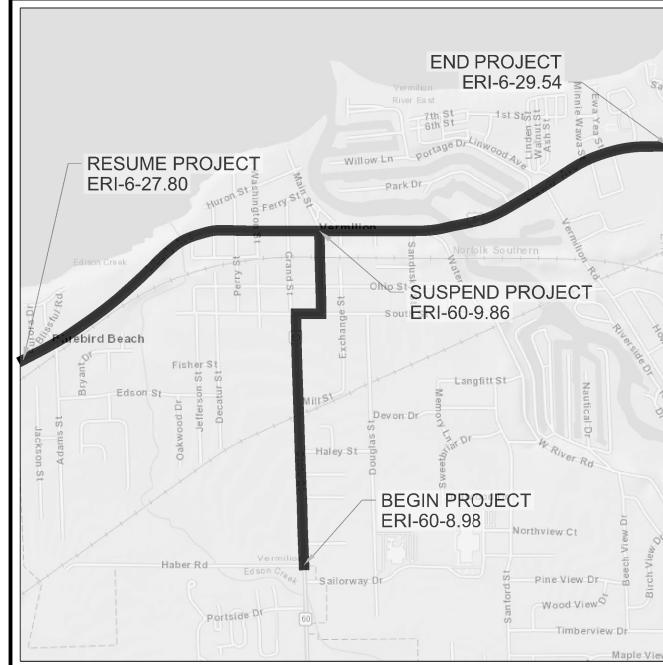


ERI - SR 60-08.98
210164 PID - 101445
Dist 3 3/11/2021

Contract Proposal available @
www.contracts.dot.state.oh.us



LOCATION MAP

LATITUDE: 41°25'19" LONGITUDE: 82°21'53"



PORTION TO BE IMPROVED

INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

SEE SHEET 2

DESIGN EXCEPTIONS

NONE

ADA DESIGN WAIVERS

NONE

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

**ERI-60-8.98
ERI-6-27.80**

**CITY OF VERMILION
ERIE COUNTY**

INDEX OF SHEETS:

TITLE SHEET	1
SCHEMATIC/DESIGN DESIGNATIONS	2
TYPICAL SECTIONS	3
GENERAL NOTES	4-6
MAINTENANCE OF TRAFFIC NOTES	7-8
GENERAL SUMMARY	9-10
PAVEMENT & SHOULDER DATA	11
CURB RAMP SUB-SUMMARY	12
CURB RAMP DETAILS	13-15
NOT USED	16-17
PAVEMENT MARKING SUB-SUMMARY	18
LOOP DETECTOR NOTES AND DETAILS	19
STRUCTURE ERI-6-28.93	20-28
MAINTENANCE OF TRAFFIC DETOUR PLAN	29

FEDERAL PROJECT NUMBER

E170630

RAILROAD INVOLVEMENT

NORFOLK SOUTHERN

PROJECT DESCRIPTION

THIS PROJECT WILL INCLUDE PAVEMENT REPAIRS, PAVEMENT PLANING, RESURFACING WITH ASPHALT CONCRETE, CURB RAMP REPAIRS, STRUCTURE REHABILITATION AND PAVEMENT MARKINGS.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: N/A*
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A*
NOTICE OF INTENT EARTH DISTURBED AREA: N/A*
*(MAINTENANCE PROJECT)

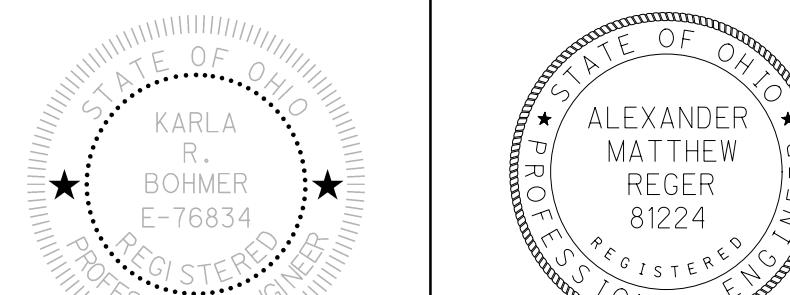
2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.



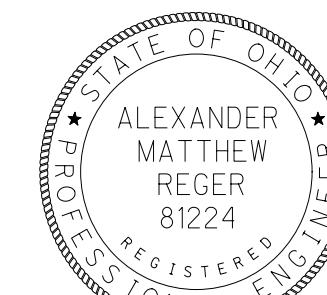
ENGINEER'S SEAL:

FOR OVERALL PLAN,
EXCEPT AS NOTED



ENGINEER'S SEAL:

STRUCTURE
ERI-6-28.93



ERI-60-8.98/ERI-6-27.80

CONFORMED SET

STANDARD CONSTRUCTION DRAWINGS

							SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
BP-2.1	7/17/15	MT-95.30	7/19/19	TC-41.20	10/18/13		800	1/15/21
BP-3.1	1/17/20	MT-95.31	7/19/19	TC-42.20	10/18/13		821	4/20/12
BP-4.1	7/19/13	MT-95.32	4/19/19	TC-52.10	10/18/13		830	7/19/19
BP-7.1	7/17/20	MT-95.50	7/21/17	TC-52.20	7/20/18		832	10/19/18
DM-4.3	1/15/16	MT-97.12	1/20/17	TC-82.10	1/19/18			
DM-4.4	1/15/16	MT-99.20	4/19/19					
		MT-101.90	7/17/20					
RM-1.1	7/18/14	MT-105.10	1/17/20					
		MT-101.60	1/17/20					
		MT-110.10	7/19/13					

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY, EXCEPT AS NOTED ON SHEET 29, AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED 
DATE 12/14/20 DISTRICT DEPUTY DIRECTOR
DESIGNER JLL
REVIEWER KRB 12-11-20
PROJECT ID 101445

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF
TRANSPORTATION
SHEET TOTAL
1 29

TITLE SHEET

ITEM 442 – ASPHALT CONCRETE SURFACE COURSE, 9.5MM, TYPE A (446), AS PER PLAN

ALL OPEN TRANSVERSE JOINTS SHALL BE TAPERED TO MEET EXISTING PAVEMENT BEFORE INTRODUCING TRAFFIC. A "BUMP" SIGN (W8-1-36) SHALL BE ERECTED ON EACH SIDE OF TRANSVERSE JOINTS LEFT OPEN OVER NIGHT, INCLUDING A SPEED ADVISORY SIGN. THESE SIGNS SHALL BE REMOVED IMMEDIATELY AFTER JOINT HAS BEEN CLOSED. PLACEMENT OF SIGNS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

CARE SHALL BE TAKEN TO MATCH EXISTING PAVEMENT ELEVATIONS AT EXISTING PAVED BERMS, DRIVES, INTERSECTIONS, ETC.

REQUIREMENTS OF 442 APPLY EXCEPT AS FOLLOWS:

MIX DESIGN: FOR Ndes USE 50 GYRATIONS, FOR Nmax USE 75 GYRATIONS. CHOOSE OPTIMUM BINDER CONTENT AT DESIGN AIR VOIDS OF 3.5%.

MINIMUM TOTAL PG BINDER CONTENT IS 6.3 PERCENT.

MINIMUM VIRGIN PG BINDER CONTENT IS 5.2 PERCENT.

USE A PG 64-22 BINDER.

WHEN AN AGGREGATE SOURCE IS SPECIALLY DESIGNATED WITH AN SR ON THE AGGREGATE GRAVITY LIST DO NOT USE THE AGGREGATE EXCEPT AS ALLOWED FOR MEDIUM TRAFFIC IN THE GUIDELINES FOR MAINTAINING ADEQUATE PAVEMENT FRICTION IN SURFACE PAVEMENT.

QUALITY CONTROL: DO NOT PERFORM Nmax IN QUALITY CONTROL TESTING. DO NOT TAKE EXTRA ASPHALT BINDER SAMPLES AS OUTLINED IN CMS 442.05.

ITEM 608 – CURB RAMP

EXISTING NON-ADA COMPLIANT CURB RAMPS ARE TO BE REMOVED AND REPLACED WITH THE SPECIFIED TYPE OF CURB RAMPS PER ODOT STANDARD CONSTRUCTION DRAWING BP-7.1. QUANTITIES HAVE BEEN PROVIDED ON SHEET 12.

ITEM 611 – CASTINGS ADJUSTED TO GRADE

THE CASTING TO BE ADJUSTED MAY OR MAY NOT HAVE AN EXISTING FRAME. THE WORK SHALL CONSIST OF ADJUSTING THE EXISTING CASTING TO THE SATISFACTION OF THE ENGINEER. IT IS NOT INTENDED TO PLACE NEW FRAMES WHERE NONE CURRENTLY EXIST. THE CONTRACTOR IS REMINDED TO FIELD CHECK ALL ADJUSTMENT TO GRADE ITEMS PRIOR TO BIDDING, AS NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR LABOR AND MATERIALS REQUIRED TO SATISFACTORILY ADJUST CASTINGS WITHOUT FRAMES.

01/NHS/PV: ERI-6-27.80 TO 29.54

ITEM 611 – CATCH BASIN ADJUSTED TO GRADE	12 EACH
ITEM 611 – MANHOLE ADJUSTED TO GRADE	20 EACH
ITEM 638 – VALVE BOX ADJUSTED TO GRADE	15 EACH

04/S<2/PV: ERI-60-8.98 TO 9.86

ITEM 611 – CATCH BASIN ADJUSTED TO GRADE	3 EACH
ITEM 611 – MANHOLE ADJUSTED TO GRADE	13 EACH
ITEM 638 – VALVE BOX ADJUSTED TO GRADE	7 EACH

ITEM 623 – MONUMENT BOX ADJUSTED TO GRADE

ALL WORK RELATED TO ADJUSTING MONUMENT BOXES TO GRADE WILL BE IN ACCORDANCE TO SECTIONS 623.04 AND 623.05 OF THE 2019 ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS.

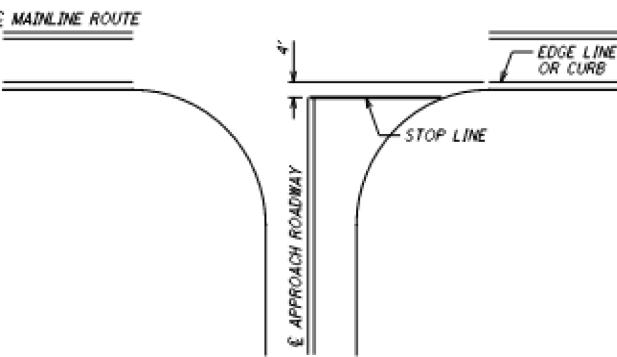
THE MONUMENT BOX TO BE ADJUSTED MAY OR MAY NOT HAVE AN EXISTING ADJUSTABLE FRAME. THE WORK SHALL CONSIST OF ADJUSTING THE EXISTING MONUMENT BOX TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR IS REMINDED TO FIELD CHECK ALL ADJUSTMENT TO GRADE ITEMS PRIOR TO BIDDING, AS NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR LABOR AND MATERIALS REQUIRED TO SATISFACTORILY ADJUST CASTINGS WITHOUT ADJUSTABLE FRAMES.

