

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2019-126-BR	COOK	20	1
		ILLINOIS	CONTRACT NO. 62J98	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED HIGHWAY PLANS

F.A.I. ROUTE 94: I-94 (EDENS EXPRESSWAY)
AT CHURCH STREET
SECTION: 2019-126-BR
BRIDGE BEAM REPLACEMENT
COOK COUNTY
C-91-053-20

TRAFFIC DATA

CHURCH STREET:

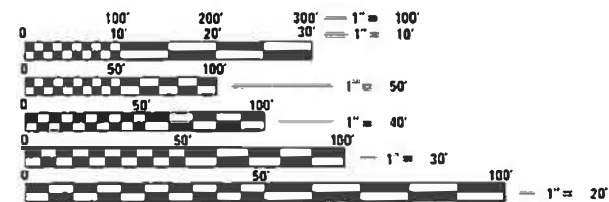
EXISTING ADT = 9850 (2018)
POSTED SPEED LIMIT = 30 MPH

I-94 (EDENS EXPRESSWAY):

EXISTING ADT = 153900 (2018)
POSTED SPEED LIMIT = 55 MPH

THE IMPROVEMENT IS LOCATED IN
THE VILLAGE OF SKOKIE

LOCATION OF
IMPROVEMENT:
SN 016-0825

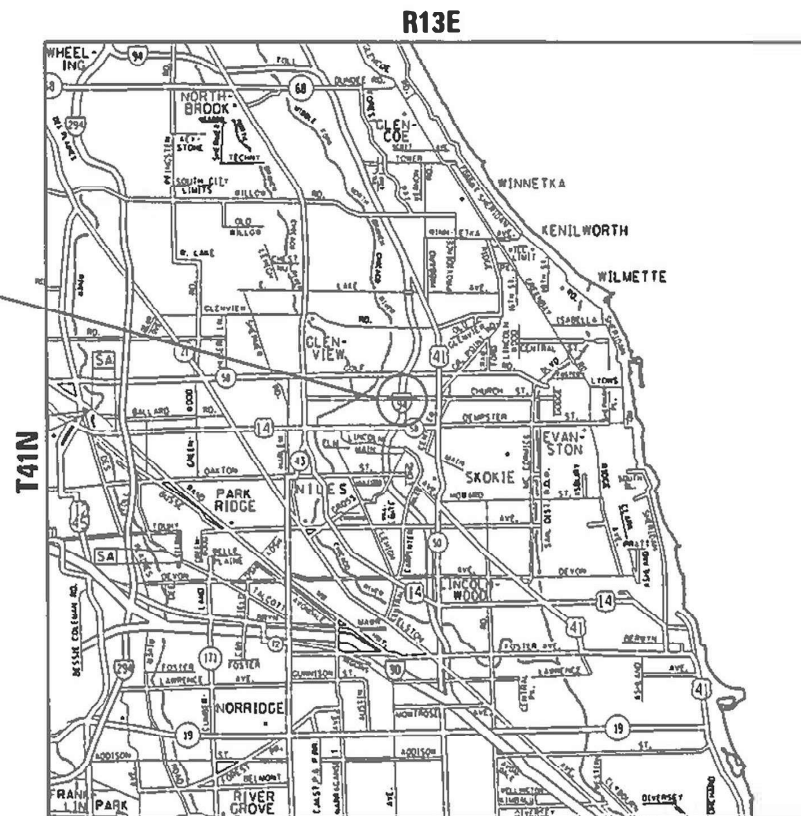


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: ALAIN MIDY (847) 221-3056
PROJECT MANAGER: FAWAD AQUEEL (847) 705-4247

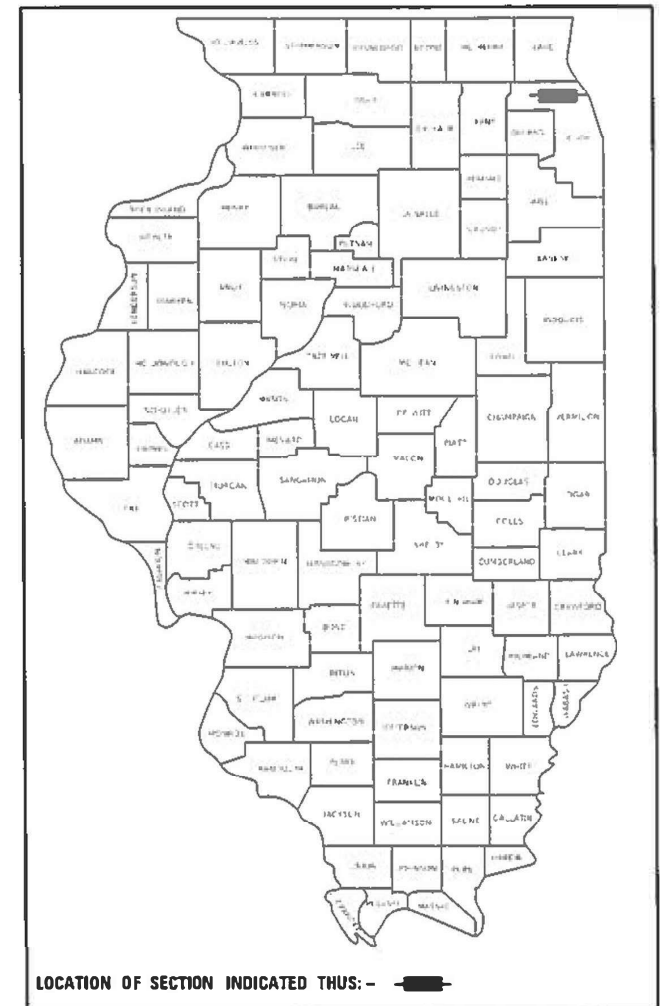
CONTRACT NO. 62J98



NILES TOWNSHIP

GROSS LENGTH = 60 FT. = 0.0114 MILE
NET LENGTH = 60 FT. = 0.0114 MILE

D-91-272-20



LOCATION OF SECTION INDICATED THUS: - [black rectangle] -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED DECEMBER 17, 2019
Anthony J. Danzig/ORS
REGIONAL ENGINEER
May 8, 2020
Scott A. Elk
ENGINEER OF DESIGN AND ENVIRONMENT
May 8, 2020
James J. ...
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

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STATE STANDARDS

- 701006-05 OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701011-04 OFF-RD MOVING OPERATIONS, 2L, 2W, DAY ONLY
- 701301-04 LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
- 701311-03 LANE CLOSURE 2L, 2W MOVING OPERATIONS - DAY ONLY
- 701400-09 APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701401-12 LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701411-09 LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMP, FOR SPEEDS > 45 MPH
- 701428-01 TRAFFIC CONTROL SETUP AND REMOVAL FREEWAY/EXPRESSWAY
- 701446-10 TWO LANE CLOSURE, FREEWAY/EXPRESSWAY
- 701501-06 URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
- 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

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, AND THE VILLAGE OF SKOKIE.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.

BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV FOR ARTERIALS AND (847) 705-4151 FOR EXPRESSWAYS A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE ENGINEER SHALL CONTACT DON CHIARUGI, AREA TRAFFIC FIELD ENGINEER, AT DON.CHIARUGI@ILLINOIS.GOV A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF MAINTENANCE.

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SHOWN IN THE PLANS.

THE "ARTERIAL ROAD INFORMATION SIGN (TC-22)" IS APPLICABLE ONLY TO ARTERIAL ROADS AND SHALL NOT BE APPLIED TO EXPRESSWAYS.

THE CONTRACTOR SHALL REQUEST AND GAIN APPROVAL FROM THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S EXPRESSWAY TRAFFIC OPERATIONS ENGINEER AT WWW.IDOTLCS.COM TWENTY-FOUR (24) HOURS IN ADVANCE OF ALL DAILY LANE, RAMP AND SHOULDER CLOSURES AND 7 DAYS IN ADVANCE OF ALL PERMANENT AND WEEKEND CLOSURES ON ALL FREEWAYS AND/OR EXPRESSWAYS IN DISTRICT ONE. THIS ADVANCE NOTIFICATION IS CALCULATED BASED ON WORKWEEK OF MONDAY THROUGH FRIDAY AND SHALL NOT INCLUDE WEEKENDS OR HOLIDAYS.

A MAINTENANCE OF TRAFFIC PLAN SHALL BE SUBMITTED TO THE DISTRICT ONE EXPRESSWAY TRAFFIC CONTROL SUPERVISOR 14 DAYS IN ADVANCE OF ANY STAGE CHANGES OR FULL EXPRESSWAY CLOSURES. THE MAINTENANCE OF TRAFFIC PLAN SHALL INCLUDE, BUT NOT BE LIMITED TO: LANE AND RAMP CLOSURES, EXISTING GEOMETRICS, AND EQUIPMENT AND MATERIAL LOCATION.

GENERAL NOTES (CONTINUED)

THE CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO INSURE THAT NO DEBRIS WILL ENDANGER OR INTERFERE WITH TRAFFIC ON THE ROADWAY (OR THE RAILROAD) BENEATH THE BRIDGE ACCORDING TO ARTICLE 107.09 (OR 107.12) OF THE STANDARD SPECIFICATIONS. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR THE APPROPRIATE PAY ITEM INVOLVED AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

CONCRETE SUPERSTRUCTURE (OR CONCRETE WEARING SURFACE) SHALL HAVE A SEVEN DAY MINIMUM CURE.

ALL VERTICAL CLEARANCE SIGNAGE, IF EXISTING, SHALL BE RESTORED TO THE CONDITION EXISTING PRIOR TO THE START OF WORK ASSOCIATED WITH THIS CONTRACT.

THE CONTRACTOR SHALL SALVAGE AND RETURN THE EXISTING STEEL CARRIER BEAM (BEAM SIZE, BEAM LENGTH) TO:
 DISTRICT BRIDGE MAINTENANCE YARD
 1101 BIESTERFIELD RD.
 ELK GROVE VILLAGE, IL 60007
 DELIVERY BETWEEN 8 AM AND 2 PM
 CONTACT JOHN BILSKI AT (847) 956-1444 AT LEAST 24 HOURS IN ADVANCE. THIS WORK SHALL INCLUDE REMOVING, TRANSPORTING AND UNLOADING THE EXISTING CARRIER BEAM TO THE ABOVE YARD WHICH COST IS INCLUDED IN THE COST OF "STRUCTURAL STEEL REMOVAL."

WHEN REMOVING THE EXISTING DAMAGED BEAM, THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO ENSURE THAT THE DECK AND THE BEAM ARE PROPERLY SUPPORTED DURING THE ENTIRE REMOVAL OPERATION SO AS TO PROTECT THE TRAFFIC AND PAVEMENT ON AND BELOW THE BRIDGE. THE CONTRACTOR SHALL SUBMIT THE REMOVAL SEQUENCE AND PROCEDURE TO THE ENGINEER FOR APPROVAL PRIOR TO REMOVAL OF THE EXISTING DECK, DAMAGED BEAM OR CARRIER BEAM. THIS COST IS INCLUDED IN THE COST OF "STRUCTURAL STEEL REMOVAL."

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES
 I-94 (EDENS EXPRESSWAY) AT CHURCH ST.**

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2019-126-BR	COOK	20	2
CONTRACT NO. 62J98				
ILLINOIS FED. AID PROJECT				

REV. - MS

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	0013 MCHD 812338				
50102400	CONCRETE REMOVAL	CU YD	6.2	6.2				
50300255	CONCRETE SUPERSTRUCTURE	CU YD	6.2	6.2				
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	29110	29110				
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	230	230				
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6				
67100100	MOBILIZATION	L SUM	1	1				
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1	1				
70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	6031	6031				
70300912	PAVEMENT MARKING TAPE, TYPE IV 12"	FOOT	229	229				
70400100	TEMPORARY CONCRETE BARRIER	FOOT	350	350				
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	350	350				
70600235	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE), TEST LEVEL 2	EACH	2	2				
70600320	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 2	EACH	2	2				
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1122	1122				

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE					
CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	0013 MCHD 812338				
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	97	97				
* 78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	885	885				
* 78009012	MODIFIED URETHANE PAVEMENT MARKING - LINE 12"	FOOT	65	65				
78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	48	48				
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SO FT	831	831				
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1				
X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1	1				
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SO FT	2239	2239				
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	29110	29110				
Z0001905	STRUCTURAL STEEL REPAIR	POUND	600	600				
Z0003600	BEAM STRAIGHTENING	L SUM	1	1				
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	51.4	51.4				
Z0073300	TEMPORARY SHORING AND CRIBBING	L SUM	1	1				
Z0073351	TEMPORARY SLAB SUPPORT SYSTEM	L SUM	1	1				

REV. - MS

FILE NAME =	USER NAME = rdhjp	DESIGNED -	REVISED -
pw:\planroom\dtd\111\mof.gov\PI\001\Documents\VDOT	Offices\District\Projects\0127220\CAD\010\Design\0127220-4	DRAWN -	REVISED -
	PLOT SCALE = 100,0000' / 1"	CHECKED -	REVISED -
	PLOT DATE = 12/19/2019	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

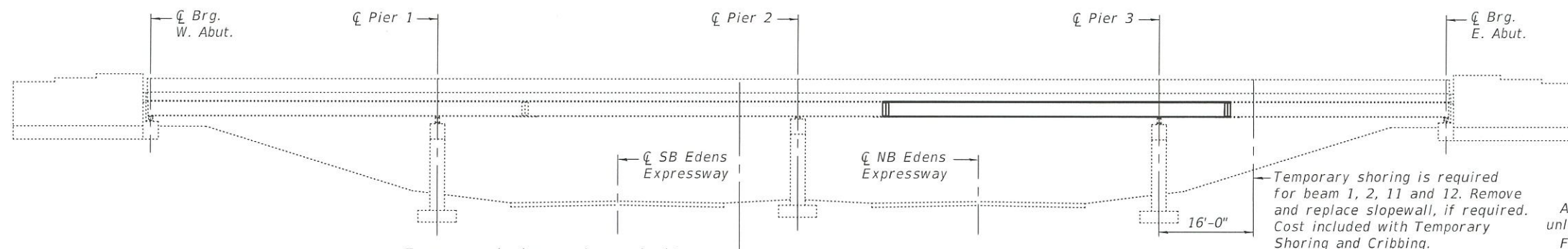
**SUMMARY OF QUANTITIES
I-94 (EDENS EXPRESSWAY) AT CHURCH ST.**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2019-126-BR	COOK	20	3
CONTRACT NO. 62J98				

SCALE: SHEET NO. 1 OF 1 SHEETS STA. TO STA.

* SPECIALTY ITEMS

REACTION TABLE AT TEMPORARY SHORING	
∅	(k) 28
L	(k) 33
Imp.	(k) 10
Total	(k) 71



Temporary shoring may be required to facilitate alignment of existing splice. Use 12"x12" Timbers or HP's to be paid for as Temporary Shoring and Cribbing. The shoring shall be removed as soon as possible after the splice is completed to minimize Traffic Control.

ELEVATION

Temporary shoring is required for beam 1, 2, 11 and 12. Remove and replace slopewall, if required. Cost included with Temporary Shoring and Cribbing.

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
 Fasteners shall be high strength bolts. Bolts 7/8" ∅, open holes 1 1/16" ∅, unless otherwise noted.
 Diaphragm connection holes shall be 1 1/16" ∅ for 3/4" ∅ bolts. Two hardened washers shall be required at diaphragm connections.
 Reinforcement bars designated (E) shall be epoxy coated.
 The Contractor shall provide support and/or shoring systems for the slab and beam in the area of existing beam removal. See Special Provisions "Temporary Shoring and Cribbing" and "Temporary Slab Support System."
 After the new beam is in its final position and/or beam straightening operations have been completed, the Engineer in the field shall check to see that the top flange is tight against the slab. If not, the Contractor shall inject epoxy between the existing concrete deck and the top flange of the beam. See Special Provision "Epoxy Injection".

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 based at the unit price bid for the work.

Cost of removal and/or re-installation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included in the cost of Furnishing and Erecting Structural Steel.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell no. 5B7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR3/4

The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

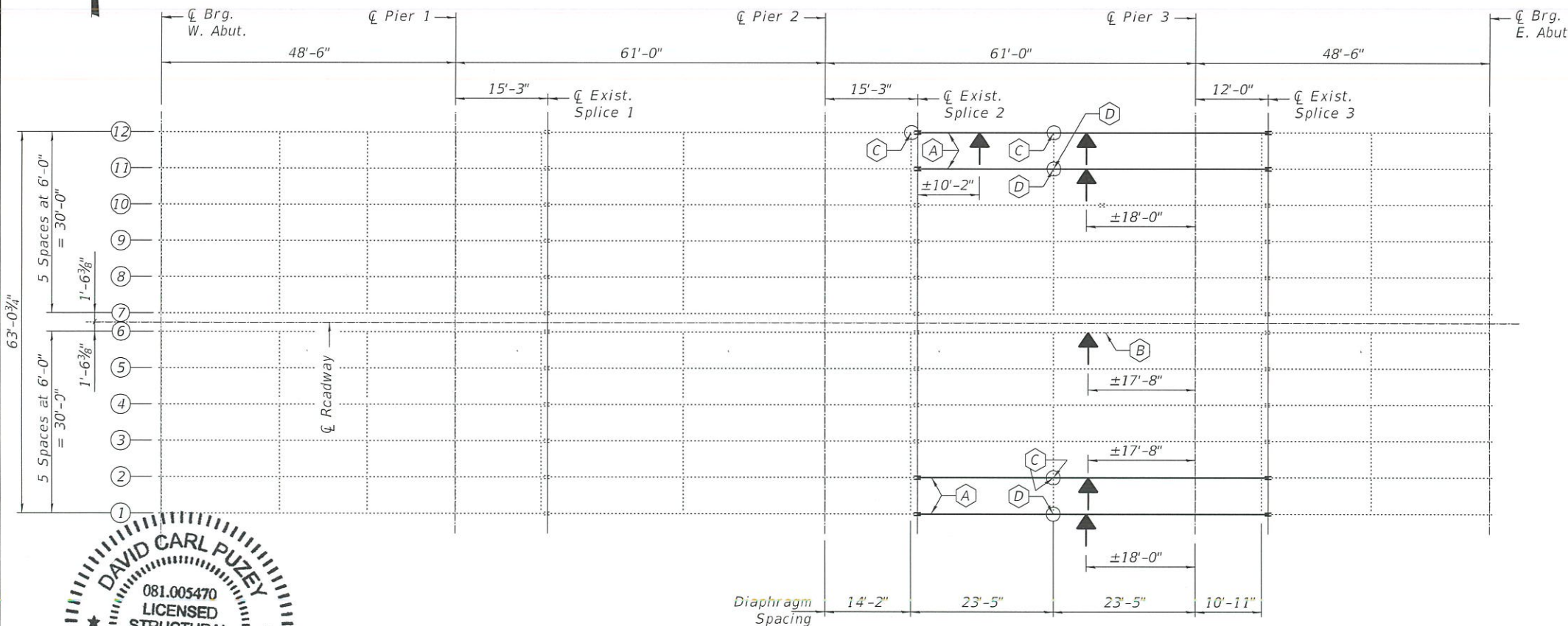
Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2. These components are the wide flange beams, cover R's, strengthening R's and all splice plate material except fill plates.

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

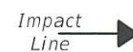
Contractor has the option of reusing existing carrier beam as a temporary slab support system but beam must be returned to the day labor yard upon removal from structure.

BILL OF MATERIAL

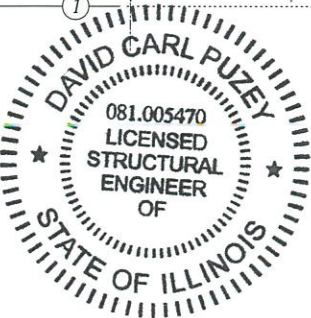
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	6.2
Concrete Superstructure	Cu. Yd.	6.2
Furnishing and Erecting Structural Steel	Pound	29110
Structural Steel Removal	Pound	29110
Structural Steel Repair	Pound	600
Reinforcement Bars, Epoxy Coated	Pound	230
Temporary Slab Support System	L.S.	1
Beam Straightening	L.S.	1
Temporary Shoring and Cribbing	L.S.	1



PLAN



- (A) - Remove and replace beam section.
- (B) - Beam straightening and strengthening.
- (C) - Remove and replace lower clip angle.
- (D) - Remove and replace upper and lower clip angle's.



EXPIRES 11-30-2020

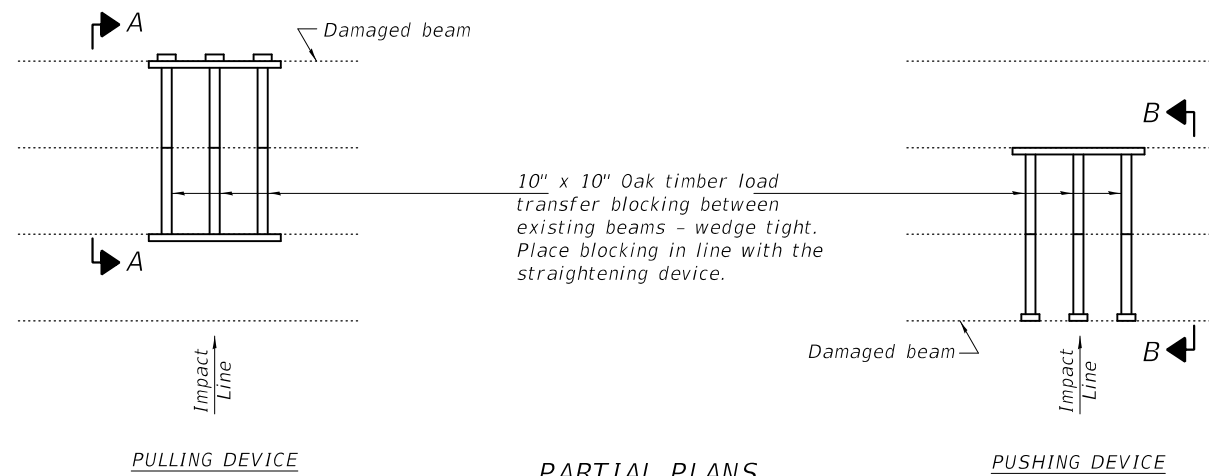
DESIGNED - <i>Stephen M. Ryan</i>	EXAMINED - <i>T. A. D. D. A.</i>	DATE - JANUARY 24, 2020
CHECKED - <i>Ken R.</i>	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Reddy	PASSED - <i>David Carl Puzey</i>	REVISD -
CHECKED - <i>SMR ASR</i>	ENGINEER OF BRIDGES AND STRUCTURES	REVISD -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

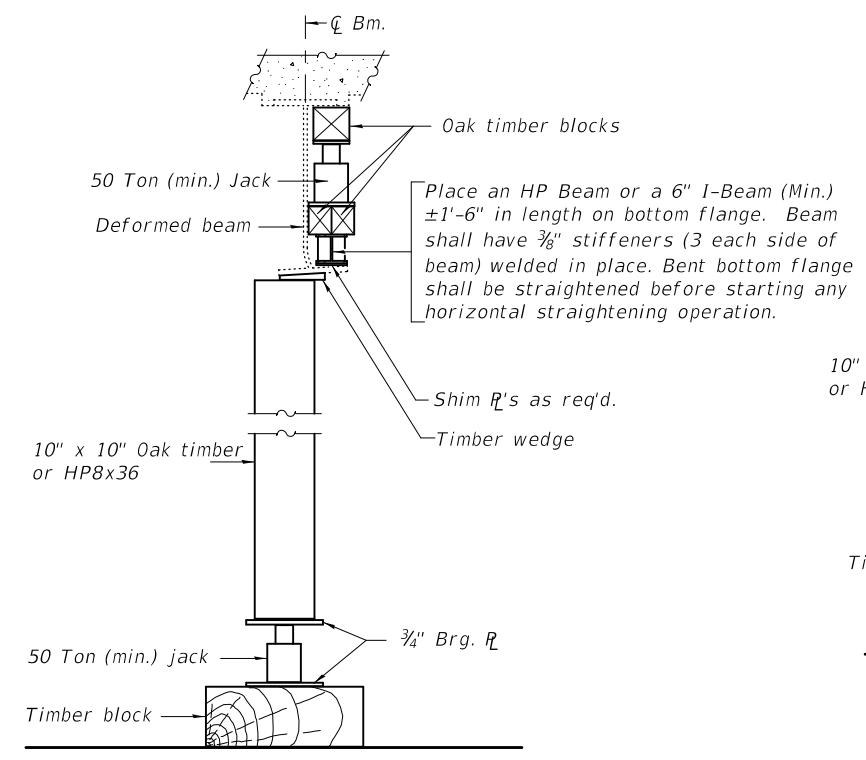
GENERAL PLAN AND ELEVATION
FA 99 OVER I-94 EDENS
SN 016-0825

SHEET NO. 1 OF 5 SHEETS

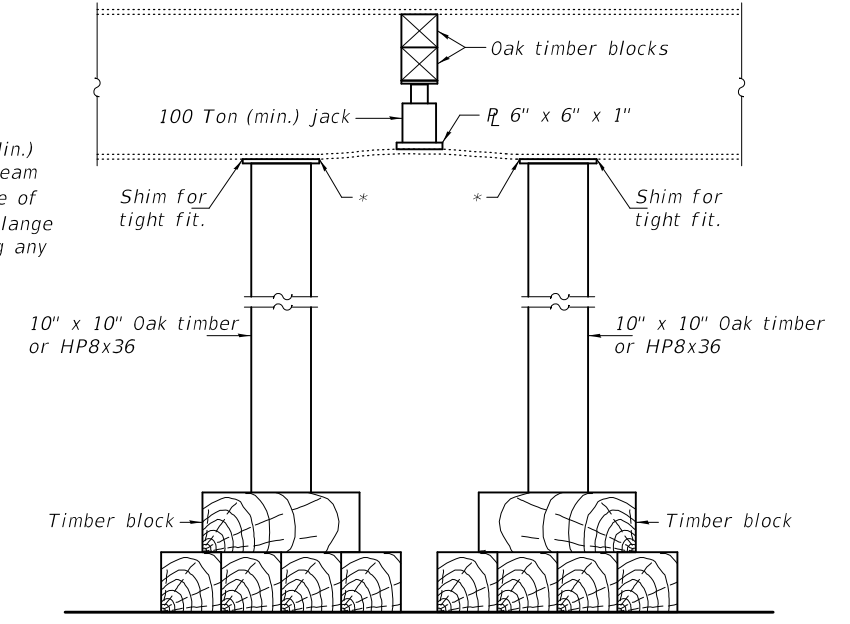
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
99	2019-126-BR	COOK	20	4
CONTRACT NO. 62J98				
ILLINOIS FED. AID PROJECT				



PARTIAL PLANS
SUGGESTED BEAM STRAIGHTENING METHODS
 Straightening force shall be maintained on all load transfer blocking during beam straightening.

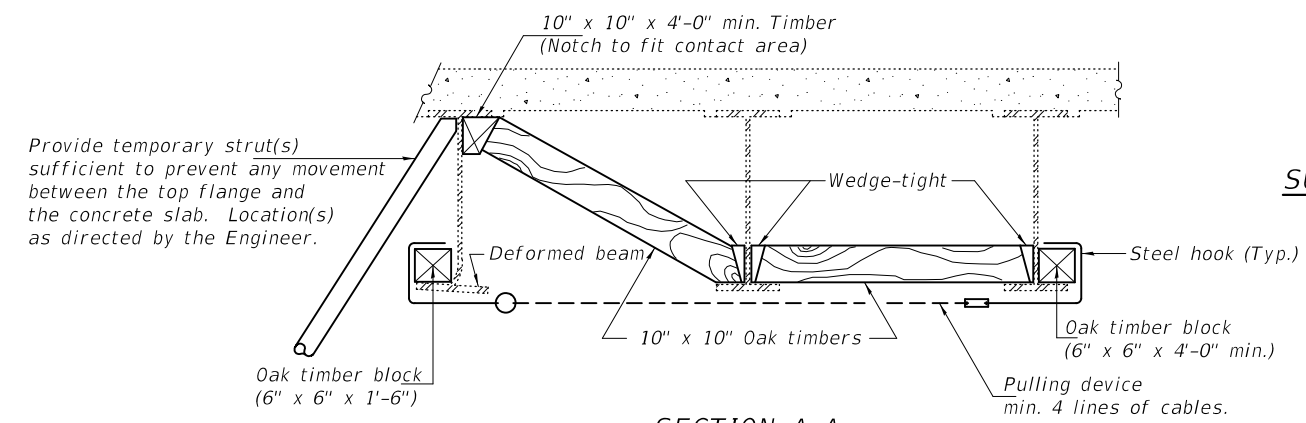


SUGGESTED VERTICAL STRAIGHTENING DETAIL
 (To correct flange rotation.)

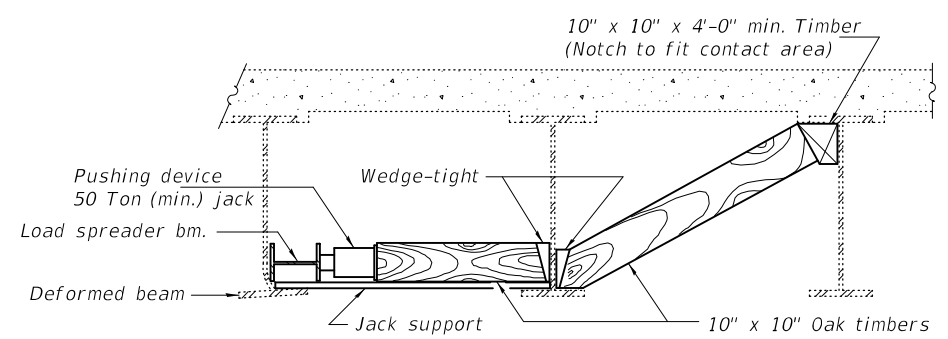


SUGGESTED VERTICAL STRAIGHTENING DETAIL
 (To correct localized vertical flange deformations.)

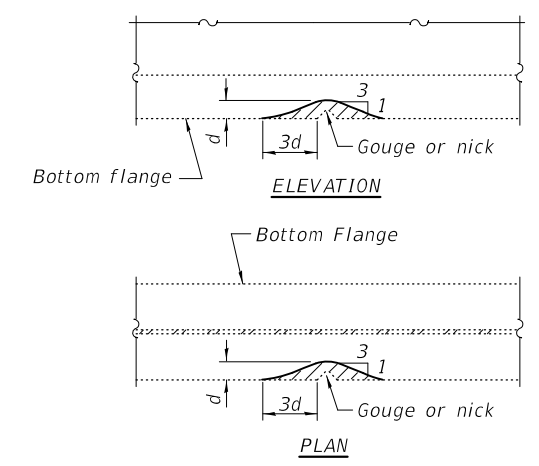
Note:
 Braces and jack assembly shall be placed on same side of web.
 Bent bottom flange shall be straightened before starting any horizontal straightening operations.



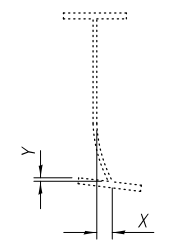
SECTION A-A



SECTION B-B



GRINDING DETAIL



EXISTING DEFORMATION TO BE STRAIGHTENED
 (Looking North)
 (Approximate max. deflections)
 Deflected length of beam to be straightened is approximately 8'-0".

BILL OF MATERIAL

Location	X	Y
Beam 1, Span 3	**	**
Beam 2, Span 3	1 1/2"	2"
Beam 6, Span 3	1/2"	3/4"
Beam 11, Span 3	**	**
Beam 12, Span 3	4 7/8"	7/8"

** Beam Fractured

REP-1 8-16-2018

DESIGNED - SMR
 CHECKED - AJR
 DRAWN - Venkat Reddy
 CHECKED - SMR

EXAMINED
 PASSED
 ENGINEER OF STRUCTURAL SERVICES
 ENGINEER OF BRIDGES AND STRUCTURES

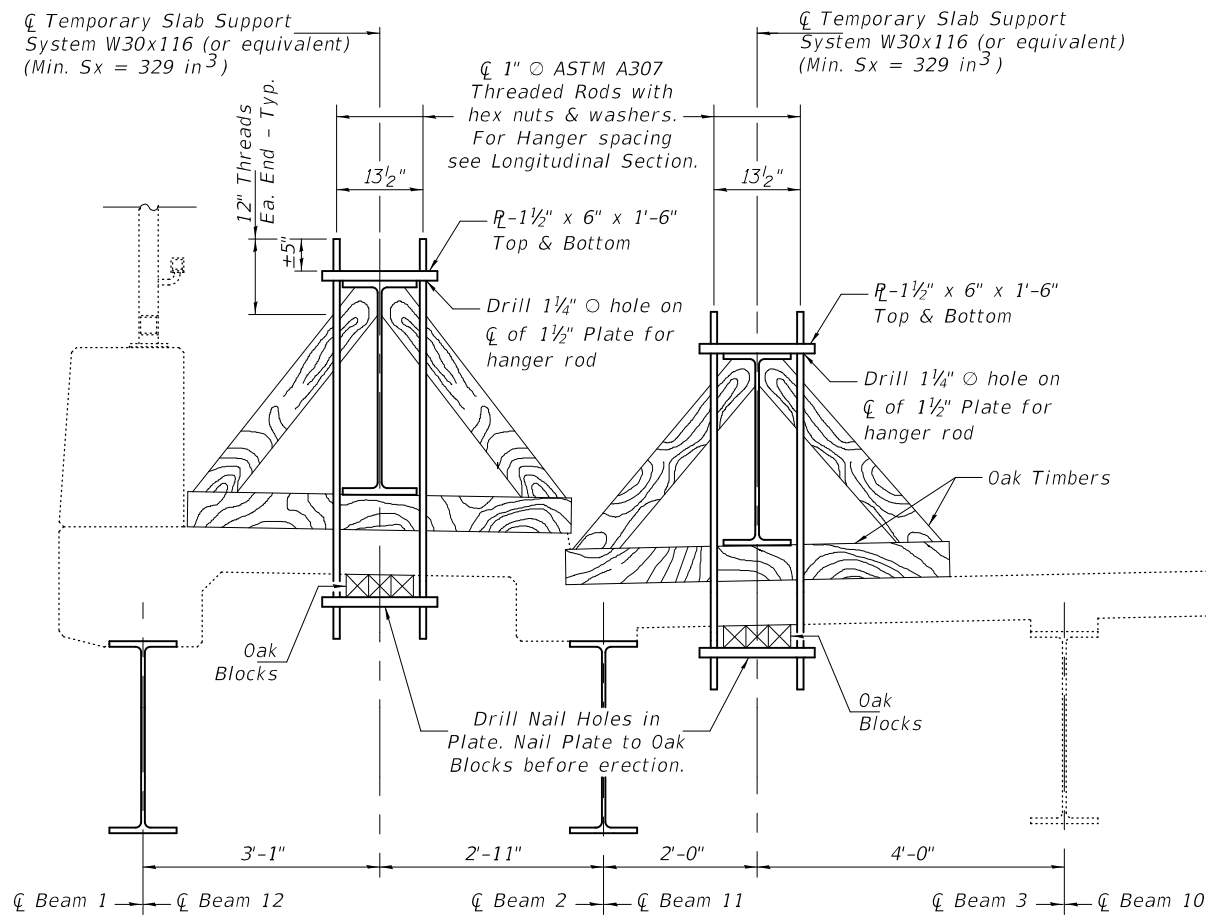
DATE - JANUARY 24, 2020
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

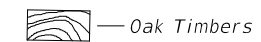
BEAM STRAIGHTENING DETAILS
 SN 016 - 0825

SHEET NO. 2 OF 5 SHEETS

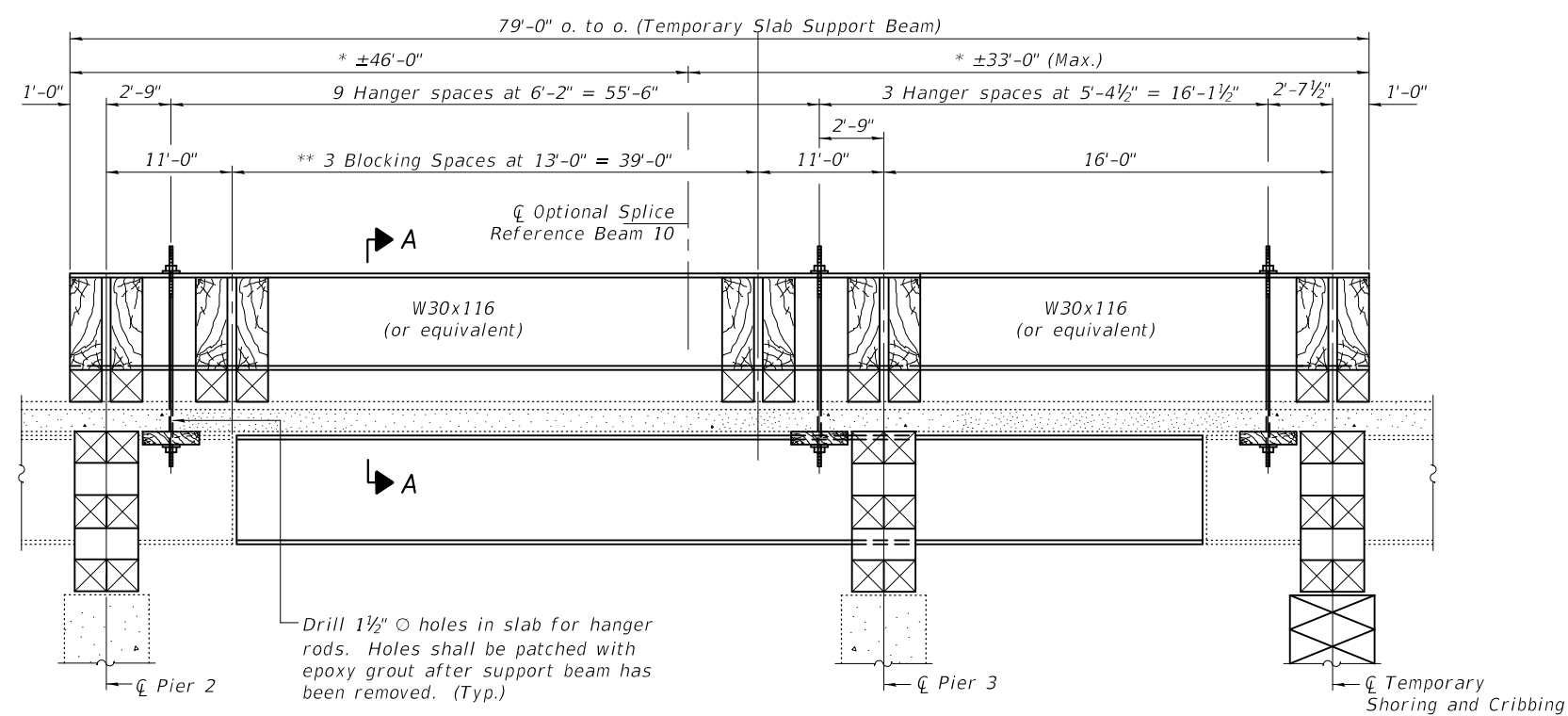
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
99	2019-126-BR	COOK	20	5
CONTRACT NO. 62J98				
ILLINOIS FED. AID PROJECT				



* These dimensions may vary for available beams in stock.
 ** Wood blocking between piers to be placed after support beam deflects under its own weight.

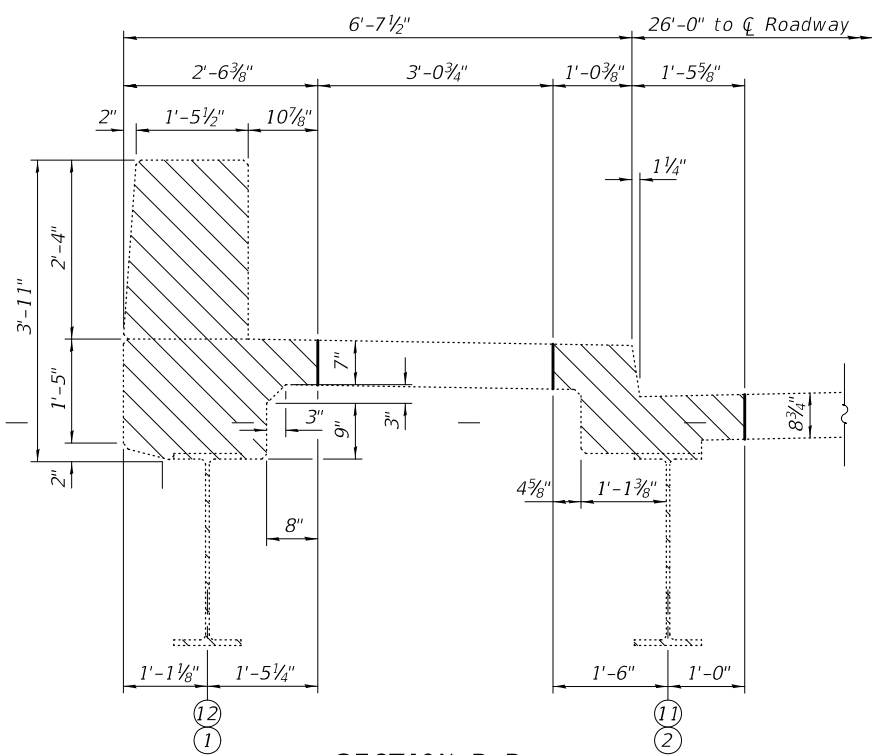


SECTION A-A

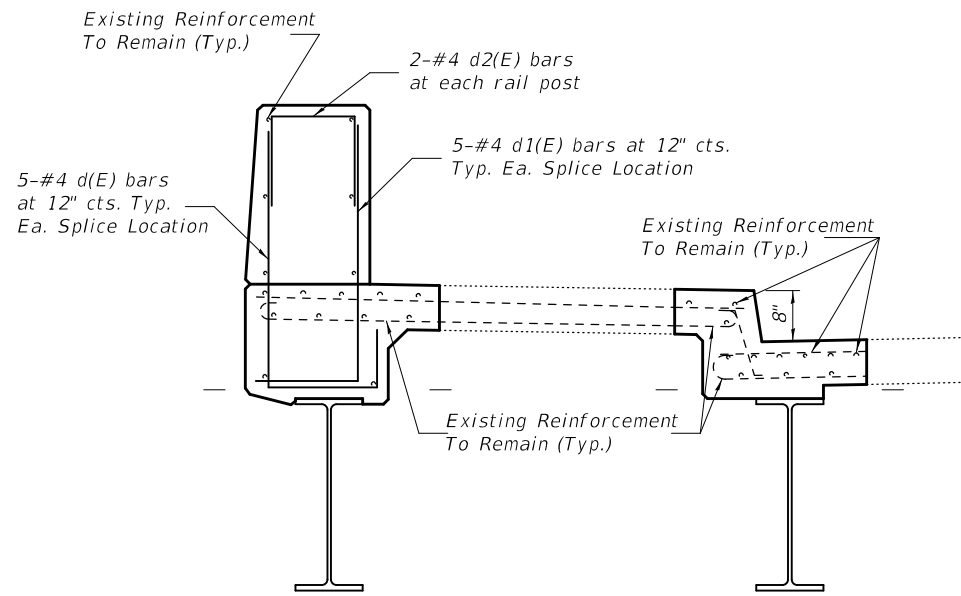


LONGITUDINAL SECTION BEAM 1, 2, 11 & 12
 SUGGESTED TEMPORARY SLAB SUPPORT SYSTEM

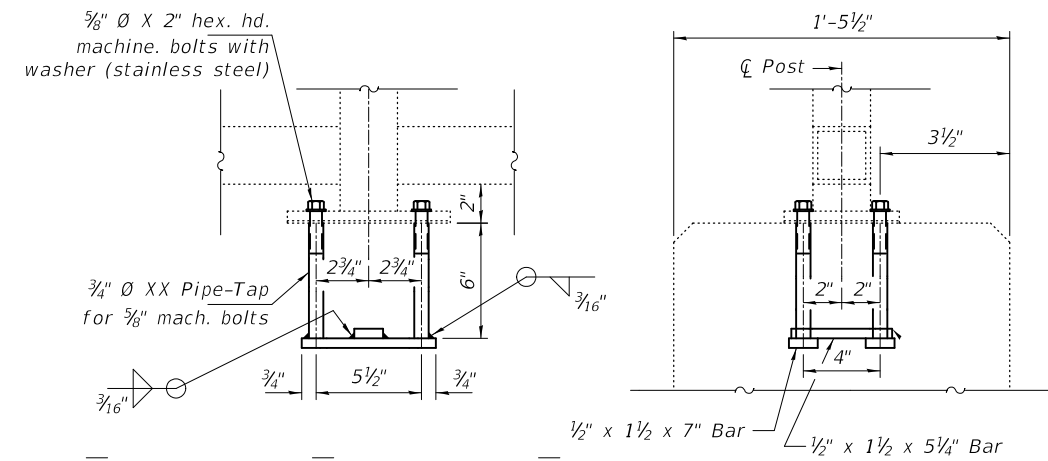
DESIGNED - SMR	EXAMINED - <i>Timothy A. Doolittle</i> ENGINEER OF STRUCTURAL SERVICES	DATE - JANUARY 24, 2020	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY SUPPORT DETAILS SN 016 - 0825	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED - AJR	PASSED - <i>Carl R. Berger</i> ENGINEER OF BRIDGES AND STRUCTURES	REVISED -			99	2019-126-BR	COOK	20	6
DRAWN - Venkat Reddy		REVISED -	SHEET NO. 3 OF 5 SHEETS		CONTRACT NO. 62J98				
CHECKED - SMR					ILLINOIS FED. AID PROJECT				



SECTION B-B
(Showing Dimensions and Concrete Removal)

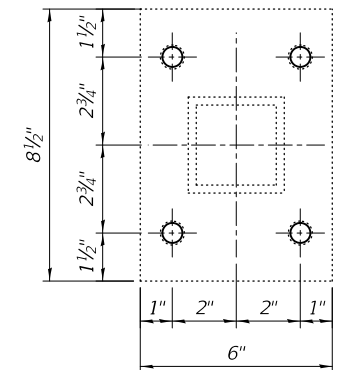


SECTION B-B
(Showing Reinforcement)



ANCHOR BOLTS DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and epoxy grouting 5/8\"/>



BASE R

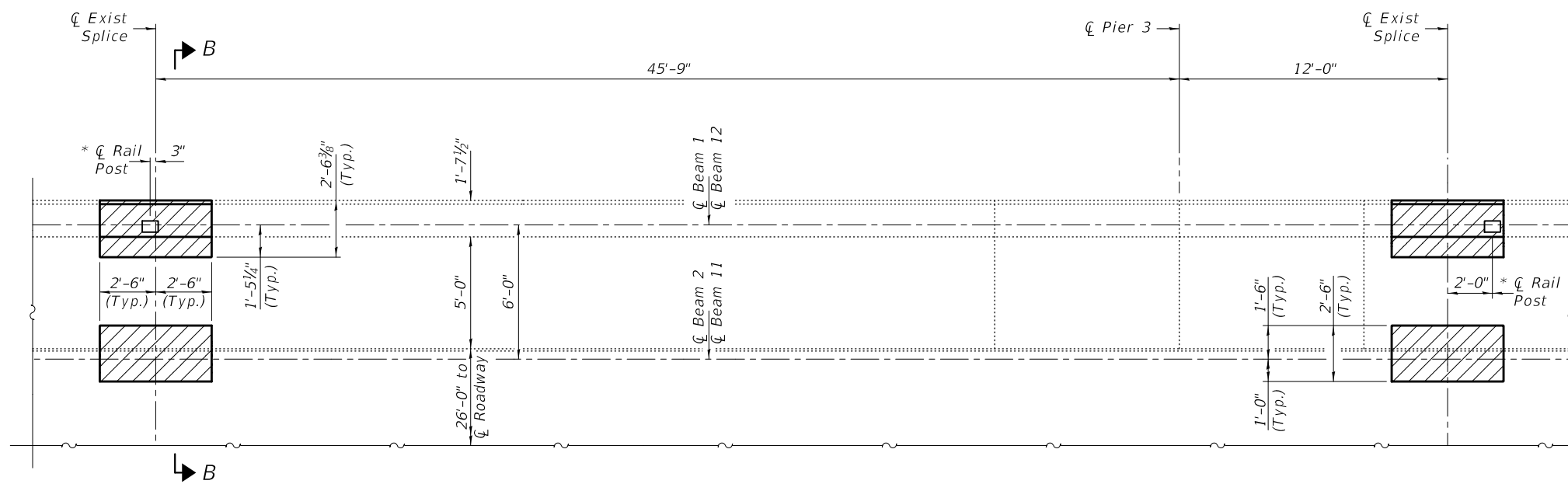
Note:

Existing reinforcement 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 shall be included with Concrete Removal.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	20	#4	5'-6"	L
d1(E)	20	#6	4'-8"	J
d2(E)	8	#4	3'-5"	U
Concrete Removal			Cu. Yd.	6.2
Concrete Superstructure			Cu. Yd.	6.2
Reinforcement Bars, Epoxy Coated			Pounds	230

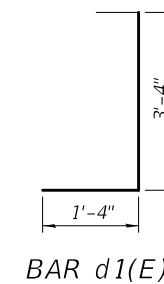
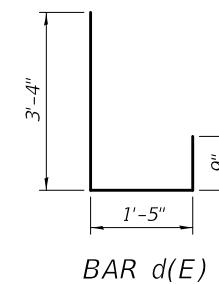
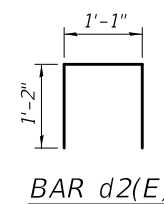
Reinforcement bars designated (E) shall be epoxy coated.



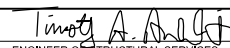
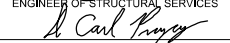
PARTIAL DECK PLAN
(Beams: 1, 2, 11 & 12)

Hatched areas indicate concrete sections to be removed and replaced. Perimeters of concrete removal area shall be sawcut.

* Remove, store and re-install existing post and railing, if necessary. Replace existing rail post anchors. Cost included with Concrete Removal.



DESIGNED - SMR
CHECKED - AJR
DRAWN - Venkat Reddy
CHECKED - SMR

EXAMINED
PASSED


 ENGINEER OF STRUCTURAL SERVICES
 ENGINEER OF BRIDGES AND STRUCTURES

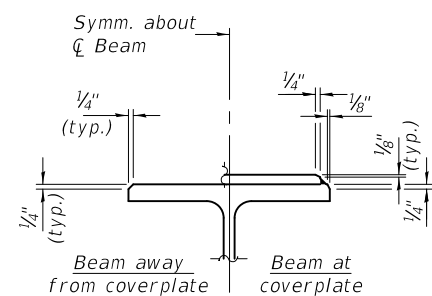
DATE - JANUARY 24, 2020
 REVISED -
 REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE DETAILS
SN 016 - 0825

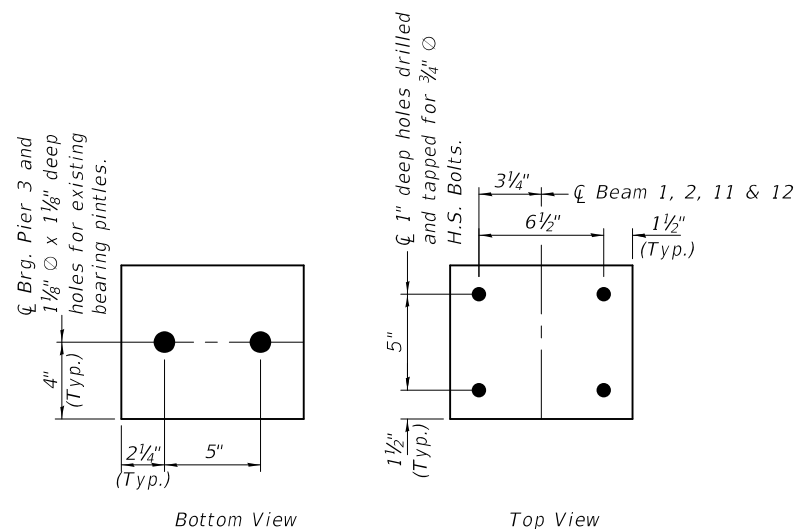
SHEET NO. 4 OF 5 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
99	2019-126-BR	COOK	20	7
CONTRACT NO. 62J98				
ILLINOIS FED. AID PROJECT				



SECTION C-C

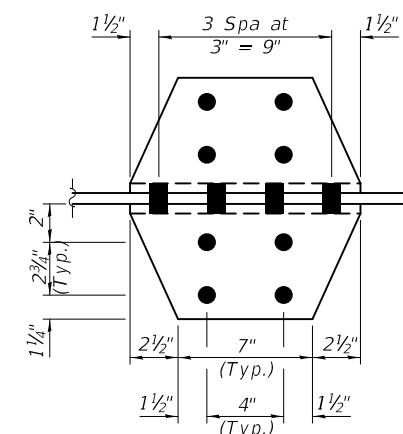
Bevel corners as shown in the shop. Additional grinding in the field may be required for fit into void in bottom of slab. Care shall be taken to avoid grinding of the coverplate fillet weld.



Bottom View

Top View

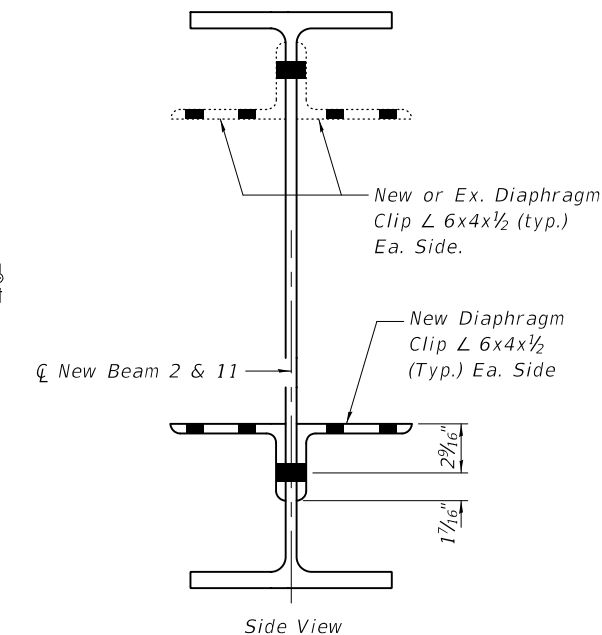
SOLE PLATE 2 1/4" x 8" x 9 1/2"



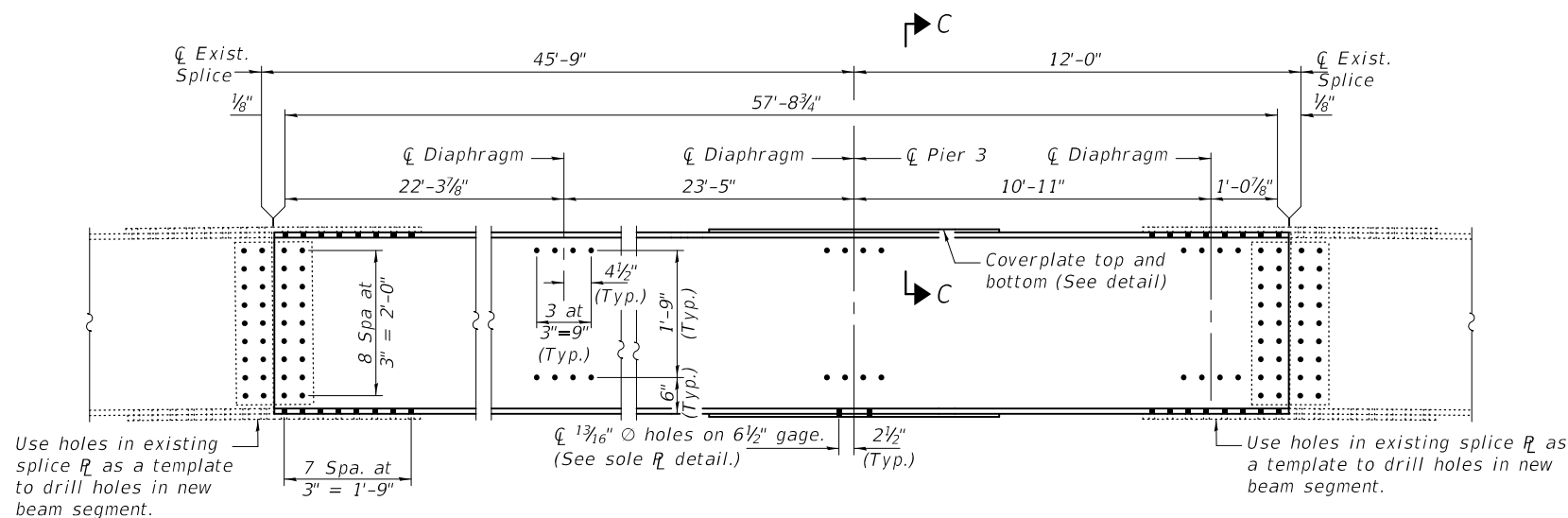
Top View

DIAPHRAGM CLIP ANGLE

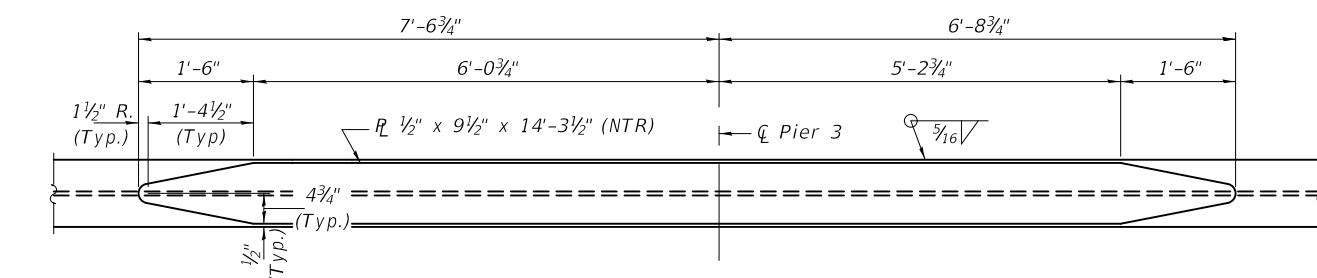
(Beams 2 & 11)



Side View

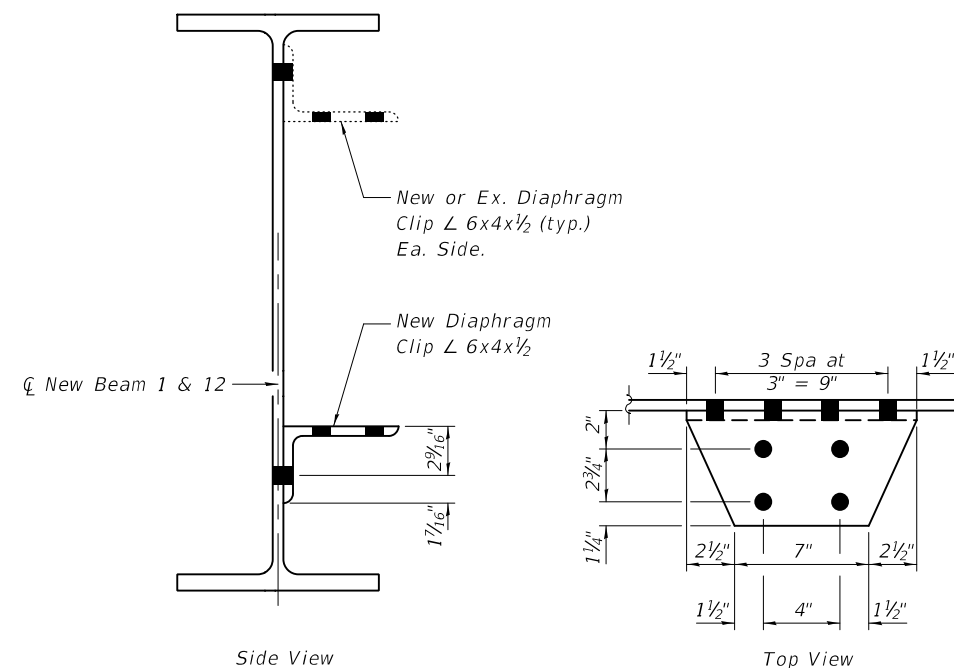


BEAM 1, 2, 11 & 12 - W30X116 (NTR)
(Looking North)



BEAMS 1, 2, 11 & 12 COVERPLATE DETAIL

Note:
Beam 6 strengthening billed as structural steel repair. New beam replacement and clip angle billed as Furnishing and Erecting Structural Steel.

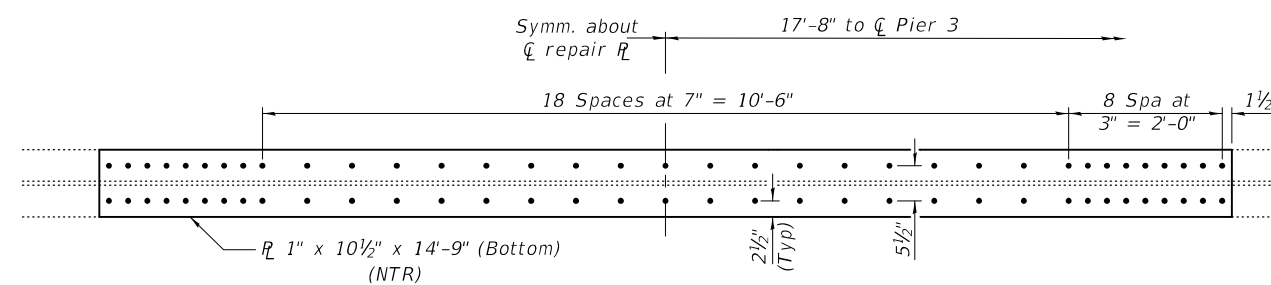


Side View

Top View

DIAPHRAGM CLIP ANGLE

(Beams 1 & 12)



BEAM 6 STRENGTHENING R

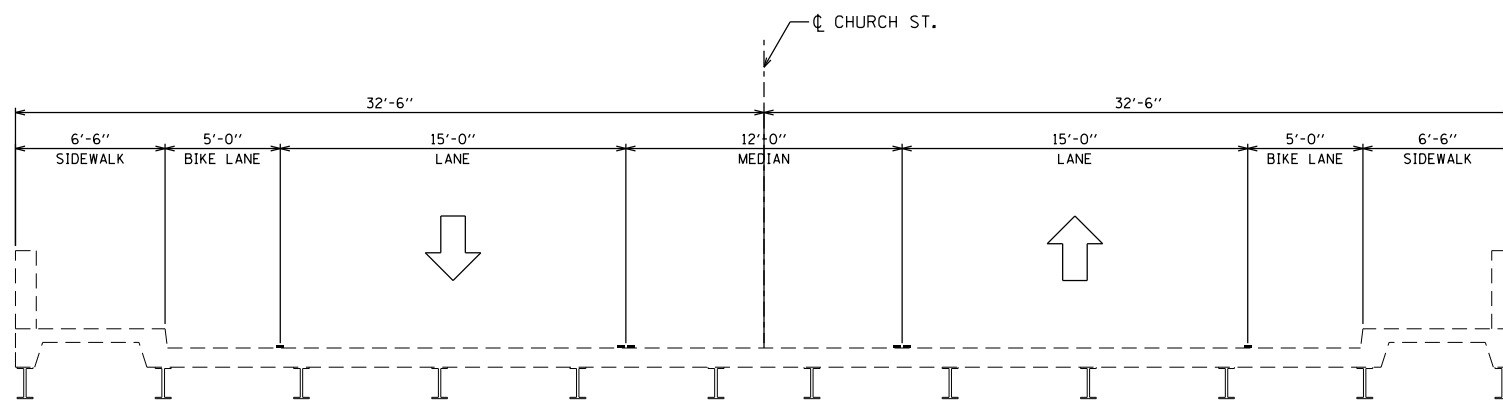
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CHECKED - AJR	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - Venkat Reddy	PASSED - <i>Carl R. Rupp</i>	REVISED -
CHECKED - SMR	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

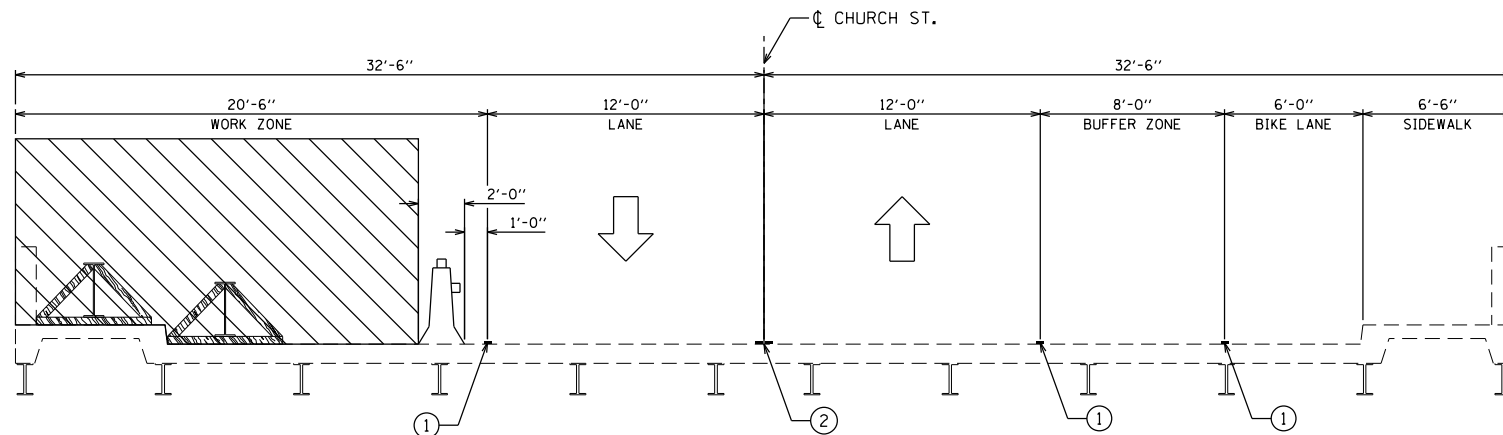
STEEL REPAIR DETAILS
SN 016 - 0825

SHEET NO. 5 OF 5 SHEETS

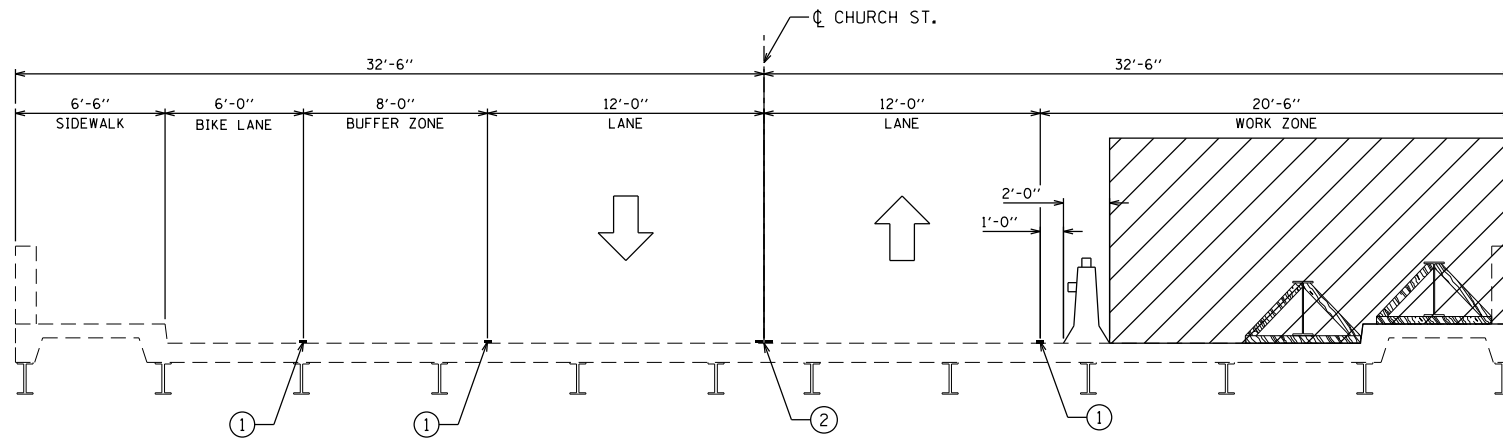
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
99	2019-126-BR	COOK	20	8
CONTRACT NO. 62J98				
ILLINOIS FED. AID PROJECT				



TYPICAL STRUCTURE SECTION
(LOOKING EAST)



STAGE 1 CONSTRUCTION
(LOOKING EAST)



STAGE 2 CONSTRUCTION
(LOOKING EAST)

- ① TEMPORARY PAVEMENT MARKING TAPE, TYPE IV
4 INCH, WHITE, SOLID EDGE LINE (TYP.)
- ② TEMPORARY PAVEMENT MARKING TAPE, TYPE IV
4 INCH, YELLOW, DOUBLE CENTERLINE (TYP.)

