

FILE NAME: \\nam-cbstepw21\CS\_pcf\_work\dm124110038\_20182722\shs-QQ01.dgn

CODE NUMBER	PAY ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION	
				100%STATE	100%STATE
				0059	0059
				S.N. 016-1005	S.N. 016-1006
40600029	BITUMINOUS MATERIALS (TACK COAT)	POUND	144	72	72
40600370	LONGITUDINAL JOINT SEALANT	FOOT	480	240	240
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	640	320	320
40604062	HOT-MIX ASPHALT SURFACE COURSE, IL-9.5, MIX "D", N70	TON	62	31	31
					1
42001300	PROTECTIVE COAT	SQ YD	3292	1511	1781
44000100	PAVEMENT REMOVAL	SQ YD	74.5	37.3	37.2
					1
50102400	CONCRETE REMOVAL	CU YD	74.5	37.3	37.2
					1
50104650	SLOPE WALL REMOVAL	SQ YD	123	123	0
50157300	PROTECTIVE SHIELD	SQ YD	736	368	368
50300255	CONCRETE SUPERSTRUCTURE	CU YD	87.1	43.6	43.5
					1
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	12930	6450	6480
					1
50800515	BAR SPLICERS	EACH	184	92	92
51100100	SLOPE WALL 4 INCH	SQ YD	123	123	0
52000110	PREFORMED JOINT STRIP SEAL	FOOT	549	274.5	274.5
58700300	CONCRETE SEALER	SQ FT	1475	1315	160
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	4	2	2

FILE NAME: \\nam-cbstepw21\CS\_pcf\_work\dm12410036\_8ND182722\sh-SQ-Q02.dgn

	CODE NUMBER	PAY ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION	CONSTRUCTION
					100% STATE	100% STATE
					0059	0059
					S.N. 016-1005	S.N. 016-1006
	67100100	MOBILIZATION	L SUM	1	0.5	0.5
	70107025	CHANGEABLE MESSAGE SIGN	CAL DA	126	63	63
	70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	918	459	459
	70307120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE IV TAPE	FOOT	13346	6770	6576
	70400100	TEMPORARY CONCRETE BARRIER	FOOT	2422	1211	1211
	70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	2422	1211	1211
	70600251	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	1	1
	70600332	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	1	1
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1230	615	615
*	78004635	PREFORMED PLASTIC PAVEMENT MARKING, TYPE D - STANDARD - LINE 7"	FOOT	230	125	105
*	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	1780	820	960
*	78011040	GROOVING FOR RECESSED PAVEMENT MARKING 8"	FOOT	1654	827	827
	78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	2532	1266	1266
	X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	1996	915	1081
	X6700407	ENGINEERING FIELD OFFICE, TYPE A (D1)	CAL MO	12	6	6
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	0.5	0.5

1

\* SPECIALTY ITEM

1 REVISED SHEET 5/30/2025

FILE NAME: <div>DBS</div> <div>DB STERLIN CONSULTANTS, INC. 123 N. Wacker Drive, Suite 2000 Chicago, Illinois 60608 312.857.1008</div>	USER NAME	icsM-cbstepw21\$	MBL	*	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE	0.167" / in.	FQ	*					372	FAP 0372 22 BJ	COOK	48	4
	PLOT DATE	3/19/2025	DJC	*		CONTRACT NO. 62T22							
	PLOT TIME	8:01:31 PM	10/21/2024	*									
	SCALE: NTS			SHEET NO. G-4 OF G-5 SHEETS		STA. 00+000 TO STA. 00+000		ILLINOIS FED. AID PROJECT					

FILE NAME: \\naam-cbs\stepw21\CS\_pcf\_work\dm124110036\_90D182722-ahh-SQ-Q3.dgn

	CODE NUMBER	PAY ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION	CONSTRUCTION
					100%STATE	100%STATE
					0059	0059
					S.N. 016-1005	S.N. 016-1006
	X7830050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	12	6	6
	* X7830052	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REPLACEMENT	EACH	12	6	6
	X5051206	STRUCTURAL STEEL REPAIR	POUND	970	970	0
	Z0006016	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 3/4 INCHES	SQ YD	2994	1373	1621
	Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	2994	1373	1621
*	Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	359	215	144
	Z0012755	STRUCTURAL REPAIR OF CONCRETE (GREATER THAN 5 INCHES)	SQ FT	16	0	16
	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	4	2	2
	Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	2661	1220	1441
	X7200061	TEMPORARY INFORMATION SIGNING	SQ FT	340	170	170
Ø	Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOUR	500	500	
	Z0062458	TEMPORARY PAVEMENT (VARIABLE DEPTH)	TON	7	3.5	3.5

1

1

\* SPECIALTY ITEM

1 REVISED SHEET 5/30/2025

Ø 0042

<div><div>DB STERLIN CONSULTANTS, INC. 129 N. Wacker Drive, Suite 2000 Chicago, Illinois 60606 312.857.1008</div></div>	USER NAME	icsM-cbstepw21\$	MBL		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES					F.A.U. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE	0.167' / in.	FQ								372	FAP 0372 22 BJ	COOK	48	5
	PLOT DATE	3/19/2025	DJC			SCALE: NTS			SHEET NO. G-5 OF G-5 SHEETS		STA. 00+000 TO STA. 00+000				
	PLOT TIME	8:02:25 PM	10/21/2024						ILLINOIS FED. AID PROJECT						

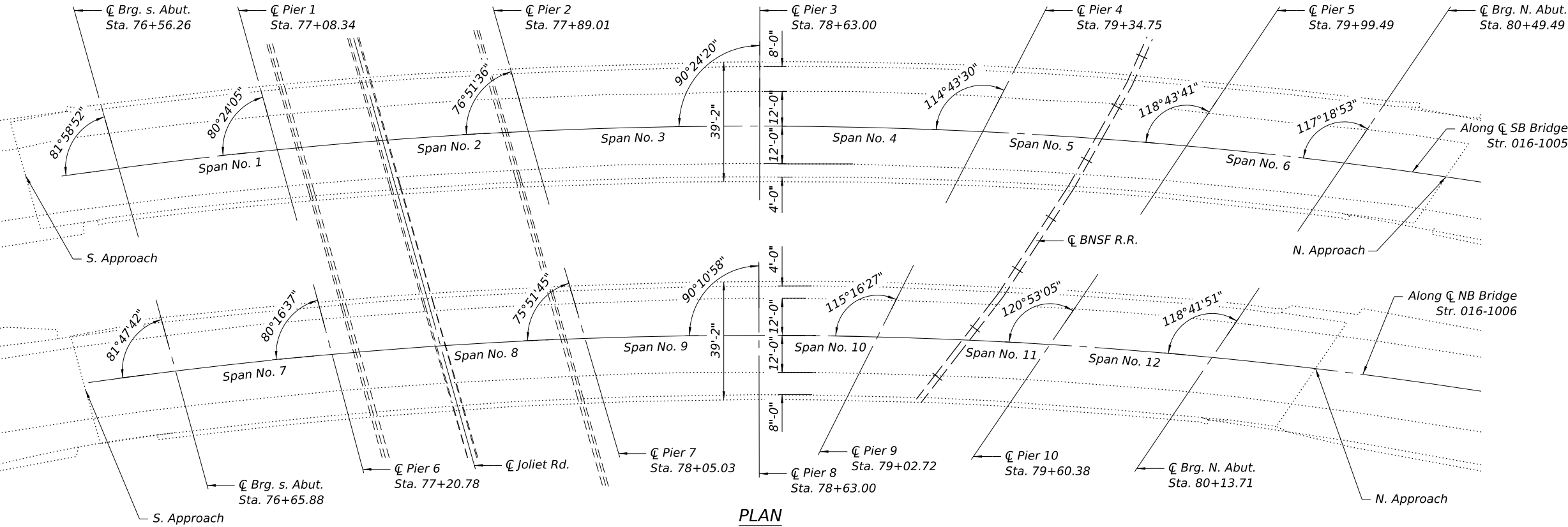
REV-SEP

Existing Structure: S.N. 016-1005 Built in 1964 and repaired in 1994 is a 2 lane, 6 span Steel Beams bridge with an out to out of 39'-2" end length of 405'-2<sup>15</sup>/<sub>16</sub>" Bk. to Bk. of abutments.

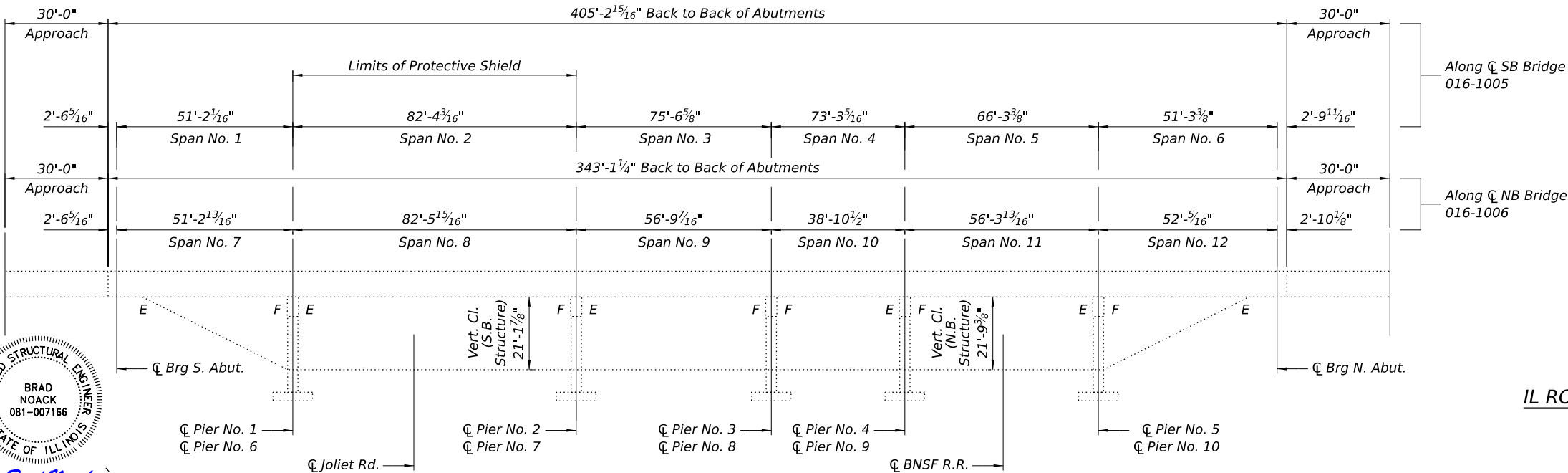
Existing Structure: S.N. 016-1006 Built in 1964 and repaired in 1994 is a 2 lane, 6 span Steel Beams bridge with an out to out of 39'-2" end length of 343'-1<sup>1</sup>/<sub>4</sub>" Bk. to Bk. of abutments.

Traffic to be maintained utilizing statge construction.

No salvage.



PLAN



ELEVATION

DESIGN SPECIFICATIONS

(PROPOSED CONSTRUCTION)

2020 AASHTO LRFD Bridge Design Specifications, 9th Edition

LOADING HS20-44

(1994 CONSTRUCTION)

No allowance for future wearing surface.

SEISMIC DATA

S.P.C. = A  
"A" = 0.04  
Site Coefficient = 1.0

EXISTING DESIGN STRESSES

Existing Structures

$f_c = 1,400$  psi  
 $f_y = 20,000$  psi (Reinforcement)  
 $f_y = 36,000$  psi (Beams)  
Soil Pressure All. = 5200 #/Sq. Ft.

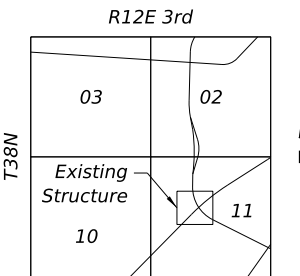
1994 CONSTRUCTION

$f_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 36,000$  psi (New Beams) m270 Gr. 36

PROPOSED DESIGN STRESSES

FIELD UNITS:

$f_c = 4,000$  psi (Superstructure)  
 $f_y = 60,000$  psi (Reinforcement)



LOCATION SKETCH

SCOPE OF WORK

1. Provide Temporary Protective Shielding over Joliet Road.
2. Scarify bridge deck  $\frac{3}{4}$ " and variable depth for approaches.
3. Replace expansion joints at all Piers and Abutments.
4. Clean bridge scuppers.
5. Apply 2 $\frac{3}{4}$ " Bridge Deck Latex Concrete Overlay on bridge slab.
6. Apply Diamond Grinding on finished Concrete Overlay.
7. Perform Structural Repair of Concrete at abutments and piers.
8. Remove and replace portion of North slope wall.
9. Perform Bridge Deck Grooving and apply Protective Coat to the top and inside faces of parapets, sidewalk, Latex Overlay, and new concrete placed at abutments.
10. Apply Concrete Sealer to piers and slope wall.
11. Perform beam end steel repairs on Beam F in Span 3.

GENERAL PLAN AND ELEVATION  
IL ROUTE 171 OVER JOLIET ROAD AND BNSF R.R. SPUR  
FAP 372 - SECTION 0372-22-BJ  
COOK COUNTY  
STATION 77+49.40  
STRUCTURE NO. 016-1005 AND 016-1006

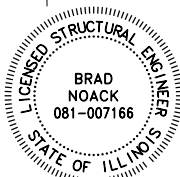
REVISD SHEET 5/30/2025

GENERAL PLAN AND ELEVATION  
STRUCTURES NO. 016-1005 AND NO. 016-1006

SCALE: NTS SHEET NO. S-1 OF S-27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP 0372 22 BJ	COOK	48	14
CONTRACT NO. 62T22				
ILLINOIS FED. AID PROJECT				

FILE NAME: \\icam-dbstepw21\CS\_pdt\_work\_dfr39810044\_131TASK 142722-S001 - General Plan & Elevation.dgn



BRAD NOACK  
DATE  
LICENSE EXPIRES 11/30/2026  
SHEET RANGE S-1 - S-27

DBS

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123 N. Wacker Drive, Suite 2000  
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312.857.1006

USER NAME =	icsM-dbstepw21S	DESIGNED -	DJB	REVISED -	
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PLOT DATE =	5/29/2025	CHECKED -	BJN	REVISED -	
PLOT TIME =	7:34:24 PM	DATE -	10/21/2024	REVISED -	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

1. Reinforcement Bars designated (E) shall be Epoxy Coated.
- Prior the pouring the new Concrete Deck for Expansion Joint Reconstruction and Deck Slab Repairs, all 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.
3. Plan Dimensions and Details relative to Existing Plans are subject to nominal construction variation. 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 variation 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.
4. Existing Reinforcement extending into the Removal area shall be cleaned, straightened, and incorporated into the new Construction. Any existing Reinforcement Bars intended for reuse and damaged during the Concrete Removal Operations shall be repaired or replaced using an approved Bar Splicer or Anchorage System to the satisfaction of the Engineer. Cost included with Concrete Removal.
5. 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.
6. All Structural Steel shall conform to AASHTO Classification M-270 Gr36, unless otherwise noted.
7. Fasteners shall be ASTM F3125 GRADE A325 TY 1, mechanically galvanized bolts. Bolts 3/4"Ø, holes 13/16"Ø, unless otherwise noted.
8. The existing Structural Steel coating contains lead. The contractor shall take appropriate precautions to deal with the presence of lead on the project.
9. All new structural steel and bearing assemblies shall be "Hot Dipped Galvanized for Structural Steel".
10. Diaphragm connection holes shall be 15/16"Ø for 3/4" bolts. Two hardened washers shall be required at the diap. connections.