ERI-60	ERI-6
8.98	28.37
9.11	
9.22	
9.34	

ITEM 623 – MONUMENT BOX ADJUSTED TO GRADE
01/NHS/PV - 1 EACH
04/S<2/PV - 4 EACH

STOP BAR PLACEMENT

AT NORMAL STOP CONTROLLED RURAL INTERSECTIONS WITHOUT CROSSWALK, THE STOP BAR SHOULD BE PLACED FOUR FEET FROM THE EDGE LINE OF THE INTERSECTING ROADWAY IN ORDER TO ACHIEVE MAXIMUM INTERSECTION SIGHT DISTANCE.

**PAVEMENT MARKING LOG**

PRIOR TO REMOVING, GRINDING, OR OTHERWISE DESTROYING ANY EXISTING PAVEMENT MARKINGS, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CREATE AN EXISTING PAVEMENT MARKING LOG IN ORDER TO PLACE THE PROPOSED PAVEMENT MARKINGS IN THE SAME LOCATION AS THEIR EXISTING CONFIGURATION. SUBMIT THE EXISTING PAVEMENT MARKING LOG TO THE ENGINEER AND OBTAIN HIS OR HER APPROVAL PRIOR TO REMOVING, GRINDING, OR OTHERWISE DESTROYING THE EXISTING PAVEMENT MARKINGS. ADDITIONALLY, SUBMIT THE EXISTING PAVEMENT MARKINGS LOG TO THE CITY OF VERMILION AND OBTAIN THEIR APPROVAL PRIOR TO REMOVING, GRINDING, OR OTHERWISE DESTROYING THE EXISTING PAVEMENT MARKINGS.

ALL LABOR, MATERIAL, EQUIPMENT, AND INCIDENTALS NEEDED TO COMPLETE THIS WORK SHOULD BE INCLUDED IN THE CONTRACT LUMP SUM BID PRICE FOR ITEM 614 – MAINTAINING TRAFFIC.

IN-STREAM WORK RESTRICTION (STR ERI-6-28.93)

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID CONSTRUCTION IN AND/OR LIMIT DEMOLITION DEBRIS FROM ENTERING STREAMS OR WETLANDS. ANY MATERIAL THAT DOES FALL INTO STREAMS OR WETLANDS SHALL BE REMOVED AS SOON AS POSSIBLE.

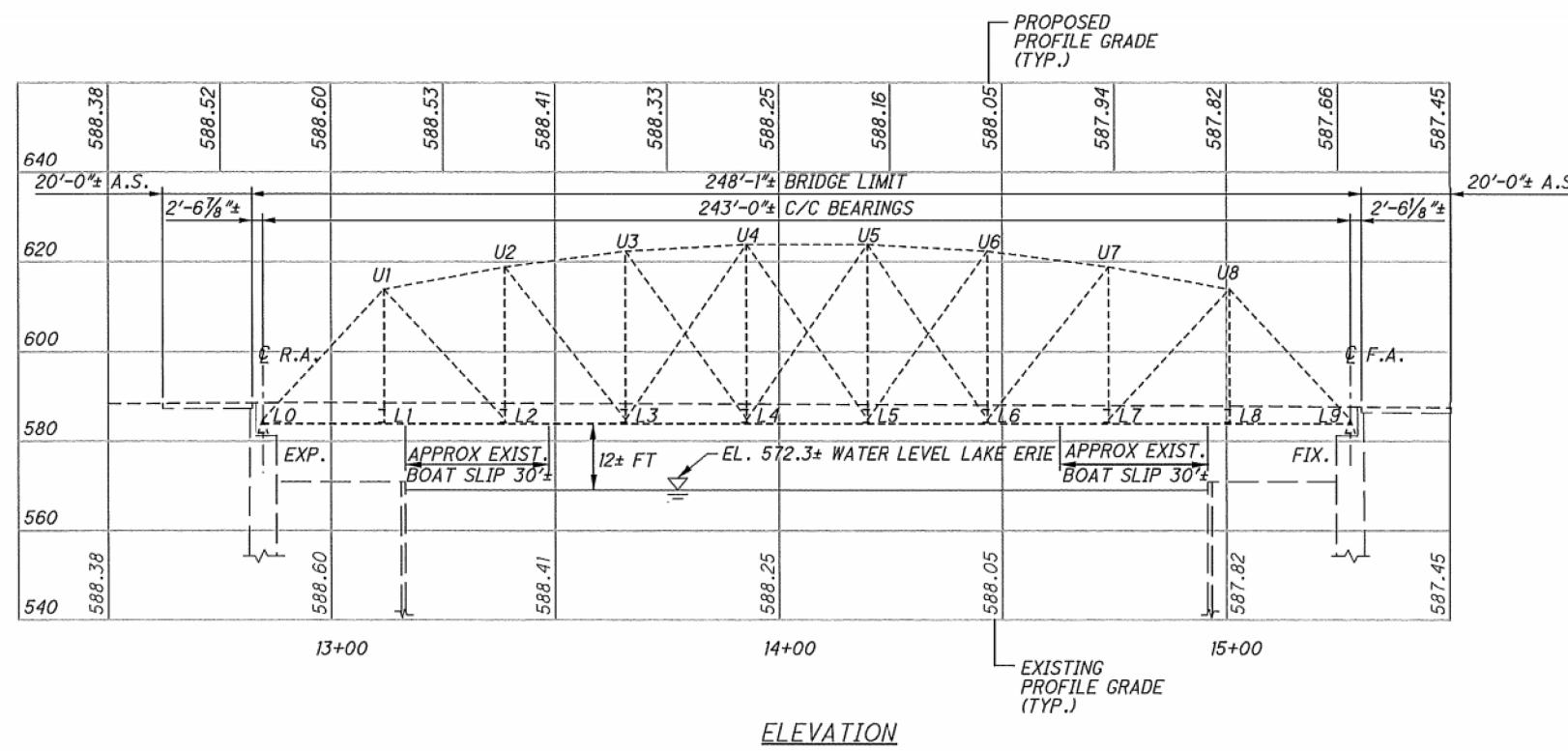
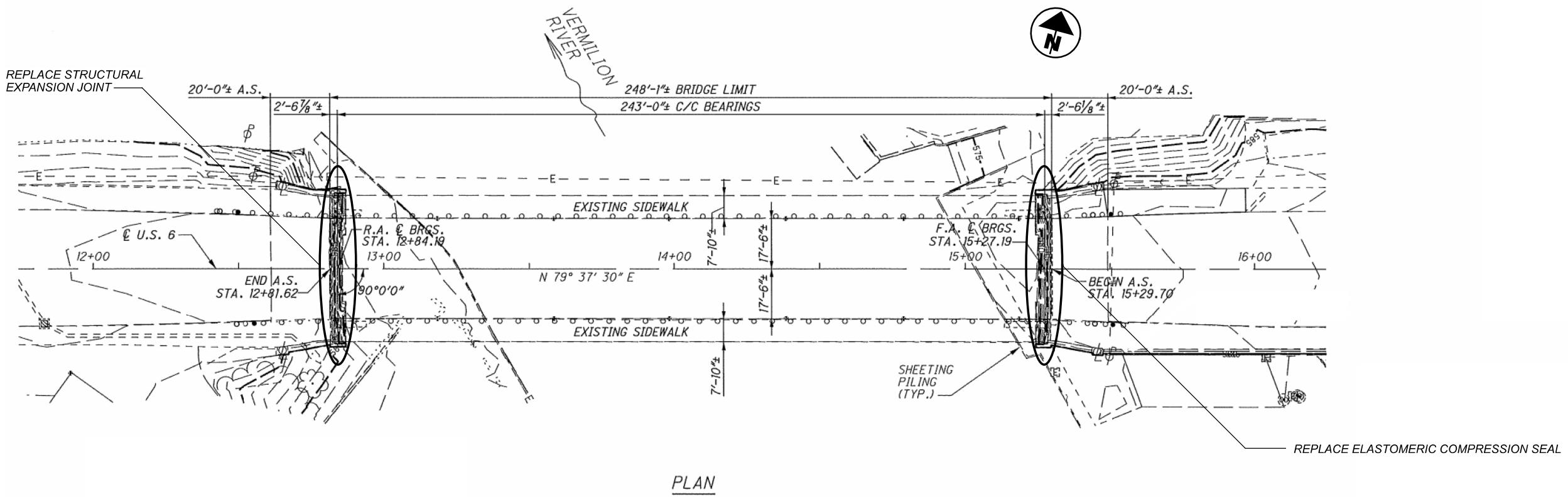
ALL PROJECTS INVOLVING JURISDICTIONAL WATERS OF THE UNITED STATES (STREAMS, RIVERS, NON-ISOLATED WETLANDS) AND/OR ISOLATED WETLANDS ARE SUBJECT TO REGULATION UNDER SECTIONS 404 AND 401 OF THE CLEAN WATER ACT, AND POSSIBLY OHIO EPA ISOLATED WETLAND LAW. IT IS ANTICIPATED THAT NO IN-STREAM WORK, OR WORK UNDER THE STREAM'S ORDINARY HIGH WATER MARK (OHWM) WILL BE NEEDED. THEREFORE NO WATERWAY PERMITS HAVE BEEN GRANTED AND NO IN-STREAM WORK IS ALLOWED.

SHOULD WORK (EITHER TEMPORARY OR PERMANENT) IN THE STREAM BE NEEDED; IT WILL REQUIRE A PERMIT AND AUTHORIZATION BY THE UNITED STATES ARMY CORPS OF ENGINEERS (USACE). THE CONTRACTOR SHALL NOT UTILIZE FILLS BELOW OHWM UNTIL SUCH ACTIVITY IS AUTHORIZED BY THE USACE. DETAILS OF THIS REQUIREMENT ARE DESCRIBED IN ODOT'S SUPPLEMENTAL SPECIFICATION 832.09.

USACE DEFINITION OF OHWM – THE ORDINARY HIGH WATER MARK IS THE LINE ON THE SHORES ESTABLISHED BY THE FLUCTUATIONS OF WATER AND INDICATED BY PHYSICAL CHARACTERISTICS SUCH AS A CLEAR, NATURAL LINE IMPRESSED ON THE BANKS; SHELVING; CHANGES IN THE CHARACTER OF THE SOIL; DESTRUCTION OF TERRESTRIAL VEGETATION; THE PRESENCE OF LITTER AND DEBRIS; OR THE APPROPRIATE MEANS THAT CONSIDER THE CHARACTERISTICS OF THE SURROUNDING AREAS.

