Posting Date: July 7, 2023

Request for Proposals Notification

Title: Johnson County Construction Engineering for Bridge 605 Replacement Project Fry Road over Pleasant Run Creek (Des # 2200136) in the Seymour District.

Response Due Date & Time: August 4, 2023 at 12:00 noon

This Request for Proposals (RFP) is official notification of needed professional services. This RFP is being issued to solicit a letter of Interest (LOI) and other documents from firms qualified to perform engineering work on federal aid projects. A submittal does not guarantee the firm will be contracted to perform any services but only serves notice the firm desires to be considered.

Contact for Questions:
Daniel Johnston, P.E./Highway Engineer
1051 Hospital Road
Franklin, Indiana 46131
(317)346-4630
djohnston@co.johnson.in.us

Submittal Requirements:

1. Letter of Interest – submitted electronically (pdf) to **Daniel Johnston** at email address **djohnston@co.johnson.in.us**.

AND

2. One (1) signed Affirmative Action Certification and associated required documents for all items if the DBE goal is greater than 0% sent electronically (pdf) to Daniel Johnston at email address **djohnston@co.johnson.in.us**.

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Submit To:
Daniel Johnston, P.E./Highway Engineer
1051 Hospital Road
Franklin, Indiana 46131
(317)346-4630
djohnston@co.johnson.in.us

Selection Procedures:

Consultants will be selected for work further described herein, based on the evaluation of the Letter of Interest (LOI) and other required documents. The Consultant Selection Rating Form used to evaluate and score the submittals is included for your reference. Final selection ranking will be determined by:

○ The weighted score totals with the highest score being the top ranked firm

◉ Rank totals with the lowest rank total being the top ranked firm

Requirements for Letters of Interest (LOI)

A. General instructions for preparing and submitting a Letter of Interest (LOI).

1. Provide the information, as stated in Item B below, in the same order listed and signed by an officer of the firm. Signed and scanned documents, or electronically applied signatures are acceptable. Do not send additional forms, resumes, brochures, or other material unless otherwise noted in the item description.

2. LOI's shall be limited to twelve (12) 8 ½" x 11" pages that include Identification, Qualifications, Key Staff, and Project Approach.

3. LOI's must be received no later than the "Response Due Date and Time"; as shown in the RFP header above. Responses received after this deadline will not be considered. Submittals must include all required attachments to be considered for selection.

B. Letter of Interest Content

1. Identification, Qualifications and Key Staff

a. Provide the firm name, address of the responsible office from which the work will be performed, and the name and email address of the contact person authorized to negotiate for the associated work.

b. List all proposed sub consultants, their DBE status, and the percentage of work to be performed by the prime consultant and each sub consultant. (See Affirmative Action Certification requirements below.) A listing of certified DBE's eligible to be considered for selection as prime consultants or sub-consultants for this RFP can be found at the "Prequalified Consultants" link on the Indiana Department of Transportation (INDOT) Consultants Webpage. (https://www.in.gov/indot/doing-business-with-indot/consultants/consultants-prequalification/).

c. List the Project Manager and other key staff members, including key sub consultant staff, and the percent of time the project manager will be committed for the contract, if selected. Include project engineers for important disciplines and staff members responsible for the work. Address the experience of the key staff members on similar projects and the staff qualifications relative to the required item qualifications.

d. Describe the capacity of consultant staff and their ability to perform the work in a timely manner relative to present workload.

2. Project Approach

a. Provide a description of your project approach relative to the advertised services. For project specific items confirm the firm has visited the project site. For all items address your firm's technical understanding of the project or services, cost containment practices, innovative ideas and any other relevant information concerning your firm's qualifications for the project.

Requirements for Affirmative Action Certification

A completed Affirmative Action Certification form is required for all items that identify a DBE goal greater than "0", in order to be considered for selection. The consultant must identify the DBE firms with which it intends to subcontract.

On the Affirmative Action Certification, include the contract participation percentage of each DBE and list what the DBE will be subcontracted to perform.

If the consultant does not meet the DBE goal, the consultant must provide documentation in additional pages after the form that evidences that it made good faith efforts to achieve the DBE goal.

All DBE subcontracting goals apply to all prime submitting consultants regardless of the prime's status of DBE.

INDOT DBE Reciprocity Agreement with KYTC

An Agreement between INDOT and the Kentucky Transportation Cabinet (KYTC) established reciprocal acceptance of certification of DBE firms in their respective states under the Unified Certification Program (UCP) pursuant to 49 CFR ?26.81(e) and (f).

Copies of the DBE certifications, as issued by INDOT or the Kentucky Transportation Cabinet (KYTC), are to be included as additional pages after the AAC form for each firm listed on the AAC form. The following are DBE Locator Directories for each State Transportation Agency:

INDOT: https://entapps.indot.in.gov/DBELocator/

KYTC: https://transportation.ky.gov/Civil-Rights-and-Small-Business-Development/Pages/Certified-DBE-Directory.aspx

Information about the Indiana DBE Program is available at:
https://www.in.gov/indot/about-indot/equity-initiative-services/.

Information about the KYTC DBE Program is available at:
https://transportation.ky.gov/Civil-Rights-and-Small-Business-Development/Pages/default.aspx.

Work item details:

Local Public Agency: Johnson County Highway Department

Project Location: Bridge 605 is located on Fry Road over Pleasant Run Creek, approximately 100 feet west of the intersection of State Road 135 and Fry Road.

Project Description: Construction Engineering services for complete replacement of the existing bridge with a proposed continuous haunched reinforced concrete slab bridge. The bridge will remain a 2 lane section with a new pedestrian sidewalk on the south side. Full closure with detour will be used during construction. Letting is scheduled for 1/18/2024. INDOT profit calculation worksheet will be used.

INDOT Des #: 2200136

Phases Included: CE

Estimated Construction Amount: $1.87 million

Funding: 80% Federal, 20% LPA

Term of Contract: Unit Project Completion

DBE goal: 5%

Required Prequalification Categories:

- ☐ 5.2 Environmental Document Preparation - CE
- ☐ 6.1 Topographical Survey Data Collection
- ☐ 8.1 Non-Complex Roadway Design
- ☐ 9.1 Level 1 Bridge Design
- ☐ 11.1 Right of Way Plan Development
- ☐ Additional Categories Listed Below:

Click here to enter Additional Categories

- ☐ 12.1 Project Management for Aquisition Services
- ☐ 12.2 Title Search
- ☐ 12.4 Appraisal
- ☐ 12.5 Appraisal Review
- ☑ 13.1 Construction Inspection

LPA Consultant Selection Rating Sheet

Sample:

RFP Selection Rating for: _____ **Des. No.** _____

(City, County, Town) or (Local Public Agency)

Services Description: _____

Consultant Name: _____

Evaluation Criteria to be Rated by Scorers					
Category	**Scoring Criteria**	**Scale**	**Score**	**Weight**	**Weighted**
Past Performance	**Performance evaluation score averages from historical performance data.**				
	Quality score for similar work from performance database.			6	
	Schedule score from performance database.			3	
	Responsiveness score from performance database.			1	
Capacity of Team to do Work	**Evaluation of the team's personnel and equipment to perform the project on time.**			20	
	Availability of more than adequate capacity that results in added value.	1			
	Adequate capacity to meet the schedule.	0			
	Insufficient available capacity to meet the schedule.	-1			
Team's Demonstrated Qualifications	**Technical Expertise: Unique Resources that yield a relevant added value or efficiency**			15	
	Demonstrated outstanding expertise and resources identified	2			
	Demonstrated high level of expertise and resources identified	1			
	Expertise and resources at appropriate level.	0			
	Insufficient expertise and/or resources.	-3			
Project Manager	**Predicted ability to manage the project, based on: experience in size, complexity,**			20	
	Demonstrated outstanding experience in similar type and complexity.	2			
	Demonstrated high level of experience in similar type and complexity.	1			
	Experience in similar type and complexity shown in resume.	0			
	Experience in different type or lower complexity.	-1			
	Insufficient experience.	-3			
Approach to Project	**Project Understanding and Innovation that provides cost and/or time savings.**			15	
	High level of understanding and viable innovative ideas proposed.	2			
	High level of understanding of the project.	1			
	Basic understanding of the project.	0			
	Lack of project understanding.	-3			
			Weighted Sub-Total:		

It is the responsibility of scorers to make every effort to identify the firm most capable of producing the highest deliverables in a timely and cost effective manner without regard to personal preference.

I certify that I do not have any conflicts of interest associated with this consultant.

I have thoroughly reviewed the letter of interest for this consultant and certify that the above scores represent my best judgment of this firm's abilities.

Signature: _____ Print Name: _____

Title: _____ Date: _____

(Form Rev. 1/27/2023)

Des. #: Click here to enter text.

Affirmative Action Certification (AAC) for Disadvantaged Business Enterprises (DBE)

I hereby certify that my company intends to affirmatively seek out and consider Disadvantaged Business Enterprises (DBEs) certified by the State of Indiana's DBE Program and the Kentucky Transportation Cabinet (KYTC) DBE Program to participate as part of this proposal. An Agreement between INDOT and KYTC established reciprocal acceptance of certification of DBE firms in their respective states under the Unified Certification Program (UCP) pursuant to 49 CFR §26.81(e) and (f).

