

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE	
				ROADWAY	BRIDGE
				0047 URBAN	0047 016-0702
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	20	20	
25200110	SODDING, SALT TOLERANT	SQ YD	20	20	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	300	300	
40600535	LEVELING BINDER (HAND METHOD), N70	TON	3	3	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	320	320	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	71	71	
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	300	300	
44000600	SIDEWALK REMOVAL	SQ FT	300	300	
50102400	CONCRETE REMOVAL	CU YD	38	38	▲
50300255	CONCRETE SUPERSTRUCTURE	CU YD	38.8	38.8	
50300260	BRIDGE DECK GROOVING	SQ YD	577	577	
50300300	PROTECTIVE COAT	SQ YD	236	236	
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	20	20	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	6770	6770	

* SPECIALTY ITEM

▲ REV. 6-5-2018

FILE NAME: I:\18383 PTB 182 04\18383.17-IL 171 over Sal\1\18383\171-171.dwg

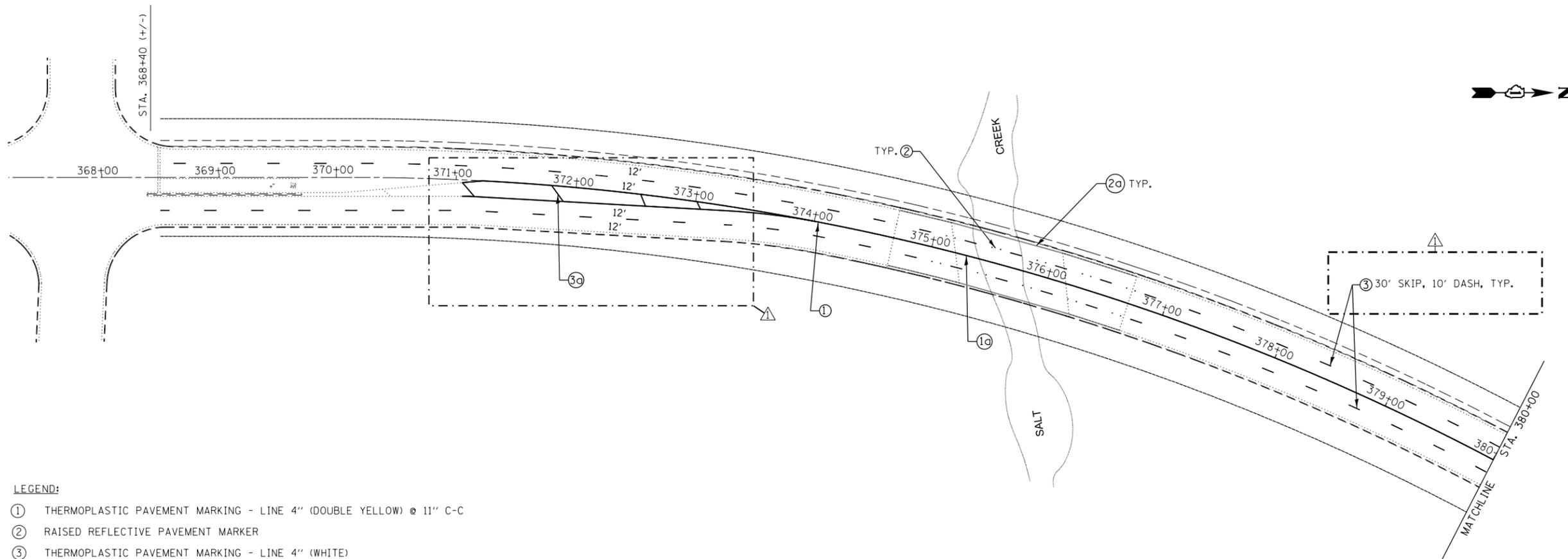
COLLINS ENGINEERS
123 North Wacker Drive
Suite 900
Chicago, IL 60606
312.704.9900
www.collinseng.com

USER NAME = ztanner	DESIGNED - ZJT	REVISED -
PLLOT SCALE = 0.1667' / 1"	DRAWN - ZJT	REVISED -
PLLOT DATE = 3/23/2018	CHECKED - KWH	REVISED -
	DATE - 03/23/2018	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
ILLINOIS 171 (FIRST AVENUE)			
SCALE: NONE	SHEET 1 OF 4 SHEETS	STA.	TO STA.

