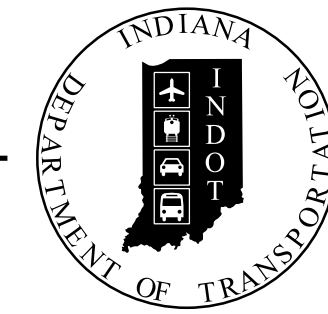


	DESIGNATION
	1602277
CONTRACT	BRIDGE FILE
B-40488	039-36-10549

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
039-36-10549	Precast Reinforced Concrete Box Culvert	Spans: 23'-1", Skew: 30° Rt. Rise: 4'-0"	Unnamed Tributary to Pond Creek	24+08 Line "B"

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
Lead 1600448	Superstructure Replacement
1593084	Bridge Deck Overlay

INDIANA DEPARTMENT OF TRANSPORTATION



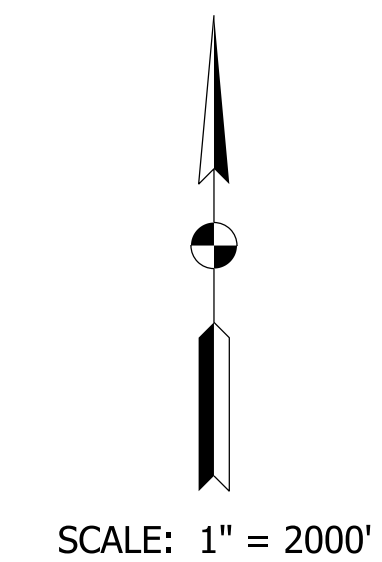
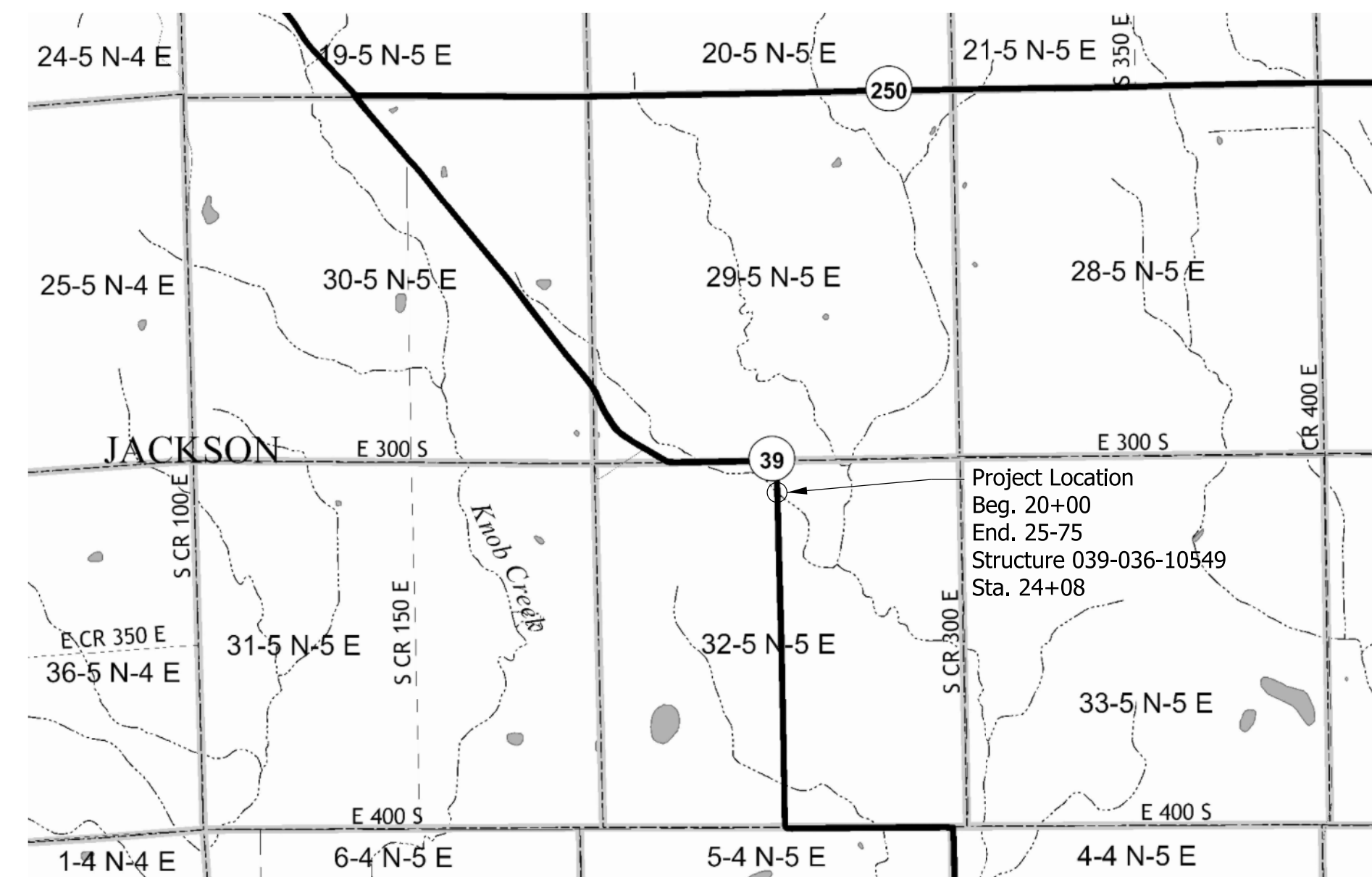
BRIDGE PLANS

FOR SPANS OVER 20 FEET

ROUTE: SR 39 AT: RP 13+45

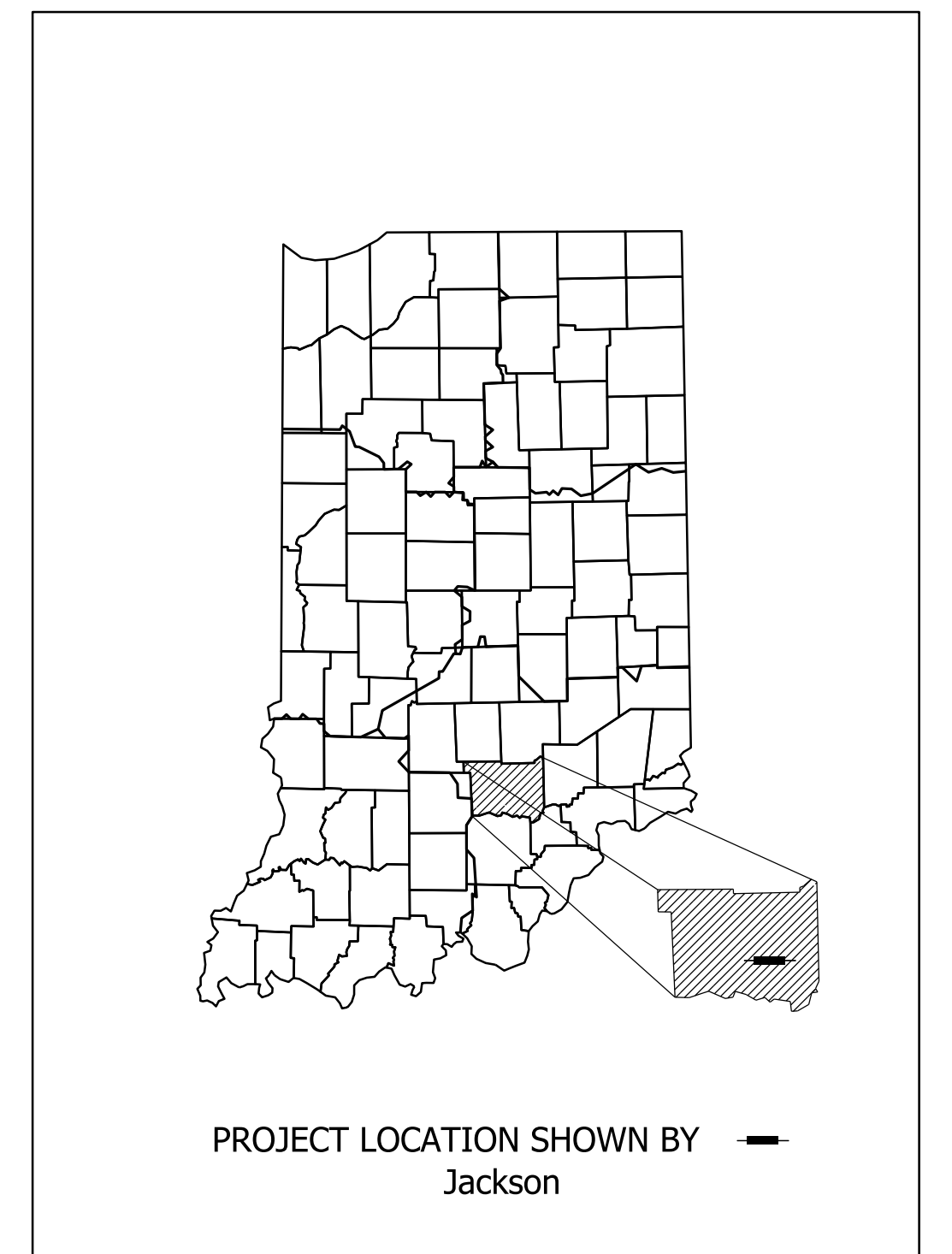
PROJECT NO. 1602277 P.E.
1602277 R/W
1602277 CONST.

Small Structure Replacement on SR 39 over UNT to Pond Creek
Located 2.14 Miles South of SR 250
Section 32, T-5-N, R-5-W, Brownstown Township, Jackson County, Indiana



TRAFFIC DATA		
A.A.D.T. (2022)		920 V.P.D.
A.A.D.T. (2042)		981 V.P.D.
D.H.V (2042)		97 V.P.H.
DIRECTIONAL DISTRIBUTION		46.92 %
TRUCKS		11.56 % A.A.D.T. 14.44 % D.H.V.

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: N 38°50'13" LONGITUDE: W 85°59'21"

BRIDGE LENGTH:	0.005	MI.
ROADWAY LENGTH:	0.104	MI.
TOTAL LENGTH:	0.109	MI.
MAX. GRADE:	-2.91	%

POND CREEK - UPPER
14 DIGIT HUC: 05120207110020

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

PLANS PREPARED BY: MATTHEW R STARKEY (812) 524-3953 PHONE NUMBER

CERTIFIED BY: _____ DATE _____

RECOMMENDED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE _____

BRIDGE FILE	
039-036-10549	
DESIGNATION	
1602277	
SHEETS	
SURVEY BOOK	1 of 13
Electronic	
CONTRACT	
B-40488	

Plot: 4/20/2020 2:20 PM

UTILITIES

Des. No. 1602277

PUBLIC UTILITIES

UNDERGROUND UTILITY CONTRACT No. 1806263164

Electric: JACKSON COUNTY REMC
BRAD PRITCHETT
274 E BASE RD
BROWNSTOWN, IN 47220
(812)358-4458
BPRITCHETT@JACKSONREMC.COM

Telephone: FRONTIER COMMUNICATIONS
JOE SARLL
8001 WEST JEFERSON BLVD
(260)461-3324
UTILITYCORDREQ@FTR.COM

Note: There may be utilities other than these that are listed that were not notified by underground Indiana, and no evidence was discovered as to their identity.