I acknowledge that this certification is to be made an integral part of this proposal. I understand and agree that the submission of a blank certification may cause the proposal to be rejected. I certify that I have consulted the following DBE websites to confirm that the firms listed below are currently certified DBEs:

INDOT: https://entapps.indot.in.gov/DBELocator/
KYTC: https://transportation.ky.gov/Civil-Rights-and-Small-Business-Development/Pages/Certified-DBE-Directory.aspx

I certify that I have contacted the certified DBE's listed below, and if my company becomes the CONSULTANT, these DBEs have tentatively agreed to perform the services as indicated. I understand that neither my company nor I will be penalized for DBE utilization that exceeds the goal. After contract award, any change to the firms listed in this Affirmative Action Certification to be applied toward the DBE goal must have prior approval by INDOT's Economic Opportunity Division.

I. DBE Subconsultants to be applied toward DBE goal for the RFP item:

Certified DBE Name	Service Planned	Estimated Percentage to be Paid*
		%
		%
		%
		%

II. DBE Subconsultants to be utilized beyond the advertised DBE goal for the RFP item:

Certified DBE Name	Service Planned	Estimated Percentage to be Paid*
		%
		%
		%
		%

Estimated Total Percentage Credited toward DBE Goal:_____

Estimated Percentage of Voluntary DBE Work Anticipated over DBE Goal:_____

Company Name: _____

Signature: _____ **Date:** _____

* It is understood that these individual firm percentages are estimates only and that percentages paid may be greater or less as a result of negotiation of contract scope of work. My firm will use good faith efforts to meet the overall DBE goal through the use of these or other certified and approved DBE firms.

PROJECT	DESIGNATION
2200136	2200136
CONTRACT	BRIDGE FILE
B-44295	JOHNSON 605

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
JOHNSON 605	*CONTINUOUS HAUNCHED REINFORCED CONCRETE SLAB BRIDGE*	*3 SPANS: 45'-0", 56'-0", 45'-0" 25° SKEW RIGHT*	*PLEASANT RUN CREEK*	*13+03.50 "A"*

No Kin Projects in this Contract.

APPROVED BY:
BOARD OF JOHNSON COUNTY COMMISSIONERS

CHAIRMAN:

MEMBER:

MEMBER:

LUCAS MASTIN, JOHNSON COUNTY HIGHWAY DIRECTOR

DANIEL JOHNSTON, JOHNSON COUNTY ENGINEER & ERC

ATTEST: DATE:

COUNTY AUDITOR

PLANS PREPARED BY

CROSSROAD ENGINEERS, PC

TRANSPORTATION & DEVELOPMENT CONSULTANTS
115 N. 17TH AVENUE
BEECH GROVE, IN 46107
(317) 780-1555
CROSSROADENGINEERS.COM

INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

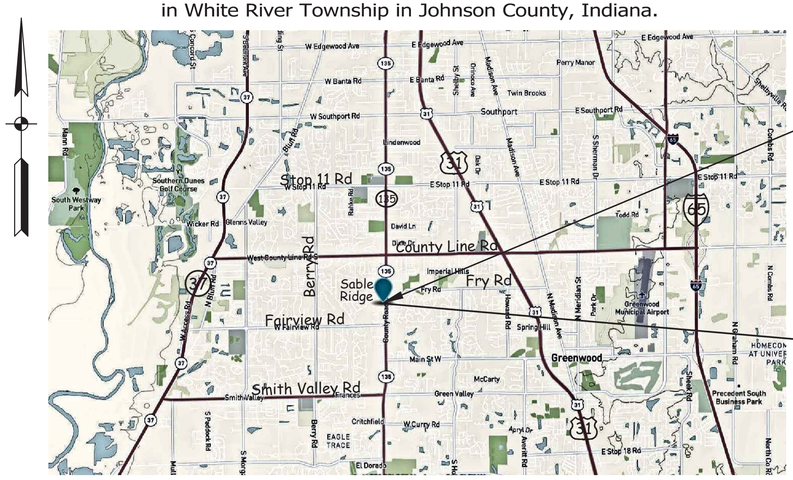
FOR SPANS OVER 20 FEET

JOHNSON COUNTY BRIDGE NO. 605
FRY ROAD OVER PLEASANT RUN CREEK

PROJECT NO. 2200136 P.E.
R/W
2200136 CONST.

NO ADDITIONAL RIGHT-OF-WAY REQUIRED FOR THIS PROJECT.

Bridge Replacement Project on Fry Road over Pleasant Run Creek located 0.03 miles west of SR 135 in Section 26, Township 14 North, Range 3 East in White River Township in Johnson County, Indiana.



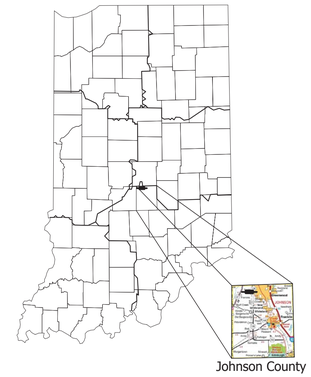
END PROJECT 2200136, 14+12.76 "A"

STR. NO. 41-00124

STA. 13+03.50 "A"
FRY ROAD OVER PLEASANT RUN CREEK
DES. NO. 2200136

BEGIN PROJECT 2200136, 11+66.12 "A"

TRAFFIC DATA		FRY ROAD
A.A.D.T.	(2023)	620 V.P.D.
A.A.D.T.	(2043)	685 V.P.D.
D.H.V.	(2043)	125 V.P.H.
DIRECTIONAL DISTRIBUTION		50%
TRUCKS		2% A.A.D.T.
		2% D.H.V.
DESIGN DATA		
DESIGN SPEED		35 MPH
PROJECT DESIGN CRITERIA		3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION		LOCAL STREET
RURAL/URBAN		URBAN (BUILT-UP)
TERRAIN		LEVEL
ACCESS CONTROL		NONE



PROJECT LOCATION SHOWN BY

LATITUDE: N 39°37'29.5" LONGITUDE: W 86°09'32.4"

BRIDGE LENGTH: 0.028 MI.
ROAD LENGTH: 0.019 MI.
TOTAL LENGTH: 0.047 MI.
MAX. GRADE: 2.072% %

HUC: 05120201130110

STAGE 3 PLANS
MAY 2023

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

NOT FOR CONSTRUCTION

PLANS PREPARED BY: CrossRoad Engineers, P.C. 317.780.1555 PHONE NUMBER

CERTIFIED BY: 05/31/2023 DATE

APPROVED FOR LETTING: DATE
INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE FILE	
JOHNSON 605	
DESIGNATION	
2200136	
SURVEY BOOK	SHEETS
---	1 of 28
CONTRACT	PROJECT
B-44295	2200136

DIRECTORY PATH: R:\Active\Johnson County\Bridge 605\Design\Cad\Plans
FILENAME: Title Sheet.dgn
DATE/USER: 5/31/2023 12:29 PM / Rgardner

UTILITIES

CITY OF GREENWOOD - STORM
Christopher Jones
300 S. Madison Avenue
Greenwood, IN 46143
jonesc@greenwood.in.gov
317-887-5607

CENTERPOINT GAS
Timmy Langston, P.E.
4324 Middle Road
Columbus, IN 47203
timothy.langston@centerpointenergy.com
812-348-6703

DUKE ENERGY DISTRIBUTION
Don McDuffy
100 S. Mill Creek Road
Noblesville, IN 46062
dei-dline-coord@duke-energy.com
317-776-5320

INDIANA AMERICAN WATER
Zube Ofoma
153 North Emerson Avenue
Greenwood, IN 46143
zube.ofoma@amwater.com
317-225-9910

ENTERPRISE PETROLEUM PIPELINE
Rebecca Eguia-Curry
PO Box 4324
Houston, TX 77210
land_encroachments@eprod.com
281-887-2451

ZAYO FIBER
Waylon Higgins
9209 Castlegate Drive
Indianapolis, IN 46256
waylon.higgins@zayo.com
765-341-1199

COMCAST
Rhonda Dalton
688 Industrial Drive
Elmhurst, IL 60126
rhonda_dalton@comcast.com
224-229-5863

MCI COMMUNICATIONS
Kent Doss

kent.doss@tcscomm.com
317-499-5875

METRONET FIBER
Korie Nellis
3701 Communications Way
Evansville, IN 47715
korie.nellis@metronetinc.com
812-213-1378

GENERAL NOTES

* THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO STARTING ANY WORK.

* REMOVAL OF ITEMS WITHIN CONSTRUCTION LIMITS, INCLUDING TREES, EXISTING DRAINAGE STRUCTURES, CONCRETE BRIDGE APPROACHES, CONCRETE PAVEMENT, PIPES, CONCRETE CURB, CONCRETE GUTTER, ASPHALT, GUARDRAIL & GUARDRAIL END TREATMENTS, AND OTHER OBSTRUCTIONS NOT SPECIFICALLY SET OUT AS REMOVAL PAY ITEMS ARE CONSIDERED IN THE CLEARING RIGHT-OF-WAY PAY ITEM.

INDEX

REVISIONS

SHEET NO.	DATE	REVISION

Indiana811
Know what's below. Call before you dig.
"IT'S THE LAW"
CALL TWO WORKING DAYS BEFORE YOU DIG
1-800-382-5544 or 811
CALL TOLL FREE
PER INDIANA STATE LAW IC 8-1-26. IT IS AGAINST THE LAW TO EXCAVATE WITHOUT NOTIFYING THE UNDERGROUND LOCATION SERVICE TWO WORKING DAYS BEFORE COMMENCING WORK.

DIRECTORY PATH : R:\Active\Johnson County\Bridge 605\Design\Cad\Plans
FILENAME : index.dwg
DATE/USER : 5/31/2023 12:31 PM / Rgardner

DATE	REVISION

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ 05/31/2023
DESIGN ENGINEER DATE

DESIGNED: RDG DRAWN: RDG
CHECKED: MAM CHECKED: MAM

INDIANA
DEPARTMENT OF TRANSPORTATION

INDEX SHEET
JOHNSON COUNTY BRIDGE NO. 605

SCALE	BRIDGE FILE
NA	JOHNSON 605
	DESIGNATION
	2200136
SURVEY BOOK	SHEETS
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CONTRACT	PROJECT
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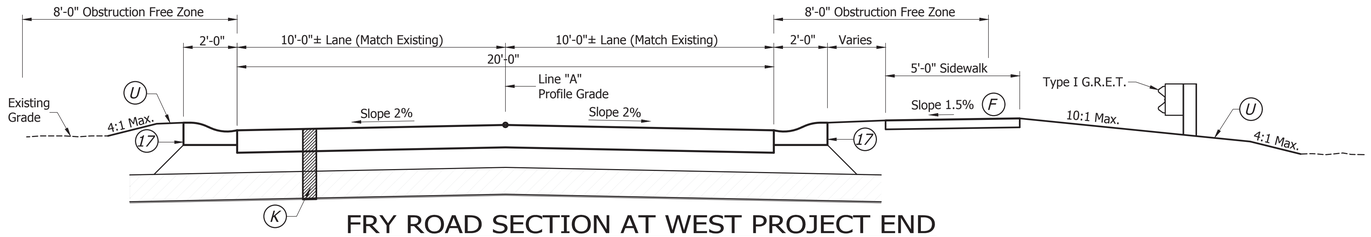
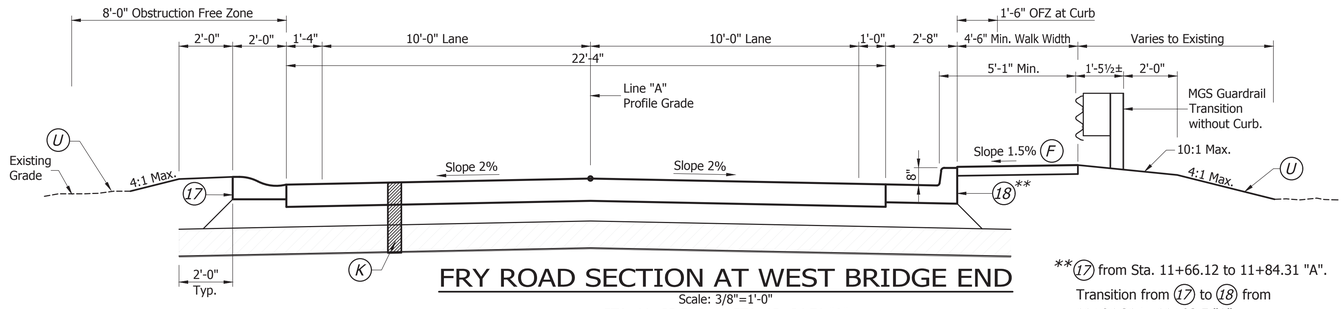


FRY ROAD SECTION AT WEST PROJECT END

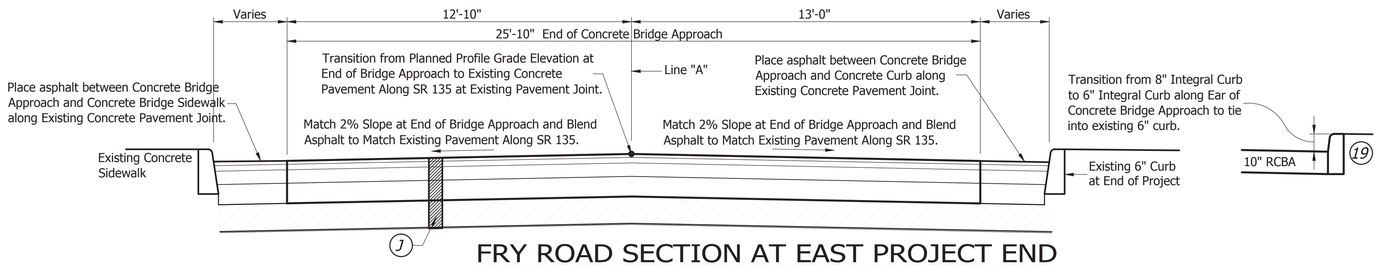
Scale: 3/8"=1'-0"
STA. 11+66.12 "A" to 11+93.5 "A"



FRY ROAD SECTION AT WEST BRIDGE END

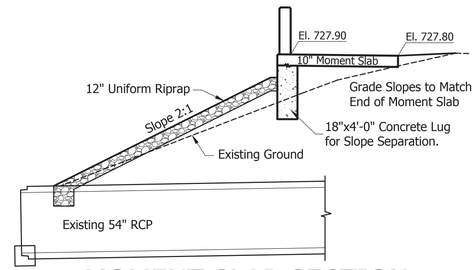
Scale: 3/8"=1'-0"
STA. 11+93.5 "A" to STA. 12+04.71 "A"
See Notes to the Right

**17 from Sta. 11+66.12 to 11+84.31 "A".
Transition from 17 to 18 from 11+84.31 to 11+93.5 "A".



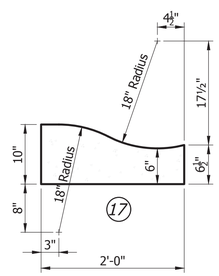
FRY ROAD SECTION AT EAST PROJECT END

Scale: 3/8"=1'-0"
STA. 14+04.09 "A" to STA. 14+12.76 "A"
Concrete Sleeper Slab starts Sta. 14+08.7

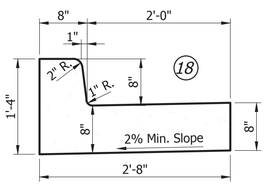


MOMENT SLAB SECTION

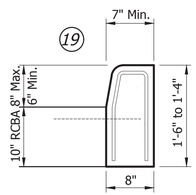
Scale: 3/16"=1'-0"
EAST END OF PROJECT



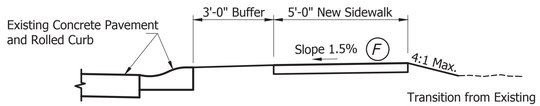
CONCRETE ROLLED CURB



COMBINED CONCRETE CURB & GUTTER, TYPE C



INTEGRAL CONCRETE CURB



SIDEWALK SECTION

Scale: 3/8"=1'-0"
Sta. 10+53 "A" to 11+83 "A"
Buffer Varies Sta. 10+38 "A" to 10+53 "A"

Transition from Existing Sidewalk at Sta. 10+38 "A" with a 5'-wide angled walk to a 5'-0" Sidewalk with 3' Buffer at Sta. 10+53 "A".

LEGEND

K *TERMINAL JOINT, TYPE PCCP*
10" Jointed Reinforced Concrete Pavement on
9" Subbase for PCCP on
Subgrade Treatment, Type IC on
Geotextile for Pavement, Type 2B

J *HMA FOR APPROACHES, TYPE B*
165 lb/Syd. HMA Surface, Type B on
275 lb/Syd. HMA Intermediate, Type B on
660 lb/Syd. HMA Base, Type B on
Subgrade Treatment Type IC on
Geotextile for Pavement, Type 2B

17 *Concrete Rolled Curb*
18 *Curb and Gutter, Concrete, Type C*
19 *Integral Concrete Curb*
F *Concrete Sidewalk*
U *Seed Mix U with Fertilizer & Erosion Control Blanket*

DATE	REVISION

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL: 05/31/2023 — DESIGN ENGINEER — DATE

DESIGNED: RDG | DRAWN: RDG
CHECKED: MAM | CHECKED: MAM

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
JOHNSON COUNTY BRIDGE NO. 605