F.A.U. RTE. 372	SECTION 0202-BR	COUNTY COOK	TOTAL SHEETS 27	SHEET NO. 3
CONTRACT NO. 60R73				
ILLINOIS FED. AID PROJECT				

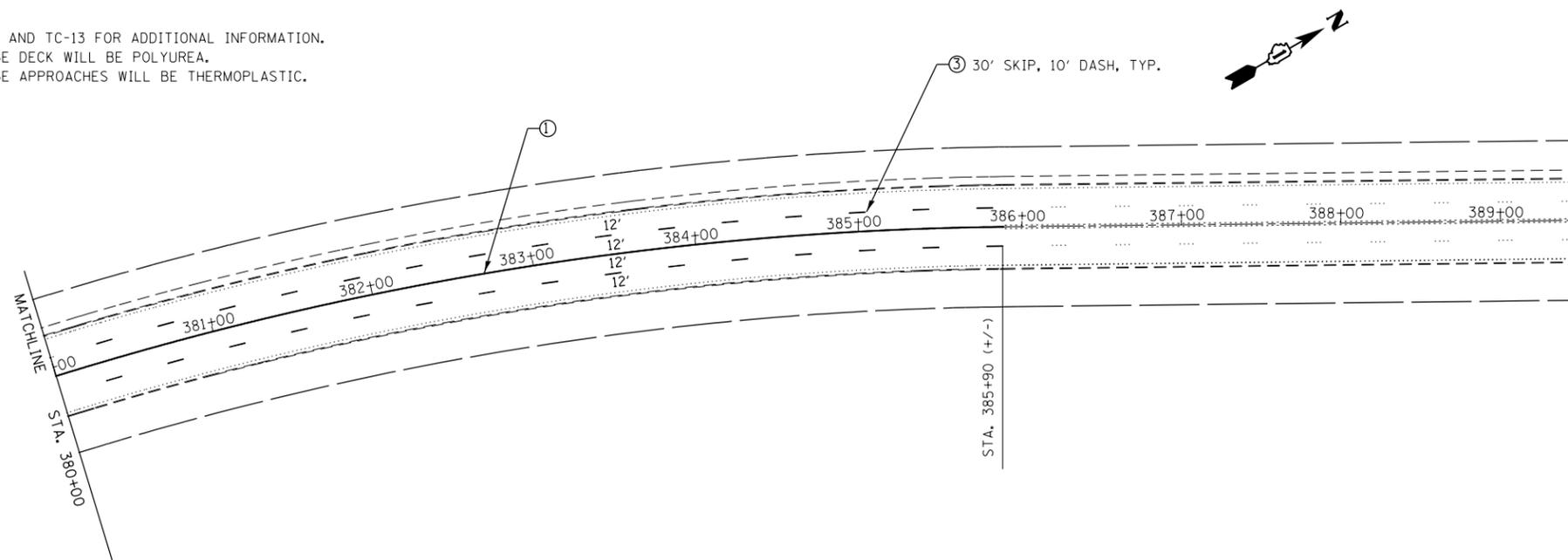


LEGEND:

- ① THERMOPLASTIC PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW) @ 11" C-C
- ② RAISED REFLECTIVE PAVEMENT MARKER
- ③ THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE)
- ①a POLYUREA PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW) @ 11" C-C
- ②a POLYUREA PAVEMENT MARKING - LINE 4" (WHITE)
- ③a THERMOPLASTIC PAVEMENT MARKING - LINE 12" (DIAGONALS YELLOW), 5 MINIMUM

NOTES:

1. REFER TO DISTRICT ONE DETAILS TC-11 AND TC-13 FOR ADDITIONAL INFORMATION.
2. ALL PAVEMENT MARKINGS ON THE BRIDGE DECK WILL BE POLYUREA.
3. ALL PAVEMENT MARKINGS ON THE BRIDGE APPROACHES WILL BE THERMOPLASTIC.



△ REV. 6-5-2018

FILE NAME = I:\10203_PTB_182_04\1020317-IL_171_ever_Salt\CADD\CADD_Sheets\0160R73-shr.pmk.dgn

COLLINS ENGINEERS
123 North Wacker Drive
Suite 900
Chicago, IL 60606
(312) 704-9100
www.collinsengr.com

USER NAME = kvonholten	DESIGNED - ZJT	REVISED - 05/25/18 KVV
DRAWN - ZJT	REVISIONS -	
PLOT SCALE = 100.0000' / 1" =	CHECKED - KVV	REVISIONS -
PLOT DATE = 5/25/2018	DATE - 03/23/2018	REVISIONS -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
ILLINOIS 171 (FIRST AVENUE)**

SCALE: 1"=50' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	0202-BR	COOK	27	11
CONTRACT NO. 60R73				
ILLINOIS FED. AID PROJECT				

Existing Structure No. 016-0702 was built in 1931 as SA 33 Section 0202.
 In 1984, under FAU 2746 Section 0204, the superstructure was replaced.
 Existing Structure is a two span reinforced concrete slab on reinforced concrete beams between closed abutments, 107'-2 $\frac{3}{8}$ " bk. to bk. abutments, 59'-9" out to out deck.

Traffic to be maintained via staged construction.

