

03-08-13 LETTING ITEM 059

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

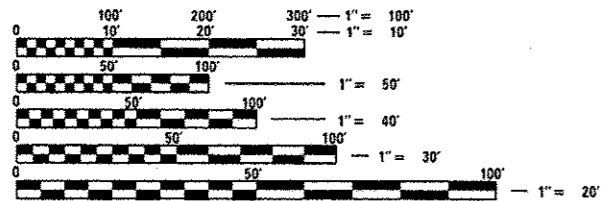
VARIOUS ROUTES
VARIOUS STRUCTURES (NORTH)
SECTION: 2012-025BR
STRUCTURAL STEEL REPAIR
COOK & LAKE COUNTIES

C-91-415-12

FOR LOCATION MAPS
SEE SHEETS 4 TO 6

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2012-025BR	COOK & LAKE	21	1
		ILLINOIS	CONTRACT NO. 60T66	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

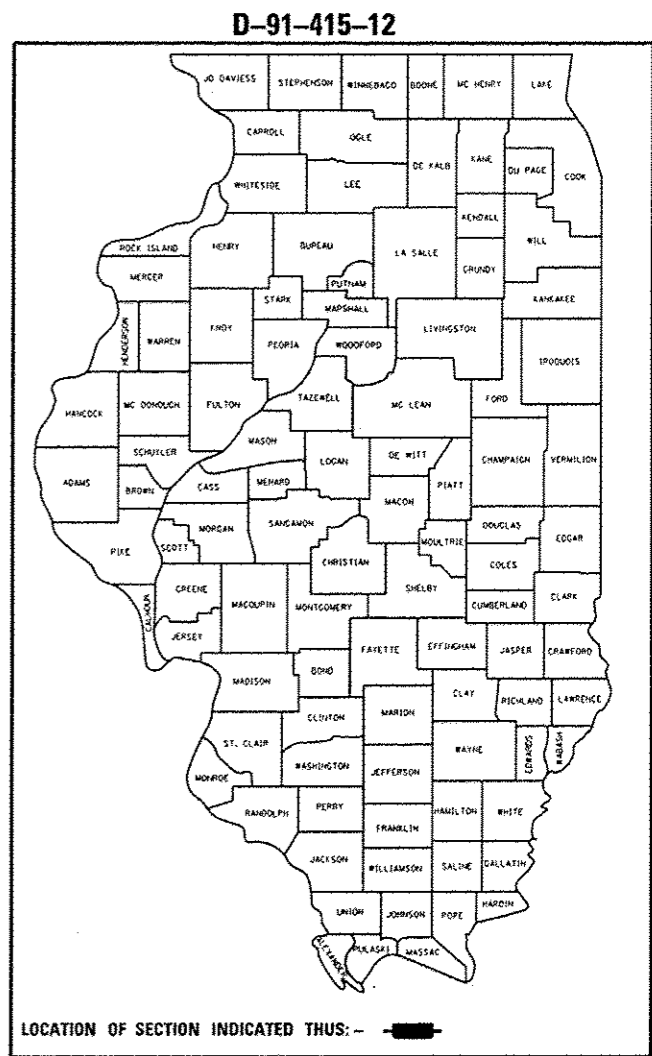


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: J. ALAIN MIDY (847) 221-3057
PROJECT MANAGER: ISSAM RAYYAN (847) 705-4178

CONTRACT NO. 60T66



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED DECEMBER 13, 2012

John D. Baramelli, P.E.
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Feb 1 2013
John D. Baramelli, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

Feb 1 2013
Omer Osman, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

STATE STANDARDS

GENERAL NOTES

<u>SHEET NO.</u>	<u>DESCRIPTION</u>	<u>STANDARD NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET	701101-03	OFF-RD OPERATIONS, MULTILANE, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
2	INDEX OF SHEETS, STANDARDS AND GENERAL NOTES	701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
3	SUMMARY OF QUANTITIES	701400-06	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
4-6	LOCATION MAP	701401-07	LANE CLOSURE, FREEWAY/EXPRESSWAY
7-8	BRIDGE REPAIR DETAILS (SN 016-0545)	701411-08	LANE CLOSURE, MULTILANE, AT ENTRANCE RAMP, FOR SPEEDS > 45 MPH
9-10	BRIDGE REPAIR DETAILS (SN 049-0050)	701421-05	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS > 45 MPH TO 55 MPH
11-15	BRIDGE REPAIR DETAILS (SN 049-0096)	701901-02	TRAFFIC CONTROL DEVICES
16-17	TRAFFIC CONTROL STAGING		
18	FREEWAY ENTRANCE AND EXIT RAMP (TC-08)		
19	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)		
20	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)		
21	ARTERIAL ROAD INFORMATION SIGN (TC-22)		

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 CITIES OF WILMETTE, PARK CITY AND LIBERTYVILLE TOWNSHIP.

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 (847)705-4470 FOR ARTERIALS AND (847)705-4151 FOR EXPRESSWAYS A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

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

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

THE ENGINEER SHALL CONTACT DEBBIE HANLON, AREA TRAFFIC FIELD ENGINEER AT (847)438-2306A 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 BRIDGE INSPECTORS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION OF ALL EMERGENCY SERVICES, SCHOOL DISTRICTS, I.D.O.T.'S COMMUNICATIONS CENTER, SPRINGFIELD TRUCK PERMIT SECTION AND OTHER AGENCIES AFFECTED BY THE CLOSURE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR POSTING SIGNS THAT WILL INDICATE THE DATES THE CLOSURE WILL BE IN PLACE.

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

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".

SLIPFORMING OF PARAPETS IS NOT ALLOWED.

FILE NAME :	USER NAME : pyzanoski@rb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
c:\pwork\pwork\dot\pyzanoski\rb\032697	D0141512-shi-cover.dgn	DRAWN -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	VAR.	2012-025BR	COOK & LAKE	21	2
#MODELNAME#	PLOT SCALE : 100.0000' / in.	CHECKED -	REVISED -		CONTRACT NO. 60T66										
	PLOT DATE : 12/20/2012	DATE -	REVISED -		ILLINOIS FED. AID PROJECT										

SUMMARY OF QUANTITIES			URBAN 100% STATE CONSTRUCTION TYPE CODE				SUMMARY OF QUANTITIES			URBAN 100% STATE CONSTRUCTION TYPE CODE							
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	0014 LAKE		0014 COOK				TOTAL QUANTITIES	0014 LAKE		0014 COOK				
				SN 049-0096	SN 049-0050	SN 016-0545					SN 049-0096	SN 049-0050	SN 016-0545				
50102400	CONCRETE REMOVAL	CU YD	10.5	10.5						X7010216	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1	1			
50157300	PROTECTIVE SHIELD	SO YD	35	35						X7011015	TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)	L SUM	1		1		
50300255	CONCRETE SUPERSTRUCTURE	CU YD	10.5	10.5						X7030030	WEY REFLECTIVE TEMPORARY TAPE TYPE III, 4"	FOOT	700	700			
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	7770	7770						Z0001903	STRUCTURAL STEEL REMOVAL	POUND	7620	7620			
50500505	STUD SHEAR CONNECTORS	EACH	180	180						Z0001905	STRUCTURAL STEEL REPAIR	POUND	590		330	260	
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	2540	2540						Z0003600	BEAM STRAIGHTENING	L SUM	1		0.5	0.5	
50800530	MECHANICAL SPLICERS	EACH	40	40						Z0073300	TEMPORARY SHORING AND CRIBBING	L SUM	1	1			
64300430	IMPACT ATTENUATORS (NON-REDIRECTIVE), TEST LEVEL 2	EACH	1	1													
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	2	1	1											
67100100	MOBILIZATION	L SUM	1	0.34	0.33	0.33											
70100310	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	L SUM	1		1												
70400100	TEMPORARY CONCRETE BARRIER	FOOT	137.5	137.5													
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	300	300													
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	90	90													
* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	8	8													
78300100	PAVEMENT MARKING REMOVAL	SQ FT	50	50													

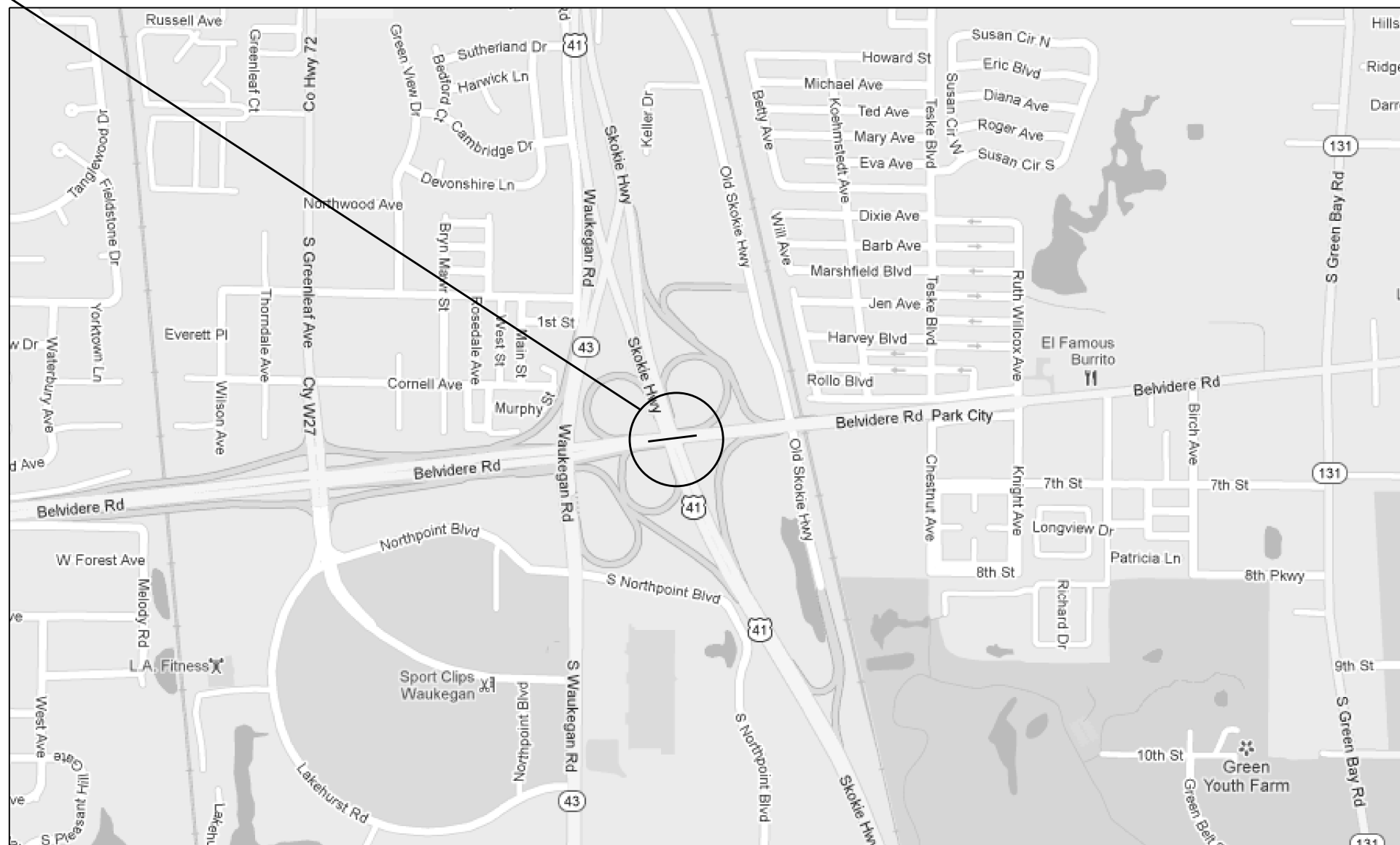
7 *Specialty Items

FILE NAME: c:\pwr\work\pwr\pwr\2012\11\11\00326970\241512.sht	USER NAME: pyrzanowski	DESIGNED: -	REVISIONS: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION				SUMMARY OF QUANTITIES				F.A. RTE. VAR.	SECTION 2012-025BR	COUNTY COOK & LAKE	TOTAL SHEETS 21	SHEET NO. 3				
PLOT SCALE: 1/2" = 100'-0"	DATE: 12/20/2012	DRAWN: -	REVISIONS: -									SCALE:	SHEET NO. OF	SHEETS STA.	TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	CONTRACT NO. 60T66	
CHECKED: -	REVISIONS: -																			
DATE: -	REVISIONS: -																			

LOCATION 1: IL 120 OVER US 41
 SN 049-0050
 PARK CITY

R11E

T42N



TRAFFIC DATA

IL 120
 ADT (2011) = 1600
 POSTED SPEED LIMIT = 55 MPH

WARREN TOWNSHIP

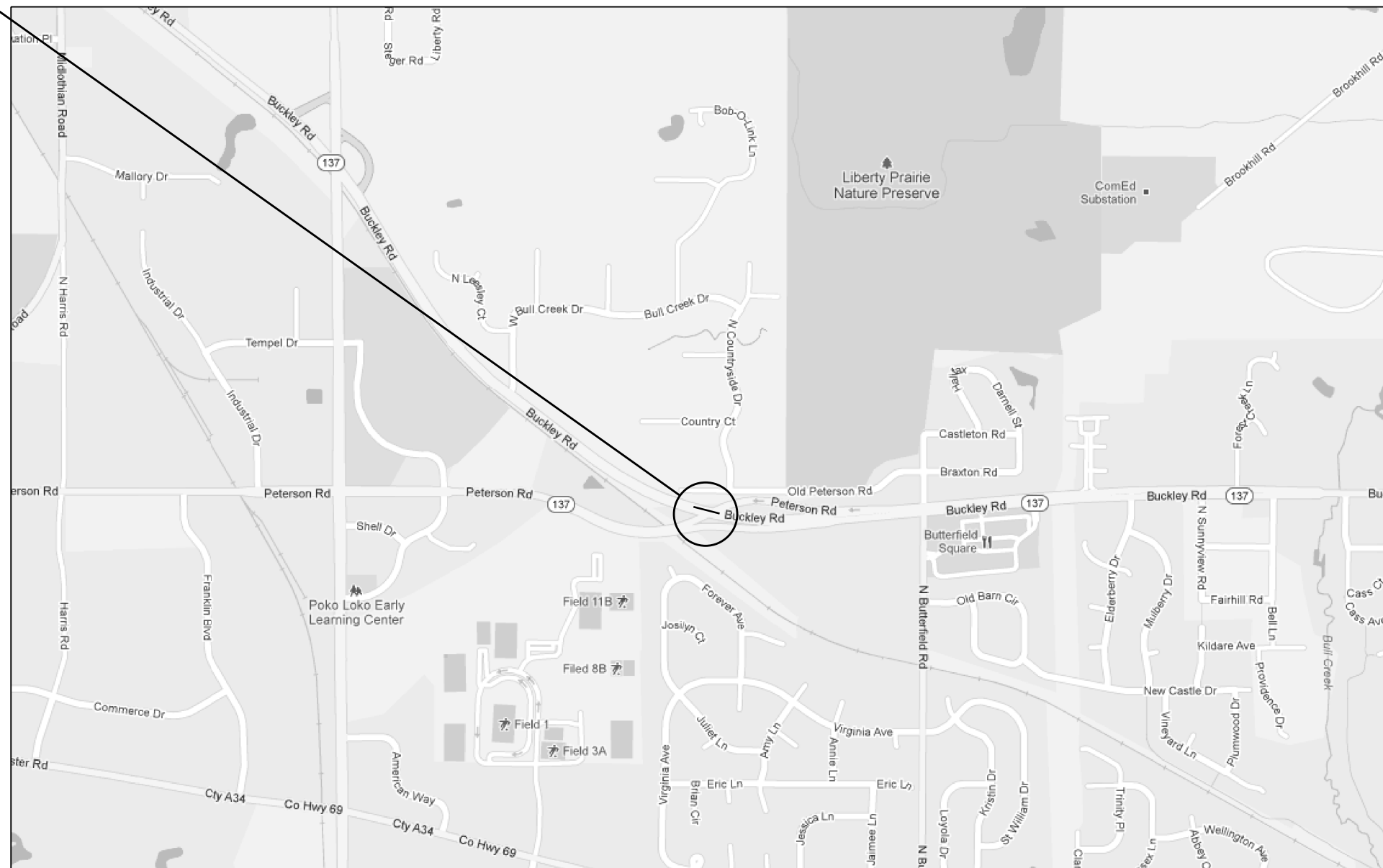
FILE NAME =	USER NAME = pyrzanowskirb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATION MAP LOCATION 1			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
et:\pw\work\p\dot\pyrzanowskirb\0326970	D141512-sht-cover.dgn	DRAWN -	REVISED -		SCALE:	SHEET 1	OF 3 SHEETS	STA.	TO STA.	VAR.	2012-025BR	COOK & LAKE	21	4
\$MODELNAME\$	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -											
	PLOT DATE = 12/20/2012	DATE -	REVISED -											
CONTRACT NO. 60T66											ILLINOIS FED. AID PROJECT			

