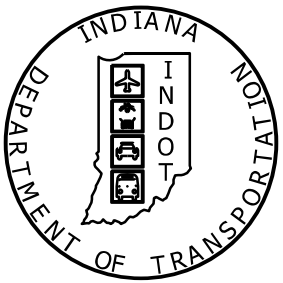


PROJECT	DESIGNATION
2101718	2101718
CONTRACT	BRIDGE FILE
B-44247	32-00136

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
HENDRICKS NO. 136	CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE	3 SPANS: 34'-0", 45'-0", 34'-0" SKEW: 20° LT.	EAST FORK OF MILL CREEK	100+00 "A"

INDIANA DEPARTMENT OF TRANSPORTATION



BRIDGE PLANS

FOR SPANS OVER 20 FEET

ROUTE: C.R. 550 W.

PROJECT NO. 2101718 P.E.

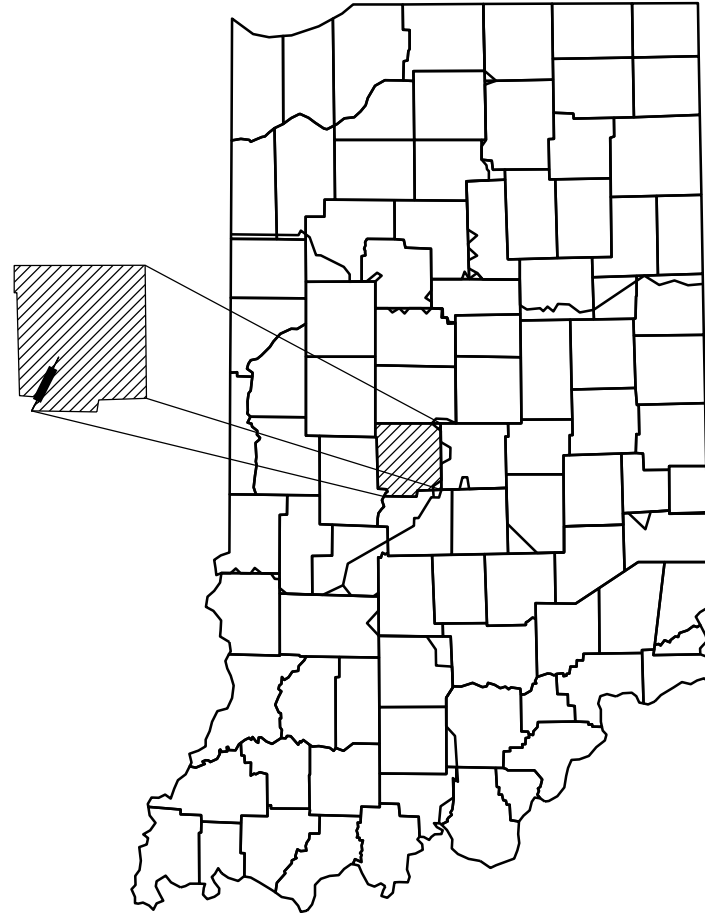
2101718 R/W

2101718 CONST.

Bridge Replacement on C.R. 550 W. over East Fork of Mill Creek
Located 0.40 Miles North of U.S. 40
Section 15, T-14-N, R-2-W, Franklin Township, Hendricks County

TRAFFIC DATA		
A.A.D.T.	(2026)	454 V.P.D.
A.A.D.T.	(2046)	749 V.P.D.
D.H.V	(2046)	90 V.P.H.
DIRECTIONAL DISTRIBUTION		50 %
TRUCKS		5 % A.A.D.T.
		12 % D.H.V.

DESIGN DATA	
DESIGN SPEED	50 MPH
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MINOR COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE



PROJECT LOCATION SHOWN BY

LATITUDE: 39° 38' 43.2" N LONGITUDE: 86° 37' 35.1" W

BRIDGE LENGTH:	0.022	MI.
ROADWAY LENGTH:	0.038	MI.
TOTAL LENGTH:	0.060	MI.
MAX. GRADE:	2.25%	%

HUC: 051202060040

Plans Prepared By:



9102 North Meridian Street, Suite 200, Indianapolis, IN 46260
Phone: (317) 566-0629

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

HENDRICKS COUNTY BOARD OF COMMISSIONERS

APPROVED BY DATE _____

PHYLLIS A. PALMER, PRESIDENT

BOB GENTRY, VICE PRESIDENT

DENNIS W. DAWES, MEMBER

RECOMMEND FOR APPROVAL DATE _____

JOHN AYERS, P.E., COUNTY ENGINEER, ERC

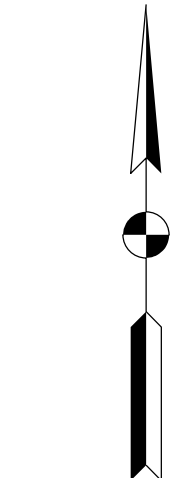
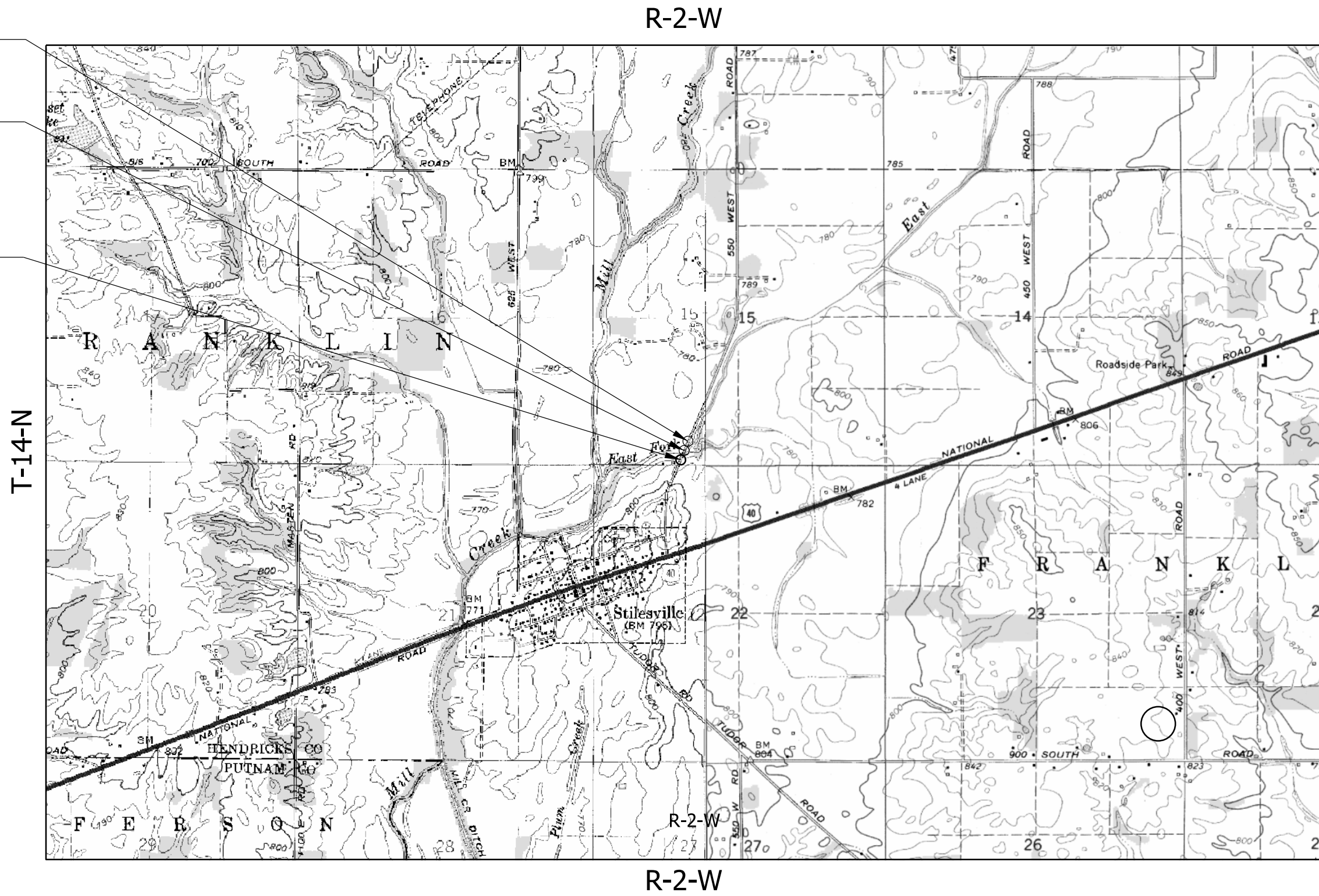
ATTESTED BY DATE _____