INDIANA UNDERGROUND
1-800-382-5544 OR CALL 811
24 HOURS A DAY 7 DAYS A WEEK

INDEX

SHEET NO.	SUBJECT
1	TITLE
2	INDEX
3	PLAT 1
4	TYPICAL SECTIONS
5	DETOUR
6	LAYOUT
7	GENERAL PLAN
8	SUMMARY
9-13	CROSS SECTIONS

REVISIONS

SHEET NO.	DATE	REVISED

Plot: 4/20/2020 2:20 PM

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	SCALE	BRIDGE FILE
	DESIGNED: MRS 07/23/19 DRAWN: MRS 07/23/19	INDEX SHEET	NTS
CHECKED: JPT 07/23/19 CHECKED: JPT 07/23/19			DESIGNATION
			1602277
		SURVEY BOOK	SHEETS
		Electronic	2 of 13
		CONTRACT	
		B-40488	

20+00

21+00

22+00

23+00

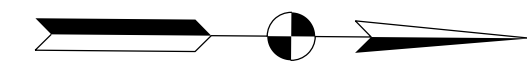
24+00

25+00

26+00

27+00

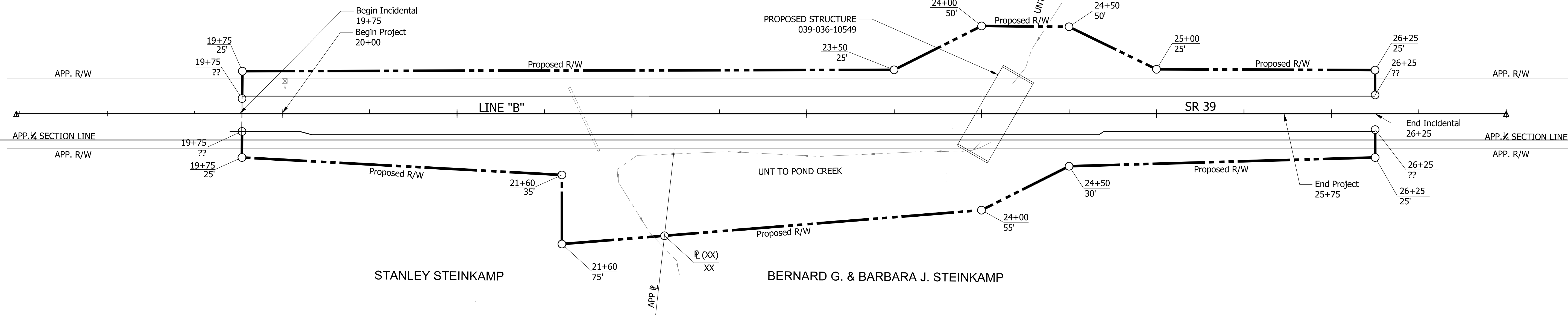
SECTION 32, T-5-N, R-5-E
BROWNSTOWN TOWNSHIP
JACKSON COUNTY



STANLEY STEINKAMP

PROPOSED STRUCTURE
039-036-10549

UNIT TO POND CREEK



SECTION 32, T-5-N, R-5-E
BROWNSTOWN TOWNSHIP
JACKSON COUNTY

STANLEY STEINKAMP

BERNARD G. & BARBARA J. STEINKAMP

Plot: 4/20/2020 2:30 PM

File:
Model:Default

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MRS	8/5/19	DRAWN: MRS 8/5/19
CHECKED: JPT	8/6/19	CHECKED: JPT 8/6/19

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAT NO. 1

SCALE 1" = 30'	BRIDGE FILE 039-036-10549
	DESIGNATION 1602277
	SHEETS 3 of 13
CONTRACT B-40488	PROJECT 1602277

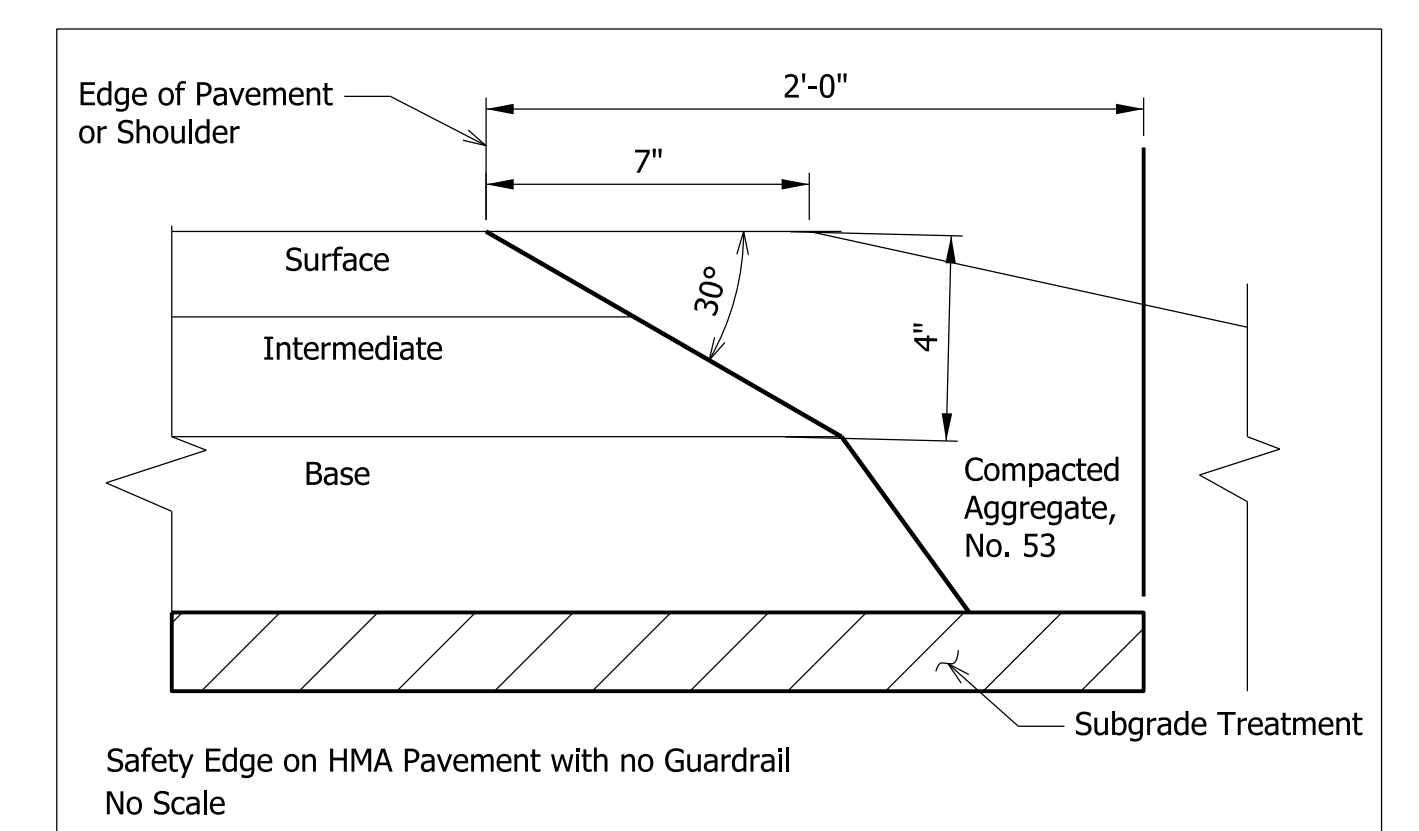
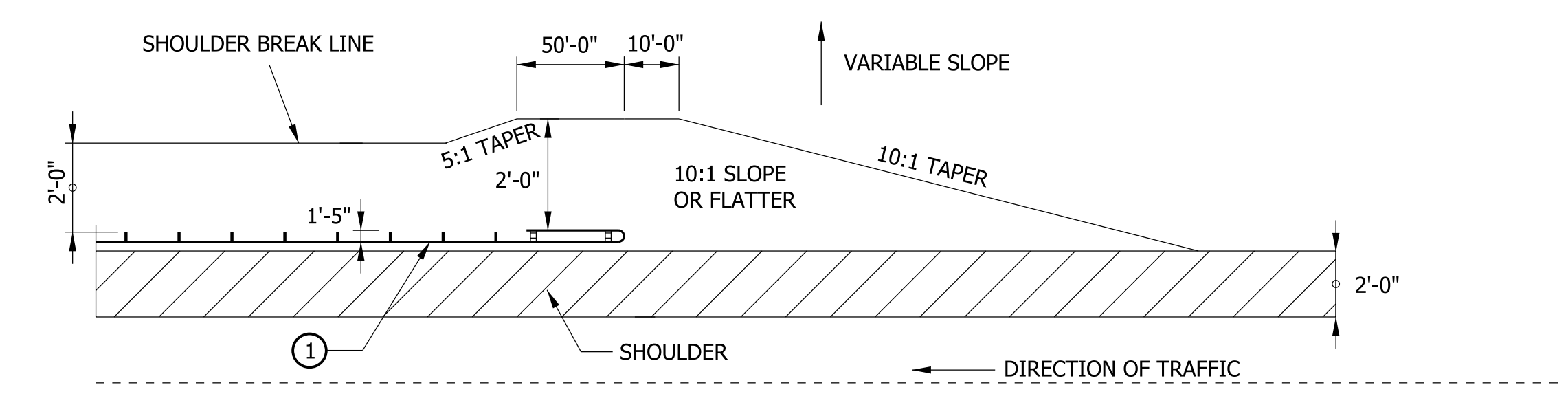
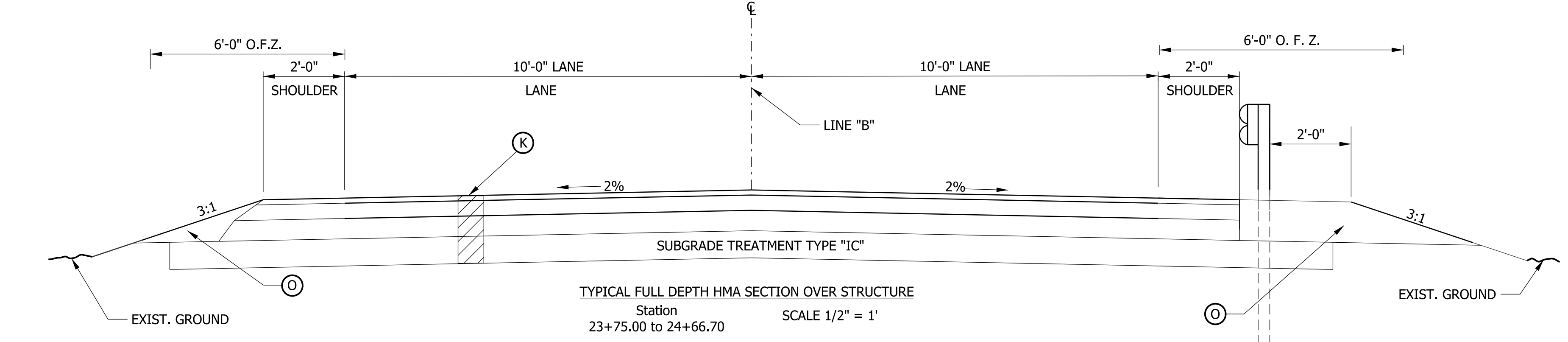
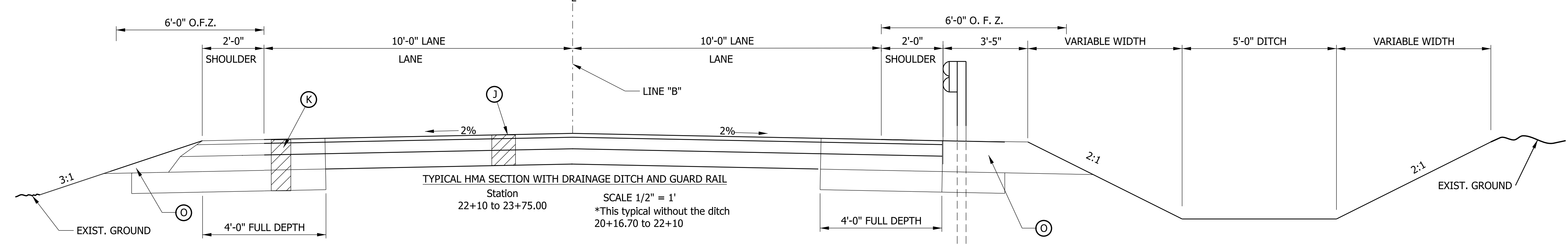
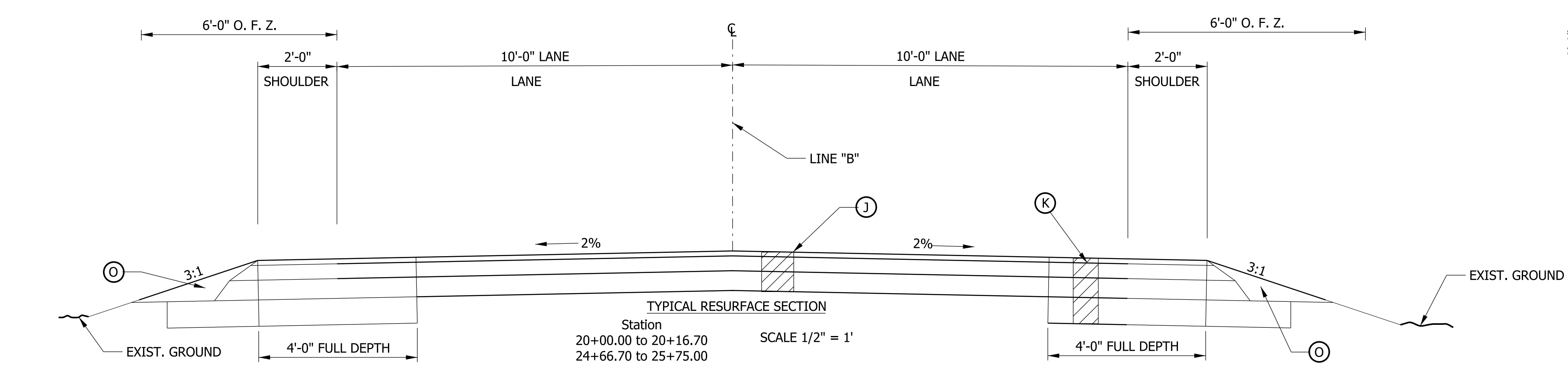
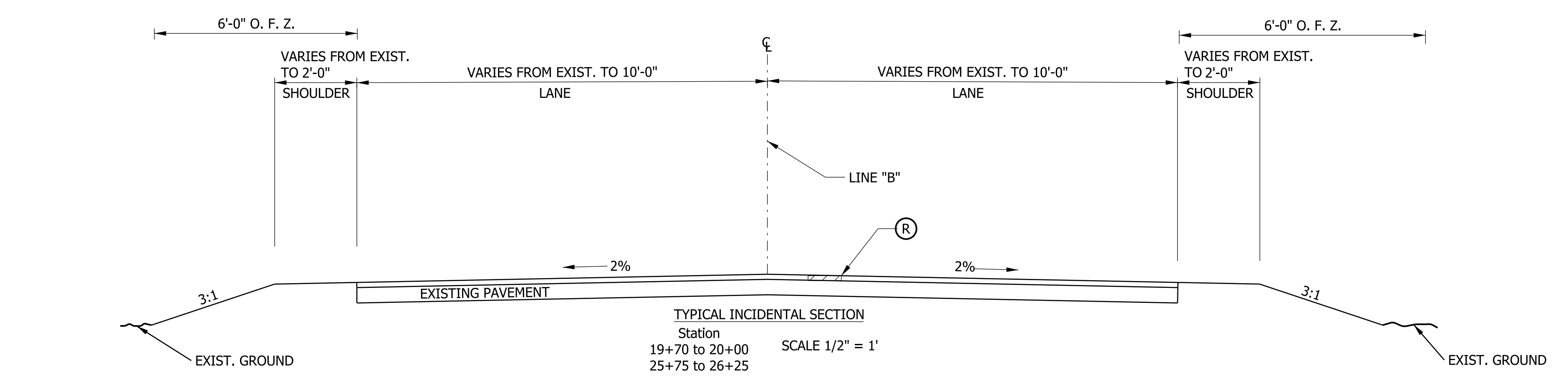
Estimated Pavment
(Actual Pavement Design has not been done yet)

