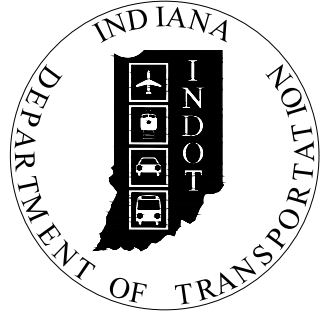


PROJECT	DESIGNATION
1701344	1701344
CONTRACT	BRIDGE FILE
B-39294	040-89-10254

INDIANA DEPARTMENT OF TRANSPORTATION



STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
040-89-10254	CONTINUOUS COMPOSITE PRESTRESSED CONCRETE AASHTO I-BEAM	3 SPANS: 60'-0", 80'-0", & 60'-0" SKEW: 20°0'0" RT.	NOLAND'S FORK	105+12.00 LINE "PR-A"

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
1701342	US 40 OVER FLATROCK RIVER, BRIDGE REPLACEMENT
1701340	US 40 OVER BUCK CREEK, BRIDGE REPLACEMENT
1701344	US 40 OVER NOLAND'S FORK, BRIDGE REPLACEMENT
1701338 (LEAD)	US 40 OVER BIG BLUE RIVER, BRIDGE REPLACEMENT
1593232	US 40 HMA OVERLAY, MINOR STRUCTURAL, KNIGHTSTOWN, IN

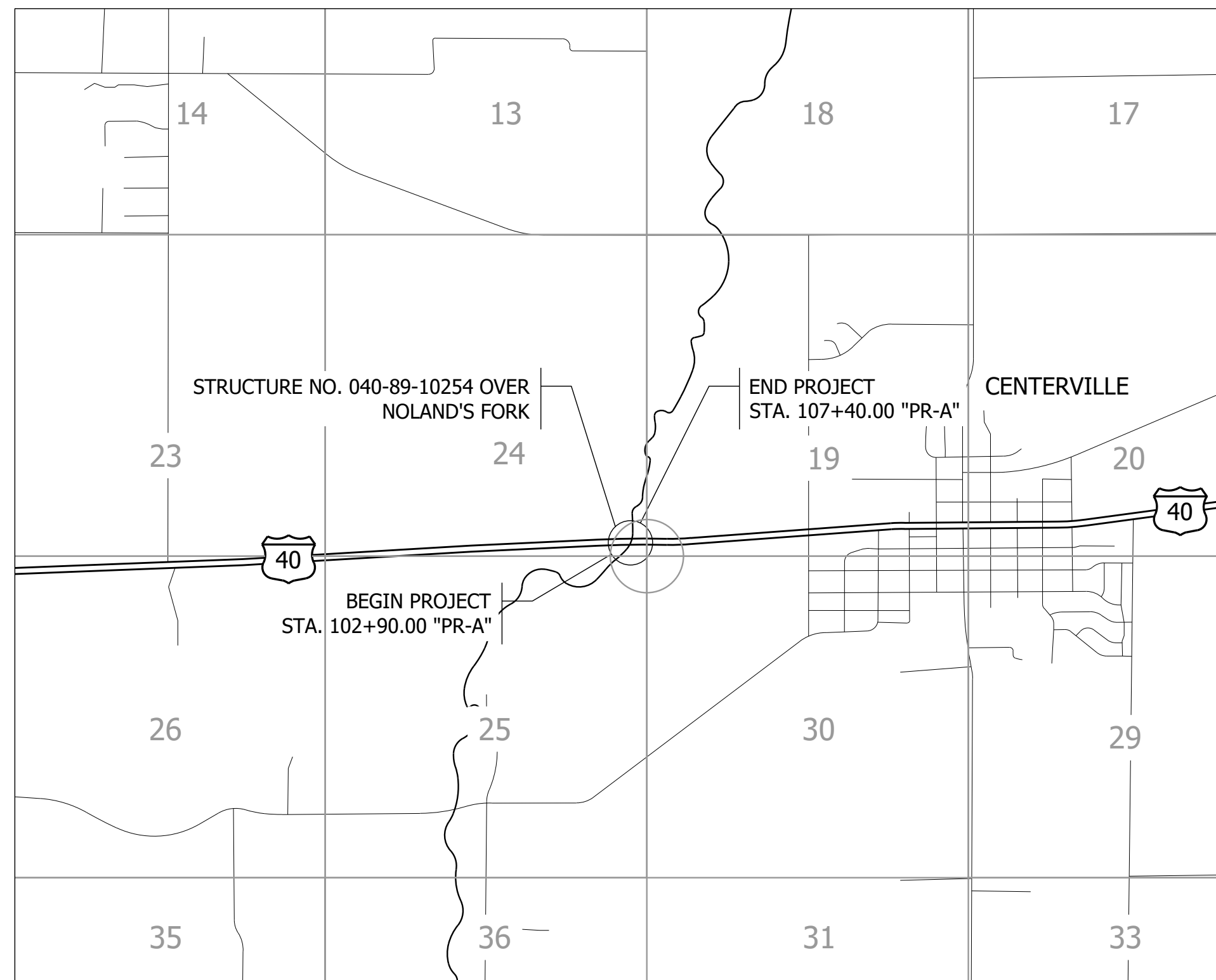
BRIDGE PLANS

FOR SPANS OVER 20 FEET

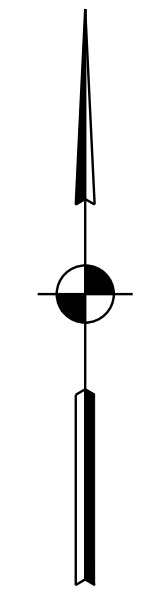
ROUTE: U.S. 40 AT: RP 138+71

PROJECT NO. 1701344 P.E.
1701344 R/W
1701344 CONST.

BRIDGE REPLACEMENT ON U.S. 40 OVER NOLAND'S FORK APPROXIMATELY 6.84 MILES WEST OF U.S. 27 LOCATED IN SECTION 24, T-16-N, R-13-E, CENTER TOWNSHIP, WAYNE COUNTY, INDIANA.

