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STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

FAP ROUTE 344: 127TH STREET OVER RAILROADS

(0.5 MILES WEST OF I-57) **SECTION: FAP 344 22 BR**

PROJECT: NHPP-5UNY(318) BRIDGE JOINT REPAIR, BRIDGE DECK SEALING,

BRIDGE REPAIR COOK COUNTY

C-91-065-23

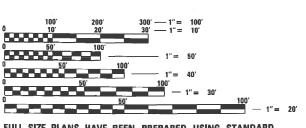
FOR INDEX OF SHEETS AND HIGHWAY STANDARDS, SEE SHEET NO. 2

THIS PROJECT IS LOCATED IN THE CITY OF BLUE ISLAND

TRAFFIC DATA

2018 ADT = 27,200 VPDPOSTED SPEED LIMIT = 30 MPH

> PROJECT LOCATION 127TH ST OVER RAILROADS **STRUCTURE NO. 016-0908**



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

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

PROJECT ENGINEER: LUKASZ POCIECHA (847) 705-4255 PROJECT MANAGER: FAWAD AQUEEL

R 14 E Orchard St Collins S Plorence St Praifie St Oak-St Oak St Walnut St Walnut St > High S! High SI York St

CALUMET TOWNSHIP

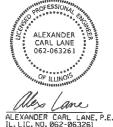
GROSS LENGTH

= 1,932 FT. = 0.37 MILES

NET LENGTH

York St

= 1.932 FT. = 0.37 MILES



11/30/2023

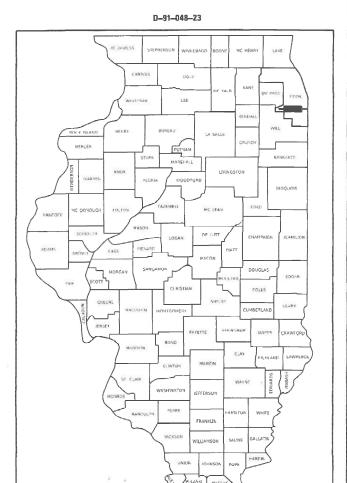
1/9/2023

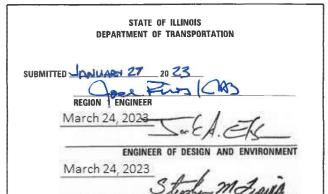


CONTACT: ALEXANDER LANE (312) 477-0620

FAP 344 22 BR соок CONTRACT NO. 62U49

* 23 + 5 = 28 TOTAL SHEETS





LOCATION OF SECTION INDICATED THUS: -

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

REV-SEP

CONTRACT NO. 62U49

INDEX OF SHEETS

SHEET NO.	TITLE
1	COVER SHEET
2	INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
4-7	MAINTENANCE OF TRAFFIC
8	ROADWAY PLAN
9-21	STRUCTURAL DRAWINGS - S.N. 016-0908
21A	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
21B	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) (TC-11)
22	TYPICAL PAVEMENT MARKINGS (TC-13)
22A	STORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS (TC-16)
23	ARTERIAL ROAD INFORMATION SIGN (TC-22)

STATE STANDARDS

STANDARD NO.	DRAWING NAME
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
630001-12	STEEL PLATE BEAM GUARDRAIL
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≤ 40 MPH
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701611-01	URBAN HALF ROAD CLOSURE, MULTILANE, 2W WITH MOLNTABLE 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
782006-01	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

REVISED

REVISED

REVISED

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

- THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY
 MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED
 ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES,
 MUNICIPALITIES AND IDOT FOR LOCATES.
- MEADE ELECTRIC COMPANY, THE IDOT DISTRICT ONE ELECTRICAL MAINTENANCE CONTRACTOR, LOCATES IDOT ELECTRICAL EQUIPMENT AND UNDERGROUND CABLES. CALL 773-287-7672 FOR THE INITIAL LOCATE. REQUEST FOR LOCATES OF PREVIOUSLY MARKED FACILITIES MAY BE AT THE CONTRACTOR'S EXPENSE.
- 3. IN ADDITION TO FIELD REVIEW AND AERIAL DATA, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO ROUTINE VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE BID PRICE FOR THE WORK.
- 4. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- 5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO BEGINNING CONSTRUCTION AND ORDERING MATERIALS.
- 6. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION OF EXISTING PLANT MATERIAL FOR WHICH THE CONTRACT DOES NOT PROVIDE REMOVAL. THE PROTECTION OF EXISTING PLANT MATERIAL AND THE REPAIR OR REPLACEMENT OF EXISTING PLANT MATERIAL DAMAGED BY THE CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 201 OF THE STANDARD SPECIFICATIONS.
- 7. THE DEPARTMENT HAS NOT OBTAINED ANY PERMITS FOR OFFSITE BORROW, WASTE, USE (BWU) AREAS. PRIOR TO WORKING IN BWU AREAS, IF THE CONTRACTOR CHOOSES TO USE ACTIVITIES REQUIRING PERMITS IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE PROPER PERMITS. IN ADDITION TO THE BORROW REVIEW (BDE 2289) AND USE/WASTE REVIEW (BDE 2290) SUBMITTALS, THE CONTRACTOR SHALL SUBMIT AN EROSION AND SEDIMENT CONTROL (ESC) PLAN FOR EVERY BWU SITE TO THE DEPARTMENT FOR ACCEPTANCE. GUIDELINES FOR ACCEPTABLE BWU PRACTICES CAN BE FOUND IN SECTION 11.G.1. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO COMPLY WITH THE ABOVE PROVISIONS TO PREPARE AND IMPLEMENT ESC PLANS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICES AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 8. THE CONTRACTOR SHALL CONTACT KALPANA KANNAN-HOSADURGA, THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR, AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- 9. THE RESIDENT ENGINEER SHALL CONTACT PATRICE HARRIS, AREA TRAFFIC FIELD TECHNICIAN, AT
 PATRICE.HARRIS@ILLINOIS.GOV A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT
 MARKINGS
- 10. THE DEPARTMENT HAS DETERMINED THAT IN STREAM WORK IS NOT REQUIRED FOR THE WORK SPECIFIED IN THIS CONTRACT. THE DEPARTMENT HAS NOT OBTAINED A USACE PERMIT. IF THE CONTRACTOR CHOOSES TO USE ACTIVITIES REQUIRING AN USACE PERMIT, IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE THE PROPER USACE PERMITS. THE COST OF ALL MATERIALS AND LABOR NECESSARY TO SECURE AND COMPLY WITH A USACE PERMIT FOR CONTRACTOR'S ACTIVITIES WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE UNIT BID PRICES OF THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- 11. THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM I.D.O.T. FIELD MAINTENANCE ENGINEERS.
- 12. THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 13. SAW CUTTING PRIOR TO ANY REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
- 14. FOR WORK OUTSIDE THE LIMITS OF BRIDGE APPROACH PAVEMENT. ALL REFERENCES IN THE HIGHWAY STANDARDS AND STANDARD SPECIFICATIONS FOR REINFORCEMENT, DOWEL BARS AND TIE BARS IN PAVEMENT SHALL BE EPOXY COATED UNLESS NOTED ON THE PLANS.
- 15. DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS-RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTENT)" SHOWN IN PLANS.
- 16. THE CENTERLINE IS FOR INFORMATION ONLY.

SCALE:

- 17. THE CONTRACTOR SHALL NOTIFY AIRLITE TOWING COMPANY, WHO USE THE GROUND UNDER THE BRIDGE FOR VEHICLE STORAGE, AT LEAST TWO WEEKS BEFORE WORK BEGINS, TO MOVE THE VEHICLES IN ORDER TO ACCESS THE WORK ZONE.
- 18. THE CONTRACTOR MUST CONTACT LENNY WILFINGER FROM THE CHICAGO RAIL LINK RAILROAD (CRL) AT (312) 718-6562 OR (773) 530-6151 EXT. 103, PRIOR TO THE START OF CONSTRUCTION TO SCHEDULE A RR FLAGGER FOR ANY WORK TAKING PLACE NEAR PIER 2.

sht-SOQ-01 dgn	
D_Sheets\62U49-	
62U49\DGN\CADD	
33	
16)/W(
196 Item	
(FTB	
Phase 2	
Various	
TOOL	
20-4094-00	

				CONSTR	UCTION (ODE
			URBAN	0059)	
PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	80% FEDERAL 20% STATE	100% STATE	
5 03 00300	PROTECTIVE COAT	SQ YD	7,850	7,850		
50102400	CONCRETE REMOVAL	CU YD	25.7	25.7		
50157300	PROTECTIVE SHIELD	SQ YD	1,974	1,974		
				1		
50300225	CONCRETE STRUCTURES	CU YD	26.5	26.5		
50 8 005 1 5	BAR SPLICERS	EACH	24	24		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	3,0 70	3,070		
52000600	FABRIC REINFORCED ELASTOMERIC TROUGH	FOOT	66	66		
52000 110	PREFORMED JOINT STRIP SEAL	FOOT	131	131		
67100100	MOBILIZATION	L SUM	1	1		
				1		
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	10	10		
X7010238	CHANGEABLE MESSAGE SIGN (SPECIAL)	CAL MC	3	3		
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	677	677		
			<u> </u>			
7030 7100	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS - TYPE IV TAPE	SQ FT	73	73		
7030 7120	TEMPORARY PAVEMENT MARKING - LINE 4"- TYPE IV TAPE	FOOT	6,212	6,212		
		33				
7030 7130	TEMPORARY PAVEMENT MARKING - LINE 6"- TYPE IV TAPE	FOOT	260	260		
7030 7160	TEMPORARY PAVEMENT MARKING - LINE 12"- TYPE IV TAPE	FOOT	22	88		
			1			
70306120	TEMPORARY PAVEMENT MARKING - LINE 4" - TYPE III TAPE	FOOT	387	387	5	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1,212.5	1,212.5		
				ĺ.		
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1,207	1,207		
		1	1.			
70600255	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2		
				į.		
70600322	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE, NARROW), TEST LEVEL 2	EACH	2	2		
78009000	MODIFIED URETHANE PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	73	73		
78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	6,212	6,212		
78009006	MODIFIED URETHANE PAVEMENT MARKING - LINE 6"	FOOT	260	260		
78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	88	88		
		1				
78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	234	234		
		1				

* =	SPECIALTY	ITEM

				CONSTR	CONSTRUCTION CO	
			URBAN	0059		
PAY ITEM NUMBER	DESIGNATION	UNIT	TOTAL QUANTITY	80% FEDERAL 20% STATE	100% STATE	
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	234	234		
78300202	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	2,340	2,340		
X0325749	FIBER WRAP	SQ FT	225	225		
X0326766	CLEAN & RESEAL RELIEF JOINT	FOOT	131	131		
X5537 8 00	STORM SEWERS TO BE CLEANED 12"	FOOT	500		500	
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12	12		
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1		
Z0007122	REMOVING AND RE-ERECTING EXISTING RAILING	FOOT	9	9		
Z0010605	CLEANING DRAINAGE SYSTEM	L SUM	1		1	
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	220	220	,	
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	60	60		
Z0030 \$ 50	TEMPORARY INFORMATION SIGNING	SQ FT	52	52		
Z004 8 665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1		
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	2	2		
			115			
			1			
			14			

		USER NAME = ALane	DESIGNED CW	REVISED =
	INFRASTRUCTURE ENGINEERING INCORPORATES		DRAWN - CW	REVISED -
-	1 South Wacker Suite 2650 Chicago, IL 60606		CHECKED ACL	REVISED -
	P 312.425.9560 F 312.425.9564 www.infrastructure-eng.com		DATE 01/27/2023	

SCALE:

MAINTENANCE OF TRAFFIC GENERAL NOTES

- 1. ALL MAINTENANCE OF TRAFFIC (MOT) LANE CLOSURES CAN BE COMPLETED WITH IDOT HIGHWAY STANDARDS. THE MOT PLANS SHALL SERVE AS A GUIDE FOR SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THIS CONTRACT. HOWEVER, THE CONTRACTOR MAY IMPROVE OR MODIFY THE MOT PLANS TO MEET CONSTRUCTION NEEDS BUT NOT AT THE EXPENSE OF PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE MOT PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- 2. THE CONTRACTOR SHALL CONTACT THE IDOT DISTRICT 1 ARTERIAL TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- 3. THE WEST 127TH STREET WORK ZONE SPEED LIMIT SHALL BE 30 MPH.
- 4. EXISTING REFLECTORS IN RAISED REFLECTIVE PAVEMENT MARKERS THAT CONFLICT WITH STAGED TRAFFIC PATTERNS SHALL BE REMOVED UNDER THIS CONTRACT. THESE SHALL BE REPLACED WITHIN THE LIMITS OF THIS CONTRACT'S MAINTENANCE OF TRAFFIC, ALONG WITH ANY OTHER MARKERS THAT WERE MISSING REFLECTORS PRIOR TO REOPENING THE LANES TO
- 5. ALL SIGNS MUST BE POST MOUNTED, IN THE GROUND WHEREVER POSSIBLE, AND WITH A 7 FEET CLEARANCE WHICH IS MEASURED FROM THE TOP OF PAVEMENT TO THE BOTTOM OF
- 6. CONTRACTOR SHALL REMOVE OR COVER ALL W21-1 (WORKERS PRESENT) AND W20-7 (FLAGGER) SIGNS, WITHIN AN HOUR, WHEN WORKERS ARE NOT PRESENT OR IF THE SIGN IS

127TH STREET CONSTRUCTION STAGING

MAINTENANCE OF TRAFFIC - STAGE 1

1. COMPLETE BRIDGE DECK AND JOINT REPAIRS OF THE SOUTH SIDE (EASTBOUND DIRECTION) OF THE BRIDGE.

MAINTENANCE OF TRAFFIC:

1. CLOSE THE EASTBOUND LANES OF TRAFFIC AND SHIFT TRAFFIC TO THE WESTBOUND LANES. 1 LANE IN EACH DIRECTION SHALL BE MAINTAINED.