SCALE	BRIDGE FILE
As Noted	JOHNSON 605
	DESIGNATION
	2200136
SURVEY BOOK	SHEETS
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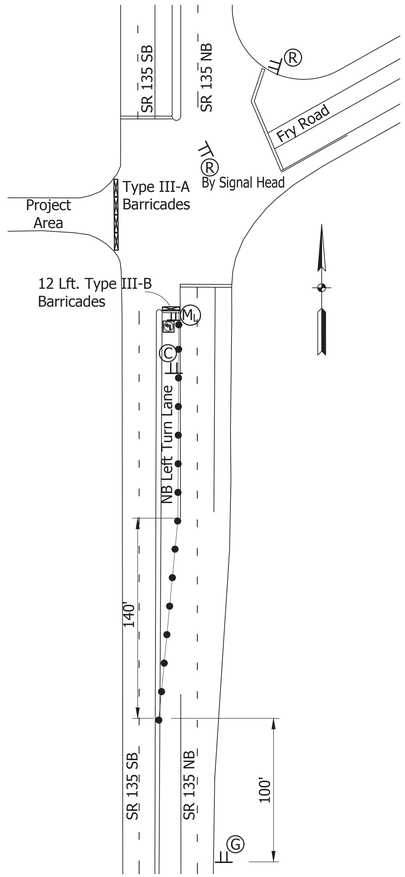
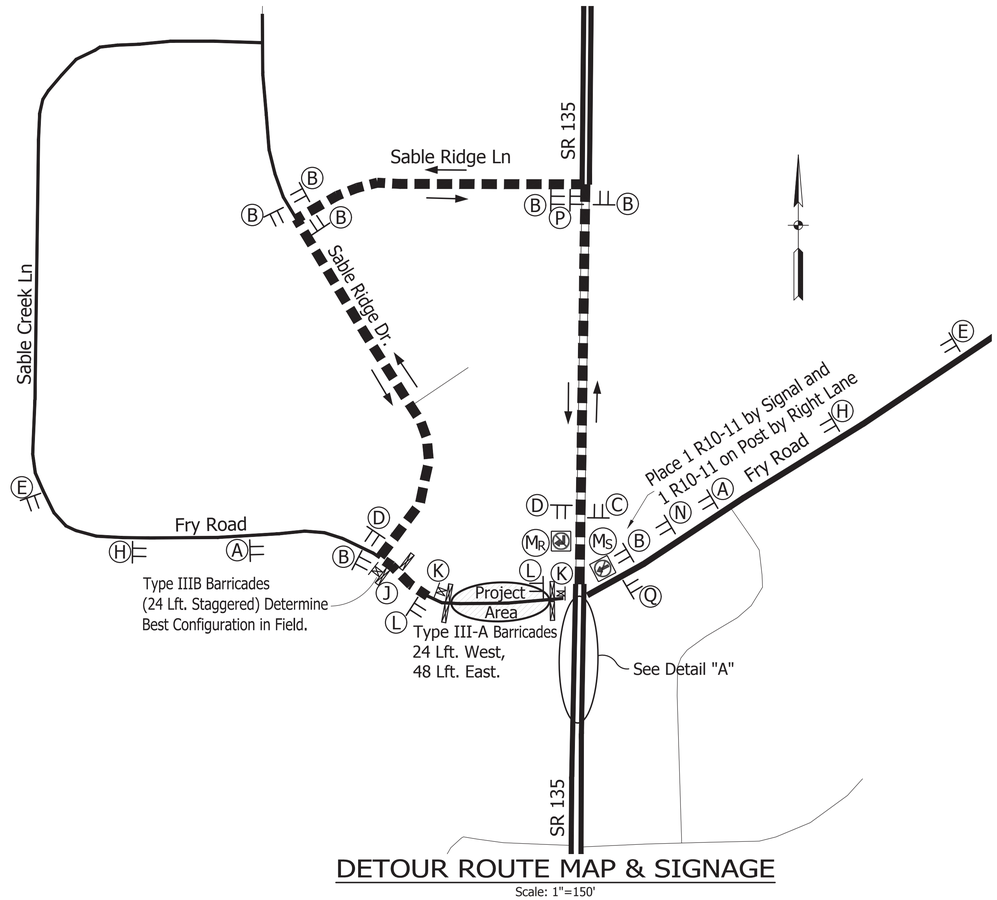


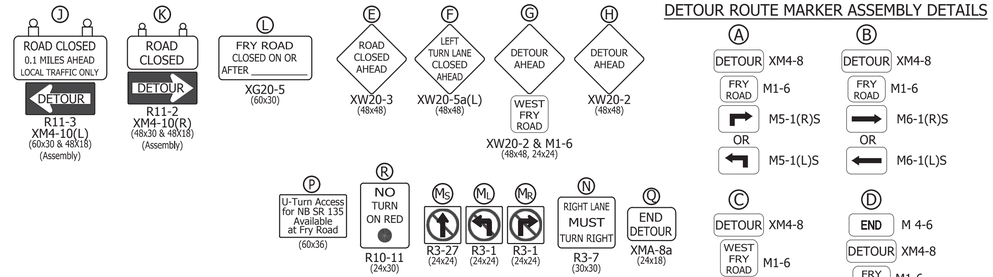
SR 135 DETAIL "A"

Scale: 1"=50'



DETOUR ROUTE MAP & SIGNAGE

Scale: 1"=150'



DETOUR ROUTE MARKER ASSEMBLY DETAILS

NOTE: FOR SPACING OF DETOUR ROUTE MARKER ASSEMBLIES AND CONSTRUCTION SIGNING, SEE INDOT STANDARD DRAWING 801-TCDT-02.

LEGEND

- TRAFFIC DRUM
- CONSTRUCTION AREA
- INDICATES TRAFFIC FLOW
- DETOUR ROUTE TRAFFIC FLOW
- TYPICAL CONSTRUCTION SIGN STANDARD
- ROAD CLOSURE SIGN ASSEMBLY
- TYPE III-A OR III-B BARRICADES
- TEMPORARY CONCRETE BARRIER, TYPE 2

(A) - (D) DETOUR ROUTE MARKER ASSEMBLY
(E) XW20-3, ROAD CLOSED AHEAD
(F) XW20-5, LEFT TURN LANE CLOSED AHEAD
(G) XW20-2, DETOUR AHEAD WITH M1-6 PLAQUE
(H) XW20-2, DETOUR AHEAD
(J) R11-3, ROAD CLOSED AHEAD SIGN ASSEMBLY
(K) R11-2, ROAD CLOSED SIGN ASSEMBLY
(L) XG20-5, ADVANCED ROAD CLOSURE NOTICE
Installed at least 14 Days prior to Road Closure with sign listing closing date at each end of Project Work Area.
(M) R3-1, NO LEFT (OR RIGHT, OR STRAIGHT) TURN
(N) R3-7, RIGHT LANE MUST TURN RIGHT
(Q) XMA-8a, END DETOUR
(P) TYPE C, U-TURN AVAILABLE SIGN
(R) R10-11, NO TURN ON RED

DETOUR ROUTE

NOTES:
Type A Lights Required on all Construction Signs.
Signing to be placed per Applicable Standard Drawings.
Existing Pavement Markings to be Removed when in Conflict with M.O.T. Scheme.
Channelizing Devices to be spaced per Standard Drawings.
Signing to be placed per Applicable Standard Drawings.

Maintaining Traffic	1	LSum
Construction Sign, A	7	Each
Construction Sign, B	11	Each
Construction Sign, C	1	Each
Detour Route Marker Assembly	13	Each
Road Closure Sign Assembly	3	Each
Barricade, III-A	72	Lft.
Barricade, III-B	36	Lft.

M.O.T. ESTIMATE OF QUANTITIES

DATE	REVISION

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ 05/31/2023
DESIGN ENGINEER DATE

DESIGNED: RDG DRAWN: RDG
CHECKED: MAM CHECKED: MAM

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC & DETOUR
JOHNSON COUNTY BRIDGE NO. 605

SCALE	BRIDGE FILE
As Noted	JOHNSON 605
	DESIGNATION
	2200136
SURVEY BOOK	SHEETS
---	4 of 28
CONTRACT	PROJECT
B-44295	2200136

DIRECTORY PATH : R:\Active\Johnson County\Bridge 605\Design\Cad\Plans
FILENAME : MOT.dwg
DATE/USER : 5/31/2023 12:32 PM / Rgardner

LOG OF TEST BORING

BORING NO.: TB-1 | SHEET 1 OF 3 | LATITUDE : 39.62464 | LONGITUDE : -86.15930 | DATUM : WGS 84 | DATE STARTED : 12-13-22 | DATE COMPLETED : 12-13-22

Terracon CLIENT : CrossRoad Engineers, PC | DES NO. : 2200136 | STRUCTURE #: Johnson 605

PROJECT TYPE: Bridge Replacement

LOCATION : Fry Road over Pleasant Run Creek

COUNTY: Johnson | PROJECT NO.: CJ225169

ELEVATION : 723.0 | STATION : 12+22 | OFFSET : 6.0 ft Right | LINE : "A" | DEPTH : 88.7 ft

BORING METHOD : Hollow Stem Auger | RIG TYPE : B-57 Track | CASING DIA. : --- | CORE SIZE : ---

HAMMER : Auto | DRILLER/INSP : J.R. | TEMPERATURE : 34 °F | WEATHER : Cloudy

GROUNDWATER: ▽ Encountered at 11.0 ft ▽ At completion 9.0 ft ▼ Caved in at 19.0 ft