Salvage: None

INDEX OF SHEETS

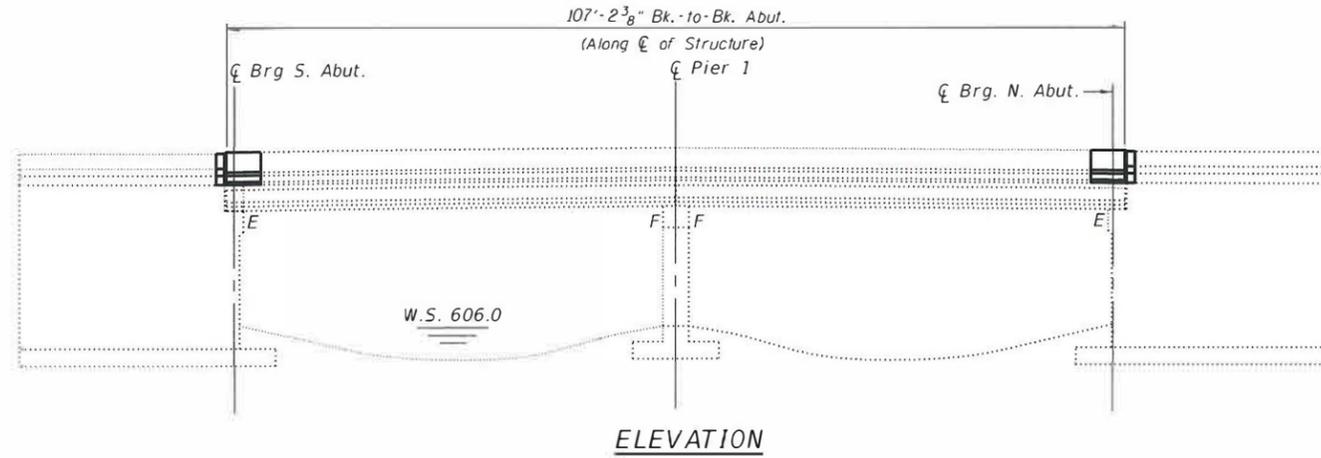
- S1 General Plan
- S2 Stage Construction Details
- S3 Deck Plan Stage Removal
- S4 Deck Plan Stage Removal
- S5 Expansion Joint Repair
- S6-S7 Preformed Joint Strip Seal
- S8 Bar Splicer Assembly
- S9 Substructure Repairs
- S10 Stream Gauge

SCOPE OF WORK

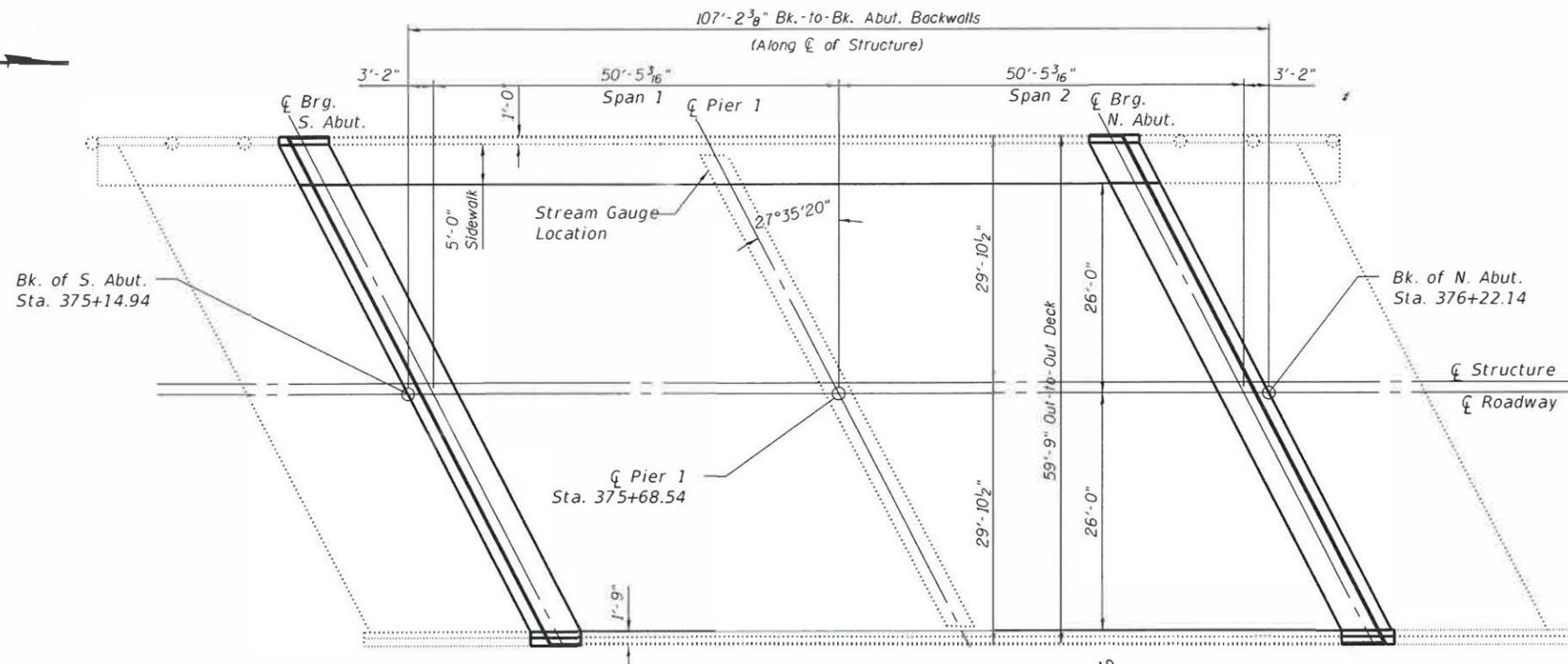
1. Remove and Replace Expansion Joints.
2. Scarify and Repair Deck.
3. Place Concrete Overlay on Deck.
4. Clean and Seal Bridge Seats.
5. Substructure Repairs
6. Apply Protective Coat.
7. Finish and install Stream Gauge.