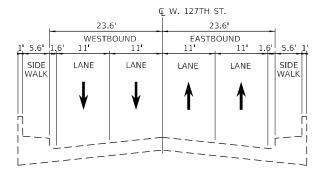
MAINTENANCE OF TRAFFIC - STAGE 2

1. COMPLETE BRIDGE DECK AND JOINT REPAIRS AND OVERLAY OF THE NORTH SIDE (WESTBOUND DIRECTION) OF THE BRIDGE.

MAINTENANCE OF TRAFFIC:

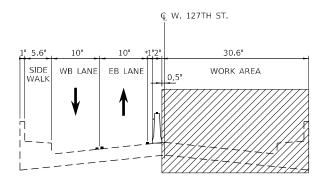
1. CLOSE THE WESTBOUND LANES OF TRAFFIC AND SHIFT TRAFFIC TO THE EASTBOUND LANES. 1 LANE IN EACH DIRECTION SHALL BE MAINTAINED.

WORK ZONE	SPEED LIMIT:	
	EXISTING POSTED SPEED	PROPOSED POSTED SPEED
STAGE 1 STAGE 2	30 MPH 30 MPH	30 MPH 30 MPH



EXISTING TYPICAL CROSS SECTION

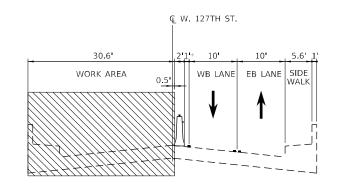
ON SN-016-0908



STAGE 1 CONSTRUCTION

ON SN-016-0908

*BUFFER REDUCED WITH 8:1 BARRIER TAPER AT RECONSTRUCTED JOINT



STAGE 2 CONSTRUCTION

ON SN-016-0908

*BUFFER REDUCED WITH 8:1 BARRIER TAPER AT RECONSTRUCTED JOINT

MOT TYPICAL LEGEND:



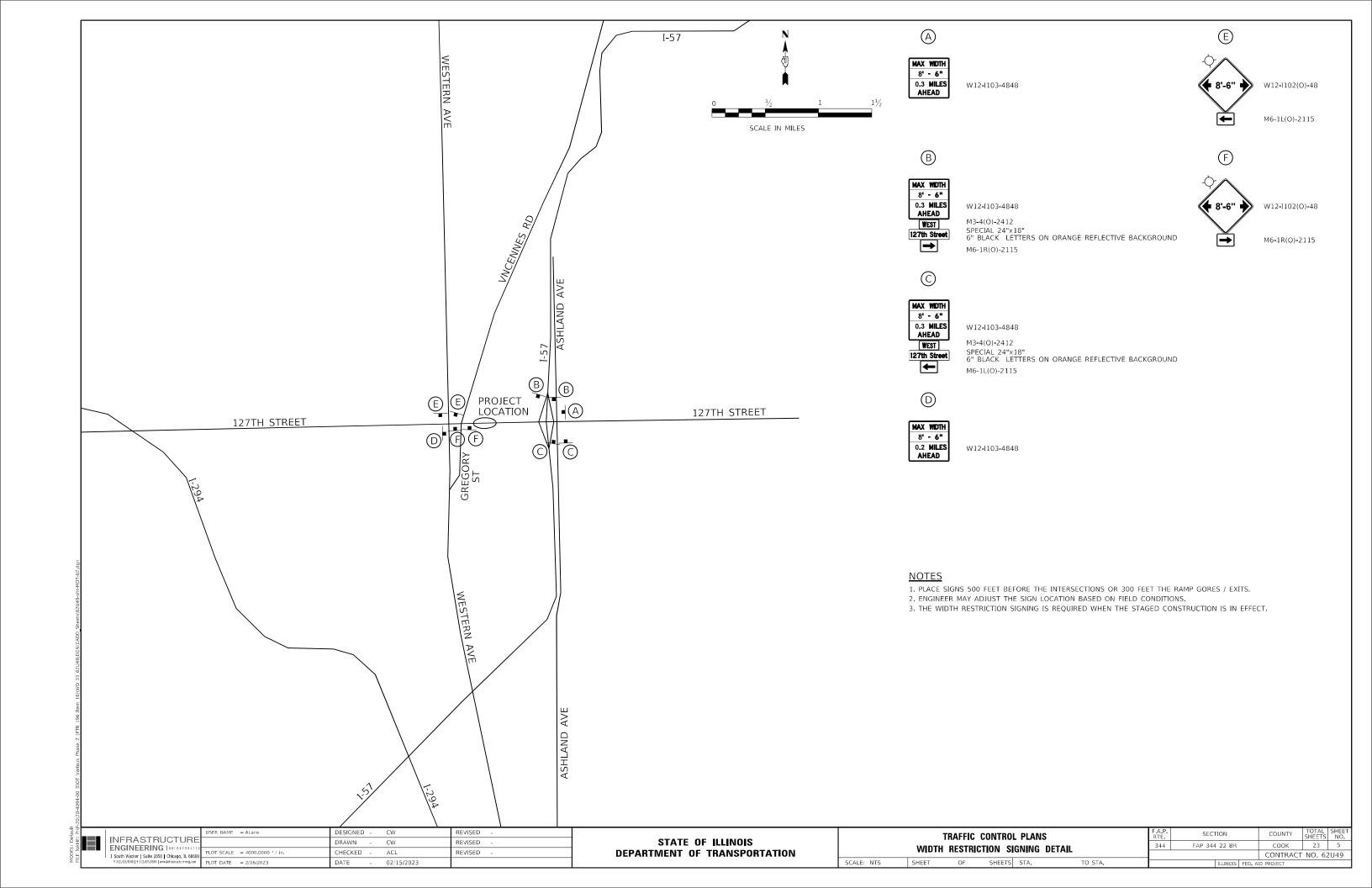
WORK AREA

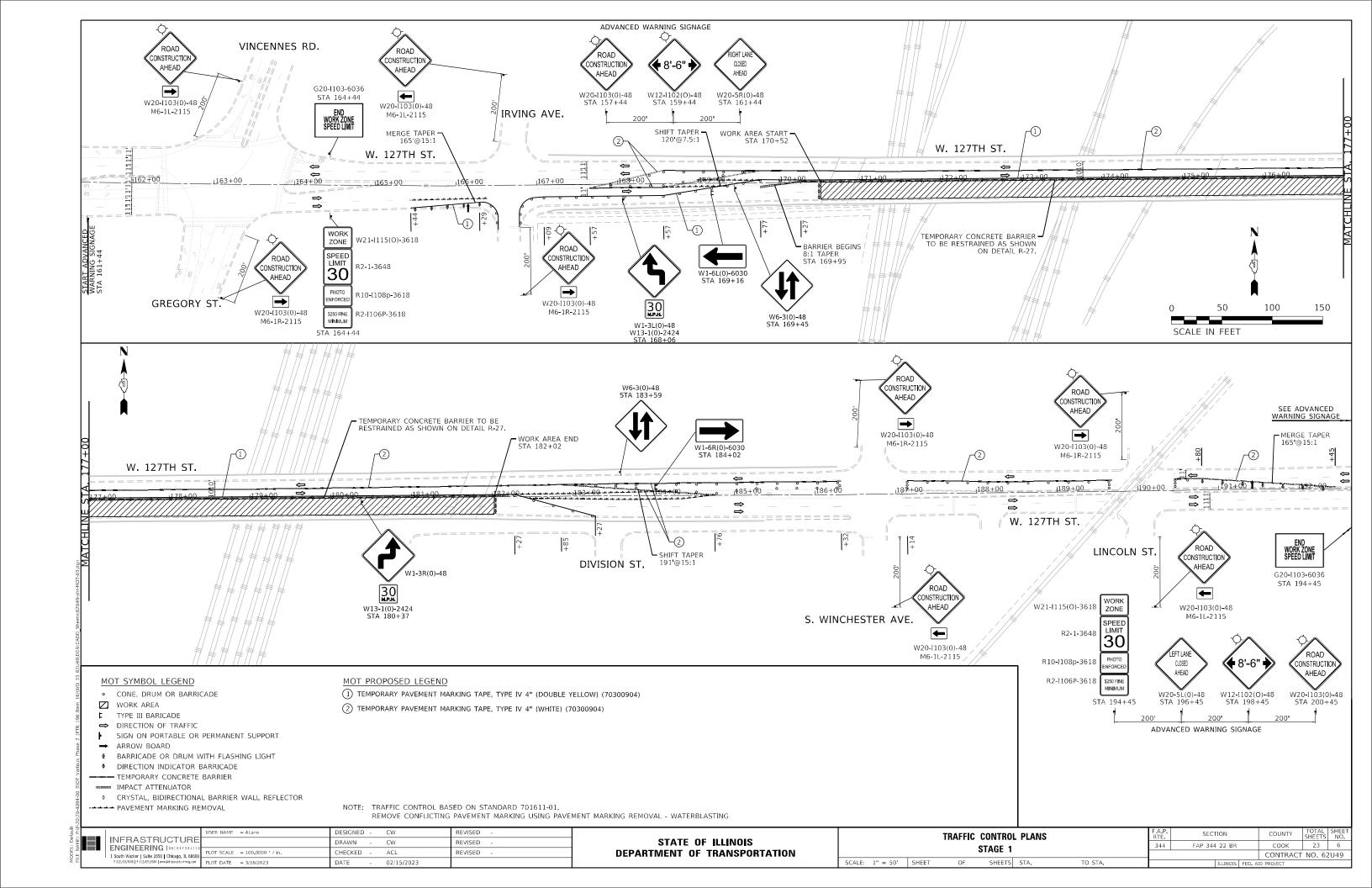


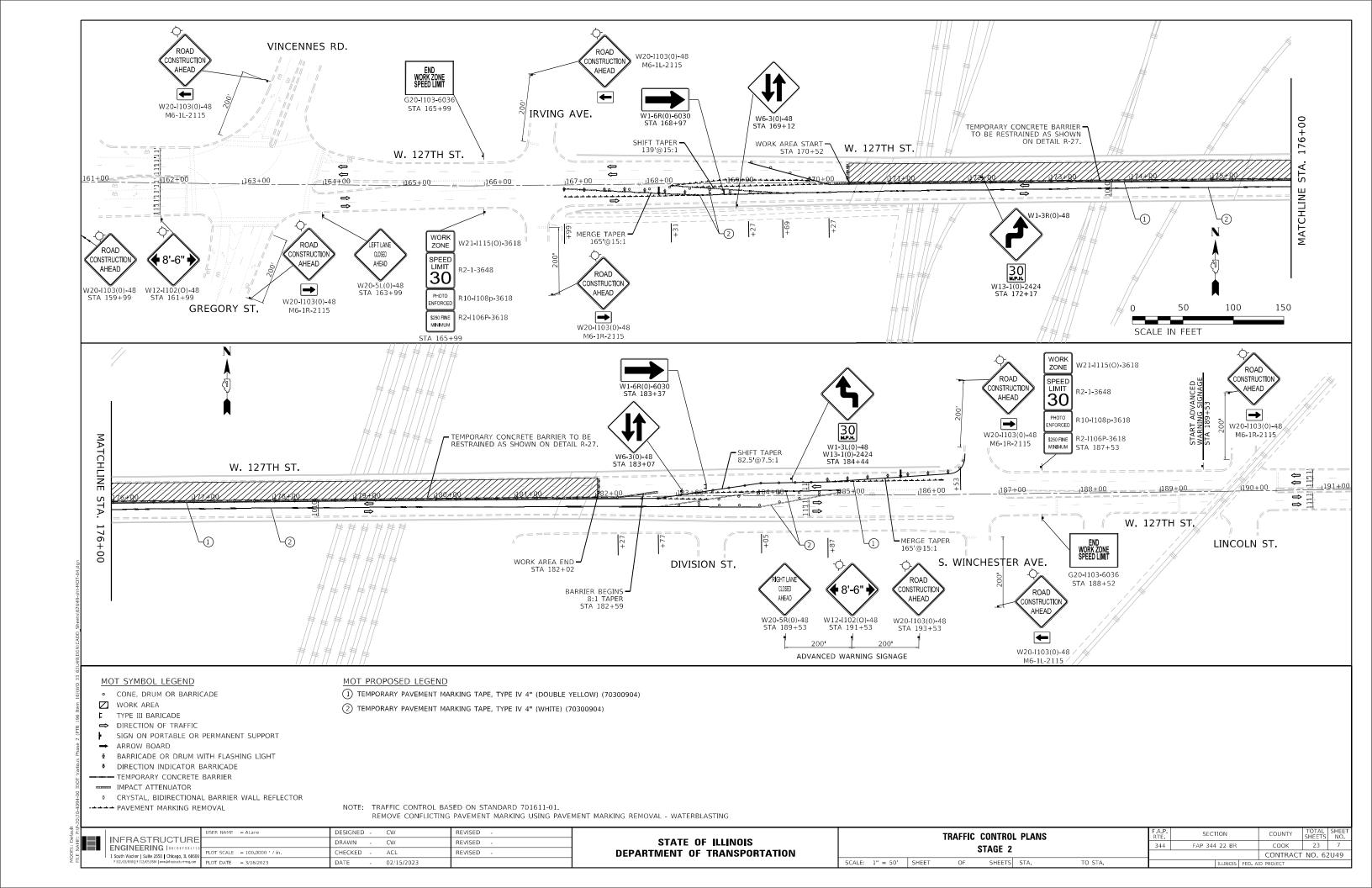
DIRECTION OF TRAVEL

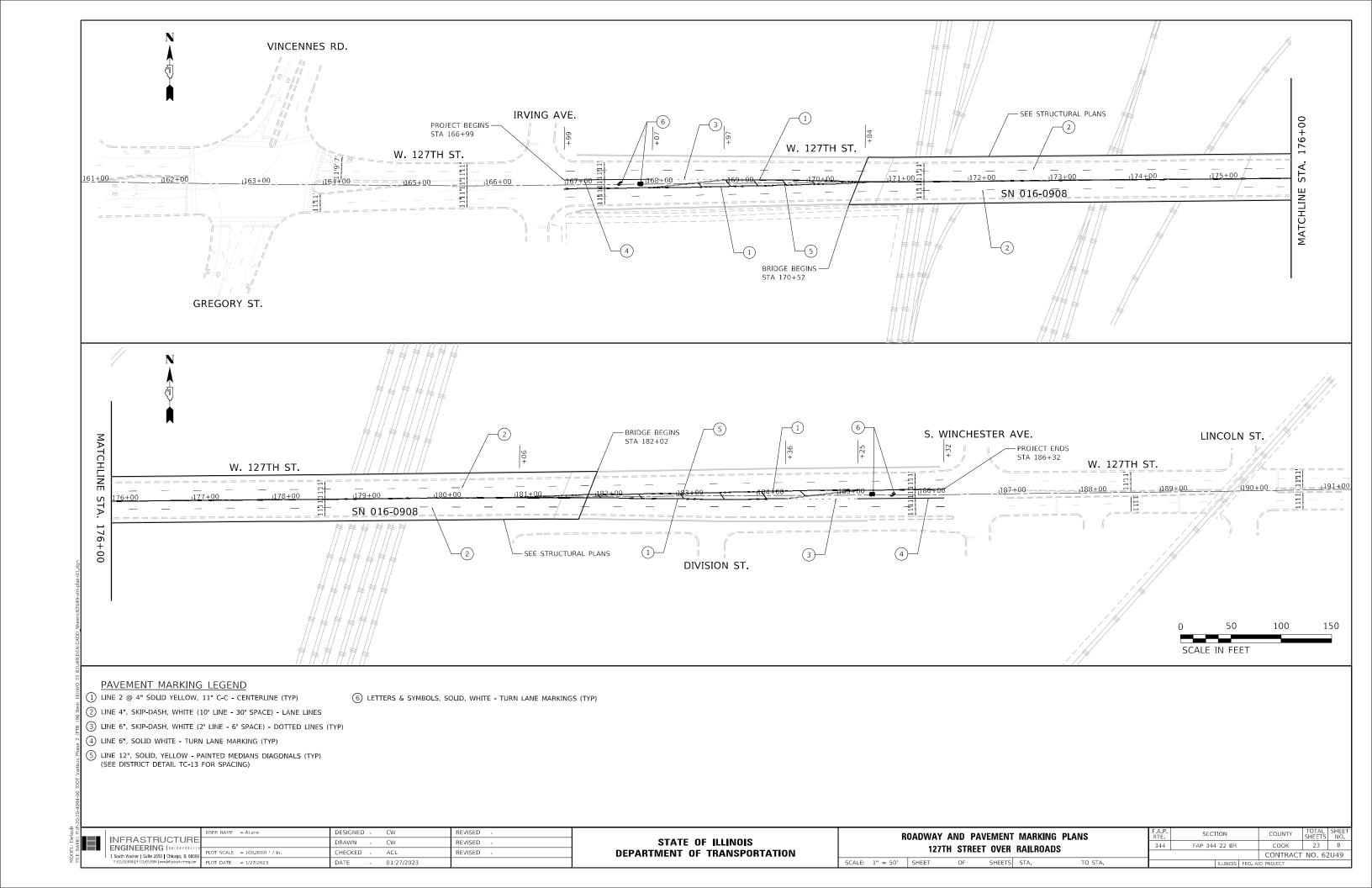
TEMPORARY CONCRETE BARRIER WITH TYPE C, BI-DIRECTIONAL CRYSTAL REFLECTORS PER STD 704001 AND 782006.

TEMPORARY PAVEMENT MARKING









Benchmark: Disk set at southeast corner of 119th Street and Ashland Ave., Elev. 601.07

Existing Structure: Structure No. 016-0908, originally built in 1939 under Sec. 180-A-0101.1-15D-BR. 13

span, 1830 built-up steel girders supported on column bent piers and closed abutments with pile foundations. Existing girders made composite with deck in a 1957 rehabilitation. Outer 3 spans on each side were filled and supported with retaining wall systems in

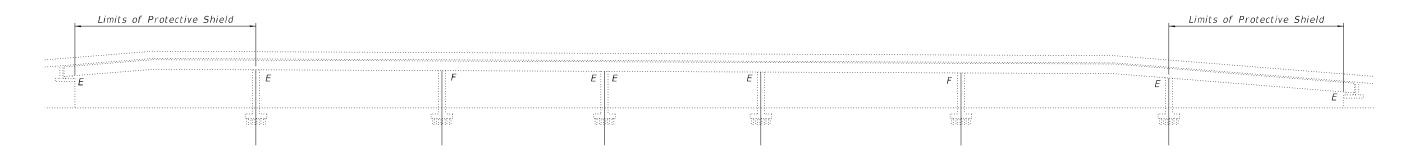
2003 rehab. $1058'-9\frac{\%}{8}''$ back-back of abutments with a total out-out width of $60'-4\frac{1}{4}$ "

Traffic will be maintained using Stage Construction.

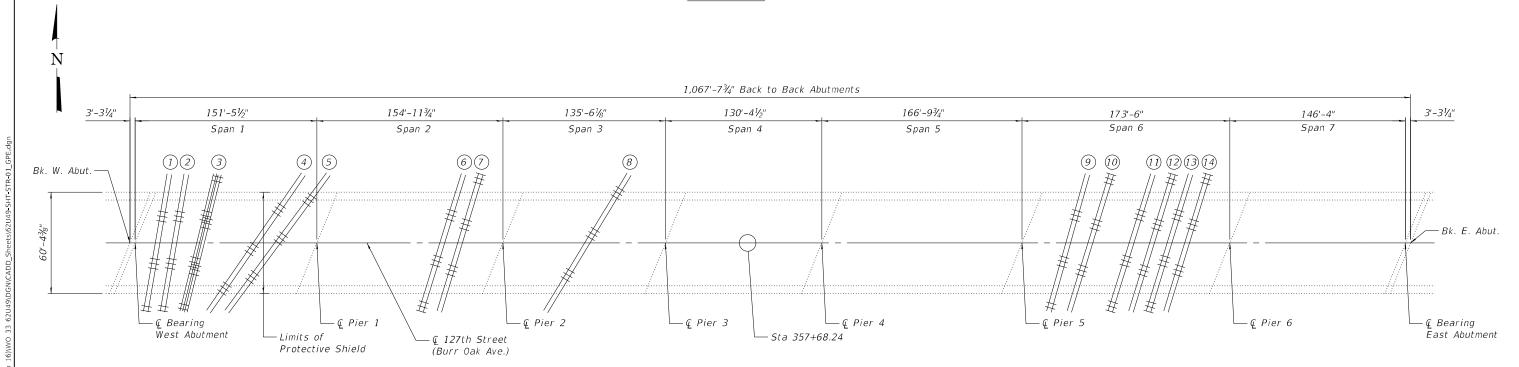
No salvage.



License No. 081-005763 Expires 11/30/2024



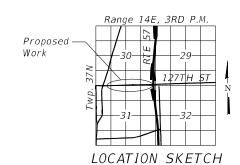
ELEVATION



PLAN

1) Denotes railroad track number

Note: Tracks 1-3 are Metra Railroad tracks. Tracks 4-14 are Iowa Interstate Railroad tracks.



SHEET 1 OF 13 SHEETS

GENERAL PLAN AND ELEVATION 127TH ST. (BURR OAK AVE.) OVER METRA/IOWA INTERSTATE RAILROAD F.A.P. RTE 344 SECTION FAP-344-22-BR COOK COUNTY STATION 357+68.24 STRUCTURE NUMBER 016-0908

 	USER NAME = TYu	DESIGNED -	TY	REVISED -
INFRASTRUCTURE		CHECKED -	KPS	REVISED -
 ENGINEERING INCORPORATED 1 South Wacker Suite 2650 Chicago, IL 60606		DRAWN -	TY	REVISED -
P 312 425 9560 F 312 425 9564 www.infrastructure-eng.com		CHECKED -	KPS	REVISED -

STATE OF ILLINOIS	
DEPARTMENT OF TRANSPORTATION	

F.A. RTE				COUNTY	TOTAL SHEETS	SHEET NO.		
344	FAP-344-22-BR			соок	23	9		
			CONTRACT	NO. 62	2U49			
ILLINOIS FED. AID PROJECT								

GENERAL NOTES

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

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.

Reinforcement bars designated (E) shall be epoxy coated.

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

If the Contractor elects to use cantilever forming brackets on the exterior girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior girder at each of these additional bracket locations.