LOCATION 2: IL 137 OVER IL 137 WB
OFF RAMP TO PETERSON RD
SN 049-0096

R10E

R11E

T44N



LIBERTYVILLE TOWNSHIP

TRAFFIC DATA

IL 137

ADT (2007) = 7500

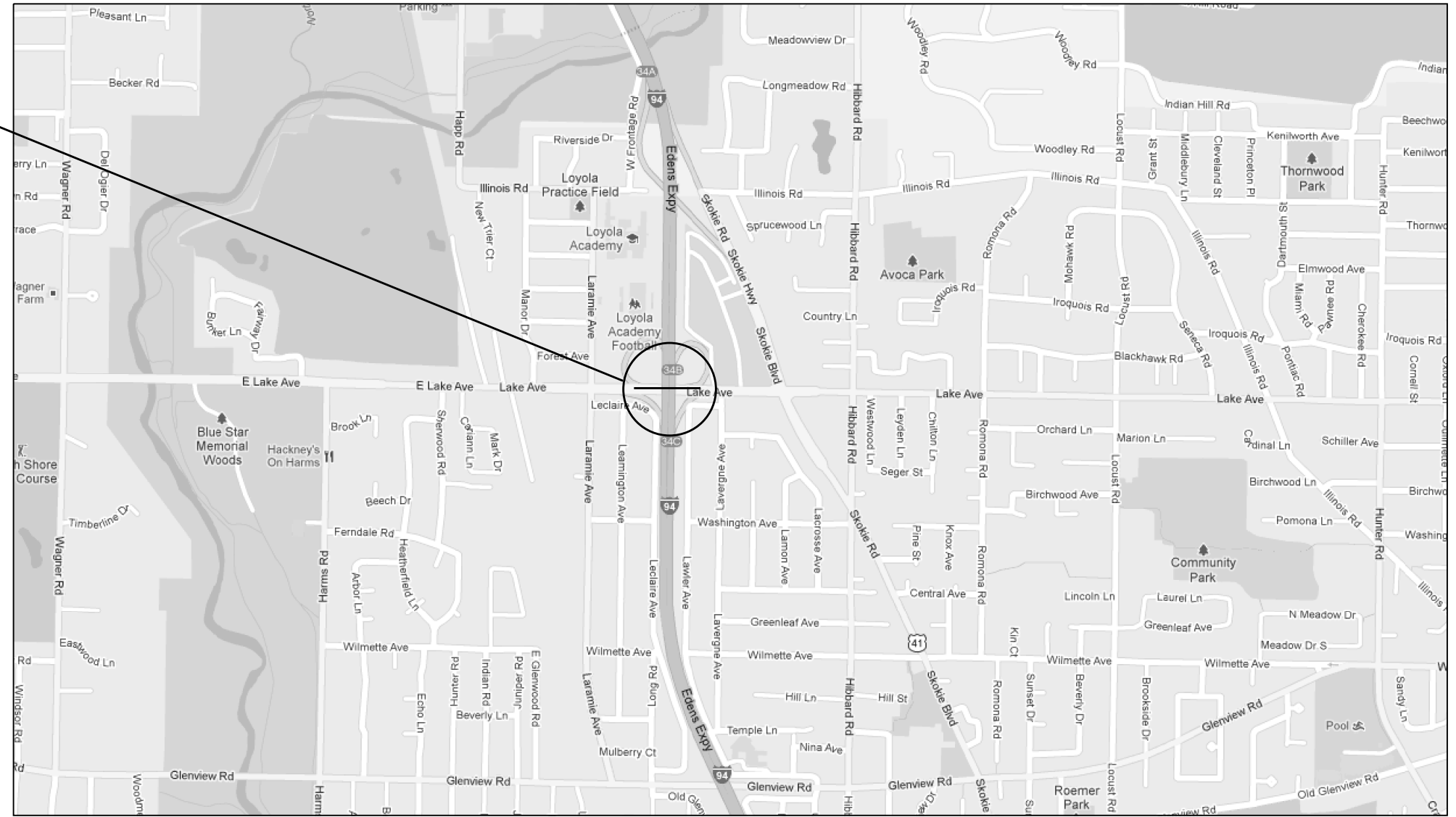
POSTED SPEED LIMIT = 45 MPH

FILE NAME =	USER NAME = pyrzenowskirb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATION MAP LOCATION 2			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
et:\pw\work\p\dot\pyrzenowskirb\d032697	ND141512-sht-cover.dgn	DRAWN -	REVISED -		SCALE:	SHEET 2	OF 3	SHEETS	STA.	TO STA.	VAR.	2012-025BR	VARIOUS	21	5
\$MODELNAME\$	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -								CONTRACT NO. 60T66				
	PLOT DATE = 12/20/2012	DATE -	REVISED -		ILLINOIS FED. AID PROJECT										

LOCATION 3: LAKE AVE OVER
F.A.I. ROUTE (I-94)
SN 016-0545
CITY OF WILMETTE

R13E

T42N



TRAFFIC DATA

LAKE AVE

ADT (2010) = 22500

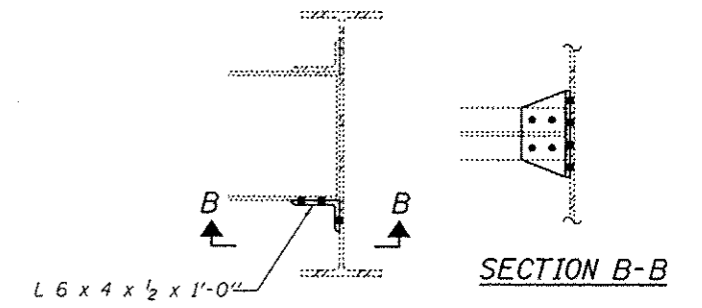
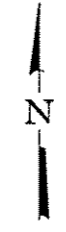
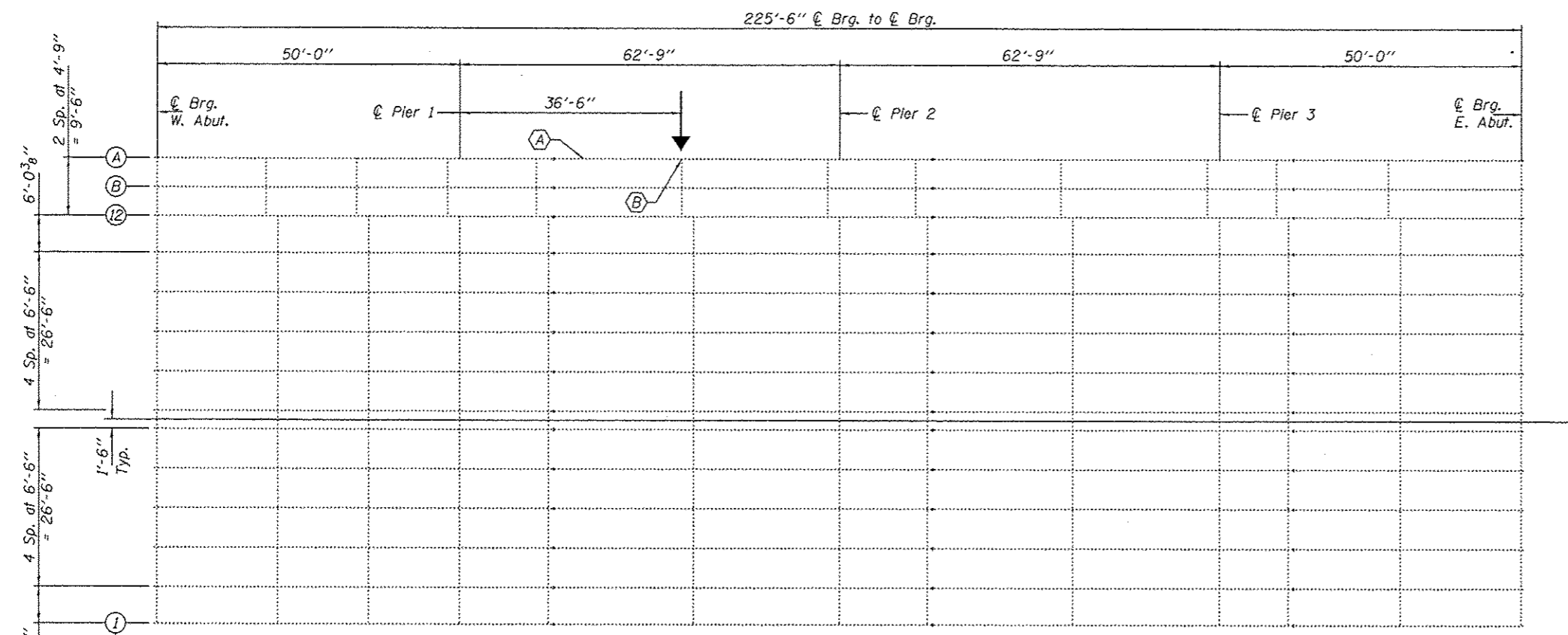
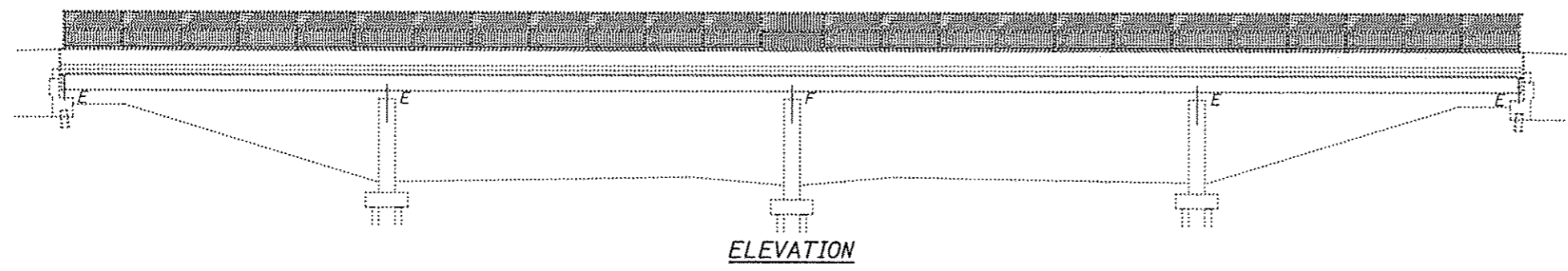
POSTED SPEED LIMIT = 35 MPH

NEW TRIER TOWNSHIP

FILE NAME =	USER NAME = pyrzanowskirb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LOCATION MAP LOCATION 3			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
et:\pw\work\p\idot\pyrzanowskirb\d0326970	ND141512-sht-cover.dgn	DRAWN -	REVISED -		SCALE:	SHEET 3	OF 3 SHEETS	STA.	TO STA.	VAR.	2012-025BR	COOK & LAKE	21	6
\$MODELNAME\$	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		CONTRACT NO. 60T66									
	PLOT DATE = 12/20/2012	DATE -	REVISED -		ILLINOIS FED. AID PROJECT									

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
 Fasteners shall be high strength bolts. Bolts $7/8"$ ϕ . open holes $15/16"$ ϕ , unless otherwise noted.
 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 at the unit price bid for the work.
 The existing structural steel coating contains lead. The Contractor shall 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 Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
 All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Structural Steel Repair.

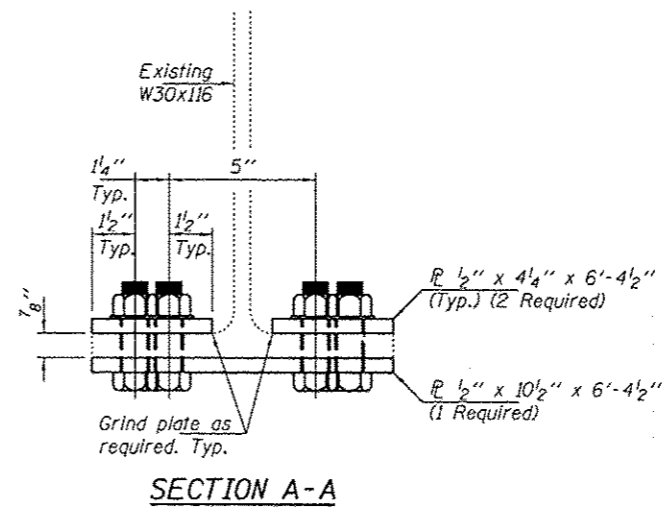
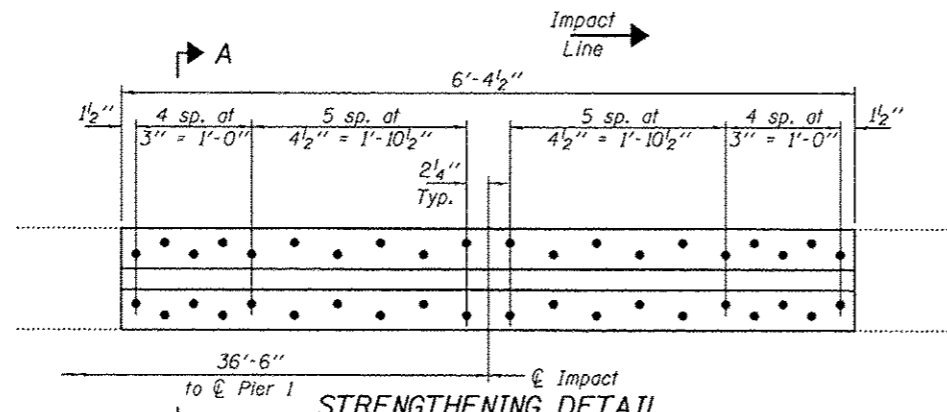


CLIP ANGLE REPLACEMENT DETAIL

Diaphragm connection holes shall be $15/16"$ ϕ for $3/4"$ ϕ bolts. Two hardened washers shall be required at diaphragm connections. Use holes in beam and diaphragm as template for drilling holes in angle.

