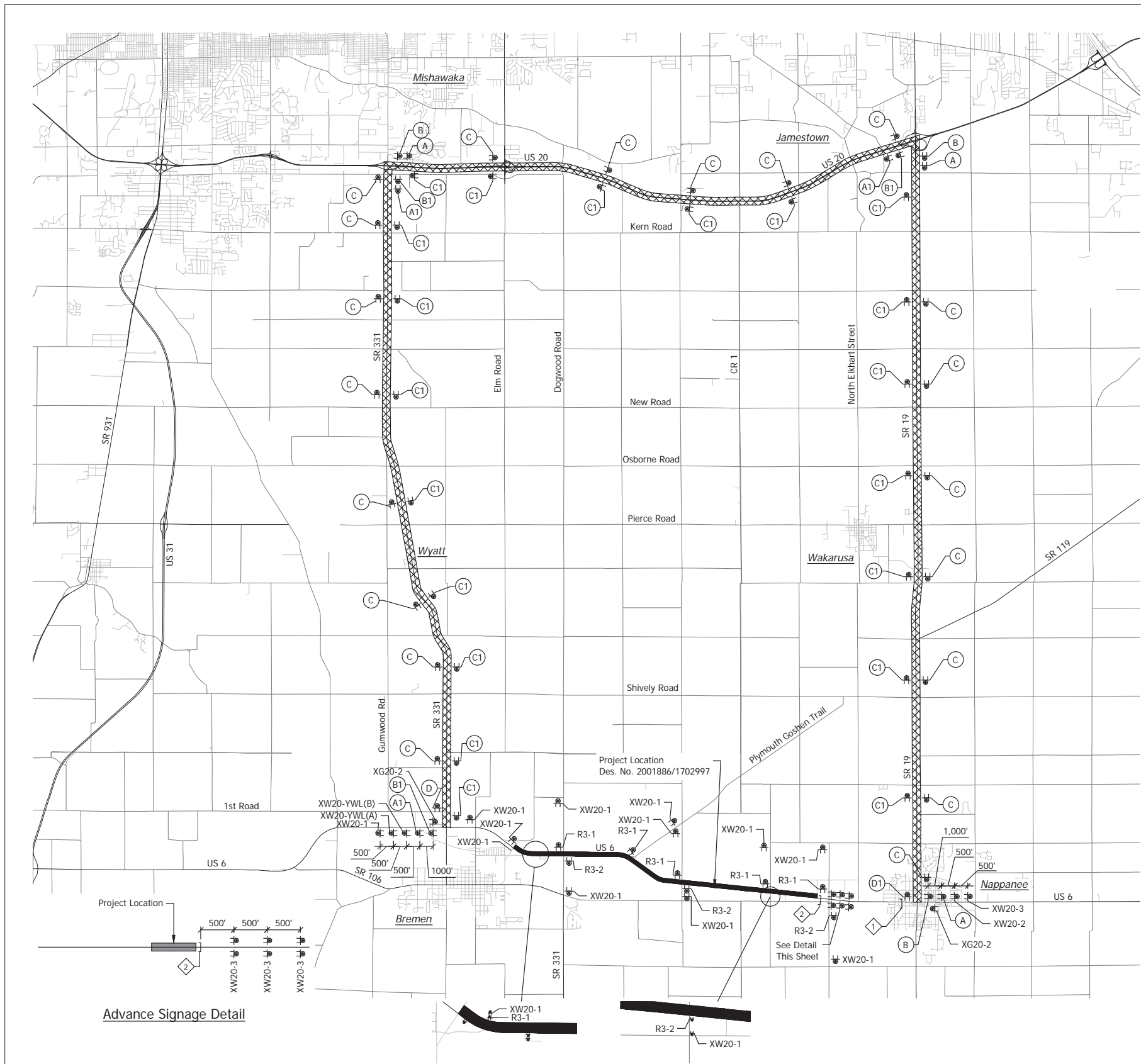
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
	MMT	April 22, 2024
DESIGNED:	DRAWN:	
BSS	BJS	
CHECKED:	CHECKED:	
BSS	BJS	

INDIANA  
DEPARTMENT OF TRANSPORTATION

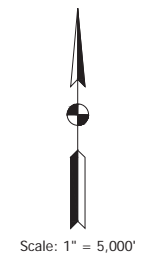
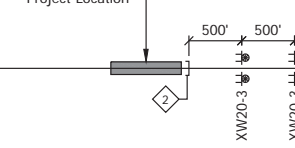
**MAINTENANCE OF TRAFFIC - PHASE I  
FULL DETOUR ROUTE**

HORIZONTAL SCALE	BRIDGE FILE
1" = 5,000'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	19 of 308
CONTRACT	PROJECT
R-43381	2001886

Date: Apr 22, 2024, 2:43pm User Name: mta/dk  
 File: X:\Production\Files\20211221-2023\CAD\Phase\SI\SR\_106 - E&C.dwg (NOT Detour West Phase II)



**Advance Signage Detail**



**LEGEND:**

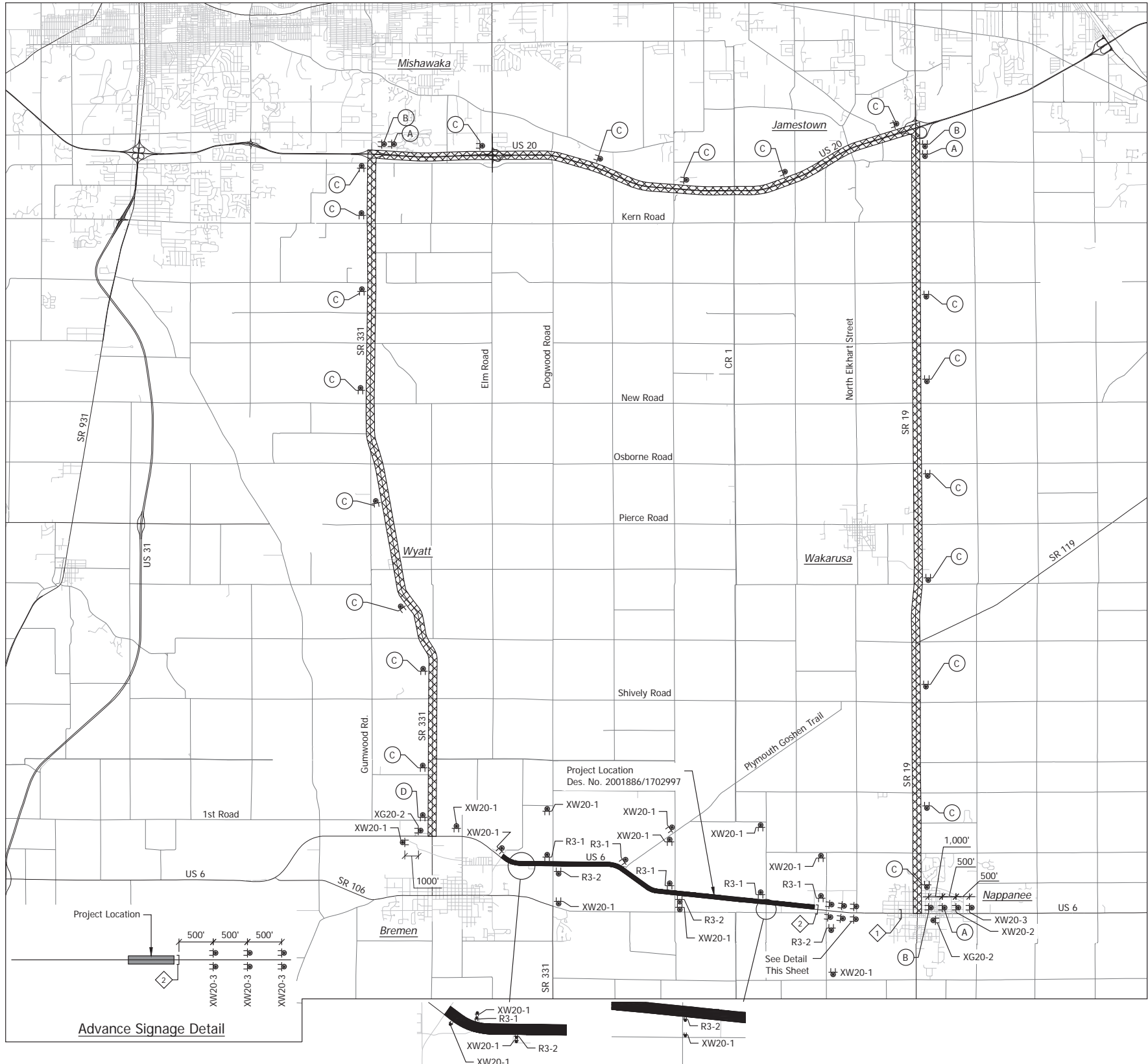

(1) Included with road closure sign assembly.  
 (2) Road Closure Sign Assembly w/ Type III-B Barricade (12 LFT) And R11-3a And XM4-10 (L or R)  
 (3) Road Closure Sign Assembly w/ Type III-B Barricade (12 LFT) And R11-2  
 (4) Construction Zone  
 (5) Detour Route

CONSTRUCTION SIGN SCHEDULE				
SIGN NO.	DESCRIPTION	SIZE (IN)	TYPE	QUANTITY
R11-2	"ROAD CLOSED" Sign	48 x 30	(1)	1
R11-3A	"ROAD CLOSED XX MILES AHEAD" Sign	60 x 30	(1)	1
XM4-10 (L or R)	"DETOUR" Sign	48 x 18	(1)	1
XW20-1	"ROAD CONSTRUCTION AHEAD" Sign	48 x 48	A	15
XW20-2	"DETOUR AHEAD" Sign	48 x 48	A	1
XW20-3	"ROAD CLOSED AHEAD" Sign	48 x 48	A	7
XW20-YWL(A)	"WIDE LOAD DETOUR AHEAD" Sign	48 x 48	A	1
XW20-YWL(B)	"WIDE LOAD OVER XX FT MUST DETOUR" Sign	48 x 48	A	1
R3-1	No Right Turn Sign	24 x 24	B	6
R3-2	No Left Turn Sign	24 x 24	B	5
XG20-2	"END CONSTRUCTION" Sign	36 x 18	B	2
Detour Route Marker Assemblies			54 Req'd.	TOTAL TYPE "A" SIGNS
Road Closure Sign Assemblies			2 Req'd.	
Type III-B Barricades			24 LFT	TOTAL TYPE "B" SIGNS
				13

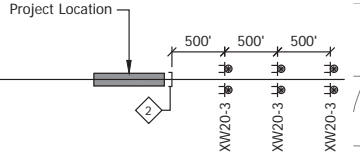
- GENERAL NOTES:**
- All maintenance of traffic devices, signs and pavement markings shall conform to the latest edition of the Indiana MUTCD.
  - See INDOT Std. Drwg. 801-TCDT-01 for sign spacing requirements and additional notes.
  - See INDOT Std. Drwg. 801-TCLG-01 for standard notes.
  - Type B construction warning lights shall be used with all signs located on barricades. Type A construction warning lights shall be used on all other construction signs.

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	MMT	April 22, 2024		1" = 5,000'	N/A
DESIGNED:	MMT	DRAWN:	MAINTENANCE OF TRAFFIC - PHASE II DETOUR ROUTE	VERTICAL SCALE	DESIGNATION
CHECKED:	BSS	CHECKED:		N/A	2001886/1702997
			SURVEY BOOK	SHEET	
			ELECTRONIC	20	of 308
			CONTRACT	PROJECT	
			R-43381	2001886	

Date: Apr 22, 2024, 7:53am User Name: mta/dlr  
 File: X:\Production\Files\20211221-2025\CD\Plan\SS\SR\_106\_MOT - West.dwg - (NOT Detour West Phase III)

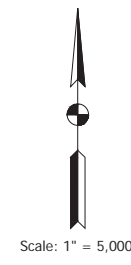


Advance Signage Detail



**CONSTRUCTION SIGN SCHEDULE**

SIGN NO.	DESCRIPTION	SIZE (IN)	TYPE	QUANTITY	
R11-2	"ROAD CLOSED" Sign	48 x 30	(1)	1	
R11-3A	"ROAD CLOSED XX MILES AHEAD" Sign	60 x 30	(1)	1	
XM4-10 (L or R)	"DETOUR" Sign	48 x 18	(1)	1	
XW20-1	"ROAD CONSTRUCTION AHEAD" Sign	48 x 48	A	15	
XW20-2	"DETOUR AHEAD" Sign	48 x 48	A	1	
XW20-3	"ROAD CLOSED AHEAD" Sign	48 x 48	A	7	
R3-1	No Right Turn Sign	24 x 24	B	6	
R3-2	No Left Turn Sign	24 x 24	B	5	
XG20-2	"END CONSTRUCTION" Sign	36 x 18	B	2	
Detour Route Marker Assemblies				27 Req'd.	TOTAL TYPE "A" SIGNS
Road Closure Sign Assemblies				2 Req'd.	
Type III-B Barricades				24 LFT	
					TOTAL TYPE "B" SIGNS
					13



(1) Included with road closure sign assembly.

**LEGEND:**

- ◆ Road Closure Sign Assembly w/ Type III-B Barricade (12 LFT) And R11-3a And XM4-10 (L or R)
- ◆ Road Closure Sign Assembly W/ Type III-B Barricade (12 LFT) And R11-2

- ▨ Construction Zone
- ▨ Detour Route

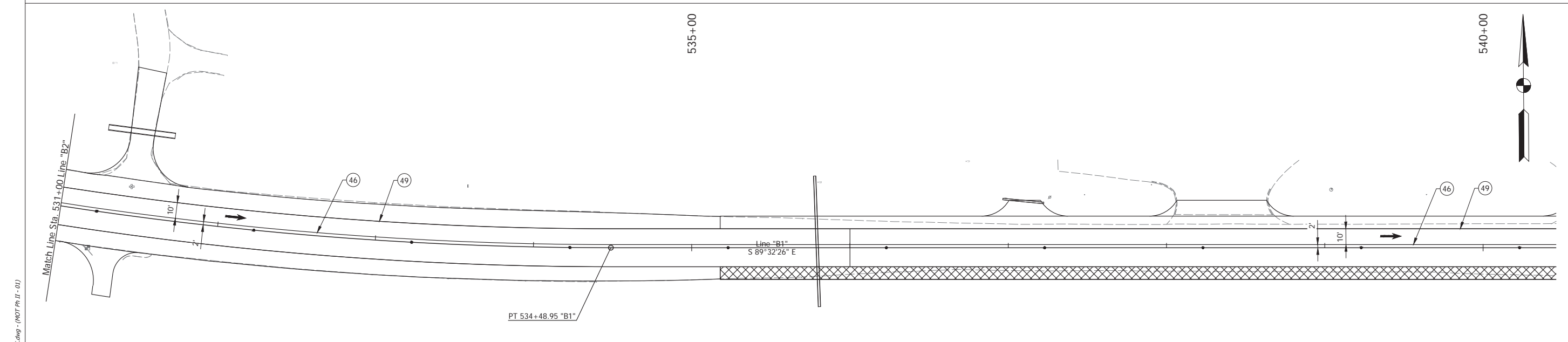
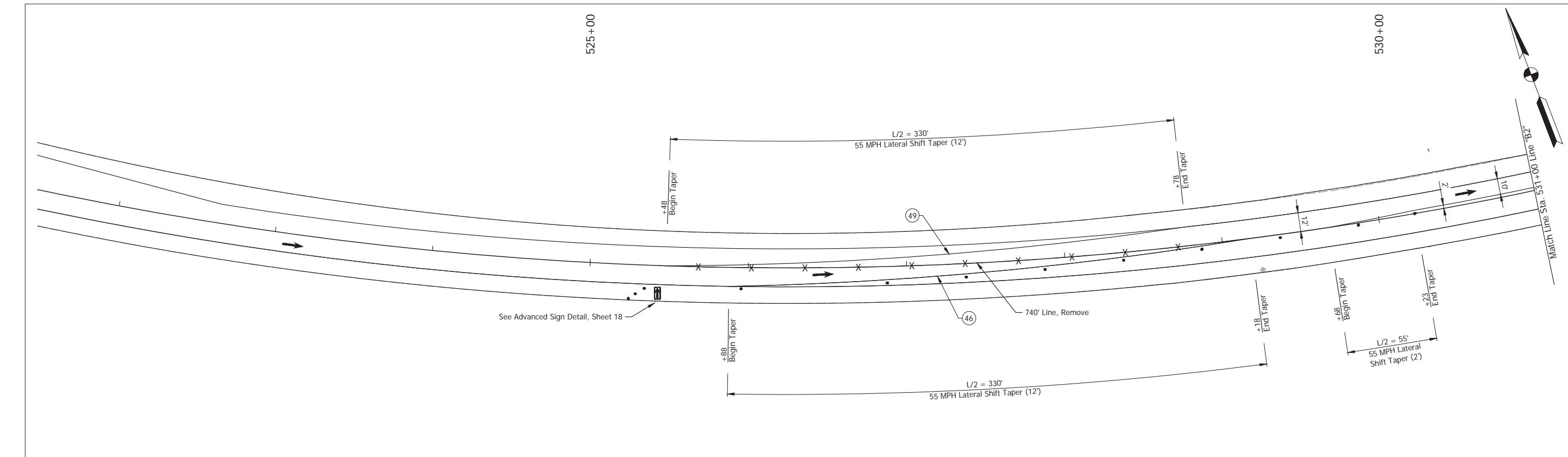
**GENERAL NOTES:**

1. All maintenance of traffic devices, signs and pavement markings shall conform to the latest edition of the Indiana MUTCD.
2. See INDOT Std. Drwg. 801-TCDT-01 for sign spacing requirements and additional notes.
3. See INDOT Std. Drwg. 801-TCLG-01 for standard notes.
4. Type B construction warning lights shall be used with all signs located on barricades. Type A construction warning lights shall be used on all other construction signs.

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE April 22, 2024
DESIGNED: _____ MMT	DRAWN: _____ BJS	
CHECKED: _____ BSS	CHECKED: _____ BJS	

INDIANA  
 DEPARTMENT OF TRANSPORTATION  
 MAINTENANCE OF TRAFFIC - PHASE III, IV & V  
 WESTBOUND DETOUR ROUTE

HORIZONTAL SCALE	BRIDGE FILE
1" = 5,000'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	21 of 308
CONTRACT	PROJECT
R-43381	2001886



Date: Apr 22, 2024, 2:46pm User Name: mtdyler  
 File: X:\Production\Files\2024\1702997\1702997\Phase II.dwg - (NOT PH II - 01)

**LEGEND:**

- Barrels
- Traffic Flow
- ⊗ Construction Sign
- ▨ Construction Area
- ⓪ 46 Temporary Pavement Marking, Solid, White, 4 in.
- ⓪ 49 Temporary Pavement Marking, Solid, Yellow, 4 in.

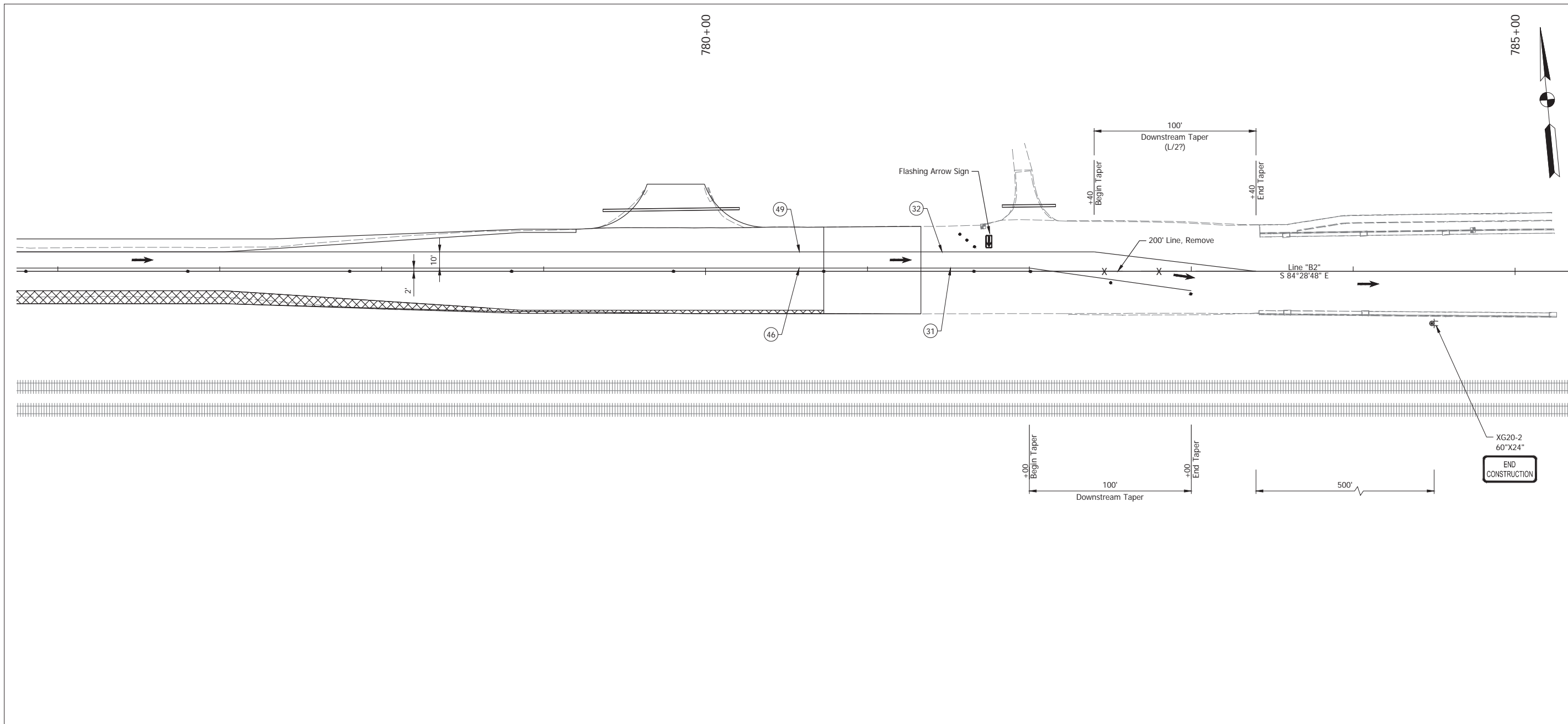
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE April 22, 2024	DESIGNED: _____ MMT DRAWN: _____ RHK CHECKED: _____ BSS CHECKED: _____ BJS
--	---

**INDIANA  
 DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC  
 PHASE II - ENTRY TAPER**

HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
VERTICAL SCALE N/A	DESIGNATION 2001886/1702997
SURVEY BOOK ELECTRONIC	SHEET 22 of 308
CONTRACT R-43381	PROJECT 2001886

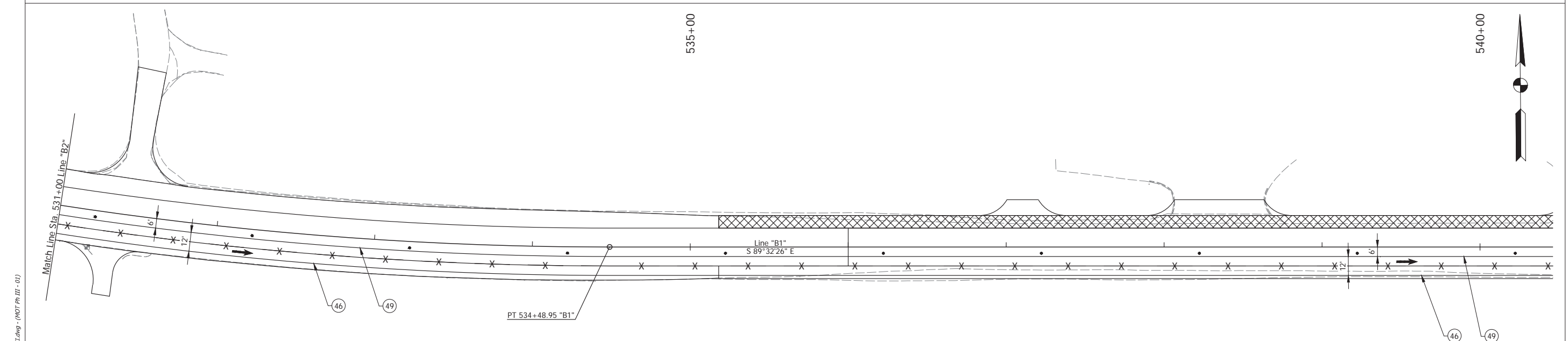
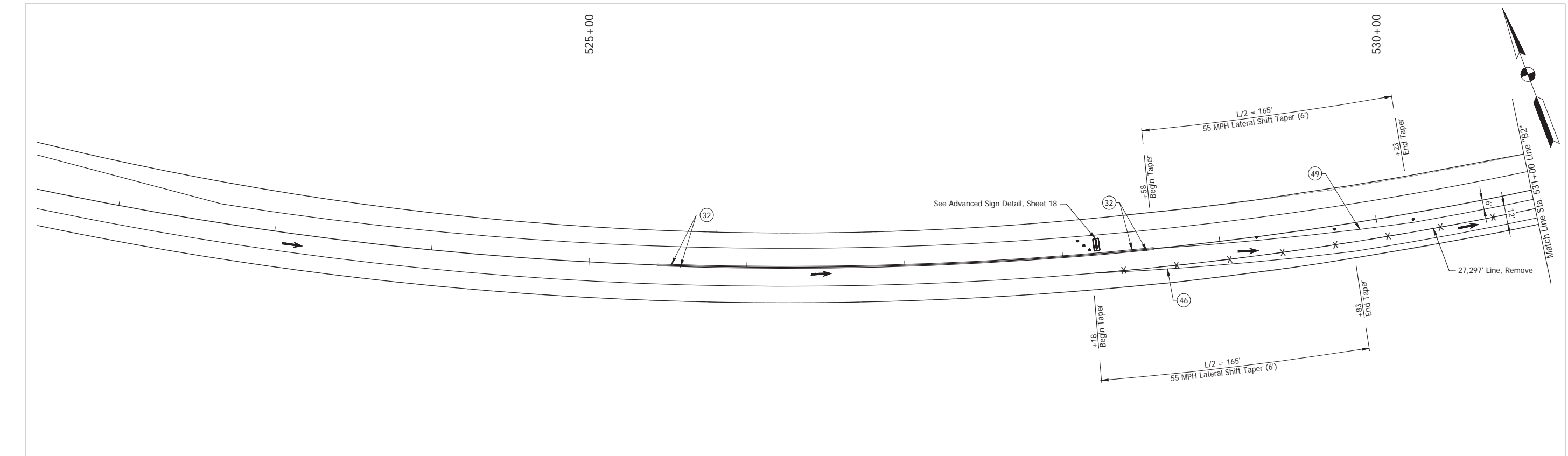




- LEGEND:**
- ① Temporary Pavement Marking, Removable, Solid, White, 4 in.
  - ② Temporary Pavement Marking, Removable, Solid, Yellow, 4 in.
  - ④ Temporary Pavement Marking, Solid, White, 4 in.
  - ④ Temporary Pavement Marking, Solid, Yellow, 4 in.
  - Barrels
  - Traffic Flow
  - ⊠ Construction Sign
  - ▨ Construction Area

Date: Apr 22, 2024, 7:46pm User Name: mtdydr  
 File: X:\Production\Files\2024\1121-2025\GAD\Phase2\SLD\_CD\_HOT - Phase II.dwg - (NOT PH II - 02)

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER	April 22, 2024 DATE	<b>INDIANA DEPARTMENT OF TRANSPORTATION</b>	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
DESIGNED: _____ MMT	DRAWN: _____ RHK		VERTICAL SCALE N/A	DESIGNATION 2001886/1702997
CHECKED: _____ BSS	CHECKED: _____ BJS	<b>MAINTENANCE OF TRAFFIC PHASE II - EXIT TAPER</b>	SURVEY BOOK ELECTRONIC	SHEET 23 of 308
			CONTRACT R-43381	PROJECT 2001886



Date: Apr 22, 2024, 7:59pm User Name: mtd\jdc  
 File: X:\Production\Files\2024\1702997\1702997-Phase III.dwg - (NOT Ph III - 01)

**LEGEND:**

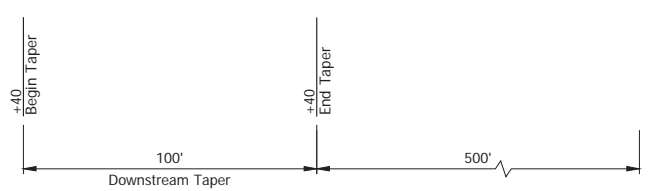
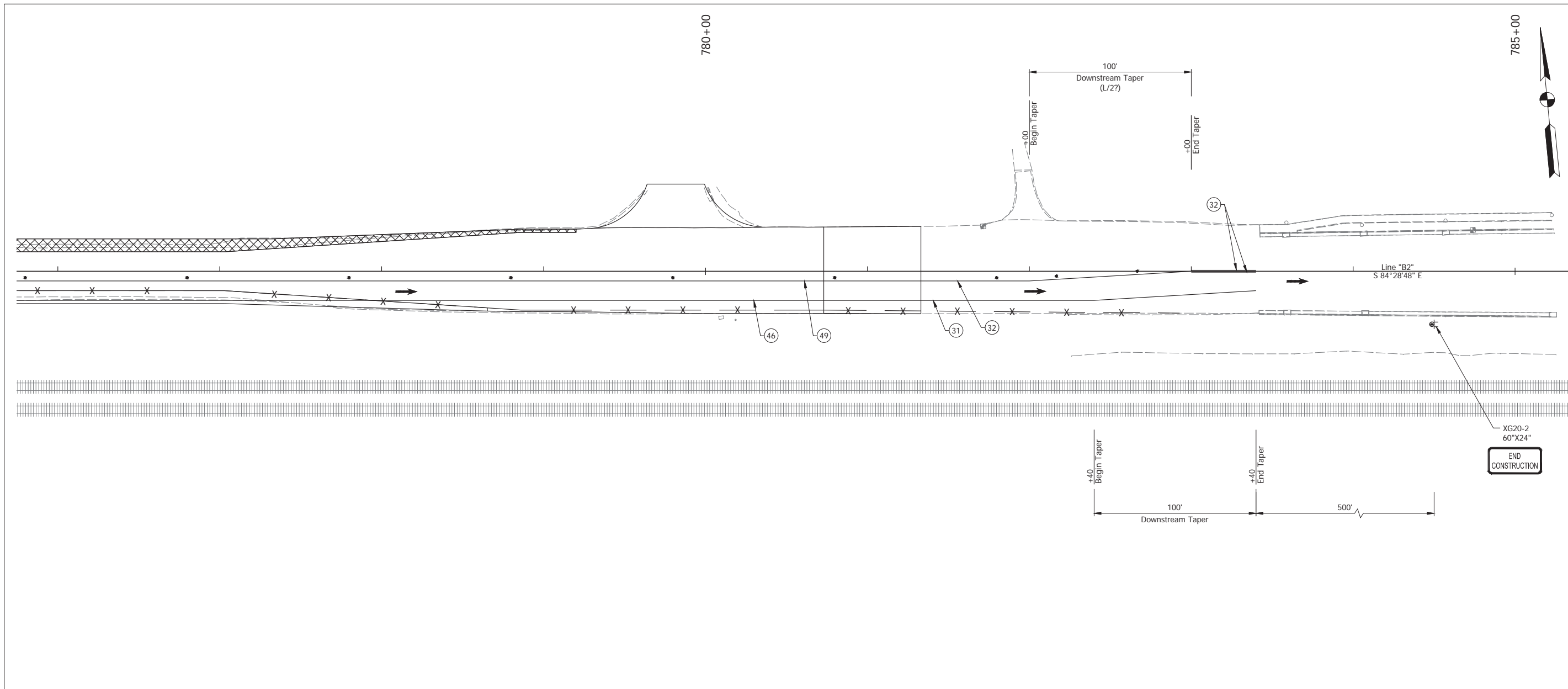
- Barrels
- Traffic Flow
- Construction Sign
- Construction Area
- (32) Temporary Pavement Marking, Removable, Solid, Yellow, 4 in.
- (46) Temporary Pavement Marking, Solid, White, 4 in.
- (49) Temporary Pavement Marking, Solid, Yellow, 4 in.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE April 22, 2024	DESIGNED: _____ MMT DRAWN: _____ RHK CHECKED: _____ BSS CHECKED: _____ BJS
--	---

**INDIANA  
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC  
PHASE III - ENTRY TAPER**

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	24 of 308
CONTRACT	PROJECT
R-43381	2001886



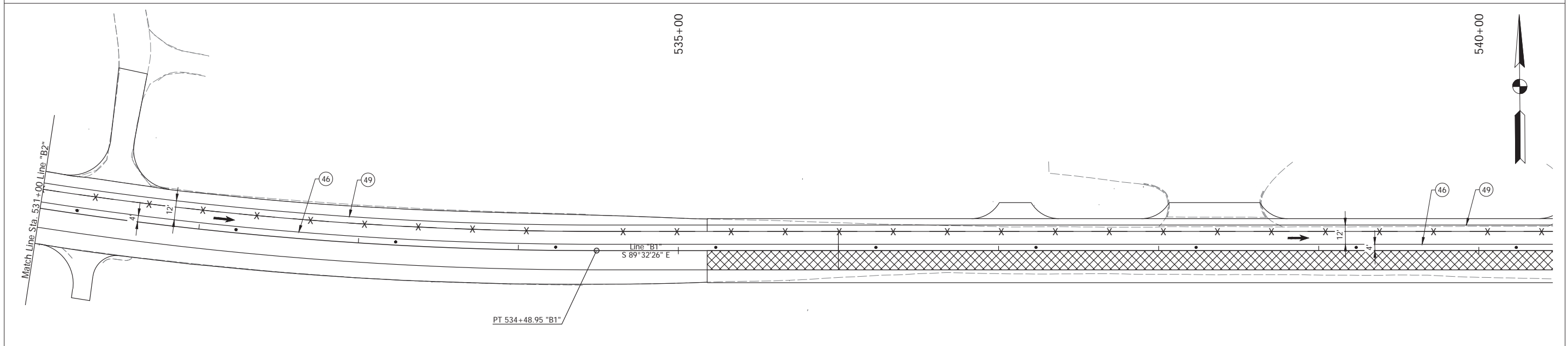
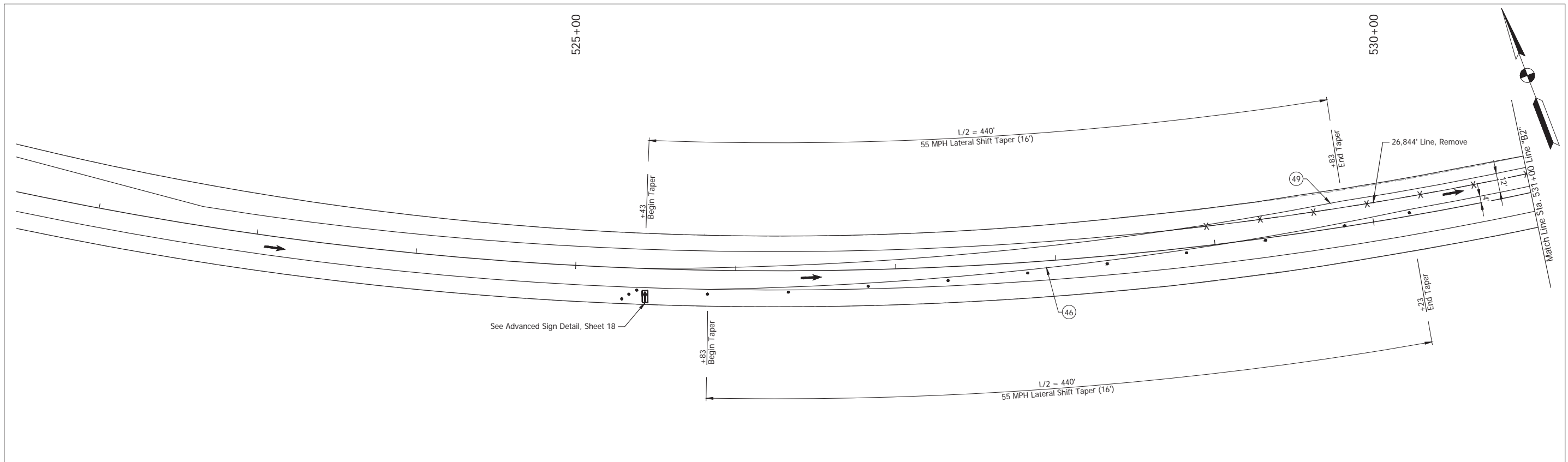
- LEGEND:**
- ① Temporary Pavement Marking, Removable, Solid, White, 4 in.
  - ② Temporary Pavement Marking, Removable, Solid, Yellow, 4 in.
  - ④ Temporary Pavement Marking, Solid, White, 4 in.
  - ⑤ Temporary Pavement Marking, Solid, Yellow, 4 in.
  - Barrels
  - Traffic Flow
  - ⊗ Construction Sign
  - ▨ Construction Area

Date: Apr 22, 2024, 7:45pm User Name: mmtaylor  
 File: X:\Production\Files\2024\1702997\1702997\1702997\Phase III.dwg - (NOT PH III - 02)

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 22, 2024	DATE
DESIGNED: MMT	DRAWN: RHK		
CHECKED: BSS	CHECKED: BJS		

**INDIANA**  
**DEPARTMENT OF TRANSPORTATION**  
  
**MAINTENANCE OF TRAFFIC**  
**PHASE III - EXIT TAPER**

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	25 of 308
CONTRACT	PROJECT
R-43381	2001886



**LEGEND:**

- Barrels
- ➔ Traffic Flow
- ⊗ Construction Sign
- ▨ Construction Area
- ④⑥ Temporary Pavement Marking, Solid, White, 4 in.
- ④⑨ Temporary Pavement Marking, Solid, Yellow, 4 in.

