

90% FED
10% STATE

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTR. CODE	
				URBAN	
				MINOR STRUCTURES	
				0047	082-0318
70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2		2
X5870015	BRIDGE DECK CONCRETE SEALER	SQ FT	62675		62675
X7010208	TRAFFIC CONTROL AND PROTECTION, STANDARD 701402 (SPECIAL)	EACH	1		1
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	1191		1191
X8570000	SMART TRAFFIC MONITORING SYSTEM	L SUM	1		1
Z0034393	MODULAR EXPANSION JOINT 9"	FOOT	40		40
Z0034700	MODULAR EXPANSION JOINT 24"	FOOT	40		40
∅ Z0076600	TRAINEES	HOUR	500		500
∅ Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500		500



∅ 0042

⚠ REVISED 10-19-2021

REV. - MS

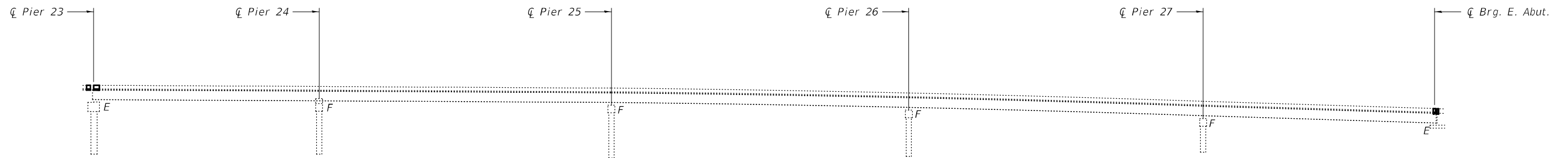
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USER NAME = challandeske	DESIGNED -	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 8/12/2021	CHECKED -	REVISED +
	DATE -	REVISED +

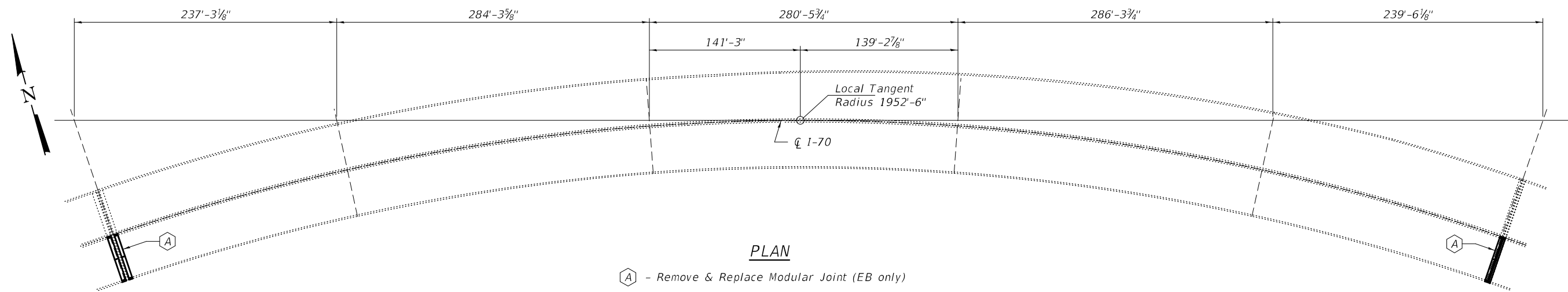
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70A	82-2-1HVB-BJR-1	ST. CLAIR	18	4
				CONTRACT NO. 76P05
ILLINOIS FED. AID PROJECT				



ELEVATION
(Looking North)



PLAN

A - Remove & Replace Modular Joint (EB only)

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.

Reinforcement bars designated (E) shall be epoxy coated.

Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.

The steel components for the Modular Expansion Joints shall be hot-dip galvanized according to Special Provision "Hot Dip Galvanizing for Structural Steel".

Existing structure plans will be made available upon request.