DESIGN AGENCY
DISTRICT 3

ENGINEERING TEAM TWO
DESIGNER
JLL
REVIEWER
KRB 12-11-20
PROJECT ID
101445
SHEET
TOTAL
6
29



ELEVATION

PROPOSED WORK

REPLACE STRUCTURAL EXPANSION JOINT AT REAR ABUTMENT. REPLACE ELASTOMERIC COMPRESSION SEAL AT FORWARD ABUTMENT.

NOTE

DETAILS ON THIS SHEET ARE TAKEN FROM EXISTING PLANS
AND SHALL BE USED FOR INFORMATION PURPOSES ONLY.

EXISTING STRUCTURE

TYPE: STANDARD STEEL TRUSS BRIDGE
CONCRETE DECK AND SIDEWALKS BOTH SIDES

SPAN: 243'-0"+ C/C BEARINGS

ROADWAY: 35'-0"+ E/E RAILING WITH 7'-10"+ SIDEWALKS

LOADING: HS20-44 CASE, H-1 AND ALTERNATE MILITARY

SKWY: 0°00'00"+

WEARING SURFACE: 1" MONOLITHIC CONCRETE

APPROACH SLABS: 30' 0"+ LONG

ALIGNMENT: TANGENT

CROWN: VARIETIES

STRUCTURE FILE NUMBER: 2202344

STRUCTURE FILE NUMBER: 2202871
DATE BUILT: 1928 REHABILITATED: 1986 AND 2012

DISPOSITION: TO BE REHABILITATED

**GENERAL PLAN
BRIDGE NO. ERI-6-2893
OVER VERMILION RIVER**

SFN	2202344	
DESIGN AGENCY		
CARPENTER MARTY		
	TRANSWORLD AIRLINES	
DESIGNER	CHECKER	
AMR	ERK	
REVIEWER		
GDJ 12-10-20		
PROJECT ID		
101445		
SUBSET	TOTAL	
1	9	
SHEET	TOTAL	
20	29	

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

EXJ-2-81 REVISED 7-19-02

EXJ-4-87 REVISED 1-19-18

DESIGN SPECIFICATIONS:

WORK PERFORMED TO THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE LRFD BRIDGE DESIGN SPECIFICATIONS ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

DESIGN DATA:

CONCRETE CLASS QC2 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

REINFORCING STEEL - MINIMUM YIELD STRENGTH 60 KSI

STRUCTURAL STEEL - ASTM A709 GRADE 50, YIELD STRENGTH 50 KSI

ITEM 202, PORTIONS OF STRUCTURE REMOVED, AS PER PLAN DESCRIPTION:

THIS WORK CONSISTS OF THE REMOVAL OF CONCRETE DECKS INCLUDING SIDEWALKS, METAL RAILINGS, DECK JOINTS AND OTHER APPURTENANCES FROM STEEL SUPPORTING SYSTEMS (BEAMS, GIRDERS, CROSSFRAMES, ETC.). THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING DECK REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE PROPOSED STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAM TYPE OF EQUIPMENT IS PROHIBITED. SUBMIT CONSTRUCTION PLANS ACCORDING TO C&MS 501.05.

PROTECTION OF STEEL SUPPORT SYSTEMS: BEFORE DECK SLAB CUTTING IS PERMITTED, DRAW THE OUTLINE OF PRIMARY STEEL MEMBERS IN CONTACT WITH THE BOTTOM OF THE DECK ON THE SURFACE OF DECK. DRILL SMALL DIAMETER PILOT HOLES 2 INCHES OUTSIDE THESE LINES TO CONFIRM THE LOCATION OF FLANGE EDGES. DECK CUTS OVER OR WITHIN 2 INCHES OF FLANGE EDGES SHALL NOT EXTEND LOWER THAN THE BOTTOM LAYER OF DECK SLAB REINFORCING STEEL. CUTS MADE OUTSIDE 2 INCHES OF FLANGE EDGES MAY EXTEND THE FULL DEPTH OF THE DECK. PERFORM WORK CAREFULLY DURING CUTTING OF THE DECK SLAB TO AVOID DAMAGING STEEL MEMBERS THAT ARE TO BE INCORPORATED INTO THE PROPOSED STRUCTURE. REPLACE OR REPAIR STEEL MEMBERS DAMAGED BY THE DECK SLAB CUTTING OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

REMOVAL METHODS: THE CONTRACTOR MAY REMOVE CONCRETE BY CUTTING AND BY MEANS OF HAND OPERATED PNEUMATIC HAMMERS EMPLOYING POINTED OR BLUNT CHISEL TYPE TOOLS. FOR REMOVALS OVER STRUCTURAL MEMBERS THE CONTRACTOR MAY USE A HAMMER HEAVIER THAN 35 POUNDS BUT NOT TO EXCEED 90 POUNDS UNLESS APPROVED BY THE ENGINEER. REMOVAL METHODS OVER STRUCTURAL MEMBERS SHALL ENSURE ADEQUATE DEPTH CONTROL AND PREVENT NICKING OR GOUGING THE PRIMARY STRUCTURAL MEMBERS. DUE TO THE POSSIBLE PRESENCE OF ATTACHMENTS TO EXISTING STRUCTURAL MEMBERS, PERFORM WORK CAREFULLY DURING DECK REMOVAL TO AVOID DAMAGING STRUCTURAL MEMBERS THAT ARE TO REMAIN. REPLACE OR REPAIR STRUCTURAL MEMBERS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

DECK REMOVALS - COMPOSITE DECK DESIGNS - STEEL STRUCTURES: DUE TO THE PRESENCE OF WELDED STUDS TO THE EXISTING STRUCTURAL STEEL, SUBMIT A DETAILED PROCEDURE OF THE DECK REMOVAL TO THE ENGINEER AT LEAST 7 DAYS BEFORE CONSTRUCTION BEGINS. DEPARTMENT ACCEPTANCE IS NOT REQUIRED. THE PROCEDURE SHALL INCLUDE ALL DETAILS, EQUIPMENT AND METHODS TO BE USED FOR REMOVAL OF THE CONCRETE OVER THE FLANGES AND AROUND THE STUDS. REPLACE OR REPAIR MAIN STEEL AND STUDS DAMAGED BY THE REMOVAL OPERATIONS AT NO COST TO THE PROJECT. AT LEAST 7 DAYS BEFORE PERFORMING REPAIR WORK, SUBMIT A PROPOSED REPAIR PLAN, DEVELOPED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER TO THE ENGINEER. OBTAIN THE ENGINEER'S APPROVAL BEFORE PERFORMING REPAIR.

CUT LINE CONSTRUCTION JOINT PREPARATION: SAW CUT BOUNDARIES OF PROPOSED CONCRETE REMOVALS 1 INCH DEEP. REMOVE CONCRETE TO A ROUGH SURFACE, LEAVE THE EXISTING REINFORCING STEEL, IF REQUIRED IN THE PLANS, IN PLACE. INSTALL DOWEL BARS IF SPECIFIED. PRIOR TO CONCRETE PLACEMENT ABRASIVELY CLEAN JOINT SURFACES AND EXISTING EXPOSED REINFORCEMENT TO REMOVE LOOSE AND DISINTEGRATED CONCRETE AND LOOSE RUST. THOROUGHLY CLEAN THE JOINT SURFACE AND EXPOSED REINFORCEMENT OF ALL DIRT, DUST, RUST OR OTHER FOREIGN MATERIAL BY THE USE OF WATER, AIR UNDER PRESSURE, OR OTHER METHODS THAT PRODUCE SATISFACTORY RESULTS. EXISTING REINFORCING STEEL DOES NOT HAVE TO HAVE A BRIGHT STEEL FINISH BUT REMOVE ALL PACK AND LOOSE RUST. THOROUGHLY DRENCH EXISTING CONCRETE SURFACES WITH CLEAN WATER AND ALLOW TO DRY TO A DAMP CONDITION BEFORE PLACING CONCRETE.

SUBSTRUCTURE CONCRETE REMOVAL: REMOVE CONCRETE BY MEANS OF APPROVED PNEUMATIC HAMMERS EMPLOYING POINTED AND BLUNT CHISEL TOOLS. HYDRAULIC HOE-RAM TYPE HAMMERS WILL NOT BE PERMITTED. THE WEIGHT OF THE HAMMER SHALL NOT BE MORE THAN 35 POUNDS FOR REMOVAL WITHIN 18 INCHES OF PORTIONS TO BE PRESERVED. DO NOT PLACE PNEUMATIC HAMMERS IN DIRECT CONTACT WITH REINFORCING STEEL THAT IS TO BE RETAINED IN THE REBUILT STRUCTURE.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

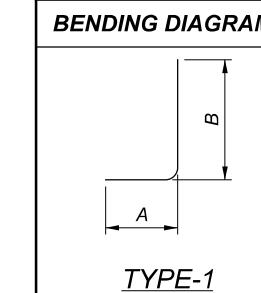
ITEM 509 - REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN

REPLACE ALL EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION. THE DEPARTMENT WILL MEASURE THE REPLACEMENT REINFORCING STEEL BY THE NUMBER OF POUNDS ACCEPTED IN PLACE.

REPLACE ALL EXISTING REINFORCING STEEL BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND ARE DEEMED BY THE ENGINEER TO BE MADE UNUSABLE BY CONCRETE REMOVAL OPERATIONS WITH NEW EPOXY COATED REINFORCING STEEL OF THE SAME SIZE AT NO COST TO THE DEPARTMENT.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO C&MS SECTIONS 102.05, 105.02 AND 513.04. BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS THAT HAVE BEEN VERIFIED IN THE FIELD.



MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS	
					A	B
SUPERSTRUCTURE						
S401	4	4'-5"	12	STR		
S402	2	1'-8"	3	1	9"	1'-0"
S403	2	2'-0"	3	1	1'-1"	1'-0"
S501	1	35'-11"	38	STR		
S601	1	35'-11"	54	STR		
SUB-TOTAL					110	

MARK	NUMBER			LENGTH	WEIGHT	TYPE
	R.A.	F.A.	TOTAL			
ABUTMENTS						
A501	6		6	20'-3"	127	STR
A502	2		2	7'-8"	16	STR
SUB-TOTAL					143	

NOTES

1. THE BAR NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE, S501 IS A NO. 5 BAR. DIMENSIONS ARE OUT TO OUT UNLESS OTHERWISE INDICATED.
2. ALL REINFORCING STEEL TO BE EPOXY COATED.

ESTIMATED QUANTITIES					DESIGN: AMR	CHECK: ERK
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	DATE: 12-9-20	DATE: 12-9-20
202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN		
509	10000	253	LB	EPOXY COATED REINFORCING STEEL	143	110
509	20001	175	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	123	32
511	34410	3	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE	3	6, 8
511	45710	2	CY	CLASS QC1 CONCRETE, ABUTMENT	2	
516	10901	50	FT	ELASTOMERIC COMPRESSION SEAL, AS PER PLAN	50	8
516	11211	52	FT	STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN	52	6, 9

SFN
2202344

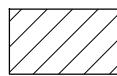
DESIGN AGENCY

CARPENTER
MARTYDESIGNER
AMRCHECKER
ERKREVIEWER
GDJ 12-10-20PROJECT ID
101445SUBSET
TOTAL
2 9SHEET
TOTAL
21 29

GENERAL NOTES AND ESTIMATED QUANTITIES
BRIDGE NO. ERI-6-2893
OVER VERMILLION RIVER

REAR ABUTMENT REMOVAL DETAILS
BRIDGE NO. ERI-6-2893
OVER VERMILLION RIVER

LEGEND



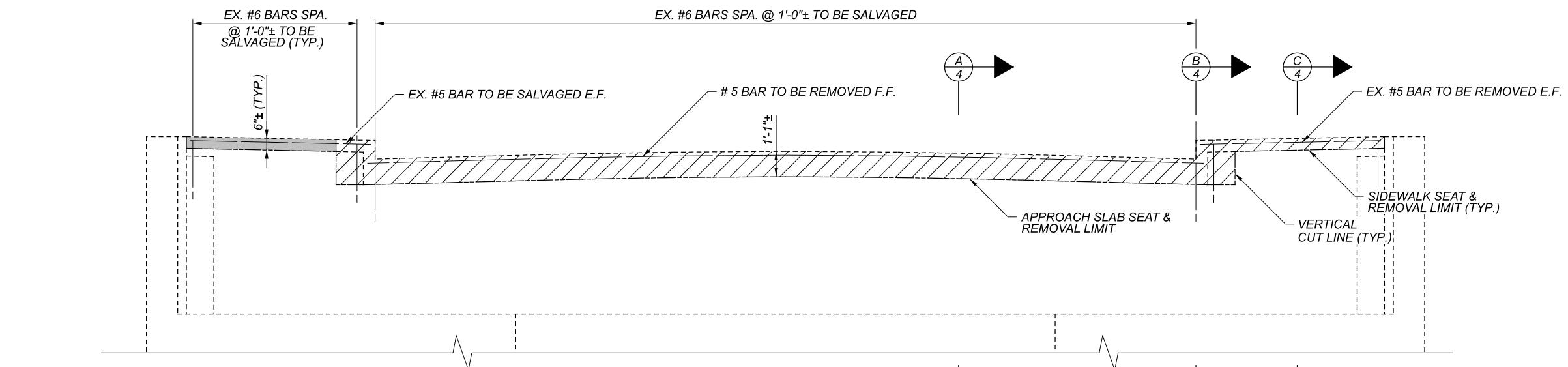
ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 1



ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN - PHASE 2

E.F. - EACH FACE

F.F. - FAR FACE



ELEVATION

NOTE

PORTIONS OF THE EXISTING ROADWAY GUARDRAIL AND PEDESTRIAN RAILING SHALL BE REMOVED AND STORED FOR REUSE TO FACILITATE INSTALLATION OF STRUCTURAL EXPANSION JOINT. PAYMENT FOR REMOVAL, STORAGE AND RE-INSTALLATION OF RAILINGS SHALL BE INCLUDED UNDER ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

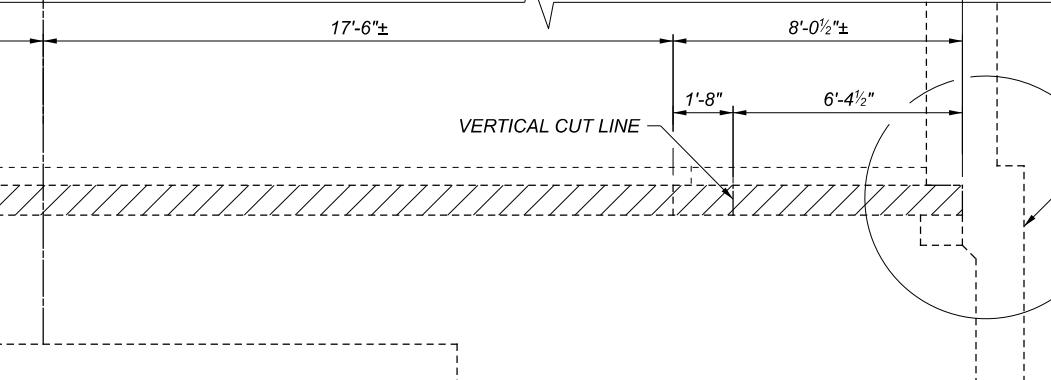
ANY DAMAGE TO EXISTING GUARDRAIL OR PEDESTRIAN RAILING SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

© CONSTRUCTION U.S. 6

PHASE 1 REMOVAL = 44'-8½"