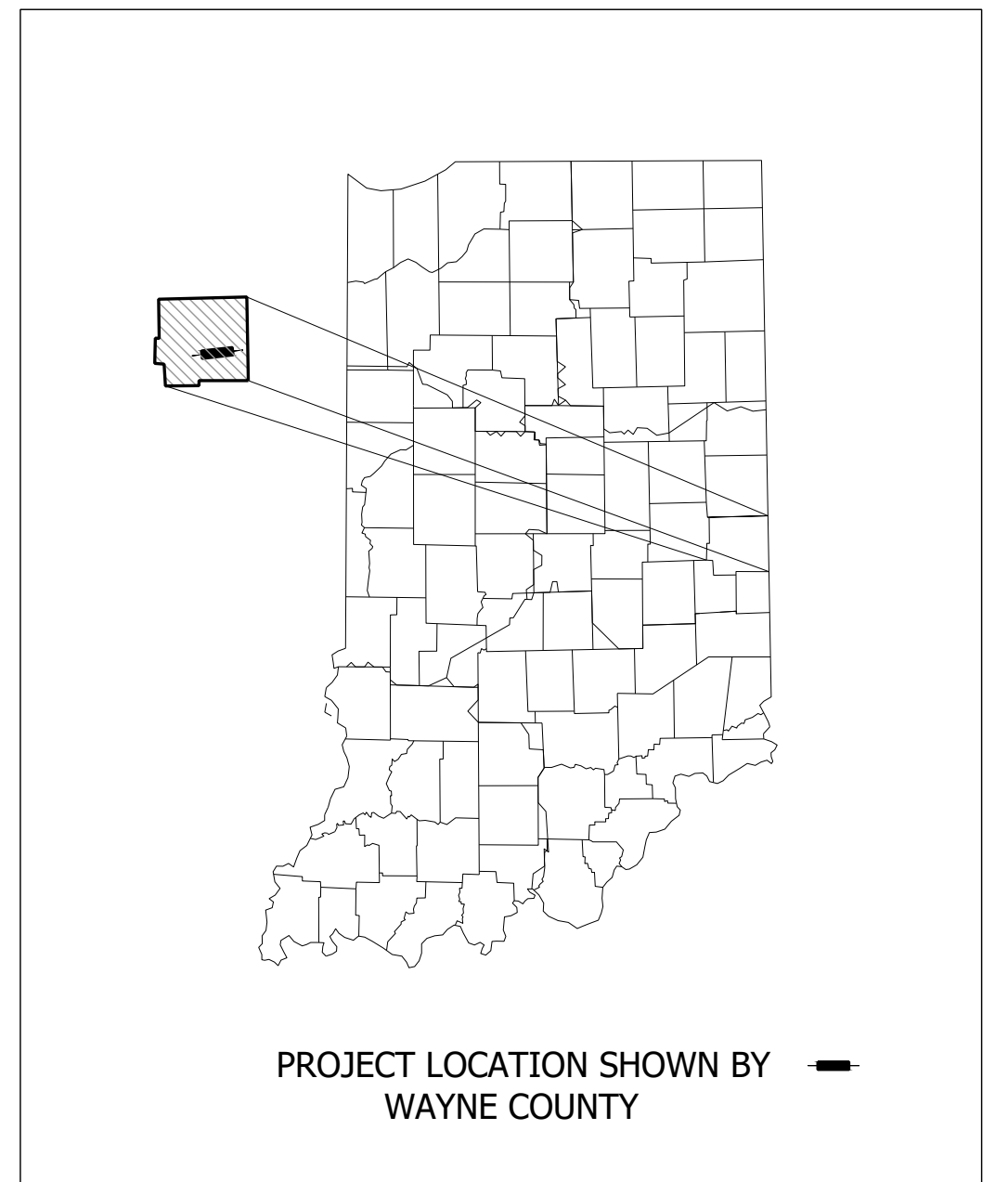


PRELIMINARY FIELD CHECK PLANS
August 6, 2020



SCALE:
1" = 2000'

TRAFFIC DATA	U.S. 40
A.A.D.T. (2022)	5454 V.P.D.
A.A.D.T. (2042)	5758 V.P.D.
D.H.V. (2042)	569 V.P.H.
DIRECTIONAL DISTRIBUTION	49.03% (EAST)
TRUCKS	4.50% D.H.V. 4.36% A.A.D.T.
DESIGN DATA	
DESIGN SPEED	55 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MAJOR COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE



LATITUDE: 39°49'01" N LONGITUDE: 85°00'56" W

BRIDGE LENGTH:	0.038	MI.
ROADWAY LENGTH:	0.047	MI.
TOTAL LENGTH:	0.085	MI.
MAX. GRADE:	0.67	%

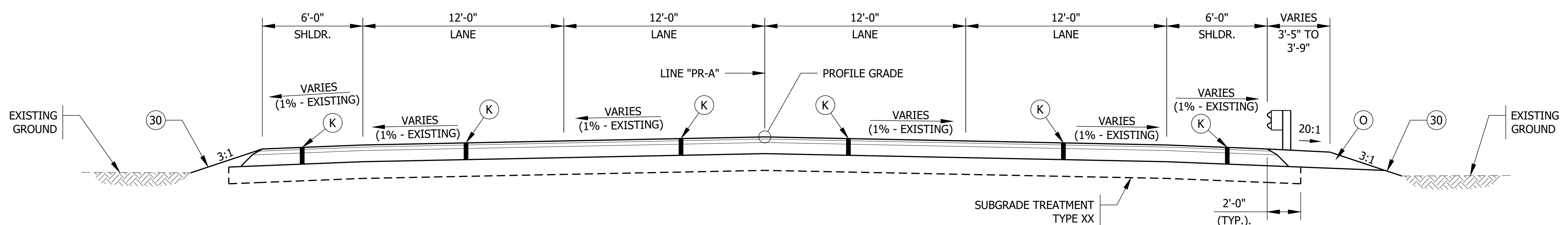
H.U.C. 14: 05080003030030



INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2020 TO
BE USED WITH THESE PLANS.

PRELIMINARY	PLANS PREPARED BY: CORRADINO, LLC	317-488-2363 PHONE NUMBER	BRIDGE FILE 040-89-10254	
	CERTIFIED BY: _____	DATE: _____	DESIGNATION 1701344	
	APPROVED FOR LETTING: _____	DATE: _____	SURVEY BOOK	SHEETS
	INDIANA DEPARTMENT OF TRANSPORTATION	DATE	1	of 20
		CONTRACT	PROJECT	
		B-39294	1701344	

F:\4510-US40\Projects\HenneryCounty\C-1701344\Noland\Fork\50 Plans\30 Sheet Drawings\10 Bridge Sheets\S-TYP-SEC-01.dwg - Layout
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 July 24, 2020 2:06:42 PM / Stacey Johnson
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 Modified / By:
 Plotted / By:



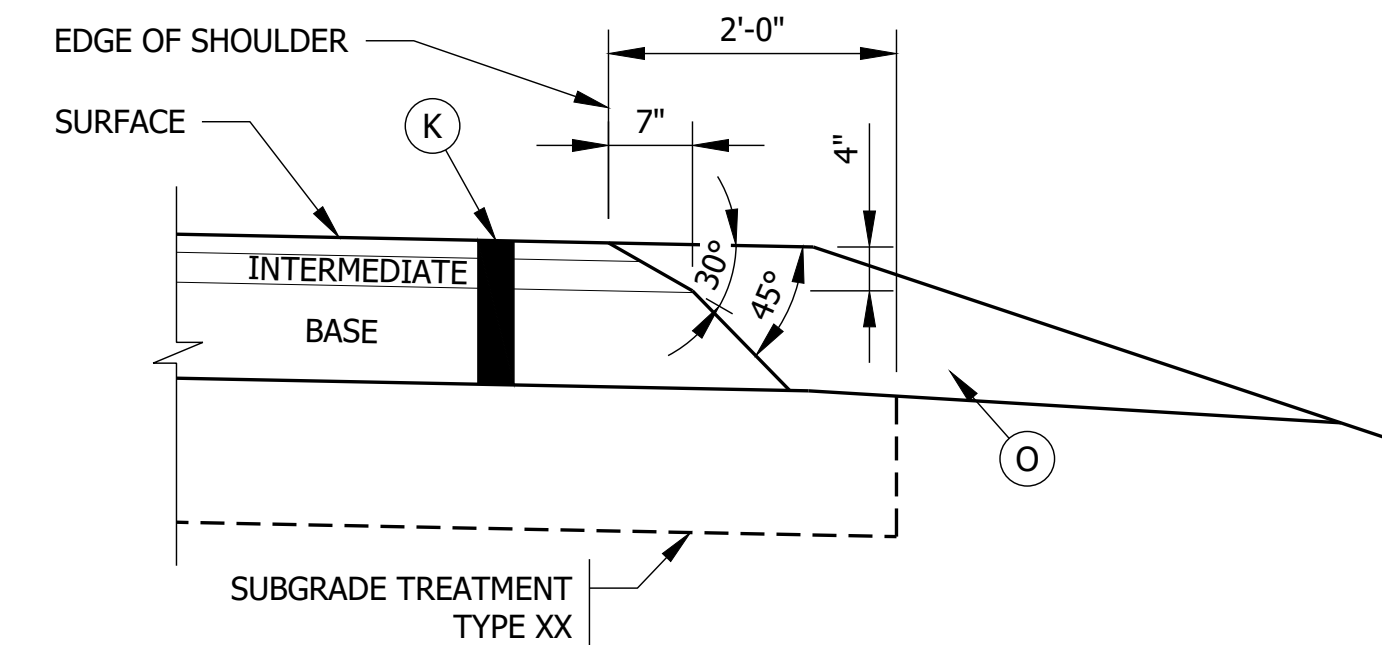
HALF SECTION WITHOUT GUARDRAIL

FULL DEPTH TYPICAL SECTION FOR U.S. 40

STA. 102+90.00 "PR-A" TO STA. 103+79.90 "PR-A"
 STA. 106+44.10 "PR-A" TO STA. 107+40.00 "PR-A"
 SCALE: 1/4" = 1'-0"

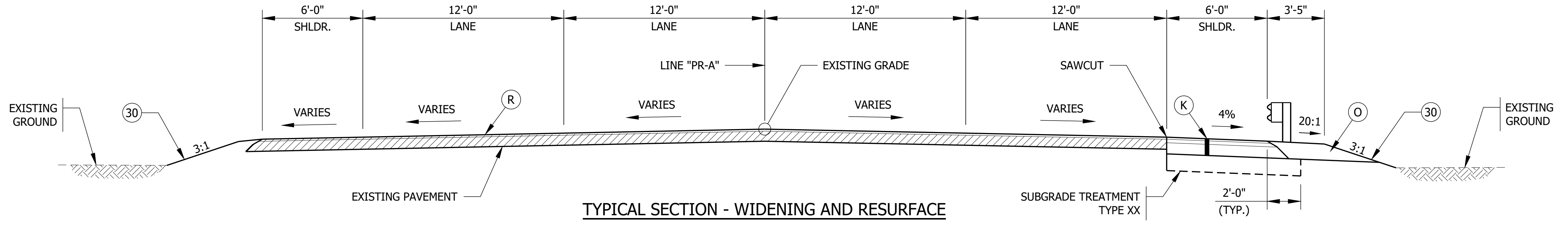
HALF SECTION WITH GUARDRAIL

PAVING EXCEPTION
 STA. 103+79.90 "PR-A" TO STA. 106+44.10 "PR-A"



SAFETY EDGE ON HMA PAVEMENT

NOTE: NOT REQUIRED WHERE GUARDRAIL IS PRESENT
 SCALE: 3/4" = 1'-0"



HALF SECTION WITHOUT GUARDRAIL

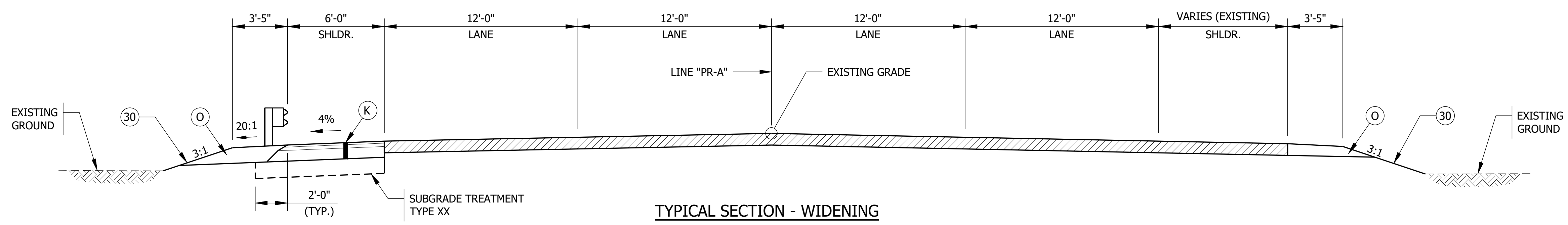
TYPICAL SECTION - WIDENING AND RESURFACE

STA. 102+60.00 "PR-A" TO STA. 102+90.00 "PR-A"
 STA. 107+40.00 "PR-A" TO STA. 107+70.00 "PR-A"
 SCALE: 1/4" = 1'-0"

HALF SECTION WITH GRADING

LEGEND

- (K) XXX/SYD QC/QA HMA, 3, 70, SURFACE, 9.5MM ON
XXX/SYD QC/QA HMA, 3, 70, INTERMEDIATE, 19.0MM ON
XXX/SYD QC/QA HMA, 3, 64, BASE, 25.0MM
 - (O) XX" COMPACTED AGGREGATE, NO. 53
 - (30) MULCHED SEEDING, R
 - (R) XXX/SYD QC/QA HMA, 3, 70, SURFACE, 9.5MM ON
ASPHALT MILLING, XX"
- TACK COAT TO BE PLACED BETWEEN HMA LAYERS. JOINT ADHESIVE
 TO BE INSTALLED AT ALL LONGITUDINAL JOINTS IN THE SURFACE
 AND INTERMEDIATE LAYER. LIQUID ASPHALT SEALANT TO BE PLACED
 CENTERED ON THE LONGITUDINAL JOINTS THAT HAVE JOINT
 ADHESIVE INSTALLED.



HALF SECTION WITH GUARDRAIL

TYPICAL SECTION - WIDENING

STA. 101+50.00 "PR-A" TO STA. 102+60.00 "PR-A"
 STA. 107+70.00 "PR-A" TO STA. 108+60.00 "PR-A"
 SCALE: 1/4" = 1'-0"

HALF SECTION WITHOUT GUARDRAIL

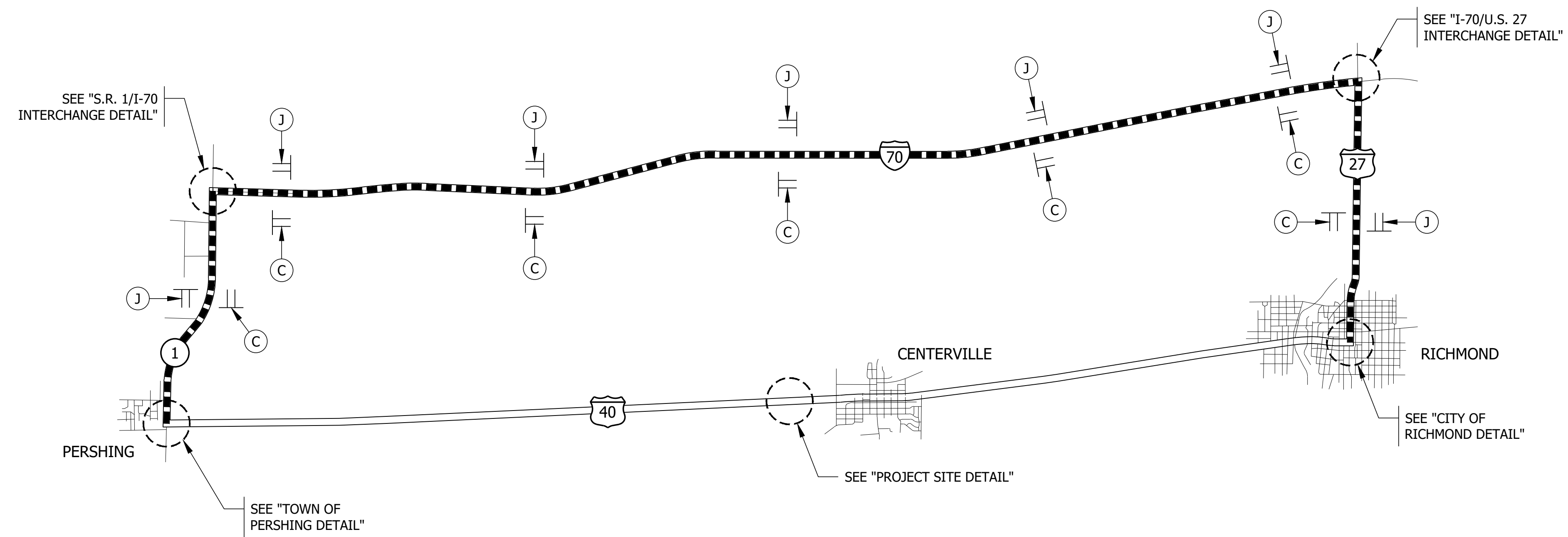
PRELIMINARY

RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____	DATE _____
DESIGNED: BJM	DRAWN: SEJ		
CHECKED: ZZH	CHECKED: BJM		