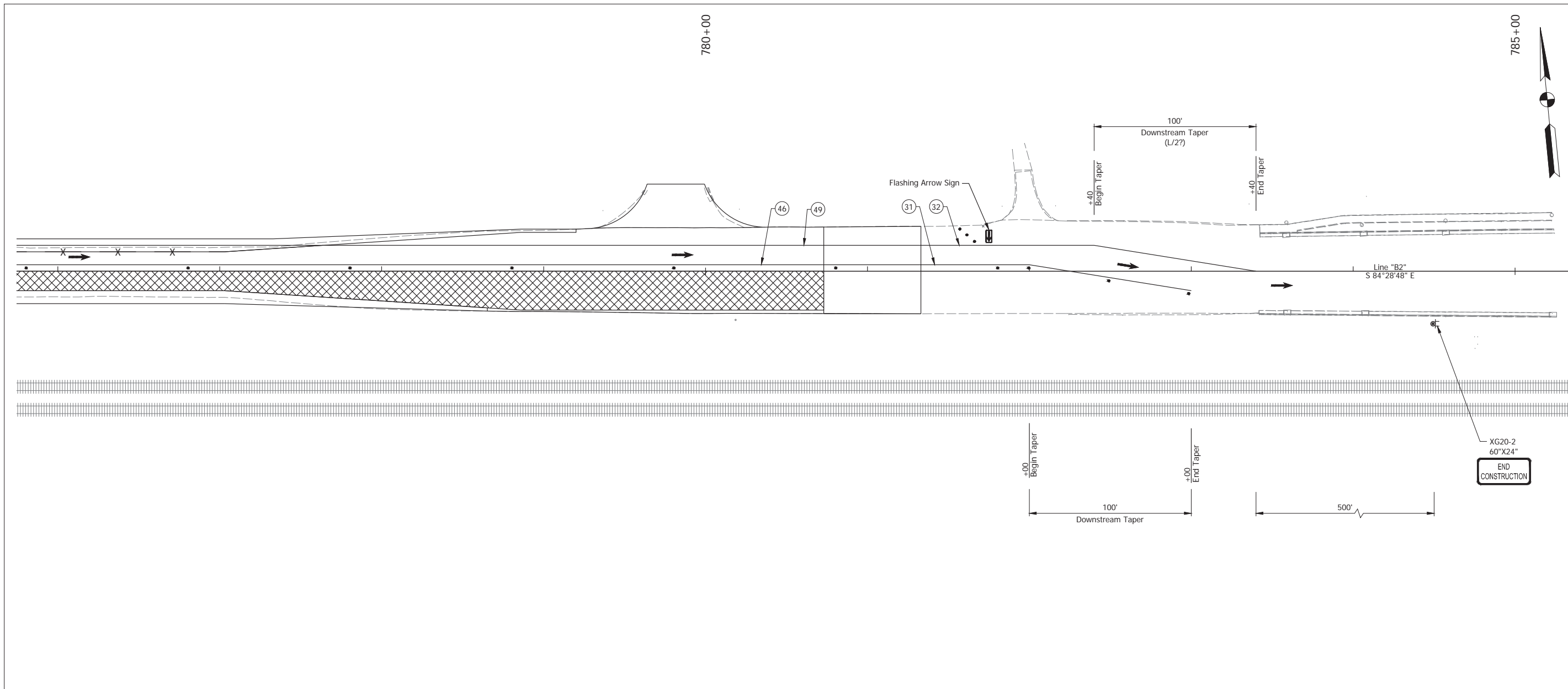
Date: Apr 22, 2024, 7:58pm User Name: mtd\jdc  
File: X:\Production\Files\2024\1702997\1702997\Phase IV - Entry Taper - (NOT FOR CONSTRUCTION) - (NOT FOR CONSTRUCTION) - (NOT FOR CONSTRUCTION)

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 22, 2024	DATE
DESIGNED: MMT	DRAWN: RHK		
CHECKED: BSS	CHECKED: BJS		

**INDIANA**  
**DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC**  
**PHASE IV - ENTRY TAPER**

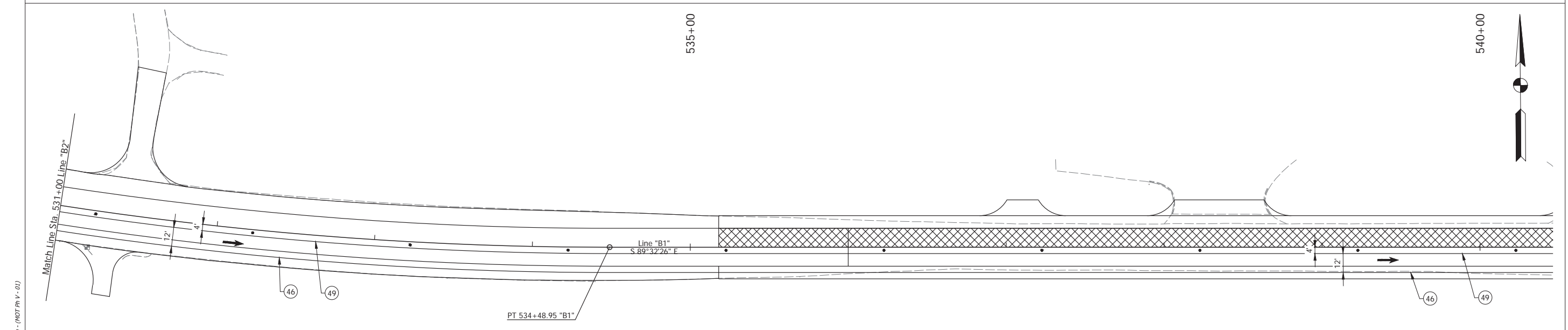
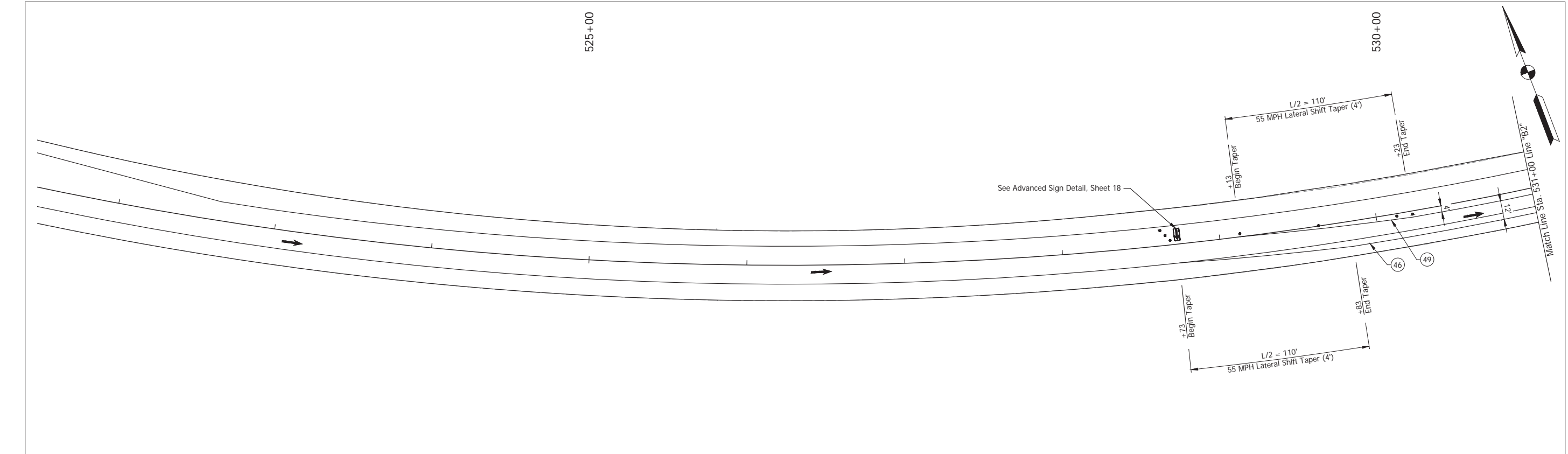
HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	26 of 308
CONTRACT	PROJECT
R-43381	2001886



Date: Apr 22, 2024, 7:59am User Name: mmtaylor  
 File: X:\Production\Files\2024\1121-2025\CD\Plan\SS\SLD\_CD\_HOT - Phase IV - (NOT PH IV - 02)

- LEGEND:**
- ① Temporary Pavement Marking, Removable, Solid, White, 4 in.
  - ② Temporary Pavement Marking, Removable, Solid, Yellow, 4 in.
  - ④ Temporary Pavement Marking, Solid, White, 4 in.
  - ⑤ Temporary Pavement Marking, Solid, Yellow, 4 in.
  - Barrels
  - Traffic Flow
  - ⊠ Construction Sign
  - ▨ Construction Area

<p>RECOMMENDED FOR APPROVAL _____ DATE: April 22, 2024</p> <p>DESIGN ENGINEER _____</p> <p>DESIGNED: _____ MMT DRAWN: _____ RHK</p> <p>CHECKED: _____ BSS CHECKED: _____ BJS</p>	<p><b>INDIANA</b>  <b>DEPARTMENT OF TRANSPORTATION</b></p> <p><b>MAINTENANCE OF TRAFFIC</b>  <b>PHASE IV - EXIT TAPER</b></p>	<p>HORIZONTAL SCALE: 1" = 30'</p> <p>VERTICAL SCALE: N/A</p> <p>SURVEY BOOK: ELECTRONIC 27 of 308</p> <p>CONTRACT: R-43381 PROJECT: 2001886/1702997</p>
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Date: Apr 22, 2024, 2:46pm User Name: mtaylor  
 File: X:\Production\Files\2024\1702997\1702997\Phase V.dwg - (NOT PH V-01)

**LEGEND:**

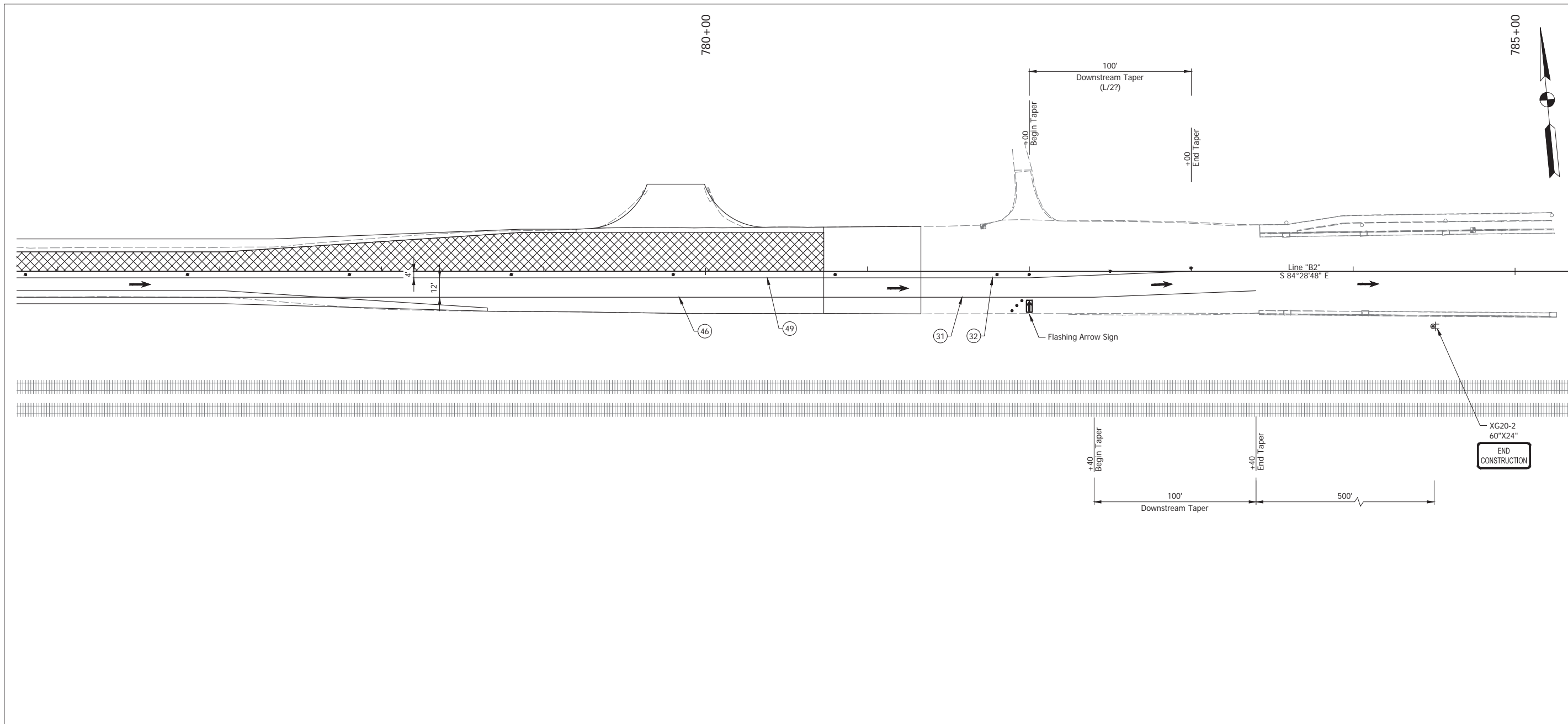
- Barrels
- Traffic Flow
- ⊗ Construction Sign
- ▨ Construction Area
- ④⑥ Temporary Pavement Marking, Solid, White, 4 in.
- ④⑨ Temporary Pavement Marking, Solid, Yellow, 4 in.

RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____		April 22, 2024 DATE	
DESIGNED: _____	MMT	DRAWN: _____	RHK		
CHECKED: _____	BSS	CHECKED: _____	BJS		

**INDIANA  
 DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC  
 PHASE V - ENTRY TAPER**

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	28 of 308
CONTRACT	PROJECT
R-43381	2001886



- LEGEND:**
- (31) Temporary Pavement Marking, Removable, Solid, White, 4 in.
  - (32) Temporary Pavement Marking, Removable, Solid, Yellow, 4 in.
  - (46) Temporary Pavement Marking, Solid, White, 4 in.
  - (49) Temporary Pavement Marking, Solid, Yellow, 4 in.
  - Barrels
  - Traffic Flow
  - ⊗ Construction Sign
  - ▨ Construction Area

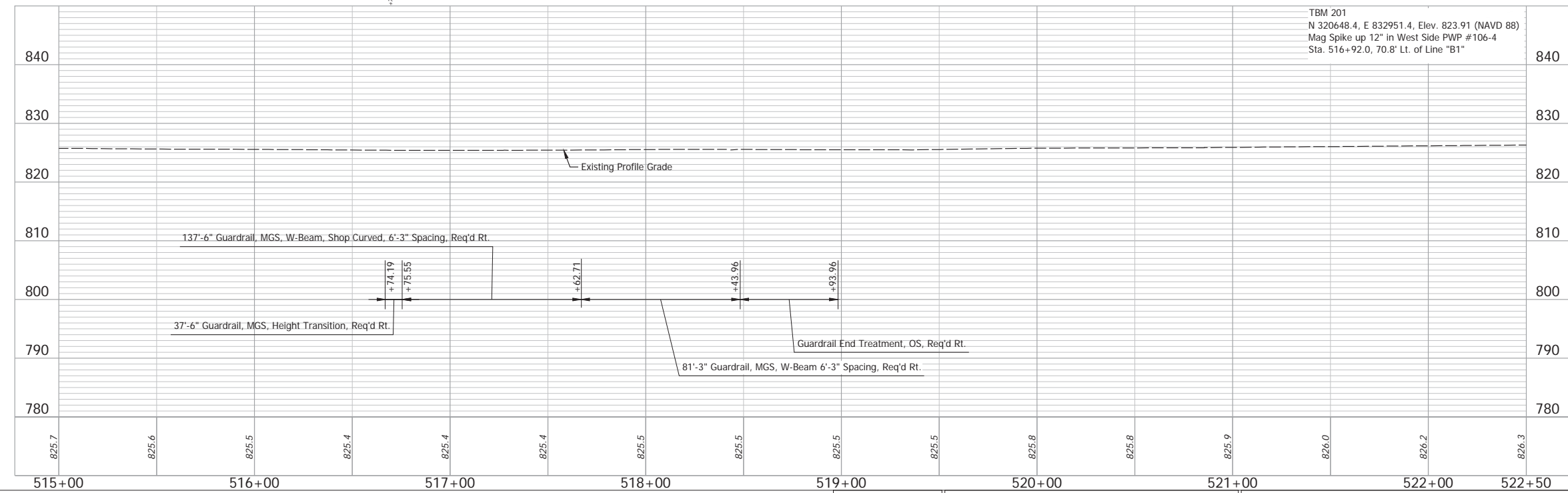
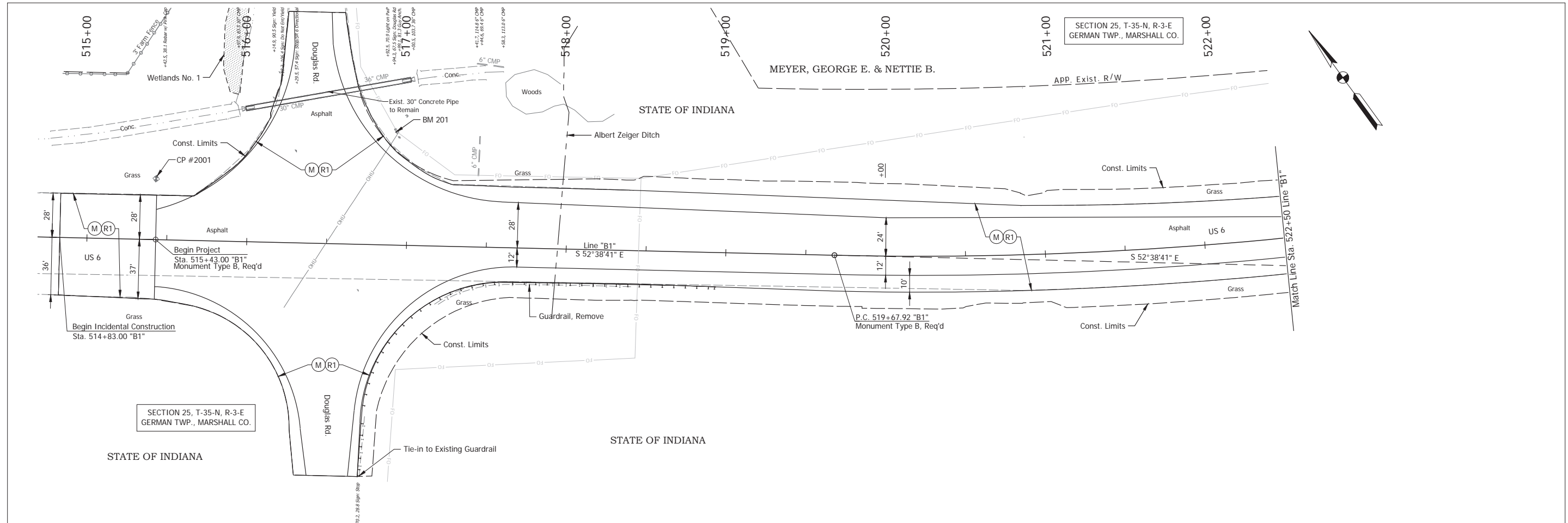
Date: Apr 22, 2024, 7:46pm User Name: mtdyde  
 File: X:\Production\Files\2024\1702997\1702997-Phase V-02 - Phase V.dwg - (NOT PH V-02)

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 22, 2024	DATE
DESIGNED: MMT	DRAWN: RHK		
CHECKED: BSS	CHECKED: BJS		

**INDIANA  
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC  
PHASE V - EXIT TAPER**

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	29 of 308
CONTRACT	PROJECT
R-43381	2001886



TBM 201  
 N 320648.4, E 832951.4, Elev. 823.91 (NAVD 88)  
 Mag Spike up 12" in West Side PWP #106-4  
 Sta. 516+92.0, 70.8' Lt. of Line "B1"

- (DES. NO. 2001886) LEGEND:
- (M) Milling, Asphalt, 1 1/2 in.
  - (R1) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on Variable QC/OA-HMA, 3, 58H, Intermediate, 19mm

Date: May 22, 2024, 8:46am User Name: Bryan.Szymour  
 File: X:\production\files\2024\1121-3035\CAD\Plans\B1-RD\_PlanProfile\_B1-01.dwg (R1P01)

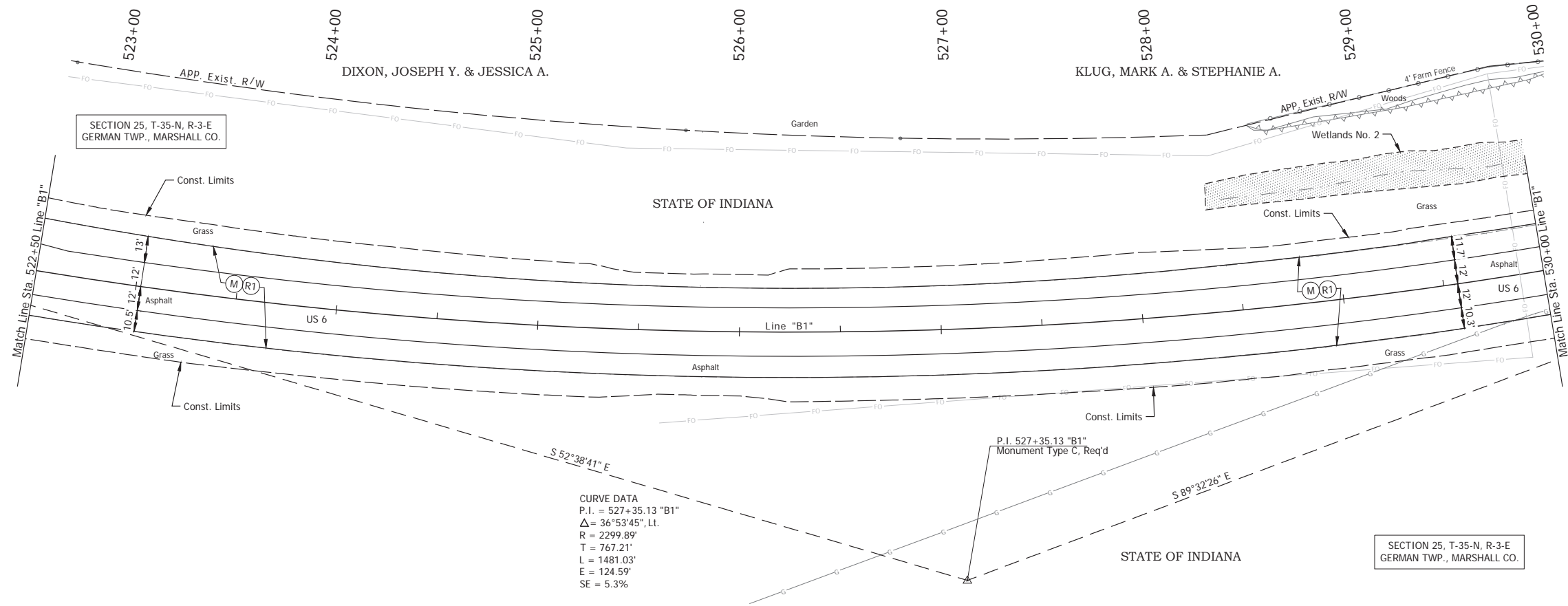
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

INDIANA  
 DEPARTMENT OF TRANSPORTATION

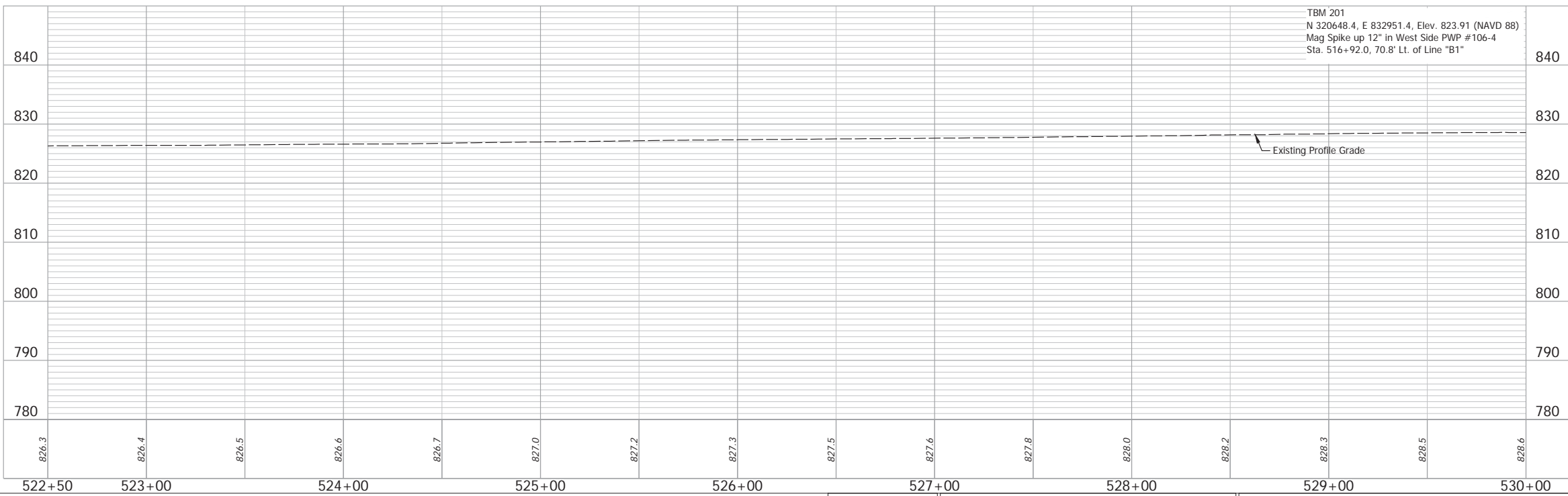
**PLAN AND PROFILE - LINE "B1"**  
 STA. 515+00 TO STA. 522+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	31 of 346
CONTRACT	PROJECT
R-43381	2001886





CURVE DATA  
 P.I. = 527+35.13 "B1"  
 $\Delta = 36^{\circ}53'45"$ , Lt.  
 R = 2299.89'  
 T = 767.21'  
 L = 1481.03'  
 E = 124.59'  
 SE = 5.3%



(DES. NO. 2001886) LEGEND:  
 (M) Milling, Asphalt, 1 1/2 in.  
 (R1) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on Variable QC/OA-HMA, 3, 58H, Intermediate, 19mm

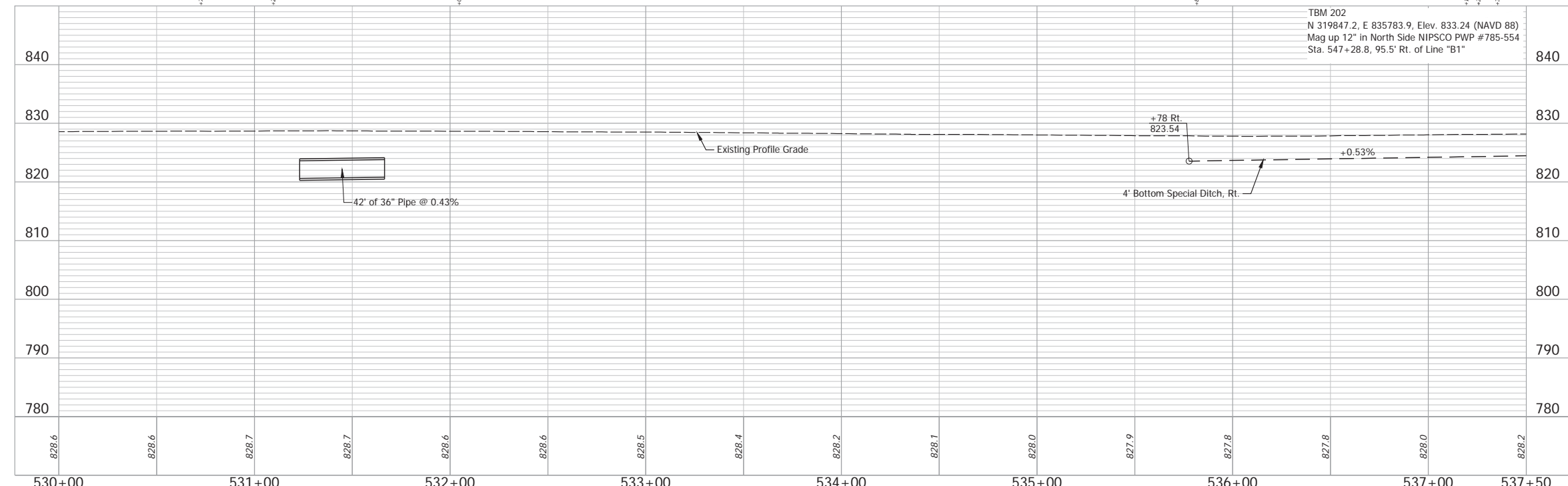
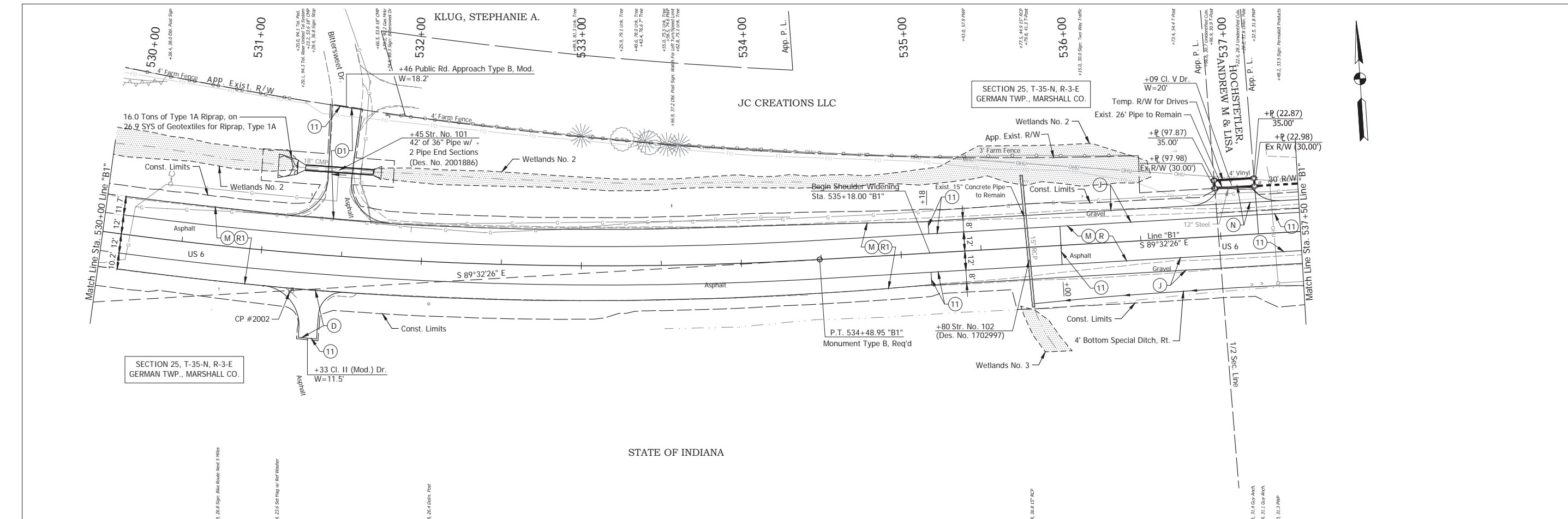
Date: May 22, 2024, 8:41am, User Name: Bryan.Symour  
 File: X:\production\files\2024\1121-3035\CAD\Plans\B1-01.dwg (R1P02)

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

**INDIANA**  
 DEPARTMENT OF TRANSPORTATION

**PLAN AND PROFILE - LINE "B1"**  
 STA. 522+50 TO STA. 530+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	32 of 346
CONTRACT	PROJECT
R-43381	2001886



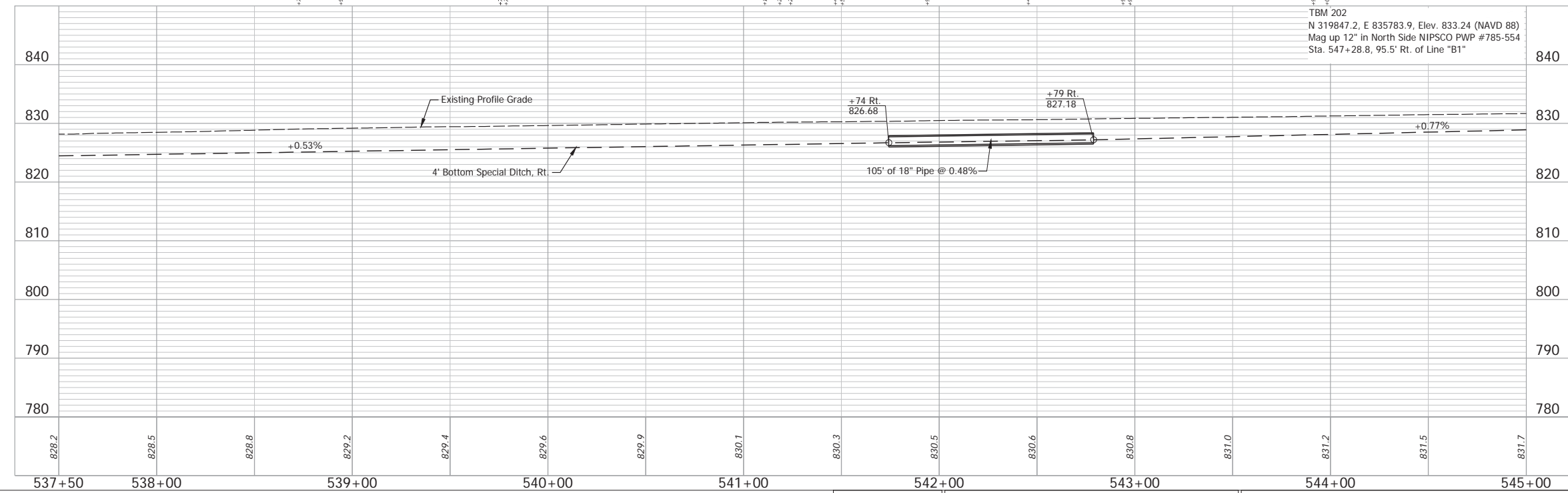
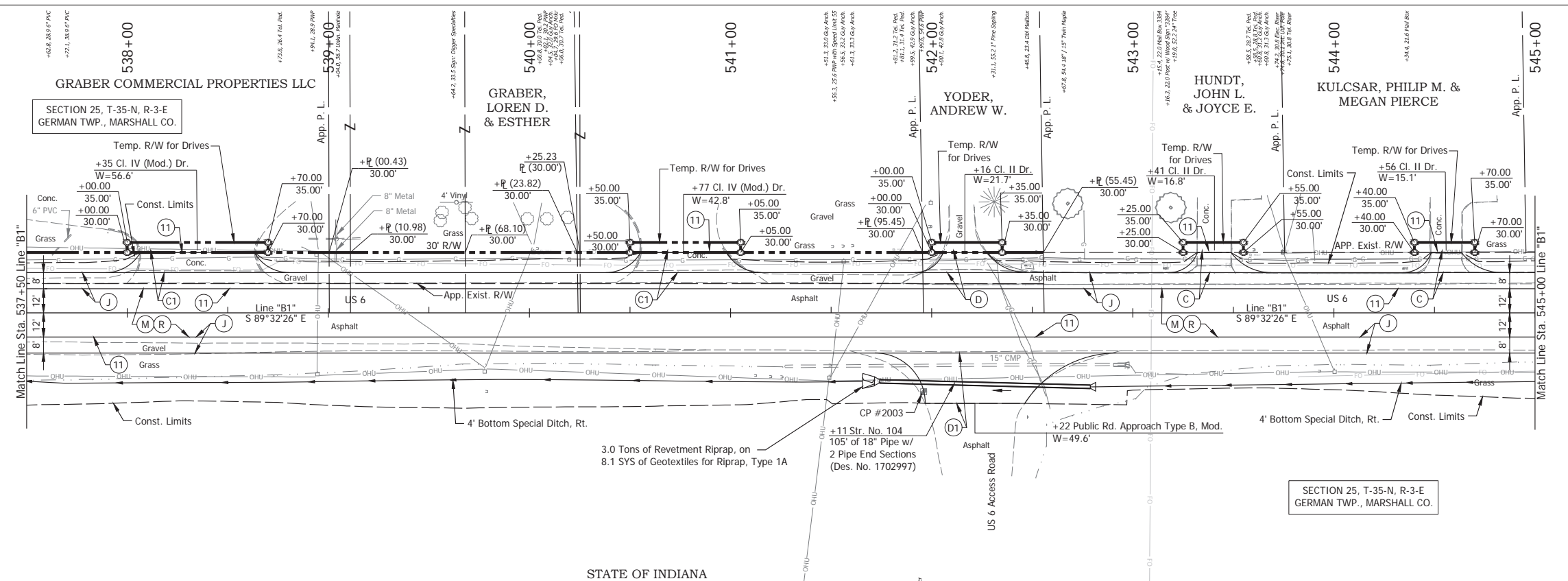
- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm
  - (R1) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on Variable QC/QA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (D) HMA for Approaches, Type B  
165 lbs/sys HMA Surface Type B on 275 lbs/sys HMA Intermediate Type B on 6" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (D1) HMA for Approaches, Type B  
165 lbs/sys HMA Surface Type B on 495 lbs/sys HMA Intermediate Type B on 4" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregate, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (N) Compacted Aggregate, No. 53, 6"
  - (11) Sawcut

