

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.U. RTE. 2857	SECTION 2021-118-R	COUNTY COOK	TOTAL SHEETS 557	SHEET NO. 1
ILLINOIS CONTRACT NO. 62P45			* 557 + 1 = 558 TOTAL SHEETS	

D-91-199-21



FOR INDEX OF SHEETS, SEE SHEET NO. 2  
FOR LIST OF HIGHWAY STANDARDS, SEE SHEET NO. 2

IMPROVEMENTS LOCATED IN THE CITY OF HARVEY,  
VILLAGE OF DIXMOOR, AND VILLAGE OF RIVERDALE

DESIGN DESIGNATION

1700 (32) URBAN MINOR ARTERIAL 5.02 (PCC-20)

TRAFFIC DATA

WOOD STREET/ASHLAND AVENUE (MINOR ARTERIAL)	ADT 2014/2040	SPEED DESIGN/POSTED
162ND STREET TO 159TH STREET	13,500/15,000	40/35
159TH STREET TO 147TH STREET	15,300/16,000	40/35
147TH STREET TO THORNTON ROAD	6,500/8,000	40/35
THORNTON ROAD TO 138TH STREET	10,200/12,000	45/40
138TH STREET TO BROADWAY STREET	16,500/17,000	45/40
THORNTON ROAD (MAJOR COLLECTOR)		
EAST LEG	6,600/9,000	45/50
WEST LEG	4,800/6,000	40/45

# PROPOSED HIGHWAY PLANS

F.A.U. ROUTE 2857 (WOOD STREET/ASHLAND AVENUE  
SECTION 2021-118-R  
PROJECT: STP-COVD-622K(195)  
ROADWAY RECONSTRUCTION & WATERMAIN WORK  
COOK COUNTY  
C-91-238-21

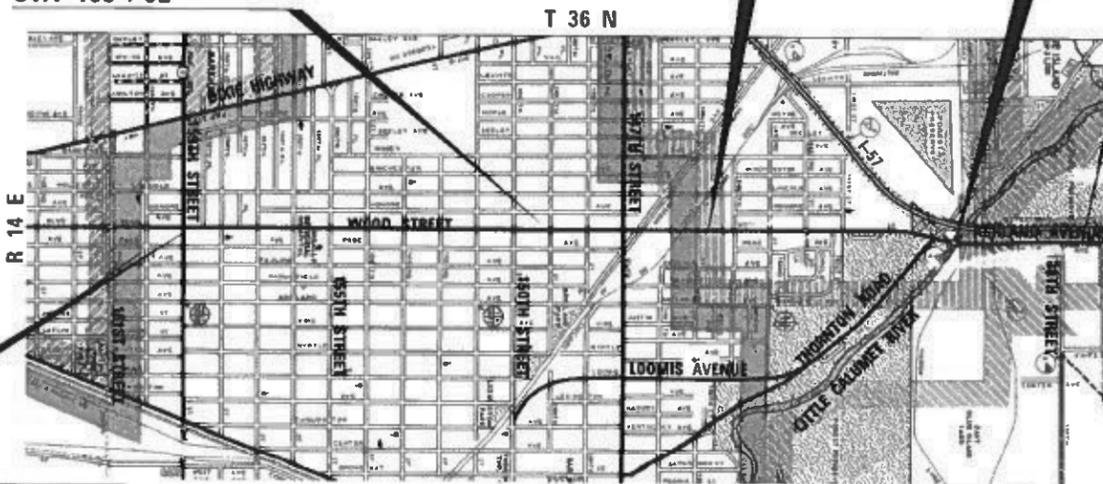
BEGIN ROADWAY IMPROVEMENT  
STA 189+92

ROADWAY OMISSION  
STA 225+48 TO  
STA 263+50

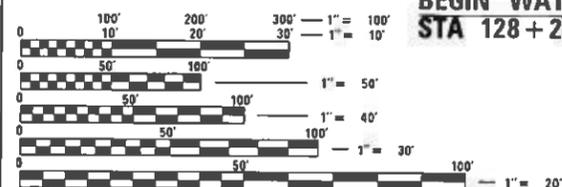
BRIDGE IMPROVEMENTS  
SN 016-0301

END WATERMAIN  
WORK  
STA 289+41

END ROADWAY  
IMPROVEMENT  
STA 289+50



MEADE ELECTRIC CO. DISTRICT ONE ELECTRICAL  
MAINTENANCE CONTRACTOR LOCATES IDOT ELECTRICAL  
EQUIPMENT AND UNDERGROUND CABLES 773-287-7672



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD  
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT  
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS  
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

PROJECT ENGINEER CRAIG BAUER (847) 705-4265  
PROJECT MANAGER LONG TRAN (847) 705-4232

CONTRACT NO. 62P45



INFRASTRUCTURE  
ENGINEERING INC.  
1 North LaSalle | Suite 2650 | Chicago, IL 60606  
P 312.425.5559 | F 312.425.9144 | www.infraeng.com

SIGNATURE AND SEAL APPLY TO  
DRAWINGS NOS. 1-128, 164-289, 384-567

DATE: 10-7-2021  
SEAL EXPIRES: 11-30-2021



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1 North LaSalle | Suite 2650 | Chicago, IL 60606  
P 312.425.5559 | F 312.425.9144 | www.infraeng.com

SIGNATURE AND SEAL APPLY TO  
DRAWINGS NOS. 255-383

DATE: 10-7-2021  
SEAL EXPIRES: 11-30-2022

THORNTON TOWNSHIP



LOCATION MAP  
NOT TO SCALE

GROSS LENGTH = 16124 FT. = 3.054 MILE  
NET LENGTH = 16124 FT. = 3.054 MILE



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1 North LaSalle | Suite 2650 | Chicago, IL 60606  
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SIGNATURE AND SEAL APPLY TO  
DRAWINGS NOS. 129-153

DATE: 10-7-2021  
SEAL EXPIRES: 11-30-2021



CHRISTOPHER B. BURKE  
ENGINEERING LTD.  
9575 West Higgins Road, Suite 800  
Rosemont, Illinois 60018  
(847) 823-0500

SIGNATURE AND SEAL APPLY TO  
DRAWINGS NOS. 290-354

DATE: 10-7-2021  
SEAL EXPIRES: 11-30-2021

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED December 6, 2021

*Jon Bus* REGIONAL ENGINEER

March 25, 2022

*Stephen M. L...* ENGINEER OF DESIGN AND ENVIRONMENT

March 2, 2022

*Stephen M. L...* DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

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REVISED SHEET 4/4/2022

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\* 372A ADDED HERE 

**DISTRICT DETAILS**

STD NO.	DESCRIPTION
BD-01	DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15'(4.5 m)
BD-02	DRIVEWAY DETAILS DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5
BD-16	DROP MANHOLE DETAILS
BD-32	BUTT JOINT AND HMA TAPER
BD-34	DETAILS FOR DEPRESSED CURB & GUTTER AND SHOULDER TREATMENT AT TBT
BD-36	FIRE HYDRANT TO BE MOVED
BD-52	DETAIL OF PAVEMENT SEPARATION JOINT FOR JOINTED PCC PAVEMENTS AT
BD-53	DETAIL OF VARIOUS TYPES OF LANE REDUCTION FOR PCC PAVEMENT
BD 56	PCC PAVEMENT AND PCC BASE COURSE ADJACENT TO RAILROAD GRADE
BM-15	SCHEDULE OF LANDSCAPING ITEMS
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND
TC-11	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-14	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO
TC-16	SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS
TC-22	ARTERIAL ROAD INFORMATION SIGN
TC-23	TYPICAL SUPPLEMENTAL SIGNING AND PAVEMENT MARKING TREATMENT FOR RAILROAD CROSSINGS

**HIGHWAY STANDARDS**

STD NO.	DESCRIPTION
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-07	TEMPORARY EROSION CONTROL SYSTEMS
406201-01	MAILBOX TURNOUT
420001-10	PAVEMENT JOINTS
420101-07	24" JOINTED PCC PAVEMENT
420106-07	36' JOINTED PCC PAVEMENT
420111-04	PCC PAVEMENT ROUNDOUTS
420401-13	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
420501-07	PCC PAVEMENT AND PCC BASE COURSE ADJACENT TO RAILROAD GRADE
424001-11	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424006-05	DIAGONAL CURB RAMPS FOR SIDEWALKS
424016-05	MID-BLOCK CURB RAMPS FOR SIDEWALKS
424021-06	DEPRESSED CORNER FOR SIDEWALKS
424031-02	MEDIAN PEDESTRIAN CROSSINGS
542301-03	PRECAST REINFORCED CONCRETE FLARED END SECTION
601001-05	PIPE UNDERDRAINS
602001-02	CATCH BASIN, TYPE A
602006-04	CATCH BASIN, TYPE B
602011-02	CATCH BASIN, TYPE C
602301-04	INLET, TYPE A
602306-03	INLET, TYPE B
602401-07	MANHOLE, TYPE A
602406-11	MANHOLE, TYPE A, 6' (1.8m) DIAMETER
602411-09	MANHOLE, TYPE A, 7' (2.1m) DIAMETER
604001-05	FRAME AND LIDS, TYPE 1
604006-05	FRAME AND GRATE, TYPE 3
604011-05	FRAME AND GRATE, TYPE 3V
604031-03	GRATE, TYPE 7
606001-08	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-04	PC CONCRETE ISLANDS AND MEDIANS
606306-04	CORRUGATED PC CONCRETE MEDIANS
630001-12	STEEL PLATE BEAM GUARDRAIL
631011-10	TRAFFIC BARRIER TERMINAL, TYPE 2
631031-17	TRAFFIC BARRIER TERMINAL, TYPE 6
635001-02	DELINEATORS
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5M) TO 24" (600MM) FROM PAVEMENT

**HIGHWAY STANDARDS**

STD NO.	DESCRIPTION
701011-04	OFF-ROAD MOVING OPERATIONS, 2L, 2W, DAY ONLY
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15' (4.5M) TO 24" (600MM) FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' (4.5M) AWAY
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701311-03	LANE CLOSURE, 2L, 2W, MOVING OPERATIONS - DAY ONLY
701400-11	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPERATION, FOR SPEEDS <= 40 MPH
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701502-09	URBAN LANE CLOSURE, 2L, 2W, WITH BIDIRECTIONAL LEFT TURN LANE
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONRAVERSABLE MEDIAN
701602-10	URBANE LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701611-01	URBAN HALF ROAD CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-08	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-04	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
720016-04	MAST ARM MOUNTED STREET NAME SIGNS
725001-01	OBJECT AND TERMINAL MARKERS
728001-01	TELESCOPING STEEL SIGN SUPPORT
729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS AND MARKERS)
731001-01	BASE FOR TELESCOPING STEEL SIGN SUPPORT
782006-00	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS
805001-01	ELECTRICAL SERVICE INSTALLATION DETAILS
814001-03	HANDHOLES
814006-03	DOUBLE HANDHOLES
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)
873001-02	TRAFFIC SIGNAL GROUNDING AND BONDING
876001-04	PEDESTRIAN PUSH BUTTON POST
877001-08	STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
878001-11	CONCRETE FOUNDATIONS DETAILS
880001-01	SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS
886001-01	DETECTOR LOOP INSTALLATIONS
886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS

\*MODEL NAME\*

FILE NAME = P:\P-1A\2024-80\_IDDT\_Wood\_Street\_Ph\_11\DCN\CADD\_Sheets\016872-ahc-indexeR1.dgn

USER NAME = APatterson	DESIGNED - AGL	REVISED -
DRAWN - AGL	CHECKED - AJP	REVISED -
PLLOT SCALE = 2.0000' / in.	DATE - 09/27/2018	REVISED -
PLLOT DATE = 12/3/2021		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS  
WOOD STREET/ASHLAND AVENUE**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2857	2021-118-R	COOK	557	2
CONTRACT NO. 62P45				
ILLINOIS FED. AID PROJECT				

 REVISED SHEET 4/4/2022

Bench Mark: Cut "a" in west side of light pole concrete base in the island at the southeast corner of Wood Street and Thornton Road, 29.49 feet east of the roadway centerline at Station 261+27.15. Elevation = 596.04

Existing Structure: S.N. 016-0301 built in 1930 as S.B.I. Route No. 49, Section 146 B at Station 228+33.00. Superstructure replaced and bridge widened in 1995 as F.A.U. Route 2857, Section 146(B)R at Station 48+44.61. Structure consists of a four span continuous, composite rolled steel beam superstructure. Substructure consists of closed abutments supported on spread footings and solid wall piers on spread footings. Length = 238'-5 7/8" (back-to-back abutments). Width = 63'-2" (out-to-out deck). Traffic is to be maintained utilizing stage construction.

No salvage

Note: All existing elevations shown on these plans are 0.54 feet lower than the corresponding elevation shown on the existing drawings.

### DESIGN SCOUR ELEVATION TABLE

Event/Limit State	Design Scour Elevations (ft.)					Item
	South Abut.	Pier 1	Pier 2	Pier 3	North Abut.	
Q50	573.4	564.6	557.4	557.4	571.7	7
Design	574.5	573.5	573.3	573.3	574.3	

### DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges  
2003 AASHTO Guide Specifications for Horizontally Curved Steel Girder Highway Bridges

### LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

### DESIGN STRESSES

FIELD UNITS (New Construction)

$f'_c = 4,000$  psi (Superstructure)  
 $f'_c = 3,500$  psi (Substructure)  
 $f_y = 60,000$  psi (Reinforcement)

FIELD UNITS (Existing Superstructure)

$f'_c = 3,500$  psi (Concrete)  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 50,000$  psi (Structural Steel)(AASHTO M270 Grade 50)  
 $f_y = 36,000$  psi (Structural Steel)(AASHTO M270 Grade 36)

FIELD UNITS (Existing Substructure)

$f'_c = 1,400$  psi (Concrete)  
 $f_s = 20,000$  psi (Reinforcement)

### SEISMIC DATA

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.035g  
Site Coefficient (S) = 1.0

### SCOPE OF WORK

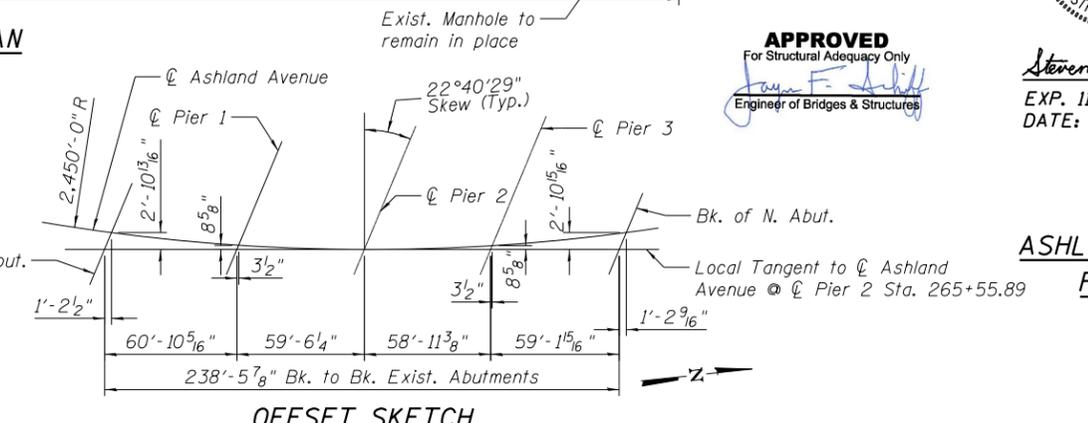
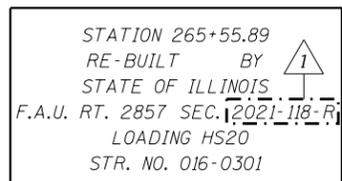
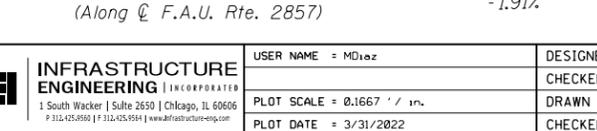
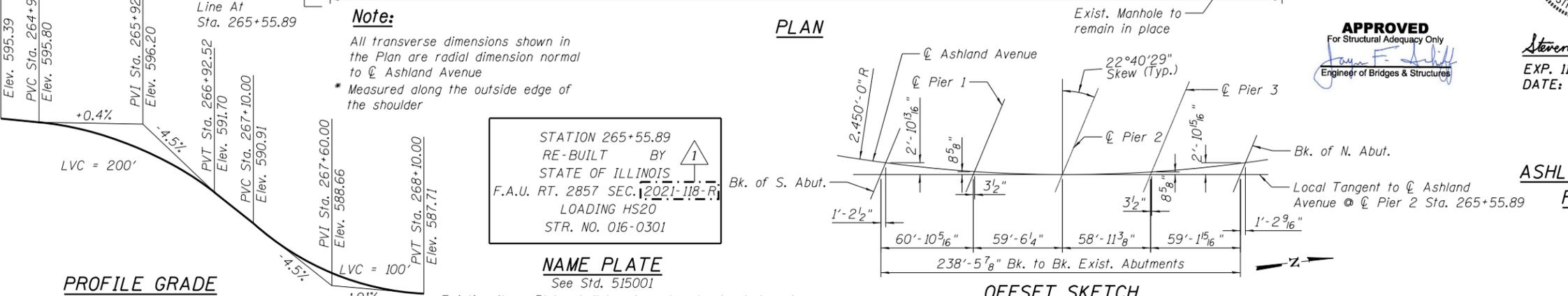
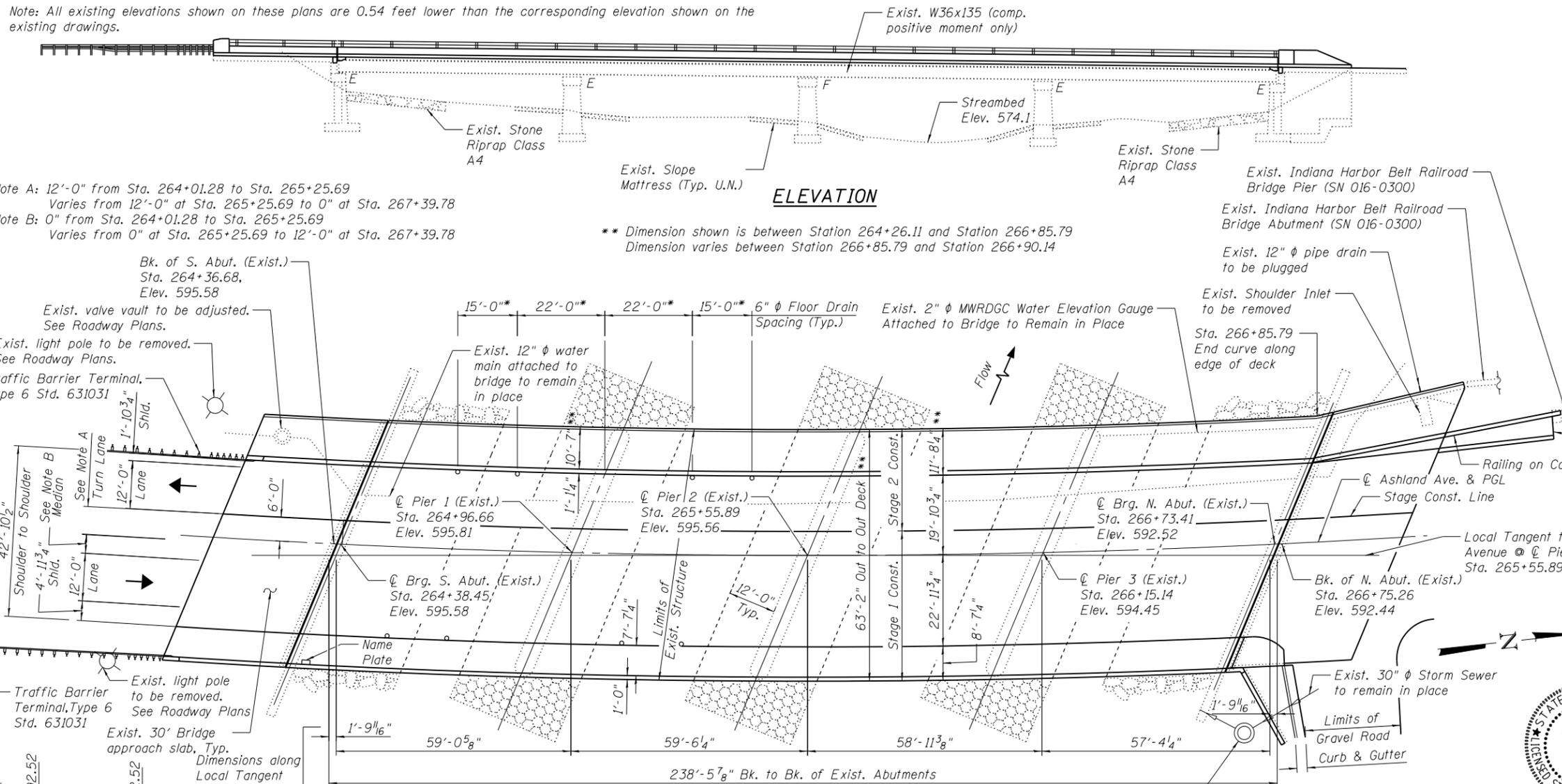
1. Remove the existing parapet and add a raised shared-use path to west side of the bridge and both approach slabs.
2. Remove the existing parapet and add a raised sidewalk to the east side of the bridge, south approach slab and a portion of the north approach slab.
3. Repair the deck and add a thin polymer overlay to the deck and both approach slabs as shown.
4. Repair the steel framing, abutments and piers as shown.