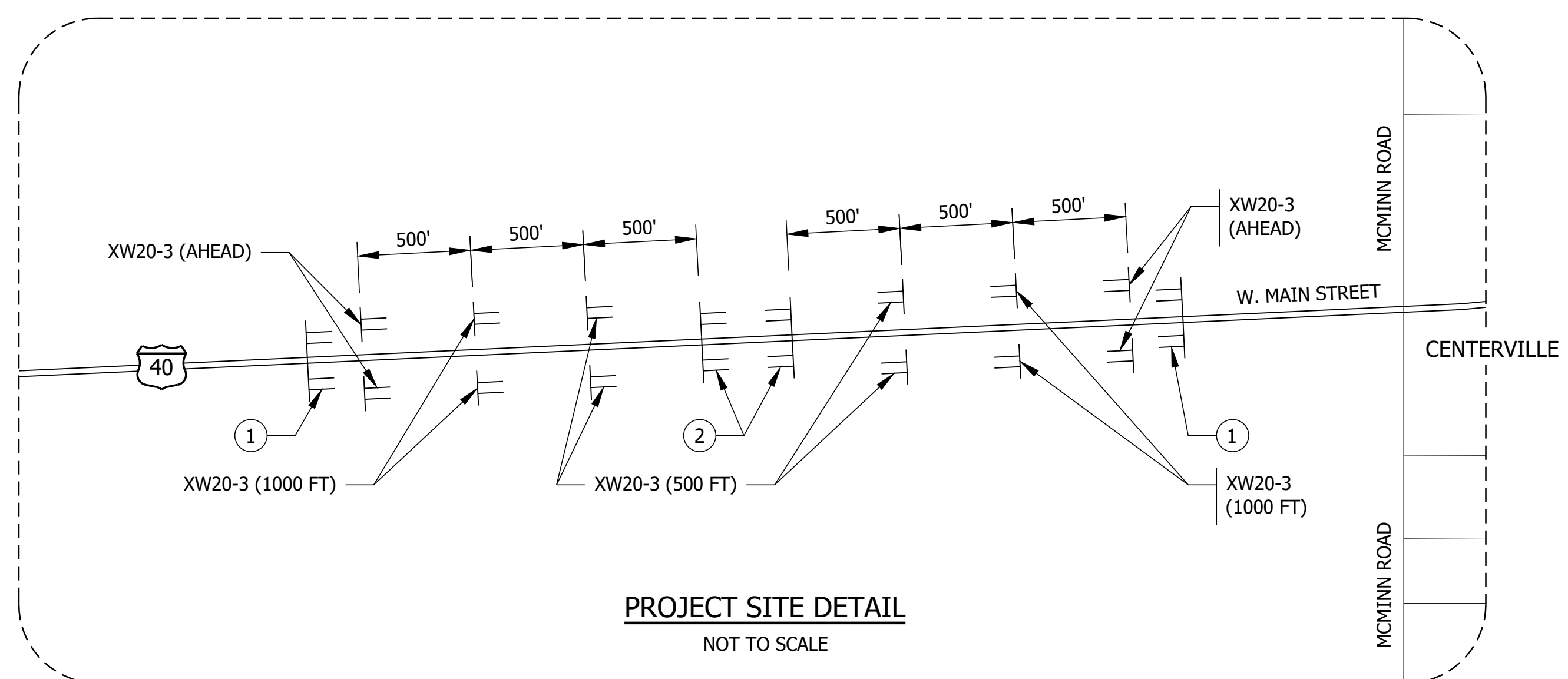
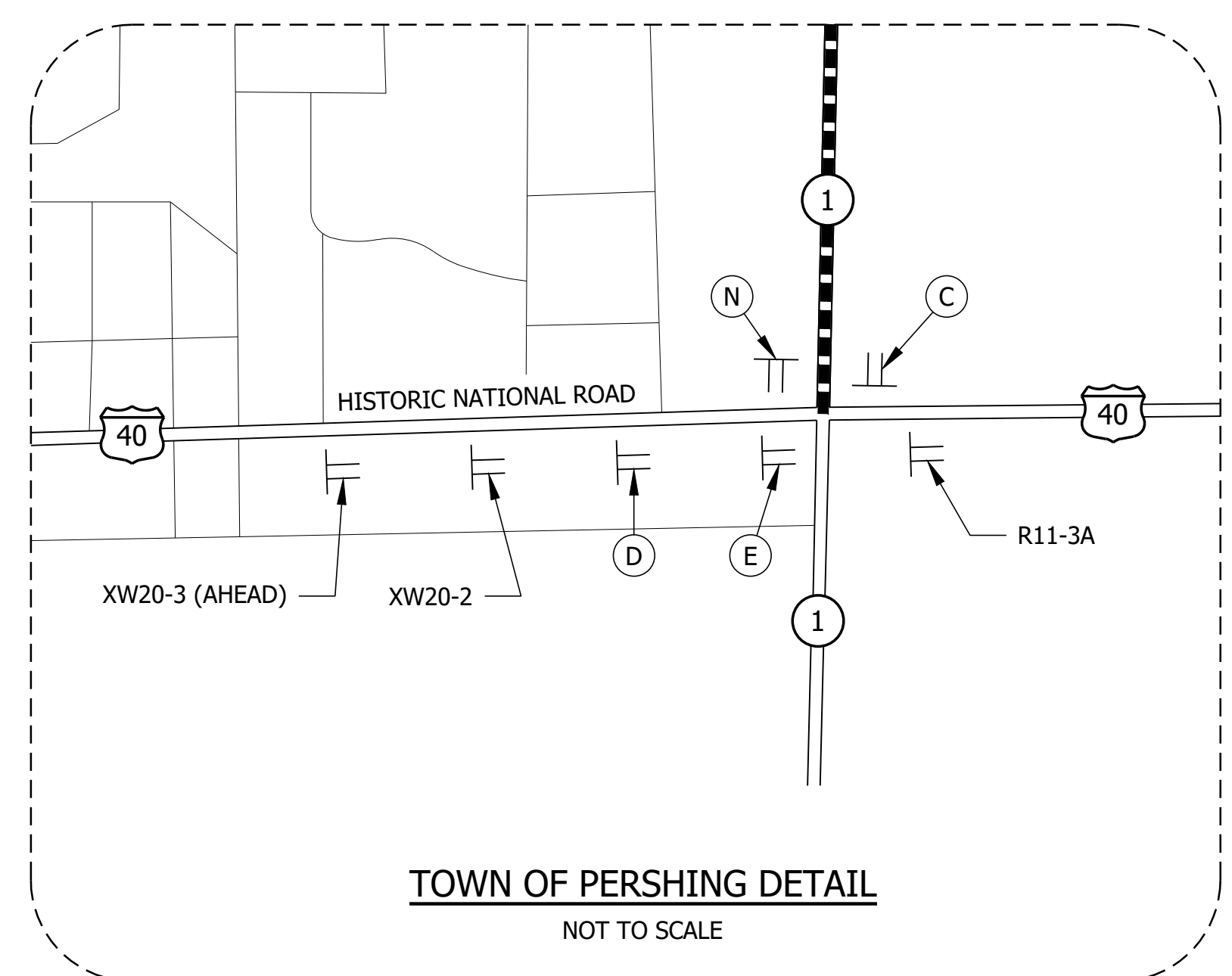
INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0" UNLESS NOTED	040-89-10254
VERTICAL SCALE	DESIGNATION
	1701344
	SHEET
	3 of 20
CONTRACT	PROJECT
B-39294	1701344



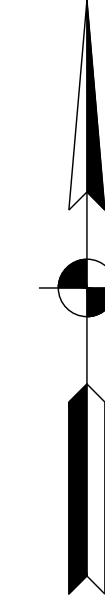
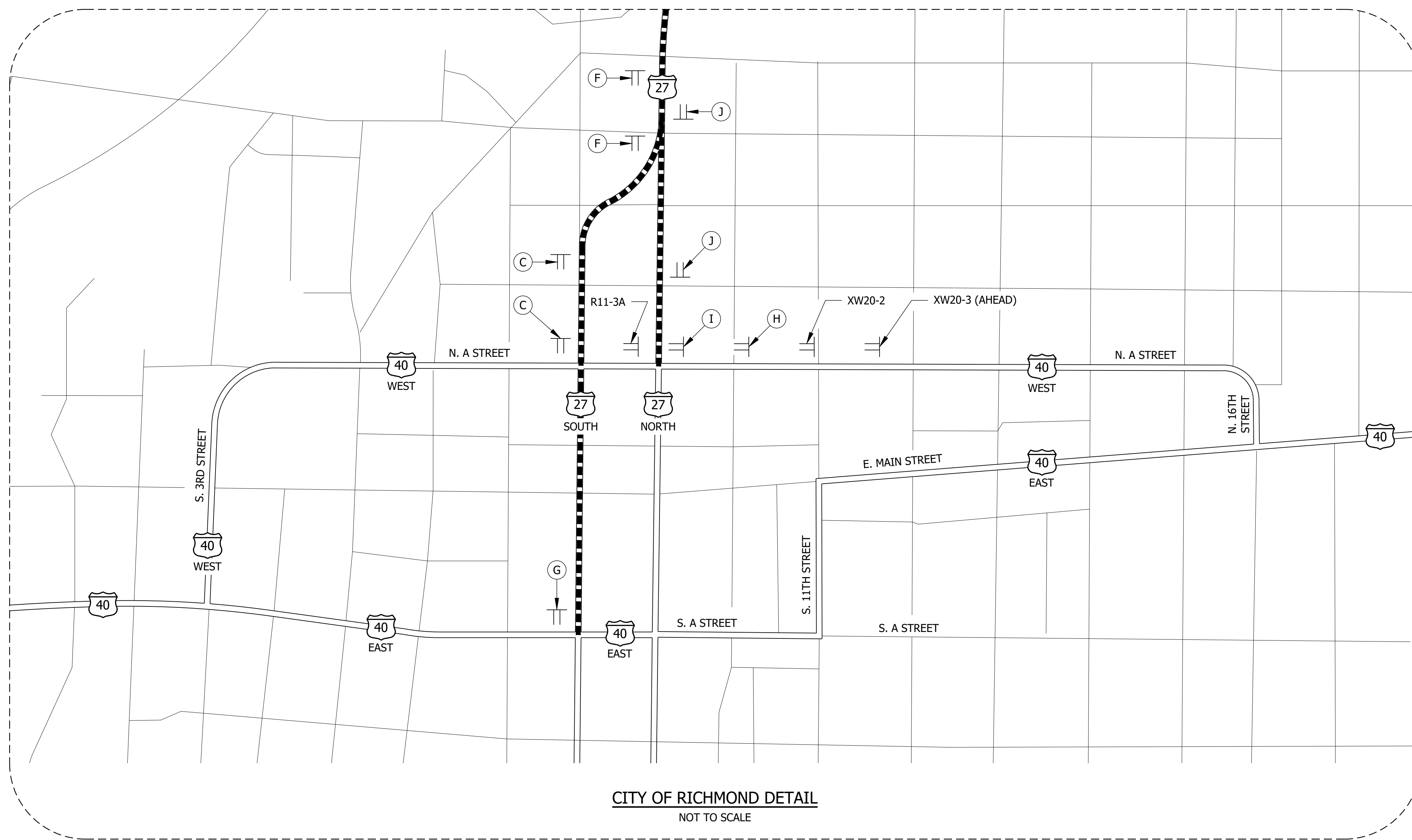
- LEGEND**
- ① 60 LFT. OF TYPE III-B BARRICADES, STAGGERED WITH ROAD CLOSURE SIGN ASSEMBLY R11-4.
 - ② 60 LFT. OF TYPE III-A BARRICADES WITH ROAD CLOSURE SIGN ASSEMBLY R11-2.
 - DETOUR ROUTE
 - TT SIGN ASSEMBLY



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 Plotted / By: July 24, 2020 2:12:30 PM / Stacey Johnson

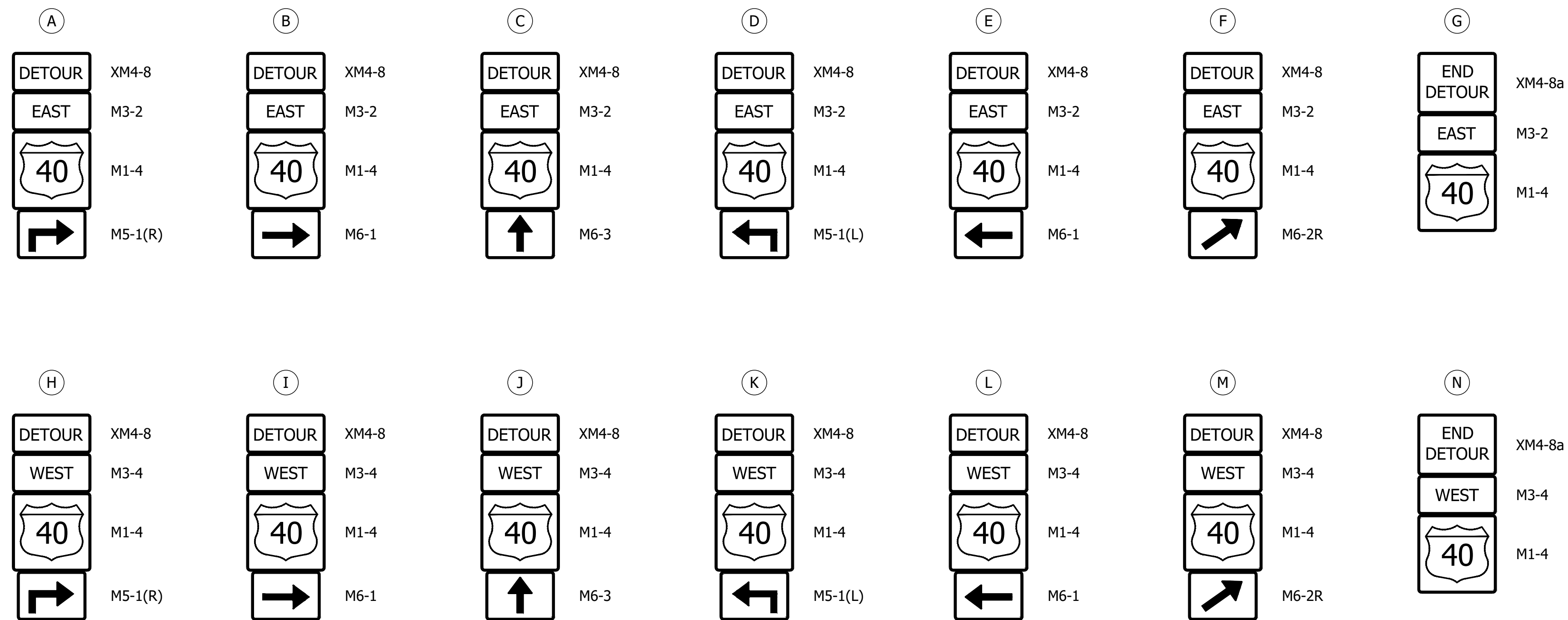
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	DESIGNED: BJM DRAWN: SEJ			1" = 5000' UNLESS NOTED	040-89-10254
	CHECKED: ZZH CHECKED: BJM			VERTICAL SCALE	DESIGNATION
				CONTRACT	1701344
				B-39294	PROJECT
				SHEET	1701344
				5 of 20	PROJECT

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 Plotted / By: July 24, 2020 2:06:59 PM / Stacey Johnson



- LEGEND**
- ① 60 LFT. OF TYPE III-B BARRICADES, STAGGERED WITH ROAD CLOSURE SIGN ASSEMBLY R11-4.
 - ② 60 LFT. OF TYPE III-A BARRICADES WITH ROAD CLOSURE SIGN ASSEMBLY R11-2.
 - DETOUR ROUTE
 - ⊥ SIGN ASSEMBLY

PRELIMINARY	RECOMMENDED FOR APPROVAL _____	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE	BRIDGE FILE
	DESIGNED: BJM DRAWN: SEJ		1" = 5000' UNLESS NOTED	040-89-10254
	CHECKED: ZZH CHECKED: BJM	MAINTENANCE OF TRAFFIC	VERTICAL SCALE	DESIGNATION
			CONTRACT	1701344
		B-39294	PROJECT	SHEET
			6 of 20	1701344