Date: May 22, 2024, 8:41am User Name: Bryan.Symour  
 File: X:\production\files\2024\1121-5035\CAD\Plans\B1-01.dwg (P1003)

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

**INDIANA**  
**DEPARTMENT OF TRANSPORTATION**  
**PLAN AND PROFILE - LINE "B1"**  
**STA. 530+00 TO STA. 537+50**

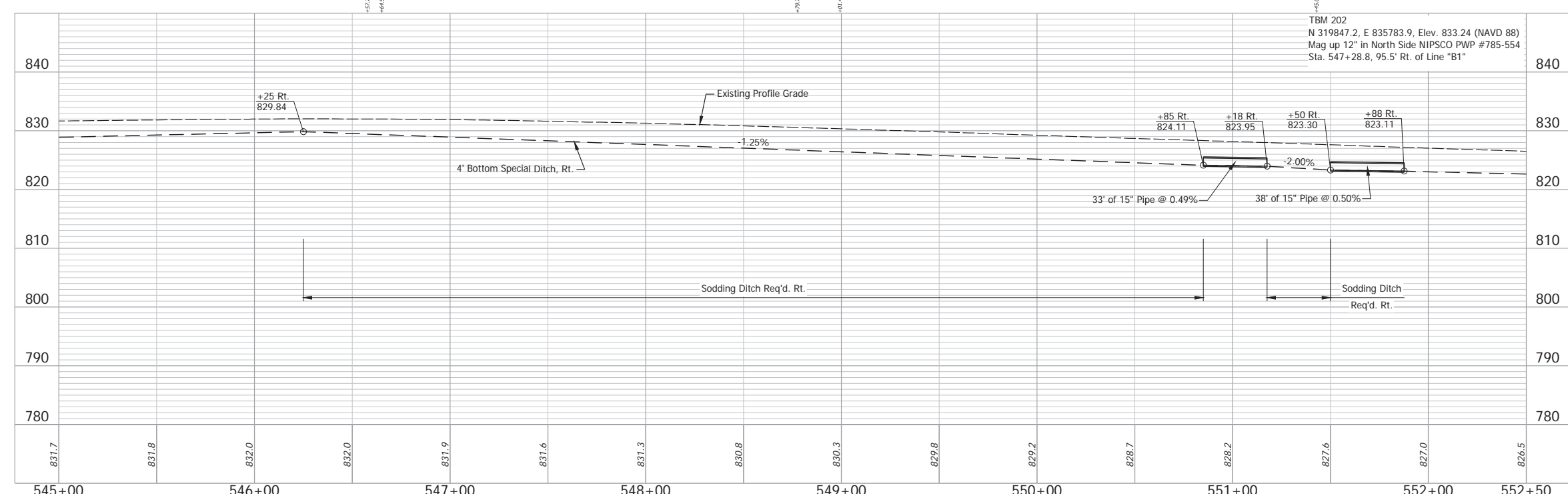
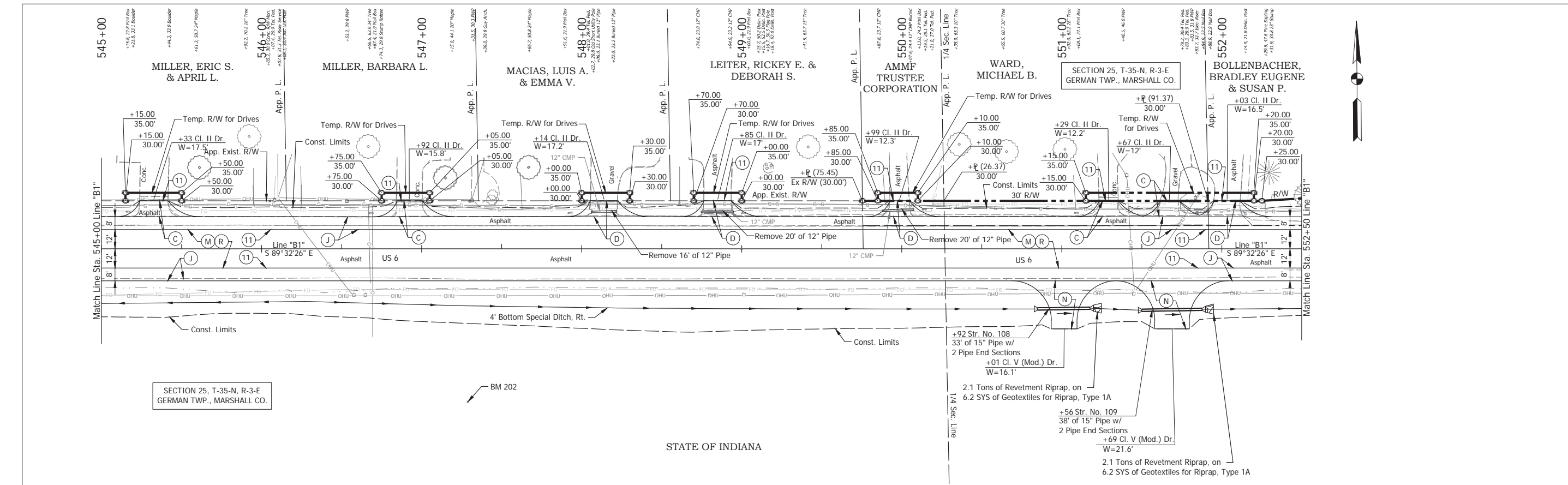
HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	33 of 346
CONTRACT	PROJECT
R-43381	2001886



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (C) PCCP for Approaches, 6 in., on Dense Graded Subbase, 6 in., on Subgrade Treatment Type II
  - (C1) PCCP for Approaches, 9 in., on Dense Graded Subbase, 6 in., on Geogrid Type 1B, on Subgrade Treatment Type II
  - (D) HMA for Approaches, Type B 165 lbs/sys HMA Surface Type B on 275 lbs/sys HMA Intermediate Type B on 6\" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (D1) HMA for Approaches, Type B 165 lbs/sys HMA Surface Type B on 495 lbs/sys HMA Intermediate Type B on 4\" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregate, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER		April 23, 2024	DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: MMT		DRAWN: DJG			1" = 30'	N/A
DESIGNED: MMT	DRAWN: DJG				PLAN AND PROFILE - LINE "B1" STA. 537+50 TO STA. 545+00	VERTICAL SCALE	DESIGNATION
CHECKED: BSS	CHECKED: BJS					1" = 10'	2001886/1702997
					INDIANA DEPARTMENT OF TRANSPORTATION	SURVEY BOOK	SHEET
						ELECTRONIC	34 of 346
						CONTRACT	PROJECT
					R-43381	2001886	

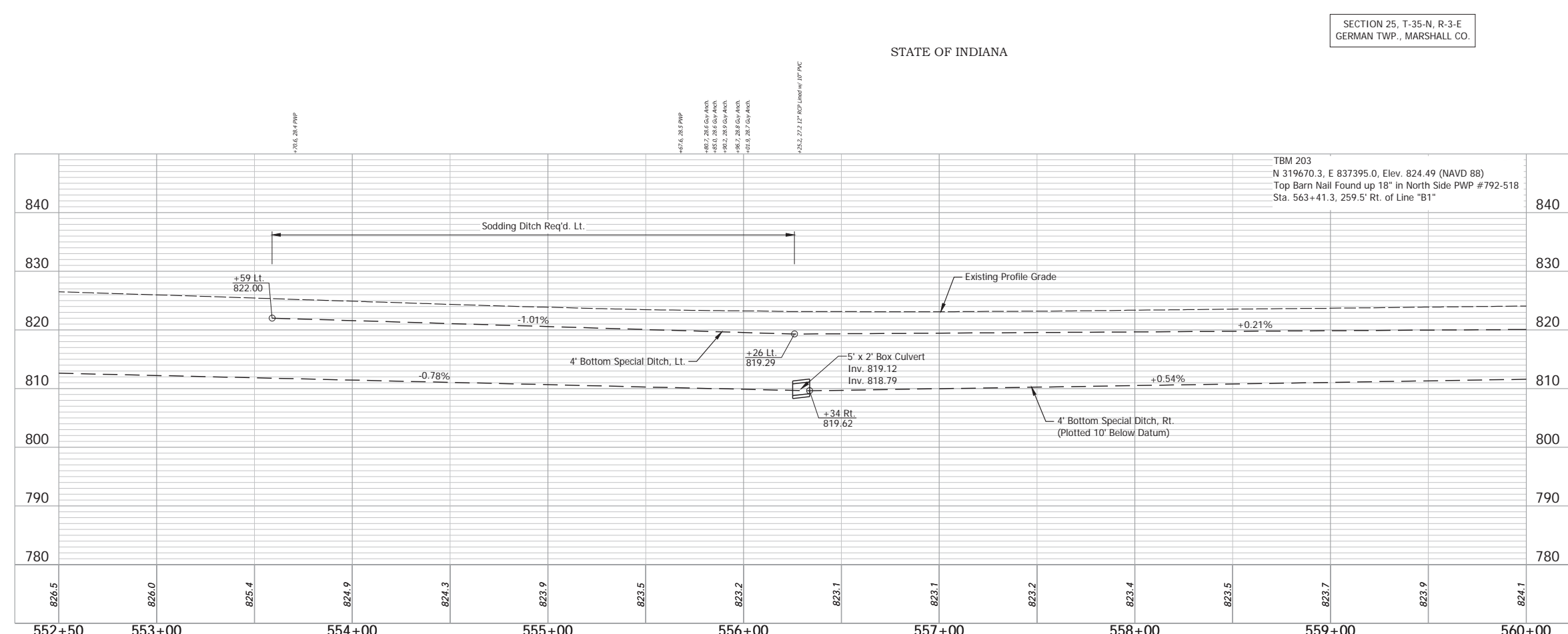
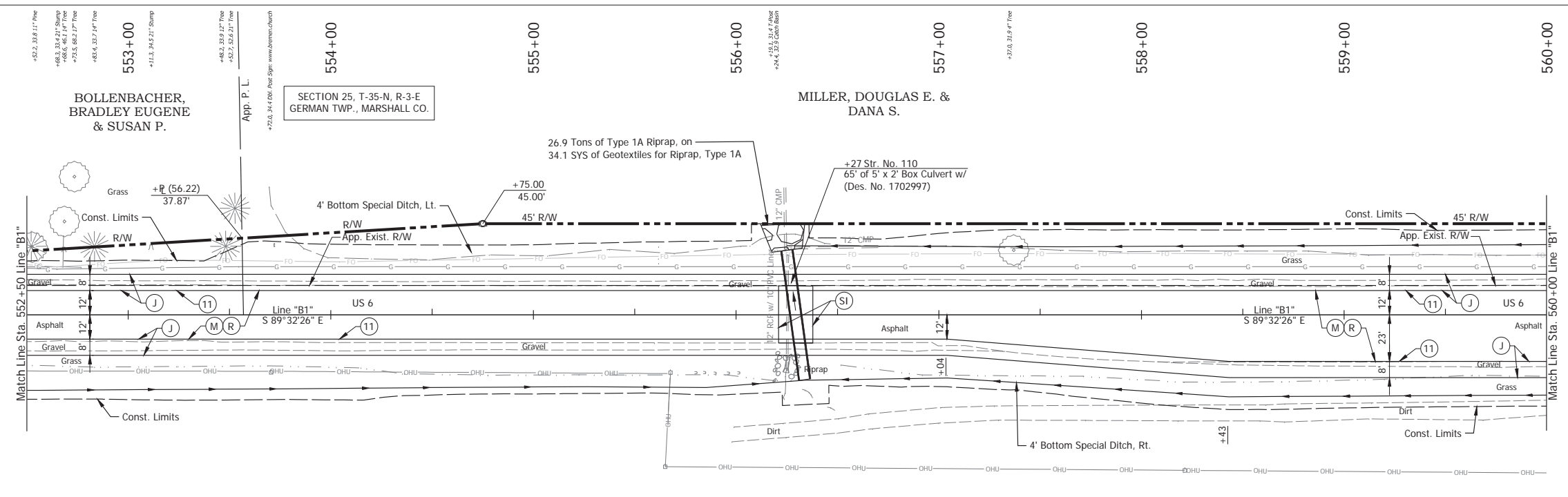
Date: May 22, 2024, 8:41am User Name: Bryan.Symour  
 File: X:\production\files\2021121-2025\GAD\Plans\SHL\_RD\_Plan\Profile\_B1-01.dwg (RWD)



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (C) PCCP for Approaches, 6 in., on Dense Graded Subbase, 6 in., on Subgrade Treatment Type II
  - (D) HMA for Approaches, Type B 165 lbs/sys HMA Surface Type B on 275 lbs/sys HMA Intermediate Type B on 6" Compacted Aggregate, No. 53, on Subgrade Treatment, Type II
  - (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (N) Compacted Aggregate, No. 53, 6"
  - (11) Sawcut

RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____ DATE April 23, 2024		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 30'		BRIDGE FILE N/A	
DESIGNED: MMT		DRAWN: DJG				VERTICAL SCALE 1" = 10'		DESIGNATION 2001886/1702997	
CHECKED: BSS		CHECKED: BJS		PLAN AND PROFILE - LINE "B1" STA. 545+00 TO STA. 552+50		SURVEY BOOK ELECTRONIC		SHEET 35 of 346	
						CONTRACT R-43381		PROJECT 2001886	

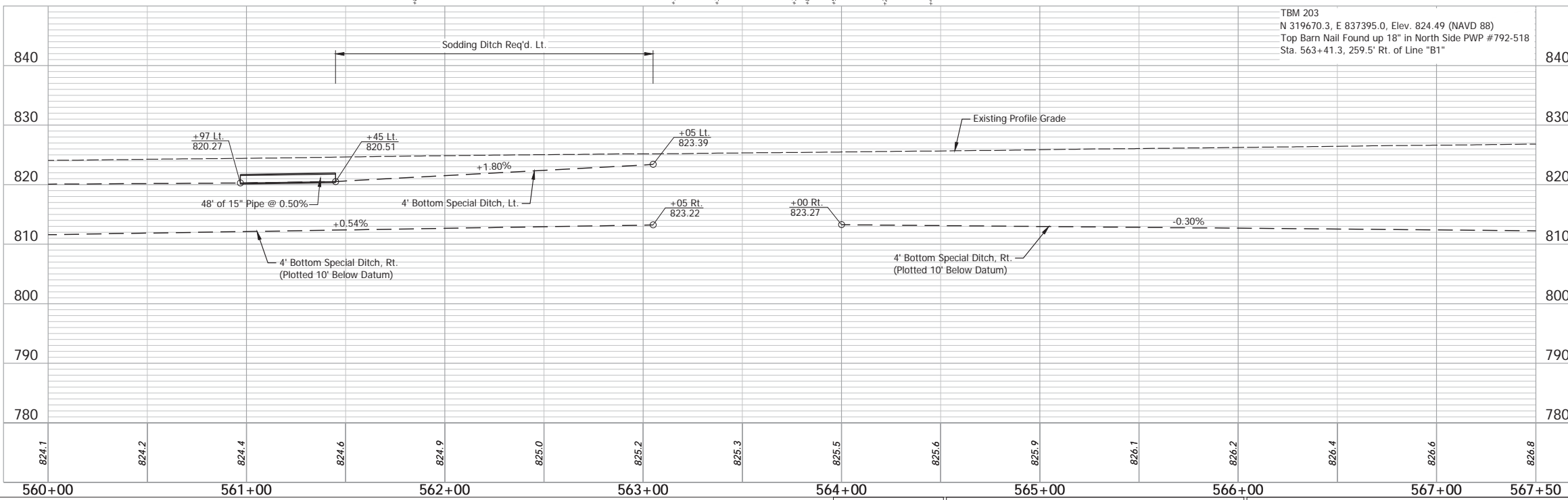
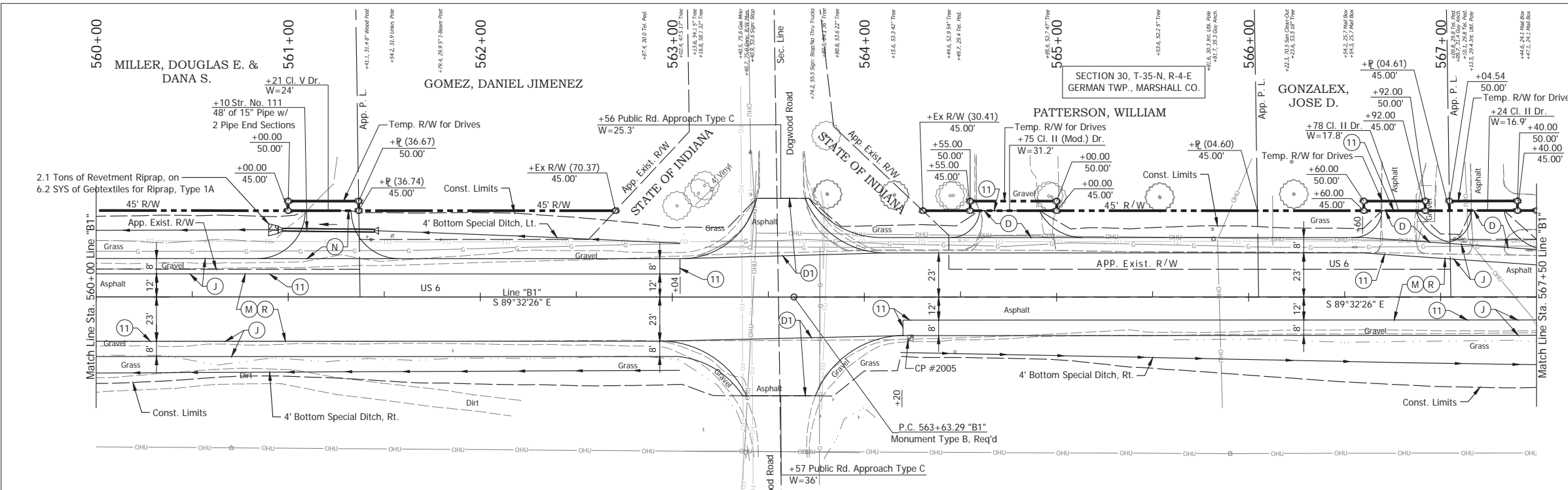
Date: May 22, 2024, 8:41am User Name: Bryan.Symour  
 File: X:\production\files\2024\1121-5035\CD\Plans\B1-01.dwg (PWP05)



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (SI) HMA for Structure Installation: 330 lbs/sys QC/OA-HMA Intermediate, 3, 58H, 19mm on 770 lbs/sys QC/OA-HMA Base, 3, 58S, 19mm on Subgrade Treatment, Type II
  - (11) Sawcut

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		APRIL 23, 2024 DATE	
DESIGNED: MMT	DRAWN: DJG	INDIANA DEPARTMENT OF TRANSPORTATION			
CHECKED: BSS	CHECKED: BJS	PLAN AND PROFILE - LINE "B1" STA. 552+50 TO STA. 560+00			
HORIZONTAL SCALE 1" = 30'		BRIDGE FILE N/A		SURVEY BOOK ELECTRONIC 36 of 346	
VERTICAL SCALE 1" = 10'		DESIGNATION 2001886/1702997		CONTRACT PROJECT R-43381 2001886	

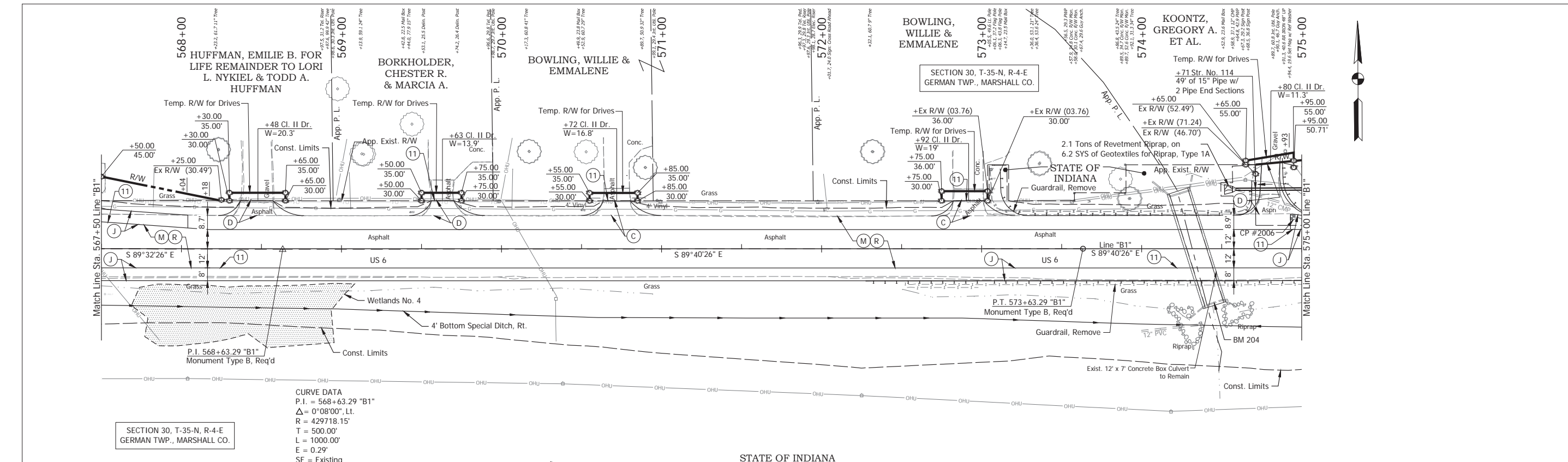
Date: May 22, 2024, 8:42am User Name: Blynn.Szymour  
 File: X:\production\files\2024\1702997\2001886\B1-01.dwg (PWP)



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (D) HMA for Approaches, Type B  
165 lbs/sys HMA Surface Type B on 275 lbs/sys HMA Intermediate Type B on 6" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (D1) HMA for Approaches, Type B  
165 lbs/sys HMA Surface Type B on 495 lbs/sys HMA Intermediate Type B on 4" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (N) Compacted Aggregate, No. 53, 6"
  - (11) Sawcut

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____ DATE April 23, 2024	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
		DESIGNED: _____ MMT	DRAWN: _____ DJG	VERTICAL SCALE 1" = 10'	DESIGNATION 2001886/1702997
CHECKED: _____ BSS	CHECKED: _____ BJS	PLAN AND PROFILE - LINE "B1" STA. 560+00 TO STA. 567+50		SURVEY BOOK ELECTRONIC	SHEET 37 of 346
				CONTRACT R-43381	PROJECT 2001886

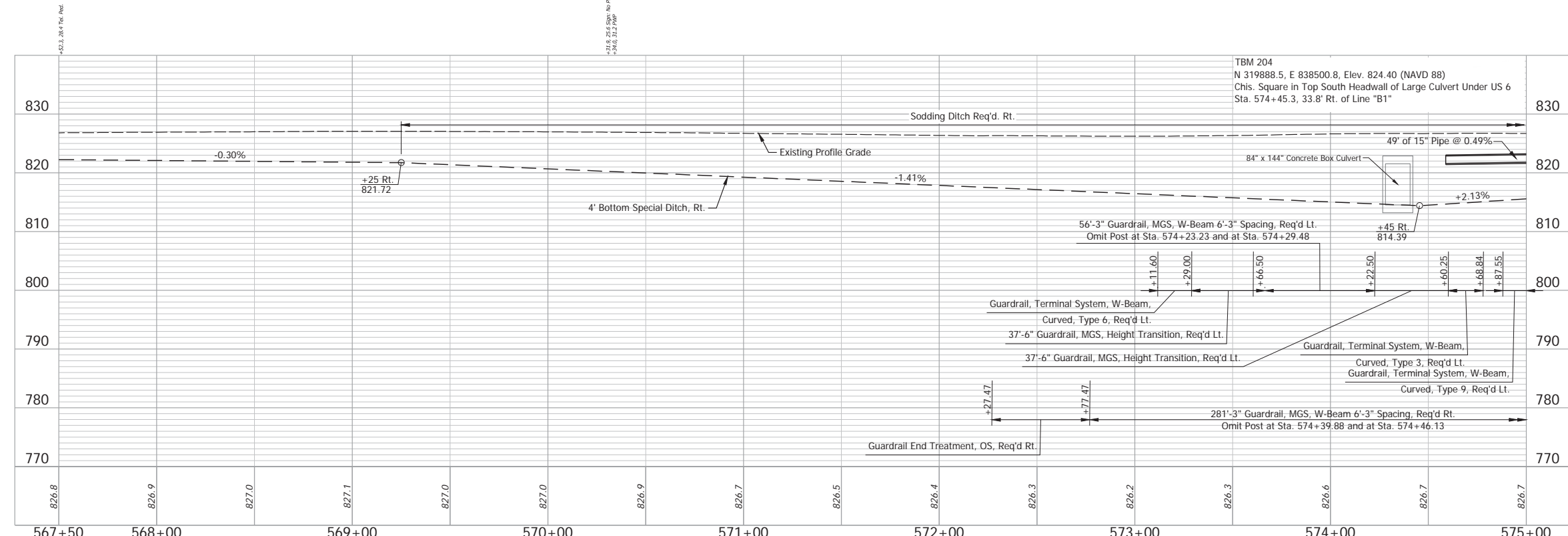
Date: May 22, 2024, 8:42am User Name: Bryan.Symour  
File: X:\production\files\2024\1721-3035\CAD\Plans\B1-01.dwg (PWP07)



SECTION 30, T-35-N, R-4-E  
GERMAN TWP., MARSHALL CO.

**CURVE DATA**  
 P.I. = 568+63.29 "B1"  
 $\Delta = 0^{\circ}08'00"$ , Lt.  
 R = 429718.15'  
 T = 500.00'  
 L = 1000.00'  
 E = 0.29'  
 SE = Existing

STATE OF INDIANA



TBM 204  
 N 319888.5, E 838500.8, Elev. 824.40 (NAVD 88)  
 Chis. Square in Top South Headwall of Large Culvert Under US 6  
 Sta. 574+45.3, 33.8' Rt. of Line "B1"

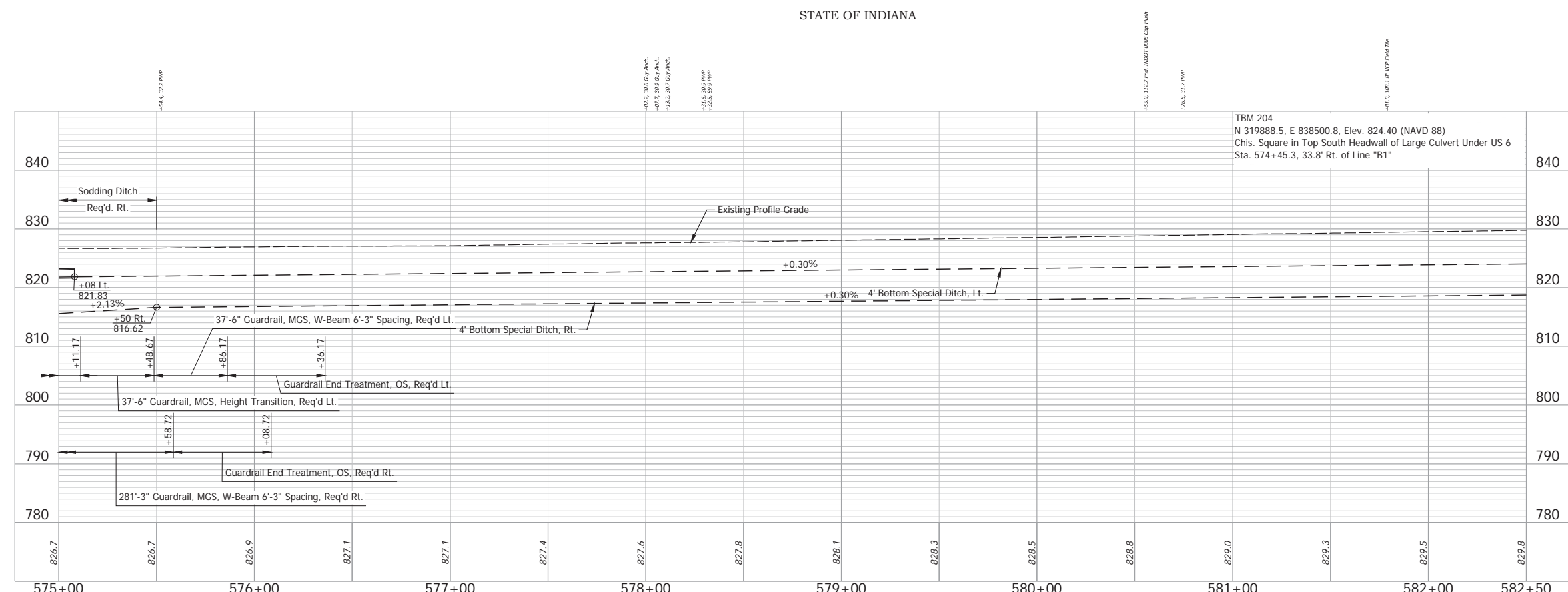
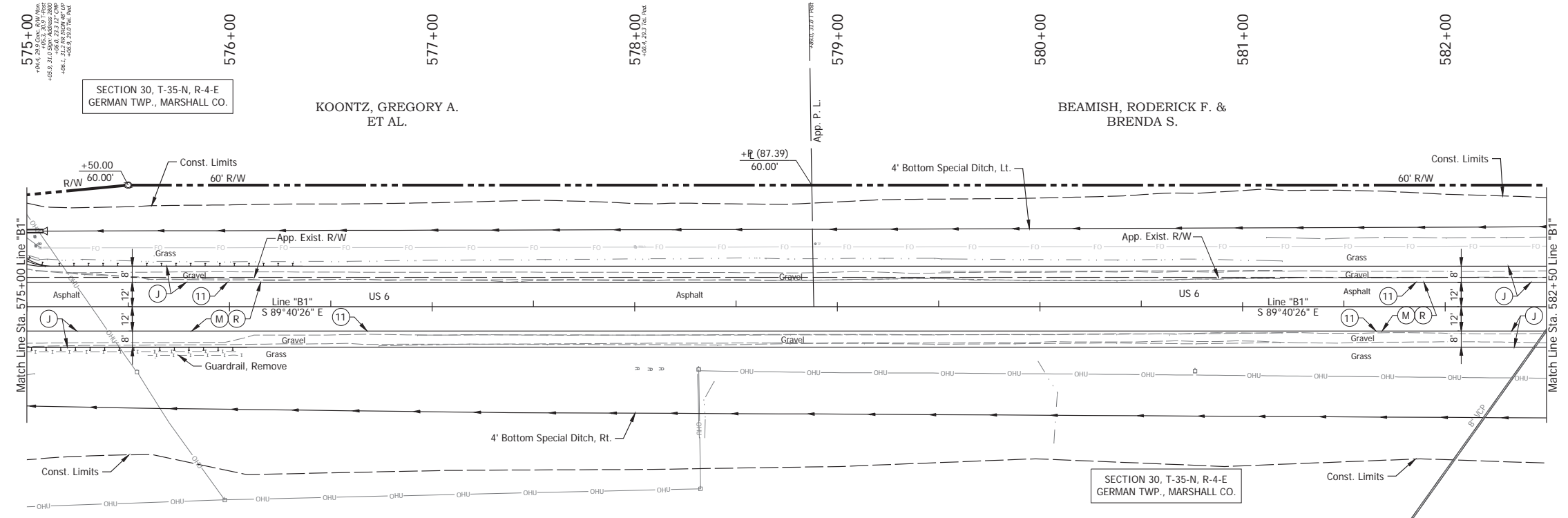
- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (C) PCCP for Approaches, 6 in., on Dense Graded Subbase, 6 in., on Subgrade Treatment Type II
  - (D) HMA for Approaches, Type B 165 lbs/sys HMA Surface Type B on 275 lbs/sys HMA Intermediate Type B on 6" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

INDIANA  
 DEPARTMENT OF TRANSPORTATION  
 PLAN AND PROFILE - LINE "B1"  
 STA. 567+50 TO STA. 575+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	38 of 346
CONTRACT	PROJECT
R-43381	2001886

Date: May 22, 2024, 8:42am User Name: Bryan.Symour  
 File: X:\production\files\20211221-2025\GD\Plans\B1-01.dwg (PWP00)



- (DES. NO. 2001886) LEGEND:
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:
- (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

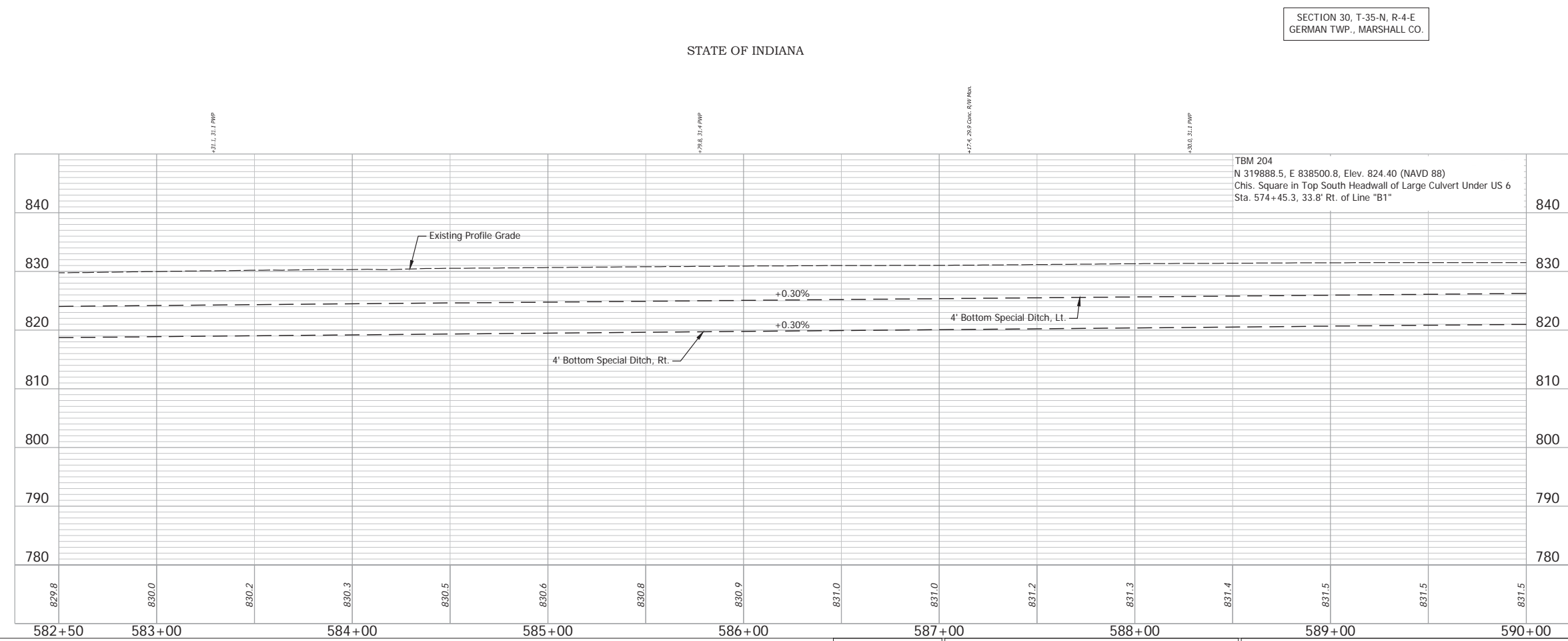
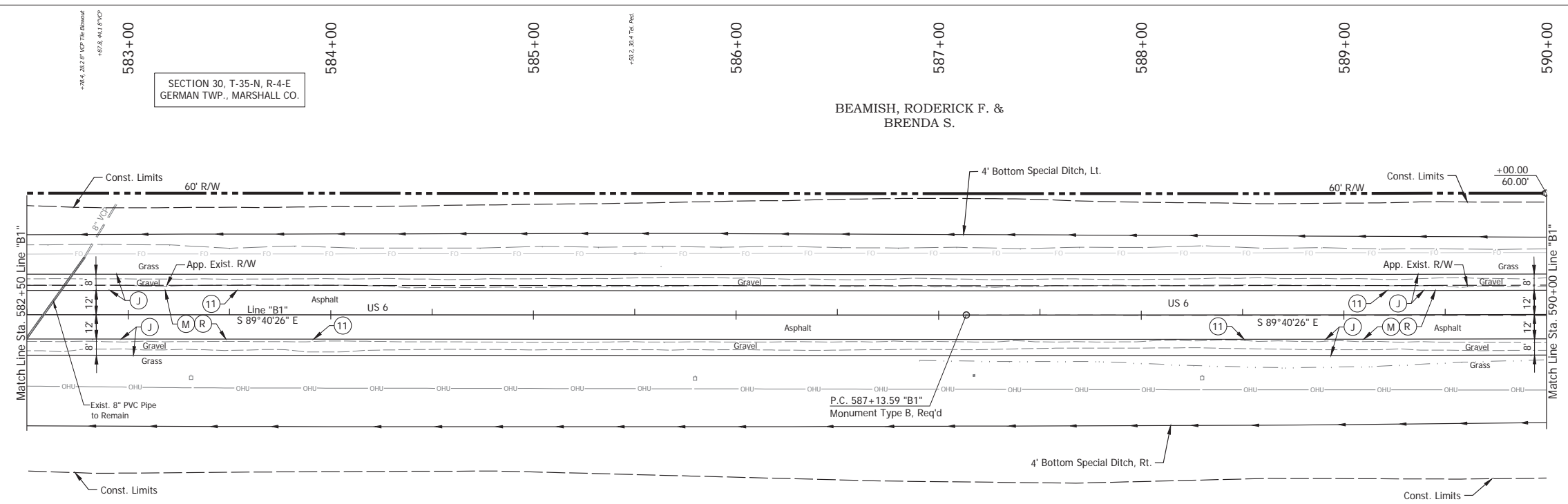
Date: May 22, 2024, 8:42am, User Name: Bryan.Symour  
 File: X:\production\files\20211221-2025\GAD\Plans\B1-01.dwg (P1909)

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

**INDIANA**  
**DEPARTMENT OF TRANSPORTATION**  
**PLAN AND PROFILE - LINE "B1"**  
**STA. 575+00 TO STA. 582+50**

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	39 of 346
CONTRACT	PROJECT
R-43381	2001886





- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

SECTION 30, T-35-N, R-4-E  
GERMAN TWP., MARSHALL CO.

