Indiana Department of Environmental Management
Office of Water Quality
Wetlands Section

Publication Date:
April 27, 2010

Closing Date:
May 17, 2010

PUBLIC NOTICE

IDEM ID Number:
2010-114-33-BCB-A

Corps of Engineers ID Number:
LRL-2006-00582

To all interested parties: This letter shall serve as a formal notice of the receipt of an application for **Section 401 Water Quality Certification** by the Indiana Department of Environmental Management (IDEM). The purpose of the notice is to inform the public of active applications submitted for water quality certification under Section 401 of the Clean Water Act (33 U.S.C. § 1341) and to solicit comments and information on any impacts to water quality related to the proposed project. IDEM will evaluate whether the project complies with Indiana's water quality standards as set forth at 327 IAC 2.

1. Applicant:
Mr. Richard Byers
Henry County Board of Commissioners
1201 Race Street, Suite 216
New Castle, IN 47362

2. Agent:
Mr. Neal Bennett
Butler, Fairman, Seufert, Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, IN 46240

3. Project location: NW ¼ of Section 27, Township 19 North, Range 9 East, Sulphur Springs USGS Quad, Henry County. From Middletown, travel north on Raider Road to CR 950 North, turn right (east) to CR 600 West. Directly east of the intersection of CR 950 North and CR 600 West.

4. Affected waterbody: Fall Creek and Unnamed Tributary (UNT) to Fall Creek, Upper White 8-Digit HUC, 05120201.

5. Project Description: The applicant proposes to replace the existing two-span metal pipe arch bridge carrying CR 950 North over Fall Creek with a three-span, continuous reinforced concrete slab bridge on the same alignment. Riprap will be placed below the Ordinary High Water Mark (OHWM) for approximately 11' up and down stream and throughout the structure for a total of 60 linear feet (lf). Additionally, 249 lf of the UNT to Fall Creek located on the north side of the right-of-way will be relocated an average of 2' to 4' north of the existing center line. Approximately 6 cubic yards of clean earthen fill will be excavated and redistributed to shape the channel. The banks of the relocated UNT will be stabilized with erosion control blankets and native plantings. The purpose of the project is to replace the existing deteriorated bridge and approaches. For additional information, please visit the IDEM Public Notice webpage at http://www.in.gov/idem/6398.htm

Comment period: Any person or entity who wishes to submit comments or information relevant to the aforementioned project may do so by the closing date noted above. Only comments or information related to water quality or potential impacts of the project on water quality can be considered by IDEM in the water quality certification review process.

Public Hearing: Any person may submit a written request that a public hearing be held to consider issues related to water quality in connection with the project detailed in this notice. The request for a hearing should be submitted within the comment period to be considered timely. The request should also state the reason for the public hearing as specifically as possible to assist IDEM in determining whether a public hearing is warranted.

Questions? Additional information may be obtained from Mr. Brad Baldwin, Project Manager, at 317-234-5647. Please address all correspondence to the project manager and reference the IDEM project identification number listed on this notice. Indicate if you wish to receive a copy of IDEM's final decision. Written comments and inquiries may be forwarded to -

Indiana Department of Environmental Management
100 North Senate Avenue
MC65-42 WQS IGCN 1255
Indianapolis, Indiana 46204-2251
FAX: 317/232-8406

IDEM WQC Application Additional Information Sheet

Other location descriptions or driving directions:

From Indianapolis take I-465 to I-69 North. Take I-69 north to State Road 236. Take State Road 236 east to Middletown. Turn left on Raider Road in Middletown and continue north to CR 950 N. Turn right (east) onto CR 950 N and continue east to CR 600 W. This intersection is the project area.

Is there a practicable alternative to the proposed activity?

Bridge No. 10 was built in 1983 and is a 2-Span corrugated metal pipe arch. The need for this project is defined by the following existing deficiencies:

1) DETERIORATION: The existing bridge is deteriorated, in 1987 an inspection report, according to the Recoding and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges, listed the superstructure as badly deflecting west and slightly deflecting east. The culvert and retaining walls of the west pipe are badly deflected with open joint. There is heavy silting in the pipes and flow has been diverted to the west pipe only. The guardrail posts are weak and provide inadequate protection. The bridge deck is cracked and the surface is patchy and uneven. The estimated remaining life for the bridge is 5 years and the sufficiency rating as of 2005 is 38.9.

2) GEOMETRY: The deck geometry is narrow. The existing clear roadway width is 21.2' and the required standard is 28'.

3) SAFETY: Currently, there is insufficient vertical sight distance within the project area. The west approach has a steep hill and impairs drivers' view as they approach the bridge.

4) CAPACITY: There is an inadequate weight limit posted for 5 tons. Originally, the bridge was rated for 11 tons. The new structure will be able to capacitate over 11 tons.

The purpose of this project is to correct the above referenced deficiencies and provide Henry County with a stream crossing that meets current AASHTO guidelines for geometry and safety

Alternate 2: The rehabilitation alternate proposes to rehabilitate the existing structure in place and resurface the approaches. While rehabilitation may address deterioration, safety features, and bring the structure up to current load capacity standards, it would not address the substandard vertical sight-distance east of the bridge and the narrow deck geometry. This alternate does not satisfy the overall purpose and need for the project. Therefore, this alternative is not considered the preferred alternate.

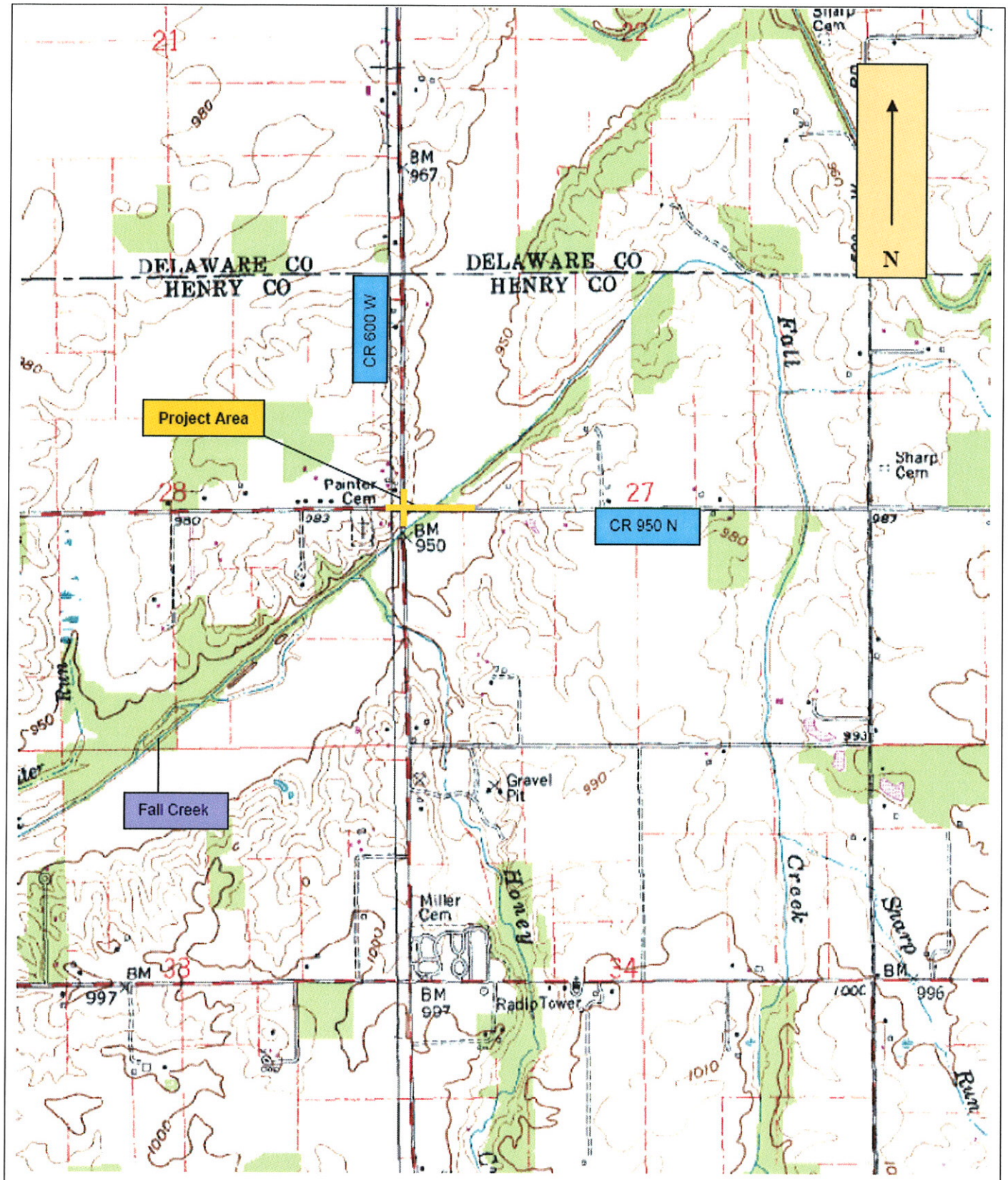
Alternate 3: The "no-build" alternate proposes that no construction take place. This alternate would eliminate any environmental impacts that would result from the proposed project, but would not meet the purpose and need for the project as outlined above.

As a result, there are no other practicable alternatives to the proposed project.

Have practicable and appropriate steps to minimize impacts to water resource been taken?

The replacement bridge is three-span structure, greatly improving the through channel opening and preventing backwater and additional erosive forces. The project does include the relocation of a portion of an agricultural drainage ditch that flows into Fall Creek in the project area. This relocation will not shorten the channel length and will be revegetated with native seed mixtures to stabilize the new channel and to compensate for the impact. Due to the minor nature of the proposed work, no additional compensation is proposed. The following measures will be employed to further minimize impacts from the project:

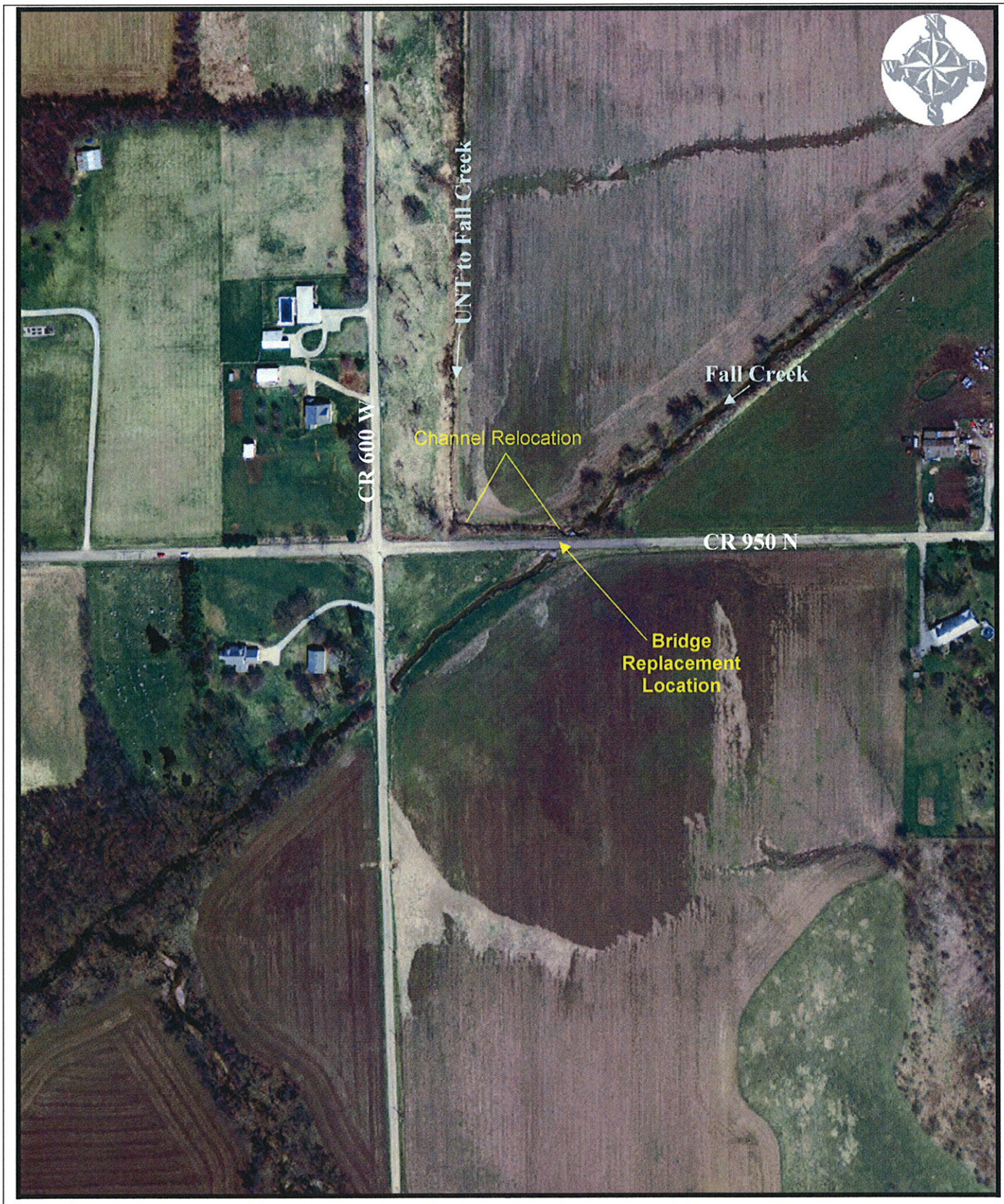
1. Revegetate all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue) and legumes as soon as possible upon completion. (Firm)
2. Post DO NOT DISTURB signs at the construction zone boundaries. (Optional)
3. Minimize and contain in-channel disturbance, and do not clear trees or understory vegetation outside the construction zone boundaries. (Firm)
4. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or the removal of the old structure. (Firm)
5. Minimize the extent of artificial bank stabilization. (Firm)
6. Extend riprap below the low-water elevation, where possible. (Firm)
7. Implement temporary erosion and siltation control devices such as placement of silt fence and rock check dams in drainage ways and ditches, covering exposed areas with erosion control measures and grading slopes to retain runoff in basins. (Firm)
8. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife. (Firm)
9. No further archaeological work is required for this project; however, if subsurface archaeological deposits are encountered during construction, the project must be halted and the Archaeologist in the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology contacted within 2 business days for an evaluation before the project resumes. (Firm)
10. Do not cut any trees suitable for Indiana bat roosting (greater than 14 inches in diameter, living or dead, with loose hanging bark) from April 15 through September 15. (Firm)
11. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (Firm)
12. Avoid or minimize impacts to wetlands within the proposed project area. Mitigate unavoidable impacts in accordance with 1991 Memorandum of Agreement among the Indiana Department of Transportation, the Indiana Department of Natural Resources, and the Fish and Wildlife Service. (Firm)
13. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is completed and all disturbed areas are stabilized. (Firm)
14. Seed and protect all disturbed stream banks and slopes that are 3:1 or steeper with erosion control blankets (follow manufacturer's recommendations for selection and installation) or use appropriate structural armament; seed and apply mulch on all other disturbed areas. (Firm)
15. The designers shall coordinate with the Local Floodplain Administer during the design phase to ensure consistency with the local floodplain planning. (Firm)
16. The IDEM, Office of Water Quality, is to be contacted if construction activity includes clearing, grading excavation and other land disturbing activities that result in the disturbance of one or more acres of total land area. Firm)
17. No open burning of construction wastes is to be permitted without proper variance from IDEM. Vegetative wastes are to be removed to a registered yard waste composting facility or the waste may be chipped or shredded with composting on site. The finished compost can then be used as a mulch or soil amendment. (Firm)
18. Fugitive dust must be controlled by proper wetting, chemical stabilizers, or wind barriers. Dirt tracked onto paved roads from unpaved areas is to be minimized. (Firm)
19. The use of cutback asphalt or asphalt emulsion containing more than seven percent oil distillate is prohibited during the months April through October. The Asphalt Paving Rule 326 IAC 8-5-2 should be reviewed. (Firm)
20. New Sources of air emissions or the modification of an existing source of air emissions or air pollution control equipment will need to be reviewed by IDEM Office of Air Quality. (Firm)