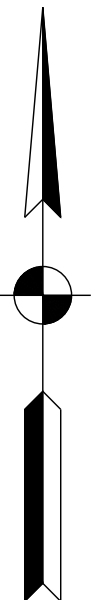
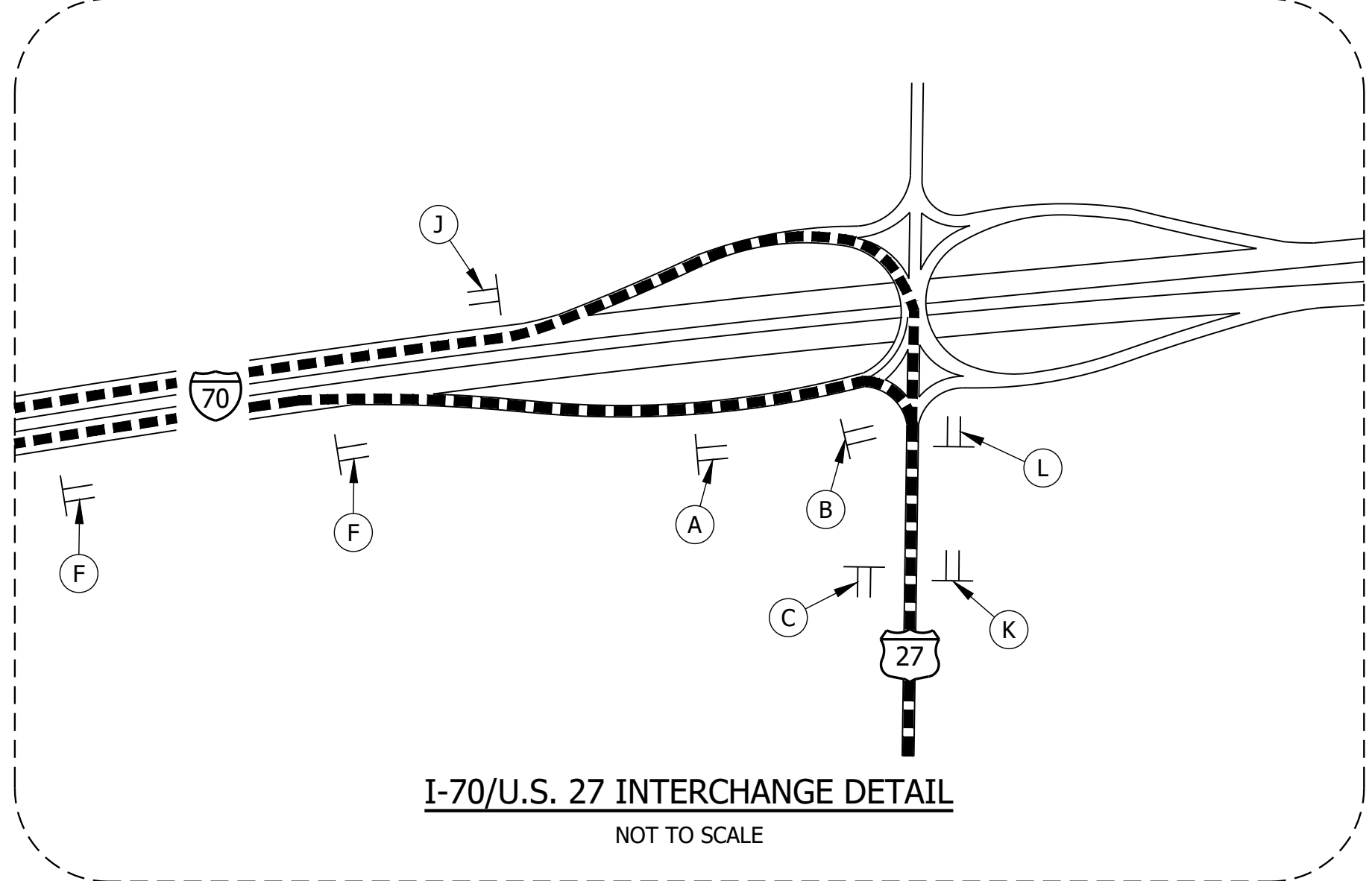
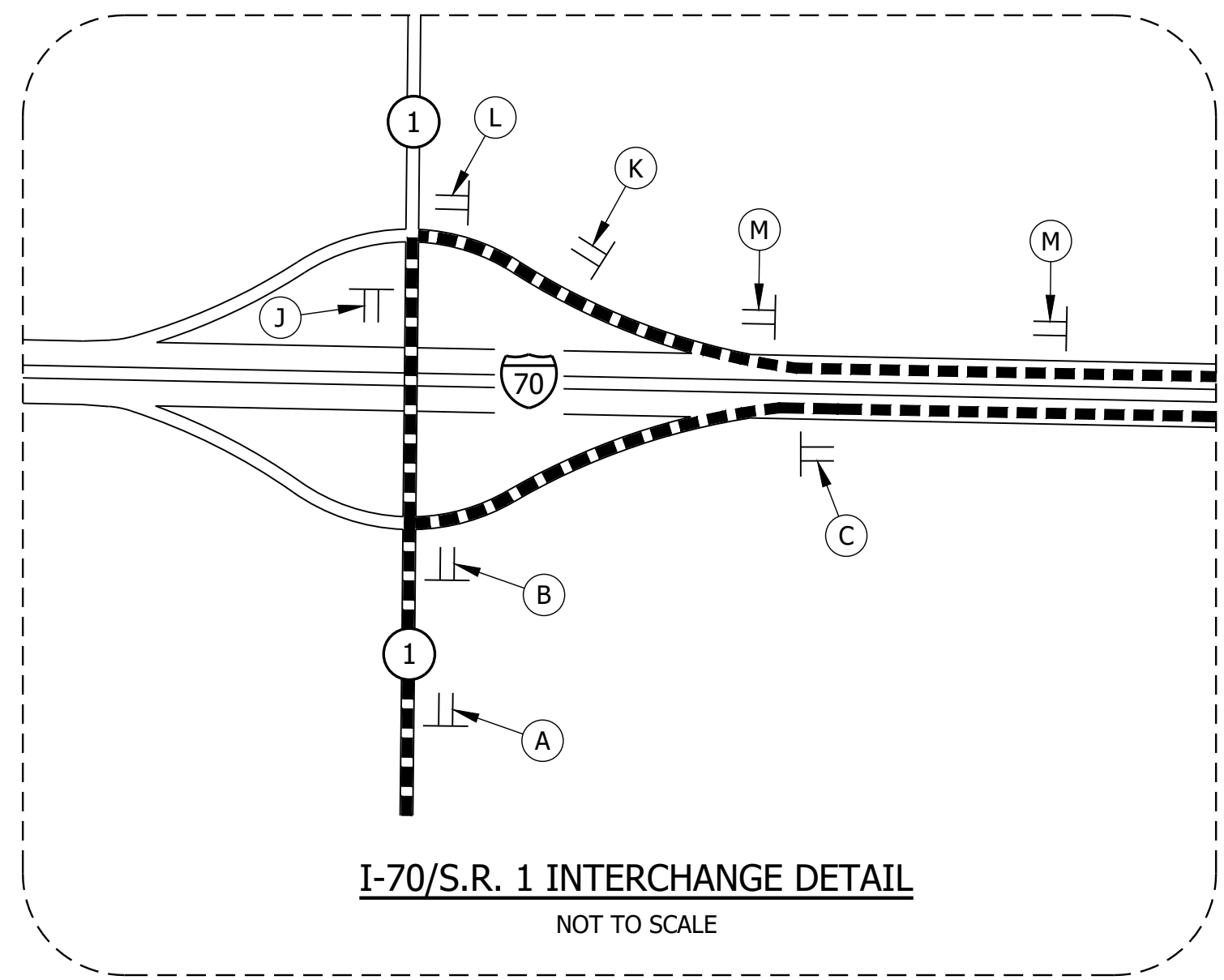
CONSTRUCTION SIGN SCHEDULE				
SIGN NO.	DESCRIPTION	SIZE (FT.)	TYPE	EST. QTY.
XG20-5	U.S. 40 CLOSED ON OR AFTER XX	5 X 3	A	2
XW20-2	DETOUR AHEAD	4 X 4	A	2
XW20-3	ROAD CLOSED XXXX	4 X 4	A	14
R11-2	ROAD CLOSED	4 X 2.5	-	2
R11-3A	ROAD CLOSED XX MILES	5 X 2.5	-	2
R11-4	ROAD CLOSED TO THRU TRAFFIC	5 X 2.5	-	2
TOTAL TYPE "A" SIGNS				18
ROAD CLOSURE SIGN ASSEMBLIES				6

DETOUR ROUTE MARKER ASSEMBLIES: 43 REQ'D
 TYPE III-A BARRICADES: 120 LFT.
 TYPE III-B BARRICADES: 120 LFT.

* DETOUR ROUTE MARKER ASSEMBLIES SHALL BE IN ACCORDANCE WITH STD. DWG. 801-TCDT-04.