DESIGN SPECIFICATIONS

AASHTO LRFD Bridge Design Specifications

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	29.5
Concrete Superstructure	Cu. Yd.	29.5
Reinforcement Bars, Epoxy Coated	Pound	1930
Protective Coat	Sq. Yd.	58
Bar Splicers	Each	35
Modular Expansion Joint 9"	Foot	40
Modular Expansion Joint 24"	Foot	40
Bridge Deck Concrete Sealer	Sq. Ft.	62675



REVISED 10-19-2021

EXPIRES 11-30-2022

DESIGNED - Victor H. Veliz
 CHECKED - Chi-Cheung Chau
 DRAWN - daburdell
 CHECKED - VHV CCC

EXAMINED - *Twigg A. DeJ...*
 ENGINEER OF STRUCTURAL SERVICES
 PASSED - *Dr. Carl Puzey*
 ENGINEER OF BRIDGES AND STRUCTURES

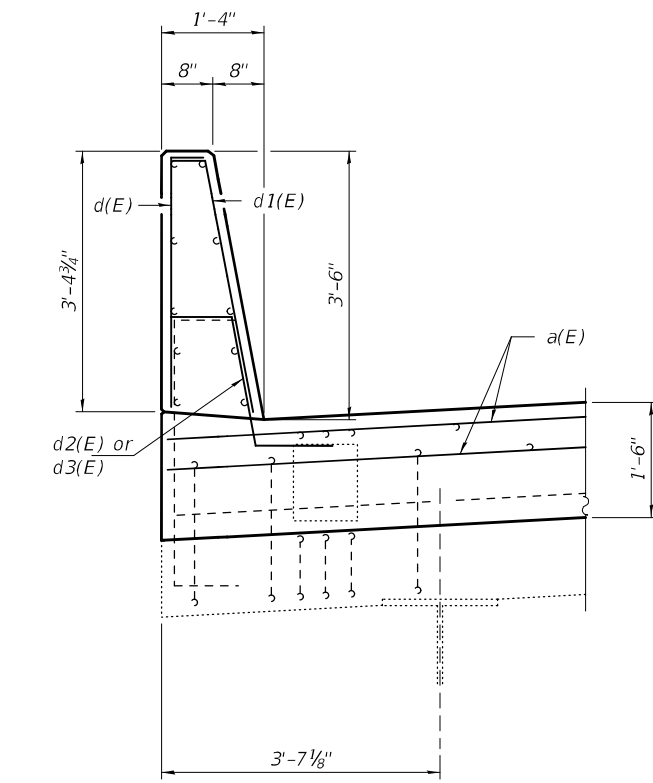
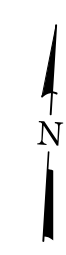
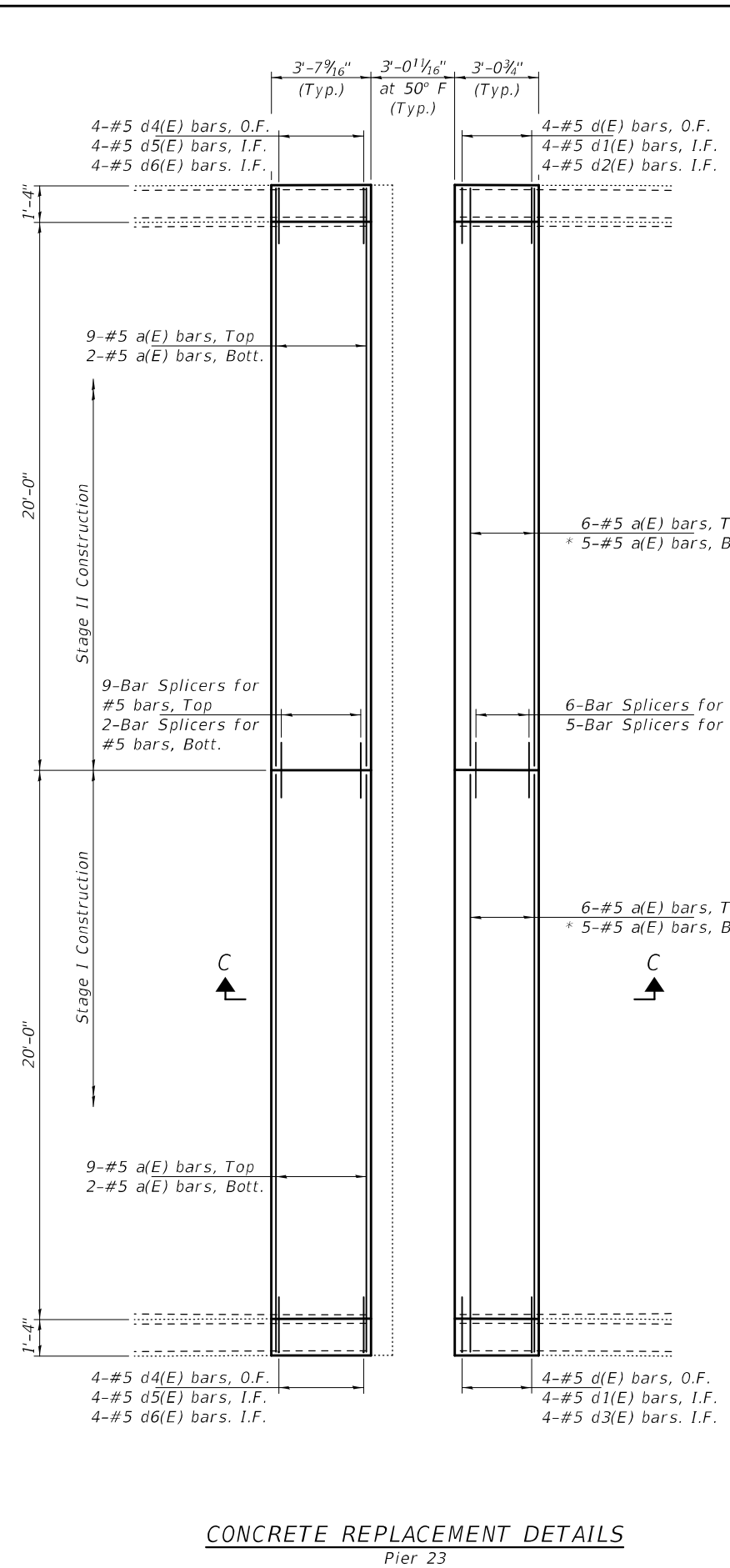
DATE - SEPTEMBER 30, 2021
 REVISED - Revised 10/18/2021 VHV
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

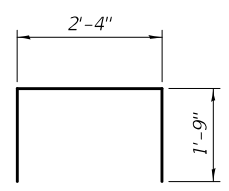
GENERAL PLAN AND ELEVATION
 FAI 70 OVER MISSISSIPPI RIVER
 SN 082-0318 (EB)

SHEET NO. 1 OF 8 SHEETS

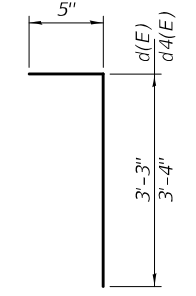
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	82-2-1HVB-BJR-1	ST. CLAIR	18	9
CONTRACT NO. 76P05				
ILLINOIS FED. AID PROJECT				



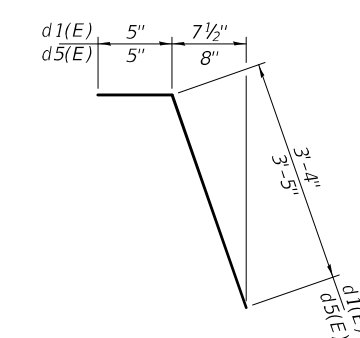
SECTION D-D



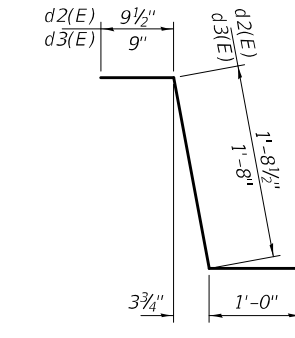
BAR u(E)



BARS d(E) & d4(E)