TOTAL BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	38.0
Concrete Superstructure	Cu. Yd.	38.8
Bridge Deck Grooving	Sq. Yd.	577
Protective Coat	Sq. Yd.	236
Furnishing and Erecting Structural Steel	Pound	20
Reinforcement Bars, Epoxy Coated	Pound	6770
Bar Splicers	Each	36
Preformed Joint Strip Seal	Foot	135
Concrete Sealer	Sq. Ft.	294
Polymer Modified Portland Cement Mortar	Sq. Ft.	5
Stream Gauge	Ea.	1
Bridge Deck Latex Concrete Overlay 2 $\frac{1}{2}$ "	Sq. Yd.	548
Cleaning Bridge Seats	Sq. Ft.	294
Bridge Deck Scarification $\frac{3}{4}$ "	Sq. Yd.	548
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	149
Structural Repair of Concrete (Depth Greater than 5 inches)	Sq. Ft.	277
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	4



ELEVATION



PLAN



LOCATION SKETCH

Proposed Improvement

GENERAL NOTES

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.

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

Reinforcement bars designated (E) shall be epoxy coated.

Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into 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.

Areas of deck repairs shown are estimated. The Engineer shall show actual locations of deck repairs on As-built Plans.

The Contractor shall use extreme care during concrete removal so as not to damage the PPC I-beams.

Protective coat shall be applied to the top and inside faces of the bridge deck parapets, curbs, sidewalks, and the transverse joint reconstruction areas.

Synthetic fibers shall be added to the bridge deck latex concrete overlay. See special provisions.



JASON M. SCHNEIDER, S.E., P.E.
 EXP. 11/30/2018

REVISIONS
 Δ REVISED SHEET 6-5-2018

COLLINS ENGINEERS INC.
 123 North Wacker Drive
 Suite 900
 Chicago, IL 60606
 (312) 704-9500
 www.collinsengr.com

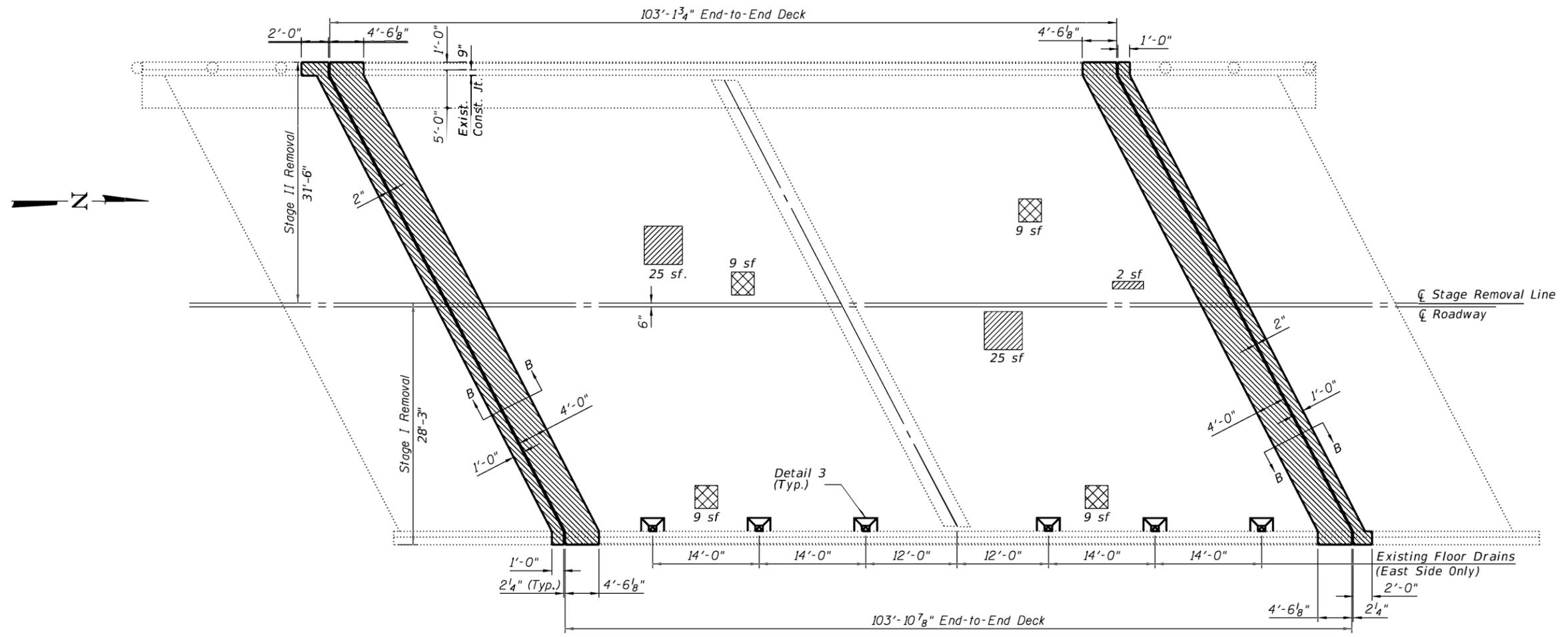
DESIGNED - KVH	REVISED - 05/25/18 KVH
CHECKED - JMS	REVISED -
DRAWN - KVH	REVISED -
CHECKED - JMS	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN
 STRUCTURE NO. 016-0702**