NOTES

- ① Length and width of OS Unit Test Level 3 (TL-3)
Length = 50'-0"
Shoulder Width = 2'-0"

LEGEND

- Ⓚ HMA FULL DEPTH PAVEMENT
165#Syd. QC/QA-HMA, 3, 64, Surface 9.5 mm on 275#Syd. QC/QA-HMA, 2, 64, Intermediate 19.0 mm on 660#Syd. QC/QA-HMA, 2, 64, Base 19.0 mm on (in 2 Lifts) Subgrade Treatment Type IC
- Ⓜ 165#Syd. QC/QA-HMA, 3, 64, Surface 9.5 mm on 275#Syd. QC/QA-HMA, 2, 64, Intermediate 19.0 mm on Variable depth base
- Ⓡ HMA RESURFACE/SURFACE MILLING
165#Syd. QC/QA-HMA, 3, 64, Surface 9.5 mm on 1 1/2" Milling, Asphalt
- Ⓞ Compacted Aggregate, No. 53



DATE	REVISION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MRS	07/23/19	DRAWN: MRS
CHECKED: JPT	07/23/19	CHECKED: JPT

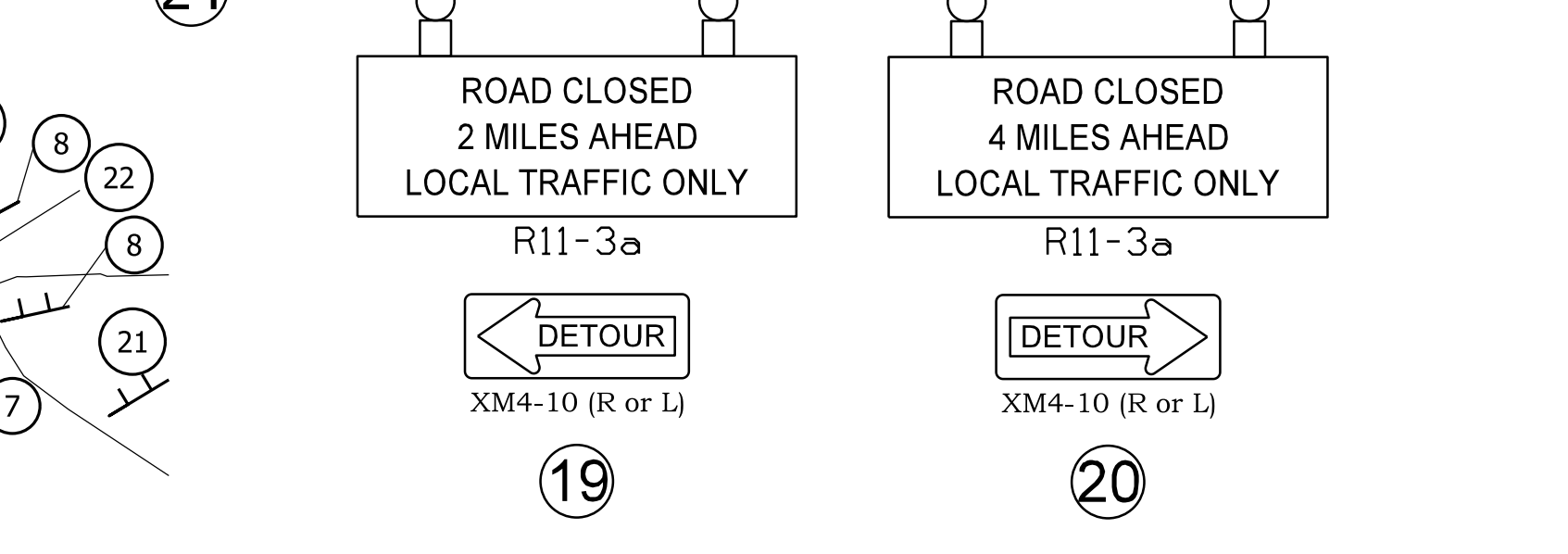
