

Bristol, Indiana  
Tuesday January 16, 2024

# Preliminary Design Meeting

## Town of Bristol Pedestrian Bridge



# Project Team



## Town of Bristol

- **Mike Yoder, Town Manager**

## United Consulting

- **Brian Frederick, P.E., Project Team Leader**
- **Marcus Gahagen, E.I., Design Engineer**

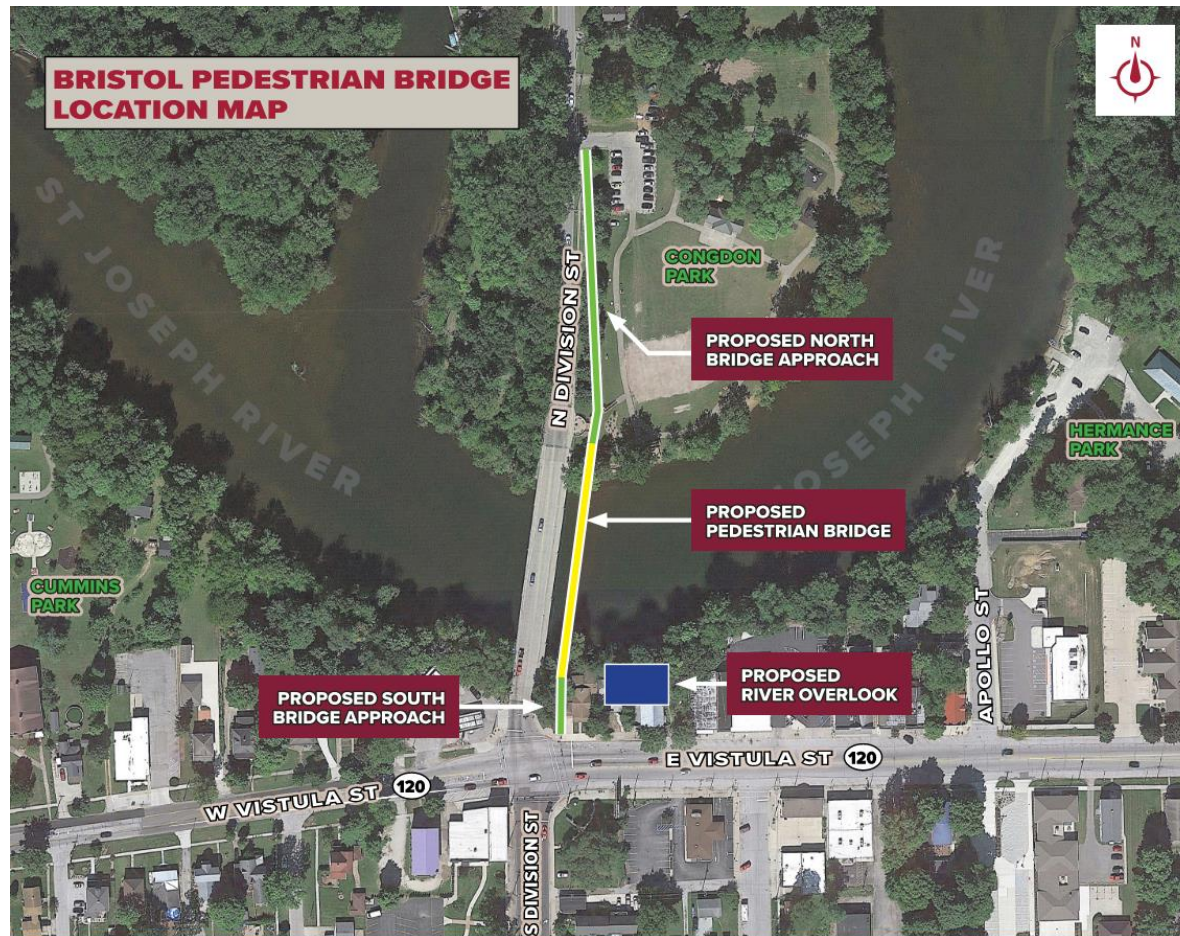
# Presentation Agenda



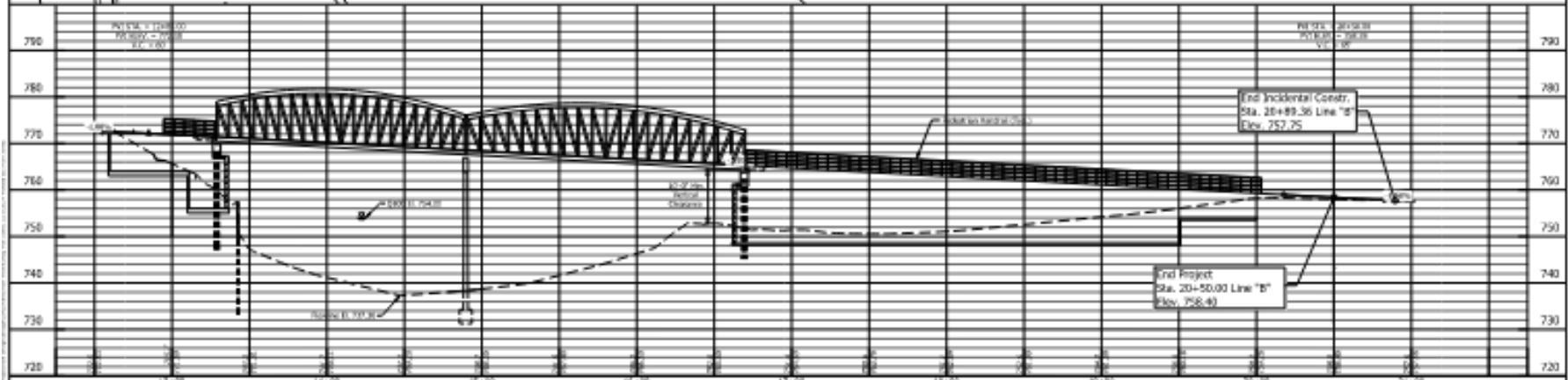
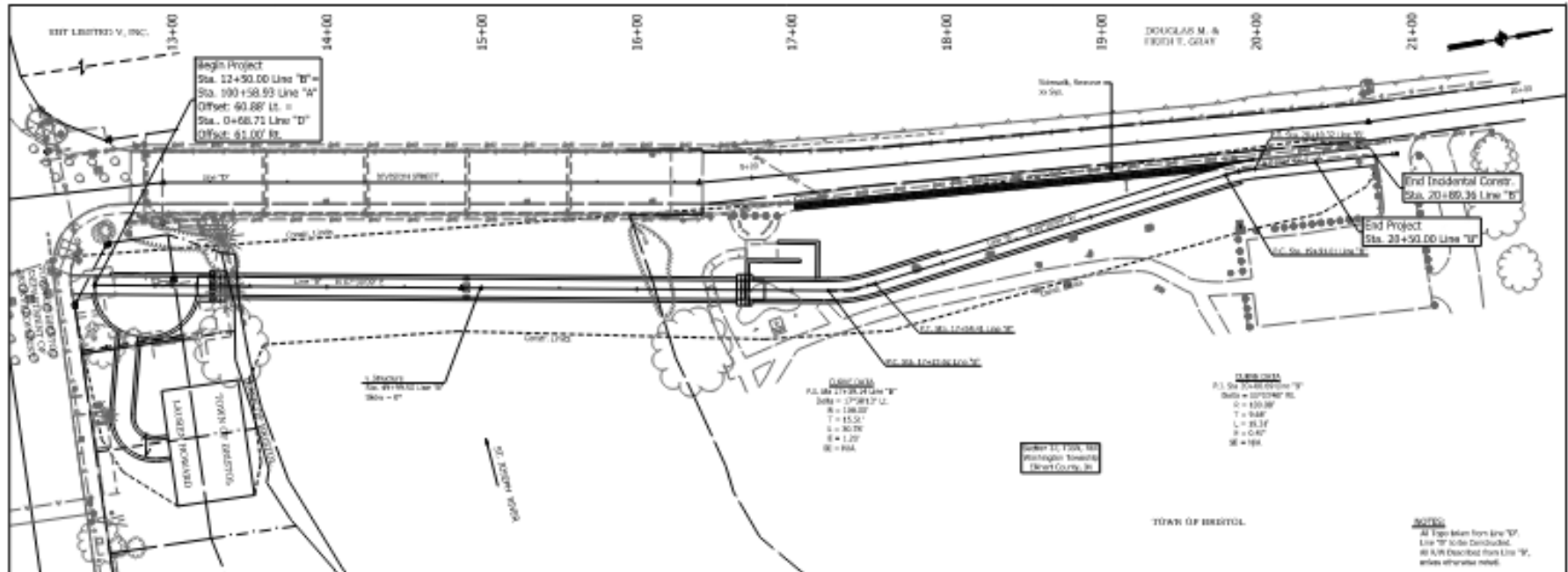
- **Project Purpose and Need**
- **Preliminary Alignment**
- **Design Criteria**
- **Utilities Impacts**
- **Permits and Environmental Impacts**
- **Right-of-Way Impacts**
- **Construction Cost Estimate**
- **Questions / Comments**