Butler Fairman Seufert
Civil Engineering Solutions for Better Communities

U.S.G.S. Sulphur Springs, IN Quadrangle

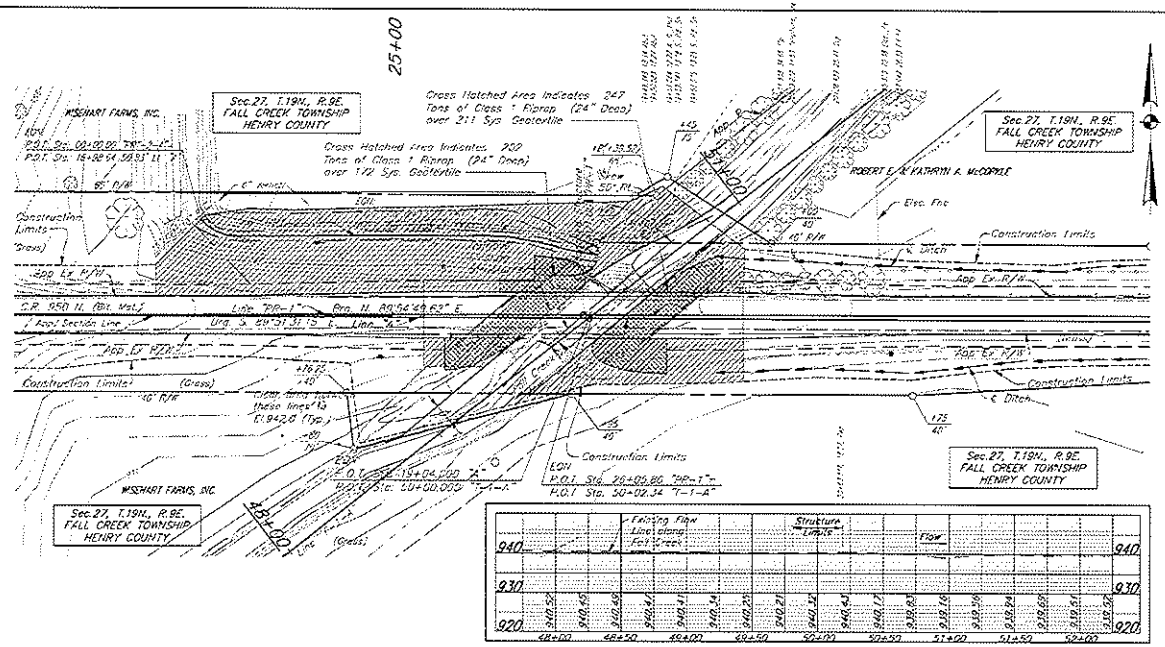
Replacement of Henry County Bridge 10 carrying
CR 950 N over Fall Creek
Henry County, Indiana
Des. No. 0500909



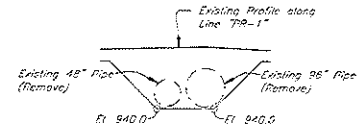
Butler Fairman Seufert
Civil Engineering Solutions for Better Communities

2005 Aerial Photography Map

Replacement of Henry County Bridge 10 carrying
CR 950 N over Fall Creek
Henry County, Indiana
Des. No. 0500909