17'-6"±

17'-6"±



SEE DETAIL A ON SH 4 / 9

SFN
2202344

DESIGN AGENCY

CARPENTER
MARTY
transyngular

DESIGNER
AMR

CHECKER
ERK

REVIEWER

GDJ 12-10-20

PROJECT ID

101445

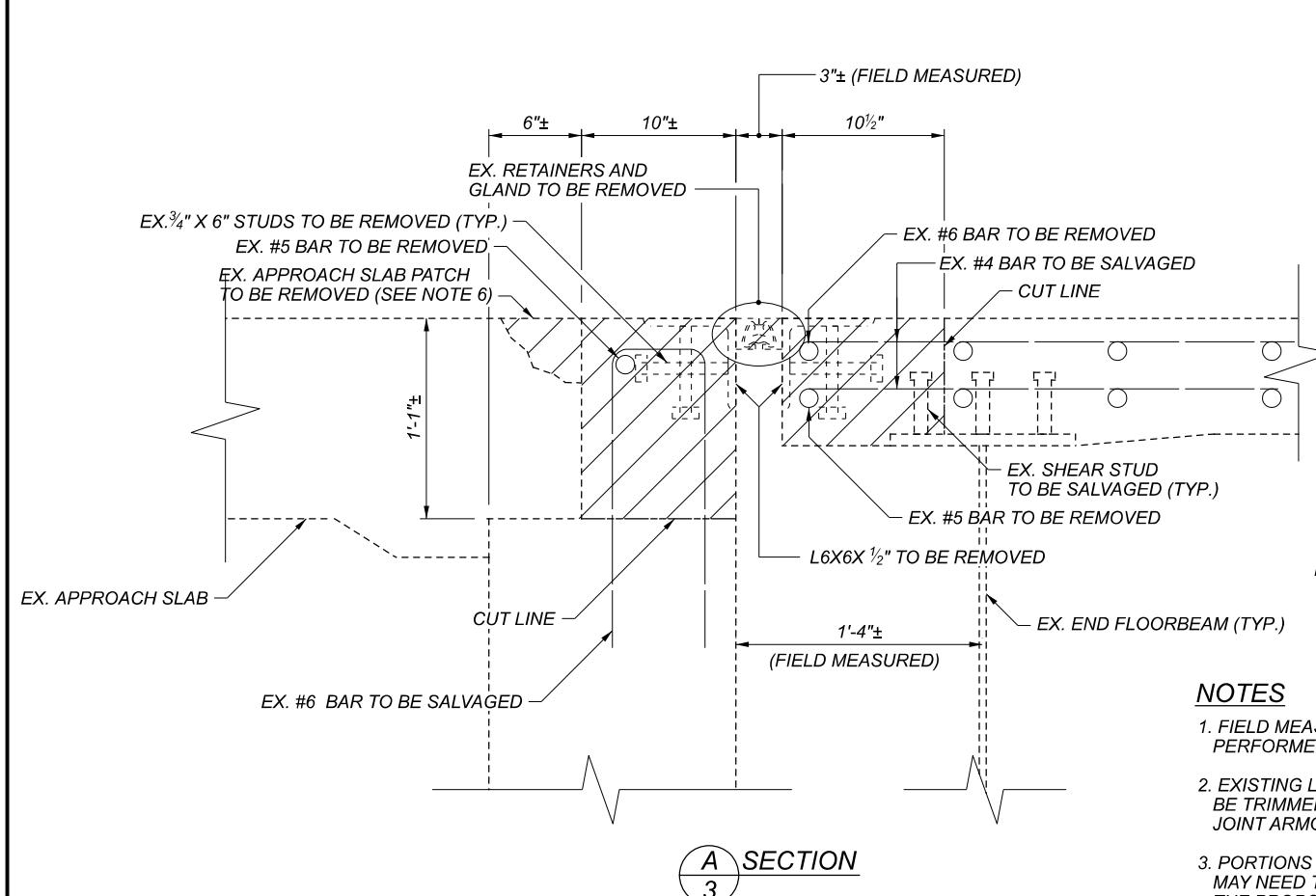
SUBSET TOTAL

3 9

SHEET TOTAL

22 29

REAR ABUTMENT & EXPANSION JOINT REMOVAL DETAILS
BRIDGE NO. ERI-6-2893
OVER VERMILLION RIVER

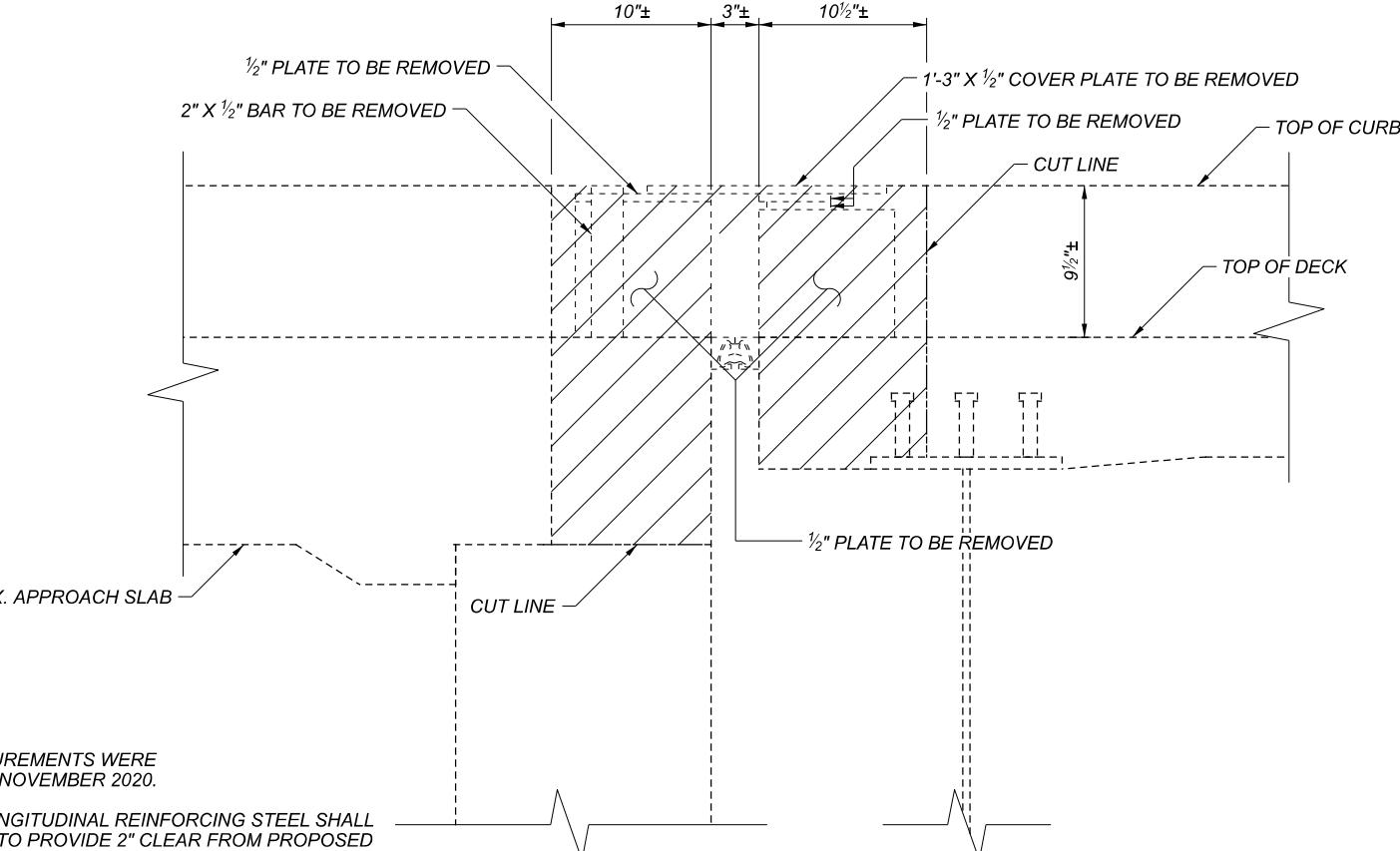


A

SECTION
3

3

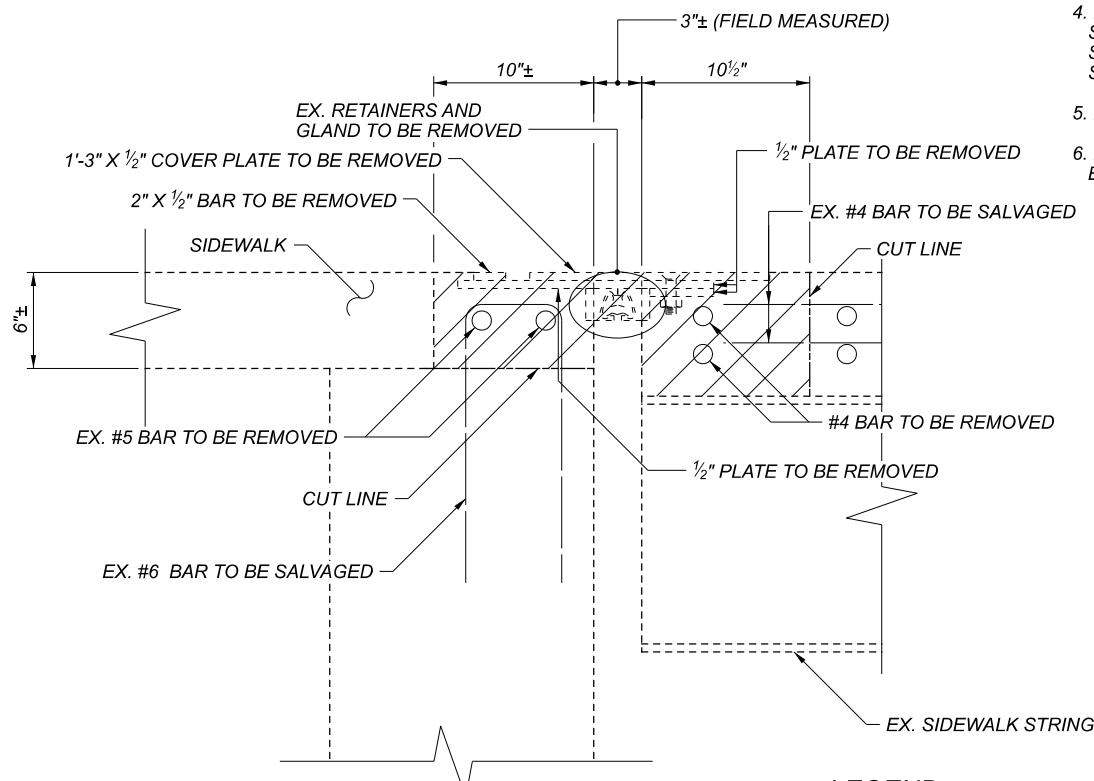
3



B CURB ELEVATION VIEW
3 EX. REINFORCING STEEL NOT SHOWN FOR CLARITY

NOTES

1. FIELD MEASUREMENTS WERE PERFORMED NOVEMBER 2020.
2. EXISTING LONGITUDINAL REINFORCING STEEL SHALL BE TRIMMED TO PROVIDE 2" CLEAR FROM PROPOSED JOINT ARMOR.
3. PORTIONS OF THE EXISTING TOP FLANGE OF THE TRUSS SHOE MAY NEED TO BE REMOVED TO ALLOW FOR INSTALLATION OF THE PROPOSED EXPANSION JOINT ARMOR.
4. PAYMENT FOR TRIMMING OF EXISTING REINFORCING STEEL AND CUTTING OF EXISTING TOP FLANGE OF TRUSS SHOE SHALL BE INCLUDED WITH ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.
5. FIELD VERIFY SHEAR STUD LOCATIONS PRIOR TO SAWING.
6. LIMITS OF APPROACH SLAB REMOVAL SHALL BE AS DIRECTED BY THE ENGINEER.



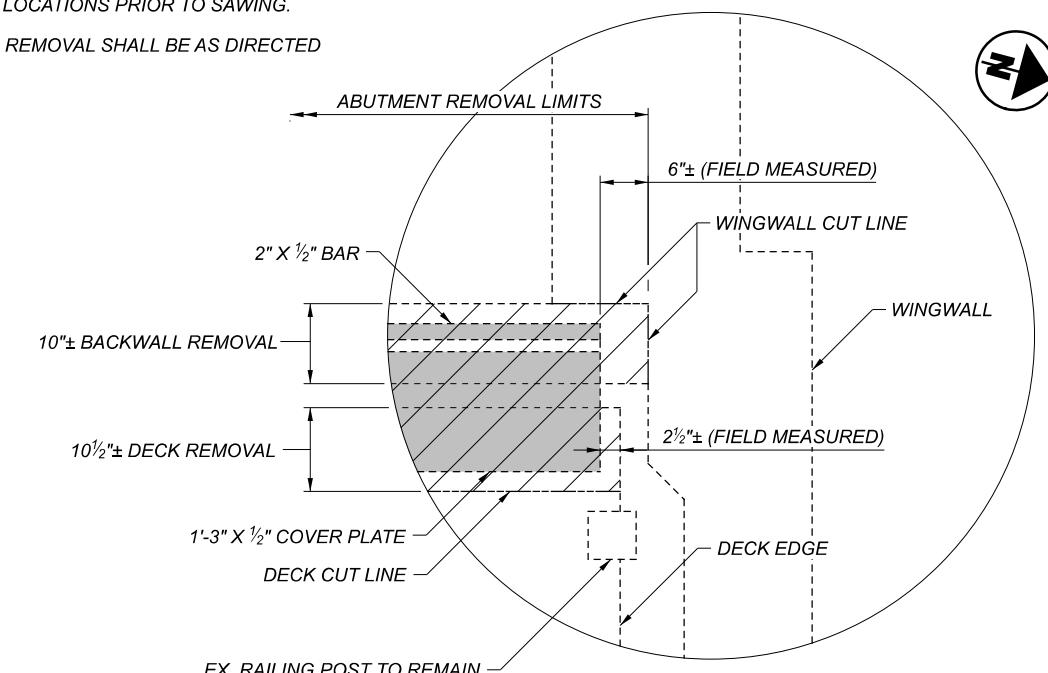
LEGEND



ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN



EXPANSION JOINT ARMOR



DETAIL A

WINGWALL 2 SHOWN, WINGWALL 1 OPPOSITE HAND

SFN 2202344
DESIGN AGENCY
CARPENTER MARTY

DESIGNER AMR
CHECKER ERK

REVIEWER GDJ 12-10-20

PROJECT ID 101445

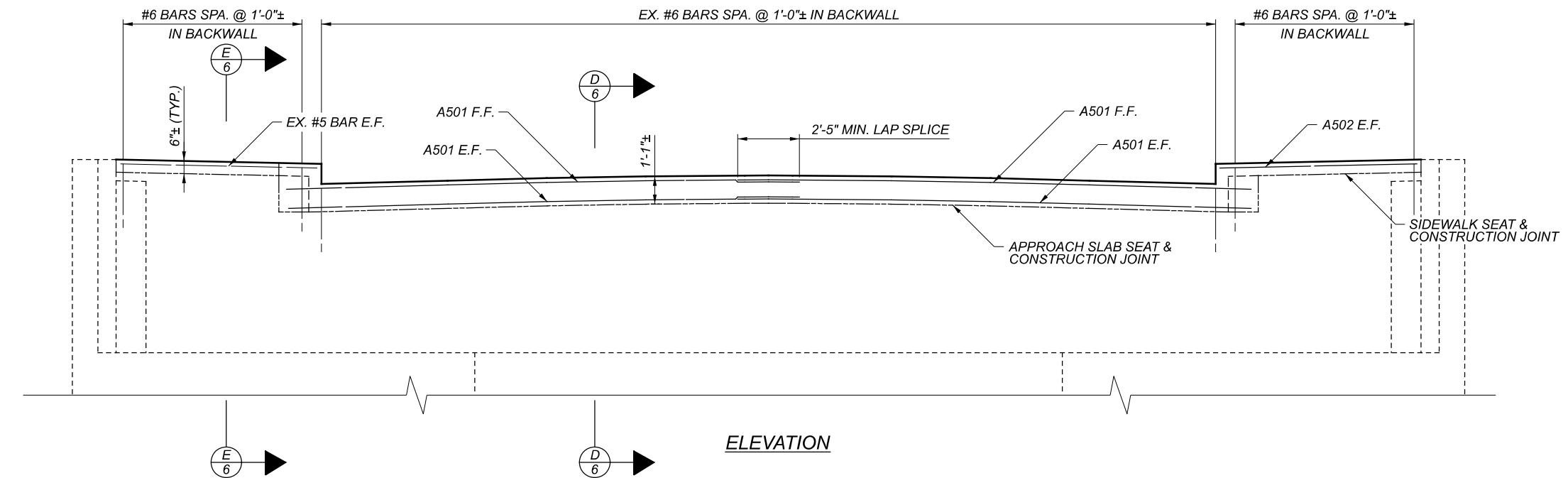
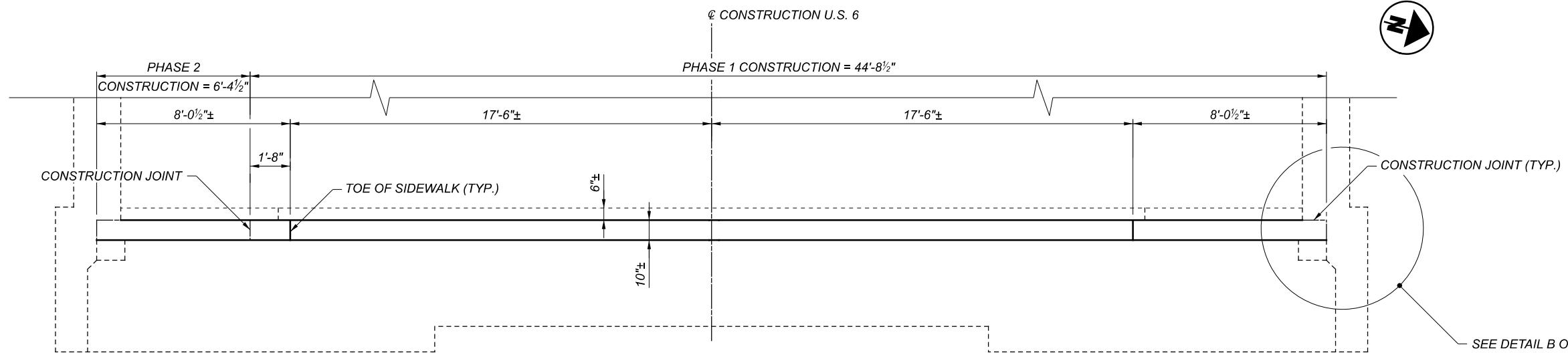
SUBSET TOTAL 4 9

