

Project No: ENG2502861255

1 of 8



PROJECT LOCATION SHOWN BY ●
Steuben County

DEPARTMENT OF NATURAL RESOURCES

SMALL STRUCTURE MAINTENANCE AND REPAIR

PROJECT NO. ENG2502861255

PROJECT DESCRIPTION

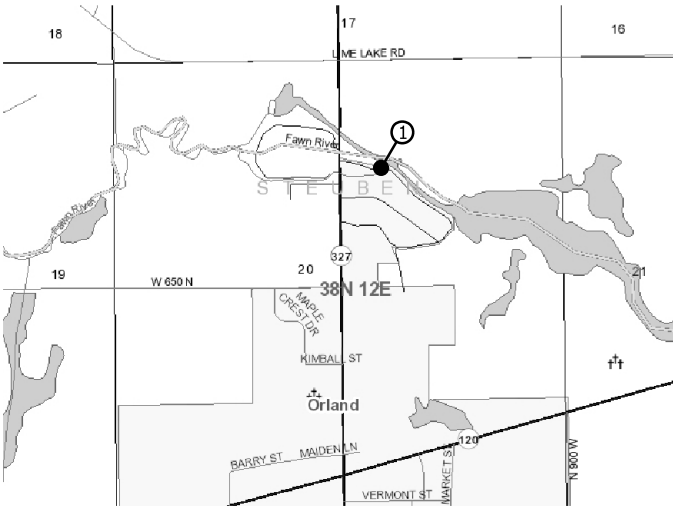
Small Structure Repair in Steuben County

PROJECT LOCATION

Fawn River Fish Hatchery-Culvert on Park/Service Rd. over Fawn River Bypass Creek

GROSS LENGTH 0.01 MI.

NET LENGTH 0.01 MI.



LOCATION MAP

TRAFFIC DATA	
A.A.D.T. (2023)	N/A
A.A.D.T. PROJ. (2043)	N/A
D.H.V. (2043)	N/A
DIRECTIONAL DISTRIBUTION	N/A
TRUCKS	N/A
	N/A

DESIGN DATA	
DESIGN SPEED	30 MPH
PROJECT DESIGN CRITERIA	PARTIAL 3R
FUNCTIONAL CLASS	LOCAL ROAD
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE

LATITUDE:	41°44'26" N
LONGITUDE:	85°10'10" W

PLANS PREPARED BY: AECOM

PHONE NUMBER: 317-532-5400



DATE: 12/9/2024

Gerard F. Mroczka

CERTIFIED BY:

RECOMMENDED FOR LETTING: DEPARTMENT OF NATURAL RESOURCES

DATE

PROJECT DESCRIPTION: Small Structure Repair in Steuben County

INDEX, GENERAL NOTES & UTILITIES INFORMATION SHEET

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8	SUMMARY

UTILITIES
<u>WATER</u> Town of Orland, Water Works April Sanders orlandtownclerk@gmail.com



Note to Reviewer:
Gathering of Utility Information is Ongoing.