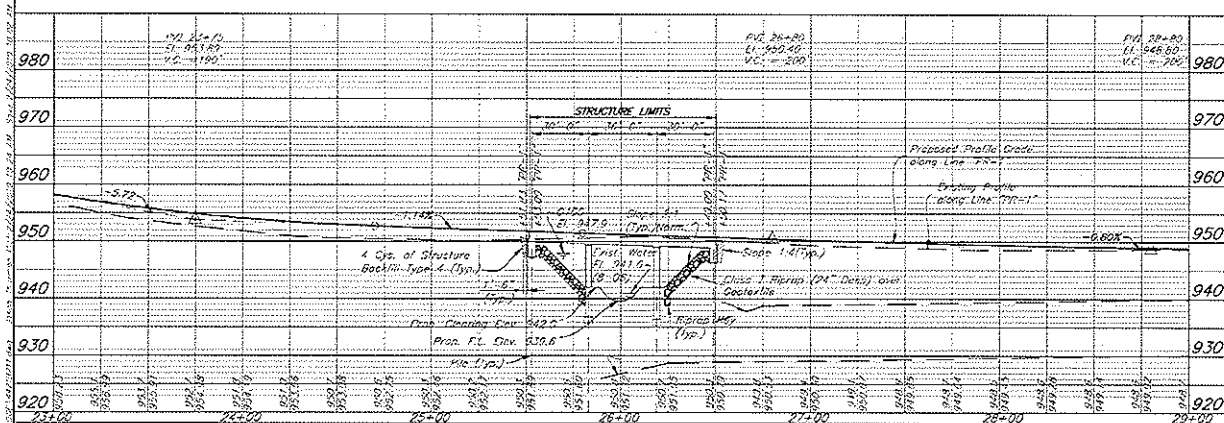
PROFILE OF EXISTING STREAM
(Not to Scale)



TYPICAL CHANNEL SECTION THRU STRUCTURE
(Not to Scale)

HYDRAULIC DATA

ITEM	EXISTING STRUCTURE	PROPOSED STRUCTURE
DRAINAGE AREA	5.8 Sq. Mi.	5.8 Sq. Mi.
Q100 (TAILWATER)	El. 947.9	El. 947.9
DESIGN DISCHARGE Q100	1500 Cu. Ft./Sec.	1500 Cu. Ft./Sec.
BACKWATER	1.95 Ft.	0.92 Ft.
CROSS WATERWAY AREA PROVIDED BELOW Q100	62.8 Sq. Ft.	257.6 Sq. Ft.
ROADWAY OVERFLOW	336.8 Sq. Ft.	0 Sq. Ft.
TOTAL WATERWAY AREA PROVIDED	399.6 Sq. Ft.	257.6 Sq. Ft.
VELOCITY THRU STRUCTURE	7.2 Ft./Sec.	6.5 Ft./Sec.
LOW STRUCTURE	El. 947.9	El. 948.9
Q500 SCOUR	N/A	El. 926.31



EARTHWORK

ITEM	QUANTITY
FILL + 20%	1590 Cys.
COMMON EXCAVATION	570 Cys. *
USABLE WATERWAY EXCAVATION (0%)	0 Cys.
BORROW	1135 Cys.
WATERWAY EXCAVATION	410 Cys.
WET EXCAVATION	125 Cys.
STRUCTURE BACKFILL, TYPE 4	8 Cys.
COARSE AGGREGATE, NO.53	1780 Tons
FOUNDATION EXCAVATION (UNCLASSIFIED)	615 Cys.

* An estimated 115 Cys. of Excavated Material is presumed to be unusable.

Note: Above Quantities do not include 126 Cys. for Benching. Estimated Benching will not be paid for directly. Cost of Benching shall be included in Cost of Common Excavation. Pavement shall be placed no sooner than 4 weeks after fill placement to account for settlement. See Geotechnical Report.

NOTE:
See Sheet 7 for Reference Points, Bench Mark Data, and Add'l. Alignment Information.

CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE

3 SPANS @ 30'-0", 36'-0" & 30'-0", SKEW 50° RT., 24'-0" CLEAR ROADWAY, ON COUNTY ROAD 950 NORTH OVER FALL CREEK

BF&S
Bridge Preliminary Section

RECOMMENDED FOR APPROVAL: _____
DESIGN ENGINEER DATE

DESIGNED: K. MUELLNER DRAWN: L. OSBORNE
CHECKED: M. MATEL CHECKED: K. MUELLNER

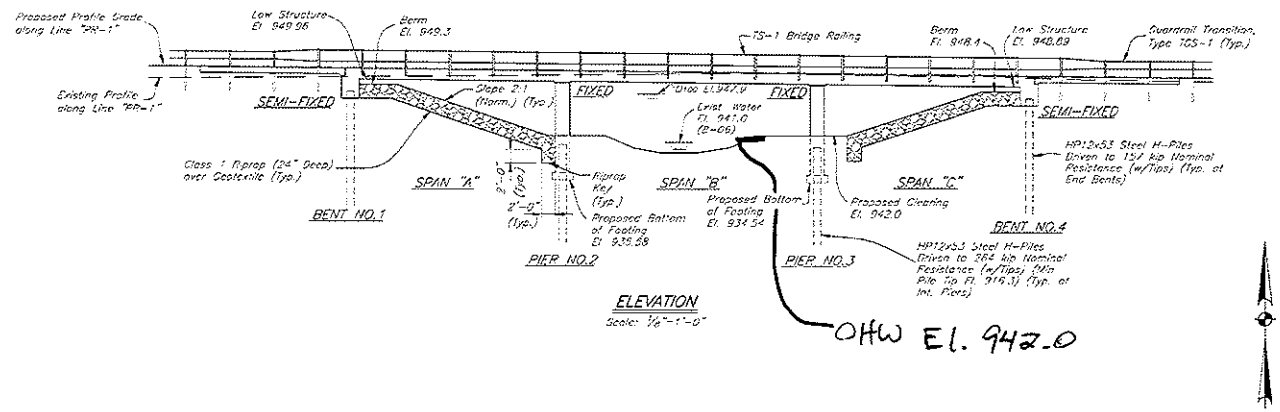
INDIANA DEPARTMENT OF TRANSPORTATION

LAYOUT

HORIZONTAL SCALE	FILE
1"=20'-0"	HENRY 10
VERTICAL SCALE	DESIGNATION
1"=10'-0"	0600900
SURVEY BOOK	SHEET
334	15 OF 58
CONTRACT	PROJECT
3-31487	0600900C