* TYPE B CONSTRUCTION WARNING LIGHTS SHALL BE USED WITH ALL SIGNS LOCATED ON BARRICADES AND AS SHOWN. TYPE A CONSTRUCTION WARNING LIGHTS SHALL BE USED ON ALL OTHER CONSTRUCTION SIGNS. (NOT PAY ITEMS.)

* TWO XG20-5 SIGNS TO BE PLACED AS DIRECTED BY THE ENGINEER.



LEGEND

- ① 60 LFT. OF TYPE III-B BARRICADES, STAGGERED WITH ROAD CLOSURE SIGN ASSEMBLY R11-4.
- ② 60 LFT. OF TYPE III-A BARRICADES WITH ROAD CLOSURE SIGN ASSEMBLY R11-2.
- — — — — DETOUR ROUTE
- ⊥ SIGN ASSEMBLY

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PRELIMINARY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____

DESIGNED: BJM DRAWN: SEJ

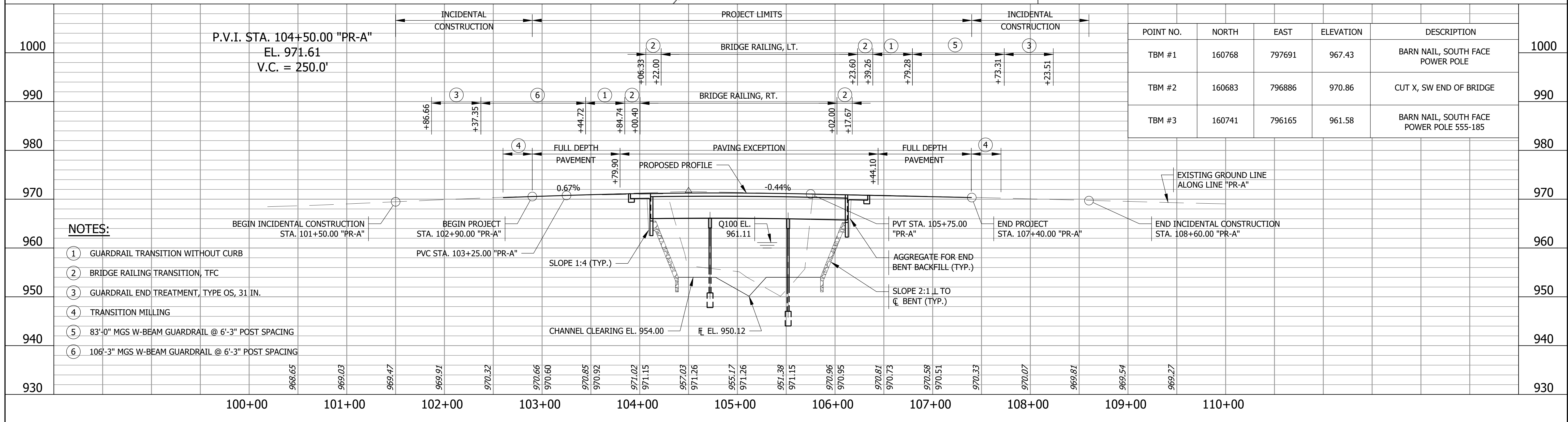
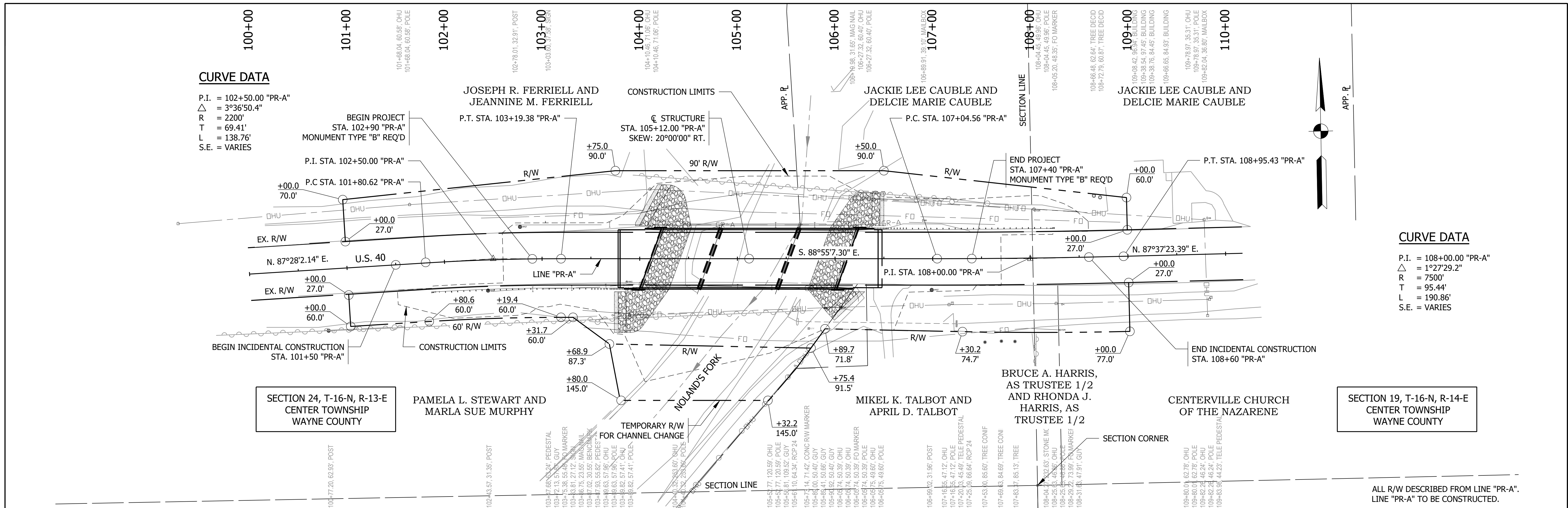
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INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

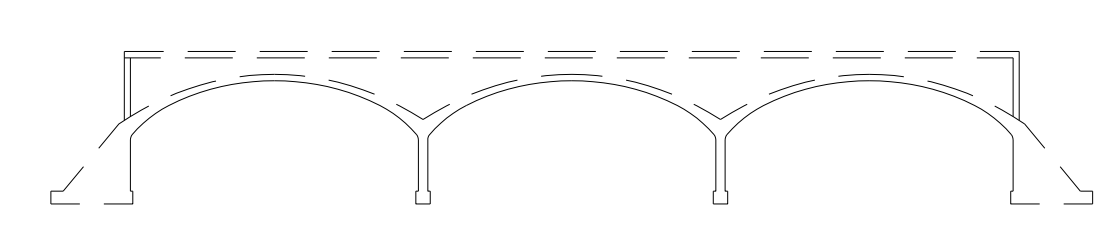
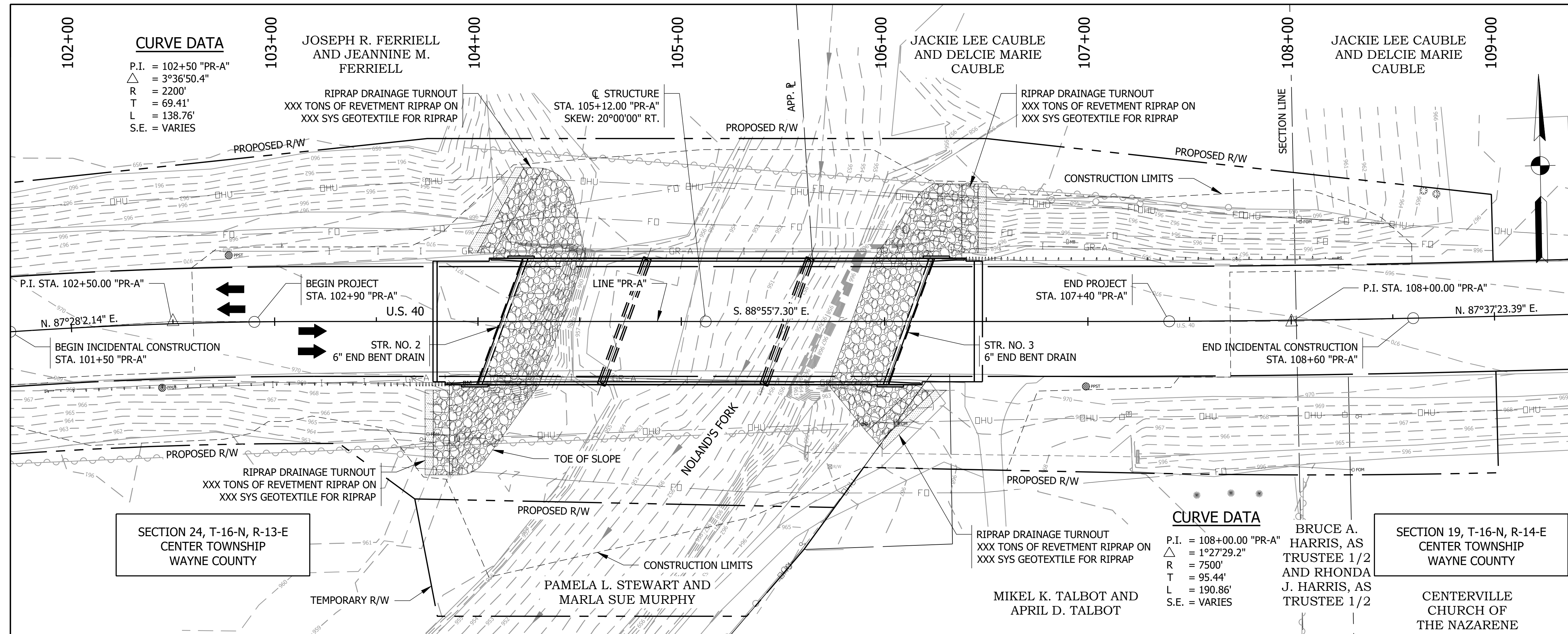
HORIZONTAL SCALE	BRIDGE FILE
1" = 5000' UNLESS NOTED	040-89-10254
VERTICAL SCALE	DESIGNATION
	1701344
	SHEET
	7 of 20
CONTRACT	PROJECT
B-39294	1701344