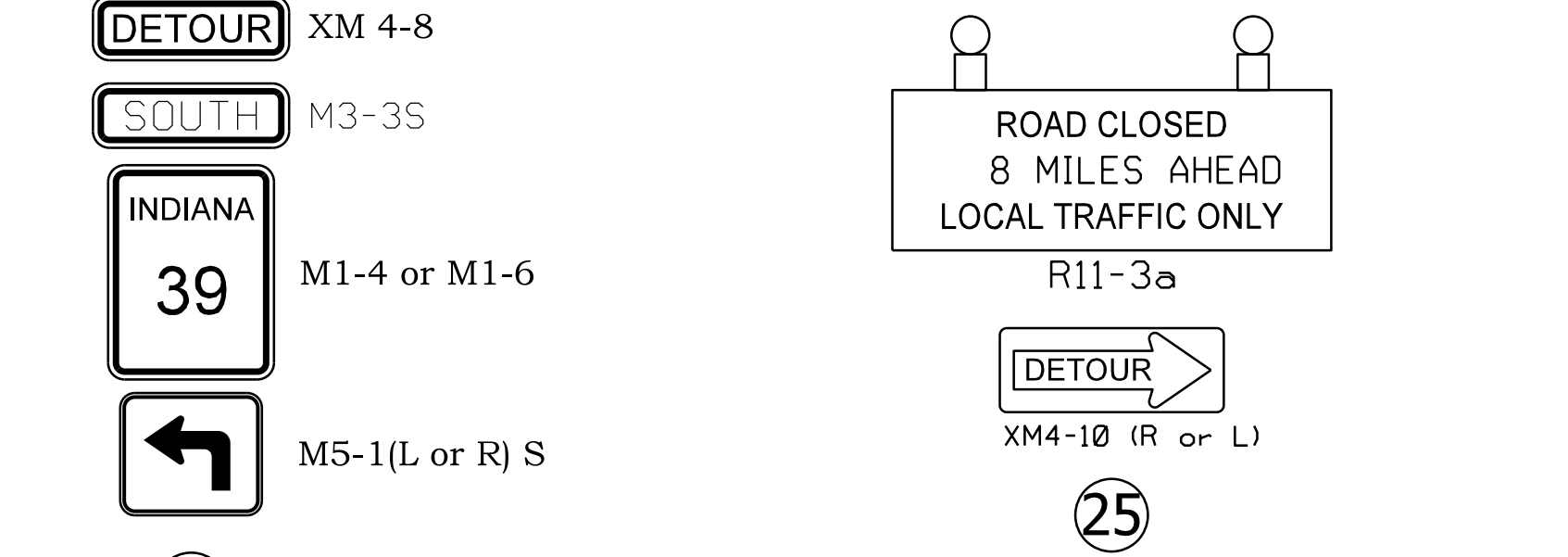
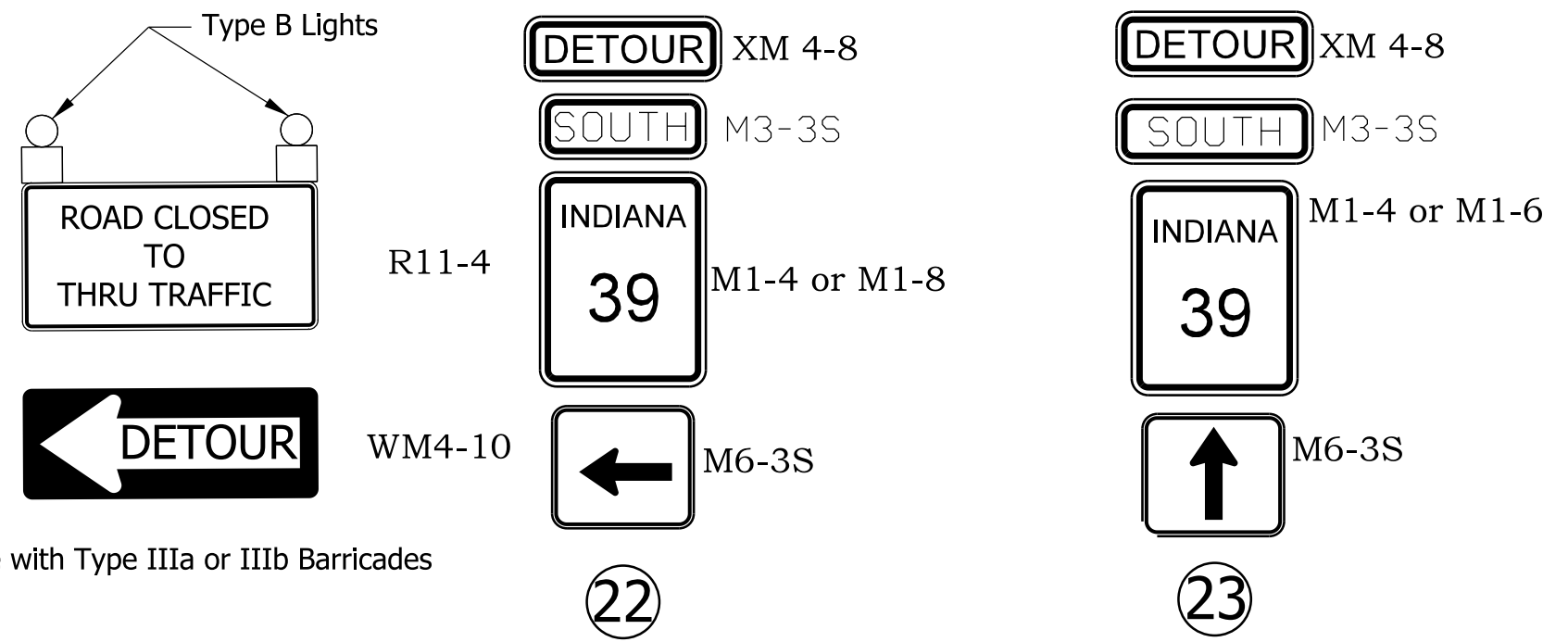
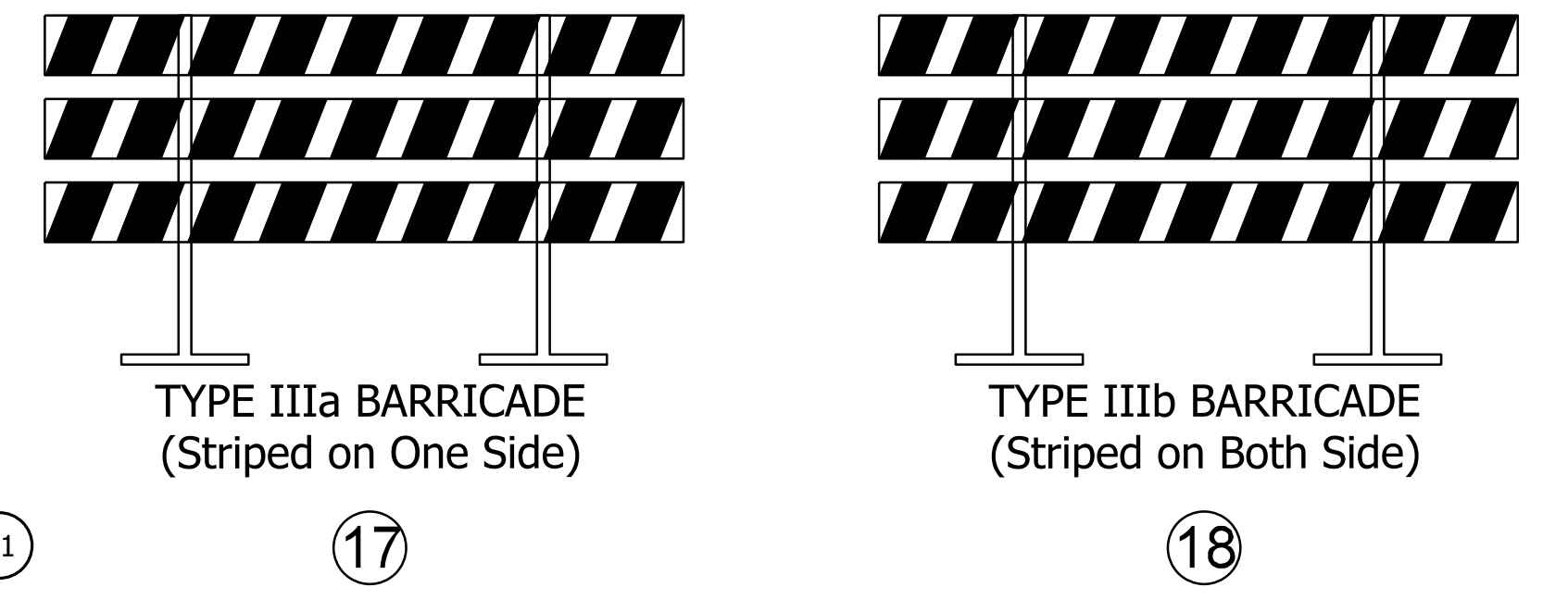
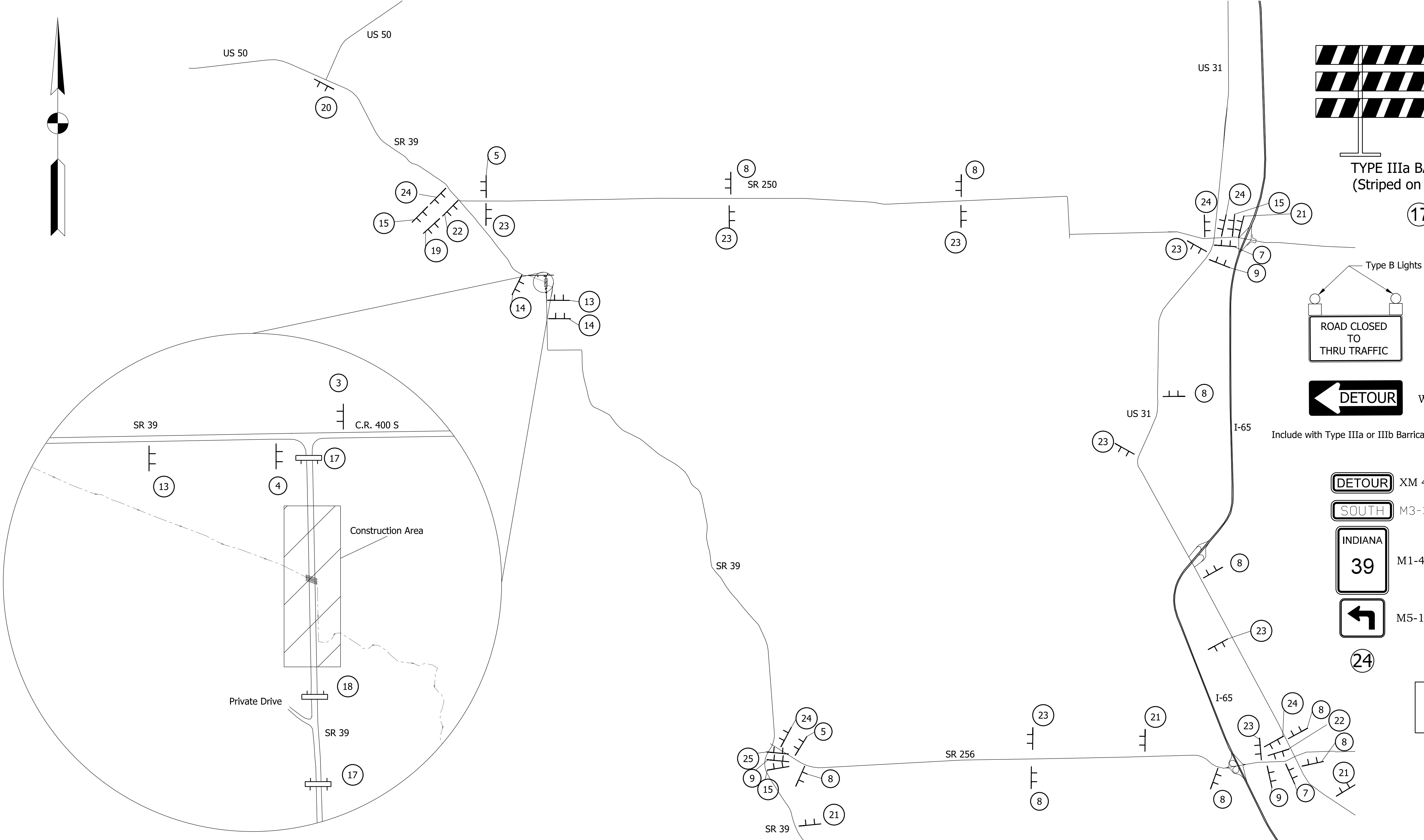
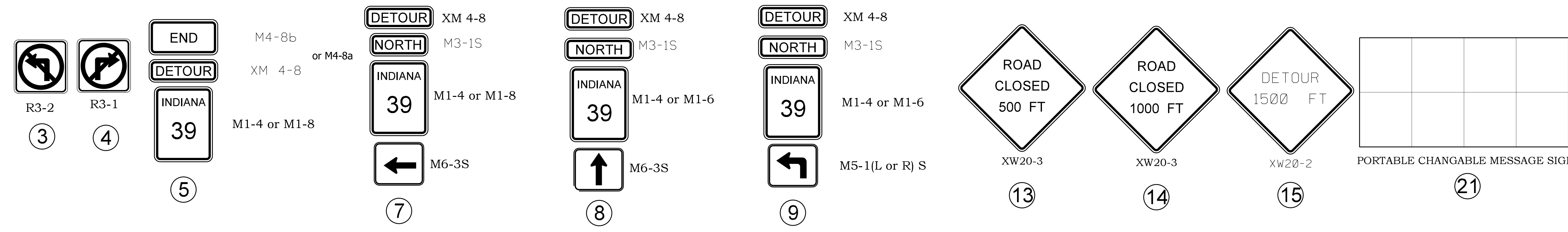
**INDIANA
DEPARTMENT OF TRANSPORTATION**

TYPICAL SECTION

SCALE AS NOTED	BRIDGE FILE 039-36-10549
SURVEY BOOK Electronic	DESIGNATION 1602277
CONTRACT B-40488	SHEETS 4 of 13

Plot: 4/20/2020 2:20 PM

MAINTENANCE OF TRAFFIC SUMMARY TABLE		
ITEM	QUANTITY	UNITS
Portable Changeable Message Sign	3	EACH
Barricade, Type IIIa	60	LFT
Barricade, Type IIIb	30	LFT
Detour Route Marker Assembly	31	EACH
Road Closure Sign Assembly	6	EACH
Detour (XM4-10), R	3	EACH
Detour (XM4-10), L	2	EACH
Construction Sign Type A	3	EACH
Construction Sign Type B	9	EACH