# Project Purpose and Need

- The purpose of this project is to provide pedestrians with a safe crossing over the St. Joseph River connecting Downtown Bristol and Congdon Park.



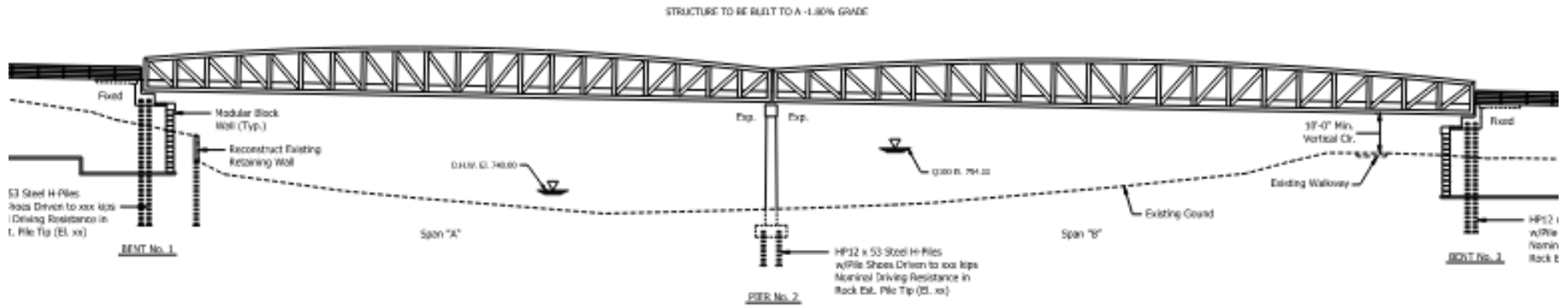
# Preliminary Plan and Profile



		8800 Allison Parkway Boulevard, Suite 200 Indianapolis, IN 46299 Phone 317-896-1505 www.unity.com		TOWN OF BRISTOL PLAN & PROFILE TOWN OF BRISTOL PEDESTRIAN BRIDGE		SHEET NO. 13 DATE: 10/15/13	
PROJECT NO. 13-001 DRAWING NO. 13-001-01		DESIGNER: [Blank] CHECKER: [Blank]		TOWN OF BRISTOL TOWN ENGINEER: [Blank]		CONTRACT NO. [Blank] SHEET NO. [Blank]	

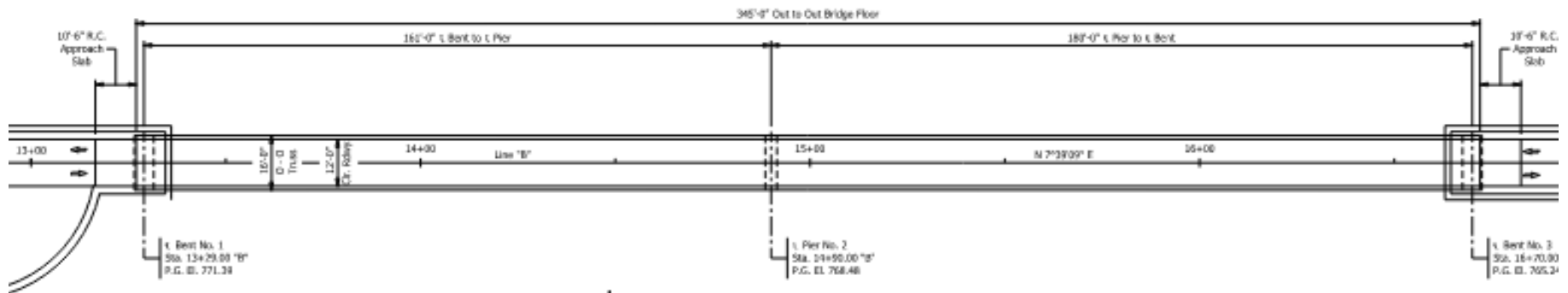


# Preliminary General Plan



**ELEVATION**

Scale: 1/16" = 1'-0"