SHEET NO. S1 OF S10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	0202-BR	COOK	27	12
STA. TO STA.	CONTRACT NO. 60R73			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



DECK PLAN - STAGE 1

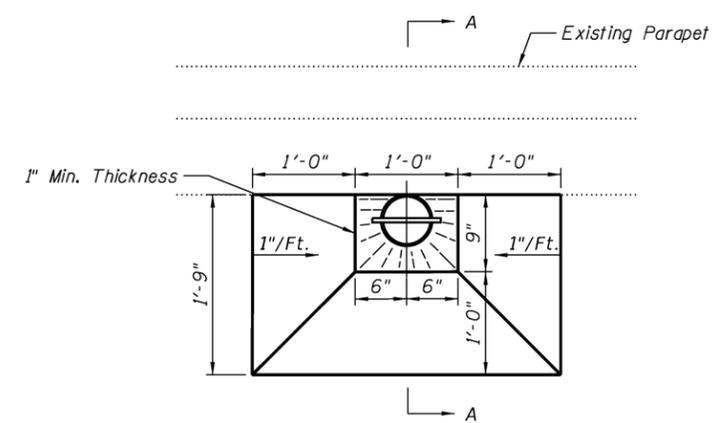
NOTES:

1. Deck Slab Repair areas estimated based on visual inspection completed in June 2017 and November 2017. Actual repair areas and locations shall be determined by the Engineer and shown on the as-built plans.
2. For Section B-B and Expansion Joint Reconstruction Details See Sheet S5.
3. Bridge Deck Scarification, 3/4" and Bridge Deck Latex Concrete Overlay, 2 1/2" shall be performed over the limits of the bridge deck, excluding the transverse joint reconstruction areas.
4. The Contractor is responsible for preventing debris from falling into the waterway.

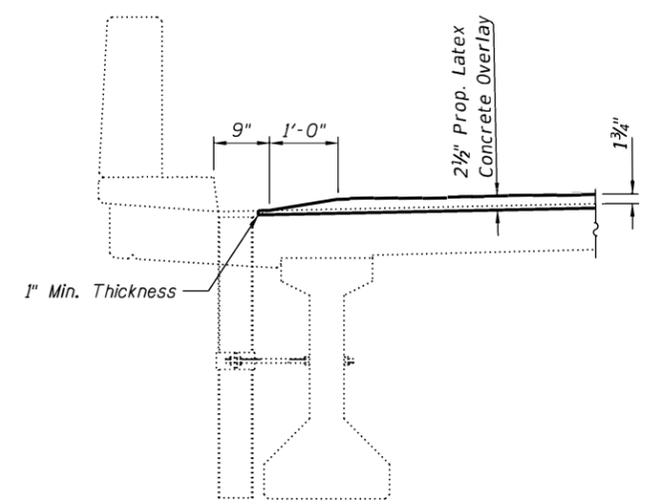
BILL OF MATERIAL

Legend	Item	Unit	Total
	Deck Slab Repair (Partial Depth)*	Sq. Yd.	6
	Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	4
	Concrete Removal	Cu. Yd.	38.0

* For Information Only to assist the Contractor in bidding. See Special Provision for "Bridge Deck Latex Concrete Overlay".



DETAIL 3
SHOWING OVERLAY TAPER AT FLOOR DRAINS



SECTION A-A

REVISD SHEET 6-5-2018

SHEET INTENTIONALLY LEFT BLANK

△ SHEET REVISED 6-5-2018

COLLINS ENGINEERS
 123 North Wacker Drive
 Suite 900
 Chicago, IL 60606
 (312) 704-9300
 www.collinsengr.com