### HORIZ. CURVE DATA

P.I. Sta. = 266+81.01  
 $\Delta = 15^\circ 06' 53''$  (LT)  
 $D = 2^\circ 20' 18.97''$   
 $L = 646.31'$   
 $T = 325.04'$   
 $R = 2,450.00'$   
 $E = 24.54'$   
P.C. Sta. = 263+55.97  
P.T. Sta. = 270+02.28



### LOCATION SKETCH



**APPROVED**  
For Structural Adequacy Only  
*Steven P. Karlowicki*  
Engineer of Bridges & Structures



*Steven P. Karlowicki*  
EXP. 11/30/2018  
DATE: 4/7/2017

**GENERAL PLAN & ELEVATION**  
**ASHLAND AVENUE OVER LITTLE CALUMET RIVER**  
**F.A.U. RTE. 2857 - SECTION 146(B)R**  
**COOK COUNTY**  
**STA. 265+55.89**  
**STRUCTURE NUMBER 016-0301**

REVISED SHEET 4/4/2022

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION  
STRUCTURE NO. 016-0301

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2857	2021-118-R	COOK	557	355

CONTRACT NO. 62P45

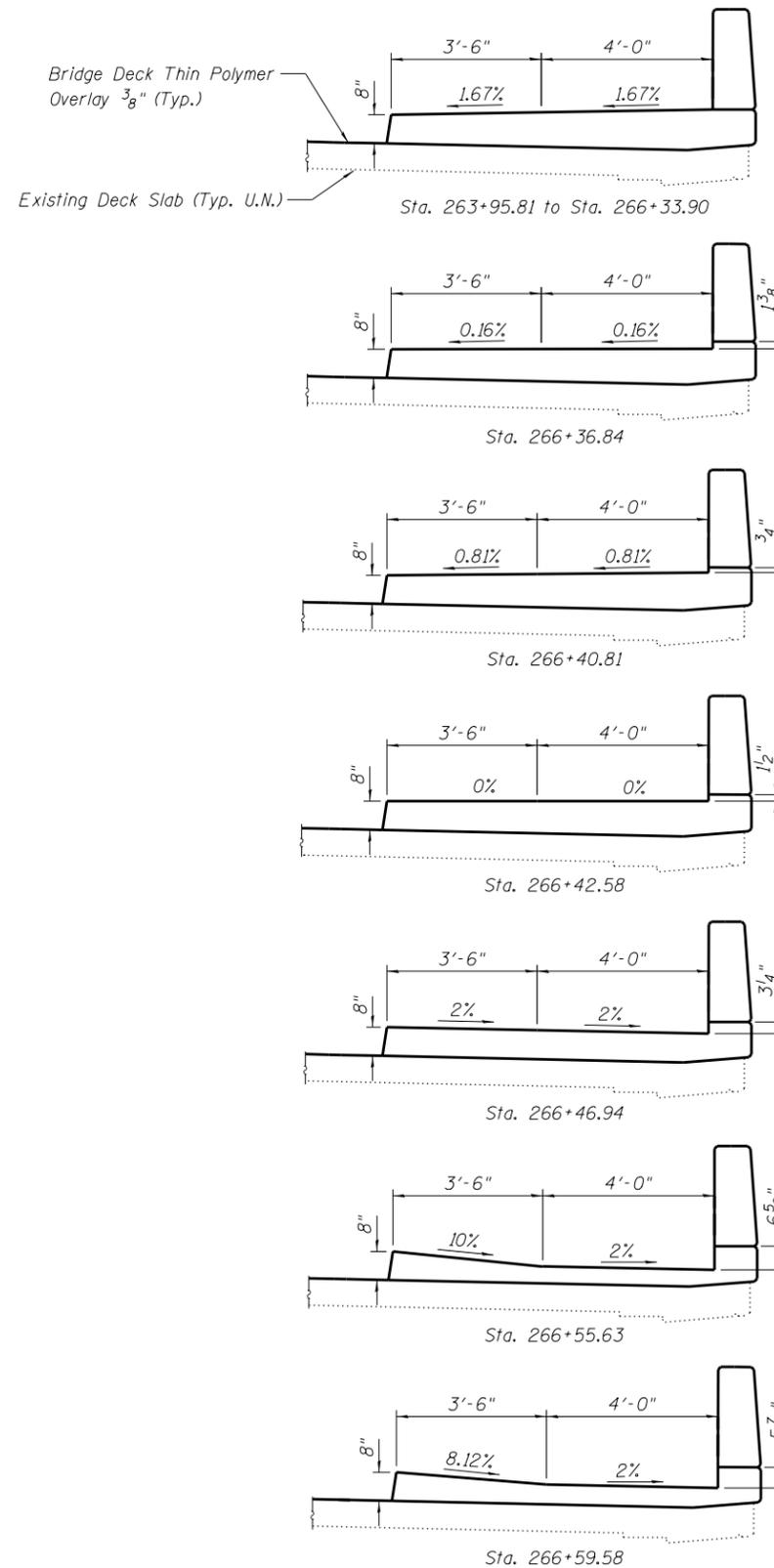
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**INDEX OF SHEETS**

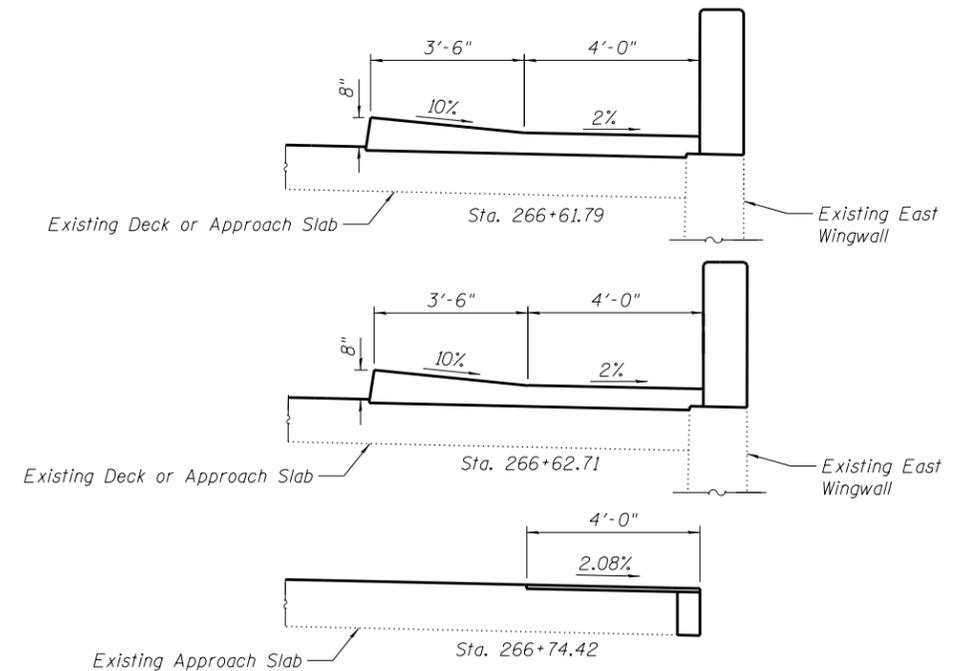
1. General Plan and Elevation
2. General Notes, Total Bill of Material and Index of Sheets
3. Stage Construction Details
4. Temporary Concrete Barrier for Stage Construction
5. Deck Repair and Concrete Removal
6. Deck Alterations
7. Deck Section and Details
8. Parapets
9. Superstructure Details
10. Superstructure Details and Bill of Material
11. South and North Bridge Approach Slab Concrete Removal
12. South Bridge Approach Slab Alterations
13. South Bridge Approach Slab Details
14. North Bridge Approach Slab Alterations
15. North Bridge Approach Slab Details
16. Bicycle Railing
17. Aluminium Railing, Type L
18. Preformed Joint Strip Seal (1 of 2)
- 18A. Preformed Joint Strip Seal (2 of 2)
19. Framing Plan and Diaphragm Repair Detail
20. South Abutment Repairs and Concrete Removal
21. South Abutment Alterations
22. North Abutment Repairs and Concrete Removal
23. North Abutment Alterations
24. North Abutment Details
25. Pier 1 Repairs
26. Pier 2 Repairs
27. Pier 3 Repairs
28. Northwest Barrier Slab
29. Bar Splicer Assembly and Mechanical Splicer Details

**GENERAL NOTES**

1. Fasteners shall be ASTM F3125 Grade 1 A325 Type 1, mechanically galvanized bolts. Bolts  $\frac{3}{4}$  in.  $\phi$ , holes  $\frac{15}{16}$  in.  $\phi$ , unless otherwise noted.
2. Reinforcement bars designated (E) shall be epoxy coated.
3. 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.
4. 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.



**SIDEWALK CROSS SLOPE TRANSITIONS**



**SIDEWALK CROSS SLOPE TRANSITIONS (CONT.)**

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	73.3	1.2	74.5
Structure Excavation	Cu. Yd.		16	16
Floor Drains	Each	8		8
Concrete Superstructure	Cu. Yd.	249.7		249.7
Protective Coat	Sq. Yd.	1,017		1,017
Reinforcement Bars, Epoxy Coated	Pound	29,320		29,320
Bar Splicers	Each	28		28
Aluminum Railing, Type L	Foot	264		264
Bicycle Railing	Foot	303		303
Parapet Railing	Foot	327		327
Name Plates	Each	1		1
Preformed Joint Strip Seal	Foot	141		141
Epoxy Crack Injection	Foot		409.5	409.5
Structural Steel Repair	Pound	10		10
Concrete Bridge Deck Scarification $\frac{3}{8}$ Inch	Sq. Yd.	1,575		1,575
Bridge Deck Thin Polymer Overlay $\frac{3}{8}$ "	Sq. Yd.	1,575		1,575
Structural Repair of Concrete (Depth Equal to or Less than 5 Inches)	Sq. Ft.		7.9	7.9
Plug Existing Deck Drains	Each	24		24
Deck Slab Repair (Partial)	Sq. Yd.	0.6		0.6

\* Quantity is for the curbs, top of shared use path, top of sidewalk, entire west parapet and roadway face and top of east parapet from south end of south end posts to north end of northwest barrier and north end of northeast endpost. Quantity is also for the top of the new concrete on both abutment backwalls and the top of the new concrete in the deck at the expansion joints.