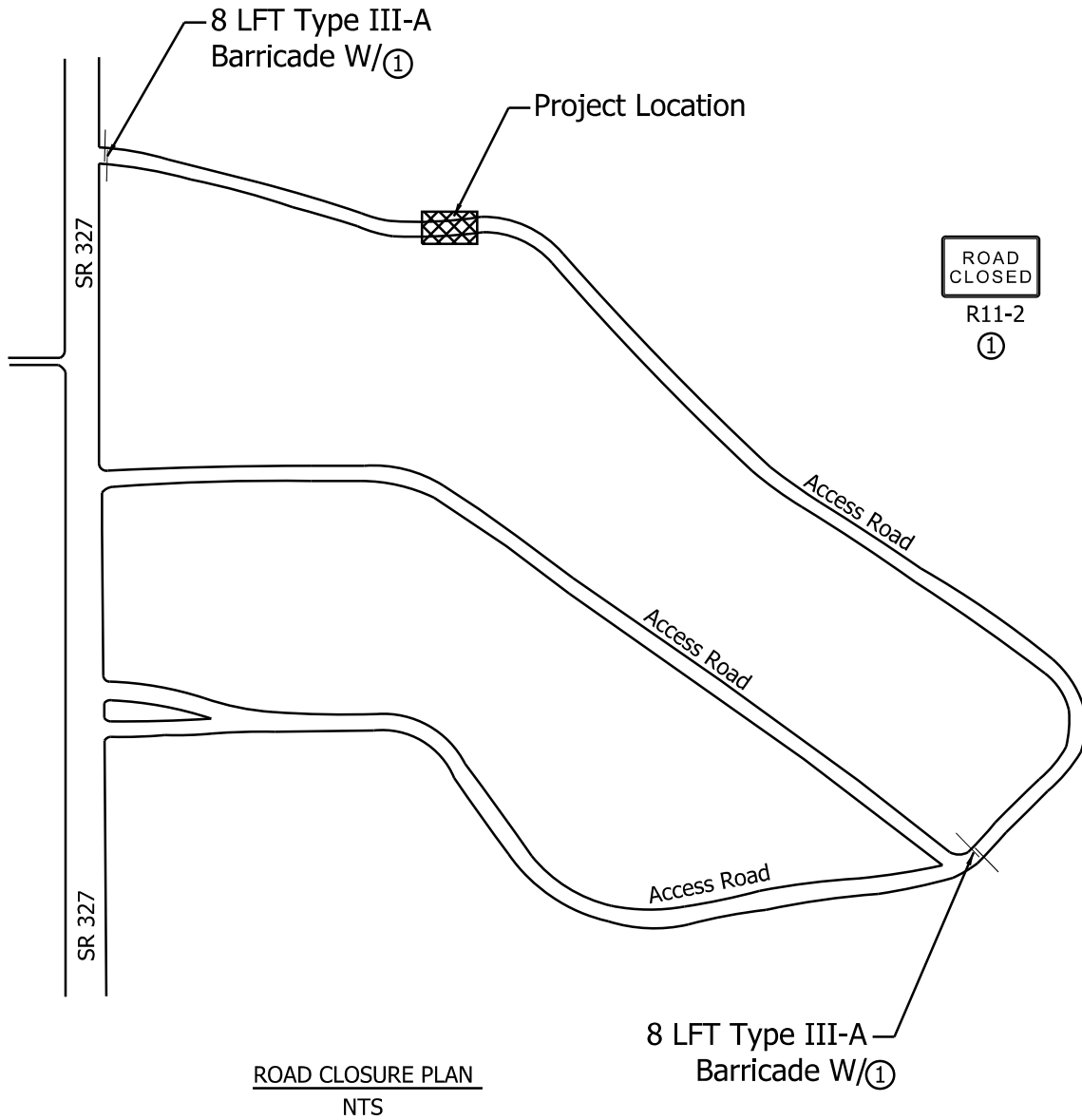
CULVERT LOCATION INFORMATION TABLE							
Str.	Project No.	Culvert Asset ID (Structure Type)	Route and Crossing	Location	Route	County	Latitude/Longitude
1	ENG2502861255	CV P000-076-Fawn-2 (R.C. Slab on R.C. Beams)	Park/Service Rd. over Fawn River Bypass Creek	Fawn River Fish Hatchery (East of SR 327)	Park/Service Rd.	Steuben	Lat: 41°44'26" N Long: 85°10'10" W



Recommended for Approval:

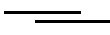

Date:
12/9/2024

MAINTENANCE OF TRAFFIC - ROAD CLOSURE



ROAD CLOSURE PLAN
NTS

LEGEND

-  Type III-A Barricade
-  Construction Area

MAINTENANCE OF TRAFFIC QUANTITIES		
Pay Item	Unit	Quantity
Maintaining Traffic	LS	1
Barricade, Type III-A	LFT	16
Road Closure Sign Assembly	EACH	2