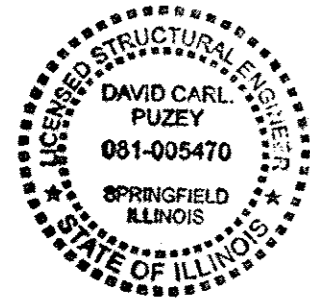
FRAMING PLAN

- (A) - Existing Beam to be Straightened & Strengthened.
- (B) - Replace bottom clip angle.



TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	260
Beam Straightening	L.S.	0.5



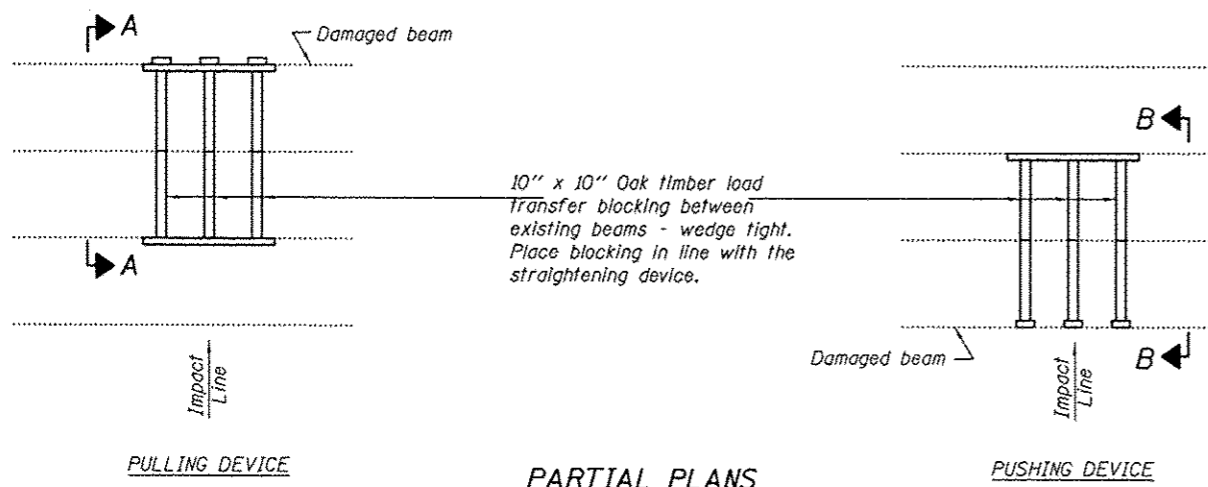
EXPIRES 11-30-2014

DESIGNED <i>[Signature]</i>	EXAMINED <i>[Signature]</i>	DATE JANUARY 9, 2013
CHECKED <i>[Signature]</i>	PASSED <i>[Signature]</i>	REVISED
DRAWN <i>[Signature]</i>		REVISED
CHECKED <i>[Signature]</i>		

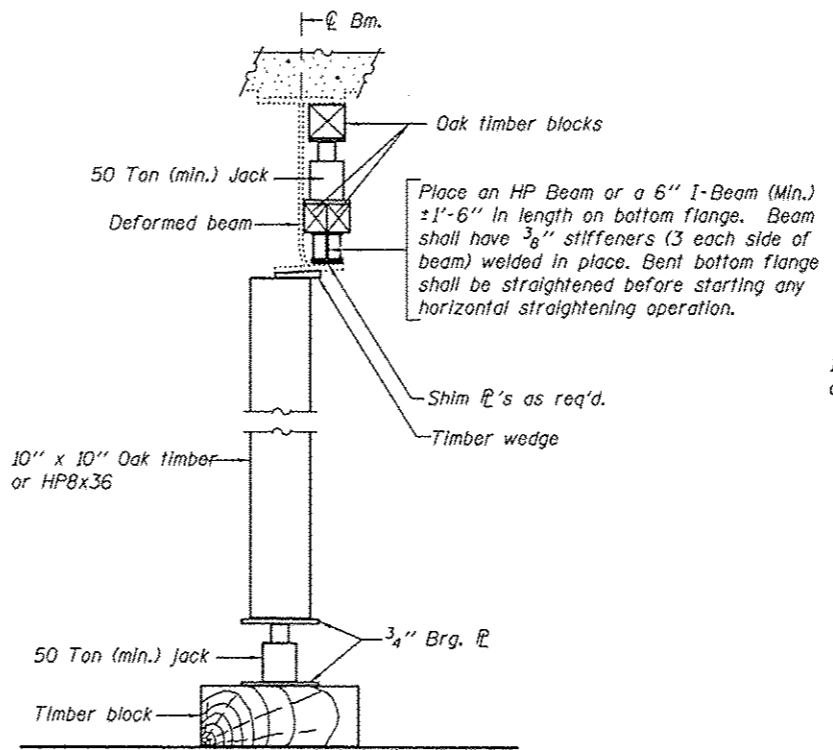
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION
LAKE AVE. OVER FAI 94
SN 016-0545
SHEET NO. 1 OF 2 SHEETS

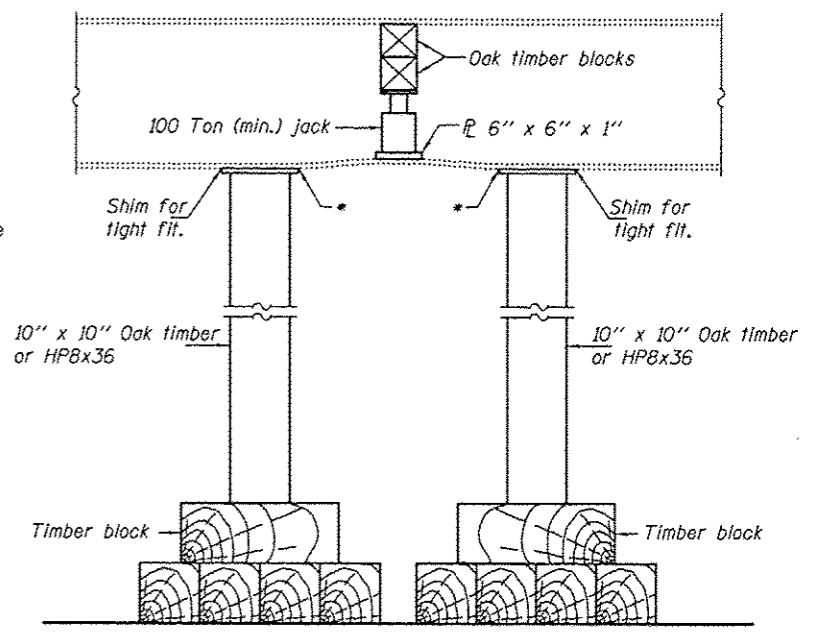
F.A.I. RTE. 94	SECTION 2012-0258R	COUNTY COOK	TOTAL SHEETS 21	SHEET NO. 7
CONTRACT NO. 60T66			ILLINOIS FED. AID PROJECT	



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

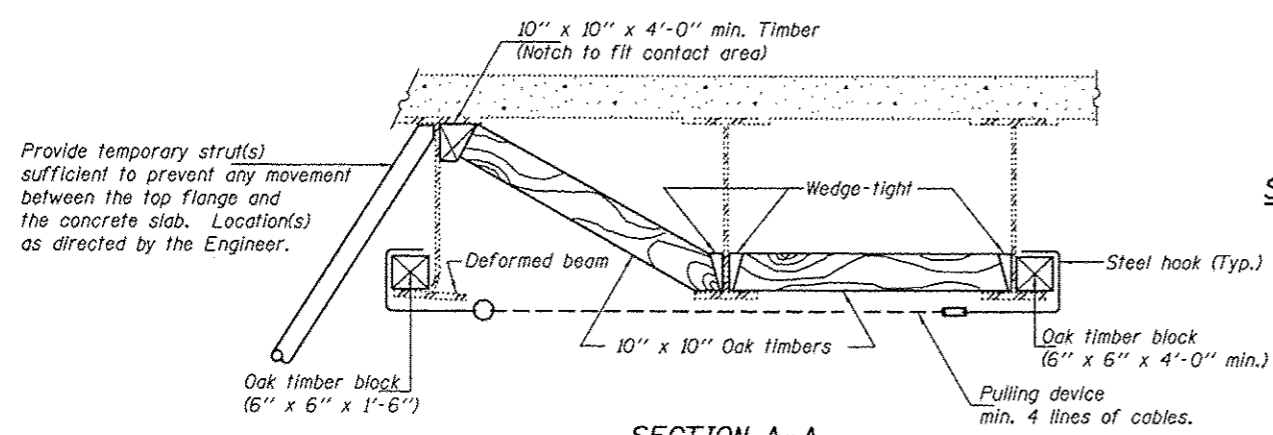


SUGGESTED VERTICAL STRAIGHTENING DETAIL
 (To correct flange rotation.)

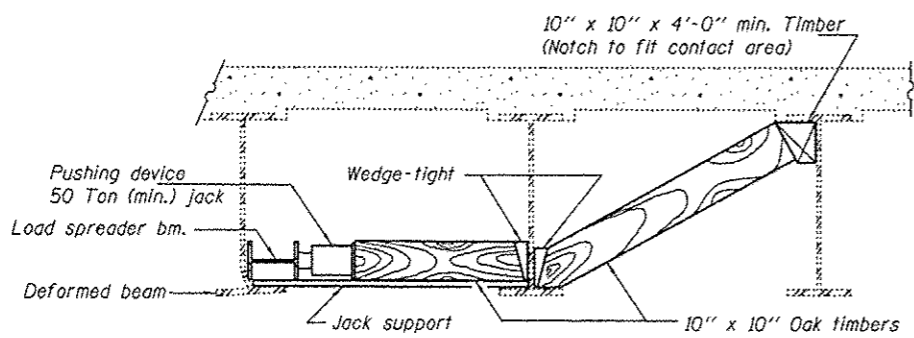


SUGGESTED VERTICAL STRAIGHTENING DETAIL
 (To correct localized vertical flange deformations.)

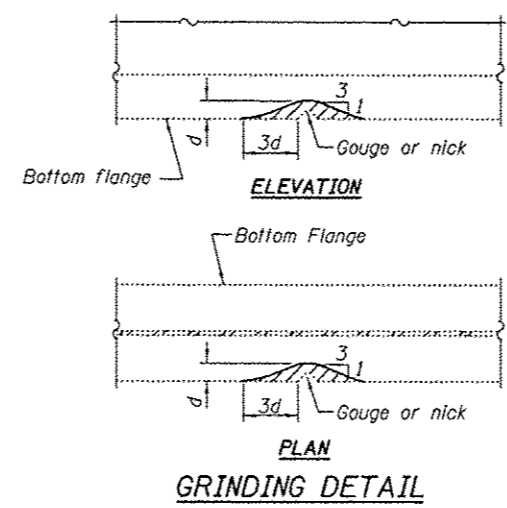
* Edge of plate shall line up with edge of deformation.
 Note:
 Braces and jack assembly shall be placed on same side of web.
 Bent bottom flange shall be straightened before starting any horizontal straightening operations.



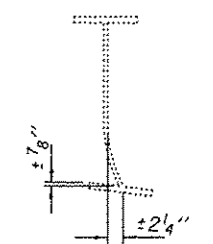
SECTION A-A



SECTION B-B



Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Ground surfaces shall be inspected for cracks using magnetic particle testing prior to initiating any beam straightening operations. Any cracks that cannot be removed by grinding approximately 1/4" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall be spot cleaned and painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam. Cost of grinding, testing and spot painting included with Beam Straightening.



EXISTING DEFORMATION TO BE STRAIGHTENED
 (Looking East)
 (Approximate max. deflections)
 Deflected length of beam to be straightened is approximately 4'-0".

REP-11-14-2005

DESIGNED DAB
 CHECKED VP
 DRAWN Daliva
 CHECKED DAB VP

EXAMINED
 PASSED
 ACTING ENGINEER OF STRUCTURAL SERVICES
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE JANUARY 9, 2013
 REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

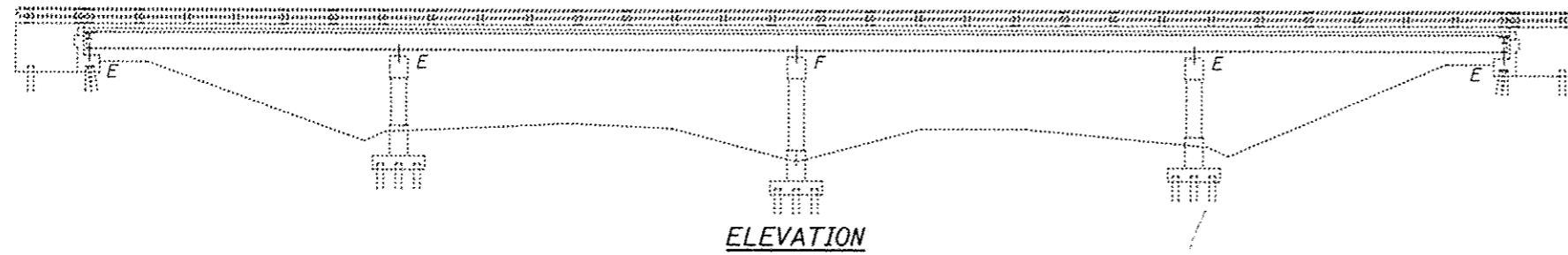
REPAIR DETAILS
 SN 016-0545

SHEET NO. 2 OF 2 SHEETS

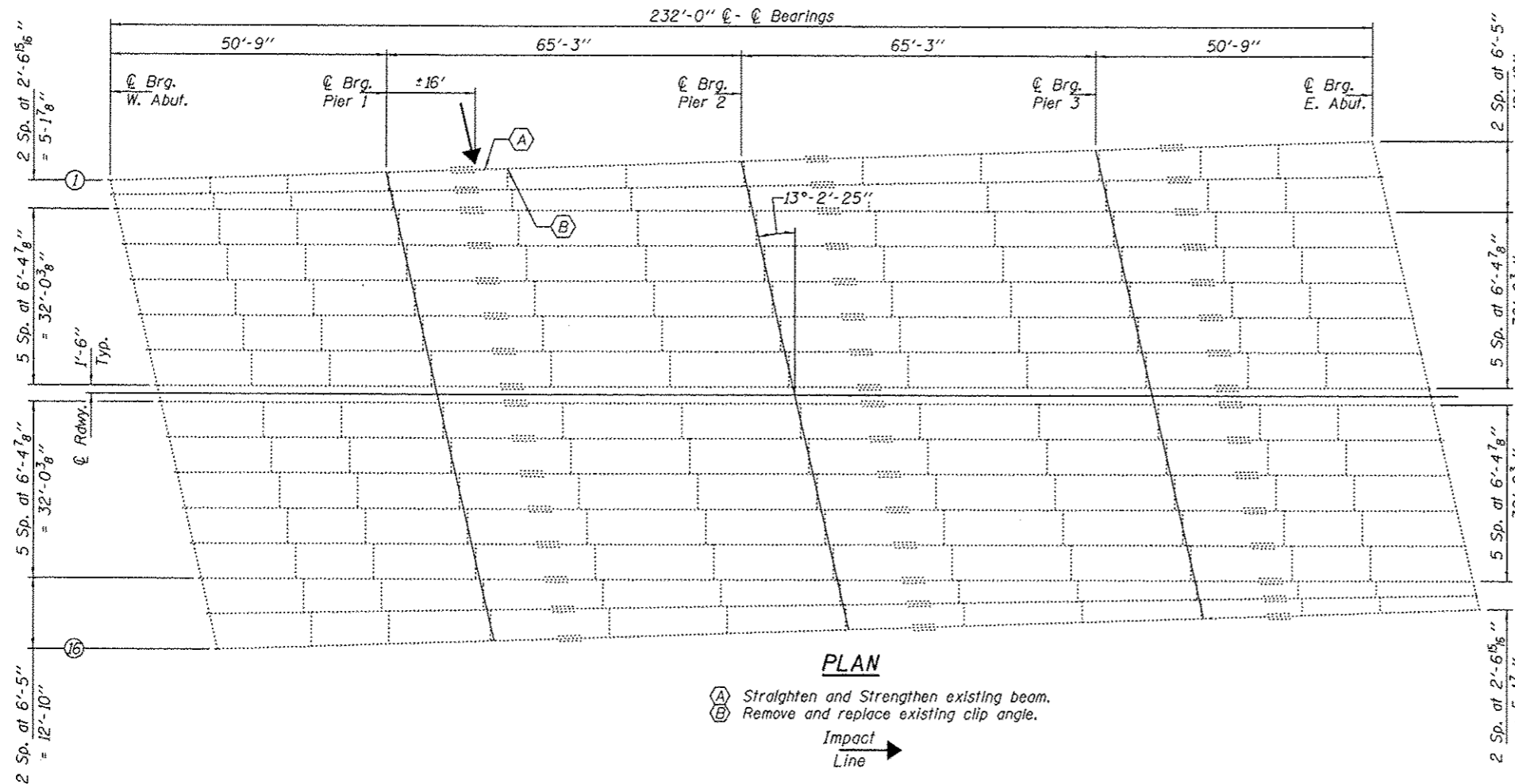
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	2012-025BR	COOK	21	8
CONTRACT NO. 60T66				
ILLINOIS FED. AID PROJECT				