SHEET TOTAL 23 29

LEGEND

E.F. - EACH FACE

F.F. - FAR FACE

ELEVATIONPLAN

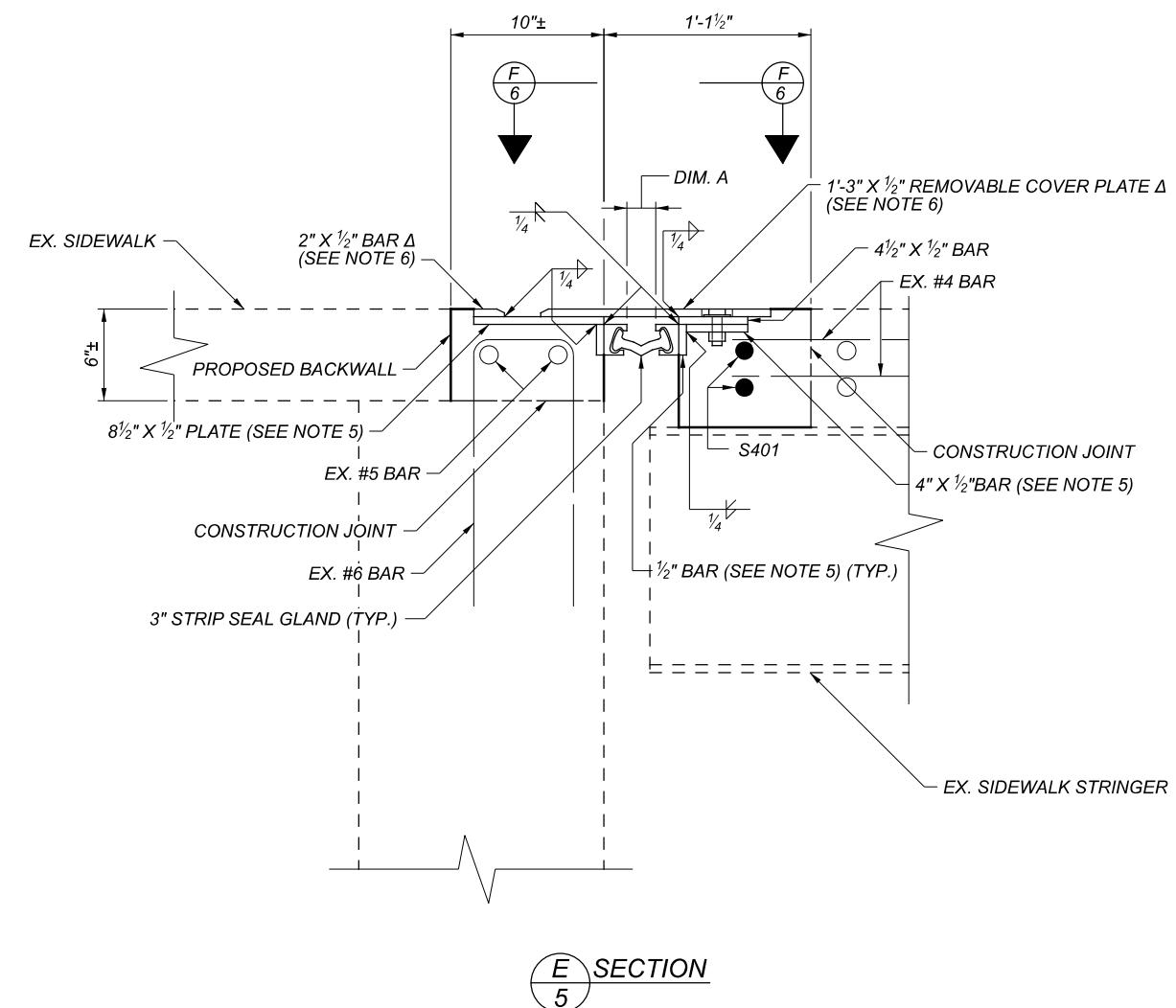
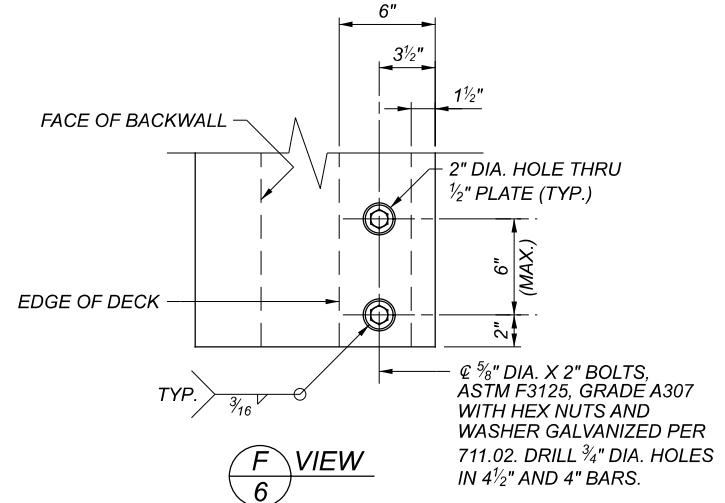
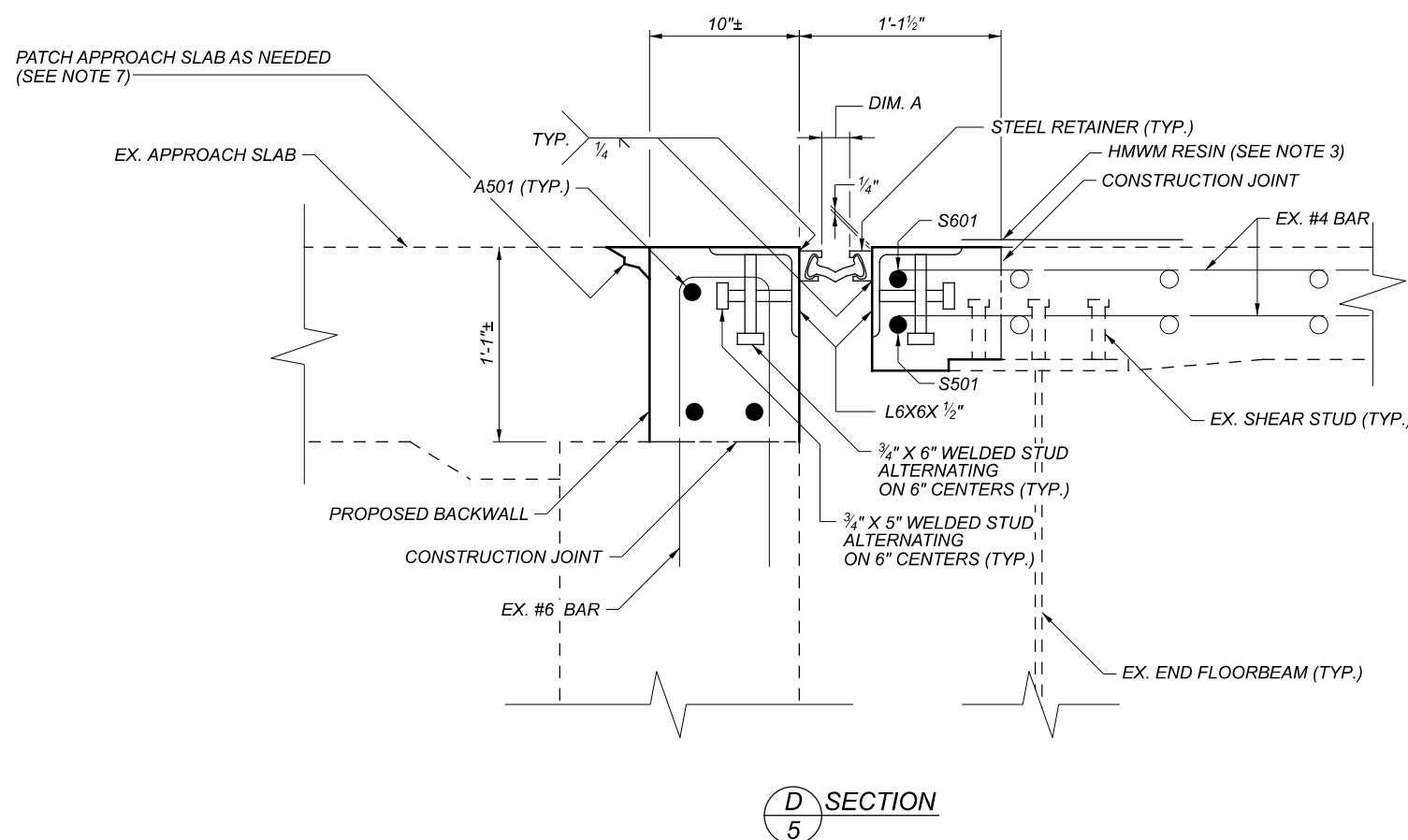
REAR ABUTMENT & EXPANSION JOINT DETAILS
BRIDGE NO. ERI-6-2893
OVER VERMILLION RIVER