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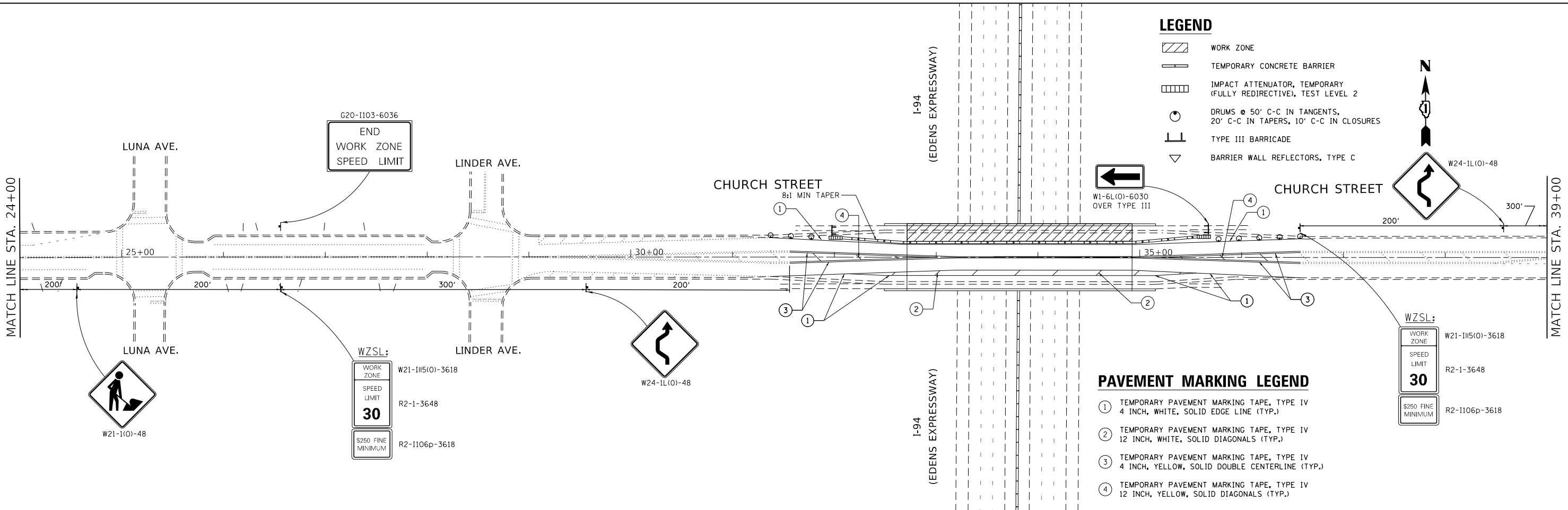
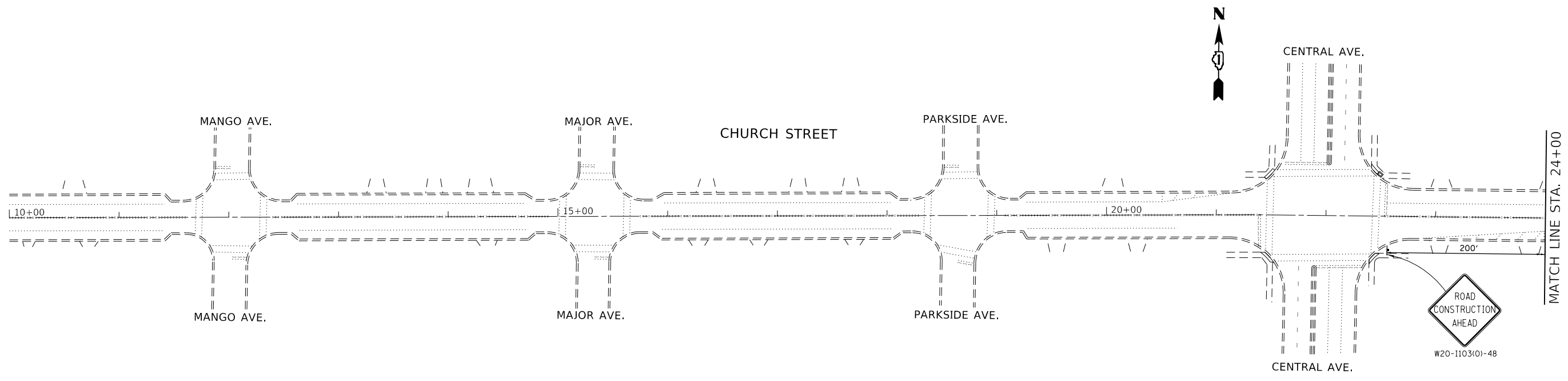
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PLOT DATE = 12/12/2019	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC TYPICAL SECTIONS
I-94 (EDENS EXPRESSWAY) AT CHURCH ST.

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2019-126-BR	COOK	20	9
CONTRACT NO. 62J98				
		ILLINOIS FED. AID PROJECT		



LEGEND

- WORK ZONE
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE), TEST LEVEL 2
- DRUMS @ 50' C-C IN TANGENTS, 20' C-C IN TAPERS, 10' C-C IN CLOSURES
- TYPE III BARRICADE
- BARRIER WALL REFLECTORS, TYPE C

PAVEMENT MARKING LEGEND

- ① TEMPORARY PAVEMENT MARKING TAPE, TYPE IV 4 INCH, WHITE, SOLID EDGE LINE (TYP.)
- ② TEMPORARY PAVEMENT MARKING TAPE, TYPE IV 12 INCH, WHITE, SOLID DIAGONALS (TYP.)
- ③ TEMPORARY PAVEMENT MARKING TAPE, TYPE IV 4 INCH, YELLOW, SOLID DOUBLE CENTERLINE (TYP.)
- ④ TEMPORARY PAVEMENT MARKING TAPE, TYPE IV 12 INCH, YELLOW, SOLID DIAGONALS (TYP.)

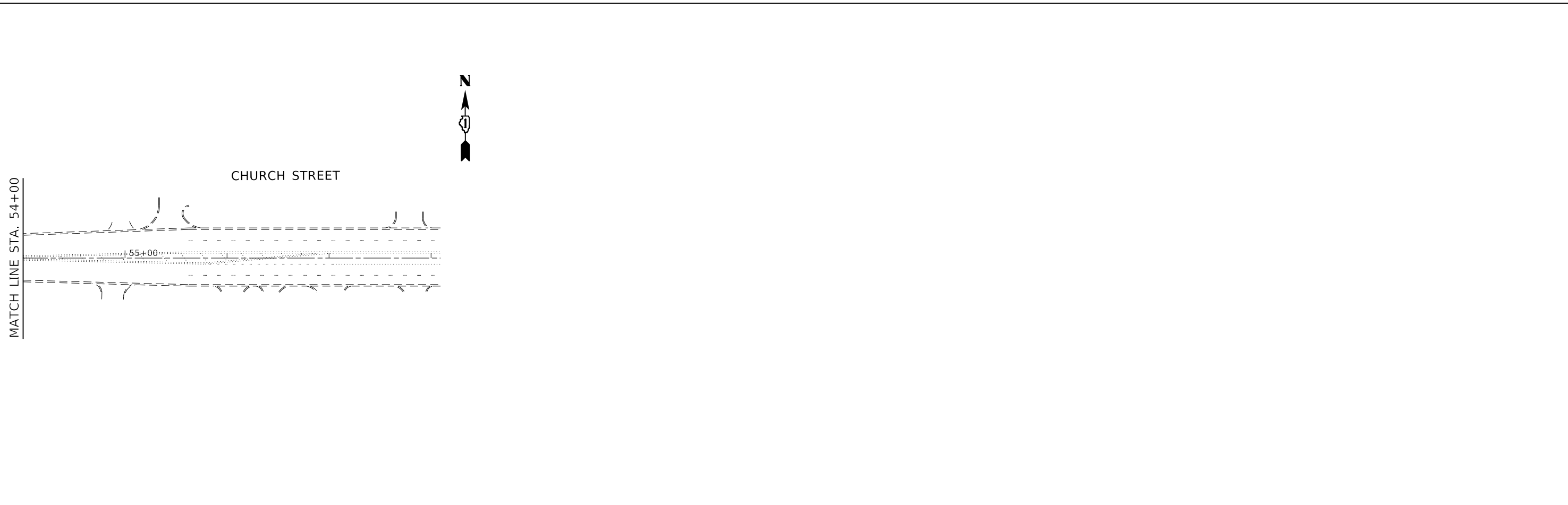
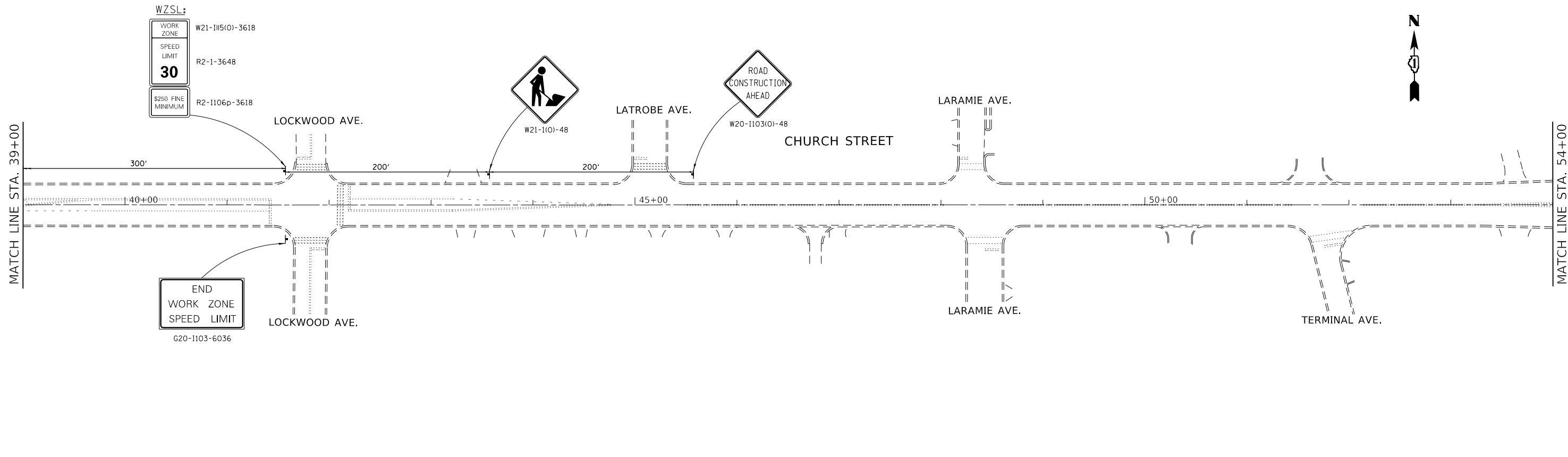
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

MAINTENANCE OF TRAFFIC (STAGE 1)	
I-94 (EDENS EXPRESSWAY) AT CHURCH ST.	
SCALE: 1"=50'	SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2019-126-BR	COOK	20	10
CONTRACT NO. 62J98				
ILLINOIS		FED. AID PROJECT		



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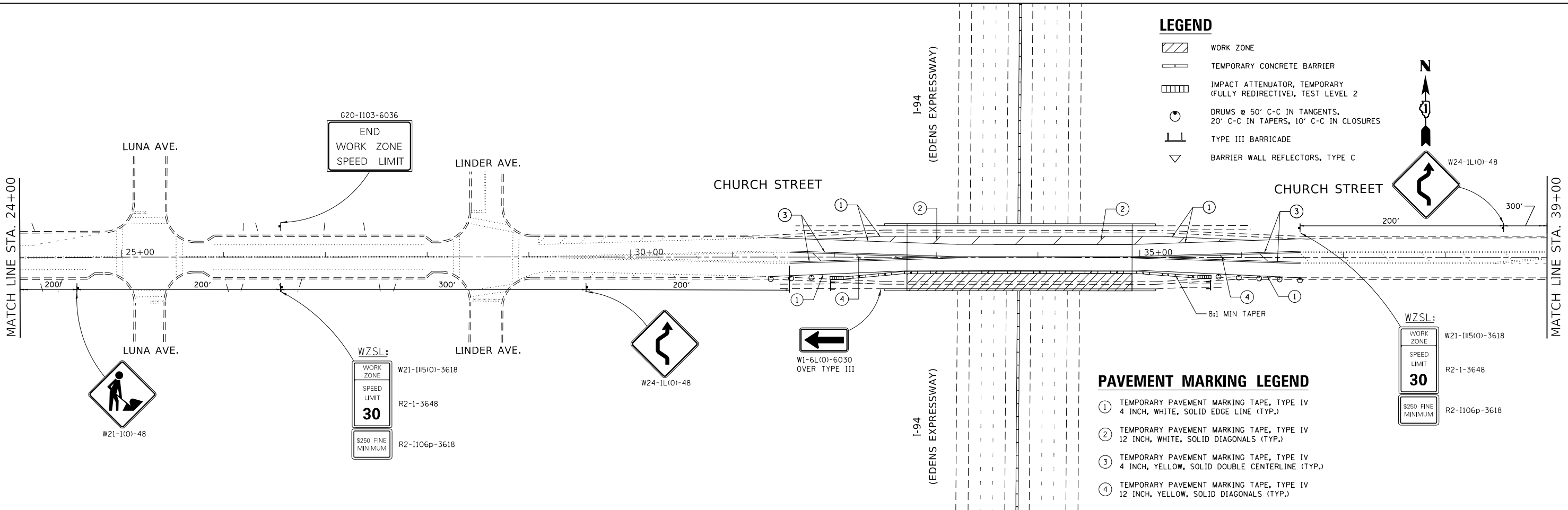
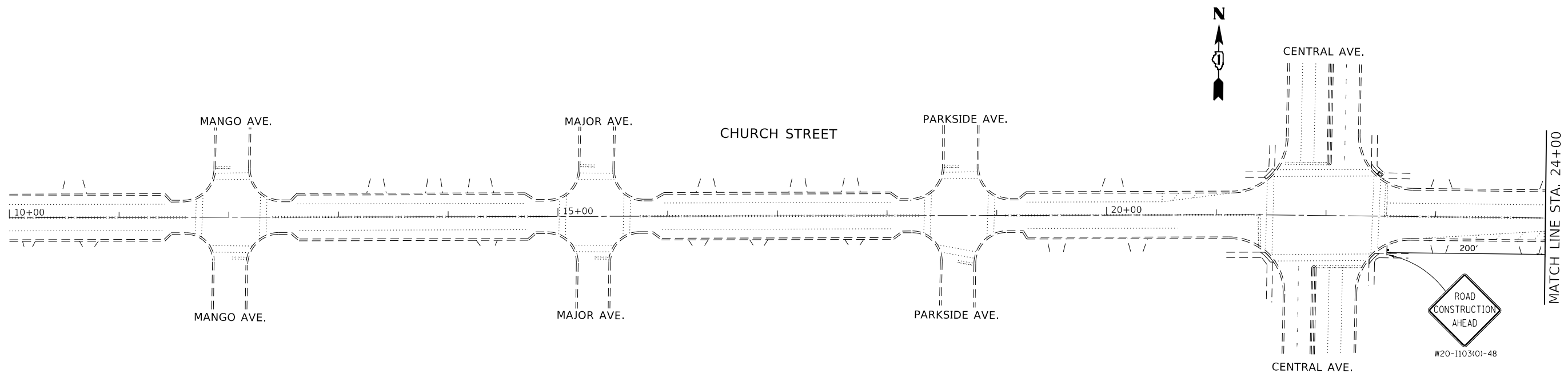
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	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC (STAGE 1)
I-94 (EDENS EXPRESSWAY) AT CHURCH ST.

SCALE: 1"=50' SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2019-126-BR	COOK	20	11
CONTRACT NO. 62J98				
ILLINOIS FED. AID PROJECT				



LEGEND

- WORK ZONE
- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR, TEMPORARY (FULLY REDIRECTIVE), TEST LEVEL 2
- DRUMS @ 50' C-C IN TANGENTS, 20' C-C IN TAPERS, 10' C-C IN CLOSURES
- TYPE III BARRICADE
- BARRIER WALL REFLECTORS, TYPE C

PAVEMENT MARKING LEGEND

- ① TEMPORARY PAVEMENT MARKING TAPE, TYPE IV 4 INCH, WHITE, SOLID EDGE LINE (TYP.)
- ② TEMPORARY PAVEMENT MARKING TAPE, TYPE IV 12 INCH, WHITE, SOLID DIAGONALS (TYP.)
- ③ TEMPORARY PAVEMENT MARKING TAPE, TYPE IV 4 INCH, YELLOW, SOLID DOUBLE CENTERLINE (TYP.)
- ④ TEMPORARY PAVEMENT MARKING TAPE, TYPE IV 12 INCH, YELLOW, SOLID DIAGONALS (TYP.)