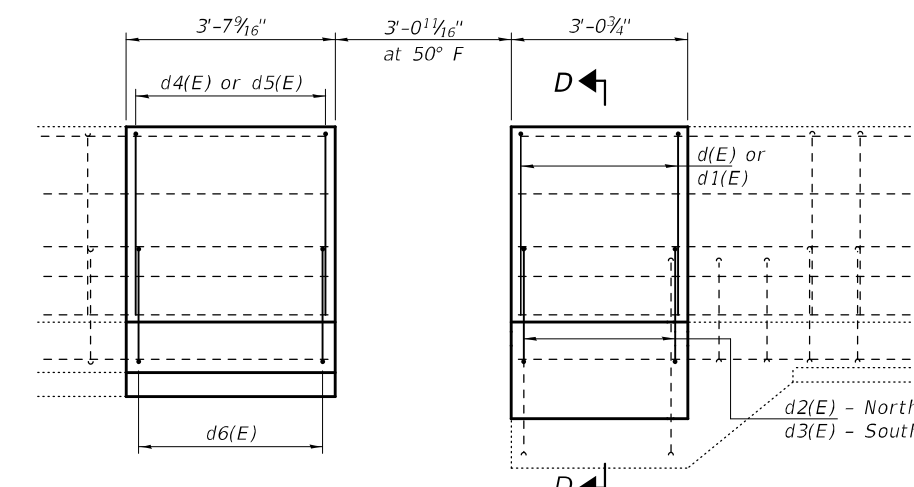


BARS d1(E) & d5(E)

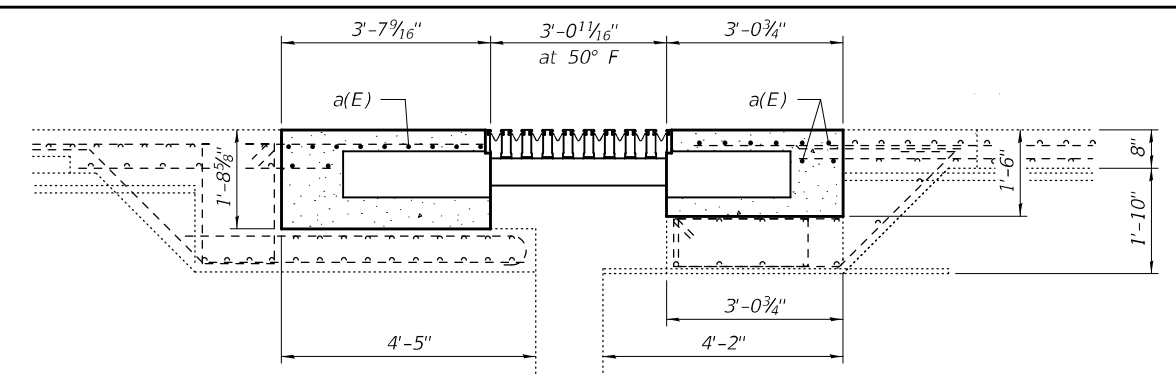


BARS d2(E) & d3(E)

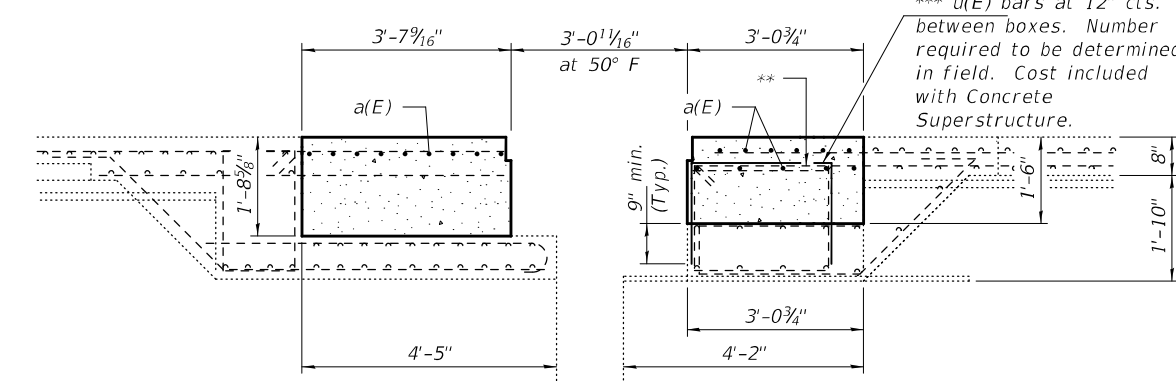
* a(E) bars cut to fit between boxes.



OUTSIDE VIEW AT SOUTH PARAPET
(North Parapet similar, except as noted.)



SECTION C-C
(At Support Box)



SECTION C-C
(Between Support Boxes)

** As required, cut existing stirrup flush only if it interferes with proposed support boxes. Number required to be determined in field. Cost included with Concrete Superstructure.