STATE OF INDIANA

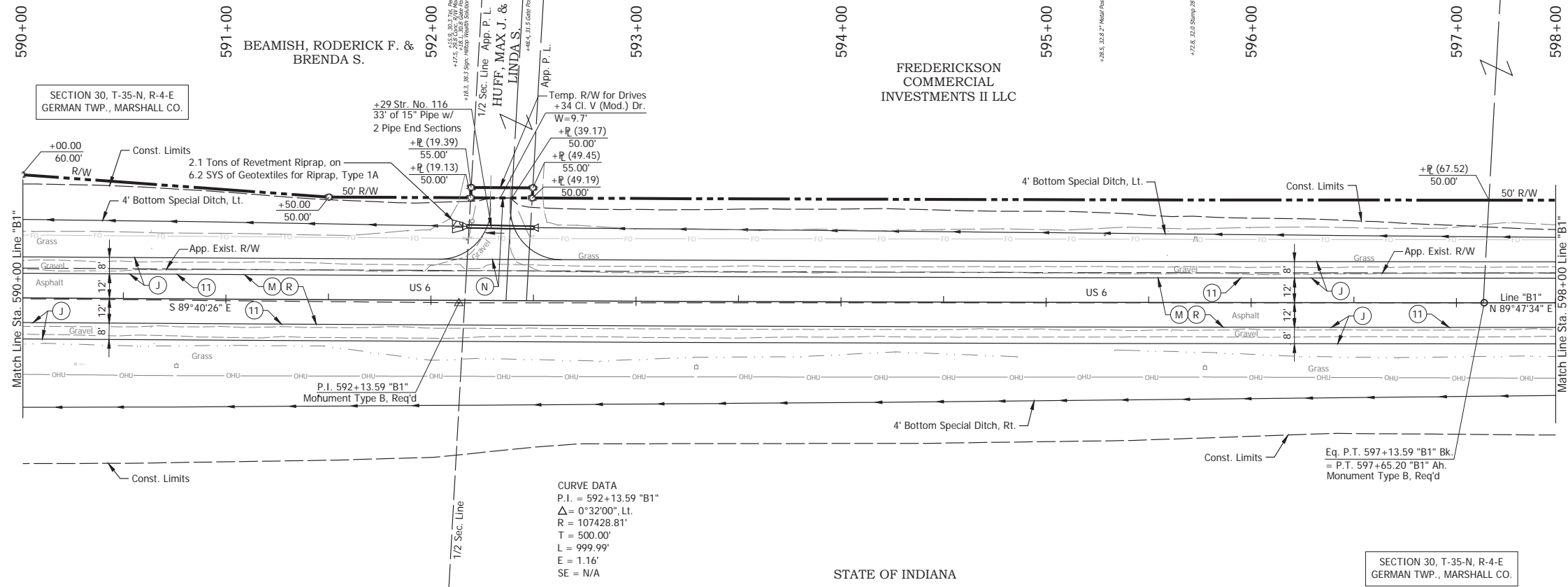
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
		April 23, 2024
DESIGNED: MMT	DRAWN: DJG	
CHECKED: BSS	CHECKED: BJS	

INDIANA  
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "B1"  
STA. 582+50 TO STA. 590+00

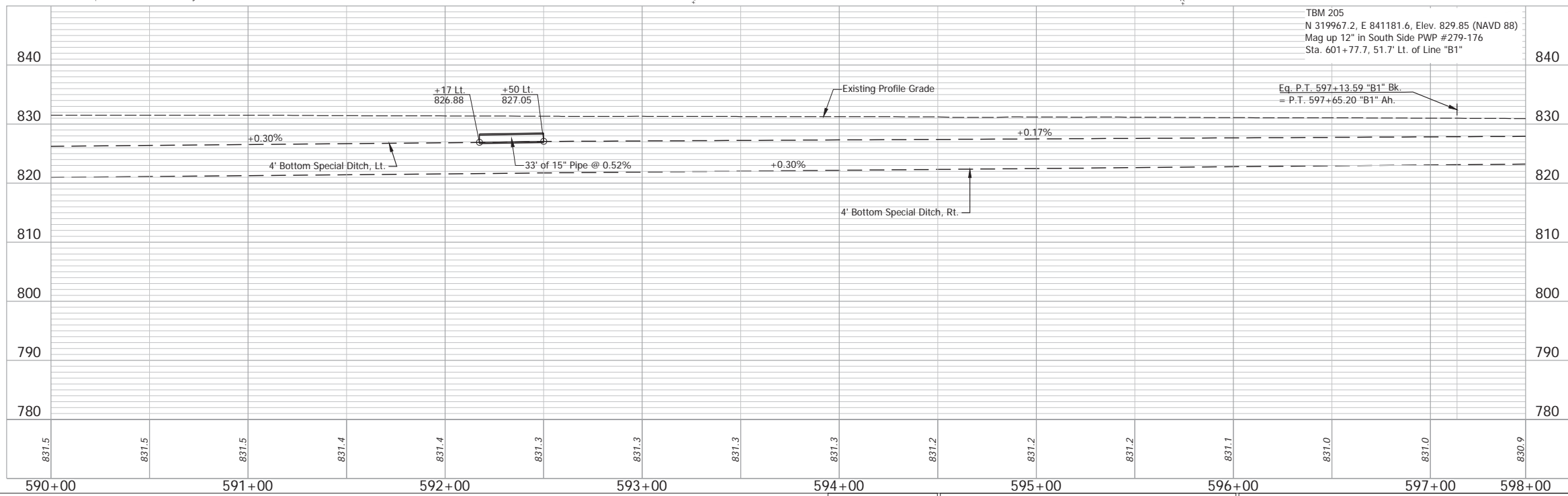
HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	40 of 346
CONTRACT	PROJECT
R-43381	2001886

Date: May 22, 2024, 8:43am User Name: Bryan.Symour  
File: X:\production\files\2024\1121-303\CAD\Plans\B1-01.dwg (P19/10)



CURVE DATA  
 P.I. = 592+13.59 "B1"  
 $\Delta = 0^\circ 32' 00"$ , Lt.  
 $R = 107428.81'$   
 $T = 500.00'$   
 $L = 999.99'$   
 $E = 1.16'$   
 SE = N/A

SECTION 30, T-35-N, R-4-E  
 GERMAN TWP., MARSHALL CO.



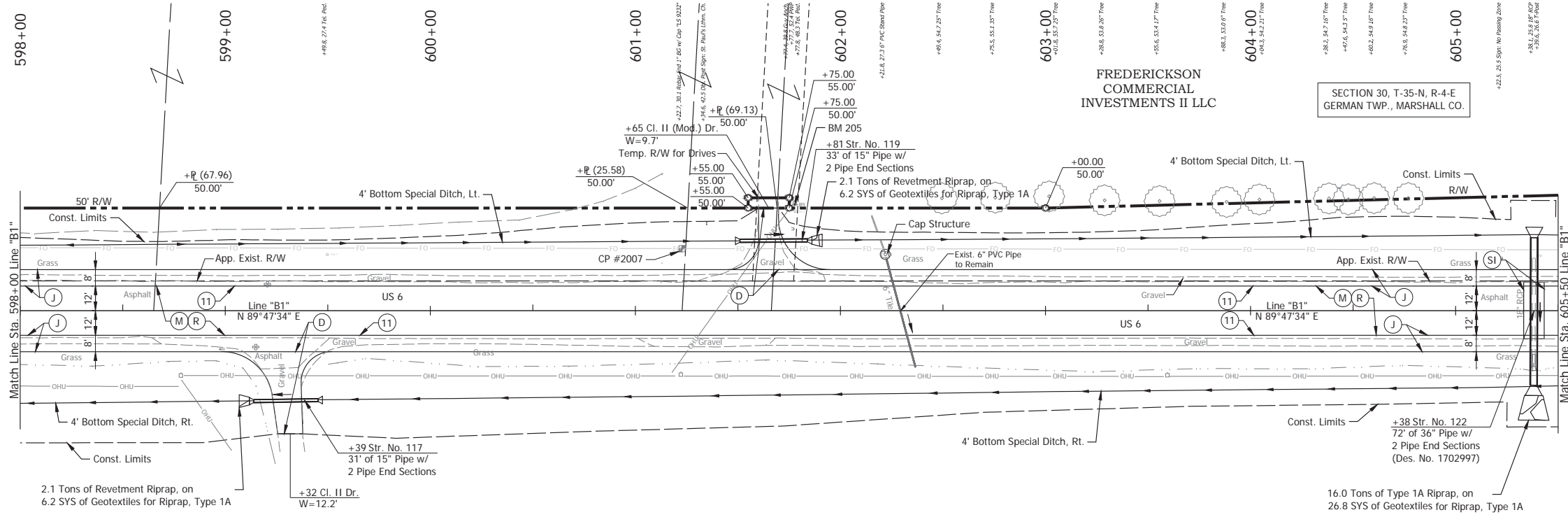
- (DES. NO. 2001886) LEGEND:
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:
- (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregate, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (N) Compacted Aggregate, No. 53, 6"
  - (11) Sawcut

Date: May 22, 2024, 8:46am User Name: Bryan.Symour  
 File: X:\production\files\2024\1702997\1702997\_PlanProfile\_B1-02.dwg (P11)

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

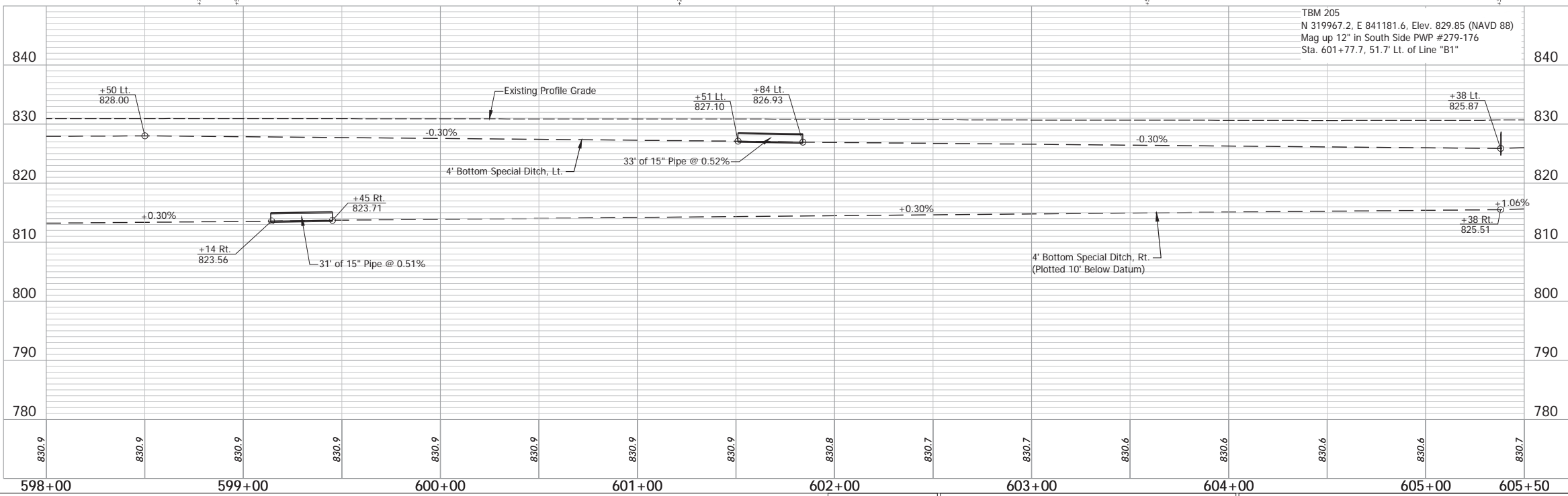
INDIANA  
 DEPARTMENT OF TRANSPORTATION  
 PLAN AND PROFILE - LINE "B1"  
 STA. 590+00 TO STA. 598+00

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	41 of 346
CONTRACT	PROJECT
R-43381	2001886



SECTION 30, T-35-N, R-4-E  
GERMAN TWP., MARSHALL CO.

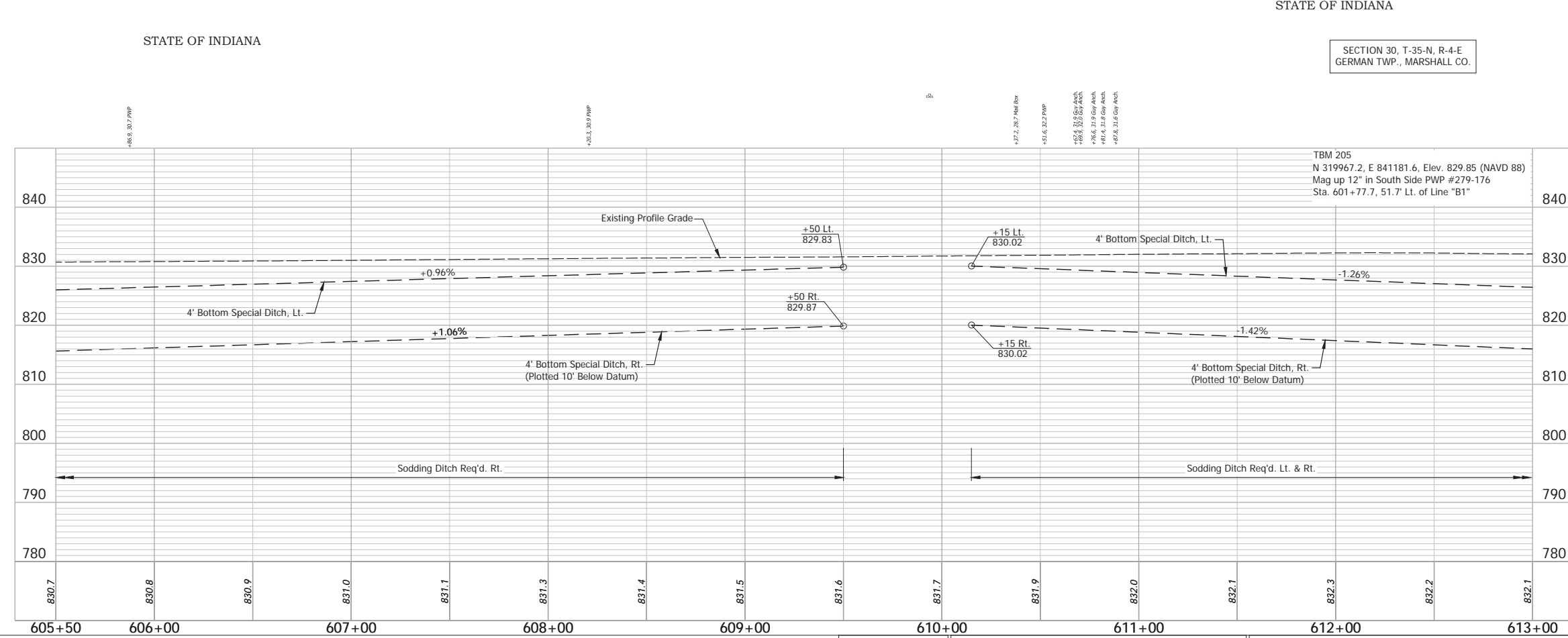
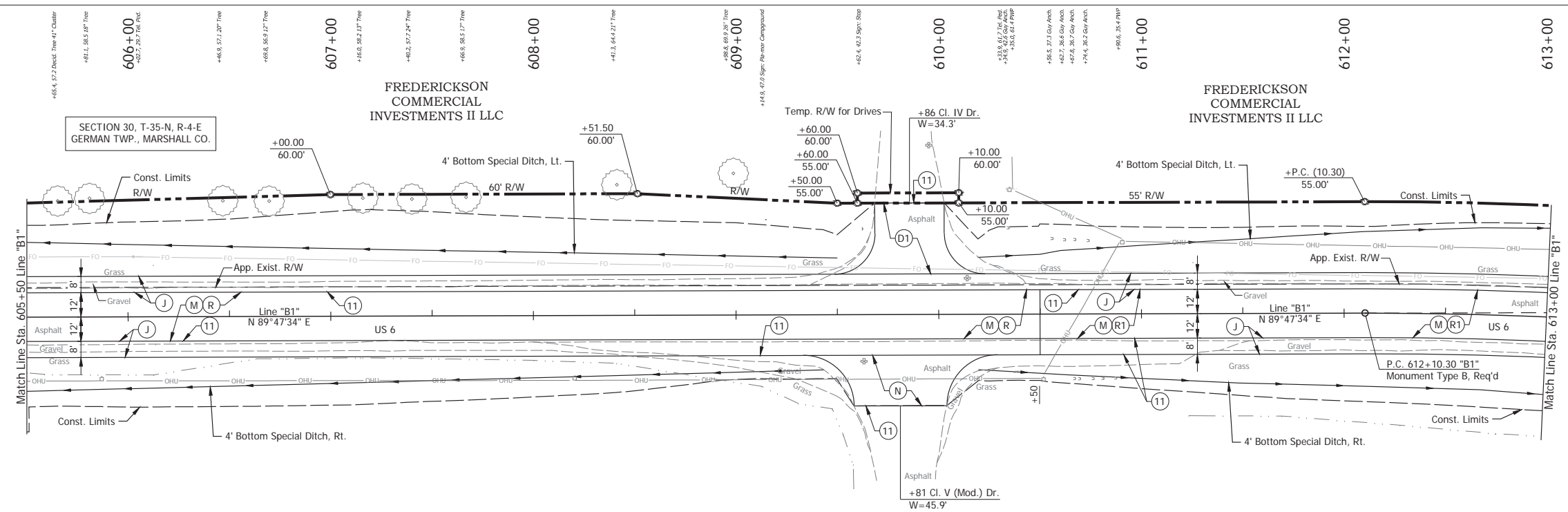
STATE OF INDIANA



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (D) HMA for Approaches, Type B  
165 lbs/sys HMA Surface Type B on 275 lbs/sys HMA Intermediate Type B on 6" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm  
330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm  
330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (SI) HMA for Structure Installation:  
330 lbs/sys QC/OA-HMA Intermediate, 3, 58H, 19mm on 770 lbs/sys QC/OA-HMA Base, 3, 58S, 19mm on Subgrade Treatment, Type II
  - (N) Compacted Aggregate, No. 53, 6"
  - (11) Sawcut

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE April 23, 2024	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
DESIGNED: _____	MMT	DRAWN: _____		DJG	VERTICAL SCALE 1" = 10'
CHECKED: _____	BSS	CHECKED: _____	BJS	SURVEY BOOK _____	
PLAN AND PROFILE - LINE "B1" STA. 598+00 TO STA. 605+50				ELECTRONIC	42 of 346
				CONTRACT	R-43381
				PROJECT	2001886

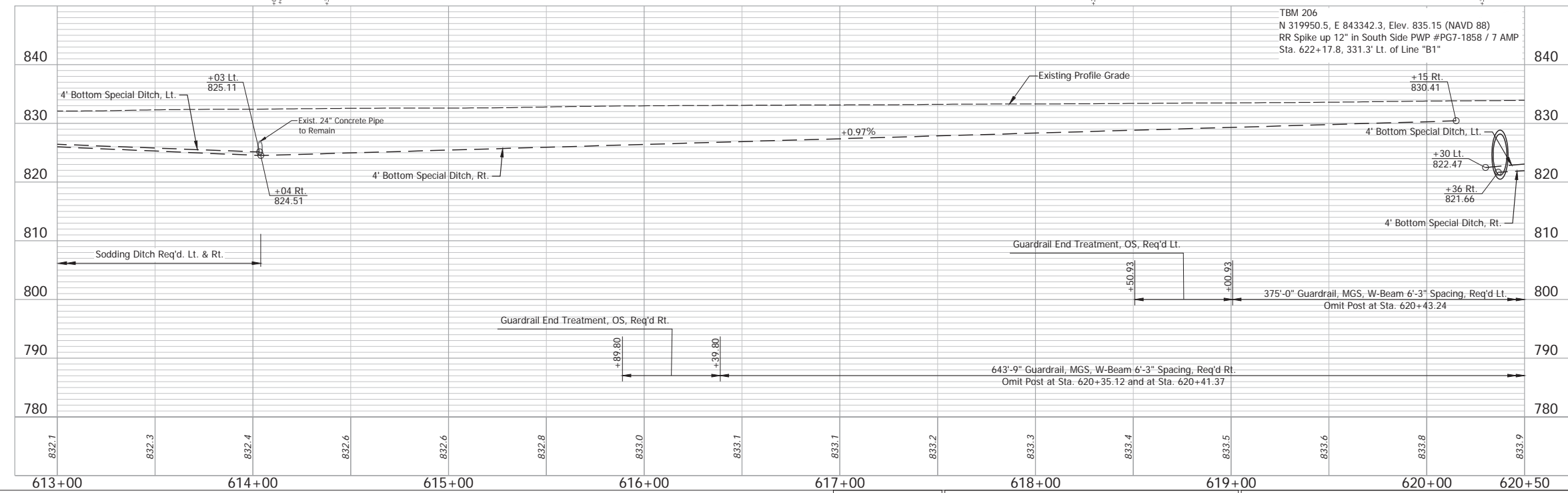
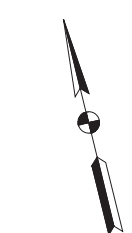
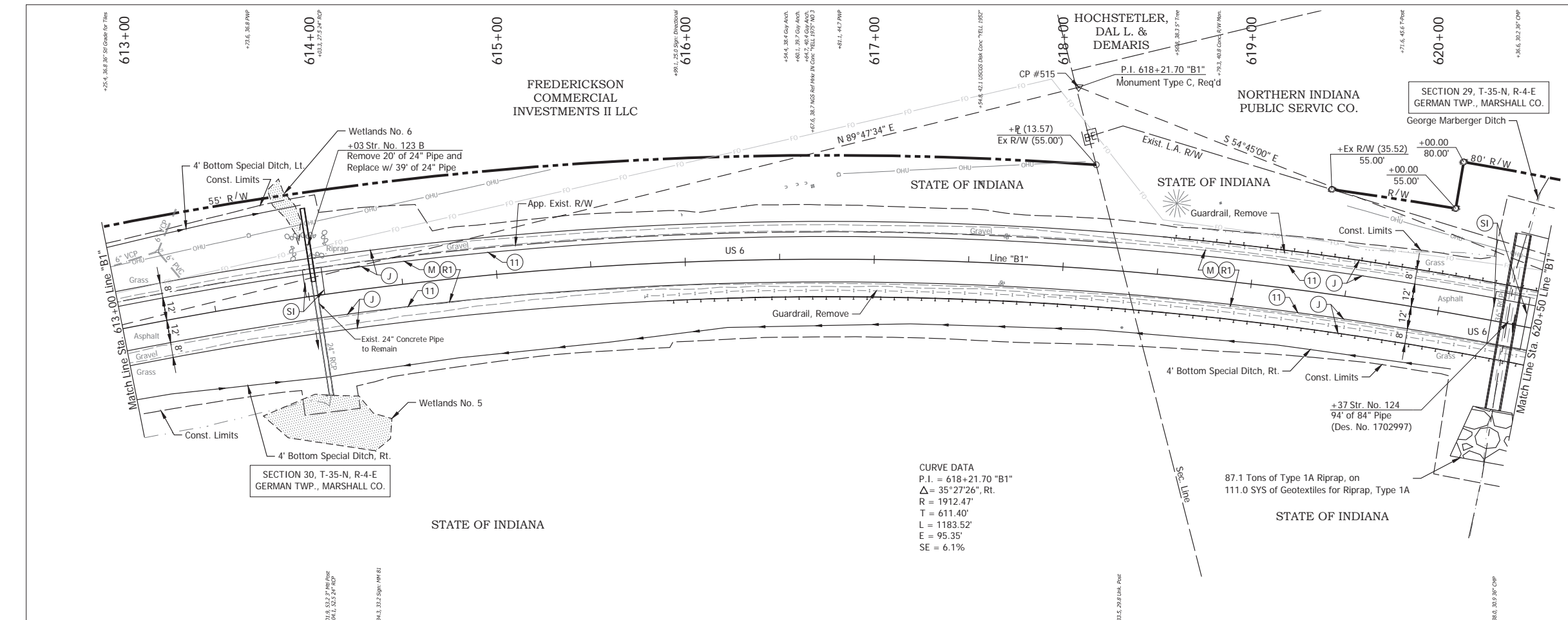
Date: May 22, 2024, 8:44am User Name: Bryan.Symour  
 File: X:\roadwork\files\2021121-3035\CAD\Plans\B1-02.dwg (P12)



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
  - (R1) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on Variable QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (D1) HMA for Approaches, Type B  
165 lbs/sys HMA Surface Type B on 495 lbs/sys HMA Intermediate Type B on 4" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (N) Compacted Aggregate, No. 53, 6"
  - (11) Sawcut

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		APRIL 23, 2024 DATE	
DESIGNED: MMT	DRAWN: DJG	INDIANA DEPARTMENT OF TRANSPORTATION			
CHECKED: BSS	CHECKED: BJS	PLAN AND PROFILE - LINE "B1" STA. 605+50 TO STA. 613+00			
HORIZONTAL SCALE 1" = 30'		BRIDGE FILE N/A		VERTICAL SCALE 1" = 10'	
DESIGNATION 2001886/1702997		SURVEY BOOK ELECTRONIC 43 of 346		PROJECT R-43381 2001886	

Date: May 22, 2024, 8:44am User Name: Bryan.Symour  
 File: X:\Information\Files\2024\1702997\PlanProfile\_B1-02.dwg (P15)



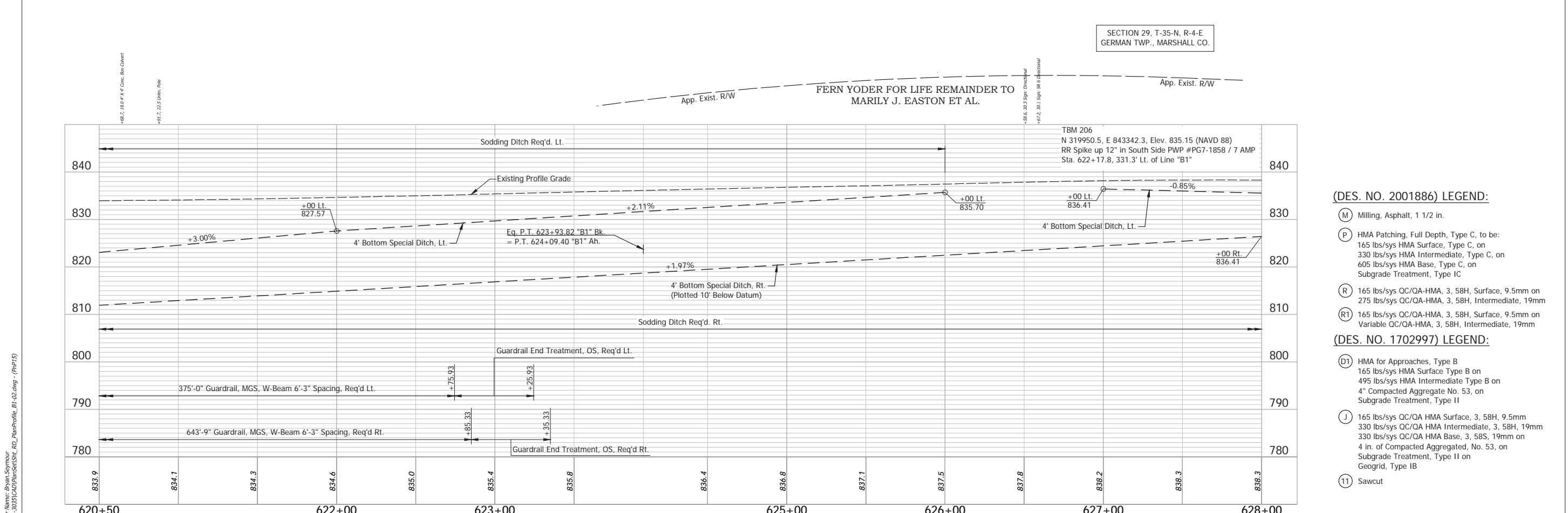
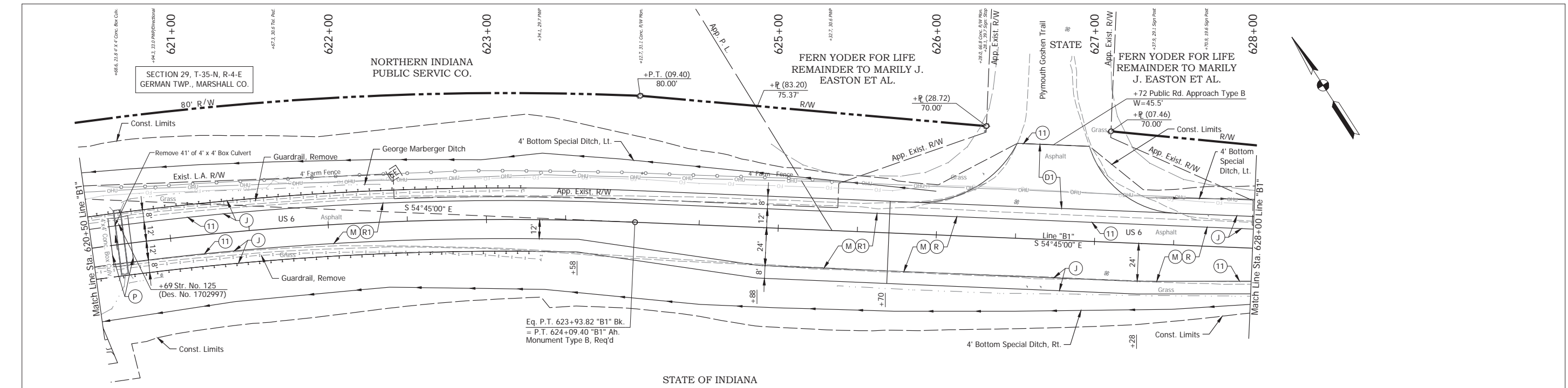
- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R1) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on Variable QC/OA-HMA, 3, 58H, Intermediate, 19mm
  - (SI) HMA for Structure Installation: 330 lbs/sys QC/OA-HMA Intermediate, 3, 58H, 19mm on 770 lbs/sys QC/OA-HMA Base, 3, 58S, 19mm on Subgrade Treatment, Type II
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

Date: May 22, 2024, 8:44am User Name: Bryan.Szymour  
 File: X:\InformationFiles\20211121-2025\GAD\Plans\SI\RD\_Plan\Profile\_B1-02.dwg (P191)

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

**INDIANA**  
**DEPARTMENT OF TRANSPORTATION**  
**PLAN AND PROFILE - LINE "B1"**  
**STA. 613+00 TO STA. 620+50**

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	44 of 346
CONTRACT	PROJECT
R-43381	2001886



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (P) HMA Patching, Full Depth, Type C, to be: 165 lbs/sys HMA Surface, Type C, on 330 lbs/sys HMA Intermediate, Type C, on 605 lbs/sys HMA Base, Type C, on Subgrade Treatment, Type IC
  - (R) 165 lbs/sys OC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys OC/OA-HMA, 3, 58H, Intermediate, 19mm
  - (R1) 165 lbs/sys OC/OA-HMA, 3, 58H, Surface, 9.5mm on Variable OC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (D1) HMA for Approaches, Type B 165 lbs/sys HMA Surface Type B on 495 lbs/sys HMA Intermediate Type B on 4" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (J) 165 lbs/sys OC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys OC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys OC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____ DATE April 23, 2024		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 30'		BRIDGE FILE N/A	
DESIGNED: _____ MMT		DRAWN: _____ DJG				VERTICAL SCALE 1" = 10'		DESIGNATION 2001886/1702997	
CHECKED: _____ BSS		CHECKED: _____ BJS		PLAN AND PROFILE - LINE "B1" STA. 620+50 TO STA. 628+00		SURVEY BOOK _____		SHEET _____ of _____ 346	
						CONTRACT R-43381		PROJECT 2001886	

Date: May 22, 2024, 8:45am User Name: Bryan.Symour  
 File: X:\production\files\2024\1721-303\GIS\PlanProfile\_B1-02.dwg (P15)

628+00  
+07.1, 30.1 PWP

629+00

630+00  
+02.7, 31.0 Conc. R/W W/O

631+00  
+05.4, 20.5 PWP

632+00

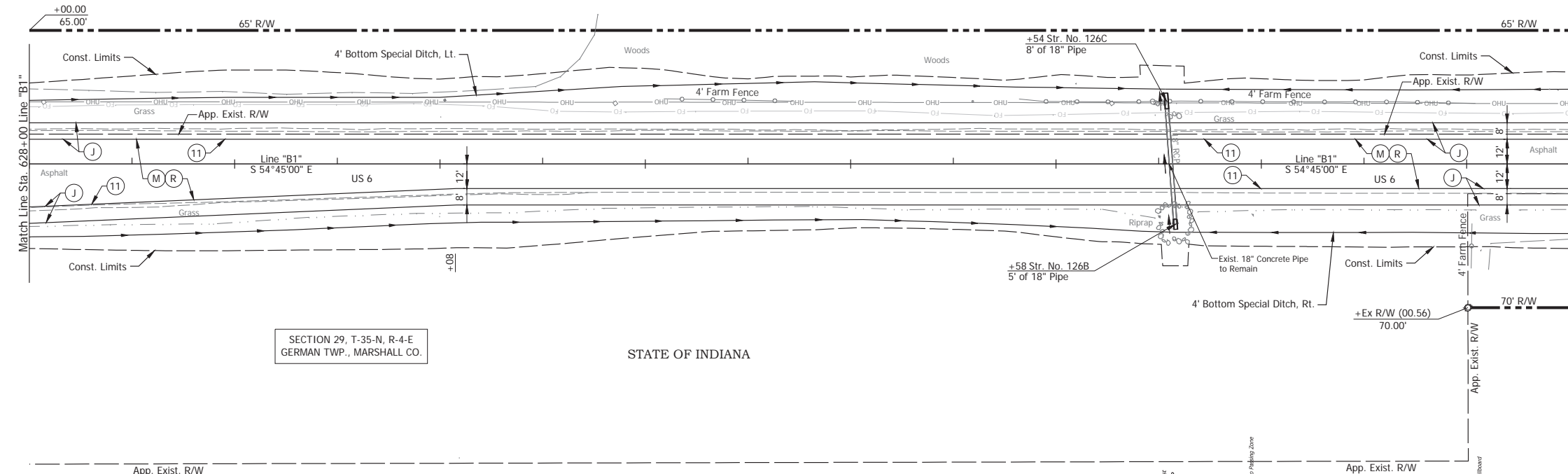
633+00  
+09.0, 39.0 Sign. Lane Engine Shop  
+27.2, 20.5 PWP  
+50.0, 20.7 18" RCP

634+00

635+00  
+03.3, 36.3 Sign. Miller Stone & Propane  
+44.5, 35.9 Sign. Dynamic Street Services

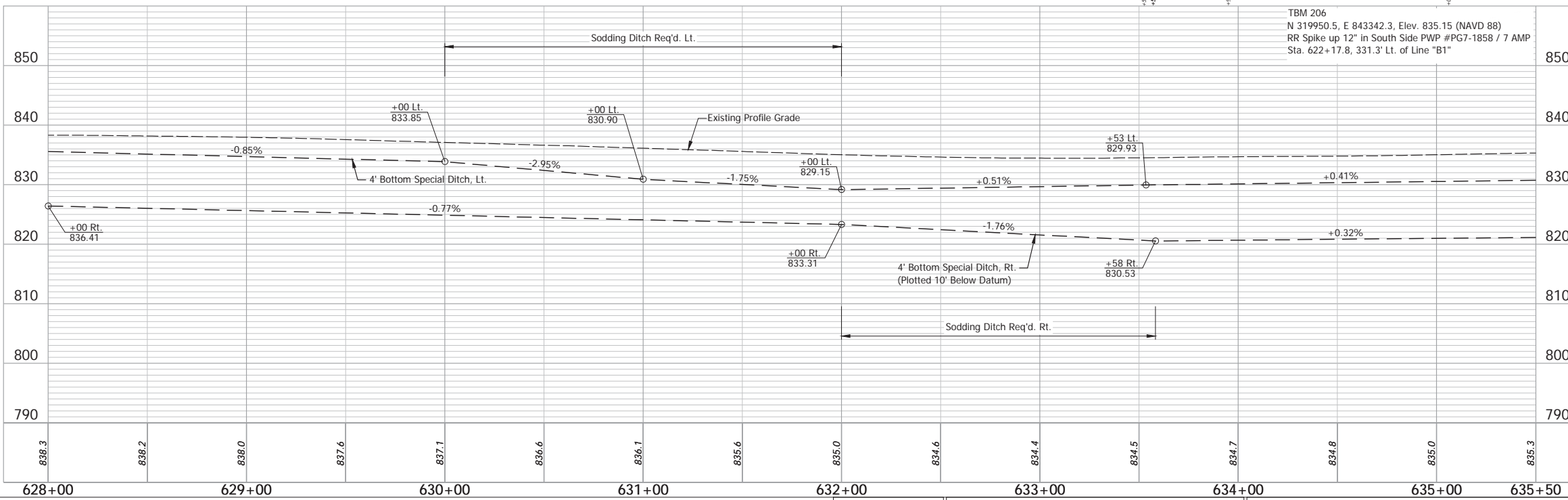
FERN YODER FOR LIFE  
REMAINDER TO MARILY J.  
EASTON ET AL.

