

PLAN
4 0 8 16 FEET

PROPOSED BORING LOCATIONS			
BORING NO	STATION	OFFSET	ELEVATION
SB-01	503+13	16' RT	TBD
SB-02	503+13	16' LT	TBD
SB-03 *	504+90	16' RT	TBD
SB-04 *	505+11	15' LT	TBD
SB-05	506+94	16' RT	TBD
SB-06	506+94	16' LT	TBD
SB-07	504+65	6' LT	TBD

* TO BE DRILLED DURING CONSTRUCTION

WINGWALL LENGTHS	
WING	LENGTH
A	12.00'
B	14.00'
C	10.00'
D	10.00'

HYDRAULIC DATA
DRAINAGE AREA = 33.8 SQ MI
DESIGN STORM
MAGNITUDE = 4323 CFS
FREQUENCY = 25 YEARS
WATER SURFACE EL = 692.76
VELOCITY = 5.80 FPS
100 YEAR FLOOD
MAGNITUDE = 5910 CFS
WATER SURFACE EL = 694.25
VELOCITY = 6.33 FPS

HORIZONTAL CURVE DATA
SR 0020
PI STA 501+97.48
Δ = 05°18'38" LT
D = 02°00'00"
T = 132.86'
L = 265.53'
R = 2864.81'
E = 3.08'
SE = 3.00% (SEE BRIDGE SUPER ELEVATION TRANSITION, SHEET 6)

VERTICAL CURVE DATA
SR 0020
-0.61% +1.11%
PVI STA 502+68.77
ELEV 762.79
VC = 111'
MO = 0.24'
HLSD = INF

- NOTES:
- FOR ELEVATION AND RATINGS, SEE SHEET 2.
 - FOR INDEX OF DRAWINGS, SEE SHEET 3.
 - FOR GENERAL NOTES, SEE SHEETS 3 AND 4.

Mark	Description	By	Chk'd	Recm'd.	Date
REVISIONS					

SR 0020 PREVIOUSLY KNOWN AS LR 87
BMS: 25-0020-1000-0726 MPMS:613 BRKEY: 70393

LEGEND:

- ROADWAY ITEM
- TRAFFIC DIRECTION
- SB-XX PROPOSED BORING
- POINT OF MINIMUM VERTICAL UNDERCLEAR
- LEFT SHOULDER VARIES: 8.15' TO 8.25'
RIGHT SHOULDER VARIES: 8.39' TO 8.25'
- EXISTING STREAM LINE
- EXISTING WELANDS
- 760 EXISTING CONTOURS
760 PROPOSED CONTOURS
- FOU EXISTING FIBER OPTIC LINE
- G (QLD) EXISTING GAS LINE
- E/T/CTV EXISTING ELECTRIC/TELEPHONE/CABLE TV LINE
- EA EXISTING ELECTRIC LINE
- TA EXISTING TELEPHONE LINE
- FOU PROPOSED FIBER OPTIC LINE
- E/T/CTV PROPOSED ELECTRIC/TELEPHONE/CABLE TV LINE

PREPARED BY:

WRA
Whitman, Requardt & Associates, LLP
2009 Mackenzie Way, Suite 240, Cranberry Township, Pennsylvania 16066

SIGNATURE _____
DATE _____

PERMANENT METAL DECK FORMS	BC-732M	NOV 23, 2022
ANCHOR SYSTEMS	BC-734M	FEB 19, 2021
WALL CONSTRUCTION & EXPANSION JOINT DETAILS	BC-735M	SEPT 30, 2016
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	NOV 23, 2022
BRIDGE DRAINAGE	BC-751M	JAN 31, 2019
CONCRETE DECK SLAB DETAILS	BC-752M	NOV 23, 2022
STEEL GIRDER DETAILS	BC-753M	JAN 31, 2019
STEEL DIAPHRAGMS FOR STEEL BEAM/GIRDER STRUCTURES	BC-754M	NOV 23, 2022
BEARINGS	BC-755M	JAN 31, 2019
NEOPRENE STRIP SEAL DAM FOR P/S CONC & STEEL I BEAM BRIDGES	BC-767M	NOV 23, 2022
TYPICAL WATERPROOFING AND EXPANSION DETAILS	BC-788M	NOV 23, 2022
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	JUNE 1, 2010
BACKFILL AT STRUCTURES	RC-12M	NOV 1, 2022
GUIDE RAIL TO BRIDGE BARRIER TRANSITION	RC-50M	FEB 27, 2023