*** Epoxy grout u(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.

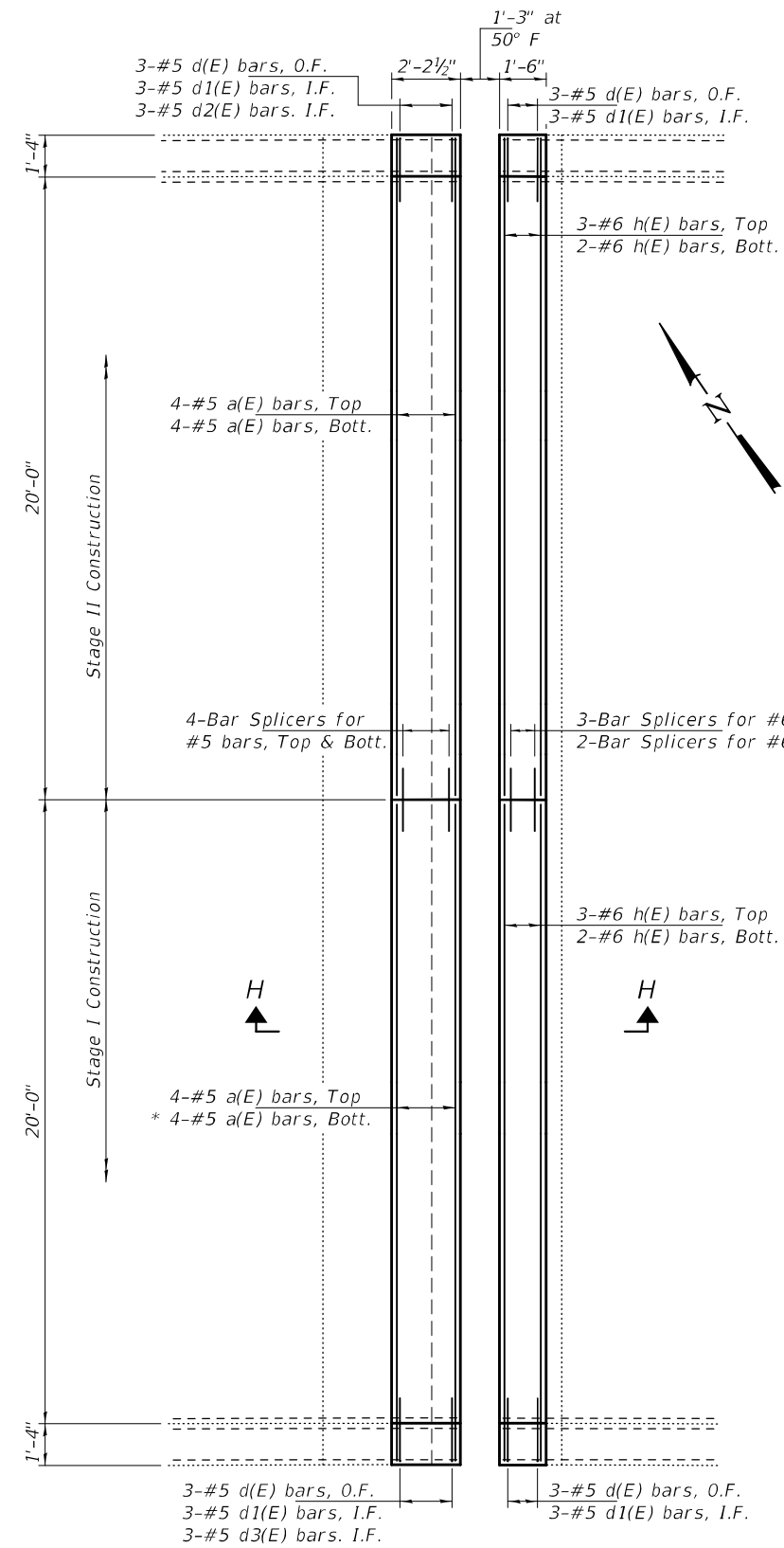
**** Expected lateral movement = 1/2".