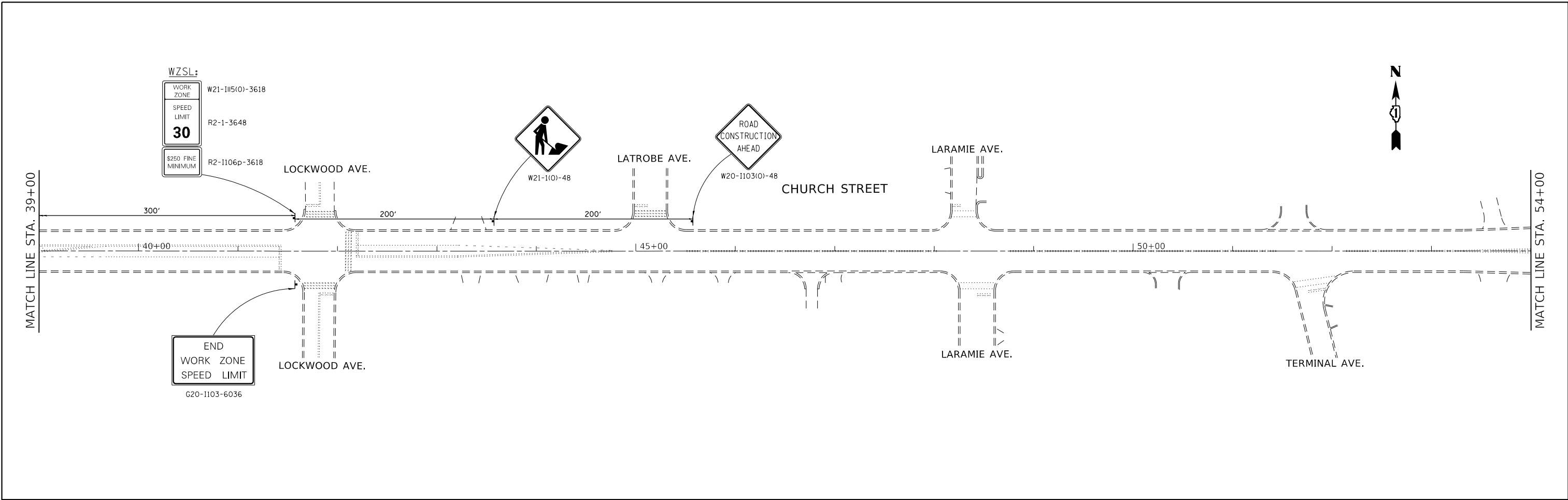
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PLOT DATE = 12/19/2019	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

MAINTENANCE OF TRAFFIC (STAGE 2)	
I-94 (EDENS EXPRESSWAY) AT CHURCH ST.	
SCALE: 1"=50'	SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2019-126-BR	COOK	20	12
CONTRACT NO. 62J98				
ILLINOIS FED. AID PROJECT				



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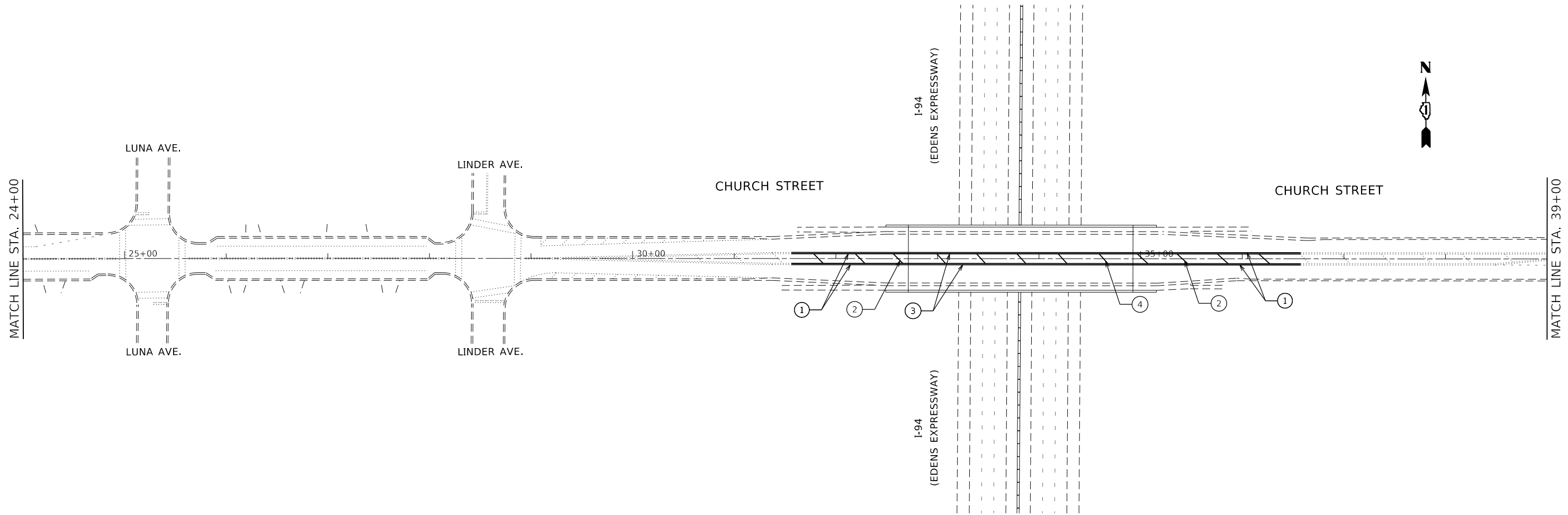
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	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC (STAGE 2)
I-94 (EDENS EXPRESSWAY) AT CHURCH ST.

SCALE: 1"=50' SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2019-126-BR	COOK	20	13
CONTRACT NO. 62J98				
ILLINOIS FED. AID PROJECT				



PAVEMENT MARKING LEGEND

- ① PROPOSED THERMOPLASTIC PAVEMENT MARKING
4 INCH, YELLOW, SOLID DOUBLE CENTERLINE (TYP.)
- ② PROPOSED THERMOPLASTIC PAVEMENT MARKING
12 INCH, YELLOW, SOLID DIAGONALS (TYP.)
- ③ PROPOSED MODIFIED URETHANE PAVEMENT MARKING
4 INCH, YELLOW, SOLID DOUBLE CENTERLINE (TYP.)
- ④ PROPOSED MODIFIED URETHANE PAVEMENT MARKING
12 INCH, YELLOW, SOLID DIAGONALS (TYP.)

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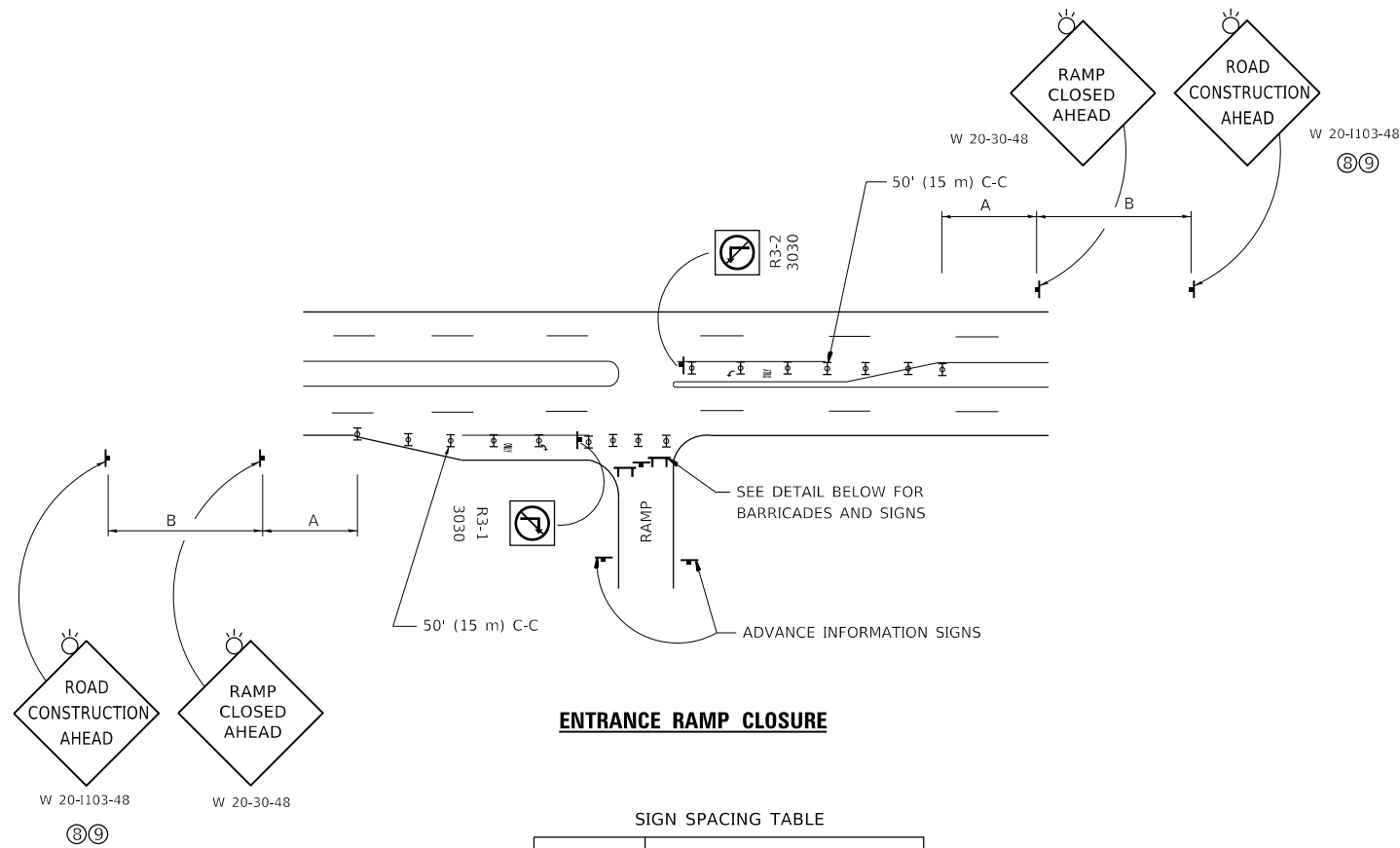
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED PAVEMENT MARKING PLAN
I-94 (EDENS EXPRESSWAY) AT CHURCH ST.**

SCALE: SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2019-126-BR	COOK	20	14
				CONTRACT NO. 62J98
ILLINOIS FED. AID PROJECT				

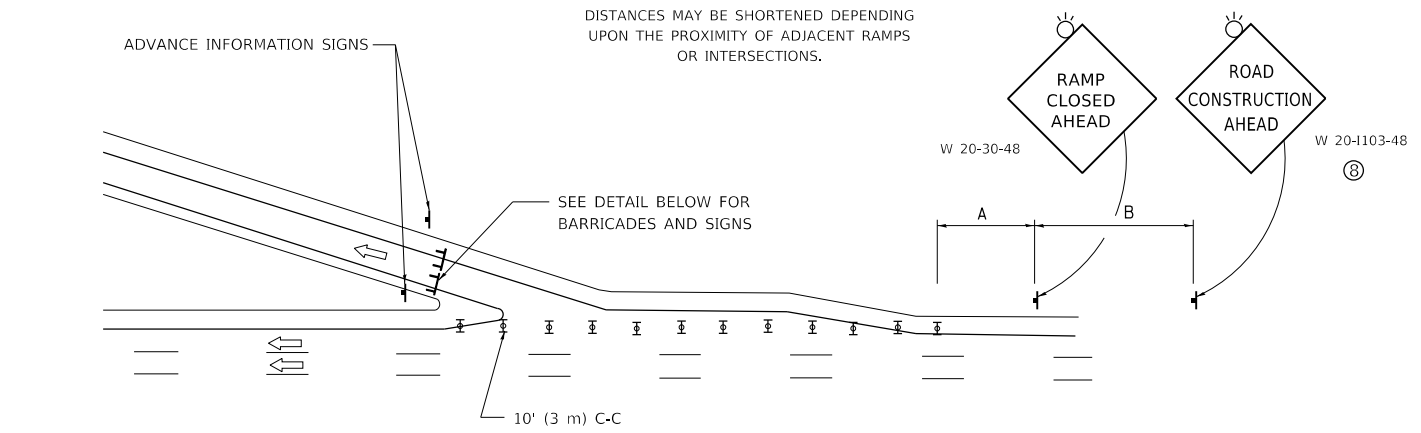


ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY ≤24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL 55 MPH	500' (150 m)	500' (150 m)
ARTERIAL 50-45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	200' (60 m)	200' (60 m)

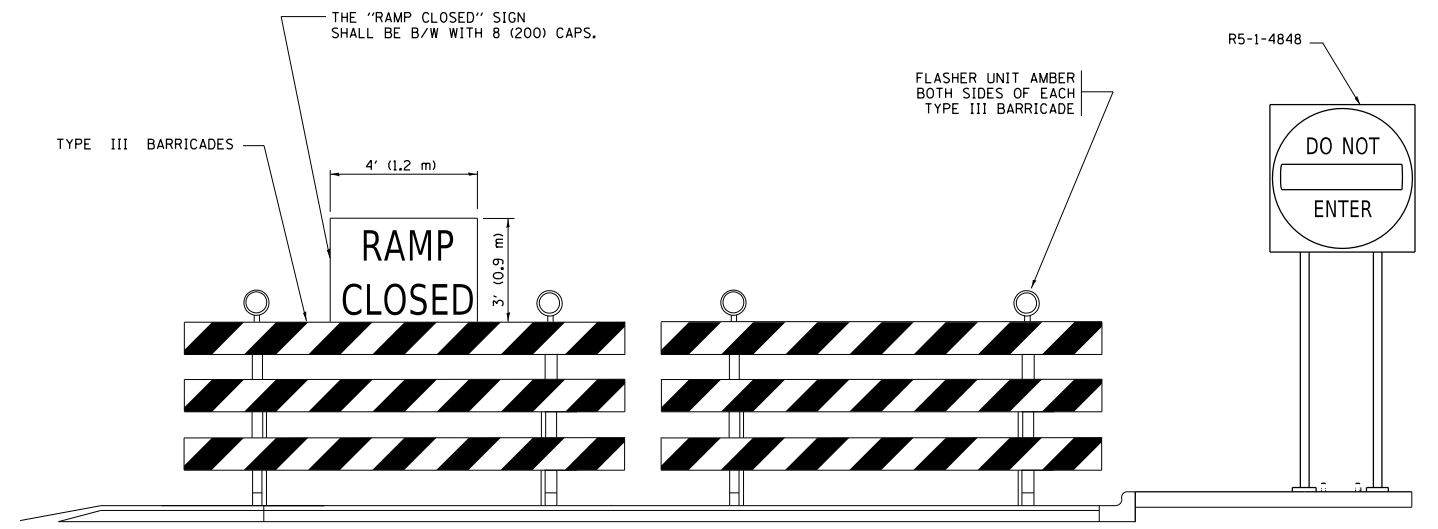
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.



EXIT RAMP CLOSURE

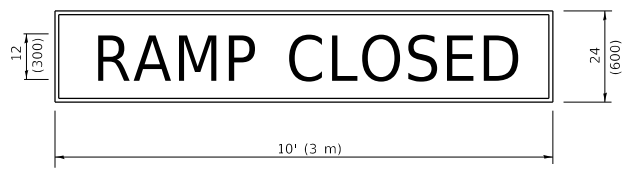
SYMBOLS

- ▬ TYPE II BARRICADE OR DRUM
- ▬ TYPE III BARRICADE WITH 2 FLASHING LIGHTS



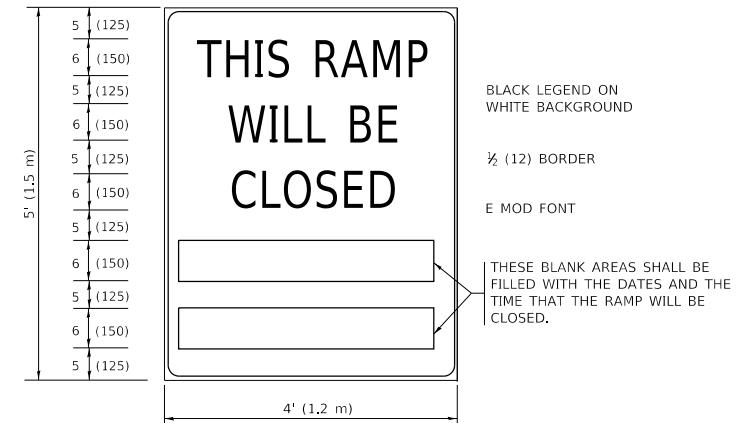
DETAIL FOR REQUIRED BARRICADES & SIGNS

RAMP CLOSURE ADVANCE WARNING SIGN



BLACK LEGEND ON ORANGE BACKGROUND MOUNTED DIAGONALLY E MOD FONT 1 (25) BORDER
 THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR EXIT RAMPS THAT WILL BE CLOSED FOR MORE THAN FOUR (4) CONSECUTIVE DAYS.