SECTION 29, T-35-N, R-4-E  
GERMAN TWP., MARSHALL CO.



SECTION 29, T-35-N, R-4-E  
GERMAN TWP., MARSHALL CO.

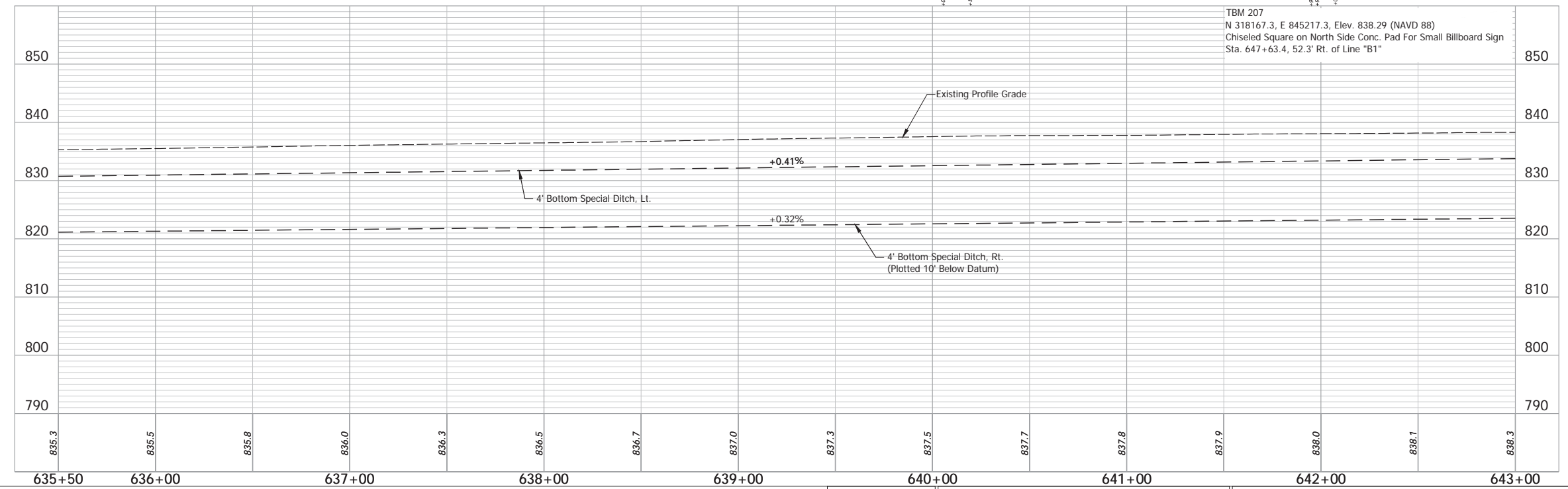
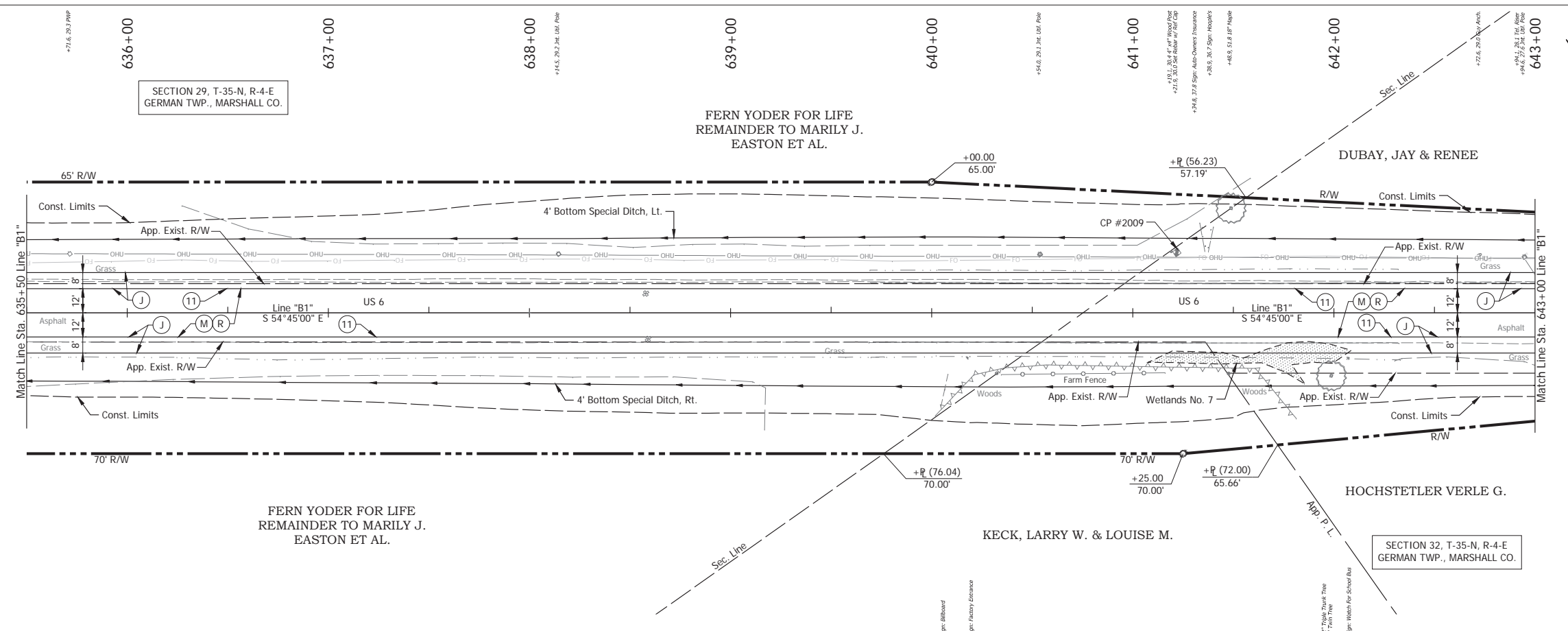
STATE OF INDIANA



- (DES. NO. 2001886) LEGEND:
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:
- (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE April 23, 2024	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
DESIGNED: _____ MMT	DRAWN: _____ DJG	CHECKED: _____ BSS		CHECKED: _____ BJS	VERTICAL SCALE 1" = 10'
PLAN AND PROFILE - LINE "B1" STA. 628+00 TO STA. 635+50			SURVEY BOOK _____ SHEET _____ ELECTRONIC 46 of 346 CONTRACT R-43381 PROJECT 2001886		

Date: May 22, 2024, 8:45am User Name: Bryan.Szymour  
File: X:\production\files\2024\1121-2001886\PlanProfile\_B1-02.dwg (PWP10)



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

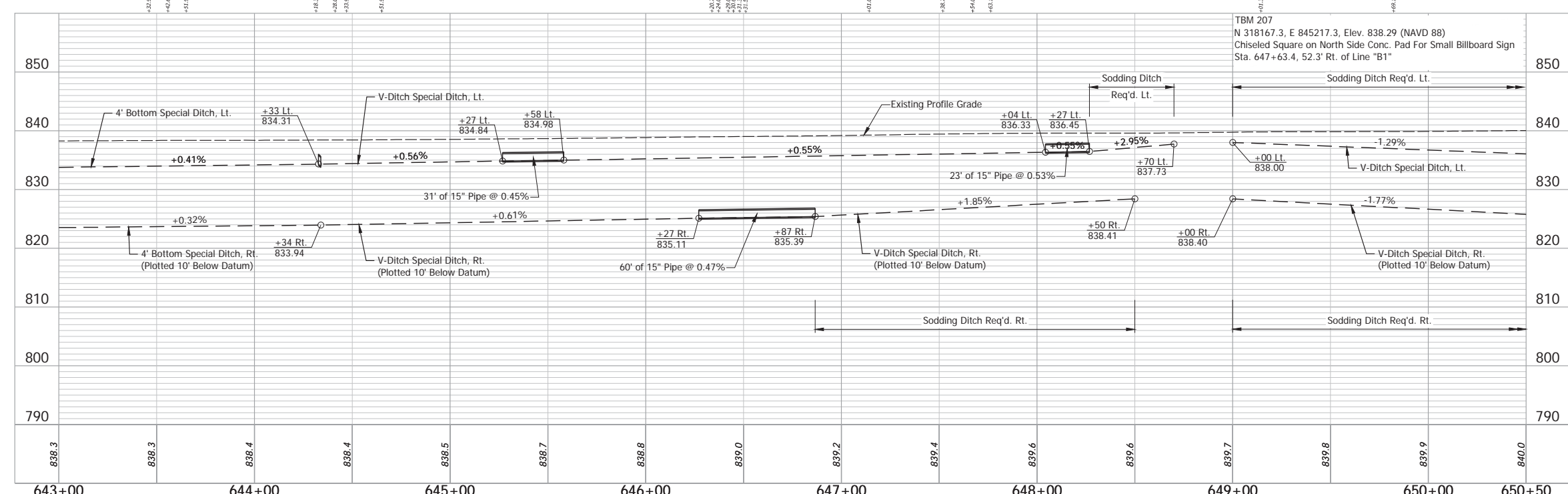
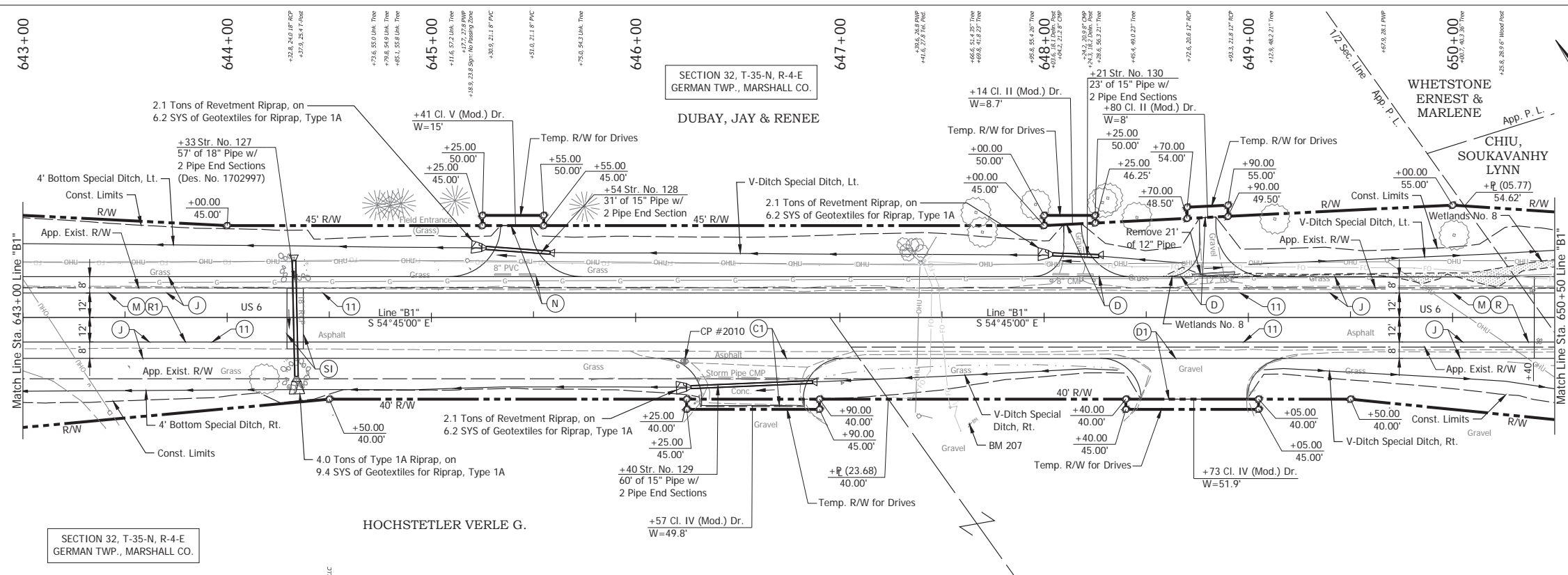
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RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

**INDIANA**  
**DEPARTMENT OF TRANSPORTATION**  
**PLAN AND PROFILE - LINE "B1"**  
**STA. 635+50 TO STA. 643+00**

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	47 of 346
CONTRACT	PROJECT
R-43381	2001886

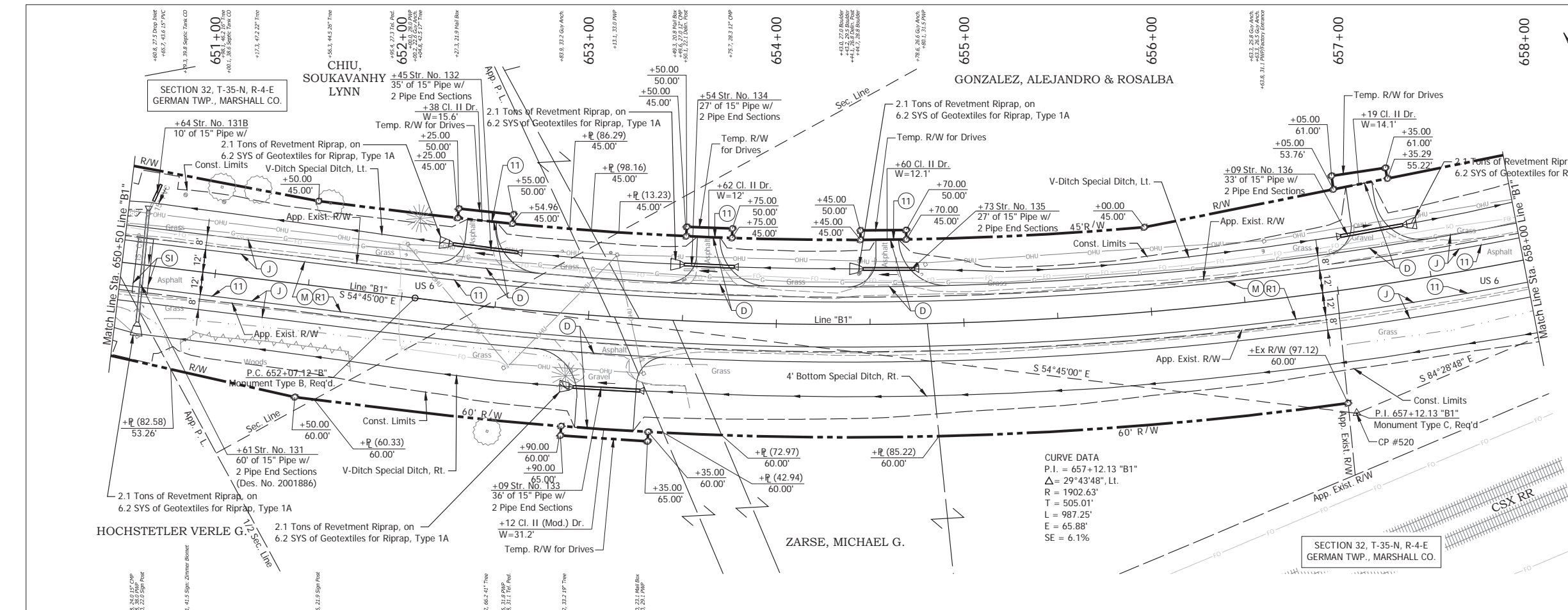




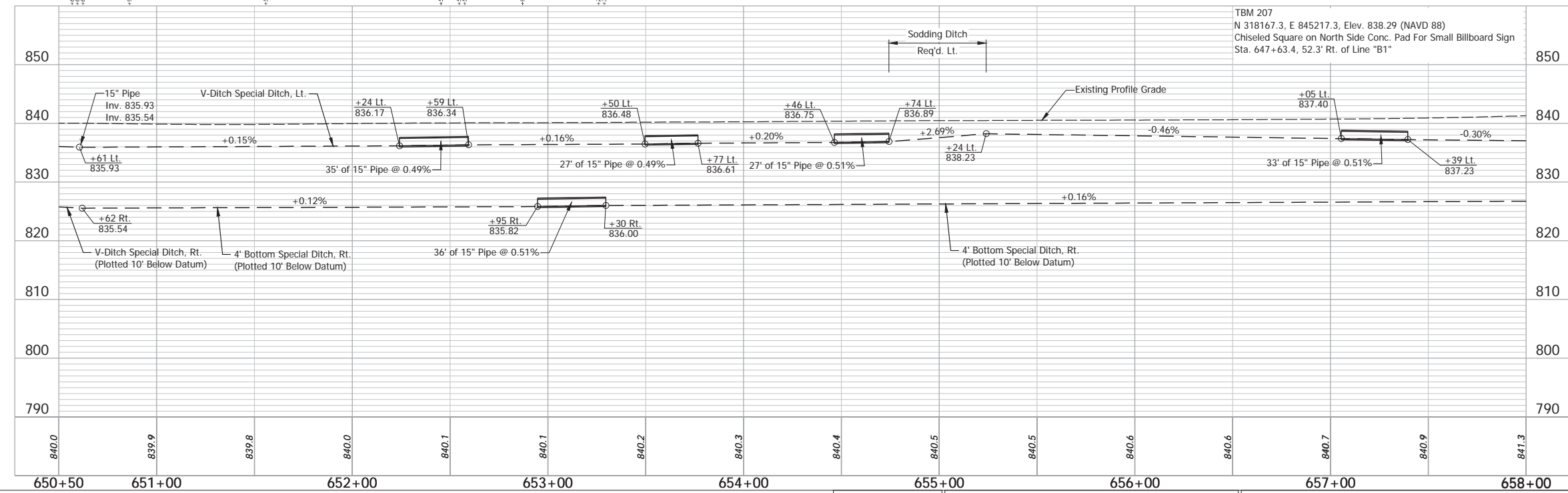
- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (C) PCCP for Approaches, 9 in., on Dense Graded Subbase, 6 in., on Geogrid Type 1B, on Subgrade Treatment Type II
  - (D) HMA for Approaches, Type B 165 lbs/sys HMA Surface Type B on 275 lbs/sys HMA Intermediate Type B on 6\"/>

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE April 23, 2024	INDIANA DEPARTMENT OF TRANSPORTATION  <b>PLAN AND PROFILE - LINE "B1"</b> <b>STA. 643+00 TO STA. 650+50</b>	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A	
DESIGNED: _____	MMT	DRAWN: _____		DJG	VERTICAL SCALE 1" = 10'	DESIGNATION 2001886/1702997
CHECKED: _____	BSS	CHECKED: _____		BJS	SURVEY BOOK ELECTRONIC	SHEET 48 of 346
				CONTRACT R-43381	PROJECT 2001886	

Date: May 22, 2024, 8:45am User Name: Bryan.Szymour  
 File: X:\InformationFiles\20211221-2023\GAD\Plans\DR\RD\_PlanProfile\_B1-02.dwg (P19/19)



CURVE DATA  
 P.I. = 657+12.13 "B1"  
 $\Delta = 29^\circ 43' 48"$ , Lt.  
 $R = 1902.63'$   
 $T = 505.01'$   
 $L = 987.25'$   
 $E = 65.88'$   
 $SE = 6.1\%$



TBM 207  
 N 318167.3, E 845217.3, Elev. 838.29 (NAVD 88)  
 Chiseled Square on North Side Conc. Pad For Small Billboard Sign  
 Sta. 647+63.4, 52.3' Rt. of Line "B1"

- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sy QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sy QC/OA-HMA, 3, 58H, Intermediate, 19mm
  - (RT) 165 lbs/sy QC/OA-HMA, 3, 58H, Surface, 9.5mm on Variable QC/OA-HMA, 3, 58H, Intermediate, 19mm
  - (SI) HMA for Structure Installation: 330 lbs/sy QC/OA-HMA Intermediate, 3, 58H, 19mm on 770 lbs/sy QC/OA-HMA Base, 3, 58S, 19mm on Subgrade Treatment, Type II
- (DES. NO. 1702997) LEGEND:**
- (D) HMA for Approaches, Type B  
165 lbs/sy HMA Surface Type B on 275 lbs/sy HMA Intermediate Type B on 6" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (J) 165 lbs/sy QC/OA HMA Surface, 3, 58H, 9.5mm  
330 lbs/sy QC/OA HMA Intermediate, 3, 58H, 19mm  
330 lbs/sy QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregate, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

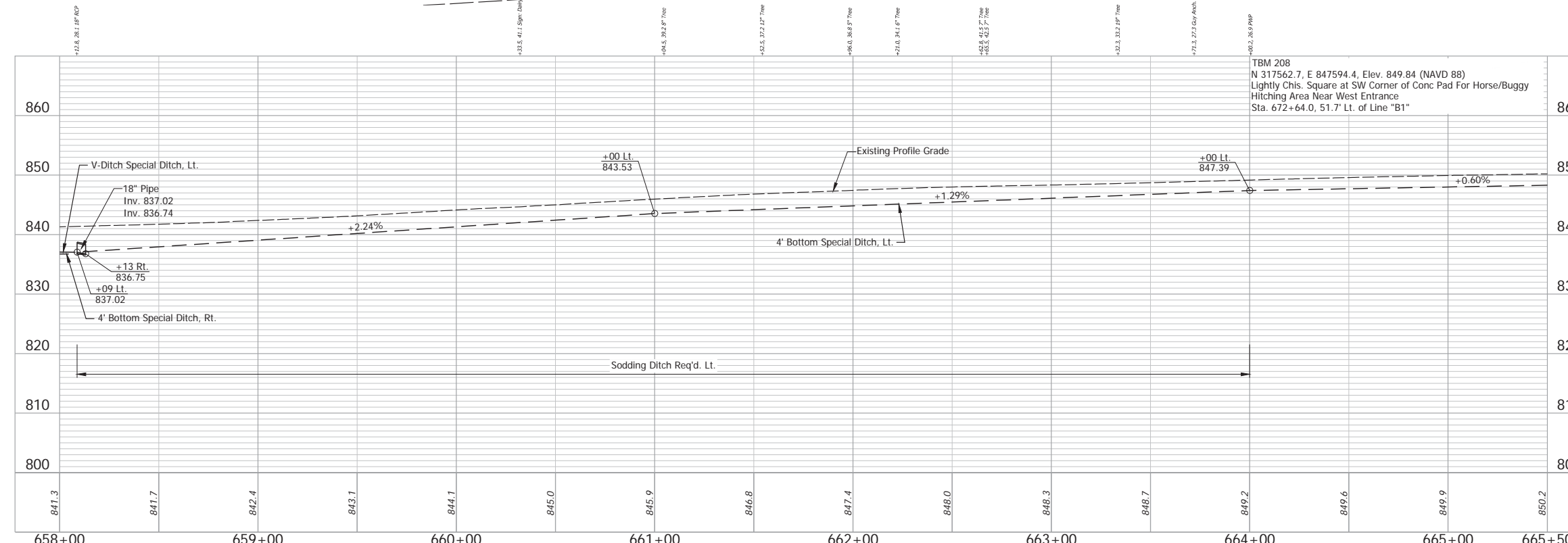
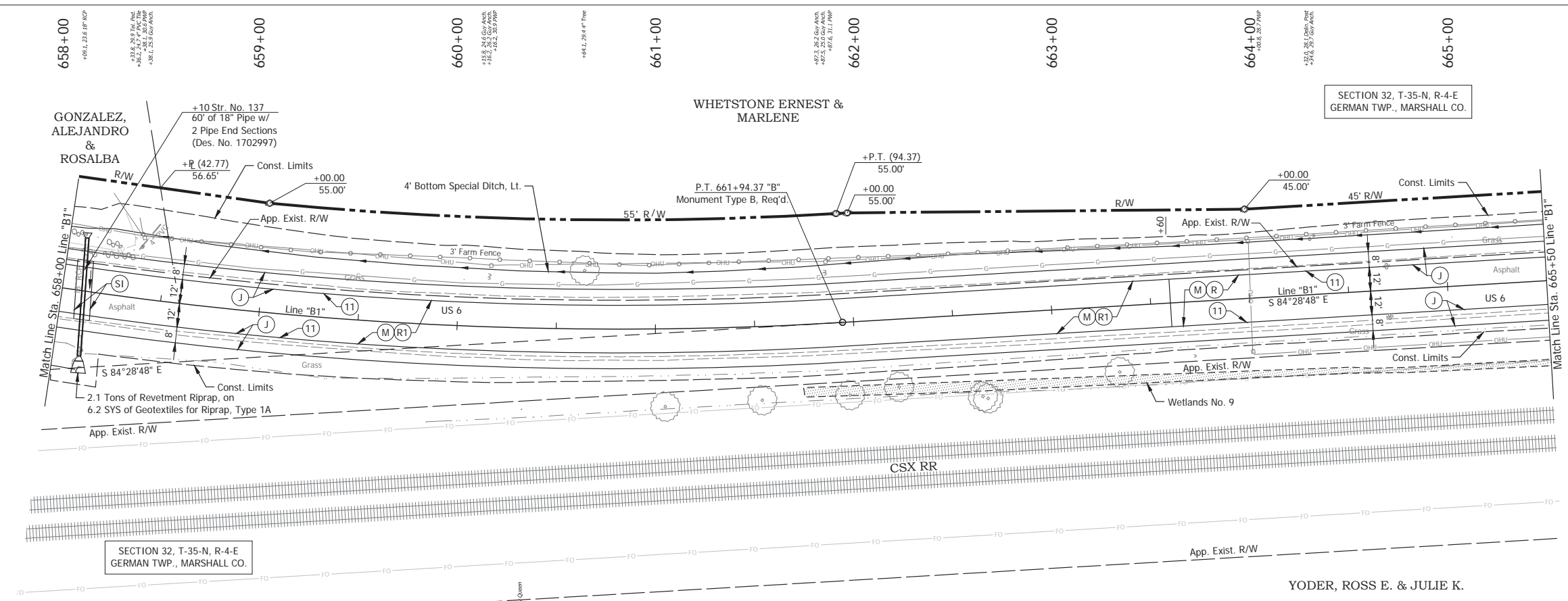
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

**INDIANA DEPARTMENT OF TRANSPORTATION**

**PLAN AND PROFILE - LINE "B1"  
STA. 650+50 TO STA. 658+00**

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	49 of 346
CONTRACT	PROJECT
R-43381	2001886

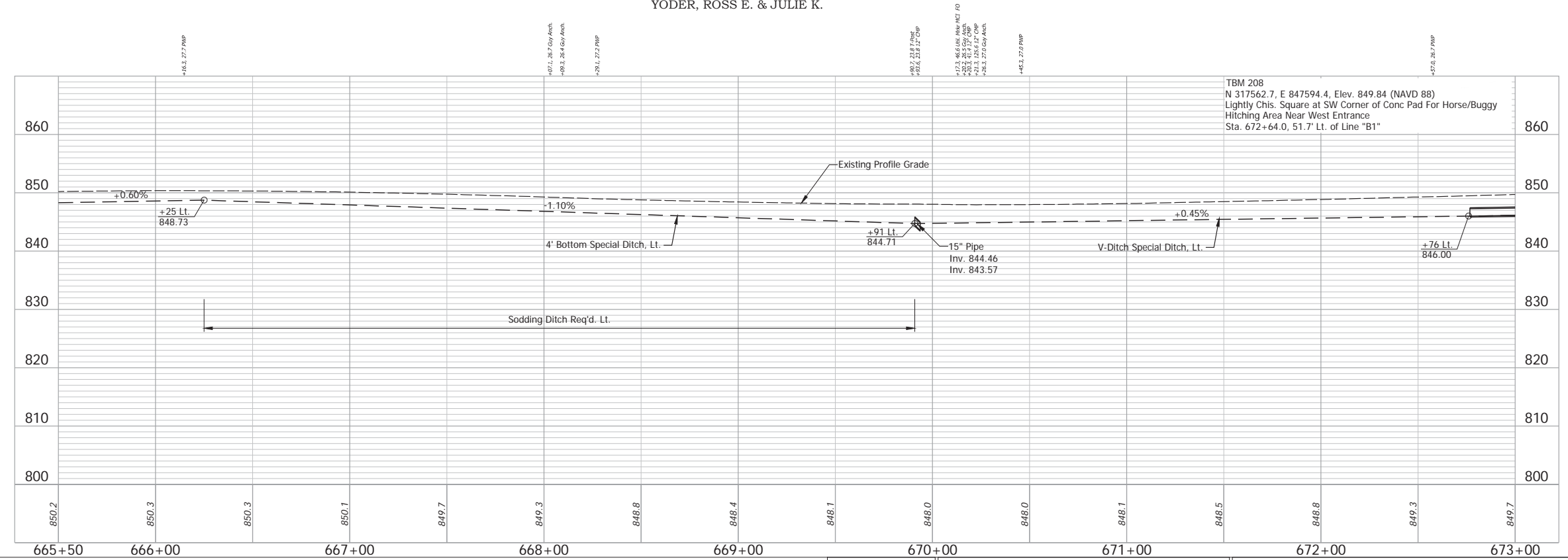
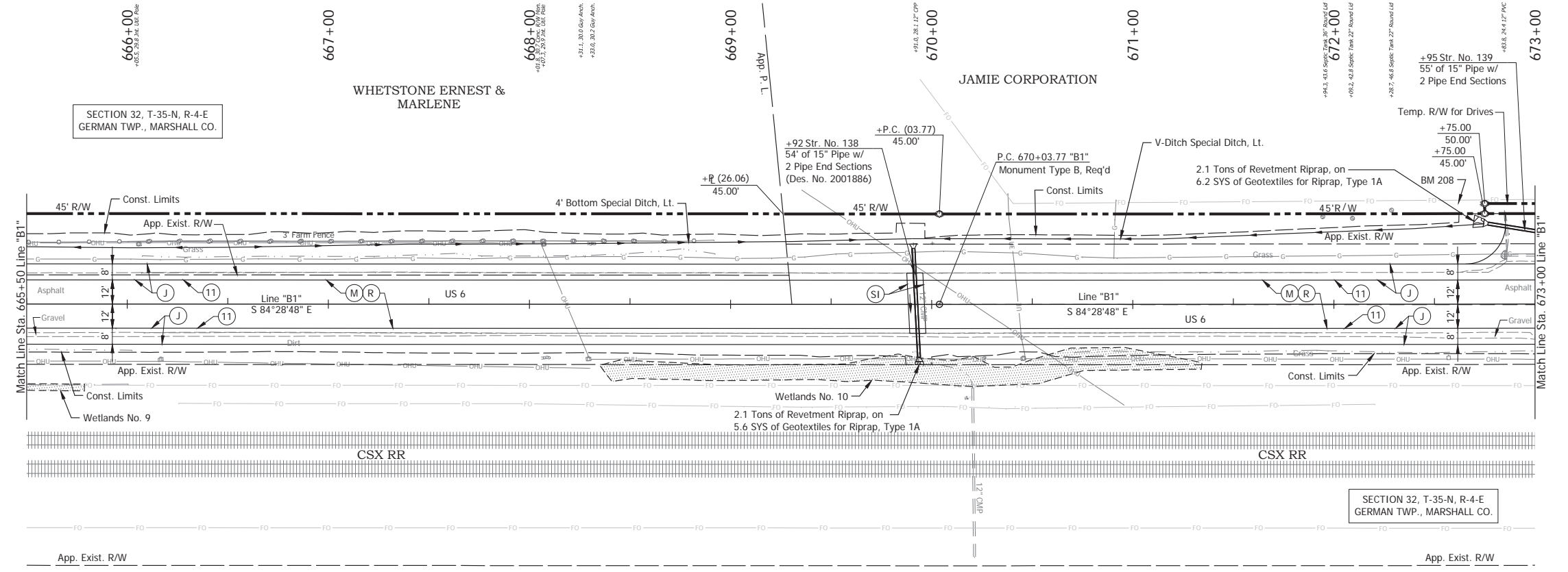
Date: May 22, 2024, 8:46am User Name: Bryan.Symour  
 File: X:\InformationFiles\2021\21-303\GAD\Plans\SI\SI\_L02\_PlanProfile\_B1.dwg (P19/19)



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm
  - (R1) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on Variable QC/QA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm  
330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm  
330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (SI) HMA for Structure Installation:  
330 lbs/sys QC/QA-HMA Intermediate, 3, 58H, 19mm on 770 lbs/sys QC/QA-HMA Base, 3, 58S, 19mm on Subgrade Treatment, Type II
  - (11) Sawcut

Date: May 22, 2024, 8:46am User Name: Bryan.Szymour  
 File: X:\production\files\20211221-2025\CAD\Plans\SI\RD\_Plan\Profile\_B1-02.dwg (P1920)

