SPECIFICATIONS

ALL REFERENCES TO THE STANDARD SPECIFICATIONS ARE TO THE 2019 EDITION OF THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION WITH SUPPLEMENTAL SPECIFICATIONS.

ALL REFERENCES TO THE AASHTO SPECIFICATIONS ARE TO THE LRFD BRIDGE DESIGN SPECIFICATIONS, 9th EDITION.

DESIGN LOAD

THE COLUMNS AND CRASH WALL ARE DESIGNED FOR 600 KIP COLLISION FORCE.

DESIGN METHOD

ALL REINFORCED CONCRETE MEMBERS ARE DESIGNED BY THE LOAD AND RESISTANCE FACTOR METHOD AS SPECIFIED IN THE CURRENT AASHTO SPECIFICATIONS.

MATERIALS DESIGN SPECIFICATIONS

FOR CLASS "A" REINFORCED CONCRETE	F'C = 3500 psi
FOR STEEL REINFORCEMENT	FY = 60000 psi

REINFORCEMENT

DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE TO CENTER OF BAR UNLESS OTHERWISE SHOWN. CLEAR DISTANCE TO THE FACE OF CONCRETE IS 2" UNLESS NOTED OTHERWISE. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS.

DRILLING AND ANCHORING INTO EXISTING CONCRETE

FOR ANCHORING NEW REINFORCING STEEL INTO EXISITNG CONCRETE, SEE SECTIONS 511 AND 602.03.04 OF THE STANDARD SPECIFICATIONS. AVOID DRILLING THROUGH COLUMN REINFORCEMENT (VERTICAL AND HOOP). IF REINFORCEMENT CAN NOT BE LOCATED PRIOR TO DRILLING AND IS HIT, STOP DRILLING IMMEDIATELY, SHIFT DRILL TEMPLATE LOCATION AND RE-DRILL. THE COST OF THIS WORK, INCLUDING LABOR, TOOLS, AND MATERIALS IS TO BE INCIDENTAL TO THE UNIT BID PRICE FOR STEEL REINFORCEMENT.

BONDING NEW CONCRETE TO EXISTING CONCRETE

IMMEDIATELY PRIOR TO PLACING NEW CLASS "A" CONCRETE, THE SURFACE AREAS OF EXISTING CONCRETE ARE TO BE COATED WITH A TWO-COMPONENT EPOXY RESIN SYSTEM IN ACCORDANCE WITH SECTIONS 511 AND 826 OF THE STANDARD SPECIFICATIONS. THE COST OF THIS WORK, INCLUDING LABOR, TOOLS, AND MATERIALS IS TO BE INCIDENTAL TO THE UNIT BID PRICE FOR CLASS "A" CONCRETE.

CONCRETE SEALING

CONTRARY TO THE SPECIFICATIONS, DO NOT APPLY MASONRY COATING. INSTEAD APPLY CONCRETE SEALER IN ACCORDANCE WITH THE SPECIAL NOTE FOR CONCRETE SEALING.

BEVELED EDGES

ALL EXPOSED EDGES SHALL BE BEVELED ¾" UNLESS OTHERWISE SHOWN.

TRAFFIC CONTROL

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTING AND MAINTAINING PROPER BARRICADES AND ADVANCE WARNING SIGNALS FOR ROAD CONSTRUCTION AND ROAD CLOSURE.

UTILITIES

BEFORE BEGINNING WORK, LOCATE ALL EXISTING UTILITIES. CONSIDER LOCATION OF ANY UTILITIES SHOWN ON THE EXISTING OR CONTRACT DRAWINGS TO BE APPROXIMATE AND FOR INFORMATIONAL PURPOSES ONLY. THE DEPARTMENT DOES NOT WARRANT THE LOCATIONS AND ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS. THE CONTRACTOR MUST MAKE HIS OWN DETERMINATION. EXCEPT AS SHOWN ON THE PLANS, WORK AROUND AND DO NOT DISTURB EXISTING UTILITIES.

REMOVE EXISTING STRUCTURE

THE EXISTING BARRIER IS TO BE REMOVED AS SHOWN IN THE PLANS, THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR REMOVE CONCRETE MASONRY.

PLANS OF EXISTING STRUCTURE

AS AN AID TO THE CONTRACTOR, PLANS OF THE EXISTING BRIDGES ARE AVAILABLE (SEE DRAWING NUMBER 14170 AND 24676). THE COMPLETENESS AND ACCURACY OF THE DRAWINGS IS NOT GUARANTEED.

