068

11-09-2018 LETTING ITEM 068

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	1
	ILLINOIS	CONTRACT NO. 62D43		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROPOSED
HIGHWAY PLANS

FAP ROUTE 860 (IL 31) OVER BNSF RR
(SOUTH CATERPILLAR DRIVE)
SECTION 12VB-BR(16)
PROJECT NHPP WQTU(728)
BRIDGE OVERLAY
KANE/KENDALL COUNTY

C-91-016-17

D-91-016-17

LOCATION OF SECTION INDICATED THUS:-

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS PROJECT IS LOCATED WITHIN UNINCORPORATED OSWEGO TOWNSHIP

TRAFFIC DATA

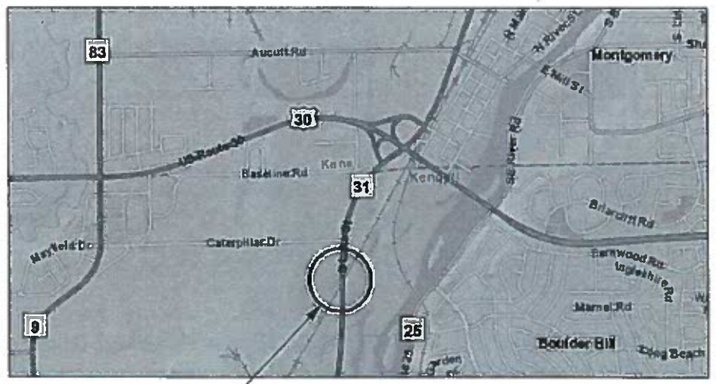
FAP ROUTE 860 (IL 31)
FUNCTIONAL CLASSIFICATION
OTHER PRINCIPAL ARTERIAL
ADT (2017) = 12,400
P.V. = 88.1% S.U. = 8.67% M.U. =3.23%
POSTED SPEED LIMIT = 45 MPH

JANICE K. PANG
062-060897
LICENSED PROFESSIONAL ENGINEER OF
STATE OF ILLINOIS

DATE SIGNED: 2/26/18
EXP DATE: 11/30/19
OSWEGO TOWNSHIP

R 8E

T 37 N



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LOCATION MAP
NOT TO SCALE

100' 200' 300' — 1"=100'
10' 20' 30' — 1"=10'
1"=50'
1"=40'
1"=30'
1"=20'

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 LOCATION
STA. 135+40 TO STA. 146+31.5
STRUCTURE 047-0006

GROSS LENGTH = 1,092 FT. = 0.207 MILE
NET LENGTH = 1,092 FT. = 0.207 MILE

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
SERVICE | SOLUTIONS | COMMITMENT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 5 2018
Anthony J. Quigley /KAB
REGIONAL ENGINEER
Oct 5 2018
ENGINEER OF DESIGN AND ENVIRONMENT
Oct 2018
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

PROJECT MANAGER: FAWAD AQUEEL, P.E., P.T.O.E. (847) 705-4247
PROJECT ENGINEER: RAGHAD ADEIS-DAHHAN, P.E., S.E. (847) 705-4237

CONTRACT NO. 62D43

INDEX OF SHEETS

DISTRICT ONE STANDARDS

STANDARD NO.	DESCRIPTION
BD-32	BUTT JOINT AND HMA TAPER DETAILS
TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC-11	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
TC-13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
TC-14	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
TC-16	SHORT-TERM PAVEMENT MARKING LETTERS AND SYMBOLS
TC-22	ARTERIAL ROAD INFORMATION SIGN
TC-26	DRIVEWAY ENTRANCE SIGNING

HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
420001-09	PAVEMENT JOINTS
420401-12	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB
606001-07	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
606301-04	PC CONCRETE ISLANDS AND MEDIANS
610001-08	SHOULDER INLET WITH CURB
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) to 24" (600 mm) FROM PAVEMENT EDGE
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≥ 45 MPH
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701611-01	URBAN HALF ROAD CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-07	TRAFFIC CONTROL DEVICES
704001-08	TEMPORARY CONCRETE BARRIER
782006	GUARDRAIL AND BARRIER WALL REFLECTOR MOUNTING DETAILS

GENERAL NOTES

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE, AND GAS FACILITIES (48 HOURS NOTIFICATION REQUIRED).
2. NO CONSTRUCTION SHALL BEGIN UNTIL ALL PROPER TEMPORARY SIGNS AND BARRICADES HAVE BEEN INSTALLED.
3. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE LOCAL MUNICIPALITY.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND OR SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S OWN EXPENSE.
5. THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
7. DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
8. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
9. BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
10. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
11. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO FIELD VARIATION. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION OR ORDERING MATERIALS. SUCH VARIATION SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR QUANTITY ACTUALLY FURNISHED BASED AT THE UNIT PRICE BID FOR THE WORK.
12. TRAFFIC CONDITIONS, ACCIDENTS AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY OR REMOVE LANE CLOSURES OR CHANNELIZATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS AS DIRECTED BY THE ENGINEER WITHOUT DELAY. THE CONTRACTOR SHALL RESPOND TO ANY REQUEST MADE BY THE ENGINEER FOR CORRECTION WITHIN TWO HOURS FROM THE TIME OF NOTIFICATION.
13. UNLESS OTHERWISE NOTED IN THE PLANS OR CONTRACT SPECIFICATIONS, THE CONTRACTOR SHALL SURVEY THE TOP OF RAIL OF EACH RAILROAD TRACK A MINIMUM OF 1000-FT ON EACH SIDE OF THE OVERPASS STRUCTURE IN 50' INCREMENTS BEFORE BEGINNING CONSTRUCTION, AND COMPARE IT TO THE ALIGNMENT AND THE TOP OF RAIL PROFILES SHOWN ON THE PLANS. ALL DISCREPANCIES BETWEEN SURVEY AND INFORMATION SHOWN IN THE PLANS SHALL BE NOTED AND BROUGHT TO THE ATTENTION OF THE ENGINEER AND THE RAILROAD PRIOR TO CONSTRUCTION. IN ADDITION, UPON COMPLETION OF EACH STRUCTURE, THE CONTRACTOR SHALL MEASURE THE RESULTING HORIZONTAL AND VERTICAL CLEARANCES AND SUBMIT THEM TO THE ENGINEER FOR REVIEW AND INCLUSION IN THE RECORD DRAWINGS. THIS WORK SHALL BE INCLUDED IN THE COST OF CONSTRUCTION LAYOUT.
14. PROTECTIVE SHIELD SHALL BE INSTALLED IN ALL AREAS INVOLVING CONCRETE REMOVAL TO PREVENT DEBRIS FROM ENTERING RAILROAD RIGHT OF WAY. THE LOCATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO CONCRETE REMOVAL.
15. ALL SAW CUTTING REQUIRED SHALL BE INCIDENTAL TO CORRESPONDING PAY ITEMS AND SHALL BE PERFORMED PRIOR TO BEGINNING REMOVALS.
16. THE RESIDENT ENGINEER SHALL CONTACT DON CHIARUGI, IDOT'S AREA TRAFFIC FIELD ENGINEER, VIA E-MAIL AT DON.CHIARUGI@ILLINOIS.GOV, A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - JKP	REVISED -
	DRAWN - DMW	REVISED -
PLOT SCALE = 40.0000 ' / in.	CHECKED - SPF	REVISED -
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES

SHEET 1 OF 1 SHEETS

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	2
		CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE NHPP & STATE MAINTENANCE 80% FED 20% STATE ROADWAY 0013	CONSTRUCTION CODE NHPP & STATE MAINTENANCE 80% FED 20% STATE STRUCTURE 0013
20200100	EARTH EXCAVATION	CU YD	257	257	
28100101	STONE RIPRAP, CLASS A1	SQ YD	88	88	
31101100	SUBBASE GRANULAR MATERIAL, TYPE B	CU YD	68	68	
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	484	484	
35102300	AGGREGATE BASE COURSE, TYPE B 11"	SQ YD	298	298	
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	521	521	
40600635	LEVELING BINDER (MACHINE METHOD), N70	TON	81	81	
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	66	66	
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	98	98	
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SQ YD	382	382	
44000100	PAVEMENT REMOVAL	SQ YD	638	638	
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1.5"	SQ YD	1,158	1,158	
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1,058	1,058	
44003100	MEDIAN REMOVAL	SQ FT	3,675	3,675	

* = SPECIALTY ITEMS

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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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PLOT DATE = 8/13/2018	DATE - 08-10-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
SUMMARY OF QUANTITIES

SCALE: N/A | SHEET 1 OF 7 SHEETS

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	3
		CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			

REV. - MS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE NHPP & STATE MAINTENANCE 80% FED 20% STATE ROADWAY 0013	CONSTRUCTION CODE NHPP & STATE MAINTENANCE 80% FED 20% STATE STRUCTURE 0013
44004250	PAVED SHOULDER REMOVAL	SQ YD	225	225	
48300500	PORTLAND CEMENT CONCRETE SHOULDERS 10"	SQ YD	225	225	
50102400	CONCRETE REMOVAL	CU YD	70.1		70.1
50157300	PROTECTIVE SHIELD	SQ YD	805		805
50300225	CONCRETE STRUCTURES	CU YD	32.1		32.1
50300255	CONCRETE SUPERSTRUCTURE	CU YD	79.3		79.3
50300260	BRIDGE DECK GROOVING	SQ YD	2,932		2,932
50300300	PROTECTIVE COAT	SQ YD	1,109		1,109
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	291		291
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	28,880		28,880
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	105,290		105,290
50800515	BAR SPLICERS	EACH	348		348
52000110	PREFORMED JOINT STRIP SEAL	FOOT	405		405
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	36		36

* = SPECIALTY ITEMS

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CHASTAIN & ASSOCIATES LLC
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
SUMMARY OF QUANTITIES

SCALE: N/A | SHEET 2 OF 7 SHEETS

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	4
		CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			

REV. - MS

				CONSTRUCTION CODE	
				NHPP & STATE MAINTENANCE	
				80% FED 20% STATE	80% FED 20% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	STRUCTURE
				0013	0013
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	12		12
52100505	ANCHOR BOLTS, 5/8"	EACH	96		96
52100510	ANCHOR BOLTS, 3/4"	EACH	24		24
52100520	ANCHOR BOLTS, 1"	EACH	22		22
55100500	STORM SEWER REMOVAL 12"	FOOT	16	16	
60100945	PIPE DRAINS 12"	FOOT	16	16	
60260100	INLETS TO BE ADJUSTED	EACH	1	1	
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SQ FT	2679	2679	
60619200	CONCRETE MEDIAN, TYPE SB-6.06	SQ FT	988	988	
60603500	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.06	FOOT	880	880	
61000115	TYPE E INLET BOX, STANDARD 610001	EACH	4	4	
66201120	CONCRETE SHOULDER CURB	FOOT	24	24	
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	230	230	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12	12	
* 66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1	
67100100	MOBILIZATION	L SUM	1	1	
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1	

* = SPECIALTY ITEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
SUMMARY OF QUANTITIES

SCALE: N/A | SHEET 3 OF 7 SHEETS

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	5
		CONTRACT NO. 62D43		
		ILLINOIS FED. AID PROJECT		

REV. - MS

				CONSTRUCTION CODE	
				NHPP & STATE MAINTENANCE	
				80% FED 20% STATE	80% FED 20% STATE
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	ROADWAY	STRUCTURE
				0013	0013
70300100	SHORT TERM PAVEMENT MARKING	FOOT	1,372	1,372	
70300150	SHORT TERM PAVEMENT MARKING REMOVAL	SQ FT	451	451	
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SQ FT	156	156	
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	11,870	11,870	
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	2,102	2,102	
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	62	62	
70300900	PAVEMENT MARKING TAPE, TYPE IV - LETTERS AND SYMBOLS	SQ FT	89	89	
70300904	PAVEMENT MARKING TAPE, TYPE IV 4"	FOOT	25,412	25,412	
70300906	PAVEMENT MARKING TAPE, TYPE IV 6"	FOOT	670	670	
70400100	TEMPORARY CONCRETE BARRIER	FOOT	837.5	837.5	
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	787.5	787.5	
70600260	IMPACT ATTENUATORS, TEMPORARY (FULLY REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	2	2	
70600330	IMPACT ATTENUATORS, RELOCATE (FULLY REDIRECTIVE), TEST LEVEL 3	EACH	2	2	
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	156	156	

* = SPECIALTY ITEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
SUMMARY OF QUANTITIES

SCALE: N/A | SHEET 4 OF 7 SHEETS

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	6
		CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			

REV. - MS

	CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE NHPP & STATE MAINTENANCE 80% FED 20% STATE ROADWAY 0013	CONSTRUCTION CODE NHPP & STATE MAINTENANCE 80% FED 20% STATE STRUCTURE 0013
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	10,069	10,069	
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	475	475	
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	62	62	
*	78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	1,892	1,892	
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	36	36	
	78100300	REPLACEMENT REFLECTOR	EACH	118	118	
	78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	136	136	
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	36	36	
	X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SQ FT	4,810	4,810	
*	X2700003	GROOVING FOR RECESSED PAVEMENT MARKING, 8"	FOOT	240	240	
*	X2700005	PREFORMED PLASTIC PAVEMENT MARKING, TYPE B - INLAID - LINE 7"	FOOT	240	240	
	X6050700	REMOVE INLET BOX	EACH	4	4	
	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	1	
	X7015005	CHANGEABLE MESSAGE SIGN	CAL DAY	56	56	

* = SPECIALTY ITEMS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
SUMMARY OF QUANTITIES

SCALE: N/A | SHEET 5 OF 7 SHEETS

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	7
		CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			

REV. - MS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE NHPP & STATE MAINTENANCE 80% FED 20% STATE ROADWAY 0013	CONSTRUCTION CODE NHPP & STATE MAINTENANCE 80% FED 20% STATE STRUCTURE 0013
X7030005	TEMPORARY PAVEMENT MARKING REMOVAL	SQ FT	14,029	14,029	
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1	1	
X7830050	RAISED REFLECTIVE PAVEMENT MARKER, REFLECTOR REMOVAL	EACH	118	118	
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	71		71
Z0001903	STRUCTURAL STEEL REMOVAL	POUND	11,610		11,610
Z0004552	APPROACH SLAB REMOVAL	SQ YD	439		439
Z0006014	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/2 INCHES	SQ YD	2,292		2,292
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SQ YD	2,292		2,292
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	535		535
Z0012755	STRUCTURAL REPAIR OF CONCRETE (DEPTH GREATER THAN 5 INCHES)	SQ FT	248		248
Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	110		110
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	152	152	
Z0034390	MODULAR EXPANSION JOINT 6"	FOOT	135		135

* = SPECIALTY ITEMS

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE NHPP & STATE MAINTENANCE 80% FED 20% STATE ROADWAY 0013	80% FED 20% STATE STRUCTURE 0013
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1		1
Z0062456	TEMPORARY PAVEMENT	SQ YD	374	374	
Z0073200	TEMPORARY SHORING AND CRIBBING	EACH	1		1
Ø Z0076600	TRAINEES	HOUR	500	500	
Ø Z0076604	TRAINEES TRAINING PROGRAM GRADUATE	HOUR	500	500	

Ø 0042 * = SPECIALTY ITEMS

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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
SUMMARY OF QUANTITIES

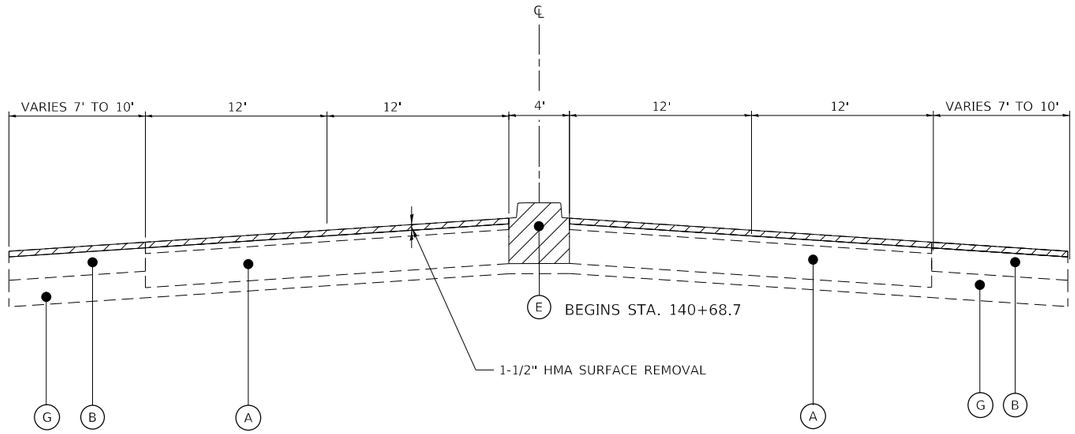
SCALE: N/A SHEET 7 OF 7 SHEETS

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	9

CONTRACT NO. 62D43

ILLINOIS FED. AID PROJECT

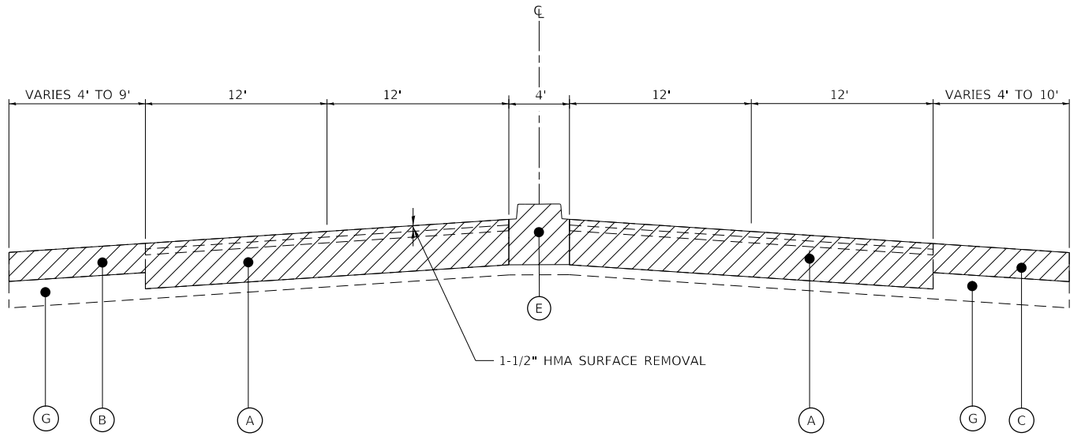
REV. - MS



EXISTING IL ROUTE 31 TYPICAL SECTION

NORTH OF BRIDGE
STA. 139+88 TO STA. 140+65 (NB)
STA. 139+88 TO STA. 141+13 (SB)

SOUTH OF BRIDGE
STA 145+40 TO 146+31.5 (NB)
STA 145+89 TO 146+31.5 (SB)



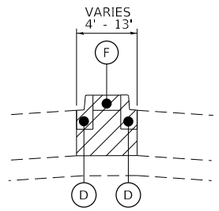
EXISTING IL ROUTE 31 TYPICAL SECTION

SOUTH OF BRIDGE
STA. 144+85.97 TO STA. 145+40 (NB)
STA. 145+34.46 TO STA. 145+89 (SB)

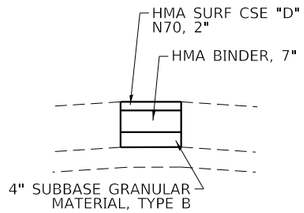
NORTH OF BRIDGE
STA 140+65 TO STA 141+19.7 (NB)
STA 141+13 TO STA 141+68.19 (SB)

MEDIAN DETAIL

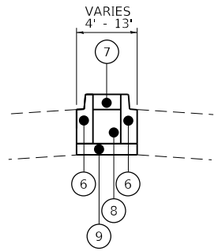
STA. 135+40 TO STA 140+68.7



REMOVAL



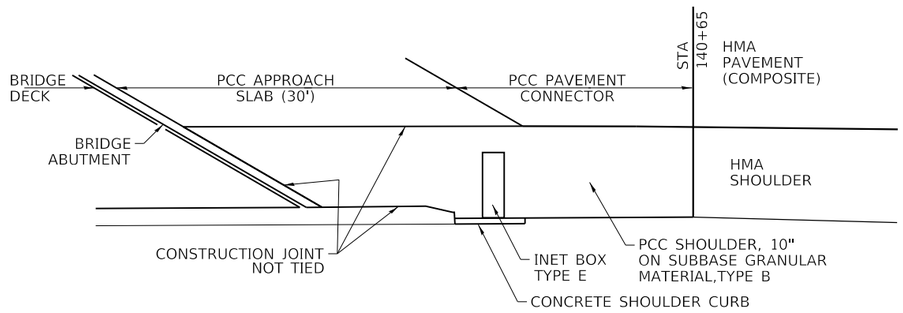
TEMPORARY PAVEMENT



RESTORATION

EXISTING LEGEND

- (A) EX COMPOSITE PAVEMENT
  1-1/2" HMA SURFACE
  1-1/2" HMA BINDER
  10" PCC CONCRETE BASE
- (B) EX HMA SHOULDER
- (C) EX CONCRETE SHOULDER
- (D) EX B-6.06 CURB AND GUTTER
- (E) EX CONCRETE (SB) MEDIAN
- (F) EX HMA MEDIAN
- (G) EX SUBBASE
- REMOVAL ITEMS



PCC SHOULDER DETAIL

(NE CORNER SHOWN. NW, SW & SE SIMILAR)

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CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - JKP	REVISED -
	DRAWN - DMW	REVISED -
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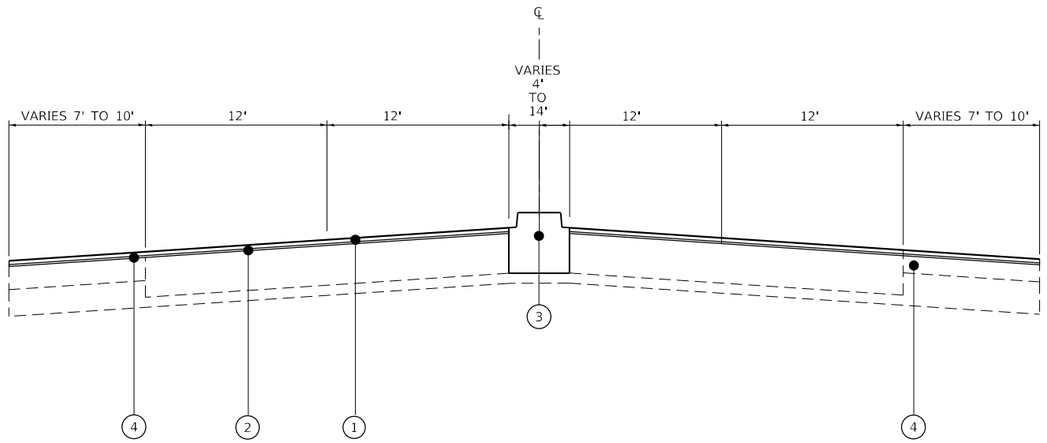
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
EXISTING TYPICAL SECTION

SCALE: NONE | SHEET 1 OF 2 SHEETS | STA. 140+90.3 TO STA. 146+31.5

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	10
		CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		



PROPOSED IL ROUTE 31 TYPICAL SECTION

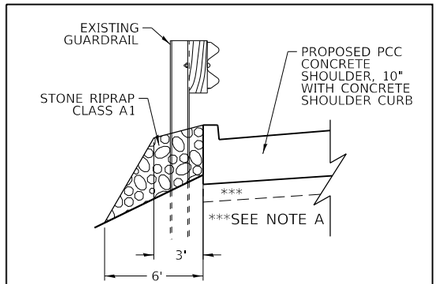
NORTH OF BRIDGE
STA. 139+88 TO STA. 140+65 (NB)
STA. 139+88 TO STA. 141+13 (SB)

SOUTH OF BRIDGE
STA 145+40 TO 146+31.5 (NB)
STA 145+89 TO 146+31.5 (SB)

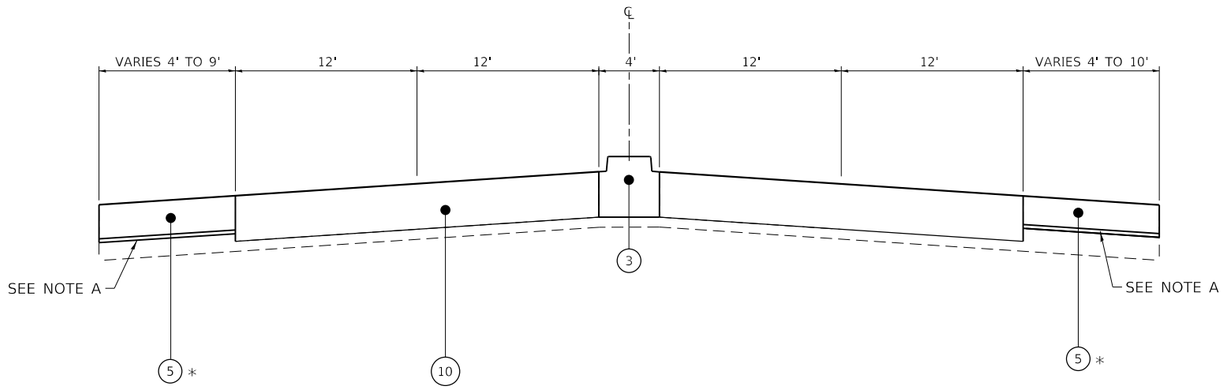
NOTE A: MATCH EXISTING SUBBASE FOR PCC SHOULDERS AND PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB. USE SUBBASE GRANULAR MATERIAL, TYPE B (CY) FOR AREA REQUIRING ADDITIONAL SUBBASE MATERIAL FOR PROFILE CHANGES OR REQUIRING ADDITIONAL SUBBASE MATERIAL TO MEET PROPOSED SUBBASE ELEVATIONS.

PROPOSED LEGEND

1. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1-1/2"
2. LEVELING BINDER (MACHINE METHOD), N70, (IL 9.5 mm), 3/4" - 1-1/2"
3. CONCRETE MEDIAN, TYPE SB-6.06
4. HMA SHOULDER OVERLAY:
   -HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1-1/2"
   -LEVELING BINDER (MACHINE METHOD), N70, (IL 9.5 mm), 3/4" - 1-1/2"
5. PCC SHOULDER, 10"
6. COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.06
7. CONCRETE MEDIAN SURFACE, 4"
8. AGGREGATE BASE COURSE, TYPE B, 11"
9. SUBBASE GRANULAR MATERIAL, TYPE B, 4"
10. PAVEMENT CONNECTOR (PCC) STD 420401



SHOULDER CURB RIPRAP DETAIL



PROPOSED IL ROUTE 31 TYPICAL SECTION

SOUTH OF BRIDGE
STA. 144+85.97 TO STA. 145+40 (NB)
STA. 145+34.46 TO STA. 145+89 (SB)

NORTH OF BRIDGE
STA 140+65 TO STA 141+19.7 (NB)
STA 141+13 TO STA 141+68.19 (SB)

* PCC SHOULDER EXTENDS TO BRIDGE ABUTMENT

MIXTURES TABLE

	HOT-MIX ASPHALT MIXTURE REQUIREMENTS		QUALITY MANAGEMENT PROGRAM (QMP)
OPERATION	MIXTURE TYPE	AIR VOIDS @ NDES	
PAVEMENT AND SHOULDER RESURFACING	HMA SURFACE COURSE, MIX "D", N70, (IL 9.5 mm), 1 1/2"	4% @ 70 GYR.	QC/QA
	LEVELING BINDER (MACHINE METHOD), N70, (IL 9.5 mm), 3/4" - 1-1/2"	4% @ 70 GYR.	QC/QA
TEMPORARY PAVEMENT (SEE NOTE 5)	HMA SURFACE COURSE, MIX "D", N70, (IL 9.5 mm), 2"	4% @ 70 GYR.	QC/QA
	TEMP PAVEMENT (HMA BINDER IL-19 mm), 7"	4% @ 70 GYR.	QC/QA
QMP DESIGNATIONS: QUALITY CONTROL/QUALITY ASSURANCE (QC/QA);			

NOTES:

1. THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON -POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.
3. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS.
4. QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.
5. THE PCC TEMPORARY PAVEMENT OPTION SHALL CONSIST OF CLASS PV CONCRETE MEETING THE REQUIREMENTS OF SECTION 1020 OF THE STANDARD SPECIFICATIONS; THICKNESS SHALL BE 8". TEMPORARY PCC PAVEMENT DOES NOT REQUIRE DOWEL BARS. ALL TEMPORARY PAVEMENT SHALL BE PROVIDED OVER A 4" SUBBASE GRANULAR MATERIAL, TYPE B.

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PLOT SCALE = 10.0000 ' / in.	CHECKED - SPF	REVISED -
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PROPOSED TYPICAL SECTION

SCALE: NONE | SHEET 2 OF 2 SHEETS | STA. 135+40.00 TO STA. 146+31.5

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	11
		CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		

ALIGNMENT COORDINATES - IL RTE 31			
	STATION	N	E
PT	123+00.00	1841137.0767	978570.4094
PI	125+31.63	1841050.6115	978522.6773
PCC	127+37.39	1840960.3584	978482.5656
PI	129+42.36	1840772.3281	978398.9982
PCC	131+53.00	1840573.7859	978344.9620
PI	133+63.10	1840371.3252	978289.8593
PCC	136+14.61	1840163.6225	978260.0898
PI	138+65.29	1839911.7126	978223.9843
PC	149+10.64	1839657.2285	978223.8196
PT	152+98.46	1838618.5153	978223.1477
PC	156+85.67	1837842.6561	978184.9322
POT	167+73.56	1836759.6931	978078.6958

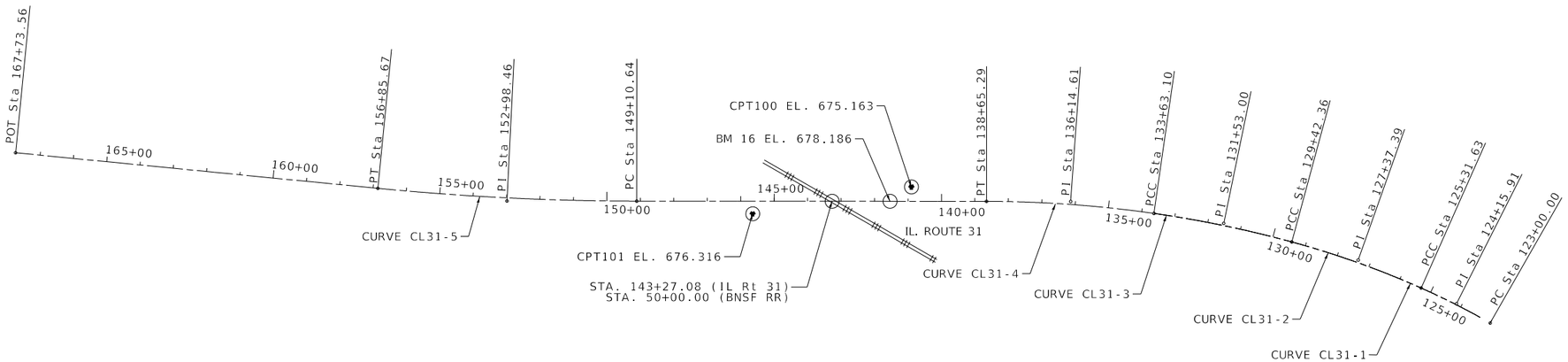
EXIST. CURVE CL31-5
PI STA. = 152+98.46
Δ = 5° 33' 03" (RT)
D = 0° 42' 58"
R = 7,999.99'
T = 387.82'
L = 775.02'
E = 9.39'
e = ____
T.R. = ____
S.E. RUN = ____
P.C. STA. = 149+10.64
P.T. STA. = 156+85.67

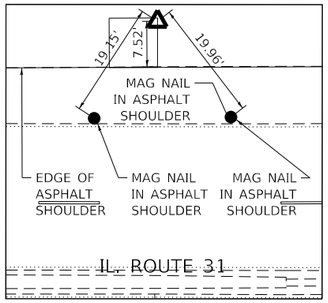
EXIST. CURVE CL31-4
PI STA. = 136+14.61
Δ = 8° 04' 37" (LT)
D = 1° 36' 30"
R = 3,562.39'
T = 251.51'
L = 502.20'
E = 8.87'
e = ____
T.R. = ____
S.E. RUN = ____
P.C. STA. = 133+63.10
P.T. STA. = 138+65.29

EXIST. CURVE CL31-3
PI STA. = 131+53.00
Δ = 7° 05' 46" (LT)
D = 1° 41' 12"
R = 3,397.18'
T = 210.64'
L = 420.74'
E = 6.52'
e = ____
T.R. = ____
S.E. RUN = ____
P.C. STA. = 129+42.36
P.T. STA. = 133+63.10

EXIST. CURVE CL31-2
PI STA. = 127+37.39
Δ = 8° 44' 13" (LT)
D = 2° 07' 38"
R = 2,693.52'
T = 205.76'
L = 410.73'
E = 7.85'
e = ____
T.R. = ____
S.E. RUN = ____
P.C. STA. = 125+31.63
P.T. STA. = 129+42.36

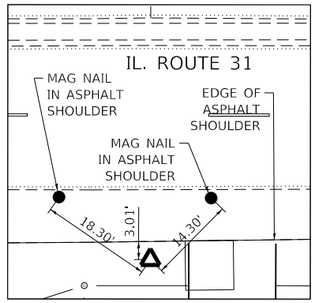
EXIST. CURVE CL31-1
PI STA. = 124+15.91
Δ = 5° 47' 39" (LT)
D = 2° 30' 06"
R = 2,290.38'
T = 115.91'
L = 231.63'
E = 2.93'
e = ____
T.R. = ____
S.E. RUN = ____
P.C. STA. = 123+00.00
P.T. STA. = 125+31.63





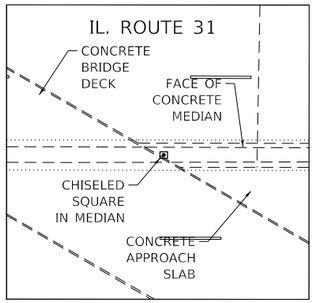
CONTROL POINT #100
SET #4 REBAR WITH CAP

STA. 140+89.95, 43.02' RT
N 1839436.891
E 978180.844
ELEV. 675.163



CONTROL POINT #101
SET #4 REBAR WITH CAP

STA. 145+64.108, 37.70' LT
N 1838962.695
E 978261.137
ELEV. 676.316



BENCHMARK #16
ELEV. 678.186

STA. 141+53.90, 0.07' LT
"□" CHISELED IN TOP OF MEDIAN
NEAR NORTHERN MOST
BRIDGE DECK JOINT

N

0 200 400 600
SCALE IN FEET

MODEL: Default
FILE NAME: H:\Pr_IDOT\658B PTB 181 006\Work Order #12\CADD_Sheets\D162D43-cht-ATB.dgn

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184-001397

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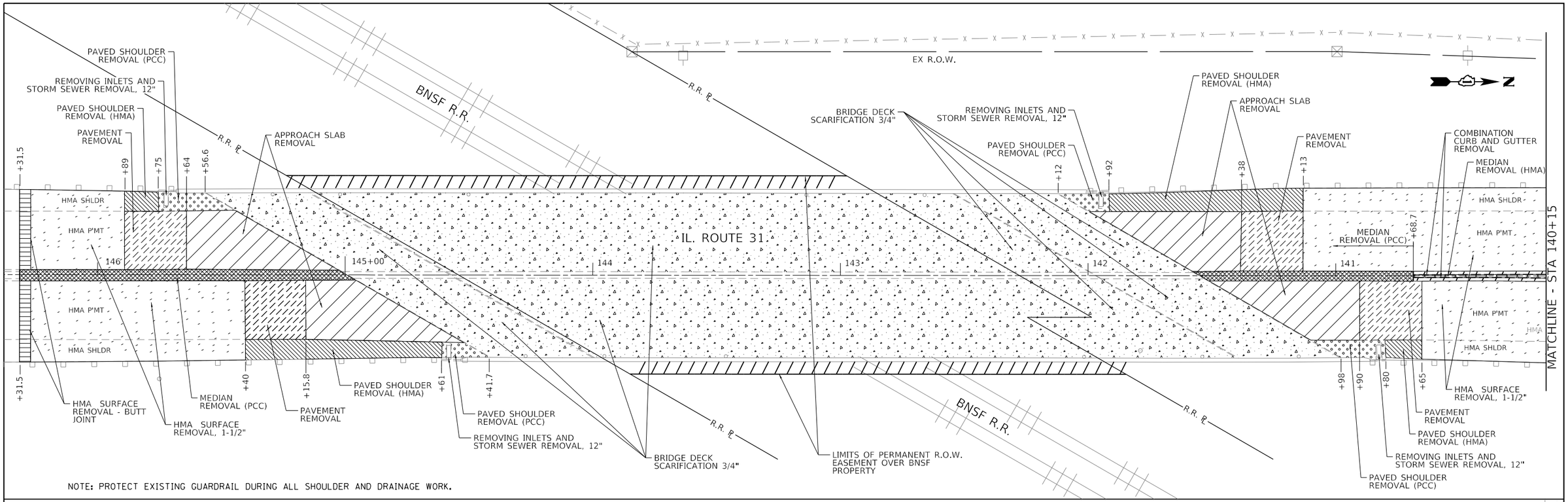
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

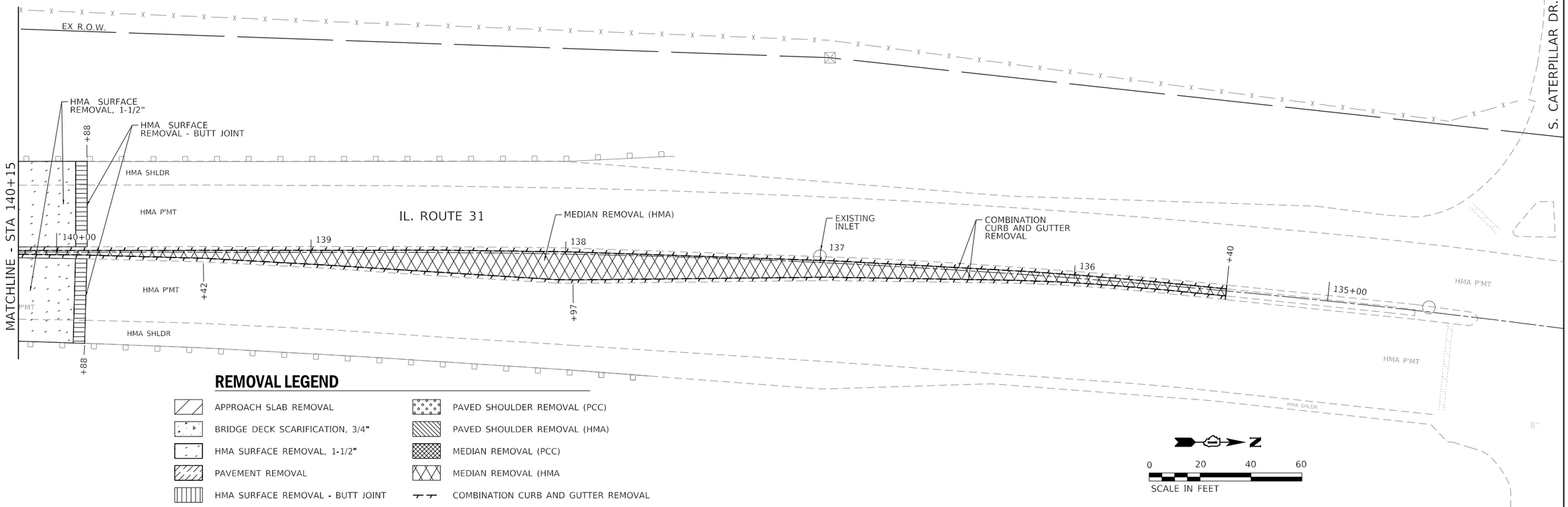
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
ALIGNMENT, TIES AND BENCHMARKS

SCALE: 200 | SHEET 1 OF 1 SHEETS | STA. 123+00 TO STA. 167+73.56

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	12
		CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		



NOTE: PROTECT EXISTING GUARDRAIL DURING ALL SHOULDER AND DRAINAGE WORK.



REMOVAL LEGEND

- APPROACH SLAB REMOVAL
- BRIDGE DECK SCARIFICATION, 3/4"
- HMA SURFACE REMOVAL, 1-1/2"
- PAVEMENT REMOVAL
- HMA SURFACE REMOVAL - BUTT JOINT
- PAVED SHOULDER REMOVAL (PCC)
- PAVED SHOULDER REMOVAL (HMA)
- MEDIAN REMOVAL (PCC)
- MEDIAN REMOVAL (HMA
- COMBINATION CURB AND GUTTER REMOVAL

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184-001397

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	DRAWN - DMW	REVISED -
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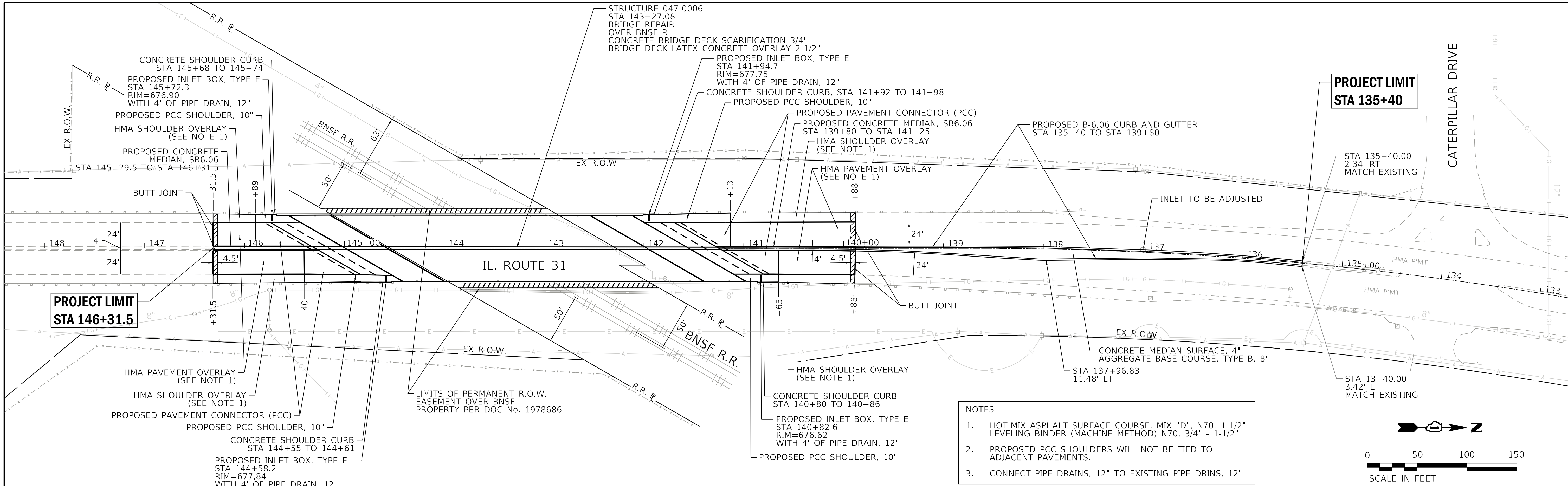
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
REMOVAL PLAN

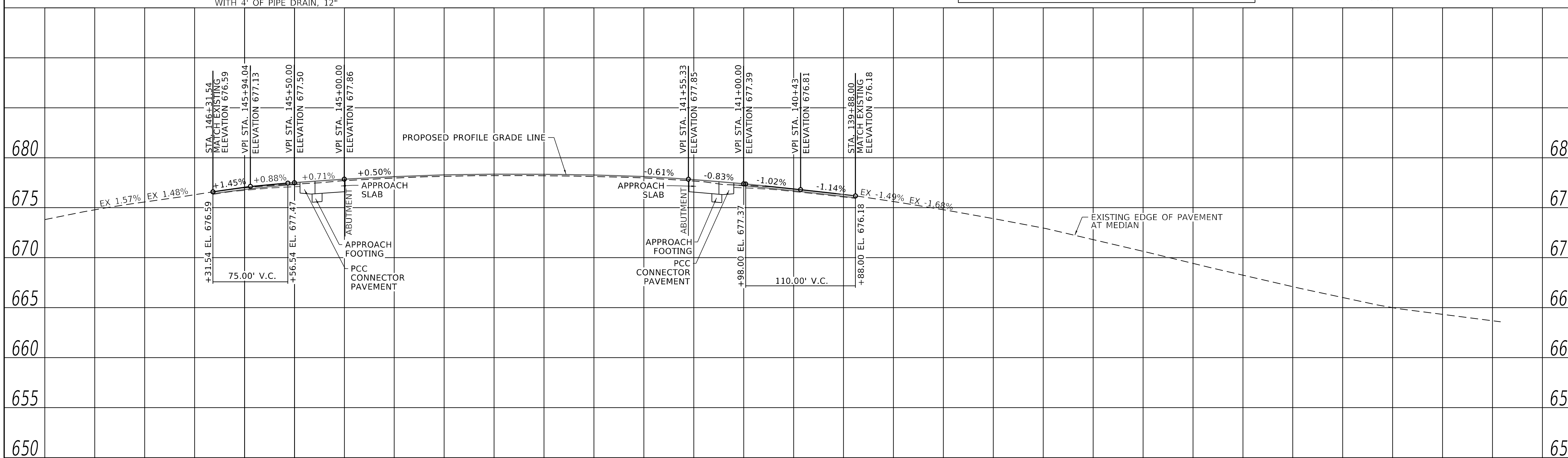
SCALE: 1" = 20' | SHEET 1 OF 1 SHEETS | STA. 135+00 | TO STA. 146+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	13
		CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		



NOTES

1. HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1-1/2" LEVELING BINDER (MACHINE METHOD) N70, 3/4" - 1-1/2"
2. PROPOSED PCC SHOULDERS WILL NOT BE TIED TO ADJACENT PAVEMENTS.
3. CONNECT PIPE DRAINS, 12" TO EXISTING PIPE DRINS, 12"



	147+50	147+00	146+50	146+00	145+50	145+00	144+50	144+00	143+50	143+00	142+50	142+00	141+50	141+00	140+50	140+00	139+50	139+00	138+50	138+00	137+50	137+00	136+50	136+00	135+50	135+00
EXISTING	674.79	675.57	676.30	677.00	677.36	677.71	677.96	678.13	678.21	678.20	678.11	677.98	677.66	677.24	676.87	676.32	675.39	674.65	674.00	673.34	672.21	671.06	669.87	668.68	667.50	666.50
PROPOSED				677.01	677.50	677.86	678.11	678.28	678.36	678.35	678.26	678.13	677.81	677.39	676.87	676.32										

(Existing, continued: 664.99, 664.24, 663.60)

PLAN: NOTE BOOK NO.___ SURVEYED ___ PLOTTED ___ ALIGNMENT CHECKED ___ RT. OF WAY CHECKED ___ CADD FILE NAME ___ BY DATE

PROFILE: NOTE BOOK NO.___ SURVEYED ___ PLOTTED ___ GRADES CHECKED ___ B.M. NOTED ___ STRUCTURE NOTAT'NS CH'KD ___ BY DATE

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184-001397

USER NAME = _USER_	DESIGNED - JKP	REVISED -
	DRAWN - DMW	REVISED -
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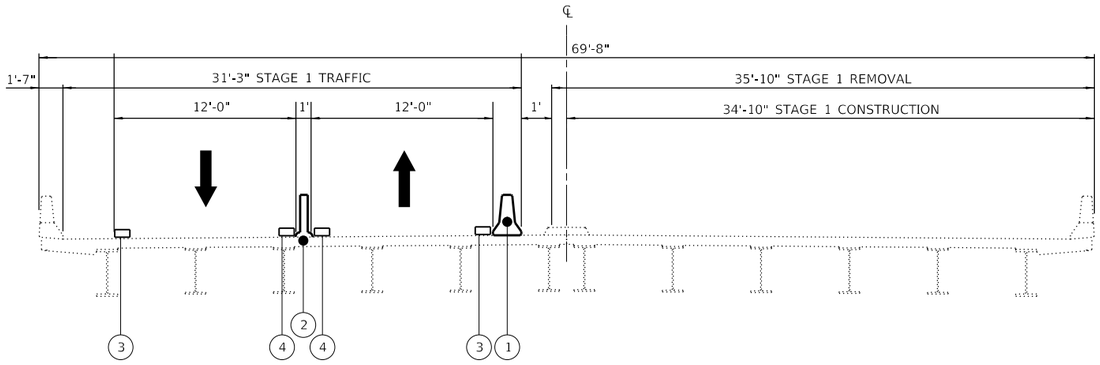
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PLAN AND PROFILE

SCALE: 1"=50' | SHEET 1 OF 1 SHEETS | STA. 75+00 TO STA. 90+00

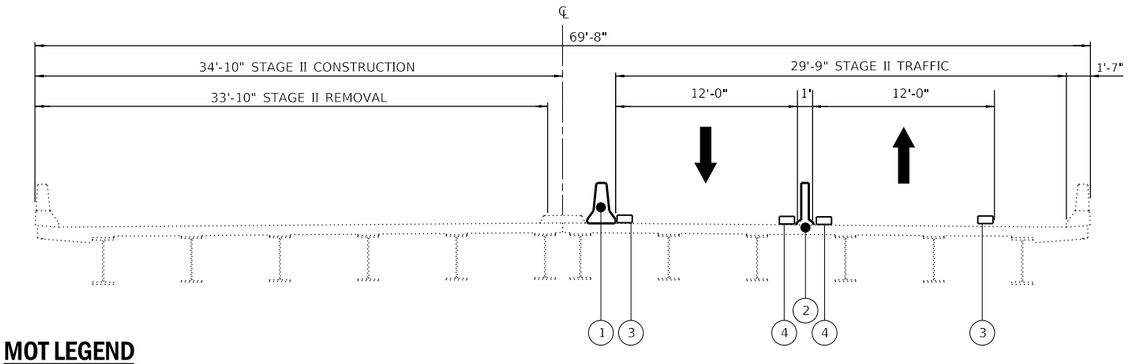
F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KENDALL	65	14

CONTRACT NO. 62D43
ILLINOIS FED. AID PROJECT



MOT BRIDGE TYPICAL SECTION STAGE 1

STA. 140+37 TO STA. 155+11
LOOKING NORTH



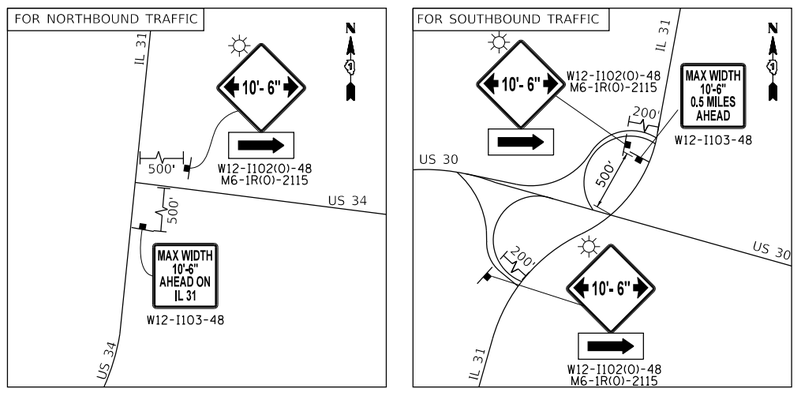
MOT BRIDGE TYPICAL SECTION STAGE 2

STA. 140+69 TO STA. 155+11
LOOKING NORTH

MOT LEGEND

1. TEMPORARY CONCRETE BARRIER WALL
2. TEMPORARY TUBULAR MARKERS
3. TEMPORARY PAVEMENT MARKING - LINE 4" (WHITE)
4. TEMPORARY PAVEMENT MARKING - LINE 4" (YELLOW)

ADVANCED SIGNAGE AT INTERSECTION



SUGGESTED SEQUENCE OF CONSTRUCTION & MAINTENANCE OF TRAFFIC

STAGE I

1. REMOVE EXISTING MEDIANS ON BOTH NORTH AND SOUTH SIDES OF THE BRIDGE, PLACE TEMPORARY PAVEMENT FOR CROSSOVER AT LOCATIONS NEEDED FOR TRAFFIC STAGING UTILIZING DAYTIME LANE CLOSURES.
2. INSTALL STAGE I TRAFFIC CONTROL ALONG IL ROUTE 31 AND INSTALL ADVANCED WIDTH RESTRICTION SIGNAGE. SHIFT TRAFFIC WEST TO STAGE I TRAFFIC LANES.
3. PERFORM BRIDGE REPAIRS ON EAST SIDE ABUTMENTS, PIERS, BEAMS, DIAPHRAMS, AND BEARINGS.
4. REMOVE NORTHBOUND APPROACH SLABS, ADJACENT PAVEMENT AND SHOULDERS AND PLACE NEW APPROACH SLABS AND CONNECTOR PAVEMENTS.
5. COMPLETE NORTHBOUND BRIDGE DECK PATCHING, JOINT REPLACEMENT AND SCARIFYING AND CONCRETE OVERLAY.
6. COMPLETE EAST SIDE DRAINAGE IMPROVEMENTS, SHOULDER, MEDIANS ADJACENT TO NEW PAVEMENT, HMA MILLING, BUTT JOINTS AND RESURFACING.

STAGE II

1. INSTALL STAGE II TRAFFIC CONTROL ON IL ROUTE 31 AND REMOVE STAGE I TRAFFIC CONTROL DEVICES. SHIFT TRAFFIC EAST TO STAGE II TRAFFIC LANES.
2. PERFORM WEST SIDE BRIDGE REPAIRS ON ABUTMENTS, PIERS, BEAMS, DIAPHRAMS, AND BEARINGS.
3. REMOVE SOUTBOUND APPROACH SLABS, ADJACENT PAVEMENT AND SHOULDERS AND PLACE NEW APPROACH SLABS AND CONNECTOR PAVEMENTS.
4. COMPLETE SOUTHBOUND BRIDGE DECK PATCHING, JOINT REPLACEMENT AND SCARIFYING AND CONCRETE OVERLAY.
5. COMPLETE WEST SIDE DRAINAGE IMPROVEMENTS, SHOULDERS, HMA MILLING, BUTT JOINT AND RESURFACING.
6. REMOVE STAGE II TRAFFIC CONTROL DEVICES. SHIFT TRAFFIC BACK TO NORMAL LANES ALONG ROUTE 31.
7. REMOVE TEMPORARY PAVEMENT, INSTALL REMAINING MEDIANS UTILIZING DAYTIME LANE CLOSURES.
8. COMPLETE PERMANENT PAVEMENT MARKING ALONG IL ROUTE 31 UTILIZING DAYTIME LANE CLOSURES.

MAINTENANCE OF TRAFFIC GENERAL NOTES:

1. THE TRAFFIC CONTROL DEPICTED HEREIN IS THE MINIMUM REQUIREMENT. ADDITIONAL TRAFFIC CONTROL DEVICES AS SPECIFIED IN THE HIGHWAY STANDARDS AS SHOWN IN THE INDEX OF SHEETS AND THE SPECIAL PROVISIONS SHALL BE PLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER. ALL TRAFFIC CONTROL DEVICES SHALL BE CONSIDERED INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, (SPECIAL) UNLESS OTHERWISE INDICATED WITHIN THESE GENERAL NOTES, PLANS OR SPECIAL PROVISIONS.
2. MAINTENANCE OF TRAFFIC WIDTH RESTRICTION REQUIREMENT - THE CONTRACTOR SHALL NOTIFY THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR, IN WRITING, WHEN THE CONTRACTOR RECEIVES AN AWARD LETTER FOR THE CONTRACT. THE LETTER SHALL STATE THE ANTICIPATED START DATE OF LANE WIDTH RESTRICTIONS. THE TWENTY-ONE (21) DAY NOTICE WILL START FROM THE AWARD DATE. NO WIDTH RESTRICTIONS WILL BE ALLOWED UNTIL TWENTY-ONE (21) DAYS AFTER RECEIVING NOTICE FROM THE CONTRACTOR. THE CONTRACTOR MAY ELECT TO PROVIDE THE ANTICIPATED START DATE OF LANE WIDTH RESTRICTIONS AT PRECONSTRUCTION MEETING AS LONG AS THERE IS A MINIMUM OF TWENTY-ONE (21) DAYS ADVANCED NOTICE.
3. THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE ALL SIGNS AND SIGN SUPPORTS REQUIRED FOR MAINTENANCE OF TRAFFIC.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING LABOR, SIGNS AND TRAFFIC CONTROL DEVICES NECESSARY FOR THE MAINTENANCE OF TRAFFIC UNLESS NOTED OTHERWISE IN THE SPECIAL PROVISIONS.
5. THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING THE WORK.
6. IN ADVANCE OF ALL STAGE CHANGES ON IL ROUTE 31, THE CONTRACTOR SHALL PLACE ONE (1) PORTABLE CHANGEABLE MESSAGE SIGN AT EACH END OF THE PROJECT ALONG IL ROUTE 31 AS DIRECTED AT A LOCATION DESIGNATED BY THE ENGINEER TO INFORM MOTORISTS OF THE UPCOMING STAGE CHANGE ON IL ROUTE 31. THE MESSAGE SHALL BE APPROVED BY THE ENGINEER.
7. ALL EXISTING SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLAN SHALL BE COVERED OR REMOVED IN ACCORDANCE WITH ARTICLE 107.25 OF THE STANDARD SPECIFICATIONS.
8. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ALL EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THE DESIGNATED TRAFFIC CONTROL PLAN.
9. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN TRAFFIC IN ACCORDANCE WITH THE MAINTENANCE OF TRAFFIC PLANS, SPECIAL PROVISIONS, APPLICABLE STATE STANDARDS, AND AS DIRECTED BY THE ENGINEER. ANY CHANGES TO THE MAINTENANCE OF TRAFFIC SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO IMPLEMENTING ANY CHANGES.
10. TRAFFIC CONDITIONS, ACCIDENTS, AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY OR REMOVE LANE CLOSURES OR CHANNELIZATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL PROMPTLY RESPOND AT THE TIME OF NOTIFICATION BY THE ENGINEER FOR THE MAINTENANCE OF TRAFFIC CONTROL DEVICES.
11. THE ENGINEER SHALL BE INFORMED A MINIMUM OF 48 HOURS IN ADVANCE OF ANY PROPOSED CHANGE TO THE SUGGESTED STAGES OF CONSTRUCTION AND TRAFFIC CONTROL PLAN.
12. ALL TEMPORARY PAVEMENT MARKINGS SHOWING DETERIORATION AFTER SEVEN (7) DAYS OF SERVICE SHALL BE REPLACED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. ALL MARKINGS THAT REQUIRE REPLACEMENT PRIOR TO SEVEN (7) DAYS OF SERVICE SHALL BE REPLACED BY THE CONTRACTOR AT HIS EXPENSE.
13. WHEN THEY ARE NO LONGER NECESSARY, ALL TRAFFIC CONTROL DEVICES SHALL IMMEDIATELY BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC. W21-1 WORKER AND W20-7 FLAGGER SIGNS SHALL BE REMOVED OR COVERED WHEN NOT APPLICABLE FOR GREATER THAN ONE HOUR. WHEN A SIGN IS COVERED, ITS POST SHALL HAVE A REFLECTIVE 3" X 6" DELINEATOR INSTALLED. THE COST OF THE DELINEATOR IS INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION, (SPECIAL).
14. TEMPORARY CONCRETE BARRIERS AND TEMPORARY IMPACT ATTENUATORS SHALL BE PLACED AS SHOWN IN THE PLANS. FURNISHING, INSTALLING AND RELOCATING TEMPORARY CONCRETE BARRIER AND TEMPORARY IMPACT ATTENUATORS SHALL BE IN ACCORDANCE WITH IDOT SPECIAL PROVISIONS, IDOT HIGHWAY STANDARDS, STANDARD SPECIFICATIONS, AND AS DIRECTED BY THE ENGINEER.
15. IMMEDIATELY AFTER THE COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL RESTORE ALL PERMANENT PAVEMENT MARKINGS, SIGNS, AND OTHER TRAFFIC CONTROL DEVICES THAT WERE COVERED, REMOVED, DAMAGED OR OTHERWISE AFFECTED BY CONSTRUCTION.
16. ACCESS TO ALL PRIVATE AND COMMERCIAL DRIVEWAYS AND ENTRANCES ARE TO BE MAINTAINED DURING CONSTRUCTION.

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - JKP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION MOT TYPICAL SECTION	
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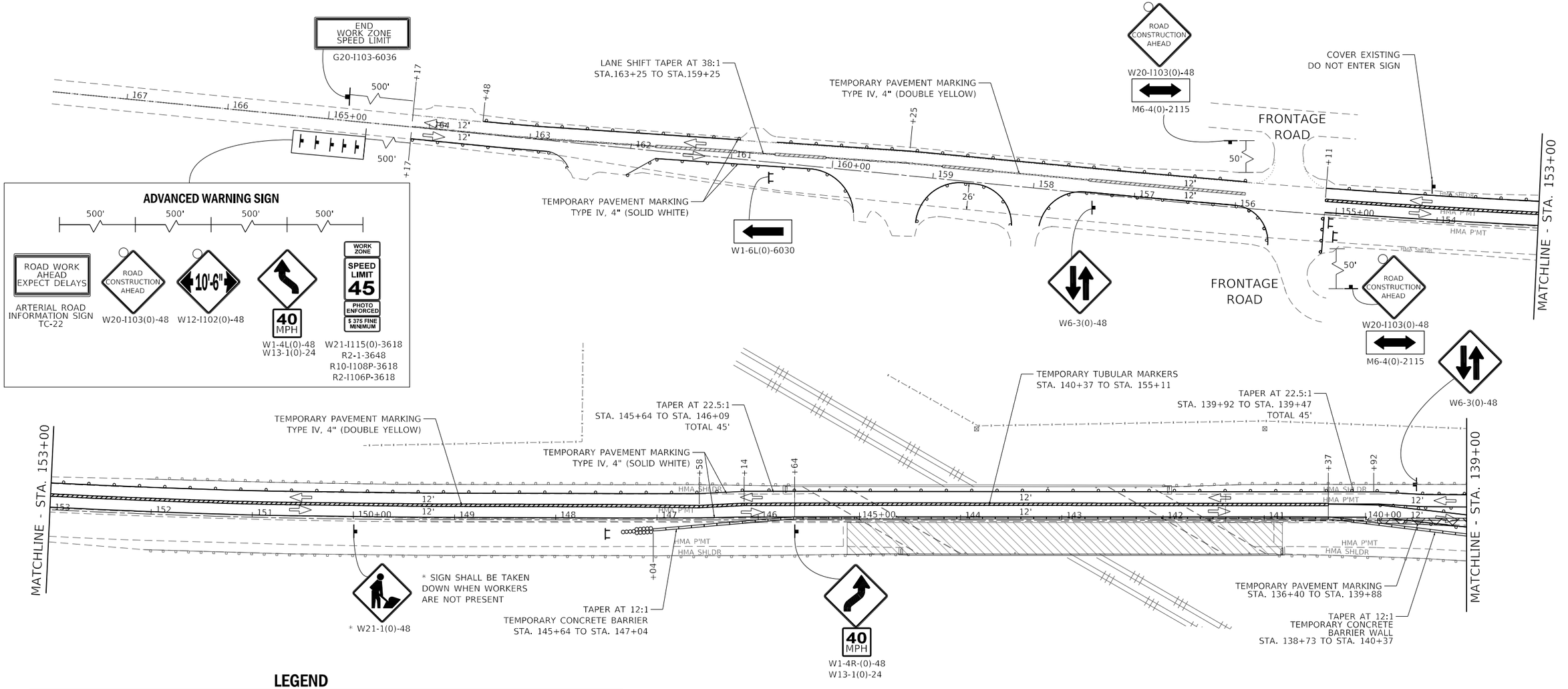
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.	

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	15
		CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			



LEGEND

- WORK ZONE
- TEMPORARY PAVEMENT
- TEMPORARY CONCRETE BARRIER
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- DIRECTION OF TRAFFIC
- DIRECTION INDICATOR BARRICADE
- ARROW BOARD
- TEMPORARY TUBULAR MARKERS
- TYPE III BARRICADE
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII

NOTE:
1. REMOVE MEDIANS WITHIN TRAFFIC STAGING LIMITS AND PLACE TEMPORARY PAVEMENT FOR MAINTENANCE OF TRAFFIC STAGING NEEDS.

0 50 100 150
SCALE IN FEET

MODEL: $MODELNAME$
FILE NAME: D162D43-sht-mot.dgn

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = _USER_	DESIGNED - JKP	REVISED -
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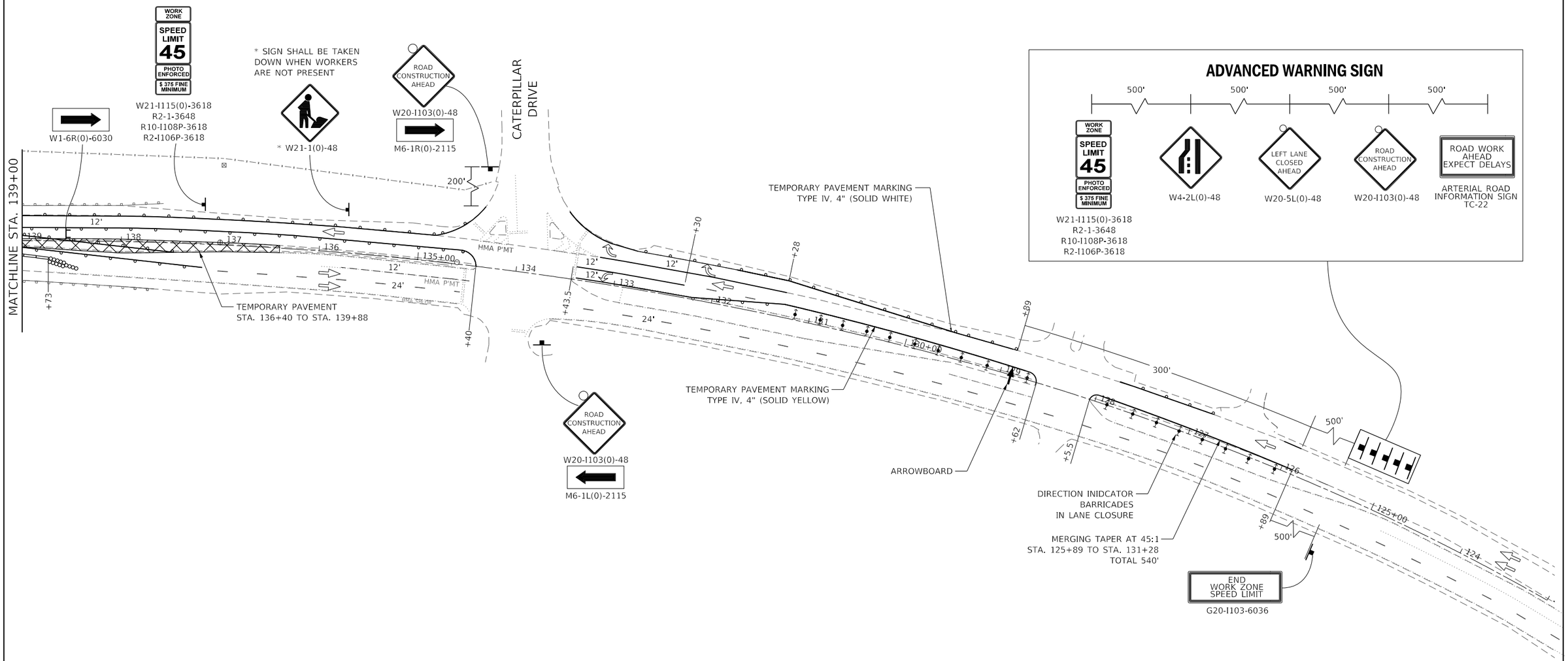
PLOT DATE = 8/14/2018	DATE - 08-10-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
MAINTENANCE OF TRAFFIC - STAGE I

SCALE: 1" = 50' | SHEET 1 OF 4 SHEETS | STA. 138+00 TO STA. 163+17

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	16
		CONTRACT NO. 62D43		
		ILLINOIS	FED. AID PROJECT	



LEGEND

- WORK ZONE
- TEMPORARY PAVEMENT
- TEMPORARY CONCRETE BARRIER
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- DIRECTION OF TRAFFIC
- DIRECTION INDICATOR BARRICADE
- ARROW BOARD
- TEMPORARY TUBULAR MARKERS
- TYPE III BARRICADE
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII

NOTE:
1. REMOVE MEDIANS WITHIN TRAFFIC STAGING LIMITS AND PLACE TEMPORARY PAVEMENT FOR MAINTENANCE OF TRAFFIC STAGING NEEDS.

SCALE IN FEET
0 50 100 150

MODEL: $MODELNAME$
FILE NAME: D162D43-sht-mot2.dgn

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = _USER_	DESIGNED - JKP	REVISED -	
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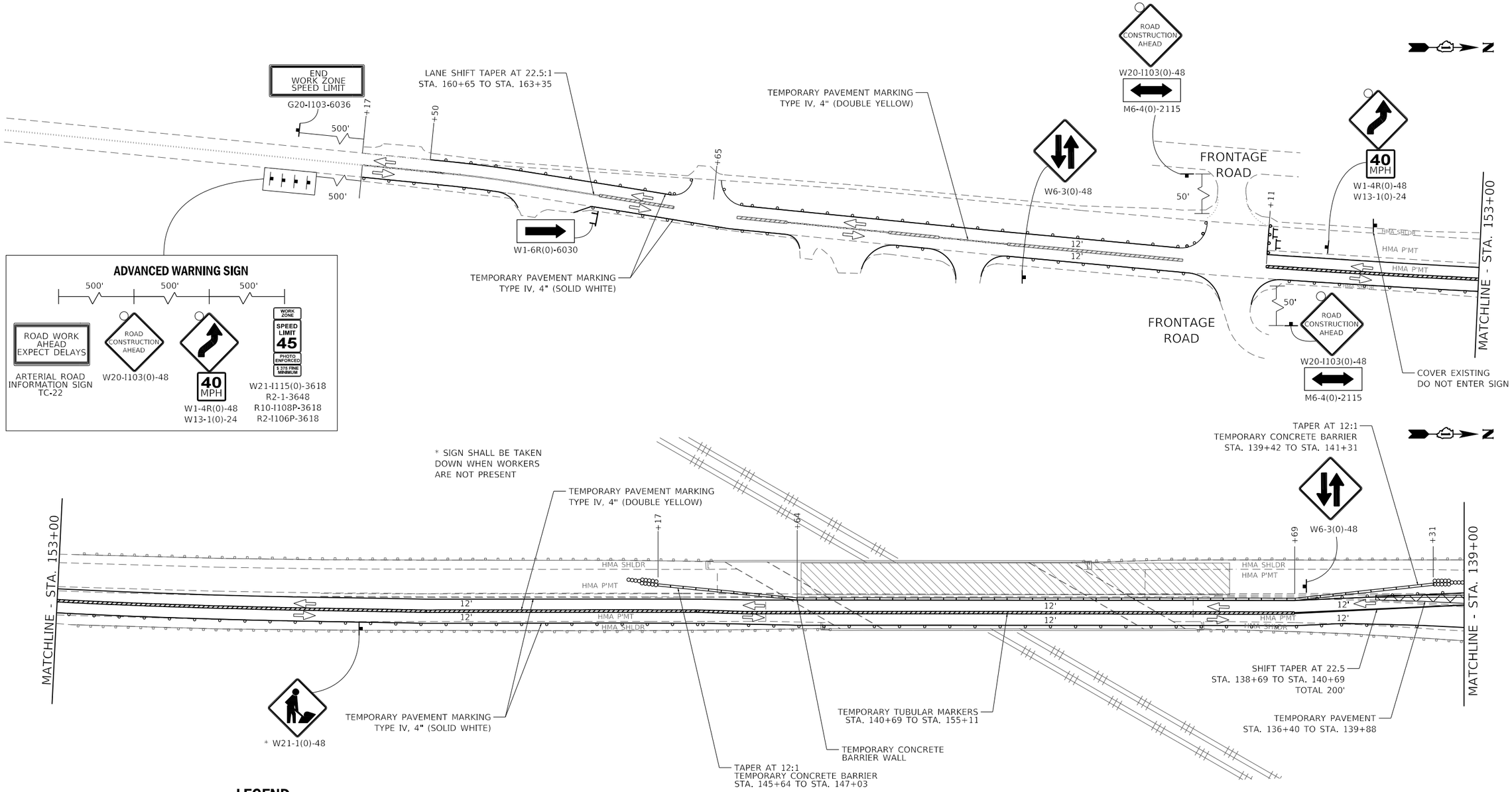
PLOT DATE = 8/14/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
MAINTENANCE OF TRAFFIC - STAGE I

SCALE: 1" = 50' | SHEET 2 OF 4 SHEETS | STA. 123+00 TO STA. 139+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	17
		CONTRACT NO. 62D43		
		ILLINOIS	FED. AID PROJECT	



LEGEND

- WORK ZONE
- TEMPORARY PAVEMENT
- TEMPORARY CONCRETE BARRIER
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- DIRECTION OF TRAFFIC
- DIRECTION INDICATOR BARRICADE
- ARROW BOARD
- TEMPORARY TUBULAR MARKERS
- TYPE III BARRICADE
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII

0 50 100 150
SCALE IN FEET

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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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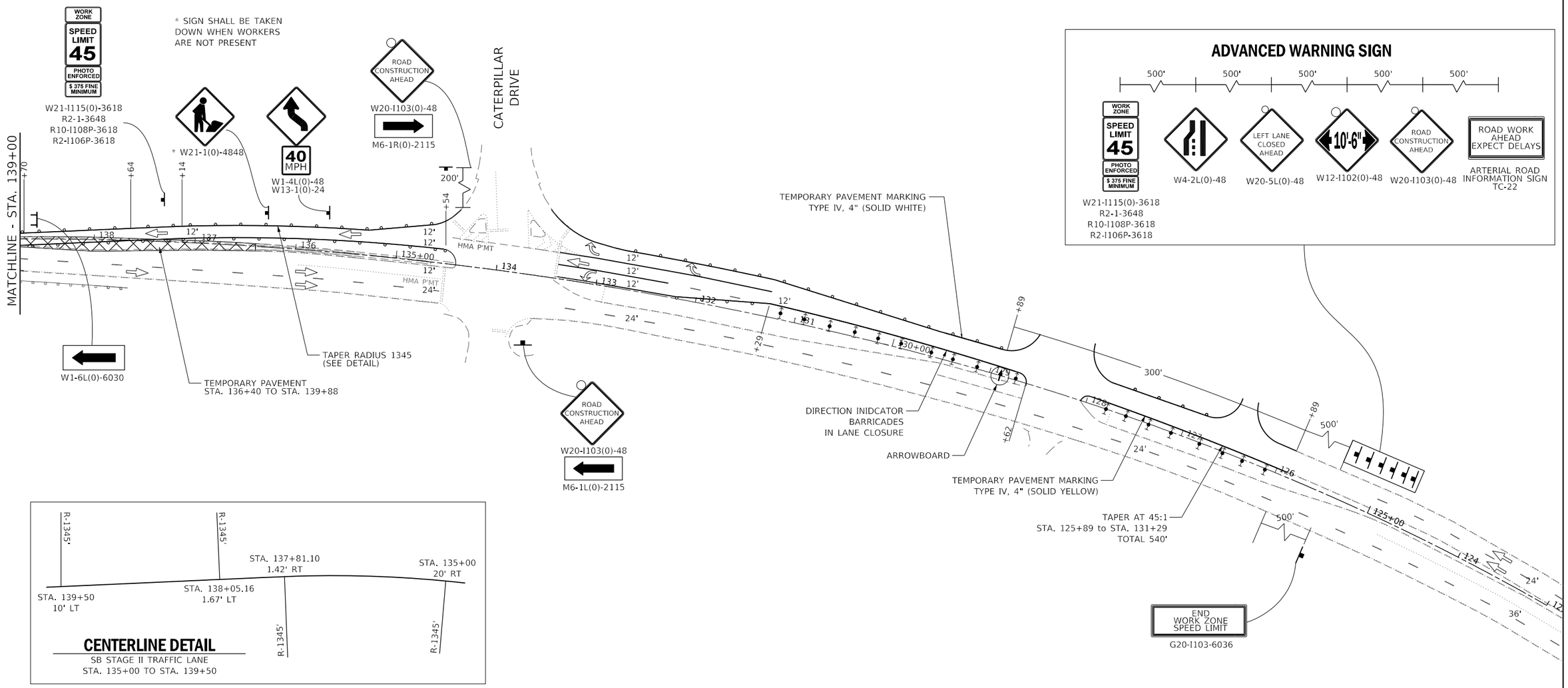
PLOT DATE = 8/14/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
MAINTENANCE OF TRAFFIC - STAGE II

SCALE: 1" = 50' | SHEET 3 OF 4 SHEETS | STA. 58+56 TO STA. 84+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	18
		CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		



LEGEND

- WORK ZONE
- TEMPORARY PAVEMENT
- TEMPORARY CONCRETE BARRIER
- SIGN ON PERMANENT OR PORTABLE SUPPORT
- DIRECTION OF TRAFFIC
- DIRECTION INDICATOR BARRICADE
- ARROW BOARD
- TEMPORARY TUBULAR MARKERS
- TYPE III BARRICADE
- TEMPORARY IMPACT ATTENUATOR (REDIRECTIVE, NARROW), TEST LEVEL 3
- DRUM OR TYPE II BARRICADE AT 50' C-C SPACING IN TANGENT, 20' C-C SPACING TAPERS, AND 10' C-C SPACING IN CURVES/RADII

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CONSULTING ENGINEERS
184-001397

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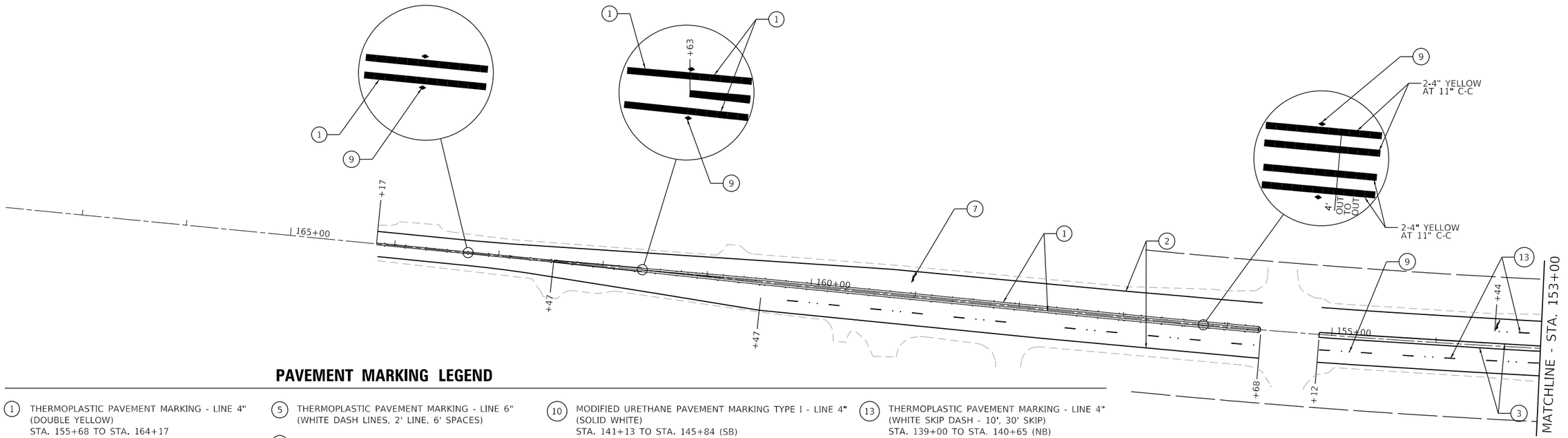
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
MAINTENANCE OF TRAFFIC - STAGE II

SCALE: 1" = 50' | SHEET 4 OF 4 SHEETS | STA. 123+00 TO STA. 139+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	19
		CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		



PAVEMENT MARKING LEGEND

(1) THERMOPLASTIC PAVEMENT MARKING - LINE 4"
(DOUBLE YELLOW)
STA. 155+68 TO STA. 164+17

(2) THERMOPLASTIC PAVEMENT MARKING - LINE 4"
(SOLID WHITE)
STA. 139+00 TO STA. 141+13 (SB)
STA. 139+00 TO STA. 140+65 (NB)
STA. 145+84 TO STA. 155+12 (SB)
STA. 145+40 TO STA. 155+12 (NB)
STA. 155+68 TO STA. 164+17 (SB)
STA. 155+68 TO STA. 164+17 (NB)

(3) THERMOPLASTIC PAVEMENT MARKING - LINE 4"
(SOLID YELLOW)
STA. 140+65 TO STA. 141+13 (SB)
STA. 145+84 TO STA. 155+12 (SB)
STA. 145+40 TO STA. 155+12 (NB)

(4) THERMOPLASTIC PAVEMENT MARKING - LINE 6"
(SOLID WHITE)

(5) THERMOPLASTIC PAVEMENT MARKING - LINE 6"
(WHITE DASH LINES, 2' LINE, 6' SPACES)

(6) THERMOPLASTIC PAVEMENT MARKING - LINE 24"
(SOLID WHITE)

(7) THERMOPLASTIC PAVEMENT MARKING - LETTERS
AND SYMBOLS (WHITE)
STA. 159+03 (SB)
STA. 153+44 (SB)

(8) RAISED REFLECTIVE PAVEMENT MARKER
1-WAY CRYSTAL - STA. 139+88 TO STA. 146+31.5

(9) REPLACEMENT REFLECTOR
2-WAY AMBER - STA. 155+68 TO STA. 164+17

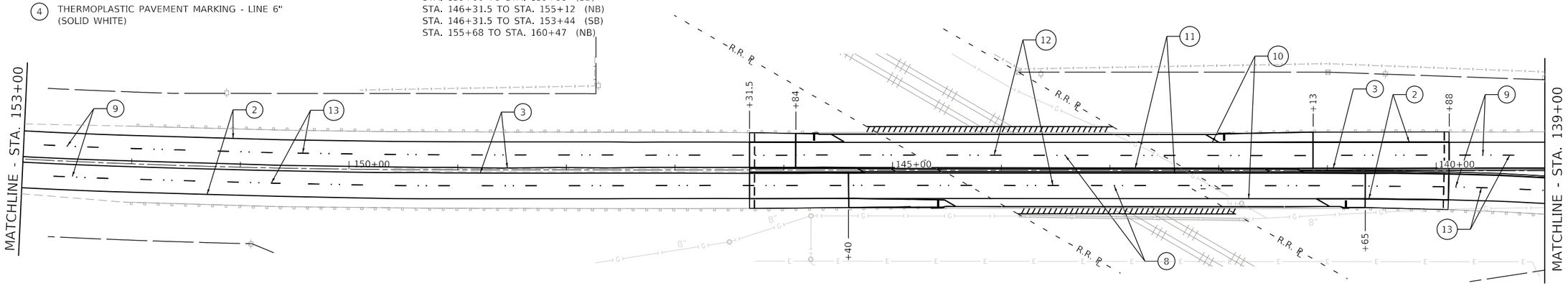
1-WAY CRYSTAL - STA. 139+00 TO STA. 139+88 (NB)
STA. 139+00 TO STA. 139+88 (SB)
STA. 146+31.5 TO STA. 155+12 (NB)
STA. 146+31.5 TO STA. 153+44 (SB)
STA. 155+68 TO STA. 160+47 (NB)