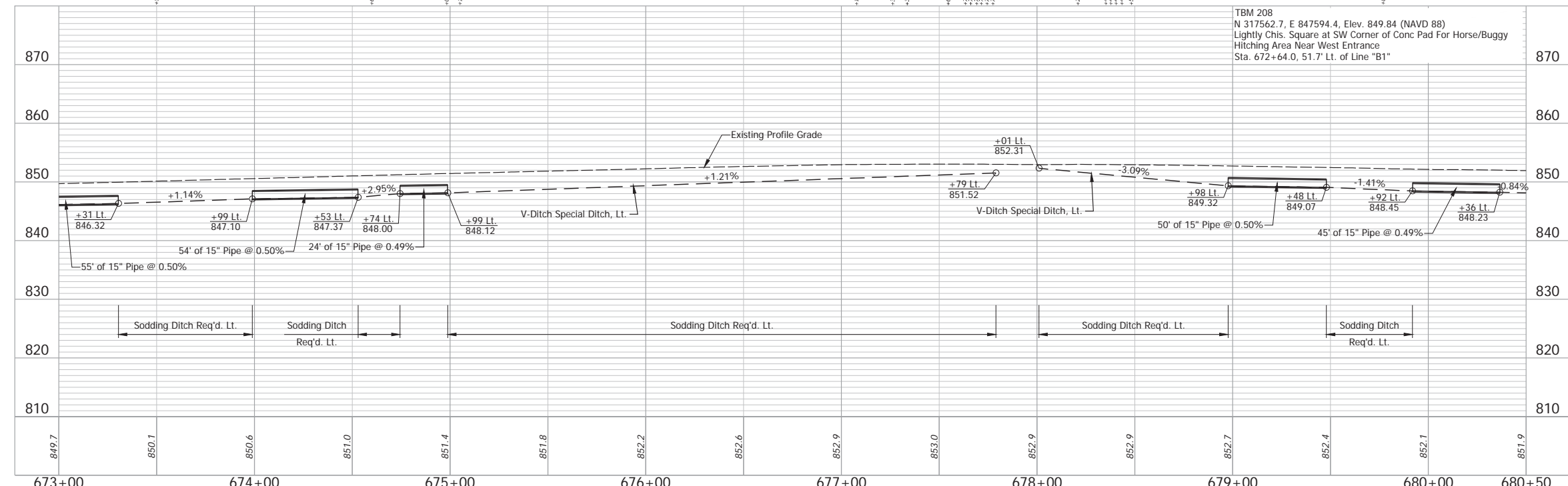
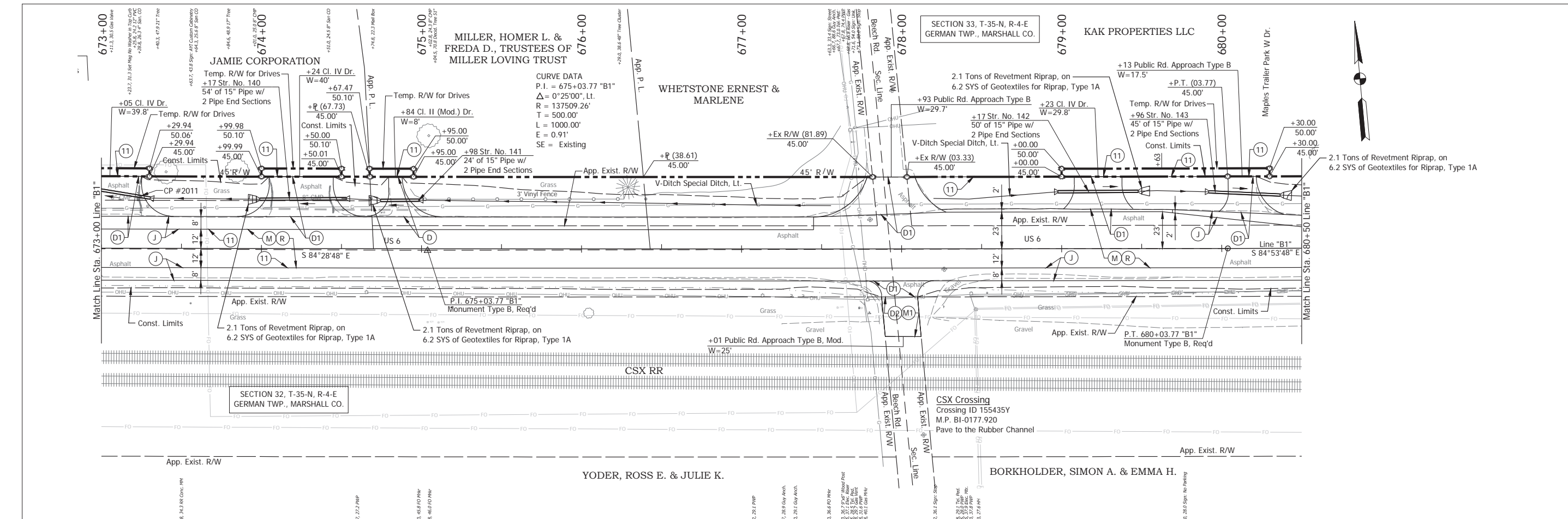
RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____ DATE April 23, 2024		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 30'		BRIDGE FILE N/A	
DESIGNED: _____ MMT		DRAWN: _____ DJG				VERTICAL SCALE 1" = 10'		DESIGNATION 2001886/1702997	
CHECKED: _____ BSS		CHECKED: _____ BJS		PLAN AND PROFILE - LINE "B1" STA. 658+00 TO STA. 665+50		SURVEY BOOK _____		SHEET _____ of _____	
						ELECTRONIC 50		346	
						CONTRACT R-43381		PROJECT 2001886	



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm
  - (SI) HMA for Structure Installation: 330 lbs/sys QC/QA-HMA Intermediate, 3, 58H, 19mm on 770 lbs/sys QC/QA-HMA Base, 3, 58S, 19mm on Subgrade Treatment, Type II
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		APRIL 23, 2024 DATE	
DESIGNED: MMT	DRAWN: DJG	INDIANA DEPARTMENT OF TRANSPORTATION			
CHECKED: BSS	CHECKED: BJS	PLAN AND PROFILE - LINE "B1" STA. 665+50 TO STA. 673+00			
HORIZONTAL SCALE 1" = 30'		BRIDGE FILE N/A		DESIGNATION 2001886/1702997	
VERTICAL SCALE 1" = 10'		SURVEY BOOK ELECTRONIC		SHEET 51 of 346	
		CONTRACT R-4381		PROJECT 2001886	

Date: May 22, 2024, 8:47am User Name: Bryan.Szymour  
 File: X:\production\files\20211121-2025\CAD\Plans\SI\RD\_Plan\Profile\_B1-03.dwg (P121)



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (D) HMA for Approaches, Type B 165 lbs/sys HMA Surface Type B on 275 lbs/sys HMA Intermediate Type B on 6" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (D1) HMA for Approaches, Type B 165 lbs/sys HMA Surface Type B on 495 lbs/sys HMA Intermediate Type B on 4" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (D2) HMA for Approaches, Type B, 165 lbs/sys HMA Surface Type B, on
  - (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (M1) Milling, Approach
  - (11) Sawcut

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

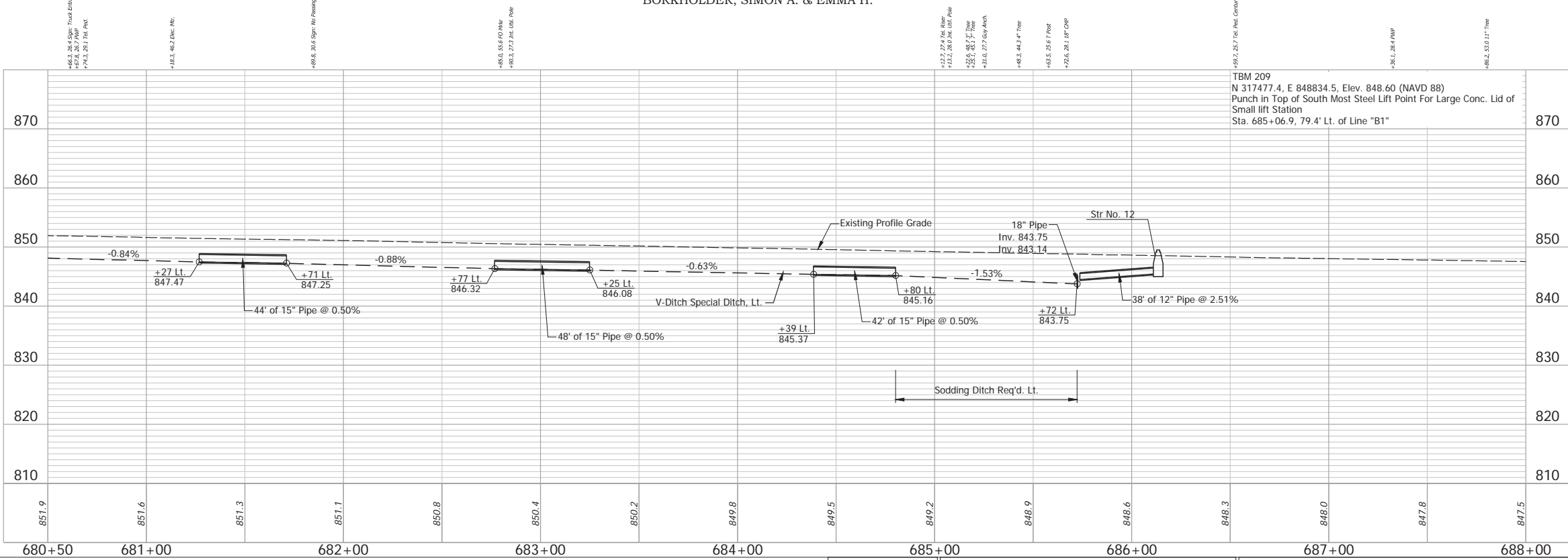
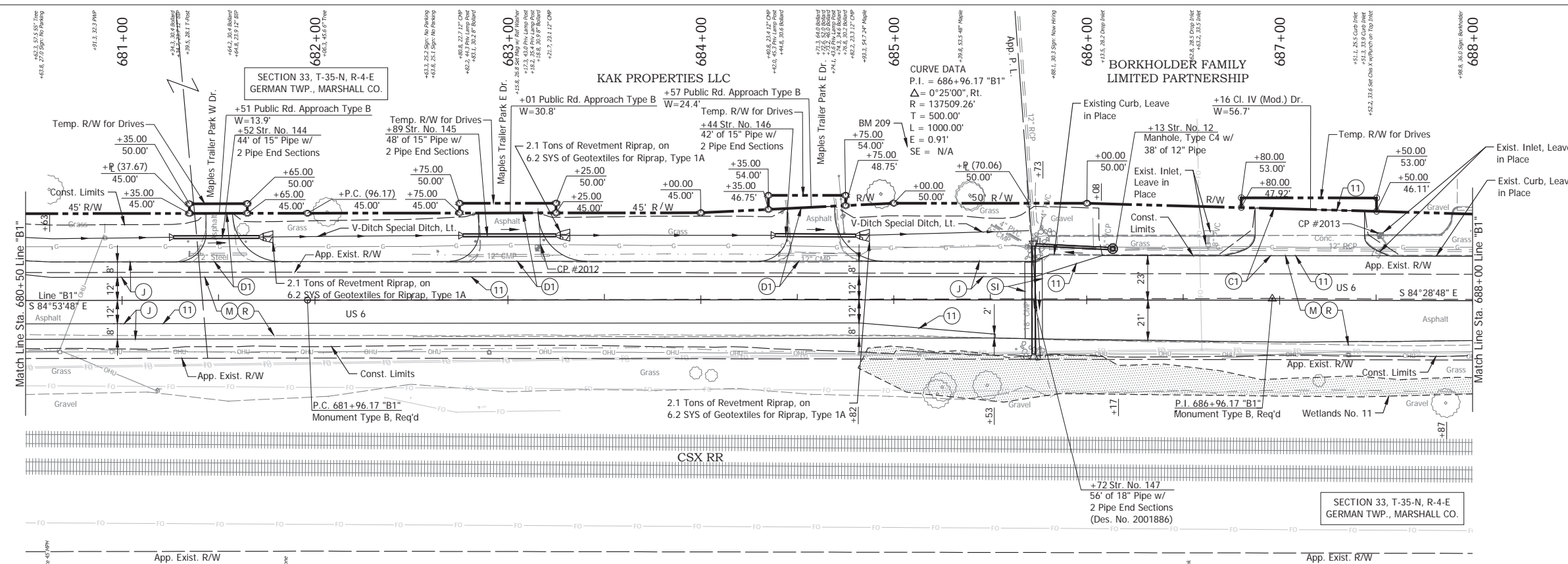
INDIANA DEPARTMENT OF TRANSPORTATION	
PLAN AND PROFILE - LINE "B1" STA. 673+00 TO STA. 680+50	

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	52 of 346
CONTRACT	PROJECT
R-43381	2001886

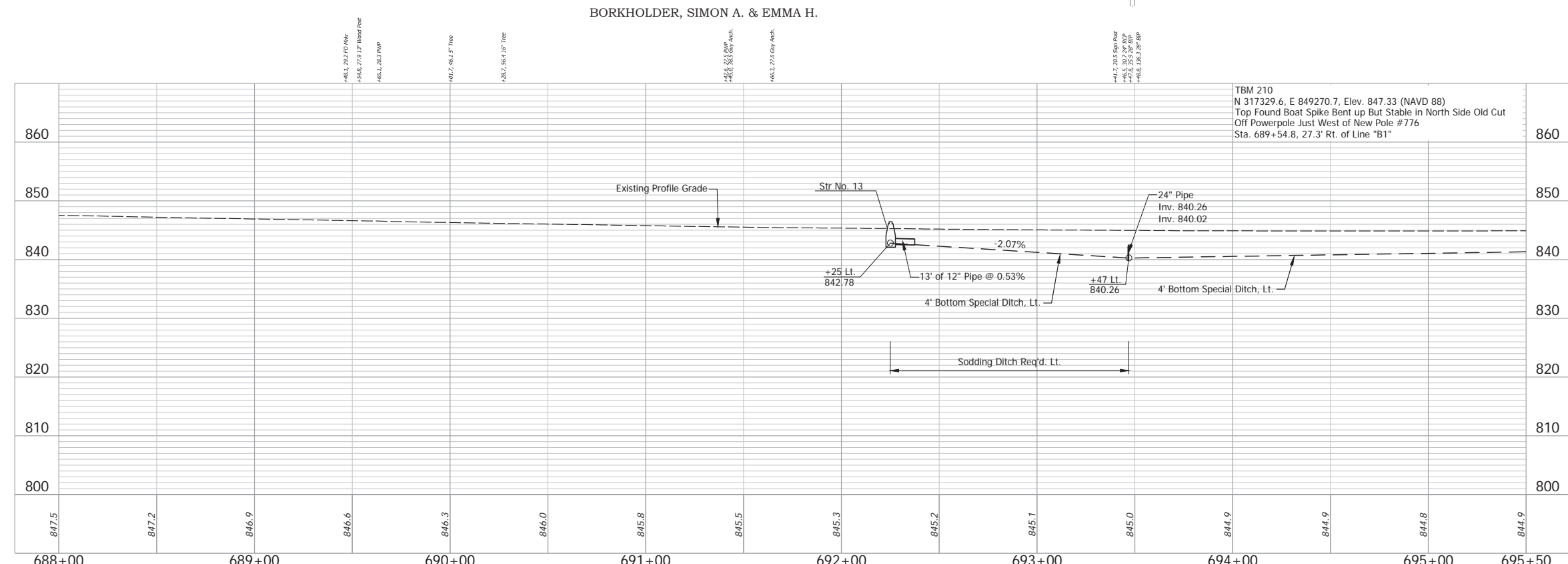
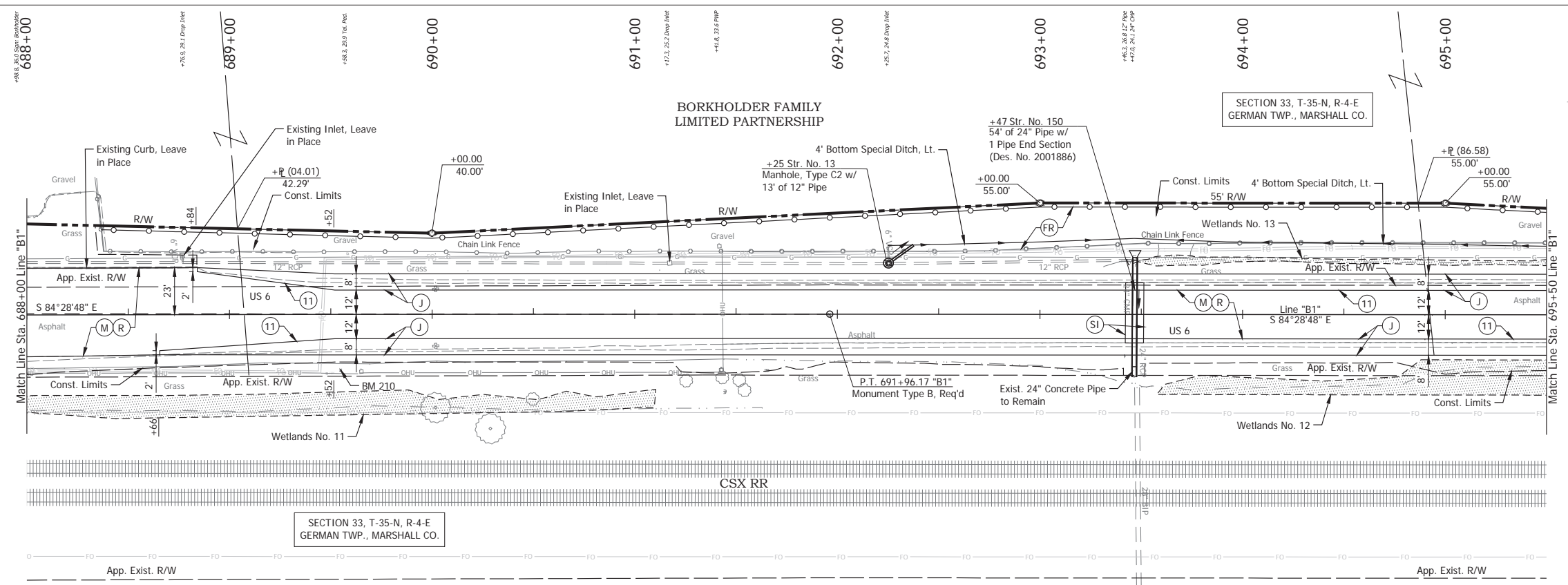
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Date: May 22, 2024, 8:47am User Name: Bryan.Szymour  
 File: X:\Information\Files\2021\1121-3035\CAD\Plans\SI\SI\_R1\_03.dwg (R1P23)



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
  - (SI) HMA for Structure Installation: 330 lbs/sys QC/OA-HMA Intermediate, 3, 58H, 19mm on 770 lbs/sys QC/OA-HMA Base, 3, 58S, 19mm on Subgrade Treatment, Type II
- (DES. NO. 1702997) LEGEND:**
- (C1) PCCP for Approaches, 9 in., on Dense Graded Subbase, 6 in., on Geogrid Type 1B, on Subgrade Treatment Type II
  - (D1) HMA for Approaches, Type B 165 lbs/sys HMA Surface Type B on 495 lbs/sys HMA Intermediate Type B on 4\"/>
  - (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregate, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
DESIGNED: MMT	DRAWN: DJG				1" = 30'	N/A
CHECKED: BSS	CHECKED: BJS				VERTICAL SCALE	DESIGNATION
PLAN AND PROFILE - LINE "B1" STA. 680+50 TO STA. 688+00					1" = 10'	2001886/1702997
					SURVEY BOOK	SHEET
					ELECTRONIC	53 of 346
					CONTRACT	PROJECT
					R-43381	2001886



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm
  - (SI) HMA for Structure Installation: 330 lbs/sys QC/QA-HMA Intermediate, 3, 58H, 19mm on 770 lbs/sys QC/QA-HMA Base, 3, 58S, 19mm on Subgrade Treatment, Type II
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (FR) Fence, Relocate
  - (11) Sawcut

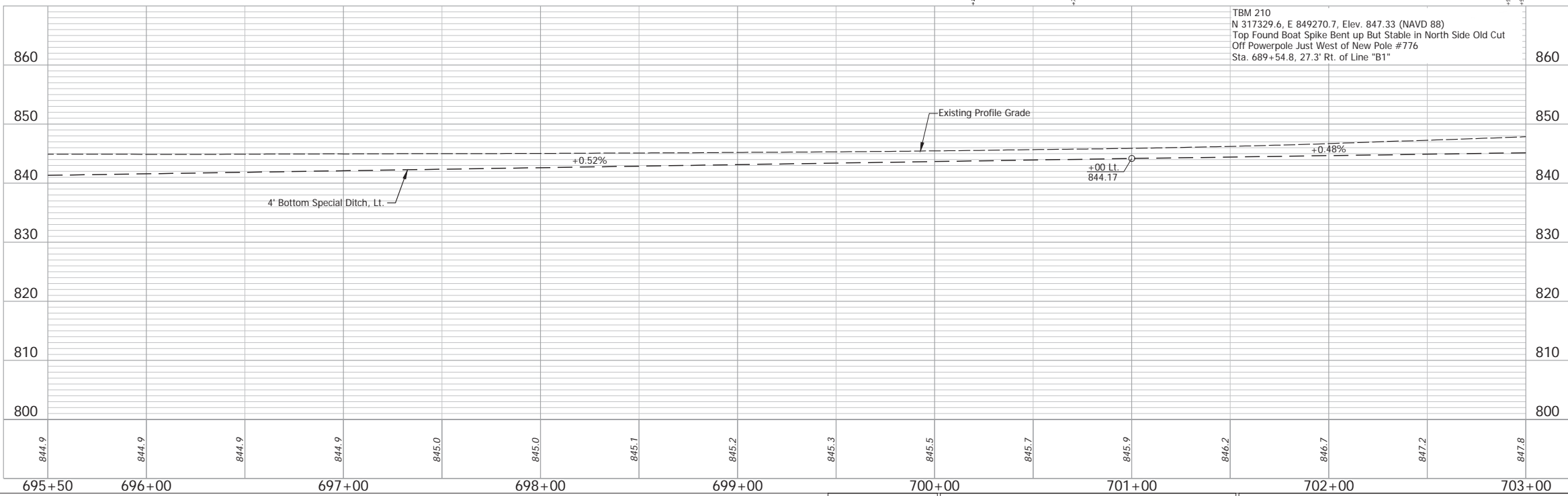
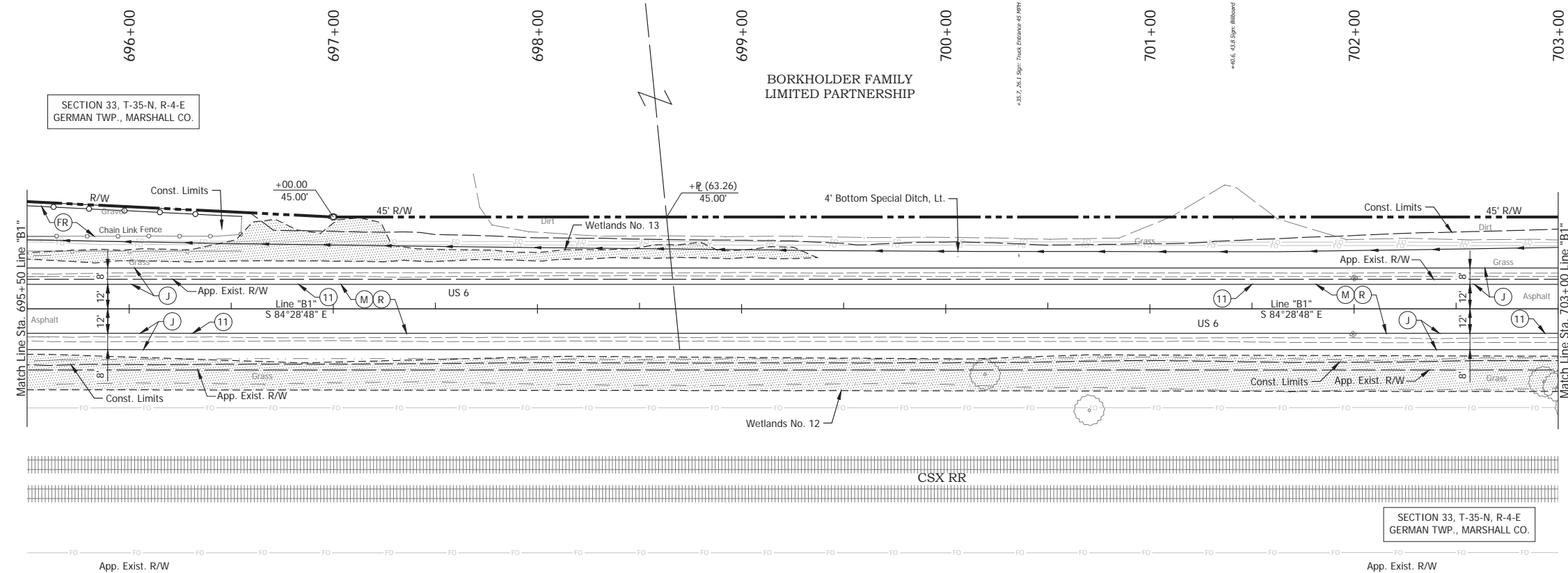
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RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE April 23, 2024	INDIANA DEPARTMENT OF TRANSPORTATION  <b>PLAN AND PROFILE - LINE "B1"</b> <b>STA. 688+00 TO STA. 695+50</b>	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A	
DESIGNED: _____	MMT	DRAWN: _____		DJG	VERTICAL SCALE 1" = 10'	DESIGNATION 2001886/1702997
CHECKED: _____	BSS	CHECKED: _____		BJS	SURVEY BOOK ELECTRONIC	SHEET 54 of 346
				CONTRACT R-43381	PROJECT 2001886	

SECTION 33, T-35-N, R-4-E  
GERMAN TWP., MARSHALL CO.

BORKHOLDER FAMILY  
LIMITED PARTNERSHIP

SECTION 33, T-35-N, R-4-E  
GERMAN TWP., MARSHALL CO.

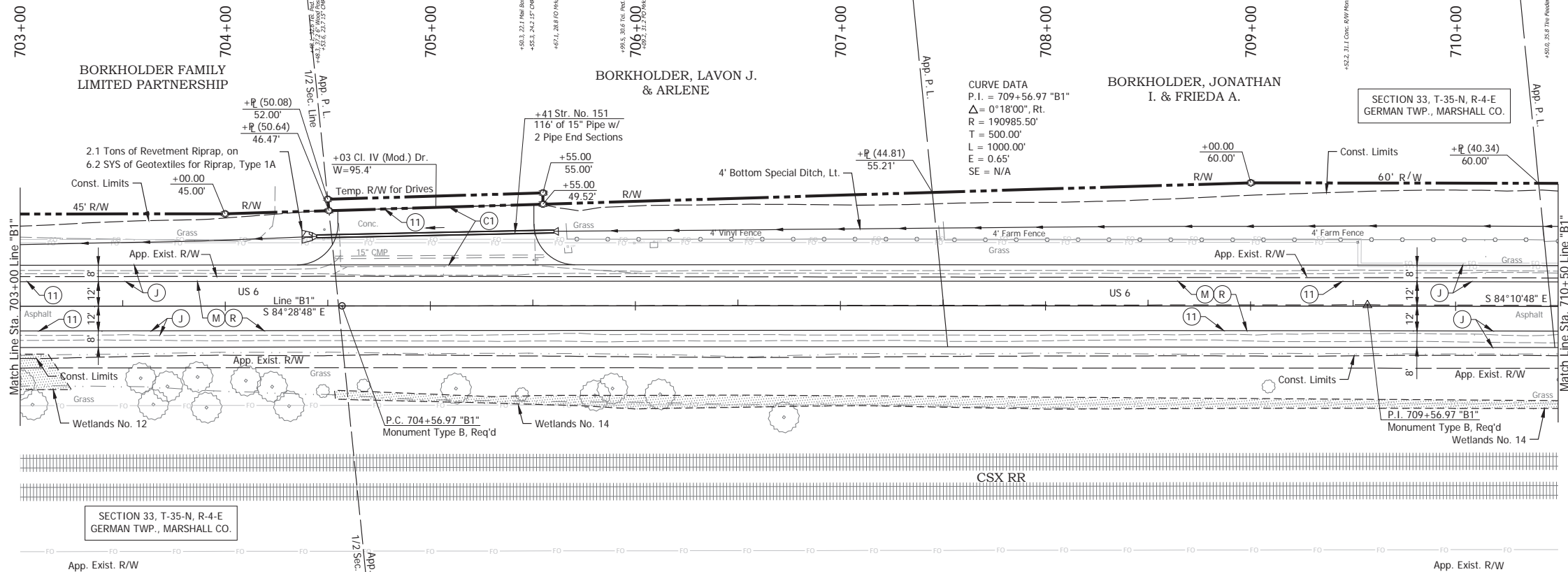


- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys OC/QA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys OC/QA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys OC/QA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys OC/QA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys OC/QA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (FR) Fence, Relocate
  - (11) Sawcut

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE April 23, 2024	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
DESIGNED: _____ MMT	DRAWN: _____ DJG	CHECKED: _____ BSS		CHECKED: _____ BJS	VERTICAL SCALE 1" = 10'
PLAN AND PROFILE - LINE "B1" STA. 695+50 TO STA. 703+00				SURVEY BOOK ELECTRONIC	SHEET 55 of 346
				CONTRACT R-43381	PROJECT 2001886

Date: May 22, 2024, 8:46am User Name: Bryan.Symour  
File: X:\Information\Files\2024\1121-3035\CAD\Plans\B1-03.dwg (P1925)

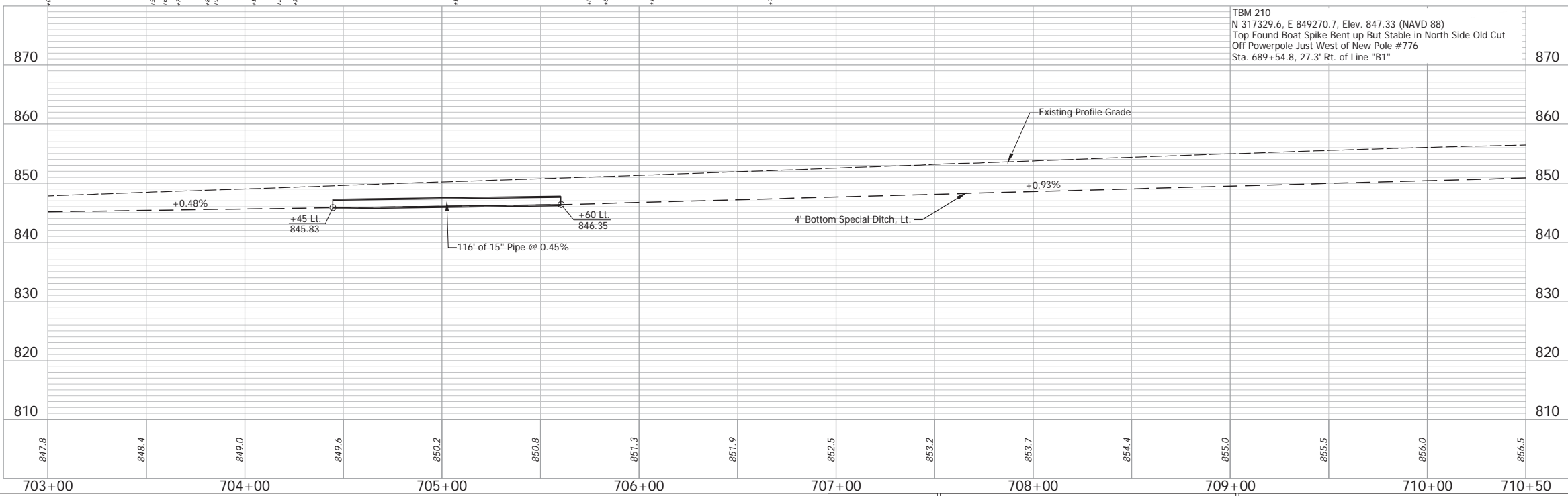




**CURVE DATA**  
 P.I. = 709+56.97 "B1"  
 $\Delta = 0^\circ 18' 00''$ , Rt.  
 R = 190985.50'  
 T = 500.00'  
 L = 1000.00'  
 E = 0.65'  
 SE = N/A

SECTION 33, T-35-N, R-4-E  
 GERMAN TWP., MARSHALL CO.

SECTION 33, T-35-N, R-4-E  
 GERMAN TWP., MARSHALL CO.