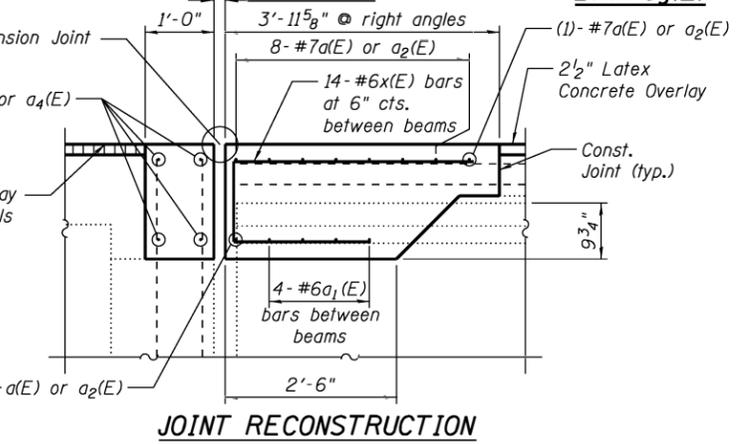
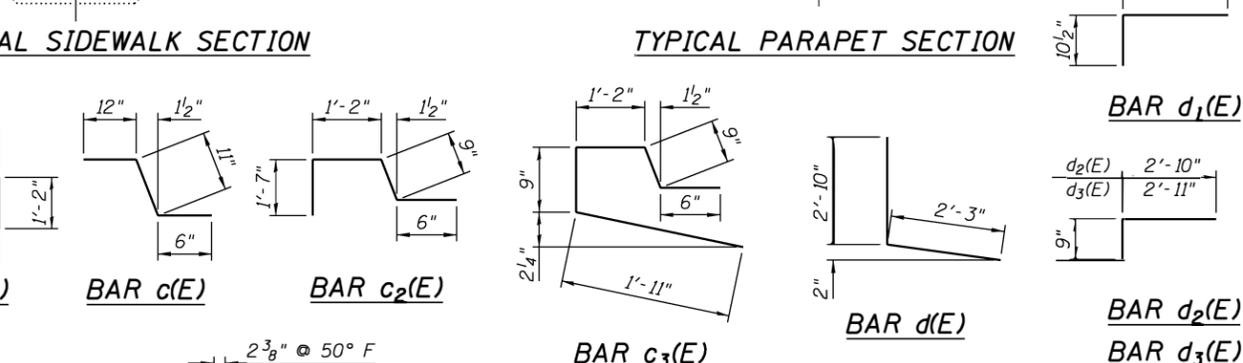
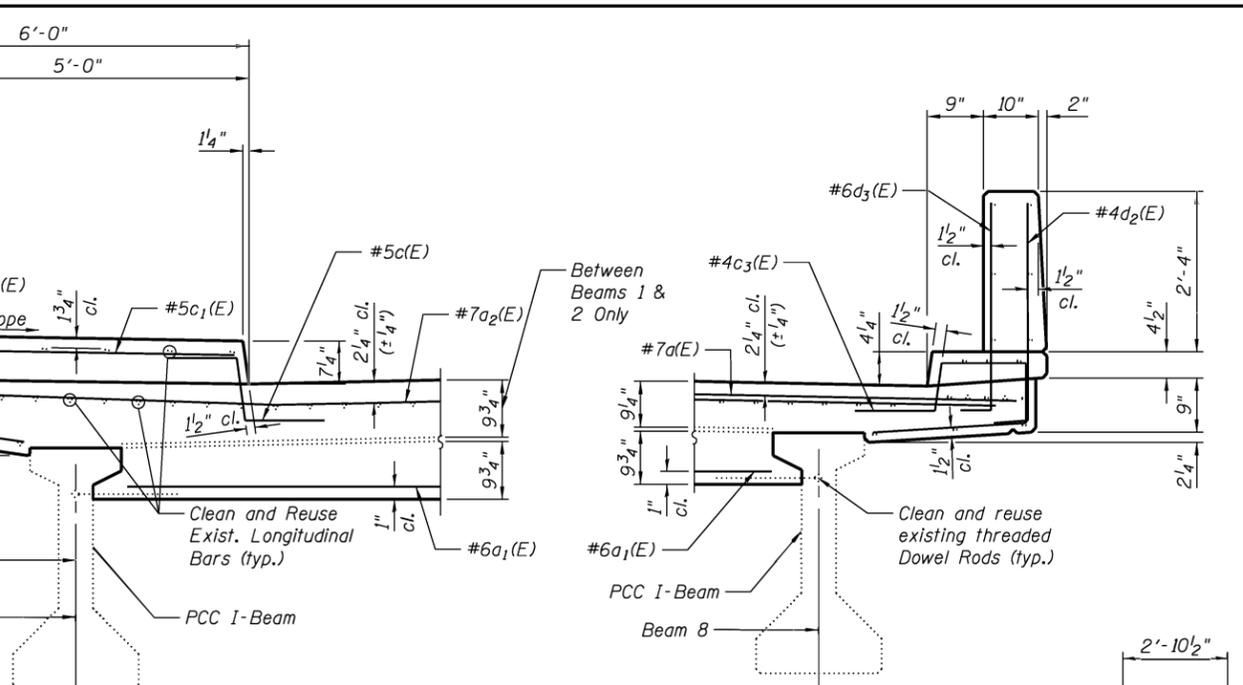
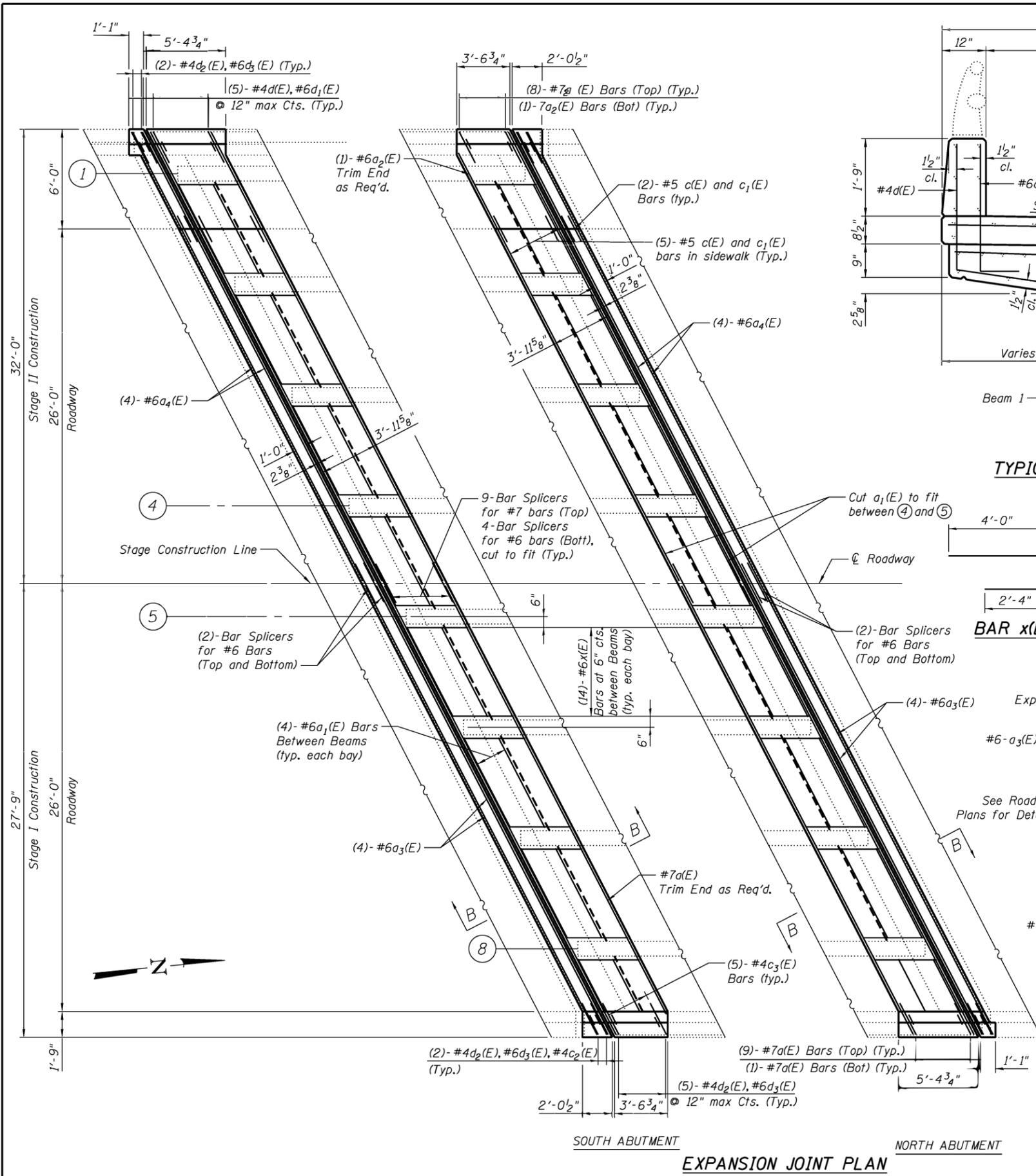
DESIGNED - KVH	REVISED - 05/25/18 KVH
CHECKED - JMS	REVISED -
DRAWN - KVH	REVISED -
CHECKED - JMS	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**DECK PLAN STAGE REMOVAL
 STRUCTURE NO. 016-0702**