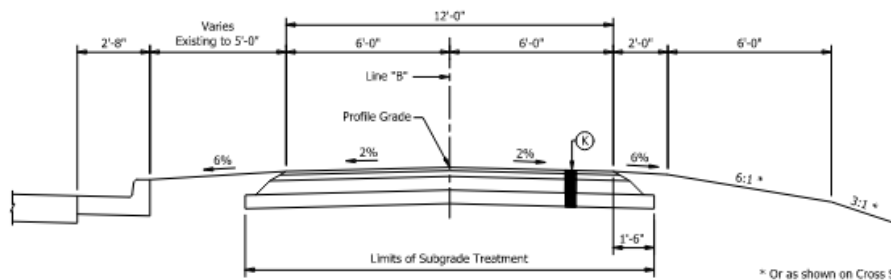
**PLAN**

Scale: 1/16" = 1'-0"

ST. JOSEPH RIVER

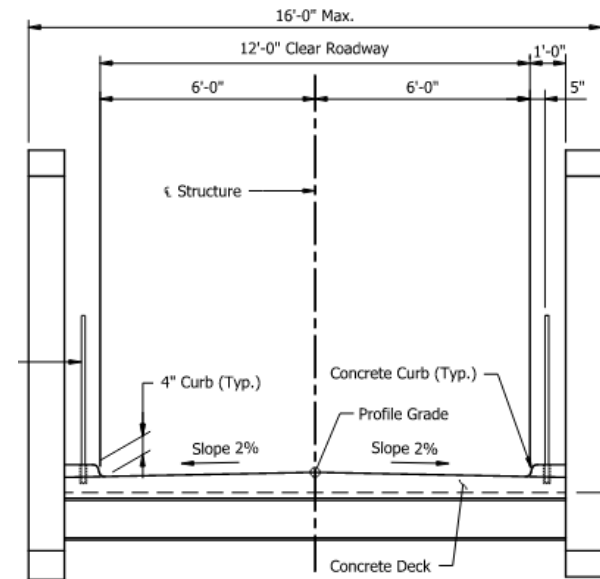
# Design Criteria

- *Guide for Development of Bicycle Facilities, Fourth Edition* and *Indiana Design Manual* were used to design the proposed alignments and typical sections
- Preliminary design meets current design standards and are ADA compliant.



**TYPICAL SECTION**  
Scale: 3/8" = 1'-0"  
STA. 20+00.00 "B" TO 20+50.00 "B"

**Pedestrian Path Section**



**Bridge Section**

# Utilities Impacts

- Utilities are located within the project area.

- Town of Bristol (Water)
- Town of Bristol (Sewer)
- Elkhart Co. Fiber
- Commercial Broadband Solutions
- Frontier
- NIPSCO Electric
- NIPSCO Gas



- All utilities were sent Initial Notice Letters on September 20, 2023.
- Verifications of Facilities and Conflict Analysis are the next step in the design phase.



## ■ Anticipated Permits

- Section 401 WQC and Section 404
- Indiana Department of Natural Resources Construction in Floodway Permit

## ■ Environmental Impacts

- Anticipated tree clearing along the bank for the entire length of the project.

## ■ Right-of-Way Impacts

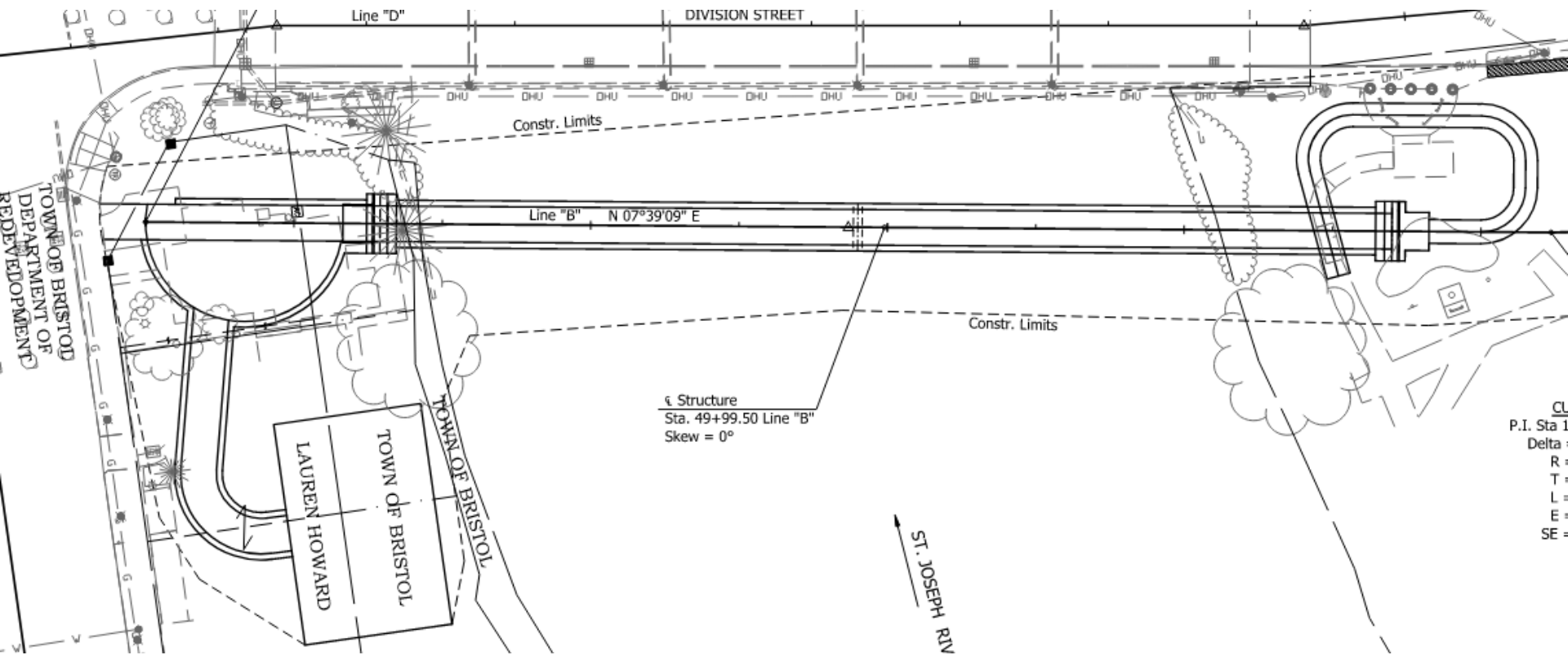
- 1 parcel is required to construct a retaining wall around the proposed landing area at the South approach to the bridge.