INDEX OF SHEETS

- 1. General Plan And Elevation
- 2. General Notes, Scope Of Work, & Bill Of Materials
- 3. Stage Construction Details
- 4. Temporary Concrete Barrier For Stage Construction
- 5. Deck Repair Plan
- 6. Abutment and Deck Concrete Removal
- 6A. Abutment and Deck Concrete Removal Sections
- 7. Abutment and Deck Alterations
- 8. Abutment and Deck Details
- 9. Preformed Joint Strip Seal Sidewalk (Sheet 1 of 2)
- 9A. Preformed Joint Strip Seal Sidewalk (Sheet 2 of 2)
- 10. Trough Replacement at Pier 3
- 11. Pier 2 Repairs
- 12. Pier 3 Repairs
- 13. Bar Splicer Assembly And Mechanical Splicer Details

SCOPE OF WORK

- 1. Remove and replace trough, plates, and nuts and bolts on Pier 3.
- 2. Repair structural concrete on Piers 2 and 3. Install shoring and cribbing to support Girders 8 and 9 on the east side of Pier 2. Fiber wrap column in Pier 2.
- 3. Remove neoprene expansion joints at abutments.
- 4. Install preformed joint strip seal at abutments.
- 5. Apply protective coat to deck, abutments, sidewalks and parapets.
- 6. Clean and reseal relief joints.
- 7. Clean deck drainage system.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu Yd	25.7		25.7
Protective Shield	Sq Yd	1,974		1,974
Concrete Superstructure	Cu Yd	25.7		25.7
* Protective Coat	Sq Yd	7,850		7,850
Reinforcement Bars, Epoxy Coated	Pound	3,070		3,070
Bar Splicers	Each	24		24
Preformed Joint Strip Seal	Foot	131		131
Fabric Reinforced Elastomeric Trough	Foot		66	66
Fiber Wrap	Sq Ft		225	225
Clean & Reseal Relief Joint	Foot	131		131
Cleaning Drainage System	L Sum	1		1
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft		220	220
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq Ft		60	60
Railroad Protective Liability Insurance	L Sum			1
Temporary Shoring and Cribbing	Each	2		2

* Quantity is for the top of deck, sidewalks and parapets and the roadway face of sidewalks and parapets. Quantity is also for the top of new concrete on both abutment backwalls.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges (17th Edition)

LOADING HS20-44

Allow 50 psf for future wearing surface

DESIGN STRESSES

New Construction

f'c = 4,000 psi (Superstructure Concrete)

fy = 60,000 psi (Reinforcement)

Existing Construction

f'c = 3,500 psi (Concrete)

fy = 60,000 psi (Reinforcement after 2003) fy = 33,000 psi (Reinforcement before 2003)

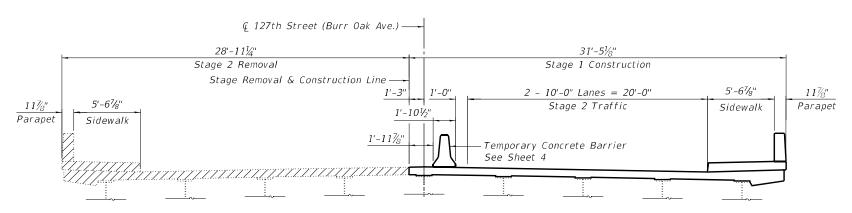
fy = 50,000 psi (Remiror Cement before 2003) fy = 50,000 psi (Structural Steel - M270 Gr. 50)

AME: P:\P-20\20-4094-00 ID

II E

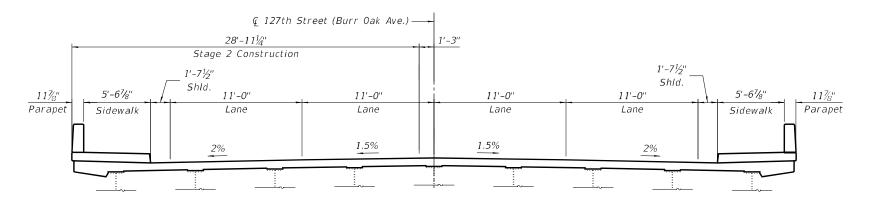
USER NAME = ALane	DESIGNED - TY	REVISED -
INFRASTRUCTURE	CHECKED - KPS	REVISED -
1 South Wacker Suite 2650 Chicago, IL 60606 PLOT SCALE = 0.1667 / in.	DRAWN - TY	REVISED -
P 312.425.9560 F 312.425.9564 www.linfrastructure-eng.com PLOT DATE = 3/24/2023	CHECKED - KPS	REVISED -

(Looking East)



STAGE 1 CONSTRUCTION & STAGE 2 REMOVAL

(Looking East)

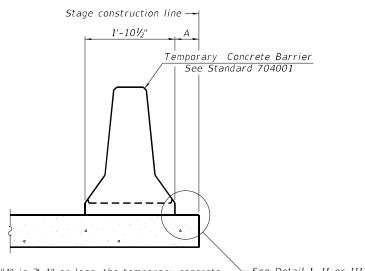


STAGE 2 CONSTRUCTION

(Looking East)

Note: Stage Construction Details are shown for the expansion joint replacement at the west and east ends of the deck.

	USER NAME = TYu	DESIGNED - TY	REVISED -
INFRASTRUCTURE		CHECKED - KPS	REVISED -
ENGINEERING INCORPORATED 1 South Wacker Suite 2650 Chicago, IL 60606		DRAWN - TY	REVISED -
P 312.425.9560 F 312.425.9564 www.infrastructure-eng.com	PLOT DATE = 3/23/2023	CHECKED - KPS	REVISED -



∽ See Detail I, II or III When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

- Stage removal line ← Stage removal line 1'-101/2" 1'-101/2" Temporary Concrete Barrier See Standard 704001 6" min. min. Drill 3-11/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

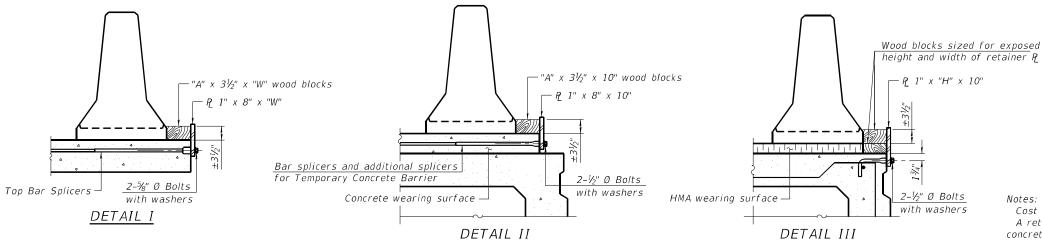
EXISTING DECK BEAM

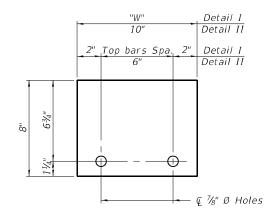
← Ç ¾" Ø Holes

NEW SLAB OR NEW DECK BEAM

SECTIONS THRU SLAB OR DECK BEAM

EXISTING SLAB





RAILING CRITERIA

NCHRP 350 Test Level Railing Weight (plf)

STEEL RETAINER P 1" x 8" x "W"

STEEL RETAINER R 1" x "H" x 10" (Detail III) (Detail I and II)



Cost of retainer assembly is included with Temporary Concrete Barrier. A retainer assembly shall be located at the approximate (of each temporary concrete barrier.

1x8 UNC

1" Ø pin

US Std. 11/16" I.D. x 21/2" O.D. x approx. 8 gauge thick washer

The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.

When the 'A' dimension is less than $1\frac{1}{2}$ ", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.

Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.

Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

10-12-2021

DESIGNED - TY REVISED -**INFRASTRUCTURE** CHECKED - KPS REVISED -ENGINEERING LINCORPO REVISED 1 South Wacker | Suite 2650 | Chicago, IL 60606 CHECKED - KPS REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SECTION TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION 344 FAP-344-22-BR **STRUCTURE NO. 016-0908** SHEET 4 OF 13 SHEETS

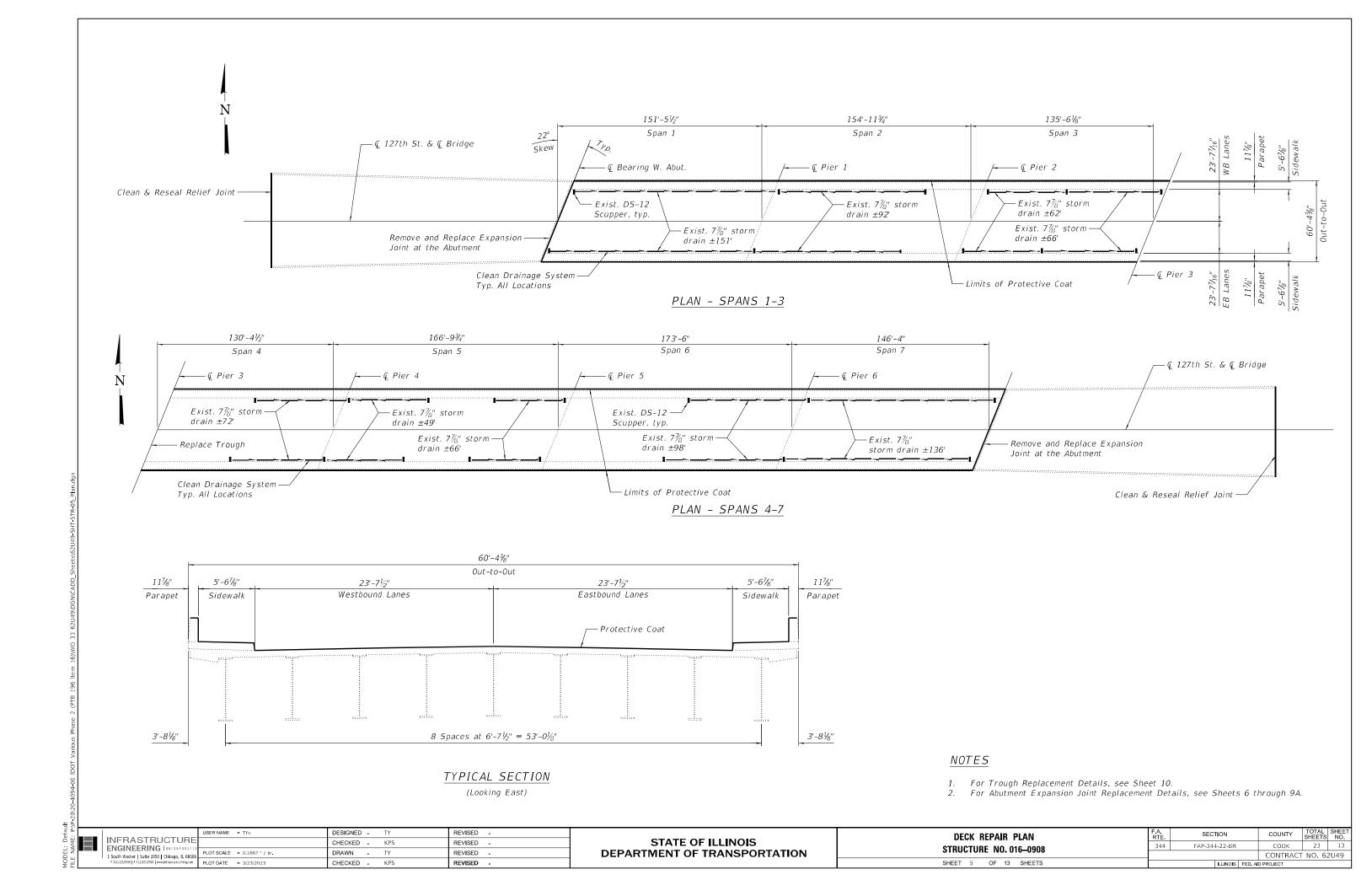
BAR SPLICER FOR #4 BAR - DETAIL III

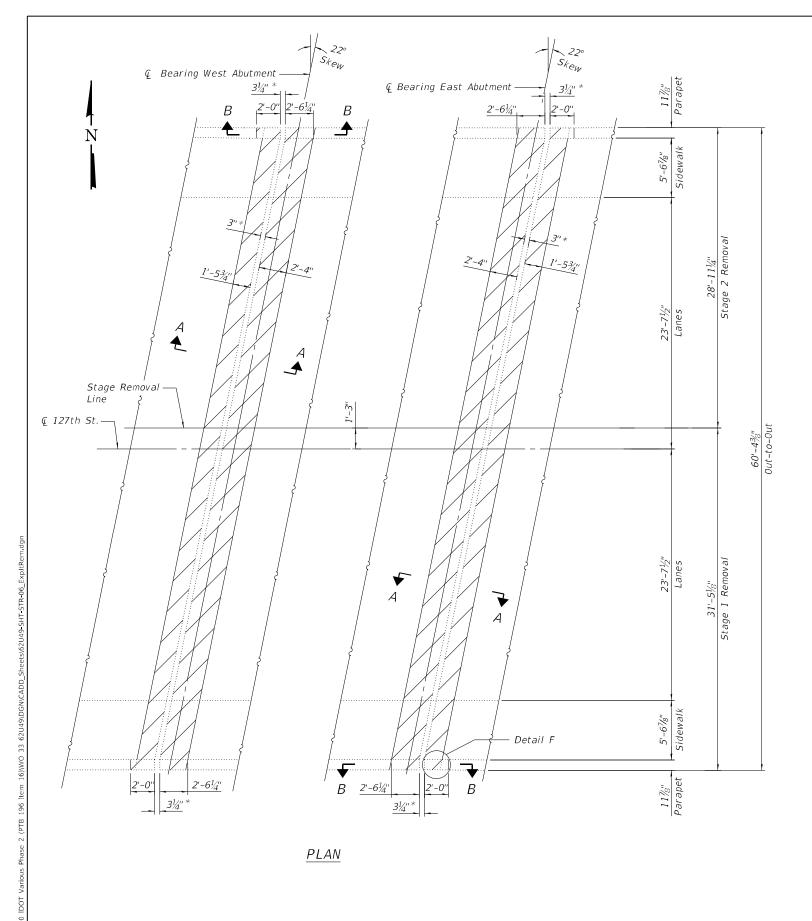
RESTRAINING PIN

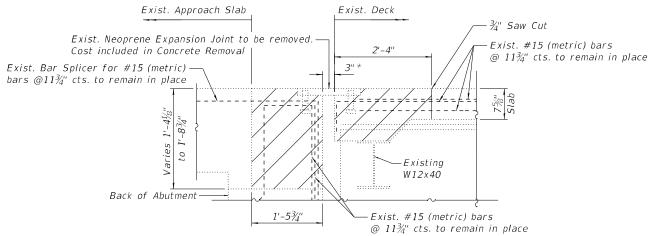


R-27

COOK 23 12 CONTRACT NO. 62U49

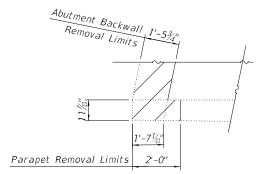






SECTION A-A

(Dimensions are at right angle)



Detail F

NOTES

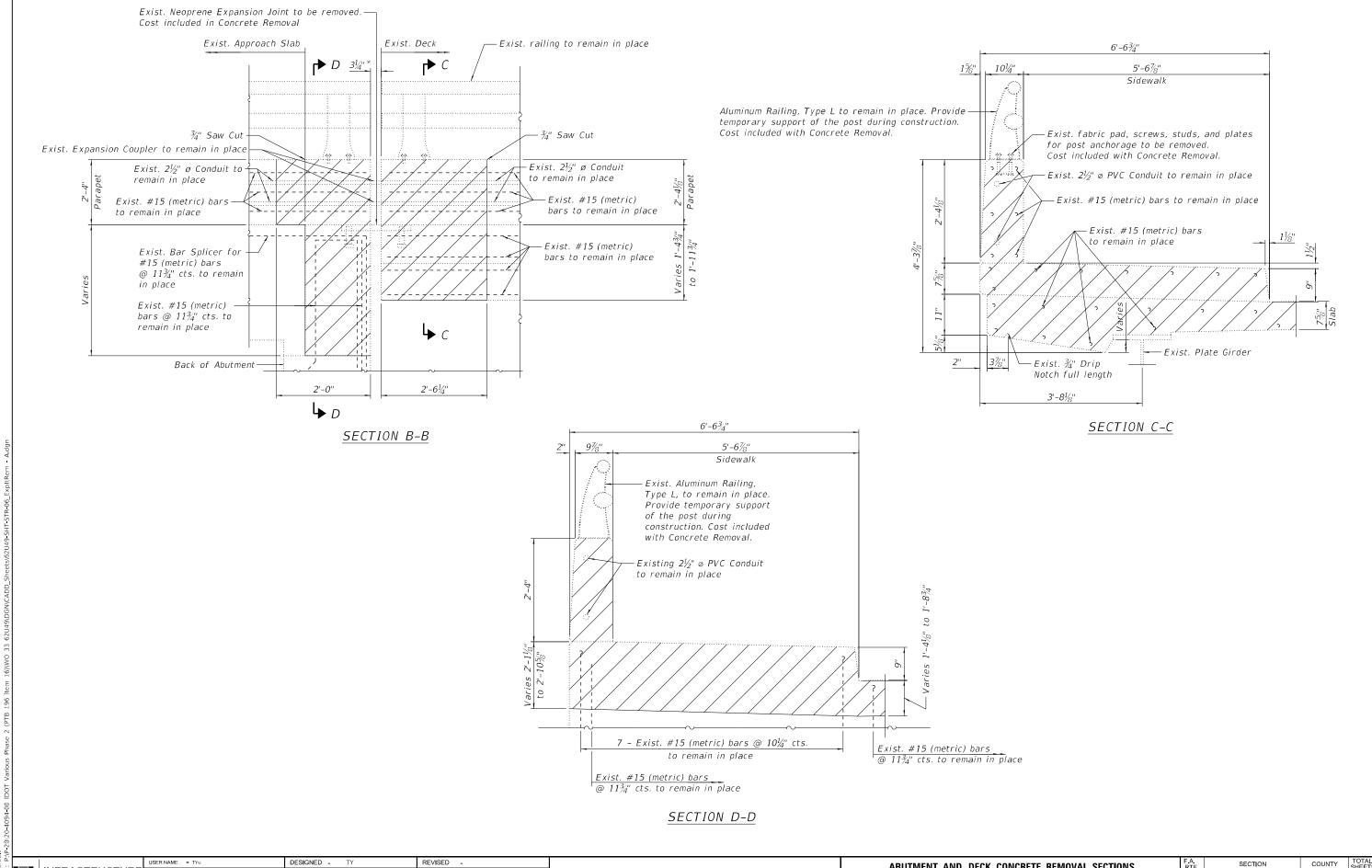
- 1. Hatched areas denote Concrete Removal.
- 2. Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage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

 3. Cut the end of existing longitudinal reinforcement bars in the parapet, deck and abutment as necessary to clear the new skewed joint at the edges of the deck. Coat the cut end of the existing reinforcement bars with an anti-rust compound. Cost included with Concrete Removal.
- 4. See Sheet 6A, for Section B-B
- * At 50° F

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu Yd	27.2

	IN IED A CEDITORIUSE	USER NAME = TYu	DESIGNED - TY	REVISED -		ABUTMENT AND DECK CONCRETE REMOVAL	F.A. RTF	SECTION	COUNTY	TOTAL	SHEET
	INFRASTRUCTURE		CHECKED - KPS	REVISED -	STATE OF ILLINOIS		344	FAP-344-22-BR	соок	23	14
	1 South Wacker Suite 2650 Chicago, IL 60606	PLOT SCALE = 8.0000 / in.	DRAWN - TY	REVISED -	DEPARTMENT OF TRANSPORTATION	STRUCTURE NO. 016-0908			CONTRACT	T NO. 6	2U49
[]	P 312-425-9560 F 312-425-9564 www.infrastructure-eng.com	PLOT DATE = 3/23/2023	CHECKED - KPS	REVISED -		SHEET 6 OF 13 SHEETS		ILLINOIS FED.	AID PROJECT		



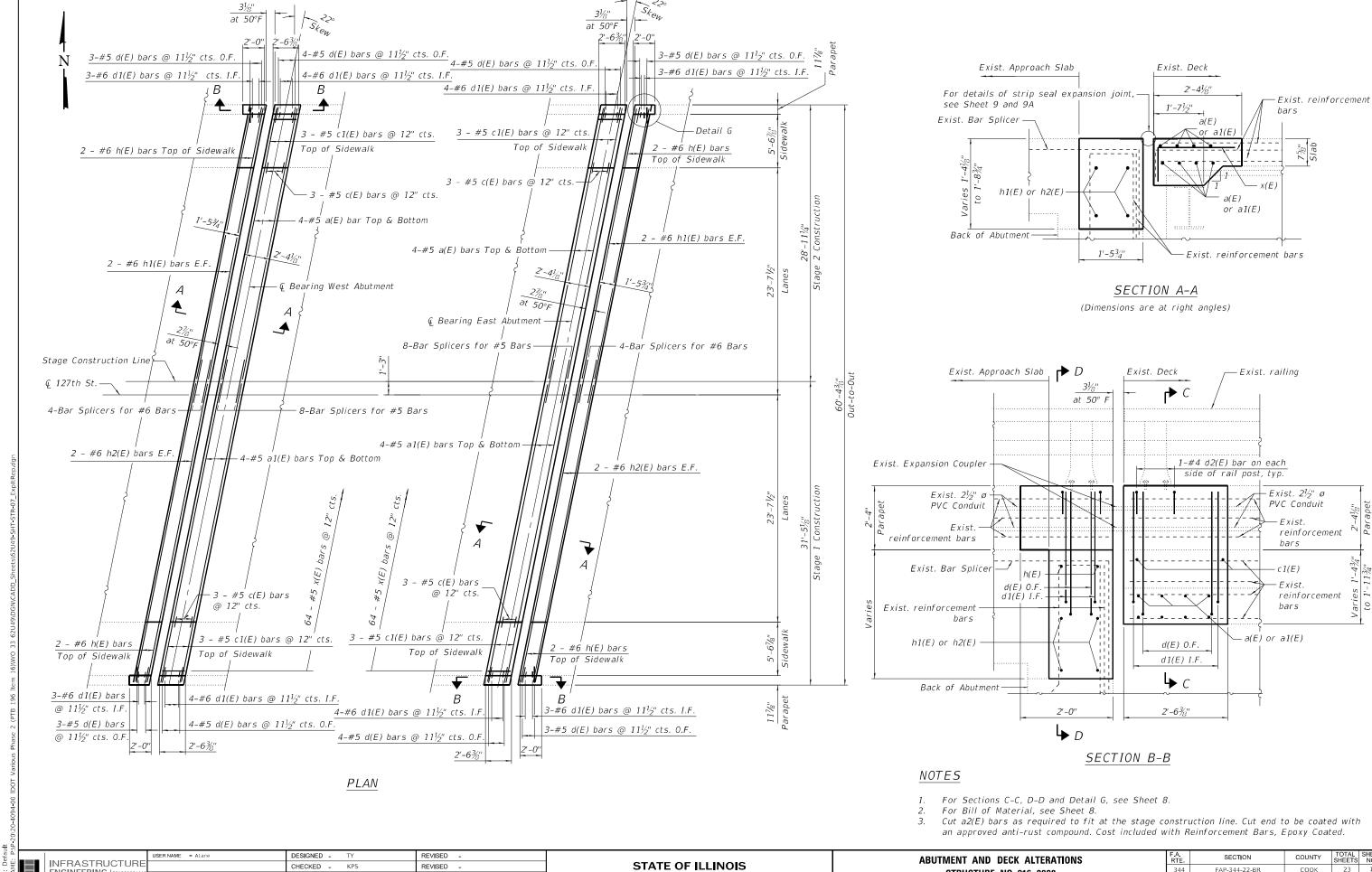
MODEL: Default

INFRASTRUCTURE
ENGINEERING | INCORPORATE
ENGINEERING | Substantial PLOT
1 South Wacker | Suite 2550 | Chicago, It 60066
F121.723.7590 | F131.745.7594 | www.diffastructure-tegs.com

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT AND DECK CONCRETE REMOVAL SECTIONS
STRUCTURE NO. 016-0908

SHEET 6A OF 13 SHEETS



DEPARTMENT OF TRANSPORTATION

FAP-344-22-BR

STRUCTURE NO. 016-0908

SHEET 7 OF 13 SHEETS

COOK

CONTRACT NO. 62U49

23 15

ENGINEERING LINCORPO

1 South Wacker | Suite 2650 | Chicago, IL 60606

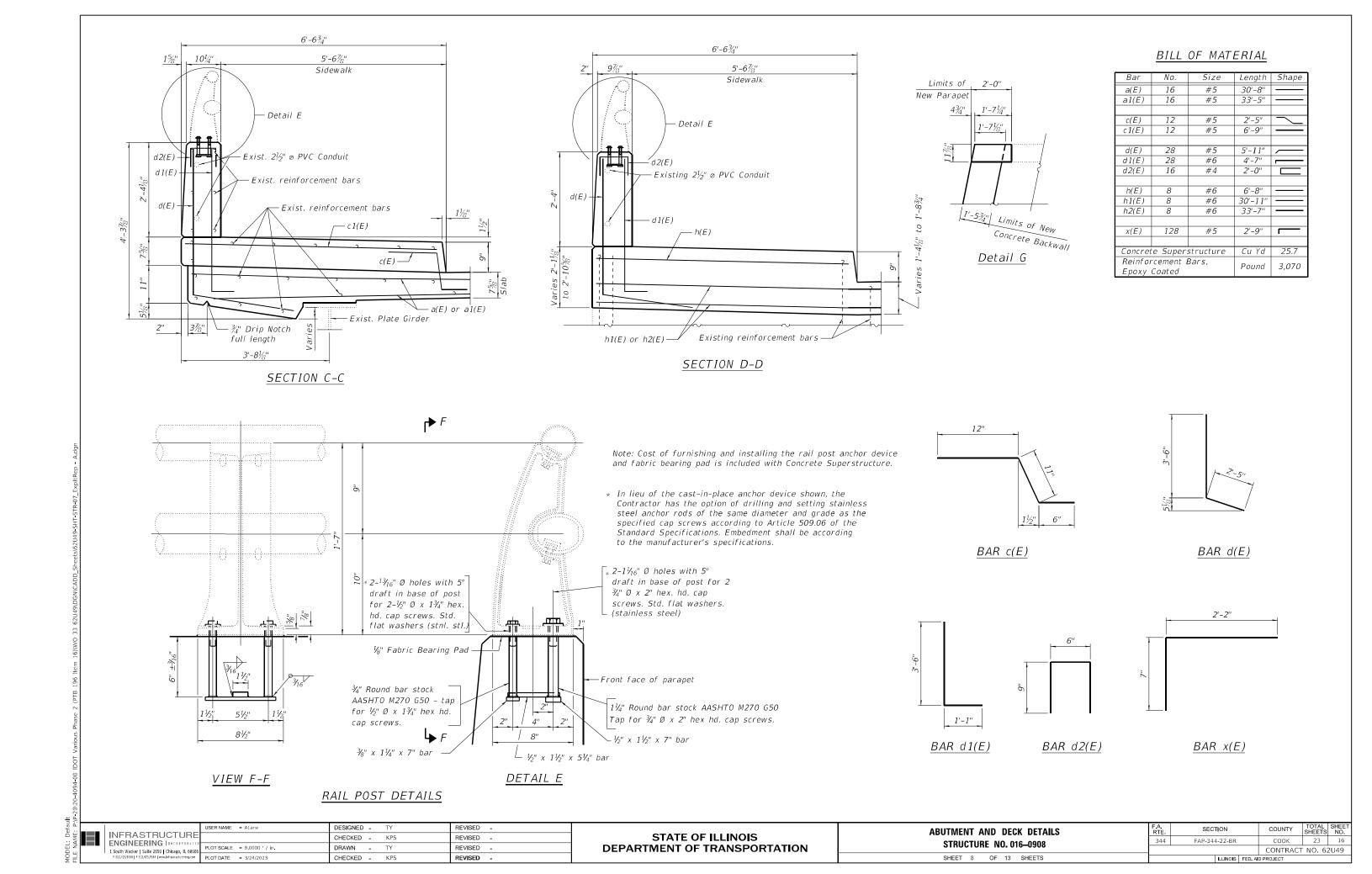
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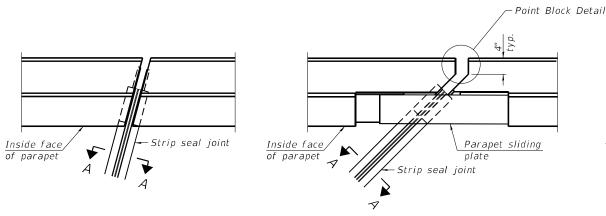
DRAWN