RAMP CLOSURE ADVANCE INFORMATION SIGN



THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.
 THESE SIGNS SHALL BE FABRICATED AND PAID FOR ACCORDING TO THE TEMPORARY INFORMATION SIGNING SPECIAL PROVISION

GENERAL NOTES:

- ① CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- ② VERTICAL BARRICADES SHALL NOT BE USED FOR RAMP CLOSURES.
- ③ A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES, PRECEDED BY A W20-7 FLAGGER WARNING SIGN.
- ④ ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED WHEN THE RAMP IS CLOSED FOR MORE THAN FOUR (4) DAYS.
- ⑤ THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- ⑥ AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- ⑦ THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED FOUR (4) DAYS IN LENGTH
- ⑧ ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ⑨ ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS SHALL BE INSTALLED ON THE LEFT SIDE OF TRAFFIC IF THE MEDIAN IS MORE THAN 10 FT WIDE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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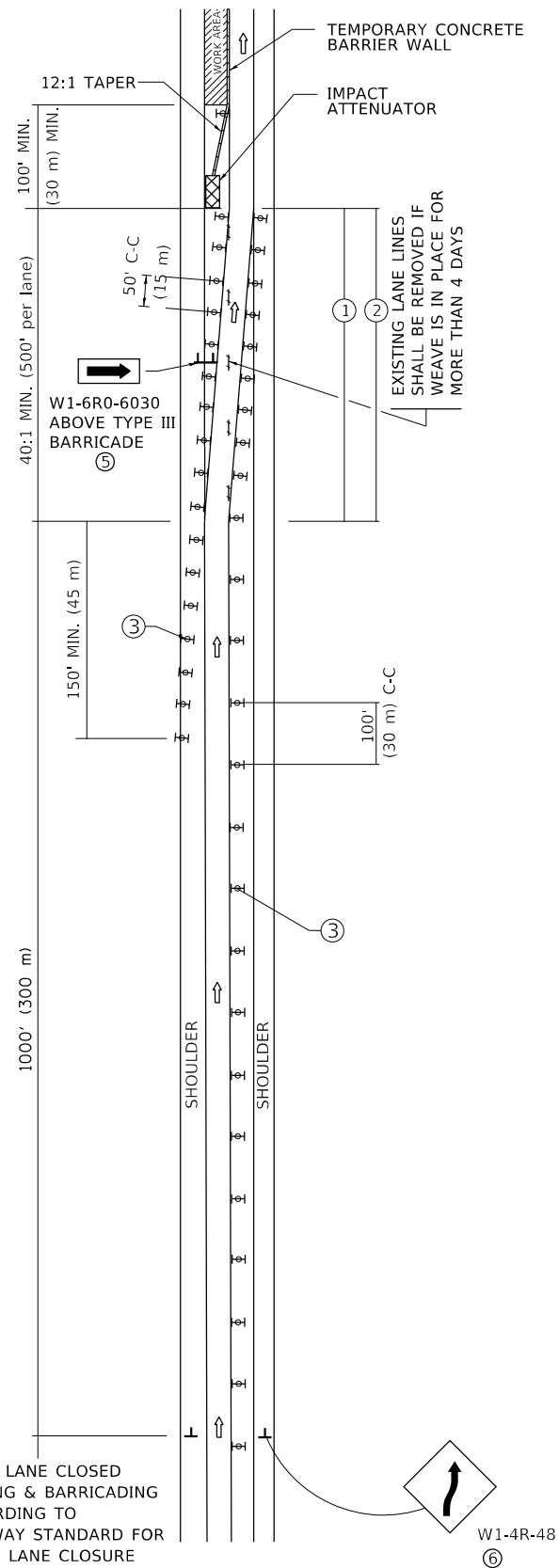
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ENTRANCE_AND_EXIT_RAMP
CLOSURE_DETAILS**

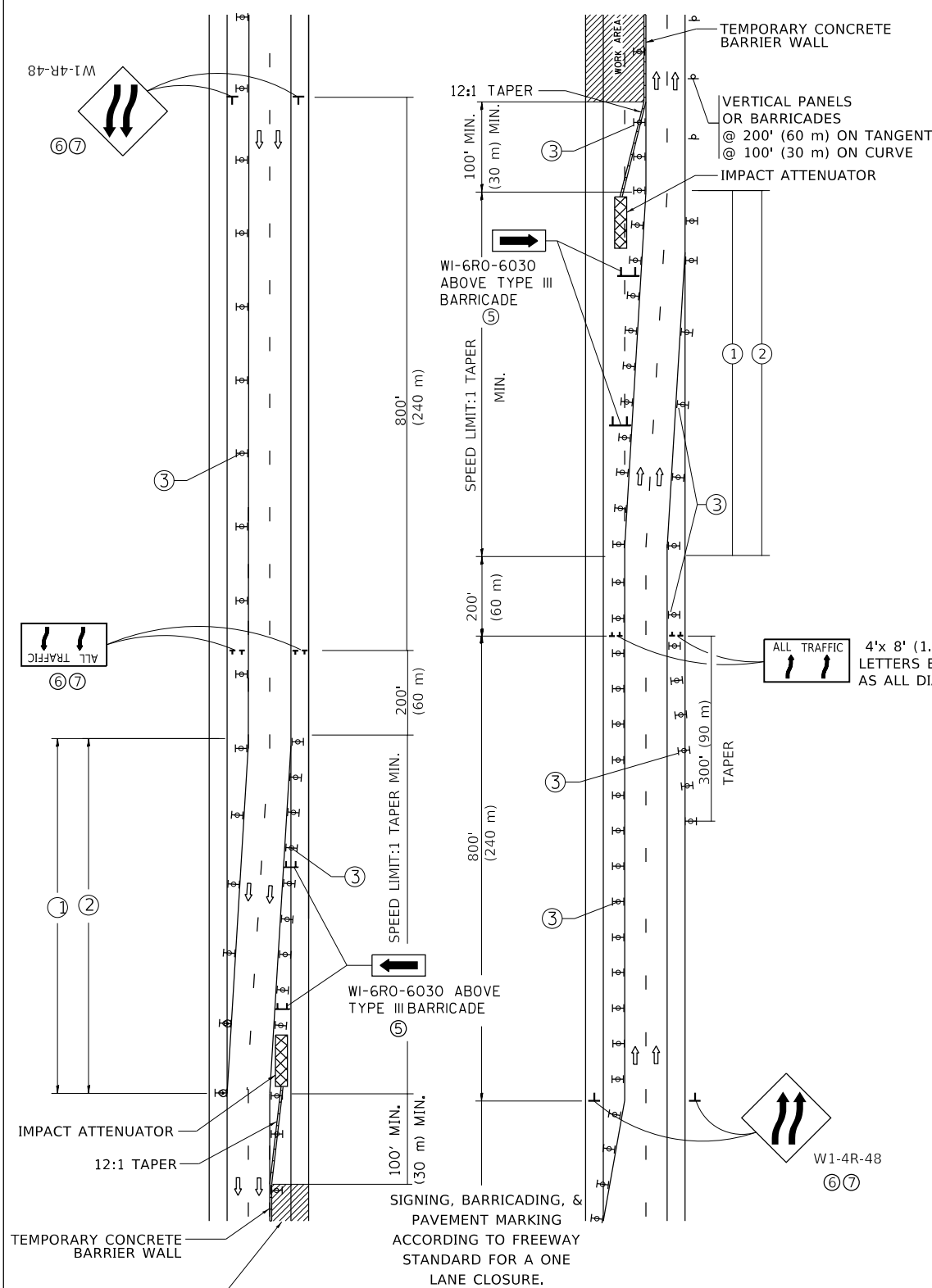
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2019-126-BR	COOK	20	15
TC-08		CONTRACT NO. 62J98		
ILLINOIS		FED. AID PROJECT		

SINGLE LANE WEAVE



MULTI-LANE WEAVE



GENERAL NOTES:

- EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 4 DAYS IN DURATION.
- CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.
- PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- TYPE III BARRICADES MAY BE OMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.
- WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.
- THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

SYMBOLS

- DIRECTION OF TRAFFIC
- WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TYPE II BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- TEMPORARY CONCRETE BARRIER WALL
- IMPACT ATTENUATOR
- W1-4R-48 (6, 7)
- W24-1-48 (7)

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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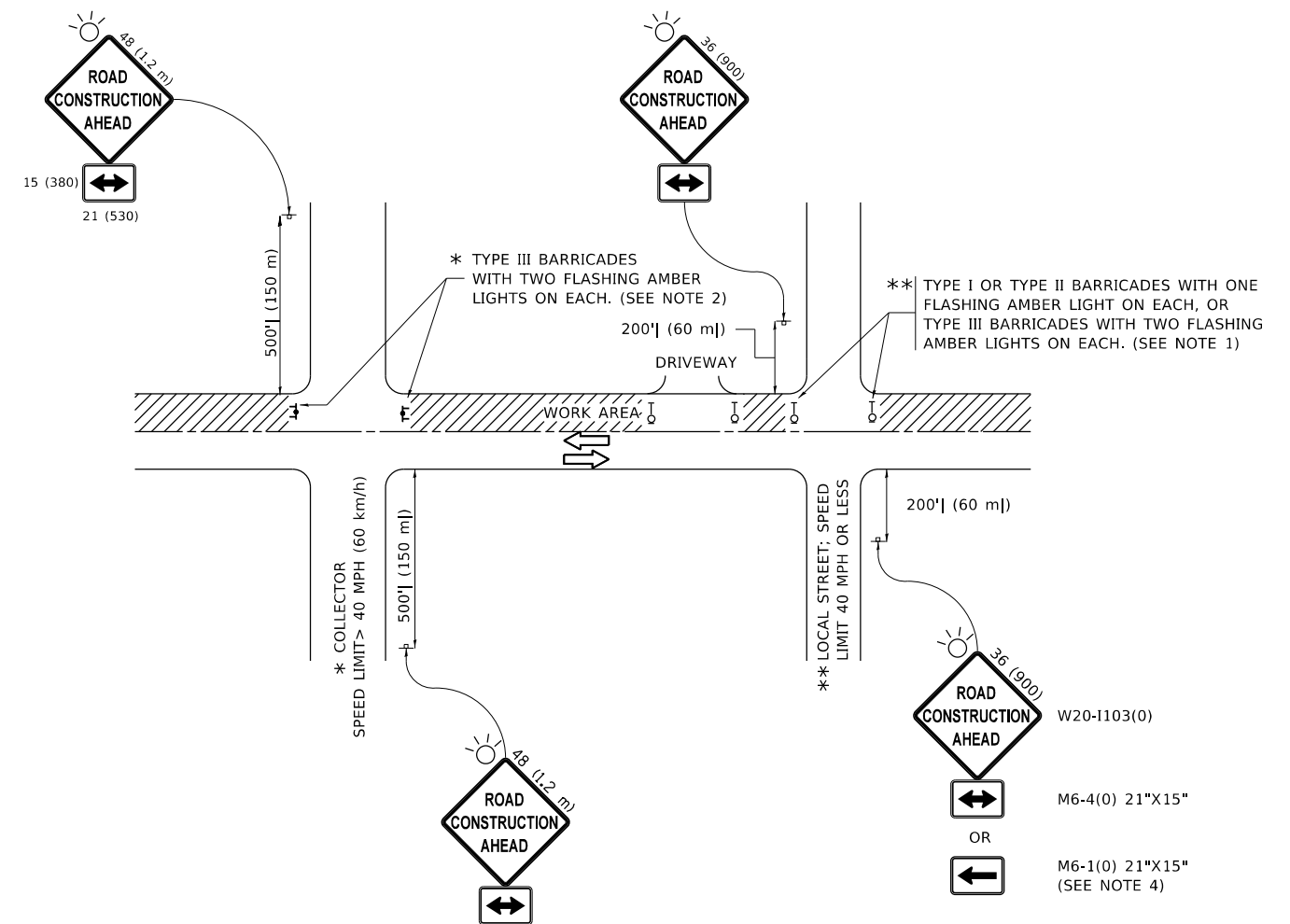
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PLOT DATE = 12/12/2019	DATE - 02-87	REVISED - M.D. 06-13

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR
FREEWAY SINGLE & MULTI-LANE WEAVE

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2019-126-BR	COOK	20	16
TC-09		CONTRACT NO. 62J98		
ILLINOIS FED. AID PROJECT				



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 PORTION 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.
2. 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.
 - b) BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
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.

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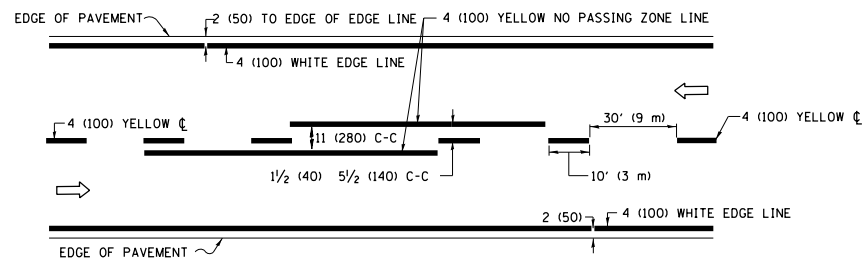
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	DRAWN -	REVISED - T. RAMMACHER 01-06-00
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

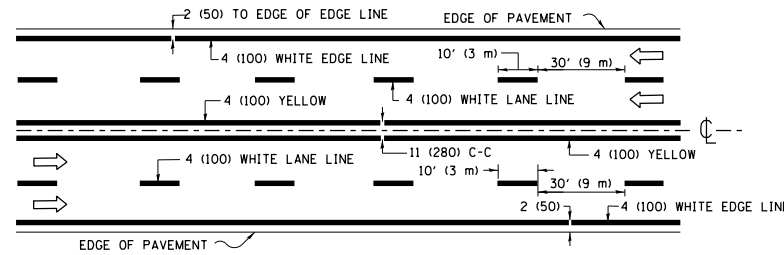
**TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

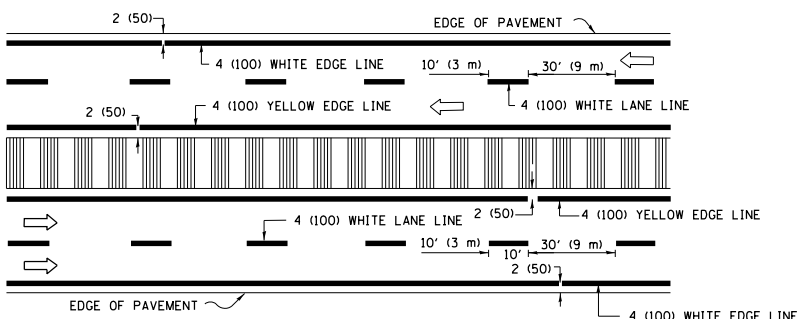
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94	2019-126-BR	COOK	20	17
TC-10			CONTRACT NO. 62J98	
ILLINOIS FED. AID PROJECT				



2-LANE ROADWAY

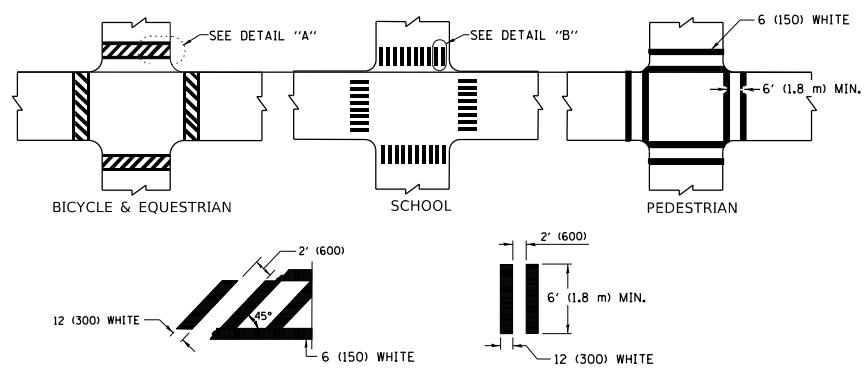


MULTI-LANE UNDIVIDED



MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

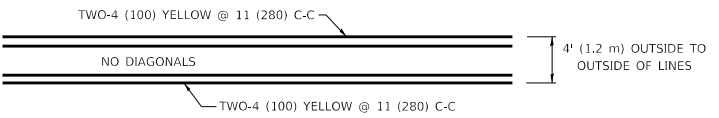


DETAIL "A"

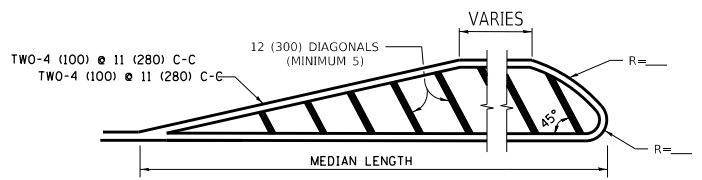
DETAIL "B"

TYPICAL CROSSWALK MARKING

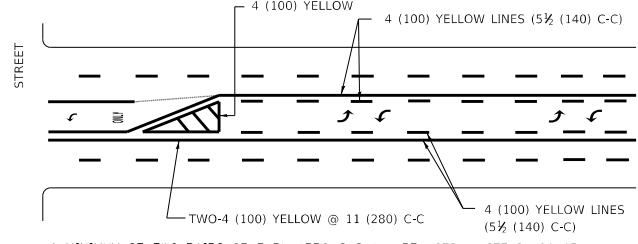
* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES



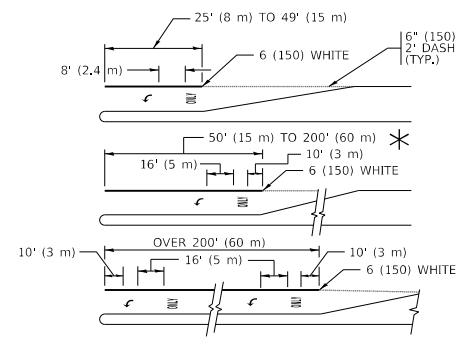
4' (1.2 m) WIDE MEDIANS ONLY



MEDIANS OVER 4' (1.2 m) WIDE



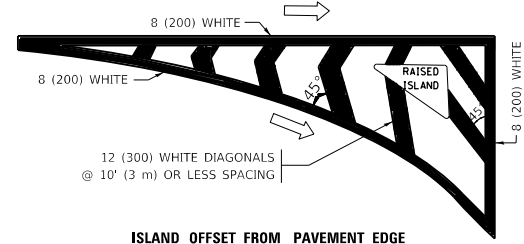
MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING



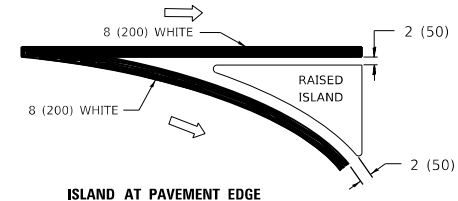
TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 * AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

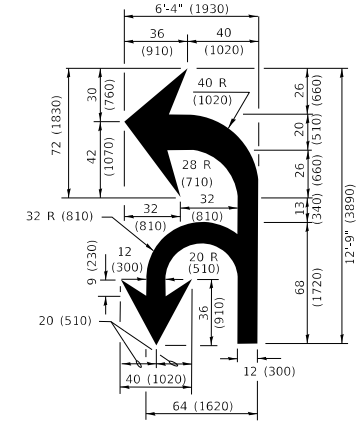


ISLAND OFFSET FROM PAVEMENT EDGE

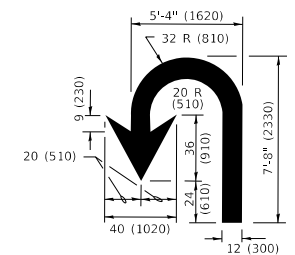


ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING



COMBINATION LEFT AND U-TURN



U-TURN

LANE REDUCTION TRANSITION
 * LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

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	5 1/2 (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 WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (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' (600) 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 ²) EACH *X*=54.0 SQ. FT. (5.0 m ²)
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 LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