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"φ, open holes 15/16"φ, 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.
 Cost of removal and 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 with Structural Steel Repair.
 The existing structural steel coating contains lead. The Contractor shall 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 Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
 All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Structural Steel Repair.
 Traffic to be removed from area over Beam 1 while splice is removed and replaced.

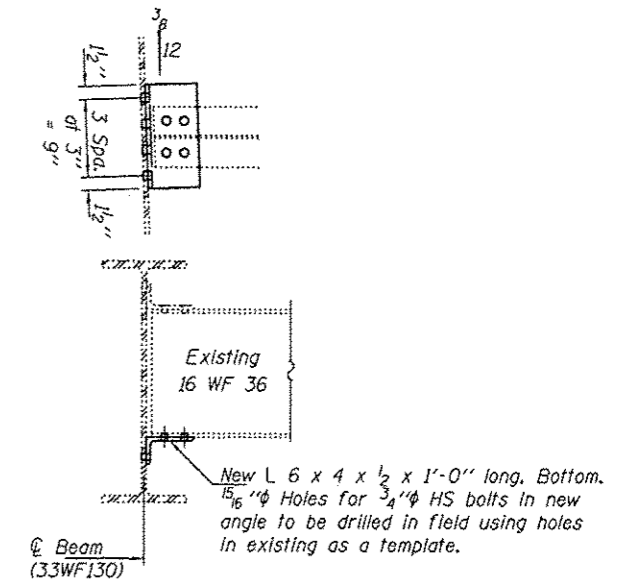
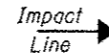


ELEVATION

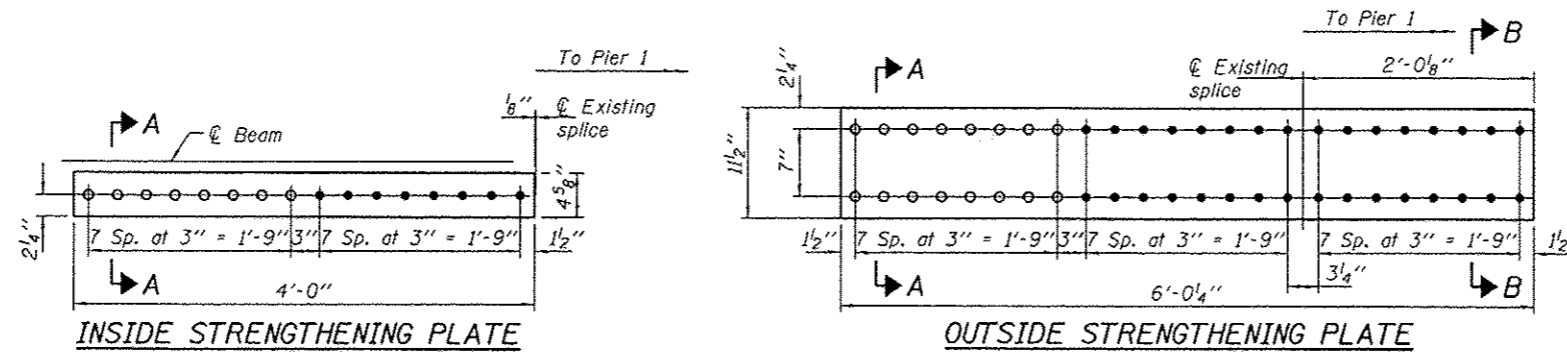


PLAN

- (A) Straighten and Strengthen existing beam.
- (B) Remove and replace existing clip angle.



CLIP ANGLE REPLACEMENT



INSIDE STRENGTHENING PLATE

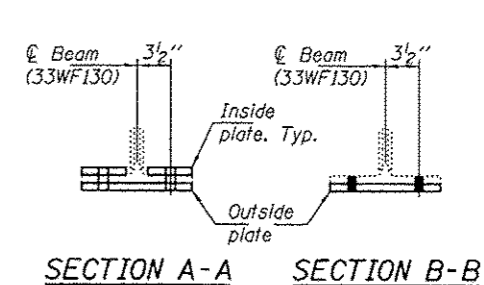
(Looking South)
 (2 3/4" x 4 5/8" x 4'-0". 2 required)

OUTSIDE STRENGTHENING PLATE

(Looking South)
 (2 3/4" x 11 1/2" x 6'-0 1/4". 1 required)

LEGEND

- Use holes in beam as template for drilling holes in new plates.
- Use holes in new plates as template for drilling holes in existing beam.



SECTION A-A SECTION B-B

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Structural Steel Repair	Pound	330
Beam Straightening	L.S.	0.5



EXPIRES 11-30-2014

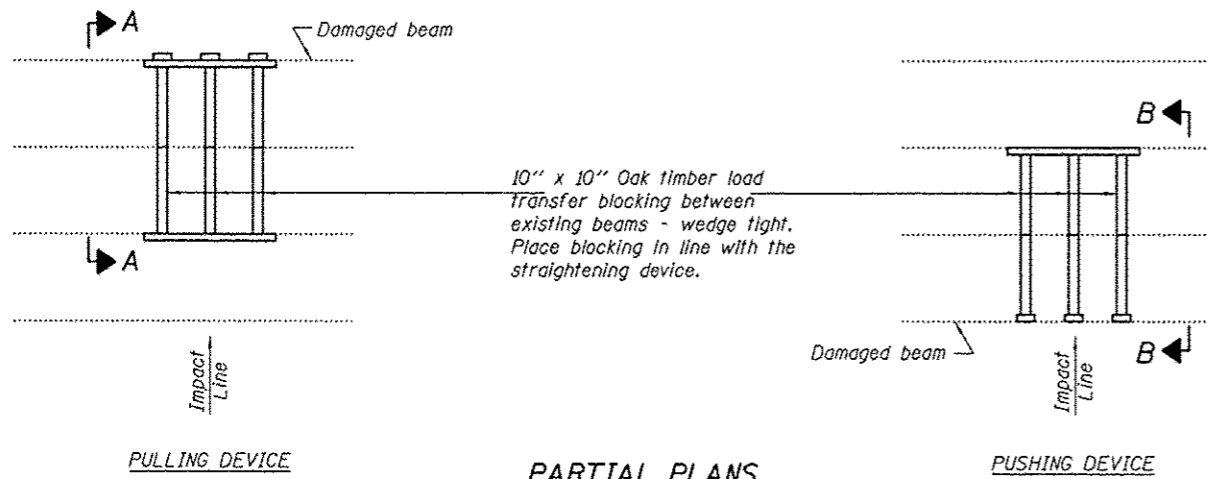
DESIGNED: <i>Victor H. Vogel</i>	EXAMINED: <i>Timothy A. Boals</i>	DATE: JANUARY 9, 2013
CHECKED: <i>David Puzey</i>	PASSED: <i>David Puzey</i>	REVISED: _____
DRAWN: <i>baliva</i>	ACTING ENGINEER OF STRUCTURAL SERVICES	REVISED: _____
CHECKED: <i>David Puzey</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION
 FAU 1225 OVER US 41
 SN 049-0050

SHEET NO. 1 OF 2 SHEETS

F.A.U. RTE. 1225	SECTION 2012-025BR	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 9
CONTRACT NO. 60T66			ILLINOIS FED. AID PROJECT	



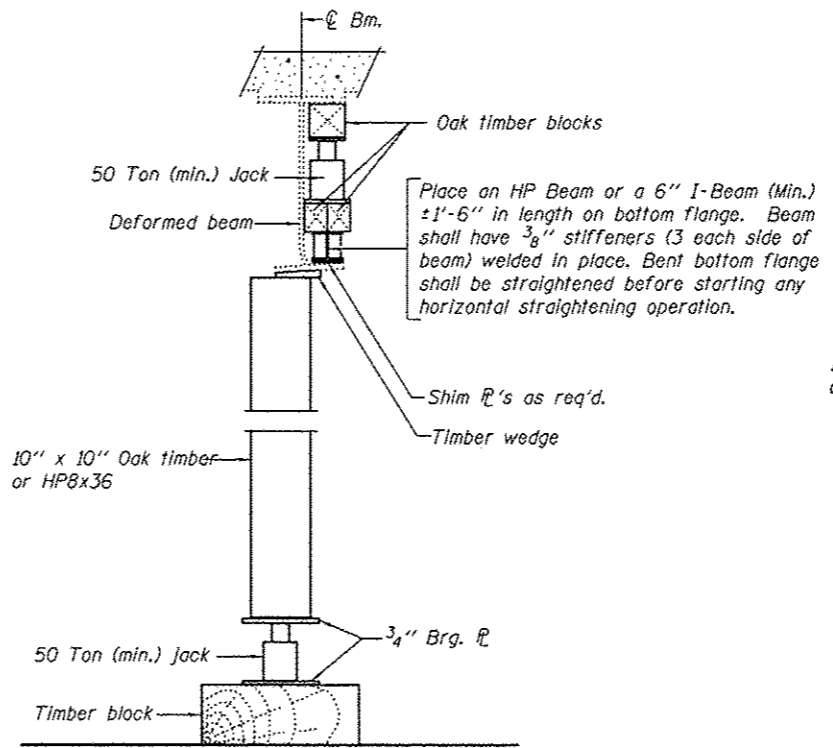
10" x 10" Oak timber load transfer blocking between existing beams - wedge tight. Place blocking in line with the straightening device.

PULLING DEVICE

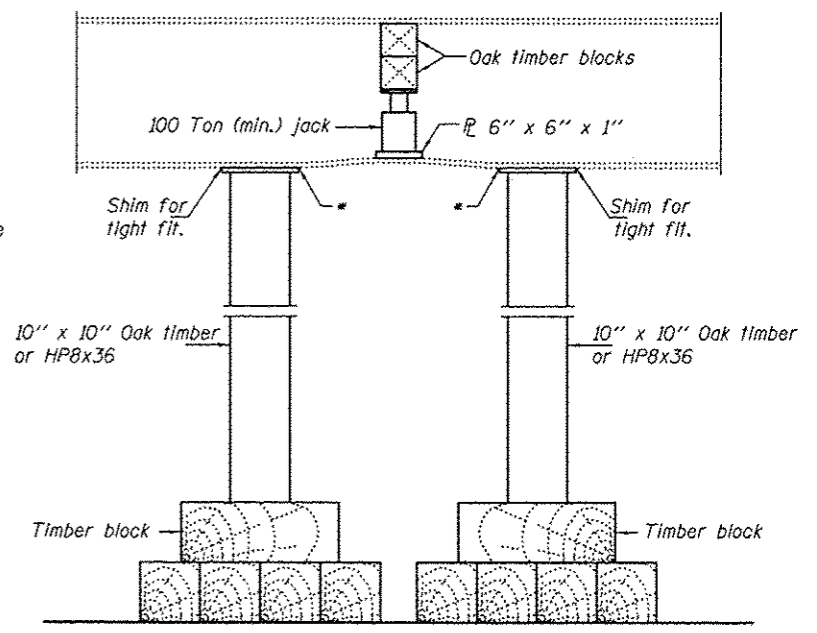
PUSHING DEVICE

PARTIAL PLANS
SUGGESTED BEAM STRAIGHTENING METHODS

Straightening force shall be maintained on all load transfer blocking during beam straightening.

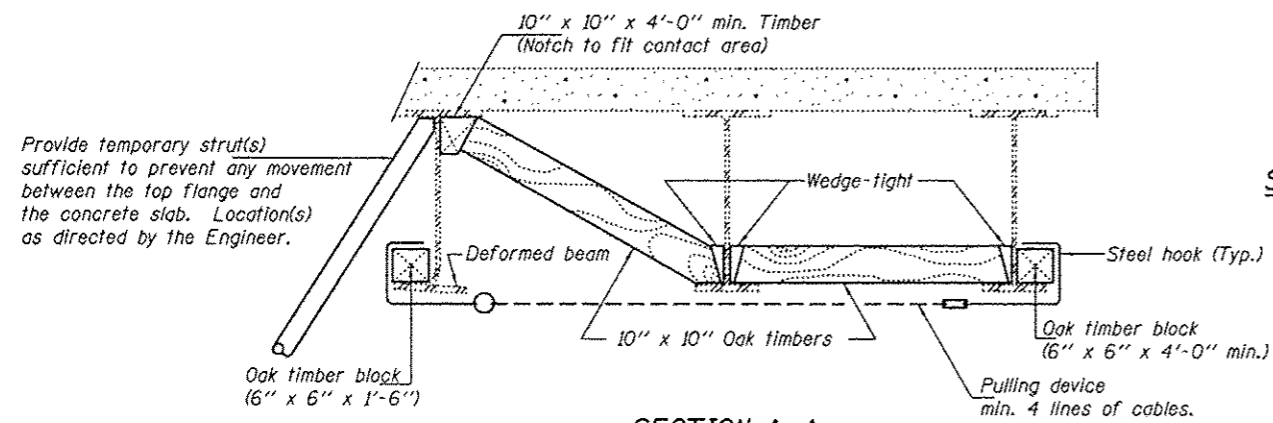


SUGGESTED VERTICAL STRAIGHTENING DETAIL
(To correct flange rotation.)