Plot: 4/20/2020 2:21 PM

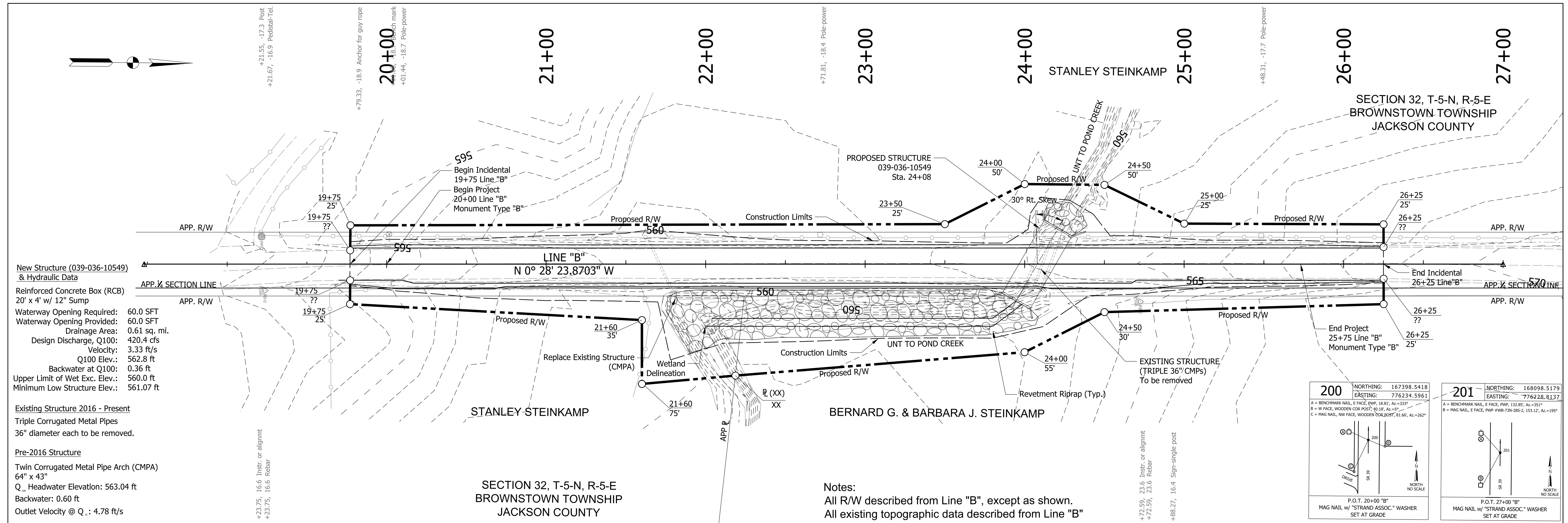
DATE	REVISION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MRS	07/23/19	DRAWN: MRS
07/23/19		07/23/19
CHECKED: JPT	07/23/19	CHECKED: JPT
		07/23/19

INDIANA
DEPARTMENT OF TRANSPORTATION

DETOUR

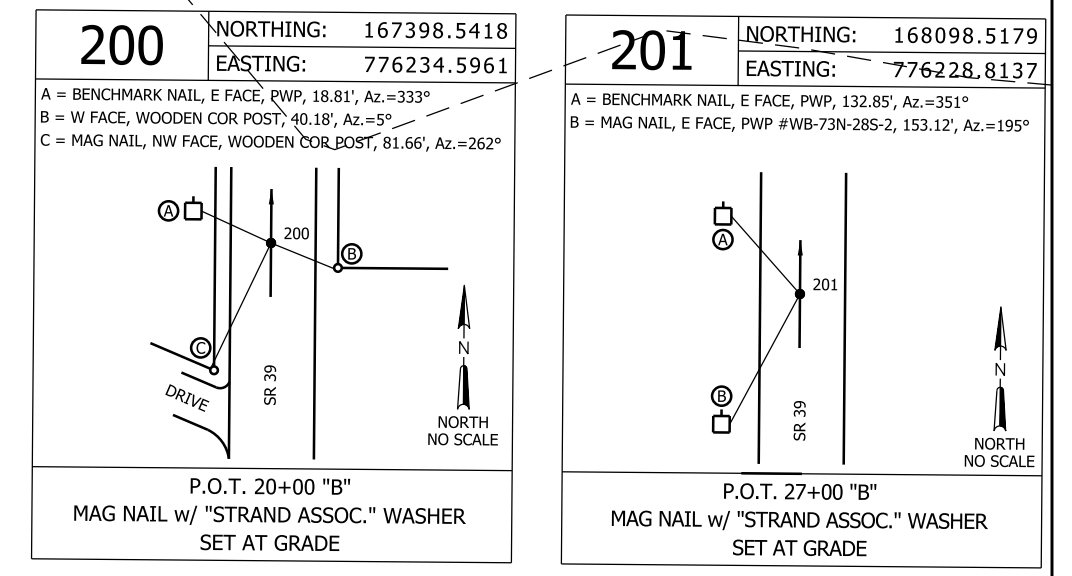
SCALE	BRIDGE FILE
1"=4000'	039-036-10549
	DESIGNATION
	1602277
SURVEY BOOK	SHEETS
Electronic	5 of 13
CONTRACT	
B-40488	



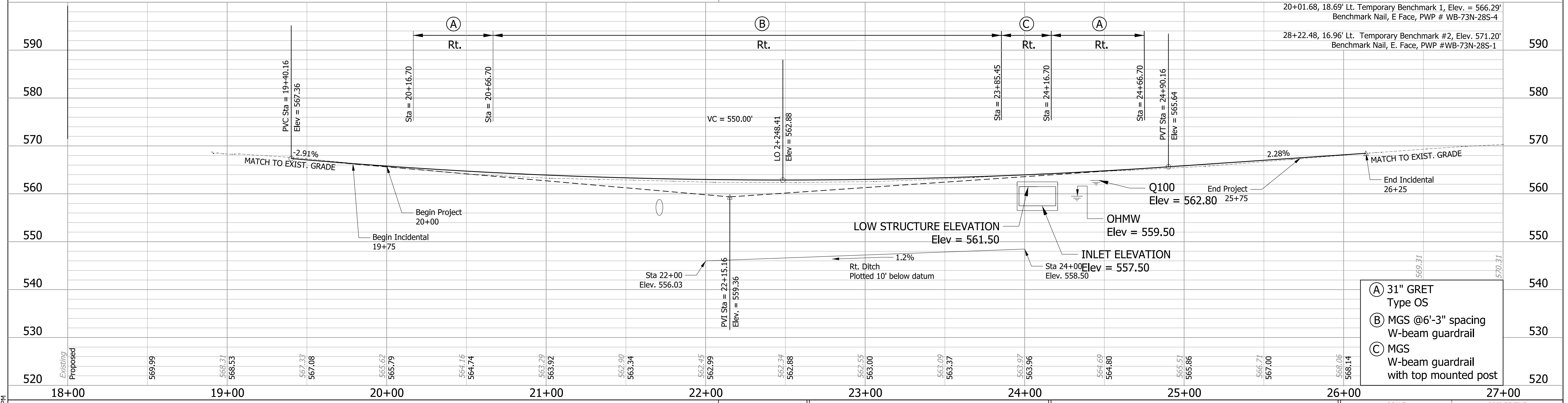
New Structure (039-036-10549) & Hydraulic Data
 Reinforced Concrete Box (RCB)
 20' x 4' w/ 12" Sump
 Waterway Opening Required: 60.0 SFT
 Waterway Opening Provided: 60.0 SFT
 Drainage Area: 0.61 sq. mi.
 Design Discharge, Q100: 420.4 cfs
 Velocity: 3.33 ft/s
 Q100 Elev.: 562.8 ft
 Backwater at Q100: 0.36 ft
 Upper Limit of Wet Exc. Elev.: 560.0 ft
 Minimum Low Structure Elev.: 561.07 ft

Existing Structure 2016 - Present
 Triple Corrugated Metal Pipes
 36" diameter each to be removed.

Pre-2016 Structure
 Twin Corrugated Metal Pipe Arch (CMPA)
 64" x 43"
 Q₁₀₀ Headwater Elevation: 563.04 ft
 Backwater: 0.60 ft
 Outlet Velocity @ Q₁₀₀: 4.78 ft/s



Notes:
 All R/W described from Line "B", except as shown.
 All existing topographic data described from Line "B"