REVISION SYMBOL:  $\Delta$  REVISED SHEET 4/4/2022

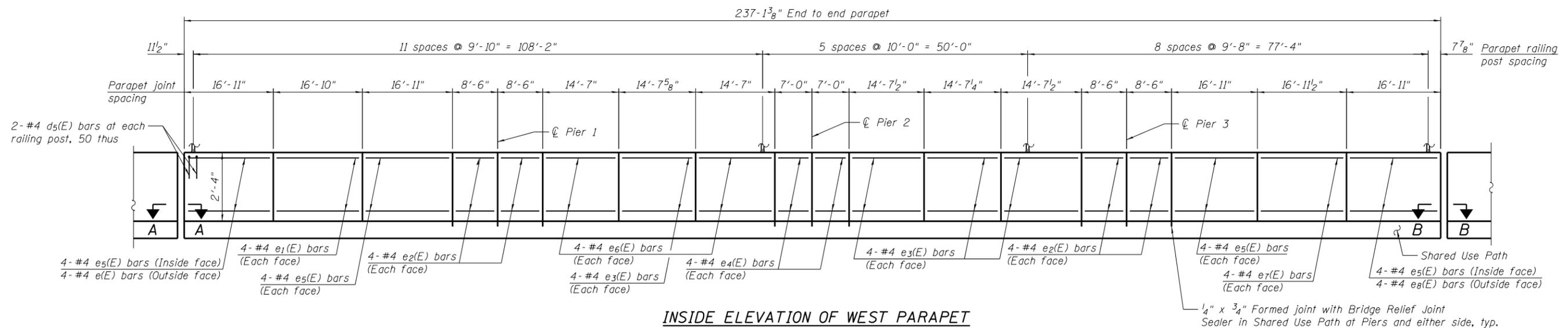
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<p><b>INFRASTRUCTURE ENGINEERING</b> 1 South Wacker   Suite 2650   Chicago, IL 60606 7312-025500   F 7312-025544   www.infrastructure-eng.com</p>	USER NAME = MD10z	DESIGNED - SPK	REVISED - $\Delta$ 3/31/2022 SPK
	PLOT SCALE = 0.1667' / 1"	CHECKED - PK	REVISED -
	PLOT DATE = 3/31/2022	DRAWN - RD	REVISED -
		CHECKED - SPK	REVISED -

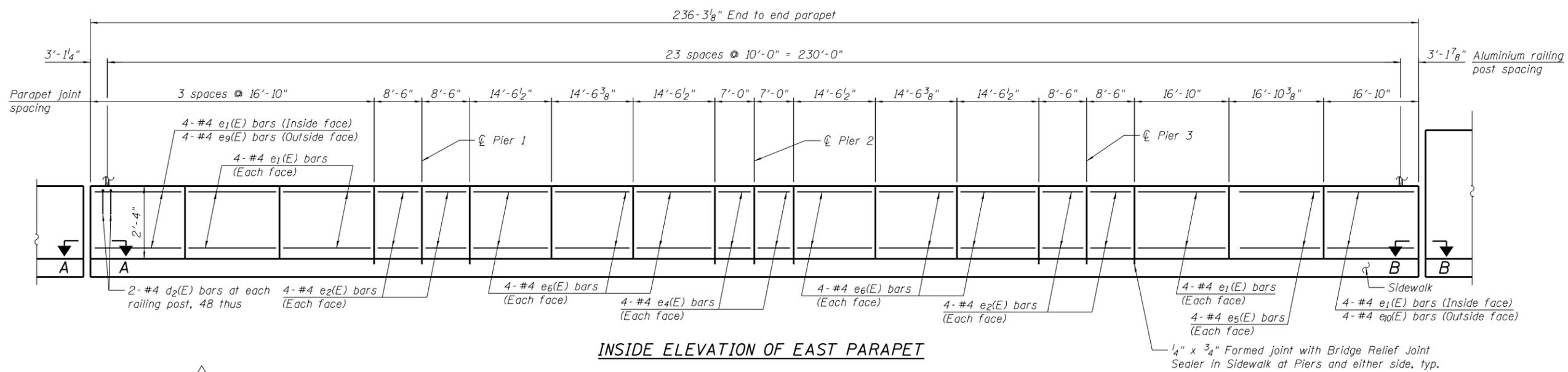
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, TOTAL BILL OF MATERIAL, AND INDEX OF SHEETS**  
**STRUCTURE NO. 016-0301**  
SHEET NO 2 OF 29 SHEETS

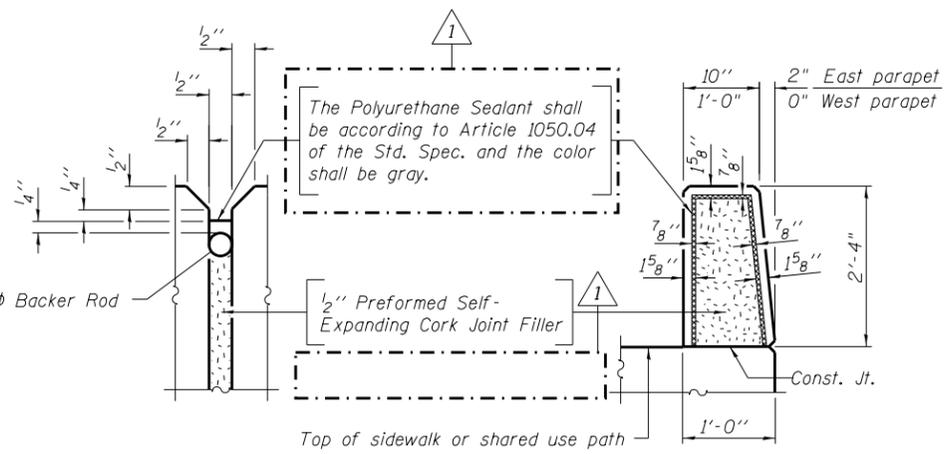
F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2857	2021-118-R	COOK	557	356
CONTRACT NO. 62P45			ILLINOIS FED. AID PROJECT	



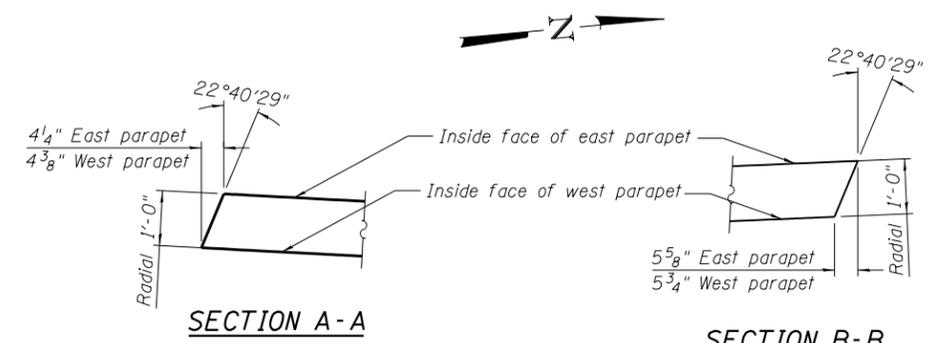
**INSIDE ELEVATION OF WEST PARAPET**



**INSIDE ELEVATION OF EAST PARAPET**



**PARAPET JOINT DETAILS**



**SECTION A-A**

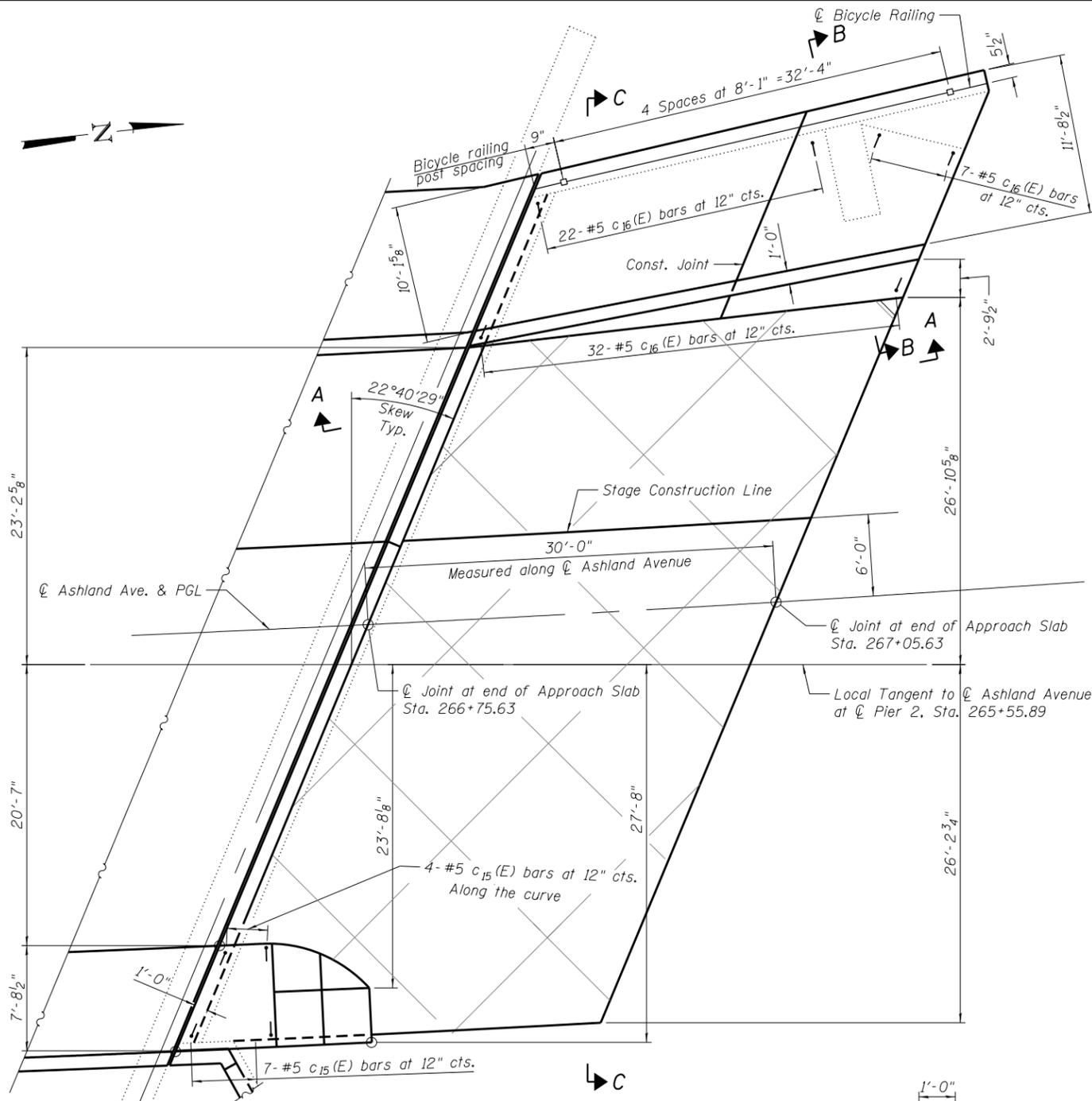
**SECTION B-B**

Notes:  
 For Deck Plan see Sheet 6.  
 For Superstructure Details see Sheet 9.  
 For Bill of Material and bar bending details see Sheet 10.  
 For Parapet Railing details see Sheet 16.  
 For Aluminium Railing see Sheet 17.  
 Inside Face refers to the face nearest the roadway.  
 All dimensions for the Inside Elevation Views of the parapets are measured along the roadway face of the parapet.

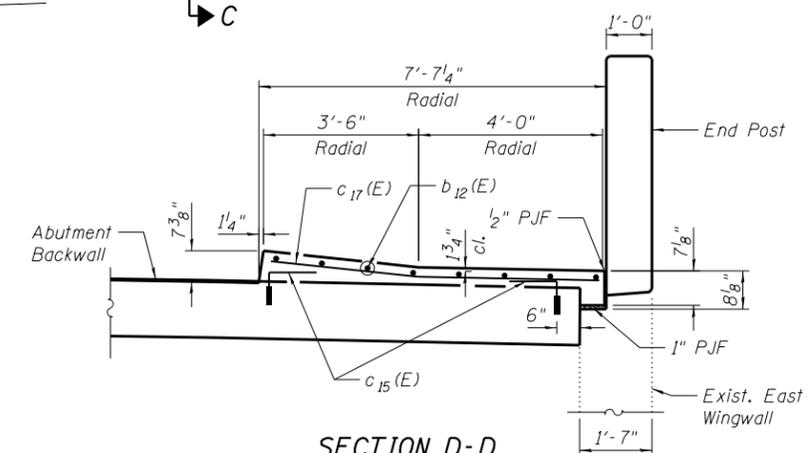
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<b>INFRASTRUCTURE ENGINEERING</b> 1 South Wacker   Suite 2650   Chicago, IL 60606 7.312.425.000   F.312.425.004   www.infrastructure-eng.com	USER NAME = MD1oz DESIGNED - PK CHECKED - SPK PLOT SCALE = 0.1667' / 1"	DESIGNED - PK CHECKED - SPK DRAWN - PK CHECKED - SPK	REVISED - 3/31/2022 SPK REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>PARAPETS</b> <b>STRUCTURE NO. 016-0301</b>	F.A.U R.T.E. = 2857 SECTION = 2021-118-R COUNTY = COOK TOTAL SHEETS = 557 SHEET NO. = 362	<b>CONTRACT NO. 62P45</b>
	PLOT DATE = 3/31/2022 CHECKED - SPK	REVISED -	SHEET NO 8 OF 29 SHEETS			ILLINOIS FED. AID PROJECT	
	<b>REVISED SHEET 4/4/2022</b>						

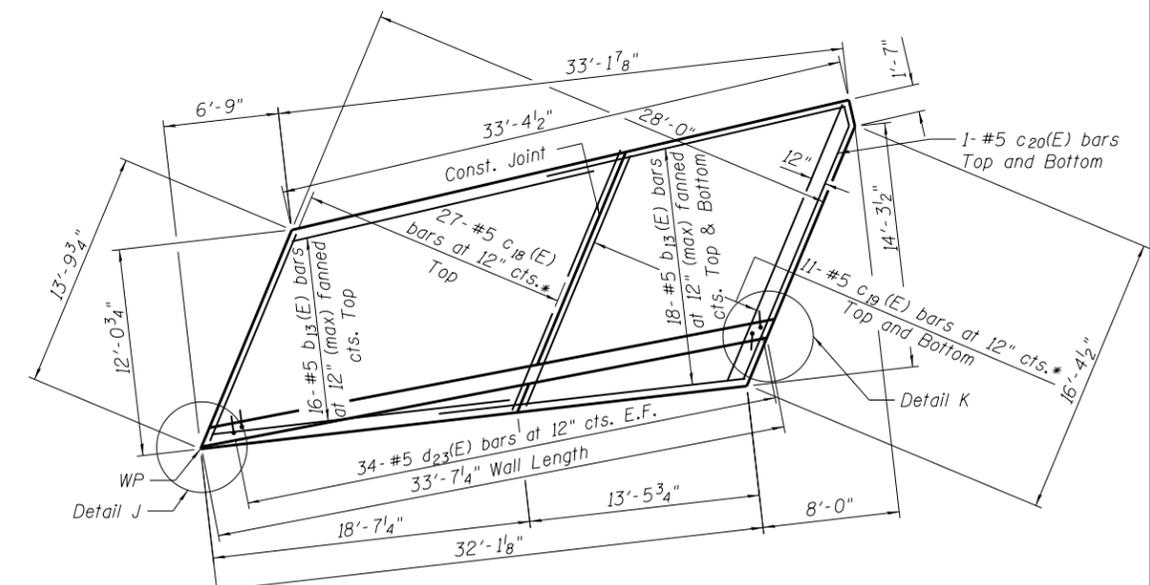




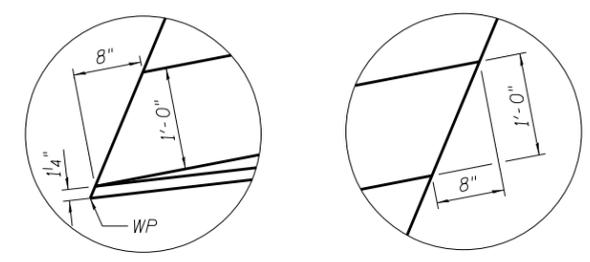
PLAN



SECTION D-D



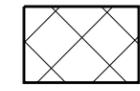
SHARED USE PATH PLAN



DETAIL J

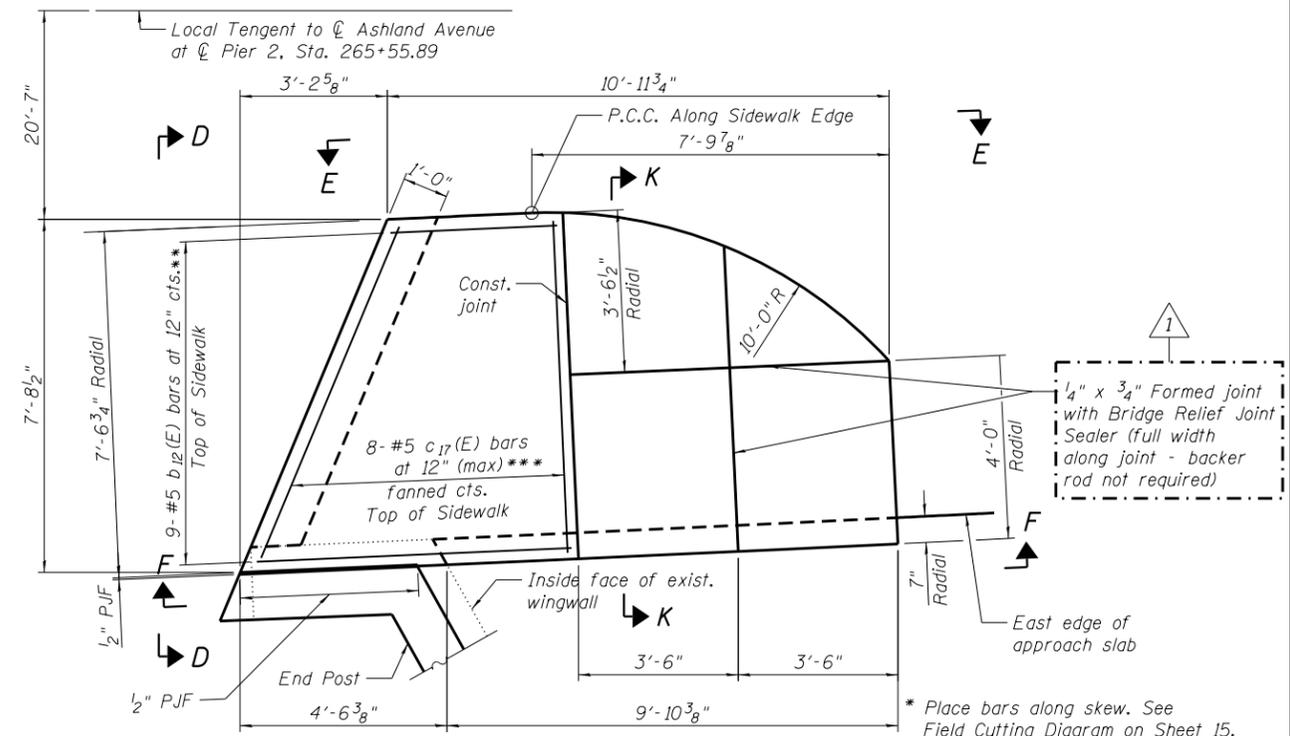
DETAIL K

LEGEND



Limits of Bridge Deck Thin Polymer Overlay 3/8"

Notes:  
For Sections A-A, B-B, C-C, E-E, F-F, K-K, Bill of Material and Bar Bending Details, see Sheet 15.  
For bicycle railing details, see Sheet 16.  
For East End Post, see Sheet 23.



SIDEWALK PLAN

Note: Scarify approach slab 2" under the sidewalk.  
Cost included with Concrete Superstructure.

\* Place bars along skew. See Field Cutting Diagram on Sheet 15.  
\*\* See Field Cutting Diagram on Sheet 15.  
\*\*\* Cut in field to fit

REVISED SHEET 4/4/2022

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PLOT DATE = 3/31/2022	DRAWN - PK	REVISED -
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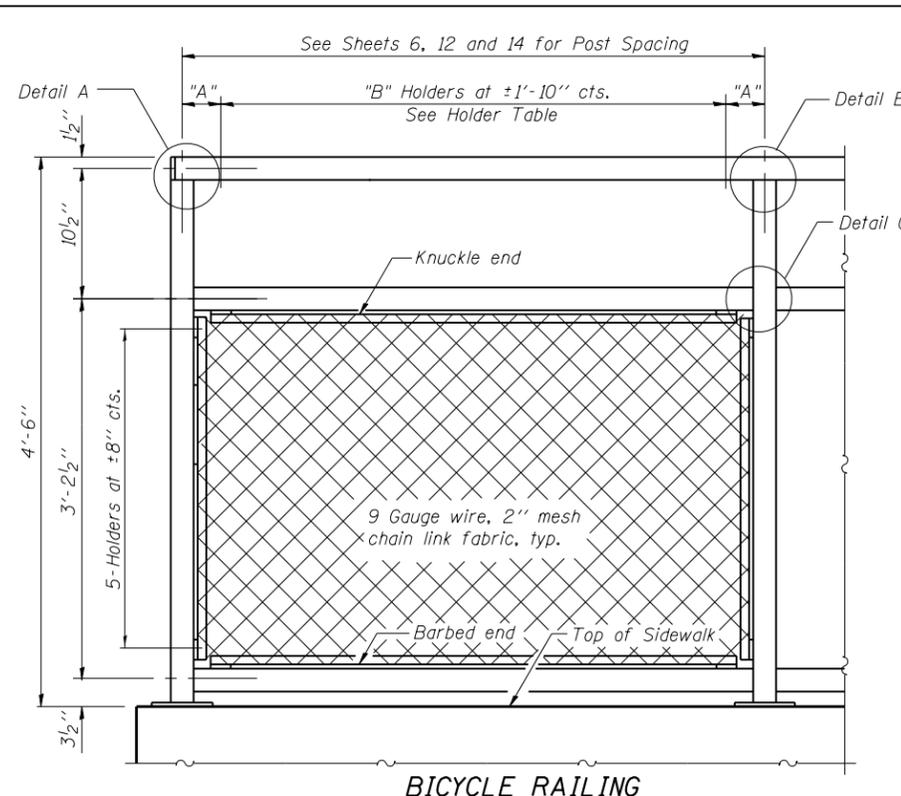
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

NORTH BRIDGE APPROACH SLAB ALTERATIONS  
STRUCTURE NO. 016-0301

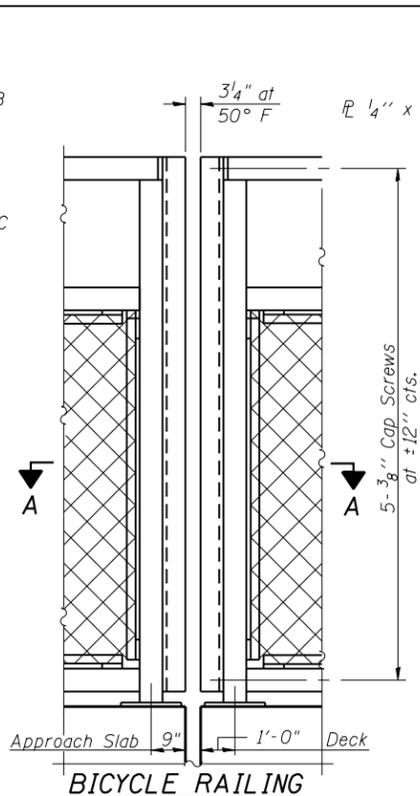
SHEET NO 14 OF 29 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62P45				

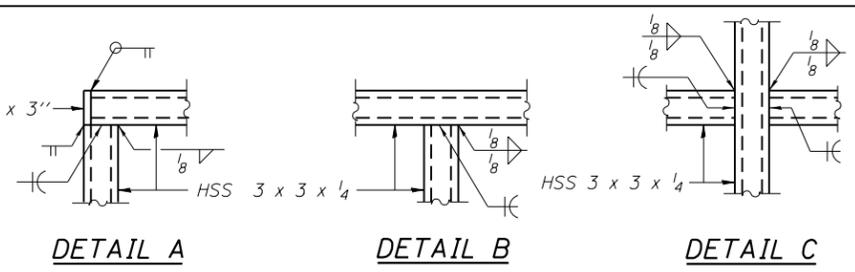
ILLINOIS FED. AID PROJECT



**BICYCLE RAILING**



**BICYCLE RAILING**



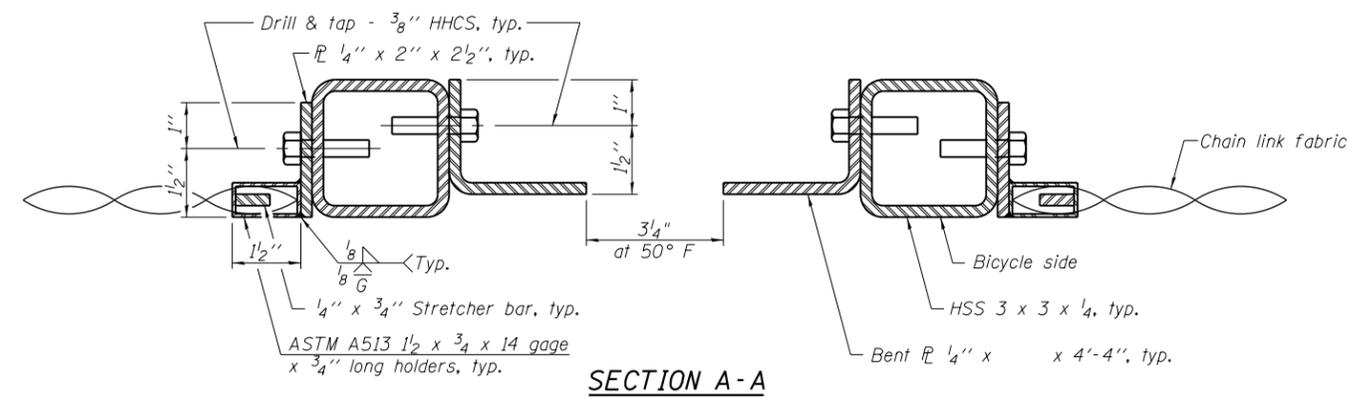
**DETAIL A**

**DETAIL B**

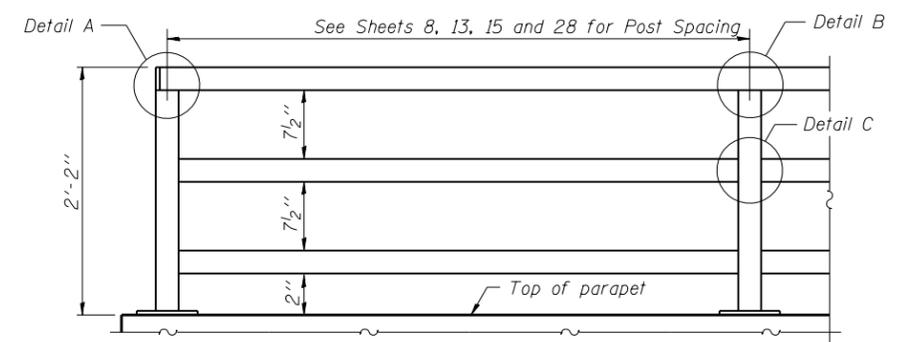
**DETAIL C**

**HOLDER TABLE**

Post Spacing	"A"	"B"
10'-10"	5"	6"
9'-10"	4"	6"
9'-8"	3"	6"
9'-6"	2"	6"
8'-1"	4 1/2"	5"

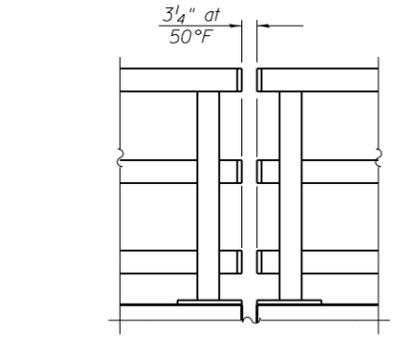


**SECTION A-A**

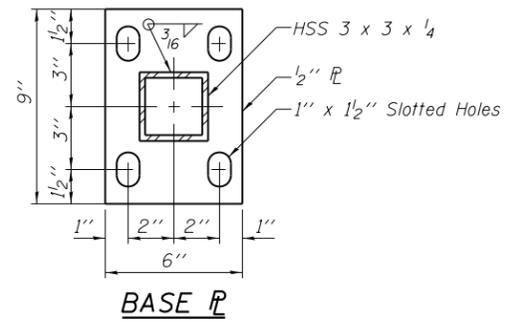


**PARAPET RAILING ELEVATION**

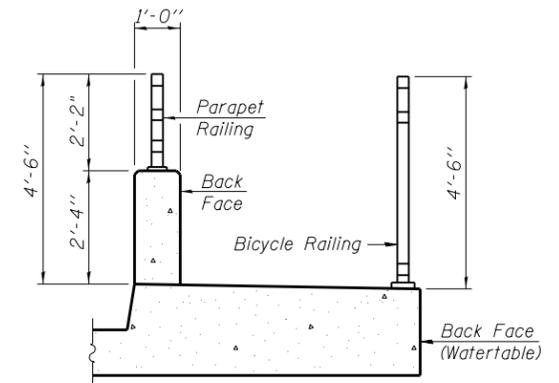
(Inside Face of Three Element Rail)



**PARAPET RAILING ELEVATION AT EXPANSION JOINT**



**BASE PL**



**SECTION THRU SIDEWALK**

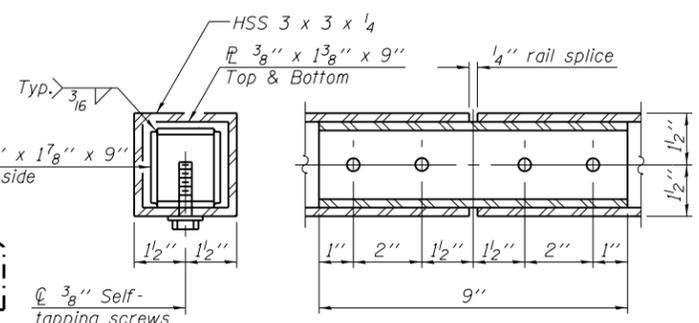
**Notes:**

All HSS tubing used for the parapet railing shall be CVN tested according to Article 1006.34(b) of the Standard Specifications.

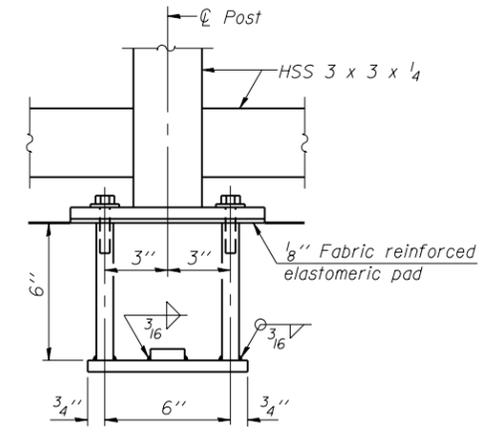
CVN testing is not required for the HSS tubing used in the Bicycle Railing.

Place reinforcement bars to miss anchor rod locations.

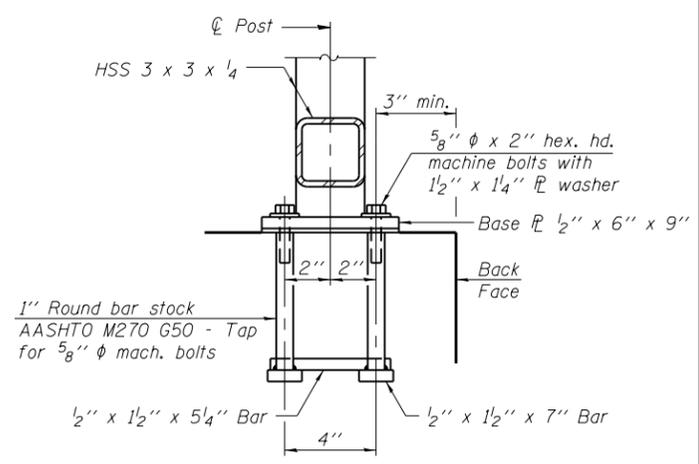
All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.



**RAIL SPLICE**



**ANCHOR BOLT DETAILS**



In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" φ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

**BILL OF MATERIAL**

Item	Unit	Quantity
Bicycle Railing	Foot	303
Parapet Railing	Foot	327

REVISED SHEET 4/4/2022

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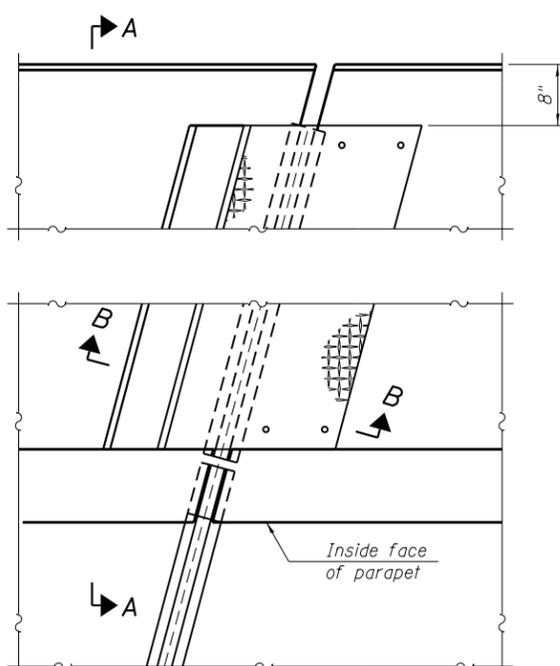
<p><b>INFRASTRUCTURE ENGINEERING</b> INCORPORATED 1 South Wacker   Suite 2650   Chicago, IL 60606 7.312.425.0500   F.312.425.9544   www.infrastructure-eng.com</p>	USER NAME = MD1oz	DESIGNED - PK	REVISED - 3/31/2022 SPK
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**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

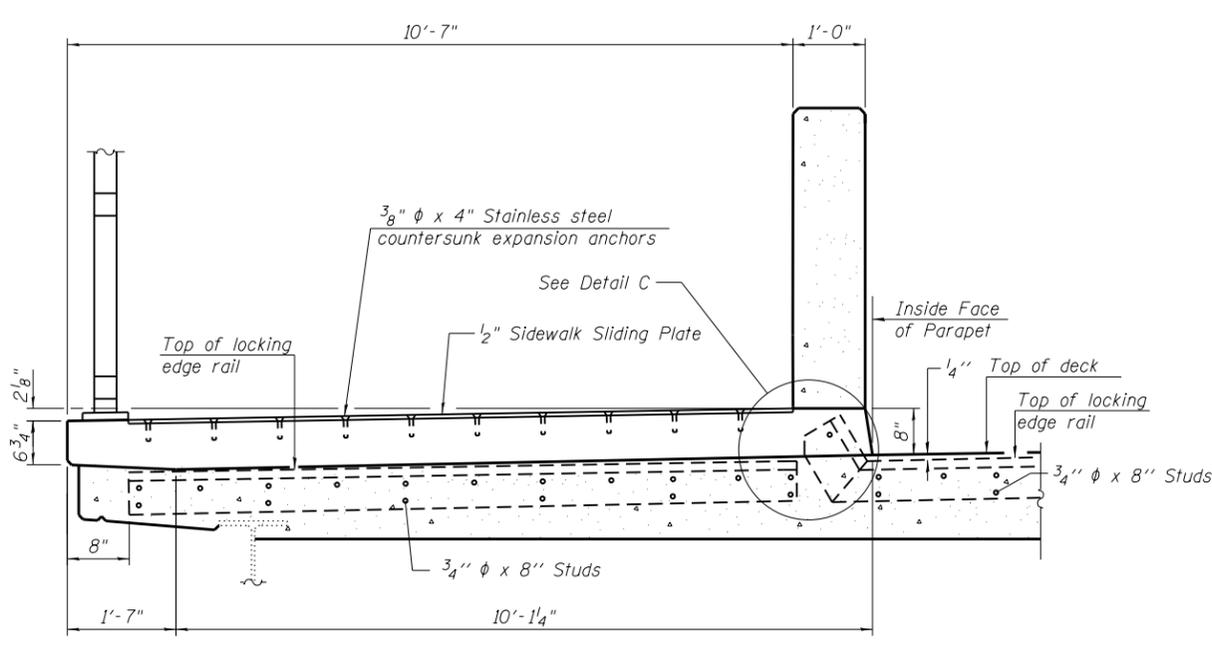
**BICYCLE RAILING STRUCTURE NO. 016-0301**  
SHEET NO 16 OF 29 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2857	2021-118-R	COOK	557	370
CONTRACT NO. 62P45				
ILLINOIS FED. AID PROJECT				



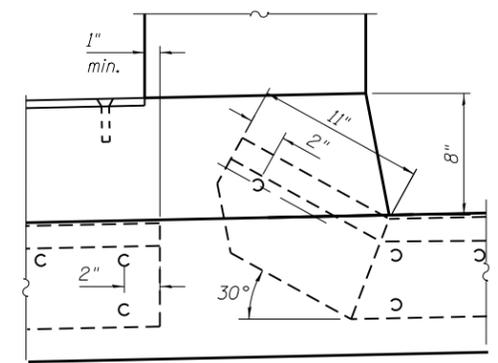


PLAN AT WEST EDGE OF DECK



SECTION A-A  
TYPICAL END TREATMENT AT SHARED USE PATH

Shorter plates with a single row of studs at 12" cts. may be necessary on deck concrete shallower than 9". See manufacturer's recommendation.



DETAIL C

Notes:  
The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.  
The manufacturer's recommended installation methods shall be followed.  
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

The locking edge rails depicted are configured for typical applications and are conceptual only. The actual configuration of the locking edge rails and matching strip seal may vary from manufacturer to manufacturer provided they fit the application and meet the minimum anchorage shown. Flanged edge rails, however, will not be allowed. Locking edge rails may exceed the 4 1/2" maximum depth provided the anchorage system is revised according to the manufacturer's recommendation.

The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

The top surface of sidewalk sliding plates shall have a raised pattern according to ASTM A786.

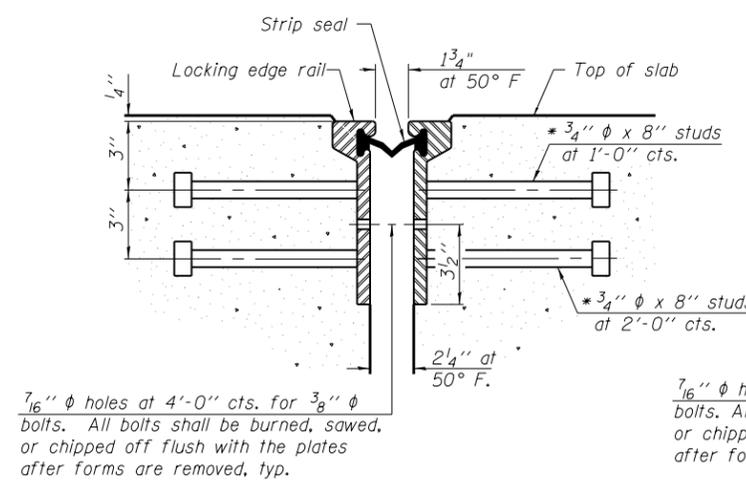
Cost of parapet sliding plates, sidewalk sliding plates, embedded plates, anchorage studs, and expansion anchors included with Preformed Joint Strip Seal.

The concrete opening below the strip seal will vary based on the locking edge rail chosen by the contractor. Deck and parapet lengths shown elsewhere in the plans are dimensioned to the concrete opening, not the joint opening, and are based on the rolled locking edge rail. If the contractor elects to use a different locking edge rail, dimensional adjustments may be required. One exception to this would be the strip seal joint at the end of the precast bridge approach slab. For these cases the pavement contractor length shall be adjusted, not the length of the bridge approach slab.

Contractor may propose an alternate locking edge rail configuration for approval. An alternate configuration may result in changes to the concrete dimensions and to the sliding plate dimensions.

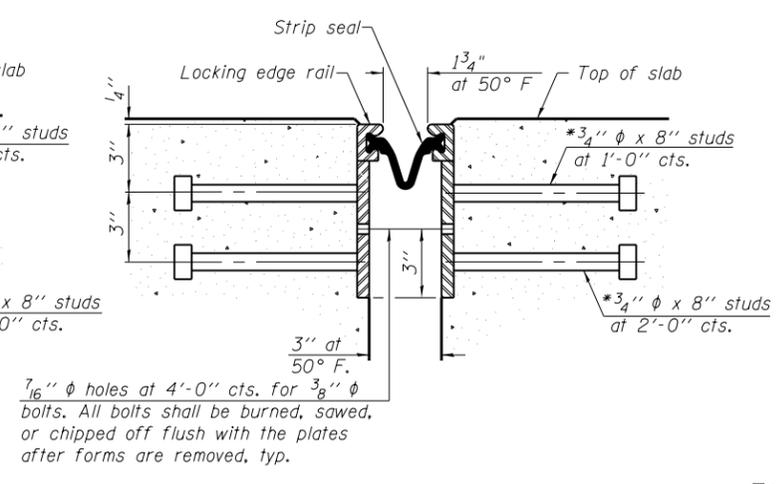
For Section B-B see sheet 18A.