NANCY MARSH, AUDITOR

START PROJECT
Sta. 98+90 "A"

PROJECT LOCATION
STRUCTURE: 32-00136
OVER EAST FORK OF MILL CREEK
Sta. 100+00 "A"

END PROJECT
Sta. 101+10 "A"



SCALE: 1' = 2000'

HENDRICKS COUNTY

PLANS PREPARED BY:	SJCA, Inc.	(317) 566-0629 PHONE NUMBER
CERTIFIED BY:		DATE
RECOMMENDED FOR LETTING:	INDIANA DEPARTMENT OF TRANSPORTATION	DATE

BRIDGE FILE	
32-00136	
DESIGNATION	
2101718	
SHEETS	
SURVEY BOOK	1 of 19
ELECTRONIC	PROJECT
CONTRACT	2101718
B-44247	

Plot: 4/5/2024 2:02:31 PM

UTILITIES

Duke Energy
100 S. Mill Creek Road
Noblesville, IN 46062
765-820-8265
William Swift
William.swift@duke-energy.com

Communication Corp/TDS
30 N. Lasalle Street Suite 4000
Chicago, IL 60602
608-664-0640
Brian Keister
Brian.keister@tdstelecom.com

CableOne/New Wave Communications
500 1/2 Centercross
Edinburgh IN 46164
812-272-2348
George McCormack
George.McCormack@cableone.biz

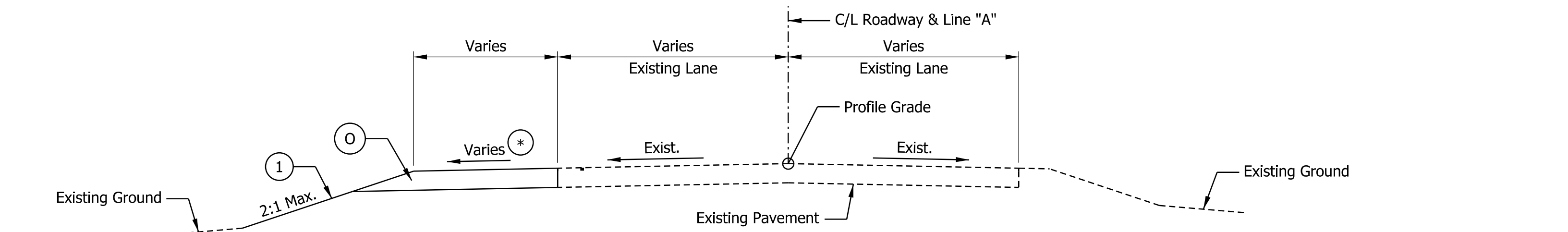


Know what's below.
Call before you dig.

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

REVISIONS		
SHEET NO.	DATE	REVISED

INDEX	
SHEET NO.	SUBJECT
1	TITLE
2	INDEX
3	TYPICAL SECTIONS
4	MAINTENANCE OF TRAFFIC
5	EROSION CONTROL
6	LAYOUT
7	GENERAL PLAN
8	SUMMARY OF QUANTITIES
9 - 19	CROSS SECTIONS - LINE "A"

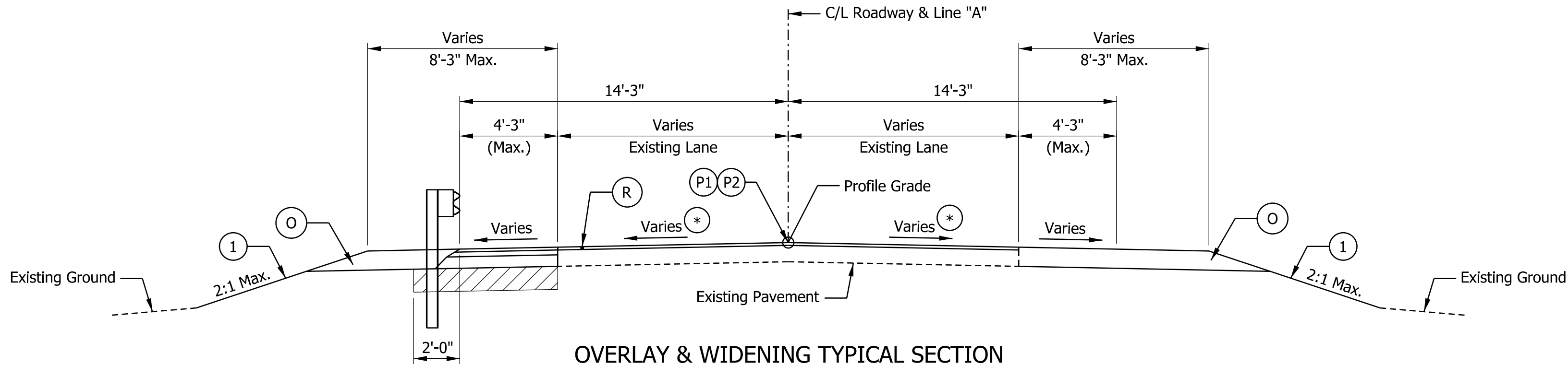


SHOULDER WIDENING TYPICAL SECTION

THIS SIDE SHOWN WITH SHOULDER IMPROVEMENTS

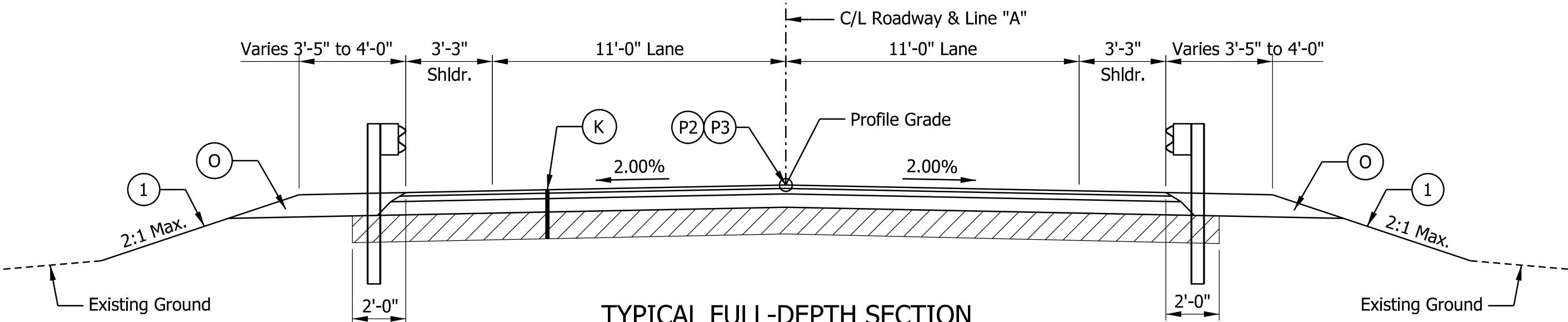
THIS SIDE SHOWN WITHOUT SHOULDER IMPROVEMENTS

Sta. 97+72.00 to Sta. 98+40.00 "A"
Sta. 101+60.00 to Sta. 102+75.00 "A"
Scale: 1/4" = 1'-0"



OVERLAY & WIDENING TYPICAL SECTION

Sta. 98+40.00 to Sta. 98+90.00 "A"
Sta. 101+10.00 to Sta. 101+60.00 "A"
Scale: 1/4" = 1'-0"



TYPICAL FULL-DEPTH SECTION

Sta. 98+90.00 to Sta. 99+17.02 "A"
Sta. 100+82.98 to Sta. 101+10.00 "A"
Scale: 1/4" = 1'-0"

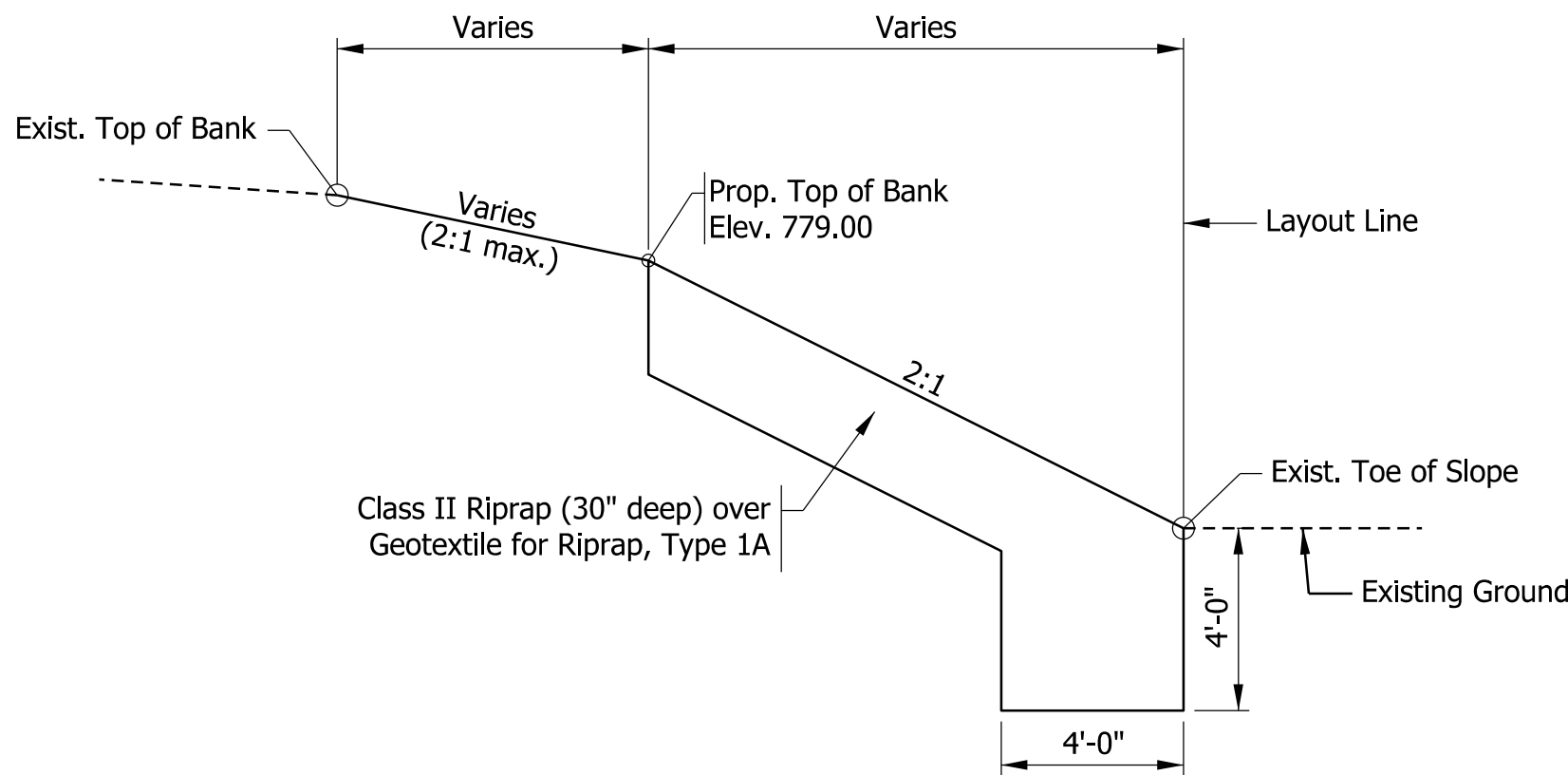
Paving Exception From
Sta. 99+17.02 "A" to
Sta. 100+82.98 "A"

NOTE TO REVIEWER

- Additional details will be provided at next submittal to detail the variations of the typical sections.
- The South Embankment Stabilization Detail and the North Channel Clearing Detail is preliminary. Additional details will be provided at next submittal.

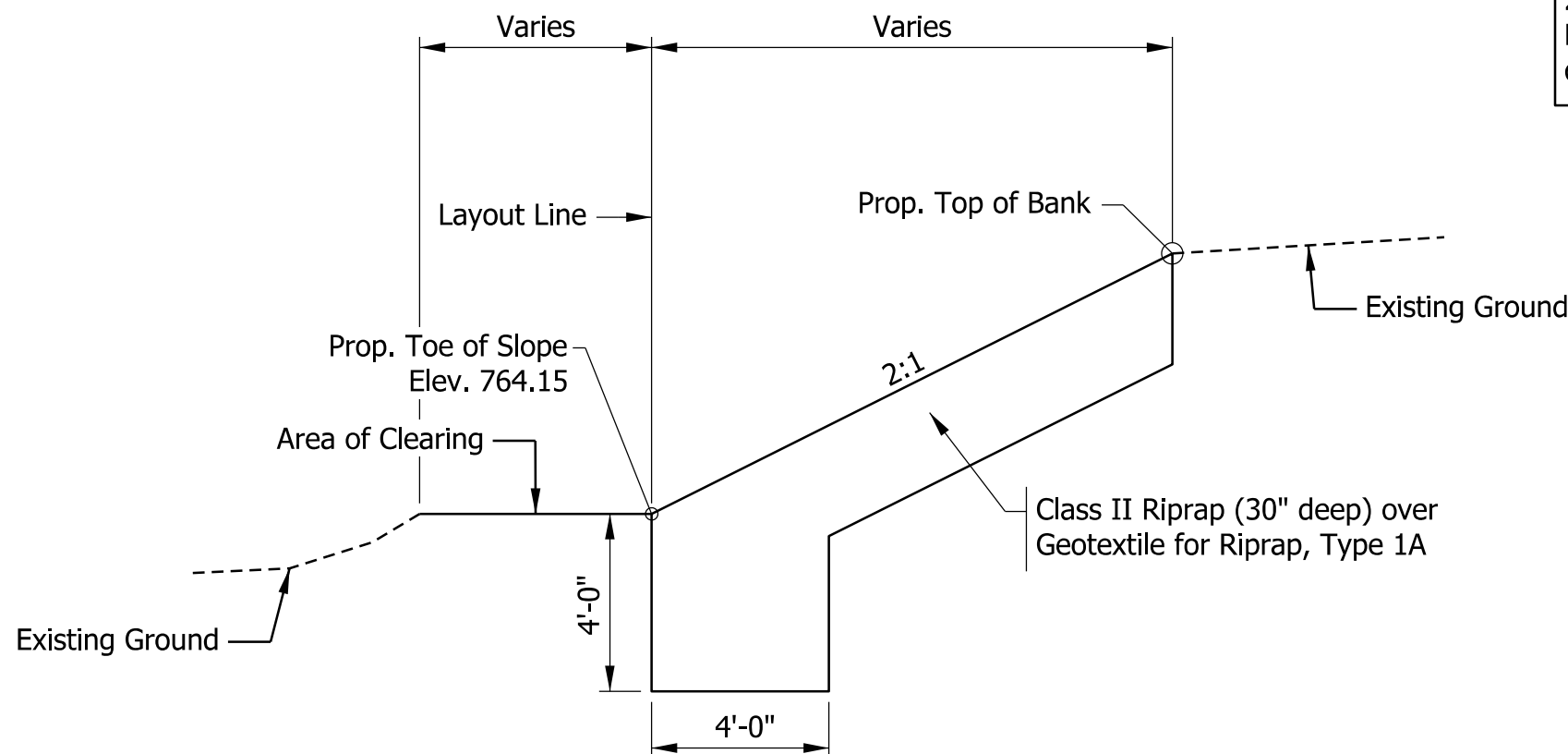
LEGEND

- * Varies from Existing to 2.00%
- 1 Slope Treatment: Mulched Seeding 'R' for Slopes 3:1 or flatter. Erosion Control Blankets for Slopes steeper than 3:1 (Unless Revetment Riprap Being Placed).
- K 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 64, Intermediate, 19.0 mm on 660 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm on Subgrade Treatment, Type IC
- R 165 lbs/syd QC/QA-HMA, 3, 64, Surface, 9.5mm on Transition Milling
- O Variable depth Compacted Aggregate, No. 53 (10" max.)
- P1 Joint Adhesive required for Surface layer at longitudinal joints
- P2 Liquid Asphalt Sealant required on Surface Layer over longitudinal joint, 24" width
- P3 Joint Adhesive required for Surface and Intermediate layers at longitudinal joints
- Subgrade Treatment, Type IC



SOUTH EMBANKMENT STABILIZATION DETAIL

Scale: 1/4" = 1'-0"



NORTH CHANNEL CLEARING DETAIL

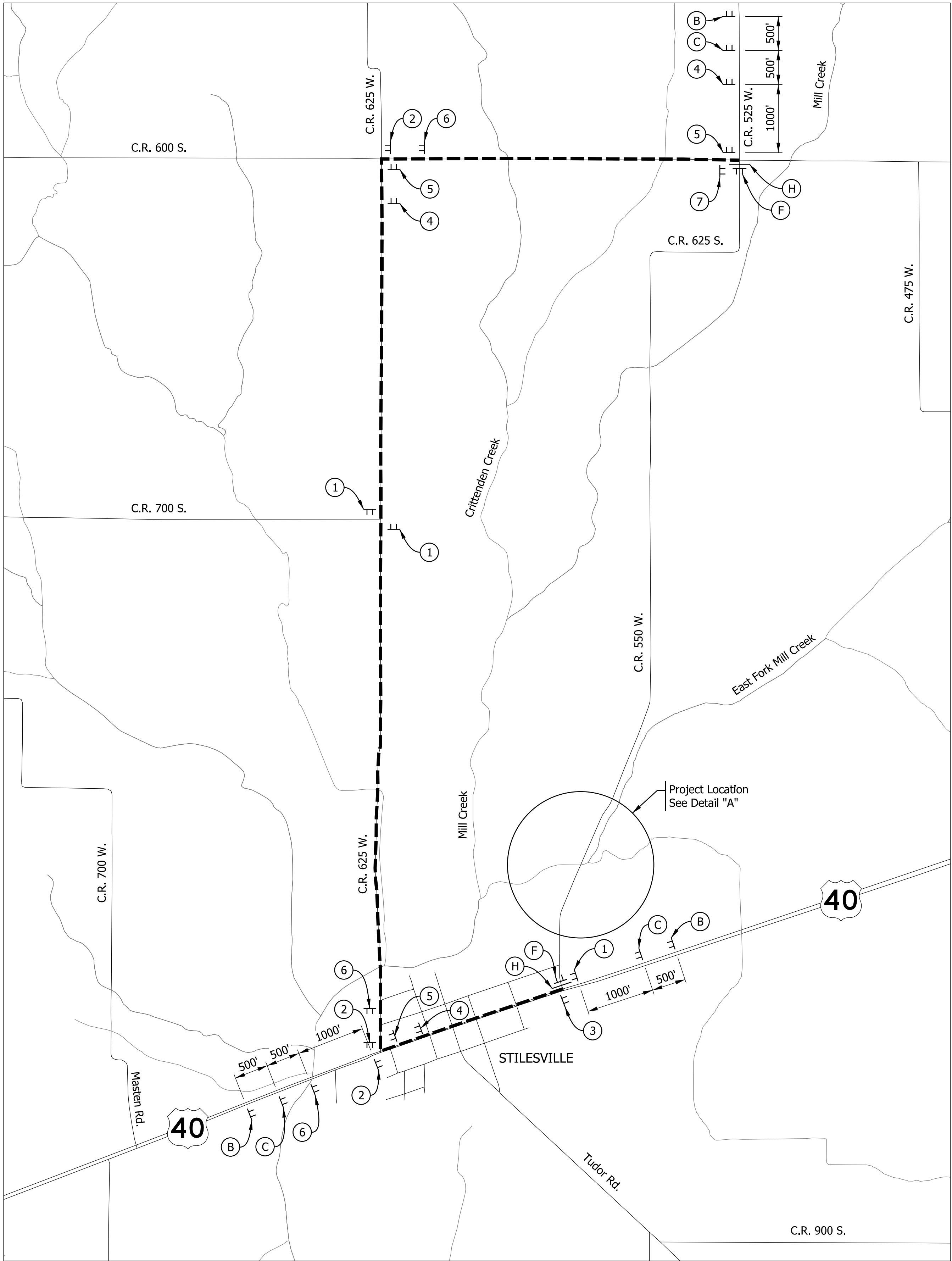
Scale: 1/4" = 1'-0"