BILL OF MATERIAL

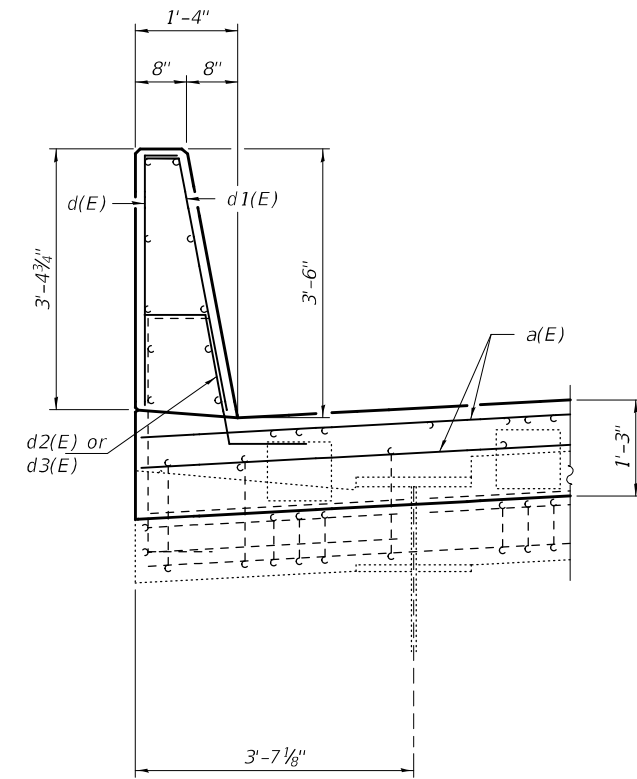
Bar	No.	Size	Length	Shape
a(E)	44	#5	21'-0"	—
d(E)	8	#5	3'-8"	┌
d1(E)	8	#5	3'-9"	└
d2(E)	4	#5	3'-6"	└
d3(E)	4	#5	3'-5"	└
d4(E)	8	#5	3'-9"	┌
d5(E)	8	#5	3'-10"	└
d6(E)	8	#5	3'-8"	┌
Concrete Removal		Cu. Yd.	19.2	
Concrete Superstructure		Cu. Yd.	19.2	
Bar Splicers		Each	22	
Protective Coat		Sq. Yd.	38	
Reinforcement Bars, Epoxy Coated		Pound	1150	
Modular Expansion Joint 24"		Foot	40	

Placement of reinforcement within the joint block out needs to be coordinated with the joint manufacturer.

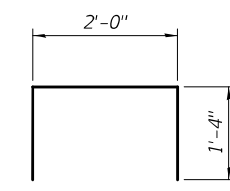
REVISION 10-19-2021



CONCRETE REPLACEMENT DETAILS
(East Abutment)