SHEET NO. S4 OF S10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	0202-BR	COOK	27	15
STA. TO STA.			CONTRACT NO. 60R73	
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



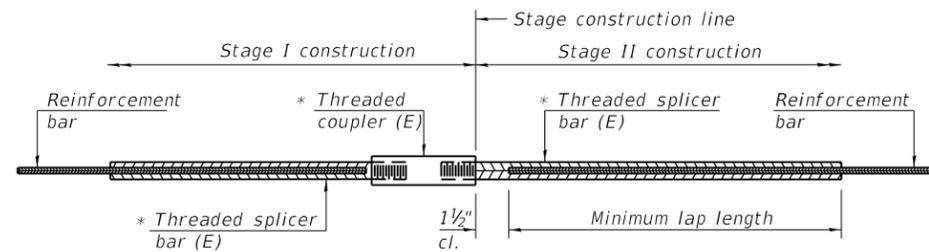
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	20	#7	31'-0"	—
a1(E)	56	#6	7'-7"	—
a2(E)	20	#7	35'-9"	—
a3(E)	8	#6	31'-0"	—
a4(E)	8	#6	35'-9"	—
c(E)	14	#5	2'-5"	—
c1(E)	14	#5	5'-8"	—
c2(E)	4	#4	4'-0"	—
c3(E)	10	#4	5'-1"	—
d(E)	10	#4	5'-1"	—
d1(E)	10	#6	3'-9"	—
d2(E)	18	#4	3'-7"	—
d3(E)	18	#6	3'-8"	—
x(E)	196	#6	7'-6"	—
Concrete Superstructure			Cu. Yd.	38.8
Reinforcement Bars, Epoxy Coated			Pound	6770