CHECKED - KPS

REVISED

REVISED -

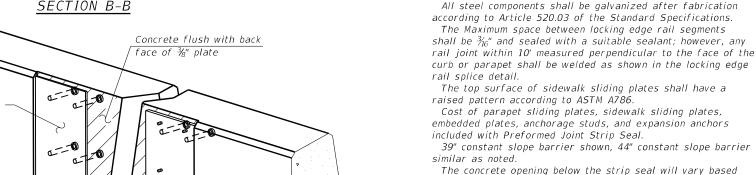




FOR SKEWS > 30°

* ¾" Ø x 6" Studs 1'-0" (8 per side 39" parapet) (10 per side 44" parapet) ኘ 🗖 ¾" Embedded plate full depth ¾" Embedded plate, Min. lap full depth 1/2" Parapet sliding plate ¾" Ø Countersunk bolts 1'-0" (10 per side 39" parapet) (12 per side 44" parapet) Direction of traffic

SECTION B-B



Notes:

rated movement of 4 inches.

shall be followed.

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 connector length shall be adjusted, not the length of the bridge approach slab.

The strip seal shall be made continuous and shall have

a minimum thickness of $\frac{1}{4}$ ". 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

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

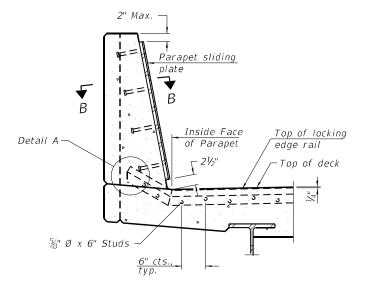
however, will not be allowed. Locking edge rails may exceed the 4½" maximum depth provided the anchorage system is revised

and meet the minimum anchorage shown. Flanged edge rails,

The manufacturer's recommended installation methods

according to the manufacturer's recommendation.

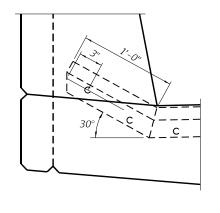
PLAN AT PARAPET



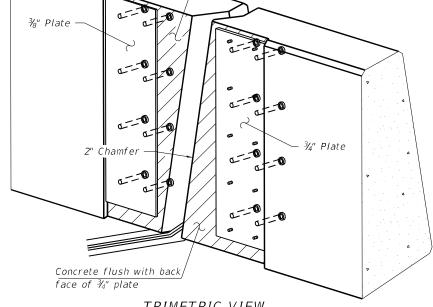
 $FOR SKEWS \le 30^{\circ}$

SECTION AT PARAPET

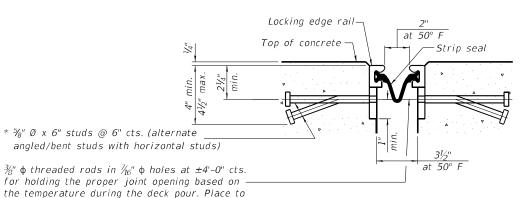
(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



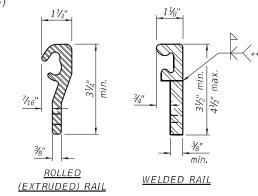
DETAIL A



TRIMETRIC VIEW (Showing embedded plates only)

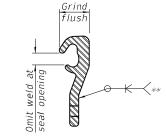


SHOWING WELDED RAIL JOINT



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	131

Locking edge railat 50° F Top of concrete Strip seal at 50°

1-1-2020

SHOWING ROLLED RAIL JOINT

SECTION A-A

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

miss studs. All rods shall be burned, or sawed

off flush with the plates after concrete is set.

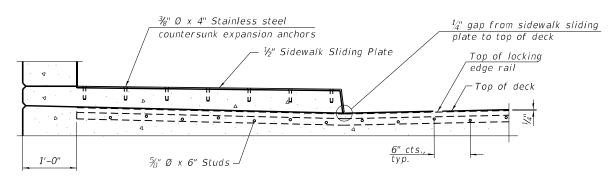
EJ-SS-S

	USER NAME = ALane	DESIGNED - TY	REVISED -
TRUCTURE		CHECKED - KPS	REVISED -
RING INCORPORATED Suite 2650 Chicago, IL 60606		DRAWN - TY	REVISED -
425.9564 www.infrastructure.eng.com		CHECKED - KPS	REVISED -

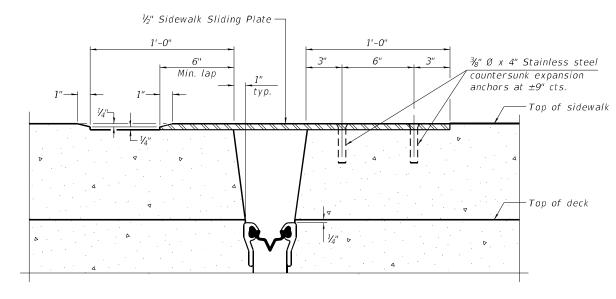
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** PREFORMED JOINT STRIP SEAL - SIDEWALK (SHEET 1 OF 2) **STRUCTURE NO. 016-0908** SHEET 9 OF 13 SHEETS

SECTION COUNTY 344 FAP-344-22-BR соок 23 17 CONTRACT NO. 62U49

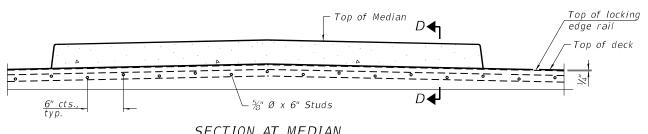
INFRAS ENGINEER 1 South Wacker | Sui



SECTION AT RAISED SIDEWALK

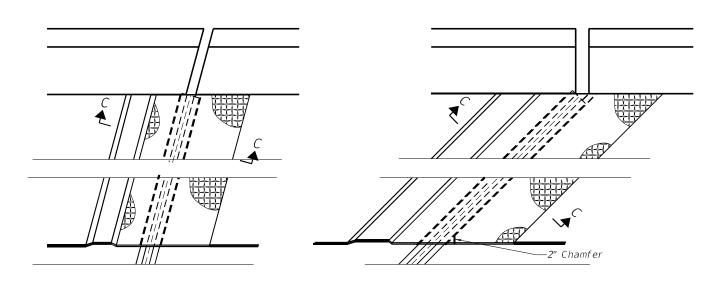


SECTION C-C



SECTION AT MEDIAN

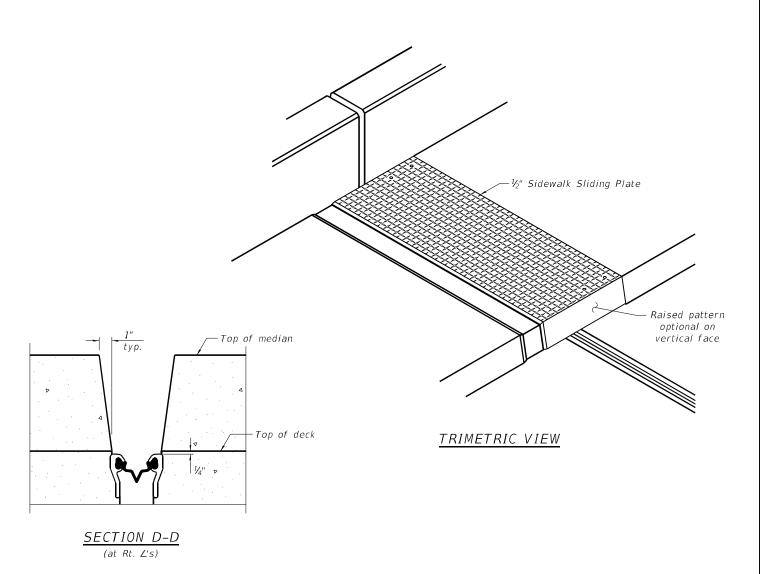
For skews > 30°, chamfer acute corners 2" similar to sidewalk.



PLAN AT RAISED SIDEWALK

(FOR SKEWS ≤ 30°)

(FOR SKEWS > 30°)



EJ-SS-S

11-1-2022

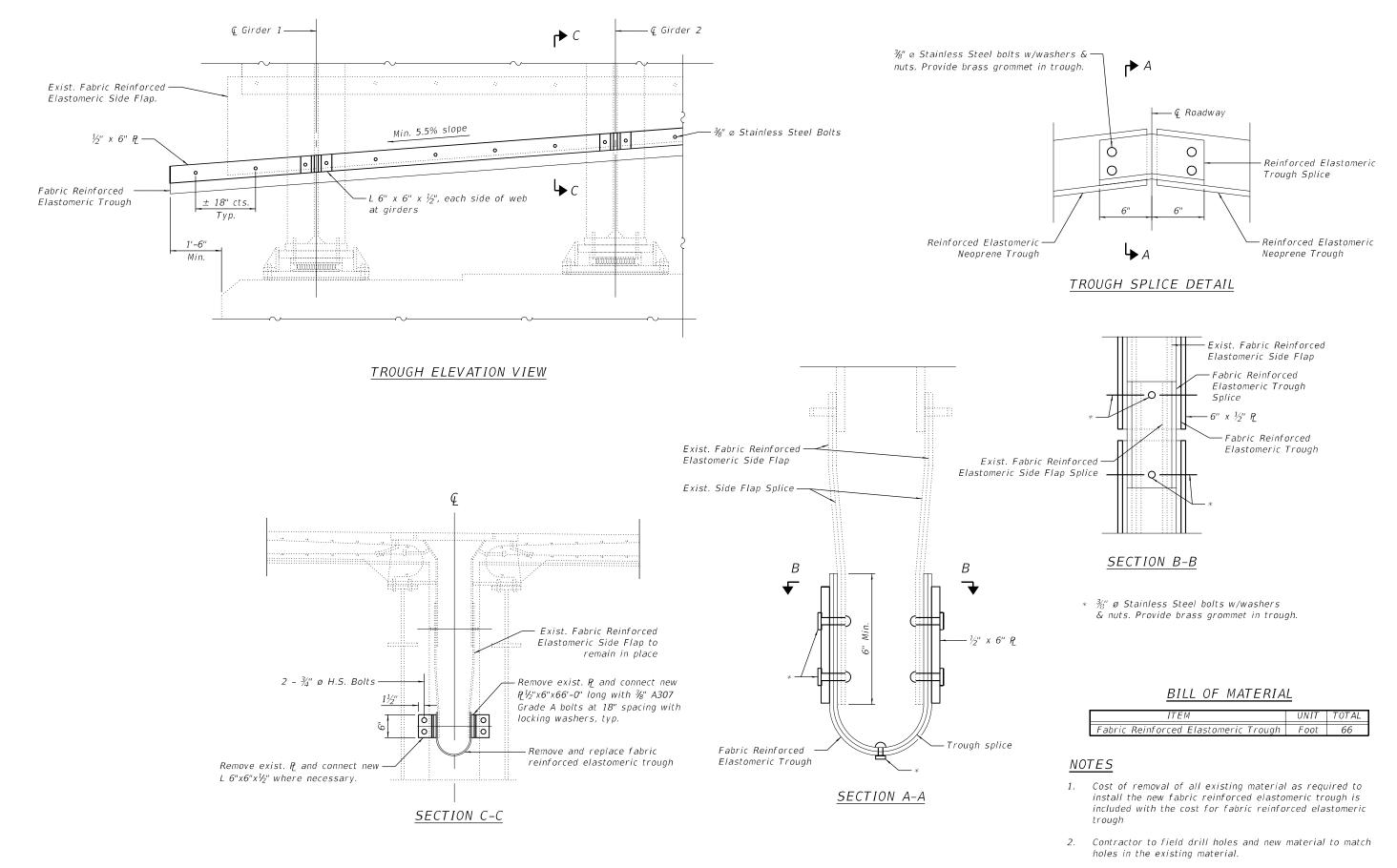
DESIGNED - TY REVISED -INFRASTRUCTURE ENGINEERING | INCORPORATE CHECKED - KPS REVISED -REVISED 1 South Wacker | Suite 2650 | Chicago, IL 60606 PLOT DATE = 3/23/2023 CHECKED - KPS REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SECTION PREFORMED JOINT STRIP SEAL - SIDEWALK (SHEET 2 OF 2) 344 STRUCTURE NO. 016-0908 SHEET 9A OF 13 SHEETS

COUNTY TOTAL SHEET NO.