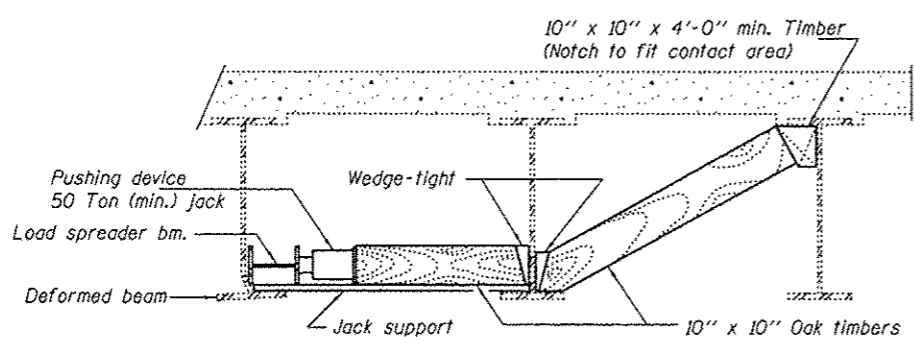


SUGGESTED VERTICAL STRAIGHTENING DETAIL
(To correct localized vertical flange deformations.)

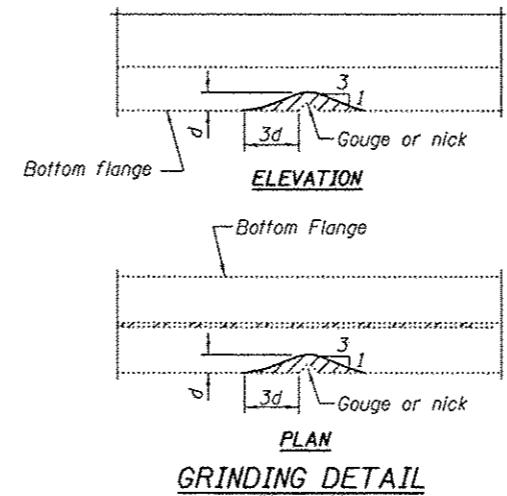
* Edge of plate shall line up with edge of deformation.
Note:
Braces and jack assembly shall be placed on same side of web.
Bent bottom flange shall be straightened before starting any horizontal straightening operations.



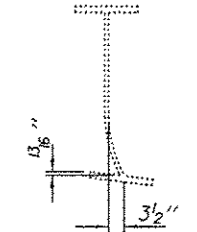
SECTION A-A



SECTION B-B



Grind existing nicks, gouges and shallow cracks in the damaged beams as detailed. Ground surfaces shall be inspected for cracks using magnetic particle testing prior to initiating any beam straightening operations. Any cracks that cannot be removed by grinding approximately 1/4" deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. Ground surfaces shall be spot cleaned and painted with an aluminum epoxy mastic primer followed by a finish coat to match the color of the existing beam. Cost of grinding, testing and spot painting included with Beam Straightening.



EXISTING DEFORMATION TO BE STRAIGHTENED
(Looking West)
(Approximate max. deflections)
Deflected length of beam to be straightened is approximately 30'.

REP-11-14-2005

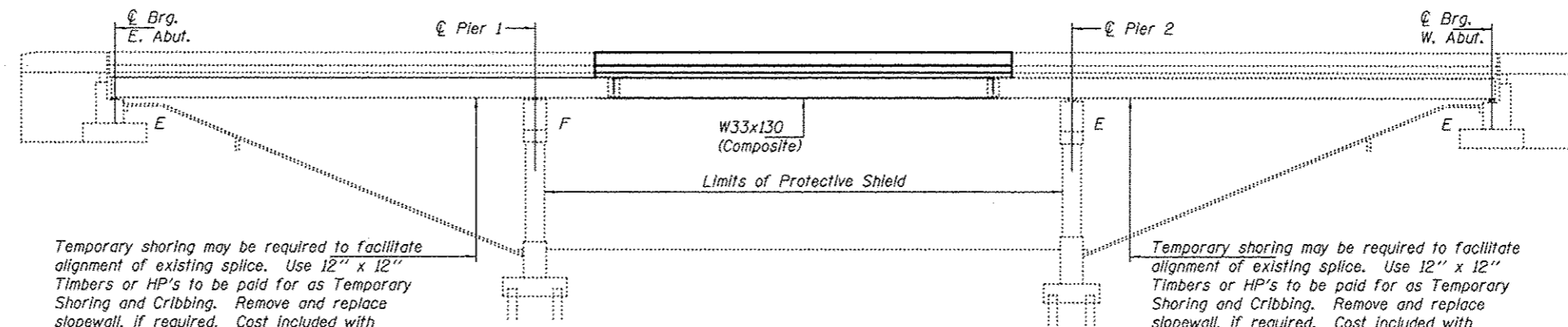
DESIGNED VHV	EXAMINED	DATE JANUARY 9, 2013
CHECKED DAB	PASSED	
DRAWN baiva		
CHECKED VHV DAB		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS
SN 049-0050

F.A.U. RTE. 1225	SECTION 2012-0258R	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 10
				CONTRACT NO. 60T66
ILLINOIS FED. AID PROJECT				

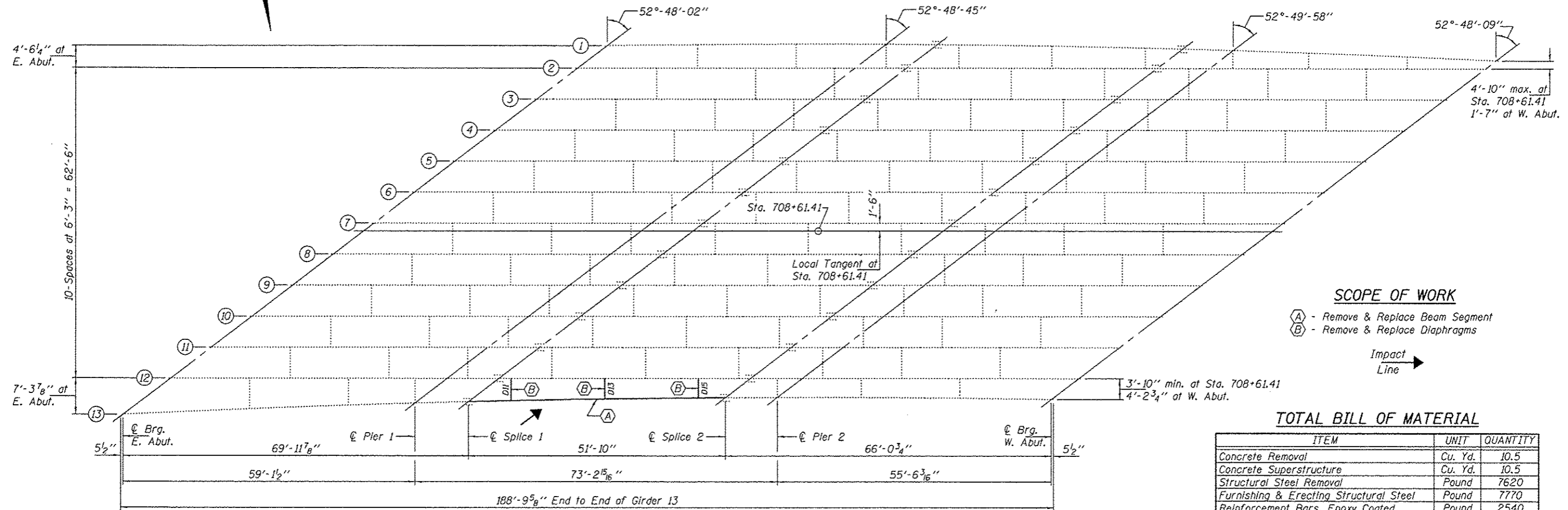
SHEET NO. 2 OF 2 SHEETS



Temporary shoring may be required to facilitate alignment of existing splice. Use 12" x 12" Timbers or HP's to be paid for as Temporary Shoring and Cribbing. Remove and replace slopewall, if required. Cost included with Temporary Shoring and Cribbing.

Temporary shoring may be required to facilitate alignment of existing splice. Use 12" x 12" Timbers or HP's to be paid for as Temporary Shoring and Cribbing. Remove and replace slopewall, if required. Cost included with Temporary Shoring and Cribbing.

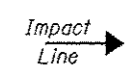
ELEVATION



FRAMING PLAN

SCOPE OF WORK

- (A) - Remove & Replace Beam Segment
- (B) - Remove & Replace Diaphragms



TOTAL BILL OF MATERIAL

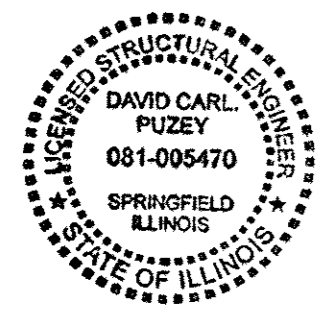
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	10.5
Concrete Superstructure	Cu. Yd.	10.5
Structural Steel Removal	Pound	7620
Furnishing & Erecting Structural Steel	Pound	7770
Reinforcement Bars, Epoxy Coated	Pound	2540
Mechanical Splicers	Each	40
Stud Shear Connectors	Each	180
Temporary Shoring and Cribbing	L.S.	1
Protective Shield	Sq. Yd.	35

GENERAL NOTES

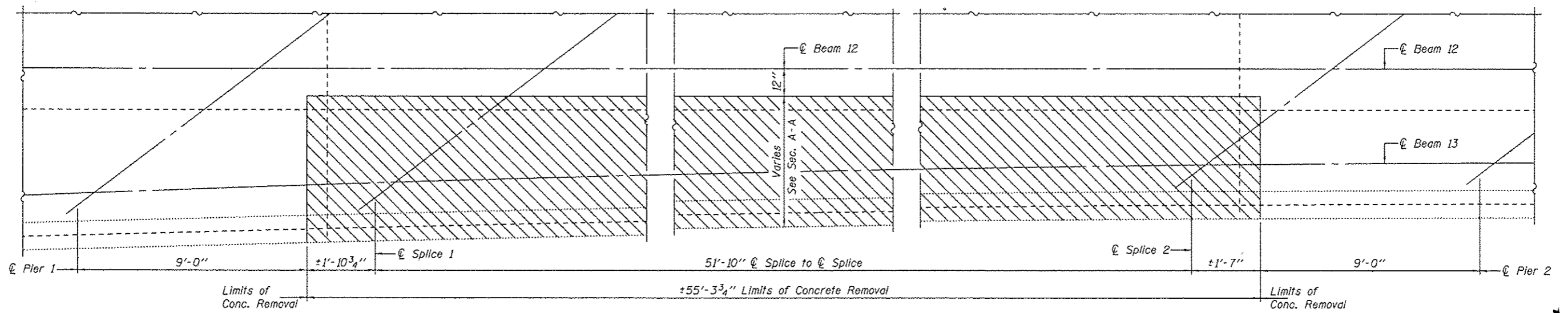
All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
 Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make 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.
 The deck surface shall have its final finish tined according to Article 420.09(e)(1) of the Standard Specifications. Cost included with Concrete Superstructure.

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.
 Cost of removal and 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 with 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 the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5 YR 3/4. See Special Provision "Cleaning and Painting New Metal Structures".

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.
 Diaphragm connection holes shall be 15/16" φ for 3/4" φ bolts. Two hardened washers shall be required at diaphragm connections.
 Fasteners shall be high strength bolts. Bolts 7/8" φ, open holes 15/16" φ, unless otherwise noted.
 Existing structural steel that will be in contact with new structural steel shall be cleaned and painted prior to erection as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

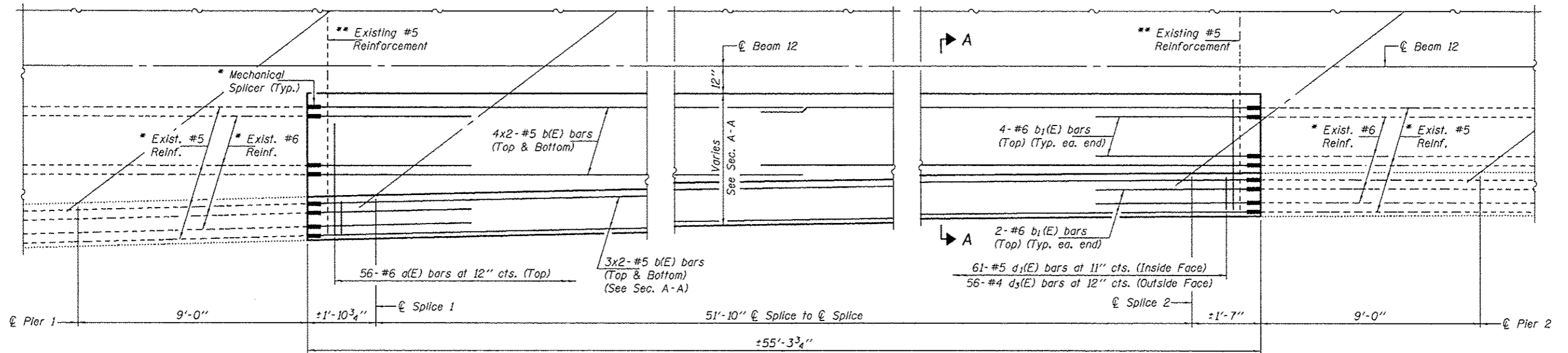


Expires: November 30, 2012



CONCRETE REMOVAL PLAN

Hatched areas Indicate Concrete Removal



CONCRETE REPLACEMENT PLAN

(Beam 13 not shown for clarity)
For Parapet Reinforcement Details
and Section A-A see sheet 3 of 5.

MIN. BAR LAPS

#5 Bar = 2'-7"

* Existing reinforcement to extend 6" min. into concrete removal area to facilitate installation of Mechanical Splicers.