(10) MODIFIED URETHANE PAVEMENT MARKING TYPE I - LINE 4"
(SOLID WHITE)
STA. 141+13 TO STA. 145+84 (SB)
STA. 140+65 TO STA. 145+40 (NB)

(11) MODIFIED URETHANE PAVEMENT MARKING TYPE I - LINE 4"
(SOLID YELLOW)
STA. 141+13 TO STA. 145+84 (SB)
STA. 140+65 TO STA. 145+40 (NB)

(12) PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - CONTRAST - LINE 7"
WITH 8" GROOVING (WHITE SKIP DASH - 10', 30' SKIP)
(PCC PAVEMENT ONLY)
STA. 141+13 TO STA. 145+84 (SB)
STA. 140+65 TO STA. 145+40 (NB)

(13) THERMOPLASTIC PAVEMENT MARKING - LINE 4"
(WHITE SKIP DASH - 10', 30' SKIP)
STA. 139+00 TO STA. 140+65 (NB)
STA. 139+00 TO STA. 141+13 (SB)
STA. 145+40 TO STA. 155+12 (NB)
STA. 145+84 TO STA. 153+44 (SB)
STA. 155+68 TO STA. 160+47 (NB)



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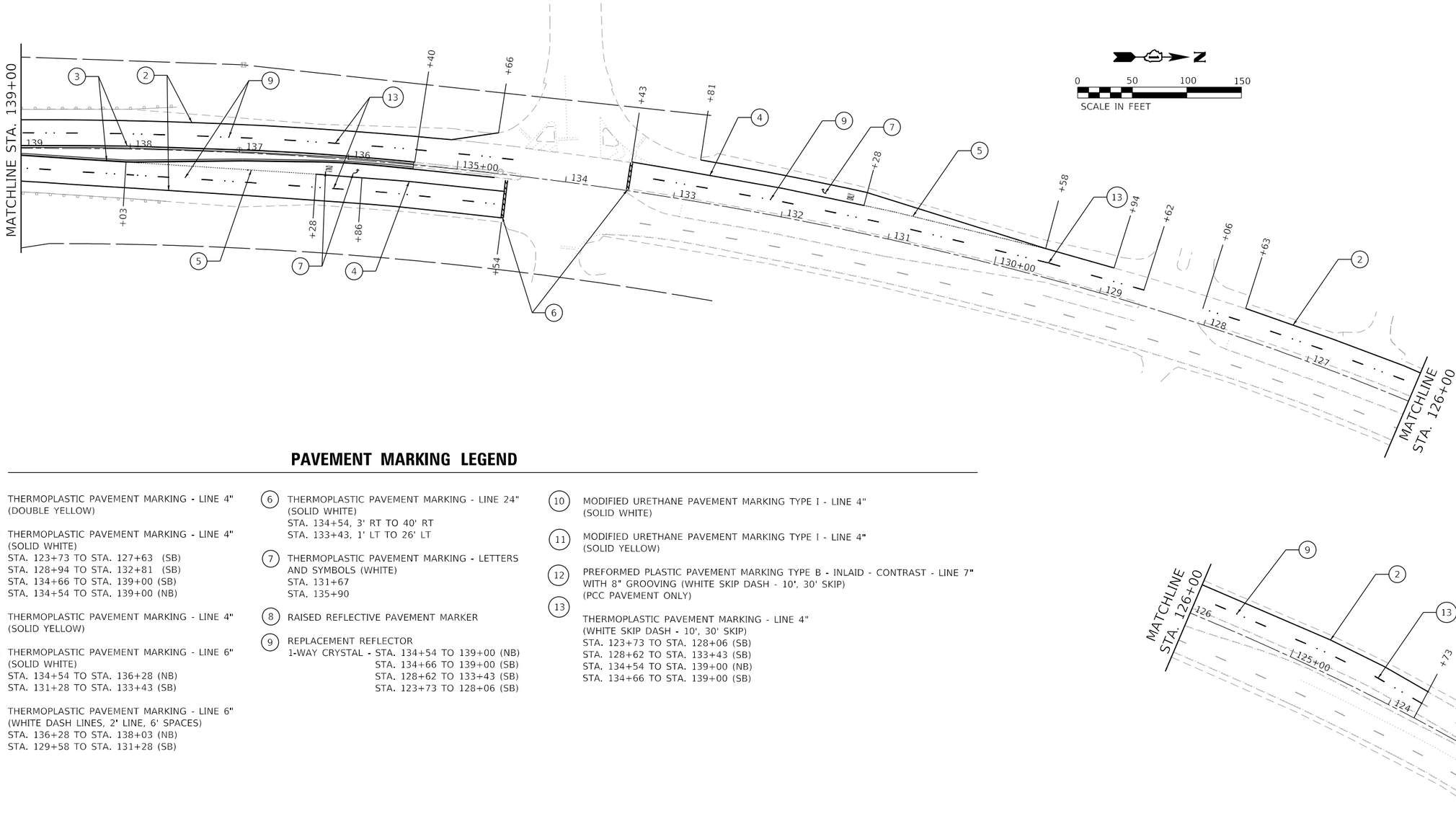
	PLOT DATE = 8/13/2018	DATE - 08-10-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PAVEMENT MARKING PLAN

SCALE: 1" = 50' | SHEET 1 OF 2 SHEETS | STA. 139+00 TO STA. 165+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	20
		CONTRACT NO. 62D43		
		ILLINOIS	FED. AID PROJECT	



PAVEMENT MARKING LEGEND

1. THERMOPLASTIC PAVEMENT MARKING - LINE 4" (DOUBLE YELLOW)
2. THERMOPLASTIC PAVEMENT MARKING - LINE 4" (SOLID WHITE)
   STA. 123+73 TO STA. 127+63 (SB)
   STA. 128+94 TO STA. 132+81 (SB)
   STA. 134+66 TO STA. 139+00 (SB)
   STA. 134+54 TO STA. 139+00 (NB)
3. THERMOPLASTIC PAVEMENT MARKING - LINE 4" (SOLID YELLOW)
4. THERMOPLASTIC PAVEMENT MARKING - LINE 6" (SOLID WHITE)
   STA. 134+54 TO STA. 136+28 (NB)
   STA. 131+28 TO STA. 133+43 (SB)
5. THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE DASH LINES, 2' LINE, 6' SPACES)
   STA. 136+28 TO STA. 138+03 (NB)
   STA. 129+58 TO STA. 131+28 (SB)
6. THERMOPLASTIC PAVEMENT MARKING - LINE 24" (SOLID WHITE)
   STA. 134+54, 3' RT TO 40' RT
   STA. 133+43, 1' LT TO 26' LT
7. THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS (WHITE)
   STA. 131+67
   STA. 135+90
8. RAISED REFLECTIVE PAVEMENT MARKER
9. REPLACEMENT REFLECTOR
   1-WAY CRYSTAL - STA. 134+54 TO 139+00 (NB)
   STA. 134+66 TO 139+00 (SB)
   STA. 128+62 TO 133+43 (SB)
   STA. 123+73 TO 128+06 (SB)
10. MODIFIED URETHANE PAVEMENT MARKING TYPE I - LINE 4" (SOLID WHITE)
11. MODIFIED URETHANE PAVEMENT MARKING TYPE I - LINE 4" (SOLID YELLOW)
12. PREFORMED PLASTIC PAVEMENT MARKING TYPE B - INLAID - CONTRAST - LINE 7" WITH 8" GROOVING (WHITE SKIP DASH - 10', 30' SKIP) (PCC PAVEMENT ONLY)
13. THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE SKIP DASH - 10', 30' SKIP)
    STA. 123+73 TO STA. 128+06 (SB)
    STA. 128+62 TO STA. 133+43 (SB)
    STA. 134+54 TO STA. 139+00 (NB)
    STA. 134+66 TO STA. 139+00 (SB)

MODEL: SMODELNAME5
FILE NAME: D162D43-sht-pmk2.dgn

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = _USER_	DESIGNED - JKP	REVISED -	
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PLOT SCALE = 100.0000 ' / in.	CHECKED - SPF	REVISED -	
PLOT DATE = 8/13/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

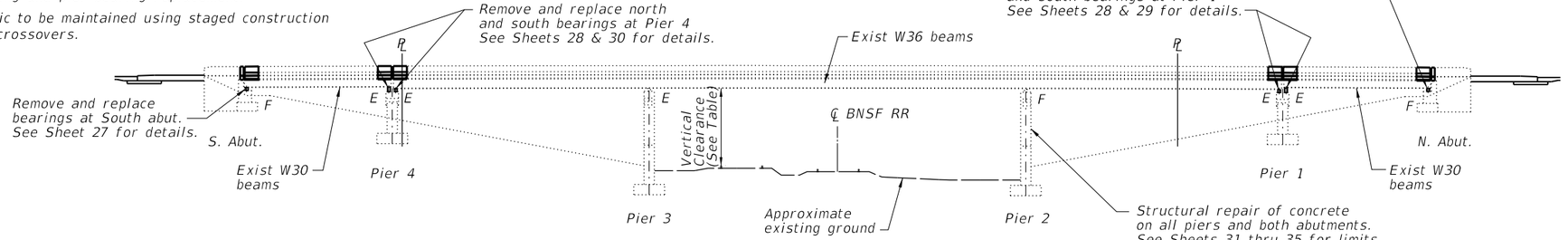
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PAVEMENT MARKING PLAN

SCALE: 1" = 50' | SHEET 2 OF 2 SHEETS | STA. 123+00 TO STA. 139+00

F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	21
		CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		

Existing Structure:
SN 047-0006 built in 1960, Section 12VB-R. Structure consists of 5 spans with an 7½" deck on W30 & W36 beams supported by stub abutments and solid wall piers on piles.
In 1990 the structure was rehabilitated. Repairs included structure widening with new fascia beams, deck replacement, pier and abutment widening and pier bearing replacement.

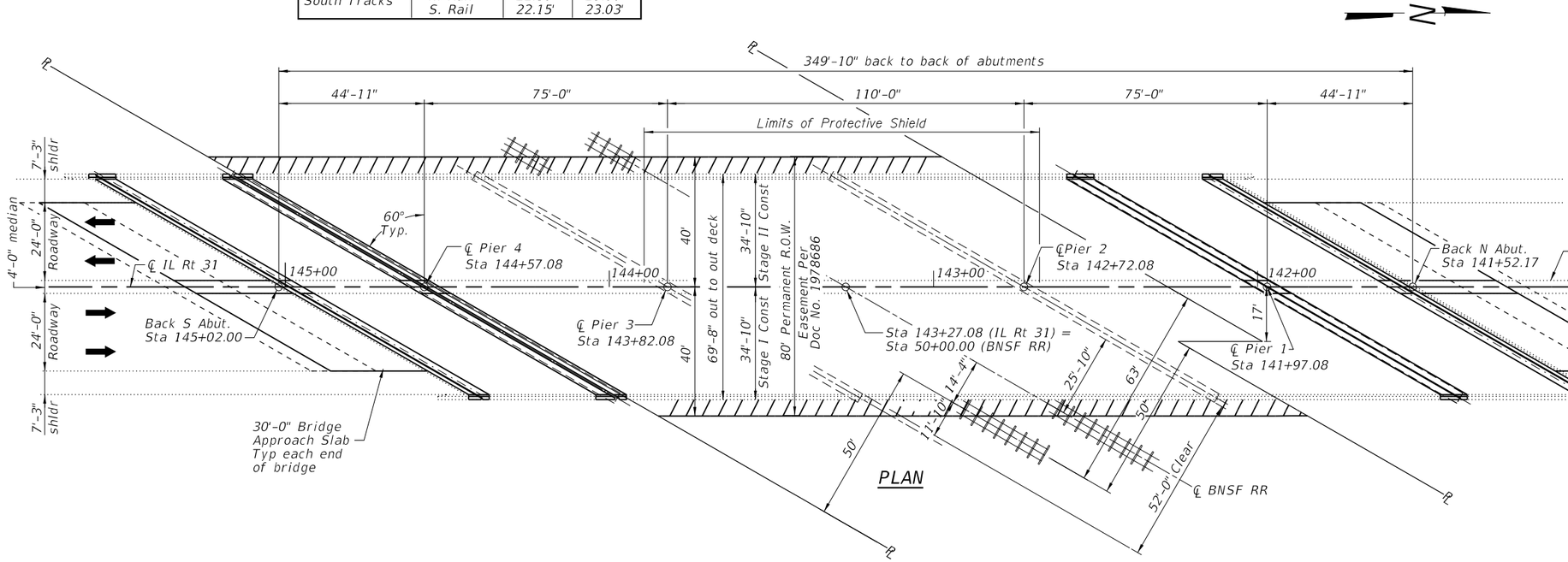
Traffic to be maintained using staged construction with crossovers.



ELEVATION

EXISTING VERTICAL CLEARANCES

Location		W. Side	E. Side
North Tracks	N. Rail	22.83'	23.71'
	S. Rail	22.78'	23.36'
South Tracks	N. Rail	22.16'	23.00'
	S. Rail	22.15'	23.03'



PLAN

INDEX OF SHEETS

LOADING HS20-44

No future wearing surface allowed.

DESIGN SPECIFICATIONS

(New Construction)

2002 AASHTO Standard Specifications 17th Edition

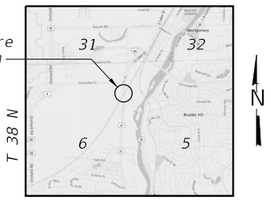
DESIGN STRESSES

EXISTING STRUCTURE

Original 1960 Construction:
fc = 3,500 psi (Substructure)
fy = 20,000 psi (Reinforcement)
fy = 18,000 psi (Structural Steel)

1990 Rehabilitation:
f'c = 3,500 psi (Deck)
fy = 60,000 psi (Deck Reinforcement)
fy = 36,000 psi (Structural Steel)

R 8E 3RD P.M.



LOCATION SKETCH

LICENSED PROFESSIONAL ENGINEER
JEREMY M. BUENING
062-060325
STATE OF ILLINOIS

8/7/18

Jeremy Buening, P.E., S.E. Date
License Expires 11/30/18

GENERAL PLAN AND ELEVATION
IL ROUTE 31 OVER
BURLINGTON NORTHERN SANTA FE RR
SECTION 12VB-BR(16)
KANE/KENDALL COUNTY
STA 143+27.08
STRUCTURE NO. 047-0006

MODEL: Default
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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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	DRAWN - RLK	REVISED -	
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PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

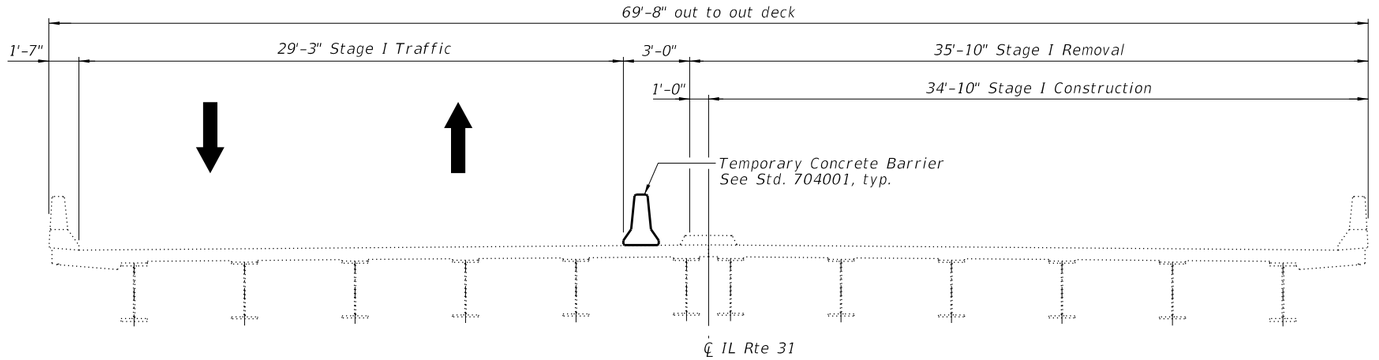
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
GENERAL PLAN AND ELEVATION

SCALE: | SHEET 1 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	22
	SN 047-0006	CONTRACT NO. 62D43		
		ILLINOIS	FED. AID PROJECT	

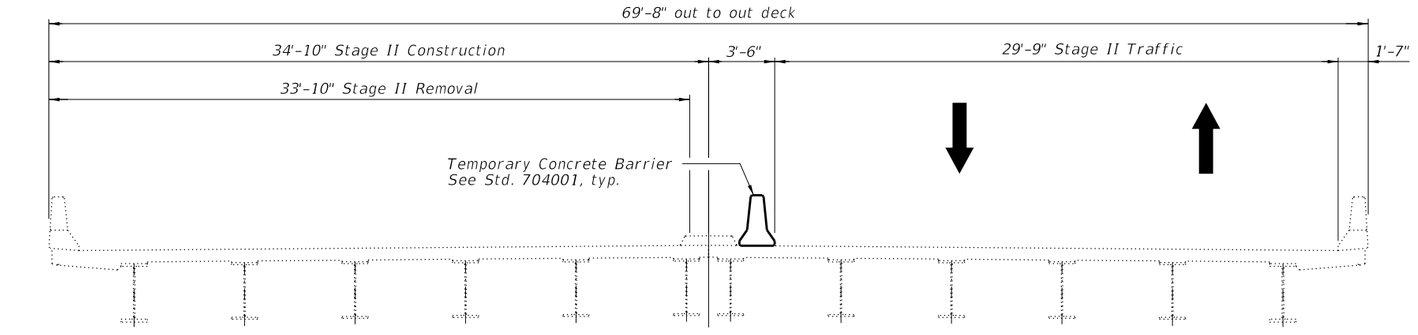
TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Concrete Removal	Cu. Yd.	70.1		70.1
Protective Shield	Sq. Yd.	805		805
Concrete Structures	Cu. Yd.		32.1	32.1
Concrete Superstructure	Cu. Yd.	79.3		79.3
Bridge Deck Grooving	Sq. Yd.	2,932		2,932
Protective Coat	Sq. Yd.	1,109		1109
Concrete Superstructure (Approach Slab)	Cu. Yd.	291.0		291
Furnishing and Erecting Structural Steel	Pound	13,630	15,250	28,880
Reinforcement Bars, Epoxy Coated	Pound	93,040	12,250	105,290
Bar Splicers	Each	268	80	348
Preformed Joint Strip Seal	Foot	405		405
Elastomeric Bearing Assembly, Type I	Each		36	36
Elastomeric Bearing Assembly, Type II	Each		12	12
Anchor Bolts, 5/8"	Each		96	96
Anchor Bolts, 3/4"	Each		24	24
Anchor Bolts, 1"	Each		22	22
Jack and Remove Existing Bearings	Each		71	71
Structural Steel Removal	Pound	11,610		11,610
Bridge Deck Latex Concrete Overlay, 2 1/2 Inches	Sq. Yd.	2,292		2,292
Bridge Deck Scarification 3/4"	Sq. Yd.	2,292		2,292
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq. Ft.		535	535
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.		248	248
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	110		110
Modular Expansion Joint 6"	Foot	135		135
Temporary Shoring & Cribbing	Each		1	1



STAGE I CONSTRUCTION - LOOKING NORTH

(All dimensions are perpendicular to ℄ IL Rte 31)



STAGE II CONSTRUCTION - LOOKING NORTH

(All dimensions are perpendicular to ℄ IL Rte 31)

GENERAL NOTES:

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.

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts ¾" Ø, holes $^{13}/_{16}$" Ø, unless otherwise noted.

All structural steel shall be AASHTO M 270 Grade 36.

Reinforcement bars designated (E) shall be epoxy coated.

No field welding is permitted except as specified in the contract documents.

Expansion joints shall be fabricated and installed according to the Manufacturer's recomendations and as approved by the Engineer.

Expansion joints shall be fabricated to conform to the existing cross slopes of the bridge.

Modular expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.

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

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.

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 operations shall be replaced using an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Joint openings shall be adjusted according to Article 520.04 of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

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 all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be reddish brown, Reddish Brown, Munsell No. 2.5YR 3/4.

SCOPE OF WORK

1. Remove and replace N. & S. Abutments and Pier 1 expansion joints with Preformed Joint Strip Seal. Remove and replace Pier 4 expansion joint with Modular Expansion Joint.
2. Remove and replace 19 steel end diaphragms along with 13 beam end repairs.
3. Remove and replace bearings on abutments, Pier 1 and Pier 4.
4. Deck repairs, hydroscarification, and latex concrete deck overlay.
5. Approach slab removal and replacement.

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

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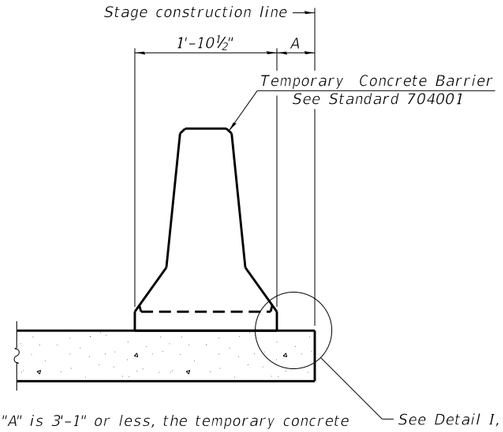
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
GENERAL STRUCTURAL DATA

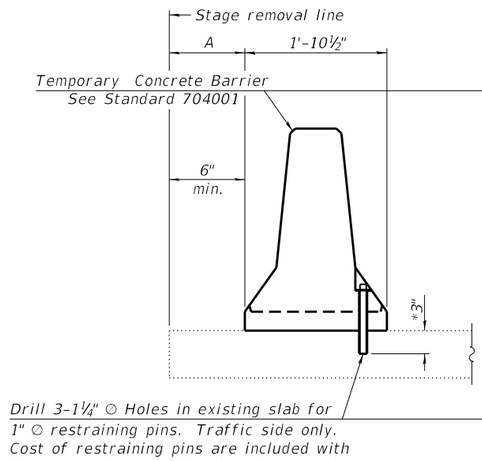
SCALE: | SHEET 2 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	23
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		



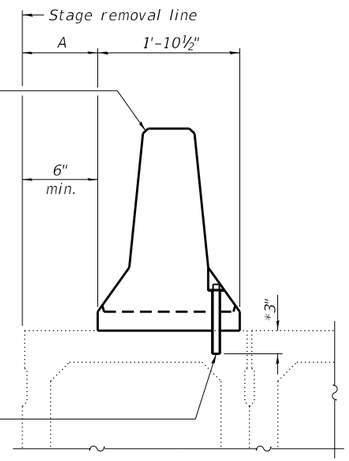
When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



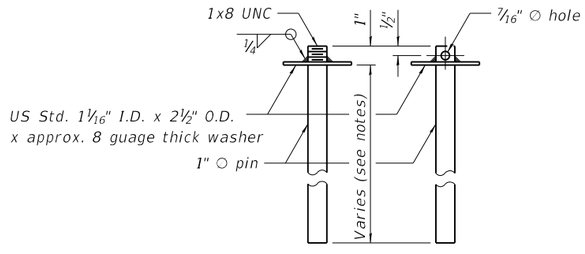
Drill 3-1¼" ∅ Holes in existing slab for 1" ∅ restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB



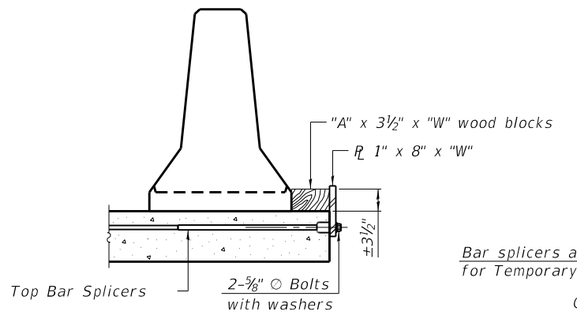
* When hot-mix asphalt wearng surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM

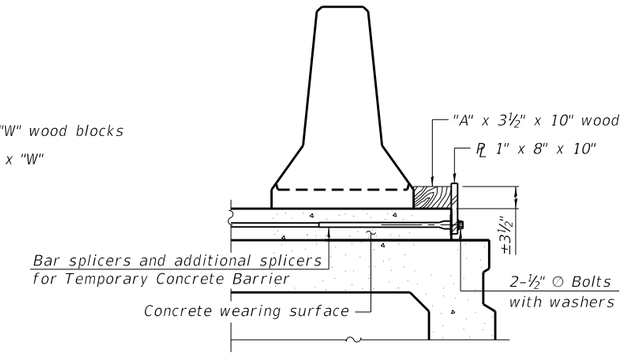


RESTRAINING PIN

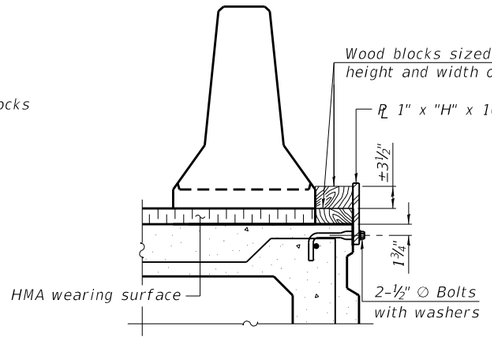
SECTIONS THRU SLAB OR DECK BEAM



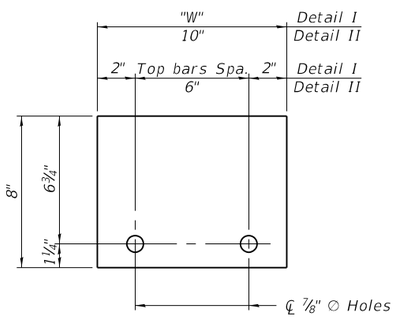
DETAIL I



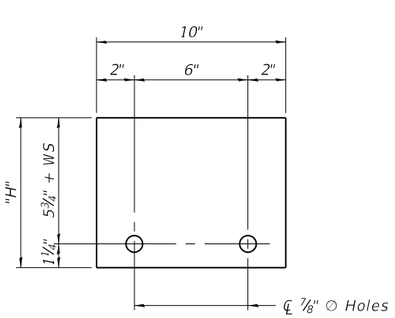
DETAIL II



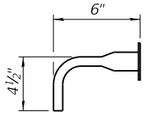
DETAIL III



STEEL RETAINER ℄ 1" x 8" x "W"
(Detail I and II)



STEEL RETAINER ℄ 1" x "H" x 10"
(Detail III)



BAR SPLICER FOR #4 BAR - DETAIL III

Notes:

Cost of retainer assembly is included with Temporary Concrete Barrier.

A retainer assembly shall be located at the approximate ℄ of each temporary concrete barrier.

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

When the 'A' dimension is less than 1½", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

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

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

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

R-27

2-17-2017

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION

SCALE: | SHEET 3 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	24
	SN 047-0006	CONTRACT NO. 62D43		
		ILLINOIS	FED. AID PROJECT	

MODEL: Default
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WEST EDGE OF PAVEMENT

Location	Station	Offset (ft)	Theoretical Grade Elevations
N. End of S. Appr.	145+46.03	26.00	677.33
A	145+56.03	26.00	677.27
B	145+66.03	26.00	677.17
S. End of S. Appr.	145+76.03	26.00	677.07

SB PGL

Location	Station	Offset (ft)	Theoretical Grade Elevations
N. End of S. Appr.	145+04.46	2.00	677.62
A	145+14.46	2.00	677.55
B	145+24.46	2.00	677.48
S. End of S. Appr.	145+34.46	2.00	677.41

℄ IL ROUTE 31 STAGE CONSTRUCTION LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations
N. End of S. Appr.	145+01.00	0.00	677.86
A	145+11.00	0.00	677.79
B	145+21.00	0.00	677.72
S. End of S. Appr.	145+31.00	0.00	677.65

NB PGL

Location	Station	Offset (ft)	Theoretical Grade Elevations
N. End of S. Appr.	144+97.54	-2.00	677.67
A	145+07.54	-2.00	677.60
B	145+17.54	-2.00	677.53
S. End of S. Appr.	145+27.54	-2.00	677.46

EAST EDGE OF PAVEMENT

Location	Station	Offset (ft)	Theoretical Grade Elevations
N. End of S. Appr.	144+55.97	-26.00	677.88
A	144+65.97	-26.00	677.83
B	144+75.97	-26.00	677.78
S. End of S. Appr.	144+85.97	-26.00	677.73

PLAN

MODEL: Default
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
TOP OF SOUTH APPROACH SLAB ELEVATIONS

SCALE: | SHEET 4 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	25
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			

EAST EDGE OF PAVEMENT

Location	Station	Offset (ft)	Theoretical Grade Elevations
N. End of N. Appr.	140+78.13	-26.00	676.98
A	140+88.13	-26.00	677.08
B	140+98.13	-26.00	677.17
S. End of N. Appr.	141+08.13	-26.00	677.26

NB PGL

Location	Station	Offset (ft)	Theoretical Grade Elevations
N. End of N. Appr.	141+19.70	-2.00	677.35
A	141+29.70	-2.00	677.44
B	141+39.70	-2.00	677.52
S. End of N. Appr.	141+49.70	-2.00	677.60

℄ IL ROUTE 31 & STAGE CONSTUCTION LINE

Location	Station	Offset (ft)	Theoretical Grade Elevations
N. End of N. Appr.	141+23.16	0.00	677.60
A	141+33.16	0.00	677.67
B	141+43.16	0.00	677.75
S. End of N. Appr.	141+53.16	0.00	677.83

SB PGL

Location	Station	Offset (ft)	Theoretical Grade Elevations
N. End of N. Appr.	141+26.62	2.00	677.41
A	141+36.62	2.00	677.49
B	141+46.62	2.00	677.58
S. End of N. Appr.	141+56.62	2.00	677.66

WEST EDGE OF PAVEMENT

Location	Station	Offset (ft)	Theoretical Grade Elevations
N. End of N. Appr.	141+68.19	26.00	677.73
A	141+78.19	26.00	677.79
B	141+88.19	26.00	677.85
S. End of N. Appr.	141+98.19	26.00	677.91

PLAN

MODEL: Default
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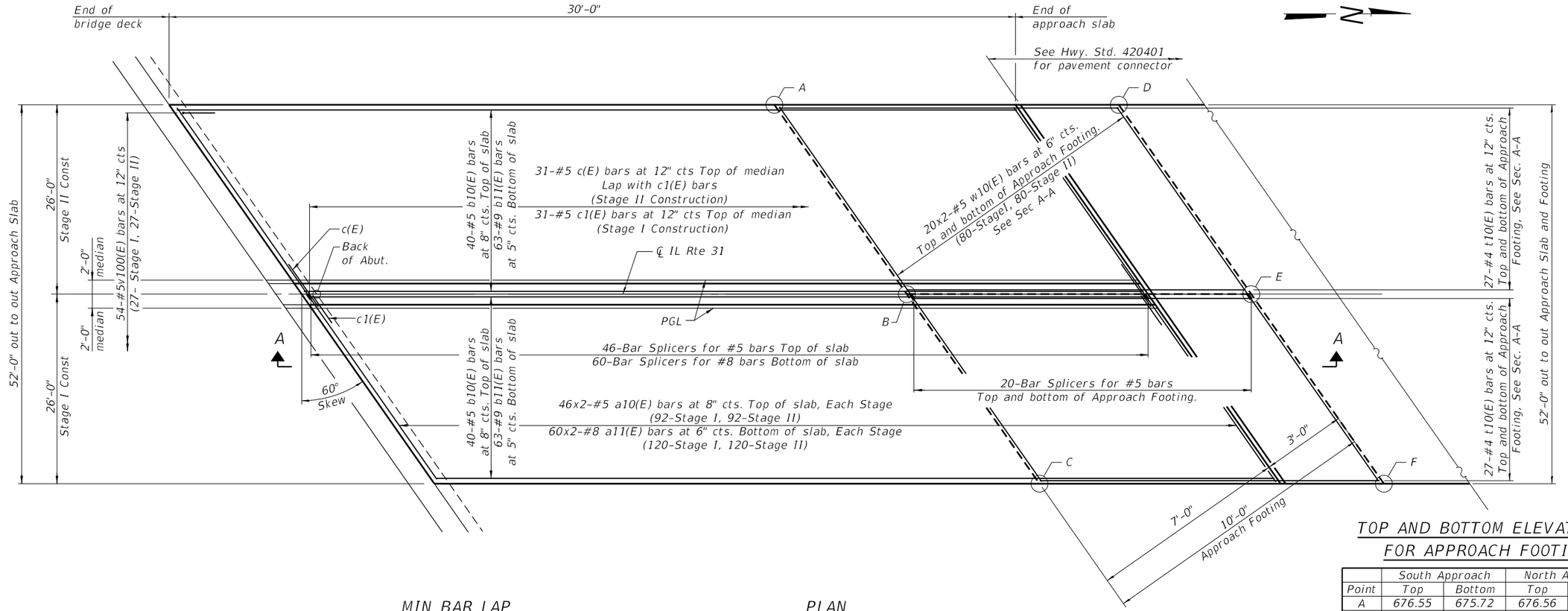
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
TOP OF NORTH APPROACH SLAB ELEVATIONS

SCALE: | SHEET 5 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	26
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			



TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

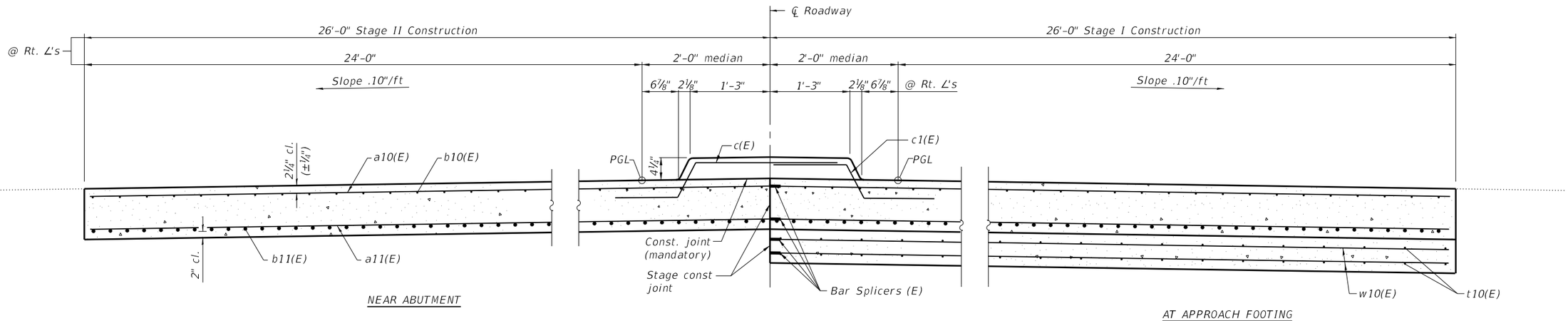
	South Approach		North Approach	
Point	Top	Bottom	Top	Bottom
A	676.55	675.72	676.56	675.73
B	676.51	675.67	676.47	675.63
C	675.96	675.13	675.86	675.03
D	676.45	675.62	676.44	675.61
E	676.40	675.57	676.30	675.47
F	675.76	674.93	675.66	674.83

MIN BAR LAP

#5 Bar = 3'-4"
#8 Bar = 5'-4"

PLAN

North approach shown, South approach similar



NEAR ABUTMENT

AT APPROACH FOOTING

CROSS SECTION

(Looking North)

MODEL: Default
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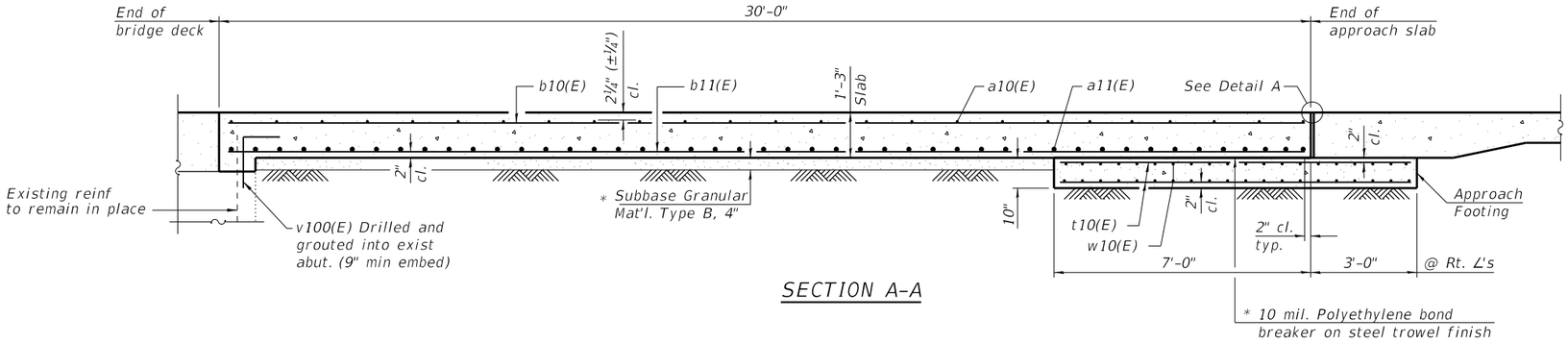
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

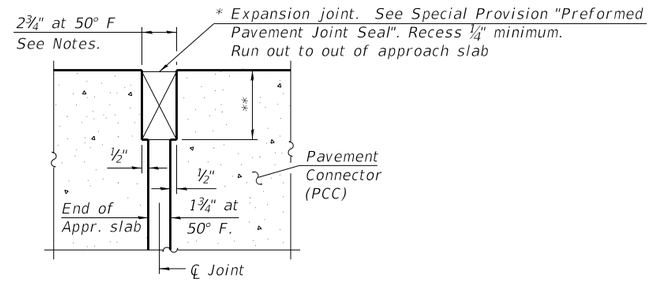
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
BRIDGE APPROACH SLAB DETAILS

SCALE: | SHEET 6 OF 36 SHEETS | STA. | TO STA.

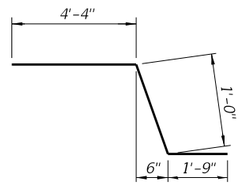
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	27
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			



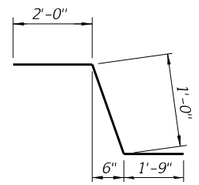
SECTION A-A



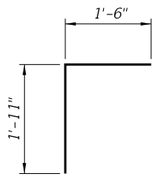
DETAIL A
(@ Rt. ∠'s)



BAR c(E)



BAR c1(E)



BAR v100(E)

TWO APPROACHES
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	368	#5	27'-7"	
a11(E)	480	#8	28'-7"	
b10(E)	160	#5	29'-8"	
b11(E)	252	#9	29'-8"	
c(E)	62	#5	7'-1"	
c1(E)	62	#5	4'-9"	
t10(E)	216	#4	19'-9"	
v100(E)	54	#5	3'-5"	
w10(E)	320	#5	27'-7"	
Concrete Superstructure (Approach Slab)			Cu. Yd.	291.0
Concrete Structures			Cu. Yd.	32.1
Reinforcement Bars, Epoxy Coated			Pound	90,600
Protective Coat			Sq. Yd.	693
Bridge Deck Grooving			Sq. Yd.	640

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

Notes:
Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
Approach footing concrete shall be paid for as Concrete Structures.
The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
Cost of excavation for approach footing included with Concrete Structures.

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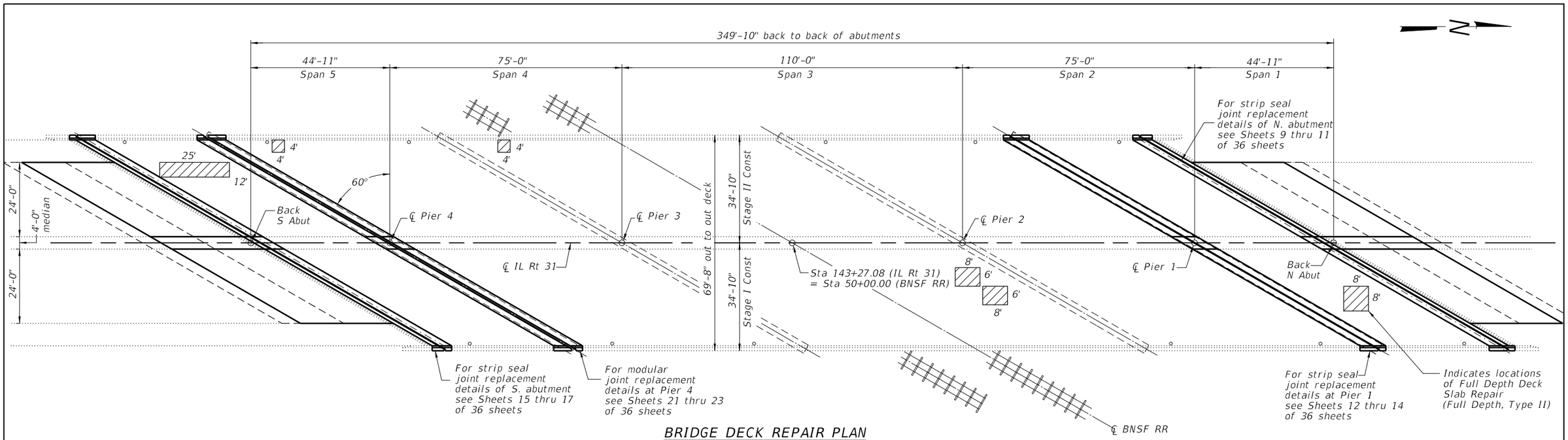
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

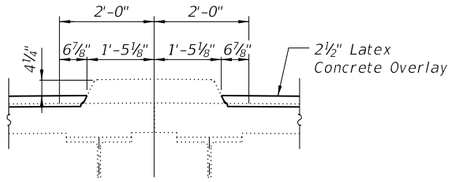
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
BRIDGE APPROACH SLAB DETAILS

SCALE: | SHEET 7 OF 36 SHEETS | STA. | TO STA.