NOTES
 For details of Preformed Joint Strip Seal Expansion Joints, see Sheet No. S6.
 Existing longitudinal deck, sidewalk and parapet reinforcement shall remain in place. The contractor shall exercise care during removal of existing joints to ensure that the slab, beams and diaphragms integrity will not be detrimentally impacted. The contractor shall repair any damage(s) to the slabs, beams, and diaphragms caused by his operation as directed by the engineer at no additional cost to the department.
 Placement of longitudinal reinforcement shall be parallel to roadway. Placement of traverse reinforcement shall be parallel to Abutment.
 The removal and reattachment of guardrail, handrail, traffic barrier terminal, etc. required for the traverse joint replacement shall be included in the pay item "Concrete Removal."

See Sheet S8 for Bar Splicers.
 Incorporate all existing longitudinal bars into new joint repair areas.

REVISIONS SHEET 6-5-2018

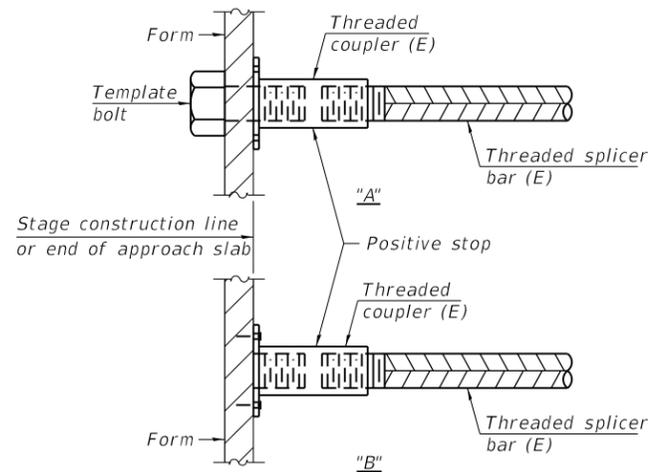


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
South Abut. - Deck	7	10	4'-2"
South Abut. - Deck	6	4	3'-7"
South Abutment	6	4	4'-0"
North Abut. - Deck	7	10	4'-2"
North Abut. - Deck	6	4	3'-7"
North Abutment	6	4	4'-0"

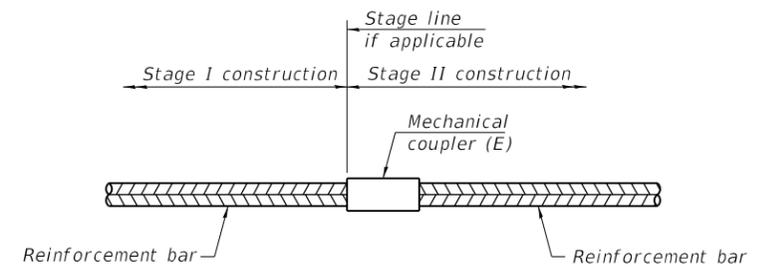


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

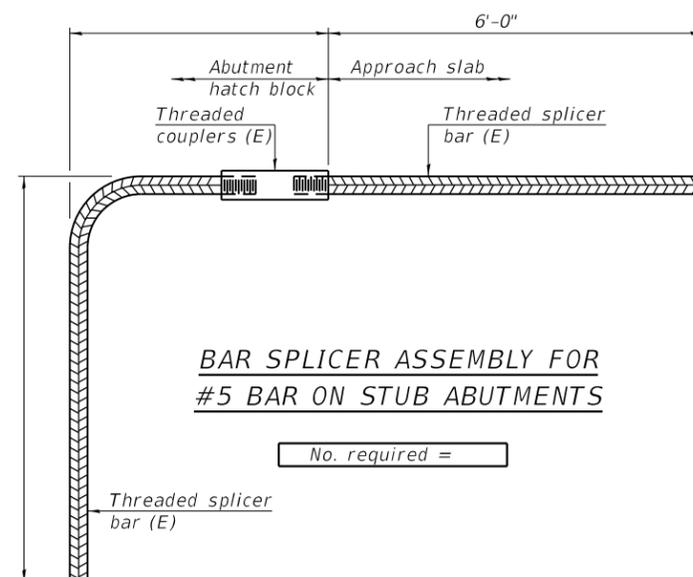
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars. Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 2-17-2017

COLLINS ENGINEERS
123 North Wacker Drive
Suite 900
Chicago, IL 60606
(312) 704-9300
www.collinsengr.com

DESIGNED - KVH	REVISED - 05/25/18 KVH
CHECKED - JMS	REVISED -
DRAWN - KVH	REVISED -
CHECKED - JMS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO.

SHEET NO. 58 OF 510 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	0202-BR	COOK	27	19
STA. TO STA.		CONTRACT NO. 60R73		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

REV. 6-5-2018