CARPENTER MARTY

DESIGNER	CHECKER
AMR	ERK
REVIEWER	
GDJ	12-10-20
PROJECT ID	
101445	
SUBSET	TOTAL
6	9
SHEET	TOTAL
25	29

NOTES

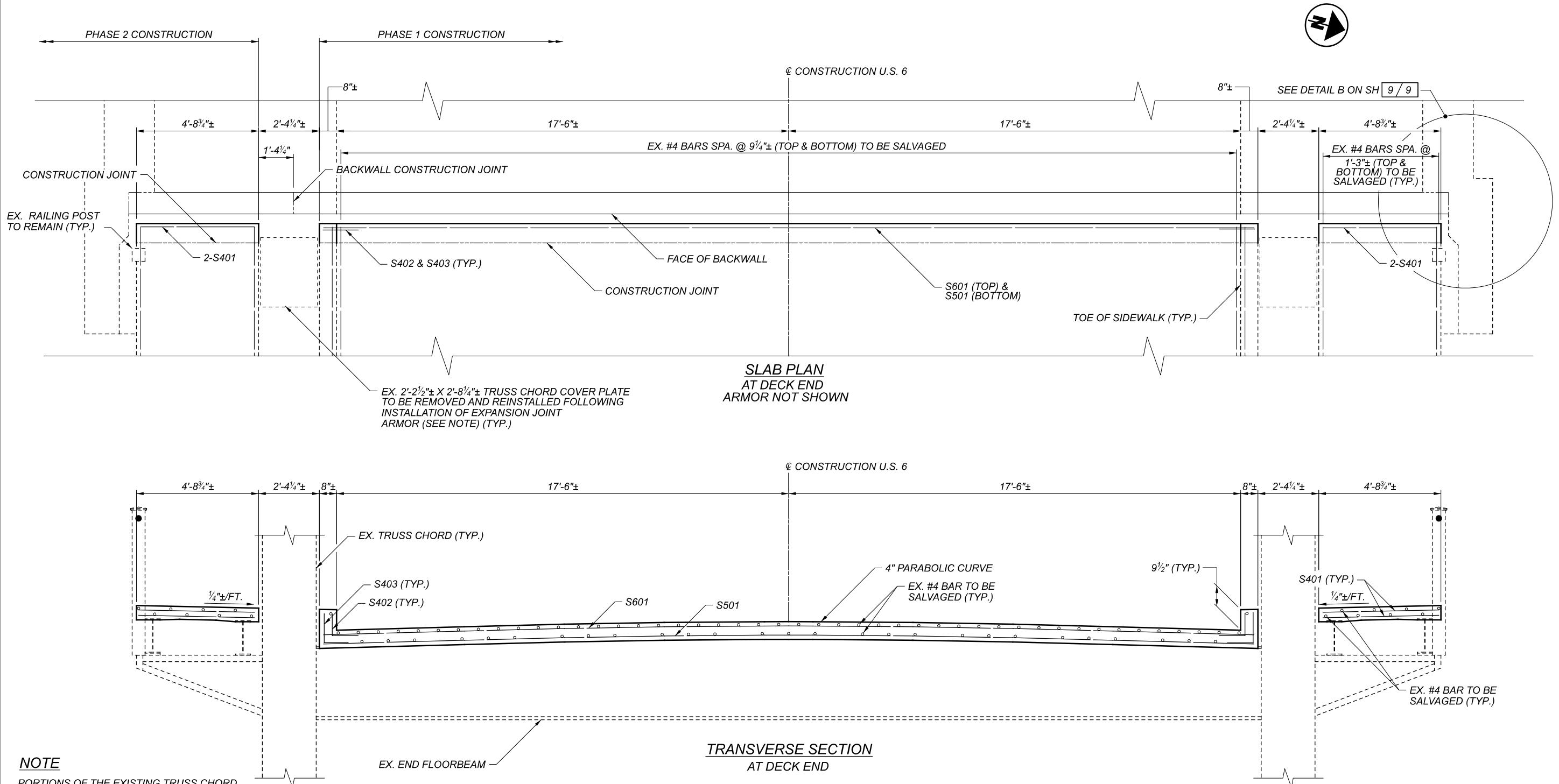
1. REFER TO SHEET 9 / 9 FOR DIMENSION A TABLE.
2. PAYMENT FOR STEEL ANGLES, PLATES AND WELDED STUDS SHALL BE INCLUDED WITH ITEM 516 - STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN.
3. HMWM SHALL BE PLACED OVER THE TRANSVERSE CONSTRUCTION JOINT IN THE DECK FROM THE EDGE OF THE EXPANSION JOINT ARMOR TO 1'-0" BEYOND THE CONSTRUCTION JOINT. PAYMENT FOR HMWM RESIN SHALL BE INCLUDED WITH ITEM 511, CLASS QC2 CONCRETE, SUPERSTRUCTURE.
4. FURNISH SEALS IN ONE CONTINUOUS PIECE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. USE A PARTIAL-JOINT PENETRATION GROOVE WELD GROUND SMOOTH TO CONNECT 8½" PLATE AND ½" BAR ASSEMBLY AS WELL AS 4" X ½" PLATE AND ½" BAR ASSEMBLY AT THE PHASE CONSTRUCTION JOINT.
6. REMOVABLE COVER PLATE AND 2" X ½" BAR SHALL BE INSTALLED IN ONE PIECE OVER WELDED PLATES AT PHASE CONSTRUCTION JOINT. 2" X ½" BAR TO BE FIELD WELDED AT PHASE 2 LOCATION.
7. PAYMENT FOR APPROACH SLAB PATCHING TO BE INCLUDED WITH ITEM 511, CLASS QC1 CONCRETE, ABUTMENT. LIMITS OF APPROACH SLAB REPAIR SHALL BE AS DIRECTED BY THE ENGINEER.



LEGEND

Δ - PROVIDE A ½" HORIZONTAL X ¼" VERTICAL BEVEL AT THE EXPOSED EDGE OF THE ½" COVER PLATE AND ½" X 2" BAR.

SUPERSTRUCTURE DETAILS
BRIDGE NO. ERI-6-2893
OVER VERMILION RIVER



NOTE

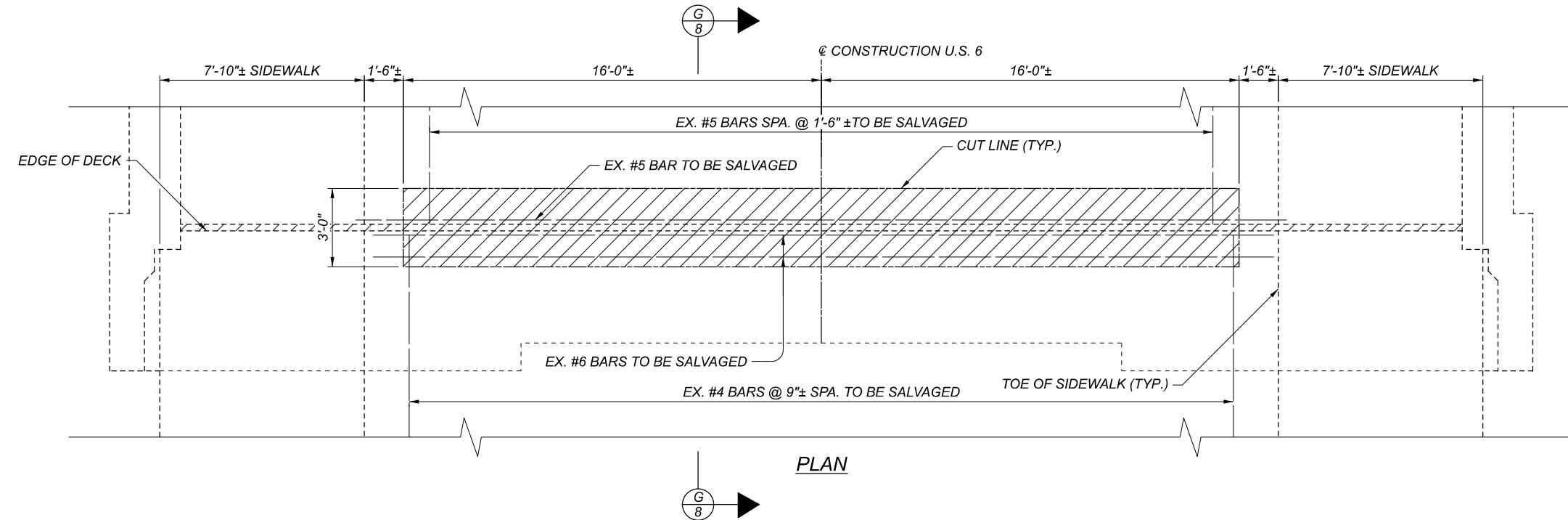
PORTIONS OF THE EXISTING TRUSS CHORD COVER PLATE SHALL BE REMOVED AND STORED FOR REUSE TO FACILITATE INSTALLATION OF STRUCTURAL EXPANSION JOINT. PAYMENT FOR REMOVAL, AND STORAGE OF TRUSS CHORD COVER PLATES SHALL BE INCLUDED UNDER ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN.

RE-INSTALLATION OF EXISTING TRUSS CHORD COVER PLATES SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 516, STRUCTURAL EXPANSION JOINT, INCLUDING ELASTOMERIC STRIP SEAL, AS PER PLAN.

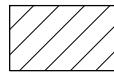
ANY DAMAGE TO EXISTING TRUSS CHORD COVER PLATES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