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
723.0	0.0	**Portland Cement Concrete** 0.8											
		Granular Subbase, (crushed stone) 1.3	SS 1	2-3-5	67								
	2.5		SS 2	5-3-4	67								
	5.0	**Sand and Gravel**, loose, moist, brown, with cobbles near 6.5 ft, (fill; visual)	SS 3	50/5	0								
715.0	7.5	8.5											
	10.0	**Clay**, medium stiff, moist, brown, with sand seams, (possible fill), A-7-6, Lab No. 35093 11.0	SS 4	3-3-5	78	19.7		0.25					
	12.5	**Sand and Gravel**, loose to medium dense, wet, brown, (visual)	SS 5	5-5-3	72	11.6							
710.0	15.0	16.0	SS 6	7-8-7	67	12.3							
	17.5		SS 7	7-7-8	66	10.4	131.5	2.5					
			SS 8	3-3-3	67	14.0		1.5					
	20.0	**Clay Loam**, soft to hard, moist, brown to gray, with silty clay loam seams, with organic matter (roots) near 17.5 ft, with gravelly sand seam near 29 ft, A-4(1), Lab No. 35088											
700.0	22.5		SS 9	2-2-3	72	13.1 13.3	118.8	0.25		20	12	8	24.5, pH = 6.3, SG = 2.73
	25.0												
	27.5												
695.0	30.0	29.5	SS 10	17-17-15	50	8.4		>4.5					
	32.5	**Clay Loam**, hard, moist, gray, with some gravel, A-4(1), Lab No. 35089											
690.0	35.0		SS 11	24-24-30	78	7.9	133.1	>4.5					

Continued on next page

LOG OF TEST BORING

BORING NO.: TB-1 | SHEET 2 OF 3 | LATITUDE : 39.62464 | LONGITUDE : -86.15930 | DATUM : WGS 84

Terracon CLIENT : CrossRoad Engineers, PC | DES NO. : 2200136 | STRUCTURE #: Johnson 605

PROJECT TYPE: Bridge Replacement

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
685.0	37.5		SS 12	20-35-36	83	7.8		>4.5					40.0, Began mud rotary
	40.0	**Clay Loam**, hard, moist, gray, with some gravel, A-4(1), Lab No. 35089											
	42.5		SS 13	20-42-45	76	7.0		>4.5					
675.0	45.0												
	47.5		SS 14	20-40-50/3	96	7.1		>4.5		19	12	7	49.5, pH = 8.4, SG = 2.72
	50.0												
670.0	52.5	54.5	SS 15	20-30-33	83	6.4		>4.5					
	55.0	**Gravelly Sand**, very dense, wet, gray, with cobbles near 63.5 ft, A-1-b(0), Lab No. 35090											
	57.5		SS 16	22-21-30	72					NP	NP	NP	59.5, pH = 7.9, SG = 2.72
665.0	60.0												
	62.5		SS 17	50/3	0								
	65.0	67.6											
660.0	67.5		SS 18	18-30-50/5	83	9.5		>4.5					
	70.0	**Clay Loam**, hard, moist, gray, with some gravel, with cobbles near 74 ft, A-4, Lab No. 35094											
	72.5		SS 19	50/1	0								
650.0	75.0												
	77.5												

Continued on next page

LOG OF TEST BORING

BORING NO.: TB-1 | SHEET 3 OF 3 | LATITUDE : 39.62464 | LONGITUDE : -86.15930 | DATUM : WGS 84

Terracon CLIENT : CrossRoad Engineers, PC | DES NO. : 2200136 | STRUCTURE #: Johnson 605

PROJECT TYPE: Bridge Replacement

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
645.0	80.0		SS 20	22-30-49	56	12.3		3.75					
	82.5	**Clay Loam**, hard, moist, gray, with some gravel, with cobbles near 74 ft, A-4, Lab No. 35094											
640.0	85.0	84.0											
	87.5	**Sandy Loam**, very dense, moist, gray, with some gravel, A-2-4(0), Lab No. 35091	SS 21	31-39-40	66	10.7 12.7				18	14	4	84.5, pH = 9.1, SG = 2.71
635.0	90.0	88.7											
	92.5		SS 22	50/2	83			>4.5					
630.0	95.0	Bottom of Boring at 88.7 ft.											
	97.5												
625.0	100.0												
	102.5												
620.0	105.0												
	107.5												
615.0	110.0												
	112.5												
610.0	115.0												
	117.5												
605.0	120.0												

LOG OF TEST BORING

BORING NO.: TB-2A | SHEET 1 OF 3 | LATITUDE : 39.62491 | LONGITUDE : -86.15898 | DATUM : WGS 84 | DATE STARTED : 12-12-22 | DATE COMPLETED : 12-12-22

Terracon CLIENT : CrossRoad Engineers, PC | DES NO. : 2200136 | STRUCTURE #: Johnson 605

PROJECT TYPE: Bridge Replacement

LOCATION : Fry Road over Pleasant Run Creek

COUNTY: Johnson | PROJECT NO.: CJ225169

ELEVATION : 714.0 | STATION : 13+10 | OFFSET : 19.0 ft Left | LINE : "A" | DEPTH : 90.0 ft

BORING METHOD : Hollow Stem Auger | RIG TYPE : B-57 Track | CASING DIA. : --- | CORE SIZE : ---

HAMMER : Auto | DRILLER/INSP : J.R. | TEMPERATURE : 40 °F | WEATHER : Sunny

GROUNDWATER: ▽ Encountered at 5.0 ft ▽ At completion 9.0 ft ▼ Caved in at 25.0 ft

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
714.0	0.0	**Topsoil** 0.5											
		Clay, moist, gray, (visual) 1.6	SS 1	50/2	83								
	2.5												
710.0	5.0	**Sand and Gravel**, dense to very dense, moist to wet below 6 ft, brown, with organic matter (wood) near 1 ft, (visual)	SS 2	20-20-11	67	12.7							
	7.5		SS 3	33-21-13	72	4.4							
	10.0	8.0											
705.0	12.5	**Sandy Loam**, very dense, wet, brown, (visual)	SS 4	9-15-17	67	13.4							
	15.0	11.6											
	17.5		SS 5	15-29-33	83	7.6		>4.5					
700.0	20.0		SS 6	13-20-24	94	9.2	132.4	>4.5					
	22.5		SS 7	12-20-23	100	8.8		>4.5					
	25.0	**Clay Loam**, hard, moist, gray, with some gravel, with sandy loam seams near 12.5 ft, A-4, Lab No. 35089	SS 8	12-18-13	83	9.6		>4.5					
695.0	27.5												
	30.0		SS 9	7-18-13	100	8.5		>4.5					
	32.5												
690.0	35.0		SS 10	10-21-24	89	9.4		>4.5					

Continued on next page

LOG OF TEST BORING

BORING NO.: TB-2A | SHEET 2 OF 3 | LATITUDE : 39.62491 | LONGITUDE : -86.15898 | DATUM : WGS 84

Terracon CLIENT : CrossRoad Engineers, PC | DES NO. : 2200136 | STRUCTURE #: Johnson 605

PROJECT TYPE: Bridge Replacement

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
685.0	32.5		SS 11	13-25-23	100	8.0	135.4	>4.5					
	35.0	**Clay Loam**, hard, moist, gray, with some gravel, with sandy loam seams near 12.5 ft, A-4, Lab No. 35089											
	37.5	38.0											
680.0	40.0	**Gravelly Sand**, dense, wet, gray, with cobbles near 39 ft, A-1-b, Lab No. 35090	SS 12	25-21-20	83	4.0							40.0, Began mud rotary
	42.5	42.0											
	45.0	**Clay Loam**, hard, moist, gray, with some gravel, with silty clay loam seam near 45 ft, A-4, Lab No. 35094	SS 13	18-24-27	72	15.2		2.0					
675.0	47.5	47.0											
	50.0	**Gravelly Sand**, very dense, wet, gray, with sandy clay loam seam near 49 ft, A-1-b(0), Lab No. 35092	SS 14	35-50-50/5	71			2.0		NP	NP	NP	49.5, pH = 8.0, SG = 2.72
	52.5	52.0											
670.0	55.0		SS 15	25-45-50/5	95	12.0		>4.5					
	57.5	**Clay Loam**, very stiff to hard, moist, gray, with some gravel, with organic matter (decayed wood) near 59.5 to 74.5 ft, A-4, Lab No. 35094											
	60.0		SS 16	26-40-50/2	97	13.1		>4.5					
665.0	62.5												
	65.0		SS 17	25-31-37	83	11.0		>4.5					

Continued on next page

LOG OF TEST BORING

BORING NO.: TB-2A | SHEET 3 OF 3 | LATITUDE : 39.62491 | LONGITUDE : -86.15898 | DATUM : WGS 84

Terracon CLIENT : CrossRoad Engineers, PC | DES NO. : 2200136 | STRUCTURE #: Johnson 605

PROJECT TYPE: Bridge Replacement

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
645.0	67.5		SS 18	12-24-59/5	95	11.3	126.8	3.5	6.88				
	70.0												
	72.5		SS 19	20-20-44	100	12.8		4.5					
640.0	75.0												
	77.5	**Clay Loam**, very stiff to hard, moist, gray, with some gravel, with organic matter (decayed wood) near 59.5 to 74.5 ft, A-4, Lab No. 35094	SS 20	14-27-59/5	95	11.8		>4.5					
635.0	80.0												
	82.5		SS 21	13-15-18	67	12.7		3.0					
	85.0												
630.0	87.5												
	90.0	90.0	SS 22	12-12-15	50	13.6		3.0					
	92.5	Bottom of Boring at 90.0 ft.											
625.0	95.0												
	97.5												
620.0	100.0												
	102.5												
615.0	105.0												
	107.5												
610.0	110.0												
	112.5												
605.0	115.0												

See Sheet 6 for Additional Test Boring Logs, Boring Location Map, and Foundation Bearing Values.