** 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.

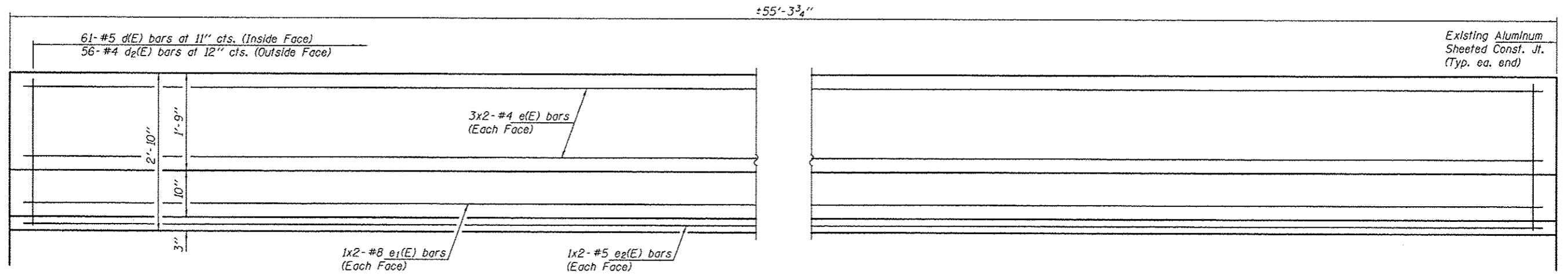
DESIGNED - SMR	EXAMINED - <i>Timothy A. [Signature]</i>
CHECKED - VP	PASSED - <i>Carl [Signature]</i>
DRAWN - Kyle M. Steffen	
CHECKED - SMR VP	

DATE - JANUARY 9, 2013	ACTING ENGINEER OF STRUCTURAL SERVICES
	ACTING ENGINEER OF BRIDGES AND STRUCTURES

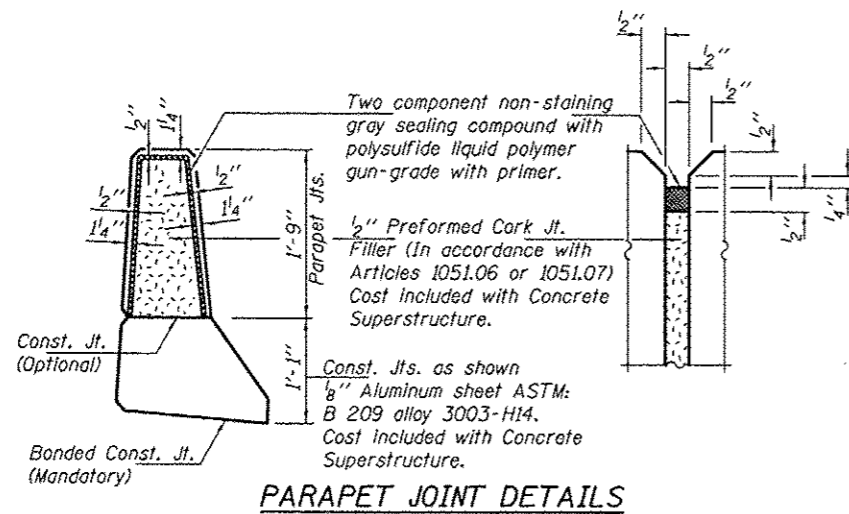
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS
SN 049-0096
SHEET NO. 2 OF 5 SHEETS

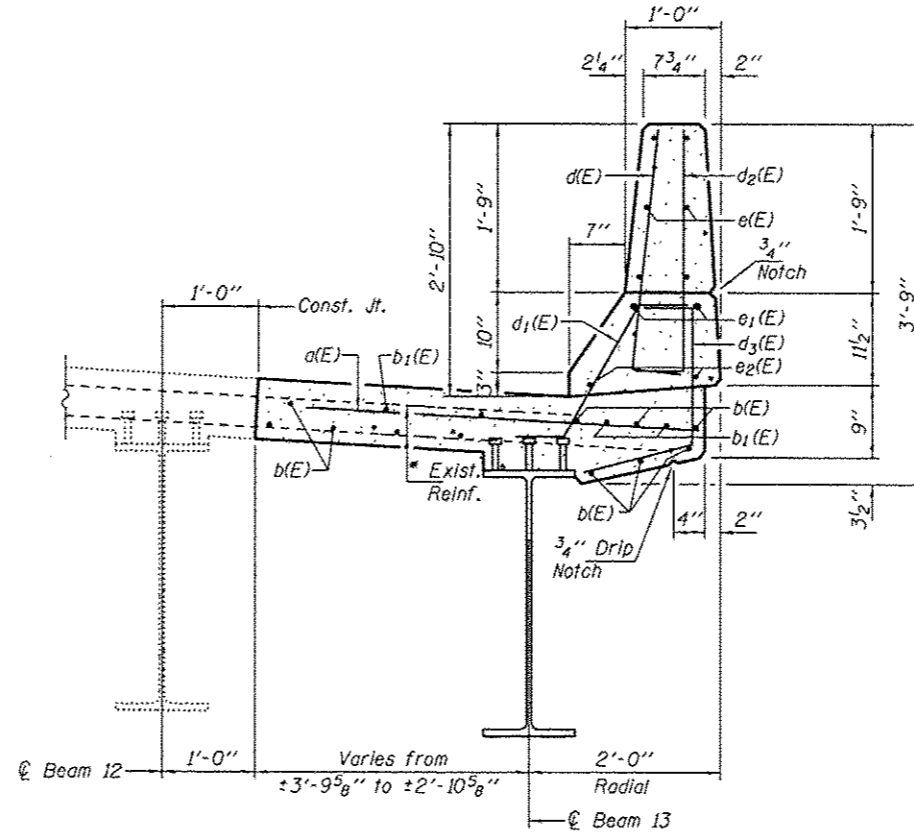
F.A.P. RTE. 352	SECTION 2012-0258R	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 12
CONTRACT NO. 60T66				
ILLINOIS FED. AID PROJECT				



INSIDE ELEVATION OF PARAPET
(Looking North)



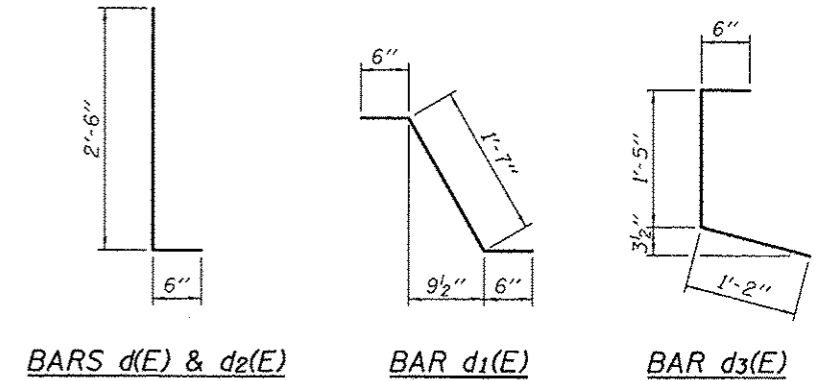
PARAPET JOINT DETAILS



SECTION A-A
(Looking West)

Match existing cross slope.

* 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.



BARS d(E) & d2(E)

BAR d1(E)

BAR d3(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	56	#6	4'-0"	—
b(E)	28	#5	28'-9"	—
b1(E)	12	#6	6'-0"	—
d(E)	61	#5	3'-0"	┌
d1(E)	61	#5	2'-7"	└
d2(E)	56	#4	3'-0"	┌
d3(E)	56	#4	3'-1"	└
e(E)	12	#4	28'-7"	—
e1(E)	4	#8	30'-2"	—
e2(E)	4	#5	28'-9"	—
Concrete Removal			Cu. Yd.	10.5
Concrete Superstructure			Cu. Yd.	10.5
Mechanical Splicers			Each	40
Reinforcement Bars, Epoxy Coated			Pound	2540

Bars indicated thus 3 x 2-#4 etc. indicates 3 lines of bars with 2 lengths per line.

MIN. BAR LAPS
(Parapet)

- #4 bar = 2'-1"
- #5 bar = 2'-7"
- #8 bar = 5'-5"

DESIGNED - SMR
CHECKED - VP
DRAWN - Kyle M. Steffen
CHECKED - SMR VP

EXAMINED
PASSED
ACTING ENGINEER OF STRUCTURAL SERVICES
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - JANUARY 9, 2013

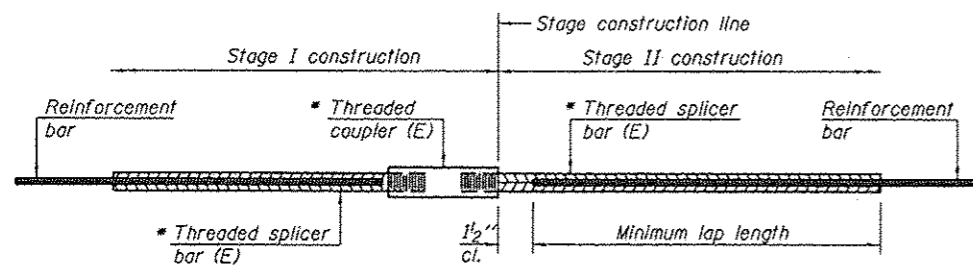
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS
SN 049-0096

SHEET NO. 3 OF 5 SHEETS

F.A.P. RTE. 352	SECTION 2012-025BR	COUNTY LAKE	TOTAL SHEETS 21	SHEET NO. 13
CONTRACT NO. 60T66				

ILLINOIS FED. AID PROJECT



STANDARD BAR SPLICER ASSEMBLY

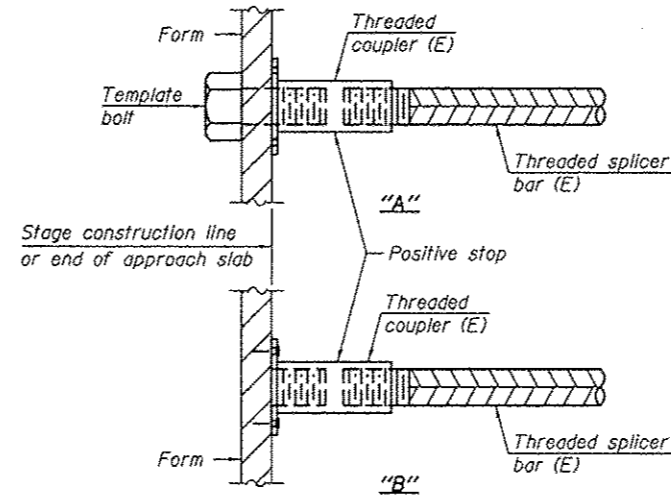
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

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

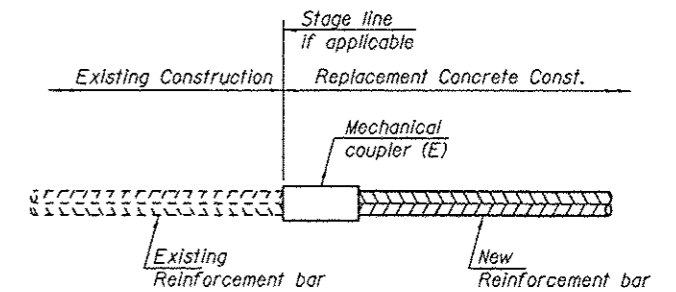
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



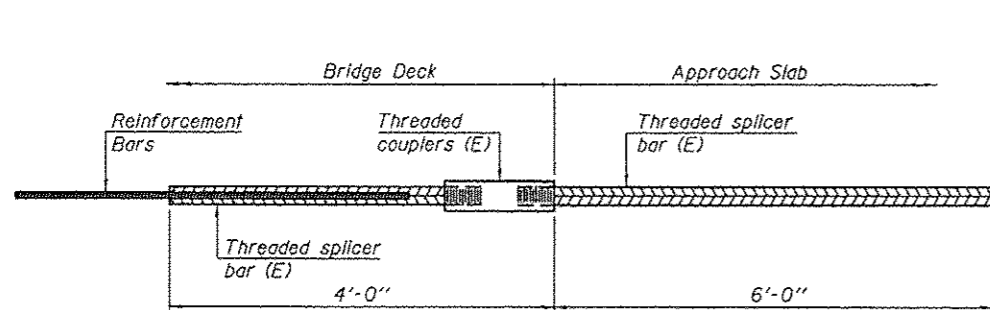
INSTALLATION AND SETTING METHODS

"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.



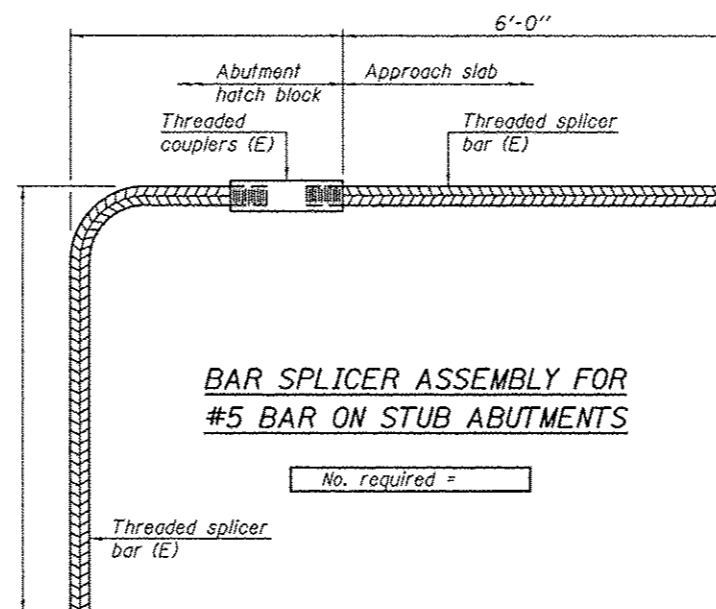
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
Deck	#5	28
Deck	#6	12



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

DESIGNED - SMR
 CHECKED - VP
 DRAWN - Kyio M. Steffon
 CHECKED - SMR VP

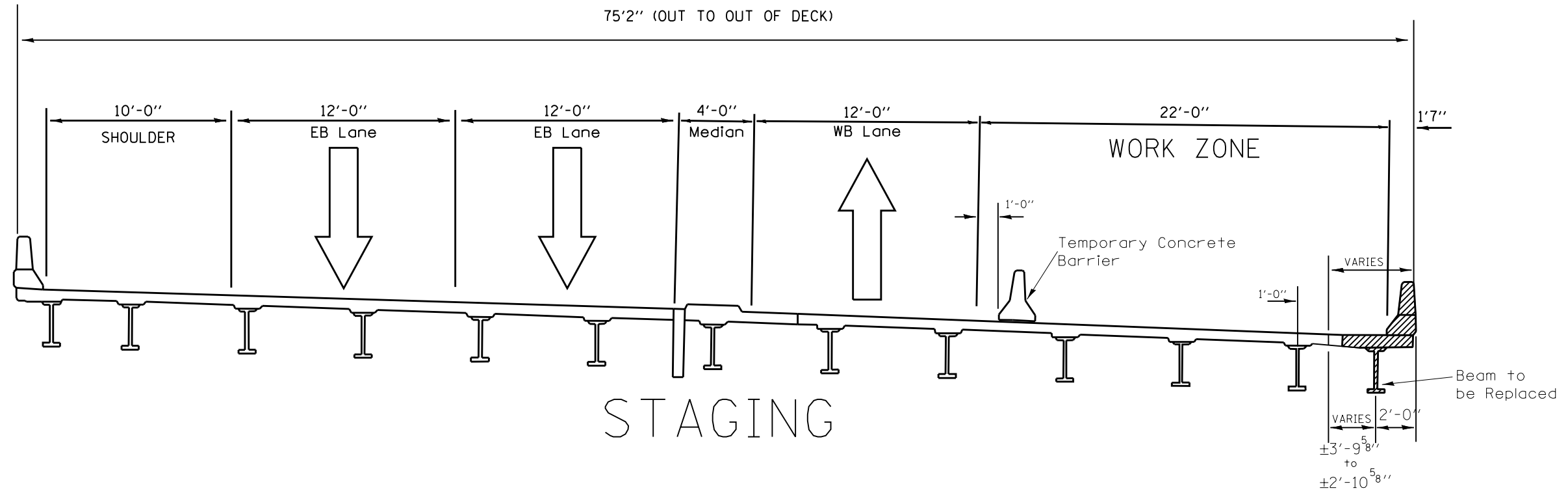
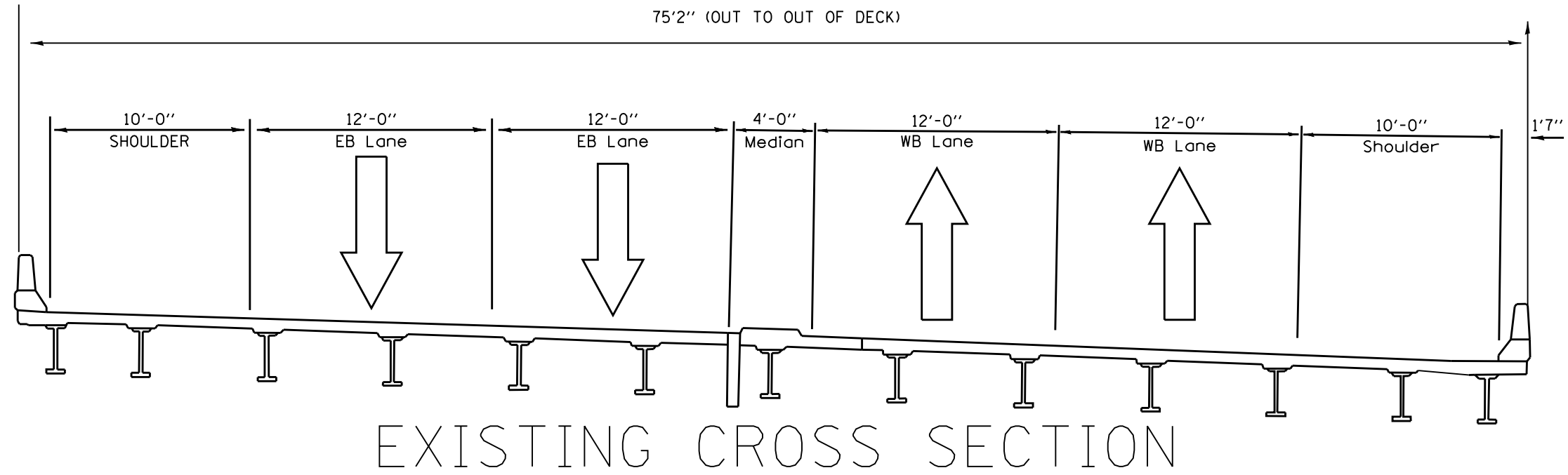
EXAMINED
 PASSED
 ACTING ENGINEER OF STRUCTURAL SERVICES
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - JANUARY 9, 2013