DESIGNER	CHECKER
MTJ	ERK
REVIEWER	
GDJ	12-10-20
PROJECT ID	101445
SUBSET	TOTAL
7	9
SHEET	TOTAL
26	29

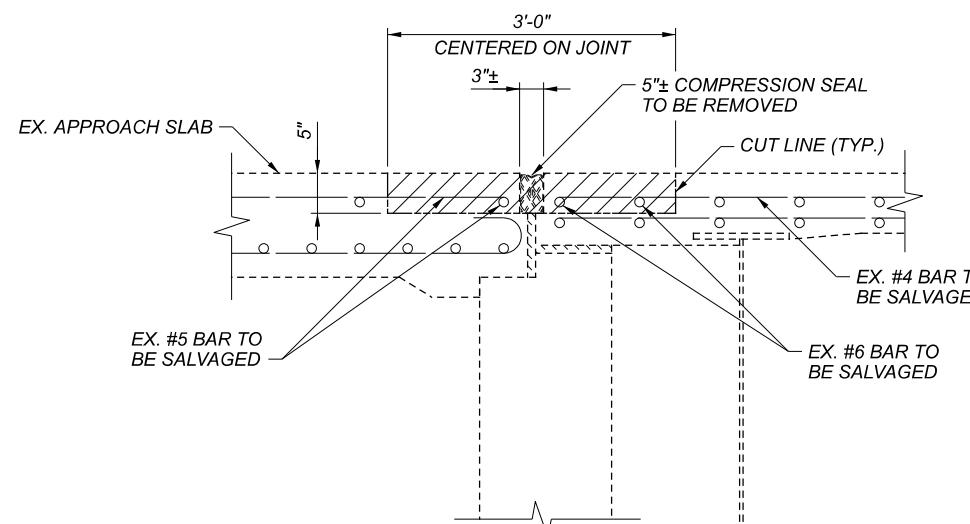
FORWARD ABUTMENT REMOVAL DETAILS
BRIDGE NO. ERI-6-2893
OVER VERMILION RIVER



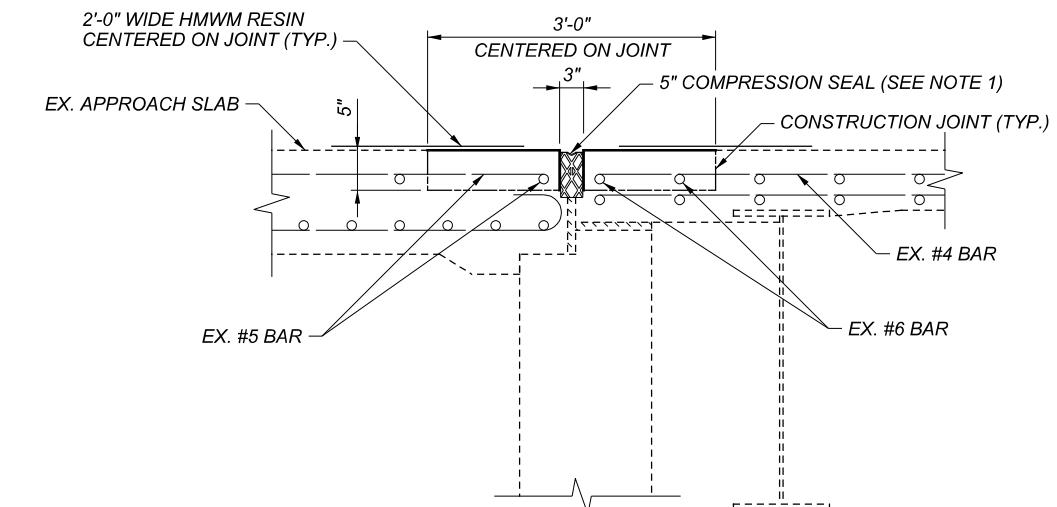
LEGEND



ITEM 202 - PORTIONS OF STRUCTURE
REMOVED, OVER 20 FOOT SPAN, AS PER PLAN



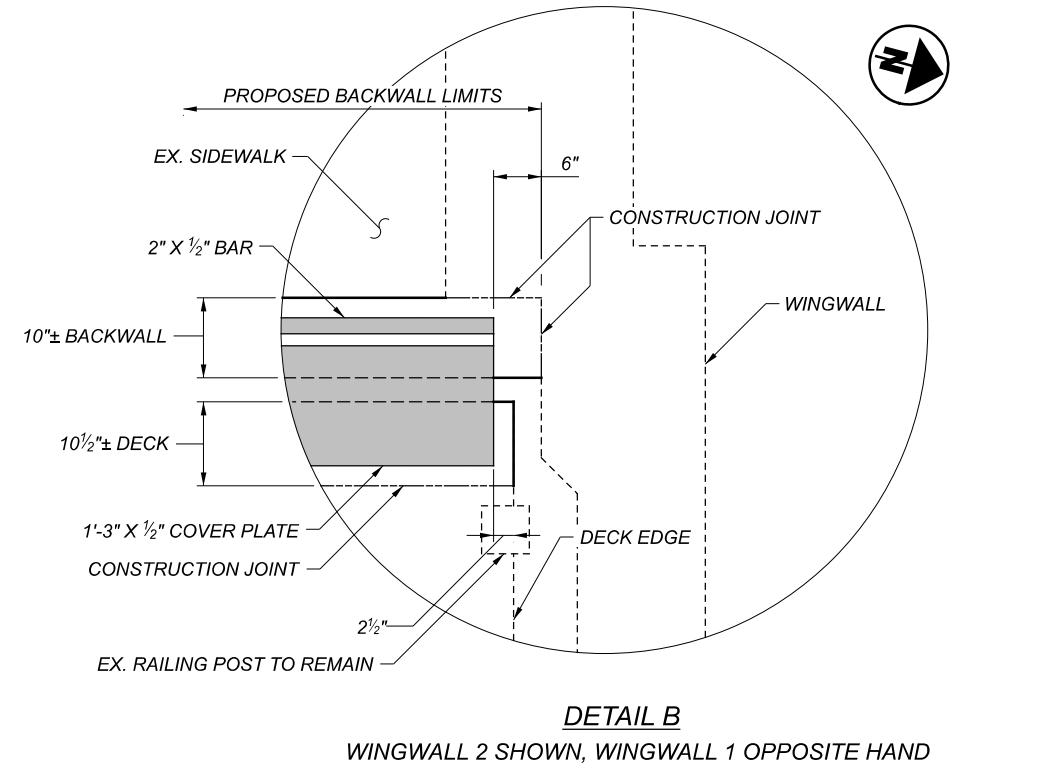
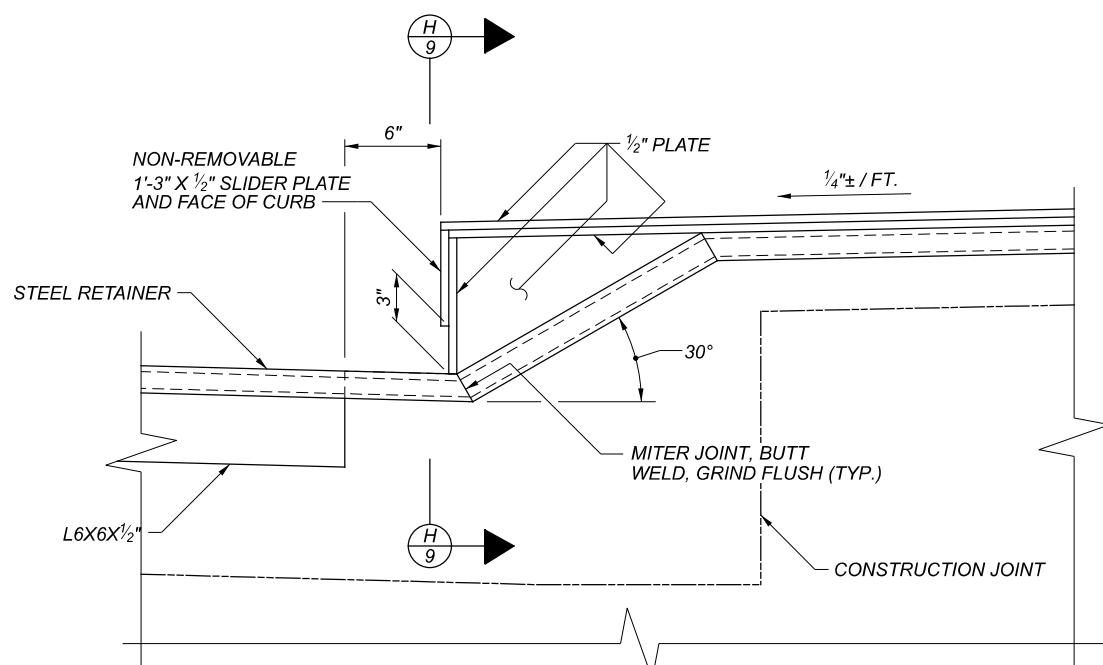
G SECTION
8



PROPOSED SECTION

NOTES

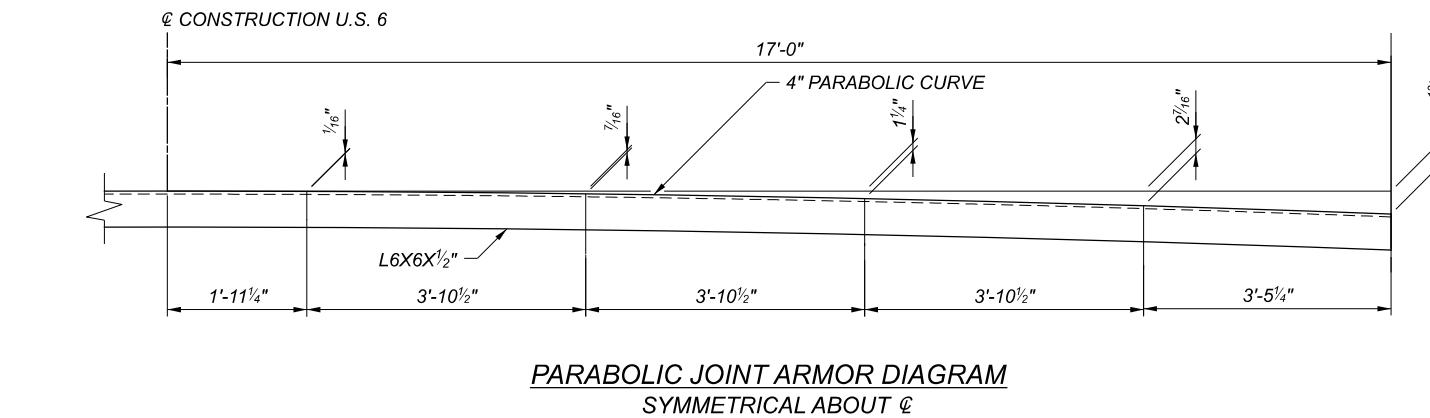
1. FURNISH MATERIAL CONFORMING TO 705.11. COMPRESSION SEAL SHALL BE MANUFACTURED BY WATSON-BOWMAN-ACME (MODEL WA-500) OR AN APPROVED EQUAL. INSTALL THE SEAL ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND UNDER THE SUPERVISION OF THE MANUFACTURER'S DESIGNATED REPRESENTATIVE.
2. FURNISH SEALS IN ONE CONTINUOUS PIECE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
3. PAYMENT FOR HMWM RESIN SHALL BE INCLUDED WITH ITEM 511, CLASS QC2 CONCRETE, SUPERSTRUCTURE.

DETAIL B
WINGWALL 2 SHOWN, WINGWALL 1 OPPOSITE HANDJOINT TREATMENT AT CURBS
TYPICAL AT DECK AND ABUTMENT

AMBIENT TEMPERATURE	DIMENSION A	
	REAR ABUTMENT	
30° F	2"	
40° F	1 7/8"	
50° F	1 5/8"	
60° F	1 1/2"	
70° F	1 1/4"	
80° F	1 1/8"	
90° F	7/8"	

NOTES

1. REFER TO STD. DWG. EXJ-4-87 SHEET 4/5 FOR DIMENSION A CALCULATION TABLES AND SHEET 5/5 FOR GENERAL NOTES, CONSTRUCTION PROCEDURE AND DESIGNER NOTES.
2. CONTRACTOR TO VERIFY JOINT ARMOR GEOMETRY PRIOR TO ORDERING MATERIALS.

PARABOLIC JOINT ARMOR DIAGRAM
SYMMETRICAL ABOUT Q