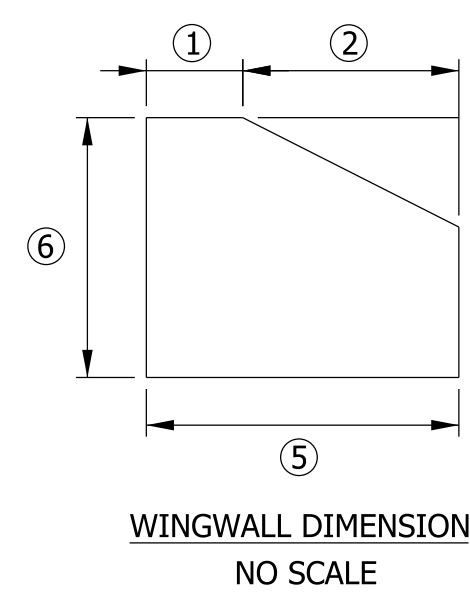
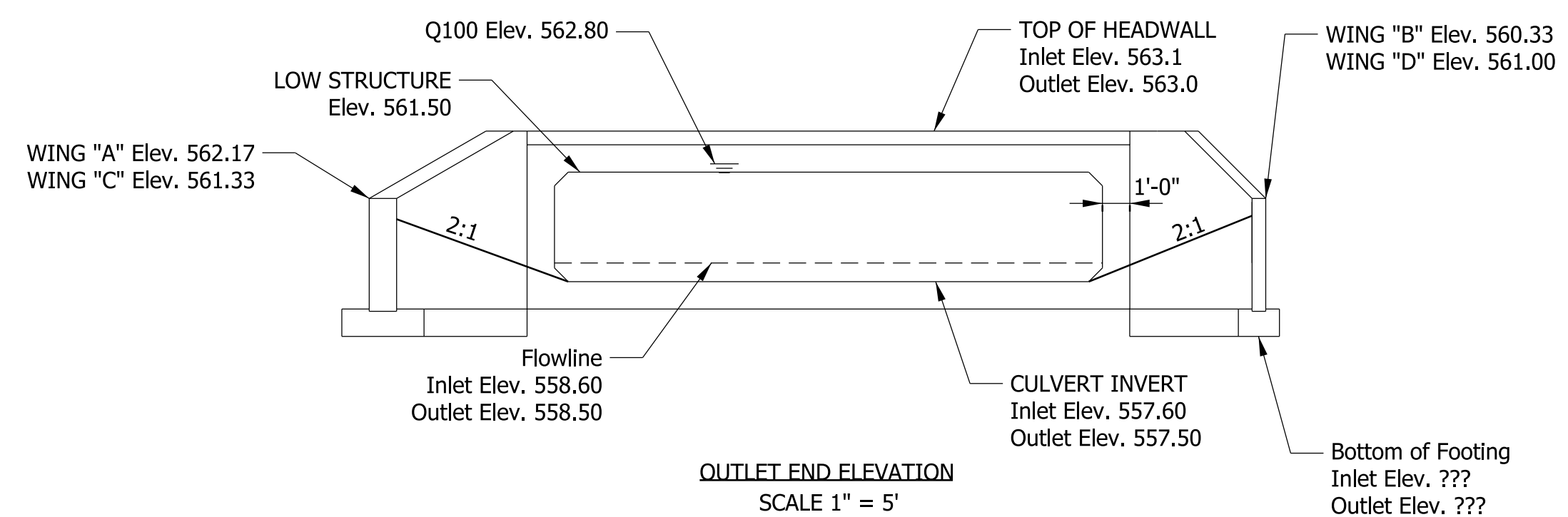
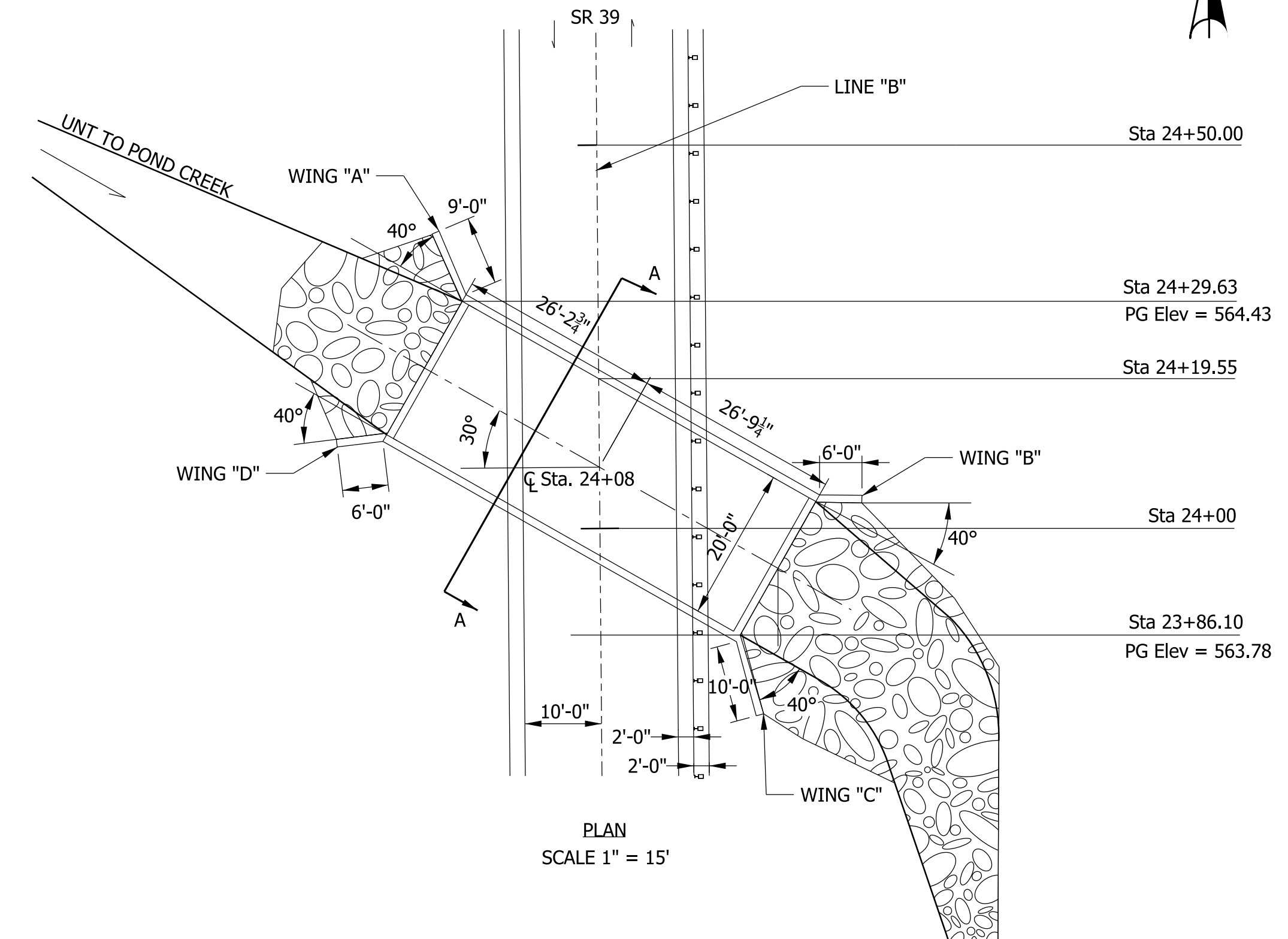
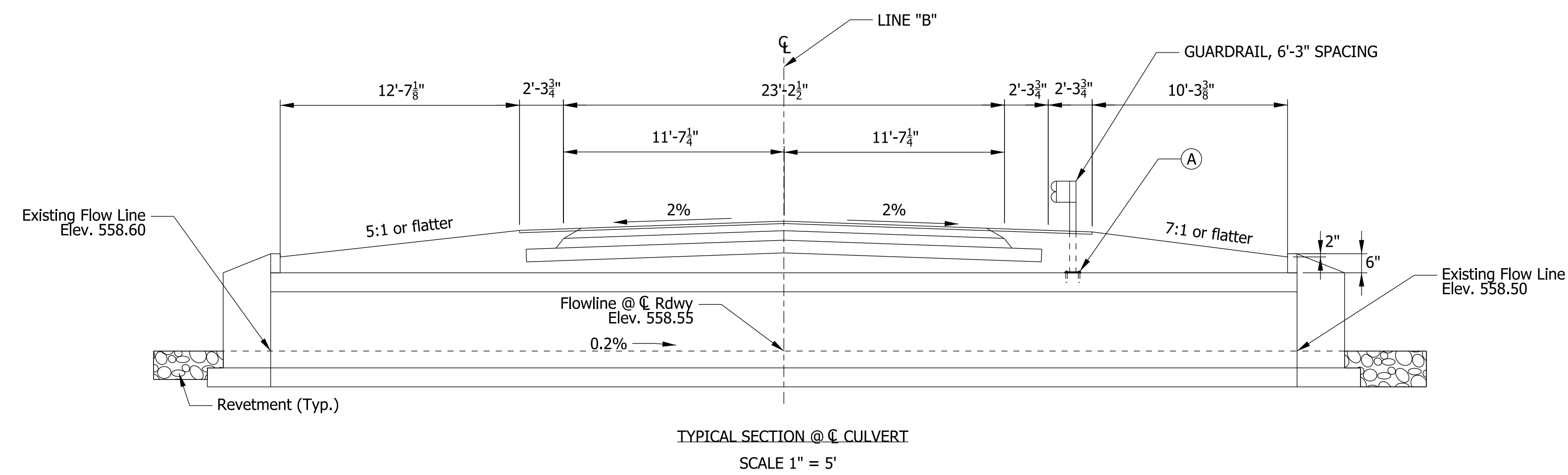
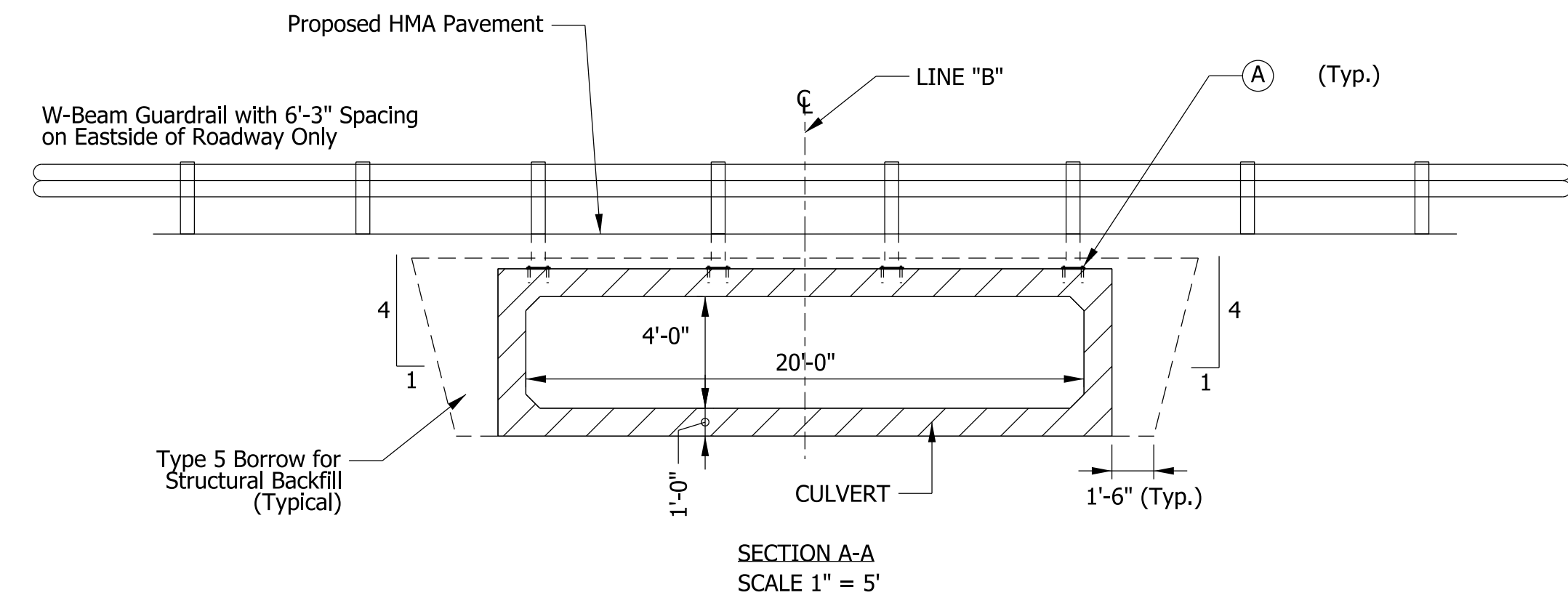


- (A) 31" GRET Type OS
- (B) MGS @6'-3" spacing W-beam guardrail
- (C) MGS W-beam guardrail with top mounted post

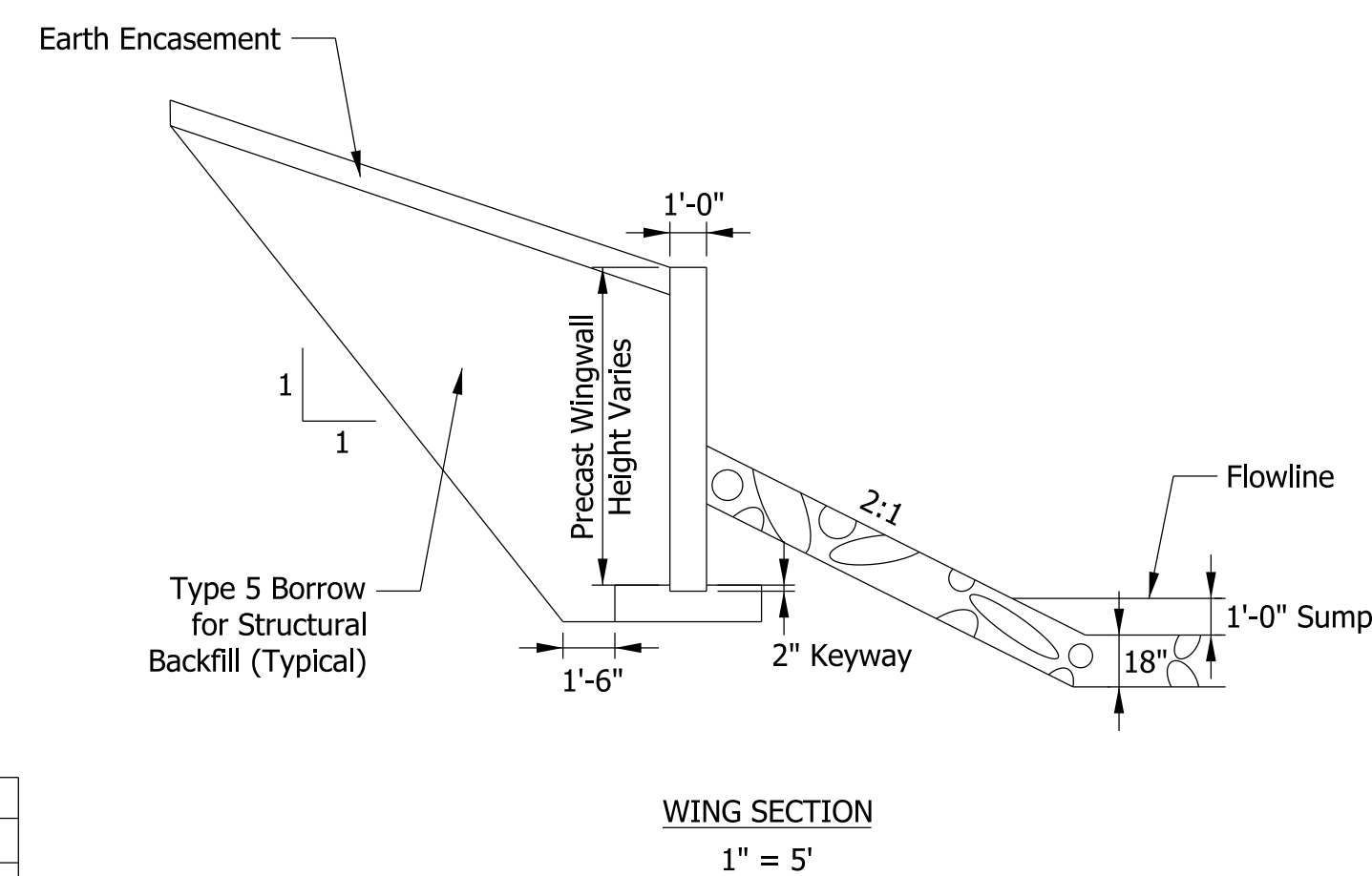
RECOMMENDED FOR APPROVAL DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION		SCALE 1" = 30'	BRIDGE FILE 039-036-10549	
	DESIGNED: MRS 8/5/19 DRAWN: MRS 8/5/19	CHECKED: JPT 8/6/19 CHECKED: JPT 8/6/19	LAYOUT		DESIGNATION 1602277
	SHEETS 6 of 13				PROJECT 1602277

RECOMMENDED PARAMETERS FOR DESIGN	Estimated Value, English
Friction Angle between Wingwall and Soil Backfill (δ), deg.	??
Friction Factor between Footing and Foundation Soil (f)	??
Normal Cohesion of the Foundation Soil (C)	?? Psf
Nominal Adhesion of the Foundation Soil (Ca)	?? Psf
Angle of Internal Friction of Backfill Material, deg.	??