DATE	REVISION

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ 05/31/2023 DESIGN ENGINEER DATE

DESIGNED: RDG | DRAWN: RDG | CHECKED: MAM | CHECKED: MAM

INDIANA DEPARTMENT OF TRANSPORTATION

SOIL BORINGS - SHEET 1
JOHNSON COUNTY BRIDGE NO. 605

SCALE	BRIDGE FILE
As Noted	JOHNSON 605
	DESIGNATION
	2200136
SURVEY BOOK	SHEETS
---	5 of 28
CONTRACT	PROJECT
B-44295	2200136

DIRECTORY PATH : R:\Active\Johnson County\Bridge 605\Design\Cad\Plans
FILENAME : Soil Borings.dwg
DATE/USER : 5/31/2023 12:33 PM / Rgardner

LOG OF TEST BORING

Terracon

BORING NO.: TB-3 | SHEET 1 OF 3 | LATITUDE : 39.62488 | LONGITUDE : -86.15873 | DATUM : WGS 84

CLIENT : CrossRoad Engineers, PC
DES NO. : 2200136 STRUCTURE #: Johnson 605
PROJECT TYPE: Bridge Replacement
LOCATION : Fry Road over Pleasant Run Creek
COUNTY : Johnson PROJECT NO.: CJ225169
DATE STARTED : 12-14-22
DATE COMPLETED : 12-14-22

ELEVATION : 727.0	BORING METHOD : Hollow Stem Auger	HAMMER : Auto	
STATION : 13+82	RIG TYPE : B-57 Track	DRILLER/INSP : J.R.	
OFFSET : 8.0 ft Left	CASING DIA. : ---	TEMPERATURE : 40 °F	
LINE : "A"	CORE SIZE : ---	WEATHER : Rainy	
DEPTH : 90.0 ft			

GROUNDWATER: ▽ Encountered at 14.0 ft ▽ At completion 8.0 ft ▼ Caved in at 40.0 ft

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
725.0	2.5	**Portland Cement Concrete** 1.0	SS 1	3-5-5	39								
	5.0	**Sand and Gravel**, very loose to loose, (fill; visual)	SS 2	3-2-1	22								
720.0	7.5	6.5	SS 3	1-1-1	39	19.2		1.0					
	10.0	**Clay**, very soft to medium stiff, moist, brown, with some gravel near 10 ft., (possible fill), A-7-6(13), Lab No. 35093	SS 4	1-1-3	72	21.7		1.75		44	17	27	- 9.5, pH = 7.8, SG = 2.72
715.0	12.5	14.0	SS 5	2-3-5	0								
	15.0	**Sandy Loam**, medium dense, wet, gray, (visual) 16.0	SS 6	4-6-9	39								
710.0	17.5		SS 7	6-9-11	78	9.9		4.0					
	20.0		SS 8	16-13-17	33	11.2		1.5					
705.0	22.5	**Clay Loam**, very stiff to hard, moist, gray, with some gravel, A-4, Lab No. 35088	SS 9	10-15-17	89	8.9		>4.5					
	25.0												
700.0	27.5												
	30.0		SS 10	14-14-19	83	8.4		>4.5					

Continued on next page

LOG OF TEST BORING

Terracon

BORING NO.: TB-3 | SHEET 2 OF 3 | LATITUDE : 39.62488 | LONGITUDE : -86.15873 | DATUM : WGS 84

CLIENT : CrossRoad Engineers, PC
DES NO. : 2200136 STRUCTURE #: Johnson 605
PROJECT TYPE: Bridge Replacement

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
695.0	32.5		SS 11	13-17-21	89	9.7		>4.5					
	35.0												
690.0	37.5		SS 12	13-15-24	83	6.6		2.0					
	40.0												
685.0	42.5		SS 13	12-21-27	89	15.2		>4.5					
	45.0												
680.0	47.5	**Clay Loam**, very stiff to hard, moist, gray, with some gravel, with sandy loam seam near 34 ft, with sand seams near 40 ft and 50 ft, A-4(1), Lab No. 35094	SS 14	14-19-25	83	8.4		>4.5					
	50.0												
675.0	52.5		SS 15	12-18-25	100	9.4 7.9	135.9	>4.5	7.93	19	12	7	- 54.5, pH = 8.5, SG = 2.74
	55.0												
670.0	57.5		SS 16	12-17-25	89	8.9		>4.5					
	60.0												
665.0	62.5		SS 17	18-19-27	89	10.0		>4.5					
	65.0												

Continued on next page

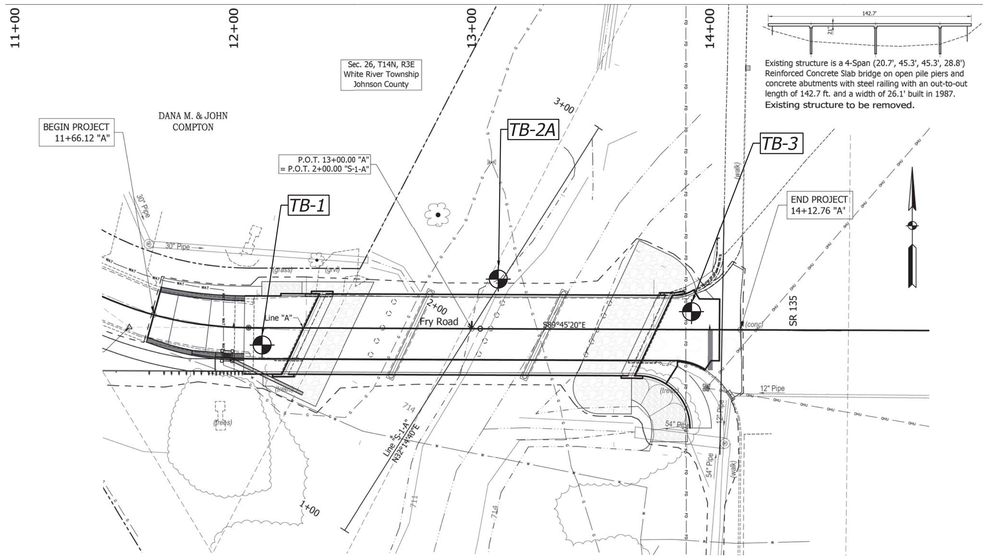
LOG OF TEST BORING

Terracon

BORING NO.: TB-3 | SHEET 3 OF 3 | LATITUDE : 39.62488 | LONGITUDE : -86.15873 | DATUM : WGS 84

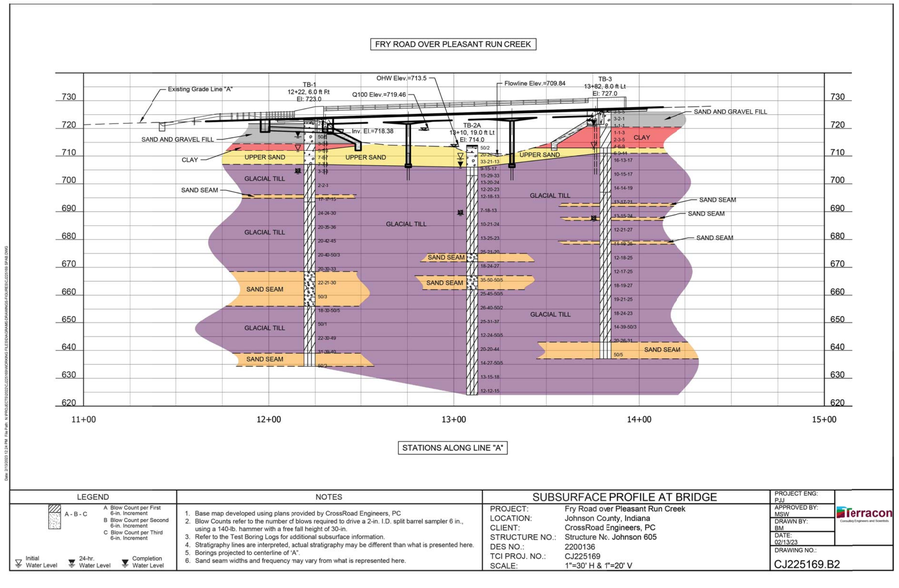
CLIENT : CrossRoad Engineers, PC
DES NO. : 2200136 STRUCTURE #: Johnson 605
PROJECT TYPE: Bridge Replacement