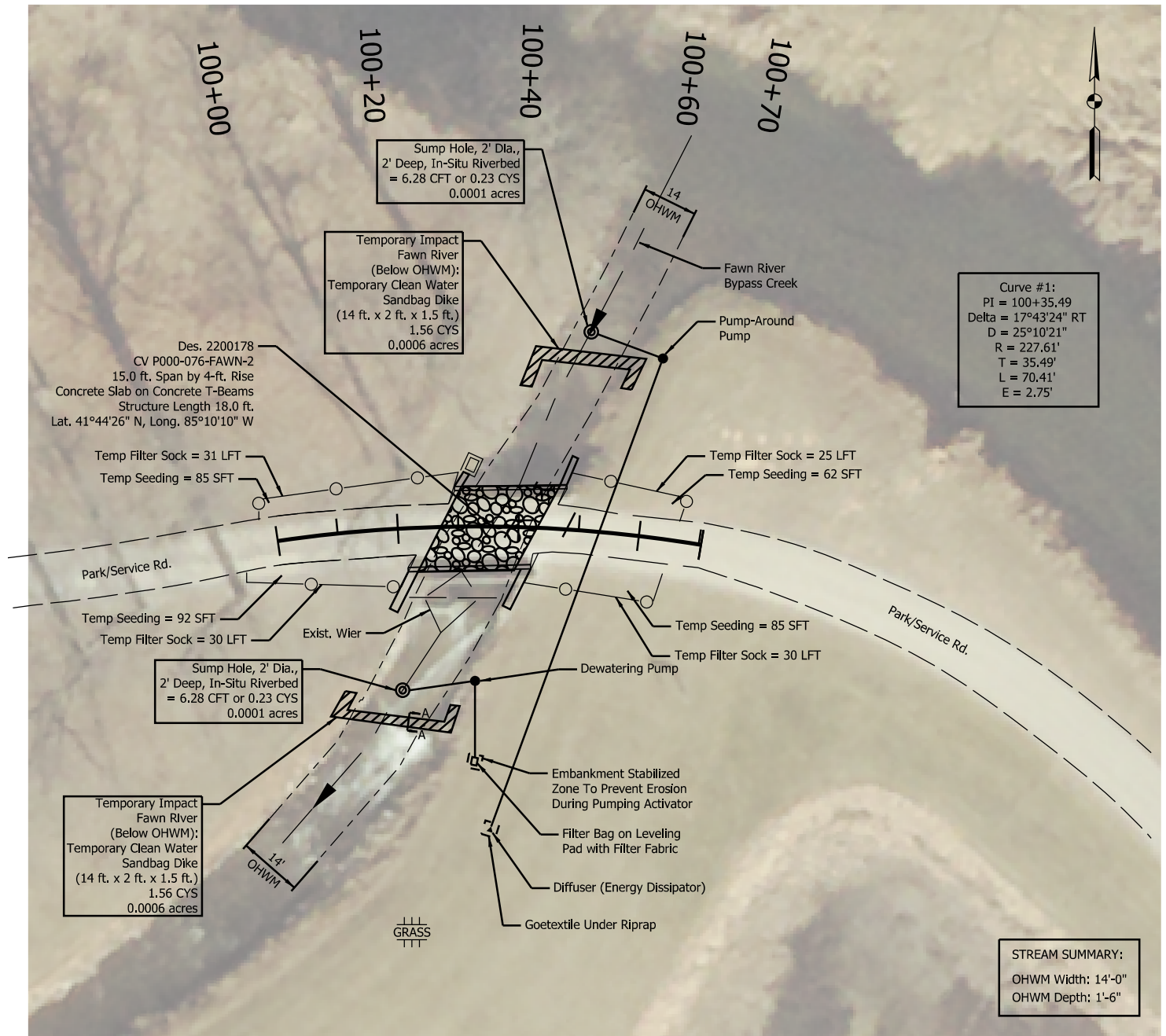
Recommended for Approval:

[Signature]

Date:

12/9/2024

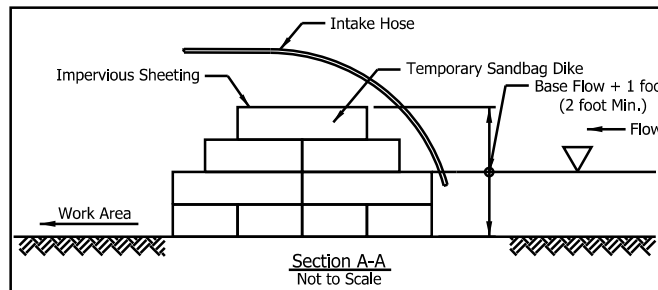
EROSION CONTROL



AERIAL
Not to Scale

LEGEND

- Temporary Filter Sock
- Filter Bags on #5 or #8 Stone
- Pump Around
- ▣ Diffuser (Energy Dissipator)
- Temporary Sump Hole
- ▨ Temporary Sandbag Cofferdam
- OHWM