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: PFC/KCH	DRAWN: PFC/KCH	
CHECKED: PFC	CHECKED: MJM	

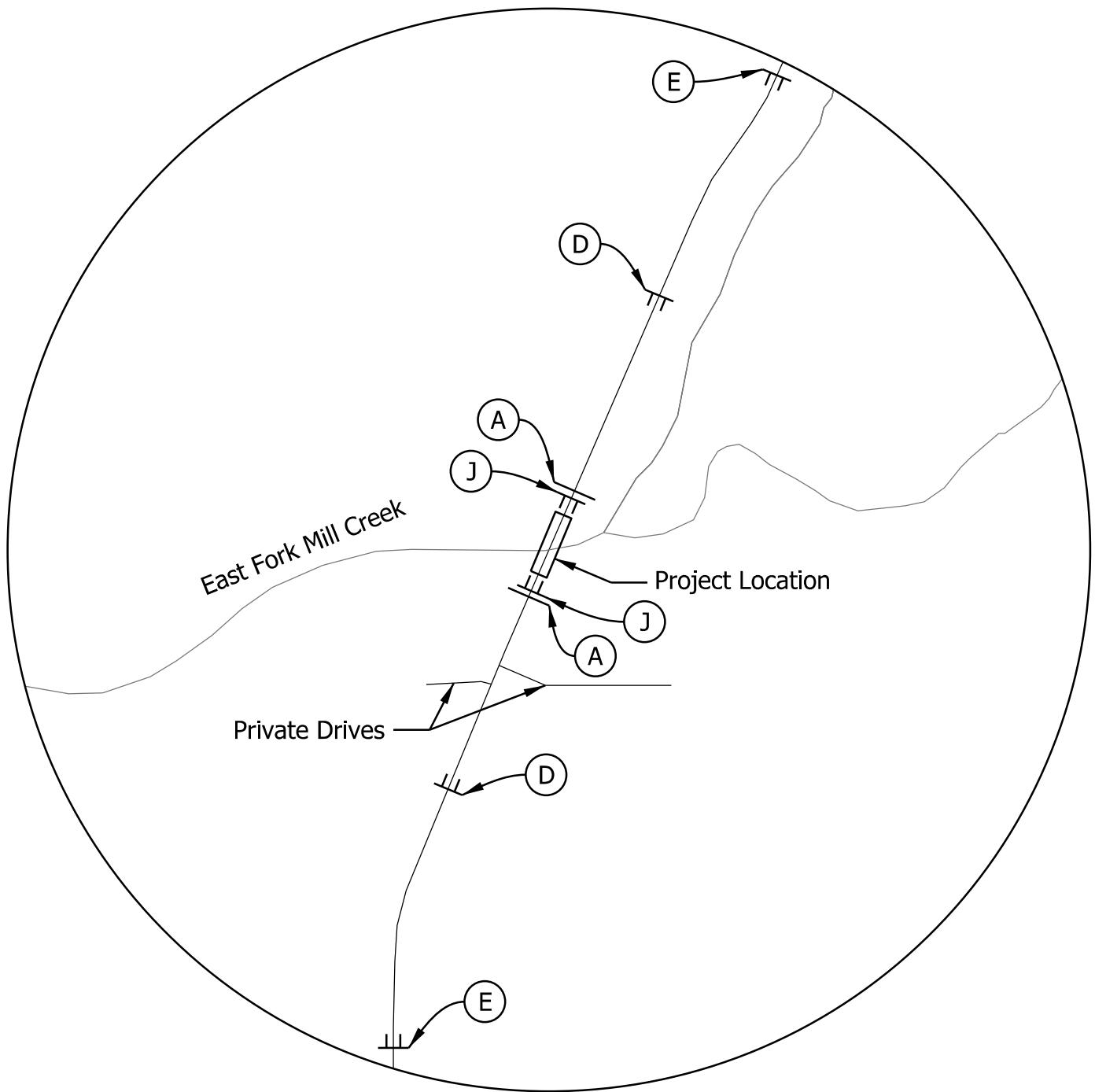
INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	32-00136
VERTICAL SCALE	DESIGNATION
AS NOTED	2101718
SURVEY BOOK	SHEETS
ELECTRONIC	3 of 19
CONTRACT	PROJECT
B-44247	2101718



DETOUR PLAN
Scale: 1" = 1000'



DETAIL "A"
Scale: 1" = 300'

TWO ROAD CLOSURE
NOTICE SIGNS XG20-5
REQUIRED (ONE AT EACH END)
PLACED AT SITE A MINIMUM
OF 14 DAYS PRIOR TO ROAD CLOSURE

DETOUR ROUTE MARKER ASSEMBLY LEGEND

DETOUR NORTH/SOUTH	XM4-8 M3-1 or M3-3	DETOUR NORTH/SOUTH	XM4-8 M3-1 or M3-3	END DETOUR	XM4-8a
C.R. 550 W.	M1-6	C.R. 550 W.	M1-6	C.R. 550 W.	M1-6

↑	M6-3	←	M6-1
---	------	---	------

XRMA-1 ① XRMA-2 ② XRMA-3 ③

DETOUR NORTH/SOUTH	XM4-8 M3-1 or M3-3	DETOUR NORTH/SOUTH	XM4-8 M3-1 or M3-3	DETOUR NORTH/SOUTH	XM4-8 M3-1 or M3-3
C.R. 550 W.	M1-6	C.R. 550 W.	M1-6	C.R. 550 W.	M1-6

↗	M5-1(R)	→	M6-1	↖	M5-1(L)
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XRMA-4 ④ XRMA-5 ⑤ XRMA-6 ⑥

END DETOUR	XM4-8a	NOTES: DETOUR ROUTE MARKER ASSEMBLIES SHALL BE IN ACCORDANCE WITH STANDARD DRAWING 801-TCDT-04.
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C.R. 550 W.	M1-6	TYPE B CONSTRUCTION WARNING LIGHTS SHALL BE USED WITH ALL SIGNS LOCATED ON BARRICADES.
-------------	------	---

↖	M5-1(L)	TYPE A CONSTRUCTION WARNING LIGHTS SHALL BE USED ON ALL OTHER CONSTRUCTION SIGNS.
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XRMA-7 ⑦

LEGEND

- (A) TYPE III-A BARRICADES - 24 LFT REQUIRED
- (B) "ROAD CLOSED AHEAD" - XW20-3
- (C) "DETOUR AHEAD" - XW20-2
- (D) "ROAD CLOSED 500 FT." - XW20-3
- (E) "ROAD CLOSED 1000 FT." - XW20-3
- (F) ROAD CLOSURE SIGN ASSEMBLY WITH
"ROAD CLOSED X MILES AHEAD LOCAL TRAFFIC ONLY" - R11-3
- (H) TYPE III-B BARRICADES STAGGERED - 24 LFT REQUIRED
(Place Barricades on the side of the road to not impact traffic where near US40)
- (J) ROAD CLOSURE SIGN ASSEMBLY WITH "ROAD CLOSED" - R11-2
- TT SIGN ASSEMBLY
- DETOUR ROUTE
- NOTE: ACCESS TO PROPERTY OWNERS SHALL BE PROVIDED
DURING CONSTRUCTION.