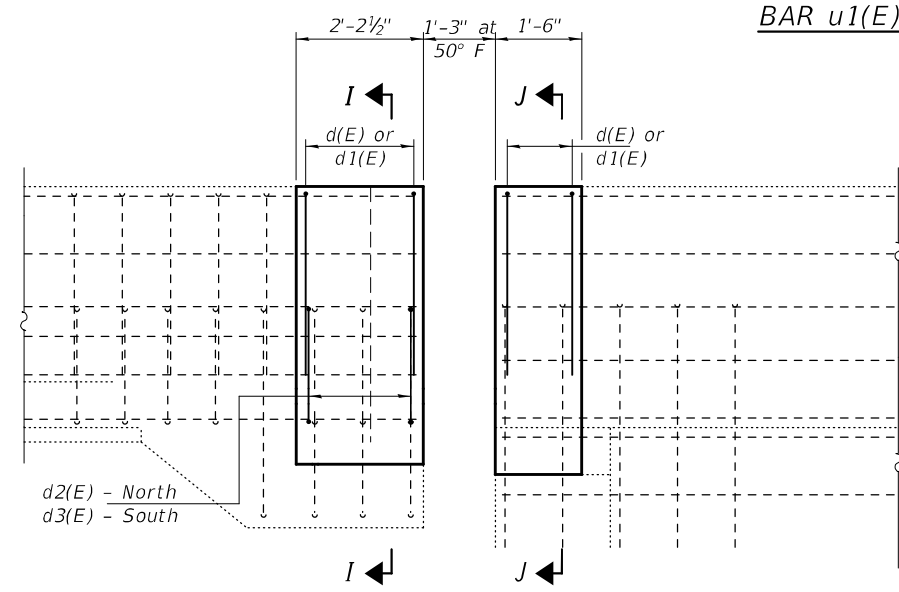


SECTION I-I

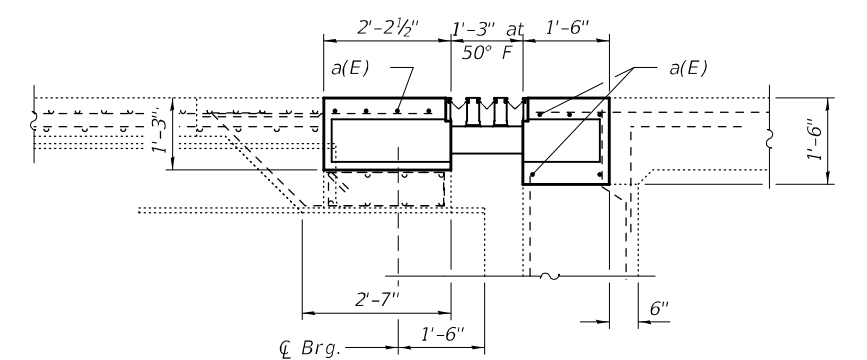


BAR u1(E)

* a1(E) and h(E) bars cut to fit between boxes.

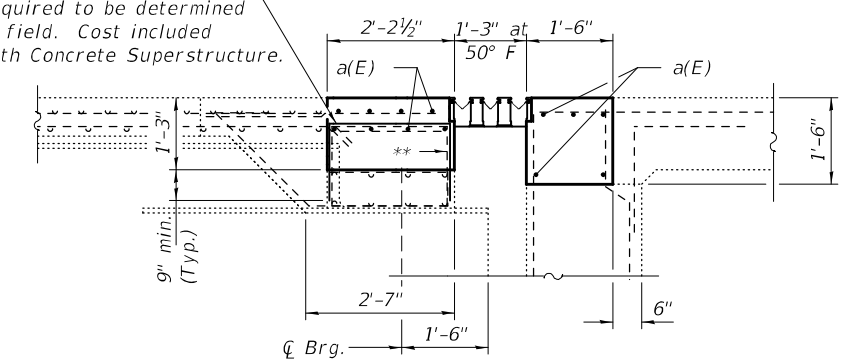


OUTSIDE VIEW AT EAST PARAPET
(North Parapet similar, except as noted.)



SECTION H-H
(At Support Box)

*** u1(E) bars at 12" cts. between boxes. Number required to be determined in field. Cost included with Concrete Superstructure.

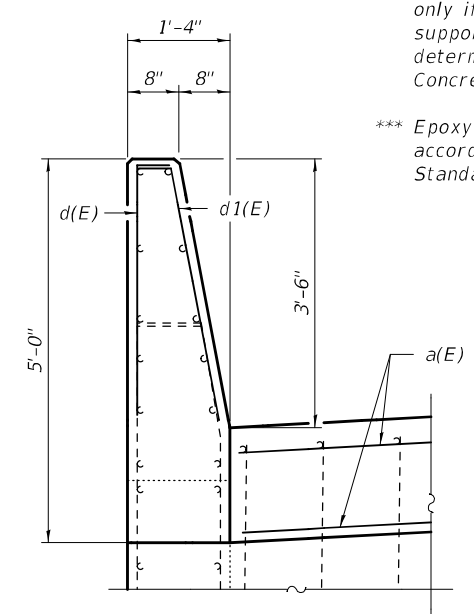


SECTION H-H
(Between Support Boxes)

** As required, cut existing stirrup flush only if it interferes with proposed support boxes. Number required to be determined in field. Cost included with Concrete Superstructure.

*** Epoxy grout u1(E) bars in 9" min. holes according to Article 584 of the Standard Specifications.

**** Expected lateral movement = 1/2".



SECTION J-J

Note:
See sheet 4 of 8 for bar bending diagrams.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	16	#5	21'-0"	—
d(E)	12	#5	3'-8"	┌
d1(E)	12	#5	3'-9"	└
d2(E)	3	#5	3'-6"	~
d3(E)	3	#5	3'-5"	~
h(E)	10	#6	21'-0"	—
Concrete Removal		Cu. Yd.	10.3	
Concrete Superstructure		Cu. Yd.	10.3	
Bar Splicers		Each	13	
Protective Coat		Sq. Yd.	20	
Reinforcement Bars, Epoxy Coated		Pound	780	
Modular Expansion Joint 9"		Foot	40	

Placement of reinforcement within the joint block out needs to be coordinated with the joint manufacturer.

REVISED 10-19-2021