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION**

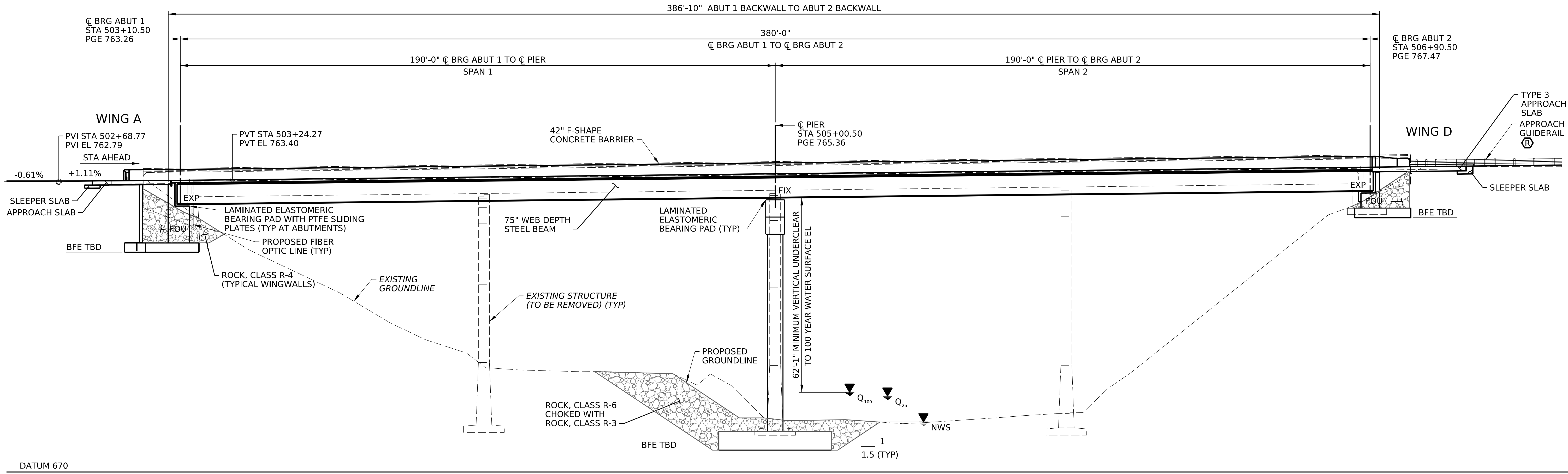
ERIE COUNTY

**SR 0020, SECTION B15
SEGMENT 1000, OFFSET 529
SR 0020-B15 (E. MAIN ST) STA 505+00.50
OVER TWENTY MILE CREEK
BRIDGE REPLACEMENT
GENERAL PLAN**

RECOMMENDED _____	SHEET _____ OF _____
DISTRICT BRIDGE ENGINEER	+ SUPPLEMENTAL DRAWINGS
	S - 41968

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OPERATOR: \$\$USERNAME\$\$
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- NOTES:
1. FOR GENERAL PLAN, SEE SHEET 1.
 2. FOR GENERAL NOTES, SEE SHEET 3 AND 4.
 3. FOR TYPICAL SECTION, SEE SHEET 6.

SUMMARY OF STRUCTURE RATINGS W/ FWS								
INVENTORY RATING (IR)	LIVE LOADS	H20	HS20	ML-80	TK-527	PHL-93	P-82	P2016-13
	DIST. FACTOR	0.800	0.800	0.800	0.800	0.800	0.800	-
DISTANCE (FT)	190.00	190.00	190.00	76.00	76.00	190.00	-	-
LIMIT STATE	STR-I	STR-I	SERV-II	SERV-II	STR-I	-	-	-
RATING FACTOR	1.73M	1.73M	2.34M	2.23M	1.28M	-	-	-
OPERATING RATING (OR)	DIST. FACTOR	0.800	0.800	0.800	0.800	0.800	0.800	0.800
DISTANCE (FT)	190.00	190.00	76.00	76.00	190.00	76.00	66.50	-
LIMIT STATE	STR-II	STR-II	SERV-IIA	SERV-IIA	STR-IA	SERV-IIB	SERV-IIB	-
RATING FACTOR	2.24M	2.24M	3.04M	2.90M	1.66M	1.48M	1.13	-

ADTT (2044) = 354
 CRITICAL COMPONENT:
 FASCIA BEAM (BEAM 5)

MAXIMUM FACTORED FLEXURAL RESISTANCE = 33355.10 K-FT (EXTERIOR BEAM)
 LOCATION = 147.0'

MAXIMUM FACTORED SHEAR RESISTANCE = 944.29 K (INTERIOR BEAM)
 LOCATION = 0.00'

SUMMARY OF STRUCTURE RATINGS W/O FWS								
INVENTORY RATING (IR)	LIVE LOADS	H20	HS20	ML-80	TK-527	PHL-93	P-82	P2016-13
	DIST. FACTOR	0.800	0.800	0.800	0.800	0.800	0.800	-
DISTANCE (FT)	190.00	190.00	190.00	76.00	76.00	190.00	-	-
LIMIT STATE	STR-I	STR-I	SERV-II	SERV-II	STR-I	-	-	-
RATING FACTOR	1.98M	1.98M	2.50M	2.39M	1.47M	-	-	-
OPERATING RATING (OR)	DIST. FACTOR	0.800	0.800	0.800	0.800	0.800	0.800	0.800
DISTANCE (FT)	190.00	190.00	76.00	76.00	190.00	76.00	66.50	-
LIMIT STATE	STR-II	STR-II	SERV-IIA	SERV-IIA	STR-IA	SERV-IIB	SERV-IIB	-
RATING FACTOR	2.57M	2.57M	3.25M	3.10M	1.90M	1.58M	1.21M	-

ADTT (2044) = 354
 CRITICAL COMPONENT:
 FASCIA BEAM (BEAM 5)

MAXIMUM FACTORED FLEXURAL RESISTANCE = 33355.10 K-FT (EXTERIOR BEAM)
 LOCATION = 147.00'

MAXIMUM FACTORED SHEAR RESISTANCE = 944.29 K (INTERIOR BEAM)
 LOCATION = 0.00'

- LEGEND:
- ROADWAY ITEM
 - EL 692.76
 - EL 694.25
 - NWS NORMAL WATER SURFACE EL = 686.00
 - "V" DENOTES SHEAR CONTROLS THE RATING FACTOR
 - "M" DENOTES MOMENT CONTROLS THE RATING FACTOR
 - "ML" DENOTES PENNSYLVANIA MAXIMUM LEGAL LOAD (ML-80)
 - P-82 DENOTES PENNSYLVANIA PERMIT LOAD
 - TK-527 DENOTES PENNSYLVANIA LEGAL LOAD CONFIGURATION
 - P2016-13 DENOTES PENNSYLVANIA PERMIT LOAD
 - FOU - PROPOSED FIBER OPTIC LINE

Mark	Description	By	Chk'd	Recm'd.	Date
REVISIONS					

SR 0020 PREVIOUSLY KNOWN AS LR 87
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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