LEGEND
 (A) Top-mounted base plate; see Standard Drawing No. E 601-MGSA-10.



	Wingwall Dimensions and Area						Total
	Dimensions (ft. in.)						
	1	2	3	4	5	6	
Wing "A"	1'-0"	8'-0"	1'-0"	5'-6"	9'-0"	6'-6"	50.5
Wing "B"	1'-0"	5'-0"	2'-3"	4'-3"	6'-0"	6'-6"	27.75
Wing "C"	1'-0"	9'-0"	2'-0"	4'-6"	10'-0"	6'-6"	47.0
Wing "D"	1'-0"	5'-0"	2'-0"	4'-6"	6'-0"	6'-6"	29.0



NOTE
 A three-sided flat top structure will be permitted at this location.

DESIGN DATA

Superstructure and substructure designed for HL-93 loading, in accordance with the AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017 and its subsequent interims.

PRECAST REINFORCED CONCRETE BOX
 SKEW 30° RT.,
 (20'-0" span 4'-0" rise 53'-0" length)
 SR 39 OVER UNT TO POND CREEK
 IN JACKSON COUNTY

DATE	REVISION

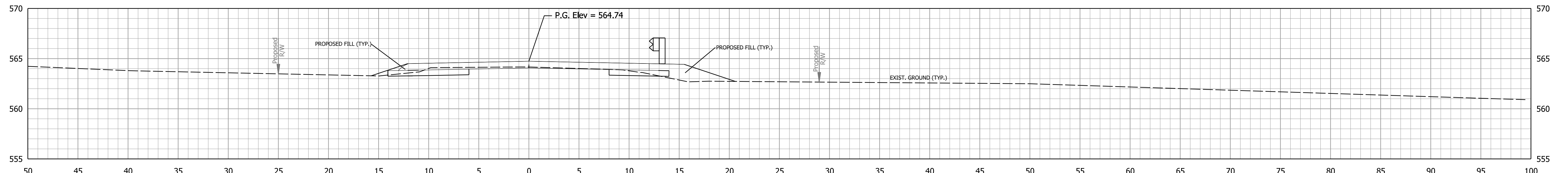
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MRS	07/23/19	DRAWN: MRS 07/23/19
CHECKED: JPT	07/23/19	CHECKED: JPT 07/23/19

INDIANA
 DEPARTMENT OF TRANSPORTATION

 GENERAL PLAN

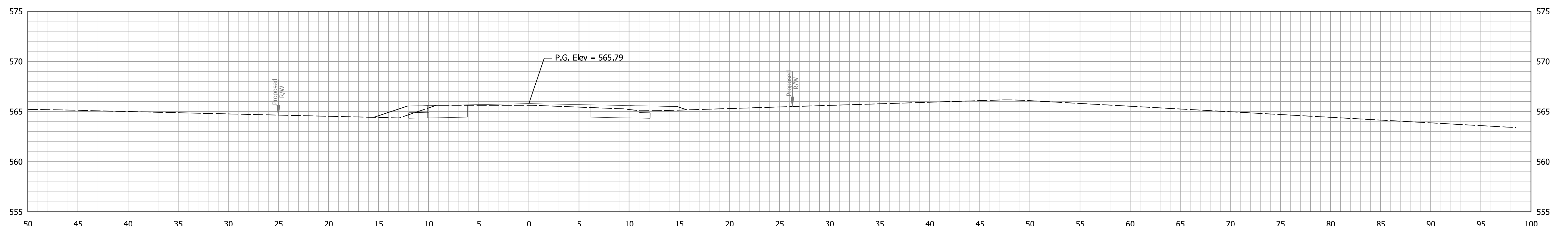
SCALE	BRIDGE FILE
AS NOTED	039-36-10549
	DESIGNATION
	1602277
SURVEY BOOK	SHEETS
Electronic	7 of 13
CONTRACT	
B-40488	

Plot: 4/20/2020 2:21 PM



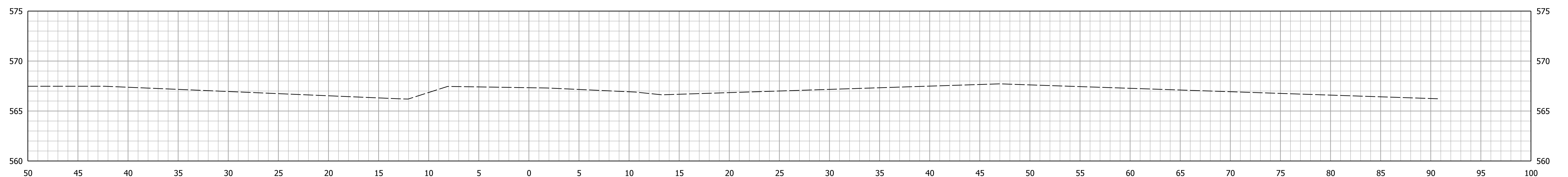
Vc = 34.99 CYS Af = 11.27 SFT Ab = 0.0 SFT
 Vf = 15.11 CYS Vb = 0.0 CYS

20+50



Vc = 21.37 CYS Af = 5.05 SFT Ab = 0.0 SFT
 Vf = 4.68 CYS Vb = 0.0 CYS

20+00



Vc = 0.0 CYS Af = 0.0 SFT Ab = 0.0 SFT
 Vf = 0 CYS Vb = 0.0 CYS

19+50

Plot: 4/20/2020 2:22 PM

File: pw:\dotwise.indot.in.gov\DOT\wise\Documents\Seymour\1602277\Design\InRoads\Cross Sections\Cross Sections 3D Model:Line B

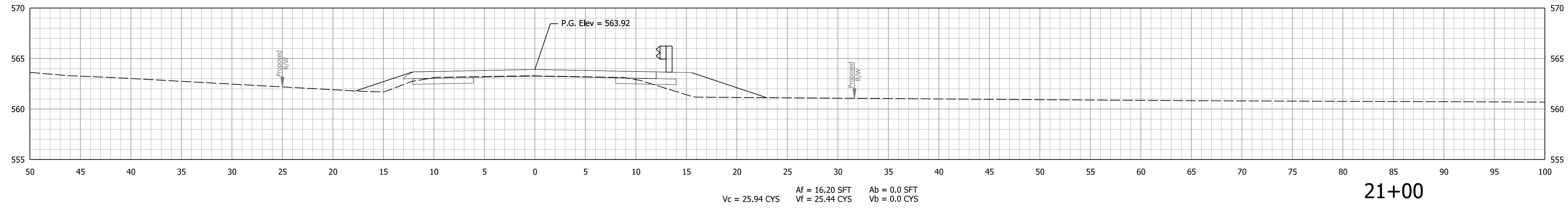
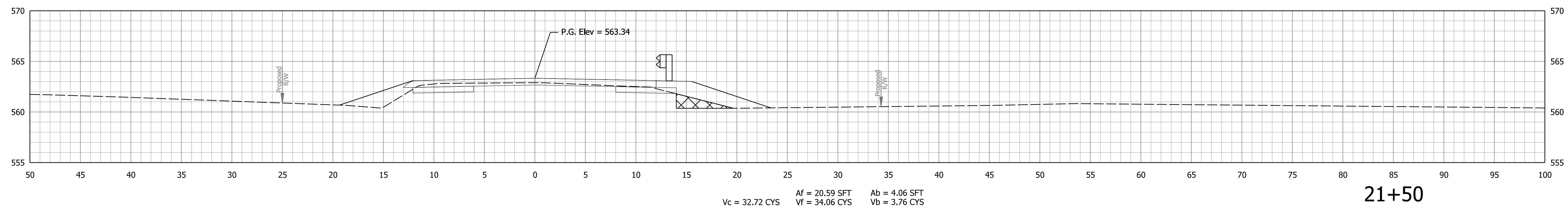
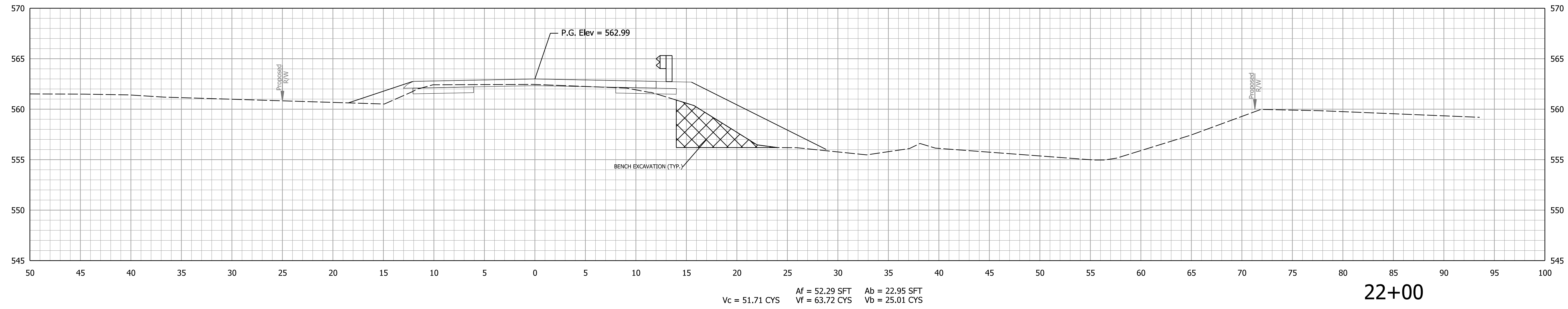
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MRS	DRAWN: MRS	
CHECKED: JPT	CHECKED: JPT	

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
Line "B"

SCALE 1"=10'	BRIDGE FILE 039-036-10549
	DESIGNATION 1602277
CONTRACT B-40488	SHEETS 9 of 13
	PROJECT

STA. 19+50 TO STA. 20+50



Plot: 4/20/2020 2:22 PM

File: pw:\dotwise.indot.in.gov\DOT\wise\Documents\Seymour\1602277\Design\InRoads\Cross Sections\Cross Sections 3D Model:Line B