COOK 23 17A FAP-344-22-BR CONTRACT NO. 62U49



MODEL: Default

INFRASTRUCTURE
ENGINEERING | INCORPORATE
ENGINEERING | October | Chicago, IL 60006
1 South Wacker | Suite 2550 | Chicago, IL 60006
1 312-23-5599 | F312-23-5599 | promidification-resignor |
PLOT

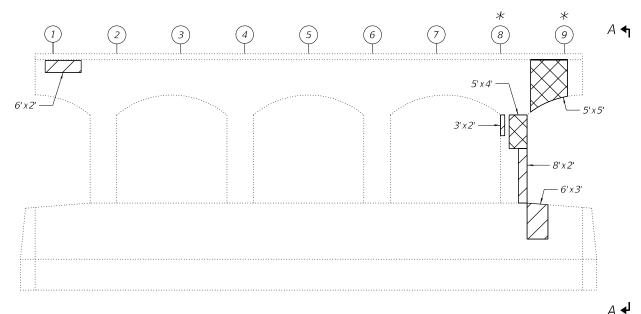
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TROUGH REPLACEMENT AT PIER 3
STRUCTURE NO. 016-0908
SHEET 10 OF 13 SHEETS

 F.A. RTE.
 SECTION
 COUNTY SHEETS NO.
 TOTAL SHEETS NO.

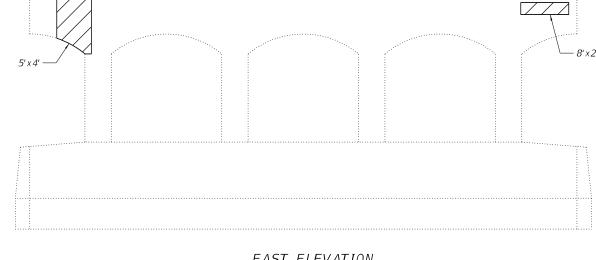
 344
 FAP-344-22-BR
 COOK
 23
 18

 CONTRACT NO. 62U49



WEST ELEVATION SHOWING CONCRETE REPAIR

Looking East



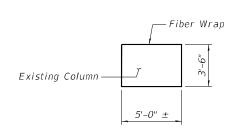
EAST ELEVATION SHOWING CONCRETE REPAIR

Looking West

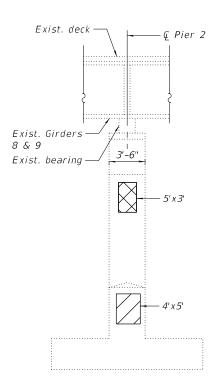
PIER 2 GIRDER REACTION TABLE

$R_DL(k)$	259.9
$R_{LL}(k)$	81.4
Imp(k)	9.9
$R_Total(k)$	351.2

Note: Quantities and limits of Structural Repair of Concrete shown herein are estimated from a survey completed by the District. Actual limits shall be determined in the field by the Engineer and noted in the As-Built Plans.



SECTION B-B



SECTION A-A

- @ Pier 2 Fiber Wrap with fibers oriented circumferentially Fiber Wrap along the column Column $C \blacktriangleleft$ WEST ELEVATION SECTION C-C

LEGEND

Indicates Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches) Indicates Structural Repair Of Concrete



Indicates limits of Fiber Wrap

(Depth Greater Than 5 Inches)



Indicates Girder Number

Beam requires temporary shoring

FIBER WRAP REPAIR NOTES

- 1. Existing uneven surfaces must be filled with an appropriate repair mortar.
- Cracks with width greater than 0.012 inches must be stablized using epoxy injection methods. Use manufacturers data sheets for information on mixing epoxy resin.

C **4**

- System is a vapor barrier. Do not encapsulate concrete if any surface moisture is present. Carbon fabric is non-reactive. However, caution must be used when handling, since a fine "carbon dust" may be present on the
- 4. Gloves and protective face masks must be worn to protect against any respiratory problems and skin irritation. Wrap the identified piers with the specified number of wraps as indicated on the plans or as directed by the engineer.
- Concrete edges shall be rounded to at least 3/4" radius and smoothed to a surface finish prior to application of
- Acrylic coating shall be applied to all surfaces of the fiber wrap.

BILL OF MATERIAL

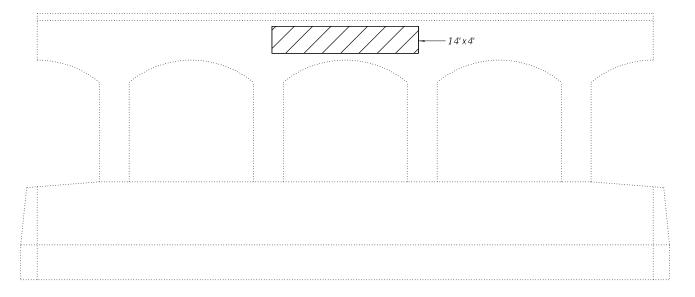
ITEM	UNIT	TOTAL
Fiber Wrap	Sq Ft	225
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft	108
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq Ft	60
Temporary Shoring and Cribbing	Each	2

DESIGNED - TY REVISED -INFRASTRUCTURE CHECKED - KPS REVISED -ENGINEERING LINCORPO REVISED 1 South Wacker | Suite 2650 | Chicago, IL 60606 PLOT DATE = 3/23/2023 CHECKED - KPS REVISED -

SHOWING FIBER WRAP REPAIR Looking East

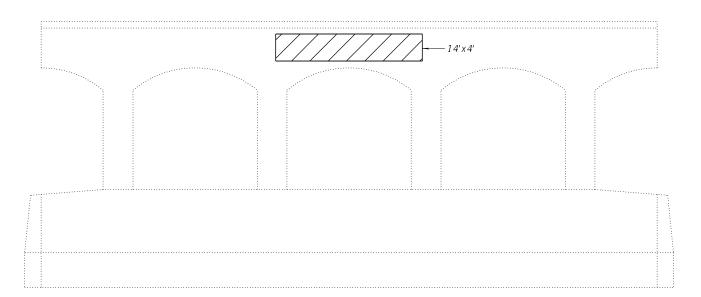
> STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SECTION PIER 2 REPAIRS COOK 23 19 FAP-344-22-BR STRUCTURE NO. 016-0908 CONTRACT NO. 62U49 SHEET 11 OF 13 SHEETS



WEST ELEVATION

Looking East



EAST ELEVATION

Looking West

LEGEND

Indicates Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)

NOTE

Quantities and limits of Structural Repair of Concrete shown herein are estimated from a survey completed by the District. Actual limits shall be determined in the field by the Engineer and noted in the As-Built Plans.

BILL OF MATERIAL

ITEM		TOTAL
tructural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq Ft	112

19:00 PLOT DATE = 3/23/2023

DESIGNED - TY REVISED -CHECKED - KPS REVISED -DRAWN - TY REVISED -CHECKED - KPS REVISED -

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

PIER 3 REPAIRS STRUCTURE NO. 016-0908 SHEET 12 OF 13 SHEETS

COUNTY TOTAL SHEET NO.

COOK 23 20 SECTION FAP-344-22-BR CONTRACT NO. 62U49

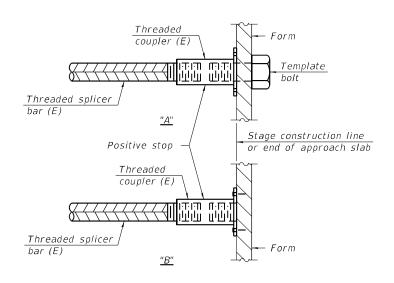
STANDARD BAR SPLICER ASSEMBLY PLAN

(All components shall be provided from one supplier)

Threaded splicer bar length = min. lap length + $1\frac{1}{2}$ " + thread length

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

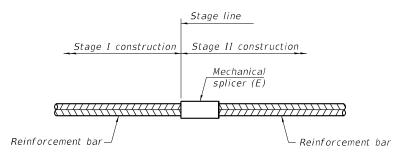
Location	Bar size	No. assemblies required	Minimum Iap length
Abutments	#6	8	4'-0''
Deck	#5	16	3'-6"



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.

BSD-1

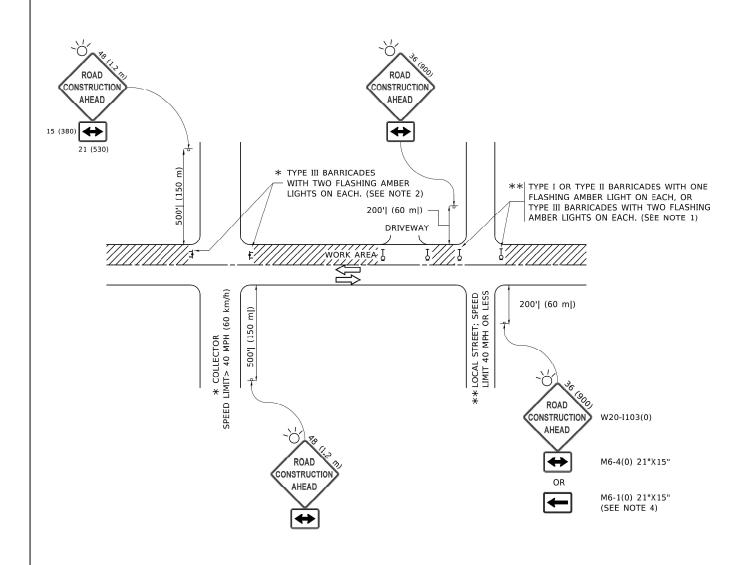
1-1-2020

INFRASTRUCTURE ENGINEERING INCORPORATE OF SOUTH Wacker Sulte 2650 Chicago, IL 60606 F 312-123-5350 F312-123-5350 F31	USER NAME = TYu	DESIGNED - TY	REVISED -
		CHECKED - KPS	REVISED -
		DRAWN - TY	REVISED -
		CHECKED - KPS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS STRUCTURE NO. 016–0908

SHEET 13 OF 13 SHEETS



NOTES:

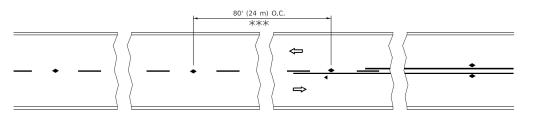
- 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
- a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
- b) THE CLOSED PORTICN OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
- THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY
 b) BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION
 OF THE CLOSED PORTION.
- CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710)
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE
 4. SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL
 BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

- 5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
- 6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER
- 7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

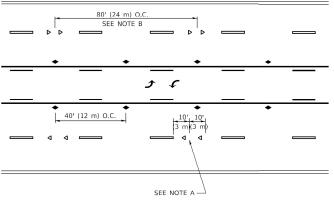
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)



*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

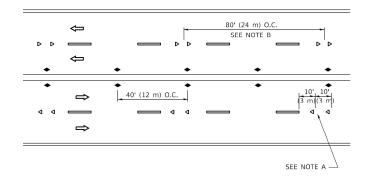
3 @ 40' (12 m) O.C. \Rightarrow LANE REDUCTION TRANSITION

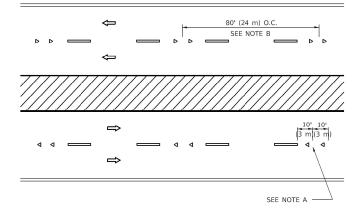
SEE FIGURE 3B-14 MUTCD



TWO-WAY LEFT TURN

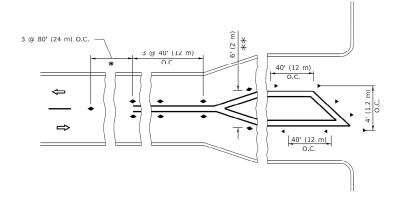
TWO-LANE/TWO-WAY

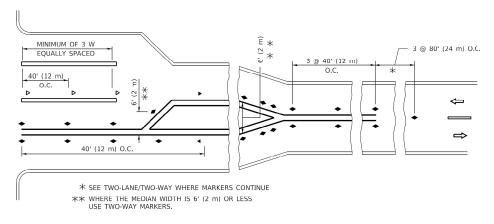




MULTI-LANE/UNDIVIDED

MULTI-LANE/DIVIDED





GENERAL NOTES

- 1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
- 2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
- 3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE
- 4. MARKERS ARE TO BE USED ADJACENT TO BOTH SOLID WHITE LINES IN DUAL LEFT TURN LANES

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT DEING USED.
- 4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY INVOLVED.