VERIFYING FIELD CONDITIONS

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE ORDERING MATERIAL. NEW MATERIAL THAT IS UNSUITABLE BECAUSE OF VARIATIONS IN THE EXISTING STRUCTURE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

DAMAGE TO THE STRUCTURE

THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGE TO THE EXISTING STRUCTURE, SHOULD IT BE ALLOWED TO FALL DUE TO THE CONTRACTOR'S ACTIONS. THE CONTRACTOR IS RESPONSIBLE FOR BOTH THE REMOVAL AND REPLACEMENT OF THE FALLEN PORTION AT THE CONTRACTOR'S EXPENSE.

ABBREVIATIONS

℄	CENTERLINE	EQ	EQUAL	TYP	TYPICAL
COL	COLUMN	MIN	MINIMUM	UNO	UNLESS NOTED OTHERWISE
CLR	CLEAR	MAX	MAXIMUM	VAR	VARIES
EF	EACH FACE	PROJ	PROJECTION		
EMBED	EMBEDMENT	SPA	SPACE		

ESTIMATE OF QUANTITES

BID CODE	ITEM	QUANTITY	UNIT
2403	REMOVE CONCRETE MASONRY	38.2	CY
8100	CONCRETE CLASS A	111.3	CY
8150	STEEL REINFORCEMENT	14,193	LB
23378EC	CONCRETE SEALING	2,944	SF
25078ED	THRIE BEAM GUARDRAIL TRANSITION TL-3	2	EA

INDEX OF SHEETS

SPECIAL NOTES

CONCRETE SEALING

SPECIAL PROVISIONS

NA

STANDARD DRAWINGS

BHS-014	THRIE-BEAM GUARDRAIL TRANSITION (TL-3)

SPECIFICATIONS

2019 Standard Specifications for Road and Bridge Construction

2020 (9th Edition) AASHTO LRFD Bridge Design Specifications

REVISION	DATE

DATE: JUNE 2024	CHECKED BY
DESIGNED BY: C. ELLISON	J. MURPHY
DETAILED BY: E. TRIMBLE	C. ELLISON

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY
HOPKINS

ROUTE	CROSSING
KY 281	I-69

GENERAL NOTES & EST QUANTITIES

ITEM NUMBER
2-20029

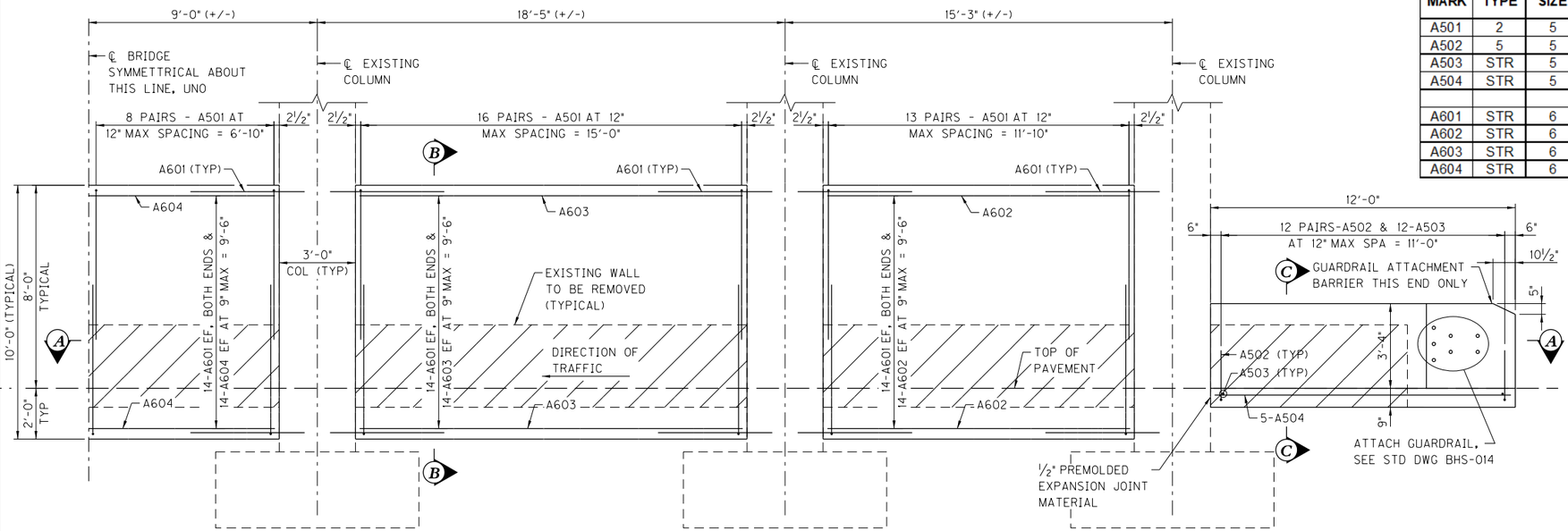
PREPARED BY
Stantec

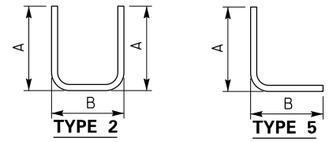
SHEET NO. S1

DRAWING NO.