# Construction Cost



- Preliminary Design Construction Cost Estimate (2025 Construction)
  - **\$4,800,000**

# North Approach Alternative



# Questions?



# Preliminary Plans



PROJECT	DESIGNATION
CONTRACT	BRIDGE FILE

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
-	PEDESTRIAN STEEL TRUSS BRIDGE	TWO SPANS: 165'-0", 180'-0" SKEW 0"	ST. JOSEPH RIVER	14+99.50 thru "0"

DESIGN DATA	PEDESTRIAN BRIDGE
DESIGN SPEED	20 MPH
PROJECT DESIGN CATEGORIES	RECYCLE FACILITY
FUNCTIONAL CLASSIFICATION	SHARED LEAD PATH
RURAL/URBAN	URBAN (INTERMEDIATE)
TERRAIN	LEVEL
ACCESS CONTROL	NONE

## TOWN OF BRISTOL TOWN COUNCIL BRIDGE PLANS

FOR SPANS OVER 20 FEET  
TOWN OF BRISTOL RIVERWALK  
OVER  
ST. JOSEPH RIVER



OFFICIALS OF THE  
TOWN OF BRISTOL

DATE: \_\_\_\_\_

\_\_\_\_\_  
MIKE YODER, TOWN MANAGER

\_\_\_\_\_  
CATHY ANTONELLI, CLERK TREASURER

\_\_\_\_\_  
JILL SWARTZ, DEPUTY CLERK & ASSISTANT TOWN MANAGER

\_\_\_\_\_  
MIKE ALSB, TOWN MARSHAL

\_\_\_\_\_  
JEFF BEACHY, COUNCIL PRESIDENT

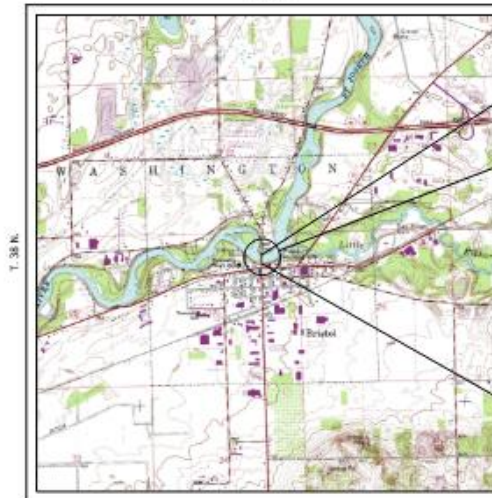
\_\_\_\_\_  
CATHY BURKE, COUNCIL MEMBER

\_\_\_\_\_  
ANDREW MEDFORD, COUNCIL MEMBER

\_\_\_\_\_  
GREGG TUHOLSKI, COUNCIL MEMBER

\_\_\_\_\_  
DOUG DeSMITH, COUNCIL MEMBER

Town of Bristol Pedestrian Bridge, Riverwalk over St. Joseph River. Located 0.57 Miles South of Indiana I-89/90 Toll Road in Section 27, of Township 38 North, Range 6 East, Washington Township, in Elkhart County Indiana.  
R. 6 E.



LATITUDE: 41°43'19" LONGITUDE: 85°49'02"

BRIDGE LENGTH : 0.065 MI.  
ROADWAY LENGTH : 0.087 MI.  
TOTAL LENGTH : 0.152 MI.

LOCATION MAP  
ELKHART COUNTY

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



8440 Allison Pointe Boulevard, Suite 200  
Indianapolis, IN 46250  
Phone 317-895-2585

PLANS PREPARED BY: UNITED CONSULTING

(317) 895-2585

CHECKED BY:

PHONE REQUEST

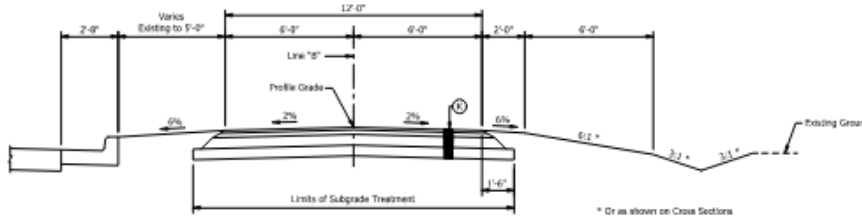
BRIDGE FILE	
DESIGNATION	
SURVEY BOOK	SHEETS

File: I:\187\2024\210\_Bristol Pedestrian Bridge\210\_Bristol Pedestrian Bridge\210\_Bristol Pedestrian Bridge.dwg Plot Date: 11/20/2024 Plotter: Ric - Ric Jones

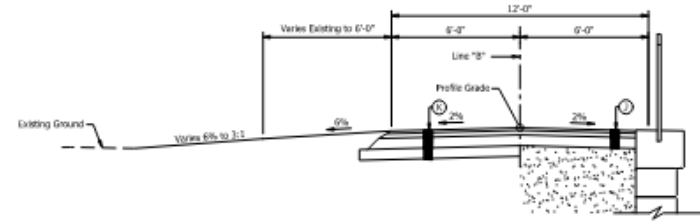




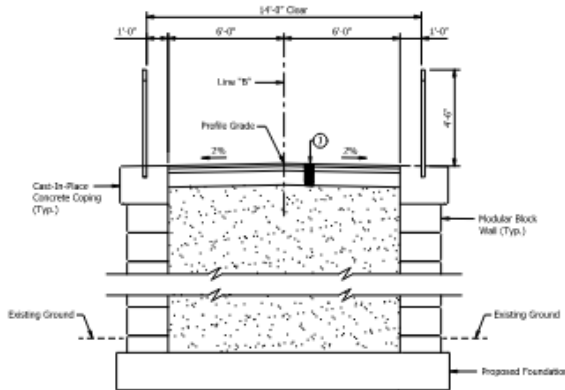
# Preliminary Plans



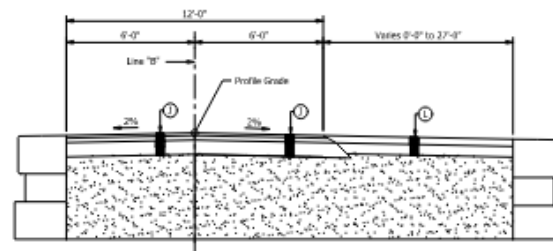
**TYPICAL SECTION**  
Scale: 3/8" = 1'-0"  
STA. 20+00.00 "B" TO 20+50.00 "B"



**HALF WALL TYPICAL SECTION**  
Scale: 3/8" = 1'-0"  
STA. 18+00.00 "B" TO 20+50.00 "B"



**TYPICAL SECTION**  
Scale: 3/8" = 1'-0"  
STA. 16+82.50 "B" TO 18+00.00 "B"

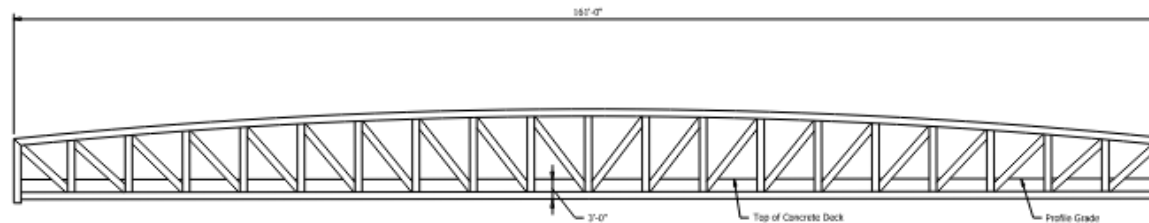


**TYPICAL SECTION**  
Scale: 3/8" = 1'-0"  
STA. 12+50.00 "B" TO 13+16.50 "B"

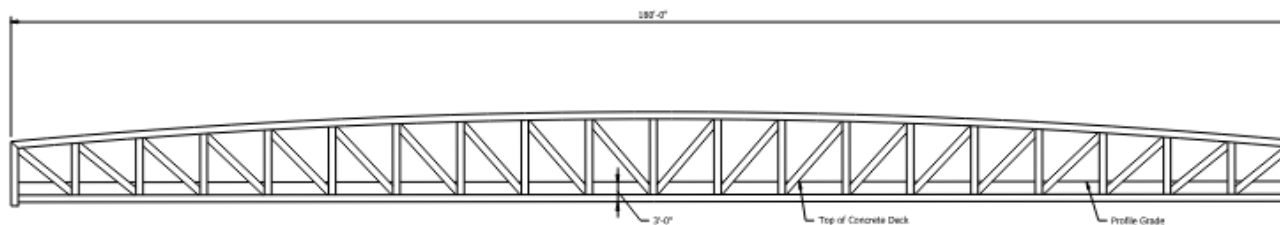
### LEGEND

- ① HMA for Sidewalk Consisting of:  
165 lbs/yds HMA, Type B, Surface 0.5 mm on  
275 lbs/yds HMA, Type B, Intermediate, 15.0 mm on  
6" Compacted Aggregate, No. 53
- ② HMA for Sidewalk Consisting of:  
165 lbs/yds HMA, Type B, Surface 0.5 mm on  
275 lbs/yds HMA, Type B, Intermediate, 15.0 mm on  
6" Subgrade Treatment, Type III
- ③ HMA for Sidewalk Consisting of:  
PCCP, 4" on  
6" Compacted Aggregate, No. 53

# Preliminary Plans

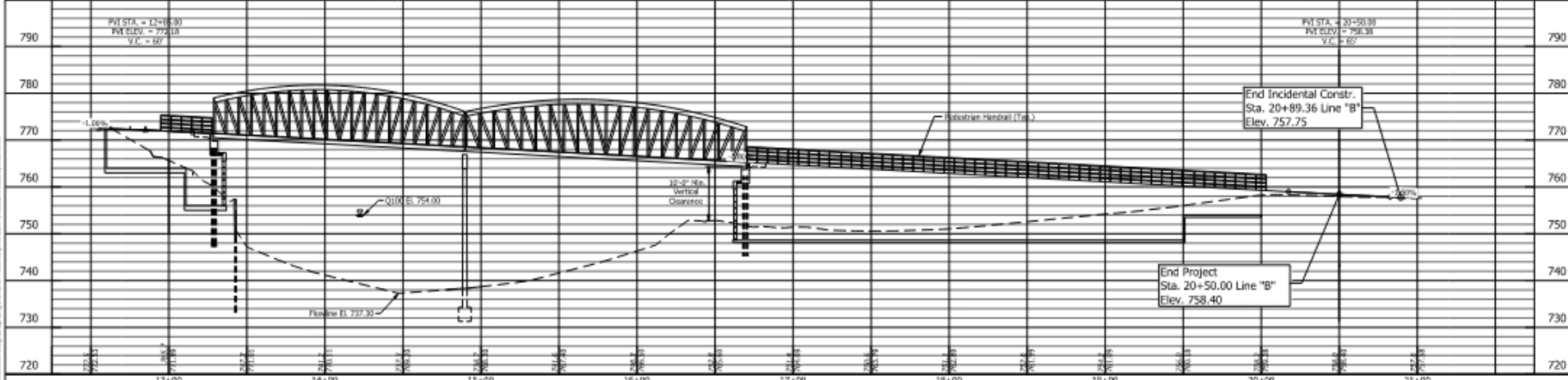
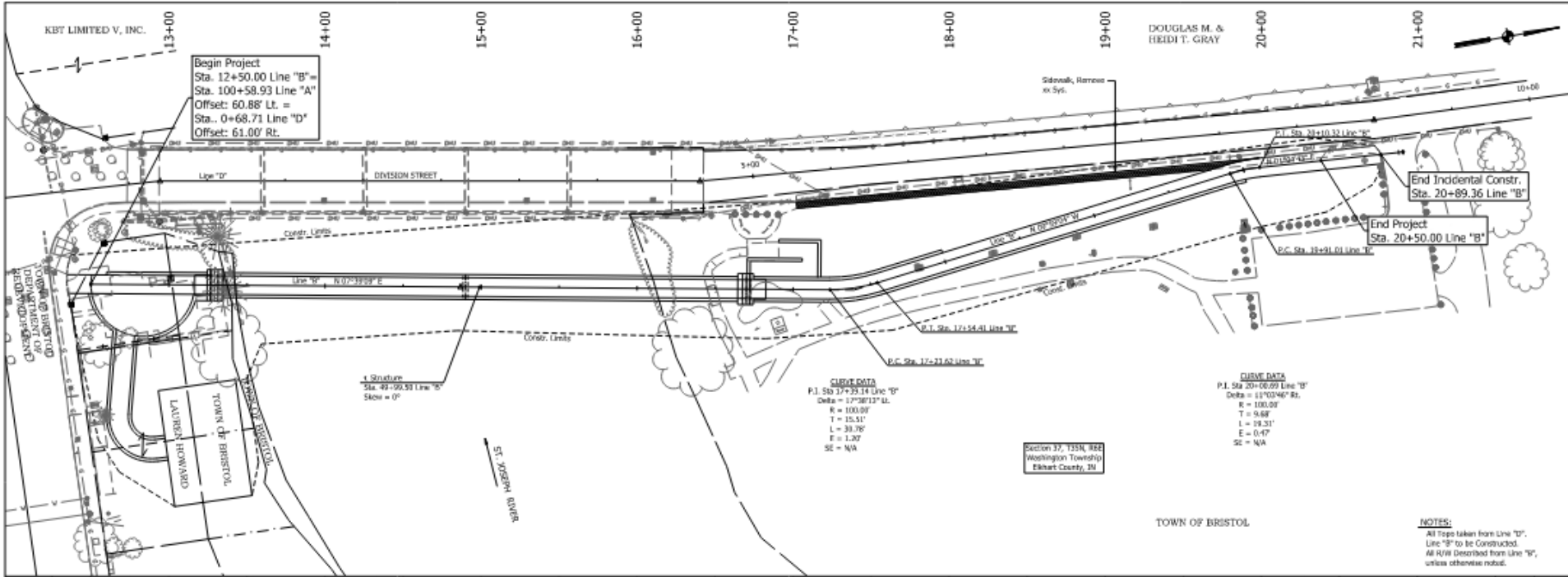


ARCH TRUSS ELEVATION - SPAN A  
Scale: 1/8" = 1'-0"

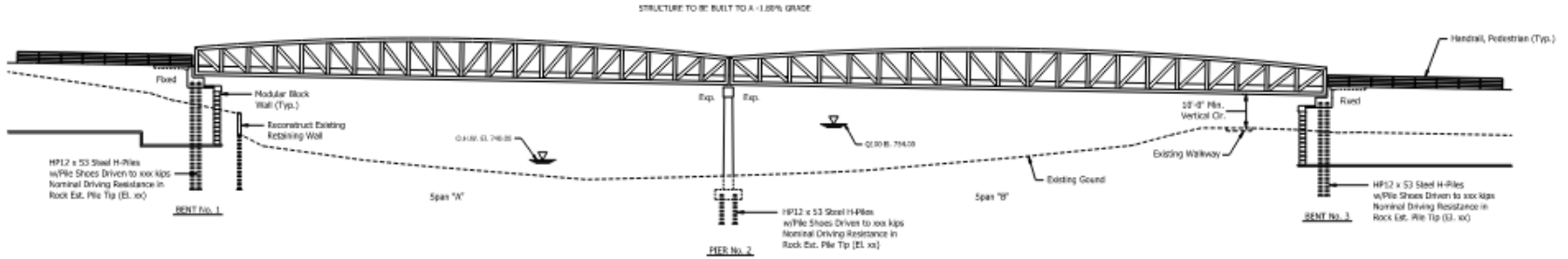


ARCH TRUSS ELEVATION - SPAN B  
Scale: 1/8" = 1'-0"

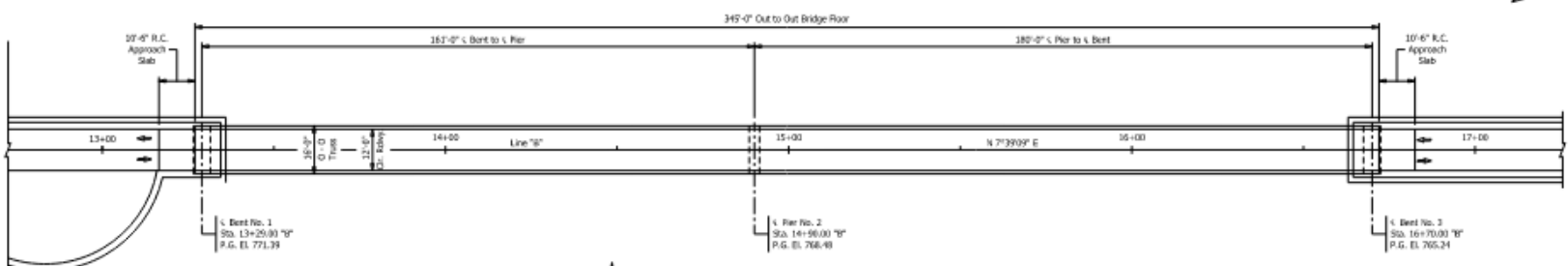
# Preliminary Plans



# Preliminary Plans



**ELEVATION**  
Scale: 1/32" = 1'-0"



**PLAN**  
Scale: 1/32" = 1'-0"

PEDESTRIAN STEEL TRUSS BRIDGE  
2 SPANS: 161'-0", 180'-0"  
SKEW: 0°  
CLEAR ROADWAY: 12'-0"  
BRISTOL RIVERWALK OVER ST. JOSEPH RIVER  
BRISTOL, INDIANA



8440 Allison Pointe Boulevard, Suite 200  
Indianapolis, IN 46250  
Phone: 317-895-2585  
www.ucindy.com

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED BY	DRAWN BY	

TOWN OF BRISTOL
GENERAL PLAN

HORIZONTAL SCALE	AS NOTED	BIDGE FILE	-
VERTICAL SCALE	AS NOTED	DESIGNATION	-
DRAWN BY	DATE	SHEET	6 OF 11



# Preliminary Plans



## GENERAL NOTES

Reinforcing steel covering shall be 2 U2" in top and 1" min. in bottom of floor slabs and 2" in all other parts unless noted.  
Surface seal all concrete finished surfaces  
(Estimated Qty. = 13,900 sq. ft.)

## SUPERSTRUCTURE DESIGN DATA

To be Designed for HS20-44 Loading & Pedestrian Loadings in accordance with AASHTO LRFD Bridge Design Specification, Seventh Edition and it's subsequent Interims.

To be Designed for Actual Dead Load, 35 psf for Future Wearing Surface, and 15 psf for Stay in Place Deck Forms.

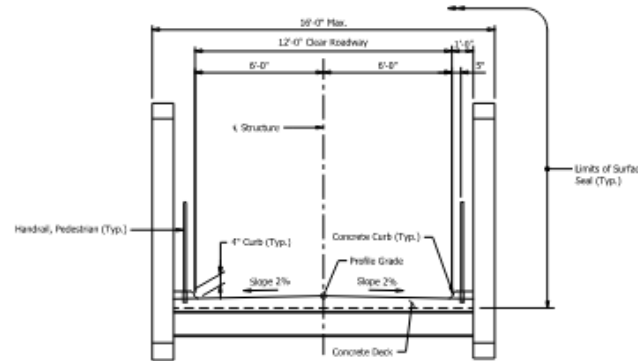
## SUBSTRUCTURE DESIGN DATA

Designed for HS20-44 Loading & Pedestrian Loadings in accordance with AASHTO LRFD Bridge Design Specification, Seventh Edition and it's subsequent Interims.

Designed for Actual Dead Load, 35 psf for Future Wearing Surface, and 15 psf for Stay in Place Deck Forms.

## ULTIMATE DESIGN STRESSES

Class "A" Concrete	$f_c = 3,000$ p.s.i.
Class "B" Concrete	$f_c = 3,000$ p.s.i.
Class "C" Concrete	$f_c = 4,000$ p.s.i.
Reinforcing Steel (Grade 60)	$f_y = 60,000$ p.s.i.
Structural Steel	$f_y = 50,000$ p.s.i.