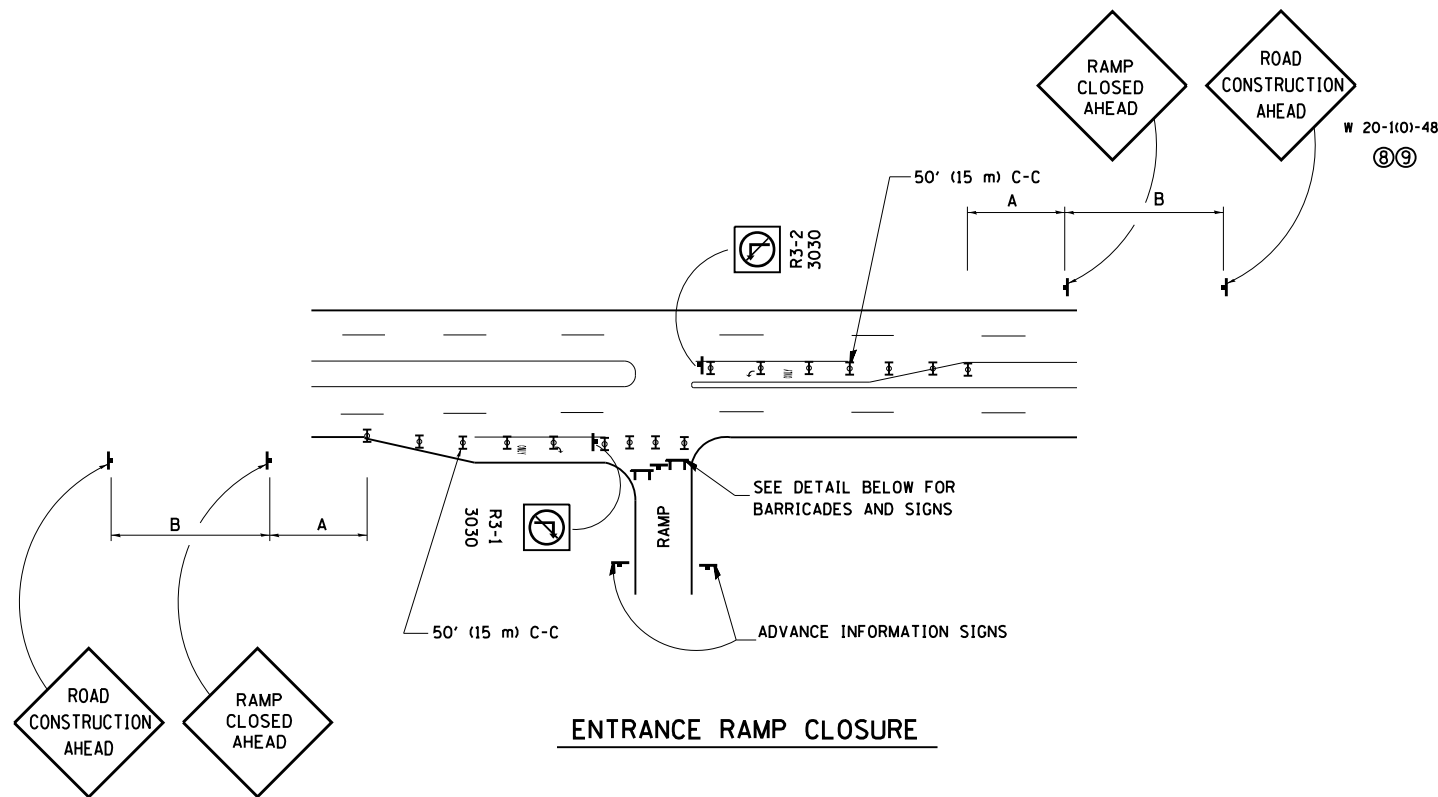
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 SN 049-0096

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
352	2012-025BR	LAKE	21	15
CONTRACT NO. 60T66				
ILLINOIS FED. AID PROJECT				



FILE NAME =	USER NAME = pyrzanowskirb	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL STAGING (SN 049-0096)			F.A. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw\work\p\dot\pyrzanowskirb\d0326970	ND141512-sht-cover.dgn	DRAWN -	REVISED -					VAR.	2012-025BR	COOK & LAKE	21	17
\$MODELNAME\$	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		SCALE:	SHEET 2	OF 2 SHEETS	STA.	TO STA.	CONTRACT NO. 60T66		
	PLOT DATE = 12/20/2012	DATE -	REVISED -							ILLINOIS FED. AID PROJECT		



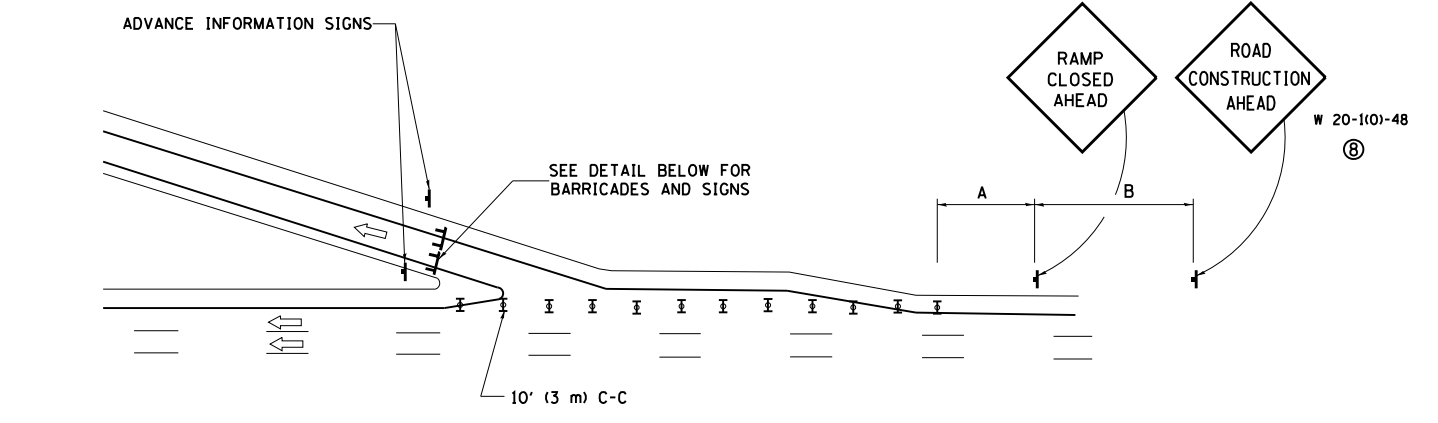
ENTRANCE RAMP CLOSURE

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 >45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	150' (45 m)	150' (45 m)

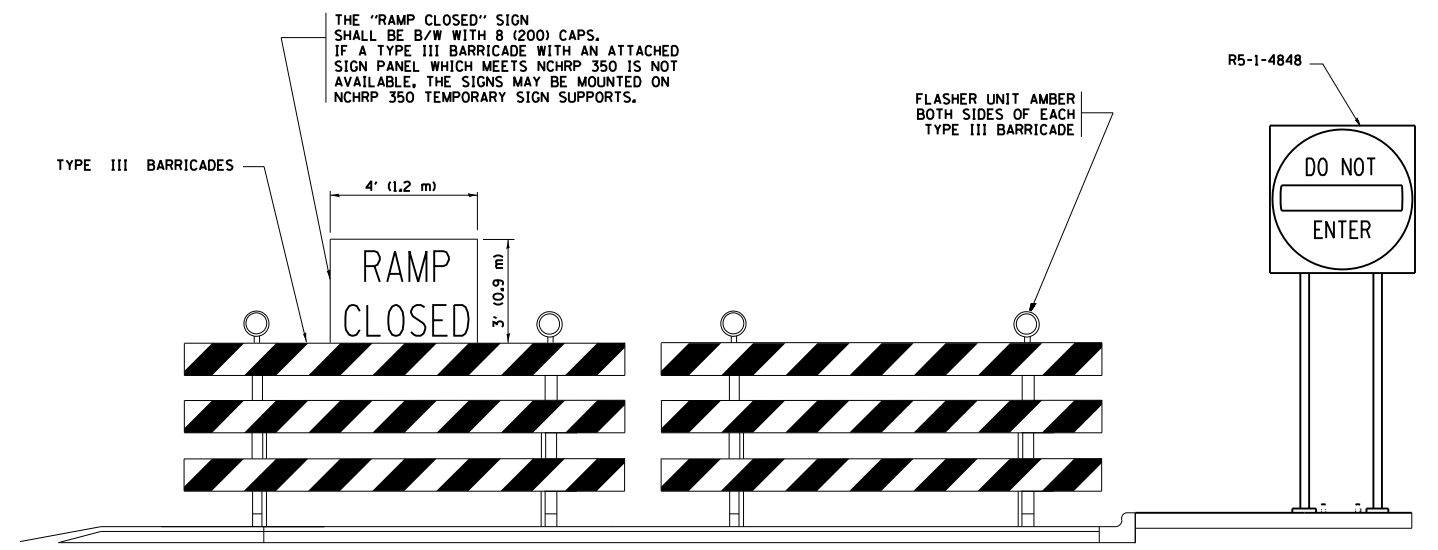
DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.

W 20-1(0)-48
⑧⑨

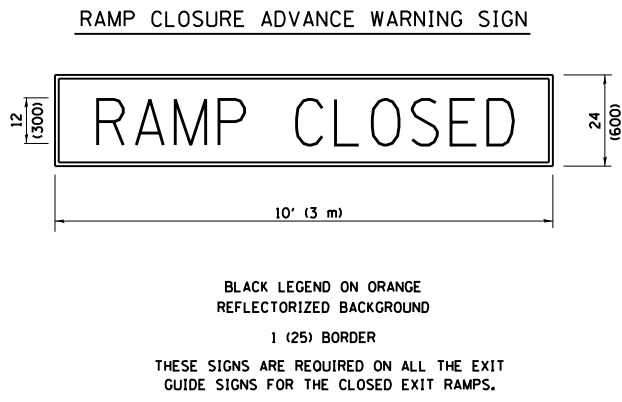


EXIT RAMP CLOSURE

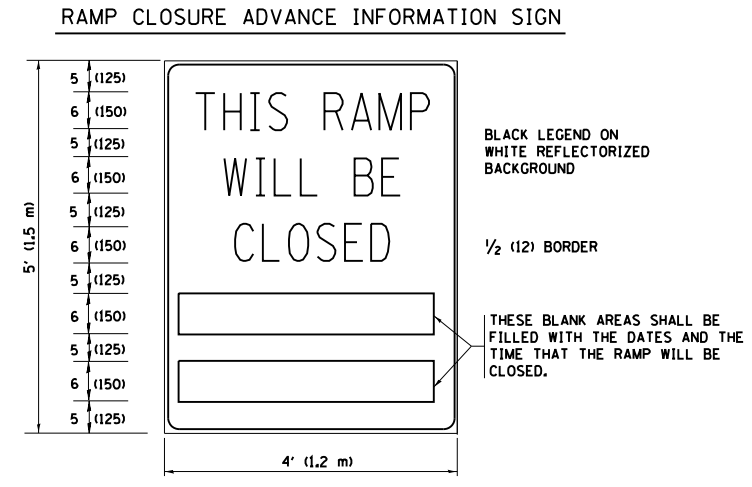
- SYMBOLS**
- ⊥ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
 - ⊓ TYPE III BARRICADE WITH FLASHING LIGHT



DETAIL FOR REQUIRED BARRICADES & SIGNS



BLACK LEGEND ON ORANGE REFLECTORIZED BACKGROUND
1 (25) BORDER
THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR THE CLOSED EXIT RAMPS.