All dimensions are in inches (millimeters) unless otherwise shown.

DESIGNED -CW REVISED INFRASTRUCTURE DRAWN CW REVISED ENGINEERING LINCORPOR HECKED ACL REVISED 1 South Wacker | Suite 2650 | Chicago, IL 60606 PLOT DATE = 3/16/2023 03/16/2023

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) (TC-11) SHEETS STA.

SECTION 23 21B 344 FAP 344 22 BR COOK CONTRACT NO. 62U49

SYMBOLS

ONE-WAY AMBER MARKER

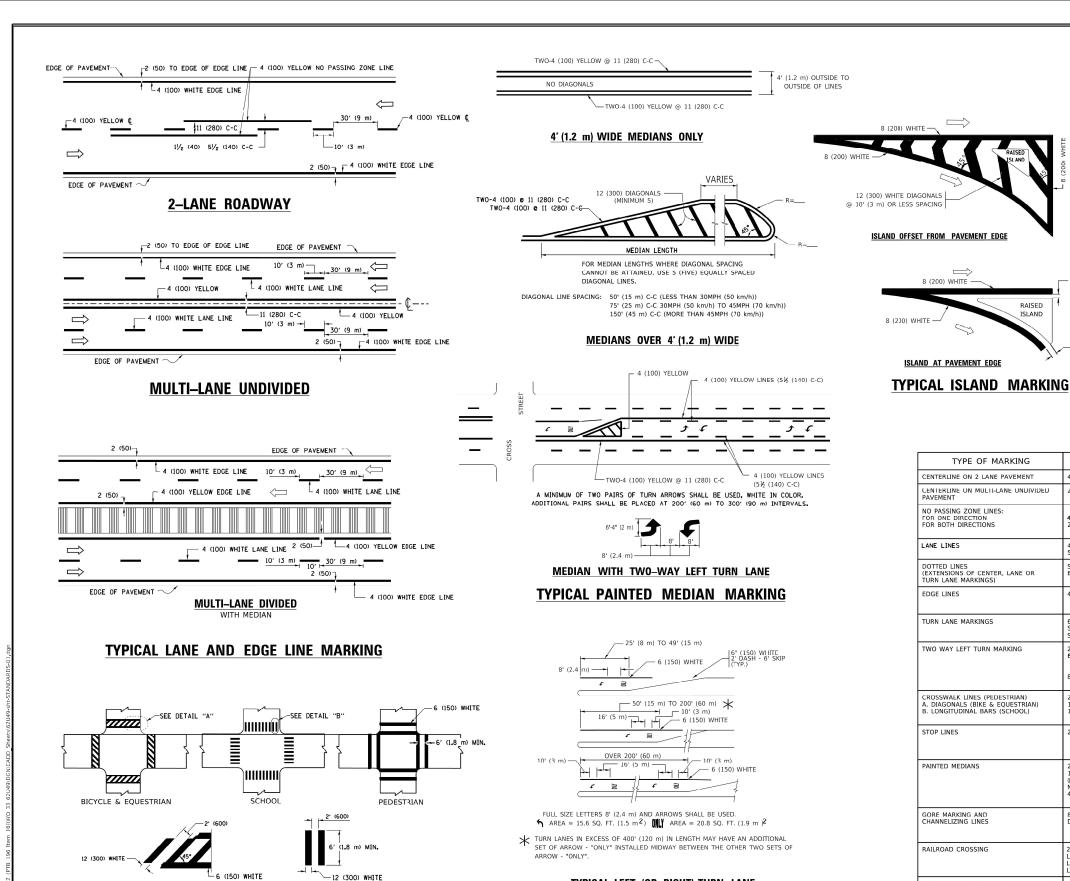
TWO WAY AMBER MARKER

d ONE-WAY CRYSTAL MARKER (W/O)

YELLOW STRIPE

WHITE STRIPE

TURN LANES



TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

425 35 500 40 580 45 665 50 **COMBINATION** LEFT AND U-TURN 5'-4" (1620) √ 32 R (810) LANE REDUCTION TRANSITION * LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)

SPEED LIMIT

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (500) APART 2' (500) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ, FT. (0.33 m PEACH "X"=54.0 SO. FT. (5.0 m PEACH
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS > 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION	SEE DETAIL	SOLID	WHITE	30.4 SF

U-TURN

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

LEFT AND U TURN

RAISED

2 (50)

All dimensions are in inches (millimeters) unless otherwise shown.

INFRASTRUCTURE DRAWN - CW REVISED -	
ENGINEERING INCORPORATION 1 South Wacker Suite 2650 Chicago, IL 60606 PLOT SCALE = 20.0000 / in	
P 312-05-959 F 312-05-959 weardingstructure-response PLOT DATE = 1/27/2023 DATE - 01/27/2023	

DETAIL "B"

DETAIL "A"

THE ROAD WHICH IT CROSSES

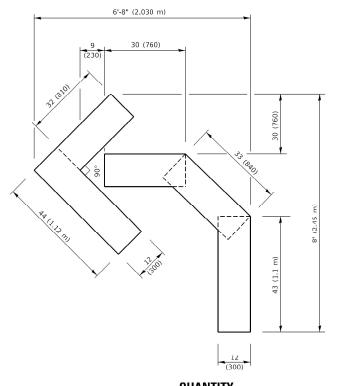
TYPICAL CROSSWALK MARKING

* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

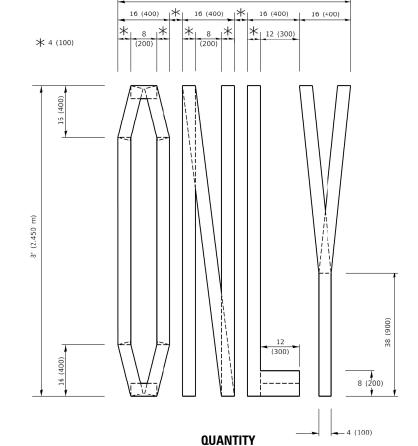
SECTION FAP 344 22 BR COOK 23 22 CONTRACT NO. 62U49

DISTRICT ONE - TYPICAL PAVEMENT MARKINGS (TC-13) SHEETS STA.

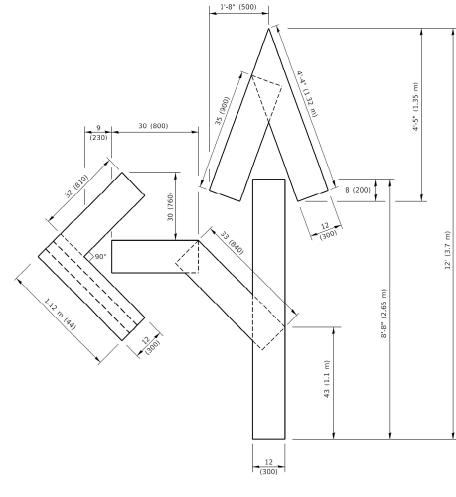


QUANTITY

4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.41 sq. m)



4 (100) LINE = 64.1 ft. (19.5 m) 21.4 sq. ft. (1.99 sq. m)

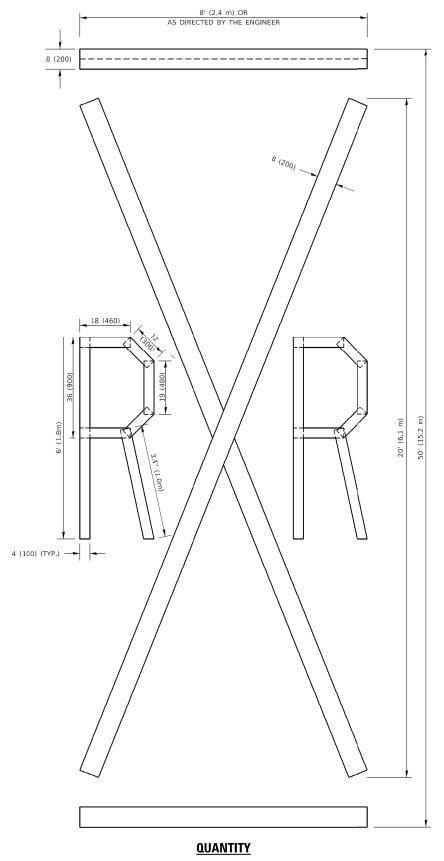


QUANTITY

4 (100) LINE = 82.5 ft. (25.1 m) 27.5 sq. ft. (2.53 sq. m)

NOTE:

ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



4 (100) LINE = 225.9 ft. (68.9 m) 75.3 sq. ft. (6.99 sq. m)

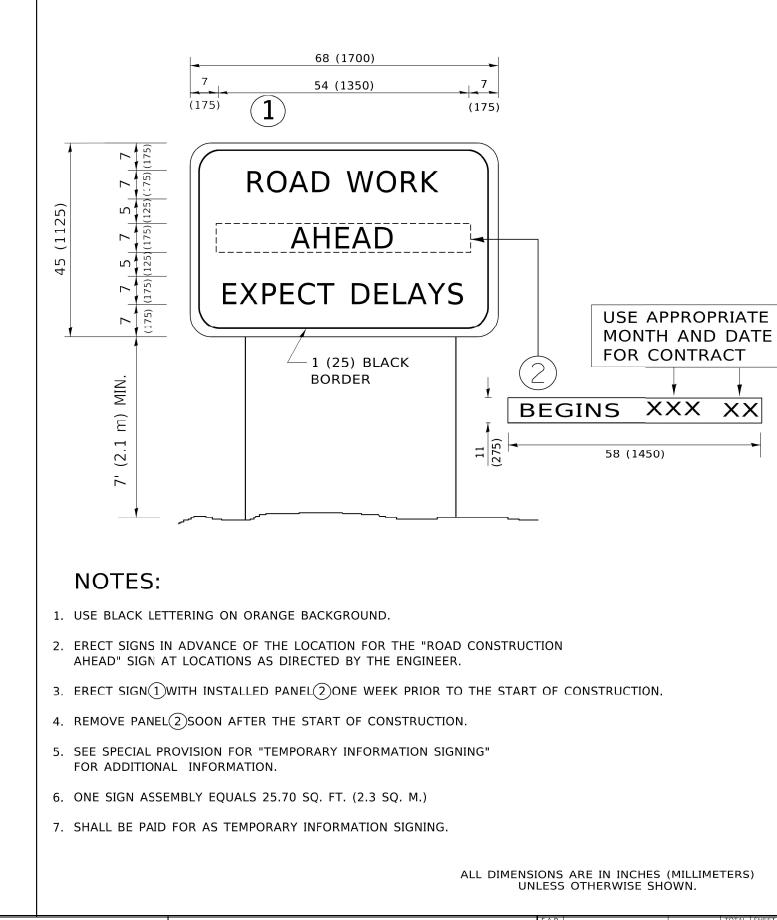
> All dimensions are in inches (millimeters) unless otherwise shown.

. 1	. T	ALane	DESIGNED	-	CW	REVISED	-
INFRASTRUCTURE ENGINEERING INCORPORATE 1 South Wacker Suite 2650 Chicago, IL 60606 P 312433,9590 F 312433,9594 www.infrastructure-ing.com			DRAWN	-	CW	REVISED	-
		20.0018 / in.	CHECKED	-	ACL	REVISED	-
	3/27/2023	DATE	-	03/24/2023			

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

SCALE:

STORT TERM	PAVEMENT	MARKING L	ETTERS AN	D SYMBOLS	(TC-16)	F.A.P. RTE.	SECT	ION	COUNTY	TOTAL SHEETS	SHEET NO.
						344	FAP 344	22 BR	COOK	23	22A
									CONTRACT	NO. 62	2U49
SCALE:	SHEET	OF SHEET	S STA.	TO STA.			ILLINOIS FED. AID PROJECT				



| MARKET | 17,17,100,100,110,011

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE - ARTERIAL ROAD INFORMATION SIGN (TC-22)

SHEET OF SHEETS STA. TO STA.