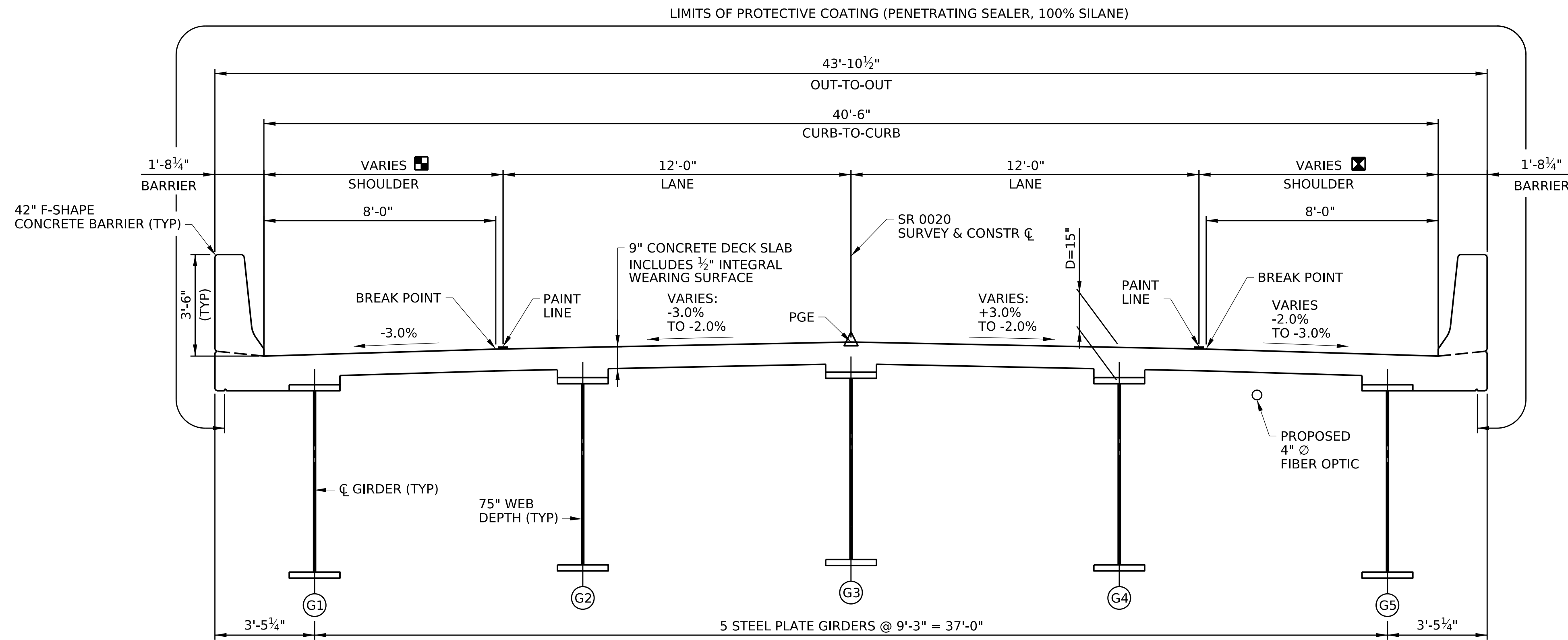
ERIE COUNTY
SR 0020, SECTION B15
SEGMENT 1000, OFFSET 529
SR 0020-B15 (E. MAIN ST) STA 505+00.50
OVER TWENTY MILE CREEK
BRIDGE REPLACEMENT
ELEVATION AND LOAD RATINGS

RECOMMENDED _____ SHEET _____ OF _____

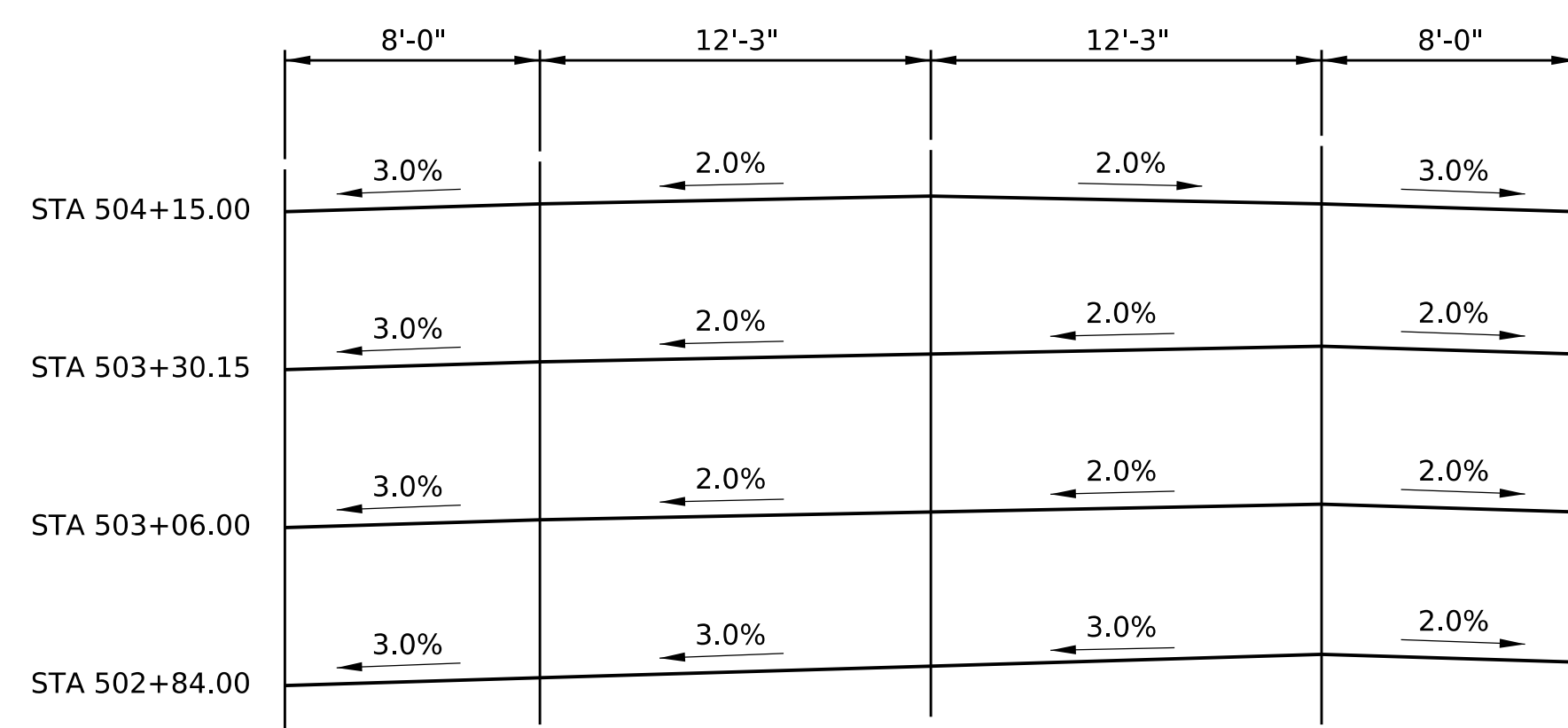
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TYPICAL SECTION



BRIDGE CROSS-SLOPE TRANSITIONS

NOT TO SCALE

LEGEND:

- ▣ LEFT SHOULDER VARIES: 8.15' TO 8.25'
- ▣ RIGHT SHOULDER VARIES: 8.39' TO 8.25'
- ⊗ GIRDER NUMBER

NOTES:

1. FOR GENERAL PLAN, SEE SHEET 1.
2. FOR ELEVATION AND LOAD RATINGS, SEE SHEET 2.
3. FOR FRAMING PLAN, SEE SHEET 28.
4. FOR GIRDER ELEVATION AND DETAILS, SEE SHEET 29.
5. FOR DECK PLANS, SEE SHEETS 35 AND 36.
6. FOR SUPERSTRUCTURE REINFORCEMENT BAR SCHEDULE, SEE SHEET 41.

Mark	Description	By	Chk'd	Recm'd.	Date
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ERIE COUNTY
 SR 0020, SECTION B15
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 OVER TWENTY MILE CREEK
 BRIDGE REPLACEMENT
 TYPICAL SECTION

RECOMMENDED _____

SHEET _____ OF _____

S - 41968