TBM 210  
 N 317329.6, E 849270.7, Elev. 847.33 (NAVD 88)  
 Top Found Boat Spike Bent up But Stable in North Side Old Cut  
 Off Powerpole Just West of New Pole #776  
 Sta. 689+54.8, 27.3' Rt. of Line "B1"

**(DES. NO. 2001886) LEGEND:**

- (M) Milling, Asphalt, 1 1/2 in.
- (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm

**(DES. NO. 1702997) LEGEND:**

- (C1) PCCP for Approaches, 9 in., on Dense Graded Subbase, 6 in., on Geogrid Type 1B, on Subgrade Treatment Type II
- (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type 1B
- (11) Sawcut

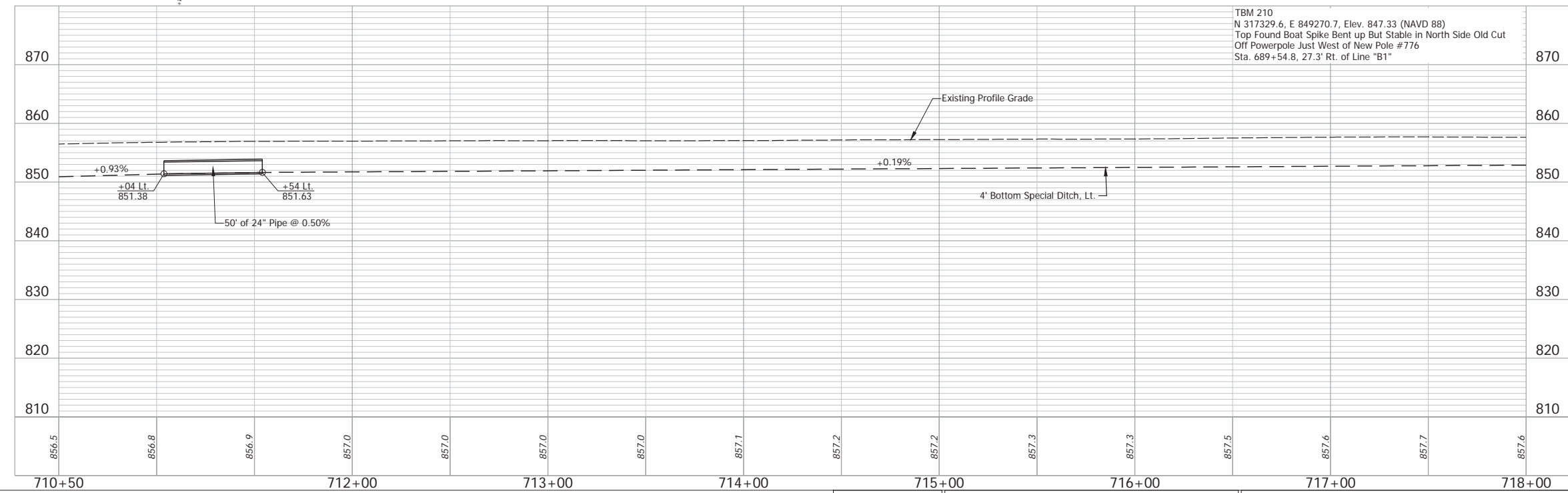
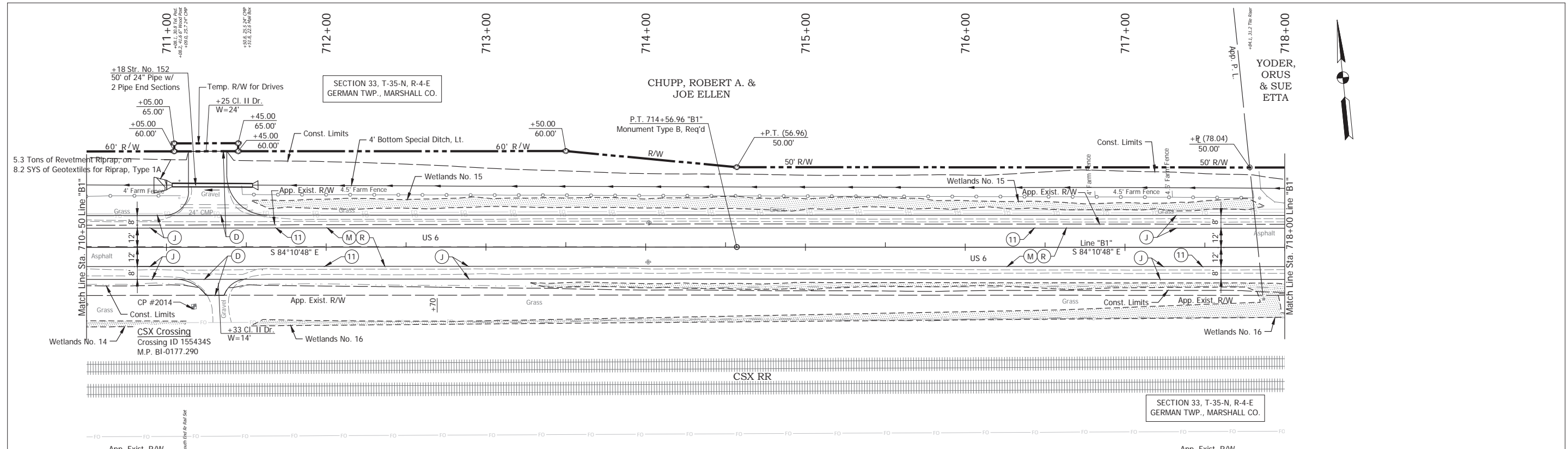
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

**INDIANA**  
 DEPARTMENT OF TRANSPORTATION

**PLAN AND PROFILE - LINE "B1"**  
 STA. 703+00 TO STA. 710+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	56 of 346
CONTRACT	PROJECT
R-43381	2001886

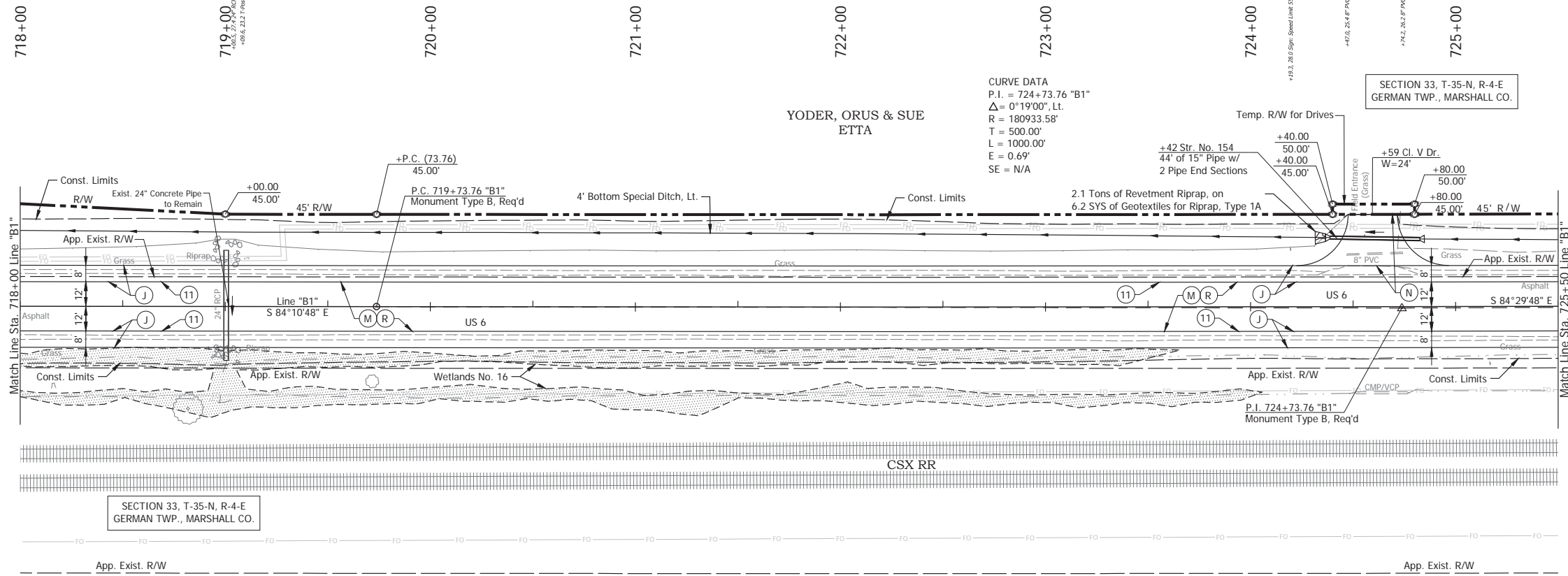
Date: May 22, 2024, 8:46am User Name: Bryan.Szymour  
 File: X:\production\files\2024\1121-3039\CAD\Plans\DWG\RD\_PlanProfile\_B1-03.dwg (P1920)



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (D) HMA for Approaches, Type B  
165 lbs/sys HMA Surface Type B on 275 lbs/sys HMA Intermediate Type B on 6" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm  
330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm  
330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____ DATE April 23, 2024		INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 30'		BRIDGE FILE N/A	
DESIGNED: _____ MMT		DRAWN: _____ DJG				VERTICAL SCALE 1" = 10'		DESIGNATION 2001886/1702997	
CHECKED: _____ BSS		CHECKED: _____ BJS		PLAN AND PROFILE - LINE "B1" STA. 710+50 TO STA. 718+00		SURVEY BOOK		SHEET	
						ELECTRONIC		57 of 346	
						CONTRACT		PROJECT	
						R-43381		2001886	

Date: May 22, 2024, 8:46am User Name: Bryan.Symour  
 File: X:\production\files\2024\1121-3035\GCD\Plan\Profile\_B1-03.dwg (P127)

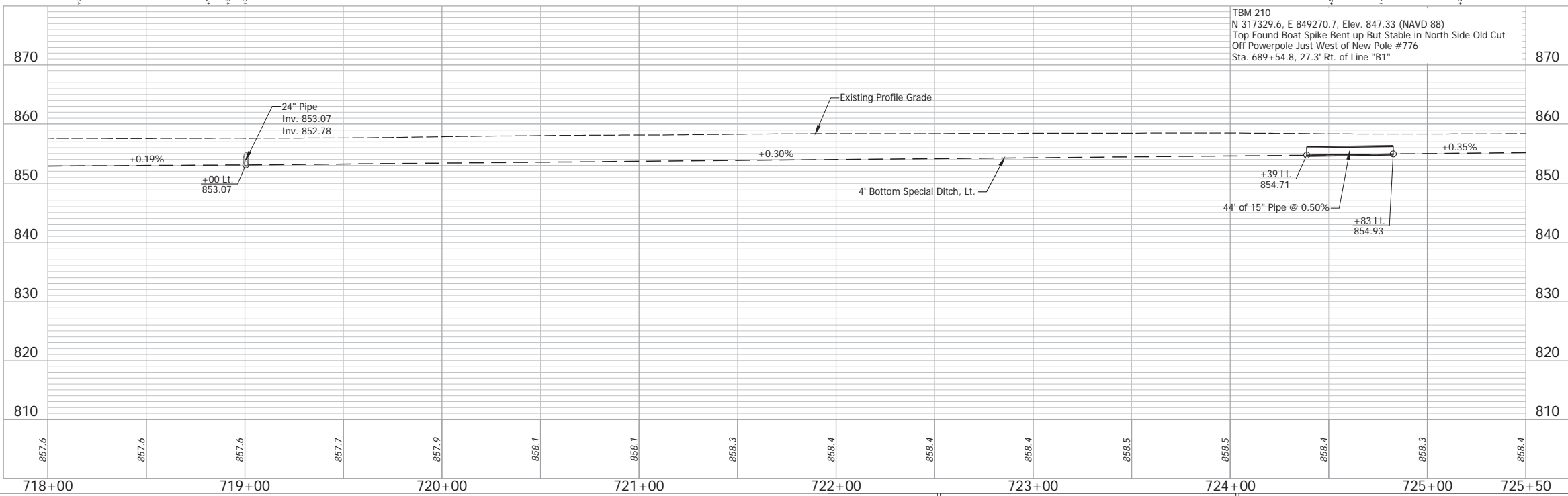


**CURVE DATA**  
 P.I. = 724+73.76 "B1"  
 $\Delta = 0^\circ 19' 00"$ , Lt.  
 R = 180933.58'  
 T = 500.00'  
 L = 1000.00'  
 E = 0.69'  
 SE = N/A

SECTION 33, T-35-N, R-4-E  
 GERMAN TWP., MARSHALL CO.

SECTION 33, T-35-N, R-4-E  
 GERMAN TWP., MARSHALL CO.

MILLER, JAMES ALAN & NETTIE JEAN

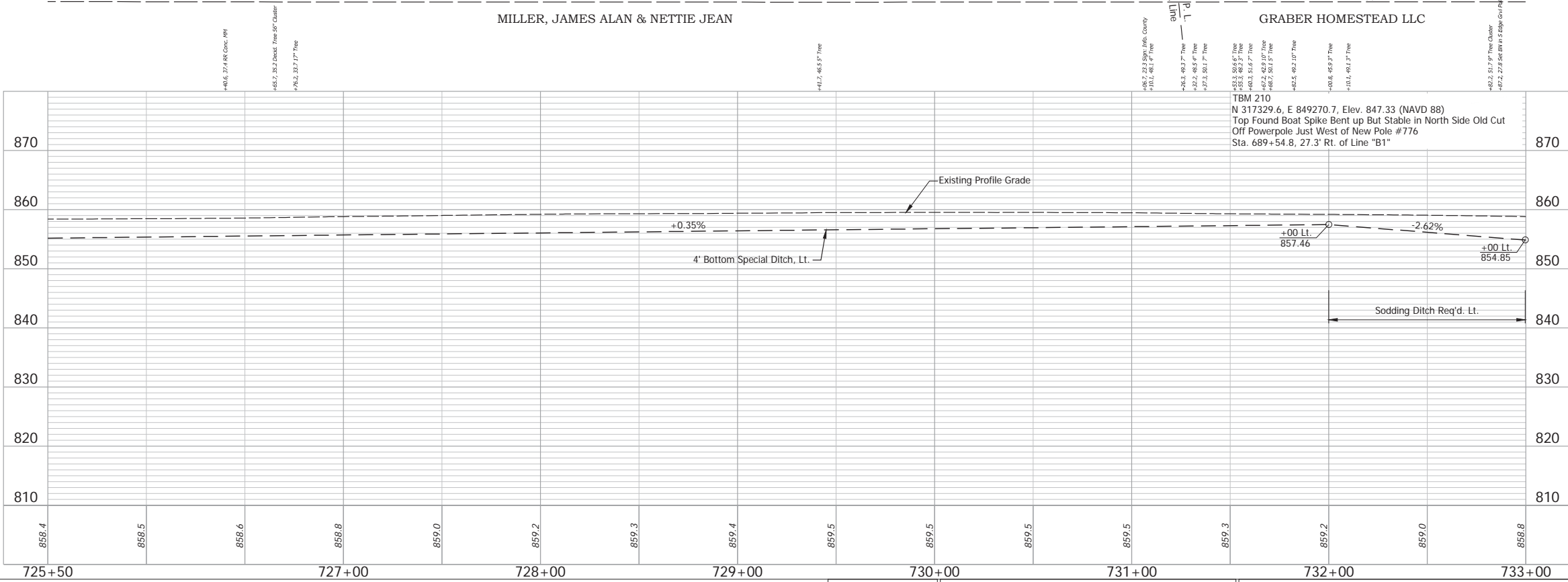
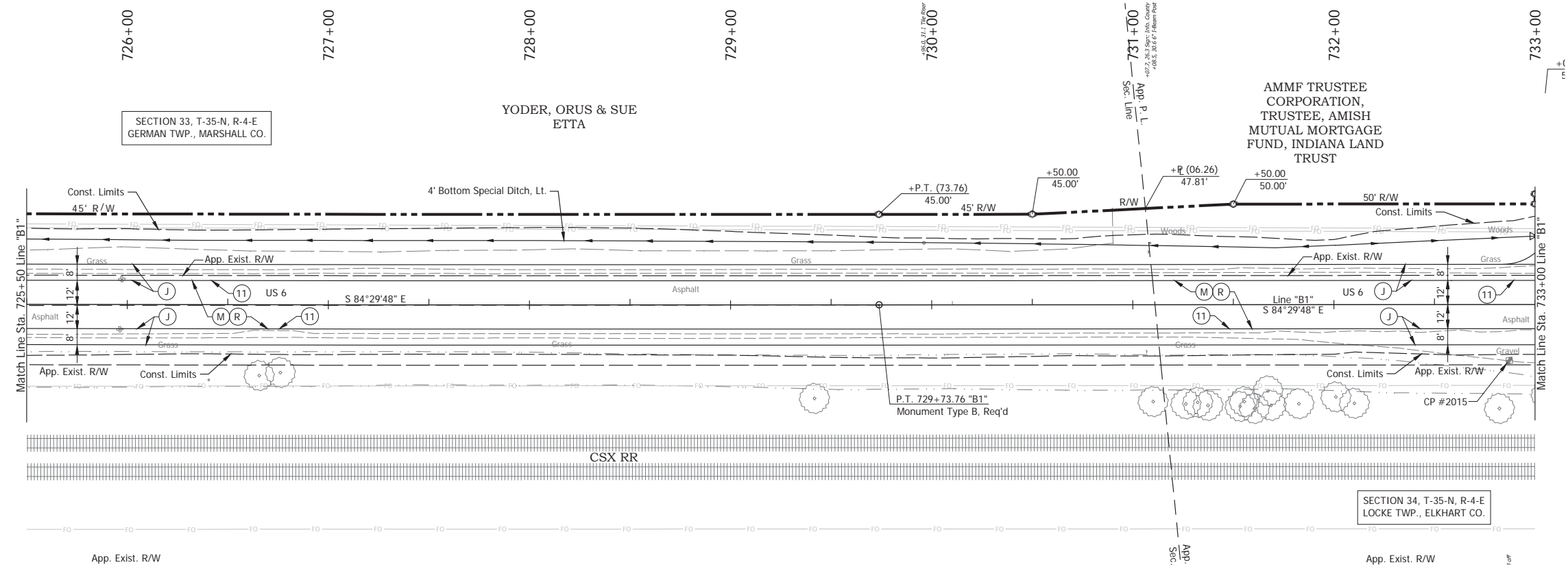


**TBM 210**  
 N 317329.6, E 849270.7, Elev. 847.33 (NAVD 88)  
 Top Found Boat Spike Bent up But Stable in North Side Old Cut  
 Off Powerpole Just West of New Pole #776  
 Sta. 689+54.8, 27.3' Rt. of Line "B1"

- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (N) Compacted Aggregate, No. 53, 6"
  - (11) Sawcut

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE April 23, 2024	<b>INDIANA DEPARTMENT OF TRANSPORTATION</b>	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
DESIGNED: _____ MMT	DRAWN: _____ DJG	CHECKED: _____ BSS		SURVEY BOOK ELECTRONIC 58 of 346	DESIGNATION 2001886/1702997
<b>PLAN AND PROFILE - LINE "B1" STA. 718+00 TO STA. 725+50</b>				PROJECT R-43381	SHEET 2001886

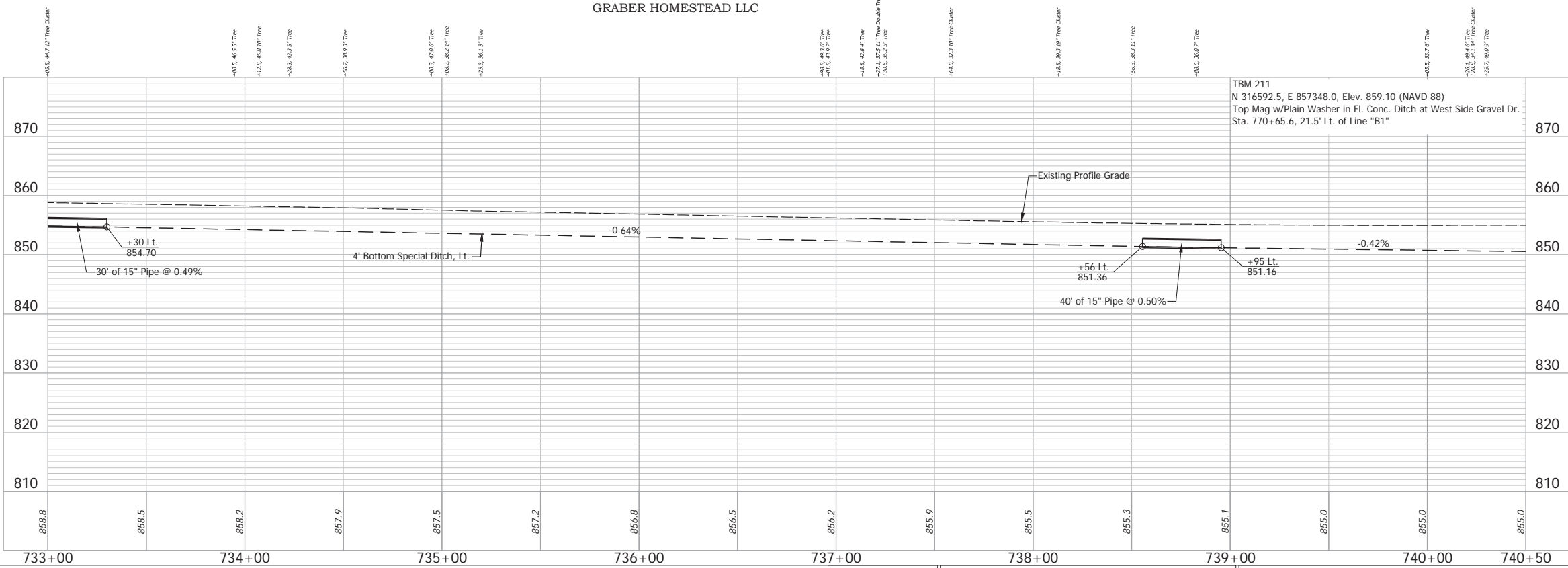
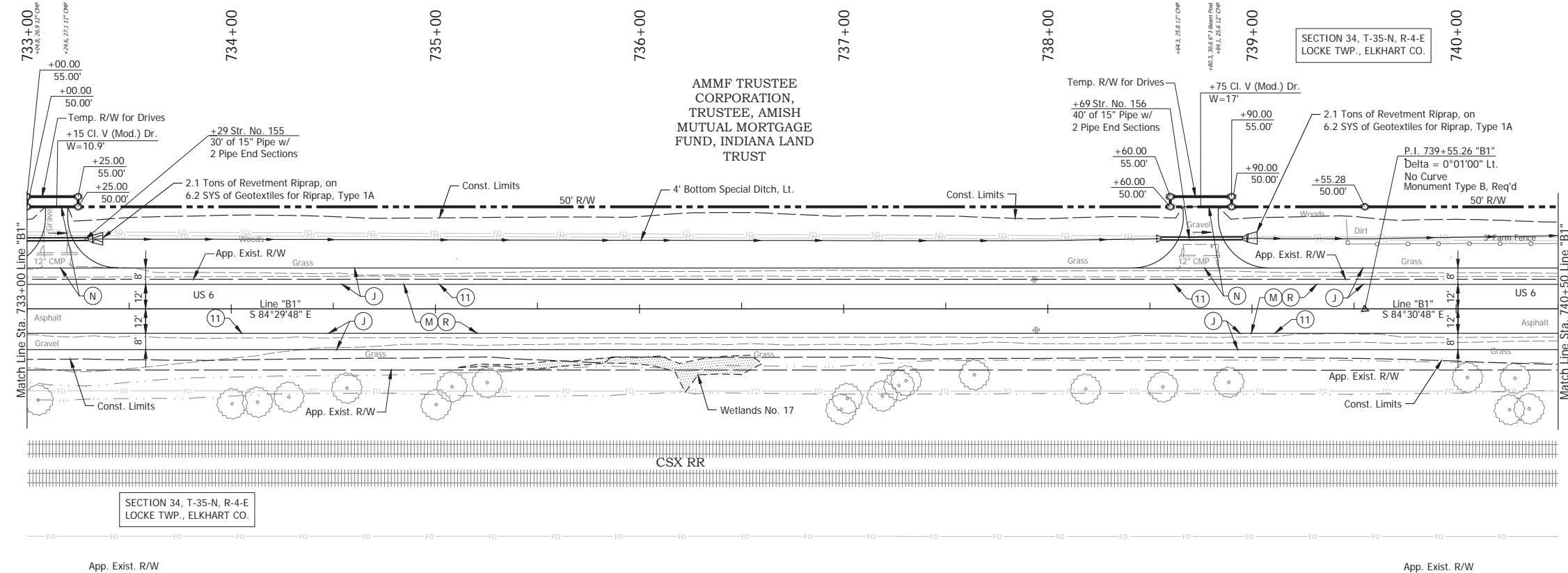
Date: May 22, 2024, 8:46am User Name: Bryan.Szymour  
 File: X:\production\files\2024\1721-3039\CAD\Plans\B1-03.dwg (P1929)



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

Date: May 22, 2024, 8:48am User Name: Bham.Symour  
 File: X:\production\files\2024\1121-3039\CAD\Plans\B1-03.dwg (P1929)

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE	INDIANA DEPARTMENT OF TRANSPORTATION  <b>PLAN AND PROFILE - LINE "B1"</b> <b>STA. 725+50 TO STA. 733+00</b>	HORIZONTAL SCALE	BRIDGE FILE
					1" = 30'	N/A
DESIGNED: MMT	DRAWN: DJG				VERTICAL SCALE	DESIGNATION
			1" = 10'		2001886/1702997	
CHECKED: BSS	CHECKED: BJS			SURVEY BOOK	SHEET	
				ELECTRONIC	59 of 346	
				CONTRACT	PROJECT	
				R-43381	2001886	



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (N) Compacted Aggregate, No. 53, 6"
  - (11) Sawcut

SECTION 34, T-35-N, R-4-E  
LOCKE TWP., ELKHART CO.

SECTION 34, T-35-N, R-4-E  
LOCKE TWP., ELKHART CO.

GRABER HOMESTEAD LLC

AMMF TRUSTEE CORPORATION,  
TRUSTEE, AMISH  
MUTUAL MORTGAGE  
FUND, INDIANA LAND  
TRUST

INDIANA  
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE - LINE "B1"  
STA. 733+00 TO STA. 740+50

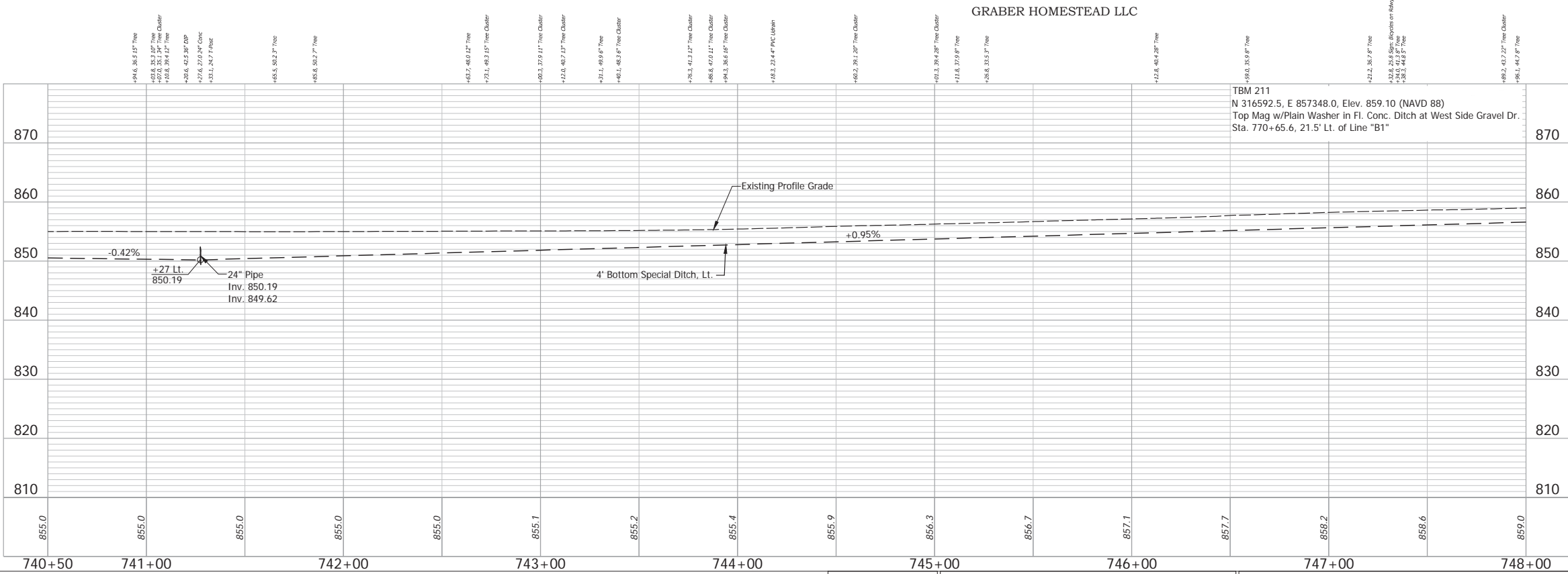
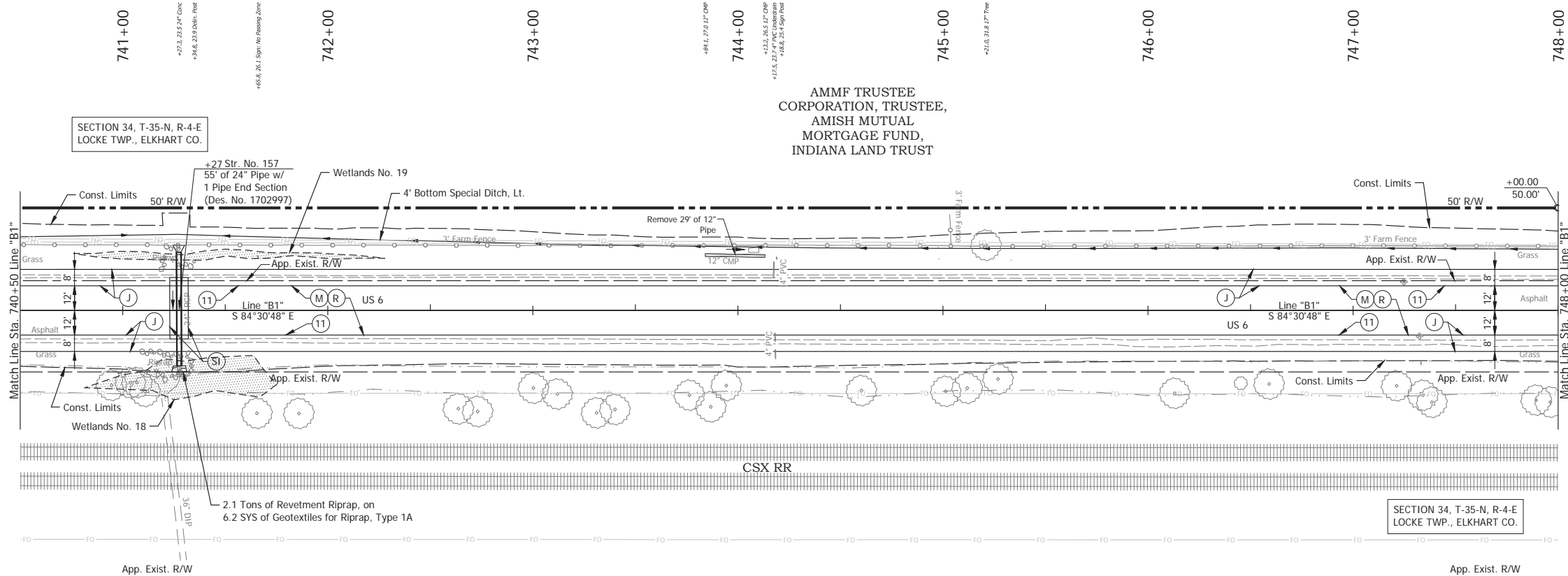
RECOMMENDED FOR APPROVAL \_\_\_\_\_ DATE April 23, 2024

DESIGNED BY: MMT DRAWN BY: DJG

CHECKED BY: BSS CHECKED BY: BJS

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	2001886/1702997
SURVEY BOOK	SHEET
ELECTRONIC	60 of 346
CONTRACT	PROJECT
R-43381	2001886

Date: May 22, 2024, 8:48am User Name: Bryan.Szymour  
File: X:\Information\Files\2021\1121-3035\GD\Plans\DR\RD\_Plan\Profile\_B1-03.dwg (RIP30)



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB HMA for Structure Installation: 330 lbs/sys QC/OA-HMA Intermediate, 3, 58H, 19mm on 770 lbs/sys QC/OA-HMA Base, 3, 58S, 19mm on Subgrade Treatment, Type II
  - (SI) HMA for Structure Installation: 330 lbs/sys QC/OA-HMA Intermediate, 3, 58H, 19mm on 770 lbs/sys QC/OA-HMA Base, 3, 58S, 19mm on Subgrade Treatment, Type II
  - (11) Sawcut

AMMF TRUSTEE CORPORATION, TRUSTEE,  
AMISH MUTUAL MORTGAGE FUND,  
INDIANA LAND TRUST

SECTION 34, T-35-N, R-4-E  
LOCKE TWP., ELKHART CO.

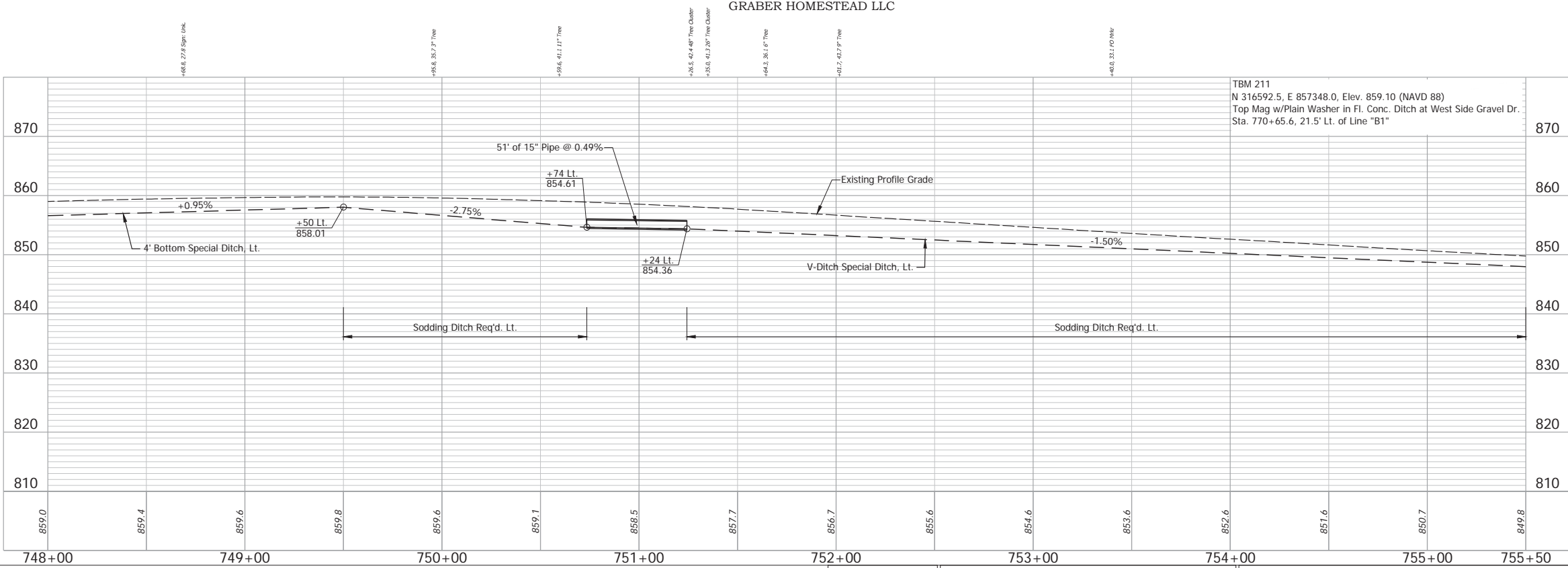
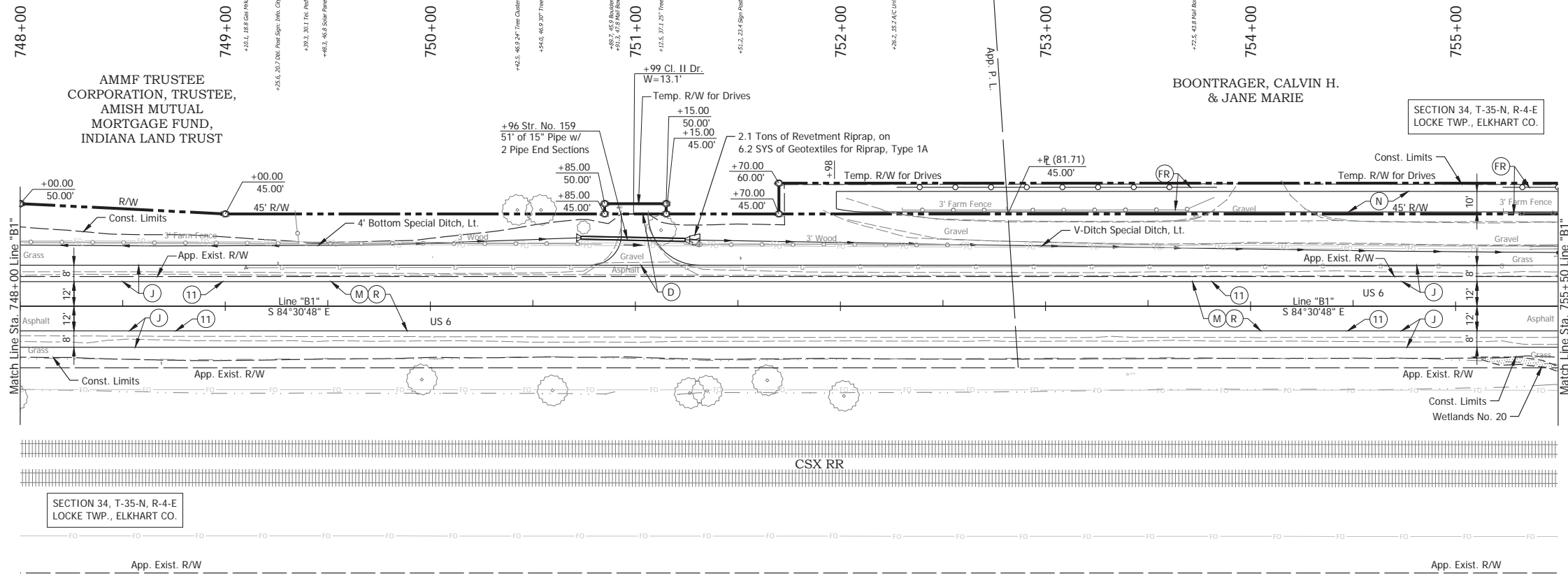


Date: May 22, 2024, 8:58am User Name: Bryan.Szymour  
File: X:\production\files\2024\1721-3035\CAD\Plans\DR\B1\_04.dwg (P131)

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE
DESIGNED: MMT	DRAWN: DJG		
CHECKED: BSS	CHECKED: BJS		

INDIANA  
DEPARTMENT OF TRANSPORTATION  
**PLAN AND PROFILE - LINE "B1"**  
**STA. 740+50 TO STA. 748+00**

HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
VERTICAL SCALE 1" = 10'	DESIGNATION 2001886/1702997
SURVEY BOOK ELECTRONIC	SHEET 61 of 346
CONTRACT R-43381	PROJECT 2001886



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (D) HMA for Approaches, Type B  
165 lbs/sys HMA Surface Type B on 275 lbs/sys HMA Intermediate Type B on 6\"/>
- (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm  
330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm  
330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (N) Compacted Aggregate, No. 53, 6"
  - (FR) Fence, Relocate
  - (11) Sawcut

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____ DATE April 23, 2024	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE	BRIDGE FILE
		PLAN AND PROFILE - LINE "B1" STA. 748+00 TO STA. 755+50		1" = 30'	N/A
DESIGNED: _____ MMT	DRAWN: _____ DJG	INDIANA DEPARTMENT OF TRANSPORTATION		VERTICAL SCALE	DESIGNATION
CHECKED: _____ BSS	CHECKED: _____ BJS			1" = 10'	2001886/1702997
		INDIANA DEPARTMENT OF TRANSPORTATION		SURVEY BOOK	SHEET
				R-43381	62 of 346
		INDIANA DEPARTMENT OF TRANSPORTATION		ELECTRONIC	PROJECT
				R-43381	2001886

Date: May 22, 2024, 8:58am User Name: Bryan.Szymour  
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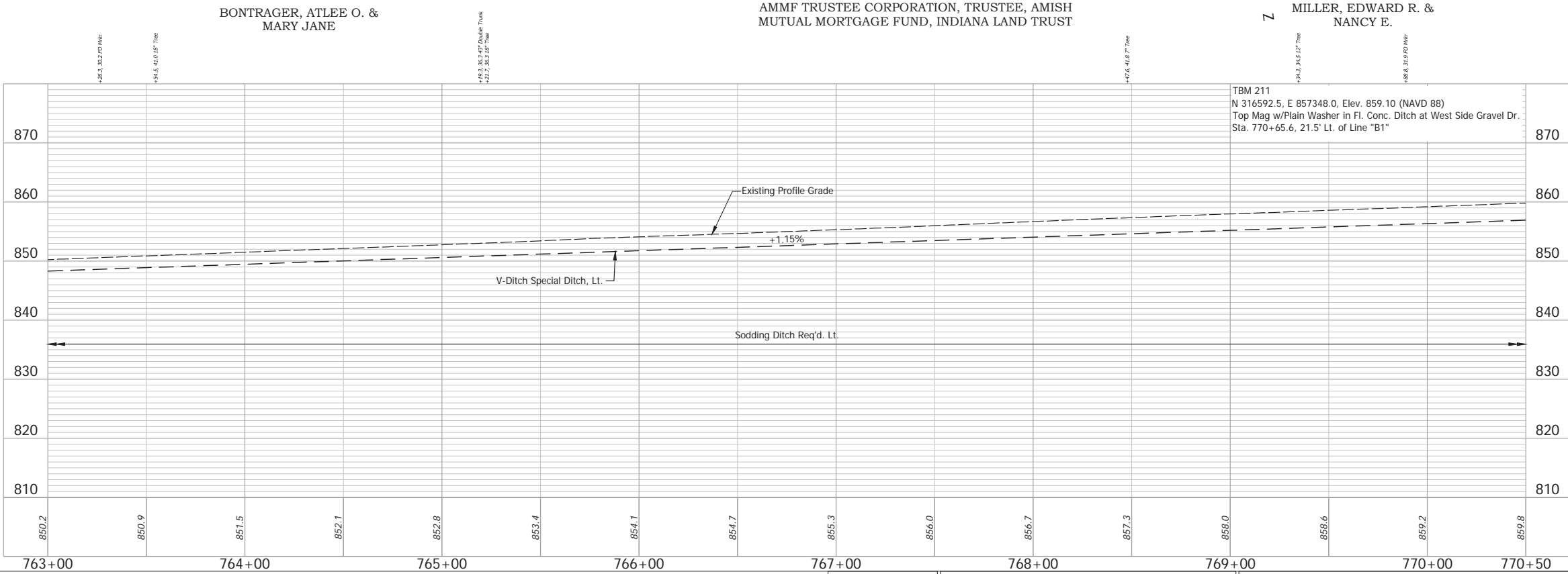
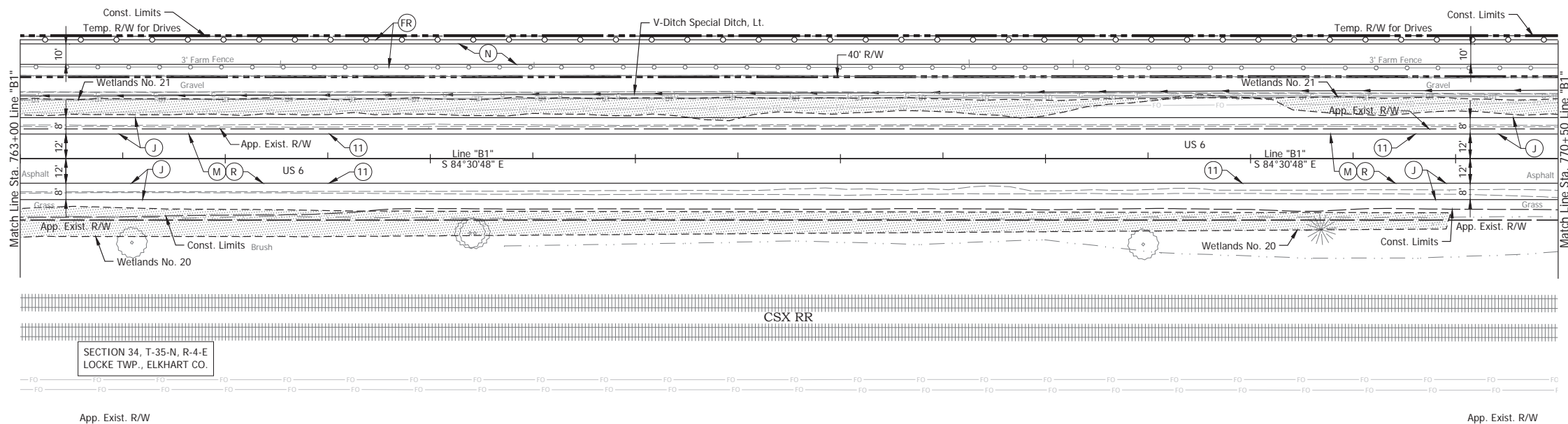




763+00 764+00 765+00 766+00 767+00 768+00 769+00 770+00

HOCHSTETLER, FLOYD M. & LINDA F.