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

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

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		REVISED - C. JUCIUS 04-12-16

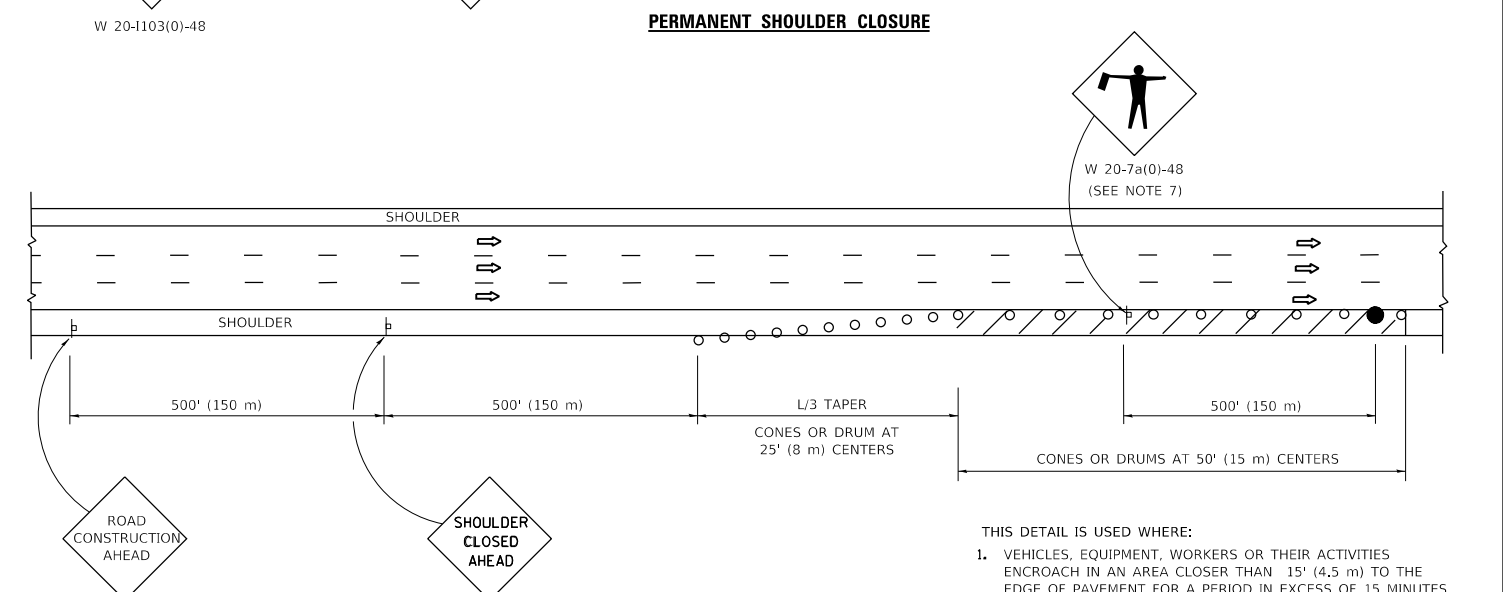
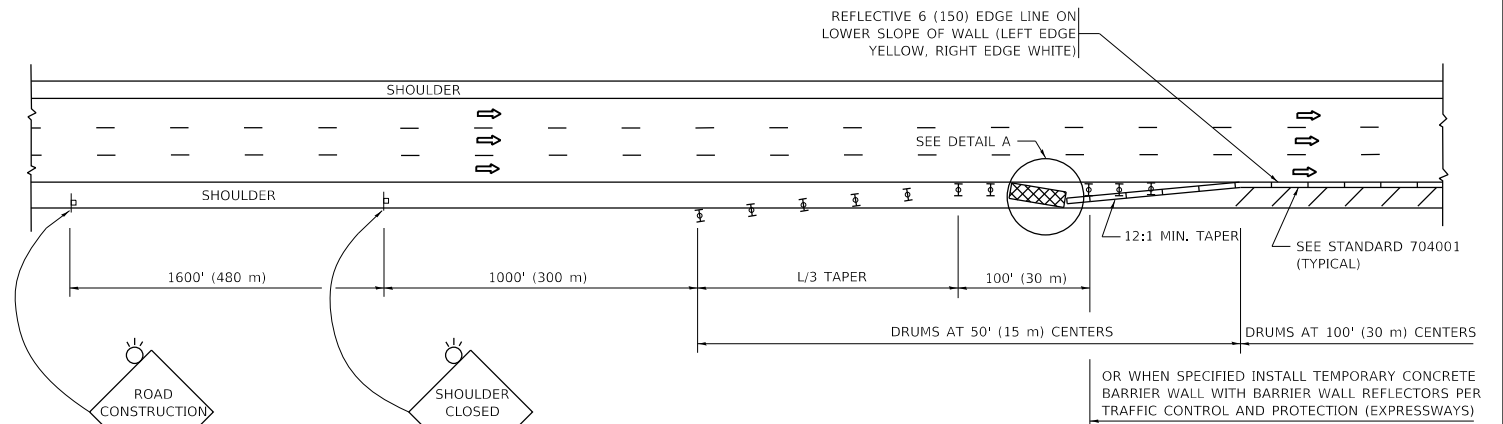
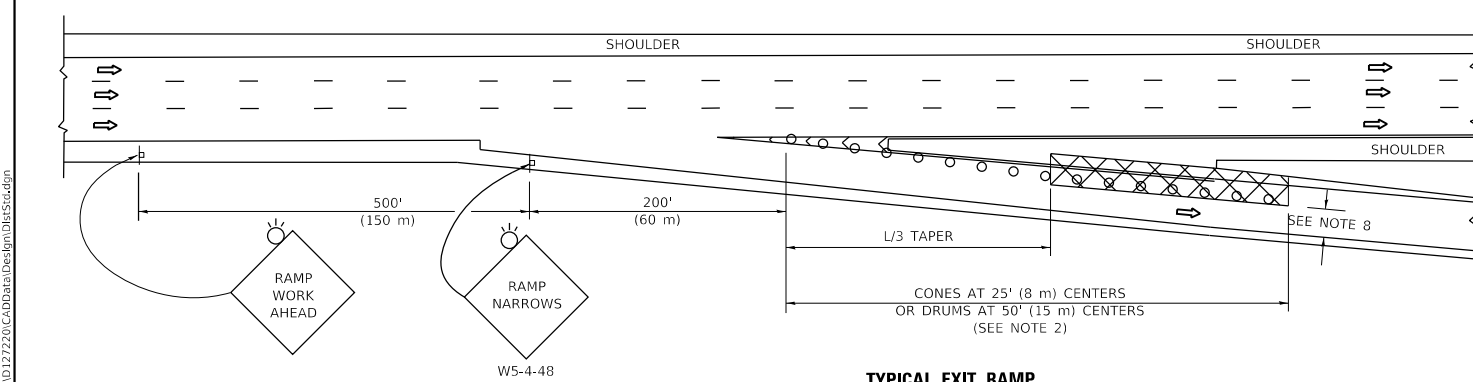
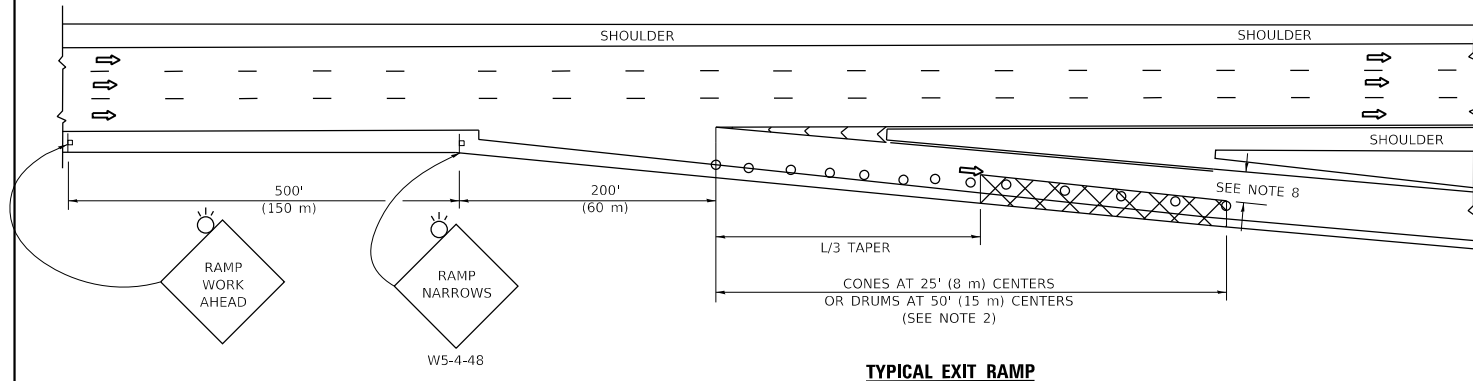
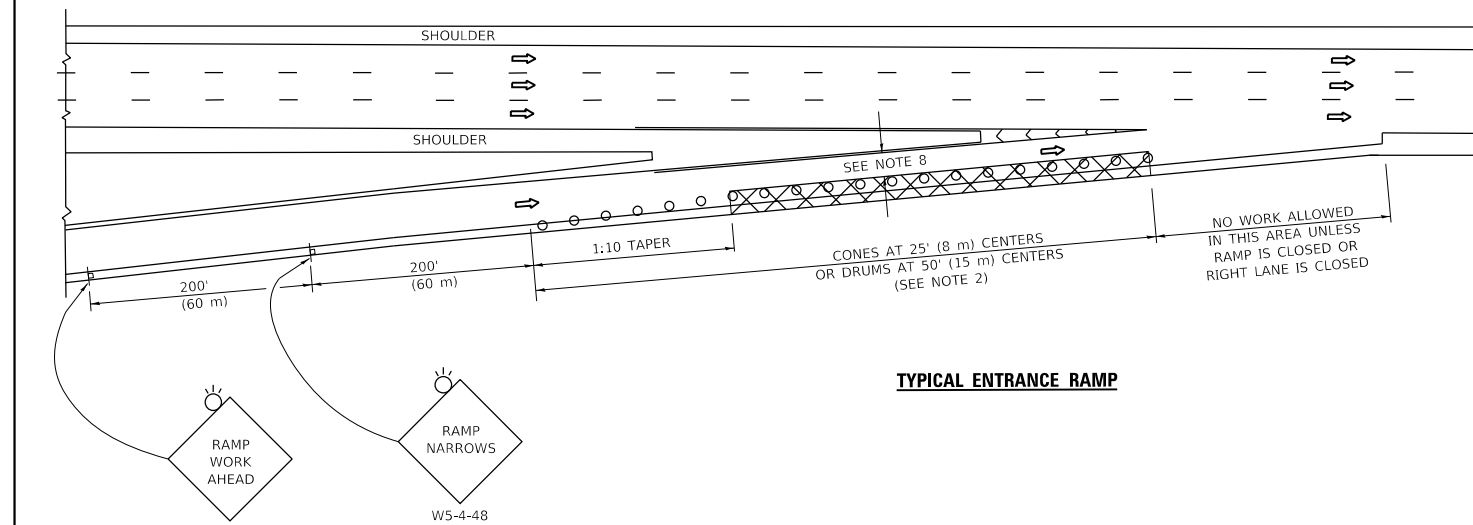
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DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE			
TYPICAL PAVEMENT MARKINGS			
SCALE: NONE	SHEET 1 OF 2 SHEETS	STA. TO STA.	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2019-126-BR	COOK	20	18
TC-13		CONTRACT NO. 62J98		
ILLINOIS		FED. AID PROJECT		

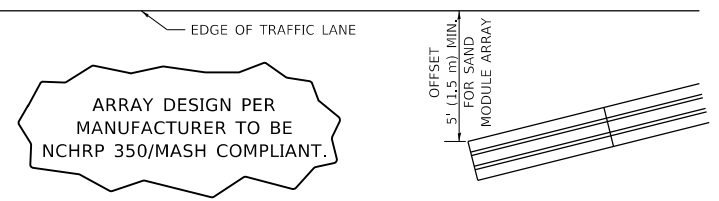
PARTIAL RAMP CLOSURE DETAILS

SHOULDER CLOSURE DETAILS



THIS DETAIL IS USED WHERE:

- VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCR OACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



DETAIL "A"
IMPACT ATTENUATOR, TEMPORARY
(SEE NOTE 5)

SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE OR DRUM
- CONE, DRUM OR BARRICADE
- IMPACT ATTENUATOR OF TYPE AND TEST LEVEL SPECIFIED

GENERAL NOTES:

- THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
45 mph (80 km/h)	METRIC ENGLISH
OR GREATER:	$L=0.65(WXS)$ $L=(WXS)$
	W = WIDTH OF OFFSET IN FEET (METERS)
	S = NORMAL POSTED SPEED MPH (KM/H)
- TYPE II BARRICADES OR DRUMS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES. TYPE II BARRICADES OR DRUMS WITH MONODIRECTIONAL STEADY BURN LIGHTS ARE REQUIRED FOR DELINEATING OBSTACLES, EXCAVATIONS, OR HAZARDS EXCEEDING 100 FT (30m) IN LENGTH AT NIGHT.
- ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

- THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350/MASH.
- AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
- THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - THE WORK AVTIVITY REQUIRES FREQUENT ENCR OACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.
- 12' MIN. WIDTH TANGENT SECTION
16' MIN. WIDTH CURVE SECTION.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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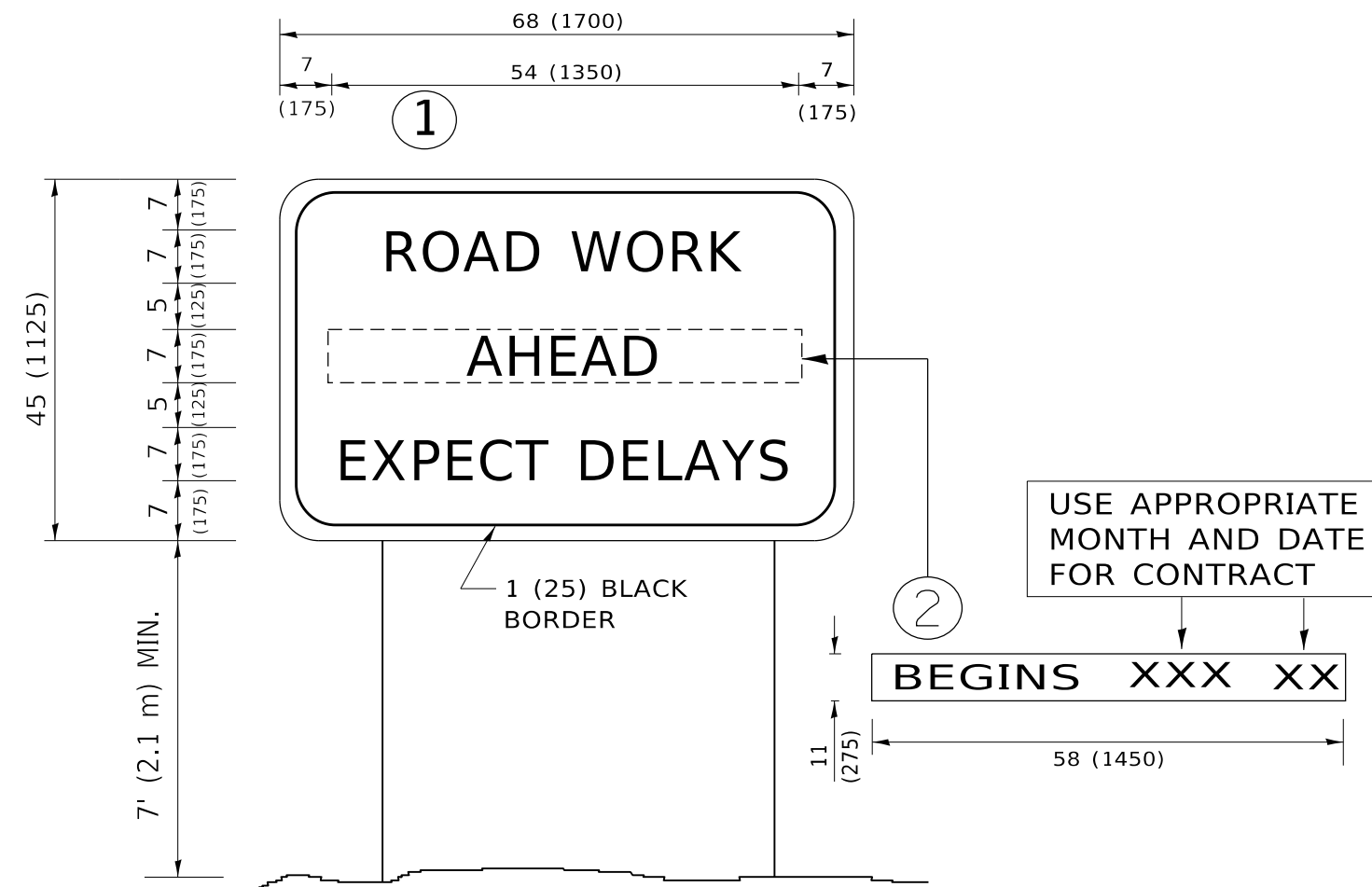
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PLOT DATE = 12/12/2019	DATE - 11-96	REVISED - M.D. 01-18

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL DETAILS FOR FREEWAY
SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2019-126-BR	COOK	20	19
TC-17		CONTRACT NO. 62J98		
ILLINOIS		FED. AID PROJECT		



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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PLOT DATE = 12/12/2019	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2019-126-BR	COOK	20	20
TC-22			CONTRACT NO. 62J98	
ILLINOIS FED. AID PROJECT				