INDEX OF SHEETS

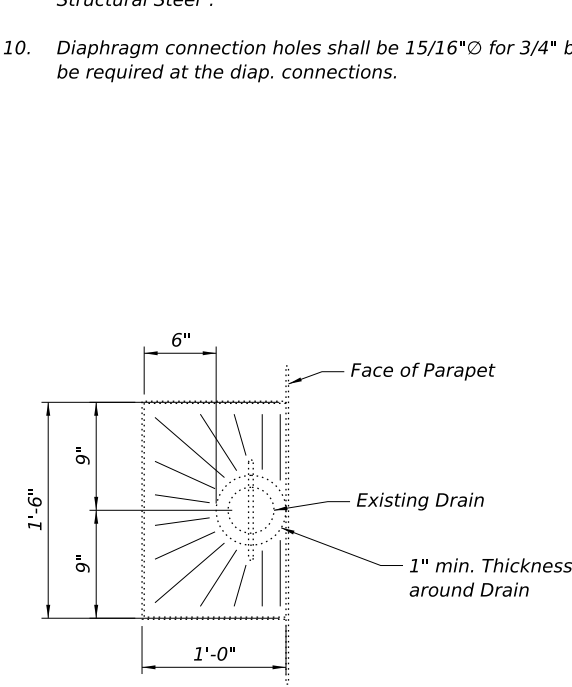
- 1 General Plan & Elevation
- 2 General Notes, Index of Sheets & Bill of Material
- 3 Stage Construction 1
- 4 Stage Construction 2
- 5 Deck Overlay and Slab Repairs Plan
- 6 Expansion Joint Plans at North Abutments
- 7 Expansion Joint Plans at South Abutments
- 8 Expansion Joint Plans at Piers 1 & 6
- 9 Expansion Joint Plans at Piers 2 & 7
- 10 Expansion Joint Plans at Piers 3 & 8
- 11 Expansion Joint Plans at Piers 4 & 9
- 12 Expansion Joint Plans at Piers 5 & 10
- 13 Expansion Joint Details
- 14 Preformed Joint Strip Seal
- 15 Bar Splicer Details
- 16 Substructure Repair Details 1
- 17 Substructure Repair Details 2
- 18 Substructure Repair Details 3
- 19 Substructure Repair Details 4
- 20 Substructure Repair Details 5
- 21 Slopewall Repair Details
- 22 Steel Beam Repair Details
- 23 Existing Bridge Plans (for Reference Only)
- 24 Existing Bridge Plans (for Reference Only)
- 25 Existing Bridge Plans (for Reference Only)
- 26 Existing Bridge Plans (for Reference Only)
- 27 Existing Bridge Plans (for Reference Only)

TOTAL BILL OF MATERIAL (SN 016-1005)

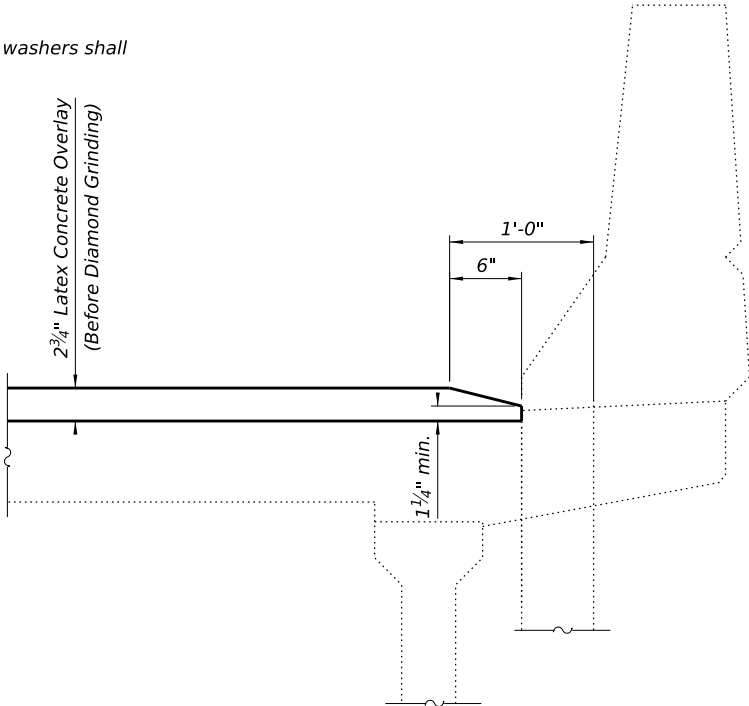
ITEM	UNIT	SUPER	SUB	TOTAL
CONCRETE REMOVAL	CU YD	37.3	0	37.3
SLOPE WALL REMOVAL	SQ YD	0	123	123
PROTECTIVE SHIELD	SQ YD	368	0	368
CONCRETE SUPERSTRUCTURE	CU YD	43.6	0	43.6
PROTECTIVE COAT	SQ YD	1,781	0	1,781
REINFORCEMENT BARS, EPOXY COATED	POUND	6,480	0	6,480
BAR SPLICERS	EACH	92	0	92
SLOPE WALL 4 INCH	SQ YD	0	123	123
PREFORMED JOINT STRIP SEAL	FOOT	274.5	0	274.5
CONCRETE SEALER	SQ FT	0	1,315	1,315
BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	1081	0	1081
STRUCTURAL STEEL REPAIR	POUND	970	0	970
BRIDGE DECK LATEX CONCRETE OVERLAY, 2 3/4 INCHES	SQ YD	1,621	0	1,621
BRIDGE DECK SCARIFICATION 3/4"	SQ YD	1,621	0	1,621
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	0	215	215
STRUCTURAL REPAIR OF CONCRETE (GREATER THAN 5 INCHES)	SQ FT	0	0	0
DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	1,441	0	1,441
DRAINAGE STRUCTURES TO BE CLEANED	EACH	2	0	2

TOTAL BILL OF MATERIAL (SN 016-1006)

ITEM	UNIT	SUPER	SUB	TOTAL
CONCRETE REMOVAL	CU YD	37.3	0	37.3
PROTECTIVE SHIELD	SQ YD	368	0	368
CONCRETE SUPERSTRUCTURE	CU YD	43.6	0	43.6
PROTECTIVE COAT	SQ YD	1,508	0	1,508
REINFORCEMENT BARS, EPOXY COATED	POUND	6,460	0	6,460
BAR SPLICERS	EACH	92	0	92
PREFORMED JOINT STRIP SEAL	FOOT	274.5	0	274.5
CONCRETE SEALER	SQ FT	0	130	130
BRIDGE DECK GROOVING (LONGITUDINAL)	SQ YD	915	0	915
BRIDGE DECK LATEX CONCRETE OVERLAY, 2 3/4 INCHES	SQ YD	1,373	0	1,373
BRIDGE DECK SCARIFICATION 3/4"	SQ YD	1,373	0	1,373
STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	0	144	144
STRUCTURAL REPAIR OF CONCRETE (GREATER THAN 5 INCHES)	SQ FT	0	16	16
DIAMOND GRINDING (BRIDGE SECTION)	SQ YD	1,220	0	1,220
DRAINAGE STRUCTURES TO BE CLEANED	EACH	2	0	2



OVERLAY TREATMENT AT DRAINS



SECTION AT DRAINS

REVISD SHEET 5/30/2025

FILE NAME: \\icam-dbstepw21\CS\_pdf\_work\_dfr358\1004\_1\TASK 1-42722-5002 - General Notes, Index of Sheets and Bill of Material.dgn



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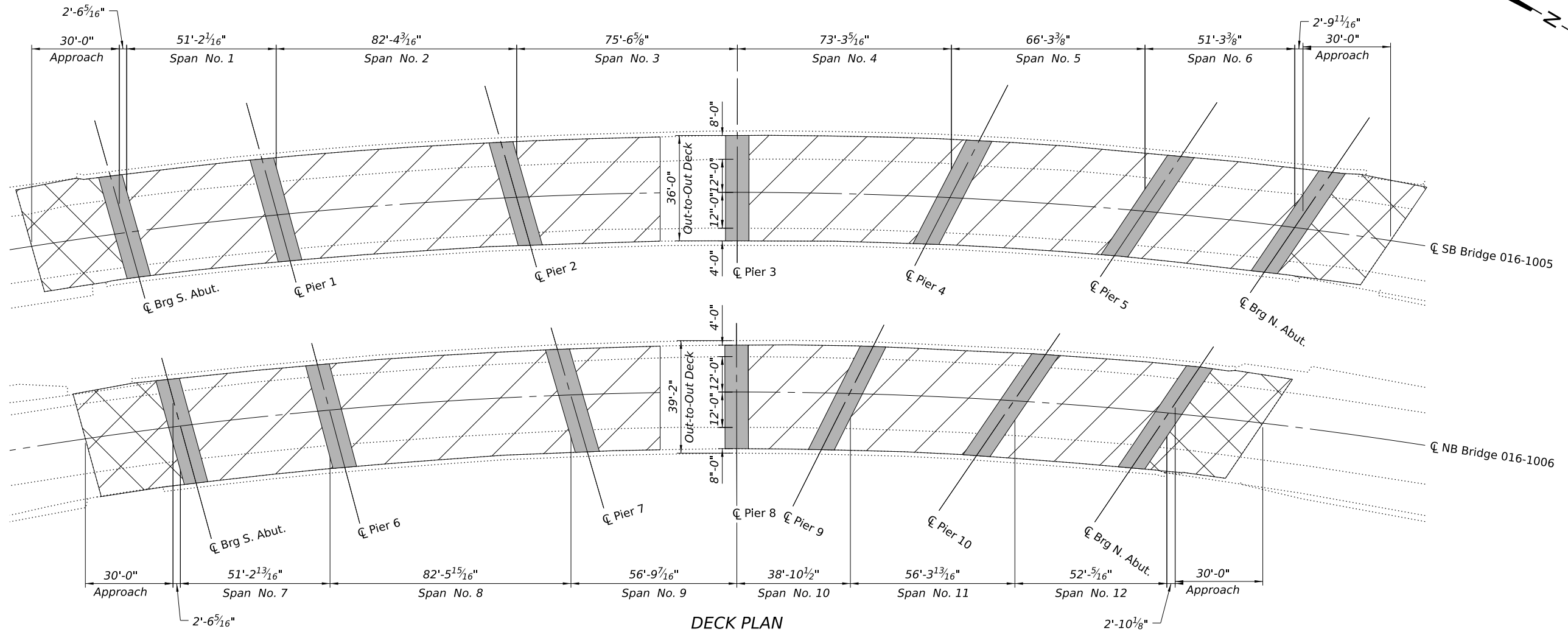
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES, INDEX OF SHEETS & BILL OF MATERIAL  
STRUCTURES NO. 016-1005 AND NO. 016-1006

SCALE: SHEET NO. S-2 OF S-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP 0372 22 BJ	COOK	48	15
CONTRACT NO. 62T22				
ILLINOIS FED. AID PROJECT				



DECK PLAN

NOTES:

1. For Expansion Joint Details, see Sheet S-06 to S-13 of S-27.

BILL OF MATERIAL

Item	Unit	Quantity
Protective Coat	Sq. Yd.	3,292
Bridge Deck Latex Concrete Overlay, 2¾ Inches	Sq. Yd.	2,994
Bridge Deck Scarification ¾"	Sq. Yd.	2,994
Diamond Grinding (Bridge Section)	Sq. Yd.	2,670
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	1,996

1 REVISED SHEET 5/30/2025

LEGEND

- Scarify ¾"; Bridge Deck Latex Concrete Overlay, 2¾", Concrete Sealer
- Concrete Removal at Deck Joints
- Variable Depth HMA Overlay (See Roadway Plans)

FILE NAME: \\camdbstepw21\CS\_pdt\_work\_dfr3571004\_201TASK 1-42722-S005 - Deck Overlay and Slab Repair Plans.dgn



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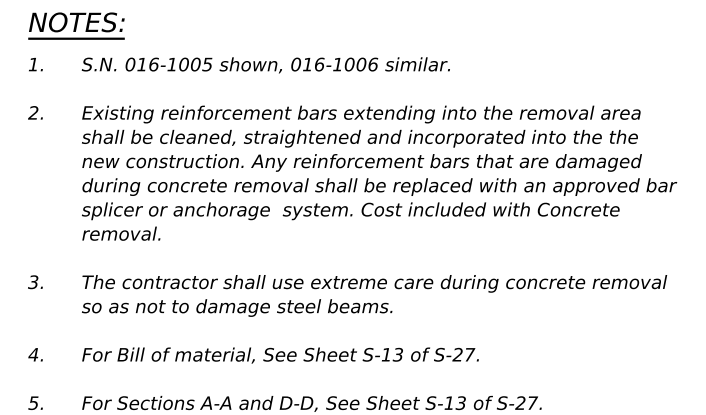
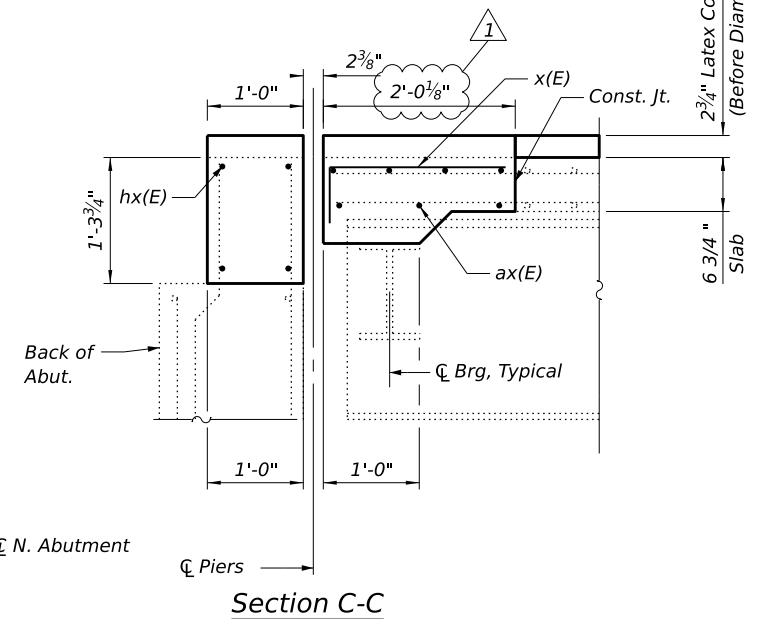
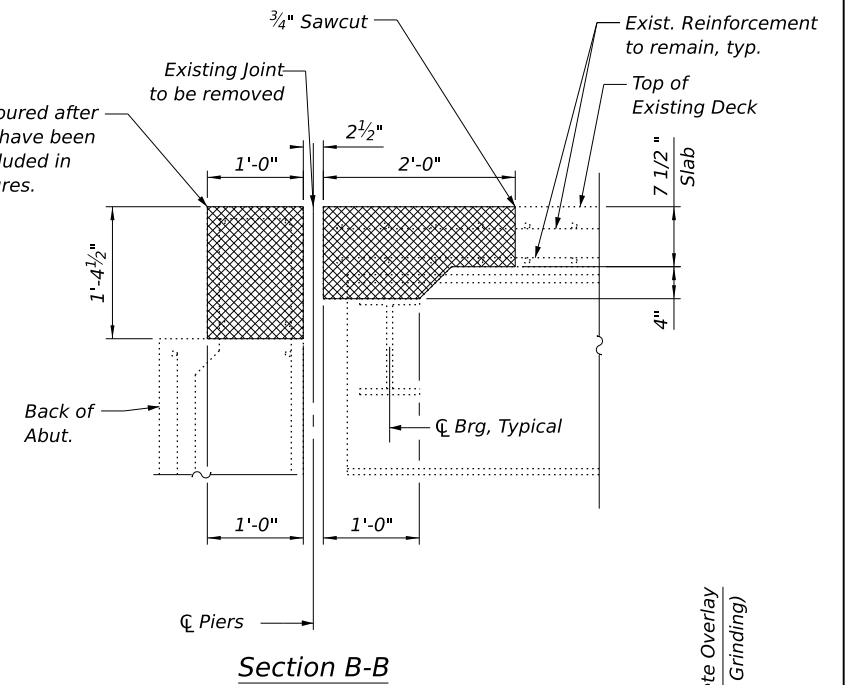
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DECK OVERLAY AND SLAB REPAIR PLANS  
STRUCTURES NO. 016-1005 AND NO. 016-1006

SCALE: NTS SHEET NO. S-5 OF S-27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP 0372 22 BJ	COOK	48	18
CONTRACT NO. 62T22				
ILLINOIS FED. AID PROJECT				

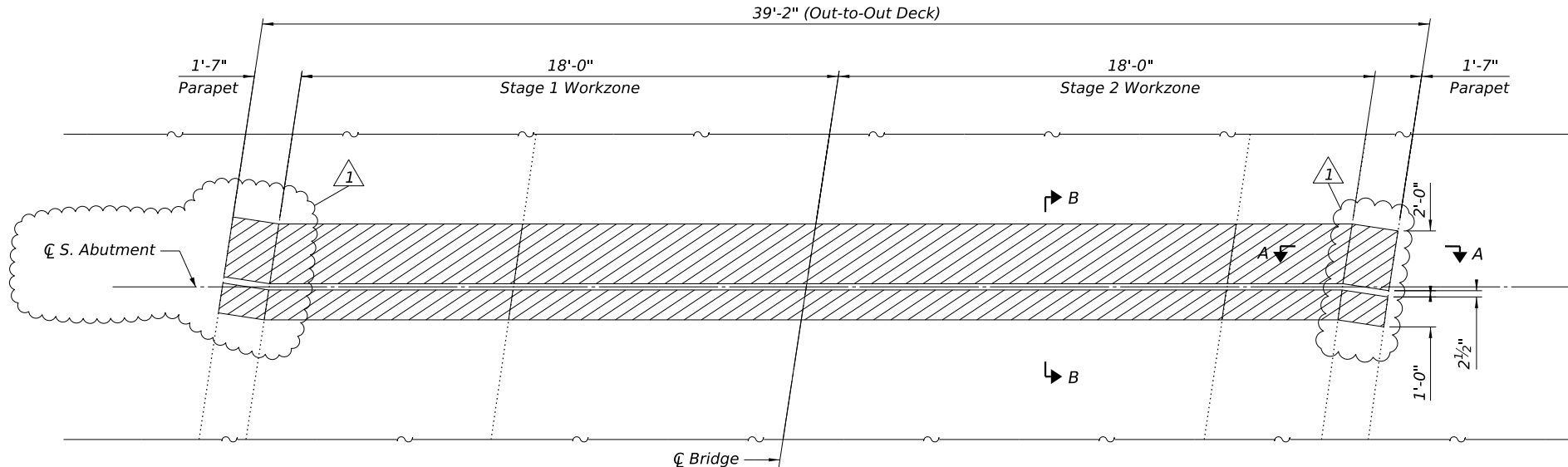




<i>Pier</i>	<i>Angle</i>
<i>N. Abutment (016-1005)</i>	117°18'53"
<i>N. Abutment (016-1006)</i>	118°44'51"

*PROPOSED PLAN - NORTH ABUTMENT (016-1005)*

FILE NAME: \\icam-dbstepw21\CS\_pdt\_work\_dfr33411004\_511TASK 1-42722-S007 - Expansion Joint Plans at South Abutments.dgn



#### LEGEND



#### REMOVAL PLAN - SOUTH ABUTMENT (016-1005)

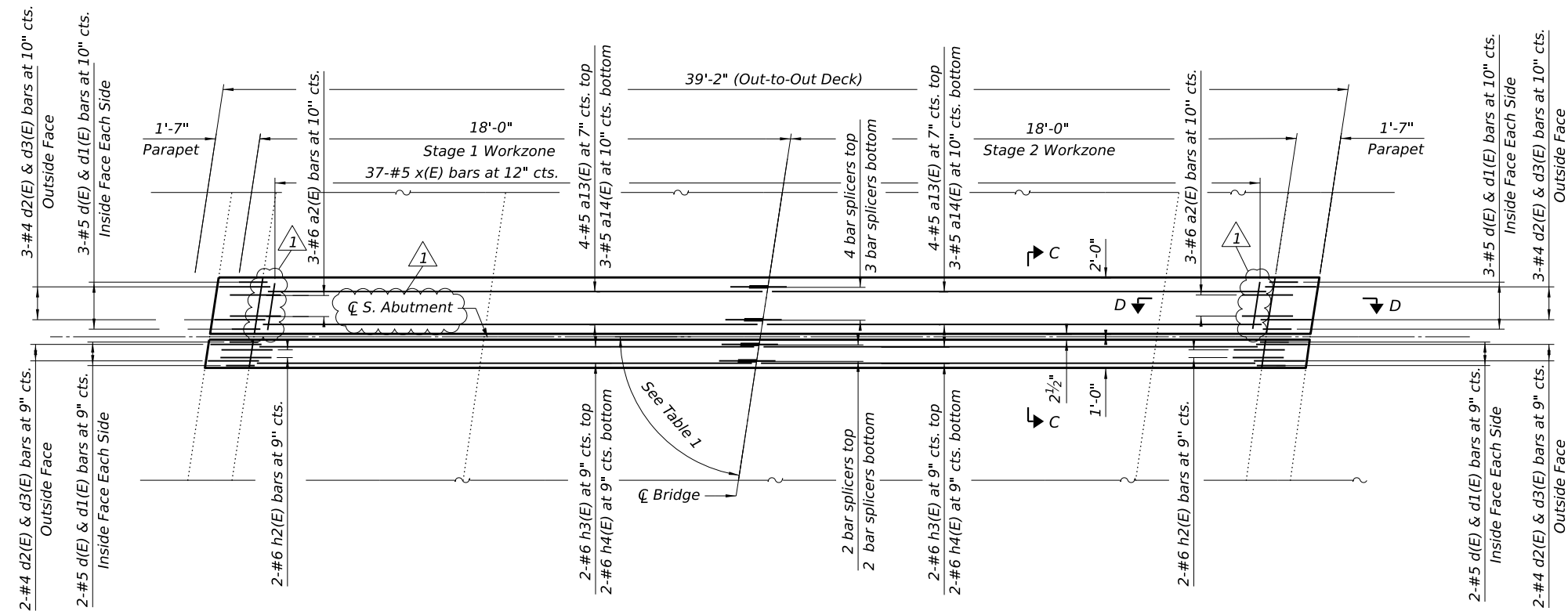


TABLE 1

Pier	Angle
S. Abutment (016-1005)	81°58'52"
S. Abutment (016-1006)	81°47'42"

#### PROPOSED PLAN - SOUTH ABUTMENT (016-1005)

#### NOTES:

- S.N. 016-1005 shown, 016-1006 similar.
- 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 contractor shall use extreme care during concrete removal so as not to damage steel beams.
- For Bill of material, See Sheet S-13 of S-27.
- For Sections A-A and D-D, See Sheet S-13 of S-27.
- For Sections B-B and C-C, See Sheet S-6 of S-27



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT PLANS AT SOUTH ABUTMENTS  
STRUCTURES NO. 016-1005 AND NO. 016-1006

SCALE: SHEET NO. S-7 OF S-27 SHEETS

1 REVISED SHEET 5/30/2025

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP 0372 22 BJ	COOK	48	20
CONTRACT NO. 62T22				
ILLINOIS FED. AID PROJECT				



FILE NAME: \\ica-mdbstepw21\ICS\_pdt\_work\_dfr335110044\_371TASK 1-42722-S008 - Expansion Joint Plans at Piers 1 & 6.dgn



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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT PLANS AT PIERS 1 & 6  
STRUCTURES NO. 016-1005 AND NO. 016-1006

SCALE: SHEET NO. S-8 OF S-27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP 0372 22 BJ	COOK	48	21
CONTRACT NO. 62T22				
ILLINOIS FED. AID PROJECT				

LEGEND



Concrete Removal

REMOVAL PLAN - PIER 1  
(Pier 6 - Opposite)

NOTES:

- S.N. 016-1005 shown, 016-1006 similar.
- 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 contractor shall use extreme care during concrete removal so as not to damage steel beams.
- For Sections A-A, D-D, E-E and F-F, See Sheet S-13 of S-27.
- For Bill of material, See Sheet S-13 of S-27.

PROPOSED PLAN - PIER 1  
(Pier 6 - Opposite)

TABLE 1

Pier	Angle
Pier 1	80°24'05"
Pier 6	80°16'37"

1 REVISED SHEET 5/30/2025

FILE NAME: \\camdbstepw21\CS\_pdf\_work\_dfr33511004\_301TASK 1-42722-S009 - Expansion Joint Plans at Piers 2 & 7.dgn



DB STERLIN CONSULTANTS, INC.  
123 N. Wacker Drive, Suite 2000  
Chicago, Illinois 60606  
312.857.1006

USER NAME	=	icsM-dbstepw215	DESIGNED	-	MM	REVISED	-	5/29/2025
PLOT SCALE	=		DRAWN	-	DJB	REVISED	-	
PLOT DATE	=	5/29/2025	CHECKED	-	BUN	REVISED	-	
PLOT TIME	=	5:00:00 PM	DATE	-	10/21/2024	REVISED	-	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT PLANS AT PIERS 2 & 7  
STRUCTURES NO. 016-1005 AND NO. 016-1006

SCALE: SHEET NO. S-9 OF S-27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP 0372 22 BJ	COOK	48	22
CONTRACT NO. 62T22				
ILLINOIS FED. AID PROJECT				

LEGEND



Concrete Removal

REMOVAL PLAN - PIER 2  
(Pier 7 - Opposite)

NOTES:

- S.N. 016-1005 shown, 016-1006 similar.
- 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 contractor shall use extreme care during concrete removal so as not to damage steel beams.
- For Sections A-A, D-D, E-E and F-F, See Sheet S-13 of S-27.
- For Bill of material, See Sheet S-13 of S-27.

PROPOSED PLAN - PIER 2  
(Pier 7 - Opposite)

TABLE 1

Pier	Angle
Pier 2	76°51'36"
Pier 7	75°51'45"

1 REVISED SHEET 5/30/2025

FILE NAME: \\camdbstepw21\CS\_pdt\_work\_dfr335110044\_401TASK 1427225010 - Expansion Joint Plans at Piers 3 & 8.dgn



DB STERLIN CONSULTANTS, INC.  
123 N. Wacker Drive, Suite 2000  
Chicago, Illinois 60606  
312.857.1006

USER NAME	=	icsM-dbstepw21\$	DESIGNED	-	MM	REVISED	-	5/29/2025
PLOT SCALE	=		DRAWN	-	DJB	REVISED	-	
PLOT DATE	=	5/29/2025	CHECKED	-	BUN	REVISED	-	
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT PLANS AT PIERS 3 & 8  
STRUCTURES NO. 016-1005 AND NO. 016-1006

SCALE: SHEET NO. S-10 OF S-27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP 0372 22 BJ	COOK	48	23
CONTRACT NO. 62T22				
ILLINOIS FED. AID PROJECT				

1 REVISED SHEET 5/30/2025

TABLE 1

Pier	Angle
Pier 3	90°24'20"
Pier 8	90°10'58"

LEGEND

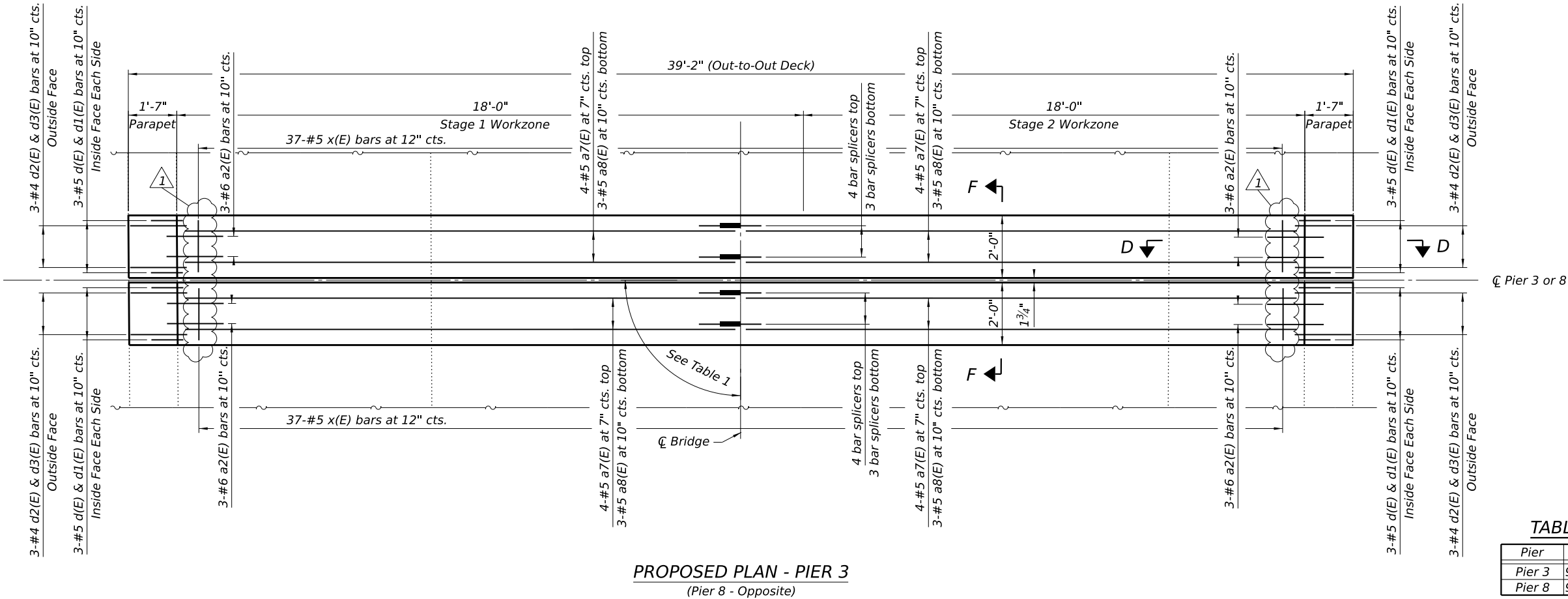


Concrete Removal

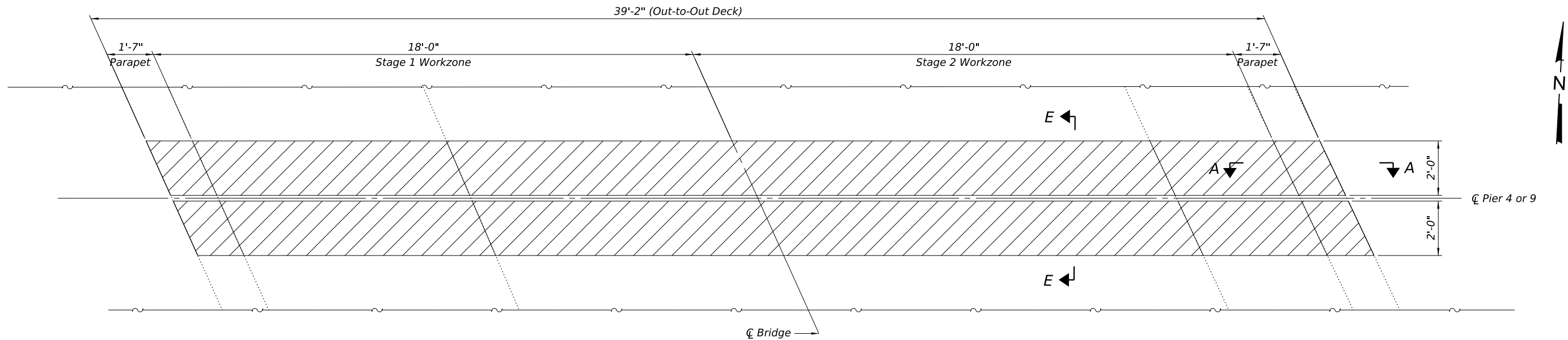
REMOVAL PLAN - PIER 3  
(Pier 8 - Opposite)

NOTES:

- S.N. 016-1005 shown, 016-1006 similar.
- 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 contractor shall use extreme care during concrete removal so as not to damage steel beams.
- For Sections A-A, D-D, E-E and F-F, See Sheet S-13 of S-27.
- For Bill of material, See Sheet S-13 of S-27.



PROPOSED PLAN - PIER 3  
(Pier 8 - Opposite)



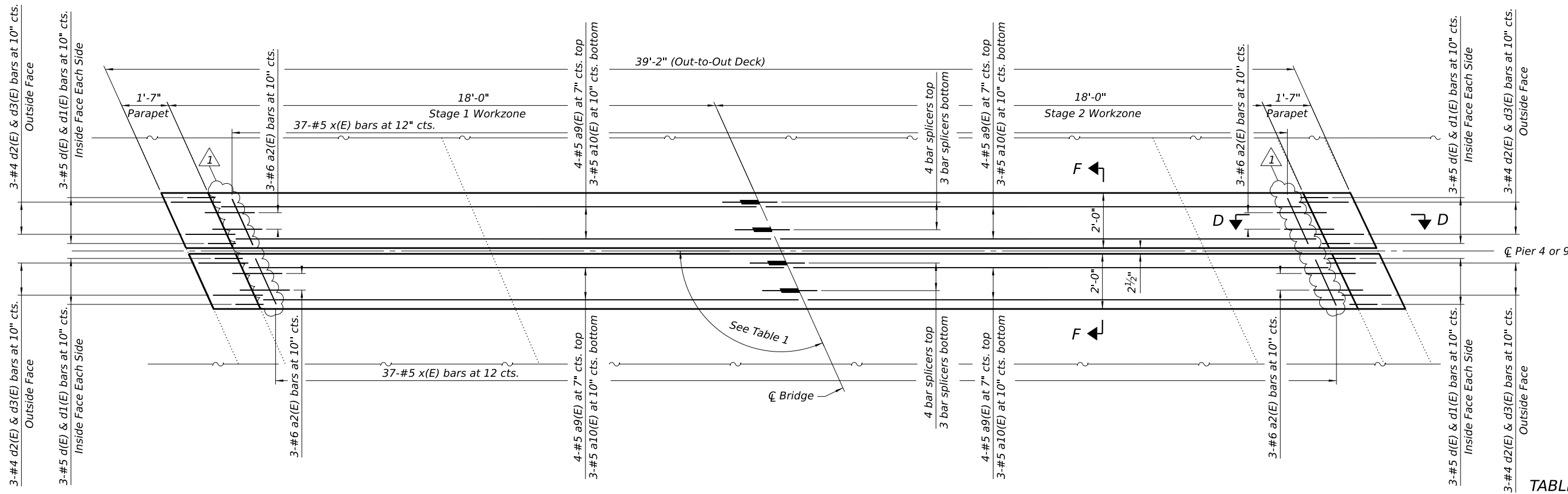
LEGEND



REMOVAL PLAN - PIER 4  
(Pier 9 - Opposite)

NOTES:

1. S.N. 016-1005 shown, 016-1006 similar.
2. 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.
3. The contractor shall use extreme care during concrete removal so as not to damage steel beams.
4. For Sections A-A, D-D, E-E and F-F, See Sheet S-13 of S-27.
5. For Bill of material, See Sheet S-13 of S-27.



PROPOSED PLAN - PIER 4  
(Pier 9 - Opposite)

TABLE 1

Pier	Angle
Pier 4	114°40'30"
Pier 9	115°16'27"

1 REVISED SHEET 5/30/2025

FILE NAME: \\camdbstepw21\CS\_pdf\_work\_dfr335110044\_411TASK 142722S011 - Expansion Joint Plans at Piers 4 & 9.dgn



DB STERLIN CONSULTANTS, INC.  
123 N. Wacker Drive, Suite 2000  
Chicago, Illinois 60606  
312.857.1006

USER NAME	=	icsM-dstepw215	DESIGNED	-	MM	REVISED	-	5/29/2025
PLOT SCALE	=		DRAWN	-	DJB	REVISED	-	
PLOT DATE	=	5/29/2025	CHECKED	-	BUN	REVISED	-	
PLOT TIME	=	5:00:31 PM	DATE	-	10/21/2024	REVISED	-	

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT PLANS AT PIERS 4 & 9  
STRUCTURES NO. 016-1005 AND NO. 016-1006

SCALE: SHEET NO. S-11 OF S-27 SHEETS

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP 0372 22 BJ	COOK	48	24
CONTRACT NO. 62T22				
ILLINOIS FED. AID PROJECT				

FILE NAME: \\camdbstepw21\CS\_pdt\_work\_dfr335110044\_421TASK 1-42722-S012 - Expansion Joint Plans at Piers 5 & 10.dgn



DB STERLIN CONSULTANTS, INC.  
123 N. Wacker Drive, Suite 2000  
Chicago, Illinois 60606  
312.857.1006

USER NAME = icsM-dbstepw21\$  
PLOT SCALE =  
PLOT DATE = 5/29/2025  
PLOT TIME = 5:02:00 PM

DESIGNED - MM  
DRAWN - DJB  
CHECKED - BJN  
DATE - 10/21/2024

REVISED -  
REVISED -  
REVISED -  
REVISED -

1 5/29/2025

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EXPANSION JOINT PLANS AT PIERS 5 & 10  
STRUCTURES NO. 016-1005 AND NO. 016-1006

SCALE:

SHEET NO. S-12 OF S-27 SHEETS

F.A.I.  
RTE

372

SECTION

FAP 0372 22 BJ

COUNTY

COOK

TOTAL  
SHEETS

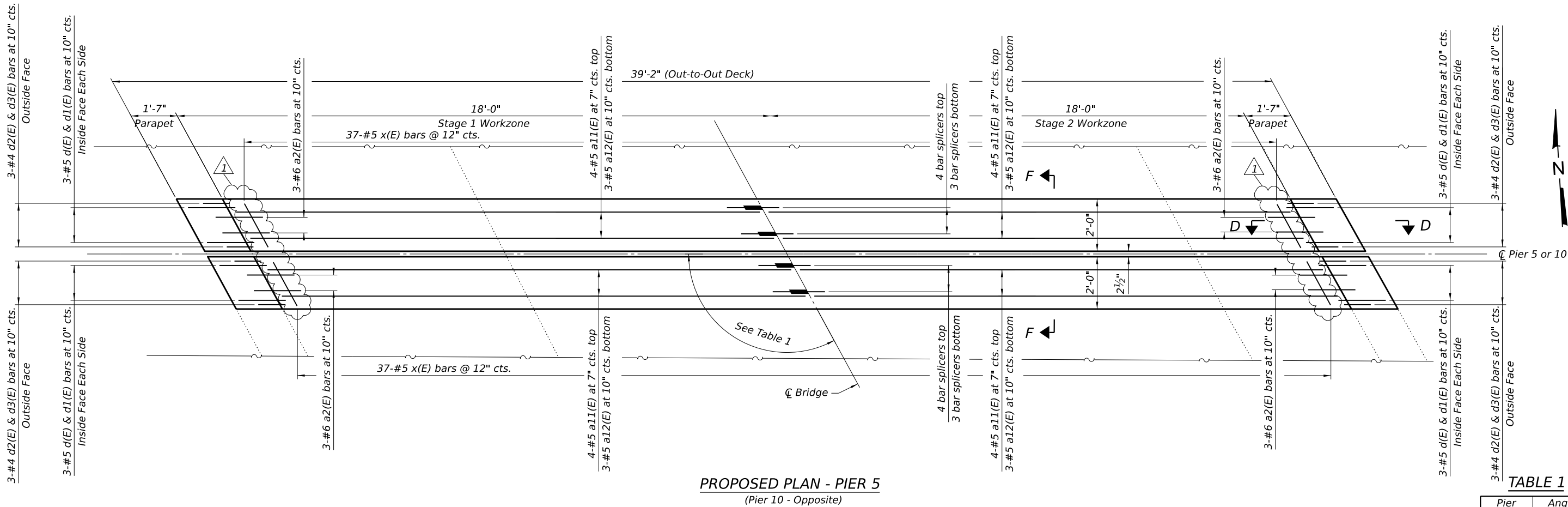
48

SHEET  
NO.

25

CONTRACT NO. 62T22

ILLINOIS FED. AID PROJECT



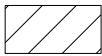
PROPOSED PLAN - PIER 5  
(Pier 10 - Opposite)

TABLE 1

Pier	Angle
Pier 5	118°43'41"
Pier 10	120°53'05"

1 REVISED SHEET 5/30/2025

LEGEND



Concrete Removal

REMOVAL PLAN - PIER 5  
(Pier 10 - Opposite)

NOTES:

- S.N. 016-1005 shown, 016-1006 similar.
- 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 contractor shall use extreme care during concrete removal so as not to damage steel beams.
- For Sections A-A, D-D, E-E and F-F, See Sheet S-13 of S-27.
- For Bill of material, See Sheet S-13 of S-27.



FILE NAME: \\cam-mdbstepw21\ICS\_pdf\_work\_dfr3351\0004\_1\TASK 1-42722-5013 - Expansion Joint Details.dgn



DB STERLIN CONSULTANTS, INC.  
123 N. Wacker Drive, Suite 2000  
Chicago, Illinois 60606  
312.857.1006

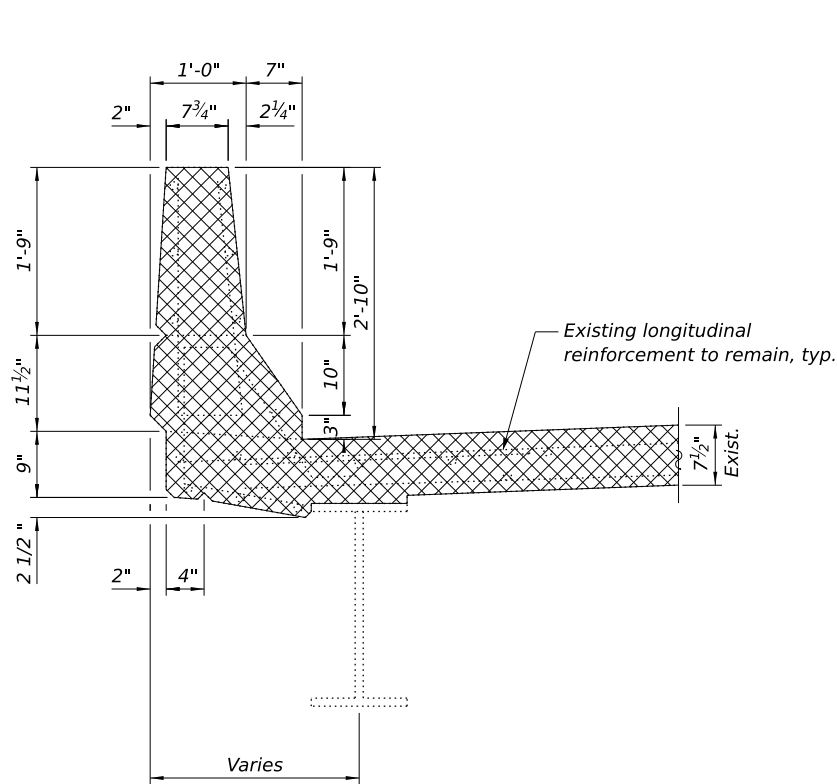
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

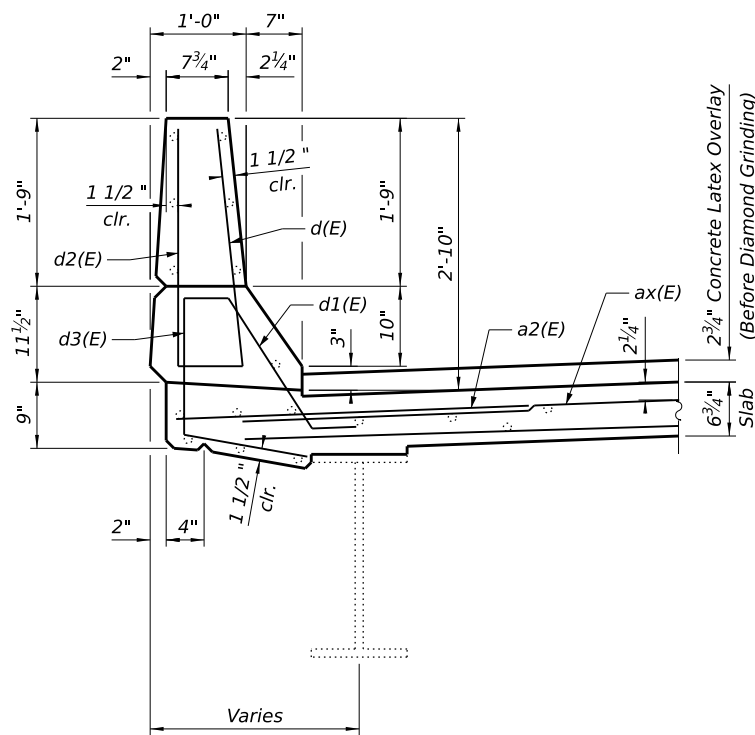
EXPANSION JOINT DETAILS  
STRUCTURES NO. 016-1005 AND NO. 016-1006

SCALE: SHEET NO. S-13 OF S-27 SHEETS

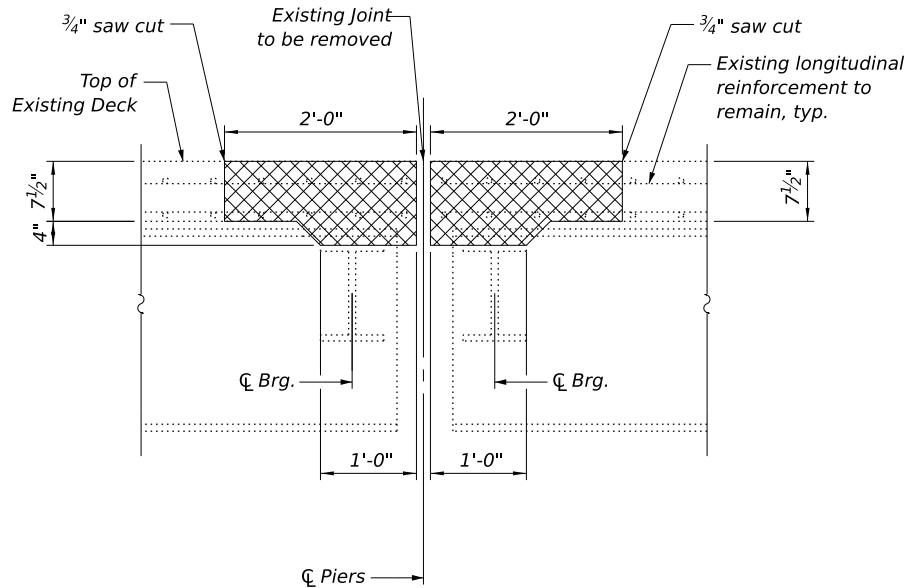
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP 0372 22 BJ	COOK	48	26
CONTRACT NO. 62T22				
ILLINOIS FED. AID PROJECT				



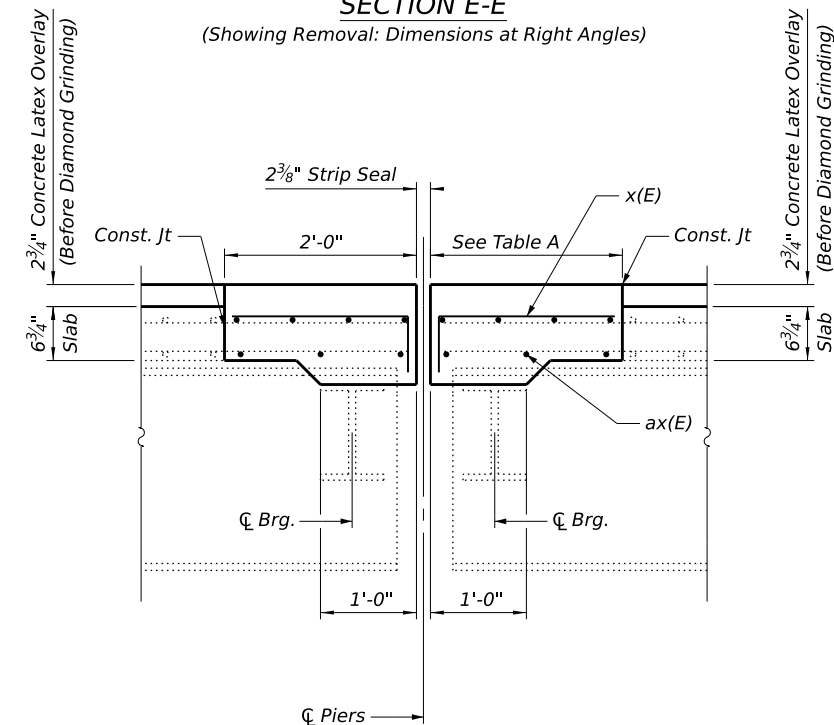
SECTION A-A  
(Showing Removal: Dimensions at Right Angles)



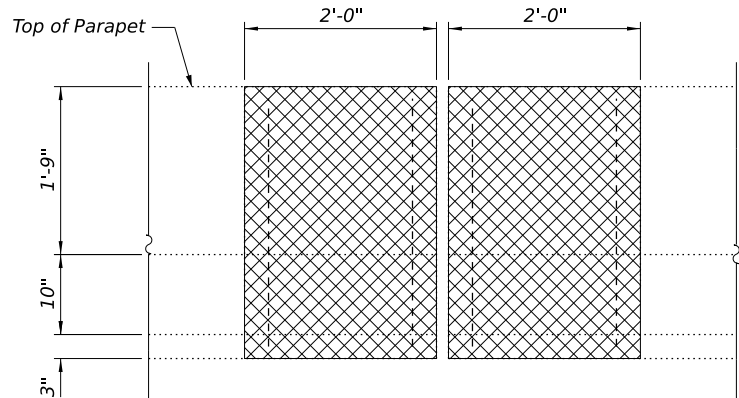
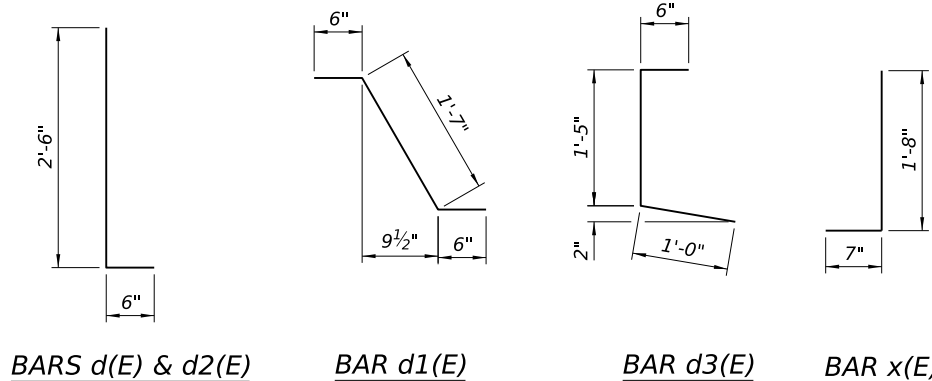
SECTION D-D  
(Showing Proposed: Dimensions at Right Angles)



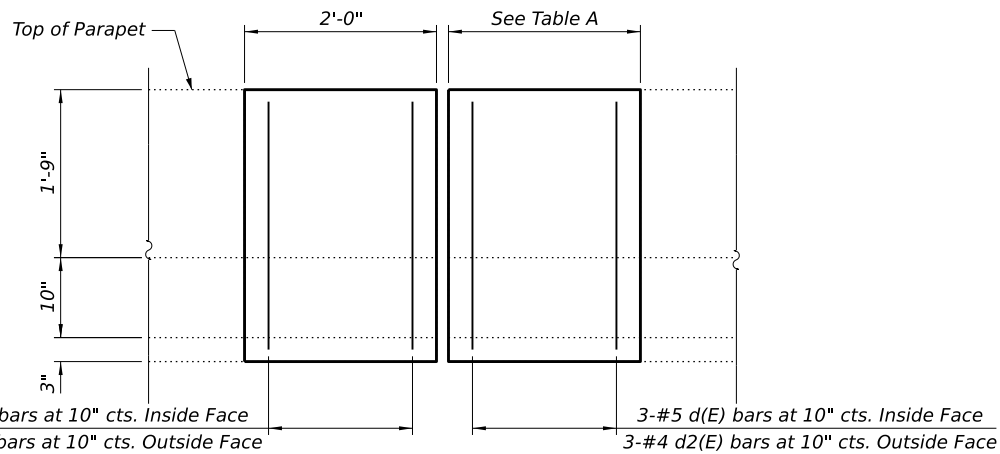
SECTION E-E  
(Showing Removal: Dimensions at Right Angles)



SECTION F-F  
(Showing Proposed: Dimensions at Right Angles)



PARTIAL PARAPET ELEVATION  
(Showing Removal: Dimensions at Right Angles)



PARTIAL PARAPET ELEVATION  
(Showing Proposal: Dimensions at Right Angles)

NOTES

1. Bar tags such as ax(E) indicate a(E), a1(E), etc.

EXISTING  
PREFORMED JOINT

Pier	Size
Pier 1	4"
Pier 2	2 1/2"
Pier 3	1 3/4"
Pier 4	2 1/2"
Pier 5	2 1/2"
Pier 6	4"
Pier 7	2 1/2"
Pier 8	1 3/4"
Pier 9	2 1/2"
Pier 10	2 1/2"

TABLE A

Pier	Size
Pier 1	2'-1 5/8"
Pier 2	2'-0 1/8"
Pier 3	1'-11 3/8"
Pier 4	2'-0 1/8"
Pier 5	2'-0 1/8"
Pier 6	2'-1 5/8"
Pier 7	2'-0 1/8"
Pier 8	1'-11 3/8"
Pier 9	2'-0 1/8"
Pier 10	2'-0 1/8"

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	16	#5	21'-1"	
a1(E)	12	#5	21'-1"	
a2(E)	144	#6	6'-0"	
a3(E)	32	#5	18'-10"	
a4(E)	24	#5	18'-10"	
a5(E)	32	#5	18'-11 1/2"	
a6(E)	24	#5	18'-11 1/2"	
a7(E)	32	#5	18'-4"	
a8(E)	24	#5	18'-4"	
a9(E)	32	#5	20'-7"	
a10(E)	24	#5	20'-7"	
a11(E)	32	#5	21'-7"	
a12(E)	24	#5	21'-7"	
a13(E)	16	#5	18'-7"	
a14(E)	12	#5	18'-7"	
h(E)	8	#6	21'-1"	
h1(E)	8	#6	21'-1"	
h2(E)	16	#6	6'-0"	
h3(E)	8	#6	18'-7"	
h4(E)	8	#6	18'-7"	
d(E)	160	#5	3'-0"	
d1(E)	160	#5	2'-7"	
d2(E)	160	#4	3'-0"	
d3(E)	160	#4	2'-11"	
x(E)	888	#5	2'-3"	
Concrete Removal			Cu. Yd.	74.5
Concrete Superstructure			Cu. Yd.	87.1
Bar Splicers			Each	184
Reinforcement Bars, Epoxy Coated			Pound	12,930

REVISED SHEET 5/30/2025

FILE NAME: \\camdbstepw21\CS\_pdf\_work\_dfr35710044\_1517TASK 1-42722-5014 - Preformed Joint Strip Seal.dgn



DB STERLIN CONSULTANTS, INC.  
123 N. Wacker Drive, Suite 2000  
Chicago, Illinois 60606  
312.857.1006

USER NAME	=	icsM-dbstepw215
PLOT SCALE	=	
PLOT DATE	=	5/15/2025
PLOT TIME	=	11:31:39 PM

DESIGNED	-	MM
DRAWN	-	DJB
CHECKED	-	BJN
DATE	-	10/21/2024

REVISED	-	
REVISED	-	
REVISED	-	
REVISED	-	

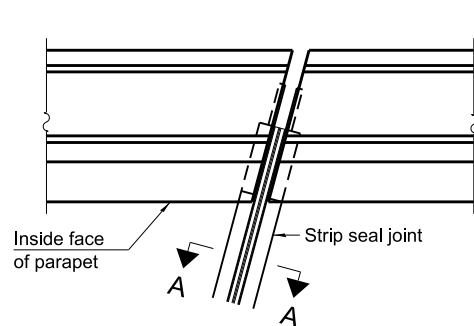
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL  
STRUCTURES NO. 016-1005 AND NO. 016-1006

SCALE: SHEET NO. S-14 OF S-27 SHEETS

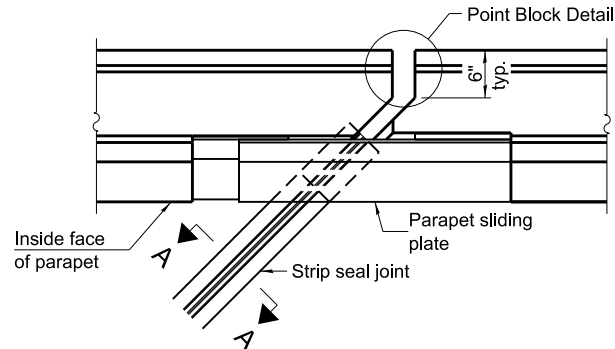
1 REVISED SHEET 5/30/2025

F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP 0372 22 BJ	COOK	48	27
CONTRACT NO. 62T22				
ILLINOIS FED. AID PROJECT				

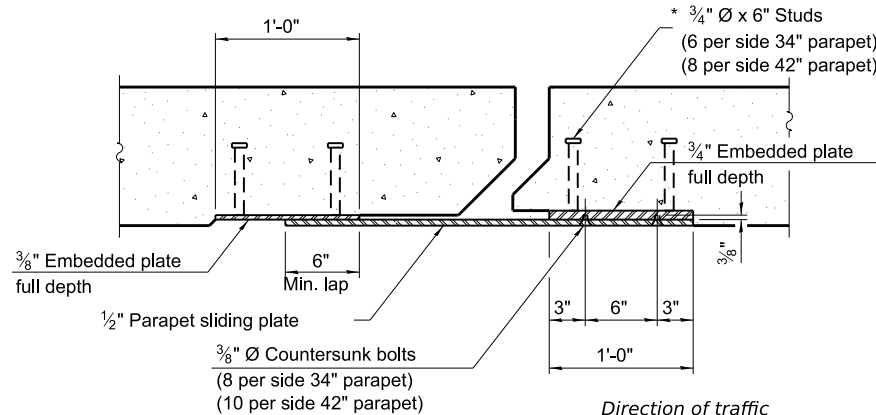


FOR SKEWS  $\leq 30^\circ$

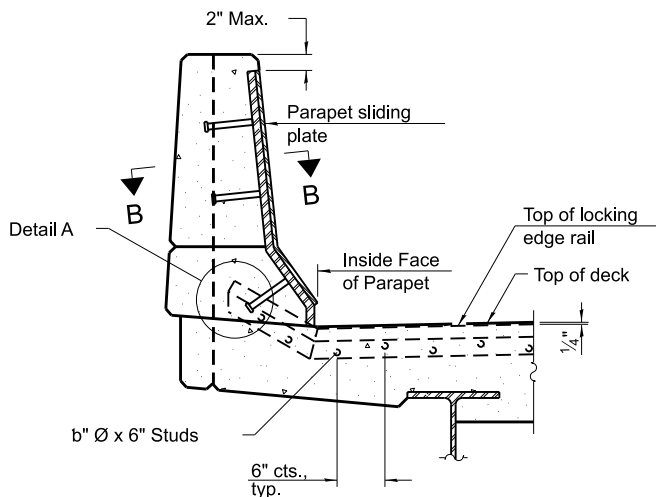
PLAN AT PARAPET



FOR SKEWS  $> 30^\circ$

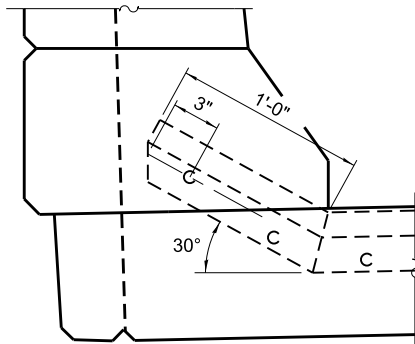


SECTION B-B

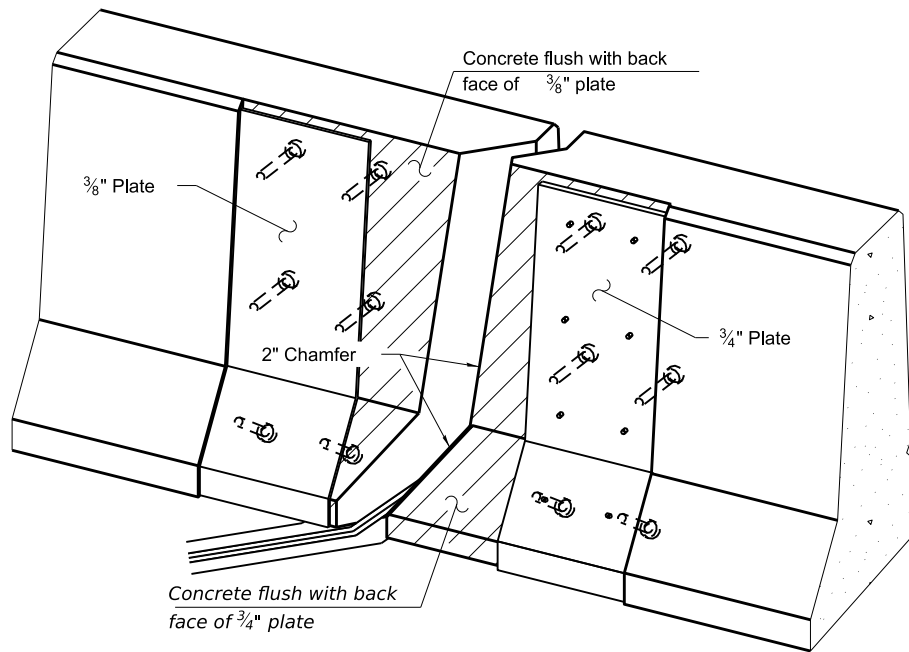


SECTION AT PARAPET

(Skews  $> 30^\circ$  shown. Skews  $\leq 30^\circ$  similar except as shown in plan view.)

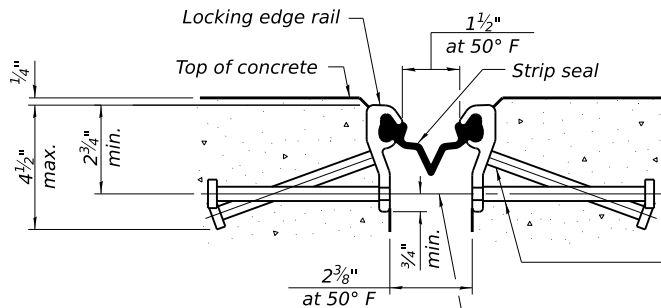


DETAIL A



TRIMETRIC VIEW

(Showing embedded plates only)



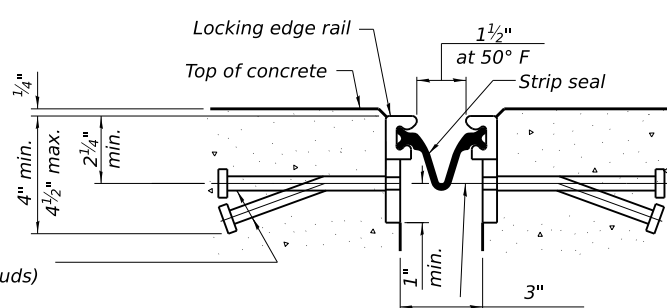
SHOWING ROLLED RAIL JOINT

\*  $\frac{5}{8}$ "  $\varnothing$  x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

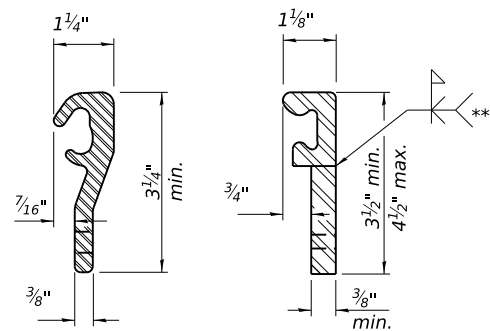
$\frac{3}{8}$ "  $\varnothing$  threaded rods in  $\frac{7}{16}$ "  $\varnothing$  holes at 4'-0"  $\pm$  cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

SECTION A-A

\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.

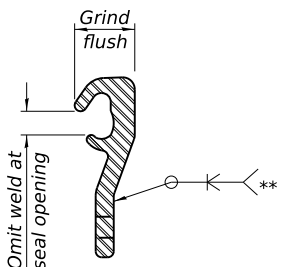


SHOWING WELDED RAIL JOINT



LOCKING EDGE RAILS

\*\* Back gouge not required if complete joint penetration is verified by mock-up.



LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue. Rolled rail shown, welded rail similar.

BILL OF MATERIAL

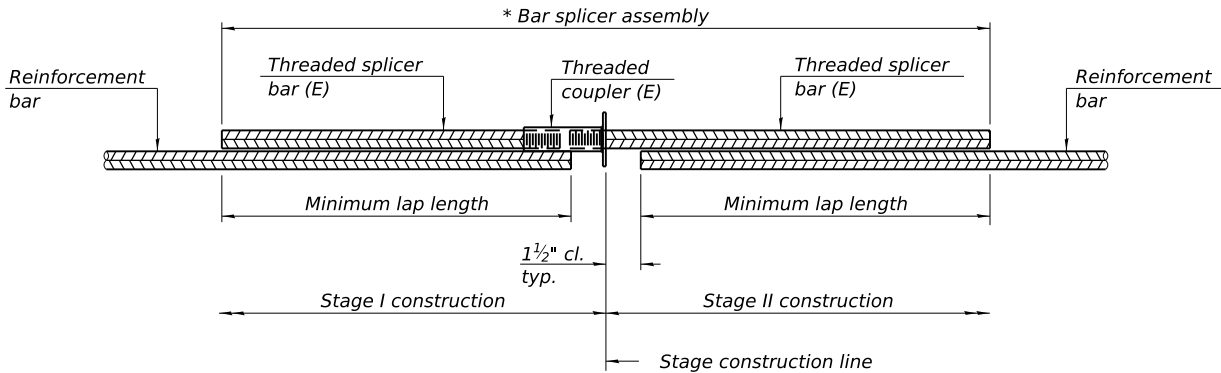
Item	Unit	Total
Preformed Joint Strip Seal	Foot	473

FILE NAME: \\camdbstepw21\CS\_pdf\_work\_dir\3571004\_1\01\TASK 1-42722-5015 - Bar Splicing Details.dgn

BSD-1

5-15-2023

DBS DB STERLIN CONSULTANTS, INC. 123 N. Wacker Drive, Suite 2000 Chicago, Illinois 60606 312.857.1006	USER NAME =	icsM-dbstepw21\$	DESIGNED -	MM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BAR SPlicing DETAILS STRUCTURES NO. 016-1005 AND NO. 016-1006	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =		DRAWN -	DJB	REVISED -			372	FAP 0372 22 BJ	COOK	48	28
	PLOT DATE =	5/15/2025	CHECKED -	BJN	REVISED -			CONTRACT NO. 62T22				
	PLOT TIME =	11:34:35 PM	DATE -	10/21/2024	REVISED -			ILLINOIS FED. AID PROJECT				



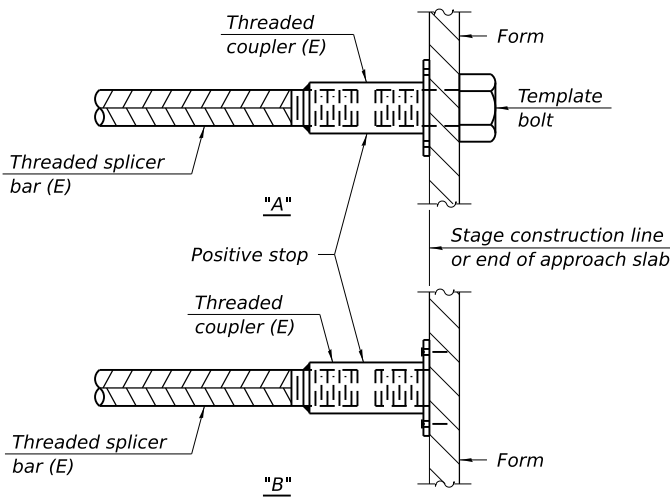
### STANDARD BAR SPLICER ASSEMBLY PLAN

Only bar splicer assemblies as presented on the approved QPL list may be used.

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
SN 016-1005	#5	84	3'-0"
SN 016-1006	#5	84	3'-0"
SN 016-1005	#6	8	4'-0"
SN 016-1006	#6	8	4'-0"

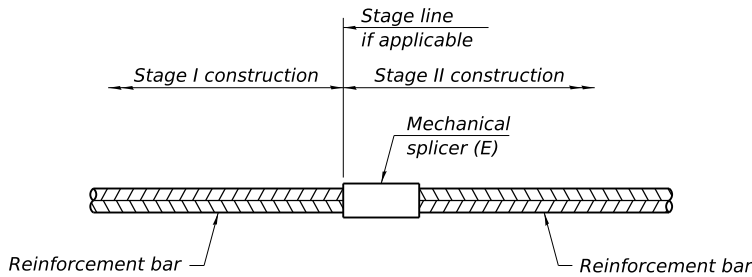


### INSTALLATION AND SETTING METHODS

"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.

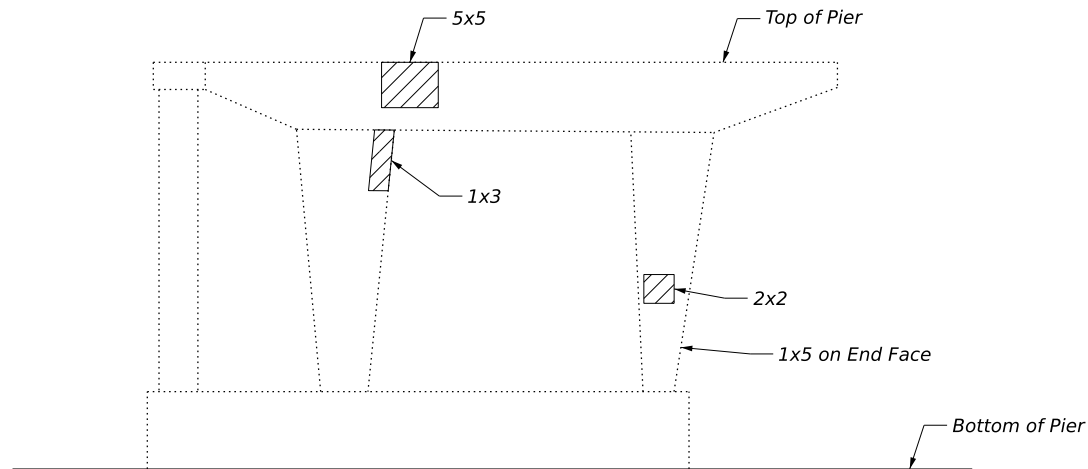


### STANDARD MECHANICAL SPLICER

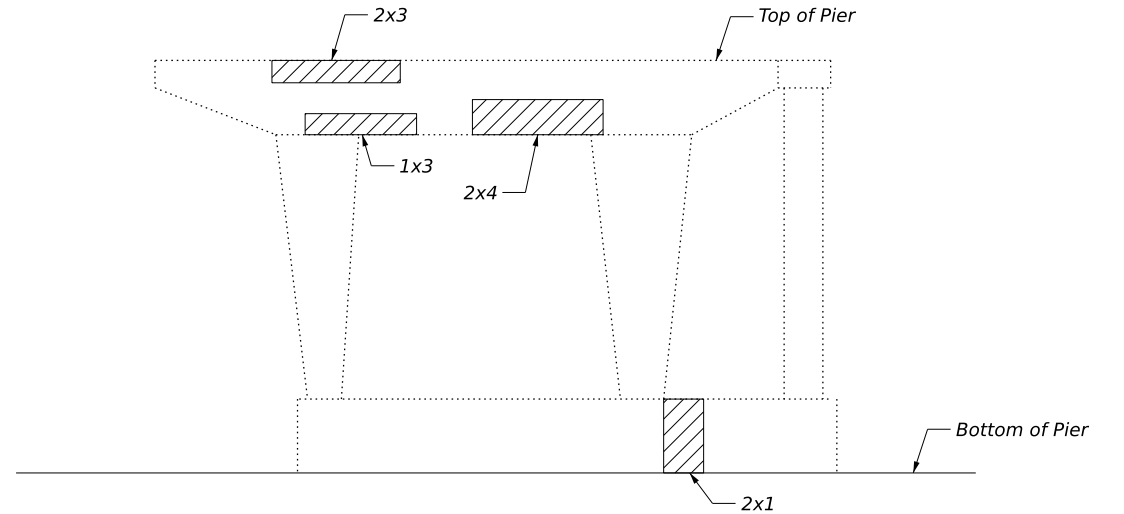
Location	Bar size	No. assemblies required

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.

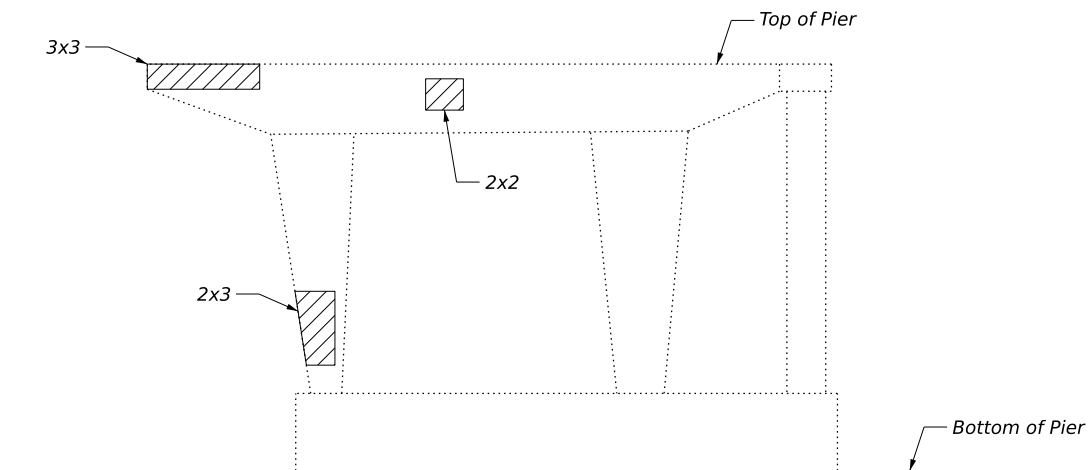
1 REVISED SHEET 5/30/2025



**PIER 1**  
016-1005  
(Looking North)



**PIER 2**  
016-1005  
(Looking North)




**PIER 1**  
016-1005  
(Looking South)


#### NOTES

- Pier and abutment repair areas are estimated based on inspection information received. Actual repair areas and locations shall be determined by the Engineer. The Contractor shall be paid for the actual amount of repairs made and at the bid price for the respective pay item.
- Existing reinforcement bars that are cut or damaged during repair shall be replaced in kind and lapped with existing rebar. No welding of rebar shall be allowed.

- IDOT Bridge Office shall be notified of concrete removal that may extend within 1.5 in. of a bearing area and installation of a temporary shoring and cribbing support system may be required.

#### LEGEND


 Structural Repair of Concrete (Depth Equal to less than 5 Inches)

 REVISED SHEET 5/30/2025

FILE NAME: \\csM-dbstepw21\CS\_prf\_work\_dfr3941004\_1\TASK 1-42722-5016 - Substructure Repair Details 1.dgn

**DBS**

DB STERLIN CONSULTANTS, INC.  
123 N. Wacker Drive, Suite 2000  
Chicago, Illinois 60606  
312.857.1006

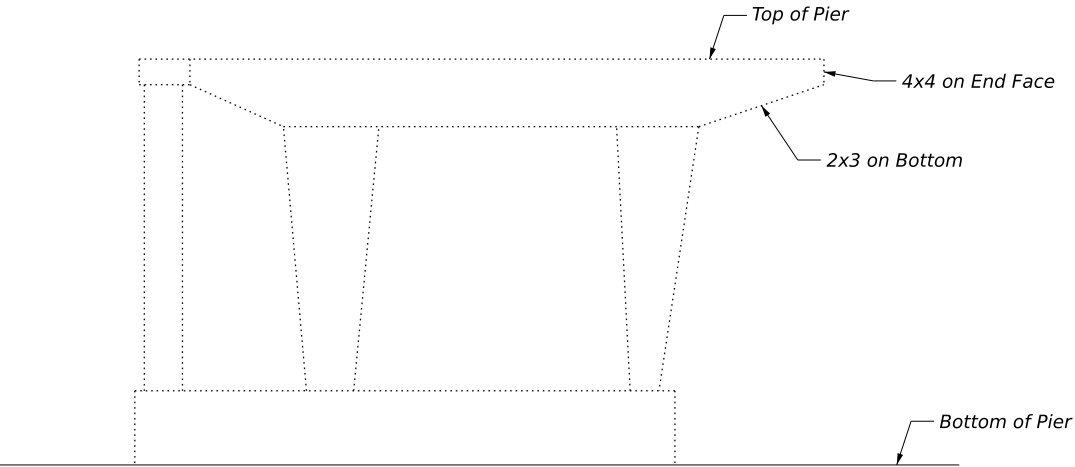
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

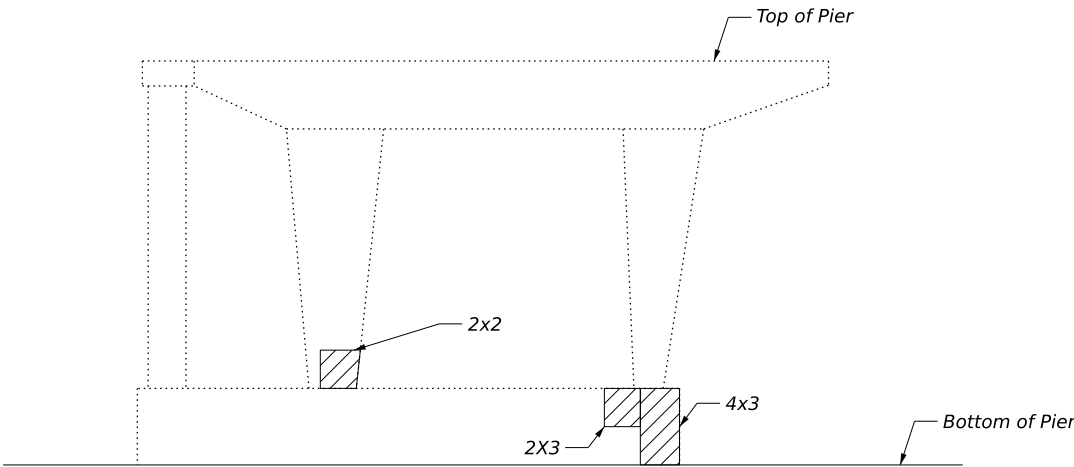
**SUBSTRUCTURE REPAIR DETAILS 1**  
**STRUCTURES NO. 016-1005 AND NO. 016-1006**

SCALE: SHEET NO. S-16 OF S-27 SHEETS

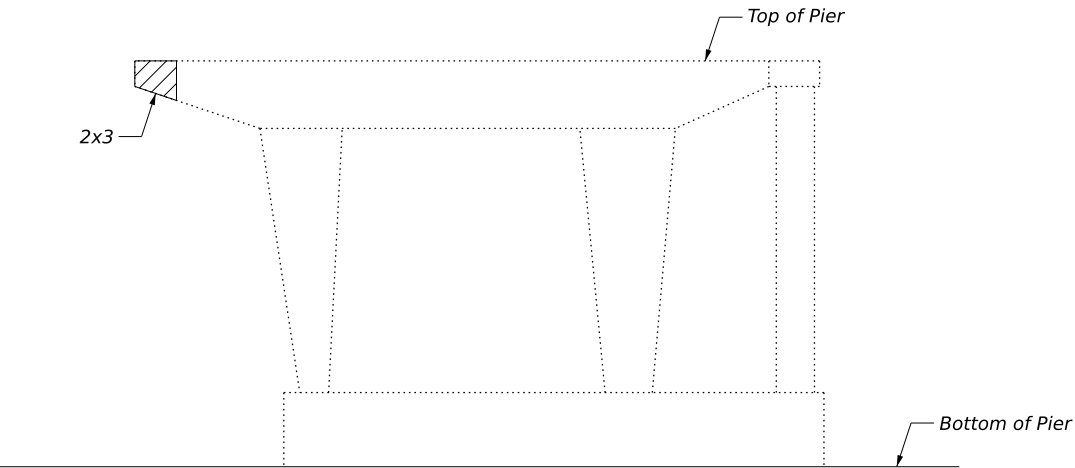
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP 0372 22 BJ	COOK	48	29
CONTRACT NO. 62T22				
ILLINOIS FED. AID PROJECT				



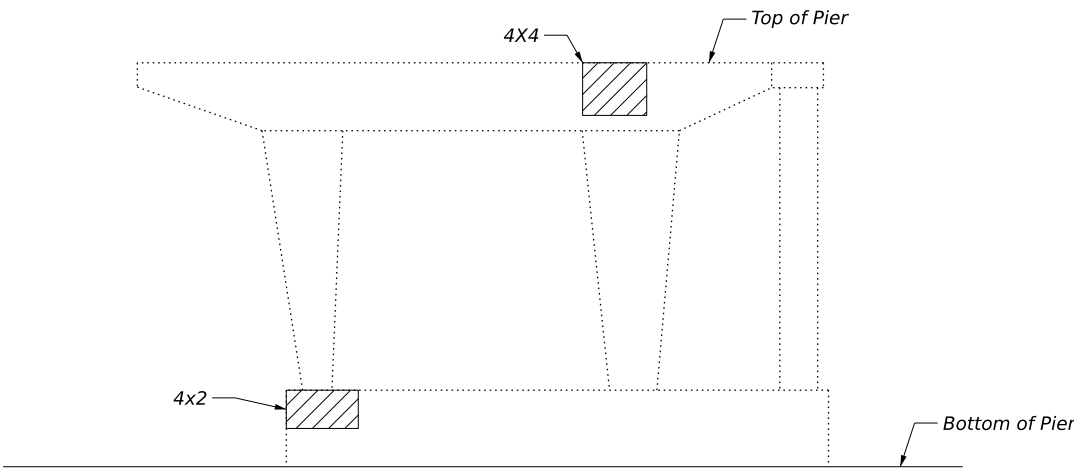
**PIER 3**  
016-1005  
(Looking North)



**PIER 4**  
016-1005  
(Looking North)



**PIER 3**  
016-1005  
(Looking South)




**PIER 4**  
016-1005  
(Looking South)


**NOTES**

- Pier and abutment repair areas are estimated based on inspection information received. Actual repair areas and locations shall be determined by the Engineer. The Contractor shall be paid for the actual amount of repairs made and at the bid price for the respective pay item.
- Existing reinforcement bars that are cut or damaged during repair shall be replaced in kind and lapped with existing rebar. No welding of rebar shall be allowed.

- IDOT Bridge Office shall be notified of concrete removal that may extend within 1.5 in. of a bearing area and installation of a temporary shoring and cribbing support system may be required.

**LEGEND**

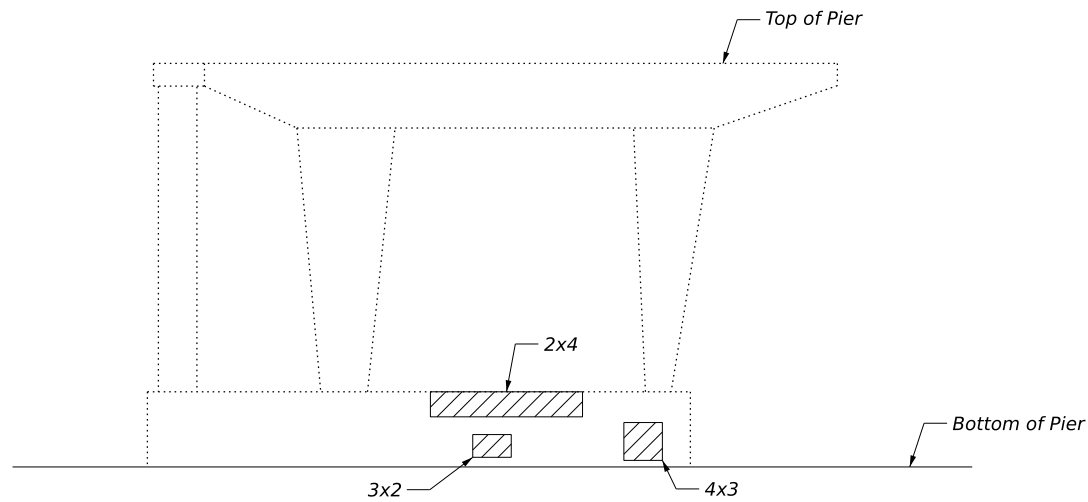
 Structural Repair of Concrete (Depth Equal to less than 5 Inches)

 REVISED SHEET 5/30/2025

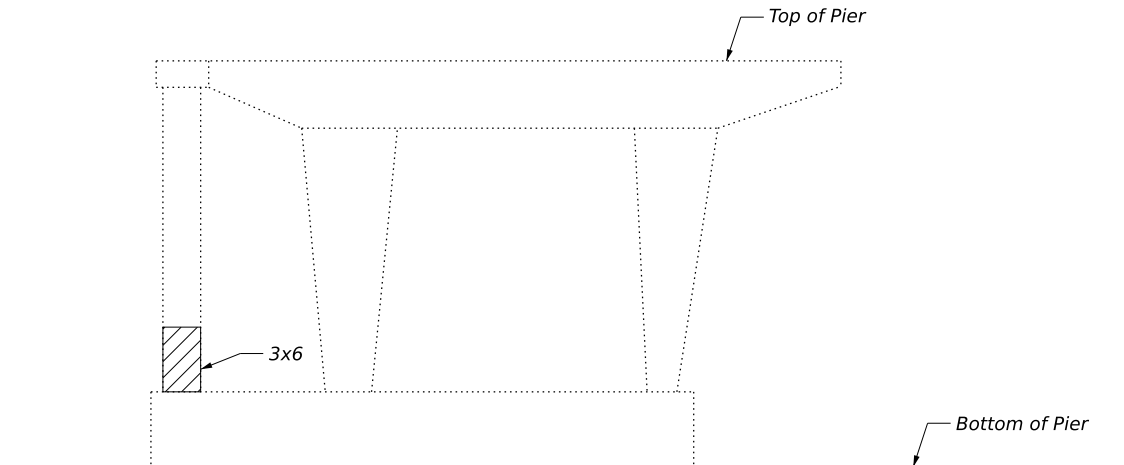
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<div>FILE NAME:</div> <div><div><div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div><div><div></div><div></div><div></div></div></div><div>DBS</div><div>DB STERLIN CONSULTANTS, INC. 123 N. Wacker Drive, Suite 2000 Chicago, Illinois 60606 312.857.1006</div></div></div>	<div>USER NAME = lcsM-dbstepw21\$</div>	<div>DESIGNED - MM</div>	<div>REVISED - <div><div>1</div><div>5/29/2025</div></div></div>	<div>STATE OF ILLINOIS</div> <div>DEPARTMENT OF TRANSPORTATION</div>	<div>SUBSTRUCTURE REPAIR DETAILS 2</div> <div>STRUCTURES NO. 016-1005 AND NO. 016-1006</div>				<div>F.A.I. RTE</div>	<div>SECTION</div>	<div>COUNTY</div>	<div>TOTAL SHEETS</div>	<div>SHEET NO.</div>
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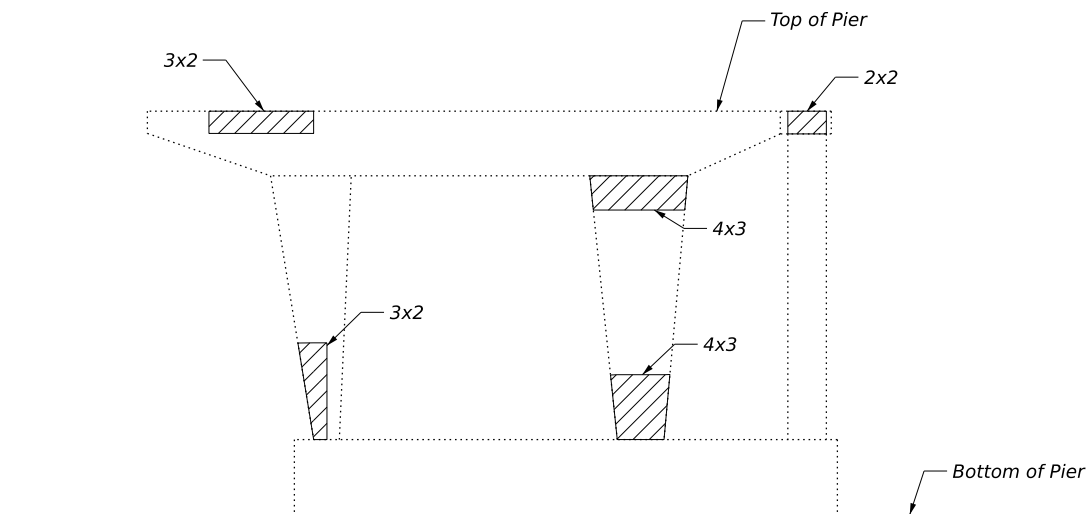




**PIER 5**  
016-1005  
(Looking North)



**PIER 6**  
016-1006  
(Looking South)




**PIER 5**  
016-1005  
(Looking South)


#### NOTES

- Pier and abutment repair areas are estimated based on inspection information received. Actual repair areas and locations shall be determined by the Engineer. The Contractor shall be paid for the actual amount of repairs made and at the bid price for the respective pay item.
- Existing reinforcement bars that are cut or damaged during repair shall be replaced in kind and lapped with existing rebar. No welding of rebar shall be allowed.

- IDOT Bridge Office shall be notified of concrete removal that may extend within 1.5 in. of a bearing area and installation of a temporary shoring and cribbing support system may be required.

#### LEGEND


 Structural Repair of Concrete (Depth Equal to less than 5 Inches)

 REVISED SHEET 5/30/2025

FILE NAME: \\csM-database\21\CS\_pdt\_work\_d\3941004\_1\TASK 1-42722-5018 - Substructure Repair Details 3.dgn



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123 N. Wacker Drive, Suite 2000  
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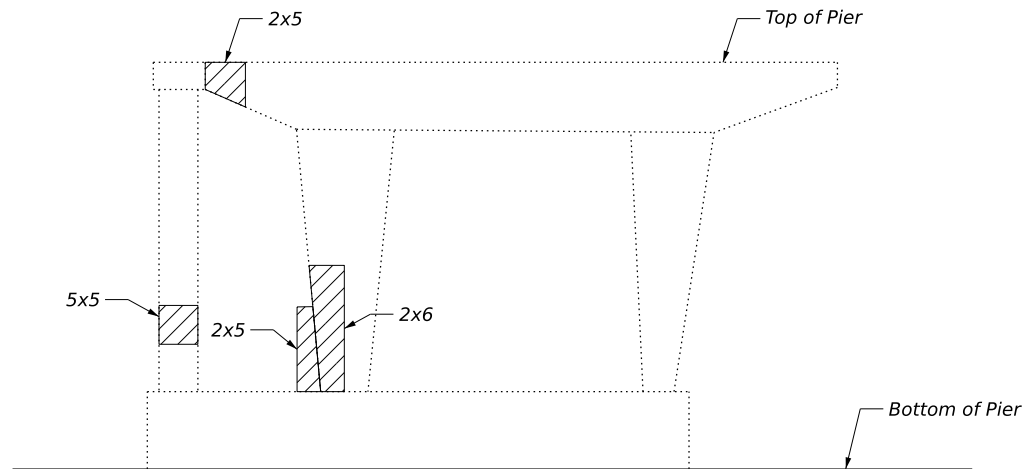
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**SUBSTRUCTURE REPAIR DETAILS 3**  
**STRUCTURES NO. 016-1005 AND NO. 016-1006**

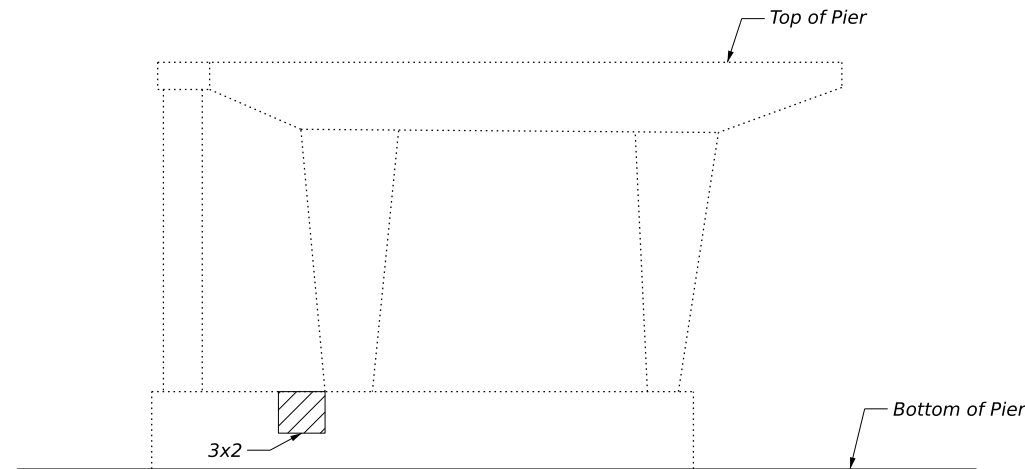
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SHEET NO. S-18 OF S-27 SHEETS

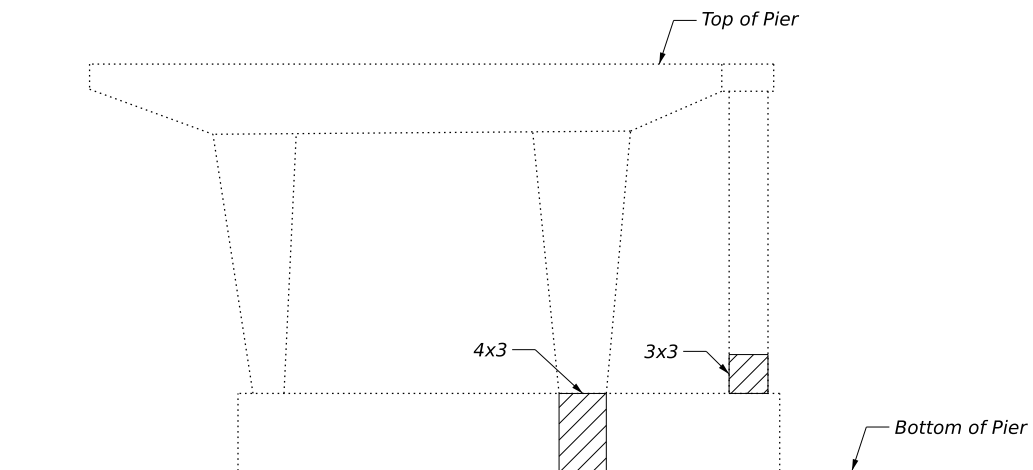
F.A.I. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP 0372 22 BJ	COOK	48	31
CONTRACT NO. 62T22				
ILLINOIS FED. AID PROJECT				



**PIER 7**  
016-1006  
(Looking South)



**PIER 9**  
016-1006  
(Looking South)




**PIER 7**  
016-1006  
(Looking North)

#### NOTES

- Pier and abutment repair areas are estimated based on inspection information received. Actual repair areas and locations shall be determined by the Engineer. The Contractor shall be paid for the actual amount of repairs made and at the bid price for the respective pay item.
- Existing reinforcement bars that are cut or damaged during repair shall be replaced in kind and lapped with existing rebar. No welding of rebar shall be allowed.