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PRELIMINARY	RECOMMENDED FOR APPROVAL _____		DESIGN ENGINEER _____ DATE _____	
	DESIGNED: BJM	DRAWN: SEJ		
	CHECKED: ZZH	CHECKED: BJM		
	INDIANA DEPARTMENT OF TRANSPORTATION		PLAN AND PROFILE	

HORIZONTAL SCALE 1" = 50'-0" UNLESS NOTED	BRIDGE FILE 040-89-10254
VERTICAL SCALE 1" = 10'-0" UNLESS NOTED	DESIGNATION 1701344
SHEET 9 of 20	
CONTRACT B-39294	
PROJECT 1701344	



EXISTING STRUCTURE

THE EXISTING STRUCTURE (040-89-00217) IS A THREE SPAN REINFORCED CONCRETE ARCH BRIDGE BUILT IN 1925. EXISTING STRUCTURE TO BE REMOVED.

EARTHWORK TABULATION

FILL +20%	XXX CYS
COMMON EXCAVATION	XXX CYS
USABLE WATERWAY EXCAVATION	XXX CYS
SURPLUS FOUNDATION EXCAVATION	XXX CYS
BORROW	XXX CYS

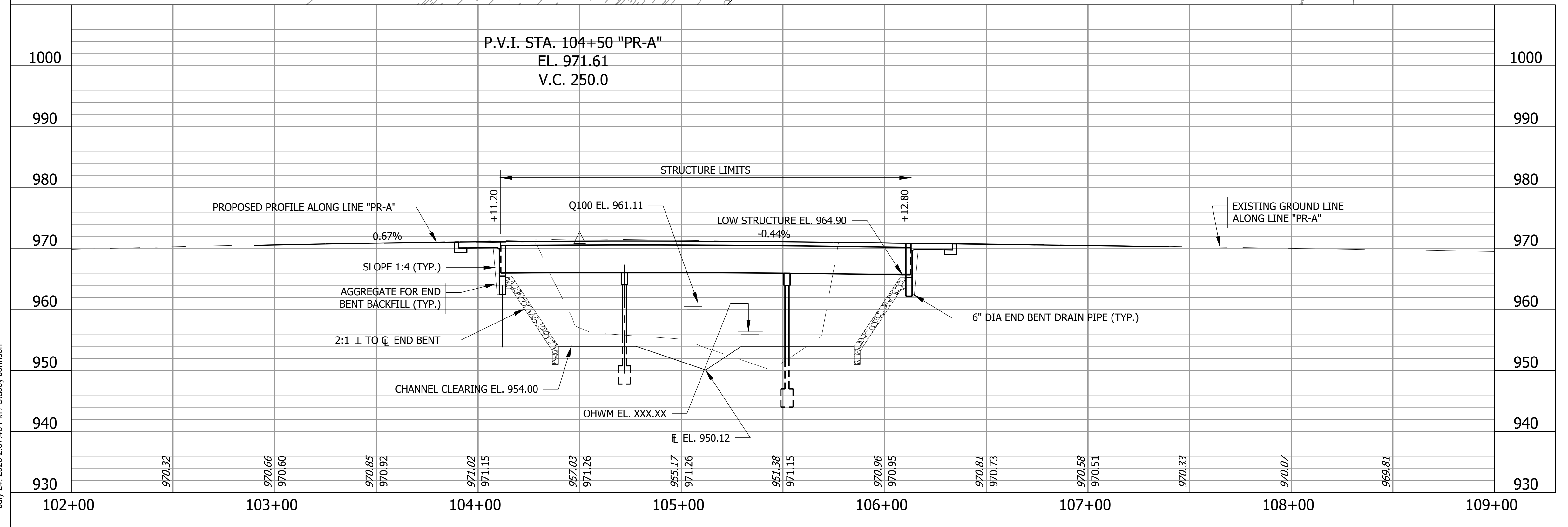
HYDRAULIC & SCOUR DATA

DRAINAGE AREA	= 59.71 SQ. MI.
Q100 DISCHARGE	= 8000 CFS
Q100 HIGH WATER EL.	= 961.11 FT
BACK WATER @ Q100	= 2.91 FT
VELOCITY	= 7.64 FT/SEC
WATERWAY OPENING REQ'D (BELOW EL. 961.11)	= 725.1 SFT
WATERWAY OPENING PROVIDED (BELOW EL. 961.11)	= 954.6 SFT
FREEBOARD PROVIDED (ABOVE EL. 961.11)	= 3.79 FT
SCOUR VELOCITY @ Q100	= 9.02 FT/SEC
CONTRACTION SCOUR DEPTH	= 9.72 FT
TOTAL SCOUR DEPTH	= 14.29 FT
LOW SCOUR ELEVATION	= 941.22 FT
Q500 DISCHARGE	= 10800 CFS
Q500 HIGH WATER EL.	= 961.68 FT
SCOUR VELOCITY @ Q500	= 10.82 FT/SEC
CONTRACTION SCOUR DEPTH	= 14.35 FT
TOTAL SCOUR DEPTH	= 19.21 FT
LOW SCOUR ELEVATION	= 936.30 FT

NOTES:

- INDICATES LIMITS OF 24" CLASS 1 RIPRAP OVER GEOTEXTILES FOR RIPRAP TYPE XX. (EST. QTY. = _____ TONS OF 24" RIPRAP OVER SYS OF GEOTEXTILES)
- INDICATES LIMITS OF 4' WIDE SODDING STRIP (EST. QTY. = _____ SYS)

PRESTRESSED CONCRETE I-BEAM BRIDGE
 3 SPANS: 60'-0", 80'-0", 60'-0"
 59'-4" CLEAR ROADWAY
 SKEW: 20°0'0" RT
 U.S. 40 OVER NOLAND'S FORK
 WAYNE COUNTY



102+00	103+00	104+00	105+00	106+00	107+00	108+00	109+00
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PRELIMINARY	RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 30'-0" UNLESS NOTED	BRIDGE FILE 040-89-10254
	DESIGNED: BJM	DRAWN: SEJ			VERTICAL SCALE 1" = 10'-0" UNLESS NOTED	DESIGNATION 1701344
	CHECKED: ZZH	CHECKED: BJM				SHEET 11 of 20
						CONTRACT B-39294

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