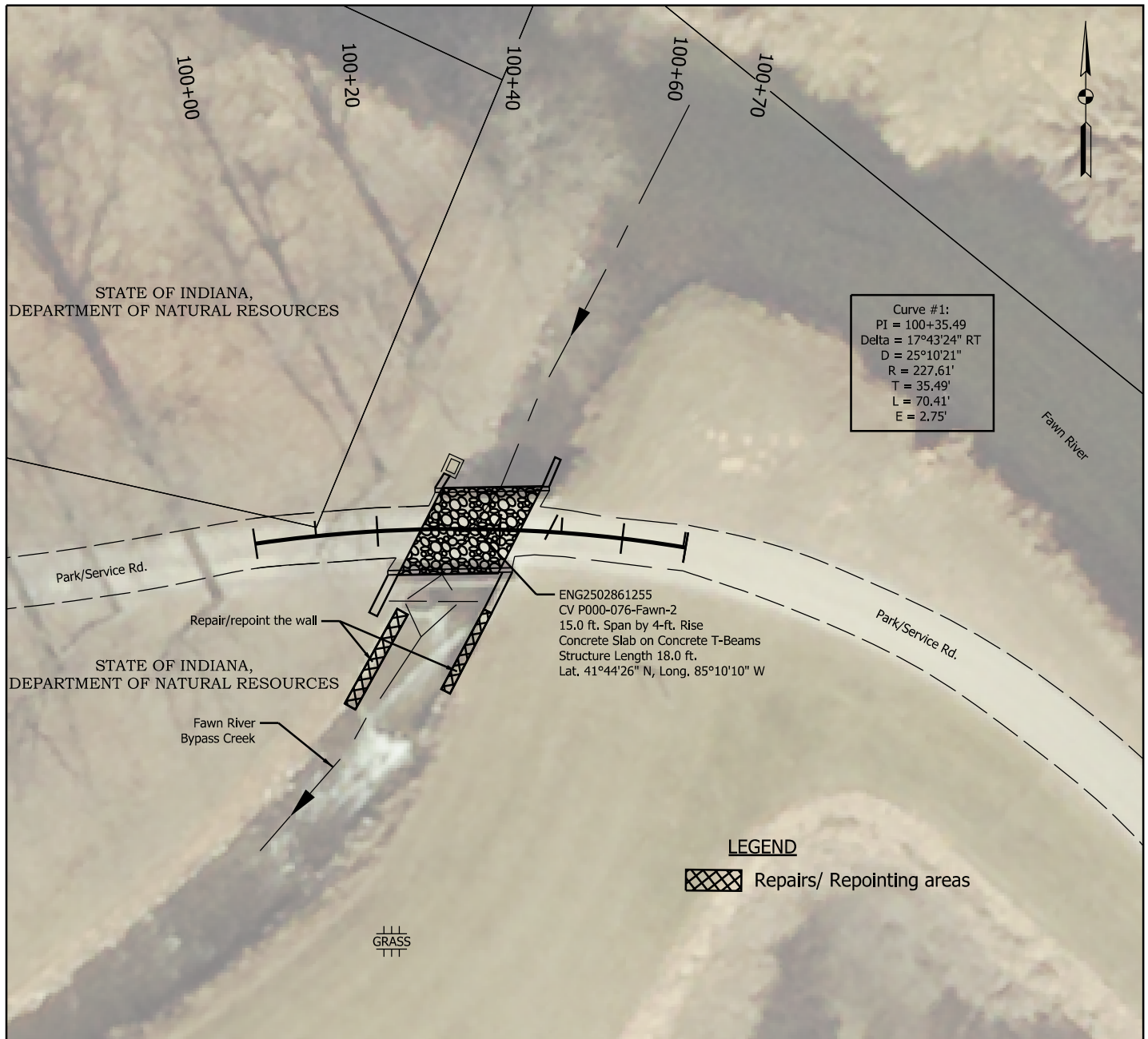


Recommended for Approval:

Date:

12/9/2024

GENERAL PLAN



AERIAL
Not To Scale



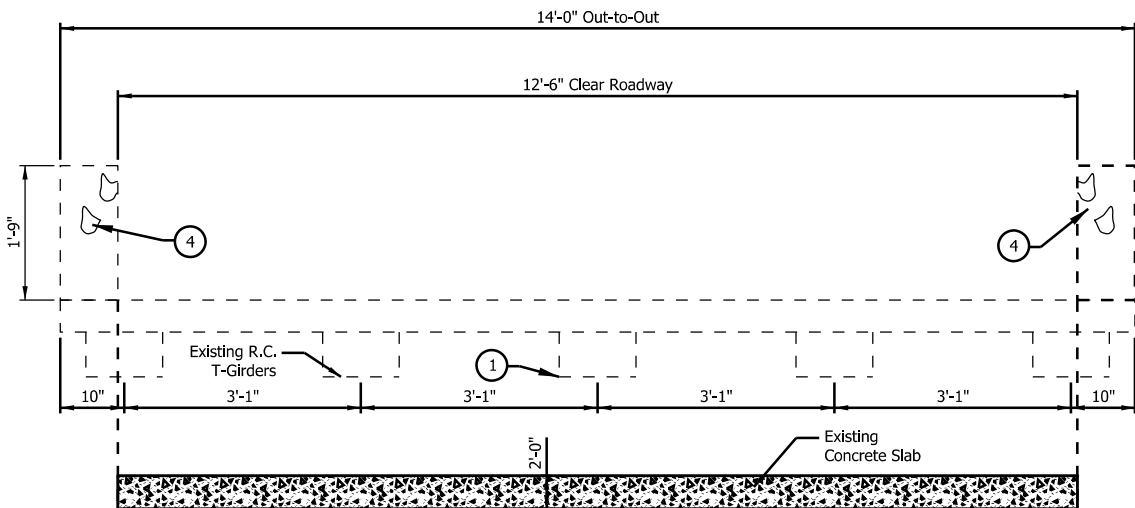
Recommended for Approval:

Anup Shrestha

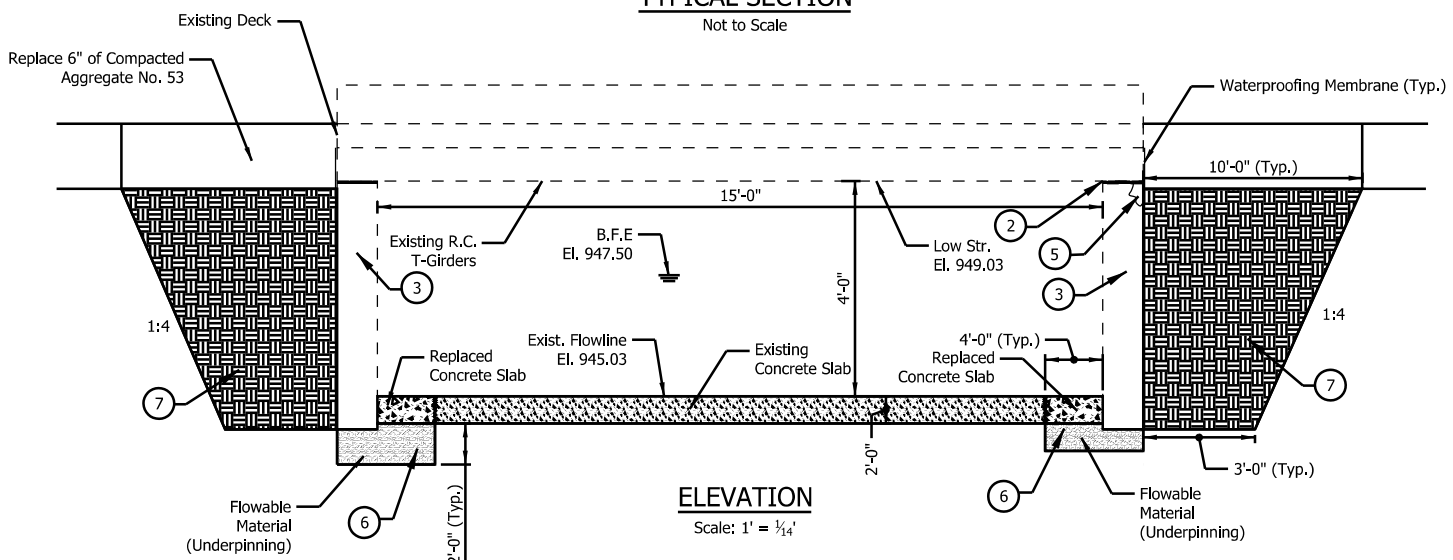
Date:

12/9/2024

GENERAL PLAN



TYPICAL SECTION
Not to Scale



LEGEND

- ① Patch spall with exposed reinforcement at west abutment on Beam 3.
- ② Repair east abutment leveling pad with epoxy injections.
- ③ Remove mortar facing at east and west abutments and perform work without the use of mechanical tools. Perform repointing at the east and west structures. Work is to be performed in small areas of 2' x 2' to prevent cobble stones from falling from the wall. High strength mortar is to be used. A vertical or overhead material to be used as per INDOT Specifications. Mechanical Tools Not Allowed with Work Associated with Repointing Masonry.
- ④ Perform repointing on barriers. Work to be performed without the use of mechanical tools.
- ⑤ Patch spall at northeast corner of east abutment.
- ⑥ Provide temporary shoring for superstructure. Estimated unfactored dead load: 7 kips per beam end. Excavate a minimum of 2 ft below channel bed and determine if the bottom of the abutment wall is visible. If the bottom of the abutment wall is deeper than 2 ft, and the condition of the wall is satisfactory, no need for underpinning. Contractor shall ensure the temporary shoring location is set away from any channel bed excavation.
- ⑦ Perform excavation behind abutment walls to check for deteriorated mortar. Mortar to be replaced with new material. Waterproofing material to be used to cover the exposed backwall and fill voids to prevent water infiltration. Complete all wall patching on both sides prior to backfilling.

NOTE:
1. Repointing Masonry In. Structures estimate is approximately 120 SFT for both abutments.
2. Existing elevations and dimensions shall be checked and verified by the contractor.

Sequence of Construction:

- 1. Cofferdam installation
- 2. Prop and temporarily support the existing superstructure
- 3. Remove backfill
- 4. Remove existing concrete slab at bottom of the channel, excavate and underpin.
- 5. Repair abutments.

ANUP SHRESTHA
REGISTERED
No. 12100906
STATE OF INDIANA
PROFESSIONAL ENGINEER

Recommended for Approval:
Anup Shrestha

Date:
12/9/2024

File: c:\pwworking\usn\dms03379\2200178_FawnRiverStateSS_Plan_02.dgn

EXISTING STRUCTURE PICTURES



1. Side elevation Looking North. Some minor efflorescence visible along coping.



2. Looking West, efflorescence visible along deck coping. Some deteriorated mortar visible along end of abutment wall. Outside face of barrier wall visible, both barriers to be repaired by repointing.



3. Side Elevation Looking North. Some minor efflorescence visible along deck coping. Outside face of barrier wall visible, both barriers to be repaired by repointing.



4. Looking South downstream, top of the barrier wall is visible.



5. Looking west, afflorescence visible along deck coping. Some deteriorated mortar visible along length of abutment wall.



Recommended for Approval:

Anup Shrestha

Date:

12/9/2024

SUMMARY SHEET

ESTIMATE OF QUANTITIES		
Pay Item	Unit	Quantity
Construction Engineering	LS	1
Mobilization and Demobilization	LS	1
Excavation, Common	CYS	68
Borrow	CYS	10
Pump Around	EACH	1
Stormwater Management Budget	DOL	1500
Stormwater Management Implementation	LS	1
Structural Backfill, Type 5	CYS	68
Compacted Aggregate No. 53	CYS	6
Mobilization and Demobilization for Seeding	EACH	1
Mulched Seeding R	SYS	36
Waterproofing Membrane System	SFT	250
Concrete, A, Substructure	CYS	7
Concrete, B, Footing	CYS	24
Concrete, C, Superstructure	CYS	1
Repointing Masonry In. Structures	SFT	152
Stone Abutment Repair	LS	1
Road Closure Sign Assembly	EACH	2
Maintaining Traffic	LS	1
Barricade, III-A	LFT	16



Recommended for Approval:

[Signature]

Date:

12/9/2024