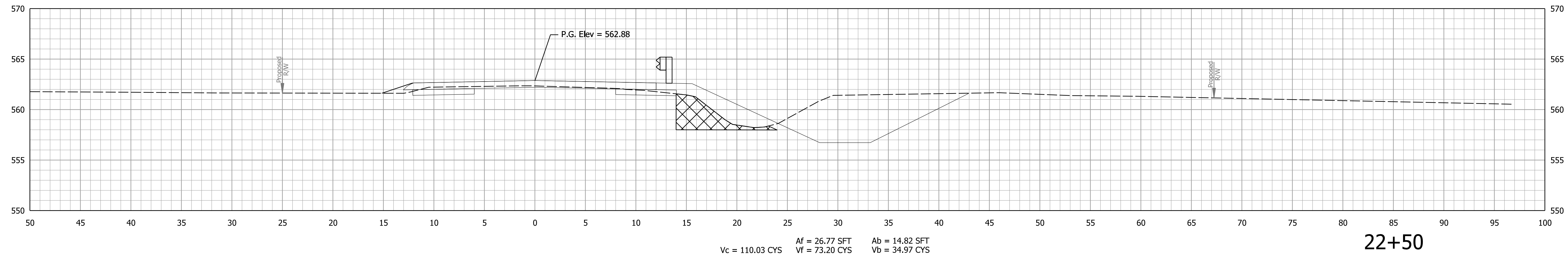
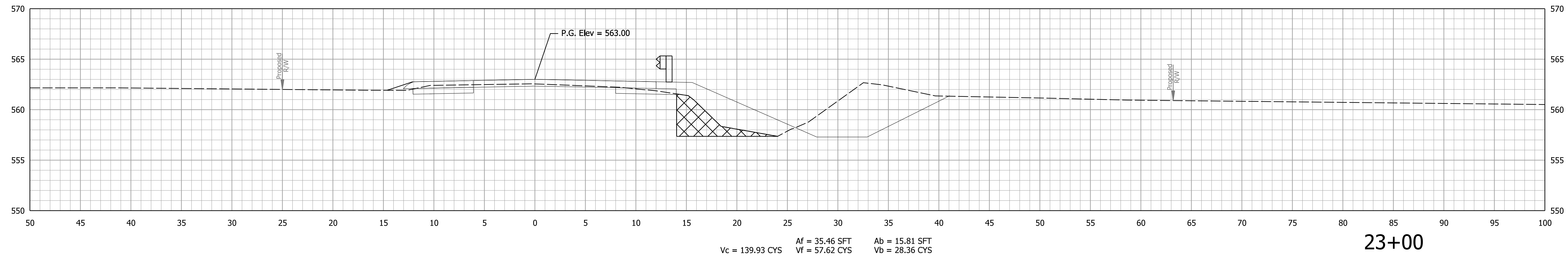
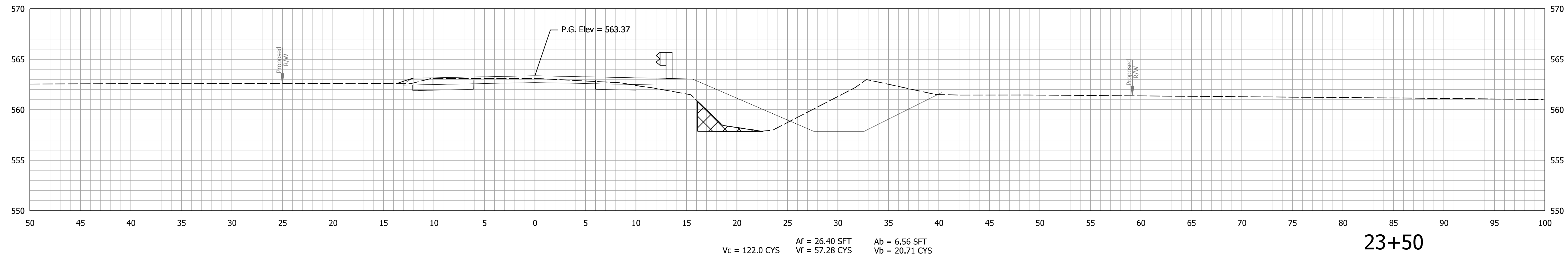
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: MRS _____	DRAWN: MRS _____	
CHECKED: JPT _____	CHECKED: JPT _____	

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
Line "B"

SCALE 1"=10'	BRIDGE FILE 039-036-10549
	DESIGNATION 1602277
	SHEETS 10 of 13
CONTRACT B-40488	PROJECT

STA. 21+00 TO STA. 22+00



Plot: 4/20/2020 2:23 PM

File: pw:\dotwise.indot.in.gov\DOTWise\Documents\Seymour\1602277\Design\InRoads\Cross Sections\Cross Sections 3D Model:Line B

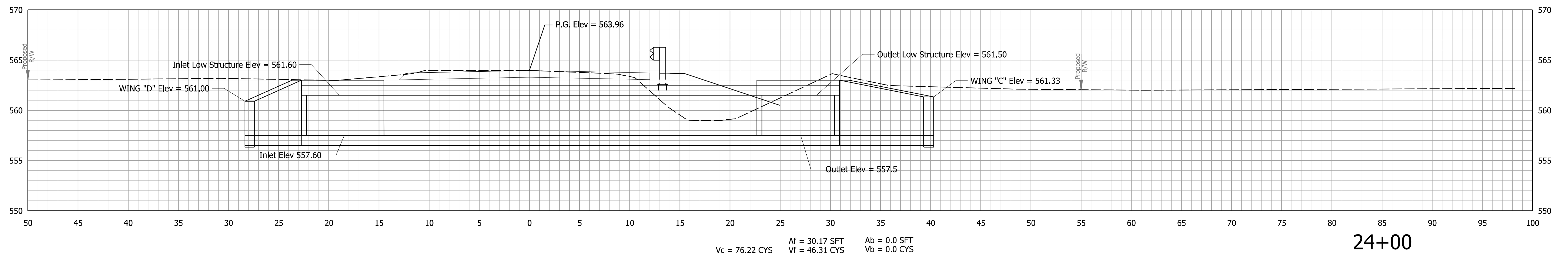
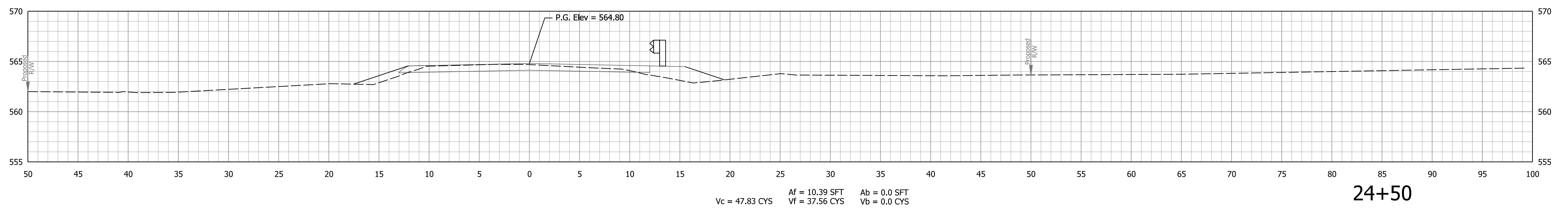
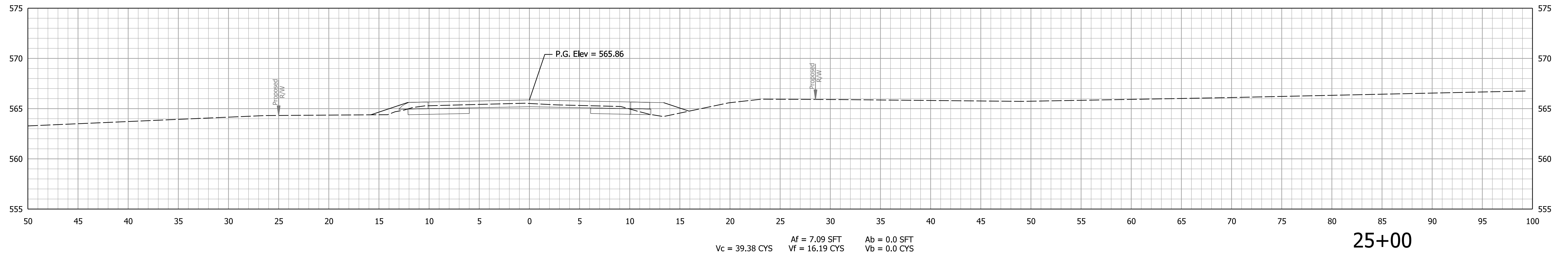
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: MRS _____	DRAWN: MRS _____	
CHECKED: JPT _____	CHECKED: JPT _____	

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS
Line "B"**

SCALE 1"=10'	BRIDGE FILE 039-036-10549
	DESIGNATION 1602277
	SHEETS 11 of 13
CONTRACT B-40488	PROJECT

STA. 22+50 TO STA. 23+50



Plot: 4/20/2020 2:23 PM

File: pw:\dotwise.indot.in.gov\DOT\wise\Documents\Seymour\1602277\Design\InRoads\Cross Sections\Cross Sections 3D Model:Line B

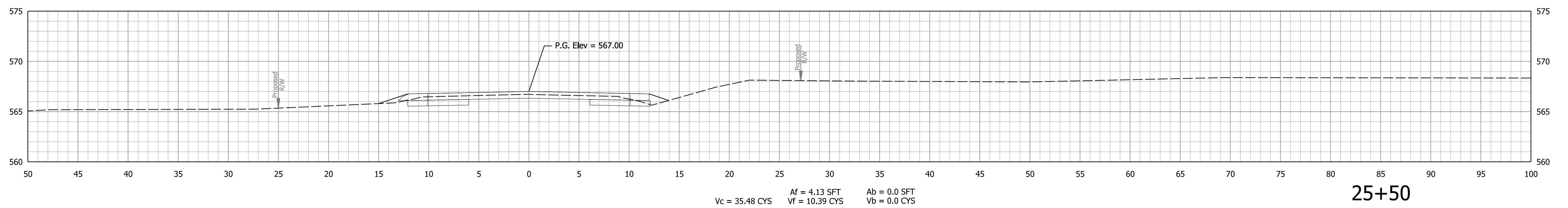
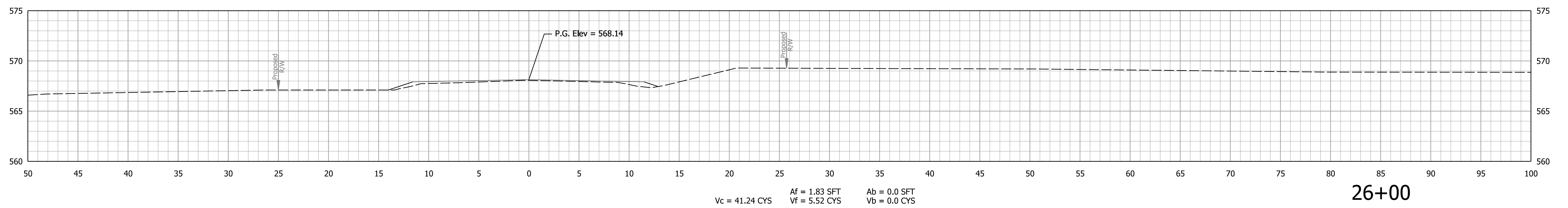
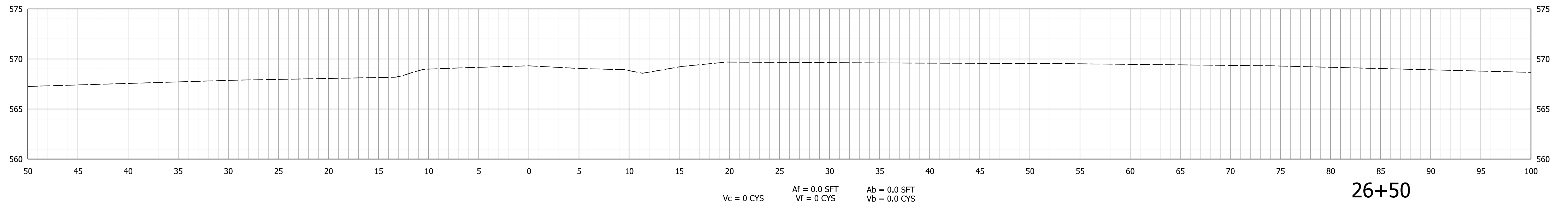
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: MRS _____	DRAWN: MRS _____	
CHECKED: JPT _____	CHECKED: JPT _____	

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
Line "B"

SCALE 1"=10'	BRIDGE FILE 039-036-10549
	DESIGNATION 1602277
	SHEETS 12 of 13
CONTRACT B-40488	PROJECT

STA. 24+00 TO STA. 25+00



Plot: 4/20/2020 2:23 PM

File: pw:\dotwise\indot.in.gov\DOT\wise\Documents\Seymour\1602277\Design\InRoads\Cross Sections\Cross Sections 3D Model:Line B

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: MRS _____	DRAWN: MRS _____	
CHECKED: JPT _____	CHECKED: JPT _____	

INDIANA
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
Line "B"

SCALE 1"=10'	BRIDGE FILE 039-036-10549
	DESIGNATION 1602277
	SHEETS 13 of 13
CONTRACT B-40488	PROJECT

STA. 25+50 TO STA. 26+50