ESTIMATED QUANTITIES

DESCRIPTION	UNIT	TOTAL
CONSTRUCTION SIGN, A	EACH	12
DETOUR ROUTE MARKER ASSEMBLY	EACH	17
ROAD CLOSURE SIGN ASSEMBLY	EACH	4
TYPE III-A BARRICADES	LFT	48
TYPE III-B BARRICADES	LFT	48

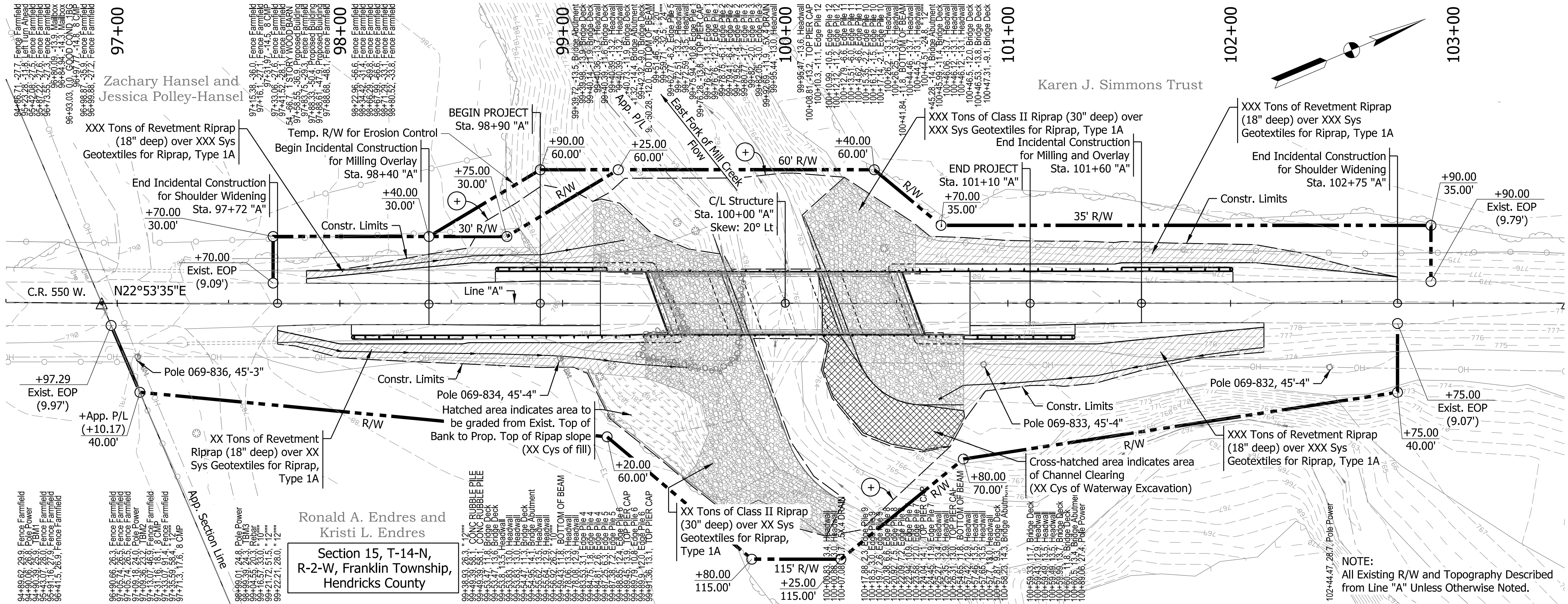
RECOMMENDED
FOR APPROVAL _____
DESIGN ENGINEER DATE

DESIGNED: _____ PFC DRAWN: _____ PFC
CHECKED: _____ MJM CHECKED: _____ MJM

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
DETOUR ROUTE

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	32-00136
VERTICAL SCALE	DESIGNATION
N/A	2101718
SURVEY BOOK	SHEETS
ELECTRONIC	4 of 19
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UTILITIES
See Index Sheet For Information

EXISTING STRUCTURE

Existing Structure is a Reinforced Concrete Girder Bridge with 3 Spans at 32'-0" with 30° Skew Lt. (To Be Removed)

HYDRAULIC DATA

Drainage Area	20.80 sq. miles
Design Discharge (Q100)	5020.00 cfs
Natural Q100 Elevation	774.93 ft
Backwater @ Q100	2.93 ft
Avg. Velocity @ Q100	6.02 ft
Headwater Elevation @ Q100	777.86 ft/sec.
Roadway Serviceability @Q100	N/A ft
Waterway Opening Provided Below Q100 (Structure)	667.47 sq. ft
Outlet Flowline Elevation	760.02 sq. ft
Minimum Low Structure Elevation	779.98 ft
Skew	20° Skew
Existing Waterway Opening (Below Q100)	635.70 sq. ft
Existing Waterway Opening over Road @ Q100	0.00 sq. ft
Existing Low Structure Elevation	778.07 ft
Existing Backwater @ Q100	3.33 ft
Existing Velocity @ Q100	6.24 ft/sec
Existing Headwater @ Q100	778.26 ft

SCOUR DATA

Contraction Scour Depth (Q100)	24.53 ft
Total Scour Depth (Q100)	29.45 ft
Low Scour Elevation	730.57 ft

NOTE:
All Existing R/W and Topography Described from Line "A" Unless Otherwise Noted.

EARTHWORK SUMMARY

Fill +25%	x - CYS
Common Excavation	x - CYS
Usable Waterway Excavation (70%)	x - CYS
Surplus Foundation Excavation (70%)	x - CYS
Borrow	x - CYS

Total Waterway Excavation	x - CYS
Excavation Unclassified	x - CYS
Benching (Estimated)	x - CYS

NOTE: No direct payment will be made for Benching. Benching will not be included in the quantity of common excavation.