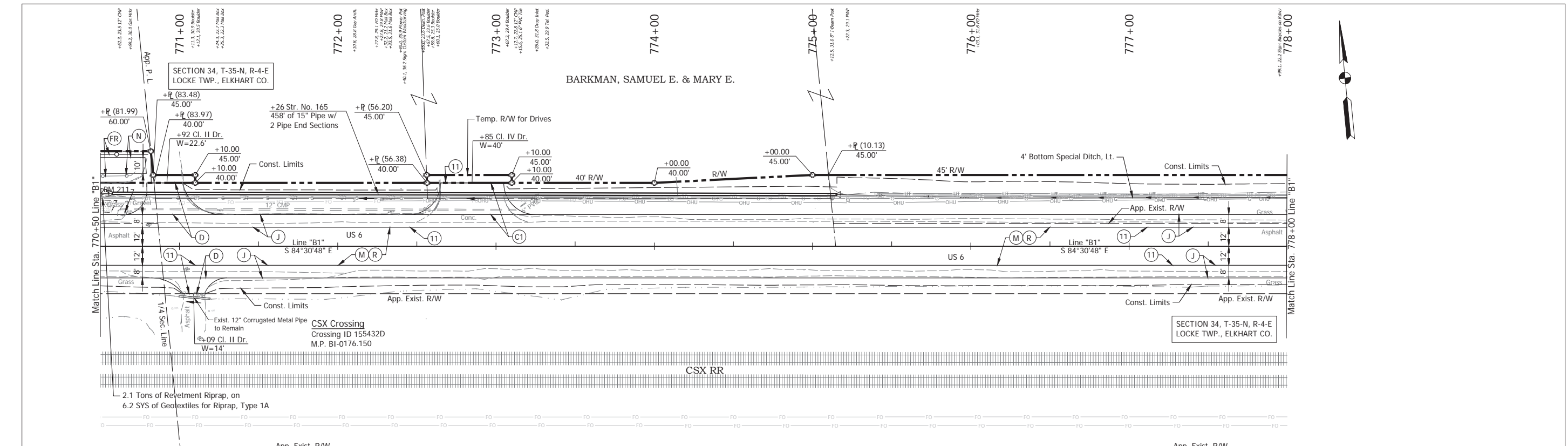
SECTION 34, T-35-N, R-4-E  
LOCKE TWP., ELKHART CO.



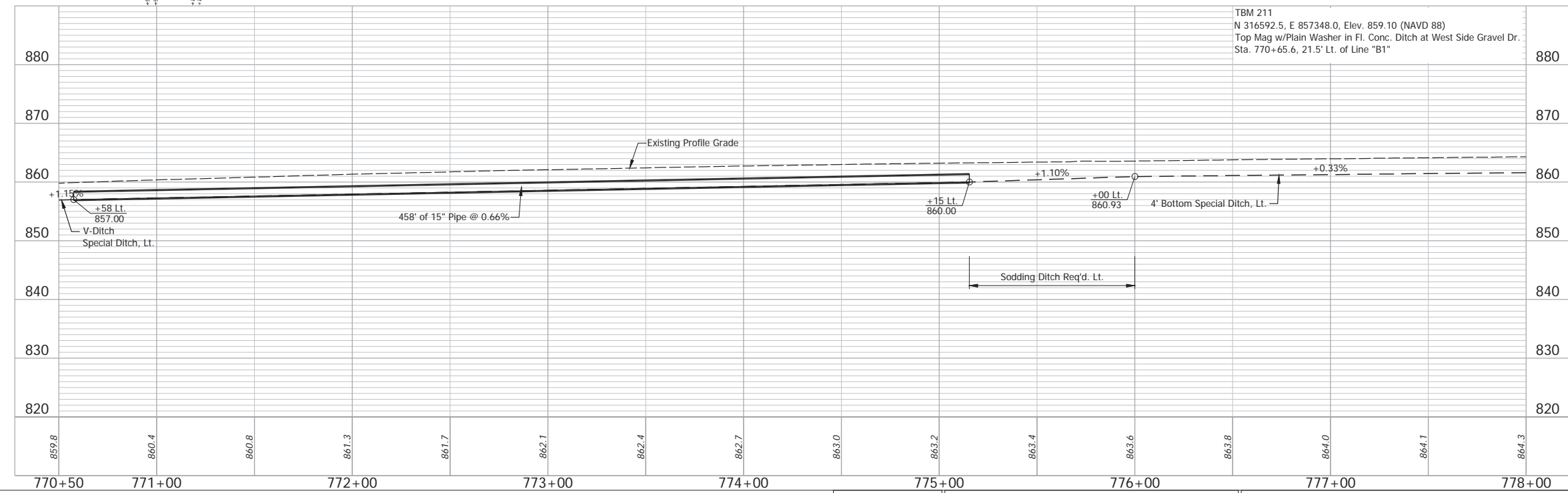
- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (FR) Fence, Relocate
  - (N) Compacted Aggregate, No. 53, 6"
  - (11) Sawcut

Date: May 22, 2024, 8:58am User Name: Bryan.Szymour  
File: X:\production\files\2024\1121-3035\GAD\Plans\B1-04.dwg (P193)

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE April 23, 2024	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
DESIGNED: _____ MMT	DRAWN: _____ DJG	CHECKED: _____ BSS		CHECKED: _____ BJS	VERTICAL SCALE 1" = 10'
PLAN AND PROFILE - LINE "B1" STA. 763+00 TO STA. 770+50			SURVEY BOOK _____ SHEET _____ ELECTRONIC 64 of 346 CONTRACT R-43381 PROJECT 2001886		



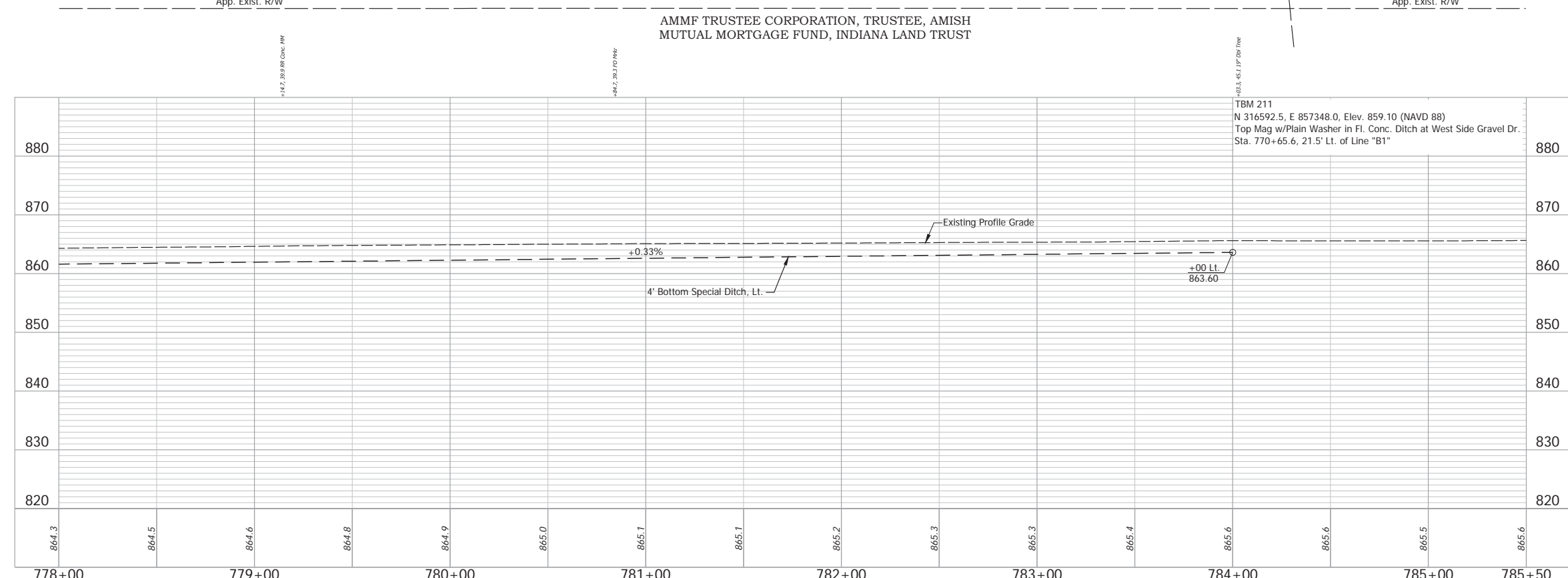
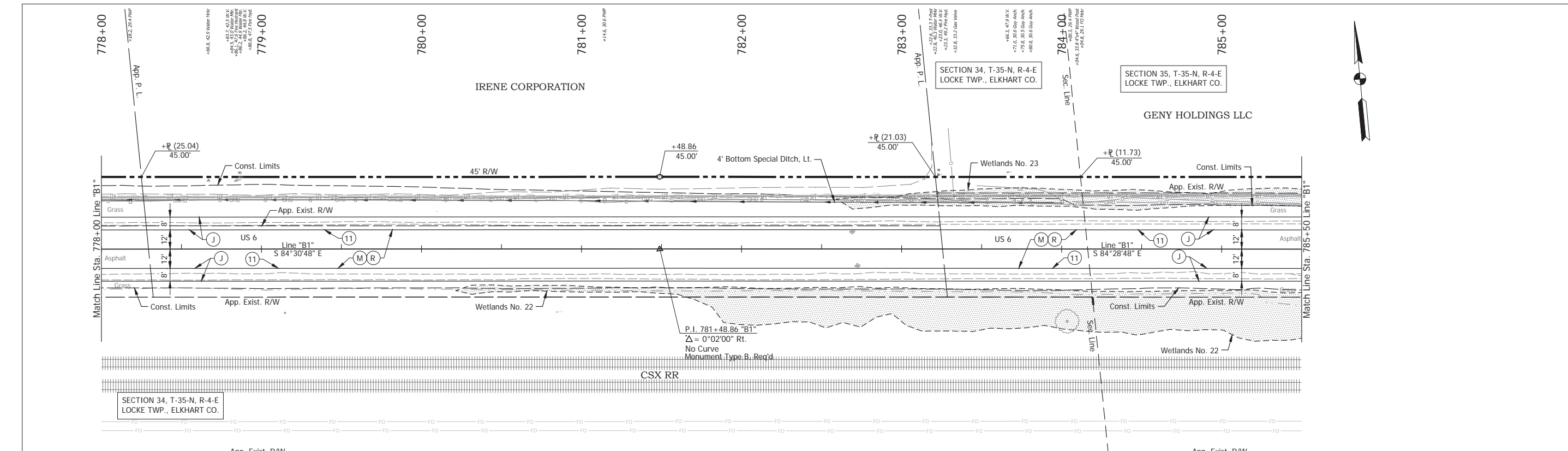
MILLER, EDWARD R. & NANCY E.      AMMF TRUSTEE CORPORATION, TRUSTEE, AMISH MUTUAL MORTGAGE FUND, INDIANA LAND TRUST



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (C1) PCCP for Approaches, 9 in., on Dense Graded Subbase, 6 in., on Geogrid Type 1B, on Subgrade Treatment Type II
  - (D) HMA for Approaches, Type B 165 lbs/sys HMA Surface Type B on 275 lbs/sys HMA Intermediate Type B on 6\" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (FR) Fence, Relocate
  - (N) Compacted Aggregate, No. 53, 6"
  - (11) Sawcut

Date: May 22, 2024, 8:58am User Name: Bryan.Szymour File: X:\production\files\2024\1121-5035\CAD\Plans\SHL\_RD\_PlanProfile\_B1-04.dwg (P1935)

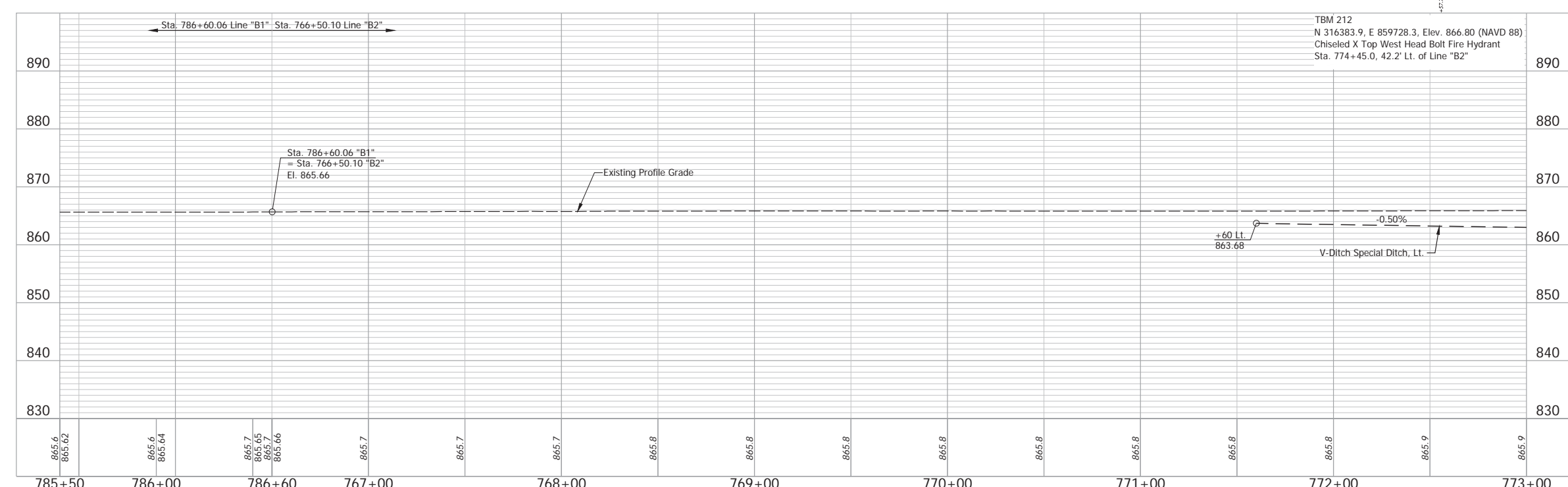
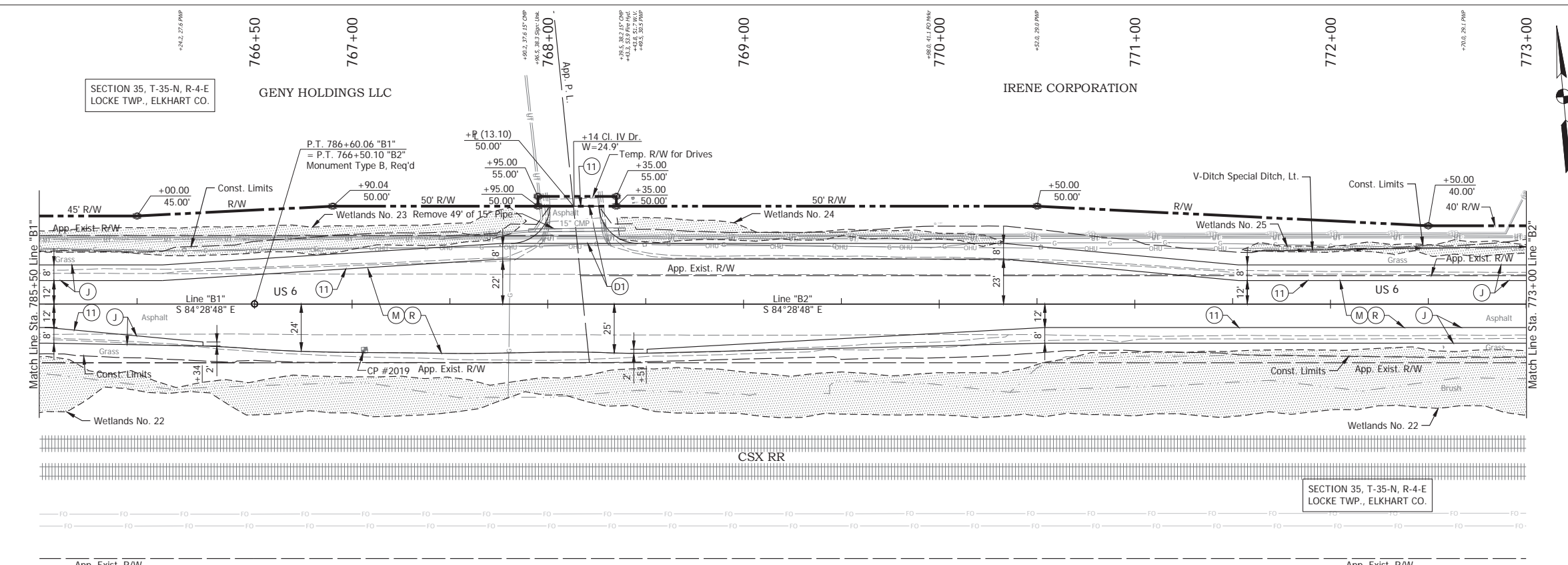
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____ DATE April 23, 2024	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
		DESIGNED: _____ MMT	DRAWN: _____ DJG	VERTICAL SCALE 1" = 10'	DESIGNATION 2001886/1702997
CHECKED: _____ BSS	CHECKED: _____ BJS	PLAN AND PROFILE - LINE "B1" STA. 770+50 TO STA. 778+00		SURVEY BOOK ELECTRONIC	SHEET 65 of 346
				CONTRACT R-43381	PROJECT 2001886



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (J) 165 lbs/sys QC/OA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/OA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/OA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

Date: May 22, 2024, 8:58am User Name: Bryan.Szymour  
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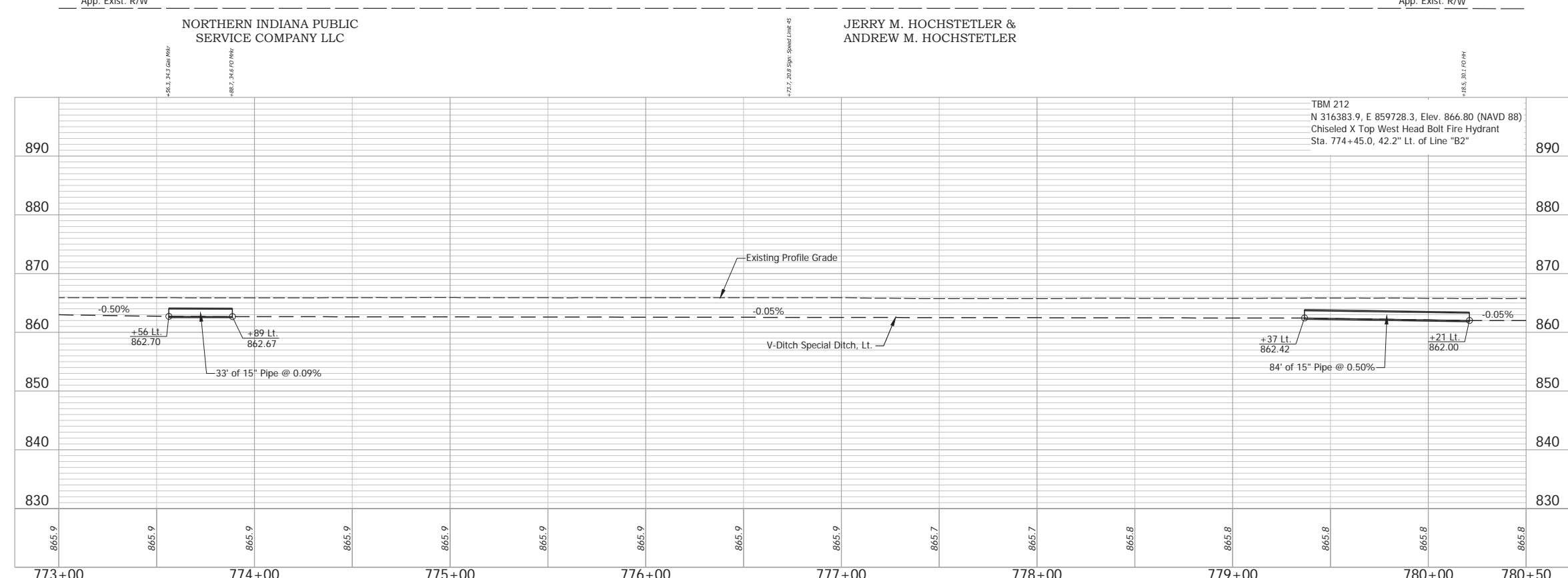
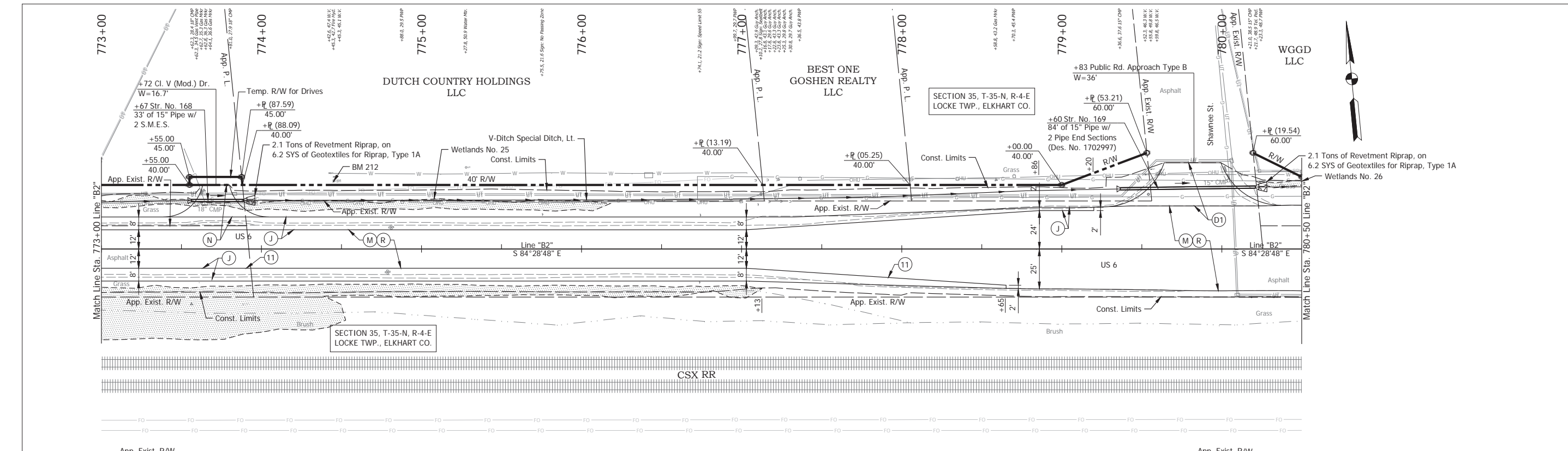
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE April 23, 2024	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
DESIGNED: _____ MMT	DRAWN: _____ DJG			VERTICAL SCALE 1" = 10'	DESIGNATION 2001886/1702997
CHECKED: _____ BSS	CHECKED: _____ BJS		PLAN AND PROFILE - LINE "B1" STA. 778+00 TO STA. 785+50	SURVEY BOOK ELECTRONIC	SHEET 66 of 346
				CONTRACT R-43381	PROJECT 2001886



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/QA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/QA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (D1) HMA for Approaches, Type B  
165 lbs/sys HMA Surface Type B on 495 lbs/sys HMA Intermediate Type B on 4" Compacted Aggregate No. 53, on Subgrade Treatment, Type II
  - (J) 165 lbs/sys QC/QA HMA Surface, 3, 58H, 9.5mm 330 lbs/sys QC/QA HMA Intermediate, 3, 58H, 19mm 330 lbs/sys QC/QA HMA Base, 3, 58S, 19mm on 4 in. of Compacted Aggregated, No. 53, on Subgrade Treatment, Type II on Geogrid, Type IB
  - (11) Sawcut

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	April 23, 2024	DATE	<b>INDIANA DEPARTMENT OF TRANSPORTATION</b>	HORIZONTAL SCALE	BRIDGE FILE
DESIGNED: MMT	DRAWN: DJG				1" = 30'	N/A
CHECKED: BSS	CHECKED: BJS			VERTICAL SCALE	DESIGNATION	
				1" = 10'	2001886/1702997	
<b>PLAN AND PROFILE - LINE "B1" &amp; "B2" STA. 785+50 "B1" TO STA. 773+00 "B2"</b>				SURVEY BOOK	SHEET	
				ELECTRONIC	67	of
				CONTRACT	PROJECT	
				R-43381	2001886	

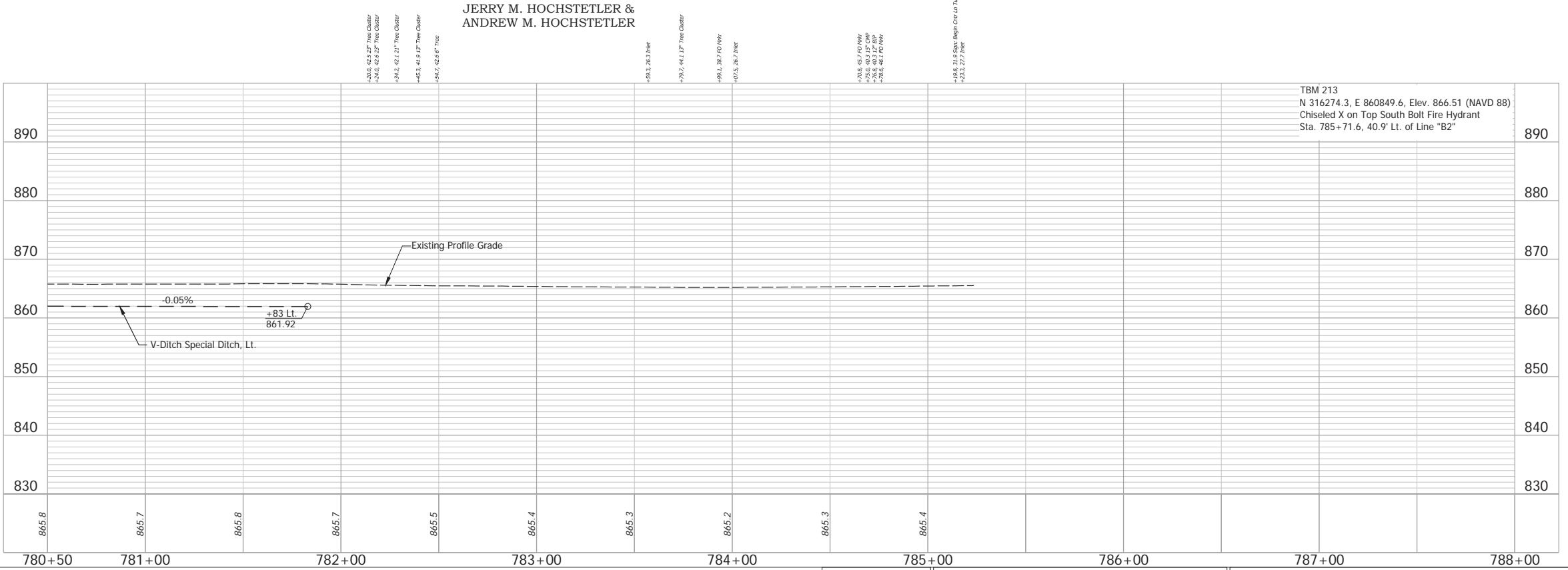
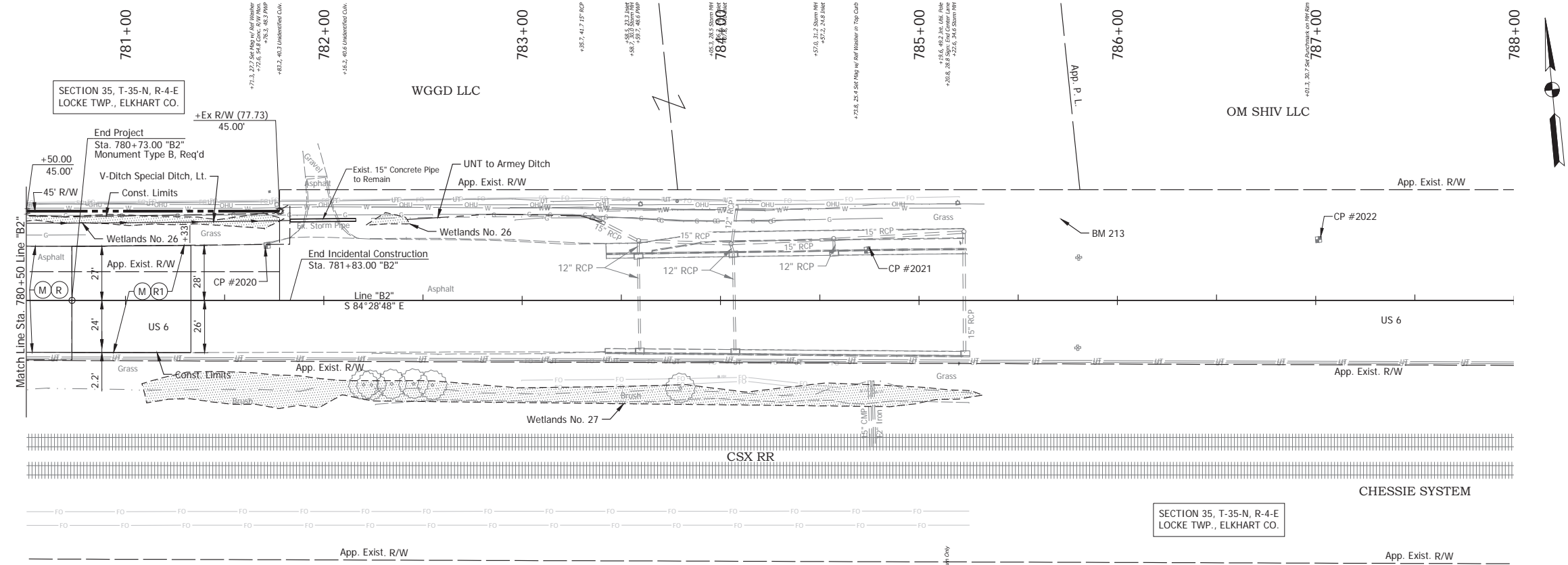
Date: May 22, 2024, 8:51am User Name: Bryan.Symour  
File: X:\production\files\2024\1121-5035\CAD\Plans\DRG\RD\_PlanProfile\_02-01.dwg (P1937)



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
- (DES. NO. 1702997) LEGEND:**
- (D1) HMA for Approaches, Type B  
165 lbs/sys HMA Surface Type B on 495 lbs/sys HMA Intermediate Type B on 4\"/>

Date: May 22, 2024, 8:51am User Name: Bryan.Szymour  
 File: X:\production\files\20211221-2025\CAD\Plans\DESIGN\RD\_PlanProfile\_B2-01.dwg (P1P20)

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE April 23, 2024	<b>INDIANA DEPARTMENT OF TRANSPORTATION</b> <b>PLAN AND PROFILE - LINE "B2"</b> <b>STA. 773+00 TO STA. 780+50</b>	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
DESIGNED: _____ MMT	DRAWN: _____ DJG	CHECKED: _____ BSS		CHECKED: _____ BJS	VERTICAL SCALE 1" = 10'
				SURVEY BOOK ELECTRONIC	SHEET 68 of 346
				CONTRACT R-43381	PROJECT 2001886



- (DES. NO. 2001886) LEGEND:**
- (M) Milling, Asphalt, 1 1/2 in.
  - (R) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on 275 lbs/sys QC/OA-HMA, 3, 58H, Intermediate, 19mm
  - (R1) 165 lbs/sys QC/OA-HMA, 3, 58H, Surface, 9.5mm on Variable QC/OA-HMA, 3, 58H, Intermediate, 19mm
  - (11) Sawcut

Date: May 22, 2024, 8:51am User Name: Bryan.Symour  
 File: X:\production\files\2021121-3035\CAD\Plans\B2-01.dwg (P19/39)

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER	April 23, 2024 DATE	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE	BRIDGE FILE
				1" = 30'	N/A
DESIGNED: _____ MMT	DRAWN: _____ DJG	PLAN AND PROFILE - LINE "B2" STA. 780+50 TO STA. 788+00		VERTICAL SCALE	DESIGNATION
CHECKED: _____ BSS	CHECKED: _____ BJS			1" = 10'	2001886/1702997
				SURVEY BOOK	SHEET
				ELECTRONIC	69 of 346
				CONTRACT	PROJECT
				R-43381	2001886