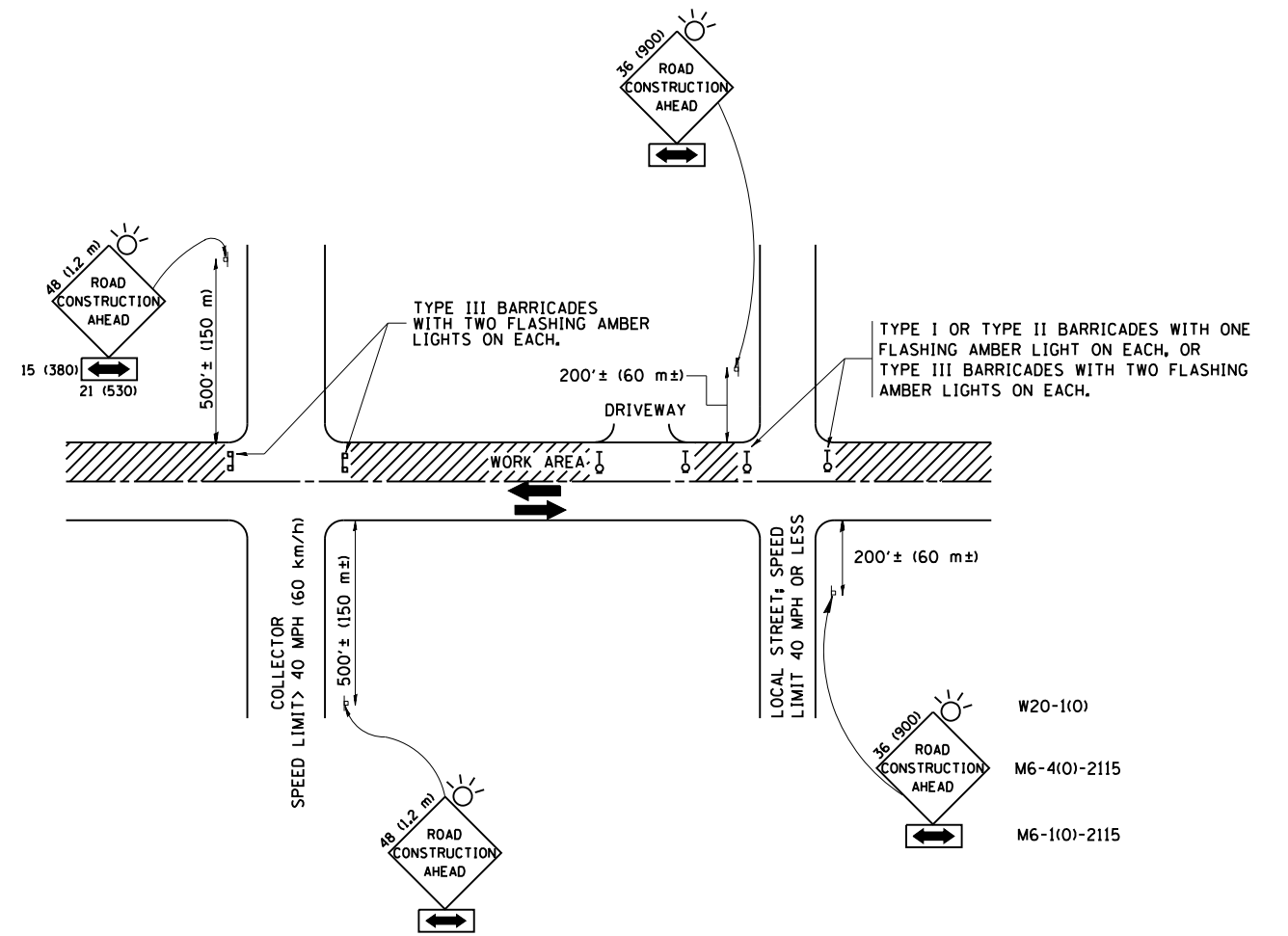
THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

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 STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- ③ A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES.
- ④ ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
- 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 TWENTY-FOUR (24) HOURS 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 MAY BE OMITTED ON CLOSURES LESS THAN 24 HOURS IN DURATION.

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

FILE NAME =	USER NAME = pyzranowskirb	DESIGNED - DWS	REVISED - DWS/JAF 12-02	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FREEWAY ENTRANCE AND EXIT RAMP CLOSURE DETAILS			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
et:\pw\work\p\id\pyzranowskirb\0326970\DistStd.dgn		DRAWN -	REVISED - JAF 02-06		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	VAR.	2012-025BR	COOK & LAKE	21	18
PLOT SCALE = 100.0000' / 1"		CHECKED -	REVISED - SPB 01-07						TC-08		CONTRACT NO.	60T66	
PLOT DATE = 12/20/2012		DATE - 02-83	REVISED - SPB 12-09						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
 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 AND FLAG 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) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

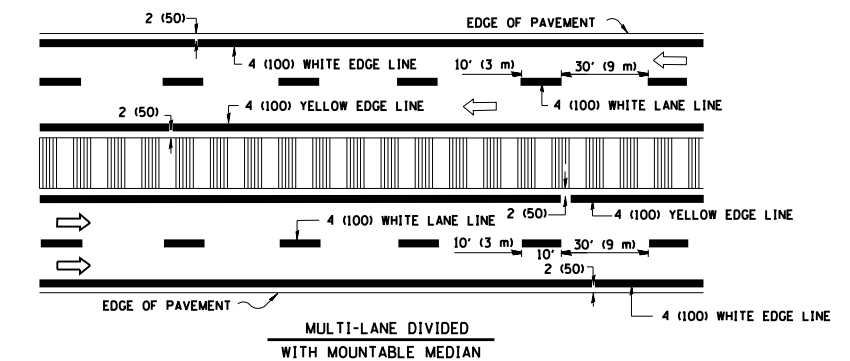
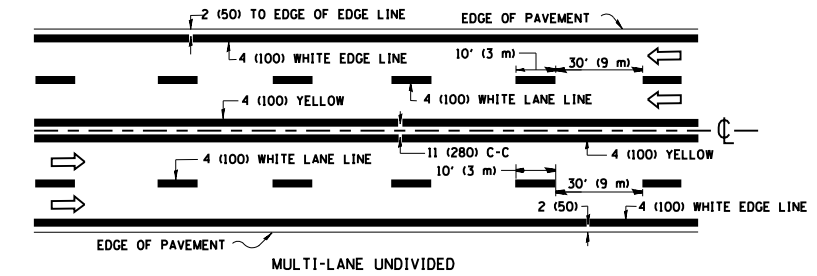
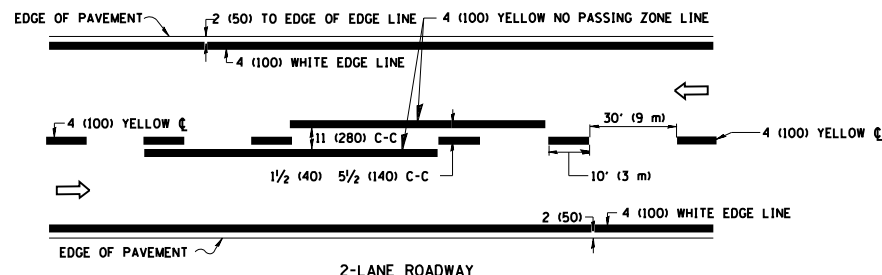
FILE NAME =	USER NAME = pyrzanowski	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
es:\pwork\pwork\pyrzanowski\bd032697\DistStd.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 12/20/2012	DATE - 06-89	REVISED - T. RAMMACH 01-06-00

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

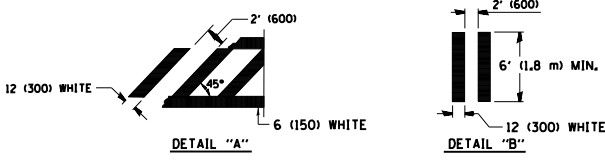
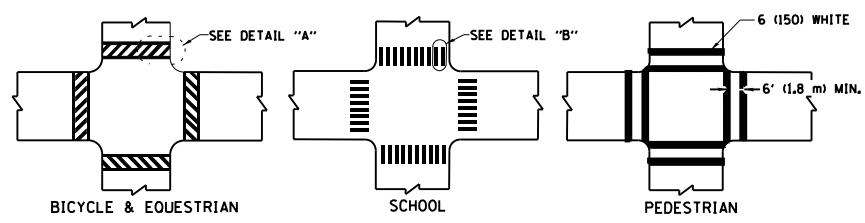
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2012-025BR	COOK & LAKE	21	19
TC-10		CONTRACT NO.	60T66	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

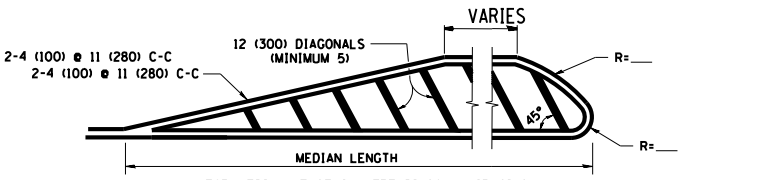
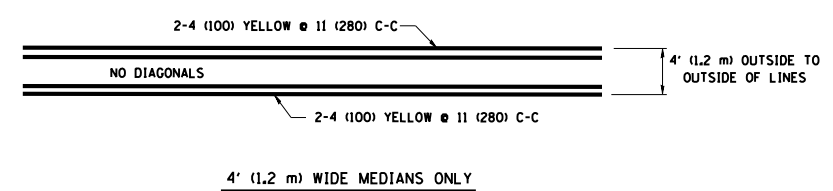


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

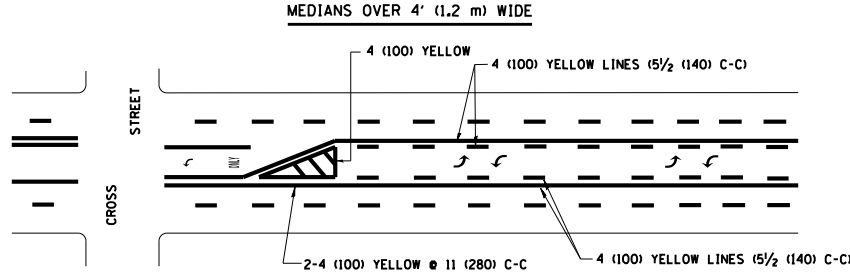
TYPICAL LANE AND EDGE LINE MARKING



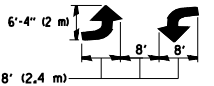
TYPICAL CROSSWALK MARKING



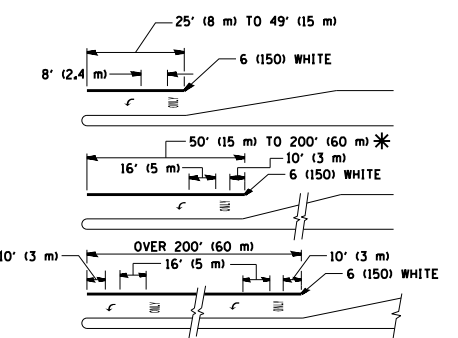
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.
 DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
 75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
 150' (45 m) C-C (MORE THAN 45MPH (70 km/h))



A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.

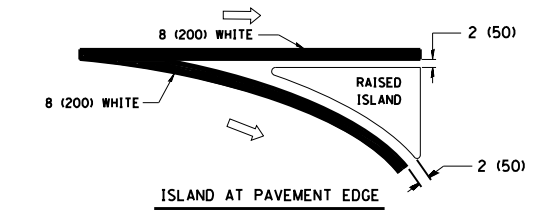
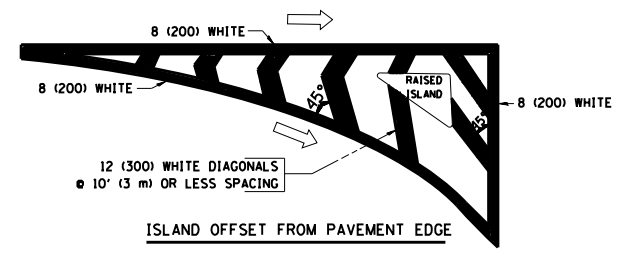


TYPICAL PAINTED MEDIAN MARKING



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".

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

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 MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
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" 15' (4.5 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) EACH
SHOULDER DIAGONALS	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))

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

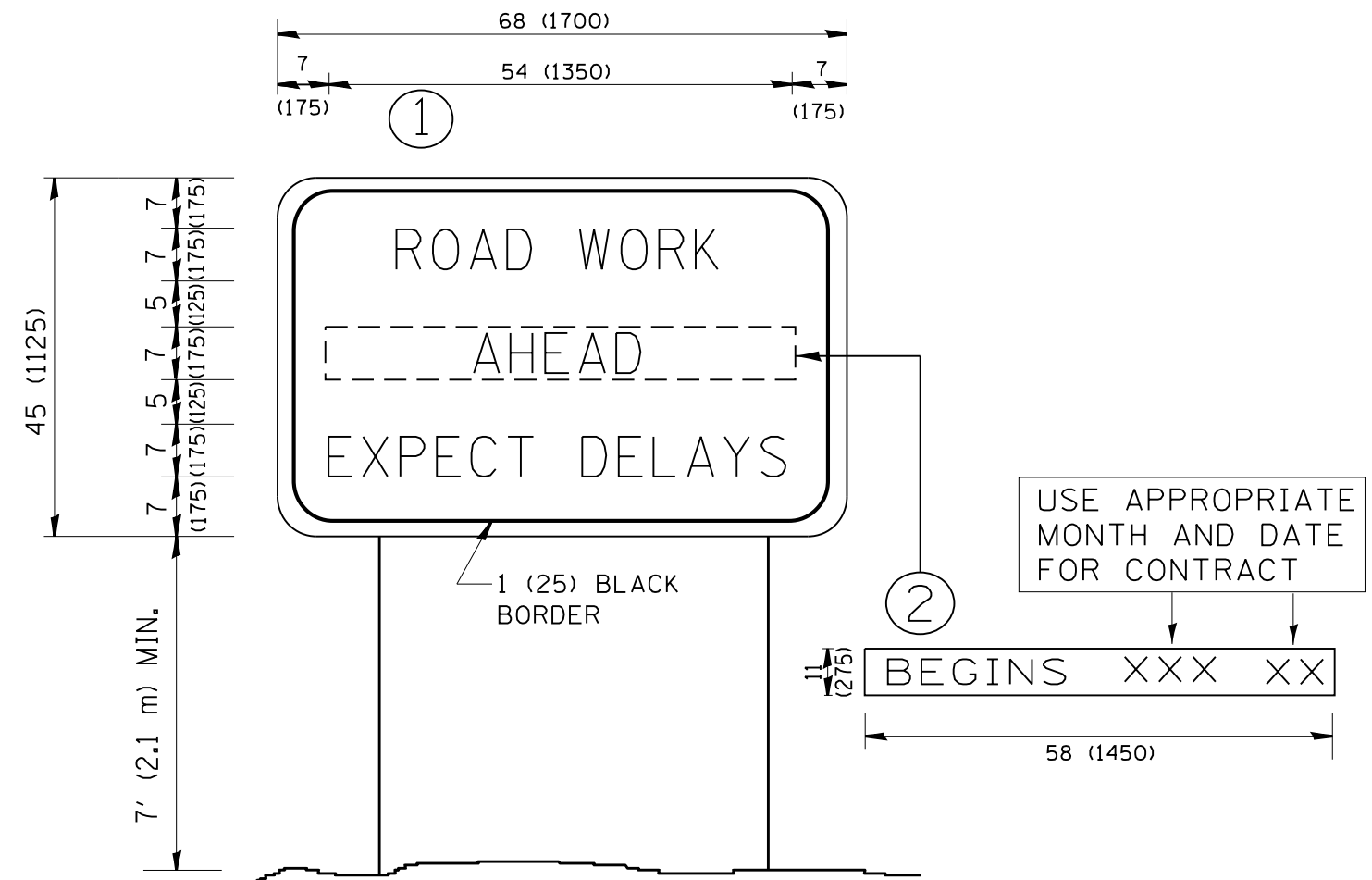
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = pyrzanowskirb	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94
et:\pw\work\p1dot\pyrzanowskirb\032697\NDistStd.dgn		DRAWN -	REVISED - C. JUCIUS 09-09-09
PLOT SCALE = 100.0000' / in.		CHECKED -	REVISED -
PLOT DATE = 12/20/2012		DATE - 03-19-90	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE			
TYPICAL PAVEMENT MARKINGS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2012-025BR	COOK & LAKE	21	20
TC-13		CONTRACT NO.	60T66	
FED. ROAD DIST. NO. 1 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.

FILE NAME =	USER NAME = pyrzanowski	DESIGNED -	REVISED - R. MIRS 09-15-97
et:\pwork\pwork\pyrzanowski\0326970\DistStd.dgn		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 12/20/2012	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2012-025BR	COOK & LAKE	21	21
	TC-22	CONTRACT NO.	60T66	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				