LEGEND

⊕ Construction Limits for Temporary Erosion Control

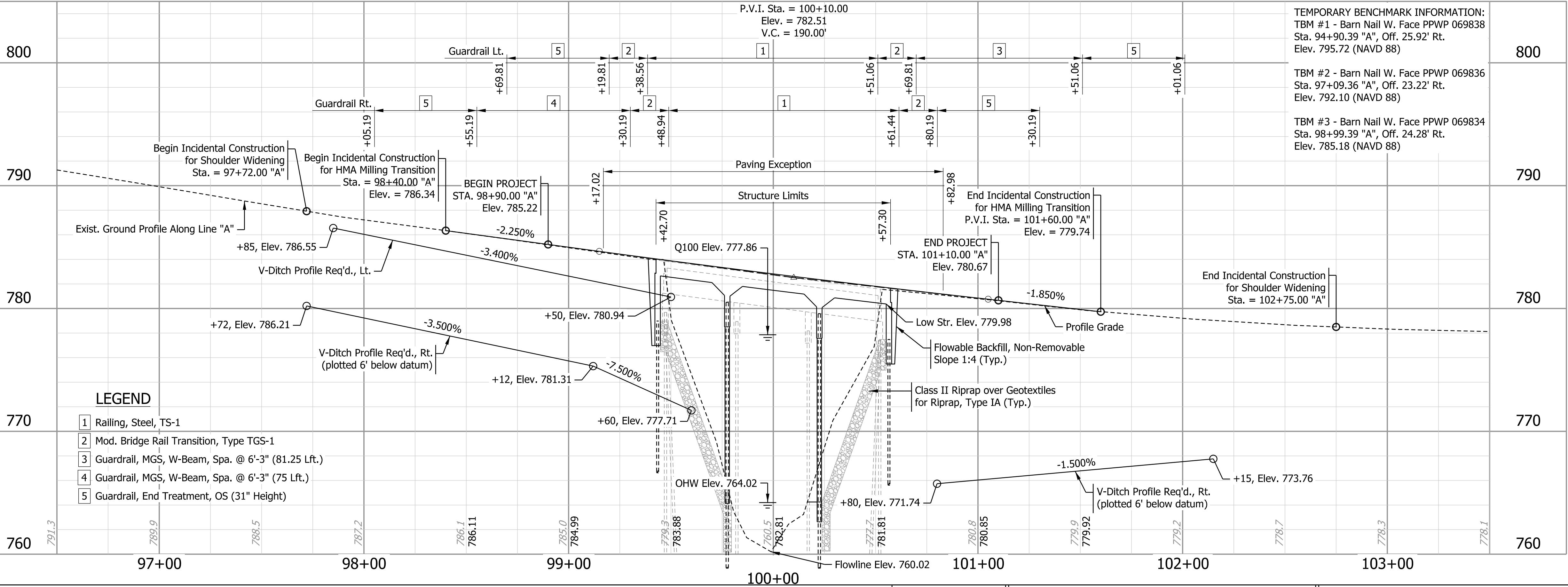
Area of Class II Riprap (30" Deep) on Geotextile for Riprap, Type IA

Area of Revetment Riprap (18" Deep) on Geotextile for Riprap, Type IA

Area of Channel Clearing (See Detail on Typical Section Sheet)

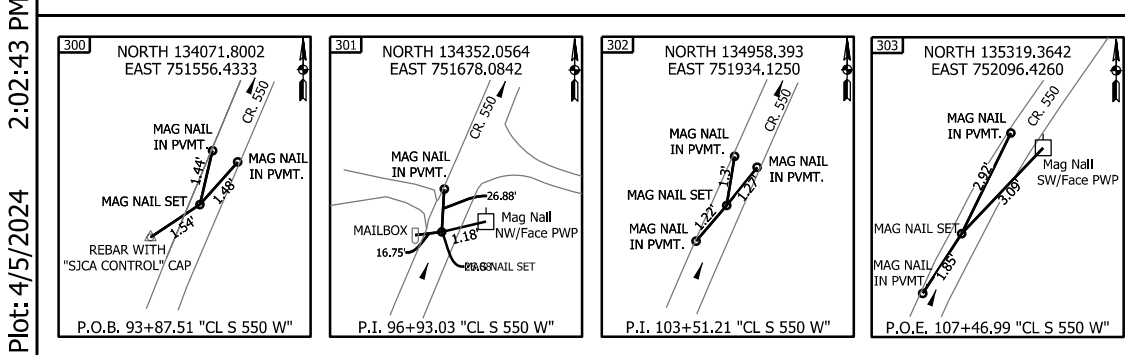
Area of to be Graded from Exist. Top of Bank to Prop. Top of Riprap Slope

CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE
3 SPANS: 34'-0", 45'-0", 34'-0"
28'-0" CLEAR ROADWAY; 20° SKEW LT.
C.R. 550 W. OVER EAST FORK MILL CREEK
HENDRICKS COUNTY



LEGEND

- 1 Railing, Steel, TS-1
- 2 Mod. Bridge Rail Transition, Type TGS-1
- 3 Guardrail, MGS, W-Beam, Spa. @ 6'-3" (81.25 Lft.)
- 4 Guardrail, MGS, W-Beam, Spa. @ 6'-3" (75 Lft.)
- 5 Guardrail, End Treatment, OS (31" Height)



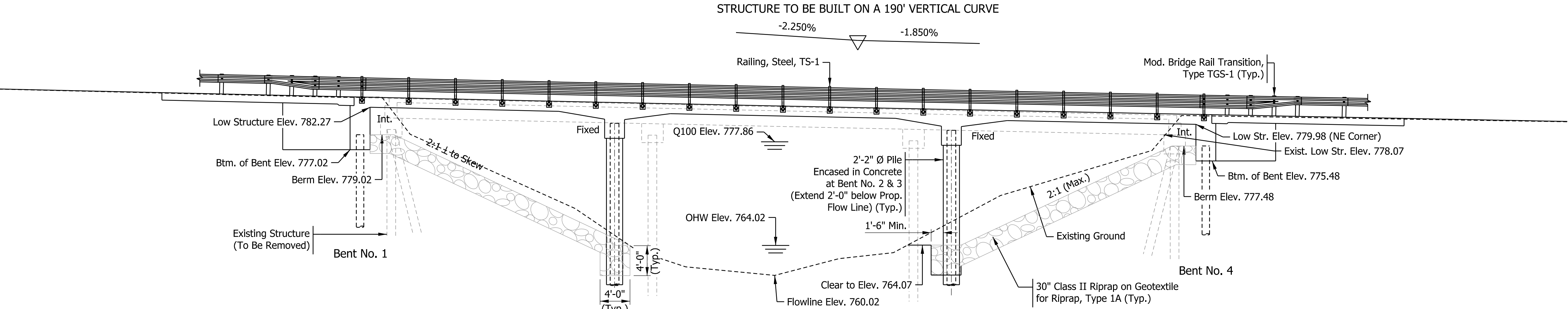
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Model: A - [Sheet]

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: PFC	DRAWN: PFC	
CHECKED: MJM	CHECKED: MJM	

INDIANA
DEPARTMENT OF TRANSPORTATION

LAYOUT

HORIZONTAL SCALE 1" = 30'	BRIDGE FILE 32-00136
VERTICAL SCALE 1" = 5'	DESIGNATION 2101718
SURVEY BOOK ELECTRONIC	SHEETS 6 of 19
CONTRACT B-44247	PROJECT 2101718



GENERAL NOTES

Reinforcing Steel Cover Shall be 2½" in Top, 1" Min. in Bottom of Slabs, and 2" in All Other Parts Unless Noted. All Reinforcing Steel Shall be Epoxy Coated.

DESIGN DATA

LIVE LOAD:
Designed for HL-93 Loading With Impact and Distribution in Accordance With the 2020 AASHTO LRFD Specifications, 9th Edition and Subsequent Interims.

DEAD LOAD:
Floor Slab designed with a 15.5" min. structural depth and a ½" Integral Wearing Surface.