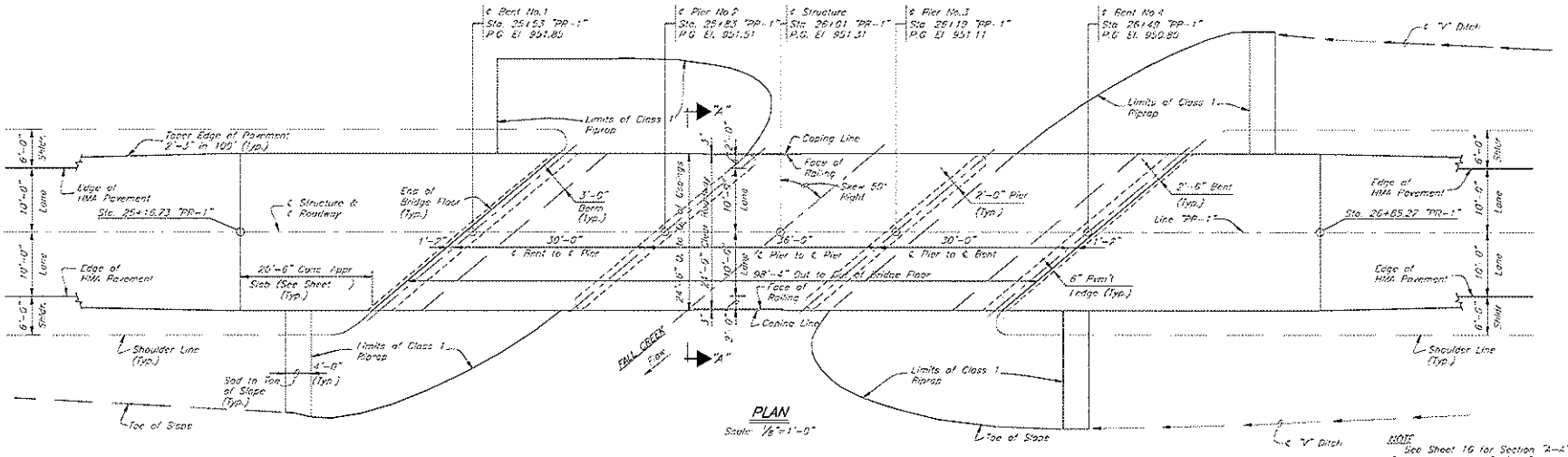
BFS 3-13-1 (0201)

STRUCTURE TO BE BUILT ON A 1.144% GRADE AND A 200' VERTICAL CURVE



ELEVATION

Scale: 1/8"=1'-0"



PLAN

Scale: 1/8"=1'-0"

NOTE
See Sheet 16 for Section "A-A", General Notes and Design Data.

CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE

3 SPANS @ 30'-0", 36'-0" & 30'-0", SKEW 50° RT.
24'-0" CLEAR ROADWAY, ON COUNTY ROAD 950 NORTH
OVER FALL CREEK

BF&S

RECOMMENDED FOR APPROVAL:
DESIGN ENGINEER DATE

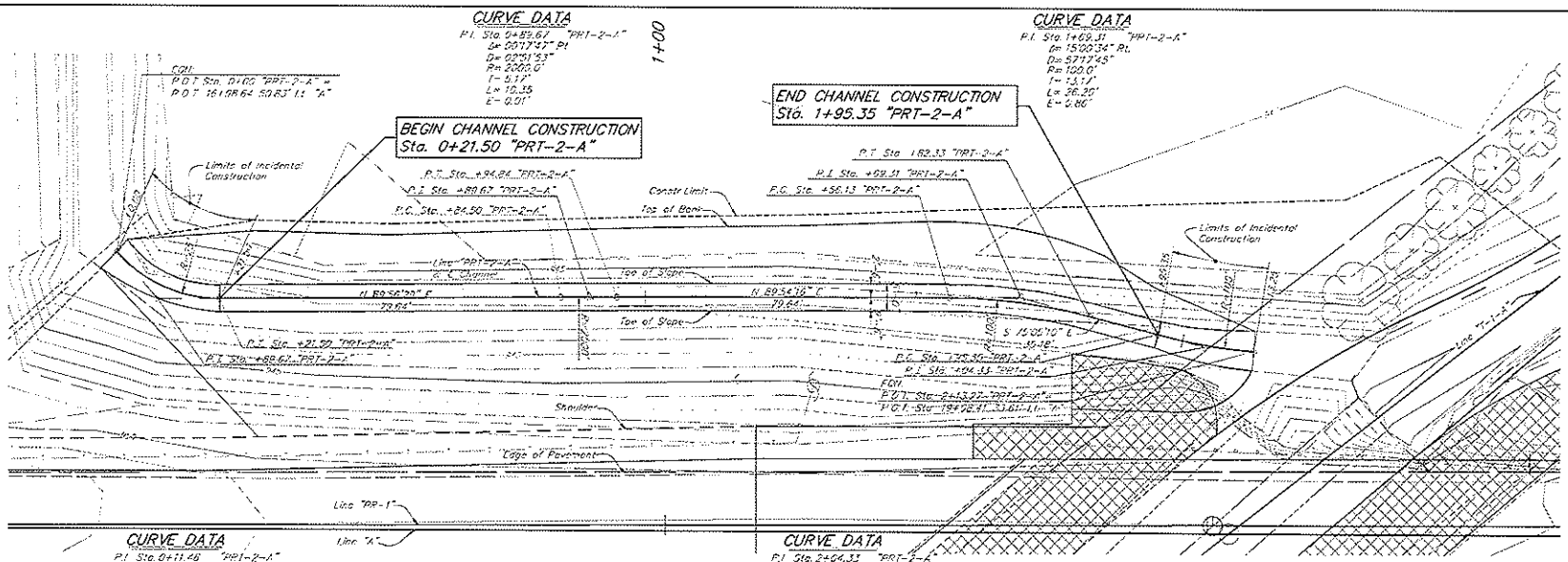
DESIGNED: K. MUROSKI DRAWN: D. SHETTY
CHECKED: K. MUROSKI CHECKED: K. MUROSKI

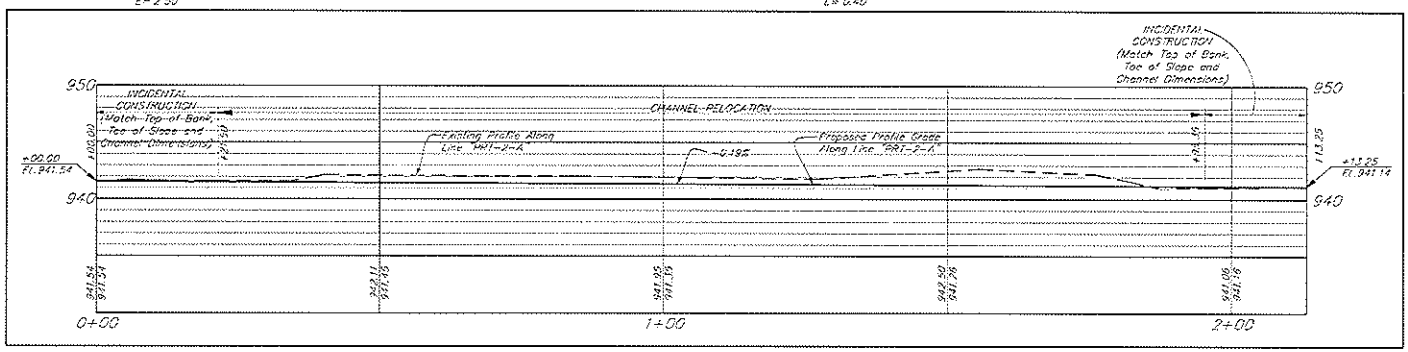
INDIANA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

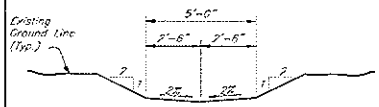
HORIZONTAL SCALE	FILE
AS NOTED	HENRY 10
VERTICAL SCALE	DESIGNATION
AS NOTED	0900900
SURVEY BOOK	SHEET
N/A	17 OF 62
CONTRACT	PROJECT
R-31367	0900900N

BFS 10.1.21.0301





PROFILE – LINE "PRT-2-A"



TYPICAL CHANNEL SECTION
(Not to Scale)

NOTE
See Sheets 7 & 8 for Reference Points, Bench Mark Data, and Add'l. Alignment Information.

CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE
3 SPANS @ 30'-0", 35'-0" & 30'-0"; SKEW 90° PT., 24'-0" CLEAR ROADWAY, ON COUNTY ROAD 950 NORTH OVER FALL CREEK