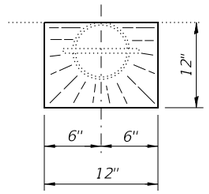
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	28
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			



BRIDGE DECK REPAIR PLAN



SECTION THRU MEDIAN



PLAN AT FLOOR DRAINS

(8 Locations – Showing sloped area with new overlay)

Notes:

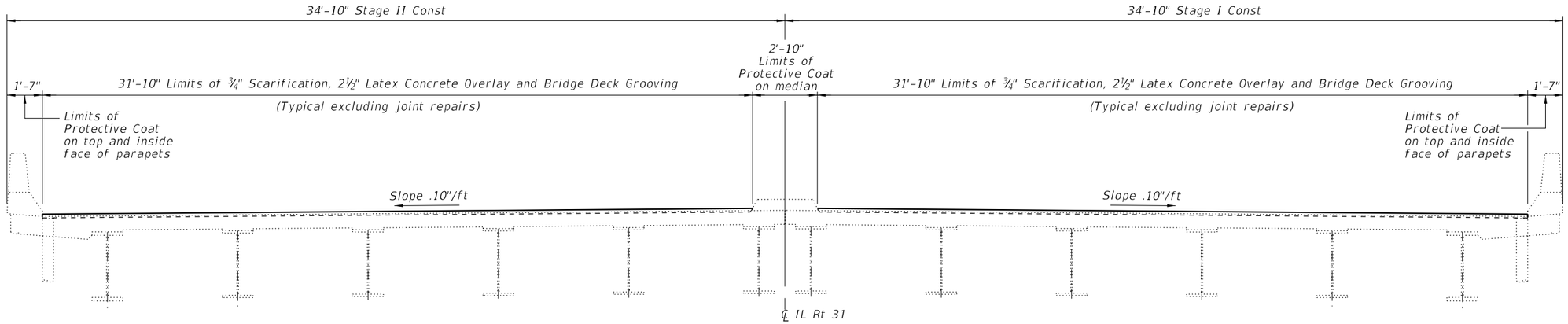
Protective coat on median shall be applied during Stage II after joint replacements have been completed.

Areas of deck repairs are estimated. Actual type, location and dimensions of deck repairs are to be determined and documented by the ENGINEER during construction. ENGINEER shall sound deck after deck sarification.

For expansion joint reconstruction details see Sheets 9 thru 24 of 36

BILL OF MATERIAL

Item	Unit	Total
Deck Slab Repair (Full Depth, Type II)	Sq Yd	110
Bridge Deck Latex Concrete Overlay, 2½"	Sq Yd	2,292
Bridge Deck Scarification,¾"	Sq Yd	2,292
Bridge Deck Grooving	Sq Yd	2,932
Protective Coat	Sq Yd	416



BRIDGE DECK REPAIR CROSS SECTION

(Looking North)

MODEL: Default
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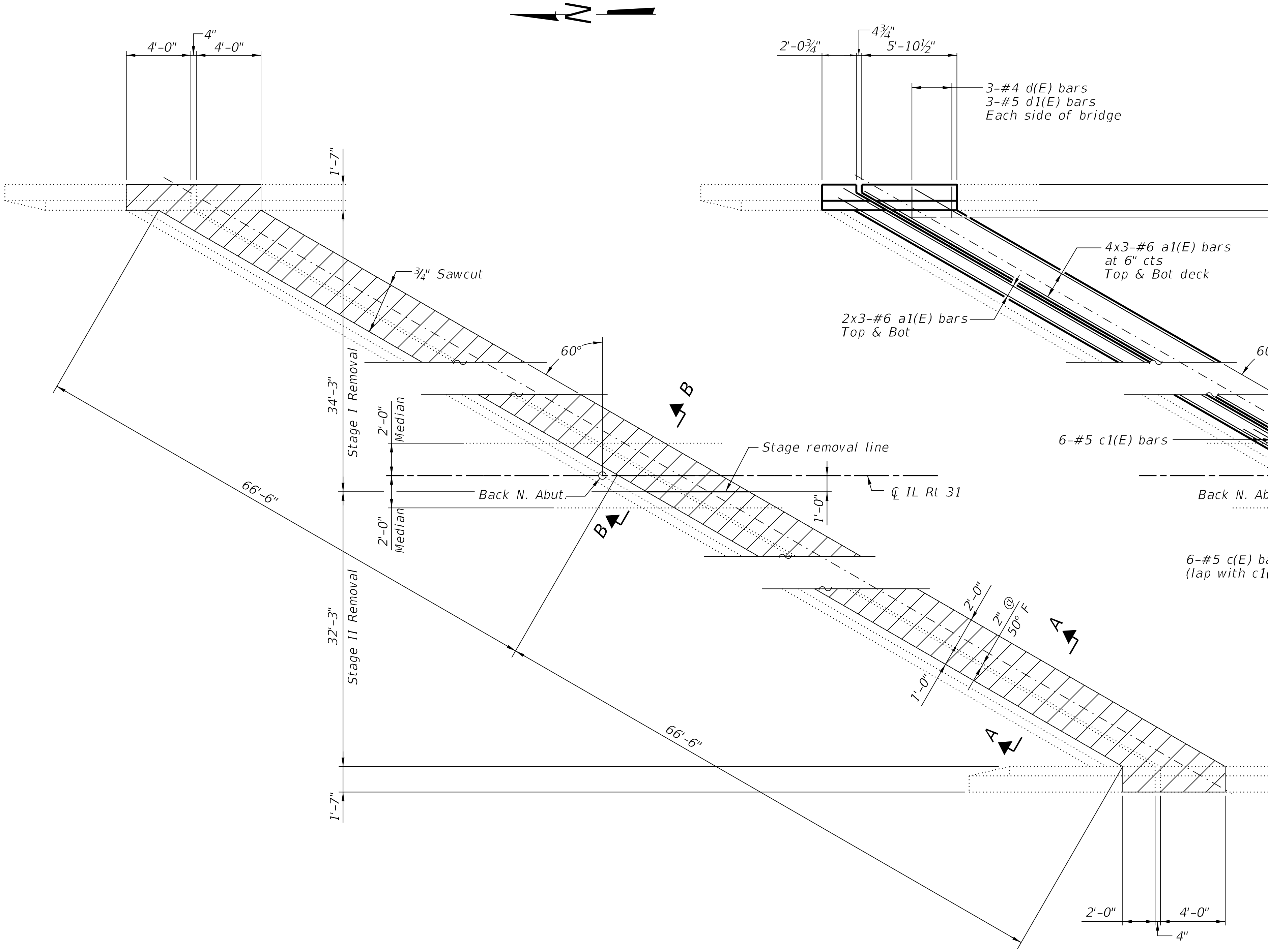
CHASTAIN & ASSOCIATES LLC CONSULTING ENGINEERS 184-001397	USER NAME = jpang	DESIGNED - BCG	REVISED -
		DRAWN - RLK	REVISED -
	PLOT SCALE = 32.0000 ' / in.	CHECKED - JMB	REVISED -
	PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

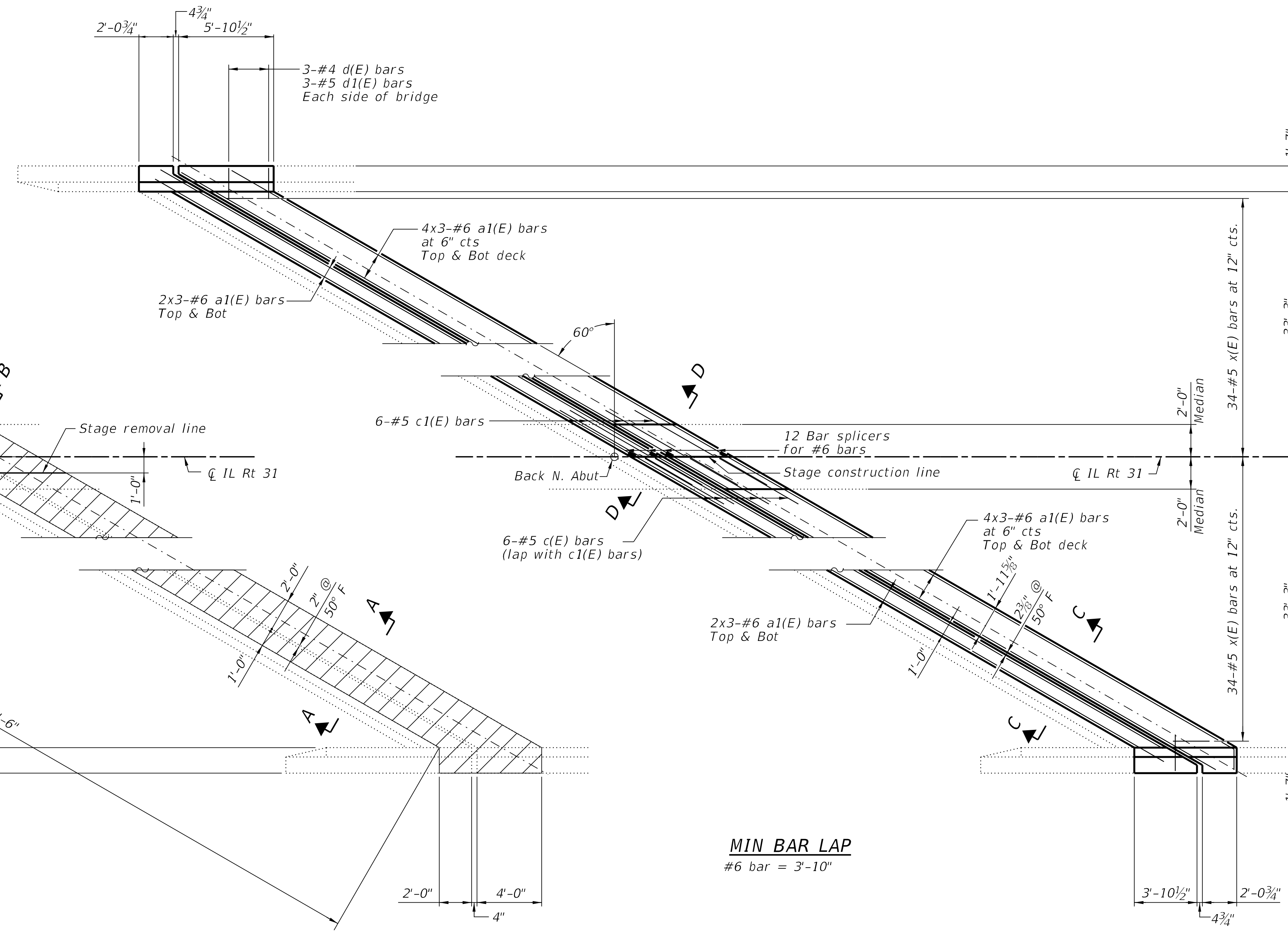
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
DECK PLAN AND CROSS SECTION

SCALE: | SHEET 8 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	29
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		



NORTH ABUTMENT PLAN JOINT REMOVAL



MIN BAR LAP

#6 bar = 3'-10"

NORTH ABUTMENT PLAN JOINT REPLACEMENT

Note:
1. Vertical and Horizontal bars in approach parapets shall be cleaned, straightened, and reused in new construction.
2. The anchorage section of the guardrail in conflict with the removal and reconstruction of the parapet portion shall be removed during concrete removal and reattached after the concrete has cured. Cost included in Concrete Removal.

MODEL: Default
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184-001397

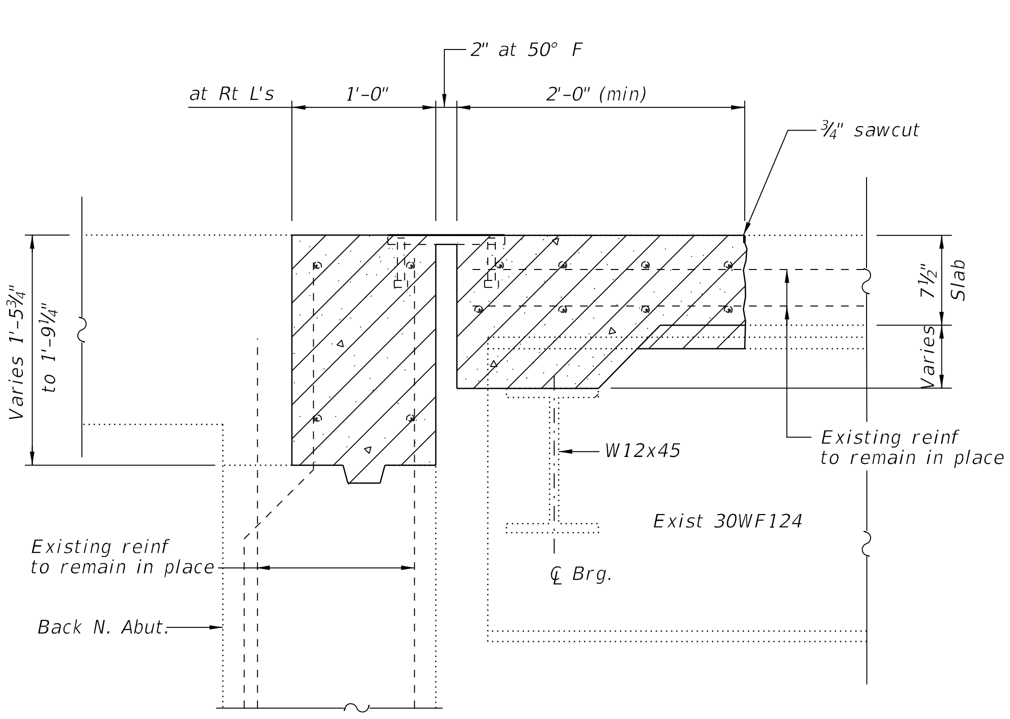
USER NAME = jpang	DESIGNED - BCG	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 8.0000 ' / in.	CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

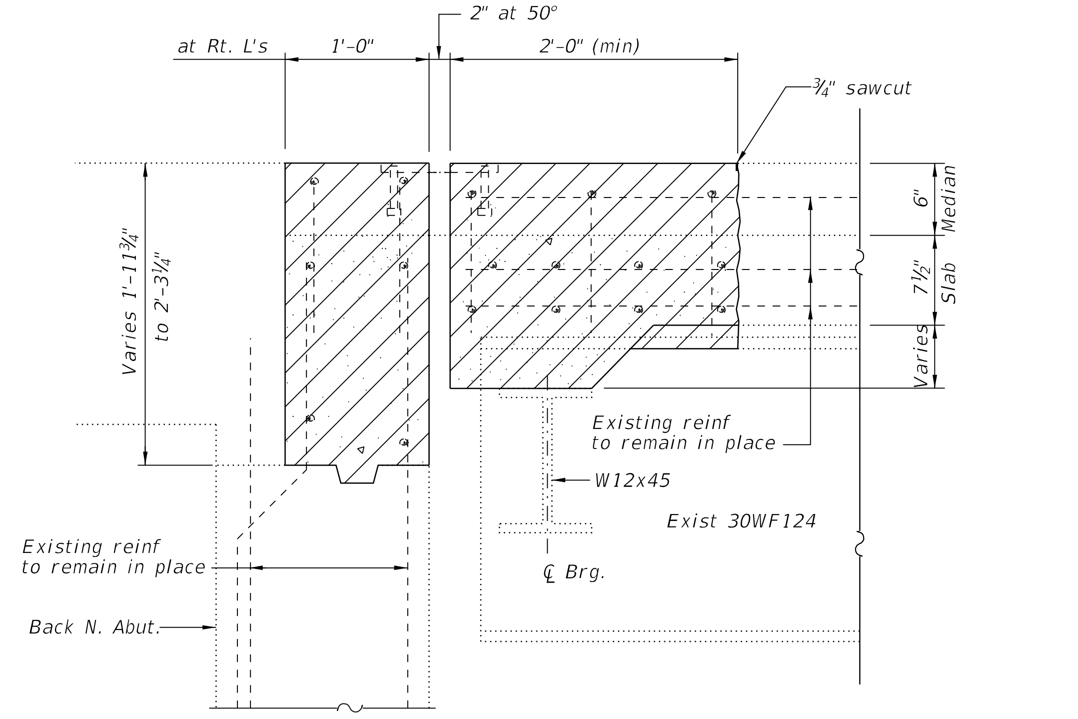
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
NORTH ABUTMENT EXPANSION JOINT DETAILS

SCALE: | SHEET 9 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	30
	SN 047-0006	CONTRACT NO. 62D43		
		ILLINOIS FED. AID PROJECT		

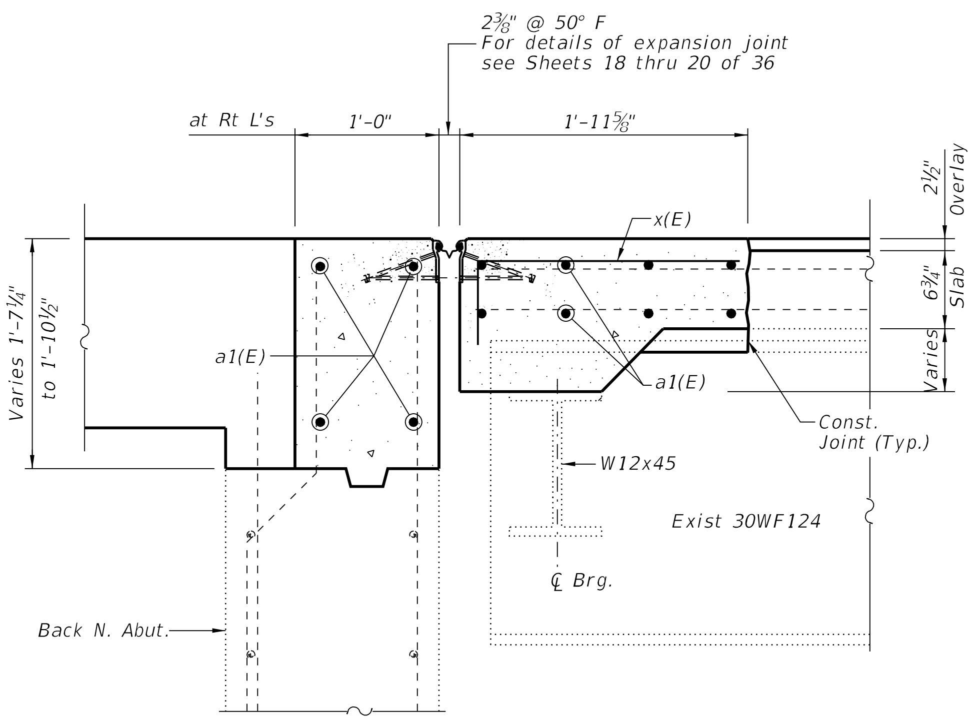


SECTION A–A

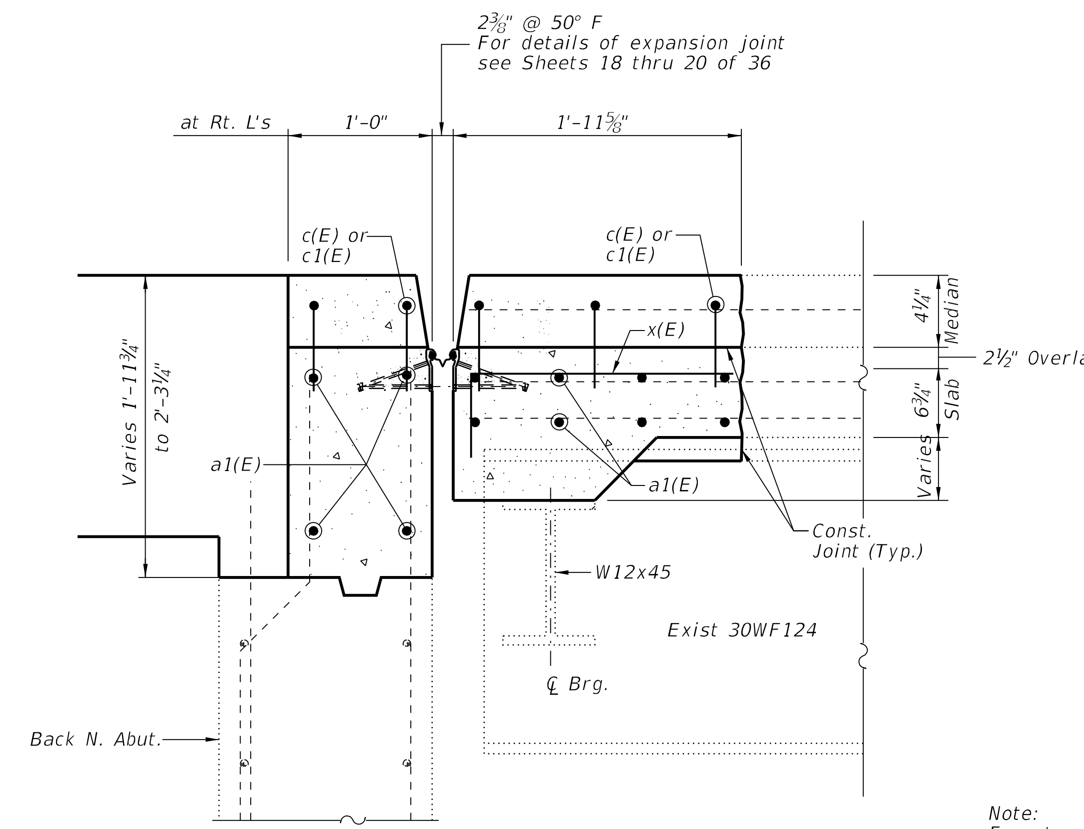


SECTION B–B

- Existing Reinforcement
- Proposed Reinforcement



SECTION C–C



SECTION D–D

Note:
For structural steel repairs see Sheets 25 & 26 of 36.

MODEL: Default
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CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - BCG	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 8.0000 ' / in.	CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
NORTH ABUTMENT EXPANSION JOINT DETAILS

SCALE: | SHEET 10 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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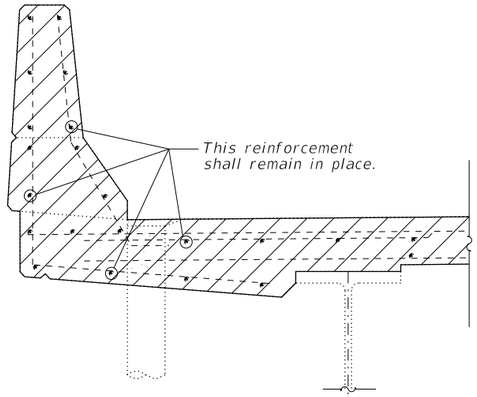
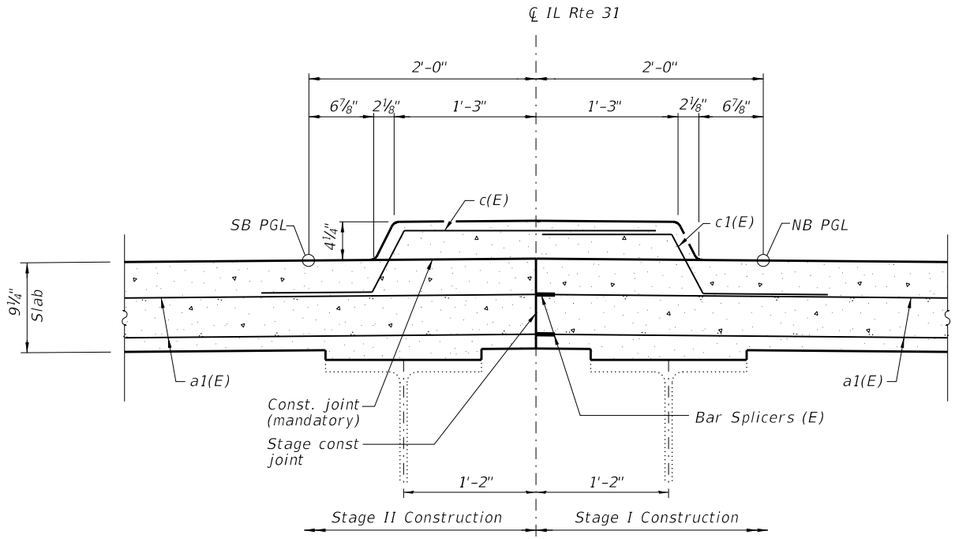
	SN 047-0006	CONTRACT NO. 62D43		
		ILLINOIS FED. AID PROJECT		

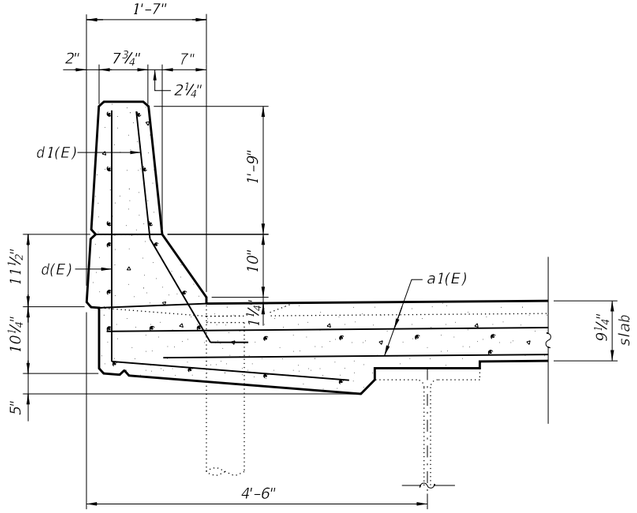


SECTION THRU BRIDGE DECK PARAPET
(Showing removal)

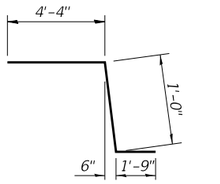


SECTION THRU MEDIAN
(Looking North)

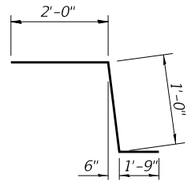
- Existing Reinforcement
- Proposed Reinforcement



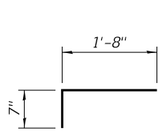
SECTION THRU BRIDGE DECK PARAPET



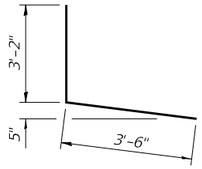
BAR c(E)



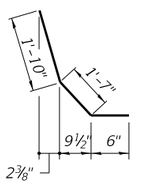
BAR c1(E)



BAR x(E)



BAR d(E)



BAR d1(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	72	#6	25'-9"	
c(E)	6	#5	7'-1"	
c1(E)	6	#5	4'-9"	
d(E)	6	#4	6'-8"	
d1(E)	6	#5	3'-11"	
x(E)	68	#5	2'-3"	
Concrete Removal			Cu. Yd.	17.9
Concrete Superstructure			Cu. Yd.	19.9
Reinforcement Bars, Epoxy Coated			Pound	3,070

Bars indicated thus 2 x 3-#6 etc. indicates 2 line of bars with 3 lengths per line.

MODEL: Default
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CONSULTING ENGINEERS
184-001397

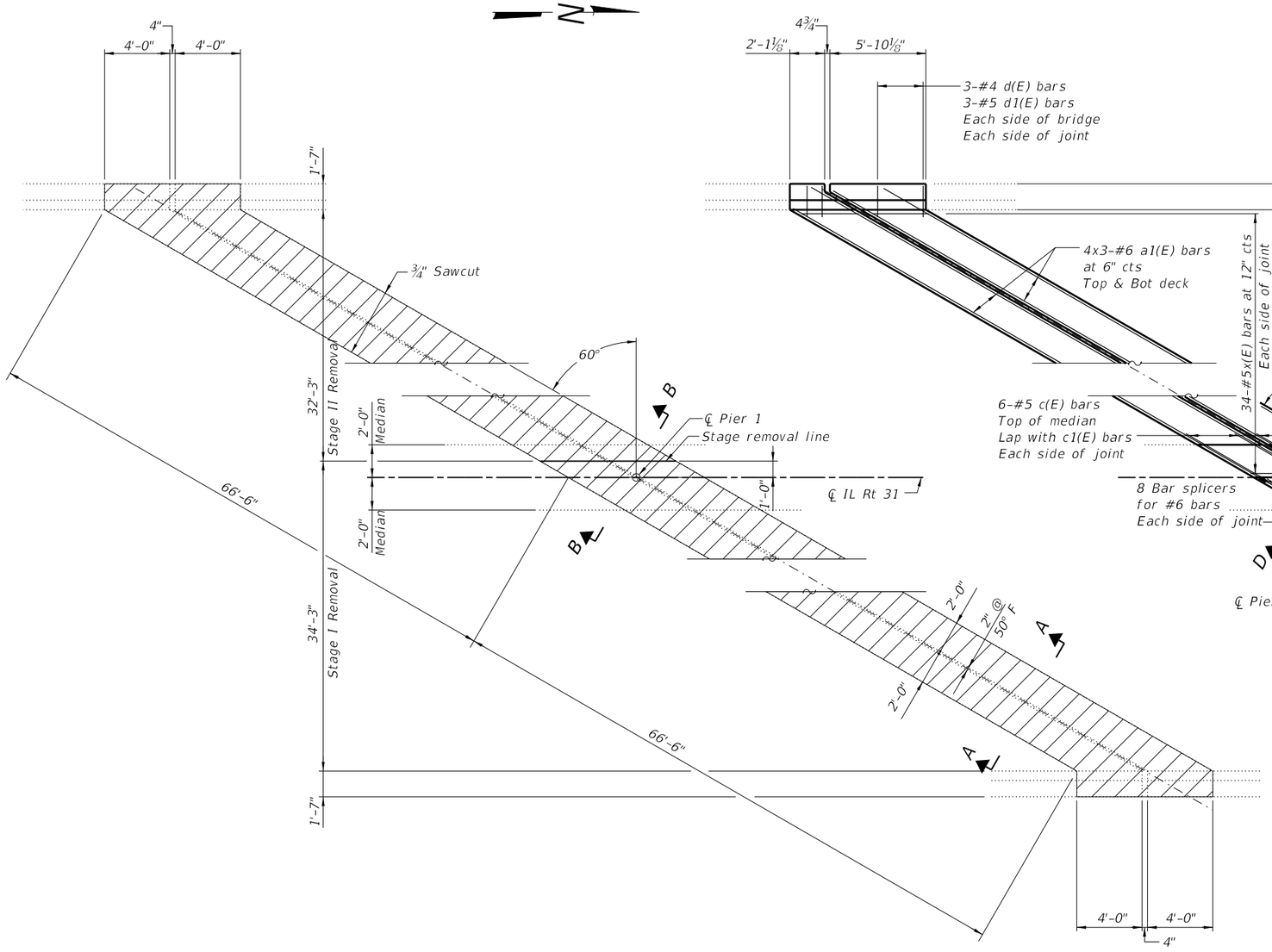
USER NAME = jpang	DESIGNED - BCG	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 8.0000 ' / in.	CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

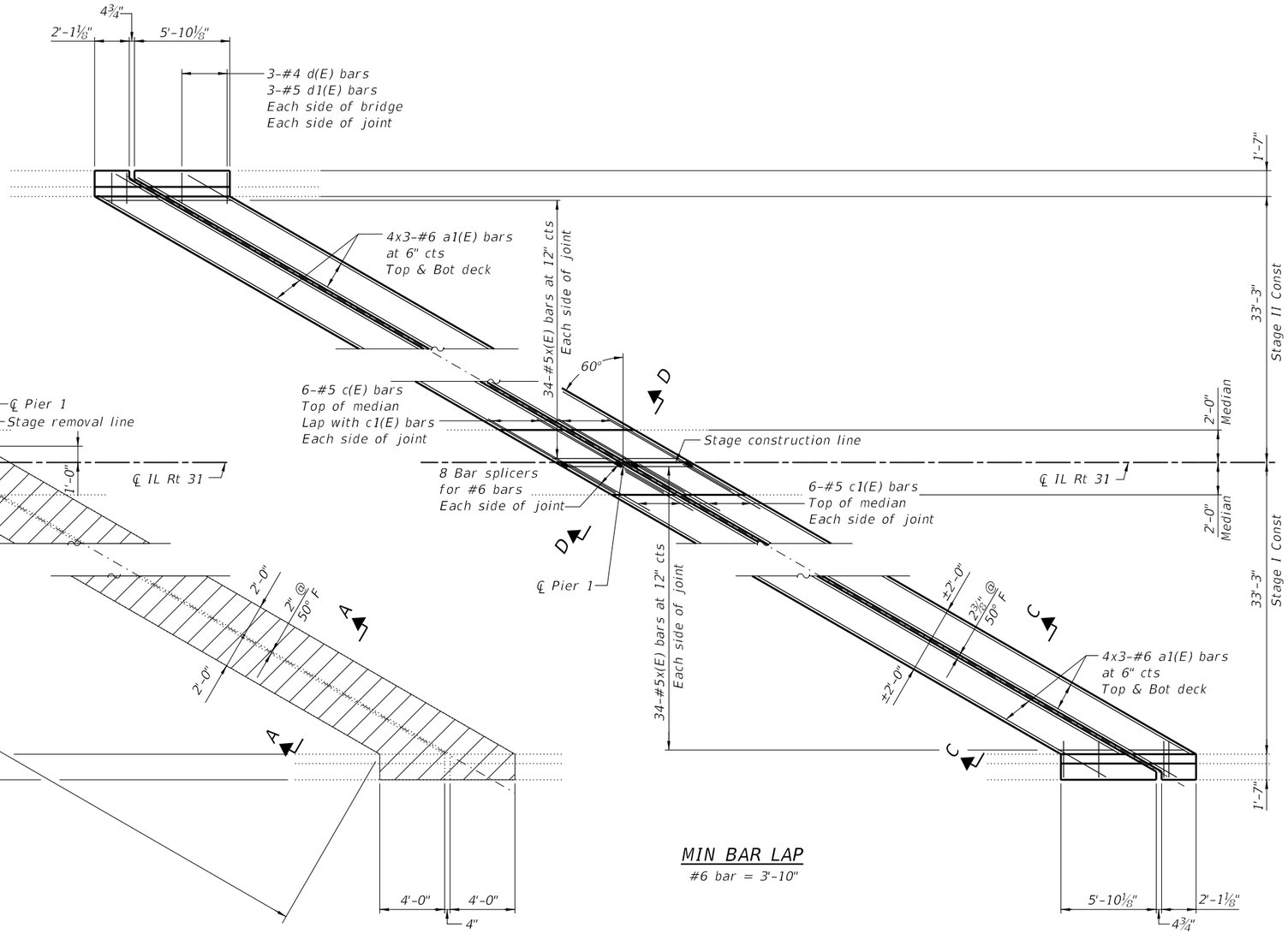
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
NORTH ABUTMENT EXPANSION JOINT DETAILS

SCALE: | SHEET 11 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	32
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			



PIER 1 PLAN JOINT REMOVAL



MIN BAR LAP

#6 bar = 3'-10"

PIER 1 PLAN JOINT REPLACEMENT

MODEL: Default
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184-001397

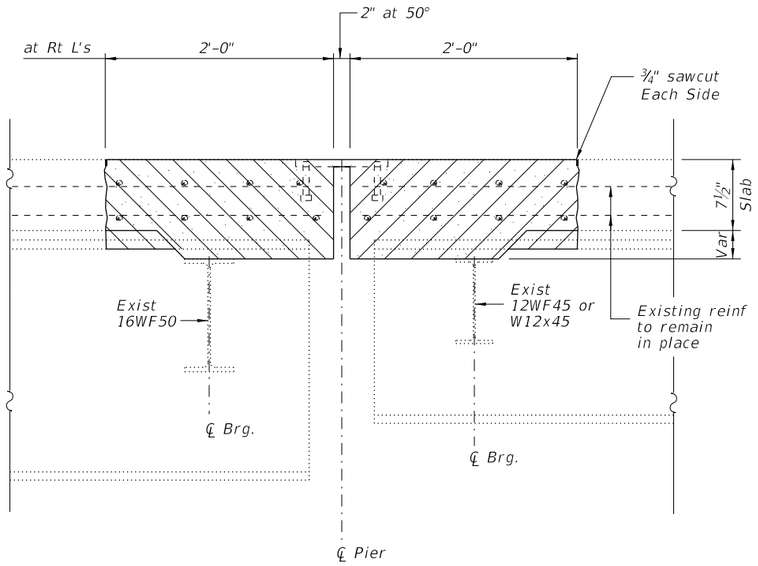
USER NAME = jpang	DESIGNED - BCG	REVISED -
	DRAWN - RLK	REVISED -
PLOT SCALE = 8.0000 ' / in.	CHECKED - JMB	REVISED -
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

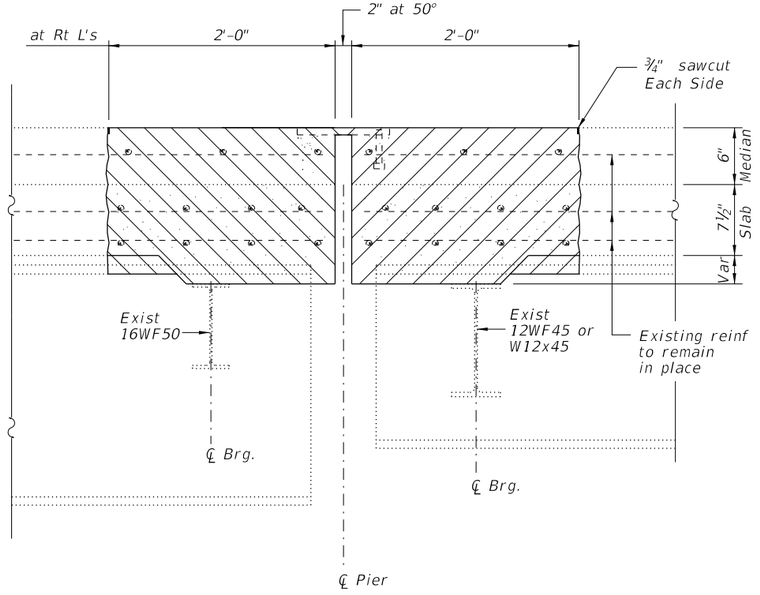
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PIER 1 EXPANSION JOINT DETAILS

SCALE: | SHEET 12 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	33
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		



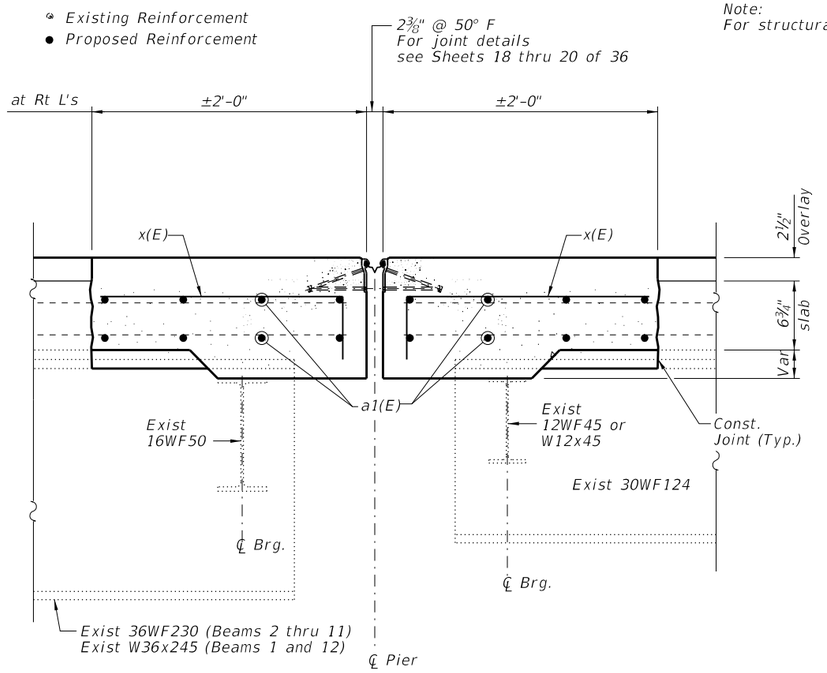
SECTION A-A



SECTION B-B

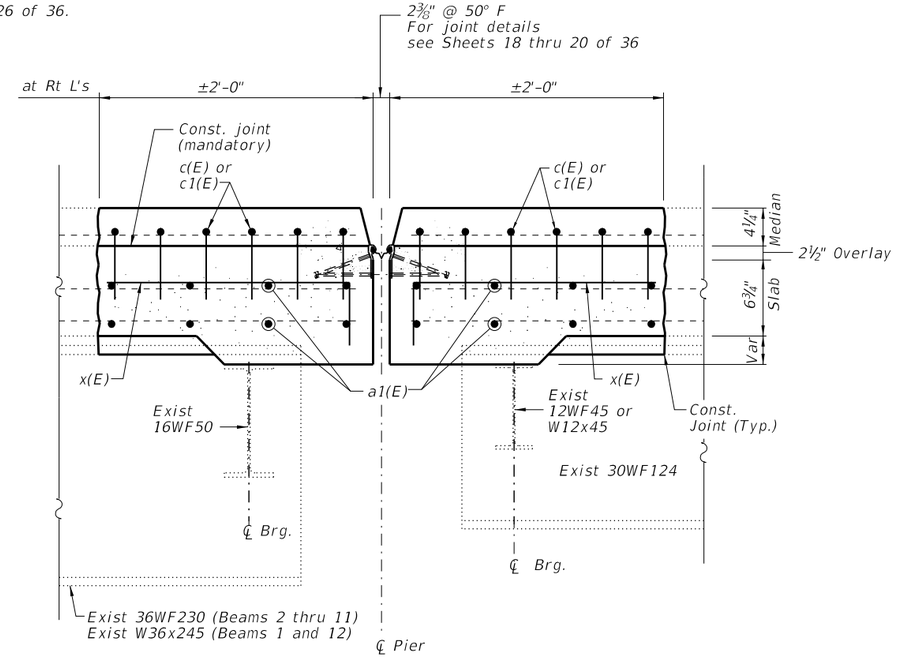
- Existing Reinforcement
- Proposed Reinforcement

Note:
For structural steel repairs see Sheets 25 & 26 of 36.