- IDOT Bridge Office shall be notified of concrete removal that may extend within 1.5 in. of a bearing area and installation of a temporary shoring and cribbing support system may be required.

#### LEGEND

 Structural Repair of Concrete (Depth Equal to less than 5 Inches)

FILE NAME: \\csM-database\pw21\CS\_prf\_work\_dfr3941004\_4\TASK 1-42722-5010 - Substructure Repair Details 4.dgn

**DBS**

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123 N. Wacker Drive, Suite 2000  
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312.857.1006


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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

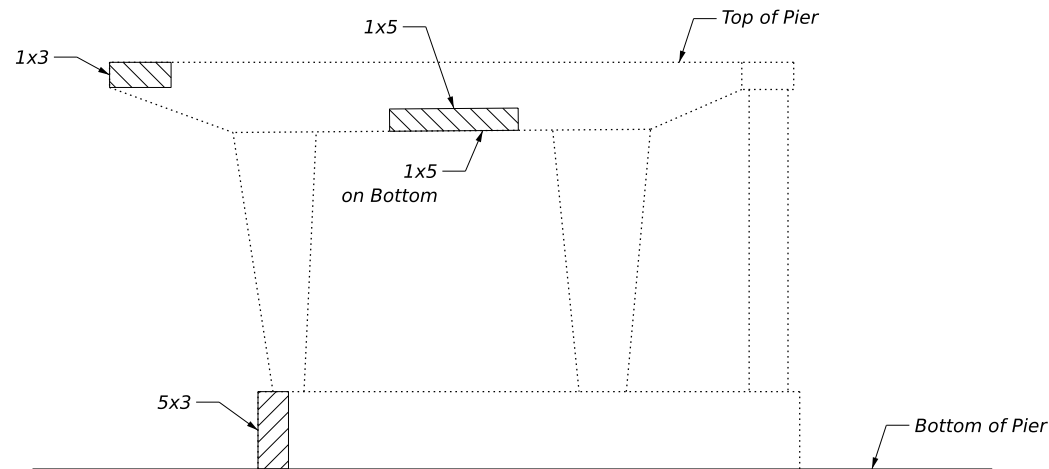
**SUBSTRUCTURE REPAIR DETAILS 4**  
**STRUCTURES NO. 016-1005 AND NO. 016-1006**

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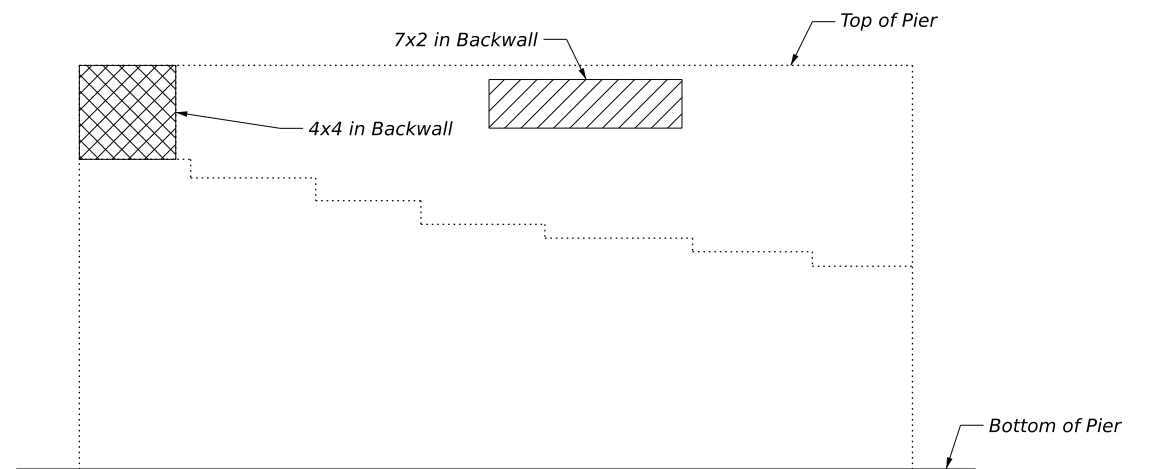
SHEET NO. S-19 OF S-27 SHEETS

 **REVISED SHEET 5/30/2025**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP 0372 22 BJ	COOK	48	32
CONTRACT NO. 62T22				
ILLINOIS FED. AID PROJECT				



**PIER 10**  
016-1006  
(Looking North)



**SOUTH ABUTMENT**  
016-1006  
(Looking South)

### NOTES

- Pier and abutment repair areas are estimated based on inspection information received. Actual repair areas and locations shall be determined by the Engineer. The Contractor shall be paid for the actual amount of repairs made and at the bid price for the respective pay item.
- Existing reinforcement bars that are cut or damaged during repair shall be replaced in kind and lapped with existing rebar. No welding of rebar shall be allowed.

- IDOT Bridge Office shall be notified of concrete removal that may extend within 1.5 in. of a bearing area and installation of a temporary shoring and cribbing support system may be required.

### BILL OF MATERIAL

Item	Length	Shape
Structural Repair of Concrete ≤ 5"	Sq. Ft.	359
Structural Repair of Concrete > 5"	Sq. Ft.	16
Concrete Sealer	Sq. Ft.	375

### LEGEND

- Structural Repair of Concrete (Depth Equal to less than 5 Inches)
- Structural Repair of Concrete (Greater than 5 Inches)

**1** REVISED SHEET 5/30/2025

FILE NAME: \\cam-database\pw21\CS\_pdt\_work\_dfr39411004\_4\TASK 1-42722-5020 - Substructure Repair Details 5.dgn



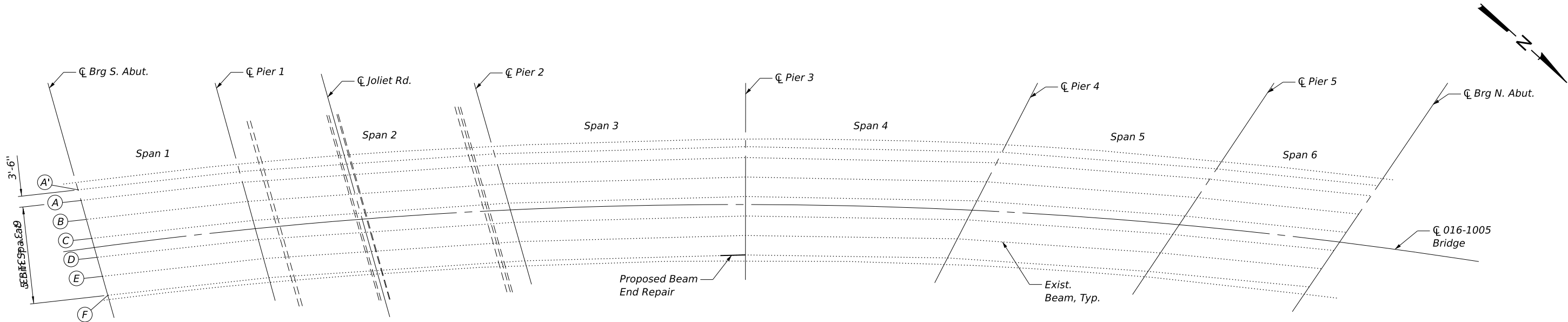
DB STERLIN CONSULTANTS, INC.  
123 N. Wacker Drive, Suite 2000  
Chicago, Illinois 60606  
312.857.1006

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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

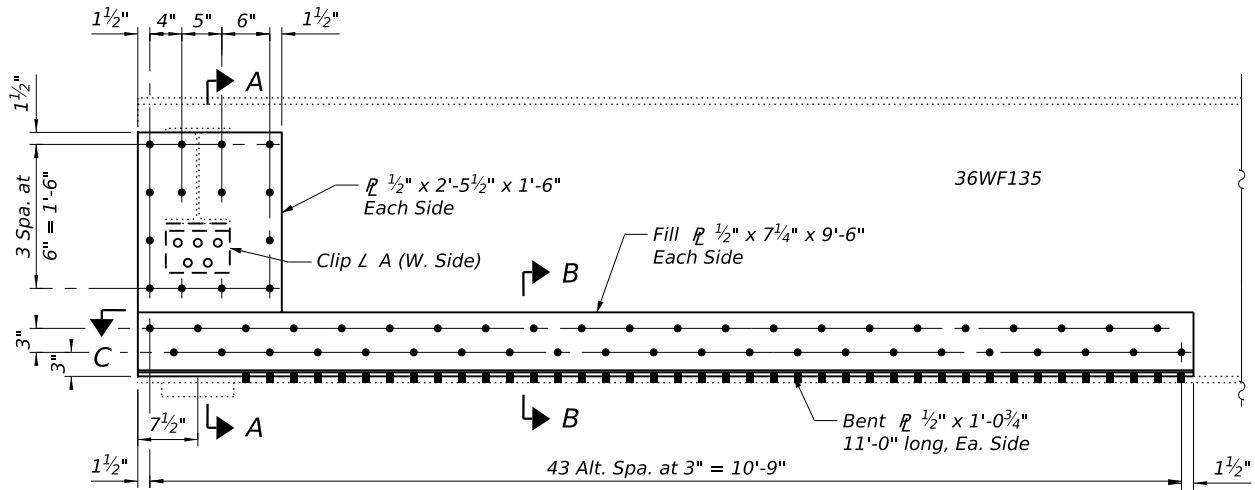
**SUBSTRUCTURE REPAIR DETAILS 5**  
**STRUCTURES NO. 016-1005 AND NO. 016-1006**

SCALE:	SHEET NO. S-20 OF S-27 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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						CONTRACT NO. 62T22
				ILLINOIS	FED. AID PROJECT	

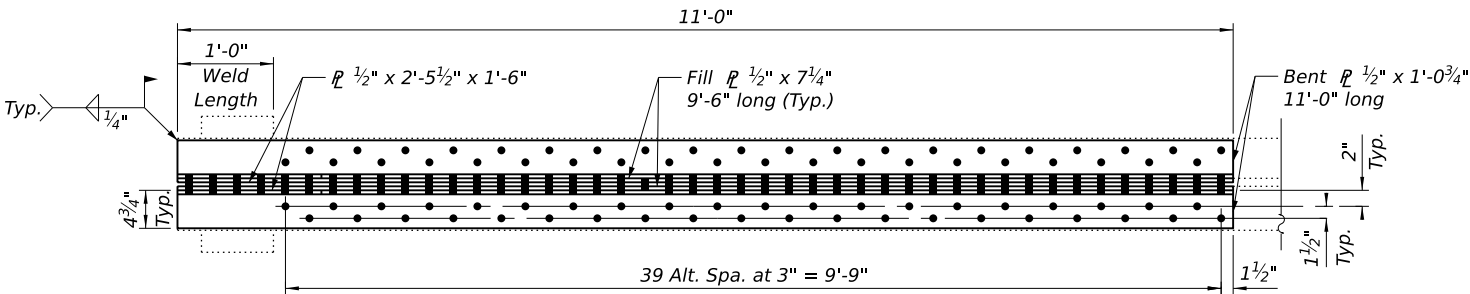


Notes:  
All welds should be performed by a certified welder as per the Standard Spec.  
See Sheet S-2 for notes on structural steel repair.

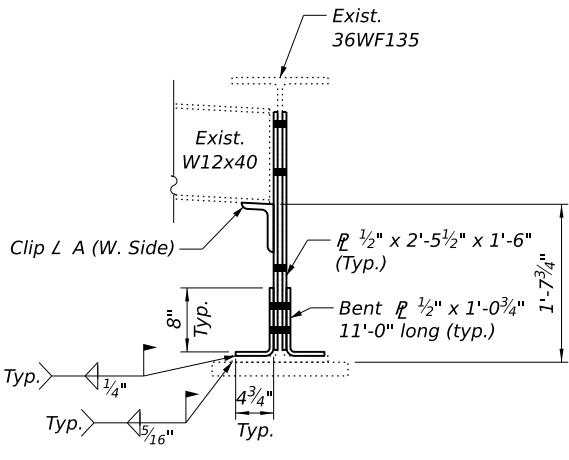
FRAMING PLAN - SN 016-1005



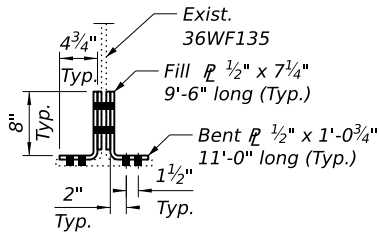
BEAM END REPAIR - ELEVATION  
(Beam F - Pier 3 - Span 3)



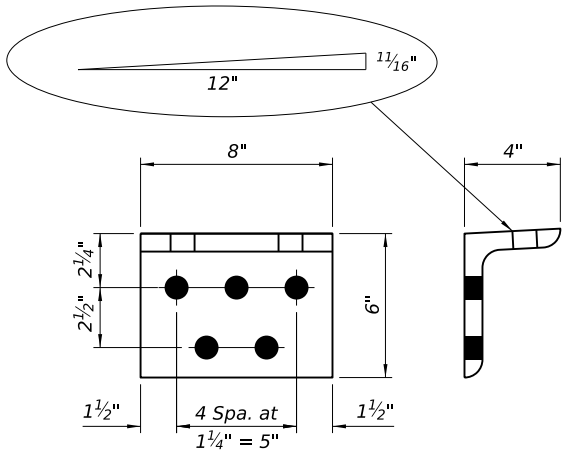
SECTION C-C



SECTION A-A



SECTION B-B



CLIP L A

L 6x4x3/4" X 8" long

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Steel Repair	Pound	970

BOLT HOLE LEGEND

- - Field drill using existing steel as template  
● - Shop drill holes in new steel.

FILE NAME: \\camdbstepw21\CS\_pdt\_work\_dfr35810044\_501TASK 1-42722-S022 - Steel Beam Repair Details.dgn



DB STERLIN CONSULTANTS, INC.  
123 N. Wacker Drive, Suite 2000  
Chicago, Illinois 60606  
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DATE - 10/21/2024

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

STEEL BEAM REPAIR DETAILS  
STRUCTURE NO. 016-1005

SCALE:

SHEET NO. S-22 OF S-27 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
372	FAP 0372 22 BJ	COOK	48	35
CONTRACT NO. 62T22				
ILLINOIS FED. AID PROJECT				

REVISD SHEET 5/30/2025