BF&S
Butler Fairbank Sanders
STUDY & RECOMMENDATIONS

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

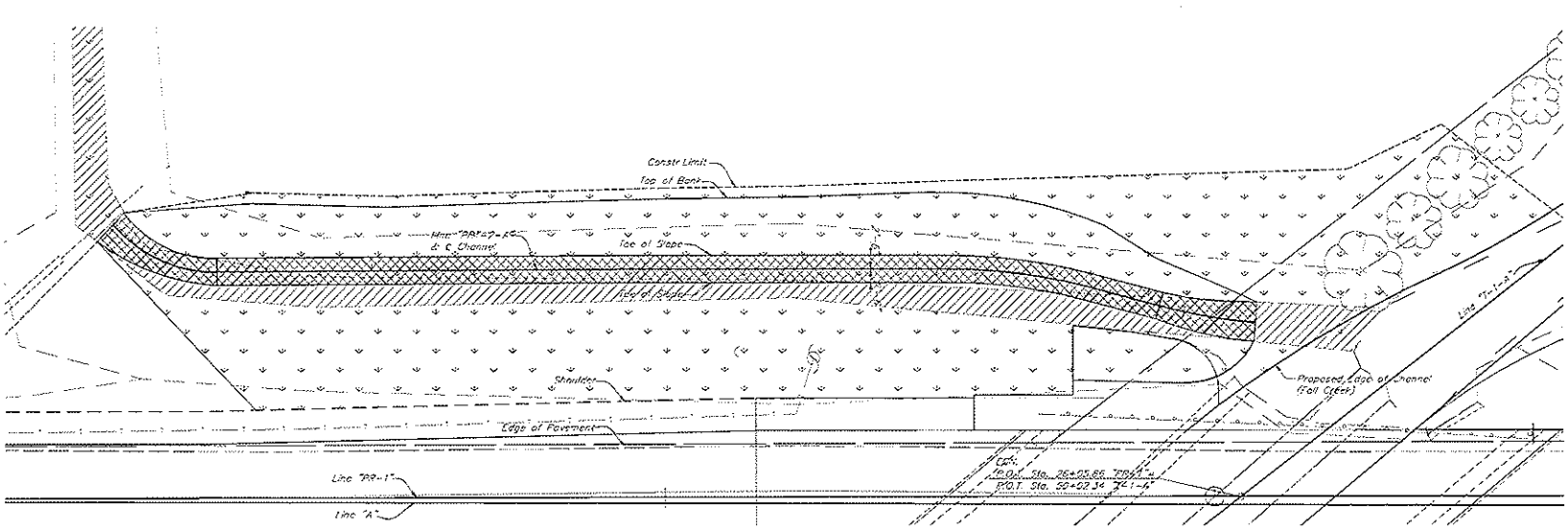
DESIGNED: B. WRIGHT DRAWN: J. THURMAN
CHECKED: K. MUELLNER CHECKED: K. MUELLNER

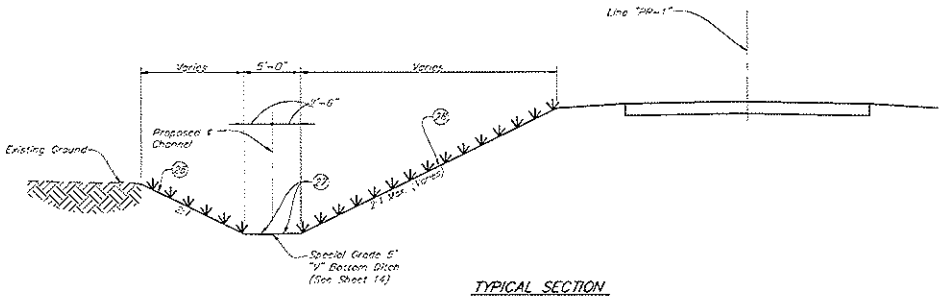
INDIANA
DEPARTMENT OF TRANSPORTATION

CHANNEL CHANGE LAYOUT

HORIZONTAL SCALE	FILE
1" = 10'-0"	HENRY 10
VERTICAL SCALE	DESIGNATION
1" = 5'-0"	0500909
SURVEY BOOK	SHEET
334	14 OF 32
CONTRACT	PROJECT
B-31407	0500909CN

BFS No. 1121.0301





TYPICAL SECTION

Scale: 1" = 5'-0"

LEGEND

Streambank Planting

Relocated Channel

Existing Channel

Seeding Mixture Type "R" (27)

Seeding Mixture Type "D", Modified (28)

NOTE
See Sheets 7 & 8 for Reference Points, Bench Mark Data, and Add'l. Alignment Information.

BF&S
Bridge Foundation Services
Civil • Geotechnical

INDIANAPOLIS OFFICE: 5405 WESTFIELD BLVD., SUITE 200	PRINCIPAL CONTACTS:		
TEL: 317-253-4160 FAX: 317-253-4161	BILL BRYANT	260-801-5700	
TEL: 317-253-4161 FAX: 317-253-4174	JEFF DRAMMEL	812-336-7160	
	MERV HUNT	219-769-2773	
	PLANTS	317-839-3240	

RECOMMENDED FOR APPROVAL:

DESIGN ENGINEER DATE

DESIGNED: M. MUROSKI DRAWN: J. THURMAN

CHECKED: K. MUELLNER CHECKED: K. MUELLNER

INDIANA
DEPARTMENT OF TRANSPORTATION

PLANTING DETAILS

HORIZONTAL SCALE 1" = 10'-0"	FILE HENRY 10
VERTICAL SCALE 1" = 5'-0"	DESIGNATION 0500909
SURVEY BOOK 334	SHEET 16 OF 56
CONTRACT B-31467	PROJECT 0500909CN

BFS R0131 (8/01)

Looking east on CR 950 N from CR 600 W

Looking east on CR 950 W

Looking downstream (SW) from Bridge 10

Looking upstream (NE) from Bridge 10

Looking west from top of hill CR 950 N

Looking west on CR 950 N

Looking due north at south side of bridge

Looking due south at north side of bridge

Looking at north side of bridge main pipe

Looking at stream flow thru main pipe

Looking northeast at Bridge 10 from bridge on CR 600 W