SECTION C-C

(Strip seal joint not shown for clarity)



SECTION D-D

(Strip seal joint not shown for clarity)

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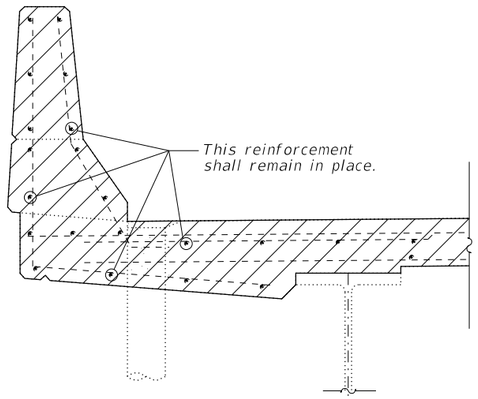
USER NAME = jpang	DESIGNED - BCG	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 8.0000 ' / in.	CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

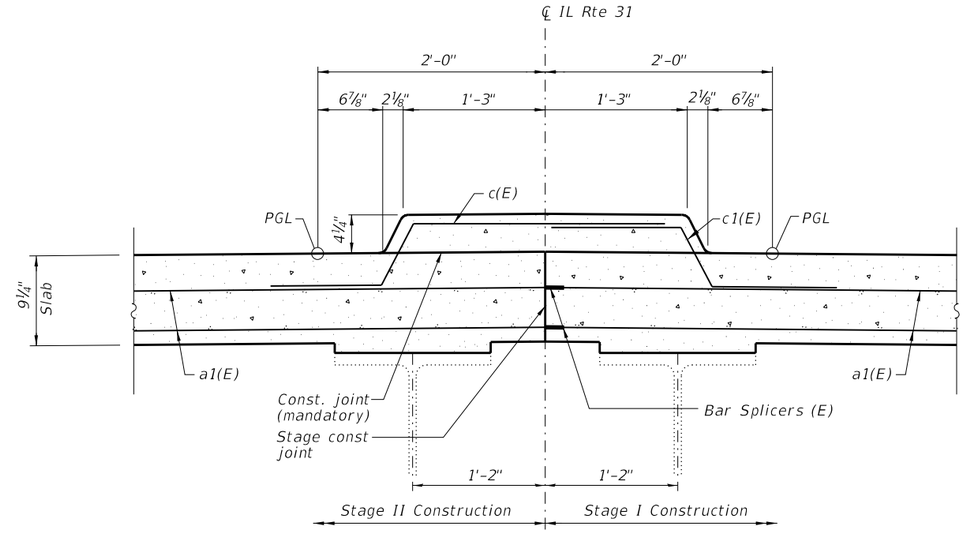
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PIER 1 EXPANSION JOINT DETAILS

SCALE: | SHEET 13 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	34
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			

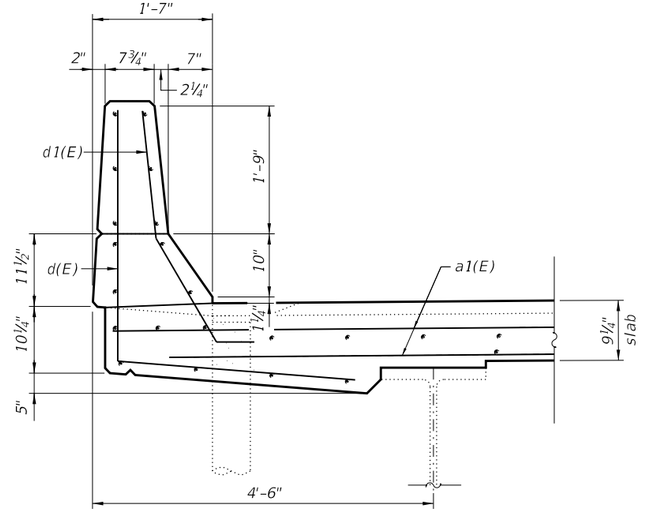


SECTION THRU BRIDGE DECK PARAPET
(Showing removal)

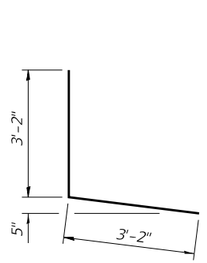


SECTION THRU MEDIAN
(Looking North)

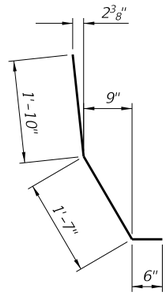
- Existing Reinforcement
- Proposed Reinforcement



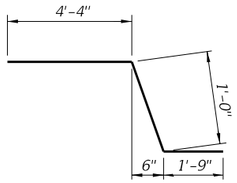
SECTION THRU BRIDGE DECK PARAPET



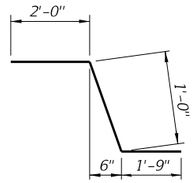
BAR d(E)



BAR d1(E)



BAR c(E)

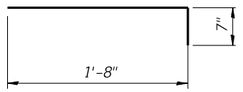


BAR c1(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	96	#6	25'-9"	
c(E)	6	#5	7'-1"	
c1(E)	6	#5	4'-9"	
d(E)	12	#4	6'-8"	
d1(E)	12	#5	3'-11"	
x(E)	136	#5	2'-3"	
Concrete Removal			Cu. Yd.	16.2
Concrete Superstructure			Cu. Yd.	19.0
Reinforcement Bars, Epoxy Coated			Pound	4,210

Bars indicated thus 4 x 3-#6 etc. indicates 4 lines of bars with 3 lengths per line.



BAR x(E)

MODEL: Default
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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

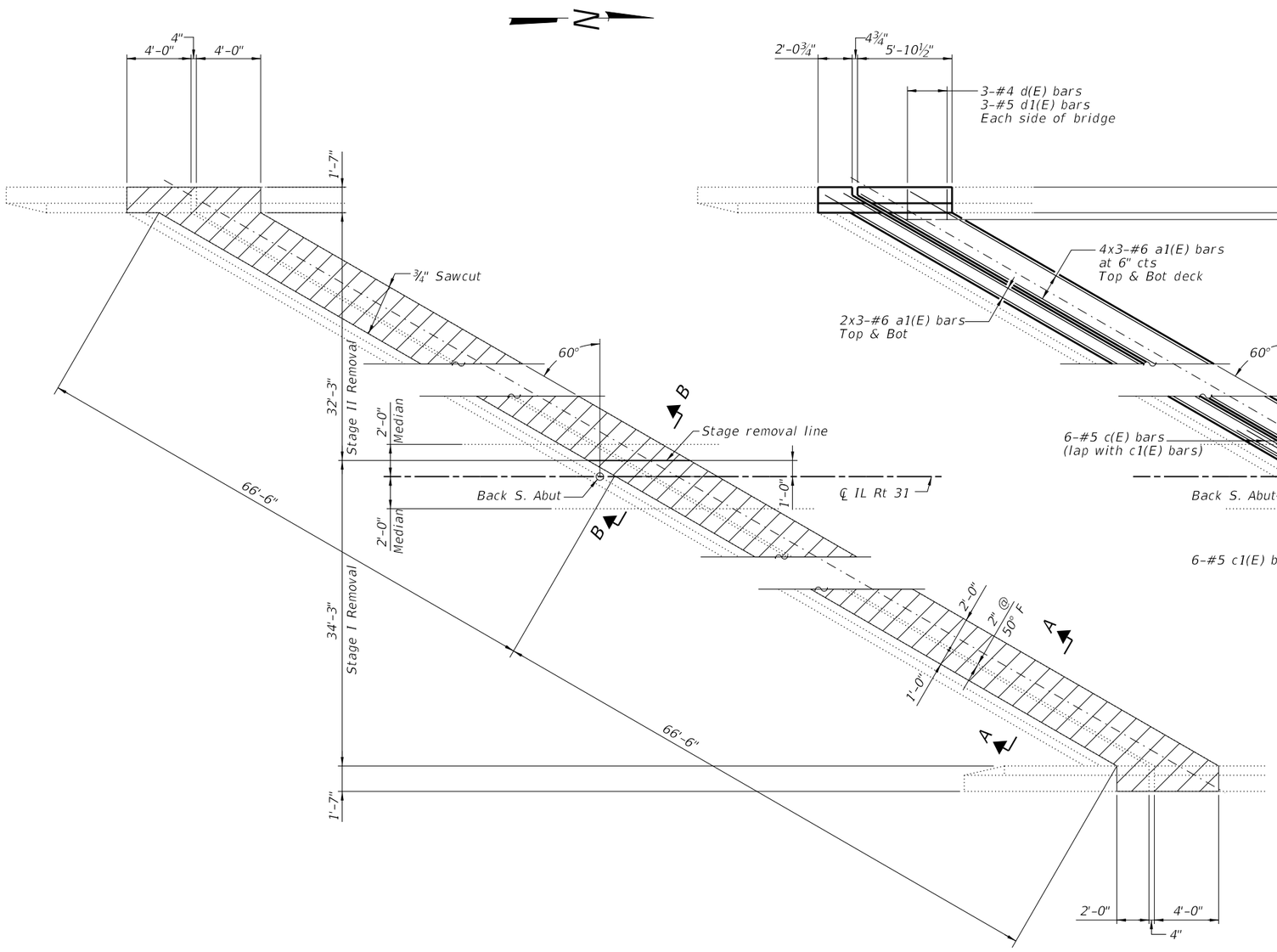
USER NAME = jpang	DESIGNED - BCG	REVISED -
	DRAWN - RLK	REVISED -
PLOT SCALE = 8.0000 ' / in.	CHECKED - JMB	REVISED -
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

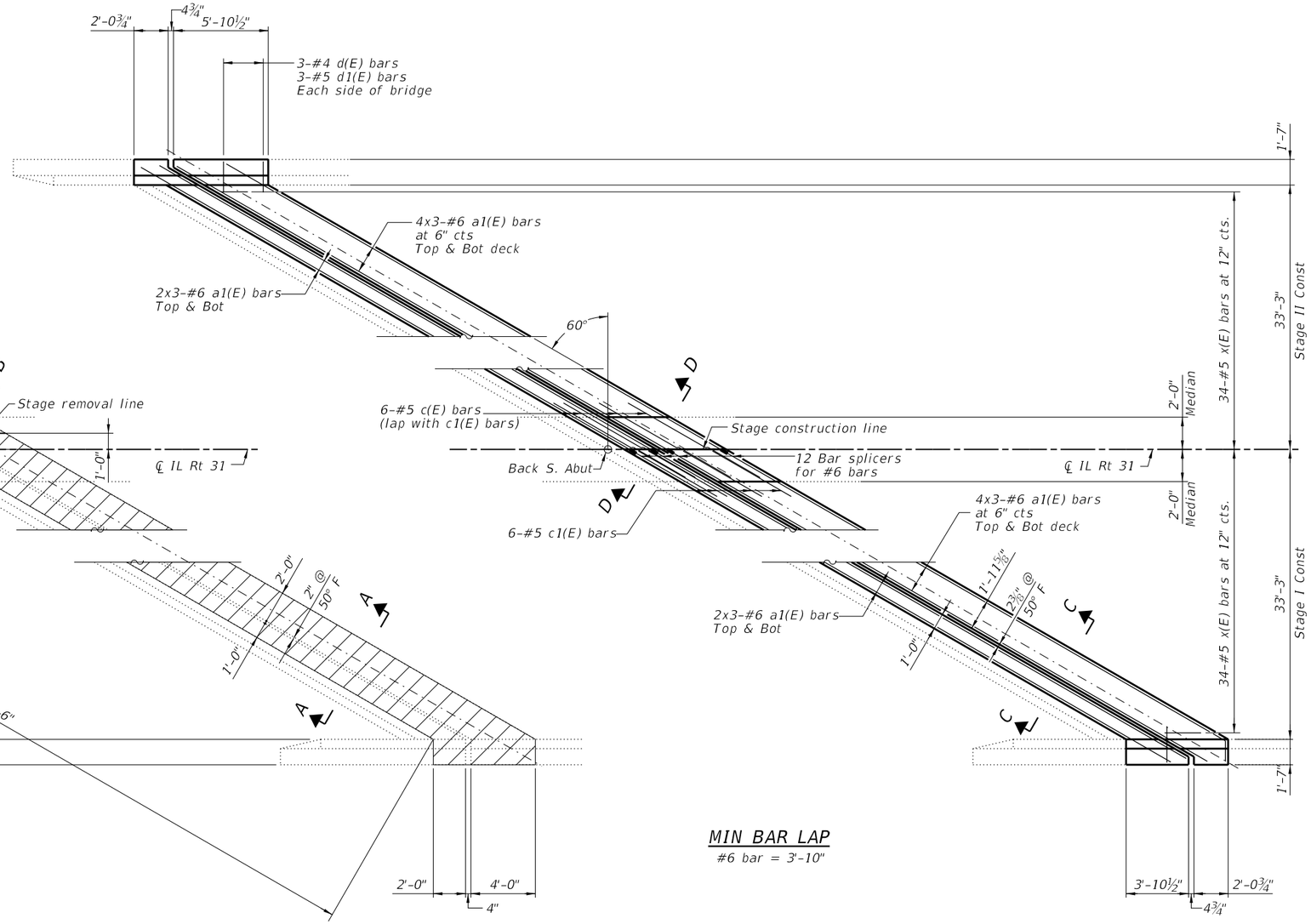
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PIER 1 EXPANSION JOINT DETAILS

SCALE: | SHEET 14 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	35
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		



SOUTH ABUTMENT PLAN JOINT REMOVAL



SOUTH ABUTMENT PLAN JOINT REPLACEMENT

MIN BAR LAP

#6 bar = 3'-10"

Note: 1. Vertical and Horizontal bars in approach parapets shall be cleaned, straightened, and reused in new construction.

2. The anchorage section of the guardrail in conflict with the removal and reconstruction of the parapet portion shall be removed during concrete removal and reattached after the concrete has cured. Cost included in Concrete Removal.

MODEL: Default
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CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

USER NAME = jpang	DESIGNED - BCG	REVISED -	
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PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
SOUTH ABUTMENT EXPANSION JOINT DETAILS

SCALE: | SHEET 15 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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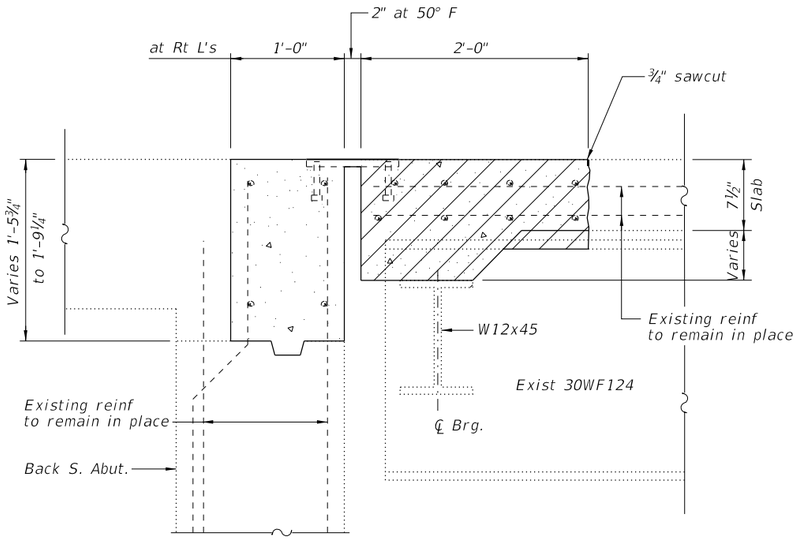
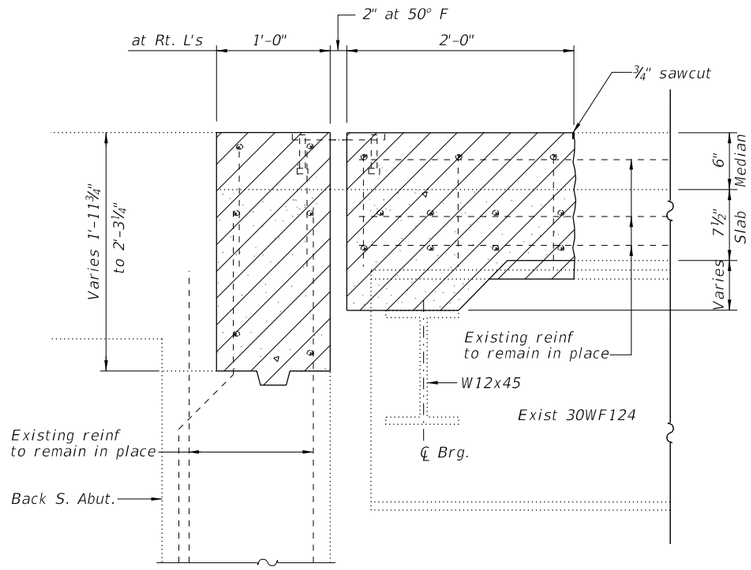
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		

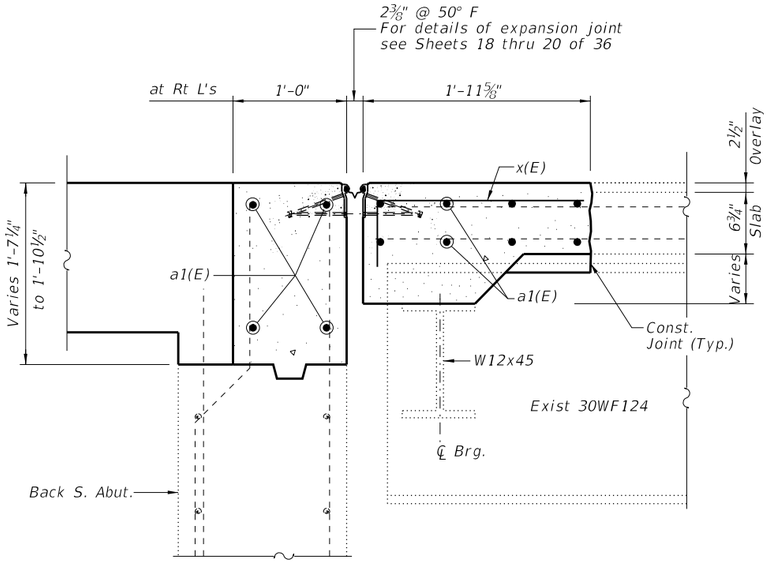


SECTION A-A

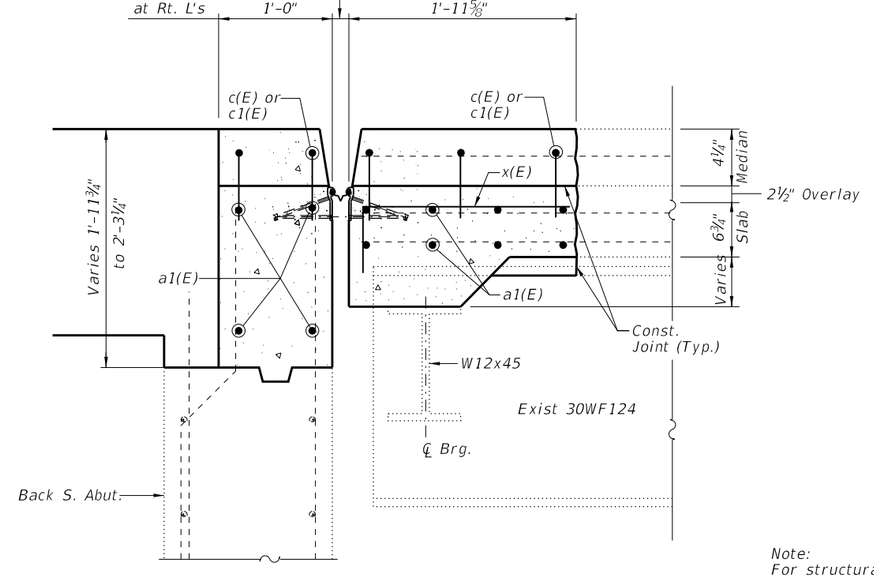


SECTION B-B

- Existing Reinforcement
- Proposed Reinforcement



SECTION C-C



SECTION D-D

Note:
For structural steel repairs see Sheets 25 & 26 of 36.

MODEL: Default
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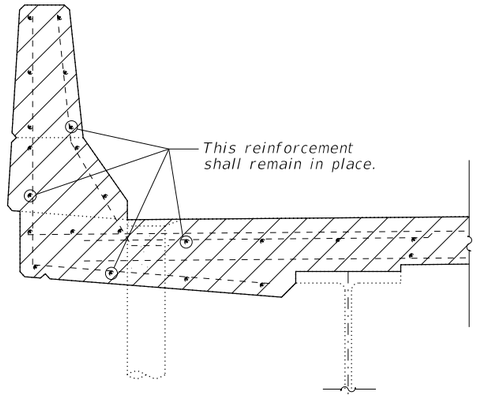
USER NAME = jpang	DESIGNED - BCG	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 8.0000 ' / in.	CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

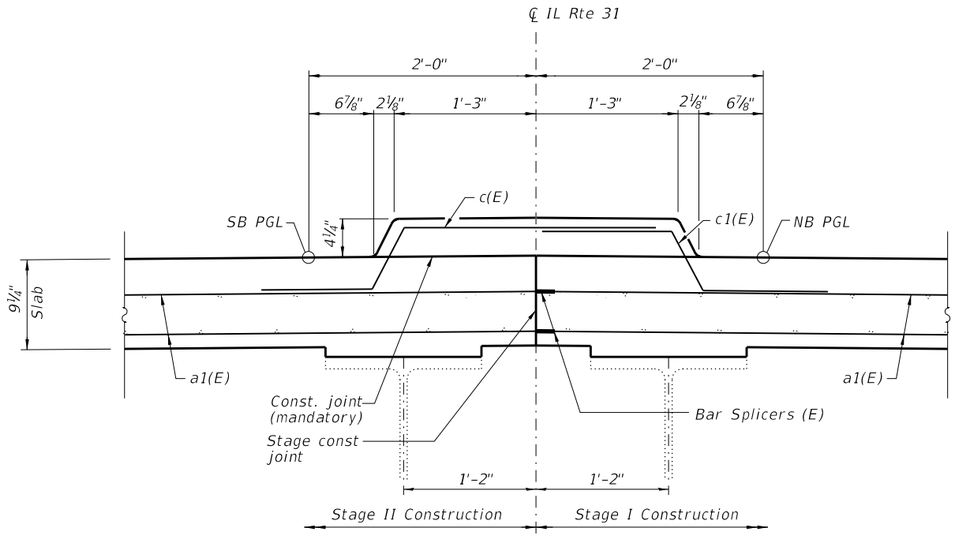
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
SOUTH ABUTMENT EXPANSION JOINT DETAILS

SCALE: | SHEET 16 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	37
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			

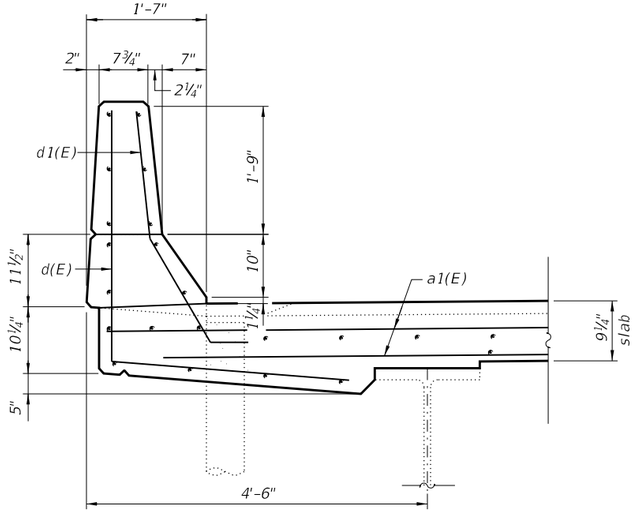


SECTION THRU BRIDGE DECK PARAPET
(Showing removal)

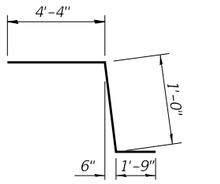


SECTION THRU MEDIAN
(Looking North)

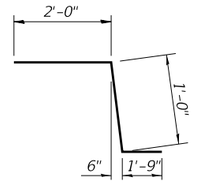
- Existing Reinforcement
- Proposed Reinforcement



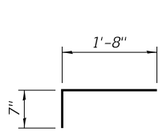
SECTION THRU BRIDGE DECK PARAPET



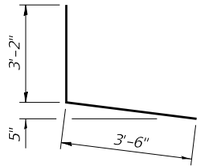
BAR c(E)



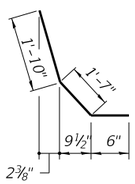
BAR c1(E)



BAR x(E)



BAR d(E)



BAR d1(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	72	#6	25'-9"	
c(E)	6	#5	7'-1"	
c1(E)	6	#5	4'-9"	
d(E)	6	#4	6'-8"	
d1(E)	6	#5	3'-11"	
x(E)	68	#5	2'-3"	
Concrete Removal			Cu. Yd.	17.9
Concrete Superstructure			Cu. Yd.	19.9
Reinforcement Bars, Epoxy Coated			Pound	3,070

Bars indicated thus 2 x 3-#6 etc. indicates 2 line of bars with 3 lengths per line.

MODEL: Default
FILE NAME: H:\pe_IDOT\16388 PTB 181 006\Work Order #12\CADD Structural\str_sabutfdetails.dgn

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	DRAWN - RLK	REVISED -	
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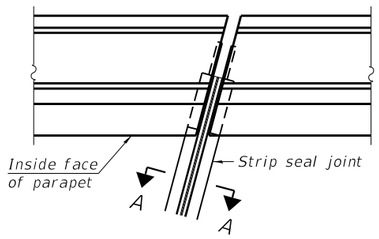
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

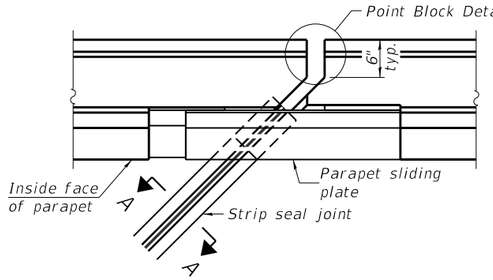
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
SOUTH ABUTMENT EXPANSION JOINT DETAILS

SCALE: | SHEET 17 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	38
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		

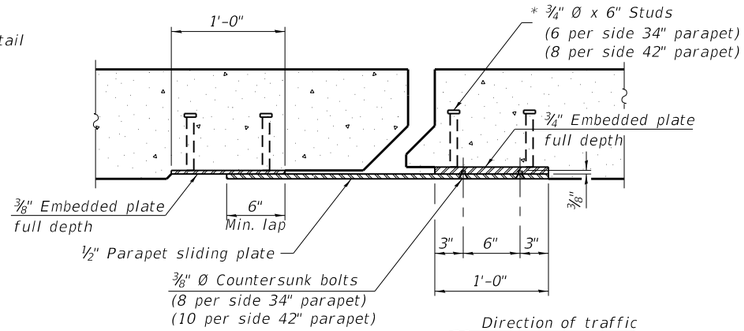


FOR SKEWS ≤ 30°



FOR SKEWS > 30°

PLAN AT PARAPET



SECTION B-B

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of ¼". 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 4½" 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.

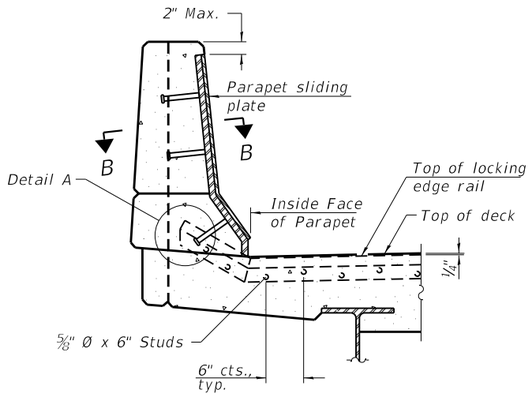
The Maximum space between locking edge rail segments shall be 3/16" and sealed with a suitable sealant; however, any rail joint within 10' measured perpendicular to the face of the curb or parapet shall be welded as shown in the locking edge rail splice detail.

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

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

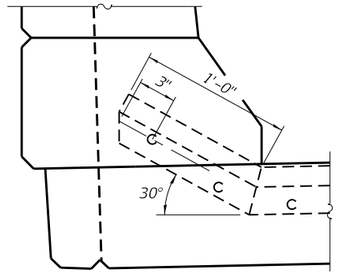
34" F-shape barrier shown, 42" F-shape similar as noted.

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.

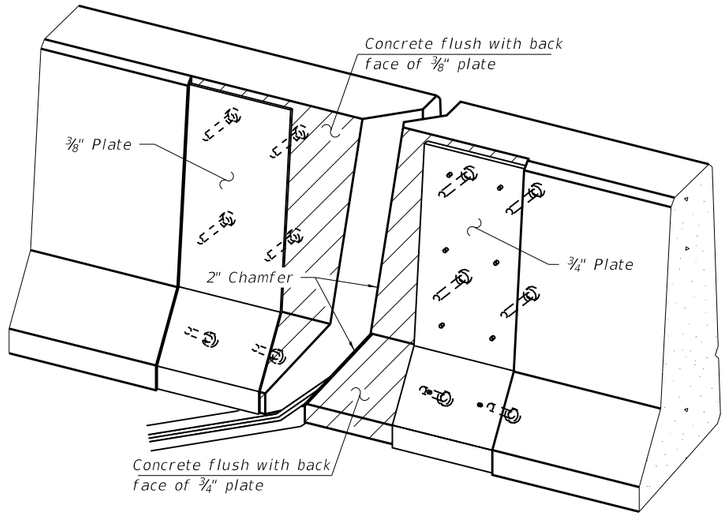


ELEVATION AT PARAPET

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

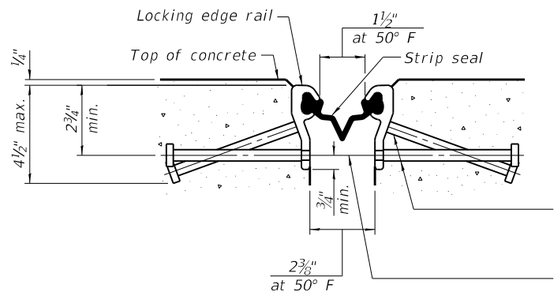


DETAIL A

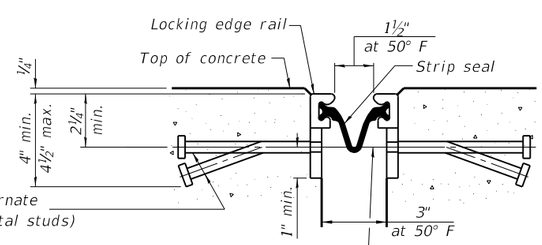


TRIMETRIC VIEW

(Showing embedded plates only)



SHOWING ROLLED RAIL JOINT



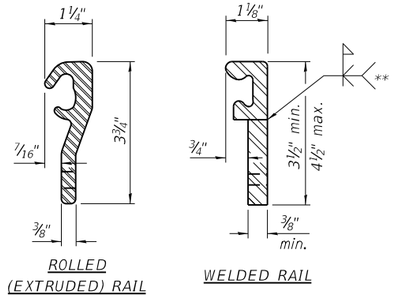
SHOWING WELDED RAIL JOINT

* ⅜" Ø x 6" studs @ 6" cts. (alternate angled/bent studs with horizontal studs)

⅜" ϕ threaded rods in 7/16" 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.

SECTION A-A

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



ROLLED (EXTRUDED) RAIL

WELDED RAIL

LOCKING EDGE 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	405.0

EJ-SS-S

8-11-17

MODEL: Default
FILE NAME: H:\pr_IDOT\16588 PTB 181 006\Work Order #12\CADD_Structural\bht_sdtpsealdgn

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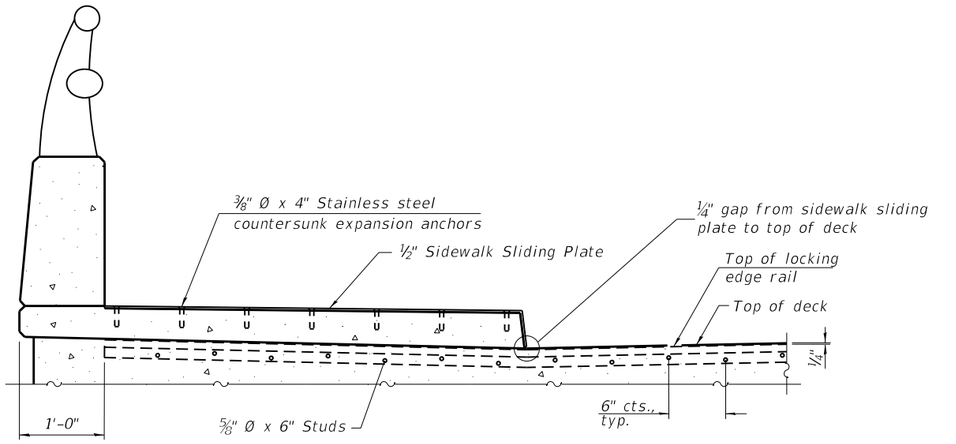
USER NAME = jpang		DESIGNED - BCG	REVISED -	
		DRAWN - RLK	REVISED -	
PLOT SCALE = 8.0000 ' / in.		CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018		DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

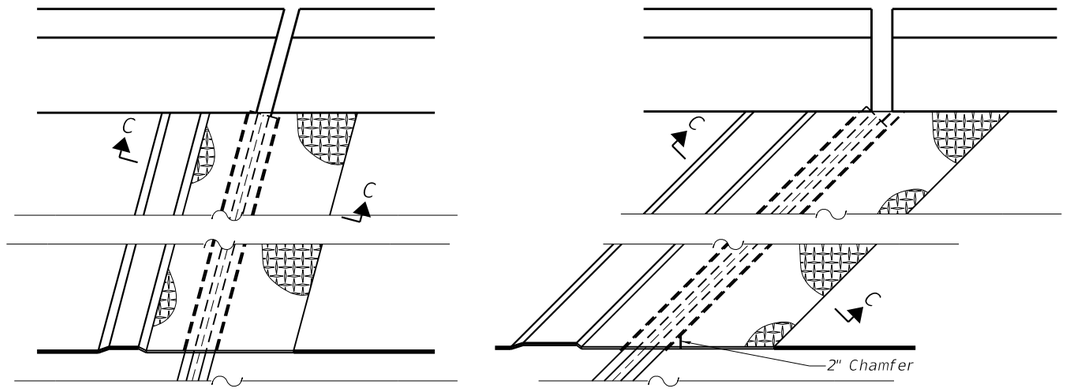
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PREFORMED JOINT STRIP SEAL - SIDEWALK

SCALE: | SHEET 18 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	39
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			



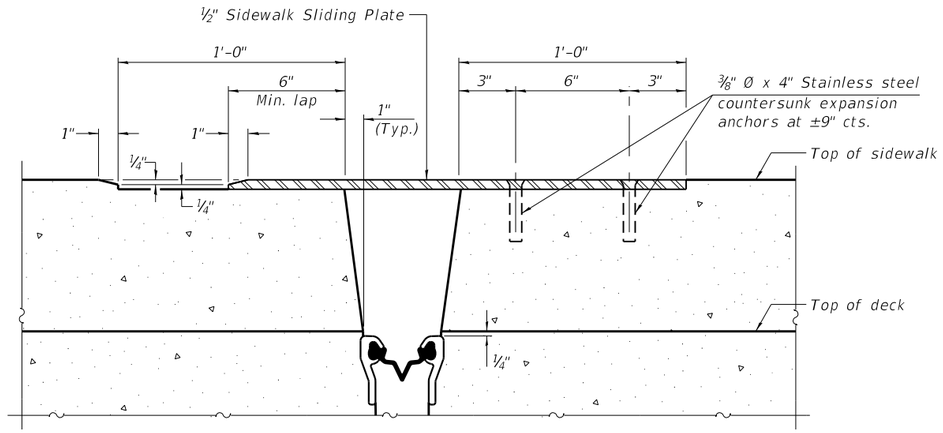
ELEVATION AT RAISED SIDEWALK



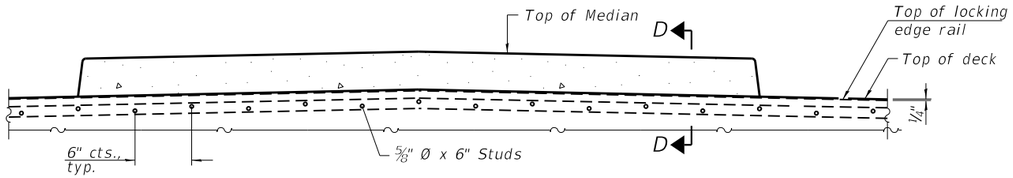
(FOR SKEWS ≤ 30°)

(FOR SKEWS > 30°)

PLAN AT RAISED SIDEWALK

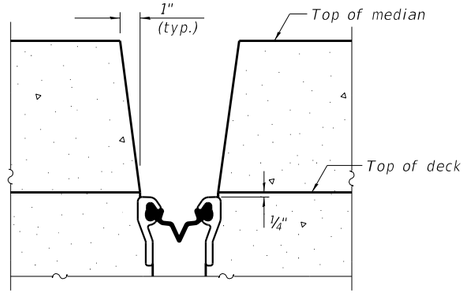


SECTION C-C

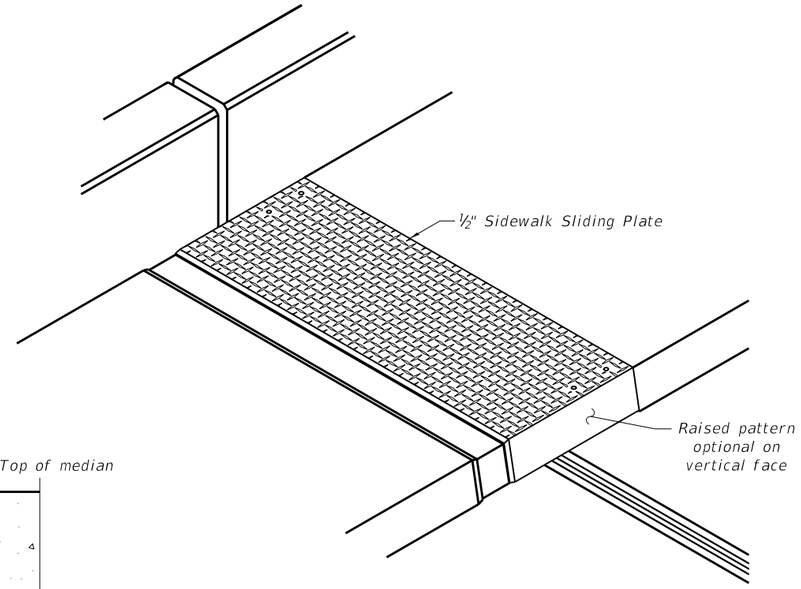


ELEVATION AT MEDIAN

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



SECTION D-D
(at Rt. ∠'s)



TRIMETRIC VIEW

EJ-SS-S 8-11-17

MODEL: Default
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USER NAME = jpang	DESIGNED - BCG	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 8.0000 ' / in.	CHECKED - JMB	REVISED -	
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PREFORMED JOINT STRIP SEAL - SIDEWALK

SCALE: | SHEET 19 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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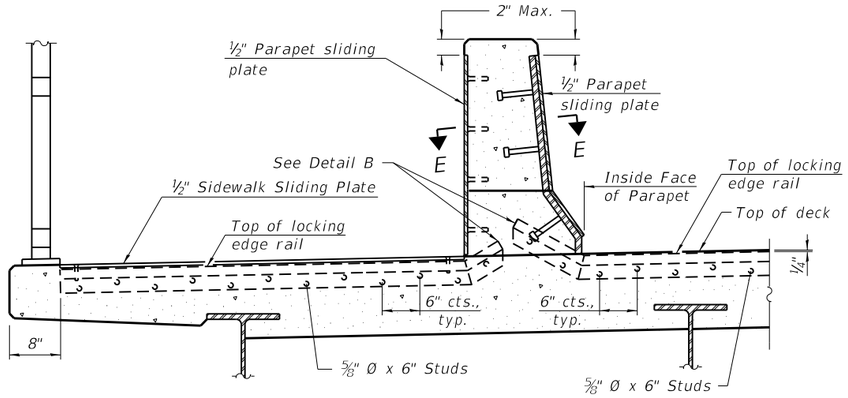
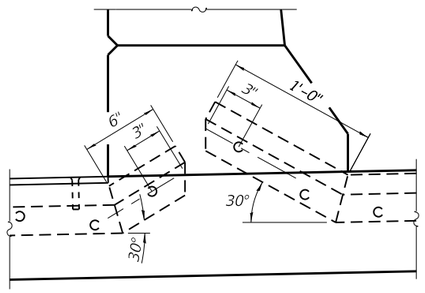
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		

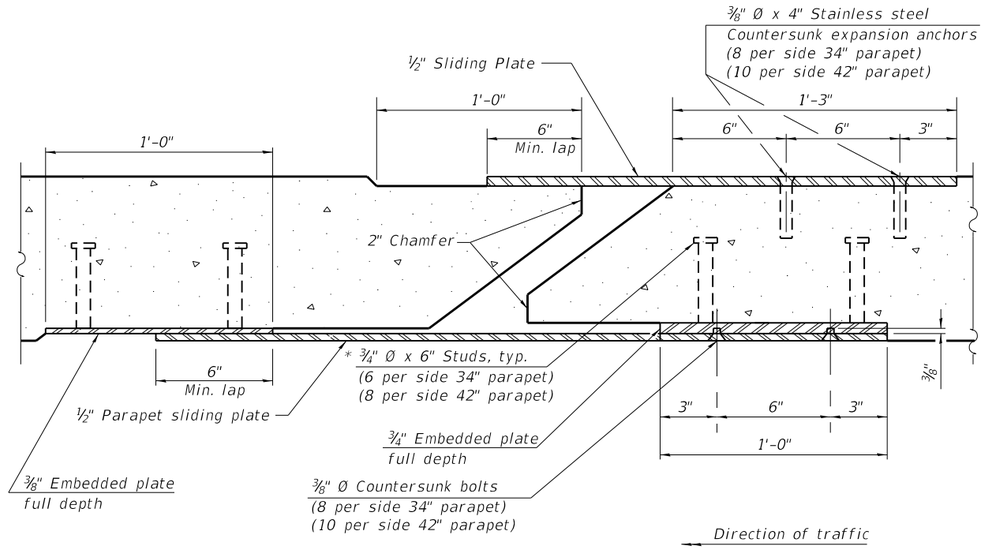


ELEVATION AT DECK LEVEL SIDEWALK

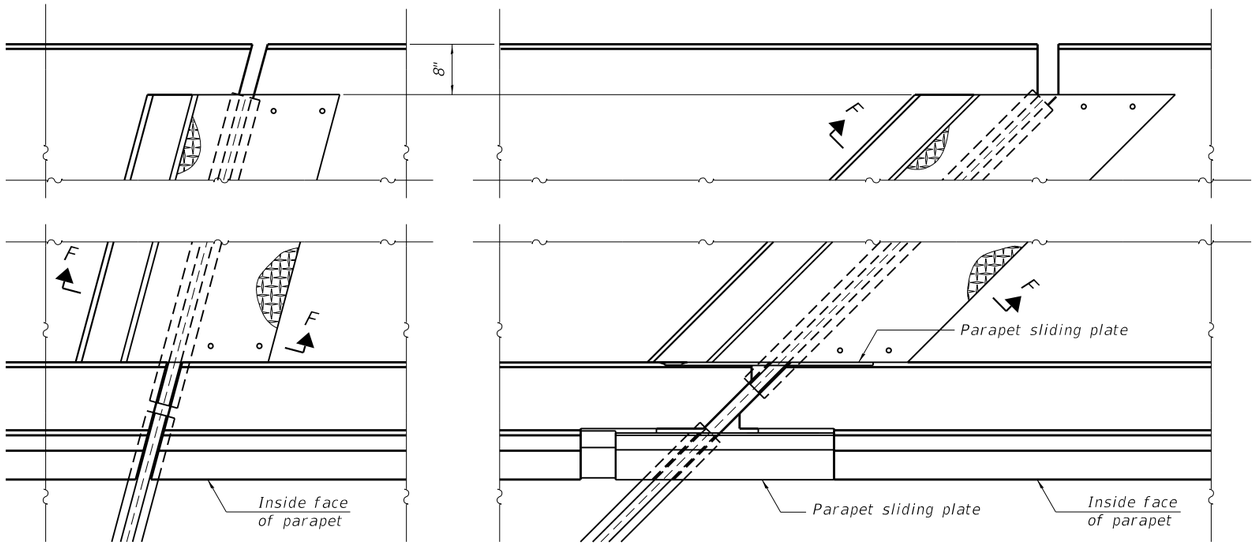
(Skews > 30° shown. Skews ≤ 30° similar except as shown in plan view.)



DETAIL B



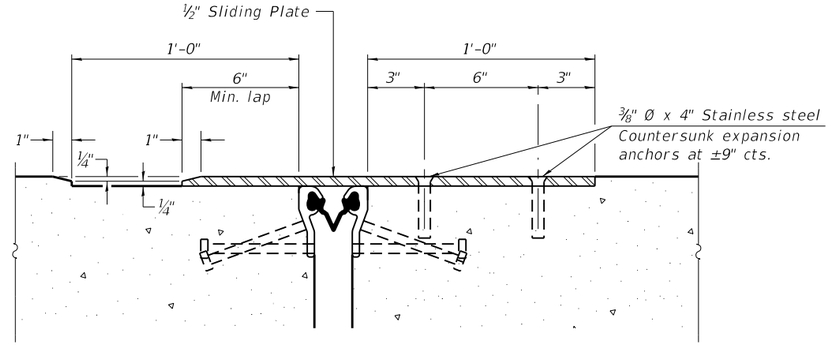
SECTION E-E



(FOR SKEWS ≤ 30°)

(FOR SKEWS > 30°)

PLAN AT DECK LEVEL SIDEWALK



SECTION F-F

EJ-SS-S

8-11-17

(Sheet 3 of 3)

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USER NAME = jpang	DESIGNED - BCG	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 8.0000 ' / in.	CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PREFORMED JOINT STRIP SEAL - SIDEWALK

SCALE: | SHEET 20 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	41
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			

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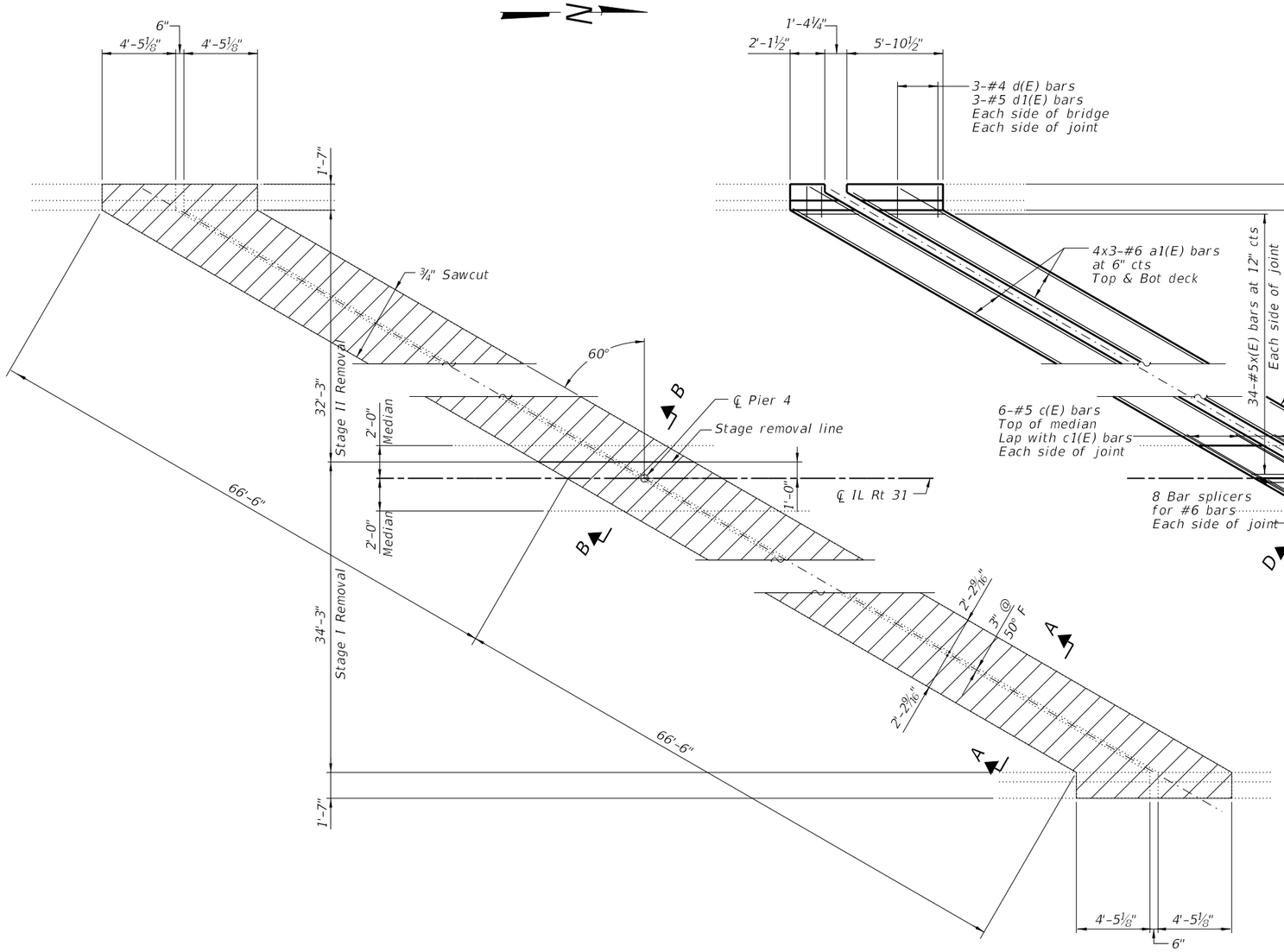
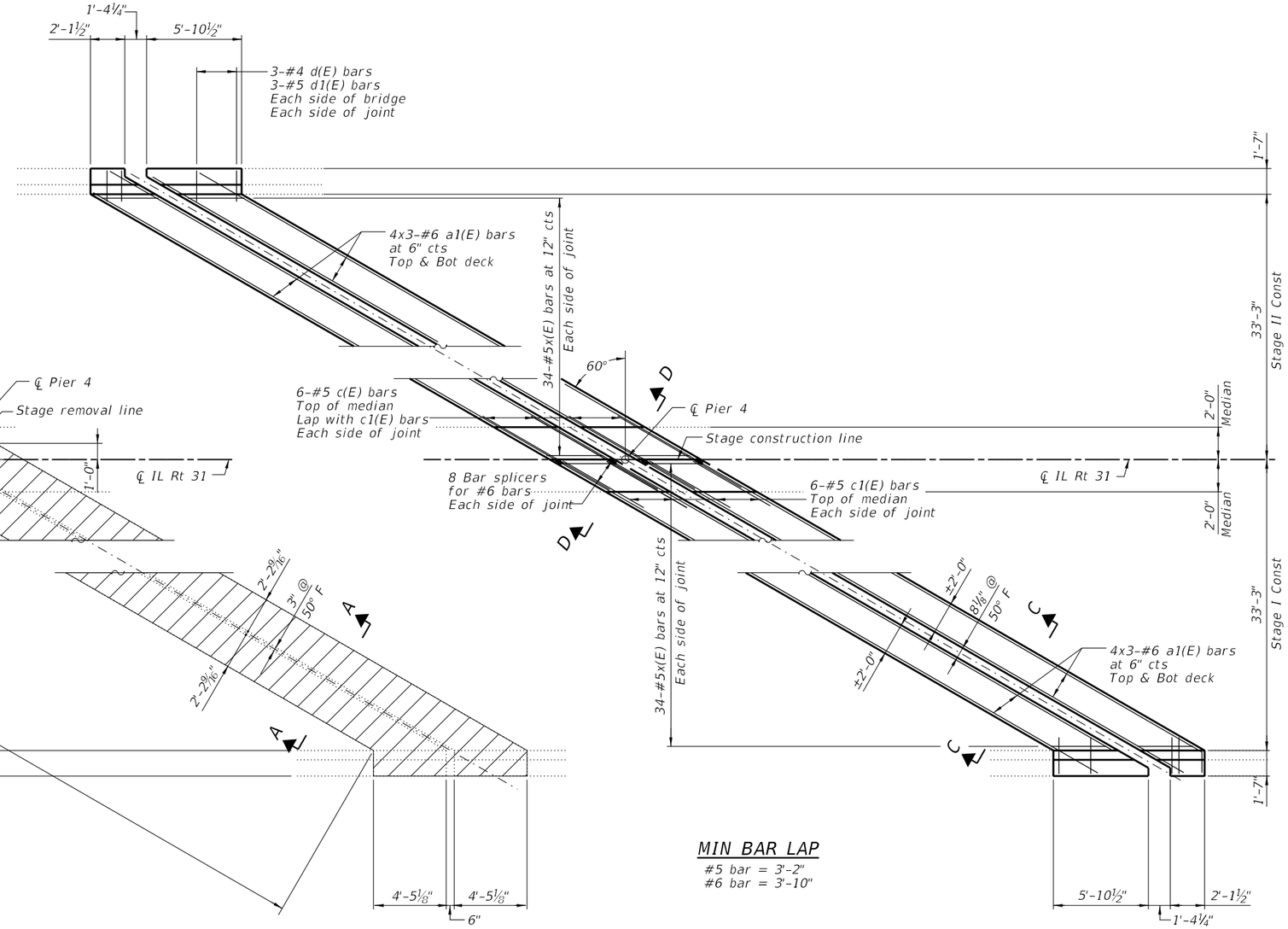


PIER 4 PLAN JOINT REMOVAL



MIN BAR LAP

#5 bar = 3'-2"
#6 bar = 3'-10"

PIER 4 PLAN JOINT REPLACEMENT

Dimensions may vary per joint manufacturer

MODEL: Default
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	DRAWN - RLK	REVISED -
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PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PIER 4 EXPANSION JOINT DETAILS

SCALE: | SHEET 21 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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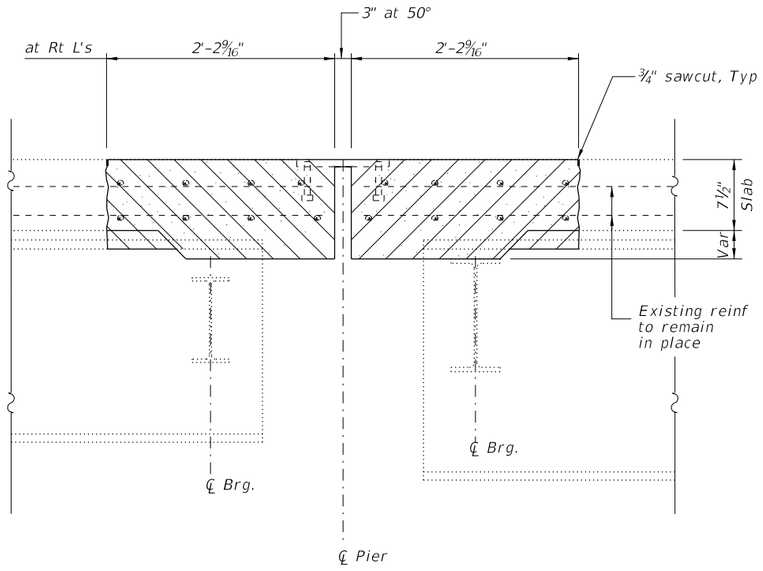
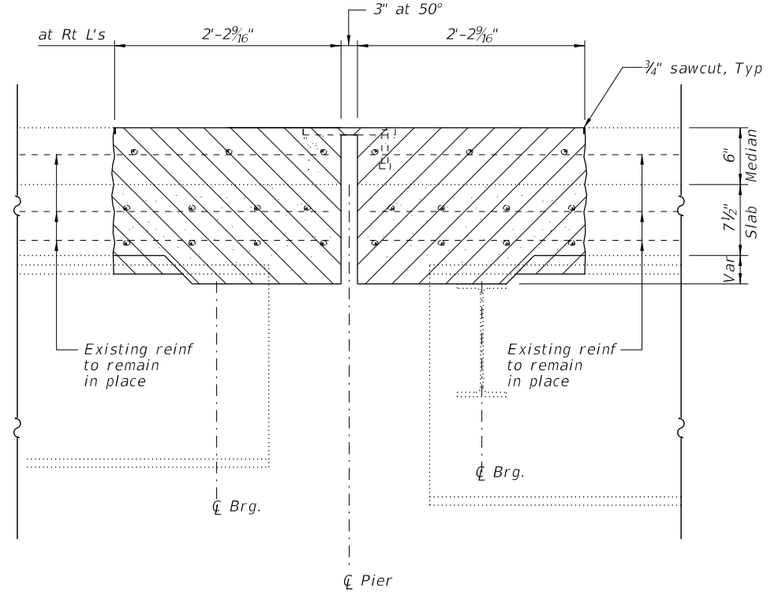
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		



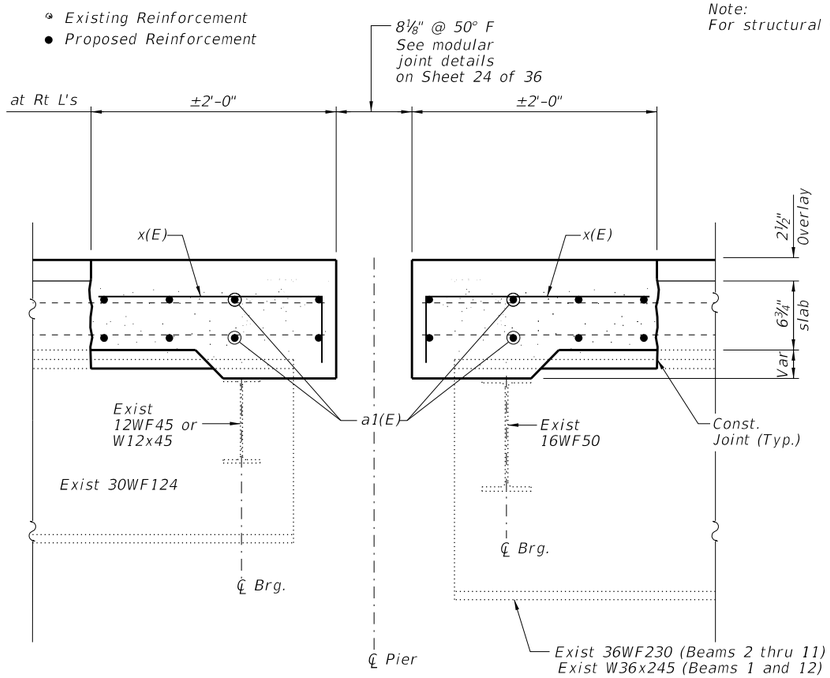
SECTION A-A



SECTION B-B

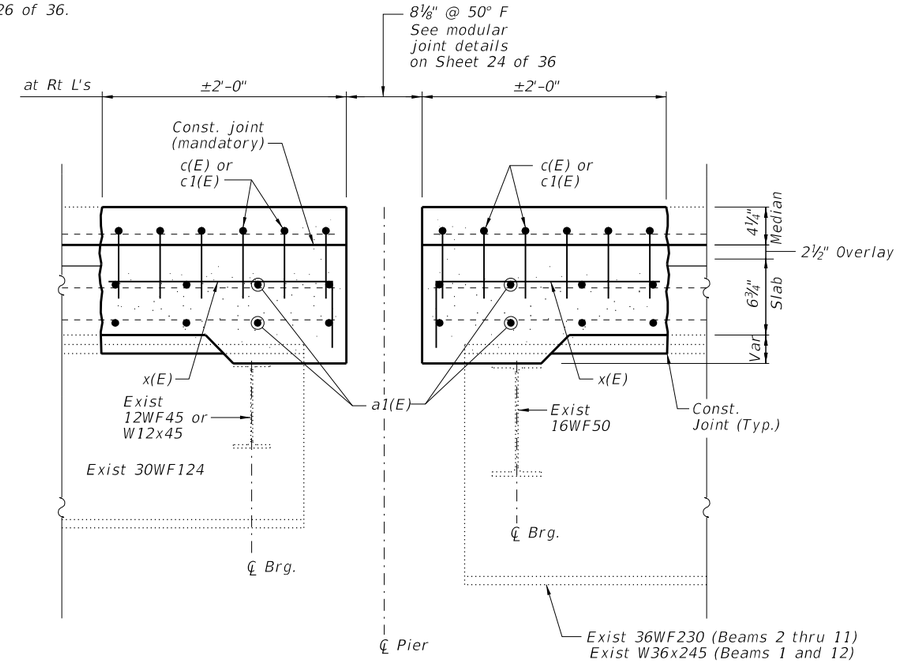
- Existing Reinforcement
- Proposed Reinforcement

Note:
For structural steel repairs see Sheets 25 & 26 of 36.



SECTION C-C

(Modular joint not shown for clarity)



SECTION D-D

(Modular joint not shown for clarity)

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	DRAWN - RLK	REVISED -	
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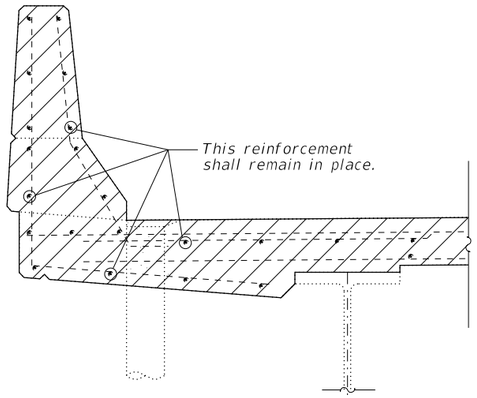
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

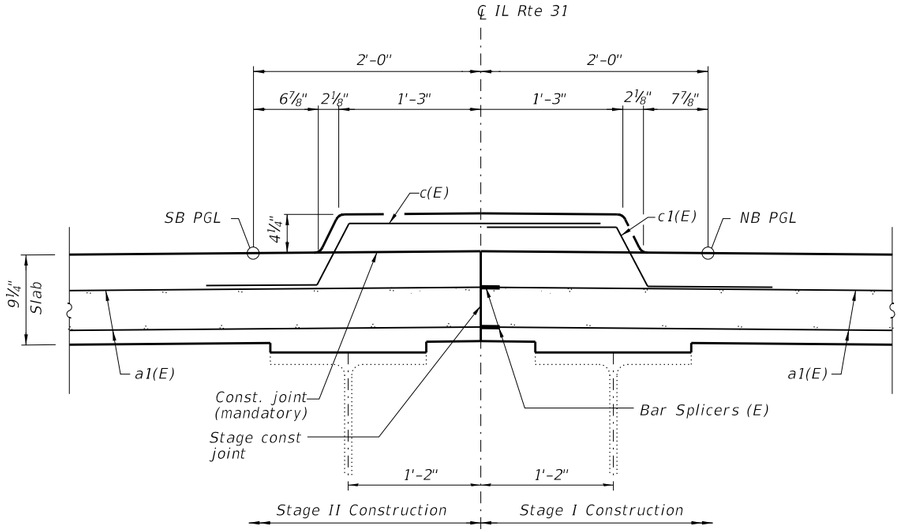
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PIER 4 EXPANSION JOINT DETAILS

SCALE: | SHEET 22 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	43
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			



SECTION THRU BRIDGE DECK PARAPET
(Showing removal)



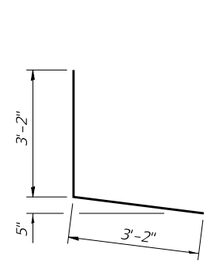
SECTION THRU MEDIAN
(Looking North)

- Existing Reinforcement
- Proposed Reinforcement

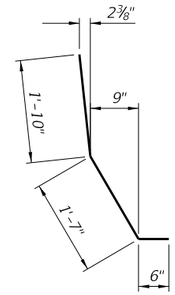
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	96	#6	25'-9"	
c(E)	6	#5	7'-1"	
c1(E)	6	#5	4'-9"	
d(E)	12	#4	6'-8"	
d1(E)	12	#5	3'-11"	
x(E)	136	#5	2'-3"	
x2(E)	16	#5	1'-10"	
z(E)	12	#5	8'-4"	
Concrete Removal			Cu. Yd.	18.1
Concrete Superstructure			Cu. Yd.	20.5
Reinforcement Bars, Epoxy Coated			Pound	4,340

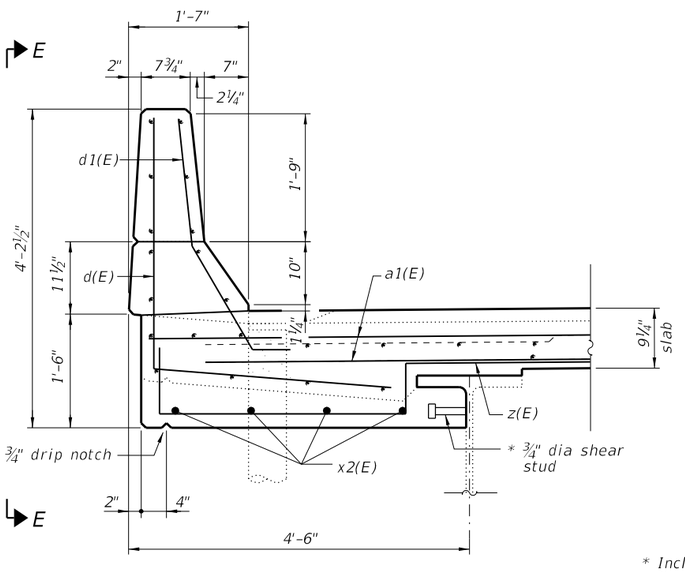
Bars indicated thus 4 x 3-#6 etc. indicates 4 lines of bars with 3 lengths per line.



BAR d(E)

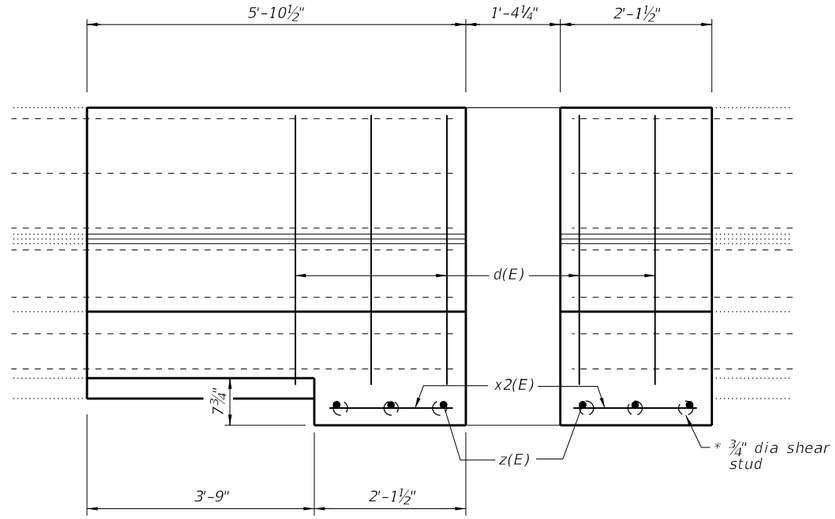


BAR d1(E)

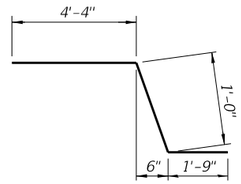


SECTION THRU BRIDGE DECK PARAPET

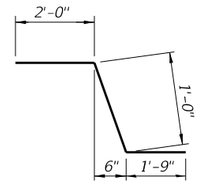
* Included in cost of Concrete Superstructure



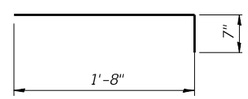
SECTION E-E
(Modular joint not shown for clarity)



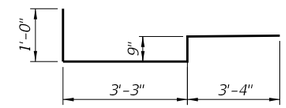
BAR c(E)



BAR c1(E)



BAR x(E)



BAR z(E)

MODEL: Default
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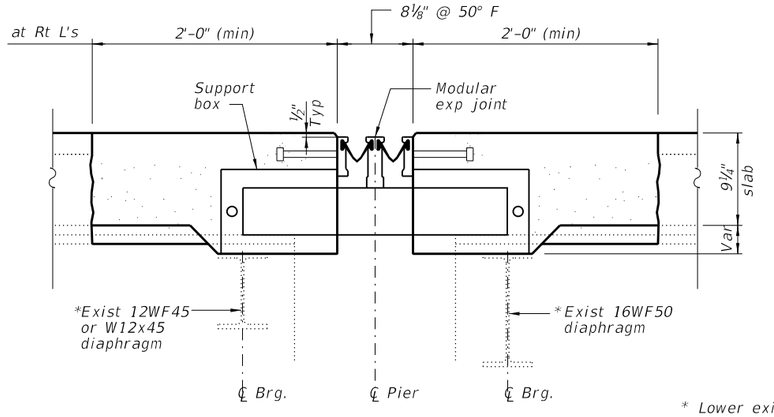
PLOT SCALE = 8.0000 ' / in.	CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PIER 4 EXPANSION JOINT DETAILS

SCALE: | SHEET 23 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	44
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		

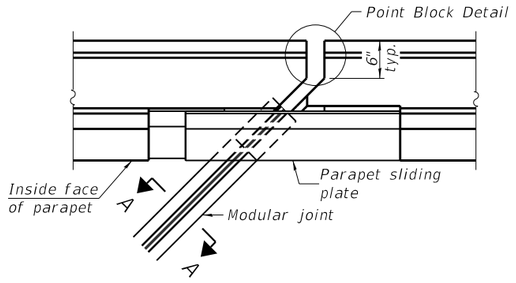


MODULAR EXPANSION JOINT DETAIL

(Reinforcement not shown for clarity)

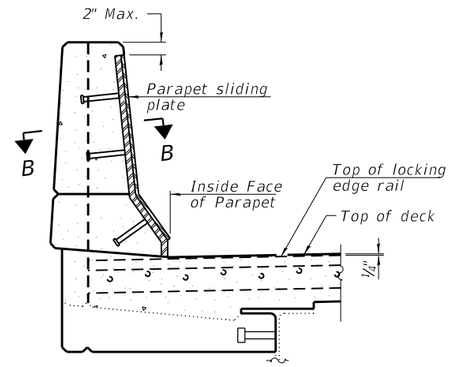
* Lower existing diaphragms as required. Cost included with Modular Expansion Joint, 6".

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

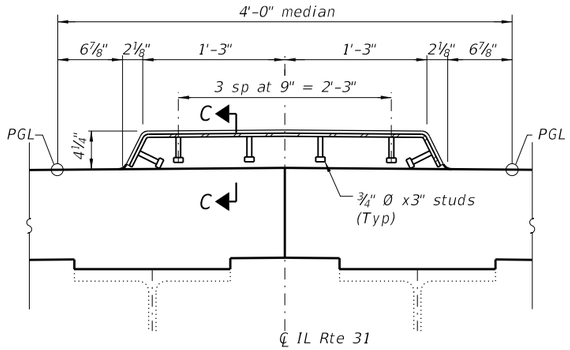


FOR SKEWS > 30°

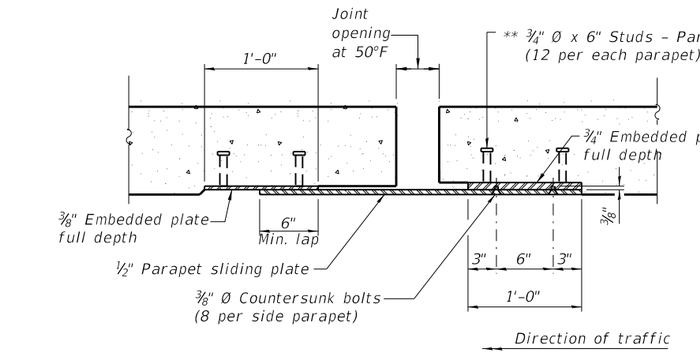
PLAN AT SLIDING PLATE



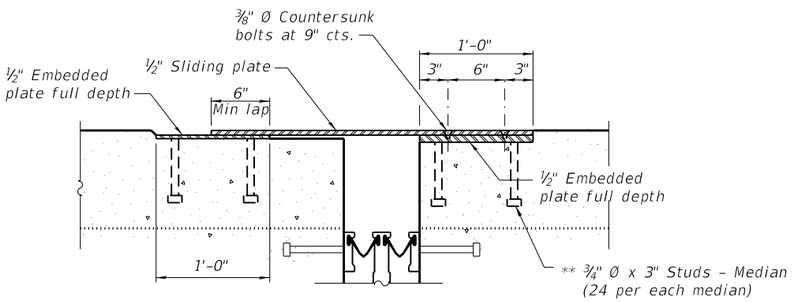
SECTION A-A



RAISED MEDIAN SLIDING PLATE DETAIL

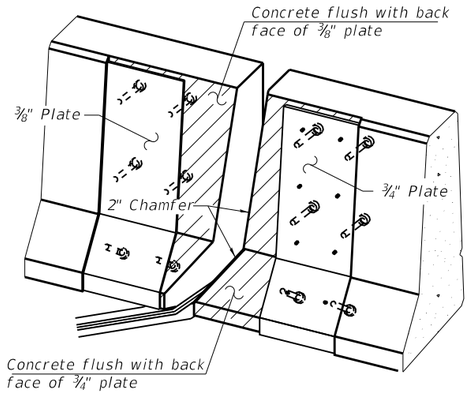


SECTION B-B



SECTION C-C

(Typ of Raised Median Sliding Plate Detail)



TRIMETRIC VIEW

(Showing embedded plates only)

Notes:

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.

Parapet plates and anchorage studs included in the cost of "Modular Expansion Joint, 6".

Support boxes shall be rigidly attached to cross frames and girders by adjustable brackets, stools or shims as determined by the Manufacturer. Support boxes to be spaced so they do not interfere with existing top flange of beams. Cost of attachment included in "Modular Expansion Joint, 6".

The number, location and orientation of support boxes shall be determined by the manufacturer. All boxes shall be located to miss the top flanges of the beams.

Modular expansion joints shall be assembled in their final relative position with the ends in place for inspection and acceptance.

Prior to placement of the joint concrete, the Contractor shall coordinate with the Modular Joint Manufacturer to ensure that the joint will be properly supported and that the reinforcement bars will not interfere with the joint components. Any necessary adjustments to the reinforcement layout shall be submitted to the Engineer for approval.

BILL OF MATERIAL

Item	Unit	Total
Modular Expansion Joint, 6"	Foot	135.0

MODEL: Default
FILE NAME: H:\prj\IDOT\6588 PTB 181 006\Work Order #12\CADD\Structural\st_modular1.dgn

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USER NAME = jpang		DESIGNED - BCG	REVISED -	
		DRAWN - RLK	REVISED -	
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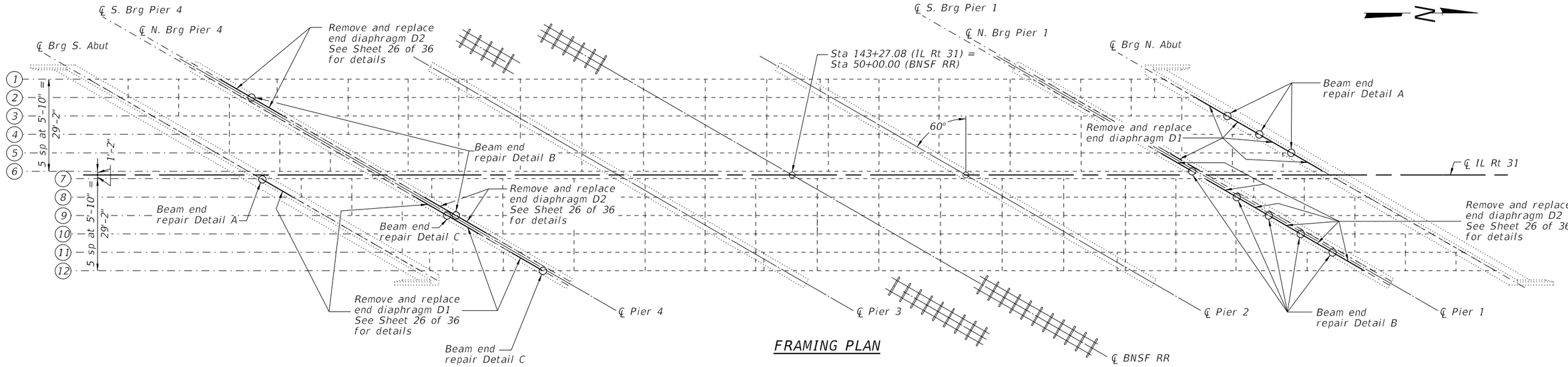
PLOT DATE = 8/10/2018		DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

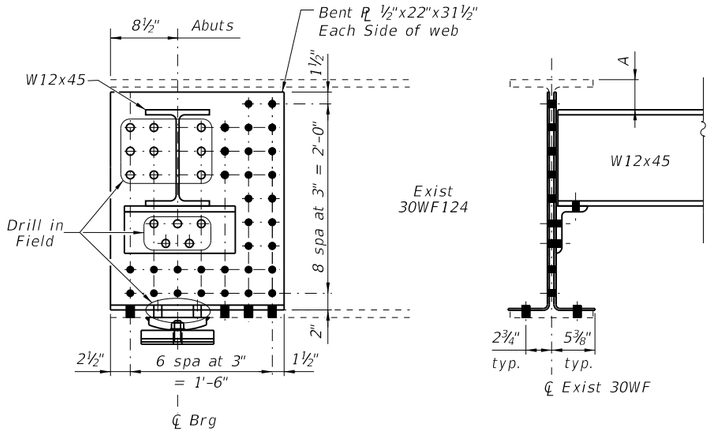
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
MODULAR JOINT DETAILS

SCALE: | SHEET 24 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	45
	SN 047-0006	CONTRACT NO. 62D43		
		ILLINOIS	FED. AID PROJECT	



FRAMING PLAN

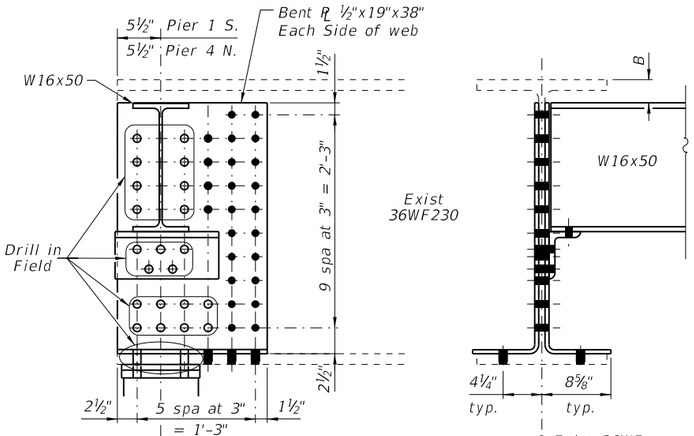


ELEVATION

END VIEW

BEAM END REPAIR DETAIL A

(4 Locations)

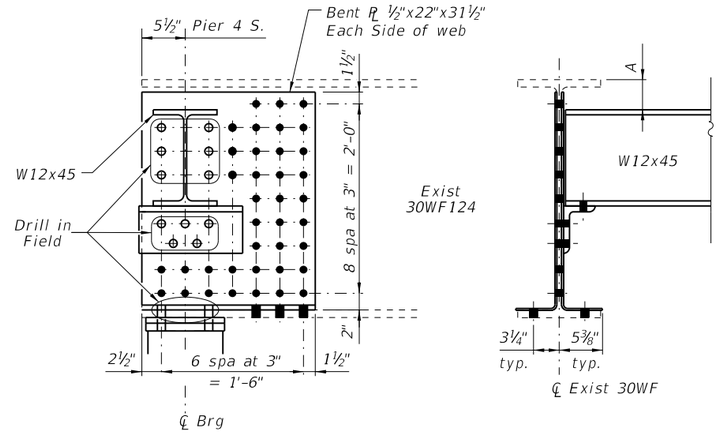


ELEVATION

END VIEW

BEAM END REPAIR DETAIL B

(7 Locations)



ELEVATION

END VIEW

BEAM END REPAIR DETAIL C

(2 Locations)

Note:

Cleaning & painting of all connections on this sheet shall meet the requirements for Primary Connections as specified in the special provision for "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

Fasteners shall be high strength bolts. Holes shall be $^{15}/_{16}$" Ø for $^{7}/_{8}$" Ø bolts, unless otherwise noted.

Diaphragm connection holes shall be $^{15}/_{16}$" Ø for $^{3}/_{4}$" Ø bolts. Two hardened washers shall be required over all oversize holes for diaphragms.

For dimension "A" in Beam End Repair Detail A & dimension "B" in Beam End Repair Detail B, see sheet 26 of 36.

MODEL: Default
FILE NAME: \\CHI-FP1\Projects\active\PJ_IDOT\6588 PTB 181 006\Work Order #12\CADD_Structural\sht_rmvdetailfc.dgn

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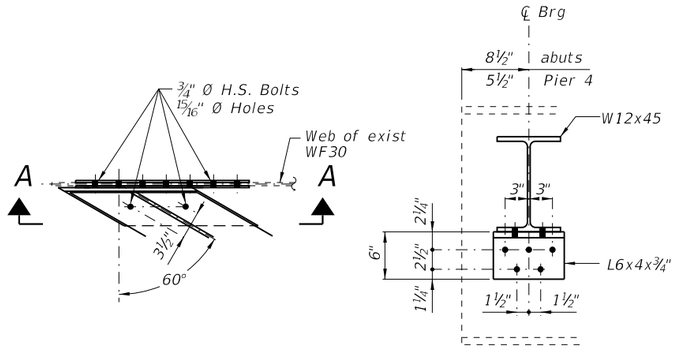
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
STRUCTURAL STEEL REPAIR DETAILS

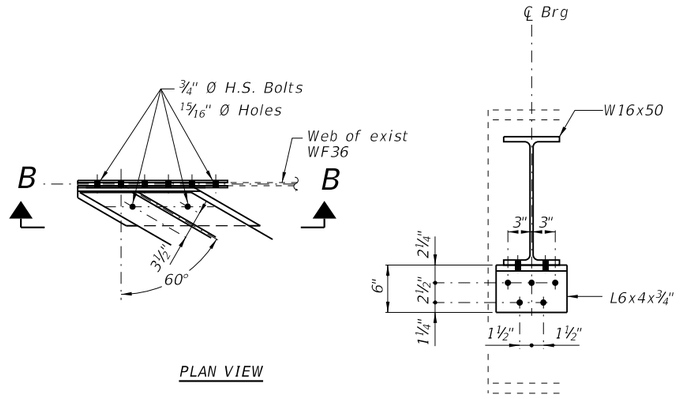
SCALE: | SHEET 25 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	46
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			



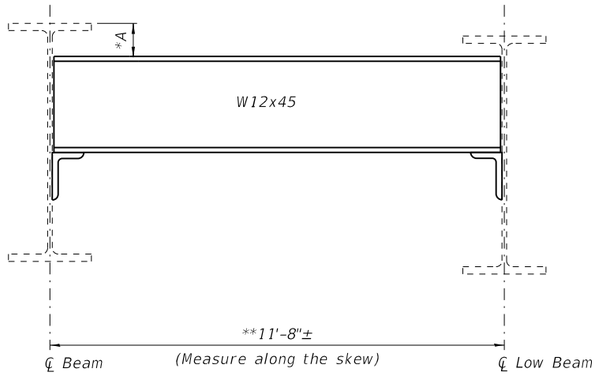
PLAN VIEW

SECTION A–A



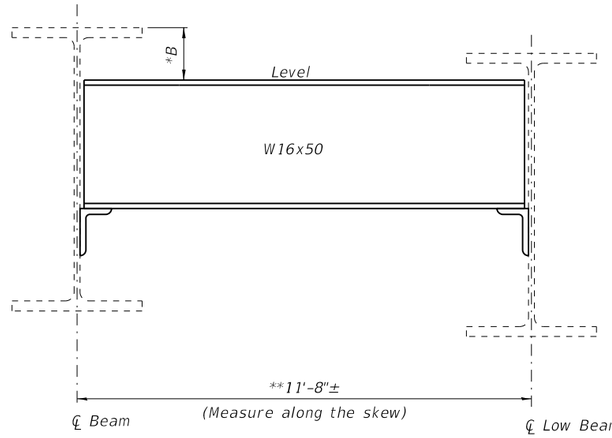
PLAN VIEW

SECTION B–B



DIAPHRAGM D1 DETAIL

(9 Required)



DIAPHRAGM D2 DETAIL

(10 Required)

DIAPHRAGM D1 DIMENSIONS

Location	*A
Beam 2 – N. Abutment	3"
Beam 3 – N. Abutment	3¾"
Beam 4 – N. Abutment	3¾"
Beam 5 – N. Abutment	3½"
Beam 6 – N. Abutment	3⅜"
Beam 5 – Pier 1 N.	4½"
Beam 6 – Pier 1 N.	4"
Beam 8 – Pier 4 S.	4"
Beam 9 – Pier 4 S.	4"
Beam 10 – Pier 4 S.	4⅛"
Beam 11 – Pier 4 S.	4"
Beam 12 – Pier 4 S.	3½"
Beam 7 – S. Abutment	3½"
Beam 8 – S. Abutment	3½"

* Dimension to top flange provided for information only. Dimensions shall match existing and holes in beam web shall be used as a template for drilling holes in diaphragm clip angles.

**CONTRACTOR shall field measure each diaphragm to be replaced prior to ordering new diaphragms. New diaphragm shall be shorter than existing depending on the number of beam web repair plates on each end.

DIAPHRAGM D2 DIMENSIONS

Location	*B
Beam 1 – Pier 4 N.	3"
Beam 2 – Pier 4 N.	4⅜"
Beam 3 – Pier 4 N.	6"
Beam 8 – Pier 4 N.	8¼"
Beam 9 – Pier 4 N.	3⅜"
Beam 10 – Pier 4 N.	3⅛"
Beam 5 – Pier 1 S.	4"
Beam 6 – Pier 1 S.	4⅛"
Beam 7 – Pier 1 S.	10"
Beam 8 – Pier 1 S.	8⅜"
Beam 9 – Pier 1 S.	7⅜"
Beam 10 – Pier 1 S.	5⅜"
Beam 11 – Pier 1 S.	4⅜"
Beam 12 – Pier 1 S.	2¾"

BILL OF MATERIAL

Item	Unit	Total
Furnishing & Erecting Structural Steel	Pound	13,630
Structural Steel Removal	Pound	11,610

MODEL: Default
FILE NAME: \\CHI-P1\Mechanet\Prj_1001\6588 PTB 181 006\Work Order #12\CADD_Structural\sht_frmsdetails.dgn

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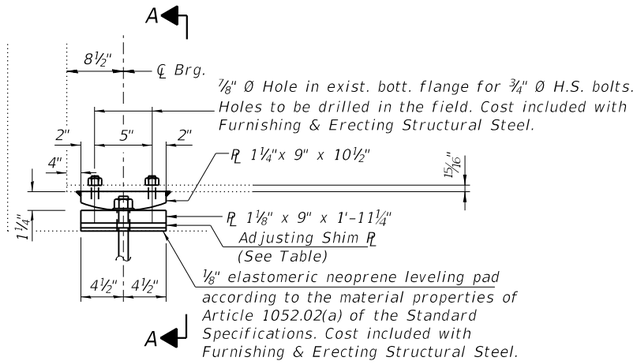
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

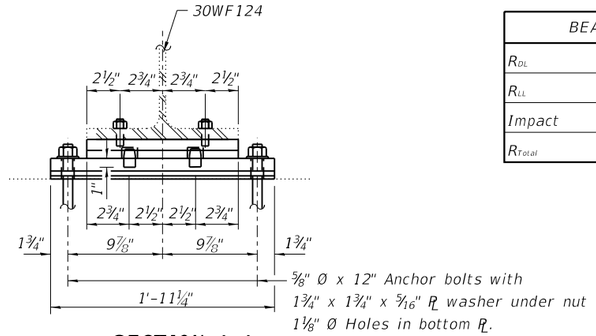
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
STRUCTURAL STEEL REPAIR DETAILS

SCALE: | SHEET 26 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	47
SN 047-0006		CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			



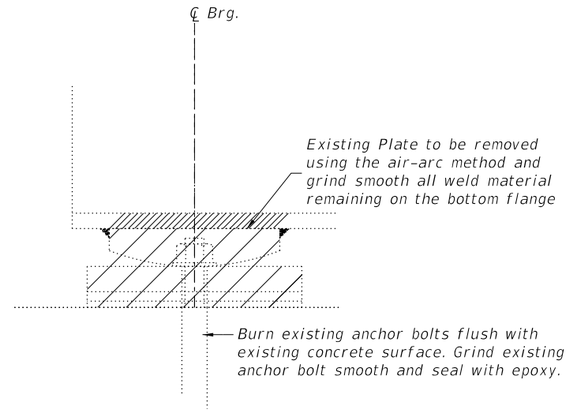
ELEVATION AT ABUTMENTS



SECTION A-A

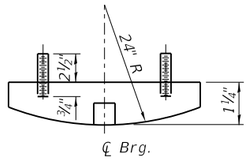
BEAM REACTIONS		
R_{DL}	(k)	22.6
R_{LL}	(k)	28.9
Impact	(k)	8.7
R_{Total}	(k)	60.2

FIXED BEARING

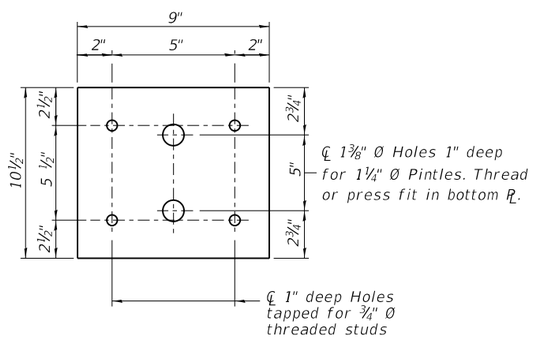


EXISTING BEARING REMOVAL DETAIL

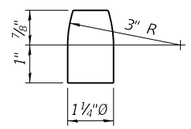
Cost included with Jack and Remove Existing Bearings



TOP BRG. PLATE DETAIL



PLAN - TOP BRG. PLATE



PINTLE

JACK AND REMOVE EXISTING BEARING PROCEDURE

1. The Contractor shall submit for approval by the Engineer, plans for jacking existing beams and installing new bearings prior to commencing any related work. Minimum jack capacity is 32 tons.
2. Prior to ordering any material, the Contractor shall verify fill plate thickness required at each bearing.
3. Jacking and removing existing bearings shall be done after the existing joint is removed and prior to placing the new joint concrete.
4. Jacking lifts shall be limited in accordance with the special provision "Jack and Remove Existing Bearings."
5. The new bearings, plates, and side retainers shall be in place and the jack shall be lowered before the new concrete deck at the joints is poured.

SHIM PLATE THICKNESS

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7	Beam 8	Beam 9	Beam 10	Beam 11	Beam 12
North Abutment	7/8"	1 3/8"	1 5/8"	1 1/8"	1"	5/8"	5/8"	3/8"	2 3/8"	1/2"	2"	3/8"
South Abutment	0"	2 3/8"	3/8"	2"	1/4"	1/2"	7/8"	1 1/2"	1 5/8"	1 3/8"	1 1/4"	1 1/4"

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554. (Grade 36)

The structural steel plates of the bearing assembly including steel extension shall conform to the requirements of AASHTO M183 Grade 36.

Steel bearing and shims shall be paid for as 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).

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel

Temporary shoring and cribbing shall be used on Beam 3 at the South Abutment due to abutment concrete deterioration.

Bearing removal shall be included in Temporary Shoring and Cribbing when needed.

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, ⅝"	Each	48
Jack and Remove Existing Bearings	Each	23
Furnishing and Erecting Structural Steel	Pound	3,870
Temporary Shoring and Cribbing	Each	1

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

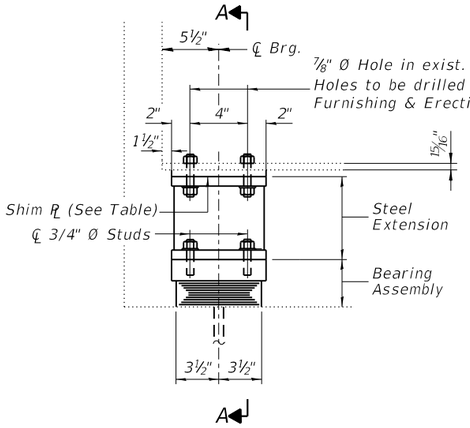
USER NAME = jpang	DESIGNED - BCG	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

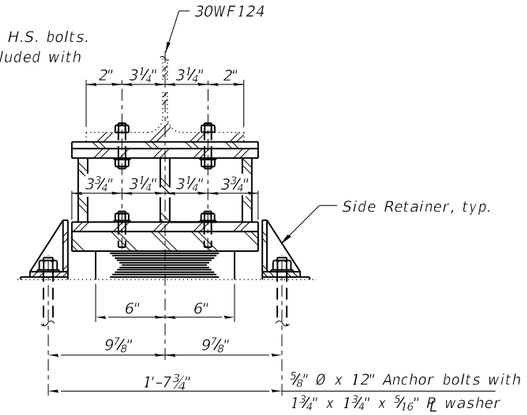
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
BEARING DETAILS - NORTH AND SOUTH ABUTMENTS

SCALE: | SHEET 27 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	48
	SN 047-0006	CONTRACT NO. 62D43		
		ILLINOIS	FED. AID PROJECT	



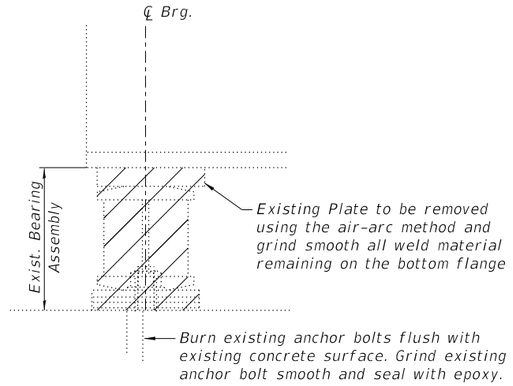
ELEVATION AT PIER 1 NORTH AND PIER 4 SOUTH



SECTION A-A

JACK AND REMOVE EXISTING BEARING PROCEDURE

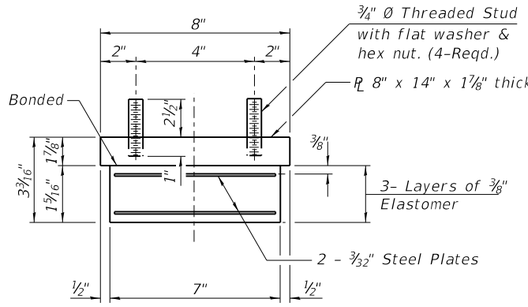
1. The Contractor shall submit for approval by the Engineer, plans for jacking existing beams and installing new bearings prior to commencing any related work. Minimum jack capacity is 32 tons.
2. Prior to ordering any material, the Contractor shall verify steel extension and fill plate thickness required at each bearing.
3. Jacking and removing existing bearings shall be done after the existing joint is removed and prior to placing the new joint concrete.
4. Jacking lifts shall be limited in accordance with the special provision "Jack and Remove Existing Bearings."
5. The new bearings, plates, and steel extensions shall be in place and the jack shall be lowered before the new concrete deck at the joints is poured.



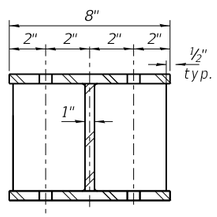
EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings

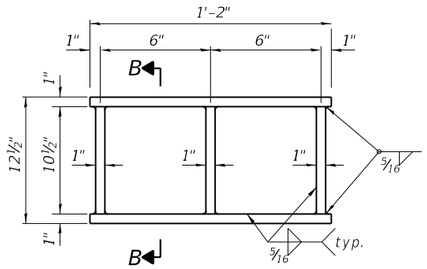
TYPE I ELASTOMERIC EXP. BRG.



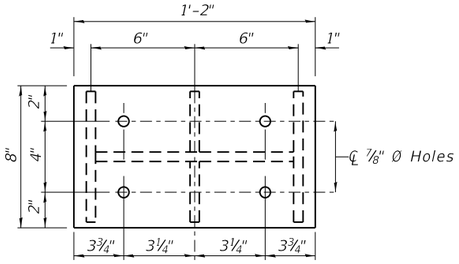
BEARING ASSEMBLY



SECTION B-B

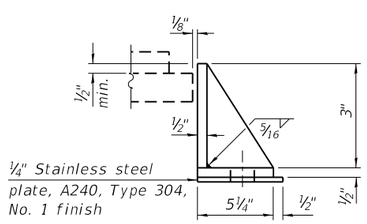


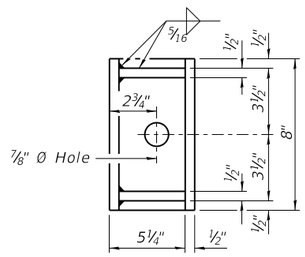
ELEVATION STEEL EXTENSION



PLAN STEEL EXTENSION

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





SIDE RETAINER

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

BEAM REACTIONS		
R_{DL}	(k)	22.6
R_{LL}	(k)	28.9
Impact	(k)	8.7
RTotal	(k)	60.2

SHIM PLATE THICKNESS

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7	Beam 8	Beam 9	Beam 10	Beam 11	Beam 12
Pier 1 North	¾"	1⅝"	1½"	2⅛"	2"	2⅛"	1⅞"	¼"	1¾"	¼"	1¾"	⅝"
Pier 4 South	⅛"	1⅞"	⅛"	1½"	0"	2"	2⅜"	2"	2"	2"	1⅞"	1¼"

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554. (Grade 36)

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

The structural steel plates of the bearing assembly including steel extension shall conform to the requirements of AASHTO M183 Grade 36.

Steel extension and shims shall be paid for as 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).

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	24
Anchor Bolts, ⅝"	Each	48
Jack and Remove Existing Bearings	Each	24
Furnishing and Erecting Structural Steel	Pound	5,020

MODEL: Default
FILE NAME: H:\PW_IDOT\6388_PTB_181_006\Work Order #12\CADD_Structure\Abt_Detailing_Pier 1 North Pier 4 South.dgn

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CONSULTING ENGINEERS
184-001397

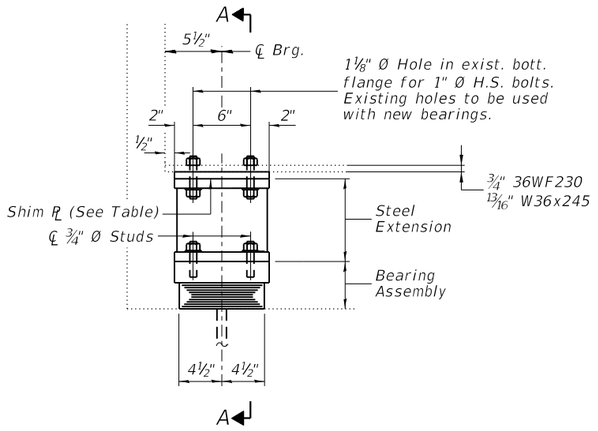
USER NAME = jpang	DESIGNED - BCG	REVISED -
	DRAWN - RLK	REVISED -
PLOT SCALE = 2.0000 ' / in.	CHECKED - JMB	REVISED -
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

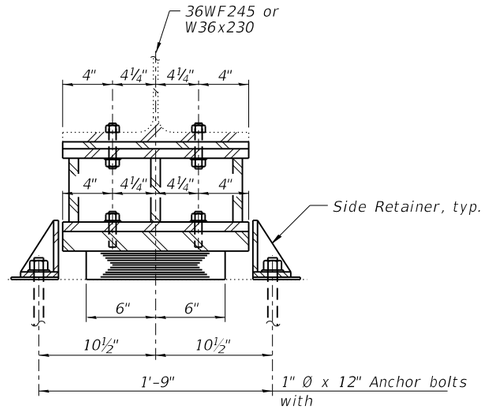
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
BEARING DETAILS - PIER 1 NORTH AND PIER 4 SOUTH

SCALE: | SHEET 28 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	49
	SN 047-0006	CONTRACT NO. 62D43		
		ILLINOIS FED. AID PROJECT		



ELEVATION AT PIER 1 SOUTH

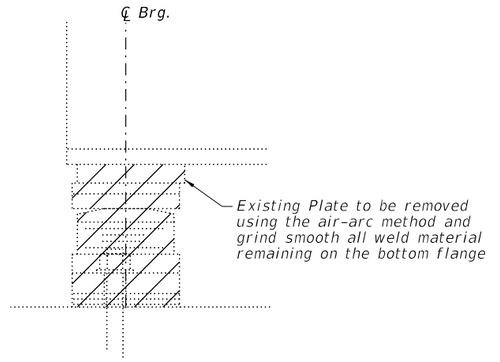


SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

JACK AND REMOVE EXISTING BEARING PROCEDURE

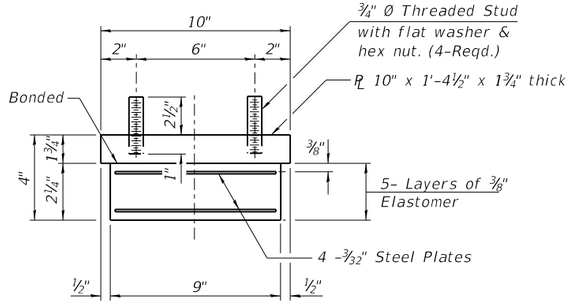
1. The Contractor shall submit for approval by the Engineer, plans for jacking existing beams and installing new bearings prior to commencing any related work. Minimum jack capacity is 46 tons.
2. Prior to ordering any material, the Contractor shall verify fill plate thickness required at each bearing.
3. Jacking and removing existing bearings shall be done after the existing joint is removed and prior to placing the new joint concrete.
4. Jacking lifts shall be limited in accordance with the special provision "Jack and Remove Existing Bearings."
5. The new bearings, plates, and side retainers shall be in place and the jack shall be lowered before the new concrete deck at the joints is poured.



EXISTING BEARING REMOVAL DETAIL

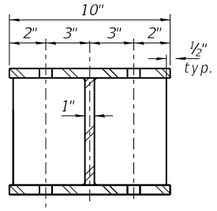
Cost included with Jack and Remove Existing Bearings

BEAM REACTIONS		
R_{DL}	(k)	35.7
R_{LL}	(k)	40.0
Impact	(k)	10.0
RTotal	(k)	85.7

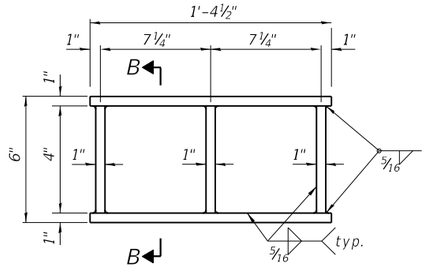


BEARING ASSEMBLY

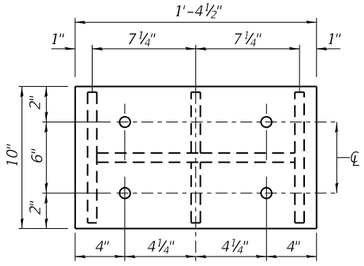
Note:
Shim plates shall not be placed under Bearing Assembly.



SECTION B-B



ELEVATION STEEL EXTENSION



PLAN STEEL EXTENSION

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554. (Grade 36)

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

The structural steel plates of the bearing assembly including steel extension shall conform to the requirements of AASHTO M183 Grade 36.

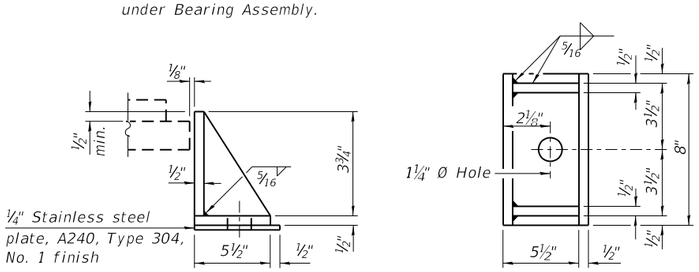
Steel extension and shims shall be paid for as Furnishing and Erecting Structural Steel.

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).

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

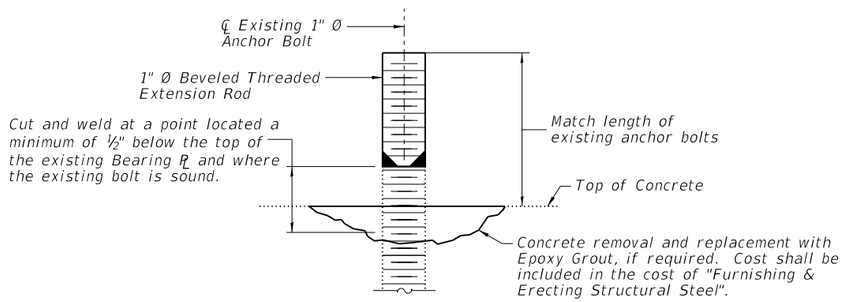
Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

The existing anchor bolts at the inside face of fascia beams shall be reused. Should the anchor bolt not be reusable, anchor bolt extensions shall be incorporated according to the detail on this sheet and the work shall be included in the cost of "Furnishing & Erecting Structural Steel".



SIDE RETAINER

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



ANCHOR BOLT EXTENSION DETAIL

(Cost included with Furnishing and Erecting Structural Steel)

SHIM PLATE THICKNESS

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7	Beam 8	Beam 9	Beam 10	Beam 11	Beam 12
Pier 1 South	1¼"	1⅝"	2¼"	2¼"	1¾"	2⅞"	2¼"	1¼"	2½"	1⅝"	3⅛"	0"

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	12
Anchor Bolts, 1"	Each	22
Jack and Remove Existing Bearings	Each	12
Furnishing and Erecting Structural Steel	Pound	2,800

MODEL: Default
FILE NAME: H:\PE\IDOT\16388 PTB 181 006\Work Order #12\CADD Structural\Abt Bearings_Pier 1 South.dgn

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

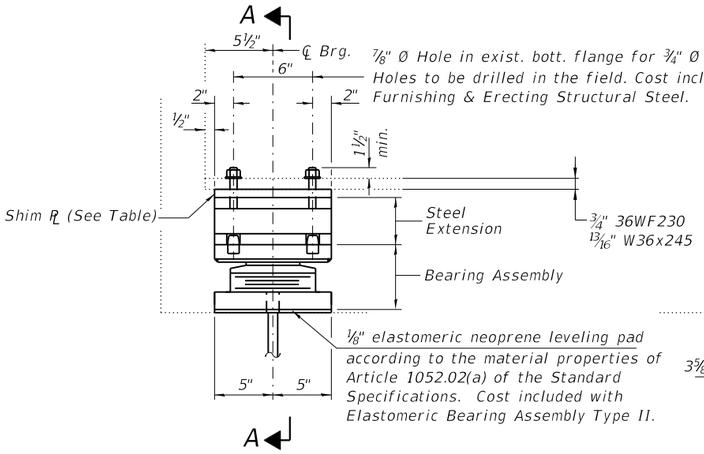
USER NAME = jpang		DESIGNED - BCG	REVISED -	
		DRAWN - RLK	REVISED -	
PLOT SCALE = 2.0000 ' / in.		CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018		DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
BEARING DETAILS - PIER 1 SOUTH

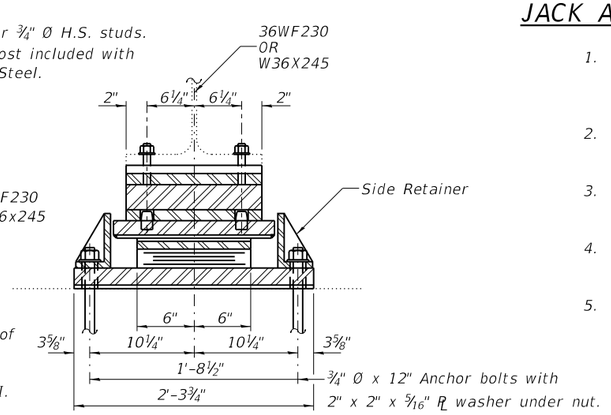
SCALE: | SHEET 29 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	50
	SN 047-0006	CONTRACT NO. 62D43		
		ILLINOIS	FED. AID PROJECT	



ELEVATION AT PIER 4 NORTH

⅞" Ø Hole in exist. bott. flange for ¾" Ø H.S. studs. Holes to be drilled in the field. Cost included with Furnishing & Erecting Structural Steel.



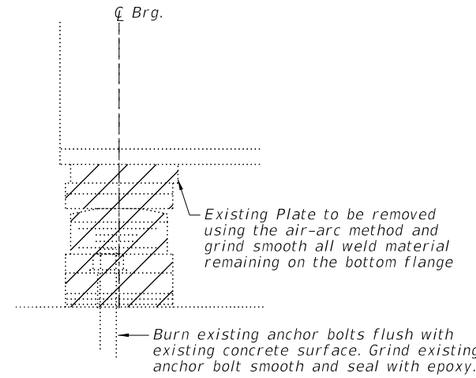
¾" Ø x 12" Anchor bolts with 2" x 2" x 5/16" PL washer under nut.
1¼" Ø Holes in bottom PL.

SECTION A-A

TYPE II ELASTOMERIC EXP. BRG.

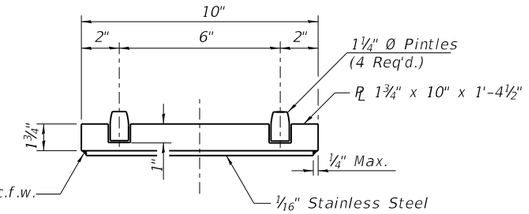
JACK AND REMOVE EXISTING BEARING PROCEDURE

1. The Contractor shall submit for approval by the Engineer, plans for jacking existing beams and installing new bearings prior to commencing any related work. Minimum jack capacity is 46 tons.
2. Prior to ordering any material, the Contractor shall verify fill plate thickness required at each bearing.
3. Jacking and removing existing bearings shall be done after the existing joint is removed and prior to placing the new joint concrete.
4. Jacking lifts shall be limited in accordance with the special provision "Jack and Remove Existing Bearings."
5. The new bearings, plates, and side retainers shall be in place and the jack shall be lowered before the new concrete deck at the joints is poured.

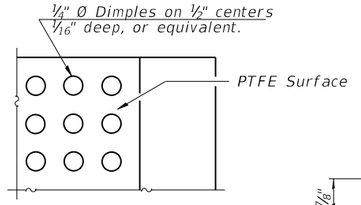


EXISTING BEARING REMOVAL DETAIL

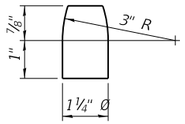
Cost included with Jack and Remove Existing Bearings



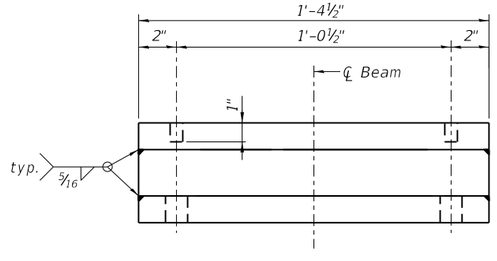
TOP BEARING ASSEMBLY



PLAN-PTFE SURFACE



PINTLE



END VIEW STEEL EXTENSION

Notes:

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554. (Grade 36)

Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.

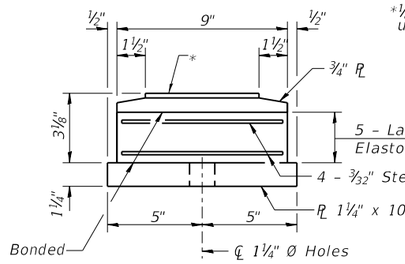
The structural steel plates of the bearing assembly including steel extension shall conform to the requirements of AASHTO M183 Grade 36.

Steel extension and shims shall be paid for as 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).

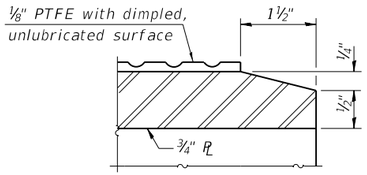
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

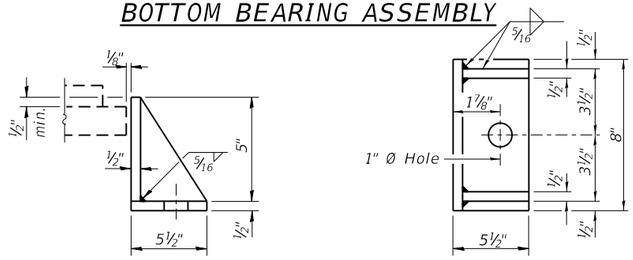


*⅛" PTFE dimpled, unlubricated

SECTION THRU PTFE

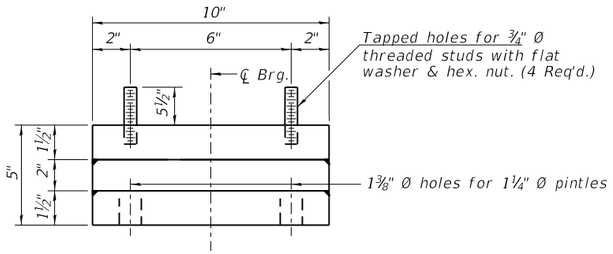


BOTTOM BEARING ASSEMBLY



SIDE RETAINER

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



ELEVATION STEEL EXTENSION

BEAM REACTIONS		
R_{DL}	(k)	35.7
R_{LL}	(k)	40.0
Impact	(k)	10.0
RTotal	(k)	85.7

SHIM PLATE THICKNESS

Location	Beam 1	Beam 2	Beam 3	Beam 4	Beam 5	Beam 6	Beam 7	Beam 8	Beam 9	Beam 10	Beam 11	Beam 12
Pier 4 North	⅛"	1⅛"	⅛"	1¼"	½"	1¾"	2⅜"	1¾"	1⅝"	1½"	1½"	½"

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type II	Each	12
Anchor Bolts, ¾"	Each	24
Jack and Remove Existing Bearings	Each	12
Furnishing and Erecting Structural Steel	Pound	3,560

MODEL: Default
FILE NAME: H:\PW_IDOT\D6388 PTB 181 006\Work Order #12\CADD Structure\Bhdt_bearings_Pier 4 North.dgn

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

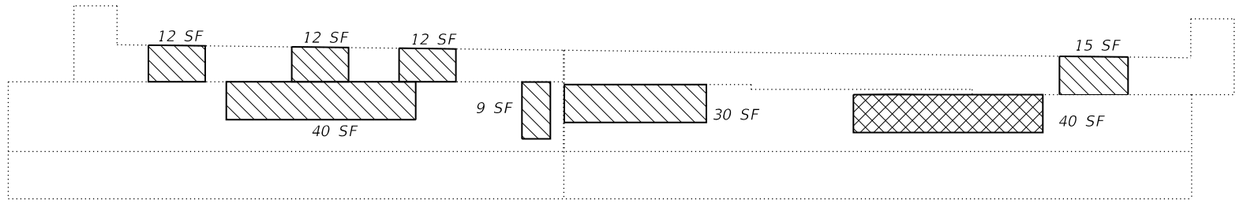
USER NAME = jpang	DESIGNED - BCG	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 2.0000 ' / in.	CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
BEARING DETAILS - PIER 4 NORTH

SCALE: | SHEET 30 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	51
	SN 047-0006	CONTRACT NO. 62D43		
		ILLINOIS	FED. AID PROJECT	



SOUTH ABUTMENT – NORTH FACE

NORTH ABUTMENT – SOUTH FACE

LEGEND

Structural Repair of Concrete (Depth ≤ 5")

Structural Repair of Concrete (Depth > 5")

Notes:
Repair details shown on this sheet were taken from the District's inspection sheets. Actual locations, size, and depth shall be verified in the field.

Temporary Shoring & Cribbing may be needed in areas where conventional jacking procedures are not possible due to abutment concrete deterioration. Locations are identified on the applicable bearing sheets, but are to be verified and adjusted accordingly by the Contractor and the Structural Engineer performing the Jacking plans.

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	250
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	114

MODEL: Default
FILE NAME: H:\PW_IDOT\6588 PTB 181 006\Work Order # 12\CADD_Structural\Int_abutments.dgn

CHASTAIN & ASSOCIATES LLC
CONSULTING ENGINEERS
184-001397

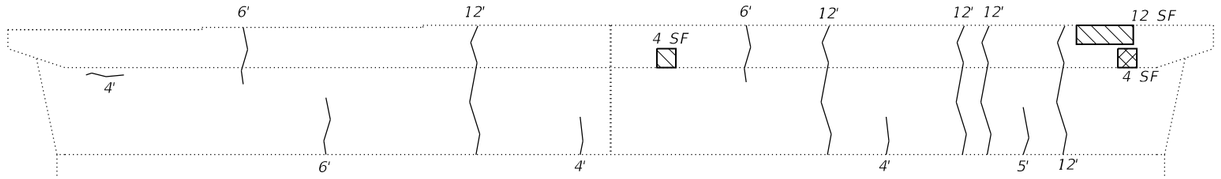
USER NAME = jpang	DESIGNED - BCG	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 16.0000 ' / in.	CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
ABUTMENT REPAIRS

SCALE: | SHEET 31 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	52
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			



PIER 1 ELEVATION SOUTH FACE

PIER 1 ELEVATION NORTH FACE

LEGEND

- Structural Repair of Concrete (Depth ≤ 5")
- Structural Repair of Concrete (Depth > 5")
- Hairline Crack (for Information Only)

Notes:
Repair details shown on this sheet were taken from the District's inspection sheets. Actual locations, size, and depth shall be verified in the field.

Temporary Shoring & Cribbing may be needed in areas where conventional jacking procedures are not possible due to pier concrete deterioration. Locations are identified on the applicable bearing sheets, but are to be verified and adjusted accordingly by the Contractor and the Structural Engineer performing the Jacking plans.

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	75
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	36

MODEL: Default
FILE NAME: H:\PW_IDOT\6588 PTB 181 006\Work Order #12\CADD_Structural\st_plan11.dgn

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184-001397

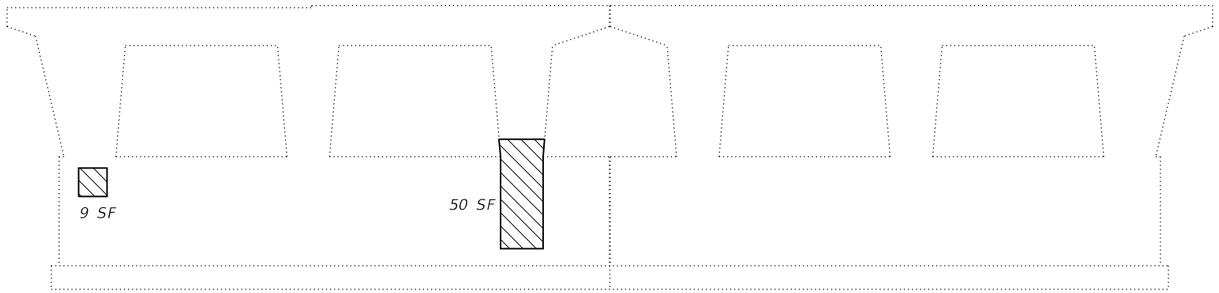
USER NAME = jpang	DESIGNED - BCG	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 16.0000 ' / in.	CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

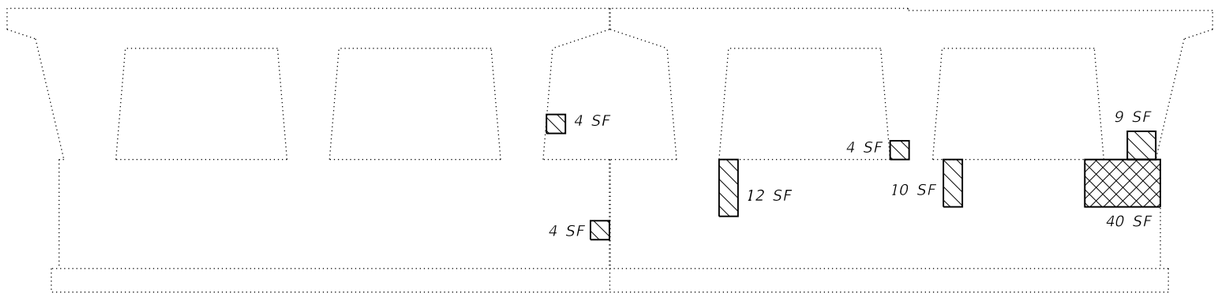
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PIER 1 REPAIRS

SCALE: | SHEET 32 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	53
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		



PIER 2 ELEVATION SOUTH FACE



PIER 2 ELEVATION NORTH FACE

LEGEND

Structural Repair of Concrete (Depth ≤ 5")

Structural Repair of Concrete (Depth > 5")

Notes:
Repair details shown on this sheet were taken from the District's inspection sheets. Actual locations, size, and depth shall be verified in the field.

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	102
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	40

MODEL: Default
FILE NAME: H:\PW_IDOT\6588 PTB 181 006\Work Order #12\CADD_Structural\Str_plan2.dgn

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184-001397

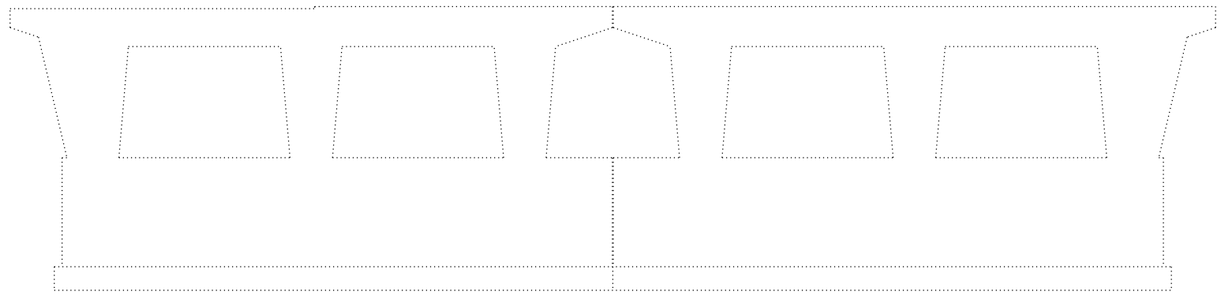
USER NAME = jpang	DESIGNED - BCG	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 16.0000 ' / in.	CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

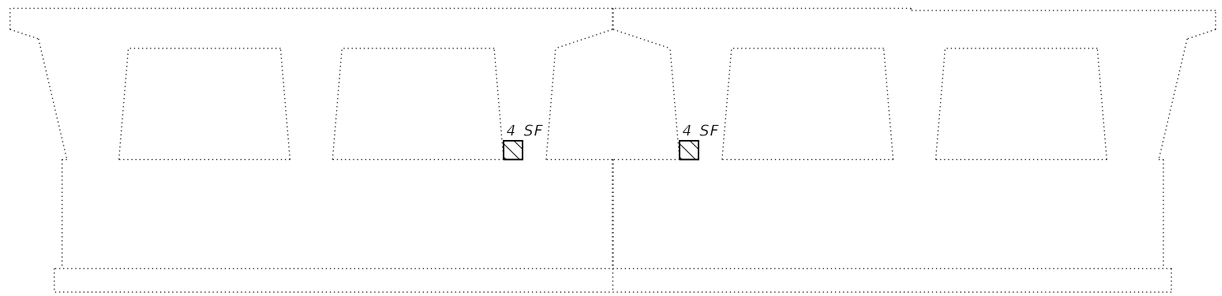
ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PIER 2 REPAIRS

SCALE: | SHEET 33 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	54
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		



PIER 3 ELEVATION SOUTH FACE



PIER 3 ELEVATION NORTH FACE

LEGEND

Structural Repair of Concrete (Depth ≤ 5")

Notes:
Repair details shown on this sheet were taken from the District's inspection sheets. Actual locations, size, and depth shall be verified in the field.

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	8

MODEL: Default
FILE NAME: H:\PW_IDOT\6588 PTB 181 006\Work Order #12\CADD_Structural\str_plan23.dgn

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184-001397

USER NAME = jpang	DESIGNED - BCG	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 16.0000 ' / in.	CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

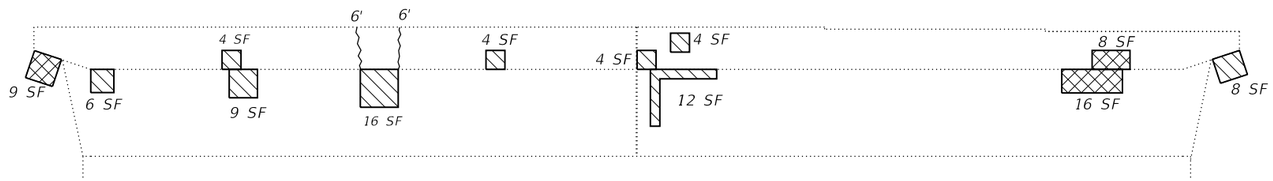
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PIER 3 REPAIRS

SCALE: | SHEET 34 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	55
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS	FED. AID PROJECT		

PIER 4 ELEVATION SOUTH FACE



PIER 4 ELEVATION NORTH FACE

LEGEND

- Structural Repair of Concrete (Depth ≤ 5")
- Structural Repair of Concrete (Depth > 5")
- Hairline Crack (for Information Only)

Notes:
Repair details shown on this sheet were taken from the District's inspection sheets. Actual locations, size, and depth shall be verified in the field.

Temporary Shoring & Cribbing may be needed in areas where conventional jacking procedures are not possible due to pier concrete deterioration. Locations are identified on the applicable bearing sheets, but are to be verified and adjusted accordingly by the Contractor and the Structural Engineer performing the Jacking plans.

BILL OF MATERIAL

Item	Unit	Total
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	100
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	58

MODEL: Default
FILE NAME: H:\PW_IDOT\6588 PTB 181 006\Work Order #12\CADD_Structural\str_plan4.dgn

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184-001397

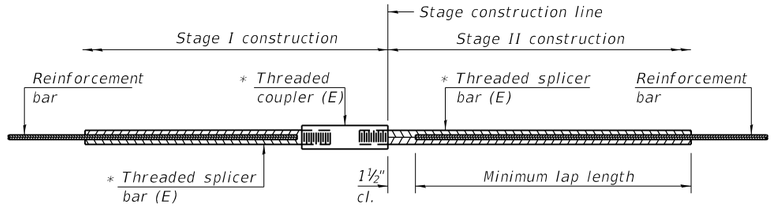
USER NAME = jpang	DESIGNED - BCG	REVISED -
	DRAWN - RLK	REVISED -
PLOT SCALE = 16.0000 ' / in.	CHECKED - JMB	REVISED -
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
PIER 4 REPAIRS

SCALE: | SHEET 35 OF 36 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	56
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			

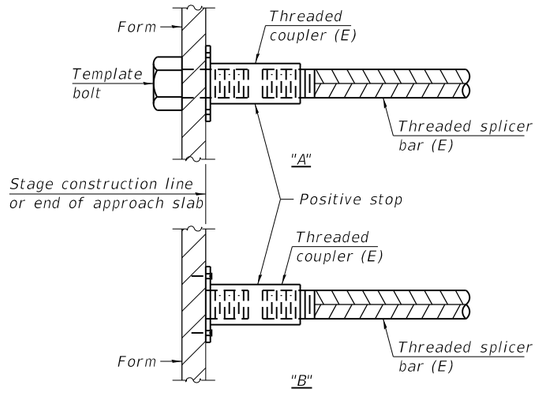


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1½" + thread length

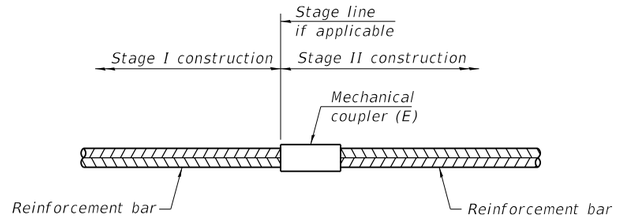
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
N. Abut Hatch Block	#6	4	4'-0"
North Abut Deck	#6	8	4'-10"
Pier 1	#6	16	4'-10"
Pier 4	#6	16	4'-10"
S. Abut Hatch Block	#6	4	4'-0"
S. Abut Deck	#6	8	4'-10"
S. Approach Slab	#5	46	3'-4"
S. Approach Slab	#8	60	5'-4"
S. Approach Slab Ftg	#5	40	3'-0"
N. Approach Slab	#5	46	3'-4"
N. Approach Slab	#8	60	5'-4"
N. Approach Slab Ftg	#5	40	3'-0"



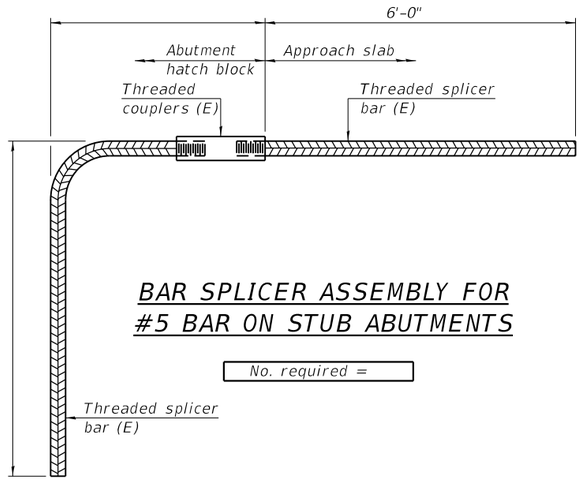
INSTALLATION AND SETTING METHODS

"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

MODEL: Default
FILE NAME: H:\PW_IDOT\65888 PTB 181 006\Work Order #12\CADD_Structural\bsd_barsplicer.dgn

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184-001397

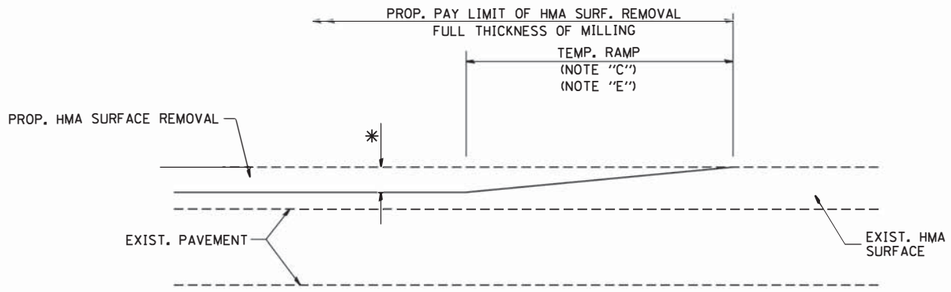
USER NAME = jpang	DESIGNED - BCG	REVISED -	
	DRAWN - RLK	REVISED -	
PLOT SCALE = 8.0000 ' / in.	CHECKED - JMB	REVISED -	
PLOT DATE = 8/10/2018	DATE - 08-10-2018	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ILLINOIS ROUTE 31 OVER BNSF BRIDGE REHABILITATION
BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS

SCALE: | SHEET 36 OF 36 SHEETS | STA. | TO STA.

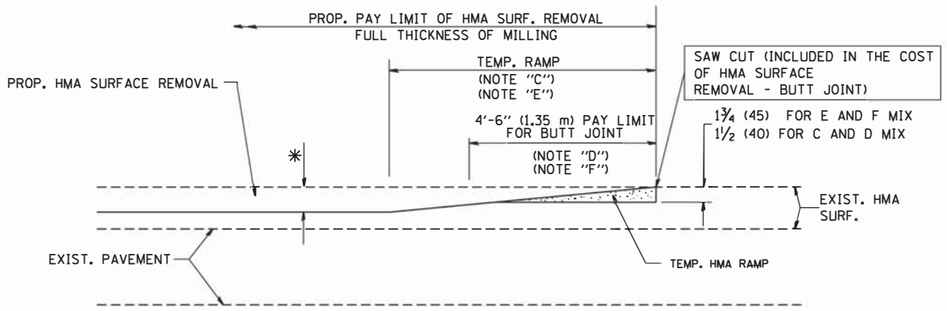
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KANE/KENDALL	65	57
	SN 047-0006	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

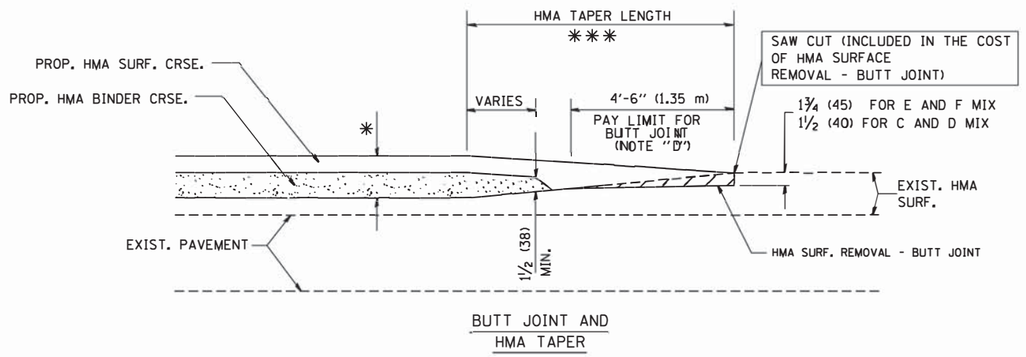


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

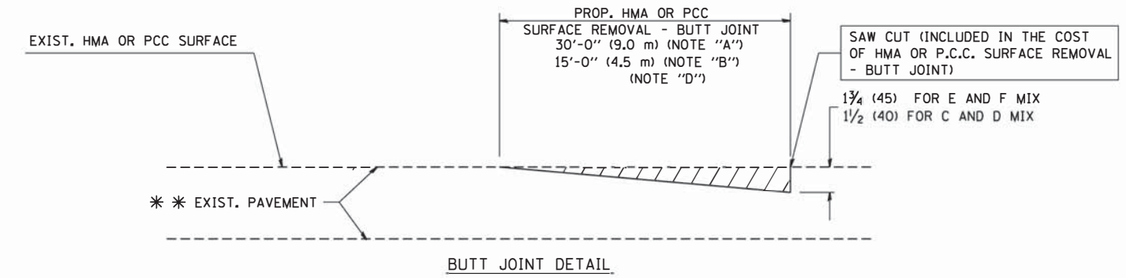
OPTION 2

TYPICAL TEMPORARY RAMP

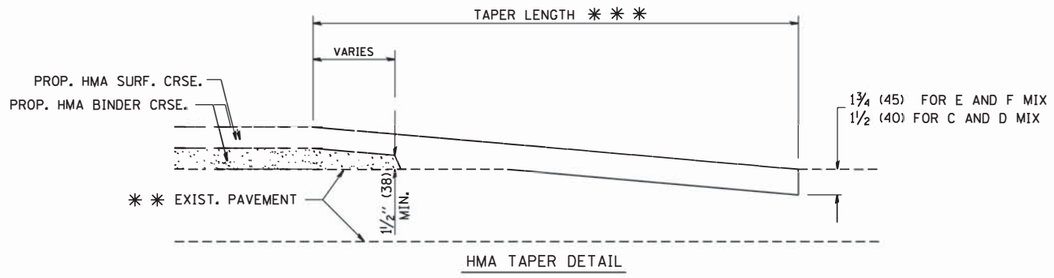


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT

G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

* * * 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

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

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		DRAWN -	REVISED - A. ABBAS 03-21-97
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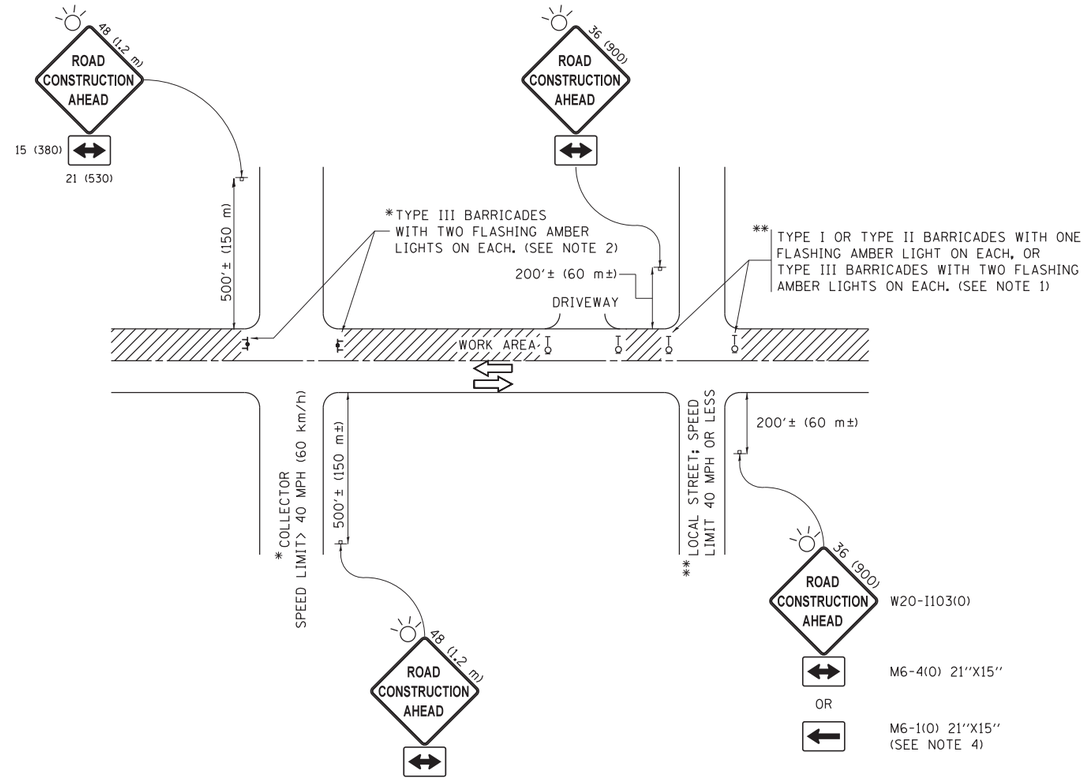
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KENDALL	65	58
	BD400-05 BD32	CONTRACT NO. 62D43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



NOTES:

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE ''ROAD CONSTRUCTION AHEAD'' SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
   b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
   a) ONE ''ROAD CONSTRUCTION AHEAD'' SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
   b) 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. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. 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).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

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			REVISED -T. RAMMACHER 01-06-00
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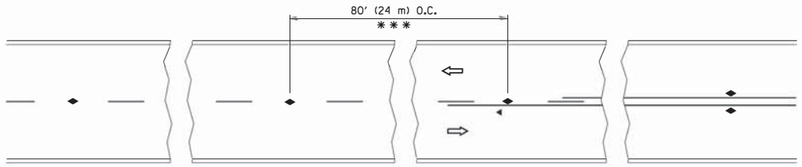
Default	PLOT DATE = 9/15/2016	DRAWN - DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

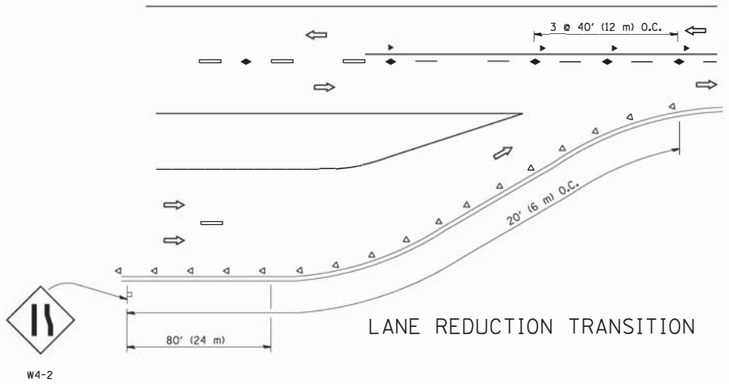
SCALE: NONE | SHEET 1 OF 1 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KENDALL	65	59
	TC-10	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			

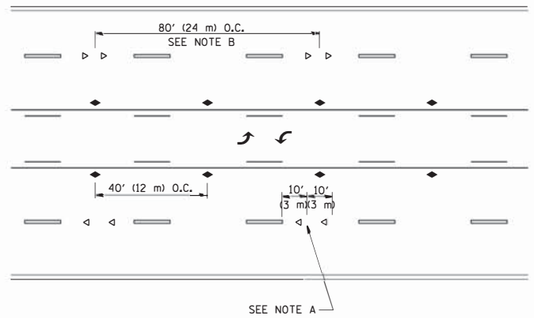


* * * REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

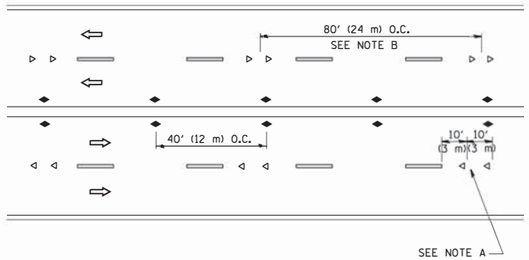
TWO-LANE/TWO-WAY



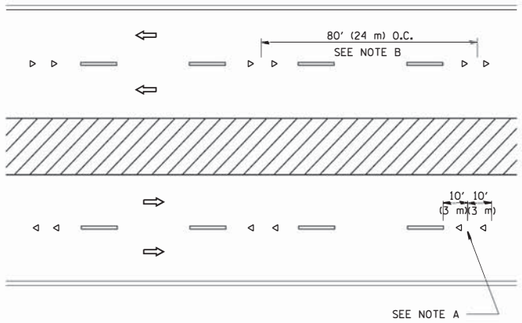
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

- YELLOW STRIPE
- WHITE STRIPE
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

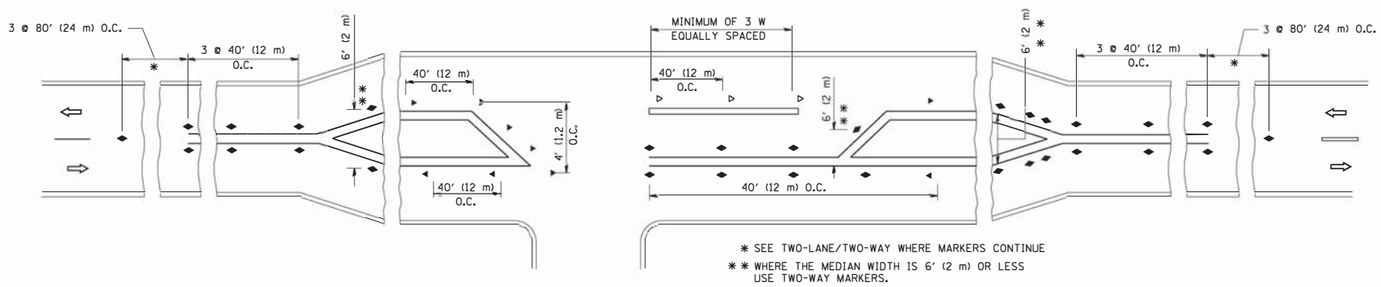
LANE MARKER NOTES

A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.

B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

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



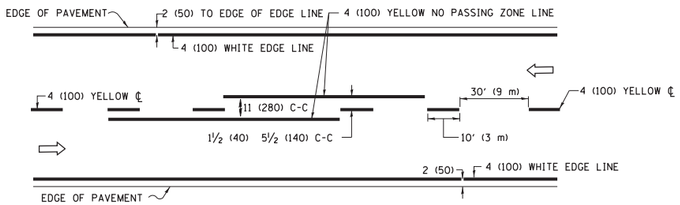
* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE

** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

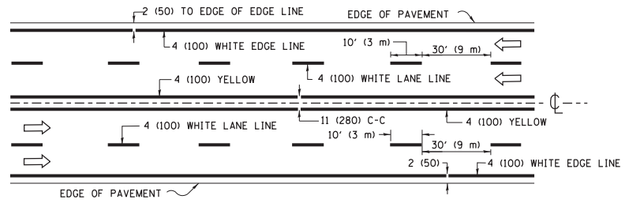
LEFT TURN

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

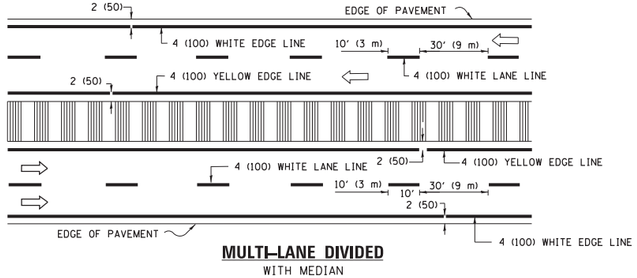
FILE NAME = c:\pw_work\pwidot\leysa\d0108315\tc11.dgn	USER NAME = leysa	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - T. RAMMACHER 03-12-99			860	12VB-BR(16)	KENDALL	65	60
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00				TC-11	CONTRACT NO. 62D43		
	PLOT DATE = 3/2/2011	DATE -	REVISED - C. JUCIUS 09-09-09		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



2–LANE ROADWAY

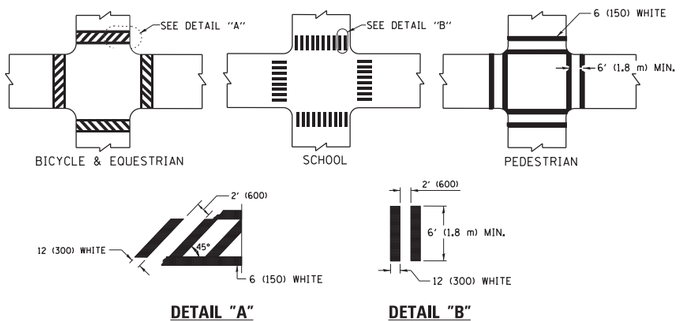


MULTI–LANE UNDIVIDED



MULTI–LANE DIVIDED
WITH MEDIAN

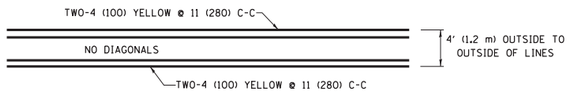
TYPICAL LANE AND EDGE LINE MARKING



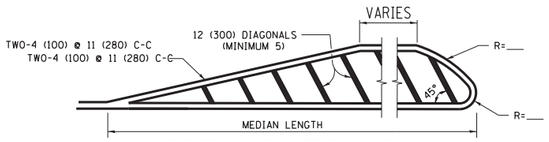
DETAIL "A" **DETAIL "B"**

TYPICAL CROSSWALK MARKING

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



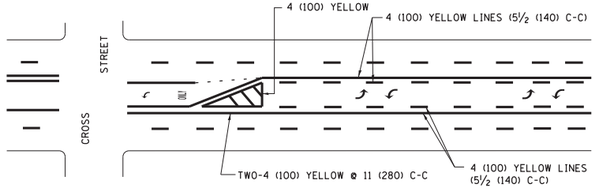
4' (1.2 m) WIDE MEDIANS ONLY



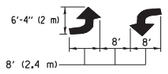
FOR MEDIAN LENGTHS WHERE DIAGONAL SPACING CANNOT BE ATTAINED, USE 5 (FIVE) EQUALLY SPACED DIAGONAL LINES.

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))

MEDIANS OVER 4' (1.2 m) WIDE

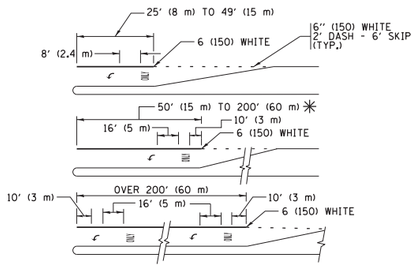


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO–WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

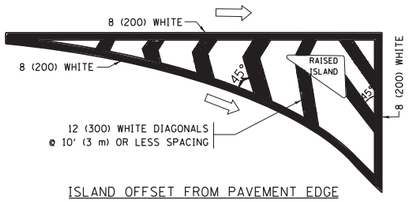


FULL SIZE LETTERS 8' (2,4 m) AND ARROWS SHALL BE USED.
↰ AREA = 15.6 SQ. FT. (1.5 m^2) **ONLY** AREA = 20.8 SQ. FT. (1.9 m^2)

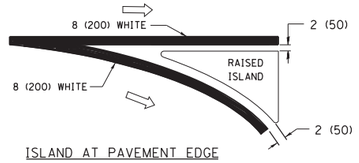
✳ TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

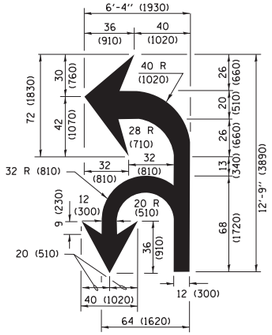


ISLAND OFFSET FROM PAVEMENT EDGE

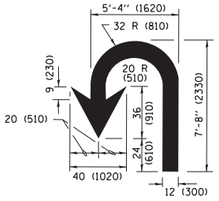


ISLAND AT PAVEMENT EDGE

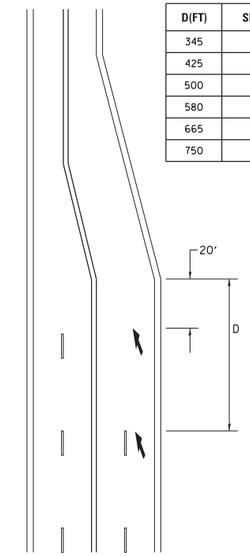
TYPICAL ISLAND MARKING



COMBINATION LEFT AND U–TURN



U–TURN



LANE REDUCTION TRANSITION

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

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

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

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

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

FILE NAME = W:\diststd\22x34\tc13.dgn	USER NAME = leysa	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
		DRAWN -	REVISED - C. JUCIUS 07-01-13
	PLOT SCALE = 50.000 ' / in.	CHECKED -	REVISED - C. JUCIUS 12-21-15
Default	PLOT DATE = 6/23/2017	DATE - 03-19-90	REVISED - C. JUCIUS 04-12-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE
TYPICAL PAVEMENT MARKINGS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KENDALL	65	61
	TC-13	CONTRACT NO. 62D43		
	ILLINOIS FED. AID PROJECT			

tc13.dgn 6/23/2017 9:41:34 AM User=leysa

TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER

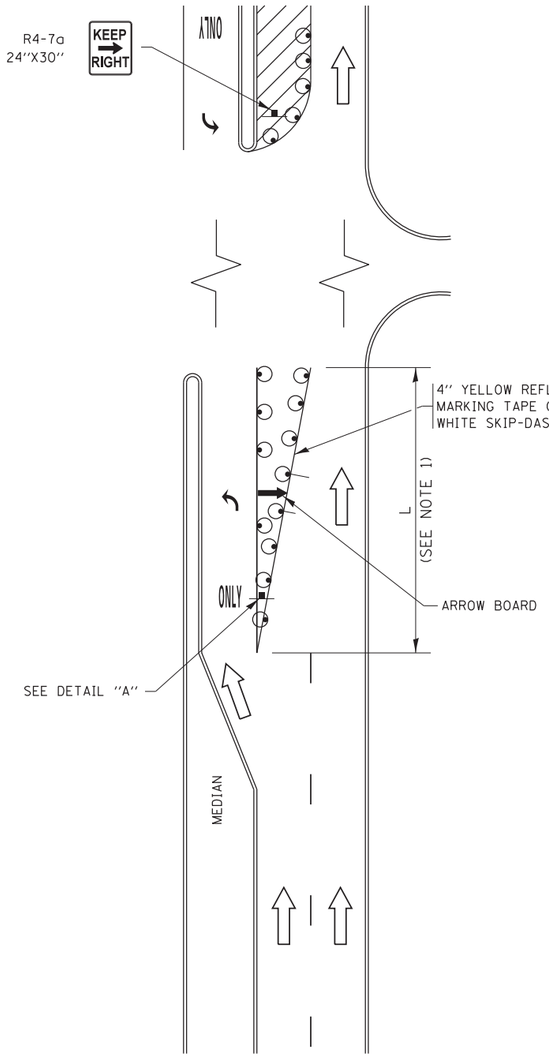


FIGURE 1

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- ARROW BOARD
- TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- SIGN ASSEMBLY
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

NOTES:

1. A) WHEN "L" IS ≤ THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.

   B) WHEN "L" IS > THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.

2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.

3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.

4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.

5. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-I10OR 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.

6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.

7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.

8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

TURN BAY ENTRANCE WITHIN A LANE CLOSURE

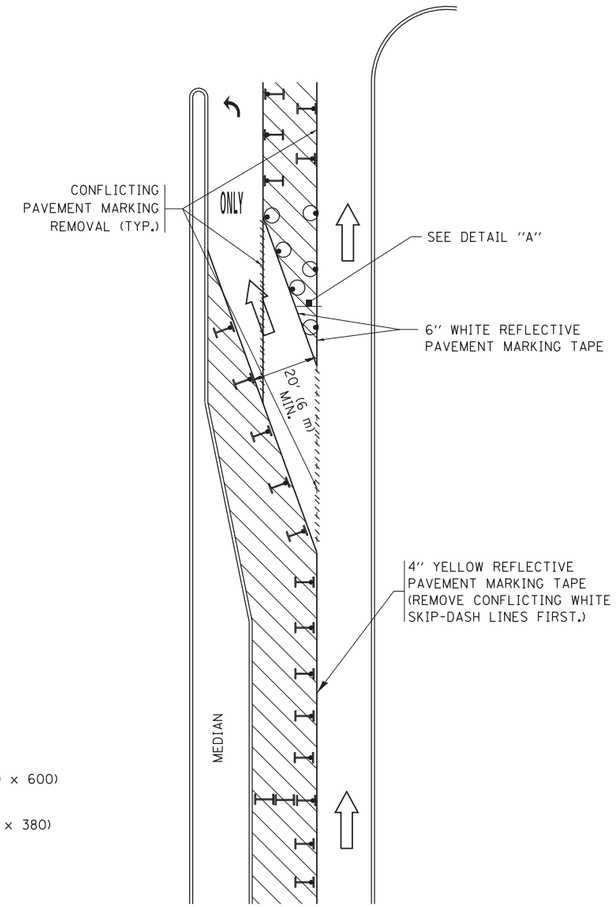
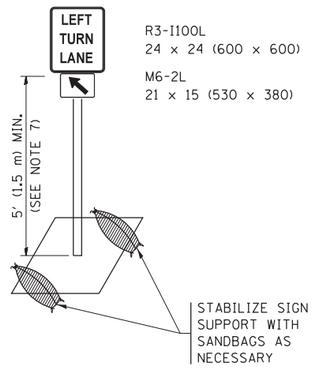


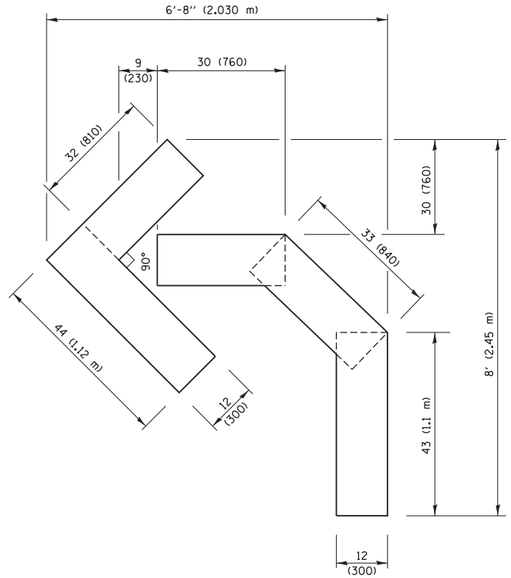
FIGURE 2



DETAIL A

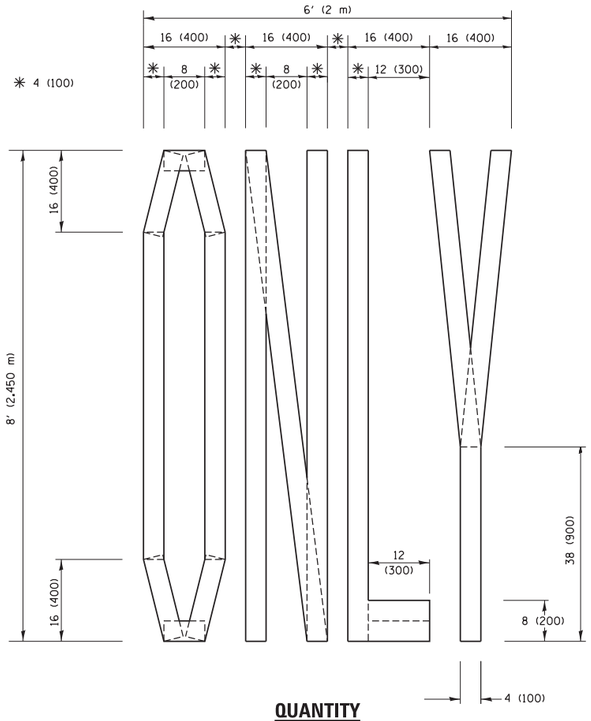
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist Standards\ADData\CAD-HOUSEH\tc07.dgn	USER NAME = footemj	REVISED -T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000 ' / in.	REVISED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16				860	12VB-BR(16)	KENDALL	65	62
Default	PLOT DATE = 9/15/2016	REVISED -T. RAMMACHER 01-06-00	REVISED -		SCALE: NONE	SHEET 1 OF 1 SHEETS STA. TO STA.		TC-14	CONTRACT NO. 62D43		
								ILLINOIS FED. AID PROJECT			



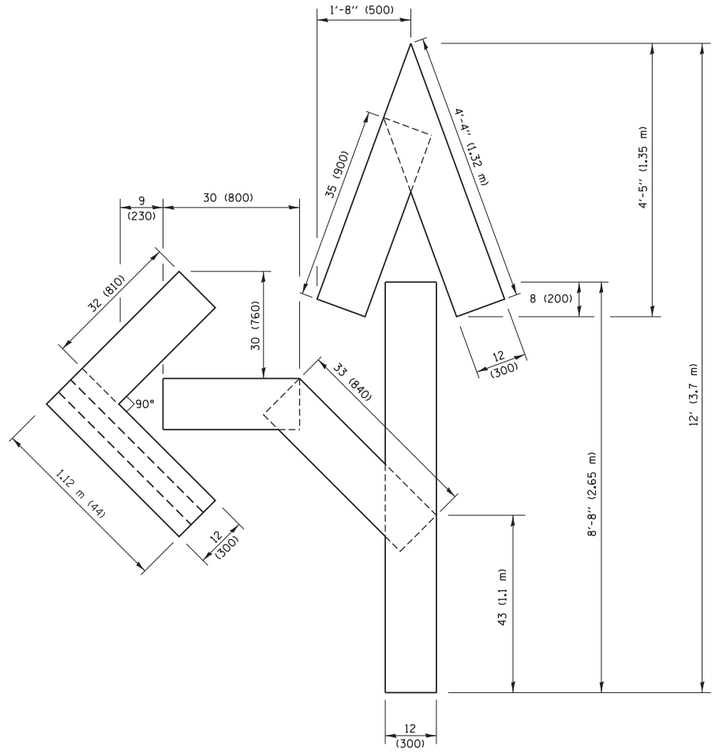
QUANTITY

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



QUANTITY

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

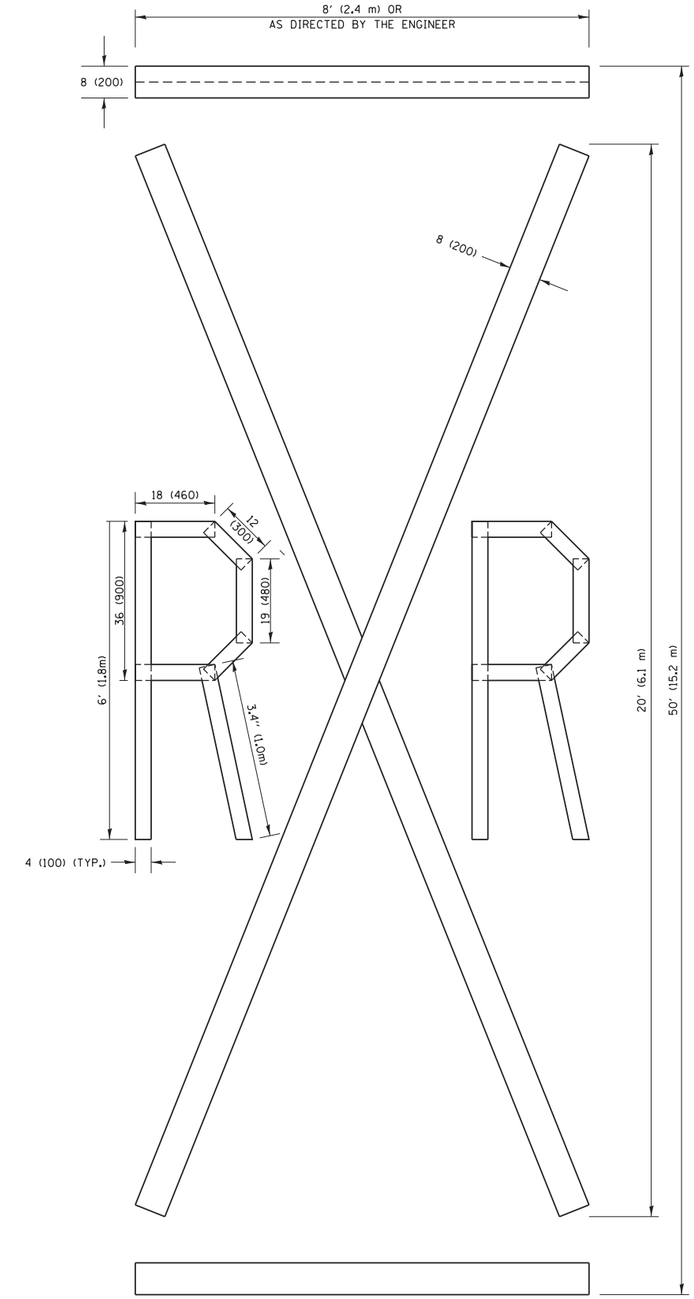


QUANTITY

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

NOTE:

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



QUANTITY

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

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

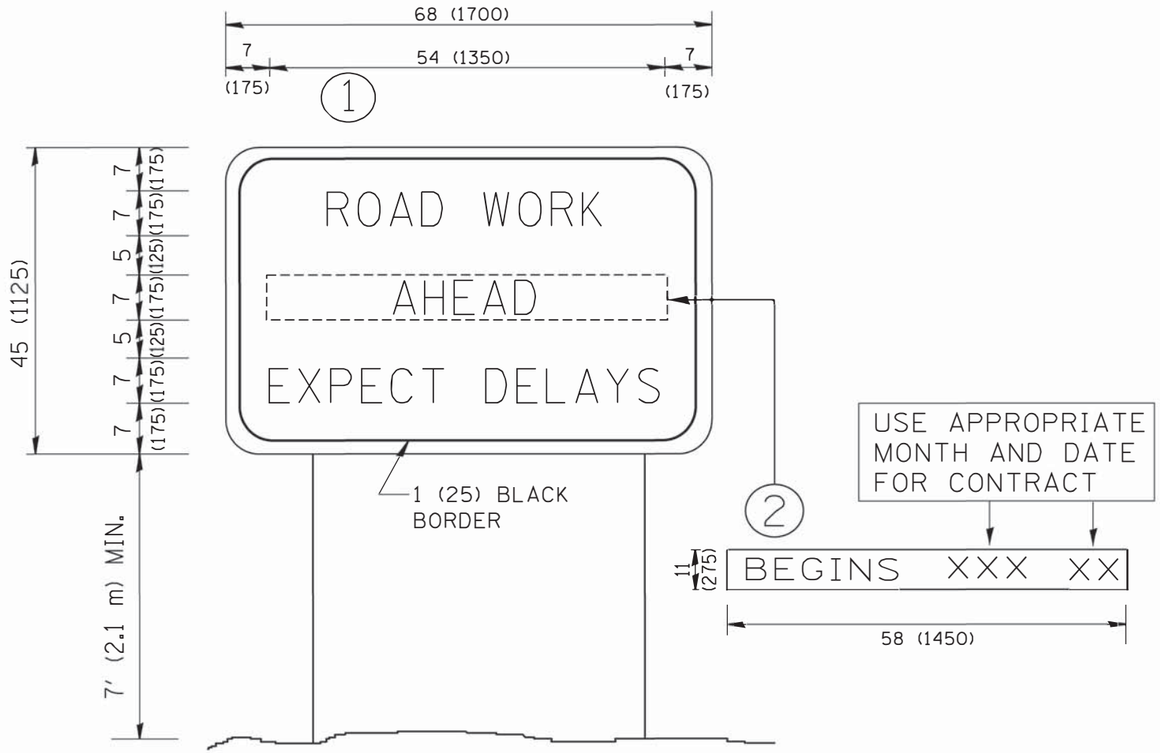
FILE NAME = pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist\ORAWN\CADData\CADsheets\tc16.dgn	USER NAME = footemj	DESIGNED -	REVISED -T. RAMMACHER 03-02-98
			REVISED -E. GOMEZ 08-28-00
	PLOT SCALE = 50.0000 ' / in.	CHECKED -	REVISED -E. GOMEZ 08-28-00
	PLOT DATE = 9/15/2016	DATE - 09-18-94	REVISED -A. SCHUETZE 09-15-16

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KENDALL	65	63
	TC-16	CONTRACT NO. 62D43		
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.

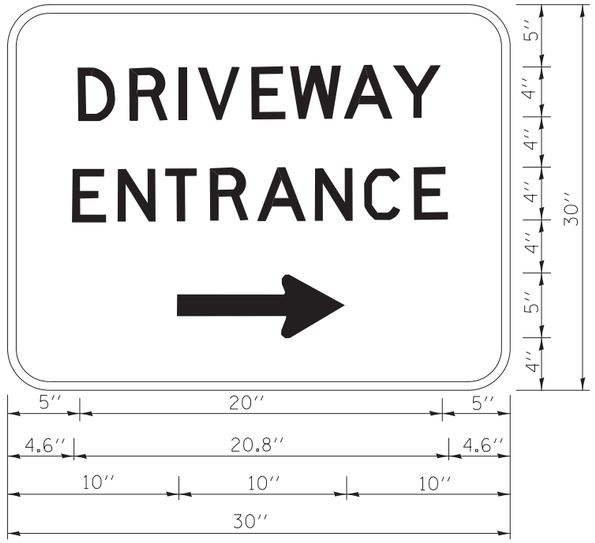
FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ARTERIAL ROAD INFORMATION SIGN

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KENDALL	65	64
	TC-22	CONTRACT NO. 62D43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		



3.0'' RADIUS, 0.5'' BORDER, WHITE ON GREEN; REFLECTORIZED
''DRIVEWAY'' D; ''ENTRANCE'' D; STANDARD ARROW CUSTOM 12.0'' × 5.0''

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM ''TEMPORARY INFORMATION SIGNING''.

FILE NAME = c:\pw_work\pwidot\gaglianobt\d0108315\tc26.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - C. JUCIUS 02-15-07
		DRAWN -	REVISED -
	PLOT SCALE = 50.000 '/ in.	CHECKED -	REVISED -
	PLOT DATE = 12/13/2012	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DRIVEWAY ENTRANCE SIGNING

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
860	12VB-BR(16)	KENDALL	65	65
	TC-26	CONTRACT NO. 62D43		
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		