ELEVATION	SAMPLE DEPTH	SOIL/MATERIAL DESCRIPTION	SAMPLE NUMBER	SPT per 6"	RECOVERY	MOISTURE CONTENT	DRY DENSITY, pcf	POCKET PEN., tsf	UNCONF. COMP., tsf	ATTERBERG LIMITS LL	PL	PI	REMARKS
660.0	67.5		SS 18	19-21-25	83	8.8	133.7	>4.5					
	70.0												
655.0	72.5		SS 19	18-24-23	78	8.4		>4.5					
	75.0												
650.0	77.5		SS 20	14-39-50/3	83	8.3	132.8	>4.5					
	80.0	**Clay Loam**, very stiff to hard, moist, gray, with some gravel, with sandy loam seam near 34 ft, with sand seams near 40 ft and 50 ft, A-4(1), Lab No. 35094											
645.0	82.5	84.0	SS 21	20-26-31	56	7.7							
	85.0	**Sandy Loam**, very dense, moist, gray, A-2-4, Lab No. 35091											
640.0	87.5		SS 22	50/5	83								
	90.0	90.0											
635.0	92.5	Bottom of Boring at 90.0 ft											
	95.0												
630.0	97.5												
	100.0												
625.0	102.5												



SOIL BORING LOCATION PLAN

Scale : 1"=30'



LEGEND	NOTES	SUBSURFACE PROFILE AT BRIDGE	
A - B - C A Blow Count per First 6-in. Increment B Blow Count per Second 6-in. Increment C Blow Count per Third 6-in. Increment Initial Water Level ▽ 24-hr. Water Level ▽ Completion Water Level	1. Base map developed using plans provided by CrossRoad Engineers, PC 2. Blow Counts refer to the number of blows required to drive a 2-in. I.D. split barrel sampler 6 in., using a 140-lb. hammer with a free fall height of 30-in. 3. Refer to the Test Boring Logs for additional subsurface information. 4. Stratigraphy lines are interpreted, actual stratigraphy may be different than what is presented here. 5. Borings projected to centerline of "A". 6. Sand seam widths and frequency may vary from what is represented here.	PROJECT: Fry Road over Pleasant Run Creek LOCATION: Johnson County, Indiana CLIENT: CrossRoad Engineers, PC STRUCTURE NO.: Structure No. Johnson 605 DES NO.: 2200136 TCI PROJ. NO.: CJ225169 SCALE: 1"=30' H & 1"=20' V	PROJECT ENG: PJJ APPROVED BY: MSW DRAWN BY: BM DATE: 02/13/23 DRAWING NO.: CJ225169.B2

PILE LOADING FOR GEOTECHNICAL TESTING

Location	Bent No. 1	Pier No. 2	Pier No. 3	Bent No. 4
Pile Size and Type	14 in. x 0.375 in. Pipe Pile			
Factored Design Load - Q_F	130 Kips	200 Kips	200 Kips	130 Kips
Factored Soil Resistance - R_R	130 Kips	200 Kips	200 Kips	130 Kips
Resistance Factor Φ_{dyn}*	0.55	0.55	0.55	0.55
Factored Downdrag Load - D_D	Negligible			
Nominal Soil Resistance R_n	236 Kips	364 Kips	364 Kips	236 Kips
Downdrag Friction - R_{sdd}	Negligible			
Scour Zone Friction - $R_{s\ scour}$	N/A	55 Kips	55 Kips	N/A
Relaxation in Shale	N/A	N/A	N/A	N/A
Nominal Driving Resistance R_{ndr}	236 Kips	419 Kips	419 Kips	236 Kips
Estimated Pile Tip Elevation	698	681	681	701
Prebore with 12"Ø Hole to Elevation:	708	686	686	N/A
Method of Testing	Standard Specifications Section 701.05(a)			
One Indicator Test Pile with Restrike after 72 hours at Bent No. 1 and Pier No. 3.				
Minimum pile spacing is 3'-6" center to center of piling.				
*Based on 701.05(a)				

See Sheets 5 for Additional Test Boring Logs.

DATE	REVISION

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ 05/31/2023
DESIGN ENGINEER DATE

DESIGNED: RDG | DRAWN: RDG
CHECKED: MAM | CHECKED: MAM

INDIANA DEPARTMENT OF TRANSPORTATION

SOIL BORINGS - SHEET 2
JOHNSON COUNTY BRIDGE NO. 605

SCALE	BRIDGE FILE
As Noted	JOHNSON 605
	DESIGNATION
	2200136
SURVEY BOOK	SHEETS
---	6 of 28
CONTRACT	PROJECT
B-44295	2200136

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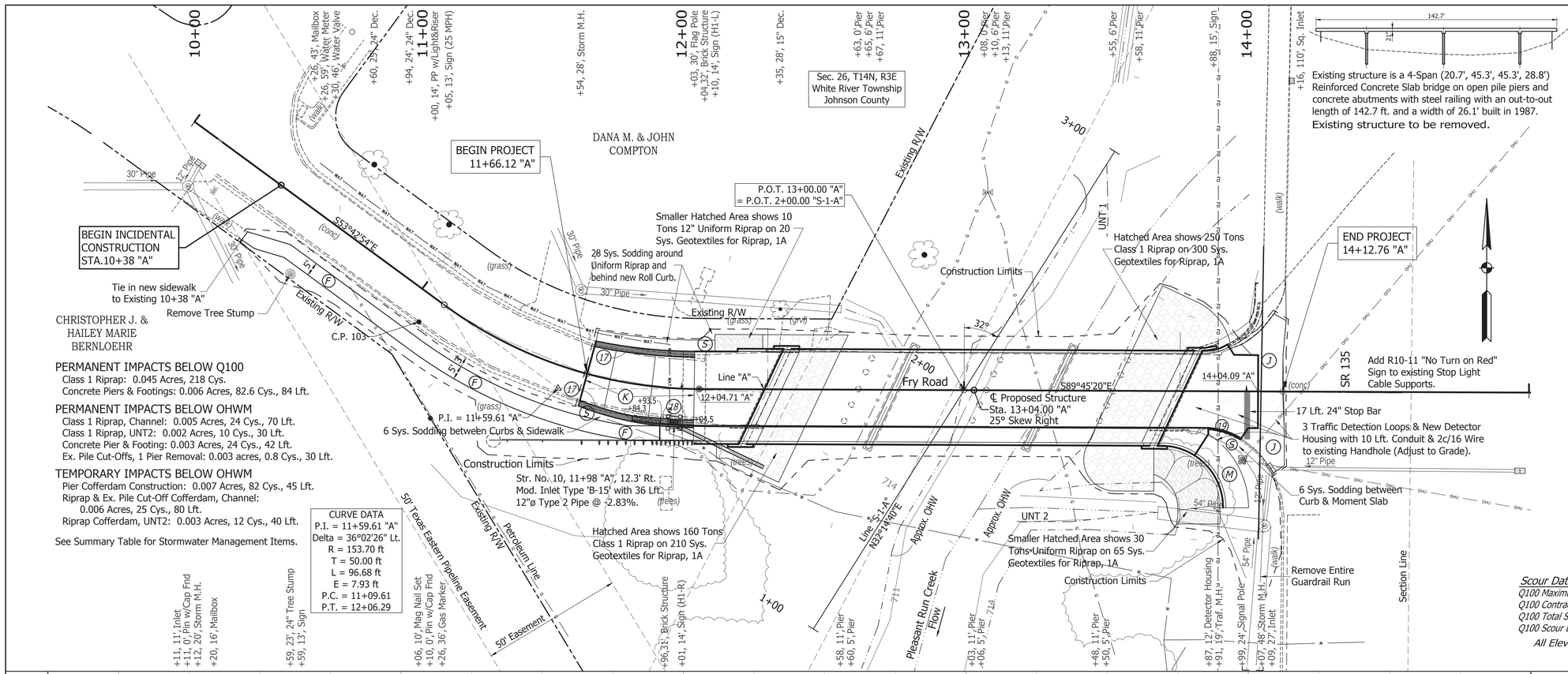


LEGEND

EXISTING

- Storm Inlets
- Storm Manhole
- Sanitary Manhole
- Sanitary Cleanout
- Gas Line
- Gas Valve
- Gas Meter
- Water Line
- Water Valve
- Fire Hydrant
- Water Meter
- Sprinkler
- Irr. Valve
- Electric Line
- Electric Box
- Overhead Utility Line
- Power Pole w/(Riser)
- Light & Power Pole
- Mailbox
- Light & Power Pole w/Riser
- Guy Wire
- Light Pole
- Fiber Optic Line
- Telephone Line
- Telephone Riser
- Telephone Manhole
- Cable TV Line
- Cable TV Box
- Utility Manhole
- Wood Fence
- Wire Fence
- Chainlink Fence
- Iron Fence
- Iron Pin
- Sign
- Flag Pole
- Bush
- Tree Trunk
- Deciduous Tree
- Coniferous Tree