BILL OF REINFORCEMENT

MARK	TYPE	SIZE	NO.	LENGTH FT.	LENGTH IN.	LOCATION	A FT.	A IN.	B FT.	B IN.	C FT.	C IN.	D FT.	D IN.
A501	2	5	296	13	6	WALL	5	11	1	8				
A502	5	5	48	2	9	WALL	2	0	0	9				
A503	STR	5	24	2	8	WALL								
A504	STR	5	10	11	6	WALL								
A601	STR	6	560	4	6	WALL/COLUMN								
A602	STR	6	112	12	3	WALL								
A603	STR	6	112	15	5	WALL								
A604	STR	6	56	15	0	WALL								

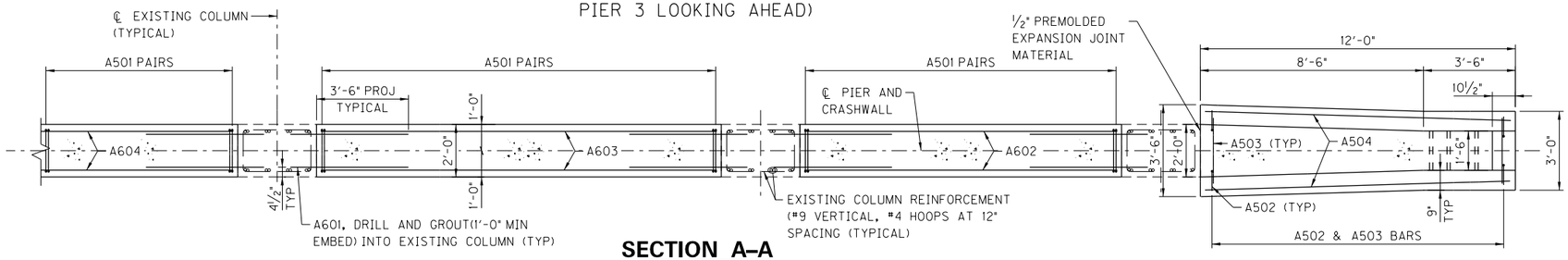




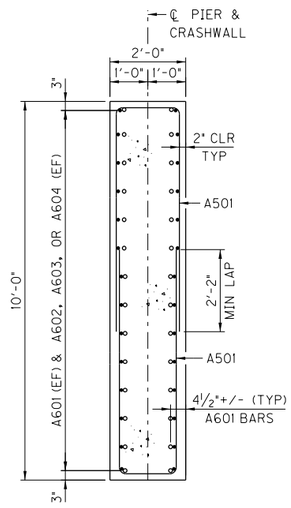
NOTE:
FIELD CUT A602, A603 AND A604 AS REQUIRED TO FIT.

PART ELEVATION – PIERS 1 & 3

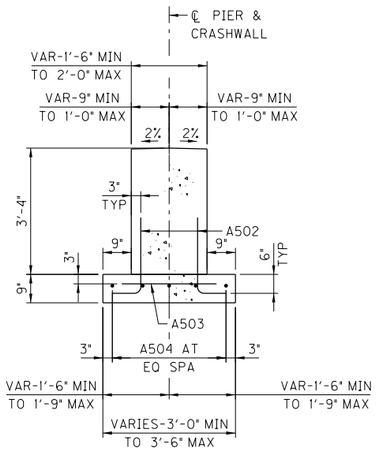
(PIER 1 LOOKING BACK, PIER 3 LOOKING AHEAD)



SECTION A–A



SECTION B–B



SECTION C–C

REVISION	DATE

DATE: JUNE 2024	CHECKED BY
DESIGNED BY: C. ELLISON	J. MURPHY
DETAILED BY: E. TRIMBLE	C. ELLISON

Commonwealth of Kentucky
DEPARTMENT OF HIGHWAYS

COUNTY: **HOPKINS**

ROUTE: **KY 281** | CROSSING: **I-69**

PIER CRASHWALL ADDITION

ITEM NUMBER: **2–20029**

PREPARED BY: Stantec

SHEET NO.: S2

DRAWING NO.: