

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(34BR-1)BRR	WOODFORD	32	1
BRIDGE REPAIR		ILLINOIS	CONTRACT NO. 68E17	

035

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROPOSED HIGHWAY PLANS

FAP 317 (US 24)
SECTION (34BR-1)BRR
PROJECT NHPP-BHQ6(486)
BRIDGE REHABILITATION
WOODFORD COUNTY

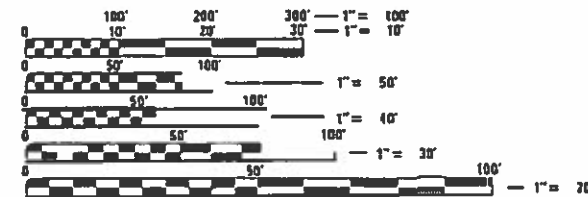
C-94-051-18

D-94-030-18



HIGHWAY STANDARDS:	D4 STANDARDS:	
701001-02	701901-07	406101
701006-05	704001-08	440001
701011-04	780001-05	780001
701201-04		
701321-17		

AADT: 7000 (2017)
MU: 9%
SU: 91%

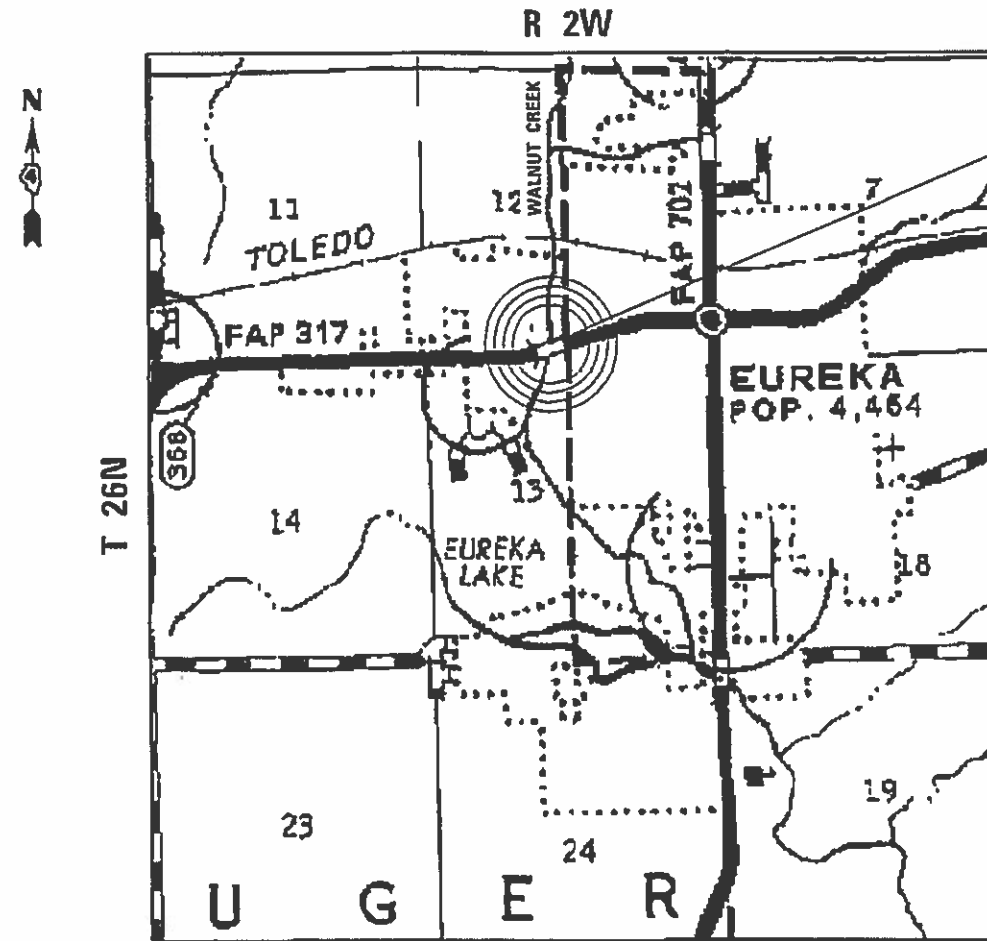


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT DESIGNER: CLARK JONES (309) 671-3452
PROJECT MANAGER: MARK ECKHOFF (309) 671-4463

CONTRACT NO. 68E17 CAT. NO. 035595-00D



SN. 102-0007

THIS PROJECT CONSISTS OF REPLACING BRIDGE DECK PAVEMENT, DRAIN SCUPPERS, EXPANSION JOINTS, AND BEARINGS WITH EAST ABUTMENT SUBSTRUCTURE, SUPERSTRUCTURE AND SIDEWALK REPAIRS, AND APPROACH BUTT JOINTS TO SN 102-0007 US24 OVER WALNUT CREEK

GROSS LENGTH = 240 FT. = 0.045 MILE
NET LENGTH = 240 FT. = 0.045 MILE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED Aug 16 2018
Kennel A. Garnett (KSD)
REGION THREE ENGINEER

Oct 5 2018
EA ETC
ENGINEER OF DESIGN AND ENVIRONMENT

Oct 5 2018
Paul P. [Signature]
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

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OF THE STATE OF ILLINOIS

GENERAL NOTES

INDEX OF SHEETS:

1. COVER SHEET
2. GENERAL NOTES & COMMITMENTS
- 3-5. SUMMARY OF QUANTITIES
- 6-7. SCHEDULE OF QUANTITIES
8. PLAN AND PROFILE
9. EXISTING PLAN
10. EXISTING APPROACH SLAB
11. GENERAL LOCATION
- 12-13. PROPOSED TRAFFIC CONTROL
14. SHOULDER WIDENING DETAIL
15. BUTT JOINTS DETAIL
- 16-26. REPAIR DETAILS
- 27-32. DISTRICT STANDARDS

COMMITMENTS

No commitments have been made for this project.

JOB SPECIFIC NOTES

If it is necessary to remove railing near parapet removal area the railing shall be removed, salvaged, and replaced according to Section 509.05 of the Standard Specifications. Cost to be included in Concrete Superstructure. After placement of the bridge deck overlay, the Resident Engineer shall notify the District Bridge Maintenance Engineer of the "as constructed" milling depth and overlay thickness for updating the Illinois Highway Information System. If the Contractor chooses to store construction materials and equipment used at the jobsite, it shall not interfere with traffic or traffic staging changes. Responsibilities of this storage shall also be according to Articles 104.01 ~ 104.06 of the Standard Specifications.

CRITICAL PATH WORK SCHEDULE REQUIREMENT

The Contractor will submit to the Engineer a satisfactory progress schedule and critical path schedule which shall show the proposed sequence of work at the time of the pre-construction conference.

BRIDGE OVERLAY NOTIFICATION

After placement of the bridge deck overlay, the Resident Engineer shall notify the District Bridge Maintenance Engineer of the "as constructed" milling depth and overlay thickness for updating the Illinois Highway Information System.

BUTT JOINT CUTTING TIME RESTRICTION

Butt joints shall not be milled more than three (3) days prior to placement of the HMA surface course.

SAW CUT - 18" (450 mm) SHOULDER REMOVAL - IN-PLACE WHEEL SAW GRINDING PERMITTED

A full depth saw cut shall be required at the joint between the pavement that is to be left in place and the existing shoulder that is to be removed. The Contractor may have the option of using a wheel saw to grind up the existing shoulder and leave the finely ground pieces on site under the new shoulder and on the foreslope, with the approval of the Engineer. Maximum size of pieces shall be no more than 3" (75 mm). Larger pieces shall be picked up/removed from the jobsite. No additional compensation will be allowed for variations in assumed thickness. This work shall not be paid for separately, but shall be included in the cost of the removal items.

TAPER REMOVAL FRAME & GRATES ADJUSTED BY OTHERS

At locations where frames and grates have previously been adjusted by others and they are surrounded by hot-mix asphalt tapers, the contractor for this contract shall remove and dispose of the hot-mix asphalt taper material prior to the placement of the hot-mix asphalt surface course. This work will not be paid for separately, but will be considered as included in the cost of the HOT-MIX ASPHALT SURFACE COURSE pay item.

TRANSITION PAYMENT METHOD - NEW/OLD CONSTRUCTION

Ten feet (10 ft.) (3 m) transitions shall be used to match proposed items of work to existing items in the field unless otherwise shown. The transition shall be paid for at the contract unit price for the proposed item of work specified.

BITUMINOUS MIXTURE REQUIREMENTS		6/7/2018	ReSave As	ReSend
Contract #	68E17	Description	US 24 over Walnut Creek in Eureka	
		County	Woodford	
		Marked Route	US 24	
The following mixture requirements are applicable for this project:				
Mixture Use(s):	Surface and Base Cse Widening (all lifts)			
AC/PG:	PG 04-22			
Design Air Voids:	4.0% @ N-50			
Mixture Composition: (Mixture Gradation)	IL 9.5			
Friction Aggregate:	Mix C			
Quality Management Program:	QCQA			

Note: 1) Individual lift thickness of each mix type will be no less than 3 times nominal maximum aggregate size and no more than 6 times nominal maximum aggregate size, unless otherwise approved by the Engineer.
 2) For design purposes, mixture weight for all mixes is determined to be 112.0 lbs/cy / in., unless otherwise noted.
 3) Sublot sizes for PFP and CCP mixes will be 1000 tons, unless otherwise agreed to by the Engineer and the paving contractor.

Designer Clark Jones
 esals xxx

* The same mixture requirements shall be used on this project for all pay items with Hot-Mix-Asphalt.

FILE NAME *	USER NAME = jonesce	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES & COMMITMENTS STRUCTURE NO. 102-0007	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
S:\GEN\DRIFT\clarks folder\68E17 102-0007	US24 over Walnut Creek\102-0007.PLAN.dgn	DRAWN -	REVISED -			317	134B-1BRR	WOODFORD	32	2	
	PLOT SCALE = 20.0000' / in.	CHECKED -	REVISED -			BRIDGE REPAIRS CONTRACT NO. 68E17					
Default	PLOT DATE = 8/17/2018	DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONST. CODE
				80% FEDERAL 20% STATE
				BRIDGE
				0013
				SN. 102-0007
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	130	130
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SOYD	286	286
40600990	TEMPORARY RAMP	SOYD	36	36
40603310	HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50	TON	30	30
42001300	PROTECTIVE COAT	SOYD	37.5	37.5
44004250	PAVED SHOULDER REMOVAL	SOYD	390	390
48203029	HOT-MIX ASPHALT SHOULDERS, 8"	SOYD	416	416
50102400	CONCRETE REMOVAL	CU YD	8.4	8.4
50300100	FLOOR DRAINS	EACH	2	2
50300255	CONCRETE SUPERSTRUCTURE	CU YD	8.4	8.4
50500405	FURNISHING & ERECTING STRUCTURAL STEEL	POUND	1770	1770
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1640	1640
50800515	BAR SPLICERS	EACH	24	24
52000110	PREFORMED JOINT STRIP SEAL	FOOT	90	90
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE 1	EACH	12	12

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	PLOT DATE = 8/17/2018	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES
STRUCTURE NO. 102-0007**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(34BR-1)BR	WOODFORD	32	3
BRIDGE REPAIRS			CONTRACT NO. 68E17	
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONST. CODE
				80% FEDERAL 20% STATE
				BRIDGE 0013 SN. 102-0007
52100520	ANCHOR BOLTS, 1"	EACH	24	24
67100100	MOBILIZATION	LSUM	1	1
70100405	TRAFFIC CONTROL & PROTECTION, STANDARD 701321	EACH	1	1
70100450	TRAFFIC CONTROL & PROTECTION, STANDARD 701201	LSUM	1	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1	1
70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	1840	1840
70300924	PAVEMENT MARKING TAPE, TYPE IV 24"	FOOT	48	48
70400100	TEMPORARY CONCRETE BARRIER	FOOT	412.5	412.5
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	412.5	412.5
70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2
70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2
* 78001110	PAINT PAVEMENT MARKING - LINE 4"	FOOT	1024	1024
X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SOFT	244	244
X5030250	BRIDGE DECK GROOVING (LONGITUDINAL)	SO YD	455.8	455.8

* SPECIALTY ITEM

FILE NAME =	USER NAME = jonesce	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES STRUCTURE NO. 102-0007	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S:\GEN\DRIFT\elorks folder\68E17 102-0007	US24overWalnutCreek\102-0007.PLAN.dgn	DRAWN -	REVISED -			317	134BR-1)BRR	WOODFORD	32	4
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	PLOT DATE = 8/17/2018	DATE -	REVISED -			ILLINOIS FED. AID PROJECT REV. 9/20/18 REV. 9/14/18				

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONST. CODE
				80% FEDERAL 20% STATE
				BRIDGE 0013 SN. 102-0007
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SOFT	630	630
Z0001899	JACK & REMOVE EXISTING BEARINGS	EACH	12	12
Z0006014	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/2 INCHES	SOYD	581	581
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SOYD	581	581
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SOFT	30	30
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SOYD	1.8	1.8
Z0029090	DIAMOND GRINDING (BRIDGE SECTION)	SOYD	530.5	530.5

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	PLOT DATE = 8/17/2018	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES
STRUCTURE NO. 102-0007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	134BR-1)BR	WOODFORD	32	5
BRIDGE REPAIRS			CONTRACT NO. 68E17	
ILLINOIS FED. AID PROJECT				

SHOULDER SCHEDULE (VARYING WIDTHS)			
LOCATION	LENGTH	44004250 PAVED SHOULDER REMOVAL	48203029 HOT-MIX ASPHALT SHOULDERS, 8"
US24	FOOT	SQ YD	SQ YD
PRE-STAGE			
NW Shoulder	121	94	107
SW Shoulder	114	89	89
NE Shoulder	268	149	162
SE Shoulder	80	58	58
TOTALS	583	390	416

Conversion factor used for Asphalt: 112 lbs./sy/in

TEMPORARY CONCRETE BARRIER SCHEDULE			
LOCATION		70400100 TEMPORARY CONCRETE BARRIER	70400200 RELOCATE TEMPORARY CONCRETE BARRIER
US 24	LT/RT	FT	FT
STAGE I			
WB. = 130+170+112.5	LT	412.5	
STAGE II			
EB. = 130+170+112.5	RT		412.5
TOTALS		412.5	412.5

TEMPORARY IMPACT ATTENUATOR SCHEDULE			
LOCATION		70600250 IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	70600350 IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3
US 24	LT/RT	EACH	EACH
STAGE I			
STA. 369+20	LT	1	
STA. 375+00	LT	1	
STAGE II			
STA. 369+20	RT		1
STA. 375+00	RT		1
TOTALS		2	2

TEMPORARY PAVEMENT MARKING SCHEDULE						
LOCATION			X0327980 PAVEMENT MARKING REMOVAL - WATER BLASTING	70300904 PAVEMENT MARKING TAPE, TYPE IV 4"	70300924 PAVEMENT MARKING TAPE, TYPE IV 24"	X7030005 TEMPORARY PAVEMENT MARKING REMOVAL
US 24	EDGE/CL	LT/RT	SQ FT	FT	FT	SQ FT
STAGE I					24.0	8.0
WB	144+292+115	CL		551		183.7
WB	43+292+34	EDGE	122	369		123.0
STAGE II					24.0	8.0
EB	144+292+115	CL		551		183.7
EB	43+292+34	EDGE	122	369		123
TOTALS			244	1840	48	630

TRAFFIC CONTROL SCHEDULE				
LOCATION	67100100 MOBILIZATIO N	70100405 T, C, & P. STRD. 701321	70100450 T, C, & P STRD. 701201	70106500 TEMPORARY BRIDGE TRAFFIC SIGNALS
US 24	LSUM	EACH	LSUM	EACH
SN. 102-0007				
TOTALS	1	1	1	1

PAVEMENT MARKING SCHEDULE					
LOCATION					78001110 PAINT PAVEMENT MARKING - LINE 4"
US 24			EDGE/CL	LT/RT	FT
STA	370+60	TO	373+96	CL	292
STA	370+60	TO	373+96	EDGE	366
STA	370+60	TO	373+96	EDGE	366
TOTALS					1024

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES
STRUCTURE NO. 102-0007

SCALE: SHEET OF SHEETS STA TO STA

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
317	(34BR-1)BRR	WOODFORD	32	6
BRIDGE REPAIRS			CONTRACT NO. 68E17	
ILLINOIS FED AID PROJECT				

BRIDGE DECK ITEMS SCHEDULE							
LOCATION	50300100 FLOOR DRAINS	52000110 PREFORMED JOINT STRIP SEAL	X5030250 BRIDGE DECK GROOVING (LONGITUDINAL)	Z0012130 BRIDGE DECK SCARIFICATION 3/4"	Z0006014 BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/2"	Z0016002 DECK SLAB REPAIR (FULL DEPTH, TYPE II)	Z0029090 DIAMOND GRINDING (BRIDGE SECTION)
US 24	EACH	FOOT	SQ YD	SQ YD	SQ YD	SQYD	SQYD
SN. 102-0007							
TOTALS	2	90	565.1	595.9	595.9	4.4	550

APPROACH BUTT JOINTS SCHEDULE							
LOCATION				40600290 BIT. MAT. (TACK COAT)	40600982 HMA SURF. REM. BUTT JOINT	40600990 TEMPORARY RAMP	40603310 HMA SURF. CSE., MIX "C", N50
US 24				POUND	SQYD	SQYD	TON
STAGE I: EB LANE							
STA	370+84.54	TO	371+34.54	65	143	18	15
STA	373+05.46	TO	373+55.46				
STAGE II: WB LANE							
STA	370+84.54	TO	371+34.54	65	143	18	15
STA	373+05.46	TO	373+55.46				
TOTALS				130	286	36	30

CONCRETE ITEMS SCHEDULE				
LOCATION	42001300 PROTECTIVE COAT	50102400 CONCRETE REMOVAL	50300255 CONCRETE SUPERSTRUCTURE	Z0012754 STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5")
US 24	SQ YD	CU YD	CU YD	SQFT
SN. 102-0007				
TOTALS	19.8	8.4	8.4	30

STEEL ITEMS SCHEDULE						
LOCATION	50500405 FURNISH & ERECT STRUCTURAL STEEL	50800205 REINFORCEMENT BARS, EPOXY COATED	50800515 BAR SPLICERS	52100010 ELASTOMERIC BEARING ASSEMBLY, TYPE 1	52100520 ANCHOR BOLTS 1"	Z0001899 JACK AND REMOVE EXISTING BEARINGS
US 24	POUND	POUND	EACH	EACH	EACH	EACH
SN.102-0007						
TOTALS	2000	1690	24	12	24	12

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PLOT DATE = 8/17/2018	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES
STRUCTURE NO. 102-0007

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(348R-J)BRR	WOODFORD	32	7
BRIDGE REPAIRS			CONTRACT NO. 68E17	
ILLINOIS FED. AID PROJECT				

T26N R2W, 3rd PM, Sec 12



STEEL PLATE BEAM GUARDRAIL REMOVAL
 4 TURNED DOWN END SECTIONS @ 25' EACH = 100 L.F.
 NORTHEAST END RAIL - 2 RAILS = 25' EACH
 SOUTHEAST END RAILS - 1 RAIL = 12 L.F.
 TOTAL = 137 L.F.

STEEL PLATE BEAM GUARDRAIL REMOVAL
 NW RAIL = 75 L.F.
 SW RAIL = 75 L.F.
 NE RAIL = 25 L.F.
 SE RAIL = 62 L.F.
 TOTAL = 237 L.F.

SPBGR, TYPE A
 TOTAL = 87 L.F.

TRAFFIC BARRIER TERMINAL, TYPE 1A
 LT 369+67.5 - 369+92.5 = 1 EA.
 LT 375+54.5 - 375+79.5 = 1 EA.
 RT 369+58 - 369+83 = 1 EA.
 RT 374+30 - 374+55 = 1 EA.
 TOTAL = 4 EA.

TRAFFIC BARRIER TERMINAL, TYPE 5
 RT 371+08 - 371+21 = 1 EA.
 RT 372+92 - 373+05 = 1 EA.
 TOTAL = 2 EA.

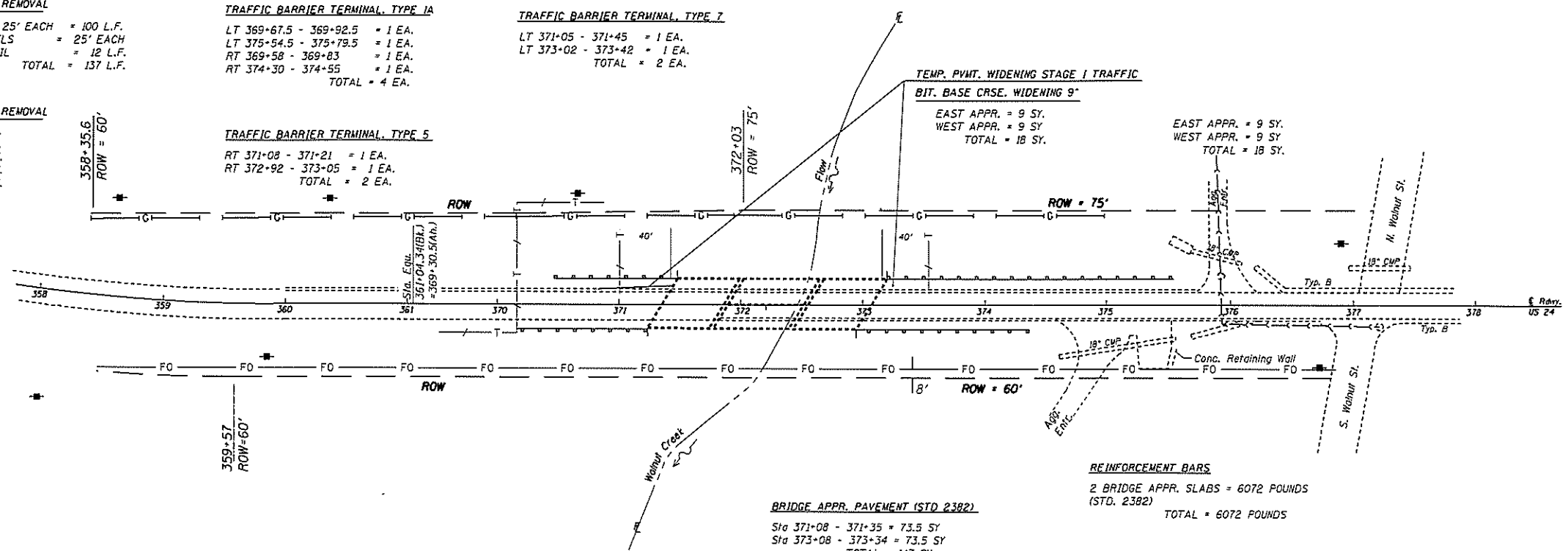
TRAFFIC BARRIER TERMINAL, TYPE 7
 LT 371+05 - 371+45 = 1 EA.
 LT 373+02 - 373+42 = 1 EA.
 TOTAL = 2 EA.

TEMP. PYMT. WIDENING STAGE 1 TRAFFIC
BIT. BASE CRSE. WIDENING 9"
 EAST APPR. = 9 SY.
 WEST APPR. = 9 SY.
 TOTAL = 18 SY.

EAST APPR. = 9 SY.
 WEST APPR. = 9 SY.
 TOTAL = 18 SY.

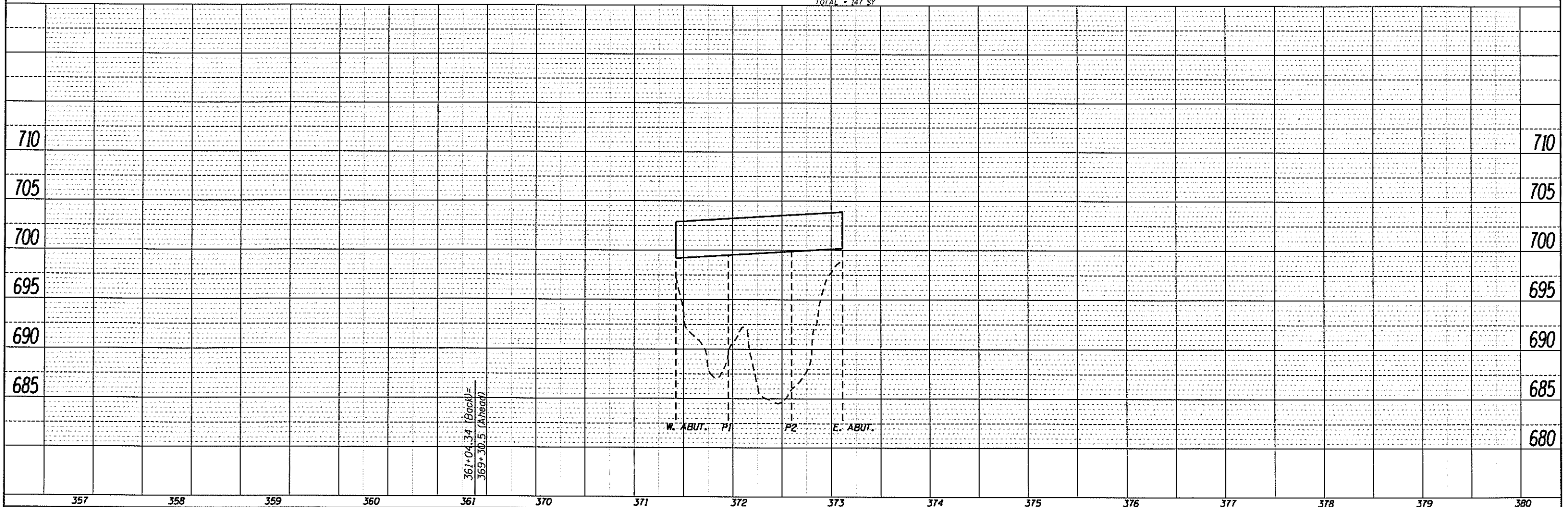
REINFORCEMENT BARS
 2 BRIDGE APPR. SLABS = 6072 POUNDS
 (STD. 2382)
 TOTAL = 6072 POUNDS

BRIDGE APPR. PAVEMENT (STD 2382)
 Sta 371+08 - 371+35 = 73.5 SY
 Sta 373+08 - 373+34 = 73.5 SY
 TOTAL = 147 SY

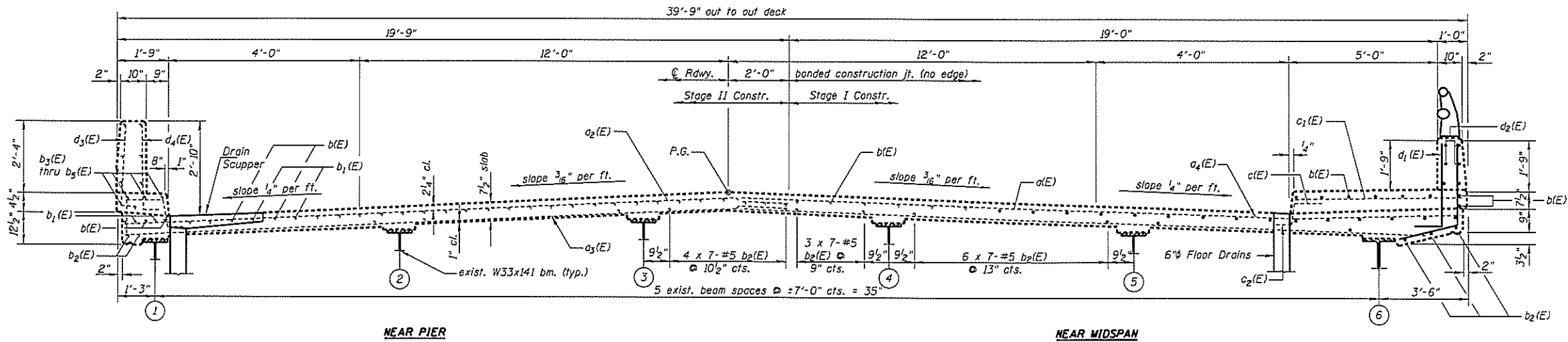


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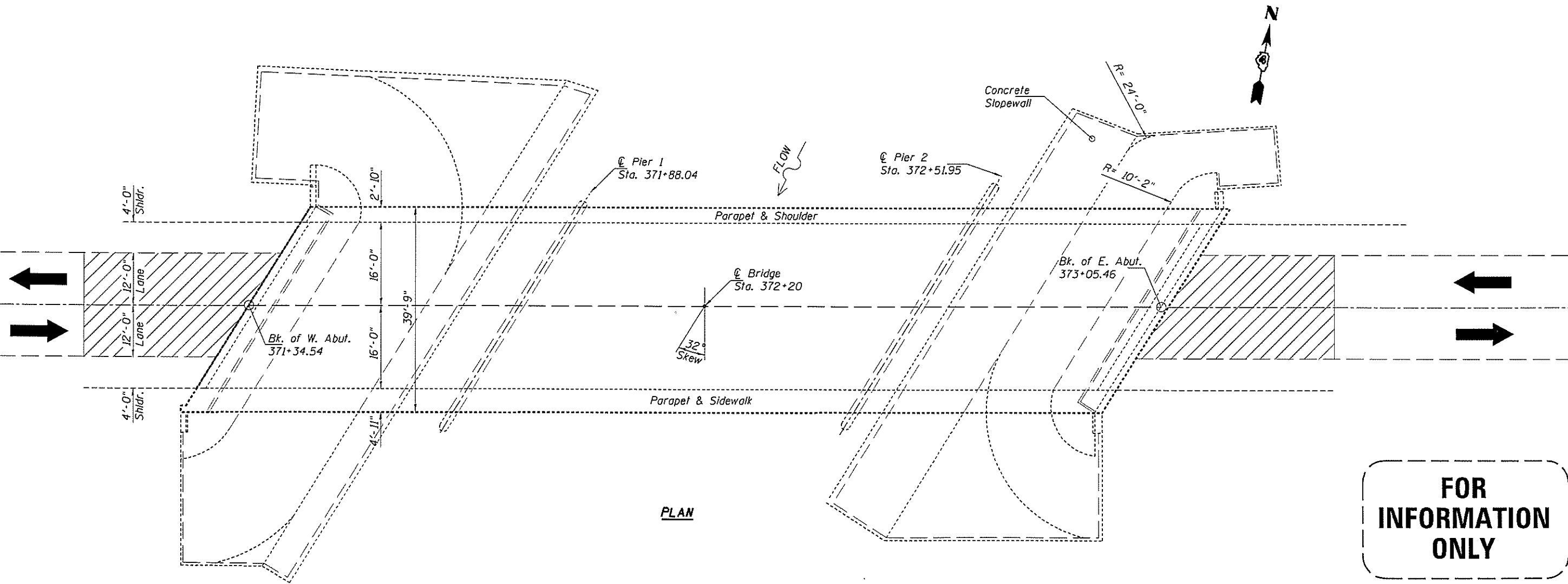
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	PLOT DATE = 8/17/2018	DATE - 02/16/18	REVISED -			[ILLINOIS] FED. AID PROJECT				



CROSS SECTION
(Looking East)



PLAN

FOR INFORMATION ONLY

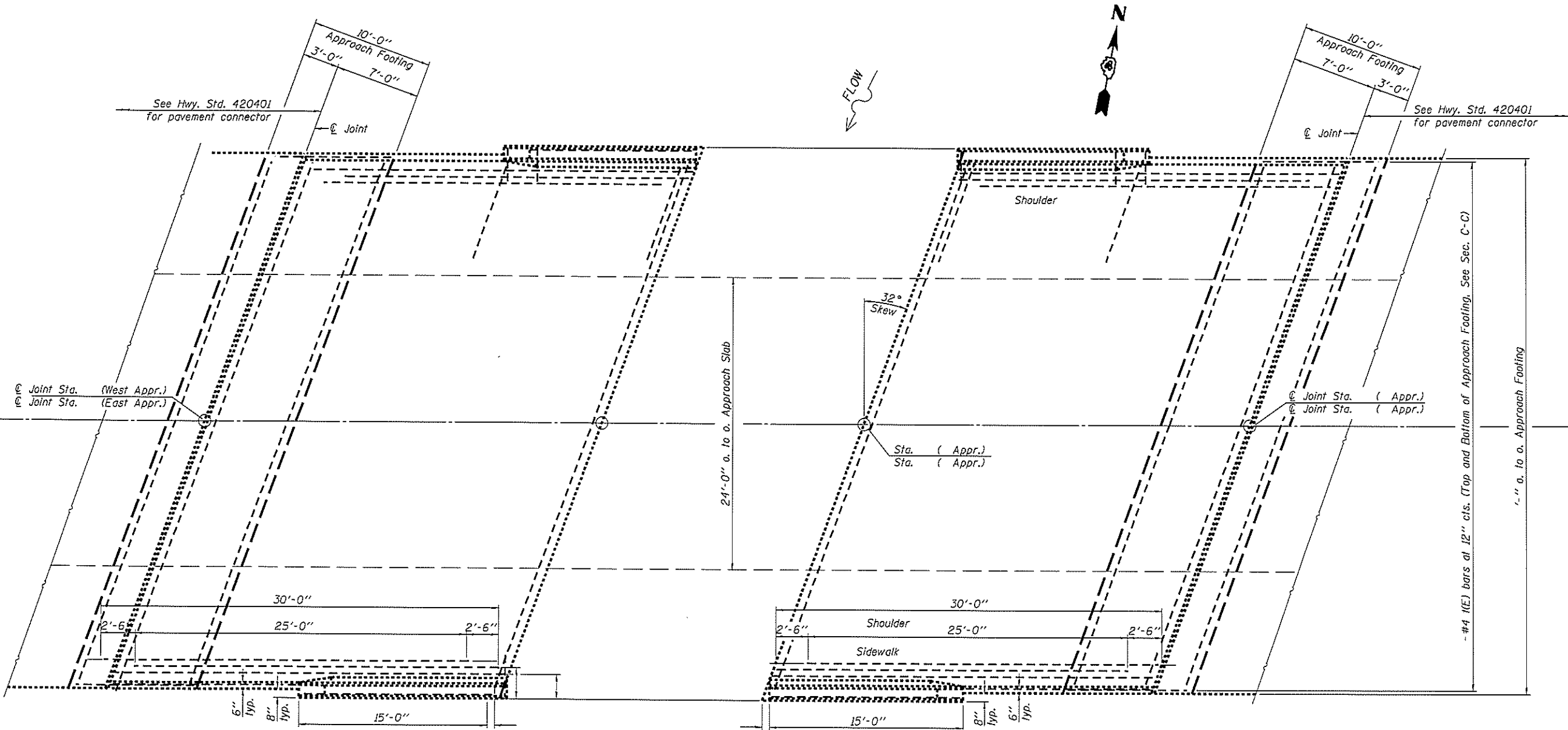
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PLOT DATE = 8/17/2018	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

EXISTING PLAN			
STRUCTURE NO. 102-0007			
SCALE	SHEET	OF SHEETS	STA TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(34BR-1)BRR	WOODFORD	32	9
BRIDGE REPAIRS		CONTRACT NO. 68E17		
ILLINOIS FED. AID PROJECT				



PLAN

FOR
INFORMATION
ONLY

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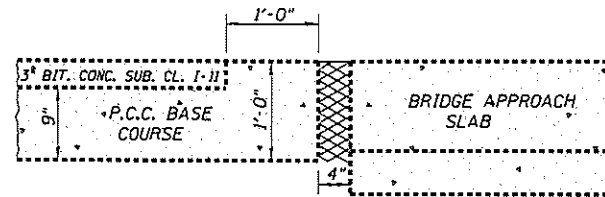
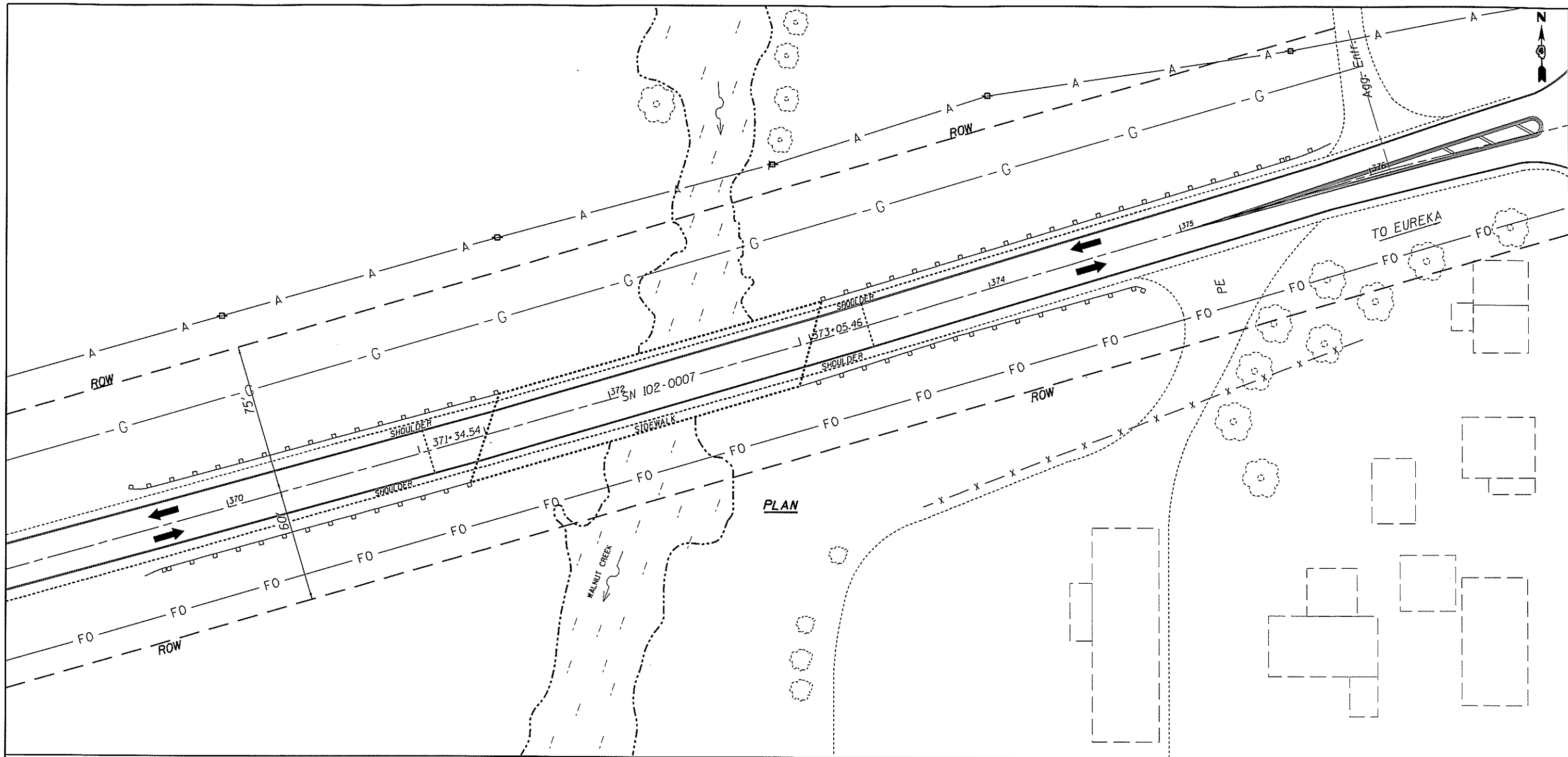
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	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

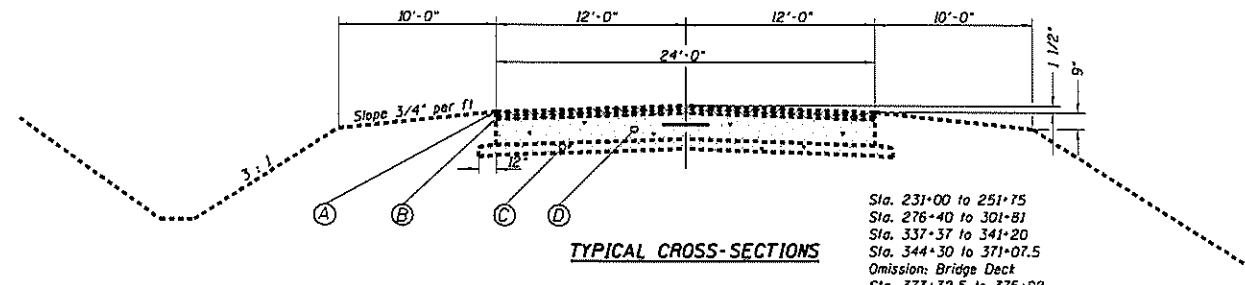
EXISTING APPROACH SLAB
STRUCTURE NO. 102-0007

SCALE	SHEET	OF	SHEETS	STA	TO	STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(34BR-1)BR	WOODFORD	32	10
BRIDGE REPAIRS			CONTRACT NO. 68E17	
ILLINOIS FED AID PROJECT				



TYPICAL SECTION ALONG ϵ
AT BRIDGE APPROACH SLABS



TYPICAL CROSS-SECTIONS

Sta. 231+00 to 251+75
Sta. 276+40 to 301+81
Sta. 337+37 to 341+20
Sta. 344+30 to 371+07.5
Omission: Bridge Deck
Sta. 373+32.5 to 375+92

(A)	3" Bituminous Concrete Sub-Class 1-11
(B)	Max. Taper = 1" per 3" thickness
(C)	9" P.C.C. Base Course with Longitudinal Metal Joints and 2'-6" L.-#4 Dowel Bars @ 2'-6" Ctrs.
(D)	18" Sub-Base Granular Material

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

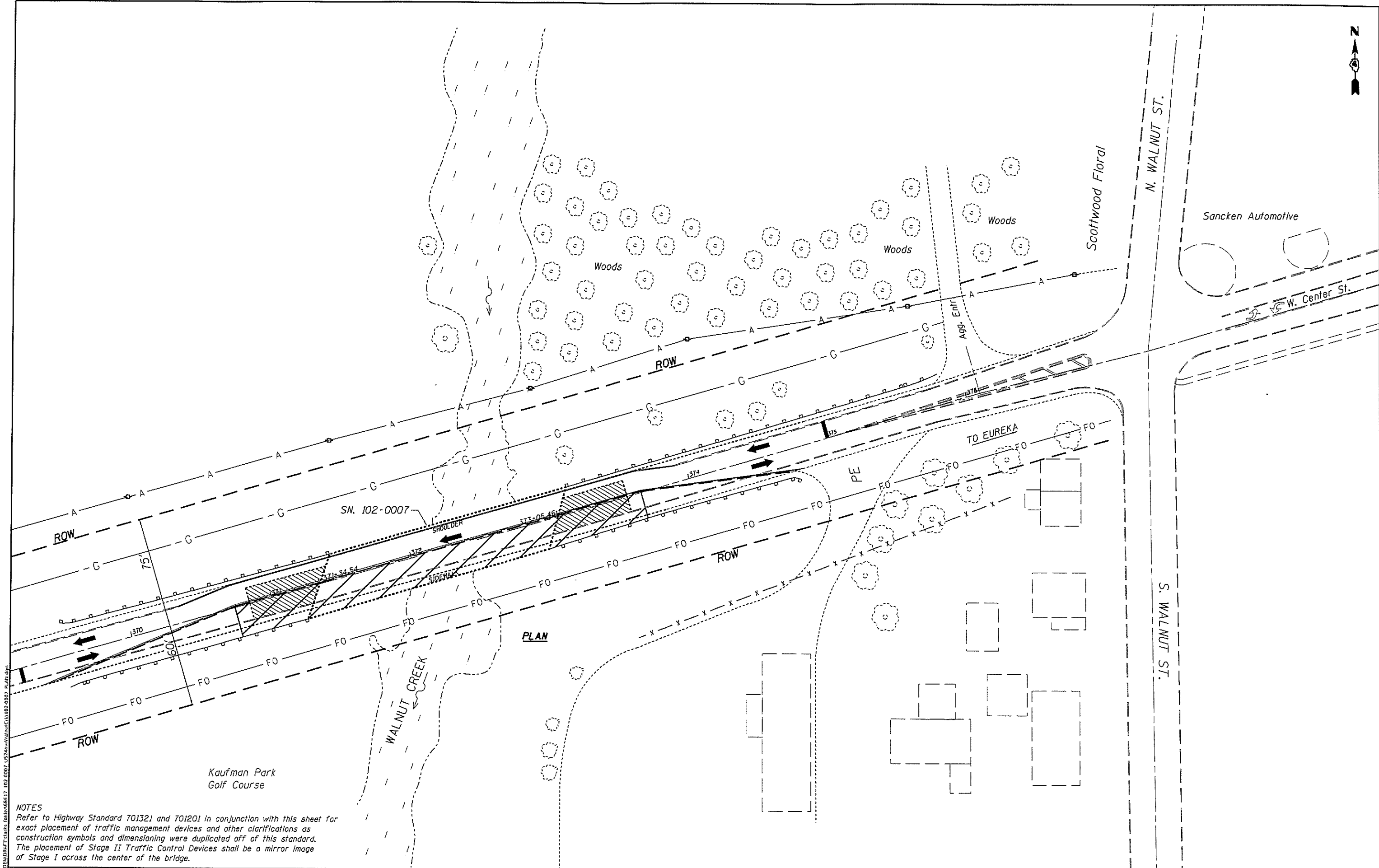
GENERAL LOCATION & PAVEMENT SECTIONS
STRUCTURE NO. 102-0007

USER NAME = jonesce	DESIGNED -	REVISED -
PLOT SCALE = 50 0000' / in.	DRAWN -	REVISED -
PLOT DATE = 8/17/2018	CHECKED -	REVISED -
	DATE -	REVISED -

SCALE SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(34BR-1)BRR	MARSHALL	32	11
BRIDGE REPAIRS			CONTRACT NO. 68E17	
ILLINOIS FED AID PROJECT				

MODEL: Defaulr
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NOTES
 Refer to Highway Standard 701321 and 701201 in conjunction with this sheet for exact placement of traffic management devices and other clarifications as construction symbols and dimensioning were duplicated off of this standard. The placement of Stage II Traffic Control Devices shall be a mirror image of Stage I across the center of the bridge.

MODEL Default
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USER NAME = jonesco	DESIGNED -	REVISED -
PLOT SCALE = 60.0000' / 1" =	DRAWN -	REVISED -
PLOT DATE = 8/17/2018	CHECKED -	REVISED -
	DATE -	REVISED -

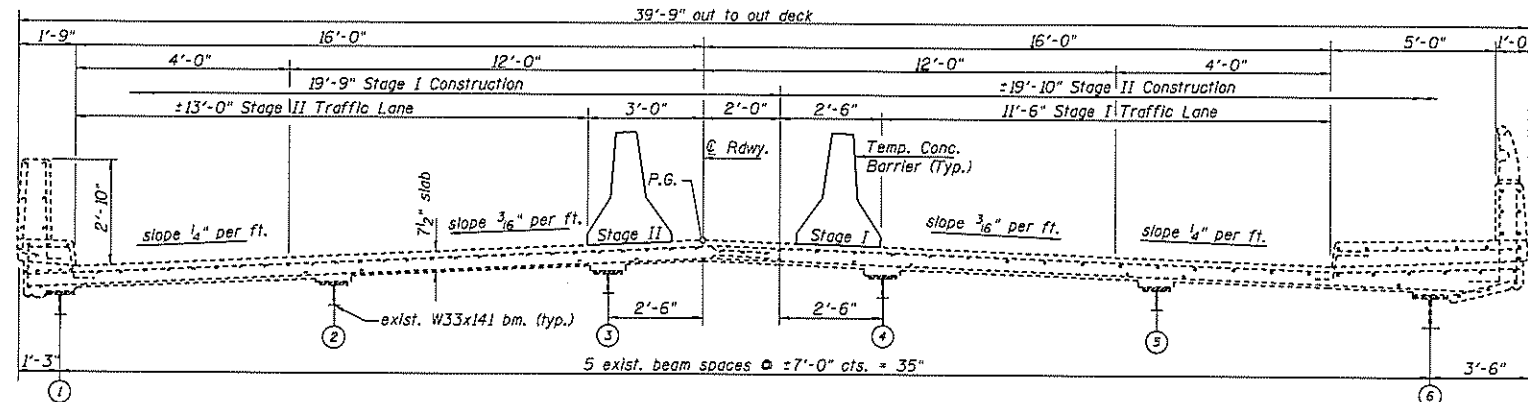
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED TRAFFIC CONTROL
 STRUCTURE NO. 102-0007**

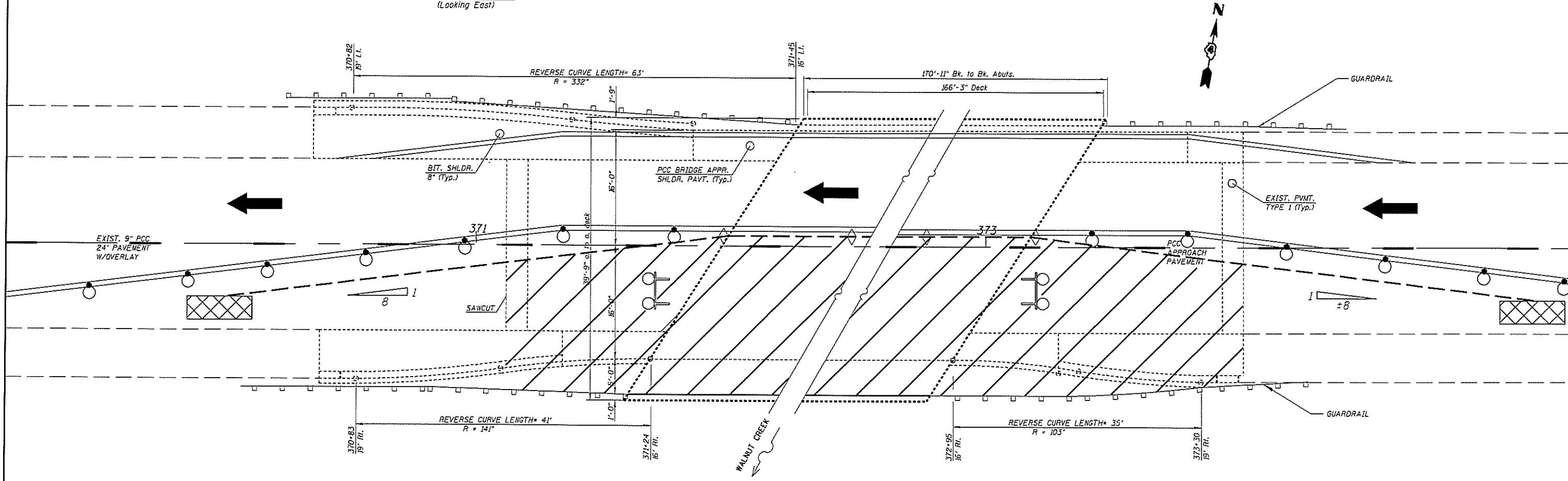
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(34BR-1)BR	WOODFORD	32	12
BRIDGE REPAIRS		CONTRACT NO. 6BE17		

ILLINOIS FED. AID PROJECT



CROSS SECTION
(Looking East)



PLAN

- SYMBOLS**
- Stage I Work area
 - Sign
 - Type III barricade with flashing lights
 - Impact attenuator
 - Drum with steady burning bi-directional light
 - Temporary concrete barrier
 - Crystal, bidirectional guardrail/barrier wall reflector
 - Drum

NOTES
Refer to Highway Standard 701321 and 701201 in conjunction with this sheet for exact placement of traffic management devices and other clarifications as construction symbols and dimensioning were duplicated off of this standard. The placement of Stage II Traffic Control Devices shall be a mirror image of Stage I about the center of the bridge.

USER NAME = jonesc	DESIGNED -	REVISED -
PLOT SCALE = 20.0000 / in.	DRAWN -	REVISED -
PLOT DATE = 8/17/2018	CHECKED -	REVISED -
	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

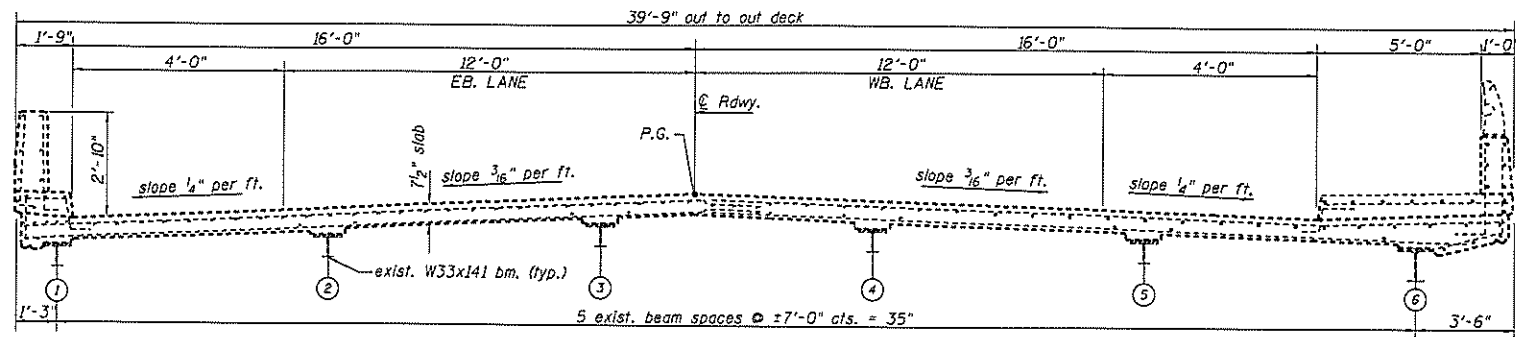
PROPOSED TRAFFIC CONTROL
STRUCTURE NO. 102-0007

SCALE SHEET OF SHEETS STA TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(34BR-1)BR	WOODFORD	32	13
BRIDGE REPAIRS			CONTRACT NO. 68E17	

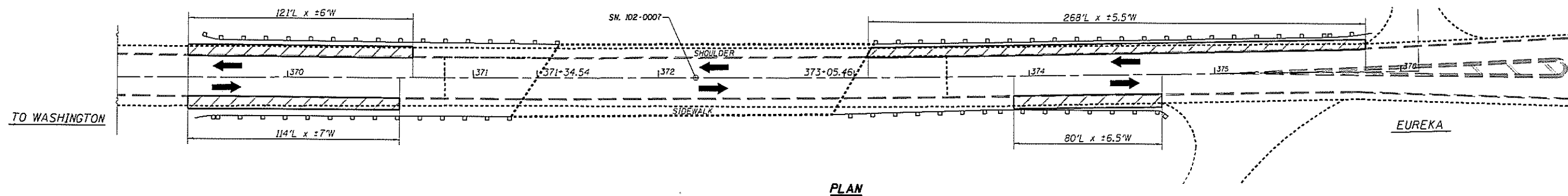
ILLINOIS FED AID PROJECT

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FILE NAME: S:\GENTRIBRFT\CHIKK\1818\68E17_102_0007_US240x-WalnutCreek\102_0007_PLAN.dgn



CROSS-SECTION
(Looking East)

NOTE
The purpose of Paved Shoulder Removal and HMA Shoulders 8" is to provide a stable surface for staged traffic during bridge repairs. Replacement shoulder surfaces shall be tapered into elevations of existing Curb & Gutter and Drains. Item quantities were calculated to avoid disturbance of these structures.



PLAN

LEGEND

HMA Shoulders, 8"

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Paved Shoulder Removal	Sq. Yd.	390
HMA Shoulders 8"	Sq. Yd.	416

MODEL: Default
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PLOT DATE = 8/17/2018	CHECKED -	REVISED -
	DATE -	REVISED -

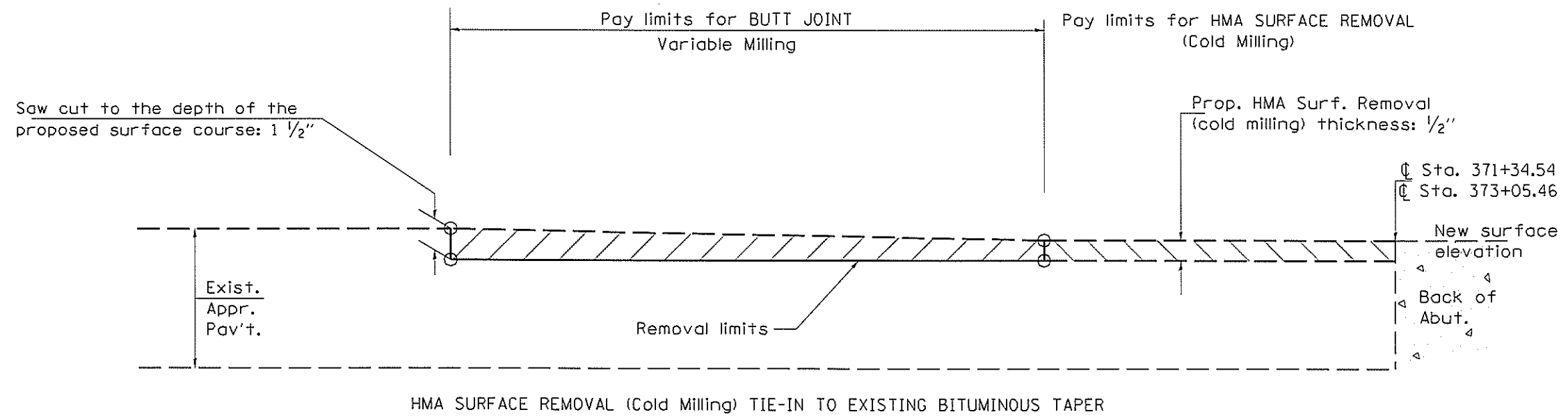
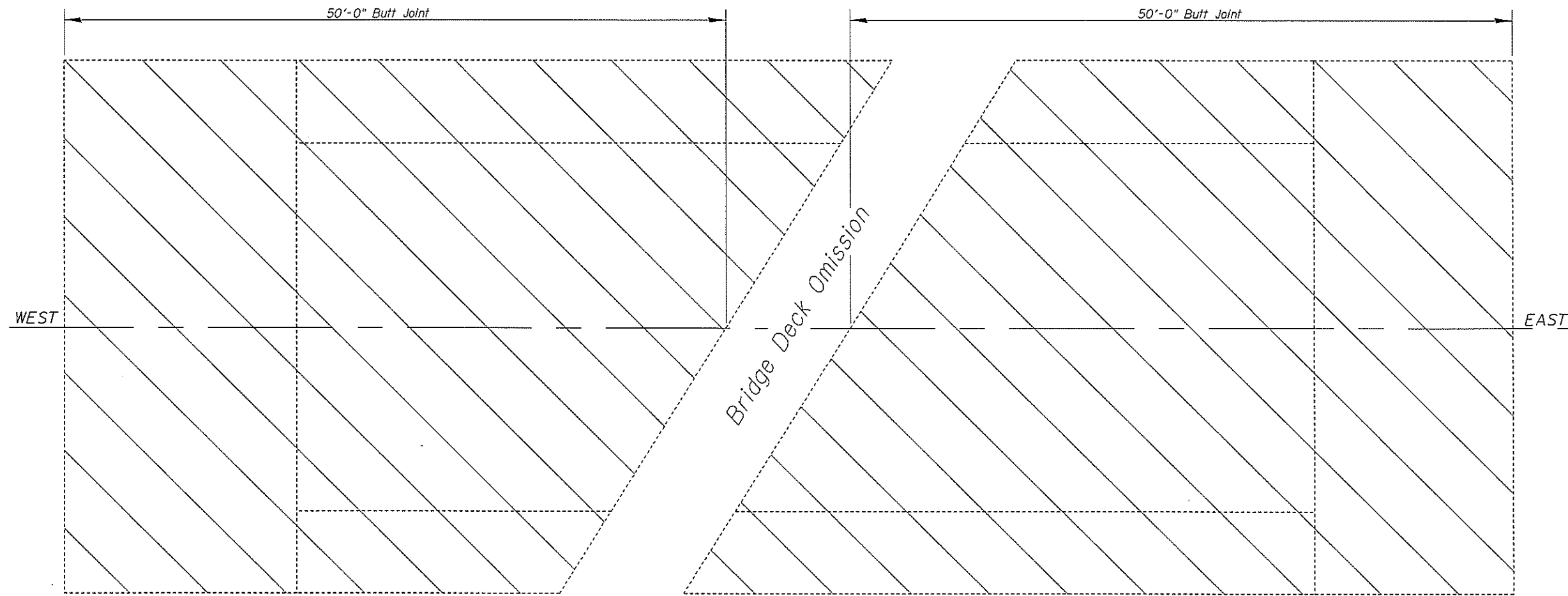
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHOULDER WIDENING DETAIL
STRUCTURE NO. 102-0007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(348R-1)BR	WOODFORD	32	14
BRIDGE REPAIRS			CONTRACT NO. 68E17	

SCALE SHEET OF SHEETS STA TO STA

ILLINOIS FED AID PROJECT



HMA SURFACE REMOVAL (Cold Milling) TIE-IN TO EXISTING BITUMINOUS TAPER

LEGEND

Area of Proposed Butt Joints

MODEL: D:\BENT
 FILE NAME: S:\GENDRAW\T\BARRS_10\BARRS\102_0007_US7AS\W\102_0007_FLAT.dwg

USER NAME = janesce	DESIGNED -	REVISED -
	DRAWN -	REVISED -
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PLOT DATE = 8/17/2018	DATE -	REVISED -

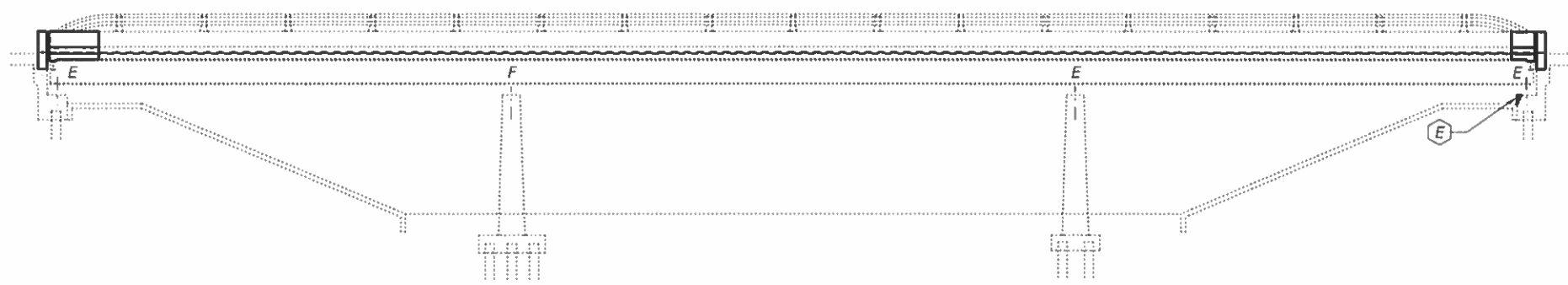
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINTS DETAIL			
STRUCTURE NO. 102-0007			
SCALE	SHEET	OF SHEETS	STA. TO STA.

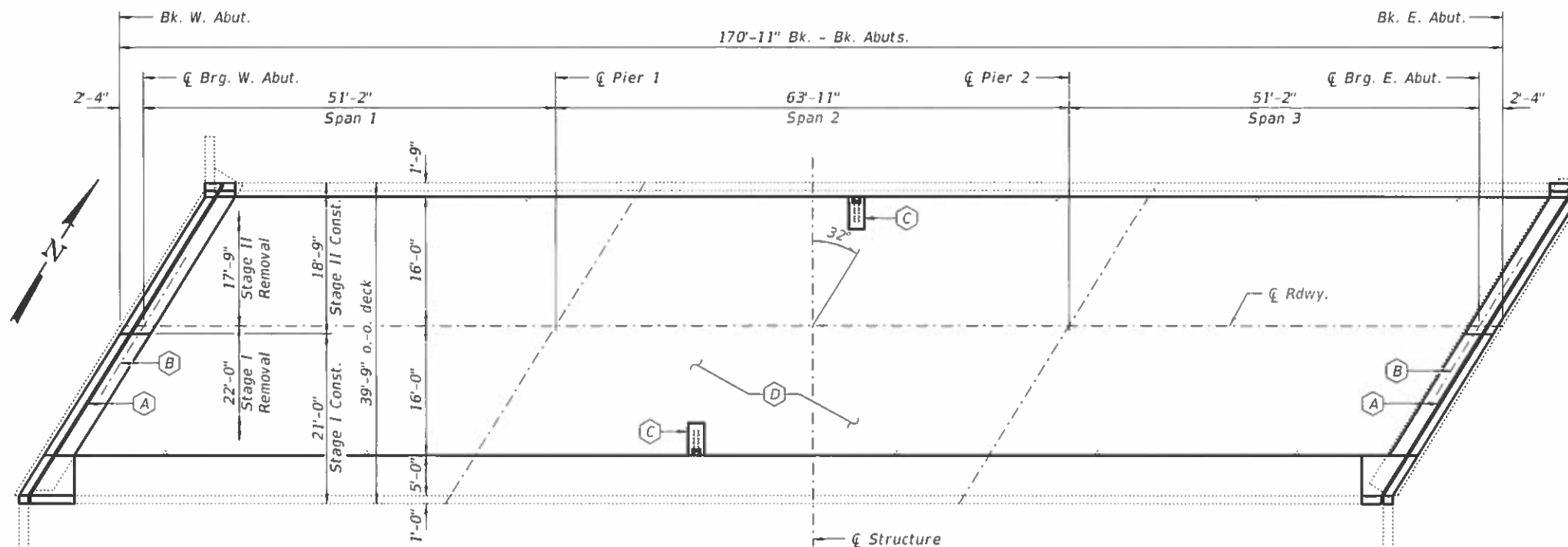
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(34BR-1)BRR	WOODFORD	32	15
BRIDGE REPAIRS		CONTRACT NO. 68E17		
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

All structural steel shall conform to AASHTO Classification M-270 Gr. 36, unless otherwise noted.
 Reinforcement bars designated (E) shall be epoxy coated.
 Prior to pouring the new concrete deck, all heavy or loose rust, loose mill scale, and other loose or potentially detrimental foreign material shall be removed from the surfaces in contact with concrete. Tightly adhered paint may remain unless otherwise noted. Removal shall be accomplished by methods that will not damage the steel and the cost will be included in the pay item covering removal of the existing concrete.
 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.
 Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.
 Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.
 The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
 All structural steel shall be shop painted with the inorganic zinc rich primer per AASHTO M300, Type 1. Cost included with Structural Steel Repair.
 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.
 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".
 Synthetic fibers shall be added to the Bridge Deck Latex Concrete Overlay. See Special Provisions.



ELEVATION



PLAN

- (A) - Remove and Replace Expansion Joints at Abutments.
- (B) - Remove and Replace bearings with Elastomeric Bearings at Abutments.
- (C) - Remove Drainage Scuppers and replace with 6" floor drains using full depth patching.
- (D) - Install a new 2 1/2" Latex Overlay on the existing deck. (See sheet 2 of 10 for details.)
- (E) - Structural Repair of Concrete at East Abutment.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yd.	8.4
Concrete Superstructure	Cu. Yd.	8.4
Preformed Joint Strip Seal	Foot	90
Reinforcement Bars, Epoxy Coated	Pound	1640
Bar Splicers	Each	24
Protective Coat	Sq. Yd.	37.5
Bridge Deck Scarification, 3/4"	Sq. Yd.	581.0
Bridge Deck Latex Concrete Overlay, 2 1/2"	Sq. Yd.	581.0
Bridge Deck Grooving (Longitudinal)	Sq. Yd.	455.8
Elastomeric Bearing Assembly, Type 1	Each	12
Anchor Bolts, 1"Ø	Each	24
Jack and Remove Existing Bearings	Each	12
Furnishing and Erecting Structural Steel	Pounds	1770
Floor Drains	Each	2
Structural Repair of Concrete (Less than or Equal to 5")	Sq. Ft.	30
Deck Slab Repair (Full Depth, Type 2)	Sq. Yd.	1.8
Diamond Grinding (Bridge Section)	Sq. Yd.	530.5

* On new concrete only.



EXPIRES 11-30-2018

DESIGNED	Cory D. Koblaveit	EXAMINED	Tim A. DSA	DATE	SEPTEMBER 17, 2018
CHECKED	Normed Salis	PASSED	Alvin Krugger	REVISED	-
DRAWN	dahurdell			REVISED	-
CHECKED	HSS CDK				

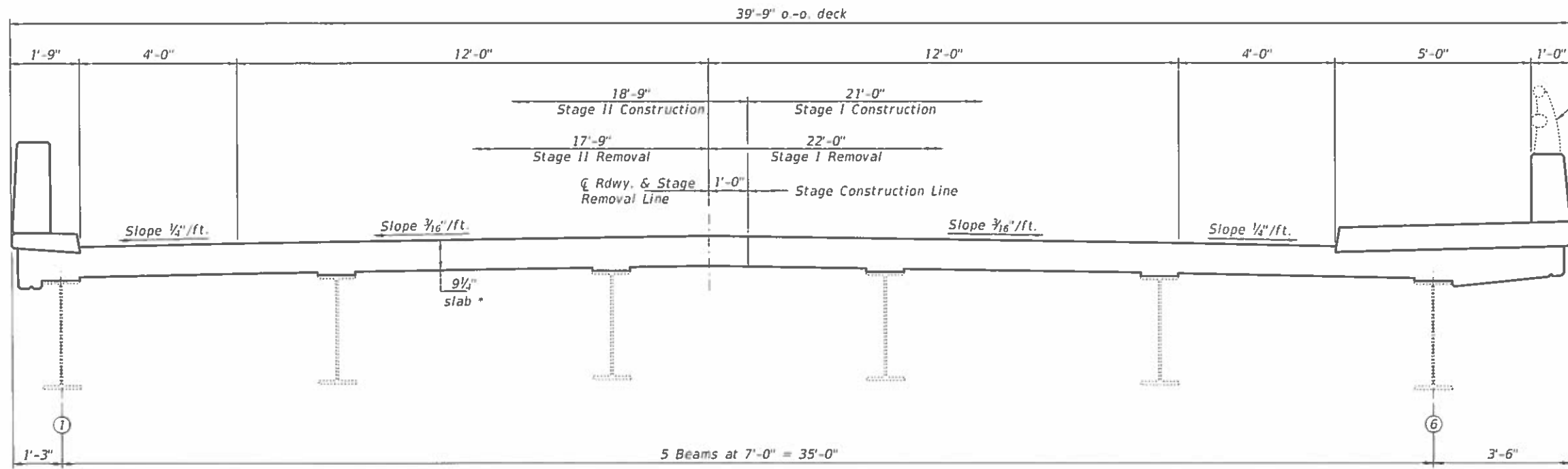
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
FAP 49 (US 24) OVER WALNUT CREEK
SN 102-0007

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
49	(34BR-1)BR	WOODFORD	32	16
CONTRACT NO. 68E17				

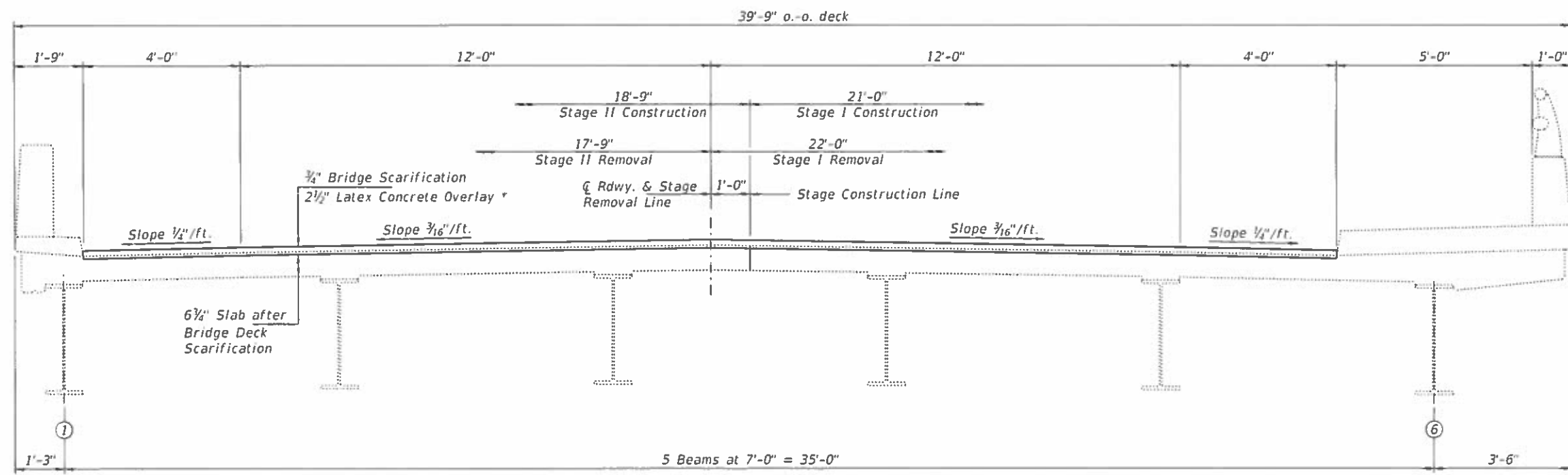
SHEET NO. 1 OF 10 SHEETS

ILLINOIS FED. AID PROJECT



Existing Rail Post to be removed, stored and re-installed. See sheet 5 of 10 for details.

CROSS SECTION AT ABUTMENTS
(Looking East)



CROSS SECTION AT MIDSPANS
(Looking East)

* Prior to 1/4" grinding.

DESIGNED - CDK
CHECKED - HSS
DRAWN - daburdell
CHECKED - CDK HSS

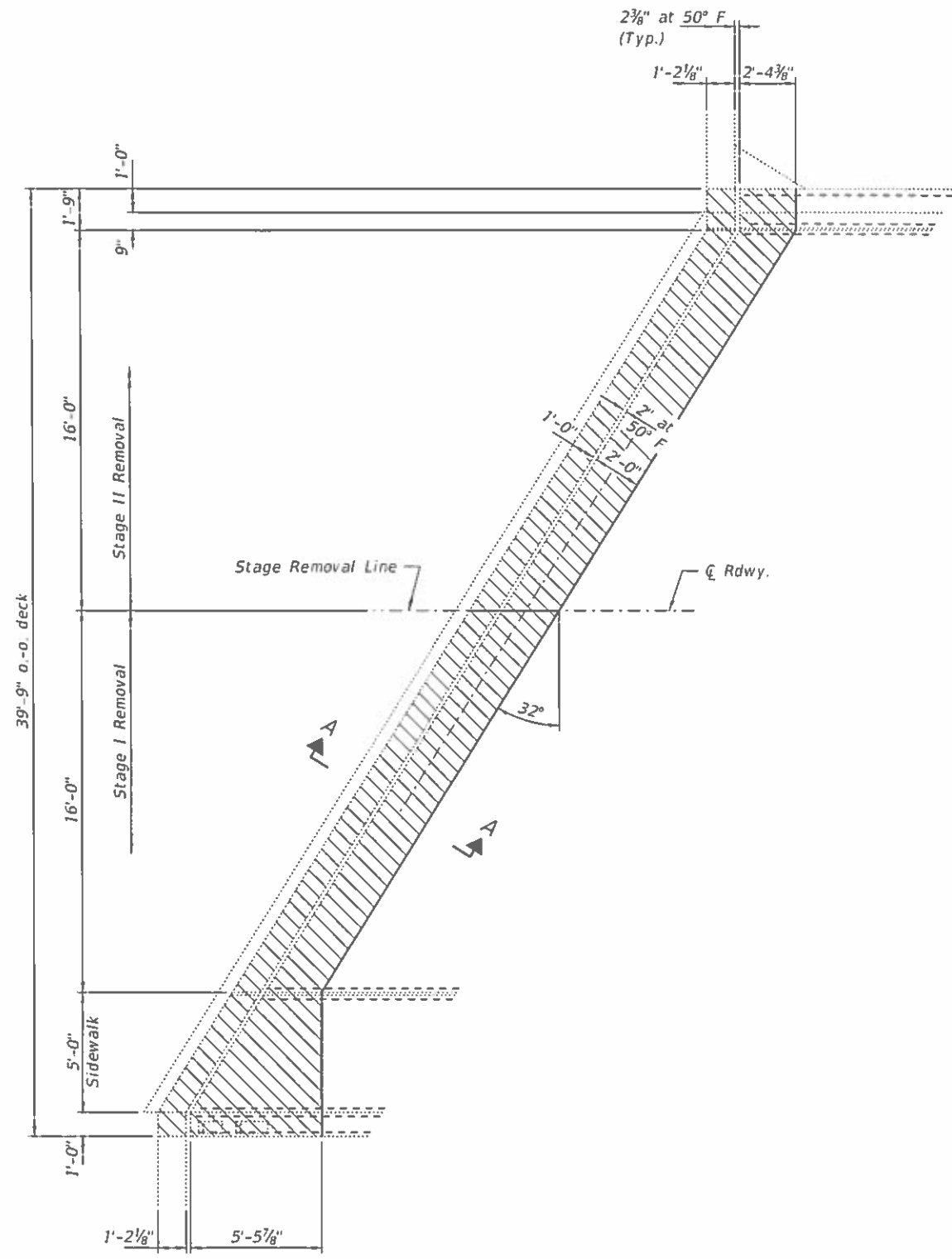
EXAMINED *Timothy A. Anhalt*
PASSED *Carl Perry*
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 17, 2018
REVISED -
REVISED -

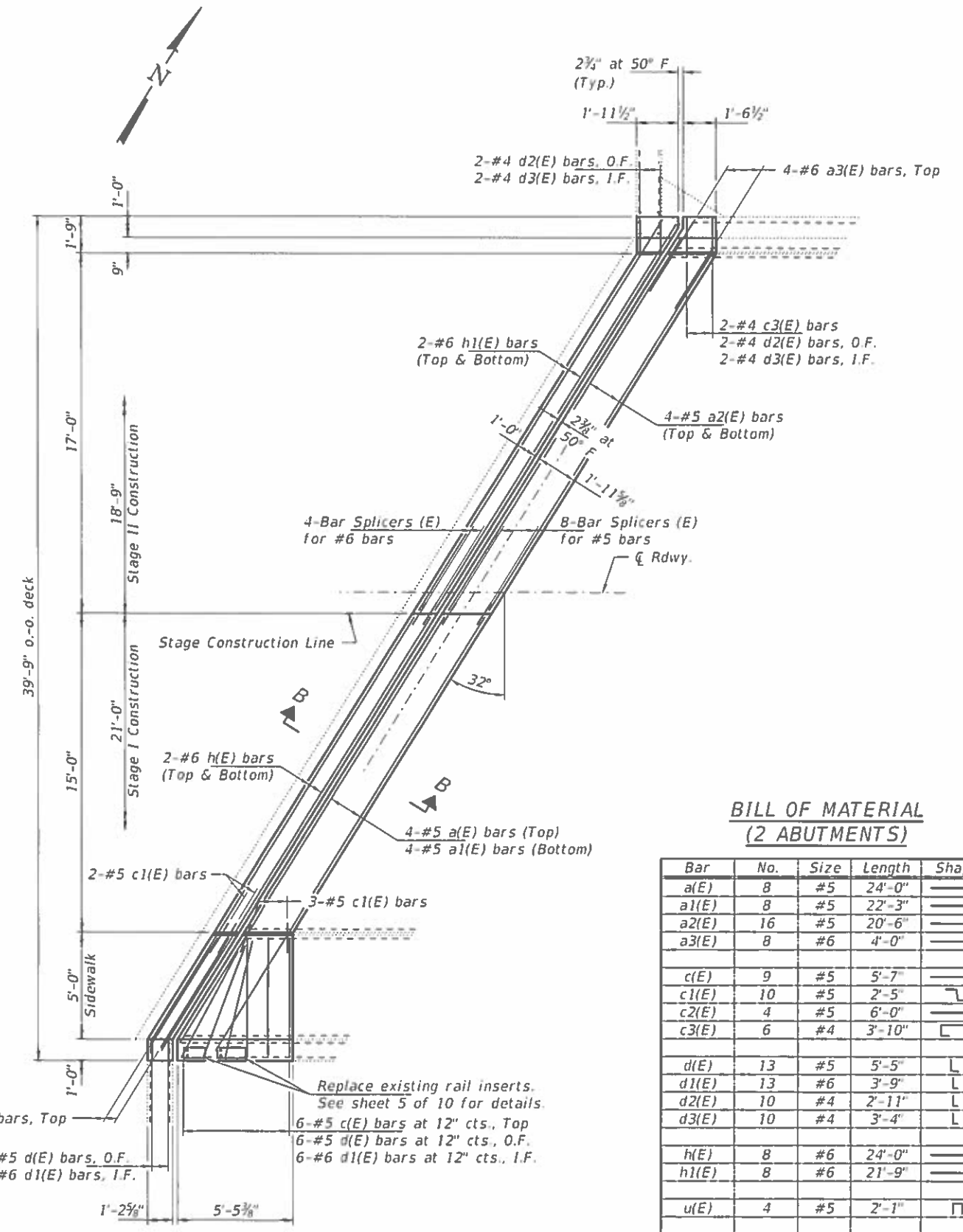
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS & STAGING DETAILS
SN 102-0007
SHEET NO. 2 OF 10 SHEETS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
49	(34BR-1)BRR	WOODFORD	32	17
CONTRACT NO. 8BE17				
ILLINOIS FED. AID PROJECT				



CONCRETE REMOVAL PLAN



CONCRETE REPLACEMENT PLAN

BILL OF MATERIAL
(2 ABUTMENTS)

Bar	No.	Size	Length	Shape
a(E)	8	#5	24'-0"	—
a1(E)	8	#5	22'-3"	—
a2(E)	16	#5	20'-6"	—
a3(E)	8	#6	4'-0"	—
c(E)	9	#5	5'-7"	—
c1(E)	10	#5	2'-5"	—
c2(E)	4	#5	6'-0"	—
c3(E)	6	#4	3'-10"	—
d(E)	13	#5	5'-5"	L
d1(E)	13	#6	3'-9"	L
d2(E)	10	#4	2'-11"	L
d3(E)	10	#4	3'-4"	L
h(E)	8	#6	24'-0"	—
h1(E)	8	#6	21'-9"	—
u(E)	4	#5	2'-1"	□
Concrete Removal		Cu. Yd.	8.4	
Concrete Superstructure		Cu. Yd.	8.4	
Bar Splicers		Each	24	
Reinforcement Bars, Epoxy Coated		Pound	1640	

Notes:
See sheet 5 of 10 for Section Thru Bridge Parapet, Approach Parapet and Sidewalk.
See sheet 5 of 10 for Section A-A and Section B-B.

DESIGNED - CDK
CHECKED - HSS
DRAWN - daburdell
CHECKED - CDK HSS

EXAMINED
PASSED
ENGINEER OF STRUCTURAL SERVICES
ENGINEER OF BRIDGES AND STRUCTURES

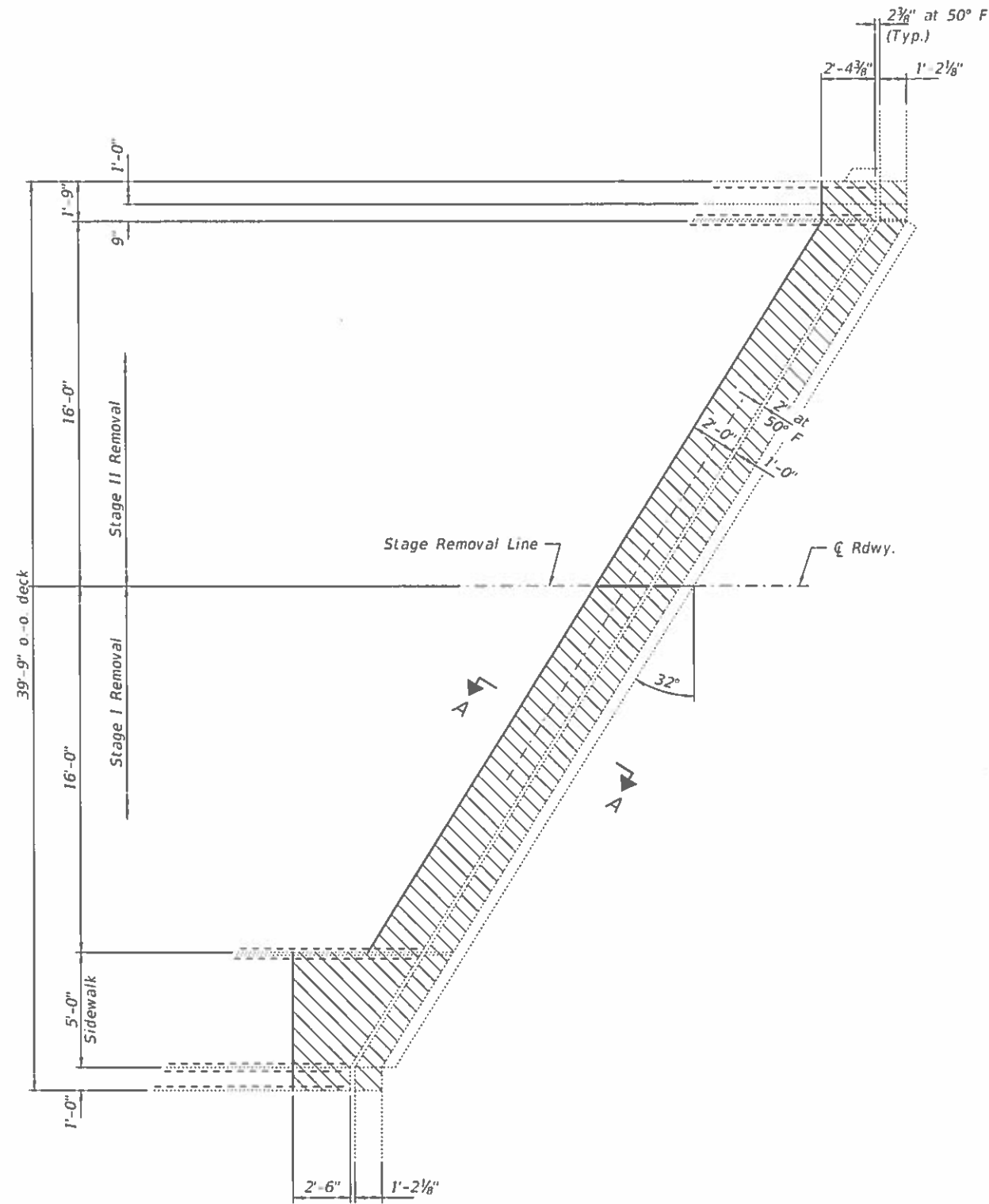
DATE - SEPTEMBER 17, 2018
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

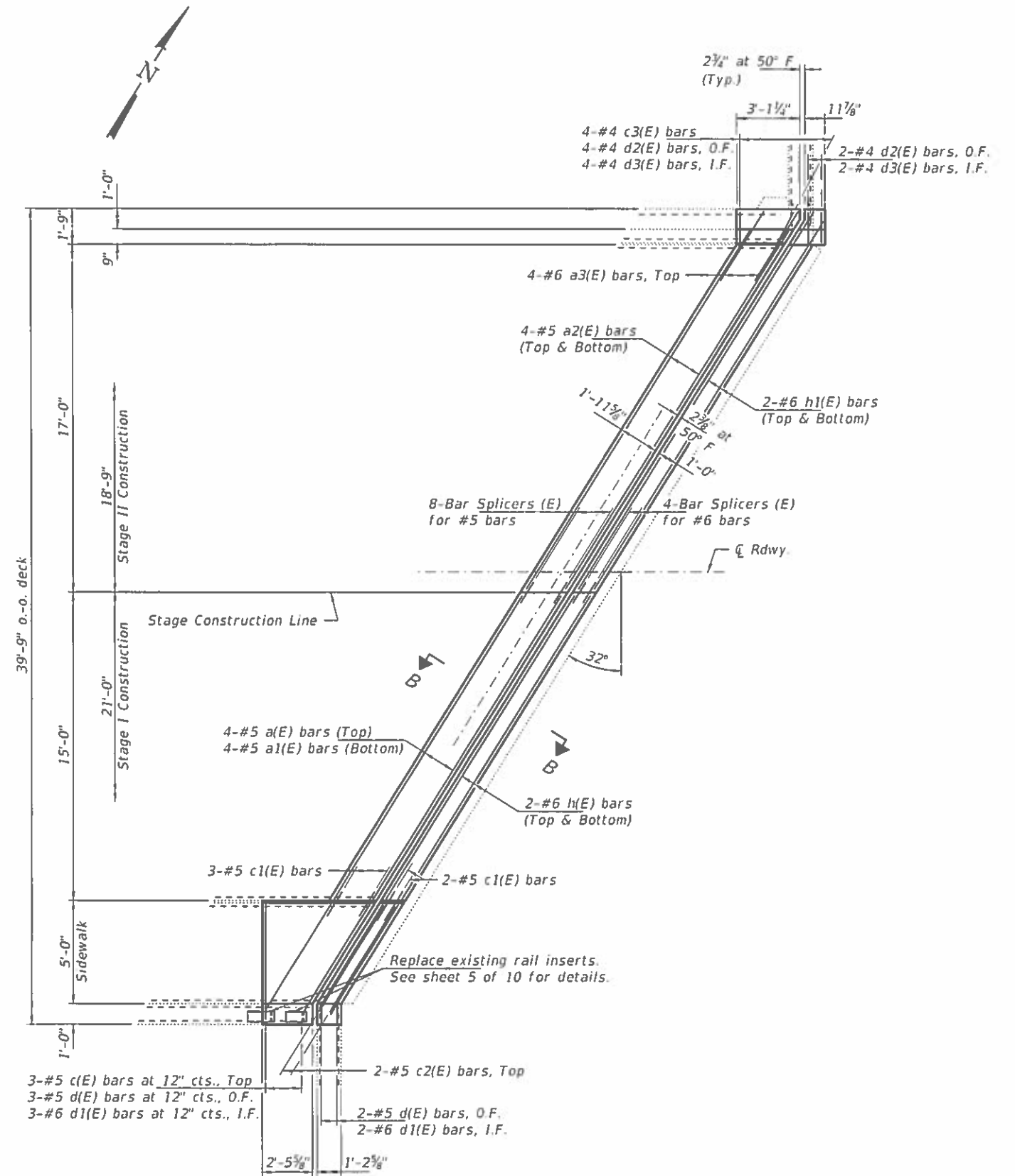
REPAIR DETAILS AT WEST ABUTMENT
SN 102-0007

SHEET NO. 3 OF 19 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
49	(34BR-1)BRR	WOODFORD	32	18
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68E17	



CONCRETE REMOVAL PLAN



CONCRETE REPLACEMENT PLAN

Notes:
 See sheet 5 of 10 for Section Thru Bridge Parapet, Approach Parapet and Sidewalk.
 See sheet 5 of 10 for Section A-A and Section B-B.

DESIGNED - CDK
 CHECKED - HSS
 DRAWN - daburdell
 CHECKED - CDK HSS

EXAMINED
 PASSED
 ENGINEER OF STRUCTURAL SERVICES
 ENGINEER OF BRIDGES AND STRUCTURES

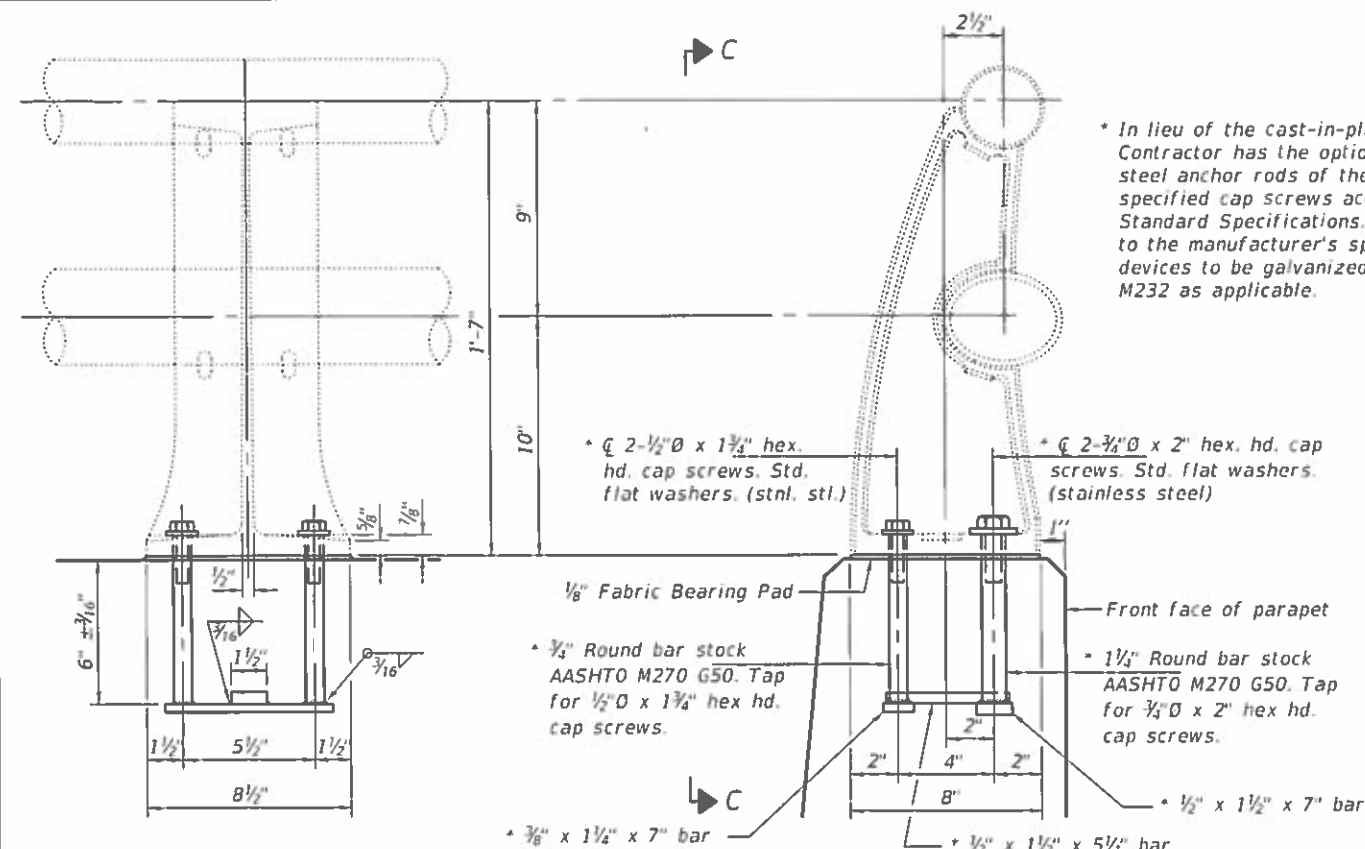
DATE - SEPTEMBER 17, 2018
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS AT EAST ABUTMENT
 SN 102-0007

SHEET NO. 4 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
49	(34BR-1)BRR	WOODFORD	32	19
CONTRACT NO. 6BE17				
ILLINOIS FED. AID PROJECT				

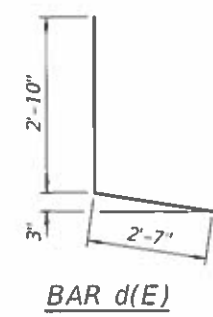


VIEW C-C

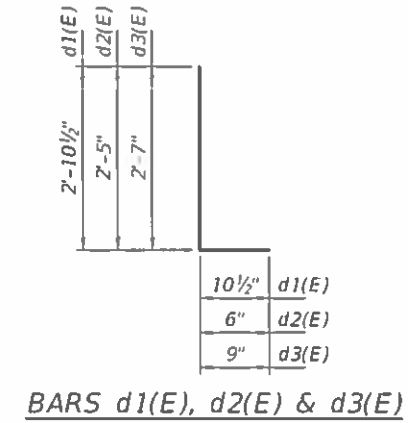
RAIL POST DETAILS

SECTION THRU RAIL POST

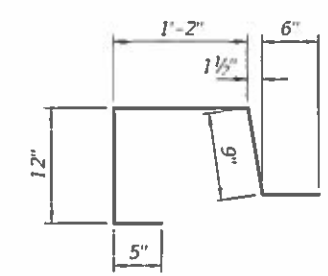
* In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting stainless steel anchor rods of the same diameter and grade as the specified cap screws according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications. Cast in place anchor devices to be galvanized according to AASHTO M111 or M232 as applicable.



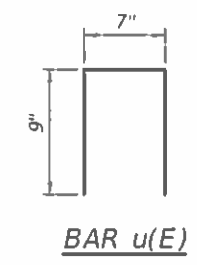
BAR d(E)



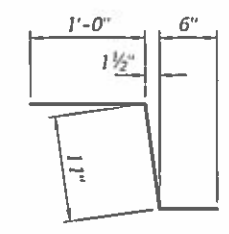
BARS d1(E), d2(E) & d3(E)



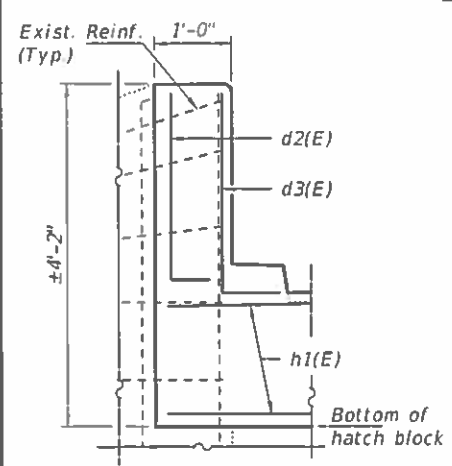
BAR c3(E)



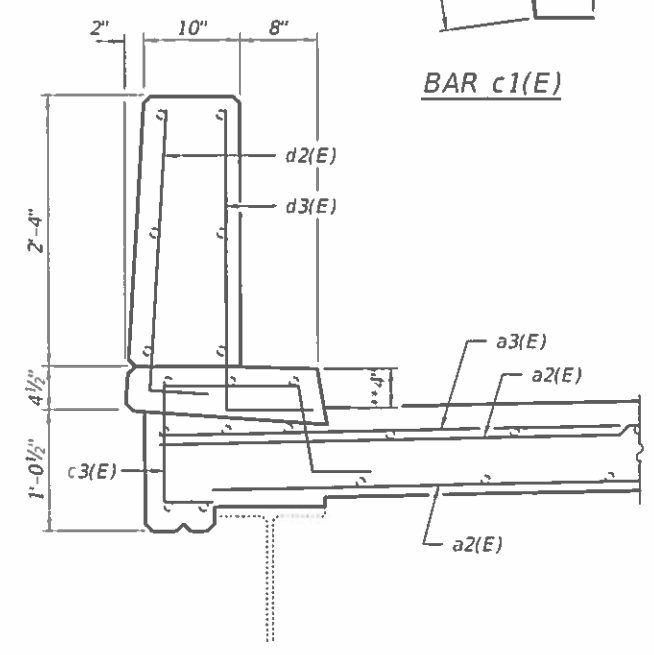
BAR u(E)



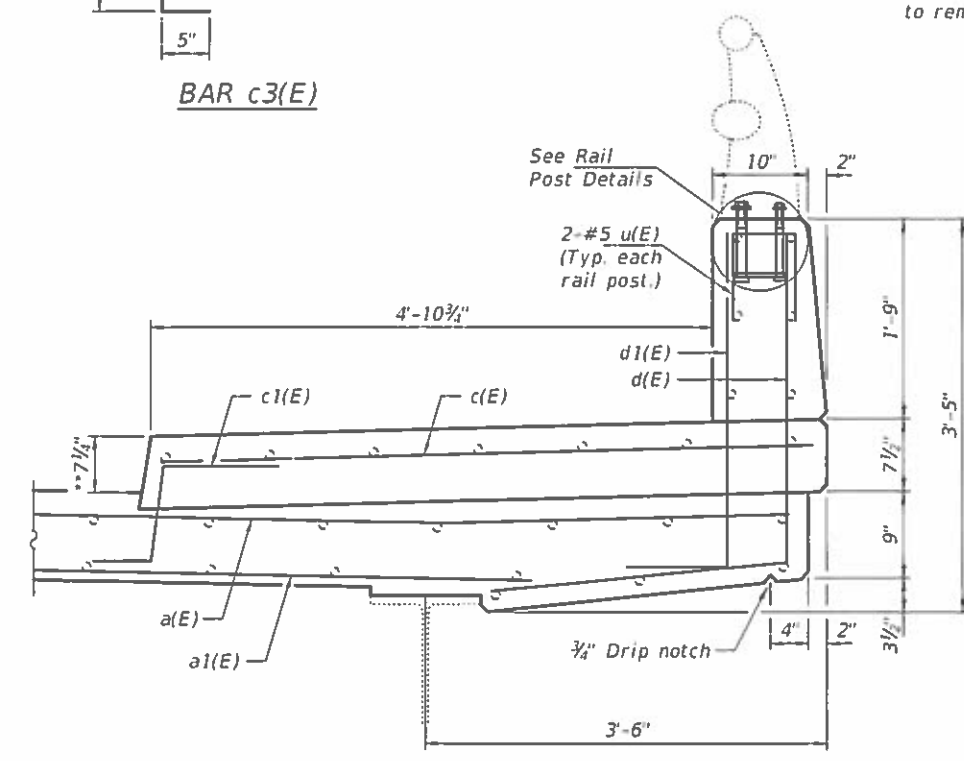
BAR c1(E)



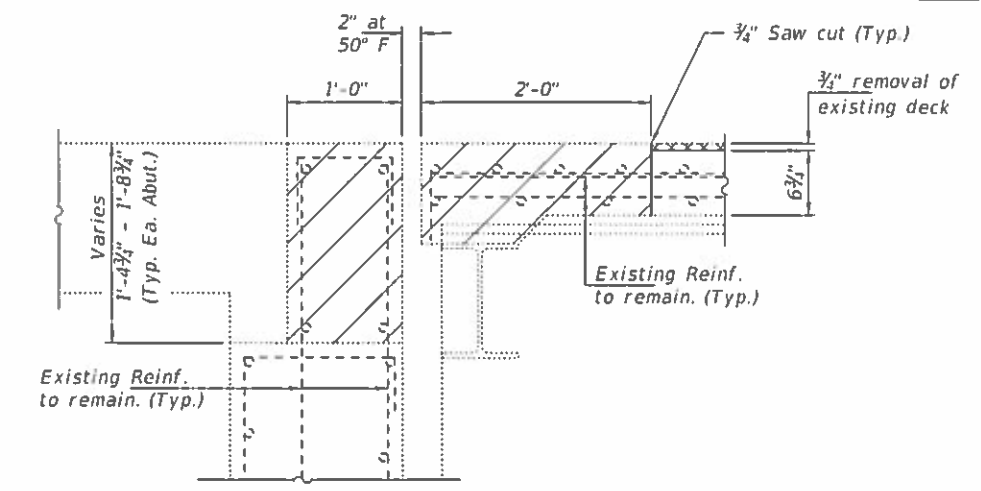
SECTION THRU NORTH APPROACH CURB (Looking East) Existing reinforcement to remain.



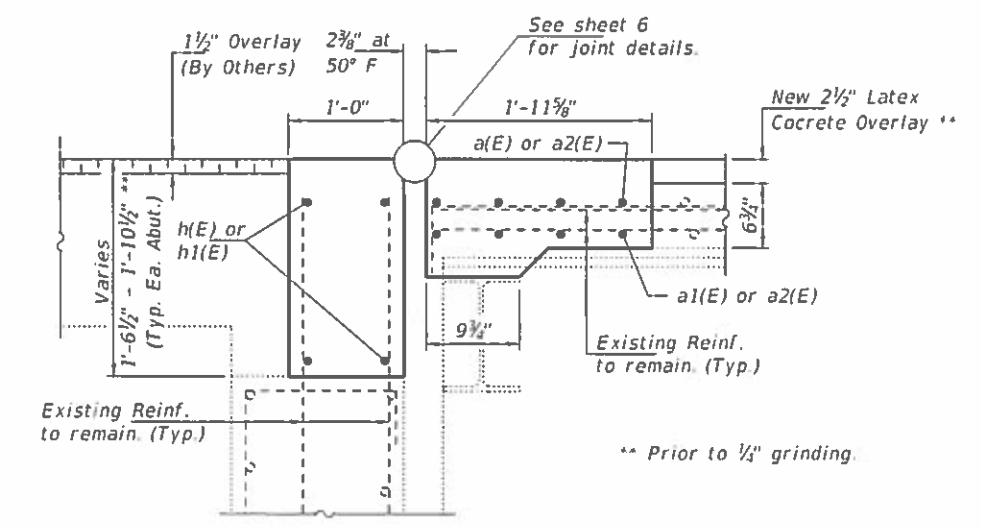
SECTION THRU NORTH CURB (Looking East)



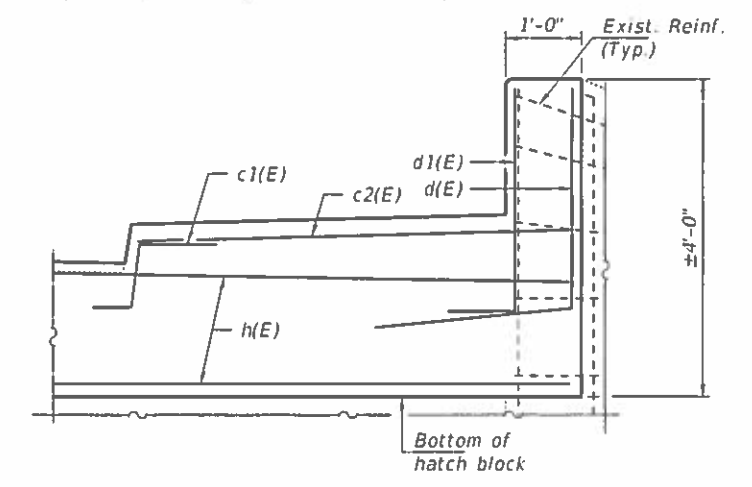
SECTION THRU SOUTH CURB (Looking East)



SECTION A-A (Near C Roadway) (Dimensions at Rt. L's to end of deck) Hatched areas indicate Concrete Removal Cross hatched area indicates Bridge Deck Scarification.



SECTION B-B (Near C Roadway) (Dimensions at Rt. L's to end of deck)



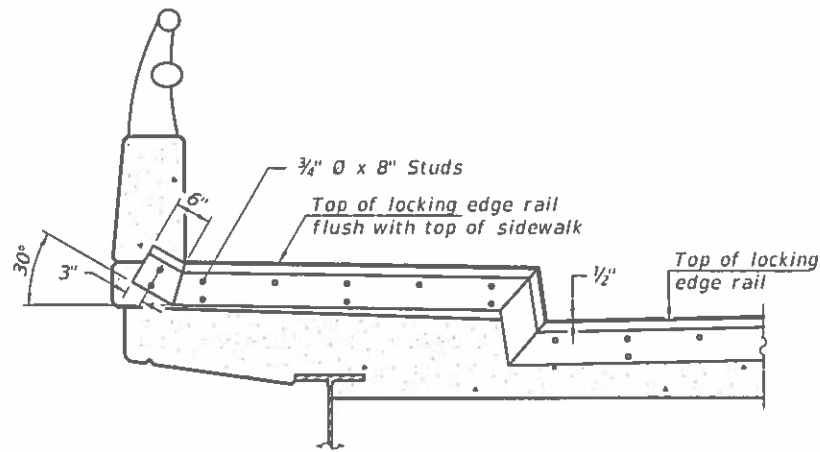
SECTION THRU SOUTH APPROACH CURB (Looking East) Existing reinforcement to remain.

DESIGNED - CDK	EXAMINED - <i>Timothy A. Anick</i>	DATE - SEPTEMBER 17, 2018
CHECKED - HSS	ENGINEER OF STRUCTURAL SERVICES	REVISED -
DRAWN - <i>daburcilell</i>	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
CHECKED - CDK HSS		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

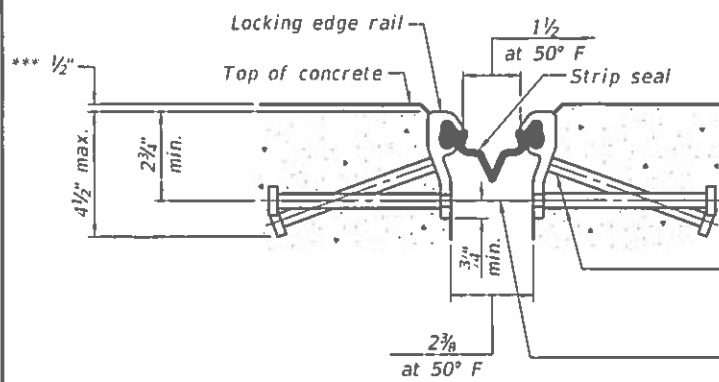
REPAIR DETAILS
SN 102-0007
SHEET NO. 5 OF 10 SHEETS

F.A.P. RTL	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
49	(34BR-1)BRR	WOODFORD	32	29
			CONTRACT NO. 68E17	
ILLINOIS FED. AID PROJECT				



**TYPICAL END TREATMENT
AT SIDEWALK OR MEDIAN**

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

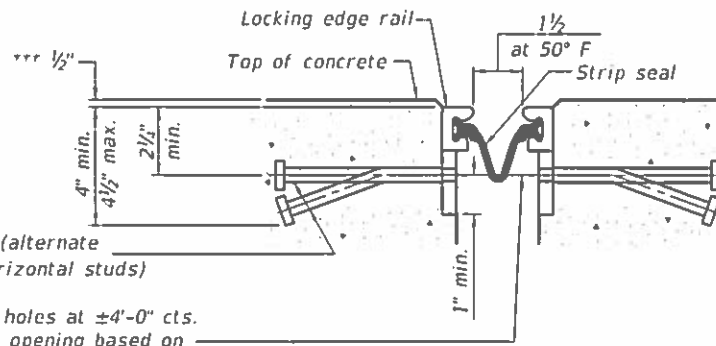


SHOWING ROLLED RAIL JOINT

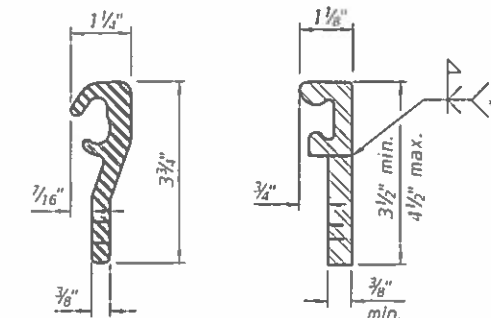
*** Prior to 1/4" Diamond Grinding.

* 5/8" ϕ x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)
 3/8" ϕ threaded rods in 1/16" ϕ holes at ± 4 -0" cts. for holding the proper joint opening based on the temperature during the deck pour. Place to miss studs. All rods shall be burned, or sawed off flush with the plates after concrete is set.

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

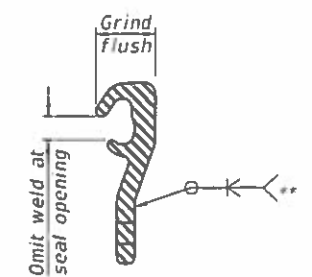


SHOWING WELDED RAIL JOINT



LOCKING EDGE RAILS

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



LOCKING EDGE RAIL SPLICE

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

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	90

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the locking edge rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

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

The manufacturer's recommended installation methods shall be followed.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

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

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

34" F-shape barrier shown, 42" F-shape similar as noted.

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

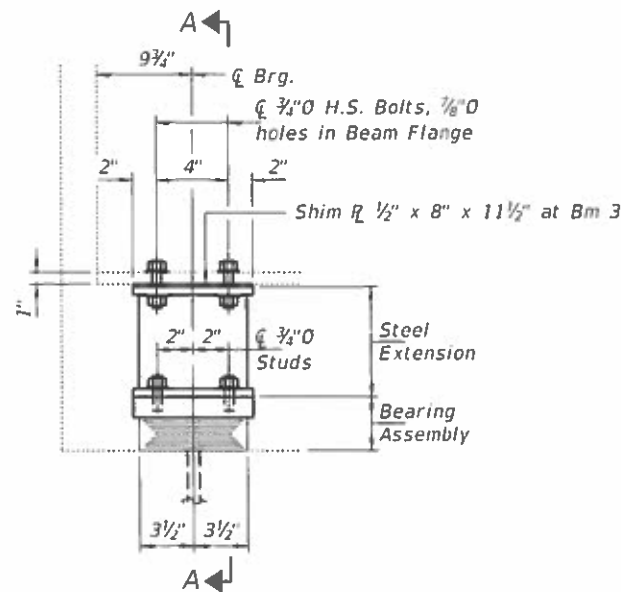
DESIGNED - CDK	EXAMINED - <i>Timothy A. ...</i>	DATE - SEPTEMBER 17, 2018
CHECKED - HSS	PASSED - <i>Carl ...</i>	REVISED -
DRAWN - daburdell	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
CHECKED - CDK HSS		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
SN 102-0007

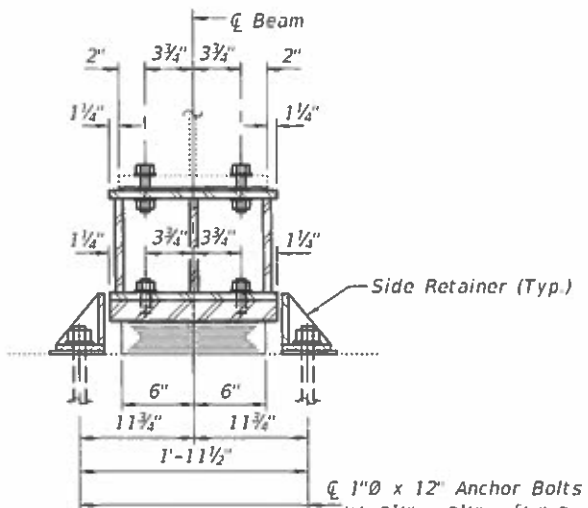
SHEET NO. 8 OF 10 SHEETS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
49	(34BR-1)BRR	WOODFORD	32	21
			CONTRACT NO. 68E17	
ILLINOIS FED. AID PROJECT				



ELEVATION AT ABUTMENT

TYPE I ELASTOMERIC EXP. BRG.



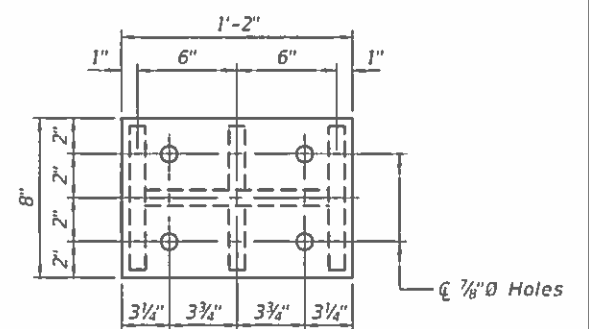
SECTION A-A

1"Ø x 12" Anchor Bolts with 2 1/4" x 2 1/4" x 5/16" R washer under nut.

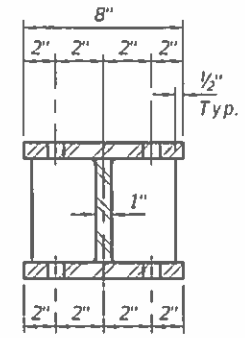
BEAM REACTIONS

RP	(K)	23.1
R ₁	(K)	36.3
Imp.	(K)	10.3
R (Total)	(K)	69.7

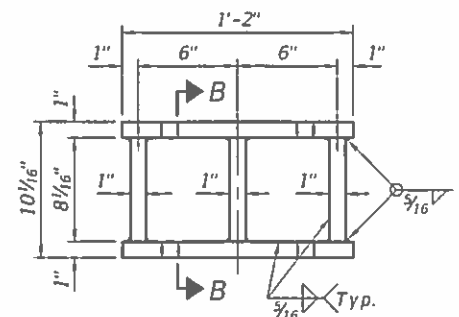
Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).
 Min. jack capacity = 40 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
 New bearing plates, steel extensions, shim plates, side retainers, anchor bolts, connection bolts, nuts and washers shall be galvanized according to AASHTO M111 or M232 as applicable.



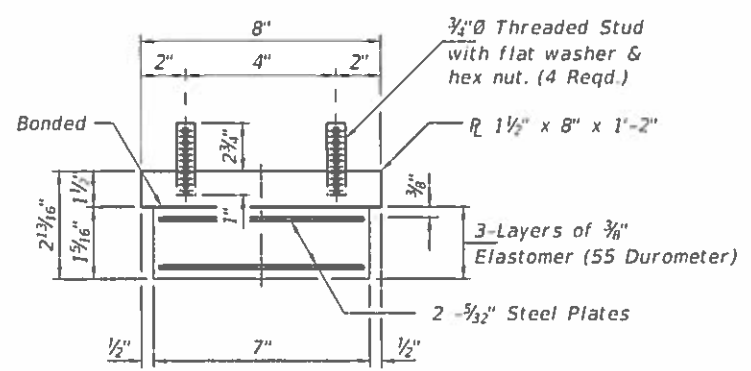
PLAN TOP AND BOTTOM PLATE



SECTION B-B

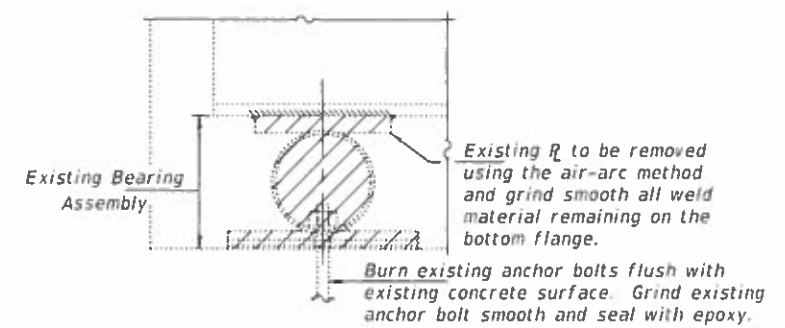


STEEL EXTENSION DETAIL



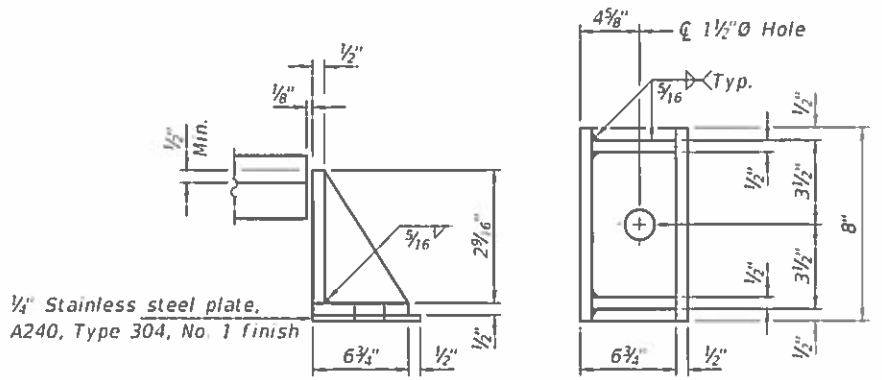
BEARING ASSEMBLY

Note:
 Shim plates shall not be placed under Bearing Assembly.



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL - W. ABUT.

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	6
Jack and Remove Existing Bearings	Each	6
Furnishing and Erecting Structural Steel	Pound	850
Anchor Bolts, 1"Ø	Each	12

TYI/REPS 5-17-2018

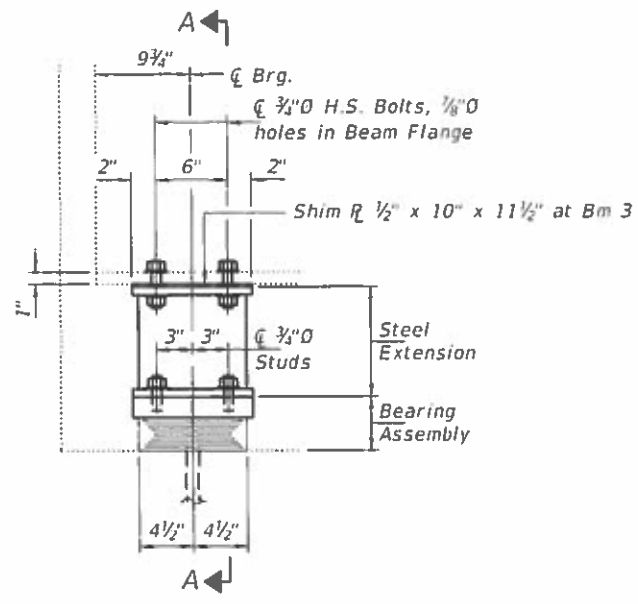
DESIGNED - CDK	EXAMINED - <i>Timothy A. ...</i>	DATE - SEPTEMBER 17, 2018
CHECKED - HSS	PASSED - <i>...</i>	REVISED -
DRAWN - <i>daburdell</i>	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -
CHECKED - CDK HSS		

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BEARING DETAILS - W. ABUT.
 SN 102-0007

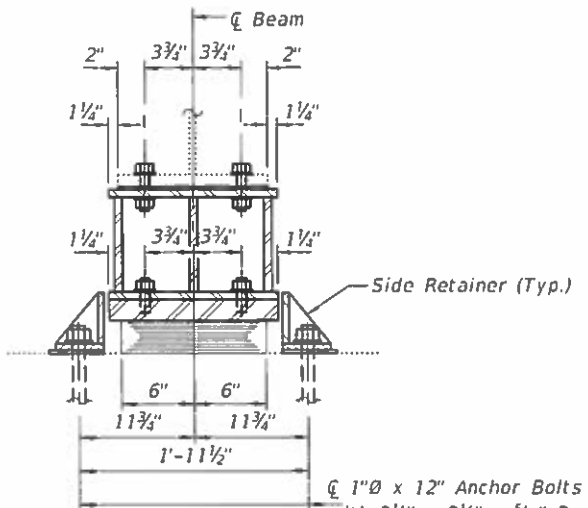
SHEET NO. 7 OF 10 SHEETS

F.A.P. RTE. 49	SECTION (34BR-1)BRR	COUNTY WOODFORD	TOTAL SHEETS 32	SHEET NO. 22
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68E17	



ELEVATION AT ABUTMENT

TYPE I ELASTOMERIC EXP. BRG.

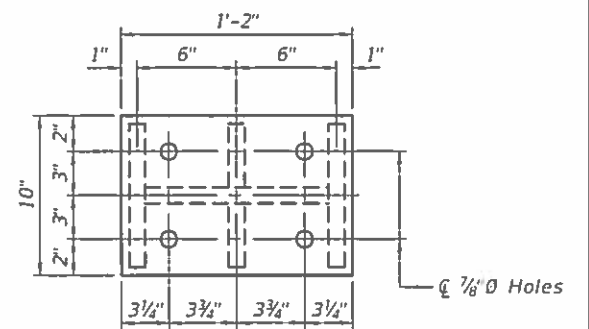


SECTION A-A

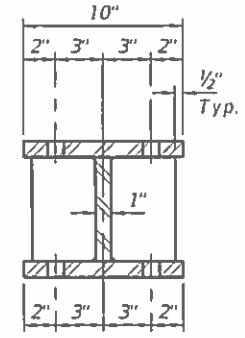
BEAM REACTIONS

R _P	(K)	23.1
R _I	(K)	36.3
Imp.	(K)	10.3
R (Total)	(K)	69.7

Notes:
 Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.
 New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.
 Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions. Adjustment must account for deck heave due to pack rust (if present).
 Min. jack capacity = 40 Tons.
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (F_y=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
 Cost of Side retainers and Stainless Steel plates shall be included in the cost of Elastomeric Bearing Assembly, Type I.
 New bearing plates, steel extensions, shim plates, side retainers, anchor bolts, connection bolts, nuts and washers shall be galvanized according to AASHTO M111 or M232 as applicable.

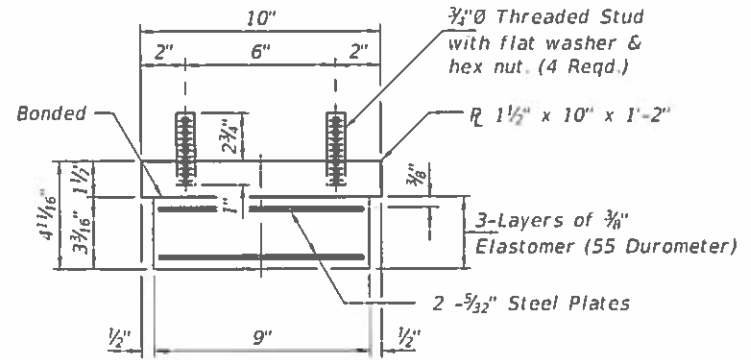


PLAN TOP AND BOTTOM PLATE



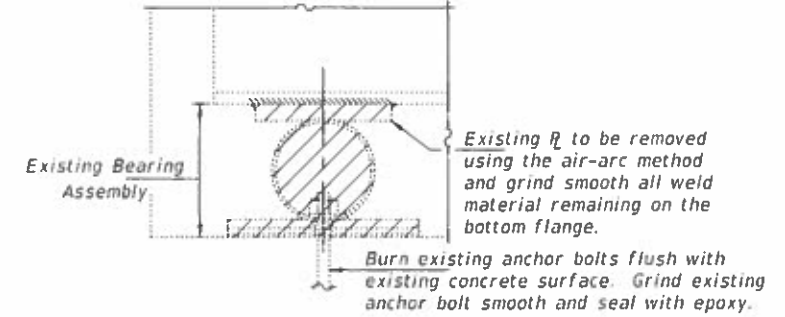
SECTION B-B

STEEL EXTENSION DETAIL



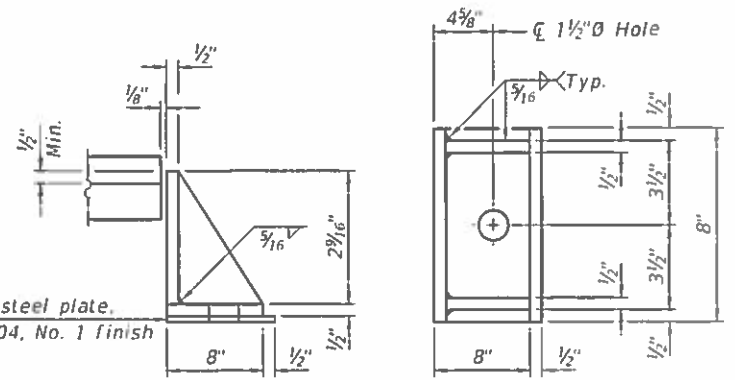
BEARING ASSEMBLY

Note:
 Shim plates shall not be placed under Bearing Assembly.



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL - E. ABUT.

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	6
Jack and Remove Existing Bearings	Each	6
Furnishing and Erecting Structural Steel	Pound	920
Anchor Bolts, 1" O	Each	12

TYI/REPS 5-17-2018

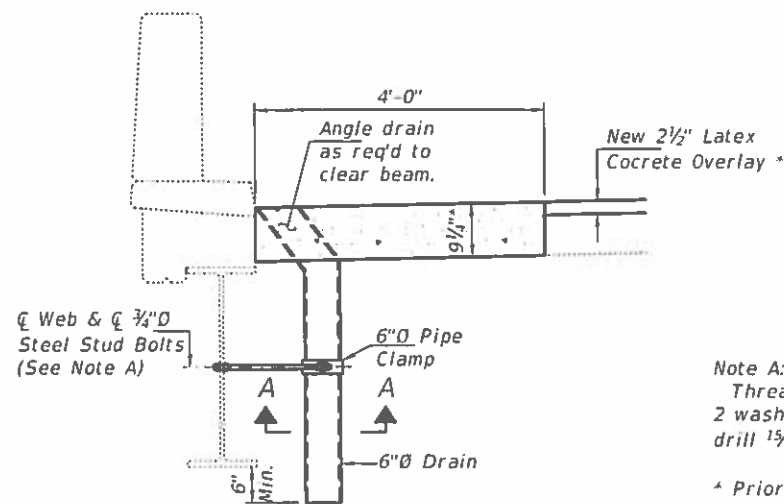
DESIGNED - CDK	EXAMINED - <i>Timothy A. Anhalt</i>	DATE - SEPTEMBER 17, 2018
CHECKED - HSS	ENGINEER OF STRUCTURAL SERVICES	
DRAWN - daburdell	PASSED - <i>A. Carl King</i>	REVISED -
CHECKED - CDK HSS	ENGINEER OF BRIDGES AND STRUCTURES	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

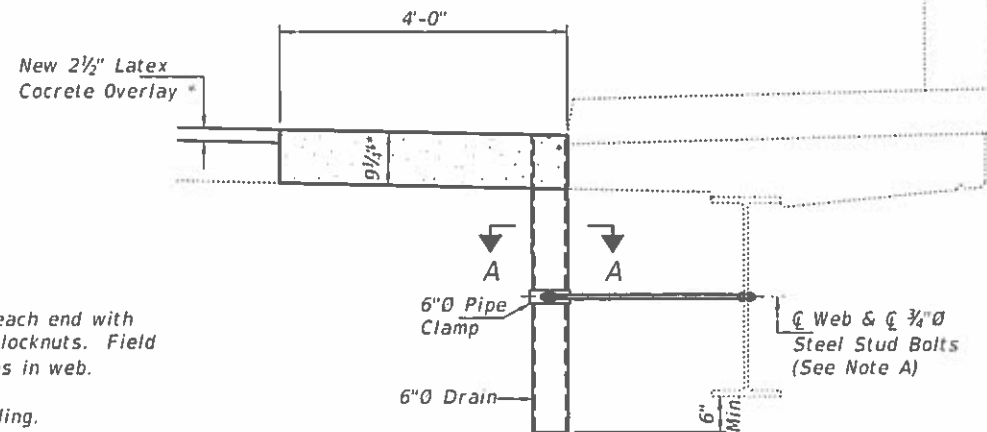
BEARING DETAILS - E. ABUT.
 SN 102-0007

SHEET NO. 7A OF 10 SHEETS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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			CONTRACT NO. 6BE17	
ILLINOIS FED. AID PROJECT				

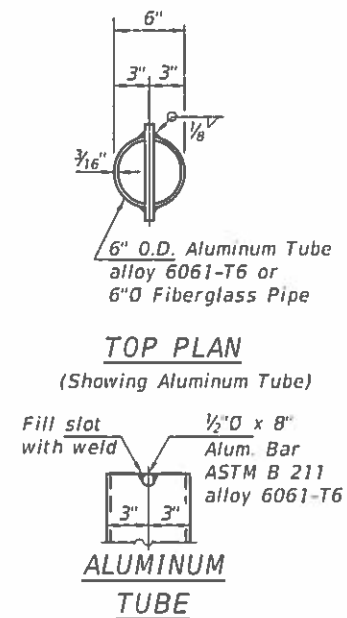
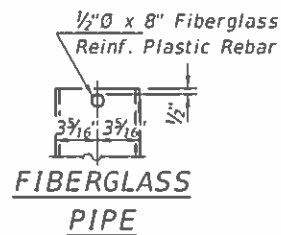
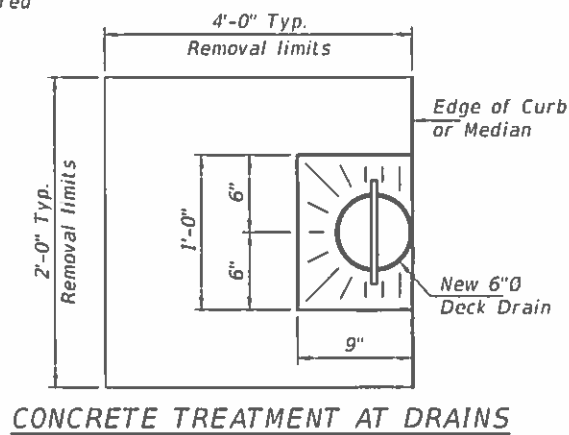
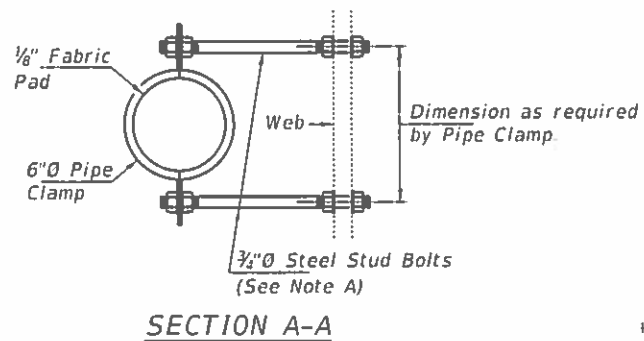


DRAIN DETAIL AT CURB
Removal included with Deck Slab Repair (Full Depth Type 2).



DRAIN DETAIL AT SIDEWALK
Removal included with Deck Slab Repair (Full Depth Type 2).

Note A:
Threaded 6" each end with 2 washers and locknuts. Field drill 1 3/16" holes in web.
^ Prior to grinding.



Notes:
Drains shall be located clear of all diaphragms.
The exterior surfaces of the floor drains shall be painted with the finish coat as specified in the special provisions for Cleaning and Painting New Metal Structures. The exterior surfaces of the drains shall be cleaned according to the Society of Protective Coatings' Spec. SSPC-SP1 prior to painting.
Fiberglass pipe shall conform to ASTM D 2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum.
Galvanize clamping device according to AASHTO M232. Cost of clamping device and inserts is included with Floor Drains.

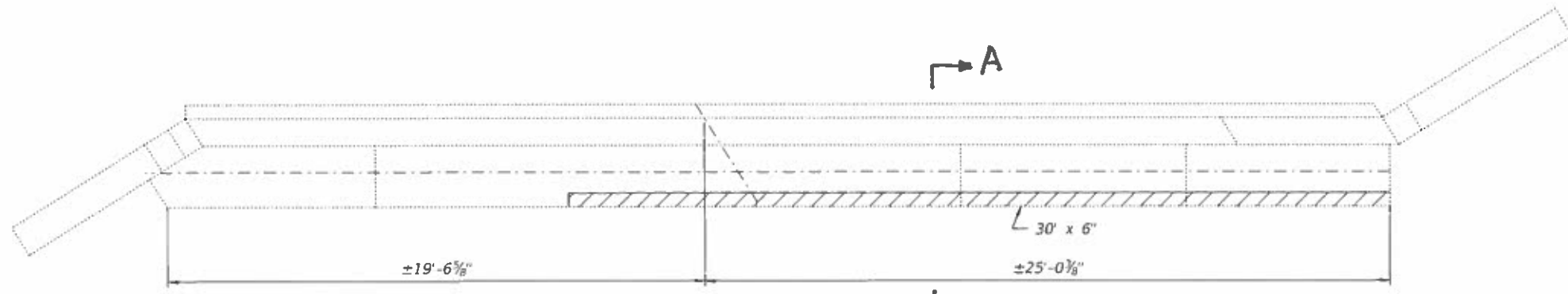
DESIGNED - CDK	EXAMINED	DATE - SEPTEMBER 17, 2018
CHECKED - HSS	<i>Imag A. [Signature]</i>	
DRAWN - daburdell	ENGINEER OF STRUCTURAL SERVICES	
CHECKED - CDK HSS	PASSED	REVISOR -
	<i>A. Carl [Signature]</i>	REVISOR -
	ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

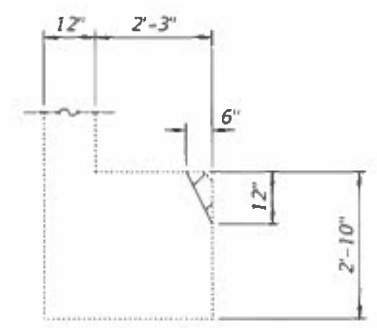
DRAIN DETAILS
SN 102-0007

SHEET NO. 8 OF 10 SHEETS

F.A.P. RT#	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
49	(34BR-1)BRR	WOODFORD	32	24
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68E17	




PLAN
 Removal included with Deck Slab
 Repair (Full Depth Type 2).



SECTION A-A

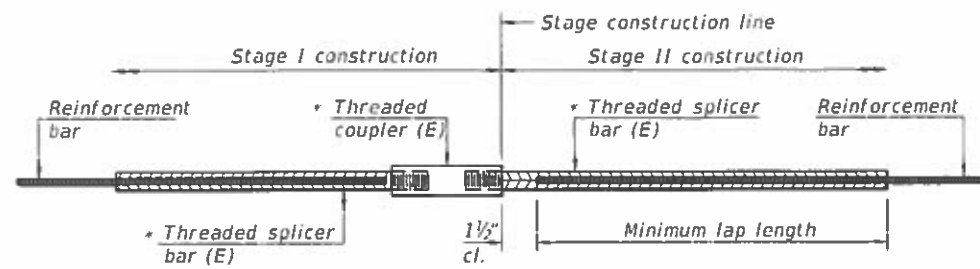


ELEVATION
 (Looking East)

 Indicates Structural Repair of Concrete (Less than or Equal to 5")

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Conc. (Less than or Equal to 5")	Sq. Ft.	30

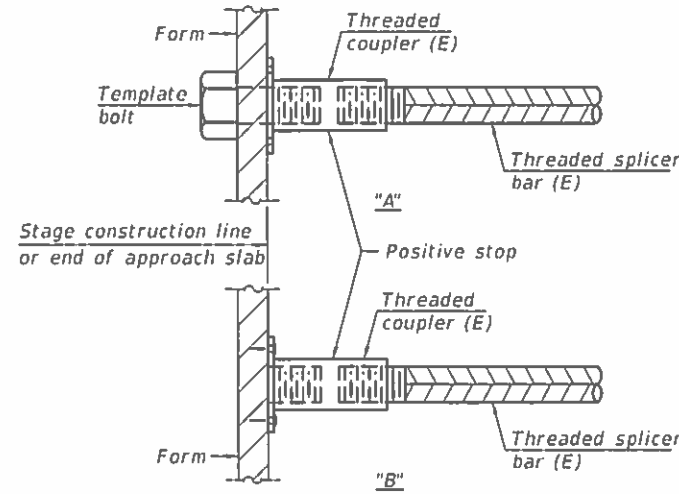


STANDARD BAR SPLICER ASSEMBLY

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

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

Location	Bar size	No. assemblies required	Minimum lap length
W. Abut. Deck	#5	8	3'-1"
W. Abut. HB	#6	4	4'-5"
E. Abut. Deck	#5	8	3'-1"
E. Abut. HB	#6	4	4'-5"

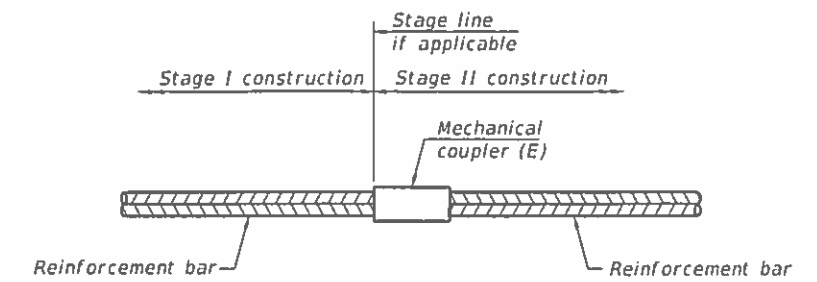


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

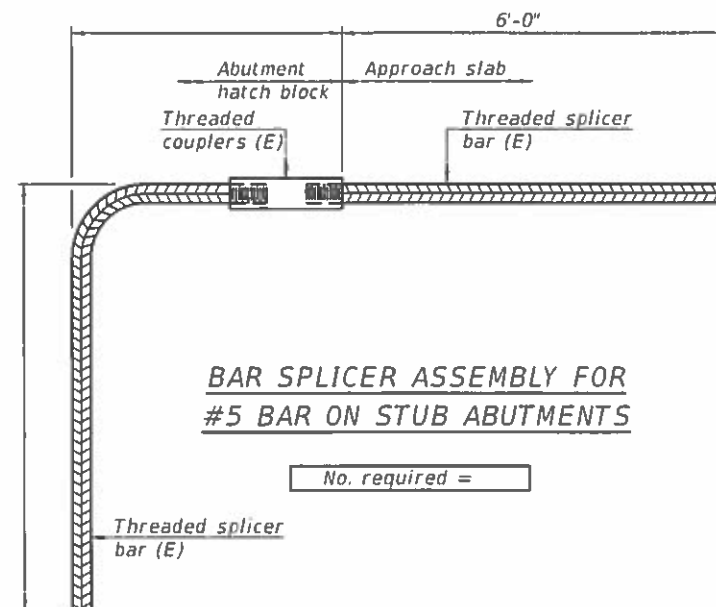
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



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.

BSD-1

2-17-2017

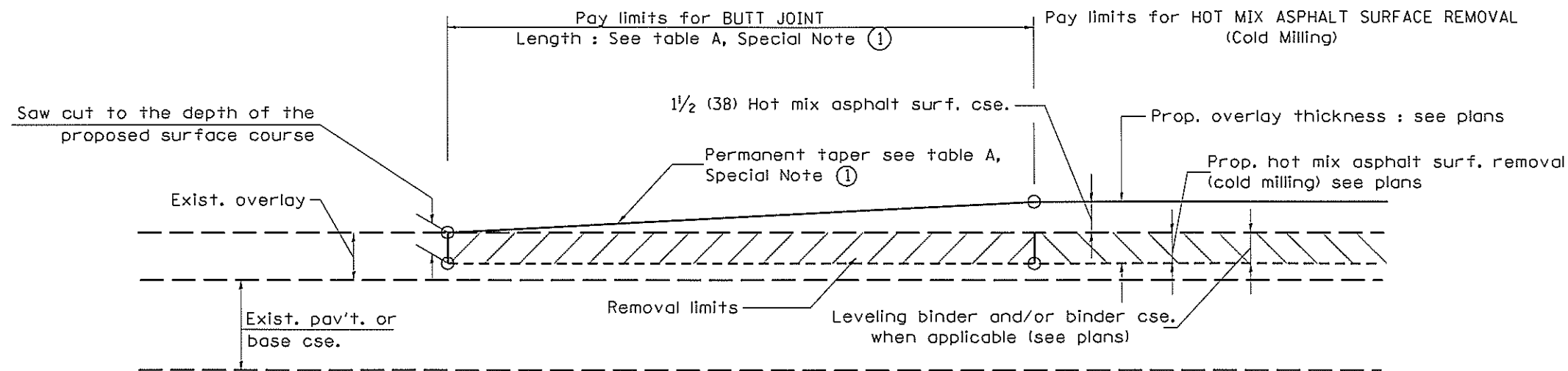
DESIGNED - CDK	EXAMINED - <i>Timothy A. Hockett</i>	DATE - SEPTEMBER 17, 2018
CHECKED - HSS	ENGINEER OF STRUCTURAL SERVICES	REVISED -
DRAWN - <i>daburdell</i>	PASSED - <i>Carl Hoyer</i>	REVISED -
CHECKED - CDK HSS	ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
SN 102-0007

SHEET NO. 10 OF 10 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
49	(348R-1)BRR	WOODFORD	32	28
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68E17	



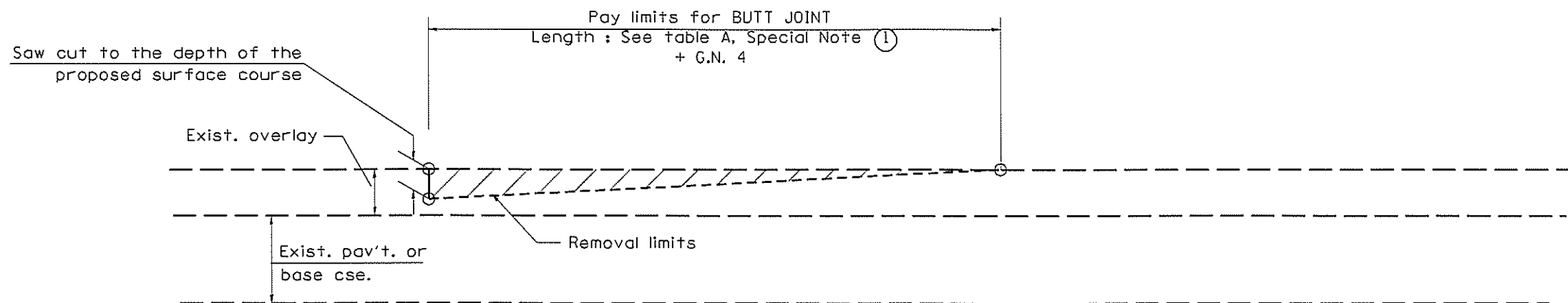
CASE 1 : WITH HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

**TABLE A
TAPER RATES**

SPECIAL NOTE NUMBER	ELEMENT	MAINLINE INTERSTATES & 4-LANE EXPRESSWAYS	ALL OTHERS
①	BUTT JOINT TAPER RATE	1:480	1:240
②	TEMPORARY RAMP TAPER RATE	1:80	1:40

GENERAL NOTES

1. The work shall be done in accordance with Article 406.08 and the Special Provision for Butt Joints.
2. The pavement surface to be removed may be either bituminous or P.C. concrete. The work shall be performed in accordance with Article 440.04 and the Special Provisions for Butt Joints.
3. The saw cut joints shall be primed just prior to the placing of bituminous material. The work will be in accordance with the applicable portions of Article 406.05.
4. The length of butt joint is based on the taper rate times change in cold milling depth within the butt joint pay limits, unless otherwise indicated.
5. Temporary ramps are paid for separately and not included in the cost of the butt joints.

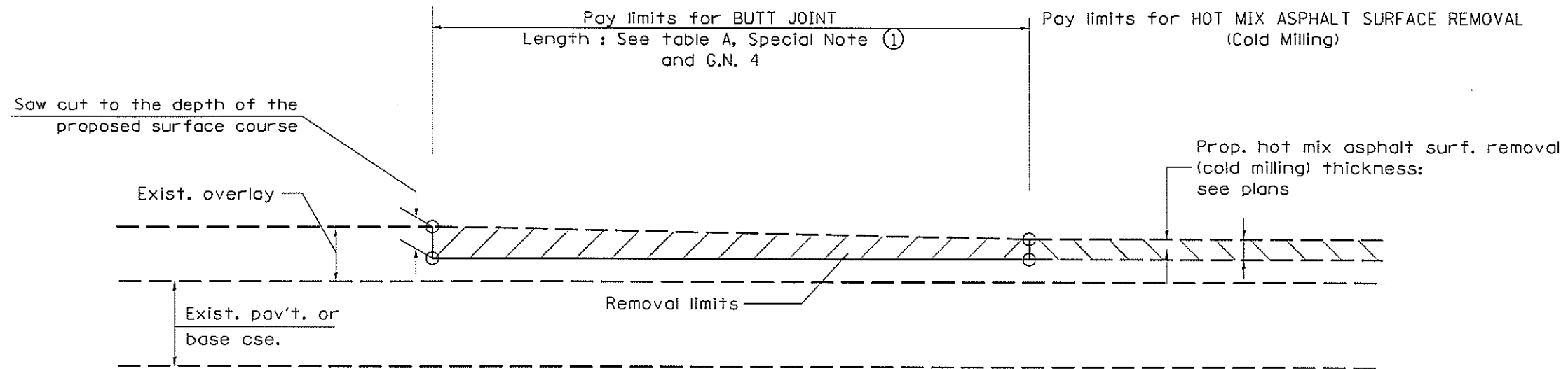


CASE 2 : NO HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

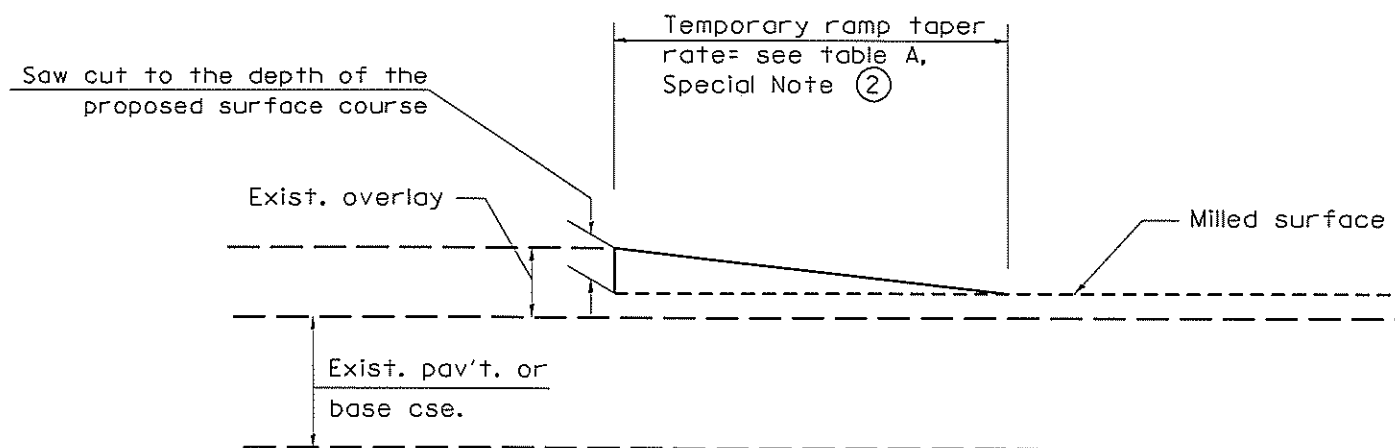
All dimensions are in inches (millimeters) unless otherwise noted.

01-01-97	RENUM. C-23.01, NEW REVISION BOX	T.P.	08-21-13	MAJOR MODIFICATIONS	R.D.	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUTT JOINTS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
04-01-97	CORRECTION TO DEPTH	J.A.	02-29-16	MINOR CORRECTIONS	R.D.			317	(34B-1)BRR	WOODFORD	32	27
09-15-05	REVISED DESIGNER NOTE	M.M.A.	04-12-16	MINOR CORRECTIONS	R.D.			SHT. 1 OF 3 CADD STD. 406101-04		BRIDGE REPAIRS CONTRACT NO. 68E17		
10-16-06	REVISED TO 2001 SPEC.	M.A.	02-14-17	ADDED NOTE 5	R.D.			FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				

NOT TO SCALE



**CASE 3 : HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER**



DETAIL TEMPORARY RAMP

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

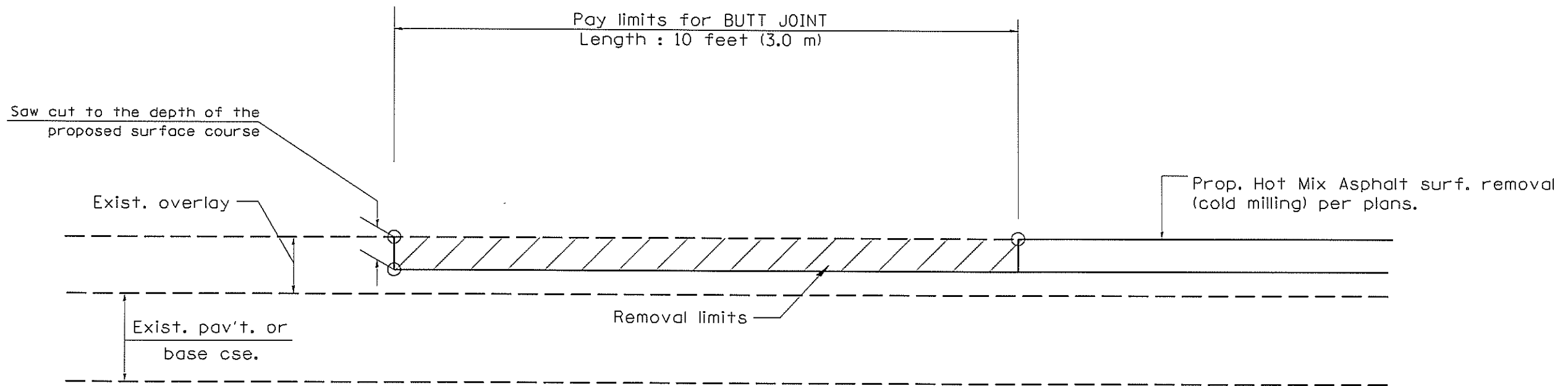
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINTS

NOT TO SCALE

SHT. 2 OF 3
CADD STD. 406101-04

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(348-1)BRR	WOODFORD	32	28
BRIDGE REPAIRS			CONTRACT NO. 68E17	
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				



**CASE 4 : SINGLE LIFT OVERLAY WITH EQUIVALENT DEPTH
HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)
TIE-IN TO EXISTING BITUMINOUS TAPER**

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

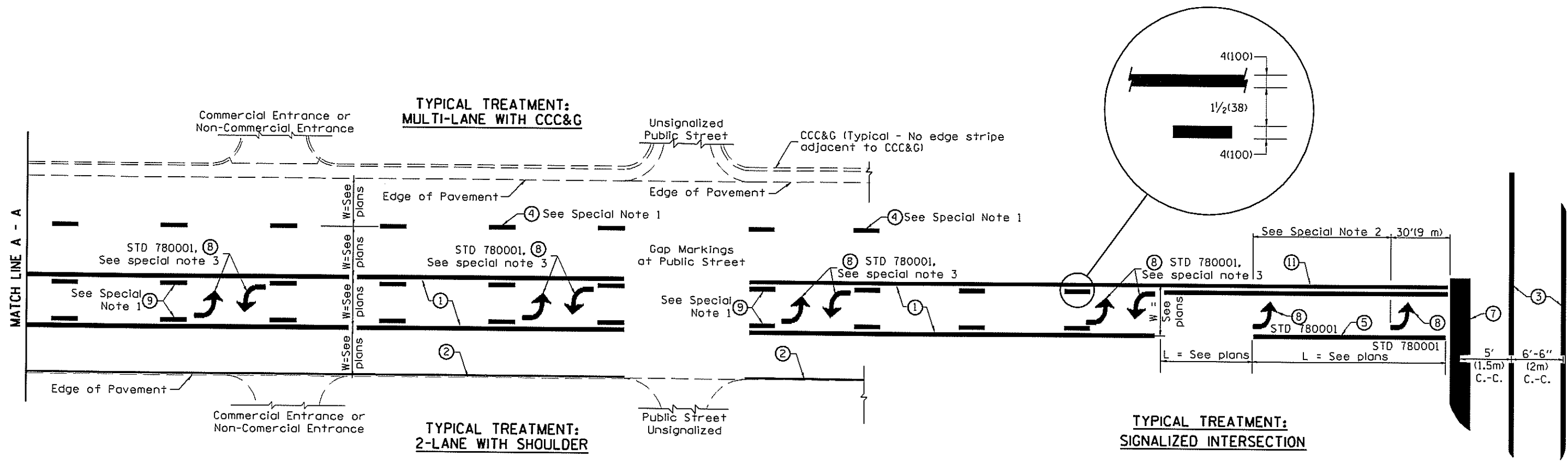
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINTS

NOT TO SCALE

SHT. 3 OF 3
CADD STD. 406101-04

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(348-1)BRR	WOODFORD	32	29
BRIDGE REPAIRS			CONTRACT NO. 68E17	
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				



FLUSH PAVED MEDIAN: TWO-WAY LEFT TURN LANE WITH ONE-WAY LEFT TURN LANE AT SIGNALIZED INTERSECTION

TYPICAL PAVEMENT MARKING LEGEND

(Note: This is a District Standard Legend. Some elements may not apply to specific project.)

- ① 4(100) Solid (Yellow)
- ② 4(100) Solid (White)
- ③ 2-6(150) Crosswalk @ 6'-6" (2m) min C.-C. (White)
2-8(200) Crosswalk @ 6'-6" (2m) min C.-C. (White) (When traffic signals are present.)
- ④ 6(150) Skip-Dash (White) (See Special Note 1)
- ⑤ 8(200) Solid (White)
- ⑥ 12(300) Diagonal (White) (Item ⑥ is shown on Std. 780001)
- ⑦ 24(600) Stop Bar (White)
- ⑧ Letters & Arrows (See Std. 780001 and Special Notes 2 & 3)
- ⑨ 4(100) Skip-Dash (Yellow) (See Special Note 1)
- ⑩ 12(300) Diagonal (Yellow) (See Table A) (See Table A)
- ⑪ 4(100) Double Solid (Yellow) (See Table A)

SPECIAL NOTES

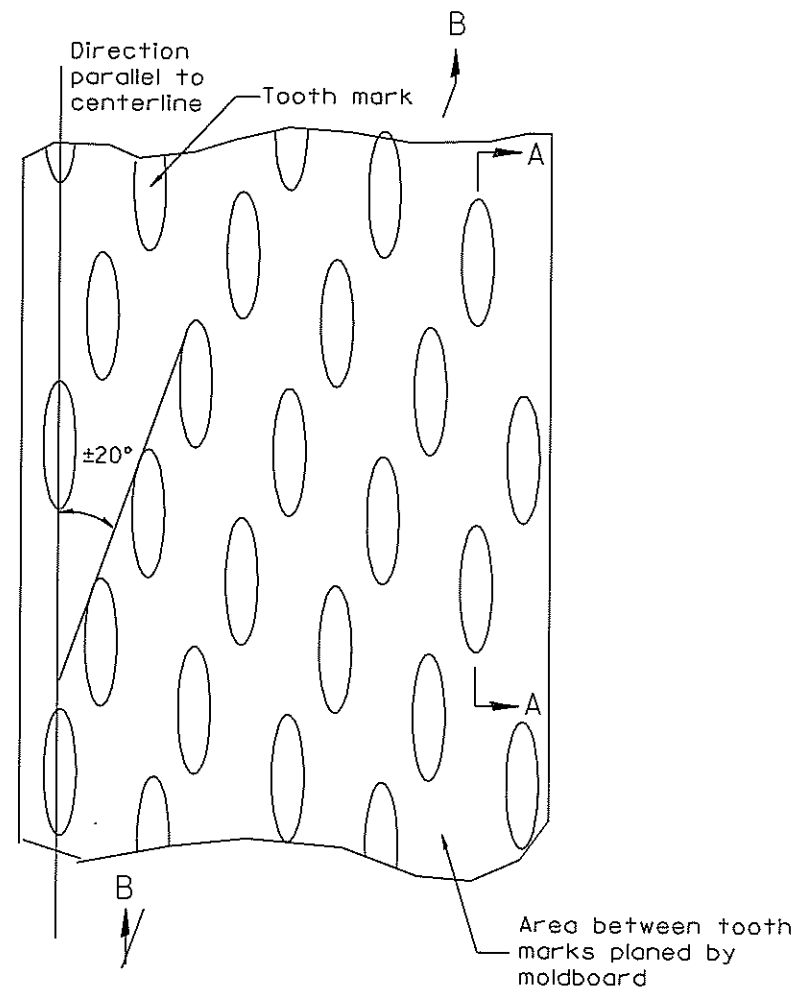
1. Skip-Dash markings will be centered between both ends of city blocks and shall be placed in alignment transversely across the pavement.
2. The following shall apply to arrows located in one-way left turn lanes:
 - A. A minimum of two (2) arrows is required.
 - B. The maximum spacing between arrows is 80' (24 m).
 - C. Arrows shall be evenly spaced if three (3) or more are required.
3. The following shall apply to arrow pairs located in two-way left turn lanes:
 - A. A minimum of two (2) arrow pairs is required.
 - B. The maximum spacing between arrow pairs is 200' (61 m).
 - C. Arrow pairs shall be evenly spaced if three (3) or more are required.
 - D. The spacing between Bi Directional Left Turn Arrows is 33' (10 m).

GENERAL NOTES

1. Refer to State Standard 780001 for additional Pavement Markings including letters & arrows.
2. See Plans for Pavement Markings adjacent to curbed islands and medians, and through lane reductions.
3. Refer to Article 780.13 for letter, number and symbol areas (sq. ft.)
4. Areas are grooved 1" beyond each edge for the following symbols:
Through Arrow= 14.8 sq. ft.
Large Left or Right Arrow= 21.9 sq. ft.
2 Arrow Combination Left (or Right) and Through= 34.9 sq. ft.
Wrong Way Arrow= 29.5 sq. ft.
Railroad Crossing Symbol= 69.8 sq. ft.
(For further information, refer to BDE Special Provision: Grooving for Recessed Pavement Markings)

D1-01-97	RENUM. F-8.03, NEW REVISION BOX	T.P.	10-16-06	REVISED TO 2007 SPEC.		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL PAVEMENT MARKINGS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
D2-07-97	ADD BI DIRECTIONAL DIMENSION	J.A.	2/29/16	ADDED GROOVING AREAS	R.D.			317	(34B-10BRR)	WOODFORD	32	31
10-97	CORRECT BI DIRECTIONAL DIMENSION	J.A.						BRIDGE REPAIRS		CONTRACT NO. 68E17		
08-02	ADD CROSSWALK DIMS. WITH T.S.	M.A.						SHT. 1 OF 2 CADD STD. 780001-D4		FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT		

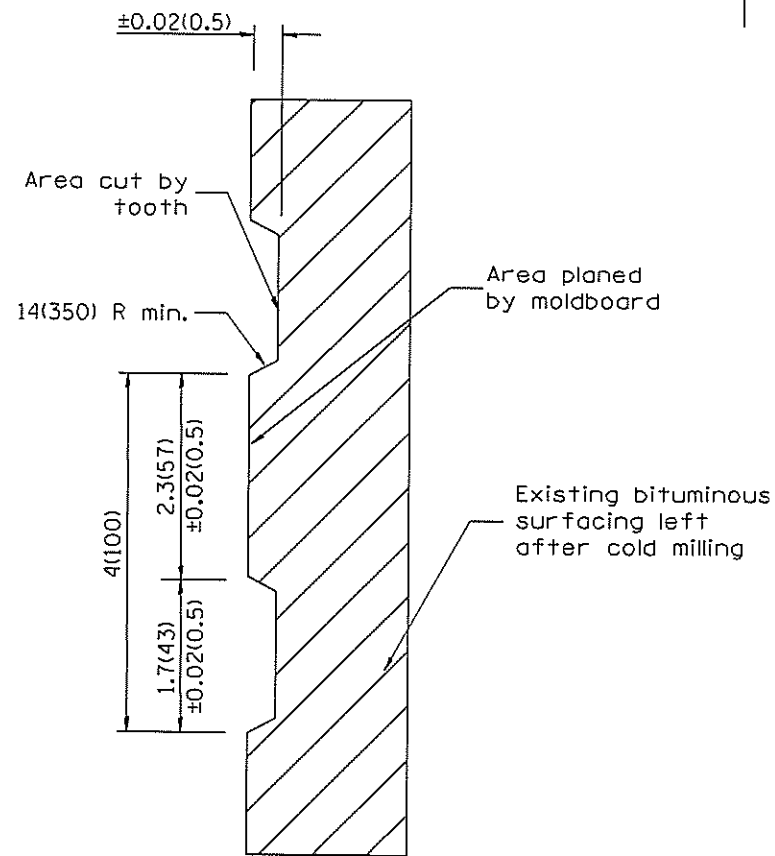
NOT TO SCALE



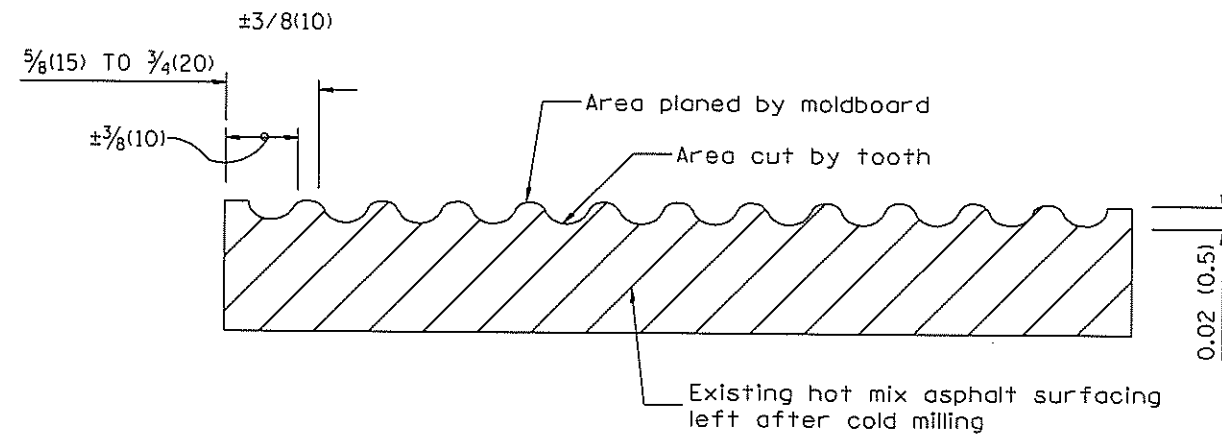
PLAN

General notes:

1. Coldmilling shall consist of two processes: Cutting with carbide teeth mounted on a rotating drum, and planing with a moldboard mounted immediately behind the cutting drum.
2. Other similar patterns will be acceptable if they consist of a smooth, flat, planed surface interspersed with a pattern of discontinuous longitudinal striations.



SECTION A-A



SECTION B-B PROJECTED
PERPENDICULAR TO CENTERLINE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

HOT MIX ASPHALT SURFACE REMOVAL (COLD MILLING)

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

01-01-97	RENUM. C-104.01. NEW REVISION BOX	T.P.
04-20-98	REMOVED MILLING DETAIL FROM STANDARD	J.A.
09-08-98	CORRECT NOTE LEADER PLACEMENT	R.W.
10-16-06	REVISED TO 200T SPEC.	M.A.

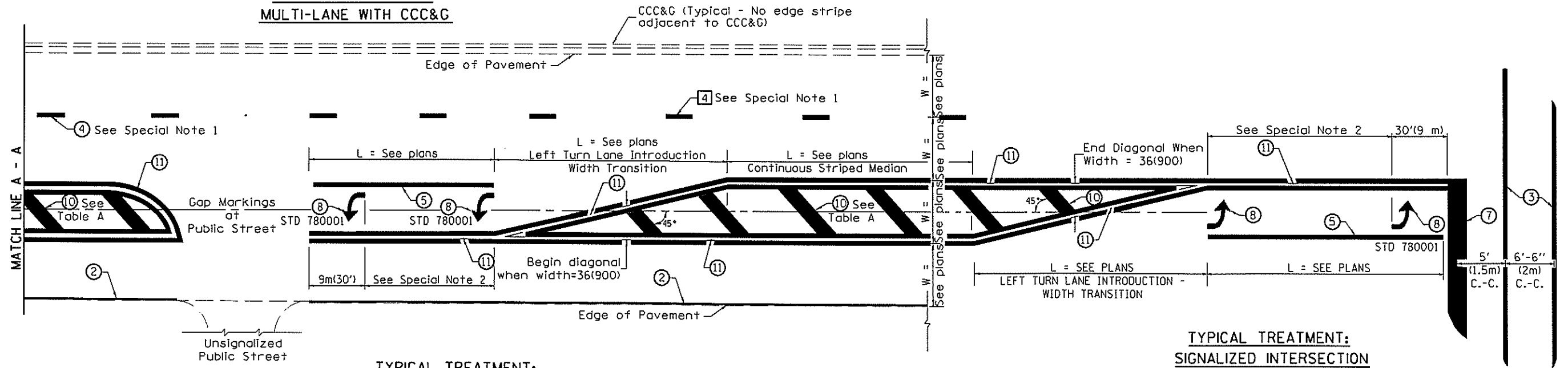
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(34B-1)BRR	WOODFORD	32	30
BRIDGE REPAIRS			CONTRACT NO. 68E17	

NOT TO SCALE

CADD STD. 440001-D4

FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT

**TYPICAL TREATMENT:
MULTI-LANE WITH CCC&G**



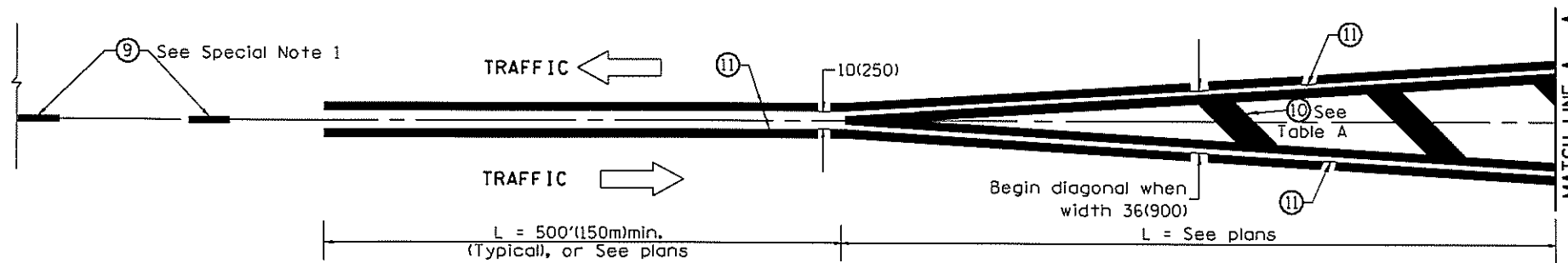
**TYPICAL TREATMENT:
2-LANE WITH SHOULDER**

TYPICAL MEDIAN TRANSITIONS

FLUSH PAVED MEDIAN: RESTRICTED LEFT TURN LANE

TABLE A
RECOMMENDED SPACING BETWEEN DIAGONAL LINES

SPEED LIMIT RANGE	INTERSECTION CHANNELIZATION (Includes Width Transitions for Median and Left Turn Lane Introductions)	
	CONTINUOUS	
Less Than 30 mph (50 km/h)	50' (15m)	15' (5m)
30 - 45 mph (50 - 70 km/h)	75' (23m)	20' (6m)
Over 45 mph (70 km/h)	150' (46m)	30' (9m)



MEDIAN INTRODUCTION - WIDTH TRANSITIONS

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL PAVEMENT MARKINGS

NOT TO SCALE

SHT. 2 OF 2
CADD STD. 780001-D4

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
317	(34B-1)BRR	WOODFORD	32	32
BRIDGE REPAIRS			CONTRACT NO. 68E17	
FED. ROAD DIST. NO. 4 ILLINOIS FED. AID PROJECT				