**TYPICAL BRIDGE SECTION**

Scale: 3/8" = 1'-0"

PEDESTRIAN STEEL TRUSS BRIDGE  
2 SPANS: 161'-0", 180'-0"  
SKEW: 0°  
CLEAR ROADWAY: 12'-0"  
BRISTOL RIVERWALK OVER ST. JOSEPH RIVER  
BRISTOL, INDIANA



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RECOMMENDED FOR APPROVAL \_\_\_\_\_  
DESIGN ENGINEER DATE \_\_\_\_\_

DESIGNED (MAG) \_\_\_\_\_ DRAWN (BS) \_\_\_\_\_

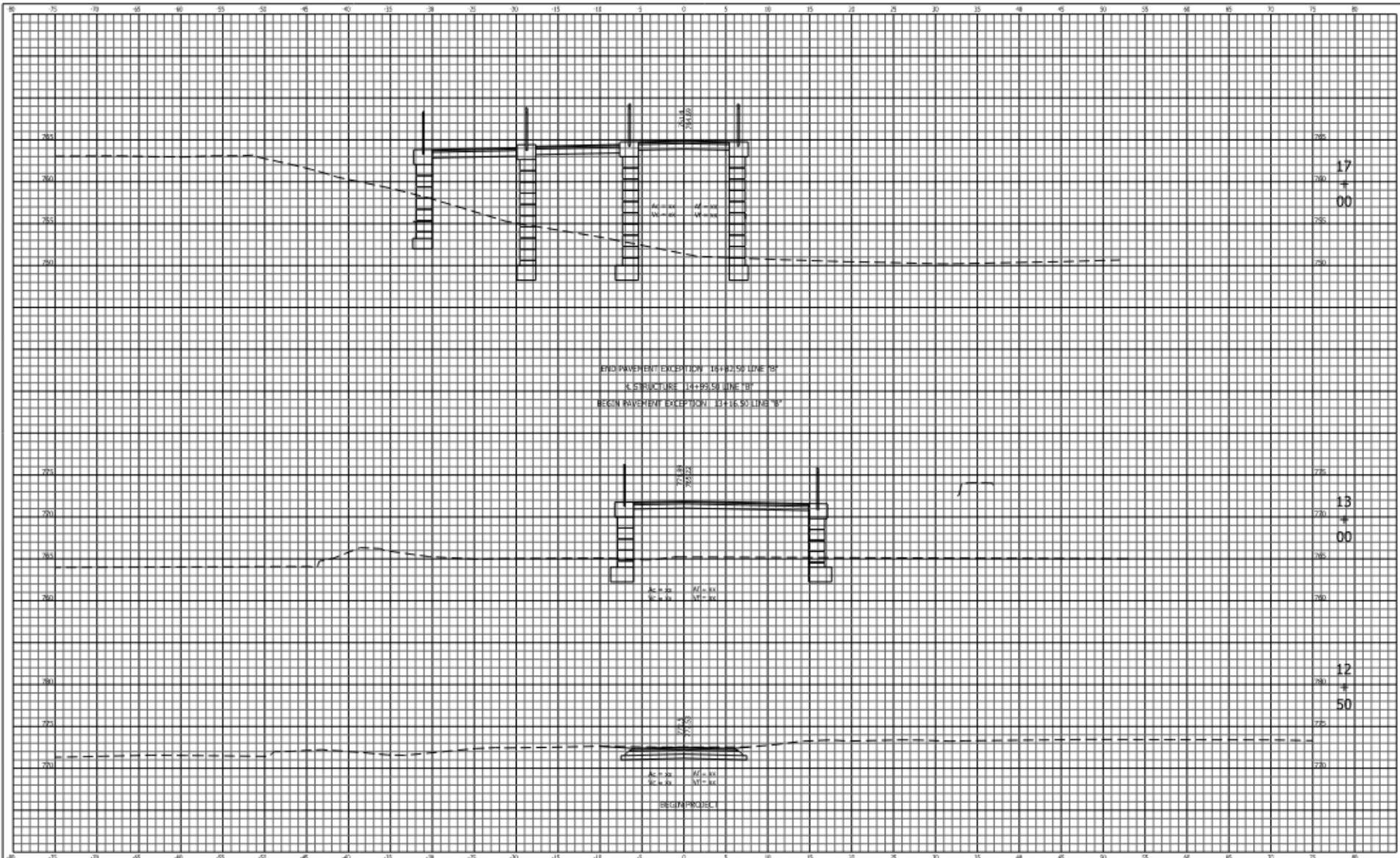
TOWN OF BRISTOL

GENERAL PLAN  
TOWN OF BRISTOL PEDESTRIAN BRIDGE

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	-
VERTICAL SCALE	DESCRIPTION
AS NOTED	-
SURVEY BOOK	SHEETS
-	7 OF 11
CONTRACT	PROJECT
-	-



# Preliminary Plans



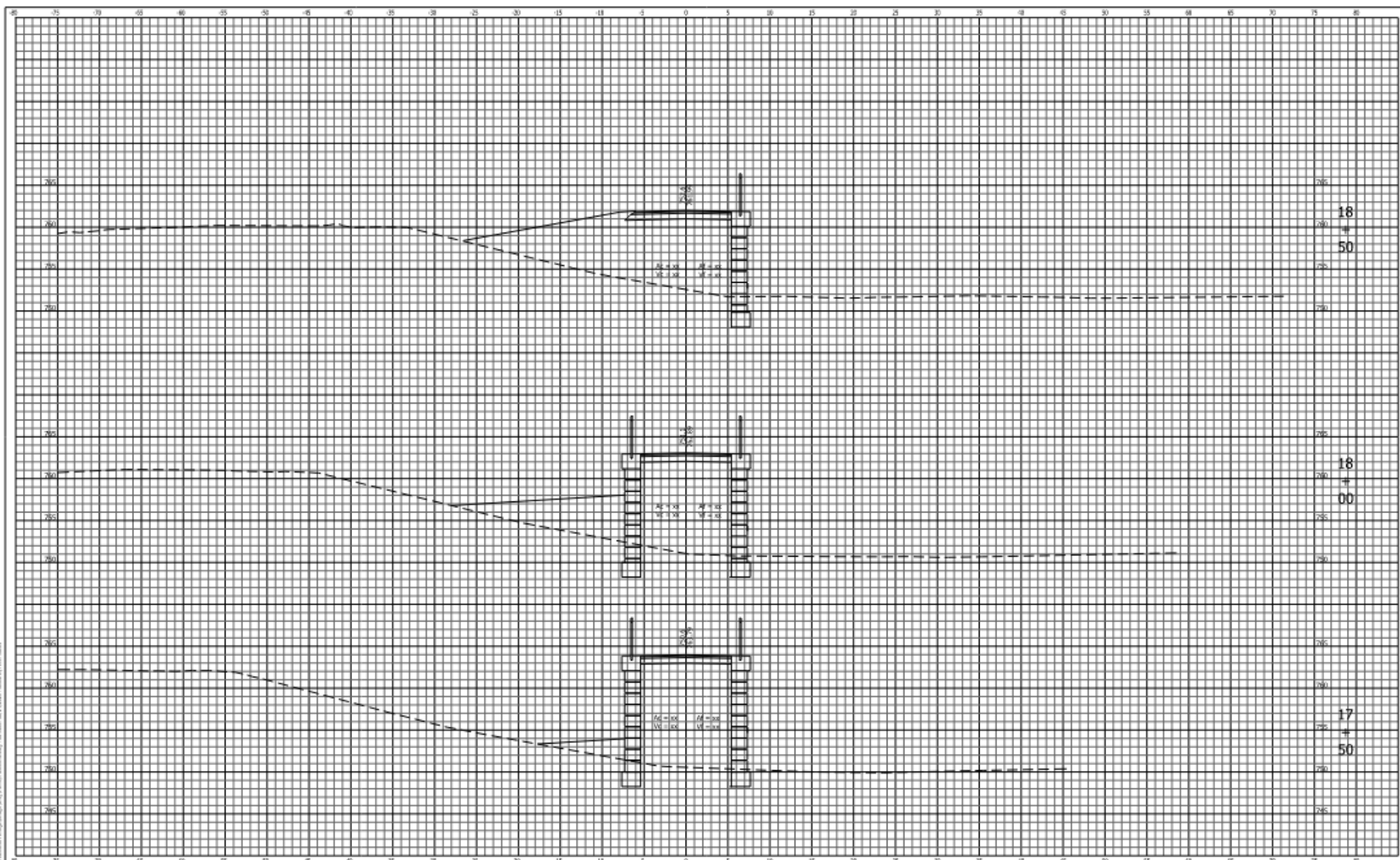
8440 Allison Pointe Boulevard, Suite 200  
 Indianapolis, IN 46250  
 Phone 317-895-2585