Actual Weight Plus 35 Psf (Composite) for Future Wearing Surface.

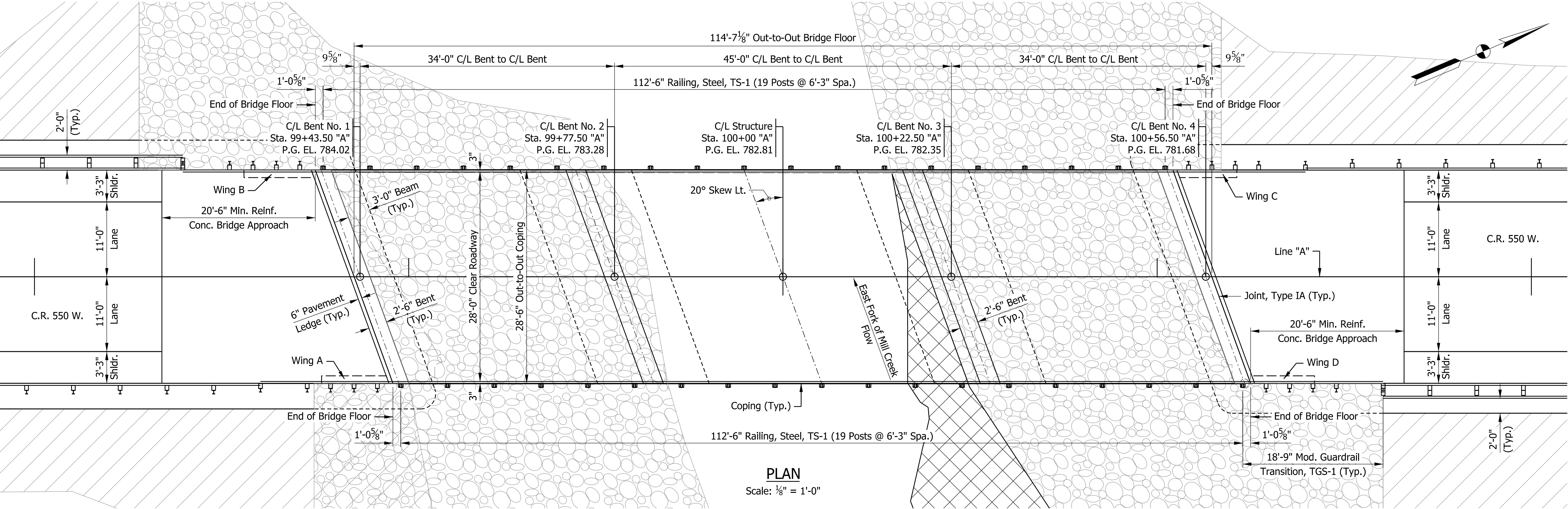
DESIGN STRENGTHS

Class "C" Concrete $f'_c = 4,000$ PSI

Reinforcing Steel $f_y = 60,000$ PSI

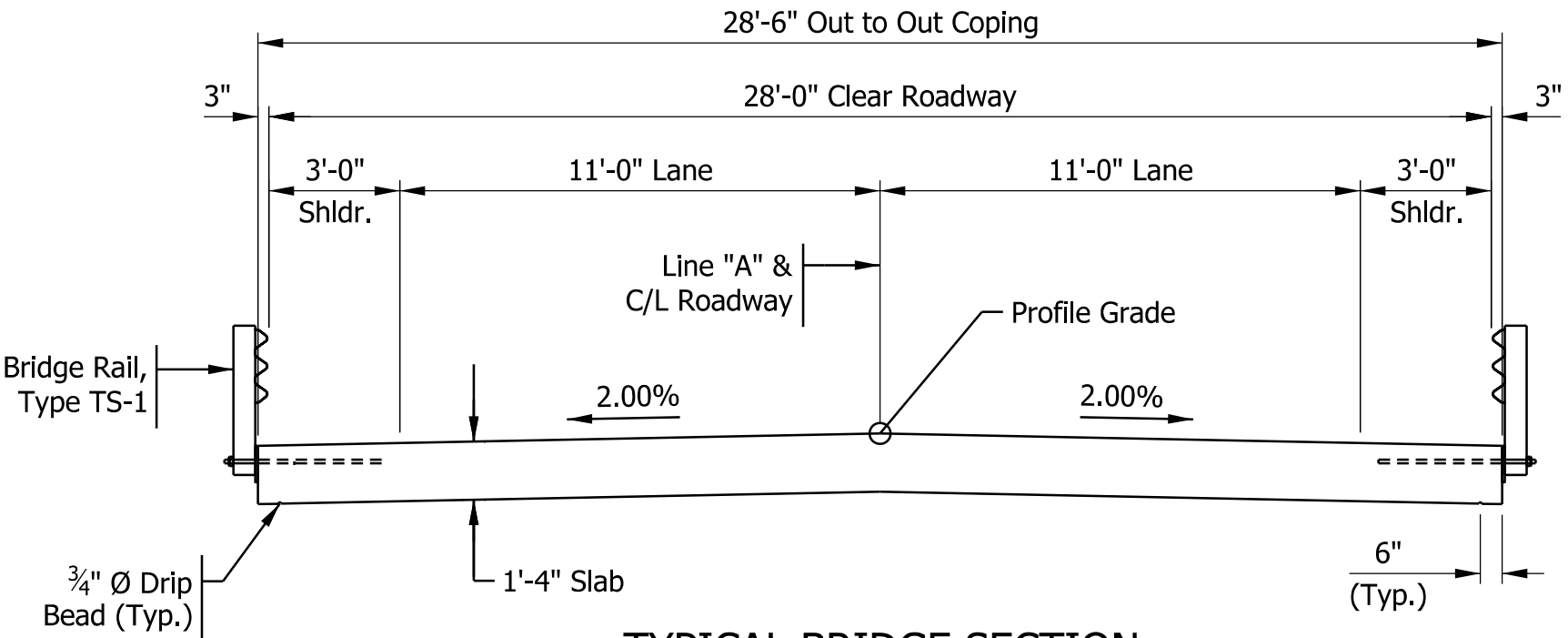
SEISMIC DESIGN DATA

Seismic Performance Zone Zone x
Acceleration Coefficient x.xxx
Seismic Soil Profile Type Class x



LEGEND

- Class II Riprap
- Revetment Riprap
- Channel Clearing/Grading



CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE
3 SPANS: 34'-0", 45'-0", 34'-0"
28'-0" CLEAR ROADWAY; 20° SKEW LT.
C.R. 550 W. OVER EAST FORK MILL CREEK
HENDRICKS COUNTY

Plot: 4/5/2024 2:02:46 PM

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Model: GP Sheet 1

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
DESIGNED: PFC		DRAWN: PFC			
CHECKED: MJM		CHECKED: MJM			

INDIANA DEPARTMENT OF TRANSPORTATION	
GENERAL PLAN	

HORIZONTAL SCALE	BRIDGE FILE	
AS NOTED	32-00136	
VERTICAL SCALE	DESIGNATION	
AS NOTED	2101718	
SURVEY BOOK	SHEETS	
ELECTRONIC	7	of 19
CONTRACT	PROJECT	
B-44247	2101718	