(17) Concrete Rolled Curb
(F) Concrete Sidewalk
(J) HMA for Approaches, Type B
(K) Terminal Joint, Type PCCP
(18) Curb & Gutter, Concrete, Type C
(19) Integral Concrete Curb
(M) Concrete Moment Slab
(S) Sodding

EROSION CONTROL LEGEND

(SF) Silt Fence
(IP) Inlet Protection

HYDRAULIC DATA

Drainage Area	= 14.26 sq. miles
Design Discharge (Q100)	= 4,900 cfs
Q100 Elevation	= 719.46 MSL
Q100 Headwater Elevation	= 719.90 MSL
Gross Waterway Opening Below Q100	= 784 sq. ft.
Road Overflow Area	= 0 sq. ft.
Design Velocity Through Bridge	= 6.88 ft./sec.
Proposed Backwater at Q100	= 0.45 ft.
Proposed Low Structure Elevation	= 721.65 MSL
Skew	25°
Waterway Area Provided Below Q100	
Through Proposed Structure	= 784 sq. ft.
Over Proposed Roadway	= 0 sq. ft.
Existing Waterway Area Below Q100	
Through Existing Structure	= 773 sq. ft.
Over Existing Roadway	= 0 sq. ft.
Existing Backwater	= 0.47 ft.
Existing Low Structure Elevation	= 721.52 MSL

Scour Data

Q100 Maximum Velocity	= 8.82 ft./sec.	Q500 Maximum Velocity	= 10.95 ft./sec.
Q100 Contraction Scour	= 1.41 ft.	Q500 Contraction Scour	= 3.34 ft.
Q100 Total Scour	= 9.76 ft.	Q500 Total Scour	= 12.54 ft.
Q100 Scour Elevation	= 700.08 MSL	Q500 Scour Elevation	= 697.30 MSL

All Elevations NAVD1988

All R/W and Topo from Line "A" Unless Noted Otherwise

PERMANENT IMPACTS BELOW Q100

Class 1 Riprap: 0.045 Acres, 218 Cys.
Concrete Piers & Footings: 0.006 Acres, 82.6 Cys., 84 Lft.

PERMANENT IMPACTS BELOW OHWM

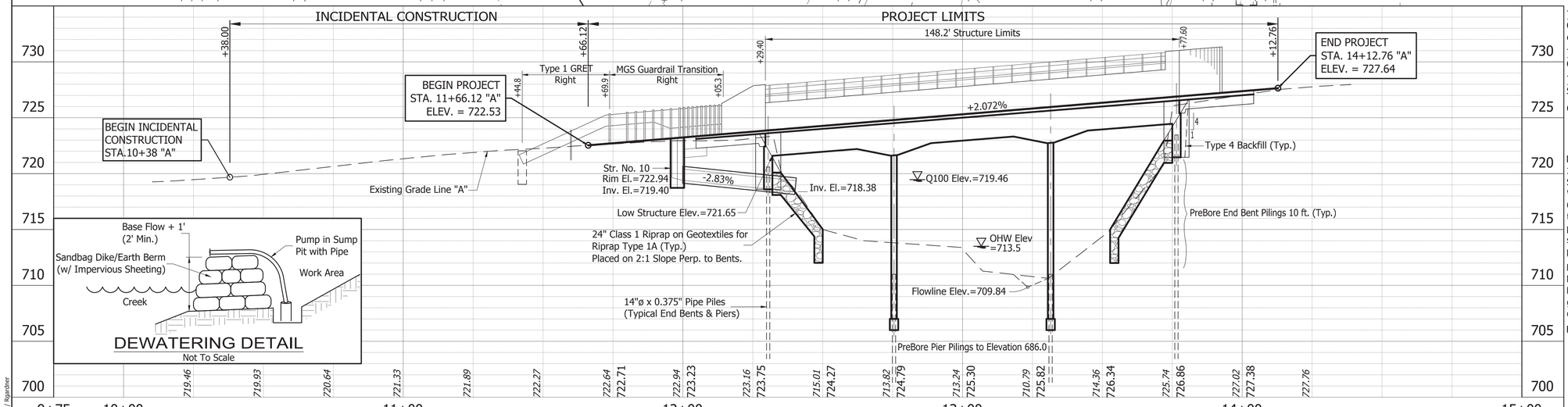
Class 1 Riprap, Channel: 0.005 Acres, 24 Cys., 70 Lft.
Class 1 Riprap, UNT2: 0.002 Acres, 10 Cys., 30 Lft.
Concrete Pier & Footing: 0.003 Acres, 24 Cys., 42 Lft.
Ex. Pile Cut-Offs, 1 Pier Removal: 0.003 acres, 0.8 Cys., 30 Lft.

TEMPORARY IMPACTS BELOW OHWM

Pier Cofferdam Construction: 0.007 Acres, 82 Cys., 45 Lft.
Riprap & Ex. Pile Cut-Off Cofferdam, Channel:
0.006 Acres, 25 Cys., 80 Lft.
Riprap Cofferdam, UNT2: 0.003 Acres, 12 Cys., 40 Lft.

See Summary Table for Stormwater Management Items.

CURVE DATA
P.I. = 11+59.61 "A"
Delta = 36°02'26" Lt.
R = 153.70 ft
T = 50.00 ft
L = 96.68 ft
E = 7.93 ft
P.C. = 11+09.61
P.T. = 12+06.29



TBM #400

Cut "Box" on south-most corner of concrete pedestal for traffic control box.

TBM #401

Cut on west side on concrete pedestal for light pole.

TBM #402

SE corner of decorative brick wall south of Sable Ridge Lane.

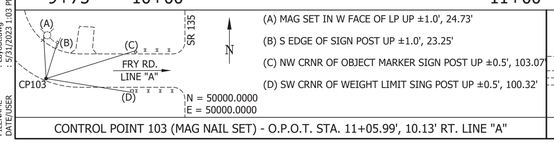
ORIGINATING BENCHMARK
Designation - X 13 PID-KA0010 State/County - IN/Morgan
USGS Quad - Moorseville East (1980)
Vert Order - First Class II

Described by Coast and Geodetic Survey 1946
1.2 mi N from Waverly, IN Johnson County, 1.2 miles north along State Highway 37 from the intersection of State Highway 144 at Waverly, Morgan County, 125 yards north of the Morgan-Johnson County line, 26 feet west of the centerline of the highway, in line with the west right-of-way fence, 1.5 feet south of a white wooden witness post, and about 2 feet higher than the highway. A standard disk, stamped 686.370 X 13 1930 and set in the top of a concrete post projecting 7 inches above ground.

Recovery Note by IN Dept of Natural Resources 1985
New Desc- At the intersection of New State Road 144 and Old State Road 37, in the southwest quarter of the intersection, witness post is gone, right-of-way fence is gone, all other information appears to be correct.

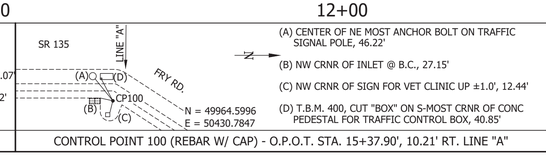
ELEVATION = 685.94 (NAVD 88)

HAUNCHED CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE
3 SPANS: 45'-0", 56'-0", 45'-0" 25^ SKEW RIGHT
26'-4" CLEAR ROADWAY
FRY ROAD OVER PLEASANT RUN CREEK



CONTROL POINT 103 (MAG NAIL SET) - O.P.O.T. STA. 11+05.99', 10.13' RT. LINE "A"

(A) MAG SET IN W FACE OF LP UP ±1.0', 24.73'
(B) S EDGE OF SIGN POST UP ±1.0', 23.25'
(C) NW CRNR OF OBJECT MARKER SIGN POST UP ±0.5', 103.07
(D) SW CRNR OF WEIGHT LIMIT SING POST UP ±0.5', 100.32'



CONTROL POINT 100 (REBAR W/ CAP) - O.P.O.T. STA. 15+37.90', 10.21' RT. LINE "A"

(A) CENTER OF NE MOST ANCHOR BOLT ON TRAFFIC SIGNAL POLE, 46.22'
(B) NW CRNR OF INLET @ B.C., 27.15'
(C) NW CRNR OF SIGN FOR VET CLINIC UP ±1.0', 12.44'
(D) T.B.M. 400, CUT "BOX" ON S-MOST CRNR OF CONC PEDESTAL FOR TRAFFIC CONTROL BOX, 40.85'

STG3

RECOMMENDED FOR APPROVAL: 05/31/2023
DESIGN ENGINEER DATE

DESIGNED: RDG DRAWN: RDG
CHECKED: MAM CHECKED: MAM

INDIANA
DEPARTMENT OF TRANSPORTATION

LAYOUT
FRY ROAD LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	JOHNSON 605
VERTICAL SCALE	DESIGNATION
1"=5'	2200136
SURVEY BOOK	SHEETS
---	7 of 28
CONTRACT	PROJECT
B-44295	2200136

DIRECTORY PATH : R:\Active\Johnson County\Bridge 605\Design\Cad\Plans
FILE NAME : 605_STG3.dgn
LAST SAVED : 5/31/2023 1:03 PM / Rpardner
DATE/USER

NOT FOR CONSTRUCTION