DESIGNED BY: MAF	ENGINEER: DCL
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TOWN OF BRISTOL	
CROSS SECTIONS - LINE "B"	

HORIZONTAL SCALE 1" = 5'	BRIDGE FILE -
VERTICAL SCALE 1" = 5'	DISCONTINUED -
SURVEY BOOK -	SHEETS -

# Preliminary Plans



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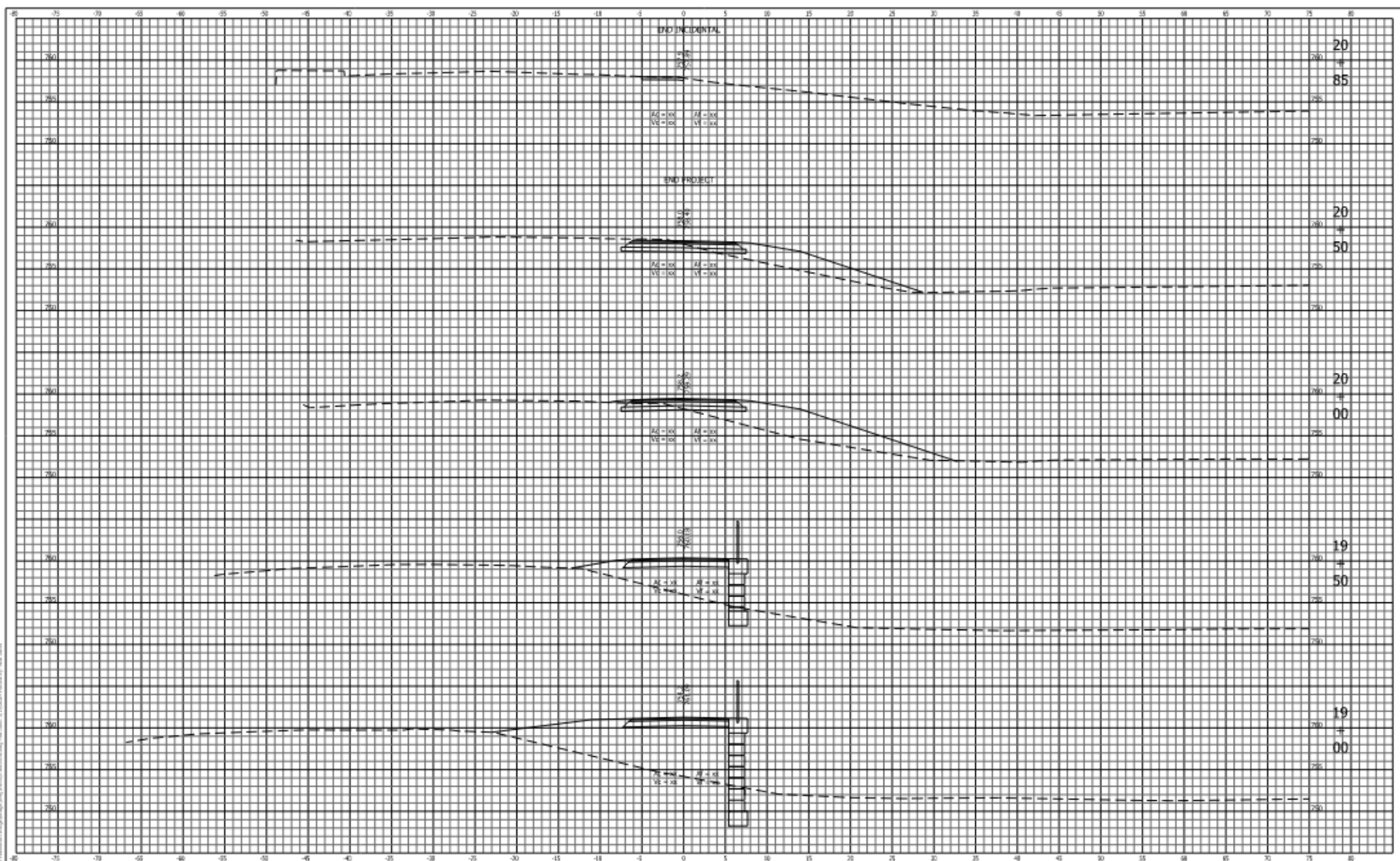
DESIGNED: HMC  
 DRAWN: RSL

TOWN OF  
 BRISTOL  
 CROSS SECTIONS - LINE "B"

HORIZONTAL SCALE 1" = 5'	BRIDGE FILE
VERTICAL SCALE 1" = 5'	DRAWN/DATE
SURVEY BOOK	SHEETS



# Preliminary Plans



8440 Allison Pointe Boulevard, Suite 200  
 Indianapolis, IN 46250  
 Phone 317.601.7684

TOWN OF  
 BRISTOL

HORIZONTAL SCALE	BECKE FILE
1" = 50'	-
VERTICAL SCALE	ORISUNATION
1" = 5'	



# Thank You!