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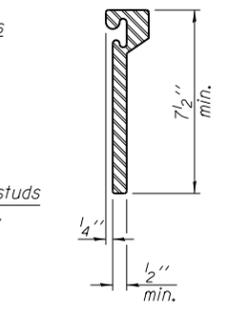
SECTION THRU  
ROLLED RAIL JOINT

7/16"  $\phi$  holes at 4'-0" cts. for 3/8"  $\phi$  bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

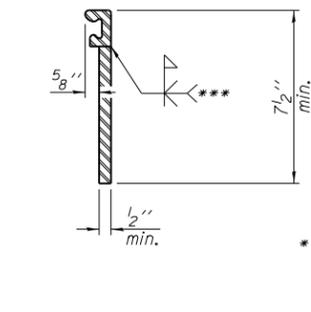


SECTION THRU  
WELDED RAIL JOINT

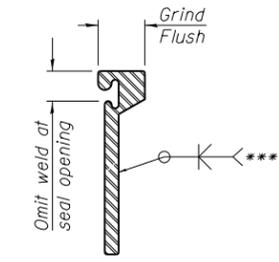
\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED  
EXTRUDED RAIL



WELDED RAIL



LOCKING EDGE  
RAIL SPLICE

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

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

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	141

REVISED SHEET 4/4/2022

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

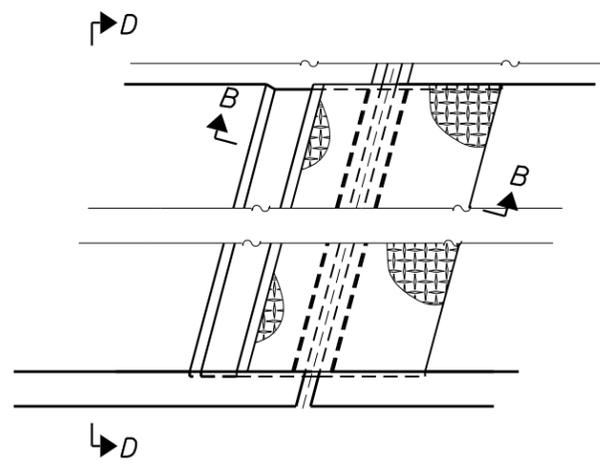
PREFORMED JOINT STRIP SEAL (1 OF 2)  
STRUCTURE NO. 016-0301

SHEET NO 18 OF 29 SHEETS

F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2857	2021-118-R	COOK	557	372
CONTRACT NO. 62P45				
ILLINOIS FED. AID PROJECT				

**INFRASTRUCTURE ENGINEERING** INCORPORATED  
1 South Wacker | Suite 2650 | Chicago, IL 60606  
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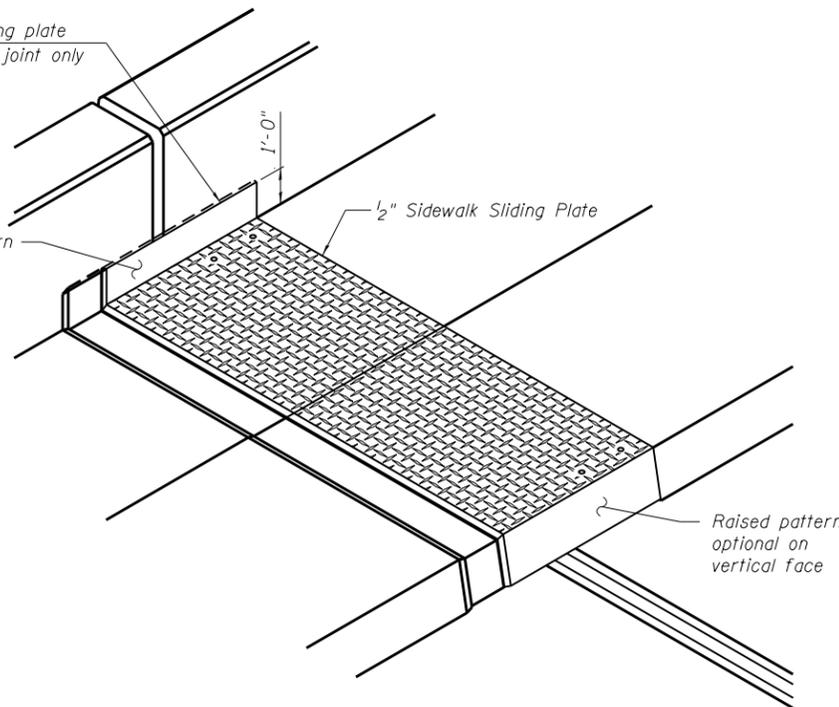
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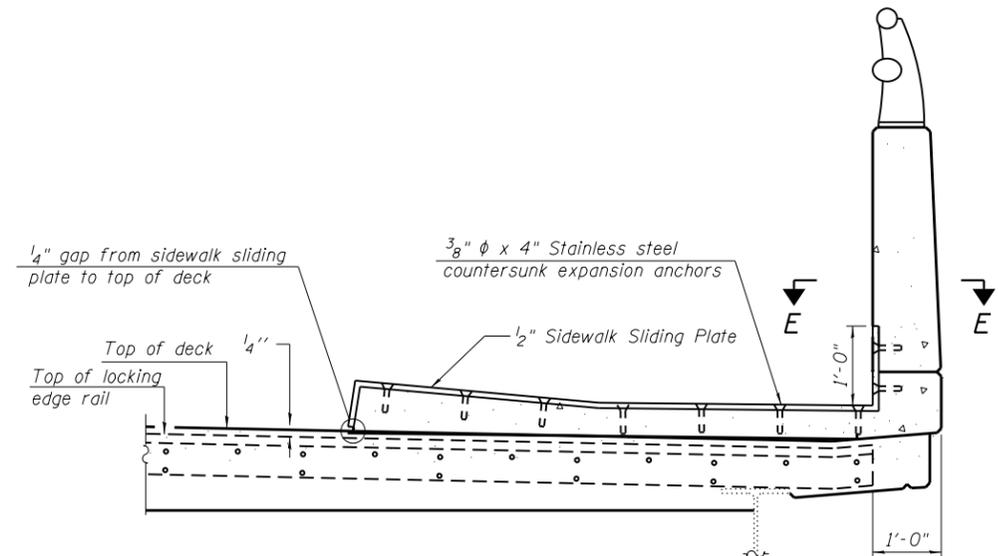
PLAN AT EAST EDGE OF DECK

1/2" Parapet sliding plate  
north expansion joint only

Raised pattern  
optional on  
vertical face

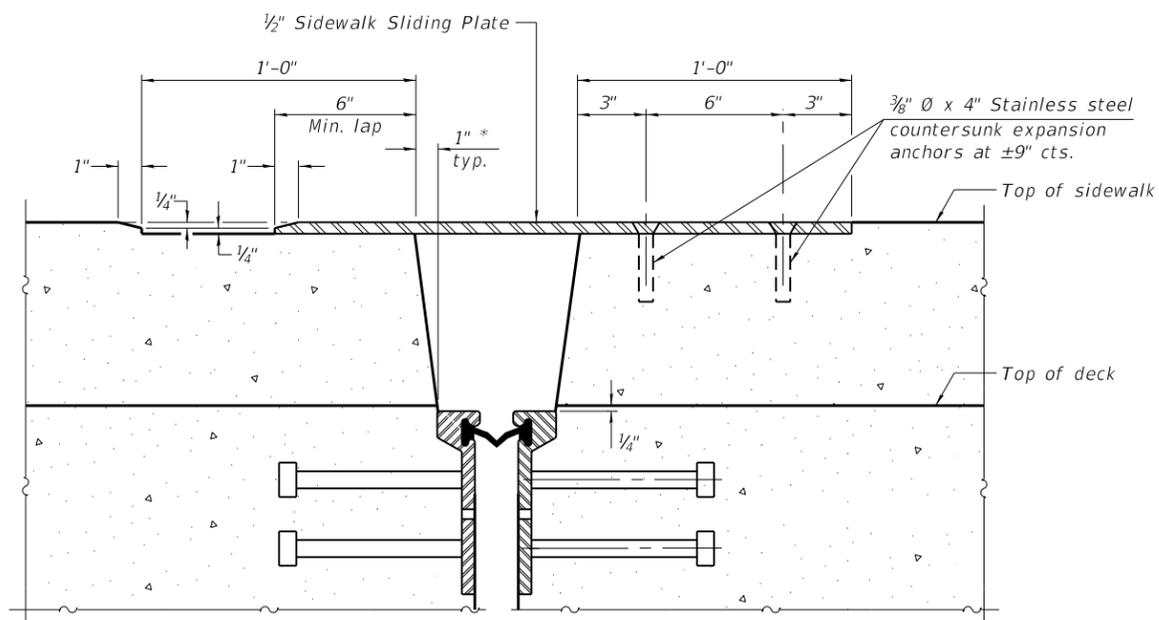


TRIMETRIC VIEW AT NORTH EXPANSION JOINT  
TRIMETRIC VIEW AT SOUTH EXPANSION JOINT (SIMILAR)



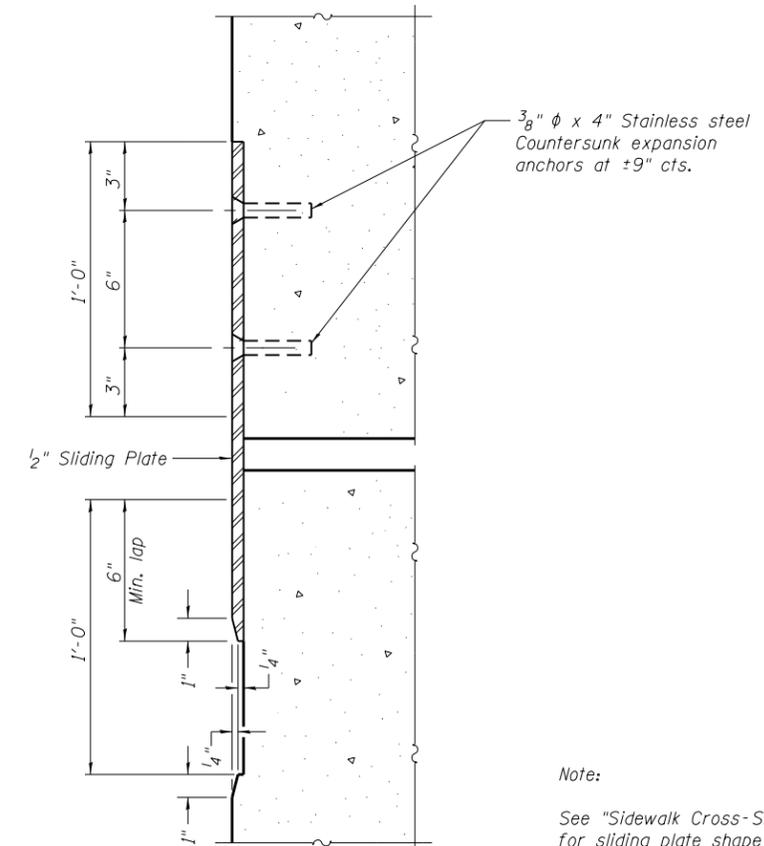
SECTION D-D  
END TREATMENT AT SIDEWALK AT NORTH EXPANSION JOINT  
END TREATMENT AT SIDEWALK AT SOUTH EXPANSION JOINT (SIMILAR)

Shorter plates with a single row of studs at 12" cts.  
may be necessary on deck concrete shallower than 9".  
See manufacturer's recommendation.



SECTION B-B

\* Dimension occurs when sidewalk is at its thickest. Reduce dimension proportionately as sidewalk thickness decreases.



SECTION E-E  
NORTH EXPANSION JOINT ONLY

Note:

See "Sidewalk Cross-Slope Transitions" on sheet 2 for sliding plate shape at north expansion joint.

ADDED SHEET

ADDED ENTIRE SHEET 4/4/2022

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**PREFORMED JOINT STRIP SEAL (2 OF 2)**  
**STRUCTURE NO. 016-0301**  
SHEET NO 18A OF 29 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2857	2021-118-R	COOK	557	372A
CONTRACT NO. 62P45				

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